Doc 8063
A13-P/1
15 April 1960

ANNUAL REPORT OF THE COUNCIL TO THE ASSEMBLY FOR 1959

SUPPORTING DOCUMENTATION

FOR THE THIRTEENTH SESSION OF THE ASSEMBLY

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Published by the Secretary General under authority of the Council

Published in separate English, French and Spanish editions by the International Civil Aviation Organization. All correspondence, except orders and subscriptions, should be addressed to the Secretary General of ICAO, International Aviation Building, 1080 University Street, Montreal 3, P.Q. (Canada).

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International Civil Aviation Organization (Attention: Distribution Officer), International Aviation Building, 1080 University Street, Montreal 3, P.Q. (Canada).

PROCEDURES FOR AIR NAVIGATION SERVICES

Document No.	Title	Document — Current edition		Loose-leaf amendments		Supplement — Current edition		
		No.	Date applicable	No.	Date applicable	Date issued	Amendments No.	Amendments Date
1	2	3	4	5	6	7	8	9
7181-COM/546/5	COM — Radiotelephony Procedures	Fifth	1/10/59	—	—	—	—	—
7605-MET/526/2	MET — Meteorology	Second[1] incl. 1-3	1/12/57	—	—	Second 2/58	*2[2]	15/12/59
7458-OPS/610/3	OPS — Holding and Approach-to-Land	Third 1-2	1/12/58	—	—	Third 4/59	—	—
4444-RAC/5D1/6	RAC — Rules of the Air and Air Traffic Services	Sixth[3]	1/12/56	1[4] 2[1] 3	1/12/56 1/12/57 1/5/58	Sixth 3/57	1[4] 2 3	9/12/57 1/8/58 10/9/58
7030	Regional Supplementary Procedures	First	—	73[5]	1/11/59	[6]	—	—

COMMUNICATION CODES AND ABBREVIATIONS

Document No.	Title	Current edition No.	Current edition Date	Loose-leaf amendments No.	Loose-leaf amendments Date
1	2	3	4	5	6
6938-COM/534/4	Abbreviations of Aeronautical Authorities, Services and Aircraft Operating Agencies	Fourth	1/10/59	1[5]	15/11/59
6100-COM/504/3	Communication Codes and Abbreviations	Third	1955	1 2 3 5 6 8 9[7]	8/11/55 1/12/56 1/12/56 1/12/57 1/12/58 1/10/59 1/12/59
7910	Location Indicators	First	1958	4[5]	1/12/59

*In preparation.
(1) Corrigendum 1 (in French only) issued 15/10/58.
(2) Supersedes all previous amendments.
(3) Erratum 1 (in English and Spanish only) issued 1/11/56. Erratum 2 issued 5/4/57.
(4) Corrigendum 1 (in Spanish only) issued 21/4/58.
(5) All amendments are entered by ICAO at date of sale.
(6) "Differences" from the supplementary procedures are associated with each part of the document; revisions are included in the amendment service.
(7) Supersedes Amendments 4 and 7.

TO THE ASSEMBLY OF THE

INTERNATIONAL CIVIL AVIATION ORGANIZATION

I have the honour to transmit, at the direction of the Council, its Report for the year 1959, prepared in compliance with the terms of Article 54(a) of the Convention on International Civil Aviation. Although it constitutes documentation for the next session of the Assembly, whose convening date has not yet been decided upon, it is being circulated to Contracting States now for their information. This document, supplemented by a brief review of the work of the Organization during the first five months of 1960, will be sent in due course to the Economic and Social Council in pursuance of Article VI, paragraph 2(a) of the Agreement between the United Nations and ICAO.

The Report was prepared by the Secretariat and circulated in manuscript to the Representatives of the Council Member States for their suggestions. The Council as a body did not formally examine or adopt it, but, as for several years past, delegated to the President of the Council authority to approve the final text after considering all suggestions received.

The Council held three sessions in 1959 - the Thirty-sixth from 4 February to 25 March, the Thirty-seventh from 20 April to 15 May with two additional meetings in June (one immediately before and the other during the 12th Session of the Assembly), and the Thirty-eighth from 28 September to 10 December with two post-Assembly meetings on 13 July. It delegated to its President authority to act on a variety of matters as necessary during Council recesses.

Walter Binaghi
President of the Council

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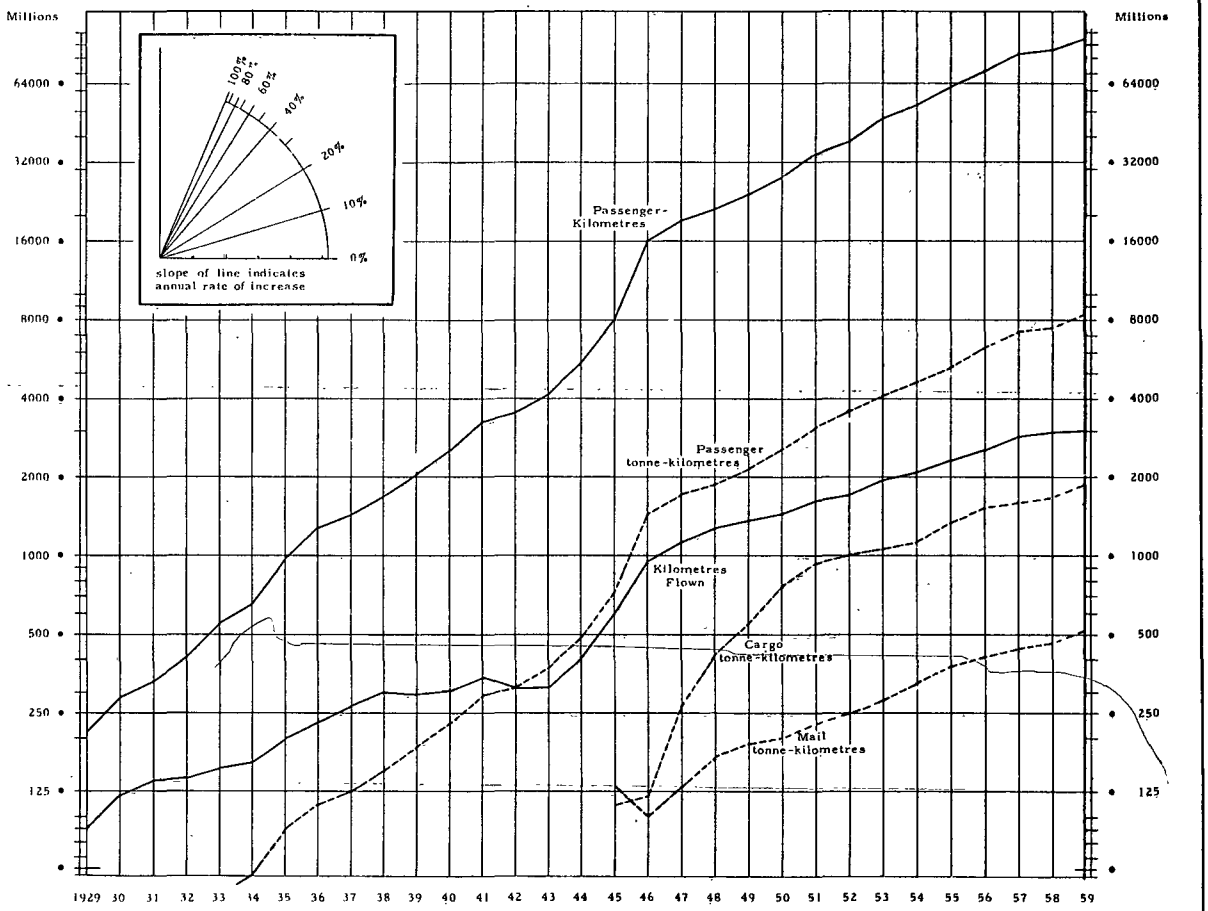
TABLE OF CONTENTS

DEVELOPMENT OF CIVIL AIR TRANSPORT

Total Scheduled Services

Revenue Traffic 1929 - 1959



Year	Kilometres Flown	Passenger-Kilometres	Passenger Tonne-Kilometres	Cargo Tonne-Kilometres	Mail Tonne-Kilometres	Average number of passengers per aircraft	Miles Flown	Passenger Miles	Passenger Ton-Miles	Cargo Ton-Miles	Mail Ton-Miles	Year
	millions						millions					
1929	90	210	20	...	...	2	55	130	10	...	...	1929
1930	120	290	25	...	...	2	75	180	15	...	...	1930
1931	135	330	30	...	...	2	85	205	20	...	...	1931
1932	140	405	35	...	...	3	90	250	25	...	...	1932
1933	155	545	50	...	...	4	95	340	35	...	...	1933
1934	160	650	60	...	...	4	100	405	40	...	...	1934
1935	200	975	90	...	...	5	125	605	60	...	...	1935
1936	230	1 280	115	...	...	6	140	795	80	...	...	1936
1937	265	1 410	125	...	...	5	165	875	85	...	...	1937
1938	300	1 685	150	...	...	6	185	1 045	100	...	...	1938
1939	295	2 030	185	...	...	7	180	1 260	125	...	...	1939
1940	300	2 530	230	...	...	9	185	1 570	155	...	...	1940
1941	340	3 280	295	...	...	10	210	2 040	200	...	...	1941
1942	315	3 515	315	...	...	11	195	2 185	215	...	...	1942
1943	320	4 165	375	...	...	13	200	2 590	255	...	...	1943
1944	415	5 490	495	...	...	13	255	3 410	340	...	...	1944
1945	600	8 000	720	110	130	13	375	5 000	490	75	90	1945
1946	940	16 000	1 440	120	100	17	585	10 000	985	80	70	1946
1947	1 140	19 000	1 710	270	130	17	710	12 000	1 170	185	90	1947
1948	1 270	21 000	1 890	420	170	17	790	13 000	1 295	290	115	1948
1949	1 350	24 000	2 160	570	190	18	840	15 000	1 480	390	130	1949
1950	1 440	28 000	2 520	770	200	19	895	17 500	1 725	530	135	1950
1951	1 610	35 000	3 100	910	230	22	1 000	22 000	2 125	625	160	1951
1952	1 760	40 000	3 590	990	250	23	1 095	25 000	2 460	680	170	1952
1953	1 920	46 000	4 120	1 040	280	24	1 195	28 500	2 820	710	190	1953
1954	2 050	52 000	4 640	1 100	320	26	1 275	32 500	3 180	755	220	1954
1955	2 280	61 000	5 420	1 300	370	27	1 415	38 000	3 710	890	255	1955
1956	2 530	71 000	6 280	1 480	400	28	1 570	44 000	4 300	1 015	275	1956
1957	2 820	81 000	7 130	1 620	430	29	1 750	50 500	4 885	1 110	295	1957
1958	2 910	85 000	7 450	1 660	470	29	1 810	53 000	5 100	1 135	320	1958
1959	3 020	95 000	8 340	1 890	520	31	1 875	59 000	5 710	1 295	355	1959

NOTE:
This diagram is drawn to a logarithmic scale in order to show the rate of change. Each horizontal line is drawn through a point 100% higher than the line directly below it. The rate of increase from year to year can be estimated by comparing the slope of the lines with those shown in the inset guide diagram. Three dots (...) means "data not available".
Exclusions: The People's Republic of China, USSR.

CHAPTER I

CIVIL AVIATION IN 1959*

1. - Introduction

The year 1959 was chiefly noteworthy for two not entirely unrelated developments - namely, (1) the extensive introduction into service of large new jet aircraft, and (2) an ever-increasing number of cooperative arrangements between airlines as well as governments. These accordingly will be the main topics treated in this Report, after the usual review of traffic, financial and safety records and in addition to the review of developments in the field of air navigation.

2. - Traffic and Load Factors

In 1959, for the first time on record, the world's scheduled airlines performed more than 10,000 million tonne-kilometres of carriage, the estimated figure being 10,750 million tonne-kilometres (7,363 ton-miles). This represented the resumption of a more healthy rate of growth than that in 1958, the increase amounting to 12.2% as compared with 4.4% in the previous year. Nevertheless, the last three years taken together had an average rate of growth of only 9.7%, substantially below the rate of 14% that prevailed from 1951 to 1957. This may represent the beginning of the flattening off in the growth rate that one expects in a young industry as it approaches maturity, but the scope for further growth is still clearly immense.

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*General note

The 1959 statistics appearing in this Report are to be considered preliminary; experience shows that the margin of error is probably less than 5%.

Unless otherwise noted:

a) all statistical data are applicable only to ICAO contracting States and exclude the USSR and the People's Republic of China;

b) traffic statistics are for revenue scheduled services;

c) the expression "tonne-kilometre" means metric tonne-kilometre, and the expression "ton-mile" means short ton-statute mile (the equivalent of 1.46 tonne-kilometres);

d) total airline financial statistics relate to non-scheduled as well as scheduled operations of scheduled airlines;

e) accident rates are based on revenue scheduled traffic but would include non-revenue passengers killed on scheduled services.

For the fifth year in succession, the total volume of international traffic increased more rapidly than domestic traffic, although the difference was not as great as in 1958. In 1959, world international scheduled services expanded 12.7% in tonne-kilometres performed, as compared with a figure of 11.9% for domestic services. The same trend has prevailed for the number of passengers carried on international and domestic services respectively, and, with minor deviations, for the number of passenger-kilometres and for cargo and mail tonne-kilometres performed. Taking all categories of traffic together, the share of the international portion has risen from 34% in 1954 to 38.3% in 1959, as shown by the following table:

Traffic	Volume (millions)		Average* Annual Percentage Increase	Percentage Distribution	
	1954	1959	1954-1959	1954	1959
Total t-km					
International	2,060	4,115	14.9	34.0	38.3
Domestic	4,000	6,635	10.8	66.0	61.7
Passengers Carried					
International	10	19	13.8	17.2	19.8
Domestic	48	77	10.0	82.8	80.2
Passenger-km					
International	16,000	33,000	15.7	30.8	34.7
Domestic	36,000	62,000	11.0	69.2	65.3
Cargo t-km					
International	400	820	15.5	36.4	43.4
Domestic	700	1,070	9.1	63.6	56.6
Mail t-km					
International	160	280	11.9	50.0	53.8
Domestic	160	240	8.5	50.0	46.2

* Arithmetical averages.

Passenger traffic, which accounts for nearly 78% of scheduled airline traffic for the third consecutive year, increased by about 12% in 1959, slightly more than mail (11%) but less than cargo (14%); but the absolute increase in passenger tonne-kilometres was, of course, about three times that of the other two combined. The fact that passenger-kilometres show a greater increase than the number of passengers carried is accounted for by the fact that the average journey has increased from 895 kilometres (556 miles) in 1954 to 995 kilometres (618 miles) in 1959. Mail, it will be observed, is the only category of traffic of which a greater volume moves internationally than domestically -- this being largely due to the fact that mail is not carried by air at surface rates in the United States.

Reversing the trend of the last three years, which had shown a lower percentage increase in passenger traffic for the United States operations (13%, 1%, 15%) than for the rest of the world (16%, 12%, 8%), the number of passenger-kilometres performed by the United States airlines increased by 15% in 1959, as compared with 8% for all other airlines combined. Since the United States international and domestic operations together account for more than 60% of the world total, they were largely responsible for the world-wide rise above referred to. However, airlines of several other countries also made important gains of 15% or over: New Zealand (15%), the United Kingdom (17%), Canada (18%), Federal Republic of Germany (23%), Japan (27%) and Italy (39%). On the other hand, the number of passenger-kilometres performed by the air services of Brazil, Belgium, Switzerland and Colombia decreased from the 1958 level.

A comparison by regions indicates that the largest percentage gain in passenger traffic is shown for the Far East and the Middle East, where an increase of 16% in total traffic and increases of 20% to 24% respectively in international traffic were experienced.

North Atlantic Traffic

Passenger traffic on the North Atlantic services continued to expand. Scheduled airlines surpassed their record with more than one and one-half million passengers in 1959: 1,367,287 (89%) on scheduled flights and 172,647 (11%) on charter and special flights. The number of passengers carried on the last-mentioned flights has risen sharply in the last few years, resulting in annual increases of 95% and 75% for 1958 and 1959 respectively. Two airlines, Pan-American World Airways System and British Overseas Airways Corporation, operated transatlantic jet service during the entire year.

Nearly three-quarters, or 1,008,765, of the passengers carried on scheduled flights travelled by economy-class service, which had been introduced in the spring of 1958 at lower rates than tourist class and had proved extremely popular from the outset. Increasing by 52% over 1958, economy-class passengers have completely superseded tourist passengers as the most numerous category of air traffic on the North Atlantic. The number of tourist-class services having been sharply reduced since 1957, tourist passengers decreased to a mere 64,362 in 1959 as compared with 739,498 in 1957. The percentage of first-class and deluxe-class passengers as a whole remained about 21% of the total, slightly less than the figure for 1957 (24%).

North Atlantic Passenger Traffic
on Scheduled Flights

Number of Passengers	1956	1957	1958	1959
Total	785,259 (100%)	968,146 (100%)	1,193,213 (100%)	1,367,287 (100%)
Deluxe class (from 1 April 1957)	---	228,648 (24%)	255,690 (21%)	294,160 (21%)
First class	208,994 (27%)			
Tourist class	576,265 (73%)	739,498 (76%)	274,889 (23%)	64,362 (5%)
Economy class (from 1 April 1958)	---	---	662,634 (56%)	1,008,765 (74%)

Having exceeded the number of sea passengers in 1958, air passengers now constitute a little over 60% of the North Atlantic traffic. It would appear that the peak of sea traffic was reached in 1957, when ocean liners carried 1,038,000 passengers. The number has since decreased to 958,000 in 1958 and to approximately 884,000 in 1959.

Cargo and Mail

The 14% increase in cargo traffic not only exceeded the increase for passenger traffic for the second time since 1950, but also marked a greater increase than for the preceding year. Within Europe, the increase was about 20%. Considerable effort has been made to reduce cargo rates and to build really efficient and cheap cargo aircraft. The Canadair CL-44 D--with a maximum take-off weight of 205,000 pounds, a capacity payload of 65,000 pounds, a maximum range of 6,300 miles and a mean cruising speed of 385 miles per hour--is one of these.* Its direct operating costs have been estimated at only 2.7 cents per tonne-kilometre (4 cents per ton-mile). The fact that its entire tail assembly and rear portion of the hull is designed to swing out to open up the full diameter of the hold will promote ease of loading and thus further reduces costs. Some 15 of these aircraft have been ordered. There appeared once again to be renewed optimism in some quarters that a break-through for freight traffic was in sight.

The percentage figure for the increase in mail tonne-kilometres performed (11%) also represented an improvement over the last three years. These recent changes, however, have done little to alter the share of each category of traffic in the total traffic since 1956: passengers 78%, cargo 17%, mail 5%.

Load Factors

During 1959, total air transport capacity offered increased less than the increase in the tonne-kilometres of traffic actually performed. As a result, the average load factors for the world's scheduled international and domestic services combined rose to 57.9% in 1959, as compared with 56.3% in 1958 and 57.4% in 1957. However, the 1959 load factor is still 1.4 points below the high of 59.3% recorded for 1956. As has been the case in the past, the load factor on international services (60.3%) exceeded that for domestic services (56.5%). Passenger load factor also improved, rising from the low of 58.6% recorded for 1958 to 60.5% in 1959.

* Take-off weight 92,990 kg., payload 29,480 kg., range 10,140 kilometres, speed 620 kilometres.

3. - Financial Trends*

1959

Information as to airline financial operating results for 1959 is, as always at this early stage, incomplete. Preliminary estimates indicate that operating revenues of scheduled airlines probably exceeded US$4,610 million and that operating expenses rose to a figure of approximately $4,470 million. As heretofore, a word of caution is necessary against using these figures as an accurate indication of the airline financial position in 1959.

1958

This was the first year in which the operating revenues of the world's scheduled airlines exceeded $4,000 million, operating expenses having already exceeded that figure in 1957. Estimated revenues from all sources were $4,122 million (previous estimate, $4,200 million) and total operating expenses $4,107 million (previous estimate, $4,360 million), indicating an operating ratio of 100.4 (previous estimate, 96.1). Reversing the trend of the previous two years, which had shown a lower rate of increase in total revenues than in total expenses, airline operating revenues increased by 3.8% in 1958 as compared with 2.4% for expenses. Comparative figures showing changes in the airlines' financial position from 1957 to 1958 are as follows:

Financial Operating Results for All Scheduled Airlines
1957, 1958

Description	1957 (US$ Million)	1958 (US$ Million)	1957-1958 (Percentage Change)
Revenues			
Passengers	$3,109	$3,256	+ 4.7%
Cargo	404	406	+ 0.5%
Mail	215	216	+ 0.5%
Charter	136	150	+10.3%
Incidental	107	94	- 12.2%
Total operating revenues	$3,971	$4,122	+ 3.8%
Expenses			
Flight operation	$1,219	$1,226	+ 0.6%
Maintenance and overhaul	771	812	+ 5.3%
Flight equipment depreciation	349	359	+ 2.9%
Other	1,673	1,710	+ 2.2%
Total operating expenses	$4,012	$4,107	+ 2.4%
Operating profit or loss	$ - 41	$ + 15	
Operating ratio	99	100.4	

* All financial statistics relating to world air transport as a whole should be regarded as approximate indications rather than as accurate figures, owing to the many differences in accounting practices and organization between different airlines. Early figures are also subject to modification owing to deficiencies in reporting. The preliminary estimates for 1958, given in last year's Report, have had to be modified rather more than usual owing to errors in the early statistical reports received from several governments. The corrected figures for 1958 indicate a small net operating profit for the scheduled airlines of the world of US$15 million, or about 0.4% of turnover, instead of an operating loss of US$171 million as estimated previously.

Airline receipts from passengers in 1958, accounting for 79% of the total operating revenues, represented the smallest numerical increase ($147 million) since 1950 ($103 million). The largest percentage increase, as in several years previously, was in charter and special flights, and the only decrease was in incidental revenues. Revenues from mail and cargo showed very little increase over the figures for 1957.

The largest numerical as well as percentage increase in airline expenses appears to have been in equipment maintenance and overhaul. Flight equipment depreciation increased to a somewhat higher percentage of the total expenses, possibly reflecting the higher prices of the new jet aircraft. "Other" expenses -- including general and administrative expenses -- showed a slight percentage decrease, possibly reflecting the spread of such expenses over a greater volume of business.

Unit Revenues and Expenses

On the basis of tonne-kilometres performed, the average 1958 unit revenue amounted to about US 40.4 cents (59.0 cents per ton-mile),* about the same as for 1957. Average unit costs per tonne-kilometre available were about 23.1 cents (33.7 cents per ton-mile),** as compared with 23.6 cents for 1957 (34.5 cents per ton-mile).

4. - Airline Safety Record

Notwithstanding the increase of some 10,000 million passenger-kilometres (6,000 million passenger-miles) flown on scheduled air services in 1959, reports indicate that there were fewer fatal accidents and a smaller number of passengers killed than in the previous year. Preliminary figures show 28 fatal accidents in 1959 in which 625 passengers were killed, as compared with 30 fatal accidents and 629 passengers killed in 1958. On the basis of these figures, the annual overall scheduled air service fatality rate per 100 million passenger-kilometres in 1959 was 0.66 (1.06 per 100 million passenger-miles), only 0.03 points higher than the best result so far achieved -- viz, 0.63 fatalities per 100 million passenger-kilometres in 1957 (1.00 per 100 million passenger-miles).*** In terms of accidents in relation to distance flown, the rate for scheduled airlines of 0.93 fatal accidents per 100 million aircraft-kilometres (1.49 per 100 million miles) for 1959 is the lowest on record.

Owing partly to the high speed and large capacity of the jet equipment being introduced, the number of hours flown on scheduled air services as a whole has decreased somewhat since reaching a peak of 8,700,000 hours in 1957 and 1958. In 1959, the number of hours flown was about 100,000 less than in1958. The 1959 rate of .33 fatal accidents per 100,000 hours flown compares favourably with .35 in the previous year and is the lowest figure yet achieved by scheduled airlines.

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* Previous estimate, 41.0 cents per tonne-kilometre or 59.9 cents per ton-mile.

** Previous estimate, 23.8 cents per tonne-kilometre or 34.7 cents per ton-mile.

*** Owing to the small number of incidents on which these accident rates are based, variations in the yearly rate as high as $\pm$ 30% may be due to pure chance and indicate no significant change in trend.

The following table contains comparative figures showing the development of airline safety since 1949. It incorporates changes in the data given in last year's Report, based on information since received from government sources.

Passenger Fatalities -- Scheduled Air Services
(International and Domestic)

Year	Number of fatal accidents	Number of Passengers Killed	Fatality Rate per 100 million Pass.-km	Pass.-mi.	Fatal accidents per 100 million Km flown	Mi. flown	Fatal accidents per 100,000 aircraft hours flown
1950	27	551	1.97	3.15	1.88	3.02	5.40
1951	20	443	1.27	2.01	1.24	2.00	3.57
1952	21	386	0.97	1.54	1.19	1.92	3.50
1953	28	356	0.77	1.25	1.46	2.34	4.38
1954	28	447	0.86	1.38	1.37	2.20	4.18
1955	26	407	0.67	1.07	1.14	1.84	3.56
1956	27[a/]	552	0.78	1.25	1.07	1.72	3.42
1957	31	507	0.63	1.00	1.10	1.77	3.56
1958	30	629	0.74	1.19	1.03	1.66	3.45
1959	28	625	0.66	1.06	0.93	1.49	3.26

a/ Includes a mid-air collision counted as one accident.

5. - The Introduction of Jet and Other Turbine Aircraft

Progress in 1959

The introduction into service of the new turbo-jet transports that began in October 1958 continued at an increasing rate throughout 1959. As can be seen from the following table, the number of turbo-jets delivered had increased from 12 at the end of 1958 to 130 a year later.

Turbo-jet Aircraft Ordered for Delivery before 1963

Type	Ordered during 1955	1956	1957	1958	1959	Orders cancelled during 1958	1959	Ordered up to 31.12.59	Delivered during 1958	1959	Total number delivered	Number remaining on order at 31.12.59
Boeing 707	76	37	38	3	7	12	-	149	6	65	71	78
Boeing 720	-	-	11	25	10	-	-	46	-	-	-	46
Douglas DC-8	98	21	15	11	17	3	9	150	-	17	17	133
Convair 880	-	40	4	9	8	-	10	51	-	-	-	51
Convair 600	-	-	-	25	9	-	-	34	-	-	-	34
Comet IV	19	-	6	8	9	-	-	42	6	21	27	15
Caravelle	12	-	8	30	9	-	-	59[a]/	-	15	15	44
Totals	205	98	82	111	69	15	19	531	12	118	130	401

a/ A further order for 20 Caravelles was placed not long after the close of the year.

Because of the size and speed of these aircraft, deliveries to date represent a very considerable aggregate capacity. These 130 jets, being numerically about 2-1/2% of the total fleet of the world's scheduled operators, (4,950 aircraft of over 9,070 kg (20,000 lbs.) maximum take-off weight), represent, in terms of potential tonne-kilometres per hour, approximately 10% of the total capacity. However, it must be borne in mind that deliveries were made gradually throughout the year and also that there is normally a time-lag between delivery and putting into service. Thus, the proportion of total world air transport capacity actually offered in jets in 1959 was probably somewhat less than 5%.

Less than a quarter of the jets ordered for delivery before the end of 1962 have as yet been received by the airlines. Most of the remaining 401 aircraft may be expected to come into service during 1960 and 1961, at which time their main impact on the world's air transport will be felt. From the information presently available it appears that after 1961 the situation will be stabilized for a time. Only a few aircraft -- namely Convair 600's -- are scheduled for delivery during 1962 and for delivery after that date the only published orders are for 35 Vickers VC-10's and 24 De Havilland DH-121's.

Turbo-Props

By comparison, it may be interesting to note from the following tabulation that 639, or 85%, of the total of 754 turbo-prop aircraft ordered had been delivered by the end of 1959:

Turbo-Prop Aircraft Ordered by and Delivered at 31 December 1959

Type	Ordered	Delivered	Number remaining on order
BRITANNIA	57	57	-
V-900 VANGUARD	40	-	40
V-188 ELECTRA	168	122	46
V-800 VISCOUNT	125	125	-
V-700 VISCOUNT	259	259	-
F-27 FRIENDSHIP	105	76	29
TOTALS	754	639	115

Engines

The figures in the last two tables indicate a percentage distribution of aircraft manufacture approximately as follows: United States 46.5%, United Kingdom 40.7%, Netherlands 8.2%, France 4.6%, based purely on number of aircraft without taking into account their capacity.* As regards engines, however, there is a definite preponderance in favour of the United Kingdom, one of whose firms -- Rolls Royce -- alone has powered more of the total fleet of turbo-prop and turbo-jet aircraft than all of its competitors combined. At the beginning of 1960 Rolls Royce held 57% of world orders for such engines, its nearest competitor being the United States firm of Pratt and Whitney. The remaining orders are divided between the British firm of Bristol-Siddeley and the American firms of Allison and General Electric. All British, Canadian, Dutch and French-designed turbine-powered airliners have British engines as standard, while 174 American-designed aircraft have been ordered with British turbo-jet or turbo-prop engines.

Total Fleet

At the end of 1959, the world's airline fleet was composed of the following types of aircraft:

Turbo-jet	139
Turbo-prop	639
Piston-engined (4 motors)	1,723
Piston-engined (2 motors)	2,449
Total	4,950

* The foregoing tabulation does not show aircraft of basically foreign design manufactured in Canada, but these are included in the total.

Although it has been out of production for fifteen years, the DC-3 still represented the largest number of airline aircraft, there still being 1,428 of these in service at the end of the year.

Initial Experience with Jet Operations

Although the jets did not account for a major portion of total capacity in 1959, they did come into service on a sufficient scale to make them familiar around the world and to provide a considerable amount of operational experience. Whereas at the end of 1958 only two airlines were operating jets across the North Atlantic, by the end of 1959 fifteen airlines were operating jets in all major regions of the world, including trans-pacific and Polar routes. It had, moreover, become possible to fly around the world by jet, the actual flying time required being approximately 2-1/2 days instead of the 4 days required by piston-engined aircraft -- a reduction of 40%.

Experience so far gained -- primarily with the Boeing 707 and the Comet IV -- suggests that the jets are to a high degree reliable and serviceable. An indication of the serviceability of these aircraft may be seen in the average daily utilization rate of approximately eight hours per aircraft achieved by both the Boeing 707 and the Comet IV. Moreover, in the operations of five United States carriers using the Boeing more than 90% of flights were despatched without mechanical delay. In addition, the turbo-jet aircraft in scheduled service maintained an excellent fatality record: only one passenger died in connection with a jet accident, and he of a heart attack. To these encouraging characteristics must be added the continuing passenger appeal of the jet, which is evidenced by the unprecedentedly high load factor of over 90% averaged by the Boeing 707 in its first year of operation.

Slightly less encouraging is the experience gained with direct operating costs. Three United States carriers -- American, PAA and TWA -- operating Boeing 707's in the first three quarters of 1959 had unit operating costs, in terms of cents per available seat-mile, varying from 1.65 to 2.74, but averaging very close to 2 cents.* It had been claimed that the operating costs of the jets would be somewhat lower than those of the turbo-props and piston-engined aircraft, but the figures so far realized have turned out to be similar to those shown in the operation of the Lockheed Electra, the Viscount 745, the DC-6 and the DC-7 -- all of which approximate 2 cents per seat-mile. Another matter in which experience has been somewhat discouraging is overall speed. The same three United States carriers -- American, PAA and TWA -- in their operations with the Boeing 707 in the first three quarters of 1959 have averaged block-to-block speeds of only about 716 km (445 miles) per hour, instead of the anticipated 748 km (465 miles) per hour or better.

The experience gained in 1959 is interesting, but inconclusive. Before the operating characteristics of the new equipment can be fully determined it will be necessary to observe a large number of jets in operation under varying conditions for an appreciable period of time. Operation on a larger scale and with greater experience may tend to reduce costs, but load factors will probably fall and the employment of the jets on shorter stage-lengths will result in less efficient operation, so that it is hardly possible to say what may happen to the unit operating cost figures mentioned above. The same is true for the question of block-to-block speed. Operations on shorter stages will tend to reduce this, but improvements in air navigation facilities and services may raise it.

* Equivalent to 1.03, 1.70 and 1.24 cents per seat-kilometre respectively.

Disposal of Used Aircraft

One consequence of the introduction of the turbine-powered aircraft has been the displacement, as anticipated, of a large number of piston-engined transports, including all major types from DC-3's and Convairs, through DC-4's, DC-6's, Constellations, Super-Constellations and Stratocruisers, to the latest turbo-compound DC-7C's and Lockheed 1049G's and 1649's. The older of these transports, although probably fully depreciated on the airlines' books, are generally good for many years of service, so that their accelerated displacement may have had some adverse financial effect. Of greater importance is the fact that the first appearance in quantity on the used-aircraft market of the newer types will almost certainly signify serious depreciation losses. The number of used transport aircraft offered for sale increased considerably in 1959 and may be expected to continue to do so in 1960 and 1961, the total number affected by this process in the period 1958-1961 having been variously estimated at from 1,200 to 1,800.

Opinions vary widely as to the size of the potential market for these aircraft, but there is general agreement that it must be sought among the smaller airlines, both scheduled and non-scheduled (which may not now be in a position to re-equip with new aircraft), as well as among corporate users of air transport and cargo operators. The ability of these potential users to purchase the aircraft offered is, however, frequently limited by shortages of capital or of hard currency. In 1959, the supply of used aircraft already began to exceed the demand -- with the result that, except for particular categories, prices have fallen or sales have been slow. The exceptions are the cargo versions of the DC-3, DC-4, DC-6, Super-Constellations and Convairs which seem to be particularly attractive to business corporations for use as executive aircraft. In these categories there has been a steady demand and prices have remained more or less stable. On the other hand, the latest model turbo-compound DC-7C's and Lockheed 1049G's and 1649's, which cost, new, in the neighbourhood of US$ 2.5 million each and which, in some cases, were barely two years old, were being offered for sale at less than half their original price, with apparently few buyers interested. For other four-engined aircraft, demand has varied and prices have tended to fall slightly.

The most pessimistic predictions concerning the used-aircraft market -- to the effect that many aircraft types would reach scrap value by 1960 -- have not yet come true. However, the industry has shown concern over the problem since most airlines, where they have fully or nearly fully depreciated their fleet, rely on some capital gain from the sale of obsolete aircraft to help them in their re-equipment programmes, besides which the manufacturers' prospects of obtaining further orders are related to the financial position of operators. Manufacturers have been persuaded, for the first time on any appreciable scale, to accept used aircraft as trade-ins on their new products. They have also, in order to assist airlines to realize the necessary capital, acted as guarantors for notes given in payment for piston-engined equipment. Airlines have, in a number of cases, made arrangements to have such relatively modern equipment as DC-7C's and Super-Constellations converted to cargo configuration.

6. - Inter-Airline and Inter-Government Cooperation

The year 1959 found both governments and operators intensifying their efforts to secure the benefits of cooperative arrangements of one kind or another. In some cases, this appeared to be motivated at least in part by the heavy financial commitments involved in the acquisition of jet aircraft. In others, the advantages sought appeared to lie more

in the field of efficiently exploiting rich traffic regions. The most extensive project of the latter category is reported in Western Europe, where collective action in political and economic fields has become more and more prevalent in recent years.

Air Union

Several European airlines have been holding extended discussions, dating back to 1958, with a view to closer integration of their international operations. First referred to as "Europair", and now known as "Air Union", the combination comprises Air France, Alitalia, Deutsche Lufthansa and Sabena -- KLM having withdrawn from the negotiations after an initial participation. Various provisions of the underlying agreement are still under discussion between the airlines and governments concerned, and hence the precise character of Air Union has yet to be determined. However, it will be of interest to note here some of the principal features of the proposed arrangements as they have been most recently reported. It appears that the member airlines are to retain their individual identities, and that the cooperative arrangements envisaged will be primarily concerned with commercial and financial matters. Thus, common policies are to be evolved in respect of the development and expansion of operations, sales administration -- including the amalgamation of ticket offices -- commercial agreements and other economic and legal matters. In technical fields such as fleet maintenance and re-equipment, the member airlines will also coordinate their programmes.

One of the main objectives of Air Union is the maximum utilization of the combined fleets consistent with profitable load factors. Each airline is to share the joint market according to a system of quotas, which will be re-examined periodically and which, when the combined traffic ultimately reaches 2,400 million tonne-kilometres (1,640 million ton-miles) performed -- as it is expected to do around 1972 -- will apportion shares of about 34% to Air France, 30% to Deutsche Lufthansa, 26% to Alitalia, and 10% to Sabena. Discussions are understood to be still proceeding on the related question of the precise manner in which the respective revenues and expenditures of the operating companies are to be apportioned in respect of jointly operated services. Finally, it has been reported that Air Union, once it becomes an operating reality, may at some later date open its membership to other airlines.

SAS-Swissair

Two other European carriers, SAS and Swissair, extended a cooperative venture initiated in 1958, reaching agreement to coordinate their programmes of aircraft procurement and maintenance as well as their facilities for air and ground-crew training. Thus the two companies, in planning to operate the same type of jet aircraft with as nearly identical lay-out and instrumentation as possible, are establishing a joint maintenance organization, with all facilities for the major overhaul and maintenance of their Convair 600 aircraft being located at Zurich and corresponding facilities for their DC-8 and Caravelle fleets centred in Copenhagen and Stockholm. The training of maintenance staff and aircrew will likewise be coordinated, with the facilities of each carrier being devoted to training on the particular aircraft that is its specialty.

FALA

In Latin America, discussions of integrating fleets to achieve a more competitive position in the jet age have also been reported taking place between airline and government officials of Colombia, Chile, Ecuador, Panama and Peru. Here the objective is

the creation of a single Latin American airline, possibly named Flota Aérea Latino Americana (FALA), to take over the international operations of the existing national carriers and to be sufficiently financed to enable it to purchase the desired jets. The new company, which is expected to be capitalized at approximately US$40 million, is envisaged as a consortium arrangement in which each country would participate equally. The discussions, which thus far have extended over two meetings -- the first in Panama in November and the second in Peru in December -- appear, however, to be still exploratory, although it is understood that a third meeting, to be held in Chile, is to be convened in 1960 for the purpose of reaching agreement on substantive proposals.

Middle East

Interest in airline integration has also been reported from the Middle East, among countries of the Arab League. Officials of the League are understood to have invited jet aircraft manufacturers to submit proposals for providing the Arab League countries with a fleet suitable for linking the area with Western Europe, the Far East, South Africa, Australia, and North and South America. While recognizing the unlikelihood of their operating intercontinental services of this order for some years to come, the Arab League countries have been studying the shorter-range prospects of integrating their short and medium-haul services with consequent lower operating costs and higher load factors, as well as the more fundamental proposal made by the League's Economic Council that a Pan-Arab airline be established. It is understood that participation in the proposed airline would be open to all Arab States, irrespective of membership in ICAO or the Arab League; that the undertaking itself would be regulated by a convention concluded between the participants; and that the proposed capital required, approximately £17 million, would be subscribed by the governments or nationals of the participating States, each of which would have one representative on the company's board of directors. It is stated to be the intention of the participants to secure the necessary traffic rights from other States either through modification of existing bilateral arrangements or by negotiation of new agreements.

British Commonwealth

An inter-line agreement reached between British European Airways and Olympic, the Greek airline, represents an extension of their existing pool arrangements, and also provides for completely integrated aircraft procurement and maintenance programmes. Thus, in addition to pooling their services, the two companies are establishing facilities enabling their respective Comet IV aircraft to receive maintenance at each other's stations, with consequent economies in the number of stand-by aircraft required and in overall operating costs. BEA has also cooperated with TAP, the Portuguese airline, in improving services between London and Lisbon. An agreement concluded between the two lines has enabled TAP to operate the route with BEA Viscounts, with the resultant benefit to the public that a daily Viscount service is now being flown in each direction between the two capitals. In addition, the arrangements made it possible for TAP to increase its Portuguese African services by utilizing the additional Super-Constellation capacity thus released from the Lisbon-London route.

The other British corporation, BOAC, has also extended its cooperative arrangements with other lines. An agreement concluded with Air India International and Qantas expected to come into force 1 April 1960 when ratified by the three governments concerned, will pool services of the three companies over a combined network extending from London eastward to India, Australia, Hong Kong and Japan, and westward to New York. Under the agreement, the three lines will act as sales outlets for each other,

but will otherwise remain completely independent. A pooling arrangement has been negotiated with Trans-Canada Airlines for joint operation of the North Atlantic route with mutually coordinated services better suited to the needs of the travelling public. Further cooperative arrangements are being considered by BOAC in connection with their services between the United Kingdom and South America.

Far East

From the Far East it is reported that the Thai Airways International is being reorganized with SAS as a minority shareholder. The new airline is to take over the international services of the existing Thai Airways Company and is expected to commence operations in April 1960 to Tokyo, Hong Kong, Rangoon, Calcutta, Taipei, Saigon, Phom Penh and Kuala Lumpur. The new company's fleet of DC-6B aircraft is being chartered from SAS, which has also undertaken to provide technical and administrative assistance and crews and ground staff stationed in Bangkok, in addition to organizing a training programme to enable Thai nationals to assume increasing management and staff responsibilities.

Brazil

In Brazil, VASP, VARIG and Cruzeiro do Sul have formed a pool service to link Rio de Janeiro and Sao Paulo with flights every half hour at fares approximately half those charged by the seven domestic carriers hitherto competing over this route.

7. - Rates and Fares*

The question of whether a surcharge should be imposed on jet airline fares was the centre of a controversy that had arisen during 1958 when a few airlines began introducing jet equipment into service. There has been considerable support for the idea that some kind of differential would be appropriate where jets and slower aircraft are operated on the same routes. Some differentials were, in fact, introduced, but are now tending to be abandoned as jets begin to predominate on the routes for which they are best suited.

Experience in operating economy-class service on the North Atlantic routes has suggested that one way of achieving a reduction in fares might be to abandon tourist-class service throughout the world and substitute the more densely seated economy-class service at about 20% less than tourist rates.

At the IATA Fares and Rates Conference held in October 1959, an impasse over future fares resulted from what was generally regarded as the unyielding demands of certain airlines for lower fares on routes such as those from Europe to Africa, India and the Far East. The meeting ended without reaching any sort of agreement concerning these and other intercontinental routes, including the North Atlantic, although cargo rates throughout the world and passenger fares in Europe, the Middle East and on the South Atlantic were agreed upon. Since then, the United Kingdom Government has reaffirmed its public stand on lower fares with an authorization for British Overseas Airways Corporation to reduce rates by 10% to 20% on flights to British possessions in Africa, the Far East and the Caribbean.

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* Rates and fares are not directly studied by ICAO, but these brief notes may be of general interest at the present time.

While this Report was in its final stages of preparation, IATA announced that its special meeting in Paris in March on international fares had reached agreement on introducing a new fare structure on international air routes at various dates from 1 May to 1 October 1960. This provides reduced rates on low-fare services and some new excursion fares and group travel discounts on intercontinental routes, including a 17-day round-trip excursion during the winter months from New York to London at $350 in jet aircraft and $320 in propeller-driven aircraft, as compared with a previous lowest off-season return fare of $405. During the period of transition to jet aircraft, propeller-driven services will be permitted, in general, to offer reduced fares or liberal seating arrangements. Low-fare services between Europe, the Far East and Asia will have their rates reduced by 6% to 10% after 1 October. These IATA agreements concerning fares on international air services are, of course, subject to the approval of the governments concerned.

8. - Aviation in Non-ICAO States

USSR

The inauguration, in May 1959, of a London-Moscow service by British European Airways and the Soviet airline, Aeroflot, has brought to 24 the number of countries with which the Soviet Union has established direct air links, 18 of these being States located in Europe, 4 in the Far East and 2 in the Middle East. Until recently, air services between the USSR and Western Europe had normally been operated on an inter-line basis, involving a change of aircraft en route. The service to London is indicative of the very great extent to which the international sector of the Soviet air transport operations has developed in recent years. Aeroflot's routes now embrace all Europe and Asia, west to the British Isles and east to the Kamchatka Peninsula.

A majority of the services are operated with jet and turbo-prop equipment, notably the Tupelov TU-104A and Ilyushin IL-18 Moskva. Jet services now connect Moscow with London, Paris and other European cities, with Cairo, Kabul, Delhi, Peking and the North Korean capital, Pyongyang. In order to facilitate inter-line transactions, Aeroflot has concluded traffic agreements with 17 foreign airlines, including, for example, an agreement with Trans-Canada Airlines providing, for the first time, for through movement of passengers, baggage and cargo between Canada and the USSR.

Published sources indicate that the Russian airline also maintains an extensive network of domestic routes, more than 20 of these being operated with jets, including the new TU-104B's, and turbo-prop aircraft. Indeed, Aeroflot is reported to operate more jet mileage than any other airline. The domestic system provides trans-continental as well as regional and local services for more than 100 cities, totalling some 2,800 scheduled flights per week. The first helicopter service was reported to have been inaugurated in November 1958 between Simferopol and Yalta on the Black Sea, a distance of about 100 kilometres (70 miles). A second service was begun in January 1959.

There has been a complete lack of statistical information concerning the Soviet operations. According to one estimate, between 8 and 10 million passengers a year are being carried by Aeroflot on its domestic and international services. The Soviet Government is said to have been working towards a reduction of domestic fares by 20% to 25%, to a level near that of first-class railway fares on similar routes.

9. - Helicopter Services

The growth of the "New York Airways" helicopter service, which began operations in 1953, is evidenced by the fact that the number of seat-kilometres (seat-miles) produced has risen from 1,167,000 (725,000) in 1954 to 24,000,000 (15,000,000) in 1959. At the same time, the subsidy required for each available seat-kilometre (seat-mile) fell from $2.24 ($3.61) to $0.20 ($0.32). The Company's plans for the future call for larger, more powerful and faster helicopters, to be introduced in 1961, which will almost quadruple the seat-miles at present available. It is hoped that, by expanding services and by operating many routes at very high frequency, the increase in traffic will keep pace with the additional capacity offered. The Company is also investigating the possibility of a very high frequency service to carry commuters during peak hours between heliports in the centre of the City of New York and landing sites based at large car-parks in the outskirts.

As part of its expansion plans, New York Airways has placed an order for five Fairey rotodynes, to be delivered in 1964. These are the new, 65-passenger models, which will be larger and faster than the 48-seat prototype. They will have an all-up weight of 50,000 lbs. (17,000 lbs. heavier than the present model) and can operate over a 250-mile stage at over 200 miles an hour with the normal complement of 57 passengers (or 15,000 lbs. of freight). With a maximum load of 65 passengers (or 18,000 lbs. of freight), the stage distance is reduced to 120 miles. The operating cost has been estimated at about 2.5 cents per seat-kilometre (4 cents per passenger seat-mile).*

10. - Development of Supersonic Transport

Planning and research on supersonic transport have been proceeding in the United Kingdom and the United States (and presumably also in the Soviet Union) at least since the early 1950's. In the first instance the objective may have been military, but the civil aspects of the subject have also been thoroughly explored and there is now general agreement amongst the potential manufacturers on the technical feasibility of producing a supersonic transport aircraft in the relatively near future -- that is to say, by about 1965 to 1970.

It may fairly be said that 1959 was also the year in which realization became general that such an aircraft not only was a practical possibility, but almost certainly would be the successor to the present jet transport. By 1959 there appeared to be a considerable degree of concurrence among the manufacturers in the United Kingdom and the United States on certain probable specifications of the first generation of supersonic transports. According to this consensus, it would cruise at about Mach 3, or about 3,200 km (2,000 miles) per hour and be available closer to 1970 than 1965, although a Mach 2 aircraft might be produced earlier; it would have a range of 5,600 km (3,500 nautical miles); operate at altitudes of 18,000 to 24,000 metres (60,000 to 80,000 feet); and be able to use runways suitable for the current large jets. On the question of size there was some difference of opinion, one group thinking that it should have a gross weight of about 270,000 kg (600,000 lbs) and a capacity of about 160 passengers, and another that it should be about half that size in both weight and capacity so that it would be more flexible in airline service.

* All-up weight 22,680 kg (7,710 kg heavier than present model); can operate over a 402 km stage at 322 km an hour with 57 passengers (or 6,800 kg of freight), with 65 passengers (or 8,165 kg of freight) over a stage distance of 193 km.

Together with the realization of the technical feasibility of the project came a general recognition of the magnitude of the economic problems involved. The concern felt by the air transport industry and governments about this aspect of the subject and about the air navigation facility requirements led the ICAO Assembly to call urgently for a study of the technical, economic and social consequences of introducing supersonic transports in 1965 as compared with 1970. The production cost of the proposed aircraft, which has generally been assumed to be the price that would be charged to airlines, has been estimated at from US$ 12 million to US$ 20 million, depending on the size chosen and the number produced. These figures may at first seem high, but when it is remembered that the supersonic transports will be two or three times more productive than the present large jets, they will be seen to be reasonable -- particularly in view of the expectation that direct unit operating costs will be similar to, or perhaps slightly below, those of the jets. If these are the prices charged, and provided that the new aircraft are not offered for sale until the present jets have been fully depreciated, the airlines should not find any insuperable problem in equipping themselves with supersonic aircraft for the long-stage routes, although the high productivity of the new planes may force a greater degree of joint operation on the smaller carriers.

The main financial problem is the development cost of the whole programme (rather than the production cost of individual aircraft). Estimates of this cost vary from US$ 250 million to US$ 1,000 million, and the question of how this is to be met remains to be answered. Proposals have been made that manufacturers should pool their resources to produce one basic aircraft, and it has even been suggested that there should be international cooperation between the American and British interests. But it seems to be generally conceded that the manufacturers will not themselves be able to bear the development cost. Almost certainly, this would have to be borne in one way or another by governments.

The air navigation facility requirements for the supersonic transport may also present serious problems. No precise estimates have been offered for the cost of these facilities, but they would certainly be high and will also have to be borne largely by governments.

11. - Subjects Relating to Air Navigation

Aircraft Operations

As has already been mentioned, the large turbo-jet aircraft introduced in 1958 came into service in increasing numbers in 1959. From increased experience in their use has emerged a greater awareness of the significance of interruptions in service because of bad weather. The cumulative effects of higher speeds, larger passenger-carrying capacity and the reduced number of aerodromes into which they can operate mean that a single interruption can cause dislocation to jet service equal to several such interruptions to piston-engined aircraft. As a result, operators are looking to the development of automatic landing equipment to help overcome this problem. In some quarters it is not anticipated that such equipment will be needed before the introduction of supersonic aircraft, but in others, plans are already being made for the incorporation of such equipment in aeroplanes now being ordered. Delays in "turn around" of the large turbo-jet aircraft have required a revision of previous estimates and adjustment of many schedules.

The ICAO Jet Operations Requirements Panel foresaw many of the problems that would arise and made recommendations for their solution. The operators have been working in close cooperation with the airport authorities to implement the recommendations and at airports with high traffic densities efficient systems are already in operation.

Airworthiness

The introduction into service of the latest jet transports has naturally been accompanied by a certain amount of "teething trouble". In the main, this has been associated with various aircraft systems such as air conditioning, hydraulic power, engine water-injections, etc. The curing of these troubles has been a fairly straightforward matter and no major problems have been revealed. The maintenance record of the turbine engines has been extremely good.

A good indication of the success of these engines is given by the overhaul periods they have been able to achieve. An example is one turbo-jet engine that entered service near the end of 1958 with an approved overhaul period of 1,000 hours. After twelve months' service this period had been increased to 1,600 hours. It is interesting to note that the first turbo-prop engine to enter service started in 1953 with an overhaul period of 400 hours and that this period has now been extended to 2,500 hours.

In connection with the studies being made into the future development of supersonic civil transport aeroplanes, it is important to note that present airworthiness codes, which were framed for aeroplanes with very different characteristics, will require substantial modification in order to be suitable for application to supersonic types. This particular problem has not yet been discussed internationally but is being studied intensively on a national basis.

Aerodrome Developments

The world-wide programme of aerodrome adaptation, equipment and expansion to accommodate the new generation of aircraft that has been put into operation proceeded at a fast pace. In certain cases, existing facilities have been scrapped and virtually new aerodromes expanded from existing sites -- as, for instance, in Hong Kong and Kingston, Jamaica. In other cases, different sites had to be developed, and completely new aerodromes for international air services were inaugurated to serve Léopoldville (N'gili), Ciudad Trujillo (Trujillo), Bogotá (El Dorado), Stockholm (Arlands), to name just a few of the more important. On the other hand, the larger turbo-jets are being compelled to by-pass some major traffic-generating centres owing to delays in the completion of required aerodrome development.

Two of the world's largest cities, New York and Paris, found it necessary to consider the creation of an additional major airport. New York, already served by four airports which in 1959 handled 13.5 million passengers, is considering plans for a further airport some 40 km (25 miles) from the centre of the city, requiring 4,000 hectares (10,000 acres) of ground. Paris, already served by Orly and Le Bourget, has been exploring the possibility of building another one 24 km (15 miles) out, requiring some 2,500 hectares (6,000 acres) of ground.

Realizing the financial and social implications of the problem, ICAO may bring to the attention of aircraft manufacturers and operators the necessity of so designing future generations of aircraft that they will be capable of operating efficiently, and with the least possible social disturbance, from aerodromes adequate for the operations of

present jet aircraft. Material is being collected on the difficulties likely to be encountered by States in providing adequate aerodromes should the demands of future generations of aircraft be increased. This material should be of value in any further study of the broader implications of this question.

Passenger handling has been expedited and made more convenient by reduced formalities and careful attention to processing sequences and passenger flow. Buildings have been designed to shorten the walking distances or to provide mechanical conveyance for the passengers, making sure that routings are well marked and unimpeded by obstructions such as cross-flows arising from other traffic.

The "package-loading" concept, which involved the assembly and processing of an aircraft load of passengers as a group, has been replaced, where possible, by the "trickle-loading" concept, which removes "bottlenecks" and decreases aircraft departure delays. The time taken for baggage handling is recognized to be the main factor governing the time spent by the passenger at the airport before departure and after arrival. Considerable time saving has been achieved by careful attention to routing of baggage and the provision of adequate mechanical means for conveyance and sorting. A reduction in customs clearance formalities, where permitted by the authorities concerned, has been the biggest single factor that has contributed to the smooth, expeditious flow of passengers' baggage.

The design of aprons in accordance with JOR Panel recommendations has contributed much to the speedy servicing and provisioning of aircraft during transit stops. Careful planning of service sequence and the routing of the many vehicles needed to provide the service has greatly increased the efficiency of the servicing operation. Pressure refuelling systems in the aircraft and the provision of new fuelling equipment with high pumping rates have succeeded in satisfying the greatly increased fuel demands with little or no increase over the times formerly required to replenish smaller tanks with gravity nozzles.

Aeronautical Telecommunications

The year 1959 has witnessed a continuing emphasis on the importance of developing and utilizing improved modern communications techniques to meet the existing requirements of air traffic in some areas and to anticipate them in others. These activities are specifically reflected in the active study of integrated automatic communication systems, in the increased use of very high frequency communications in the aeronautical mobile service (including the experimental application of very high powered VHF ground installations with the objective of achieving reliable static-free communications with aircraft appreciably beyond the accepted radio horizon limits) and in the widespread use of selective calling of aircraft to obviate the strain of a continuous communications watch in the cockpit. Eighty-five ground stations in the aeronautical mobile service throughout the world were equipped with SELCAL (selective calling devices) by 30 September 1959.

Ground-based surveillance radar has continued to be more widely implemented as a tool of air traffic control, and improvements in performance have been achieved by the use of television techniques giving better contrast and definition in strong daylight. In addition, a substantial improvement has been achieved in the quality and reliability of radar information under rain and snow conditions and in situations where echoes from fixed objects on the ground are prevalent. Installations of secondary radar complying with the Annex 10 specifications have been made for operational evaluation in both the United Kingdom and the United States, and an extensive programme of airline installation of the associated airborne transponders has commenced.

A notable trend during the year has been the installation in aircraft of equipment that provides navigational information without specific reference to ground stations. In civil air operations this equipment makes use of Doppler principles applied to airborne radar equipment, by means of which ground speed and drift may be accurately determined, and practically all long-range jet aircraft are being provided with this type of navigation aid.

Also during the year attention has been given to the adoption for civil air operations of another type of self-contained aid, using inertial principles. This type is free from certain limitations inherent in those using Doppler principles and may offer some advantages in some operations in the future.

Rules of the Air

Research is being actively pursued towards the production of airborne equipment that would indicate potential risks of collision to aircraft and allow the pilot to take ready evasive action. However, there is no indication that a satisfactory solution to this question has come to light.

Air Traffic Control

Considerable efforts have been made in a number of States in the continued study and evaluation of systems and equipment capable of coping with the ever-increasing number of aircraft that require air traffic control. A number of papers have been published that confirm the trend, indicated in the Report for 1958, that automation would dominate the equipment of air traffic control units and the provision of rapid communication between such units. A number of air traffic control units have already been provided with such equipment from various manufacturers.

The considerable investments represented by the equipment, however, have prevented its use in a number of air traffic control units. It is particularly significant, therefore, to note the recent developments regarding "EUROCONTROL", which contemplates grouping seven States in a large area of Western Europe into one agency for the provision of air traffic control service. Following the coordination already achieved among five States of Central America (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua) for the implementation of one common Flight Information Region (FIR), the European example may pave the way for other States to consider the formation of similar groups. This is desirable not only because it facilitates the installation of equipment up to the requirements of modern air traffic control but also because it will facilitate the establishment of large upper air flight information regions compatible with the requirements of turbine-engined aircraft.

Search and Rescue

The need for calling on all authorities, and particularly on maritime units, to help in cases of emergencies has prompted the study of means of communication with ships at sea. The coming into being of the Inter-Governmental Maritime Consultative Organization (IMCO) should help in expediting coordination between aeronautical and maritime authorities in this field.

Meteorology

The growing volume of operations by turbine-engined aircraft in the North Atlantic and the spread of such operations to other parts of the world highlighted problems of meeting the requirements for meteorological information on these flights. Although the special information needed for take-off and landing was not in all cases provided in full, the service was generally satisfactory; however, there was still an urgent need for improvement in the accuracy of landing forecasts. Also, much still remained to be done to bring the provision of meteorological information for the en-route stage of these operations up to a satisfactory standard, principally in regard to the techniques of forecasting, but also in the development of satisfactory methods of presenting the information to operators before departure.

There was some increase in the use of television for the remote briefing of aircrews in order to secure economies and avoid the inconvenience and loss of time occasioned by attendance at meteorological offices for this purpose, and further developments of this kind were under consideration.

The use of airborne weather radar, chiefly in order to enable aircraft to avoid turbulence associated with precipitation and damage by hail, continued to increase; and the United States announced its intention of making it compulsory for all airline operations in bad weather. Further, ground-based weather radar was installed at more airports and other locations both for direct operational use and to provide meteorological information for forecasting purposes.

The special meteorological observations made during the International Geophysical Cooperation Year (1 January - 31 December 1959), together with those made during the International Geophysical Year (1 July 1957 - 31 December 1958), may be expected to lead to a better understanding of atmospheric processes and, in due course, to improved forecasts for aviation. Arrangements were made for many of the additional observations of conventional types made during these two years to be continued on a more permanent basis, while new methods of observations (and particularly those made possible by the launching of artificial satellites) were being further studied with a view to their eventual routine use.

The communication of meteorological information between ground stations and aircraft was generally carried out by radiotelephony and continued to cause difficulty as a result of overloading of channels and language problems. Other methods, in particular radioteletypewriter, showed great promise but were still being used only on a trial basis.

Significant progress was made in the communications arrangements for the dissemination of the basic data used in the preparation of synoptic charts, particularly in the establishment of Northern Hemisphere exchanges by radioteletypewriter. Increased use was also made of facsimile transmissions in the dissemination of actual and forecast charts.

Personnel Licensing

A trend that would, in about ten years' time, result in the exclusion of all non-nationals from participation in any capacity in the commercial aviation of States is becoming established in many States. The reason for the application of such a practice is understandable, but it is doubtful whether such a practice is helpful to the most rapid and efficient development of international aviation.

International Cooperation in the Provision of Air Navigation Facilities

Five Central American Republics -- namely, Costa Rica, Guatemala, Honduras, Nicaragua and El Salvador -- met in February 1960 and signed a convention which, when ratified, will result in the establishment of an autonomous corporation to furnish the ground services to international civil aviation in the area. The basic work on this project was undertaken with the collaboration of an ICAO Technical Assistance Mission, which visited Central America in the second half of 1959 and prepared a comprehensive report on the subject. The corporation would have an exclusive franchise for the provision of air traffic and aeronautical telecommunications services and radionavigation aids in the territories of the parties to the convention and would provide such services and aids as are specified in the ICAO Regional Plan. It is to charge for such services and thus be self-sustaining. The corporation may also furnish similar services and aids to other States on a contract basis, and may also provide services in respect of domestic aviation in the region.

During the year ICAO succeeded in obtaining the unanimous consent of fourteen States in the North Atlantic Region to the joint financing of the major portion of a submarine cable system which will substantially improve aeronautical fixed services across the North Atlantic via Greenland and Iceland. By the end of the year it was clear that the cable companies concerned would be providing the necessary services over part of the system before the end of 1961 and over the entire system before the end of 1962.

Note on the Exploration of Outer Space in 1959

The year 1959 will no doubt go down in astronautical history as the year in which a successful physical contact with the moon was achieved and a photograph obtained of its hidden side.*

On 12 September, a lunar rocket was launched by Russia when the moon was some 377,000 km (234,000 miles) distant from the earth. The final stage of the rocket was a container weighing about 400 kg (880 lbs.) which successfully reached the moon soon after midnight on 14 September, within 84 seconds of the time predicted by the launchers. Lunik II was tracked by the Jodrell Bank radiotelescope in England during its entire flight. The instrument package included, in addition to the usual scientific instruments and radio transmitters (as well as some Soviet emblems), a special device described as a "lunar altimeter" which came into operation just before the landing and which transmitted back to earth information about the height of the container's flight above the moon's surface. Data from the various instruments was relayed to earth until the actual moment of impact, when all radio signals ceased. Strict precautions were taken by the Russian scientists to ensure that the moon's surface would not be contaminated by terrestrial micro-organisms.

As far as is known, the information obtained through Lunik II is still being analyzed by Soviet scientists. The successful aiming of Lunik II points to a high degree of accuracy on the part of Soviet science. According to information supplied by Soviet sources, Lunik II's initially attained speed had to be accurate to within one metre per second; its angle of flight had to be accurate within much less than one degree; and the launching time had to be accurate to within a few seconds.

Lunik III, launched on 4 October 1959, will probably be remembered primarily because it was the means whereby a photograph was obtained of an area of the moon's surface never before observed by man. The vehicle's trajectory was designed to enable it to circle both the moon and the earth. When the final stage of the multistage rocket was fired into orbit, an "automatic interplanetary station" detached itself and proceeded on a course that would take it near the moon and around it. The "station" weighed several hundred pounds and its instrumentation could be controlled from the ground through a coordinating and computing centre in the Soviet Union. The photographs taken in flight were telemetrically transmitted to earth.

The photographs of the hidden side of the moon were taken on 7 October, when the station was some 59,540 to 69,200 km (37,000 to 43,000 miles) past the moon and at a time when 70% of the hidden side was lit by the sun. The actual photographing process was controlled from the ground, so that the vehicle could be turned into position with its lens pointing to the moon. The photographs were taken over a period of 40 minutes. One of the more predominant features identified in the photographs was a range of mountains about 2,000 km (1,240 miles) in length which lay across the lunar equator. It was also possible, for the first time, to see the actual configuration of certain features (as, for example, the "Humboldt Sea" and the "Southern Sea"), part of which can be seen from the earth but which extend across the "rim" of the moon to its hidden side.

After taking the pictures, the station travelled several thousand miles farther out into space before heading back towards the earth, which it passed nine days later. Lunik III then went into an elongated ellipse on a rotation period of 15 days which carried it round both the earth and the moon.

* The first two lunar rockets which by-passed the moon -- one by Russia and one by the United States -- were mentioned in last year's Report (although made in 1959) and need no further mention here.

CHAPTER II

AIR NAVIGATION

1. - Introduction

Since the completion of the first set of Annexes to the Convention, the associated Procedures for Air Navigation Services and the regional plans for air navigation facilities and services, ICAO's main effort in the technical field has been directed towards keeping them up-to-date and getting them implemented by States. The coming of the jet age in commercial air transport made some extensive revisions necessary during the past four years. In 1959 it was the turn of the Annexes on meteorology, aeronautical information services and aeronautical charts and of the regional plans for the Middle East and South East Asia to come under review. The implementation problem was discussed at some length at the 12th Session of the Assembly against the background of the report of the Special Implementation Panel, and in the latter part of the year the Secretariat were engaged in an investigation of major deficiencies and their causes in three areas where it seemed most likely that assistance in overcoming them would be needed. When the results of this investigation are available early in 1960, the Council will consider not only the action to be taken in regard to the deficiencies, but also the establishment of more effective machinery for promoting the implementation of regional plans than the "programme for the isolation and elimination of serious deficiencies", introduced in 1950, has proved to be in recent years.

In the hope of providing governments with information on the basis of which they could, in consultation with aircraft manufacturers, airlines and airport authorities, attempt to develop a coordinated policy towards major changes in civil aircraft design, the Assembly asked for a preliminary study to be made into the prospects of the development of supersonic civil aircraft and their availability for commercial introduction within the period ending about 1975 and of the chief probable technical, economic and social consequences of any such development. The Secretariat began the collection of material for this study in the latter part of the year.

Aside from the Technical Commission of the Assembly and three sessions of the Air Navigation Commission, there were eight technical meetings in 1959 - two of the divisional-type, one regional covering two regions and five panel-type.* At the time this report was prepared, one regional, one special regional and two panel-type meetings had been definitely scheduled for 1960 and one special regional and two panel-type meetings tentatively scheduled.**

A new edition of the Air Navigation Work Programme of the Organization (Doc 7938-AN/867) was issued at the year's end reflecting the completion of a number of projects and the addition of many new ones resulting from technical developments.

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* See Appendix 4.
** See Appendix 5.

2.- Meetings

a) Divisional-type

Aeronautical Information Services and Aeronautical Charts Division

A meeting of the AIS/MAP Division was held at ICAO Headquarters from 28 April to 25 May, with representatives of twenty-three States and three international organizations participating.* As the MAP Division had not met since 1951 and the AIS Division since 1952, the Standards and Recommended Practices in their fields - particularly those for aeronautical charts - were in urgent need of review.

In its review of Annex 4 (Aeronautical Charts) the meeting benefited greatly from the work of the MAP Panel, which had been established by the Air Navigation Commission for the express purpose of preparing draft specifications for consideration by the meeting. The result of their combined efforts was a complete revision of the Annex, featuring less rigid specifications, the introduction of an explicit statement of the obligations of Contracting States in respect of chart production, the collection of general specifications applicable to all types of charts into one chapter and specifications for twelve kinds of charts, which, in the Division's view, were required to facilitate international air navigation and in whose content and presentation uniformity was necessary or desirable. These twelve charts comprise eight included in the current edition of the Annex, the specifications for all but the World Aeronautical Chart and the Aerodrome Obstruction Charts being extensively modified:

World Aeronautical Chart ICAO 1:1,000,000
Aeronautical Chart ICAO 1:500,000
Instrument Approach Chart
Visual Approach Chart
Landing Chart
Aeronautical Plotting Chart
Aerodrome Obstruction Chart Type A
Aerodrome Obstruction Chart Type B

and four new ones:

Radio Navigation Chart
Terminal Area Chart
Aerodrome Chart
Air Navigation Chart 1:2,000,000.

In its revision of the Annex, the Division excluded the specifications for three types of charts contained in the current edition (the Aeronautical Chart 1:250,000, the Aeronautical Route Chart and the Radio Facility Chart) and proposed to transfer those for small scale planning charts to an attachment, giving them the status of guidance material.

Among the other recommendations of the meeting relating to aeronautical charts were i) that the Organization should give assistance to States, on request, in the development of simplified arrangements for the distribution of aeronautical charts and should

* See Appendix 6 for States and organizations represented at this meeting and others open to all Contracting States.

carry out a study of the "unregulated amendment" of aeronautical information affecting charts, which is having a very detrimental effect on chart maintenance; ii) that the format of the Aeronautical Chart Catalogue should be simplified and its circulation extended in order to make it a more effective instrument in the distribution of aeronautical charts; iii) that the material developed by the MAP Panel on "maintenance of charts in an up-to-date condition" should be used as a basis for the preparation of guidance material to be included in Annex 4; and iv) that the Organization should take steps to improve discussion of MAP matters at ICAO regional air navigation meetings, should give support to United Nations regional cartographic conferences when problems relating to aeronautical charts are discussed and should recommend to the Secretary General of the UN the convening of an international conference at an early date to bring the specifications of the International Map of the World into closer conformity with those of the ICAO 1:1,000,000 series, particularly in the matter of projections.

The amendments to Annex 15 (Aeronautical Information Services) proposed by the meeting, although extensive, were directed more towards clarifying and strengthening the specifications in it than to changing its basic concepts or structure. The major modifications were the introduction of specifications for "Aeronautical Information Circulars" for the dissemination of aeronautical information that should be promulgated but is inappropriate for inclusion in an Aeronautical Information Publication or a NOTAM, * the raising of the status of the detailed specifications on the content of Aeronautical Information Publications from guidance material to Standards and Recommended Practices - a step designed to make the Annex a more effective means of ensuring the provision of information on the state of implementation of ICAO's regulatory material, and the revision and expansion of the abbreviations to be used in disseminating aeronautical information. The meeting could not reach agreement on giving the revised list of abbreviations either in whole or in part the status of a Standard, but recommended that ICAO take appropriate action to obtain the establishment and progressive development of a list of standard abbreviations for use in the Aeronautical Information Service; pending the establishment of such a list it proposed that the abbreviations retain the status of guidance material. It also recommended certain changes in the list of miscellaneous abbreviations contained in Part IV, Chapter 3 of Annex 10 (Aeronautical Telecommunications) and the deletion from Annex 11 (Air Traffic Services) of the guidance material on methods of depicting air traffic services information on aeronautical charts which is to be found in Attachment B to the Annex, the review of this material and the introduction of appropriate parts of it in an AIS manual. The meeting stressed the need for the earliest possible publication of such a manual, which would be designed to facilitate the uniform application of AIS Standards, Recommended Practices and Procedures, to ensure maximum efficiency in the organization and operation of AIS services and to assist with the training of AIS personnel. This manual would contain a good deal of material now available in attachments to Annexes, and in its preparation the needs of small States or States with small administrations were to be kept particularly in mind.

Another task undertaken by the meeting was the review of the NOTAM Code contained in Doc 6100-COM/504/3 (Communication Codes and Abbreviations). The amendments it recommended brought the terminology in the Code up-to-date and introduced a

* e.g. advance notification of major changes in legislation, regulations, procedures or facilities; information of a purely explanatory or advisory nature; and information on exclusively administrative matters.

number of new significations to cover situations that up to now have had to be described in plain language. It proposed that Contracting States should be consulted about raising the status of the Code from a Procedure for Air Navigation Services to a Standard.

The recommendations of the meeting for the amendment of Annexes 4, 10, 11 and 15 were circulated to Contracting States for comment after a preliminary review by the Air Navigation Commission and are scheduled for a final review by the Commission and submission to the Council during the second quarter of 1960. The amendments to the NOTAM Code, which the meeting had suggested should be introduced as soon as possible, were approved by the Council at the beginning of December for application on 1 April 1960. The other recommendations were acted upon by the Council or the Commission, as appropriate, in November and States were notified of the action taken in the usual way - i.e. by means of a supplement to the report of the meeting (Doc 7993).

Meteorology Division, 5th Session

The Fifth Session of the MET Division was held in Montreal from September 1 to 29, simultaneously with the Second Session of the Commission for Aeronautical Meteorology of the World Meteorological Organization. It was attended by representatives of thirty-five Contracting States, one Non-contracting State and four international organizations aside from WMO. Its recommendations called for some amendments to Annexes 3 (Meteorology) and 10 (Aeronautical Telecommunications) and to the Procedures for Air Navigation Services - Rules of the Air and Air Traffic Control (PANS-RAC) and for extensive amendments to the Procedures for Air Navigation Services - Meteorology (PANS-MET). These amendments are expected to be considered by the Council towards the end of 1960, after Contracting States and interested international organizations have had an opportunity to comment on them and the Air Navigation Commission has reviewed them, and those that are adopted will become applicable during the latter half of 1961.

One of the most important amendments was the elimination of flight meteorological watch and its replacement by area meteorological watch, supplemented in certain cases by the provision of upper wind and temperature information by means of an en-route forecast service. This amendment will make it unnecessary for meteorological offices to follow the progress of individual flights and will integrate to the maximum extent practicable the arrangements for the supply of meteorological information to aircraft in flight with those for the supply of other aeronautical information. It was the result of a detailed examination of the adequacy of existing arrangements for the supply of meteorological information to aircraft in flight not only by this meeting but also by the Third Air Navigation Conference in 1956 and by the Panel for Coordinating Procedures respecting the Supply of Information for Air Operations (PIA Panel) in May/June 1959.

The provision of special information for take-off and landing was the subject of another important amendment. Procedures for observations of runway visual range (visibility along the runway as seen from an aircraft about to touch down) and directional variations in visibility and runway air temperature were drawn up, and the areas for which observations of wind, temperature, visibility, runway visual range and height of cloud base should be representative were specified. Provision was made for two types of landing forecast, the first being a self-contained one and the second the one currently in use in the European-Mediterranean, Middle East and South East Asia Regions, which consists of a "trend forecast" appended to a routine aerodrome report or to a selected special report. Both are intended primarily to give short period forecasts of cloud and visibility conditions.

The procedures for pre-flight briefing and flight documentation were extensively revised, mainly to meet the needs of operations by turbine-engined aircraft but also to bring them up-to-date in a number of other respects. New types of charts were proposed, giving information on the tropopause, jet streams and vertical wind shear in the neighbourhood of the tropopause. Pressure-based height indications such as pressure altitude, flight level or pressure were adopted as the preferred method of height indication in en-route forecasts and though recognizing that the use of altitude might be necessary in some circumstances, the meeting urged that it be kept to a minimum.

The meeting realized the increasing work-load being placed upon air crew, but considered that the air to ground reports of weather conditions encountered in flight were essential, not only because they were the only source of information on turbulence and icing, but also because they provided basic data for forecasting purposes. It did, however, make a number of changes in the procedures relating to routine and special aircraft meteorological observations and reports. The effect is to lay down a general requirement for routine weather reports from aircraft in flight at about hourly intervals and as far as possible at the same time as position is reported under air traffic services rules, but to exempt from this requirement aircraft on flights of two hours or less, aircraft less than an hour away from their destination, aircraft flying below 1500 metres (5,000 ft.) and aircraft flying on routes where ground and upper air observation networks are considered adequate. Because of the scarcity of observations at high levels everywhere in the world, this last exemption does not apply to aircraft flying above 7500 metres(25,000 ft.). The provisions governing the reporting of non-routine observations were amended to distinguish "special reports", made on the initiative of the pilot-in-command when phenomena are encountered that are likely to affect the safety of other aircraft, and "additional reports", made when moderate icing or marked wind shear are encountered or at the request of the meteorological office providing service for the flight. The meeting also recommended changes in the AIREP (plain language) form of message, making provision for the reporting of "spot winds" and weather observations, and the discontinuance of the use of the POMAR (figure code) form of message.

Consideration was given to the meteorological information required for altimeter setting purposes and recommendations were made for the introduction into the PANS-MET of procedures for supplying it and for the addition of an attachment giving guidance on the data required for the determination of the lowest flight level en route that will ensure adequate terrain clearance.

Among other matters covered by recommendations of the meeting were the development of self-evident forms of meteorological message for use in transmitting information both between ground stations and between ground and air and for briefing purposes, measures necessary to encourage and facilitate the carrying out of upper air observations from merchant ships (currently done on a small scale), the need for more extensive and regular verification of aerodrome forecasts, modifications in the ICAO high level turbulence reporting programme, revision of models for climatological summaries and measures necessary to accelerate the production of such summaries, the development of specifications for anemometers for use at aerodromes, and the circulation of available guidance material on the interpretation of airborne weather radar echoes.

The meeting recommended studies aimed at the production of background information for the development of improved air reporting procedures, taking into account the requirements for meteorological information from aircraft and the practical difficulties encountered in attempting to provide it, the improvement of aerodrome forecasts

and the determination of the effect of the density of observation networks on the accuracy of forecasts. It also recommended that ICAO and WMO should endeavour to organize joint symposia or seminars on forecasting for turbine-engined aircraft operations. Other recommendations of the meeting were addressed to WMO and will be followed up by that Organization in accordance with the working arrangement between the two Organizations.

Recommendations of the meeting addressed to ICAO and recommendations on which both ICAO and WMO will have to act were dealt with by the Air Navigation Commission and Council in December in the same manner as recommendations of other divisional meetings, details of the action taken being promulgated in the usual form of a supplement to the report of the meeting (Doc 8028-MET/528).

Special COM/OPS/RAC Meeting

The Special COM/OPS/RAC Meeting, convened on February 10 with the object of reaching conclusions on international standards for short distance navigation aids, was one of the most publicized meetings in the Organization's history, receiving coverage by the world press, radio and television to an extent that is most unusual for any kind of ICAO meeting, even a full-scale Assembly. It was also one of the most disputatious meetings ICAO has held, with supporters of VOR/DME and DECCA* - the two aids formally presented for the consideration of the meeting - arguing the relative merits of their respective systems.

The meeting, which was attended by representatives of thirty-seven Contracting States, one Non-contracting State and three international organizations, began by establishing two committees. One prepared a summary of operational problems for the solution of which a short distance radio navigation aid is required and also a statement of the operational requirements that such an aid should satisfy. The other simultaneously compiled data on DECCA and VOR/DME under twenty-nine headings, selected so as to reveal as fully as possible the technical principles involved, the operational performance and the economic aspects of the two systems in a way that would permit the ready extraction or comparison of the data needed by the meeting.

* VOR/DME, a system originating in the United States, comprises two separate aids, a very high frequency omni-range (VOR), which enables the pilot to determine his bearing from the ground station by means of two signals, one having a fixed phase relationship in all directions and the other a phase equal to the angle between magnetic north and the direction of the point of observation, and distance measuring equipment (DME), which enables him to measure his distance from the same point by the time between a VHF pulse transmission from the aircraft and the receipt of a reply from the ground station. Both elements of information are normally presented on dials in the cockpit.

  DECCA is a hyperbolic system developed by the United Kingdom in which the two position lines required to provide a fix are determined by measuring the difference in arrival time of phase locked medium frequency transmissions from two ground transmitters separated by about 70 miles. The two lines are presented continuously on meters in units that can be transferred to an over-printed chart. The meter readings can also be used to operate a pictorial display known as a Flight Log, which automatically traces the track flown on a chart in the cockpit.

On the basis of the reports of these two committees the meeting decided in principle on the recommendations it would make with respect to Annex 10. They were, in brief:

i) that VOR should be recognized as the standard aid for air traffic control and other operational purposes en route as well as in terminal areas, where conditions of traffic density and low visibility necessitate a ground based short distance aid to navigation - since 1949 it has been the ICAO standard short distance aid in terminal areas - and that there should be a nine year extension in the VOR protection date. (This means that no change in the standard will require replacement of VOR equipment, where it has been installed, before 1 January 1975.)

ii) that distance-measuring equipment corresponding in principle to that developed by the United States should be adopted as the ICAO standard for application as a complement to VOR where, for operational purposes or for air traffic control reasons such as air traffic density and proximity of air routes, there is a need for more precise navigation, and that the protection date for it should be the same as for VOR - 1 January 1975. (This recommendation was vigorously disputed by the supporters of DECCA.)

iii) that where DME is provided as a complement to the Instrument Landing System (ILS) it should conform to the ICAO specifications for this equipment.

The meeting then proceeded to develop specific texts in the form of amendments to the Annex to give effect to these decisions. These amendments, which include detailed specifications for DME, have been given a preliminary review by the Air Navigation Commission and have been circulated to States for comment in accordance with the normal procedure for processing proposed amendments to Annexes. The Commission will review them again in the light of States' comments and present its recommendations to the Council probably in April or May 1960.*

The meeting made a number of other recommendations, among them that States in a position to do so should be encouraged to develop or continue the development of short distance navigation systems based on, but not confined to, the statement of operational requirements prepared by the meeting, and that the Council should adopt and urge upon States the principle that where aircraft are using different systems for navigation and position determination within the same block of controlled airspace, the ground facilities involved should, in so far as practicable, be so located as to serve as a basis for a fully coherent air traffic control structure. These recommendations have been approved by the Council.

b) Panel-type

Airworthiness Committee, 3rd Meeting

At the invitation of the Swedish Government, the Airworthiness Committee held its Third Meeting in Stockholm from July 14 to August 10.

At this meeting a wide range of the most important problems in the airworthiness field were discussed in some detail, but the main result achieved was in the field of performance. The draft Provisional Acceptable Means of Compliance (PAMC) on the subject developed at the 2nd Meeting had been studied carefully by the members before the 3rd Meeting and it was therefore possible to reach agreement on a PAMC, which it is hoped will eventually replace the two alternative Acceptable Means of Compliance (AMC) on Aeroplane Performance now in Annex 6 (Operation of Aircraft, International Air Transport) and Annex 8 (Airworthiness of Aircraft). The culmination of many years of discussion, the PAMC has been issued for trial application by Contracting States and is the first performance code likely to be applied in all ICAO States. It will be kept under review because further knowledge, more experience or the introduction of new types of aircraft or new methods of operation in the future may make some modifications necessary. From its studies on performance problems, the Committee came to the conclusion that provision should be made, by means of either suitable instruments in the cockpit or the visual marking of runway distances, for the pilot to check the take-off performance achieved by his aircraft against the performance forecast for it and that the marker board system (in which several marker boards or special lights are installed at regular intervals beside the runway or markings are painted on it) might be the first system capable of satisfying this requirement, at least initially, and of being widely used in operation.

The Committee's most significant work in the field of structures was on the subject of fatigue strength. A draft PAMC, based on United Kingdom and United States airworthiness regulations, was prepared for consideration and possible finalization at the 4th Meeting. A more radical, quantitative statistical or probability approach to the aircraft fatigue problem was discussed at some length and may ultimately lead to the development of an alternative PAMC.

Another subject considered at this meeting was aircraft external lighting. The Committee found that further research and testing were required before it would be in a position to develop a draft PAMC, but it drew up a list of principles to be taken into account in any system of aircraft external lighting likely to be standardized in the near future.

The provision and use of oxygen in aeroplanes with pressurized cabins have become very important with the general introduction of these aircraft into commercial operation, and the Committee agreed that the development of standard specifications for them was very desirable. Because of the limited amount of experience there has been with oxygen supply systems, however, it was not able to draft such specifications at this meeting, though it did have a full discussion on the main problems involved. A summary of the various views expressed was prepared and the principles on which specifications of the performance requirements of oxygen supply systems and associated dispensing equipment should be based were outlined.

Several members of the Committee considering it important to have more precisely defined the Standard on ditching contained in Annex 8, a text to serve as the basis for the preparation of a PAMC was prepared providing for the model testing of all types of new aeroplanes certificated for ditching.

There was a brief exchange of views on rotorcraft, a subject on which the Committee considers that the early international acceptance of broad standards is desirable to preclude the possibility of national codes developing along divergent lines. It believes that the first step should be agreement on the categorization of rotorcraft and plans to discuss this at its next meeting.

There was a brief exchange of views also on devices for providing warning of powerplant failure in turbine-engined aircraft, the de-icing of turbine engines, the standardization of instrument panels, field of vision from the cockpit, and the implementation of Annex 8 and the complementary parts of Annex 6. The Committee agreed that standardization of instrument panels should be sought by means of a PAMC and a text that might form part of one was presented by one of the members.

The report of the meeting has been published as Doc 8024-AN/870.

The Committee still has a heavy work programme ahead of it and its 4th Meeting, of an expected duration of four weeks, is to be convened at ICAO Headquarters on 25 October 1960.

Jet Operations Requirements Panel, 4th Meeting

The Jet Operations Requirements Panel held its fourth and final meeting between September 28 and October 9 to review and bring up-to-date, in the light of experience gained with the operation of large turbine-engined aircraft since its 3rd Meeting (June 1957), the statement of requirements developed at earlier meetings. This statement covered the expected requirements for the large scale operation of aircraft of this kind expected to enter commercial service by 1961. These aircraft include the Armstrong-Whitworth Argosy, Boeing 707, Britannia 320, Caravelle, Comet IV, Convair 600, Convair 880, Vanguard, Viscount, Vickers VC-10, Douglas DC-8, Fokker/Fairchild Friendship and Handley-Page Dart Herald.

The Panel found that amendments to Annex 14 (Aerodromes) since its 3rd Meeting covered satisfactorily some of the aerodrome requirements it had stated and therefore omitted them from its revised statement. No material change was needed in the air traffic services requirements. The forecasting of dense cirro-stratus clouds was deleted from the statement of meteorological requirements, experience having proved it to be unnecessary. Directional guidance on runways not equipped with an Instrument Landing System (ILS) or a Ground Controlled Approach (GCA) and stabilization of jet aircraft under GCA guidance on the final approach path before arriving at a position corresponding to the ILS outer marker were added to the communications requirements. Editorial changes were made in the statement of all four sets of requirements to improve the presentation or clarify the text.

The Panel's report on this meeting was complete in itself and superseded the reports of the first three meetings. In it the Panel expressed the view that it had completed the work assigned to it by its terms of reference. It has therefore been dissolved. Because of the marked interest shown in the Panel's work by many countries, the report has been published as a document of the Organization (8035-JOR/4).

Panel for Coordinating Procedures respecting the Supply of Information for Air Operations (PIA Panel)

This Panel held its first and only meeting in Montreal in May/June after working by correspondence for about a year and a half. Completing at this meeting the task that had been assigned to it - to develop the concepts of area meteorological watch and en route forecast service enunciated in Recommendation 19 of the Third Air Navigation Conference, to report on the implications of their application for meteorological, air traffic control and communications services, and to indicate how they would affect existing Annexes and PANS - the Panel was dissolved by the Air Navigation Commission after the latter had reviewed its report.

The Panel's findings were submitted to the Fifth Session of the MET Division, which used them as a basis for its revision of the provisions of the PANS-MET relating to the supply of meteorological information to aircraft in flight. The amendments to Annex 11 (Air Traffic Services) necessary to bring its provisions on flight information service into conformity with the principles proposed by the Panel and reflected in the recommendations of the MET Division were prepared by the Secretariat and, after review by the Air Navigation Commission, circulated to Contracting States for comment.

c) Regional-type

Joint Middle East/South East Asia Regional Air Navigation Meeting

Representatives of twenty-eight Contracting States, one Non-contracting State and five international organizations attended this meeting, which was called for the purpose of reviewing the regional plans for the eastern part of the Middle East Region and the whole of the South East Asia Region in the light of the changes in the air traffic pattern and of technological developments since they were prepared (eight years ago for the Middle East Plan, six for the South East Asia Plan). It was held at the headquarters of the Food and Agricultural Organization in Rome between January 7 and February 3.

Having agreed on the types of aircraft likely to be used and the pattern of operations likely to develop in the area within the next five years, the meeting established a statement of operational requirements and then proceeded to revise the regional plans for facilities, services and procedures to meet these requirements.

A new aerodromes plan was drawn up, listing the regular and alternate aerodromes needed, and a comprehensive plan of visual ground aids including approach and runway lighting and marking for each aerodrome, together with guidance material on such matters as rescue and fire-fighting services, was developed, taking into account the principles established at the Sixth Session of the AGA Division.

In the communications field the meeting's main concern was to determine what aeronautical fixed and mobile communications services were necessary to ensure the rapid and efficient exchange of information between aircraft, flight information centres and air traffic control centres. Four plans were prepared. The first - the Aeronautical Fixed Telecommunications Network (AFTN) Plan - listed the circuits required for transmitting messages concerning aircraft movements, meteorological information and other material necessary for safe and efficient flight. It was designed to permit flight safety messages to be delivered within ten minutes, and others to be delivered within twenty minutes, of the time they were handed in for transmission. Implementation of the Plan will mean a 10% reduction in the total number of circuits existing in the area and a 30% reduction in the number of manual wireless telegraphy circuits. The second plan - the Aeronautical Mobile Service Plan - indicated what communications stations were required to enable continuous contact to be maintained between aircraft and ground services. It called for very high frequency radiotelephony coverage both in terminal areas and en route and for an integrated high frequency radiotelephony network, whose efficient operation will require close cooperation between communications stations in different States. The third plan - for meteorological broadcasts - described a system of broadcast stations to transmit weather reports and forecasts by radiotelephony in a planned sequence, so that stations in different countries can share the same radio frequencies and pilots can be assured of receiving the information they need without retuning as they traverse the area. The fourth plan - for radio navigational aids - recognized VOR as the primary aid for track guidance along all routes and in terminal areas and

called for a total of 126 of these installations - about 70 more than in the previous plan. It called also for the retention of the existing Loran chain in the overlap area between the South East Asia and Pacific Regions and for adequate coverage by non-directional beacons until the VORs have been installed and are operating.

In the meteorological field the meeting found that there were some forty forecasting offices and more than a thousand weather reporting stations in the area providing weather information for international air operations, and examined these arrangements in detail with a view to eliminating weaknesses and meeting the needs of the new types of aircraft, particularly jets, coming into service. The revised meteorological plan was designed to achieve a more regular network of greater average density by filling in gaps in some areas and reducing the number of stations in others. An order of priority was recommended for the establishment of new stations and for starting needed additional observations at existing ones. The plan also included a number of new forecasting offices and called for regular temperature and wind observations up to 17,000 metres (55,000 ft.) to provide upper air information for jet flights. The procedures for the provision of meteorological service were brought up-to-date. Greater use of radio and radar methods of locating areas of bad weather was recommended, as were more advanced forecasting techniques, particularly in tropical areas; in this the meeting supported action being taken by the World Meteorological Organization. Realizing that the new plan would be difficult to carry out not only because of the considerable financial outlay involved but also because of difficulties in recruiting and training specialized personnel and in procuring equipment, the meeting urged that the States concerned should explore the possibility of pooling their skilled manpower and financial and technical resources with a view to the early provision of regional or multilateral training facilities for meteorological forecasters and observers, the collective financing, purchasing and distribution of upper air observation equipment and expendables, the establishment of a few central analysis offices, and the provision of the necessary communications facilities to permit dissemination of the required analysis material to the meteorological offices concerned.

The air traffic services plan called for an extensive revision of the existing framework of Flight Information Regions, increasing the number of these regions to a total of 39 for the Middle East and South East Asia Regions. In addition, four Upper Flight Information Regions (above 4,500 metres or 15,000 ft.) were recommended, one over the territory of Indonesia, another over Laos, Cambodia and Viet-Nam, and the other two over the Persian Gulf, the greater part of the Arabian Peninsula, the Red Sea and the Egyptian Sector of the United Arab Republic, in order to reduce the number of air to ground communications required and therefore the workload in the cockpit, particularly in high speed aircraft. To ensure positive control of all aircraft on international flights within the Regions, the meeting recommended the establishment of a network of controlled airways for all international routes, the provision of area control service to all aircraft within controlled airspace up to 13,500 metres (45,000 ft.), mandatory flight under Instrument Flight Rules above 4,500 metres within controlled airspace, regardless of weather conditions, and the provision of ground surveillance radar at nineteen of the main international airports. Another safety measure was the proposal that the vertical separation minimum above flight level 220 (approximately 6,600 metres or 22,000 ft.) should be twice what it was at lower levels - in other words, 600 metres or 2,000 ft. The impact of military aviation activities on the safety of international civil aviation was discussed at length and the need for extremely close coordination and cooperation, particularly in the field of air traffic services, between the civil and military authorities of all States was stressed. The existing plan for the provision of search and rescue services was revised and extended where necessary to take account of the needs of the high speed aircraft now coming into service.

Action was taken on the recommendations of the meeting by the Council and the Air Navigation Commission as appropriate and States were notified of it in Supplements 1 and 2 to the Report of the meeting (Doc 7967-MID/SEA).

Panel on the Development and Implementation of the Meteorological Operational Telecommunications Network (Europe) - "MOTNE" Panel

The MOTNE Panel held its Second Meeting in the Regional Office in Paris between June 23 and July 4. Attended by representatives of eleven Contracting States, the World Meteorological Organization and the International Air Transport Association, it had as its object the preparation of a plan of telecommunication facilities to provide for the exchange of operational meteorological information between major centres in the European-Mediterranean Region in accordance with the requirements specified by the Fourth European-Mediterranean Regional Air Navigation Meeting and the Special Joint ICAO/WMO MET/COM Meeting in 1958. The meeting succeeded in reaching agreement on an interim plan for implementation on 1 April 1960 and on the general principles to be applied in evolving from it a final plan, for which a target date of 1962 was proposed. This interim plan provides for a central triangular network linking Paris, Offenbach and Vienna, other centres being connected to one or another of these either directly or through sub-centres. A coordinating committee to work out the details of implementation and message schedules was established with three regular members (nominees of France, the Federal Republic of Germany and Austria) who may coöpt others, as required, to deal with specific problems. This committee met in Paris in December.

3. - International Standards, Recommended Practices and Procedures

The policies of the Organization in regard to the formulation of International Standards, Recommended Practices and Procedures, the reporting of differences from them and assistance to Contracting States in implementing them were reviewed by the Technical Commission of the Assembly in the light of developments in the three years since they were last examined by the Assembly. They were found to be generally satisfactory and were reaffirmed, the Commission noting with gratification the improvement there had been in these three years in the reporting by States of intention to comply with, or of differences from, ICAO Standards.

During 1959 the Council adopted amendments to seven Annexes to the Convention (Nos. 2, 6, 10, 11, 12, 14 and 15) arising for the most part out of recommendations made in the previous year by the RAC/SAR Division. The amendments to Annexes 4 and 15, adopted in April and March respectively, became applicable on 1 October. The amendments to Annexes 2, 6, 10, 11 and 12, adopted in December, will become applicable on 1 August 1960. The scope of the amendments is described below.

Annex 2 (Rules of the Air)

Amendment 5 to Annex 2 introduced some new definitions, a prohibition on flights under Visual Flight Rules in controlled airspace at night without the specific permission of the appropriate authority, a detailed revision of the provisions of the Annex relating to the Flight Plan, a new table of increased VFR criteria (the table now in Chapter 4 of the Annex being retained for use by States that cannot apply the new one), and a change in one of the marshalling signals. It did not include the amendment proposed by the RAC/SAR Division to the rule on converging aircraft, an amendment which would have had the effect of requiring both aircraft, not just one of them, to give way, or the new table with which the Division proposed to replace the table of quadrantal

cruising levels in appendix C to the Annex. The comments of States on these two proposals had led the Air Navigation Commission to the conclusion that it would not be desirable to make the amendments at this time.

Annex 6 (Operation of Aircraft, International Commercial Air Transport)

Amendment 142 dispensed with the requirement that the portable radio transmitter to be carried on long-range flights over water should be self-buoyant, when it is attached to or enclosed within other self-buoyant survival equipment, and introduced a recommendation that each life-raft carried by aeroplanes on long-range flights over water or over under-developed areas should be equipped with a portable radio transmitter operating on a very high frequency, when recommended by a regional air navigation meeting.

Annex 10 (Aeronautical Telecommunications)

Amendment 34 added 121.5 Mc/s and 243 Mc/s to the radio frequencies from which those to be provided in radio survival equipment are to be selected. It also provided for the type of emission to be employed when these frequencies are used.

Annex 11 (Air Traffic Services)

Amendment 9 introduced a recommendation that Flight Information Regions and area control boundaries should be related to the nature of the route structure to be catered for rather than to national boundaries, clarified the responsibility of air traffic control units for the control of individual aircraft and of all aircraft within a given block of airspace, and standardized the content of alerting messages communicated by ATS units to rescue coordinating centres. It also added two new attachments, providing guidance material on the naming of reporting points and on principles for the application of automatic processes to air traffic control.

Annex 12 (Search and Rescue)

Amendment 4 introduced provisions on facilitating the passage of rescue units across national boundaries, amended the recommendation on the delineation of the boundaries of search and rescue areas to give efficiency priority over the principle that they should coincide with the boundaries of Flight Information Regions (experience having shown that it is often conducive to maximum efficiency to have the boundaries of SAR areas coincide with national boundaries), revised the procedures for initiating search and rescue action for an aircraft whose position is unknown, and improved the procedures to be followed by rescue coordinating centres in terminating search and rescue operations.

Annex 14 (Aerodromes)

Amendment 14 filled the gap in the specifications for approach lighting for precision approach runways in Part V of the Annex by introducing the provision that if the installation of the full 900 metre system is physically impossible, the system should extend as far as terrain conditions will permit. Amendment 15 introduced a Standard on the designation and determination of locations on an aerodrome at which pre-flight altimeter checks might be carried out.

Annex 15 (Aeronautical Information Services)

Amendment 5, which was consequential upon Amendment 33 to Annex 10 adopted in 1958, merely provided for the substitution of "location indicators" for "place-name abbreviations" wherever the latter term appears in the Annex.

Procedures for Air Navigation Services

Three amendments to the Communication Codes and Abbreviations (Doc 6100-COM/504/3) were made in 1959. Two were minor and consequential upon Amendment 33 to Annex 10; the other represented a major revision of the NOTAM Code portion of the document recommended by the AIS/MAP Division (cf. Section 2(a) of this Chapter).

At the close of the year the Secretariat were working on a new "PANS" publication to be entitled "Procedures for Air Navigation Services - Aircraft Operation" (PANS-OPS). It is to include the Procedures for Air Navigation Services - Holding and Approach to Land (PANS-HAL) and also the altimeter setting procedures that are at present to be found in the Regional Supplementary Procedures. A draft text of the altimeter setting part of the document has been circulated to Contracting States for comment.

Regional Supplementary Procedures

Six amendments to the Regional Supplementary Procedures (Doc 7030) were issued during the year arising largely out of recommendations of the Fourth European-Mediterranean and the Middle East/South East Asia Regional Air Navigation Meetings.

4. - Regional Planning and Implementation of Regional Plans

Planning

The regional planning activities of the Organization and the progress made in the implementation of regional plans also came under review at the Twelfth Session of the Assembly. The need for stability in regional plans was emphasized and there was general agreement that major changes should be made only on the basis of recommendations by regional air navigation meetings; other necessary amendments could be made by correspondence. Some delegations believed that the trend towards long-range non-stop operations presented a number of problems with which planning on a regional basis could not properly deal and that the possibility of complementing it with planning on a route structure basis should be considered. The majority view, however, was that these problems were being adequately covered under the present regional concept and that there was no need for any new approach at this time; it would be better to let changes in planning methods come about through a process of gradual evolution and improvement as had been done in the past. The Resolution on the subject (A12-13) therefore merely directed the Council to continue its efforts to improve the planning of requirements for long-range route facilities and services. Another Resolution (A12-11) was essentially a reaffirmation of the policy enunciated three years earlier in Resolution A10-32, with the addition of a clause emphasizing the desirability of holding a regional air navigation meeting at a site within the region concerned. This clause was prompted by recent difficulties in finding sites for regional meetings within the regions, and realizing that an important factor in this was the substantial burden falling upon a host State, the Assembly suggested that it might be possible for a group of States to act as host.

Several steps were taken in 1959 to improve the conduct of regional meetings and facilitate their work. One was the preparation of a revised set of Directives to Regional Air Navigation Meetings. These revised directives incorporated a number of changes in the organization and conduct of regional meetings introduced on a trial basis during the past three years, changes which, among other things, defined more clearly the coordinating functions of Subcommittee 1, clarified the basis for regional planning by making the first task of a regional meeting the preparation of a plan of aircraft operations showing the general limits of the air route network to be considered, the route segments to be considered, the types of aircraft currently used, the types proposed to be used in the foreseeable future and the proposed year of their introduction into service, weekly frequencies and type of operations (i.e. day or night), and altered the form of the reports of these meetings. Formerly the report of a regional air navigation meeting was simply a collection of the reports of the various component bodies of the meeting; now it is divided according to agenda items with all the material on a particular item in one place - an arrangement that permits the report to be compiled progressively as action is completed on each agenda item and that is more convenient to the user than the earlier one. Another measure was the preparation of a list of operational requirements common to all regions; based on the statements of operational requirements drawn up by recent regional air navigation meetings, this list should reduce the work of a regional meeting because, instead of having to prepare a complete statement of operational requirements, it will have merely to add to the basic list the requirements peculiar to the region with which it is dealing. A third step was the preparation of a list of references to technical and operational specifications in ICAO documents (Annexes, PANS, reports of divisions and air navigation conferences, etc.) relating to the provision of facilities and services for international air navigation. All three of these documents are provisional and will be reviewed and probably further developed by the Air Navigation Commission in the light of experience with their application at the Third Africa-Indian Ocean Regional Air Navigation Meeting. The directives may also undergo some change in presentation as a result of the review shortly to be made of the Directives to ICAO Technical Meetings not of a regional character (Doc 7689), since the Air Navigation Commission is aiming at a common format and arrangement for these two sets of directives.

Amendment of regional plans by correspondence continued throughout the year. The Air Navigation Commission studied the possibility of simplifying the amendment procedure, but found that the difficulties encountered over the past few years stemmed more from delays in correspondence with States than from any weakness in the procedure itself. Steps were therefore taken to expedite the processing of amendment proposals to the greatest practicable extent.

Implementation

In recent years the feeling has been growing in both the Council and the Air Navigation Commission that the procedure introduced in 1950 for identifying and eliminating serious deficiencies in the implementation of regional plans had outlived its usefulness and early in 1959 the Commission undertook a thorough re-examination of it in the light of the Report of the Special Implementation Panel, which became available in February. In this Report the Panel suggested that the normal efforts of the Secretariat, particularly through the Regional Offices, to promote and assist in the implementation of regional plans needed to be supplemented by some mechanism that would continue the kind of work done by the Panel, that would be capable of taking a broad view, of considering the economic aspects of non-implementation as well as the purely

technical, and of conducting consultations with national authorities at the same high level and with the same freedom of expression as the Panel had; a mechanism that would have at its disposal all the information - political, social, and economic as well as technical - to enable it to advise the governments concerned on all possible means of improving implementation and that would provide for prompt consideration and definite action by the Council on any problems referred to it. The Commission suggested the establishment of a standing committee to which would be referred for consideration and action deficiencies whose elimination the Secretary General was unable to obtain by the means available to him, and also suggested what the composition of this committee might be. The Council, however, preferred to take no decision on future implementation machinery until the results of the investigation under Assembly Resolution A12-5 (see below) were available, but it did agree that the part of the procedure for identifying and eliminating serious deficiencies that involves an annual report on the situation in each region by the Air Navigation Commission should be discontinued.

The Implementation Panel's Report (Doc 7966 A12-EX/1) formed part of the documentation for the Assembly on the implementation problem. It was accompanied by a paper, prepared in response to one of the Panel's recommendations, on the amount and type of assistance needed for the timely implementation of regional plans and three possible ways of financing it - an ICAO technical assistance fund created by voluntary contributions from Contracting States, an increase in the Organization's regular budget and joint financing. In this paper the Council made no recommendations, merely presenting alternatives for the Assembly's consideration. Discussion on it in the Assembly revealed that there was general agreement that, despite the efforts made by individual States, the implementation problem was as serious now as it had been three years ago when the resolution leading to the establishment of the Implementation Panel was adopted, and that some States were going to need financial and technical assistance in providing in their territories the facilities and services ICAO had declared to be necessary for the safe, regular, efficient and economical operation of international air services. Opinions differed, however, on how this assistance was going to be financed, though the majority view was that, when other means such as loans or grants from foreign aid organizations were not feasible, recourse should be had to joint financing based on Chapter XV of the Convention and implying the participation of the States whose airlines would use the facilities and services provided. The Resolution finally adopted (A12-5) directed the Council to take upon itself, as a matter of first priority, the continuation of the efforts begun by the Implementation Panel to assist and encourage Contracting States to meet their responsibilities under Article 28 of the Convention and to investigate the practicability of other means of overcoming serious deficiencies in the world air navigation network. The Council's first step was to be an investigation of specific deficiencies where joint financing might be justified, the next the calling, if needed, of a conference or conferences to agree upon a list of cases for joint financing and arrange for it on a consolidated route or area basis.

At a meeting of the Council immediately after the Assembly, the Secretary General suggested that to provide a basis for this investigation it would be necessary first to determine the deficiencies considered to have serious adverse effects on operations on the arterial routes with high traffic density, to determine their causes and to explore potential joint financing cases with the responsible governments and interested airlines. As a task of such magnitude could not be pursued by the Secretariat for all parts of the world simultaneously, he recommended that a start should be made where it seemed most likely that assistance would be needed: the major trunk routes in (i) the area bounded approximately by lines connecting Athens, Cairo, Darwin and Taipei, (ii) Latin America and the Caribbean Islands, and (iii) the African Continent. The Council agreed that he should proceed as rapidly as possible with the first two steps in

these areas, but that it would decide what the next step should be when he presented his report on the major deficiencies and their causes. It would also consider at that time (in the first quarter of 1960) the question of future implementation machinery.

The special effort envisaged in the Assembly Resolution will not, of course, mean any interruption in the normal work of the Secretariat on implementation, work which is done mainly by the Regional Offices (see below). Also, the activities of the Organization under the Expanded Technical Assistance Programme (described in Chapter V), with their emphasis on ground facilities and services, have made a direct contribution to the implementation of regional plans.

The Regional Offices

The Regional Offices continued to encourage and assist action by States to implement ICAO regional plans, standards, recommended practices and procedures. In carrying out this task they provide technical advice to States on how the plans should be implemented and coordinate implementation action by several States when this is required: they assist in keeping the plans up-to-date, consulting States on proposals for amendment, and also investigate serious cases of non-implementation of facilities and services called for in the plans, giving States such help as they can in finding means of remedying such deficiencies. A brief survey of the main activities of the five Regional Offices during 1959 is given below.

European and African Office (Paris)

Personnel of the EURAF Office made seventeen missions to thirteen States in Europe and Africa during 1959, including a first visit to the new Contracting State of Guinea. Technical officers from the Office assisted at the Middle East/South East Asia Regional Air Navigation Meeting. The Office participated in the preparation of supporting documentation for this Meeting and for the Third Africa/Indian Ocean Regional Air Navigation Meeting (Rome, January 1960) and originated the preparatory documentation for the Limited European/Mediterranean Regional Air Navigation Meeting (Paris, February 1960). The second meeting of the MOTNE Panel, a meeting of the MOTNE Coordinating Committee, and a meeting of the European Frequency Coordinating Body, held in the Office in July, required a great deal of preparatory documentation and follow-up from the Paris staff.

Eleven meetings of the Committee for European Airspace Coordination and its working groups were attended by personnel from the Office. Other meetings of importance at which ICAO was represented by members of the Paris staff were two meetings of the Inter-Governmental Maritime Consultative Organization and two meetings of the World Meteorological Organization. The Office also participated in two meetings of an informal character, one on RAC/SAR matters and the other on the organization of the upper airspace.

Among the special projects undertaken by the Office to assist States to which it is accredited were a study for Czechoslovakia on the use of weather radar and a study for the Spanish Government on the application of air traffic control procedures and the coordination of civil and military air operations in the terminal control areas at Madrid and Sevilla. Comments and suggestions were provided to the Tunisian Government on a plan for the reorganization of air traffic services in Tunisia and to the Greek Government on a plan for the reorganization of air traffic services in the Athens terminal control area.

Forty-eight amendments to the North Atlantic and European/Mediterranean Regional Plans were processed by the Office during 1959.

Middle East Office (Cairo)

The staff of the Middle East Office made seventeen visits to twelve States and territories during the year under review. Technical officers from Cairo assisted at the Middle East/South East Asia Regional Air Navigation Meeting, and the Office also originated much of the preparatory documentation for the Third Africa/Indian Ocean Meeting

Special projects undertaken by the Office to assist States of the region included the preparation of plans for the provision of approach control at Jedda (Saudi Arabia), guidance to the United Arab Republic on measures necessary for the implementation of the plan for airways and advisory routes within the Cairo Flight Information Region, and preparation of guidance material for several States on the organization of search and rescue facilities and services.

Fifteen proposals for the amendment of the Africa/Indian Ocean and Middle East Regional Plans were dealt with by the Office during the year.

Far East and Pacific Office (Bangkok)

Twenty-five missions were carried out in 1959 to fifteen States and territories in the area served by the Office. Meetings attended by personnel from the Office included one of WMO Regional Association II in Rangoon, two COM meetings in Tokyo (one convened by the Economic Commission for Asia and the Far East and the other by the International Telecommunications Union), and a meeting of the Indian Government's AGA, COM and FAL Consultative Committees. In June an informal meeting of States of the Pacific Region was convened in the Bangkok Office to discuss implementation of the RAC and COM parts of the regional plan.

Numerous requests from States for advice and assistance were answered. They were for such things as the provision of guidance material and suggestions on the dissemination of typhoon warnings in the West Pacific area (sent to Hong Kong, Manila and Tokyo); participation in a committee established by the Thai Government to review the detailed specifications for planned improvements to the apron, runways, taxiways and fire-fighting facilities at Bangkok aerodrome; provision to Korea of guidance material on improving the arrangements for the dissemination of operational meteorological data to Tokyo, Okinawa, Taipei and Hong Kong; and recommendations to Indonesia and the Philippines on the concentration and pooling of MET stations, forecasting offices, staff and resources and on improved coordination of forecasting activities.

Twenty-nine amendments to the South East Asia and Pacific Regional Plans were processed by the Bangkok Office during the year.

South American Office (Lima)

Twenty-one visits were made by personnel from the Lima Office to the ten South American States to which it is accredited. An informal meeting of five States concerned and the International Air Transport Association was convened by the Office in October to discuss coordinated implementation of the aeronautical fixed telecommunications circuits recommended in the South American/South Atlantic Regional Plan.

Several special projects were undertaken by the Office to assist States in implementing required facilities and services. Among them were the preparation of a plan for the organization of air traffic services in Ecuador, a study on the resiting of the Guayaquil/Simon Bolivar LF/MF locator (also for Ecuador), a study of terrain requirements for the installation of aerodrome and approach facilities at Asunción/Pres. Gral. Stroessner Aerodrome (Paraguay), a plan for the organization of search and rescue facilities and services in Colombia, and recommendations on the technical aspects of implementation of COM facilities and services required at La Paz (Bolivia).

The Office also dealt with eleven proposals for the amendment of the South American/South Atlantic Regional Plan.

North American and Caribbean Office (Mexico City)

Staff from this Office carried out thirty-two visits to fourteen States and territories during 1959. Some of these visits were concerned with developments within the Central American Flight Information Region and with the possible establishment of a Central American Air Navigation Facilities Corporation, a project on which the Regional Office and the ICAO Technical Assistance personnel collaborated closely (see Chapter V, third paragraph). Personnel from the Office attended three meetings of the Directors of Civil Aviation of the Central American Republics.

The more noteworthy of the special projects undertaken by the Office in 1959 were the development of a new system for the exchange of area forecasts for the upper airspace in the region to meet the requirements of jet aircraft; the formulation of proposals for the phased implementation of the AFTN/AFS Plan, taking into account the relative importance of each circuit of the AFTN for ATS and MET requirements and, to some extent, for the operational control requirements of airlines; the preparation of a plan for the provision of direct speech circuits between Flight Information Centres; and the development of a system of recording air traffic movements in the region to assist States in establishing the character of air traffic operations.

Fourteen proposals for the amendment of the Caribbean Regional Plan were processed by the Office during the year.

5. - Special Projects

Aircraft Accident Investigation

The Third Edition of the Manual of Aircraft Accident Investigation was published in 1959. The basic principles embodied in the previous edition were not changed, but a good deal of new material was added to keep pace with developing techniques and some of the existing material was rearranged for a simpler presentation. The new edition provides a classification of aircraft accidents, developed in the light of practical experience, which may be applied by all States whether they have an elaborate system of aircraft accident investigation or not. Its universal adoption would facilitate comparison and should make it possible to draw more accurate statistical conclusions.

Aircraft Accident Digest No. 9 was also published in the year under review. It contains summaries of fifty-five of the hundred and fifteen reports received from Contracting States on accidents that occurred in 1957, selected on the basis of public interest in the accident, the suitability of the original report for preparation of a summary, and interest as an example of good accident investigation practice. It shows

that some 47% of the accidents it covers occurred en route, about 21% on take-off and 30% on landing and that pilot error was responsible for about 53% of them, powerplant failure for 19% and weather for 4%. Digest No. 10, summarizing reports on accidents occurring in 1958, will be ready for publication early in 1960.

Aviation Medicine

States were consulted on the desirability of international action on a number of medical problems related to personnel licensing such as the interpretation of electrocardiograms, assessment of the fitness of pilots in the higher age group and visual problems at high altitudes. Several expressed the view that these problems should be considered by a meeting of medical experts, and they will therefore be studied as tentative items for a meeting on personnel licensing, training and aviation medical problems, planned for 1961. A study on the medical aspects of the emergency use of oxygen by crews and passengers in jet transport aircraft was prepared for the Airworthiness Committee, and the medical aspects of aircraft accident investigation were revised for the Third Edition of the Aircraft Accident Investigation Manual. The health aspects of the carriage by air of radioactive materials was studied in connection with the preparation of Secretariat comments on the draft regulations for the safe transportation of these materials developed by a panel of experts convened by the International Atomic Energy Agency. There were consultations at the Secretariat level with the World Health Organization on a number of medical problems of common interest and with the United Nations in regard to the preparation of a set of requirements designed to ensure that the proper use is made of narcotic drugs carried in the first-aid kits of aircraft on international flights (See also Chapter VII).

Flight Crew Fatigue

The Air Navigation Commission gave further consideration to the subject of flight crew fatigue and limitation of flight time, with particular reference to whether there was a need for regulatory action by ICAO going beyond the general Standard in Annex 6, which requires an operator to establish limitations on the flight time of flight crew members such as will ensure that fatigue, either occurring in a flight or successive flights or accumulating over a period of time, does not endanger the safety of a flight and these limitations to be approved by the State of registry of the aircraft. It did so on the basis of studies by the Secretariat and submissions by the International Federation of Airline Pilots' Associations and the International Air Transport Association. The former took the position that existing national regulations did not offer adequate protection and that there was a need for detailed international regulations, especially in the jet age, when it was expected that a greater strain would be placed on the flight crew, weather minima would probably be lower and the economic penalties of delay or divergence would be likely to exert an influence more inimical to safe operations than they have done previously. The International Air Transport Association, however, maintained that the measures taken by States and operators to avoid hazardous fatigue were effectual and opposed any attempt at detailed international regulation, though not the development of material to guide States in establishing their national regulations on the subject. At the year's end, the Commission had before it a proposal for some expansion of the Standard in Annex 6 and the provision of guidance material.

International Standard Atmosphere

Annex 8 contains the definition of the ICAO Standard Atmosphere and establishes the relations between the variables for altitudes up to 20 kilometers (66,000 ft.). In 1954 a manual containing tables in metric and English units was issued to facilitate the uniform application of the Standard Atmosphere. Developments in civil aviation have made it necessary to define the Standard Atmosphere up to altitudes well above 20 kilometers. This problem has been studied intensively, particularly in the United States, which has now proposed the international adoption of an extension to 32 kilometers (about 105,000 ft.). This proposal, which was accompanied by detailed tables like those in the manual, has been circulated to Contracting States for comment.

Meteorological Studies

An airline operating in South America carried out an evaluation of the improvement in forecasting attributable to the additional upper air data during the International Geophysical Year and the International Geophysical Cooperation 1959. The study confirmed the indications of improvement given by earlier evaluations of the IGY data, including one by the same airline, and the Air Navigation Commission agreed that the results should be circulated and that States should be invited to forward for circulation any similar information that might be available.

As part of continuing studies on the possibility of relieving congestion on air/ground channels in the North Atlantic Region by reducing the volume of meteorological information transmitted by aircraft in flight, a system for designating the aircraft required to report this kind of information was tried out at New York. The views of States and interested international organizations on this system and on other proposals will be considered by the Air Navigation Commission early in 1960.

Further consideration was given to the development of a concise self-evident form of message for use in the exchange of operational meteorological information between ground stations, in the transmission of such information from ground stations to aircraft in flight and in briefing. The diversity of opinions expressed in the comments of States of the European-Mediterranean Region on the preliminary Secretariat study circulated to them in 1958 led the Air Navigation Commission to the conclusion that it would not be advisable to proceed immediately with the creation of a new message form. The matter was discussed by the Panel for Coordinating Procedures Respecting the Supply of Information for Air Operations at its meeting in May/June, and it concluded that no superfluous meteorological information was contained in the meteorological ground to air messages, but did not have time to study the complex question of possible simplification of the reported elements in the interest of brevity. The subject was again considered by the MET Division, which established a working group. This group reported that, in its view, absolute self-evidence could not be achieved, that any type of message presupposed certain agreed phraseologies, codes and order of elements, and that the development of a self-evident message implied the development of the simplest possible phraseologies, codes and order of elements so that the message could be readily understood with a minimum of decoding, conversion or knowledge of a particular language. The Division endorsed the group's opinion, but lacked time to examine its report in detail and recommended that Contracting States should be asked to comment on it and that ICAO, in consultation with the World Meteorological Organization, should pursue its study of the development of self-evident message forms as a matter of urgency.

Personnel Licensing and Training

In last year's report it was indicated that, in pursuance of a recommendation of the Special Implementation Panel, Contracting States had been asked to provide information on their training needs and that it was intended to make such a canvass periodically. A second enquiry was made in 1959, again with a satisfactory response.

A second draft of the Instrument Rating part of the Training Manual and, with the assistance of specialist consultants, drafts of the remaining three parts - Flight Operations Officer, Aircraft Maintenance Mechanic Type 1, and Radar Rating for Air Traffic Controllers - were prepared. Work continued on the selection of suitable text books and on the problem of making them available in the languages of the Organization, particularly Spanish.

The ICAO-developed air traffic control synthetic radar trainer, using closed circuit television techniques, was given its final series of evaluation tests with the assistance of actual air traffic control personnel and a group of pilots from a large international airline. Part 18 of the Training Manual, giving full details of the trainer's construction, was completed and a short film on its operation was made. Other audio-visual aid projects included the production of three films (on radar control, radiotelephony and fire-fighting) and six training posters (on elementary meteorology).

Radiotelephony Speech for Aviation (formerly known as the "International Language for Aviation")

After consultation with members of the Radiotelephony Speech Panel, the Air Navigation Commission decided that the extent of participation in the ICAO-coordinated research programme recommended by the Panel would probably be sufficient to obviate the need it had previously seen for a review of the scope of the programme, and States that had indicated their willingness to undertake basic research (France, Italy, Spain, the United Kingdom and the United States) were asked to proceed with it. At the same time, States that had said they were prepared to provide material for the programme, though not to do actual research, were asked to supply the States conducting the research with tape recordings illustrating difficulties being encountered by their nationals in radiotelephony communications. The research being done is on such matters as the transmission of numbers, words and phrases designed to attract attention and indicate the degree of urgency, Q Code groups spelled out in radiotelephony, words and phrases presenting special difficulties for speakers whose mother tongue is not English, methods of improving enunciation of words and phrases, and basic vocabulary requirements for air traffic control messages. Progress reports on it have been requested by 1 April 1960.

Testing of Radionavigation Aids

In pursuance of recommendations of the Sixth Session of the Communications Division and the Special COM/OPS/RAC Meeting, a manual on the testing of ILS and VOR, based on information provided by States, was prepared by the Secretariat and circulated to States for comment. It will be reviewed during 1960 in the light of the comments received.

Utilization of Airspace

Actual and prospective increases in the density of air traffic have made the better utilization of available airspace a pressing problem in many parts of the world, and in 1959 ICAO was exploring several possibilities of solution. A draft circular on the determination of the lowest flight level en route that will ensure adequate terrain clearance was prepared and circulated to States for comment. A study was begun of the nature and magnitude of the parameters influencing the track and progress of aircraft, using each of the various navigational systems existing and in prospect, with a view to to the preparation of a more objective and quantitative set of horizontal separation standards than is at present contained in the PANS-RAC; several States have been invited to contribute to this study. The Panel on Vertical Separation of Aircraft was asked by the Air Navigation Commission to proceed as rapidly as possible with a comprehensive study of methods of increasing the number of usable flight levels - a subject the Panel has so far given much lower priority than means of ensuring adequate vertical separation with the existing system of flight levels and instruments.

Visual Aids to Prevent Undershooting and Overshooting of the Runway

The Panel on Visual Aids to Prevent Undershooting and Overshooting, established in June 1958, continued its work by correspondence during 1959. Progress to date indicates that a meeting in late 1960 may be needed to prepare guidance material, and possibly specifications, on improved visual ground aids, with a view to giving maximum assistance to States in taking measures for the prevention of accidents due to undershooting or overshooting of the runway, and to pave the way for international agreement on the subject.

CHAPTER III

AIR TRANSPORT

At its Twelfth Session the Assembly reviewed the work done by the Organization in the air transport field during the previous three years and generally approved the programme proposed by the Council for the next three years. No fundamental changes were made in the policy to be followed on economic, statistical or facilitation matters, but emphasis was placed on certain aspects of the work, and, as suggested by the Council, three new subjects were placed on the work programme: the advantages brought by air transport, inclusive tours and aerial work. The action taken by the Organization on the various items on the work programme during 1959 is described briefly below.

1. The European Civil Aviation Conference (ECAC)

The ECAC held its Third Plenary Session and two smaller meetings during the year. The Plenary Session was convened in March in the premises of the Council of Europe in Strasbourg and was attended by representatives of seventeen of the nineteen Member States and observers from seven other States and eleven international organizations. The Conference adopted forty-six recommendations and resolutions, setting up a substantial work programme to be carried out before the next plenary session, which will probably be held in 1961. There are a few technical items concerned mainly with cooperation in aircraft maintenance and the training of air and ground personnel, but in the main the work of ECAC falls in the air transport field.

Perhaps the most important action of the Conference was the establishment of a standing Committee on Coordination and Liberalization, which is to hold short informal meetings about twice a year to consider what measures might be taken by governments to liberalize European air transport and encourage cooperation between European airlines. This Committee held its first meeting in November in ICAO's Paris Office, and after reviewing the matters within its terms of reference, agreed on a work programme which includes a study of the economic consequences, for European air transport, of the introduction of jet aircraft and a study of the development of inclusive tours in Europe.

In the facilitation field the Conference adopted a number of recommendations urging States, among other things, to take measures to facilitate air cargo, to reduce and simplify documentation generally and to improve air traffic flow arrangements, particularly to expedite the clearance of passengers and baggage.

Other acts of the Conference included the approval of a draft for a multilateral agreement relating to certificates of airworthiness for imported aircraft, a recommendation that States and airlines seek arrangements that will make it unnecessary for passengers to pay passenger service charges directly, approval of a set of standard administrative and technical clauses for bilateral agreements to serve as a model for future agreements between ECAC States, recommendations designed to extend to freight on mixed passenger and freight services the treatment accorded to all-freight services under Recommendation 3 of the Conference on Coordination of Air Transport in Europe (Strasbourg 1954) and a recommendation (subsequently taken into account in the preparation of the new Air Transport Reporting Form I) that the Council of ICAO, in considering the collection of traffic statistics from airports, give particular attention to the

desirability of obtaining information on non-scheduled air transport in Europe. Another recommendation dealt with the problem of obtaining required statistics from sources other than clearance documents, whose reduction and eventual elimination is a major objective of the facilitation programme. This recommendation called for the establishment of a small working group to explore the possibility of devising a standard form for use at airports in Europe that would provide for all statistical information required from airlines without recourse to clearance documents. The working group met in Paris in November and agreed to recommend for immediate use two alternative statistical forms.

2. Commercial Rights in International Air Transport

At its Twelfth Session the Assembly considered the prospects of and methods for achieving further international agreement on commercial rights in international air transport, and came to the conclusion that the regional approach was still the most promising and, indeed, the only practical one for the time being. It noted the progress made by ECAC in developing measures of cooperation and liberalization, and agreed that the Organization's work on commercial rights should continue to be closely related to that of ECAC and of any other regional bodies with similar objectives and that such measures of cooperation as might be developed by these bodies should be examined to see whether they might be recommended to States for application on a wider basis. The Council was instructed to continue the kind of assistance ECAC has been receiving from ICAO under the terms of Resolution A10-5 and to give sympathetic consideration to requests for similar assistance from other regional bodies. It was also directed to continue the study of the provisions of bilateral agreements as a possible approach to multilateralism and, in pursuance of this directive, the comments of Contracting States are being sought on the set of standard administrative and technical clauses developed by ECAC.

3. Charges for Airports and Route Air Navigation Facilities

With the adoption in November 1958 of the second of the Council's two statements for the guidance of Contracting States on charges for airports and for route air navigation facilities and services, an important stage in the Organization's work on this subject came to a close. The Assembly agreed that the study called for by Resolution A2-14 had been satisfactorily completed, that further work in this field should be undertaken only if new and important problems arose, and that the matter should be reviewed at its next major session in 1962. The only other developments on the subject during 1959 were the ECAC recommendation on passenger charges mentioned in Section 1, the publication of the seventh edition of the Manual of Airport and Air Navigation Facility Tariffs, and a start on a study of the feasibility of developing a definition of what flights should be considered international for charging purposes. This study is being undertaken in pursuance of a recommendation of the Route Facilities Charges Conference.

4. Facilitation

The growing interest in facilitation and the increasing awareness of its importance were reflected in the unusually large attendance at the Fifth Session of the Facilitation Division, which was held at FAO headquarters in Rome in December - 178 delegates, advisers and observers, representing thirty-four Contracting States, three Non-contracting States and eight international organizations. They were reflected,

too, in the number of States that before the meeting notified the Organization of the extent to which they were implementing the provisions of the third edition of Annex 9; there were forty-five of them, twice as many as had given such a notification in regard to the second edition of the Annex before the Division's Fourth Session four years earlier.

The Division made fifty-five recommendations for the amendment of Annex 9, the more important being for the elimination of the Passenger Manifest and of visas for tourists and other temporary visitors, for the simplification of the General Declaration, for the acceptance by States of an oral baggage declaration and the elimination of the Passenger Baggage Declaration Form, for the elimination of outbound baggage inspection, for the abolition of tax clearance certificates, for the clearance of inbound cargo on a sampling or selective basis, and for the introduction of provisions designed to speed the flow of all types of traffic through airports and to provide the maximum facilitation for passengers transferring, or cargo trans-shipped, from one flight to another at the same or another airport in a State. The recommended amendments will be given a preliminary review by the Air Transport Committee early in 1960, circulated to Contracting States with the Committee's comments, and reviewed again in the light of States' comments by the Committee, which will then present its proposals for the amendment of the Annex to the Council.

The Division made twelve other recommendations on matters outside the present scope of Annex 9 such as the development of an international standard document for customs clearance of air cargo, the establishment and operation of national facilitation committees, and cooperation on facilitation matters between neighbouring States.

Earlier in the year, the Assembly reviewed developments in the facilitation field since 1956 and noted with satisfaction that substantial progress had been made. It pointed out, however, that achievement still fell short of the objectives of Annex 9 and that the introduction and early widespread operation of jet aircraft on international air routes created new facilitation problems and aggravated existing ones. It therefore adopted a Resolution (A12-21) urging States to make a special effort to eliminate differences between their national regulations and practices and the provisions of Annex 9, to impress upon their operators the importance of progress on aspects of facilitation that were mainly the operator's responsibility, and to recognize the advantages of national facilitation committees and of cooperation between neighbouring States on common problems. The Resolution also declared that the Organization should study the need for further facilitation for non-scheduled operations and private flying.

In accordance with this Resolution and with the one adopted by the Assembly three years earlier (A10-35), the Organization continued its efforts to have the facilitation programme more fully implemented. Through correspondence and field work, the Secretariat helped several States to overcome difficulties in complying with the provisions of Annex 9 and to provide further facilitation in line with the statement of ICAO's aims and objectives in the facilitation field (Doc 7891-C/906) issued in 1958. The European Civil Aviation Conference gave a further impetus to facilitation in Europe at its Third Session and cooperation on facilitation problems between neighbouring States was reported from other parts of the world.

5. International Air Mail

The work on problems in connection with commercial rights for the carriage of international air mail, which Resolution A10-32 required the Council to undertake in consultation with the Universal Postal Union, was continued and brought to a conclusion. The final stage was obtaining the opinion of the Executive and Liaison Commission of the UPU on the questions put in the questionnaire, covering such matters as commercial rights, allocation of mail loads and the possible effects of the introduction of long-range jet aircraft, that had previously been circulated to the member administrations of the Union. Supplementary questions were prepared to clarify the points on which comments were desired and discussions in the Air Mail Subcommittee in March and in the Executive and Liaison Commission in May led to the formulation of the following reply:

" The Executive and Liaison Commission,

Having consulted UPU member States with a view to obtaining the information requested by ICAO on the question of commercial rights and aircraft loads, and

Having regard to the information supplied following such consultation,

Considers that the UPU cannot but welcome any steps likely to facilitate the exchange of mail, but points out that the question of commercial rights lies primarily within the purview of national civil aviation authorities;

Is of the opinion, furthermore, that general regulations for the allocation of loads among aircraft should not be envisaged, since such a measure would hamper rapidity which is an inherent feature of air mail services, and would provide a less flexible solution than agreements concluded between the Administrations concerned for the purpose of taking remedial action in certain instances."

In transmitting this reply to Contracting States, the Council indicated that, in its opinion, the consultation with the UPU required by Resolution A10-32 could be considered as completed.

At the meetings of the Commission and the Air Mail Subcommittee interest was expressed in conveyance rates for air mail, particularly with respect to the effect of the introduction of jet aircraft upon operating costs. The ICAO Observer pointed out that airline costs for 1958 had risen by .2¢ per tonne-kilometre available and by 3.2¢ (or 5.64%) per tonne-kilometre performed.

Discussions on air mail at the Twelfth Session of the Assembly suggested that in the immediate future, at least, the Organization's work on international air mail would be concerned largely with preparations for the next Postal Congress, which is scheduled to open in Rio de Janeiro on 27 June 1962. At the year's end, thought was being given to what its approach to this Congress should be. For the two preceding Congresses (Brussels 1952 and Ottawa 1957) ICAO prepared not only factual material on airline operating costs but also comments on the principles for determining air mail conveyance rates.

6. Statistical Activities

The performance of its continuing function of collecting, analyzing and publishing air transport statistics and the implementation of recommendations made by the Third Session of the Statistics Division (November 1958) absorbed most of the Organization's attention in the statistical field during 1959.

One of the most important actions was the establishment in May of an ad hoc Panel on Origin and Destination Statistics. With a membership of eleven experts nominated by Contracting States* and observers from IATA, the Panel held its first meeting in Montreal in October. It was primarily an exploratory meeting at which views were exchanged on the types and sources of origin and destination statistics and methods of collecting them and plans were made for the future work. Two meetings of the Panel have been tentatively scheduled for 1960.

Another important development was the adoption by the Council in December of eight new Air Transport Reporting Forms to be used in reporting on air transport operations conducted on and after 1 January 1960. Seven of them (A to G) are for the reporting of statistics coming from airlines and are similar to those adopted in December 1952, though they do incorporate a number of changes, the more important resulting from the adoption of a new classification of air transport operations for statistical purposes. This new classification is the result of a study of the clarification of the term "international" as used in air transport, extending over a period of three years. Based on the "flight-stage" rather than the "flight" previously used, it divides air transport operations for statistical purposes into three groups (international, territorial, and domestic) instead of the former two (international and domestic). The new "territorial" category covers operations between two points in the territory of the State of the operator involving flights for substantial distances over foreign territory or international waters. Operations between two points in the territory of the State of the operator involving flights for only relatively short distances over foreign territory or international waters are classified as "domestic", the decision on what are "relatively short" and "substantial" distances being left to the government concerned. The eighth form (I), on airport statistics, is a new one. A ninth (H), on statistics of civil aircraft registered in a State, is being given further consideration and will be submitted later.

A recommendation by the Statistics Division for the exploration of the feasibility of filing and circulating preliminary reports on air carrier accidents led to the despatch of a letter to States inquiring about their interest in and ability to provide such reports. A preliminary review of the replies indicates considerable support for the idea. Another recommendation, that small regional statistical meetings of the "workshop" type should be arranged where representatives of States having difficulty in filing the statistics required by the Organization could discuss their problems with specialists from States more experienced in statistical reporting, from the Secretariat and from airlines, was endorsed by the Assembly in Resolution A12-20. The preliminary response to inquiries to determine whether such meetings would be found useful suggests that a number of States favour them.

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* Argentina, Brazil, Canada, the Federal Republic of Germany, France, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States of America.

7. Special Projects

As indicated at the beginning of this Chapter, three new studies have been placed on the Organization's work programme in the air transport field. Work has begun on the first of them, the study of the advantages brought by air transport, and a letter has been sent to States requesting information for it.

Work has begun, too, on the air transport aspects of the study into the development of supersonic civil aircraft mentioned in Section 1 of Chapter II. A hypothetical statement of the economic and social consequences of the introduction of such aircraft and a series of questions on these aspects of the subject were prepared for inclusion in the letter sent to Contracting States in October seeking material for the study.

CHAPTER IV

JOINT FINANCING

The year 1959 saw success crown the efforts of the Organization to arrange for the joint financing of the major portion of the submarine cable system which will substantially improve aeronautical fixed communication services across the North Atlantic. It saw, too, a decision to convene a fifth North Atlantic Ocean Stations Conference in 1960 and a directive to the Council from the Assembly to consider joint financing as a means of remedying deficiencies in air navigation facilities and services that could not otherwise be eliminated. Joint financing has been successfully applied in the North Atlantic Region for over ten years and administration of the three Agreements under which it is provided has become one of ICAO's continuing functions.

1. Joint Financing Agreements with Denmark and Iceland

Australia, which began transatlantic operations in 1958, acceded to the Danish and Icelandic Joint Financing Agreements early in 1959, and as the year closed, the adherence of Ireland, which also inaugurated transatlantic services in 1958, was expected at an early date. Two of the fourteen signatory States (Belgium and France) have not yet deposited their formal instruments of acceptance, but, like the States that have done so, discharged their obligations under the Agreements.

In September, the Council approved the audited actual costs in 1958 of the services covered by the Agreements - they were slightly higher than the estimates in both cases - and on the basis of them and of actual crossings in the same year, adjusted the assessments of the contributing governments. On the basis of the same costs plus 10% and of crossings in 1958, the assessments of the contributing governments for 1960 were fixed, subject to adjustment when the actual costs and crossing figures for 1960 are available. These assessments are for the purpose of providing quarterly advances to Denmark and Iceland during 1960. The advances, in turn, will be based on the estimated costs of the services, which were to be considered by the Council in January 1960. The estimates submitted by Denmark and Iceland late in 1959 reflected the upward trend there has been in costs from year to year. The Danish estimates, totalling approximately $1,340,000 U.S., are 8% higher than the limit on total annual costs ($1,230,000 U.S.) originally fixed in Article V of the Agreement. The Icelandic estimates, totalling approximately $830,000 U.S., are well below the original limit of $1,070,000 fixed in the Agreement, but only because the Government of Iceland gives a 55% premium on payments made through ICAO in dollars or sterling.

The Danish and Icelandic Agreements were extended in 1959 to cover certain portions* of the cable system proposed by Canada in 1958 as a substitute for the forward/scatter cable system that had been under consideration by North Atlantic States.

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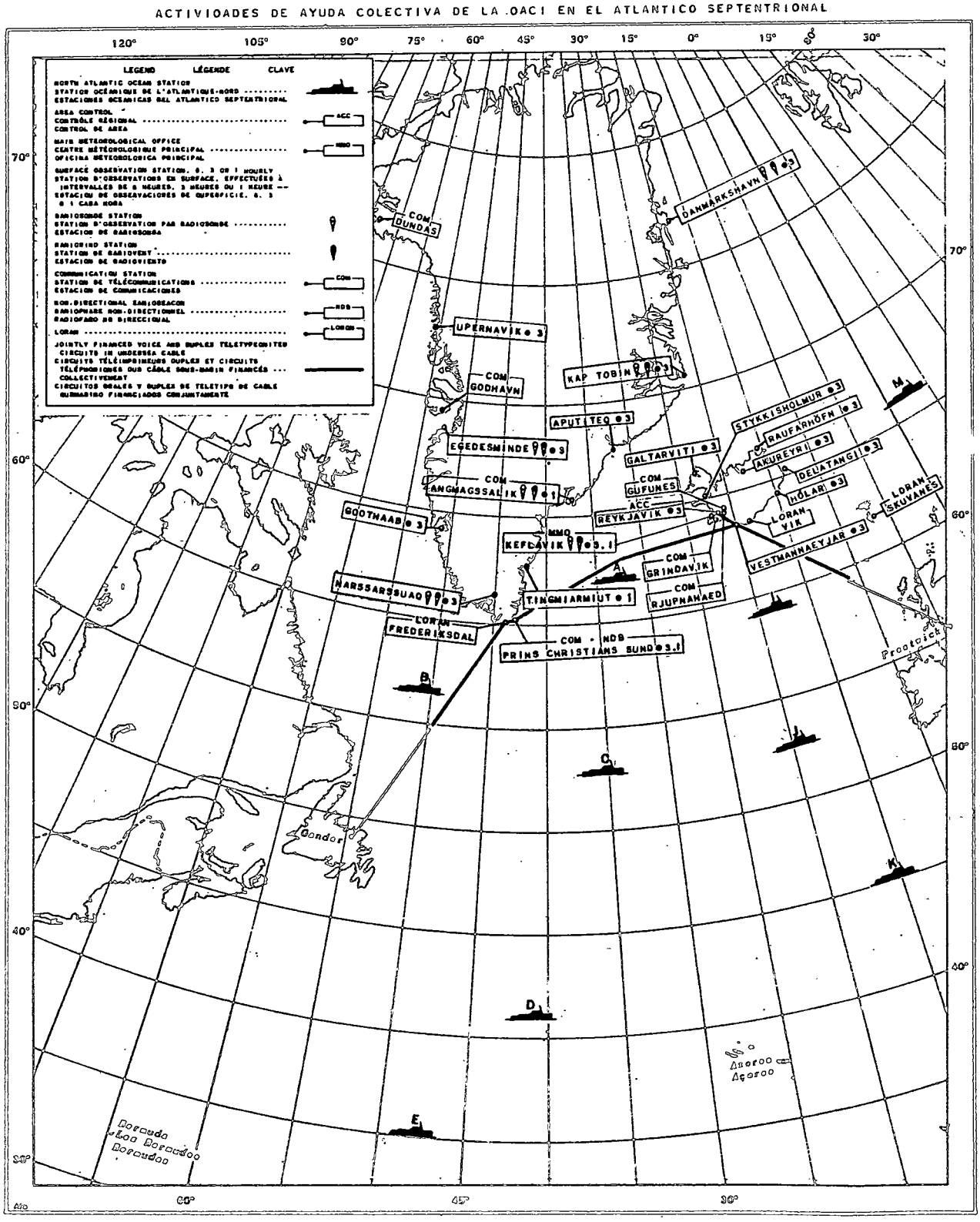
* Under the Danish Agreement, one-half of the sector between Cornerbrook (Newfoundland) and Frederiksdal (Greenland), the connections between Prins Christians Sund and Frederiksdal, and one-half of the sector between Frederiksdal and Vestmannaeyjar (Iceland); under the Icelandic Agreement the other half of the sector between Frederiksdal and Vestmannaeyjar, the connections between Reykjavik and Vestmannaeyjar and half of the sector between Vestmannaeyjar and Gairloch (Scotland) - see the accompanying map.

ICAO JOINT SUPPORT ACTIVITIES IN THE NORTH ATLANTIC
L'AIDE COLLECTIVE DANS L'ATLANTIQUE-NORD
ACTIVIDADES DE AYUDA COLECTIVA DE LA OACI EN EL ATLANTICO SEPTENTRIONAL



The Second Special North Atlantic Fixed Services Meeting, convened in January 1959 to consider the Canadian proposal, endorsed it and recommended that the parts of the cable system to be jointly financed should be included in the Danish and Icelandic Joint Financing Agreements under Article VI of these Agreements, which provides that for the purpose of establishing, operating and maintaining services not otherwise provided for in the Agreement, the limit set on annual operating costs in Article V may be increased by a stated amount with the consent of Contracting States responsible in the aggregate for not less than 90% of the total assessments under Article VII. On the basis of quotations available to it, plus a margin to cover contingencies (such as a possible increase in rental for the cable circuits), the Meeting proposed that the ceiling in Article V of the Danish Agreement should be increased by $688,127 U.S. (i.e. to $1,922,652) and the ceiling in Article V of the Icelandic Agreement by $478,440 U.S. (to $1,555,002). Specific amendments to Annexes I (Services), II (Inventory) and III (Financial) were also recommended. In the amended Financial Annexes the participating States gave Denmark and Iceland a joint guarantee to cover cancellation charges in the event that the twenty-year leases with the cable companies were cancelled before the expiration date. Other recommendations dealt with matters to be covered in the leases to be signed by Denmark and Iceland with the cable companies that would serve as their agents in providing the services - for example, the amount of the cancellation charges, the provision of alternative routing in the event of the failure of any segment of the submarine cable system and the option to extend the leases beyond the initial twenty-year period.

The implementing States (Canada, Denmark, Iceland and the United Kingdom) were urged to have the complete system in operation in 1961 if at all possible, although it was recognized that the Canada to Iceland sector might not be finished until well into 1962. Joint financing was to apply from the date on which each sector became operational. The Meeting considered that the implementing States could carry out the technical plan (after the Council had approved it and the increase in the ceilings became effective) without further reference to ICAO, but recommended that Denmark and Iceland should submit the draft leases for the cable circuits that were being jointly financed to the Secretary General for confirmation that they covered its recommendations and gave reasonable guarantees that the system would be installed and in operation within the time limits it had indicated.

Soon after the Meeting, its final report was approved by the President of the Council acting on delegated authority. The amendments to the Joint Financing Agreements became effective on 25 February, by which time States responsible in the aggregate for 93.42% of the 1959 assessments had notified the Organization of their consent to the increase in the cost ceilings. Similar notifications were received from the two remaining States during the following week. The cable services were therefore incorporated in the two Agreements by unanimous consent.

In December, Denmark and Iceland submitted the draft cable leases to the Secretary General, who found them satisfactory, subject to some clarifications that were not expected to cause any difficulty. At the end of the year, the indications were that the leases would be completed and signed and that orders for the cable would be placed in January 1960.

2. North Atlantic Ocean Stations Agreement, 1954

In February, the Council accepted the offer of the Government of Iceland, which is not a party to the North Atlantic Ocean Stations Agreement, to continue contributing £6,000 annually towards the support of the ocean stations and providing certain services to the ships and their crews free of charge during 1959 and 1960, as it has been doing since 1955.

In April, a revision of obligations to pay and rights to receive cash under Article III was found to be necessary for an equitable distribution of responsibilities among the European signatories in the seventh year of the Agreement (1 July 1960 to 30 June 1961). Made by the Council under Article IV(c), the revision increased the cash payments to be made by Belgium, Israel, Italy and Switzerland and decreased Denmark's, reduced the amount to be received by France and increased those to be received by the Netherlands, Norway and Sweden and the United Kingdom, as the following table shows:

State	Obligations to pay Annual Cash Contribution		Rights to receive Annual Cash Reimbursement	
	1960-61	1959-60	1960-61	1959-60
Belgium	£70,387	£70,148	-	-
Denmark	46,798	48,729	-	-
France	-	-	£ 38,289	£ 67,446
Israel	15,664	12,375	-	-
Italy	42,653	35,951	-	-
Netherlands	-	-	29,754	234
Norway and Sweden	-	-	38,151	33,159
Switzerland	58,504	58,156	-	-
United Kingdom	-	-	127,813	124,520

Ireland, another European signatory, has been making a fixed contribution of £1,000 a year because it was not conducting transatlantic operations; since it began to do so in 1958, its contribution for the seventh year of the Agreement was calculated in the same way as those of other signatory States and was fixed at £23,369. The contributions of the two States that have acceded to the Agreement, Australia and the Federal Republic of Germany, were set at £7,555 and £89,961 respectively. The amounts that would constitute full contributions in the seventh year were computed also for Iceland, Spain and Venezuela, which are making partial contributions but are not parties to the Agreement, and for Colombia and Cuba, which are considered to benefit from the ocean stations network but have not yet contributed towards its support. The report on the operation and utilization of the ocean stations in 1958, prepared by the Organization from the operational summaries provided by the operating States, showed a steady improvement in the height reached in upper wind and radiosonde observations from the weather ships and an increase in the number of messages relayed for both ships and aircraft and in the number of fixes provided to aircraft in flight. The stations were not, however, called upon to perform search and rescue services or give medical advice and assistance to the same extent as in 1957; they travelled a total of 11,419 nautical miles on search and rescue assignments (as compared with 15,074 in 1957) and rescued three persons (34 in 1957, 47 in 1956, 52 in 1954 and 53 in 1953).

In June, the Council decided to convene the Fifth NAOS Conference early in 1960. It had been requested to do so under Article XIV of the Agreement by the Netherlands Government, which considers that, mainly because of the rise in operating expenses since the Fourth Conference (1954), the European States operating weather ships, and in particular the Netherlands, are bearing a disproportionate share of the cost of the ocean stations network and that the distribution of responsibilities under the Agreement needs to be adjusted to present conditions. The Conference is for the limited purpose of seeking a solution for the difficulty raised by the Netherlands by revising the present method of calculating cash adjustments under Article III of the Agreement, or, failing that, by a re-arrangement of undertakings among the European States.

3. Future Programme of the Organization in the field of Joint Financing

The work of the Organization in the joint financing field may be considerably expanded in the near future as the result of the work undertaken pursuant to Assembly Resolution A12-5 to which reference has been made in Chapter II, Section 4.

CHAPTER V

TECHNICAL ASSISTANCE

1. - Introduction

A review of ICAO policy on technical assistance by the Twelfth Session of the Assembly resulted in a reaffirmation of the policy of giving priority to the development of ground services for civil aviation and of the recommendation, made three years earlier by the Tenth Session, for an increase in the percentage of funds allocated for regional projects. The Assembly also commended the funds-in-trust schemes by which certain States have obtained additional technical assistance by paying the Organization directly for it; urged States to make greater use of this arrangement to expedite the implementation of regional plans; and requested the Council to intensify its interest in the conduct of the Technical Assistance Programme to ensure that the maximum possible benefit was obtained from the limited funds available for technical assistance in civil aviation.

In 1959 the Technical Assistance Programme followed the pattern laid down in previous years. The assistance given, chiefly in the form of classroom and on-the-job training, was largely in the establishment, maintenance and operation of ground services, although the fields of air law, flight safety (through the provision of aircraft inspection experts and pilot examiners), and civil aviation administration were also included.

A development of a special nature during this year originated with a request from the Directors of Civil Aviation of the five Central American Republics for legal and technical advice on the establishment of an intergovernmental agency to be responsible for operating aeronautical telecommunications, air traffic control services and radio navigation aids in the Central American Flight Information Region and to be financed by charging the users for the services provided and by governmental subsidies as necessary. To enable it to meet this request, ICAO was given a grant from the United Nations Technical Assistance Contingency Fund. A report on the organization, financing and technical requirements of the agency and a draft convention were completed in October and discussed on November 3 at a meeting of the five Directors of Civil Aviation, who approved them in principle and decided that the Government of Honduras should convene a diplomatic conference early in 1960 to conclude a convention, based on the draft, which would be submitted to the governments concerned for ratification. The significance of the action taken by the Directors lies in their recognition that, because of the small size of their countries, the requirements of jet aircraft in the fields of communications, air traffic control and navigational aids could better be met by a regional arrangement than by separate national ones; hence their decision to establish an agency that would serve the whole area.

A total of forty-one States received technical assistance from ICAO during 1959, twenty-nine of them by the assignment of experts for all or part of the year and the others by the award of fellowships or scholarships to their nationals for study or training abroad. The aid provided under the country programmes was supplemented by that provided through four regional projects - the Latin American Training Centre in Mexico City, and the Flight Safety, Radio Frequency and Teletypewriter Maintenance Projects in the Middle East. A total of 105 experts drawn from twenty-two States and twenty-three professions or trades were employed on country or regional projects in the course of the year, though not all of them for the entire year.

NATIONALITIES		PROFESSION OR TRADE	
Argentina	3	Aerodrome Engineer	3
Australia	10	Aircraft Inspection Expert	3
Belgium	4	Aircraft Mechanic Instructor	13
Canada	9	Airline Operations Expert	1
Costa Rica	2	Airline Pilot Examiner	1
Denmark	1	Air Traffic Services Expert and Instructor	14
Federal Republic of Germany	5	Air Traffic Services (Radar) Expert	1
Finland	1	Civil Aviation Adviser	6
France	7	Civil Aviation Administration Expert	1
Greece	1	Communications Expert and Instructor	19
India	6	Economic Consultant	1
Ireland	1	Flying Instructor	2
Mexico	1	Legal Adviser	2
Netherlands	11	Meteorologist	7
Norway	2	Meteorological Instrument Expert	1
Spain	3	Pilot Ground Instructor	2
Sweden	6	Power Plant Instructor	1
Switzerland	2	Radio Engineer	13
Union of South Africa	1	Stores and Supply Adviser	1
United Kingdom	16	Teleprinter Mechanic	2
United States	12	Training Adviser	5
Venezuela	1	Personnel Licensing Expert	1
		Consultant (Legal - Airport - COM)	5
			105

Twenty holders of fellowships given in previous years completed their studies in 1959 and twenty-one new fellowships were awarded as indicated below.

Burma	2	Radio Engineering
China (Taiwan)	1	Aeronautical Meteorology
Guinea	2	Airport Management and Air Traffic Services
Iraq	6	3 in Aeronautical Meteorology and 3 in Air Traffic Control
Israel	1	Personnel Licensing
Japan	2	Aeronautical Meteorology and Personnel Licensing
Korea	3	Airport Construction, Air Traffic Control and Telecommunications
Tunisia	1	Civil Air Law
Yugoslavia	3	1 in Civil Air Law and 2 in Radar Operation

Six of the recipients began their studies during the year; fourteen were to do so in 1960; one fellowship was later withdrawn.

Fifty scholarships, all for attendance at the Latin American Training Centre in Mexico City, were awarded.

Country		Air Traffic Control	Operations	Radio Mechanic	Meteorology	Aircraft and Engine Maintenance
Bolivia	7	2	4		1	
British Honduras	3	2				1
Colombia	8	4	1		1	2
Cuba	1				1	
Ecuador	3				2	1
El Salvador	2	1	1			
Guatemala	6	4			2	
Honduras	3		1	1		1
Nicaragua	4			1	2	1
Venezuela	13		1	4	4	4

2. - Finance and Administration

ICAO had a total of $1,548,910 for technical assistance in 1959. This amount included a grant of $70,360 from the Executive Chairman's Contingency Fund, equipment to the value of $66,200 which had been ordered but not delivered in 1958, and approximately $128,000 in local cost contributions made by governments receiving technical assistance. The sum of $32,662 was received from Iran, the Philippines and the Sudan under "funds-in-trust" arrangements.

From the financial standpoint, 1959, like 1958, was rather a difficult year for the Organization. Funds for the Expanded Programme fell $1,866,000 short of the estimated cost of the overall programme approved by the Technical Assistance Committee, and the participating organizations received only 93.5% of what they had expected. For ICAO this shortfall and an exchange loss of about 6% on the $200,000 allocation for administrative and operational services costs, because of the difference in value between the Canadian and United States dollars, meant a reduction of some $103,000 in expected resources. As a result, certain posts had to be left vacant for part of the year, the purchase of some training equipment postponed, travel by both Headquarters and field personnel reduced and some fellowships withheld.

For 1960, the gap between resources and the approved programme is much smaller, but ICAO is not likely to be in any better position because of a change in the method of allocating local cost payments made by recipient governments. Formerly, each organization participating in the Expanded Programme received a share of these payments directly related to the number of days of work called for by its approved programme and the number actually worked by its expert - an arrangement that operated

to the advantage of organizations with a high rate of programme implementation. Beginning in 1960, however, it will receive the same percentage of local cost payments as it does of the voluntary contributions to the Expanded Programme Account. The financial resources of the Expanded Programme in 1960 are estimated at $35,126,000, but not all of this will be available for actual operations. From it must be deducted $1,400,000 to reimburse the Working Capital and Reserve Fund for contingency grants authorized by the Executive Chairman of the Technical Assistance Board in 1959, $2,070,100 for the Secretariat of the Board and $162,000 representing the contribution of Brazil, which is made in services rather than cash. This will leave $31,493,900, which is approximately $750,000 below the estimated cost of the programme approved by the Technical Assistance Committee. The initial allocation for technical assistance in 1960 has been set at 97% of the estimated cost of the approved programme, or $31,273,800, in accordance with the policy of basing it on the most conservative estimate of available resources. ICAO's initial allotment amounts to $1,329,100, which includes $200,000 for administrative and operational services costs. It is too early to forecast what the ultimate figure will be, as the final allocation will not be determined until audited financial data on the 1959 operations are available and the revenue from local costs can be accurately estimated on the basis of the implementation of the programme during the second and third quarters of 1960.

The Organization's share of the supplementary programme approved by the Technical Assistance Committee, to be financed by contingency grants from the Working Capital and Reserve Fund, amounts to $27,888. Contingency grants may also be obtained to meet requests for assistance of an urgent nature received after the Committee approved the programme. At the time this report was prepared, the Executive Chairman of the Technical Assistance Board had authorized the payment of $54,250 to ICAO for this purpose and an application for an additional $13,750 was pending. One country is providing $23,000 under a funds-in-trust arrangement to supplement the assistance it is to receive under the Expanded Programme and another is considering providing $40,000 for the same purpose.

The following table gives the approved programme for 1960 by region and country and, for comparison, actual expenditures in 1959 and 1958.

	Approved Programme for 1960	Expenditures for 1959	Expenditures for 1958
	(in United States dollars)		
PROJECTS			
Africa			
Ethiopia	65,100	84,103	108,919
Guinea		9,125	
Morocco	6,300	6,432	-
Sudan	-	7	2,693
Tunisia	25,200	36,451	20,537

Asia and the Far East			
Burma	6,400	11,095	-
Cambodia	12,600	18,550	-
China (Taiwan)	-	9,111	-
India	25,900	52,087	18,070
Indonesia	112,300	115,020	131,353
Japan	6,700	7,564	4,270
Korea	3,000	9,705	-
Nepal	6,300	-	-
Pakistan	-	22,014	26,801
Philippines	25,200	49,271	39,968
Thailand	37,800	32,870	60,324
Europe			
Greece	25,200	44,961	42,817
Yugoslavia	9,000	4,600	10,611
Latin America			
Argentina	12,600	16,387	14,903
Bolivia	12,600	4,476	3,696
British Honduras	3,000	2,382	1,814
Chile	-	-	408
Colombia	7,600	7,732	2,492
Costa Rica	3,000	4,800	9,188
Cuba	1,200	5,038	5,042
Dominican Republic	2,400	1,200	4,798
Ecuador	16,200	16,237	2,173
El Salvador	14,400	10,851	22,641
Guatemala	28,800	48,936	54,192
Honduras	3,000	6,302	9,778
Mexico	-	-	4,512
Nicaragua	3,600	2,972	6,456
Panama	-	5,600	6,956
Paraguay	32,000	38,115	28,051
Peru	41,800	34,154	31,929
Venezuela	10,800	7,858	-
Central American Air Navigation Facilities Corporation	-	11,999	-
Regional Latin America (Training Centre, Mexico City)	75,600	73,894	86,846

Middle East			
Afghanistan	76,000	87,672	102,856
Iran	100,833	118,998	119,705
Iraq	53,264	32,207	55,257
Israel	15,300	34,743	39,043
Jordan	12,600	3,121	-
Lebanon	37,800	75,308	60,447
Saudi Arabia	12,400	13,012	3,425
United Arab Republic			
Egypt	47,250	48,864	41,339
Syria	40,950	48,663	44,173
Regional Middle East			
Flight Safety Project	25,200	43,422	41,915
Frequency Project	15,600	16,181	7,134
Teletype Maintenance Project	12,150	-	-
Total Project Costs	$1,084,947	$1,334,090	$1,277,532
ADMINISTRATION	200,000	179,064	149,335
Local costs	85,597*	-	-
Exchange Losses	-	15,583	13,675
Grand Total	$1,370,544	$1,528,737**	$1,440,542***

* Under the old system, based on the number of expert man-days programmed and delivered, ICAO's share would have amounted to approximately $141,197.

** This includes an amount of $128,035, which was ICAO's share of the local cost payments made by recipient countries.

*** This includes local cost contributions of $142,371.

Note.- In addition to the expenditures given above, the following amounts were spent by ICAO in 1959 under the "funds-in-trust" scheme:

Iran	$30,000
Philippines	600
Sudan	2,062
Total	$32,662

The Special Fund

The United Nations Special Fund began operations in 1959, but no grants were made for civil aviation projects. Lebanon, Morocco, Thailand, Tunisia and the United Arab Republic did, however, apply for financial aid from the Fund to establish training centres that would be open to students from neighbouring countries, and Mexico requested assistance for the purpose of expanding the Regional Training Centre in Mexico City which ICAO helped to establish and is helping to support under the Expanded Programme. It is expected that some of these requests will be approved in 1960. The development of the centres should lead to a greater concentration of training activity in the areas they will serve.

Administrative and Operational Services Costs

As it had been requested to do by the Economic and Social Council in Resolution 702 (XXVI), the Council in March considered the problem of the allocation of AOS costs between the regular and Expanded Programme budgets, more specifically the possibility of progressively accepting responsibility for these costs on the regular budget and, pending assumption of full responsibility, accepting a lump sum allocation for them and bearing any excess of expenditure over this allocation on the regular budget. It decided in the negative and the United Nations were so informed. During the discussion it was pointed out that only one of the Specialized Agencies, Unesco, so far had agreed to the progressive assumption of responsibility for AOS costs in its regular budget and it had a technical assistance programme of its own and staff to administer that programme, and that in ICAO there was a much greater distinction between the objectives of the regular programme and the objectives of the Technical Assistance Programme.

The Council on 24 November 1959 noted Resolution 737 (XXVIII) of the ECOSOC which, among other things, asked the organizations participating in the Expanded TA Programme to consider at the earliest practicable time the possibility of including in their regular budgets any administrative and operational services costs not covered by allocations from the Expanded Programme Special Account. It saw no reason to reconsider at this time its decision of 18 March 1959 (XXXVI-14) that ICAO should not assume responsibility for any part of AOS costs in its regular budget, especially as no excess of these costs over the allocation from the Expanded Programme Special Account was expected for the next three years, but agreed that the question should be brought before it again the next time budget estimates were being prepared for submission to the Assembly.

The ECOSOC Resolution had also asked the organizations participating in the Expanded Programme to take steps to have AOS costs presented in their regular budgets and reviewed by their legislative bodies. Even before the adoption of the Resolution, the ICAO Council had included staff costs for the Technical Assistance Bureau, which constitute a major part of AOS costs, in Part II of the 1959 budget with an offset under Miscellaneous Income, and had subjected them to the same examination as staff costs for other Bureaux. Full compliance with the request of ECOSOC would have meant presenting in the regular budget other AOS costs such as those for travel, communications and contractual services, but in view of the decision reported in the preceding paragraph, the Council agreed to go no further in the direction of consolidation. These costs were therefore presented in the 1960, 1961 and 1962 budgets in the same way as they had been presented in the budget for 1959.

3. - Country by Country Review of Technical Assistance Activities

In this section the assistance given under country programmes involving the assignment of experts for all or part of the year and under regional projects is reviewed briefly.

Afghanistan

Training, whose importance was recognized by the Government in the creation of the post of Director General of Training, was the principal activity of the six-man mission in Afghanistan during 1959. The courses, given in such establishments as the Junior Aviation School, the Civil Aviation Section of the Institute of Technology and the Operational Training Centre of the Afghanistan Air Authority, were in radio operation and maintenance, diesel and powerplant maintenance and motor transport maintenance. In addition, members of the mission assisted the civil aviation authorities on many administrative matters, and, in cooperation with the United States technical assistance mission and the national airline, made a study of the personnel requirements for the ground services. The aerodrome engineer who had previously worked in Afghanistan returned for about five months to assist the Government in selecting sites for airports at Mazar-i-Sharif and Farah and in preparing construction plans.

Argentina

A consultant in aviation economics was in Argentina for the entire year preparing data and reports required for the formulation of a long-range plan for civil air transport in the country.

Cambodia

The civil aviation adviser assigned to Cambodia at the end of February prepared a provisional programme of technical assistance in 1960, began to organize training courses in communications and air traffic control and worked with national aviation officials on the solution of the problems involved in bringing the civil aviation services of the country into line with ICAO specifications and plans.

Cuba

The aerodrome engineer assigned to Guatemala visited Cuba for a month at the request of the civil aviation authorities to assist them in solving design problems at Havana Airport.

Ecuador

The radio operations expert, who arrived in Quito in July, advised the Government on air traffic services, communications and navigational aids and on the training programme needed to enable them to be fully manned.

El Salvador

One expert, an aerodrome engineer, was in El Salvador in the early part of the year making a detailed study of the problem of providing San Salvador with an all-weather international airport, either by development of the existing airport of Ilopango or by the construction of a new one at another site. He left in May on completion of his report.

Ethiopia

At the beginning of the year, there were seven experts in the ICAO mission to Ethiopia - two meteorologists, two radio mechanic instructors, two aircraft mechanic instructors and an aerodrome expert. The aerodrome expert completed his one-year assignment in May and the meteorologists were also withdrawn in the course of the year, because, as a result of the training given in the eight years since the mission was established, the Civil Aviation Department had enough personnel to be able to provide any further training that might be required. The 1960 programme makes provision for the addition of an ATC/COM expert.

Although training of meteorological forecasters, radio maintenance mechanics and aircraft and engine mechanics was its main activity, the mission advised the civil aviation authorities on a variety of matters, including the reorganization of the Civil Aviation Department and the acceptance of Class B messages on the Aeronautical Fixed Telecommunications Network, and assisted with the transfer of meteorological and communications equipment at Haile Selassie I Airport first to temporary quarters and then to the new terminal building. The airworthiness expert from the Middle East Flight Safety Project spent some time in Ethiopia giving advice on the establishment of a flight safety division in the Civil Aviation Department.

Greece

There was a mission of three experts - a civil aviation adviser, an ATS expert and a radio engineer - in Greece throughout the year and two experts from the Middle East flight safety project and one from the teletypewriter maintenance project visited the country to provide assistance in their particular fields.

Four training courses were given or started, two in air traffic services, one in radio mechanics and one in communications operations. An ATS trainer was constructed and used in a special course on altimeter setting procedures, and a revised syllabus for teletypewriter and radio operators and a detailed syllabus for the training of air traffic control officers and radio mechanics were prepared. Since January 1958, a total of 163 persons have been trained by the mission in air traffic services, communications operations, radio maintenance, VOR maintenance, airport management, teletypewriter maintenance and fire and crash rescue procedures, but local training is to be discontinued in April 1960 in favour of a fellowship programme at the request of the Government, and the mission will therefore be withdrawn.

In addition to its training activities, the mission drafted, with the assistance of the flight safety adviser from the Flight Safety Project, regulations for pilot and maintenance mechanic licences and advised on the material that should be included in an operations manual. It also made recommendations on obstacle clearance limits for the Athens Flight Information Region, airways and advisory routes, prepared detailed specifications for ILS locator beacons and standby powerplants, helped with the installation of new antennae at the Athens airport radio station, and made detailed recommendations on control panel layouts and interphone arrangements for the air traffic control centre.

Guatemala

The meteorologist assigned to the mission ended his tour of duty in May with the completion of a training course for forecasters, but the radio expert and the aerodrome engineer were employed all year. The radio expert continued his assistance to the Government in the development of fixed and mobile communications services, advising on the installation of new equipment of various kinds and attempting to find frequencies to permit acceptance of Class B messages on the Aeronautical Fixed Telecommunications Network. The aerodrome engineer assisted in the preparation of several alternative plans for the proposed new international airport, designed an extension of the existing runway at La Aurora Airport to 9,000 feet, gave lectures on aerodrome engineering to students at San Carlos University and participated in a series of conferences arranged by the Ministry of Public Works.

Guinea

At the request of the Government of Guinea, arrangements were made for the provision of technical assistance in civil aviation through the appointment of a civil aviation adviser and the grant of two fellowships of a year's duration, one in airport management and the other in air traffic services. The civil aviation adviser left for Guinea in September and will remain through 1960. The two fellowships had been awarded at the end of the year, but the recipients had not begun their studies. The assistance was being given through an allocation from the Contingency Fund of the Executive Chairman of the Technical Assistance Board.

India

One ATS expert was in India for the entire year advising the Government on a number of matters such as changes in the Calcutta control area and zone to meet the requirements of jet aircraft, air traffic control procedures for jets at Calcutta and Bombay, obstacle clearance limits for radio masts, the air traffic control establishment for Calcutta Airport and instructions for radar controllers there. He participated in meetings between representatives of the Civil Aviation Department and the International Air Transport Association at Delhi and Bombay, and assisted with the revision of the holding and approach procedures for jet aircraft operating into these two Airports and that at Calcutta. He also conducted both theoretical and practical training courses in the use of radar in air traffic control.

An expert in the design of terminal buildings, provided under a funds-in-trust arrangement, paid a short visit to Calcutta to assist with the siting and design of airport buildings there.

Indonesia

The departure of two radio engineers and one aircraft mechanic instructor, who had completed their assignments, left the Indonesian mission with a staff of seven at the year's end - the Chief of Mission, three aircraft mechanic instructors, one radio engineer and two pilot ground instructors. A senior ATS instructor and a radio mechanic instructor are expected to join it early in 1960.

Training continued to be the mission's principal activity. With assistance from instructors provided under the Colombo Plan, by the Indonesian Government and by Garuda Indonesian Airways, courses were given in aircraft and engine maintenance, radio maintenance and operation, air traffic control and pilot training, most of the graduates taking employment with the national airline or with the Department of Civil Aviation.

In addition, the mission gave advice and assistance on a variety of matters, for example, the organization of a medical section in the Civil Aviation Department, the establishment of two consultative committees - one on the maintenance and operation of air navigation facilities and services and the other on facilitation, the drafting of air traffic control procedures for jet aircraft, the siting of navigation aids, and the preparation of a request for financial assistance from the United Nations Special Fund for the development of a civil aeronautics centre. One of the ground pilot instructors gave a series of lectures on advanced flight planning, meteorology, celestial navigation, and VOR and Loran operation to senior pilots and operation personnel of Garuda Indonesian Airlines.

Iran

The mission to Iran had a staff of eleven experts for most of the year, three of them air traffic controllers paid by the Iranian Government under a funds-in-trust arrangement made initially in 1957. Among the more important projects undertaken in 1959 were the preparation of a detailed analysis of the aeronautical section of the Meteorological Department, a study on aerial work in Iran, advice on the construction of an airport to be used as the base and maintenance centre for the aircraft of the crop dusting and pest control organization of the Ministry of Agriculture, the preparation (after a meeting with an IATA delegation) of a plan for the modification of Mehrabad Airport to meet the requirements of jet traffic, the revision of the approach control arrangements and procedures there for the same purpose, the selection of sites for non-directional beacons at Deh Namak and Saveh, a survey of the airworthiness and general safety of aircraft registered in Iran, and a review of the airworthiness section of the Department of Civil Aviation which resulted in a number of suggestions for improvement that were accepted by the Iranian authorities. Training, however, remained the mission's main activity, with both classroom instruction and on-the-job training for air traffic controllers, radio mechanics, radio operators and meteorological observers/radio operators. Also, thirty-five teletypewriter operators were given training in the new ICAO teletypewriter procedures and nineteen forecasters training in high level and jet stream analysis.

Iraq

Technical assistance from ICAO, interrupted after the change of government in 1958, was resumed early in June, when the chief of the technical assistance mission in the Egyptian Sector of the United Arab Republic arrived in Baghdad to discuss with the Iraqi authorities plans for the reconstitution of the mission. He found that a building had been provided to house a civil aviation training centre and that the Iraqi authorities wished to have a new mission concentrate on training. He remained there for three weeks, making recommendations on the further work to be done on the building and the equipment required, and arrangements for the initial training programme, which it was agreed should offer four courses - in air traffic control, meteorological observing and forecasting, aeronautical communications and radio maintenance.

A radio maintenance instructor was the first to arrive in June. An ATS expert joined him in October, taking over direction of the basic air traffic control course started in July with Iraqi instructors, and in November a meteorological instructor arrived to take over the forecasting course that had been started in September with an Iraqi instructor assisted by an expert provided by the World Meteorological Organization. Though plans and equipment were ready, the courses in aeronautical communications and radio maintenance had not been organized at the year's end because recruitment had not been completed and certain physical facilities in the training centre had still to be provided.

Israel

An expert in airworthiness and operations was in Israel for the entire year, a training expert for the first six months and an ATS expert for the last four months. The training expert prepared a redraft of the personnel licensing regulations before he left, and the airworthiness and operations expert a draft of regulations on the operation of aircraft. The first was submitted to a licensing committee, the second to an interdepartmental committee established to examine it, and both sets of regulations are expected to come into force in 1960. Detailed syllabi for the various licences and

courses were prepared, a helicopter rating for maintenance engineers was introduced, and a series of lectures on airworthiness codes was given to fourth year students in aeronautical engineering at the Technical University in Haifa. A basic course in air traffic control was begun in September, shortly after the arrival of the ATS expert, and practical training of the graduates started in December on a synthetic air traffic control trainer constructed locally. A manual on air traffic control was prepared, which it is hoped will be published early in 1960.

Jordan

At the end of July, an expert was engaged to draft a civil aviation law for Jordan, and in November he went to Amman to discuss it with the authorities. It was accepted by the Government at the end of the year. Experts from the Middle East Flight Safety and Radio Frequency Projects visited Jordan during the year to assist the civil aviation authorities on matters falling within their respective spheres. (See the section on regional projects.)

Lebanon

When the year opened, there were four experts assigned to the mission in Lebanon - an ATS expert, a meteorologist, a radio maintenance instructor and a radio engineer. An airworthiness expert was added in May and a pilot licensing expert in July. Also in the country for varying period were experts from the three Middle East regional projects whose activities are described later in this chapter.

Training was conducted throughout the year, with courses in air traffic control, meteorology, radio maintenance and radio operation and with on-the-job training of forecasters and assistance forecasters in frontal analysis, air mass analysis and tropopause determination. Among the other activities in which members of the mission were engaged were the provision of assistance to the different ground service in the implementation of the ICAO regional plan, the setting of examinations for ground mechanics and flight engineers, the preparation of a new air traffic control scheme taking into account the requirements of jet traffic, cooperation with an IATA team in working out a solution for the problems created by the operation of turbine-engined aircraft and piston-engined aircraft in the same air space, the coordination of air traffic control procedures in Lebanon and Cyprus and in Lebanon and the Syrian Sector of the United Arab Republic, the provision of advice on the reorganization of the Directorate of Civil Aviation, and assistance to the civil aviation authorities in the preparation of a request for assistance from the United Nations Special Fund in the establishment of a regional civil aviation training centre.

Morocco

A civil aviation adviser arrived in Rabat in the middle of September to survey the needs of Morocco in the field of civil aviation and presented a report on his findings in December. He also assisted the Government in preparing a request for assistance from the United Nations Special Fund in setting up a regional training centre. A legal adviser visited the country in December to prepare an air law and related regulations.

Pakistan

The mission in Pakistan, consisting of two ATS experts, finished its assignment in the second quarter of the year and was withdrawn. A training course for air traffic

controllers was completed in the middle of May, an analysis of the use of radar at Karachi Airport for air traffic control purposes was prepared, and further work was done on plans for the improvement of the Karachi control area to facilitate the operation of turbine-engined aircraft. The airworthiness expert from the Middle East Flight Safety Project spent three months in Pakistan making a survey of the airworthiness organization and investigating aircraft maintenance facilities in different parts of the country.

Paraguay

The mission in Paraguay had a strength of three men for most of the year. The meteorologist and radio engineer were employed all year; the ATS expert left the mission at the end of August and an expert in civil aviation administration joined it at the end of September, to prepare a plan for the organization of a civil aviation authority appropriate to the needs of the country.

The meteorologist continued to give advice on the development of the aeronautical meteorological service, assisted with the installation of equipment at meteorological stations, prepared a plan for the reorganization of the Department of Meteorology and gave both classroom and on-the-job training to meteorological staff. The establishment of a meteorological office at Asunción, which he had recommended, resulted in an extension of the weather information available at the airport there. The radio engineer assisted a governmental commission communications, gave lectures at the National Institute of Telecommunications, made a study of radiotelephony and radiotelegraphy links between major aerodromes for ATS and MET services, and discussed with the civil aviation authorities plans for training to overcome the shortage of operators of aeronautical telecommunications services in Paraguay. The ATS expert gave classroom and on-the-job training in air traffic control, conducted a short advanced course for four controllers with several years' experience and prepared an air traffic control manual.

Peru

The ICAO technical assistance mission in Peru also had an establishment of three during 1959 - a senior training adviser, an aircraft mechanic instructor and a chief flying instructor. In the early part of the year its members were helping with preparations for the opening of the aviation training centre which the Peruvian Government in 1958 had decided to establish at Collique Airport. The senior training adviser took over his duties as director of the centre at the beginning of April and the first course, for aircraft mechanics, started in May with fifteen students, selected from no less than 350 applicants. A second course for aircraft mechanics is planned for February 1960 when the first is expected to end, a commercial pilot course for March, courses for radio mechanics and radio operators/meteorological observers and a third course for aircraft mechanics in July.

Philippines

The three experts in the Philippine mission continued with their programme of training, advice and assistance. The chief of the mission, an ATS expert, made recommendations on the establishment of an enlarged domestic airway system, advised on air traffic control problems generally, acted as Chairman of the Operational Committee of the Air Navigation Services Coordinating Committee and assisted with the training of air traffic control personnel. The radio engineer helped with the installation of navigational aids, prepared specifications and block diagrams for the message relay centre in the new terminal building at Manila Airport, recommended modifications in domestic

communications facilities and in maintenance policies and standards, and participated in the Air Navigation Services Coordinating Committee, giving advice on matters falling within his field. The radio maintenance instructor assisted with the classroom and on-the-job training of airway technicians. With the object of familiarizing operating and supervisory personnel with the new ICAO teletypewriter procedures which came into force at the beginning of October, a series of seminars was held in the Airways Training Centre in August and September.

Saudi Arabia

There was an ICAO civil aviation adviser in Saudi Arabia during the second half of the year, primarily to assist the Government in establishing a civil aviation department. His recommendations on the basic organization of the department were accepted, and appointments to the posts for which it provides are expected to be made early in 1960. He also assisted in the preparation of the 1960 budget for the department, which makes provision for the establishment of a training centre at Jedda Aerodrome. He participated in a series of meetings designed to improve facilitation in Saudi Arabia and in a committee established for the purpose of coordinating the activities of civil and military aircraft. One of the first acts of this committee was to take steps to have the prohibited, restricted and danger areas in the country made more realistic and brought into conformity with international recommendations.

Thailand

The ICAO technical mission had two members in 1959, both aircraft mechanic instructors. One course for aircraft maintenance mechanics was completed and another started. After approval in principle by the Cabinet of Ministers of a proposal to establish a regional training centre in Bangkok, the Organization was asked to provide a training adviser to begin the preparatory work for the centre and the training inspector on the Headquarters staff was sent to Thailand to assist the Government in formulating its request for support of the project by the United Nations Special Fund.

Tunisia

A radio operations instructor and an air traffic control instructor were in Tunisia for the entire year. The civil aviation adviser left in September after assisting with the reorganization of the civil aviation administration, in the preparation of a request for assistance from the United Nations Special Fund in the establishment of a regional training centre and in a survey of the site for a new runway at El Aouina Airport. The two instructors gave courses for radio operators and air traffic controllers, cooperating closely with an instructor from WMO, who was training meteorological observers, and with instructors provided by France under a bilateral agreement in 1958. The expert assigned to the regional teletypewriter maintenance project spent three months in Tunisia giving a training course in his specialty.

United Arab Republic

Egyptian Sector

There were three experts in the mission at the beginning of the year - a radio engineer (Chief of Mission), a radio maintenance instructor and an aircraft maintenance instructor. The latter left in September and had not been replaced when the year closed. A teletypewriter maintenance instructor joined the mission in September and a second

radio engineer in October. The two experts from the regional Flight Safety Project also visited both the Egyptian and Syrian Sectors to give technical advice.

The mission provided general assistance and advice, but training continued to be its principal activity, with courses in air traffic control, radio maintenance, radio operations, radiotelephony procedures and aircraft maintenance. The Chief of Mission assisted the Director General of Civil Aviation in the preparation of a request for funds from the United Nations Special Fund for the extension and support of the training centre in Cairo as a regional training centre, and at the request of the Director General will undertake early in 1960 a survey of training activities in the two Sectors with a view to their closer coordination.

Syrian Sector

The assistance given by the four-man mission in the Syrian Sector of the United Arabic Republic followed the usual pattern, with emphasis on training in air traffic control, radio operations and radio maintenance. Despite overcrowding and language difficulties on the part of most of the students, satisfactory progress was made. An aerodrome engineer paid a visit to Damascus to advise on the adequacy of the main runway for DC-7C, Comet IV and Boeing 707 operations, and a visit from the experts of the regional Flight Safety Project led to the submission of a plan for the establishment of a flight safety division under the Director of Civil Aviation, which would be responsible for aircraft qualification checks, licensing and operational control. A special feature of the mission's work in 1959 was participation in discussion between the Syrian and Lebanese civil aviation authorities, which resulted in a firm plan for coordinated aircraft handling system that will require improved communications between Damascus and Beirut and a new single side band circuit between Beirut, Damascus and Nicosia (Cyprus).

Regional Projects

Middle East

What was described in last year's report as the "Middle East Flight Safety Project" has now been divided into three projects - one with that title, a "Radio Frequency Project" and a "Teletypewriter Maintenance Project".

There were two experts - a flight safety adviser and an airworthiness expert - assigned to the Flight Safety Project. In 1959 they visited half a dozen countries. Reference has been made in earlier paragraphs to their work in Pakistan and the United Arab Republic. In Ethiopia, Greece and Jordan they advised on the establishment of a flight safety division in the Department of Civil Aviation. In Ethiopia and Greece the airworthiness expert also assisted in the preparation of regulations on such matters as aircraft nationality and registration procedures, certification of aircraft and certification of registration, while in Jordan the flight safety adviser helped with the drafting of regulations for the commercial pilot's licence, the airline transport pilot's licence, the instrument rating, instrument rating renewal, examiner rating for pilot licences, aircraft rating, etc. In Lebanon, the flight safety adviser prepared similar regulations as well as making flight checks in connection with personnel licensing and with the installation of runway and approach lighting; the airworthiness expert advised on arrangements for issuing and renewing ground and flight engineers' licences and on the preparation and promulgation of technical circulars.

The Radio Frequency Project, which is designed to help in the solution of the urgent problem of finding frequencies required for the implementation of certain recommended AFTN circuits in the Middle East, had one expert, a radio engineer, assigned to it. He started work in Lebanon at the beginning of August, checking equipment for the investigation of radio frequencies, measuring the frequencies used on the radiotelephony circuit between Beirut and Bahrein and recommending remedial measures in cases where ITU tolerances were not being met. In October, he moved to Jordan where he worked on the assignment of frequencies for the new medium frequency facilities that are to be brought into service, investigated the interference being experienced with the medium frequency non-directional beacon at Jerusalem and assisted with the siting and installation of radio navigational aid equipment required for the implementation of the ICAO regional plan. He was still in Jordan when the year closed.

The expert assigned to the Teletypewriter Maintenance Project gave training courses in Burma, Iran and Tunisia and at the end of the year was engaged in doing the same in Lebanon. In each case the training was on the kind of equipment most widely used in the country and, since the emphasis was on quality rather than quantity, was given to small groups. At the end of the course, both written and practical examinations were given. The expert also advised the various Civil Aviation Departments on the organization of teletypewriter maintenance workshops.

Latin America

ICAO provided in 1959 a director, three aircraft maintenance instructors and one radio maintenance instructor - an air traffic control instructor was added in December - for the Regional Training Centre in Mexico City and fifty scholarships for training at the Centre (See Section 1). About twenty-five instructors were supplied by Mexico. A total of 125 students graduated during the year and 254 were under training when it ended. The courses given were for air traffic controllers, radio mechanics, aircraft maintenance mechanics, flight operations officers, commercial pilots, agricultural pilots and airport commandants. The mission has several improvements to the Centre planned for 1960, including the setting up of an aeronautical operations laboratory with equipment supplied by ICAO late in 1959, the construction of a meteorological station on the roof of one of the buildings at Mexico City Airport, the construction of a completely sealed and dust-proof instrument repair shop and the installation of an aero-engine test-stand donated by Bristol Aircraft.

As noted earlier in this Chapter, the Mexican Government submitted a request for assistance from the Special Fund in a programme of extension and modernization of the centre which included the construction of a training aerodrome about ten miles from Mexico City. At the year's end it was being reconsidered by the Mexican Authorities after indications that certain parts of it could not be met by the Fund.

CHAPTER VI

CONSTITUTIONAL AND LEGAL QUESTIONS

1. The Chicago Acts

Parties*

There was one addition to the Organization's membership in 1959 - the Republic of Guinea, which became a party to the Convention on International Civil Aviation in April, bringing the number of Contracting States to 74. The number of parties to the International Air Services Transit Agreement also rose by one, to 51, with the deposit of an instrument of acceptance by Portugal at the beginning of September. There was no change in the position with respect to the International Air Transport Agreement, which has only eleven contracting parties.

Amendments to the Convention on International Civil Aviation*

On 26 June the Republic of Guinea became the twenty-third State to deposit an instrument of ratification of the protocol of amendment dated 27 May 1947, which introduced a new provision designated Article 93 bis. Five more ratifications are required to bring the protocol into force.

Five States - Brazil, the Federal Republic of Germany, Guatemala, the Republic of Guinea and Indonesia - ratified the protocol of 14 June 1954 amending Article 45 to make possible the transfer of the permanent seat of the Organization by decision of the Assembly. This protocol, which has been in force since 16 May 1958, has now been ratified by 48 Contracting States.

Four of the States mentioned above - Brazil, the Federal Republic of Germany, Guatemala and the Republic of Guinea - also ratified the protocol of the same date amending Articles 48(a), 49(e) and 61 to eliminate the requirement for an annual session of the Assembly. This protocol, which has been ratified by 54 Contracting States, has been in force since 12 December 1956.

Publication of a New Trilingual Edition of the Convention

As indicated in the Council's previous report, a new trilingual edition of the Convention (Doc 7300/2) was published during the year with the English, French and Spanish texts printed in parallel columns for ease of comparison and reference. The English text is the one signed at Chicago on 7 December 1944; the French is a slightly amended version of the one in the first edition of Doc 7300; and the Spanish is a complete substitute for the text on pages 2(E) to 41(E) of that document. These three texts do not constitute the "text drawn up in the English, French and Spanish languages each of which shall be of equal authenticity", contemplated in the final clause of the Convention.

* A complete list of the parties to the Chicago Acts with dates of ratification, adherence or acceptance will be found in Appendix 1. The same Appendix lists the States that have ratified the three protocols amending the Convention and gives the dates on which their instruments of ratification were deposited.

2. Conventions on Private Air Law

The Federal Republic of Germany and the Netherlands became parties to the Convention on the International Recognition of Rights in Aircraft during 1959. Opened for signature at Geneva in June 1948, the Convention is in force for the 13 States that have ratified or adhered to it*. The deposit of an instrument of adherence by Ceylon brought to eight the number of parties to the Convention on Damage caused by Foreign Aircraft to Third Parties on the Surface, opened for signature at Rome in October 1952. This Convention also is in force for the States that have ratified or adhered to it**. As intimated by the depositary, the People's Republic of Poland, the Protocol to Amend the Convention for the Unification of Certain Rules Relating to International Carriage by Air ("The Warsaw Convention"), opened for signature at The Hague in September 1955, was ratified by Australia, France, the German Democratic Republic,*** Ireland, and Yugoslavia. Thirty ratifications are required to bring it into force. It has been ratified by ten States in addition to the five just mentioned****. At its 12th Session, held in June/July 1959, the Assembly noted that participation in these three Conventions has improved somewhat in the three years since the adoption of Resolution A10-39, but felt that the progress made left much to be desired. It accordingly requested the Council, in Resolution A12-23, to invite States once again to ratify or adhere to them and if a satisfactory increase in participation was not obtained in the near future, to try to find out why and decide whether the competent representative bodies of the Organization should be asked to consider what remedial action might be taken.

The draft of a fourth convention - for the unification of certain rules relating to international carriage by air performed by a person other than the contracting carrier -, prepared by the Legal Committee in September 1957, was circulated to Contracting States and interested international organizations in 1958 with a request for comments, in the light of which the Council would consider the convening of a diplomatic conference to give it final form and open it for signature. The comments had not been presented to the Council for consideration when the 12th Session of the Assembly opened, and the United States delegation to that meeting proposed that the draft convention should be referred back to the Legal Committee for revision before it was submitted to a diplomatic conference. They explained that further study of the draft and developments in the field of hire, charter and interchange of aircraft since it was prepared had revealed that the convention posed several problems requiring further consideration by the Committee, among them the ambiguity of Article V dealing with the extent of the liability of the performing carrier in connection with the carriage of cargo. After discussion in the Legal Commission and on its recommendation, the Assembly instructed the Legal Committee to reconstitute the Subcommittee on Hire, Charter and Interchange of Aircraft for the limited purpose of considering the comments received on the draft

* Argentina, Brazil, Chile, Ecuador, El Salvador, the Federal Republic of Germany, Laos, Mexico (with a reservation concerning the priority to be given to fiscal and other claims arising out of work contracts or the salaries and wages of crew), the Netherlands, Norway, Pakistan, Sweden and the United States of America.

** Australia, Canada, Ceylon, Ecuador, Luxembourg, Pakistan, Spain and the United Arab Republic.

*** The depositary has been notified by some States that they do not recognize the German Democratic Republic.

**** El Salvador, Hungary, Laos, Luxembourg, Mexico, New Zealand, Poland, Rumania, the USSR and the United Arab Republic.

convention, with particular attention to Article V, and of making recommendations and suggestions concerning these comments. The Subcommittee was to report to the Legal Committee and the latter was to make every effort to complete its consideration of the matter and report to the Council during 1960. The Subcommittee has been appointed and is scheduled to meet in Paris in the latter part of March 1960. Its report will be considered by the Legal Committee in September.

The draft of a fifth convention - on offences and certain other acts occurring on board an aircraft - was prepared by the Legal Committee at its 12th Session, held in Munich between 18 August and 4 September 1959. It was based on the draft developed by the Subcommittee on the Legal Status of the Aircraft which was described in last year's report (Doc 7960, Page 62). The Committee did not consider the draft convention to be ready for submission to a diplomatic conference and therefore recommended to the Council that it be circulated specifically as a provisional draft dealing with aspects of criminal law and procedure on which the comments of States and interested international organizations would be appreciated. This has been done.

3. Study of Rule 57 of the Standing Rules of Procedure of the Assembly in relation to Article 50 of the Convention

1959 was the year of a Council election and, as in 1956, there was a lengthy discussion in the Assembly on electoral procedure, particularly on the balloting procedure. According to Rule 57 of the Rules of Procedure of the Assembly, there is to be a separate ballot for each of the groups of States described in Article 50(b) of the Convention:

i) States of chief importance in air transport;

ii) States not otherwise included which make the largest contribution to the provision of facilities for international civil air navigation; and

iii) States not otherwise included whose designation will ensure that all major geographic areas of the world are represented on the Council,

but States not elected in the balloting for the first group may be candidates in the balloting for the second and States not elected in the balloting for the second group may be candidates in the balloting for the third. In fact, they are automatically listed on the ballot unless the head of delegation has indicated that his country does not wish to be considered for election in a particular group. This procedure had been challenged by the Nicaraguan delegation to the Assembly in 1956 as being unfair to the third group of States and incompatible with Article 50 of the Convention, but after a study undertaken at the request of the Assembly (Resolution A10-4), the Council had found no such incompatibility and had reported that it had no change to recommend either in the rules governing the election of the Council or in the application of those rules.

Statements by the delegations of the Central American Republics disagreeing with the Council's conclusion gave rise to an extended debate in the Executive Committee of the Assembly, during which various means of achieving better geographic representation on the Council were suggested, for example, that candidates unsuccessful on the first two ballots should not be considered on the third unless they specifically requested it, that there should be an interval of two or three days after the second ballot to enable delegations to consider how any inadequacy in geographic representation after the first two ballots might be corrected in the third, that the size of the Council

should be increased, that eleven of the Council seats should be permanently allotted and the other ten filled by rotation, and that there should be a "gentlemen's agreement" on the distribution of the twenty-one Council seats among the major geographic areas. Some of these suggestions were recognized by their proponents as incapable of being applied at the 1959 election and the procedure finally decided upon differed from that prescribed in Rule 57 only in the following respects:

a) There was to be an interval of three days between the balloting for the second group of States and the balloting for the third.

b) Within forty-eight hours of the balloting for the second group the delegations of States wishing to be candidates for election in the third group were to notify the President of the Assembly in writing. These States could be States that had previously declared that they would be candidates only in the third group, States that had failed to get elected in the first two ballots, or States that had not previously announced their candidature.

c) A list of the names of the States so notified was to be circulated twenty-four hours before the balloting.

The Assembly asked the Council (Resolution A12-3) to prepare and submit to it, if practicable at its next session and in any event not later than at the 1962 Session, draft amendments to the rules of procedure governing the election of the Council. These amendments were to be based on the procedure followed at the 1959 election and on experience with it. The Council will begin considering the subject early in 1960.

4. Study of the Desirability of an Increase in the Size of the Council

As noted in the preceding section, one of the suggestions made at the 12th Session of the Assembly for improving geographic representation on the Council was that there should be an increase in the size of the Council. It was a suggestion that had been made earlier by two States in their comments on the Council's preliminary study of Rule 57 of the Standing Rules of Procedure of the Assembly in relation to Article 50(b) of the Convention and an amendment to the Convention would be required if it were approved. After considerable discussion, the Executive Committee of the Assembly recommended, and the Plenary Meeting agreed, that the Council should be asked to consider, taking into account the views expressed at the Assembly and all other relevant circumstances, whether an increase in the size of the Council was desirable and, if so, what number would be appropriate - 25 had been mentioned in the Assembly discussion - and also whether representation could be improved in other ways. After circulating a preliminary study to Contracting States for their comments, the Council was to present its recommendations to the 1962 Assembly. The subject is scheduled to come before the Council early in 1960.

5. Legal Meetings in 1959

Legal Commission

Both the Legal Commission of the Assembly and the Legal Committee met in 1959. The Commission's main task was to review the work done by the Organization in the legal field since 1956 and to consider the future programme. On its recommendation, the Assembly decided that priority should be given to the preparation of a draft convention

on offences and related acts on board aircraft, to the consideration of States' comments on the draft convention for the unification of certain rules relating to international carriage by air performed by a person other than the contracting carrier, to the re-examination of the draft convention on aerial collisions prepared by the Legal Committee in 1954, to the study of aspects of the legal status of the aircraft commander not covered by the draft convention on offences and related acts on board aircraft, and to the study of legal questions arising in connection with the carriage of nuclear material by air, in particular the relationship between the conventions concerning nuclear material currently being prepared by the International Atomic Energy Agency (IAEA) and the Organization for European Economic Cooperation (OEEC) and the conventions on private international air law prepared under the auspices of ICAO. As indicated in Section 2, a draft convention on offences and certain other acts occurring on board aircraft was prepared by the Legal Committee at its session shortly after the Assembly and a subcommittee has been appointed to examine the comments received on the draft convention for the unification of certain rules relating to international carriage by air performed by a person other than the contracting carrier. A subcommittee has also been appointed to re-examine the draft convention on aerial collisions and is to meet in Paris immediately after the subcommittee mentioned in the preceding sentence. Its report will be considered by the Legal Committee in September 1960. In August a rapporteur appointed by the Chairman of the Legal Committee attended meetings of the panel of experts of the IAEA that is preparing a convention on civil liability for nuclear hazards.

The Legal Commission also recommended the appointment of rapporteurs on two of the subjects in the "inactive" part of the Legal Committee's work programme - "Study of a system of guarantees for the payment of compensation in pursuance of the Warsaw Convention" and "Study with a view to unifying the rules relating to procedure in cases arising under conventions on air law and of the rules of procedure applicable to the execution of judgments". It did not, however, consider it necessary to include in the work programme at this time the legal problems arising in connection with the exploration of outer space, being confident that the United Nations, which had set up an ad hoc committee to study the problems, both technical and legal, connected with the peaceful use of outer space, would consult ICAO if any questions within the Organization's competence arose in the course of the committee's study.

Finally, the Legal Commission considered the preparation of a repertory of practice of the Assembly, the Council and other organs in relation to the Convention on International Civil Aviation, a project which the Council had suggested might be undertaken by the Secretariat in the period 1960-62 as time and resources permitted. This repertory would provide, in a concise and convenient form, a compilation of decisions of representative bodies having a bearing on the application and interpretation of the Convention and would be the ICAO counterpart of the Repertory of Practice of United Nations Organs prepared by the UN Secretariat. In its report, which was approved by the Assembly, the Commission suggested that the Secretariat should prepare a sample repertory for two or three Articles of the Convention, covering decisions for two or three years, and should submit it to the Council for reference to the interested subordinate bodies for an opinion on its usefulness. The sample was to be accompanied by an estimate of the extra cost, if any, of preparing the complete repertory within five years.

Legal Committee

At its 12th Session the Legal Committee had as the principal item on its agenda the preparation of the draft convention on offences and certain other acts occurring on board aircraft mentioned earlier in this chapter. It also prepared for the Council's

approval a revised work programme taking into account the decisions and recommendations of the Legal Commission, laid plans for dealing with the priority items in this programme and drew up a programme of legal meetings for 1960 and a provisional agenda for its next session, which were subsequently approved by the Council. The programme called for a meeting of the Subcommittee on Hire, Charter and Interchange of Aircraft and of the Subcommittee on Aerial Collisions early in 1960 and for a session of the full Committee (the 13th) later in that year*. The provisional agenda contained three items: hire, charter and interchange of aircraft; aerial collisions; and amendments to the rules of procedure of the Legal Committee.

6. Privileges, Immunities and Facilities for the Organization

One more State, Nicaragua, deposited with the Secretary General of the United Nations an instrument of accession to the Convention on the Privileges and Immunities of the Specialized Agencies, undertaking at the same time to apply to ICAO, without reservation, the relevant provisions of that Convention and its Annex III**.

7. Registration of Agreements and Arrangements

Forty-two agreements and arrangements were registered with ICAO in 1959, bringing the total number registered to 1,460. Thirty-one of them were bilateral agreements on air transport or modifications to such agreements, two multilateral agreements on the joint financing of certain air navigation services in Iceland, Greenland and the Faroe Islands and nine arrangements between States and airlines. Monthly lists of the agreements registered were published throughout the year and the Fourth Supplement (Doc 7955, LGB/141) to the 8th Edition of the publication "Aeronautical Agreements Registered with ICAO" (Doc 7568, LGB/92) was issued in January covering the year 1958.

8. Collection of National Aviation Laws and Regulations

The Organization added 175 texts of national laws and regulations to its files during 1959.

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* For the dates fixed by the Council for these meetings, see Appendix 5.

** This brings to twenty-five the number of States that have taken this action, the others being Austria, Cambodia, Chile, Denmark, Ecuador, Finland, Germany (Federal Republic of), Ghana, Guatemala, Haiti, India, Iraq, Jordan, Libya, Luxembourg, Morocco, the Netherlands, Norway, the Philippines, Sweden, Thailand, Tunisia, the United Arab Republic and the United Kingdom.

CHAPTER VII

RELATIONS WITH OTHER INTERNATIONAL ORGANIZATIONS

1. - United Nations

During 1959 relations between the United Nations and ICAO continued to develop within the framework of the UN/ICAO Agreement. In accordance with Article VI of that Agreement, the annual report on the activities of the Organization for the year 1958 was submitted to the Economic and Social Council and considered by that body at its 28th Session, and the ICAO budget for 1960 was reviewed by the Advisory Committee on Administrative and Budgetary Questions. The ICAO Council in turn received the special report prepared by the Advisory Committee after its visit to ICAO Headquarters in June 1958 and during 1960 will consider the Committee's comprehensive report on its visits to all of the Specialized Agencies and the International Atomic Energy Agency, which has been referred to the Agencies by the UN General Assembly.

ICAO was represented at meetings of the ad hoc Committee on the Peaceful Uses of Outer Space, established pursuant to UN General Assembly Resolution 1348 (XIII). During its 14th Session the General Assembly adopted a Resolution (No. 1472) establishing a Committee on the Peaceful Uses of Outer Space with a membership of twenty-four countries, which is to examine how best to undertake, under UN auspices, programmes related to the peaceful use of outer space and to study the nature of the legal problems that may arise from the exploration of outer space. The Resolution also asked the Committee to elaborate, in consultation with the Secretary General of the UN and in cooperation with the appropriate Specialized Agencies, proposals for the convening of a scientific conference under UN auspices for the exchange of experience in peaceful uses of outer space. In view of the relevance of certain aspects of international air law to outer space activities and of the potential interest to aviation of some features of the possible uses of earth satellites, the Organization will continue to follow closely the developments resulting from this Resolution.

At its 29th Session the Economic and Social Council examined proposals to amend the existing specifications for the International Map of the World on the Millionth Scale (IMW) to permit use of the Lambert Conformal Projection (as in the World Aeronautical Chart - ICAO, 1:1,000,000), but agreed to postpone a decision until the views of more States were received. The ICAO AIS/MAP Division at its meeting in 1959 noted the efforts of the UN to bring the specifications for the International Map of the World into closer conformity with those for the ICAO World Aeronautical Chart series in the interests of economy and expeditious production. It proposed that ICAO recommend to the Secretary General of the UN the convening at an early date of an international conference to revise the specifications for the International Map of the World. This recommendation was approved by the Council in November.

Collaboration with the UN continued during 1959 on two matters that have engaged the attention of both Organizations for some time: the carriage of narcotics in first-aid kits on aircraft engaged in international flights and regulations for the carriage of dangerous goods. The first was the subject of a resolution adopted by the Economic and Social Council on the recommendation of the Commission on Narcotic Drugs. This resolution, prepared by a working group of the Commission whose deliberations were attended

by an ICAO representative, recognized that narcotic drugs in limited quantities were necessary in first-aid kits on board aircraft engaged in international flight for use in emergencies, but expressed the view that they should be carried and used under adequate controls and safeguards, and asked the Secretary General of the UN, in cooperation with ICAO and the World Health Organization and in consultation with the International Criminal Police Organization, to prepare and distribute to governments, in sufficient time for consideration at the 15th Session of the Commission on Narcotic Drugs in 1960, a set of requirements designed to ensure the proper use of these drugs and to prevent their abuse and diversion for illicit purposes. An ICAO expert also attended the first session of the Committee of Experts for Further Work on the Transport of Dangerous Goods held in March in Geneva. This Committee was established to continue the efforts initiated by a previous committee to overcome the lack of uniformity in regional and national regulations and codes of practice on the transport of dangerous goods that is hampering the development of trade in these substances. It added over 300 items to the list of more than 600 dangerous goods drawn up by the earlier committee and did further work on the problem of packing. It recommended, however, that the listing of explosives and the development of recommendations concerning the packing of them should be referred to a small group of specialists on explosives. This and other recommendations of the Committee were endorsed by the Economic and Social Council at its 28th Session, which commended it for its work and decided that it should be kept in being and convened again whenever circumstances warranted.

ICAO was also represented at the 9th and final session of the Transport and Communications Commission, which approved a draft resolution requesting the Secretary General of the UN to bring up-to-date technical studies in the field of international travel and tourism and not later than the 31st Session of the Economic and Social Council to make, after consultation with the Specialized Agencies concerned, recommendations for the development of international travel and tourism, including the desirability of convening a world consultative conference on the subject. The resolution was subsequently adopted by the ECOSOC at its 28th Session.

Close relations were, of course, maintained with the UN and with the other Specialized Agencies in connection with the operation of the Expanded Programme of Technical Assistance on which more details may be found in Chapter V.

The Organization was represented at meetings convened by the Regional Economic Commissions for Asia and the Far East, Latin America and Africa and at various inter-agency consultative bodies such as the Administrative Committee on Coordination and its various subcommittees, the Technical Assistance Board and the Joint Staff Pension Board. There were consultations with the UN from time to time on matters related to the "common system", including the comprehensive review of the pension scheme undertaken in pursuance of UN General Assembly Resolution 1310 and the possible acceptance by ICAO of the jurisdiction of the UN Administrative Tribunal.

2. - Specialized Agencies and the International Atomic Energy Agency

International Telecommunications Union (ITU)

The vital interest of international civil aviation in radio communications required the presence of an ICAO representative in Geneva for about four months during 1959 to participate in the ITU Ordinary Administrative Radio Conference. Of particular concern to civil aviation was the work of the Conference on frequency allocations and on the Radio Regulations.

The Conference reviewed the high frequency and very high frequency aeronautical mobile frequency allocations and made no significant changes in the former, though it did agree that an extraordinary administrative radio conference should revise the Aeronautical High Frequency Plan probably sometime in 1964 and provided for the use of frequencies in the 132 -136 Mc/s band for civil aviation communications. A 100 Mc/s band centred on 8800 Mc/s was allocated for use by airborne Doppler and separate bands were allotted for use by airborne and shipping radar operating in the vicinity of 5,000 Mc/s. No separate allocations were possible, however, for radar operating in the 9,000 Mc/s range, with the result that both air and maritime services with radar operating within this range will have to be accommodated within the 9,300 to 9,500 Mc/s band. This was a compromise solution accompanied by a recommendation asking ICAO and the Inter-Governmental Maritime Consultative Organization to study the question of interference in this band. Some changes were made by the conference in the frequency allocations for other aeronautical radio navigation aids and five bands between 960 and 15,700 Mc/s were reserved for the development of electronic aids to air navigation and any directly associated ground facilities. Provision was also made for communications in connection with the exploration of outer space.

On the operational side, the Conference replaced the existing ITU spelling alphabet by the ICAO spelling alphabet, made certain changes in the Radio Regulations that will permit in due course revision of the distress procedures in Annex 10 to meet aeronautical requirements better and invited ICAO's comments on a maritime mobile radio telephone code, particularly that part of it related to search and rescue operations. The provisions with respect to frequencies to be used in survival craft were also amended considerably and the Q Code was revised, taking into account ICAO's recommendations on the subject.

World Meteorological Organization (WMO)

The Fifth Session of the ICAO MET Division was held simultaneously with the Second Session of the Commission for Aeronautical Meteorology of the WMO in September at ICAO Headquarters. This meeting has already been reported on in Chapter II. ICAO was represented at the Third Congress of the WMO, the Fourth Session of the Working Group on Meteorological Transmissions of Regional Association VI (Europe), the Second Meeting of the Working Group on Networks of the Commission for Synoptic Meteorology, and the Second Session of Regional Association II (Asia). The visit of Mr. D.A. Davies, Secretary General of WMO, to ICAO Headquarters in September provided a welcome opportunity to supplement the frequent consultations that take place between the two organizations on the many subjects of common interest.

Inter-Governmental Maritime Consultative Organization (IMCO)

ICAO was represented at the First Session of the Assembly of the Inter-Governmental Maritime Consultative Organization held in London in January and at the Second Session of the Maritime Safety Committee held at the same place in November. At this meeting the Committee proposed the establishment of a Working Group, composed of representatives of ICAO, IMCO, ITU and WMO, to initiate concerted action by the four organizations along the lines contemplated in Recommendation 23 of the 1948 Conference on the Safety of Life at Sea (Coordination of activities for the promotion of safety on and over the sea). In November the Council gave some consideration to the nature of ICAO's relationship with IMCO, accepting a list of technical matters of common interest to the two organizations drawn up by the Air Navigation Commission and agreeing that cooperation on them should be effected by means of informal working arrangements rather than

a formal agreement - a position in harmony with the policy laid down by the First ICAO Assembly in Resolution A1-10. It is understood that the Council's preference for an informal relationship is shared by IMCO.

Food and Agricultural Organization (FAO)

FAO gave very much appreciated assistance to ICAO in 1959 by making available at its headquarters in Rome physical facilities for the Middle East/South East Asia Regional Air Navigation Meeting in January and for the Fifth Session of the Facilitation Division in December. Possibilities of assistance from ICAO to FAO in locust control projects were being examined at the year's end.

International Labour Organization (ILO)

In March the Council approved a statement of ICAO's responsibilities with respect to the international regulation of conditions of employment of civil aviation personnel. Later in the year the Organization participated in an ILO working group representative of governments, employers and workers, which was convened to make preparations for the tripartite meeting on conditions of employment in civil aviation and hours of duty and rest periods of flight personnel to be held under ILO auspices in September 1960. The group was particularly charged with defining the scope of the items on the agenda for the tripartite meeting, paying special attention to any problems arising out of the respective responsibilities of ICAO and ILO.

United Nations Educational, Scientific and Cultural Organization (Unesco)

ICAO collaborated with Unesco in the preparation of a survey of international relations and exchanges in the field of education, science and culture undertaken pursuant to Resolution 695 (XXVI) of the Economic and Social Council and provided it with information for use in connection with the survey on the main trends of inquiry in the field of natural sciences, which is being made in accordance with General Assembly Resolution 1260 (XIII). A paper outlining the problems in technical and vocational education of special interest to ICAO was submitted to an international conference of experts on this type of education convened by the Belgian Government with the assistance of Unesco.

Universal Postal Union (UPU)

ICAO was represented at the meeting of the Air Mail Subcommittee of the Executive and Liaison Commission in March and at the meeting of the Commission itself in May. Other aspects of the relations between the two Organizations are dealt with in Chapter III.

World Health Organization (WHO)

There were consultations between ICAO and WHO on a number of matters of common interest such as international quarantine, disinsectization of aircraft and the carriage of narcotics in aircraft first-aid kits. The Organization was represented at the 12th Session of the World Health Assembly, which authorized the publication of the Manual on Hygiene and Sanitation in Aviation mentioned in last year's Report, and at the 7th Session of the Committee on International Quarantine, whose work is of particular interest to ICAO in connection with the facilitation programme. An expert committee on aircraft disinsectization has been established by WHO and will hold its first meeting in 1960.

International Atomic Energy Agency (IAEA)

A formal agreement between ICAO and the IAEA, which provides a framework for cooperation between the two Organizations, came into effect after approval by the ICAO Council on 28 September and by the General Conference of the IAEA three days later. The development by the Agency of a draft convention on civil liability for nuclear hazards is being followed by ICAO with the object of ensuring that the convention does not conflict with rules laid down in certain existing air law conventions. Another matter that has engaged the attention of the two organizations has been the development by the IAEA of draft regulations, applicable to all means of transport, for the safe transportation of radioactive materials.

3. - Other International Organizations

ICAO was represented during the year at meetings of a number of other international organizations, both governmental and non-governmental, among them the Council of Europe, the International Chamber of Commerce, the Fédération Aéronautique Internationale, the Comité International Radio-Maritime, the European Productivity Agency of the Organization for European Economic Cooperation (OEEC), the International Federation of Airline Pilots' Associations, and the International Air Transport Association. Relations continued to be especially close with the latter, which sent observers to all major ICAO meetings as well as to the sessions of the Air Navigation Commission, and with the International Federation of Airline Pilots' Associations, which was represented at ICAO's technical meetings and panels and at some meeting of the Air Navigation Commission.

Other organizations represented at ICAO meetings in 1959 included the International Airline Navigators' Council, the International Radio Air Safety Association, the International Union of Geodesy and Geophysics, the Institut du Transport Aérien, the International Criminal Police Organization and the International Union of Official Travel Organizations. The Institut du Transport Aérien was added to the list of organizations that receive invitations to ICAO meetings considered to be of interest to them.

CHAPTER VIII

ORGANIZATION, ADMINISTRATION AND FINANCE

1. Introduction

In July the Council re-elected Mr. Walter Binaghi as its President, his term to extend until the post-Assembly session of the Council in 1962. At the beginning of August ICAO's third Secretary General, Mr. R.M. Macdonnell, took office, succeeding Mr. Carl Ljungberg. At the beginning of December, the first Edward Warner Award was conferred posthumously upon Dr. Albert Plesman, founder and long-time President of KLM Royal Dutch Airlines, for outstanding contributions to the development of international civil aviation. Two months earlier a replica of the Award had been presented to Mrs. Edward Warner, the widow of the man in whose honour the Award was established - the Council's first President.

2. Organization and Personnel

Representative Bodies

a) The Assembly

The Twelfth Session of the Assembly was held at the invitation of the United States Government in San Diego, California, between June 16 and July 9. A "full-scale" session at which all aspects of the Organization's work came under review, it was attended by representatives of sixty-three Contracting States, two Non-contracting States (the USSR and Saudi Arabia) and nine international organizations. The honourable E.R. Quesada, head of the United States Delegation and Administrator of the Federal Aviation Agency, was elected President of the Assembly and in that capacity presided over plenary meetings and the meetings of the Executive Committee, composed of heads of delegations, where constitutional and general policy questions were considered. The Chairmen of the Commissions, whose titles indicate the portions of the agenda with which they dealt were:

Technical	- Mr. A. Muench (Switzerland)
Economic	- Mr. Pierre Nottet (Belgium)
Legal	- Mr. S.W. de Villiers (Union of South Africa)
Administrative	- Dr. F.U. Schmidt-Ott (Federal Republic of Germany).

The work of the Assembly is discussed under the appropriate headings in other parts of this Report, but one decision should be mentioned here - the decision to put off until 1962 the establishment of a definitive policy on the frequency of Assembly sessions. The coming into effect of the amendments to Articles 48 a), 49 e) and 61 of the Convention, adopted in 1954, eliminated the requirement for an Assembly session each year, and in the three year period 1957-59 only two sessions were held - a full-scale session in 1959, the year for the election of a new Council, and a session in 1958 with an agenda that, with one exception, was limited to financial and administrative matters. In reporting to the Assembly on the results of this experiment, the Council indicated that they had, on the whole, been favourable, but that it did not consider there had been sufficient experience on which to base a definitive policy; it therefore recommended a similar arrangement in the next three year period. Accepting this recommendation, the Assembly asked the Council, which, under Article 48 a), is empowered to determine the time

and place of Assembly sessions, to convene a major session of the Assembly in 1962 (the year of the next Council election) and, if considered appropriate, another session either in 1960 or in 1961 and to present its recommendation on future policy to the 1962 session. In November the Council decided not to convene the Assembly in 1960, since it was not aware of any subject requiring Assembly consideration in that year.

b) The Council *

The Council election at the Twelfth Session of the Assembly was the fifth since ICAO's establishment in 1947. There were twenty-seven candidates for the twenty-one Council seats. Seventeen of the successful candidates were members of the previous Council. The other four - Denmark, the Federal Republic of Germany, Guatemala and the Philippines - filled the seats that had been occupied by Belgium, Ireland, Mexico and Sweden.

All Council Member States and one non-Council Member State (Peru) maintained full-time representation at Headquarters in 1959. The sequential arrangement of sessions was continued; towards the end of the year the Council reviewed experience with it and the consensus seemed to be that it had advantages over the old system and should be maintained. The discussion on this occasion touched upon working methods in general as well as the sequential arrangement, with several members expressing the view that a further delegation of authority to the Secretary General on administrative matters was necessary, so enabling the Council to devote a greater proportion of its time to questions of direct concern to international civil aviation.

c) Other Representative Bodies *

The terms of the Air Navigation Commission and Air Transport Committee coincide with the Council's, and the appointment of their members was therefore one of the first tasks of the new Council. There were twelve nominees for Commission membership, ten of them members of the previous Commission and one an alternate on that body. For the first time since the Commission was established, Argentina made no nomination, and the twelfth candidate was nominated by Venezuela. All twelve were appointed and Mr. H.T. Mølgaard of Denmark was re-elected President of the Commission. He withdrew from the Commission in December, being succeeded as President of the Commission by Mr. H.S. Marzusch of the Federal Republic of Germany and as member by Mr. Ø. Christiansen of Norway. The Council decided to continue the arrangement introduced on an experimental basis in 1953, which opens membership in the Air Transport Committee to any representative of a Council Member State who desires it and is willing to take an active and continuous part in the Committee's work, and the new membership appointed in September is representative of all but three Council Member States. Fifteen of the eighteen members were members of the previous Committee; the other three are representatives of new Council Members.

The membership of the Joint Support and Finance Committees is elected annually. The former had a membership of eight up to 28 September and of nine after that date, while the Finance Committee's membership during the same periods was nine.

* For the membership of the Council and its subordinate bodies, see Appendix 3.

There were two changes in the membership of the five-man Edward Warner Award Committee (whose term coincides with the Council's), the Representatives of Italy and the Union of South Africa replacing the Representatives of Belgium and Mexico.

One panel (on Origin and Destination Statistics) was established in 1959 and three (the Jet Operations Requirements Panel, the Panel for Coordinating Procedures respecting the Supply of Information for Air Operations and the MAP Panel) were dissolved, having completed the work they were created to do.

d) The Secretariat

The structure of the Secretariat remained unchanged in 1959, but the establishment increased by three to 459 posts (177 in the Professional and higher Categories and 282 in the General Service Category). The additions were on the technical assistance side and are financed from technical assistance funds. Not all of the established posts were filled throughout the year, but pressure of work made it impossible to keep many of them vacant for long periods, and, in fact, necessitated the temporary employment of some staff not provided for in the establishment. As a result, the savings from deferred recruitment that had been allowed for in the 1959 budget were not fully realized and this accounted, in part, for an over-expenditure of Part II of the budget that had to be met by transfers between Parts and a supplementary appropriation. The number of States represented in the Professional Category (internationally recruited) staff rose from thirty-four to thirty-eight, with Austria, Brazil, the Union of South Africa and Viet-Nam being added to the list.

In the field of personnel policy the main developments were the delegation of authority to the Secretary General on certain matters previously requiring approval by the Council or by the Finance Committee *, the introduction of a scheme for compensation in the event of death, injury or illness attributable to the performance of official duties whose provisions are modelled on those of the United Nations compensation scheme, and the introduction of an improved and more comprehensive group health insurance scheme designed to reimburse staff members for a substantial part of the cost of medical services and supplies.

The lodging of a second appeal against a decision of the Secretary General under Part III, Article X, paragraph 6 of the ICAO Service Code in June and the expected lodging of a third early in 1960 gave urgency to the provision of an ultimate appeals authority on a continuous basis. In 1955 the Secretary General had recommended that ICAO accept the jurisdiction of the United Nations Administrative Tribunal, and difficulties involved in having appeals dealt with by ad hoc tribunals, as the first and second have been, led him in October 1959 to renew this recommendation. It has been referred to the Working Group on the Revision of the ICAO Service Code, which has been asked by the Council to give high priority to the question of permanent appeals machinery and to report to the Council with its recommendations early in 1960 if at all possible.

* The grading of posts of Principal Officer level subject to the approval of the President of the Council, determination of the post adjustment classifications of Regional Offices, determination of public holidays to be observed by the staff at Headquarters and in the Regional Offices, fixing of daily subsistence allowance rates and standards of accommodation during travel, and payment of costs of removal of personal effects and furniture from a staff member's home at the time of his appointment to his duty station.

3. The Eleventh Trainee Programme

During the months of September and October nine aviation officials from Denmark, Korea, Liberia, Poland, Switzerland, the United Kingdom (Barbados), the United States, Venezuela and Viet-Nam were at ICAO Headquarters taking part in the eleventh of the "trainee programmes", instituted in 1948 with the object of familiarizing the participants with the Organization's work.

4. Language Services and Publications

The demand upon the Organization's interpretation and printing services reached an all-time high in 1959, a year of a major Assembly and three Divisional-type meetings, and the demand for translation was greater than in any year except 1956, which was also a year of a major Assembly.

	1959	1958	1957	1956
Translation (millions of words)	6.7	6.4	5.9	7.6
Interpretation (man-hours)	18,402	16,790	15,310	13,592
Printing (millions of impressions, internal printing at Headquarters only)	46.1	45	44.7	42

At the end of the year there was a substantial backlog of translation (246,700 words into French and 299,400 words into Spanish) and of printing work (8.6 million impressions), but steps had been taken to eliminate it in the early part of 1960.

Revenue from the sale of ICAO publications in 1959 ($116,537) was more than double what it was in 1958 ($57,378), a situation attributable to several factors such as the issue of new editions of three COM documents - the ICAO publications for which there is the largest demand - incorporating amendments arising from the work of the Sixth Session of the COM Division, the putting of the amendment service on a better basis, and a determined effort to collect amounts owing on publications.

5. Organization and Conduct of Meetings

In 1958 the Assembly, concerned at the increasing demands made by meetings on the financial and personnel resources of Contracting States, asked the Council (Resolution A11-16) to continue the study of means of increasing efficiency in the preparation and conduct of the meetings of the Organization and to seek the cooperation of Contracting States in this regard. In June of that year the Council established a working group to consider and report on the general problem of programming, preparation and conduct of meetings, and in March and May of 1959 devoted considerable time to the report of this group. For the most part the group's recommendations represented a codification of practices developed over the years, but they did propose two innovations. One was the establishment of a group consisting of the President of the Council (Chairman), the President of the Air Navigation Commission, the Chairmen of the Council's Committees, the Secretary General and such other persons as the President might designate on an *ad hoc* basis, whose function would be to review the proposals made by the subordinate bodies concerning the meeting programme and recommend a coordinated programme to the Council. The other was the preparation each year of a triennial meeting programme as an aid to both the Organization and Contracting States in planning and budgeting;

obviously such a programme can be precise and relatively final only for the first year; for the second it will include a number of alternatives and contingencies, and for the third it will be still less definite, being little more than a general projection. The various recommendations were approved by the Council with only minor modifications, and those parts of them dealing with the conduct of meetings and the participation of States were published as Doc 7986. This publication was circulated to Contracting States with a request that they bring it to the attention of their delegates to ICAO meetings. The group on meetings presented its first report in November, proposing the meeting programme for 1960 that appears in Appendix 5. This was approved by the Council, as was also a triennial programme of meetings for 1960-62 in the technical field. These programmes have been communicated to Contracting States.

6. Premises

At its Twelfth Session the Assembly was informed that the Canadian Government was taking steps to place additional space at the disposal of the Organization in the International Aviation Building in Montreal where ICAO Headquarters staff has been housed since July 1949. Subsequent consultations between the Secretary General and the Canadian Authorities indicated that upwards of 10,000 square feet would probably become available early in 1960 and at least as much more late in 1961 or early in 1962.

The only significant development in connection with the premises of Regional Offices was the presentation to the United Nations Advisory Committee on Administrative and Budgetary Questions of a report by the Secretary General of the UN on the consolidation of premises and services at overseas offices. This report, which was transmitted to the UN General Assembly at its Fourteenth Session, gave the location of all offices of the United Nations and Specialized Agencies, indicated the progress made towards the consolidation of premises and services, and concluded that further steps in that direction were desirable in a number of cities, including Bangkok, Cairo, Lima and Paris, where four of ICAO's five Regional Offices are situated. Local committees have been set up in these cities to study what can be done and their recommendations are expected to be available early in 1960.

7. Finance

In the financial field the three main projects in 1959 were the preparation of budgets for 1960, 1961 and 1962, the review of the basis of assessment and the revision of the Financial Regulations.

Since it was not known whether there would be another session of the Assembly before 1962, the Council prepared, and the Assembly voted, budgets for three years, on the understanding that the appropriations for 1961, for 1962 or for both years might be revised, depending on whether there was a session in 1960 or 1961. As the Council has since decided that there will not be an Assembly session in 1960, only the 1962

budget will be subject to review if a session is held in 1961. The appropriations for the three years are given in the table below with the appropriations and actual expenditures for 1959 for purposes of comparison:

	Assembly Appropriations			Appropriations	Actual Expenditures
	1962 $	1961 $	1960 $	1959* $	1959 $
Part I - Meetings	309,000	272,000	210,001	301,201	293,719
Part II - The Secretariat	3,919,289	3,905,402	3,757,639	3,634,400	3,633,118
Part III - General Services	600,973	591,243	598,273	528,502	522,058
Part IV - Equipment	71,650	87,900	75,700	43,900	43,246
Part V - Other Budgetary Provisions	23,901	23,901	23,901	5,601	5,097
Total (Gross)	4,924,813	4,880,446	4,665,514	4,513,604	4,497,238
Miscellaneous Income	841,813	823,446	800,514	734,604	876,562
Total (Net)	4,083,000	4,057,000	3,865,000	3,779,000	3,620,676

Contractual entitlements account for the greater part of the increase in Part II, rental for and alterations to the expected additional space in the Headquarters building for most of the increase in Part III and replacement of furniture and equipment loaned to the Organization by the Canadian Government in 1945 and 1946 for the major portion of the increase in Part IV. The increase in Part V makes provision for the microfilming of correspondence files, documents and working papers to ensure their preservation for historical and research purposes while reducing the space required to house them. In the budget Resolutions the Assembly also authorized the Council to make, if required, a supplementary appropriation of up to $35,000 in each of the three years to cover the cost of placing Montreal in Class 6 of the post adjustment classification scale and a supplementary appropriation of up to $12,800 in 1961 and $25,900 in 1962 for additional staff to handle joint financing work in connection with the implementation of Resolution A12-5 (cf. Chapter II, Section 4).

* These are revised appropriations, taking into account a supplementary appropriation of $15,000 for Part I made by the Assembly, a supplementary appropriation of $92,000 for Part II made by the Council under Financial Regulation 5.2(a) and transfers between Parts approved by the Council. The supplementary appropriations will not involve any additional payments from Contracting States, being covered by the excess of Miscellaneous Income over the amount allowed for it when the 1959 budget was voted and by contributions from new Contracting States.

The Eleventh Session of the Assembly had instructed the Council (Resolution A11-18) to review the basis of assessment and present a report to the Twelfth Session. As a result of this review, which covered an examination of the possibility of adopting a completely new system based on that of the United Nations as well as the possibility of improving the present system, the Council, on a very close vote, decided to recommend the introduction of the following simplifications in the existing system:

i) use of the United Nations basis of assessment as the expression of the "capacity to pay" factor (This means adjusting national income figures by applying a maximum reduction of 50% pro rata for States having a per capita income below $1,000 instead of a maximum reduction of 40% pro rata for States having a per capita income below $500 as in the existing ICAO system.)

ii) assessments expressed in percentages to two places of decimals instead of in units

iii) a minimum assessment of .10% of the total amount assessed

iv) elimination of the elements to be taken into account as "imponderables" in the calculation of the scale of assessments (i.e. the extent of a State's aircraft industry, the extent of a State's non-scheduled operations, benefits derived by a State from its participation in ICAO, benefits conferred by a State upon civil aviation, catastrophic disturbances in the economy of a State and currency problems such as devaluation and difficulty in obtaining dollar funds)

v) elimination of the per capita assessment limitation as a judgment factor

vi) elimination of the 10% limitation upon the increase in the assessment of any State from one year to the next.

The Council's report was referred for detailed consideration to the Administrative Commission of the Assembly where there was an extended debate, chiefly on the adjustment for per capita income - the point on which opinion in the Council had been divided, with the minority insisting that if this particular feature of the United Nations system was to be adopted, it should be accompanied, as it was in the UN, by the mathematical application of the per capita assessment limitation. The outcome of the debate was a decision to recommend, in effect, the retention of the existing ICAO system with three of the modifications advocated by the Council [(i), (ii) and (iv)], in other words, a system with the following principal features:

i) assessments based upon:

capacity to pay, as measured by the United Nations, carrying a weight of 75% in the calculation

interest and importance in civil aviation, as measured by the capacity tonne-kilometres available on the State's scheduled air services, carrying a weight of 25% (capacity tonne-kilometers available on international services being given a weight of 75% and capacity tonne-kilometers available on domestic services a weight of 25%)

ii) assessments expressed in percentages to two places of decimals

iii) a minimum assessment of .13% and a maximum assessment, in principle, of 30%

iv) a per capita assessment limitation applied as a judgment factor

v) a limitation of 10% upon the increase in the assessment of any State from one year to the next.

The Assembly approved the Commission's recommendations after rejecting an amendment that would have maintained the per capita income adjustment hitherto applied in ICAO. It did, however, ask the Council to study the principles of assessment in greater detail, with a view to a closer approximation to the United Nations system, and to report to the next session of the Assembly.

The system recommended by the Administrative Commission was applied in the determination of the scales of assessments for 1960, 1961 and 1962, which are given in Appendix 8. It will be noted that the maximum contribution principle has not been fully implemented in these scales. The Assembly had adopted this principle in 1958 after a long discussion (the maximum assessment having previously been 33-1/3%), had reduced the share of the largest contributor in 1959 from 500 units to 495 out of a total of 1500, and had deferred until its next session a decision on how and when the principle might be further implemented. At this session it decided (Resolution A12-31) that further implementation should be effected by the Secretary General by incorporating the full year's assessment of any new member of the Organization into the 100% scale and distributing it pro rata among all Contracting States except those with the minimum assessment. If this principle was not fully implemented by the 1962 session of the Assembly, the Council was to place the question of its further implementation on the provisional agenda for that session.

The record of payment of Contracting States was even better in 1959 than in the preceding year. Assessments for 1959 totalled $3,675,264 and 95.52% ($3,510,511) had been received at the end of the year as compared with 94.89% in 1958. Under the arrangement authorized by Resolution A4-29, eleven States elected to pay part of their assessments in the currency of the United Arab Republic, French francs, Peruvian soles or Thai bahts; payments equivalent to $138,000 or 3.75% of the total amount assessed were made in these currencies. During 1959 a substantial sum ($584,777) was also received in payment of assessments for previous years, reducing the arrears to $448,348. More than 90% of the latter amount represents long-standing arrears that are being gradually paid off under arrangements approved either by the Assembly or by the Council; the remainder goes back only to 1957. Because of the favourable position with respect to the payment of both current assessments and arrears, the Council recommended the suspension of Clause 5 of Resolution A11-10, which provided that cash deficits caused by arrears must be made good by provision in the budget for the year following the year of audit. The Assembly approved the suspension of this Clause until its session in 1962, but directed the Council to report on the matter again at that time. As only one State was added to the Organization's membership during the year, it was necessary for the Council to exercise only once the authority vested in it by Article VI of the Financial Regulations to determine between sessions of the Assembly the assessments of new Contracting States, subject to approval and possible adjustment at the next session of the Assembly. In May it fixed the assessment of Guinea at the minimum of two units for the period 1 May to 31 December 1959, an action subsequently approved by the Assembly.

The following table shows the cash and investment balances at the beginning of the year and at the end of each quarter, with the figures for 1958 for purposes of comparison:

	General Fund		Working Capital Fund		Total	
	1959	1958	1959	1958	1959	1958
1 January	$ 85,034	$ 98,965	$ 445,735	$ 558,255	$ 530,769	$ 657,220
31 March	962,519	977,380	750,430	515,575	1,712,949	1,492,955
30 June	601,480	575,693	887,301	412,773	1,488,781	988,466
30 September	750,896	750,146	953,821	439,555	1,704,417	1,289,701
31 December	120,750	85,034	915,602	445,735	1,036,352	530,769

The balance in the Working Capital Fund was invested in selected bonds.

In the closing paragraphs of the Council's report for 1958 it was indicated that the Secretary General had submitted to the Council a proposed revision of the Financial Regulations designed to remove ambiguities found in the existing Regulations when the ICAO Working Capital Fund system was being studied, to provide for the possibility of there being more than a year between Assembly sessions and to permit greater flexibility in the administration of the finances of the Organization. This revision was referred to the Finance Committee for detailed examination and the text resulting from the Committee's work on it was presented to the Twelfth Session of the Assembly. The Committee's text in turn was examined in detail by a working group of the Administrative Commission and some changes were made. The main substantive differences between the Regulations approved by the Plenary on the recommendation of the Administrative Commission and the Regulations as they were after the amendments made in 1958 in connection with the revision of the Working Capital Fund system are the inclusion of a provision defining the constitutional position of the Council and the Finance Committee in administering the finances of the Organization, an increase in the limit upon the supplementary appropriations that may be made by the Council to meet unavoidable new expenditures to $150,000 in the second and third years following the adoption of the budget (in the first year the limit is still $100,000), an authorization to the Secretary General to make *ex gratia* payments up to an amount of $200 (payments of higher amounts still require the approval of the Finance Committee), and the exclusion of Financial Regulation 5.2 (Supplementary Appropriations) from the Council's power to suspend or amend the Regulations. The revised Regulations came into force at the beginning of 1960.

APPENDIX I

LIST OF STATES

PARTIES TO THE CHICAGO ACTS

(as of 31 December 1959)

NOTE: The dates mentioned in the table are as follows: day/month/year - (A) designates States which adhered to the Convention.

STATES	Chicago Convention[1] (Deposit of ratification or adherence)	Amendments to Chicago Convention (Deposit of ratification)			Transit Agreement (Notification of acceptance)	Transport Agreement (Notification of acceptance)
		Article 93 bis[2]	Article 45[3]	Articles 48(a), 49(e), 61[4]		
Afghanistan	4/4/47	2/3/48	15/3/56	15/3/56	17/5/45	
Argentina	4/6/46(A)		21/9/56	21/9/56	4/6/46	
Australia	1/3/47		23/8/57	22/4/55	28/8/45	
Austria	27/8/48(A)		13/4/56	13/4/56	10/12/58	
Belgium	5/5/47		28/1/55	28/1/55	19/7/45	
Bolivia	4/4/47		23/5/56	23/5/56	4/4/47	4/4/47
Brazil	8/7/46	14/10/49	17/6/59	17/6/59		
Burma	8/7/48(A)	25/10/51		16/8/57		
Cambodia	16/1/56(A)					
Canada	13/2/46	22/8/47	2/9/58	4/11/54	10/2/45	
Ceylon	1/6/48(A)	9/12/48	6/1/55	6/1/55	31/5/45	
Chile	11/3/47					
China	2/12/53			16/2/56		
Colombia	31/10/47					
Costa Rica	1/5/58				1/5/58	1/5/58
Cuba	11/5/49				20/6/47	
Czechoslovakia	1/3/47	21/4/48	21/2/57	21/2/57	18/4/45	
Denmark	28/2/47		4/6/55	4/6/55	1/12/48	
Dominican Republic	25/1/46	10/11/47	28/12/54	28/12/54		
Ecuador	20/8/54					
El Salvador	11/6/47				1/6/45	1/6/45
Ethiopia	1/3/47		25/10/54	25/10/54	22/3/45	22/3/45
Finland	30/3/49(A)		30/12/54	30/12/54	9/4/57	
France	25/3/47				24/6/48	
Germany (Fed. Rep. of)	9/5/56(A)		27/4/59	27/4/59	9/5/56[5]	
Ghana	9/5/57(A)					
Greece	13/3/47		12/12/56	12/12/56	21/9/45	28/2/46[6]
Guatemala	28/4/47		6/10/59	6/10/59	28/4/47	
Guinea	28/3/59(A)	26/6/59	26/6/59	26/6/59		
Haiti	25/3/48		13/9/57			
Honduras	7/5/53		1/6/55	1/6/55	13/11/45	13/11/45
Iceland	21/3/47		5/7/55	5/7/55	21/3/47	
India	1/3/47	15/12/47	19/1/55	19/1/55	2/5/45	
Indonesia	27/4/50(A)		24/11/59	18/10/55		
Iran	19/4/50	27/4/50			19/4/50	
Iraq	2/6/47	9/12/50	25/3/55	25/3/55	15/6/45	
Ireland	31/10/46		4/1/55	4/1/55	15/11/57	
Israel	24/5/49(A)			13/5/57	16/6/54	
Italy	31/10/47(A)	8/10/52	24/3/58	24/3/58		
Japan	8/9/53(A)		21/6/56	21/6/56	20/10/53	
Jordan	18/3/47(A)				18/3/47	

For footnotes see page 95.

Korea (Republic of)	11/11/52(A)		23/5/57	23/5/57		
Laos	13/6/55(A)		4/6/56	4/6/56		
Lebanon	19/9/49					
Liberia	11/2/47				19/3/45	19/3/45
Libya	29/1/53(A)		6/12/56	6/12/56		
Luxembourg	28/4/48		17/3/55	17/3/55	28/4/48	
Malaya (Federation of)	7/4/58(A)					
Mexico	25/6/46	12/9/49	13/5/55	13/5/55	25/6/46	
Morocco	13/11/56(A)	21/6/57	21/6/57	21/6/57	26/8/57	
Netherlands	26/3/47	24/2/55	14/12/55	31/5/55	12/1/45	12/1/45
New Zealand	7/3/47	22/9/47	8/5/58	8/6/56	19/4/45	
Nicaragua	28/12/45				28/12/45	
Norway	5/5/47		18/4/56	18/4/56	30/1/45	
Pakistan	6/11/47(A)	19/7/48	21/10/55	21/10/55	15/8/47(7)	
Paraguay	21/1/46				27/7/45	27/7/45
Peru	8/4/46		16/5/58	25/9/57		
Philippines	1/3/47	17/11/52	13/8/56	27/7/55	22/3/46(8)	
Poland	6/4/45				6/4/45	
Portugal	27/2/47		20/9/55	20/9/55	1/9/59	
Spain	5/3/47		6/6/55	6/6/55	30/7/45	
Sudan	29/6/56(A)					
Sweden	7/11/46		8/7/55	8/7/55	19/11/45	19/11/45
Switzerland	6/2/47(9)		17/4/56	17/4/56	6/7/45	
Thailand	4/4/47	3/12/57		18/7/56	6/3/47	
Tunisia	18/11/57(A)					
Turkey	20/12/45		23/12/55	23/12/55	6/6/45	6/6/45(10)
Union of South Africa	1/3/47		24/5/56	24/5/56	30/11/45	
United Arab (Egypt	13/3/47	24/11/49	15/3/55	15/3/55	13/3/47	
Republic (Syria	21/12/49	23/1/53	8/3/56	8/3/56		
United Kingdom	1/3/47	19/1/48	17/2/55	17/2/55	31/5/45	
United States	9/8/46			22/5/56	8/2/45(11)	
Uruguay	14/1/54					
Venezuela	1/4/47(A)			6/7/56	28/3/46	
Viet-Nam	19/10/54(A)	30/12/57	30/12/57	30/12/57		

(1) In force as of 4 April 1947.

(2) Not yet in force.

(3) In force as of 16 May 1958.

(4) In force as of 12 December 1956.

(5) Entered into force for the Federal Republic of Germany on 8 June 1956.

(6) Reservation accompanying the acceptance of Greece: "In accepting this Agreement (Transport) in accordance with Article VIII, paragraphe (2) thereof, I am directed to make a reservation with respect to the rights and obligations contained in Article I, Section 1, paragraph (5) of the Agreement which, under Article IV, Section 1, Greece does not wish, for the time being, to grant or receive."

(7) The Ambassador of Pakistan made the following statement in the Note No. F. 96/48/1 of 24 March 1948 to the Department of State: " ... that by virtue of the provisions in Clause 4 of the Schedule of Indian Independence (International Arrangements) Order, 1947, the International Air Services Transit Agreement signed by United India continues to be binding after the partition on the Dominion of Pakistan." The acceptance by India on 2 May 1945 of the Transit Agreement applied also to the territory, then a part of India, which later, on 15 August 1947, became Pakistan.

(8) Reservation accompanying acceptance of the Philippines: "The above acceptance is based on the understanding ... that the provisions of Article II, Section 2 of the International Air Services Transit Agreement shall become operative as to the Commonwealth of the Philippines at such time as the Convention on International Civil Aviation shall be ratified in accordance with the Constitution and laws of the Philippines." (The Philippine instrument of ratification of the Convention on International Civil Aviation was deposited on 1 March 1947.)

(9) The Minister of Switzerland made the following statement in the note transmitting the Swiss instrument of ratification: "My Government has instructed me to notify you that the authorities in Switzerland have agreed with the authorities in the Principality of Liechtenstein that this Convention will be applicable to the territory of the Principality as well as to that of the Swiss Confederation, as long as the Treaty of March 29, 1923 integrating the whole territory of Liechtenstein with the Swiss customs territory will remain in force."

(10) Reservation accompanying the acceptance of Turkey: " ... the reservation made by the Turkish Delegation on the fifth freedom of the air contained in the International Air Transport Agreement is explained in the following article of the law by which the aforementioned instruments have been ratified: 'The Turkish Government, when concluding bilateral agreements, shall have the authority to accept and apply for temporary periods the provision regarding the fifth freedom of the air contained in the International Air Transport Agreement'."

(11) The acceptance of the Government of the United States of America was " ... given with the understanding that the provisions of Article II, Section 2, of the International Air Services Transit Agreement ..., shall become operative as to the United States of America at such time as the Convention on International Civil Aviation ... shall be ratified by the United States of America." (The United States instrument of ratification of the Convention on International Civil Aviation was deposited on 9 August 1946.)

APPENDIX 2

ANNEXES TO THE CONVENTION

SIGNIFICANT DATES

Annex No.	Title and Number of Amendments	Date of Adoption	Effective Date	Date of Applicability	Current Edition
1	Personnel Licensing	14/4/48	15/9/48	1/5/49	
	Amendments 1 - 123	22/3/50	1/9/50	1/10/51	
	Amendments 124 - 129	27/6/50	1/11/50	1/10/51	
	Amendments 130 - 151	25/11/52	1/4/53	1/4/55	
	Amendment 152	22/2/56	1/7/56	1/12/56	
	Amendment 153	16/4/57	1/9/57	1/12/57	
	Amendment 154	13/6/57	1/10/57	1/12/57	4th
2	Rules of the Air	15/4/48	15/9/48	1/1/49	
	Amendment 1	27/11/51	1/4/52	1/9/52	
	Amendment 2	17/11/53	1/4/54	1/9/54	
	Amendment 3	11/5/56	15/9/56	1/12/56	
	Amendment 4(1)	14/11/58	-	-	3rd
	Amendment 5	8/12/59	1/5/60	1/8/60	
3	Meteorology	16/4/48	15/9/48	1/1/49	
	Amendments 1 - 21	17/9/48	23/12/48	1/1/49	
	Amendments 22 - 37	29/9/51	1/10/51	1/1/52	
	Amendment 38	15/12/53	1/8/54	1/9/54	
	Amendment 39	18/5/54	20/8/54	1/9/54	
	Amendment 40	28/9/54	1/1/55	1/1/55	
	Amendment 41	1/4/55	1/8/55	1/1/56	4th
	Amendment 42	8/5/56	1/9/56	1/12/56	
	Amendment 43	13/6/57	1/10/57	1/12/57	
4	Aeronautical Charts	16/4/48	1/11/48	1/3/49	
	Amendment 1	6/12/48	1/3/49	1/3/49	
	Amendments 2 - 22	15/11/49	1/6/50	1/9/50	
	Amendments 23 - 28	25/6/51	1/11/51	1/1/52	
	Amendment 29	19/6/52	1/12/52	1/4/53	
	Amendment 30	22/2/56	1/7/56	1/12/56	
	Amendments 31 & 32	13/6/57	1/10/57	1/12/57	
	Amendment 33 (1)	14/11/58	-	-	4th
5	Dimensional Units to be used in Air-Ground Communications	16/4/48	15/9/48	1/1/49	
	Amendments 1 - 11	11/12/51	1/5/52	1/9/52	2nd

Annex No.	Title and Number of Amendments	Date of Adoption	Effective Date	Date of Applicability	Current Edition
6	Operation of Aircraft, International Commercial Air Transport	10/12/48	15/7/49	1/1/50	
	Amendments 1 - 127	5/12/50	1/6/51	1/10/51	
	Amendments 128 - 131	4/12/51	1/5/52	1/9/52	
	Amendments 132 - 133	28/11/52	1/4/53	1/6/53	
	Amendment 134	2/12/52	1/5/53	1/7/53	
	Amendment 135	20/10/53	1/3/54	1/11/54	
	Amendment 136	23/2/56	1/7/56	1/12/56	
	Amendment 137	8/5/56	1/9/56	1/12/56	
	Amendment 138	15/5/56	15/9/56	1/12/56	
	Amendment 139 - 140	13/6/57	1/10/57	1/12/57	5th
	Amendment 141	12/5/58	1/9/58	1/12/58	
	Amendment 142	8/12/59	1/5/60	1/8/60	
7	Aircraft Nationality and Registration Marks	8/2/49	1/7/49	1/10/49(2) 1/1/51(3)	1st
8	Airworthiness of Aircraft	1/3/49	1/9/49	1/10/49	
	Amendments 1 - 63	26/6/50	1/1/51	1/2/51	
	Amendments 64 - 83	13/11/51	15/4/52	15/5/52	
	Amendment 84	2/12/52	1/5/53	1/6/53	
	Amendment 85	13/6/57	1/10/57	1/12/57 13/6/60(4)	4th
9	Facilitation of International Air Transport	25/3/49	1/9/49	1/3/50	
	Amendment 1	7/11/52	1/3/53	1/7/53	
	Amendment 2	17/5/56	1/11/56	1/3/57	3rd
10	Aeronautical Telecommunications	30/5/49	1/3/50	1/4/50	
	Amendments 1 - 5	28/3/51	1/10/51	# 1-3 on 1/1/52 # 4-5 on 1/4/52	
	Amendment 6	1/4/52	4/7/52	1/9/52	
	Amendments 7 - 11	17/6/52	1/12/52	1/4/53	
	Amendment 12	28/11/52	1/3/53	1/4/53	
	Amendment 13	5/5/53	15/8/53	1/10/53	
	Amendment 14	11/12/53	1/5/54	1/6/54	
	Amendments 15 - 16	2/11/54	1/3/55	1/4/55	
	Amendments 17 - 20	10/12/54	1/4/55	1/10/55	
	Amendment 21	27/5/55	1/9/55	1/10/55	
	Amendment 22	18/11/55	1/4/56	1/12/56	
	Amendment 23	18/11/55	1/3/56	1/3/56	
	Amendment 24	18/11/55	1/4/56	1/12/56	

Annex No.	Title and Number of Amendments	Date of Adoption	Effective Date	Date of Applicability	Current Edition
10	Aeronautical Telecommunications (Cont.)				
	Amendment 25	8/11/55	-	-	
	Amendment 26	22/2/56	1/7/56	1/12/56	
	Amendment 27	11/5/56	15/9/56	1/12/56	
	Amendment 28	15/5/56	15/9/56	1/12/56	
	Amendment 29	4/6/57	1/10/57	1/12/57	
	Amendment 30(5)	25/11/57	-	1/12/57	
	Amendment 31	21/3/58	1/8/58	1/12/58	
	Amendment 32	9/6/58	1/10/58	1/12/58	5th
	Amendment 33	15/12/58	1/4/59	1/10/59	
	Amendment 34	8/12/59	1/5/60	1/8/60	
11	Air Traffic Services	18/5/50	1/10/50	1/6/51	
	Amendments 1 - 6	27/11/51	1/4/52	1/9/52	
	Amendment 7(1)	22/2/56	-	-	
	Amendment 8	11/5/56	15/9/56	1/12/56	3rd
	Amendment 9	8/12/59	1/5/60	1/8/60	
12	Search and Rescue	25/5/50	1/12/50	1/3/51	
	Amendment 1	31/3/52	1/9/52	1/1/53	
	Amendment 2	8/5/56	1/9/56	1/12/56	3rd
	Amendment 3	13/6/57	1/10/57	1/12/57	
	Amendment 4	8/12/59	1/5/60	1/8/60	
13	Aircraft Accident Inquiry	11/4/51	1/9/51	1/12/51	1st
14	Aerodromes	29/5/51	1/11/51	1/6/52(6) 1/1/54(7)	
	Amendments 1 - 6	20/5/53	1/9/53	1/4/54	
	Amendments 7 - 13	12/5/58	1/9/58	1/12/58	3rd
	Amendment 14	7/4/59	1/9/59	1/10/59	
	Amendment 15	15/4/59	1/9/59	1/10/59	
15	Aeronautical Information Services	15/5/53	1/9/53	1/4/54	1st.
	Amendment 1	27/5/55	1/10/55	1/10/55	
	Amendment 2	15/5/56	15/9/56	1/12/56	
	Amendment 3	16/4/57	1/9/57	1/12/57	
	Amendment 4(1)	14/11/58	-	-	
	Amendment 5	24/3/59	1/9/59	1/10/59	

(1) Amendment to an Attachment to the Annex
(2) for aircraft being registered for the first time
(3) for all other aircraft
(4) See Annex 8, Part II, 2.1, and Part III, 1.1.1, for details.
(5) Collateral amendment
(6) for Aerodromes used as regular or alternate aerodromes by international air services
(7) for all other Aerodromes used or intended to be used for the operation of aircraft engaged in international air navigation

APPENDIX 3

THE COUNCIL, ITS COMMITTEES AND THE AIR NAVIGATION COMMISSION

COUNCIL

To 30 June

	Representatives	Alternates
Argentina	Mr. E. D. L. Rosso (to 31 March) Mr. H. R. Settis (from 31 March)	Mr. G. A. Gonzalo (to 31 March) Mr. O. Cardoso (from 31 March)
Australia	Mr. D. J. Medley	
Belgium	Mr. A. X. Pirson	
Brazil	Col. E. Chagas (2nd Vice-President)	Major M. E. Silva
Canada	Mr. J. R. Belcher	Mr. R. J. Crossley
France	Mr. Henri Bouché	Mr. M. Pascal (to 21 January) Mr. M. Agésilas (from 21 January)
India	Captain G. C. Arya	
Ireland	Mr. W. G. Algar (1st Vice-President)	
Italy	Dr. Alfonso Cucci	
Japan	Mr. I. Narahashi	
Lebanon	Dr. Assad Kotaite	
Mexico	Dr. E. M. Loaeza	
Netherlands	Dr. F. H. Copes van Hasselt	Mr. P. de Winter
Portugal	Mr. C. Themudo Barata	
Spain	Col. M. Orduna	Lt. Col. F. Tordesillas
Sweden	Mr. Henry Söderberg (3rd Vice-President)	Mr. Bjørn Aakre

	Representatives	Alternates
Union of South Africa	Mr. J. Scholtemeyer	
United Arab Republic	Mr. M. S. El-Karmouty	
United Kingdom	Mr. J. H. Riddoch	Mr. J. R. Neill
United States	Mr. Nelson B. David	Mr. H. W. Helfert
Venezuela	Col. M. V. Véjar (to 9 February)	Mr. José E. Guitián (from 21 January)
	after 30 June	
Argentina	Mr. H. R. Settis	Mr. O Cardoso
Australia	Mr. D. J. Medley	
Brazil	Col. M. R. de Souza Coelho	Major M. E. Silva
Canada	Mr. J. R. Belcher	Mr. R. J. Crossley
Denmark	Mr. J. Lindtner	Mr. S. E. Østlund
Fed. Rep. of Germany	Dr. U. Schmidt-Ott	Mr. H. S. Marzusch
France	Mr. Henri Bouché	Mr. M. Agésilas
Guatemala	Col. F. Juárez Rodas	
India	Captain G. C. Arya	
Italy	Dr. Alfonso Cucci	
Japan	Mr. I. Narahashi (3rd Vice President)	
Lebanon	Dr. A. Kotaite	
Netherlands	Dr. F. H. Copes van Hasselt (1st Vice-President)	Mr. P. de Winter
Philippines	Mr. Benjamin E. Martinez	
Portugal	Mr. C. Themudo Barata	
Spain	Col. M. Orduna	Lt. Col. F. Tordesillas
Union of South Africa	Mr. J. Scholtemeyer (to 1 December) Mr. J. F. W. Cilliers (from 1 December)	

	Representatives	Alternates
United Arab Republic	Mr. M. S. El-Karmouty (2nd Vice-President)	
United Kingdom	Mr. J. H. Riddoch	Mr. J. R. Neill
United States	Mr. Nelson B. David	
Venezuela	Dr. V. J. Delascio	Mr. José E. Guitián

AIR NAVIGATION COMMISSION

to 28 September

Mr. G. A. Gonzalo	nominated by	Argentina
Major M. E. Silva	"	Brazil
Mr. R. J. Crossley	"	Canada
Mr. P. K. Casey (Alternate)	"	Canada
Mr. H. T. Mølgaard (President)	"	Denmark
Mr. M. Agésilas	"	France
Mr. H. S. Marzusch	"	Federal Republic of Germany
Mr. Y. Tagaya	"	Japan
Mr. S. Segawa (Alternate)	"	Japan
Mr. P. de Winter	"	Netherlands
Col. M. Gambetta (to 23 March)	"	Peru
Col. F.A.P. Jorge Penny (from 23 March)	"	Peru
W/C F.A.P. Jorge A. Manchego (Alternate from 7 May)	"	Peru
Lt. Col. F. Tordesillas	"	Spain
Mr. J. R. Neill	"	United Kingdom
Mr. H. W. Helfert	"	United States
Mr. Claude H. Smith (Alternate)	"	United States
Mr. Francis H. Fuqua (Alternate)	"	United States

after 28 September

Major M. E. Silva	nominated by	- Brazil
Mr. R. J. Crossley	"	- Canada
Mr. P. K. Casey (Alternate)	"	- Canada
Mr. H. T. Mølgaard (President to 10 December)	"	- Denmark
Mr. O. Christiansen (Alternate to 10 December)	"	- Denmark
(Member from 10 December)	"	- Norway
Mr. H. S. Marzusch (President from 10 December)	"	- Federal Republic of Germany
Mr. M. Agésilas	"	- France
Mr. Y. Tagaya	"	- Japan
Mr. P. de Winter	"	- Netherlands
Col. F.A.P. Jorge Penny	"	- Peru
W/C F.A.P. Jorge A. Manchego (Alternate)	"	- Peru
Lt. Col. F. Tordesillas	"	- Spain
Mr. J. R. Neill	"	- United Kingdom
Mr. Claude H. Smith	"	- United States
Mr. J. E. Guitián	"	- Venezuela

AIR TRANSPORT COMMITTEE

to 28 September

Mr. E. D. L. Rosso (to 31 March)	Argentina
Mr. H. R. Settis (from 31 March)	Argentina
Mr. D. J. Medley	Australia
Mr. A. X. Pirson (Chairman to 30 June)	Belgium
Col. E. Chagas (to 30 June)	Brazil
Mr. J. R. Belcher	Canada
Mr. R. J. Crossley (Alternate)	Canada

Mr. Henri Bouché	France
Mr. Pierre Lescure (Alternate)	France
Capt. G. C. Arya	India
Mr. W. G. Algar (to 30 June)	Ireland
Dr. A. Cucci	Italy
Mr. I. Narahashi	Japan
Dr. A. Kotaite	Lebanon
Dr. E. M. Loaeza (to 30 June)	Mexico
Dr. F. H. Copes van Hasselt	Netherlands
Mr. C. Themudo Barata	Portugal
Mr. Bjørn Aakre	Sweden
Mr. J. Scholtemeyer	Union of South Africa
Mr. M. S. El Karmouty	United Arab Republic
Mr. J. H. Riddoch	United Kingdom
Mr. J. R. Neill (Alternate)	United Kingdom
Mr. Nelson B. David	United States
Mr. J. C. Watson (Alternate)	United States
Mr. H. W. Helfert (Alternate)	United States
Col. M. V. Véjar Gorrín (to 9 February)	Venezuela
Dr. V. J. Delascio (from 10 April)	Venezuela
Mr. J. E. Guitián (Alternate)	Venezuela

after 28 September

Mr. H. R. Settis	Argentina
Mr. D. J. Medley	Australia
Mr. J. R. Belcher	Canada
Mr. R. J. Crossley (Alternate)	Canada

Mr. S. E. Ostlund	Denmark
Dr. F. U. Schmidt-Ott	Federal Republic of Germany
Mr. L. F. Vieth (Alternate)	Federal Republic of Germany
Mr. Henri Bouché	France
Mr. Pierre Lescure (Alternate)	France
Dr. F. Juárez	Guatemala
Capt. G. C. Arya	India
Dr. A. Cucci	Italy
Mr. I. Narahashi	Japan
Dr. A. Kotaite (Chairman)	Lebanon
Dr. F. H. Copes van Hasselt	Netherlands
Mr. C. Themudo Barata	Portugal
Mr. J. Scholtemeyer (to 1 December)	Union of South Africa
Mr. J. F. W. Cilliers (from 10 December)	Union of South Africa
Mr. M. S. El Karmouty	United Arab Republic
Mr. J. H. Riddoch	United Kingdom
Mr. J. R. Neill (Alternate)	United Kingdom
Mr. Nelson B. David	United States
Mr. J. C. Watson (Alternate)	United States
Dr. V. J. Delascio	Venezuela
Mr. J. E. Guitián (Alternate)	Venezuela

COMMITTEE ON JOINT SUPPORT OF AIR NAVIGATION SERVICES

to 28 September

Mr. D. J. Medley	Australia
Mr. A. X. Pirson (to 30 June)	Belgium
Mr. J. R. Belcher	Canada

Mr. Henri Bouchĕ	France
Mme. C. Labas'se (Alternate)	France
Dr. F. H. Copes van Hasselt	Netherlands
Mr. Bjørn Aakre	Sweden
Mr. J. H. Riddoch (Chairman)	United Kingdom
Mr. J. R. Neill (Alternate)	United Kingdom
Mr. Nelson B. David	United States
Mr. H. W. Helfert (Alternate)	United States

after 28 September

Mr. D. J. Medley	Australia
Mr. J. R. Belcher	Canada
Mr. R. J. Crossley (Alternate)	Canada
Mr. J. Lindtner	Denmark
Mr. S. E. Ostlund (Alternate)	Denmark
Dr. F. U. Schmidt-Ott	Federal Republic of Germany
Mr. L. F. Vieth (Alternate)	Federal Republic of Germany
Mr. Henri Bouché	France
Mr. Pierre Lescure (Alternate)	France
Mme. C. Labasse (Alternate)	France
Dr. F. H. Copes van Hasselt	Netherlands
Mr. C. Themudo Barata	Portugal
Mr. J. H. Riddoch	United Kingdom
Mr. J. R. Neill (Alternate)	United Kingdom
Mr. Nelson B. David (Chairman)	United States

FINANCE COMMITTEE

to 28 September

Mr. J. R. Belcher (Chairman)	Canada
Mr. R. J. Crossley (Alternate)	Canada
Mr. Henri Bouché	France
Mr. Pierre Lescure (Alternate)	France
Capt. G. C. Arya	India
Dr. A. Kotaite	Lebanon
Dr. E. M. Loaeza (to 30 June)	Mexico
Mr. H. Söderberg (to 30 June)	Sweden
Mr. J. Scholtemeyer	Union of South Africa
Mr. J. H. Riddoch	United Kingdom
Mr. J. R. Neill (Alternate)	United Kingdom
Mr. Nelson B. David	United States
Mr. H. W. Helfert (Alternate)	United States

after 28 September

Mr. D. J. Medley	Australia
Mr. J. R. Belcher (Chairman)	Canada
Mr. S. E. Ostlund	Denmark
Dr. F. U. Schmidt-Ott	Federal Republic of Germany
Mr. L. F. Vieth (Alternate)	Federal Republic of Germany
Mr. Henri Bouché	France
Mr. Pierre Lescure (Alternate)	France
Capt. G. C. Arya	India

Mr. J. Scholtemeyer (to 1 December)	Union of South Africa
Mr. J. H. Riddoch	United Kingdom
Mr. J. R. Neill (Alternate)	United Kingdom
Mr. Nelson B. David	United States

EDWARD WARNER AWARD COMMITTEE

to 28 September

Mr. Walter Binaghi (President of the Council) - Chairman

Mr. A. X. Pirson (to 30 June)	Belgium
Mr. J. R. Belcher	Canada
Dr. E. M. Loaeza (to 30 June)	Mexico
Dr. F. H. Copes van Hasselt	Netherlands

after 28 September

Mr. Walter Binaghi (President of the Council) - Chairman

Mr. J. R. Belcher	Canada
Dr. A. Cucci	Italy
Dr. F. H. Copes van Hasselt	Netherlands
Mr. J. Scholtemeyer	Union of South Africa

APPENDIX 4

ICAO MEETINGS IN 1959

Meetings	Site and Duration
Assembly	
12th Session	San Diego, 16 June - 9 July
Council and its Committees	
36th Session	Montreal, Committee phase: 16 January - 19 February Montreal, Council phase: 4 February - 25 March
37th Session	Montreal, Committee phase: 22 April - 1 May Montreal, Council phase I: 27 April - 15 May San Diego, Council phase II: 11, 26 June
38th Session	San Diego, Council phase I: 13 July Montreal, Committee phase: 30 September - 9 November Montreal, Council phase II: 28 September, 12 November - 10 December
Air Navigation Commission	
30th Session	Montreal, 27 January - 26 March
31st Session	Montreal, 28 April - 28 May San Diego, 26 June
32nd Session	Montreal, 29 September - 10 December
Legal Committee	
12th Session	Munich, 18 August - 4 September
Divisional-Type Meetings	
Communications/Operations/ Rules of the Air and Air Traffic Control (COM/OPS/ RAC - Short-distance Navaids Meeting)	Montreal, 10 February - 2 March
Aeronautical Information Services/Aeronautical Maps and Charts (AIS/MAP)	Montreal, 28 April - 25 May

Meetings	Site and Duration
Divisional-Type Meetings (Cont'd)	
Meteorology (MET) (Fifth)	Montreal, 1 September - 29 September
Facilitation (FAL) (Fifth)	Rome, 1 December - 17 December
Regional Meetings	
Middle East/South East Asia Regional Air Navigation Meeting	Rome, 7 January - 3 February
Special North Atlantic Fixed Services (Second)	Paris, 12 January - 21 January
Panel on the Development and Implementation of the Meteorological Operational Telecommunication Network, Europe (MOTNE Panel) (Second)	Paris, 23 June - 4 July
European-Mediterranean Frequency Coordinating Body (FCB) (Informal)	Paris, 20 July - 24 July
European Civil Aviation Conference (ECAC)(Third)	Strasbourg, 9 March - 20 March
ECAC Committee on Co-ordination and Liberalization (COCOLI) (First)	Paris, 3 November - 7 November
ECAC Working Group on Statistical Returns at Airports (SRA)	Paris, 2 November - 3 November
Panel-Type Meetings	
Panel for Coordinating Procedures respecting the Supply of Information for Air Operations (PIA Panel) (First)	Montreal, 25 May - 5 June
Airworthiness (AIR) Committee (Third)	Stockholm, 14 July - 10 August
Jet Operations Requirements (JOR Panel) (Fourth)	Montreal, 28 September - 9 October
Panel on Origin and Destination Statistics (O & D Panel) (First)	Montreal, 26 October - 30 October

APPENDIX 5

MEETINGS SCHEDULED FOR 1960

Meetings	Site (if known)	Date
A. Meetings Definitely Scheduled		
Third African-Indian Ocean Regional Air Navigation Meeting	Rome	26 January - 20 February
Special European-Mediterranean Air Traffic Control and Communications Regional Air Navigation Meeting	Paris	23 February - 14 March
Fifth North Atlantic Ocean Stations Conference	The Hague	17 March
Subcommittee of the Legal Committee on the Tokyo Draft Convention, and Subcommittee on the Draft Convention on Aerial Collisions	Paris	21 March - 9 April (Subcommittees to meet consecutively)
Panel of Teletypewriter Specialists Fourth Meeting	Montreal	25 April - 14 May
Legal Committee, 13th Session	Montreal	6 - 24 September
Airworthiness Committee, Fourth Meeting	Montreal	25 October - 21 November
B. Meetings Tentatively Scheduled		
Panel on Origin and Destination Statistics, Second and Third Meetings	One in Paris	April or May for the Second, late in 1960 for the Third, for 2 weeks each.
Panel on Visual Aids to Approach and Landing, First Meeting	Montreal	Third quarter of 1960; 2 to 3 weeks
Radiotelephony Speech Panel, Second Meeting	Montreal	Last quarter of 1960; 2 or 3 weeks
Special Meeting to Review the Aeronautical Fixed Telecommunications Network in the European-Mediterranean Region	Paris	Toward the end of 1960

Meetings	Site (if known)	Date
Committees and Working Groups of the European Civil Aviation Conference:		
Committee on Coordination and Liberalization, Second Meeting	Paris	4 April for 5 days
Same Committee, Third Meeting	Paris	some time in October for 5 days
Two Study Groups on Personnel Training	Paris	April, for 2 days each, consecutively
Drafting Group on the Multilateral Agreement relating to Certificates of Airworthiness for Imported Aircraft	Paris	early in the year for about 3 days
Meeting to Finalize and Open for Signature the Multilateral Agreement referred to above	Paris	some time after the meeting of the drafting Group

APPENDIX 6

PARTICIPATION OF STATES AND INTERNATIONAL ORGANIZATIONS IN MAIN ICAO MEETINGS IN 1959
(Note: In the table below, "P" denotes representation by a member of the State's permanent delegation in Montreal, "S" special representation and "O" representation by observers.)

STATE OR ORGANIZATION	Assembly Twelfth Session	AIS/MAP Division	5th MET Division	Special COM/ OPS/RAC	Joint MID/SEA RAN	5th. FAL Division	Legal Cmte. Twelfth Session
CONTRACTING STATES							
Afghanistan	S				S		
Argentina	P	P		P			
Australia	P/S	P	P/S	P/S	S	S	S
Austria	S	S				S	S
Belgium	P/S		S	P		S	S
Bolivia	S			S			
Brazil	P/S	P/S	S	S		S	S
Burma							
Cambodia					S		
Canada	P/S	S	S	S			S
Ceylon	S		S		S	S	
Chile	S			S			
China	S		S	S			
Colombia	S			S			
Costa Rica	S						
Cuba	S						
Czechoslovakia	S		S	S	S		
Denmark	P/S	P	S	S		S	S
Dominican Republic	S	S	S			S	S
Ecuador	S			S		S	S
El Salvador	S						
Ethiopia	S				S		
Finland	S		S				
France	P/S	S	S	S	S	S	S
Germany (Federal Republic of)	S	P/S	S	P/S		S	P/S
Ghana	S						
Greece	S		S	S			S
Guatemala	S						
Guinea							
Haiti							
Honduras	S		S				
Iceland	S	S					
India	P/S	P	S	P	S	S	
Indonesia	S				S		
Iran					S		
Iraq	S				S		
Ireland	P/S	S	S	S		S	
Israel	S		S		S	S	
Italy	P/S		S	S	S	S	S
Japan	P/S	P/S	P/S	P/S		P/S	S
Jordan					S		
Korea (Republic of)	S		S	S			
Laos					S	S	
Lebanon	P/S		S		S		
Liberia	S						
Libya							
Luxembourg	S					S	S
Malaya	S				S		
Mexico	P/S		S	S		S	S
Morocco	S						
Netherlands	P/S	P/S	S	S	S	S	S
New Zealand	S		S	S			
Nicaragua	S			S			
Norway	S		S	S	S	S	S
Pakistan	S				S		
Paraguay							
Peru	P/S			P		S	
Philippines	S	S		S	S	S	S
Poland	S			S		S	S
Portugal	P/S		S		S	S	
Spain	P/S	P	S	P		S	S
Sudan							
Sweden	P/S	S	S	S		S	S
Switzerland	S	S	S	S		S	S
Thailand	S		S	S	S	S	
Tunisia	S					S	
Turkey	S			S	S	S	
Union of South Africa	P/S		S				
United Arab Republic	P/S	P	S	P	S	S	
United Kingdom	P/S	S	S	S	S	S	S
United States	P/S	S	S	S	S	S	S
Uruguay							
Venezuela	P/S	S	S	P/S		S	P
Viet-Nam	S				S		
NON-CONTRACTING STATES							
Panama				O			O
Roumania			O				
Saudi Arabia	O	O			O	O	
U.S.S.R.	O		O			O	
Yugoslavia						O	
INTERNATIONAL ORGANIZATIONS							
United Nations	O	O					
Food and Agriculture Org.						O	
Fédération internationale des transports aériens privés	O						
League of Arab States	O						
International Airline Navigators Council			O	O	O		
International Air Transport Association	O	O	O	O	O	O	O
International Chamber of Commerce	O					O	O
International Criminal Police Organization						O	O
International Federation of Air Line Pilots' Associations	O	O	O	O	O		O
International Institute for Unification of Private Law							O
International Law Association							O
Inter-Governmental Maritime Consultative Organization						O	
International Radio Air Safety Association			O		O		
International Society of Aviation Writers	O						
International Tourist Alliance	O					O	
International Union of Aviation Insurers							O
International Union of Geodesy & Geophysics			O				
International Union of Official Travel Organizations						O	
World Health Organization						O	
World Meteorological Organization			*		O		

* The 5th MET Division was held simultaneously with the 2nd Session of the Commission for Aeronautical Meteorology of the World Meteorological Organization.

APPENDIX 7

NATIONAL DISTRIBUTION OF PROFESSIONAL CATEGORY STAFF AS AT 31 DECEMBER 1959

COUNTRY	LEVEL										Number of Translators Interpreters	No. of Professional Category Staff, excl. Translators-Interpreters
	SG	ASG	DIR	PO	P-5	P-4	P-3	P-2	P-1	Total		
Afghanistan												
Argentina							2			2	2	
Australia					3		1			4		4
Austria								1		1		1
Belgium						3	2			5	1	4
Bolivia							1			1		1
Brazil						1				1		1
Burma						1				1		1
Cambodia												
Canada	1				3	4	5	11	5	29	1	28
Ceylon								1		1		1
Chile						1				1		1
China						3				3		3
Colombia												
Costa Rica												
Cuba						2	1		1	4		4
Czechoslovakia												
Denmark								1		1		1
Dominican Republic												
Ecuador							1			1	1	
El Salvador												
Ethiopia												
Finland												
France			1		3	6	11	3		24	14	10
Germany (Federal Republic of)							2	1		3		3
Ghana												
Greece								1		1		1
Guatemala												
Guinea												
Haiti												
Honduras												
Iceland												
India			1				3	1		5		5
Indonesia												
Iran												
Iraq												
Ireland					1		2			3		3
Israel							2			2		2
Italy							3			3	1	2
Japan							1			1		1
Jordan												
Korea												
Laos												
Lebanon								1		1	1	
Liberia												
Libya												
Luxembourg												
Malaya												
Mexico						2				2		2
Morocco												
Netherlands				1		4				5		5
New Zealand					1	1				2		2
Nicaragua												
Norway							2		1	3		3
Pakistan												
Paraguay												
Peru								1		1		1
Philippine Republic							1			1		1
Poland					1					1		1
Portugal												
Spain						1	3	4		8	7	1
Sudan												
Sweden						1				1		1
Switzerland						1				1		1
Thailand												
Tunisia												
Turkey												
United Arab Republic							1	1		2		2
Union of South Africa						1				1		1
United Kingdom				2	6	5	5	2	1	21	1	20
United States		2	1		4	4	3	1		15	3	12
Uruguay												
Venezuela												
Viet-Nam								1		1		1
Stateless								1		1	1	
TOTALS	1	2	3	3	22	41	52	32	8	164	33	131

APPENDIX 8

SCALES OF CONTRIBUTIONS FOR 1960, 1961 AND 1962

	1960	1961-1962		1960	1961-1962
Afghanistan	.13	.13	Jordan	.13	.13
Argentina	1.21	1.20	Korea	.19	.19
Australia	2.52	2.50	Laos	.13	.13
Austria	.40	.41	Lebanon	.21	.21
Belgium	1.64	1.63	Liberia	.13	.13
Bolivia	.13	.13	Libya	.13	.13
Brazil	1.71	1.68	Luxembourg	.13	.13
Burma	.13	.13	Malaya	.16	.16
Cambodia	.13	.13	Mexico	1.36	1.34
Canada	4.45	4.70	Morocco	.20	.22
Ceylon	.13	.13	Netherlands	2.53	2.51
Chile	.39	.39	New Zealand	.51	.51
China	.67	.67	Nicaragua	.13	.13
Colombia	.63	.62	Norway	.80	.83
Costa Rica	.13	.13	Pakistan	.49	.48
Cuba	.41	.41	Paraguay	.13	.13
Czechoslovakia	.85	.85	Peru	.14	.14
Denmark	.93	.93	Philippines	.44	.44
Dominican Republic	.13	.13	Poland	1.28	1.22
Ecuador	.13	.13	Portugal	.23	.23
El Salvador	.13	.13	Spain	1.04	1.02
Ethiopia	.13	.13	Sudan	.13	.13
Finland	.42	.42	Sweden	1.76	1.82
France	7.88	7.83	Switzerland	1.39	1.53
Germany	5.21	5.17	Thailand	.21	.21
Ghana	.13	.13	Tunisia	.13	.13
Greece	.27	.27	Turkey	.56	.56
Guatemala	.13	.13	Union of South Africa	.71	.71
Guinea	.13	.13	United Arab Republic	.35	.33
Haiti	.13	.13	United Kingdom	9.96	9.88
Honduras	.13	.13	United States	32.95	32.95
Iceland	.13	.13	Uruguay	.13	.13
India	2.60	2.56	Venezuela	.69	.69
Indonesia	.54	.52	Viet-Nam	.22	.22
Iran	.21	.21		100.00	100.00
Iraq	.13	.13		======	======
Ireland	.24	.24			
Israel	.23	.23			
Italy	2.46	2.43			
Japan	2.24	2.22			

- END -

ANNEXES TO THE CONVENTION

Annex	Title	Annex — Current edition		Loose-leaf amendments		Supplement — Current edition		
		Amendments included	Date applicable	No.	Date applicable	Date issued	Amendments No.	Amendments Date
1	2	3	4	5	6	7	8	9
1	Personnel Licensing	Fourth 1-154	1/12/57	—	—	Fourth 8/58	—	—
2	Rules of the Air	Third 1-3	1/12/56	4	14/11/58	Third 12/56	1 2 3	1/10/57 1/8/58 1/10/58
3	Meteorology	Fourth 1-41 2nd printing incl. 1-42[2]	1/1/56 1/12/56	 43[3]	 1/12/57	Fourth No. 1 11/55 No. 2 7/57	 *6[1] *3[1]	 15/12/59 15/11/59
4	Aeronautical Charts	Fourth[4] 1-32	1/12/57	33	14/11/58	Fourth 1/58	1	1/11/58
5	Dimensional Units to be Used in Air-Ground Communications	Second 1-11	1/9/52	—	—	Second 12/54	*9[1]	1/1/60
6	Operation of Aircraft — International Commercial Air Transport	Fifth[5] 1-140	1/12/57	141	1/12/58	Fifth 12/57	—	—
7	Aircraft Nationality and Registration Marks	First 2nd printing	1/1/51 1953	—	—	First 3/53	6[1] 7	1/9/58 1/10/59
8	Airworthiness of Aircraft	Fourth 1-85	1/12/57 13/6/60[6]	—	—	—	—	—
9	Facilitation	Third 1-2	1/3/57	—	—	Third 3/57	Rev. 1 Rev. 2 Rev. 3 Rev. 4 Rev. 5 Rev. 6	15/4/58 1/8/58 1/10/58 1/2/59 1/5/59 1/10/59
10	Aeronautical Telecommunications	Fifth 1-32	1/12/58	33	1/10/59	Fifth 1/59	*2[1]	1/1/60
11	Air Traffic Services	Third 1-8	1/12/56	—	—	Third 11/56	1 2	15/10/57 1/8/58
12	Search and Rescue	Third 1-2	1/12/56	3	1/12/57	Third 10/56	3[1]	1/8/58
13	Aircraft Accident Inquiry	First	1/12/51	—	—	First 6/52	2[1]	1/10/59
14	Aerodromes	Third 1-13	1/12/58	14 & 15	1/10/59	Second 10/56	1	1/11/56
15	Aeronautical Information Services	First 2nd printing incl. 1-2	1/4/54 1/12/56	3 4 5	1/12/57 14/11/58 1/10/59	First 3/54	3[1]	18/9/59

FIELD MANUALS

Document								
4478-COM/501/5	Field Manual No. 1 — Communication Procedures	Fifth	1/10/59	—	—	—	—	—

n preparation.
Supersedes all previous amendments.
Erratum (in English and Spanish only) to Amendment 42.
Corrigendum 1 (in French only) issued 15/10/58.

[4] Corrigendum 1 issued 1/11/58.
[5] Corrigendum 1 issued 15/5/58.
[6] *See* Annex 8, Part II, 2.1, and Part III, 1.1.1, for details.

PRICE: $1.25 (Canadian) (Montreal)
Equivalents at date of publication:

Bangkok:	25.00 bahts	Buenos Aires:	81.25 pesos
Cairo:	L.E. 0.545	Melbourne:	11s. 3d.
Lima:	24.75 soles	Mexico City:	16.25 pesos
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4/60, E/P1/1600