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DIRECTORATE OF
INTELLIGENCE

Intelligence Memorandum

Communist International Civil Air Activities in the Free World Since 1965

~~Confidential~~

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October 1968

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GROUP 1
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Foreword

Throughout this memorandum, data for Yugoslavia and Cuba are included in data for the Free World.

CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
October 1968

INTELLIGENCE MEMORANDUM

Communist International Civil Air Activities in the Free World Since 1965

Summary

Fifty-five Free World countries have civil air agreements with Communist countries, and Communist airlines by mid-1968 served 45 Free World countries (see the Appendix). The current level of Communist air service into the Free World -- 213 flights per week -- is more than 60 percent higher than in the winter of 1965-66. During the past three years the USSR has emphasized the extension of new routes into North America and Japan and has been willing to open additional air corridors over the USSR to Free World carriers. The USSR has taken little initiative in expanding service to the less developed countries. Eastern European airlines have largely confined their expanded air service to Western Europe and the Middle East.

Aeroflot (the Soviet civil air carrier and the largest Communist airline) now serves 37 Free World countries over an unduplicated route network of 51,000 miles. Since 1965 the USSR has concluded civil air agreements with four developed Free World countries (Canada, Switzerland, Japan, and the United States) and with five less developed countries (Cameroon, Lebanon, Nigeria, Turkey, and Yemen).

Note: This memorandum was produced solely by CIA. It was prepared by the Office of Economic Research and was coordinated with the Office of Strategic Research and the Office of Current Intelligence.

Scheduled air service from Moscow was inaugurated by Aeroflot to Zurich, Tokyo, and Montreal during 1966 and 1967. On 15 July 1968 the Moscow-Montreal flight was extended to New York, implementing the bilateral air agreement between the United States and the USSR which was signed in November 1966. The USSR chose these routes to North America to introduce its first long-range commercial jet transport, the IL-62.

The Czechoslovak State Airline (CSA), by far the largest Eastern European carrier, serves 31 Free World countries over a route network of more than 30,000 miles. Although primary emphasis since 1965 has been on consolidation of route network, the air agreements signed with Sudan in 1966 and the United States in January 1968 could presage a new period of expansion. CSA probably will inaugurate service to New York in 1969 if political conditions permit. During the past two and one-half years, the other Eastern European airlines each inaugurated service to Beirut and increased service from their respective capitals to West European cities. All the Eastern European airlines, except TAROM, the Rumanian carrier, continue to use Soviet aircraft almost exclusively. Communist China has added no new international routes.

The international service of Communist airlines, particularly Aeroflot and CSA, will continue to grow rapidly during the next few years. Aeroflot's inauguration of Moscow-New York service provides considerable impetus for further expansion that eventually may include service to Latin America and Australia. By 1975, both Aeroflot and CSA probably will have round-the-world service.

The operations of Communist airlines in the Free World pose no serious competition for the major international airlines of the Free World, such as PAA, TWA, BOAC, and Air France. Communist airlines serve primarily European cities, competing against the limited reciprocal service of Free World European airlines to Communist capitals. The 213 weekly flights by all Communist carriers to the Free World compare with the 280 international flights per week

flown by the Scandinavian Airlines System (SAS), a medium-size international airline. In 1967, PAA, the largest international airline, had about 1,250 international flights per week, which carried a total of more than 7 million passengers in the year. Aeroflot carried 55 million passengers in 1967 but fewer than 0.5 percent of these were on its international flights to the Free World.

Communist International Civil Air Service to the Free World

Growth in Service

1. Communist civil airlines have air agreements with 55 Free World countries and offer air service to 45 of these countries. Flights by Communist airlines to Free World cities have increased by more than 60 percent since 1965. Aeroflot and CSA are the largest carriers, as shown in the table and in more detail in Figures 3 through 11 (inside back cover).

2. The USSR, after seven years of expanding its air routes into the less developed countries, has shifted its attention back to the developed countries. During 1959-65 the USSR signed air agreements with 24 less developed countries and with only two developed countries, Italy and Luxembourg. Since 1965, air agreements have been concluded with four developed countries -- Canada, Japan, Switzerland, and the United States -- and with only five less developed countries. Initiation of scheduled service on three new routes, Moscow-Montreal-New York, Moscow-Tokyo, and Moscow-Dar es Salaam, increased Aeroflot's unduplicated route network into the Free World by 15 percent -- to more than 51,000 nautical miles. Service was extended from 31 Free World countries at the end of 1965 to 37 by the summer of 1968.

3. Much of the USSR's recent success in obtaining air agreements with developed countries stems from a mutual desire of the participants to improve diplomatic and commercial relations, but the willingness of the Soviet Union to open up new air corridors over its territory also has been a significant factor. Evidence of this latter policy is the SAS service between Copenhagen and Singapore via Tashkent that was inaugurated on 4 November 1967, and the joint service of Aeroflot and the Japanese Airline (JAL) between Moscow and Tokyo that began

Communist International Civil Air Service
to the Free World

Airline	Free World Service: As of Mid-1968: Routes (Nautical Miles)	Free World Service: As of Mid-1968: Countries Served	Free World Service: Flights per Week: Winter 1965-66	Free World Service: Flights per Week: Summer 1968 a/	Free World Service: Flights per Week: Percentage Increase
Soviet Civil Air Fleet (Aeroflot)	51,000	37	26	44	69
Czechoslovak State Airline (CSA)	30,000	31	37	51	38
Polish State Air (LOT)	14,000	14	24	46	92
Hungarian Air Transportation Company (MALEV)	11,600	19	19	29	53
Rumanian Air Transport (TAROM)	9,600	13	13	18	38
Bulgarian Civil Airline (BALKAN)	8,900	14	6	16	167
East German State Airline (Interflug)	6,950	9	5	8	60
Civil Aviation of China (CAAC)	1,700	1	1	1	

a. Six flights (two each by CSA, LOT, and MALEV) are summer flights that probably will be discontinued in the fall of 1968.

in April 1967.* Moreover, Austrian Airlines, as a result of a renewed Soviet-Austrian bilateral agreement signed in 1968, now has rights to operate beyond Moscow via Tashkent to Iran, India, and Thailand. In exchange, Aeroflot was awarded rights to operate through Vienna to Switzerland, Italy, and France.

4. The inauguration of Aeroflot's Moscow-New York service on 15 July 1968 with the IL-62 (see Figure 1) culminated a decade of Soviet-US discussions. It also enhanced the USSR's prestige as an international air carrier as well as the sales appeal of the IL-62 to Free World countries.** The US-Soviet air agreement gives the USSR an additional talking point in obtaining air agreements with Australia and Latin American countries, particularly Mexico. (Cuba is the only Latin American country that has an air agreement with the USSR.) It is unlikely, however, that the USSR will obtain such agreements in 1968. Since the US-Soviet air agreement does not give Aeroflot beyond rights from New York to other parts of the Western Hemisphere, any Aeroflot service to Latin America would have to be an extension of existing Aeroflot routes to Cuba, West Africa, or Montreal.

5. Eastern European airlines have focused their attention since 1965 on increasing the number of flights within Europe, extending air service to the Middle East, and consolidating existing route networks to improve the efficiency of air operations.

6. Flights into the Free World by Eastern European airlines increased more than 60 percent, from 104 in the winter of 1965-66 to 168 in the summer of 1968. Most of the rise is attributable to increases in the number of flights to Amsterdam, Paris, London,

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* *This agreement provides for joint operation of this route by Aeroflot and JAL using Soviet aircraft and flight crews (JAL provides stewardesses and an observer) for a period of two years. The USSR has promised at the end of this period to "try to clear the way" for JAL to fly independently over Siberia.*

** *In May 1968, France leased one IL-62 from the USSR, and the aircraft is now in service between Moscow and Paris.*

Zurich, and Rome and to the inauguration of air service by five Eastern European airlines to Beirut -- the major air transit point in the Middle East. Expansion of routes and service within Western Europe as well as to more distant points has been restricted more by the lack of modern aircraft than by the absence of air agreements. Current international flights use the Soviet turboprop IL-18 and a few of the newer IL-18D's, almost exclusively. Only Rumania among the Eastern European carriers has broken the pattern of dependence on the USSR for commercial aircraft.

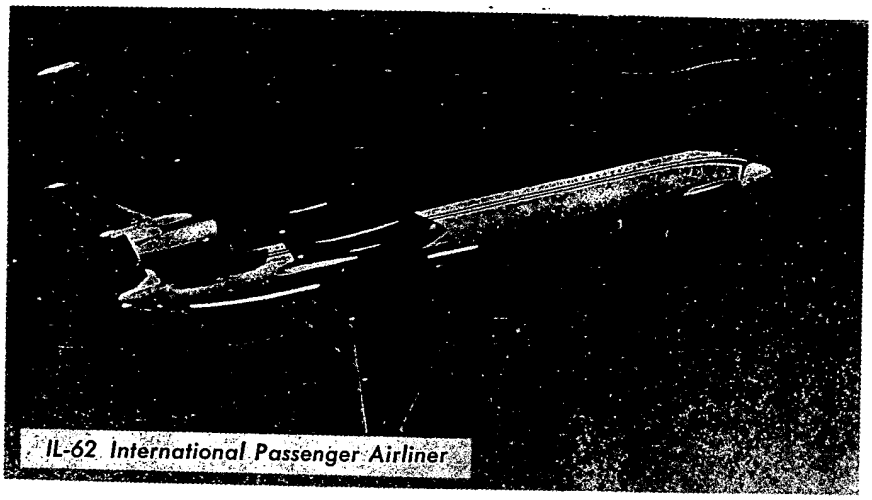
Fleet Modernization

7. Modernization programs by Communist airlines began to take form in mid-1967. In September 1967 the USSR introduced its first long-range jet transport, the IL-62, in scheduled international air service on the Moscow-Montreal flight and subsequently between Moscow and London, Paris, Rome, and New Delhi. In addition, the Soviet TU-134, a new short-to-medium-range jet, has begun to replace the outdated aircraft used on Aeroflot's short-haul to medium-haul routes to Western Europe. Aeroflot's introduction of more modern aircraft is expected to accelerate in 1969 or 1970, when the medium-range to long-range TU-154 is ready for service (see Figure 2).

8. Prior to the Soviet intervention, CSA had underway the largest modernization program among the Eastern European airlines. In 1967 it purchased eight IL-18D's and in May 1968 an IL-62 was leased from the USSR. CSA has used a leased IL-62 on its Prague-London flight and had planned to introduce it on the Prague-Djakarta route in the fall of 1968.* In addition, CSA has announced plans for the purchase of three IL-62's (one in 1968 and two by mid-1969), one TU-154 after production begins, and 12 TU-134's for delivery in 1969 and 1970.

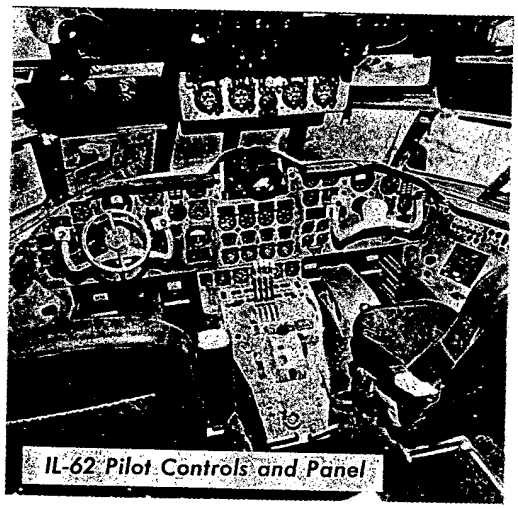
* *The IL-62 leased to Czechoslovakia was returned to the USSR.*

Figure 1



IL-62 International Passenger Airliner

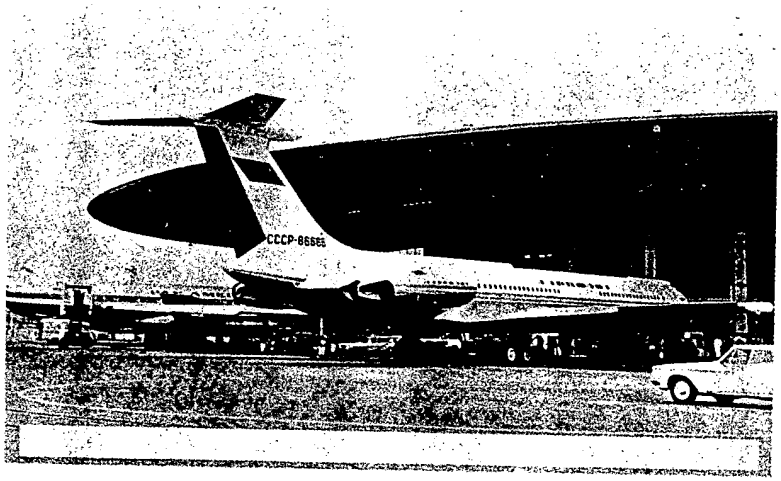
SOVIET IL-62



IL-62 Pilot Controls and Panel

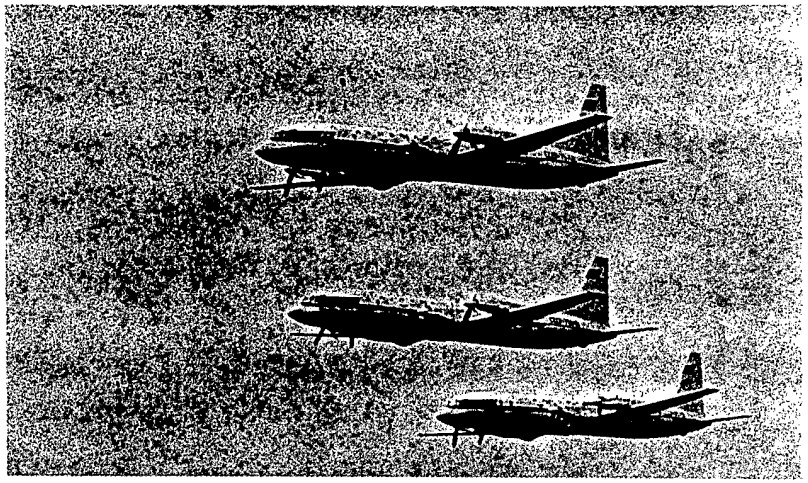
ILYUSHIN-62 SPECIFICATIONS

ENGINE	
Number	4
Type	Turbofan
MAXIMUM TAKEOFF WEIGHT (Pounds)	347,000
AVERAGE CRUISE SPEED (Knots)	460
RANGE (NAUTICAL MILES)	
Normal Payload	4,950
Maximum Payload	3,600
CARGO (POUNDS)	
Normal	29,100
Maximum	50,600
LIFT CAPACITY (PASSENGERS)	
Normal	115
Maximum	186

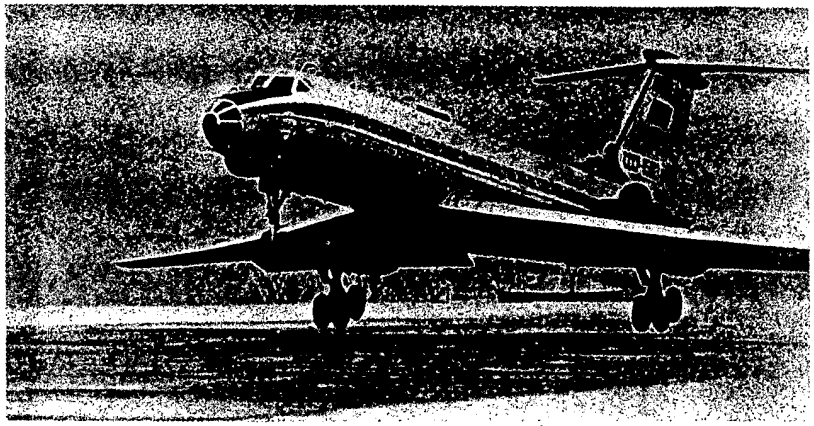


IL-62 Passenger Jetliner at New York's Kennedy International Airport, November 1967.

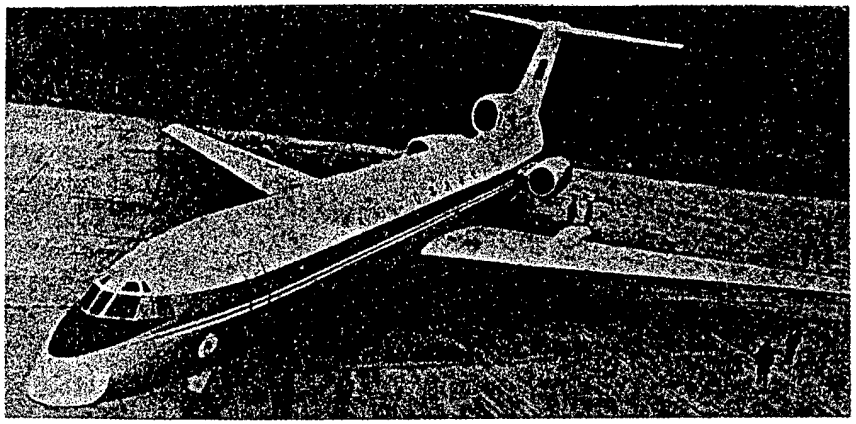
Figure 2



IL-18 at Moscow Air Show, 1961



TU-134 Medium Range Turbofan



TU-154 Prototype rolled out in the USSR on 18 August 1968

SPECIFICATIONS

	IL-18	TU-134	TU-154
ENGINE			
Number	4	2	3
Type	Turboprop	Turbofan	Turbofan
MAXIMUM TAKEOFF WEIGHT (Pounds)	134,000	96,800	189,000
AVERAGE CRUISE SPEED (Knots)	340	460	460
RANGE (Nautical Miles)			
Normal Payload	2,600	1,600	3,730
Maximum Payload	1,850	750	1,840
CARGO (Pounds)			
Normal	23,000	16,500	23,150
Maxmium	30,800	-	47,400
PASSENGER CAPACITY			
Normal	84	56	134
Maximum	120	72	160

Soviet Aircraft

9. Rumania's TAROM is the first Communist airline to include Western aircraft in its modernization plans. In February 1968, TAROM ordered six BAC 111-400's from the British Aircraft Corporation for delivery beginning in May 1968. These aircraft, two of which have already been delivered, probably will replace part of the IL-18 fleet used on TAROM's flights into the Free World. The other Eastern European airlines -- LOT, MALEV, BALKAN, and Interflug -- plan to modernize their fleet with TU-134's and have ordered at least 19 for delivery beginning in 1969.* LOT has eight of these medium-range jets on order.

Safety Record

10. There have been three major accidents involving Communist airlines on scheduled international service since 1965. (1) An Aeroflot TU-114 crashed in February 1966 on takeoff during bad weather from Moscow's Sheremet'yevo Airport on an inaugural flight to Brazzaville. Twenty-one of the 48 persons aboard were killed. (2) In November 1966 a Bulgarian IL-18 on a scheduled flight from Sofia to East Berlin crashed on takeoff from Bratislava and all 74 passengers and eight crew members were killed.** (3) On 5 September 1967, shortly after CSA had replaced the turboprop Britannia with the IL-18 on the route to Cuba, one of the IL-18's crashed on takeoff from Gander, and 34 of 69 passengers were killed.

11. This record would appear to compare favorably with that of Western airlines, but an overall evaluation of the safety record of Communist airlines is not possible. Accidents on domestic flights are

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* *The TU-134, primarily because of its low passenger-carrying capacity of from 64 to 72 persons, will prove uneconomical when compared with the US short-range Boeing 737 carrying from 107 to 119 passengers.*

** *A Bulgarian airline IL-18 on a chartered flight from Dresden to Burgas crashed on 4 September 1968, shortly before reaching Burgas. Fifty of the 89 persons aboard were killed.*

concealed, and although crashes of aircraft on international routes cannot be concealed, data on passenger miles flown are not available for comparison. Moreover, the Communist practice of canceling flights in questionable weather, to a far greater degree than do Western airlines, complicates such comparisons.

Free World Air Agreements and Routes

USSR

12. Since 1965 the USSR has concluded air agreements with Canada, Japan, Switzerland, and the United States, and previous agreements with Denmark, Norway, and Sweden were updated by protocol amendments. The USSR now has air agreements with most of the major aviation powers except West Germany. The USSR signed air agreements with the less developed nations of Cameroon, Lebanon, Nigeria, Turkey, and Yemen. During the last two and one-half years, the USSR has shown far less interest in pursuing civil air matters with less developed countries than it did during 1958-65.

13. Aeroflot's service to Montreal was inaugurated in October 1966. Passenger traffic on this route was high during the summer of 1967 because of Expo 67, but traffic has since dropped off and the number of flights per week has been reduced from two to one. The extension of the weekly Moscow-Montreal flight to New York has improved the traffic potential.

14. Direct weekly air service between Tokyo and Moscow, provided for in the air agreement signed in January 1966, was inaugurated on 17 April 1967. This service, which offers a route between Japan and Western Europe that is five hours shorter than the Polar route, can be judged a success largely because of travel by Japanese businessmen and tourists to Western Europe. In the first six months of service, 2,500 passengers (an average of 96 per flight) were flown from Tokyo to Moscow and 1,300 passengers (an average of 50 per flight) used the return flights from Moscow to Tokyo. This volume of traffic on TU-114's configured to carry 116 passengers presumably has been profitable, and the service should be even more lucrative when the Japanese World's Fair opens

in 1970. Aeroflot officials have disclosed that the IL-62 jet will go into service on the Moscow-Tokyo route in the near future. Before it will agree to any change in the aircraft used on the route, however, Japan wants a reiteration of Soviet promises that JAL would be allowed to perform independent Tokyo-Moscow flights at the end of the initial two-year period of operation.

15. Aeroflot's expansion of service to the less developed countries since 1965 has been minimal. The USSR signed an air agreement with Lebanon in February 1966, and Aeroflot service between Moscow and Beirut was quickly inaugurated in June 1966. The Soviet-Lebanese air agreement does not provide Aeroflot with fifth freedom rights.* In August 1967 the USSR signed an air agreement with Turkey and Aeroflot and inaugurated service to Ankara in May 1968 as an intermediate point on the Moscow-Cairo route. Air agreements were signed with Nigeria in 1966 and Cameroon in 1967. Service to Lagos and Douala probably will begin as an extension of the existing Moscow-Conakry flight after Nigerian hostilities end. Aeroflot is expected to further expand service to Africa by inaugurating regular flights to Dakar (with intermediate stops in Belgrade, Algiers, and Conakry) in the fall of 1968 on the basis of a Soviet-Senegalese air agreement signed in 1965. The Senegalese agreement provides for beyond rights only to the continent of South America. This does not include Cuba.

16. The air agreement signed with Yemen facilitated the establishment of air service to East Africa, which the USSR has sought for several years. Weekly service between Moscow and Dar es Salaam via Hodeida, Cairo, and Mogadiscio was begun on 17 December 1967. This route, mostly over water, bypasses Sudan (which refused several years ago to grant Aeroflot beyond rights from Khartoum) and Kenya (which withdrew in March 1966 from an agreement permitting Aeroflot service to Nairobi). This is the first new route established by Aeroflot to Africa south of the Sahara since 1963. An Aeroflot route to Brazzaville overflying the Central African Republic was dropped after the inaugural flight crashed on takeoff from Moscow in February 1966.

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* *Fifth freedom rights would have permitted Aeroflot to pick up and discharge passengers in Beirut who were destined for or originated from third countries.*

17. Aeroflot has broadened its direct international air service from cities other than Moscow to Western Europe. Air service now includes flights from Leningrade to London via Copenhagen, and from Leningrad to Helsinki. In addition, a direct flight was inaugurated between Kiev and Vienna* in the fall of 1967 (see Figure 4).

Czechoslovakia

18. CSA, the largest and most experienced of the Eastern European carriers, has concentrated since 1965 on the consolidation of its route network. All the cities added to CSA's service during this period -- Tunis, Freetown, Nicosia, Istanbul, Teheran, Kuwait, Dubai, and Singapore -- have been incorporated as intermediate points on or extensions to existing routes (see Figure 5). The stops at Singapore and Nicosia were provided for in air agreements concluded with Singapore in September 1967 and with Cyprus in November 1967. The other cities added were covered by existing air agreements or transit arrangements. Service to Kabul was discontinued in April 1966 due to lack of traffic.

19. Czechoslovakia has signed several important new air agreements, not yet implemented, that could presage a significant expansion of CSA's service to the Free World in the next few years. An air agreement with Sudan, signed in June 1966, paves the way for CSA to fly into East Africa. The agreement grants CSA fifth freedom rights from Khartoum to Entebbe and Nairobi -- a concession that the USSR has failed to gain. To complement this agreement, Czechoslovakia negotiated air agreements with Kenya, Tanzania, and Uganda in November 1967.** Czechoslovakia's most important agreement, however, was the one signed in February 1968 with the United States to replace a 1946 accord that had been inoperative since 1948. The new agreement provides CSA with a Prague-New York route and formalizes the PAA service

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* *This route had been served only as a leg of flight SU 017, Moscow-Kiev-Vienna.*

** *It is not clear whether these agreements have been signed.*

to Prague which has operated since July 1965 under a temporary permit. CSA probably had hoped to initiate its Prague-New York service in mid-1969, using the Soviet IL-62, and to use the US agreement to its advantage in obtaining air agreements in Latin America.

Poland

20. LOT has almost doubled its number of flights into the Free World since 1965, but almost all its expansion has been in Western Europe (see Figure 6). Year-round routes were established to Milan and Split, and summer routes were introduced to Vienna, Copenhagen, and Shannon. Warsaw to Beirut was the only new route added outside of Western Europe. This route was the result of a 1966 air agreement with Lebanon. An air agreement also was signed with Turkey in August 1967 but service has not been initiated.

21. The service from Warsaw to Shannon was inaugurated in June 1967, without a formal air agreement, as part of a weekly service between Warsaw and North America (New York, Chicago, and Montreal). This service is operated in cooperation with Irish International Airlines, which flies the portion between Shannon and North America.

Hungary

22. Hungary has signed new air agreements with seven Free World countries -- India, Lebanon, Turkey, and Sudan in 1966; Morocco and Iran in 1967; and Tunisia in 1968. In the past two and one-half years, MALEV has expanded its number of flights per week from 19 to 29, but most of the additional flights have been on established European routes. It did, however, introduce a second weekly flight to Cairo using a new route via Istanbul, and direct service to Beirut was inaugurated in June 1966 (see Figure 7).

Rumania

23. Rumania's independent stance in civil air matters was evident with the signing of an air agreement with Israel in March 1968.* TAROM, the first

* *Bulgaria signed an air agreement with Israel in 1964, but scheduled air service was never initiated.*

Communist airline to fly into Israel, began weekly flights between Bucharest and Tel Aviv on 9 May (see Figure 8). Israel's El Al flies weekly to Constanta from Tel Aviv. Flights between the two countries have proved successful and may be increased. Rumania also concluded an air agreement with Lebanon in 1967 and updated an existing agreement with Turkey which permitted TAROM to inaugurate weekly air service between Bucharest and Beirut via Istanbul in the summer of 1967. In addition, the existing air agreement with Switzerland was updated, and air service to Africa was inaugurated by extending its route between Bucharest and Athens to Cairo.

Bulgaria

24. Bulgaria's minuscule participation in international civil aviation has mushroomed (see Figure 9). Bulgaria concluded air agreements with Turkey, Morocco, and Iraq in 1966 and with Lebanon, Sudan, Switzerland, and Italy in 1967, and now has air agreements with 26 Free World countries. Since 1965, BALKAN (formerly TABSO) has increased its number of flights into the Free World from six to 16 a week. Weekly IL-18 service was introduced in 1967 between Sofia and Nicosia, Sofia and Beirut via Istanbul, and Sofia and Rome.

25. In July 1967, Bulgaria joined the International Civil Aviation Organization (ICAO),* and in January 1968, Bulgaria reorganized its civil air establishment and renamed it Bulgarian Civil Aviation. As a part of this reorganization the airline, formerly one unit known as TABSO, was divided into a charter flight division called BULAIR and a scheduled domestic and international service division called BALKAN.

East Germany

26. Interflug, the East German airline, has broadened its service to the Middle East since 1965 and has inaugurated weekly flights to West Africa (see Figure 10). Nevertheless, it still operates the smallest international service -- eight flights a week into the

* *Czechoslovakia, Poland, and Rumania also are members of ICAO, and Hungary reportedly will apply for ICAO membership in the near future.*

Free World -- of any of the Eastern European airlines.

27. East Germany concluded air agreements with Mali and Iraq in 1966. In addition, Algeria and Guinea apparently granted Interflug permission to operate a scheduled service to Algiers and Conakry without benefit of a formal air agreement. Weekly flights to Bamako (Mali) and Conakry via Algiers were begun in August 1966. Service to the Middle East was increased by extending the route East Berlin-Nicosia-Damascus to Baghdad, by inaugurating weekly service between East Berlin and Beirut, and by increasing the number of flights from East Berlin to Cairo from one to two a week.

28. In August 1967 it was announced that an air agreement had been signed by Cuba and East Germany. This agreement provides for the establishment of scheduled service between East Berlin and Havana, but service has not yet been implemented.

Communist China

29. CAAC, the Chinese Communist airline, has not opened any new international air routes since 1965 (see Figure 11). Its only service to the Free World is a weekly flight between Peiping and Rangoon via Kunming. China signed an air agreement with France in June 1966 that provided for a commercial airlink by both countries between Paris and Shanghai, but only Air France has inaugurated service on this route. CAAC apparently has no immediate plans for implementing its option under this agreement. Air service between China and Japan has been mentioned as a possibility by Japanese officials.

III. Prospects

30. The next few years should be a period of significant growth in the international service of Communist airlines, particularly Aeroflot and CSA. Aeroflot's inauguration of Moscow-New York service provides considerable impetus to expansion elsewhere in the world. Moreover, if the USSR continues its policy of opening Soviet cities and air corridors

to foreign airlines, reciprocal concessions in the Free World will facilitate the expansion of Aeroflot's international route network. The introduction of the IL-62 and other modern aircraft such as the TU-134 and the TU-154 will enable both the USSR and the larger Eastern European air carriers to compete more successfully with Western airlines.

31. The USSR probably will join ICAO in two or three years. The USSR sent a small delegation to ICAO in mid-1967 to discuss procedures for joining the organization. Soviet officials indicated that they planned to make application before the end of 1967 but failed to do so. ICAO has a number of technical standards for aircraft and aviation equipment as well as recommended civil aviation practices to which member nations are asked, but not required, to subscribe. US officials estimate that it would take the USSR about two years to furnish the necessary documentation and adapt its procedures to those of ICAO.

32. Membership in ICAO would facilitate Soviet international civil air operations; Aeroflot would be accorded overflight rights over member countries, its aircraft would be certificated by ICAO and not by individual countries, and it would make the handling of civil air matters with other nations less complex. The USSR, in turn, would have to open up its airspace to a considerably greater extent than it has in the past. Under the air transit provision of ICAO, a member state is required to permit both scheduled and nonscheduled overflights and/or stops for non-traffic purposes by aircraft of member countries. Member states can, however, specify the routes and air corridors to be used.

33. Aeroflot probably will intensify its efforts to establish air service to at least one Latin American country (in addition to its present service to Cuba). Aeroflot also is likely to link its East and West African routes and extend its Moscow-Djakarta service to Australasia and Japan. Aeroflot almost certainly has its eye on round-the-world operations by the mid-1970's. This service is offered today only by PAA, BOAC, and Quantas.

34. CSA also visualizes a round-the-world service by 1975, but one of far less scope than Aeroflot. Czechoslovakia's air agreement with the United States, its plans for the introduction of modern aircraft on international routes, and CSA's sophistication in international air matters should work to its advantage in achieving this objective. Air agreements already are being sought with both Mexico and Australia, both important keys in a CSA globe-circling service.

35. The other Eastern European airlines, led by LOT, will expand service primarily to Western Europe with some further extension of routes to the Middle East and Africa. Communist China probably will not take any major steps to expand its air service into the Free World until the pressures of the Cultural Revolution have eased. Once this has been accomplished, some limited initiatives can be expected by China, particularly in the Far East, Middle East, and Africa.

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APPENDIX

Civil Air Agreements of Communist Countries with Countries of the Free World
As of Mid-1968

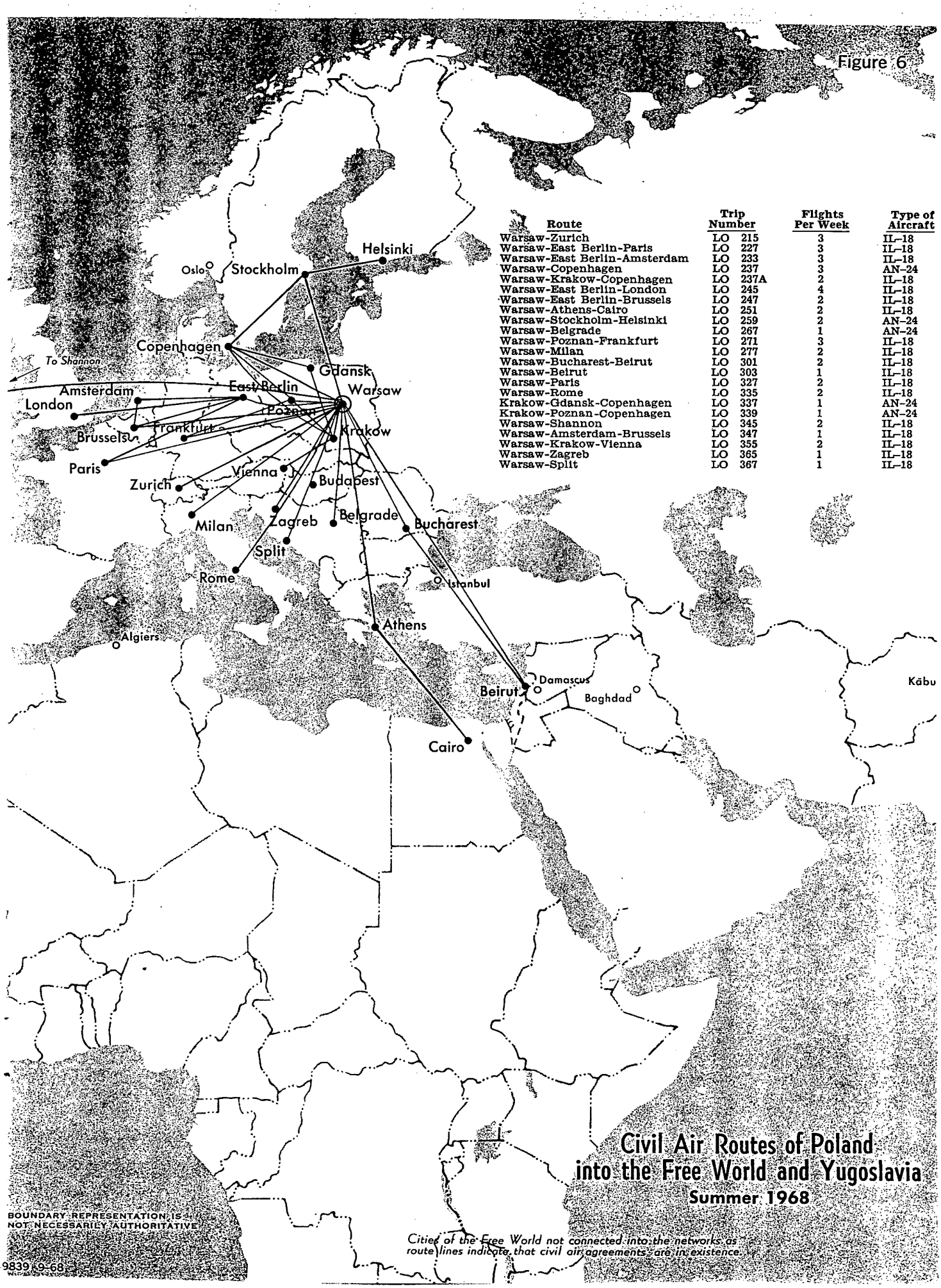
	USSR	Czecho-slovakia	Poland	Hungary	Bulgaria	Rumania	East Germany	Communist China
	Year Signed							
Afghanistan	1956	1961	1962					1963
Algeria	1964	1964	1965		1963			
Austria	1955	1962	1956	1959	1958	1958		
Belgium	1958	1957	1956	1957	1957	1956		
Burma	1961	1965 a/						1955
Cambodia		1964						1963
Cameroon	1967							
Canada	1966	1961 b/						
Ceylon	1964							1959
Congo (Brazzaville)	1964							
Cuba	1962	1960					1967	
Cyprus	1964	1967		1964	1965		1964 c/	
Denmark	1956	1947	1961	1958	1958	1958		
Ethiopia				1965	1965			
Finland	1955	1949	1963	1962				
France	1958	1954	1960	1960	1965	1962		1966
Ghana	1962	1961		1961	1962	1962		
Greece		1964	1963	1963	1964	1960		
Guinea	1962	1961						
India	1958	1960		1966				
Indonesia	1961	1968						1964
Iran	1964	1961 b/		1967				
Iraq	1962	1960	1961	1960	1966		1966	
Ireland		1962 b/						
Israel					1964	1968		
Italy	1965	1960 d/	d/ e/	1960	1967			
Japan	1966 d/							
Kenya	1965 d/ f/							

	USSR	Czecho-slovakia	Poland	Hungary	Bulgaria	Rumania	East Germany	Communist China
	Year Signed							
Lebanon	1966	1961	1966	1966	1967	1967	g/	
Libya	1963 b/							
Luxembourg	1963 b/			1964				
Mali	1962	1961					1966	
Morocco	1962	1961		1967	1966			
Netherlands	1958	1947	1960	1957	1958	1957		
Niger	1962 b/							
Nigeria	1966							
Norway	1956	1948	1961	1958	1958	1958		
Pakistan	1963							1963
Senegal	1965	1962						
Singapore		1967						
Somalia	1963							
Sudan	1962	1966		1966	1967			
Sweden	1956	1957	1956	1957	1957	1957		
Switzerland	1966	1947	1960 h/	1959	1967	1960		
Syria	1962	1958	1962	1962	1960		1965	
Tanzania	1965 d/ f/							
Tunisia	1964	1963		1968	1963			
Turkey	1967	1963	1967	1966	1966	1965		
Uganda	1965 d/ f/							
United Arab Republic	1958	1958	1963 i/	1958	1959	1958	1965	1965
United Kingdom	1957	1960, 1961 b/	1957	1960	1965			
United States	1966	1968						
West Germany		1964 d/		1960 d/	1960 d/	1961 d/		
Yemen	1967							
Yugoslavia	1955	1956	1955	1956	1955	1956	1960	

	USSR	Czecho-slovakia	Poland	Hungary	Bulgaria	Rumania	East Germany	Communist China
	Number							
Total agreements	48	39	20	28	26	16	8	8
Countries served	37	31	14 j/	19	14	13	9 j/	1

a. *Limited to cargo-carrying rights for flights between Rangoon and Phnom Penh.*
b. *Transit agreement (in most cases overflight and technical landing rights for specific routes).*
c. *Provisional license, renewed every 60 days, issued by the government of Cyprus to the East German air carrier, Interflug.*
d. *Provisional agreement.*
e. *Date of signature unknown.*
f. *Agreement was concluded by the USSR with the East African Common Services Organization (EACSO) representing Kenya, Tanzania, and Uganda. In March 1966, Kenya withdrew from this agreement.*
g. *Evidence suggests that an air agreement between East Germany and Lebanon was signed in 1966.*
h. *Agreement initialed in October 1960 and signed at an unknown later date.*
i. *Evidence suggests the existence of an earlier agreement that was not implemented.*
j. *Including service to some countries with which formal agreements have not been signed.*

Figure 6



Route	Trip Number	Flights Per Week	Type of Aircraft
Warsaw-Zurich	LO 215	3	IL–18
Warsaw-East Berlin-Paris	LO 227	3	IL–18
Warsaw-East Berlin-Amsterdam	LO 233	3	IL–18
Warsaw-Copenhagen	LO 237	3	AN–24
Warsaw-Krakow-Copenhagen	LO 237A	2	IL–18
Warsaw-East Berlin-London	LO 245	4	IL–18
Warsaw-East Berlin-Brussels	LO 247	2	IL–18
Warsaw-Athens-Cairo	LO 251	2	IL–18
Warsaw-Stockholm-Helsinki	LO 259	2	AN–24
Warsaw-Belgrade	LO 267	1	AN–24
Warsaw-Poznan-Frankfurt	LO 271	3	IL–18
Warsaw-Milan	LO 277	2	IL–18
Warsaw-Bucharest-Beirut	LO 301	2	IL–18
Warsaw-Beirut	LO 303	1	IL–18
Warsaw-Paris	LO 327	2	IL–18
Warsaw-Rome	LO 335	2	IL–18
Krakow-Gdansk-Copenhagen	LO 337	1	AN–24
Krakow-Poznan-Copenhagen	LO 339	1	AN–24
Warsaw-Shannon	LO 345	2	IL–18
Warsaw-Amsterdam-Brussels	LO 347	1	IL–18
Warsaw-Krakow-Vienna	LO 355	2	IL–18
Warsaw-Zagreb	LO 365	1	IL–18
Warsaw-Split	LO 367	1	IL–18

Civil Air Routes of Poland into the Free World and Yugoslavia

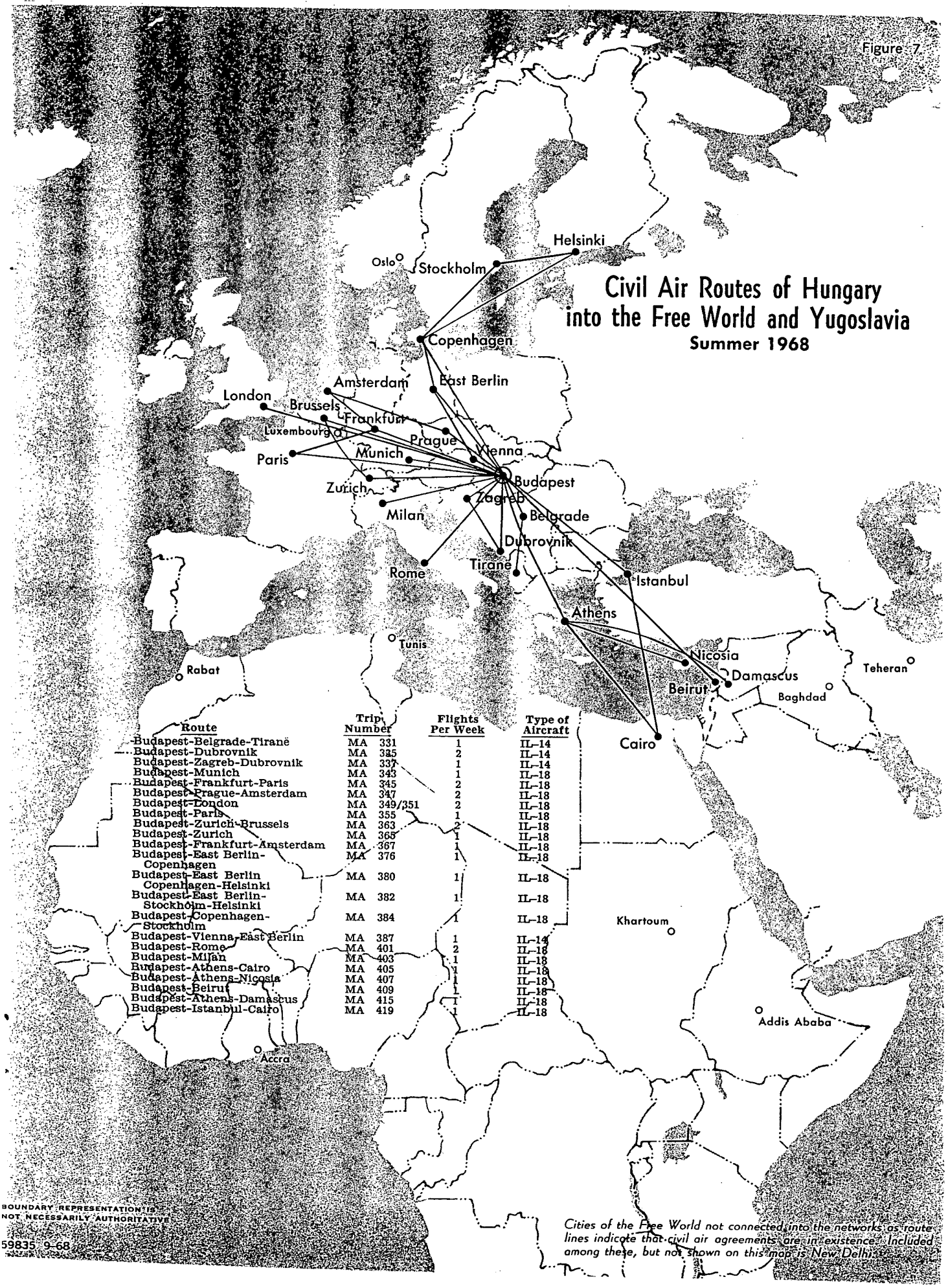
Summer 1968

Cities of the Free World not connected into the networks as route lines indicate that civil air agreements are in existence.

Figure 7

Civil Air Routes of Hungary into the Free World and Yugoslavia

Summer 1968



Route	Trip Number	Flights Per Week	Type of Aircraft
Budapest-Belgrade-Tiranë	MA 331	1	IL-14
Budapest-Dubrovnik	MA 335	2	IL-14
Budapest-Zagreb-Dubrovnik	MA 337	1	IL-14
Budapest-Munich	MA 343	1	IL-18
Budapest-Frankfurt-Paris	MA 345	2	IL-18
Budapest-Prague-Amsterdam	MA 347	2	IL-18
Budapest-London	MA 349/351	2	IL-18
Budapest-Paris	MA 355	1	IL-18
Budapest-Zurich-Brussels	MA 363	2	IL-18
Budapest-Zurich	MA 365	1	IL-18
Budapest-Frankfurt-Amsterdam	MA 367	1	IL-18
Budapest-East Berlin-Copenhagen	MA 376	1	IL-18
Budapest-East Berlin Copenhagen-Helsinki	MA 380	1	IL-18
Budapest-East Berlin-Stockholm-Helsinki	MA 382	1	IL-18
Budapest-Copenhagen-Stockholm	MA 384	1	IL-18
Budapest-Vienna-East Berlin	MA 387	1	IL-14
Budapest-Rome	MA 401	2	IL-18
Budapest-Milan	MA 403	1	IL-18
Budapest-Athens-Cairo	MA 405	1	IL-18
Budapest-Athens-Nicosia	MA 407	1	IL-18
Budapest-Beirut	MA 409	1	IL-18
Budapest-Athens-Damascus	MA 415	1	IL-18
Budapest-Istanbul-Cairo	MA 419	1	IL-18

Cities of the Free World not connected into the networks as route lines indicate that civil air agreements are in existence. Included among these, but not shown on this map is New Delhi.

BOUNDARY REPRESENTATION IS NOT NECESSARILY AUTHORITATIVE

59835 9-68

Figure 8

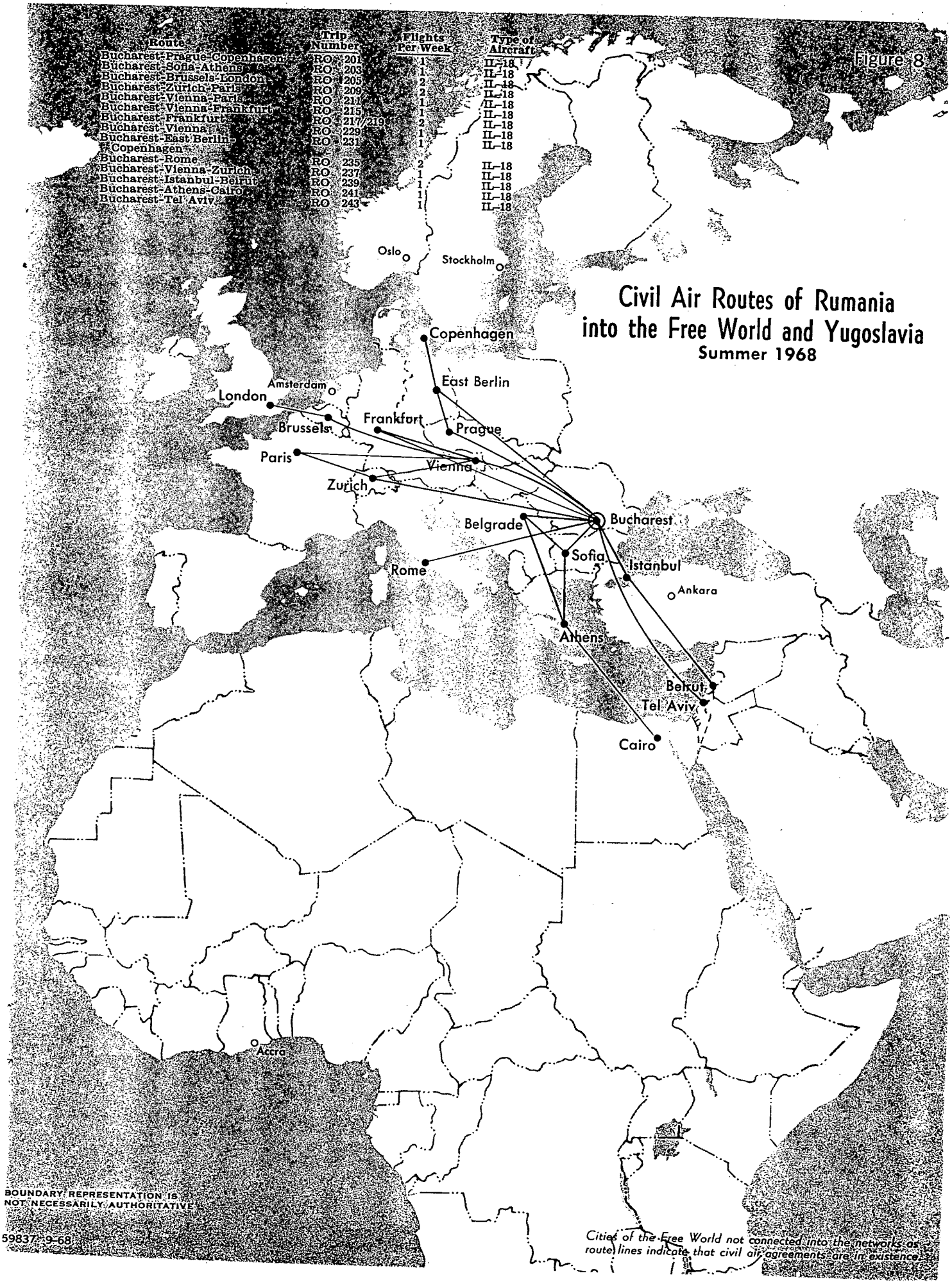

Route
Trip Number
Flights Per Week
Type of Aircraft
Bucharest-Prague-Copenhagen RO 201 1 IL-18
Bucharest-Sofia-Athens RO 203 1 IL-18
Bucharest-Brussels-London RO 205 2 IL-18
Bucharest-Zurich-Paris RO 209 2 IL-18
Bucharest-Vienna-Paris RO 211 1 IL-18
Bucharest-Vienna-Frankfurt RO 215 1 IL-18
Bucharest-Frankfurt RO 217/219 2 IL-18
Bucharest-Vienna RO 229 1 IL-18
Bucharest-East Berlin-Copenhagen RO 231 1 IL-18
Bucharest-Rome RO 235 2 IL-18
Bucharest-Vienna-Zurich RO 237 1 IL-18
Bucharest-Istanbul-Beirut RO 239 1 IL-18
Bucharest-Athens-Cairo RO 241 1 IL-18
Bucharest-Tel Aviv RO 243 1 IL-18
Civil Air Routes of Rumania into the Free World and Yugoslavia
Summer 1968
Oslo
Stockholm
Copenhagen
East Berlin
Amsterdam
London
Brussels
Frankfurt
Prague
Paris
Vienna
Zurich
Belgrade
Bucharest
Sofia
Rome
Istanbul
Ankara
Athens
Beirut
Tel Aviv
Cairo
Accra
BOUNDARY REPRESENTATION IS NOT NECESSARILY AUTHORITATIVE
59837 9-68
Cities of the Free World not connected into the networks as route lines indicate that civil air agreements are in existence.

Figure 9

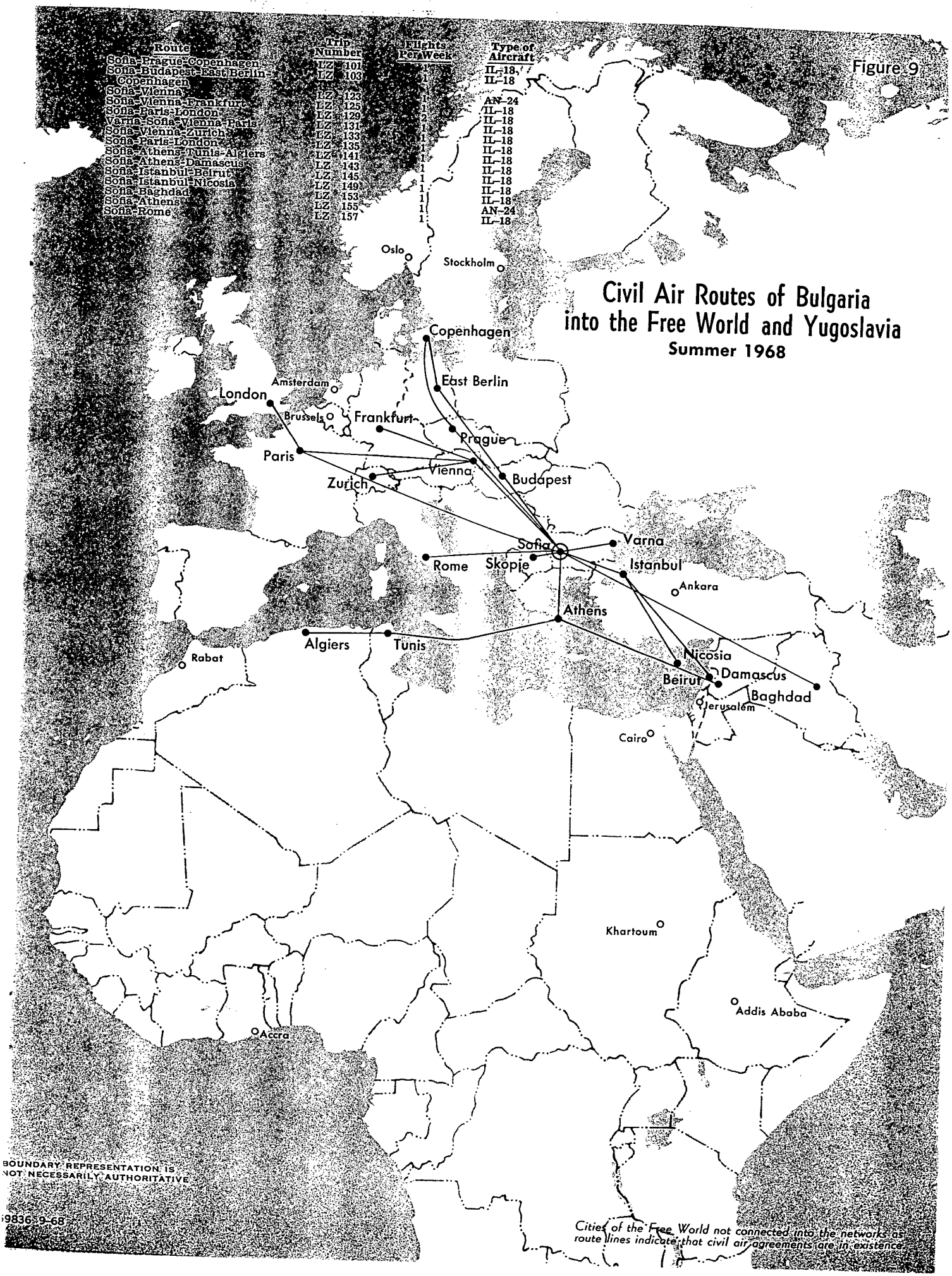

Route
Trip Number
Flights Per Week
Type of Aircraft
Sofia-Prague-Copenhagen LZ 101 1 IL-18
Sofia-Budapest-East Berlin-Copenhagen LZ 103 1 IL-18
Sofia-Vienna LZ 123 1 AN-24
Sofia-Vienna-Frankfurt LZ 125 1 IL-18
Sofia-Paris-London LZ 129 1 IL-18
Varna-Sofia-Vienna-Paris LZ 131 2 IL-18
Sofia-Vienna-Zurich LZ 133 1 IL-18
Sofia-Paris-London LZ 135 1 IL-18
Sofia-Athens-Tunis-Algiers LZ 141 1 IL-18
Sofia-Athens-Damascus LZ 143 1 IL-18
Sofia-Istanbul-Beirut LZ 145 1 IL-18
Sofia-Istanbul-Nicosia LZ 149 1 IL-18
Sofia-Baghdad LZ 153 1 IL-18
Sofia-Athens LZ 155 1 IL-18
Sofia-Rome LZ 157 1 AN-24
IL-18
Civil Air Routes of Bulgaria into the Free World and Yugoslavia
Summer 1968
Oslo
Stockholm
Copenhagen
East Berlin
Amsterdam
London
Brussels
Frankfurt
Prague
Paris
Vienna
Zurich
Budapest
Sofia
Varna
Rome
Skopje
Istanbul
Ankara
Athens
Algiers
Tunis
Rabat
Nicosia
Damascus
Beirut
Baghdad
Jerusalem
Cairo
Khartoum
Addis Ababa
Accra
BOUNDARY REPRESENTATION IS NOT NECESSARILY AUTHORITATIVE
9836 9-68
Cities of the Free World not connected into the networks as route lines indicate that civil air agreements are in existence.

Figure 10

Route	Trip Number	Flights Per Week	Type of Aircraft
East Berlin-Zagreb-Belgrade	IF 632	1	IL-18
East Berlin-Belgrade-Dubrovnik	IF 634	1	IL-18
East Berlin-Beirut	IF 730	1	IL-18
East Berlin-Cairo	IF 740	2	IL-18
East Berlin-Nicosia-Damascus-Baghdad	IF 750	1	IL-18
East Berlin-Nicosia-Damascus	IF 752	1	IL-18
East Berlin-Budapest-Algiers-Bamako-Conakry	IF 760	1	IL-18

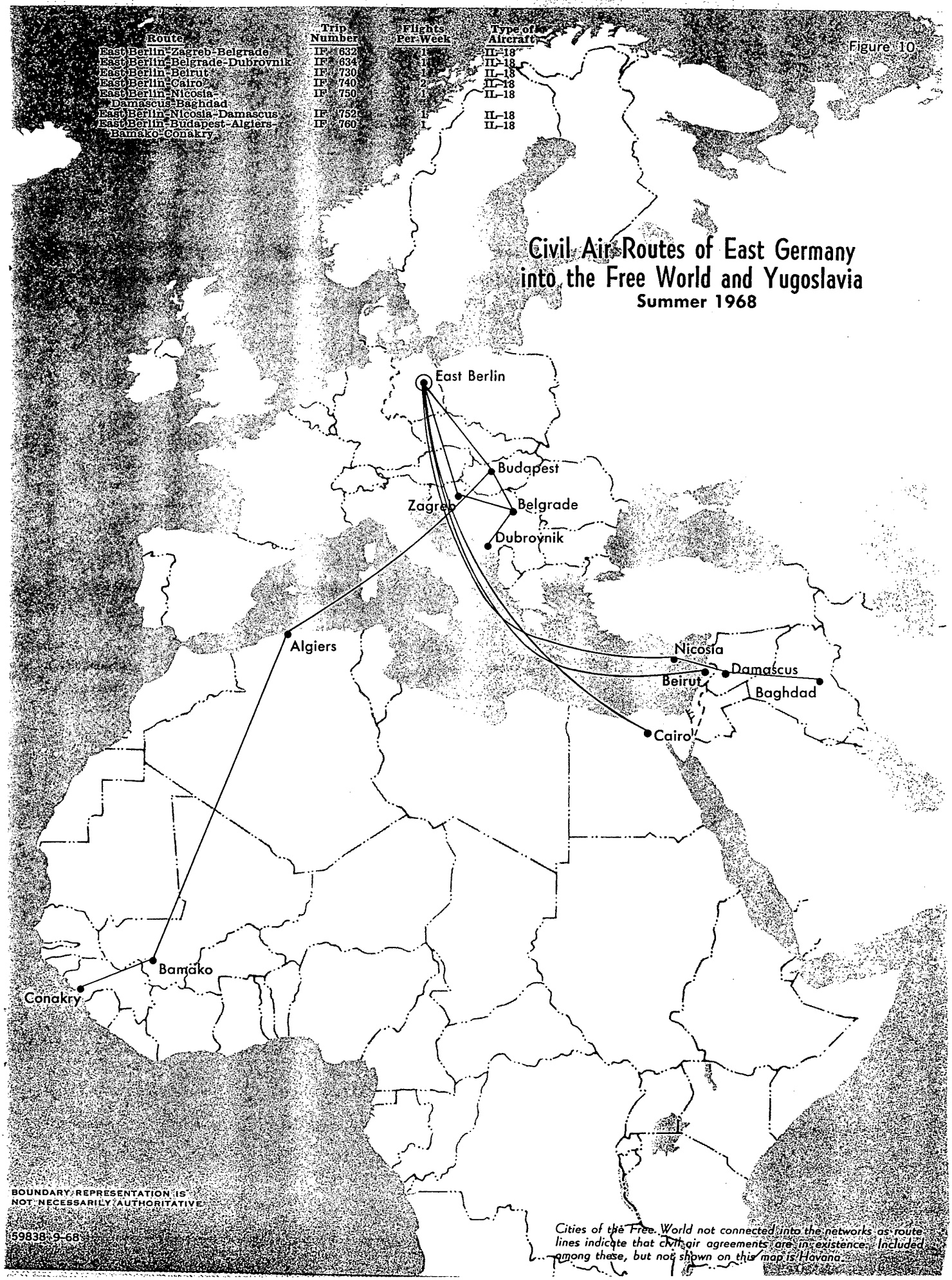
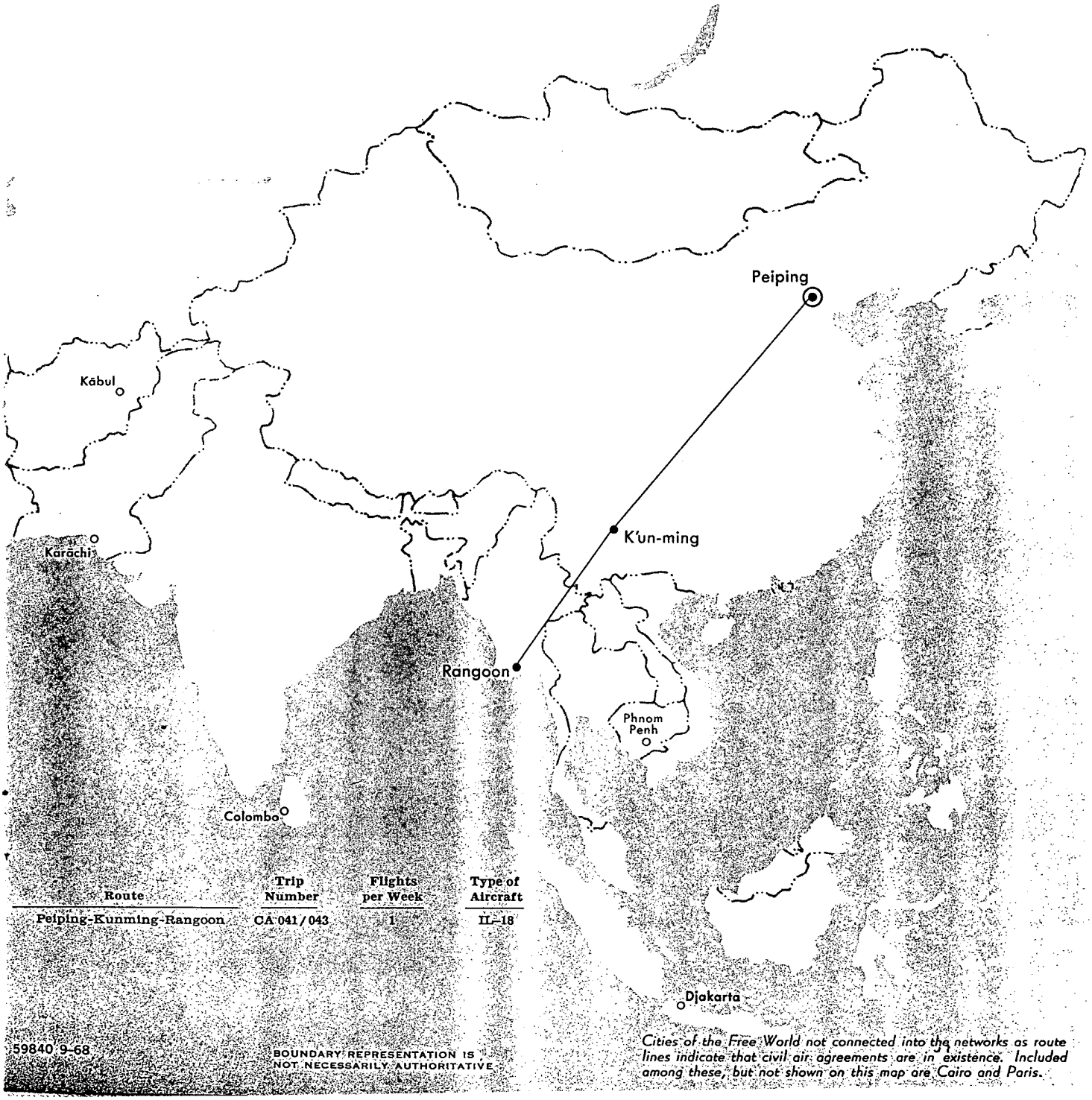


Figure 11

Civil Air Routes of Communist China into the Free World

Summer 1968

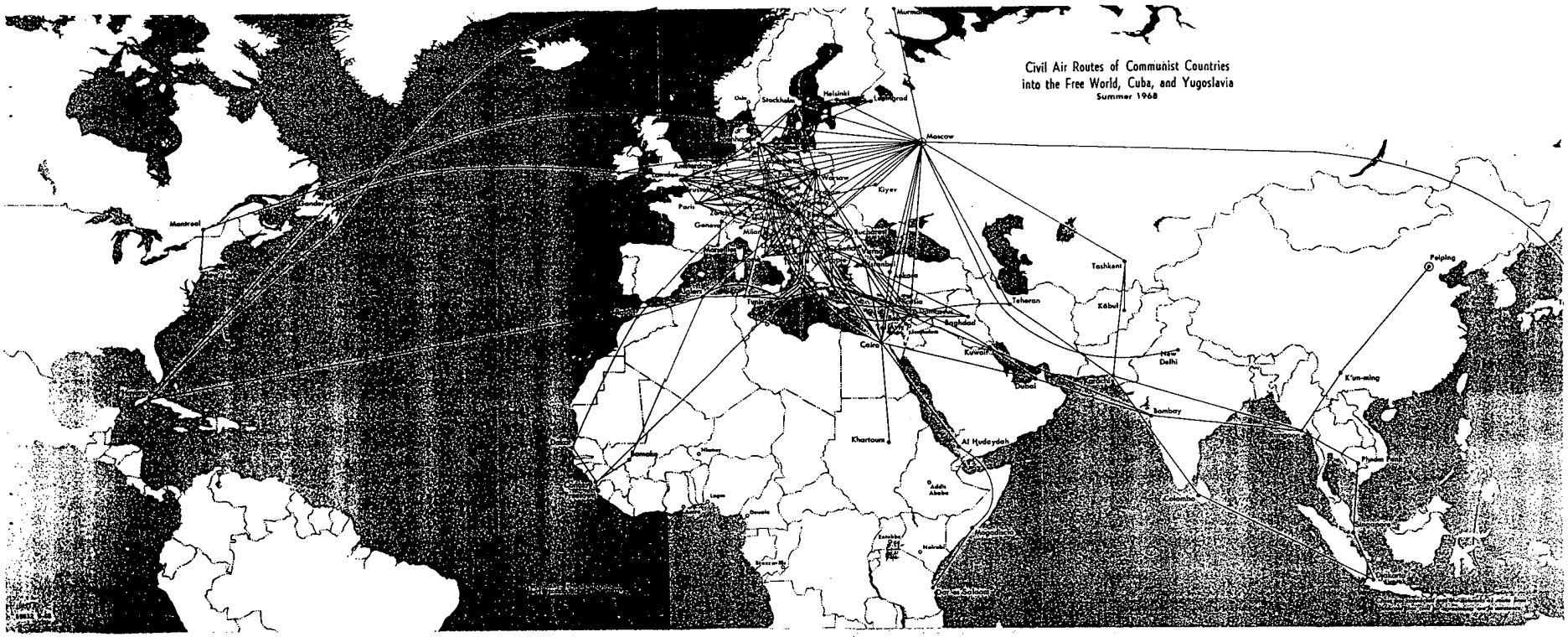


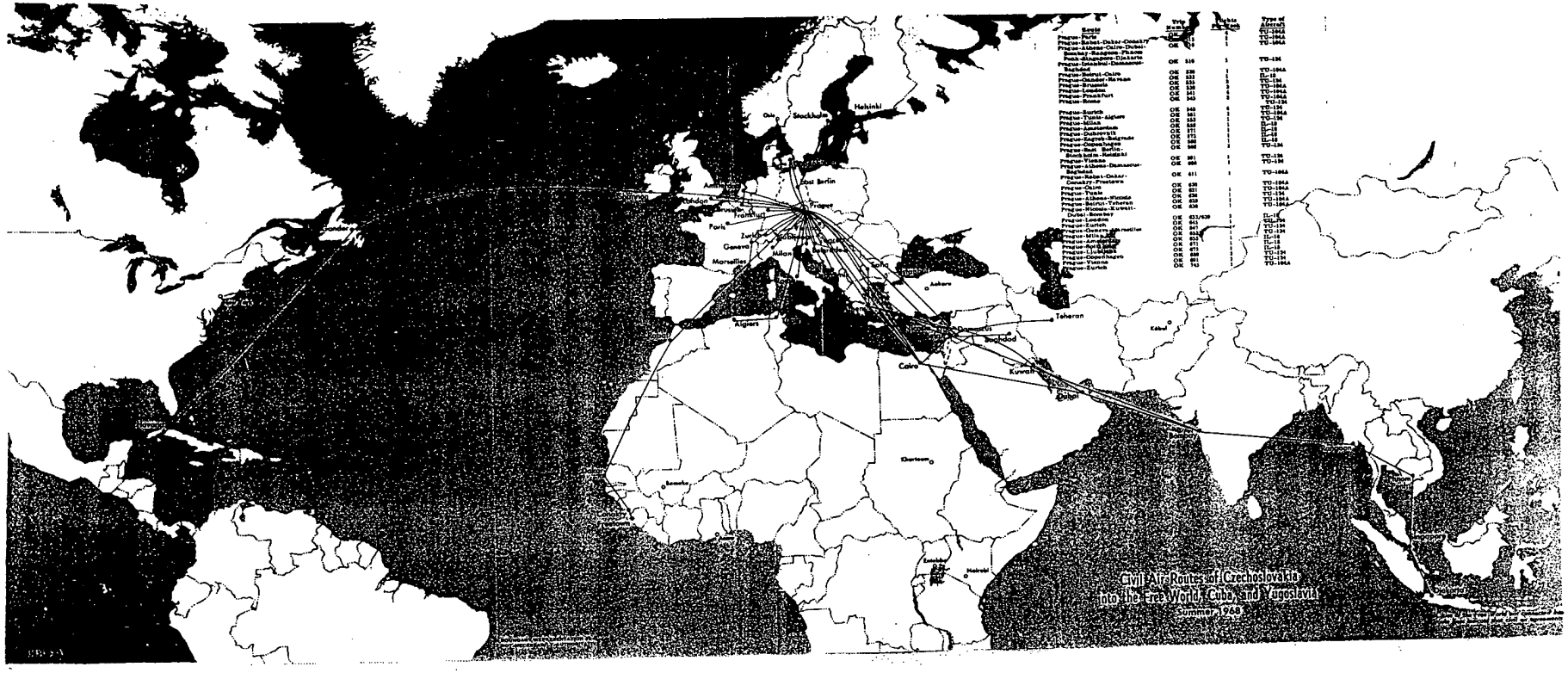
Route	Trip Number	Flights per Week	Type of Aircraft
Peiping-Kunming-Rangoon	CA 041/043	1	IL-18

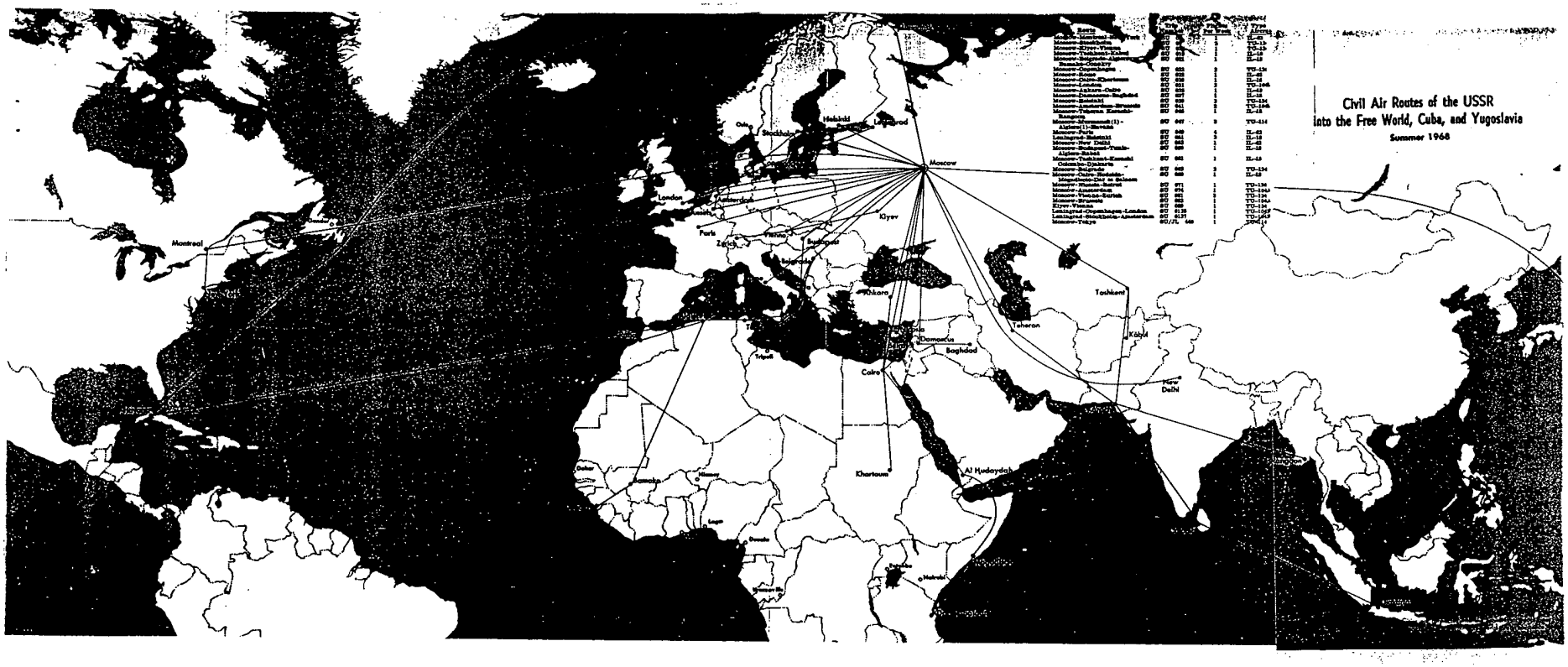
59840 9-68

BOUNDARY REPRESENTATION IS NOT NECESSARILY AUTHORITATIVE.

Cities of the Free World not connected into the networks as route lines indicate that civil air agreements are in existence. Included among these, but not shown on this map are Cairo and Paris.


Civil Air Routes of Communist Countries
into the Free World, Cuba, and Yugoslavia
Summer 1968
Moscow
Stockholm
Helsinki
Leningrad
Kiyev
Warsaw
Paris
Geneva
Milan
Montreal
Tashkent
Kabul
Teheran
Baghdad
Kuwait
Cairo
Dubai
New Delhi
Bombay
Peiping
K'un-ming
Khartoum
Al Hudoydah
Addis Ababa
Colombo
Phnom Penh


Civil Air Routes of Czechoslovakia
into the Free World, Cuba, and Yugoslavia
Summer 1948
Oslo
Stockholm
Helsinki
East Berlin
Prague
Frankfurt
Paris
Zurich
Geneva
Milan
Marseilles
Algiers
Ankara
Teheran
Kabul
Baghdad
Kuwait
Dhahran
Cairo
Khartoum
Nairobi
Entebbe
Mombasa
Bombay
Karachi
Shanghai
Hong Kong
Manila
Bangkok
Saigon
Singapore
Jakarta
Darwin
Sydney
Honolulu
Los Angeles
San Francisco
Seattle
Vancouver
Montreal
New York
Washington
Chicago
Mexico City
Havana
Caracas
Bogota
Lima
Rio de Janeiro
Sao Paulo
Buenos Aires
Santiago
Lisbon
Madrid
Rome
Athens
Istanbul
Belgrade
Zagreb
Ljubljana
Copenhagen
Vienna
Zurich


Civil Air Routes of the USSR
into the Free World, Cuba, and Yugoslavia
Summer 1968
Moscow
Kiyev
Helsinki
Leningrad
Oslo
Stockholm
London
Paris
Zurich
Vienna
Budapest
Belgrade
Sofia
Ankara
Tripoli
Cairo
Damascus
Baghdad
Tehran
Tashkent
Kabul
New Delhi
Khartoum
Al Hudaydah
Nairobi
Montreal