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BASIC AIR STUDY ON YUGOSLAVIA

OUTLINE

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I. Civil Aviation Policy

Yugoslav civil aviation was completely nationalized after World War II and placed under direct control of governmental authorities. Both commercial and private aviation activities are, in effect, instruments of national policy. Although Yugoslavia will undoubtedly continue its past efforts to expand both its internal and international route networks, several obstacles block the attainment of these objectives. Lack of an adequate fleet of transport aircraft, and East-West political tension will continue to hamper the development of the Yugoslav commercial aviation enterprises. More recently, the split between the Cominform and the Yugoslav Government posed an additional difficulty, as illustrated by the stoppage of aviation gasoline shipments to Yugoslavia from neighboring satellite states, and the suspension of air services between Yugoslavia and Albania.

With regard to air relations with other countries, Yugoslavia has maintained a restrictive policy, especially with regard to Western powers. During 1947, there appeared to be two distinct Yugoslav air policies, an "Eastern policy" and a "Western policy".⁽¹⁾ At that time, the only basis for distinguishing these dual policies lay in a comparison of the Yugoslav-Rumanian air agreement of July 30, 1947 (at present inoperative) with the proposed text of the agreement offered by Yugoslavia to the Swiss. It was evident that Yugoslavia was granting clearly more advantageous conditions to Eastern European countries than it was prepared to grant to the Western countries with which it was then negotiating.

Yugoslavia's "Western air agreement policy" as then observed included the following points (not included in the available text of the Rumanian-Yugoslav agreement):

- A. Provision for unilateral substitution of one designated

carrier by another (interpreted as a means of substituting the Soviet-Yugoslav JUSTA for the all-Yugoslav JAT).

B. Provision for rejecting individual flight crew members found undesirable by either power for any reason.

C. Detailed and comprehensive traffic restrictions susceptible to interpretations which would greatly reduce whatever commercial attractiveness a route to and/or beyond Belgrade might have possessed for the Western power.

However, a reading of the air agreements which Yugoslavia has concluded more recently with Czechoslovakia, Hungary, Bulgaria and Poland discloses that (unlike the agreement with Rumania) they also include the provisions under paragraphs (A) and (B) above. With respect to point (C), however, these later agreements are essentially the same as that signed with Rumania, and contain none of the special traffic restrictions found in the "Western policy" agreement proposed with Switzerland in 1947.

Although Yugoslavia's split with the Cominform has caused serious difficulties within the country's commercial aviation enterprises, there is as yet no clear indication that Yugoslavia intends to retaliate by restricting the airlines of Cominform countries presently operating through Yugoslav territory. However, such retaliation would follow logically from any further deterioration in Yugoslavia's relations with the USSR and other satellite states. Although Yugoslavia has ~~recently~~ *long* indicated its desire to conclude a bilateral air transport agreement with Italy, and may in the future be willing to negotiate less restrictive agreements with other Western powers, there has been no perceptible shift in the country's aviation policy toward the West despite the Yugoslav-Cominform rift. Similarly, the US has not modified its aviation policy with respect to Yugoslavia, that policy remains one of preventing the

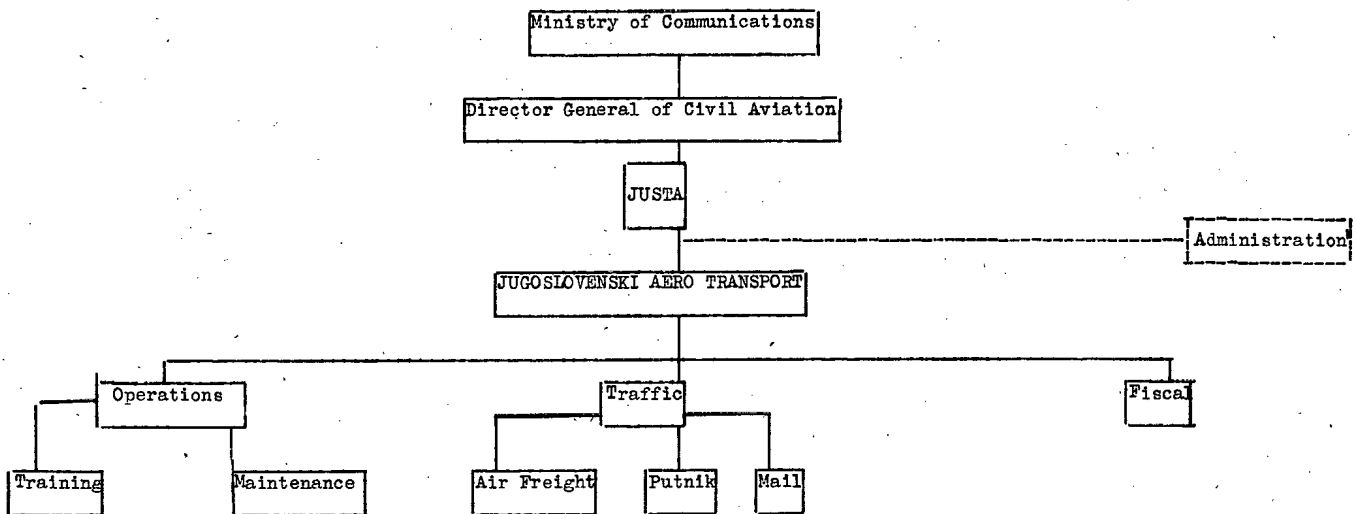
expansion of Yugoslav air services beyond the Iron Curtain, and prohibiting the export of aircraft and aeronautical equipment to Yugoslavia or any other areas within the Soviet orbit.

II. Governmental Organization for Civil Aviation

Prior to World War II, the administration of civil air service was in the hands of the Directorate of Civil Aviation which was under the Air Staff of the Ministry of War and Marine. Control has now passed to the Ministry of Communications of which the Department of Civil Aviation (Glavna Uprova Vasdusnog Saobracaja) now forms a part. Since January 1948, Major General Ambrosic has been Director General of Civil Aviation. Formerly, he was Deputy Chief of the Air Staff and head of the Youth Air Movement (a gliding organization).⁽²⁾

As stated in Part I, Civil Aviation Policy, governmental authorities exercise direct control over all civil (commercial or sport) aviation activities. Air Headquarters are located at Zemun. Yugoslav airlines reportedly must notify Air Headquarters one day in advance of flights to secure route clearance and their aircraft must then be flown along specified air corridors assigned by the Directorate of Civil Aviation.⁽³⁾ This policy of rigid control over airline operations follows logically from the fact that the airline companies are completely government-owned, and are regarded by the Yugoslav government as instruments of national policy.

Diagram of the Organization of Civil Aviation Activities in Yugoslavia⁽⁴⁾



III. Yugoslav Airlines

(1) General Background:

From the end of World War II, and prior to the establishment of JUGOSLOVENSKI AERO TRANSPORT (JAT, the State-operated civil air carrier) all air services within Yugoslavia were performed by the Air Transport Section of the Yugoslav Air Force. These services were carried out under the direction of the Ministry of War, using 6 C-47's and 2 JU-52's. Lack of equipment and facilities limited operations to domestic flights with the exception of Special Missions flown abroad. (4)

About March 30, 1947, the above Yugoslav Air Force aircraft and crews were formed into a civil airline known as JUGOSLOVENSKI AERO TRANSPORT, (JAT). A new mixed Russo-Yugoslav airline, JUGOSLOVENSKA SOVIJETSKA TRANSPORTNA AVIJACIJA (J.U.S.T.A.) was also formed early in 1947, reportedly as a result of Soviet pressure to bring air transport in Yugoslavia into line with that of other Balkan satellites (e.g., MASZOVLET in Hungary and E.A.R.S. in Rumania). JAT and JUSTA have continued as the sole Yugoslav airline enterprises. The precise relationship between the two companies has long been a matter of speculation, for while reports in 1947 indicated that JUSTA was a holding company of which JAT was the operating component, more recent information would seem to establish the fact that JAT and JUSTA are separate corporate entities operating independently.

(2) The Organization of J.A.T.

(a) Ownership and Capitalization:

JAT, constituted as a civil airline in March 1947, is entirely government-owned, and under the direction of the Ministry of Communications. It is assumed that the remaining assets of AEROPUT, the prewar civil airline, were transferred to JAT. As a state enterprise, any aid given in the form of equipment, facilities, installations and cash cannot be called a subsidy in the true sense of the word. The

capitalization of JAT is not known.

(b) Personnel:

M. Mitic is Director General of JAT. and Captain Pudaric is the Director of Planning. (2) A Yugoslav political refugee, [redacted]

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[redacted] stated [redacted] that JAT had the following employees: (3)

- 19 pilots
- 6 radio operators
- 10 navigators attending radio school

[redacted] because of political unreliability, of the employees, only one-third of JAT's personnel have passports to make flights abroad. [redacted] all JAT pilots are Yugoslavs, some of whom have served with the RAF.

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(c) Equipment:

JAT owned 10 DC-3's (converted C-47 war surplus aircraft) in June 1948. It is ~~not~~ ^{only some} believed that ~~all~~ ^{are} of these aircraft ~~were~~ operational, either because of an existing aviation gas shortage or lack of spare parts.

(3) Organization of JUSTA

(a) Ownership and Capitalization:

JUSTA. formed early in 1947, is jointly owned by the ^{USSR} ~~Soviets~~ and Yugoslav^{ia}, each country owning 50% of the stock. (5) In addition to air route concessions, the company has been given concessions to operate the airfields at Belgrade (Zemun) and Zara (Zernunik). The post of Director General of JUSTA has always been filled by a Russian. In January 1948. Major Orlov was replaced as Director General by Colonel Zitljev, who also acted as chief pilot of JUSTA. [redacted]

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[redacted] the latter has been replaced by Andrej Bockarev. (2)

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(b) Personnel:

A Yugoslav political refugee [redacted] stated [redacted] that JUSTA had the following employees: (3)

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17 pilots

8 radio operators

8 mechanics

Russians and well as Yugoslavs are employed as members of JUSTA aircrews. (2)

(c) Equipment:

In July 1948, JUSTA owned 12 PS-84's (Russian-built DC-3's) and 2 JU-52's. (2)

(3) Routes Flown by JAT and JUSTA

During 1947, JAT and JUSTA rapidly expanded their services to link the major cities of Yugoslavia as well as provide air connections between Belgrade and the capitals of Czechoslovakia, Hungary, Albania, Poland, Rumania and Bulgaria. However, civil air operations were curtailed during the winter of 1947-48 because of inadequate navigation and radio facilities.⁽²⁾ By April 1948, the Yugoslav air carriers were flying the following routes (See Map #1):⁽⁶⁾

JAT
 Belgrade - Prague - Warsaw
 Belgrade - Zagreb
 Zagreb - Sarajevo
 Zadar - Zagreb - Bratislava - Prague
 Belgrade - Skoplje⁽⁷⁾

JUSTA
 Belgrade - Budapest
 Belgrade - Sofia
 Belgrade - Sarajevo
 Belgrade - Titograd - Tirana

The Yugoslav press (Borba) ~~had~~ announced during the latter part of March ¹⁹⁴⁸ that, by May 15, the following air routes would be opened for general passenger service:⁽⁸⁾

Belgrade - Dubrovnik
 Belgrade - Split
 Sarajevo - Dubrovnik
 Zagreb - Split
 Zagreb - Fiume
 Ljubljana - Fiume

In addition to the projected expansion of the above domestic routes, it was the Yugoslav objective to extend during 1948 JAT's international services from Warsaw to Stockholm, from Prague to Amsterdam, from Belgrade

to Rome and from Zagreb to Milan. Moreover, it was reported that Yugoslavia was interested in securing the air rights necessary for establishing a Belgrade - Cairo air service via Istanbul.

All of these ambitious plans were suddenly shelved when, on April 7, 1948, all domestic and foreign civil air flights were cancelled. The complete cessation of civil air operations, according to the official Yugoslav explanation, resulted from a shortage of aviation gas and the fact that the airline operations had proved to be uneconomic.⁽⁹⁾ Although subsequent reports confirmed the existence of a real shortage of aviation gas, the second reason stated above appears improbable in view of Borba's press announcement late in March that new air services were to be inaugurated during April and May. It appears, therefore, that the cancellation of civil air operations was ordered by the Yugoslav Government to conserve aviation gas reserves and/or keep all transport aircraft on hand for possible military use. (An unusual amount of local flying, involving both military and civil transport types, was conducted by the Yugoslav Air Force after the cessation of civil airline operations). That these drastic measures were found necessary was an added indication of the ever-widening Tito-Cominform split.

JAT resumed limited operations on May 15, 1948, when it began an air service from Belgrade to Sarajevo and on to Dubrovnik. By August 1948, the Yugoslav airlines were operating the following routes:⁽¹⁰⁾

J U S T A

Belgrade - Titograd (1 flight daily except Sunday)
 Titograd - Tirana (3 flights weekly)
 Belgrade - Budapest (1 flight weekly)

J A T

Belgrade - Sarajevo - Dubrovnik (1 flight daily except Sunday)
 Belgrade - Prague (2 flights weekly)

During September, however, JUSTA discontinued its operations to Budapest and, on September 29, 1948, suspended its services to Tirana, although flights from Belgrade to Titograd were continued. In December, JAT's services between Sarajevo and Dubrovnik were also suspended. As of January 9, 1949, JUSTA had reportedly discontinued all scheduled services and limited its activity to infrequent special flights.⁽¹¹⁾ Consequently, the only scheduled operations now (April 21) conducted are JAT's two routes: Belgrade - Sarajevo and Belgrade - Prague.

(4) Foreign Airlines Operating In Yugoslavia⁽¹²⁾

The Czechoslovak (CSA), Bulgarian (BVS), Polish (LOT) and Russian (AEROFLOT) airlines now operate to Belgrade along the following routes:

C S A

Prague - Belgrade - Sofia (1 flight weekly; to be increased to 2 flights weekly)

B V S

Sofia - Belgrade - Prague (1 flight weekly)

L O T

Warsaw - Budapest - Belgrade (1 flight weekly; to be extended to Sofia and (?) Istanbul)

AEROFLOT

Moscow - Lwow - Budapest - Belgrade (3 flights weekly)

Belgrade - Tirana (3 flights monthly)

IV. Civil Air Facilities

By far the most important civil airport in Yugoslavia is Zemun Airport at Belgrade. Zemun is the focal point from which the domestic and international air routes radiate, and is the only airfield now used by foreign air carriers. As previously noted, the facilities at Zemun are under the administration of the joint Soviet-Yugoslav corporation, JUSTA. The total area of the installation is 8 square kilometers. The cement runway is 1400 meters long, 80 meters wide, and 20 centimeters thick. An 8 kilometer perimeter track connects the runway with the hangars.⁽¹³⁾ Next in importance to civil aviation are the airfields at Zagreb, Sarajevo and Ljubljana.

Radio and meteorological facilities at Zemun are reported to be excellent. Although little is known about such facilities at other Yugoslav airfields, they are believed to be inadequate and below US standards for commercial air operations.⁽¹⁴⁾

V. Yugoslav Bilateral Air Transport Agreements (15)

During 1947, the Yugoslav Government is known to have concluded bilateral air transport agreements with the following countries:

Rumania - July 30, 1947

Hungary - June 23, 1947

Czechoslovakia - March 14, 1947

Bulgaria - August 2, 1947

Poland - August 22, 1947

Other civil air transport agreements believed to have been concluded by Yugoslavia are with the USSR and Albania. Neither has been published and no version of their texts is available. In addition, Yugoslavia signed an air agreement in 1947 with Sweden providing for the establishment of an air courier service between Belgrade and Stockholm. This service was never established.

The agreements signed with Rumania, Hungary, Czechoslovakia, Bulgaria and Poland provide for the establishment of 12 international routes to be served by Yugoslav carriers, of which 5 are still dependent upon the conclusion of air transport agreements with other countries. The Rumanian-Yugoslav agreement has ^{yet to be} ~~still not been~~ officially published in Yugoslavia. This fact and other circumstances indicate it may have been denounced. It is certainly inoperative at the present time. In addition, the air agreement with Albania presumably provides for Yugoslav operation of the Belgrade-Titograd-Tirana route. This makes a total of 13 international routes envisaged by existing agreements.

A detailed analysis of Yugoslavia's air agreements reveals the following pattern:

(1) International Routes Operated by Yugoslav Aircraft as of April, 1949:

Belgrade - Prague and return. Two flights weekly. Operator: JAT (Yugoslav Air Transport Company). Also flown by the Czechoslovak Airline,

CSA, and the Bulgarian Airline, BVS.

(2) International Routes Operated Only by non-Yugoslav Aircraft although Yugoslav Lines Authorized:

(a) Zadar - Zagreb - Bratislava - Prague and return. Flown twice weekly by CSA during summer months.

(b) Belgrade - Budapest - Warsaw and return. Flown once weekly by the Polish Airline, LOT.

(c) Belgrade - Sofia and return. Flown once weekly by BVS, and CSA. Formerly flown by JUSTA, but service discontinued.

(3) International Routes Authorized to Yugoslav Aircraft but not in Operation:

(a) Zadar - Zagreb - Budapest and return

(b) Belgrade - Bucharest and return. (Formerly flown by JUSTA but service discontinued).

(c) Belgrade - Budapest and return. Flown 3 times weekly by the Soviet carrier, AEROFLOT. (Formerly flown by JUSTA but service discontinued).

(d) Belgrade - Titograd - Tirana and return. (Service discontinued by JUSTA on 29 Sept. 1948).

(4) International Routes only Partly Authorized by Existing Agreements:

(a) Belgrade - transit rights over Bulgarian territory, presumably to Istanbul or beyond. (No agreement with Turkey).

(b) Belgrade - Prague - with extension to Amsterdam and beyond. (No agreement with the Netherlands).

(c) Belgrade - Prague - Warsaw, with extension to Stockholm. Belgrade - Prague segment now flown by JAT; Prague-Warsaw segment authorized, but service once operated by JAT has been discontinued. (Only courier service authorized with Stockholm).

(d) Belgrade - Warsaw, with extension to Moscow. Transit rights over Hungary and Czechoslovakia included in agreements with latter and also with Poland. (The USSR has not authorized the operation of foreign,

including Satellite, airlines within its territory).

(e) Belgrade - Bucharest - USSR. Belgrade - Bucharest, and extension beyond authorized by Rumania. (The USSR has not authorized the operation of foreign, including Satellite, airlines within its territory).

The fact that Yugoslavia has not extended its international services to the degree permitted by existing agreements is open to several inter-related conjectures:

A. A sufficient number of operational aircraft is lacking and/or available equipment is required more urgently for domestic services. (The number of transports in operational condition is again dependent upon such factors as the adequacy of Yugoslav aviation gas reserves, the maintenance capabilities of Yugoslav ground crews, and the ability of Yugoslavia to obtain spare parts needed to increase the utilization of its present transport fleet).

B. There is insufficient traffic for profitable operations on unexploited routes.

C. Yugoslavia's peculiar position in the East-West "cold war" has erected serious political barriers which inevitably hamper the expansion of the country's international air network. A policy of awaiting future developments before expanding authorized services may thus appear to Yugoslav air authorities as the only feasible course of action.

Under point (A) it is believed that Yugoslavia is suffering considerable maintenance difficulties. It is United States policy to encourage Western European countries to close supply sources and overhaul facilities for Yugoslav aircraft. The June, 1948, Cominform resolution denouncing the Yugoslav Communist Party implies that supply sources, especially aviation gas, and overhaul facilities in Eastern Europe may also become less available to Yugoslavia on this side of the curtain.

Under point (B) the commercial profitability of airlines in Eastern

Europe where the majority of travellers are official is questionable. The Cominform resolution has led to a material reduction in travel to Yugoslavia from other Eastern European countries. Yugoslav entry restrictions on applicants for visas in Western countries restrict the development of air traffic. Competition with several other official airlines in the Eastern European region, such as the Czechs, Hungarians and Poles, finds Yugoslav airlines in a secondary position.

Under point (C), it appears that Yugoslavia of late has relaxed its efforts to obtain new air agreements with the West. It has failed in all its international air objectives to date outside of the Eastern European sphere. And among Eastern European countries, it is apparent that Soviet Russia itself by refusing to authorize Yugoslavia to overfly the Soviet Zone of Germany proved to be an insurmountable obstacle in otherwise successful Swedish-Yugoslav negotiations. Failure to initiate Yugoslav flights into Soviet territory on either Routes D-4 or D-5 listed above conforms to the general impression that the USSR is also not prepared to authorize even its satellites to fly into the Soviet Union.

It would appear that if these three conjectures are valid, Yugoslavia should not be expected to continue its past forceful efforts toward extending its air network to the West or Middle East. However, there are other factors in the picture, which would directly invalidate such a general conclusion:

A. Yugoslavia may be expected to continue to attempt to negotiate ^{an} ~~an air agreement~~ ^{agreements} as actively as before ^{and} ~~an air agreement~~ above all with Italy. (The Italian Foreign Office received a note dated March 31, 1949 from Yugoslavia requesting the negotiation of an air transport agreement). This would be particularly desirable from the Yugoslav point of view, and not only as a potential direct outlet to other points in the West. A flight to Rome might be expected to be profitable on its own account and could be combined

with existing domestic services (Belgrade-Zagreb-Rome, for example), overcoming the presumed obstacles under both points (A) and (B) above.

B. Yugoslavia, once a peace treaty is signed with Austria, may be expected to attempt to negotiate an air agreement for entry into Vienna. This Yugoslavia could expect to be both profitable and easily combinable with existing domestic services (i.e., Belgrade-Zagreb-Vienna). Entry into Austria would not, however, unlike an Italian route, facilitate an outlet to other countries farther to the West, particularly as long as Germany is under the present four-power occupation.

C. Prestige factors and dreams of creating a far-flung aviation network in the near future will continue to be one manifestation of Yugoslavia's desire to be a major European power, regardless of questions of commercial profitability. Yugoslavia's steadily worsening relations with its neighbors in Eastern Europe, arising from the Cominform resolution, would seemingly provide a realistic motive as well for Yugoslavia to renew its efforts toward the West.

VI. Aeronautical Industry and Research:

Yugoslavia's aeronautical industry is poorly developed; its output is insignificant both quantitatively and qualitatively. Production is limited to gliders and small trainer-type, powered aircraft. No aircraft engines are known to be manufactured. Dependent upon Finnish plywood and Czechoslovak aircraft engines, and limited by a shortage of skilled domestic labor, the Yugoslav aeronautical industry will undoubtedly remain, for some years at least, a negligible factor in the country's aviation development. Even aircraft repair and reconditioning facilities are insufficient to accommodate the requirements of the Yugoslav airlines, as evidenced by JAT's contract with Fokkers (in The Netherlands) for reconditioning eight war-surplus C-47 transports. (16)

The undeveloped state of Yugoslavia's aircraft industry does not provide either reason or support for aeronautical research in Yugoslavia.

VII. Sport Aviation

Private flying is under close government control and supervision in Yugoslavia. The organ through which this control and supervision is exercised is the "Aviation League of Yugoslavia", whose declared objective is "to encourage sport flying through model-making, gliding, parachute jumping and pilot training".⁽¹⁷⁾ The officers of the League, as of mid-1948, were:⁽¹⁷⁾

President-----Major General Ladislav Ambrozic

Vice President-----Colonel Nenad Drakulic

Secretary-----Major Mihajlo Velimirovic

Committee Members-----Toma Brejc

Alija Vejzagic

Colonel Asim Hodzic

Lt. Col. Zivko Svetopolk

Major Aleksandar Nesovic

Tihomir Markovic

Captain Jakov Ruduc

Captain Milan Banjac

Pavle Crnjanski

Sredoje Pajic

Although the encouragement of sport flying is the declared purpose of the Aviation League, sport flying is, in actuality, only a means by which the Yugoslav Government hopes to create a reservoir of trained personnel for the Yugoslav Air Force, commercial airlines, aeronautical industry and air communication system. The organization is, in effect, para-military in nature.

The Federal Pilots' School of the Aviation League, located at Ruma, conducts a course of training which reportedly lasts three and one half

months. To qualify for admission to the Federal Pilots' School, applicants must fulfill the following conditions: (18)

- (a) be between the ages of 17 and 25;
- (b) physically fit for flying duty;
- (c) graduated from basic modelling course;
- (d) graduated from at least Class "B" glider's course (soaring);
- (e) that during gliding course students have shown aptitude and interest for continuing in aviation;
- (f) at least four years of secondary school, or an equivalent in professional school;
- (g) that they have been exemplary in the work and actions of the People's Youth Organization i.e., that they be politically reliable.

Graduated pilots are offered one of three opportunities to continue their career in aviation depending on the skill they exhibit i.e.: (18)

- (a) Most successful -- attend school for reserve officers and continue training at military air centers;
- (b) Next successful -- return as instructors to the Federal Pilot's School;
- (e) Others -- pilots in civil aviation.

Although little is known of the actual accomplishments of the Aviation League, it is apparent that the results have not measured up to the hopes of the League's officials. An article in the Yugoslav aviation magazine "People's Wings", (Aug. 1948) written by Lt. Col. Velimirovic (Secretary of the Aviation League) admonished all local societies for laxness in fulfilling their plan in modelling, gliding, and parachute jumping. (19) Velimirovic stated that the overall average results for all of the Yugoslav air societies was 63% of the League's plan for sport aviation, and the total membership of all the aviation societies in Yugoslavia stood at only 874.

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