

AIRCAM AVIATION SERIES

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# CZECHOSLOVAKIAN AIR FORCE 1918-1970





Above: Aero A-42 one of two bomber prototypes built, very similar in appearance to the Fairey Long Range Monoplane.



Above: Avia-Fokker F-IX of the 5th Bomber Air Regiment somewhat embarrassed near a Moravian village in 1937.



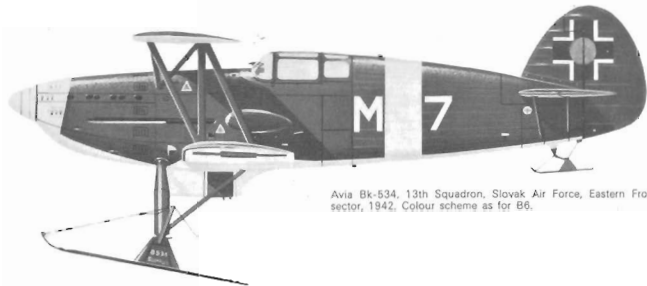
Above: Fine photograph of a pair of Lavochkin La-5's of the 1st Czechoslovakian Fighter Regiment, Przeborsk airfield, 1944.



Left: Belly study of a MiG-21.

Below: Supermarine Spitfire LF IXe in the markings of No. 310 (Czech) Fighter Squadron, Royal Air Force, one of the finest examples of the Spitfire in existence. The work of preservation was carried out by members of the Czechoslovakian Air Historical Society and the aircraft is on display in the National Technical Museum in Prague. The photo was taken in 1967. Code NN-N, serial TE565.





Avia Bk-534, 13th Squadron, Slovak Air Force, Eastern Front, Kiev sector, 1942. Colour scheme as for B8.

# CZECHOSLOVAKIAN AIR FORCE

## 1918-1970

Text by Zdenek Titz

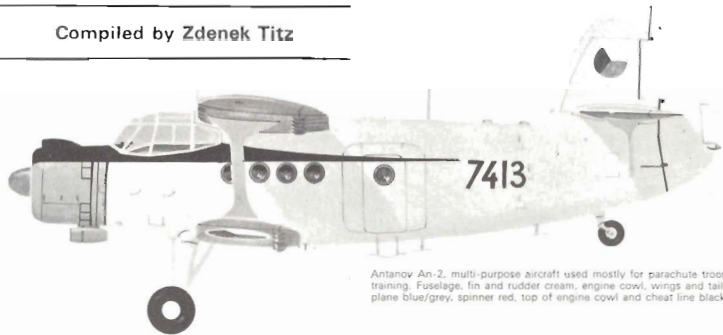
Illustrated by Gordon C. Davies  
and Richard Ward

Compiled by Zdenek Titz

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Oldřich Kožušník, B. Ladalkan, Ludvík Michalec,  
Ladislav Valoušek.



Antonov An-2, multi-purpose aircraft used mostly for parachute troop training. Fuselage, fin and rudder cream, engine cowl, wings and tail-plane blue/grey, spinner red, top of engine cowl and cheat line black.

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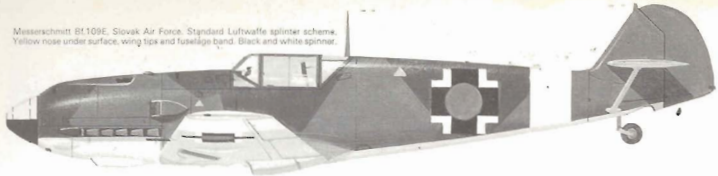
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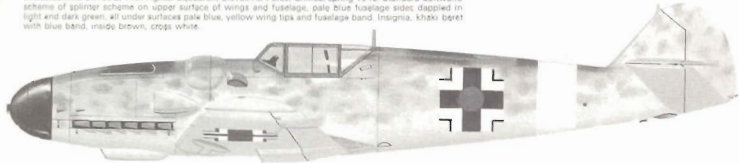
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Messerschmitt Bf 109E, Slovak Air Force. Standard Luftwaffe splinter scheme. Yellow nose under surface, wing tips and fuselage band. Black and white spinner.



Messerschmitt Bf 109G, 14th Fighter Squadron, Slovak Air Force, Crimea, spring 1943. Standard Luftwaffe scheme of splinter scheme on upper surface of wings and fuselage, pale blue fuselage sides (dappled in light and dark green), all under surfaces pale blue, yellow wing tips and fuselage band. Insignia, khaki beret with blue band, inside brown, cross white.



Messerschmitt Bf 109G, Combined Squadron, Slovak Insurgent Air Force. During the Slovak National Uprising of September 1944 the unit operated from Trn Duby (Three Oaks) airfield near Zvolu. The Insurgent A.F. insignia was carried in the usual six positions. Upper surface of wings splinter scheme, fuselage top grey into pale blue with light and dark green dapples, all under surfaces pale blue, yellow band and wing tips overpainted in either pale blue or green.



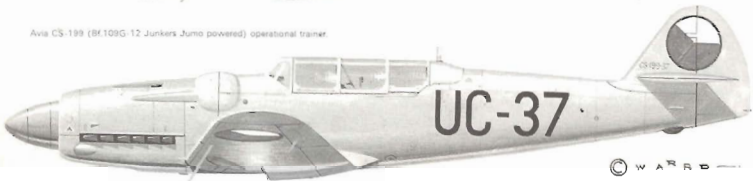
Avia S-199 (Junkers Jumo powered Bf 109G), Central Flying School, Prostějov.



Avia CS-99 (Bf 109G-12) operational trainer.



Avia CS-199 (Bf 109G-12 Junkers Jumo powered) operational trainer.





Line-up of Avia B-534 biplane fighters of the fourth production series with enclosed cockpit prior to delivery to squadrons.

## CZECHOSLOVAKIAN AIR FORCE 1918-1970

The birth of the Czechoslovak armed forces occurred simultaneously with the founding of the independent Czechoslovak state on 28 October 1918. Up to this date the areas of Bohemia, Moravia and Slovakia were parts of the Austro-Hungarian Empire; many personnel of Czech origin served with the Imperial Air Service, but there were no national air units. Most of these personnel served as ground crewmen, and only a score or two managed to become pilots; but during the First World War individual Czechs or small groups had served as members of Czech Legions with the air services of France and Russia.

The first Czechoslovak Air Force unit was formed on 9 June 1918 in Russia, under the designation *Čs. letecký oddíl č. legii v Rusku*—"Czechoslovak Air Division of Cz. Legions in Russia". The unit, first commanded by F/O Melč, began operations with only two aircraft, a Farman 30 and a Voisin 2. Shortly thereafter a second Air Division was formed under the command of Captain Fiala. The activities of both divisions were limited to reconnaissance flights. In April 1919 the 1st Division was re-organised as a flying school at Omsk, with 170 personnel; on 2 June the school received seven American "Tractor" aircraft, and commenced flying training. The establishment at Omsk was only transferred to the newly-founded Czechoslovak Republic in 1920.

In the meantime, the *Čs. letecký sbor*—"Czechoslovak Air Corps"—had been founded in Prague. The first aircraft were machines confiscated on the airfield of Cheb in Western Bohemia, the only properly-constructed airfield on Bohemian or Moravian territory. These Imperial machines were mainly Brandenburg biplanes, and were transported by air and road to Prague, where a new airfield was quickly prepared and named Prague/Kbely. This field became the base for the 1st Squadron, which immediately commenced flying training with the Brandenburg biplanes. During 1919 the first 20 pilots completed their training.

During 1919 and 1920 the C.Z.A.F. received 128 aircraft from France, including 50 SPAD VII and SPAD XIII scouts; 50 Salmson 2 reconnaissance biplanes; 15 Voisin 8, ten Breguet 14 and one Liore et Olivier 7/2 bombers; and two Farman Goliaths. With the expropriated aircraft

(which included such types as the Brandenburg C.I, the Fokker D.VII, the Albatros D.II, the Nieuport 11, and various Ansaldo, Roland and Phönix machines) the total equipment in 1920 reached 165 aircraft. This total was divided among 11 squadrons, formed one by one over the next two years. By late 1922 four fighter and seven reconnaissance squadrons had been formed; the young air force continued to increase, and in 1923 three Air Regiments were formed. Each regiment consisted of two *letecký prapor* (loosely, Wing or Group, but there is no exact English translation); and each *letecký prapor* was made up of three squadrons. The 1st Air Regiment was based at Prague (Bohemia), the 2nd at Olomouc (Moravia), and the 3rd at Nitra (Slovakia). Simultaneously, and under the direct control of the Ministry of National Defence, the independent *Letecký sbor* (Air Division) and *Letecký studijní ústav* (Air Research Institute) were founded, and a chain of meteorological stations set up.

In 1923 the organisation of the Air Regiment included: H.Q., I and II *letecký prapor* (later, I and II *perut*, balloon squadron, photographic unit, reserve squadron, regimental workshops, and regimental stores. Each *perut* consisted of three squadrons. During the same year the *Letecký dopravní oddíl* (Air Transport Division) was established and began a regular air line service on the route Prague-Bratislava-Košice. This Division, in fact, laid the basis for the later Č.S.A. Company. During 1924 Cheb airfield became the site for the *Škola leteckého dorostu* (Advanced Flying School) and the building of the *Vojsková továrna na letadla* (Military Aircraft Factory), later contracted to Letov, was nearing completion. Here, the first Czech military aircraft was designed and built; designated Letov Šm-1, it was a reconnaissance biplane of Alois Šmolík design.

Operational flight training was provided by the Reserve Squadrons attached to each regimental establishment. The central flying school, or *Letecké učiliště*, was completed at Prostejov in Moravia in 1925, and took over the training of most Czech aircrew and ground personnel. During the first ten years of the Air Force's existence nine airfields were built: these were Prague/Kbely, Milovice, Olomouc, Prostejov, Brno, Píšťany, Bratislava, Nitra, and Košice. Additionally, several auxiliary airstrips were available to

the country. By 15 August 1940, 906 Cz.A.F. personnel had reached Britain, and this figure increased to 1,287 before the end of the year. On 12 July 1940 No. 310 (Czech) Fighter Squadron was raised at Duxford, becoming operational on 18 August. This was followed by No. 311 (Czech) Bomber Squadron on 2 August, No. 312 (Czech) Fighter Squadron on 5 September, and on 5 May 1941, by No. 313 (Czech) Fighter Squadron. The flying and operational training of Czech personnel was carried out in British flying schools and O.T.U.s, and in Canada and the Bahamas. Apart from the all-Czech units, a number of Czechs served with British squadrons, including Nos. 19 and 68. A Czech sergeant, Josef František, flew with the Polish No. 303 Squadron during September 1940, and became the top Allied fighter pilot of the Battle of Britain, with 17 confirmed solo victories in the space of 28 days. He was killed in action on 8 October. Shortly before D-Day the three Czech fighter squadrons were brought together in the Czech Fighter Wing, which operated as part of the 2nd Tactical Air Force. Between August 1940 and 1 January 1945, Czech airmen flying with the Royal Air Force recorded 326 victories; during the same period 506 Czech airmen were lost.

The Czechoslovak Air Force in exile also took part in the fight against the *Luftwaffe* and *Wehrmacht* on the Eastern Front. On 19 February 1944 the ship *Retna del Pacifico* left England for the Soviet Union, carrying 21 Czech veterans of R.A.F. squadrons to become the nucleus of the Czechoslovak units in the East. Their first base was Ivanovo, where they trained on the Russian Lavochkin La-5 fighter, an easy task for former Hurricane and Spitfire pilots. Operational training commenced soon afterwards, to master the rather different tactics of Russian fighter squadrons. On 7 May 1944 the group moved to Kubinka airfield near Moscow, and was joined by groundcrew personnel, then officially becoming the 128th Independent Fighter Squadron, ready to go into

action on the Russo-German front. Meanwhile the Soviet Union had decided to form an independent Czechoslovak Fighter Regiment within the framework of the Soviet Air Force; this regiment was to consist of the 128th Squadron and two others, personnel being drawn from those already under training in Russian flying schools and from those who had fled from the so-called Slovak State, which was a German puppet regime. Wing Commander František Fajtl, an experienced R.A.F. fighter pilot, was nominated as commander of the 1st Czechoslovak Fighter Regiment.

The great news of the D-Day landings in France reached the Czech and Slovak pilots just as they were preparing to go into action; the regimental commander sought permission from the Red Army to commence operations immediately, and his request was granted. On 20 July 1944 two squadrons of La-5FN fighters moved up to the forward airfield of Proskurov, near Lwow, and it was here that the pilots heard the unexpected news of the Slovak National Uprising. They naturally expressed a wish to go and assist their compatriots, and between 7 and 11 September the regiment transferred to Stubno airfield in Poland, close to the front line.

In Slovakia, where a puppet government had been set up to collaborate with Hitler, the opposition of Czechs and Slovaks had passed from clandestine partisan activities into open warfare. The centre of the uprising was the town of Banská Bystrica. At the beginning the leader of the insurgent forces, General Golian, had at his disposal only a weak and obsolete air force, based on the airfields of Tri Duby (Three Oaks) and Zolná. Initially 57 machines were available for use: three Avia B-534, two Bf. 109E, two Bf 109G, three Letov S-328, two S.M.84bis, two Ju 52/3m, one Fw 189, two Fw 58, two Ju W.34, 30 Fw 44 and He 72, six Praga E-39, and two Klemm Kl 35D. This motley assortment formed the equipment of the so-called "Combined Squadron", which went into



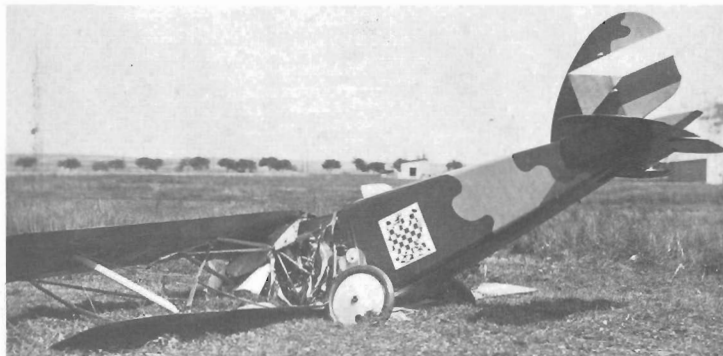
Above: Line-up of Spad S-XIII's of the flying school at Cheb, West Bohemia 1921.

Below: Hansa-Brandenburg C-1 with Hiero 230hp. engine, the camouflage indicates the period 1923-1926.





Above: Aero A-18's of the first delivery batch with Spads in the distance.



Above: Aero A-18, 2nd Air Regiment after a crash landing on Olomouc airfield in 1925. Note the regimental insignia.

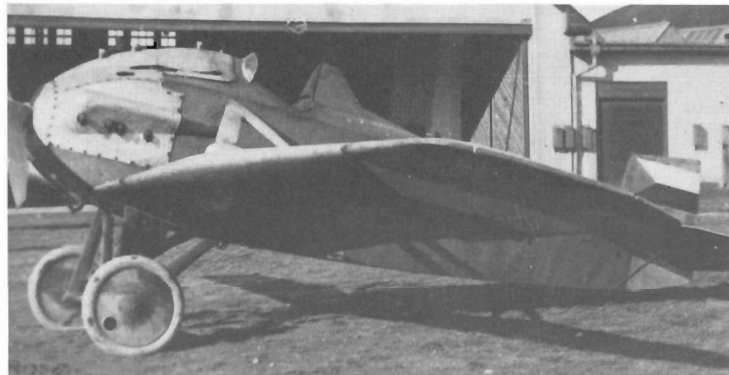
Below: Aero A-18 fighter biplane with BMW IIIa 185h.p. engine, 1st Air Regiment, Kbely airfield, Prague 1923. Twenty A-18's were delivered to the Cz.A.F.





Above: Avia BH-3 fighter of 1921 powered by a Walter W-IV engine of 220h.p. Ten aircraft only of this type were delivered.

Below: Avia BH-4 prototype with Hispano Suiza 8 Ba engine of 220h.p. on the Prague-Letnany airfield.



Below: Avia BH-10 designed and built for aerobatic training, first flown in 1924 with Walter NZ 60h.p. engine. Central Flying School, Prostějov, Moravia.





A Hansa-Brandenburg C-1 flown by Fantisek Divis on its nose on an unknown airfield some time in 1925.

action immediately; but to pit such machines against the modern equipment of the *Luftwaffe* was hopeless. Then, on 17 September 1944, the insurgent air force received its most significant reinforcement; from the Polish airfield of Krosno 21 Lavochkin La-5FN fighters flew in to Zolná. The original rôle of the fighter regiment had been changed to the direct support of the insurgent ground forces; and the first operation was a low-level attack on the air base at Piešťany. Unfortunately the landing of the fighter regiment behind enemy lines in Slovakia occurred at a time when the National Uprising was already on the defensive; and on 24 October H.Q. decided to interrupt operations and ordered the ground troops and air force groundcrew to move into the mountains and continue the struggle from more secure bases. At 13.45 hrs. on 25 October the first Lavochkins took off and set course for the liberated Hungarian airfield of Przeworsk. The activities of the 1st Czechoslovak Fighter Regiment were notable from a historical point of view, for in no other European theatre of operations during the Second World War did a comparable unit operate from behind enemy lines.

Late in October 1944 the Soviet authorities agreed to the establishment of the 2nd Czechoslovak Air Regiment (La-5FN) and the 3rd Czechoslovak Assault Regiment (II-2). Each regiment consisted of three squadrons; and together these three regiments formed the 1st Czechoslovak Mixed Division, which operated within the framework of the 8th Soviet Air Army. The Divisional Commander was Colonel L. Budín; the division became operational on 14 April 1945 and took part in the fighting around Ostrava and Opava in Northern Moravia, flying La-5FN and La-7 fighters and II-2 ground-attack aircraft.

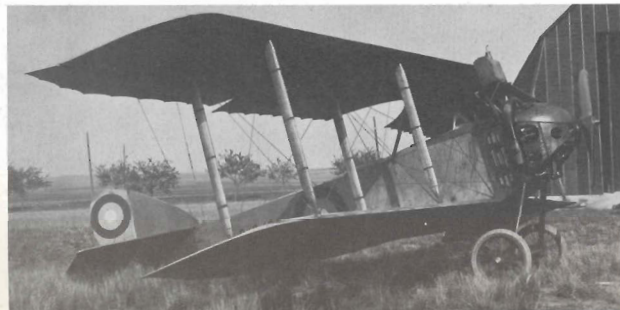
### The Slovak Air Force

The history of the air force of the so-called Slovak State is a separate but parallel story. After the occupation of Bohemia and Moravia in March 1939, the Germans dissolved the Czechoslovak Republic and declared Slovakia an autonomous state; and a small Slovak air arm was promptly established under *Luftwaffe* patronage.

This comprised one regiment made up of six combat flights and a training squadron. The equipment was largely of obsolete pre-war Czech origin, such as Avia B-534 fighter biplanes, Letov S-328 reconnaissance aircraft, and Aero A-100 light bombers.

In July 1939 the Slovak President Tiso agreed to *Luftwaffe* bomber units moving on to the Slovak airfields of Spišská Nová Ves and Piešťany in preparation for the attack on Poland; and when this campaign opened Slovak A.F. units made a few desultory attacks on Polish targets in support of the *Luftwaffe*, including a bombing raid on Tarnopol. The combination of obsolete aircraft and a total lack of enthusiasm on the part of the Slovak aircrews produced predictably unimpressive results. By the close of 1940 the Slovak A.F. comprised three fighter squadrons (Nos. 11 and 13 at Piešťany and No. 12 at Spišská Nová Ves); three reconnaissance squadrons (Nos. 1, 2 and 3, based at Zilina, Spišská Nová Ves and Nitra); a technical wing, and a reserve wing. In November 1941 a contingent of the S.I.A.E. was transferred to the Russian Front. Naturally enough, the Avia B-534s and Letovs proved incapable of operating effectively under winter conditions, and after a time they were returned to Slovakia. The fighting record of the Avias in the Kiev sector was hardly impressive, and only one pilot was lost; he deserted to the Russians with his aircraft.

By 1942 the equipment of the S.I.A.F. was in dire need of replacement, and 30 Klemm K1 35D, 30 Focke-Wulf Fw 44, 30 Gotha Go 145 and six Arado Ar 96B trainers were acquired, together with ten Caudron C.445 Goeland crew trainers. New operational equipment also delivered at this time comprised ten Savoia Marchetti S.M.84bis, 14 Focke-Wulf Fw 189, ten Fieseler Fi 156C, two Heinkel He 111, and 14 Messerschmitt Bf 109E fighters. For transport duties, two Ju 52/3m and six Ju W.34 were acquired. In 1943 the 12th Fighter Squadron became operational with Bf 109Es on the southern sector of the Russian Front, moving as far forward as Maicop in the Caucasus. The unit subsequently lost all its aircraft in the later retreat, due to an inexplicable shortage of fuel which came to light when the squadron was ordered to vacate



Anatra DS powered by a 150 h.p. Salmson-Canton-Unne nine-cylinder water-cooled radial engine, Olomouc airfield, 1920.

its base. . . . The squadron was re-equipped in due course with new Bf 109G fighters, providing air cover for the so-called "Slovak Fast Division" in the Crimea. By this time unit morale had reached rock bottom, and little sympathy remained for the Slovak Government or their German masters. Although Dr. Goebbels claimed that Slovak pilots had shot down 154 enemy aircraft on the Russian Front, they had in fact avoided combat whenever possible, reported fictitious "kills", and put 27 Messerschmitts out of action through deliberate mis-handling. Many Slovak crews deserted to the Russians with their aircraft. For example, on 18 April 1943 the crew of the one and only Avia B-71 (SB-2) in the S.I.A.F. succeeded in stealing the aircraft and flying, without incident, to Turkey; they later reached Egypt and subsequently arrived in England to join a Czechoslovak squadron.

In 1943 No. 3 Reconnaissance Squadron was transferred to the Crimea, where it retrained on the He 111. The S.I.A.F. now consisted of some 4,000 personnel divided between fighter, bomber and reconnaissance squadrons, the flying school at Zvolen, the depot at Mokrad and the A.F.H.Q. at Trenčín. The Air Force was commanded by General S. Jurech, and at the peak of its strength never possessed more than 78 first line aircraft. By early in 1944 defections by personnel were reaching alarming proportions; and when the National Uprising began on 29 August, 38 Slovak aircraft, carrying 108 personnel, promptly crossed the lines and landed at Soviet airfields, while others concentrated at Tri Duby and began attacking German forces. After the uprising, the Slovak Air Force was never revived.

### The Czechoslovak Air Force Post-War

Although large numbers of German aircraft were left behind on Bohemian and Moravian airfields at the time of the Czechoslovak liberation in May 1945, many had been damaged or destroyed by surrendering German troops, and only a few were available for use. The Czech factories—Avia, Letov, Aero, Zlin, etc.—were immediately faced with the task of switching from production of German types and beginning to re-equip the Cz.A.F. The nucleus of the aircraft park was provided by those machines brought home by Czechoslovak units from England and the Soviet Union. These comprised 76 Spitfire L.F.IX.E, 26 Mosquito F.B.VI, about 40 Lavochkin La-5FN, La-7 and La-5UTI, about 20 Ilyushin Il-2, and a few Petyakov Pe-2, Po-2, Avro Anson, Airedale, WACO CG-4A, etc. Naturally, these aircraft were insufficient for the needs of a whole air force; salvaged German types were pressed into service, and in some cases production of German designs were continued in Czech factories as a temporary expedient. The Aero plant completed a series of 260 Bücker Bü 131 biplanes for elementary training and the Zlin factory produced some 180 Bü 181s for the same purpose. Avia and Aero delivered 394 Arado Ar 96Bs, and the latter factory, in collaboration with CKD-Praga, completed 179 Siebel Fh 204Ds for both the Air Force and the airline Č.S.A. The Mraz factory in Choclen completed a batch of 138 Fieseler Fi 156 *Storch* general duty light aircraft; but the most significant production series was the batch of re-worked Bf 109G fighters produced by Avia.

Some hundreds of Bf 109 airframes were concentrated in Prague from all over the country. There was a shortage of the original DB 605 engines, but fortunately good stocks of Junkers Jumo 211F powerplants remained. Avia re-worked the basic Bf 109G-6 to take the Jumo engine, and designated the result the S-199; a two-seat version was also produced under the designation CS-199. During the period 1946-49 a total of 422 machines were built by Avia, and Letov added 129 to this figure. Until the early 1950s this Bf 109 development formed the backbone of the Cz.A.F. fighter squadrons. The Avia factory also produced the first jets, a batch of ten Me 262 fighters; seven were Me 262A models, and three were two-seat Me 262B5. This small series was produced in

1947, and used for the training of the first Czech jet fighter pilots, remaining in service until 1954; one of each model is preserved in the National Technical Museum and the Air Museum in Prague. Avia also delivered to the Cz.A.F. its first helicopters—two Focke-Achgelis Fa 223 *Drachen*, built in 1947 and used by both the Air Force and the Air Guard. Many other types were used singly or in small numbers, including three Heinkel 219 *Uhu*; some Ju 52/3m and Ju W.34; 14 Klemm Kl 35; and examples of the He 72D, Fw 44, Go 145, Ar 66, Fw 190A and Fw 190D, Siebel Fh 104, Bf 108, Fw 58, Piper Cub, and Heinkel He 111—one of which served in a photographic capacity as late as 1958. Twelve B-24 Liberators were acquired in exchat.*ge* for 26 Mosquito F.B.VIs.

In 1948 a batch of 25 Czech-built Bf 109s were sold to the Israelis, as well as most of the surviving Czech Spitfires; the Cold War had brought with it embargoes which denied the Cz.A.F. ammunition for the Spitfires' guns. With the Mosquitos this problem was partly overcome by changing some of the guns for German weapons. In the early 1950s the need for ground-attack aircraft became increasingly acute, and the assault units were gradually equipped with heavily-armed Ilyushin Il-10 aircraft manufactured under licence by Avia at Prague, a total of 1,200 were built, including two-seat trainers. The basic decision to equip the post-war Cz.A.F. with mainly Soviet types had in fact been taken before the end of the war; this was one of the points of the so-called Košice Government Programme which was followed consistently as late as the early 1950s. Almost all German equipment was replaced by Soviet designs; the Bf 109 by the Yak-23 and MiG-15, the Arado Ar 96B by the Yak-11, the Mosquito by the Il-28, the Li-2 and Douglas C-47 by the Il-12 and Il-14, and the trainers by indigenous designs; the Bückers gave way to the Zlin-126, and the Fi 156 to the L-60 *Brigadyr*. The equipment of the combat regiments was progressively modernised, comprising at various times the MiG-15, MiG-15bis, MiG-17, MiG-19, and MiG-21. The ground attack Ilyushin Il-10s were replaced by MiG-15s and later by Sukhoi Su-7s. The Aero Ae-45, L-200 *Morava* and Antonov An-2 were introduced for liaison and light transport duties, together with Mi-1, Mi-4 and Mi-8 helicopters.

The Czechoslovak Air Force is now a member of the Warsaw Pact forces, and, naturally, no details are released for publication.

### Aircraft Camouflage and Markings

As in all air forces, the colour schemes and markings of Cz.A.F. machines have altered considerably down the years. During the first two years of the force's existence no camouflage scheme was introduced; aircraft retained the original camouflage of their country of origin—Austro-Hungarian, French, or Russian. The first official national marking was a red-blue-white roundel, marked above and below the wing tips and on the fin and rudder. Anatra biplanes also bore this roundel on the fuselage sides. The roundel, which was sometimes additionally outlined in white, was very similar to the Imperial Russian marking.

In 1920 a new national marking was introduced. This was a red-white-blue flag above and below the wing tips and on both sides of the fin and rudder, positioned so that the white field was always outboard on the wings, and above the red field on the tail. The first Czech camouflage scheme was introduced at this time; upper surfaces were finished in a pattern of dark earth, tan and dark green, while undersurfaces were painted silver. The type designation and serial were painted in black on the sides of the engine cowling. In certain cases, e.g. the Letov Šm-1, the characters were "shadowed". Three regimental badges were brought into use on 1 January 1924; the 1st Air Regiment used a black Czech lion on a white field; the 2nd Air Regiment, a black Moravian eagle on a white field; and the 3rd Air Regiment, a black Slovakian cross over three hills, on a white field. These badges were painted on each side of the fuselage, and the dimensions were roughly 50cm. x 45cm. Outstanding



Above: Letov S-20 fighter powered with a Skoda HS 8Fb engine of 300h.p., of the 2nd Air Regiment, Olomouc. 95 were delivered to the Cz.A.F. and a small series to the Lithuanian A.F.



Above: Letov S-20 of the 2nd Air Regiment on Olomouc airfield, 1928.

Below: Line-up of Letov S-20's, 2nd Air Regiment, note the squadron codes which were introduced in 1931. 36th Squadron aircraft





Above: Fokker D-VII of Austro-Hungarian origin on the airfield at Olomouc, 1922.

Below: Breguet Br.14, one of ten delivered from France during 1919-20.



Below: Breguet Br.14 after a landing incident near the village of Majetin some time in 1924.

service by individuals, crews or units was marked by permission to paint the background of the regimental badge in scarlet. This permission was given by the Minister of National Defence, and applied only for one year. At this time it became standard practice to paint training aircraft silver overall.

In 1926 two important innovations were made. All aircraft except trainers were now painted in khaki-green on upper surfaces and silver on undersurfaces. The old flag-type national markings was replaced by a circle with equal red-white-blue segments; the circle was initially outlined in blue, but after 1933 it sometimes appeared with a red edge. Again, the white segments were always painted outboard. This colour scheme remained in use until 1939. In 1931, after the other three air regiments were established, new badges were introduced as follows: 1st A.R., white Czech lion on blue field; 2nd A.R., blue Moravian eagle on white field; 3rd A.R., red Slovakian cross on white field; 4th A.R., blue Czech lion on white field; 5th A.R., red Moravian eagle on white field; 6th A.R., red Czech lion on white field.

From 1931 onwards squadron code letters and numerals were introduced and painted on both sides of the fuselage. If the surface was khaki, the letters were painted in white; if the surface was silver or light blue, the markings were in blue. The code letters C and S were reserved for the Central Flying School and the Aviation Research Institute respectively. The temporary painting of large black or white numerals above and below the wings was common during Army and Air Force manoeuvres.

Shortly after the occupation of March 1939, an unusual marking appeared on machines at the Prague-Letnany base: this comprised a black swastika on the fin and rudder, and also above and below the wings. This marking





Above: Letov S-21 of the Central Flying School, Prostějov, the S-21 was a training version of the S-20 fighter.



Left: Letov S-31, 2nd Air Regiment, 36th Squadron after a forced landing in the Bohemian-Moravian Highlands in 1923.



Left: Letov S-31, serial No. 2 outside a hangar on Olomouc airfield, the Indian head was the personal insignia of Skpt. Kalla.

Below: Letov S-31 powered with a 480h.p. Walter Jupiter engine, thirty-two were delivered during 1932.



Letov S-6 bomber of 1923 powered by a Maybach Mb.IVa engine of 260h.p., 1st Air Regiment.



Avia BH-26 two-seat fighter of 1927 powered by a Walter Jupiter IV of 450h.p., 3rd Air Regiment, Nitra airfield, Slovakia.



Aero A-100 bomber, 1st Air Regiment, Prague, 1933. Powered by a 650h.p. Avia Vr-16 engine.



Below: Aero A-32 of the 3rd Air Regiment on Priestany airfield, 450 h.p. Walter Jupiter. Sixteen A-32's were delivered to the Finnish A.F., in 1929.





Left: Aero A-100 of the 3rd Air Regiment flying over a village in Slovakia.

Below: Aero A-100's of the 1st Air Regiment on a formation training flight.



Above: Formation of Avia-Fokker F.IX's of the 5th Bomber Air Regiment, Brno.



Above: 5th Air Regiment Avia-Fokker F.IX taking off.

Below: Close-up of a Avia-Fokker F.IX of the 5th Air Regiment, Brno.



Right: Marcel Bloch MB.200 of the 5th Air Regiment from Brno, the photograph was taken after the mobilisation of 1938 when the regimental insignia was painted out and only the code retained. 124 MB.200's were built under licence by Avia and Aero during 1936-37.

Below: Letov S-50 reconnaissance bomber in prototype form only, tested during summer of 1938 by Cz.A.F. then by the Luftwaffe at Rechlin during 1939-40.



Above: Avia B-158 prototype.

Right: Aero A-300 bomber prototype of 1938, the last pre-war design of the Aero factory.

Below: Aero A-304 was a military version of the civil transport A-204. 15 were delivered during 1938. The letter S indicates this aircraft was under test by the Aviation Research Institute, Prague.





Above: Avia B-534 of early production batch, note radiator under cowl and open cockpit.



Above: Avia B-534 of the third production series with Avia HS 12Ydrs engine of 850hp.



Above: Avia Bk-534, a cannon-armed version with the HS Ycvs 850hp engine.



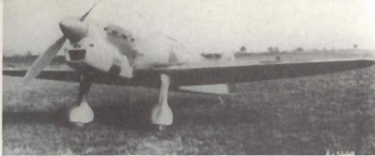
Above: Avia B-534 of the fourth production batch before delivery to a squadron.

Below: A flight of Avia Bk-534's in the markings of the Slovak Air Force, flying over the Ukraine in 1941.



Below: An Avia B-534 dispersed on a Ukrainian airfield in 1941.





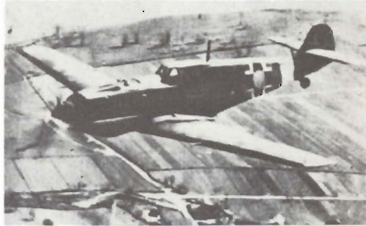
Above: Avia B-35 monoplane fighter of 1938.



Above: Avia B-135 prototype with retractable u/c, twelve were delivered to the Bulgarian A.F. in 1941.



Above: Praga E-51 reconnaissance prototype of 1938.



Above: Messerschmitt Bf.109E, 12th Squadron, Slovak A.F.



Above: Messerschmitt Bf.109E, 12th Squadron, Slovak A.F. flying over the River Vah. Note the position of the crosses and the absence of markings on the fin of both aircraft.

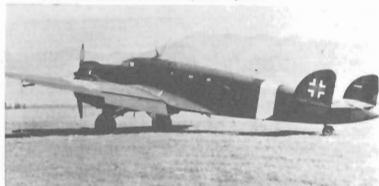
Below: Gotha Go.145A, Slovak A.F., on the airfield at Zvolen, 1943.

Below: Klemm Kl.36D, Slovak A.F., flying over Trencin.





Above: Heinkel He 111H, Slovak A.F. Note the blue cross with red disc tail marking, yellow fuselage band (and wing tips) and white code, standard Luftwaffe splinter scheme.



Above: Savoia Marchetti SM.84bis, Slovak A.F., note the original Italian markings on the rudders and white fuselage band.



Above: Focke-Wulf Fw.189, Slovak A.F.



Left: A dramatic photograph of the Slovak National Uprising. A part of the combined squadron, encircled by German troops, prepares to take off in October 1944. Note Fw.189 in Slovak Insurgent A.F. markings.



Left: Letov S-328 of the Combined Squadron on Tri Duby (Three Oaks) airfield. Note the Slovak Insurgent A.F. insignia.



Left: Slovak Insurgent A.F., Messerschmitt Bf.109G taxiing on Tri Duby airfield, near Zveľu during the uprising of September 1944.

Cz.A.F. Supermarine Spitfire LF IXe's, 312th Fighter Squadron after their arrival from England at Prague-Ruzyn airport during the autumn of 1945.



Supermarine Spitfire LF IXe, 313th Fighter Squadron, serial SL657.



Spitfire LF IXe of the Central Flying School, Cz.A.F., designation of all Spitfires was S-98.



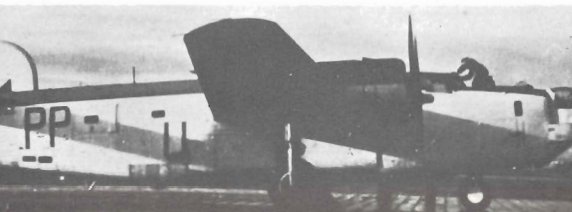
De Havilland Mosquito FB 6, Atlantic Squadron, code IY-12. Twenty-six were delivered as replacements for the Consolidated Liberators of 311th Squadron.



Mosquito FB 6, Atlantic Squadron, serial RF823. Cz.A.F., designation was B-36.



Below: Consolidated Liberator GR VI, 311th Bomber Squadron, note the original code letters of the wartime No. 311 Squadron, Coastal Command, RAF, serial KGB59. Photo taken on Prague-Kbely airfield in 1945.





Above: Lavochkin La-5's of the 1st Czechoslovakian Fighter Regiment lined-up on Przebrorsk airfield, 7 November 1944.



Another shot of La-5's of the same unit, inscription on the nose of nearest aircraft reads "Za svobodne Ceskoslovensko po boku Rude Armady" = "For Free Czechoslovakia beside the Red Army".



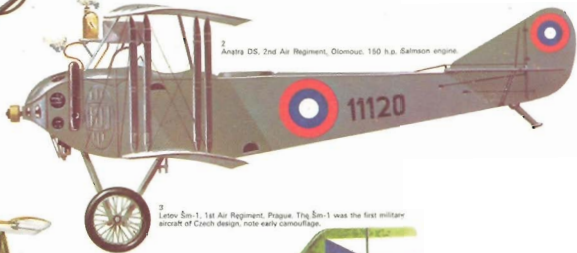
La-5's of the 1st Czechoslovakian Fighter Regiment, Przebrorsk airfield, November 1944.



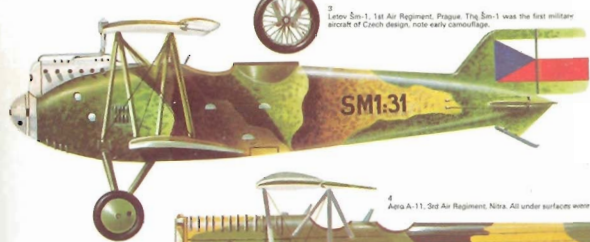
La-5 in post-war markings, code letters OP-13 in white on fuselage, in black under wings, red spinner, Malacky airfield, Slovakia.



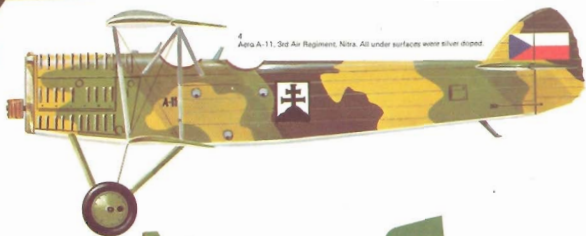
1 Hansa-Brandenburg C-1, 2nd Air Regiment, Olomouc. This aircraft was used for night flying training and bore the name "Cerna Mary" / "Black Mary".



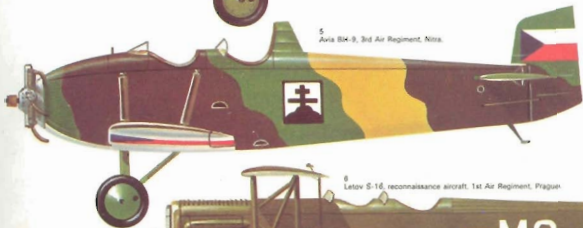
2 Anatra DS, 2nd Air Regiment, Olomouc. 150 h.p. Salmson engine.



3 Letov Šm-1, 1st Air Regiment, Prague. The Šm-1 was the first military aircraft of Czech design, note early camouflage.



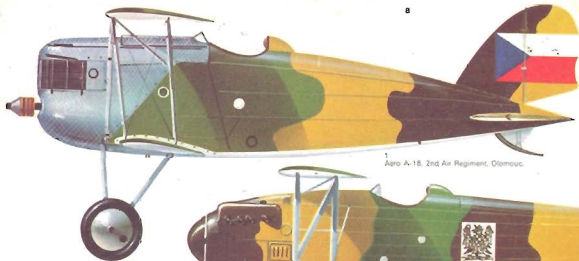
4 Aéro A-11, 3rd Air Regiment, Nitra. All under surfaces were silver doped.



5 Aéro Bk-9, 3rd Air Regiment, Nitra.



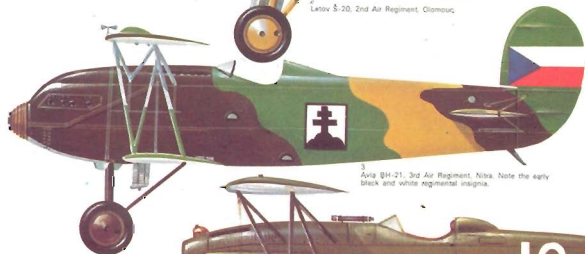
6 Letov S-16, reconnaissance aircraft, 1st Air Regiment, Prague.



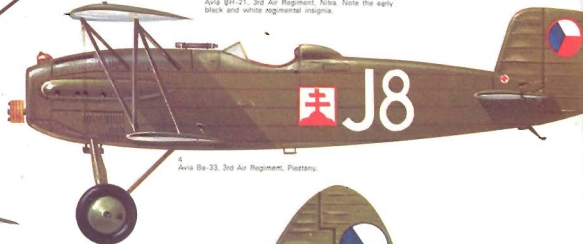
1 Apro A-18, 2nd Air Regiment, Olomouc.



2 Letov Š-20, 2nd Air Regiment, Olomouc.



3 Avia BH-21, 3rd Air Regiment, Nitra. Note the early black and white regimental insignia.



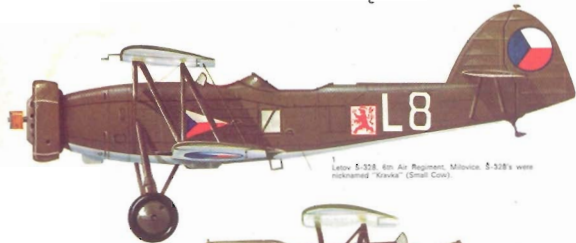
4 Avia Ba-33, 3rd Air Regiment, Piestany.



5 Letov Š-231, 2nd Air Regiment, Olomouc.



6 Avia B-53A, 13th Squadron, Slovak Air Force, Eastern Front, Kiev sector, early 1942.



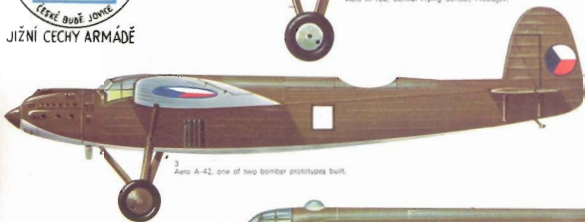
1 Letov S-328, 6th Air Regiment, Mlúvka. S-328's were nicknamed "Křavka" (Small Cow).



JIŽNÍ ČECHY ARMÁDĚ



2 Aero A-100, Central Flying School, Prostějov.



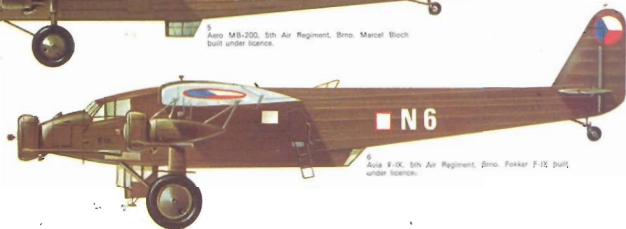
3 Aero A-42, one of two bomber prototypes built.



4 Aero A-200, bomber prototype, Aviation Research Institute, Prague.



5 Aero MB-200, 5th Air Regiment, Bno. Marcel Bloch built under licence.



6 Avia 9-IX, 5th Air Regiment, Bno. Fokker F-IX built under licence.

1 Supermarine Spitfire LF IXc. Letecká Vojenská Akademie/Central Flying School, Hradec Králové, 1946. Cz.A.F. designation S-98, ex-No. 312 (Czech) Squadron, RAF.



2 De Havilland Mosquito FB.6, Atlantic Regiment, Pilsen, Cz.A.F. designation LB-36.



3 Lavochkin La 7, Cz.A.F. designation S-97.



4 Avia CS-99 operational trainer, Messerschmitt Bf.109G-12.



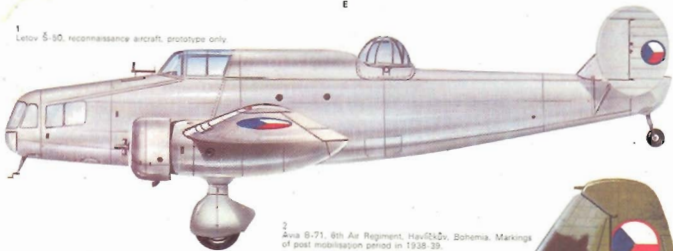
5 Avia S-199, Central Flying School, Prostějov, Messerschmitt Bf.109G with Junkers Jumo engine.



6 Avia CS-92 jet trainer.



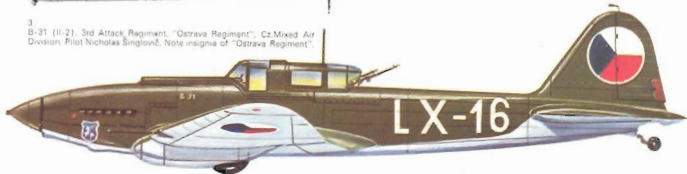
1 Letov S-30, reconnaissance aircraft, prototype only



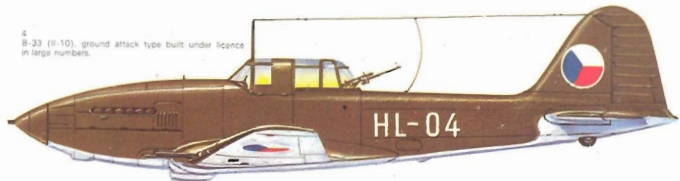
2 Avia B-71, 8th Air Regiment, Havlíčkův, Bohemia. Markings of post mobilisation period in 1938-39.



3 B-31 (II-2), 3rd Attack Regiment, "Ostrava Regiment", C2 Mixed Air Division, Pilot Nicholas Singlovč. Note insignia of "Ostrava Regiment".



4 B-33 (II-10), ground attack type built under licence in large numbers.



5 B-32 (Pe-2FT).



6 LB-79 (Heinkel He-219). One of two He-219's flown by the Aviation Research Institute, Prague. All radar was removed.



1 Consolidated Liberator GR VI 311th Bomber Squadron, ex-No. 311 Squadron, Coastal Command, RAF. U was flown back to Czechoslovakia after the war by W/O Josef Šnobl.



2 C-38 (Siebel Si 204D) bomber version. During 1945-49 179 Si 204's were built.



3 Yak-11 advanced two-seat trainer. Central Flying School, Prostějov.



4 CS-95 (Lavochkin La-SFn-UTI) fighter trainer. 1st Czechoslovak Fighter Regiment, Czechoslovak Mixed Air Division, 1946.



5 C-2 (Arado Ar 98B) advanced trainer. During 1945-49 394 were built by Avia and Letov factories. UC-52 operated by the Central Flying School, Prostějov.



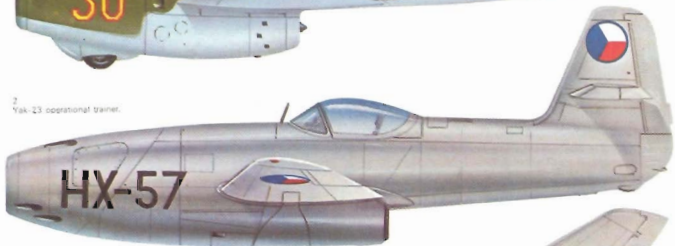
6 Aero Ae-45. Central Flying School, Prostějov.



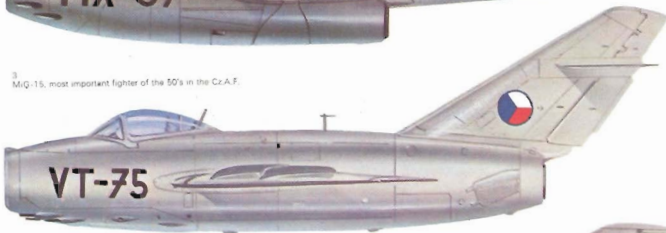
1 Yak-17, the first Soviet jet aircraft type delivered to the Cz.A.F.



2 Yak-23 operational trainer.



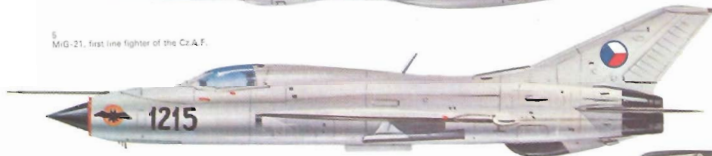
3 MiG-15, most important fighter of the 50's in the Cz.A.F.



4 MiG-19, first supersonic fighter of the Cz.A.F.

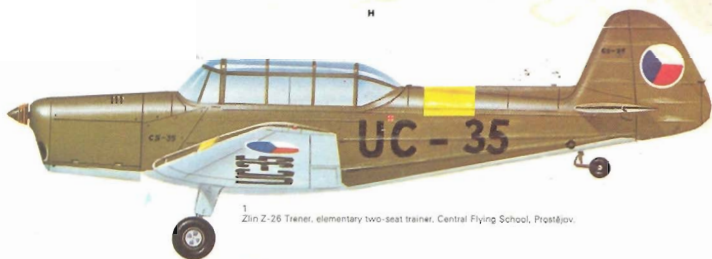


5 MiG-21, first line fighter of the Cz.A.F.

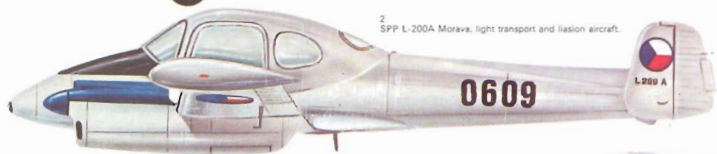


6 Sukhoi Su-7BM, multi-purpose attack aircraft.





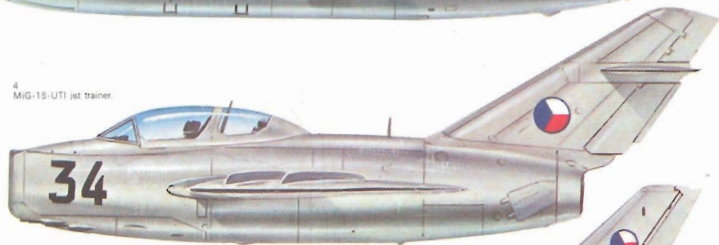
1  
Zlin Z-26 Trainer, elementary two-seat trainer, Central Flying School, Prostějov.



2  
SPP L-200A Morava, light transport and liaison aircraft.



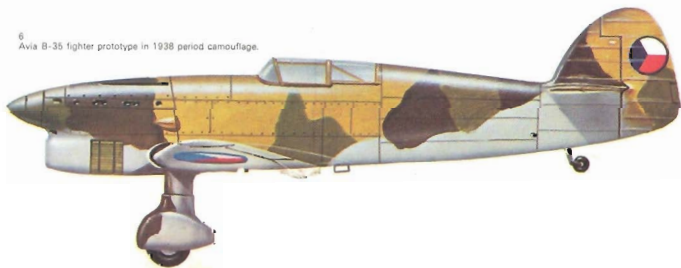
3  
L-29 Delfin jet trainer. First jet aircraft of Czech design.



4  
MiG-15-UTI jet trainer.



5  
Ilyushin Il-28.



6  
Avia B-35 fighter prototype in 1938 period camouflage.



Right: Petlyakov Pe.2, Cz.A.F., designation B-32, a small number were operated during the immediate post-war years.

Right: Ilyushin Il.2, "Ostrava" Regiment, code LX-16 in white.



Below: Ilyushin Il.2, Cz.A.F., designation B-31, serial on cowl B 31-18894113, "Ostrava" Regiment, note the regimental insignia on cowl.

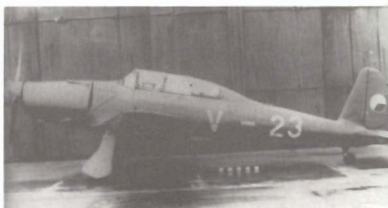




Above: C-2 (Arado Ar.96B) trainer. Note camera-gun pod beneath front cockpit. 394 C-2's were built by Avia and Letov factories during 1945-49.

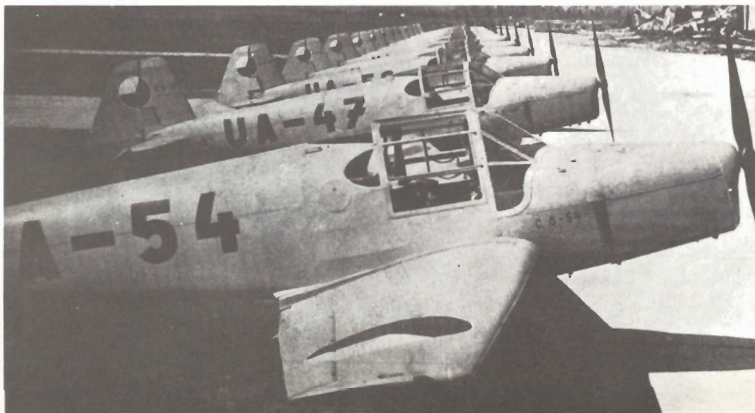


Above: C-4 (Bucker Bu.131) elementary trainer. Military Air Academy, Hradec Kralove.



Above: C-2 (Ar.96B) advanced trainer, Aviation Research Institute, Prague.

Below: C-6 (Bu.181) elementary trainer, Flying School, Prostějov.



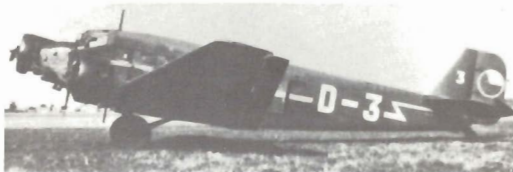


Above: D-58 (Focke-Wulf Fw 58 Weibel) of German origin.



Above: D-4 (Sibel Fh.104), personal aircraft of General A. Vicherst, Chief of the Cz.A.F., 1945-48.

Right: D-52 (Junkers Ju.52-3m) transport, painted overall dark green with white chest line and code.



Below: LB-77 (Heinkel He.111H). This LB-77 was used for photographic duties, delivered from Bulgaria in 1945 it was still flying in 1956. Note absence of belly gun-positions.



Below: C-3A (Sibel Si.204D) used for navigational training. During 1945-49 Aero and Praga built 179 examples.



Below: K-65 (Fieseler Fi.156 Storch), Aviation Research Institute, Prague, 138 built by Mraz.



Below: VR-3 (Focke-Achgelis Fa. 223 Dreher). First helicopters of the Cz.A.F.





Left: S-199-(Bf.109G). A total of 422 were built by Avia during 1946-49 and 129 by Letov during 1948-49, all with the Junkers Jumo 211F engine.



Below: S-199 fighters guarded the West frontier of Czechoslovakia during the late forties and early fifties.

Below: CS-99 (Bf.109G-12) in overall silver finish.



Below left: CS-199 (Bf.109G-12 with Jumo 211F). Photo taken at Celechovice near Prostějov, July 1956.



Above right, below left and right: S-92 (Messerschmitt Me 262B), the first jet aircraft in the Cz.A.F.



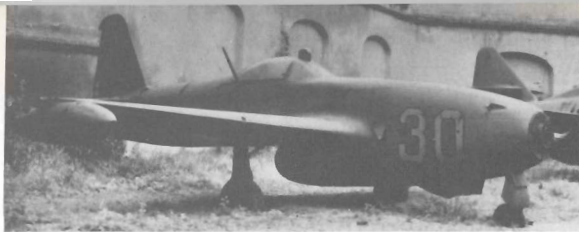


Top: B-33 (Ilyushin Il-10) ground attack aircraft were built under licence by Avia, during 1952-55 about 1200 were built.

Above: Nice three-quarter rear shot of a B-33.

Below: Two fine flying shots of CB-33 trainers, note the modified rear cockpit and the very neat paint job.

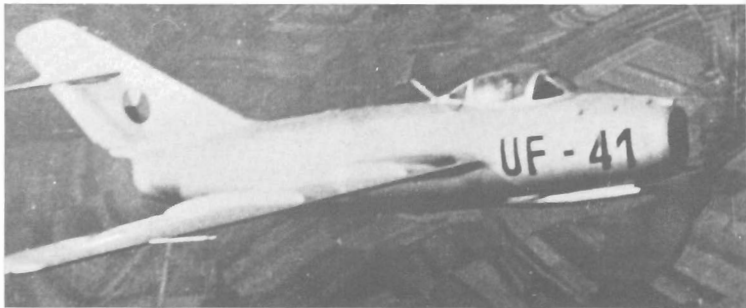




Left: S-100 (Yakovlev Yak-17) was the first Soviet jet fighter in Cz.A.F. One example only was tested and is shown here after renovation in the Aviation Museum on Prague-Kbely airfield.

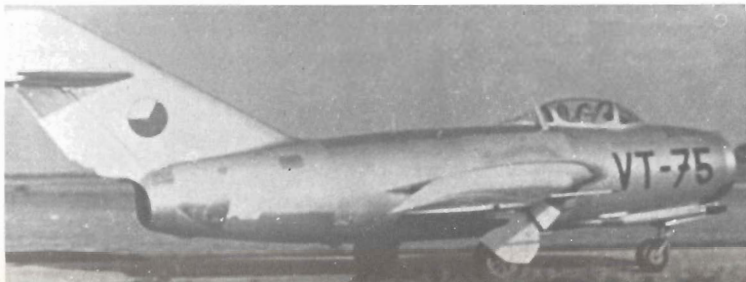


Left: S-101 (Yakovlev Yak-23) jet fighters were, with the MiG-15 the first jets to enter Cz.A.F. service.



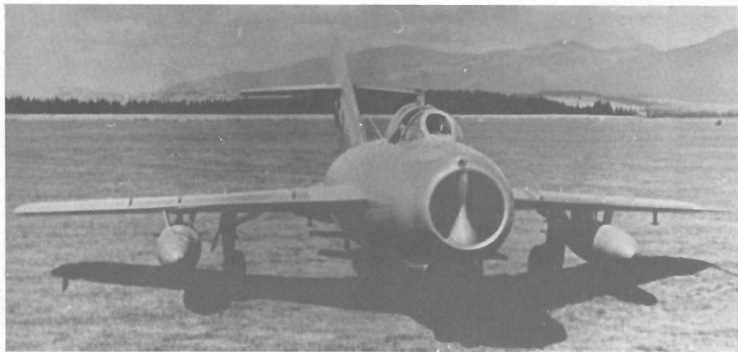
Above: S-102 (MiG-15) with RD-45F engine built under licence.

Below: S-102 rolling down the taxi strip on an operational airfield.

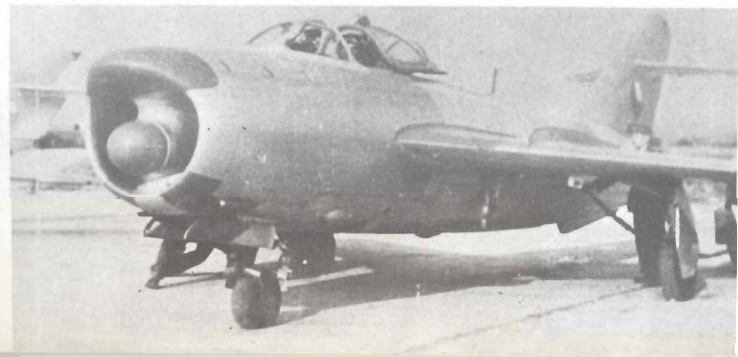




Above: CS-102 (MiG-15UTI) two-seat fighter-trainer, the black 34 on the nose is a factory and not a service designation.



Above: MiG-17 with drop tanks and below, note radome details.





Above: Line-up of MiG-19's on a Cz.A.F. base, the first supersonic jet fighter in service.



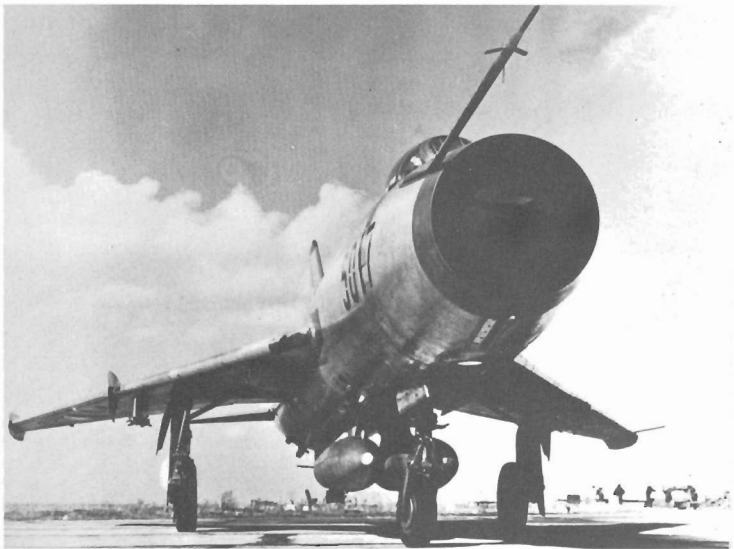
Above: Good close-up shot of a MiG-19.

Below: MiG-21 being re-fuelled and re-armed.





Above: Nice flying shot of a MiG-21, in actual fact flying high over the Tatra Mountains.



Above & below: The latest jet equipment of the Cz.A.F., the Sukhoi Su-7 attack fighter.





Left: C-5 (Zlín 26) elementary trainer was a replacement for the C-4 and C-6. During 1949-50 a total of 113 C-5's were delivered to the C.z.A.F.



Above: Ilyushin Il-14, alias Avia Av-14T transport, natural metal finish.



Above: C-11 (Yak-11) advanced trainer with ASh-21 700h.p. engine built under licence by SPP Kunovice.



Above: L-200A Morava, five seat light communications and transport aircraft, Otokovice airfield, 15 September 1963.



Above: Lisunov Li.2 transport, known by many other names and designations, on the Prague-Kelby airfield, October 1968.

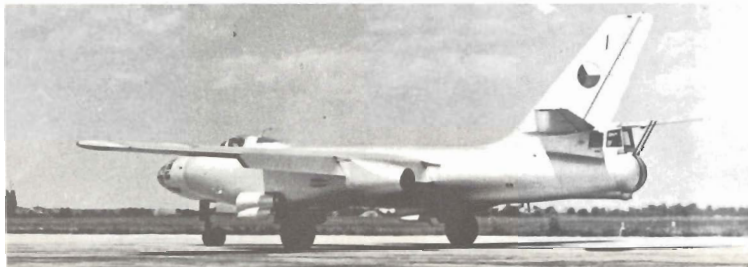


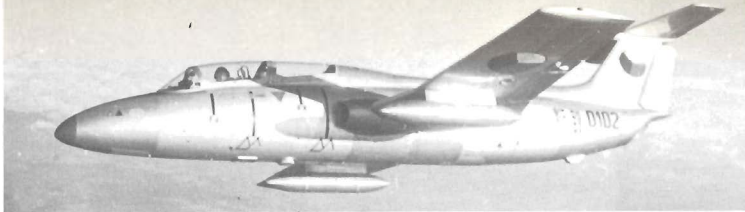
Above: K-75 (Aero Ae.45) light transport in light grey finish.



Above: Ilyushin Il-28U bomber trainer.

Below: Ilyushin Il-28 bomber.





Above & right: L-29 Delfin trainer, first flown on 5 August 1959, the first all Czech designed and built jet aircraft, built in large series and in many versions for many Air Forces.



Below: Antonov An-2 multi-purpose biplane.



Right: A pair of An-2's, nicknamed "Andula" by pilots.

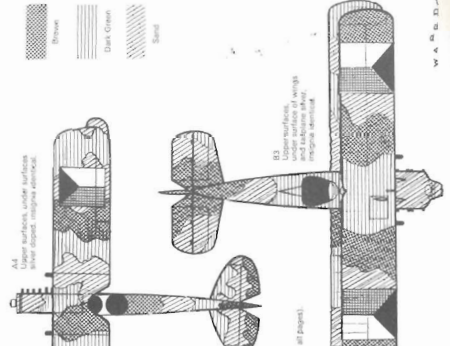
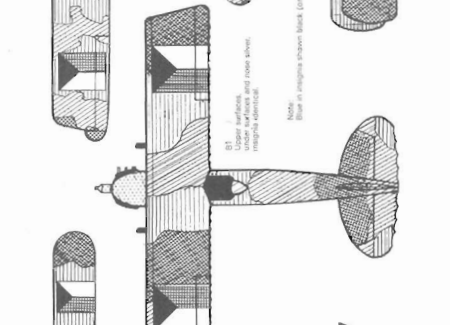
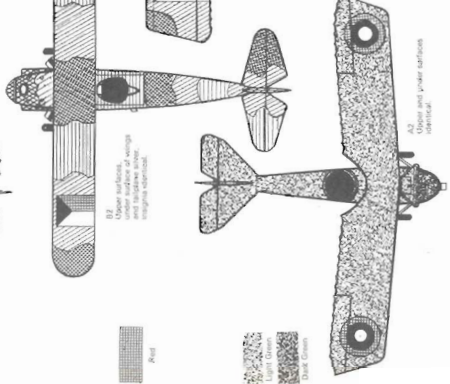
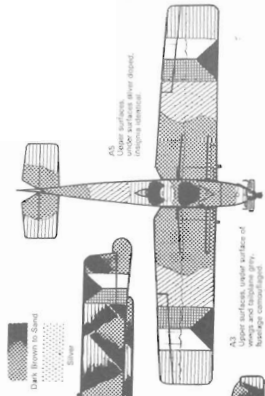
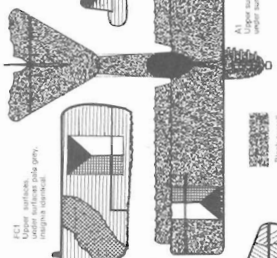
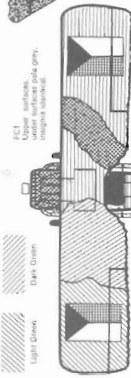


Below: Vr-2, alias HC-2 were the first home built helicopters in the Cz.A.F.



Below: Milj Mi-4 helicopters on Otrokovice airfield during 1963, they form the equipment of the helicopter regiments.

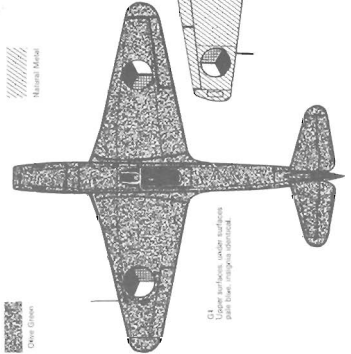




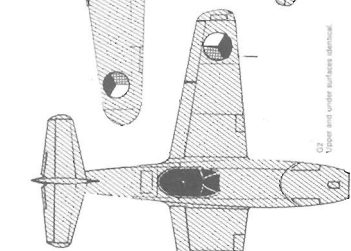


Dark Green

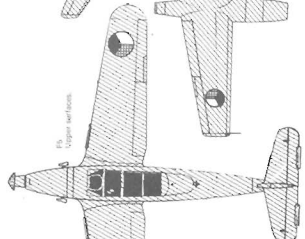
Medium Blue



G1 Upper surfaces, under surfaces pale blue, engine cowlings black.



G2 Upper and under surfaces identical.



G3 Upper surfaces.



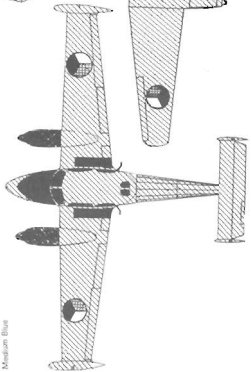
G4 Upper and under surfaces identical.



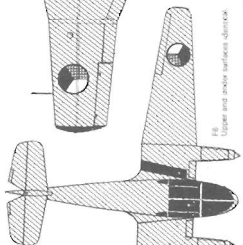
Note: Blue in insignia shown black.

Medium Blue

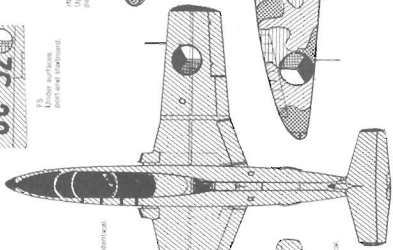
H2 Upper and under surfaces identical.



H3 Upper and under surfaces identical.

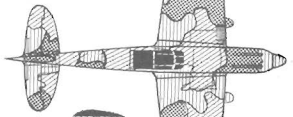


H3 Upper and under surfaces identical.

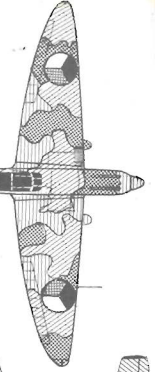


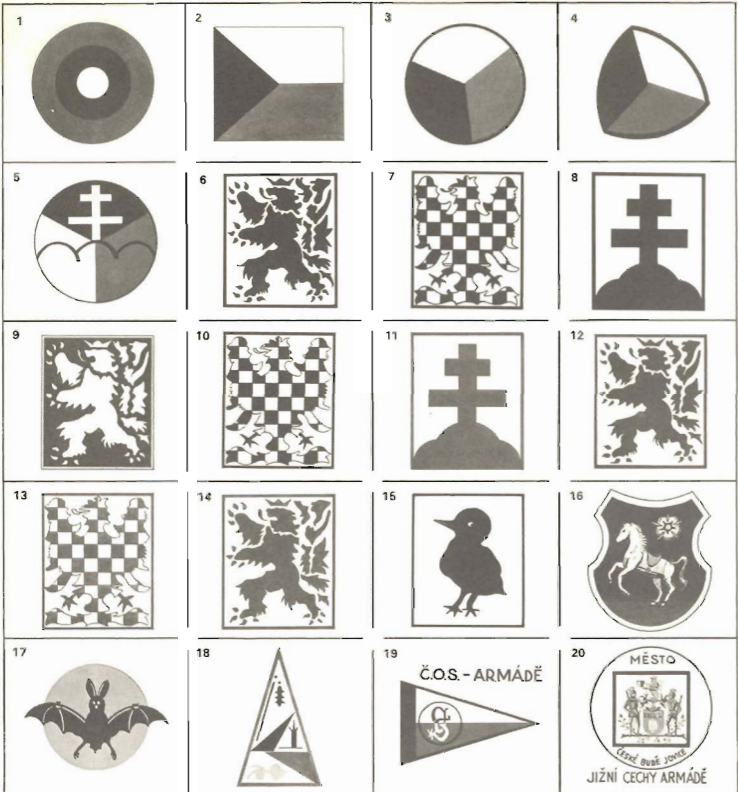
H4 Upper surfaces, port and starboard.

H5 Upper surfaces, under surfaces pale grey, engine cowlings black.



Dark Earth  
Grey/Green  
Dark Green





**UNIT INSIGNIA** circa 1918-1970

- 1 1918-1920 White (centre), Blue, Red.
- 2 1920-1926 Blue, White, Red.
- 3 1926- Blue, White, Red, Blue surround.
- 4 Air Guard 1929-1939 1945-1951. Government Squadron 1951- Blue, White, Red, Blue surround.
- 5 Slovak Insurgent Air Force Slovak National Uprising Sept.-Oct. 1944 White, Blue, Red, Black detail.
- 6 First Air Regiment, Prague, 1924-1931. Black on White.
- 7 2nd Air Regiment, Olomouc, 1924-1931 Black on White.
- 8 3rd Air Regiment, Nitra, 1924-1931 Black on White.
- 9 1st Air Regiment, Prague, 1931-1938 White on Medium Blue.
- 10 2nd Air Regiment, Olomouc, 1931-1938 Medium Blue on White.
- 11 3rd Air Regiment, Piestany, 1931-1938 Red on White.

- 12 4th Air Regiment, Hradec Kralove, 1931-1938 Medium Blue on White.
- 13 5th Air Regiment, Brno, 1931-1938 Red on White.
- 14 6th Air Regiment, Prague, 1931-1938 Red on White.
- 15 Letecke Uciliste/Central Flying School, Prostějov, 1926-1938 Black on White.
- 16 "Ostrava" Regiment: Ilyushin Il-2, 1945 Blue Sky, Green Grass, White Horse, Red Blanket, Brown Saddle, Yellow Rose, all with Black outline. White surround to shield.
- 17 "Zvolen" Regiment: MiG-21, 1968- Black Bat on Orange Disc.
- 18 "Tesin" Regiment: Su-7, 1968- White pennant with Yellow and Black details, upper triangle Blue, lower Red.
- 19 Letov S-328's presented by SOKOL gymnastic organisation White and Red pennant outlined Blue and White details.
- 20 Letov S-328's presented by people of South Bohemia see colour illustration.

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- 25 Nakajima Ki.44-1a/11b Shoki
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### Front cover, top to bottom:

FC1 Spad S-XIII, 2nd Air Regiment, Olomouc, 1920.

FC2 Avia B-534, 4th Air Regiment, Hradec Králové, 1938.

FC3 Supermarine Spitfire Mk IXe, ex No. 312 Squadron, RAF, Military Air Academy, Hradec Králové, 1947.

FC4 MiG 15, Aerobatic Team.