

Green-Grey, Dark Green ...



Part 1

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An interesting view of an S-199 with an unknown production number. The aircraft has evidently gone through repairs or an overhaul with a bubble canopy upgrade. The photograph reveals points of interest for the modeler with respect to the paint scheme: the front of the aircraft to the firewall has a light color (or is new), while the remainder of the fuselage, wings and tail surfaces yield shades consistent with the use of different materials. The fuselage has panel joints puttied over and is waiting on its base coat of paint. The control surfaces are fabric covered and are clearcoated.

Paint Schemes of the S-199 in the Czechoslovak Air Force

Just as the history of the creation of this aircraft is unique, so is the development of the camouflage schemes applied to it. The schemes bypassed the standards of the day and developed along similar unique lines, making them look somewhat simple or dull. It may furthermore appear that when it comes to the looks of these aircraft, all has been said or written already, but a close study of not just period photographs, but also relevant archival materials, suggests otherwise. In the light of newly uncovered information, the notion of any monotony is dismantled and the S-199 offers some new secrets to be revealed...

The situation of paint materials used by the Czechoslovak aircraft industry in the immediate aftermath of the Second World War was far from ideal. Virtually all the industries in the Protectorate of Bohemia and Moravia were umbilically connected to the German war machinery and as such, was heavily dependent on material supplies from not only Germany, but also from other Nazi occupied territories. The erratic and increasingly dwindling supply chains seen as the war neared its end resulted in paint supplies falling to a trickle in the

former Czechoslovakia to the point where they were completely exhausted over the following two or three years.

Most of the domestic aircraft facilities (such as Aero, Mráz and Zlín) turned to available German RLM colors to satisfy renewed production efforts, or at least colors that had similar tones. Avia and Letov were two exceptions. These had significant wartime stocks of paint available, made possible by their production of training aircraft at the end of the war, notably the Arado Ar 96B, which had all its surfaces sprayed in an aluminum color, or more accurately, a clear coat with aluminum powder mixed in. It was necessary, then, to find an interim paint solution for the new S-199s coming off the assembly lines at Avia headed for the Czechoslovak Air Force from 1948. These paints would need to be produced quickly using local manufacturing facilities.

Over the first months following the liberation of Czechoslovakia, Avia saw a logical decline in aircraft production. In order to preserve the firm's usefulness and future, focus was transferred to the repair of buses and postal vehicles – vehicles that

were in high demand at the time due to the end of the war. The final paint coats on these vehicles were of several types, among which were light green-grey shades, similar to RLM 02 (also similar to the then-current RAL 7033). Although this paint was not intended for use on aircraft, it was the only decent quality and easily produced paint available.

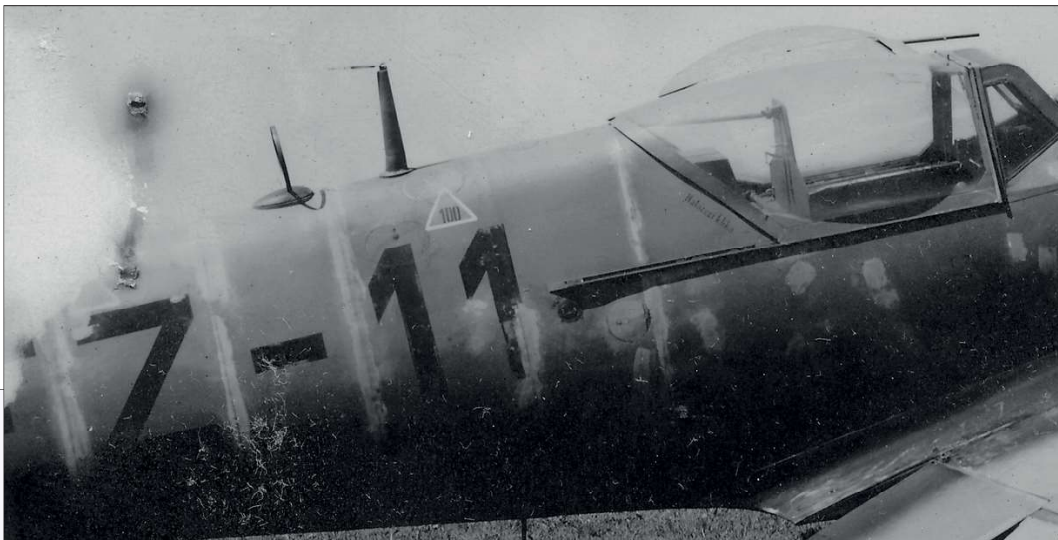
On the basis of recent research, it can be said with a high degree of certainty that this type of paint was, in fact, used on aircraft such as the fighter/trainer C-10/C-110 (Bf 109G-10/G-12), combat fighters S-92/CS-92, S-99, and on the first Avia-built S-199, C-4 (Bü 131D) biplanes and the first C-104 produced by Aero. This can also be extended to the C-6/C-106 (Bü 181) and the first C-5 (Zlín Z-26), and even some twin-engined B-36s (DH.98 Mosquito FB Mk.VI) modified to carry German machine guns.

Nevertheless, the general goal of developing a new paint system for the Czechoslovak Air Force was still a high priority matter and needed to be resolved through 1948. The resulting product is known as Smalt Avion 2036, under which Paint 2036 Khaki MNO

(a shade similar to an early Czechoslovak color called Khaki). This paint was considered for an overall covering of later S-199s, or after these types had gone through repairs or overhauls. We can also add that lower surfaces were to be painted Avion 2036.65 Light Blue (not unlike the German RLM 65, as indicated in the paint's designation), but for reasons that are not yet clear, this shade was not applied to the S-199.

Paints for Czechoslovak military aircraft are traditionally associated locally with the name of Libeň-Vysočany company TEBAS (Joint Stock Company for the Production of Industrial Paints TEBAS), traceable to Thurm und Beschke, from which the company evolved into TEBAS in 1938. During the period of the Protectorate, the company filled orders under its original name for the Nazi war effort and after liberation, it fell under national administration. From 1947, it became a component of the Spojené továrny na barvy a laky (United Paint and Varnish Company), and later the successor national firm Pragolak, and later still, Barvy a Laky (Paints and Varnishes).

To be continued



Detailed view of the puttied and sanded joints, along with minor repairs on the central section of the fuselage of Avia S-199.260, EZ-11, belonging to the 3rd Flight of the Air Regiment 5 based at Plzeň. Other interesting details are worth noting: the canopy and its associated rail, head armor, the cover for the battery in the cockpit, the antenna mast and PR 16 direction finding antenna on the fuselage spine, the whip antenna associated with the LR-25a identification equipment, and the stencil data with yellow triangle over the fuel tank filler cap (the fuel was 100 Octane Aviation Fuel).



A brand-new Avia S-199, Serial Number 167, made its acceptance flight by Avia's test pilot Antonín Kraus on October 25, 1948. The aircraft is armed with two 17/7 9N wing guns of 7.92mm calibre. Despite the photograph being somewhat underexposed, it is possible to conclude that the scheme is the light green-grey type applied to early aircraft. This aircraft was coded KS-22 and was later attached to the 2nd Flight of the Air Regiment 4 bearing the name of Alois Vašátko, at Plzeň-Skvrňany, where it was damaged in a landing accident on February 11, 1949.



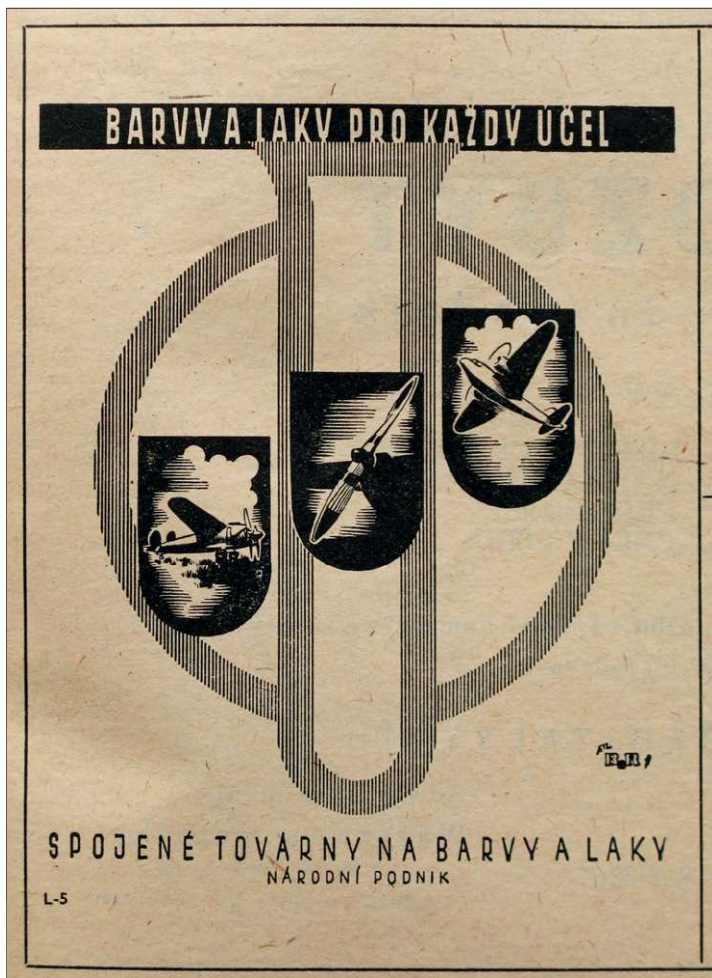
Aero produced S-199.310. On May 30, 1949, this airplane, coded KT-3, made a forced landing not far from Boskovice while flown by Lt. (Sgt) Karel Kessler. The code places the aircraft in the service of the 3rd Flight of the Air Regiment 7. This S-199 was only armed with the synchronized 131/13N fuselage machine guns, lacking the wing gun pods. After necessary repairs, the aircraft was updated with the rearward sliding bubble canopy and was equipped with reconnaissance equipment and reassigned to LP 1. In 1951, it served with the 5 Air Training Regiment in Zvolen, where it was coded UL-51 and obtained yellow training bands. It was likely that the reconnaissance equipment had been removed by that time.



White GY-37 was Avia S-199.40 (2nd Flight, 3 Fighter Air Regiment, 4 Air Division), and was already worn when it collided with the two-seat CS-199.510 (coded HX-70) at Černovice airfield in Brno on March 23, 1953. It sported multiple repairs with a darker green, with which it became one of the most interestingly painted S-199s in the Czechoslovak Air Force. In accordance with regulations from October 1947 (Avia Scheme Illustration for Type 210 "Stencil Data and National Markings" No. 109-Le62217), the aircraft carried a white border line to the national markings. The spinner was also white.



The apron at Kbely with 2nd Flight, 1 Air Regiment, 3 Air Division in April 1951. The nearest aircraft is Avia S-199.444 with a freshly applied fuselage code JW-38 in accordance with regulation VL number 0010941/51 dated March 15, 1951. The aircraft is Light Green-Grey with a white spinner, and the dark green wheel hubs and spinner base are also noteworthy.



The label applied by the National Factory for Paints reads "Paints and Varnishes for All Uses in the Aviation Industry". This was the company Tebas before it was nationalized, and it supplied paints used on the S-199.



A reproduction of a page from the color chips of shades produced by the National Factory for Paints and Varnishes from 1950, with the original notes preserved. The top row contains samples of light green-grey (RAL equivalents) and Avion 2036.02 (RLM 02), while in the bottom right corner is a shade of blue for that component of the national marking (labeled as Flag) Shade 66 corresponds to RLM 66 Black-Grey (for interiors and wheel wells) and RLM 65 corresponding to shades used on the lower surfaces (Avion 2036.65).