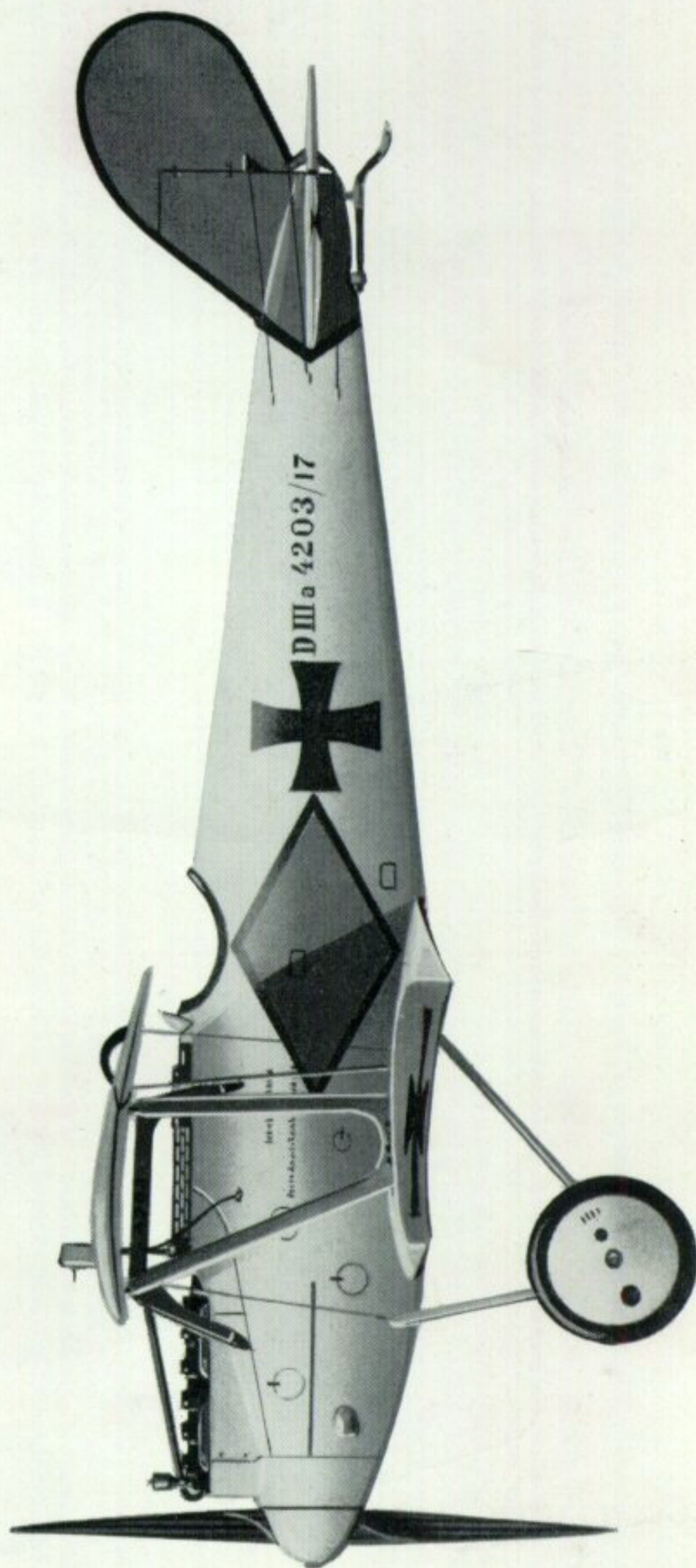


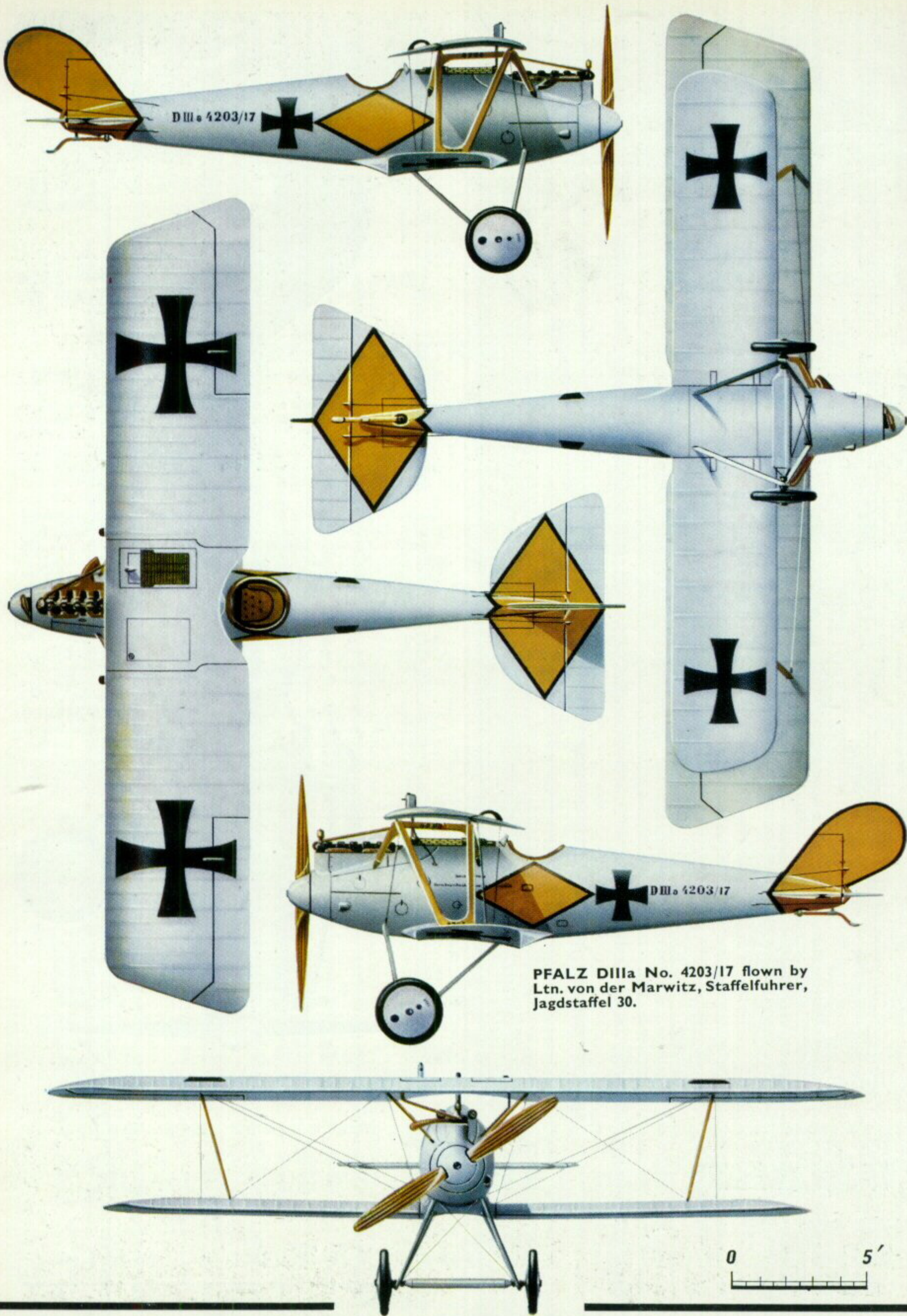
# PROFILE PUBLICATIONS

## The Pfalz D III

NUMBER

43





PFALZ D.IIIa No. 4203/17 flown by  
 Lt. von der Marwitz, Staffelführer,  
 Jagdstaffel 30.



*Pfalz D IIIa with painted nose and inspection discs. Capt. F. G. Quigley is sitting in cockpit. This aircraft is fitted with the "saxophone" type of exhaust manifold. (Photo: Canadian War Archives)*

A slim silver biplane with angularly-raked wings lifted swiftly from the grass airfield, the early ground mist swirling in the vigour of its slipstream. Clear of the boundary hedge the machine rose no higher but set a westerly course for the lines, seemingly pursuing its own fleeting shadow cast before it by the morning sun, slowly rising astern. A grim-faced figure hunched over the control stick, concentrating on skilfully directing his roaring mount at roof-top height, towards the distant image of an Allied observation balloon swinging at the end of its cable.

In a trice he had traversed the brief section of "no-man's-land" which separated the trenches, and was way beyond the support lines almost before their unfortunate inhabitants had realised he was abroad. His intention was to reach and destroy the balloon before it could be hauled down by its high-speed winch, and so to avoid the maelstrom of fire its ground defences would hurl upon him. To screen his approach to the utmost he swung on to a road lined with poplars, bringing his aircraft below the level of the tree tops, which now rushed by scant inches from his wing-tips.

However, the ground defence crew of the balloon section were already alert and on morning "stand-to"—hearing the roar of his rapid approach they swung their L.M.G.s to cover their charge, whilst the winch

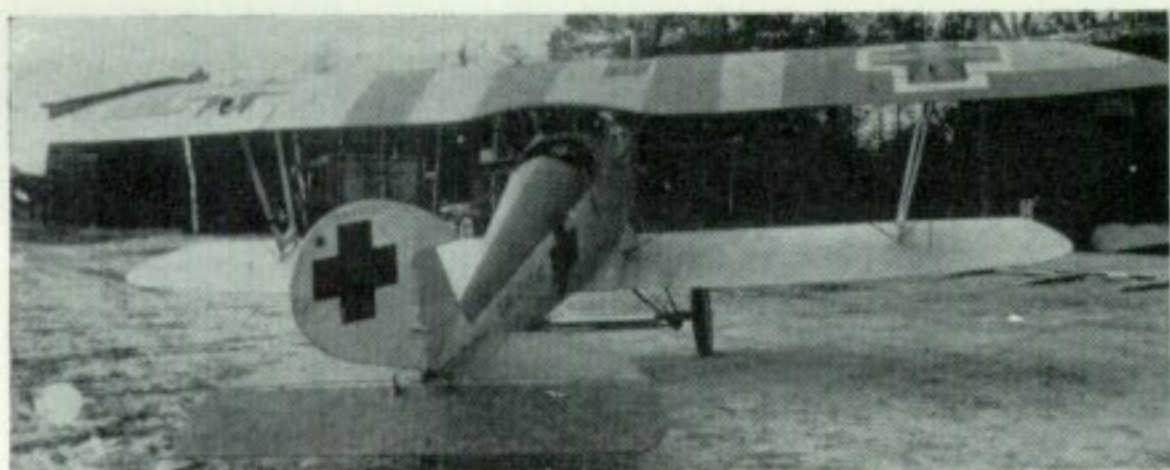
crew started the haul down with all speed. Seeing the gas bag quickly descending the German pilot realised his attack would not be the surprise he had anticipated. Undaunted, however, he decided to press on, easing back on the stick to intercept the balloon with a steeply-angled no-deflection shot. Oblivious of the ground defences he watched the target as it grew in his sights, then pressed the twin triggers to see his tracers lancing viciously into the balloon. He caught a momentary impression as the observer took to his parachute, an observer who, within seconds, was being followed by the flaming mass which had so lately supported him.

The pilot's exultation was short-lived, however, as he now flew into the hail of fire flung at him by the avenging ground crew, who had so accurately anticipated his course. His violent evasive manoeuvres were to no avail; flames licking from the ruptured fuel tank, almost instantly engulfed the fighter which flicked on to its back and then plunged to the earth.

The little, shark-like fighter in which this courageous pilot flew comet-like to his death, had begun its life in the Pfalz factory of the Eversbusch brothers in the Bavarian township of Speyer on the River Rhine, near Mannheim. Although founded before the war it was not until 1917 that the firm produced a machine which was completely their own design. Very soon after

*Left: Pfalz D III 4185/17 Justa 5, with red and white fuselage bands photographed at Boistrancourt. (Photo: von Hippel). Right: Early production Pfalz D III in standard ex-works aluminium finish, showing clearly style and location of patee crosses and fuselage serial number. Also to be noted—the black datum on fuselage centre-line extending back from nose. (Photo: Egon Krueger)*





*Pfalz D IIIa 8143/17 displays straight-sided Balkankreuz of April/May 1918 period; overpainting of the earlier patee crosses on the wings is apparent. The decor is somewhat crudely marked, colours are not known but may have been deep yellow and pale blue. (Photo: P. M. Grosz)*



*Another view of D III 4158 at Boistrancourt. (Photo: von Hippel)*

hostilities ceased the company discontinued the manufacture of aircraft, unlike its more well-known Fokker and Albatros counterparts, and this probably accounts for its dropping into a considerable degree of obscurity, notwithstanding its having contributed a considerable number of machines to the German flying services.

It was in July 1913 that the three Eversbusch brothers, Alfred, Walter and Ernst, established a new factory at Speyer. It was largely financed through the Bavarian Government which wished to ensure it retained some degree of control over the equipment its flying services would use. Due to an insufficiency of reserve capital, the Pfalz company's original hope of acquiring a licence to manufacture Albatros aircraft came to naught. As an alternative the firm obtained a licence to build the Otto pusher biplane, Gustav Otto assisting in both a financial and advisory capacity. However, the astute Alfred Eversbusch quickly realised that the Otto machine was inferior to contemporary French aircraft, and negotiated with the Morane-Saulnier company the right to produce their two most successful designs; the Type H shoulder-wing monoplane and Type L parasol. Walter Evers-

busch, the youngest of the brothers, learned to fly at the Morane-Saulnier school and was awarded his pilot's certificate in July 1914, from which date he became the Pfalz test pilot until his untimely death in a crash on 1st June 1916.

## LICENCE PRODUCTION

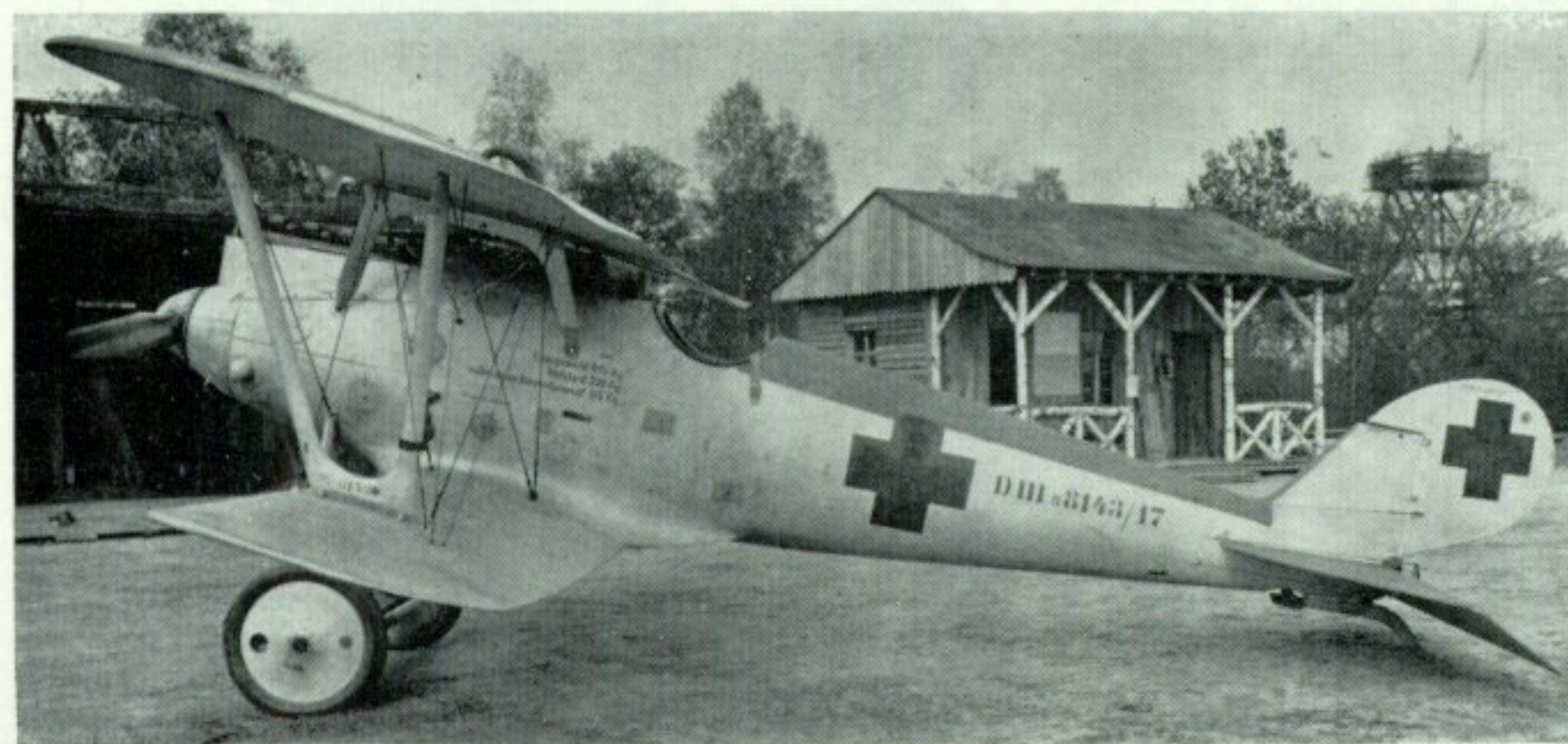
Production of the Morane-Saulnier monoplanes was slow and only three parasols had been constructed by the outbreak of war in August 1914. With the subsequent increase in demand, larger numbers came from the factory, but relatively few saw active service. The parasols were classified Pfalz A I on the introduction of military designations and were fitted with 80-h.p. Oberursel (Gnôme licence) engines. The majority saw service with the Bavarian flying schools but a few were used on active service in an unarmed reconnaissance capacity. The shoulder-wing monoplane, with the advent of the synchronised machine gun, was developed into the Pfalz E I to E IV series, which was used on the Western Front in 1915 and to an even later date in the Middle East theatre.

With the completion of the monoplane orders in 1916, the stronger and more agile biplane fighter had come into its own. Pfalz had brought out a biplane prototype, the D 4, a far from elegant development of the E IV monoplane and singularly unsuccessful. In consequence, with the necessary production facilities available, the Pfalz factory was awarded a licence to manufacture the L.F.G. Roland D I single-seat fighter, which began to emerge from the Speyer works early in 1917. Later in the year it was superseded by the Roland D II and D IIa which L.F.G. had developed. The Pfalz designers and technicians learned a lot from the manufacture of these, for the period, excellent fighters, and began to formulate their own ideas for a single-seat fighter design.

## THE D III IS BORN

During 1916 the French Nieuport "chasers" had achieved a considerable advantage over their German adversaries on the Western Front, with their superior manoeuvrability and performance in general. Captured Nieuports were made available to various of the German factories, including Pfalz. Certainly a little of the Nieuport was incorporated into the Pfalz fighter by the chief engineer Rudolph Gegringer (an Austrian citizen born in 1891), who was assisted by designers Geldmacher and Paulus. The prototype was wheeled from the workshops in the spring of 1917 and was seen to have utilised, in modified form, the Nieuport wing layout, with the lower wing of much narrower

chord than the upper, to give a greater degree of visibility from the cockpit. The inherent weakness of the Nieuport lower wing, i.e. its single spar which developed a tendency to twist and break off in a prolonged dive, was avoided in the Pfalz aircraft which had a twin spar wing. The Albatros designers



*Side view of D IIIa 8143/17. Note the more pointed extremities of the interplane and centre-section struts compared with the earlier D IIIs. (Photo: P. M. Grosz)*

had followed the Nieuport arrangement more closely and had likewise developed the same weakness in their D III and D V machines.

### CONSTRUCTION DETAILS

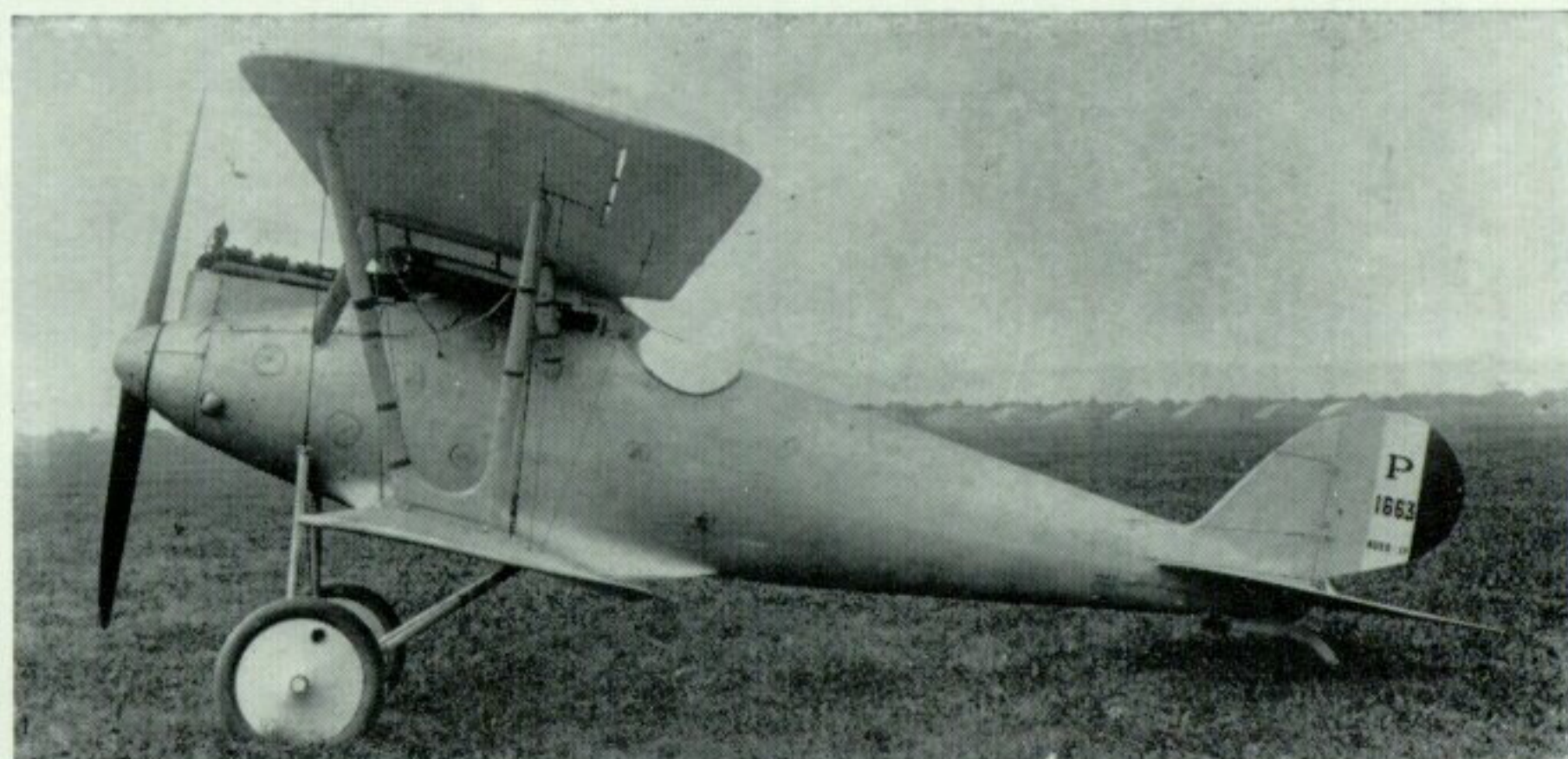
The prototype Pfalz was quite a successful and efficient aeroplane and was found to require little modification before going into production as the Pfalz D III. Horn-balanced ailerons replaced the plain ailerons of the prototype and imparted a livelier lateral control; also a more rounded rudder was fitted to the production machine. Power unit of the decidedly shark-like fighter was the well-tryed, and eminently reliable, 160-h.p. Mercedes D III. This was carefully cowled in with metal panels extending right up to the inlet manifolds and along the whole length of the cylinder block. The boss of the laminated airscrew was enclosed in a small neat, spinner, the tip of which was a flat disc on the early machines. Of semi-monocoque construction, the fuselage itself was built on a light basic structure of oval plywood formers and spruce longerons which was skinned with a plywood shell. This consisted of two three-ply layers, each less than a millimetre thick, and these layers were unusually applied in the form of strips about  $3\frac{1}{4}$  inches wide laid on at about forty-five degrees to the horizontal and at ninety degrees to each other. They were bonded together with cold water glue and reinforced at the edges with tape. One half of the fuselage was covered at a time and then the whole was additionally covered with a skin of doped fabric. This method of diagonal wrapping, together with the thin plywood used, facilitated the implementation of the neat wing root fairings as an integral part of the fuselage structure. Twin forward-firing Spandau machine guns were housed completely within the fuselage with just the muzzles projecting each side of the fifth cylinder. On the Pfalz D IIIa, which soon followed the D III into production, the guns were re-located on top of the decking immediately in front of the windscreen—accessibility for servicing and replacement was the main criteria, but it was subsequently claimed that more accurate sighting resulted. Also an integral part of the fuselage structure were the fin and a tailplane stub, likewise duo-ply-skinned and fabric covered. The tailplane and one-piece unbalanced elevator were an angular, trapezoidal shape; they were of wooden framing and fabric covered. The section was of inverse



Rare shot of one of the 1918 batch of Pfalz D IIIa's—1306/18 with dark-painted (? black) fuselage and lonzenge-painted fabric underneath wings. (Photo: P. M. Grosz)

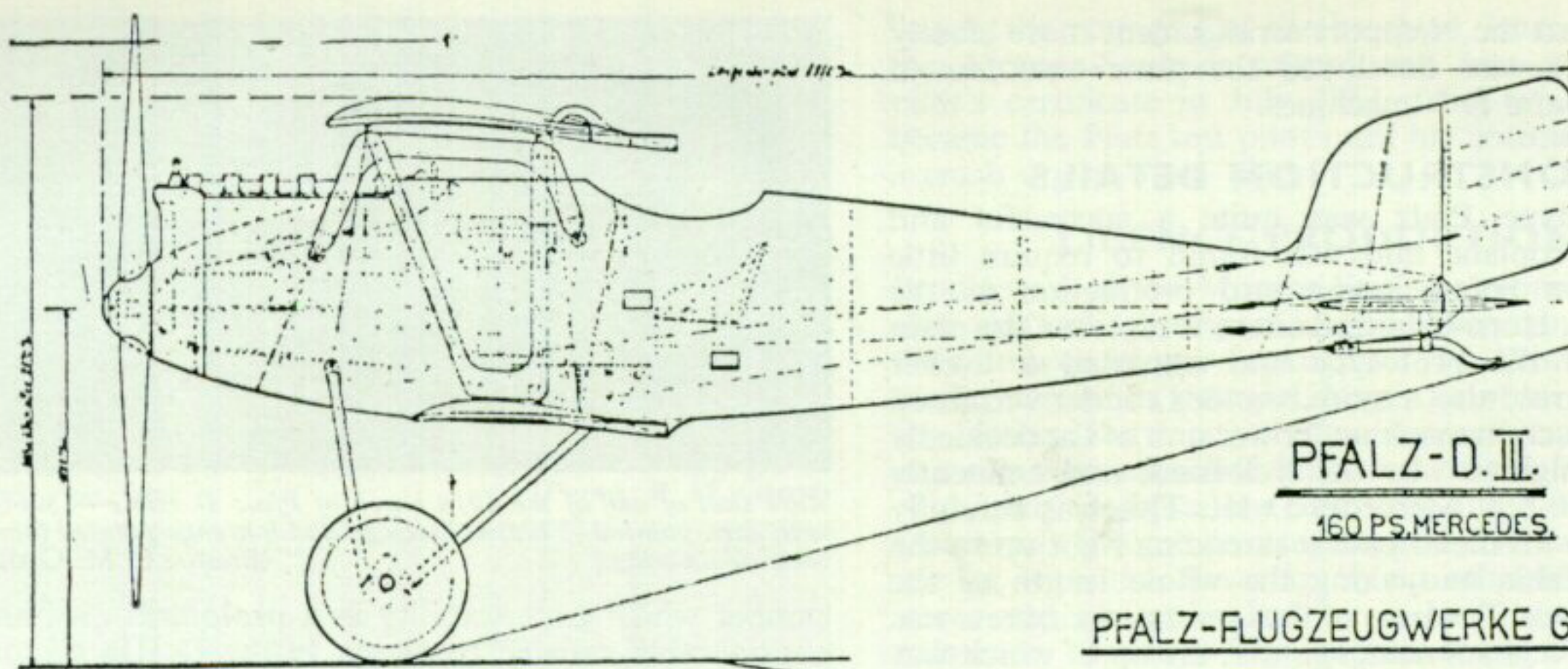
camber which gave stability in a prolonged dive and considerably assisted recovery. In the D IIIa a more rounded tailplane of greater chord and area was fitted, and this feature together with the machine gun siting, was the only visual difference between the two types. The balanced rudder was of pleasantly rounded profile, constructed from fine gauge steel tube—the only control surface to use this medium—and was fabric covered.

Wing geometry of the Pfalz D III was angular, Although differing in span and chord both were basically the same shape, of constant chord and with sharply raked tips. At a later date the lower wings were modified to a more rounded tip profile and both D III and D IIIa types were to be found with this style of lower wing eventually. Wings were, in fact, completely interchangeable for both machines. The upper wing was a one-piece structure, without dihedral, and conventionally based on two box spars wire braced to compression members. A unique feature of the spar construction was the insertion of a diaphragm at each



Above: *Factory-fresh in its aluminium dope D IIIa 4237/17 shows location of port side serial.* (Photo: P. M. Grosz)

Right: *Pfalz D IIIa 8033/17 captured by the French.* (Photo: P. M. Grosz)



PFALZ-D. III.

160 PS. MERCEDES.

PFALZ-FLUGZEUGWERKE G.M.B.H.

SPEYER a/RH.

*Pfalz factory drawing of prototype D III illustrates shape of the original fin and unbalanced rudder. (Courtesy: P. M. Grosz)*

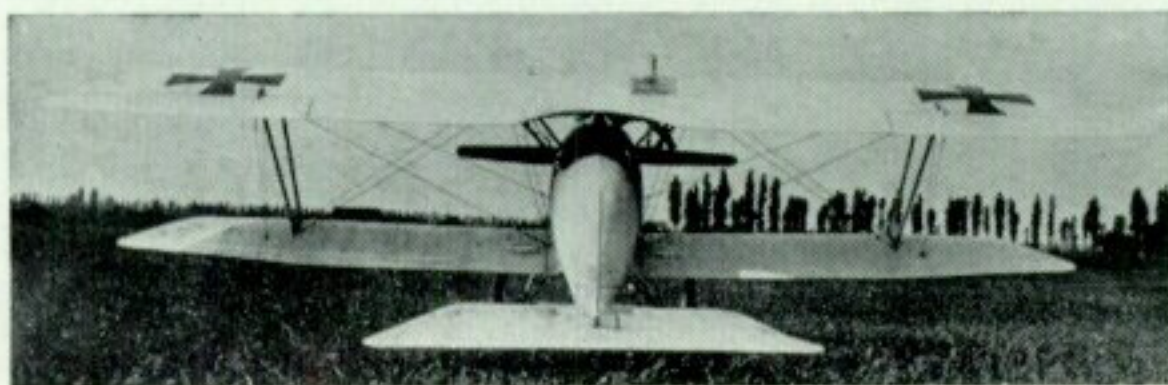
rib station, this was to transmit the shear stresses across the spar and might, with advantage, have been a feature of all such box spars. Ribs were of three-ply fretted with lightening holes, softwood cappings strips were tacked to the perimeter. False ribs, spaced between the main ribs, extended as far back as the rear spar. The complete centre-section panel, with its shallow cut-out, was plywood covered.

A flush-fitted Teeves and Braun radiator was located in the starboard side, while the port side housed the service fuel tank to which the petrol was pumped from the main tank mounted on the spar roots of the lower wing. A sliding blanketing panel underneath the radiator could be adjusted by the pilot to vary the degree of cooling required. Horn-balanced ailerons, with characteristic German wash-out, were of wooden framing and operated by a curved crank lever, which in turn was actuated by cables running through the lower wing.

Bottom wing panels were attached to the carefully-fashioned root fairings and rigged with one degree dihedral: they followed the same style of construction as the upper wing. Centre-section and interplane struts were of inverted "U" and "Vee" pattern respectively. They were substantially built from several laminations of wood and in consequence it was possible to dispense with incidence bracing cables. The "Vee" interplane struts were made sufficiently wide at the base to join both spars of the lower wing. The shape of the strut extremities varied; in the early machines they were relatively blunt, in the later aircraft the tips were more pointed; attachment was by ball and socket joints.

The undercarriage structure was an orthodox "Vee" type chassis of streamlined steel tube with the axle and spreader bars neatly encased in a narrow streamlined fairing. Wheels were sprung with elastic shock cord, likewise the tailskid which was fashioned from ash to a peculiar "hockey-stick" shape. The undercarriage was cross-braced in the front bay only by stranded

*Rear view of Pfalz D III prototype, the original unbalanced ailerons may be noted. (Photo: Egon Krueger)*



wire cables, which medium was also used for the interplane bracing.

Up-rated Mercedes D IIIa engine with oversize pistons and higher compression ratios were fitted to



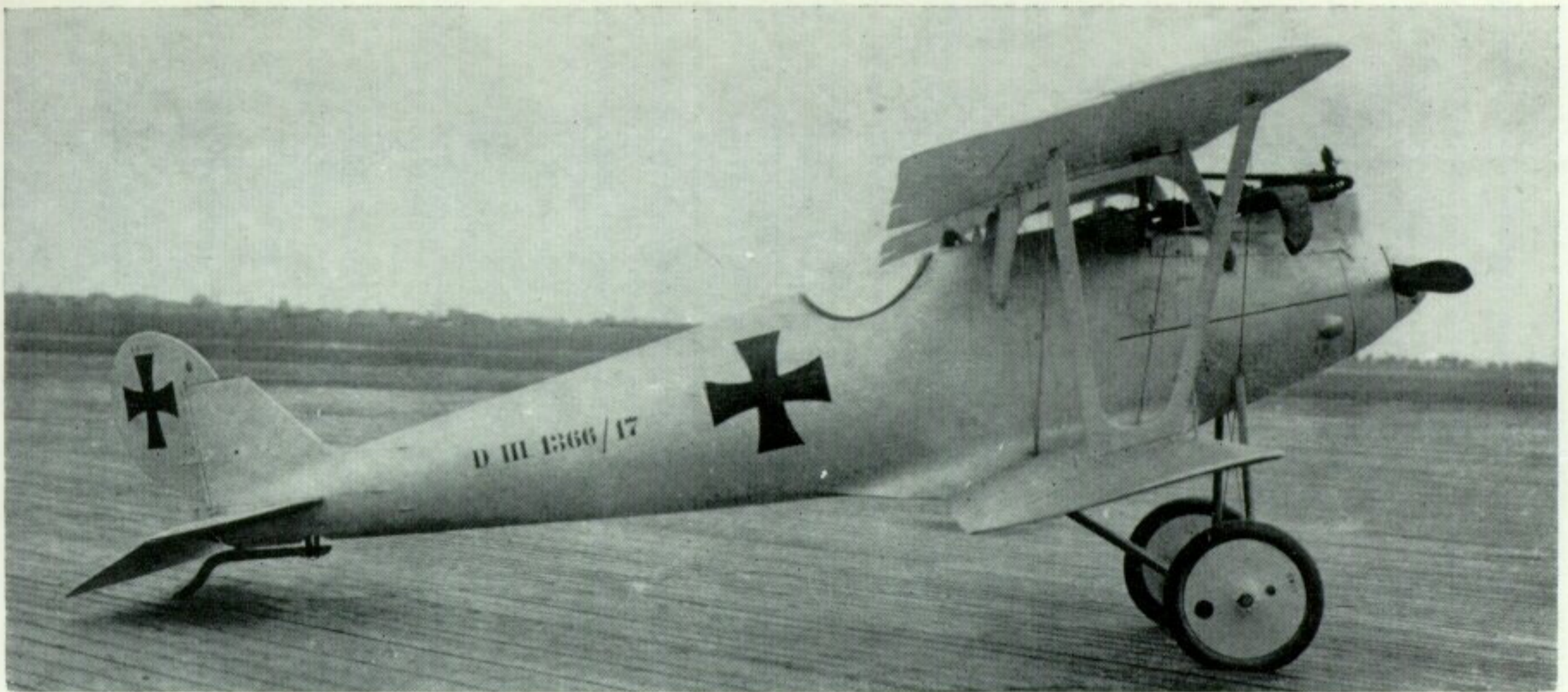
*Oblt. Franz Hailer in dark-camouflaged D IIIa. The fuselage band is of blue and white diamonds. (Photo: Egon Krueger)*



*Above: Cockpit and twin Spandau machine guns of D IIIa. (Photo: Egon Krueger)*

*Below: Pfalz D III in mint condition shows contrast between fabric-covered aluminium-doped fuselage skin and metal of nose panelling and inspection discs. (Photo: Egon Krueger)*





Another view of Pfalz D III 1366/17 photographed at Johannisthal, shows well the clean lines of this aircraft. (Photo: Egon Krueger)

the Pfalz D IIIa's and a modified exhaust manifold was usually fitted, of "saxophone" shape with the bell outlet against the first cylinder.

### PRODUCTION AND SERVICE

Having passed its official acceptance test in June 1917 (*Typen-Prüfung*) production of the Pfalz D III soon got under way, but due to the complex fuselage construction it was not a machine that could be manufactured as speedily as the welded steel tube Fokker and simpler Albatros machines. It is recorded that only three D IIIs were in Front Line service by the end of August; numbers increased to 145 operational aircraft at 31st October and as many as 276 D IIIs and 114

Below: D IIIa 8052/17 with straight-sided Balkankreuz; fuselage cross is unusually outlined in white. The numerals "10" may also be seen underneath starboard lower wing in the original print; they were probably also repeated on port upper wing.

(Photo: Egon Krueger)



Pfalz D III of Jasta 10. Personnel from left: 1st Hptm. Schwarzenberger, 3rd Lt. Klein, 5th E. Eversbusch, 6th Lt. A. Heldmann.

(Photo: Egon Krueger)



D IIIa's by the end of 1917. Thereafter the numbers of D IIIs decreased while those of the D IIIa went ahead; the position at 28th February 1918 was 182 D IIIs and 261 D IIIa machines—by the end of April the proportion was only 13 D IIIs to 433 D IIIa's. By the end of August only 3 D IIIs remained in Front Line service (coincidentally the same figure as that of a year before) while the number of D IIIa's was 166.

These figures, it must be remembered, do not represent the number of aircraft built but simply record the number that were still on the war establishment of Front Line units. The numbers actually built cannot be determined exactly—considerable research on this subject has been done by Peter Grosz and Ed. Ferko who conclude, tentatively, that production batches ran: 1350/17 to 1417/17, 4000/17 to 4399/17, 5880/17 to 6049/17, 8000/17 to 8339/17, 1234/18 to 1327/18, totalling 874 machines, from which it may be surmised that probably about 1,000 Pfalz D IIIs and D IIIa's were built altogether.

First allocation of the Pfalz fighters, naturally enough seems to have been made to the Bavarian *Jasta* 16, 23, 32, 34 and 35, which had been transferred to the Bavarian Army on 4th July 1917. *Jasta* 76, 77, 78, 79 and 80 were also formed as Bavarian units during the winter of 1917-18 and received this equipment. Other *Jastas* which received Pfalz D IIIs and the later D IIIa's were: *Jasta* 5, 7, 8, 10, 11, 14, 15, 19, 20, 22, 24, 28, 29, 30, 36, 37, 40, 44, 46, 47, 48, 49, 51, 52, 53, 54, 56, 57, 58, 59, 61, 67, 69, and *Marine Feld Jagdstaffeln* I, II and III. Mainly the Pfalz D III 4063/17 with dark-painted nose and complete tail assembly, unit unfortunately not identified.

(Photo: Egon Krueger)





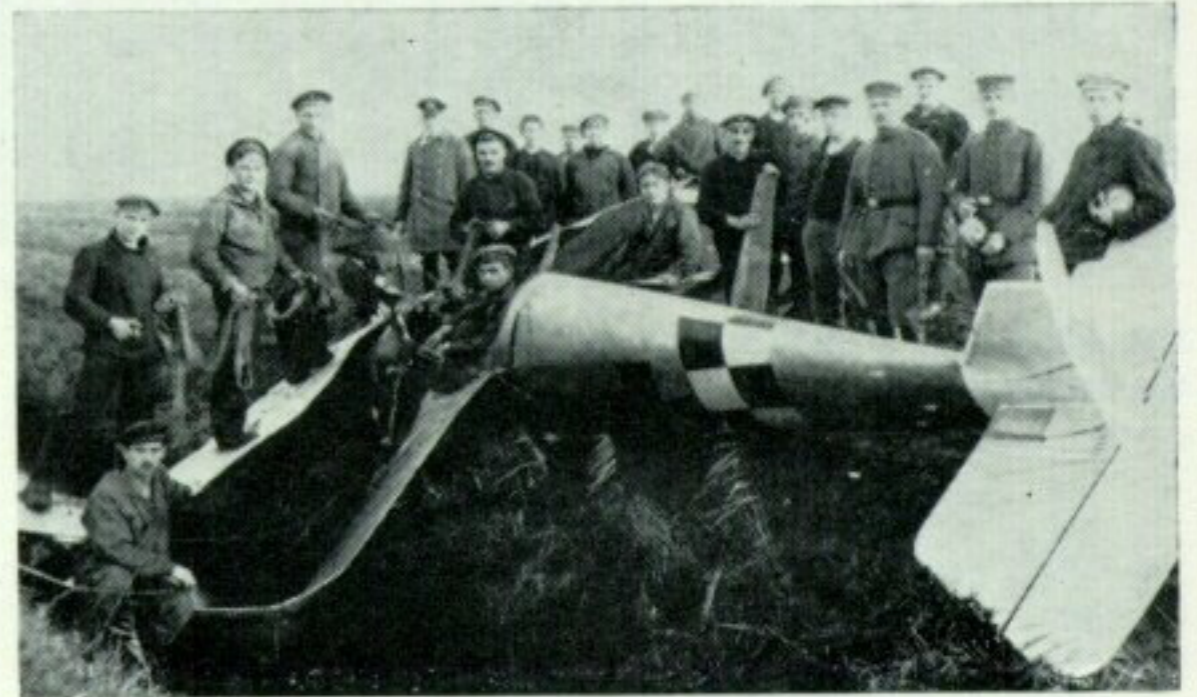
*Pfalz D IIIa 4203/17 flown by Commander, Jasta 20, and subject of five-view colour plate. (Photo: Alex Imrie)*

*Badly bent D III 4169/17 flown by Flugmaat Undiener, II Marine Feld Jasta. Tail unit was completely white, fuselage band black and white checks. (Photo: Alex Imrie)*

*Jagdstaffeln* had an assorted complement of aircraft. The first Pfalz D IIIs operated in company with Roland D IIs and IIa's and later with Albatros D V and Va's and Fokker triplanes. Alex Imrie advises that from his intensive researches the only units to be equipped with the Pfalz D III and IIIa exclusively were *Jastas* 4, 10, 16, 20, 21, 24, 30, 32, 46, 61, 67 and *Marine Feld Jasta II*.

In service the Pfalz seems to have been a considerably maligned machine; many stories probably most of them apocryphal, circulating as to its unsuitability: "too slow", "does not climb", "too heavy", "won't recover from a spin", "fuselage weak", "not properly constructed", "tail weak and liable to break off", etc. In actual fact it was quite a good, rugged, aeroplane. Initially there was a tendency to failure of the upper wing-tips in combat—Lt. Kroll, Commander *Jasta* 24 once had the misfortune to suffer this circumstance and nearly lost his ailerons—but stronger spars were ordered to rectify this. The Pfalz could dive a good deal faster than any other German fighter and with excellent stability, in consequence it provided a good gun platform. Its style of construction endowed it with an ability to absorb a fair degree of punishment.

There certainly was a tendency for the machine to get in a flat spin from which it was exceedingly difficult to recover—such an experienced pilot as von Linsingen of *Jasta* 11 spun into the ground on a Pfalz D IIIa. In an interview with Alex Imrie, Lt. Kaus (of *Jasta* 30) stated he personally liked the Pfalz D IIIa very much and his favourite method of losing height was to spin down over the aerodrome!



In a report dated 25th October 1917, *Jasta* 24 expressed the following opinion on the Pfalz D III:

"It is slower than the Albatros D III; it is fast in a dive and is then faster than the Albatros D V. The climbing performance of Pfalz D III varies greatly, sometimes almost as good as the average Albatros D V but never better. It is not advisable for a unit to be equipped with both Pfalz D III and Albatros D V. However, Pfalz alone in one unit could be successful."

Whatever its real shortcomings may have been they were certainly not in the sphere of construction. Captured examples of both D III and D IIIa were critically examined and evaluated by Allied technicians and who were considerably impressed by the quality of the workmanship.

As the Pfalz machines were gradually withdrawn

*D III 1386/17 used by Lt. Lenz, Jasta 22, photographed at Mont aerodrome, August 1917.*

*(Photo: Alex Imrie)*







Pfalz D IIIa with Balkankreuz marks on fuselage and rudder, patee crosses were still displayed on wing surfaces.

(Photo: W. R. Puglisi)

from the *Jastas* in exchange for Albatros D Va's and later Fokker D VII's, those that were considered to still be of use were reconditioned and sent to flying schools which specialised in the training of fighter pilots (*Jagdstaffelschulen*) although probably about a hundred D IIIa's were still soldering on with the combat units right up to the cessation of hostilities.

A particularly graphic account of a combat between a Pfalz D IIIa and, then, Capt Edward "Mickey" Mannock, Flight Commander 74 Squadron

*Flugmaat Undiener* with lattice-marked D IIIa 4215/17. Style and location of stencilling on fuselage may be noted.

(Photo: Alex Imrie)



R.A.F., flying an S.E.5a on 21st May 1918, is given by Lt. Van Ira:

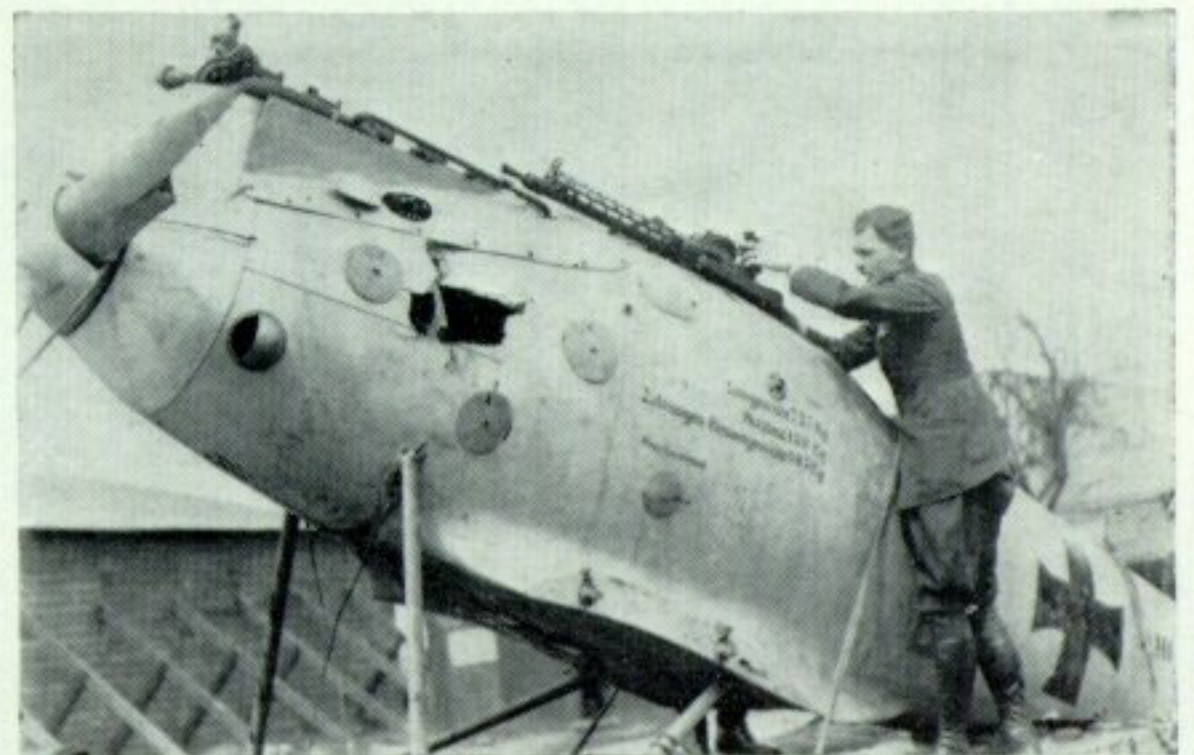
"... the other Pfalz, a silver bird, and he had a fine set-to, while his patrol watched the master at work. It was a wonderful sight. First they waltzed around one another like a couple of turkey-cocks, Mick being tight on his adversary's tail. Then the Pfalz half rolled and fell a few hundred feet beneath him. Mick followed, firing as soon as he got into position. The Hun then looped—Mick looped too, coming out behind and above his opponent. The Pfalz then spun—Mick spun also, firing as he spun. This shooting appeared to me a waste of ammunition. The Hun eventually pulled out; Mick was fast on his tail—they were now down to 4,000 feet. The Pfalz now started twisting and turning which was a sure sign of 'wind-up'. After a sharp burst close up Mick administered the *coup de grâce*, and the poor old fellow went down headlong and crashed.

"This was a remarkable exhibition, a marvellous show. I felt sorry for the poor Pfalz pilot, for he put up a wonderful show of defensive fighting. Had he only kept spinning right down to the ground, I think he would have got away with it."

Of interest is the fact that Van Ira stated it was the

*Nose close-up of crashed D IIIa 8282/17 shows air intake detail, inspection panels and machine guns to advantage. Also legend appertaining to weights may be noted.*

(Photo: Imperial War Museum—Q12164)





Line-up of yellow-nosed Jasta 10 D IIIs near Courtrai. 3rd machine from right is Vfw. Hecht's aircraft which was later captured. (Photo: Alex Imrie)

first time he has seen a machine loop during a fight. Mannock said afterwards that he should not have followed through in a loop himself but made a steep climbing turn as the Pfalz looped, then half rolled to come back on his tail as he came out. Thereby he would have kept the machine in sight the whole time.

However, all combats did not end so disastrously for Pfalz pilots. That redoubtable exponent of the S.E. Capt. (later Major) J. B. McCudden reported on at least two occasions—6th September and 19th December 1917—when Pfalz D IIIs had eluded him. On the later date he, with two others of his patrol, manoeuvred for over half an hour with a Pfalz and an Albatros with no decision being reached. McCudden afterwards emphasised how splendidly the two German pilots co-operated and manoeuvred.

The mercurial Werner Voss was posted to command *Jagdstaffel* 10 at the end of July 1917 and used one of the first Pfalz D IIIs on which he recorded four victories before taking possession of a Fokker triplane. Another courageous German pilot who flew a Pfalz with great style, not to say precision, was Paul Bäumer of *Jasta* 2 (Boelcke) who was to score 43 victories. Von Hippel has remarked that when he (Bäumer) used to visit *Jasta* 5 at Boistrancourt he usually ran his wheels on the hanger roof to get them revolving before touching down!

### COLOUR SCHEMES

In their final finish the Pfalz D III and D IIIa's were

*Captured D IIIa 8284/17 marked with swastika motif. Wings appear to have been lozenge fabric covered and patee crosses on these surfaces were white outlined.*



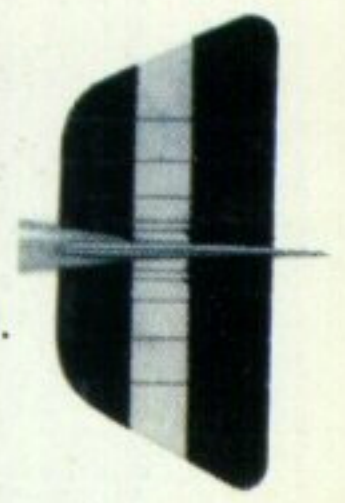
Fuselage of Vfw. Hecht's Pfalz D III 1370/17 after capture. (Photo: Imperial War Museum—Q11898)

unique in leaving the Speyer factory painted all over with aluminium dope (*silbergrau*) which was a matt, or satin, silver finish. Interplane and centre-section struts were left in their natural wood finish protected by clear varnish. Serial numbers were painted in black in near Roman style letters and figures on the fuselage sides between the cross and the tailplane; these serials were also repeated in miniature on the apices of the struts and across the top of the rudder. The patee cross was standard national insignia until 15th April 1918 when the straight-sided Balkankreuz was introduced. On receipt of Pfalz D III some *Jastas* applied a drab camouflage to the upper and side surfaces but



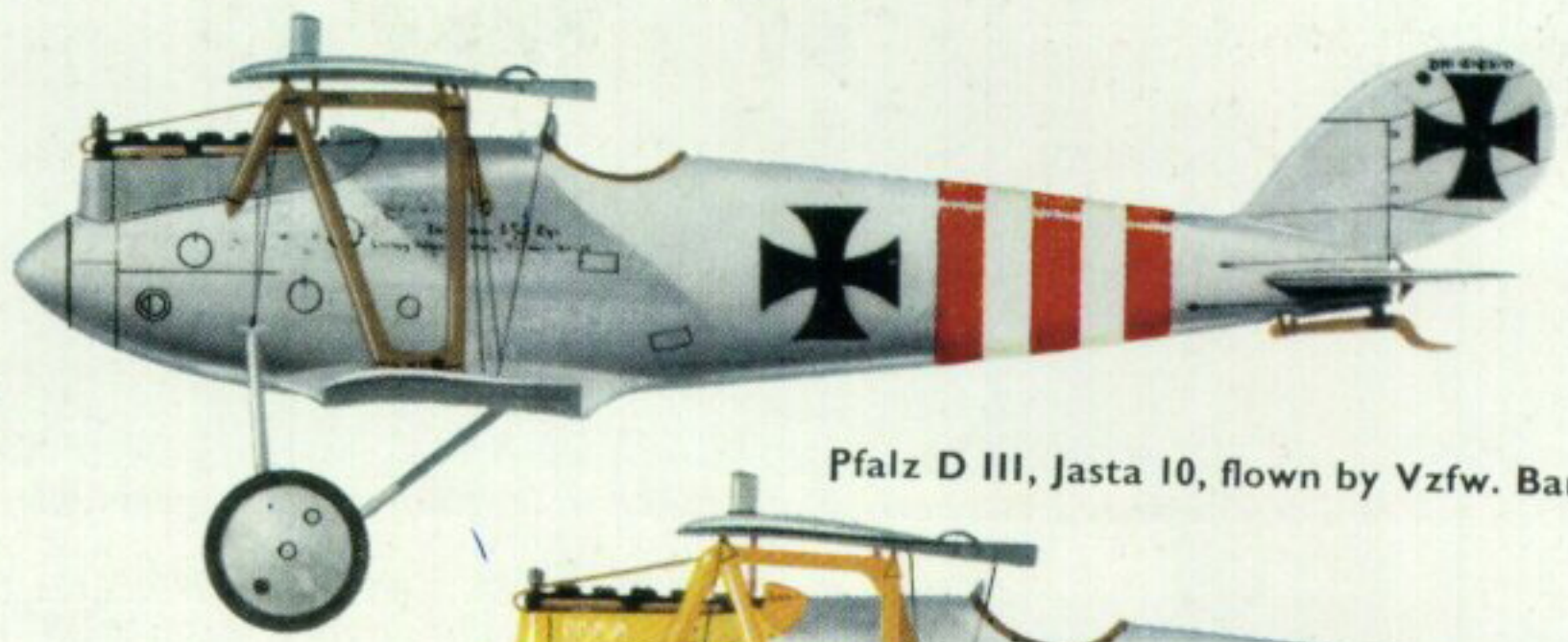


Pfalz D IIIa, Jasta 4.

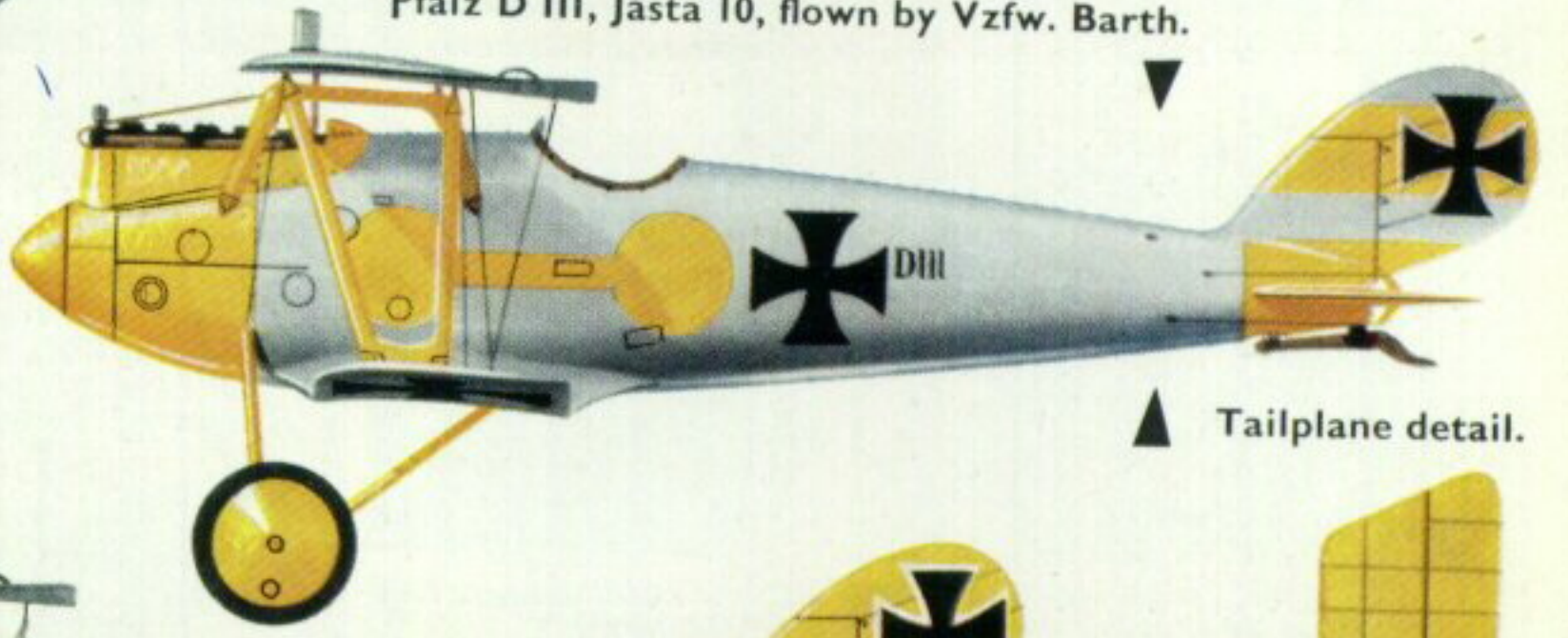


◀ Tailplane detail.

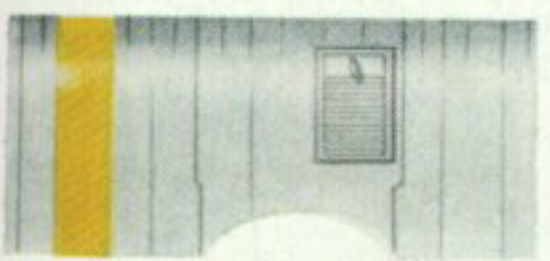
Pfalz D III, Jasta 5.



Pfalz D III, Jasta 10, flown by Vzfw. Barth.



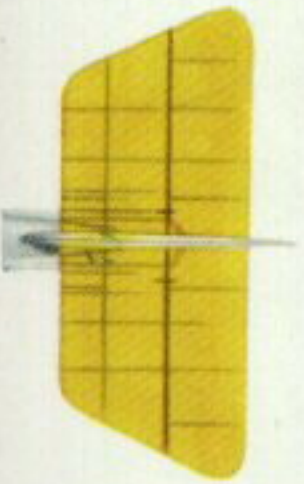
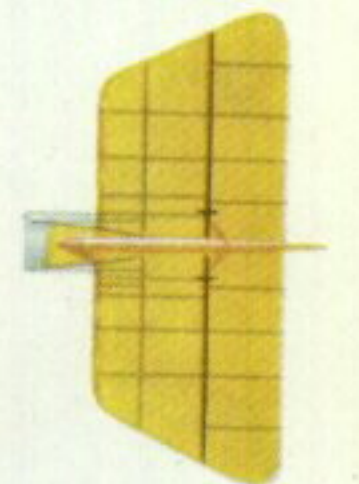
▲ Tailplane detail.



Upper wing band.

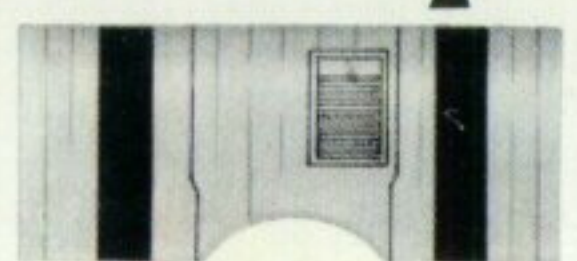
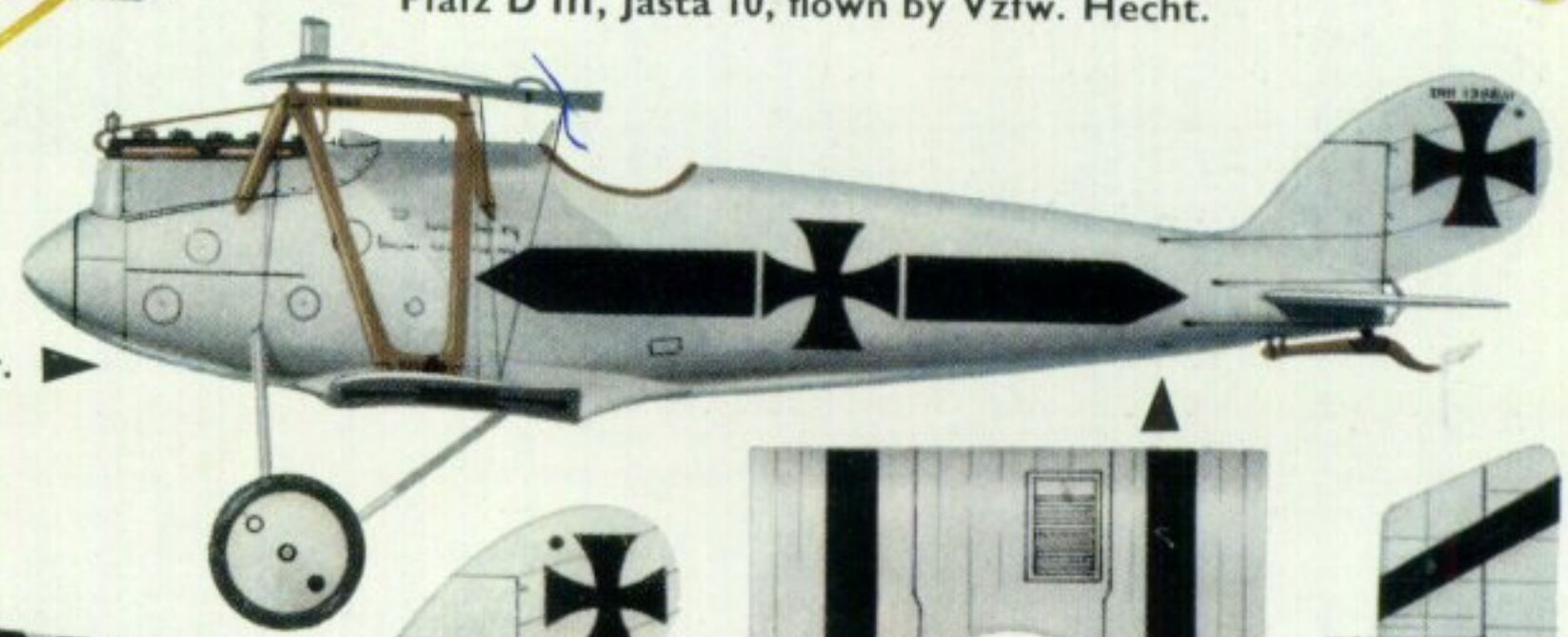


Pfalz D III, Jasta 10, flown by Vzfw. Hecht.

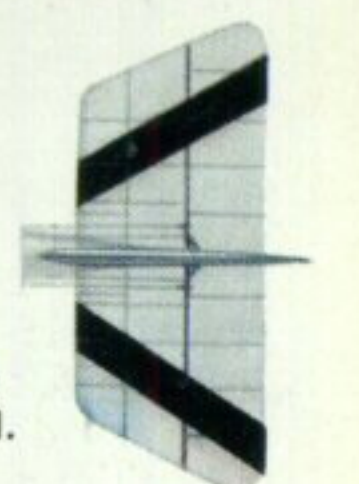


▲ Tailplane detail.

Pfalz D III, Jasta 22, flown by Lt. Lenz, Staffelführer.



Upper wing bands.



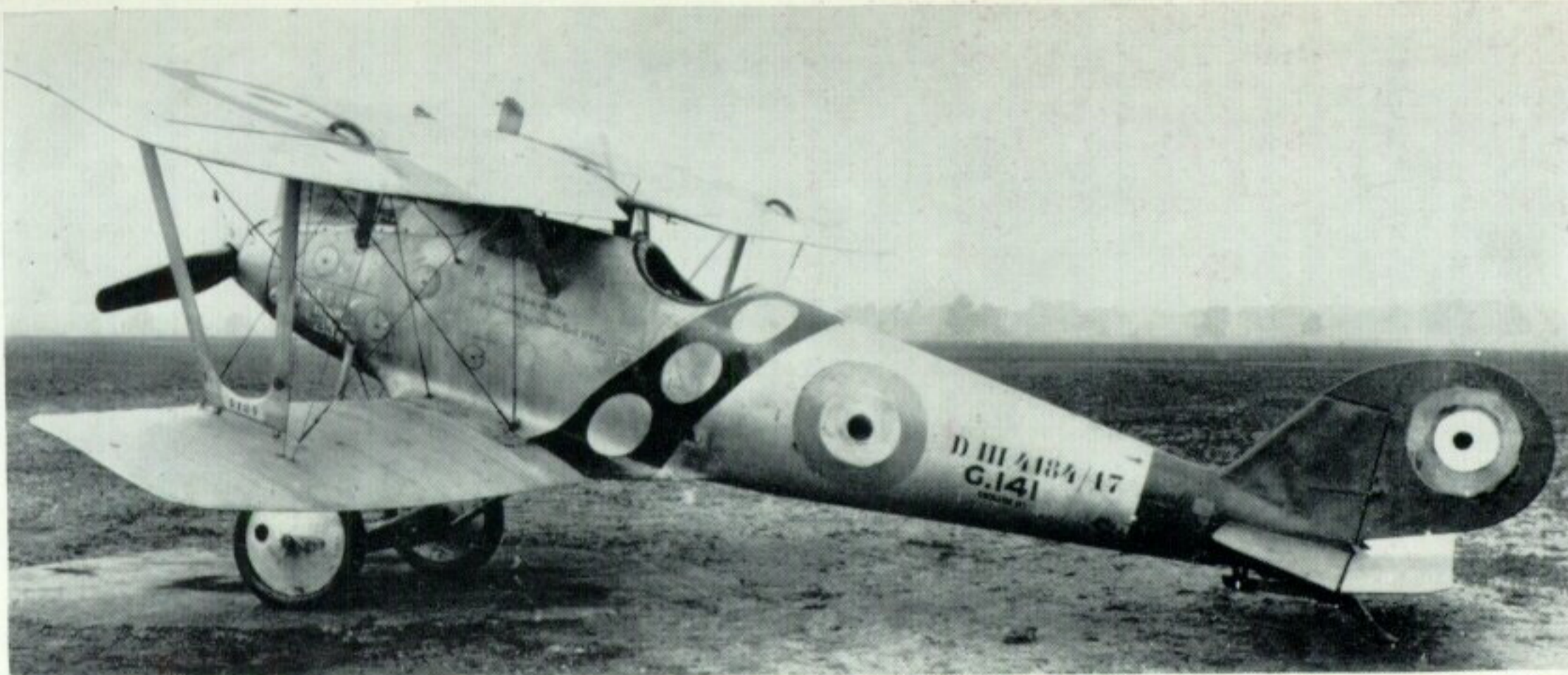
▲ Tailplane detail.



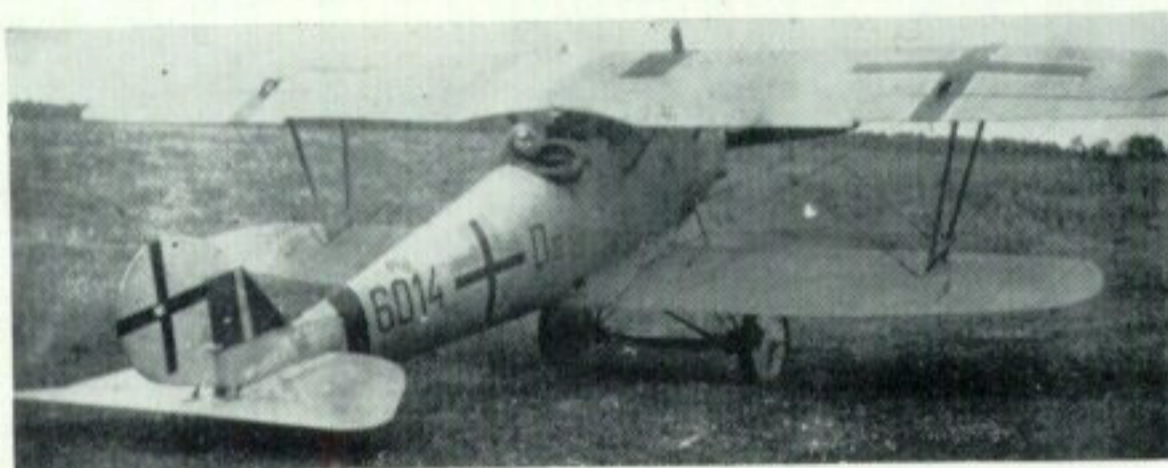
Pfalz D III, Jasta 22, flown by Lt. Wunsch.



Pfalz D IIIa, II Marine Feld Jasta, flown by Flugmeister Kuring.



Another captured D III, 4184/14, original patee crosses overpainted with roundels. Tail and fuselage markings are reported as being chocolate brown.



D IIIa 6014/17 with ultimate style of narrow Balkankreuz. Non-standard style of serial marking is of special interest. (Photo: Alex Imrie)



Pfalz D IIIA, 1306/18, landed at Schoondijke, 12th June 1918. In Dutch service until 1920. Note orange disc markings on fuselage and bottom of upper wing. Colour scheme was dark green, with pale blue or silver surfaces. (Photo: G. H. Kamphuis)

under surfaces were probably left aluminium. It has not been possible to confirm that they were painted the usual pale blue used underneath other types. More usually though, the aircraft were left in their basic "silver" dope, with the various unit and individual identities added as may be seen from the colour plate examples based on authentic information kindly supplied by Alex Imrie.

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#### KNOWN SERIAL NUMBERS

D III—1370/17 Vzfw, Hecht. Js. 10; 1386/17 Lt. Lenz Js 22; 1395/17 Lt. A. Heldmann Js 10; 4005/17 Lt. von Hippel (trainer); 4009/17 Lt. Kroll Staffelführer Js 24; 4010/17 Js 24; 4023/17 I Marine Feld Jasta; 4042/17 Lt. Skauradzum Js 4; 4049/17 Flg. Riensberg Js 10; 4062/17 Uffz Lingenfelden Js 16; 4074/17 I Marine Feld Jasta; 4075/17 I Marine Feld Jasta; 4094/17 Js 24; 4095/17 Js 24; 4096 and 4098/17 I Marine Feld Jasta; 4107/17 Js 24; 4111/17 I Marine Feld Jasta; 4117/17 Lt. A. Heldmann Js 10; 4169/17 II Marine Feld Jasta; 4184/17 captured.

D IIIa—4205/17 test pilot Wincziers killed 30th Oct. 1917; 4215/17 III Marine Feld Jasta; 4218/17 Js 24; 4223/17 Lt. Linsingen Js 11; 4237 and 4256/17 Js 24; 4283/17 Lt. Klein Js 10; 4285, 4287, 4289, 4291 and 4294/17 Js 24; 5888/17 Obltn. Bethge Js 30; 5922/17 Flzm. Zimpel III Marine Feld Jasta; 8033/17 captured by French; 8169/17 Lt. Bellen Js 10; 8190/17 G. Wulf; 8282 and 8284 captured by British.

Courtesy E. Ferko and P. M. Grosz.



Dark-camouflaged Pfalz D III of Jasta 10. Fokker triplane in foreground is machine used by Werner Voss. (Photo: W. R. Puglisi)

#### SPECIFICATION

Manufacturer: Pfalz Flugzeug-Werke G.m.b.H., Speyer am Rhein.

Powerplant: 160 h.p. Mercedes D. III and 175/180 h.p. Mercedes D IIIa.

Dimensions: Span 9.4 m. (30 ft. 10 $\frac{1}{8}$  in.), length 6.95 m. (27 ft. 9 $\frac{3}{8}$  in.); height 2.67 m. (8 ft. 9 $\frac{1}{8}$  in.); area 22.17 sq. m. (237.75 sq. ft.).

Weights: Empty 695 kg. (1,529 lb.); loaded 865 kg. (1,903 lb.) D III 4125/17. Empty 695 kg. (1,529 lb.); loaded 915 kg. (2,013 lb.) D IIIa 8143/17. Empty 725 kg. (1,595 lb.); loaded 905 kg. (1,991 lb.) D IIIa 8282/17. (Taken from weights painted on actual aircraft.)

Performance: Max. speed at 10,000 ft. 102.5 m.p.h., at 15,000 ft. 91.5 m.p.h. Climb to 5,000 ft. in 6 min., to 15,000 ft. in 41 min. 20 sec. (Captured aircraft D III 4184/17.)

Max. speed 165 km. hr. (103.12 m.p.h.). Climb to 1,000 m. (3,280 ft.) in 3.25 min., to 2,000 m. (6,560 ft.) in 7.25 min., to 3,000 m. (9,840 ft.) in 11.75 min. (Comparative German figures.)

Pfalz D IIIa 5935/17 at a loaded weight of 911 kg. (2,004 lb.) made test climb to 5,000 m. (16,400 ft.) in 33 min. on 4th Feb. 1918.

Endurance: 2 to 2 $\frac{1}{2}$  hours.

Armament: Twin fixed Spandau machine guns firing forward, each with 500 rounds of ammunition.