

Specification
Fokker M.5K/MG (E.I)

Wingspan.....28 feet (8.53m)
 Length.....22 feet 2 inches (6.76 m)
 Height.....9 feet 6 inches (2.89 m)
 Empty Weight.....788 pounds (357.4 kg)
 Maximum Weight.....1,239 pounds (662 kg)

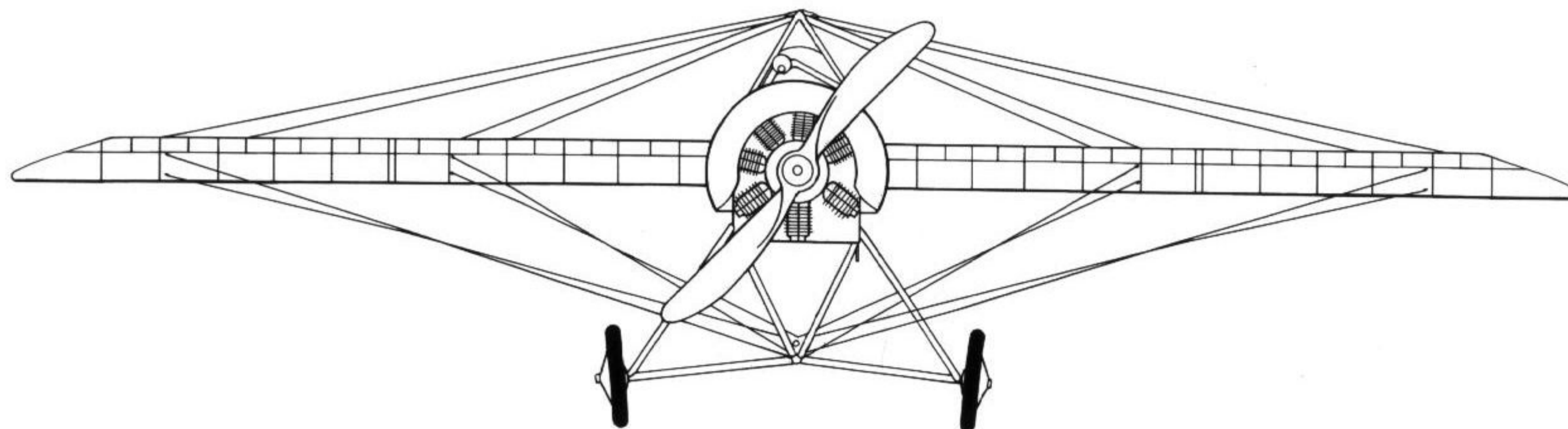
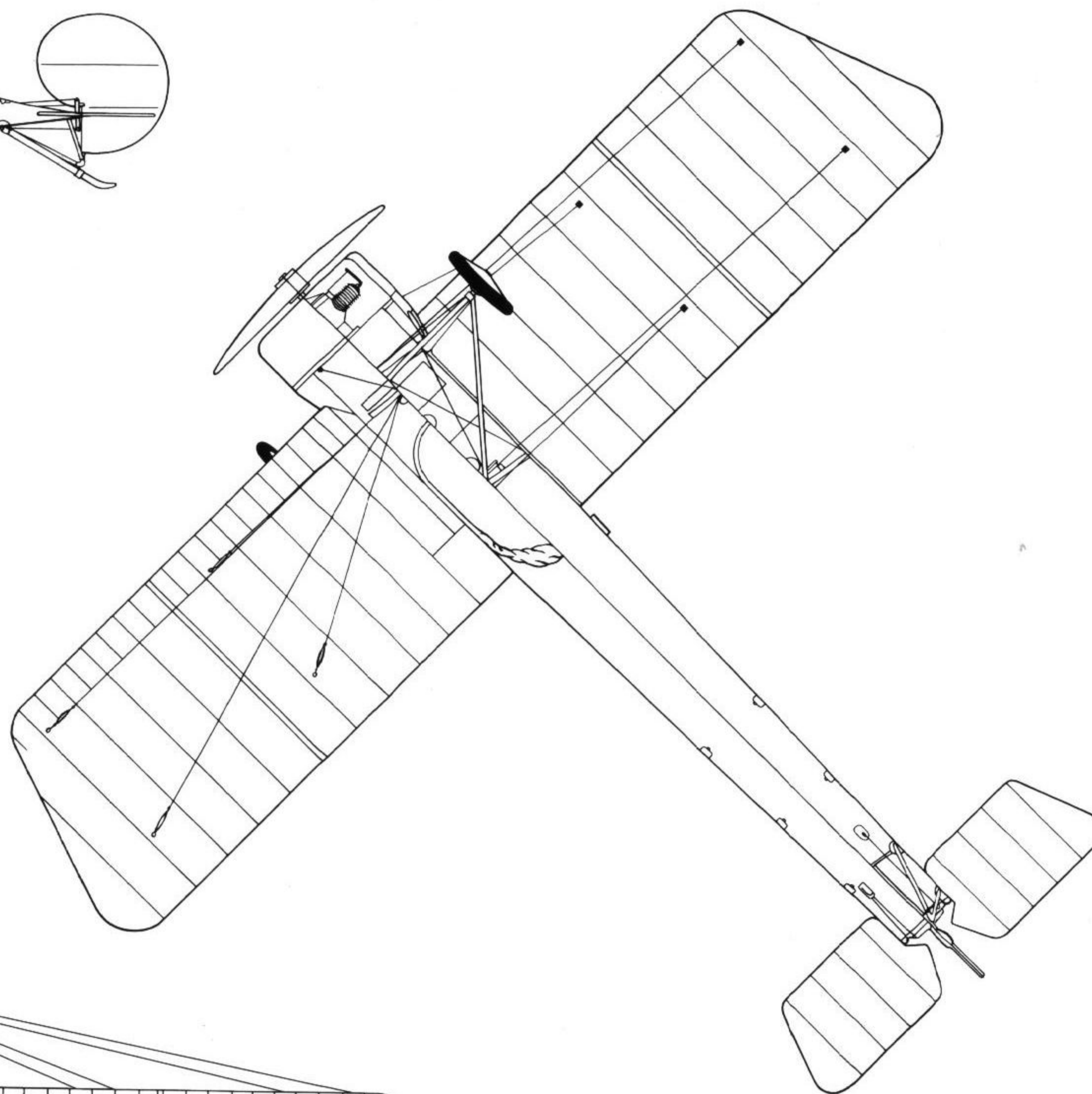
Powerplant.....One 80 hp Oberursel air-cooled rotary engine

Armament.....One forward firing 7.92MM machine gun

Speed.....82 mph (131,9 k/ph)

Service Ceiling.....10,000 feet (3,048 m)

Crew.....One





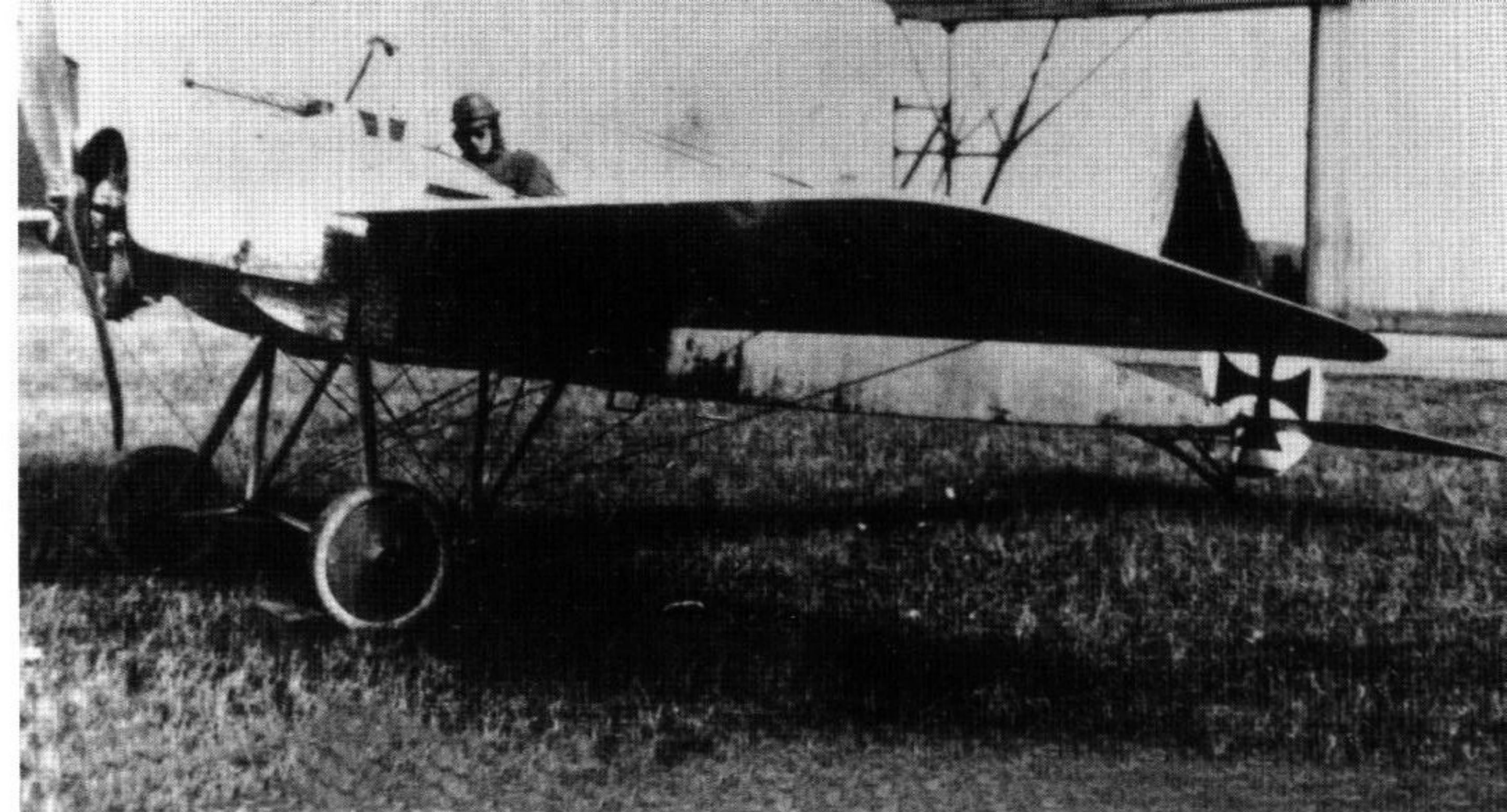
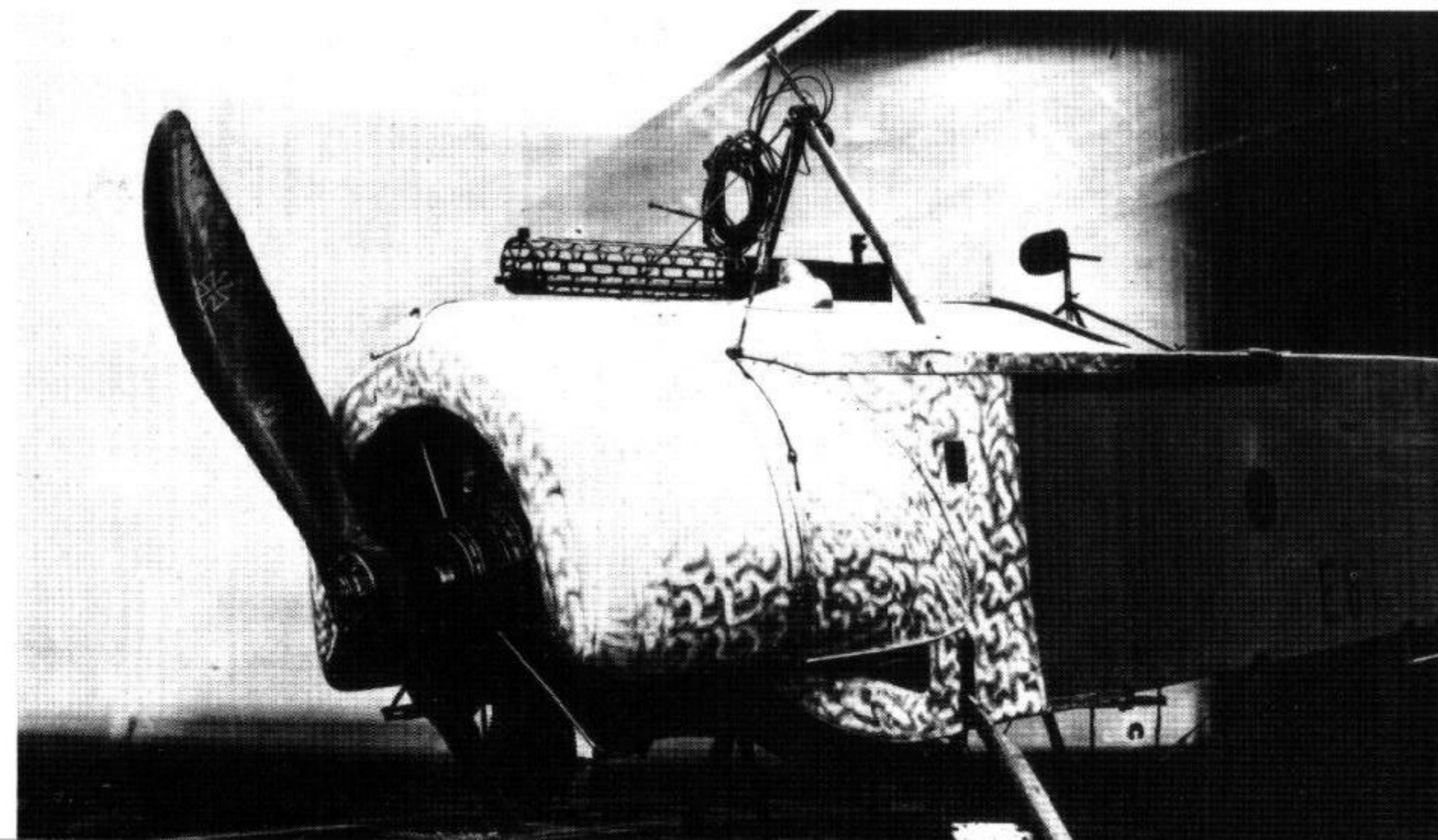
This M.5/MG (E.I) was purchased by the Austro-Hungarian Navy and given the side number A6. (Fokker)

the firing lip and the portion of the trigger bar being jiggled by the cam-follower. Spring-action kept the three pieces of the trigger bar married to one another until release of the trigger allowed the moveable section to move out of position, disconnecting the firing lip from the cam-action of the engine. In this way regardless of engine rpm, the gun could only fire when the propeller was out of the way. The engine essentially pulled the trigger of the machine gun.

Deterioration of the rate-of-fire of the machine gun was minimal. Henri Hegener states that the firing rate for the Maxim, both the '08 and '08/14, was 600 rounds per minute. A direct quote from Hiram Maxim, circa 1900, gives a firing rate of around 450 rounds per minute. A rough calculation yields a reduced firing rate from 600 to 526 rounds per minute, or a twelve percent decrease for a single-lobe firing cam. With two lobes, the reduction is only about 1.5 percent.

A discussion with the E.III Replica Project Leader at the San Diego Aerospace Museum revealed that a mechanical device was installed that relieved the constant vibration of the trig-

Fokker work number 206 was a very early M.5/MG (E.I) serial 8/15. It may have been the first to mount a standard 7.92MM 1908 Maxim LMG. (Fokker)



Oberleutnant Hesse in the cockpit of his Fokker E.I This is an early aircraft with no fuselage insignia or serial numbers. (Bowers)

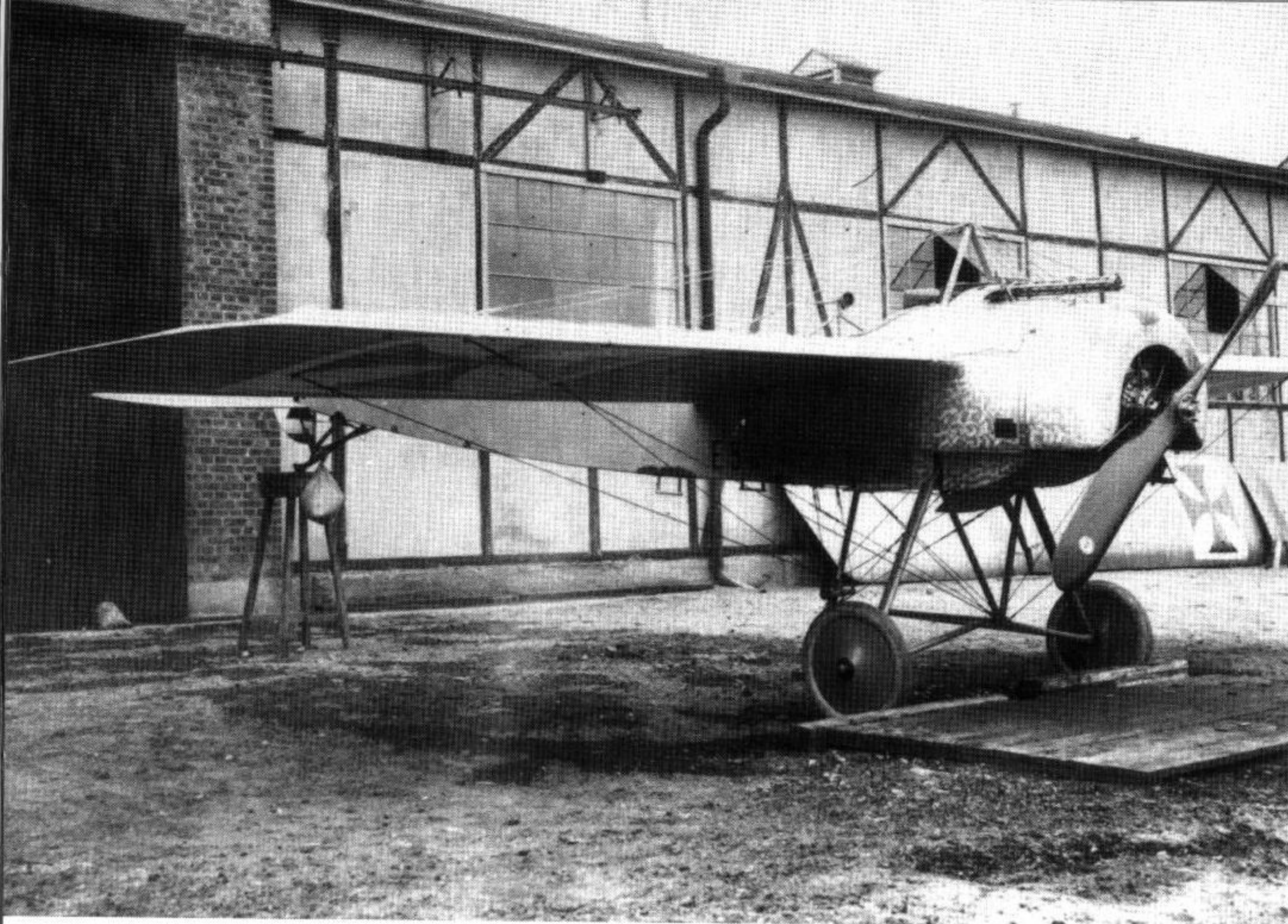
ger bar caused by the rotation of the engine. The Author has not seen any description of this capability in any historical literature. The death of one of Germany's most famous Aces, Max Immelman, is sometimes attributed to the failure of the synchronizer, which in turn caused his machine gun to demolish his propeller, sending him crashing to his death.

Thirty Fokker As were ordered by the German military to be armed with machine guns under the designation E.Is (Fokker M.5L/MG)

The military assigned several of the armed E.Is to Döberitz for pilot training. The remainder were assigned to airfields close to the front which were to be flown by experienced pilots. Lieutenant Kurt Wintgens was assigned E.I 2/15, in the Flanders area. Here, Wintgens downed his first enemy aircraft on 1 July 1915. In mid-July of 1915, Fokker, accompanying deliveries of the newly armed E-Is, arrived at Douai, France where two M.5L/MGs, E.Is 1/15 and 3/15, had been assigned. The airfield was the station for *Flieger Abteilung 62*. These two aircraft were assigned to Lieutenants Max Immelman and Oswald Boelcke. Max Immelman had been assigned to *Flieger Abteilung 62* when it formed at Döberitz in May, of 1915. Prior to that time he had flown for artillery spotters (observers) from the German base at Rethel in the Aisne valley.

The 62nd Flying Section was primarily outfitted with LVG two-seater biplanes. The LVG was one of the first German aircraft to mount a Parabellum machine gun for use by the observer. This air group flew observation support for the German forces fighting in that area. Apparently, tenure in the Air Service and competence were the reasons that Immelman was assigned to one of the first E.Is armed with a machine gun. Oswald Boelcke, assigned to *Flieger Abteilung 62* at the same time as Immelman, had also established himself with the group as a competent, experienced pilot.

Both Immelman, later known as "The Eagle of Lille," and Boelcke distinguished themselves above and beyond the call of duty. Immelman and Boelcke earned the highest honor for German airmen, the "*Ordre Pour le Merite*" or the "Blue Max," given for eight victories in the air. Immelman went on to down eighteen allied aircraft before being killed on 18 June 1916, in a crash caused by major aircraft structural failure. At the time of his death he was fly-



An M.5K/MG (E.1) at the factory with a 7.92mm 08/14 Parabellum machine gun mounted on the cowling. (Grosz)

ing an E.III. Later, on 28 October 1916, Oswald Boelcke suffered a collision with one of his newer pilots (he was then in command of **Jagdstaffel 2** and had forty victories). He crashed near the Somme and was killed. Neither pilot had died as a victim of Allied airmen.

A truck with an M.5K.MG (E.1) in tow ready for delivery to a front line unit. This was a common method of delivery for new production aircraft. (Grosz)



The longer "bathtub" cockpit of the M.5K/MG (E.1) is quite evident. This aircraft was serial 46/15. (Bosers)

Armed and unarmed, Fokker E.Is saw service in the German Military Air Service until 1917. They were phased out of combat and used behind the lines and at military flying schools until they were completely displaced by more advanced aircraft. According to J. M. Bruce, approximately sixty-five E.Is and E.IIs were built, no distinction made between the two types, while according to P.M. Grosz, sixty-eight E.Is and E.IIs were accepted for delivery by the German Air Service. The overall output of the Fokker factory went four ways throughout the war: the German Army, the German Navy, the Austro-Hungarian Empire and Turkey, with by far the most aircraft going to the German Army.

Lieutenant Von Althaus in the cockpit of an armed M.5L (E.1). This aircraft was reportedly also flown by Oswald Boelcke. (Bowers)



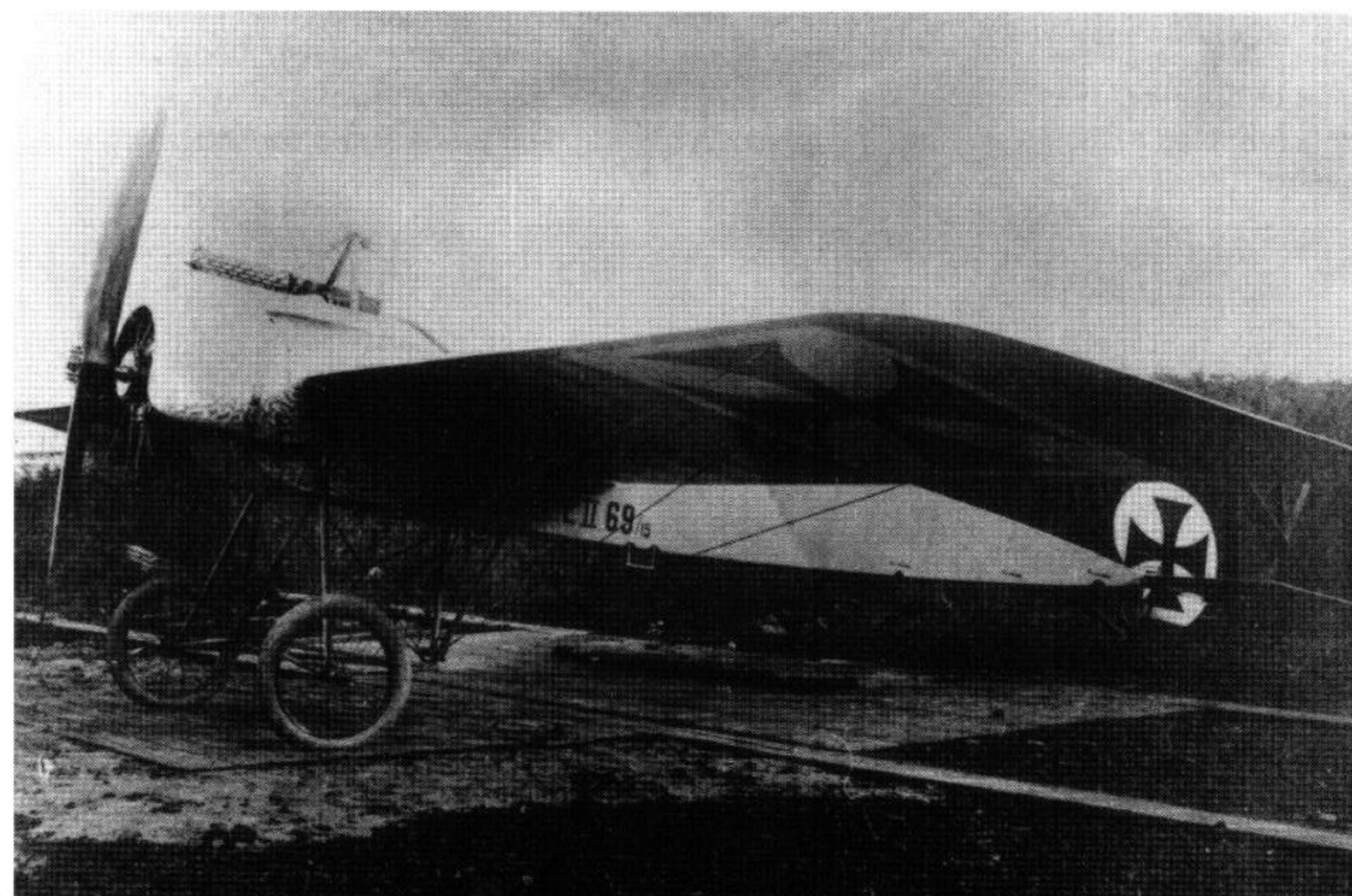
Fokker M.14 (Eindecker II)

Historian P.M. Grosz estimates that only twenty-four to thirty-six Fokker E.IIs were actually built! Even more astounding, just two months after the first victories with the E.I, the Fokker E.III appeared in service! There are very good reasons for this rapid introduction of new variants of the original Fokker monoplane. First and foremost, the role of this aircraft changed from that of observation and reconnaissance to that of offensive fighter. The phase-in of the E.II began when the 100 hp nine-cylinder Oberursel rotary engine became available. The nearly thirty-percent increase in engine weight required that the fuselage be lengthened to maintain the aerodynamic C/G (center of gravity). The diameter of the cowling was increased about three to 4 inches (eight to ten centimeters) to accommodate the larger engine. The fuselage formers and longerons may have been made heavier, but the Author has no indication that this actually took place.

The wingspan remained roughly the same as that of the M.5L. J. M. Bruce states that the span for the E.II was shortened from 31.5 feet (9.6 meters-M.5L) to 29.5 feet (9 meters) and lists the wing area as 45.9 square feet (14 square meters). Another source, Heiri Hegener states the wing span of the E.II was 31.98 feet (9.75 meters) and also states that the fuselage was lengthened about 1.64 feet (.5 meter) so that the overall length of the Fokker E.II was about 23.9 feet (7.3 meters).

Apparently the Fokker factory was in trouble during June of 1915. The "monkey-wrench in the works" was the machine gun. Fokker had the E.I in service, and the German military was taking all of these he could produce. Kreuzer and the design team had a modified version of the E.I, the E.II, just off the drawing boards and going into production. This variant would accommodate the bigger and supposedly more reliable 100 hp Oberursel rotary engine (engine problems had plagued the E.I from the start). With no former knowledge of what changes the

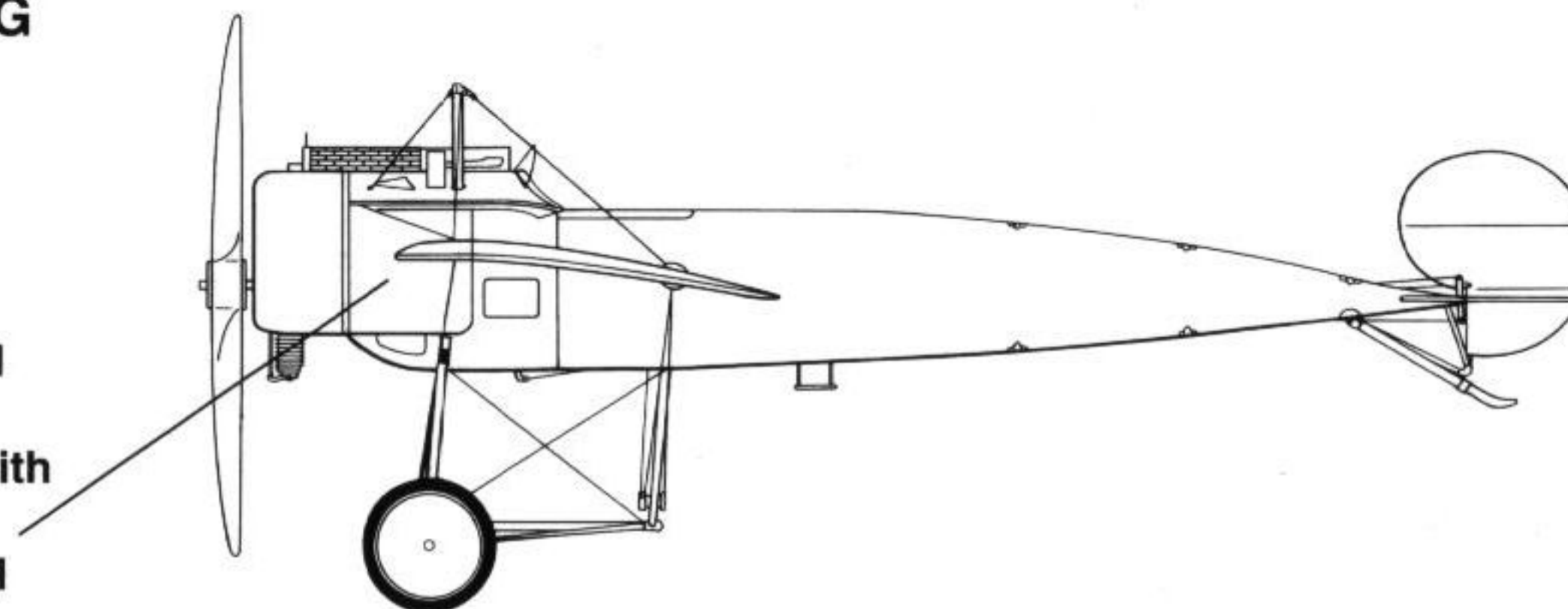
A M.14 (E.II 69/15) parked on wooden planking at the factory field. The small lettering on the leather patches along the fuselage says "Lift Here" in German. The aircraft has a modified cowling, indicating that it was probably undergoing conversion to E. III standards. (Bowers)



Fuselage Development

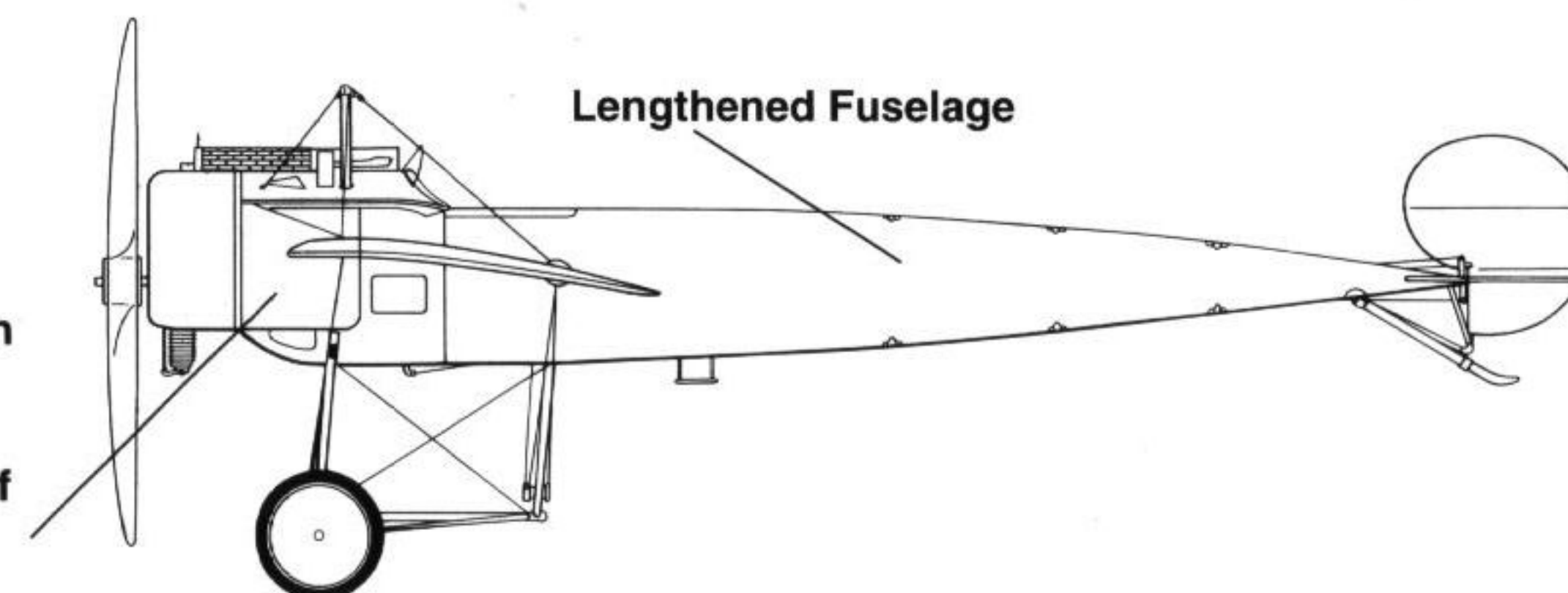
**M.5K/MG
(E.I)**

**80 HP
Oberursel
Rotary
Engine With
Rounded
Side Cowl**

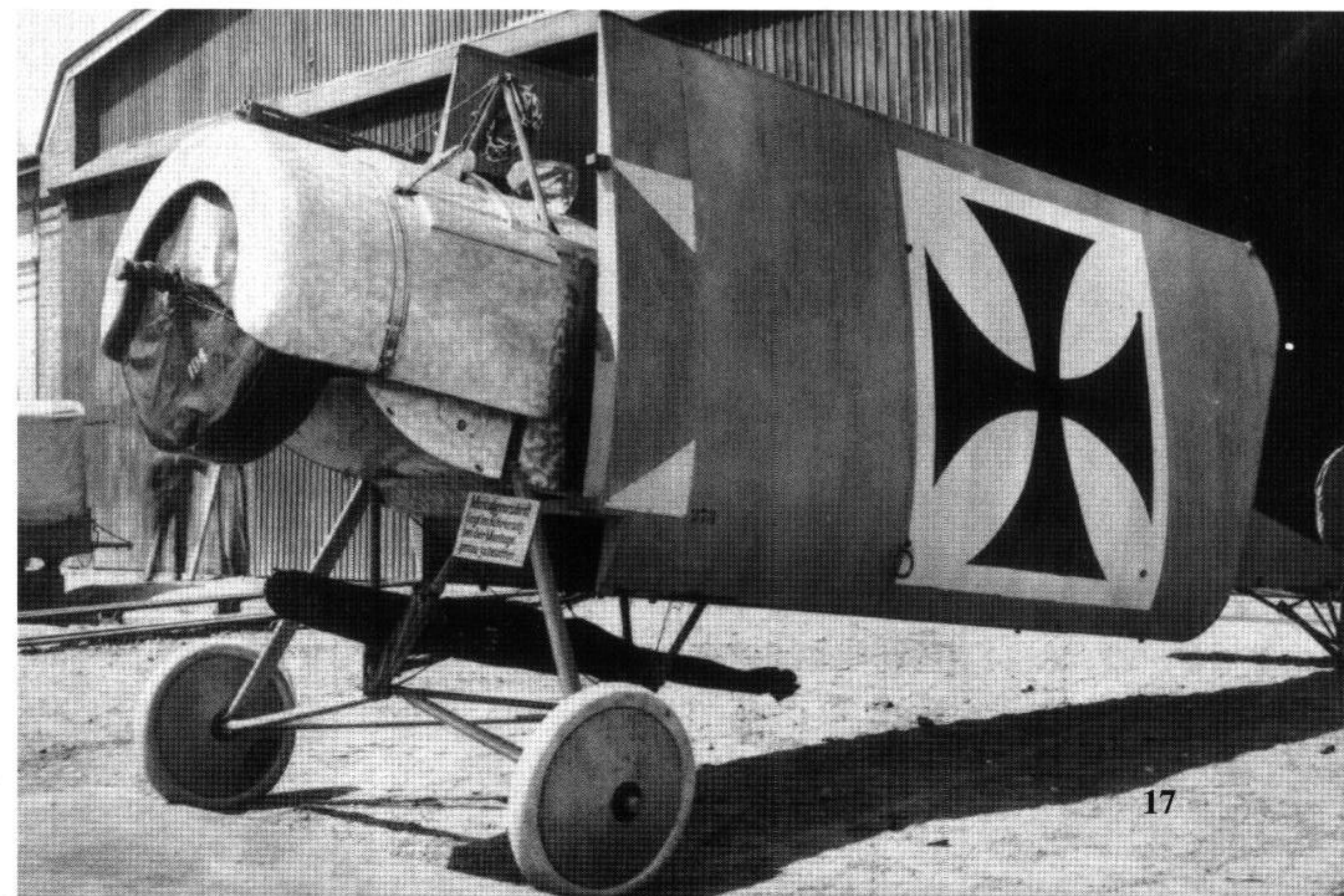


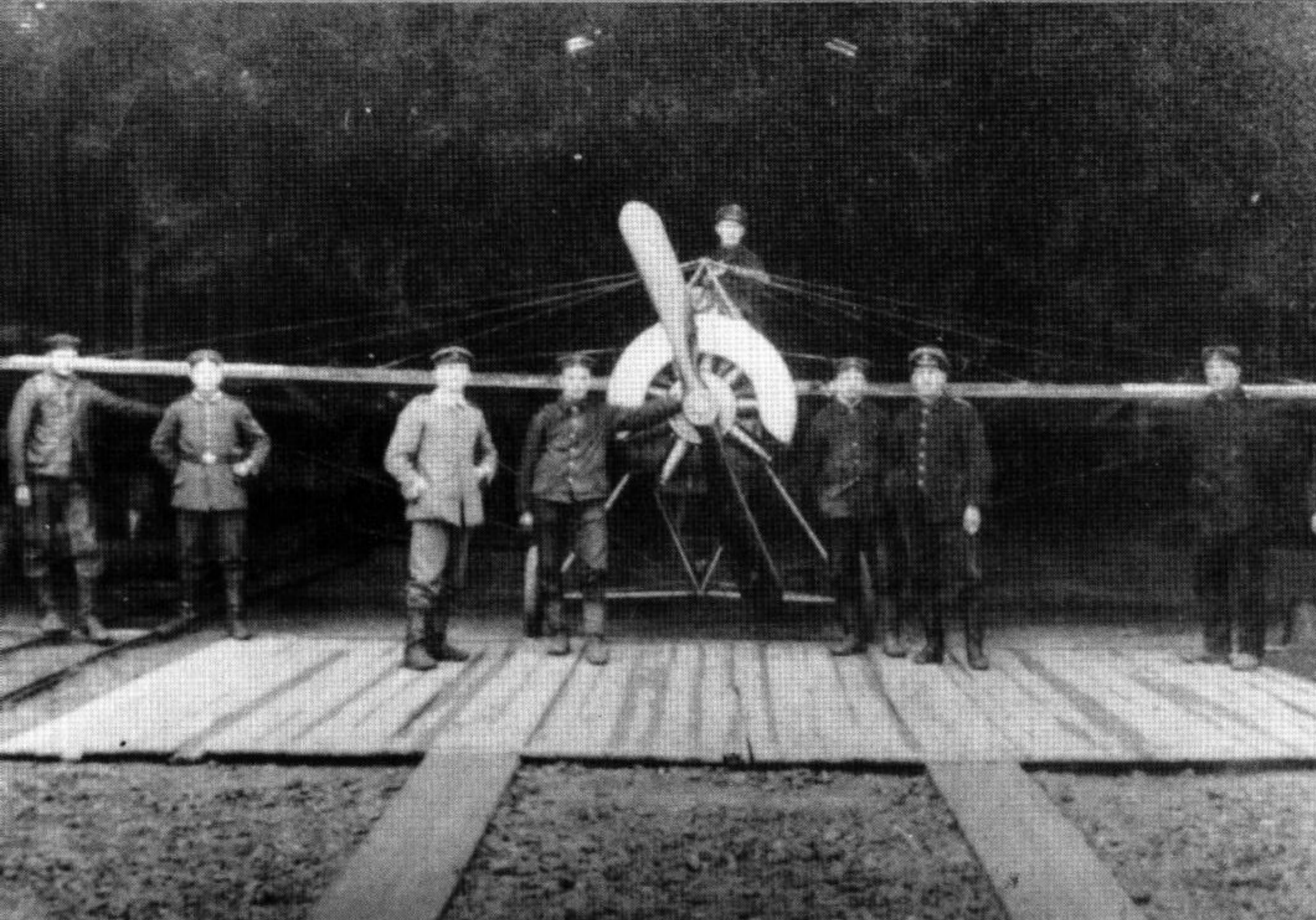
**M.14
(E.II)**

**100 HP
Oberursel
Rotary
Engine With
Increased
Diameter
Squared Off
Side Cowl**



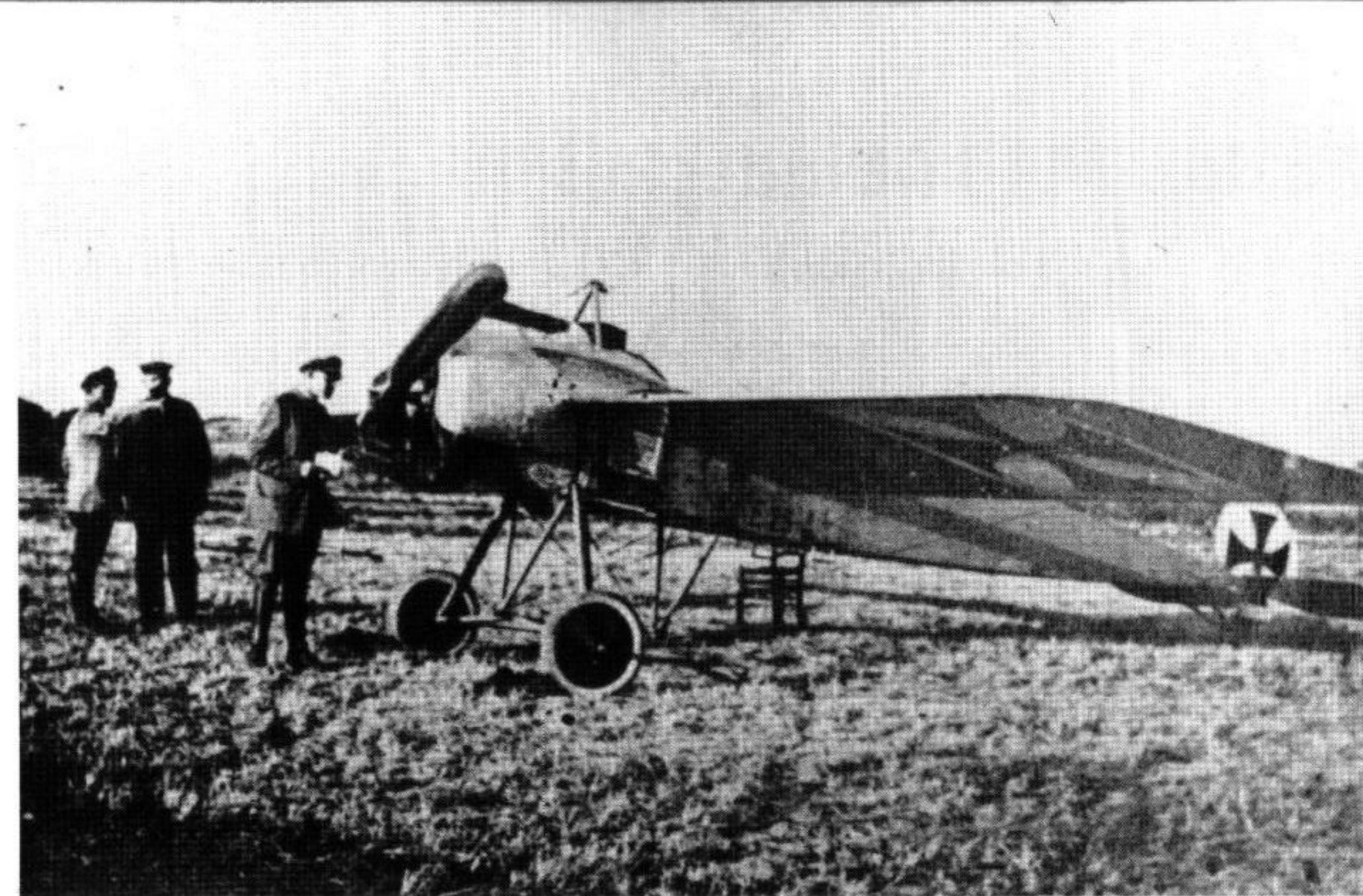
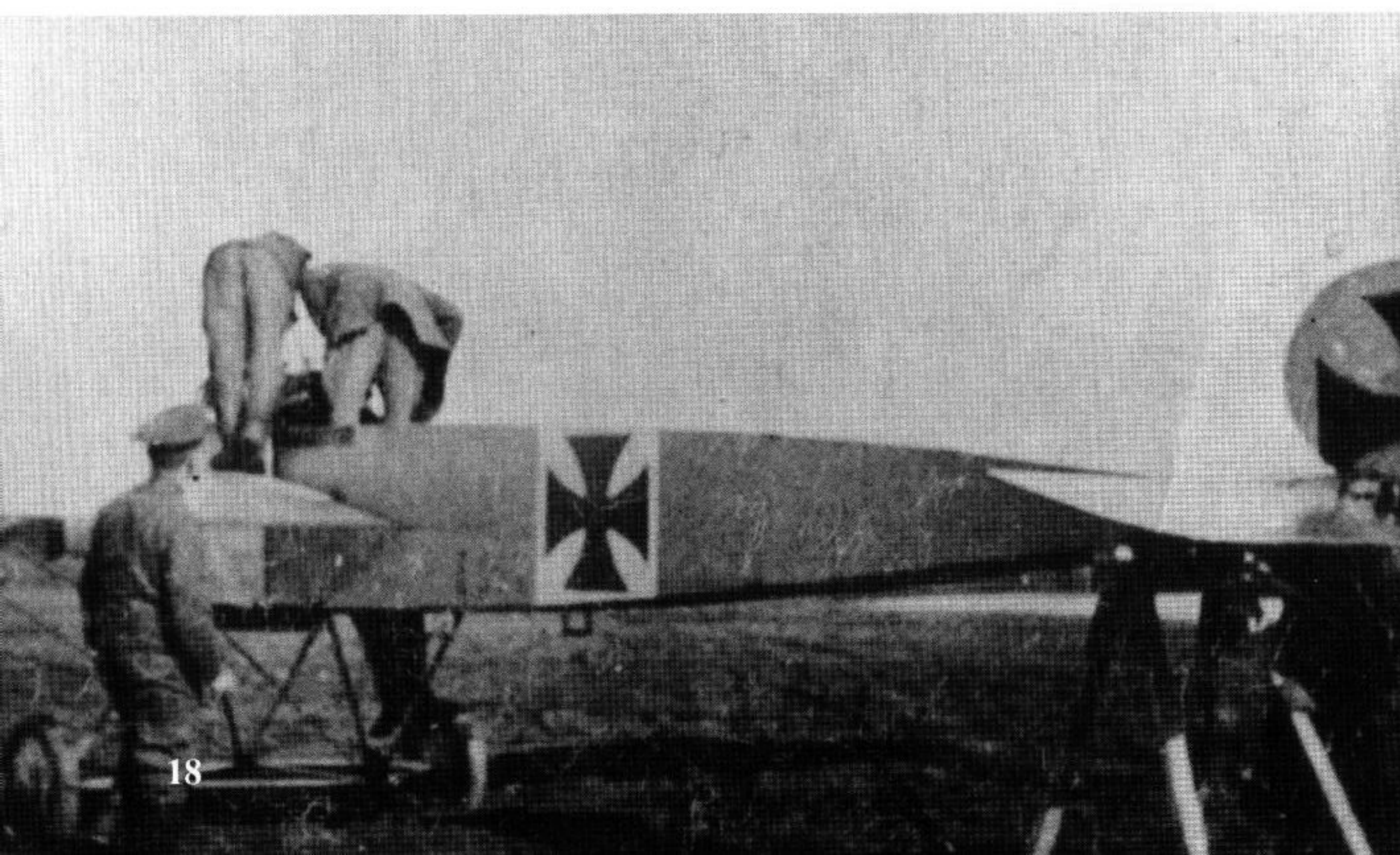
A Fokker M.14 (E.II) at the factory, ready for rail shipment to the front. The sign states that reassembly instructions are on the seat and that they are to be followed precisely. (Grosz)





A Fokker E.II (M.14) is readied for rollout from the Fokker factory. It is believed that this may have been the last E. II built. (Bowers)

machine gun and the ammunition would require, Fokker and his team had been rolling along with scheduled improvements as they were required, redesigning for the 9-cylinder, 100-hp engine. (Note: if Fokker had already developed a synchronizer just waiting to be installed, as **German ground crewmen make adjustment to a Fokker E. II (M.14), serial 35/15 assigned to Flieger Abteilung 14 on the Western Front. (Bowers)**



Hauptmann Von Buttlar inspects Fokker E.II 25/15. Von Buttlar had earlier conducted extensive tests of the E.I (serial 2/15) delivered by Lieutenant Wintgens to Flanders. (Bowers)

some have suggested, the E.III and not the E.II would have been next into production).

On the E.I and E.II, the gasoline and oil tanks were nestled under the top cowling and inside the fuselage, forward of the pilot. Installation of a machine gun directly over these tanks required that space under the machine gun be allocated for ammunition storage. The E.II was not designed for this. Most of the photographs of the right front side of the fuselage of the E.Is and E.IIs show several different ways that ammunition belts were strung up from the area below the pilot's legs and under the rudder cables. The empty belts were channeled down the left side to an area not in the way of the pilot's legs or the live ammunition.

The reason that the E.III came out so soon after the E.II was really quite simple: a large gasoline tank, about one hundred liters, was installed in the E.II directly behind the pilot. This made room under the cowl for an ammunition magazine and spent ammunition-belt box in front of the pilot. The cockpit was designed to be that of a true *Einsitzer* (single seater) and **This modified Fokker E.II had a fully circular cowling and an oil sump for collecting used castrol. (Bowers)**



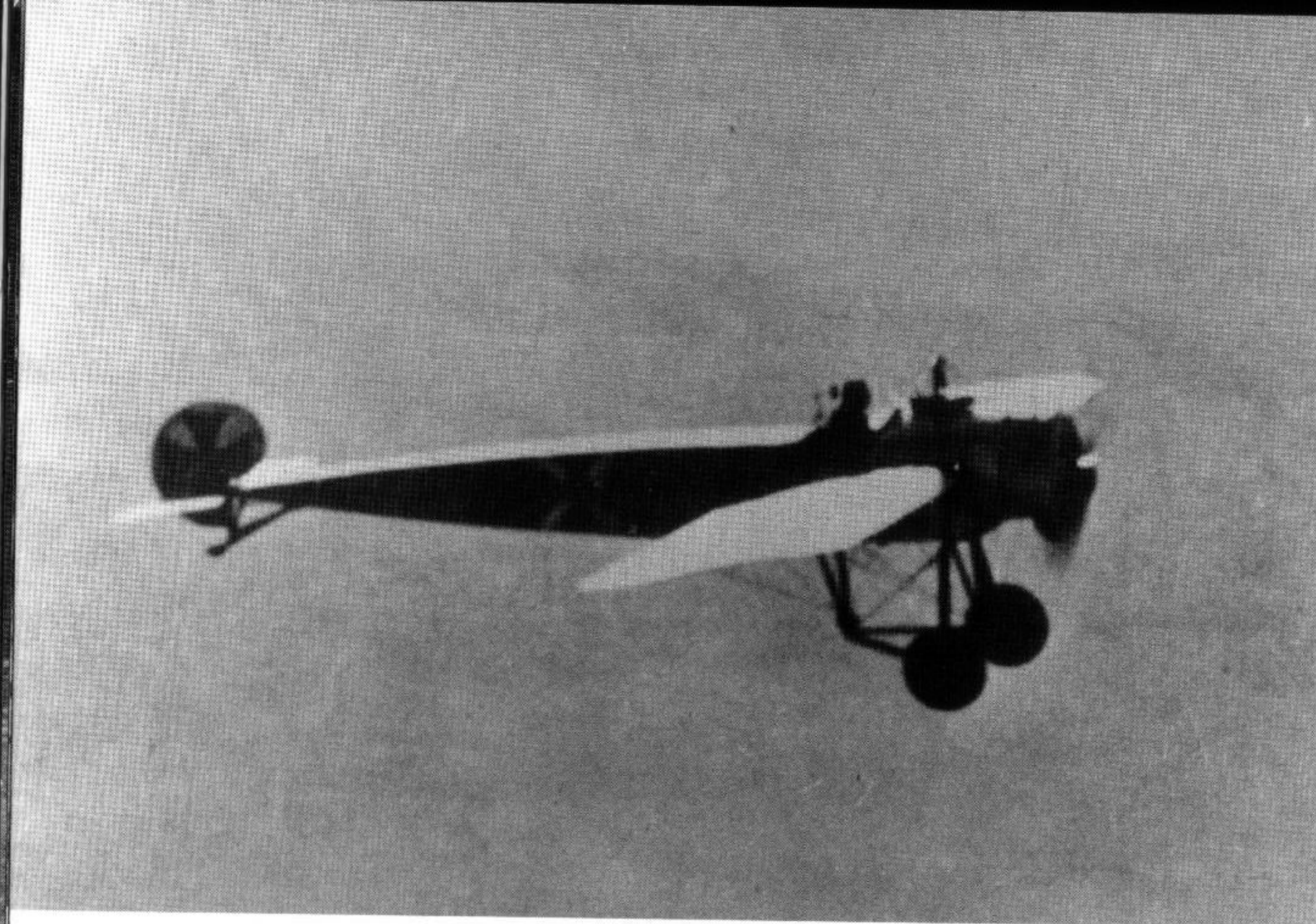


M.14 (E.II) 69/15 parked in the open near the Fokker factory. This may have been the last Fokker E.II to be produced. (R. R. Martin)

Lieutenant Ernest Freiherr von Althaus, of *Flieger Abteilung 23* poses along side a Fokker M.14 (E.II) fitted with an adjustable headrest. (Nowarra)

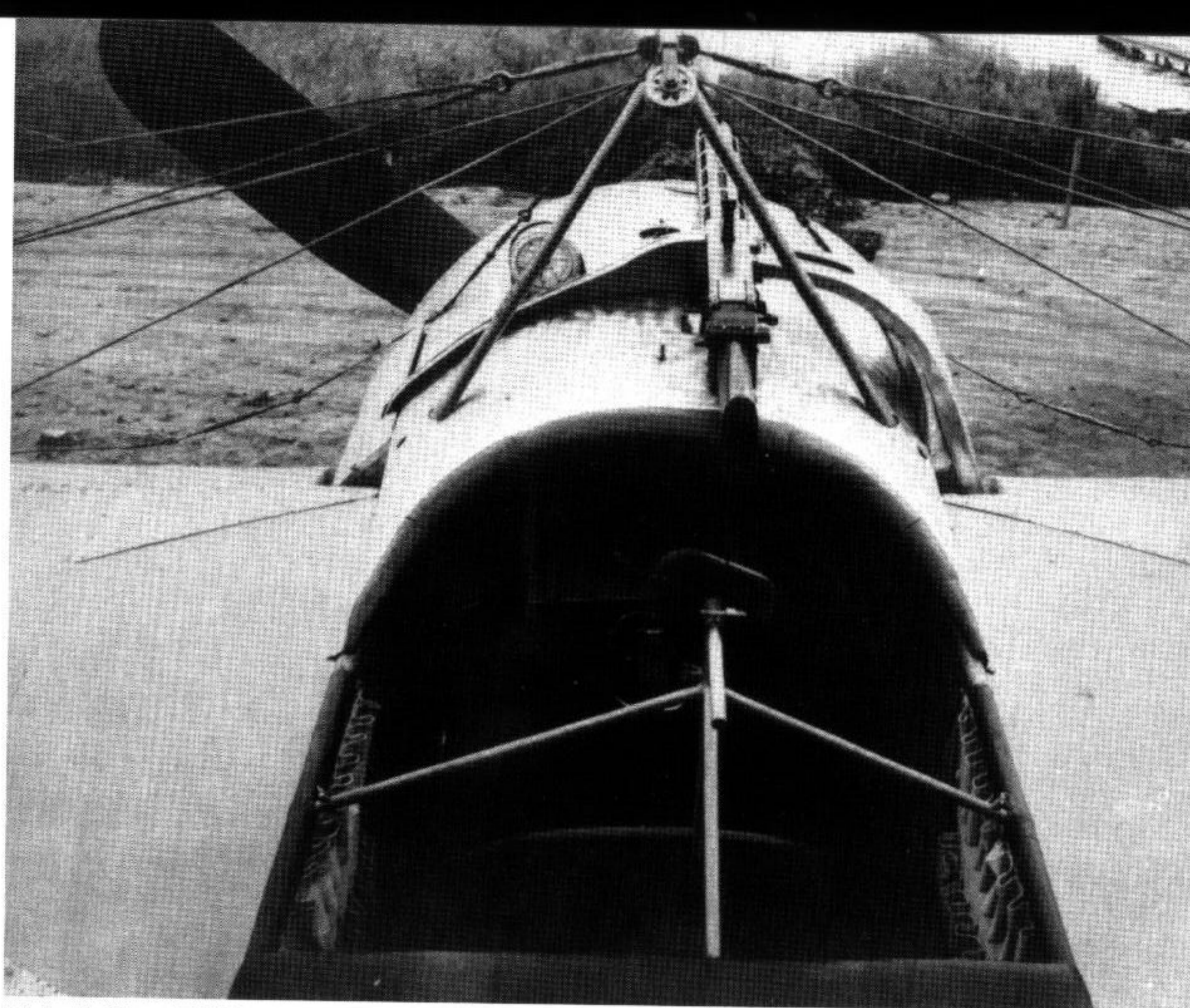


Corporal Boehme in the cockpit of a Fokker M.14 (E.II) serial 43/15. The wooden propeller has a German cross in the blade. (Bowers)



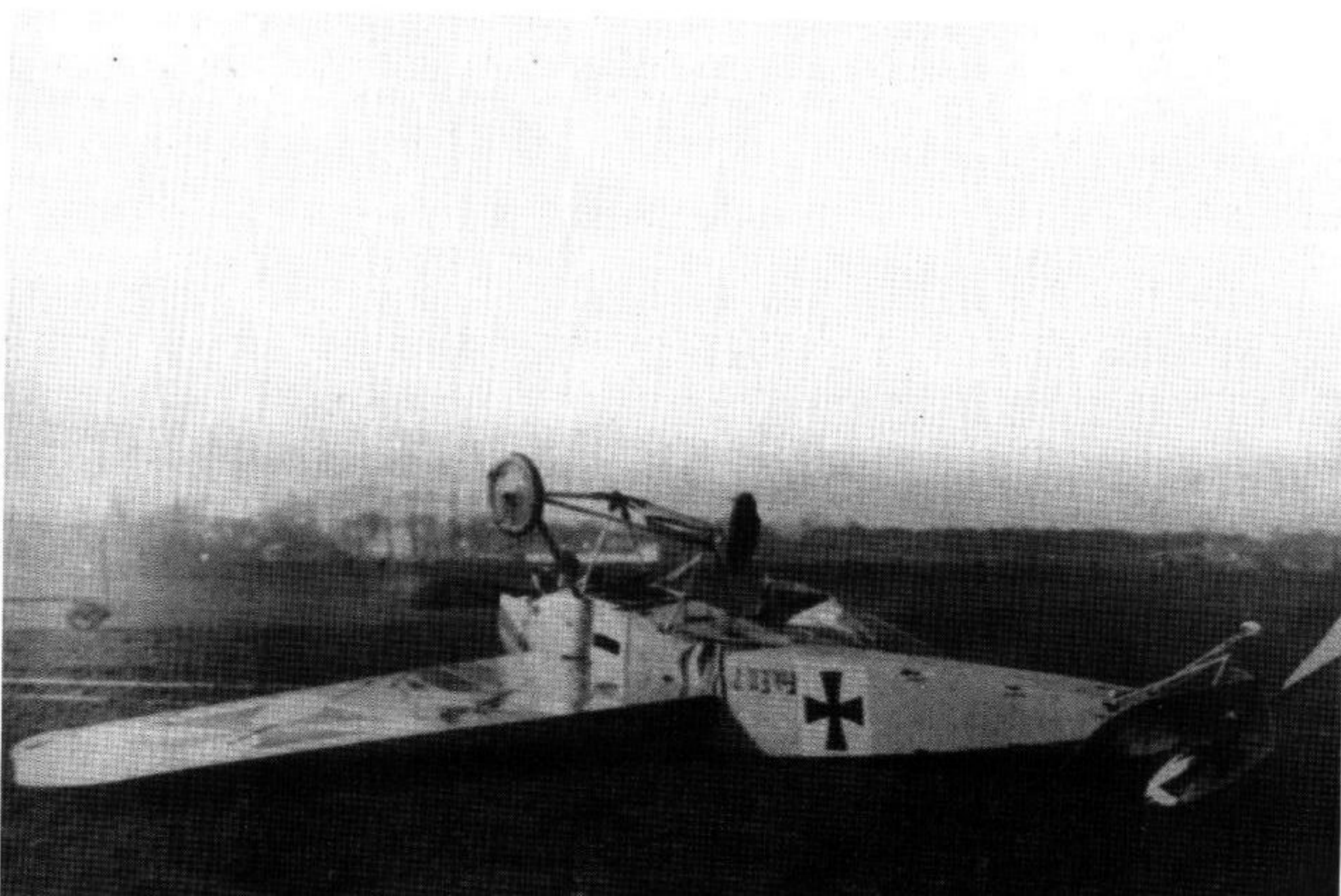
Lieutenant Kurt Wintgens in flight with his Fokker M.14 (E.II) There is an adjustable headrest visible just behind the pilots head. (Bowers)

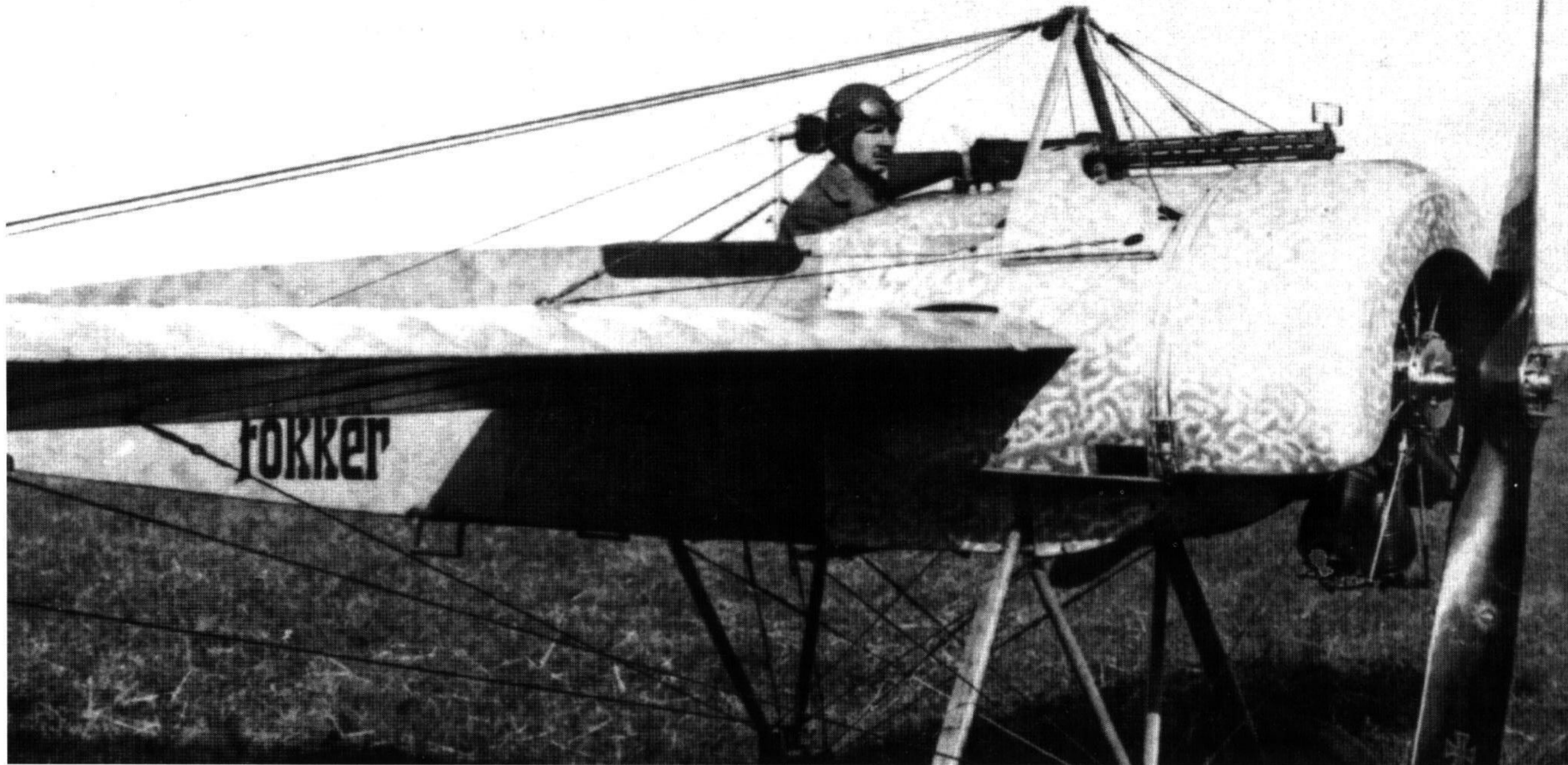
This Fokker M.14 E.II 35/15 was being wheeled away by its ground crew for maintenance at a forward air field. (Bowers)



This Fokker E.II has no windshield fitted. It was armed with a 7.92MM 08/14 Parabellum machine gun and had an adjustable head rest for the pilot. (Fokker)

Fokker E.M.14 (E.II) 7/15 flipped over onto its back after a crash landing at a German front line airfield. The aircraft has broken its back just behind the cockpit and the tail group had been broken at the rudder hinge line.





Tony Fokker at the controls of what appears to be Work Number 206, which was personalized for Fokker with his name on the fuselage in Black. (Grosz)

only a small remnant of the original gasoline tank was left intact under the cowl. This tank now held about twenty-two liters for reserve. This arrangement seemed to work so well that the few E.IIs in service were brought back to the factory to have these changes retrofitted, causing a great deal of confusion regarding the reclassification of a number of E.IIs as E.IIIs. This also supports the conclusion that there was very little difference between the E.II and the E.III other than the gasoline tank and ammunition storage arrangements. In fact, there was no change in the military designation of M.14, although the Type-designation changed from E.II to E.III.

(Right) Although this aircraft carries a E.I designation, it has been outfitted with conversion parts used to convert E. IIs to E.III standards. The work number, 309, is a much later number than used on any E.I and the aircraft is armed with a 08 Standard machine gun. (Bowers)



The Fokker M.14V (Eindecker E.III)

Correspondence to the Author from H.A. Somberg, Fokker VFW International, Holland, in October of 1973, revealed that 268 Fokker E.III's were built, according to factory records in his possession. Historian P. M. Grosz also quotes this exact number along with thirty-two additional units being manufactured for other than the German Army.

The Fokker E.III achieved operational status by September 1915, just a few months after the Fokker E.II entered service. There was very little difference between the E.II and E.III, other than adding a new gasoline tank behind the pilot and eliminating most of the gasoline tank under the front cowling, improved ammunition storage for the machine gun and storage for spent belts. During the production life of the E.III, about twelve months, the wing span of the E.III increased to about 32.8 feet (10 meters) from the 31.4 feet (9.6 meters) of the E.II. It is uncertain if this change in wingspan occurred gradually or as a specific modification.

The success of the E.III in the air as a fighter is evidenced by the uproar in England over the significant losses in Allied aircraft that this "menace of the air" was causing. Newspapers claimed the Fokker Es were the "Fokker Scourge." The British parliament exerted great pressure on British aircraft manufacturers to come up with a way of ending the high casualty rates suffered by both the British and French squadrons.

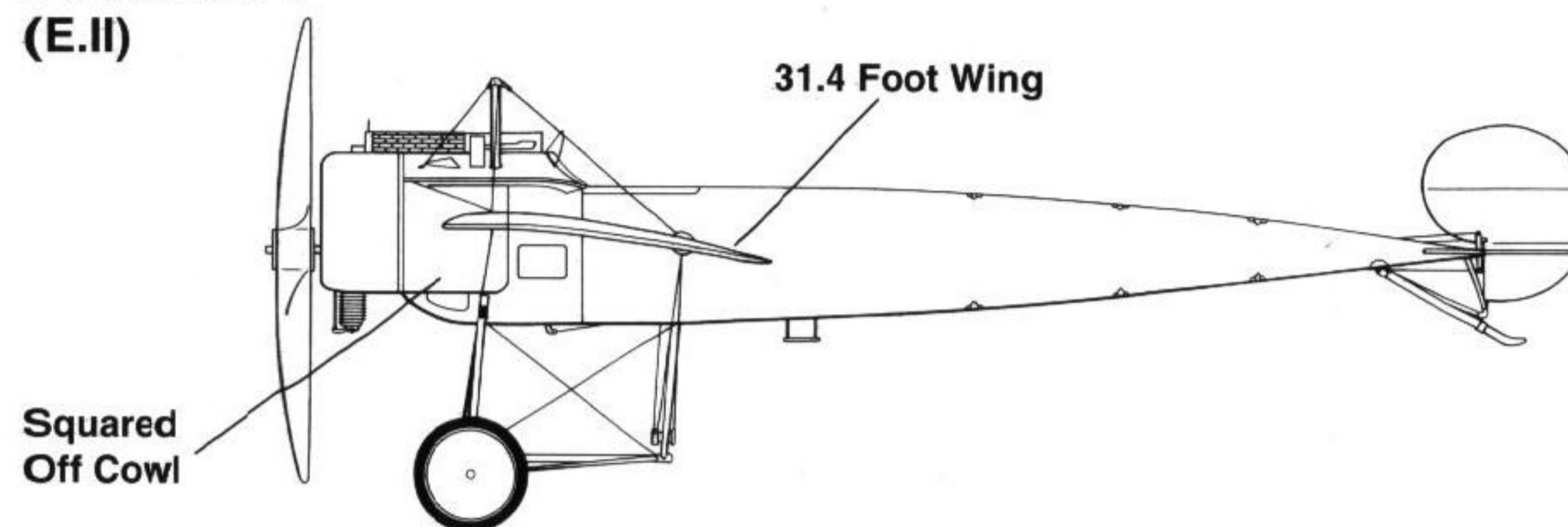
Not only were the Fokkers deployed to an ever-increasing number of flying sections along the fronts, but German air tactics had matured to the point that KEK (*Kampf Einsitzer Kommando*) groups began forming. The flying officer for the German Fifth Army initiated the KEK concept where fighter (Eindecker) aircraft from several *Flieger Abteilungen* could be called up to attack Allied aircraft over the front during the battle of the Somme River at Verdun. Initially *KEK Nord* (north), *KEK Sud* (south) and *KEK 3* led by Boelcke, were

Anthony Fokker poses beside a Fokker Eindecker. The E.III was the most widely produced variant of the Eindecker series with over 2160 being produced. (Bowers)

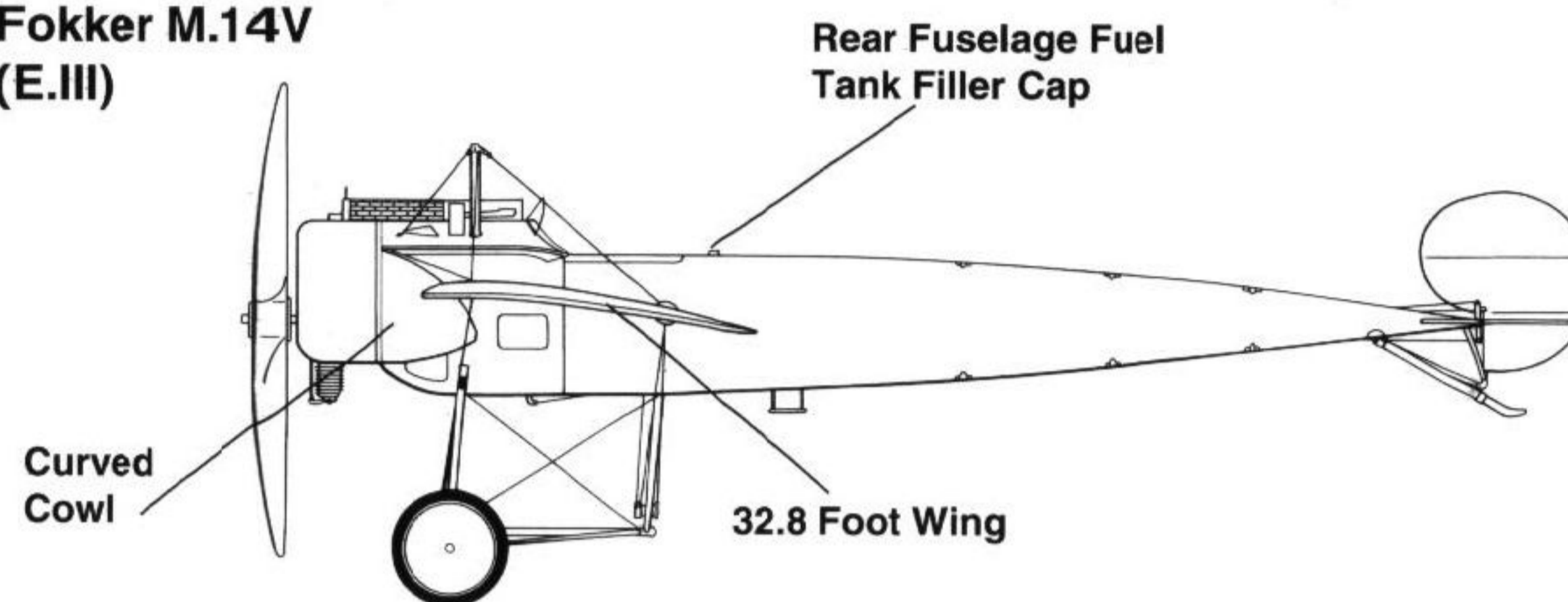


Development

Fokker M.14 (E.II)



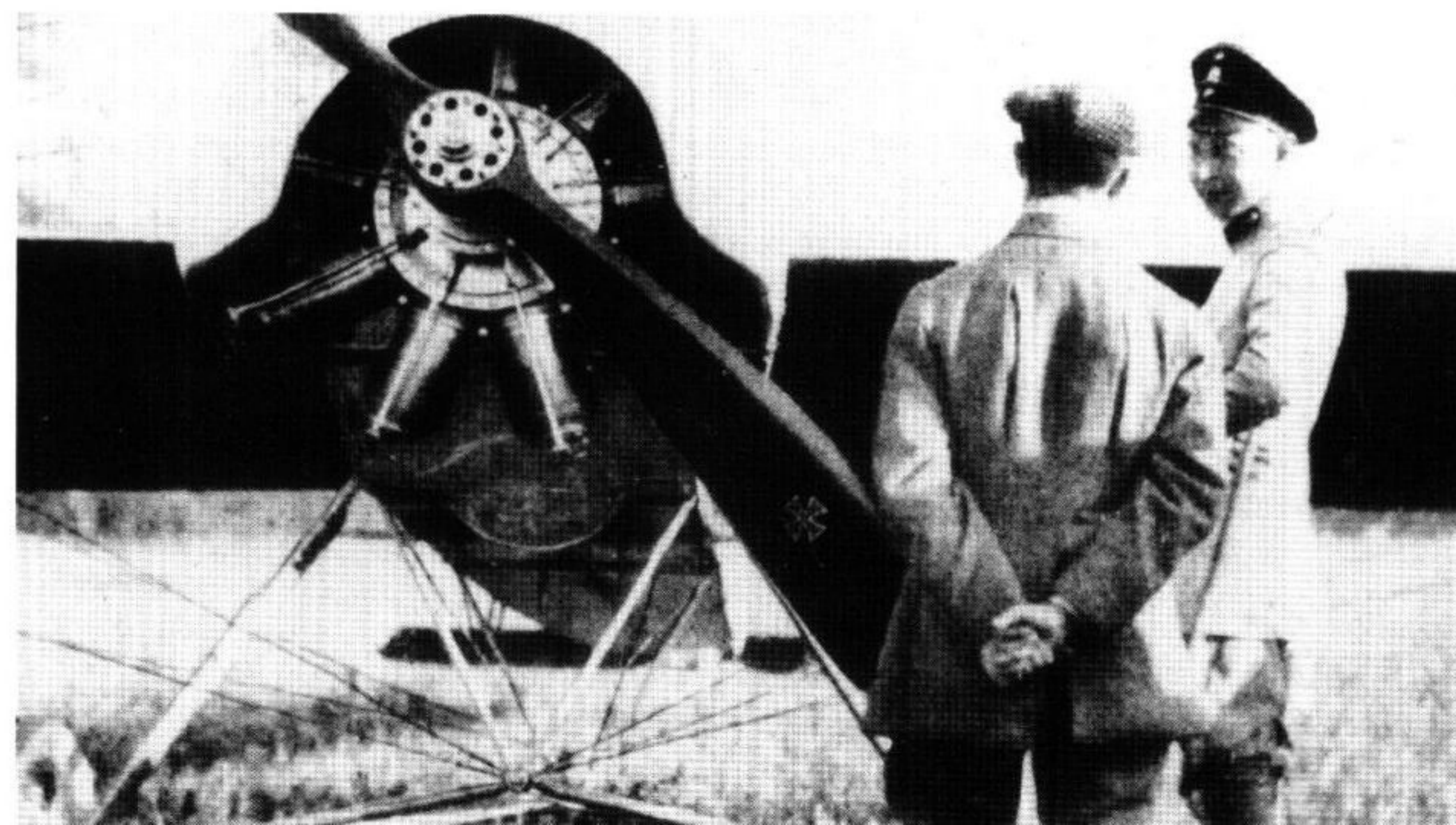
Fokker M.14V (E.III)

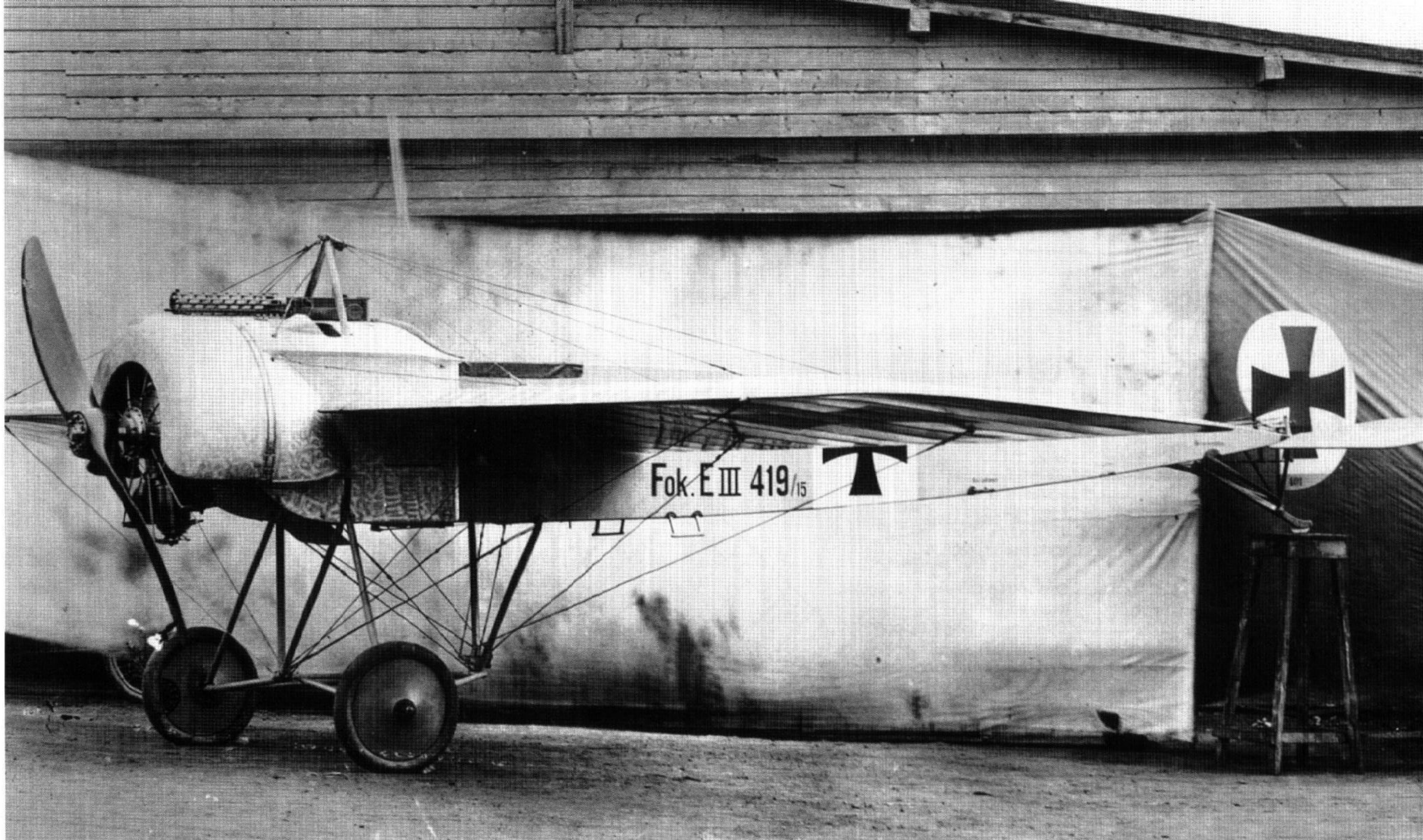


formed. These were followed by at least three additional KEKs a short time later.

A second organizational step was taken by the German Air Service a short time later that totally changed air force organizations. Oswald Boelcke had been sent to Turkey at the

The Bavarian Kronprinz discusses the merits of a Fokker E.III with Tony Fokker. This aircraft has an oil sump under the lower cowling. (Author)





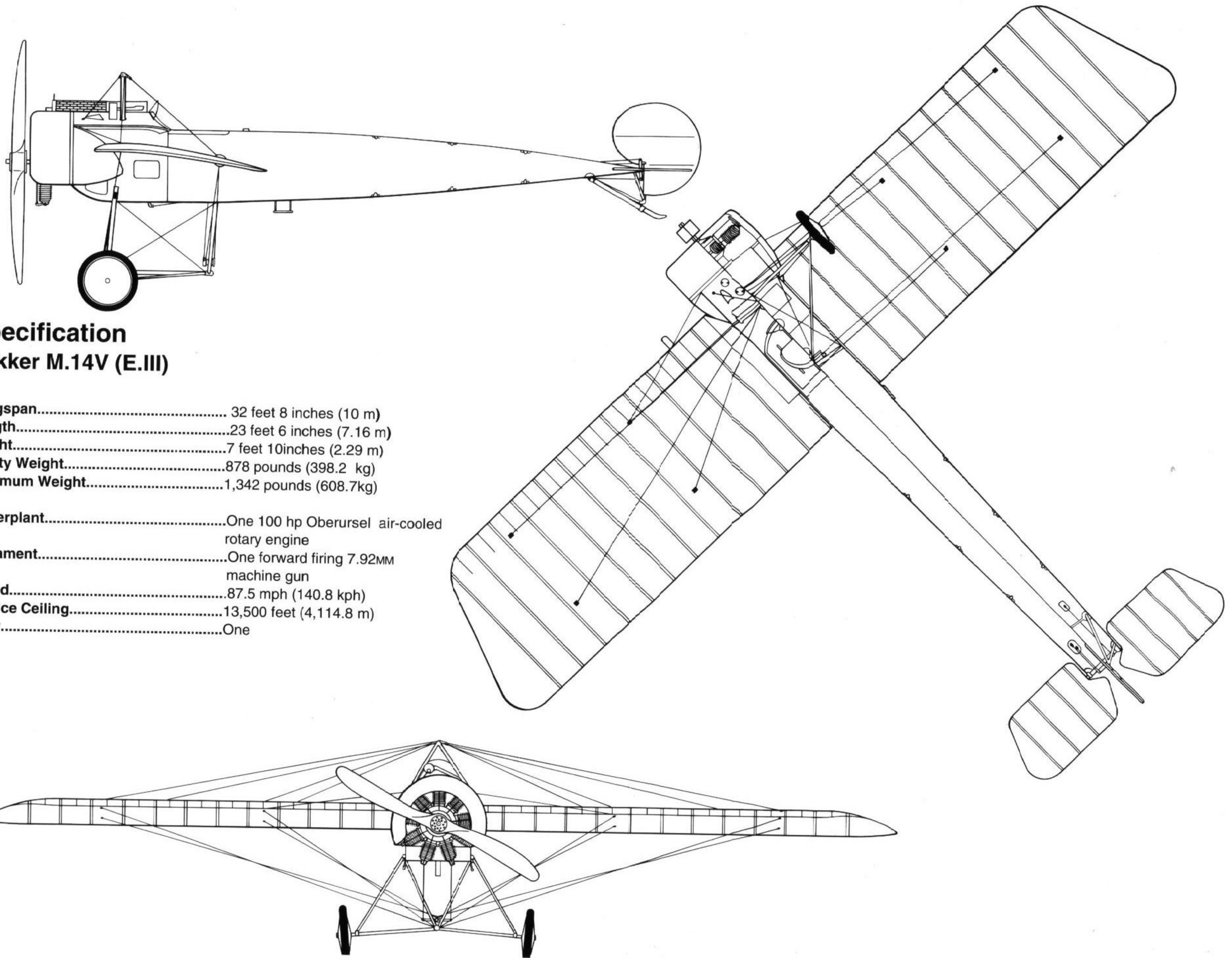
A Fokker M.14V (E.III, 419/15) at the Fokker factory during 1915. The aircraft was powered by a 100 hp Oberursel rotary engine and armed with a single 7.92mm 08 machine gun. (Fokker)

request of German royalty to keep him from being killed, since he was the highest ranking Ace in the German Air Service and made an excellent morale booster for the German public. The German high command called him back from Turkey for a series of conferences to formulate the best methods for the organization of fighter aircraft. The concept of the *Jagdstaffeln* was born from these conferences.

Jagdstaffeln, or *Jastas* (hunting groups), were formed with fighters whose only role was to

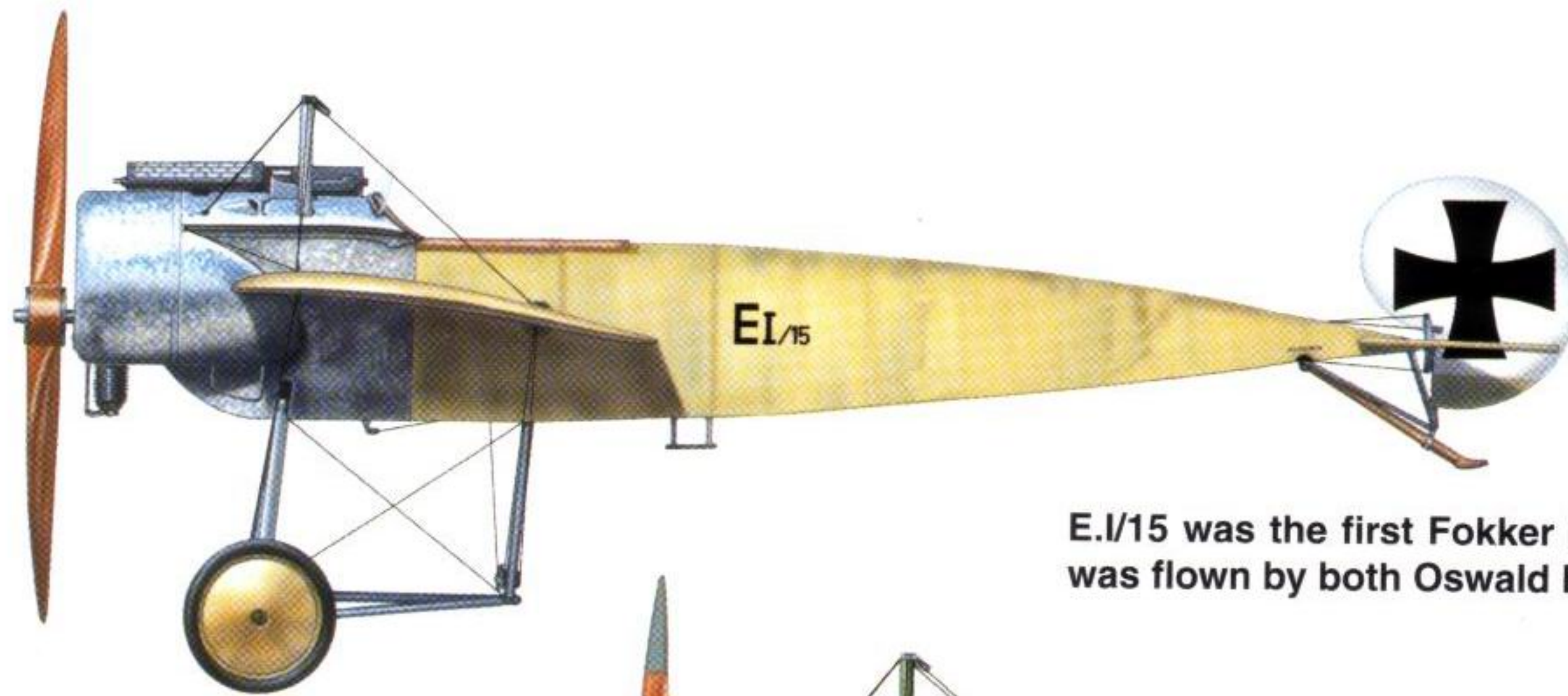
attack, in formation, any Allied aircraft found over the front lines. These *Jastas* flew just behind the German lines and attacked any Allied aircraft seen flying over or near the lines. It should be noted that Oswald Boelcke had been selected to form *Jasta 2*; which, after his death, would be commanded by the "Red Baron," Baron Manfred Von Richthofen (*Jasta 1* existed only on paper).

Both the French and the British came up with answers to the Fokker menace, neither involving synchronized machine guns. Manufactured by the French and first put into service by the British, was the Nieuport 11. This aircraft went into service following the Nieuport 10, a two-seater observation craft. There were vast differences, however, between these aircraft. The

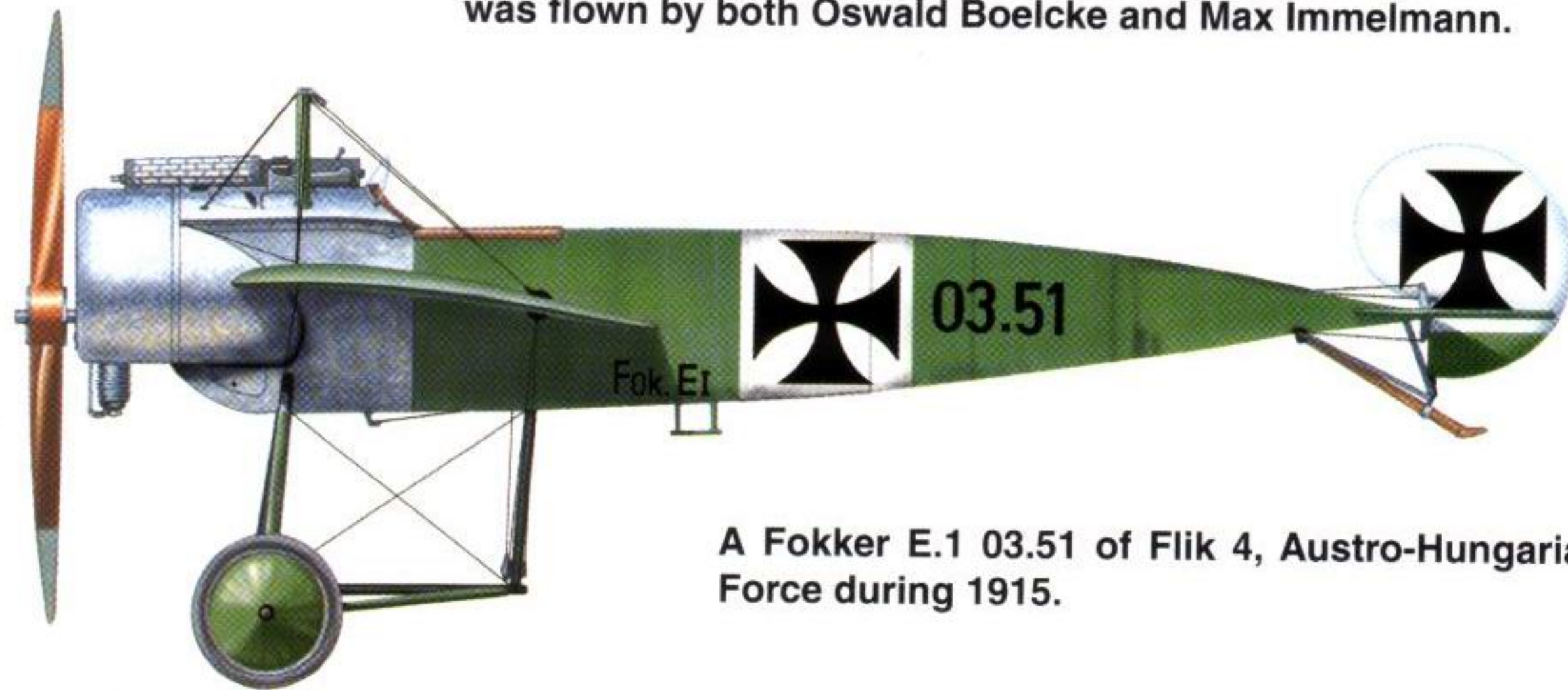


Specification Fokker M.14V (E.III)

Wingspan.....	32 feet 8 inches (10 m)
Length.....	23 feet 6 inches (7.16 m)
Height.....	7 feet 10 inches (2.29 m)
Empty Weight.....	878 pounds (398.2 kg)
Maximum Weight.....	1,342 pounds (608.7kg)
Powerplant.....	One 100 hp Oberursel air-cooled rotary engine
Armament.....	One forward firing 7.92MM machine gun
Speed.....	87.5 mph (140.8 kph)
Service Ceiling.....	13,500 feet (4,114.8 m)
Crew.....	One



E.I/15 was the first Fokker Eindecker to enter combat. It was flown by both Oswald Boelcke and Max Immelmann.



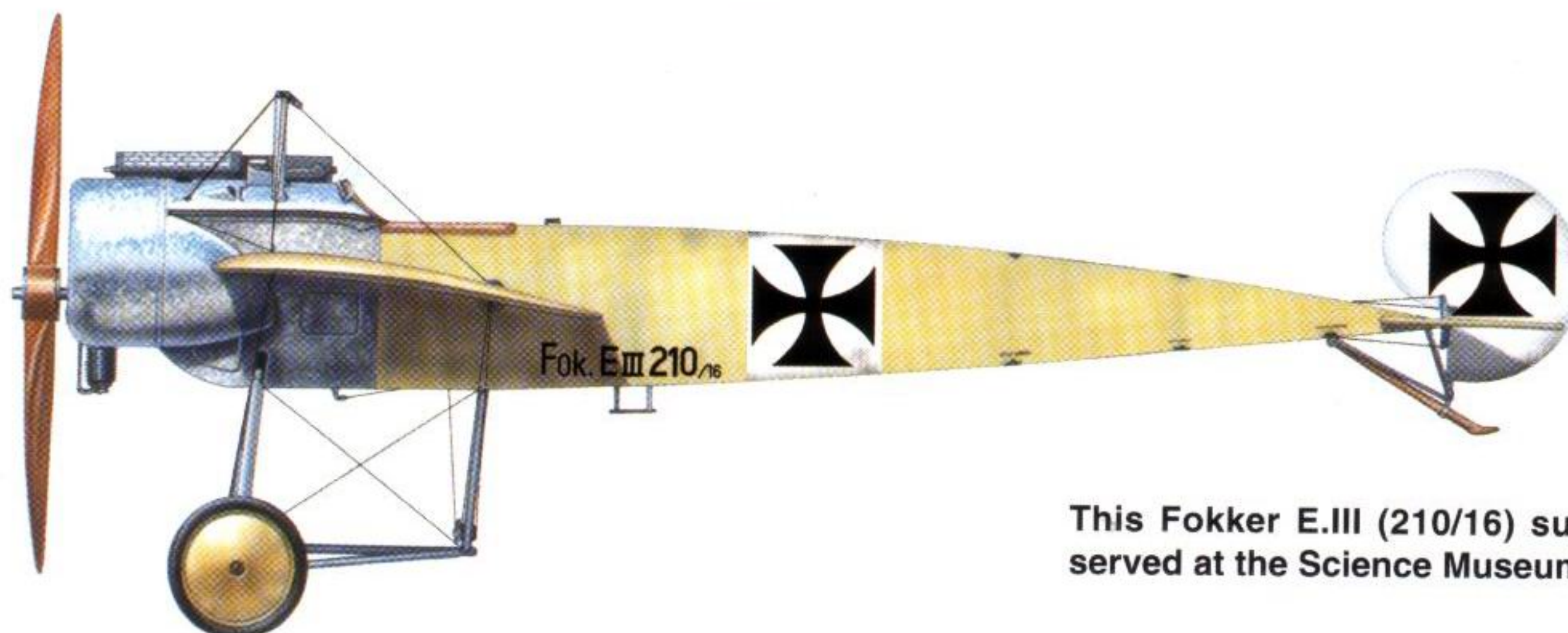
A Fokker E.I 03.51 of Flik 4, Austro-Hungarian Air Force during 1915.



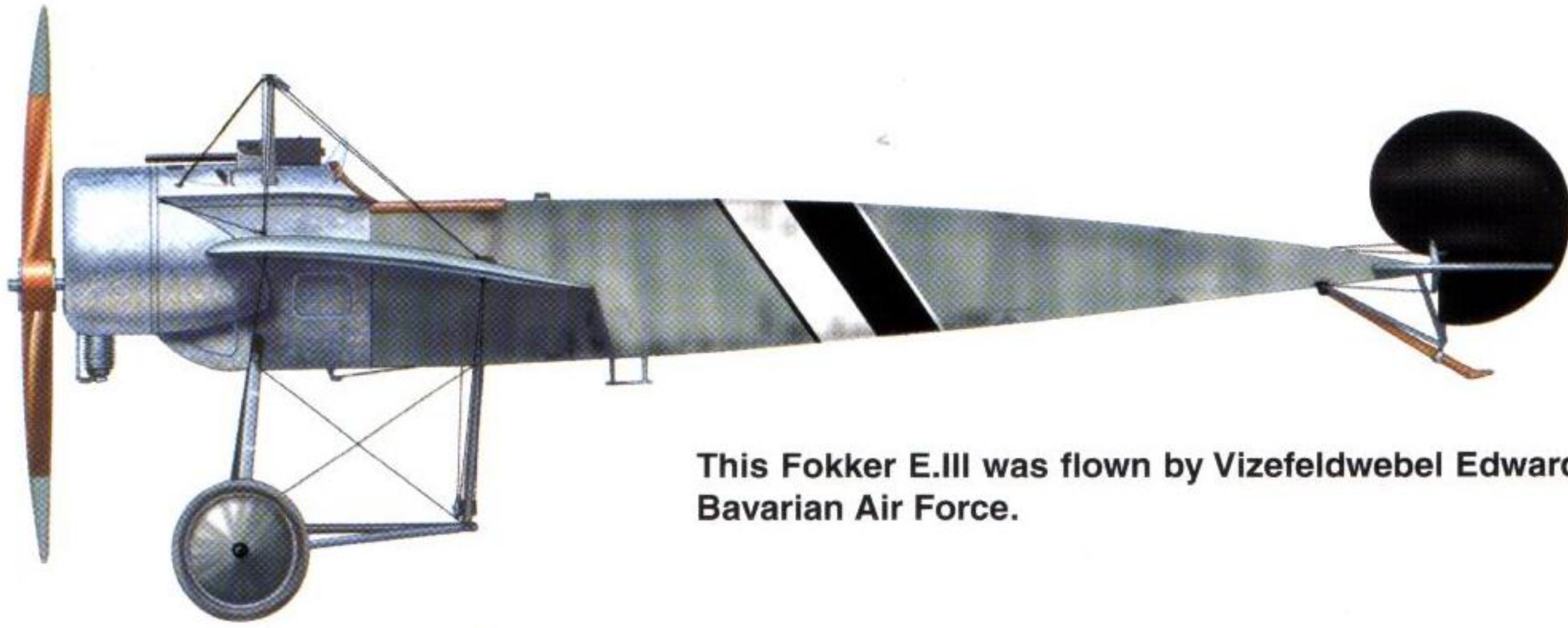
This Austro-Hungarian E.III, 03.43 was armed with a Schwarzlose M 7/12 machine gun during 1916. It was flown by both Flik 8 and 19.



A Fokker E.III assigned to Kampf-Einsitzer-Kommando Habsheim during the Winter of 1915/16.



This Fokker E.III (210/16) survived the war and is preserved at the Science Museum in London.



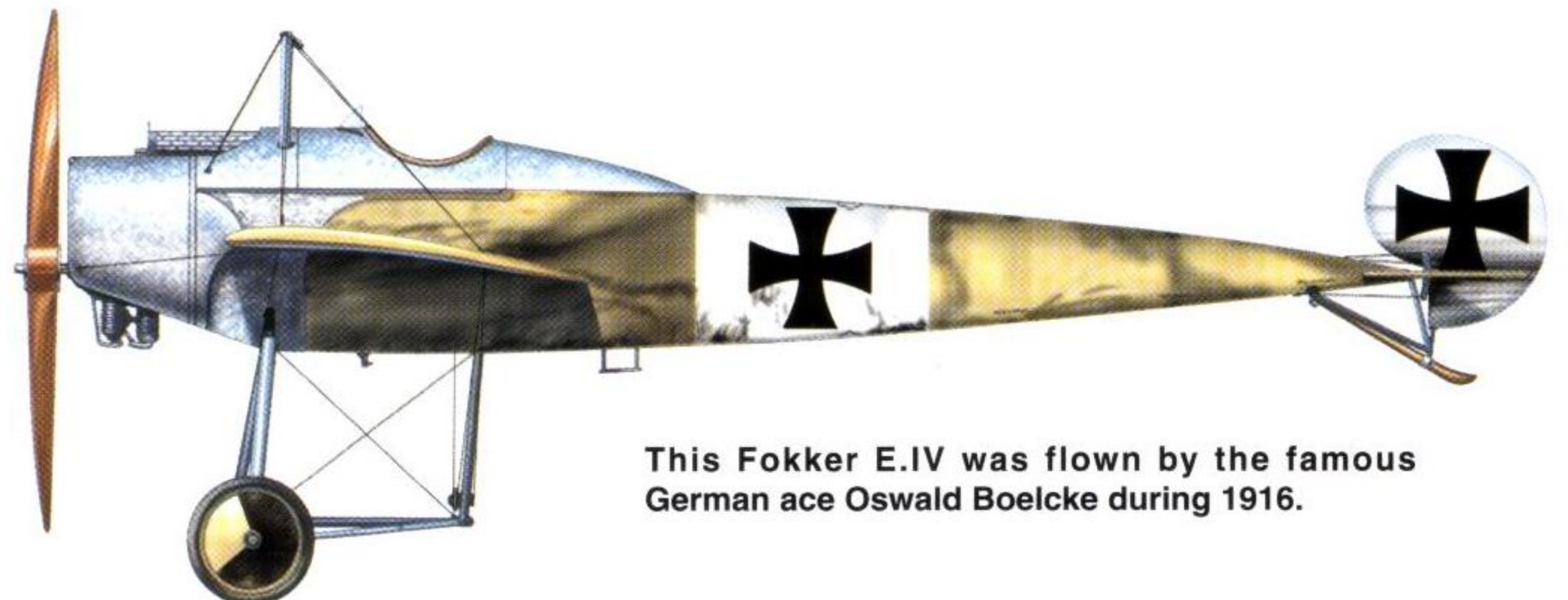
This Fokker E.III was flown by Vizefeldwebel Edward Böhme of the Bavarian Air Force.



This German Air Service Fokker E.III (422/15) carried the serial in a non-standard location.



Fokker E.IIIs were also flown by naval units. This aircraft was assigned to the Austro-Hungarian Navy during 1917.



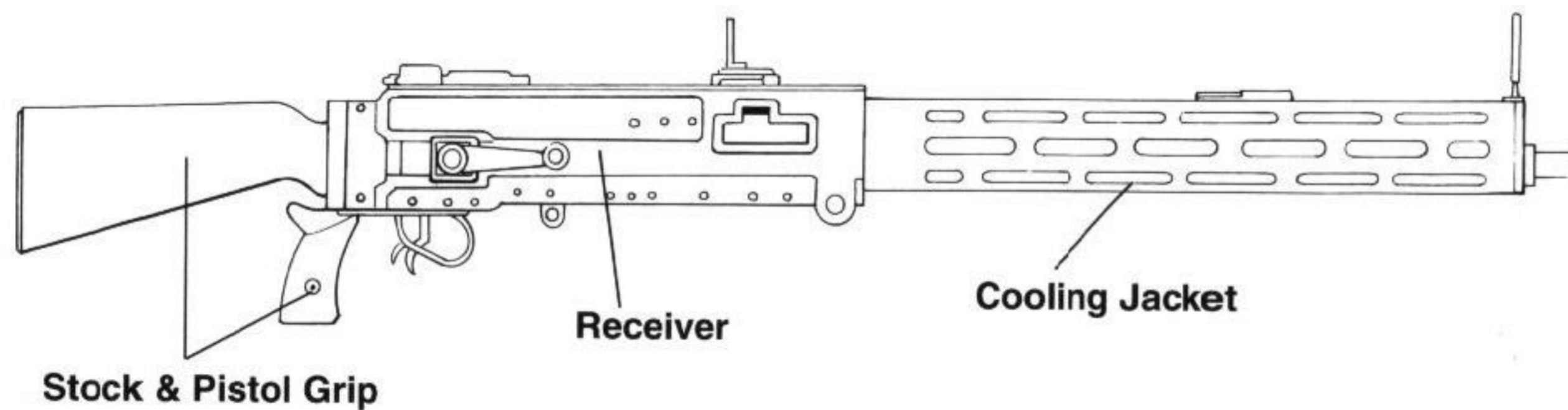
This Fokker E.IV was flown by the famous German ace Oswald Boelcke during 1916.



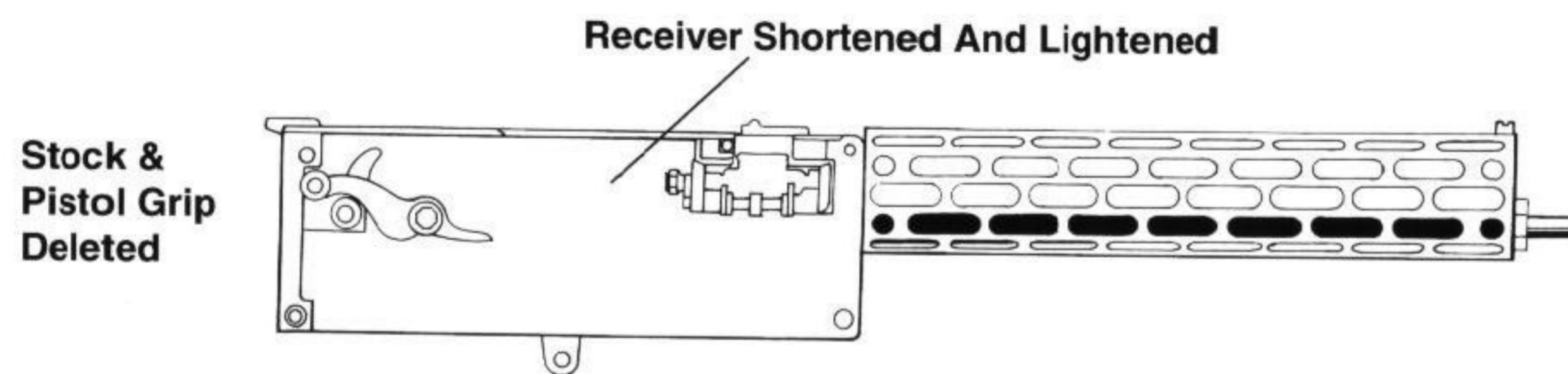
The Fokker E.IV had a streamlined cockpit deck and twin Spandau machine guns.

Eindecker Armament

08/14 7.92MM Maxim Parabellum Machine Gun

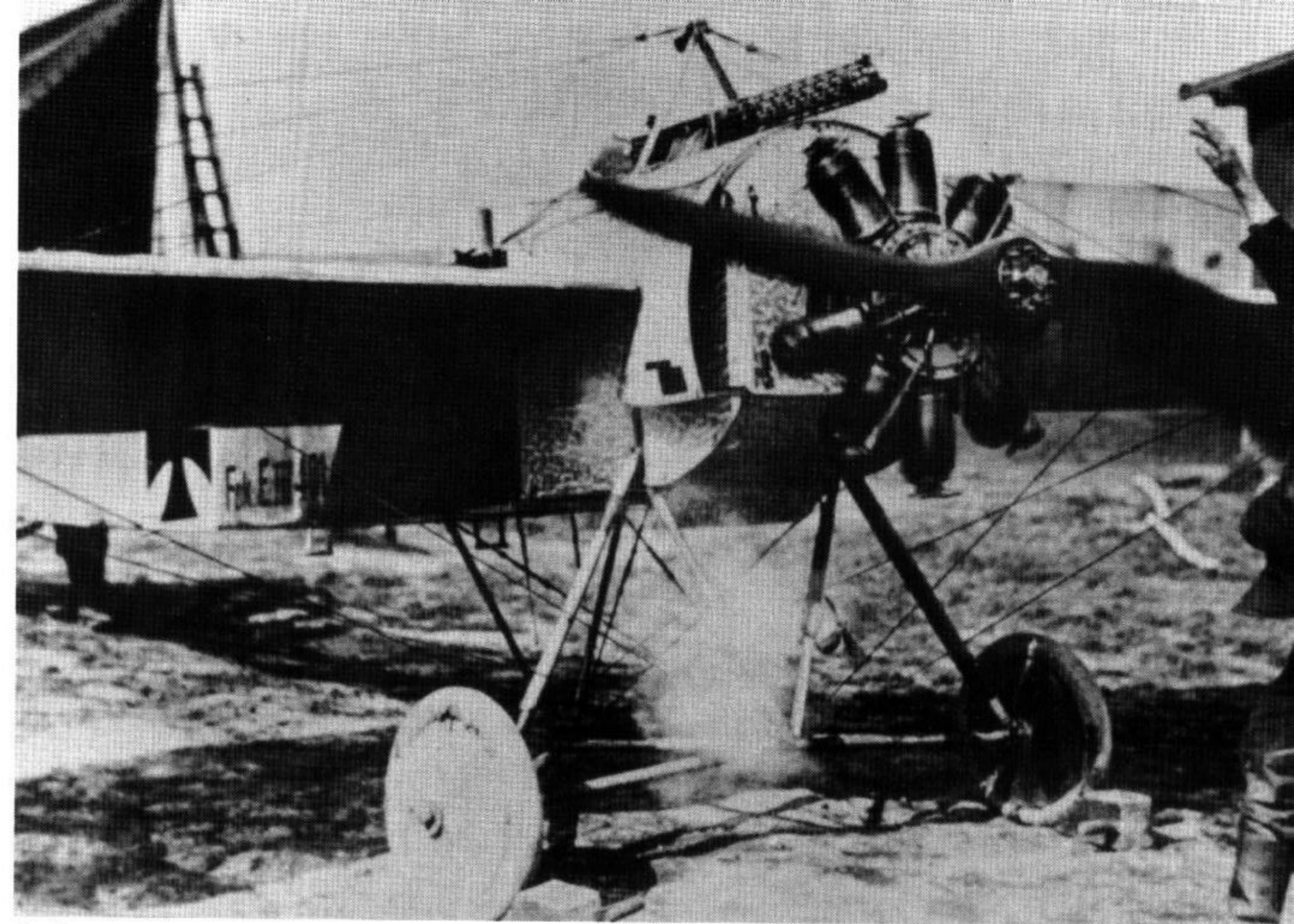


08 7.92MM Standard Maxim (Lightened)



small Nieuport 11, referred to as *Bebe* or "one-and-one-half plane," was a small, single-seat biplane (13 square meters of wing area for both wings) which was very fast and highly maneuverable. In fact, the aircraft had been originally designed before the war for air racing in France. It mounted a single Lewis machine gun on the top of the upper wing, firing over

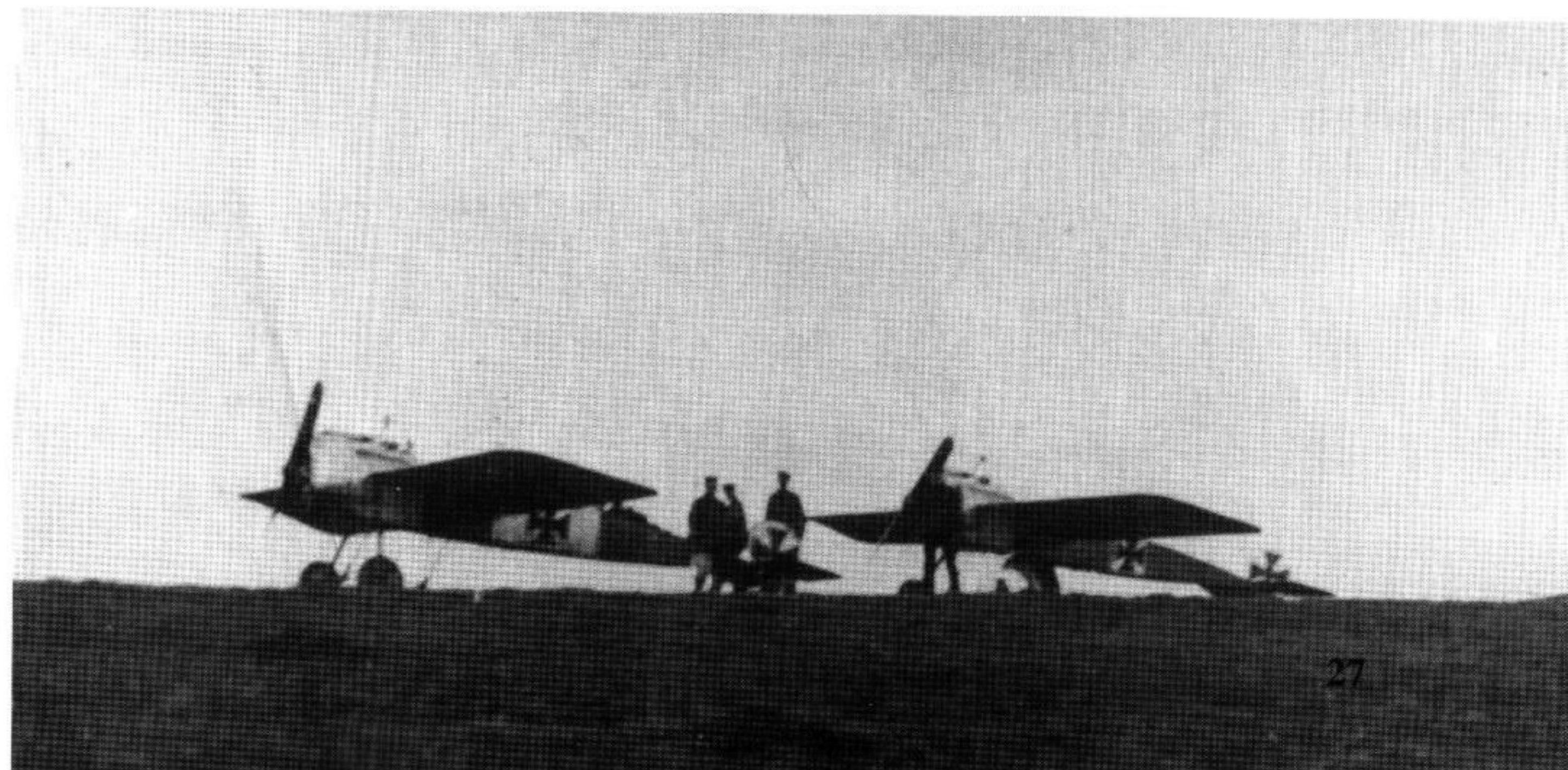
This Fokker M.14V (E.III) 401/15 was flown by Lieutenant Von Zastrow. The aircraft carried no compass and there was an unknown device attached to the cockpit side. (Bowers)



A German mechanic spins the propeller on Lieutenant Von Zastrow's Fokker M.14V (E.III), 401/15 at a German Army field near the front. The cowling has been removed, indicating that the crew had probably just completed some sort of maintenance on the engine. (Bowers)

the propeller arc. This threat to the Fokker menace went into operational service with the British Royal Air Service in the Fall of 1915.

A short time later, in February of 1916, the British deHavilland DH-2 went into operational service. Geoffrey deHavilland specifically designed this aircraft to combat the Fokker E. **A pair of Fokker E.IIIs are readied for a patrol over the front at a front-line German Army field. The two aircraft have slightly different methods of displaying the fuselage national insignia. (Bowers)**

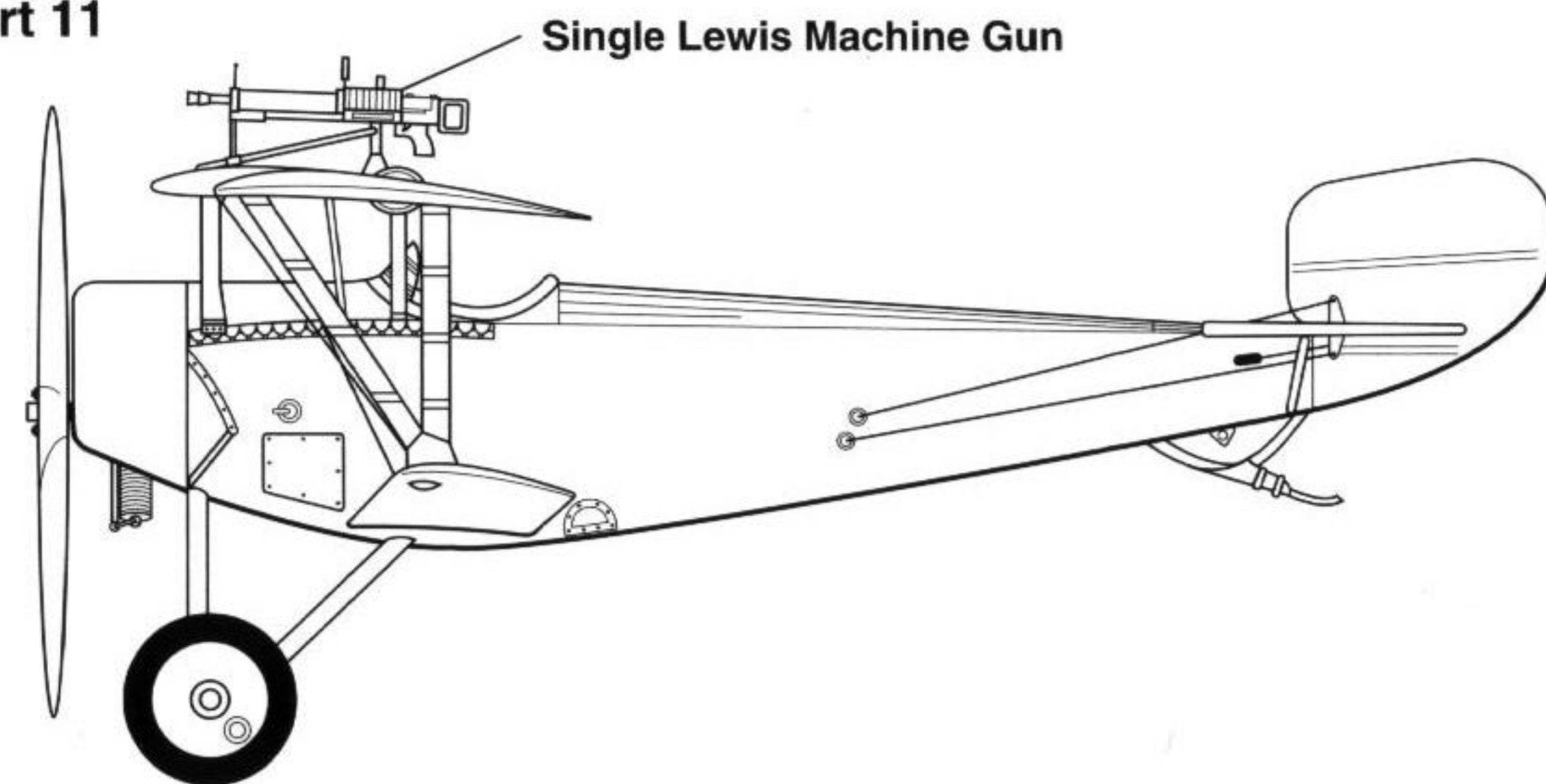




An unknown German Army pilot in the cockpit of a Fokker M.14V (E.III). It is believed that this aircraft is E.III 20/15, an early production aircraft. (Bowers)

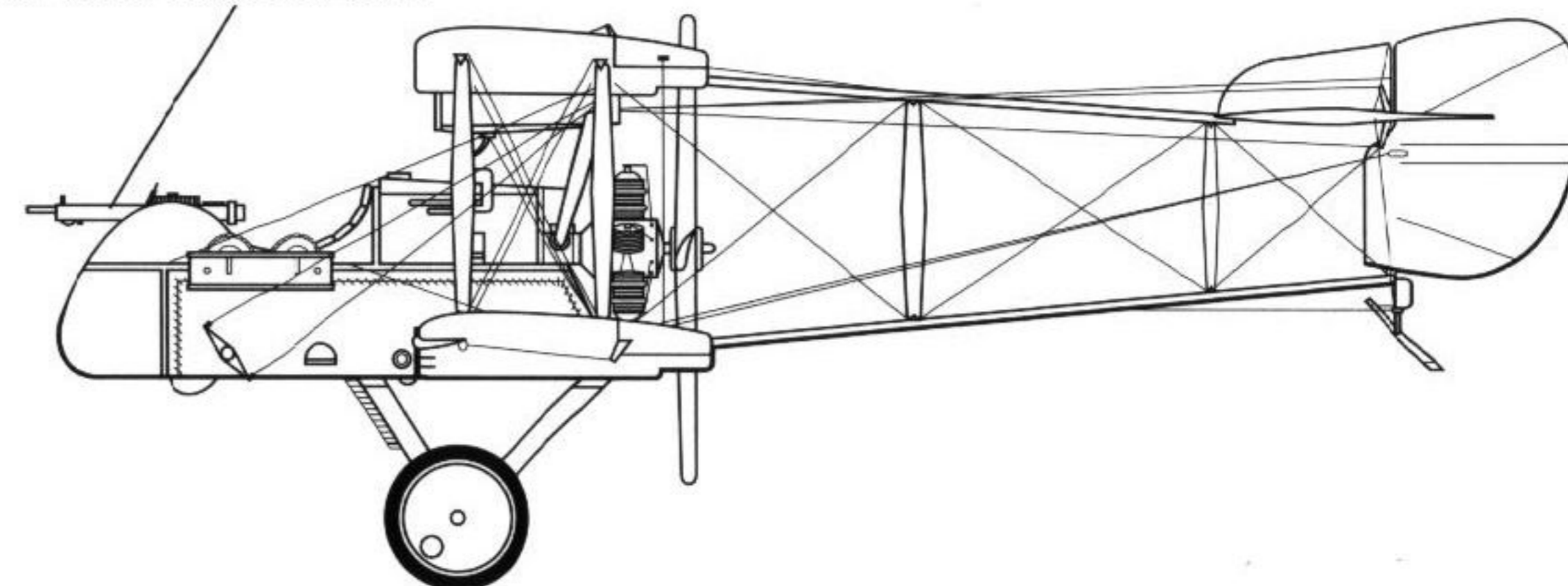
The Allied Answers To The Fokker Menace

Nieuport 11

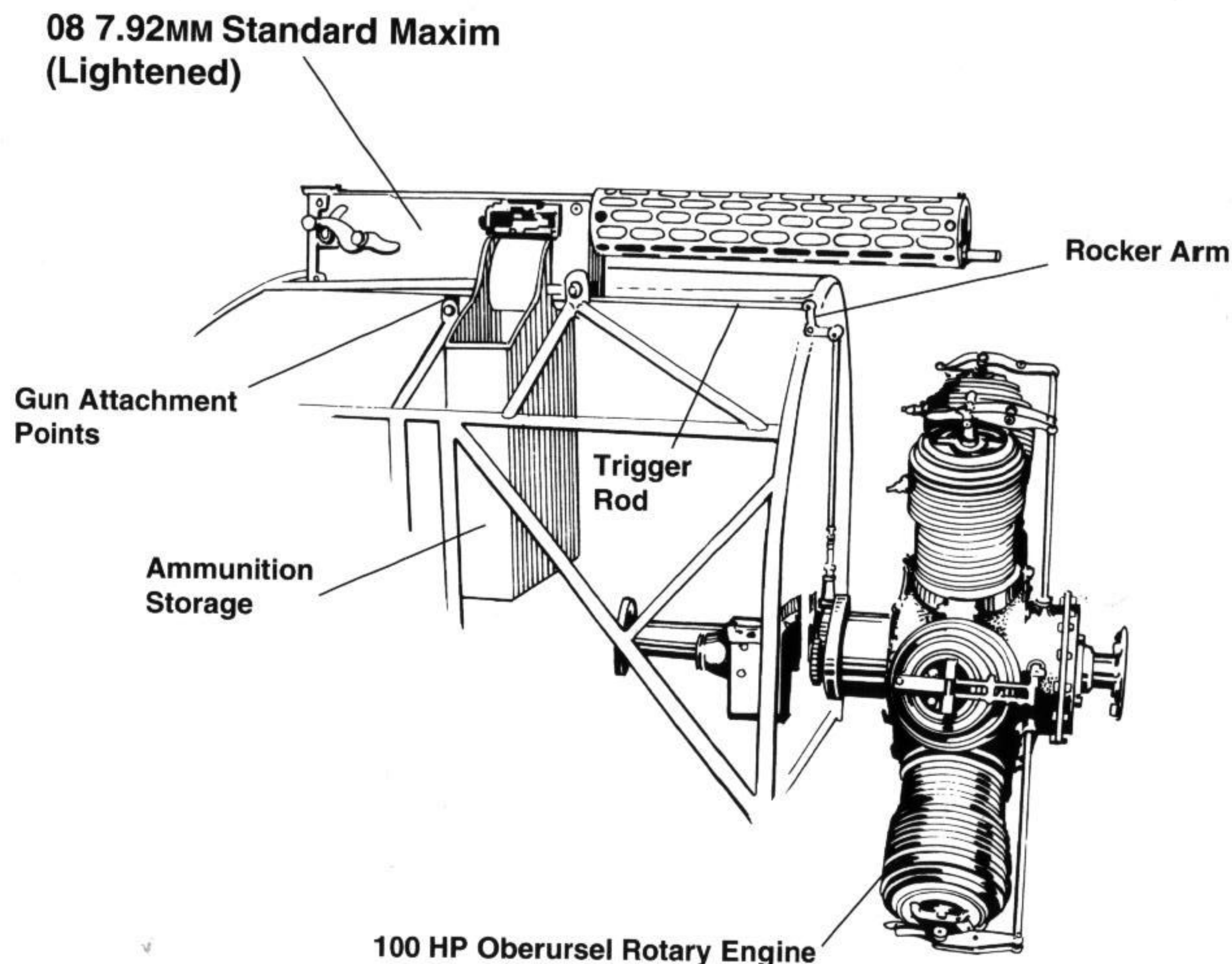


deHavilland DH.2

Single Lewis Machine Gun



Machine Gun Synchronization System



Propeller diameter: 8 feet 31/2 inches (2.53 meters)
 Instruments: revolution counter, pulsometer gauge, pressure gauge, compass (on wing) aneroid barometer, airspeed indicator (installed by British).
 Span: wings, 32 feet 11 inches (9.99 meters), elevator, 9 feet 6 1/2 inches (2.91 meters)
 Overall length: 24 feet (7.32 meters) Height: 8 feet 1/2 inch (2.45 meters)
 capacity: main fuel tank: 25.8 gallons (98 litres)
 reserve fuel tank: 5.81 gallons (22 litres)
 oil tank: 6.6 gallons (25 litres)

Particulars (committee's words):

1. Balanced elevator and rudder.
2. Warp control of wings.
3. All wing connections fitted with quick, detachable joints for rapid dismantling.
4. A clamp fitted on the control stick by which it can be locked in any position of fore and aft control.
5. Track of undercarriage wheels 6 feet 8 1/2 inches (2.5m)
6. All steel fuselage-brazed joints - no sockets.
7. Double flap doors in floor between the pilot's knees and shutters on either side under wings, all of which can be worked by the pilot for getting a better view.

Consumption Trials (at Upavon, 5/30/16)

Weight of pilot: 180 pounds
 Length of flying time: 10:50 am to 12:07 pm -- 1 hour 17 minutes
 Consumption: fuel: 12 1/4 gallons 9.5 gallons per hour
 oil: 3 gallons 2.3 gallon per hour
 Engine revs: 1,140 to 1,180 (on ground)
 Average air speed: 71-72 miles per hour
 Time to 8,000 feet altitude: 17 minutes

Three Fokker M.14Vs (E.III) lined up for inspection on a German Army field. It is believed that Fokker was in the group of men standing between the two aircraft on the right. (Bowers)

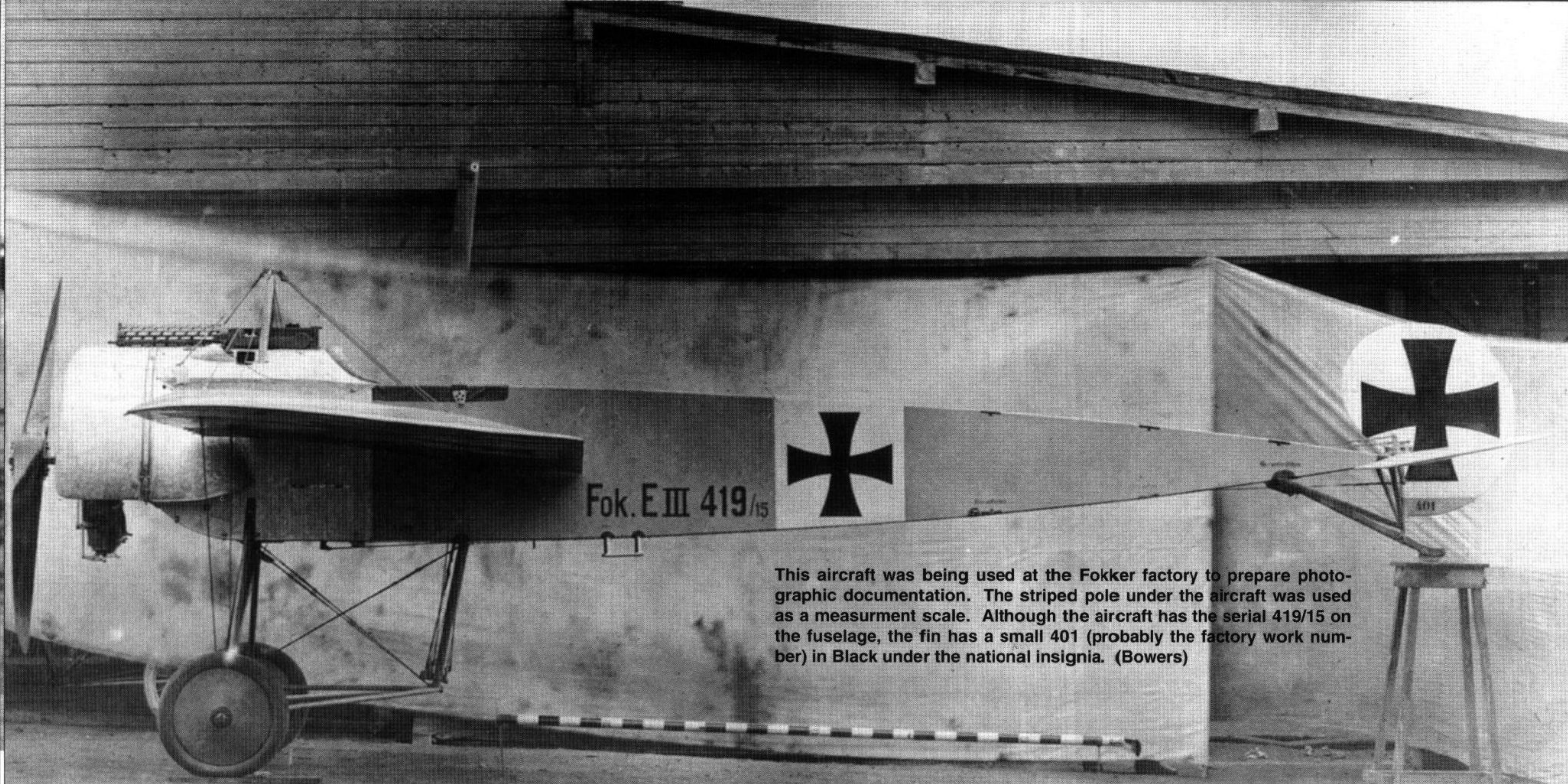


series. The DH-2 was a "pusher" aircraft driven by an 80 hp Gnome rotary. The cockpit, at the very front of the engine pod, mounted a single fixed Lewis machine gun and the gun was aimed by maneuvering the entire aircraft. Extra drums of ammunition were stored outside and around the cockpit area. Fast and very maneuverable, it too helped counter the Fokker threat. By July of 1916, the Allies had re-established air superiority over the Western Front.

For anyone with an interest in the Fokker monoplanes, the Upavon Report Number 48 provides a major source of information on the Fokker E.III. A Fokker E.III, whose numerical designation was not listed in the report, but often referred to as the 210/16 came down behind the lines in April of 1916. The aircraft found its way to England, and during the last three days of May 1916, was tested at the British Upavon facility. A summary of this report follows:

UPAVON Report No. 48

Committee: CCFS, CIA, O.C. 4th Wing, Secretary
 Manufacturer's date: 28 March 1916
 Engine: 9-cylinder Gnome type, not Monosoupape
 Engine serial number: V-1081



This aircraft was being used at the Fokker factory to prepare photographic documentation. The striped pole under the aircraft was used as a measurement scale. Although the aircraft has the serial 419/15 on the fuselage, the fin has a small 401 (probably the factory work number) in Black under the national insignia. (Bowers)

Speed Test (Upavon 5/30/16)

Average maximum speed for three different upcourse and return - 86.4 miles per hour at 1,210 rpm. Minimum speed was approximately 50 miles per hour.

7,000	4	1,140	82.5
9,000	3	1,130	80.0
11,000	0	1,120	77.5

Climb To Altitude Test (Central Flying School)

ALTITUDE(ft)	TEMPERATURE	RPM	MPH
0	15	1,210	86.5
1,000	10	1,205	87.5
3,000	6	1,180	86.0
5,000	5	1,140	84.0

Rate Of Climb Test (Upavon 5/29/16)

ALTITUDE (ft)	MINUTES		AVG FT.		REVS	AIR SPEED
	MINUTES	SECONDS	PER MIN	PER MIN		
1,000	1	0	1,000	1,170	60	
2,000	2	45	570			
3,000	4	25	600	1,160	57	
4,000	6	20	520			
5,000	8	30	460	1,156	55	



This uncovered Fokker E.III airframe reveals the placement of the pilot's seat, control stick, gas tank, engine and ammunition storage bins. (Grosz)

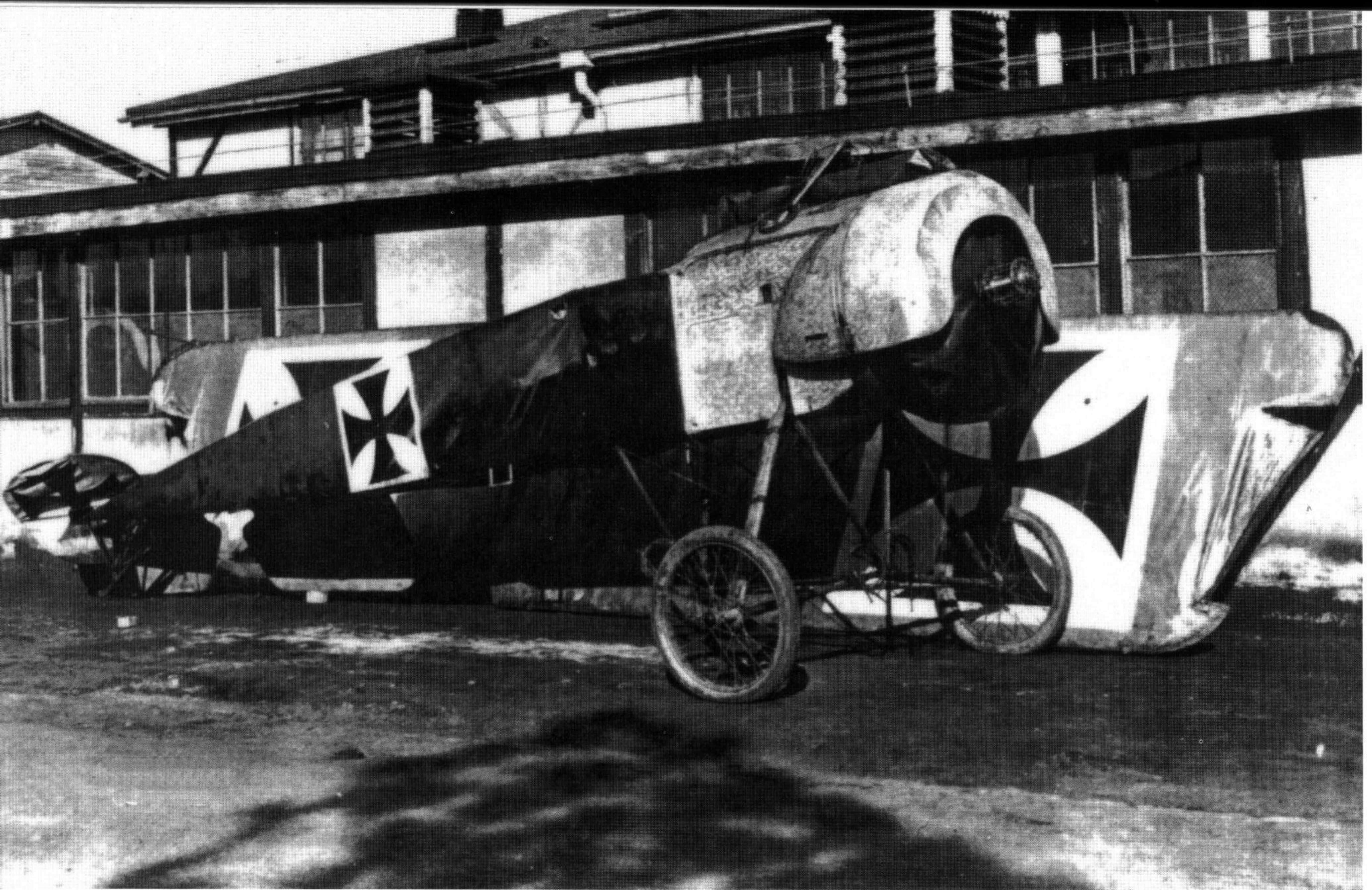
6,000	11	10	370		
7,000	14	0	350	1,100	54
8,000	17	30	290		
9,000	23	0	200	1,080	53
10,000	28	0	180		
11,000	35	0	140	1,060	53
12,000	46	0	80		
12,200	51 (ceiling)				

Further Remarks:

This machine can be dived very steeply and showing an airspeed of 115 mph comes out of the dive with complete ease.

General Remarks:

1. Unstable latterally, longitudinally and directionally.
2. Amount of vibration in air is very little indeed.
3. All controls are convenient to pilot.
4. Tiring to fly in all but still air.
5. Length of run: to unstick is 75 yards; to pull up, engine stopped, 80 yards
6. Ease of landing: easy
7. Time to ready engine for starting is 3 minutes
8. Other remarks: machine persistently flies right-wing down. impossible to cure without setting springs to control stick. (Author's note: this was probably because of the natural tendency of the aircraft to rotate about the roll axis in the same direction that the engine rotated - caused by the slight friction concomitant with the engine support bearings and air drag within the cowl.)



Suggestion For Improvement

1. Needs mechanical air pump.
2. Wing covering removed between fuselage and first wing rib for a better downward view.

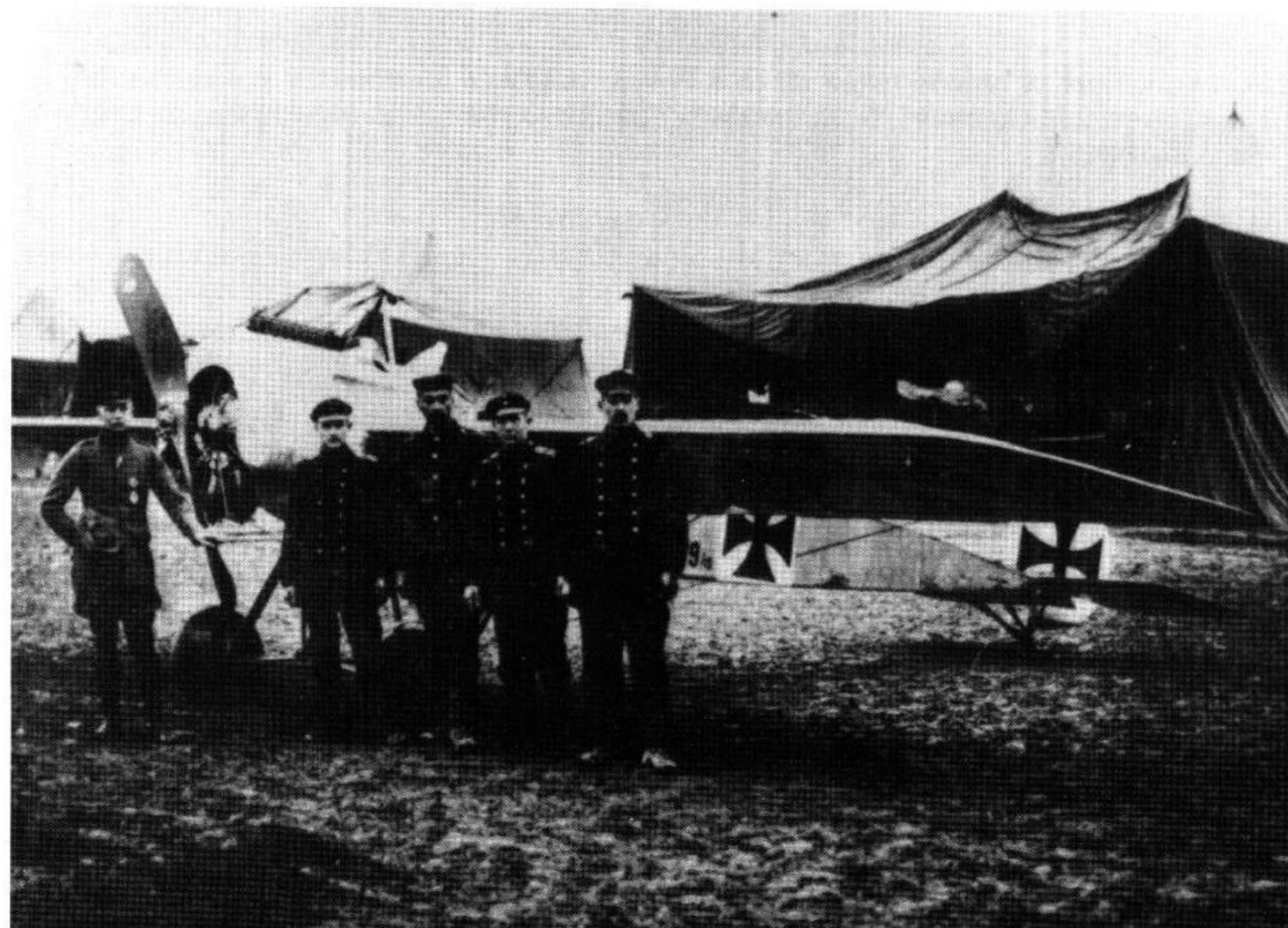
A damaged Fokker M.14V (E.III) awaits repair at the Fokker factory. The rudder is bent over and the wing tips are creased. The aircraft appears to have a dark painted fuselage. (Fokker)

3. Add tail fin to improve directional stability.
4. Engine cowling better streamlined.
5. Airscoops for forced air induction into the engine. Air intake in cockpit only.

Chief Features That Recommend This Type Of Machine

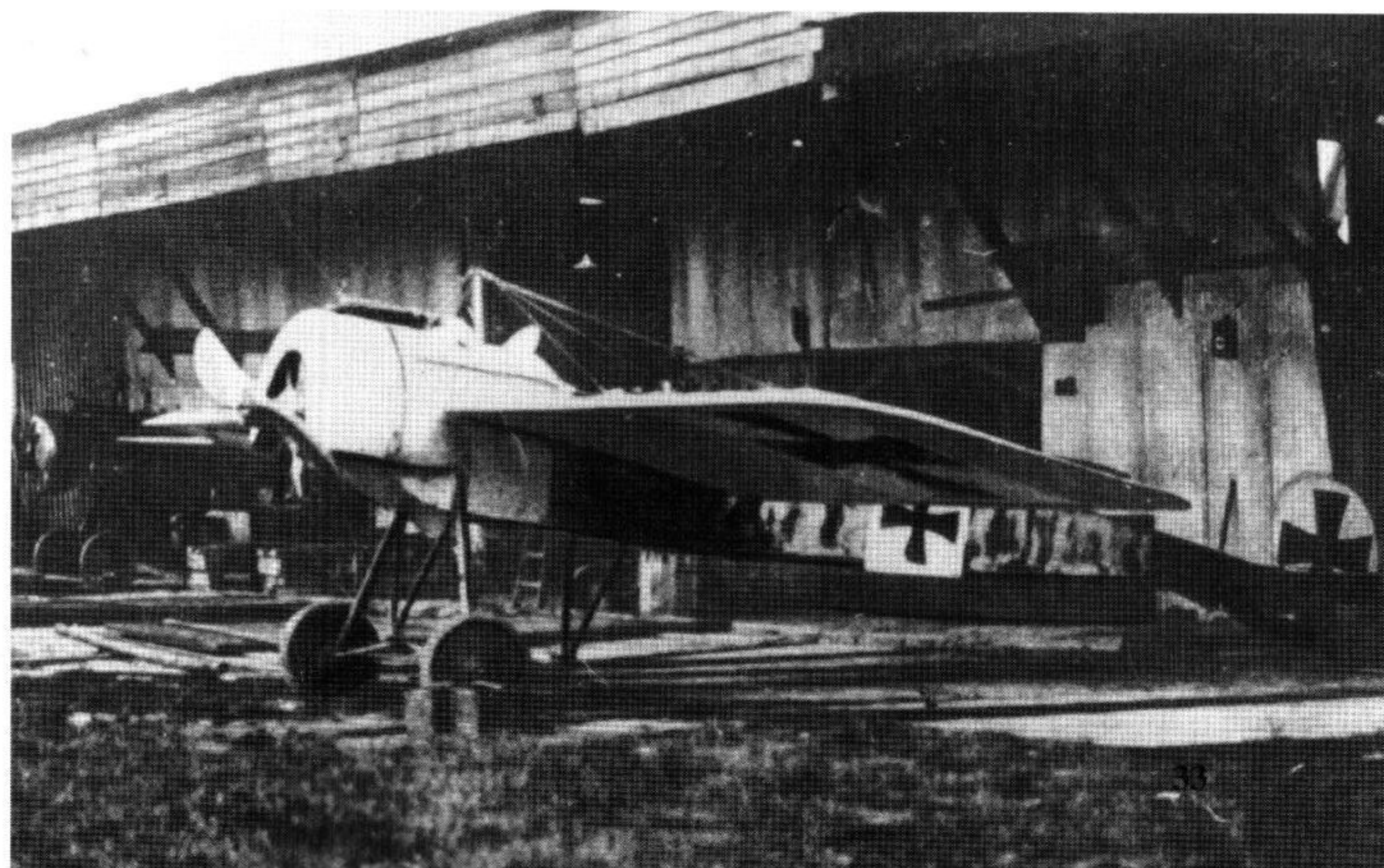
1. Simplicity of fuselage and its construction. There are no lugs or sockets involved.
2. Ease of dismantling and lugs for wings to attach to fuselage for transport.
3. Wings are protected - there are knobs to eliminate leading-edge damage. Entire edge of wing has bound, hardwood covering for protection.
4. Control stick is well designed with engine cut-out and gun trigger where pilot grips the two hand-grip stick. Also locking lever.
5. Compass on right wing is easily seen but probably affected by metal in fuselage.
6. Instruments are all suitable and well placed.
7. Pilot's seat is adjustable fore and aft and up and down.
8. Wheels are well separated.
9. Tail skid is fixed but should be shearable- all scouts have this problem and it complicates taxiing and landing in confined spaces.
10. Observation trap doors are a good idea and well fitted. The British should do as well in their work.
11. Gun sights are difficult for the pilot to use because of the slipstream from the propeller.
12. Fabric is very poor and probably heavy. Germans unable to grow flax and manufacture quality linens as in British Isles because of bad climactic conditions.
13. Miscellaneous: all wire and turnbuckle work finished off very nicely showing greater attention to detail than British fabricators.

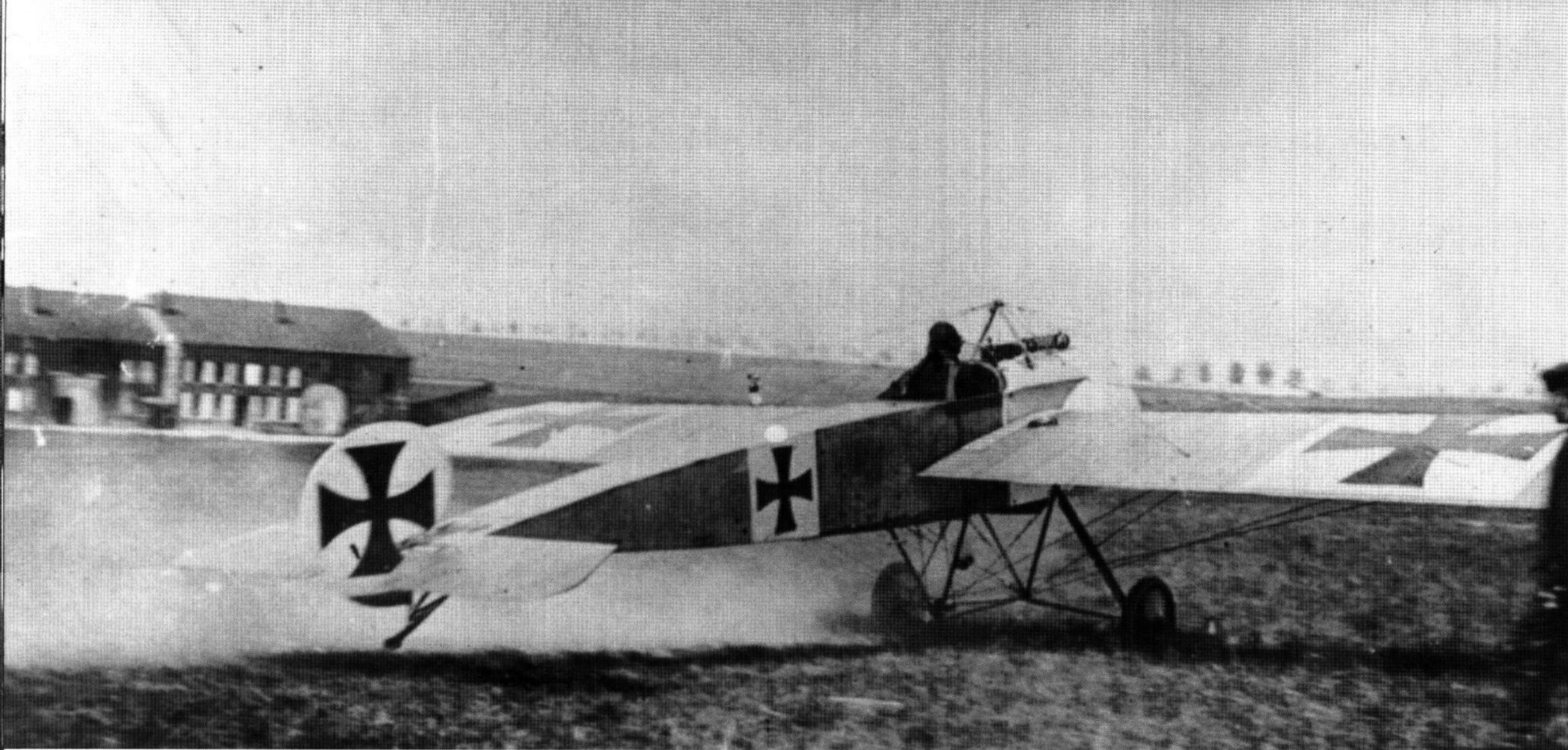
Lieutenant Student poses in front of his Fokker M.14V (E.III) of Kampf Einsitzer Kommando III, Armeé Vouziers during 1916. (Bowers)



A Fokker M.14V (E.III) of Kampf Einsitzer Kommando Vaus parked on a German Army air field near the front. The aircraft in the background is a Pfalz E. II . The Fokker carried the serial 635/15. (Bowers)

This Fokker M.14V (E.III) was flown by Max Immelman while assigned to KEK III at Douai during 1916. The aircraft in the background is believed to be his Fokker M.15 (E.IV). (Bowers)



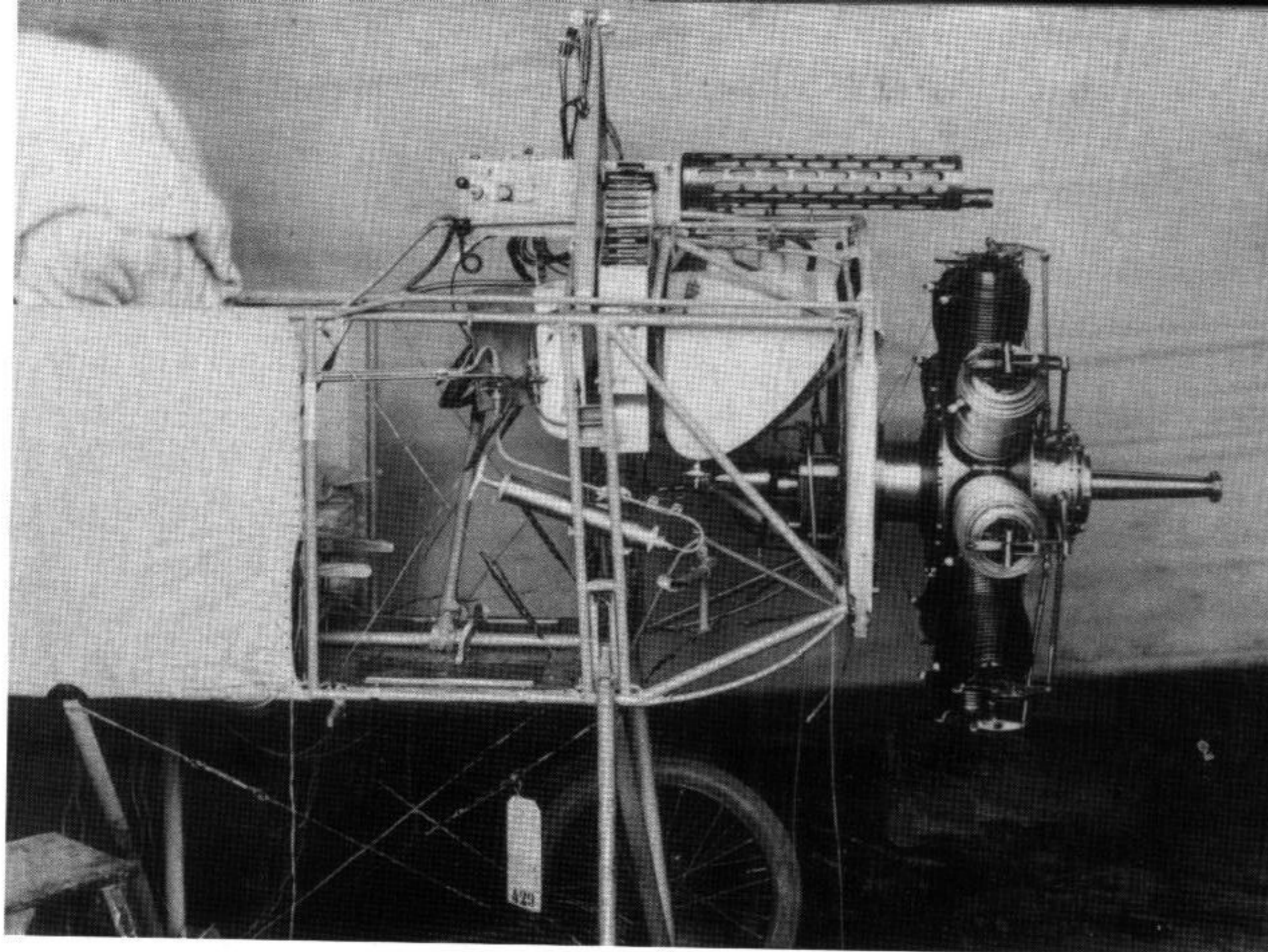


The pilot and ground crew of a Fokker M.14V (E.III) 401/15 pose with their aircraft on a German Army front line base. The aircraft was assigned to Lieutenant Von Zastrow. (Bowers)

Lieutenant Kurt Wintgens takes off in a Fokker M.14V (E.III) from the Fokker factory air field. The aircraft is unusual in that it does not have a serial number painted on the fuselage. (Bowers)



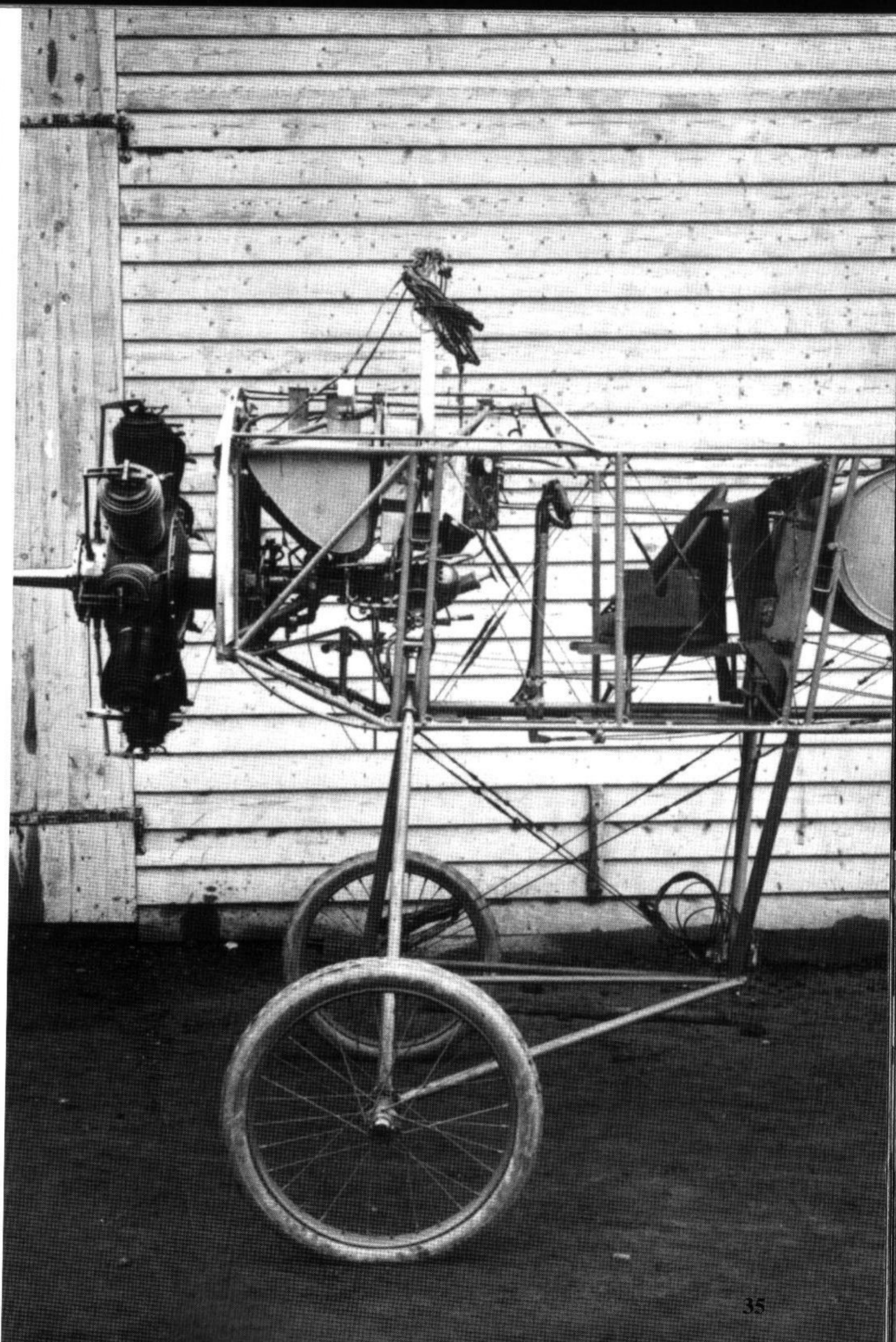
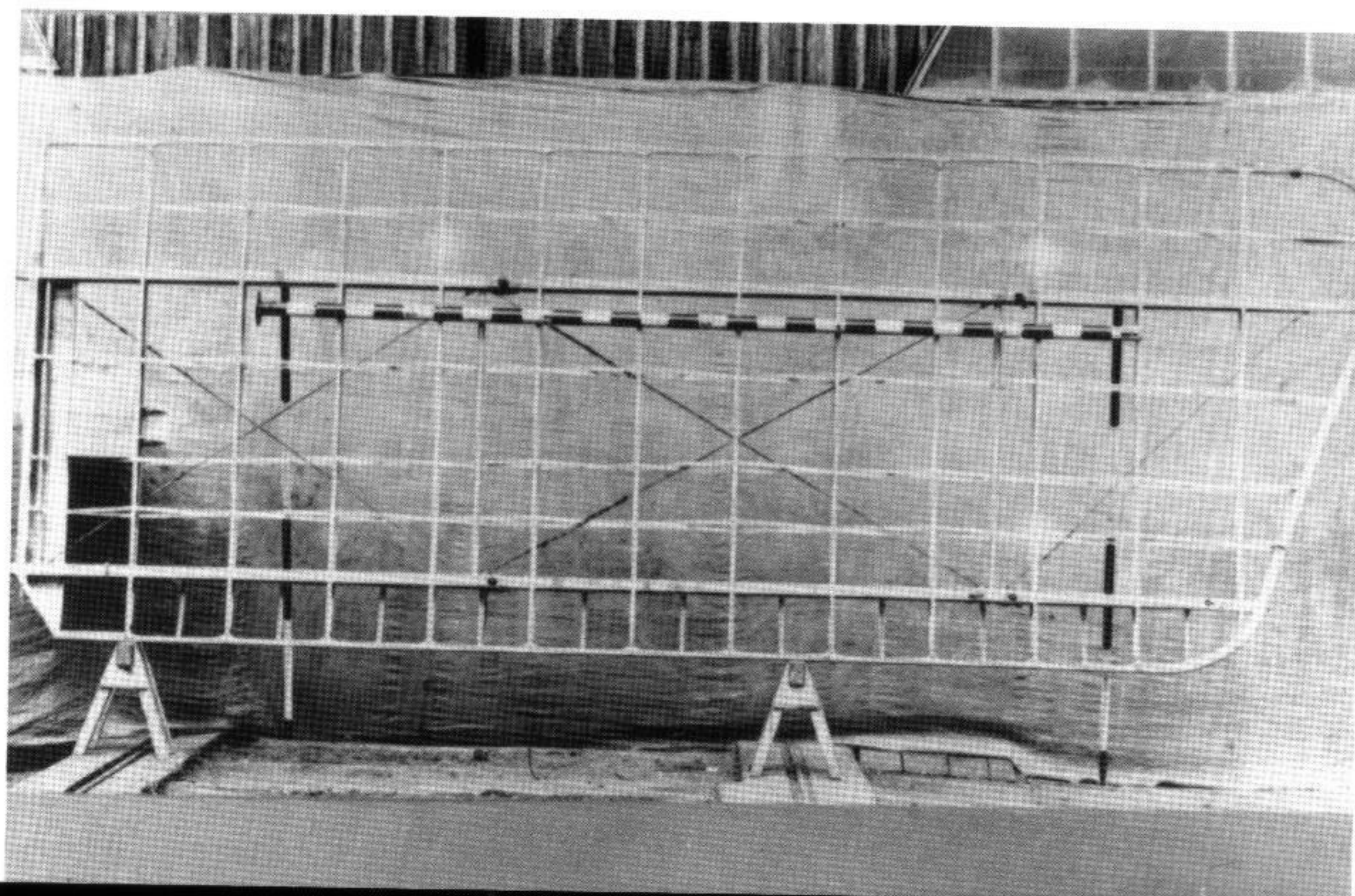
There is only one Fokker E.III known to exist at this time. It hangs from the ceiling in the Aeronautics section of the National Museum of Science and Industry, South Kensington, England. Most historians believe that this E.III is the one that was tested at Upavon and had the numerical designation 210/16. It appears that this E.III has fallen into disrepair since 1916. The gun sights are gone and the engine is not the original Oberursel that the aircraft mounted. All of the fabric has been stripped off. The machine gun synchronizing gear has apparently been removed, or at least the activating cam and push rod behind the engine. It now has a Le Rhone-type propeller for a 110-hp rotary. The carburetor/air intake unit attached to the engine appears, by the Author's observation, to be from a LeRhone engine, rather than the perforated air intake normally installed. It also sports "Dunlop Universal" tires! No apparent structural changes have been made, however, although a bend in the control tube to which the stick attaches is said to have been done when the aircraft was being lifted at the museum.



A Fokker workman attaches fabric to the fuselage of a M.14V (E.III). This is a late production aircraft fitted with a 08 Standard machine gun with a barrel recoil booster used to improve its rate of fire. (Grosz)

(Right) The Fokker M.14V (E.III), like all Eindecker models, used metal tube construction instead of wood, which was common on First World War fighters. Visible are the pilot's seat, control stick, gas tank, ammunition bins, engine, and engine firewall. (Grosz)

The uncovered starboard wing of a Fokker M.14V (E.III) reveals the construction techniques used by Fokker. (Grosz)

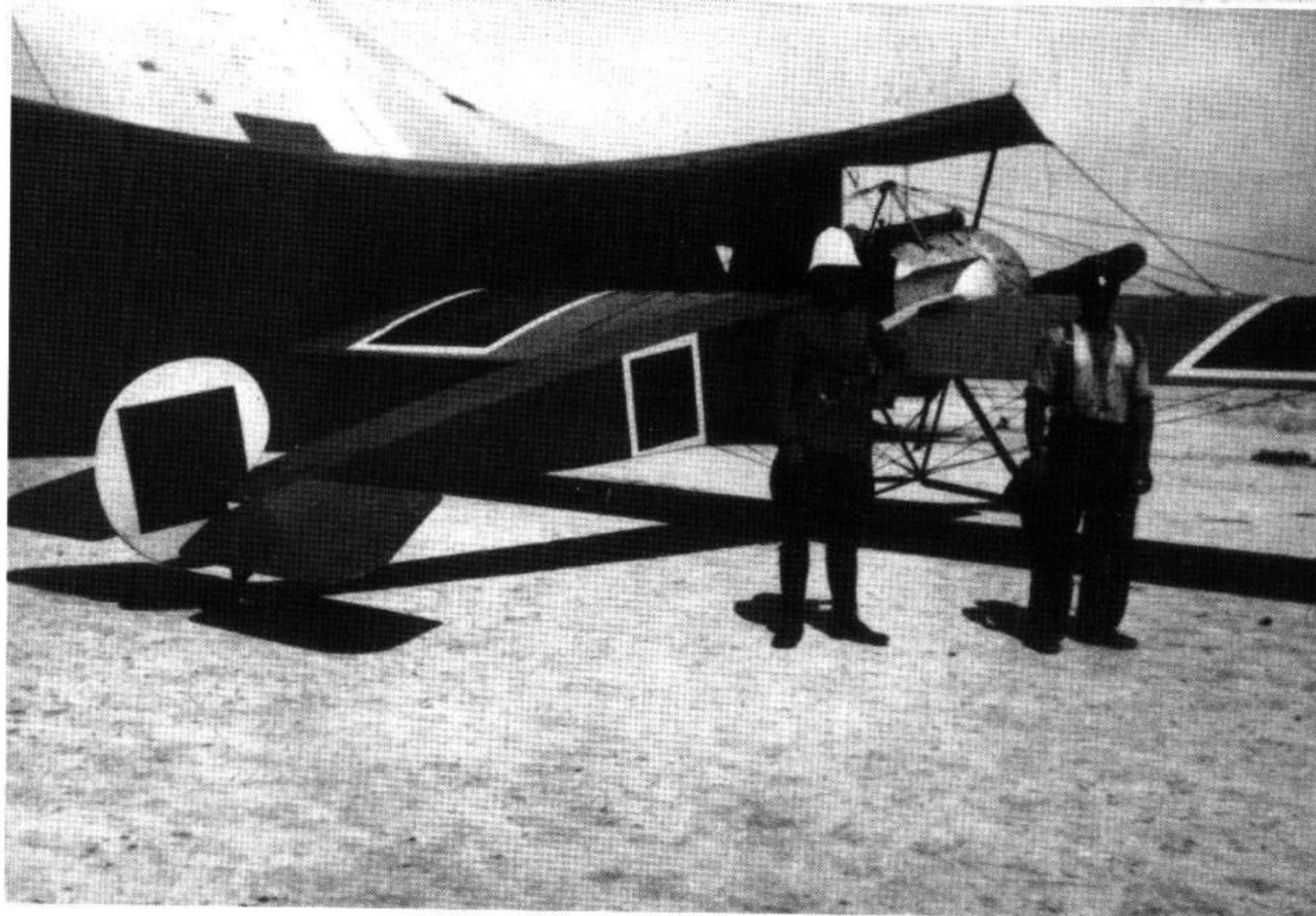




The pilot (left) and ground crew pose with their Fokker M.14V on a forward airfield in France during 1916. (USAF Museum)



(Left) This is believed to be the last production Fokker M.14V (E.III). The final lot of E. IIIs produced at the Fokker factory had been initially ordered by the German military in February of 1916. The serial number is believed to have been 249/16. (Fokker)



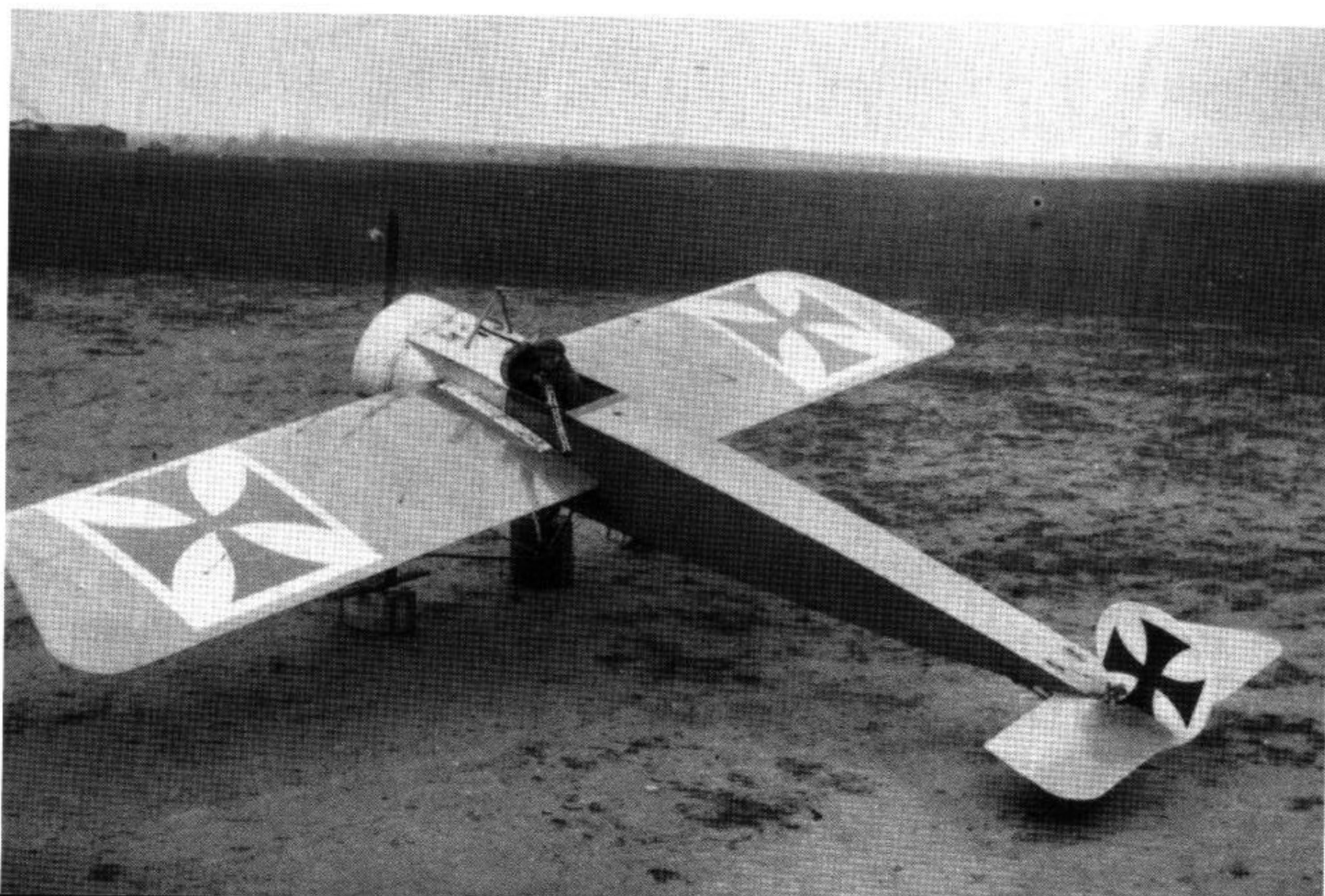
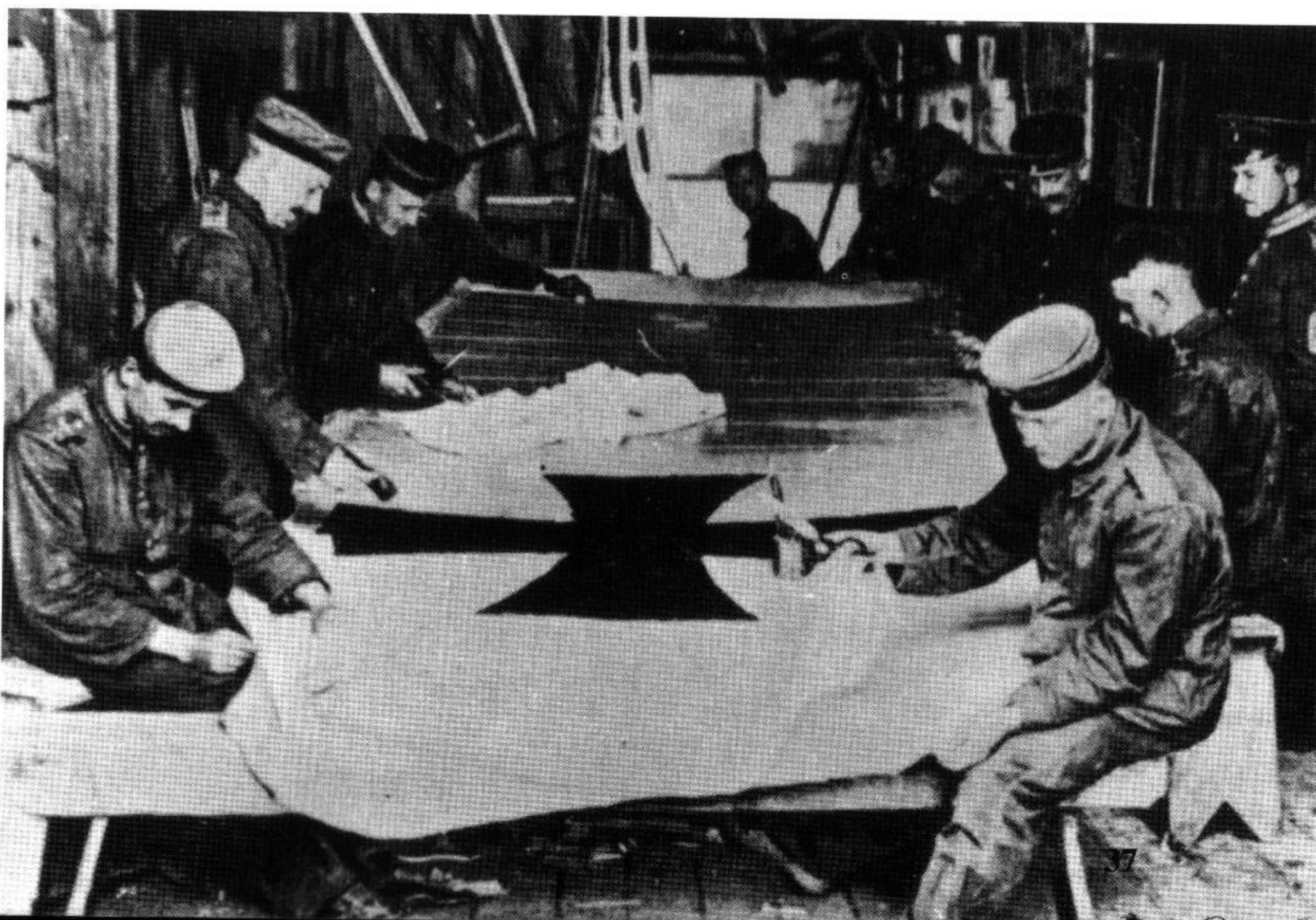
Lieutenant Buddecke poses with his Fokker M.14V (E.III) in Turkey. The Black square insignia became the national marking of Turkey (later the Black was changed to Red). Initially the insignia was formed by squaring off standard German crosses. (Bowers)



French troops inspect a Fokker M.14V (E.III) downed behind Allied lines. The wheel covers appear to be half and half Black and White, similar to the markings of *Jasta 9*. (USAF Museum)

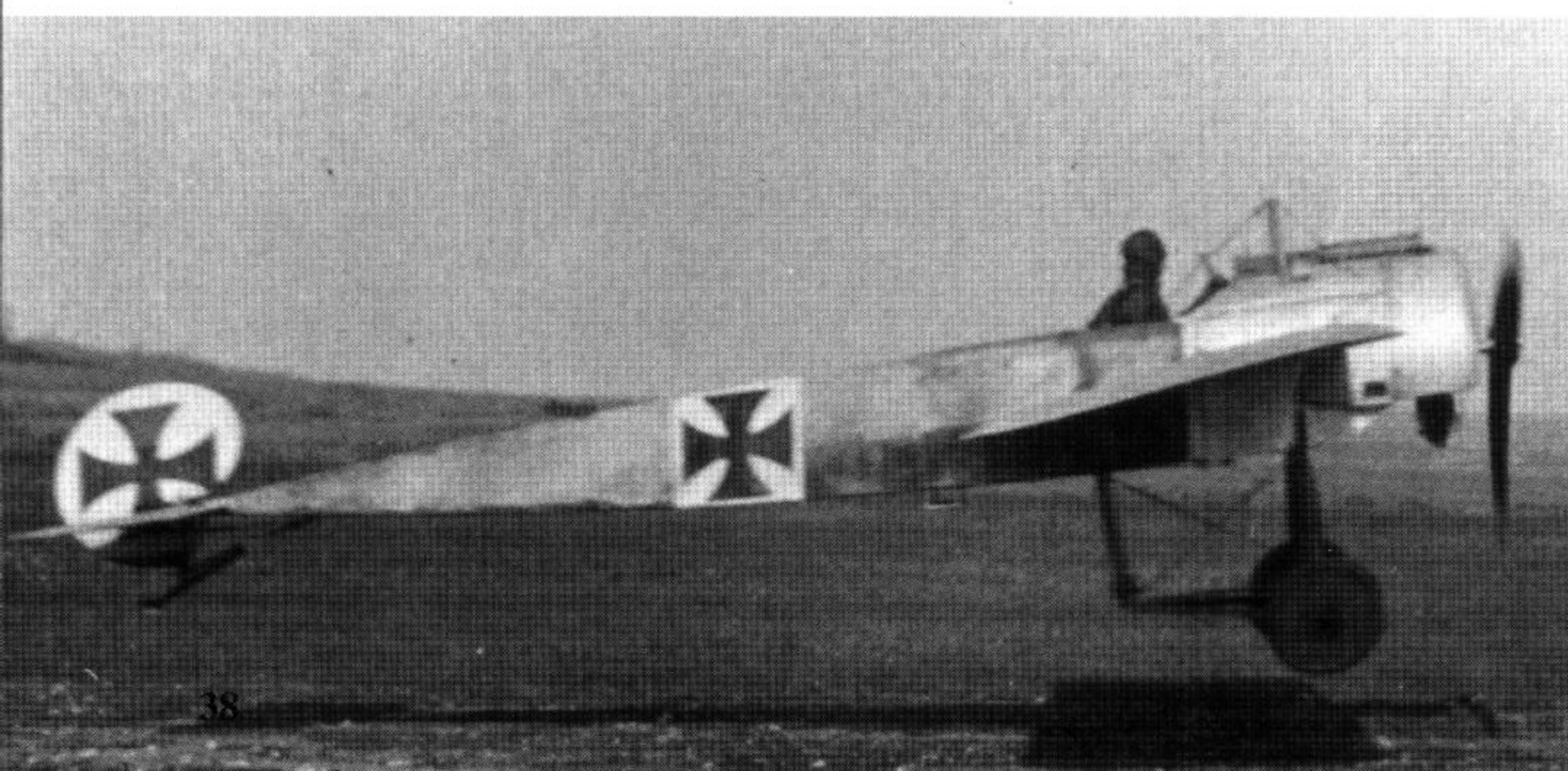
Workmen apply the national insignia to the wing of a Fokker M.14V (E.III) at the Fokker factory. (Author)

The man in the cockpit of this Eindecker, aiming an 08/14 machine gun, appears to be Tony Fokker. The small Black spot behind the cockpit is the fuel tank filler cap, identifying this aircraft as a M.5/MG modified to M.14V (E.III) standards. (Bowers)





The air park at the Fokker factory in Schwerin. A number of Fokker M.14Vs (E.III) are parked just inside the fence and the aircraft on the grass include an E.III (left) covered in a clear cover intended to make the aircraft less visible. This technique was tested, but found to be of little value and was abandoned. (Fokker)



(Left) A rather weathered M.14V (E.III) taking off from a German airfield. The aircraft carries no serial on the fuselage, indicating that it has probably recently undergone an overhaul and has not been fully repainted. ((Bowers)