

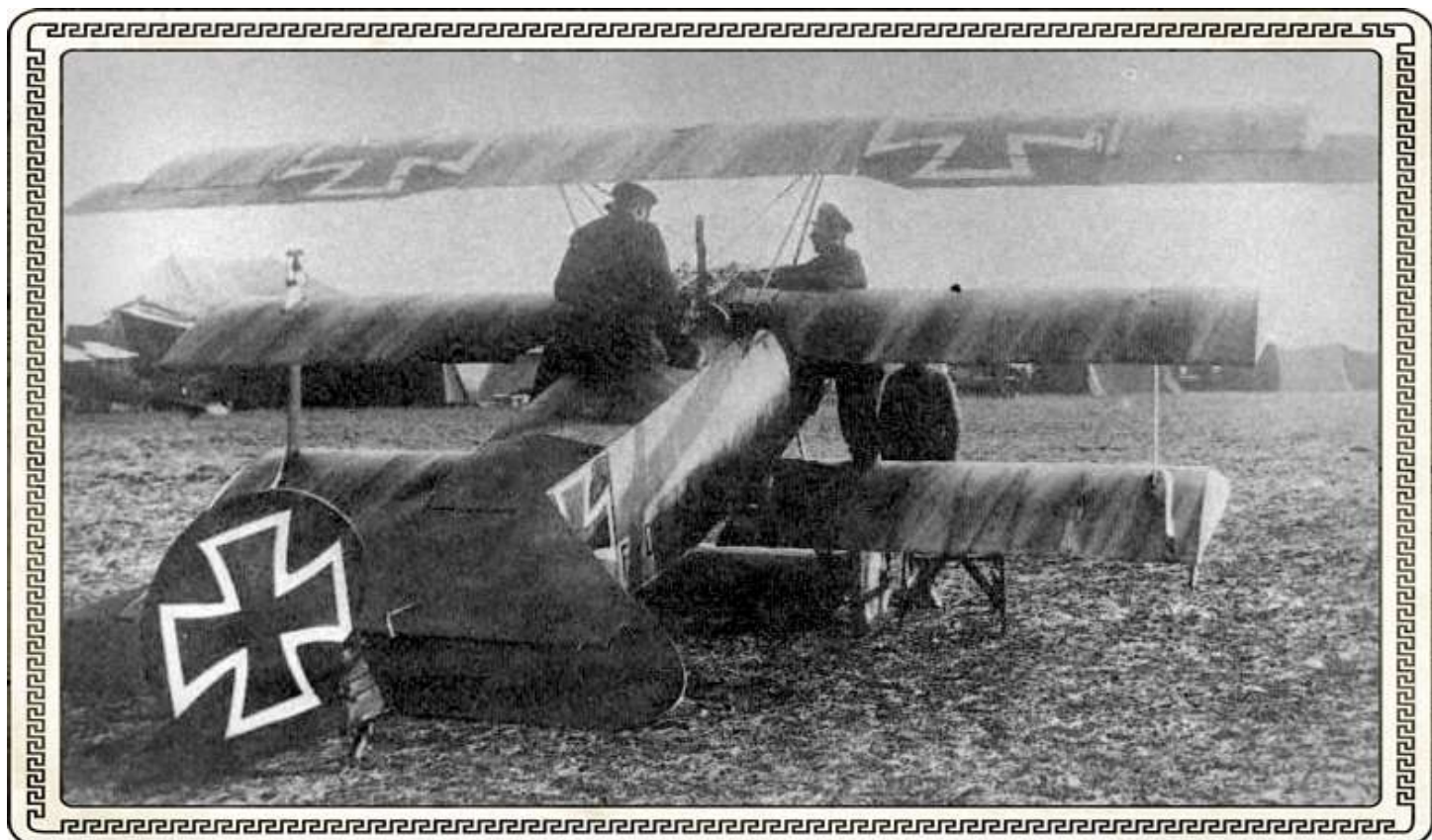


Eine technische und taktische Anweisung
für den

Fokker Dr.1

Einsitzer Kampfflugzeug

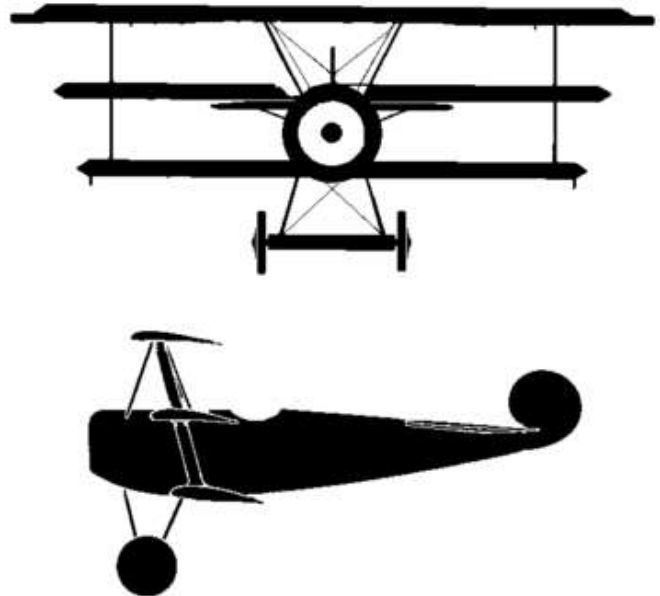
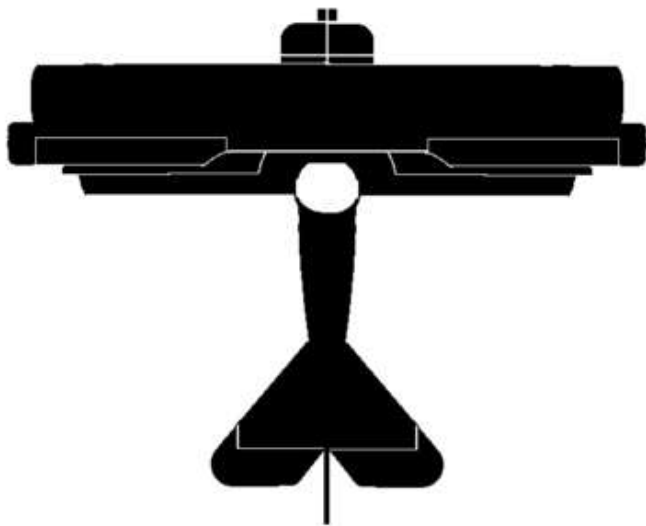
Herausgegeben durch die Fokker Flugzeugwerke; erstellt auf Befehl der Deutschen Luftstreitkräfte
und der Obersten Heeresleitung und Seekriegsleitung



* *Additional notes by Hauptman Hans von Steinschweiger.*

Technical Data

Type:	Fighter
First Introduced:	August 1917
Engine(s):	Le Rhône type 9Ja French made / preferred Oberursel UR II Germany's copy of the Le Rhône
Wing Spans:	7.19 m (23 ft 7 in) 6.23 m (20 ft 5 in) 5.73 m (18 ft 9 in)
Length:	5.77 m (18 ft 11 in)
Height:	2.95 m (9 ft 8 in)
Empty Weight:	405 kg (895 lb)
Gross Weight:	587 kg (1,295 lb)
Max Speed:	185 km/h (115 mph)
Ceiling:	6,095 m (20,000 ft)
Endurance:	1.5 hours
Crew:	1
Armament:	2 Spandau 7.92 mm machine guns



Welcome to Jasta Boelke, where we fly the Fokker Dr.I. She's the beauty that the Rittmeister von Richthofen himself claims is the best manoeuvring fighter on the Western Front.

This useful guide is to provide insight into the current flight performance of the Dr.I. General characteristics of the craft, strengths and weaknesses, take off, landing, and manoeuvring, dog-fighting tactics, including the twin Spandaus best use, will also be covered. - v.S

General Characteristics

The Fokker DR.I is light and responsive, but you will need to take her up for a few flights before taking on the Allies in combat. The Fatherland has a vested interest in you and the machine. Make sure you are up to the task on every patrol. She is unstable in all axes, and you will need your hands on the stick at all times.* The torque effects are noticed on a turn, as she will look to bank to her left side. If you turn too fast, and bleed off speed you will stall, and spin. She is a turn-fighter and so you will want to have the advantage to start any combat. She is considerably tail heavy, and you will need to address this.

[There is a Workshop selection of Flight model: Easy, Medium, and Realistic. This guide advocates the MEDIUM setting for Flight Model. This will reduce the current tendency to spin in any attack angle. In addition your PC capabilities may affect the aircraft capabilities.]

Pre-flight and Take Off

Ensure you have enough ammunition [Select the Ammo/Fuel option in the Workshop rather than Personal Skin]. As you are fighting over Germany, take only the fuel you require for your patrol, to conserve weight and keep your performance on the edge. You will find the large cowling an issue, so you will need to look through the second wing space, and ensure your take off is clear. Throttling her up, [OFF will start at a 10 % throttle default on the ground] you will notice that she will want to ground loop, if given full throttle quickly. To counter this, the rudder can be slightly right and the ailerons down to bank/roll to the right. Once she is stable a smooth acceleration with the throttle will get the tail of the machine up quickly. At some 42 mph she will look to be ready, and at some 48 mph, an easy lift off. If you haven't adjusted with the rudder and or ailerons, she will want to roll to the left. She will also immediately feel tail heavy. You will need to get her flying near level. [With the [Z] key adjust the [TRIM % ELEV] to - 13.95, and bank her to the right with the ailerons some -.50 with the pitch adjustment at -1.0 to be effective]. CFS3 setting's will provide you with the ability to trim out by cancelling the [Num Lock] key Use no [Num Pad 7] some 32 - 34 adjustments, and if too much, [Num Pad 1] to decrease pitch down]. She is so unstable that you are on the stick the entire time; a veritable challenge. If a forced landing has been required, weave the craft when taking off again, looking to the left and right, to enable you to see ahead.

Normal Flight

You must practise with orientation flights before engaging in contact. [This can be done by selecting Quick Scenario, Free Flight]. You must learn to fly this machine well as we have much invested in you and this craft. It will climb out at some 34 degrees, at some 55 mph, but a better climb speed is 65 mph, to avoid a stall. As you approach 5000 feet you can begin to adjust the mixture slightly. As you go through 6000 feet she will need a further mixture adjustment. You will notice the change in the engine sound as an indicator. [Auto mixture is not a Realistic Setting] The adjustment will have your mixture lever pulled back just about ½ way. After 6000 feet the mixture does not need to be adjusted again.

Combat (Air)

General Notes

You will keep a keen eye out at all times. [If you just have a hat switch and not TIR, you will need the TAC set as per SIA - RSS]. The telltale effect of the enemy's bullets ripping into your craft is a very good sign you have been remiss in spotting the enemy. Use the Dicta Boelke as the basis for all your engagements. Your ability to turn quickly will give you the advantage, as you will turn to engage on the enemy's tail. The large upper wing provides a challenge and so pitching up and down, while checking your rear quarters is advisable. If you lose sight of the enemy, circle at a 45 degree angle, which will give you a good view over your second wing. You can hold this as most craft cannot turn with you. Use your throttle, cut back quickly [or blip off - see RAF_Louvert], then engage full throttle, to enhance your turning angle, but watch your stall speed. If you are engaging an Allied fighter, such as the SPAD (a dive and zoom) fighter, a short dive is required to build speed, then to turn inside of their attack. The SE5a will be unable to out-turn you, so it will be easy to get on their tail. Use your twin Spandaus to shoot the pilot; do not aim purely at the fuselage. If the enemy is looking to engage you in a head on fashion at say 12 o'clock, angle off at say 2 o'clock and maintain eye contact. Once they pass you, dive and turn hard to get on their tails. If you are foolish enough to let an Allied machine get on your tail, you must use your rudder to side slip thereby not giving them an easy target.

The standard attack method for two-seaters is by following on their tail, and pitching up, trying to hit the bottom of the fuselage and the rear gunner. If you get into trouble, the Dr.I cannot outrun the enemy so climbing up in a spiral is your only choice. You can loop her at 90 mph, and as you come out, centrifugal force will require that you apply right rudder to bring her around in a complete circle. If you spin, recover by hard rudder to the opposite direction of your spin, throttle off, and ailerons neutral. After recovering be vigilant in ensuring you do not take machine gun fire into your ailerons (or yourself). If you lose your ailerons, dive down and land, as you cannot fight effectively if you cannot turn your craft. (At present you are unable to effectively dive straight down without hitting terminal velocity at 175 mph, which will be your demise. Hard rudder and ailerons to defer your speed before you sustain damage, at over 140 mph). Turning is the key to the Dr.I and manoeuvring onto the enemy's tail, or a deflection shot, is the best method of engaging the foe. Aiming will be vertically between the crosshairs, and horizontally ½ way between the cowling and the crosshair centre. You will have ample rounds, so you may consider taking less ammunition, and breaking off early, and certainly less fuel. With most patrols at less than 100 miles, you will require less than 35 % fuel.

Ground Combat

Be aware of your speed in any ground attack, and always have 100 feet below you as a safety factor. Watch your speed if forced lower by the enemy attack and look to break away to gain height. If unable to, such as with multiple attackers, put your machine on the ground near a group of trees for cover.

Landing

On approach check your pathway on the ground. Do avoid the pole placed on the field, near the third tent. Approach is quite easy as you throttle down to some 60 mph. You should be over the field now. When some 200 feet away from the tents, throttle back, [or use the magnetos and blip on and off - see RAF_Louvert's description] and ensure you are only a few feet off the ground, gliding for 50 feet, as you do not want to bounce her. Cut the engine and flare out by pulling back on the stick and touch down at about 50 mph or less, she will still want to bounce up a bit. You will roll for some 200 feet. *

* Know where you are headed, as you will not be able to see over the cowling. If need be start the engine again and weave your way to your hanger. If you are too high and too fast, you will bounce unforgivingly, and the Rittmeister will call you out - v. S

Advanced Tactics

Use her turning to your advantage. Roll rate is reasonable and you can put her on her back with ease, hard rudder and then the same with the ailerons. You can then dive on the enemy and pull around by still visualising where they fled to. The rudder bleeds off speed, but provides great turning ability. Throttle back, hard rudder, then full power to pull you out of the turn.

You don't have to be kind; she will take all the turns you can throw at her. You can use the stall/spin to an advantage by going hard into a starboard turn, nose up, stall, spin, throttle back, ailerons neutral, rudder opposite of the dive, (look over the cowling). Upon recovery, and a short dive, you will make a left turn. Your enemy will be confused, thinking you are coming out on the starboard side, and this will enable you a good deflection shot.

[Although it shouldn't, the craft will stall and spin, if your angle of attack is excessive, no matter what your speed is] If you spin from this effect, recovery will be longer than a stalled spin, and if you stall and roll her backwards into a tail spin, use your parachute, and bail at under 1000 feet. You realistically had a 4 in 6 chance of surviving, so have your die ready]