

Flying and Fighting in the Acclaimed
Royal Aircraft Factory BE2 series
Over Flanders Fields

A **Spoof** for Pilots
Compiled by
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Quick Rating to Fly: Easy (Good Luck, and God-speed (as this aircraft doesn't have any)

Introduction

The purpose of this article is quite simple: to enable stout chaps enlisting across the Empire to have a fair and realistic appreciation of the RAF BE2 and its variants, as well as providing some "handy hints" with regard to not getting killed extremely quickly at the Front.

All the contents of this article have been assembled by Major Timm, an acknowledged expert in the dual arts of flying the BE2 series in conditions where the beastly Hun can be found, and also in the possibly more useful art of paranoid withdrawal from scenarios where, as the author admits, a derring-do attitude is the handmaiden of an early bath.

General Characteristics

The RAF BE2 series is a marvelously well made and engineered aeroplane: it is rugged; it is well made; it is forgiving in its flight characteristics; it is a wonderfully stable flight platform; it is a true friend to a pilot.

However, and regrettably, there are a few 'black marks' that may be placed at the door of the BE2 series that render it less than ideal as the machine with which to take our struggle to the perfidious Hun.

It is rather slow; it is somewhat ponderous of manoeuvre; it is less than delightful to fly as a pilot; it is less than delightful to fly as an observer; it is under-armed; it has a rather limited ceiling; it is generally faced by Huns who know all of the preceding.

Pre-flight and at Takeoff

Really there is nothing much to worry about with a Quirk. They are all sent out fitted identically, however your ground crew will have to give the machine the "once over" to ensure that the afternoon shift at Farnborough haven't spent the lunchtime in The Green Dragon, as they did when I was over there assessing the latest version of the BE. Oh yes, I won't forget that in a while.

Essentially, upon starting the engine, one should maintain higher than usual revolutions of the engine, since it has a distinct tendency to not pick up and, therefore, to conk out. One third throttle is recommended on minimum mixture. This will lead to one's forward motion; however this is devoutly to be wished, since the point is to take off. Ease your mixture to half promptly and open the throttle to full. The full thrust of the 90 horse power RAF engine propels one into the skies quite promptly, and there is little to be concerned about with regard to pitch or yaw upon takeoff. This is a thoroughly well behaved machine.

At 1000 feet, fully advance the motor and then disregard it from your thoughts thereafter. You will have other things with which to engage.

Normal Flight

The very essence of the BE2 - as I have had confirmed by no less than Geoffery de Havilland - is that it is an immensely stable aeroplane, and that this was designed into the very fabric of the machine.

Some might argue that it is a little ponderous in relation to the ailerons. However that is the bleating of the defeatist. It may not wing over and turn as a scout, but, then it is not a scout and serves a different purpose. In general flight, pilots will find that the large rudder is very effective in course changes, and this, allied to judicious engine control, will suffice for most work. Certainly, one's observer will be less than impressed if the pilot decides that any level of "stunting" above and beyond the absolutely necessary is envisaged and then carried out.

The BE climbs gently and will attain 2000 feet within several minutes of flight. This is more than enough for one to acclimatize to the colder air and the countryside around, as well as appreciating the fine characteristics of this aeroplane. Stalling is only noticeable at around 30 knots, and, provided that one's altitude is not woefully low, then it should be recovered in a few hundred feet.

Once level, one may take one's hands off the main controls and, with the throttle set to fully open, avail oneself of a light snack, since the BE2 series is robust and extraordinarily stable in level flight.

As an aside, and the author has qualms in noting this: it is perfectly possible to loop a BE2 aeroplane. Do not try this below 5000 feet. It may be done, and holds forth the

prospect of possible exoduses from predations by Huns.

It is fair to say that the BE2 series, of whatever stripe, is game to climb its way to beyond 10,000 feet, at which point one's progress will slow somewhat, and it is a lucky pilot and observer who can coax 12,000 feet out of a Quirk, although this is, of course, contingent upon the payload of the aeroplane and the combined weight of both pilot and passenger. Allegedly, some RFC squadrons have deliberately assigned high altitude patrols to pilot and observer combinations where both chaps can prove a successful pedigree as championship jockeys, however the author is less inclined to give this credence.

In any case, one's forward motion will be restricted to a maximum of around 70-80 knots, depending on conditions, so be sure to check that one's seating arrangements are suitably comfortable for what will, in most events, be a long journey. Experienced crews recommend duck down filled pillows in this department; no doubt you will discover your own favourite method.

In terms of the range of the BE2, you will rarely have to order your ground crew to fill the tanks more than half full. This is partly because of the cavernous petrol tanks in the BE, and partly due to the nature of the flights you will likely be asked to undertake. Generally, it is considered advisable to charge the tanks to the total distance to cover and then add half again, the reasoning being that as most work is performed in Hunland, any petrol leak will be problematic, and thus giving oneself a little extra petrol may determine the difference between safety or capture.

On the subject of additional payload, Major Timm has confided to me on several occasions that a full load of bombs - which is to say, around one hundredweight, or, for our colonial cousins, approximately 110 pounds in weight - makes the BE2 take off and manoeuvre, to use his exact words "like a complete bastard", by which, I imagine, he wished to convey to me and interested parties that this is not an ideal situation within which to find oneself. 'Caveat Emptor' must be your watchword on bombing raids with respect to top speed, highest altitude and manoeuvrability.

Attacking the Hun on the Ground

As hinted previously, a BE pilot possesses a marvelous machine in which to perform predictable, slow, even tardy, ground attack runs on the Hun.

To paraphrase Major Timm somewhat, apparently the best tactics are to simply run at the target as fast as the aeroplane will take you - which is to say, approximately 105 knots in a dive - and then to simply unleash the bomb load, or else, as necessary, to give the Hun what for with the forward mounted synchronized Lewis machine gun. Major Timm reports that around 3/4 of his bombs find the target, and having seen photographic evidence from his various observers, I can attest that this is probably quite true. Therefore, dive quickly, wait until one is at around 500 feet and then give the Hun what for.

Major Timm also advises against returning to just bombed targets and dawdling over enemy trenches, however axiomatic it may seem to view your success.

Attacking the Hun in the Air

The BE2 is, as noted, a splendid aeroplane, however it has a few minor disadvantages when one is called upon to deal with the increasing blight of Hun aeroplanes.

The first relates to the placement of the observer. The presence of said observer directly in front of the pilot must be considered as a slight hindrance to plucky fellows seeking to rid the skies of the Kaiser's brood, and, allied to the omission of a rear facing Lewis for your observer, you may fret that you might not be able to bag a Hun should the occasion arise.

Major Timm has assured me that this is not the case, and offered the opinion that, with a little practice, if one can line oneself up behind a Hun, then there is every reason to expect that one will prevail, particularly if a stout fellow is willing to approach within 50 yards of his foe.

As with all air combat, the trick is to avoid it until absolutely necessary. Turn and face the Hun when assaulted, and parity with the foe is more likely. Timm did relate that the early Fokker scouts were "a doddle" to attack, however as his career has progressed since 1915 to the present day, he has admitted that it has become far less likely to score a victory over a Hun aeroplane, due mostly to the BE's lack of scout-like manoeuvrability and the increased aggression of the Hun.

Over several large Armagnacs, the Major waxed wroth concerning tactics for fighting Huns in the air, but this author could only really narrow it down to "attack if necessary, look for a route home, and take it as quickly as possible, having chased the Hun down". These seem wise words.

Landing

An aeroplane as well designed as the BE2 is hardly likely to present difficulties to even the most average pilot; assuming that he is solo. With an observer sat in front however, it is sensible to follow the advice below.

Of course the approach to the field will be best assisted by *yawing* one's aeroplane using port and starboard rudder. The BE is quite stable, and, as one's forward motion becomes less vigorous - say 30-40 knots - one may swing back and forth on the rudder and observe the approach to landfall. The nose of the BE2 should be kept horizontal to the horizon, and thus, one simply loses height naturally.

As with all aeroplanes, the general rules of landing - cutting one's throttle back, flaring prior to touching down and killing the motor - apply, and the BE is a pleasant aeroplane to land, provided that one's observer was excused flight duties. Otherwise, simply be careful, take one's time and do not worry about stalling, as this is highly unlikely to occur.

Major Timm insists that the BE *can* be landed from higher speeds ignoring these profound rules, and that, *in extremis*, crash dives from 1000 feet to the aerodrome, followed by violent yawing and pitching allied to cutting the engine will result in a safe landing, however this author is yet to be convinced that an inexperienced BE pilot may foray thus and return intact.

Conclusion

I hope that you have found this brief missive helpful and informative.

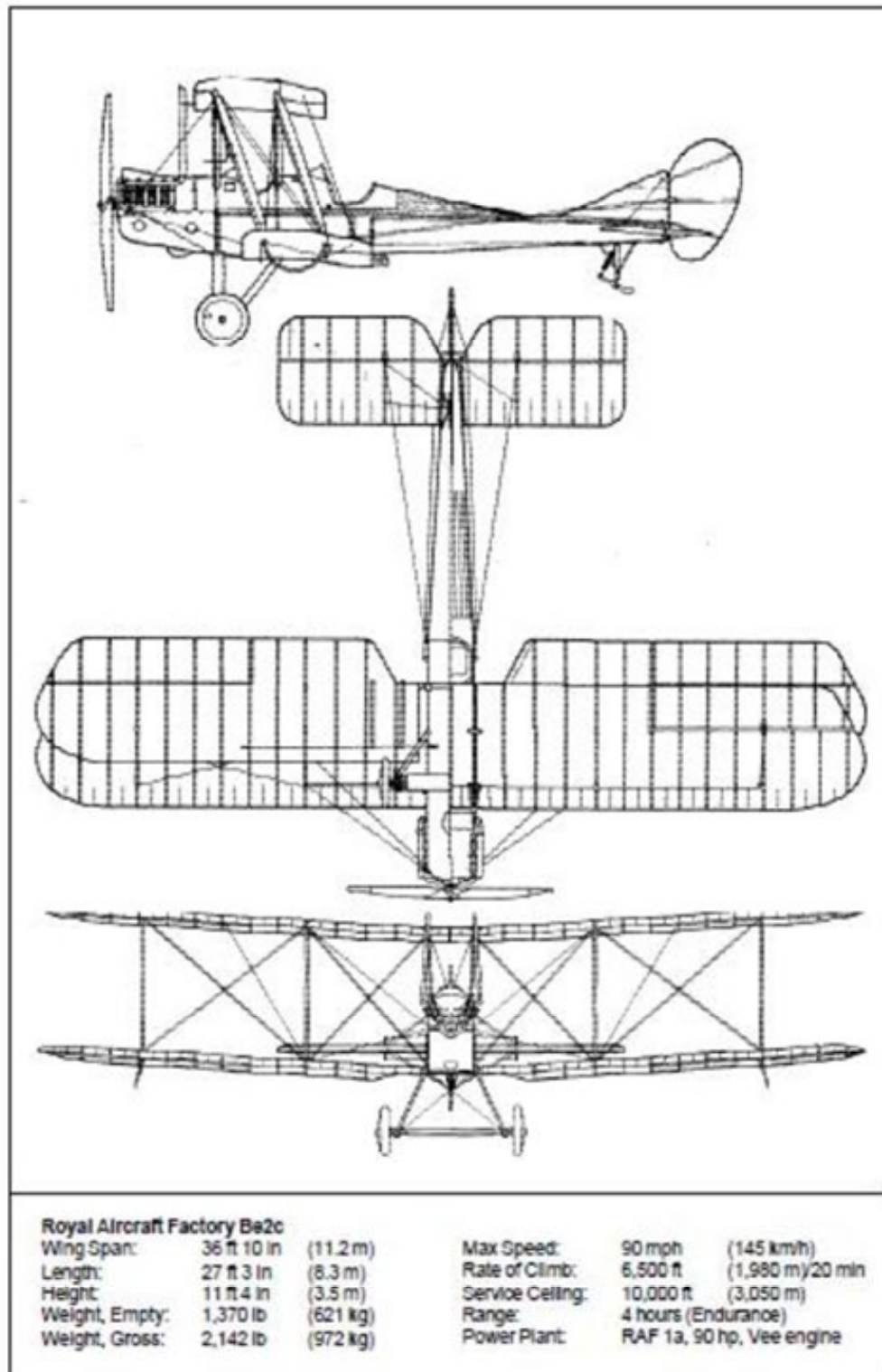
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SPECIFICATIONS

Early B.E. 2s saw service with the Royal Flying Corps from 1912 onwards. The B.E.2c operated in France, mainly for reconnaissance and military observation, although some were single-seat bombers. Single-seat B.E.2c night fighters downed six dirigibles over Britain. Withdrawn from action in 1917, many continued as trainers until the war's end. In all, 3 260 B.E. 2s were built.



Royal Aircraft Factory Be2c ARF 6