Complex Engine Management
IL2 Forgotten Battles

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Introduction

I am going to attempt to explain in common language the different engine control features and how they are used and how they affect all aircraft in IL2FB. I will do my best to give analogies and descriptions that everyone can understand. This is not a technical manual or flight manual. RL (real life) flight manuals contain specific data for aircraft that has not been shared by the IL2FB development team.

The goal of this information brief is to provide some basics of what the engine management controls (CEM) do and how they are used. This is not aircraft specific it applies to all aircraft. This is meant to get the inexperienced IL2FB player started. New pilots will develop a feel and better understanding of how it applies to specific aircraft as experience is gained. More detailed technical information may be found in IL2FB manuals, RL flight manuals and flight instruction material.

Tailspins Tails located at http://mywebpages.comcast.net/Tailspin/index.htm is a website devoted to reference sources for flight sim enthusiasts. More detailed RL flight and combat flight information may be found.

There will be sections covering the control of Prop Pitch, Fuel Mixture, Supercharger, Wep/Boost, Radiator, Trim, Magneto, Throttle, and Flaps. Data specific to each aircraft in IL2FB may be found on disk 2 "AdvancedPDFmanual.pdf" and in the readme found in the IL2FB system folder. The paper manual and reference card supplied with the game has pertinent information on configuration procedures and pictures of instruments.

I am sticking to the terminology used in the IL2FB manuals and reference cards to eliminate any confusion. One thing that may cause confusion is the incorrect use of the word boost in IL2FB manuals. In RL boost refers to supercharger or turbocharger pressure and wep refers to war emergency power. WEP is power beyond normal maximum power output. In IL2FB boost/wep refers to a chemical additive injected into the fuel/air mixture to obtain a temporary power boost.

IL2FB is the most accurate WW2 CFS (combat flight simulation) available. People that have prior CFS experience may need to forget some of there prior experience, and will have to learn RL attributes of flight dynamics. Since the release of IL2FB I have seen many people claim the game does not work, or a specific plane is crap, because it does something or does not do something. In every claim I have seen, I have found that the problem was not the plane or the game, but the pilot. Unfortunately some are not even aware that there lack of knowledge is what is causing the difficulties. Some of these people are wrongly accusing the IL2FB development team and continue to spread incorrect information.

Do please excuse the grammatical error's, I am not a professional writer and seriously lack basic literary skill in two languages, lol. I do have real life flight experience starting in the early 1960's and CFS experience starting in the early 1980's. Seeing all the difficulty people are having understanding the CEM. I thought I would share some of my knowledge and experience. This is not intended to cover all aspects of CEM in great detail. It is simply meant to cover the basic's in terms that all people should be able to grasp and as a springboard to better game play and understanding of CEM in IL2FB.

Prop Pitch

Is the angle of incidence of the propeller blades in relation to the direction of travel. In simpler terms how hard it bites or grabs the air. This is the same for boat props, ceiling fans and turbine blades in jet engines. Stick your hand out the window of a moving car or move your hand thru water. Depending on how you angle (pitch) your hand, you will increase or decrease resistance. By cupping your hand in water you are able to grab or pull more water than if you move your hand through the water edge first. A prop blade is essentially cupping the air pulling and pushing it back towards the rear of the aircraft. There are two types of propeller configurations. Tractor and Pusher. All aircraft in IL2 and IL2FB are of the tractor configuration. A pusher configuration has the propeller behind the engine and pushes the aircraft through the air. The tractor configuration has the propeller in front of the engine and pulls the aircraft through the air. The amount of pitch determines how much air the prop will pull or push. As the prop pitch angle is changed to grab more air, more horsepower will be needed to keep the propeller turning at a given rpm (revolutions per minute). Older or less complicated aircraft will have fixed pitch props that cannot be changed.

All aircraft in IL2FB start at a prop pitch setting of 100% whether in manual or auto. At 100% the blades bite or grabs the air the least. The angle of incidence is displayed on the right hand side of your screen notated as 100%, 95%, 90% on down to 0% at 5% increments. 100% is the easiest for the engine to turn and grabs the least air. As you change from 100% to 95% the blades bite more air and takes more horsepower to turn the prop. Prop pitch set at 95% and 2,800 rpm's is going to move the aircraft faster through the air than 100% and the same 2,800 rpm's.

The amount of air the prop is able to grab is limited by the horsepower of your engine. Some of the planes if you apply full throttle at a prop pitch setting of 100%, the engine and prop will exceed maximum allowable rpm's. This is referred to as over speeding the prop, or over revving the engine.

Each plane has a maximum allowable rpm and or combat engine setting. The combat engine setting rpm should give you best airspeed at full throttle. The AdvancedPDFmanual on disk 2 will give you the combat engine setting for each aircraft . Exceeding maximum allowable rpm's for any length of time will damage the engine. American aircraft have a red line on the tachometer showing the maximum allowable rpm. Short burst's past the maximum rpm are possible in this game without significant engine damage, though do not allow the rpm's to stay above the maximum allowable rpm's for long. Only American aircraft have a red line showing maximum allowable rpm's. All other aircraft it is suggested to use the combat engine setting as your maximum allowable rpm.

All engines have a powerband. Aircraft engines are designed to operate at constant power settings. At low rpm's the engine does not have as much power and in turn if rpm is to high the engine will also have less horsepower and or experience damage. The idea is to keep your rpm in the powerband. This powerband may be between 2000 and 3000 rpm. Go below 2000 and the engine does not have the power to turn the prop efficiently. Go above 3000 and the plane will not go any faster and you may damage the engine. Some engines have a wide powerband between 2000-3000 rpm. Some engines will have a shorter power band 2500-3000 rpm. The idea for maximum speed is to keep the rpm's at peak horsepower. This peak powerband can be as small as 2700-2800 rpm's while other engines may have a wider peak power band of 2500-3000. You will be able to feel this powerband and with practice you will learn the powerband of any aircraft you fly.

As you change from 100% to 95% pitch and back to 100%, you may need to apply more throttle or decrease throttle input to keep rpm's in the powerband. To obtain maximum aircraft speed you want to be able to apply full throttle at the lowest prop pitch % while you keep rpm's as close as possible to the maximum allowable or combat engine setting rpm.

Applying full throttle at 100% pitch setting with some aircraft may cause over revving and damage the engine. Some aircraft you will need to change prop pitch rarely, others you will need to change prop pitch frequently while conducting normal operation and or combat maneuvers.

One way to think of prop pitch control is like the transmission in a car or motorcycle. To go faster you need to apply throttle and change gears. Just like a car in 1st gear, some aircraft set at 100% will rev to or past the maximum allowable rpm while traveling relatively slow. Like a car changing from 1st gear to 2nd, 100% to 95% will lower your rpm's and increase your forward velocity. Some aircraft on take off you will need to go to 75% prop pitch to keep from over revving at full throttle. As you dive or climb you will need to change your prop pitch up or down to keep from over revving or under revving. Under revving are rpm's below the power band. The engine will not be able to turn the prop fast enough to get best forward speed. To maintain constant or maximum airspeed while conducting combat maneuvers you will need to adjust prop pitch control in conjunction with throttle input to stay within the power band. Maintaining optimum prop pitch and throttle settings while maneuvering in combat can be difficult and will take practice to become proficient. Listen to the engine, after becoming accustomed to the sound of your favorite plane you will be able to keep it in the power band with out looking at the tachometer.

German planes have an automated system that does not need prop pitch setting input from the pilot to stay in the power band. You may change from auto prop pitch to manual and back to auto when ever you like. You will have to bind a key for this function in controls. The auto setting is slower to respond to throttle input than when using manual prop pitch control. By using manual prop pitch control and throttle input properly you may be able to increase your acceleration rate and or maximum aircraft speed for a given circumstance better than the automated system. If you practice at improving your control over prop pitch and throttle input, you will get that extra speed to get that kill or stay alive.

Multi engine aircraft have the ability to feather the prop. Feathering the prop turns the blade so that the edge of the blade is turned towards the air flow to decrease air resistance. This is necessary to do if one of your engines is shot out or damaged and or not producing usable power. Failing to feather the prop on a dead engine may produce so much drag that the one good engine may not be able to keep the aircraft in the air. If it's not running Feather it.

One note on the bf/me 109 series of aircraft. The AdvancedPDFmanual on disk 2 states that 2500 rpm is the combat engine setting on 109's. I regularly operate between 2500-3000 rpm with no engine damage. 2600-2800 being most commonly used for max. climb or speed. Listen to your aircraft the sound will tell you a lot. Use common sense if the engine sounds like it's going to scream or shake it self to death it probably will. Remember that numbers supplied in manuals are best suggested numbers and or may be incorrect. In combat it may prove necessary to push past normal flight limitations. Just remember that anytime you push past normal flight procedures your aircraft may experience failure. Through testing you will be able to determine what your aircraft limitations are.

Fuel Mixture

Is the ratio of air and fuel mixed together as it is inducted in the engine to be burned. In IL2FB fuel mixture settings go from 120% to 0% using 10% increments. Auto rich 100% is the automatic setting when you spawn and should provide normal engine operation in all flight configurations. Enrich means to add or increase fuel to the fuel/air mixture. Lean means to lessen the amount of fuel in the fuel/air mixture. As you increase your altitude air density lessens therefore less fuel is needed to maintain an optimum burn rate. Fuel/air mixture needs to be adjusted according to your altitude.

If the fuel/air mixture is to rich the engine may sputter, spark plugs will foul, power will decrease, rpm's will fall, you may see smoke emitting from exhaust stakes and a smoke trail behind your aircraft. This should cause no damage to the engine other than fouling the spark plugs. I do not believe fouling spark plugs is part of the code in IL2FB. Loss of power, decrease of rpm's and smoke trail does happen in some aircraft in IL2FB.

If fuel/air mixture is to lean you may experience engine sputter, decrease of power, rpm's will fall, engine may become damaged and fail, or engine will stop running due to fuel starvation.

When you have the correct fuel mixture setting for a given altitude your engine will run the best. They way to find out what is the best setting is try the different settings. Listen to the engine watch the tachometer, look for a smoke trail. The lower your altitude the richer the mixture needs to be. The higher the altitude the leaner the mixture needs to be. Generally at sea level 100% or 80% works fine. As you climb you may need to adjust the mixture to a lower % of fuel to maintain maximum peak power. Some aircraft with wep/boost at sea level may need 120% to run it's best. Use 100% or 120% for takeoff and landing. 100% or 120% for take off and landing ensures safety as the engine should not experience a failure due to improper mixture setting. I have found 100% to work fine in all aircraft for takeoff and landing.

Aircraft with a supercharger or turbocharger may not need the mixture leaned at higher altitudes. The supercharger or turbocharger maintains the same air pressure and or air density at all altitudes.

Supercharger or Turbocharger

Is a device that compresses the fuel/air mixture an engine inducts to be burned in the cylinders to produce power. As altitude increases the density of air decreases, the engine has less air to burn and in turn losses power. If you go high enough with out a supercharger or turbocharger the engine may stop running or will not produce enough power to climb any higher. A supercharger will allow an engine to produce better power at higher altitudes. Some planes have a 2 stage supercharger or in other words gearing to run at different speeds. First stage, stage 1 is used at lower altitudes 0-3km's, second stage, stage 2 is used for higher altitudes 3km to the maximum attainable altitude. Different aircraft and there superchargers are geared differently. Therefore in some aircraft you may be able to switch from stage 1 to stage 2 at 2.5 km's while in others you will not have to switch to stage 2 until 3.5km's or 4km's. If you switch to stage 2 at low altitudes the supercharger will produce more pressure (boost) than the engine will be able to handle and will eventually ruin the engine.

Look at your manifold gage to check your supercharger pressure. Rule of thumb to use is if you switch to stage 2 and you do not experience and increase of power or rpm's go back to stage 1. If your at high altitude using stage 2 and dive on an enemy remember when you get to low alt you will need to switch to stage 1 or engine damage will result. Some aircraft do not have a supercharger or use a multi stage supercharger or have a turbocharger that needs no adjustment. You will need to bind a key to stage 1 and stage 2 to adjust stages in aircraft with this feature. To find out if your aircraft has an adjustable 2 stage supercharger press the key you bound to stage 1 or 2, if you do not see the selected stage displayed on the right hand side of your screen that aircraft does not offer adjustment.

Wep or Boost

The verbiage "boost" utilized in IL2FB manuals is technically incorrect. Wep (War Emergency Power) is the most widely used terminology to describe emergency or very high temporary power settings. I will utilize wep/boost to maintain similarity with manuals. Wep/boost is an additive to the fuel/air mixture that increases horsepower for a limited period of time. Some aircraft provide additional power by pushing the throttle to 110% from normal maximum power at 100% without an additive. 110% by it self can have a similar affect as an additive by increasing engine heat build up and decreasing longevity . I am not going to go into detail about all the different additives. I will only explain how to use wep/boost in IL2FB. There is plenty of information about all the different additives elsewhere for those that want every little detail.

You must bind a key to wep/boost in controls to toggle it on or off. Some aircraft do not have this capability. Those that do, the key you bind to toggle wep/boost will turn it on and off. With some aircraft simply press the button to get more power. Others you will need to arm and or charge the system and boost/wep will work when you push past 100% throttle to 110%. Some aircraft boost/wep is always on and cannot be uncharged/unarmed, boost/wep will come on every time you go to 110% throttle as long as a supply remains. Boost/wep will not work for ever. Different aircraft have different capacities and will only work as long as you still have a supply of additive in the storage container.

Using boost/wep can cause your engine to heat up faster due to faster burning of fuel and higher horsepower output. With some aircraft going to 120% fuel mixture will increase the power gain as the additive provides for the ability to burn more fuel. Some boost/wep helps cool the engine so that maximum throttle may be used for a longer period of time before overheating. No matter what the purpose or effect of the boost/wep your engine will eventually start to overheat and you will have to adjust radiator settings and or throttle back or you will damage the engine.

Boost/wep can be used at any time you need extra power or speed. It will increase your climbing ability if you need to get altitude fast. It can give you that extra power to turn tighter or catch an enemy aircraft or run for your life. It can help you get a heavily loaded aircraft off a short runway, or avoid that vulcher tying to get you as you takeoff. I would rather ruin my engine and risk getting yelled at by my crew chief than get planted in the local cemetery. Only you can best decide when and where boost/wep should be used.

One specific aircraft series needs additional explanation. The BF/ME 109 G6A/S, G10, G14, K-4. Boost/wep needs to be charged at idle or damage may result. Toggle boost/web button at idle to charge system. Once the system is charged push throttle past 100% to 110% to use boost/wep. Once the supply is gone, throttle back to idle allow your rpm's to drop to idle speed toggle your boost/wep button to disengage the system then throttle back up to operating power. Failure to adhere to proper charging/disengaging procedure will result in engine malfunction.

Radiator

Cools the engine. You have 10 or 11 settings controlling the cooling effectiveness of the radiator. Some aircraft have an auto setting some do not. Bind a key in controls to toggle radiator settings. Toggle through all the settings to see all the settings that aircraft is capable of. Cooling the engine and maintaining aerodynamic efficiency is a constant trade off. The further you open the radiator the more drag that is produced the slower your aircraft will go. As speed increases, wind resistance doubles. Therefore a fully opened radiator at 600kph will have a more dramatic effect on velocity than at 250kph. Throttle setting also plays a large part in engine heat. If you have the radiator opened all the way and the engine will not cool down reduce throttle to 95% or 90% or less, and the engine will cool down, burning less fuel causes less heat.

There is a multitude of variations one can use to achieve your goal of keeping the engine cool and maintaining maximum speed. There is no wrong other than ruining your engine due to overheating or improper mixture setting. Mixture setting can also play a part in over heating the engine. Obviously getting best performance using the best fuel/air mixture for your given altitude will cause your engine to run cooler. Using to lean of a mixture setting can increase heat and burn a cylinder causing engine damage.

I have seen many complaints that the 109 series of aircraft engines only last a couple of minutes. This is not true. The reason the engine fails is that they are using improper prop pitch, fuel mixture, and radiator settings. The failures are caused by the pilot and have nothing to do with bugs or code. I have found the engines in the 109's to be very durable and I am able to over rev for short speed burst's without damage to the engine.

Finding the best throttle setting, with the best mixture setting combined with the best radiator setting for the speed you need without overheating the engine will provide best efficiency. This fine balance can give you the fastest airspeed the best climb rate or best fuel mileage.

Closed provides the least cooling and least drag. Number 1 setting provides a little cooling with a little drag. The open setting provides for more cooling and drag than the number 8 setting.

Trim

Is the ability to move the aircraft control surfaces in small increments and hold that setting. This includes elevators, ailerons and rudder. A properly trimmed aircraft is much easier to fly. A properly trimmed aircraft will be faster and or safer. I rarely use aileron or rudder trim. In bombers trimming the rudder and ailerons will help you track a straight line for target alignment and bomb release. Trimming the elevator will allow you to maintain altitude or control climb or decent rate.

On all aircraft I have found that after takeoff as your speed increases your plane trim setting will cause the aircraft to climb. If you do not want to climb and want to gain airspeed, adjusting trim by causing your nose to go level or at a slight nose down angle of attack will allow you to gain airspeed as fast as possible. If you do not adjust trim and push the nose down by forcing your stick forwards your plane will increase speed but at a slower rate and control pressure may become excessive at high speeds and you will not achieve the maximum airspeed potential of your aircraft.

On long climbs or descents trimming for the desired angle of attack will increase climb rate or descend rate.

Magneto

Is a device that provides electricity for the aircraft. The magnetos give you lights and provides electricity for the spark plugs to spark. There are 2 magnetos to provide redundancy ensuring as much safety as possible. If one goes out you have another, with out spark your engine stops.

Normal operation is use both magnetos at the same time, 1+2 will show on the right hand side of your screen when you toggle the key bound to that function. It is normal that when running on 1 magneto your rpm will decrease by 100-200 rpm. In RL both magnetos are checked before takeoff during run up. If one magneto does not work or rpm drops to much on one magneto, the flight is aborted and repairs made. I have found no reason to fiddle with the magneto settings in FB as the default setting is both and I have not experienced a bad one yet.

Throttle

Controls your engine speed. Throttle settings in conjunction with prop pitch, fuel mixture, supercharger stage, radiator setting, wep, magneto setting and trim adjustment controls airspeed and fuel efficiency. When you reference the AdvancedPDFmanual.pdf on disk 2. You will notice that there is 3 rpm settings displayed.

Combat Engine Setting is the maximum rpm you should use without causing rapid damage to the engine. You will have to adjust prop pitch at full throttle to stay at the maximum rpm unless you are using auto pitch control. The type of aircraft and radiator setting and mixture setting will determine how long you will be able to maintain this high rpm setting before overheating. Constantly running at this high rpm will shorten engine life in some aircraft.

Best Cruise rpm provides for the best cruise speed while maintaining engine reliability and longevity. You will have to adjust the prop pitch, mixture control, radiator setting, supercharger stage and trim to get best cruise speed.

Economy Cruise will give you the best fuel efficiency with a lower airspeed than best cruise. You will have to adjust the prop pitch, mixture control, radiator setting, supercharger stage and trim to get economy cruise. Long flights may dictate the conservation of fuel onboard. If an air battle last's longer than expected and your low on fuel you may need to use economy cruise to make it back to base before running out of fuel.

Flaps

Increase lift. The byproduct of lift produced by flaps is drag. Deploying flaps at high speed can damage the flaps or damage the aircraft. Deploying flaps will slow you down. There are three setting for flaps.

Combat flaps are used to increase turn rate and decrease turn radius, or can increases climb rate or help hold off slow or medium speed stalls. Turn rate is how fast your plane will do a 360 degree turn. Turn radius is the size of the 360 degree turn. Using combat flaps at the right time in the right situation can get you the lead you need to get a shot at the enemy or allow you to evade an enemy's gun fire.

Take off flaps provide additional lift for take off. Take off flaps maybe necessary to get off a short field or will help get a heavily loaded plane off the ground. Take off flaps will shorten your takeoff run or allow you to clear tree's or other obstructions at the end of the field.

Landing flaps provide lift and drag so that you may slow down and land softly. They will also allow you to do a 3 point landing. A 3 point landing is when your main gear and tail wheel contact the ground at the same time. This requires a high angle of attack (AoA).

Engine Startup Procedure

You must bind the appropriate keys in controls to start your engine. Single engine fighters you simply need to press the key bound to **Toggle Engine** to start your engine.

Multi engine planes have a more complex startup procedure. You will need to bind a key to **Toggle Selection for all Engines, Select Left, Select Right, Select All** and will need a key bound to each individual engine **Select # 1, Select #2, Select #3 Select #4,** for planes with 4 engines. You may bind up to 8 engines.

I will run you through a multi engine startup procedure.

1. Press **Toggle Selection for all Engines**
2. Press **Select Left** or **Select Right** then press **Toggle Engine** to start left or right engines.
3. Press **Select Left** or **Select Right** which ever is the side not yet started, press **Toggle Engine.**
4. Press **Select All** to have throttle control of all engines.

This is the simplest way to start up multi engine aircraft. Selecting left or right engine during taxing and throttling up only one side can help you steer the aircraft while on the ground. Do remember to press select all before you start your takeoff run.

You may also start each individual engine by themselves rather than all engines on left or right side by pressing select # 1,2,3,4,5,6,7,8 as you want to start each engine.

If your engine is on fire you will want to select that individual engine and press the key bound to **fire extinguisher** to put out the fire. You may have to hit the fire extinguisher button more than once to put the fire out.

If one of your engines does not run you need to select that individual engine and press the key bound to **Feather Prop**.

In RL you want to let your engine warm up before taxing and or taking off, or you will damage the engine. It may be a good idea in IL2FB to do the same. I have not encountered any problems with throttling up immediately after start up, though this does not mean that such is good for the engine. Once again use common sense and let your specific situation determine your needs.

One airplane needs further explanation. The ME262. Start up procedure is the same as any other multi engine plane. When you hit the toggle engine key to start each engine you will hear a put put sound this is the 2 stroke engine that starts your turbine engine. Be very careful with throttle input. You must advance or retard the throttle slowly or the engine will catch on fire.

Going full 100% throttle at slower airspeeds your engine can over heat and burst into flames. Throttle back until you have normal temperature or your airspeed is fast enough to cool the engine enough to run constantly at 100% throttle.

I have found that once you are up and running the throttle can be advanced and retarded between 80% -100% fairly quickly without engines catching fire. Also once your airspeed is around 700 kph or above you can run 100% throttle without fear of fire.

Final Approach

Now you have some basic's pertaining to CEM in IL2FB. The intention of this brief is to provide the basics only. It is now up to you to put it all together. Many IL2FB squads and the IL2FB forums will have material that will help you with specific aircraft and tactics. There is plenty of information published and available at bookstores and public libraries. Some book stores and all flight training facilities will have flight manuals and training material that will provide in-depth information related to flight dynamics and RL engine management controls.

Tailspins Tails located at http://mywebpages.comcast.net/Tailspin/index.htm is a website devoted to reference sources for flight sim enthusiasts. More detailed RL flight and combat flight information may be found.

Many aircraft and flight magazines have websites with free and readily available information written by pilots., try an internet search. There are many publications available that pertain specifically to WW2 aircraft. Some have been written by pilots that actually participated in combat and some have been written by experts in aerial warfare. Unfortunately some books have been published by publishers for profit with little attention to providing correct information.

You may ask, so why does my plane in IL2FB not fly as fast or climb as fast as the book says it should, or perhaps my aircraft goes faster than the book says it should. Is IL2FB wrong? Unfortunately some of these reference guides are unreliable. The biggest discrepancies are usually in speed capabilities and or climb rate of a specific aircraft. Just because it's in a book does not mean it is correct. In the majority of cases the data does not specifying test conditions. With out the test conditions the data cannot be reproduced or verified.

The test conditions are most important as you are aware that there are multiple factors that determine airspeed, climb rate, turn rate, ect. Atmospheric conditions have a dramatic affect on aircraft performance and most data published says nothing about altitude and or aircraft control settings. What was the rpm's, radiator setting, octane of fuel, viscosity of oil, amount of fuel on board, altitude, ect.

CFS developers utilize test pilot records that have all the details that are omitted from the majority of published aircraft data readily available in your local bookstore. These test records can be difficult to obtain for some aircraft and can be expensive. The reason many publications use unverified and readily circulated information is that it is fast, easy and cost effective. This less than thorough procedure has caused incorrect information to be circulated for many years.

Before making accusations that IL2FB is wrong, does not work, or sucks. Search through the forums as someone may have already posted your concerns and you may find your answer. Post questions for feed back from other posters. I think you will find there are many IL2FB community members that are willing to help you. Some of the posters are very knowledgeable about aircraft and some know nothing about aircraft. So take what you read with a grain of salt and do not assume that because you have seen it a number of times it is correct. There are very few flaws pertaining to aircraft performance in IL2FB, far less than the forums would lead you to believe.

The IL2FB development team strives for perfection. If you think you have found a bug (check forum first) or incorrect specifications for a particular aircraft (check forum first). Then post a clear and concise detailed brief with test conditions on what you think is wrong. When posting make sure you are posting in the best section that applies to your problem or concern.

If you find a legitimate inconsistency the IL2FB development team will make adjustments to the code. Do be patient as with any new release and with all the features in IL2FB they must first attend to the most important inconsistencies.

Good Luck and looking forwards to meeting you in the sky.

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