

Bücker Bü-131

Jungmann



OWNERS MANUAL

FOR MSFS

BUILD EDITION 1.2

Bücker Bü-131 Jungmann

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CURRENT BUILD VERSION OF THE LHC Bü-131 IS BUILD 1.2

 READY TO FLY

Bücker Bü-131 Jungmann





Bücker Bü-131B Jungmann



Dűcs István gyűjteményéből



Air Britain Photographic Images Collection

© Dave Welch

Photo by Air-Britain

A rendition of the Classic German/Swiss Bucker Bu-131B Jungmann with today's small mods and improvements.

A journey into the Golden Age of Aviation in Europe in the 1930's.



Köszönet

Nicknamed the Strativarius of antique light aircraft of the 1930's, the Bucker Bü-131 came to be 1934 with its first flight occurring on April 27th of that year. The Jungmann (pronounced Young man) was designed by Karl Bucker. The first model of Jungmann, the Bü-131A, went into production and rapidly became an extremely popular aircraft of that time, with most of Europe wanting these to train their pilots. Not long after the release of the 80HP Bü-131A did the Bucker Flugzuegbau firm release their second Edition version of the bi-plane, the Bü-131B mode. The B had the updated new Hirth A-2 sporting 105 HP. This new version was then licensed out to many European countries including Spain, Japan, Romania, Hungary, Yugoslavia, and Switzerland. (Many years later, other countries would go into a limited production runs of the popular design).

This version of the Bucker Bü-131B by Lionheart Creations is the Swiss model which 99 units were produced in Switzerland. This particular 'flight simulation model' shows you a 'modernized version' of one that would be typically owned and 'modified' to todays standards, which includes fitting of radios (COM1 and Transponder) and NAV lights for night flying.



INTRODUCTION 2 HIRTH HM 504 A-2 AERO ENGINE

PAGE TWO

The heart of the Bü-131B was the impressive Hirth aero engine. The B model Jungmann featured the new version HM 504 'A-2' which had a higher output of 105 HP. The first version Bü-131A had an 80HP version of the Hirth.

The engine is unique as it is inverted, its cylinders hanging down, and the crankshaft up high. The engine is in a neat row, making it 'one cylinder wide' from the front view, thus very narrow, making it aerodynamic, fitting in the cowling neatly.



INTRODUCTION 3 CABIN LAYOUT

PAGE THREE

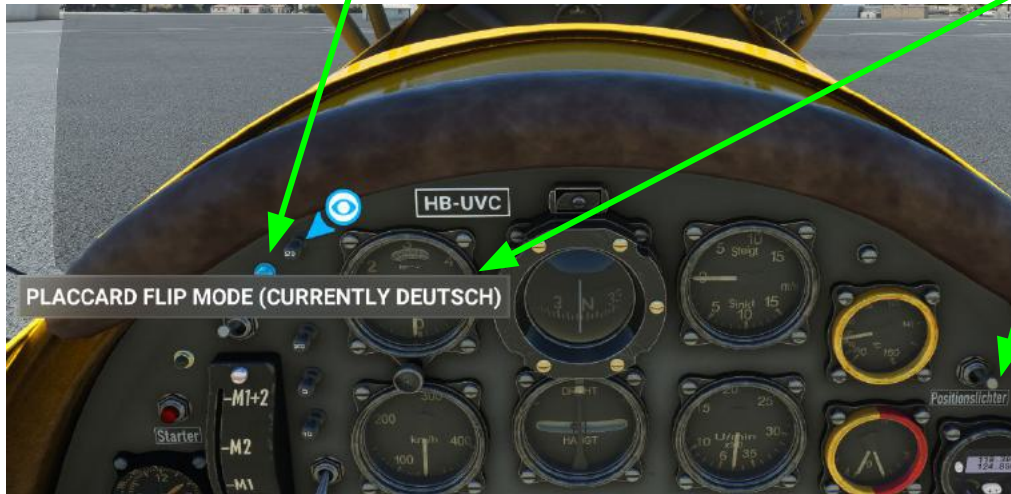
The Cabin layout of the Bücker Jungmann places the Pilot in the rear back-seat and the student or passenger sat in front. The front students position had basic flight controls to fly the plane, from throttle and joystick and very limited instruments, while the pilot had full instrumentation and controls. The controls and systems were directly linked via linkages (strut tubes and control cables).



UPDATES! Version 1.1 is here!

The Bucker Bu-131 has undergone some updates and improvements. Not a lot, but some neat little features are now added.

1. The Sound Pack has now been improved to a new vintage 4 cylinder engine very similar to the classic Hirth 504 four cylinder. This gives you a better flight experience.
2. I have found the issue with the front passenger not always showing up, and I made a neat added feature where you can hide/unhide the passenger up front. With her visible, you can now fly with someone up front, looking around, enjoying the flight as you pilot your classic Jungmann through the Alpen valleys.
3. Nav Lights are now fully 'mesh' illuminated and brighter at night.
4. A better mouse over for the hidden screw that is the switch that flips the Placcards from German to English, showing which language they are in, etc.



German / English Placcards Flipper 'Hidden Screw' on Panel
Click on top left 'Panel Screw'



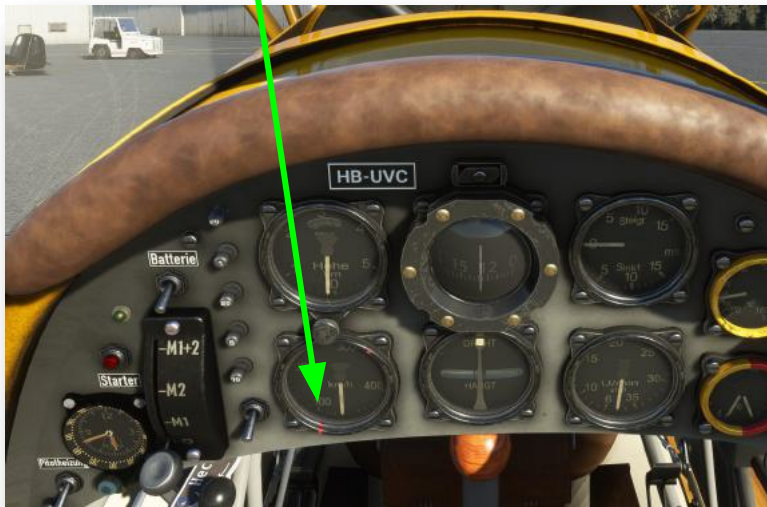
Front Passenger can join you in your flights!
Click on top right 'Panel Screw'

UPDATES! Version 1.1 is here!

Continued from previous page

5. Ground handling improvement that allows for better turns around the airfields and grass fields. This might cause a bit of 'bounce' on rough landings on tarmac, so you'll need to improve your 'smoothness' in touch-downs. ;)

6. Red 'Speed Marks' added to the Kilometers per Hour instrument (ASI or Air Speed Indicator) that show stall speed and Max air speed amounts, which are 67 KPH and 300+ KPH. (You will probably never see 333 KPH, but if you need that red mark there, you'll have it. :)



Airspeed warning tape markers on Stall speed and Max speed



Ground handling for better turns while taxiing have been implemented.



**Bücker Bü-131
Jungmann**



Features

The Jungmann Bu-131B features 14 different liveries. I sought to make them all look totally different from each other. I also wanted to reflect how they changed from the original. These represent 'today's' Bucker Bu-131's, not the exact original. These represent planes that would realistically have been modded through the many decades of ownership through several owners hands. I have included show planes, rough planes, and what appear to be training planes from the WWII era.

1 INSTRUMENTS FEATURES

- Amazing replicated German instrument bezels mapped and painted in Substance Painter in PBR materials
- Asobo high performance 3D Instrumentation for better frame rates
- Asobo COM1 and Transponder system
- Basic Autopilot System with ALT and HDG
- Illuminated instrumentation
- Adjustable Dimmer Rocker Switch for Panel lights to dim down the light value on Instruments

2 EXTERIOR FEATURES

- 15 Paint schemes in 4K resolution
- Bump mapped exterior fabric tape lines
- Brilliant detailed linkages and rigging details
- Maximum shock absorption landing gear for soft rough-terrain landing capabilities
- Customizable / Editable Registration system
- High detail engine model
- Asobo new technology decals that hover over the fuselage surface, in old German font
- Beautiful 3d replicated ribbing under fabric
- Asobo prop blade technology that has side view only versions and front view only versions that fade as you go from side to front views
- Amazing camera views, interior and exterior
- Flip down vintage mini addon landing light under left lower wing, retracts with switch on panel

3 ADDED FEATURES

- Famous Asobo Rain Effects on the windshield perspex for high realism rainy day flights
- Plexi detail map of scratches and scuffs for a nice touch of realism
- Clickable changing German-to-English instrument panel Placard labels

4 UPDATE FEATURES

- Hideable Passenger in front seat that adds to the unique flight experience of flying in the back seat with a passenger up front, viewable in the cockpit
- New Soundpack of a 4 cylinder classic engine similar to the Hirth 504 4 cylinder
- Mouse clicking improved with some mouse-hovering
- Better illuminated NAV lights

Bücker Bü-131B Jungmann

Swiss Edition with modern mods



Specifications and weights

Crew: One Pilot, One Passenger

Capacity: Two Souls

Length: 19 ft 10 in (6.05 m)

Wingspan: 16 ft 8 in (5.08 m)

Height: 4 ft 5 in (1.35 m)

Wing area: 67 ft² (6.22 m²)

Empty weight: 300 KG / 650 LB

Max. takeoff weight: 560 KG / 1,235 LB

Powerplant: Hirth 504 A-2 105-HP

Max. RPM: 2400 RPM

Cruise RPM: 2250 RPM

Performance

Never exceed speed: 333 KPH / 180 Knots / 230 MPH

Maximum speed: 211 KPH / 114 Knots / 131 MPH

Cruise speed: 172 KPH / 93 Knots / 107 MPH

Stall Speed: 67 KPH / 36 Knots / 41 MPH

Range: 650 Kilometers / 350 Nautical Miles

Rate of climb: 6.10 M/S / 1,000 ft/min

Ceiling with Hirth A-2 Engine = 4.26 Kilometers / 14,000 Ft



Inconsistencies with the real Bucker Bu-131B from Switzerland

PAGE ONE

Things that were not on a stock Bucker back in the 1930's. I took into account that people who still own these beautiful classics

Have been updating them with parts, modifications, restoring them, etc. Quite a few BUCKERS are no longer stock. Its not easy finding one with the square looking chin mou

1

Non Factory Exhaust. This one is fitted with the more famous 4-stack exhaust pipes. The original had a rectangular chin exhaust.

2

Front mounted instruments with visible bazels. This made the gauges accessible and easily serviceable. The originals were mounted behind the panel, showing only a small lip edge for the bazel. The German instruments were quite interesting and well designed and I wanted to show their unique structures in this vintage plane of that era.

3

Non functioning tail wheel lock. It seems MSFS do not have them, so this one does not work. My apologies.

4

Side mounted cable driven external Starboard Tachometer. Very risky of me to put it on this version of 131B since this only on the Spanish CASA version, and was the 'only' Tach onboard the plane. I have two on mine. Figure I found it on Ebay, bought it, and installed it, because I always thought they were neat looking, and you have bought the plane from me in this condition. Nothing to do with the original.

5

Non original spinners. This too was 'modded' with a CASA spinner, which looks more like a Heinkle style spinner with those neat little fins. A lot of Bucker 131's I found online had these on them. I figure they became popular and people put them on their planes. They have this loop of these neat little arrow shaped bulges that have opening vents behind them. Had to have it, so its on this plane.



Inconsistencies with the real Bucker Bü-131B from Switzerland

PAGE TWO

Things that were not on a stock Bucker back in the 1930's, Continued...

6

I have installed a COM1 Radio in an empty gauge bezel. I have also installed a Transponder at the bottom right of the pilots seat.

7

Illuminated Instruments. The original Bu-131B airplanes barely had an electrical system, mostly only for the engine, with some having a couple of small lamps on the panel. I have included individually lit instruments 'and' a dial knob which you turn to bring lights from off to bright.

8

I have installed an in-plane electric starter, a modern 'mod' that a lot of people have done to their BUCKERS through the restorations and modding through the decades. Originally you had to prop start the Bucker, or use the Inertia starter crank located at the front left of the back lip of the cowling. (I did include that, you can see it). But to start the plane in MSFS, you use the starter button.



Bücker Bü-131 Jungmann



Different Exteriors

The Bü-131 package by Lionheart Creations comes with 15 different paint schemes. (FIFTEEN.....)



3 Different Interiors



There are three versions of leather interiors; Black, Brown, and Gray.

There are also leather boots on some of the wing struts and a leather boot on the tailwheel that are also colored black or brown or gray.



Brown Leather



Mahogany Burl Wood Panel on
'British Green' Livery



Gray Leather



Black Leather



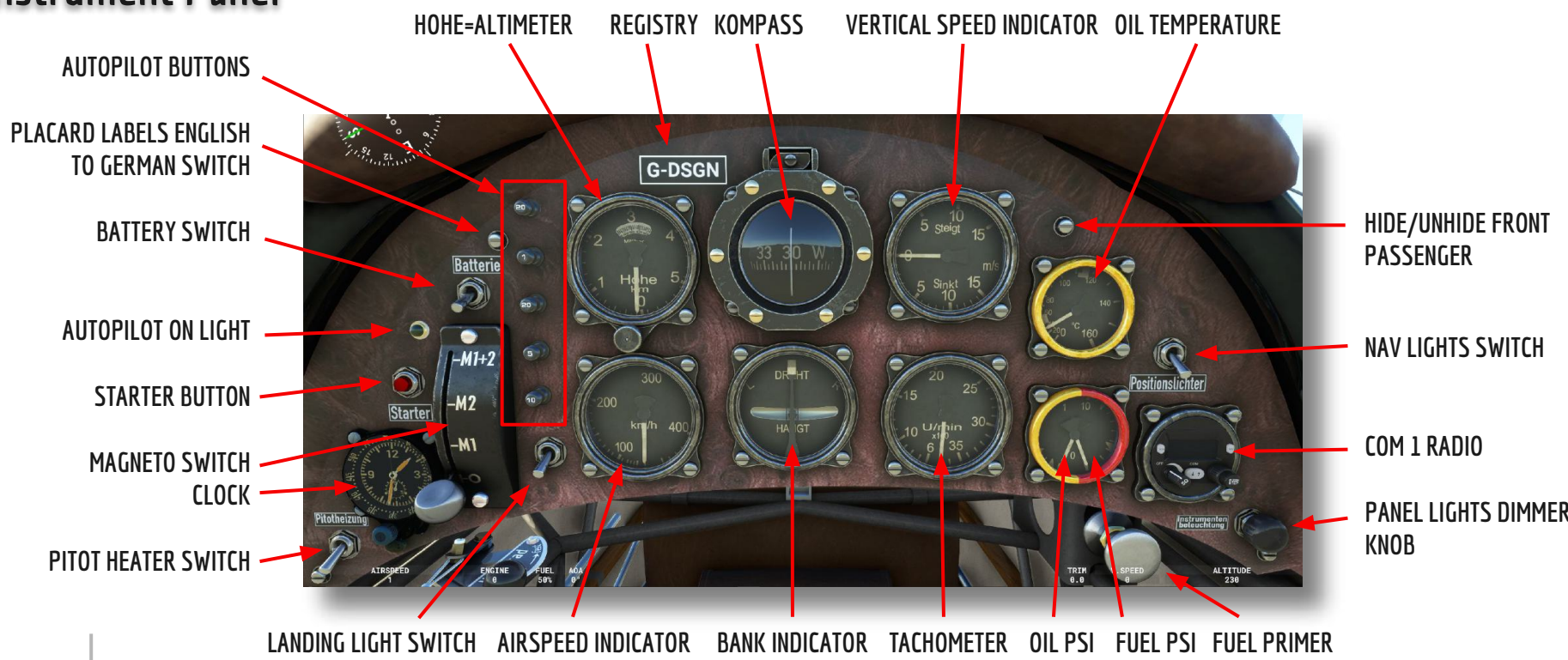
Bücker Bü-131 Jungmann





Cabin Features and Details

Instrument Panel

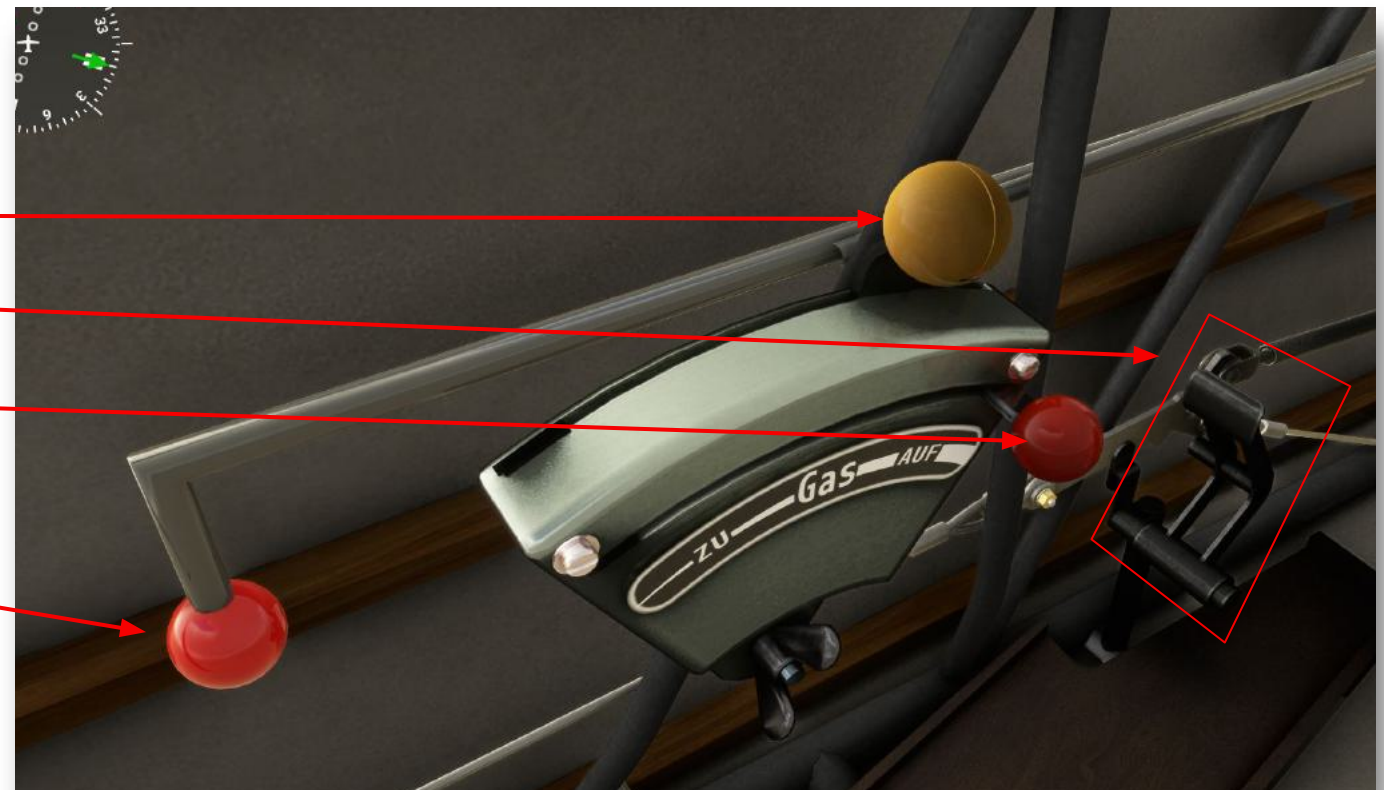




Cabin Features and Details

Left Side

- THROTTLE KNOB
- PARKING BRAKE RELEASE CLICK ZONE
- MIXTURE KNOB
- FUEL CUT-OFF LEVER





Cabin Features and Details

Right Side

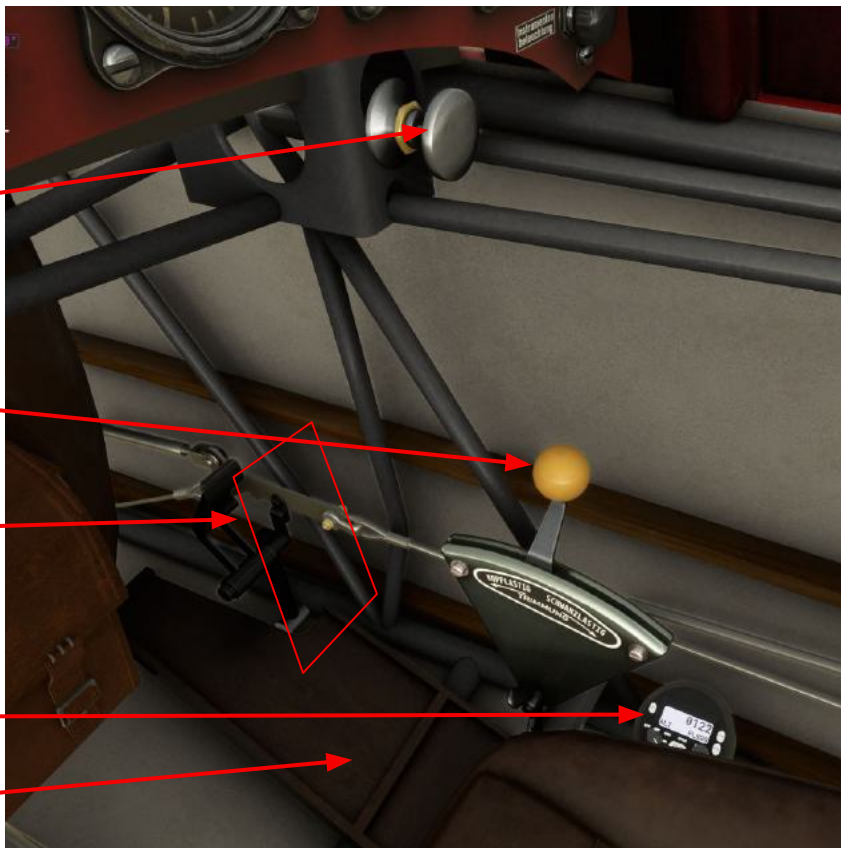
FUEL PRIMER PUMP HANDLE

ELEVATOR TRIM LEVER

INVISIBLE PARKING BRAKE
RELEASE 'CLICK ZONE'

TRANSPONDER

FOOT SLIDER SHELF



Bücker Bü-131 Jungmann





Quirks about the Bucker Jungmann for MSFS

PAGE ONE

Features of the Bü-131 that are not on most aircraft that you need to know about.

1

The Bucker Jungmann has no flaps. You must rely on your sense of distance and adjust your descents appropriately as you go into pattern and plan your landings. She will slow down, but not like a plane with flaps.

2

The Bu-131B holds 87 Liters or 23 Gallons of fuel. This at 75% throttle and nice flying should buy you 650 Kilometers or 350 Nautical Miles of flight range. Your only fuel gauge is a neat, antique little polished tube-column gizmo on top of the front of the planes cowling in front of the front passenger bay.. This has a window and you can see straight through it, and inside is a red 'measure' device. When its all the way up, you have full fuel. All the way down, bad bad... Low fuel.

3

You only have one fuel tank in the Bu-131B. Its in front of the forward passenger bay. You have no fuel selector. But there is a fuel shut-off lever which is at the back seat next to and behind the neat, silver throttle casing. You pull that back to open up the fuel cutoff valve.

4

The Jungmann has a noticeably wild set of landing gear legs. They have a moderate amount of travel which make it great for soft field landings and slightly rough terrain. When it goes airborne, its legs come together a bit in the center, hanging down low. When it lands, its landing gear spread out a bit and also the shock dampers provide quite a bit of travel. (It sort of reminds me of the Fiesler Storch). That said, in MSFS, your Bucker will corner like a giant 1970's Cadillac, or a 1980's Range Rover with no roll bars. She has a soft suspension. She is not designed for cornering, but flying. So give it a break. Just take it easy when you make turns so you do not scrape your wings on the ground.



Quirks about the Bucker Jungmann for MSFS

PAGE TWO

Features of the Bü-131 that are not on most aircraft that you need to know about.

5

There is no Avionics button. Only the Batterie (Battery) switch. Your small COM1 and Transponder will power up with the Battery switch. Your Transponder will need to be switched on to go active. It is located on the right lower side of your seat.

6

The Bu-131's had doors on both sides of each pilot, front and back, which are more like little flap panels that touch your shoulders. It's a very tight fit in the Bu-131's. That said, these neat little shoulder touching flap doors 'do not open.' I am sorry...

7

You can sit in the Front seat of your restored Bucker Jungmann. Control-6 will put you in that seat up front. You will only have 3 gauges on your panel, and a neat little side mounted Tachometer on your right side.



TIPS and TRICKS and things to Note

Some things you should note about the Bücker Bü-131B and flying it.

- When you go into a flight in MSFS 'airborn', your Autopilot will be 'on' and running, which will keep you from nosing up. Turn it off (if you like) by clicking on the top Circuit Breaker button or just clicking Z key.
- To set your Parking Brakes, click on one of the rudder pedals. This turns them on and off.
- To start the Jungmann, you must press and hold the small red starter button located next to the Magnetos switch. (Follow the Checklist to turn on fuel, throttle, mixture and Mags first).
- For smooth landings without bouncing, touch the runway with the tail wheel first. This will require a slow speed, nosing slightly up and gently floating down to the runway, pulling the nose up so your tail touches first. This keeps the plane from doing its famous bounce down the runway.
- To see around the nose when taxiing, you can use Control-1 and look slightly out the side of the plane, as if holding your head out the side. You can also use side arrow keys to look out the side. You are not bound to the interior like other planes, so you can move around.
- You can sit in the front seat! Use Control-6 to sit in the Student/Passenger position.
- To see your airspeed in Knots and your altitude in feet, turn on your MSFS HUD system. To keep it minimized, used the Minimized version HUD which will show small white data windows along the bottom of the screen, showing your speed, altitude, VSI, etc, and a nice compass at top left.
- Make sure your elevator trim is neutral or pitch up when taking off on rough terrain, such as grassy fields, beaches, etc. If the Jungmann is nose down on acceleration for take-off, it can nose-over easily.

Bücker Bü-131 Jungmann



INTERIOR PRESET CAMERA VIEWS

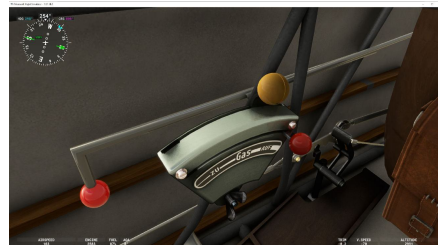
These are the preset camera views that come with the Bucker Bu-131B by Lionheart Creations. Note the first one. This is the Ruway View. When on the ground, the long nose makes it difficult to see forward, same for some approaches, so I made a neat view where it replicates the pilot looking slightly out the side of the cabin, leaning to the left to see around the nose of the plane.



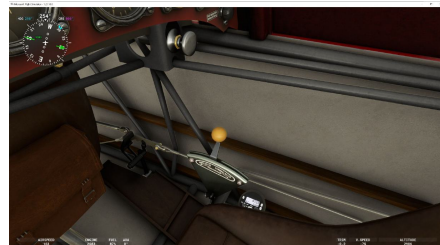
CONTROL-1
RUNWAY VIEW FROM SIDE



CONTROL-2
PANEL MAIN



CONTROL-3
ENGINE /FUEL CONTROLS



CONTROL-4
TRIM AND FUEL PRIMER



CONTROL-5
TRANSPONDER



CONTROL-6
FRONT COCKPIT VIEW



STANDARD VIEW

EXTERIOR PRESET CAMERA VIEWS

These are the various external preset camera views. Control-Alt keys show you these. You can also over-ride to interior shots via Control 1-7, and blip back to exterior, and vice versa.



CONTROL-ALT-1
FUSELAGE RUDDER VIEW



CONTROL-ALT-2
LEFT WING



CONTROL-ALT-3
RIGHT COWLING SIDE



CONTROL-ALT-4
RIGHT WINGTIP



CONTROL-ALT-5
NOSE VIEW



CONTROL-ALT-6
FRONT RIGHT QUARTER



CONTROL-ALT-7
LEANING OUT TO RIGHT



Bügs and Issues

Every creation I make tends to have a couple of bothersome bugs here and there. Here are the present bugs found in the Bucker that will hopefully disappear in the near future.

1

BUGS LIST

- Tachometer does not always stay under 2400 RPM.
- Sitting on the ground, not moving, the Jungmann does an odd, Hawaiian hoolah dance, in slow motion, similar to a boat encountering waves from its side instead of headon, giving a waving motion. This is an Asobo thing and also has to do with side wind gusts. I think it looks... kinda funny... Strange. Hopefully it will be fixed in the future. You get used to it. :)

Bücker Bü-131 Jungmann



Fuel Range

Fuel system and average fuel range layout

The Bü-131B carried 87 Liters or 23 US Gallons of fuel



Total Fuel

23 Gal

Front Center Tank: 23 US GAL
23 US GAL = 138 LBS AV FUEL

Altitude

3K FT

3,000 feet
75% Throttle

Average Range

350 NM

You should be able to make just over 350 NM. My tests often gave 360 NM in mild conditions.



To most people, the sky is the limit. To those who love aviation, the sky is home *Jerry Crawford*

Bücker Bü-131 Jungmann



Custom Registration Numbers System

The Jungmann has customizable Registries for all planes. The 'Panel' folders have the custom Font 'Colors' assignments. You can create a new panel 'color' folder by duplicating one and changing the font inputs in the files, then assigning that new panel folder to the paint scheme you want it on. Colors are assigned in the panel.config

1

Custom N-Numbers are entered in the Aircraft.config. Open with Windows Notepad or Notepad++, find; atc_id= and put in the N-Number you wish

2

Either use one of the existing panel folders 'colors' that you want to try, or create a new one by cloning the panel folder of choice and editing the files within to the one you wish. You then add that new panel folder 'color' to the panel assignment on the aircraft's Registry information block in the Aircraft Config file.

3

You can also change the color of the registration font inside the plane. Hex Value colors are what is needed. They begin with 0x..... This is entered in the Panel Config. Look for VPainting01, bottom string, near the end. [painting00=Registration/Registration.html?font_color=white,0,0,256,64](#) In the above line, white is also where you would put in the Hex 0x number for custom colors.



Custom Registration Numbers System

1

This is the Aircraft Config which you can open with either Notepad or Notepad++. atc_id_font and atc_id_color are presently non functioning entries.

Color of font

Registry Number



```
===== FLTSIM =====  
[FLTSIM.0]  
Title="Quickie Q200 01"  
Model=""  
Panel="Blue"  
Sound=""  
Texture="white"  
KB_Checklists=""  
KB_Reference=""  
description="P??"  
wip_indicator=0  
ui_manufacturer="Quickie Aircraft Corp"  
ui_type="Q200"  
ui_variation="Blue Stripe"  
ui_typerole="Single Engine Prop"  
ui_createdby="Lionheart Creations"  
ui_thumbnailfile=""  
ui_certified_ceiling=9000  
ui_max_range=500  
ui_autonomy=2  
ui_fuel_burn_rate=5  
atc_id="N300W"  
icao_airline=""  
atc_id_enable=1  
atc_airline=""  
atc_flight_number=""  
atc_heavy=0  
atc_id_color="0x00000000"  
atc_id_font=""  
isAirTraffic=0  
isUserSelectable=1  
isFlyable=1  
Effects=""  
atc_parking_types="RAMP"  
atc_parking_codes=""
```

2

Various Panel Folders 'Colors' are for Registry Fonts/colors, not panel colors.

panel	8/3/2021 1:20 PM	File folder
panel.Black	8/4/2021 4:11 PM	File folder
panel.Blank	8/4/2021 3:39 PM	File folder
panel.Blue	8/4/2021 3:16 PM	File folder
panel.Dark Gray	8/5/2021 12:12 PM	File folder
panel.Gray	8/4/2021 3:42 PM	File folder
panel.LHC	8/3/2021 1:20 PM	File folder
panel.M	8/4/2021 2:57 PM	File folder
panel.Tan	8/4/2021 3:53 PM	File folder
panel.White	8/4/2021 4:09 PM	File folder
panel.Yellow	8/6/2021 6:20 PM	File folder
sound	7/26/2021 9:31 PM	File folder
Texture	8/23/2021 11:45 AM	File folder



Bü-131 in Stormy Skies



Rain drops and rain sounds show up on the little plexiglass shields when in rainy weather.

Rain drops
on the Plexi



If you do not see rain drops on your perspex in MSFS in the rain, make sure its activated in your Settings in MSFS.

Bücker Bü-131 Jungmann



G-DSGN



Batterie

-M1+2
-M2
-M1

Starter



Positionslichter



theizung

Instrumentenbeleuchtung



Bücker Bü-131 Jungmann

Flight Input on how to fly your new Bucker Bu-131B Jungmann.

The following section of this manual shows you how to fly this plane in Asobo Microsoft Flight Simulator (MSFS). It will talk likely about speeds and handling and recommendations to make your ownership and flights of this unique bit of German aviation history 'more' encompassing.

Take-Off



Bücker B-131 Jungmann

Take-Off



Precheck

Park brake off, NAV lights on, radio on, Transponder to ALT mode, full mixture, elevator trim to neutral. Check controls.

Launch

Though the Hirth HM-504 is only 105 HP, the airframe is quite lite and so your little classic bi-plane can get up to speed fast. I highly recommend that you do not shove the throttle forward quickly, but instead, gently get her rolling, giving her throttle slowly as she accelerates and raises her tail. She might put up a handling fight if you give her full power quick and suddenly.

Climbout

Your climbout should put you at about 1000 to 1200 FPM. She can climb ok, but she is not a Pitts. Her antique Hirth is a bit fragile and only half or less to some of the other planes such as the Pitts.

PRECHECK

LINEUP

LAUNCH

ROTATION

CLIMBOUT

Lineup

When you first start out, you might move sideways outwards to view around the nose. Imagine yourself leaning your head out the side to look around the nose. You can do this with Camera shortcut Control-1 also. Click the rudder pedals to release your parking brake.

Rotation

The Bücker Jungmann will raise its tail up at a slow speed. Under nice conditions, it can also take off from all three gear if you hold it down. I suggest a gentle acceleration where it gets her tail off the ground and then add more power, and gently pull back at 90+ KPH.



Bucker Bu-131

Lionheart Creations Ltd

Flights



Climbout

The Bucker Jungmann has a small 105 HP engine, but is incredibly lite weight. Climbouts will not be like a rocket, but it will climb well, not slow.

High Altitude

The Hirth 504 A-2 is not fuel injected or turbocharged. She can get to 14,000 feet (just over 4 Kilometers) with good weather conditions. You do not have a carburetor heater, so be careful. Adjust Mixture as needed; red knob at Throttle body casing.

Descending

The Bucker Jungmann will do fair on descents even without flaps as she is not highly aerodynamic. The wires and things all over its surfaces will help to slow you down on final. That said, you should plan your pattern accordingly because you do not have flaps to help you with deceleration.



Level Flight

This plane is a blast to fly, and it is also gentle. One trimmed out, she will cruise along nicely, needing only gentle input with your finger tips.

Autopilot

I have included a hidden autopilot in this plane. You need one in flight simulator. That's my view on the subject. So I hid one in the panel which uses the stack of 5 circuit breakers. Read further on this in the autopilot section of this manual.



Bücker Bü-131 Jungmann

OBJECTIVES [-] [x]

NO OBJECTIVE

Landings

Photo by Bill Ortis

Landings



Pattern

The view in the Kommanders seat is excellent in this open top classic. Your cruise speed in pattern will probably be about 100 to 120 KPH.

Over the Fence

When flying the Bücker on approaches, coming in over the fence, I try to calculate her speed and decent rate. Throttle off, on a steep approach, you will not lose a lot of speed, as you have 'no' flaps. So keep that in mind. I try to setup pattern at 100 KPH, then throttle down on approach and get her near 80 KPH. At about 60 KPH, she will lose lift and gently settle.



Final

I try for 90 knots on final. Sometimes if I am a bit high, and have to come in steep, she will not bleed off her speed well, so you might come in hot. So remember to calculate for this. I try to throttle her down and get to 90 KPH and go from there. I want to then step down to 70-ish KPH as I get close to the fence.

Touchdown

At 55 to 60 KPH, the Jungmann will gently begin to come down. Pull back gently to create a nose up attitude and try to touch the tail first to the ground. This will help to keep her from bouncing. I pull back on the stick and bring the nose way up as she goes under 60 KPH and attempt to touch the ground with the tail wheel. Works amazing...

Bücker Bü-131 Jungmann





Autopilot Management

An extremely basic, bare bones hidden autopilot system for your long flights in MSFS.

BUTTONS IN ORDER:

- * AP ON/OFF
- * ALT HOLD
- * WING LEVEL
- * HDG ON/OFF
- * HDG ADJ



AUTOPILOT MASTER

When you turn on the AP master, your plane automatically goes into 'Attitude Hold' mode and also 'Wing Level' mode. You should not turn on AP until your attitude of climb or descent is where you want it. Then click AP. You will see about a 200 fpm climb. I do not know why.

AP

ALT

LVL

HDG ADJ

HDG ON/OFF

WING LEVEL MODE

Turning on this button will level your wings. It will 'not' hold your heading but will keep you level in your flight. Great for temporarily holding your plane steady as you check your map.

HEADING HOLD MODE

Turn on this button to activate your Heading Mode. Whatever your heading setting is, this will follow it, so maybe set your heading first before turning this on. HDG ADJ is below.

ALTITUDE HOLD

You can 'Lock' altitude by having AP on and then clicking 'ALT' button. This locks your ALT at present altitude. You can then change the setting via the knob. Only the Mouse-Control will allow you to 'see' your ALT setting.

HEADING ADJUSTMENT SETTING

This allows you to set your heading through the mouse readout. You can hold down Left Mouse button on it and see your heading setting. Then slide mouse left and right to adjust your heading.

Autopilot Management

Page 2

TIPS AND TRICKS

AP MASTER SWITCH

This is the top number one circuit breaker knob and is your Autopilot 'on-off' button. When you turn on your AP, a green light off to the left will illuminate showing you that AP is active.

When you turn on your AP system, your wings should level out and your climb/descent should level out and you will have a climb rate of about 200 FPM when stabilized.

ALTITUDE HOLD

This is your ALT button, number two on the stack, and simply holds your altitude. There is not a way to adjust your altitude setting. You must simply click this 'on' when you are near your desired altitude and your plane will then level off. Remember, this is a very very basic bare-bones AP system and is not supposed to be in this small plane, so please... keep this a secret. Your eyes only.

WING LEVEL MODE

Turning on this system setting will cause your Bucker Jungmann to fly level. If you are just trying to fly straight on without HDG mode on, this is what you want. It will not hold altitude for you, but at least it keeps the wings level.

HOLD HEADING MODE

This is a button that turns on 'HDG' mode. Your plane will start to turn towards its setting when you turn this on. You might wish to adjust your heading 'before' turning on this button. See below.

HEADING ADJUSTMENT SETTING

Hold down left mouse button on this bottom knob and you will see your heading setting. You can then slide the mouse left and right to adjust your heading. This is the 'only' place you can see your heading setting. Remember, this is a fictional autopilot system. Its not supposed to be in here. ;)

AUTOPILOT 'ON' LIGHT

AUTOPILOT CONTROLS



Bücker Bü-131 Jungmann



NIGHT FLIGHT MODE IN THE CLASSIC Bü-131B. THE PANEL LIGHT KNOB ON FAR LOWER RIGHT GIVES YOU 0 TO 100% LIGHT CONTROL FOR FINE TUNING THE PANEL LIGHTS BRIGHTNESS.

PANEL LIGHT KNOB

Bücker Bü-131 Jungmann



THE BUCKER JUNGSMANN TEAM

Bill Ortis.....Team Leader, Owner, Mesh/model craftsman, Coding, Graphics, Photography, Flight Model design, Test Pilot

Fisherman3D / CGTrader.com.....Original Mesh Model Craftsman, original Builder of the Bucker Jungsmann model

RonH.....Coding, Animation, Calibration, Diagnostics, Blender to MSFS SDK Systems Specialist, Flight Model design, Test Pilot

Mike.....Test Pilot and feedback specialist



THE BUCKER JUNGSMANN CREATION

3D MESH WORK

The original model mesh by Fisherman3D was for a different modern version of the original Bucker. Much work was carried out to convert it back to the original German / Swiss version Bücker Bü-131B from old times. The cowling had to have extensive work, many areas redone, and the interior built. The model to begin with was a work of art, amazing and well done, but it then needed conversion, some parts remapped and I also put sections of the plane onto their own graphics sheets so that she could have maximum detail and graphics per polygon area.

I now work in Blender as I find it much faster and more powerful than the new Max 2021. In Blender, we now have most of the tools that they have in Max for MSFS. I was able to give the Jungmann some Asobo colorized bump-mapped rivets, neat rows of dacron tape strips, and things like interior parts were textured in Substance Painter, such as the instruments bezels. An amazing program, Substance Painter, coupled with Photoshop CS6.



A scary amount of work goes into these when you are trying to make them as realistic as possible. Every dial and needle must be coded and animated, textured, and be proper in size/scale. For much of those, I build the parts over photos from actual planes so they are exact and correct.



I highly recommend Blender. It has come far and is an amazing program for making planes with.



The original modern model in MSFS before work was carried out.



The 'Germanized' historic version, finished.

A decorative horizontal bar with a teal segment on the left and an orange segment on the right.

Thank you.

Without your support, I could not bring this to you. Thank you for your purchases. God bless.

For more products, you can find my website at lionheartssimulations.com



OTHER LIONHEART CREATIONS AIRCRAFT FOR MSFS FLIGHT SIMULATOR



Trinidad TB21 GT



Quickie Q-200



FLIGHT PLANS and LIFE

Jesus

What does Life and Flight Plans have in common?

Answer; Destinations...

Do you know where you are going in life? Do you know where you are headed? Have you plotted a 1 year Goal of who you want to be and where at in life? How about 10 years from now? How about, your future after Earth?

If you think about it, in the grand scheme of things, 60 to 80 years is not long. Its a blip in time, a few seconds compared with thousands of years. We now know there is an afterlife. Do you know 'where' you will be going when your journey on Earth closes? You should look into that. If you are serious about your 'flight' and you are really into 'flight plans', you might ponder your next flight and where it will be leading you, what the land is like there, the benefits.

One of the things Jesus did when He died for us is to enable Believers to have 'Eternal life'. That is a Massive package, an incredible journey, a new flight. There is a place you go to. A new land, a new world. Dont miss out on a flight package that has been purchased for you already. Bought and paid for by the Son of God who came here to save an entire race of people.

For more information on what you need to do, read through the Book of Romans in the New Testament of the Holy Bible. You might look through a modern Bible that is in understandable English, or your appropriate language. The New Testament is great starting point for people to learn about the Lord and the 'next Flight'.

Jesus

Peace be with you in your Journey through life...