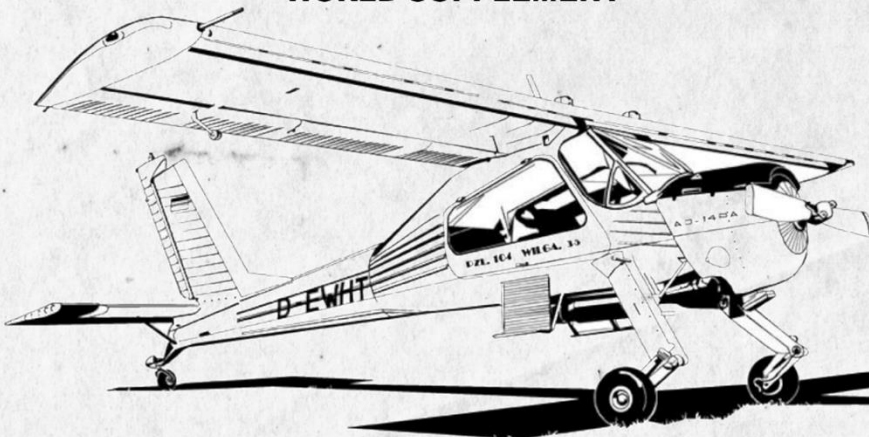




# GOT FRIENDS FLIGHT MANUAL

## PZL-104 WILGA 35/80 SERIES

THIS PUBLICATION IS MADE FOR MICROSOFT FLIGHT  
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WORLD SUPPLEMENT



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MARKETPLACE GUIDLINES.**

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# INTRODUCTION

The PZL-104 Wilga (Golden Oriole) is a Polish short-takeoff-and-landing (STOL) civil aviation utility aircraft designed and originally manufactured by PZL Warszawa-Okęcie, and later by European Aeronautic Defense and Space Company (EADS), who had acquired the original manufacturer during 2001. Got Friends originally started developing the PZL-104 Wilga 35A variant for Microsoft Flight Simulator in June 2022. After a couple months of 3D modeling, we quickly expanded the 35A into a wider selection of variants. This purchase includes a selection of multiple 35 and 80 Wilga variants and together they form the PZL-104 Wilga 35/80 Series.

Also included with this purchase is the Forwood Farm scenery and accompanying G-BUNC registered Wilga 35A. This scenery was developed in partnership with Emerald Scenery Design and is a perfect place to start your simulated journey. During development, our team was able to visit Forwood Farm and explore the G-BUNC registered Wilga 35A on-ground and in-flight to record sound for this project. A special thanks to Towplanes.UK for supporting our team on this project. We hope that you have a wonderful time exploring Forwood Farm and it's outlying area.

Finally, our team has spent an extensive amount of time bringing you our rendition of this Polish Classic. We hope that this purchase will bring you great enjoyment and thousands of hours of unforgettable experiences. This aircraft has been an eye-opening experience for our entire team, and we look forward to bringing you more projects in the future. Thank you for choosing Got Friends and for supporting our development efforts.

Until next time,



*Jonx Got Gravel MyKrode twoseventyinc*

# VARIANTS & SPECIFICATIONS

## Wilga 35A – Standard

- Virtual Cockpit: Factory
- Language: Polish
- Gauges: Metric
- Avionics: Legacy
- Engine: AI-14RA (260 HP)
- Gear: 20” Tundra Tires
- Ski Kit: Optional
- Exhaust: Unregulated
- Smoke Generator: Optional



## Wilga 35H – Float

- Virtual Cockpit: Factory
- Language: Polish
- Gauges: Metric
- Avionics: Legacy
- Engine: AI-14RD (285 HP)
- Gear: LAP-3000 Floats
- Exhaust: Unregulated
- Smoke Generator: Optional
- Flight Director: Installed



## Wilga 35P – Bush

- Virtual Cockpit: Factory
- Language: Polish
- Gauges: Metric
- Avionics: Legacy
- Engine: M-14P (360 HP)
- Gear: 29” Alaskan Bush Tires
- Exhaust: Unregulated
- Smoke Generator: Optional
- Flight Director: Installed



### **Wilga 35X – Experimental**

- Virtual Cockpit: Factory
- Language: Polish
- Gauges: Metric
- Avionics: Modern
- Engine: M-14PF (450 HP)
- Gear: 35” Alaskan Bush Tires
- Exhaust: Unregulated
- Smoke Generator: Optional
- Flight Director: Installed



### **Wilga 80 – Standard**

- Virtual Cockpit: Import
- Language: English
- Gauges: Imperial / Metric
- Avionics: Midlife
- Engine: AI-14RA (260 HP)
- Gear: 20” Tundra Tires
- Ski Kit: Optional
- Exhaust: Regulated
- Smoke Generator: Optional



### **Wilga 80H – Float**

- Virtual Cockpit: Import
- Language: English
- Gauges: Imperial / Metric
- Avionics: Midlife
- Engine: AI-14RD (285 HP)
- Gear: LAP-3000 Floats
- Exhaust: Regulated
- Smoke Generator: Optional
- Flight Director: Installed





### **Wilga 80P – Bush**

- Virtual Cockpit: Import
- Language: English
- Gauges: Imperial / Metric
- Avionics: Midlife
- Engine: M-14P (360 HP)
- Gear: 29” Alaskan Bush Tires
- Exhaust: Regulated
- Smoke Generator: Optional
- Flight Director: Installed



### **Wilga 80X – Experimental**

- Virtual Cockpit: Import
- Language: English
- Gauges: Imperial / Metric
- Avionics: Modern
- Engine: M-14PF (450 HP)
- Gear: 35” Alaskan Bush Tires
- Exhaust: Regulated
- Smoke Generator: Optional
- Flight Director: Installed



### **Wilga 35A – G-BUNC / Towplane**

- Virtual Cockpit: Factory
- Language: Polish
- Gauges: Metric
- Avionics: Special
- Engine: AI-14 (260 HP)
- Gear: 21” Standard Tires
- Ski Kit: Optional
- Exhaust: Regulated
- Smoke Generator: Optional



# PERFORMANCE

<b>PZL-104 Wilga 35A &amp; 80</b>	
Engine	Ivchenko AI-14RA
Horsepower	260 hp
Max Speed	115 kts / 213 kph
Cruise Speed	98 kts / 181 kph
Propeller	2-Blade Constant Speed
Max Range	361 nm / 670 km
Service Ceiling	13,255 ft / 4,040 m
Fuel Capacity	52 gal / 196 l
Empty Weight	1,984 lb / 900 kg
Max Weight	2,868 lb / 1,300 kg
Length	26.60 ft / 8.10 m
Wingspan	36.50 ft / 11.12 m
Seating	4
Tires	20" Tundra Tires

<b>PZL-104 Wilga 35H &amp; 80H</b>	
Engine	Ivchenko AI-14RD
Horsepower	285 hp
Max Speed	105 kts / 195 kph
Cruise Speed	88 kts / 163 kph
Propeller	2-Blade Constant Speed
Max Range	324 nm / 600 km
Service Ceiling	13,255 ft / 4,040 m
Fuel Capacity	52 gal / 196 l
Empty Weight	2,317 lb / 1,051 kg
Max Weight	2,868 lb / 1,300 kg
Length	26.60 ft / 8.10 m
Wingspan	36.50 ft / 11.12 m
Seating	4
Floats	LAP-3000

<b>PZL-104 Wilga 35P &amp; 80P</b>	
Engine	Vedeneyev M-14P
Horsepower	360 hp
Max Speed	128 kts / 239 kph
Cruise Speed	111 kts / 206 kph
Propeller	2-Blade Constant Speed
Max Range	361 nm / 670 km
Service Ceiling	13,255 ft / 4,040 m
Fuel Capacity	52 gal / 196 l
Empty Weight	2,026 lb / 919 kg
Max Weight	2,868 lb / 1,300 kg
Length	26.60 ft / 8.10 m
Wingspan	36.50 ft / 11.12 m
Seating	4
Tires	29" Alaskan Bushwheels

<b>PZL-104 Wilga 35X &amp; 80X</b>	
Engine	Vedeneyev M-14PF
Horsepower	450 hp
Max Speed	136 kts / 252 kph
Cruise Speed	117 kts / 217 kph
Propeller	2-Blade Constant Speed
Max Range	361 nm / 670 km
Service Ceiling	13,255 ft / 4,040 m
Fuel Capacity	52 gal / 196 l
Empty Weight	2,103 lb / 954 kg
Max Weight	2,868 lb / 1,300 kg
Length	26.60 ft / 8.10 m
Wingspan	36.50 ft / 11.12 m
Seating	4
Tires	35" Alaskan Bushwheels

## COMMON POWER SETTINGS

100% Throttle (8 inmm MP)	2350 RPM (Max take-off rating)
100% Throttle (8 inmm MP)	2050 RPM (Max cont. rating)
75% Throttle (6 inmm MP)	1860 RPM (Normal cruise)
60% Throttle (5 inmm MP)	1730 RPM (Economy cruise)

# LEGACY AVIONICS SUITE

The PZL-104 Wilga 35A, 35H, and 35P are equipped with a Legacy Avionics Suite. This set of avionics is meant to represent the “Factory Age” of the Wilga. In the Legacy Avionics Suite, you will find the following: Airspeed Indicator, Altimeter, Hobbs Meter, Directional Gyro-Compass, Attitude Indicator, Turn Coordinator, Vertical Speed Indicator, Wet Compass, Analog Clock, Oil Temperature/Pressure Gauge, Manifold Pressure Gauge, Carburetor Temperature Gauge, Cylinder Head Temperature Gauge, ARL-1601 ADF System, and RS-6102 Radio.



## IMPORTANT COCKPIT INFORMATION

- 1) Enable Auto-Magnetic Heading using the switch above the Directional Gyro-Compass.
- 2) Ensure your Attitude Indicator is uncaged prior to activating the Flight Director on the 35H and 35P.
- 3) The Stall Warning Light is located on left side of the dashboard below the Airspeed Indicator and requires the Stall Warning System to be turned on using the switch located on the Upper Panel.
- 4) The Generator Warning Light is located in the middle of the dashboard above the Turn Coordinator.
- 5) To start the Analog Clock timer, left-click and hold the “Stopwatch Start/Stop/Reset” Knob and right-click once to start, once again to stop, and one more time to reset your timer.
- 6) The ADF Morse Switch is located below the Radio System on the lower-right side of the dashboard.
- 7) The Wet Compass Light is located right above the compass and can be turned on via twisting the light.
- 8) You must send your ADF Standby Frequency to Active in order to receive a directional signal on the Directional Gyro-Compass.
- 9) Winter Skis can be attached or removed on the 35A variant by using the “Drop Skis Lever”. This same lever is utilized for Water Rudders on the 35H variant.
- 10) Flight Sticks can be hidden by clicking the base of each Flight Stick.
- 11) Compressed Air is required for engine start. The Compressed Air Valve is located below the Fire Extinguisher.



# MIDLIFE AVIONICS SUITE

The PZL-104 Wilga 80, 80H, and 80P are equipped with a Midlife Avionics Suite. This set of avionics is meant to represent the “Golden Age” of the Wilga. In the Midlife Avionics Suite, you will find the following: Airspeed Indicator, Altimeter, Hobbs Meter, Directional Gyro-Compass, Attitude Indicator, Course Deviation Indicator, Vertical Speed Indicator, Wet Compass, Analog Clock, Oil Temperature/Pressure Gauge, Manifold Pressure Gauge, Carburetor Temperature Gauge, Cylinder Head Temperature Gauge, Bendix King KX-155 Nav/Com System, Bendix King KT-75A Transponder System, and Bendix King KR-87 ADF System.



## IMPORTANT COCKPIT INFORMATION

- 1) Follow the Important Cockpit Information from the Legacy Avionics Suite Chapter.
- 2) The Bendix King KX-155 Nav/Com System and KT-75A Transponder System is powered by the Radio Power Switch located on the Upper Panel.
- 3) Winter Skis can be attached or removed on the 80 variant by using the “Drop Skis Lever”. This same lever is utilized for Water Rudders on the 80H variant.
- 4) The Primer and Fuel Selector on the 80, 80H, and 80P are located on the floor between the pilot and co-pilot seats. There is an instrument camera assigned for easy viewing.
- 5) On the left-side of the dashboard, you will find a pair of additional Ground Contact Indicator Lights. If powered on via the switch located between the lights, they will indicate when the left and right wheels / floats are in contact with the ground / water.
- 6) The Turn Coordinator from the Legacy Avionics Suite has been replaced by a Course Deviation Indicator and is useful during VOR Navigation.
- 7) The Airspeed Indicator, Altimeter and Vertical Speed Indicator are measured in the Imperial System of Measurement. If you would like Metric Units, please fly the 35A, 35P, 35H, or 35X.
- 8) Be aware of the Fuel Selector Realism Options. Please see the Realism Features Chapter for more information. The 80, 80P, 80H, and 80X’s fuel management process is very different with realism.



# MODERN AVIONICS SUITE

The PZL-104 Wilga 35X and 80X are equipped with a Modern Avionics Suite. This set of avionics is meant to represent the “Retrofit Age” of the Wilga. In the Modern Avionics Suite you will find the following: Airspeed Indicator, Altimeter, Hobbs Meter, Digital Attitude Indicator, Turn Indicator, Vertical Speed Indicator, Wet Compass, Digital Clock, Oil Temperature/Pressure Gauge, Manifold Pressure Gauge, Carburetor Temperature Gauge, Cylinder Head Temperature Gauge, Left and Right Fuel Quantity Gauges, Flight Director, Garmin GTR-225, Garmin GTX-330, and Garmin Aera-760 Navigation System.



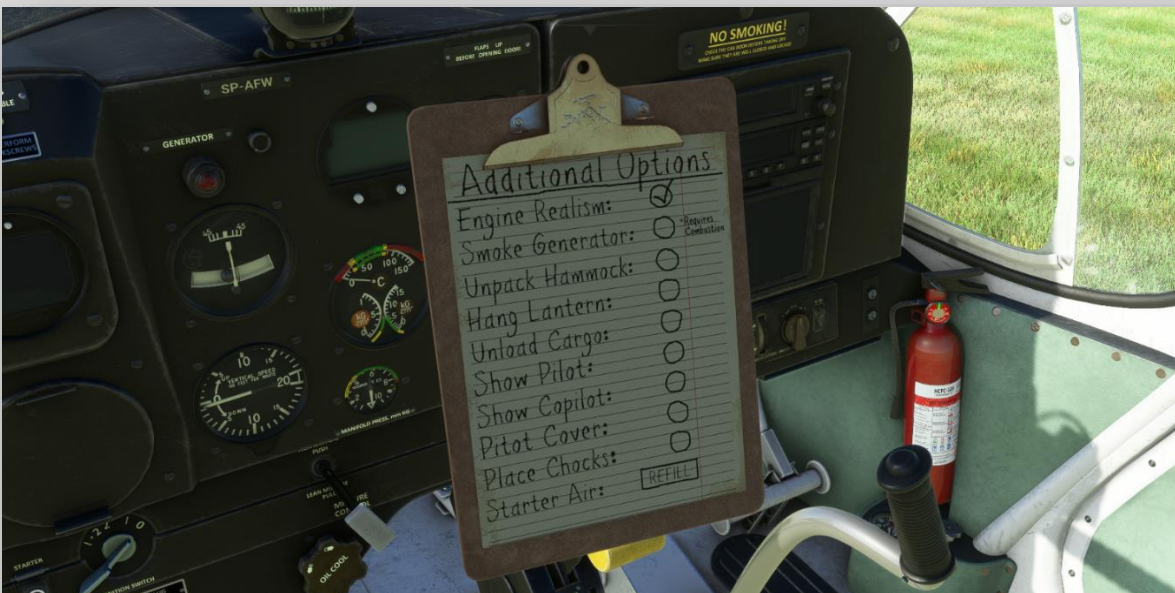
## IMPORTANT COCKPIT INFORMATION

- 1) Follow the Important Cockpit Information from the Legacy Avionics Suite Guidelines.
- 2) The 35X's ASI, ALT, and VSI is measured in Metric Units while the 80X's ASI, ALT, and VSI is measured in Imperial Units.
- 3) The Aera-760 Navigation System can be unlocked and undocked from the co-pilot position and moved to the pilot position using the locking handle above the tablet.
- 4) The Digital Attitude Indicator's brightness can be increased / dimmed using the on-device buttons.
- 5) The GTR-225, GTX-330, and Aera-760 brightness can be increased / dimmed using the buttons on the GTR-225.
- 6) The GTR-225 can be powered on / off using the Com Volume Knob.
- 7) The GTX-330 can be powered on / off using the on-device power buttons.
- 8) The Magnetic Compass Switch above the Digital Attitude Indicator is Inoperative with the Modern Avionics Suite and does not apply any power or correction to the Digital Attitude Indicator.
- 9) The Directional Gyro-Compass Switch located on the Upper Panel is Inoperative with the Modern Avionics Suite. Use the Digital Attitude Indicator Switch to power on/off the Digital Attitude Indicator.
- 10) The Modern Avionics Suite has additional Left and Right Fuel Gauges installed for easy fuel monitoring in-flight. These gauges are located left of the Flight Director.

# REALISM FEATURES

All PZL-104 Wilga variants are equipped with additional “Got Friends Realism Features”. Got Gravel has designed this On / Off Setting to be accessible in-game independent of your simulator’s Assistance Options. Engine Realism can be turned on/off with the Clipboard located near the fire extinguisher. The Clipboard also hosts a variety of additional features which we will cover in the “Additional Interactive Features” Chapter. The following features are added to your experience when using Engine Realism:

- Gradual Engine Stress: You will encounter engine failures if Oil, CHT and Carburetor Temperatures are too high for extended periods. (Calculated using Custom Thermo-Dynamics)
- Carburetor Icing depending on clouds (Density matters) in the  $-3^{\circ}\text{C}$  to  $+11^{\circ}\text{C}$  with  $+4^{\circ}\text{C}$  being the worst temperature for icing. Ensure you are flying carefully through dense weather patterns.
- Cylinder Heat Warping occurs due to shock cooling if you dive too fast with Cowling Shutters open. Ensure your Cowling and Oil Shutters are closed during diving to prevent engine damage.
- Engine Start-Up requires the Spark Shower Switch (Upper Panel), Correct Priming (Temperature Based), an Active Fuel Pump, and Sufficient Oxygen with the Compressed Air Valve Open.
- 80, 80H, 80P, and 80X: Realism ON will remove your “Both” Fuel Tank Selection option from the Fuel Tank Selector. In the real PZL-104 Wilga 80, there is no option to feed both tanks simultaneously and you must maintain careful fuel tank management during flights. Our team opted to make this a Realism Feature due to the higher-than-usual fuel awareness required.
- The Engine Realism setting is the only Clipboard Feature with permanence. Therefore, that on/off setting will be remembered between flights.



# ADDITIONAL INTERACTIVE FEATURES

All PZL-104 Wilga variants are equipped with additional “Got Friends Interactive Features”. Some of these features can be toggled, however most of these features are built-in. These features include:

## **Built-In Default Features:**

- Vibrating Gauge Components, Vibrating Flight Sticks, Vibrating Engine Cowling, Vibrating Hanging Accessories, and Vibrating Cargo.
- Prop Wash Vibration Effects on Rudder and Elevator.
- Start-Up Combustion, Low Fly-By, Touchdown, Snow and Water Spray Effects.
- Custom Float Landing, Taxi, and Take-Off Physics with working Water Paddle Simulation.
- Working Windshield Wipers with Visual Rain Displacement and Icing Removal.
- G-Force Movement of Cargo, Hanging Accessories and Fuel Bobbers during flight.
- UV Light Dimming with Increased Engine Power (Electrical Power Effects).
- All flight models have been developed to take advantage of the NPS (New Propeller Simulation), CFD (Computational Fluid Dynamics) and SBS (Soft Body Simulation) features.

## **Cockpit Clickable Features:**

- **Windshield Sun Visors:**
  - Toggle via Clicking Each Visor
- **Headphone Mode:**
  - Toggle via Clicking Aux Ports on Pilot/Copilot (Lower Dashboard)
- **Cabin Windows and Vents:**
  - Toggle via Clicking on Each Window / Vent Handle
- **Hide Left and/or Right Doors:**
  - Toggle via Clicking on the Red Lever above Each Door
- **Lock/Unlock Gust Lock:**
  - Toggle via Clicking the Gust Lock in front of the Pilot’s Flight Stick
- **Hide/Unhide Flight Sticks:**
  - Toggle via Clicking on the base of each Flight Stick
- **Attach/Remove Winter Ski Kit: Only Available on 35A and 80**
  - Toggle via Drop Skis Lever
- **Move Aera Navigation Tablet: Only Available on the 35X and 80X**
  - Toggle using the Locking Handle Above Aera
- **Deploy Water Paddle: Only Available on the 35H and 80H**
  - Ensure Engine is OFF and Gust Lock is LOCKED. This will deploy an operable paddle on the right side of the aircraft. Additionally, you may toggle deployment on the Clipboard. Once your paddle is deployed, you can use your flight stick and/or rudder pedals to maneuver the Wilga in the water. See the Water Paddle FAQ Chapter for more information.

## **Menu Weight Management Features:**

- **Pilot and Co-Pilot Exterior Visibility: Weight in the Weight and Balance Menu**
- **Cargo Visibility (Stacking Cargo): Weight in the Weight and Balance Menu**
  - Also affects Cargo when Unloaded from Aircraft.
    - Camping Bag:  $\geq 11$ lb      Fishing Bag:  $\geq 20$  lbs
    - Drink Cooler:  $\geq 30$  lbs      Mini Stove & Pan:  $\geq 50$  lbs
    - Guitar:  $\geq 60$  lbs



## Clipboard On/Off Features:

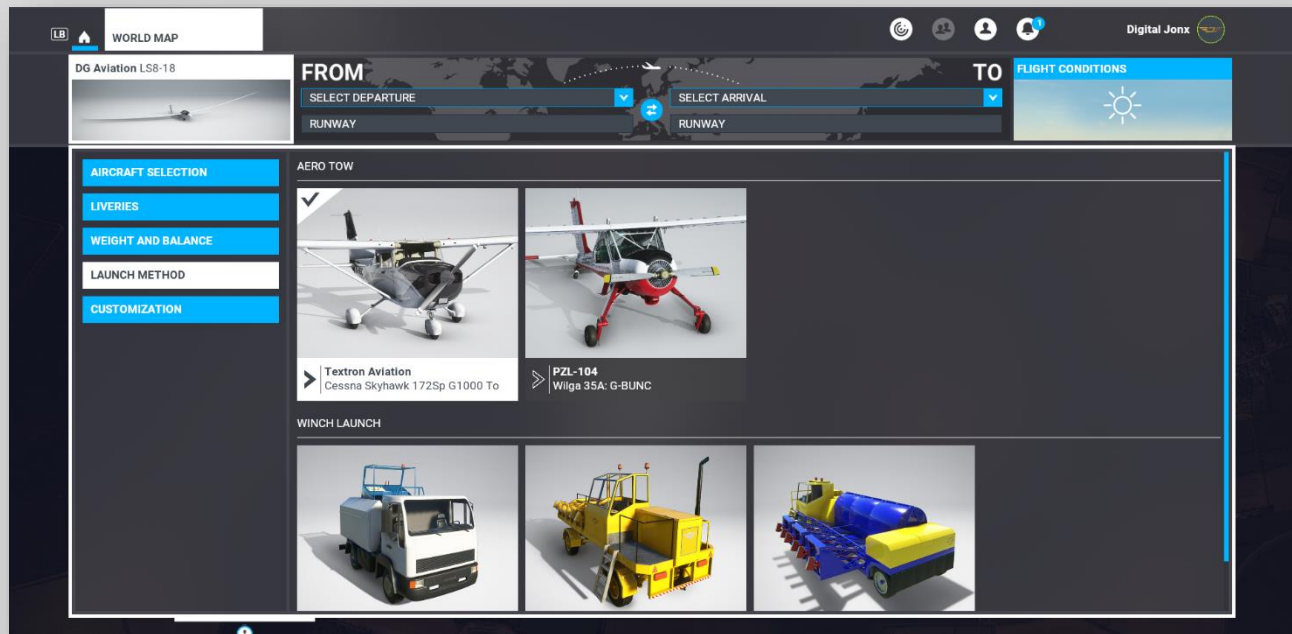
- **Engine Realism:**
  - Covered in the “Realism Features” Chapter
- **Smoke Generator:**
  - Deploys Aerobatic White Smoke
  - Multiplayer Compatible
  - Requires Engine Combustion
- **Unpack Hammock:**
  - Strings Up Hammock under the Left Wing
  - Packs Hammock Automatically during Aircraft Movement
  - Can also be Toggled via Camping Bag when Cargo is Unloaded
  - Holds the Guitar on the 35H Variant
  - Hangs the Kerosene Lantern (Without Light)
  - Additional “Hammock View” Instrument Camera available for easy viewing
- **Hang Lantern:**
  - If Hammock is NOT deployed, it will hang and light the Kerosene Lantern
  - If Hammock is deployed, it will light the Kerosene Lantern
  - Does NOT require Battery Power
  - Does NOT drain Battery Power
  - Will Stay Connected during flight (Not Recommended)
- **Unload Cargo:**
  - Will Unload Cargo from the rear of the aircraft to the ground outside of the aircraft
  - Dependent on the Weight and Balance Menu (See Cargo Visibility Section)
  - Camping Bag: Unpacks and Packs Hammock and Camping Hat
  - Fishing Bag: Unpacks and Packs Fishing Rod
  - Fishing Rod: Inspects Fishing Rod
  - Drink Cooler: Grabs and Tosses Drink
  - Drink: Inspects Drink
  - Pan: Places Pan on Mini-Stove (Required to Cook Potato Hash)
  - Mini-Stove: Starts Cooking Potato Hash (Requires Pan – High Cook Setting)
  - Visual Effects: During Potato Hash Cooking
  - Guitar: Opens and Closes Guitar Play Board (Instrument Camera Available)
  - All Cargo will Re-Load Automatically during Aircraft Movement
  - 35H and 80H only have Guitar Cargo Features (Accessed via Hammock Option)
- **Show Pilot:**
  - Toggle the Visibility of the Pilot in Virtual Cockpit View
- **Show Copilot:**
  - Toggle the Visibility of the Co-Pilot in Virtual Cockpit View
- **Pitot Cover:**
  - Remove the Pitot Cover from the Right-Wing Tip
  - Removes Automatically during Aircraft Movement
- **Place Chocks:**
  - Places Chocks under Tires and stops rolling movement
  - You can also use Parking Brakes to Place / Remove Chocks
- **Starter Air (Refill):**
  - Refills your Starter Air so you can Start / Shutdown your engine multiple times
- **Paddle Drawing: 35H and 80H Only**
  - Deploys Water Paddle: (See Deploy Working Water Paddle Section)





# TOWPLANE PROCEDURES

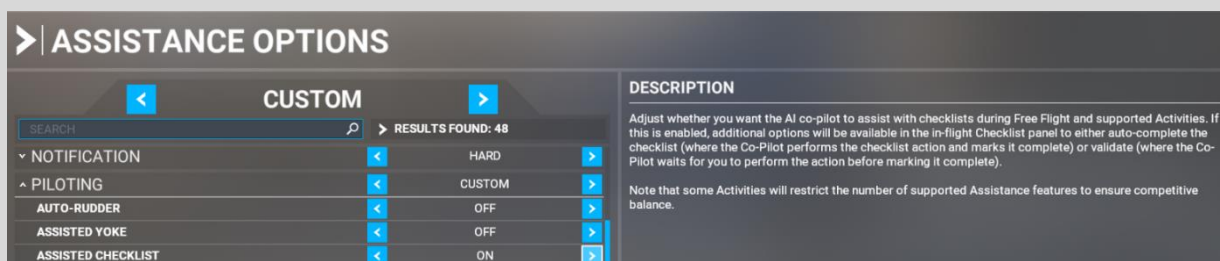
The PZL-104 Wilga 35A: G-BUNC is also available for towing gliders via the “Launch Method” selection menu. This will spawn an Ai Wilga 35A in front of your glider with all the native features required to tow your glider. The Wilga climbs more aggressively than the included C172. Keep in mind, this feature is still experimental and may not work correctly at every airfield.



We highly recommend that you consider purchasing the Got Friends: Discus-2c Premium Glider if you want to experience the best Towplane / Glider combination in the simulator. The Discus-2c is capable of a Multiplayer Towplane Connection. Therefore, unlike Official Gliders, you can have a friend tow you up into the air. Please read the Discus-2c Flight Manual for more information.

## STANDARD OPERATING CHECKLISTS

Checklists are available in-game under the “Checklist Toolbar” option. Each item on the checklist can be “Observed” using the “Eye” icon next to the item. The camera will slew to the indicated checklist item and highlight the component blue. Please utilize the in-game “Evaluation” option to learn how to properly pre-flight, start-up, cruise, and shut-down each Wilga variant. If you can’t find the evaluation option, you can turn Evaluation Options On/Off in the Assistance Options -> Piloting -> Assisted Checklist selection. Once you are in-game, click on the desired “Page” of the checklist for your desired state of flight and click “Evaluation” to get started.





# FREQUENTLY ASKED QUESTIONS (FAQs):

**Question: Is there an easier way to toggle things in the cockpit? I prefer to not use the mouse.**

<b>Aircraft Function:</b>	<b>Available Hotkey (Controller Settings):</b>
Aerobatic Smoke	Taxi Light (Be careful when pressing “L”)
Cowl & Oil Shutters	Spoiler Axis
Chocks	Parking Brake
Cabin Heat	Structural Deice
Anti-Collision Lights	Beacon Light
Auxiliary Battery	Master Battery
Master Generator	Master Alternator
Spot Light	Panel Light
Dome Light	Cabin Light
Instrument UV Lights	Glareshield Lights
Lantern Light	Wing Light
Compass Light	Pedestal Lights
Navigation Lights	Nav Lights
Pitot Heat	Pitot Heat
Landing Light	Landing Light
Fuel Pump	Fuel Pump

**Question: I can’t find the Primer or Fuel Selector in the Wilga?**

Answer: You are flying an 80, 80H, 80P or 80X Variant of the Wilga. The 80 Variants are a modified airframe that has a different fuel management setup. In the 80s, you can find the Primer and Fuel Selector on the ground between the Pilot and Co-Pilot seats.

**Question: I don’t understand Polish, how do I learn to fly the Wilga? I speak English.**

Answer: We decided early on to develop the 35 Series and 80 Series of the Wilga to aid both English speakers and Polish speakers. The 35A, 35H, 35P, and 35X variants are in Polish and have a Metric Airspeed, Altimeter, and Vertical Speed Gauge. The 80, 80H, 80P, and 80X variants are in English and have an Imperial Airspeed, Altimeter, and Vertical Speed Gauge.

**Question: How do I Remove Cargo from the Aircraft and what is Unloading Cargo?**

Answer: To Remove Cargo from the Aircraft please use the Weight and Balance Menu located in-game with your panel UI selections. However, if you wish to Unload Cargo instead of removing it, you can use the Clipboard located below the dashboard on the right side of the aircraft. This will unload your cargo onto the ground and give you access to multiple interactive features like cooking potato hash or playing the guitar.

**Question: How do I maneuver the 35H or 80H Float Variants with the Paddle?**

Answer: First, please ensure your engine is OFF and you are safely floating below 5 knots. Then you can deploy your paddle by either LOCKING your Gust Lock or by ENABLING the paddle on the Clipboard. Once your paddle is deployed, you can use your flight stick and/or rudder pedals to maneuver the Wilga in the water. You can hold the flight stick in the direction of travel or physically wiggle your flight stick back and forth to simulate paddling through the water with an increased paddling speed.

**Question: I can't find the Ski Variant? I heard the Wilga comes with a Winter Ski Kit.**

Answer: The Skis are ONLY available on the 35A and 80 Variants. This is because they have 20" Tundra Tires that can be used with the attachable Winter Ski Kit. Skis are not available on the 35P, 35H, 35X, 80P, 80H, and 80X Variants. As with all Got Friends' Products, we don't separate out an individual ski variant. With this approach, you can use the "Drop Skis Lever" to attach/remove skis on ground or in-flight. This lever is located below the trim wheel.

**Question: How come I am experiencing Engine Failures? I'm a new to flying and need help.**

Answer: You more than likely have "Engine Realism" turned on. This is the first option on the Clipboard located below the dashboard on the right side of the aircraft. This is the ONLY option that has permanence between flights. So, if you left Engine Realism turned ON from your last flight, your next flight will have Engine Realism turned ON by default.

**Question: Why won't my engine start? I'm on Realism and I feel like I'm missing something.**

Answer: Ensure you have the following turned on before using your Engine Starter: Magneto (1+2), Fuel Selector (L, R, or Both), Mixture (Rich), Primer (Primed), Compressed Air Valve (Open), Auxiliary Battery (On), Spark Shower (On), and Fuel Pump (On).

**Question: How come I can spawn my 35H or 80H on the Runway / Apron with Floats?**

Answer: This is a global issue with Microsoft Flight Simulator outside of our control. Please DO NOT spawn the float variant on the Runway or Apron. The 35H and 80H is on Floats and is NOT an amphibious aircraft and cannot support the weight loadout of amphibious floats.

**Question: Why are my UV Lights not working?**

Answer: Please ensure your Instrument UV Lights are ON and your Top Panel and/or Dashboard UV Brightness knobs are adjusted appropriately. The brightness knobs for the Top Panel and Dashboard are located on the right side of the Top Panel next to the Overvoltage Protection Switches.

**Question: Why doesn't my "Towplane Release" handle work in the cockpit?**

Answer: Currently, due to game limitations, we are unable to control the release of gliders. Only the glider themselves can control their own release. We are working on other alternative solutions on this for future updates and support.

**Question: Why is my Directional ADF Bearing not working with the ARL-1601?**

Answer: You need to ensure you send your standby frequency to the active frequency. To properly set the ADF Bearing please do the following: Ensure your Gyro Switch is turned ON (Top Panel), Press “P” on the ARL-1601 to clear the ADF standby frequency, find your local frequency and input that frequency into the ARL-1601, make sure your ADF mode is set to KOMP using the ADF Mode Switch on the ARL-1601, and finally, send your standby frequency to active by using the Standby to Active Switch on the ARL-1601. When you are in range and not blocked by any terrain, you should see your needle swing on the Directional Gyro-Compass pointing towards the direction of your local beacon. You can also enable ADF Morse Code by enabling it using the ADF Morse Switch below the RS-6102.

**Question: Why is my Flight Director holding a constant bank after being powered on?**

Answer: Please ensure your Attitude Indicator is UNCAGED and switched ON prior to turning on your Flight Director. The Flight Director depends on various instruments to work properly.

**Question: How come I can see my friend’s doors even though he has them removed? I also can’t hear his guitar or see his tires spinning, is there something wrong with my package?**

Answer: As developers, we are VERY LIMITED on what features are available in multiplayer. Currently, most of the control surfaces, propeller animations, landing gear animations, lights, and smoke work with multiplayer. Unfortunately, we do not have many multiplayer simulation variables to use due to MSFS SDK limitations. Hopefully this will be addressed in the future by Asobo, and we can add things like doors, cargo, and tire animations to the list of improvements.

**Question: What visual effects are currently supported in multiplayer?**

Answer: Smoke Generator and Low Fly-By Effects. Please note that Water Spray and Combustion/Back-Fire Start-Up Effects are not supported. We hope to get more multiplayer support from Asobo in the future.

**Question: Why does the Wilga 35A: G-BUNC Livery have a different look than the other 35As?**

Answer: The G-BUNC registered Wilga 35A is a special livery for our team. We were able to visit G-BUNC and Forwood Farm in real life to gather data and sound recordings for this package. Because of this special event, we decided to put in the extra effort to ensure G-BUNC looks like its real-world counterpart. In real life it has a more modernized cockpit and regulated exhaust stack in addition to it’s classic polish oil cooler. We ensured all these details are included in this package. Also, G-BUNC is the registered tow-plane available as a “Launch Option” in the menu for gliders.

**Question: What cargo is available on the 35H and 80H Float Variants?**

Answer: Although all cargo is available inside the aircraft, only the Hammock and Guitar are accessible for interactive features. The Guitar is located on the Hammock and will deploy with the Hammock toggle on the Clipboard. You can also click your Guitar while on the Hammock to deploy the Guitar Playboard. You can also change your “Instrument View” to Hammock from your camera toolbar. This is an easy way to view the Guitar Playboard without manually moving the camera.



# SUPPORT LINKS:

OFFICIAL SUPPORT (DISCORD): <https://discord.gg/vYCq6T76pa>

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OPEN EMAIL SUPPORT TICKET (CLICK LINK BELOW):

[mailto:gotfriends.msfs@gmail.com?subject=Support Ticket: PZL-104 Wilga](mailto:gotfriends.msfs@gmail.com?subject=Support%20Ticket:%20PZL-104%20Wilga)

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# PROJECT CREDITS:

**Jonx:** Project Management, XML Coding, Additional 3D Animations, Additional Textures, Visual Effects, and Towplane Compatibility

**Got Gravel:** Flight Model Dynamics, Custom Water/Ski Physics, Custom Thermodynamics, Additional XML Coding, Electrical Systems, and HTML Coding

**MyKrode:** 3D Modeling (Wilga), 3D Modeling (Forwood Farm), 3D Animations, Additional Textures, Bone Animations, and Guitar Sounds.

**Twoseventyinc:** Textures (Wilga), Textures (Forwood Farm), WWISE Sounds & Audio Mixing, Additional 3D Modeling, UV Unwrapping, and Paint Kit Creation.

**Emerald Scenery Design (Rotornut44):** 3D Modeling, Textures, WWISE Sounds & Mixing, Visual Effects, Animations, Scripting and XML Coding for Forwood Farm.

**Gurt Tractor:** Professional Sound Recording / Mastering of the G-BUNC registered Wilga 35A, Forwood Farm references and data collection.

**Alpha/Beta Testers:** Yoyo, OohCando, SSSnake74, Mort the 2<sup>nd</sup>, Willy, Antonvs, Eight of Dragons, Pieter, SimTom, Maple, Wicked Bacon, and Gunnerman.

**Additional Support:** Jaroslaw Motyl (Owner of SP-AFW), Lionheart Creations, Big Radials, Sim Flight Pro, Touching Cloud, Hype Performance Group, Blue Mesh, Photosbykev, and Hans Hartmann.

