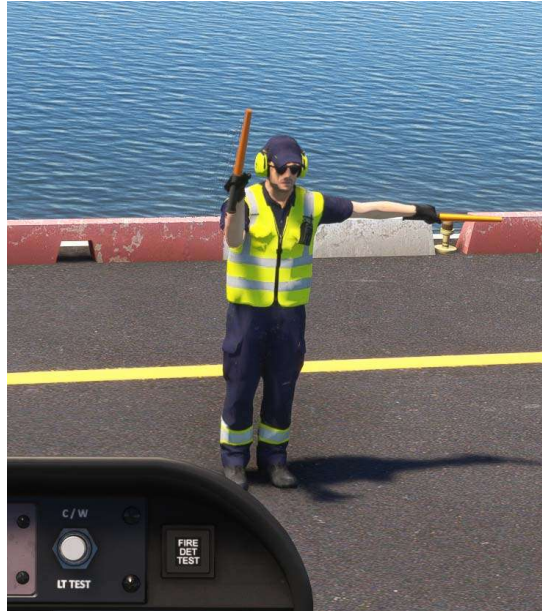


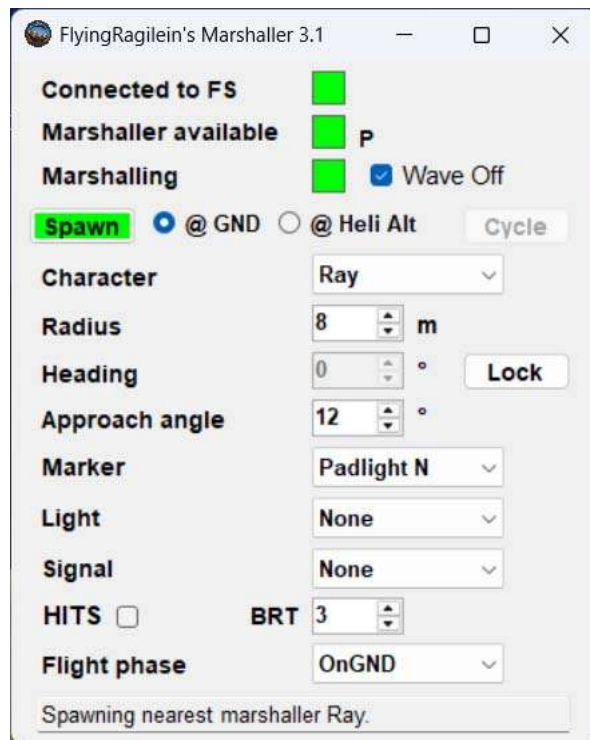
1. Introduction

This add-on provides an animated reactive helicopter marshaller for FS2020 and FS2024. It consists of two parts:

- A fully animated marshaller SimObject, which shows up in the simulator,



- And a controller app that controls the marshaller SimObject



2. End User License Agreement (EULA)

This software is provided entirely "AS IS". You use this software at your own risk. I give no warranties and deny any liability.

This software is my intellectual property. Publishing or sharing any part of it without my prior written consent, or reverse engineering, is strictly prohibited.

3. Licensing

You can use a subset of the marshaller's features for free.

To unlock all premium functions on one computer, please give a donation of \$8 or more to my project at <https://buymeacoffee.com/flyingragilein> or https://www.paypal.com/donate?hosted_button_id=H7TJDSACDPZD2

To obtain a license file, please send the computer-based ID displayed during startup of the controller app and a reference to your donation to

gottfriedrazek@yahoo.com

I will send you a license file via email as soon as I can. Please check your spam folder. There are no refunds.

To activate your license, copy the license file into the directory "FlyingRagileins Marshaller App".

4. Support

For support, questions, and suggestions, please email me at

gottfriedrazek@yahoo.com

I will reply as soon as I can.

If you like the marshaller, please pass the word! If you encounter any problems, please email me, and I'll do my best to find a solution.

For a version history, see <https://flyingragilein.com/HeliMarshaller>

5. Installation

To install the marshaller SimObject, copy the directory “flyingragilein-heli-marshaller” from the zip file to the “Community” directory of your flight simulator. If you have FS2020 and FS2024, copy it to both “Community” directories.

To install the controller app, copy the directory “FlyingRagileins Marshaller App” from the zip file to any location allowing program execution. Additionally, you can copy a shortcut to “FlyingRagileins Marshaller App.exe” to your desktop for convenience (don’t copy the exe, because it needs other files from the directory, but only a shortcut!).

If an add-on comes with a marshaller placement file for my marshaller, copy it into the directory “FlyingRagileins Marshaller App\Marshallers”.

6. Startup

Start the controller app and the simulator. The order doesn’t matter, as the controller app waits until the simulator is running.

When both programs are running and connected, you see a green indication at “Connected to FS”.

7. Spawning a marshaller

You can spawn a marshaller everywhere and at any time by clicking the “Spawn” button. After spawning a marshaller, you see a green indication at “Marshaller available”.

If you spawn a marshaller while you are on the ground, the marshaller spawns at your present position. You can spawn at ground level or at your present altitude (radio buttons). Ground level is preferred, except for positions above ground level, like oil platforms.

If you spawn a marshaller while you are airborne, the marshaller spawns at the nearest helipad of the nearest airport within 5000 meters. In this case, you can spawn at ground level or at pad altitude (radio buttons). Again, ground level is preferred, except for pads above ground level. If the airport has multiple helipads, you can cycle through them via the “Cycle” button.

If you spawn a marshaller while you are on the ground, the marshaller aligns with your helicopter for takeoff. Once you depart, the marshaller begins to align with the wind for landing. If you spawn a marshaller while you are airborne, the marshaller immediately aligns to the wind.

When you spawn a marshaller, any other marshaller within 500 m is removed to prevent conflicts and performance issues. Manually spawned marshallers exist, as long as the controller app is running. If you want to place marshallers permanently, you can do so via JSON files (see chapter 12).

8. Customizing your Landing Zone

You can customize your landing zone in many ways:

With the “Character” control, you can select a marshaller character.

With the “Radius” control, you can select the radius at which the marshaller rotates around his position.

With the “Lock” button, you can lock the heading of the marshaller and select a heading with the “Heading” control.

With the “Marker” control, you can select landing zone markers (“None”, “Cone”, “Padlight D&N”, “Padlight N”, “Stick”, or “VS-21”). Four markers mark the landing zone, and a fifth marker is placed upwind.

With the “Light” control, you can select additional lighting (“None” or “Flashlight”). The additional lighting only shows up at night.

With the “Signal control”, you can select a signal (“None”, “Flare” or “Smoke Flare”).

For the current marshaller, you can change all settings at any time.

9. Takeoff & Departure

After spawning, the marshaller shows the “start engine” signal if the engine isn’t already running. Otherwise, he stands idle.

Once you add a little collective, the marshaller performs the “move upward” signal. After you climb to about 65 ft, the marshaller performs the “depart” signal, and above 130 ft, he returns to standing idle.

When the marshaller performs a marshalling signal, you see a green indication at “Marshalling”.

10. Approach & Landing

As soon as you are within 500 m of the marshaller and below 130 ft, the marshaller performs the “face me” signal. Below 65 ft, he starts marshalling you to the pad. During this time, he performs one of the “move down”, “move left”, “move right”, “move ahead” or “move back” signals. The strength of the first three signals depends on your deviation from the approach profile.

The default vertical profile angle is 12°. You can change the angle by the “Approach angle” control.

If your approach becomes unsafe (sink rate too high, sink rate vs airspeed too high, or speed vs altitude too high), the marshaller waves you off. The status bar at the bottom of the controller app shows the reason for the wave off, and the app background turns red. In this case, you have to start the approach anew. You can disable this feature by unchecking “Wave Off”.

As soon as you are in a position for landing, the marshaller performs the “land” signal.

After landing, he performs the “cut engines” signal and returns to standing idle. Then you can repeat the cycle by adding a little collective.

Tip: The marshaller also looks great at night with his orange glowing marshalling wands.

11. HITS (Highway In The Sky)

The HITS displays green frames that guide you to the pad during final approach from about 500 ft AGL. Clicking “HITS” turns the HITS on/off. The path of the frames depends on the heading of the marshaller and the currently selected vertical profile angle. You can adjust the brightness of the HITS frames by the “BRT” control.



12. Placing Marshallers via JSON Files

Placed marshallers spawn automatically, as soon as you come within 5000 m of them. This enables marshallers in missions, where the pilot searches for the mission site and therefore can't spawn the marshaller via the "Spawn" button.

Placing marshallers is very simple and doesn't require the scenery SDK. Marshallers are placed by providing marshaller files in simple JSON format. The following "flyingragilein-heli-marshaller.json" is already in the directory and shows the possible parameters for placing marshallers. All optional parameters are premium functions and are ignored in the free version. Exception: The parameter "Character", which is essential for missions.

```
{
  // this sample shows the placing of 3 marshallers

  "Marshallers":
  [
    // marshaller Mike at Newark Liberty (KEWR) Helipad 1 with minimum parameters
    {
      "Lat": 40.7044147309674, // latitude in degrees
      "Lon": -74.1680740385394, // longitude in degrees
    },

    // marshaller Pam at a meadow in Central Park, New York
    {
      "Lat": 40.7716827311327,
      "Lon": -73.9757390926147,
      "Character": "Pam", // optional marshaller character; default="Mike"
      "Radius": 15.0, // optional radius of marshaller; default=8.0
      "ApproachAngle": 10.0, // optional approach angle in degrees; default=12.0
      "LockedHeading": 70.0, // optional heading in degrees; default: aligns with wind
      "Marker": "Cone", // optional LZ marker; default: no marker
      "Signal": "Smoke Flare", // optional signal; default: no signal
      "Light": "Flashlight" // optional light; default: no light
    },

    // marshaller Mia at the rooftop helipad VOLC5 in Paris (FS2024 only)
    {
      "Lat": 48.8893489845186,
      "Lon": 2.23900770075355,
      "Character": "Mia",
      "Alt": 234.921 // optional altitude of elevated pad in meters;
                  // default: marshaller snaps to the ground
    }
  ]
}
```

To install a marshaller file, copy it into the directory "FlyingRagileins Marshaller App\Marshallers". To prevent conflicts, add-on creators shall name their marshaller files exactly like their package – i.e. "company-package.json". To prevent conflicts between marshallers, their minimum distance is 500 m. When a marshaller is placed, it removes all marshallers within 500 m. The marshaller files are processed in alphabetical order. Therefore, marshallers in files beginning with "z" may remove marshallers in files beginning with alphabetically lower letters. If a placed marshaller doesn't show up, please check the log file in "c:\Users\<User>\AppData\Local\FlyingRagilein\MarshallerApp".

That's it. Happy landings & have fun with your new marshaller!