

FUEL STATUS GAUGE

History

This gauge came about because I got tired of flying long distance routes and trying to figure out if I was going to have enough fuel to make it or not.

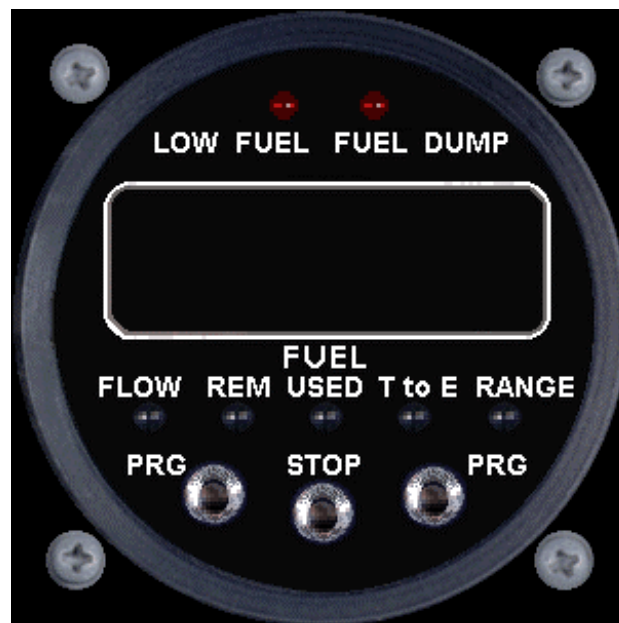
As you are probably aware, many FS aircraft do not come close to their real world counterparts when it comes to fuel usage and range. Many fall far short, although some have ridiculously long ranges, as well.

This gauge will allow you to accurately assess your fuel status enroute and plan your flight (altitudes, speeds, etc.) accordingly. So now there is no excuse for "running out of gas"! :-)

This gauge is a derivation of TC.FuelStatusPR with graphics enhanced for better readability (courtesy of Roy Chaffin).

Usage

The gauge markings can be a bit hard to read depending on the size used for it on a given panel, so here are the markings and their functions:



Low Fuel(LED) Fuel Dump(LED)

DATA DISPLAY

Fuel

Flow(LED) Rem(LED) Used(LED) TtoE(LED) Range(LED)

PRG(Switch) Stop(Switch) PRG(Switch)

Low Fuel(LED) - Flashes red when fuel is below 10% of capacity. Solid red if below 5%. In addition an audible alarm will sound every 60 seconds, if under 5%. If you click on the led, the audible alarm will be disabled. Clicking again re-enables it.

Fuel Dump(LED) - This led will light red when fuel dumping is in progress. It will light yellow when fuel loading is in progress.

Flow(LED) - Click once to display fuel flow in gallons per hour. Click again to display fuel flow in pounds per hour.

If you are using the metric system units will be shown in liters or kilograms per hour.

Rem(LED) - Click to display remaining fuel quantity in gallons. Click again to display remaining fuel quantity in pounds.

If you are using the metric system units will be shown in liters or kilograms.

If less than 10% remains, the value will be shown in yellow, if less than 5%, in red.

Used(LED) - Click to display fuel used in gallons. Click again to display fuel used in pounds.

If you are using the metric system units will be shown in liters or kilograms.

The readout can be reset by right clicking on the led.

TtoE(LED) - Click to display time to empty (hh:mm). If less than 1 hour, the value will be shown in yellow, if less than 30 minutes, in red.

Range(LED) - Click to display range in NM. Click again to display ground speed. Click a third time to display true airspeed.

PRG - These switches control fuel loading/dumping of the left and right tanks. If you have FS6IPC installed, this feature will be available, otherwise it will not.

Fuel Loading

Clicking either PRG switch with the right mouse button begins loading fuel onto the aircraft. The right switch loads fuel into the right tanks, the left switch loads fuel into the left tanks. Clicking again stops the loading process. When fuel is being loaded into any of the tanks, the Fuel Dump led will be lit yellow.

Fuel is first loaded into the aux tanks (if available) and then the mains. It takes approximately 5 minutes to fill the aux tanks and another 5 minutes to fill the mains. To load fuel into the center tank, use the center Stop switch.

The loading process will automatically terminate if the aircraft leaves the ground, if any of the engines are started or when the tanks reach 100% of capacity. A tone will sound if the loading process is terminated due to any of these conditions.

You cannot load fuel if your tanks are full, if you are not on the ground, or if any of your engines are running or being started. Again, a tone will sound.

When the fuel loading process is terminated, the Fuel Used display is automatically reset to zero.

Inflight Refueling

Inflight refueling is controlled the same way as fuel loading the ground, by right clicking on the PRG switches.

You must be in level flight to begin refueling or a tone will sound. In addition, you must

remain on the same heading and +/-50 feet of the same altitude or the refueling will cancel, simulating a disconnect from the refueling boom. Again, a tone will sound.

Refueling can be terminated manually by clicking on each of the PRG switches, or automatically when the tanks are full.

When the refueling process is terminated, the Fuel Used display is automatically reset to zero.

Fuel Dumping

Clicking the PRG switch with the left mouse button opens the fuel dump valves. The right switch opens the valves for the right tanks, the left switch opens the valves for the left tanks. Clicking again closes the valves. When any of the valves are open, the Fuel Dump led will be lit red. It takes approximately 5 minutes to dump full tanks. To dump fuel from the center tank, use the center Stop switch.

The dump will automatically terminate if the aircraft descends below 3500 ft. AGL or when the tanks reach 5% of capacity. A tone will sound if the dump is terminated due to any of these conditions.

You cannot start a fuel dump if your tanks are below 5%, if you are on the ground, or below 3500 ft. AGL. Again, a tone will sound.

Stop - This switch controls fuel loading/dumping of the center tank. If you have FS6IPC installed, this feature will be available, otherwise it will not. See the description above for usage.

Legal

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Credits

Graphics - Roy Chaffin
Software - Tom Corson

Thanks to Dean Mountford for supplying the original background image (from mov-maps.zip).

Special thanks to beta testers Roy Chaffin, Sam Kalachoras, Dave Ledeen, and Jacques Ranger.

Enjoy,
Tom Corson

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