GPS_NAVFILTER [edit]

Defines for the GPS receiver (for auto-configuration, see <u>GPS_AUTO_CONFIG</u>) the dynamic model of the moving system (Dynamic Platform Model) that the GPS receiver should use in position calculations. Applicable for uBlox chips.

Values:

- 0: **Portable** Portable devices Moving systems with low acceleration. Suitable for most cases. Type of data adequacy check: Height and Speed. Expected Position Change: Medium. Boundary Parameters:
 - maximum height 12000 m
 - maximum speed 310 m/s
 - maximum vertical speed 50 m/s
- 2: **Stationary** Systems in which there is zero movement dynamics and there is practically no movement. Type of data adequacy check: Height and Speed. Expected Position Change: Small. Boundary Parameters:
 - maximum height 9000 m
 - maximum speed of movement 10 m/s
 - maximum vertical speed 6 m/s
- 3: **Pedestrian** Pedestrian Moving systems with low acceleration and speed. Type of data adequacy check: Height and Speed. Expected Position Change: Small. Boundary Parameters:
 - maximum height 9000 m
 - maximum speed of movement 30 m/s
 - maximum vertical speed 20 m/s
- 4: **Automotive** Car Recommended for moving systems like a passenger car with low vertical accelerations. Type of data adequacy check: Height and Speed. Expected Position Change: Medium. Boundary Parameters:
 - maximum height 6000 m
 - maximum speed 84 m / s
 - maximum vertical speed 15 m/s
- 5: **Sea** Ship Recommended for ships with little to no vertical speed and a position height near sea level. Type of data adequacy check: Height and Speed. Expected Position Change: Medium. Boundary Parameters:
 - maximum height 500 m
 - maximum speed of movement 25 m/s
 - maximum vertical speed 5 m/s
- 6: Airborne1G Aircraft 1G Recommended for moving systems with a dynamic range of vertical movements greater than that of a passenger

car. 2D fixation is not accepted as sufficient. Type of data adequacy check: Height. Expected position change: large. Boundary Parameters:

- maximum height 50,000 m
- maximum travel speed 100 m/s
- maximum vertical speed 100 m/s
- 7: **Airborne2G** 2G Aircraft Recommended for typical aircraft. 2D fixation is not accepted as sufficient. Type of data adequacy check: Height. Expected position change: large. Boundary Parameters:
 - maximum height 50,000 m
 - maximum speed 250 m/s
 - maximum vertical speed 100 m/s
- 8: **Airborne4G** 4G Aircraft Recommended only for extremely dynamic systems. 2D fixation is not accepted as sufficient. Type of data adequacy check: Height. Expected position change: large. Boundary Parameters:
 - maximum height 50,000 m
 - maximum speed 500 m/s
 - maximum vertical speed 100 m/s