

# baseline\_ecef

u32 tow	s32 x	s32 y	s32 z	u16 accuracy	u8 n_sats	u8 flags
GPS Time of Week [ms]	Baseline ECEF X coordinate [mm].	Baseline ECEF Y coordinate [mm].	Baseline ECEF Z coordinate [mm].	Position estimated standard deviation [mm].	Number of satellites used in solution.	Status flags

<https://swift->

[nav.github.io/libsbp/c/build/docs/html/structmsg\\_baseline\\_ecef\\_t.html#a9871e2f74b52ff0821e50c8f96903707](https://nav.github.io/libsbp/c/build/docs/html/structmsg_baseline_ecef_t.html#a9871e2f74b52ff0821e50c8f96903707)

baseline\_ned

u32 tow	s32    n	s32    e	s32    d	u16 h_accuracy	u16 v_accuracy	u8 n_sats	u8 flags
GPS Time of Week [ms].	Baseline North coordinate [mm].	Baseline East coordinate [mm].	Baseline Down coordinate [mm].	Horizontal position estimated standard deviation [mm].	Vertical position estimated standard deviation [mm].	Number of satellites used in solution.	Status flags.

<https://swift->

[nav.github.io/libsbp/c/build/docs/html/structmsg\\_baseline\\_ned\\_t.html](https://nav.github.io/libsbp/c/build/docs/html/structmsg_baseline_ned_t.html)

### angular\_rate

u32 tow	s32 x	s32 y	s32 z	u8 flags
GPS Time of Week [ms].	angular rate about x axis [microdegrees/s]	angular rate about y axis [microdegrees/s]	angular rate about z axis [microdegrees/s]	Status flag

<https://swift->

[nav.github.io/libsbp/c/build/docs/html/structmsg\\_angular\\_rate\\_t.html](https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg_angular_rate_t.html)

# orientation\_euler

u32 tow	s32 roll	s32 pitch	s32 yaw	float roll_accuracy	float pitch_accuracy	float yaw_accuracy	u8 flags
GPS Time of Week [ms].	rotation about the forward axis of the vehicle [microdegrees]	rotation about the rightward axis of the vehicle [microdegrees]	rotation about the downward axis of the vehicle [microdegrees]	Estimated standard deviation of roll [degrees].	Estimated standard deviation of pitch [degrees].	Estimated standard deviation of yaw [degrees].	Status flags

[https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg\\_orient\\_euler\\_t.html](https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg_orient_euler_t.html)

# orientation\_quaternion

u32 tow	s32 w	s32 x	s32 y	s32 z	float w_accu racy	float x_accu racy	float y_accu racy	float z_accu racy	u8 flags
GPS Time of Week [ms].	Real component [2 <sup>-31</sup> ].	1st imaginary component [2 <sup>-31</sup> ]	2nd imaginary component [2 <sup>-31</sup> ]	3rd imaginary component [2 <sup>-31</sup> ]	Estimated standard deviation of w [N/A].	Estimated standard deviation of x [N/A].	Estimated standard deviation of y [N/A].	Estimated standard deviation of z [N/A].	Status flags.

[https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg\\_orient\\_quat\\_t.html](https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg_orient_quat_t.html)

position\_rover\_ecef. (not sure about this )

u32 tow	double x	double y	double z	u16 accuracy	u8 n_sats	u8 status flag
GPS Time of Week [ms].	ECEF X coordinate [m].	ECEF Y coordinate [m].	ECEF Z coordinate [m].	Position estimated standard deviation [mm].	Number of satellites used in solution.	Status flags.

[https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg\\_pos\\_ecef\\_t.html](https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg_pos_ecef_t.html)

position\_rover\_llh

u32 tow	double lat	double lon	double height	u16 h_accuracy	u16 v_accuracy	u8 n_sats	u8 flags
GPS Time of Week [ms].	Latitude [deg].	Longitude [deg].	Height above WGS84 ellipsoid [m].	Horizontal position estimated standard deviation [mm].	Vertical position estimated standard deviation [mm].	Number of satellites used in solution.	Status flags

[https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg\\_pos\\_llh\\_t.html](https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg_pos_llh_t.html)

velocity\_body

[https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg\\_vel\\_body\\_t.html](https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg_vel_body_t.html)

velocity\_ecef.

[https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg\\_vel\\_ecef\\_t.html](https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg_vel_ecef_t.html)

velocity\_ned.

[https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg\\_vel\\_ned\\_t.html](https://swift-nav.github.io/libsbp/c/build/docs/html/structmsg_vel_ned_t.html)