

S1 Table: **Dynamic accuracy Table.** All the reported values are in $^{\circ}$. Accuracy is expressed as the **median value** : 95% range. AH. stands for Attitude and Heading movements.

ABSOLUTE ACCURACY														
Attitude	0.18 Hz		0.32 Hz		0.56 Hz		1.00 Hz		1.78 Hz		3.16 Hz		5.62 Hz	
	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF
$\pm 3^{\circ}$	0.4:1.0	0.3:0.9	0.5:1.8	0.3:1.0	0.5:1.5	0.3:1.0	0.4:1.5	0.5:1.5	0.7:2.0	0.9:2.0	0.7:2.0	1.0:3.9	0.8:2.5	2.3:5.7
$\pm 6^{\circ}$	0.5:1.6	0.4:1.3	0.4:1.0	0.4:1.4	0.6:1.9	0.6:2.3	0.7:1.5	1.3:3.7	0.7:1.8	1.3:3.1	0.7:1.8	1.8:3.5	1.0:3.5	2.0:3.2
$\pm 5^{\circ}$	0.5:2.0	0.3:0.7	0.5:1.7	0.4:1.2	0.5:1.9	0.5:2.0	0.5:2.0	0.9:2.0	0.8:2.3	1.1:2.4	0.8:2.3	1.7:4.3	-	-
$\pm 10^{\circ}$	0.5:1.7	0.5:1.6	0.5:1.8	0.7:2.4	0.5:2.1	1.0:2.8	0.7:1.9	1.6:4.0	0.9:2.6	2.1:4.2	0.8:2.6	3.0:6.4	-	-
$\pm 9^{\circ}$	0.6:1.7	0.4:1.4	0.5:1.9	0.5:2.2	0.6:2.0	0.7:1.7	0.7:2.3	1.6:4.3	0.9:2.4	1.8:3.8	-	-	-	-
$\pm 18^{\circ}$	0.6:2.1	0.8:2.7	0.6:2.1	0.8:2.7	0.7:1.9	1.7:3.6	0.8:2.3	2.2:3.7	0.9:2.5	3.3:8.3	-	-	-	-
AH.	0.18 Hz		0.32 Hz		0.56 Hz		1.00 Hz		1.78 Hz		3.16 Hz		5.62 Hz	
	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF
$\pm 3^{\circ}$	0.6:2.3	0.4:1.2	0.5:3.0	0.5:1.6	0.5:2.6	0.5:1.6	0.6:2.0	0.9:2.1	0.8:2.7	1.2:2.2	0.9:3.0	1.4:4.2	0.9:2.8	2.4:4.9
$\pm 6^{\circ}$	0.5:2.1	0.7:2.4	0.6:2.4	0.7:2.4	0.6:2.3	0.8:2.5	0.8:2.7	1.5:2.8	1.0:3.1	1.4:2.7	0.9:2.6	1.8:4.6	0.8:2.9	4.5:8.2
$\pm 5^{\circ}$	0.6:3.0	0.5:2.1	0.8:3.4	0.6:2.0	0.6:2.3	0.9:2.1	0.7:2.2	1.5:3.0	0.9:2.9	1.6:3.2	0.9:2.8	1.7:5.1	-	-
$\pm 10^{\circ}$	0.7:2.6	1.1:3.3	0.7:2.8	1.3:3.5	0.6:2.7	1.5:3.4	0.7:3.0	1.8:4.3	0.9:3.1	1.8:3.8	1.0:3.3	3.2:5.3	-	-
$\pm 9^{\circ}$	0.9:4.4	0.8:3.1	0.8:2.9	1.2:3.1	0.6:2.7	1.5:3.9	0.9:3.0	1.8:4.0	0.9:3.0	2.1:4.0	-	-	-	-
$\pm 18^{\circ}$	0.6:2.6	1.6:5.2	0.8:2.9	1.9:4.4	1.0:3.1	2.4:4.7	1.0:3.0	2.1:4.8	1.1:4.3	3.1:7.0	-	-	-	-
Heading	0.18 Hz		0.32 Hz		0.56 Hz		1.00 Hz		1.78 Hz		3.16 Hz		5.62 Hz	
	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF
$\pm 3^{\circ}$	0.9:2.7	0.6:2.7	0.6:2.8	0.6:2.4	0.6:2.2	0.7:2.2	0.6:1.9	1.0:2.8	0.7:2.3	1.2:2.5	0.7:2.1	1.4:2.7	0.8:1.9	1.3:4.4
$\pm 6^{\circ}$	0.6:2.0	1.0:4.7	0.6:1.9	1.1:3.8	0.8:2.6	1.7:3.4	0.6:1.9	1.9:4.2	0.6:2.2	1.7:3.6	0.6:1.9	1.9:4.2	0.7:2.1	3.5:4.9
$\pm 5^{\circ}$	0.6:1.9	0.9:2.5	0.6:2.6	0.6:2.6	0.5:2.2	1.0:3.7	0.6:2.3	1.5:2.9	0.5:1.9	1.5:2.6	0.7:2.2	1.6:4.0	-	-
$\pm 10^{\circ}$	0.5:1.8	1.1:4.6	0.8:2.8	0.9:4.2	0.6:1.9	1.6:3.8	1.1:4.1	2.2:4.9	0.7:2.6	1.7:3.2	1.4:6.5	3.0:4.0	-	-
$\pm 9^{\circ}$	0.9:3.3	1.1:4.1	0.7:3.0	1.0:4.0	1.5:4.2	1.6:4.3	1.1:3.3	2.0:3.3	0.8:2.8	1.6:3.4	-	-	-	-
$\pm 18^{\circ}$	0.7:2.9	1.9:6.4	1.3:3.9	1.9:6.1	1.0:3.4	2.4:5.1	1.0:2.9	2.2:3.9	1.1:4.0	2.8:5.4	-	-	-	-
RELATIVE ACCURACY														
Attitude	0.18 Hz		0.32 Hz		0.56 Hz		1.00 Hz		1.78 Hz		3.16 Hz		5.62 Hz	
	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF
$\pm 3^{\circ}$	0.4:1.2	0.4:1.8	0.5:1.8	0.3:1.2	0.5:1.5	0.4:1.4	0.6:1.6	0.8:2.0	0.7:1.8	1.1:2.7	0.7:2.0	1.2:3.1	0.9:2.4	2.7:5.6
$\pm 6^{\circ}$	0.5:1.4	0.5:1.5	0.5:1.4	0.6:1.7	0.6:2.2	0.8:2.4	0.6:1.3	1.7:3.4	0.8:1.7	1.6:4.7	0.8:1.8	1.9:5.0	0.9:2.6	1.9:4.5
$\pm 5^{\circ}$	0.7:2.2	0.4:1.0	0.6:1.9	0.6:2.0	0.6:1.7	0.7:2.3	0.7:2.0	1.3:2.7	0.8:2.1	1.3:3.4	0.8:1.9	2.1:3.8	-	-
$\pm 10^{\circ}$	0.6:1.4	0.6:2.0	0.6:1.6	1.0:2.9	0.7:2.0	1.3:2.8	0.8:1.9	2.0:3.9	1.0:2.3	1.9:3.7	0.9:2.4	3.5:6.9	-	-
$\pm 9^{\circ}$	0.7:2.0	0.6:2.2	0.6:1.7	0.8:2.5	0.6:1.7	1.0:1.9	0.8:2.2	2.1:4.9	0.8:2.2	2.1:3.8	-	-	-	-
$\pm 18^{\circ}$	0.7:1.7	1.1:3.0	0.8:2.2	1.1:3.0	0.8:1.6	1.8:3.3	0.9:2.0	2.2:4.4	0.9:2.3	3.2:6.9	-	-	-	-
AH.	0.18 Hz		0.32 Hz		0.56 Hz		1.00 Hz		1.78 Hz		3.16 Hz		5.62 Hz	
	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF
$\pm 3^{\circ}$	0.6:2.2	0.5:1.8	0.8:4.2	0.6:2.2	0.9:3.8	0.6:2.1	0.8:2.9	1.1:2.6	1.0:3.4	1.3:2.8	1.1:3.4	1.6:5.0	1.1:3.3	1.8:3.6
$\pm 6^{\circ}$	0.7:2.5	1.0:2.6	0.9:2.6	0.9:2.7	0.7:2.9	1.0:2.3	1.1:3.3	1.6:3.3	1.3:4.4	1.8:3.6	1.1:3.2	2.1:6.8	1.0:3.1	1.2:4.5
$\pm 5^{\circ}$	0.8:3.2	0.8:3.9	0.9:3.7	0.9:2.9	0.8:2.8	1.1:2.4	0.9:3.4	1.7:3.8	1.3:3.4	1.9:3.9	1.0:3.2	2.0:4.5	-	-
$\pm 10^{\circ}$	0.9:2.7	1.3:4.6	0.9:3.5	1.4:4.4	0.9:4.0	1.9:4.2	1.0:4.3	2.2:4.3	1.1:4.0	2.5:4.4	1.3:3.9	2.7:7.2	-	-
$\pm 9^{\circ}$	1.0:4.4	1.0:3.7	1.0:3.5	1.3:3.5	0.8:3.1	2.1:4.4	1.1:3.5	1.9:4.2	1.1:4.1	2.2:4.6	-	-	-	-
$\pm 18^{\circ}$	0.9:3.1	1.5:7.1	1.1:4.2	1.7:6.0	1.1:3.8	2.4:5.9	1.3:3.8	2.3:4.5	1.3:6.5	3.5:8.4	-	-	-	-
Heading	0.18 Hz		0.32 Hz		0.56 Hz		1.00 Hz		1.78 Hz		3.16 Hz		5.62 Hz	
	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF	KF	CF
$\pm 3^{\circ}$	0.7:2.2	0.8:3.9	1.0:5.7	0.6:3.6	0.9:3.5	0.8:3.4	0.9:3.1	1.2:4.2	1.1:4.4	1.1:3.2	1.0:3.2	1.3:3.6	1.0:3.0	1.8:5.2
$\pm 6^{\circ}$	1.0:3.3	1.0:5.1	0.9:3.5	1.0:6.3	1.2:5.0	1.4:4.9	1.1:3.7	2.0:5.3	1.1:3.6	1.8:5.0	1.0:3.6	2.2:4.9	1.3:4.6	2.1:6.1
$\pm 5^{\circ}$	0.7:2.5	0.6:2.7	0.9:4.6	0.7:2.7	1.2:4.2	1.1:3.9	1.3:5.4	1.3:2.8	1.2:4.5	1.3:3.3	1.1:4.5	2.0:4.1	-	-
$\pm 10^{\circ}$	1.0:5.1	0.7:4.1	1.7:6.0	0.9:4.2	1.4:4.9	1.4:4.5	2.3:8.2	1.7:4.5	1.6:6.0	2.0:3.9	2.7:10.3	2.0:3.6	-	-
$\pm 9^{\circ}$	1.4:6.4	0.9:4.4	1.3:5.1	0.9:3.6	2.1:7.3	1.9:5.1	1.8:6.3	1.5:3.9	1.5:5.5	1.5:4.2	-	-	-	-
$\pm 18^{\circ}$	1.7:5.2	1.3:6.9	2.3:9.4	2.2:6.1	1.6:7.8	2.4:5.5	1.9:6.9	2.4:4.3	2.2:9.4	3.1:6.3	-	-	-	-