

Motion of the observer

Time - minutes

	ZN-TR	½	1	2	3	4	5	6	7	8	9	10	20	30	60	
1																
	+ -															
K	0-180	0	0	0	0	.1	.1	.1	.1	.1	.1	.2	.3	.5	1.0	
N	20-160	0	0	0	0	.1	.1	.1	.1	.1	.1	.2	.3	.5	.9	
O	40-140	0	0	0	0	.1	.1	.1	.1	.1	.1	.1	.3	.4	.8	
T	60-120	0	0	0	0	0	0	.1	.1	.1	.1	.1	.2	.3	.5	
	80-100	0	0	0	0	0	0	0	0	.1	.1	.1	.1	.1	.2	
	90-270	0	for ZN-TR of 90 and 270 the correction is always zero for all speeds													0
2																
	+ -															
K	0-180	0	0	.1	.1	.1	.2	.2	.2	.3	.3	.3	.7	1.0	2.0	
N	20-160	0	0	.1	.1	.1	.2	.2	.2	.3	.3	.3	.6	.9	1.9	
O	40-140	0	0	.1	.1	.1	.1	.2	.2	.2	.2	.3	.5	.8	1.5	
T	60-120	0	0	0	.1	.1	.1	.1	.1	.1	.2	.2	.3	.5	1.0	
S	80-100	0	0	0	0	0	0	0	0	0	.1	.1	.1	.2	.3	
3																
	+ -															
K	0-180	0	0	.1	.2	.2	.3	.3	.4	.4	.5	.5	1.0	1.5	3.0	
N	20-160	0	0	.1	.1	.2	.2	.3	.3	.4	.4	.5	.9	1.4	2.8	
O	40-140	0	0	.1	.1	.2	.2	.2	.3	.3	.3	.4	.8	1.1	2.3	
T	60-120	0	0	.1	.1	.1	.1	.2	.2	.2	.2	.3	.5	.8	1.5	
S	80-100	0	0	0	0	0	0	.1	.1	.1	.1	.1	.2	.3	.5	
4																
	+ -															
K	0-180	0	.1	.1	.2	.3	.3	.4	.5	.5	.6	.7	1.3	2.0	4.0	
N	20-160	0	.1	.1	.2	.3	.3	.4	.4	.5	.6	.6	1.3	1.9	3.8	
O	40-140	0	.1	.1	.2	.2	.3	.3	.4	.4	.5	.5	1.0	1.5	3.1	
T	60-120	0	0	.1	.1	.1	.2	.2	.2	.3	.3	.3	.7	1.0	2.0	
S	80-100	0	0	0	0	0	.1	.1	.1	.1	.1	.1	.2	.3	.7	

Time - minutes

ZN-TR		½	1	2	3	4	5	6	7	8	9	10	20	30	60
5															
	+ -														
K	0-180	0	.1	.2	.3	.3	.4	.5	.6	.7	.8	.8	1.7	2.5	5.0
N	20-160	0	.1	.2	.2	.3	.4	.5	.5	.6	.7	.8	1.6	2.3	4.7
O	40-140	0	.1	.1	.2	.3	.3	.4	.4	.5	.6	.6	1.3	1.9	3.8
T	60-120	0	0	.1	.1	.2	.2	.3	.3	.3	.4	.4	.8	1.3	2.5
S	80-100	0	0	0	0	.1	.1	.1	.1	.1	.1	.1	.3	.4	.9
6															
	+ -														
K	0-180	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	2.0	3.0	6.0
N	20-160	0	.1	.2	.3	.4	.5	.6	.7	.8	.8	.9	1.9	2.8	5.6
O	40-140	0	.1	.2	.2	.3	.4	.5	.5	.6	.7	.8	1.5	2.3	4.6
T	60-120	0	0	.1	.1	.2	.2	.3	.3	.4	.4	.5	1.0	1.5	3.0
S	80-100	0	0	0	.1	.1	.1	.1	.1	.1	.2	.2	.3	.5	1.0
7															
	+ -														
K	0-180	0	.1	.2	.4	.5	.6	.7	.8	.9	1.1	1.2	2.3	3.5	7.0
N	20-160	0	.1	.2	.3	.4	.5	.7	.8	.9	1.0	1.1	2.2	3.3	6.6
O	40-140	0	.1	.2	.3	.4	.4	.5	.6	.7	.8	.9	1.8	2.7	5.4
T	60-120	0	.1	.1	.2	.2	.3	.4	.4	.5	.5	.6	1.2	1.8	3.5
S	80-100	0	0	0	.1	.1	.1	.1	.1	.2	.2	.2	.4	.6	1.2
8															
	+ -														
K	0-180	0	.1	.3	.4	.5	.7	.8	.9	1.1	1.2	1.3	2.7	4.0	8.0
N	20-160	0	.1	.3	.4	.5	.6	.8	.9	1.0	1.1	1.3	2.5	3.8	7.5
O	40-140	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	2.0	3.1	6.1
T	60-120	0	.1	.1	.2	.3	.3	.4	.5	.5	.6	.7	1.3	2.0	4.0
S	80-100	0	0	0	.1	.1	.1	.1	.2	.2	.2	.2	.5	.7	1.4

Time - minutes

ZN-TR		½	1	2	3	4	5	6	7	8	9	10	20	30	60
9															
	+ -														
K	0-180	0	.2	.3	.5	.6	.8	.9	1.1	1.2	1.4	1.5	3.0	4.5	9.0
N	20-160	0	.1	.3	.4	.6	.7	.8	1.0	1.1	1.3	1.4	2.8	4.2	8.5
O	40-140	0	.1	.2	.3	.5	.6	.7	.8	.9	1.0	1.1	2.3	3.4	6.9
T	60-120	0	.1	.2	.2	.3	.4	.5	.5	.6	.7	.8	1.5	2.3	4.5
S	80-100	0	0	.1	.1	.1	.1	.2	.2	.2	.2	.3	.5	.8	1.6
10															
	+ -														
K	0-180	.1	.2	.3	.5	.7	.8	1.0	1.2	1.3	1.5	1.7	3.3	5.0	10.0
N	20-160	.1	.2	.3	.5	.6	.8	.9	1.1	1.3	1.4	1.6	3.1	4.7	9.4
O	40-140	.1	.1	.3	.4	.5	.7	.8	.9	1.0	1.1	1.3	2.6	3.8	7.7
T	60-120	0	.1	.2	.3	.3	.4	.5	.6	.7	.7	.8	1.7	2.5	5.0
S	80-100	0	0	.1	.1	.1	.1	.2	.2	.2	.3	.3	.6	.9	1.7
11															
	+ -														
K	0-180	.1	.2	.4	.6	.7	.9	1.1	1.3	1.5	1.7	1.8	3.7	5.5	11.0
N	20-160	.1	.2	.3	.5	.7	.9	1.0	1.2	1/4	1.6	1.7	3.4	5.2	10.3
O	40-140	.1	.1	.3	.4	.6	.7	.8	1.0	1.1	1.3	1.4	2.8	4.2	8.4
T	60-120	0	.1	.2	.3	.4	.5	.6	.6	.7	.8	.9	1.8	2.7	5.5
S	80-100	0	0	.1	.1	.1	.2	.2	.2	.3	.3	.3	.6	1.0	1.9
12															
	+ -														
K	0-180	.1	.2	.4	.6	.8	1.0	1.2	1.4	1.6	1.8	2.0	4.0	6.0	12.0
N	20-160	.1	.2	.4	.6	.8	.9	1.1	1.3	1.5	1.7	1.9	3.8	5.6	11.3
O	40-140	.1	.2	.3	.5	.6	.8	.9	1.1	1.2	1.4	1.5	3.1	4.6	9.2
T	60-120	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0	2.0	3.0	6.0
S	80-100	0	0	.1	.1	.1	.2	.2	.2	.3	.3	.3	.7	1.0	2.1