

Table 2
Planimetric and Vertical Coordinate Accuracy Requirements in meters
Ground X or Y or Z for Well-defined Points¹

Planimetric Classes (Limiting rms error, meters)			Typical Map Scale	Possible Contour Interval in Meters	Vertical Classes (Limiting rms error, meters)		
CLASS 1	CLASS 2	CLASS 3			CLASS 1	CLASS 2	CLASS 3
0.0125	0.0250	0.0375	1:50	0.0125	0.0021	0.0042	0.0063
0.0250	0.0500	0.0750	1:100	0.0250	0.0042	0.0083	0.0125
0.0500	0.1000	0.1500	1:200	0.0500	0.0083	0.0167	0.0250

0.1000	0.2000	0.3000	1:400	0.1000	0.0167	0.0333	0.0500
0.1250	0.2500	0.3750	1:500	0.1250	0.0208	0.0417	0.0625
0.2000	0.4000	0.6000	1:800	0.2000	0.0333	0.0667	0.1000
0.2500	0.5000	0.7500	1:1,000	0.2500	0.0417	0.0833	0.1250
0.5000	1.0000	1.5000	1:2,000	0.5000	0.0833	0.1667	0.2500
1.0000	2.0000	3.0000	1:4,000	1.0000	0.1667	0.3333	0.5000
1.2500	2.5000	3.7500	1:5,000	1.2500	0.2083	0.4167	0.6250
1.8750	3.7500	5.6250	1:7,500	1.8750	0.3125	0.6250	0.9375
2.0000	4.0000	6.0000	1:8,000	2.0000	0.3333	0.6667	1.0000
2.5000	5.0000	7.5000	1:10,000	2.5000	0.4167	0.8333	1.2500
5.0000	10.0000	15.0000	1:20,000	5.0000	0.8333	1.6667	2.5000
10.0000	20.0000	30.0000	1:40,000	10.0000	1.6667	3.3333	5.0000
12.5000	25.0000	37.5000	1:50,000	12.5000	2.0833	4.1667	6.2500
25.0000	50.0000	75.0000	1:100,000	25.0000	4.1667	8.3333	12.5000

* indicates the practical limit for aerial methods - for scales above this line, ground methods are normally used.

¹ see Appendix A, Section A2.