

	Item	Class A	Class B	Class C	Class D
1	Monument Environment:				
1.1	- securing environment by legal means (with written long term contracts)	X	X	(X)	-
1.2	- station coordinates monitoring				
1.2.1	- daily solution	X	(X)	-	-
1.2.2	- at least four (?) times a year	X	X	X	-
1.3	- if relocated: four (?) months overlapping relocation period	(X)	-	-	-
1.4	- monitoring radio disturbances	(X)	(X)	(X)	(X)
1.5	- multipath monitoring				
1.5.1	- analysis of GPS data.	X	X	X	-
1.5.2	- monitoring of antenna surroundings, min every 2 year.	X	X	X	X
1.6	- monitoring ground water level				
1.6.1	- direct well measurements (within 100 meters)	(X)	-	-	-
1.6.2	- monitoring local drainage and regional water supply production.	(X)	-	-	-
1.7	- a platform for absolute gravity measurements should be established in connection to the monument.	(X)	(X)	-	-
2	Monument:				
2.1	- extreme stability in space/time	X	-	-	-
2.2	- stability documented in time series, minimum 12 (?) months.	1-2 mm	< 5 mm	< 5 mm	> 5 mm
2.3	- monument construction shall be documented	X	-	-	-
2.4	- terrestrial measurements between benchmarks and pillar at least every third year	X	(X)	-	-
2.5	- documented geological preconditions	(X)	-	-	-
2.6	- thermal expansion controlled by heating or construction	(X)	-	-	-

	documented for this effect.				
3	Antennas:				
3.1	- Dorne Margolin/IGS compatible	X	X	-	-
3.2	- the antenna should be acknowledged by IGS and have calibration values from IGS/NGS.	X	X	X	-
3.3	- if an antenna splitter is used it must be documented.	X	X	X	-
3.4	- spare antenna available within one week	X	(X)	-	-
4	Radomes:				
4.1	- if a radome is used it must be documented and IGS compatible	X	X	-	-
					-
					-
5	Receiver:				
5.1	- dual frequency, minimum 12 channel geodetic receiver, mentioned in IGS receiver-antenna table	X	X	X	-
5.2	- redundant receiver	(X)	(X)	-	-
5.3	- spare receiver of same brand/type available within one week	X	-	-	-
5.4	- local storage of raw data either in a local PC or internal memory.	X	(X)	-	-
5.5	- real-time data on redundant communications routers	(X)	(X)	-	-
5.6	- the receiver must have at least 3 serial ports, USB or an Ethernet port.	X	(X)	-	-
5.7	- external oscillator	(X)	(X)	-	-
6	Data rate / data storing				
6.1	- every 1 second	X	X	(X)	-

6.2	- other, at least every 30 th second	(X)	(X)	X	-
6.3	- data available at least one (?) year	X	X	(X)	-
7	Station security and environment				
7.1	- limited access to the station	X	X	X	X
7.2	- the station is manned.	(X)	(X)	(X)	(X)
7.3	- the station is equipped with firealarm/alarm/webcamera	(X)	(X)	(X)	(X)
7.4	- UPS or alternatives	X	X	(X)	(X)
7.5	- lightning protection of electronics	(X)	(X)	(X)	(X)
7.6	- lightning protection of antenna	(X)	(X)	(X)	(X)
7.7	- lightning protection of building	(X)	(X)	(X)	(X)
7.8	- redundant communications.	(X)	(X)	(X)	(X)
7.9	- stable temperature for the GNSS receiver	X	(X)	(X)	(X)
7.10	- indoor climate logging	(X)	(X)	(X)	(X)
7.11	- meteorological measurement equipment according to IGS	(X)	(X)	(X)	-
8	Documentation if available:				
8.1	- station must have an IGS-logfile.	X	(X)	-	-
8.2	- antenna cable, length, type	X	(X)	-	-
8.3	- signal splitter	(X)	(X)	-	-
8.4	- lightning protection	(X)	(X)	-	-
8.5	- external frequency	(X)	(X)	-	-
8.6	- meteorological equipment	(X)	(X)	(X)	-
8.7	- UPS	(X)	(X)	-	-

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