

COSMOS Recommended Minimum Set of Parameters in the Metadata of a Strong Motion Record

An extensive set of parameters regarding a station, accelerograph and record are included in COSMOS Format Version 1.2 and the Virtual Tagged Format. The parameters are important for completeness, but there are so many that some networks may not conveniently be able to provide values for them.

The following is a minimum subset of the data that are recommended for all strong-motion records. They are identified as critical by the Strong Motion Working Group of CISN. The value/usefulness of a record is significantly reduced or compromised by the failure to include this information about the record.

<u>Station Parameters</u>	<u>Header Parameter*</u>
Station number/Ident	I8
Station name	
Operating network (Table 4*) ^A	I11
Latitude of station (North +)	R1
Longitude of station (East +)	R2
Reference datum for coordinates ^A	I16
Station type (Ground response, etc; Table 6)	I19
 <u>Sensor/Channel Parameters</u>	
Sensor type code (FBA, etc; Table 10)	I52
Natural frequency (Hz)	R40
Damping (fraction of critical)	R41
Sensitivity (e.g., volts/g)	R42
Full-scale sensing capability (in g for FBA)	R43
Gain (applied to sensor output, if any)	R47
Nominal-constants flag (if nominal used) ^A	I75
Sensor azimuth (CW from North)	I54
 <u>Record Parameters</u>	
Start Time of Record (UTC) ^A	
Year, mth, day	I40-43
Hour, min, sec	I44-45, R30
Time quality (0-5=poorest-best) ^A	I47
Sample interval (sec)	R34
Length of raw record (sec)	R35

* Tables and Header Parameters as defined in COSMOS Format, I and R indicate integer and real header values.

^A The usefulness of records, if the causative earthquake location and magnitude is clear, is not significantly reduced if these parameters are missing.