

11th TSMAD MEETING
11 – 12 November 2004, IHB, Monaco

International Exchange Format for Harmonic Constants

General

- ASCII text digital format consisting of Header records and Harmonic Constant data records.
- Fixed length records with space delimited fields. The fixed length is not set to any specific length, but once chosen must be constant throughout all the data supplied.
- Variable number of Header records, but the number of records must be constant throughout all the data supplied.
- Header record consists of these mandatory fields: Port Name, Geographical position as Latitude/Longitude, Period of Observations, Time Zone, Unit (indicates type of unit used for Amplitude). Comment header records permitted. Free format.
- Variable number of Harmonic Constant data records throughout all the data supplied.
- Harmonic Constant data record consists of:

Harmonic Constant Name	Field mandatory.	Must occupy first column. Names required in chronological speed order.
Phase angle (g)	Field mandatory.	Preferably occupies second column, but not essential.
Amplitude (H)	Field mandatory.	Preferably occupies third column, but not essential.
Speed	Field mandatory.	
Extended Doodson Number (XDO)	Field(s) desirable if available.	

Once the field order is established it should remain constant throughout all the data supplied.

Format of Data Record

Harmonic Constant Name	Character, maximum size 8
Phase angle (g)	Positive real number up to 360 degrees e.g. 999.9
Amplitude (H)	Positive real number, e.g. 9.999 for Metres (preferred), but other unit lengths are accepted.
Speed	Positive real number in degrees per hour e.g. 999.999999
Extended Doodson Number (XDO)	Numerical and/or alphabetical format.

The sample format is preferable, but additional decimal places may be supplied for real numbers.