

Short IMS1.0 / ISF format description:

Bulletin title block

Bulletin title

Event title block

Event <event identification number> <name of geographic region>

Origin block

Date epicenter date (yyyy/mm/dd)
Time epicenter time (hh:mm:ss.ss)
fixed flag ('f') appended if fixed origin time solution
Err origin time error (seconds) if not fixed origin time
RMS root mean square of time residuals (seconds)
Latitude latitude (negative for South)
Longitude longitude (negative for West)
fixed flag ('f') appended if fixed epicenter solution
Smaj semi-major axis of 90% ellipse or its estimate (km) if not fixed epicenter
Smin semi-minor axis of 90% ellipse or its estimate (km) if not fixed epicenter
Az strike ($0 \leq x \leq 360$) of error ellipse clockwise from North (degrees)
Depth depth (km)
fixed flag ('f') appended if fixed depth solution
Err depth error 90% (km) if not fixed depth
Ndef number of defining phases
Nsta number of defining stations
Gap gap in azimuth coverage (degrees)
mdist distance to closest station (degrees)
Mdist distance to furthest station (degrees)
Qual analyst type:
 a = automatic
 m = manual
 g = guess
location method:
 i = inversion
 p = pattern recognition
 g = ground truth
 o = other
event type:
 uk = unknown
 de = damaging earthquake
 fe = felt earthquake
 ke = known earthquake
 se = suspected earthquake
 kr = known rockburst
 sr = suspected rockburst
 ki = known induced event

si = suspected induced event
km = known mine explosion
sm = suspected mine explosion
kh = known chemical explosion
sh = suspected chemical explosion
kx = known experimental explosion
sx = suspected experimental explosion
kn = known nuclear explosion
sn = suspected nuclear explosion
ls = landslide

Author author of the origin
OrigID origin identification

Each origin line may be followed by a comment line:
(any comment)

The origin line with the highest priority is followed by the comment line:
(#PRIME)

Magnitude block

Magnitude magnitude type (mb, Ms, ML, mbmle, msmle)
magnitude value
Err standard magnitude error
Nsta number of stations used to calculate magnitude
Author author of the origin
OrigID origin identification

Effects block

Effects macroseismic observations:
H (at pos. 1) = heard flag
F (at pos. 2) = felt flag
D (at pos. 3) = damage flag
C (at pos. 4) = human casualties flag
U (at pos. 5) = uplift flag
S (at pos. 6) = subsidence flag
F (at pos. 7) = surface faulting flag
T (at pos. 8) = tsunami flag
S (at pos. 9) = seiche flag
V (at pos.10) = vulcanism flag
A (at pos.11) = acoustic waves flag
G (at pos.12) = gravity waves flag
T (at pos.13) = T-waves flag
L (at pos.14) = liquefaction flag
G (at pos.15) = geyser flag
S (at pos.16) = landslides or avalanches flag
B (at pos.17) = sandblows flag
C (at pos.18) = ground cracks flag
V (at pos.19) = earthquake lights flag
O (at pos.20) = odours flag

Loctyp location type of observation:
 Summar = summary
 LatLon = coordinates
 DistAz = distance and azimuth
 CoPost = Postal code
 StaNet = seismic network and station code
 Location location of observation of conforming 'Loctyp'
 Intensity maximum intensity
 Scale intensity scale
 Author author of the intensity data

The effects line of Loctyp = Summar may be followed by comment lines:
 (Any comment)

Phase block

Sta station code
 Dist station-to-event distance (degrees)
 EvAz event-to-station azimuth (degrees)
 Phase phase code
 Time arrival time (hh:mm:ss.sss)
 TRes time residual (seconds)
 Azim observed azimuth (degrees)
 AzRes azimuth residual (degrees)
 Slow observed slowness (seconds/degree)
 SRes slowness residual (seconds/degree)
 Def defining flags:
 T = time
 A = azimuth
 S = slowness
 SNR signal-to-noise ratio
 Amp amplitude (nanometers)
 Per period (seconds)
 Qual type of pick:
 a = automatic
 m = manual
 direction of short period motion:
 c = compression
 d = dilatation
 onset quality:
 i = impulsive
 e = emergent
 q = questionable
 Magnitude magnitude type (mb, Ms, ML, mbmle, msmle)
 magnitude value