



International Federation of Digital Seismograph Networks

Data Handling Capabilities in the Seismological community

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IRIS, Director of Data Services

Observatories and Research Facilities for European Seismology

Orfeus
Data Center

GFZ
Helmholtz Centre
POTSDAM

RESIF


INGV

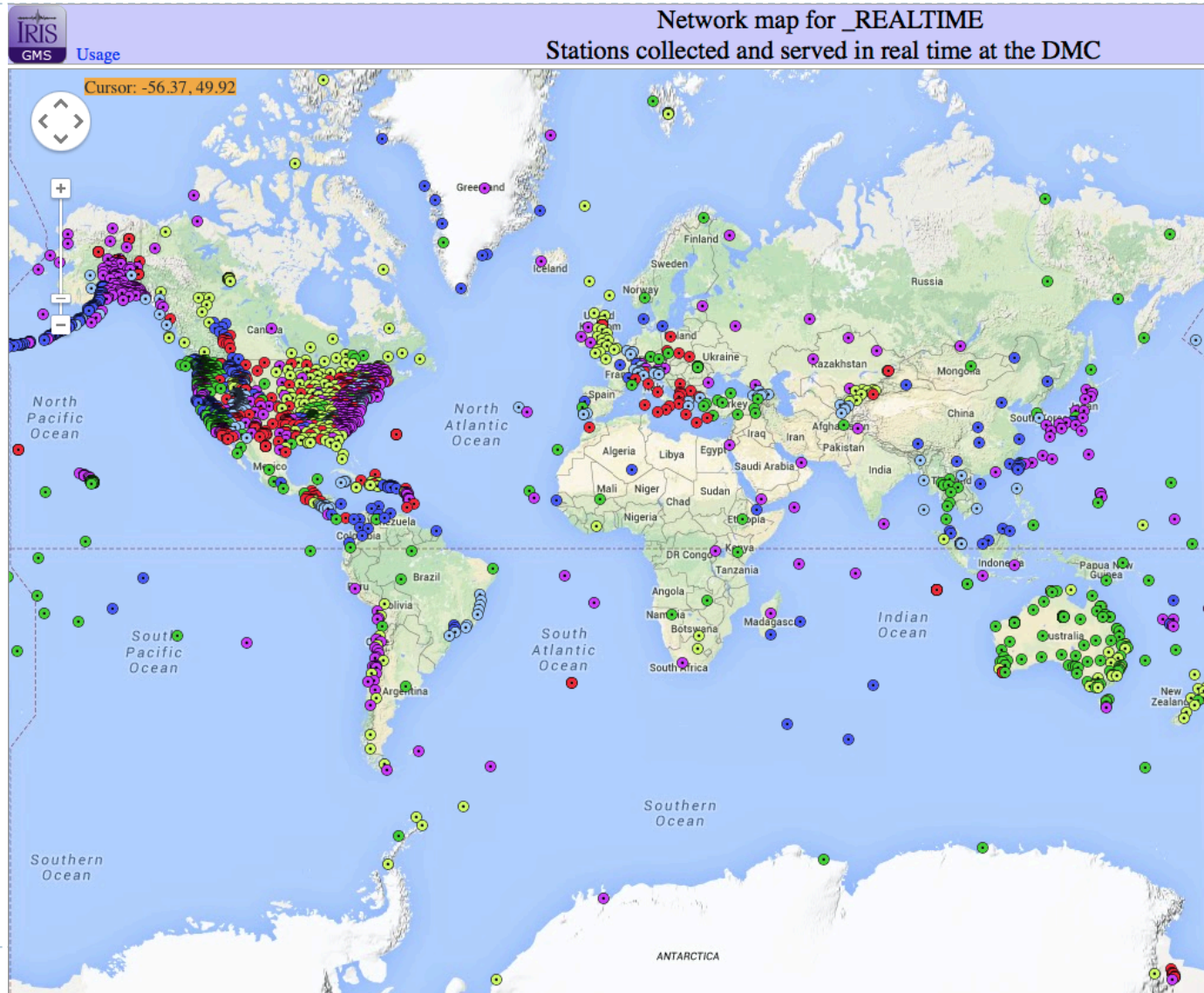

Schweizerischer Erdbebedienst
Service Sismologique Suisse
Servizio Sismico Svizzero
Servizi di Terrasembei Svizzera

BGR

the

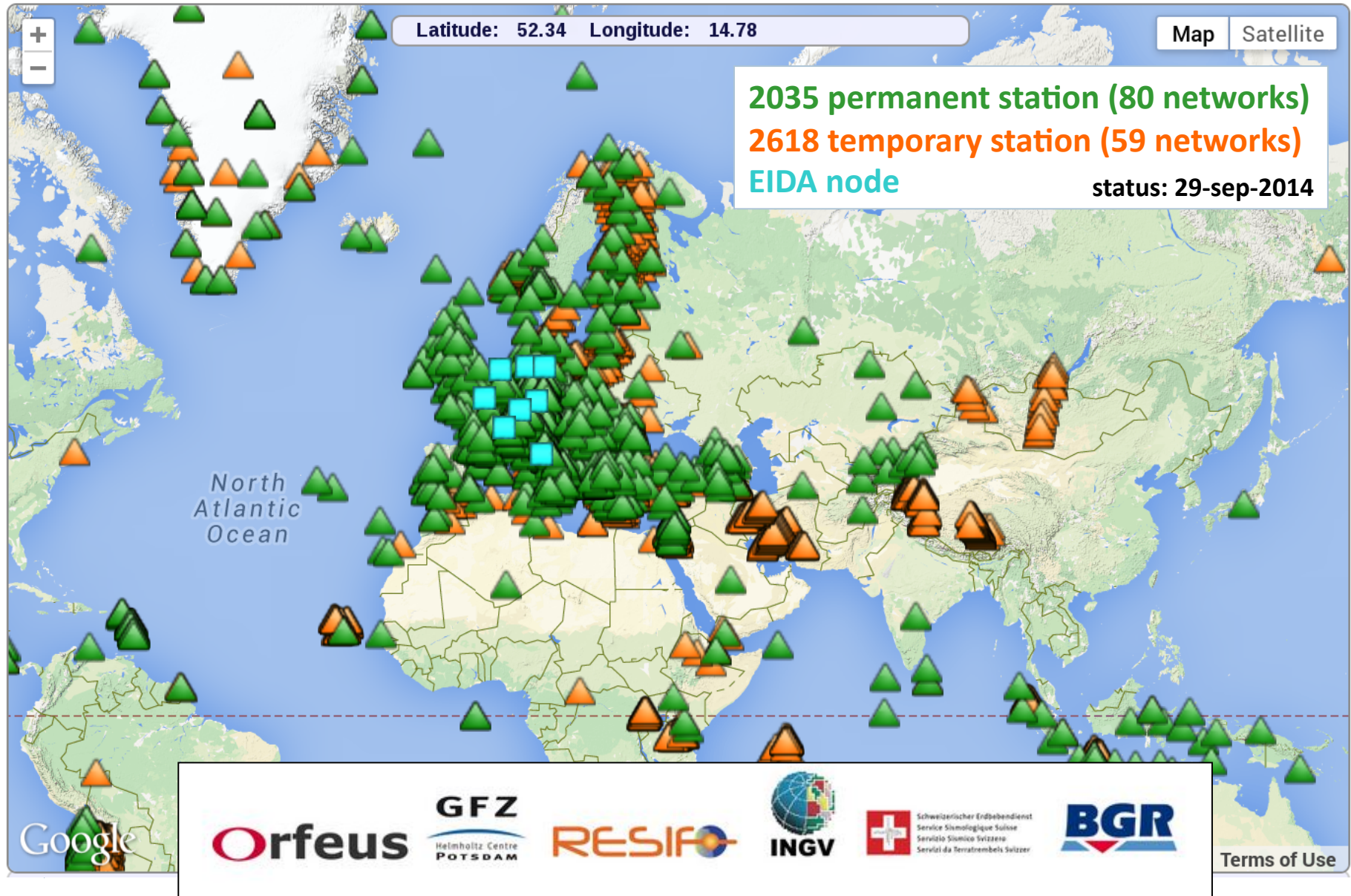
IRIS
CONSORTIUM

Roughly 3000 stations being received in realtime at the IRIS DMC



EIDA – European Integrated Data Archive

www.orfeus-eu.org/eida

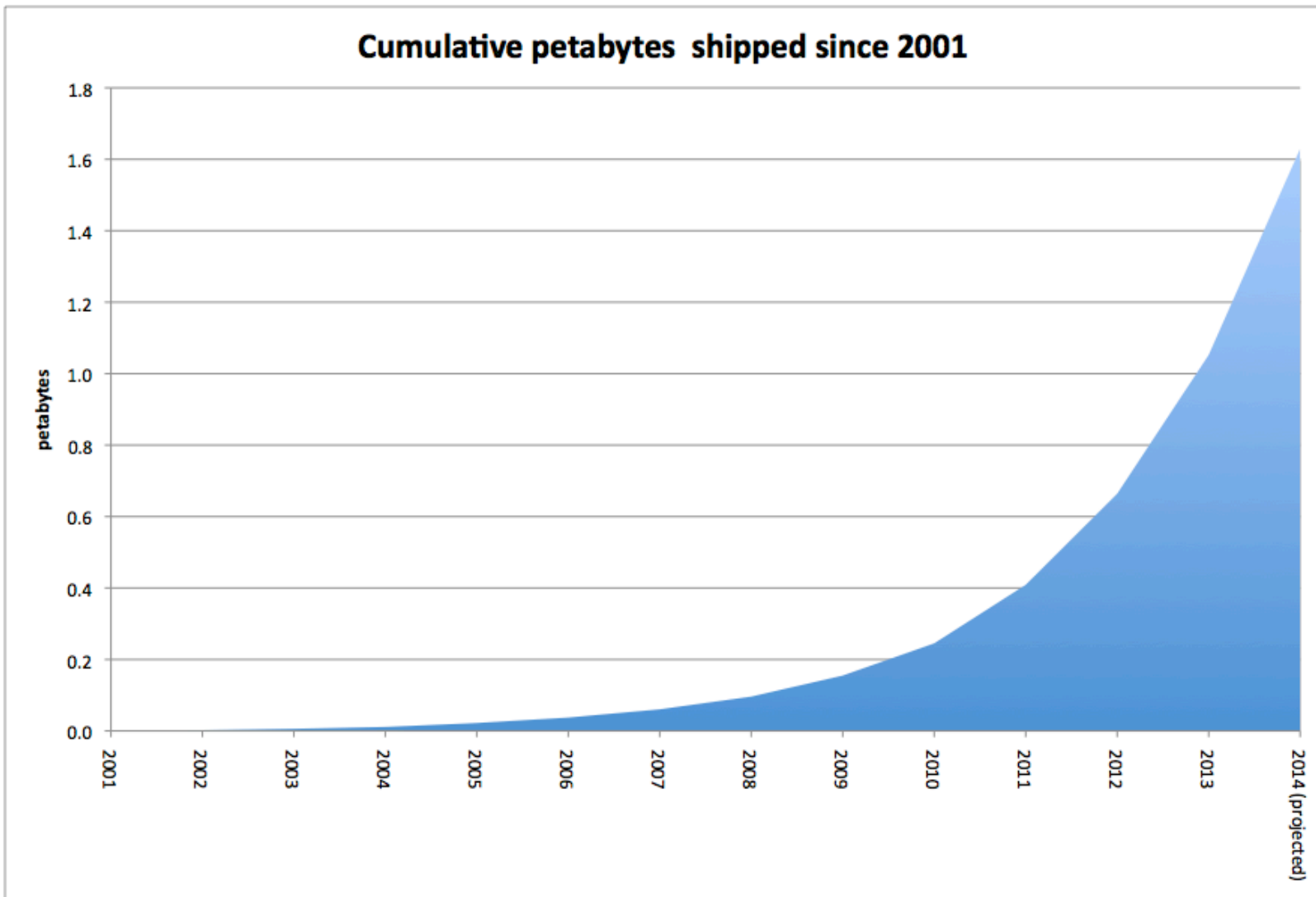


Data being received currently

- ▶ Currently managing about 300 terabytes of primary observational data
- ▶ Data currently being received at roughly 50 terabytes per year
- ▶ Dominated by seismological sensors but other key measurements are often included
 - ▶ Pressure, acceleration, gravity, magnetotelluric, temperature, meteorological measurements, and a variety of other time series
 - ▶ Rich metadata that allows full use of the various measurements across domains



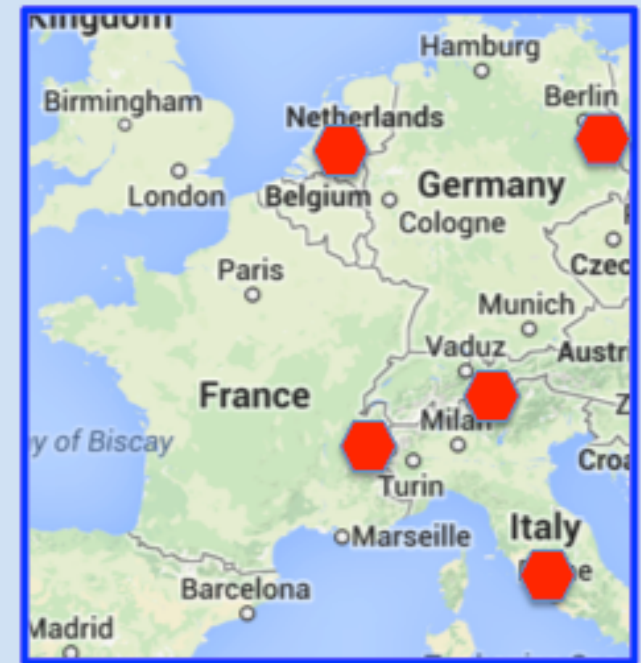
Cumulative Data Volume Shipped since 2001



Current Federated Centers



Current US Nodes
IRIS DMC, NCEDC, USGS/NEIC

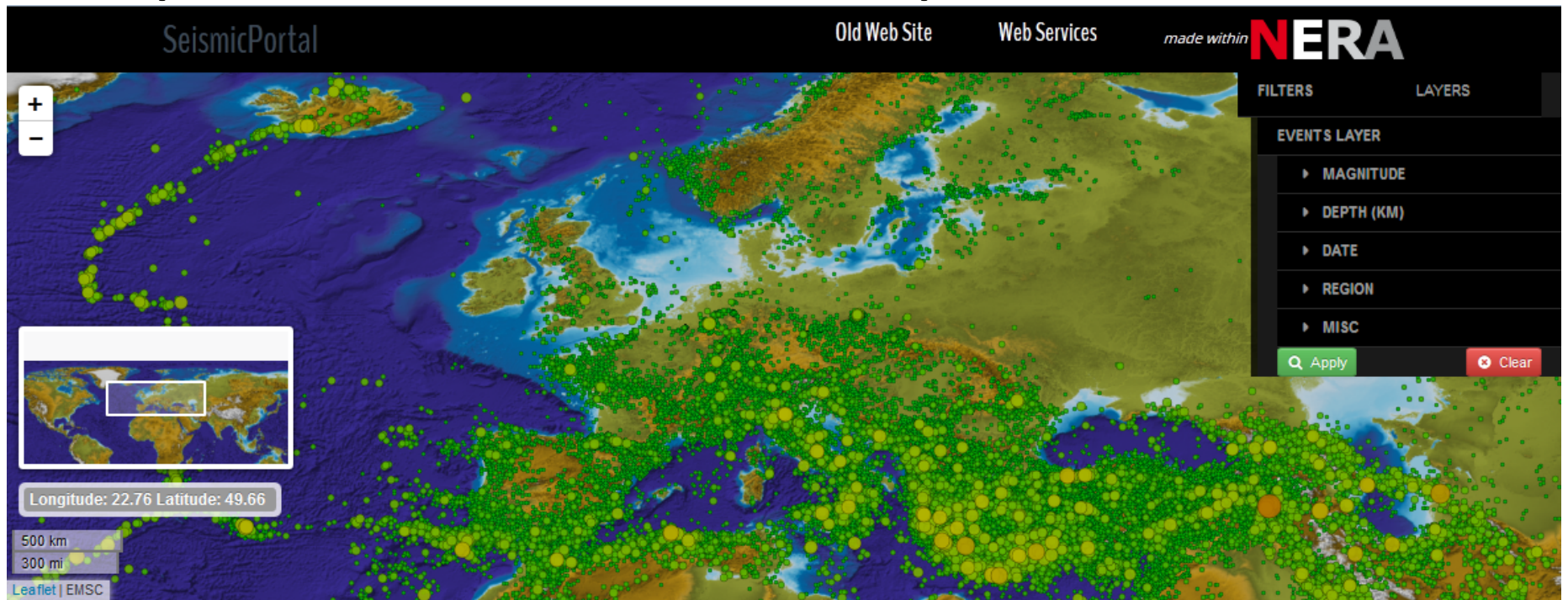


Current European Nodes
ORFEUS, INGV, RESIF, GFZ, ETHZ
Soon ISC

In theory allows a client application to seamlessly access information
from any of the participating nodes



European Seismic Portal: www.seismicportal.eu



- Map
- Events list
- Other Services

418311 events found

0 selected events (2000 max)

Show 10 per page

First « Prev 1 2 3 4 5 Next » Last

Broadband
Waveform



Verge Platform



Hazard Portal



Osap Portal



<input type="checkbox"/>	Mag	Datetime (UTC) ▼	Lat	Lon	Region	Depth(Km)	Auth
<input type="checkbox"/>	m 2.5	2014-10-09T20:26:16.0Z	35.19	-4.36	STRAIT OF GIBRALTAR	5	EMSC
<input type="checkbox"/>	ml 3.1	2014-10-09T19:52:58.4Z	36.71	-2.7	STRAIT OF GIBRALTAR	15	EMSC
<input type="checkbox"/>	m 4.7	2014-10-09T19:20:07.6Z	20.32	120.28	PHILIPPINE ISLANDS REGION	10	EMSC
<input type="checkbox"/>	m 5.5	2014-10-09T19:15:21.2Z	56.7	-6.39	SCOTLAND, UNITED KINGDOM	120	EMSC
<input type="checkbox"/>	m 4.1	2014-10-09T19:13:18.0Z	64.7	-17.97	ICELAND	10	GFZ
<input type="checkbox"/>	ml 2.4	2014-10-09T18:54:26.9Z	32.41	-115.22	BAJA CALIFORNIA, MEXICO	9	CI
<input type="checkbox"/>	md 3.4	2014-10-09T18:36:51.3Z	18.46	-68.13	MONA PASSAGE, DOMINICAN REPUBLIC	129	PR
<input type="checkbox"/>	ml 3.6	2014-10-09T18:05:05.0Z	-32.16	-71.54	OFFSHORE VALPARAISO, CHILE	42	GUC
<input type="checkbox"/>	md 3.0	2014-10-09T17:42:28.3Z	18.63	-66.73	PUERTO RICO REGION	70	PR
<input type="checkbox"/>	mb 4.9	2014-10-09T17:34:53.0Z	-44.55	-78.2	OFF COAST OF AISEN, CHILE	60	EMSC

EIDA – European Integrated Data Archive

- technical infrastructure provides uniform, transparent access to 400 TB of data
- open access to unrestricted data
- restricted access to selected datasets supported

Web interface
www.orfeus-eu.org/eida

MAKE REQUEST

Time Window selection:

Relative Mode Absolute Mode

Use time windows relative to events, by phase and onset time.

Start (minutes before)

P/Pdiff - 2

End (minutes after)

P/Pdiff + 10

Request Information:

Request type:

Waveform (Mini-SEED)

Waveform (Full SEED)

Metadata (Dataless SEED)

Metadata (Inventory XML)

Use compression?

Yes No

Your e-mail address:

Remember me?

Reset

Review Submit

EVENT AND STATION MAP

Map data ©2014 Google, INEGI
 Use left SHIFT + drag mouse to select regions. Legend Help

EVENT AND STATION LIST

Request: Freeze Delete Stations Save Stations Delete Events

Events (5 events)

Origin Time	Mag.	Type	Lat.	Long.	Depth	Region
<input checked="" type="checkbox"/> 2014-08-22T04:27:56	4.9		39.91	23.50	10.0	Aegean Sea
<input checked="" type="checkbox"/> 2014-08-22T04:22:32	4.3		39.94	23.38	10.0	Aegean Sea
<input checked="" type="checkbox"/> 2014-08-21T23:15:29	4.4		32.55	47.51	10.0	Iran-Iraq Border Region
<input checked="" type="checkbox"/> 2014-08-21T20:37:18	4.5		35.34	27.71	10.0	Dodecanese Islands, Greece
<input checked="" type="checkbox"/> 2014-08-21T00:25:35	4.3		32.58	47.45	10.0	Iran-Iraq Border Region

Stations (846 stations)

Network	Station	Lat.	Long.	O/R	Streams
<input checked="" type="checkbox"/>	AB GANJ	40.65	46.33	O	BHE, BHN, BHZ
<input checked="" type="checkbox"/>	AB QZX	41.05	45.37	O	BHE, BHN, BHZ
<input checked="" type="checkbox"/>	AB ZKT	41.64	46.63	O	BHE, BHN, BHZ
<input checked="" type="checkbox"/>	BA PZUN	40.65	15.81	O	BHE, BHN, BHZ
<input checked="" type="checkbox"/>	BE MEM	50.61	6.01	O	HHE, HHN, HHZ
<input checked="" type="checkbox"/>	BE RCHB	50.16	5.23	O	HHE, HHN, HHZ

Reset Append

Access to EIDA Data Archives

Help

Explore stations

Submit request

Download data

EVENT AND STATION MAP

Map data ©2014 Google, INEGI
 Use left SHIFT + drag mouse to select regions. Legend Help

EVENT AND STATION LIST

Request: Freeze Delete Stations Save Stations Delete Events

Events (300 events)

Origin Time	Mag.	Type	Lat.	Long.	Depth	Region
<input checked="" type="checkbox"/> 2014-10-09T19:52:58	3.1	ml	36.71	-2.70	15.0	Strait of Gibraltar
<input checked="" type="checkbox"/> 2014-10-09T19:20:07	4.7	m	20.30	120.34	10.0	Philippin Islands I

Reset Append