

CTBTO Link to the ISC Database

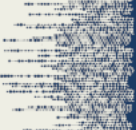
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INTRODUCTION AND MAIN RESULTS

The CTBTO Link to the database of the International Seismological Centre (ISC) provides dedicated access to ISC data for the PTS and NDCs. ISC products that can be accessed through the link include: ISC Bulletin, IASPEI Reference Events List, ISC-EHB, ISC Event Bibliography. Additionally the link provides access to the IDC Reviewed Event Bulletin (REB) in the same format as the ISC Bulletin.



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International Seismological Centre (ISC)

The ISC maintains the definitive account of seismic events recorded globally from 1964 – present. It receives arrival time data from ~150 agencies in ~100 countries (Figure 1).



Figure 1: Countries (black) reporting data to the ISC.

The ISC Bulletin contains ~11,000,000 events from 1904-2022 based on ~380,000,000 seismic phase arrivals reported at ~32,160 stations (Figure 2).

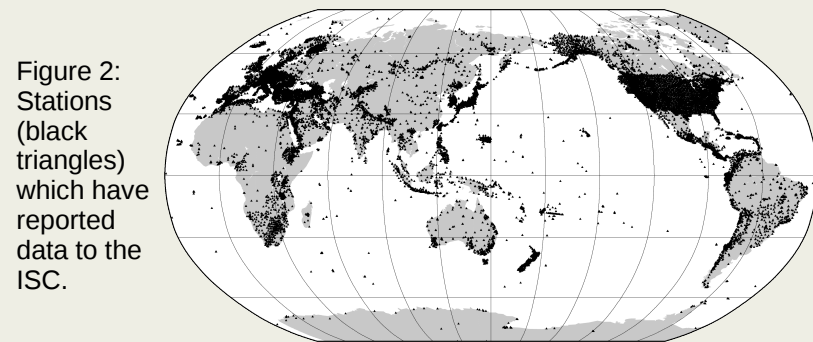


Figure 2: Stations (black triangles) which have reported data to the ISC.

The ISC also maintains the IASPEI Reference Events List of event hypocentres known to 10 km or better (see poster P2.4-354).

CTBTO-ISC Link

The CTBTO-ISC Link website is accessed through the Single Sign-On Web Portal of the CTBTO (Figure 3).

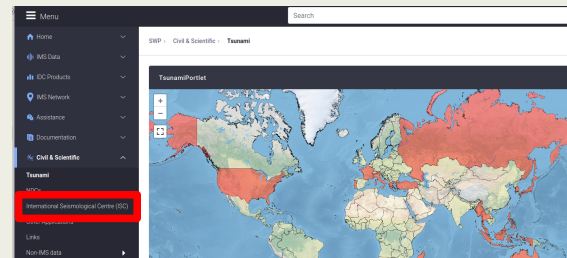


Figure 3: The link is called International Seismological Centre (ISC) and is under the Civil & Scientific menu.

The link provides access to multiple tools and products including the ISC Bulletin, IASPEI Reference Events List, ISC-EHB, ISC Event Bibliography and IDC Reviewed Event Bulletin (Figure 4).

Features provided include:

- Area based searching of ISC and IDC Bulletins
- Searching by event type
- Comparing reporters by region and time period
- Comparing magnitudes by region
- Magnitude regression analysis
- Cross section plots of seismicity

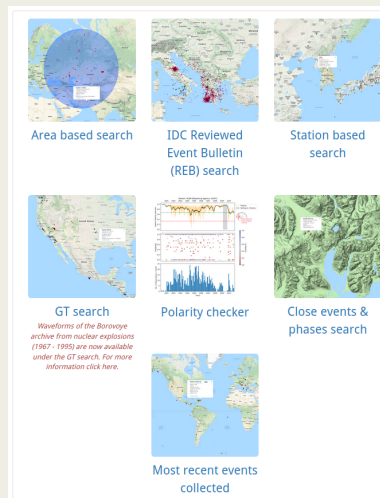


Figure 4: Landing page of the CTBTO-ISC Link Website

Featured Tools

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The below examples demonstrate the functionality provided by the link:

Author	Hypocentre							Magnitude			IMS1.0
	Date - Time	Lat(°)	Lon(°)	Δ(km)	Depth (km)	Δz (km)	Depth (fix)	Value	Type	NSTA	
IDC	2015-01-01 00:45:12	54.021	-165.890	22.905	73.30	0.75		3.60	mb1mx		ISC
NEIC	2015-01-01 00:45:12	53.826	-165.778		72.55						
IDC	2015-01-01 05:01:12	38.873	141.953	7.972	63.30	21.91		3.50	ms1mx		ISC
NEIC	2015-01-01 05:01:10	38.896	142.041		41.39			4.80	mb		
IDC	2015-01-01 06:54:19	3.560	-31.826	11.471	0.00	10.00	F	4.20	mb1mx		ISC
NEIC	2015-01-01 06:54:20	3.477	-31.764		10.00		F	4.70	mb		
IDC	2015-01-01 08:49:55	28.712	51.915	11.123	18.90	8.90		4.70	mb1mx		ISC
NEIC	2015-01-01 08:49:53	28.723	51.802		10.00		F				

Figure 5: Example of a global search comparing the hypocenters reported by the IDC and NEIC.

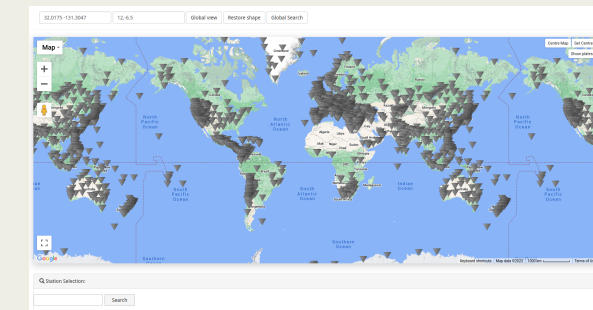
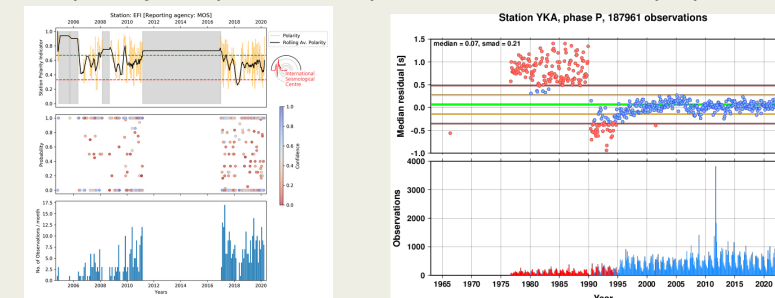
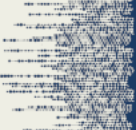


Figure 6: Interactive map of all stations reporting to the ISC

Figure 7: Median travel-time residual for station YKA (right). Station polarity compared with reported moment tensors (left).





SnT 2025

CTBT: SCIENCE AND TECHNOLOGY CONFERENCE

8 SEPTEMBER
ONLINE DAY
9 TO 12 SEPTEMBER
AT ROBBURU PALACE, VIENNA & ONLINE

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ISC Project Sponsors

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CTBTO Link to ISC database



International Station Registry

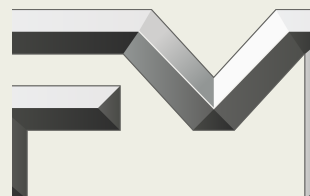
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02/2022 – 01/2026

ISC-GEM catalogue



80 Member-Institutions in 50 countries support the ISC operations

Joined in 2025:
SGS, Saudi Arabia
CNRST, Morocco
GeoAzur, France