

**CEDIM Forensic Disaster Analysis Group (FDA)**

**Noto Earthquake Japan (Jan. 2024)**

Information as of 3rd January 2024

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**SUMMARY**

Official Disaster Name	Date / local date	UTC / local time	Local
<b>2024 Noto Earthquake</b>	<b>01-01/01-01</b>	<b>07:10 UTC / 16:10</b>	<b>+9:00</b>

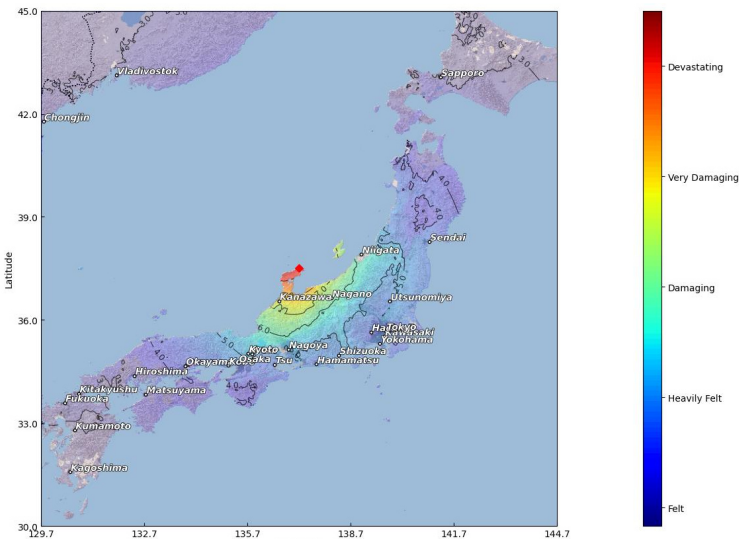
**Preferred Hazard Information\***

EQ_Latitude	EQ_Longitude	Magnitude	Hyp. Depth	Fault Mech.	Source	Spectra
37.498	137.42	7.5 Mw/ 7.6 Mjma	15.5 km	Reverse	USGS	Avail.

**Location Information:**

Country	ISO	Dev. Region	Most Impact	Building PF	HDI (2021)	GDP (2023)	Pop. (2023)
Japan	JPN	Ishikawa, Toyama Prefectures	Wajima, Suzu, Nanao, Anamizu, Hakui, Shika	Very High	0.908	Ca. \$166bn (VI+)	5.4 mn (VI+)

**Impact Information**

EMS-98	MMI	PGA	ShakeMap
IX-X	IX-X	2.88g (Togi)	
<p><b>Hazard Description (Intensity &amp; Ground Motion)</b></p> <p>Highest intensity was observed on the Noto peninsula around the epicentre and towards the Sea of Japan. The earthquake was felt all around Japan including the Tokyo area.</p> <p>Very strong ground motions with up to 3g were recorded on the Noto peninsula and about 1.0g in Anamizu.</p> <p>A USGS slip model suggests a maximum slip of about 3.7m along the fault plane, with a total length of almost 200 km.</p>			

**Preferred Social Impact Information:**

Type	Median	Accepted Range	Description	Source
Deaths	75	Expected to rise	Including 5 killed in Tokyo	FDMA/Govt
Injuries	400	Expected to rise	75% in Ishikawa	FDMA/Govt
Homeless/Displaced	33446	Unknown	In 355 shelters	FDMA/Govt

**Preferred Economic Impact**

Type			
	Value	Description	Source
<b>Destroyed Buildings</b>	>200	Collapsed buildings – will increase significantly	FDMA/Govt
<b>Damaged Buildings</b>	>1000	Including minor, moderate and severe structural damage – will increase significantly	FDMA/Govt
<b>Total Loss</b>	\$4.9 billion (Range: \$2.3bn-\$11.1bn)	Total loss including infrastructure, residential, public and business. Uses NIED intensity data.	CATDAT

**Similar or Closeby Events (based on CATDAT)**

Date	Lat	Lon.	Mag./Highest GM	Depth	Deaths/Impacts
25/03/2007	37.34N	136.59E	Mw6.9 / 945gals	8 km	1 dead, 331 injured
29/06/1799	36.6N	136.6E	Mw6.0	shallow	21 dead, 1000+ houses collapsed
01/08/1729	37.4N	136.9E	Mw7.0?	shallow	5 dead, 1000+ houses collapsed

**Tsunami Information**

Tsunami Description	Approximate Tsunami Map
<p>Quickly after the earthquake a tsunami warning was issued with an expected maximum run-up of 5m for the Noto peninsula. The waves which finally arrived remained mostly just below 1m, except for the city of Suzu, located in a small bay, where several boats were damaged and houses along the coast destroyed. Eye witness reports indicate a run-up of up to 3m [1].</p> <p>Negligible wave heights were reported from the other coasts of the Sea of Okhotsk.</p>	

**References:**

[1] Ishikawa Prefecture Damage Reports 1-6

[2] FDMA Damage Reports 1-10

[3] Haneda Damage Reports 1-4

[4] <https://www.asahi.com/articles/ASS123VWTS12UTIL00M.html>

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