



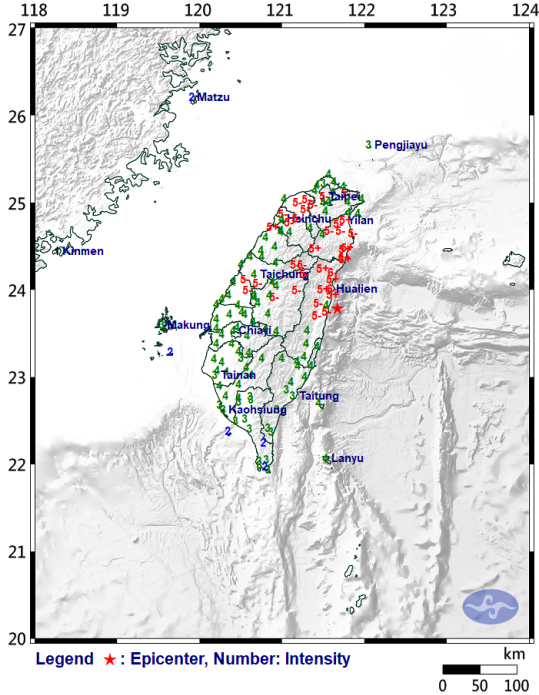
行政法人 國家災害防救科技中心
National Science and Technology Center
for Disaster Reduction

0403 Hualien Earthquake 1st Impacts Assessment Report at Central Emergency Operation Center

National Science and Technology Center for Disaster Reduction

2024.04.03 10:00

Geological profile (1) near the hypocenters



CWA EARTHQUAKE REPORT

Earthquake No.: 113019

Origin time (Taiwan Standard Time: GMT+8):

4/ 3/2024 7:58: 9.9

Epicenter: 23.77°N, 121.67°E,
i.e. 25.0 km SSE of Hualien County Hall

Focal depth: 15.5 km

Magnitude (ML): 7.2

Local Largest Intensity:

Hualien County	6+	Hsinchu City	4
Yilan County	5+	Tainan City	4
Miaoli County	5+	Keelung City	4
Taichung City	5-	Pingtung County	4
Changhua County	5-	Penghu County	3
Hsinchu County	5-	Lienchiang County	2
Nantou County	5-	Kinmen County	1
Taoyuan City	5-		
New Taipei City	5-		
Taipei City	5-		
Taitung County	4		
Chiayi County	4		
Yunlin County	4		
Kaohsiung City	4		
Chiayi City	4		

圖例

本次震源



斷層線

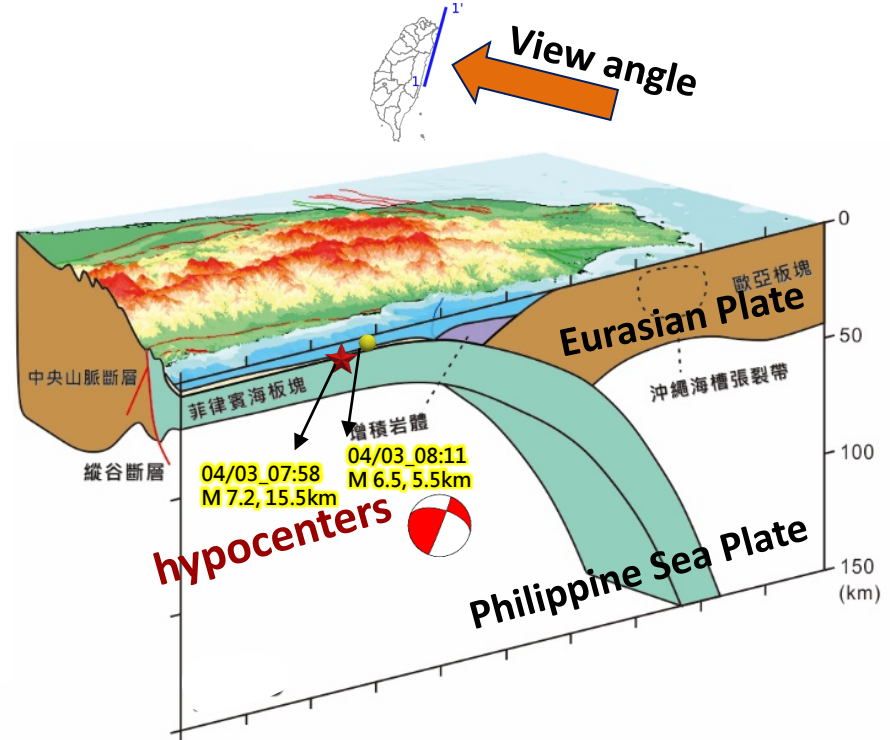


歷史地震規模(ML)

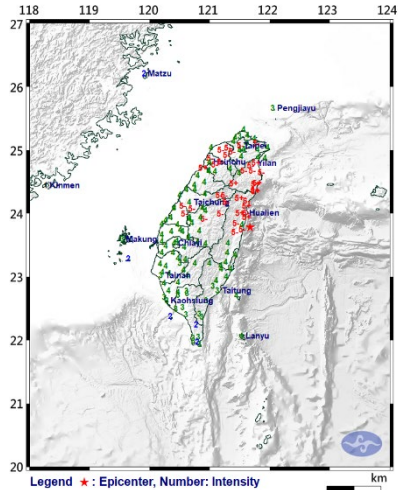
○ : ML ≥ 6

○ : ML ~ 5

○ : ML ~ 4



Geological profile (2) near the hypocenters



Local Largest Intensity:

Hualien County	6+	Hsinchu City	4
Yilan County	5+	Tainan City	4
Miaoli County	5+	Keelung City	4
Taichung City	5-	Pingtung County	4
Changhua County	5-	Penghu County	3
Hsinchu County	5-	Lienchiang County	2
Nantou County	5-	Kinmen County	1
Taoyuan City	5-		
New Taipei City	5-		
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圖例

震源



斷層線



剖面位置



歷史地震規模 (M_L)

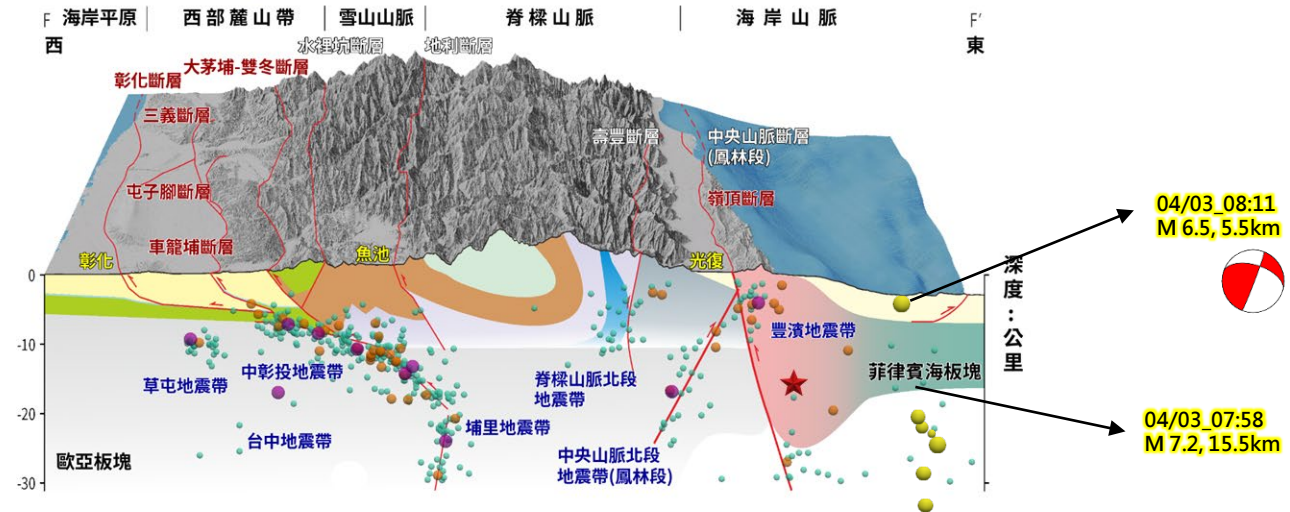
● : M_L ≥ 6

● : M_L ~ 5

● : M_L ~ 4



View angle

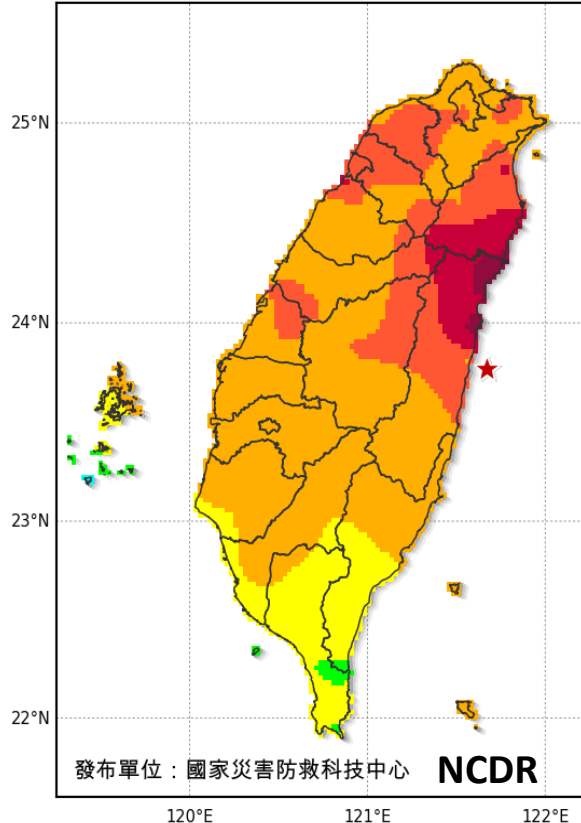


發布單位：國家災害防救科技中心

Till 10:00 am, 15 more aftershocks over magnitude 4.0

Shake Map

2024年04月03日07時58分
地震規模7.2，深15.5公里



Area	Intensity	PGV (cm/S)	PGA (gal)
Hualien	6+	84.0	1109
Yilan	5+	49.21	418.64
Nantou	5-	25.84	184.74
Hsinchu	5-	26.23	184.74
New Taipei	5-	22.47	172.76

圖例

★：震央 **epicenter**

Intensity	PGV (cm/s)	PGA (gal)
6+	80.0	440.0
6-	50.0	250.0
5+	30.0	140.0
5-	15.0	80.0
4	5.7	25.0
3	1.9	8.0
2	0.7	2.5
1	0.2	0.8
0	0.0	0.0

資料來源：中央氣象署

Source: CWA

Damaged building in Hualien

視窗調整

位置： 軒轅路11號前(全景)-照中山與重慶路口

影像來源： 花蓮縣政府、警政署



視窗調整

位置： 東大門停車場(重慶路中山路)(百萬全景)

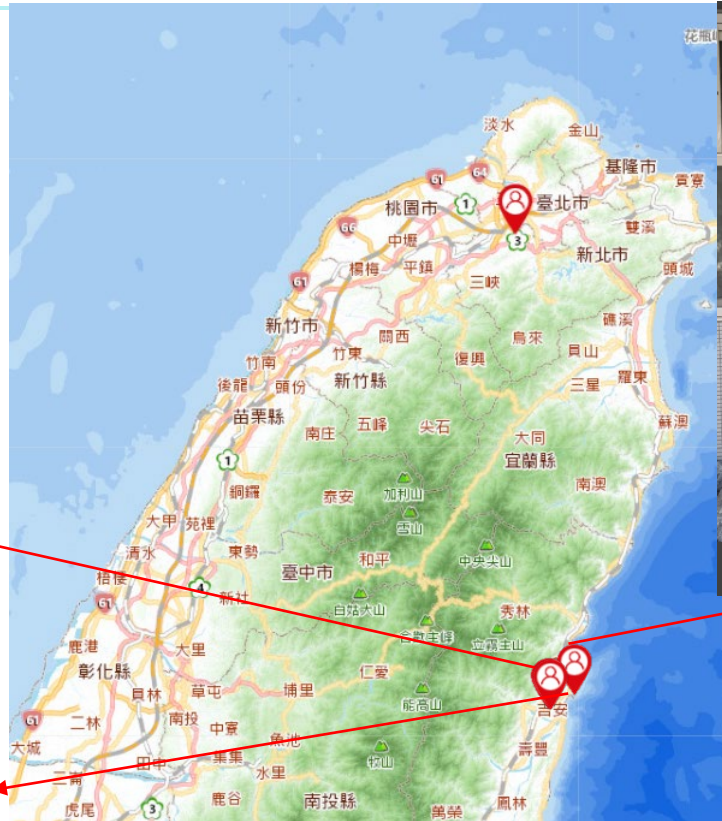
影像來源： 花蓮縣政府、警政署



0403 Damages after Hualien Earthquake (crowdsourcing)



08:36 Hualien City



08:25 Hualien Girls' High School



08:14 Hualien City

Damages in Tongmen Village, Xiulin Township, Hualien County.



Damage to the elevated subway bridge in New Taipei City



三 颶風情資 / 社群災情通報

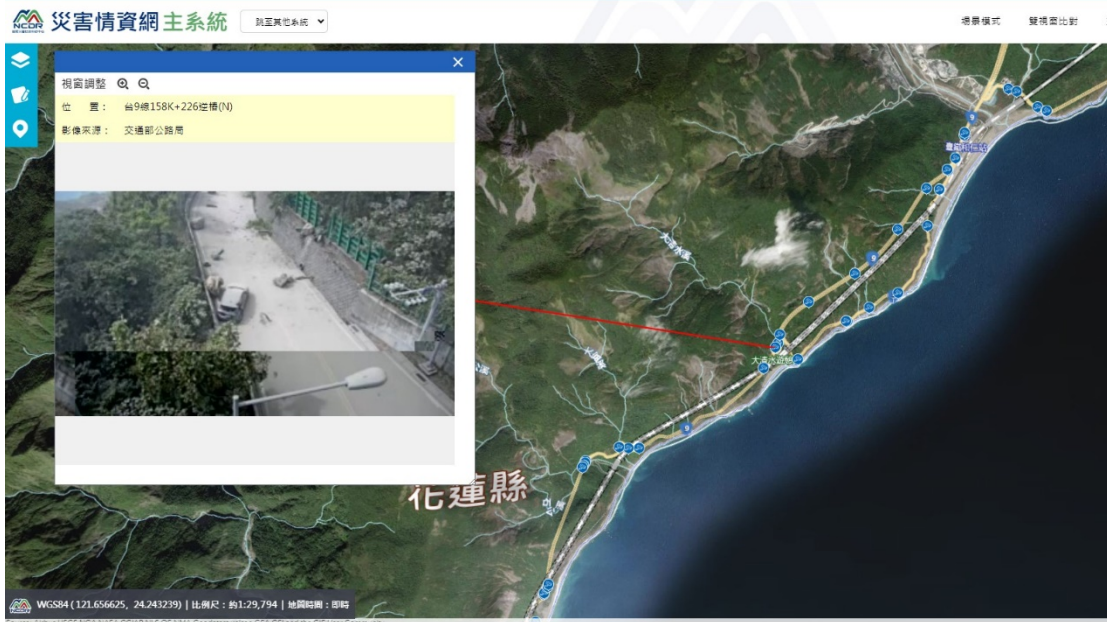
新北市中和區

發生時間：2024/04/03 08:59
事件類別：railwayDisaster
狀況描述：4/3 08:57 新北環狀線中正圓山區圓山路



新北市

Damage to HW#9 at Daqingshui Tunnel



Falling-rock damages in HW#8 and HW#14



Fault lines near the epicenter



Num.	Fault
1	Lingding
2	Milun
3	Rueyshui

圖例



活動斷層分級：Fault Classifications

— 第一類活動斷層 Holocene Active Fault

— 第二類活動斷層 Late Pleistocene Active Fault

- - 斷層位置被掩覆
或是推定位置

Transportation systems under high shaking intensity

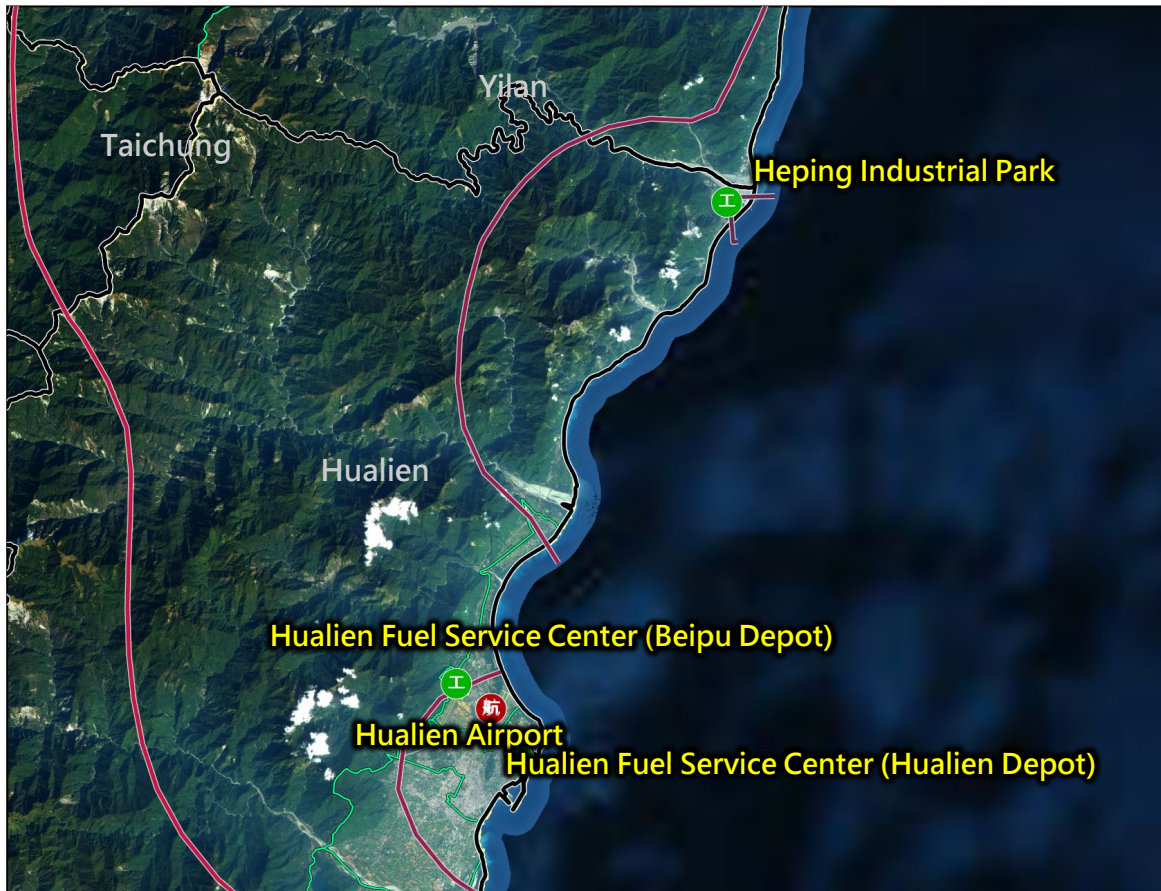


Highway	HW#8, HW#9. HW#9C, HW#9D, HW#11
Railway	North Link Line Hualien Taitung Line

Intensity	PGV (cm/s)	PGA (gal)
6 +	80.0	440.0
6 -	50.0	250.0
5 +	30.0	140.0
5 -	15.0	80.0
4	5.7	25.0
3	1.9	8.0
2	0.7	2.5
1	0.2	0.8
0	0.0	0.0

- ★ : 震央
- : Highway
- : Railway

Facilities under high shaking intensity

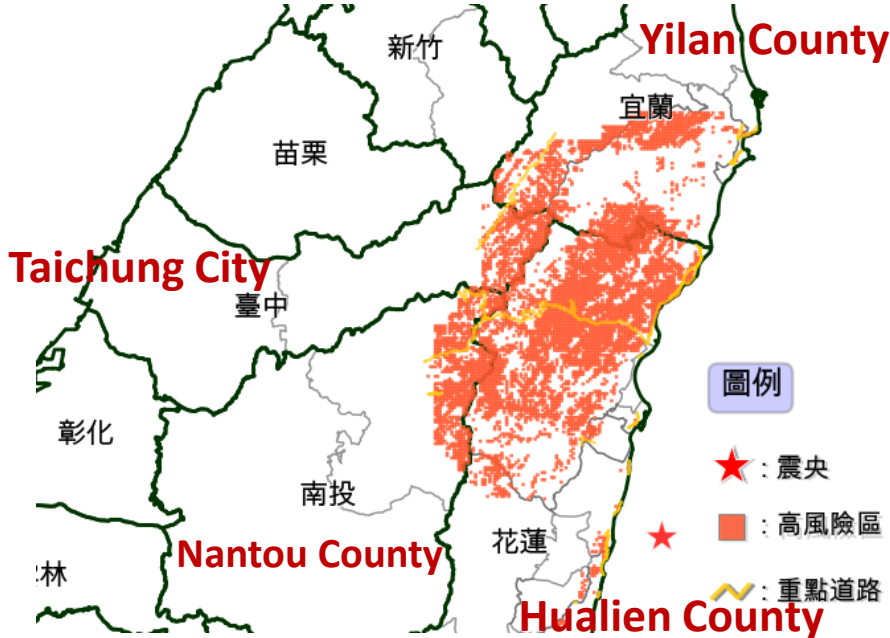


	Facilities
Hualien	Heping Industrial Park, Hualien Airport, Hualien Fuel Service Center (Hualien Depot), Hualien Fuel Service Center (Beipu Depot)

Intensity	PGV (cm/s)	PGA (gal)
6 +	80.0	440.0
6 -	50.0	250.0
5 +	30.0	140.0
5 -	15.0	80.0
4	5.7	25.0
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2	0.7	2.5
1	0.2	0.8
0	0.0	0.0

Areas with a high risk of landslides

- Landslide hotspots by county or city: Taichung City, Nantou County, Yilan County, Hualien County
- Landslide hotspots by highway: HW#8, HW#9, HW#9C, HW#9D, HW#11, HW#14, and some rural roads



Aeras	Hotspots
Taichung City	Heping District
Nantou County	Ren'ai Township
Yilan County	Su'ao Town, Su'ao Town, Nan'ao Township, Datong Township
Hualien County	Wanrong Township, Ji'an Township, Guangfu Township, Fengbin Township, Hualien City, Shoufeng Township, Xiulin Township

High-voltage power towers under high shaking intensity



Intensity	PGV (cm/s)	PGA (gal)
6 +	80.0	440.0
6 -	50.0	250.0
5 +	30.0	140.0
5 -	15.0	80.0
4	5.7	25.0
3	1.9	8.0
2	0.7	2.5
1	0.2	0.8
0	0.0	0.0

Recommendations

- According to the Central Weather Administration report, strong shakings cover most areas of Taiwan, and areas with high population density should prioritize safety inspections, especially of administrative units and schools.
- Under the intense shaking, the functions and operation of essential utilities need safety inspections.
- Given the intense shaking in certain areas, verifying the operations of transportation systems is of utmost importance. This will not only facilitate subsequent rescue operations and supply distribution but also reassure the public about the continuity of essential services.
- Immediate action is required to verify the status of the water and electricity supply and the impact on transportation in the earthquake-affected areas. This urgency underscores the need for prompt and decisive measures.
- The spatial community teams are advised to prioritize aerial photography planning for Hualien County, Yilan County, and Nantou County to assist in subsequent disaster assessment.
- Relevant earthquake disaster information should be provided promptly, reminding the public to be cautious of aftershocks and to avoid entering dangerous buildings and areas.
- Coordinating with relevant agencies to use parks and open spaces to support many people's emergency evacuation and shelter should be expedited.