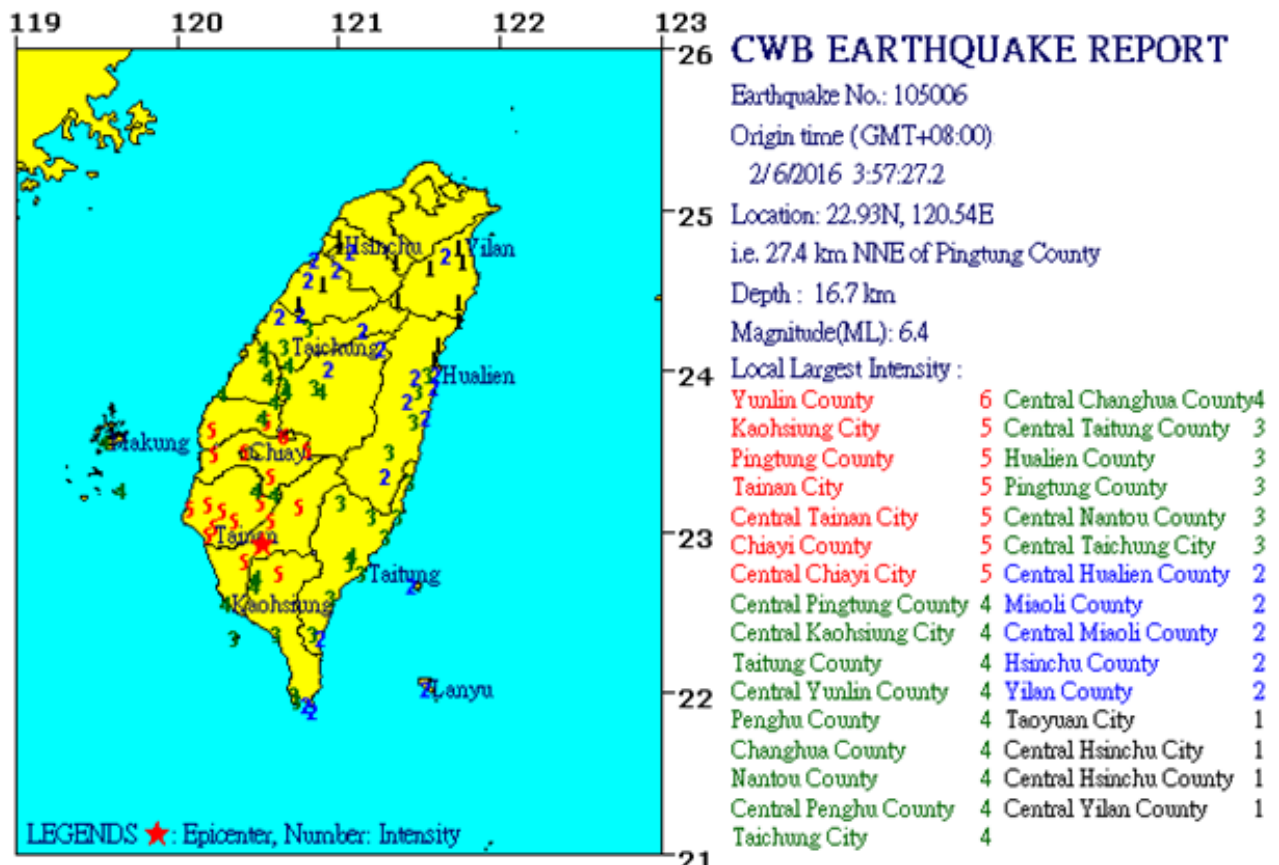


Summary Report on Kaohsiung Earthquake on February 6th, 2016, in Chinese Taipei

by National Science and Technology Center for Disaster Reduction,
Chinese Taipei

Summary

On February 6, 2016 at 3:57 am local time, a magnitude-6.4 in-land and shallow earthquake hit southern part Chinese Taipei and caused casualties (117 died and 546 wounded) and losses (over 60 buildings totally or partially collapsed). The epicenter is located at Meinong, Kaohsiung City and with a focal depth of 16.6 Kilometers. According to the shake records, the strongest intensity reached scale 6 (334.1 gal).



Source: Central Weather Bureau

1. Emergency Operation

- Right after the strong quake, the Ministry of the Interior activated quick damage survey at and elevated level of emergency operation to level 1 at 4:15 am on Feb 6 to collect situations, and coordinate search and rescue efforts.
- The operation of search and rescue ended at 4:00 pm on Feb 14.
- In total, 29,000 of urban search-and-rescue team, firefighters, police officers, volunteers and soldiers had ever joined the operation.

Based on the disposal report released by **the Emergency Operation Center** on Feb 14, 6:00 pm, the summarized situations are

2. Casualties:

- **117 died (62 males, 55 females)**
- **546 injured (84 hospitalized, 29 severely wounded)**

| Area | Death | Injury | Remarks |
|-----------------|-------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tainan City | 117 | 506 | <p>1. The Weiguan Jinlong building, located at No.6, Guoguang 5th St., Yongkang Dist., Tainan City, was completed in 1995 and it is a mixed-use reinforced-concrete complex for residential apartments and commercial units. The building collapsed and buried hundreds of residents.</p> <ul style="list-style-type: none"> ● According to the la report, 115 died (61 males and 54 females) and 101 were sent to hospitals. 95 residents escaped from the ruined building right after the quake and urban-search-and-rescue (USAR) teams have found 289. ● The 16-story building, accommodating 256 registered residents in 96 households, totally collapsed towards to streets after 40-second strong round shaking in Tainan. In fact, the exact number of residents exceed 256. ● The PGA record in Tainan shows 82.49 gal at vertical direction, 152.17 gal at NS axis and 233.83 gal at EW axis. <p>2. One 56-year-old female worker of a textile factory was killed by a falling water tanker in Gueiren District, Tainan City.</p> <p>3. One 44-year-old male worker was killed by falling objects in Gueiren District, Tainan City.</p> |
| Changhua County | 0 | 1 | |
| Yunlin County | 0 | 3 | |

| | | | |
|----------------|-----------|------------|--|
| Chiayi County | 0 | 6 | |
| Chiayi City | 0 | 1 | |
| Kaohsiung City | 0 | 29 | |
| Sum | 41 | 546 | |

3. Damages to public services

| Item | Num. of service suspension | Num. of Restoration | Under repair | unrepairable |
|-----------------------------------|----------------------------|---------------------|--------------|--------------|
| Tap water (household) | 400,300 | 395,300 | 5,000 | 0 |
| Electricity (household) | 173,084 | 172,664 | 0 | 420 |
| Natural gas (household) | 1,241 | 1,034 | 0 | 207 |
| Land-line phone (household) | 1,248 | 1248 | 0 | 0 |
| Cell-site for mobile phone (site) | 131 | 131 | 0 | 0 |

4. Damages to transportation

- 3 interruptions to major highways or freeways, 1 is still under repairing.
- 2 highway bridge received repairable damages due to excessive east-west sideways.
- Railway restored operation after check on Feb 6th.
- On Feb 6, the High-speed rail system was suspended south-bound service from Taichung due to pulled-down power lines and resumed operation by section in the afternoon. On Feb 8, full line resumes normal operation.

5. Evacuation and sheltering

- Ever evacuated people: 438
- Total number of people in shelters: 89 (ever stayed in shelters 232)

6. Damaged buildings

| Area | Report of possible damaged sites | Evaluated site | Site under evaluation | Red Tag | Yellow Tag |
|----------------|----------------------------------|----------------|-----------------------|---------|------------|
| Tainan City | 589 | 553 | 36 | 61 | 52 |
| Kaohsiung City | 23 | 23 | 0 | 2 | 1 |
| Sum | 612 | 576 | 36 | 63 | 53 |

Red Tag: dangerous structures to be demolished

Yellow Tag: Repairable damage



Locations of buildings tagged “Red” or “Yellow”

Data source: APC report on Feb 12

Photo source: NMD, NCDR

6. Other Damages

- In schools, though 400 more schools reported damages after the quake, however very limited number of cases are structural damages. Most of the reported cases are non-structural damages. All schools are open to students now.

- In agricultural sector, in total, the direct loss is about USD 5.2 million.
- In manufacturing industries, the estimated loss is USD 0.7 million.
- In ICT industry, the South Science Park is located at strong ground motion area. Production suspensions were reported based on SOPs of individual factories. According to a recovery report, over 90% manufactures are back to productions. However, product deliveries could suffer delay. The total direct and indirect losses of ICT are under survey.