



國家災害防救科技中心針對地震情資彙整及災害潛勢評估已建立地震應變模組，以資料視覺化的方式協助應變人員評估災害高風險區域。本年度地震應變模組以靜態圖資說明地震震源資訊、地震觀測值、地質剖面、活動斷層分布及災損評估，以動態圖資呈現地動歷時的時間與空間變化和震源與活動斷層之空間關係。

地質剖面

The diagram illustrates the geological structure of Taiwan. The island is divided into several geological units, each represented by a different pattern or shading. The units are labeled as follows:

- AA'**: The northernmost unit, shown with a light gray stippled pattern.
- BB'**: A unit below AA', shown with a darker gray stippled pattern.
- CC'**: A unit below BB', shown with a light gray stippled pattern.
- DD'**: A unit below CC', shown with a darker gray stippled pattern.
- EE'**: A unit below DD', shown with a light gray stippled pattern.
- FF'**: A unit below EE', shown with a darker gray stippled pattern.
- GG'**: A unit below FF', shown with a light gray stippled pattern.
- HH'**: A unit below GG', shown with a darker gray stippled pattern.
- II'**: A unit below HH', shown with a light gray stippled pattern.
- JJ'**: A unit below II', shown with a darker gray stippled pattern.
- KK'**: The southernmost unit, shown with a light gray stippled pattern.

 Several cross-section lines are drawn across the map, labeled with letters and primes:

- AA'**: A line from the north to the northeast.
- BB'**: A line from the north to the northeast.
- CC'**: A line from the north to the northeast.
- DD'**: A line from the north to the northeast.
- EE'**: A line from the north to the northeast.
- FF'**: A line from the north to the northeast.
- GG'**: A line from the north to the northeast.
- HH'**: A line from the north to the northeast.
- II'**: A line from the north to the northeast.
- JJ'**: A line from the north to the northeast.
- KK'**: A horizontal line across the southern part of the island.
- LL'**: A line from the north to the northeast, located further east than the others.

 The map also shows the coastline of Taiwan and the surrounding waters.

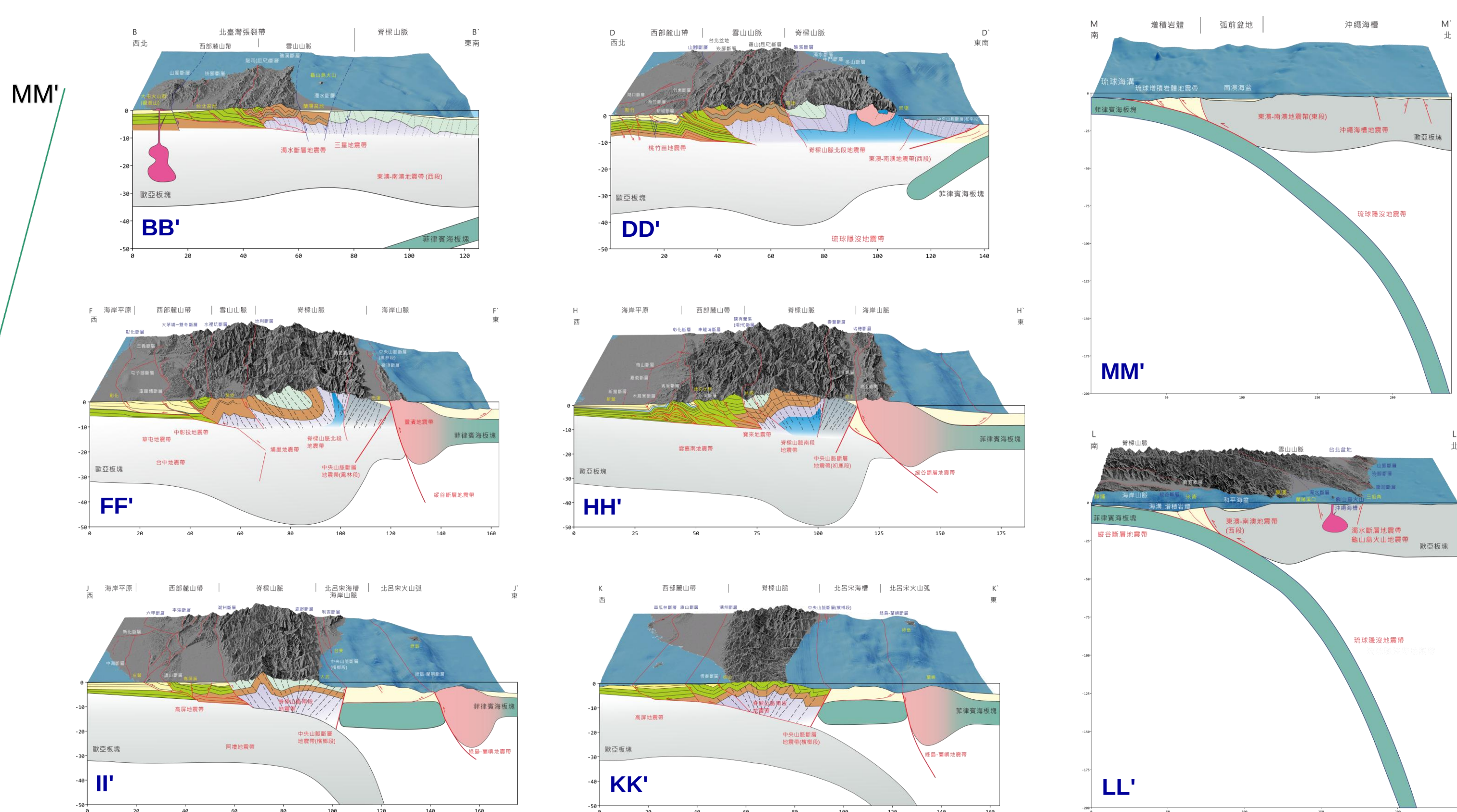


圖1、新版地質剖面共有13條，藍色剖面線代表原有的剖面位置，紅色剖面線代表新增的位置或延伸的範圍，綠色剖面線代表東部外海地質剖面位置。將現有地質剖面加深至50公里及延伸至東部海域，輔助說明震源深度大於15公里或是震源位在近海區域的事件地質構造。

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graph TD
    PAlert[P-Alert] --- NRTD[近即時時序  
(每秒PGA・PGV)]
    PAlert --- GMD[地動觀測資料]
    CWA[CWA] --- GMD2[地動觀測資料  
(TSMIP・CWSAN)]
    NRTD --- AR[實際觀測]
    GMD --- AR
    GMD2 --- AR
    AR --- NCS[鄰近震央測站  
觀測值]
    AR --- NCS2[鄰近震央測站之  
波形歷時動畫  
(震後60秒)]
    AR --- DM[分布圖]
    DM --- PGA[PGA・PGV及震度圖]
    AR --- HA[歷時動畫]
    HA --- PGV[PGV及震度動畫  
(震後60秒)]
    AR --- CSA[斷層動畫]
    CSA --- CSA2[鄰近震源之三維斷層面動畫]
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資料類型	P-Alert	CWA
實際觀測	近即時時序 (每秒PGA・PGV)	地動觀測資料 (TSMIP・CWSAN)
分布圖	PGA・PGV及震度圖	
歷時動畫	PGV及震度動畫 (震後60秒)	
斷層動畫	鄰近震源之三維斷層面動畫	

圖2、地震應變模組之流程圖

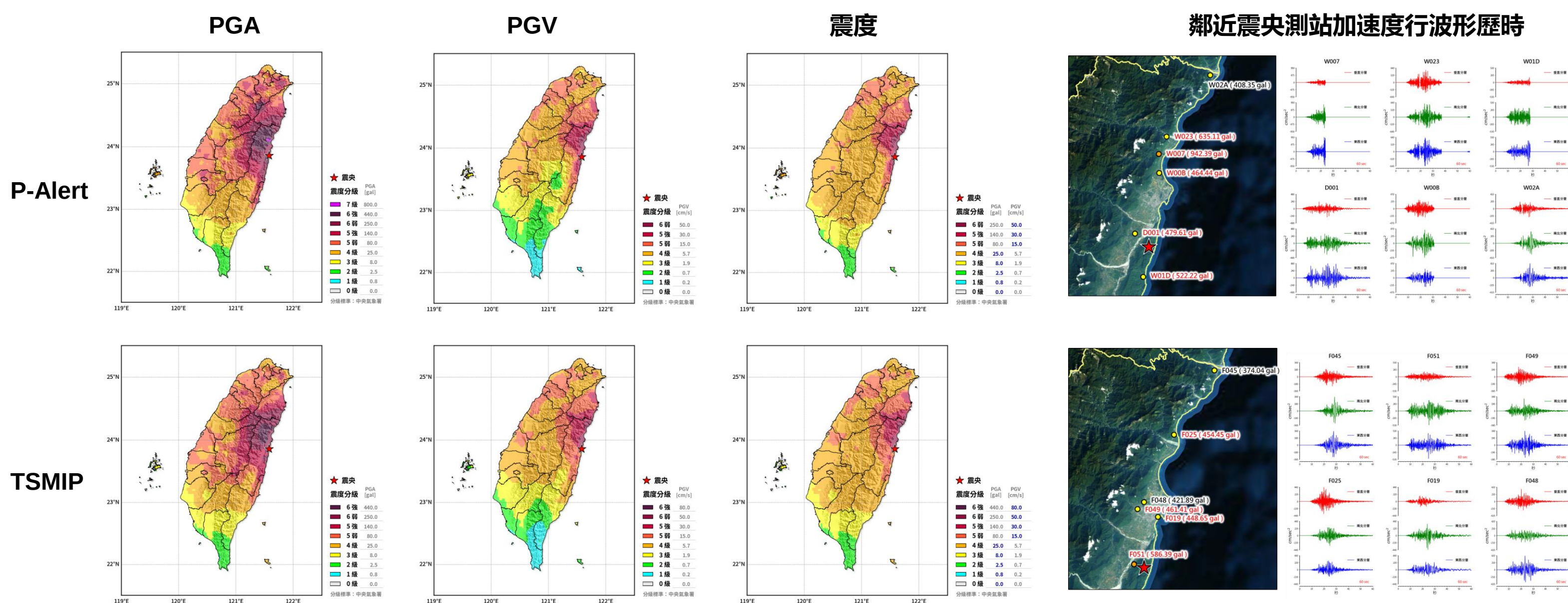


圖3、以2024年0403花蓮地震為例，應用P-Alert及TSMIP觀測網紀錄，繪製對應之PGA、PGV、震度分布圖及震後60秒的鄰近震央測站波形歷時。

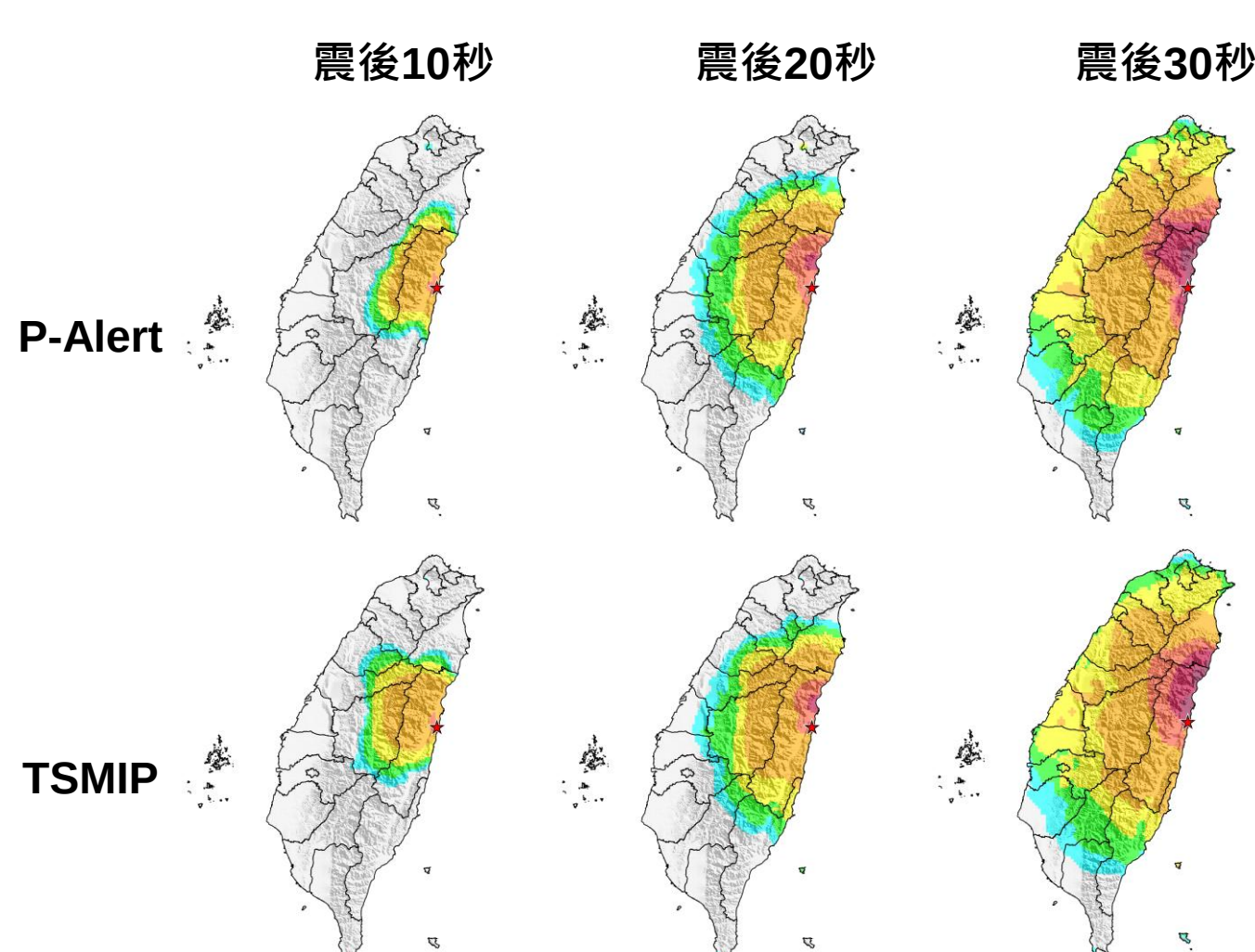


圖4、以0403花蓮地震為例，使用P-Alert及TSMIP觀測網繪製之震後30秒的震度歷時圖。

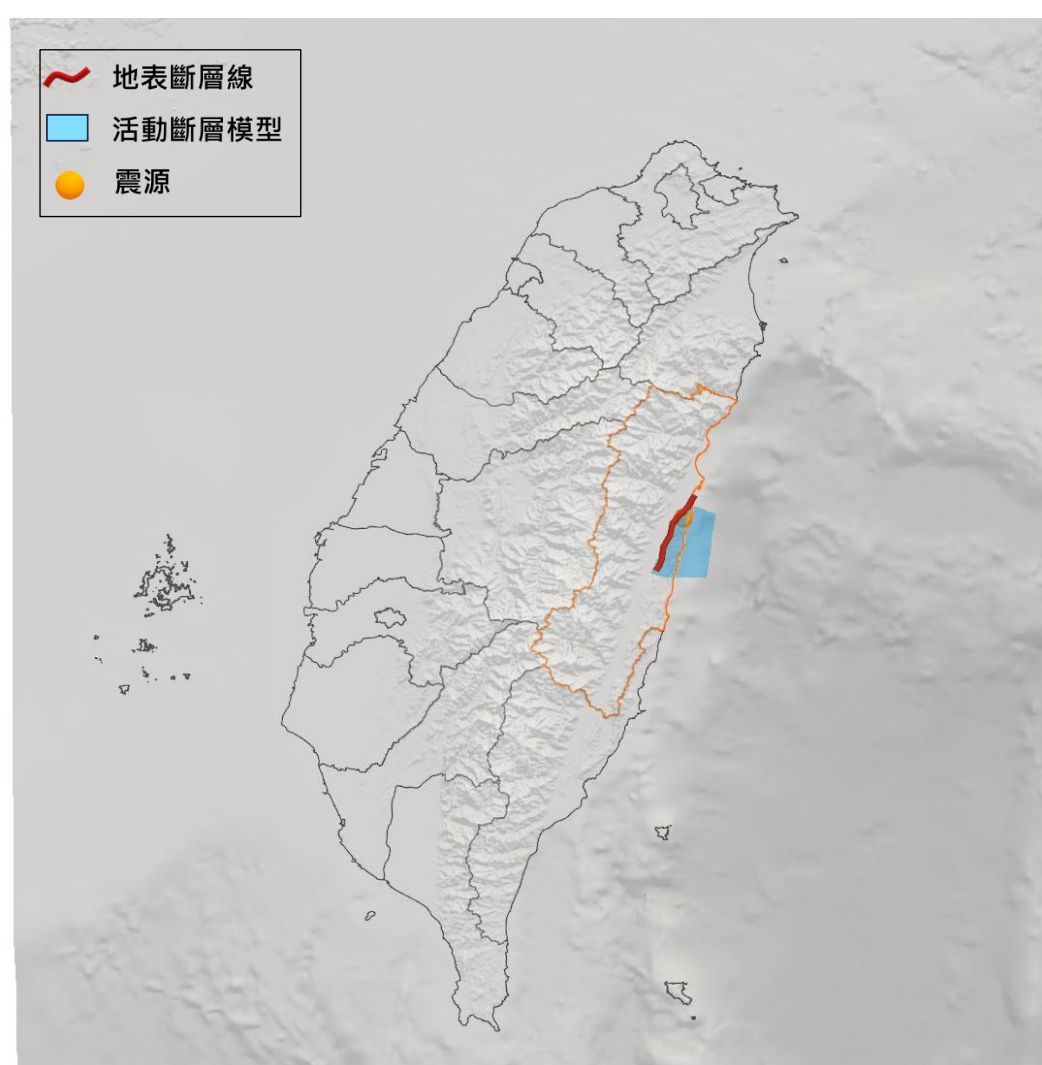


圖5、鄰近震源之三維斷層面三維視角變化示意圖，以0403花蓮地震為例。橘球代表震源位置，紅線代表地表斷層線，藍色面代表活動斷層模型(嶺頂斷層)。

