Response and tsunami wave observations in China about the Tonga volcanic tsunami

Lining Sun, Zhiguo XU South China Sea Tsunami Advisory Center National Tsunami Warning Center *Ministry of Natural Resources, China*

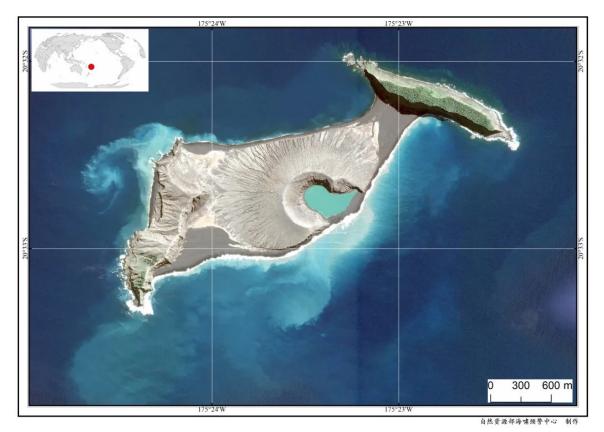
Overview

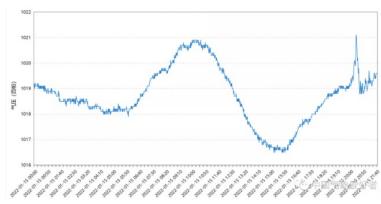
Original Time: 2022-01-15 04:27 (UTC)

Epicenter: 20.5° S, 175.4° W

Eruption Type: Plinian

VEI: 5-6





Atmospheric pressure station lie in Guangdong

- ➤ The tsunami hit Tabu Island about 20 minutes after the eruption, and finally reached to far away areas in Pacific region.
- ➤ The volcanic eruption caused changes in atmospheric pressure, with weather stations along China's coast picking up changes of 1-2 hPa.

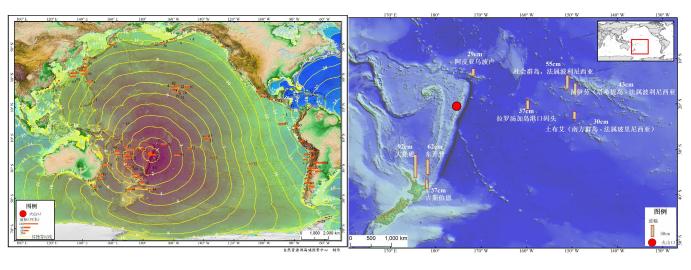
Response to Tonga Tsunami

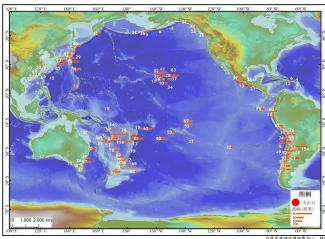
1st Tsunami Message issued on 01-15 11:30 (UTC)

- The volcanic eruption caused a local tsunami
- Tsunami wave obseravtions around Tonga Island
- No tsunami threat to China

2nd on 01-16 03:30 (UTC)

- The volcanic eruption caused a trans-oceanic tsunami
- Tsunami obseravtions all around Pacific reigion
- Tsunami waves observed in China, but no catastrophic impact

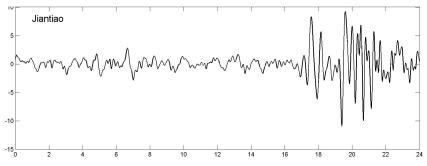


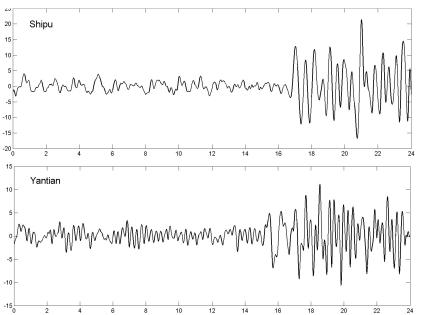


Obseravtion of tsunami waves in China(partial gauge stations)

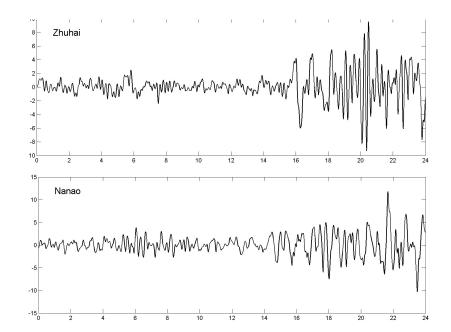
2nd Tsunami Message issued on 01-16 03:30(UTC)

Maximal tsuname wave observed in Shipu,Zhejiang,about 20cm.





00.0010101			
gauge	loation	time of measure (UTC)	maximum tsunami height (cm)
Jiantiao	Zhejiang	15 19:55	9
Shipu	Zhejiang	15 20:55	20
Zhuhai	Guangdong	15 20:30	9
Yantian	Guangdong	15 18:20	10
Nanao	Guangdong	15 21:40	12



PTWS Post-event Brief III - 15 January 2022, Hunga-Tonga-Hunga-Ha'apai Volcanic Eruption and Tsunami

Thank You