

33rd Virtual UNISEC-Global Meeting Opening Remarks

- Can Space Technology Mitigate Earthquake Damage?

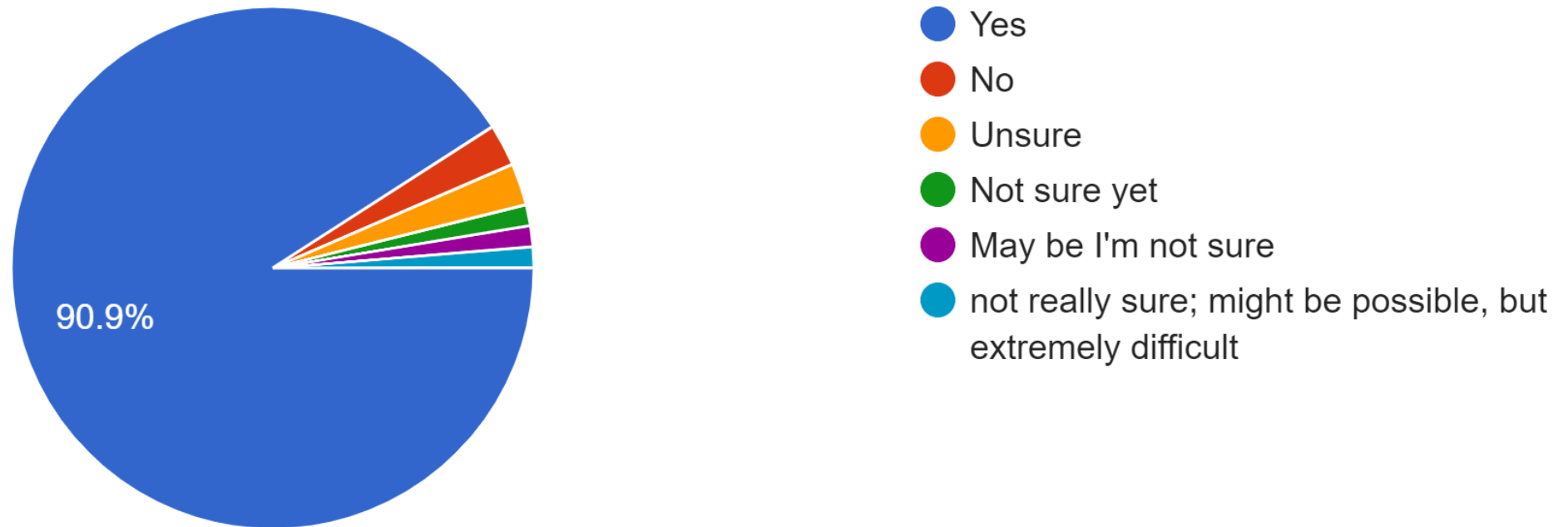


Rei Kawashima, UNISEC-Global

Can Space Technology Mitigate Earthquake Damage?

Do you think space technology can mitigate earthquake damage?

77 responses



The Hanshin-Awaji earthquake

17 February, 1995 (Tuesday) at 5:46 JST

6,000 killed,
40,000 injured,
330,000 buildings, roads, bridges were affected partially or completely.



Tohoku Earthquake and Tsunami

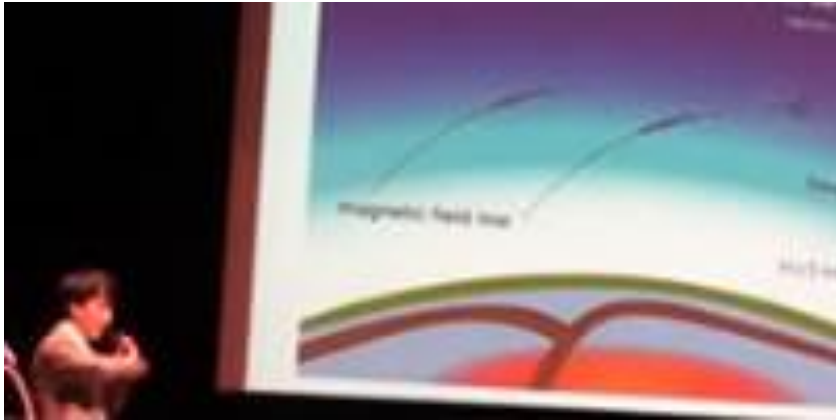
11 March, 2011, at 14:46 JST

- 16,000 killed and 2,000 missing (90% death by drowning)
- 6,000 injured
- 1,000,000 building was affected.
- Nuclear power plant accident in Fukushima

1st Mission Idea Contest
March 14, 2011



Project of Micro-Satellite Constellation for Earthquake Precursor Study



2nd Mission Idea Contest,
Oct 10, 2012 Final Presentation at the
UN/Japan Nano-satellite Symposium (in
Nagoya)

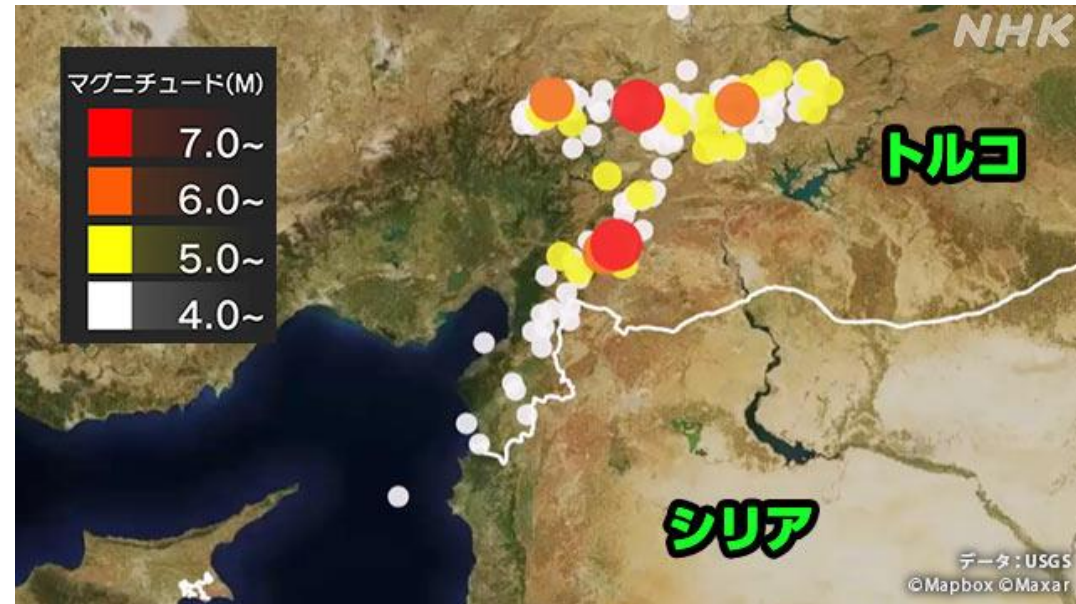


Masashi Kamogawa, Kohei Tanaka, Kikuko Miyata,
Kaori Mochizuki, Kento Nakazawa, Hideki Kayaba,
Junichi Takisawa, Kiichiro DeLuca and Yoshihiro Kakinami

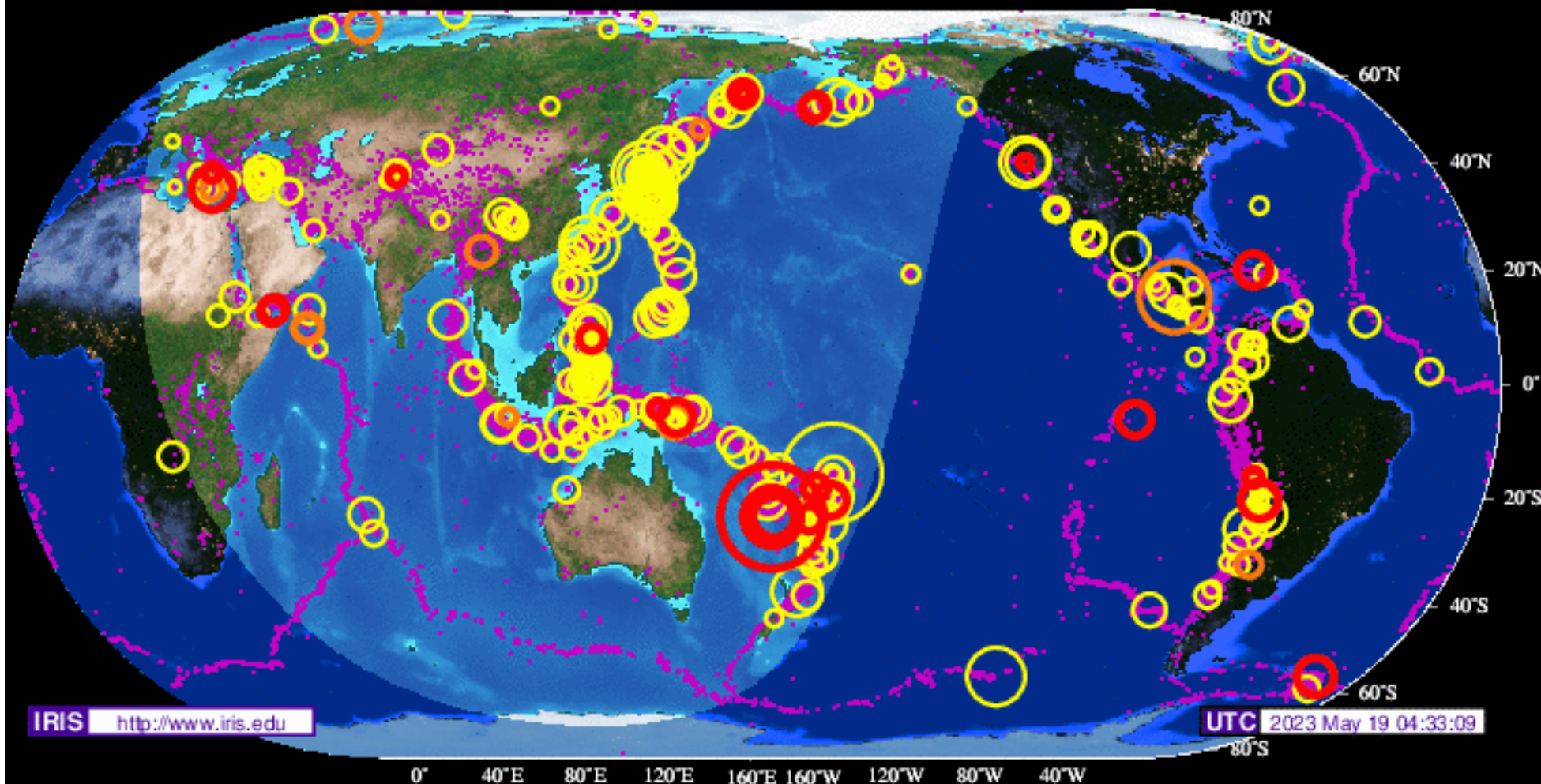
Turkey–Syria earthquake

6 February 2023, at 04:17 TRT

- 50,783 deaths, 297 missing
- 107,204 injured
- 4 million buildings were affected



Seismic Monitor

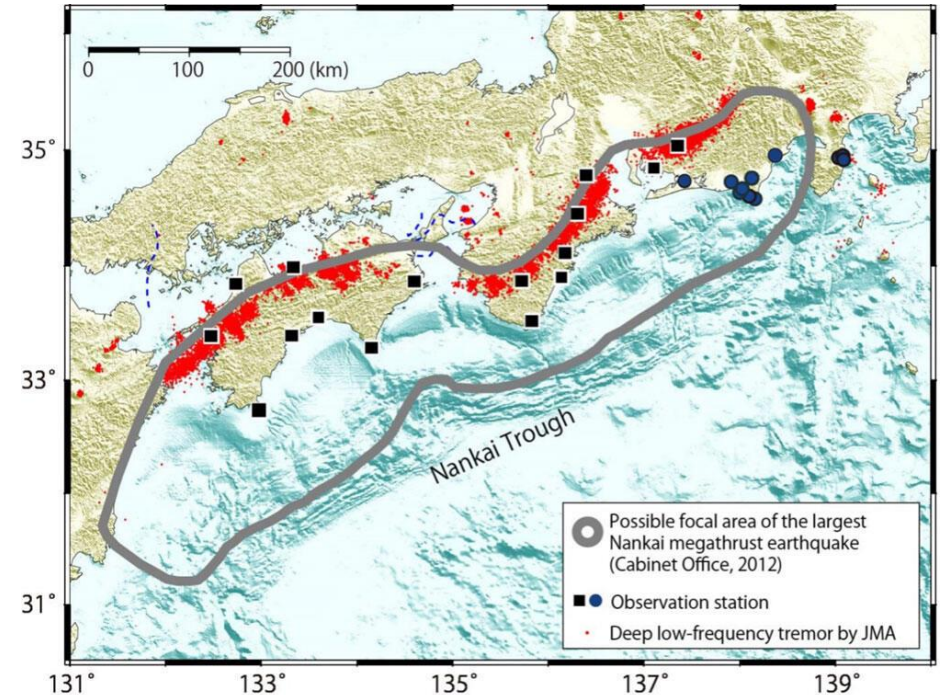


Red: <24 hours
Orange: 24~48 hours
Yellow: 3days-2 weeks
Purple: 2weeks-5 years

<http://ds.iris.edu/seismon/index.phtml> (accessed on May 19, 2023)

Nankai Trough Earthquake

- The probability of a major Nankai Trough earthquake is now estimated at around 30% within 10 years, 70% to 80% within 30 years, and around 90% within the next 40 years.
- Once it happens, Tsunami will reach in 3 minutes.



What if we could know the earthquake 30 minutes earlier?

What can we do to reduce the earthquake damage with space technology and science?

- Ganapathy Pattukandan - India
- Tiger Liu - Taiwan
- Frantisek Nemec - Czech Republic
- Masashi Kamogawa - Japan
- Richard Long (UK) – Introduction to Mission Idea Contest

**Let's learn from lectures, and
make a difference and make something good happen together!**