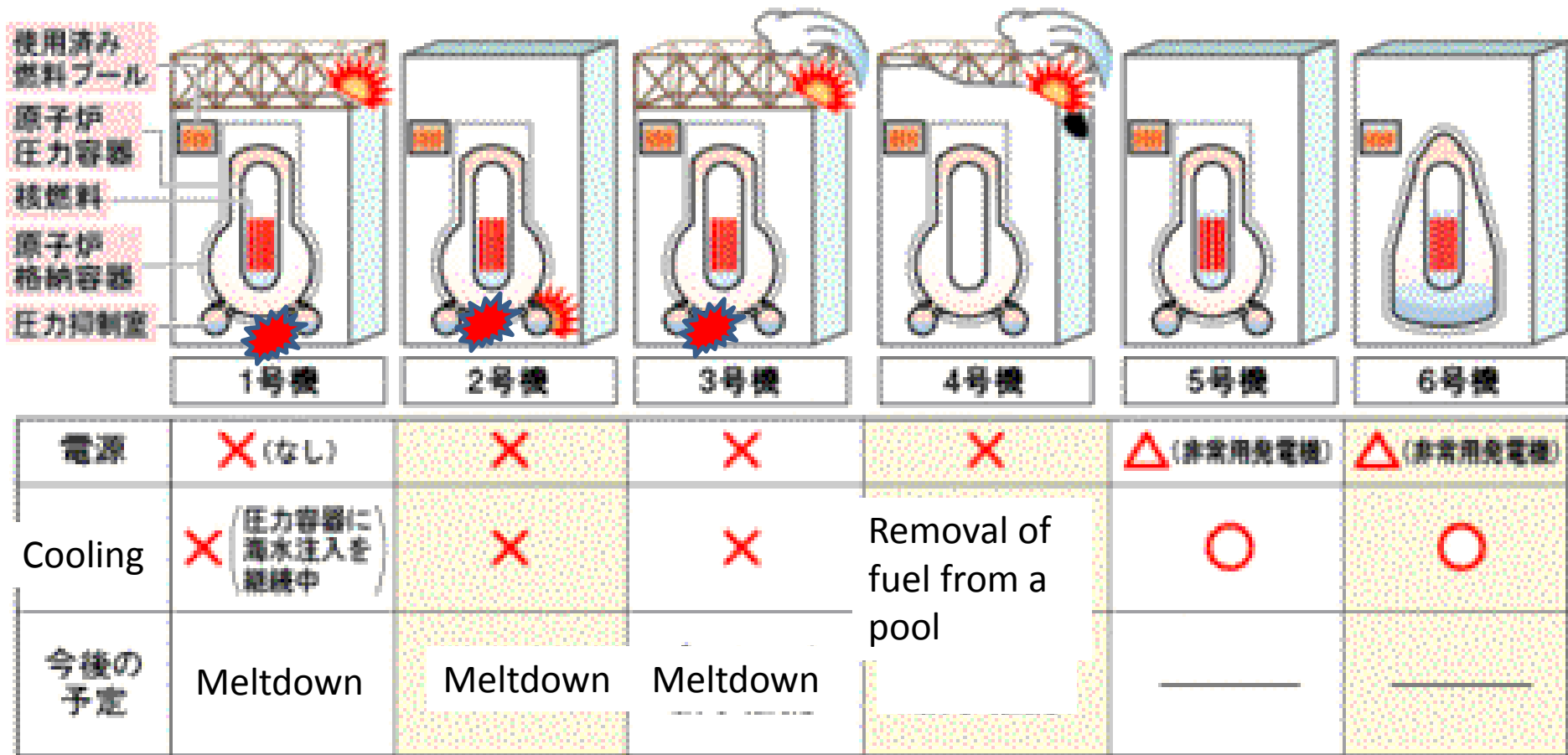


3. Fukushima Accident

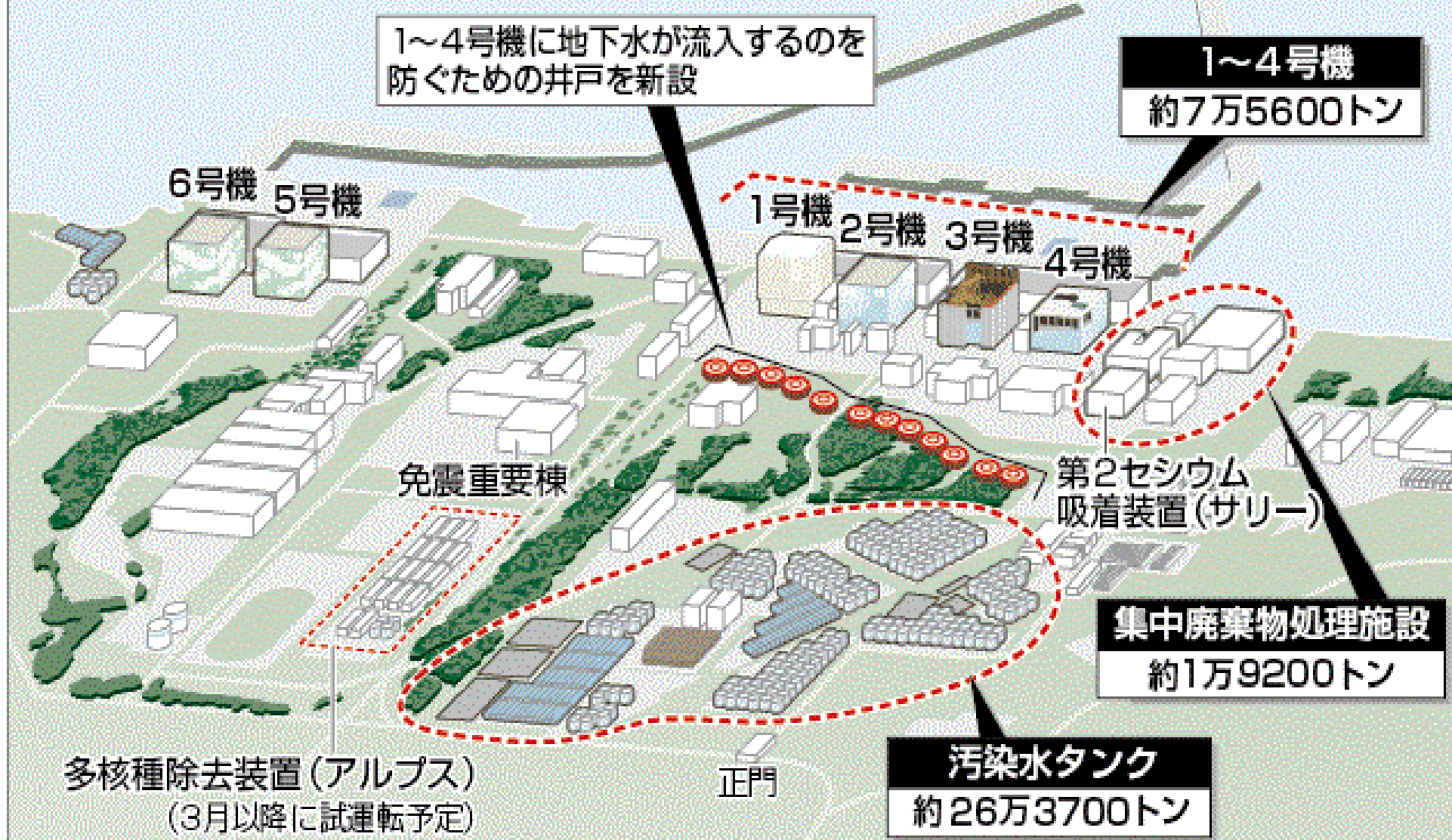
M.Mihara PhD

Present status of six reactors at Fukushima Daiichi Nuclear Power Plant

福島第1原発の1～6号機の状況と今後の予定 (20日現在)



福島第1原発内の汚染水貯蔵状況



1~4号機に地下水が流入するのを防ぐための井戸を新設

1~4号機
約7万5600トン

6号機 5号機

1号機 2号機 3号機 4号機

免震重要棟

第2セシウム吸着装置(サリー)

集中廃棄物処理施設
約1万9200トン

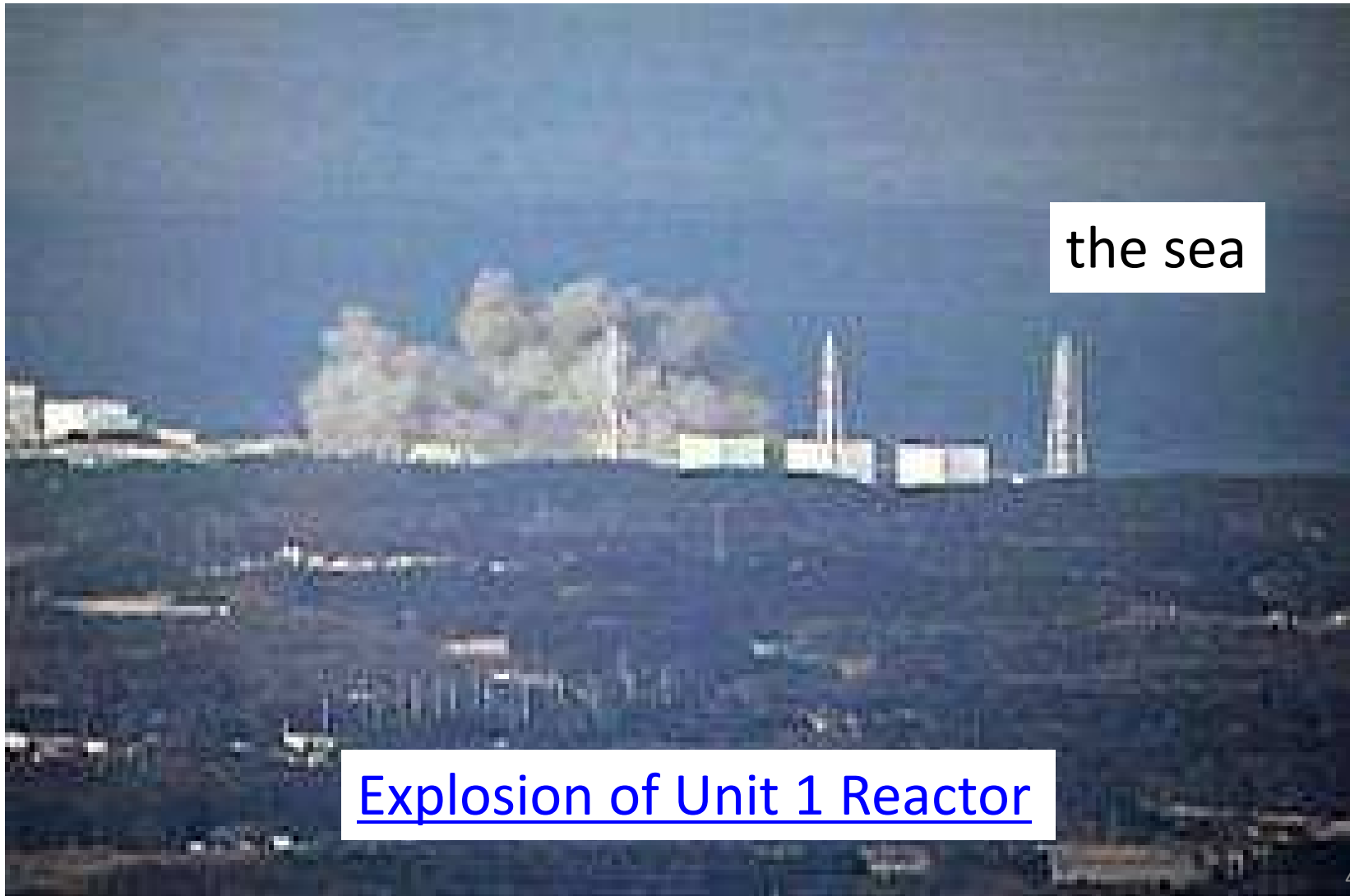
多核種除去装置(アルプス)
(3月以降に試運転予定)

正門

汚染水タンク
約26万3700トン

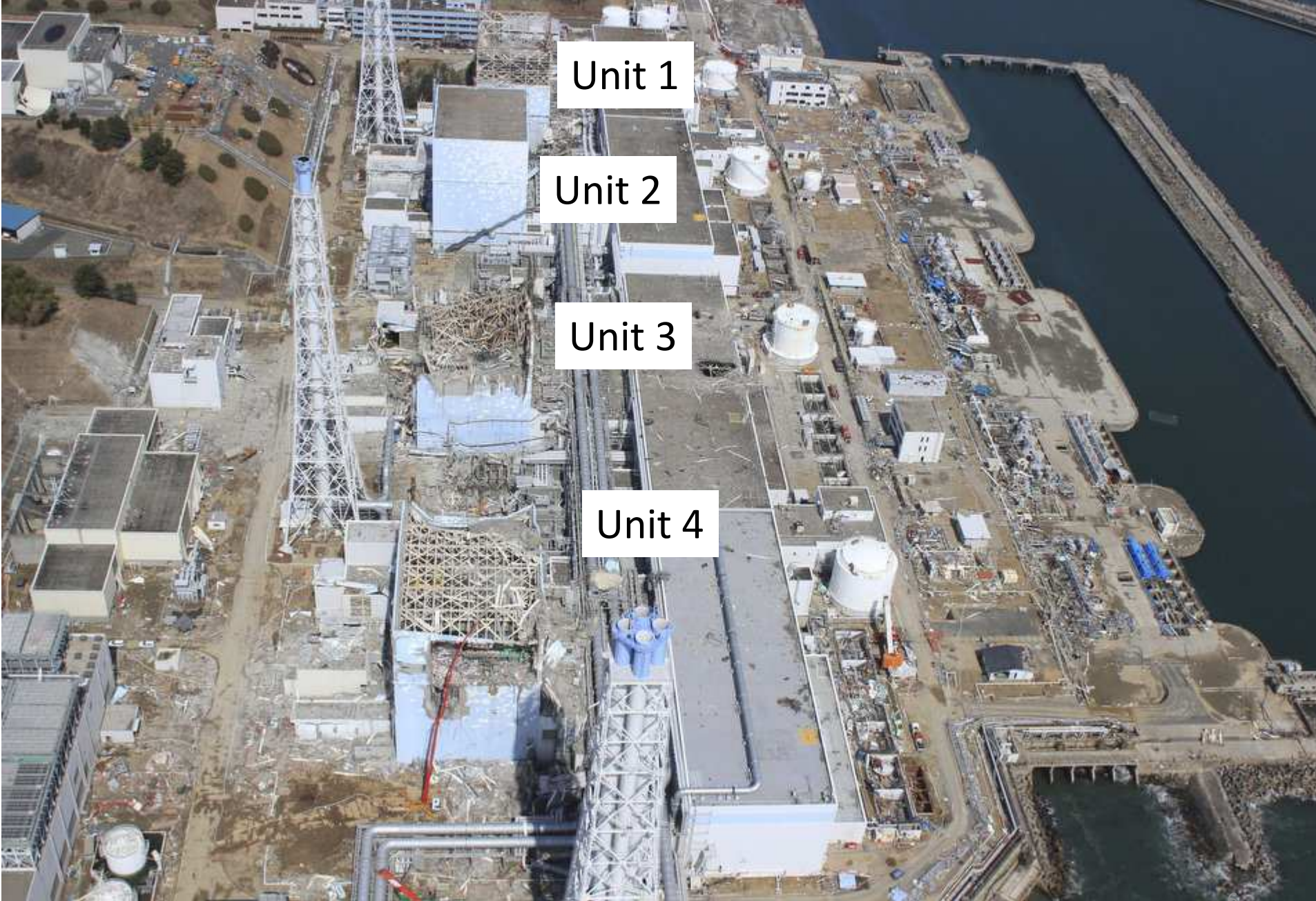
(2月26日時点、東電資料より)

Fukushima Daiichi Nuclear Disaster: 12 March, 2011



Fukushima Daiichi Nuclear Disaster: 14 March, 2011





Unit 1

Unit 2

Unit 3

Unit 4

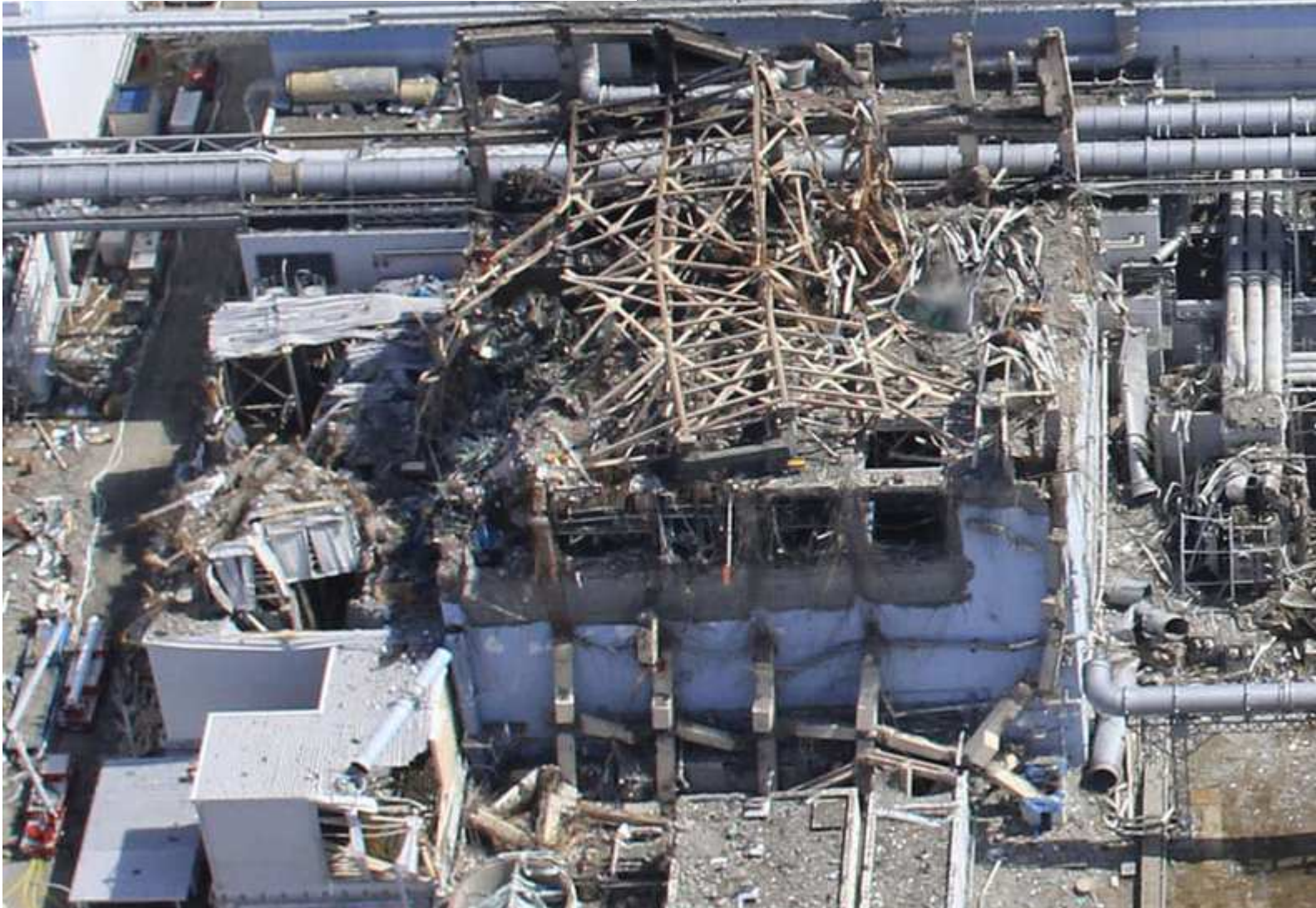


Unit 3

Unit 4



Unit 3, which was destroyed.



Removal of tsunami debris in front of Unit 1 Turbine Building



Before

After

Removal of tsunami debris in front of Unit 2 Turbine Building



Before



After

Removal of tsunami debris in front of Unit 3 Turbine Building



Before



After

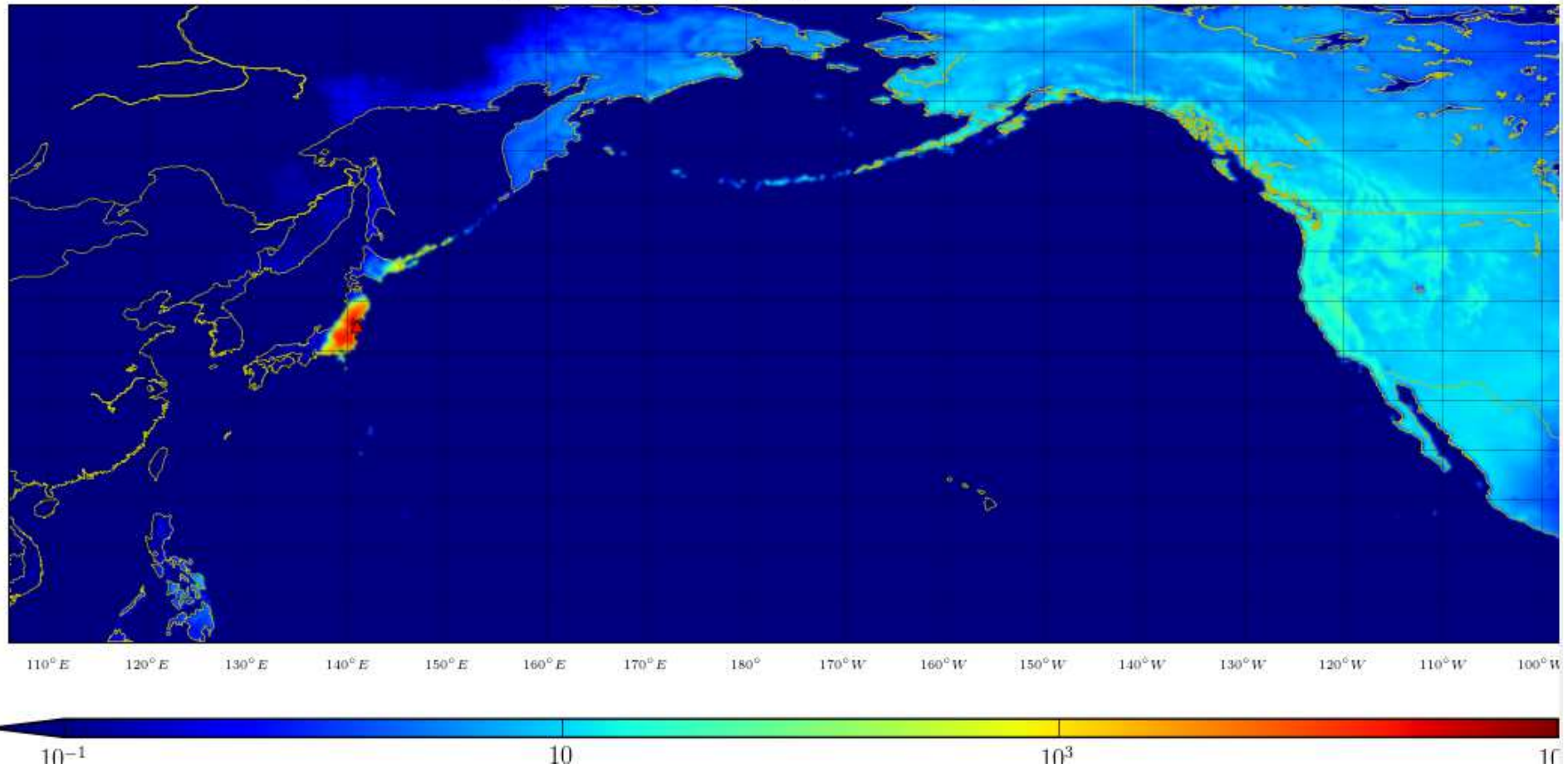
Conclusion

- The Japanese government reported that explosions at Units 1 and 3 were both hydrogen explosions.
- However, as seen in the recordings, these two explosions were apparently different; it is highly likely that Unit 3 underwent a nuclear explosion.
- Prior to tsunami, all fuel rods of Unit 4 had been removed due to a routine check-up and transported to a spent fuel pool. However, Unit 4 also underwent a hydrogen explosion and the pool had been unstable.
- If the floor of the spent fuel pool had fallen down, the radioactive pollution would have seriously affected a larger area including Tokyo. Fortunately, all the fuel rods of Unit 4 were unloaded before the end of 2014.

Radioactive Pollution Map in Japan and North America

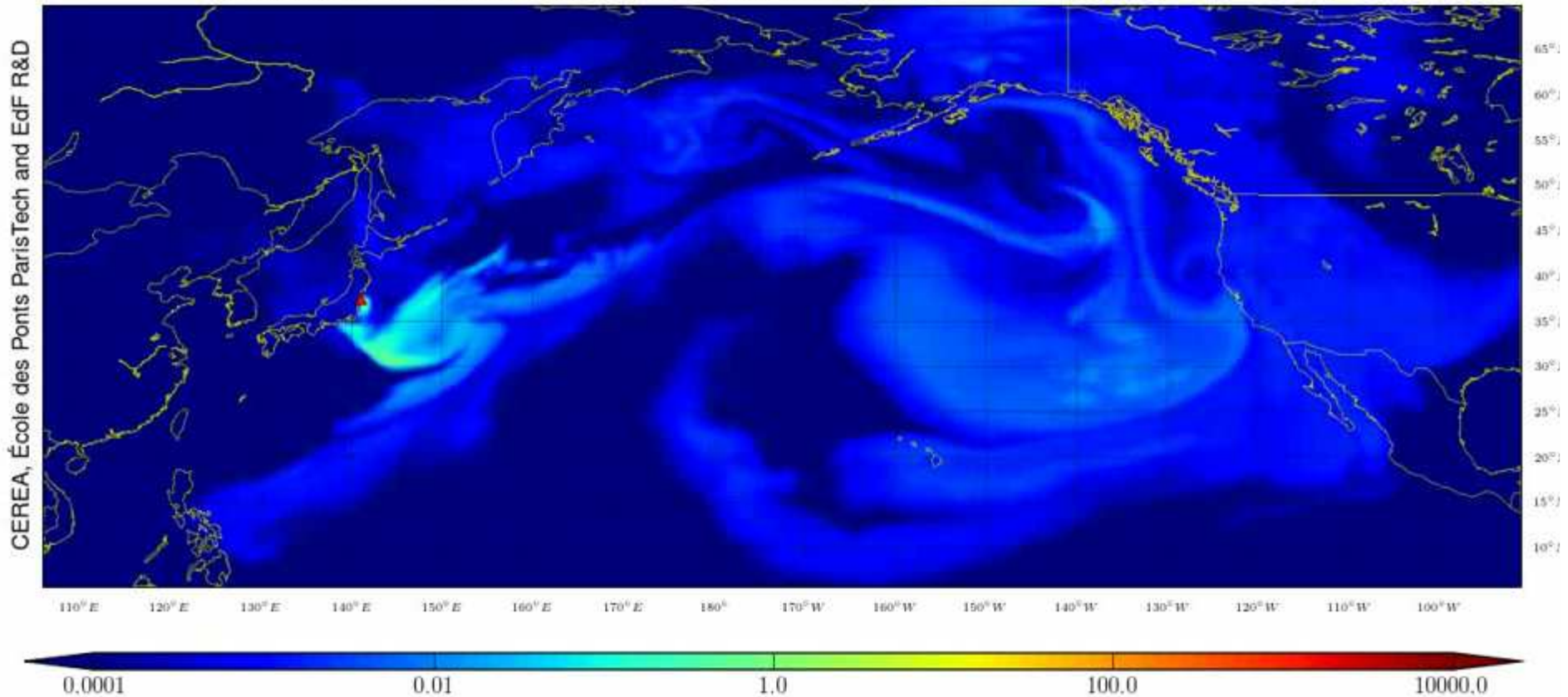
Fukushima, Cesium 137 total ground deposition (in Bq/m^2), CEREAs source (inverse modeling), 2011-04-05 00:00:00 UTC

CEREA, École des Ponts ParisTech and EdF R&D



Moving of Radioactive Plume over Pacific Ocean

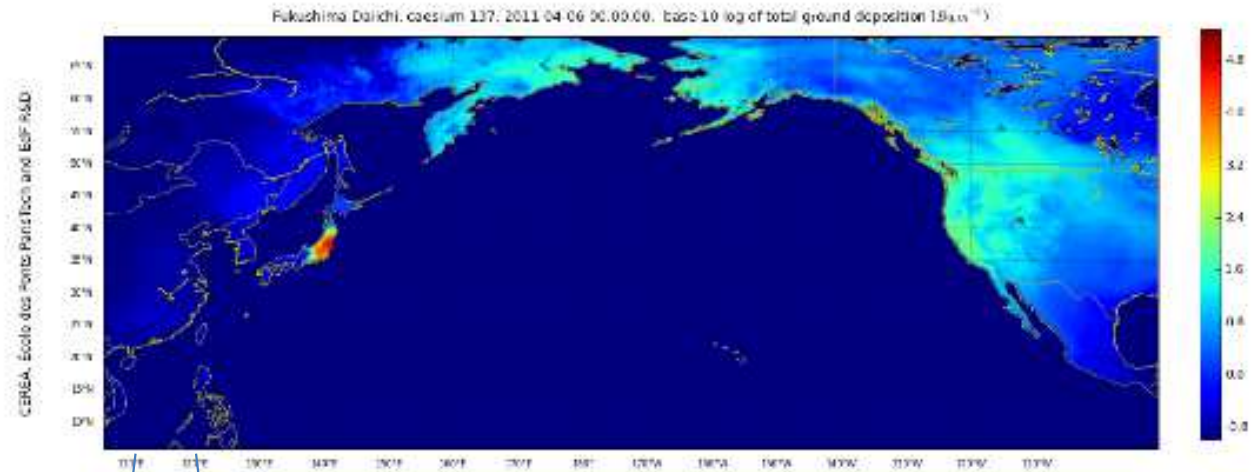
Fukushima, Cesium 137 activity concentration (in Bq/m³), CEREA source (inverse modeling), 2011-03-23 18:00:00 UTC



Dispersion of radionuclides in the ocean: see the coastal simulations of the Sirocco team [here](#).

Comparison of Pollution in Fukushima and Chernobyl

福島原発事故によるセシウム137の放射線拡散の影響



チェルノブイリ原発事故によるセシウム137の放射線拡散の影響

