

ASSESSMENT of the FUKUSHIMA NUCLEAR ACCIDENT

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the CHALLENGE:

- Immense Earthquake
- Tsunami Impacts a Large Nuclear Facility
- Evaluate the Impact to US Interests in Japan

the SOLUTION:

- US Consequence Management Teams

NATURAL DISASTER & NUCLEAR EVENT OVERVIEW

CONSEQUENCES

ASSESSMENT ACTIVITIES

NATURAL DISASTER &
NUCLEAR EVENT OVERVIEW

CONSEQUENCES

ASSESSMENT ACTIVITIES

NATURAL DISASTER & NUCLEAR EVENT OVERVIEW

CONSEQUENCES

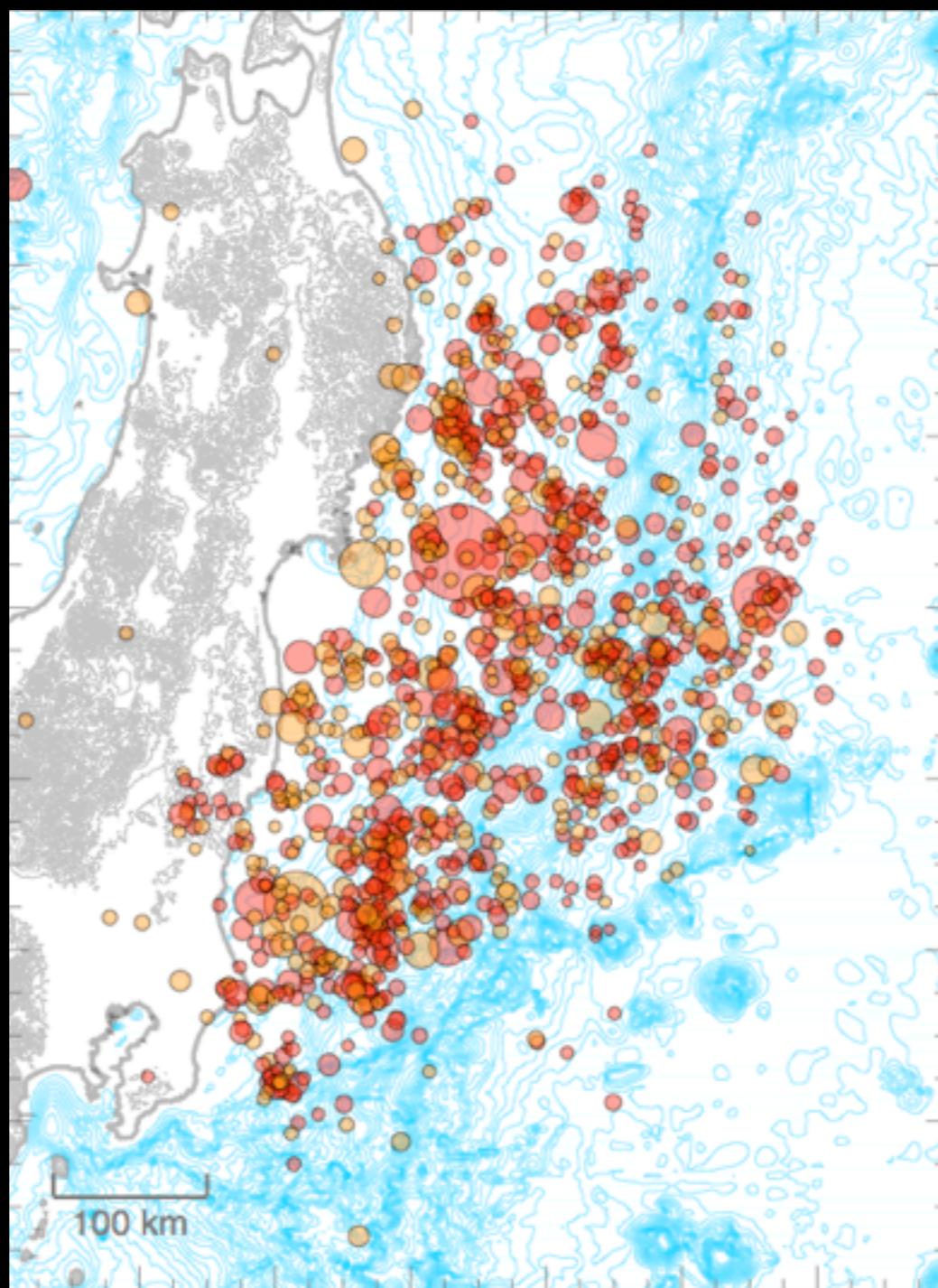
ASSESSMENT ACTIVITIES

NATURAL DISASTER & NUCLEAR EVENT OVERVIEW

EARTHQUAKES in JAPAN

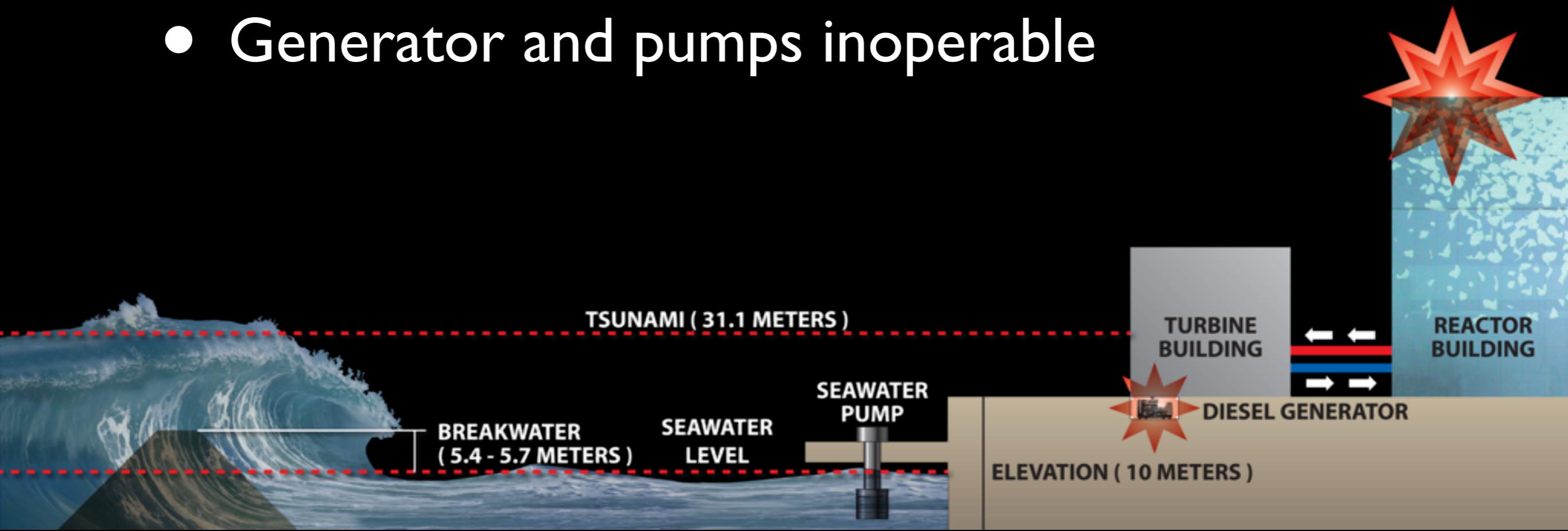
- $M 9.0$ on 3-11-2011
- $M > 7$, 5 times
- $M > 6$, 72 times
- $M > 5$, 423 times

M 9.0 AFTERSHOCKS



the TSUNAMI

- 13.1 meters tall
- Plant breakwater was 5.4 to 5.7 meters
- Generator and pumps inoperable

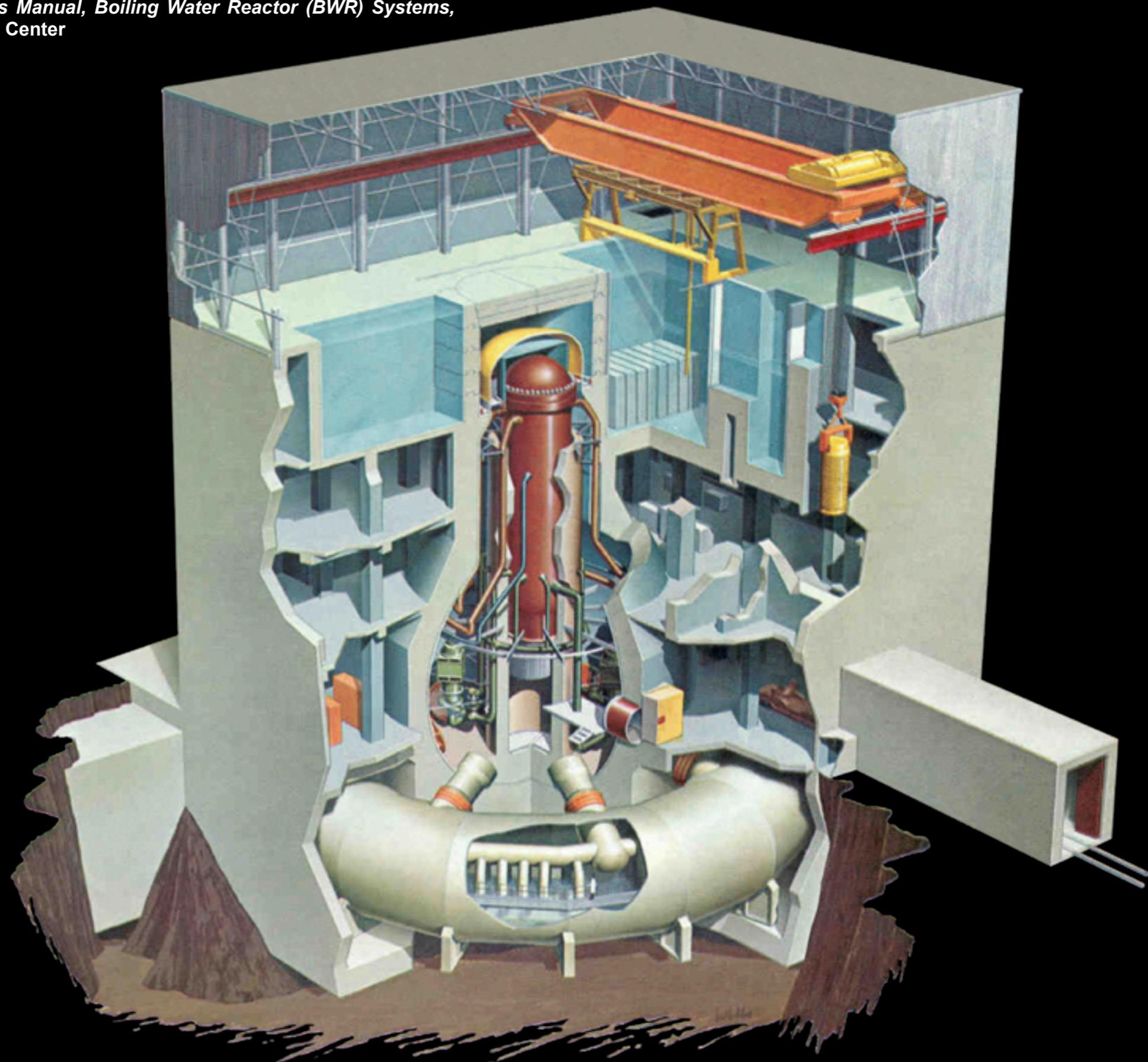


FUKUSHIMA DAIICHI SITE



BEFORE

Kyodo News/AP Photo



BWR

AFTER



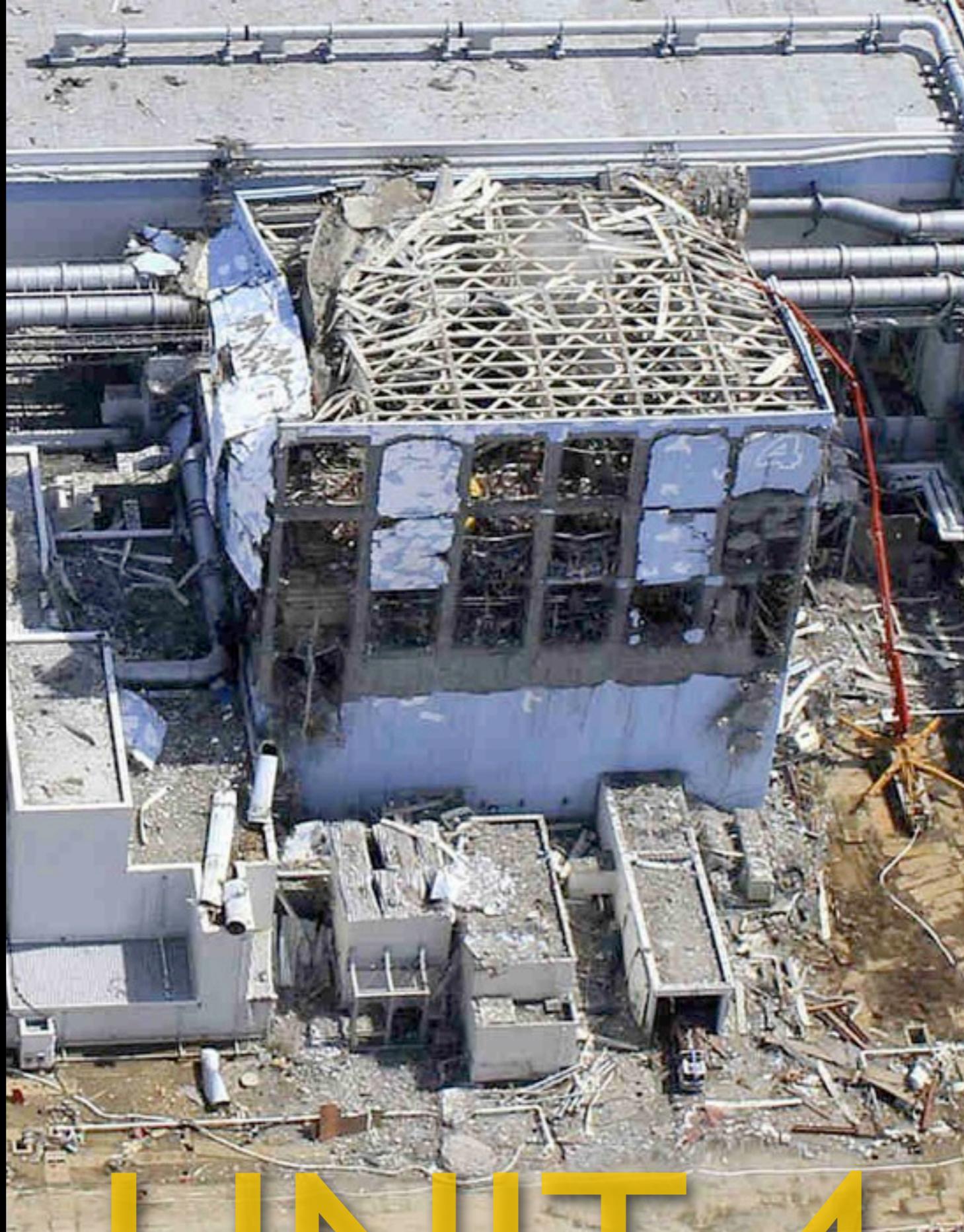


AFTER



UNIT 3

UNIT 3



UNIT 4



UNITS 3&4

UNITS 3&4

March 2011 event timeline

fri	sat	sun	mon	tues	wed	...	fri	...	mon
11	12	13	14	15	16		18		21

March 2011 event timeline

fri	sat	sun	mon	tues	wed	...	fri	...	mon
X	12	13	14	15	16		18		21

March 2011 event timeline

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March 2011 event timeline

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11	12	13	14	15	16		18		21

March 2011 event timeline

fri *sat* *sun* *mon* *tues* *wed* ... *fri* ... *mon*

~~1~~ ~~2~~ ~~3~~ ~~4~~ ~~5~~ ~~6~~ ~~7~~ ~~8~~ ~~9~~ ~~10~~ ~~11~~ ~~12~~ ~~13~~ ~~14~~ ~~15~~ ~~16~~ ~~17~~ ~~18~~ ~~19~~ ~~20~~ ~~21~~



Challenges

ASSESSMENT ~~ACTIVITIES~~

EARLY PHASE assessment

INTERMEDIATE PHASE assessment

LATE PHASE assessment

Aerial Data (3/17 - 4/29/2011)
Exposure Rate at 1 Meter

■ > 12.5 mR/hr ■ 2.17 - 12.5 mR/hr ■ 1.19 - 2.17 mR/hr ■ 0.25 - 1.19 mR/hr ■ 0.03 - 0.25 mR/hr ■ < 0.03 mR/hr

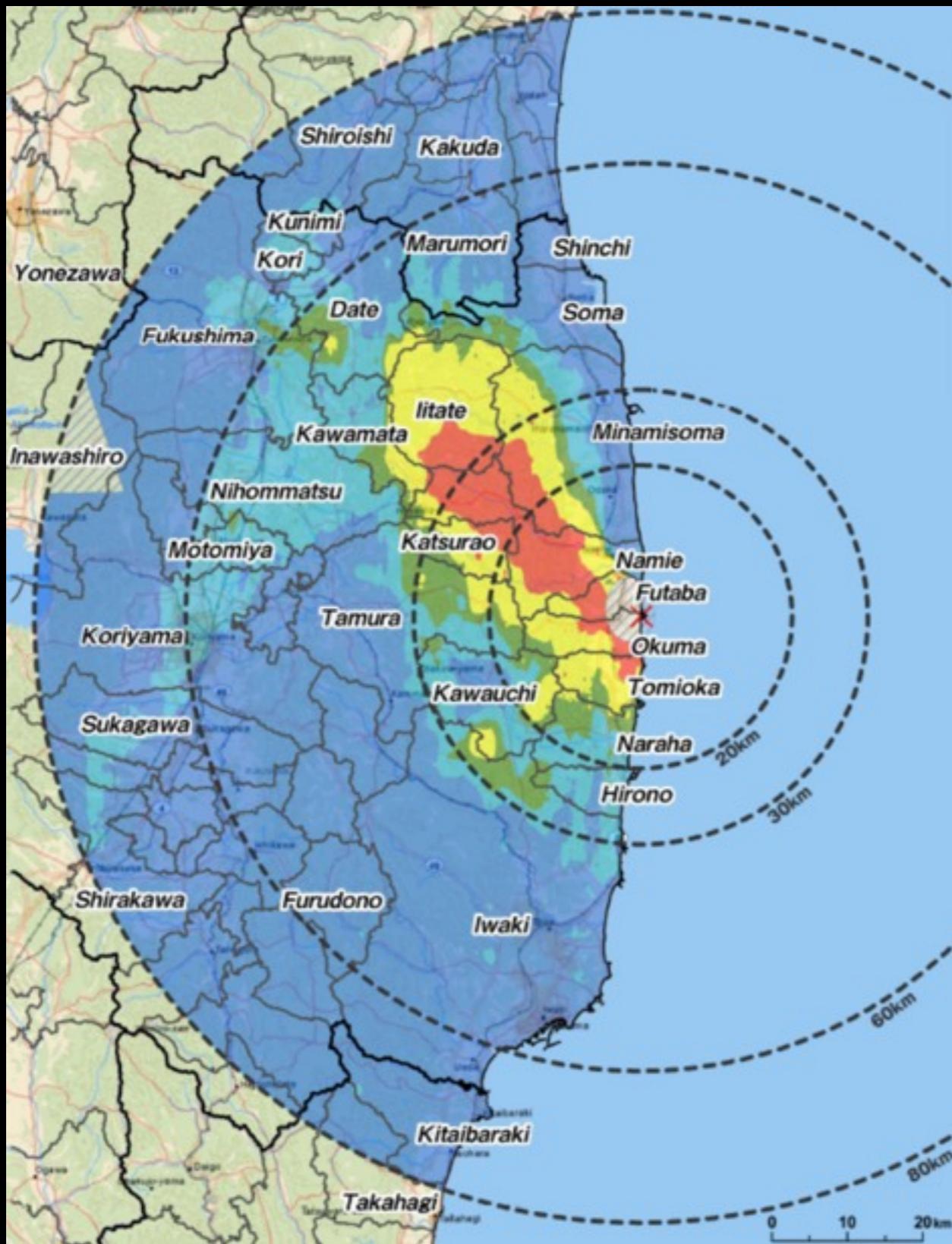


ANALYTICAL MONITORING SURVEY

EARLY PHASE assessment

INTERMEDIATE PHASE
assessment

LATE PHASE assessment



Total Cesium deposition (Bq/m³)
Normalized to April 29, 2011

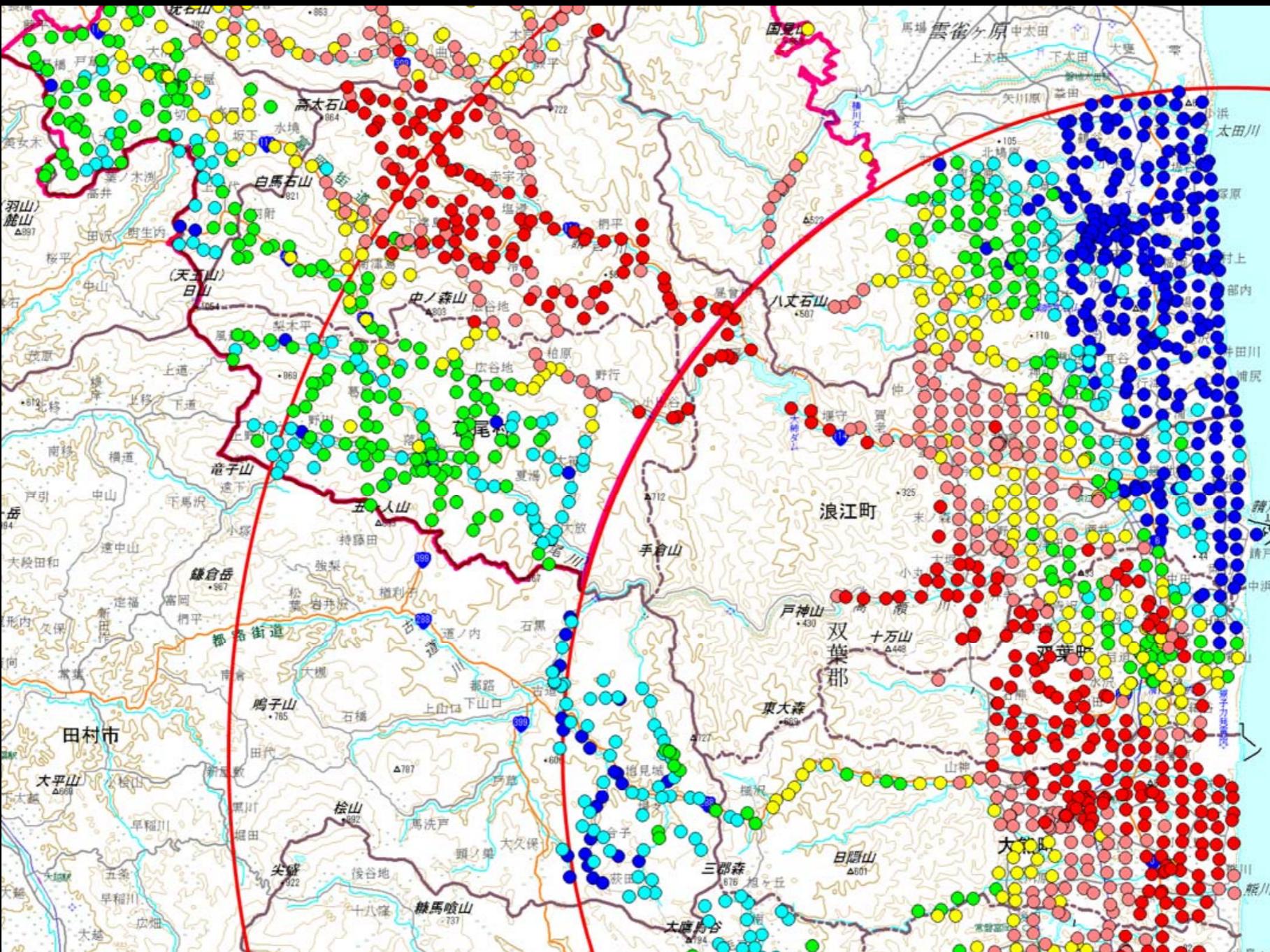
	3,000,000 - 30,000,000
	1,000,000 - 3,000,000
	600,000 - 1,000,000
	300,000 - 600,000
	< 300,000
	No Aerial Data
	Fukushima Daichi

ARIAL MEASURING RESULTS

EARLY PHASE assessment

INTERMEDIATE PHASE assessment

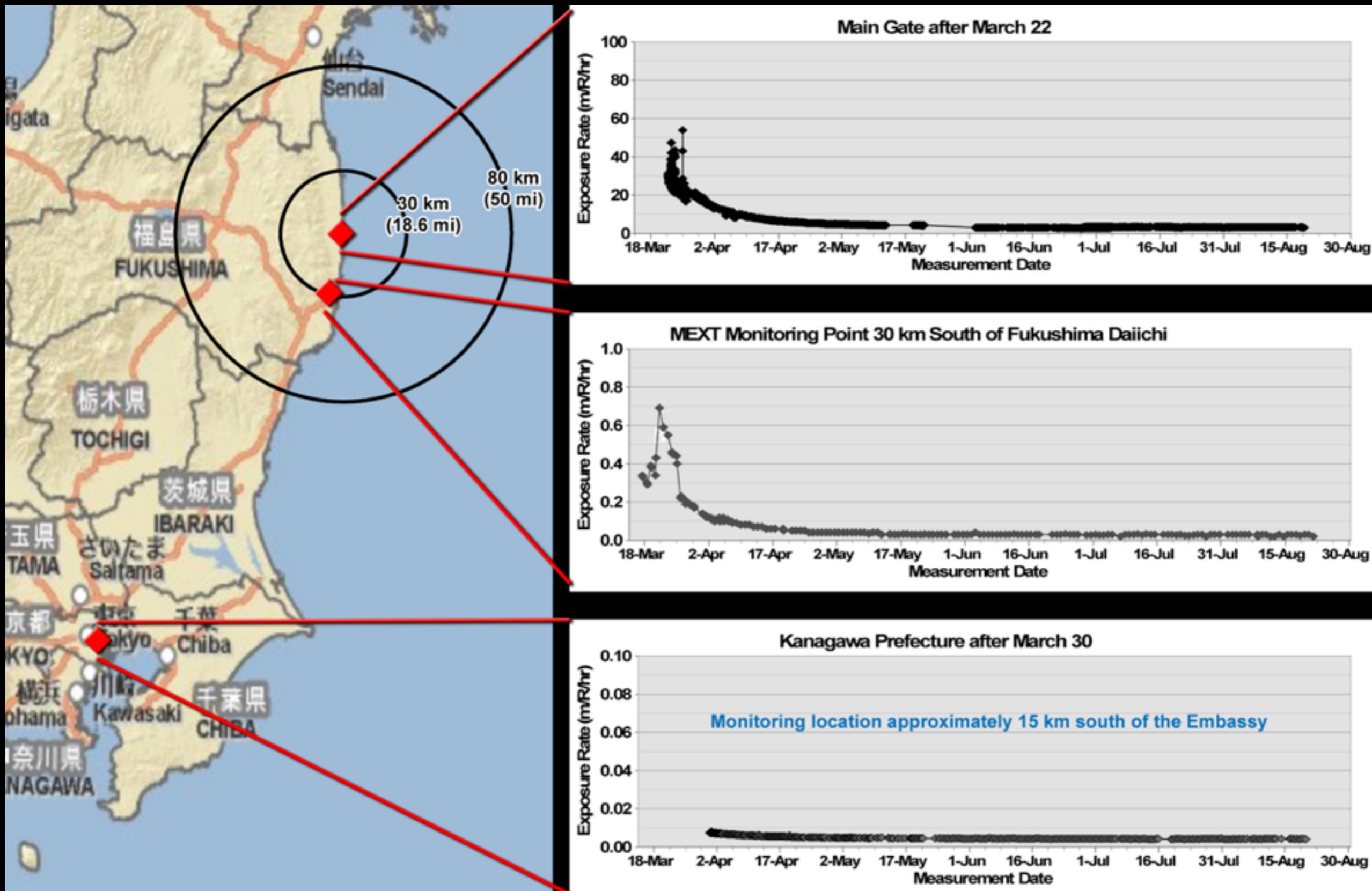
LATE PHASE assessment



LATE PHASE EQUIVALENT DOSE RATE



19 R&D ITEMS
for DECOMMISSIONING



EXPOSURE RATE TRENDS

Thank You