

2012/5/18

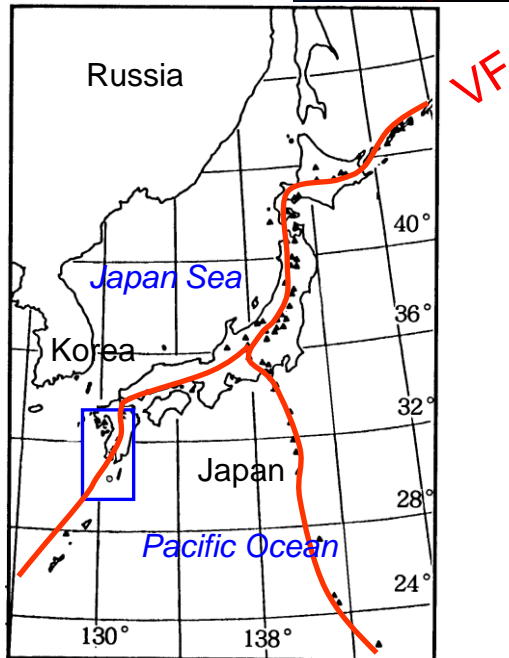
# Volcanic activity of Sakurajima volcano, South Kyushu, Japan

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# Volcanoes in Kyushu

110 volcanoes in Japan



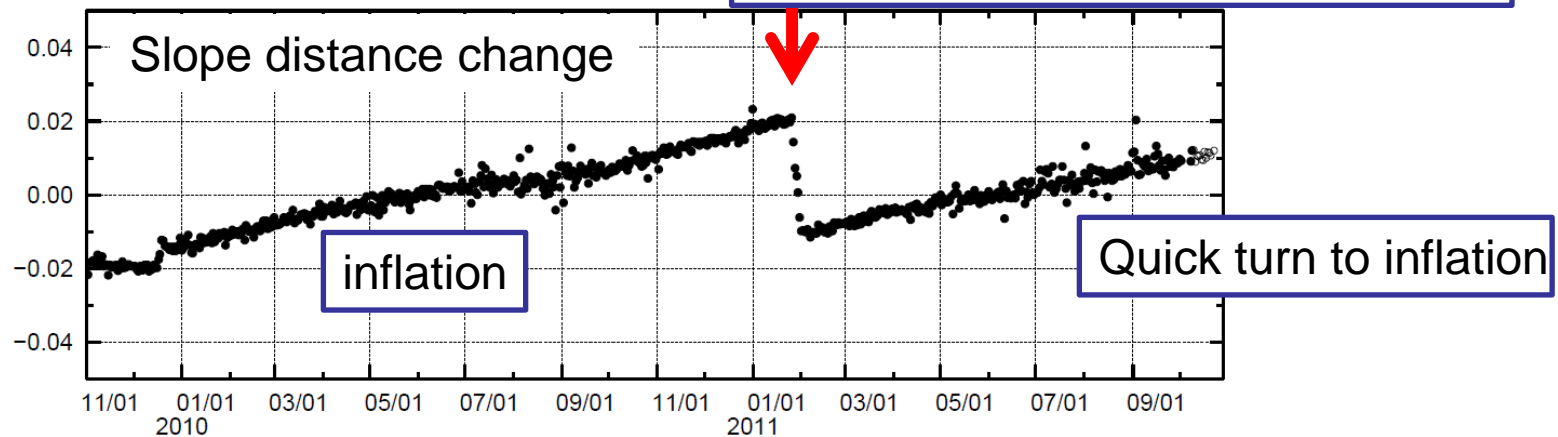


# 2011 Eruption at Shin-moedake of Kirishima Volcano Complex

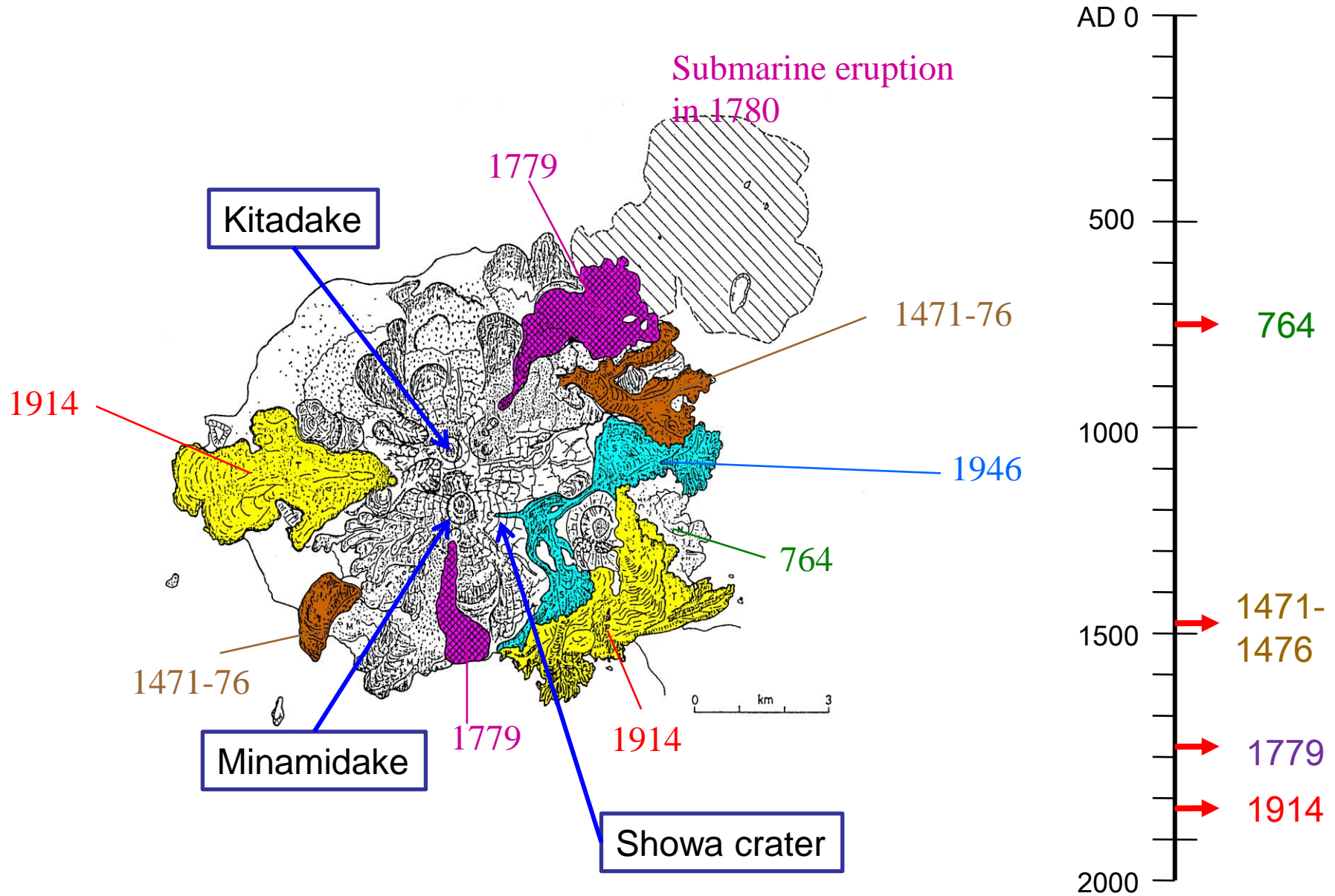


Deflation due to sub-plinian eruption on January 26, 2011

(m) (1) えびの(960714) - 牧園(950486) 斜距離



# Historical eruption of Sakurajima



# Historical eruptions

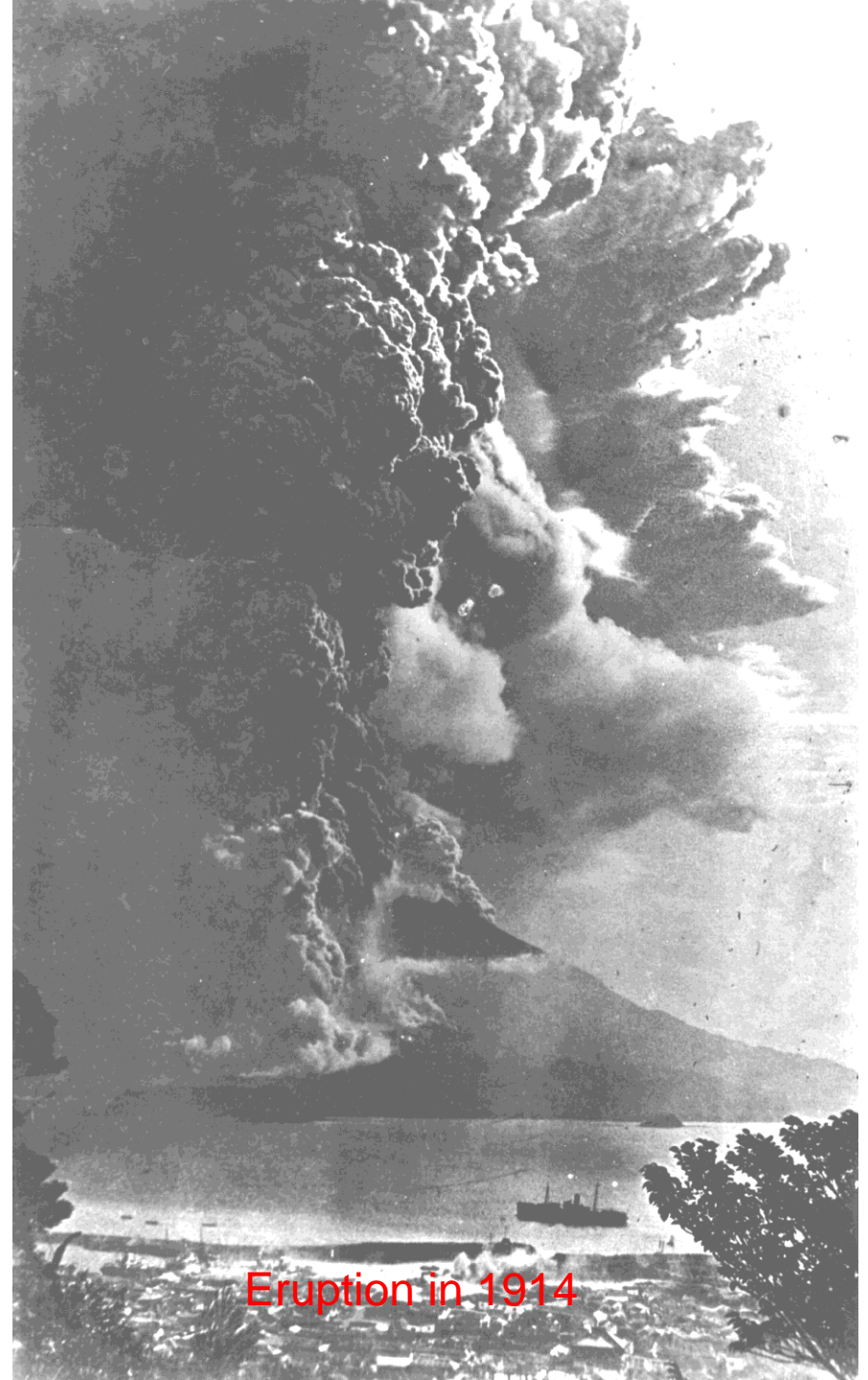
	Bunmei eruption	An'ei eruption	Taisho eruption	Showa eruption
	1471-76	1779-80	1914	1946
Vent location	NE-SW	N-S	E-W	E
Volume of lava (km <sup>3</sup> )	0.5	1.7	1.34	0.18
Volume of tephra (km <sup>3</sup> )	0.7	0.4	0.52	0.02
Plume height	unknown	12,000m	8,000m	2,000m
Casualties	many	163	58	1

VEI 5



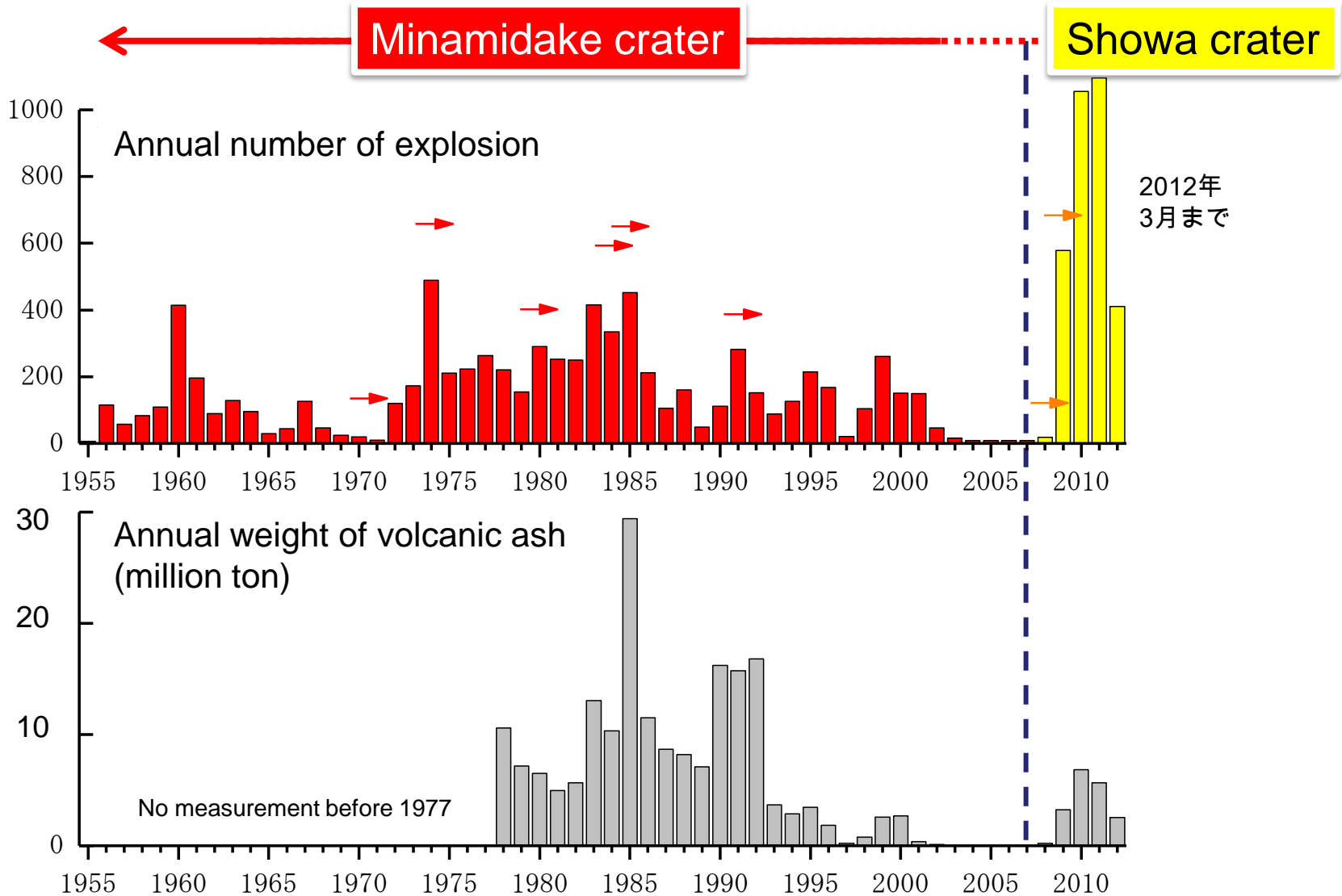


Eruption in 1779



Eruption in 1914

# Eruptive activity of Sakurajima



# Increase in eruptive activity

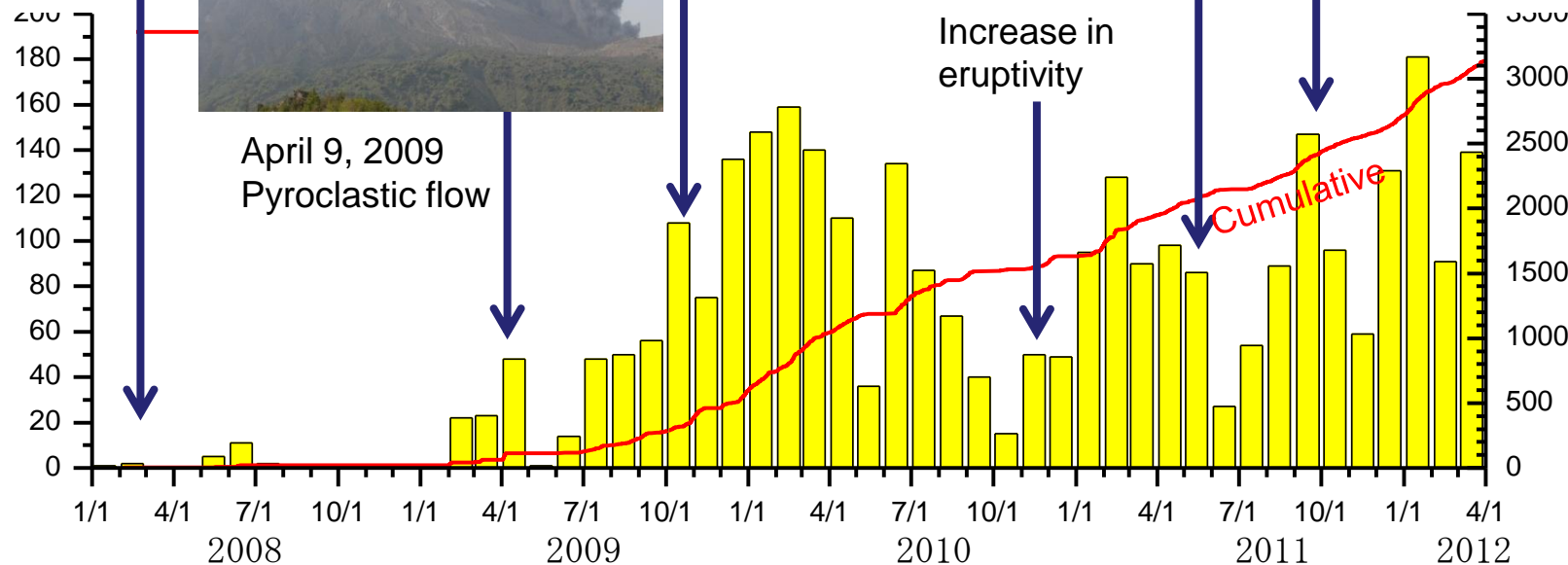
The first explosion on February 3, 2008



Lava dome in crater



Monthly number of explosion



April 9, 2009  
Pyroclastic flow

Explosion at Minamidake  
October 3, 2009

Increase in eruptivity

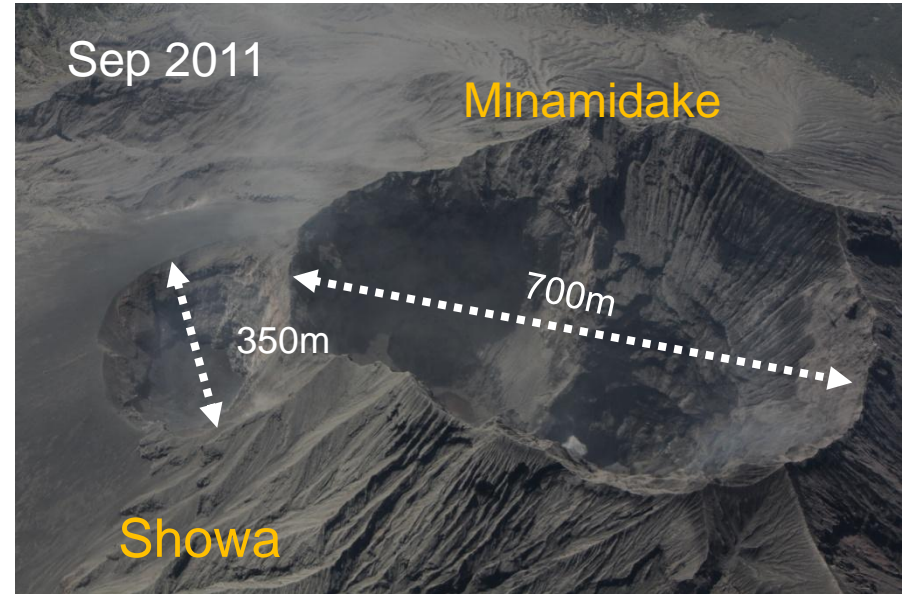
Increase in eruptivity

Cumulative

Cumulative number

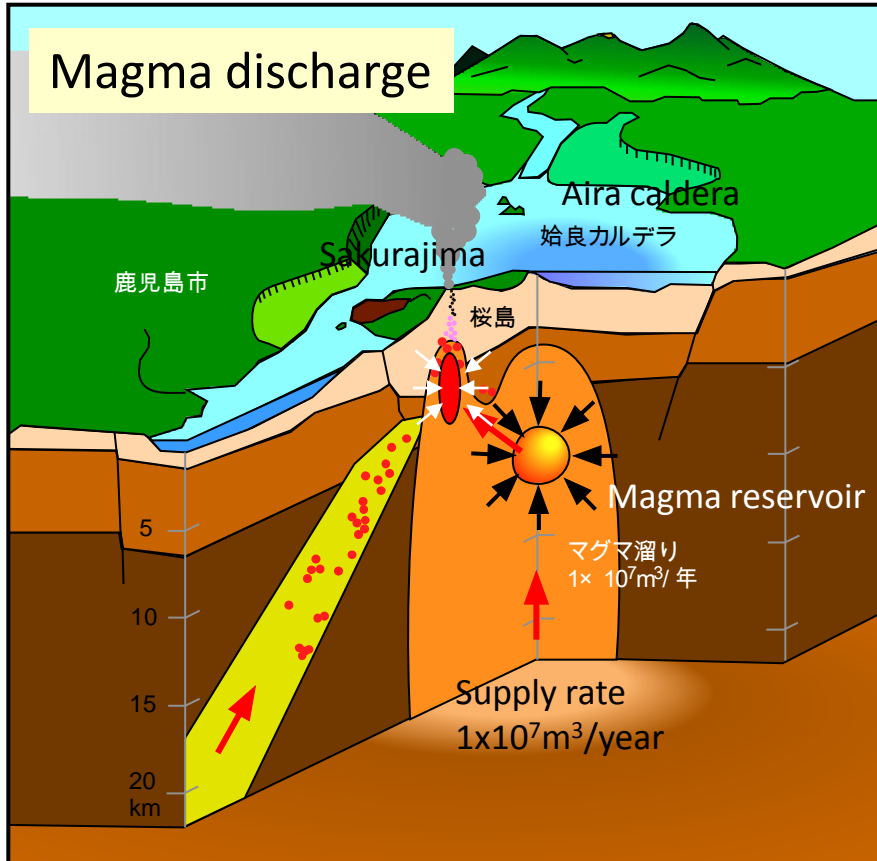


# Enlargement of Showa crater

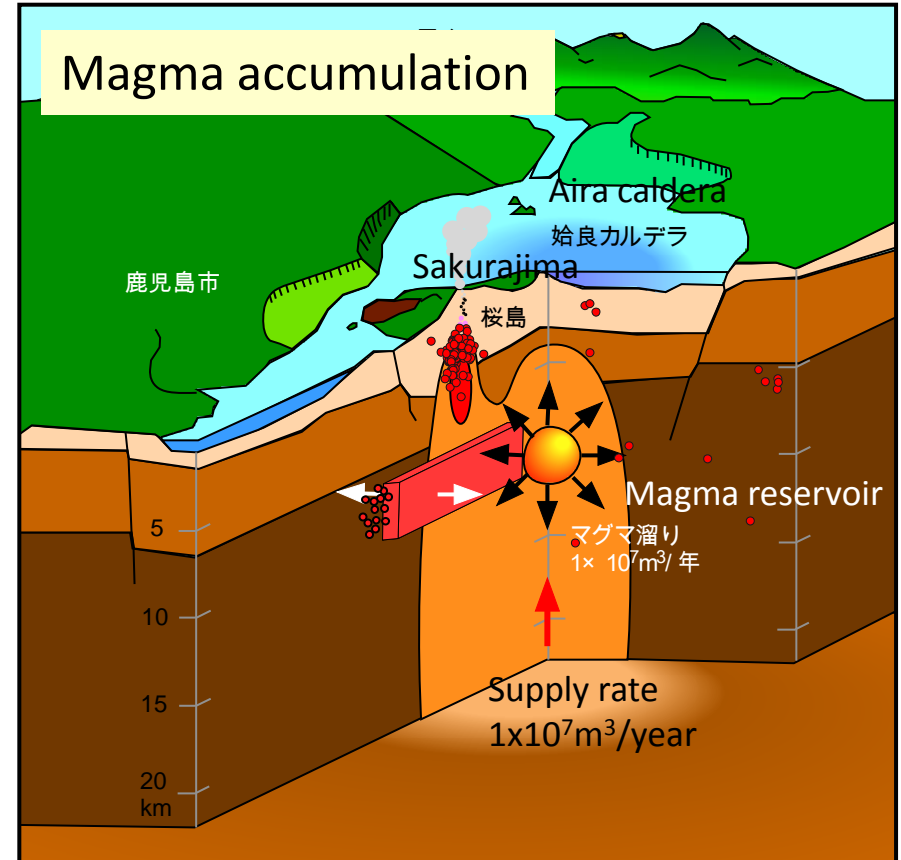


# Magma supply system of Sakurajima

1974-1992 (Vulcanian eruption)

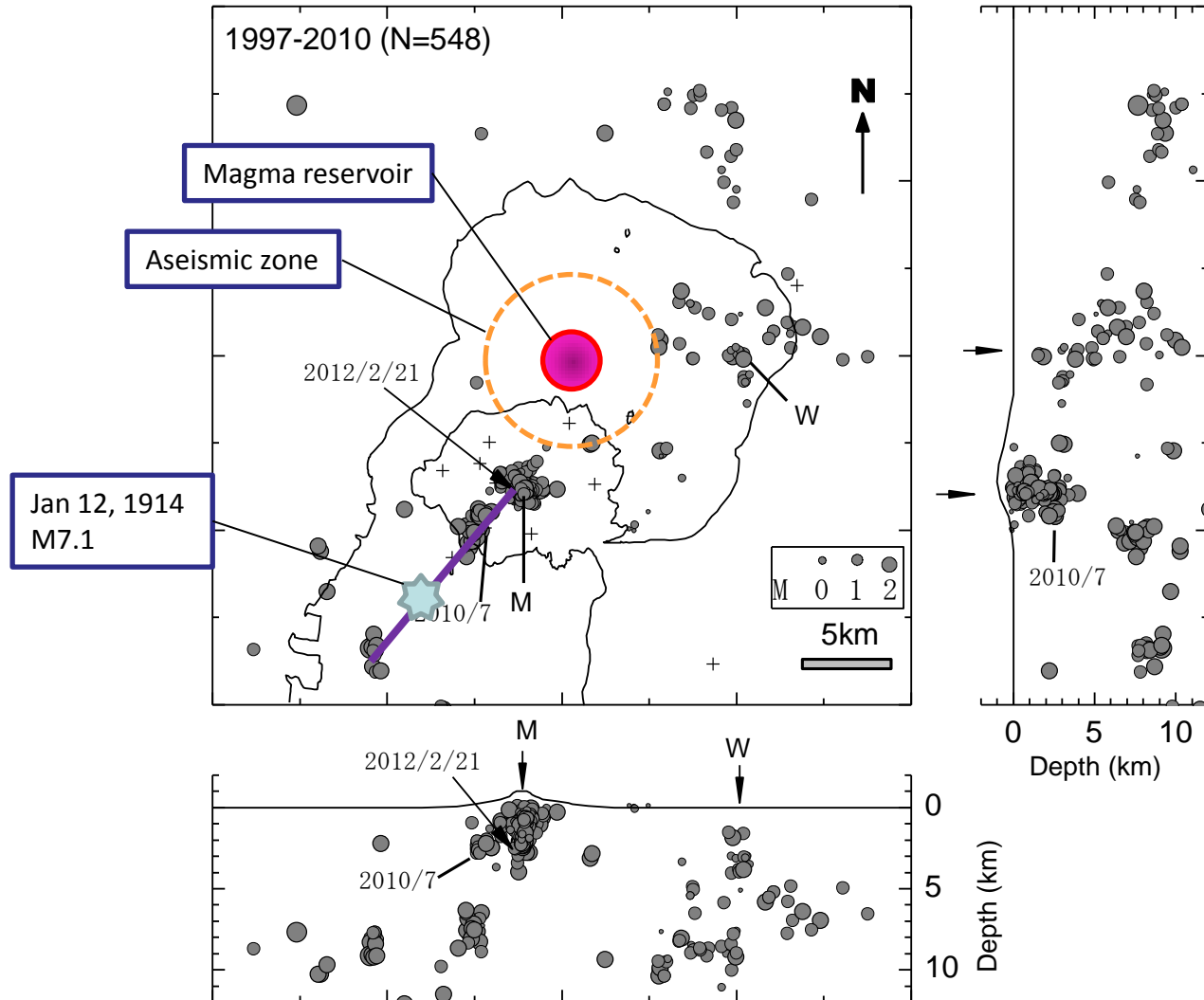


Since 1993 (Less eruptivity)



Eruptive activity at Showa crater has not decreased magma in the reservoir yet.

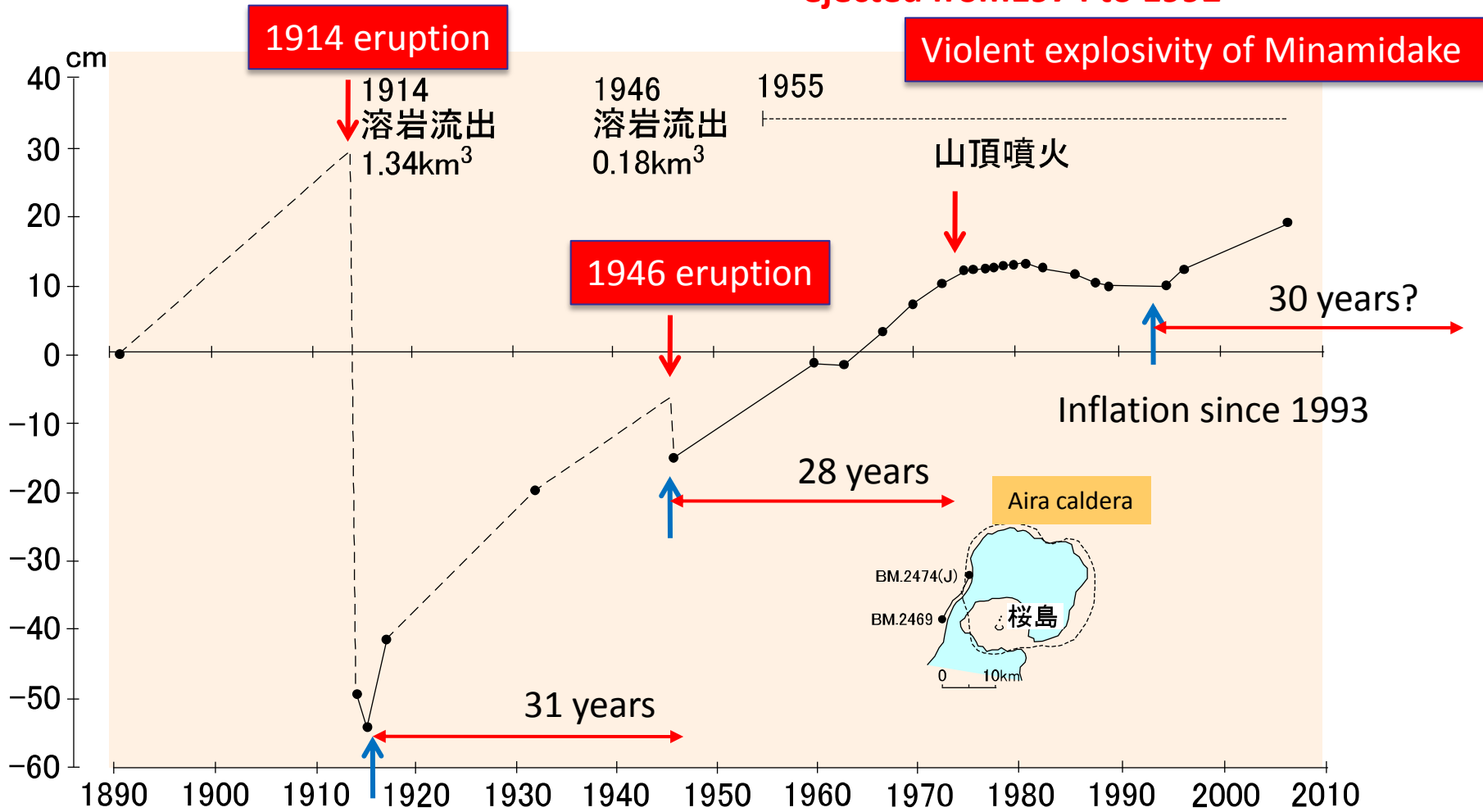
# Location of VT earthquakes



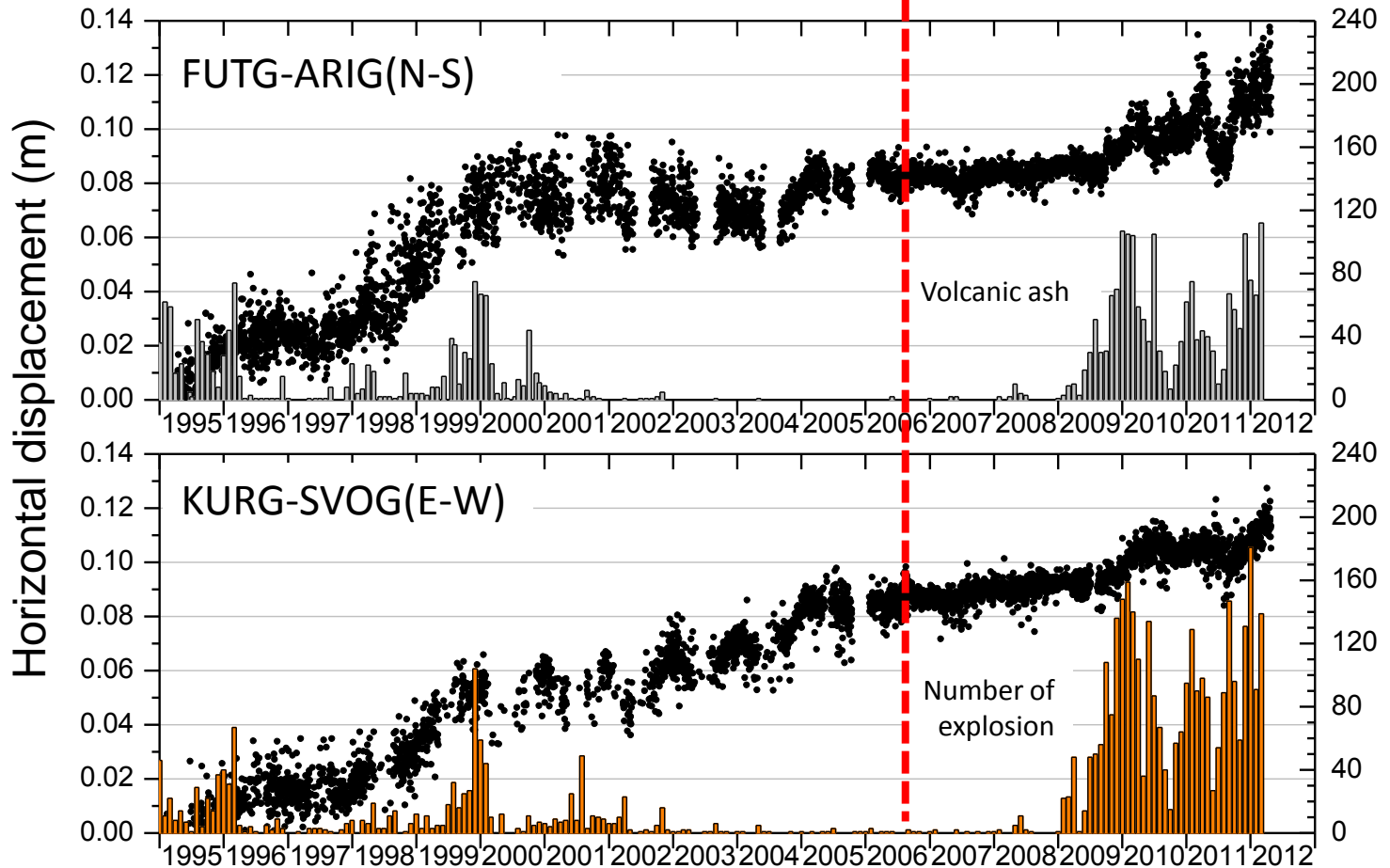
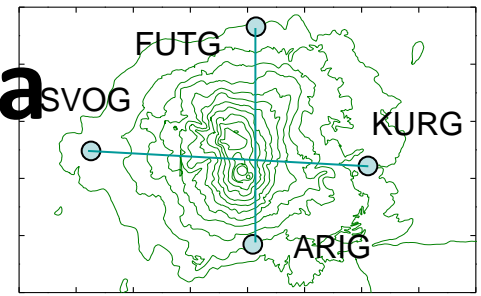


# Long-term vertical displacement

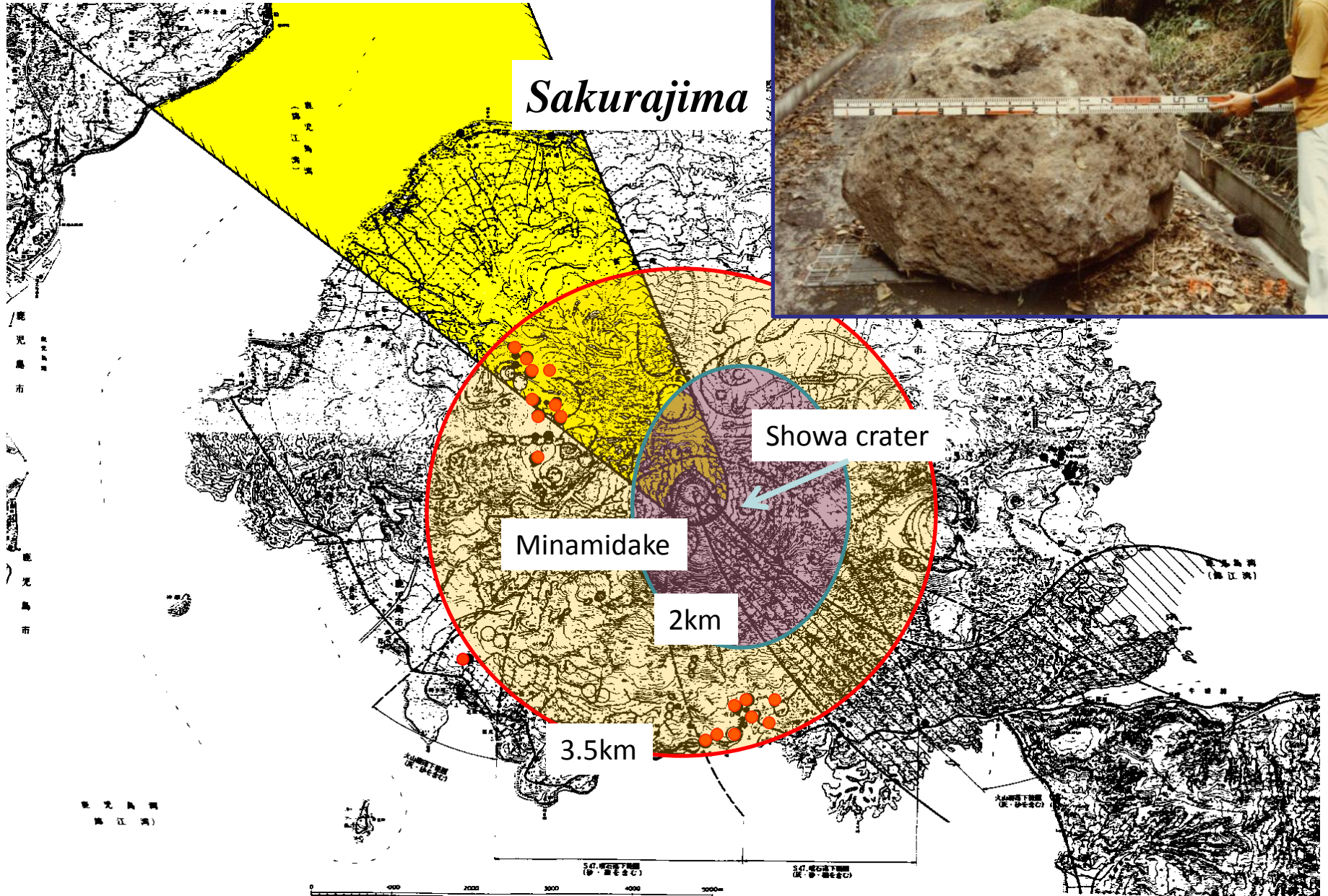
Volcanic ash (200 million tons)  
ejected from 1974 to 1992



# Recent inflation of Sakurajima measured by GPS



# Ballistics



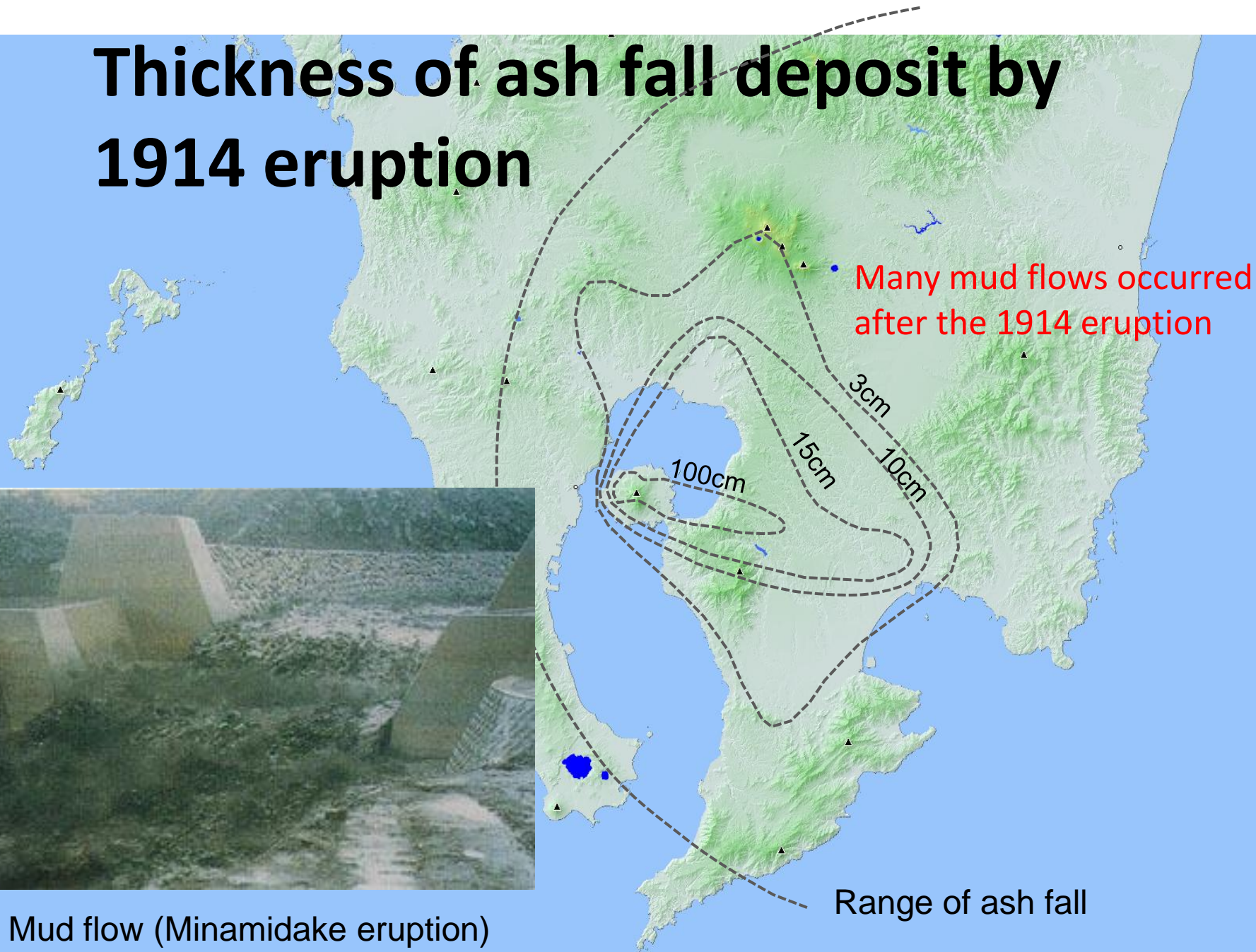


# Influence of volcanic ash fall





# Thickness of ash fall deposit by 1914 eruption



Many mud flows occurred after the 1914 eruption

3cm  
10cm  
15cm  
100cm

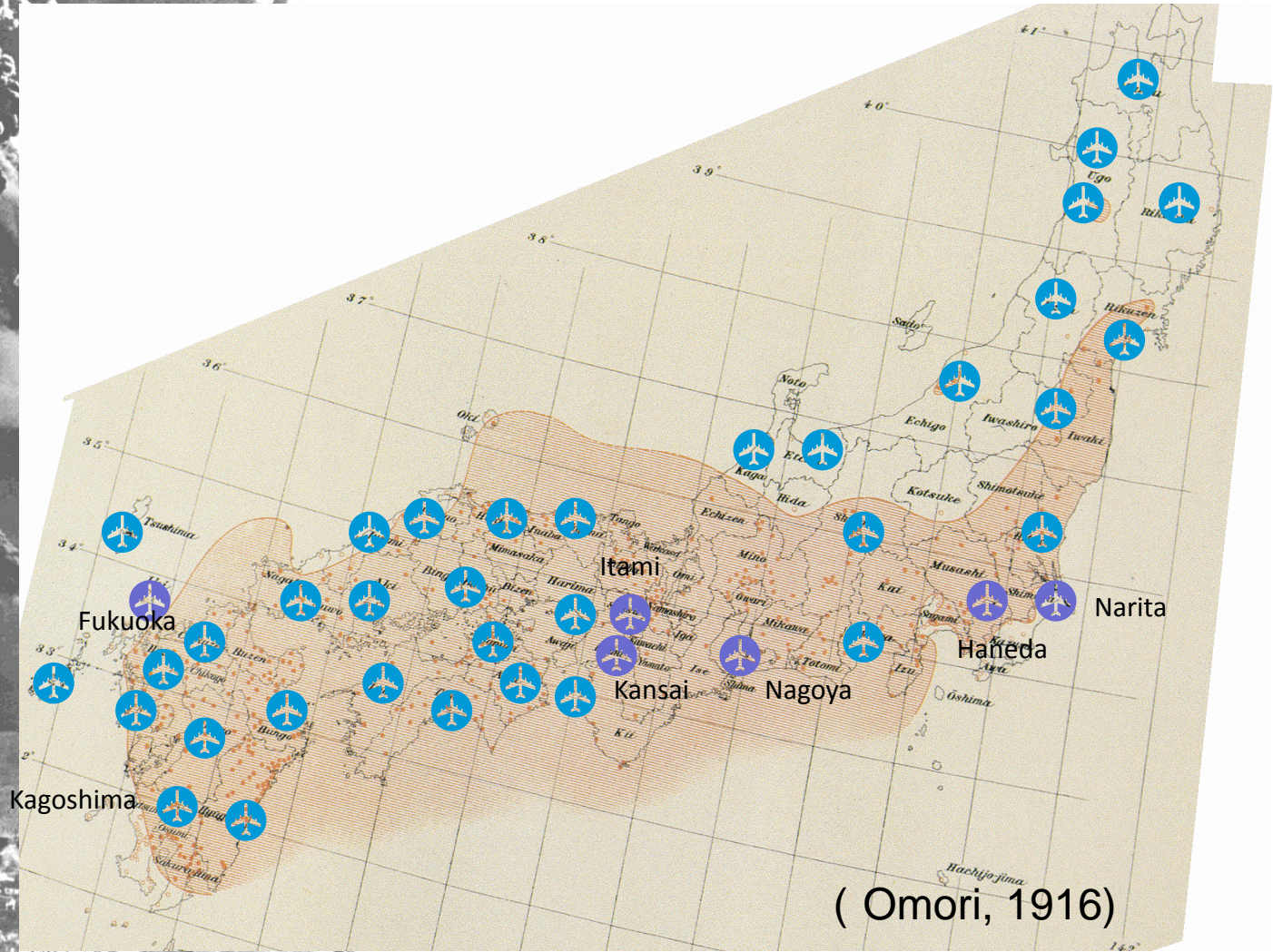
Range of ash fall



Mud flow (Minamidake eruption)

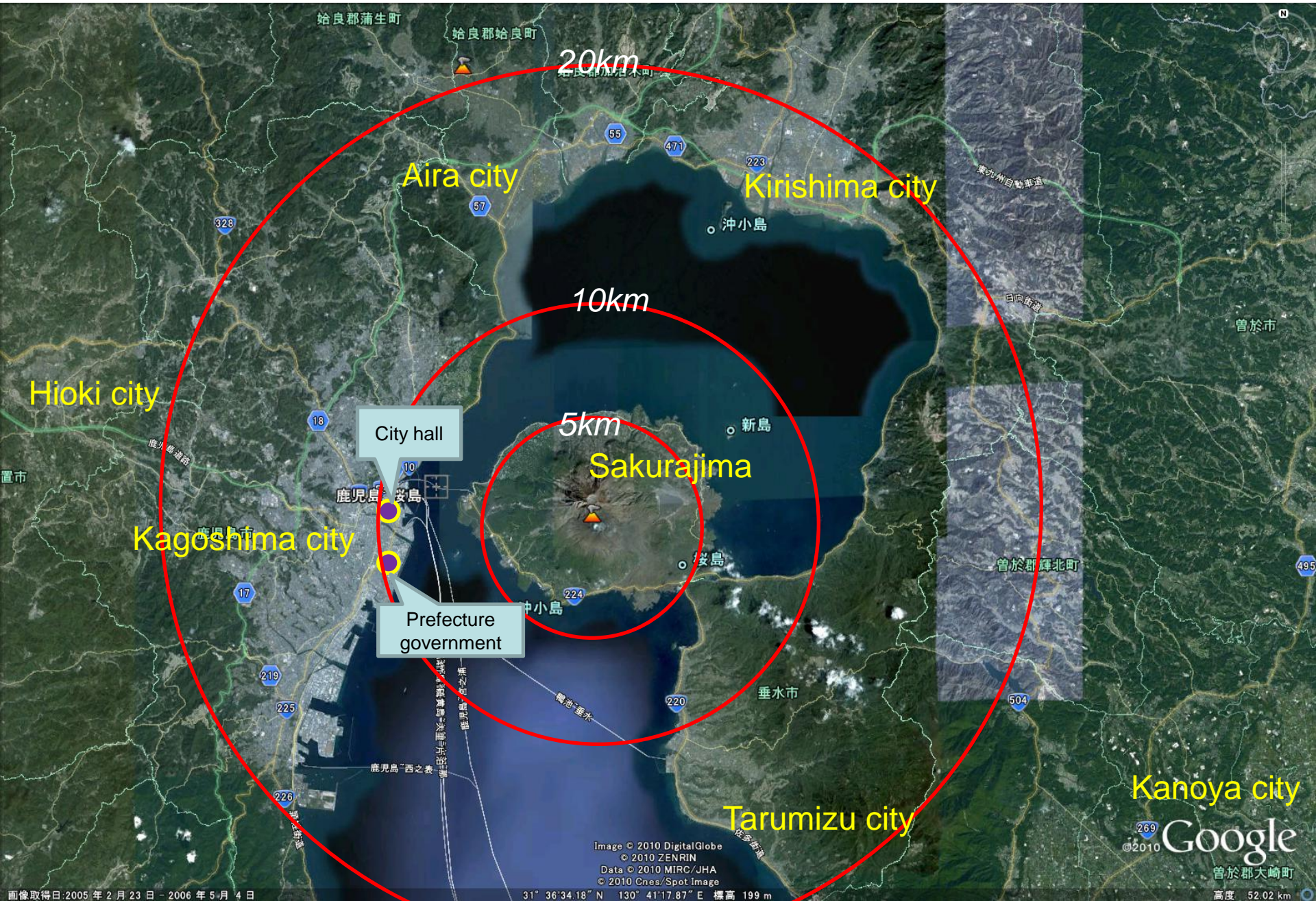


# Dispersion of volcanic ash from Sakurajima volcano in 1914



 Airport





始良郡蒲生町

始良郡始良町

20km

Aira city

Kirishima city

10km

Hioki city

City hall

5km

Sakurajima

鹿兒島 桜島

Kagoshima city

Prefecture government

Taramizu city

Kanoya city

Google

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