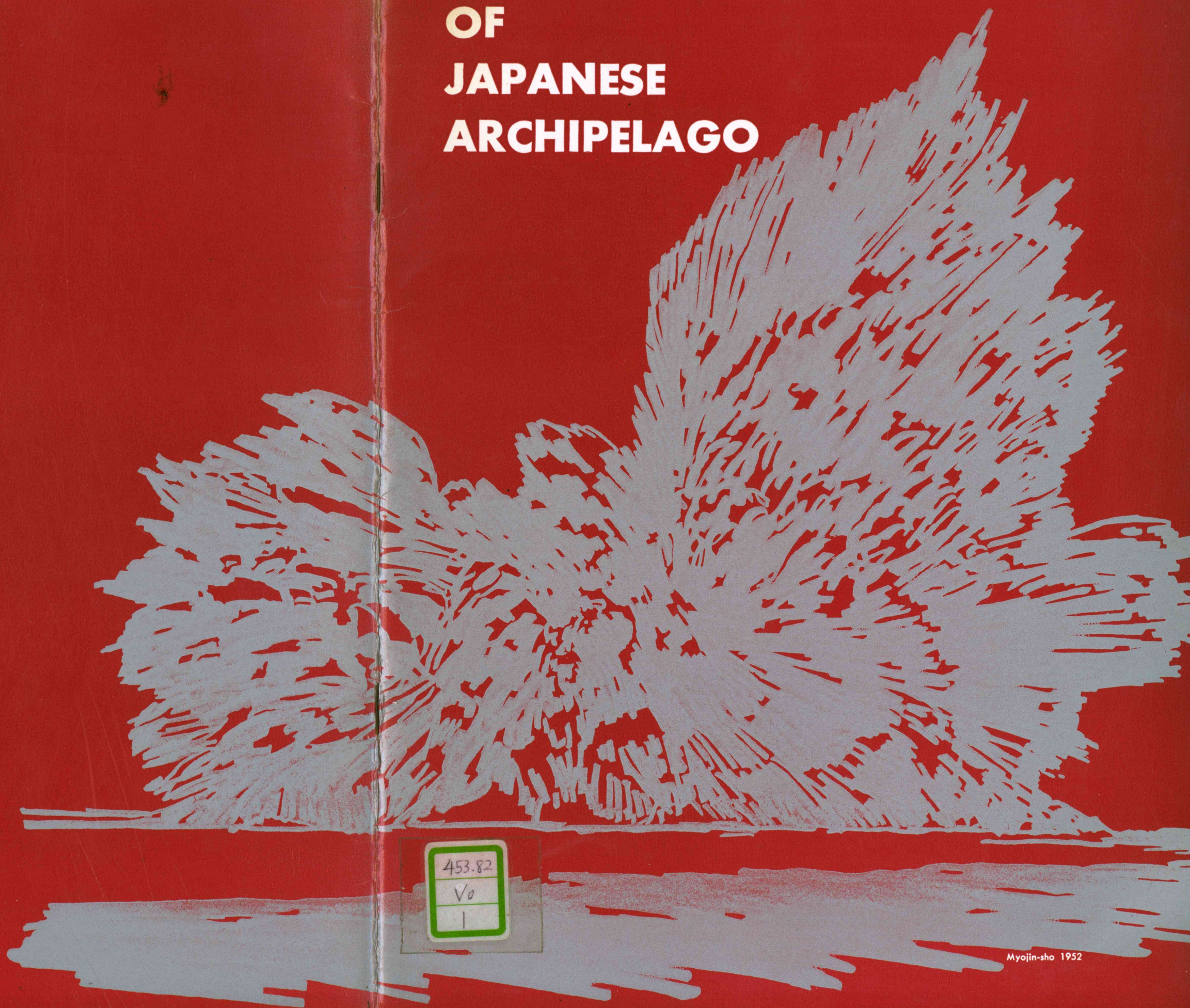


VOLCANOES OF JAPANESE ARCHIPELAGO



453.82
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1

VOLCANOES OF JAPANESE ARCHIPERAGO

1. Alaid Island

2. Chikura-dake

3. Nemo-san

4. Matsuwa-to

5. Ketoi-to

6. Shimushiri-dake

7. Moyoro-take

8. Rausu-dake

9. Io-san

10. Meakan-dake

11. Tokachi-dake

12. Rijiri-dake

13. Tarumai-zan

14. Usu-dake, Showa-shinzan

15. Komagatake

16. Oshima (Hokkaido)

17. Osore-yama

18. Iwaki-yama

19. Towada-ko, Lake

20. Yake-yama (Akita)

21. Iwate-yama

22. Komagatake (Akita)

23. Chokai-san

24. Sukawa-dake (Kurikoma-dake)

25. Zao-san

26. Azuma-san

27. Adataru-yama

28. Bandai-san

29. Nasu-dake

30. Shirane-san (Nikko)

31. Akagi-yama
32. Haruna-san

33. Shirane-san (Kusatsu)

34. Asama-yama

35. Fuji-san

36. Hakone-yama

37. Mihara-yama

38. Nii-jima

39. Kozu-shima

40. Miyake-jima

41. Hachijo-Fuji

42. Aoga-shima

43. Bayonnaise Rocks and Myojinsho Rocks

44. Tori-shima

45. Yake-yama (Niigata)

46. Io-dake

47. Yake-dake

48. Haku-san

49. Daisen

50. Sambe-yama

51. Tsurumi-dake

52. Kuju-san

53. Aso-san

54. Unzen-dake

55. Kirishima-yama

56. Sakura-jima

57. Kaimon-dake

58. Io-jima

59. Kuchinoerabu-shima

60. Nakano-shima

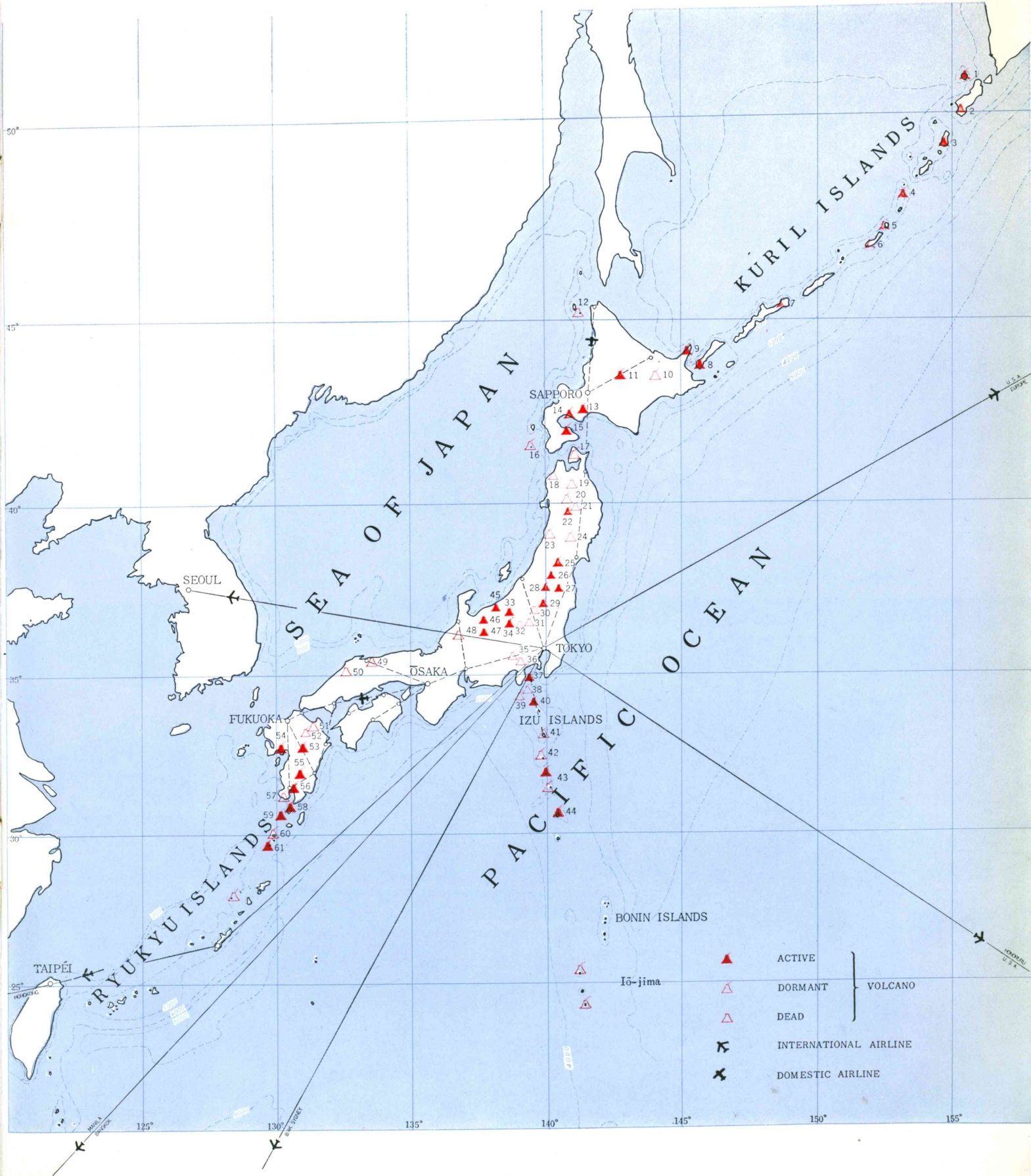
61. Suwanose-jima

Editors
Hideho Sawata / Hiroshi Takahashi
Geological Survey of Japan

TOKYO GEOGRAPHICAL SOCIETY

Nibancho, Chiyoda-ku, Tokyo, Japan

1960



AKAN

Mt. Meakan-dake

HEIGHT / 1,603 m

AREA / 13 km×15 km

VOLCANISM IN / 1954 / 55 / 56 / 57 / 58 / 59

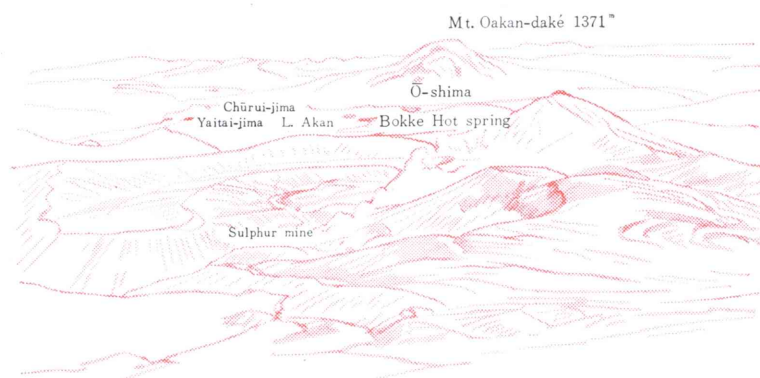
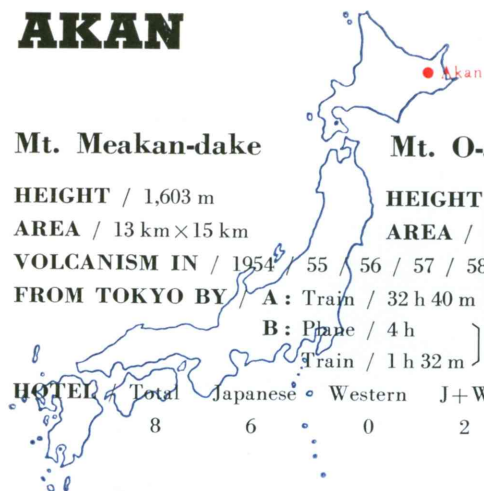
FROM TOKYO BY / A: Train / 32 h 40 m
B: Plane / 4 h
Train / 1 h 32 m } Total / 5 h 32 m

HOTEL / Total / Japanese / Western / J+W
8 / 6 / 0 / 2

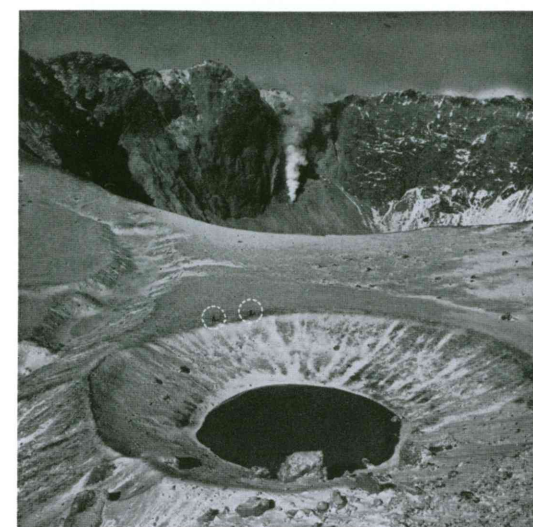
Mt. O-akan-dake

HEIGHT / 1,371 m

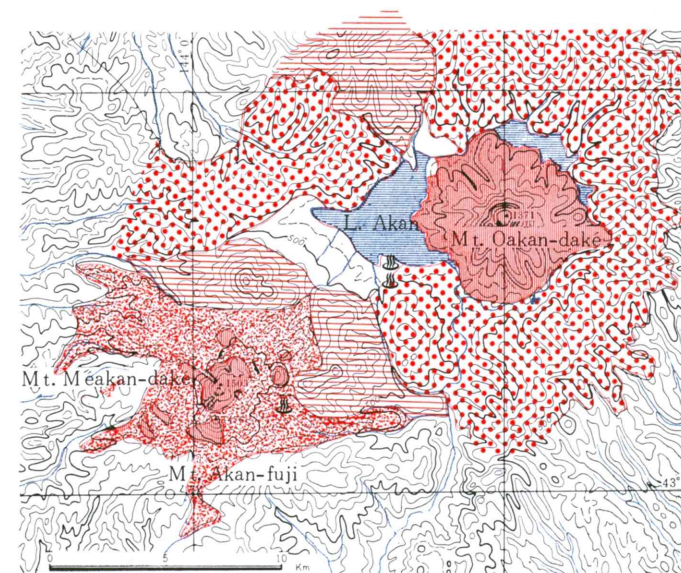
AREA / 8 km×9 km



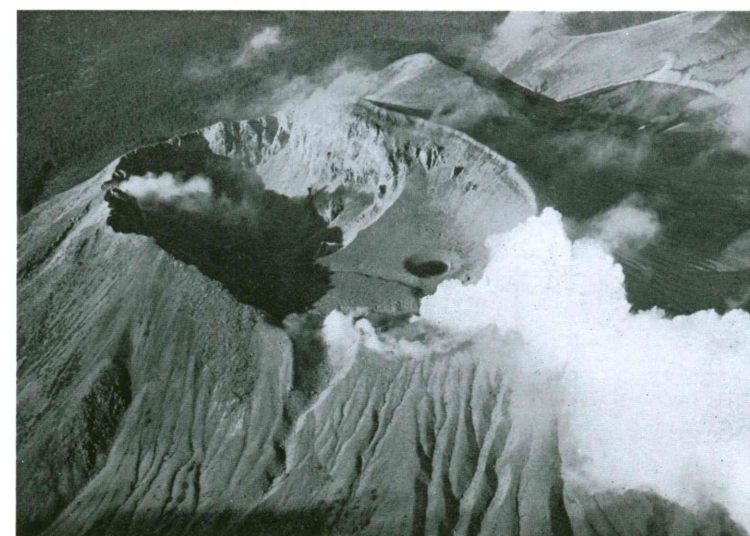
▼ Akan; from Meakan-dake to Oakan-dake and Lake Akan



◀ Akan; crater-wall of Meakan-dake and Pond Aonuma; note two men in circles.



- Legend
- Andesites of Mts. Oakan-dake and Meakan-dake
 - Ejecta
 - Other andesites
 - Older andesite
 - Hot spring



◀ Akan; Meakan-dake

TARUMAI

Lava dome formed in 1909.

HEIGHT / 1,024 m

AREA / 15 km×15 km

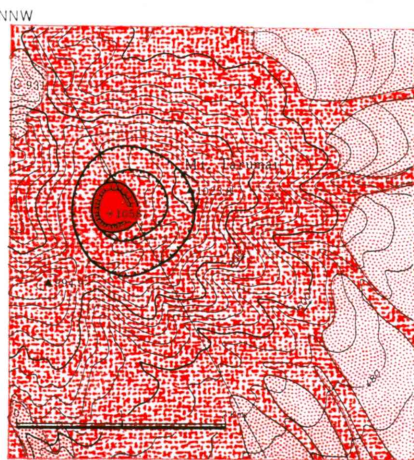
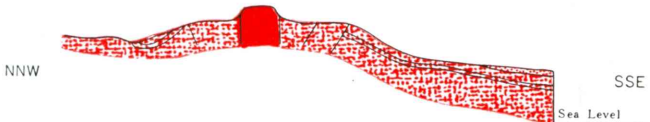
VOLCANISM IN / 1667 / 1739 / 1804 / 1818
1864 / 1871 / 1874 / 1883
1885-87 / 1894
1909 / 1917-21 / 1923 / 1924
1926 / 1928 / 1931 / 1933
1936 / 1951 / 1954 / 1955

FROM TOKYO BY / A: Train / 23 h 07 m
B: Plane / 3 h
Train / 1 h } Total / 4 h

HOTEL / Total	Japanese	Western	J+W
2	2	0	0



▲ Tarumai-zan



- Legend
- Peak lava
 - Pumice deposits
 - Fragmental ejecta and welded tuff
 - Crater wall

▼ Tarumai-zan; dome



KOMAGATAKE

—HOKKAIDO—

Tremendous ejecta from this strato-volcano destroyed 2,000 houses, ruining area of 330 km² in 1929. Pumice flow remarkable.

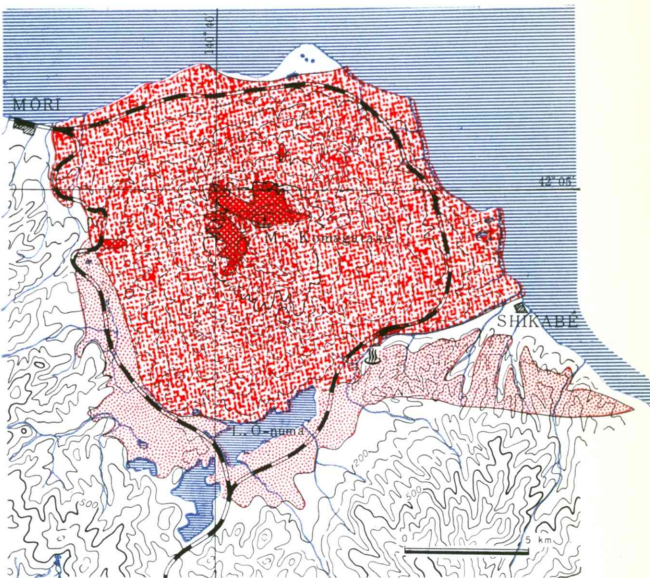
HEIGHT / 1,140 m

AREA / 15 km×20 km

VOLCANISM IN / 1640 / 1784 / 1856 / 1888 / 1905
1919 / 1923 / 1924 / 1928 / 1929
1935 / 1937 / 1939 / 1942

FROM TOKYO BY / A: Train / 19 h 37 m
B: Plane / 3 h
Train / 8 h 25 m } Total / 11 h 25 m

HOTEL (O-NUMA) / Total	Japanese	Western	J+W
2	2	0	0



- Legend
- Recent volcano covered with volcanic ejecta
 - Andesite lava
 - Recent volcanic ejecta
 - Hot spring

▼ Komagatake (Hokkaido) and Lake O-numa



SHOWA-SHINZAN

Peaceful corn field lifted up to form firing dome
407 m high, 1943-45.

HEIGHT / 407 m

AREA / 3 km × 1 km

VOLCANISM IN 1943-45

FROM TOKYO BY A: Train / 22 h 30 m

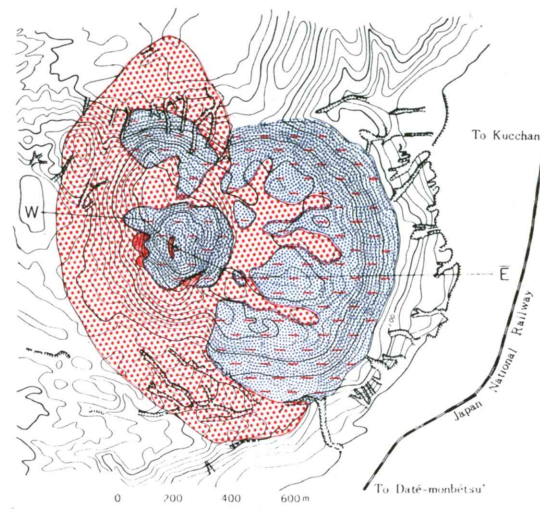
B: Plane / 3 h

Train / 8 h 11 m

Total / 11 h 11 m

HOTEL / Total Japanese Western J+W

1 1 0 0



Ejecta of Mt. Shōwa-Shinzan

New lava of Mt. Shōwa-Shinzan

Older ejecta affected by volcanism of Mt. Shōwa-Shinzan

▼ Showa-shinzan



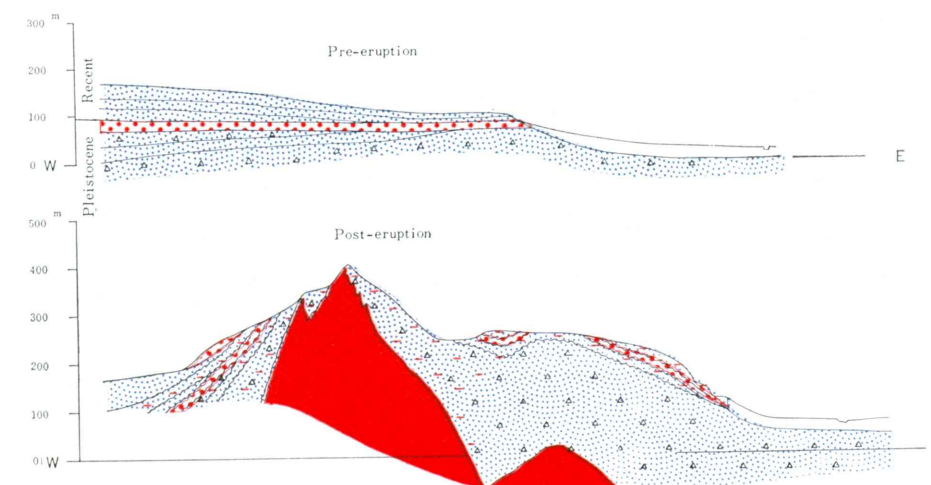
◀ Showa-shinzan



◀ Showa-shinzan



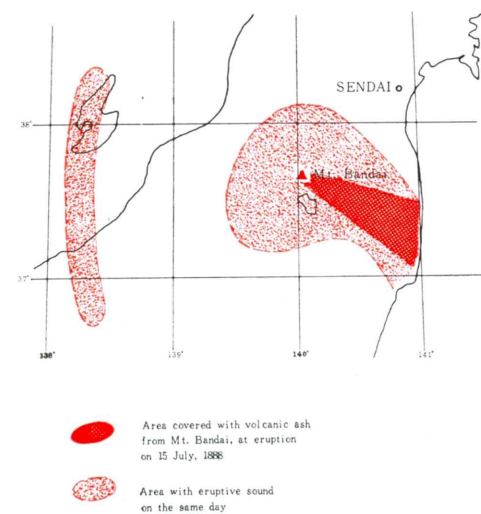
GEOLOGIC PROFILE OF MT. SHŌWA-SHINZAN



BANDAI-SAN

Great eruption in 1888 burst away mountain body of $1.2 \times 10^8 m^3$ to produce many a lake, 461 persons killed, 70 wounded, several ten km² area damaged.

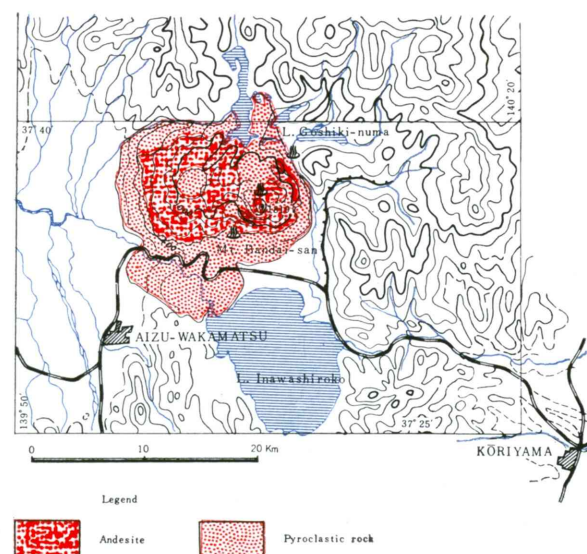
HEIGHT / 1,819 m
 AREA / 20 km × 20 km
 VOLCANISM IN / 806 / 1888 / 1897
 FROM TOKYO BY Train / 5 h 10 m
 HOTEL / Total Japanese Western J+W
 7 7 0 0



▼ Bandai-san (from south)

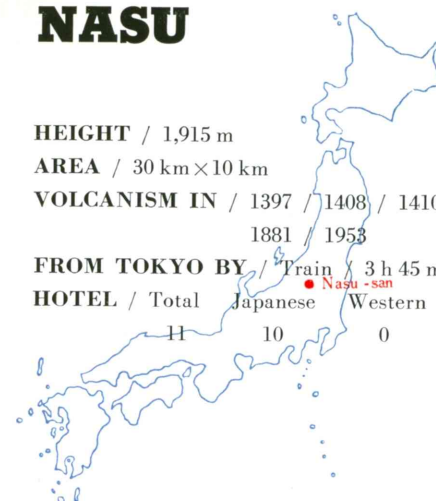


▲ Bandai-san and Lake Goshiki-numa (from north)
 The lake was produced by the eruption of the mountain-body in 1888.



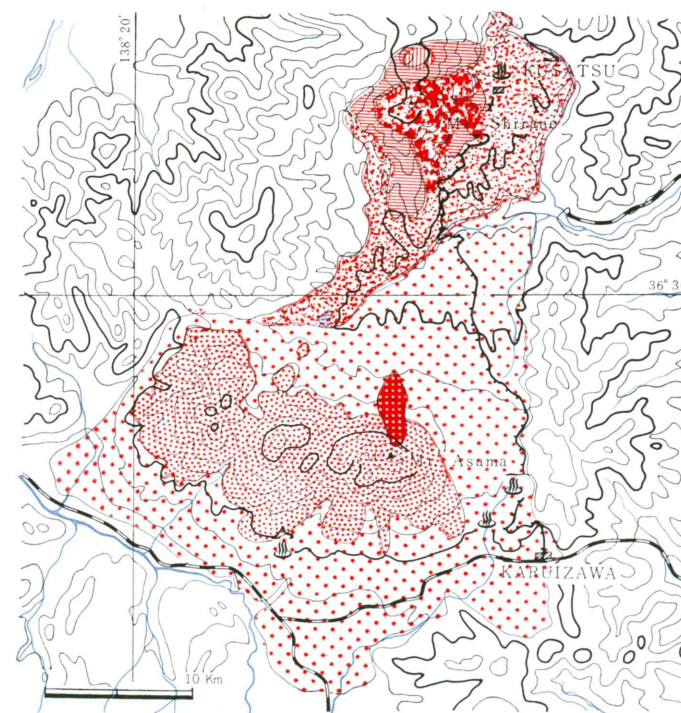
NASU

HEIGHT / 1,915 m
 AREA / 30 km × 10 km
 VOLCANISM IN / 1397 / 1408 / 1410 / 1846
 1881 / 1953
 FROM TOKYO BY Train / 3 h 45 m
 HOTEL / Total Japanese Western J+W
 10 0 1



▲ Nasu-san; Chausu-yama

ASAMA KUSATSU-SHIRANE



- Legend
- Eboshi-dake—Asama-yama volcanoes
- Volcanic block, Lapilli, volcanic ash and pumice
 - Historic lava
 - Older lavas
- Kusatsu-Shirane-san volcanoes
- Recent volcanic ejecta
 - Pumice-flow
 - Younger lavas
 - Older lavas
 - Hot spring



◀ Asama-yama

ASAMA-YAMA

So active since 16 century, killing 466 persons, damaging 1,061 houses, ruining harvest of all Kwanto plain (24,000 km²) in 1783.

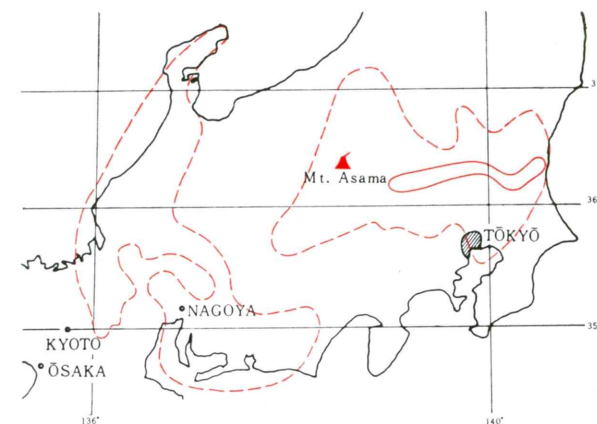
HEIGHT / 2,542 m

AREA / 35 km × 35 km

VOLCANISM IN / 685 / 1708 / 1527 / 1528 / 1532 / 1596
1605 / 1644-49 / 1651 / 1652 / 1655-61
1669 / 1704 / 1706 / 1709-11 / 1717 / 1718
1720-23 / 1728 / 1729 / 1732 / 1733 / 1754
1776 / 1777 / 1783 / 1803 / 1815 / 1869
1875 / 1879 / 1889 / 1894 / 1899 / 1900-25
1927-32 / 1934-42 / 1944-55 / 1958 / 1959

FROM TOKYO BY / Train / 3 h 57 m

HOTEL / Total	Japanese	Western	J+W
5	2	0	3



Area covered with volcanic ash from Mt. Asama, at eruption on 17 June, 1913

Area with eruptive sound on the same day

▼ Asama-yama



KUSATSU-SHIRANE

HEIGHT / 2,176 m

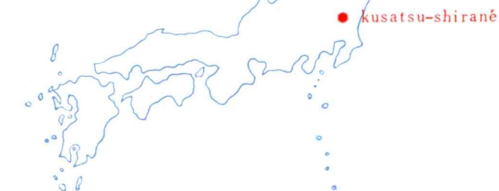
AREA / 20 km × 20 km

VOLCANISM IN / 1882 / 1897 / 1909 / 1902 / 1905 / 1927
1928 / 1932 / 1937 / 1939 / 1942

FROM TOKYO BY / Train / 6 h 48 m

HOTEL / Total Japanese Western J+W

12	10	0	2
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► Kusatsu-shirane-san; crater with Hikama and Yukama



► Kusatsu-shirane-san; crater-lake





FUJI and HAKONE

Fuji: The highest and finest

Mt. Fuji

HEIGHT / 3,776 m

AREA / 50 km × 35 km

VOLCANISM IN / 785 / 800 / 826 / 864 / 870 / 937

999 / 1033 / 1083 / 1511 / 1560

1627 / 1700 / 1707 / 1708

FROM TOKYO BY / Train / 2 h 40 m

HOTEL / Total	Japanese	Western	J+W
6	6	0	0

Hakone: Resting room for Tokyo with many hot springs and well-equipped accomodation.

Mt. Hakone

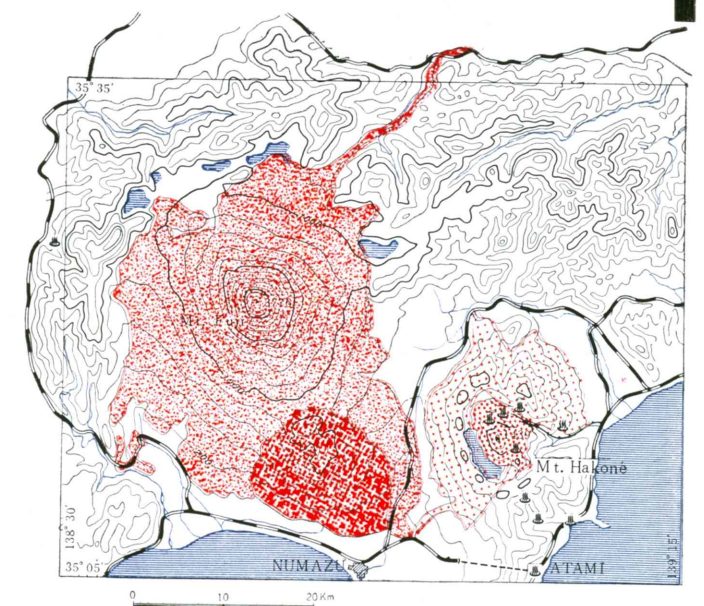
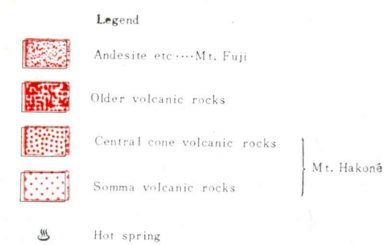
HEIGHT / 1,439 m

AREA / 30 km × 20 km

VOLCANISM IN / —

FROM TOKYO BY / Train / 1 h 10m

HOTEL / Total	Japanese	Western	J+W
78	68	1	9



▼ Lake Ashino-ko (Hakone) and Mt. Fuji



◀ Mt. Fuji from NNW

MIHARA-YAMA

Active volcano in the garden of Tokyo (40 minutes by plane),
pouring new lavas in 1950-51.

HEIGHT / 758 m

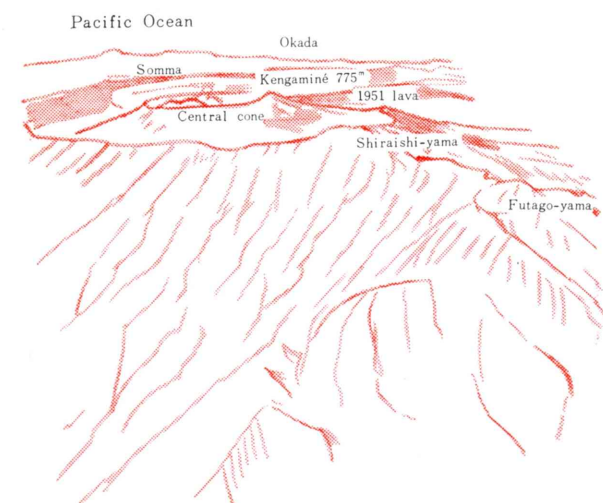
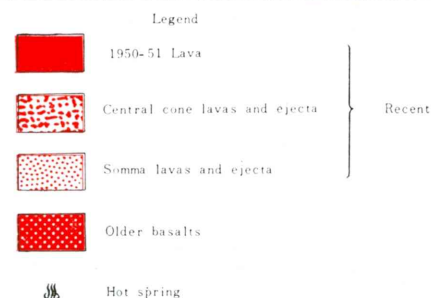
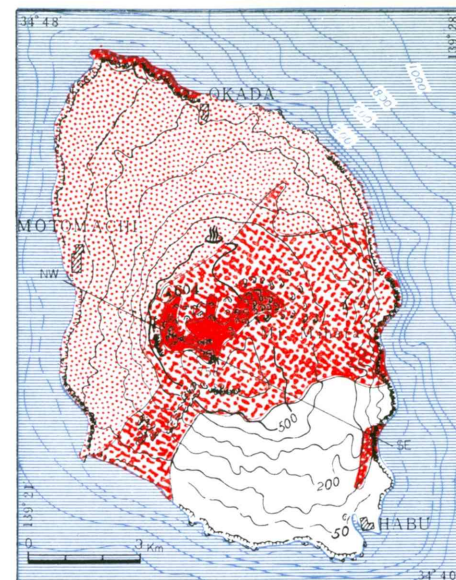
AREA / 15 km×10 km²

VOLCANISM IN / 684 / 1112 / 1416 / 1421 / 1552 / 1600-01 / 1612-13
1636-37 / 1684-90 / 1777-78 / 1779 / 1789 / 1803 / 1822
1846 / 1870 / 1876-77 / 1910 / 1912-14 / 1915 / 1919
1921-22 / 1923 / 1933 / 1934 / 1935 / 1938 / 1939
1940 / 1950-51 / 1953 / 1954 / 1956 / 1957 / 1958
1959

FROM TOKYO BY / A: Boat / 6 h 30 m

B: Plane / 40 m

HOTEL / Total	Japanese	Western	J+W
7	5	0	2

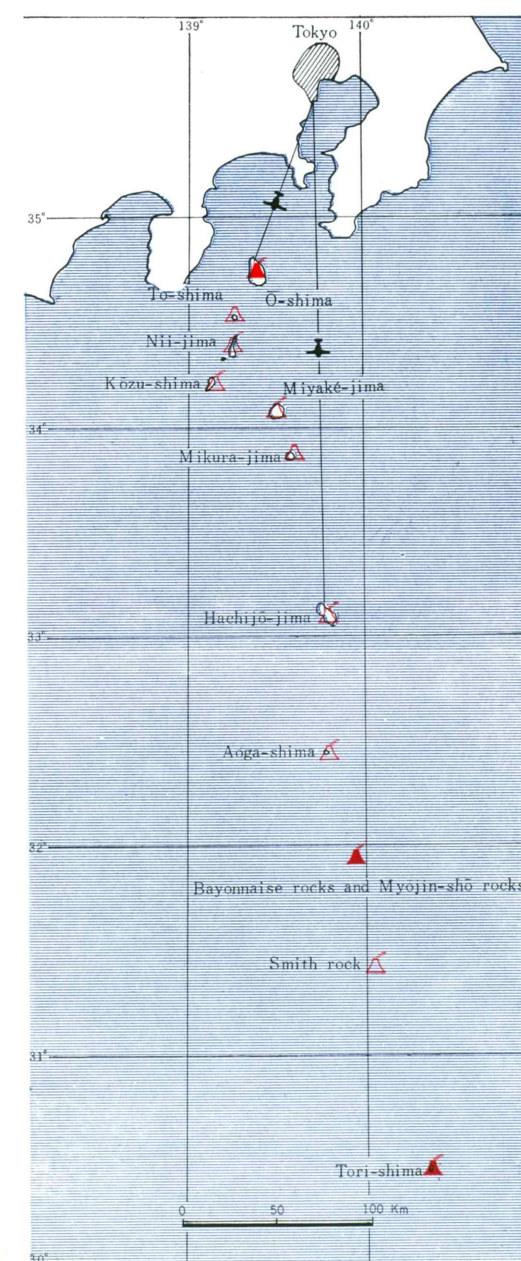


▼ Mt. Mihara-yama (from Kengamine)



▲ Mt. Mihara-yama, Izu-Oshima

VOLCANIC ISLANDS SOUTH OF TOKYO



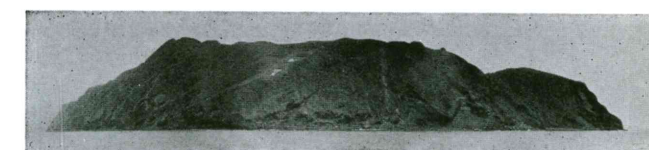
Volcanic Bomb
Mihara-yama, Izu-O-shima



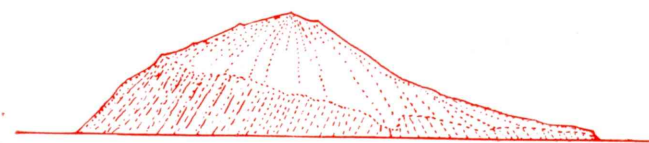
Volcanic Bomb
Chichi-jima, Ogasawara
(Bonin Islands)



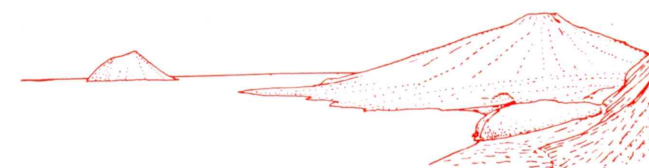
Volcanic Bomb
Miyake-jima, Izu Islands



▲ Aoga-shima



▲ To-shima (Izu Island) (from east)



▲ Mt. Hachijo-Fuji and Kojima, Hachijo-jima,
Izu Islands (from southeast)



▲ Tori-shima (Izu); Double volcano crowned with
a circular caldera. Killed all villagers on the
island, 125 persons, in 1902. (From NW, July 1933)



▲ Bayonnaise Rocks and erupting Myojin-sho from west
Myojin-sho; Atomic bomb-like submarine volcano
sunk a research boat (211 t) with 9 scientists
and 22 of crew in a moment, 1952.

ASO-SAN

The largest caldera in the world, continuously active since 13 century.

HEIGHT / 1,592 m

AREA / 60 km×60 km

VOLCANISM IN / 864 / 867 / 1229 / 1239 / 1240
1265 / 1269.74 / 1281 / 1286
1305 / 1324 / 1331 / 1335 / 1340
1375 / 1376 / 1377 / 1387 / 1388
1434 / 1438 / 1473 / 1485 / 1505
1506 / 1522 / 1533 / 1542 / 1558
1562 / 1563 / 1564 / 1576 / 1592
1583 / 1584 / 1587 / 1592 / 1598
1611 / 1612 / 1613 / 1620 / 1631
1637 / 1649 / 1668 / 1675 / 1683
1691 / 1708 / 1709 / 1765
1772-80 / 1804 / 1806 / 1814 / 1815
1826 / 1827 / 1828 / 1830 / 1854
1872 / 1874 / 1884 / 1894-1953
1956 / 1957 / 1958 / 1959

FROM TOKYO BY / A: Train / 26 h 33 m

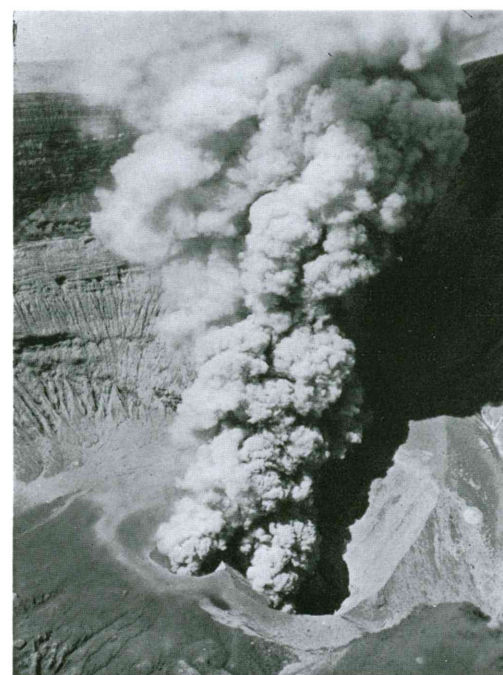
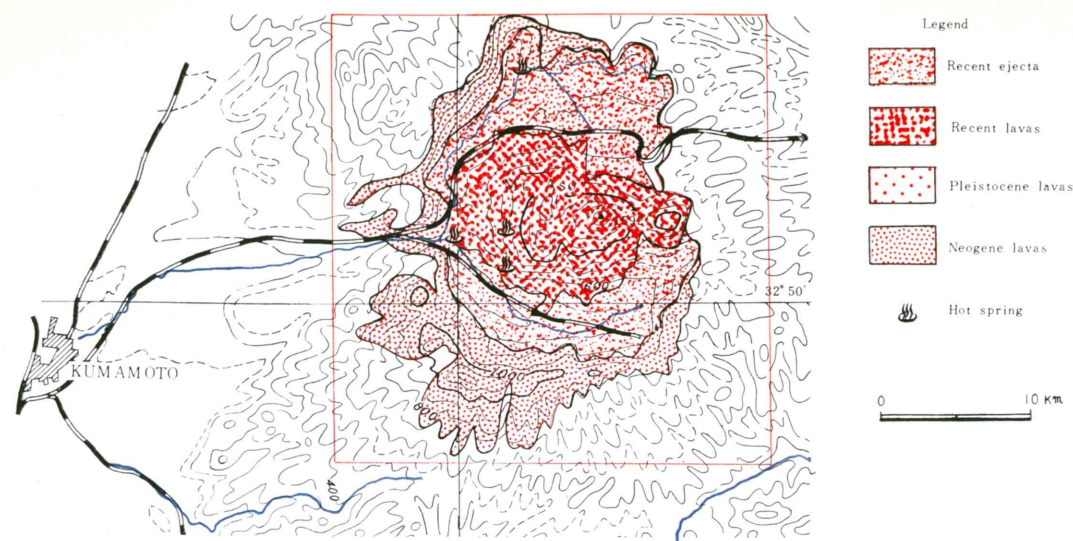
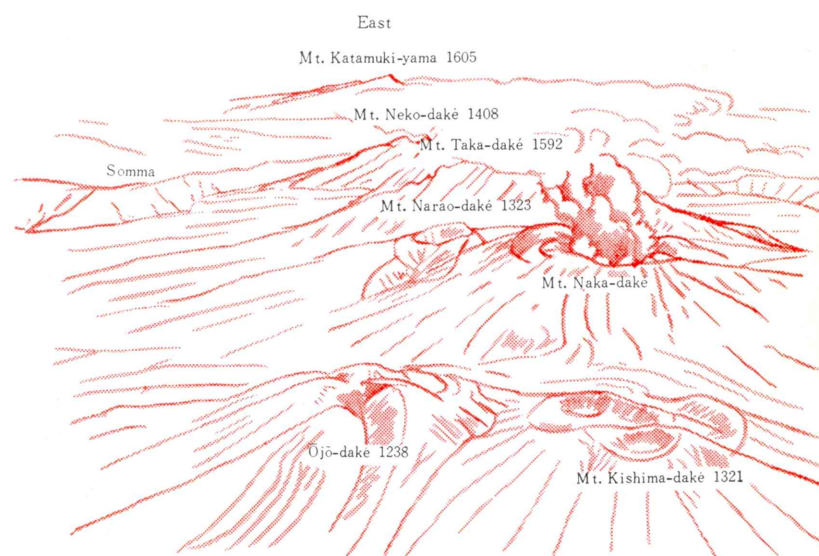
B: Plane / 4 h 20 m

Train / 4 h 05 m

Total / 8 h 25 m

HOTEL / Total	Japanese	Western	J+W
5	4	0	1

▼ Aso-san; central cones



▲ Aso-san; new crater



▲ Aso-san; crater



◀ Aso-san; crater-wall

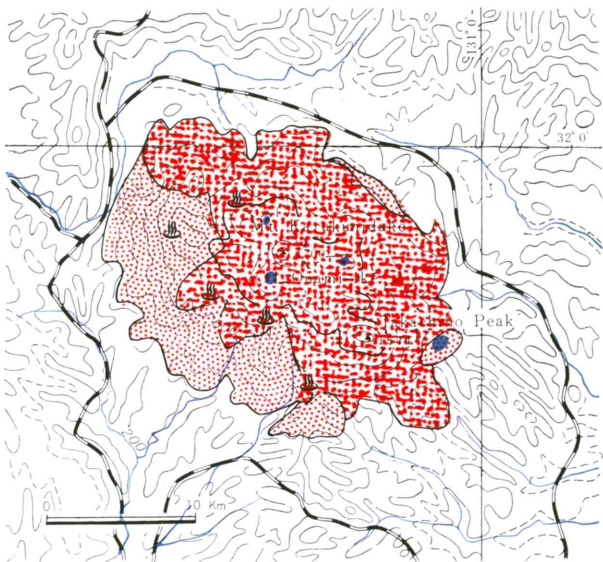


KIRISHIMA-YAMA

HEIGHT / 1,700 m
AREA / 25 km×25 km
VOLCANISM IN / 742 / 788 / 945 / 1112 / 1167 / 1184
1235 / 1524 / 1554 / 1566 / 1574 / 1576
1585 / 1587 / 1588 / 1598 / 1617 / 1659
1677 / 1678 / 1706 / 1716 / 1717 / 1771
1822 / 1880 / 1887 / 1888 / 1889 / 1891
1894-1900 / 1903 / 1913 / 1914 / 1923
1934 / 1959
FROM TOKYO BY / A: Train / 25 h 18 m
B: Plane / 5 h 15 m } Total / 6 h 40 m
Train / 1 h 25 m
HOTEL / Total Japanese Western J+W
5 3 0 2



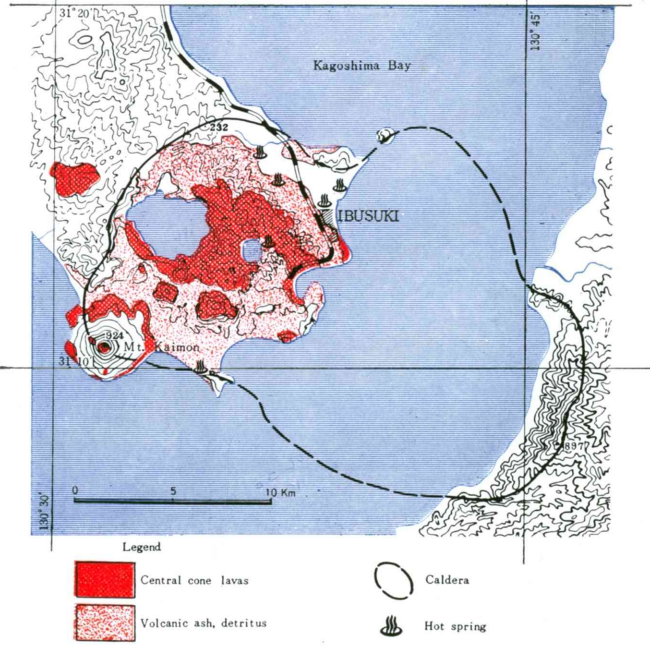
▼ Kirishima; Karakuni-dake and Lake Onami-ike



Legend
Recent lavas
Neogene lavas
Hot spring
◀ Kirishima; Ohachi and Takachiho Peak

KAIMON-DAKE

HEIGHT / 924 m
AREA / 5 km×5 km
VOLCANISM IN / 874 / 885
FROM TOKYO BY / A: Train / 29 h 47m
B: Plane / 5 h 15 m } Total / 7 h 15 m
Train / 2 h
HOTEL (IBUSUKI) / Total Japanese Western J+W
6 0 1



▼ Kaimon-dake



SAKURA-JIMA

HEIGHT / 1,118 m

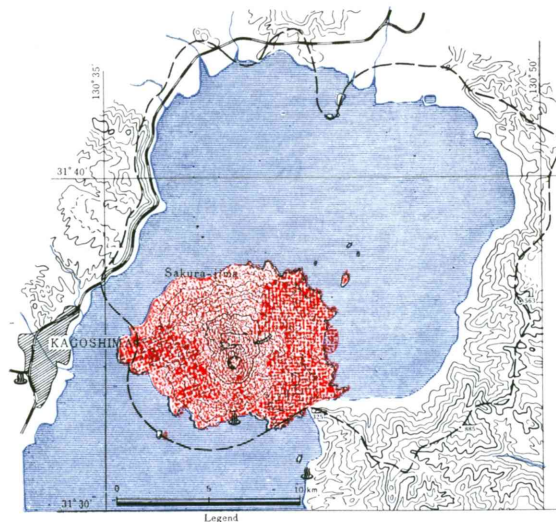
AREA / 10 km × 13 km

VOLCANISM IN / 716-18 / 767 / 1468 / 1471 / 1473
1475 / 1476 / 1642 / 1670 / 1706
1742 / 1749 / 1756 / 1766 / 1779-99
1860 / 1899 / 1914 / 1935 / 1938-42
1946 / 1948 / 1950 / 1955-56 / 1957
1958 / 1959

FROM TOKYO BY / A: Train / 25 h

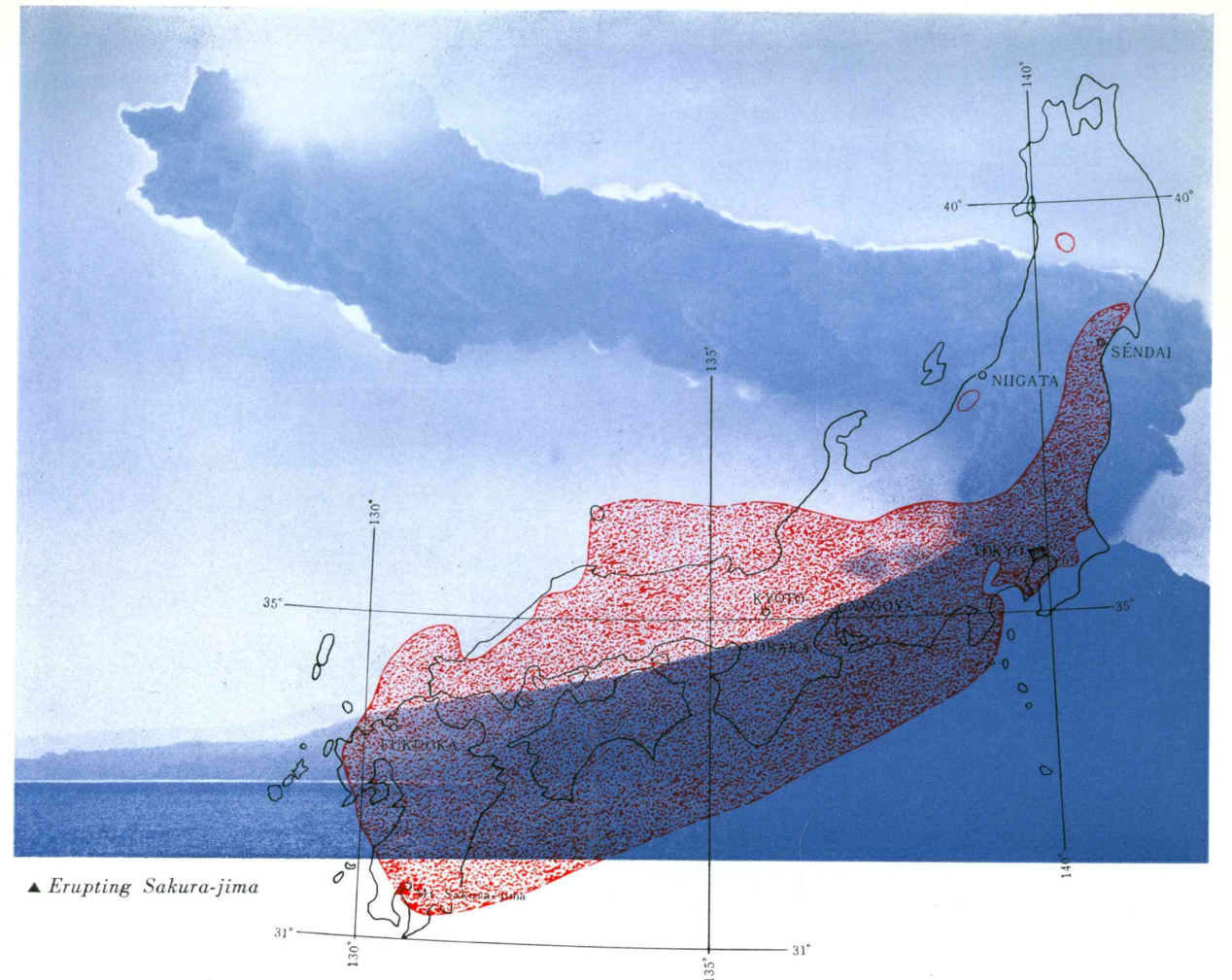
B: Plane / 5 h 15 m

HOTEL	Total	Japanese	Western	J+W
(KAGOSHIMA)	20	14	0	6



▲ Crater wall of Sakurajima

▼ Sakurajima; 1914 Lava connecting old island with mainland



▲ Erupting Sakurajima

Area covered with volcanic ash from Mt. Sakurajima at great eruption on 12 January, 1914



IO-JIMA —KAGOSHIMA—

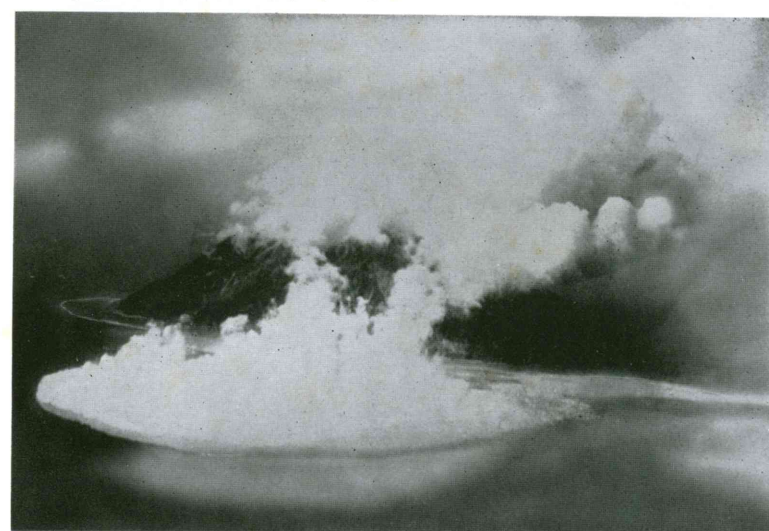
Active, still uplifting volcano in ocean.

HEIGHT / 704 m

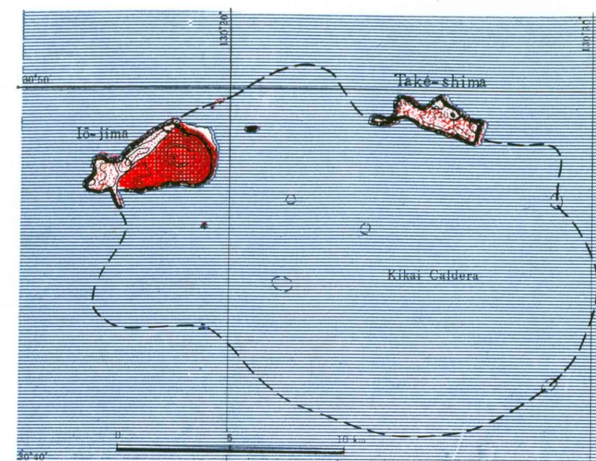
AREA / 3 km×6 km

VOLCANISM IN / 1934 (East of Io-jima)

▼ Submarine eruption near Io-jima (in background)
10.20 AM, 10 October, 1934 Photo by Warship
"Hyuga", Imperial Navy of Japan.



▼ Io-jima; wall of Kikai caldera



Legend

- Central cone lava
- Somma lava
- Older lava

SOUTH WESTERN VOLCANIC ISLANDS

IO-JIMA (SW ISLANDS)

TAKE-SHIMA

1805, 13 April 1958



NAKANO-SHIMA

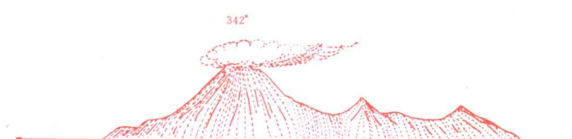
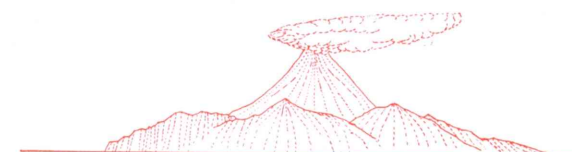
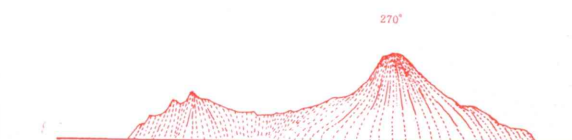
Highest peak: on-take, 980 m

0650, 17 April 1958

(Time of sketching)

0815, 17 April 1958

1000, 17 April 1958

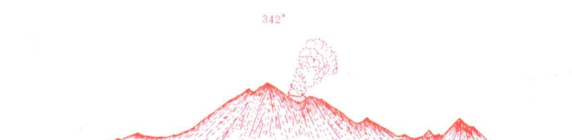
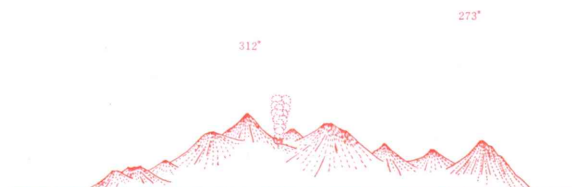
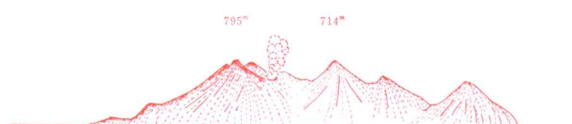


SUWANOSE-JIMA

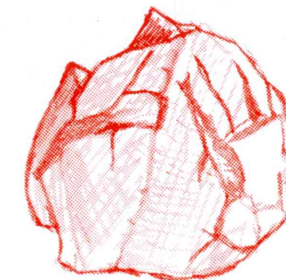
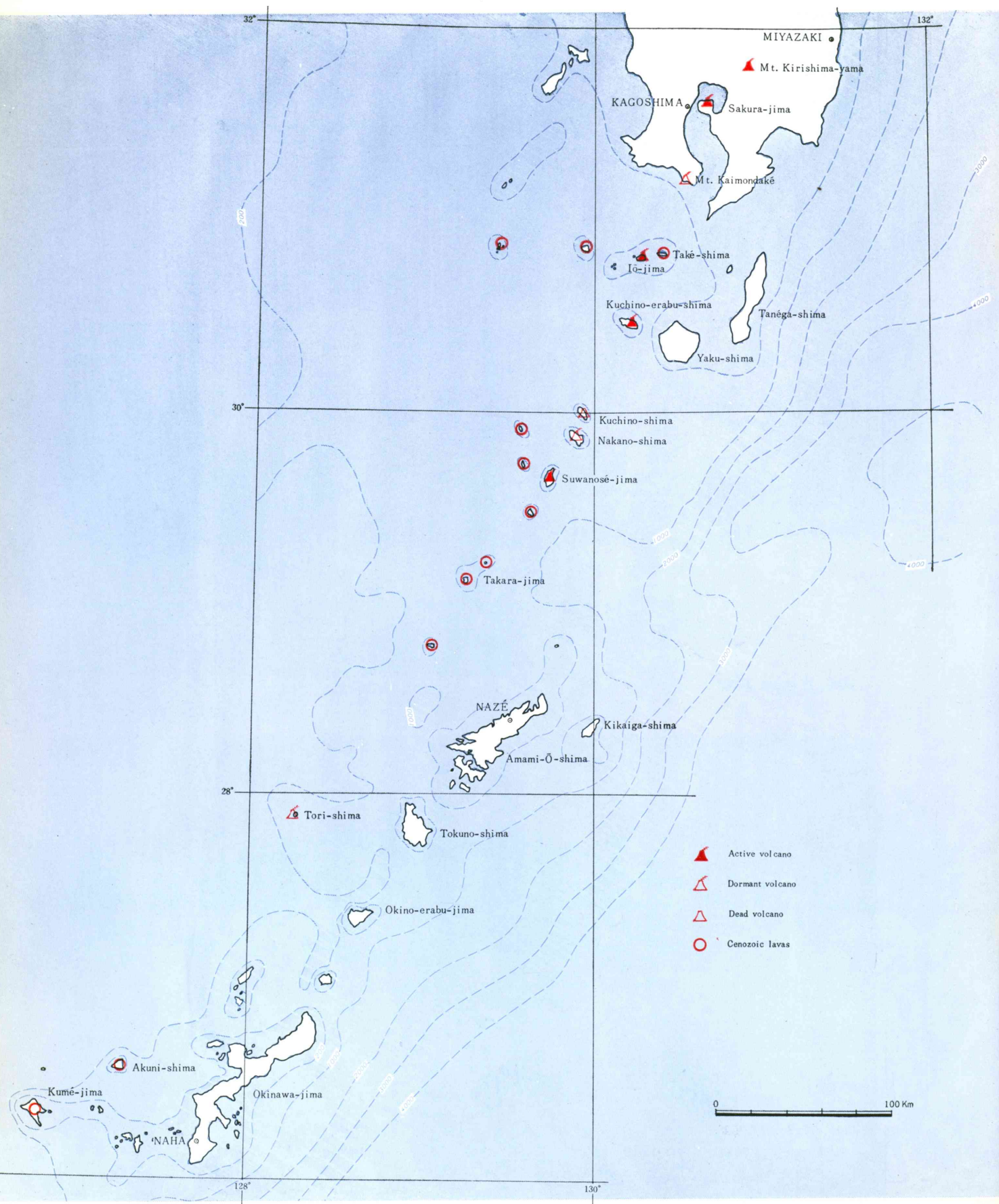
0815, 17 April 1958

1000, 17 April 1958

1145, 17 April 1958



SOUTHWESTERN VOLCANIC ISLANDS



Volcanic Bomb
Sakura-jima

Gratitude to

Outside information sources: / Geographical Survey Institute of Japan / Hokkaido Government Office
Hydrographical Office / Imperial Earthquake Investigation Committee / Japan Meteorological Agency
Ministry of Health and Welfares / National Parks Association / Volcanological Society of Japan

In the "Catalogue of the Active Volcanoes of the World" compiled by the International Association of Volcanology, International Union of Geodesy and Geophysics (IUGG), volcanoes are classified as active volcanoes or non-active ones according to their activity. But, here the conventional classification is adopted. "Active" means here that the volcano has erupted during these fifty years and "Dormant" means that the volcano has one or more records of eruption in the historical time.

In consideration of the above-mentioned points and according to the Table of Volcanic Activity during 1910-1959 (mimeograph, May 31, 1960) listed by Japan Meteorological Agency, the marks on the index map are better corrected and added as follows:

Number	Name		Correct
10	Meakan-dake	dormant	active
20	Yake-yama (Akita)	dormant	active
24	Sukawa-dake (Kurikoma-dake)	dormant	active
27	Adatara-yama	active	dormant
30	Shirane-san (Nikko)	dormant	active
54	Unzen-dake	active	dormant
62 (add)	Iō-Tori-shima		active

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