

THE
SEISMOLOGICAL BULLETIN
OF THE
HUKUOKA BRANCH OBSERVATORY
OF THE
CENTRAL METEOROLOGICAL OBSERVATORY

VOL 6

NO. 1

From January To July

1 9 3 9

Longitude.....130° 22' 45" E
 Latitude.....33° 34' 47" N
 Height.....2.5 m
 Underground.....sandy Loam

Instruments and their constants

		<i>C</i>				
1. From Jan. to Apr.	Comp.	Mass kg	T s	r/t	v	V
Wiehert's	E—W	200	5.0	0.02	5.8	78
“	N—S	200	4.8	0.03	5.1	78
“	U—D	80	4.8	0.04	4.3	90
Mainka's	E—W	450				
“	N—S	450				
2. From May						
Wiehert's	E—W	200	5.2	0.02	5.1	83
“	N—S	“	4.3	0.01	3.6	72
“	U—D	80	4.6	0.04	5.1	98
Mainka's	E—W	450	12.5	0.02		73
“	N—S	450	7.9	0.02		119

No.	Date		Phase	G h	M m	T s	Amplitude			Periods s	Remarks
							E	N	Z		
1	I	3	eP	2	15	18.3				Nagasaki, Tidiwa Bay	
			S	2	15	30.3					
			C	2	15	40.3					
			F	2	16						
2	I	8	eP	18	16	45.4				China Shan-tung	
			S	18	17	43.4					
			C	18	19	10.4					
			F	18	32						
3	I	10	eP	21	11	03.5				Kamiko-motosima Idu	
			S	21	12	55.5					
			F	21	27						
4	I	20	eP	9	29	46.0				Neighbourhood of Wakayama-city	
			eS	9	30	38.6					
			F	9	37						
5	I	22	eP	13	49	52.0				E off Siwoyazaki	
			S	13	53	25.0					
			F	14	08						
6	I	22	eP	20	59	25.6					
			S	21	00	02.2					
			C	21	00	52.2					
			F	21	12						
7	I	24	eP	13	04	05.0				E off Siwoyazaki	
			S	13	06	20.0					
			C	13	08	08.0					
			F	13	26						
8	I	25	eP?	12	51	57.0				Chili, Distant earthquake	
			eL?	13	18	40.0					
			F	14	46?						
9	I	30	eP'	11	26	55.8				Distant earthquake	
			?	11	33	44.8					
			eS	11	36	55.8					
			eL	11	38	21.8					
			C	11	56	19.8					
			F	12	52						
10	I	31	eP	8	58	42.5				Distant earthquake	
				very	slight						
11	II	3	e	14	35	26.0				Distant earthquake	
			?	14	42	46.0					
			S	14	48	31.0					
			eL	14	50	23.0					
			F(?)	15	55						

No	Date		Phase	G h	M. m	T. s	Amplitude			Periods s	Remarks
							E	N	Z		
21	III	20	e	13	46	30.7					After earthquake of No.19
					very slight						
22	III	20	P	14	38	20.0					"
			S	14	38	39.5					
			ME	14	38	45.0	-400				
			G	4	39	14.0					
			F	14	44						
23	III	20	eP	22		21.					"
			S	22	37	54.0					
			C	22	38	18.0					
			F	22	42						
24	III	20	e	23	54	29.0					Hyuga Nada
				very	slight						
25	III	21	eP?	7	07	11.0					N of Hyuga-Nada
			F	7	10						
26	III	21	eP	7	29	38.0					"
			S	7	30	00.5					
			C	7	30	25.0					
			F	7	34						
27	III	21	e	10	20	21.0					Distant earthquake Timor-Sea
			S?	10	27	59.0					
			L	10	32	56.0					
			M	10	40	30.0					
			?	10	48	41.0					
			C	11	01	16.0					
			F	11	26						
28	III	22	eP	3	48	23.0					Hyuga-Nada
				very	slight						
29	III	22	eP	7	23	28.0					Hukuoka Pref.
				very	slight						
30	III	27	eP	23	28	43.5					"
				very	slight						
			F	23	31						"
31	III	30	eP	9	15	47.0					Hyuga Nada
				very	slight						
32	III	30	eP	18	54	23.5					Distant earthquake
				very	slight						
33	IV	6	eP	1	53	22.0					
			S	2	01	51.0					
			L	2	09	23.0					
			F	2	28						

No	Date		Phase	G h	M m	T s	Amplitude			Periods s	Remarks
							E	N	Z		
34	IV	15	P	0	57	34.0					Iyo Nada
			S	0	57	50.4					
			C	0	58	11.0					
			F	1	59						
35	IV	21	P	13	32	23.3					N. of Japan Sea
			L	13	35	07.0					
			C	13	36	47.0					
			F	13	52						
36	IV	30	eP	12	04	35.0					Distant earthquake
			S	12	11	29.0					
			L	12	18	20.0					
			C	12	41	11.0					
			F	14	13						
37	V	1	eP	15	00	52.0					Sea off Akita Pref.
			S	15	02	37.0					
			L	15	03	48.0					
			MN	15	05	12.0	+3000				
			C	15	1	13.0					
			F	16	08						
38	V	1	P	16	30	42.5					
			F	16	43						
39	V	1	eP	20	53	00.0					(very slight)
			F	20	56						
40	V	1	P	23	43	18.0					
			F	23	49						
41	V	2	eP	01	08	15.0					
			S	01	09	56.0					
			F	01	10	59.0					
			P	23	19	25.8					
			S	23	20	11.3					
			MN	23	20	17.1	-27		1.5		
ME	23	20	17.1	±10		1.0					
MZ	23	20	17.1			±5	1.0				
F	23	23									
43	V	6	eP	19	54	16.—					
			S(?)	19	56	04.—					
			M				-10	±10	±5	3.0	
			F	20	04						

No	Date		Phase	G h	M m	T s	Amplitude			Periods s	Remarks
							E	N	Z		
44	V	7	P	02	05	05.4					
			S(?)								
			L	02	09						
45	V	16	F	02	23						
			P	09	04	37.9					
			S	09	04	39.6					
			M	//	//	//	±40	-43	±6	0.1	Hukuoka Pref. Neighbour-hood of Antoku
46	V	16	F	09	05						
			P	16	23	23.4					
47	V	18	(S?)	16	28	19.8					
			F	16	44						
			P	02	34	20.4					
			S	02	37	24.6					
			ME	02	37	27.5	-30			4.5	
			MN	02	38	01.8		±36		4.3	
48	V	20	MZ	?							
			L	02	40						
			F	03	07						
			P?	4	07	15.—					
49	V	25	F	4	12						
			P	01	06	22.6					
50	V	26	S	01	06	24.8	±7	±6	±4	0.1	
			F	01	07						
			P	18	53	40.—					
51	V	27	F	19	03						
			P	02	57	42.7					
			S	03	03	32.8					
			L	03	09	27.0					
			F	03	20						
52	V	27	P	22	55	36.5					
			S	22	56	25.1					
			ME	22	56	34.2	±9			2.3	
			MN	22	56	34.5		±7		2.3	
			MZ	22	56	34.5			±5	2.5	
			F	23	03						
53	V	30	P	19	34	49.6					
			S	19	35	13.2					
			ME	19	35	13.2	-26			1.7	
			MN	19	35	17.0		-28		1.7	
			MZ	19	35	13.2			±28	1.7	
			F	19	39						

No	Date		Phse	G h	M m	T S	Amplitude			Periods s	Remarks
							E	N	Z		
54	VI	2	P	12	39	15.1					
			S	12	44	18.4					
			SS	12	49	49.6					
			L	12	52	19.—					
			F	13	20						
55	VI	7	eP	19	40	59.5					
			F	19	46						
56	VI	21	eP	16	41	14.6					
			S	16	41	50.2					
			F	16	46						
57	VI	26	eP	22	27	24.9					
			F	22	30						
58	VI	28	eP	8	09	45.—					
			S?	8	14	30.—					
			L	8	17						
			F?	8	35						
59	VI	28	eP?	14	41						
			F?	14	50						
60	VI	29	P	20	58	30.2					
			F	20	59	30.—					
61	VI	29	eP	23	13	42.3					
			S	23	14	12.7					
			MN	23	14	21.1		-45		0.1	
			ME	23	14	14.5	+17			0.1	
			MZ	23	14	15.0			±15	0.2	
			F	23	20						

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OF THE
WESTERN DISTRICT

OF
JAPAN

HUKUOKA

VOL 6

NO. 2

From July To Dec.

1939

Longitude 130° 22' 45" E

Latitude 33° 34' 47" N

Height 2.5 m

Underground sandy loam

Instruments and their constants

	Comp	Mass kg	T s	$\frac{1}{\lambda}$	∇	∇
Wiehert's	E-W	200	5.2	0.02	5.1	83
"	N-S	"	4.3	0.01	3.6	72
"	U-D	80	4.6	0.04	5.1	98
Mainka's	E-W	450	12.5	0.02		73
"	N-S	450	7.9	0.02		119

No.	Date		Phase	G h	M m	T s	Amplitude(μ)			Period s	Remarks
							E	N	Z		
62	VII	9	P	21	56	28.4					Southern Part of Bungo - suidô
			S	21	56	50.8					
			ME	21	57	03.9	+263			3.1	
			MN	21	57	03.2		+266		1.6	
			MZ	?							
			F	22	06						
63	VII	11	P	15	55	12.7					N of Hyuga - Nada
			S	15	55	35.1					
			ME	15	55	45.7	-48			1.6	
			MN	15	55	46.8		+35		1.7	
			MZ	15	55	46.0			-33	1.4	
			F	15	59						
64	VII	13	eP	08	05	34.8					Distant earthquake
			L	08	18						
			F	08	40						
65	VII	14	P(s?)?	02	08						NE off Titizima
			L	02	12	30.-					
			F	02	25						
66	VII	18	P	15	26	02.7					Middle Part of arita gawa, Wakayama
			S	15	26	59.5					
			F	15	32						
67	VII	20	eP	11	33	34.8					distant earthquake
			S?								
			L?	11	42						
68	VII	28	eP	10	09						NE off Siwoyazaki
			S	10	11						
			F	10	17						
69	VII	28	eP	14	23	43.-					NE off Siwoyazaki
			S?	14	26	46.-					
			F	14	30						
70	VII	30	P	15	31	38.4					N of Hyuga - Nada
			S	15	32	11.8					
			M	15	32	11.8	+12	+11	+10	1.6	
			F	15	33						

(2)

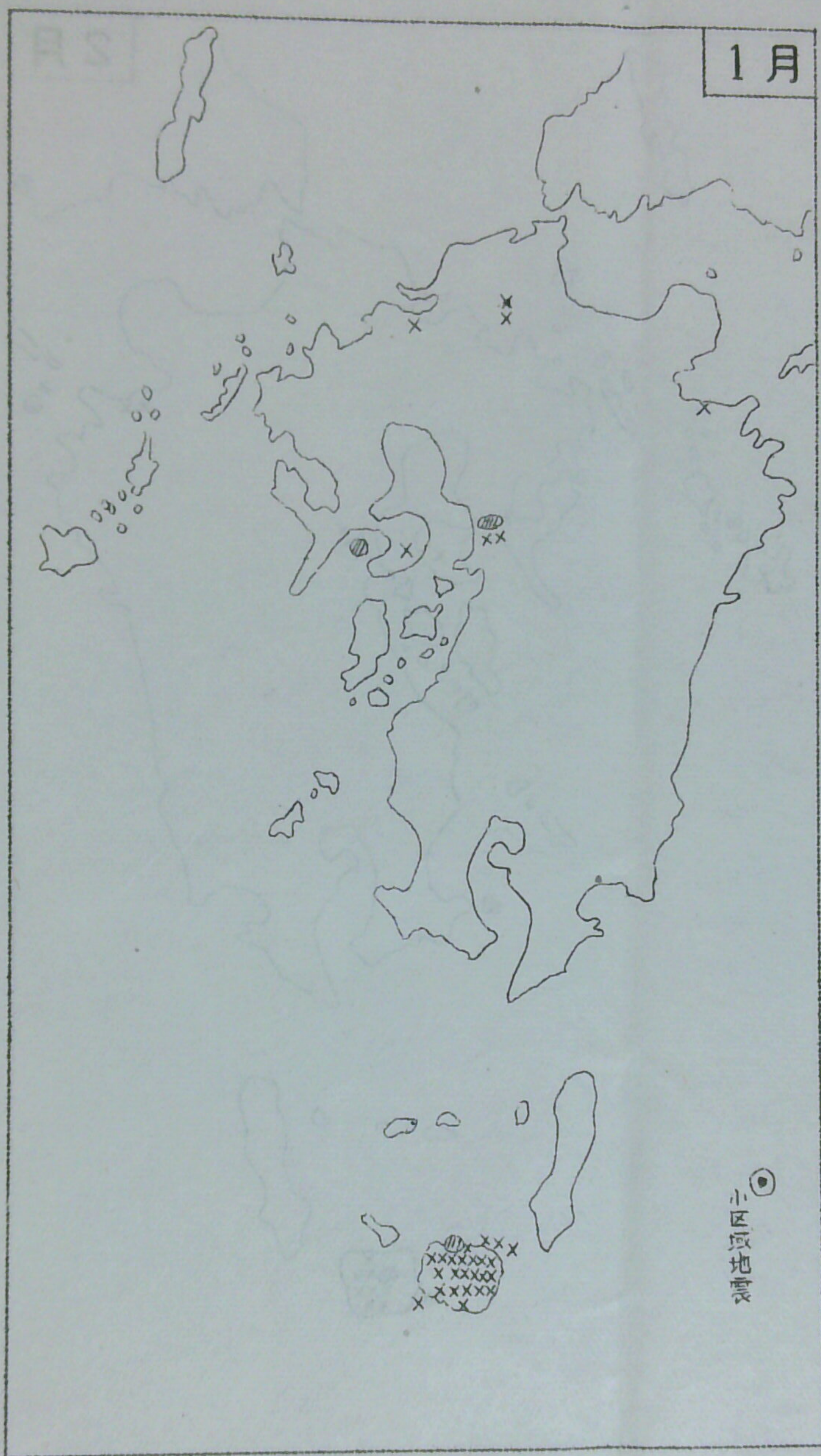
No.	Date		Phase	G h	M m	T s	Amplitude(μ)			Periods s	Remarks
							E	N	Z		
71	VIII	4	P	07	30	25.7					Iki-Mura. Sawaragun Hukuoka Pref.
			S	07	30	28.9					
			ME	07	30	28.9	-48			0.0	
			MN	07	30	28.9		-87		0.0	
			MZ	?							
			F	07	31	10.-					
72	VIII	7	eP	00	34	04.-					Neighbour-hood of Nagasaki
			F	00	34	16.-					
73	VIII	12	P	11	17	23.8					Distant earthquake
			S(?)	11	25	30.0					
			F	11	40						
74	VIII	12	P	18	54	32.8					SE off Etorou-Isl.
			S	18	58	12.0					
			L	19	01	05.-					
			F	19	15						
75	VIII	19	P	09	48	45.6					Neighbour-hood of Iwô-zima. kagosima Pref.
			S	09	49	18.1					
			F	09	53						
76	VIII	22	P	09	08	53.2					E off Hukusima Pref.
			S	09	11	38.2					
			F	09	16						
77	VIII	31	P	21	30	22.7					Neighbour-hood of Ôita
			S	21	30	43.0					
			F	21	32						
78	IX	2	P	09	36	25.5					N of Hyûga Nada
			S	09	36	49.7					
			F	09	37						
79	IX	8	P	21	11	47.3					Kamchatka
			S	21	17	32.9					
			L	21	21	33.-					
			M	21	22		± 617	± 200	± 50	18.9	
			F	22	30						
80	IX	10	P	19	50	39.1					Unzendake
			S	19	50	50.0	± 9	± 10	± 5	0.0	
			F	19	52						

No.	Date		Phase	G h	M m	T s	Amplitude(μ)			Periods s	Remarks
							E	N	Z		
81	IX	12	eP S F	14 ? 14	09 12	25.-				Mizukaido Ibaraki Pref.	
82	IX	22	P? S? L F(?)	 10 10	24 24 50	— —				Distant earthquake	
83	IX	22	P? S F?	 12 13	21 00	54.7				W off Noto - Hautô	
84	IX	24	eP S F	10 10 10	04 04 05	11.7 21.3	± 2	± 3	± 1	0.0	Uun zendake
85	X	11	P S ME MN MZ F	03 03 03 03 03	34 37 38 38 38	46.7 18.4 37.4 59.2 55.0	-4850			19.9 17.0 20.0	E off Kinkazan
											to be continued to next
86	X	11	eP S ME MN MZ F	03 03 03 03 03	53 56 57 57 57	46.9 43.2 08.1 17.8 15.0	-69	± 106		10.4 7.8 8.5	E off kinkazan
87	X	11	eP S F	13 13 13	44 44 45	27.8 38.8					Matubasi, kumamoto Pref. amp. small
88	X	13	P(?) S F	13 13 13	55 55 58	(about) 06.6					Neighbour-hood of Fukui amp. small
89	X	17	P S(?) F	? 15 15	 32 35	(about)					Distant earthquake

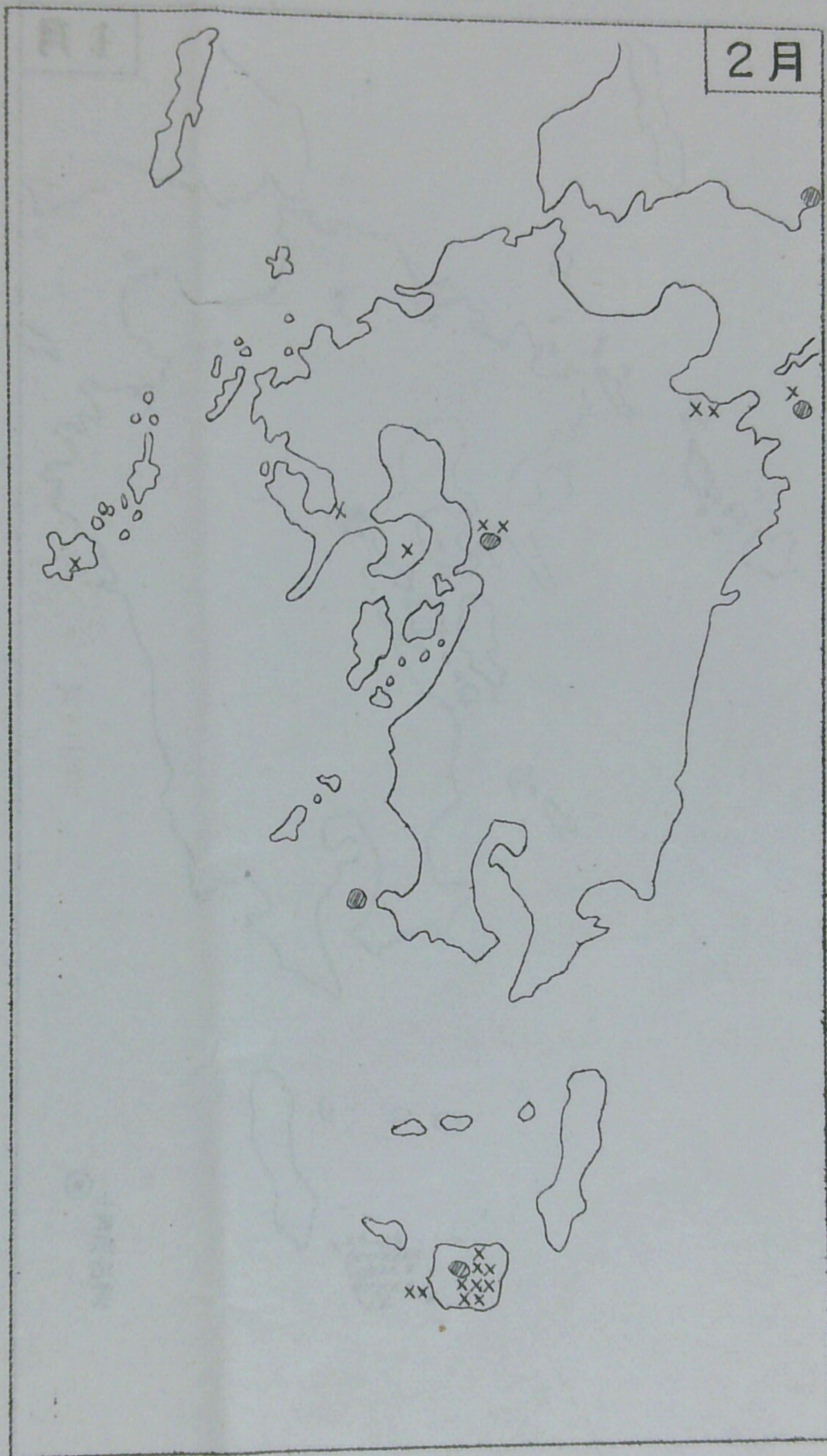
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No.	Date		Phase	G h	M m	T s	Amplitude(μ)			Period s	Remarks
							E	N	Z		
90	X	24	P	23	45	36.5					Northern part of Japan Sea
			S	23	47	15.2					
			F	23	50	30.-					
91	X	25	P	12	10	05.2					Gotôzi, (felt, (zero)), Hukuoka Pref. amp. very small
			S	?							
			F	12	10	24.-					
92	X	26	P	05	03	28.7					Bungo - Suidô
			S	05	03	46.8	± 6	-11	± 3	0.1	
			F	05	05	31.-					
93	XI	7	eP	13	00	54.8					Takaran Sintikn-syû Taiwan amp. very small
			F	13	07	—					
94	XI	21	P	20	10	13.4					Distant earthquake
			S	20	16	55.4	± 8	± 8	± 3	2.9	
			F	20	36						
95	XII	2	eP	07	58	43.3	± 3	± 3	± 1	0.7	NW off Kutinoerappu Isl Kagosima Pref
			S	?							
			F	08	00						
96	XII	16	eP	19	50	26.6					E off Sikotan Isl Hokkaidô
			S	19	53	41.9					
			ME	19	53	49.0	+51			3.5	
			MN	19	53	46.7		-22		3.5	
			MZ	?							
			L	19	55	14.3					
97	XII	21	eP	03	15	(about)					amp. very small E off Hirota-zaki Iwate Pref
			F	03	22	(about)					
98	XII	22	P	06	07	18.7					
			S	06	12	36.2					
			Z	06	18	52.0					
			ME	06	16	15.2	-910			25.7	
			MN	06	09	41.0		-820		4.6	
			MZ	06	09	25.5			-43	2.7	
F	07	14									

No.	Date		Phase	G h	M m	T s	Amplitude (μ)			Periods s	Remarks
							E	N	Z		
99	XII	24	eP	16	39	16.9					amp. small Southern part of Hyûganada
			S	16	40	48.9					
			F	16	44						
100	XII	27	P	09	08	41.9					Distant earthquake Turkey
			S	09	17	45.0					
			ME	09	48	27.3	+415			17.6	
			MN	09	41	28.4		+600		20.6	
			MZ	09	48	24.3			+500	19.0	
			?1	09	39	24.0					
			?2	09	41	43.4					
			?3	09	43	43.7					
			?4	09	44	54.1					
			?5	09	46	04.7					
			?6	09	47	31.0					
			?7	09	48	07.6					
			F	10	32						
101	XII	27	eP	12	09	47.5				Distant earthquake (New Guinea) (amf. very small)	
			F	12	14						
102	XII	27	P	17	54	29.2				Gotôzi (felt slight) and Mt. Hôman (Hôman-Zan) (felt slight)	
			S	17	54	35.9					
			ME	17	54	35.9	±20				0.1
			MN	17	54	35.9		±18			0.1
			MZ	17	54	35.9			±15		0.1
F	17	56									
103	XII	31	P	15	55	19.4				Neighbourhood of Iyôsi	
			S	15	57	41.4					
			ME	15	58	07.6	-38				4.9
			MN	15	58	07.6		±11			2.3
			MZ	15	57	41.4			±3		0.3
F	16	00									



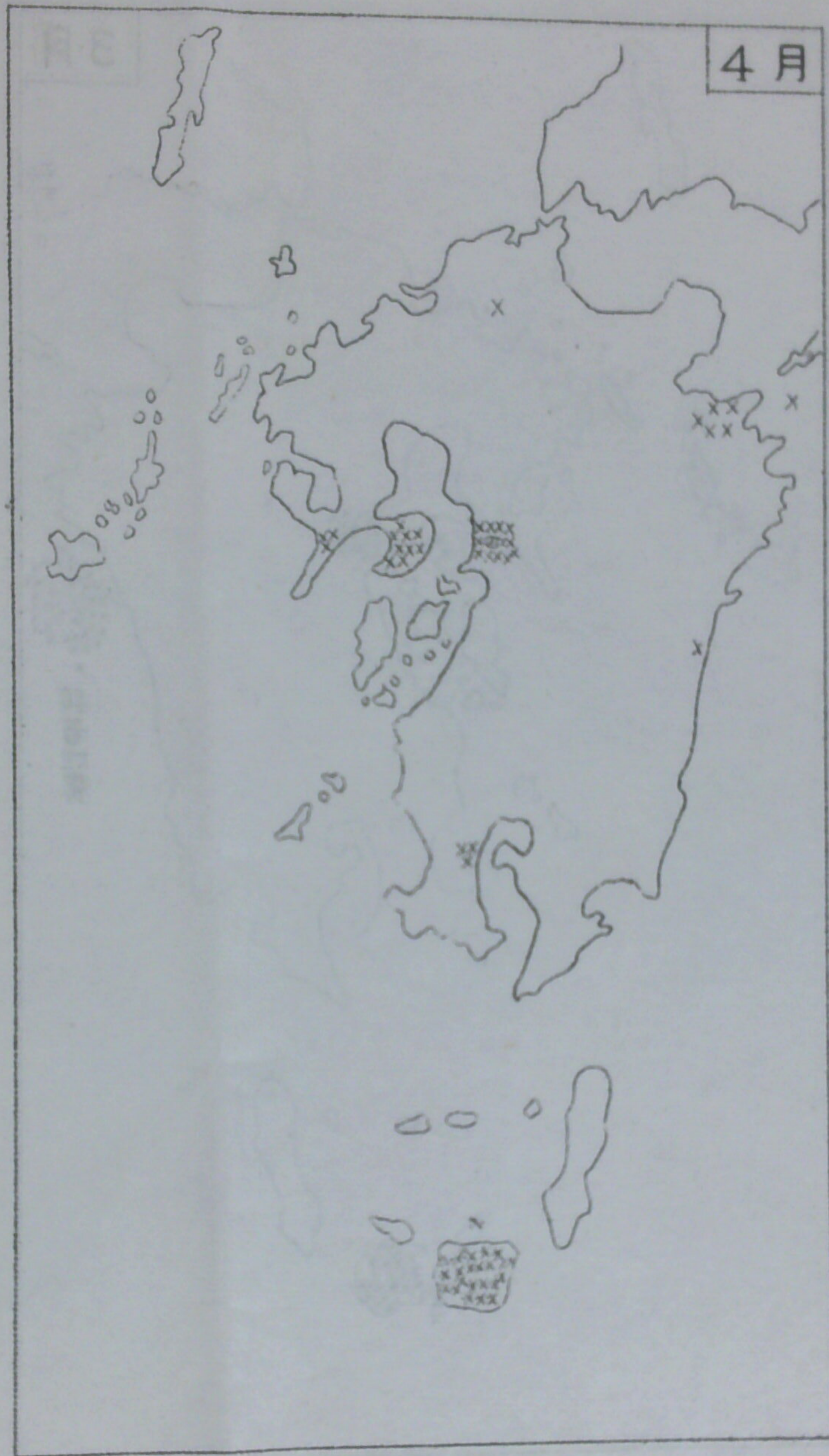
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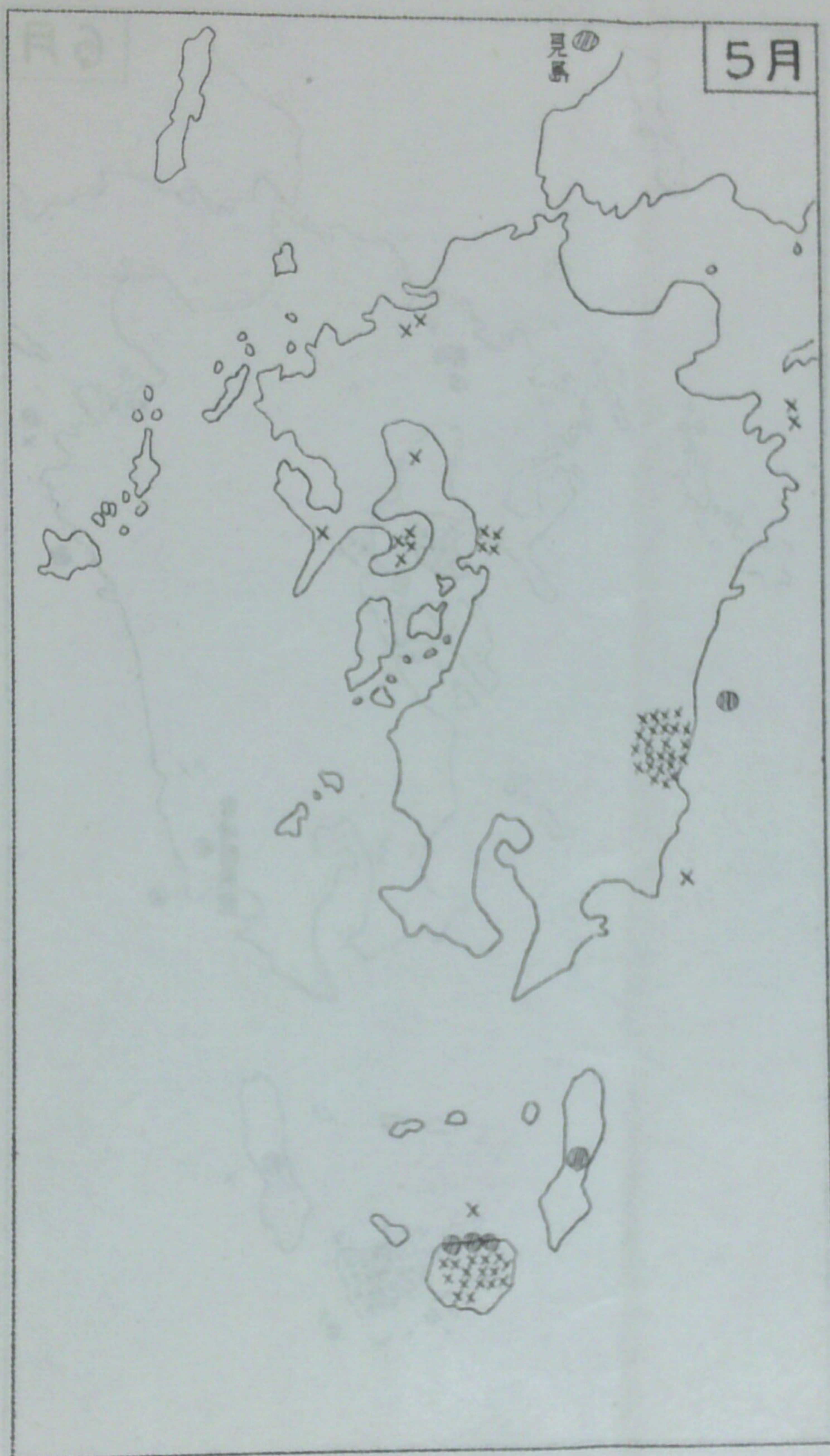
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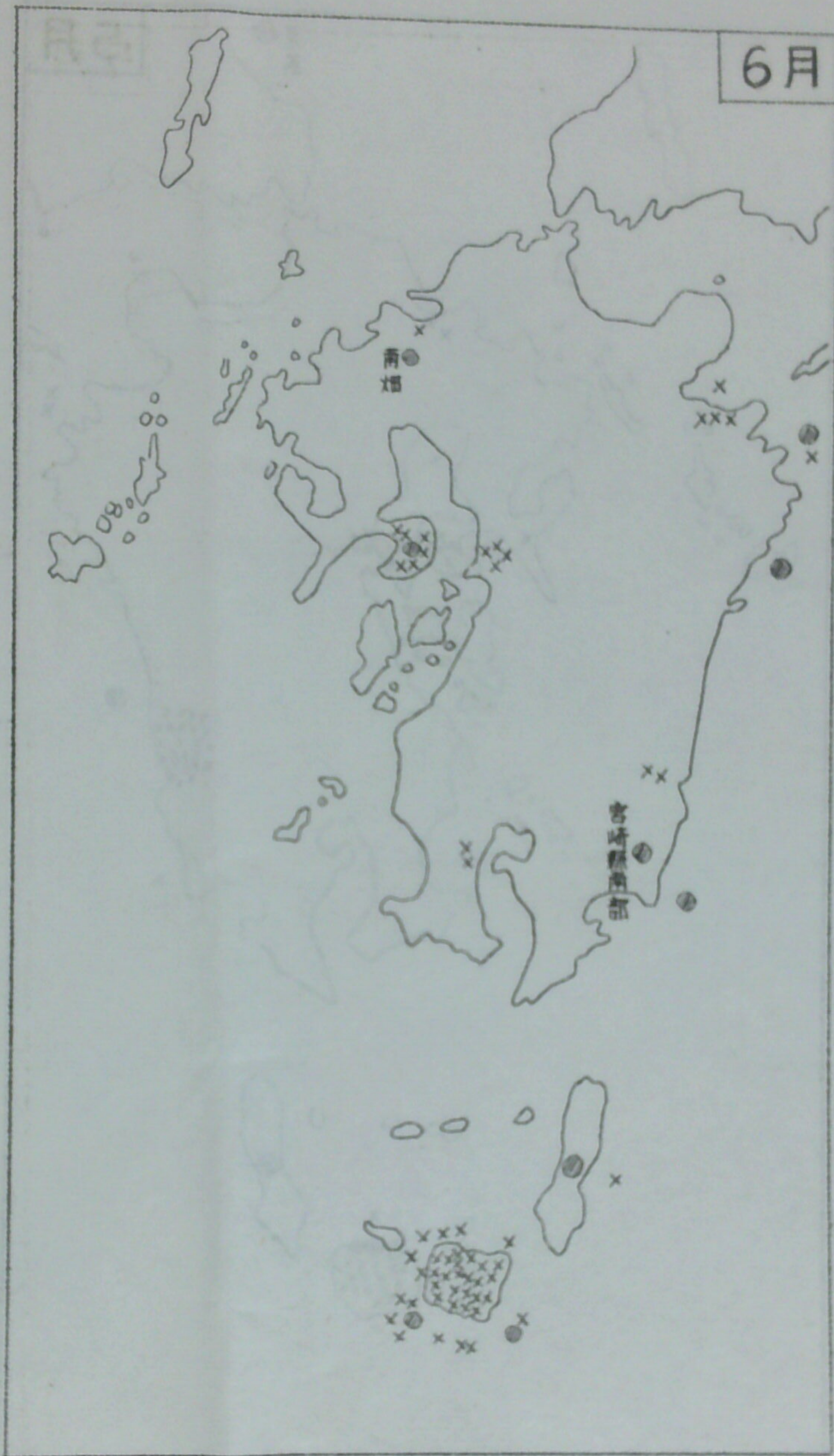
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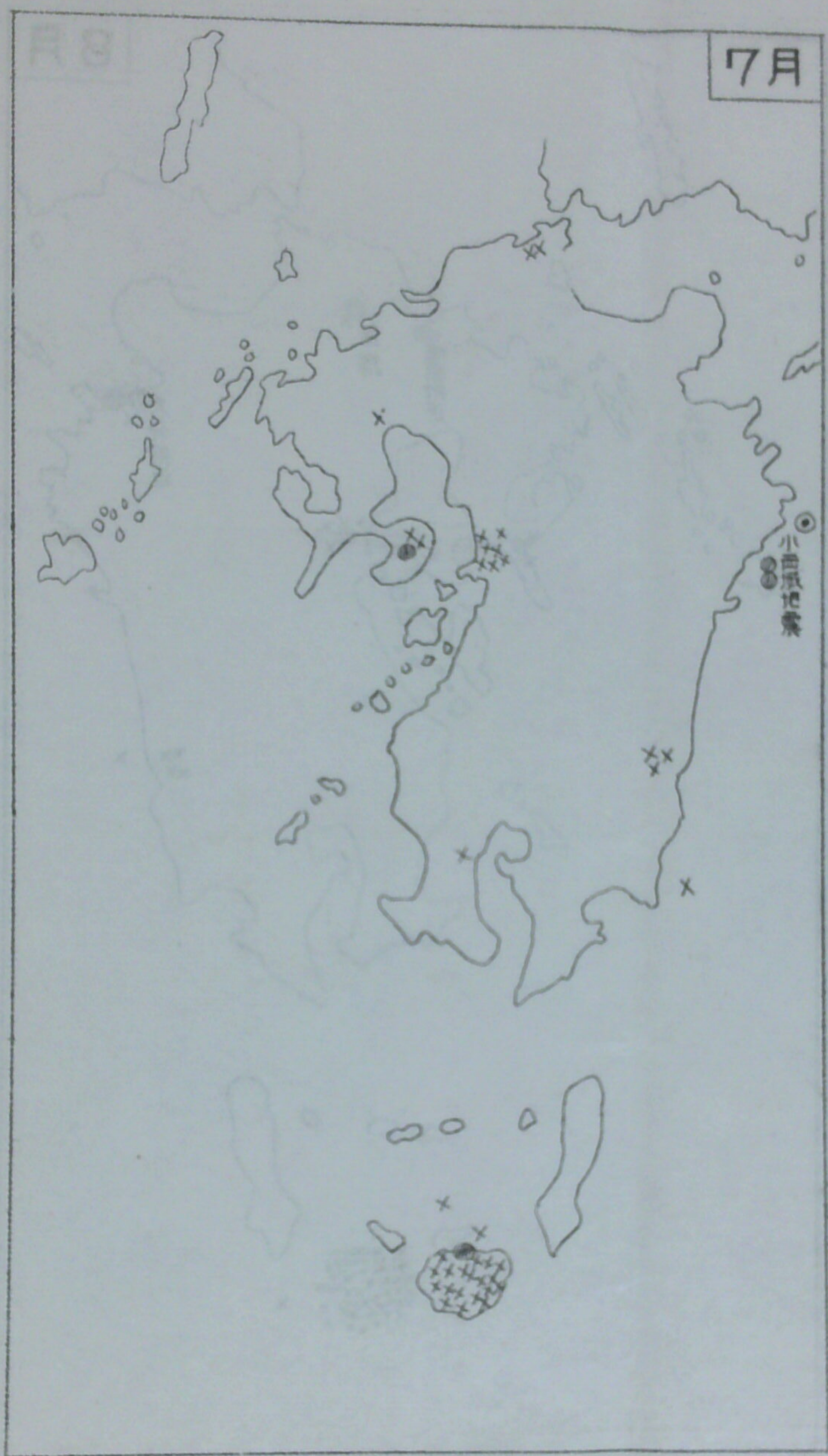
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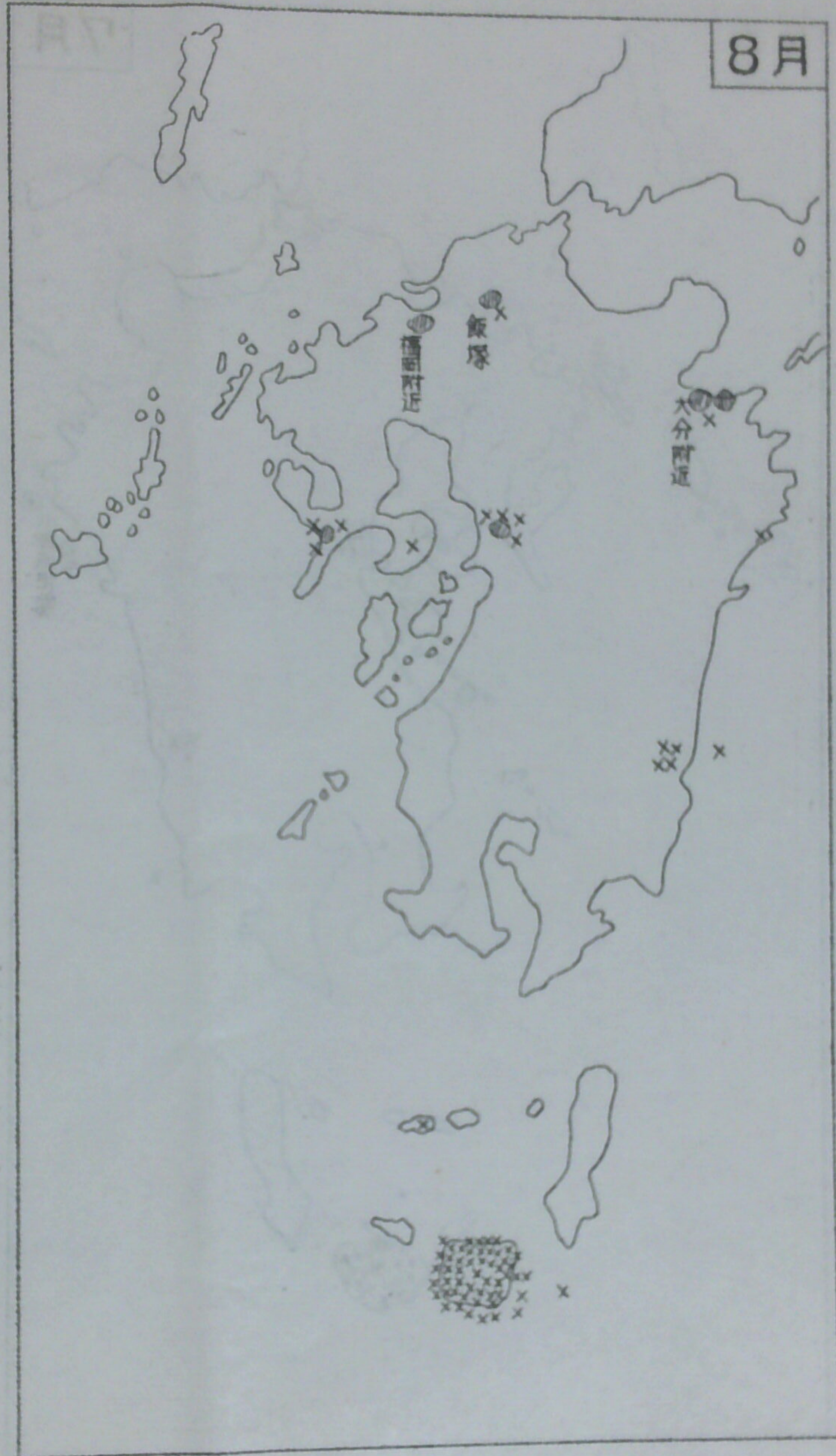
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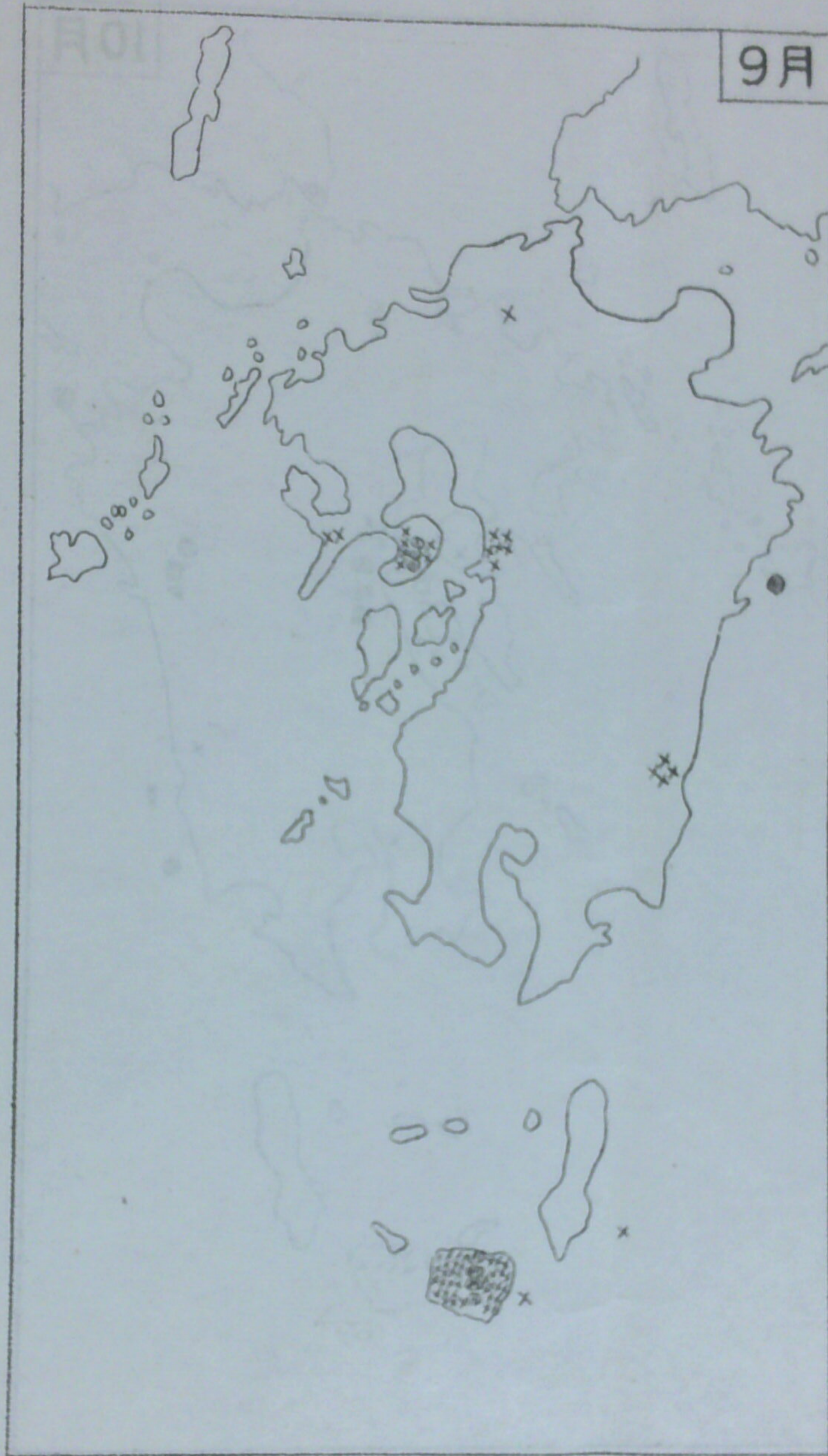
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● 有感地震 }



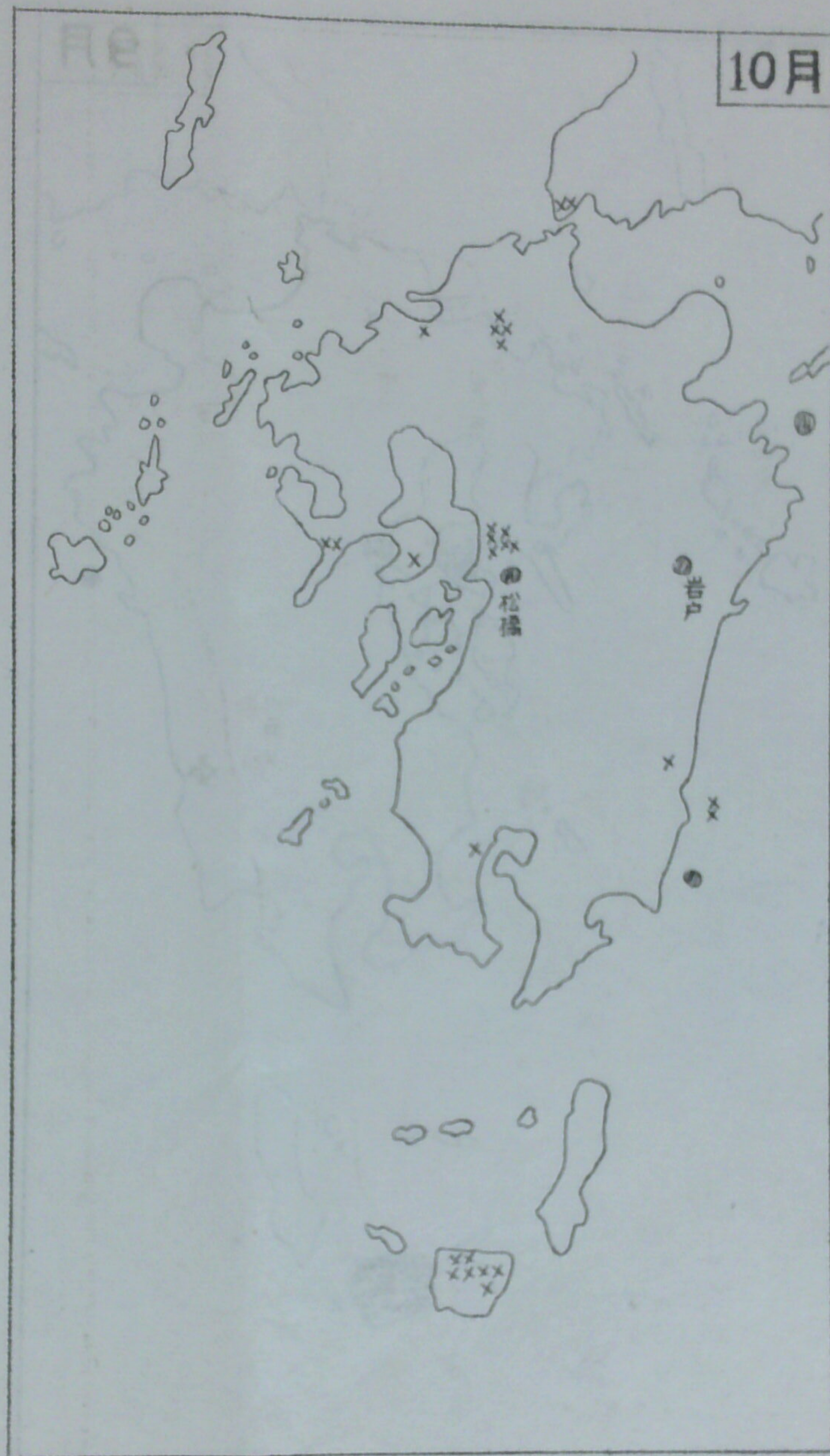
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 ● 有感覺地震 }



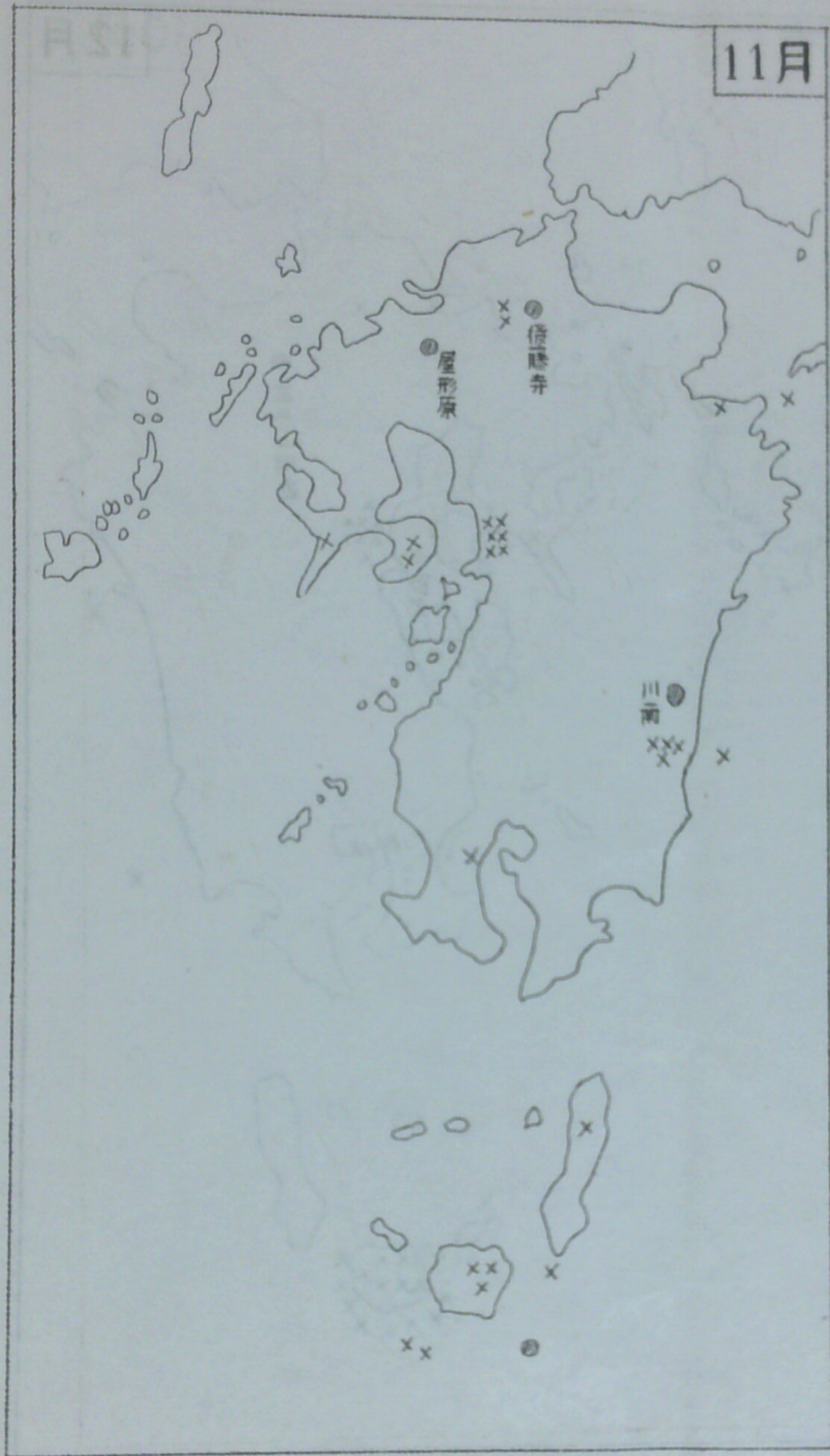
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● 有感覺地震 }



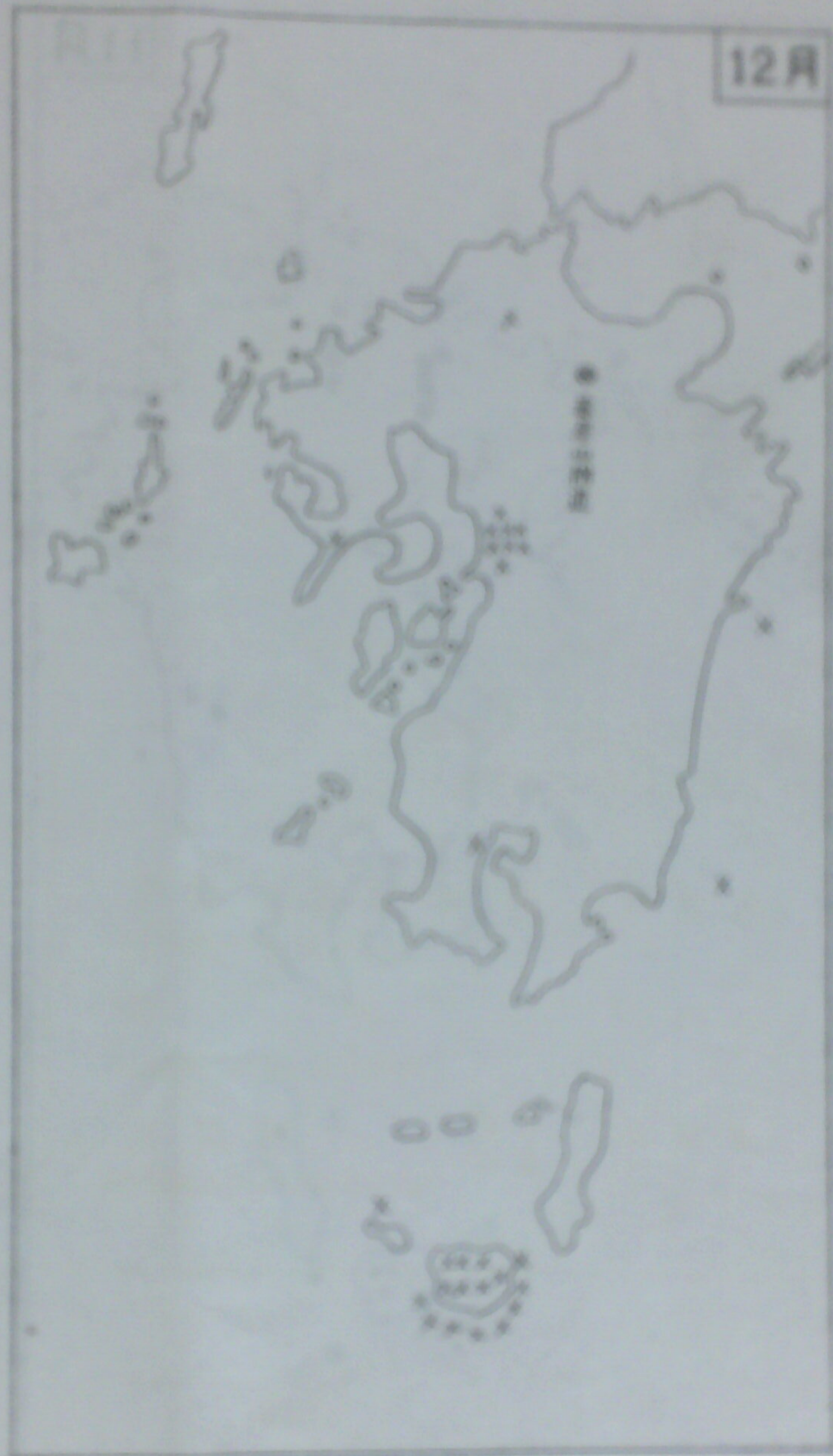
x 無感覺地震 } 震央地
● 有感覺地震 }



× 無感覺地震 } 震央地
 ● 有感覺地震 }



X 無感覺地震 } 震央地
 ● 有感覺地震 }



X 震區震比圖 } 震央
● 有感震比圖