

IV.4. Алтай и Саяны ($M \geq 1.3$)

по данным А-СФ ГС СО РАН (ASRS)

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№	Дата,			Время, t_0 ,			δt_0 , с	Гипоцентр					K_p	Магнитуды			Код сети	I
	год	м	д	ч	мин	с		φ , °N	$\delta\varphi$, °	λ , °E	$\delta\lambda$, °	h , км		δh , км	ML	MS		
1	2011	1	1	0	28	19.0	49.247		88.229				8.9	3.5	2.7	ASRS		
2	2011	1	1	4	4	53.3	49.207		88.225				8.8	3.3	2.7	ASRS		
3	2011	1	1	22	16	34.1	53.637		82.062				10.2	4.6	3.4	ASRS	1	
4	2011	1	3	19	34	42.5	46.645		83.554				8.8	3.9	2.7	ASRS		
5	2011	1	4	16	2	21.9	50.269		87.542	3	1		10.0	4.0	3.3	ASRS		
6	2011	1	8	23	6	13.3	50.525		90.547				8.3	3.1	2.4	ASRS		
7	2011	1	9	23	29	18.2	49.249		88.220				9.1	3.1	2.8	ASRS		
8	2011	1	11	19	18	10.9	48.615		85.011				7.7	2.7	2.1	ASRS		
9	2011	1	16	2	34	14.2	50.437		90.000				7.2	2.7	1.8	ASRS		
10	2011	1	18	19	12	37.7	48.755		85.173				10.0	4.2	3.3	ASRS		
11	2011	1	19	12	11	14.7	49.003		85.467				6.4	2.8	1.3	ASRS		
12	2011	1	22	23	10	26.1	50.072		87.823				7.9	2.2	2.2	ASRS		
13	2011	1	25	21	33	0.5	47.774		89.273				8.3	3.3	2.4	ASRS		
14	2011	1	29	13	0	47.5	49.280		87.031				8.4	2.7	2.4	ASRS		
15	2011	1	29	23	55	56.1	50.955		97.484				8.1	3.5	2.3	ASRS		
16	2011	2	2	23	14	43.8	49.242		88.157				8.3	3.2	2.4	ASRS		
17	2011	2	7	7	27	15.5	47.469		82.900				8.3	3.4	2.4	ASRS		
18	2011	2	8	5	46	34.1	50.085		87.987				7.5	2.7	1.9	ASRS		
19	2011	2	9	18	27	14.5	50.631		87.395				9.3	3.7	2.9	ASRS		
20	2011	2	10	5	35	16.9	52.226		91.766	10	3		13.9	6.1		ASRS	2	
														5.1	5.1	OBN		
21	2011	2	11	15	1	41.1	49.833		88.342				7.9	2.5	2.2	ASRS		
22	2011	2	13	5	10	32.4	50.954		91.694				8.7	3.4	2.6	ASRS		
23	2011	2	17	23	58	44.0	53.856		95.370				8.7	3.7	2.6	ASRS		
24	2011	2	18	10	11	5.5	51.446		81.974				7.6	2.8	2.0	ASRS		
25	2011	2	18	21	7	15.1	50.123		87.741	12	2		10.6	4.2	3.7	ASRS	3	
26	2011	2	19	19	14	56.1	50.212		87.815				9.2	3.7	2.9	ASRS		
27	2011	2	23	17	10	37.0	45.790		93.899				13.2	6.0	5.1	ASRS		
28	2011	2	24	3	58	38.3	51.345		82.046				8.4	2.4	2.4	ASRS		
29	2011	2	25	20	42	57.9	50.142		87.795				7.7	2.5	2.1	ASRS		
30	2011	3	3	19	49	53.5	49.109		85.549				8.9	3.1	2.7	ASRS		
31	2011	3	3	19	55	57.1	51.525		97.656				8.6	3.8	2.6	ASRS		
32	2011	3	4	3	43	2.6	48.497		85.138				7.7	2.4	2.1	ASRS		
33	2011	3	4	18	26	53.3	48.640		85.215				7.0	2.7	1.7	ASRS		
34	2011	3	6	17	3	45.1	49.885		90.804				8.3	3.3	2.4	ASRS		
35	2011	3	9	5	35	8.9	47.577		82.833				8.5	4.0	2.5	ASRS		
36	2011	3	12	6	13	25.1	51.380		97.375				8.3	3.2	2.4	ASRS		
37	2011	3	12	19	52	59.5	50.519		87.595				8.9	3.3	2.7	ASRS		
38	2011	3	13	19	33	18.5	49.510		83.190				8.9	3.6	2.7	ASRS		

¹ Поротниково, Малышево, Каргополово Сузунского р-она Новосибирской обл. – 2–3 балла.

² Ермаковское землетрясение. Абакан, Минусинск, Саяногорск – 3–4 балла; Канск, Кемерово, Красноярск, Новокузнецк – 3 балла; Барнаул, Новосибирск, Томск – 2–3 балла.

³ Акташ – 2–3 балла.

№	Дата,			Время, t_0 ,			δt_0 , с	Гипоцентр					K_p	Магнитуды			Код сети	I
	год	м	д	ч	мин	с		φ , °N	$\delta\varphi$, °	λ , °E	$\delta\lambda$, °	h , км		δh , км	ML	MS		
39	2011	3	18	15	31	38.0	49.545		97.972				8.7	3.6	2.6	ASRS		
40	2011	3	29	5	24	53.5	51.094		98.212				10.4	4.4	3.6	ASRS		
41	2011	4	1	20	40	60.0	50.876		85.672				8.1	2.9	2.3	ASRS		
42	2011	4	3	3	19	55.3	51.263		89.875				8.2	2.7	2.3	ASRS		
43	2011	4	7	22	20	59.0	48.438		84.725				7.3	3.3	1.8	ASRS		
44	2011	4	8	7	20	13.5	48.300		84.409				7.8	3.0	2.1	ASRS		
45	2011	4	11	3	13	3.6	53.615		96.356				8.1	3.4	2.3	ASRS		
46	2011	4	14	23	32	27.8	48.851		85.184				8.5	3.6	2.5	ASRS		
47	2011	4	17	9	52	47.7	50.601		87.416				8.3	3.1	2.4	ASRS		
48	2011	4	17	14	28	5.1	49.917		92.289				8.8	3.7	2.7	ASRS		
49	2011	4	23	3	34	40.0	46.802		89.817				10.2	4.7	3.4	ASRS		
50	2011	4	29	10	6	6.4	49.694		97.460				8.4	3.3	2.4	ASRS		
51	2011	4	29	19	43	49.8	49.887		88.341				9.0	3.4	2.8	ASRS		
52	2011	4	30	15	22	32.1	52.312		96.825				8.2	3.0	2.3	ASRS		
53	2011	5	1	23	57	36.9	50.315		88.109				9.0	3.5	2.8	ASRS		
54	2011	5	2	15	47	32.2	50.614		87.385				8.0	3.1	2.2	ASRS		
55	2011	5	3	0	45	24.0	50.568		87.393				7.4	2.4	1.9	ASRS		
56	2011	5	11	5	4	34.8	52.272		91.766				9.4	3.9	3.0	ASRS		
57	2011	5	14	11	25	34.4	51.318		91.833				7.1	2.6	1.7	ASRS		
58	2011	5	15	1	51	43.5	50.744		96.343				9.5	4.3	3.1	ASRS		
59	2011	5	18	3	7	2.6	49.125		97.858				8.3	3.8	2.4	ASRS		
60	2011	5	20	6	56	19.7	51.770		98.166				10.2	4.4	3.4	ASRS		
61	2011	5	22	19	50	26.0	46.992		84.815				8.9	3.7	2.7	ASRS		
62	2011	5	24	2	34	44.7	50.360		87.576				8.4	3.1	2.4	ASRS		
63	2011	5	24	15	36	29.7	50.084		87.598				8.0	3.5	2.2	ASRS		
64	2011	5	25	9	49	18.9	50.643		87.423				8.0	3.1	2.2	ASRS		
65	2011	5	27	7	13	13.2	50.759		83.480				7.4	2.9	1.9	ASRS		
66	2011	5	29	19	29	50.9	51.491		93.522				8.6	3.8	2.6	ASRS		
67	2011	5	31	2	39	18.5	52.031		96.498				8.1	3.1	2.3	ASRS		
68	2011	5	31	19	47	0.1	49.914		87.695				7.8	2.4	2.1	ASRS		
69	2011	6	1	6	49	23.9	49.596		83.654				7.7	2.8	2.1	ASRS		
70	2011	6	2	4	25	11.7	51.928		98.285				9.6	4.5	3.1	ASRS		
71	2011	6	4	15	57	34.1	47.184		83.107				8.9	3.9	2.7	ASRS		
72	2011	6	7	19	46	43.7	50.971		90.304				8.4	3.7	2.4	ASRS		
73	2011	6	8	16	51	45.6	50.612		87.450				7.9	2.9	2.2	ASRS		
74	2011	6	9	17	34	2.9	50.642		87.521				8.2	3.4	2.3	ASRS		
75	2011	6	15	3	21	58.6	50.577		87.432				8.3	2.7	2.4	ASRS		
76	2011	6	15	19	36	9.1	46.942		82.963				7.9	3.2	2.2	ASRS		
77	2011	6	19	0	17	13.3	48.023		85.222				9.4	3.8	3.0	ASRS		
78	2011	6	25	0	5	43.0	48.475		83.437				8.2	3.2	2.3	ASRS		
79	2011	6	25	12	59	17.3	47.226		83.035				8.3	3.5	2.4	ASRS		
80	2011	6	27	0	49	2.8	50.556		87.902				7.6	2.9	2.0	ASRS		
81	2011	7	4	2	26	34.8	51.458		97.842				8.1	3.3	2.3	ASRS		
82	2011	7	5	10	11	18.8	49.061		91.780				7.4	3.1	1.9	ASRS		
83	2011	7	9	13	15	6.1	50.567		87.856				8.0	3.2	2.2	ASRS		
84	2011	7	11	10	37	19.5	50.860		97.740				8.0	3.4	2.2	ASRS		
85	2011	7	12	5	48	46.9	49.378		88.663				10.1	4.0	3.4	ASRS		
86	2011	7	12	20	47	45.0	50.574		87.406				8.7	3.3	2.6	ASRS		
87	2011	7	16	13	5	37.2	47.649		82.529				9.5	4.2	3.1	ASRS		
88	2011	7	19	5	49	57.5	50.623		87.424				8.7	3.3	2.6	ASRS		
89	2011	7	19	23	55	57.6	50.020		87.641	16	1		10.7	4.6	3.7	ASRS		
90	2011	7	20	15	13	2.0	50.609		87.445				8.6	3.4	2.6	ASRS		
91	2011	7	21	15	54	29.0	46.759		91.078				9.6	4.2	3.1	ASRS		
92	2011	7	24	19	5	39.2	46.138		89.380				12.7	5.7	4.8	ASRS		
93	2011	7	26	1	14	58.8	46.725		90.285				7.7	3.3	2.1	ASRS		
94	2011	7	28	6	30	28.4	50.526		82.675				8.8	3.7	2.7	ASRS		
95	2011	7	28	15	32	59.3	50.016		87.906				7.3	2.7	1.8	ASRS		
96	2011	7	29	5	34	54.5	50.724		87.327				8.4	3.2	2.4	ASRS		
97	2011	7	29	20	8	37.9	48.487		86.520				6.7	2.9	1.5	ASRS		
98	2011	8	3	5	42	5.9	50.725		84.643				8.2	3.2	2.3	ASRS		
99	2011	8	3	12	19	5.9	50.517		90.817				7.3	3.3	1.8	ASRS		
100	2011	8	5	13	32	35.2	50.621		96.079				7.9	3.4	2.2	ASRS		
101	2011	8	6	2	18	30.6	50.035		91.709				8.2	3.2	2.3	ASRS		
102	2011	8	7	13	25	0.4	50.616		87.398				8.2	3.0	2.3	ASRS		

№	Дата,			Время, t_0 ,			δt_0 , с	Гипоцентр					K_p	Магнитуды			Код сети	I
	год	м	д	ч	мин	с		φ , °N	$\delta\varphi$, °	λ , °E	$\delta\lambda$, °	h , км		δh , км	ML	MS		
103	2011	8	7	19	9	54.2		50.624		87.422			8.0	3.0	2.2	ASRS		
104	2011	8	11	23	47	9.0		49.168		89.129			8.9	3.7	2.7	ASRS		
105	2011	8	15	10	2	10.7		52.221		98.125			11.6	5.1	4.2	ASRS		
106	2011	8	16	5	39	5.2		49.507		92.700			10.1	4.3	3.4	ASRS		
107	2011	8	19	9	39	31.3		52.513		97.062			9.7	4.1	3.2	ASRS		
108	2011	8	22	9	40	58.2		47.239		82.736			7.7	3.1	2.1	ASRS		
109	2011	8	23	13	31	27.5		54.743		95.064			9.8	4.3	3.2	ASRS		
110	2011	8	24	11	23	55.0		47.739		88.860			7.9	3.0	2.2	ASRS		
111	2011	8	25	5	25	56.6		51.226		97.846			8.1	3.4	2.3	ASRS		
112	2011	8	26	8	7	37.0		50.534		90.940			7.8	3.0	2.1	ASRS		
113	2011	8	26	8	56	14.3		50.236		87.694			8.7	3.3	2.6	ASRS		
114	2011	8	27	12	43	30.7		47.553		89.440			6.7	2.6	1.5	ASRS		
115	2011	8	30	2	40	11.1		52.158		97.016			11.6	5.0	4.2	ASRS		
116	2011	8	30	3	23	19.2		52.194		96.428			9.2	4.0	2.9	ASRS		
117	2011	8	30	3	33	12.0		52.198		96.576			9.4	4.1	3.0	ASRS		
118	2011	8	30	9	10	29.1		47.192		84.989			10.0	4.0	3.3	ASRS		
119	2011	8	30	21	30	19.4		50.425		91.090			9.0	3.7	2.8	ASRS		
120	2011	9	2	6	2	3.0		50.132		87.534			7.7	3.1	2.1	ASRS		
121	2011	9	4	3	54	31.9		51.776		82.198			7.7	2.8	2.1	ASRS		
122	2011	9	9	4	16	59.5		49.968		88.795			7.0	2.6	1.7	ASRS		
123	2011	9	12	4	59	43.0		48.190		84.196			7.8	2.9	2.1	ASRS		
124	2011	9	12	15	40	55.3		47.518		82.498			8.3	3.7	2.4	ASRS		
125	2011	9	14	7	42	35.2		47.191		80.116			8.4	3.5	2.4	ASRS		
126	2011	9	15	10	11	5.6		48.386		84.915			7.3	3.1	1.8	ASRS		
127	2011	9	17	7	0	13.9		51.822		84.507			7.1	3.1	1.7	ASRS		
128	2011	9	17	19	2	42.9		51.767		98.252			7.5	3.1	1.9	ASRS		
129	2011	9	18	11	44	58.3		49.179		87.305			8.3	3.4	2.4	ASRS		
130	2011	9	19	22	28	29.0		49.948		88.380			8.7	3.5	2.6	ASRS		
131	2011	9	23	11	40	41.3		52.063		95.157			8.1	3.5	2.3	ASRS		
132	2011	9	24	0	38	52.0		51.860		98.115			7.9	3.3	2.2	ASRS		
133	2011	9	25	2	49	48.9		50.420		97.000			7.9	2.9	2.2	ASRS		
134	2011	9	25	12	36	43.0		51.197		93.312			11.7	5.2	4.3	ASRS		
135	2011	9	25	14	23	46.4		51.301		93.149			9.5	3.9	3.1	ASRS		
136	2011	9	26	16	37	30.7		48.812		82.903			8.0	3.2	2.2	ASRS		
137	2011	10	4	7	56	12.2		50.579		82.667			7.9	3.3	2.2	ASRS		
138	2011	10	4	13	31	40.4		50.321		82.350			7.7	3.4	2.1	ASRS		
139	2011	10	18	10	34	56.2		51.451		97.914			10.5	4.6	3.6	ASRS		
140	2011	10	18	18	21	45.5		51.401		97.827			10.0	3.8	3.3	ASRS		
141	2011	10	20	9	13	19.6		49.593		90.900			8.0	3.5	2.2	ASRS		
142	2011	10	21	17	8	16.5		49.795		92.529			8.5	3.5	2.5	ASRS		
143	2011	10	24	6	41	49.5		50.638		97.607			7.5	3.1	1.9	ASRS		
144	2011	10	26	17	27	55.2		49.590		94.989			8.7	3.7	2.6	ASRS		
145	2011	10	26	23	2	17.3		48.262		84.323			8.8	3.7	2.7	ASRS		
146	2011	10	28	11	30	35.7		48.216		98.033			8.9	3.9	2.7	ASRS		
147	2011	10	31	22	32	30.1		51.385		97.978			8.5	3.6	2.5	ASRS		
148	2011	11	1	9	32	33.3		51.781		97.680			8.0	3.4	2.2	ASRS		
149	2011	11	2	2	17	26.8		51.207		98.084			9.5	3.8	3.1	ASRS		
150	2011	11	5	8	58	40.7		50.715		97.912			11.7	5.4	4.3	ASRS		
151	2011	11	5	23	14	31.0		52.260		97.652			9.7	4.0	3.2	ASRS		
152	2011	11	7	19	2	58.1		50.218		88.856			8.0	3.1	2.2	ASRS		
153	2011	11	7	20	10	55.9		51.949		97.852			8.6	3.8	2.6	ASRS		
154	2011	11	8	3	2	26.4		49.924		88.270			7.9	3.0	2.2	ASRS		
155	2011	11	9	9	20	42.8		50.343		87.600			8.4	3.3	2.4	ASRS		
156	2011	11	16	16	18	36.4		51.917		97.808			10.1	4.1	3.4	ASRS		
157	2011	11	16	20	56	16.0		50.225		87.819			7.7	2.7	2.1	ASRS		
158	2011	11	16	23	42	48.0		50.427		97.245			7.8	3.3	2.1	ASRS		
159	2011	11	19	16	52	6.7		49.869		87.929			7.1	2.6	1.7	ASRS		
160	2011	11	19	17	3	35.4		47.608		89.608			7.9	3.5	2.2	ASRS		
161	2011	11	21	19	26	2.0		49.380		88.910			7.6	2.5	2.0	ASRS		
162	2011	11	22	2	46	16.5		52.492		86.959			8.8	3.9	2.7	ASRS		
163	2011	11	22	6	11	32.5		50.923		97.440			9.8	3.8	3.2	ASRS		
164	2011	11	23	7	53	40.9		48.134		92.531			7.7	3.4	2.1	ASRS		
165	2011	11	23	12	36	59.1		49.421		85.692			9.5	4.2	3.1	ASRS		
166	2011	11	23	13	36	59.0		49.421		85.692			9.7	4.2	3.2	ASRS		

№	Дата,			Время, t_0 ,			δt_0 , с	Гипоцентр					K_p	Магнитуды			Код сети	I
	год	м	д	ч	мин	с		φ , °N	$\delta\varphi$, °	λ , °E	$\delta\lambda$, °	h , км		δh , км	ML	MS		
167	2011	11	24	18	8	51.1	50.889		97.428				8.1	3.2	2.3	ASRS		
168	2011	11	26	19	42	27.6	49.003		85.775				6.9	2.9	1.6	ASRS		
169	2011	11	27	14	12	25.5	48.985		88.316				7.9	3.4	2.2	ASRS		
170	2011	12	4	0	58	52.6	46.931		88.117				7.4	3.8	1.9	ASRS		
171	2011	12	4	23	33	2.7	50.111		87.950				7.8	2.6	2.1	ASRS		
172	2011	12	5	17	43	19.5	50.646		87.039	13	2	10.0	4.7		3.3	ASRS		
173	2011	12	7	8	51	4.9	48.643		84.719				7.2	3.2	1.8	ASRS		
174	2011	12	8	22	51	43.2	49.872		97.558				7.7	3.3	2.1	ASRS		
175	2011	12	15	6	31	2.8	50.339		87.549				9.3	3.9	2.9	ASRS		
176	2011	12	16	4	0	39.9	47.467		89.380				8.0	3.3	2.2	ASRS		
177	2011	12	17	20	23	19.7	50.347		84.459				7.4	3.0	1.9	ASRS		
178	2011	12	19	1	35	37.9	52.135		98.240				10.4	4.3	3.6	ASRS		
179	2011	12	20	0	51	43.3	50.535		91.052				8.5	3.4	2.5	ASRS		
180	2011	12	23	7	24	32.6	52.165		97.977				9.3	4.2	2.9	ASRS		
181	2011	12	25	12	11	52.4	51.337		93.181				10.3	4.6	3.5	ASRS		
182	2011	12	26	1	18	48.1	49.989		88.341				7.9	3.0	2.2	ASRS		
183	2011	12	26	4	33	23.1	51.333		93.152				10.4	4.7	3.6	ASRS		
184	2011	12	26	10	18	18.6	50.272		87.637				9.2	3.5	2.9	ASRS		
185	2011	12	27	15	21	55.3	51.825		95.927	17	2	16.2	6.7			ASRS	4	
														6.6	6.6		OBN	
186	2011	12	27	15	36	13.8	51.819		95.991				10.4	4.9	3.6	ASRS		
187	2011	12	27	15	39	40.8	51.766		95.962				9.9	4.1	3.3	ASRS		
188	2011	12	27	15	40	42.1	51.731		96.083				9.8	4.2	3.2	ASRS		
189	2011	12	27	15	43	22.2	51.822		95.917				9.5	3.7	3.1	ASRS		
190	2011	12	27	15	50	49.6	51.775		95.971				9.4	4.1	3.0	ASRS		
191	2011	12	27	15	52	5.8	51.809		95.961				8.7	3.5	2.6	ASRS		
192	2011	12	27	15	52	43.6	51.736		95.925				10.8	3.8	3.8	ASRS		
193	2011	12	27	15	53	9.7	52.052		95.568				11.2	4.4	4.0	ASRS		
194	2011	12	27	15	56	37.7	51.797		95.942				8.4	3.5	2.4	ASRS		
195	2011	12	27	15	57	44.8	51.722		95.937				8.6	3.7	2.6	ASRS		
196	2011	12	27	16	1	20.1	51.757		95.968				10.1	4.4	3.4	ASRS		
197	2011	12	27	16	2	14.5	51.812		96.032				9.7	4.1	3.2	ASRS		
198	2011	12	27	16	6	26.1	51.789		95.965				9.5	4.2	3.1	ASRS		
199	2011	12	27	16	11	51.8	51.766		95.932				9.7	4.8	3.2	ASRS		
200	2011	12	27	16	12	31.6	51.839		95.882				10.9	4.9	3.8	ASRS		
201	2011	12	27	16	18	29.3	51.769		95.944				8.2	4.3	2.3	ASRS		
202	2011	12	27	16	20	43.9	51.773		95.917				9.6	3.9	3.1	ASRS		
203	2011	12	27	16	28	41.4	51.832		95.896				9.5	3.5	3.1	ASRS		
204	2011	12	27	16	35	57.1	51.781		95.951				9.8	4.1	3.2	ASRS		
205	2011	12	27	16	44	45.9	51.827		95.923				8.9	3.7	2.7	ASRS		
206	2011	12	27	16	45	14.1	51.842		95.906				8.7	3.6	2.6	ASRS		
207	2011	12	27	16	48	57.6	51.735		95.938				8.5	4.0	2.5	ASRS		
208	2011	12	27	17	2	57.1	51.807		95.821				9.5	4.2	3.1	ASRS		
209	2011	12	27	17	23	12.8	51.860		95.890				7.9	3.6	2.2	ASRS		
210	2011	12	27	17	28	23.4	51.824		95.821				9.6	3.9	3.1	ASRS		
211	2011	12	27	17	36	53.7	51.767		95.898				9.0	3.8	2.8	ASRS		
212	2011	12	27	17	39	10.3	51.840		95.899				8.2	3.7	2.3	ASRS		
213	2011	12	27	17	45	41.2	51.682		96.054				8.0	3.5	2.2	ASRS		
214	2011	12	27	17	48	46.9	51.832		95.888				8.2	3.5	2.3	ASRS		
215	2011	12	27	17	56	29.9	51.932		95.930				8.1	3.5	2.3	ASRS		
216	2011	12	27	18	12	16.5	51.841		95.859				7.6	3.7	2.0	ASRS		
217	2011	12	27	18	13	33.6	51.822		95.937				9.5	3.7	3.1	ASRS		
218	2011	12	27	18	18	0.9	51.824		95.878				7.6	3.5	2.0	ASRS		
219	2011	12	27	18	36	25.2	51.708		95.995				9.8	4.5	3.2	ASRS		
220	2011	12	27	18	58	0.0	51.819		95.885				9.5	4.1	3.1	ASRS		
221	2011	12	27	19	11	20.3	51.847		95.896				8.8	3.6	2.7	ASRS		
222	2011	12	27	19	31	21.9	51.792		95.944				8.0	3.5	2.2	ASRS		
223	2011	12	27	19	45	17.7	51.840		95.899				8.9	3.7	2.7	ASRS		
224	2011	12	27	19	48	52.6	51.863		95.942				8.5	3.5	2.5	ASRS		

⁴ Тувинское-I землетрясение. Сарыг-Сеп – 6–7 баллов; Кызыл – 6 баллов; Подгорный, Саяногорск, Минусинск, Абакан – 4 балла; Орлик, Зеленогорск, Кемерово – 3–4 балла; Краснотуранск, Кырен, Юрты, Берёзовка, Красноярск, Новокузнецк, Усть-Каменогорск – 3 балла; Ангарск, Иркутск – 2–3 балла; Барнаул, Томск, Улан-Батор, Новосибирск – 2 балла.

№	Дата,			Время, t_0 ,			δt_0 , с	Гипоцентр					K_p	Магнитуды			Код сети	I
	год	м	д	ч	мин	с		φ , °N	$\delta\varphi$, °	λ , °E	$\delta\lambda$, °	h , км		δh , км	ML	MS		
225	2011	12	27	20	19	11.2		51.759		96.086			11.3	4.8	4.1	ASRS		
226	2011	12	27	20	29	44.9		51.801		95.890			10.4	4.5	3.6	ASRS		
227	2011	12	27	20	33	14.0		51.833		95.894			9.0	3.7	2.8	ASRS		
228	2011	12	27	20	42	15.3		51.717		95.919			9.7	4.4	3.2	ASRS		
229	2011	12	27	21	8	28.9		51.739		95.935			9.4	4.3	3.0	ASRS		
230	2011	12	27	21	10	29.6		51.839		95.893			8.8	3.7	2.7	ASRS		
231	2011	12	27	21	52	19.5		51.765		95.966			8.8	3.7	2.7	ASRS		
232	2011	12	27	22	0	55.6		51.799		95.863			9.2	4.1	2.9	ASRS		
233	2011	12	27	22	1	24.6		51.839		95.931			8.9	4.1	2.7	ASRS		
234	2011	12	27	22	36	18.1		51.798		95.912			8.8	3.8	2.7	ASRS		
235	2011	12	27	23	18	1.0		51.798		95.911			8.3	3.6	2.4	ASRS		
236	2011	12	27	23	29	6.0		51.860		95.878			10.4	4.2	3.6	ASRS		
237	2011	12	27	23	43	49.1		51.875		96.013			10.8	4.8	3.8	ASRS		
238	2011	12	28	0	40	31.3		51.869		95.949			11.8	5.5	4.3	ASRS		
239	2011	12	28	1	1	16.2		51.755		95.934			8.5	3.5	2.5	ASRS		
240	2011	12	28	1	32	13.2		51.752		95.952			9.2	3.7	2.9	ASRS		
241	2011	12	28	2	16	6.9		49.359		87.181			7.8	2.8	2.1	ASRS		
242	2011	12	28	3	4	16.3		51.752		95.951			8.3	3.5	2.4	ASRS		
243	2011	12	28	3	36	50.6		51.879		95.894			8.2	3.5	2.3	ASRS		
244	2011	12	28	4	11	47.1		51.844		95.901			10.1	4.4	3.4	ASRS		
245	2011	12	28	4	23	41.0		51.876		95.877			12.3	5.6	4.6	ASRS		
246	2011	12	28	4	45	55.9		51.766		96.034			9.7	4.2	3.2	ASRS		
247	2011	12	28	4	48	8.1		51.843		95.968			9.2	3.9	2.9	ASRS		
248	2011	12	28	5	0	43.2		51.746		95.930			8.4	3.7	2.4	ASRS		
249	2011	12	28	7	15	38.1		51.763		95.938			8.7	3.7	2.6	ASRS		
250	2011	12	28	7	31	45.0		51.849		95.917			8.1	3.6	2.3	ASRS		
251	2011	12	28	8	42	55.0		49.591		97.076			7.2	3.6	1.8	ASRS		
252	2011	12	28	9	54	20.8		51.825		95.913			8.6	3.5	2.6	ASRS		
253	2011	12	28	10	33	45.5		51.858		95.895			8.9	3.6	2.7	ASRS		
254	2011	12	28	12	49	12.4		51.910		95.867			8.4	3.5	2.4	ASRS		
255	2011	12	28	13	54	36.3		51.893		95.893			10.7	5.0	3.7	ASRS		
256	2011	12	28	15	25	41.0		51.782		95.953			11.0	5.1	3.9	ASRS		
257	2011	12	28	15	29	36.5		51.856		95.923			10.2	4.1	3.4	ASRS		
258	2011	12	28	15	48	23.0		51.740		95.948			9.0	3.6	2.8	ASRS		
259	2011	12	28	16	30	7.9		51.903		95.873			8.6	3.6	2.6	ASRS		
260	2011	12	28	16	32	19.2		51.822		95.934			9.3	3.9	2.9	ASRS		
261	2011	12	28	17	16	40.1		51.686		96.004			9.5	4.1	3.1	ASRS		
262	2011	12	28	18	35	37.9		50.613		87.456			8.5	3.2	2.5	ASRS		
263	2011	12	28	20	44	38.6		51.766		95.926			10.0	4.6	3.3	ASRS		
264	2011	12	28	20	50	47.7		51.796		95.934			8.4	3.5	2.4	ASRS		
265	2011	12	28	21	29	11.5		51.848		95.873			8.8	3.5	2.7	ASRS		
266	2011	12	28	21	35	5.0		51.717		95.939			11.1	4.8	3.9	ASRS		
267	2011	12	28	23	23	13.9		51.909		95.909			9.0	3.5	2.8	ASRS		
268	2011	12	28	23	40	44.4		51.848		95.863			10.1	4.5	3.4	ASRS		
269	2011	12	29	3	6	12.7		51.819		95.933			9.7	3.9	3.2	ASRS		
270	2011	12	29	3	44	3.2		51.794		95.945			10.4	4.9	3.6	ASRS		
271	2011	12	29	11	0	4.2		51.843		95.891			9.8	4.3	3.2	ASRS		
272	2011	12	29	21	34	1.5		51.826		95.819			10.6	4.9	3.7	ASRS		
273	2011	12	29	23	18	22.6		51.723		95.971			9.2	4.0	2.9	ASRS		
274	2011	12	30	3	12	55.3		51.797		95.949			10.8	4.9	3.8	ASRS		
275	2011	12	30	7	14	35.8		51.823		95.919			9.3	4.2	2.9	ASRS		
276	2011	12	30	9	17	39.2		51.725		95.952			9.4	4.3	3.0	ASRS		
277	2011	12	31	18	37	7.0		51.448		97.888			8.6	3.6	2.6	ASRS		
278	2011	12	31	19	3	55.5		51.750		95.963			9.3	4.3	2.9	ASRS		
279	2011	12	31	19	13	14.0		51.738		95.975			8.9	4.0	2.7	ASRS		