

Національний сейсмологічний бюлетень України за 2022 рік

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Національна система сейсмічних спостережень України станом на 2022 рік мала мережу пунктів спостереження, які знаходяться у відомстві Інституту геофізики ім. С.І. Субботіна Національної академії наук України та Головного центру спеціального контролю Державного космічного агентства України. На базі цих установ створено об'єднаний Національний центр даних, де проводиться збір, обробка та аналіз отриманих даних. Інформація надається як в оперативному режимі, так і згодом, після поглибленого аналізу у вигляді сейсмологічних бюлетенів та каталогів землетрусів.

За результатами інструментальних спостережень у 2022 р. на територіях України та сусідніх держав Національною системою сейсмічних спостережень зареєстровано 160 землетрусів з величиною магнітудою до 5,4. Основна кількість подій, що відбулись тяжіла до глибокофокусної зони Вранча (Румунія). Землетруси, зареєстровано на території сусідніх держав, мали локальний характер і не створювали суттєвого впливу на сейсмічність території України. Найбільш потужні землетруси у межах території України зареєстровано в Полтавській області 06.07.2022 та 03.10.2022. Ці землетруси мали магнітуду $M=3,4$, глибину гіпоцентрів 10 км, інтенсивність струшувань в епіцентральної області сягала 2 балів. Крім того, 21.01.2022 було зареєстровано землетрус в районі Кривого Рогу. Він мав магнітуду $M=3,3$, але через меншу глибину гіпоцентру ($h=5$ км) спричинив відчутні струшування з інтенсивністю до 3 балів.

Більшість епіцентрів землетрусів зареєстровано в межах Волино-Подільської моноклиналі, Дніпровсько-Донецької западини та Передкарпатського прогину.

Сейсмологічний бюлетень містить детальну інформацію про всі сейсмічні події, що відбулись у 2022 р. на територіях України та сусідніх країн.

Ключові слова: землетрус, сейсмологічна мережа, магнітуда, епіцентральної відстань, зона Вранча, сейсмологічний бюлетень.

Вступ. У Національному сейсмологічному бюлетені наведено параметри сейсмічних подій, визначені за результатами інструментальних спостережень сейсмологічною мережею України, що станом на 2022 р. складалася з пунктів спостереження Інституту геофізики ім. С.І. Субботіна

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Для уточнення параметрів сейсмічних подій також залучалися дані локальних сейсмологічних мереж Державного підприємства «Національна атомна енергогенеруюча компанія «Енергоатом» і закордонних

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сейсмологічних мереж [Mărmureanu et al., 2021; Андрущенко та ін., 2020].

Збір, обробка та аналіз даних проводились із використанням спеціалізованого сейсмологічного програмного забезпечення SeisComP3, що підтримує як автоматичну, так і ручну обробку даних та інтерактивний перегляд результатів обробки.

Епіцентр і глибину джерела землетрусу визначали із застосуванням методу LocSAT, що використовує одновимірну модель земної кори [Bratt, Nagy, 1991].

До бюлетеню увійшли землетруси, що відбулись у 2022 р. на територіях України та суміжних держав. Магнітуда зареєстрованих землетрусів на території України становила від 1,3 до 3,4 на глибинах 2—10 км. Крім того, до бюлетеню увійшли промислові вибухи у гірничих виробках та кар'єрах України та Білорусі.

Національна сейсмологічна система спостережень України (НСССУ) діє на підставі наступних документів: Постанови Кабінету Міністрів України «Про створення національної системи сейсмічних спостережень та підвищення безпеки проживання населення у сейсмонебезпечних регіонах» від 11 вересня 1995 р. № 728; Постанови Кабінету Міністрів України «Про затвердження Положення про національну систему сейсмічних спостережень та підвищення безпеки проживання населення у сейсмонебезпечних регіонах, Положення про Міжвідомчу комісію із сейсмічного моніторингу та Програми функціонування і розвитку національної системи сейсмічних спостережень та підвищення безпеки проживання населення у сейсмонебезпечних регіонах» від 28 червня 1997 р. № 699; Закону України «Про захист населення і територій від надзвичайних ситуацій техногенного і природного характеру» від 8.06.2000 р. № 1809-III; Доручення Кабінету Міністрів України від 14.05.2008 р. № 24979/1/1-08 до листа Секретаря Ради національної безпеки і оборони від 07.05.2008 № 8/4-1684-6-11 щодо реалізації рішення Міжвідомчої комісії з питань науково-технологічної безпеки при РНБОУ від 03.04.2008 р. з питання «Про

стан забезпечення сейсмічної безпеки та проблеми розвитку сейсмостійкого будівництва в Україні».

Національна система сейсмічних спостережень України станом на 2022 р. складалася з пунктів спостереження Інституту геофізики ім. С.І. Субботіна НАН України [Вербицький, Вербицький, 2011; Ganiev et al., 2021; Ганієв та ін., 2021] та Головного центру спеціального контролю НЦУВКЗ ДКА України [Main ..., 2010], а їх обчислювальні центри разом утворюють Національний центр даних (НЦД).

Розташування сейсмічних станцій Національної сейсмологічної системи спостережень території України показано на рис. 1.

Густина мережі постійно діючих сейсмічних станцій Інституту геофізики НАН України є щільною в західних областях України (Закарпаття і Передкарпаття) та більш розрідженою в центрі та на півдні України. Західну частину мережі обслуговує Карпатський відділ сейсмічності, центр та південь — відділ сейсмічної небезпеки ІГФ у м. Києві (рис. 1 (2, 3)), табл. 1). На території Карпатського регіону України працювало 22 сейсмічні станції, переважна більшість яких оснащена сейсмометрами радянського виробництва та цифровими сейсмічними станціями DAS-04 та версії -05 [Кендзера та ін., 1998]. Центр та південь мережі оснащено трикомпонентними сейсмометрами виробництва GEOTECH 1982 р. з цифровим перетворювачем виробництва Інституту геофізики та сейсмометром і перетворювачем виробництва Інституту геофізики типу Guralp. Також Київським відділом сейсмічної небезпеки ІГФ спільно із сейсмологічною лабораторією Геологічної служби США (м. Альбукерке) експлуатується сучасна сейсмологічна станція IRIS KIEV, яка є базовою станцією для спостережень на платформній частині території України. Вона входить до найбільшої, розгалуженої системи сейсмологічного моніторингу в світі — IRIS GSN. Ця сучасна мережа сейсмологічних спостережень використовує новітні інформаційні технології. Одним з її основних досягнень

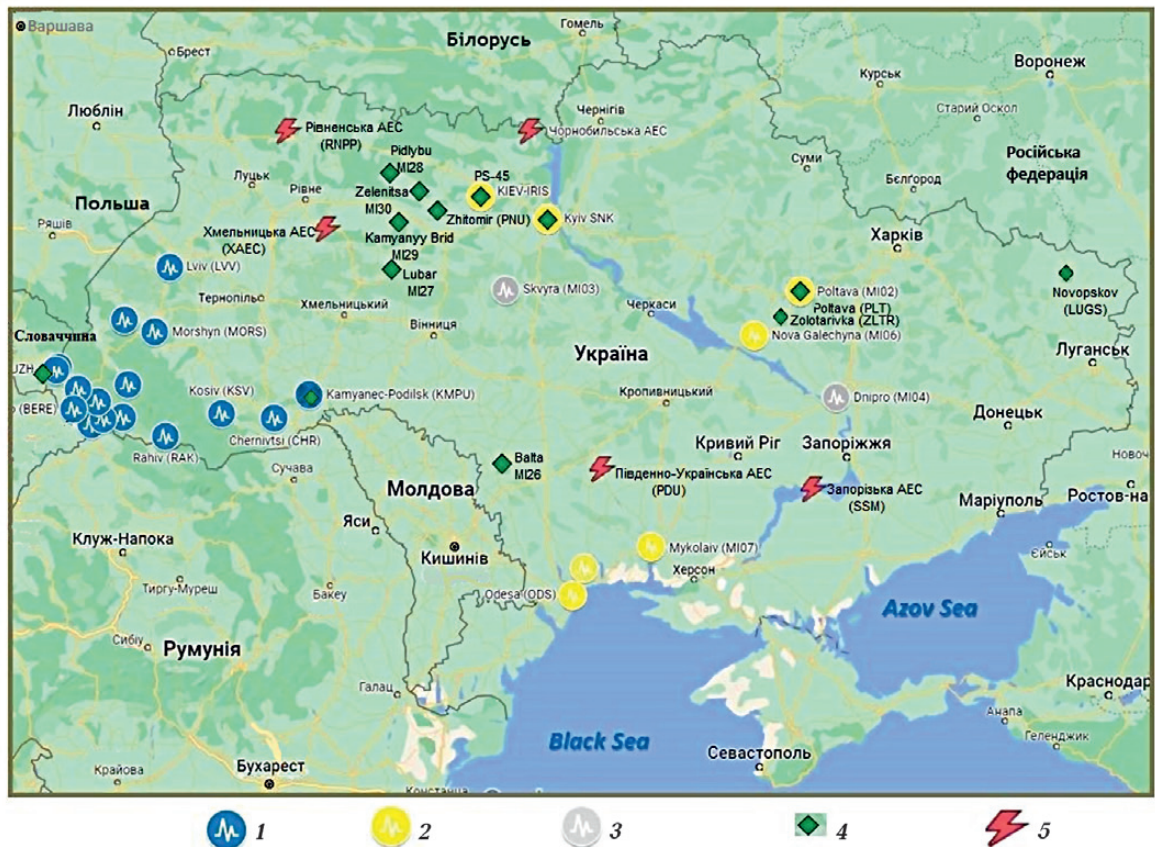


Рис. 1. Національна система спостережень території України охоплює сейсмологічні мережі: 1 — обслуговується Карпатським відділом сейсмічності ІГФ, 2 (online) та 3 (out-of-line) — обслуговуються Київським відділом сейсмічної небезпеки ІГФ; 4 — обслуговується Головним центром спеціального контролю Державного космічного агентства України; 5 — локальні сейсмологічні мережі ДП «НАЕК ЕНЕРГОАТОМ» навколо атомних електростанцій.

Fig. 1. The national system of observations of the territory of Ukraine includes seismological networks: 1 — served by the Carpathian Department of Seismicity of IGF, 2 (online) and 3 (out-of-line) — served by the Kyiv Department of Seismic Hazard of IGF; 4 — served by the Main Center of Special Control of the State Space Agency of Ukraine; 5 — local seismological networks of SE «NAEK ENERGOATOM» around nuclear power plants.

є стандартизація даних і результатів досліджень [Михайлик и др., 2019].

Сейсмологічна мережа Головного центру спеціального контролю станом на 2022 р. складалася з 11 пунктів спостереження, більшість з яких розташована в північній та центральній частинах території України. Пункти спостереження оснащені широкосмуговими цифровими сейсмічними станціями (див. табл. 1).

Крім того, Головним центром обслуговується автоматизований комплекс апаратури сейсмічного групування, включений як первинна станція (PS-45) до Міжнародної системи моніторингу. Угодою між Ка-

бінетом Міністрів України і Підготовчим комітетом Організації договору про всеосяжну заборону ядерних випробувань, що ратифікована Верховною Радою України у 2000 р., Уряд взяв на себе зобов'язання щодо забезпечення всебічного функціонування станції. Станція являє собою територіально рознесену систему збору сейсмологічної інформації, що складається з 23 свердловинних елементів і одного шахтного, розташованого поблизу технічного майданчика (с. Ворсівка). Елементи станції об'єднані єдиною телеметричною системою, що виконує функції як збору інформації одночасно зі всіх елементів, так

і централізованого управління елементами з технічного майданчика. Коливання ґрунту реєструються сейсмоприймачами виробництва компанії Guralp System Limited. У свердловинах встановлені вертикальні короткоперіодні сейсмоприймачі CMG-3ESPV, у шахті — трикомпонентний широкосмуговий сейсмоприймач CMG-3T. Сигнали від кожного датчика перетворюються в цифровий вигляд за допомогою аналого-цифрового перетворювача CMG-DM24S3EAM.

Національний сейсмологічний бюлетень України за 2022 рік. За інструментальними даними у 2022 р. на територіях України і суміжних держав відбулося 160 землетрусів з величиною магнітуди M до 5,4. Основна їх кількість тяжіла до глибокофокусної зони Вранча (Румунія). Інші землетруси, що сталися на територіях сусідніх держав мали локальний характер і не створювали істотного впливу на сейсмічність території України.

Більшість зареєстрованих землетрусів України відбулись у межах Волино-По-

ділля, Дніпровсько-Донецької западини та в зоні зчленування Передкарпатського прогину із Складчастими Карпатами. Величини магнітуд зареєстрованих землетрусів складали від 1,3 до 3,4; гіпоцентри розміщувалися на глибинах від 2 до 10 км. Найбільш потужні землетруси у межах території України було зареєстровано в Полтавській області 06.07.2022 і 03.10.2022. Ці землетруси мали магнітуду $M=3,4$ на глибині 10 км з інтенсивністю до 2 балів в епіцентрній зоні. Крім того, 21.01.2022 р. відбувся землетрус у районі Кривого Рогу. Він мав магнітуду 3,3, але через меншу глибину гіпоцентру ($h=5$ км) спричинив відчутні поштовхи в районі епіцентру з інтенсивністю до 3 балів.

На територіях України, Румунії, Польщі, Молдови та Білорусі зареєстровано землетруси, параметри яких наведено у каталогах з детальною інформацією про них (табл. 2). Розташування епіцентрів зареєстрованих землетрусів показано на карті (рис. 2).

Сейсмологічною мережею також заре-

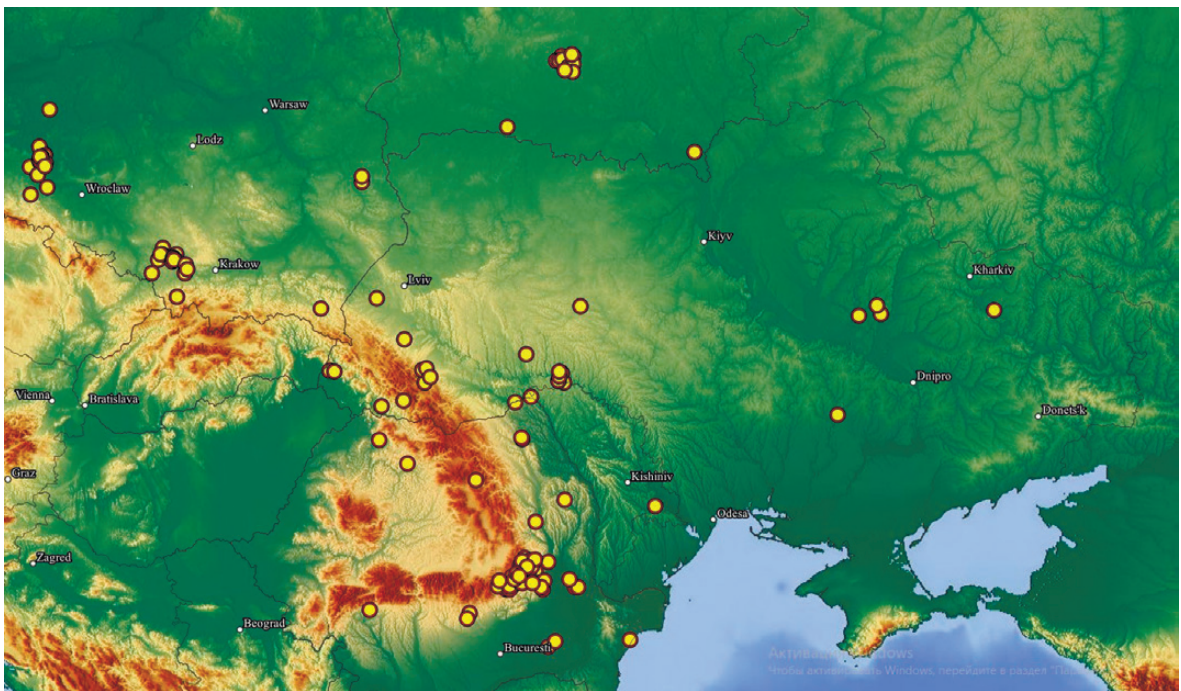


Рис. 2. Розташування епіцентрів землетрусів, зареєстрованих Національною сейсмологічною системою спостережень України 2022 р.

Fig. 2. Location of epicenters of earthquakes registered by the National Seismological Monitoring System of Ukraine in 2022.

Таблиця 1. Обладнання, параметри сейсмічних датчиків мережі ІГФ НАН України і ГЦСК

Номер	Назва сейсмологічної станції	Висота встановлення над рівнем моря	φ, град	λ, град	Тип обладнання	Динамічний діапазон, дБ	Частота, Гц	Канали запису	Приналежність
1	Malyn Kyiv-IRIS (1997)	180	50,7012	29,2242	STS-2.5, STS-1V/VBB; Accelerometer Epi Sensor ES-T; Datalogger- Quanterra Q330	175	0,1—100	N-S, E-W, Z	ІГФ НАНУ
2	Poltava MI02	148	49,6025	34,5430	1 VLPS SL-210; 2 HLPS SL-220 (GEOTECH); Datalogger — IGPH	120	0,02—15,0	Ti самі	ІГФ НАНУ
3	Skvyra MI03	195	49,7173	29,6566	1 VLPS SL-210; 2 HLPS SL-220 (GEOTECH); Datalogger — IGPH	120	0,02—15,0	»	»
4	Stepanivka MI05	20	46,77707	46,77707	1 VLPS SL-210; 2 HLPS SL-220 (GEOTECH); Datalogger — IGPH	120	0,02—15,0	»	»
5	NovaGaleshyna MI06	75	49,10113628	33,44102516	IGPH Seismometr; IGPH Datalogger	120	0,02—15,0	»	»
6	Mykolaiv MI07	55	46,9728	31,97291	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	»	»
7	KyvyriRig MIU	89	47,933	33,33	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	»	»
8	Odesa ODS	2	46,4990	30,7194	Guralp CMG-40T	140	0,03—12,5	»	»
9	Poltava PLT	159	49,605	34,545	CMG-3TD	140	0,03—50	»	ГЦСК
10	Lastivtsi KPD	135	48,563	26,46	КСВ, КСТ	80	0,5—15	»	»
11	Lubar MI27	260	49,9205	27,7576	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	»	»
12	Balta MI26	200	47,9355	29,6013	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	»	»
13	Pidlybu MI28	196	50,9305	27,6694	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	»	»
14	Zelenitsa MI30	215	50,746	28,189	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	»	»

Номер	Назва сейсмологічної станції	Висота встановлення над рівнем моря	φ, град	λ, град	Тип обладнання	Динамічний діапазон, дБ	Частота, Гц	Канали запису	Приналежність
15	КамуанууBrid МІ29	234	50,418	27,85	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	»	»
16	Gorodok МІ25	170	29,4460	50,5980	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	»	»
17	Zolotarivka ZLTR	160	49,1601	31,1301	K-213-C	80	0,5—15	Z	»
18	Zhytomyr (PNU)	168	50,2480	28,6680	Te same	80	0,5—15	»	»
19	Novopskov (LUGS)	159	49,5203	39,1410	»	80	0,5—15	»	»
17	AK01	160	50,6911	29,2131	CMG—3ESPV	140	0,033—50	»	»
18	AK02	170	50,6573	29,2056	»	140	0,033—50	»	»
19	AK03	160	50,7263	29,2216	»	140	0,033—50	»	»
20	AK04	160	50,7226	29,166	»	140	0,033—50	»	»
21	AK05	180	50,6196	29,2036	»	140	0,033—50	»	»
22	AK06	190	50,5858	29,1985	»	140	0,033—50	»	»
23	AK07	170	50,5506	29,2043	»	140	0,033—50	»	»
24	AK08	122	50,6338	29,2548	»	140	0,033—50	»	»
25	AK09	180	50,6151	29,2846	»	140	0,033—50	»	»
26	AK10	180	50,599	29,2513	»	140	0,033—50	»	»
27	AK11	160	50,6783	29,1676	»	140	0,033—50	»	»
28	AK12	180	50,6436	29,1548	»	140	0,033—50	»	»
29	AK13	180	50,6122	29,0606	»	140	0,033—50	»	»
20	AK14	180	50,6306	29,1076	»	140	0,033—50	»	»
21	AK15	170	50,6951	29,124	»	140	0,033—50	»	»
22	AK16	170	50,67	29,1058	»	140	0,033—50	»	»
23	AK17	170	50,6851	29,0573	»	140	0,033—50	»	»
24	AK18	170	50,7221	29,0676	»	140	0,033—50	»	»
25	AK19	180	50,7221	29,0116	»	140	0,033—50	»	»
26	AK20	170	50,743	29,01	»	140	0,033—50	»	»

Номер	Назва сейсмологічної станції	Висота встановлення над рівнем моря	φ, град	λ, град	Тип обладнання	Динамічний діапазон, дБ	Частота, Гц	Канали запису	Приналежність
27	AK21	160	50,7763	29,0418	»	140	0,033—50	»	»
28	AK22	160	50,7608	29,0711	»	140	0,033—50	»	»
29	AK23	160	50,7625	29,1253	»	140	0,033—50	»	»
30	AKBB	160	50,7011	29,2241	СМГ-3Т	137	0,033—50	N-S, E-W, Z	»
31	Kostykhivka RNPP1	168	51,3497	25,7657	СМГ-SPB	137	0,033—100	»	НАЕК «Енергоатом»
32	Varash RNPP2	293	51,3266	25,8896	»	137	0,033—100	»	Те саме
33	Chartoryisk RNPP5	188	51,2291	25,8854	»	137	0,033—100	»	»
34	Polytsy RNPP6	176	51,2583	26,0640	»	137	0,033—100	»	»
35	Kuznetsovsk RNPP8	172	51,3362	25,8547	»	137	0,033—100	»	»
36	Sopachiv RNPP9	165	51,4119	25,8905	»	137	0,033—100	»	»
37	Energodar SSM1	180	47,5061	34,6156	СМГ-3Т BOREHOLE	137	0,033—50	»	»
38	Blagovishhenka SSM2	180	47,4593	34,8223	Те саме	137	0,033—50	»	»
39	Menzhyns'ke SSM5	180	47,6103	34,3409	»	137	0,033—50	»	»
40	Velyka Znam'janka SSM3	180	47,4403	34,3358	»	137	0,033—50	»	»
41	DobraNadija SSM6	180	47,5862	34,7075	»	137	0,033—50	»	»
42	Dniprovka SSM4	180	47,4280	34,6189	»	137	0,033—50	»	»
43	Yuzhnoukrainsk PDU0	150	47,7830	31,1840	»	137	0,033—50	»	»

Номер	Назва сейсмологічної станції	Висота встановлення над рівнем моря	φ, град	λ, град	Тип обладнання	Динамічний діапазон, дБ	Частота, Гц	Канали запису	Приналежність
44	Marivka PDU1	150	47,8758	31,1196	»	137	0,033—50	»	»
45	Arbuzynka PDU2	150	47,8943	31,3161	»	137	0,033—50	»	»
46	Trykraty PDU3	150	47,7181	31,3999	»	137	0,033—50	»	»
Сейсмічні станції Карпатського регіону України									
47	Lviv LVV	320	49,820	24,031	DAS-05; СА-1	120	0,02—15,0	»	КВ ІГФ НАН України
48	Chernivtsi CHR	300	48,298	25,922	Guralp CMG-40T	140	0,03—12,5	»	»
					DAS-05	120	0,02—15,0	»	
49	Morshyn MORS (1978)	260	49,124	23,876	СА, СМ-3КВ	120	0,02—15,0	»	»
					DAS-03; СМ-3КВ	120	0,2—15,0	»	
50	Uzhgorod UZH (1934)	160	48,629	22,291	DAS-04; СА	120	0,2—15,0	»	»
51	Onokivtsi ONO (1963)	168	48,664	22,333	DAS-03; СКМ-3	120	0,02—5,0	»	»
52	Miggir'ya MEZ (1961)	420	48,543	23,498	DAS-05; СА	120	0,02—15,0	»	»
53	Trosnyk TRSU (1987)	120	48,095	22,957	DAS-03; СМ-3КВ	120	0,2—15,0	»	»
54	NygneSelysche NSL(1987)	250	48,198	23,457	DAS-03; СМ-3КВ	120	0,2—15,0	»	»
55	Rahiv RAK (1956)	460	48,036	24,173	DAS-04; СА	120	0,02—15,0	»	»
56	Kosiv KSV (1961)	450	48,314	25,065	DAS-04; СА	120	0,02—15,0	»	»
57	Chernivtsi CHR (1907)	300	48,298	25,922	DAS-05; СА	120	0,02—15,0	»	»
58	Gorodok HORU (1991)	340	49,214	26,426	DAS-03; СМ-3КВ	120	0,2—15,0	»	»

Номер	Назва сейсмологічної станції	Висота встановлення над рівнем моря	Ф, град	λ, град	Тип обладнання	Динамічний діапазон, дБ	Частота, Гц	Канали запису	Приналежність
59	Камуанес-Подіиск КМПУ (2005)	121	48,563	26,460	DAS-05; CM-3KB	120	0,2—15,0	»	»
60	Novo-Dnistrovsk NDNU (2006)	242	48,595	27,366	DAS-04; CM-3KB	120	0,2—15,0	»	»
61	Korolevo KORU (1998)	160	48,157	23,134	DAS-05; CM-3KB	120	0,2—15,0	»	»
62	Shidnytsya SHIU (2006)	600	49,22	23,35	DAS-03; CM-3KB	120	0,2—15,0	»	»
63	Starunya STAU (2007)	391	48,71	24,50	DAS-05	120	0,2—15,0	»	»
64	Mukachevo MUKU (1999)	125	48,454	22,687	DAS-05	120	0,2—15,0	»	»
65	Beregovo BERE (2000)	160	48,234	22,646	DAS-05	120	0,2—15,0	»	»
66	Brid BRIU(2000)	180	48,338	23,020	DAS-05	120	0,2—15,0	»	»
67	Southukraine PDIU (time-domain) (2007)	420	47,711	31,149	DAS-03	120	0,2—15,0	»	»
68	Uzhhorod UZH	160	48,629	22,291	КСВ, КСГ	80	0,5—15	»	»

Примітка. GuralpCMG-40T, CMG-3T, CMG — 3ESPV — широкополосні сейсмометри компанії GuralpSystemsLtd (England); STS-2.5, STS-IV/VBB — Streckeisen Seismic Instrumentation (Switzerland); EpiSensor ES-T — акселерометри виробництва Kinematics (USA); QuanterraQ330 — цифровий перетворювач фірми Quanterra Environmental Processorusedin IRIS US Array/TA and GSN stations (Quanterra, Inc., USA); VLPSSL-210 GEOTECH — verticalalong-period seismometers model SL-210 and HLPSSL-220 — horizon along-period seismometers modelSL-220 (Geotech Instruments, LLC, USA); DAS (Digital automatic seismometer); 03, 04, 05 — generation of digital automatic seismometer (made by Institute of geophysics (IGPH)); сейсмометри радянського виробництва: КСВ, К-213-С — короткоперіодні вертикальні сейсмометри, КСГ — короткоперіодні горизонтальні сейсмометри, СКМ-3 — сейсмометр Кірноса; СКД — довгоперіодний сейсмометр; CM-3KB магнітоелектричний сейсмометр. IGPH Seismometr та IGPH Data logger — копія сейсмометра Guralp CMG-40 та цифровий перетворювач, розроблені в Інституті геофізики Михайликом І.Ю.

естровано 1093 промислові вибухи у гірничих виробках і кар'єрах Житомирської, Криворізької та інших областей України (рис. 3), інформацію про які включено та опубліковано в бюлетені для території України.

Землетруси Волино-Поділля та Українського щита. У межах Волино-Поділля та Українського щита зареєстровано 11 землетрусів з величинами магнітуд $M=1,7\div 3,3$.

Переважна більшість епіцентрів зареєстрованих землетрусів знаходиться на границі Українського щита та Волино-Подільської моноклінали в Подільській зоні розломів у районі м. Новодністровськ (рис. 4). Інтенсивність струшувань в епіцентрах цих землетрусів не перевищувала 2 балів.

21.01.2022 р. у центральній частині Українського щита на північ від м. Кривий

Ріг було зареєстровано землетрус з магнітудою $M=3,3$ та інтенсивністю до 3 балів в епіцентральної області. Розташування епіцентру землетрусу на фрагменті тектонічної карти показано на рис. 5, сейсмічний запис та спектрально-часову діаграму землетрусу — на рис. 6. Землетрус виник у верхній частині земної кори Середньопридніпровського мегаблока Українського щита і приурочений до складної зони перетину діагональних розломів північно-західного простягання із зоною Криворізько-Кременчуцького розлому [Тектонічна..., 2007]. Слід зазначити, що землетруси в цій зоні розломів фіксуються вже не вперше. Це є свідченням сейсмічної активізації, пов'язаної, ймовірно, зі зміною напружено-деформованого стану на деяких ділянках земної кори у зв'язку з порушенням геодинамічної рівноваги, що спричинена

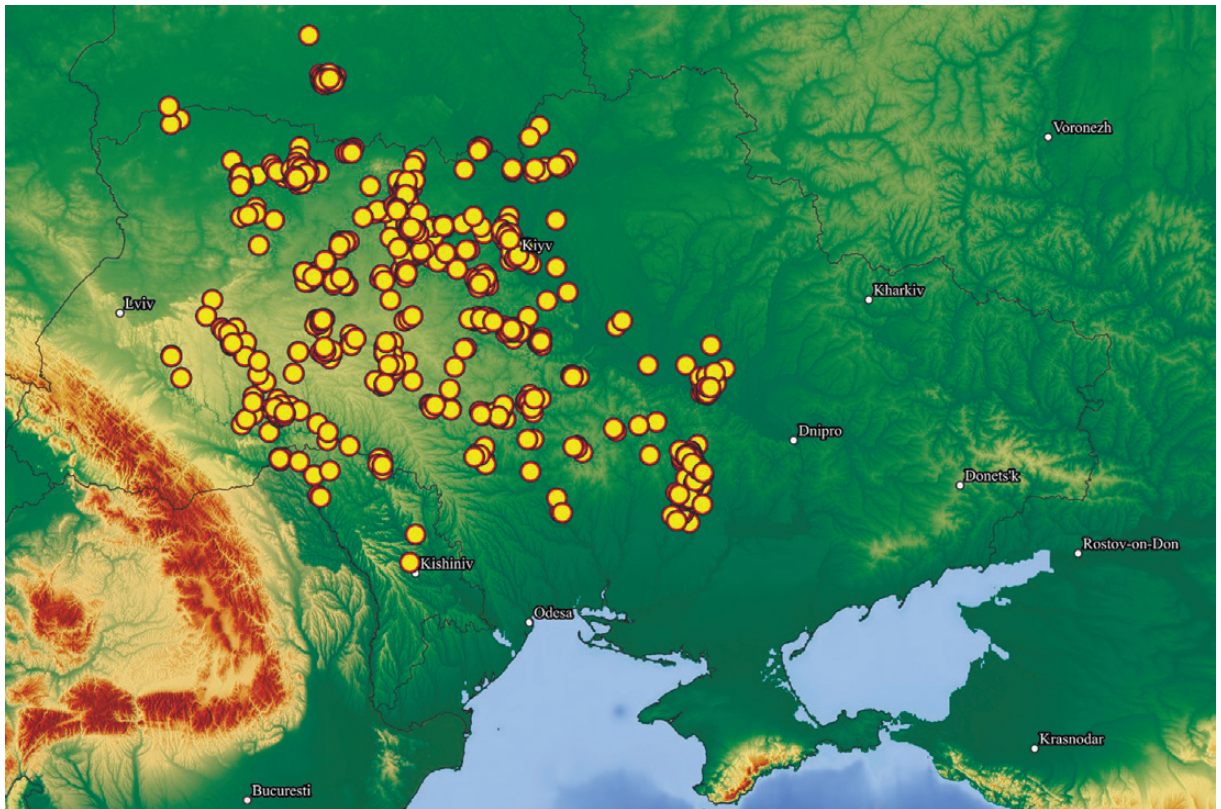


Рис. 3. Розташування епіцентрів промислових вибухів, зареєстрованих Національною сейсмологічною системою спостережень України у 2022 р.

Fig. 3. Location of epicenters of industrial explosions registered by the National Seismological Monitoring System of Ukraine in 2022.

Таблиця 2. Каталог землетрусів за 2022 р.

Номер п/п	Дата	Час у джерелі (за Гринвічем)	Координати джерела		Магнітуда	Розрахункова інтенсивність	Глибина, км	Місце джерела
			Широта	Довгота				
1	2022.01.01	13:07:16	45,62	26,48	2,90	1,0	140	Румунія
2	2022.01.02	03:08:17	45,50	26,42	3,60	2,0	125	»
3	2022.01.03	06:36:25	45,69	26,69	2,50	1,0	128	»
4	2022.01.03	21:24:52	48,88	26,66	2,30	1—2	2	Хмельницька обл.
5	2022.01.06	16:54:56	51,10	15,94	2,60	1,0	16	Польща
6	2022.01.07	23:02:04	45,59	26,51	4,00	3,0	115	Румунія
7	2022.01.10	21:18:39	45,45	27,72	3,50	1—2	12	»
8	2022.01.12	00:41:51	45,46	27,79	2,40	1,0	10	»
9	2022.01.13	00:31:13	45,42	26,23	3,10	1,0	139	»
10	2022.01.13	12:14:01	51,63	16,23	4,30	4,0	10	Польща
11	2022.01.13	12:44:32	48,64	22,41	1,50	1,0	1	Закарпатська обл.
12	2022.01.14	11:17:07	48,63	22,50	1,30	1,0	2	Закарпатська обл.
13	2022.01.14	22:03:23	45,57	26,52	3,40	1—2	117	Румунія
14	2022.01.15	21:51:27	45,78	26,52	3,60	2,0	105	»
15	2022.01.16	13:43:14	45,66	26,63	4,40	3,0	138	»
16	2022.01.18	07:47:01	45,67	26,59	3,80	2,0	145	»
17	2022.01.18	16:51:42	45,74	26,77	3,00	1—2	76	»
18	2022.01.19	02:01:19	52,94	27,43	3,3	1,0	18	Білорусь
19	2022.01.19	11:16:26	45,78	26,62	3,40	2,0	103	Румунія
20	2022.01.21	04:17:02	48,01	33,41	3,30	3,0	5	Дніпропетровська обл.
21	2022.01.21	21:37:28	45,54	26,46	2,90	1,0	94	Румунія
22	2022.01.22	20:10:42	45,43	26,22	2,10	1,0	110	»
23	2022.01.23	13:26:35	45,50	26,98	2,30	1,0	11	»
24	2022.01.26	07:33:07	52,94	27,69	2,30	1,0	14	Білорусь
25	2022.02.01	22:19:37	45,65	26,62	3,60	1—2	129	Румунія
26	2022.02.03	12:13:44	50,37	18,79	2,70	2	3	Польща
27	2022.02.05	05:19:01	51,61	16,20	4,50	4—5	8	»
28	2022.02.07	19:34:29	50,28	19,08	3,70	2—3	9	»
29	2022.02.08	00:24:47	46,76	27,50	2,20	1,0	9	Румунія
30	2022.02.09	21:21:42	44,54	27,14	2,80	1,0	15	Румунія
31	2022.02.09	21:28:50	52,88	27,31	2,40	1,0	14	Білорусь
32	2022.02.10	19:34:24	51,47	15,91	3,80	2—3	12	Польща
33	2022.02.11	04:10:17	49,69	19,10	3,60	1—2	14	»
34	2022.02.15	01:08:58	51,27	23,10	2,60	3,0	2	»
35	2022.02.16	06:26:25	52,88	27,37	2,50	1,0	13	Білорусь
36	2022.02.22	13:46:46	45,78	26,79	3,00	2,0	74	Румунія
37	2022.02.22	19:16:23	45,69	26,87	2,90	1,0	82	»
38	2022.02.27	13:12:41	49,50	36,79	3,00	2,0	5	Харківська обл.
39	2022.03.13	22:31:05	45,80	26,76	4,10	3,0	102	Румунія

Номер п/п	Дата	Час у джерелі (за Гринвічем)	Координати джерела		Магнітуда	Розрахункова інтенсивність	Глибина, км	Місце джерела
			Широта	Довгота				
40	2022.03.14	07:32:07	45,70	26,60	4,20	3,0	100	»
41	2022.03.18	21:50:11	49,09	24,03	2,50	1,0	6	Івано-Франківська обл.
42	2022.03.19	11:22:02	48,13	23,52	2,30	1,0	3	Закарпатська обл.
43	2022.03.23	21:12:45	45,54	26,62	3,50	1,0	136	Румунія
44	2022.03.30	06:48:34	45,59	26,54	2,90	1,0	123	»
45	2022.03.31	14:07:48	51,56	16,19	3,30	3,0	4	Польща
46	2022.04.07	16:58:45	51,54	16,14	4,30	5,0	5	»
47	2022.04.12	10:26:29	47,64	23,48	1,40	1,0	9	Румунія
48	2022.04.16	18:46:44	50,20	18,69	2,90	1,0	10	Польща
49	2022.04.21	07:33:54	45,80	26,75	3,50	1—2	116	Румунія
50	2022.04.24	07:41:46	47,30	24,09	2,50	1,0	10	»
51	2022.04.25	01:21:20	45,42	27,02	3,20	1,0	16	»
52	2022.04.25	02:56:44	45,50	26,29	3,30	1,0	130	»
53	2022.04.27	18:53:25	51,66	16,18	4,60	4	11	Польща
54	2022.04.28	20:14:01	50,28	18,77	3,10	3—4	2	»
55	2022.05.03	15:24:00	51,58	16,13	3,90	3,0	9	»
56	2022.05.10	03:33:19	45,55	26,42	3,10	1,0	131	Румунія
57	2022.05.11	15:46:26	45,56	26,42	4,10	2—3	138	»
58	2022.05.13	02:19:43	50,28	18,74	3,30	2,0	10	Польща
59	2022.05.13	15:31:52	51,64	16,25	3,70	3—4	5	»
60	2022.05.16	16:06:57	51,69	16,16	3,50	3—4	5	»
61	2022.05.19	21:35:13	45,70	26,72	3,20	2,0	87	Румунія
62	2022.05.22	00:58:56	45,47	26,04	3,00	2,0	59	»
63	2022.05.23	12:07:59	50,24	19,01	2,70	1,0	4	Польща
64	2022.05.23	15:40:32	45,58	26,57	2,40	1,0	123	Румунія
65	2022.05.26	20:49:15	48,27	26,77	2,20	1	5	Молдова
66	2022.05.28	08:16:40	51,54	16,15	3,40	2,0	10	Польща
67	2022.05.29	23:12:57	46,44	26,87	2,20	1	18	Румунія
68	2022.05.30	00:29:32	45,55	26,62	3,40	1,0	150	»
69	2022.06.01	02:53:19	52,90	27,45	2,30	1,0	17	Білорусь
70	2022.06.04	18:45:36	48,19	26,43	2,30	1,0	5	Румунія
71	2022.06.07	15:40:21	45,42	26,30	3,40	1—2	112	»
72	2022.06.08	16:07:56	52,81	27,58	2,50	1,0	6	Білорусь
73	2022.06.09	17:19:33	47,66	26,57	2,40	1,0	3	Румунія
74	2022.06.09	19:58:03	50,18	19,00	3,20	3,0	3	Польща
75	2022.06.10	06:34:47	47,68	26,55	1,70	1,0	8	Румунія
76	2022.06.19	20:54:43	45,65	26,50	3,30	1,0	145	»
77	2022.06.21	14:37:11	49,45	34,33	3,40	2,0	10	Полтавська обл.
78	2022.06.22	16:06:59	51,56	16,19	3,50	2,0	11	Польща
79	2022.06.23	00:57:49	51,60	16,18	3,50	2—3	9	»

Номер п/п	Дата	Час у джерелі (за Гринвічем)	Координати джерела		Магнітуда	Розрахункова інтенсивність	Глибина, км	Місце джерела
			Широта	Довгота				
80	2022.06.25	04:27:07	50,21	19,06	3,60	2,0	10	»
81	2022.06.30	01:52:24	45,47	26,30	3,00	1,0	130	Румунія
82	2022.07.01	08:23:14	50,23	19,02	3,00	1—2	8	Польща
83	2022.07.01	17:11:14	45,53	26,97	2,90	1,0	11	Румунія
84	2022.07.01	17:16:39	45,55	27,06	2,60	1,0	10	»
85	2022.07.04	10:56:45	45,59	26,58	4,00	2—3	123	»
86	2022.07.10	22:31:01	49,56	27,84	1,70	1	3	Вінницька обл.
87	2022.07.11	00:50:27	48,61	27,42	2,60	2,0	3	Чернівецька обл.
88	2022.07.12	00:34:57	45,84	27,13	2,70	2,0	28	Румунія
89	2022.07.13	09:04:15	45,45	26,98	4,00	2—3	15	»
90	2022.07.15	03:01:25	50,02	18,56	3,00	2—3	3	Польща
91	2022.07.16	07:39:21	45,11	23,28	4,10	5,0	4	Румунія
92	2022.07.17	23:04:30	45,76	26,75	4,00	3—4	81	»
93	2022.07.19	16:56:21	50,21	19,04	3,20	2,0	7	Польща
94	2022.07.24	22:04:17	44,65	28,90	2,90	1,0	7	Румунія
95	2022.07.26	16:12:59	52,24	16,34	3,60	2,0	10	Польща
96	2022.08.01	21:14:13	51,75	16,12	4,00	3—4	10	»
97	2022.08.02	00:44:32	45,58	27,59	2,20	1,0	15	Румунія
98	2022.08.02	22:26:45	50,21	19,04	2,80	1,0	5	Польща
99	2022.08.04	10:33:37	52,84	27,69	2,30	1,0	18	Білорусь
100	2022.08.07	16:50:22	45,89	26,63	3,50	1,0	85	Румунія
101	2022.08.11	10:34:20	49,67	23,43	1,90	1	5	Львівська обл.
102	2022.08.15	19:26:58	51,37	16,09	3,30	2,0	10	Польща
103	2022.08.18	14:18:36	51,63	16,25	3,70	2,0	10	»
104	2022.08.21	12:20:20	52,74	27,67	2,60	1,0	10	Білорусь
105	2022.08.25	20:10:51	49,53	22,22	3,10	1—2	7	Польща
106	2022.08.26	01:55:09	52,01	26,25	2,40	1,0	9	Білорусь
107	2022.08.27	14:30:08	46,67	29,45	2,90	2—3	4	Молдова
108	2022.08.27	21:14:40	45,68	26,65	2,70	1,0	137	Румунія
109	2022.08.30	10:47:12	45,77	26,56	2,70	1,0	131	»
110	2022.09.05	13:08:10	47,06	25,57	2,00	1—2	2	»
111	2022.09.07	09:32:12	51,68	30,30	1,50	1,0	5	Білорусь
112	2022.09.09	06:48:08	51,20	16,29	3,30	1,0	11	Польща
113	2022.09.11	04:41:38	45,86	26,75	3,10	1,0	114	Румунія
114	2022.09.11	16:08:19	45,70	26,70	4,20	3,0	129	»
115	2022.09.12	02:21:09	49,08	379	3,30	2,0	8	Харківська обл.
116	2022.09.13	02:50:15	45,61	26,35	4,20	2—3	142	Румунія
117	2022.09.14	05:47:21	51,61	16,17	4,30	4,0	10	Польща
118	2022.09.18	17:55:24	45,06	25,43	4,00	4,0	22	Румунія
119	2022.09.20	12:06:25	52,76	27,50	2,00	1,0	19	Білорусь
120	2022.09.21	14:39:38	51,53	16,26	3,70	4,0	9	Польща

Номер п/п	Дата	Час у джерелі (за Гринвічем)	Координати джерела		Магнітуда	Розрахункова інтенсивність	Глибина, км	Місце джерела
			Широта	Довгота				
121	2022.09.23	03:20:16	51,35	23,10	2,60	1—2	5	»
123	2022.09.24	11:57:46	45,57	26,55	3,70	2,0	123	Румунія
124	2022.09.30	10:32:37	48,47	24,46	2,20	2,0	2	Івано- Франківська обл.
125	2022.10.03	11:49:39	49,43	33,87	3,40	1—2	10	Полтавська обл.
126	2022.10.03	15:14:47	45,73	26,63	3,20	2,0	72	Румунія
127	2022.10.03	15:44:10	45,54	26,51	3,80	2,0	132	»
128	2022.10.06	07:43:24	48,48	27,47	2,40	1,0	4	Чернівецька обл.
129	2022.10.09	11:00:55	45,85	26,58	3,10	2,0	76	Румунія
130	2022.10.12	18:20:18	51,56	16,12	3,60	3,0	6	Польща
131	2022.10.15	18:00:27	51,55	16,16	3,70	2,0	10	»
132	2022.10.17	09:23:40	51,59	16,18	3,70	4,0	5	Польща
133	2022.10.19	01:39:50	45,76	26,78	3,80	2,0	113	Румунія
134	2022.10.24	15:45:10	50,14	19,29	3,20	2,0	5	Польща
135	2022.10.25	00:13:14	45,60	26,47	3,10	1,1	110	Румунія
136	2022.10.31	16:45:04	51,61	16,14	3,70	4,0	5	Польща
137	2022.11.03	04:50:25	45,51	26,57	5,40	5,0	146	Румунія
138	2022.11.06	07:42:20	44,97	25,39	3,00	1,0	9	Румунія
139	2022.11.14	13:45:32	48,65	24,41	2,30	1—2	4	Івано-Франківська обл.
140	2022.11.15	12:31:09	48,68	24,49	2,20	2,0	3	Івано-Франківська обл.
141	2022.11.17	22:00:46	48,50	27,35	2,70	2,0	4	Чернівецька обл.
142	2022.11.20	19:13:07	51,48	16,24	3,10	2,0	7	Польща
143	2022.11.25	05:31:37	45,55	26,08	2,70	2,0	54	Румунія
144	2022.11.26	01:59:27	45,51	26,80	2,60	1,0	144	»
145	2022.12.01	09:02:16	48,61	27,42	2,20	1,0	6	Чернівецька обл.
146	2022.12.02	16:23:16	44,63	27,29	2,70	1,0	10	Румунія
147	2022.12.04	05:00:57	49,57	34,26	2,20	1,0	9	Полтавська обл.
148	2022.12.04	19:39:42	45,87	26,85	3,80	4,0	79	Румунія
149	2022.12.07	01:49:38	45,58	26,40	3,40	1,0	142	»
150	2022.12.15	01:55:47	50,02	19,28	3,50	2,0	10	Польща
151	2022.12.15	23:47:12	45,77	26,67	4,00	3,0	89	Румунія
152	2022.12.17	05:42:57	45,66	26,46	4,40	3,0	151	»
153	2022.12.23	04:00:42	48,50	27,36	2,20	1,0	2	Чернівецька обл.
154	2022.12.23	04:22:01	48,56	27,38	3,00	2,0	3	»
155	2022.12.24	01:33:12	48,63	27,37	2,20	1	2	»
156	2022.12.24	03:51:23	50,07	19,32	3,40	2—3	7	Польща
157	2022.12.26	07:47:09	45,62	26,51	3,60	2,0	106	Румунія
158	2022.12.27	20:15:01	52,96	27,64	2,90	1,0	23	Білорусь
159	2022.12.28	11:51:47	48,55	24,59	2,40	2,0	2	Івано-Франківська обл.
160	2022.12.28	12:40:59	48,22	24,01	2,80	1—2	9	Закарпатська обл.

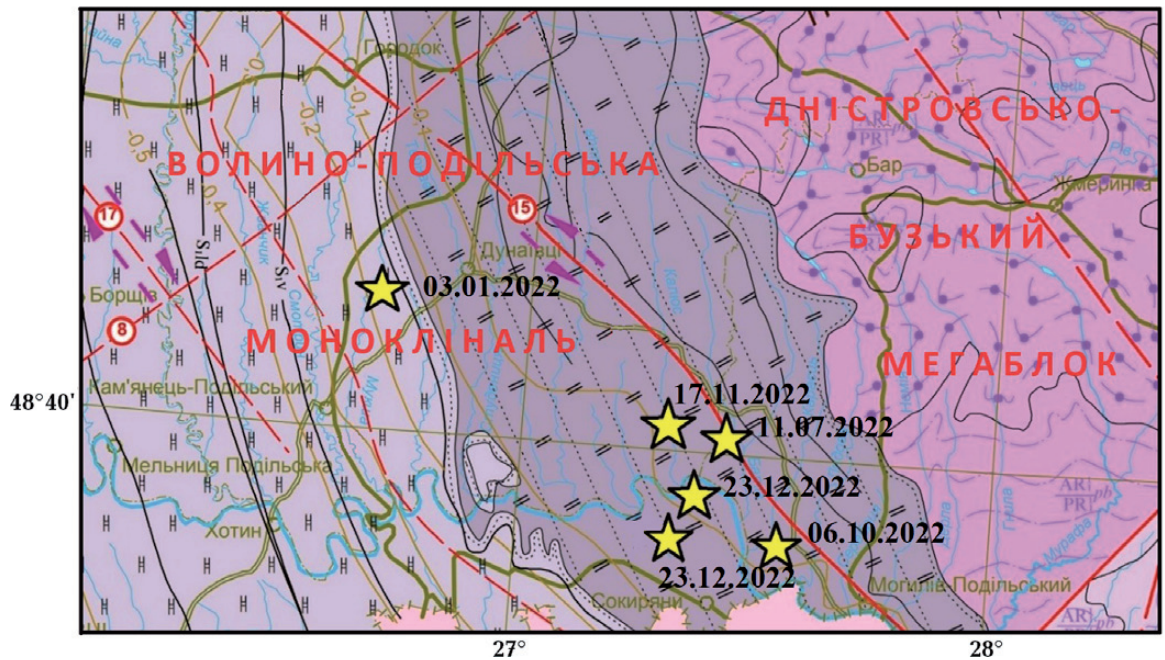


Рис. 4. Розташування епіцентрів землетрусів у Подільській зоні розломів на фрагменті тектонічної карти. Умовні позначення див. на карті України [Тектонічна ..., 2007].

Fig. 4. Location of earthquake epicenters in the Podilsk fault zone on a fragment of the tectonic map. Conventional designations can be seen on the map of Ukraine [Kruglov, Gurskiy, 2007].

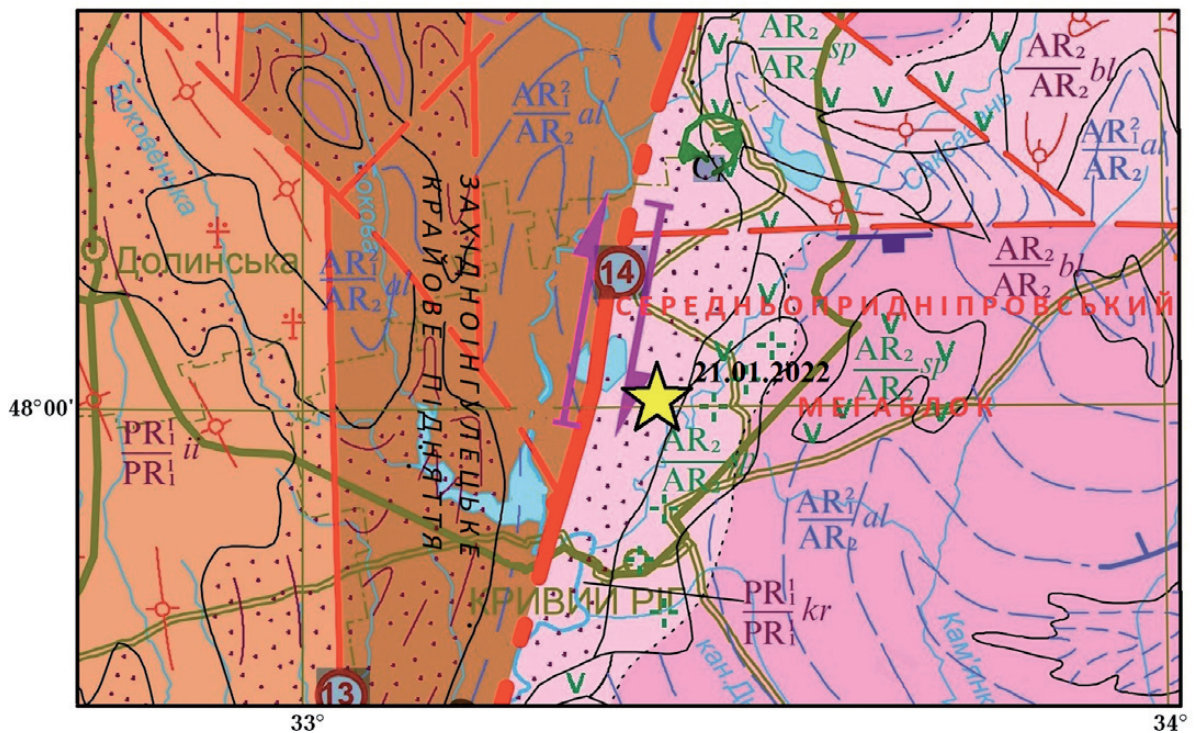


Рис. 5. Розташування епіцентру землетрусу 21.01.2022 з магнітудою $M=3,3$ у районі м. Кривий Ріг на фрагменті тектонічної карти України. Умовні позначення див. на карті [Тектонічна ..., 2007].

Fig. 5. The location of the epicenter of the 21.01.2022 earthquake with a magnitude of $M=3.3$ in the area of the city of Kriviy Rih on a fragment of the tectonic map of Ukraine. Conventional designations can be seen on the map [Kruglov, Gurskiy, 2007].

потужними вибухами під час наземної і підземної виробок корисних копалин [Бородулин, Байсарович, 1992; Пігулевський та ін., 2017].

Землетруси в Дніпровсько-Донецькій западині (ДДЗ). Протягом 2022 р. у центральній частині ДДЗ було зареєстровано три землетруси. Інформацію про глибини гіпоцентрів, координати епіцентрів та магнітуди подій наведено у табл. 2. Розташування епіцентрів показано на фрагменті тектонічної карти [Тектонічна ..., 2007] (рис. 7).

Записи та спектрально-часові діаграми сейсмічних подій (рис. 8) мають низку спе-

цифічних особливостей, характерних для тектонічних землетрусів, які встановлені в результаті зіставлення подій різної природи, зареєстрованих в межах ДДЗ [Кутас и др., 2015]. Спектрограма насичена, без явних затухань. Максимум спектральної густини в інтервалі запису *S*-хвилі знаходиться у смузі частот до 7 Гц, що є характерною особливістю тектонічних землетрусів.

Вогнища землетрусів розміщувалися на глибині 9—10 км, у зоні глибинного розлому між Центральною та Південною прибортовими зонами ДДЗ. Ділянку його перетину субмеридіальною зоною розломів, що проходять у ДДЗ між містами Миргород і Полтава, можна розглядати як потенційно сейсмоактивну.

Землетруси Передкарпаття. Сейсмічність на території Передкарпатського прогину пов'язана переважно з двома чинниками — регіональною складовою глобального геодинамічного процесу та локальними процесами. До першої категорії належать процеси, що зумовлюють втягування Східноєвропейської платформи у деформаційні процеси, що відбуваються в Альпійсько-Трансазійському сейсмоактивному поясі і можуть бути причиною сильних землетрусів на цій території. Локальна складова сейсмічності пов'язана здебільшого з процесами в мантії регіону, деформаційними та фізико-хімічними процесами в земній корі, антропогенним впливом тощо.

Територія заходу України зазнає впливу як місцевих землетрусів, так і глибокофокусних сильних землетрусів зони Вранча (Румунія). Аналіз розташування епіцентрів землетрусів, зареєстрованих протягом 2022 р. у Передкарпатському прогині, дав можливість виділити два сейсмоактивні райони: Долинський та Надвірнянський.

Сейсмічність Долинського району. 18.03.2022 р. в околі м. Долина було зареєстровано землетрус з магнітудою $M=2,5$ та інтенсивністю струшувань в епіцентрі до 1 бала. Сейсмічність цього району пов'язано з порушенням геодинамічної рівноваги в геологічному середовищі внаслідок інтен-

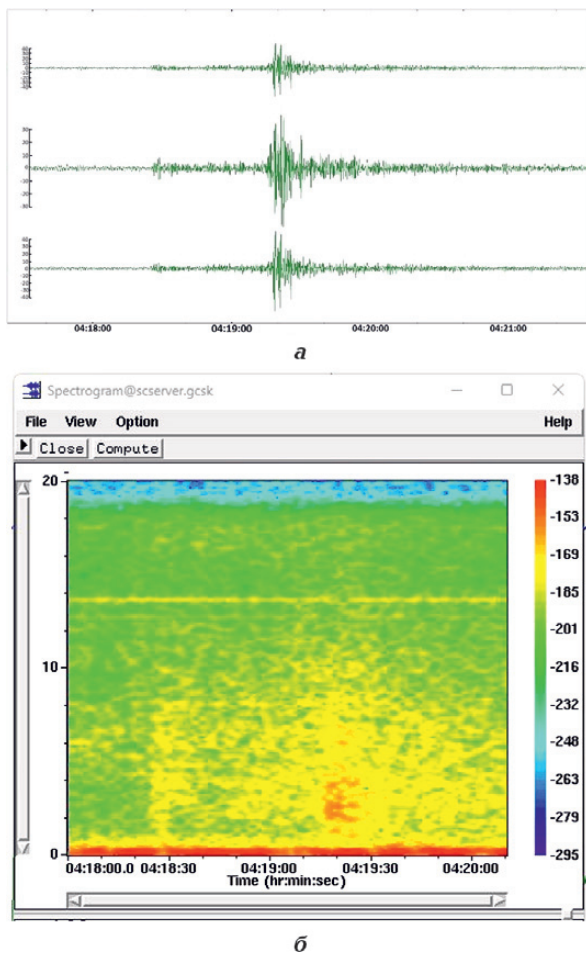


Рис. 6. Сейсмічний запис (а) та спектрально-часова діаграма (б) землетрусу 21.01.2022 з магнітудою $M=3,3$ у районі м. Кривий Ріг.

Fig. 6. Seismic record (a) and spectral-time diagram (b) of the earthquake on January 21, 2022 with a magnitude of $M=3.3$ in the area of Kryvyi Rih.

сивного видобутку вуглеводнів Долинсько-го родовища з початку 1950-х років. Вогнище землетрусу тяжіє до складної зони перетину Передкарпатського, Краковецького і Турянського розломів.

Сейсмічність Надвірнянського району. Сейсмоактивна зона в околі м. Надвірна тяжіє до Бориславсько-Покутської зони Передкарпатського прогину. Тут розміщується Надвірнянський морфоструктурно-неотектонічний вузол. Він утворений перетином Передкарпатського й ортогонального Шопурсько-Надвірнянсько-Монастирецького розломів і належить до трьох найбільших вузлів у Передкарпатті. У цьому районі зареєстровано чотири землетруси з магнітудами $M=2,2\div 2,4$ та інтенсивностями струшувань в епіцентрах до 2 балів (рис. 9).

Висновки. Сейсмологічною мережею у 2022 р. зареєстровано більш як півтори сотні землетрусів на територіях України та суміжних держав, основна частина яких

тяжіла до глибокофокусної зони Вранча (Румунія). Максимальна зафіксована магнітуда землетрусу — 5,4.

Найбільш потужні землетруси у межах території України було зареєстровано в Полтавській області 21.06 та 03.10.2022. Магнітуди землетрусів дорівнювали 3,4, що на глибині гіпоцентру 10 км спричинило струшування в епіцентральної області інтенсивністю до 2 балів. Крім того, 21.01.2022 р. стався землетрус у районі Кривого Рогу. Цей землетрус мав магнітуду $M=3,3$, але через меншу глибину гіпоцентру ($h=5$ км) спричинив відчутні струшування в районі епіцентру з інтенсивністю до 3 балів.

Землетруси, що відбулись на територіях інших суміжних держав мали локальний характер та не створювали значного впливу на сейсмічність території України. Більшість епіцентрів зареєстрованих землетрусів знаходилися в межах Волино-Поділля та на границі Передкарпатсько-

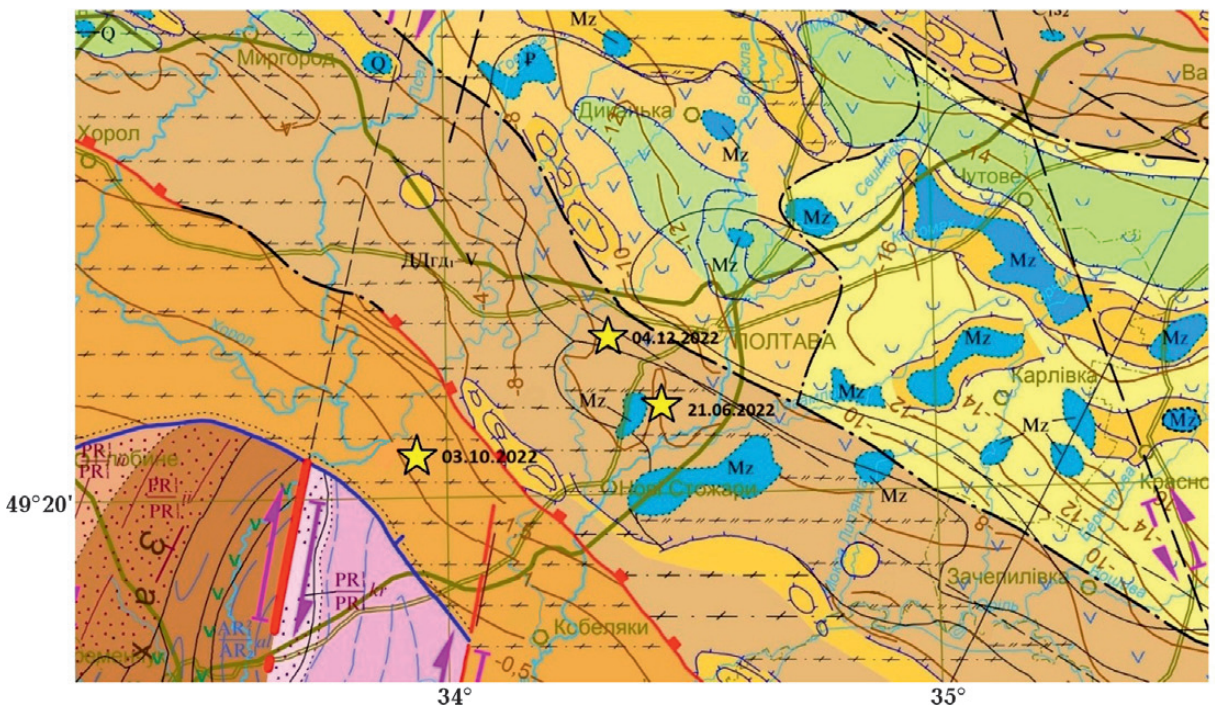


Рис. 7. Розташування епіцентрів землетрусів у Дніпровсько-Донецькій западині на фрагменті тектонічної карти України. Умовні позначення див. на карті [Тектонічна ..., 2007].

Fig. 7. Location of earthquake epicenters in the Dnipro-Donetsk Depression on a fragment of the tectonic map of Ukraine. Conventional designations can be seen on the map [Kruglov, Gurskyi, 2007].

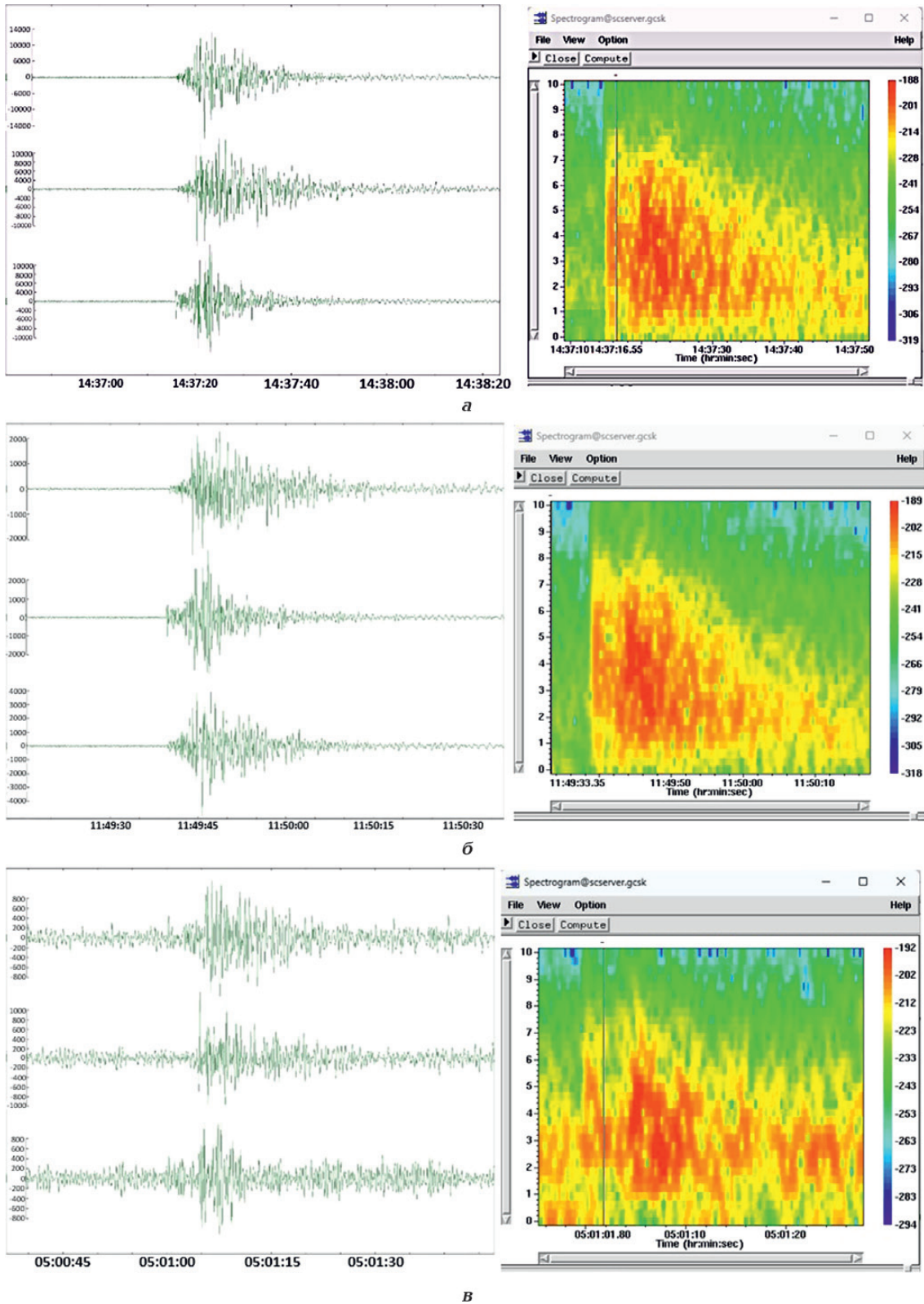


Рис. 8. Записи та спектрально-часові діаграми сейсмічних подій: *а* — землетрусу 21.06.2022 ($M=3,4$), *б* — землетрусу 03.10.2022 ($M=3,4$), *в* — землетрусу 04.12.2022 ($M=2,2$).

Fig. 8. Records and spectral-time diagrams of seismic events: *a* — earthquake of 21.06.2022 ($M=3.4$), *б* — earthquake of 03.10.2022 ($M=3.4$), *в* — earthquake of 04.12.2022 ($M=2.2$).

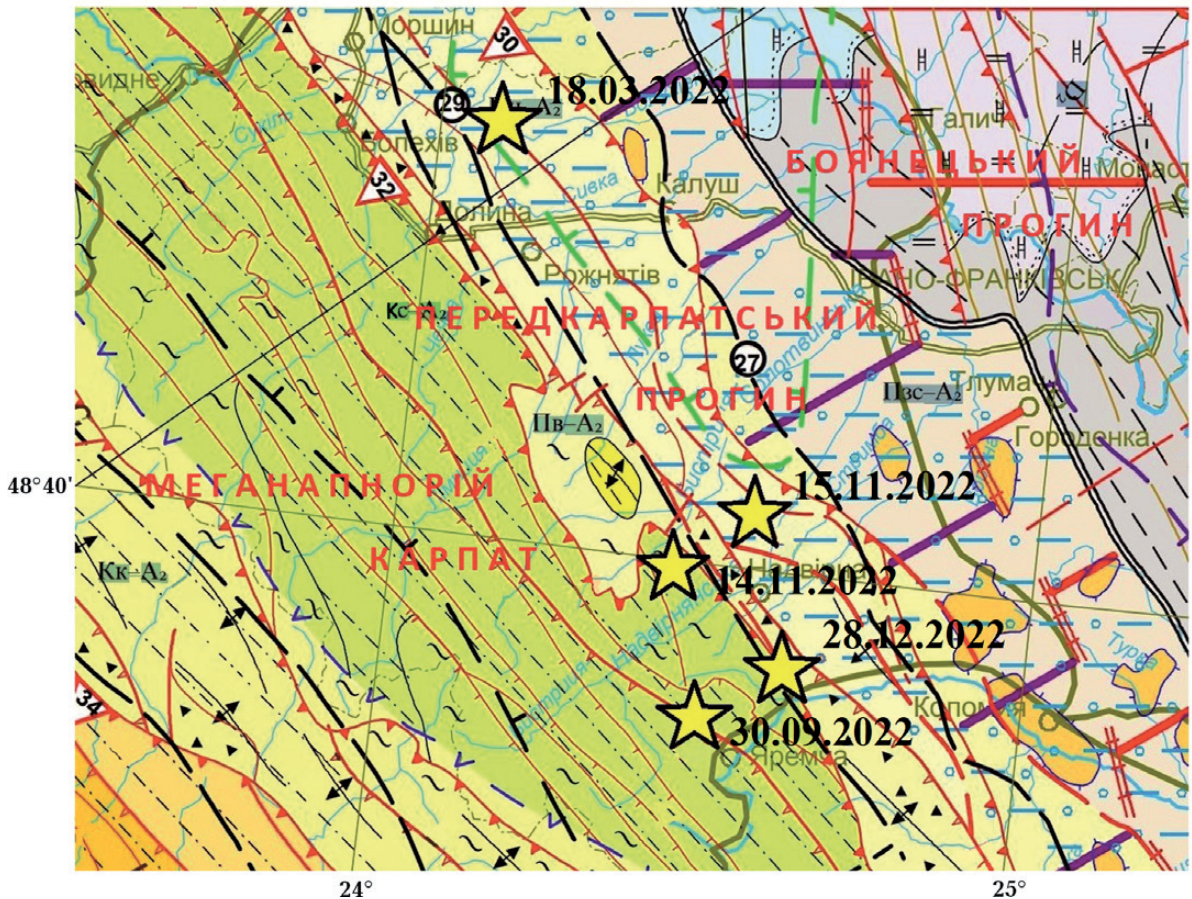


Рис. 9. Розташування епіцентрів землетрусів в районі Передкарпатського прогину на фрагменті тектонічної карти України. Умовні позначення див. на карті [Тектонічна ..., 2007].

Fig. 9. Location of earthquake epicenters in the area of the Pre-Carpathian depression on a fragment of the tectonic map of Ukraine. Conventional designations can be seen on the map [Kruglov, Gurskiy, 2007].

го прогину із Складчастими Карпатами.

Повну інформацію стосовно кожного землетрусу із Каталогу землетрусів за 2022

рік (див. табл. 2) наведено у pdf файлі од-
ноійменної статті на сайті «Геофізичного
журналу».

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National Seismological Bulletin of Ukraine in 2022

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As of 2022, the National System of Seismic Observations of Ukraine had a network of observation points run by the S.I. Subbotin Institute of Geophysics of the National Academy of Sciences and the Main Center for Special Control of the State Space Agency of Ukraine. These institutions established a unified National Data Center, where the data is collected, processed, and analyzed. Information is provided both in real time and later, after an in-depth analysis, in the form of seismological bulletins and earthquake catalogs.

According to the observations, 160 earthquakes occurred on the territory of Ukraine and neighboring countries in 2022. Most were confined to the deep focus Vrancea zone (Romania). The maximum recorded earthquake magnitude is 5.4. Earthquakes from the territory of other neighboring states had a local character and did not significantly impact the seismicity of Ukraine's territory. The most powerful earthquakes within the territory of

Ukraine were registered in the Poltava region on July 6, 2022, and October 3, 2022. These earthquakes had a magnitude of 3.4 and a hypocenter depth of 10 km and caused shaking in the epicentral region with an intensity of up to 2 points. In addition, on January 21, 2022, there was an earthquake in the Kryvyi Rih region. This earthquake had a magnitude of 3.3, but due to the smaller depth of the hypocenter ($h=5$ km), it caused perceptible tremors in the area of the epicenter with an intensity of up to 3 points.

On the territory of Ukraine, most of the epicenters of registered earthquakes are located within Volyn-Podillia, the Dnieper-Donets Depression, and the Transcarpathian Depression.

The seismological bulletin of Ukraine includes detailed information on all seismic events that occurred in 2022 in the territories of Ukraine and neighboring countries.

Full information on each earthquake from the Earthquake Catalog for 2022 is provided in full in the pdf file of the article of the same name on the website of the Geophysical Journal.

Key words: earthquake, seismological network, magnitude, epicentral distance, Vrancea zone, seismological bulletin.

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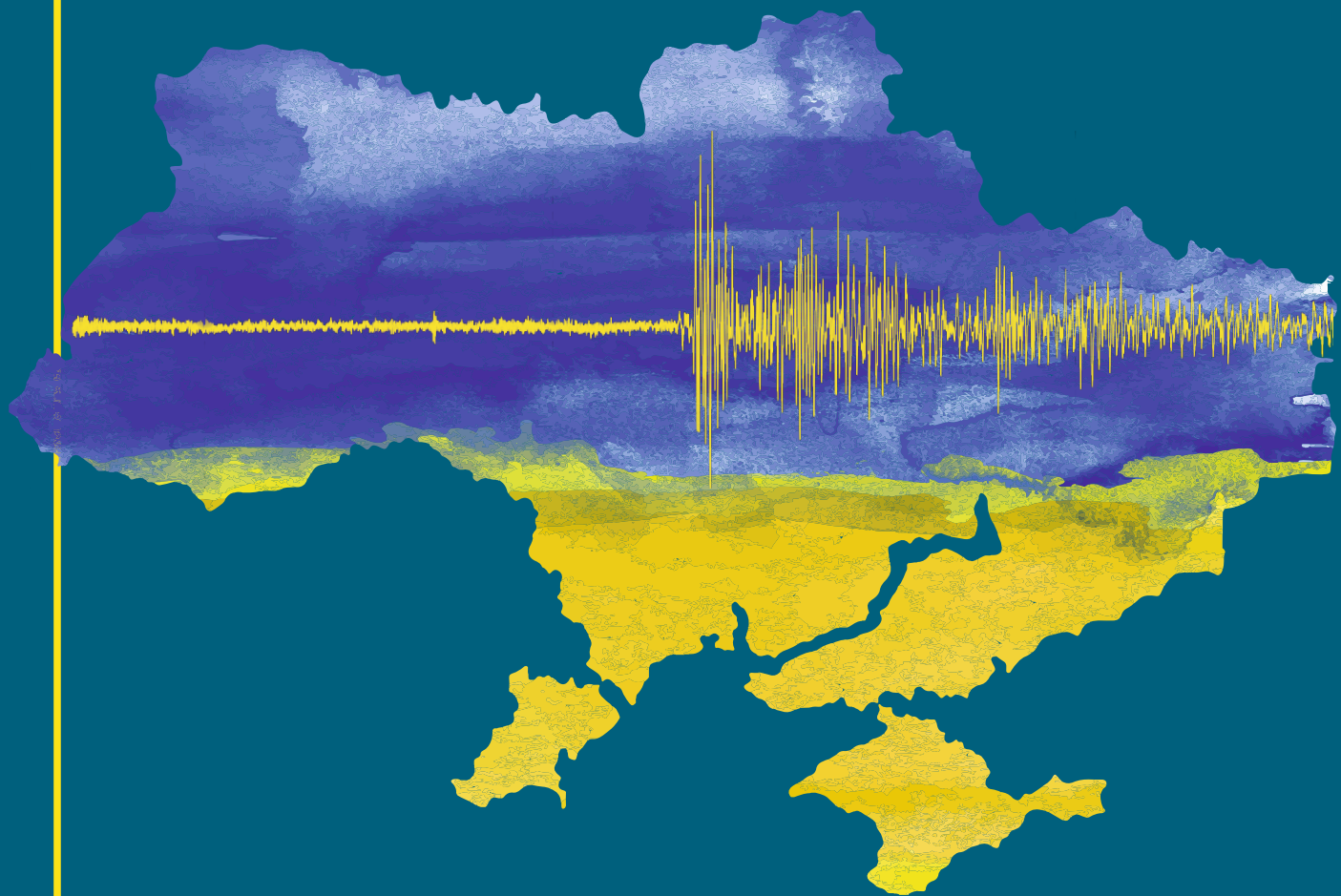
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Ukrainian National *Seismological*

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2024

1. The Ukrainian National Seismological Network

The national system of seismic observations of Ukraine currently consists of observation points of the Institute of Geophysics by S.I. Subbotin name of the National Academy of Sciences (IGPH) and the Main Center for Special Monitoring (MCSM) of the of the State space agency of Ukraine, and their computing centers together form the National Data Center (NDC).

The density of the network of permanently operating seismic stations of the Institute of Geophysics is dense in the western regions of Ukraine, which is served by the Carpathian Department of Seismicity. There are 21 seismic stations operating in the Carpathian region of Ukraine, the vast majority of which are equipped with DAS-04 digital seismic stations. A small number of seismic stations operate in the rest of Ukraine and are serviced by the Kyiv Department of Seismic Hazards.

The seismological network of the Main Center for Special Monitoring consists of 11 observation points, most of which are located in the northern and central parts of the territory of Ukraine. Observation points are equipped with broadband digital seismic stations. In addition, the Main Center maintains an automated set of seismic grouping equipment, included as a primary station (PS-45) in the International Monitoring System (IMS). The station is a territorially distributed system of collecting seismological information, consisting of 22 boreholes and one mine element located near the technical site. Vertical short-period seismic receivers CMG - 3ESPV are installed in the wells, and three-component broadband seismic receiver CMG - 3T is installed in the mine. Signals from each sensor are converted into digital form using the analog-to-digital converter CMG-DM24S3EAM.

№	Station	Height (m)	Lat. (°N)	Lon. (°E)	Sensor	Dynamic range, Db	Frequency, Hz	Channels	Affiliation
Seismic stations of the platform part of Ukraine									
1	Malyn Kiev-IRIS (1997)	180	50,7012	29,2242	STS-2.5, STS-1V/VBB; Accelerometer Epi Sensor ES-T; Datalogger-Quanterra Q330	175	0,1—100	N-S, E-W, Z	IGPH
2	Poltava MI02	148	49,6025	34,5430	1 VLPS SL-210;2 HLPS SL-220 (GEOTECH); Datalogger — IGPH	120	0,02—15,0	N-S, E-W, Z	IGPH
3	Skvyra MI03	195	49,7173	29,6566	1 VLPS SL-210;2 HLPS SL-220 (GEOTECH); Datalogger — IGPH	120	0,02—15,0	N-S, E-W, Z	IGPH
4	Stepanivka MI05	20	46,7770	29,9844	1 VLPS SL-210; 2 HLPS SL-220 (GEOTECH); Datalogger — IGPH	120	0,02—15,0	N-S, E-W, Z	IGPH
5	Nova Galeshyna MI06	75	49,1011	33,4410	IGPH Seismometr; IGPH Datalogger	120	0,02—15,0	N-S, E-W, Z	IGPH

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№	Station	Height (m)	Lat. (°N)	Lon. (°E)	Sensor	Dynamic range, Db	Frequency, Hz	Channels	Affiliation
6	Mykolaiv MI07	55	46,9728	31,9729	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	N-S, E-W, Z	IGPH
7	KryvyiRig MIU	89	47,9330	33,3300	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	N-S, E-W, Z	IGPH
8	Odesa ODS	2	46,4990	30,7194	Guralp CMG-40T	140	0,03—12,5	N-S, E-W, Z	IGPH
9	Poltava PLT	159	49,6050	34,5450	CMG-3TD	140	0,03—50	N-S, E-W, Z	MCSM
10	Lastivtsi KPD	135	48,5630	26,4600	KCB, KCF	80	0,5—15	N-S, E-W, Z	MCSM
11	Uzhhorod UZH	160	48,6290	22,2910	KCB, KCF	80	0,5—15	N-S, E-W, Z	MCSM
12	Lubar MI27	260	49,9205	27,7576	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	N-S, E-W, Z	MCSM
13	Balta MI26	200	47,9355	29,6013	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	N-S, E-W, Z	MCSM
14	Pidlybu MI28	196	50,9305	27,6694	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	N-S, E-W, Z	MCSM
15	Zelenitsa MI30	215	50,7460	28,1890	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	N-S, E-W, Z	MCSM
16	KamyanyyBrid MI29	234	50,4180	27,8500	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	N-S, E-W, Z	MCSM
17	Gorodok MI25	170	29,4460	50,5980	IGPH Seismometr, IGPH Datalogger	120	0,02—15,0	N-S, E-W, Z	MCSM
18	Zolotarivka ZLTR	160	49,1601	31,1301	K-213-C	80	0,5—15	Z	MCSM
19	Zhytomyr (PNU)	168	50,2480	28,6680	K-213-C	80	0,5—15	Z	MCSM
20	Novopskov (LUGS)	159	49,5203	39,1410	K-213-C	80	0,5—15	Z	MCSM
21	AK01	160	50,6911	29,2131	CMG—3ESPV	140	0,033—50	Z	MCSM
22	AK02	170	50,6573	29,2056	CMG—3ESPV	140	0,033—50	Z	MCSM
23	AK03	160	50,7263	29,2216	CMG—3ESPV	140	0,033—50	Z	MCSM
24	AK04	160	50,7226	29,1660	CMG—3ESPV	140	0,033—50	Z	MCSM
25	AK05	180	50,6196	29,2036	CMG—3ESPV	140	0,033—50	Z	MCSM

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№	Station	Height (m)	Lat. (°N)	Lon. (°E)	Sensor	Dynamic range, Db	Frequency, Hz	Channels	Affiliation
26	AK06	190	50,5858	29,1985	CMG—3ESPV	140	0,033—50	Z	MCSM
27	AK07	170	50,5506	29,2043	CMG—3ESPV	140	0,033—50	Z	MCSM
28	AK08	122	50,6338	29,2548	CMG—3ESPV	140	0,033—50	Z	MCSM
29	AK09	180	50,6151	29,2846	CMG—3ESPV	140	0,033—50	Z	MCSM
30	AK10	180	50,599	29,2513	CMG—3ESPV	140	0,033—50	Z	MCSM
31	AK11	160	50,6783	29,1676	CMG—3ESPV	140	0,033—50	Z	MCSM
32	AK12	180	50,6436	29,1548	CMG—3ESPV	140	0,033—50	Z	MCSM
33	AK13	180	50,6122	29,0606	CMG—3ESPV	140	0,033—50	Z	MCSM
34	AK14	180	50,6306	29,1076	CMG—3ESPV	140	0,033—50	Z	MCSM
35	AK15	170	50,6951	29,124	CMG—3ESPV	140	0,033—50	Z	MCSM
36	AK16	170	50,67	29,1058	CMG—3ESPV	140	0,033—50	Z	MCSM
37	AK17	170	50,6851	29,0573	CMG—3ESPV	140	0,033—50	Z	MCSM
38	AK18	170	50,7221	29,0676	CMG—3ESPV	140	0,033—50	Z	MCSM
39	AK19	180	50,7221	29,0116	CMG—3ESPV	140	0,033—50	Z	MCSM
40	AK20	170	50,743	29,01	CMG—3ESPV	140	0,033—50	Z	MCSM
41	AK21	160	50,7763	29,0418	CMG—3ESPV	140	0,033—50	Z	MCSM
42	AK22	160	50,7608	29,0711	CMG—3ESPV	140	0,033—50	Z	MCSM
43	AK23	160	50,7625	29,1253	CMG—3ESPV	140	0,033—50	Z	MCSM
44	AKBB	160	50,7011	29,2241	CMG-3T	137	0,033—50	N-S, E-W, Z	MCSM
45	Kostykhivka RNPP1	168	51,3497	25,7657	CMG-SPB	137	0,033—100	N-S, E-W, Z	NNEGC "Energoatom"
46	Varash RNPP2	293	51,3266	25,8896	CMG-SPB	137	0,033—100	N-S, E-W, Z	NNEGC "Energoatom"
47	Chartorylsk RNPP5	188	51,2291	25,8854	CMG-SPB	137	0,033—100	N-S, E-W, Z	NNEGC "Energoatom"
48	Polytsy RNPP6	176	51,2583	26,0640	CMG-SPB	137	0,033—100	N-S, E-W, Z	NNEGC "Energoatom"
49	Kuznetsovsk RNPP8	172	51,3362	25,8547	CMG-SPB	137	0,033—100	N-S, E-W, Z	NNEGC "Energoatom"
50	Sopachiv RNPP9	165	51,4119	25,8905	CMG-SPB	137	0,033—100	N-S, E-W, Z	NNEGC "Energoatom"
51	Energodar SSM1	180	47,5061	34,6156	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"

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№	Station	Height (m)	Lat. (°N)	Lon. (°E)	Sensor	Dynamic range, Db	Frequency, Hz	Channels	Affiliation
52	Blagovishhenka SSM2	180	47,4593	34,8223	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"
53	Menzhyns'ke SSM5	180	47,6103	34,3409	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"
54	Velyka Znam'janka SSM3	180	47,4403	34,3358	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"
55	DobraNadija SSM6	180	47,5862	34,7075	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"
56	Dniprovka SSM4	180	47,4280	34,6189	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"
57	Yuzhnoukrainsk PDU0	150	47,7830	31,1840	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"
58	Marivka PDU1	150	47,8758	31,1196	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"
59	Arbuzynka PDU2	150	47,8943	31,3161	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"
60	Trykraty PDU3	150	47,7181	31,3999	CMG-3T BOREHOLE	137	0,033—50	N-S, E-W, Z	NNEGC "Energoatom"
Seismic stations of the Carpathian region of Ukraine									
61	Lviv LVV	320	49,8200	24,0310	DAS-05; CД-1	120	0,02—15,0	N-S, E-W, Z	CD IGPH
					Guralp CMG-40T	140	0,03—12,5	N-S, E-W, Z	
62	Chernivtsi CHR	300	48,2980	25,9220	DAS-05	120	0,02—15,0	N-S, E-W, Z	CD IGPH
					CKД, CM-3KB	120	0,02—15,0	N-S, E-W, Z	
63	Morshyn MORS (1978)	260	49,1240	23,8760	DAS-03; CM-3KB	120	0,2—15,0	N-S, E-W, Z	CD IGPH
64	Uzhgorod UZH (1934)	160	48,6290	22,2910	DAS-04; CKД	120	0,2—15,0	N-S, E-W, Z	CD IGPH
65	Onokivtsi ONO (1963)	168	48,6640	22,3330	DAS-03; CKM-3	120	0,02—5,0	N-S, E-W, Z	CD IGPH
66	Miggir'ya MEZ (1961)	420	48,5430	23,4980	DAS-05; CKД	120	0,02—15,0	N-S, E-W, Z	CD IGPH
67	Trosnyk TRSU (1987)	120	48,0950	22,9570	DAS-03; CM-3KB	120	0,2—15,0	N-S, E-W, Z	CD IGPH

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№	Station	Height (m)	Lat. (°N)	Lon. (°E)	Sensor	Dynamic range, Db	Frequency, Hz	Channels	Affiliation
68	NygneSelysche NSL (1987)	250	48,1980	23,4570	DAS-03; CM-3KB	120	0,2—15,0	N-S, E-W, Z	CD IGPH
69	Rahiv RAK (1956)	460	48,0360	24,1730	DAS-04; CKД	120	0,02—15,0	N-S, E-W, Z	CD IGPH
70	Kosiv KSV (1961)	450	48,3140	25,0650	DAS-04; CKД	120	0,02—15,0	N-S, E-W, Z	CD IGPH
71	Chernivtsi CHR (1907)	300	48,2980	25,9220	DAS-05; CKД	120	0,02—15,0	N-S, E-W, Z	CD IGPH
72	Gorodok HORU (1991)	340	49,2140	26,4260	DAS-03; CM-3KB	120	0,2—15,0	N-S, E-W, Z	CD IGPH
73	Kamyanec- Podilsk KMPU (2005)	121	48,5630	26,4600	DAS-05; CM-3KB	120	0,2—15,0	N-S, E-W, Z	CD IGPH
74	Novo-Dnistrovsk NDNU (2006)	242	48,5950	27,3660	DAS-04; CM-3KB	120	0,2—15,0	N-S, E-W, Z	CD IGPH
75	Korolevo KORU (1998)	160	48,1570	23,1340	DAS-05; CM-3KB	120	0,2—15,0	N-S, E-W, Z	CD IGPH
76	Shidnytsya SHIU (2006)	600	49,2200	23,3500	DAS-03; CM-3KB	120	0,2—15,0	N-S, E-W, Z	CD IGPH
77	Starunya STAU (2007)	391	48,7100	24,5000	DAS-05	120	0,2—15,0	N-S, E-W, Z	CD IGPH
78	Mukachevo MUKU (1999)	125	48,4540	22,6870	DAS-05	120	0,2—15,0	N-S, E-W, Z	CD IGPH
79	Beregovo BERE (2000)	160	48,2340	22,6460	DAS-05	120	0,2—15,0	N-S, E-W, Z	CD IGPH
80	Brid BRIU(2000)	180	48,3380	23,0200	DAS-05	120	0,2—15,0	N-S, E-W, Z	CD IGPH
81	Southukraine PDIU (time- domain) (20007)	420	47,7110	31,1490	DAS-03	120	0,2—15,0	N-S, E-W, Z	CD IGPH

IGPH - Institute of geophysics by S.I. Subbotin name;

MCSM - The main center of special monitoring;

NNEGC "Energoatom" - National Nuclear Energy Generating Company «Energoatom»;

CD IGPH - Carpathian Department of Seismicity (IGPH);

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Guralp CMG-40T, CMG-3T, CMG - 3ESPV – broadband seismometers of Guralp Systems Ltd (England);
STS-2.5, STS-1V/VBB - Streckeisen Seismic Instrumentation (Switzerland);
EpiSensor ES-T – accelerometers manufactured by Kinemetrics (USA);
Quanterra Q330 – Quanterra Environmental Processor used in IRIS USArray/TA and GSN stations (Quanterra, Inc., USA);
VLPS SL-210 GEOTECH - vertical long-period seismometer model SL-210 and HLPS SL-220 - horizontal long-period seismometers model SL-220 (Geotech Instruments, LLC, USA);
DAS (Digital automatic seismometer); 03, 04, 05 – generation of digital automatic seismometer (made by Institute of geophysics (IGPH));
CKM-3 Kirnos seismometer;
KCB, KCF - short-period seismometer;
CKД – long-period seismometer;
CM-3KB - magnetotelluric seismometer;
IGPH Seismometr, IGPH Datalogger – a copy of the Guralp CMG-40 seismometer and a digital converter developed at the Institute of Geophysics by Mykhailik I.

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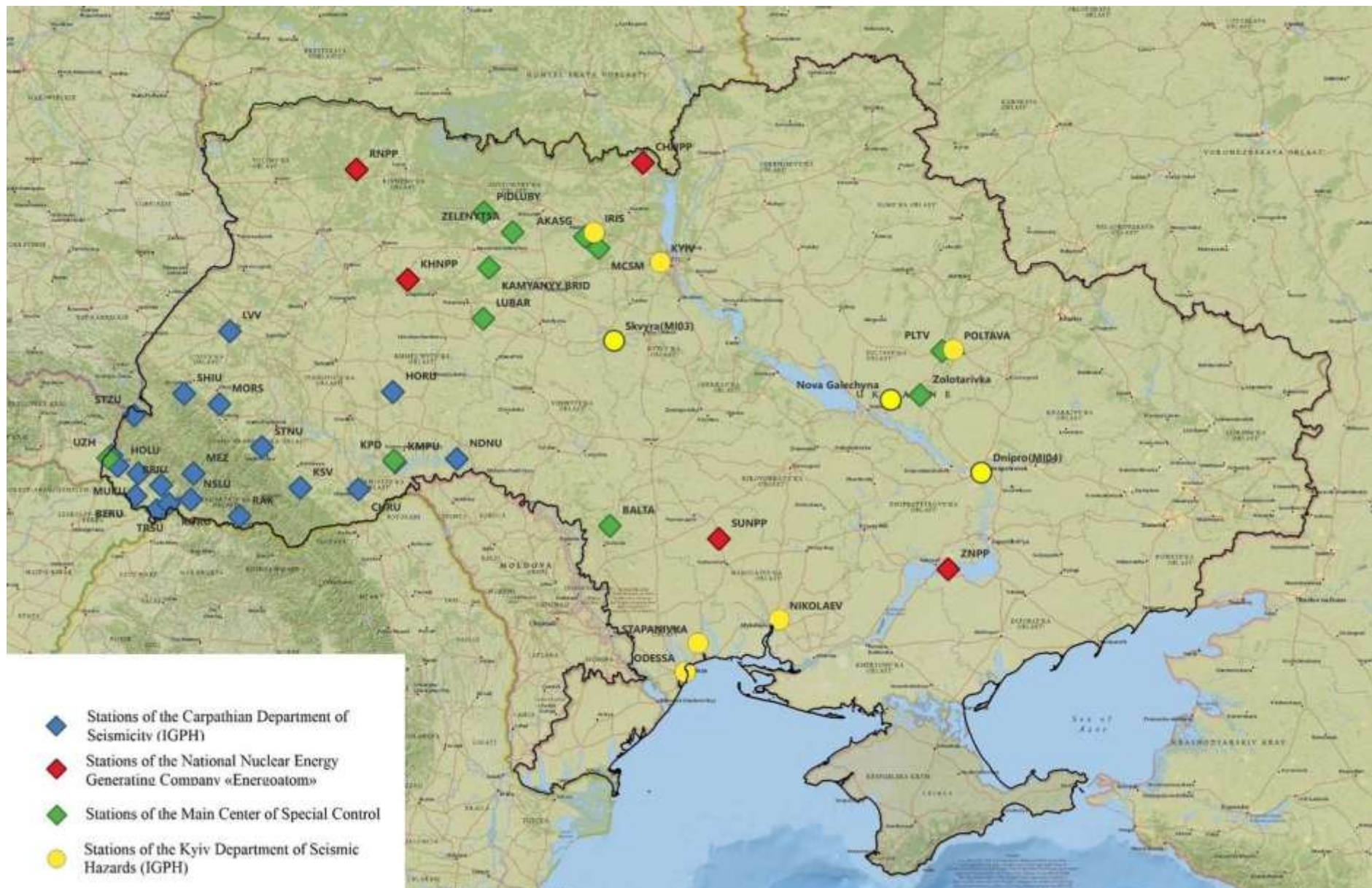


Figure 1. Stations of the Ukrainian National Seismological Network in 2022

2. Local events

In 2022, 1252 local events have been detected by the Ukrainian National Seismological Network. From these events, 159 earthquakes (Table. 2.1) and 1093 quarry explosions (Table. 2.2) have been identified.

The most of epicenters were located within the seismically active Vrancea zone, Romania (76 seismic events) among all earthquakes that were registered in 2022 on the territory of Ukraine and neighboring countries. The most powerful earthquake in this region had a magnitude of 5.4. The estimated intensity of shaking on the territory of Ukraine was 4 points.

In general, stations of the Ukrainian National Seismological Network registered about 25 local earthquakes on the territory of Ukraine in 2022. The epicenters of the majority of earthquakes are located within the Transcarpathia, Ivano-Frankivsk and Chernivtsi regions. The magnitude values of seismic events range from 1.3 to 3.4. The most powerful earthquakes were registered in the Poltava region on June 06, 2022 and October 03, 2022. These earthquakes had a magnitude of 3.4 and an intensity of up to 2 points at the epicenter. Comparison of the distribution of the epicenters of these earthquakes with the fault tectonics of the southwestern part of the East European Craton shows that the sources of seismic events are confined mainly to different fault zones. The main number of epicenters of registered local earthquakes is located within the Volyn-Podillya, Dnieper-Donetsk depression and Precarpathian trough on the border of the Folded Carpathians. In the Crimean-Black Sea region, weak seismicity was observed during the year, earthquake epicenters were concentrated within the sea area. Earthquakes in Poland, Moldova and Belarus were local in nature and did not significantly affect the seismicity of the territory of Ukraine.

Table 2.1: Parameters of earthquakes detected by the Ukrainian National Seismological Network

	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Intensity	Depth (km)	Locality
1	2022.01.01	13:07:16	45,62	26,48	2,90	1,0	140	Romania
2	2022.01.02	03:08:17	45,50	26,42	3,60	2,0	125	Romania
3	2022.01.03	06:36:25	45,69	26,69	2,50	1,0	128	Romania
4	2022.01.03	21:24:52	48,88	26,66	2,30	1-2	2	Khmelnytskyi region
5	2022.01.06	16:54:56	51,10	15,94	2,60	1,0	16	Poland
6	2022.01.07	23:02:04	45,59	26,51	4,00	3,0	115	Romania
7	2022.01.10	21:18:39	45,45	27,72	3,50	1-2	12	Romania
8	2022.01.12	00:41:51	45,46	27,79	2,40	1,0	10	Romania
9	2022.01.13	00:31:13	45,42	26,23	3,10	1,0	139	Romania
10	2022.01.13	12:14:01	51,63	16,23	4,30	4,0	10	Poland
11	2022.01.13	12:44:32	48,64	22,41	1,50	1,0	1	Transcarpathian region
12	2022.01.14	11:17:07	48,63	22,50	1,30	1,0	2	Transcarpathian region
13	2022.01.14	22:03:23	45,57	26,52	3,40	1-2	117	Romania
14	2022.01.15	21:51:27	45,78	26,52	3,60	2,0	105	Romania
15	2022.01.16	13:43:14	45,66	26,63	4,40	3,0	138	Romania
16	2022.01.18	07:47:01	45,67	26,59	3,80	2,0	145	Romania
17	2022.01.18	16:51:42	45,74	26,77	3,00	1-2	76	Romania
18	2022.01.19	02:01:19	52,94	27,43	3,3	1,0	18	Belarus
19	2022.01.19	11:16:26	45,78	26,62	3,40	2,0	103	Romania
20	2022.01.21	04:17:02	48,01	33,41	3,30	3,0	5	Dnipropetrovsk region
21	2022.01.21	21:37:28	45,54	26,46	2,90	1,0	94	Romania
22	2022.01.22	20:10:42	45,43	26,22	2,10	1,0	110	Romania
23	2022.01.23	13:26:35	45,50	26,98	2,30	1,0	11	Romania
24	2022.01.26	07:33:07	52,94	27,69	2,30	1,0	14	Belarus
25	2022.02.01	22:19:37	45,65	26,62	3,60	1-2	129	Romania
26	2022.02.03	12:13:44	50,37	18,79	2,70	2	3	Poland

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Intensity	Depth (km)	Locality
27	2022.02.05	05:19:01	51,61	16,20	4,50	4-5	8	Poland
28	2022.02.07	19:34:29	50,28	19,08	3,70	2-3	9	Poland
29	2022.02.08	00:24:47	46,76	27,50	2,20	1.0	9	Romania
30	2022.02.09	21:21:42	44,54	27,14	2,80	1.0	15	Romania
31	2022.02.09	21:28:50	52,88	27,31	2,40	1.0	14	Belarus
32	2022.02.10	19:34:24	51,47	15,91	3,80	2-3	12	Poland
33	2022.02.11	04:10:17	49,69	19,10	3,60	1-2	14	Poland
34	2022.02.15	01:08:58	51,27	23,10	2,60	3.0	2	Poland
35	2022.02.16	06:26:25	52,88	27,37	2,50	1.0	13	Belarus
36	2022.02.22	13:46:46	45,78	26,79	3,00	2.0	74	Romania
37	2022.02.22	19:16:23	45,69	26,87	2,90	1.0	82	Romania
38	2022.02.27	13:12:41	49,50	36,79	3,00	2.0	5	Kharkiv region
39	2022.03.13	22:31:05	45,80	26,76	4,10	3.0	102	Romania
40	2022.03.14	07:32:07	45,70	26,60	4,20	3.0	100	Romania
41	2022.03.18	21:50:11	49,09	24,03	2,50	1.0	6	Ivano-Frankivsk region
42	2022.03.19	11:22:02	48,13	23,52	2,30	1.0	3	Transcarpathian region
43	2022.03.23	21:12:45	45,54	26,62	3,50	1.0	136	Romania
44	2022.03.30	06:48:34	45,59	26,54	2,90	1.0	123	Romania
45	2022.03.31	14:07:48	51,56	16,19	3,30	3.0	4	Poland
46	2022.04.07	16:58:45	51,54	16,14	4,30	5.0	5	Poland
47	2022.04.12	10:26:29	47,64	23,48	1,40	1.0	9	Romania
48	2022.04.16	18:46:44	50,20	18,69	2,90	1.0	10	Poland
49	2022.04.21	07:33:54	45,80	26,75	3,50	1-2	116	Romania
50	2022.04.24	07:41:46	47,30	24,09	2,50	1.0	10	Romania
51	2022.04.25	01:21:20	45,42	27,02	3,20	1.0	16	Romania
52	2022.04.25	02:56:44	45,50	26,29	3,30	1.0	130	Romania
53	2022.04.27	18:53:25	51,66	16,18	4,60	4	11	Poland
54	2022.04.28	20:14:01	50,28	18,77	3,10	3-4	2	Poland
55	2022.05.03	15:24:00	51,58	16,13	3,90	3.0	9	Poland
56	2022.05.10	03:33:19	45,55	26,42	3,10	1.0	131	Romania
57	2022.05.11	15:46:26	45,56	26,42	4,10	2-3	138	Romania
58	2022.05.13	02:19:43	50,28	18,74	3,30	2.0	10	Poland
59	2022.05.13	15:31:52	51,64	16,25	3,70	3-4	5	Poland
60	2022.05.16	16:06:57	51,69	16,16	3,50	3-4	5	Poland
61	2022.05.19	21:35:13	45,70	26,72	3,20	2.0	87	Romania
62	2022.05.22	00:58:56	45,47	26,04	3,00	2.0	59	Romania
63	2022.05.23	12:07:59	50,24	19,01	2,70	1.0	4	Poland
64	2022.05.23	15:40:32	45,58	26,57	2,40	1.0	123	Romania
65	2022.05.26	20:49:15	48,27	26,77	2,20	1	5	Moldova
66	2022.05.28	08:16:40	51,54	16,15	3,40	2.0	10	Poland
67	2022.05.29	23:12:57	46,44	26,87	2,20	1	18	Romania
68	2022.05.30	00:29:32	45,55	26,62	3,40	1.0	150	Romania
69	2022.06.01	02:53:19	52,90	27,45	2,30	1.0	17	Belarus
70	2022.06.04	18:45:36	48,19	26,43	2,30	1.0	5	Romania
71	2022.06.07	15:40:21	45,42	26,30	3,40	1-2	112	Romania
72	2022.06.08	16:07:56	52,81	27,58	2,50	1.0	6	Belarus
73	2022.06.09	17:19:33	47,66	26,57	2,40	1.0	3	Romania
74	2022.06.09	19:58:03	50,18	19,00	3,20	3.0	3	Poland
75	2022.06.10	06:34:47	47,68	26,55	1,70	1.0	8	Romania
76	2022.06.19	20:54:43	45,65	26,50	3,30	1.0	145	Romania
77	2022.06.21	14:37:11	49,45	34,33	3,40	2.0	10	Poltava region
78	2022.06.22	16:06:59	51,56	16,19	3,50	2.0	11	Poland
79	2022.06.23	00:57:49	51,60	16,18	3,50	2-3	9	Poland

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Intensity	Depth (km)	Locality
80	2022.06.25	04:27:07	50,21	19,06	3,60	2,0	10	Poland
81	2022.06.30	01:52:24	45,47	26,30	3,00	1,0	130	Romania
82	2022.07.01	08:23:14	50,23	19,02	3,00	1-2	8	Poland
83	2022.07.01	17:11:14	45,53	26,97	2,90	1,0	11	Romania
84	2022.07.01	17:16:39	45,55	27,06	2,60	1,0	10	Romania
85	2022.07.04	10:56:45	45,59	26,58	4,00	2-3	123	Romania
86	2022.07.10	22:31:01	49,56	27,84	1,70	1	3	Vinnitsia region
87	2022.07.11	00:50:27	48,61	27,42	2,60	2,0	3	Chernivtsi region
88	2022.07.12	00:34:57	45,84	27,13	2,70	2,0	28	Romania
89	2022.07.13	09:04:15	45,45	26,98	4,00	2-3	15	Romania
90	2022.07.15	03:01:25	50,02	18,56	3,00	2-3	3	Poland
91	2022.07.16	07:39:21	45,11	23,28	4,10	5,0	4	Romania
92	2022.07.17	23:04:30	45,76	26,75	4,00	3-4	81	Romania
93	2022.07.19	16:56:21	50,21	19,04	3,20	2,0	7	Poland
94	2022.07.24	22:04:17	44,65	28,90	2,90	1,0	7	Romania
95	2022.07.26	16:12:59	52,24	16,34	3,60	2,0	10	Poland
96	2022.08.01	21:14:13	51,75	16,12	4,00	3-4	10	Poland
97	2022.08.02	00:44:32	45,58	27,59	2,20	1,0	15	Romania
98	2022.08.02	22:26:45	50,21	19,04	2,80	1,0	5	Poland
99	2022.08.04	10:33:37	52,84	27,69	2,30	1,0	18	Belarus
100	2022.08.07	16:50:22	45,89	26,63	3,50	1,0	85	Romania
101	2022.08.11	10:34:20	49,67	23,43	1,90	1	5	Lviv region
102	2022.08.15	19:26:58	51,37	16,09	3,30	2,0	10	Poland
103	2022.08.18	14:18:36	51,63	16,25	3,70	2,0	10	Poland
104	2022.08.21	12:20:20	52,74	27,67	2,60	1,0	10	Belarus
105	2022.08.25	20:10:51	49,53	22,22	3,10	1-2	7	Poland
106	2022.08.26	01:55:09	52,01	26,25	2,40	1,0	9	Belarus
107	2022.08.27	14:30:08	46,67	29,45	2,90	2-3	4	Moldova
108	2022.08.27	21:14:40	45,68	26,65	2,70	1,0	137	Romania
109	2022.08.30	10:47:12	45,77	26,56	2,70	1,0	131	Romania
110	2022.09.05	13:08:10	47,06	25,57	2,00	1-2	2	Romania
111	2022.09.07	09:32:12	51,68	30,30	1,50	1,0	5	Belarus
112	2022.09.09	06:48:08	51,20	16,29	3,30	1,0	11	Poland
113	2022.09.11	04:41:38	45,86	26,75	3,10	1,0	114	Romania
114	2022.09.11	16:08:19	45,70	26,70	4,20	3,0	129	Romania
115	2022.09.12	02:21:09	49,08	379	3,30	2,0	8	Kharkiv region
116	2022.09.13	02:50:15	45,61	26,35	4,20	2-3	142	Romania
117	2022.09.14	05:47:21	51,61	16,17	4,30	4,0	10	Poland
118	2022.09.18	17:55:24	45,06	25,43	4,00	4,0	22	Romania
119	2022.09.20	12:06:25	52,76	27,50	2,00	1,0	19	Belarus
120	2022.09.21	14:39:38	51,53	16,26	3,70	4,0	9	Poland
121	2022.09.23	03:20:16	51,35	23,10	2,60	1-2	5	Poland
122	2022.09.24	11:57:46	45,57	26,55	3,70	2,0	123	Romania
123	2022.09.30	10:32:37	48,47	24,46	2,20	2,0	2	Ivano-Frankivsk region
124	2022.10.03	11:49:39	49,43	33,87	3,40	1-2	10	Poltava region
125	2022.10.03	15:14:47	45,73	26,63	3,20	2,0	72	Romania
126	2022.10.03	15:44:10	45,54	26,51	3,80	2,0	132	Romania
127	2022.10.06	07:43:24	48,48	27,47	2,40	1,0	4	Chernivtsi region
128	2022.10.09	11:00:55	45,85	26,58	3,10	2,0	76	Romania
129	2022.10.12	18:20:18	51,56	16,12	3,60	3,0	6	Poland
130	2022.10.15	18:00:27	51,55	16,16	3,70	2,0	10	Poland
131	2022.10.17	09:23:40	51,59	16,18	3,70	4,0	5	Poland
132	2022.10.19	01:39:50	45,76	26,78	3,80	2,0	113	Romania

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Intensity	Depth (km)	Locality
133	2022.10.24	15:45:10	50,14	19,29	3,20	2,0	5	Poland
134	2022.10.25	00:13:14	45,60	26,47	3,10	1,1	110	Romania
135	2022.10.31	16:45:04	51,61	16,14	3,70	4,0	5	Poland
136	2022.11.03	04:50:25	45,51	26,57	5,40	5,0	146	Romania
137	2022.11.06	07:42:20	44,97	25,39	3,00	1,0	9	Romania
138	2022.11.14	13:45:32	48,65	24,41	2,30	1-2	4	Ivano-Frankivsk region
139	2022.11.15	12:31:09	48,68	24,49	2,20	2,0	3	Ivano-Frankivsk region
140	2022.11.17	22:00:46	48,50	27,35	2,70	2,0	4	Chernivtsi region
141	2022.11.20	19:13:07	51,48	16,24	3,10	2,0	7	Poland
142	2022.11.25	05:31:37	45,55	26,08	2,70	2,0	54	Romania
143	2022.11.26	01:59:27	45,51	26,80	2,60	1,0	144	Romania
144	2022.12.01	09:02:16	48,61	27,42	2,20	1,0	6	Chernivtsi region
145	2022.12.02	16:23:16	44,63	27,29	2,70	1,0	10	Romania
146	2022.12.04	05:00:57	49,57	34,26	2,20	1,0	9	Poltava region
147	2022.12.04	19:39:42	45,87	26,85	3,80	4,0	79	Romania
148	2022.12.07	01:49:38	45,58	26,40	3,40	1,0	142	Romania
149	2022.12.15	01:55:47	50,02	19,28	3,50	2,0	10	Poland
150	2022.12.15	23:47:12	45,77	26,67	4,00	3,0	89	Romania
151	2022.12.17	05:42:57	45,66	26,46	4,40	3,0	151	Romania
152	2022.12.23	04:00:42	48,50	27,36	2,20	1,0	2	Chernivtsi region
153	2022.12.23	04:22:01	48,56	27,38	3,00	2,0	3	Chernivtsi region
154	2022.12.24	01:33:12	48,63	27,37	2,20	1	2	Chernivtsi region
155	2022.12.24	03:51:23	50,07	19,32	3,40	2-3	7	Poland
156	2022.12.26	07:47:09	45,62	26,51	3,60	2,0	106	Romania
157	2022.12.27	20:15:01	52,96	27,64	2,90	1,0	23	Belarus
158	2022.12.28	11:51:47	48,55	24,59	2,40	2,0	2	Ivano-Frankivsk region
159	2022.12.28	12:40:59	48,22	24,01	2,80	1-2	9	Transcarpathian region

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Table 2.1: Parameters of quarry explosions detected by the Ukrainian National Seismological Network

	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
1.	2022.01.04	10:00:04	49,04	33,64	2,00	Poltava region
2.	2022.01.05	09:17:16	49,47	29,68	1,30	Kyiv region
3.	2022.01.05	10:04:56	51,30	26,88	1,60	Rivne region
4.	2022.01.05	11:04:00	49,50	28,39	1,60	Vinnitsia region
5.	2022.01.05	11:51:08	49,52	25,91	1,50	Ternopil region
6.	2022.01.05	11:54:46	49,56	25,93	1,50	Ternopil region
7.	2022.01.06	06:39:08	52,25	27,34	1,90	Belarus
8.	2022.01.06	06:39:24	52,26	27,50	2,00	Belarus
9.	2022.01.06	10:00:09	47,70	33,18	2,20	Dnipropetrovsk region
10.	2022.01.06	11:00:04	48,35	33,25	2,20	Kirovohrad region
11.	2022.01.06	12:11:30	47,70	31,21	1,70	Mykolayiv region
12.	2022.01.06	12:25:43	50,71	28,82	1,00	Zhytomyr region
13.	2022.01.06	12:35:33	49,77	27,24	1,60	Khmelnyskyi region
14.	2022.01.11	08:18:09	48,82	26,48	1,50	Khmelnyskyi region
15.	2022.01.11	09:37:09	49,59	25,87	1,50	Ternopil region
16.	2022.01.11	09:48:51	49,69	30,51	1,70	Kyiv region
17.	2022.01.11	09:59:55	49,04	33,56	1,60	Poltava region
18.	2022.01.11	11:53:16	50,55	27,65	1,70	Zhytomyr region
19.	2022.01.11	12:17:09	50,72	29,26	1,90	Zhytomyr region
20.	2022.01.12	10:00:10	47,66	33,23	2,00	Dnipropetrovsk region
21.	2022.01.12	10:26:02	51,32	26,95	1,60	Rivne region
22.	2022.01.12	13:03:14	50,17	27,11	1,60	Khmelnyskyi region
23.	2022.01.12	13:04:20	48,92	30,71	1,40	Cherkasy region
24.	2022.01.12	14:42:12	51,26	26,99	1,70	Rivne region
25.	2022.01.13	10:00:06	48,02	33,46	2,00	Dnipropetrovsk region
26.	2022.01.13	11:01:43	50,19	27,48	1,80	Khmelnyskyi region
27.	2022.01.13	11:05:24	48,43	33,46	1,90	Kirovohrad region
28.	2022.01.13	11:46:45	49,12	28,37	1,20	Vinnitsia region
29.	2022.01.13	13:00:33	47,65	34,56	1,80	Dnipropetrovsk region
30.	2022.01.13	17:11:08	52,79	27,49	1,50	Belarus
31.	2022.01.14	06:26:42	52,29	27,29	1,60	Belarus
32.	2022.01.14	06:27:00	52,27	27,55	1,60	Belarus
33.	2022.01.14	10:16:23	51,37	26,94	1,70	Rivne region
34.	2022.01.14	11:47:45	50,13	30,04	1,10	Kyiv region
35.	2022.01.14	13:04:47	49,66	30,40	1,10	Kyiv region
36.	2022.01.18	07:59:57	48,86	26,61	1,60	Khmelnyskyi region
37.	2022.01.18	10:00:04	49,04	33,68	2,30	Poltava region
38.	2022.01.18	11:14:03	51,31	26,93	1,70	Rivne region
39.	2022.01.18	12:00:15	49,48	28,36	1,60	Vinnitsia region
40.	2022.01.18	12:55:08	50,74	29,30	1,90	Zhytomyr region
41.	2022.01.18	13:08:54	51,30	26,91	1,90	Rivne region
42.	2022.01.19	09:34:36	50,71	28,84	1,00	Zhytomyr region
43.	2022.01.19	09:35:46	51,32	37,50	2,90	Belgorod region, RF
44.	2022.01.19	11:43:10	48,42	31,49	1,60	Kirovohrad region
45.	2022.01.19	11:44:23	49,12	28,24	1,80	Vinnitsia region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
46.	2022.01.19	11:54:33	49,67	30,54	2,20	Kyiv region
47.	2022.01.19	13:24:33	49,42	26,07	1,80	Ternopil region
48.	2022.01.20	09:00:28	50,15	29,92	1,40	Kyiv region
49.	2022.01.20	10:00:08	47,69	33,23	2,20	Dnipropetrovsk region
50.	2022.01.20	10:51:57	50,94	28,69	1,80	Zhytomyr region
51.	2022.01.20	11:00:07	48,29	33,32	2,40	Kirovohrad region
52.	2022.01.20	11:03:41	51,30	26,92	1,60	Rivne region
53.	2022.01.21	06:33:30	52,23	27,40	2,10	Belarus
54.	2022.01.21	07:00:03	48,74	26,63	1,30	Khmelnyskyi region
55.	2022.01.21	08:30:36	51,14	28,79	1,60	Zhytomyr region
56.	2022.01.21	08:59:55	47,67	33,20	2,10	Dnipropetrovsk region
57.	2022.01.21	10:17:14	51,22	26,96	1,80	Rivne region
58.	2022.01.21	10:53:09	50,59	27,64	2,00	Zhytomyr region
59.	2022.01.21	11:00:09	48,30	33,31	1,80	Kirovohrad region
60.	2022.01.21	11:13:47	49,77	30,02	1,40	Kyiv region
61.	2022.01.21	12:02:41	50,94	26,24	1,40	Rivne region
62.	2022.01.22	04:59:59	48,26	33,20	2,00	Kirovohrad region
63.	2022.01.22	05:00:06	48,04	33,46	2,20	Dnipropetrovsk region
64.	2022.01.22	10:38:28	50,71	28,74	1,00	Zhytomyr region
65.	2022.01.24	15:07:15	50,70	28,79	1,10	Zhytomyr region
66.	2022.01.25	09:26:41	50,89	28,35	1,20	Zhytomyr region
67.	2022.01.25	09:57:29	49,59	25,85	1,70	Ternopil region
68.	2022.01.25	10:00:01	49,03	33,67	2,40	Poltava region
69.	2022.01.25	10:02:32	51,32	26,89	1,20	Rivne region
70.	2022.01.25	10:21:44	50,59	27,62	1,30	Zhytomyr region
71.	2022.01.25	10:37:56	50,95	28,66	1,60	Zhytomyr region
72.	2022.01.25	12:30:40	50,16	27,56	1,40	Khmelnyskyi region
73.	2022.01.26	05:03:23	48,03	33,49	2,20	Dnipropetrovsk region
74.	2022.01.26	10:00:00	48,80	26,65	1,70	Khmelnyskyi region
75.	2022.01.26	10:01:19	47,65	33,29	2,30	Dnipropetrovsk region
76.	2022.01.26	11:01:04	49,54	25,92	2,00	Ternopil region
77.	2022.01.26	11:07:23	51,30	27,08	1,80	Rivne region
78.	2022.01.26	12:14:13	49,68	30,45	1,70	Kyiv region
79.	2022.01.26	13:04:01	50,22	30,01	1,60	Kyiv region
80.	2022.01.27	08:27:19	51,30	27,11	1,90	Rivne region
81.	2022.01.27	10:00:13	48,01	33,42	2,30	Dnipropetrovsk region
82.	2022.01.27	10:04:32	50,75	29,30	1,70	Zhytomyr region
83.	2022.01.27	10:30:00	49,67	30,36	1,00	Kyiv region
84.	2022.01.27	10:41:32	49,76	29,82	1,90	Kyiv region
85.	2022.01.27	10:54:18	51,51	33,88	2,80	Sumy region
86.	2022.01.27	11:00:07	48,31	33,28	2,30	Kirovohrad region
87.	2022.01.27	11:45:50	47,84	33,31	2,50	Dnipropetrovsk region
88.	2022.01.27	12:39:06	51,26	27,02	1,90	Rivne region
89.	2022.01.27	12:59:10	49,31	28,44	1,90	Vynnytsia region
90.	2022.01.27	14:29:31	50,18	30,01	1,10	Kyiv region
91.	2022.01.28	06:33:24	52,26	27,35	2,10	Belarus
92.	2022.01.28	06:36:09	52,22	27,31	1,90	Belarus
93.	2022.01.28	08:47:52	51,35	26,89	1,80	Rivne region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
94.	2022.01.28	09:00:57	49,50	28,43	1,50	Vinnitsia region
95.	2022.01.28	09:17:53	52,29	35,40	2,90	Kursk region, RF
96.	2022.01.28	09:56:16	48,26	29,95	1,60	Kirovohrad region
97.	2022.01.28	10:00:01	52,43	35,25	2,70	Kursk region, RF
98.	2022.01.28	10:03:49	50,90	28,58	1,40	Zhytomyr region
99.	2022.01.28	10:49:50	50,51	27,60	1,60	Zhytomyr region
100.	2022.01.28	11:00:01	51,31	26,93	1,50	Rivne region
101.	2022.01.28	11:00:25	48,24	33,42	1,80	Kirovohrad region
102.	2022.01.28	11:25:14	49,70	30,67	1,30	Kyiv region
103.	2022.01.28	13:30:21	49,52	25,83	1,40	Ternopil region
104.	2022.01.29	12:41:09	49,67	30,57	1,50	Kyiv region
105.	2022.01.31	10:21:39	49,54	25,92	1,80	Ternopil region
106.	2022.01.31	13:04:38	51,25	26,02	2,10	Rivne region
107.	2022.02.01	07:33:27	50,74	28,76	1,00	Zhytomyr region
108.	2022.02.01	10:00:05	48,99	33,52	1,50	Poltava region
109.	2022.02.01	10:14:32	51,35	26,96	1,50	Rivne region
110.	2022.02.01	11:02:15	51,33	27,03	1,50	Rivne region
111.	2022.02.01	11:53:53	49,47	28,34	1,70	Vinnitsia region
112.	2022.02.02	09:40:00	51,10	28,72	1,70	Zhytomyr region
113.	2022.02.02	09:56:45	48,82	29,43	2,00	Vinnitsia region
114.	2022.02.02	09:56:55	48,87	29,08	1,90	Vinnitsia region
115.	2022.02.02	10:13:59	55,17	30,38	2,50	Belarus
116.	2022.02.02	11:00:04	50,76	29,32	1,70	Zhytomyr region
117.	2022.02.02	11:46:41	49,65	30,55	1,40	Kyiv region
118.	2022.02.02	14:37:01	51,36	26,93	1,80	Rivne region
119.	2022.02.03	10:00:07	47,81	33,20	2,00	Dnipropetrovsk region
120.	2022.02.03	10:53:30	50,73	29,32	1,40	Zhytomyr region
121.	2022.02.03	11:01:01	51,30	26,91	1,50	Rivne region
122.	2022.02.03	11:11:08	47,66	33,26	2,50	Dnipropetrovsk region
123.	2022.02.03	11:49:44	50,91	28,63	1,10	Zhytomyr region
124.	2022.02.03	12:12:22	48,32	32,68	1,90	Kirovohrad region
125.	2022.02.03	12:20:00	48,57	26,46	1,40	Khmelnyskyi region
126.	2022.02.03	15:14:50	50,92	28,59	1,50	Zhytomyr region
127.	2022.02.04	06:34:27	52,23	27,44	1,70	Belarus
128.	2022.02.04	09:00:05	47,71	33,31	2,30	Dnipropetrovsk region
129.	2022.02.04	09:05:55	51,13	28,71	1,90	Zhytomyr region
130.	2022.02.04	10:33:04	49,13	28,30	1,20	Vinnitsia region
131.	2022.02.04	10:42:38	50,15	27,54	1,60	Khmelnyskyi region
132.	2022.02.04	10:47:28	51,26	26,94	1,70	Rivne region
133.	2022.02.04	11:00:39	48,32	33,28	2,20	Kirovohrad region
134.	2022.02.04	11:20:53	50,91	28,35	1,60	Zhytomyr region
135.	2022.02.04	12:37:26	50,93	28,68	1,50	Zhytomyr region
136.	2022.02.05	11:31:01	48,35	31,58	1,50	Kirovohrad region
137.	2022.02.06	09:07:12	50,70	28,84	1,00	Zhytomyr region
138.	2022.02.07	07:03:04	50,49	28,97	0,60	Zhytomyr region
139.	2022.02.07	10:12:17	48,40	31,49	1,90	Kirovohrad region
140.	2022.02.07	10:14:42	48,75	26,71	1,80	Khmelnyskyi region
141.	2022.02.07	11:53:34	51,27	26,94	1,60	Rivne region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
142.	2022.02.07	11:57:46	50,75	29,31	1,80	Zhytomyr region
143.	2022.02.08	09:40:49	49,98	28,44	1,60	Zhytomyr region
144.	2022.02.08	09:44:49	51,16	28,11	1,60	Zhytomyr region
145.	2022.02.08	11:43:06	50,14	29,95	1,10	Kyiv region
146.	2022.02.08	12:40:11	49,47	28,35	1,60	Vynnytsia region
147.	2022.02.08	13:26:18	50,91	28,56	1,60	Zhytomyr region
148.	2022.02.09	08:27:03	51,56	29,89	1,20	Belarus
149.	2022.02.09	10:00:34	48,40	35,19	1,90	Dnipropetrovsk region
150.	2022.02.09	10:26:30	51,34	26,94	1,70	Rivne region
151.	2022.02.09	10:36:25	48,81	29,43	1,50	Vynnytsia region
152.	2022.02.09	10:51:45	50,71	28,76	1,00	Zhytomyr region
153.	2022.02.09	11:04:02	50,57	27,62	1,80	Zhytomyr region
154.	2022.02.09	11:30:11	49,78	27,36	1,60	Khmelnyskyi region
155.	2022.02.09	12:34:22	50,93	28,58	1,40	Zhytomyr region
156.	2022.02.09	13:05:31	51,55	29,93	1,00	Belarus
157.	2022.02.09	13:19:40	51,55	29,94	0,90	Belarus
158.	2022.02.09	13:54:34	51,55	29,87	0,90	Belarus
159.	2022.02.09	13:54:54	51,55	29,88	1,00	Belarus
160.	2022.02.09	13:55:09	51,55	29,87	0,90	Belarus
161.	2022.02.09	14:27:38	51,55	29,93	0,90	Belarus
162.	2022.02.09	14:28:12	51,55	29,92	0,90	Belarus
163.	2022.02.09	15:18:31	51,52	29,88	1,00	Belarus
164.	2022.02.10	08:23:13	51,02	28,66	1,80	Zhytomyr region
165.	2022.02.10	11:00:14	48,68	32,79	2,10	Kirovohrad region
166.	2022.02.10	11:14:56	51,38	28,85	1,60	Zhytomyr region
167.	2022.02.10	11:27:58	48,11	33,52	2,10	Dnipropetrovsk region
168.	2022.02.10	11:44:32	49,50	30,91	1,60	Kyiv region
169.	2022.02.10	12:16:25	49,66	30,59	1,30	Kyiv region
170.	2022.02.10	13:01:58	50,95	28,70	1,90	Zhytomyr region
171.	2022.02.10	13:22:06	51,25	26,96	1,80	Rivne region
172.	2022.02.11	06:15:32	52,24	27,39	2,20	Belarus
173.	2022.02.11	06:15:37	52,22	27,39	2,20	Belarus
174.	2022.02.11	09:12:14	50,74	29,33	1,80	Zhytomyr region
175.	2022.02.11	10:15:27	49,78	29,83	1,40	Kyiv region
176.	2022.02.11	11:07:09	51,20	26,97	1,70	Rivne region
177.	2022.02.11	11:13:23	49,67	30,43	1,20	Kyiv region
178.	2022.02.11	12:40:19	51,15	28,70	1,60	Zhytomyr region
179.	2022.02.11	12:49:13	49,59	25,92	1,80	Ternopil region
180.	2022.02.14	13:41:06	51,43	28,86	1,70	Zhytomyr region
181.	2022.02.14	13:52:22	50,36	27,36	1,60	Zhytomyr region
182.	2022.02.14	14:51:22	50,18	29,89	1,70	Kyiv region
183.	2022.02.15	08:16:14	49,02	33,62	2,10	Poltava region
184.	2022.02.15	10:00:04	49,07	33,64	1,80	Poltava region
185.	2022.02.15	10:01:01	49,50	28,45	1,70	Vynnytsia region
186.	2022.02.15	10:04:23	50,75	29,34	2,00	Zhytomyr region
187.	2022.02.15	11:06:33	50,71	28,79	1,10	Zhytomyr Region
188.	2022.02.15	11:12:02	49,56	25,98	1,80	Ternopil Region
189.	2022.02.15	11:38:54	49,63	30,33	1,30	Kyiv region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
190.	2022.02.15	11:58:58	49,65	30,37	1,30	Kyiv region
191.	2022.02.15	12:01:13	51,32	26,98	1,80	Rivne region
192.	2022.02.16	09:02:00	51,27	37,62	3,30	Belgorod region, RF
193.	2022.02.16	09:37:12	51,27	26,27	1,80	Rivne region
194.	2022.02.16	10:19:13	50,23	27,19	1,60	Khmelnyskyi region
195.	2022.02.16	10:35:06	51,29	26,90	1,70	Rivne region
196.	2022.02.16	11:10:03	49,98	25,53	1,30	Ternopil region
197.	2022.02.16	11:11:48	49,57	30,45	1,50	Kyiv region
198.	2022.02.16	16:11:20	51,42	25,85	1,10	Rivne region
199.	2022.02.17	10:00:15	47,68	33,27	1,80	Dnipropetrovsk region
200.	2022.02.17	10:56:13	50,24	30,01	1,60	Kyiv region
201.	2022.02.17	10:57:49	49,64	30,56	1,20	Kyiv region
202.	2022.02.17	11:46:46	50,88	28,18	1,50	Zhytomyr region
203.	2022.02.17	12:55:43	49,30	28,46	1,60	Vinnysia region
204.	2022.02.18	06:43:06	52,23	27,42	1,90	Belarus
205.	2022.02.18	06:45:25	52,23	27,39	2,00	Belarus
206.	2022.02.18	08:59:42	47,86	33,29	2,80	Dnipropetrovsk region
207.	2022.02.18	10:33:44	49,76	27,24	1,60	Khmelnyskyi region
208.	2022.02.18	11:23:39	50,95	28,55	1,70	Zhytomyr region
209.	2022.02.18	11:36:31	48,86	29,11	1,50	Vinnysia region
210.	2022.02.18	16:37:41	50,13	27,74	1,60	Zhytomyr region
211.	2022.02.19	06:40:46	50,55	27,65	1,60	Zhytomyr region
212.	2022.02.19	09:40:41	50,71	28,83	1,10	Zhytomyr region
213.	2022.02.20	15:46:30	50,71	28,82	1,00	Zhytomyr region
214.	2022.02.21	12:08:13	50,75	29,33	1,80	Zhytomyr region
215.	2022.02.21	12:14:19	49,15	25,02	1,90	Ternopil region
216.	2022.02.21	14:05:48	50,16	30,01	1,10	Kyiv region
217.	2022.02.22	07:58:07	49,46	29,64	1,20	Kyiv region
218.	2022.02.22	09:33:49	49,29	32,65	1,50	Kirovohrad region
219.	2022.02.22	09:59:57	49,10	33,67	1,80	Poltava region
220.	2022.02.22	10:07:15	51,30	26,84	1,80	Rivne region
221.	2022.02.22	10:56:37	49,51	28,45	1,50	Vinnysia region
222.	2022.02.22	11:28:13	52,23	27,39	2,00	Belarus
223.	2022.02.23	07:36:27	49,76	27,28	1,40	Khmelnyskyi region
224.	2022.02.23	08:21:57	51,18	26,93	1,70	Rivne region
225.	2022.02.23	10:00:26	48,03	33,39	2,10	Dnipropetrovsk region
226.	2022.02.23	10:23:56	51,30	27,01	1,60	Rivne region
227.	2022.02.23	10:57:42	51,21	26,93	1,60	Rivne region
228.	2022.02.23	11:23:51	51,08	28,69	1,80	Zhytomyr region
229.	2022.02.23	11:27:11	51,08	28,69	1,40	Zhytomyr region
230.	2022.02.23	12:01:27	48,97	30,72	1,70	Cherkasy region
231.	2022.02.25	06:29:40	52,28	27,48	2,00	Belarus
232.	2022.02.25	09:00:20	52,27	35,29	2,40	Kursk region, RF
233.	2022.02.25	10:00:06	52,36	35,27	2,20	Kursk region, RF
234.	2022.03.05	09:59:59	47,85	33,31	2,20	Dnipropetrovsk region
235.	2022.03.09	10:01:05	51,28	37,78	2,70	Belgorod region, RF
236.	2022.03.09	11:30:36	49,51	25,84	1,80	Ternopil region
237.	2022.03.18	06:35:06	52,24	27,44	1,80	Belarus

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
238.	2022.03.23	10:00:07	51,32	37,51	2,60	Belgorod region, RF
239.	2022.03.31	09:00:09	47,85	33,29	2,10	Dnipropetrovsk region
240.	2022.03.31	10:00:34	47,98	33,52	2,10	Dnipropetrovsk region
241.	2022.04.01	07:59:58	47,81	33,32	2,60	Dnipropetrovsk region
242.	2022.04.04	12:41:13	48,85	26,57	1,80	Khmelnyskyi region
243.	2022.04.05	09:00:03	49,50	33,68	2,20	Poltava region
244.	2022.04.06	10:41:00	49,71	30,44	1,50	Kyiv region
245.	2022.04.06	12:07:44	50,80	26,31	1,70	Rivne region
246.	2022.04.06	14:44:03	50,84	26,00	2,20	Rivne region
247.	2022.04.06	15:09:56	51,34	28,92	1,00	Zhytomyr region
248.	2022.04.06	16:09:29	48,87	30,65	1,10	Cherkasy region
249.	2022.04.07	05:57:10	50,91	28,58	1,80	Zhytomyr region
250.	2022.04.07	09:00:06	48,00	33,22	2,00	Dnipropetrovsk region
251.	2022.04.07	10:00:09	48,32	33,22	2,10	Kirovohrad region
252.	2022.04.07	10:47:44	51,26	27,03	1,80	Rivne region
253.	2022.04.07	10:59:17	51,31	26,85	1,40	Rivne region
254.	2022.04.07	13:04:50	50,71	28,81	1,00	Zhytomyr region
255.	2022.04.08	06:22:46	52,25	27,43	1,80	Belarus
256.	2022.04.08	06:25:58	52,24	27,41	2,00	Belarus
257.	2022.04.08	08:54:10	49,53	25,94	2,00	Ternopil region
258.	2022.04.08	10:00:11	48,14	33,44	2,40	Dnipropetrovsk region
259.	2022.04.08	10:32:47	50,45	28,86	0,80	Zhytomyr region
260.	2022.04.08	11:39:46	49,76	28,67	1,20	Vinnitsia region
261.	2022.04.08	12:51:08	55,34	30,34	2,10	Belarus
262.	2022.04.09	11:06:42	50,77	28,66	1,20	Zhytomyr region
263.	2022.04.12	09:00:16	49,00	33,66	2,20	Poltava region
264.	2022.04.12	11:33:12	48,77	26,67	1,50	Khmelnyskyi region
265.	2022.04.12	12:05:16	50,35	30,74	1,40	Kyiv region
266.	2022.04.12	12:26:21	49,58	27,86	1,50	Vinnitsia region
267.	2022.04.12	14:55:04	48,71	30,32	1,50	Cherkasy region
268.	2022.04.13	10:04:54	50,70	28,76	1,60	Zhytomyr region
269.	2022.04.13	13:56:08	49,66	30,44	1,50	Kyiv region
270.	2022.04.13	15:34:17	50,55	26,29	1,80	Rivne region
271.	2022.04.13	15:47:14	50,81	26,54	1,90	Rivne region
272.	2022.04.14	08:20:47	51,38	26,94	1,50	Rivne region
273.	2022.04.14	08:21:28	51,25	26,95	1,60	Rivne region
274.	2022.04.14	08:52:25	50,56	28,57	1,50	Zhytomyr region
275.	2022.04.14	09:00:18	48,97	33,62	2,10	Poltava region
276.	2022.04.14	09:04:15	50,22	27,21	2,00	Khmelnyskyi region
277.	2022.04.14	10:00:55	51,24	37,63	2,80	Belgorod region, RF
278.	2022.04.14	12:00:15	47,97	33,39	2,30	Dnipropetrovsk region
279.	2022.04.14	13:56:03	51,50	27,70	1,70	Belarus
280.	2022.04.14	14:54:34	48,87	30,76	1,80	Cherkasy region
281.	2022.04.15	06:20:42	52,22	27,31	2,10	Belarus
282.	2022.04.15	06:21:04	52,24	27,30	2,00	Belarus
283.	2022.04.15	11:11:15	50,72	28,77	1,00	Zhytomyr region
284.	2022.04.18	09:15:25	48,29	26,68	2,10	Moldova
285.	2022.04.18	11:10:47	50,17	30,03	1,40	Kyiv region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
286.	2022.04.18	11:10:51	50,15	29,99	1,40	Kyiv region
287.	2022.04.19	08:58:48	49,40	26,04	1,60	Ternopil region
288.	2022.04.19	09:00:34	49,02	33,67	2,60	Poltava region
289.	2022.04.19	09:31:39	51,26	26,96	2,70	Rivne region
290.	2022.04.19	10:29:15	50,74	29,32	1,10	Zhytomyr region
291.	2022.04.19	13:02:07	48,72	30,25	1,60	Cherkasy region
292.	2022.04.20	15:15:36	51,21	26,04	1,50	Rivne region
293.	2022.04.21	07:16:37	51,23	26,01	1,80	Rivne region
294.	2022.04.21	07:36:34	50,70	28,84	1,00	Zhytomyr region
295.	2022.04.21	09:00:06	48,03	33,35	1,90	Dnipropetrovsk region
296.	2022.04.21	10:57:31	51,40	26,99	1,70	Rivne region
297.	2022.04.22	06:42:58	52,25	27,40	2,00	Belarus
298.	2022.04.22	06:47:10	52,22	27,37	2,10	Belarus
299.	2022.04.22	07:59:57	47,84	33,37	2,20	Dnipropetrovsk region
300.	2022.04.22	08:07:24	51,30	27,00	1,60	Rivne region
301.	2022.04.22	10:00:12	48,30	33,31	2,10	Dnipropetrovsk region
302.	2022.04.22	10:25:09	51,32	27,25	1,80	Rivne region
303.	2022.04.26	09:57:29	48,24	28,31	1,70	Moldova
304.	2022.04.27	07:20:09	50,72	28,74	1,10	Zhytomyr region
305.	2022.04.27	09:00:09	49,00	33,60	2,60	Poltava region
306.	2022.04.27	09:11:31	48,79	30,25	1,50	Cherkasy region
307.	2022.04.27	09:59:36	51,21	37,48	2,80	Belgorod region, RF
308.	2022.04.27	10:18:40	50,42	29,10	1,00	Zhytomyr region
309.	2022.04.28	09:00:12	48,07	33,47	2,20	Dnipropetrovsk region
310.	2022.04.28	10:00:02	47,85	33,28	2,30	Dnipropetrovsk region
311.	2022.04.28	10:23:47	49,44	26,07	1,70	Ternopil region
312.	2022.04.29	06:41:00	52,26	27,38	2,10	Belarus
313.	2022.04.30	09:08:48	49,77	29,85	1,50	Kyiv region
314.	2022.05.01	08:43:49	50,71	28,82	1,00	Zhytomyr region
315.	2022.05.03	09:03:28	49,13	33,67	2,20	Poltava region
316.	2022.05.03	10:42:01	51,31	27,21	1,60	Rivne region
317.	2022.05.03	13:37:01	48,78	29,92	1,50	Cherkasy region
318.	2022.05.04	09:00:03	49,05	33,59	2,70	Poltava region
319.	2022.05.04	16:33:18	49,61	27,79	1,40	Khmelnyskyi region
320.	2022.05.04	17:18:31	49,53	27,79	1,90	Khmelnyskyi region
321.	2022.05.05	09:00:04	47,85	33,34	2,10	Dnipropetrovsk region
322.	2022.05.05	10:00:19	48,31	33,22	2,10	Kirovohrad region
323.	2022.05.05	10:02:35	51,25	37,77	2,20	Belgorod region, RF
324.	2022.05.05	13:48:57	48,78	29,97	1,40	Cherkasy region
325.	2022.05.06	06:36:33	52,25	27,46	1,80	Belarus
326.	2022.05.06	09:22:02	50,50	28,62	1,60	Zhytomyr region
327.	2022.05.06	10:01:49	49,08	33,71	1,90	Poltava region
328.	2022.05.10	10:02:16	51,34	26,95	1,90	Rivne region
329.	2022.05.10	12:30:23	55,24	30,32	2,50	Belarus
330.	2022.05.10	14:24:01	48,72	30,21	2,00	Cherkasy region
331.	2022.05.11	09:00:01	48,80	26,72	1,40	Khmelnyskyi region
332.	2022.05.11	09:01:01	48,82	26,71	1,40	Khmelnyskyi region
333.	2022.05.12	09:00:04	48,01	33,41	1,90	Dnipropetrovsk region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
334.	2022.05.12	10:04:47	52,68	27,11	1,70	Belarus
335.	2022.05.12	12:13:47	47,58	33,33	2,10	Dnipropetrovsk region
336.	2022.05.12	13:04:19	48,82	29,12	1,80	Vinnitsia region
337.	2022.05.13	06:12:08	52,24	27,36	1,70	Belarus
338.	2022.05.13	08:01:08	47,69	33,23	2,00	Dnipropetrovsk region
339.	2022.05.13	11:35:10	49,51	25,90	1,40	Ternopil region
340.	2022.05.13	13:50:42	51,54	27,80	1,90	Belarus
341.	2022.05.15	15:08:57	50,71	28,80	1,10	Zhytomyr region
342.	2022.05.16	10:37:54	50,44	28,85	1,00	Zhytomyr region
343.	2022.05.18	08:11:18	50,71	28,81	1,10	Zhytomyr region
344.	2022.05.18	09:09:32	51,35	27,08	1,90	Rivne region
345.	2022.05.18	09:59:31	55,25	30,27	3,00	Belarus
346.	2022.05.18	10:01:27	48,01	33,41	2,90	Dnipropetrovsk region
347.	2022.05.18	11:21:31	50,71	28,83	1,10	Zhytomyr region
348.	2022.05.19	09:00:05	47,68	33,22	2,80	Dnipropetrovsk region
349.	2022.05.19	09:59:47	47,79	34,82	2,10	Zaporizhzhia region
350.	2022.05.20	06:29:39	52,26	27,39	1,50	Belarus
351.	2022.05.20	06:29:50	52,27	27,39	1,50	Belarus
352.	2022.05.20	06:32:52	52,28	27,37	1,60	Belarus
353.	2022.05.20	09:49:15	49,45	26,06	1,70	Ternopil region
354.	2022.05.20	10:00:25	48,32	33,38	2,10	Kirovohrad region
355.	2022.05.24	09:15:25	49,14	33,69	2,60	Poltava region
356.	2022.05.24	10:27:05	50,50	28,95	0,80	Zhytomyr region
357.	2022.05.24	12:20:46	50,69	28,73	0,90	Zhytomyr region
358.	2022.05.24	14:11:24	51,37	28,81	1,90	Zhytomyr region
359.	2022.05.24	14:25:34	48,75	29,95	1,50	Cherkasy region
360.	2022.05.25	09:32:44	49,41	26,05	1,50	Ternopil region
361.	2022.05.25	10:30:53	49,20	28,46	1,70	Vinnitsia region
362.	2022.05.25	11:07:43	51,37	27,02	1,90	Rivne region
363.	2022.05.25	13:32:33	47,91	33,11	2,00	Dnipropetrovsk region
364.	2022.05.26	08:12:37	49,53	28,37	1,20	Vinnitsia region
365.	2022.05.26	08:49:28	48,34	29,87	1,90	Kirovohrad region
366.	2022.05.26	09:00:06	47,83	33,25	2,80	Dnipropetrovsk region
367.	2022.05.26	10:01:19	52,33	35,43	2,90	Kursk region, RF
368.	2022.05.26	13:20:07	48,92	30,79	2,00	Cherkasy region
369.	2022.05.27	06:21:38	52,23	27,40	2,50	Belarus
370.	2022.05.27	08:11:13	47,70	33,19	2,50	Dnipropetrovsk region
371.	2022.05.27	10:13:22	48,73	26,62	1,10	Khmelnyskyi region
372.	2022.05.27	10:34:42	47,85	31,16	2,40	Mykolayiv region
373.	2022.05.27	10:55:36	49,81	25,43	1,10	Ternopil region
374.	2022.05.27	10:58:24	49,09	28,30	1,90	Vinnitsia region
375.	2022.05.27	11:01:01	49,08	28,30	1,90	Vinnitsia region
376.	2022.05.27	20:25:59	49,07	28,29	1,80	Vinnitsia region
377.	2022.05.30	07:44:52	50,72	28,78	1,00	Zhytomyr region
378.	2022.05.30	09:00:15	52,25	35,41	3,20	Kursk region, RF
379.	2022.05.30	10:00:21	52,30	35,41	2,90	Kursk region, RF
380.	2022.05.30	11:00:04	55,31	30,27	2,10	Belarus
381.	2022.05.31	07:00:00	48,74	26,60	1,30	Khmelnyskyi region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
382.	2022.05.31	08:20:32	48,78	30,77	1,60	Cherkasy region
383.	2022.05.31	09:00:14	49,05	33,68	1,90	Poltava region
384.	2022.05.31	15:28:14	50,74	28,78	1,00	Zhytomyr region
385.	2022.06.01	13:04:02	50,94	28,66	1,50	Zhytomyr region
386.	2022.06.02	07:59:11	50,71	28,82	1,00	Zhytomyr region
387.	2022.06.02	08:55:07	47,81	33,38	2,30	Dnipropetrovsk region
388.	2022.06.02	10:18:02	48,85	26,80	1,50	Khmelnyskyi region
389.	2022.06.03	06:43:47	52,22	27,48	2,00	Belarus
390.	2022.06.03	08:18:18	48,30	26,98	1,90	Moldova
391.	2022.06.03	09:48:46	49,59	25,84	1,80	Ternopil region
392.	2022.06.03	10:00:46	48,29	33,20	2,00	Kirovohrad region
393.	2022.06.03	13:37:29	50,70	28,75	1,00	Zhytomyr region
394.	2022.06.07	07:41:37	50,16	27,52	1,80	Khmelnyskyi region
395.	2022.06.07	09:00:03	49,07	33,58	2,10	Poltava region
396.	2022.06.07	10:50:39	48,92	26,60	1,40	Khmelnyskyi region
397.	2022.06.07	11:21:48	49,43	27,30	1,70	Khmelnyskyi region
398.	2022.06.07	13:49:11	48,88	30,76	1,50	Cherkasy region
399.	2022.06.08	09:04:59	51,23	26,98	2,00	Rivne region
400.	2022.06.08	13:19:55	48,29	33,31	2,90	Kirovohrad region
401.	2022.06.09	08:14:40	50,73	28,57	0,90	Zhytomyr region
402.	2022.06.09	08:17:00	50,93	28,55	1,60	Zhytomyr region
403.	2022.06.09	09:00:09	47,89	33,20	2,30	Dnipropetrovsk region
404.	2022.06.09	09:24:54	50,93	28,56	1,60	Zhytomyr region
405.	2022.06.09	11:26:09	51,32	26,93	1,40	Rivne region
406.	2022.06.09	11:26:47	51,28	26,86	1,50	Rivne region
407.	2022.06.09	12:50:13	48,32	33,31	2,20	Kirovohrad region
408.	2022.06.10	06:51:32	52,24	27,40	2,50	Belarus
409.	2022.06.10	07:52:49	49,77	29,91	1,70	Kyiv region
410.	2022.06.10	11:04:05	50,94	28,56	2,40	Zhytomyr region
411.	2022.06.11	06:22:30	50,20	28,27	1,40	Zhytomyr region
412.	2022.06.14	07:22:52	51,13	28,58	1,80	Zhytomyr region
413.	2022.06.14	08:00:15	49,34	28,45	1,90	Vinnysia region
414.	2022.06.14	08:53:00	49,34	28,45	1,60	Vinnysia region
415.	2022.06.14	09:00:15	49,15	33,50	1,70	Poltava region
416.	2022.06.14	11:00:35	51,20	28,70	1,70	Zhytomyr region
417.	2022.06.14	13:51:31	48,88	30,72	1,60	Cherkasy region
418.	2022.06.15	07:05:37	51,14	28,62	1,80	Zhytomyr region
419.	2022.06.15	07:46:48	49,77	30,10	1,80	Kyiv region
420.	2022.06.15	09:43:49	51,22	28,56	1,80	Zhytomyr region
421.	2022.06.15	12:22:00	50,89	28,67	1,70	Zhytomyr region
422.	2022.06.15	13:08:36	50,53	28,63	1,90	Zhytomyr region
423.	2022.06.16	06:59:51	51,13	28,68	1,00	Zhytomyr region
424.	2022.06.16	09:00:07	47,88	33,29	2,20	Dnipropetrovsk region
425.	2022.06.16	10:00:24	48,33	33,27	2,10	Kirovohrad region
426.	2022.06.16	11:15:09	51,24	26,02	1,50	Rivne region
427.	2022.06.16	12:03:41	51,09	28,65	1,40	Zhytomyr region
428.	2022.06.16	12:23:38	48,33	33,23	2,10	Kirovohrad region
429.	2022.06.16	13:09:25	48,98	30,90	1,70	Cherkasy region

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430.	2022.06.16	13:15:30	47,82	33,27	2,00	Dnipropetrovsk region
431.	2022.06.16	14:12:17	51,54	27,79	1,80	Belarus
432.	2022.06.17	06:37:01	52,24	27,46	1,90	Belarus
433.	2022.06.17	06:41:36	52,25	27,42	2,10	Belarus
434.	2022.06.17	08:47:21	50,49	28,95	1,10	Zhytomyr region
435.	2022.06.17	09:05:59	51,28	26,97	1,90	Rivne region
436.	2022.06.17	09:50:33	50,71	28,81	1,10	Zhytomyr region
437.	2022.06.17	10:00:33	55,27	30,44	2,30	Belarus
438.	2022.06.17	10:32:59	49,59	25,81	1,70	Ternopil region
439.	2022.06.17	10:33:41	49,62	25,85	1,80	Ternopil region
440.	2022.06.17	11:01:13	51,38	26,50	1,30	Rivne region
441.	2022.06.21	09:00:03	48,31	33,25	2,10	Kirovohrad region
442.	2022.06.21	09:36:33	49,67	30,42	1,60	Kyiv region
443.	2022.06.21	09:37:02	49,69	30,47	1,50	Kyiv region
444.	2022.06.21	12:41:55	48,79	29,90	1,50	Cherkasy region
445.	2022.06.22	09:32:21	50,15	29,95	1,80	Kyiv region
446.	2022.06.23	09:00:09	47,86	33,24	2,20	Dnipropetrovsk region
447.	2022.06.23	10:00:31	48,00	33,41	2,30	Dnipropetrovsk region
448.	2022.06.23	11:02:24	50,21	27,66	1,50	Zhytomyr region
449.	2022.06.23	13:57:13	48,80	26,96	1,70	Cherkasy region
450.	2022.06.24	06:40:12	52,23	27,52	2,10	Belarus
451.	2022.06.24	06:43:57	52,22	27,37	2,10	Belarus
452.	2022.06.24	08:00:24	48,07	33,47	2,90	Dnipropetrovsk region
453.	2022.06.24	08:54:23	48,28	28,30	2,00	Moldova
454.	2022.06.25	09:33:02	49,25	33,91	1,50	Poltava region
455.	2022.06.25	15:46:11	50,69	28,82	1,60	Zhytomyr region
456.	2022.06.26	03:26:36	50,46	30,49	1,00	Kyiv region
457.	2022.06.26	08:28:20	49,70	32,13	1,00	Cherkasy region
458.	2022.06.27	09:45:16	50,46	28,90	1,00	Zhytomyr region
459.	2022.06.27	10:05:07	49,52	25,95	1,40	Ternopil region
460.	2022.06.27	16:28:07	48,86	22,62	1,60	Transcarpathian region
461.	2022.06.28	07:23:18	49,47	28,40	1,70	Vinnitsia region
462.	2022.06.28	08:24:38	51,14	28,70	2,10	Zhytomyr region
463.	2022.06.28	13:58:12	51,14	28,66	1,80	Zhytomyr region
464.	2022.06.29	08:04:31	49,50	28,45	1,70	Vinnitsia region
465.	2022.06.29	09:00:06	52,17	35,42	2,20	Kursk region, RF
466.	2022.06.29	10:00:12	52,26	35,47	2,00	Kursk region, RF
467.	2022.06.29	10:28:35	51,30	27,09	1,80	Rivne region
468.	2022.06.29	10:39:42	51,22	28,84	1,60	Zhytomyr region
469.	2022.06.29	13:43:56	51,17	28,69	1,60	Zhytomyr region
470.	2022.06.30	09:00:12	48,07	33,27	2,70	Dnipropetrovsk region
471.	2022.06.30	09:06:18	49,80	29,87	1,60	Kyiv region
472.	2022.06.30	10:00:36	48,17	33,49	2,70	Dnipropetrovsk region
473.	2022.06.30	11:00:58	49,58	30,91	1,90	Kyiv region
474.	2022.06.30	12:00:15	47,93	33,37	2,90	Dnipropetrovsk region
475.	2022.06.30	13:41:14	50,92	28,56	1,90	Zhytomyr region
476.	2022.06.30	13:55:40	55,20	30,32	2,60	Belarus

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
477.	2022.07.01	06:45:23	52,23	27,35	1,60	Belarus
478.	2022.07.01	06:47:52	52,23	27,48	1,00	Belarus
479.	2022.07.01	06:59:59	48,41	31,43	1,00	Kirovohrad region
480.	2022.07.01	07:24:36	48,70	26,06	2,20	Ternopil region
481.	2022.07.01	14:20:39	50,72	28,72	1,00	Zhytomyr region
482.	2022.07.02	07:05:15	49,65	30,47	1,90	Kyiv region
483.	2022.07.02	09:44:42	50,71	28,86	1,00	Zhytomyr region
484.	2022.07.02	12:39:18	50,56	28,61	1,00	Zhytomyr region
485.	2022.07.02	12:50:32	50,69	28,85	1,00	Zhytomyr region
486.	2022.07.03	04:22:45	50,48	29,24	0,30	Zhytomyr region
487.	2022.07.05	09:00:02	49,11	33,67	2,20	Poltava region
488.	2022.07.05	10:00:25	49,12	33,76	2,40	Poltava region
489.	2022.07.05	16:49:29	49,20	26,86	1,80	Khmelnyskyi region
490.	2022.07.06	06:08:16	50,71	28,81	1,00	Zhytomyr region
491.	2022.07.06	08:00:44	50,70	28,84	1,10	Zhytomyr region
492.	2022.07.06	08:45:57	48,81	26,64	1,90	Khmelnyskyi region
493.	2022.07.06	09:02:30	47,88	27,26	2,10	Moldova
494.	2022.07.07	08:54:18	48,27	26,63	1,90	Moldova
495.	2022.07.07	09:01:03	48,01	33,39	2,00	Dnipropetrovsk region
496.	2022.07.07	10:02:05	51,98	35,35	2,10	Kursk region, RF
497.	2022.07.07	10:50:36	51,43	28,84	2,00	Zhytomyr region
498.	2022.07.07	11:28:31	48,65	26,01	1,60	Ternopil region
499.	2022.07.08	06:29:28	52,23	27,38	2,30	Belarus
500.	2022.07.08	06:31:50	52,23	27,45	2,00	Belarus
501.	2022.07.08	07:34:41	50,14	27,51	1,80	Khmelnyskyi region
502.	2022.07.08	08:00:24	50,46	28,87	1,00	Zhytomyr region
503.	2022.07.08	12:21:32	51,25	26,71	1,80	Rivne region
504.	2022.07.08	14:30:14	50,96	28,57	2,20	Zhytomyr region
505.	2022.07.09	07:18:40	49,79	30,06	1,50	Kyiv region
506.	2022.07.09	09:21:53	50,73	28,80	0,80	Zhytomyr region
507.	2022.07.09	10:37:13	50,84	29,47	1,40	Zhytomyr region
508.	2022.07.10	00:49:51	48,06	38,35	2,50	Donetsk region
509.	2022.07.11	10:39:20	49,40	27,48	1,00	Khmelnyskyi region
510.	2022.07.11	19:23:57	46,76	33,38	3,10	Kherson region
511.	2022.07.12	09:00:05	49,29	33,27	1,80	Poltava region
512.	2022.07.12	09:31:10	51,14	28,70	1,00	Zhytomyr region
513.	2022.07.12	09:31:10	51,21	28,71	1,40	Zhytomyr region
514.	2022.07.12	11:46:21	48,80	30,21	1,20	Cherkasy region
515.	2022.07.12	13:30:28	50,81	31,15	1,00	Chernihiv region
516.	2022.07.13	08:59:58	47,86	33,22	3,00	Kirovohrad region
517.	2022.07.14	07:44:51	49,24	28,50	1,60	Vinnysia region
518.	2022.07.14	09:00:00	47,84	33,30	2,80	Dnipropetrovsk region
519.	2022.07.14	10:00:14	48,32	33,26	2,80	Kirovohrad region
520.	2022.07.14	12:00:11	48,01	33,40	3,00	Dnipropetrovsk region
521.	2022.07.14	14:08:06	51,25	26,02	1,70	Rivne region
522.	2022.07.15	06:34:38	52,26	27,45	2,10	Belarus
523.	2022.07.15	06:36:39	52,27	27,33	2,40	Belarus

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
524.	2022.07.15	06:44:57	50,59	27,67	1,80	Zhytomyr region
525.	2022.07.15	07:16:51	50,72	28,77	0,90	Zhytomyr region
526.	2022.07.15	07:44:52	48,82	26,20	2,30	Ternopil region
527.	2022.07.15	08:20:24	48,76	26,20	2,20	Ternopil region
528.	2022.07.15	09:56:05	50,27	27,22	2,10	Khmelnyskyi region
529.	2022.07.15	10:57:09	50,88	28,36	1,80	Zhytomyr region
530.	2022.07.15	12:27:19	50,70	28,84	0,90	Zhytomyr region
531.	2022.07.16	08:24:08	48,48	27,41	1,30	Chernivtsi region
532.	2022.07.16	08:33:10	50,21	29,83	1,60	Kyiv region
533.	2022.07.17	06:50:05	50,70	28,83	1,00	Zhytomyr region
534.	2022.07.18	08:47:38	50,70	28,83	1,00	Zhytomyr region
535.	2022.07.18	10:22:38	50,59	30,33	1,30	Kyiv region
536.	2022.07.18	13:48:59	50,69	28,84	1,00	Zhytomyr region
537.	2022.07.19	09:02:50	49,13	33,65	2,50	Poltava region
538.	2022.07.19	09:25:09	51,32	26,88	1,70	Rivne region
539.	2022.07.19	10:06:50	49,32	28,71	1,80	Vinnysia region
540.	2022.07.19	12:04:00	48,89	30,72	1,30	Cherkasy region
541.	2022.07.20	09:01:54	49,04	33,71	2,00	Poltava region
542.	2022.07.20	09:11:47	48,28	29,97	2,10	Kirovohrad region
543.	2022.07.20	12:49:47	50,91	28,59	1,70	Zhytomyr region
544.	2022.07.21	07:00:00	48,75	26,66	1,60	Khmelnyskyi region
545.	2022.07.21	09:20:10	47,85	33,33	2,70	Dnipropetrovsk region
546.	2022.07.21	09:46:53	51,30	27,06	1,90	Rivne region
547.	2022.07.21	09:49:22	51,30	27,27	1,90	Rivne region
548.	2022.07.21	11:45:26	48,91	30,66	1,70	Cherkasy region
549.	2022.07.21	15:32:37	50,68	28,85	1,00	Zhytomyr region
550.	2022.07.22	06:56:11	52,25	27,44	1,90	Belarus
551.	2022.07.22	06:59:07	52,21	27,45	1,70	Belarus
552.	2022.07.22	13:17:55	49,78	28,74	1,50	Vinnysia region
553.	2022.07.23	08:28:06	50,17	27,53	2,00	Khmelnyskyi region
554.	2022.07.23	09:39:25	50,76	28,52	1,10	Zhytomyr region
555.	2022.07.24	06:12:19	49,67	27,32	1,80	Khmelnyskyi region
556.	2022.07.25	06:44:03	49,39	24,86	2,00	Ternopil region
557.	2022.07.26	09:03:07	49,10	26,36	1,60	Khmelnyskyi region
558.	2022.07.26	12:02:22	48,78	30,15	1,70	Cherkasy region
559.	2022.07.27	06:53:45	50,94	28,56	0,00	Zhytomyr region
560.	2022.07.27	07:00:46	50,70	28,82	1,00	Zhytomyr region
561.	2022.07.27	08:36:01	50,71	28,79	1,00	Zhytomyr region
562.	2022.07.27	09:00:04	49,02	33,63	2,50	Poltava region
563.	2022.07.27	10:28:51	49,14	33,64	2,20	Poltava region
564.	2022.07.28	02:45:16	50,76	30,30	0,60	Kyiv region
565.	2022.07.28	02:48:41	51,35	30,97	1,70	Chernihiv region
566.	2022.07.28	02:50:09	51,29	30,79	1,70	Chernihiv region
567.	2022.07.28	06:42:31	51,22	26,02	1,90	Rivne region
568.	2022.07.28	09:00:05	47,66	33,04	2,10	Dnipropetrovsk region
569.	2022.07.28	10:00:43	48,32	33,32	2,80	Kirovohrad region
570.	2022.07.28	12:02:20	49,18	31,39	2,00	Cherkasy region
571.	2022.07.28	13:30:25	50,74	29,33	1,60	Zhytomyr region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
572.	2022.07.29	00:00:49	28,71	1,90	0,00	Vinnitsia region
573.	2022.07.29	06:47:58	52,27	27,41	1,50	Belarus
574.	2022.07.29	06:48:29	52,23	27,38	1,60	Belarus
575.	2022.07.29	08:00:50	49,32	28,71	1,90	Vinnitsia region
576.	2022.07.29	10:58:16	48,36	33,35	1,40	Kirovohrad region
577.	2022.07.29	12:07:38	55,20	30,29	2,00	Belarus
578.	2022.07.29	12:32:08	50,69	28,85	1,00	Zhytomyr region
579.	2022.07.29	15:47:32	50,18	29,83	1,00	Kyiv region
580.	2022.07.31	15:39:51	50,70	28,82	1,20	Zhytomyr region
581.	2022.08.01	09:02:50	49,48	25,98	1,50	Ternopil region
582.	2022.08.01	10:11:40	49,51	26,03	1,40	Ternopil region
583.	2022.08.02	06:03:07	50,55	27,63	1,80	Zhytomyr region
584.	2022.08.02	09:00:05	49,08	33,58	2,50	Poltava region
585.	2022.08.02	09:41:31	48,86	30,29	1,60	Cherkasy region
586.	2022.08.02	13:35:24	49,67	30,37	1,60	Kyiv region
587.	2022.08.03	08:23:04	50,32	31,15	1,70	Kyiv region
588.	2022.08.03	09:00:47	49,36	27,45	2,00	Khmelnyskyi region
589.	2022.08.03	12:01:34	49,41	27,35	2,00	Khmelnyskyi region
590.	2022.08.04	09:00:19	49,10	33,68	1,80	Poltava region
591.	2022.08.04	09:40:31	50,42	29,43	0,60	Zhytomyr region
592.	2022.08.04	10:00:34	48,36	33,33	2,00	Kirovohrad region
593.	2022.08.04	17:40:48	51,55	27,84	2,00	Belarus
594.	2022.08.05	06:38:53	52,24	27,43	2,10	Belarus
595.	2022.08.05	06:42:27	52,22	27,45	2,00	Belarus
596.	2022.08.05	06:43:26	52,26	27,48	2,00	Belarus
597.	2022.08.05	07:47:09	51,77	30,88	1,70	Chernihiv region
598.	2022.08.05	08:34:43	50,49	28,91	1,20	Zhytomyr region
599.	2022.08.05	09:00:15	50,13	27,74	2,10	Zhytomyr region
600.	2022.08.05	11:00:19	48,34	33,22	2,40	Kirovohrad region
601.	2022.08.05	12:10:53	51,44	31,33	2,00	Chernihiv region
602.	2022.08.05	12:21:06	50,69	28,84	1,00	Zhytomyr region
603.	2022.08.05	12:21:06	50,69	28,84	1,00	Zhytomyr region
604.	2022.08.05	17:04:41	51,23	26,00	2,00	Rivne region
605.	2022.08.06	04:02:58	48,08	33,52	2,10	Dnipropetrovsk region
606.	2022.08.08	08:31:50	50,69	28,84	1,00	Zhytomyr region
607.	2022.08.09	06:59:58	48,84	26,63	1,40	Khmelnyskyi region
608.	2022.08.09	08:01:06	48,71	26,08	1,50	Ternopil region
609.	2022.08.09	08:23:53	48,75	26,63	1,70	Khmelnyskyi region
610.	2022.08.09	08:46:41	48,26	26,64	1,80	Moldova
611.	2022.08.09	08:51:53	50,68	28,83	1,00	Zhytomyr region
612.	2022.08.09	13:02:48	48,32	22,27	2,00	Belarus
613.	2022.08.09	14:32:38	50,67	28,83	1,00	Zhytomyr region
614.	2022.08.10	09:00:02	49,04	33,70	2,50	Poltava region
615.	2022.08.10	09:00:23	48,29	26,62	2,20	Moldova
616.	2022.08.10	10:23:57	48,66	27,25	2,30	Moldova
617.	2022.08.10	10:43:26	51,29	26,90	1,80	Rivne region
618.	2022.08.10	10:56:59	49,55	25,91	2,00	Ternopil region
619.	2022.08.10	12:29:48	49,51	28,44	1,90	Vinnitsia region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
620.	2022.08.10	12:40:03	50,94	28,55	1,90	Zhytomyr region
621.	2022.08.10	14:41:59	50,59	27,76	1,80	Zhytomyr region
622.	2022.08.11	08:46:37	49,50	25,84	2,30	Ternopil region
623.	2022.08.11	12:00:28	48,37	33,17	1,80	Kirovohrad region
624.	2022.08.12	06:30:13	52,22	27,38	1,80	Belarus
625.	2022.08.12	06:32:02	52,23	27,40	2,00	Belarus
626.	2022.08.12	07:05:26	49,80	29,86	1,70	Kyiv region
627.	2022.08.12	07:09:46	50,67	29,97	0,90	Kyiv region
628.	2022.08.12	09:00:17	52,30	35,41	3,10	Kursk region, RF
629.	2022.08.12	10:00:15	48,32	33,27	2,10	Kirovohrad region
630.	2022.08.12	10:19:48	52,25	35,40	2,50	Kursk region, RF
631.	2022.08.13	15:51:52	50,72	28,77	1,20	Zhytomyr region
632.	2022.08.16	09:16:23	49,08	33,53	2,50	Poltava region
633.	2022.08.16	11:05:40	50,15	27,50	1,80	Khmelnyskyi region
634.	2022.08.16	11:50:15	48,74	30,21	1,50	Cherkasy region
635.	2022.08.17	09:01:31	51,24	37,90	2,20	Kursk region, RF
636.	2022.08.17	10:07:33	51,29	26,76	1,80	Rivne region
637.	2022.08.17	10:51:12	51,37	31,25	1,50	Chernihiv region
638.	2022.08.17	13:16:07	50,71	28,83	1,10	Zhytomyr region
639.	2022.08.18	08:50:04	50,72	28,84	1,00	Zhytomyr region
640.	2022.08.18	09:00:18	49,07	33,69	2,00	Poltava region
641.	2022.08.18	09:20:22	50,72	28,86	1,10	Zhytomyr region
642.	2022.08.18	10:00:56	48,98	33,58	2,20	Poltava region
643.	2022.08.18	10:09:01	49,48	28,34	1,80	Vinnitsia region
644.	2022.08.18	11:02:12	50,88	26,24	2,00	Rivne region
645.	2022.08.18	11:59:44	48,49	30,78	1,50	Cherkasy region
646.	2022.08.18	13:12:41	50,13	30,04	1,30	Kyiv region
647.	2022.08.18	13:42:21	49,67	30,43	1,60	Kyiv region
648.	2022.08.19	06:22:30	52,21	27,46	2,20	Belarus
649.	2022.08.19	06:25:35	52,23	27,44	2,30	Belarus
650.	2022.08.19	09:32:50	50,15	27,54	2,00	Khmelnyskyi region
651.	2022.08.19	12:04:22	51,90	29,82	1,80	Belarus
652.	2022.08.19	12:10:56	55,30	30,37	2,80	Belarus
653.	2022.08.20	06:53:15	50,71	28,81	1,00	Zhytomyr region
654.	2022.08.20	09:01:13	50,68	28,83	1,30	Zhytomyr region
655.	2022.08.20	15:52:20	50,69	28,81	1,00	Zhytomyr region
656.	2022.08.22	06:22:35	49,38	24,86	1,90	Ternopil region
657.	2022.08.22	08:05:47	50,68	28,79	1,00	Zhytomyr region
658.	2022.08.22	09:56:14	49,16	33,50	2,40	Poltava region
659.	2022.08.22	10:15:54	50,56	27,62	2,00	Zhytomyr region
660.	2022.08.23	08:51:42	50,45	29,38	1,00	Zhytomyr region
661.	2022.08.23	08:59:03	49,16	31,52	2,10	Cherkasy region
662.	2022.08.24	08:56:13	48,22	30,00	2,10	Kirovohrad region
663.	2022.08.24	14:15:27	50,18	27,13	1,60	Khmelnyskyi region
664.	2022.08.24	14:16:20	50,17	27,05	1,40	Khmelnyskyi region
665.	2022.08.25	08:20:41	50,85	30,38	1,50	Kyiv region
666.	2022.08.25	10:25:11	55,23	30,35	2,70	Belarus
667.	2022.08.25	12:00:15	49,09	33,76	2,30	Poltava region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
668.	2022.08.26	06:24:22	52,26	27,41	2,10	Belarus
669.	2022.08.26	10:04:44	49,18	30,87	1,80	Cherkasy region
670.	2022.08.27	11:43:31	47,14	28,76	2,10	Moldova
671.	2022.08.27	14:19:10	50,70	28,85	1,00	Zhytomyr region
672.	2022.08.28	08:29:45	50,74	28,82	0,60	Zhytomyr region
673.	2022.08.28	16:30:39	51,34	26,54	1,70	Rivne region
674.	2022.08.28	16:37:00	51,34	26,54	1,70	Rivne region
675.	2022.08.28	16:39:27	51,31	26,59	1,70	Rivne region
676.	2022.08.29	06:51:43	48,85	26,20	1,50	Ternopil region
677.	2022.08.29	10:56:57	50,38	29,36	1,10	Zhytomyr region
678.	2022.08.29	11:09:28	51,30	26,89	2,00	Rivne region
679.	2022.08.30	07:45:05	50,73	28,81	1,00	Zhytomyr region
680.	2022.08.30	09:11:03	49,65	30,62	1,50	Kyiv region
681.	2022.08.30	11:55:52	49,73	29,99	1,50	Kyiv region
682.	2022.08.30	12:02:54	48,49	30,68	1,80	Cherkasy region
683.	2022.08.30	12:09:36	50,61	30,31	1,00	Kyiv region
684.	2022.08.31	06:42:22	48,10	27,19	2,50	Moldova
685.	2022.08.31	08:12:28	50,70	28,81	1,10	Zhytomyr region
686.	2022.08.31	12:28:23	50,71	28,80	1,10	Zhytomyr region
687.	2022.08.31	13:52:41	51,54	27,80	2,30	Belarus
688.	2022.09.01	08:18:56	49,59	25,94	2,20	Ternopil region
689.	2022.09.01	10:45:36	49,68	25,68	2,10	Ternopil region
690.	2022.09.01	13:11:12	54,79	29,61	2,20	Belarus
691.	2022.09.01	15:08:49	50,70	28,81	1,00	Zhytomyr region
692.	2022.09.01	15:18:30	49,71	27,21	1,10	Khmelnyskyi region
693.	2022.09.02	06:35:49	52,25	27,42	2,40	Belarus
694.	2022.09.02	06:39:16	52,24	27,43	2,40	Belarus
695.	2022.09.02	08:42:37	50,49	28,93	0,50	Zhytomyr region
696.	2022.09.02	10:14:16	50,38	27,37	1,80	Zhytomyr region
697.	2022.09.02	10:50:42	48,58	32,13	1,90	Kirovohrad region
698.	2022.09.02	12:48:59	49,69	30,62	1,70	Kyiv region
699.	2022.09.03	06:33:08	50,70	28,82	1,00	Zhytomyr region
700.	2022.09.04	12:11:25	50,73	28,81	1,00	Zhytomyr region
701.	2022.09.05	09:55:13	51,27	26,97	1,70	Rivne region
702.	2022.09.05	13:25:00	50,70	28,79	1,00	Zhytomyr region
703.	2022.09.06	07:39:47	49,28	28,46	1,80	Vinnysia region
704.	2022.09.06	09:00:30	49,01	33,56	1,30	Poltava region
705.	2022.09.06	09:13:59	51,24	26,96	1,80	Rivne region
706.	2022.09.06	11:41:14	48,93	30,90	1,20	Cherkasy region
707.	2022.09.07	05:09:07	50,48	28,92	1,00	Zhytomyr region
708.	2022.09.07	09:48:27	50,15	27,57	1,60	Khmelnyskyi region
709.	2022.09.08	09:34:55	51,30	27,11	1,80	Rivne region
710.	2022.09.08	10:00:07	48,33	33,32	2,50	Kirovohrad region
711.	2022.09.08	10:01:47	51,24	37,56	3,20	Belgorod region, RF
712.	2022.09.08	10:25:28	48,77	26,72	1,70	Khmelnyskyi region
713.	2022.09.08	10:52:56	51,29	26,92	2,00	Rivne region
714.	2022.09.08	11:29:16	51,66	30,72	1,30	Chernihiv region
715.	2022.09.09	06:24:16	52,22	27,37	2,00	Belarus

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
716.	2022.09.09	06:28:05	52,23	27,45	2,00	Belarus
717.	2022.09.09	09:08:20	51,56	26,96	1,80	Rivne region
718.	2022.09.09	09:43:06	50,71	28,81	0,90	Zhytomyr region
719.	2022.09.09	11:26:18	49,52	28,43	1,70	Vynnytsia region
720.	2022.09.09	11:32:30	50,93	28,69	1,80	Zhytomyr region
721.	2022.09.09	13:09:05	50,93	28,53	2,00	Zhytomyr region
722.	2022.09.09	15:18:31	49,55	30,89	1,70	Kyiv region
723.	2022.09.09	16:00:30	50,22	27,22	1,70	Khmelnyskyi region
724.	2022.09.10	12:13:29	50,70	28,76	0,60	Zhytomyr region
725.	2022.09.11	11:13:24	50,73	29,11	0,30	Zhytomyr region
726.	2022.09.12	08:45:43	50,70	28,83	0,70	Zhytomyr region
727.	2022.09.12	10:15:13	50,38	27,39	1,60	Zhytomyr region
728.	2022.09.12	12:47:52	50,55	27,61	2,00	Zhytomyr region
729.	2022.09.13	08:30:13	49,53	25,90	1,60	Ternopil region
730.	2022.09.13	09:00:12	49,03	33,67	2,60	Poltava region
731.	2022.09.13	11:02:38	51,26	26,95	2,20	Rivne region
732.	2022.09.13	12:05:37	50,89	28,36	2,40	Zhytomyr region
733.	2022.09.13	12:07:41	50,94	29,94	2,00	Kyiv region
734.	2022.09.13	13:45:46	49,08	28,33	2,20	Vynnytsia region
735.	2022.09.15	07:58:08	50,70	28,76	1,00	Zhytomyr region
736.	2022.09.15	08:52:59	49,68	25,91	1,90	Ternopil region
737.	2022.09.15	09:53:03	50,50	28,95	1,00	Zhytomyr region
738.	2022.09.15	10:42:14	48,42	27,77	1,80	Moldova
739.	2022.09.15	11:59:25	48,09	33,54	2,80	Dnipropetrovsk region
740.	2022.09.15	12:06:31	51,24	262	1,80	Rivne region
741.	2022.09.16	06:43:36	52,20	27,44	2,50	Belarus
742.	2022.09.16	06:51:59	50,74	29,92	1,00	Kyiv region
743.	2022.09.16	07:44:17	49,69	30,44	2,10	Kyiv region
744.	2022.09.16	09:19:35	48,75	264	1,90	Ternopil region
745.	2022.09.16	10:14:17	50,47	28,94	1,00	Zhytomyr region
746.	2022.09.16	11:15:54	49,76	32,23	1,90	Cherkasy region
747.	2022.09.16	14:00:27	50,06	31,34	1,60	Kyiv region
748.	2022.09.17	09:08:38	50,66	30,26	2,50	Kyiv region
749.	2022.09.19	09:02:31	50,38	27,38	1,60	Zhytomyr region
750.	2022.09.20	10:00:06	49,78	27,33	1,40	Khmelnyskyi region
751.	2022.09.20	10:20:16	49,73	27,29	1,50	Khmelnyskyi region
752.	2022.09.20	12:12:30	51,25	26,96	2,30	Rivne region
753.	2022.09.21	10:50:39	51,28	26,90	1,90	Rivne region
754.	2022.09.21	12:34:38	50,28	28,34	1,30	Zhytomyr region
755.	2022.09.21	15:07:03	50,38	29,21	1,10	Zhytomyr region
756.	2022.09.22	08:56:34	48,68	269	1,40	Ternopil region
757.	2022.09.22	09:20:25	49,76	27,30	1,80	Khmelnyskyi region
758.	2022.09.22	12:00:57	49,44	27,49	1,80	Khmelnyskyi region
759.	2022.09.23	06:29:06	52,24	27,45	2,00	Belarus
760.	2022.09.23	08:01:23	47,86	27,30	1,80	Moldova
761.	2022.09.23	08:45:42	49,65	30,41	1,70	Kyiv region
762.	2022.09.23	09:10:09	50,67	30,31	0,70	Kyiv region
763.	2022.09.23	09:27:48	51,40	26,94	1,90	Rivne region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
764.	2022.09.23	10:31:22	55,21	30,27	2,90	Belarus
765.	2022.09.23	10:40:58	51,34	26,91	1,90	Rivne region
766.	2022.09.23	10:42:22	50,91	28,23	1,90	Zhytomyr region
767.	2022.09.24	11:53:27	50,14	27,70	1,90	Zhytomyr region
768.	2022.09.24	13:00:19	50,70	28,80	1,00	Zhytomyr region
769.	2022.09.24	15:00:30	50,71	28,82	1,10	Zhytomyr region
770.	2022.09.27	07:27:18	50,14	27,51	1,70	Khmelnyskyi region
771.	2022.09.27	09:00:05	49,01	33,60	2,10	Poltava region
772.	2022.09.27	15:09:52	50,21	29,82	1,90	Kyiv region
773.	2022.09.28	06:50:13	49,68	30,47	1,80	Kyiv region
774.	2022.09.28	07:58:31	50,63	29,12	0,30	Zhytomyr region
775.	2022.09.28	08:20:59	50,73	28,75	1,00	Zhytomyr region
776.	2022.09.28	08:22:45	50,75	28,80	1,00	Zhytomyr region
777.	2022.09.28	08:56:40	48,25	26,95	1,60	Moldova
778.	2022.09.28	09:02:58	48,31	33,31	2,50	Kirovohrad region
779.	2022.09.28	11:31:06	50,45	29,38	0,30	Zhytomyr region
780.	2022.09.28	13:52:58	48,28	28,25	1,80	Vinnysia region
781.	2022.09.29	00:08:02	50,24	28,30	1,00	Zhytomyr region
782.	2022.09.29	07:13:51	49,44	27,38	1,90	Khmelnyskyi region
783.	2022.09.29	08:25:35	50,24	28,30	1,00	Zhytomyr region
784.	2022.09.29	08:54:34	49,67	30,58	1,50	Kyiv region
785.	2022.09.29	10:02:24	52,28	35,43	3,00	Kursk region, RF
786.	2022.09.29	14:43:07	50,90	28,62	1,30	Zhytomyr Region
787.	2022.09.30	06:38:57	52,23	27,47	2,00	Belarus
788.	2022.09.30	06:41:51	52,23	27,41	1,90	Belarus
789.	2022.09.30	06:48:08	50,77	30,36	0,90	Kyiv region
790.	2022.09.30	11:27:22	49,53	30,85	1,10	Kyiv region
791.	2022.09.30	12:10:00	50,58	27,63	2,10	Zhytomyr region
792.	2022.09.30	14:08:30	48,74	30,21	1,90	Cherkasy region
793.	2022.10.03	12:30:11	55,29	30,30	3,10	Belarus
794.	2022.10.04	05:44:48	49,97	31,00	1,50	Kyiv region
795.	2022.10.04	08:25:17	50,96	28,50	1,50	Zhytomyr region
796.	2022.10.05	06:59:59	48,82	26,69	1,40	Khmelnyskyi region
797.	2022.10.05	09:01:39	51,17	37,51	3,30	Belgorod region, RF
798.	2022.10.05	11:41:32	49,80	29,88	1,60	Kyiv region
799.	2022.10.05	11:52:22	50,25	29,96	1,50	Kyiv region
800.	2022.10.06	02:50:42	50,27	27,02	2,20	Khmelnyskyi region
801.	2022.10.06	02:51:15	50,27	27,03	2,10	Khmelnyskyi region
802.	2022.10.06	02:51:23	50,26	27,07	2,10	Khmelnyskyi region
803.	2022.10.06	02:51:59	50,27	27,03	2,20	Khmelnyskyi region
804.	2022.10.06	09:27:18	50,64	30,34	1,40	Kyiv region
805.	2022.10.06	10:16:00	51,32	26,90	1,90	Rivne region
806.	2022.10.06	12:53:12	50,92	28,57	1,50	Zhytomyr region
807.	2022.10.06	14:11:51	51,52	27,78	2,20	Belarus
808.	2022.10.07	06:37:09	52,24	27,38	1,50	Belarus
809.	2022.10.07	06:40:32	52,21	27,43	1,90	Belarus
810.	2022.10.07	07:44:49	48,95	26,20	1,40	Ternopil region
811.	2022.10.07	09:31:44	50,75	29,31	1,80	Zhytomyr region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
812.	2022.10.07	12:51:16	50,70	28,84	1,00	Zhytomyr region
813.	2022.10.07	12:59:49	48,91	30,67	1,80	Cherkasy region
814.	2022.10.07	14:58:52	50,94	28,55	1,80	Zhytomyr region
815.	2022.10.08	10:10:24	51,23	25,98	2,00	Rivne region
816.	2022.10.08	11:00:51	49,50	25,88	1,60	Ternopil region
817.	2022.10.08	15:17:32	50,70	28,83	1,40	Zhytomyr region
818.	2022.10.10	05:13:34	50,46	30,47	1,60	Kyiv
819.	2022.10.10	05:14:40	50,43	30,55	1,20	Kyiv
820.	2022.10.10	05:45:18	50,77	29,62	0,90	Kyiv region
821.	2022.10.10	06:00:34	50,29	28,61	1,50	Zhytomyr
822.	2022.10.10	06:01:35	50,30	28,62	1,50	Zhytomyr
823.	2022.10.10	06:10:31	50,42	28,66	1,20	Zhytomyr region
824.	2022.10.10	06:31:26	50,22	28,69	1,50	Zhytomyr region
825.	2022.10.10	07:54:32	50,49	29,69	1,00	Kyiv region
826.	2022.10.10	07:56:01	50,49	29,69	1,00	Kyiv region
827.	2022.10.10	08:23:57	50,44	30,51	1,00	Kyiv
828.	2022.10.10	09:39:16	49,50	27,80	1,90	Khmelnyskyi region
829.	2022.10.11	06:19:35	50,30	29,53	0,50	Zhytomyr region
830.	2022.10.11	10:27:48	50,55	27,65	1,50	Zhytomyr region
831.	2022.10.12	07:15:31	50,71	28,80	1,00	Zhytomyr region
832.	2022.10.12	07:56:08	50,71	28,83	1,10	Zhytomyr region
833.	2022.10.12	10:06:30	50,45	29,37	0,30	Zhytomyr region
834.	2022.10.12	11:02:20	50,91	28,59	1,70	Zhytomyr region
835.	2022.10.12	11:08:59	49,78	30,03	0,70	Kyiv region
836.	2022.10.12	11:26:30	49,53	28,48	2,00	Vynnytsia region
837.	2022.10.12	11:38:29	50,19	29,98	1,60	Kyiv region
838.	2022.10.12	13:27:07	50,71	28,83	1,00	Zhytomyr region
839.	2022.10.13	09:01:03	47,78	33,54	1,80	Dnipropetrovsk region
840.	2022.10.13	09:01:18	48,15	27,45	1,90	Moldova
841.	2022.10.14	06:52:39	52,23	27,46	1,50	Belarus
842.	2022.10.14	06:54:51	52,19	27,39	1,90	Belarus
843.	2022.10.14	07:51:03	50,76	28,70	1,30	Zhytomyr region
844.	2022.10.14	09:00:07	52,56	35,03	3,10	Kursk region, RF
845.	2022.10.14	10:00:08	52,33	35,47	3,20	Kursk region, RF
846.	2022.10.15	04:00:34	50,49	29,69	0,70	Kyiv region
847.	2022.10.15	04:00:41	50,50	29,67	0,70	Kyiv region
848.	2022.10.15	15:01:38	50,74	28,75	0,90	Zhytomyr region
849.	2022.10.17	09:47:22	47,45	28,85	1,80	Moldova
850.	2022.10.17	11:10:30	49,39	28,48	0,80	Vynnytsia region
851.	2022.10.18	05:38:51	50,29	28,69	0,70	Zhytomyr region
852.	2022.10.18	05:39:37	50,27	28,68	0,70	Zhytomyr region
853.	2022.10.18	06:03:42	50,53	30,66	0,70	Kyiv region
854.	2022.10.18	07:43:10	50,64	29,14	0,20	Zhytomyr region
855.	2022.10.18	08:19:08	49,68	30,44	1,70	Kyiv region
856.	2022.10.18	08:19:44	49,70	30,31	1,60	Kyiv region
857.	2022.10.18	10:12:38	51,31	26,91	1,80	Rivne region
858.	2022.10.18	13:14:04	49,80	29,97	0,30	Kyiv region
859.	2022.10.19	13:30:28	50,58	27,70	2,00	Zhytomyr region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
860.	2022.10.19	13:35:43	49,78	29,73	1,90	Kyiv region
861.	2022.10.19	13:39:36	48,89	30,71	2,10	Cherkasy region
862.	2022.10.20	09:27:36	48,83	30,75	2,00	Cherkasy region
863.	2022.10.20	10:01:33	52,35	35,49	3,00	Kursk region, RF
864.	2022.10.20	11:02:38	51,46	26,94	2,00	Rivne region
865.	2022.10.21	06:40:20	52,22	27,36	1,80	Belarus
866.	2022.10.21	06:41:16	52,20	27,33	2,30	Belarus
867.	2022.10.21	06:59:59	48,78	26,58	1,90	Khmelnyskyi region
868.	2022.10.21	09:04:46	50,63	28,44	1,10	Zhytomyr region
869.	2022.10.21	10:08:44	48,29	33,36	2,40	Kirovohrad region
870.	2022.10.21	13:20:52	50,74	28,80	1,00	Zhytomyr region
871.	2022.10.21	14:29:42	50,75	28,78	1,00	Zhytomyr region
872.	2022.10.22	05:58:40	50,86	26,11	1,90	Rivne region
873.	2022.10.22	06:22:20	50,99	28,74	1,40	Zhytomyr region
874.	2022.10.22	09:45:32	48,21	28,28	2,00	Moldova
875.	2022.10.24	11:54:35	55,20	30,32	2,50	Belarus
876.	2022.10.24	12:03:32	50,85	29,80	0,20	Kyiv region
877.	2022.10.24	12:57:12	50,63	30,44	0,60	Kyiv region
878.	2022.10.25	06:52:35	50,74	29,15	1,00	Zhytomyr region
879.	2022.10.25	06:59:58	48,28	26,63	1,40	Moldova
880.	2022.10.25	09:35:02	49,17	33,61	2,00	Poltava region
881.	2022.10.25	10:53:04	51,23	26,86	1,90	Rivne region
882.	2022.10.25	13:05:48	50,19	29,87	1,40	Kyiv region
883.	2022.10.26	08:54:49	51,24	25,96	1,50	Rivne region
884.	2022.10.26	09:01:16	51,19	37,50	2,80	Belgorod region, RF
885.	2022.10.26	09:11:25	51,23	27,02	1,90	Rivne region
886.	2022.10.26	09:54:47	51,29	25,98	1,80	Rivne region
887.	2022.10.26	11:26:16	50,67	28,87	1,00	Zhytomyr region
888.	2022.10.26	11:40:06	49,50	28,37	1,80	Vynnytsia region
889.	2022.10.26	11:59:47	49,53	26,08	1,90	Ternopil region
890.	2022.10.26	13:35:08	50,94	28,66	1,70	Zhytomyr region
891.	2022.10.27	05:46:43	50,70	28,89	1,00	Zhytomyr region
892.	2022.10.27	07:55:43	50,79	28,77	1,00	Zhytomyr region
893.	2022.10.27	08:20:24	49,32	28,42	1,90	Vynnytsia region
894.	2022.10.27	09:24:26	50,71	30,26	0,60	Kyiv region
895.	2022.10.27	09:36:29	50,47	29,34	0,10	Zhytomyr region
896.	2022.10.27	10:25:22	48,31	33,28	2,90	Kirovohrad region
897.	2022.10.27	10:44:04	49,68	30,38	1,70	Kyiv region
898.	2022.10.27	11:14:14	51,43	29,84	0,60	Kyiv region
899.	2022.10.27	12:00:35	48,12	33,48	2,80	Dnipropetrovsk region
900.	2022.10.27	12:52:58	51,33	29,65	0,60	Kyiv region
901.	2022.10.28	06:22:16	49,80	30,69	1,80	Kyiv region
902.	2022.10.28	07:07:41	52,24	27,43	1,80	Belarus
903.	2022.10.28	07:09:50	52,25	27,39	2,00	Belarus
904.	2022.10.28	08:18:05	48,86	26,65	2,00	Khmelnyskyi region
905.	2022.10.28	12:19:49	49,81	28,80	1,60	Vynnytsia region
906.	2022.10.29	07:31:05	50,73	29,02	1,00	Zhytomyr region
907.	2022.10.31	06:00:41	50,53	30,64	0,70	Kyiv region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
908.	2022.10.31	06:08:22	50,61	30,39	0,70	Kyiv region
909.	2022.10.31	06:19:56	50,68	30,36	0,50	Kyiv region
910.	2022.10.31	06:21:05	50,62	30,39	0,70	Kyiv region
911.	2022.10.31	09:09:26	50,51	29,00	1,00	Zhytomyr region
912.	2022.10.31	11:13:27	51,27	26,90	1,90	Rivne region
913.	2022.10.31	13:18:15	51,27	26,00	1,90	Rivne region
914.	2022.11.01	10:00:02	49,00	33,66	2,30	Poltava region
915.	2022.11.01	13:13:15	49,18	31,42	1,90	Cherkasy region
916.	2022.11.01	14:46:18	50,72	28,78	0,70	Zhytomyr region
917.	2022.11.02	08:37:55	48,57	27,42	2,00	Vinnysia region
918.	2022.11.02	12:55:10	50,14	29,98	1,40	Kyiv region
919.	2022.11.03	08:55:39	50,71	28,83	1,10	Zhytomyr region
920.	2022.11.03	10:00:10	48,11	33,56	2,40	Dnipropetrovsk region
921.	2022.11.03	10:24:40	49,38	26,06	1,70	Ternopil region
922.	2022.11.03	10:44:52	50,72	28,85	1,10	Zhytomyr region
923.	2022.11.03	11:31:22	49,41	28,34	1,90	Vinnysia region
924.	2022.11.03	11:39:30	50,21	30,00	2,20	Kyiv region
925.	2022.11.03	13:34:09	48,93	30,79	2,10	Cherkasy region
926.	2022.11.04	06:36:26	52,24	27,46	1,80	Belarus
927.	2022.11.04	06:40:05	52,23	27,38	1,90	Belarus
928.	2022.11.04	11:00:48	50,56	27,65	1,70	Zhytomyr region
929.	2022.11.04	11:58:44	49,55	30,86	1,60	Kyiv region
930.	2022.11.04	13:48:58	51,40	26,90	1,80	Rivne region
931.	2022.11.05	15:50:55	50,71	28,73	1,00	Zhytomyr region
932.	2022.11.06	14:29:46	50,71	28,82	1,00	Zhytomyr region
933.	2022.11.07	10:44:37	48,22	28,24	2,20	Moldova
934.	2022.11.07	11:45:31	48,41	29,98	2,20	Kirovohrad region
935.	2022.11.07	11:53:31	51,29	26,89	2,10	Rivne region
936.	2022.11.08	13:07:40	50,17	27,51	2,10	Khmelnyskyi region
937.	2022.11.08	13:27:04	49,24	31,35	1,70	Cherkasy region
938.	2022.11.09	08:19:12	50,70	28,81	1,10	Zhytomyr region
939.	2022.11.09	09:08:23	51,34	27,07	1,70	Rivne region
940.	2022.11.09	10:27:19	49,42	28,35	1,80	Vinnysia region
941.	2022.11.09	13:29:22	50,52	28,57	1,60	Zhytomyr region
942.	2022.11.09	17:06:10	51,84	25,00	2,00	Volyn region
943.	2022.11.09	18:36:33	51,79	24,85	2,00	Volyn region
944.	2022.11.10	07:25:20	48,04	33,42	2,70	Dnipropetrovsk region
945.	2022.11.10	10:01:16	51,25	37,59	2,60	Belgorod region, RF
946.	2022.11.10	10:29:25	49,77	27,33	1,90	Khmelnyskyi region
947.	2022.11.10	10:41:19	49,11	26,40	1,40	Khmelnyskyi region
948.	2022.11.10	11:00:35	48,99	33,62	2,00	Poltava region
949.	2022.11.10	11:17:29	51,34	26,91	1,60	Rivne region
950.	2022.11.10	13:00:14	48,16	33,48	2,70	Dnipropetrovsk region
951.	2022.11.10	14:46:30	51,50	27,75	1,80	Belarus
952.	2022.11.11	06:12:14	52,28	27,39	2,00	Belarus
953.	2022.11.11	06:18:03	52,22	27,52	2,10	Belarus
954.	2022.11.11	09:42:54	49,66	30,48	1,80	Kyiv region
955.	2022.11.14	06:36:38	50,76	28,85	0,80	Zhytomyr region

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
956.	2022.11.14	09:36:08	47,69	31,25	2,40	Mykolayiv region
957.	2022.11.14	09:49:04	49,19	26,28	1,60	Khmelnyskyi region
958.	2022.11.14	09:52:43	48,83	26,55	1,30	Khmelnyskyi region
959.	2022.11.14	10:08:36	48,89	26,19	1,40	Ternopil region
960.	2022.11.14	10:32:14	49,65	25,72	1,30	Ternopil region
961.	2022.11.14	11:43:04	50,49	28,94	1,00	Zhytomyr region
962.	2022.11.15	03:49:17	50,84	27,99	1,00	Zhytomyr region
963.	2022.11.15	11:50:54	49,55	30,88	1,60	Kyiv region
964.	2022.11.15	13:52:30	50,29	28,70	0,70	Zhytomyr
965.	2022.11.15	13:53:02	50,26	28,71	0,70	Zhytomyr
966.	2022.11.16	07:40:44	50,70	28,83	1,00	Zhytomyr region
967.	2022.11.16	09:00:06	52,25	35,46	2,90	Kursk region, RF
968.	2022.11.16	12:30:33	51,07	28,69	1,90	Zhytomyr region
969.	2022.11.16	13:29:52	49,67	30,36	1,60	Kyiv region
970.	2022.11.17	07:16:23	50,71	28,76	1,00	Zhytomyr region
971.	2022.11.17	09:12:46	48,32	29,90	2,00	Kirovohrad region
972.	2022.11.17	10:00:17	47,89	33,16	2,30	Dnipropetrovsk region
973.	2022.11.17	11:40:07	52,20	35,53	2,50	Kursk region. RF
974.	2022.11.17	12:38:12	50,69	28,81	1,00	Zhytomyr region
975.	2022.11.17	12:46:34	49,78	29,92	1,80	Kyiv region
976.	2022.11.17	14:32:55	50,21	27,63	1,90	Zhytomyr region
977.	2022.11.18	06:32:01	52,19	27,36	2,10	Belarus
978.	2022.11.18	06:35:36	52,24	27,43	2,00	Belarus
979.	2022.11.18	09:44:11	49,33	26,29	1,70	Khmelnyskyi region
980.	2022.11.18	10:02:19	49,29	28,52	1,80	Vinnysia region
981.	2022.11.18	11:10:52	51,31	26,86	1,90	Rivne region
982.	2022.11.19	15:12:39	50,69	28,79	1,00	Zhytomyr region
983.	2022.11.20	08:50:09	50,74	28,78	1,00	Zhytomyr region
984.	2022.11.21	13:51:31	50,67	28,90	1,00	Zhytomyr region
985.	2022.11.22	08:01:43	50,76	29,30	1,20	Zhytomyr region
986.	2022.11.22	14:10:40	50,93	28,56	2,40	Zhytomyr region
987.	2022.11.24	07:06:01	49,48	27,36	1,70	Khmelnyskyi region
988.	2022.11.24	12:51:38	50,11	29,88	1,40	Kyiv region
989.	2022.11.24	13:50:49	48,61	32,09	2,50	Kirovohrad region
990.	2022.11.25	06:27:35	52,26	27,40	2,10	Belarus
991.	2022.11.25	06:31:14	52,26	27,46	2,00	Belarus
992.	2022.11.25	10:38:08	50,15	29,90	1,50	Kyiv region
993.	2022.11.25	10:47:48	49,64	30,46	1,10	Kyiv region
994.	2022.11.25	11:00:21	47,60	33,12	2,00	Dnipropetrovsk region
995.	2022.11.25	13:04:01	50,75	29,31	1,20	Zhytomyr region
996.	2022.11.25	14:36:16	48,86	29,17	1,40	Vinnysia region
997.	2022.11.26	07:48:31	49,64	30,56	1,60	Kyiv region
998.	2022.11.28	11:13:43	51,33	26,90	1,70	Rivne region
999.	2022.11.28	12:01:56	50,55	27,61	1,80	Zhytomyr region
1000.	2022.11.29	09:18:01	50,72	28,83	1,10	Zhytomyr region
1001.	2022.11.30	07:59:59	48,83	26,25	1,70	Khmelnyskyi region
1002.	2022.12.01	10:01:30	49,29	28,41	1,80	Vinnysia region
1003.	2022.12.01	10:32:27	49,06	33,62	2,50	Poltava region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
1004.	2022.12.01	13:33:43	51,31	26,89	1,90	Rivne region
1005.	2022.12.01	13:45:13	50,67	30,41	0,40	Kyiv region
1006.	2022.12.02	06:55:42	52,23	27,42	2,00	Belarus
1007.	2022.12.02	06:56:41	52,22	27,44	1,90	Belarus
1008.	2022.12.02	10:24:17	50,71	28,84	1,00	Zhytomyr region
1009.	2022.12.04	06:22:28	50,72	28,82	1,00	Zhytomyr region
1010.	2022.12.04	09:42:19	50,71	28,79	1,00	Zhytomyr region
1011.	2022.12.05	14:59:00	51,97	24,82	2,00	Belarus
1012.	2022.12.06	09:51:25	51,33	26,82	1,70	Rivne region
1013.	2022.12.06	11:58:26	51,19	27,00	1,90	Rivne region
1014.	2022.12.06	12:20:36	49,64	30,38	1,40	Kyiv region
1015.	2022.12.07	13:52:25	49,16	31,42	1,90	Cherkasy region
1016.	2022.12.08	07:58:20	48,76	29,92	1,50	Cherkasy region
1017.	2022.12.08	08:35:25	48,16	28,31	1,80	Moldova
1018.	2022.12.08	11:01:10	49,21	33,74	2,20	Poltava region
1019.	2022.12.08	11:44:42	50,65	30,34	0,30	Kyiv region
1020.	2022.12.09	06:39:50	52,21	27,40	2,40	Belarus
1021.	2022.12.09	10:36:04	49,63	25,80	2,20	Ternopil region
1022.	2022.12.09	10:55:51	51,36	26,92	1,80	Rivne region
1023.	2022.12.09	11:19:23	51,31	27,20	1,50	Rivne region
1024.	2022.12.10	10:56:16	50,70	28,83	1,00	Zhytomyr region
1025.	2022.12.11	08:50:19	48,64	32,50	2,60	Kirovohrad region
1026.	2022.12.12	10:59:34	49,12	28,80	1,80	Vinnitsia region
1027.	2022.12.13	08:00:00	48,75	26,71	1,50	Khmelnyskyi region
1028.	2022.12.13	12:24:25	51,23	26,93	1,60	Rivne region
1029.	2022.12.14	12:11:11	51,31	27,04	1,80	Rivne region
1030.	2022.12.15	10:16:13	51,35	31,20	0,60	Chernihiv region
1031.	2022.12.15	10:18:09	51,31	30,91	0,60	Chernihiv region
1032.	2022.12.15	10:54:42	51,34	30,80	0,60	Chernihiv region
1033.	2022.12.15	11:14:15	49,65	30,45	1,70	Kyiv region
1034.	2022.12.15	12:24:25	51,23	26,93	1,60	Rivne region
1035.	2022.12.15	13:14:41	51,16	25,98	1,60	Rivne region
1036.	2022.12.15	15:06:28	51,50	27,81	1,90	Belarus
1037.	2022.12.15	16:02:55	50,71	28,75	0,70	Zhytomyr region
1038.	2022.12.16	06:48:26	52,22	27,51	1,80	Belarus
1039.	2022.12.16	06:52:30	52,29	27,47	2,20	Belarus
1040.	2022.12.16	07:15:52	50,88	28,90	0,40	Zhytomyr region
1041.	2022.12.16	07:31:52	50,39	30,40	0,70	Kyiv
1042.	2022.12.16	07:35:06	50,53	30,49	0,80	Kyiv
1043.	2022.12.16	07:48:36	50,91	28,55	0,80	Zhytomyr region
1044.	2022.12.16	11:27:31	49,57	27,87	1,80	Vinnitsia region
1045.	2022.12.16	12:05:47	51,34	26,98	1,70	Rivne region
1046.	2022.12.17	12:45:36	49,12	28,19	1,70	Vinnitsia region
1047.	2022.12.18	12:02:16	49,27	29,49	1,60	Vinnitsia region
1048.	2022.12.19	01:11:11	50,42	30,46	0,40	Kyiv
1049.	2022.12.19	01:13:54	50,48	30,41	0,40	Kyiv
1050.	2022.12.19	01:53:00	50,42	30,48	0,40	Kyiv
1051.	2022.12.19	13:07:46	51,27	27,00	1,60	Rivne region

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	Date	Time (UTC)	Lat. (°N)	Long. (°E)	Magnitude	Locality
1052.	2022.12.20	09:09:43	50,71	28,84	1,20	Zhytomyr region
1053.	2022.12.21	13:51:17	51,31	30,43	1,20	Belarus
1054.	2022.12.21	13:51:51	51,32	30,44	1,00	Belarus
1055.	2022.12.21	13:53:00	51,34	30,43	1,00	Belarus
1056.	2022.12.21	14:09:43	50,71	28,84	1,20	Zhytomyr region
1057.	2022.12.22	08:09:57	48,14	30,73	2,00	Mykolayiv region
1058.	2022.12.22	08:53:25	48,21	28,31	2,00	Moldova
1059.	2022.12.22	10:00:17	48,31	33,28	1,30	Kirovohrad region
1060.	2022.12.22	13:11:02	49,67	30,42	1,30	Kyiv region
1061.	2022.12.23	06:52:34	52,30	27,44	2,10	Belarus
1062.	2022.12.23	06:53:38	52,25	27,40	2,00	Belarus
1063.	2022.12.23	09:00:00	52,31	35,45	2,80	Kursk region, RF
1064.	2022.12.23	11:20:37	51,29	27,06	2,00	Rivne region
1065.	2022.12.23	11:53:47	51,26	26,88	2,00	Rivne region
1066.	2022.12.26	11:51:17	50,39	27,37	1,30	Zhytomyr region
1067.	2022.12.26	13:21:17	49,54	30,90	1,40	Kyiv region
1068.	2022.12.27	07:59:55	48,78	26,71	2,00	Khmelnyskyi region
1069.	2022.12.27	09:06:33	49,52	25,86	2,10	Ternopil region
1070.	2022.12.27	11:05:46	49,08	28,34	2,10	Vynnytsia region
1071.	2022.12.27	11:26:33	49,09	28,35	2,20	Vynnytsia region
1072.	2022.12.27	11:59:59	51,37	31,17	1,50	Chernihiv region
1073.	2022.12.28	06:28:10	50,70	28,84	1,00	Zhytomyr region
1074.	2022.12.28	09:02:10	48,23	33,37	2,30	Kirovohrad region
1075.	2022.12.28	09:15:15	49,53	28,37	1,90	Vynnytsia region
1076.	2022.12.28	09:15:44	50,22	27,18	1,80	Khmelnyskyi region
1077.	2022.12.28	11:30:31	48,30	29,81	1,70	Kirovohrad region
1078.	2022.12.29	06:23:30	50,38	30,67	0,60	Kyiv
1079.	2022.12.29	07:03:53	50,50	29,73	0,60	Kyiv region
1080.	2022.12.29	07:14:25	50,50	29,68	0,30	Kyiv region
1081.	2022.12.29	10:01:50	48,13	33,55	2,30	Dnipropetrovsk region
1082.	2022.12.29	11:00:48	49,05	33,67	2,30	Poltava region
1083.	2022.12.29	11:27:18	51,24	26,91	1,90	Rivne region
1084.	2022.12.29	11:37:18	49,03	29,41	1,70	Vynnytsia region
1085.	2022.12.30	06:54:15	52,23	27,36	2,10	Belarus
1086.	2022.12.30	06:58:01	52,25	27,45	1,80	Belarus
1087.	2022.12.30	07:03:51	50,18	28,34	1,80	Zhytomyr region
1088.	2022.12.30	10:33:55	50,73	28,78	1,00	Zhytomyr region
1089.	2022.12.30	12:01:52	49,75	30,12	1,10	Kyiv region
1090.	2022.12.31	11:58:26	49,43	26,93	2,40	Khmelnyskyi region
1091.	2022.12.31	11:59:19	49,43	26,94	2,50	Khmelnyskyi region
1092.	2022.12.31	12:02:20	50,44	30,53	1,90	Kyiv
1093.	2022.12.31	23:56:55	50,61	30,39	0,10	Kyiv region

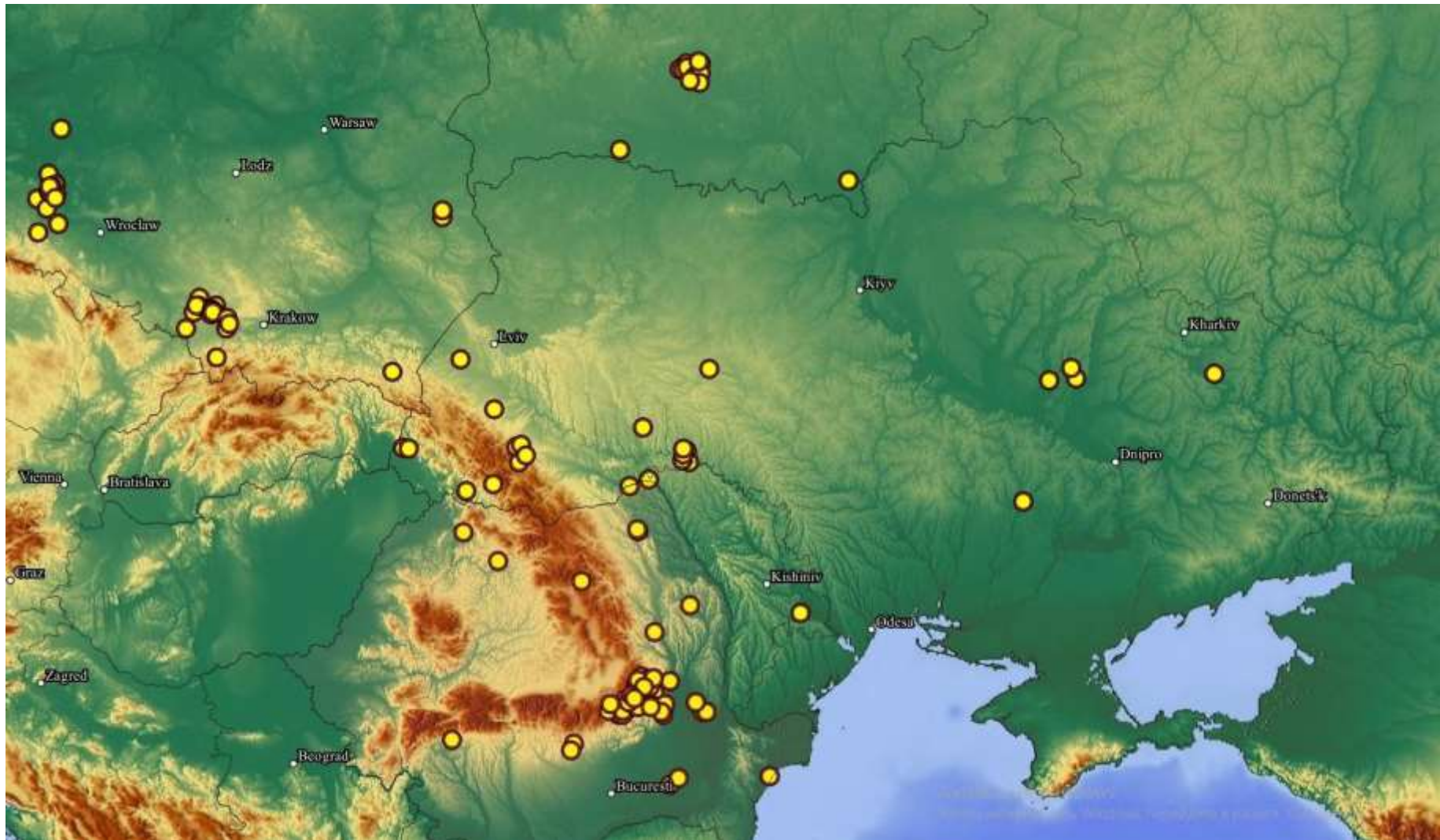


Figure 2.1 The epicenters of the located earthquakes in 2022

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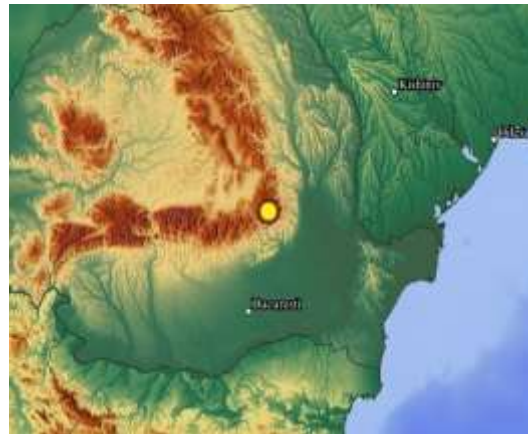
01.01.2022. Zona seismică Vrancea

$t_0 = 13:07:16$; $\varphi = 45.62^\circ N$; $\lambda = 26.48^\circ E$; $h = 140$ km; $ML_V = 2,9$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/01	13:07:16.4	45.62	26.48	140	MLv 2.89

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.3	27	P	2022/01/01	13:07:36.5	0.1
VRI	0.3	35	P	2022/01/01	13:07:36.7	0.1
MLR	0.4	251	P	2022/01/01	13:07:37.4	0.3
TESR	0.9	7	P	2022/01/01	13:07:39.6	0.0
VOIR	1.0	260	P	2022/01/01	13:07:40.3	-0.1
ARR	1.3	259	P	2022/01/01	13:07:42.8	-0.6
HUMR	1.5	225	P	2022/01/01	13:07:45.6	0.1
TIRR	1.8	130	P	2022/01/01	13:07:49.1	0.6
TIRR	1.8	130	S	2022/01/01	13:08:13.1	-0.5
BURAR	2.2	337	P	2022/01/01	13:07:53.8	0.4
CJR	2.3	300	P	2022/01/01	13:07:54.0	-0.3
DEV	2.5	277	P	2022/01/01	13:07:58.1	0.8
SORM	2.8	26	P	2022/01/01	13:08:00.6	-0.3
DRGR	2.9	295	P	2022/01/01	13:08:00.9	-0.7



02.01.2022. Zona seismică Vrancea

$t_0 = 03:08:17$; $\varphi = 45.50^\circ N$; $\lambda = 26.42^\circ E$; $h = 140$ km; $ML_V = 3,6$

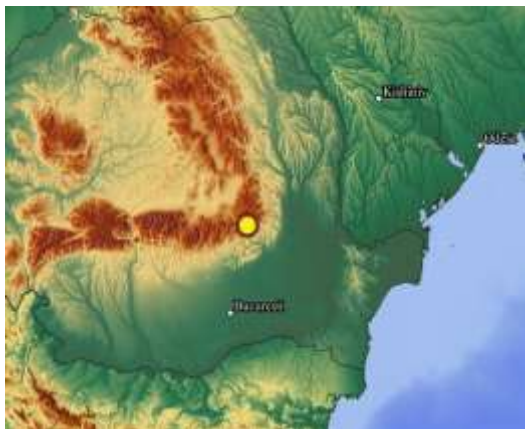
Date	Time	Latitude	Longitude	Depth	Mag
2022/01/02	03:08:17.3	45.50	26.42	125	MLv 3.64

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
MLR	0.3	268	P	2022/01/02	03:08:36.1	0.0
MLR	0.3	268	S	2022/01/02	03:08:50.2	-0.4
PLOR	0.4	25	P	2022/01/02	03:08:36.2	-0.2
PLOR	0.4	25	S	2022/01/02	03:08:50.4	-0.7
VRI	0.4	30	P	2022/01/02	03:08:36.6	0.0
VRI	0.4	30	S	2022/01/02	03:08:51.8	0.3
VOIR	1.0	267	P	2022/01/02	03:08:39.8	0.2
TESR	1.0	9	P	2022/01/02	03:08:40.4	0.4
ARR	1.3	264	P	2022/01/02	03:08:42.8	0.3
ARR	1.3	264	S	2022/01/02	03:09:02.5	0.3
HUMR	1.4	227	P	2022/01/02	03:08:44.3	0.1
TIRR	1.8	126	P	2022/01/02	03:08:48.6	0.5
TIRR	1.8	126	S	2022/01/02	03:09:11.7	-0.3
BURAR	2.3	339	P	2022/01/02	03:08:55.8	1.0
PLVB	2.5	212	P	2022/01/02	03:08:57.2	0.3
DEV	2.5	280	P	2022/01/02	03:08:57.4	0.1
DRGR	2.9	298	P	2022/01/02	03:09:01.5	-0.7
DJES	2.9	255	P	2022/01/02	03:09:01.8	-0.4
SORM	2.9	26	P	2022/01/02	03:09:02.8	-0.2
MDVR	3.4	259	P	2022/01/02	03:09:08.3	-0.8
SIRR	3.4	285	P	2022/01/02	03:09:09.1	0.0
AK07	5.4	19	P	2022/01/02	03:09:35.5	0.0
AK13	5.4	18	P	2022/01/02	03:09:35.9	0.1
AK06	5.4	19	P	2022/01/02	03:09:36.1	0.2
AK14	5.4	18	P	2022/01/02	03:09:36.0	-0.2
AK05	5.4	19	P	2022/01/02	03:09:36.3	-0.0

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AK09	5.5	19	P	2022/01/02	03:09:36.6	0.1
AK16	5.5	18	P	2022/01/02	03:09:36.4	-0.3
AK17	5.5	18	P	2022/01/02	03:09:36.0	-0.7
AKBB	5.5	19	P	2022/01/02	03:09:37.4	-0.0
AK04	5.5	18	P	2022/01/02	03:09:37.2	-0.3
AK22	5.5	18	P	2022/01/02	03:09:37.3	-0.5



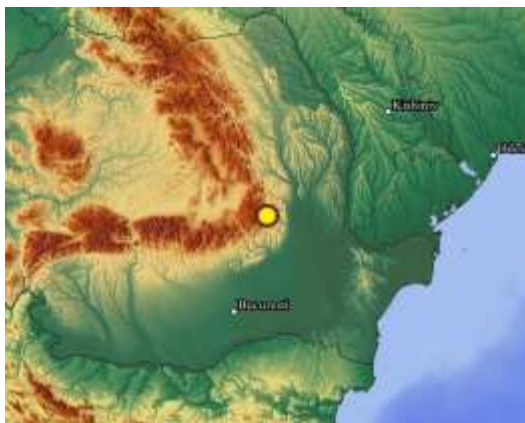
03.01.2022. Zona seismică Vrancea

$t_0 = 06:36:25$; $\varphi = 45,69^\circ N$; $\lambda = 26,69^\circ E$; $h = 128 \text{ km}$; $ML_v = 2,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/03	06:36:25.6	45.69	26.69	128	MLv 2.50

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
BISRR	0.1	174	P	2022/01/03	06:36:44.7	1.0
VRI	0.2	9	P	2022/01/03	06:36:44.0	0.1
MLR	0.6	249	P	2022/01/03	06:36:45.4	-0.5
TESR	0.8	358	P	2022/01/03	06:36:46.9	-0.5
VOIR	1.2	258	P	2022/01/03	06:36:49.9	-0.3
TIRR	1.7	135	S	2022/01/03	06:37:20.1	-0.2
TRPA	3.7	312	P	2022/01/03	06:37:22.4	0.6
UZH	4.2	316	P	2022/01/03	06:37:27.7	-0.2



03.01.2022. Ukraine, Khmelnytskyi region.

$t_0 = 21:24:52$; $\varphi = 48,88^\circ N$; $\lambda = 26,66^\circ E$; $h = 2 \text{ km}$; $ML_v = 2,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/03	21:24:52.5	48.88	26.66	2	MLv 2.30

UKRAINE

Sta	Dist	EvAz	Phase	Date	Time	Res
KPD	0.4	205	P	2022/01/03	21:25:00.1	-0.4
LUBAR	1.2	34	P	2022/01/03	21:25:15.7	-1.0
XAEC1	1.4	359	S	2022/01/03	21:25:39.5	1.3
XAEC5	1.5	1	S	2022/01/03	21:25:41.0	-0.6
BUR07	1.6	218	P	2022/01/03	21:25:23.0	0.9
BUR07	1.6	218	S	2022/01/03	21:25:43.2	0.0

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

BUR31	1.6	219	P	2022/01/03	21:25:23.6	1.2
BUR31	1.6	219	S	2022/01/03	21:25:42.0	-1.6
MI29	1.7	26	P	2022/01/03	21:25:24.0	0.0
MI29	1.7	26	S	2022/01/03	21:25:46.0	-0.5
MI28	2.1	17	P	2022/01/03	21:25:30.6	0.3
MI28	2.1	17	S	2022/01/03	21:25:56.8	-1.3
AK18	2.4	39	P	2022/01/03	21:25:34.7	0.9
AK08	2.4	43	P	2022/01/03	21:25:33.8	-0.3
AK21	2.4	38	P	2022/01/03	21:25:35.0	0.7
AK23	2.4	39	P	2022/01/03	21:25:34.9	0.3



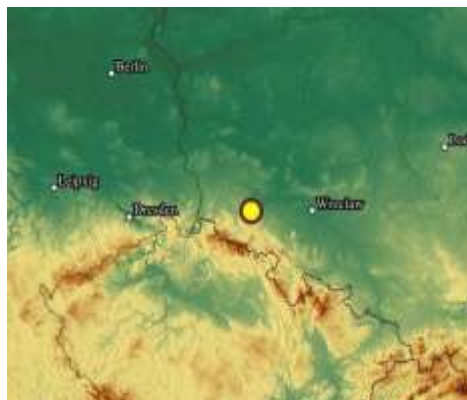
06.01.2022. Poland

$t_0 = 16:54:56$; $\varphi = 51,10^\circ N$; $\lambda = 15,94^\circ E$; $h = 16$ км; $ML_v = 2,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/06	16:54:56.3	51.10	15.94	16	ML _v 2.60

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
KSP	0.3	138	P	2022/01/06	16:55:03.4	-1.2
CHVCZ	0.5	172	P	2022/01/06	16:55:07.8	0.4
OSTC	0.6	162	P	2022/01/06	16:55:08.6	0.4
UPC	0.6	175	P	2022/01/06	16:55:09.1	0.5
DPC	0.8	162	P	2022/01/06	16:55:12.0	0.2
PVCC	1.0	237	P	2022/01/06	16:55:15.9	0.2
KRLC	1.2	150	P	2022/01/06	16:55:17.1	-0.4
PRU	1.4	219	P	2022/01/06	16:55:21.8	0.5
HSKC	1.7	254	P	2022/01/06	16:55:23.9	-0.8
MORC	1.7	142	P	2022/01/06	16:55:23.2	-1.7
OKC	1.9	131	P	2022/01/06	16:55:28.8	0.9
NKC	2.4	250	P	2022/01/06	16:55:32.9	-1.7
KHC	2.5	219	P	2022/01/06	16:55:37.2	1.1
CKRC	2.5	205	P	2022/01/06	16:55:37.9	1.4
OJC	2.6	108	P	2022/01/06	16:55:38.7	0.9
MODS	2.9	162	P	2022/01/06	16:55:41.5	0.2
MODS	2.9	162	P	2022/01/06	16:56:15.3	-1.0
BEL	3.1	74	P	2022/01/06	16:55:45.1	0.2



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

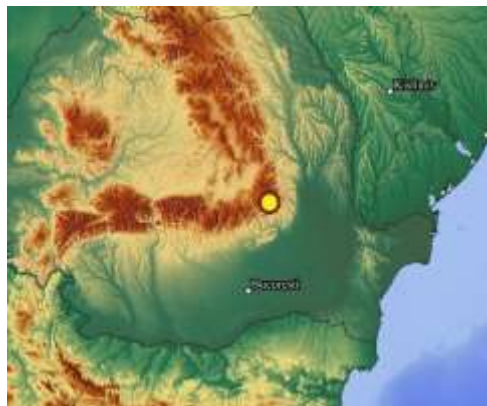
07.01.2022. Zona seismică Vrancea

$t_0 = 23:02:04$; $\varphi = 45,59^\circ N$; $\lambda = 26,51^\circ E$; $h = 115$ km; $mb = 3,9$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/07	23:02:04.5	45.59	26.51	115	mb 3.94

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.3	21	P	2022/01/07	23:02:22.1	0.3
VRI	0.3	29	P	2022/01/07	23:02:22.3	0.3
MLR	0.4	256	P	2022/01/07	23:02:22.8	0.2
MLR	0.4	256	S	2022/01/07	23:02:36.1	-0.5
TESR	0.9	6	P	2022/01/07	23:02:26.5	0.9
VOIR	1.0	262	P	2022/01/07	23:02:26.9	0.4
ARR	1.3	261	P	2022/01/07	23:02:30.2	0.3
ARR	1.3	261	S	2022/01/07	23:02:48.8	-0.7
HUMR	1.5	226	P	2022/01/07	23:02:31.8	-0.1
TIRR	1.8	129	P	2022/01/07	23:02:35.5	0.7
TIRR	1.8	129	S	2022/01/07	23:02:58.0	-0.4
CJR	2.3	300	P	2022/01/07	23:02:41.9	0.2
DEV	2.5	278	P	2022/01/07	23:02:45.1	0.4
DEV	2.5	278	S	2022/01/07	23:03:15.6	-0.4
PLVB	2.6	212	P	2022/01/07	23:02:44.8	-0.4
SORM	2.8	26	P	2022/01/07	23:02:48.8	0.2
DRGR	2.9	296	P	2022/01/07	23:02:49.0	-0.2
KPD	3.0	359	P	2022/01/07	23:02:50.3	0.1
SIRR	3.4	283	P	2022/01/07	23:02:56.9	0.4
TRPA	3.7	314	P	2022/01/07	23:03:00.8	0.6
LUBAR	4.4	11	P	2022/01/07	23:03:09.3	-0.1
AK07	5.3	19	P	2022/01/07	23:03:21.1	0.1
AK06	5.3	19	P	2022/01/07	23:03:21.5	-0.0
AK14	5.3	18	P	2022/01/07	23:03:21.8	-0.0
AK10	5.3	19	P	2022/01/07	23:03:21.7	-0.1
AK05	5.3	19	P	2022/01/07	23:03:22.0	0.0
AK12	5.4	18	P	2022/01/07	23:03:22.2	0.1
AK09	5.4	19	P	2022/01/07	23:03:22.2	0.1
AK08	5.4	19	P	2022/01/07	23:03:22.3	-0.0
AK16	5.4	18	P	2022/01/07	23:03:21.9	-0.4
AK17	5.4	18	P	2022/01/07	23:03:22.0	-0.4
AK11	5.4	18	P	2022/01/07	23:03:22.8	0.2
AK15	5.4	18	P	2022/01/07	23:03:22.5	-0.2
AK19	5.4	17	P	2022/01/07	23:03:22.2	-0.4
AK18	5.4	18	P	2022/01/07	23:03:22.4	-0.5
AK01	5.4	19	P	2022/01/07	23:03:22.7	-0.1
AK20	5.4	17	P	2022/01/07	23:03:22.6	-0.3
AKBB	5.4	19	P	2022/01/07	23:03:23.4	0.4
AK04	5.4	18	P	2022/01/07	23:03:23.0	-0.1
AK22	5.4	17	P	2022/01/07	23:03:23.0	-0.4
AK03	5.4	18	P	2022/01/07	23:03:23.4	0.1
AK21	5.5	17	P	2022/01/07	23:03:23.2	-0.2
AK23	5.5	18	P	2022/01/07	23:03:23.2	-0.3
RNPP5	5.7	356	P	2022/01/07	23:03:26.4	0.2
RNPP8	5.8	356	P	2022/01/07	23:03:28.0	0.4
SSM6	6.0	68	P	2022/01/07	23:03:30.7	0.0



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

10.01.2022. Zona seismică Vrancea

$t_0 = 21:18:39$; $\varphi = 45,45^\circ N$; $\lambda = 27,72^\circ E$; $h = 12 \text{ km}$; $ML_v = 3,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/10	21:18:39.5	45.45	27.72	12	MLv 3.46

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.8	301	P	2022/01/10	21:18:55.4	-0.0
PLOR	0.9	299	P	2022/01/10	21:18:56.3	0.2
TIRR	1.1	153	P	2022/01/10	21:19:00.0	-0.1
TIRR	1.1	153	S	2022/01/10	21:19:14.9	-0.5
MLR	1.3	273	P	2022/01/10	21:19:03.6	1.2
TESR	1.3	325	P	2022/01/10	21:19:03.5	0.5
TESR	1.3	325	S	2022/01/10	21:19:21.7	1.0
VOIR	1.9	271	P	2022/01/10	21:19:11.4	-0.1
HUMR	2.2	246	P	2022/01/10	21:19:15.2	-0.1
ARR	2.2	269	P	2022/01/10	21:19:15.4	-0.2
SORM	2.7	9	P	2022/01/10	21:19:22.9	-0.2
PLVB	3.0	228	P	2022/01/10	21:19:27.3	0.0
KPD	3.2	345	P	2022/01/10	21:19:29.7	-0.4
DRGR	3.7	293	P	2022/01/10	21:19:36.8	-0.2
MDVR	4.3	263	P	2022/01/10	21:19:43.9	-1.0
LUBAR	4.5	0	P	2022/01/10	21:19:46.9	-0.3
RDO	4.6	201	P	2022/01/10	21:19:49.3	0.6
XAEC3	4.9	352	P	2022/01/10	21:19:52.0	-1.2
MI29	5.0	1	P	2022/01/10	21:19:54.0	-0.0
XAEC5	5.0	353	P	2022/01/10	21:19:54.9	0.3
AK06	5.2	10	P	2022/01/10	21:19:57.6	0.0
AK05	5.3	10	P	2022/01/10	21:19:58.4	0.3
AK09	5.3	11	P	2022/01/10	21:19:58.0	-0.1
AK12	5.3	10	P	2022/01/10	21:19:58.7	0.4
AK16	5.3	10	P	2022/01/10	21:19:59.0	0.4
AK17	5.3	9	P	2022/01/10	21:19:58.9	0.2
AK11	5.3	10	P	2022/01/10	21:19:59.0	0.3
AK19	5.3	9	P	2022/01/10	21:19:59.0	-0.1
AK18	5.4	9	P	2022/01/10	21:19:59.3	0.1
AK20	5.4	9	P	2022/01/10	21:19:59.3	-0.1
AK22	5.4	9	P	2022/01/10	21:19:59.5	-0.2
AK21	5.4	9	P	2022/01/10	21:19:59.6	-0.3
MI28	5.5	360	P	2022/01/10	21:20:00.1	-1.0
RNPP5	5.9	349	P	2022/01/10	21:20:06.6	-0.3
RNPP9	6.1	349	P	2022/01/10	21:20:08.9	-0.5
BR104	7.2	141	P	2022/01/10	21:20:25.1	0.4



12.01.2022. Zona seismică Vrancea

$t_0 = 00:41:51$; $\varphi = 45,46^\circ N$; $\lambda = 27,79^\circ E$; $h = 10 \text{ km}$; $ML_v = 2,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/12	00:41:51.7	45.46	27.79	10	MLv 2.40

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.9	299	P	2022/01/12	00:42:08.1	-0.1
PLOR	0.9	296	P	2022/01/12	00:42:08.8	-0.1
TIRR	1.1	156	P	2022/01/12	00:42:12.3	0.1
TIRR	1.1	156	P	2022/01/12	00:42:26.7	-0.7

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

MLR	1.3	272	P	2022/01/12	00:42:15.7	0.4
TESR	1.3	323	P	2022/01/12	00:42:15.4	-0.2
TESR	1.3	323	P	2022/01/12	00:42:32.7	-0.8
VOIR	1.9	270	P	2022/01/12	00:42:25.3	0.7
HUMR	2.2	246	P	2022/01/12	00:42:28.1	-0.2
ARR	2.2	269	P	2022/01/12	00:42:28.5	-0.1
SORM	2.7	8	P	2022/01/12	00:42:37.4	2.2
SORM	2.7	8	P	2022/01/12	00:43:07.8	-1.0
AK01	5.3	10	P	2022/01/12	00:43:11.0	-0.1
AK19	5.3	8	P	2022/01/12	00:43:11.2	-0.0
AK21	5.4	8	P	2022/01/12	00:43:12.1	0.1



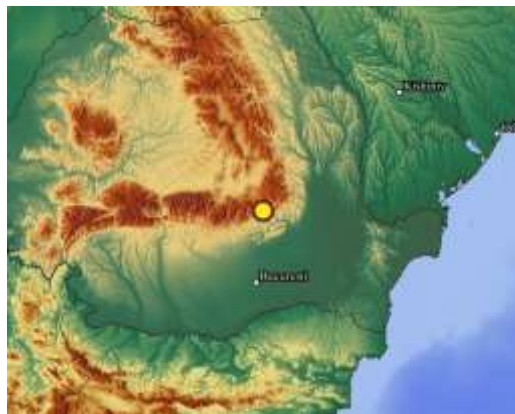
13.01.2022. Zona seismică Vrancea

$t_0 = 00:31:13$; $\varphi = 45,42^\circ N$; $\lambda = 26,23^\circ E$; $h = 139 \text{ km}$; $ML_v = 3,1$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/13	00:31:13.3	45.42	26.23	139	MLv 3.14

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
MLR	0.2	290	P	2022/01/13	00:31:33.5	0.5
MLR	0.2	290	S	2022/01/13	00:31:48.8	0.4
PLOR	0.5	34	P	2022/01/13	00:31:34.2	-0.4
VRI	0.6	37	P	2022/01/13	00:31:34.5	-0.3
VOIR	0.8	272	P	2022/01/13	00:31:36.2	0.0
ARR	1.1	268	P	2022/01/13	00:31:39.0	0.7
ARR	1.1	268	S	2022/01/13	00:31:57.8	0.1
TESR	1.1	15	P	2022/01/13	00:31:38.4	0.1
HUMR	1.3	225	P	2022/01/13	00:31:40.2	0.6
HUMR	1.3	225	S	2022/01/13	00:31:58.6	-1.4
TIRR	1.8	121	P	2022/01/13	00:31:46.4	0.7
BURAR	2.3	343	P	2022/01/13	00:31:51.8	-0.1
SORM	3.1	27	P	2022/01/13	00:32:00.4	-0.8
MDVR	3.3	260	P	2022/01/13	00:32:03.6	-0.0



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

13.01.2022. Poland

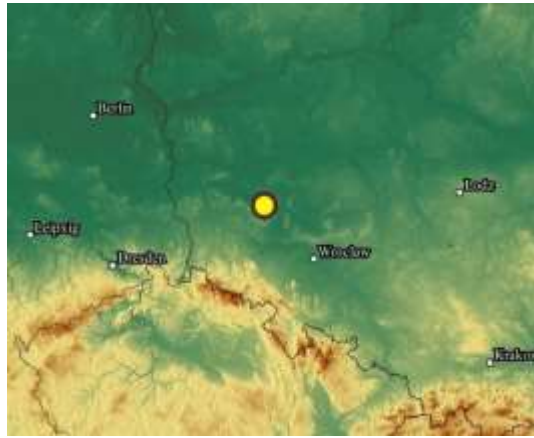
$t_0 = 12:14:01$; $\varphi = 51,63^\circ N$; $\lambda = 16,23^\circ E$; $h = 10 \text{ km}$; $mb = 4,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/13	12:14:01.7	51.63	16.23	10	mb 4.33

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
RUE	1.7	300	P	2022/01/13	12:14:31.8	0.1
GKP	1.8	20	P	2022/01/13	12:14:32.0	0.0
MORC	2.0	155	P	2022/01/13	12:14:35.3	-0.5
MORC	2.0	155	S	2022/01/13	12:15:02.2	0.1
OJC	2.7	121	P	2022/01/13	12:14:44.4	-0.1
MODS	3.3	168	P	2022/01/13	12:14:53.7	0.0
NIE	3.4	129	P	2022/01/13	12:14:54.9	0.0
VYHS	3.6	151	P	2022/01/13	12:14:56.6	-0.2
VYHS	3.6	151	S	2022/01/13	12:15:40.6	0.8
SOP	4.0	177	P	2022/01/13	12:15:01.8	-0.5
SOP	4.0	177	S	2022/01/13	12:15:48.8	-0.8
KECS	4.2	137	P	2022/01/13	12:15:05.5	0.2
RETH	4.4	287	P	2022/01/13	12:15:08.2	0.2
PSZ	4.4	146	P	2022/01/13	12:15:08.2	-0.3
CSKK	4.5	162	P	2022/01/13	12:15:08.9	-0.4
KWP	4.6	113	P	2022/01/13	12:15:11.1	0.2
KOLS	4.7	123	P	2022/01/13	12:15:13.3	0.5
SUW	4.8	58	P	2022/01/13	12:15:14.6	0.1
BSZH	5.1	147	P	2022/01/13	12:15:17.8	0.2
BEHE	5.2	176	P	2022/01/13	12:15:19.9	0.9
TRPA	5.4	128	P	2022/01/13	12:15:21.8	0.0
MORH	5.6	163	P	2022/01/13	12:15:25.6	0.1
KOVH	5.7	167	P	2022/01/13	12:15:26.1	0.1
RNPP8	6.0	89	P	2022/01/13	12:15:30.9	0.3
RNPP9	6.0	88	P	2022/01/13	12:15:31.1	0.3
RNPP5	6.1	90	P	2022/01/13	12:15:31.4	0.3
DRGR	6.4	136	P	2022/01/13	12:15:36.4	0.1
SIRR	6.4	144	P	2022/01/13	12:15:36.6	0.0
XAEC1	6.7	97	P	2022/01/13	12:15:40.2	0.1
XAEC3	6.7	97	P	2022/01/13	12:15:40.2	0.1
BURAR	7.1	121	P	2022/01/13	12:15:45.4	0.5
MI28	7.2	91	P	2022/01/13	12:15:46.9	-0.0
KPD	7.3	111	P	2022/01/13	12:15:48.1	0.4
MI29	7.4	95	P	2022/01/13	12:15:50.3	0.4
LUBAR	7.5	99	P	2022/01/13	12:15:51.1	0.1
MDVR	7.8	150	P	2022/01/13	12:15:54.6	0.0
AK20	8.1	91	P	2022/01/13	12:15:58.8	-0.0
AK19	8.1	91	P	2022/01/13	12:15:58.9	-0.0
AK21	8.1	91	P	2022/01/13	12:15:59.0	-0.0
AK22	8.1	91	P	2022/01/13	12:15:59.3	-0.0
AK18	8.1	91	P	2022/01/13	12:15:59.4	-0.0
AK17	8.1	92	P	2022/01/13	12:15:59.4	-0.0
AK13	8.1	92	P	2022/01/13	12:15:59.6	-0.0
AK23	8.1	91	P	2022/01/13	12:15:59.8	-0.0
AK16	8.2	92	P	2022/01/13	12:15:59.9	-0.0
AK15	8.2	92	P	2022/01/13	12:16:00.0	0.1
AK14	8.2	92	P	2022/01/13	12:15:59.9	-0.1
AK04	8.2	91	P	2022/01/13	12:16:00.1	-0.1
AK01	8.2	91	P	2022/01/13	12:16:00.5	-0.2
AK02	8.2	92	P	2022/01/13	12:16:00.5	-0.2
AKBB	8.2	91	P	2022/01/13	12:16:00.6	-0.2
AK05	8.2	92	P	2022/01/13	12:16:00.6	-0.2
AK06	8.2	92	P	2022/01/13	12:16:00.5	-0.4
AK07	8.2	92	P	2022/01/13	12:16:00.6	-0.4
AK10	8.3	92	P	2022/01/13	12:16:00.9	-0.4
AK09	8.3	92	P	2022/01/13	12:16:01.1	-0.4
SSM6	12.6	101	P	2022/01/13	12:17:00.9	-0.4

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



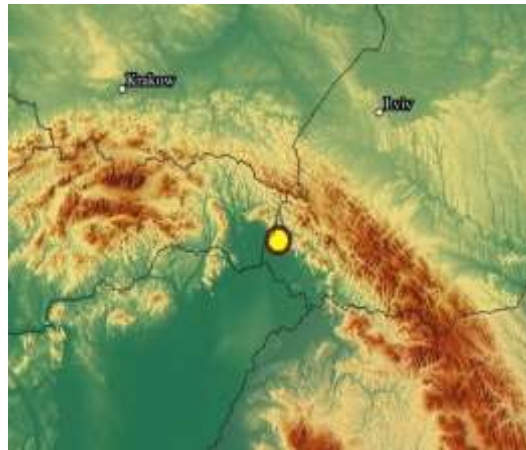
13.01.2022. Ukraine, Transcarpathian region

$t_0 = 12:44:32$; $\varphi = 48,64^\circ N$; $\lambda = 22,41^\circ E$; $h = 1 \text{ км}$; $ML_v = 1,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/13	12:44:32.1	48.64	22.41	10	ML _v 1.50

UKRAINE

Sta	Dist	EvAz	Phase	Date	Time	Res
UZH	0.1	261	P	2022/01/13	12:44:34.4	0.5
KOLS	0.3	342	P	2022/01/13	12:44:40.9	-0.8
TRPA	0.5	171	P	2022/01/13	12:44:41.5	-0.6
KWP	1.0	11	P	2022/01/13	12:44:52.3	0.9



14.01.2022. Ukraine, Transcarpathian region

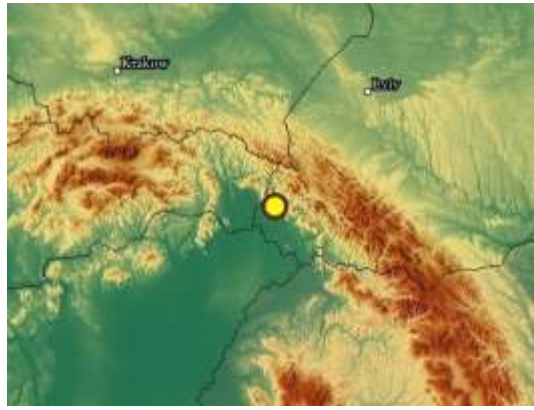
$t_0 = 11:17:07$; $\varphi = 48,63^\circ N$; $\lambda = 22,50^\circ E$; $h = 2 \text{ км}$; $ML_v = 1,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/14	11:17:07.9	48.63	22.50	2	ML _v 1.30

UKRAINE

Sta	Dist	EvAz	Phase	Date	Time	Res
UZH	0.1	270	P	2022/01/14	11:17:10.7	0.0
UZH	0.1	270	P	2022/01/14	11:17:12.6	0.2
UZH	0.1	270	P	2022/01/14	11:17:13.4	-0.2
KOLS	0.3	334	P	2022/01/14	11:17:14.4	0.0
KOLS	0.3	334	P	2022/01/14	11:17:18.7	-0.0
TRPA	0.5	177	P	2022/01/14	11:17:17.4	-0.0

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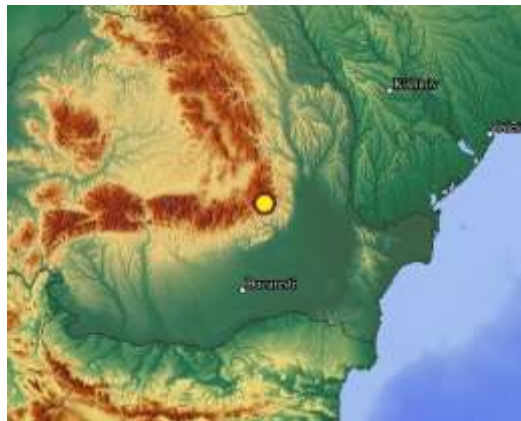
14.01.2022. Zona seismică Vrancea

$t_0 = 22:03:23$; $\varphi = 45,57^\circ N$; $\lambda = 26,52^\circ E$; $h = 117 \text{ km}$; $ML_v = 3,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/14	22:03:23.1	45.57	26.52	117	MLv 3.40

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.3	18	P	2022/01/14	22:03:40.9	0.2
PLOR	0.3	18	S	2022/01/14	22:03:54.3	0.0
VRI	0.3	26	P	2022/01/14	22:03:41.5	0.6
MLR	0.4	259	P	2022/01/14	22:03:41.8	0.4
MLR	0.4	259	S	2022/01/14	22:03:54.9	-0.6
VOIR	1.0	263	P	2022/01/14	22:03:46.3	0.9
VOIR	1.0	263	S	2022/01/14	22:04:02.2	-0.3
ARR	1.3	262	S	2022/01/14	22:04:08.5	-0.1
HUMR	1.5	227	P	2022/01/14	22:03:50.7	0.0
TIRR	1.7	129	P	2022/01/14	22:03:53.9	0.6
TIRR	1.7	129	S	2022/01/14	22:04:15.8	-0.9
KIS	2.1	47	P	2022/01/14	22:03:59.0	1.0
PLVB	2.6	213	P	2022/01/14	22:04:03.9	0.2
SORM	2.9	25	P	2022/01/14	22:04:07.5	0.2
MDVR	3.5	259	P	2022/01/14	22:04:15.4	-0.4
AK05	5.4	19	P	2022/01/14	22:04:40.8	0.0
AK12	5.4	18	P	2022/01/14	22:04:40.7	-0.1
AK09	5.4	19	P	2022/01/14	22:04:40.7	-0.2
AK08	5.4	19	P	2022/01/14	22:04:41.0	-0.1
AK16	5.4	18	P	2022/01/14	22:04:40.8	-0.3
AK17	5.4	17	P	2022/01/14	22:04:40.8	-0.3
AK19	5.4	17	P	2022/01/14	22:04:41.1	-0.4
AK18	5.4	17	P	2022/01/14	22:04:41.3	-0.3



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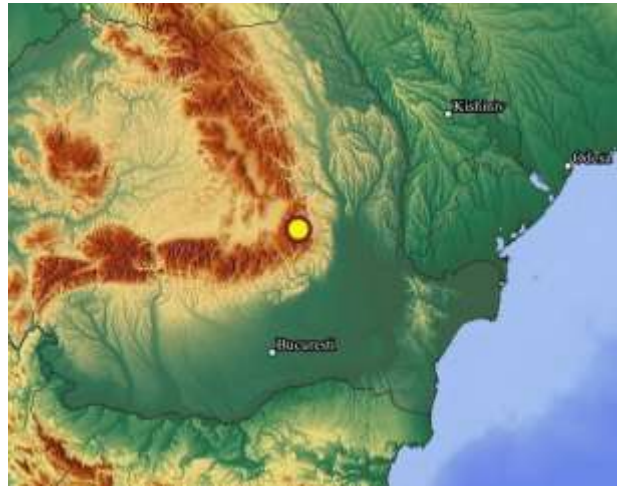
15.01.2022. Zona seismică Vrancea

$t_0 = 21:51:27$; $\varphi = 45,78^\circ N$; $\lambda = 26,52^\circ E$; $h = 105 \text{ km}$; $ML_v = 3,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/15	21:51:27.0	45.78	26.52	105	MLv 3.61

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.1	53	P	2022/01/15	21:51:42.6	0.4
PLOR	0.1	53	S	2022/01/15	21:51:53.9	-0.1
VRI	0.2	60	P	2022/01/15	21:51:42.5	-0.1
MLR	0.5	234	P	2022/01/15	21:51:44.9	0.3
MLR	0.5	234	S	2022/01/15	21:51:58.1	-0.1
TESR	0.7	7	P	2022/01/15	21:51:45.8	-0.4
KPD	2.8	359	P	2022/01/15	21:52:10.0	0.1
RDO	4.7	189	P	2022/01/15	21:52:35.6	0.1
ALN	4.9	184	P	2022/01/15	21:52:38.1	-0.2
AK07	5.1	20	P	2022/01/15	21:52:41.3	0.2
AK06	5.1	19	P	2022/01/15	21:52:41.7	0.3
AK14	5.2	19	P	2022/01/15	21:52:41.3	-0.4
AK10	5.2	20	P	2022/01/15	21:52:41.6	-0.2
AK05	5.2	19	P	2022/01/15	21:52:41.9	0.0



16.01.2022. Zona seismică Vrancea

$t_0 = 13:43:14$; $\varphi = 45,66^\circ N$; $\lambda = 26,63^\circ E$; $h = 138 \text{ km}$; $mb = 4,4$

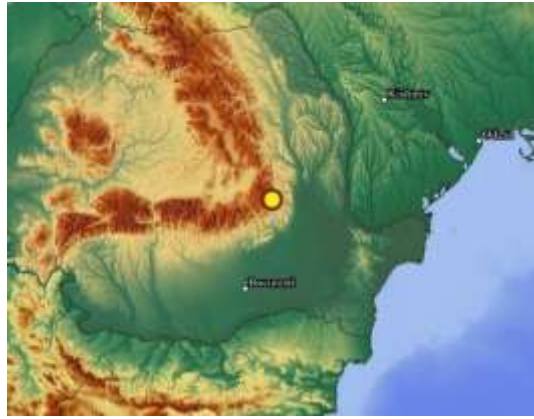
Date	Time	Latitude	Longitude	Depth	Mag
2022/01/16	13:43:14.5	45.66	26.63	138	mb 4.36

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
BISRR	0.2	164	P	2022/01/16	13:43:34.5	0.6
VRI	0.2	19	P	2022/01/16	13:43:34.2	0.4
MLR	0.5	247	P	2022/01/16	13:43:34.6	-1.1
TESR	0.8	0	P	2022/01/16	13:43:36.9	-0.2
VOIR	1.2	257	P	2022/01/16	13:43:39.4	-0.2
TIRR	1.8	134	P	2022/01/16	13:43:46.3	0.1
SORM	2.7	25	P	2022/01/16	13:43:57.8	0.3
KPD	2.9	358	P	2022/01/16	13:43:59.4	-0.2
MI26	3.0	41	P	2022/01/16	13:44:02.1	0.4
TRPA	3.7	312	P	2022/01/16	13:44:10.6	-0.0
LUBAR	4.3	10	P	2022/01/16	13:44:18.0	-0.1
MI27	4.3	10	P	2022/01/16	13:44:18.4	0.3
XAEC1	4.6	0	P	2022/01/16	13:44:23.4	1.1
XAEC5	4.7	1	P	2022/01/16	13:44:24.2	0.3
MI29	4.8	9	P	2022/01/16	13:44:25.4	0.7
AK07	5.1	19	P	2022/01/16	13:44:29.7	0.2
AK13	5.2	17	P	2022/01/16	13:44:30.0	0.1
AK06	5.2	18	P	2022/01/16	13:44:30.1	0.1
AK14	5.2	18	P	2022/01/16	13:44:30.1	-0.1
AK10	5.2	19	P	2022/01/16	13:44:30.3	0.0
AK05	5.2	18	P	2022/01/16	13:44:30.3	-0.1
AK12	5.2	18	P	2022/01/16	13:44:30.5	-0.1
AK09	5.2	19	P	2022/01/16	13:44:30.6	0.0

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AK08	5.2	19	P	2022/01/16	13:44:30.5	-0.2
AK16	5.2	17	P	2022/01/16	13:44:30.6	-0.2
AK17	5.2	17	P	2022/01/16	13:44:30.6	-0.2
MI25	5.2	20	P	2022/01/16	13:44:30.4	-0.4
AK02	5.2	18	P	2022/01/16	13:44:31.0	0.2
AK11	5.3	18	P	2022/01/16	13:44:31.0	-0.0
AK15	5.3	17	P	2022/01/16	13:44:31.3	0.2
AK19	5.3	17	P	2022/01/16	13:44:30.8	-0.3
MI28	5.3	7	P	2022/01/16	13:44:30.7	-0.6
AK18	5.3	17	P	2022/01/16	13:44:31.1	-0.2
AK01	5.3	18	P	2022/01/16	13:44:31.3	-0.0
AK20	5.3	17	P	2022/01/16	13:44:31.1	-0.3
AKBB	5.3	18	P	2022/01/16	13:44:31.3	-0.1
KIEV	5.3	18	P	2022/01/16	13:44:31.3	-0.2
AK04	5.3	18	P	2022/01/16	13:44:31.5	-0.1
AK03	5.3	18	P	2022/01/16	13:44:31.7	-0.0
AK22	5.3	17	P	2022/01/16	13:44:31.6	-0.2
AK21	5.3	17	P	2022/01/16	13:44:31.6	-0.2
AK23	5.3	17	P	2022/01/16	13:44:31.7	-0.2
MORH	5.6	278	P	2022/01/16	13:44:35.8	0.1
SSM5	5.6	67	P	2022/01/16	13:44:36.0	-0.1
RNPP8	5.7	355	P	2022/01/16	13:44:36.6	0.1
NIE	5.7	313	P	2022/01/16	13:44:36.6	-0.0
RNPP9	5.7	355	P	2022/01/16	13:44:37.4	0.0
SSM6	5.9	68	P	2022/01/16	13:44:39.0	-0.1
KOVH	6.0	277	P	2022/01/16	13:44:41.1	0.3



18.01.2022. Zona seismica Vrancea

$t_0 = 07:47:01$; $\varphi = 45,67^\circ N$; $\lambda = 26,59^\circ E$; $h = 145 \text{ km}$; $ML_V = 3,8$

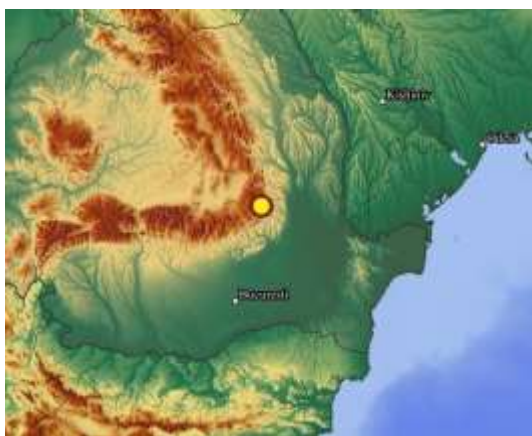
Date	Time	Latitude	Longitude	Depth	Mag
2022/01/18	07:47:01.3	45.67	26.59	145	ML _V 3.75

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.2	26	P	2022/01/18	07:47:22.1	0.4
MLR	0.5	248	P	2022/01/18	07:47:22.9	-0.1
ARR	1.4	258	P	2022/01/18	07:47:29.7	0.1
HUMR	1.6	226	P	2022/01/18	07:47:31.8	0.0
TIRR	1.8	133	P	2022/01/18	07:47:34.3	0.8
TIRR	1.8	133	S	2022/01/18	07:47:57.8	-0.8
PLVB	2.7	212	P	2022/01/18	07:47:44.6	0.2
SORM	2.7	25	P	2022/01/18	07:47:45.5	0.4
KPD	2.9	358	P	2022/01/18	07:47:46.8	-0.2
MDVR	3.6	257	P	2022/01/18	07:47:55.2	-0.4
LUBAR	4.3	10	P	2022/01/18	07:48:05.0	-0.6
MI27	4.3	10	P	2022/01/18	07:48:05.1	-0.4
MI29	4.8	10	P	2022/01/18	07:48:12.7	0.5
AK07	5.2	19	P	2022/01/18	07:48:17.1	0.2
AK13	5.2	18	P	2022/01/18	07:48:17.2	-0.1
AK06	5.2	19	P	2022/01/18	07:48:17.4	0.1
AK14	5.2	18	P	2022/01/18	07:48:17.7	0.0
AK12	5.3	18	P	2022/01/18	07:48:18.1	0.2
AK09	5.3	19	P	2022/01/18	07:48:18.1	0.1
AK17	5.3	17	P	2022/01/18	07:48:18.2	-0.0
AK11	5.3	18	P	2022/01/18	07:48:18.6	0.1
AK15	5.3	18	P	2022/01/18	07:48:18.6	0.1
AK19	5.3	17	P	2022/01/18	07:48:18.4	-0.1

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AK18	5.3	17	P	2022/01/18	07:48:18.5	-0.2
AK01	5.3	18	P	2022/01/18	07:48:18.8	0.1
AK20	5.3	17	P	2022/01/18	07:48:18.5	-0.3
AKBB	5.3	18	P	2022/01/18	07:48:19.0	0.2
AK03	5.4	18	P	2022/01/18	07:48:19.2	0.0
AK22	5.4	17	P	2022/01/18	07:48:19.0	-0.2
AK21	5.4	17	P	2022/01/18	07:48:19.1	-0.2



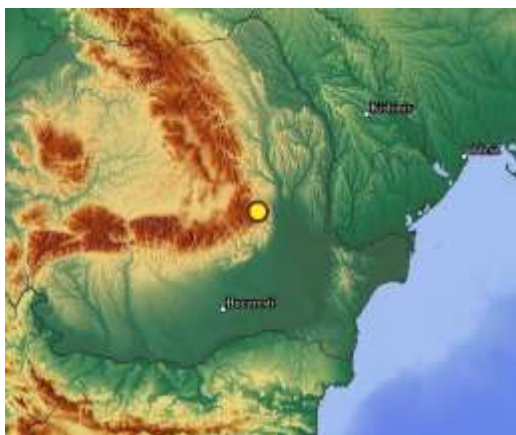
18.01.2022. Zona seismică Vrancea

$t_0 = 16:51:42$; $\varphi = 45,74^\circ N$; $\lambda = 26,77^\circ E$; $h = 76 \text{ km}$; $ML_v = 3.0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/18	16:51:42.6	45,74	26,77	76	ML _v 3.03

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.1	347	P	2022/01/18	16:51:54.9	0.4
PLOR	0.1	323	LQ	2022/01/18	16:52:06.5	-0.3
PLOR	0.1	323	P	2022/01/18	16:51:55.0	0.4
PLOR	0.1	323	S	2022/01/18	16:52:04.1	0.4
MLR	0.6	247	P	2022/01/18	16:51:58.5	0.0
MLR	0.6	247	S	2022/01/18	16:52:10.0	-0.6
DEV	2.7	275	P	2022/01/18	16:52:24.8	0.9
KPD	2.8	356	P	2022/01/18	16:52:24.8	-0.7
KPD	2.8	356	S	2022/01/18	16:52:58.6	-0.6
DRGR	3.0	292	P	2022/01/18	16:52:28.2	0.4
DRGR	3.0	292	S	2022/01/18	16:53:04.3	0.9
MDVR	3.7	257	P	2022/01/18	16:52:36.4	-0.8
LUBAR	4.2	9	P	2022/01/18	16:52:45.3	0.8
KOLS	4.4	318	P	2022/01/18	16:52:46.2	-0.9
MI29	4.7	8	P	2022/01/18	16:52:52.1	0.7
BSZH	4.8	292	P	2022/01/18	16:52:51.4	-0.2
KWP	4.8	326	P	2022/01/18	16:52:51.3	-0.4
AK06	5.1	18	P	2022/01/18	16:52:57.2	0.7
AK14	5.1	17	P	2022/01/18	16:52:57.2	0.3
MI28	5.2	6	P	2022/01/18	16:52:56.9	-1.2



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19.01.2022. Belarus

$t_0 = 02:01:19$; $\varphi = 52,94^\circ N$; $\lambda = 27,43^\circ E$; $h = 18 \text{ km}$; $ML_v = 3.3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/19	02:01:18.6	52.94	27.43	18	MLv 3.30

BELARUS

Sta	Dist	EvAz	Phase	Date	Time	Res
RNPP9	1.8	212	P	2022/01/19	02:01:48.4	-0.3
RNPP9	1.8	212	Lg	2022/01/19	02:02:14.8	-0.3
RNPP9	1.8	212	S	2022/01/19	02:02:11.3	-0.4
RNPP2	1.9	211	P	2022/01/19	02:01:49.9	0.2
RNPP2	1.9	211	S	2022/01/19	02:02:13.8	0.2
RNPP2	1.9	211	Pg	2022/01/19	02:01:54.5	-0.1
RNPP2	1.9	211	Pb	2022/01/19	02:01:52.5	0.2
RNPP8	1.9	212	P	2022/01/19	02:01:50.1	0.3
RNPP6	1.9	207	Pb	2022/01/19	02:01:52.4	-0.0
RNPP6	1.9	207	Lg	2022/01/19	02:02:18.0	0.3
RNPP1	1.9	213	P	2022/01/19	02:01:49.9	-0.0
RNPP5	2.0	210	P	2022/01/19	02:01:51.6	0.7
MI28	2.0	176	P	2022/01/19	02:01:51.9	0.2
AK21	2.4	155	Pg	2022/01/19	02:02:04.7	0.4
AK20	2.4	155	Pg	2022/01/19	02:02:04.8	-0.0
AK15	2.5	154	Pb	2022/01/19	02:02:02.6	-0.1
AK15	2.5	154	P	2022/01/19	02:01:58.1	0.0
MI29	2.5	174	P	2022/01/19	02:01:57.9	-0.9
AK09	2.6	153	P	2022/01/19	02:01:59.4	-0.3
LUBAR	3.0	176	P	2022/01/19	02:02:05.7	0.1
MI27	3.0	176	P	2022/01/19	02:02:05.7	0.1
KPD	4.4	188	P	2022/01/19	02:02:24.7	-0.0
KPD	4.4	188	sP	2022/01/19	02:02:31.7	-0.1
SORM	4.8	173	P	2022/01/19	02:02:30.5	-0.1
BAL3X	5.2	164	P	2022/01/19	02:02:35.8	0.5
MI26	5.2	164	P	2022/01/19	02:02:35.0	-0.3
BURAR	5.5	196	P	2022/01/19	02:02:39.8	0.3
TRPA	5.7	215	P	2022/01/19	02:02:42.0	-0.7
OBN	5.8	64	P	2022/01/19	02:02:43.8	-0.0
BSZH	7.3	222	P	2022/01/19	02:03:03.9	-0.1
VOIR	7.7	193	P	2022/01/19	02:03:09.5	0.2
MODS	7.9	239	P	2022/01/19	02:03:12.6	0.1



19.01.2022. Zona seismica Vrancea

$t_0 = 11:16:26$; $\varphi = 45,78^\circ N$; $\lambda = 26,62^\circ E$; $h = 103 \text{ km}$; $ML_v = 3.4$

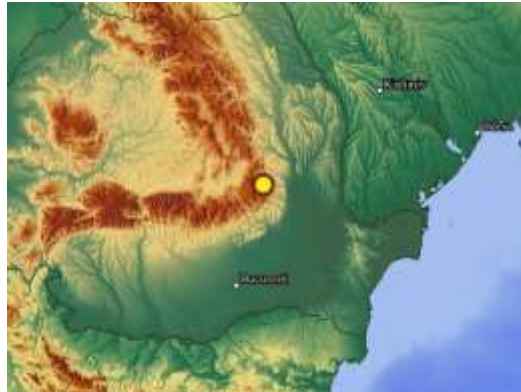
Date	Time	Latitude	Longitude	Depth	Mag
2022/01/19	11:16:26.1	45.78	26.62	103	MLv 3.40

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.1	17	P	2022/01/19	11:16:41.1	0.3
VRI	0.1	41	P	2022/01/19	11:16:41.3	0.3
VRI	0.1	41	S	2022/01/19	11:16:52.6	0.0
MLR	0.6	239	S	2022/01/19	11:16:57.0	-0.5
TESR	0.7	2	P	2022/01/19	11:16:44.7	-0.3
VOIR	1.2	253	S	2022/01/19	11:17:05.7	-0.1
ARR	1.5	254	P	2022/01/19	11:16:52.9	0.8
HUMR	1.7	223	P	2022/01/19	11:16:55.1	0.0
KIS	2.0	50	P	2022/01/19	11:16:58.5	0.4

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SORM	2.6	26	P	2022/01/19	11:17:06.8	-0.3
PLVB	2.8	212	P	2022/01/19	11:17:08.6	-0.4
MDVR	3.6	256	P	2022/01/19	11:17:20.1	0.2
AK06	5.1	19	P	2022/01/19	11:17:40.2	0.0
AK14	5.1	18	P	2022/01/19	11:17:40.1	-0.4
AK10	5.1	19	P	2022/01/19	11:17:40.5	0.0
AK12	5.2	18	P	2022/01/19	11:17:40.7	-0.1



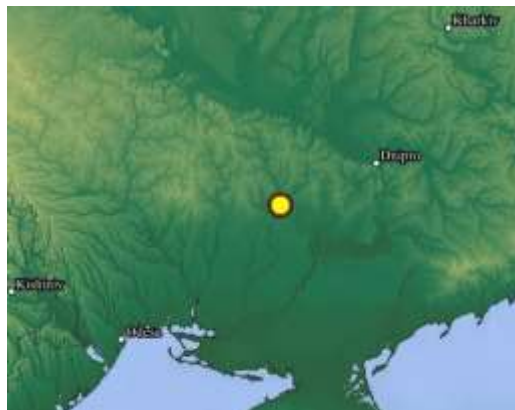
21.01.2022. Ukraine, Dnipropetrovsk region

$t_0 = 04:17:02$; $\varphi = 48,01^\circ N$; $\lambda = 33,41^\circ E$; $h = 5 \text{ km}$; $ML_v = 2,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/21	04:17:02	48.01	33.41	5	ML _v 3.26

UKRAINE

Sta	Dist	EvAz	Phase	Date	Time	Res
SSM5	0.7	123	LR	2022/01/21	04:17:43.6	0.2
SSM5	0.7	123	Pg	2022/01/21	04:17:30.8	0.8
SSM5	0.7	123	Sg	2022/01/21	04:17:39.6	-0.9
SORM	3.4	274	LR	2022/01/21	04:19:18.9	-0.1
SORM	3.4	274	Pn	2022/01/21	04:18:09.2	0.1
AK09	3.7	315	Lg	2022/01/21	04:19:12.6	-0.2
AK10	3.8	315	Lg	2022/01/21	04:19:13.2	0.1
AK06	3.8	315	LR	2022/01/21	04:19:32.1	-0.5
AK06	3.8	315	Lg	2022/01/21	04:19:13.7	0.2
AK08	3.8	315	LR	2022/01/21	04:19:33.1	0.4
AK05	3.8	315	Lg	2022/01/21	04:19:14.5	0.3
AK02	3.8	315	LR	2022/01/21	04:19:34.5	0.3
AKBB	3.8	316	Lg	2022/01/21	04:19:15.2	-0.4
AK03	3.9	316	Lg	2022/01/21	04:19:15.6	-0.6
AK13	3.9	314	Lg	2022/01/21	04:19:16.4	0.3



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

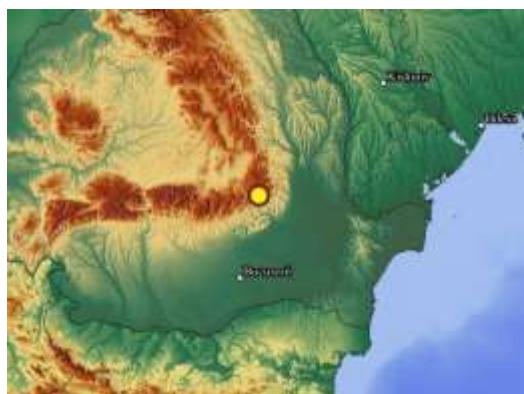
21.01.2022. Zona seismică Vrancea

$t_0 = 21:37:28$; $\varphi = 45,54^\circ N$; $\lambda = 26,46^\circ E$; $h = 94 \text{ km}$; $ML_V = 2,9$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/21	21:37:28.6	45.54	26.46	94	MLv 2.90

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.3	23	P	2022/01/21	21:37:43.8	-0.2
MLR	0.4	263	P	2022/01/21	21:37:44.1	-0.1
VRI	0.4	30	P	2022/01/21	21:37:44.1	-0.1
TESR	1.0	8	P	2022/01/21	21:37:48.5	0.1
VOIR	1.0	265	P	2022/01/21	21:37:48.8	0.3
VOIR	1.0	265	S	2022/01/21	21:38:04.1	0.2
ARR	1.3	263	P	2022/01/21	21:37:52.0	-0.1
HUMR	1.5	227	P	2022/01/21	21:37:54.1	0.0
TIRR	1.8	127	P	2022/01/21	21:37:58.3	0.5
TIRR	1.8	127	S	2022/01/21	21:38:20.1	-0.4
BURAR	2.3	338	P	2022/01/21	21:38:05.2	0.6
DRGR	2.9	297	P	2022/01/21	21:38:11.8	-0.8
SORM	2.9	26	P	2022/01/21	21:38:12.7	-0.2



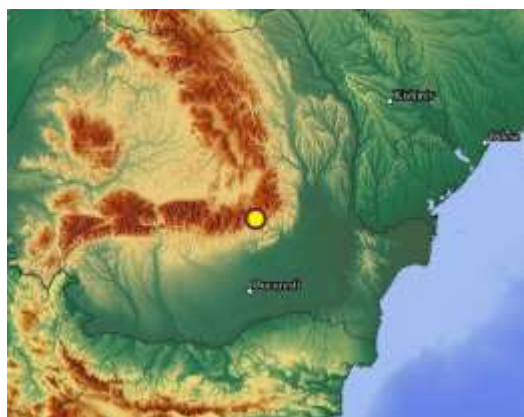
22.01.2022. Zona seismică Vrancea

$t_0 = 20:10:42$; $\varphi = 45,43^\circ N$; $\lambda = 26,22^\circ E$; $h = 110 \text{ km}$; $ML_V = 2,1$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/22	20:10:42.2	45.43	26.22	110	MLv 2.12

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
MLR	0.2	288	P	2022/01/22	20:10:59.0	0.4
PLOR	0.5	35	P	2022/01/22	20:10:59.9	-0.6
VRI	0.6	39	P	2022/01/22	20:11:00.3	-0.4
VOIR	0.8	271	P	2022/01/22	20:11:02.2	-0.2
TESR	1.1	15	P	2022/01/22	20:11:05.4	0.6
HUMR	1.3	225	P	2022/01/22	20:11:06.8	0.4
TIRR	1.8	121	P	2022/01/22	20:11:13.1	-0.0
BURAR	2.3	343	P	2022/01/22	20:11:19.5	0.1
PLVB	2.3	210	P	2022/01/22	20:11:19.8	0.2
SORM	3.1	28	P	2022/01/22	20:11:29.3	0.1
MDVR	3.3	260	P	2022/01/22	20:11:31.0	-0.6



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

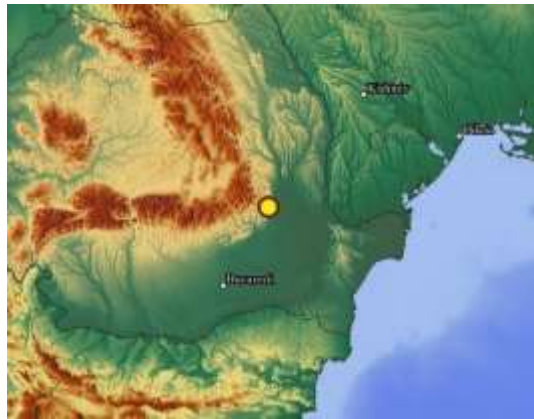
23.01.2022. Zona seismică Vrancea

$t_0 = 13:26:35$; $\varphi = 45,50^\circ N$; $\lambda = 26,98^\circ E$; $h = 11 \text{ km}$; $ML_v = 2,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/23	13:26:35.5	45.50	26.98	11	MLv 2.27

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.4	334	P	2022/01/23	13:26:44.5	0.1
PLOR	0.4	327	P	2022/01/23	13:26:44.4	-0.2
MLR	0.7	270	P	2022/01/23	13:26:49.3	-0.6
TESR	1.0	347	P	2022/01/23	13:26:55.7	0.6
VOIR	1.4	268	P	2022/01/23	13:26:59.8	-0.1
TIRR	1.5	135	P	2022/01/23	13:27:02.0	0.7
TIRR	1.5	135	S	2022/01/23	13:27:20.2	-0.5
ARR	1.7	266	P	2022/01/23	13:27:05.3	1.0
BURAR	2.5	331	P	2022/01/23	13:27:15.3	-0.3
KPD	3.1	354	P	2022/01/23	13:27:23.8	-0.2
DRGR	3.2	295	P	2022/01/23	13:27:25.6	-0.5



26.01.2022. Belarus

$t_0 = 07:33:07$; $\varphi = 52,94^\circ N$; $\lambda = 27,69^\circ E$; $h = 14 \text{ km}$; $ML_v = 2,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/01/26	07:33:07.5	52.94	27.69	14	MLv 2.27

BELARUS

Sta	Dist	EvAz	Phase	Date	Time	Res
RNPP9	1.9	217	Pn	2022/01/26	07:33:38.7	-0.4
RNPP9	1.9	217	Sn	2022/01/26	07:34:03.5	0.3
AK21	2.3	158	Sn	2022/01/26	07:34:12.6	-1.5
AK22	2.3	158	Sn	2022/01/26	07:34:14.5	-0.1
AK20	2.3	159	Sn	2022/01/26	07:34:14.9	0.3
AK19	2.3	159	Pn	2022/01/26	07:33:45.2	-0.5
AK19	2.3	159	Sn	2022/01/26	07:34:15.0	-0.2
AK18	2.4	158	Sn	2022/01/26	07:34:15.7	0.2
AK17	2.4	158	Pn	2022/01/26	07:33:46.4	0.1
AK17	2.4	158	Sn	2022/01/26	07:34:15.9	-0.4
AK03	2.4	156	Sn	2022/01/26	07:34:16.5	0.2
AK15	2.4	157	Sn	2022/01/26	07:34:17.2	0.8
AKBB	2.4	156	Pg	2022/01/26	07:33:53.9	0.0
AKBB	2.4	156	Pn	2022/01/26	07:33:46.8	0.1
AKBB	2.4	156	Sn	2022/01/26	07:34:15.6	-1.2
AK01	2.4	156	Pn	2022/01/26	07:33:46.7	-0.1
AK01	2.4	156	Sn	2022/01/26	07:34:17.1	0.1
AK02	2.5	157	Sn	2022/01/26	07:34:18.6	0.8
AK12	2.5	157	Pn	2022/01/26	07:33:47.4	0.3
AK12	2.5	157	Sn	2022/01/26	07:34:17.9	0.1
AK08	2.5	156	Pn	2022/01/26	07:33:48.1	0.5
AK09	2.5	156	Sn	2022/01/26	07:34:19.6	0.4
AK06	2.5	157	Sn	2022/01/26	07:34:19.7	0.3

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01.02.2022. Zona seismică Vrancea

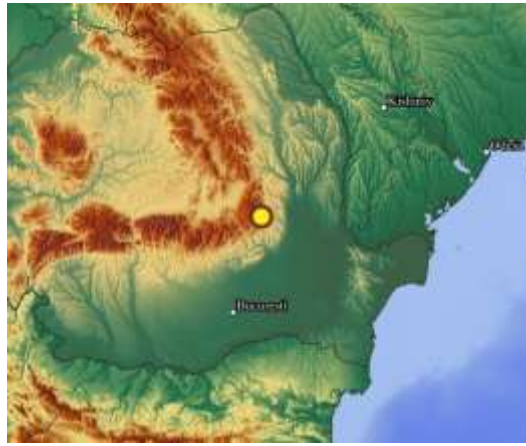
$t_0 = 22:19:37$; $\varphi = 45,65^\circ N$; $\lambda = 26,62^\circ E$; $h = 129 \text{ km}$; $ML_v = 3,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/01	22:19:37.7	45.65	26.62	129	ML _v 3.59

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.2	5	P	2022/02/01	22:19:56.6	0.3
PLOR	0.2	5	S	2022/02/01	22:20:10.7	0.1
VRI	0.2	18	P	2022/02/01	22:19:56.8	0.4
MLR	0.5	252	P	2022/02/01	22:19:58.0	0.1
MLR	0.5	252	S	2022/02/01	22:20:13.3	-0.1
TESR	0.9	1	P	2022/02/01	22:19:59.7	-0.1
VOIR	1.1	260	P	2022/02/01	22:20:02.1	0.3
ARR	1.4	259	P	2022/02/01	22:20:05.5	0.4
HUMR	1.6	227	P	2022/02/01	22:20:07.3	0.1
HUMR	1.6	227	S	2022/02/01	22:20:28.5	-1.5
TIRR	1.7	132	P	2022/02/01	22:20:09.3	0.8
TIRR	1.7	132	S	2022/02/01	22:20:31.9	-0.6
BURAR	2.2	334	P	2022/02/01	22:20:15.6	1.2
CJR	2.4	298	P	2022/02/01	22:20:16.2	0.2
DEV	2.6	277	P	2022/02/01	22:20:19.7	0.3
PLVB	2.7	213	P	2022/02/01	22:20:20.3	0.2
SORM	2.8	25	P	2022/02/01	22:20:20.9	-0.3
KPD	2.9	358	P	2022/02/01	22:20:23.2	-0.1
SIRR	3.5	282	P	2022/02/01	22:20:30.8	-0.2
TRPA	3.7	313	P	2022/02/01	22:20:33.5	-0.5
LUBAR	4.3	10	P	2022/02/01	22:20:41.7	-0.2
LUBAR	4.3	10	S	2022/02/01	22:21:29.0	-3.4
MI27	4.3	10	P	2022/02/01	22:20:42.7	0.8
RDO	4.6	190	P	2022/02/01	22:20:45.7	0.8
XAEC4	4.6	2	P	2022/02/01	22:20:45.9	-0.1
MI29	4.8	9	P	2022/02/01	22:20:48.6	-0.0
MI28	5.3	7	P	2022/02/01	22:20:54.3	-0.8
AK18	5.3	17	P	2022/02/01	22:20:54.7	-0.5
AKBB	5.3	18	P	2022/02/01	22:20:54.5	-0.9
AKBB	5.3	18	S	2022/02/01	22:21:52.8	-3.6
AK22	5.4	17	S	2022/02/01	22:21:53.6	-3.4
RNPP1	5.7	355	P	2022/02/01	22:21:01.0	0.4
RNPP9	5.8	355	P	2022/02/01	22:21:01.1	-0.1
CHVC	8.6	309	P	2022/02/01	22:21:39.2	-0.3

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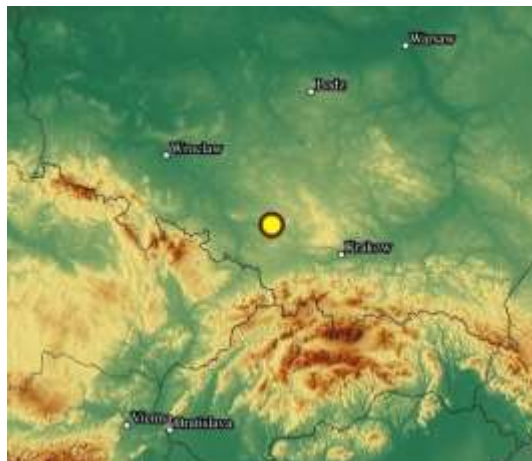
03.02.2022. Poland

$t_0 = 12:13:44$; $\varphi = 50,37^\circ N$; $\lambda = 18,79^\circ E$; $h = 3 \text{ км}$; $ML_v = 2,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/03	12:13:44.2	50.37	18.79	3	MLv 2.74

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
OJC	0.5	103	P	2022/02/03	12:13:57.9	-0.9
OJC	0.5	103	S	2022/02/03	12:14:05.6	-0.3
MORC	1.1	238	Pg	2022/02/03	12:14:09.3	0.3
MORC	1.1	238	S	2022/02/03	12:14:21.5	-1.6
NIE	1.3	136	P	2022/02/03	12:14:10.3	-1.5
NIE	1.3	136	S	2022/02/03	12:14:28.6	-0.3
JAVC	1.7	210	P	2022/02/03	12:14:19.4	0.7
JAVC	1.7	210	S	2022/02/03	12:14:41.1	-0.4
STHS	1.7	122	P	2022/02/03	12:14:19.5	0.4
VRAC	1.9	237	P	2022/02/03	12:14:21.1	0.2
VRAC	1.9	237	S	2022/02/03	12:14:45.6	0.2
KRUC	2.1	233	P	2022/02/03	12:14:25.8	1.3
KECS	2.1	151	P	2022/02/03	12:14:25.2	0.6
MODS	2.3	210	Pg	2022/02/03	12:14:32.0	0.4
KWP	2.5	105	Pg	2022/02/03	12:14:36.4	-0.1
ABAH	2.5	143	Pn	2022/02/03	12:14:32.1	1.8
PRU	2.9	264	Pg	2022/02/03	12:14:42.1	-1.0
CONA	3.2	221	Pg	2022/02/03	12:14:49.1	0.3



05.02.2022. Poland

$t_0 = 05:19:01$; $\varphi = 51,61^\circ N$; $\lambda = 16,20^\circ E$; $h = 8 \text{ км}$; $ML_v = 4,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/05	05:19:01.3	51.61	16.20	8	MLv 4.53

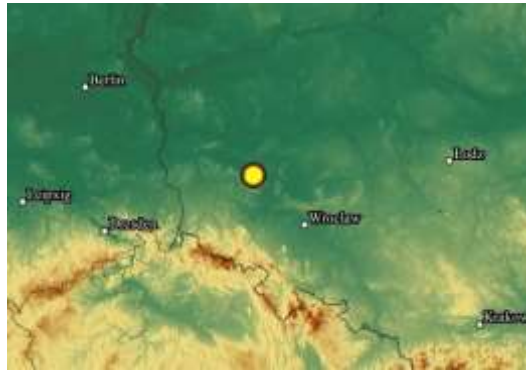
POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
CHVC	1.0	185	P	2022/02/05	05:19:20.0	-0.9
CHVC	1.0	185	S	2022/02/05	05:19:35.6	0.5

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UPC	1.1	186	P	2022/02/05	05:19:21.3	-0.9
DPC	1.3	176	P	2022/02/05	05:19:24.0	-0.5
PVCC	1.5	224	P	2022/02/05	05:19:27.9	-0.1
PVCC	1.5	224	S	2022/02/05	05:19:48.0	0.0
KRLC	1.6	165	P	2022/02/05	05:19:29.3	0.3
KRLC	1.6	165	S	2022/02/05	05:19:50.5	0.5
PRU	1.9	214	P	2022/02/05	05:19:33.7	-0.8
PRU	1.9	214	S	2022/02/05	05:19:59.0	-0.7
HSKC	2.0	241	P	2022/02/05	05:19:35.6	0.0
MORC	2.0	155	P	2022/02/05	05:19:35.6	-0.1
OKC	2.2	145	P	2022/02/05	05:19:37.2	-0.4
OJC	2.7	120	P	2022/02/05	05:19:43.6	-1.0
NKC	2.7	241	P	2022/02/05	05:19:45.7	0.1
KHC	3.0	215	P	2022/02/05	05:19:48.6	-0.4
CKRC	3.0	204	P	2022/02/05	05:19:51.2	1.5
MODS	3.3	168	P	2022/02/05	05:19:53.8	0.4
NIE	3.4	128	P	2022/02/05	05:19:55.2	0.3
VYHS	3.6	150	P	2022/02/05	05:19:56.5	-0.1
SOP	3.9	176	P	2022/02/05	05:20:02.1	0.2
KECS	4.2	137	P	2022/02/05	05:20:05.3	0.1
PSZ	4.4	146	P	2022/02/05	05:20:09.1	0.7
CSKK	4.5	162	P	2022/02/05	05:20:09.0	-0.1
BUD	4.5	155	P	2022/02/05	05:20:09.4	-0.6
KWP	4.6	113	P	2022/02/05	05:20:11.8	0.9
BSZH	5.1	147	P	2022/02/05	05:20:18.5	1.1
BEHE	5.2	176	P	2022/02/05	05:20:19.7	1.0
LTVH	5.6	137	P	2022/02/05	05:20:25.8	0.7
KOVH	5.7	166	P	2022/02/05	05:20:25.6	-0.1
RNPP8	6.0	89	P	2022/02/05	05:20:31.6	0.8
AMBH	6.0	149	P	2022/02/05	05:20:31.9	1.0
RNPP9	6.1	88	P	2022/02/05	05:20:31.6	0.6
RNPP5	6.1	90	P	2022/02/05	05:20:31.8	0.6
DRGR	6.4	136	P	2022/02/05	05:20:36.7	0.4
SIRR	6.4	144	P	2022/02/05	05:20:36.3	-0.1
XAEC2	6.9	98	P	2022/02/05	05:20:40.8	-1.2
CJR	6.9	132	P	2022/02/05	05:20:43.3	0.8
BURAR	7.1	121	P	2022/02/05	05:20:46.3	1.5
MI28	7.2	91	P	2022/02/05	05:20:46.9	-0.2
KPD	7.3	111	P	2022/02/05	05:20:47.3	-0.4
MI29	7.4	95	P	2022/02/05	05:20:50.2	0.1
LUBAR	7.5	98	P	2022/02/05	05:20:50.3	-0.8
AK20	8.1	91	P	2022/02/05	05:20:59.0	-0.0
AK19	8.1	91	P	2022/02/05	05:20:59.3	0.1
AK21	8.1	91	P	2022/02/05	05:20:59.5	0.2
AK22	8.1	91	P	2022/02/05	05:20:59.5	0.0
AK18	8.1	91	P	2022/02/05	05:20:59.7	0.1
AK17	8.1	91	P	2022/02/05	05:20:59.7	0.1
AK13	8.2	92	P	2022/02/05	05:20:59.6	-0.2
AK23	8.2	91	P	2022/02/05	05:20:59.6	-0.4
AK16	8.2	92	P	2022/02/05	05:21:00.1	0.1
AK15	8.2	91	P	2022/02/05	05:21:00.0	-0.2
AK14	8.2	92	P	2022/02/05	05:21:00.2	0.0
AK04	8.2	91	P	2022/02/05	05:21:00.3	-0.1
AK12	8.2	92	P	2022/02/05	05:21:00.6	0.0
AK11	8.2	91	P	2022/02/05	05:21:00.6	-0.0
AK03	8.2	91	P	2022/02/05	05:21:00.9	-0.0
AK01	8.2	91	P	2022/02/05	05:21:00.8	-0.1
AK02	8.2	92	P	2022/02/05	05:21:00.6	-0.3
AKBB	8.2	91	P	2022/02/05	05:21:00.9	-0.1
AKBB	8.2	91	S	2022/02/05	05:22:33.9	-1.4
AK05	8.2	92	P	2022/02/05	05:21:00.8	-0.2
AK05	8.2	92	pP	2022/02/05	05:21:03.6	0.4
AK06	8.2	92	P	2022/02/05	05:21:00.8	-0.3
AK07	8.3	92	P	2022/02/05	05:21:00.7	-0.5
AK08	8.3	92	P	2022/02/05	05:21:01.0	-0.5
AK08	8.3	92	pP	2022/02/05	05:21:03.9	0.3
AK09	8.3	92	pP	2022/02/05	05:21:04.1	0.3

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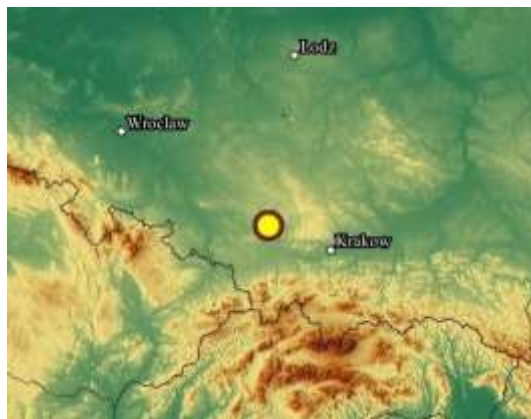
07.02.2022. Poland

$t_0 = 19:34:29$; $\varphi = 50,28^\circ N$; $\lambda = 19,08^\circ E$; $h = 9 \text{ km}$; $ML_v = 3,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/07	19:34:29.7	50.28	19.08	9	MLv 3.70

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
KRLC	1.5	264	P	2022/02/07	19:34:55.9	0.2
KRLC	1.5	264	S	2022/02/07	19:35:16.0	0.7
DPC	1.8	273	P	2022/02/07	19:35:00.5	0.2
OSTC	1.9	280	P	2022/02/07	19:35:01.2	-0.4
KSP	1.9	289	P	2022/02/07	19:35:01.2	-0.5
CHVC	2.0	280	P	2022/02/07	19:35:03.0	-0.1
UPC	2.0	278	P	2022/02/07	19:35:03.1	-0.2
MODS	2.2	212	P	2022/02/07	19:35:07.6	0.6
PSZ	2.4	167	P	2022/02/07	19:35:08.9	-0.6
PVCC	2.9	277	P	2022/02/07	19:35:15.8	-0.2
PRU	2.9	266	P	2022/02/07	19:35:15.8	-0.7
CKRC	3.4	247	P	2022/02/07	19:35:23.0	-0.4
HSKC	3.6	277	P	2022/02/07	19:35:26.1	0.1
DRGR	4.2	144	P	2022/02/07	19:35:34.4	-0.1
NKC	4.3	272	P	2022/02/07	19:35:35.4	0.8
BURAR	4.8	121	P	2022/02/07	19:35:42.6	0.3
XAEC5	4.9	85	P	2022/02/07	19:35:44.2	0.6
KPD	5.1	107	P	2022/02/07	19:35:46.0	-0.4
AK20	6.4	82	P	2022/02/07	19:36:03.6	0.2
AK18	6.4	82	P	2022/02/07	19:36:03.9	-0.0
AK04	6.5	82	P	2022/02/07	19:36:04.8	-0.0
AK01	6.5	82	P	2022/02/07	19:36:05.2	-0.0
AKBB	6.5	82	P	2022/02/07	19:36:05.3	-0.0



08.02.2022. Zona seismică Vrancea

$t_0 = 00:24:47$; $\varphi = 46,76^\circ N$; $\lambda = 27,50^\circ E$; $h = 9 \text{ km}$; $ML_v = 2,2$

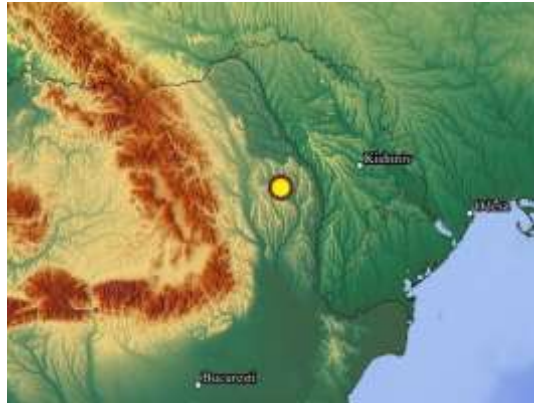
Date	Time	Latitude	Longitude	Depth	Mag
2022/02/01	00:24:47.2	46.76	27.50	9	MLv 2.2

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
TESR	0.6	244	Pg	2022/02/08	00:24:58.3	-0.7

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

KIS	1.0	77	Pg	2022/02/08	00:25:05.1	-0.5
KIS	1.0	77	Sg	2022/02/08	00:25:17.7	-1.0
VRI	1.0	209	Pg	2022/02/08	00:25:07.9	0.7
PLOR	1.1	211	Pg	2022/02/08	00:25:07.5	-0.4
SORM	1.5	24	Pg	2022/02/08	00:25:14.6	-1.1
BURAR	1.8	300	Pn	2022/02/08	00:25:18.3	-0.1
MI26	1.9	51	Pn	2022/02/08	00:25:21.1	1.2
BAL3X	1.9	51	Pn	2022/02/08	00:25:21.0	1.1
KPD	1.9	340	Pn	2022/02/08	00:25:21.2	0.7
KPD	1.9	340	Sn	2022/02/08	00:25:44.9	-0.7
LUBAR	3.1	4	sP	2022/02/08	00:25:40.0	1.1
LUBAR	3.1	4	Pn	2022/02/08	00:25:37.3	-0.2
LUBAR	3.1	4	pP	2022/02/08	00:25:39.0	0.7
TRPA	3.6	294	Pg	2022/02/08	00:25:55.4	-0.7



09.02.2022. Zona seismica Vrancea

$t_0 = 21:21:42$; $\varphi = 44,54^\circ N$; $\lambda = 27,14^\circ E$; $h = 15 \text{ km}$; $ML_v = 2,8$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/09	21:21:42.2	44.54	27.14	15	MLv 2.77

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
TIRR	0.9	95	P	2022/02/09	21:22:00.2	0.3
MLR	1.3	319	P	2022/02/09	21:22:05.0	-0.2
PLOR	1.4	345	P	2022/02/09	21:22:06.8	0.4
VRI	1.4	348	P	2022/02/09	21:22:06.2	-0.2
HUMR	1.5	270	P	2022/02/09	21:22:08.9	-0.2
HUMR	1.5	270	S	2022/02/09	21:22:29.3	-0.1
VOIR	1.7	302	P	2022/02/09	21:22:11.9	0.1
VOIR	1.7	302	S	2022/02/09	21:22:34.9	0.7
ARR	2.0	296	P	2022/02/09	21:22:14.7	-0.2
TESR	2.0	350	P	2022/02/09	21:22:15.0	-0.6



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

09.02.2022. Zona seismică Vrancea

$t_0 = 21:28:50$; $\varphi = 52,88^\circ N$; $\lambda = 27,31^\circ E$; $h = 14 \text{ km}$; $ML_v = 2,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/09	21:28:49.5	52.88	27.31	14	MLv 2.4

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
RNPP9	1.6	209	P	2022/02/09	21:29:17.6	-0.0
MI28	1.9	170	P	2022/02/09	21:29:22.2	0.1
AK21	2.4	149	P	2022/02/09	21:29:27.5	-0.7
AK20	2.4	150	P	2022/02/09	21:29:28.0	-0.5
AK22	2.4	149	P	2022/02/09	21:29:28.0	-0.5
AK19	2.4	150	P	2022/02/09	21:29:28.2	-0.5
AK18	2.4	150	P	2022/02/09	21:29:28.6	-0.3
AKBB	2.5	148	P	2022/02/09	21:29:30.0	0.2
AK11	2.5	149	P	2022/02/09	21:29:30.1	0.2
AK01	2.5	148	P	2022/02/09	21:29:29.9	-0.0
AK14	2.5	150	P	2022/02/09	21:29:30.5	0.3
AK13	2.5	151	P	2022/02/09	21:29:30.4	0.1
AK12	2.5	149	P	2022/02/09	21:29:30.4	0.1
AK02	2.5	149	P	2022/02/09	21:29:30.4	0.1
AK05	2.6	149	P	2022/02/09	21:29:31.1	0.3
AK08	2.6	148	P	2022/02/09	21:29:31.0	0.2
AK06	2.6	150	P	2022/02/09	21:29:31.5	0.4
AK10	2.6	149	P	2022/02/09	21:29:31.6	0.4
AK07	2.6	150	P	2022/02/09	21:29:31.9	0.3



10.02.2022. Poland

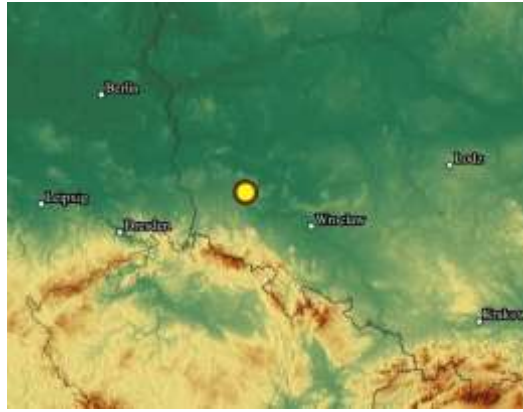
$t_0 = 19:34:24$; $\varphi = 51,47^\circ N$; $\lambda = 15,91^\circ E$; $h = 9 \text{ km}$; $mb = 3,8$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/10	19:34:24.2	51.47	15.91	9	mb 3.75

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
UZH	5.0	122	P	2022/02/10	19:35:38.0	-1.0
BFO	5.8	240	P	2022/02/10	19:35:50.5	0.3
RNPP5	6.3	88	P	2022/02/10	19:35:56.4	0.1
XAEC2	7.0	96	P	2022/02/10	19:36:06.7	-0.0
XAEC4	7.0	95	P	2022/02/10	19:36:07.2	0.5
XAEC4	7.0	95	Sn	2022/02/10	19:37:27.4	-0.0
KPD40	7.4	109	P	2022/02/10	19:36:12.4	0.5
KPD	7.4	109	P	2022/02/10	19:36:12.3	0.4
MI28	7.4	90	P	2022/02/10	19:36:12.3	0.2
LUBAR	7.7	97	P	2022/02/10	19:36:16.1	0.2
MI27	7.7	97	P	2022/02/10	19:36:16.3	0.4
MI29	7.8	91	P	2022/02/10	19:36:16.7	-0.3
AKBB	8.4	90	P	2022/02/10	19:36:25.4	-0.6
MI25	8.6	91	P	2022/02/10	19:36:27.4	-0.7
PDG	9.3	165	P	2022/02/10	19:36:38.7	0.3
VSU	9.4	37	P	2022/02/10	19:36:38.8	-0.1
NC600	9.6	347	P	2022/02/10	19:36:42.6	0.2
FIC1	11.4	25	P	2022/02/10	19:37:07.1	-0.2
KESW	11.9	293	P	2022/02/10	19:37:12.6	-0.4
PAB	18.5	238	P	2022/02/10	19:38:39.3	-0.3
ARD1	18.7	11	P	2022/02/10	19:38:42.4	0.4

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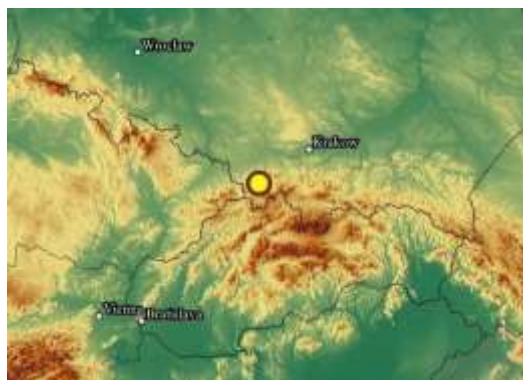
11.02.2022. Poland

$t_0 = 04:10:17$; $\varphi = 49,69^\circ N$; $\lambda = 19,10^\circ E$; $h = 14 \text{ км}$; $mb = 3,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/11	04:10:17.4	49.69	19.10	14	mb 3.55

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
UZH	2.3	116	P	2022/02/11	04:10:55.9	0.5
RNPP5	4.6	68	P	2022/02/11	04:11:25.5	-0.8
RNPP8	4.6	66	P	2022/02/11	04:11:25.8	-0.7
RNPP9	4.7	66	P	2022/02/11	04:11:28.5	1.3
XAEC1	4.9	80	P	2022/02/11	04:11:30.7	0.1
XAEC1	4.9	80	S	2022/02/11	04:12:27.9	-0.2
KPD40	5.0	100	P	2022/02/11	04:11:31.2	-0.1
KPD	5.0	100	P	2022/02/11	04:11:32.3	0.9
XAEC4	5.0	80	P	2022/02/11	04:11:32.8	0.5
LUBAR	5.6	84	P	2022/02/11	04:11:40.8	0.5
MI28	5.6	74	P	2022/02/11	04:11:40.5	-0.0
PABE	6.5	25	P	2022/02/11	04:11:51.8	-1.2
PDG	7.3	179	P	2022/02/11	04:12:03.1	0.1
TIRR	8.2	126	P	2022/02/11	04:12:15.3	-0.9
TIP	10.6	190	P	2022/02/11	04:12:48.2	-1.0
FOEL	14.3	291	P	2022/02/11	04:13:39.9	0.6
BR131	14.3	129	P	2022/02/11	04:13:39.9	0.2
DAG	30.9	344	P	2022/02/11	04:16:31.7	-1.0
SCHQ	49.7	311	P	2022/02/11	04:19:09.1	0.8
FFC	64.9	327	P	2022/02/11	04:20:55.9	0.4



15.02.2022. Poland

$t_0 = 01:08:58$; $\varphi = 51,27^\circ N$; $\lambda = 23,10^\circ E$; $h = 2 \text{ км}$; $ML = 2,6$

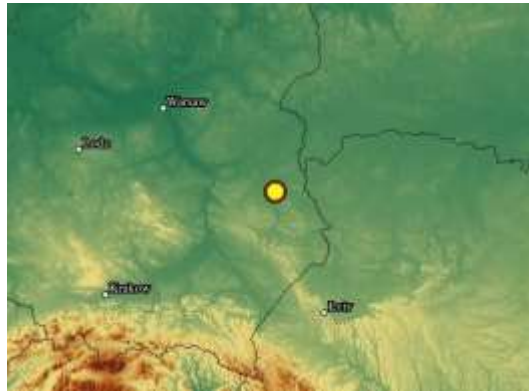
Date	Time	Latitude	Longitude	Depth	Mag
2022/02/15	01:08:58.3	51.27	23.10	2	ML 2.60

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
KWP	1.7	189	Pn	2022/02/15	01:09:28.8	0.1
KWP	1.7	189	Sn	2022/02/15	01:09:51.9	0.3
RNPP8	1.7	88	Sn	2022/02/15	01:09:52.0	-0.4

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RNPP8	1.7	88	Pn	2022/02/15	01:09:29.0	-0.1
RNPP5	1.7	91	Pn	2022/02/15	01:09:29.3	-0.1
RNPP5	1.7	91	Sn	2022/02/15	01:09:53.2	0.3
RNPP9	1.7	85	Pn	2022/02/15	01:09:29.3	-0.1
RNPP9	1.7	85	Sn	2022/02/15	01:09:53.4	0.4
OJC	2.4	244	Sn	2022/02/15	01:10:08.1	-0.1
XAEC1	2.5	113	Pn	2022/02/15	01:09:39.5	0.2
XAEC5	2.5	110	Sn	2022/02/15	01:10:12.1	1.5
XAEC4	2.6	112	Sn	2022/02/15	01:10:13.5	0.0
XAEC4	2.6	112	Pn	2022/02/15	01:09:41.8	1.0
NIE	2.6	225	Pn	2022/02/15	01:09:41.4	0.3
NIE	2.6	225	Sn	2022/02/15	01:10:13.8	-0.2
SUW	2.7	1	Sn	2022/02/15	01:10:16.5	-0.3
MI28	2.9	96	Sn	2022/02/15	01:10:21.2	-0.1
LUBAR	3.3	113	Sn	2022/02/15	01:10:29.8	-0.7
LUBAR	3.3	113	Pn	2022/02/15	01:09:49.4	-0.9
BURAR	3.9	159	sP	2022/02/15	01:10:00.5	0.0
BURAR	3.9	159	Pn	2022/02/15	01:09:59.4	0.2
DRGR	4.5	183	Pn	2022/02/15	01:10:07.7	0.1
SORM	4.7	131	Sn	2022/02/15	01:11:03.2	-1.5



16.02.2022. Belarus

$t_0 = 06:26:25$; $\varphi = 52,88^\circ N$; $\lambda = 27,37^\circ E$; $h = 13 \text{ км}$; $ML = 2,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/16	06:26:25.1	52.88	27.37	13	ML 2.47

BELARUS

Sta	Dist	EvAz	Phase	Date	Time	Res
MI28	2.0	175	Pn	2022/02/16	06:26:56.9	-1.1
MI28	2.0	175	Sn	2022/02/16	06:27:22.1	-1.2
AK21	2.4	153	Pn	2022/02/16	06:27:03.0	-0.3
AK20	2.4	154	Pn	2022/02/16	06:27:03.3	-0.3
AK22	2.4	153	Pn	2022/02/16	06:27:02.9	-0.7
AK22	2.4	153	Sn	2022/02/16	06:27:33.2	-0.2
AK23	2.4	152	Pn	2022/02/16	06:27:03.8	-0.0
AK19	2.4	154	Pn	2022/02/16	06:27:03.6	-0.3
AK19	2.4	154	Sn	2022/02/16	06:27:34.9	1.1
AK18	2.4	153	Pn	2022/02/16	06:27:04.0	-0.1
AK04	2.4	152	Pn	2022/02/16	06:27:04.1	-0.4
AK17	2.4	154	Pn	2022/02/16	06:27:04.5	0.0
AK03	2.4	151	Pn	2022/02/16	06:27:04.8	0.1
AK15	2.4	153	Sn	2022/02/16	06:27:34.5	-0.7
AK16	2.5	153	Pn	2022/02/16	06:27:05.0	0.1
AKBB	2.5	152	Pn	2022/02/16	06:27:04.7	-0.2
AKBB	2.5	152	Sn	2022/02/16	06:27:36.3	0.5
AKBB	2.5	152	sP	2022/02/16	06:27:10.2	0.0
AK11	2.5	153	Pn	2022/02/16	06:27:04.7	-0.3
XAEC5	2.5	189	Pn	2022/02/16	06:27:07.0	1.6
AK14	2.5	154	Pn	2022/02/16	06:27:05.6	0.2
AK12	2.5	153	Pn	2022/02/16	06:27:05.8	0.4
AK02	2.5	152	Pn	2022/02/16	06:27:05.1	-0.4
AK13	2.5	155	Pn	2022/02/16	06:27:05.7	0.3
AK05	2.5	153	Pn	2022/02/16	06:27:06.1	0.2
AK08	2.5	152	Pn	2022/02/16	06:27:05.7	-0.3
AK09	2.6	152	Pn	2022/02/16	06:27:06.3	0.1
AK09	2.6	152	Sn	2022/02/16	06:27:38.6	0.5
AK06	2.6	153	Pn	2022/02/16	06:27:06.6	0.3
AK10	2.6	152	Pn	2022/02/16	06:27:06.3	-0.0

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AK07	2.6	153	Pn	2022/02/16	06:27:07.5	0.8
XAEC2	2.7	188	Sn	2022/02/16	06:27:41.9	0.2
LUBAR	3.0	175	Sn	2022/02/16	06:27:48.8	0.5
MI27	3.0	175	Sn	2022/02/16	06:27:47.9	-0.4



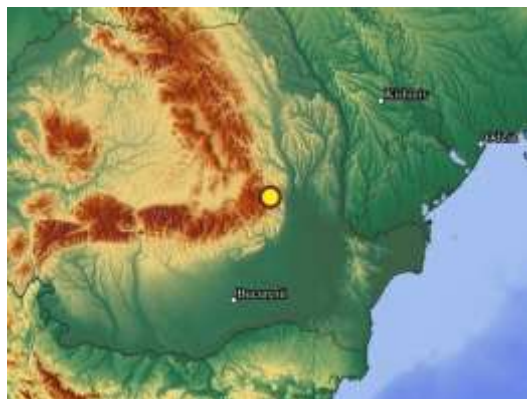
22.02.2022. Zona seismica Vrancea

$t_0 = 13:46:46$; $\varphi = 45,78^\circ N$; $\lambda = 26,79^\circ E$; $h = 74 \text{ km}$; $ML_v = 3,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/02/22	13:46:46.1	45.78	26.79	74	MLv 2.96

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.1	333	P	2022/02/22	13:46:58.2	0.7
VRI	0.1	333	S	2022/02/22	13:47:06.1	-0.1
PLOR	0.1	306	P	2022/02/22	13:46:58.2	0.5
MLR	0.7	244	P	2022/02/22	13:47:02.2	0.2
MLR	0.7	244	S	2022/02/22	13:47:13.5	-0.7
TESR	0.7	352	P	2022/02/22	13:47:02.7	-0.0
TIRR	1.8	138	P	2022/02/22	13:47:14.5	0.0
XAEC5	4.6	360	P	2022/02/22	13:47:53.6	-0.1
XAEC5	4.6	360	S	2022/02/22	13:48:46.8	-0.0
RDO	4.7	192	P	2022/02/22	13:47:54.7	-0.1
AK18	5.2	16	P	2022/02/22	13:48:00.9	0.0
AKBB	5.2	17	P	2022/02/22	13:48:01.1	0.1



22.02.2022. Zona seismica Vrancea

$t_0 = 19:16:23$; $\varphi = 45,69^\circ N$; $\lambda = 26,87^\circ E$; $h = 82 \text{ km}$; $ML_v = 2,9$

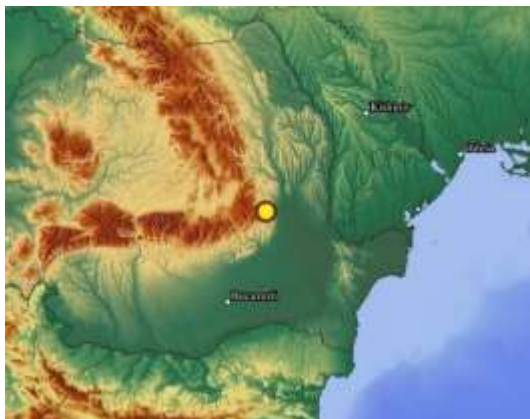
Date	Time	Latitude	Longitude	Depth	Mag
2022/02/22	19:16:23.9	45.69	26.87	82	MLv 2.86

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.2	330	P	2022/02/22	19:16:37.0	-0.0
VRI	0.2	330	S	2022/02/22	19:16:47.4	0.4
PLOR	0.2	316	P	2022/02/22	19:16:36.7	-0.5
MLR	0.7	253	P	2022/02/22	19:16:40.4	-0.3
TESR	0.8	349	P	2022/02/22	19:16:41.6	-0.2
TIRR	1.6	138	S	2022/02/22	19:17:12.6	0.1

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HUMR	1.8	230	P	2022/02/22	19:16:53.2	0.2
BURAR	2.3	330	P	2022/02/22	19:17:00.1	0.7
SORM	2.6	22	P	2022/02/22	19:17:04.5	0.0
PLVB	2.8	216	P	2022/02/22	19:17:06.7	-0.0
KPD	2.9	355	P	2022/02/22	19:17:07.0	-0.7
BAL3X	2.9	39	P	2022/02/22	19:17:08.2	-0.1
LUBAR	4.3	8	P	2022/02/22	19:17:26.4	-0.0
AK14	5.2	16	P	2022/02/22	19:17:38.8	0.2
AK12	5.2	16	P	2022/02/22	19:17:39.5	0.6
MI28	5.3	5	P	2022/02/22	19:17:39.8	-0.3



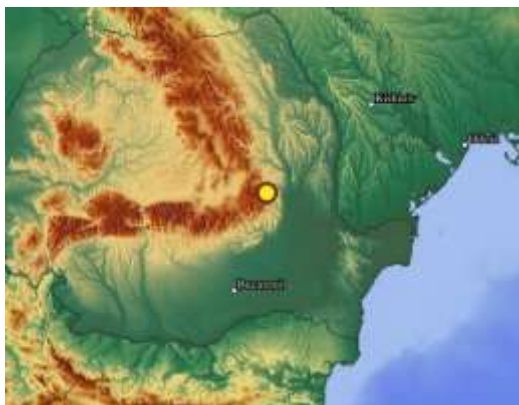
13.03.2022. Zona seismică Vrancea

$t_0 = 22:31:05$; $\varphi = 45,80^\circ N$; $\lambda = 26,76^\circ E$; $h = 102 \text{ km}$; $mb = 4.11$

Date	Time	Latitude	Longitude	Depth	Mag
2022/03/13	22:31:05.9	45.80	26.76	102	mb 4.11

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
TIRR	1.8	138	P	2022/03/13	22:31:36.1	0.4
TIRR	1.8	138	S	2022/03/13	22:31:58.3	-0.6
KPD	2.8	356	P	2022/03/13	22:31:48.5	-0.0
BAL3X	2.9	41	P	2022/03/13	22:31:50.2	-0.0
MI26	2.9	41	P	2022/03/13	22:31:50.5	0.3
UZH	4.2	315	P	2022/03/13	22:32:07.4	0.3
LUBAR	4.2	9	P	2022/03/13	22:32:07.8	0.4
AKBB	5.2	18	P	2022/03/13	22:32:21.4	0.5
RNPP5	5.5	354	P	2022/03/13	22:32:25.0	0.3
RNPP8	5.6	354	P	2022/03/13	22:32:26.4	0.2
RNPP9	5.6	354	P	2022/03/13	22:32:27.6	0.4
PABE	9.9	351	P	2022/03/13	22:33:23.6	-1.0
VSU	12.7	360	P	2022/03/13	22:34:00.1	-2.1
KESW	20.9	306	P	2022/03/13	22:35:40.2	0.4
ARTI	22.3	50	P	2022/03/13	22:35:55.2	0.6



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

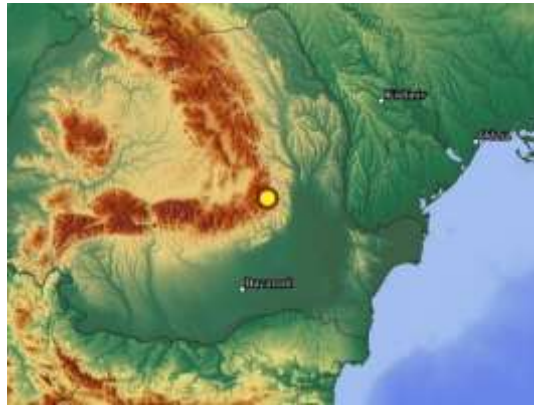
14.03.2022. Zona seismică Vrancea

$t_0 = 07:32:07$; $\varphi = 45,70^\circ N$; $\lambda = 26,60^\circ E$; $h = 100 \text{ km}$; $ML_v = 4,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/03/14	07:32:07.5	45.70	26.60	100	MLv 4.23

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
TIRR	1.8	134	P	2022/03/14	07:32:40.0	-0.0
KPD	2.8	358	P	2022/03/14	07:32:52.1	0.1
BAL3X	3.0	42	P	2022/03/14	07:32:54.3	-0.3
MI26	3.0	42	P	2022/03/14	07:32:55.1	0.5
LUBAR	4.2	10	P	2022/03/14	07:33:10.1	-0.6
AKBB	5.3	19	P	2022/03/14	07:33:24.1	0.1
RNPP5	5.5	355	P	2022/03/14	07:33:27.3	0.0
RNPP8	5.6	355	P	2022/03/14	07:33:28.5	-0.2
RNPP9	5.7	356	P	2022/03/14	07:33:30.1	0.4



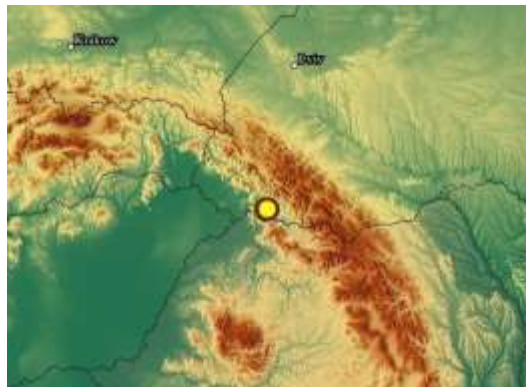
19.03.2022. Ukraine, Transcarpathian region

$t_0 = 11:22:02$; $\varphi = 48,13^\circ N$; $\lambda = 23,52^\circ E$; $h = 3 \text{ km}$; $ML_v = 2,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/03/19	11:22:02.5	48.13	23.52	3	MLv 2.30

UKRAINE

Sta	Dist	EvAz	Phase	Date	Time	Res
TRPA	0.7	270	Pg	2022/03/19	11:22:14.8	-0.3
UZH	1.0	302	Pg	2022/03/19	11:22:20.9	0.1
UZH	1.0	302	Sg	2022/03/19	11:22:34.5	0.5
KOLS	1.2	314	Pg	2022/03/19	11:22:24.2	-0.4
BURAR	1.2	113	Pg	2022/03/19	11:22:26.8	0.8
BURAR	1.2	113	Sg	2022/03/19	11:22:42.4	-0.5
KPD	2.0	76	Pn	2022/03/19	11:22:37.4	0.3
KPD	2.0	76	Sn	2022/03/19	11:23:03.5	0.0
PSZ	2.4	266	Pn	2022/03/19	11:22:42.8	-0.3
AK05	4.5	54	Lg	2022/03/19	11:24:22.3	-0.1
AK22	4.5	52	Lg	2022/03/19	11:24:22.6	0.1
AKBB	4.5	53	Lg	2022/03/19	11:24:23.8	-0.3



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

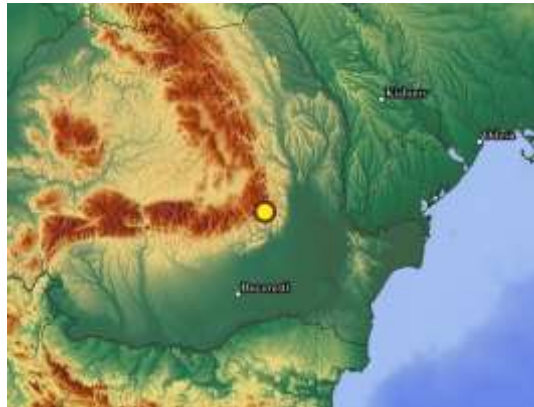
23.03.2022. Zona seismică Vrancea

$t_0 = 21:12:45$; $\varphi = 45,54^\circ N$; $\lambda = 26,62^\circ E$; $h = 136 \text{ km}$; $ML_v = 3,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/03/23	21:12:45.7	45.54	26.62	136	MLv 3.53

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.3	13	P	2022/03/23	21:13:05.8	0.1
VRI	0.3	13	S	2022/03/23	21:13:21.0	-0.2
MLR	0.5	264	P	2022/03/23	21:13:06.4	-0.0
TESR	1.0	1	P	2022/03/23	21:13:09.2	0.2
VOIR	1.1	265	P	2022/03/23	21:13:10.2	-0.0
ARR	1.4	264	P	2022/03/23	21:13:13.3	-0.0
ARR	1.4	264	S	2022/03/23	21:13:34.7	-0.1
HUMR	1.5	230	P	2022/03/23	21:13:14.8	0.0
BURAR	2.3	336	P	2022/03/23	21:13:24.7	0.8
DEV	2.6	279	P	2022/03/23	21:13:27.6	-0.1
RNPP1	5.8	355	P	2022/03/23	21:14:09.3	-0.7



30.03.2022. Zona seismică Vrancea

$t_0 = 06:48:34$; $\varphi = 45,59^\circ N$; $\lambda = 26,54^\circ E$; $h = 123 \text{ km}$; $ML_v = 2,9$

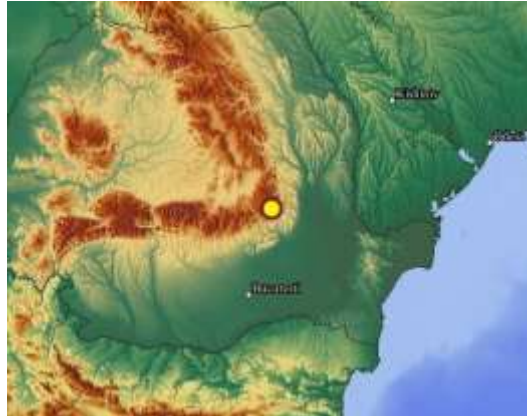
Date	Time	Latitude	Longitude	Depth	Mag
2022/03/30	06:48:34.7	45.59	26.54	123	MLv 2.90

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.33	26.5	P	2022/03/30	06:48:53.929	0.7
PLOR	0.29	18.2	P	2022/03/30	06:48:53.956	0.8
MLR	0.41	258.5	P	2022/03/30	06:48:54.176	0.4
PANC	0.53	55.6	P	2022/03/30	06:48:55.099	0.9
PLAR	0.75	207.8	P	2022/03/30	06:48:56.417	0.7
TUDR	0.80	88.2	P	2022/03/30	06:48:56.467	0.4
DOPR	0.88	296.9	P	2022/03/30	06:48:56.522	-0.3
TESR	0.94	5.4	P	2022/03/30	06:48:56.756	-0.6
SULR	0.92	191.9	P	2022/03/30	06:48:57.601	0.5
NEGRR	0.95	91.8	P	2022/03/30	06:48:57.973	0.6
VOIR	1.04	262.9	P	2022/03/30	06:48:58.049	-0.3
CFR	1.20	108.7	P	2022/03/30	06:49:00.100	0.3
STFAR	1.31	237.6	P	2022/03/30	06:49:01.210	0.3
HARR	1.33	131.2	P	2022/03/30	06:49:01.517	0.4
VASR	1.38	39.1	P	2022/03/30	06:49:01.663	-0.0
ARR	1.34	261.7	P	2022/03/30	06:49:01.695	0.4
TPGR	1.52	117.5	P	2022/03/30	06:49:03.273	0.1
TIRR	1.74	129.2	P	2022/03/30	06:49:05.489	-0.2
PLOR	0.29	18.2	S	2022/03/30	06:49:07.585	0.1
VRI	0.33	26.5	S	2022/03/30	06:49:07.884	0.3
MLR	0.41	258.5	S	2022/03/30	06:49:08.440	-0.2
ODBI	0.42	63.1	S	2022/03/30	06:49:09.326	1.1
PANC	0.53	55.6	S	2022/03/30	06:49:10.096	0.8
TUDR	0.80	88.2	S	2022/03/30	06:49:12.128	-0.5
DOPR	0.88	296.9	S	2022/03/30	06:49:12.979	-1.0
SULR	0.92	191.9	S	2022/03/30	06:49:13.769	-0.6
TESR	0.94	5.4	S	2022/03/30	06:49:14.044	-0.8
NEGRR	0.95	91.8	S	2022/03/30	06:49:15.453	0.5
VOIR	1.04	262.9	S	2022/03/30	06:49:15.961	-0.7
SORM	2.85	25.4	P	2022/03/30	06:49:18.732	-0.8

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CFR	1.20	108.7	S	2022/03/30	06:49:18.815	-0.4
HARR	1.33	131.2	S	2022/03/30	06:49:21.422	-0.2
ARR	1.34	261.7	S	2022/03/30	06:49:22.085	0.1
VASR	1.38	39.1	S	2022/03/30	06:49:22.195	-0.5
TPGR	1.52	117.5	S	2022/03/30	06:49:24.465	-0.9
TIRR	1.74	129.2	S	2022/03/30	06:49:28.740	-1.1



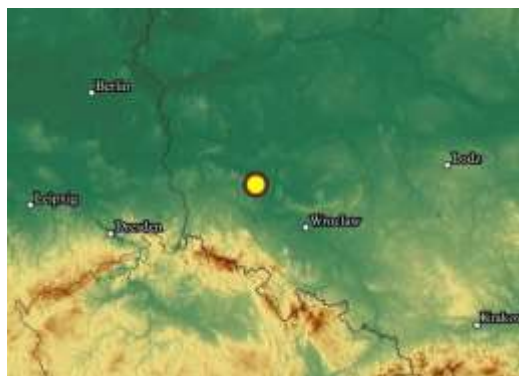
31.03.2022. Poland

$t_0 = 14:07:48$; $\varphi = 51,56^\circ N$; $\lambda = 16,19^\circ E$; $h = 4 \text{ km}$; $ML_v = 3,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/03/31	14:07:48.2	51.56	16.19	4	ML _v 3.34

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
KSP	0.7	175	P	2022/03/31	14:08:02.3	0.1
KSP	0.7	175	S	2022/03/31	14:08:12.3	0.0
CHVC	1.0	185	P	2022/03/31	14:08:06.9	0.1
OSTC	1.0	179	P	2022/03/31	14:08:07.6	0.2
UPC	1.1	186	P	2022/03/31	14:08:08.2	-0.1
DPC	1.2	176	P	2022/03/31	14:08:10.4	-0.3
PVCC	1.5	225	P	2022/03/31	14:08:14.4	-0.1
KRLC	1.5	164	P	2022/03/31	14:08:15.4	-0.1
RUE	1.7	303	P	2022/03/31	14:08:18.9	-0.1
PRA	1.9	217	P	2022/03/31	14:08:20.1	-0.5
PRU	1.9	214	P	2022/03/31	14:08:20.6	-0.4
HSKC	2.0	242	P	2022/03/31	14:08:23.6	1.2
MORC	2.0	154	P	2022/03/31	14:08:21.9	-0.4
OJC	2.7	119	P	2022/03/31	14:08:31.6	-0.0
NKC	2.7	242	P	2022/03/31	14:08:32.5	0.0
KHC	2.9	216	P	2022/03/31	14:08:35.3	-0.4
CKRC	3.0	204	P	2022/03/31	14:08:36.2	-0.1
PSZ	4.4	145	P	2022/03/31	14:08:56.1	1.0
KOLS	4.7	122	P	2022/03/31	14:09:00.4	0.6
AK20	8.1	91	P	2022/03/31	14:09:45.7	-0.8
AKBB	8.2	91	P	2022/03/31	14:09:48.5	0.1



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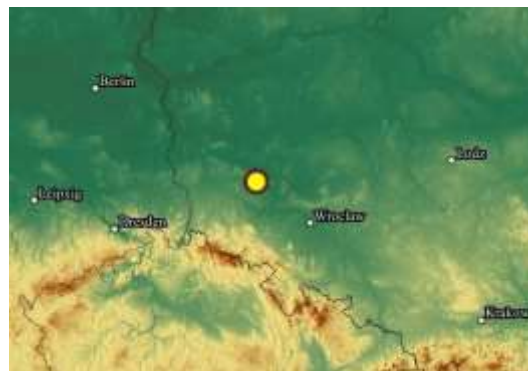
07.04.2022. Poland

$t_0 = 16:58:45$; $\varphi = 51,54^\circ N$; $\lambda = 16,14^\circ E$; $h = 5 \text{ km}$; $mb = 4,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/04/07	16:58:45.3	51.54	16.14	5	mb 4.29

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
KSP	0.7	172	P	2022/04/07	16:58:58.5	-0.5
CHVC	1.0	183	P	2022/04/07	16:59:03.3	-0.2
OSTC	1.0	177	P	2022/04/07	16:59:03.9	-0.3
UPC	1.0	184	P	2022/04/07	16:59:04.5	-0.5
DPC	1.2	174	P	2022/04/07	16:59:07.3	-0.3
PVCC	1.4	225	P	2022/04/07	16:59:11.5	0.5
KRLC	1.5	163	P	2022/04/07	16:59:13.0	0.7
KRLC	1.5	163	S	2022/04/07	16:59:32.5	-0.2
RUE	1.7	304	P	2022/04/07	16:59:15.7	-0.0
PRA	1.8	217	P	2022/04/07	16:59:17.0	-0.1
PRU	1.9	214	P	2022/04/07	16:59:17.2	-0.3
PRU	1.9	214	S	2022/04/07	16:59:41.0	-1.1
HSKC	1.9	242	P	2022/04/07	16:59:18.4	-0.4
MORC	2.0	153	P	2022/04/07	16:59:18.5	-0.8
OKC	2.1	142	P	2022/04/07	16:59:20.9	-0.6
OJC	2.7	118	P	2022/04/07	16:59:27.9	-1.0
NKC	2.7	242	P	2022/04/07	16:59:29.4	0.4
KHC	2.9	215	P	2022/04/07	16:59:32.0	-0.2
CKRC	3.0	204	P	2022/04/07	16:59:33.5	0.6
MODS	3.3	167	P	2022/04/07	16:59:37.5	0.6
VYHS	3.5	149	P	2022/04/07	16:59:40.9	0.5
SOP	3.9	176	P	2022/04/07	16:59:45.8	0.5
PSZ	4.4	145	P	2022/04/07	16:59:52.7	0.5
KWP	4.6	112	P	2022/04/07	16:59:55.6	0.2
KOLS	4.7	121	P	2022/04/07	16:59:57.3	0.3
SUW	4.9	57	P	2022/04/07	17:00:00.8	0.7
TRPA	5.4	127	P	2022/04/07	17:00:06.4	0.5
MORH	5.6	162	P	2022/04/07	17:00:09.2	0.4
LTVH	5.6	136	P	2022/04/07	17:00:09.8	0.6
KOVH	5.6	166	P	2022/04/07	17:00:09.8	0.6
RNPP8	6.1	88	P	2022/04/07	17:00:15.9	0.2
RNPP9	6.1	87	P	2022/04/07	17:00:16.0	0.1
RNPP5	6.1	89	P	2022/04/07	17:00:16.3	0.2
SIRR	6.4	143	P	2022/04/07	17:00:20.6	0.3
DRGR	6.4	135	P	2022/04/07	17:00:21.0	0.7
XAEC1	6.8	96	P	2022/04/07	17:00:24.1	-1.0
XAEC5	6.8	95	P	2022/04/07	17:00:25.7	0.4
XAEC2	6.9	97	P	2022/04/07	17:00:25.5	-1.2
XAEC4	6.9	96	P	2022/04/07	17:00:27.1	0.4
BURAR	7.1	120	P	2022/04/07	17:00:29.8	0.7
KPD	7.3	110	P	2022/04/07	17:00:32.4	0.2
LUBAR	7.6	98	P	2022/04/07	17:00:35.2	-0.6
MDVR	7.7	149	P	2022/04/07	17:00:38.4	0.3
AK20	8.1	91	P	2022/04/07	17:00:43.8	-0.1
AK19	8.1	91	P	2022/04/07	17:00:43.8	-0.2
AK21	8.2	90	P	2022/04/07	17:00:43.9	-0.2
AK22	8.2	90	P	2022/04/07	17:00:43.9	-0.5
AK02	8.3	91	P	2022/04/07	17:00:45.4	-0.4
AKBB	8.3	91	P	2022/04/07	17:00:45.3	-0.6
AK05	8.3	91	P	2022/04/07	17:00:45.2	-0.7
VOIR	8.5	132	P	2022/04/07	17:00:49.3	0.4
BNI	9.0	228	P	2022/04/07	17:00:56.7	0.3



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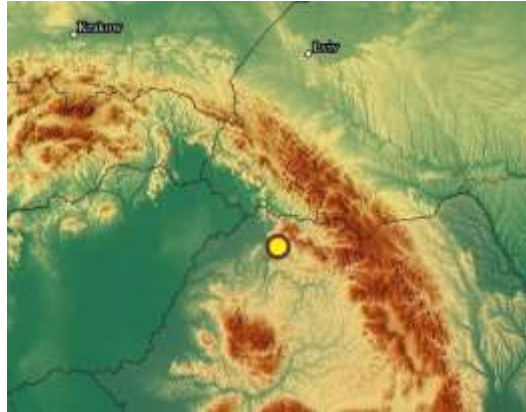
12.04.2022. Zona seismică Vrancea

$t_0 = 10:26:29$; $\varphi = 47,64^\circ N$; $\lambda = 23,48^\circ E$; $h = 9 \text{ km}$; $ML_v = 1,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/04/12	10:26:29.5	47.64	23.48	9	MLv 1.43

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
TRPA	0.8	308	LR	2022/04/12	10:26:59.1	0.1
BURAR	1.2	89	Pg	2022/04/12	10:26:50.2	-0.1
UZH	1.3	321	Pg	2022/04/12	10:26:51.6	-0.7
KOLS	1.5	328	Sg	2022/04/12	10:27:17.4	-0.4
KOLS	1.5	328	Pg	2022/04/12	10:26:57.9	1.1
KPD	2.2	64	Pn	2022/04/12	10:27:06.3	-0.3
KPD	2.2	64	Sn	2022/04/12	10:27:34.4	0.3



16.04.2022. Poland

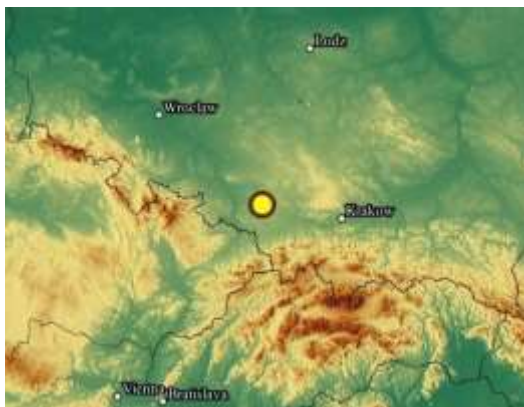
$t_0 = 18:46:44$; $\varphi = 50,20^\circ N$; $\lambda = 18,69^\circ E$; $h = 10 \text{ km}$; $ML_v = 2,9$

Date	Time	Latitude	Longitude	Depth	Mag
2022/04/16	18:46:44.0	50.20	18.69	10	MLv 2.92

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
OKC	0.5	224	P	2022/04/16	18:46:53.7	-0.9
OJC	0.7	88	P	2022/04/16	18:46:56.7	-1.4
OJC	0.7	88	S	2022/04/16	18:47:07.7	-0.6
MORC	0.9	240	P	2022/04/16	18:46:59.7	-0.8
MORC	0.9	240	S	2022/04/16	18:47:12.2	-0.4
KRLC	1.2	266	P	2022/04/16	18:47:05.5	-0.5
KRLC	1.2	266	S	2022/04/16	18:47:22.5	0.1
NIE	1.3	126	P	2022/04/16	18:47:07.9	0.1
DPC	1.5	276	P	2022/04/16	18:47:11.2	0.3
DPC	1.5	276	S	2022/04/16	18:47:31.9	0.7
OSTC	1.6	283	P	2022/04/16	18:47:12.4	0.1
KSP	1.7	294	P	2022/04/16	18:47:12.6	-0.3
VYHS	1.7	177	P	2022/04/16	18:47:13.7	0.0
CHVC	1.7	284	P	2022/04/16	18:47:14.5	0.6
UPC	1.7	281	P	2022/04/16	18:47:14.8	0.7
BEL	2.1	38	P	2022/04/16	18:47:19.5	0.3
PSZ	2.4	160	P	2022/04/16	18:47:24.0	0.5
KOLS	2.7	117	P	2022/04/16	18:47:27.5	0.7
PVCC	2.7	279	P	2022/04/16	18:47:26.8	-0.0
PRU	2.7	267	P	2022/04/16	18:47:26.0	-1.1
TRPA	3.3	128	P	2022/04/16	18:47:35.8	0.6
KHC	3.5	254	P	2022/04/16	18:47:38.0	-0.2
BEHE	3.9	200	P	2022/04/16	18:47:45.6	1.0
BURAR	5.0	118	P	2022/04/16	18:47:59.4	0.4

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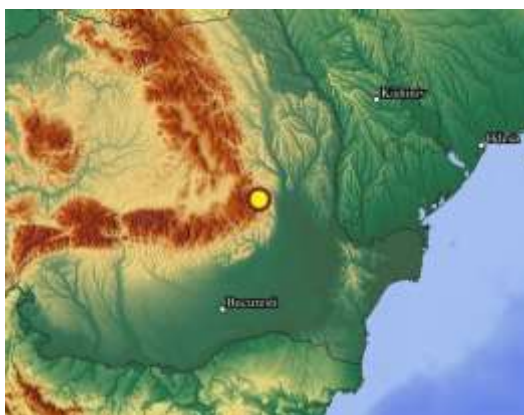
21.04.2022. Zona seismică Vrancea

$t_0 = 07:33:54$; $\varphi = 45,80^\circ N$; $\lambda = 26,75^\circ E$; $h = 116 \text{ km}$; $ML_v = 3,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/04/21	07:33:54.3	45.80	26.75	116	ML _v 3.46

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.1	346	P	2022/04/21	07:34:10.8	0.3
PLOR	0.1	306	P	2022/04/21	07:34:10.7	0.1
MLR	0.6	242	P	2022/04/21	07:34:13.7	-0.3
TESR	0.7	354	P	2022/04/21	07:34:13.7	-0.6
VOIR	1.2	254	P	2022/04/21	07:34:19.0	0.2
ARR	1.5	254	P	2022/04/21	07:34:22.7	0.5
TIRR	1.8	138	P	2022/04/21	07:34:25.2	0.2
HUMR	1.8	225	P	2022/04/21	07:34:24.7	-0.3
PLVB	2.9	213	P	2022/04/21	07:34:38.4	-0.2
MDVR	3.7	256	P	2022/04/21	07:34:49.6	-0.1
AK07	5.0	18	P	2022/04/21	07:35:07.5	0.0
AK06	5.1	18	P	2022/04/21	07:35:07.9	0.0
AK14	5.1	17	P	2022/04/21	07:35:08.2	0.0
AK10	5.1	18	P	2022/04/21	07:35:08.7	0.5
AK05	5.1	18	P	2022/04/21	07:35:08.7	0.3
AK12	5.1	17	P	2022/04/21	07:35:08.6	0.0
AK09	5.1	18	P	2022/04/21	07:35:08.6	0.1
AK17	5.1	17	P	2022/04/21	07:35:08.5	-0.3
AK02	5.1	18	P	2022/04/21	07:35:08.8	-0.1
AK11	5.1	17	P	2022/04/21	07:35:08.7	-0.3
AK15	5.1	17	P	2022/04/21	07:35:09.2	0.1
AK19	5.2	16	P	2022/04/21	07:35:08.7	-0.5
AK18	5.2	17	P	2022/04/21	07:35:09.0	-0.3
AKBB	5.2	18	P	2022/04/21	07:35:09.8	0.4



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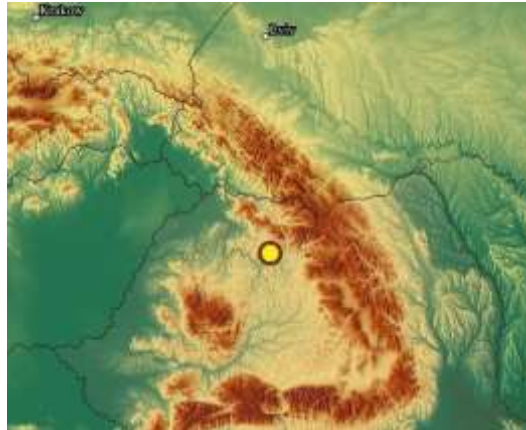
24.04.2022. Zona seismică Vrancea

$t_0 = 07:41:46$; $\varphi = 47,30^\circ N$; $\lambda = 24,09^\circ E$; $h = 10 \text{ km}$; $ML_v = 2,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/04/24	07:41:46.2	47.30	24.09	10	MLv 2.47

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
DEV	1.6	210	Pn	2022/04/24	07:42:14.4	-0.5
UZH	1.8	318	Pn	2022/04/24	07:42:16.0	-1.0
TESR	1.9	113	Pn	2022/04/24	07:42:18.6	-0.4
SIRR	2.0	239	Pn	2022/04/24	07:42:19.7	0.2
ARR	2.0	169	Pn	2022/04/24	07:42:20.0	0.4
VOIR	2.0	160	Pn	2022/04/24	07:42:20.1	0.4
VOIR	2.0	160	Sn	2022/04/24	07:42:45.4	0.0
KOLS	2.0	324	Pn	2022/04/24	07:42:21.6	1.2
AK17	4.7	42	Pn	2022/04/24	07:42:57.5	0.4
AK19	4.7	42	Pn	2022/04/24	07:42:57.1	-0.1
AK16	4.7	43	Pn	2022/04/24	07:42:56.7	-0.6
AK12	4.7	43	Pn	2022/04/24	07:42:57.3	-0.0
AK20	4.7	41	Pn	2022/04/24	07:42:56.9	-0.5
AK10	4.7	44	Pn	2022/04/24	07:42:57.8	0.3
AK08	4.8	44	Pn	2022/04/24	07:42:58.1	0.2
AK21	4.8	41	Pn	2022/04/24	07:42:57.8	-0.1
AK09	4.8	44	Pn	2022/04/24	07:42:57.9	-0.0
AK22	4.8	42	Pn	2022/04/24	07:42:58.1	0.1
AK01	4.8	43	Pn	2022/04/24	07:42:58.1	-0.0
AK03	4.8	43	Pn	2022/04/24	07:42:58.4	-0.1
MI25	4.8	45	Pn	2022/04/24	07:42:59.1	0.3
PDG	6.0	217	Pn	2022/04/24	07:43:14.1	-0.2



25.04.2022. Zona seismică Vrancea

$t_0 = 01:21:20$; $\varphi = 45,42^\circ N$; $\lambda = 27,02^\circ E$; $h = 16 \text{ km}$; $ML_v = 3,2$

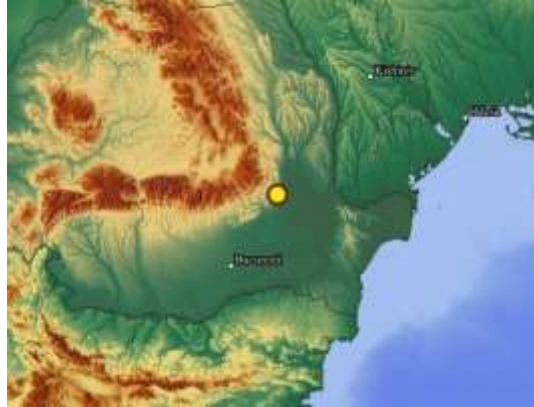
Date	Time	Latitude	Longitude	Depth	Mag
2022/04/25	01:21:20.1	45.42	27.02	16	MLv 3.17

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.5	336	P	2022/04/25	01:21:30.1	-0.6
PLOR	0.5	330	P	2022/04/25	01:21:30.5	-0.5
PLOR	0.5	330	S	2022/04/25	01:21:39.7	0.8
MLR	0.8	276	P	2022/04/25	01:21:34.6	-0.5
TESR	1.1	347	P	2022/04/25	01:21:41.6	0.8
TIRR	1.4	134	P	2022/04/25	01:21:45.2	0.7
VOIR	1.4	272	P	2022/04/25	01:21:45.1	0.5
ARR	1.7	269	P	2022/04/25	01:21:49.7	1.0
HUMR	1.7	239	P	2022/04/25	01:21:47.9	-1.0
BURAR	2.6	331	P	2022/04/25	01:22:02.0	1.1
CJR	2.7	300	P	2022/04/25	01:22:02.4	-0.6
SORM	2.9	18	P	2022/04/25	01:22:04.7	-0.5
DEV	2.9	281	P	2022/04/25	01:22:06.7	0.8
DRGR	3.3	296	P	2022/04/25	01:22:10.6	-0.4
SIRR	3.8	285	P	2022/04/25	01:22:18.1	-0.3
RDO	4.4	195	P	2022/04/25	01:22:26.2	-0.0
ALN	4.6	189	P	2022/04/25	01:22:28.8	0.2
KOLS	4.8	319	P	2022/04/25	01:22:32.0	0.6

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AK06	5.4	15	P	2022/04/25	01:22:39.7	0.1
AK18	5.5	14	P	2022/04/25	01:22:40.6	-0.5
AKBB	5.5	15	P	2022/04/25	01:22:41.4	0.2
AK04	5.5	14	P	2022/04/25	01:22:40.4	-0.9
PSZ	5.5	300	P	2022/04/25	01:22:40.4	-1.0



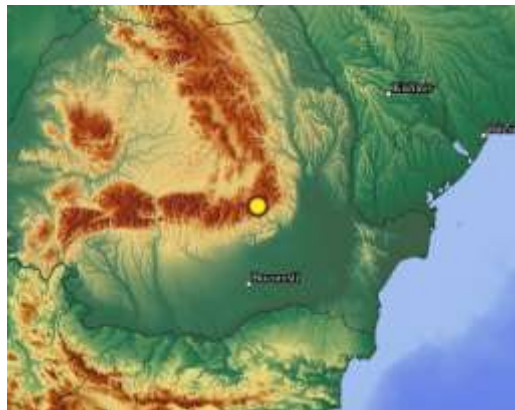
25.04.2022. Zona seismica Vrancea

$t_0 = 02:56:44$; $\varphi = 45,50^\circ N$; $\lambda = 26,29^\circ E$; $h = 130 \text{ km}$; $ML_v = 3,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/04/25	02:56:44.0	45.50	26.29	130	MLv 3.27

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
MLR	0.2	268	P	2022/04/25	02:57:03.1	0.5
MLR	0.2	268	S	2022/04/25	02:57:16.8	-0.6
PLOR	0.4	36	P	2022/04/25	02:57:03.2	-0.5
VRI	0.5	40	P	2022/04/25	02:57:03.9	-0.1
VRI	0.5	40	S	2022/04/25	02:57:20.7	0.9
VOIR	0.9	266	P	2022/04/25	02:57:05.9	-0.4
TESR	1.0	14	P	2022/04/25	02:57:07.4	-0.1
ARR	1.2	264	P	2022/04/25	02:57:08.8	-0.1
ARR	1.2	264	S	2022/04/25	02:57:28.9	0.5
HUMR	1.3	224	P	2022/04/25	02:57:10.0	-0.7
TIRR	1.8	124	P	2022/04/25	02:57:16.3	0.0
CJR	2.2	304	P	2022/04/25	02:57:21.1	0.1
BURAR	2.3	341	P	2022/04/25	02:57:22.7	1.1
DEV	2.4	280	P	2022/04/25	02:57:23.3	0.1
PLVB	2.4	210	P	2022/04/25	02:57:23.0	-0.5
PURM	2.7	66	P	2022/04/25	02:57:27.0	0.1
DRGR	2.8	299	P	2022/04/25	02:57:27.5	-0.6
SORM	3.0	28	P	2022/04/25	02:57:29.9	-0.7
KPD	3.1	2	P	2022/04/25	02:57:31.1	-0.4
SIRR	3.3	285	P	2022/04/25	02:57:34.9	0.2
TRPA	3.7	317	P	2022/04/25	02:57:39.5	0.0
RDO	4.4	187	P	2022/04/25	02:57:49.8	1.1
LUBAR	4.5	12	P	2022/04/25	02:57:50.9	0.3
AK17	5.5	19	P	2022/04/25	02:58:03.0	-0.4
AK18	5.5	19	P	2022/04/25	02:58:03.3	-0.6
AKBB	5.6	20	P	2022/04/25	02:58:04.4	0.2
RNPP5	5.7	357	P	2022/04/25	02:58:07.1	0.6



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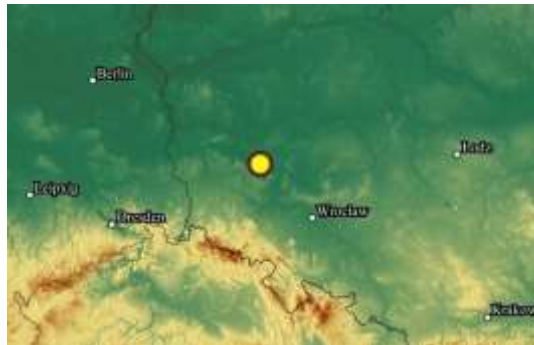
27.04.2022. Poland

$t_0 = 18:53:25$; $\varphi = 51,66^\circ N$; $\lambda = 16,18^\circ E$; $h = 11 \text{ km}$; $mb = 4,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/04/27	18:53:25.3	51.66	16.18	11	mb 4.61

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
UPC	1.2	185	P	2022/04/27	18:53:46.4	-0.3
UPC	1.2	185	S	2022/04/27	18:54:02.1	-0.4
PVCC	1.5	223	P	2022/04/27	18:53:52.4	0.3
KRLC	1.6	165	P	2022/04/27	18:53:53.6	0.1
KRLC	1.6	165	S	2022/04/27	18:54:15.1	0.2
PRA	1.9	216	P	2022/04/27	18:53:58.0	-0.1
PRU	2.0	213	P	2022/04/27	18:53:58.1	-0.4
MORC	2.1	155	P	2022/04/27	18:53:59.6	-0.4
MORC	2.1	155	S	2022/04/27	18:54:26.8	0.2
NKC	2.8	240	P	2022/04/27	18:54:09.5	0.1
KHC	3.0	214	P	2022/04/27	18:54:12.9	-0.2
CKRC	3.1	204	P	2022/04/27	18:54:14.2	0.3
VYHS	3.6	151	P	2022/04/27	18:54:20.9	-0.0
PSZ	4.4	146	P	2022/04/27	18:54:33.0	0.4
CSKK	4.5	162	P	2022/04/27	18:54:33.4	-0.1
KOLS	4.8	123	P	2022/04/27	18:54:37.3	0.4
MORH	5.7	162	P	2022/04/27	18:54:49.7	0.1
AMBH	6.1	149	P	2022/04/27	18:54:55.5	0.3
AK21	8.1	91	P	2022/04/27	18:55:23.1	0.0
AK22	8.1	91	P	2022/04/27	18:55:23.4	0.0
AK18	8.2	92	P	2022/04/27	18:55:23.5	0.1
AK17	8.2	92	P	2022/04/27	18:55:23.5	0.1
AK13	8.2	92	P	2022/04/27	18:55:23.7	0.1
AK16	8.2	92	P	2022/04/27	18:55:24.0	0.1
AK15	8.2	92	P	2022/04/27	18:55:24.0	0.1
AK14	8.2	92	P	2022/04/27	18:55:23.9	-0.1
AKBB	8.3	92	P	2022/04/27	18:55:24.7	-0.1
AKBB	8.3	92	S	2022/04/27	18:56:58.3	-0.8



28.04.2022. Poland

$t_0 = 20:14:01$; $\varphi = 50,28^\circ N$; $\lambda = 18,77^\circ E$; $h = 2 \text{ km}$; $MLv = 3,1$

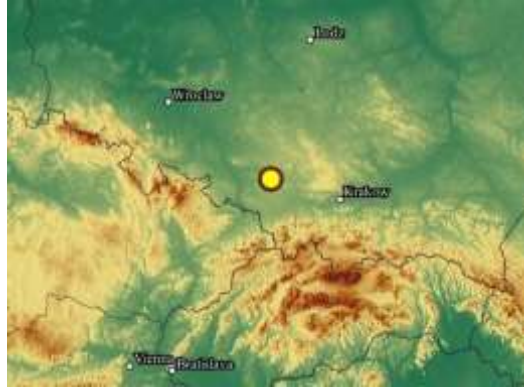
Date	Time	Latitude	Longitude	Depth	Mag
2022/04/28	20:14:01.3	50.28	18.77	2	MLv 3.14

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
OJC	0.7	95	P	2022/04/28	20:14:12.9	-1.1
OJC	0.7	95	S	2022/04/28	20:14:22.8	-0.1
NIE	1.3	130	P	2022/04/28	20:14:25.5	-0.1
NIE	1.3	130	S	2022/04/28	20:14:44.3	0.9
DPC	1.6	273	P	2022/04/28	20:14:29.1	-0.5
DPC	1.6	273	S	2022/04/28	20:14:51.6	1.0
KSP	1.7	290	P	2022/04/28	20:14:30.2	-1.0
KSP	1.7	290	S	2022/04/28	20:14:54.0	0.5
KWP	2.6	103	P	2022/04/28	20:14:44.6	0.1
KWP	2.6	103	S	2022/04/28	20:15:18.1	0.5
TRPA	3.3	130	P	2022/04/28	20:14:52.4	-1.1
KHC	3.6	253	P	2022/04/28	20:14:56.9	-0.6
RNPP5	4.6	75	P	2022/04/28	20:15:12.8	1.0
BUR31	5.0	120	P	2022/04/28	20:15:16.9	-0.1
BUR07	5.0	119	P	2022/04/28	20:15:17.4	0.1

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AK20	6.5	82	P	2022/04/28	20:15:38.4	0.1
AK21	6.6	82	P	2022/04/28	20:15:38.2	-0.4
AK15	6.6	82	P	2022/04/28	20:15:39.5	0.2
AKBB	6.7	82	P	2022/04/28	20:15:40.8	0.6



03.05.2022. Poland

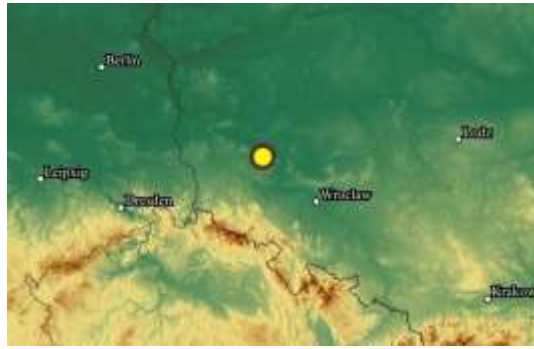
$t_0 = 15:24:00$; $\varphi = 51,58^\circ N$; $\lambda = 16,13^\circ E$; $h = 9 \text{ km}$; $ML_v = 3,9$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/03	15:24:00.5	51.58	16.13	9	MLv 3.86

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
CHVC	1.0	183	P	2022/05/03	15:24:18.2	-1.3
UPC	1.1	184	P	2022/05/03	15:24:21.0	0.2
DPC	1.2	174	P	2022/05/03	15:24:22.2	-1.0
PVCC	1.4	224	P	2022/05/03	15:24:26.1	-0.1
KRLC	1.5	163	P	2022/05/03	15:24:28.0	0.1
RUE	1.7	303	P	2022/05/03	15:24:31.1	0.9
PRA	1.9	216	P	2022/05/03	15:24:32.1	-0.3
PRU	1.9	213	P	2022/05/03	15:24:32.3	-0.5
HSKC	2.0	241	P	2022/05/03	15:24:33.9	0.0
MORC	2.0	153	P	2022/05/03	15:24:34.2	-0.4
OKC	2.2	143	P	2022/05/03	15:24:36.3	-0.4
OJC	2.7	119	P	2022/05/03	15:24:43.0	-0.9
KHC	2.9	215	P	2022/05/03	15:24:46.7	-0.8
CKRC	3.0	204	P	2022/05/03	15:24:48.9	0.8
CKRC	3.0	204	Sg	2022/05/03	15:25:39.7	0.1
MODS	3.3	167	P	2022/05/03	15:24:53.2	1.0
VYHS	3.5	149	P	2022/05/03	15:24:56.1	0.4
VYHS	3.5	149	Sg	2022/05/03	15:25:58.2	0.5
SOP	3.9	176	P	2022/05/03	15:25:00.7	0.1
PSZ	4.4	145	P	2022/05/03	15:25:07.3	-0.1
CSKK	4.4	161	P	2022/05/03	15:25:08.1	0.1
KOLS	4.7	121	P	2022/05/03	15:25:12.4	0.2
BEHE	5.1	175	P	2022/05/03	15:25:17.7	0.3
TRPA	5.4	127	P	2022/05/03	15:25:21.3	0.2
MORH	5.6	162	P	2022/05/03	15:25:24.6	0.5
KOVH	5.6	166	P	2022/05/03	15:25:24.8	0.3
RNPP8	6.1	88	P	2022/05/03	15:25:31.2	0.6
RNPP9	6.1	88	P	2022/05/03	15:25:32.1	1.3
RNPP5	6.1	89	P	2022/05/03	15:25:31.8	0.8
DRGR	6.4	135	P	2022/05/03	15:25:35.6	0.1
SIRR	6.4	143	P	2022/05/03	15:25:35.7	0.2
BURAR	7.1	120	P	2022/05/03	15:25:45.7	1.4
BURAR	7.1	120	pP	2022/05/03	15:25:46.9	0.5
MI28	7.3	91	P	2022/05/03	15:25:46.1	-0.7
MI29	7.5	94	P	2022/05/03	15:25:49.9	0.1
LUBAR	7.6	98	P	2022/05/03	15:25:50.0	-0.8
AKBB	8.3	91	P	2022/05/03	15:26:00.7	-0.0

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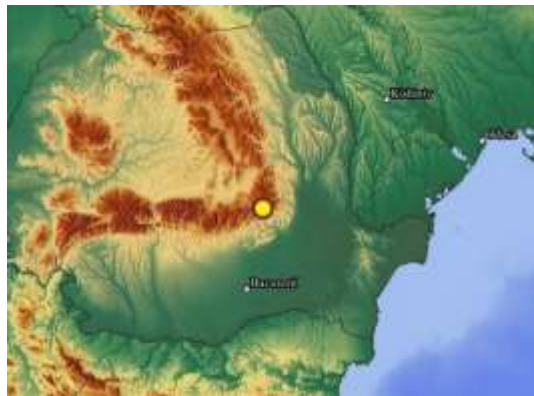
10.05.2022. Zona seismică Vrancea

$t_0 = 03:33:19$; $\varphi = 45,55^\circ N$; $\lambda = 26,42^\circ E$; $h = 131 \text{ km}$; $ML_v = 3,1$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/10	03:33:19.0	45.55	26.29	130	ML _v 3.12

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
MLR	0.3	261	P	2022/05/10	03:33:38.6	0.1
PLOR	0.3	28	P	2022/05/10	03:33:38.5	0.0
VRI	0.4	34	P	2022/05/10	03:33:38.8	0.1
VOIR	1.0	264	P	2022/05/10	03:33:41.7	-0.1
TESR	1.0	9	P	2022/05/10	03:33:42.2	0.4
TESR	1.0	9	S	2022/05/10	03:33:59.5	-0.0
ARR	1.3	262	P	2022/05/10	03:33:44.9	0.1
HUMR	1.4	226	P	2022/05/10	03:33:46.3	-0.4
TIRR	1.8	127	P	2022/05/10	03:33:50.9	0.5
TIRR	1.8	127	S	2022/05/10	03:34:14.4	-0.5
BURAR	2.3	339	P	2022/05/10	03:33:56.3	0.1
CJR	2.3	302	P	2022/05/10	03:33:56.3	-0.1
DEV	2.5	279	P	2022/05/10	03:33:59.1	0.1
SORM	2.9	26	P	2022/05/10	03:34:04.0	-0.4
MDVR	3.4	259	P	2022/05/10	03:34:10.7	-0.3
PHSR	4.0	168	P	2022/05/10	03:34:19.0	0.4



11.05.2022. Zona seismică Vrancea

$t_0 = 15:46:26$; $\varphi = 45,56^\circ N$; $\lambda = 26,42^\circ E$; $h = 138 \text{ km}$; $mb = 4,1$

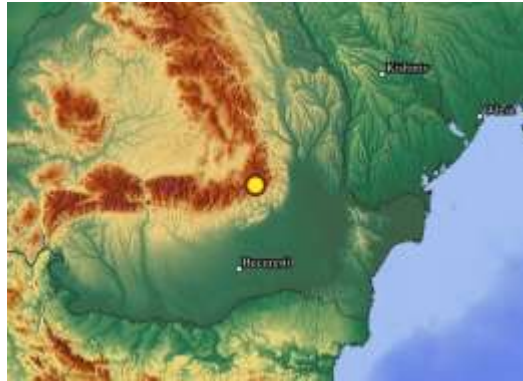
Date	Time	Latitude	Longitude	Depth	Mag
2022/05/11	15:46:26.3	45.56	26.42	138	mb 4.13

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.3	29	P	2022/05/11	15:46:46.4	-0.2
PLOR	0.3	29	S	2022/05/11	15:47:01.9	-0.3
MLR	0.3	259	P	2022/05/11	15:46:46.2	-0.3
MLR	0.3	259	S	2022/05/11	15:47:02.6	0.4
VRI	0.4	35	P	2022/05/11	15:46:46.6	-0.2
TESR	1.0	9	P	2022/05/11	15:46:50.2	0.4
VOIR	1.0	263	P	2022/05/11	15:46:50.0	0.2
ARR	1.3	262	P	2022/05/11	15:46:52.8	0.1
BURAR	2.2	338	P	2022/05/11	15:47:03.8	0.1
DEV	2.5	279	P	2022/05/11	15:47:06.6	-0.1

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SIRR	3.4	284	P	2022/05/11	15:47:18.0	-0.2
KOLS	4.4	322	P	2022/05/11	15:47:31.3	-0.1
XAEC2	4.7	3	P	2022/05/11	15:47:35.0	0.3
MORH	5.5	280	P	2022/05/11	15:47:45.6	-0.1



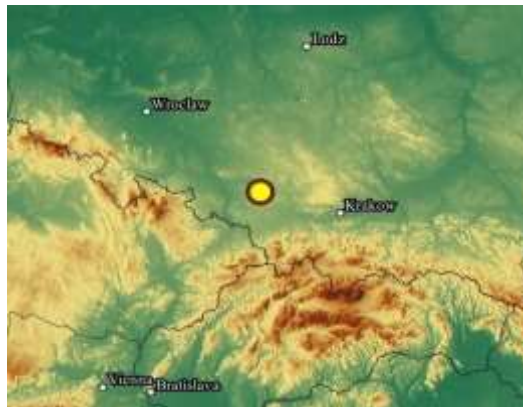
13.05.2022. Poland

$t_0 = 02:19:43$; $\varphi = 50,28^\circ N$; $\lambda = 18,74^\circ E$; $h = 10 \text{ km}$; $ML_v = 3,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/13	02:19:43.3	50.28	18.74	10	MLv 3.28

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
OKC	0.6	221	P	2022/05/13	02:19:54.5	-0.7
MORC	0.9	237	P	2022/05/13	02:19:59.6	-1.4
KRLC	1.2	262	P	2022/05/13	02:20:04.5	-1.5
NIE	1.3	130	P	2022/05/13	02:20:05.9	-1.6
DPC	1.5	273	P	2022/05/13	02:20:10.3	-0.3
OSTC	1.6	281	P	2022/05/13	02:20:11.7	-0.1
KSP	1.7	291	P	2022/05/13	02:20:12.4	0.2
KSP	1.7	291	S	2022/05/13	02:20:33.9	-0.1
CHVC	1.7	281	P	2022/05/13	02:20:13.2	-0.2
UPC	1.8	278	P	2022/05/13	02:20:14.0	0.4
VYHS	1.8	178	P	2022/05/13	02:20:14.2	0.2
MODS	2.1	207	P	2022/05/13	02:20:19.6	0.7
PSZ	2.5	162	P	2022/05/13	02:20:24.1	0.4
KWP	2.6	103	P	2022/05/13	02:20:26.2	0.2
KOLS	2.7	119	P	2022/05/13	02:20:26.1	-0.2
PVCC	2.7	277	P	2022/05/13	02:20:26.6	0.2
PRU	2.7	265	P	2022/05/13	02:20:27.2	0.2
PRA	2.8	267	P	2022/05/13	02:20:28.0	0.2
CKRC	3.2	245	P	2022/05/13	02:20:34.9	0.9
TRPA	3.3	129	P	2022/05/13	02:20:35.0	0.2
HSKC	3.4	278	P	2022/05/13	02:20:36.8	0.4
KHC	3.5	253	P	2022/05/13	02:20:38.7	0.5
BEHE	4.0	200	P	2022/05/13	02:20:46.3	1.3
MORH	4.1	181	P	2022/05/13	02:20:45.4	-0.1
SIRR	4.5	153	P	2022/05/13	02:20:50.7	-0.3
BURAR	5.0	119	P	2022/05/13	02:20:59.2	0.8
LUBAR	5.8	90	P	2022/05/13	02:21:08.6	-0.9
AK21	6.6	82	P	2022/05/13	02:21:20.6	0.5



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

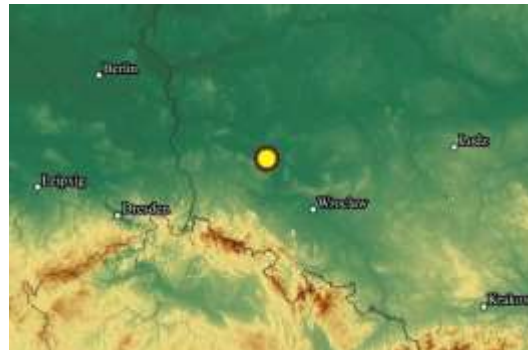
13.05.2022. Poland

$t_0 = 15:31:52$; $\varphi = 51,64^\circ N$; $\lambda = 16,25^\circ E$; $h = 5 \text{ km}$; $mb = 3,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/13	15:31:52.5	51.64	16.25	5	mb 3.69

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
CHVC	1.1	187	P	2022/05/13	15:32:12.5	-0.2
OSTC	1.1	181	P	2022/05/13	15:32:13.0	-0.1
UPC	1.1	188	P	2022/05/13	15:32:14.1	0.1
DPC	1.3	178	P	2022/05/13	15:32:16.4	0.1
PVCC	1.5	224	P	2022/05/13	15:32:20.2	0.1
KRLC	1.6	166	P	2022/05/13	15:32:21.0	0.2
RUE	1.7	300	P	2022/05/13	15:32:23.3	0.3
PRA	1.9	217	P	2022/05/13	15:32:26.2	0.1
PRU	2.0	214	P	2022/05/13	15:32:26.2	-0.4
MORC	2.0	156	P	2022/05/13	15:32:27.6	0.1
HSKC	2.1	241	P	2022/05/13	15:32:27.3	-0.4
NKC	2.8	241	P	2022/05/13	15:32:37.9	0.2
KHC	3.0	215	P	2022/05/13	15:32:41.0	-0.2
VYHS	3.6	151	P	2022/05/13	15:32:48.7	0.3
SOP	4.0	177	P	2022/05/13	15:32:54.1	0.2
PSZ	4.4	146	P	2022/05/13	15:33:00.0	-0.0
KOLS	4.7	123	P	2022/05/13	15:33:04.1	-0.2
BURAR	7.1	121	P	2022/05/13	15:33:36.5	0.1
AK19	8.1	92	P	2022/05/13	15:33:50.4	0.1
AK21	8.1	91	P	2022/05/13	15:33:50.6	0.2
AK22	8.1	91	P	2022/05/13	15:33:50.9	0.2
AK18	8.1	91	P	2022/05/13	15:33:51.0	0.2
AK17	8.1	92	P	2022/05/13	15:33:50.7	-0.1
AK14	8.2	92	P	2022/05/13	15:33:51.3	-0.1
AK12	8.2	92	P	2022/05/13	15:33:51.7	-0.0
AK11	8.2	92	P	2022/05/13	15:33:51.7	-0.0
AK03	8.2	91	P	2022/05/13	15:33:52.1	-0.0
AKBB	8.2	91	P	2022/05/13	15:33:51.9	-0.3
AK07	8.2	93	P	2022/05/13	15:33:52.0	-0.4



16.05.2022. Poland

$t_0 = 16:06:57$; $\varphi = 51,69^\circ N$; $\lambda = 16,16^\circ E$; $h = 5 \text{ km}$; $ML_v = 3,5$

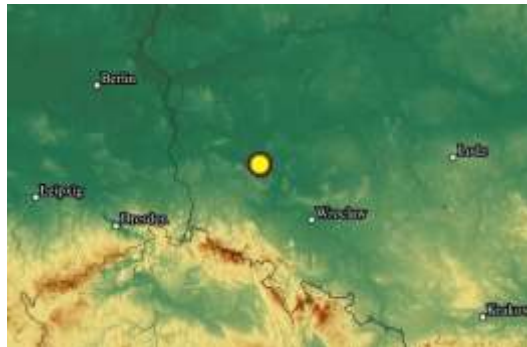
Date	Time	Latitude	Longitude	Depth	Mag
2022/05/16	16:06:57.0	51.69	16.16	5	ML _v 3.55

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
KSP	0.9	174	P	2022/05/16	16:07:13.0	-0.5
CHVC	1.1	184	P	2022/05/16	16:07:17.6	-0.2
OSTC	1.1	178	P	2022/05/16	16:07:18.3	-0.0
UPC	1.2	185	P	2022/05/16	16:07:18.8	-0.3
DPC	1.3	176	P	2022/05/16	16:07:21.8	0.2
PVCC	1.5	221	P	2022/05/16	16:07:24.4	-0.1
PVCC	1.5	221	S	2022/05/16	16:07:45.9	0.6
KRLC	1.6	165	P	2022/05/16	16:07:26.7	0.5
KRLC	1.6	165	S	2022/05/16	16:07:48.7	0.3
RUE	1.7	299	P	2022/05/16	16:07:27.0	0.5
PRA	2.0	215	P	2022/05/16	16:07:30.3	-0.4
PRA	2.0	215	S	2022/05/16	16:07:56.4	-0.2
PRU	2.0	212	P	2022/05/16	16:07:30.8	-0.4
PRU	2.0	212	S	2022/05/16	16:07:57.5	0.1

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MORC	2.1	155	P	2022/05/16	16:07:32.9	0.0
NKC	2.8	240	P	2022/05/16	16:07:41.9	-0.0
KHC	3.0	214	P	2022/05/16	16:07:45.2	-0.6
CKRC	3.1	203	P	2022/05/16	16:07:47.0	0.3
BURAR	7.1	121	P	2022/05/16	16:08:42.3	0.5
LUBAR	7.6	99	P	2022/05/16	16:08:47.5	-0.2
AK19	8.1	92	P	2022/05/16	16:08:55.5	-0.0
AK21	8.1	91	P	2022/05/16	16:08:55.7	-0.0
AK22	8.2	91	P	2022/05/16	16:08:56.2	0.2
AK18	8.2	92	P	2022/05/16	16:08:56.2	0.2
AK17	8.2	92	P	2022/05/16	16:08:56.1	0.1
AK16	8.2	92	P	2022/05/16	16:08:56.6	0.1
AK01	8.3	92	P	2022/05/16	16:08:57.5	0.1
AK02	8.3	92	P	2022/05/16	16:08:57.5	0.1
AKBB	8.3	92	P	2022/05/16	16:08:57.3	-0.1
AK07	8.3	93	P	2022/05/16	16:08:57.4	-0.3
AK08	8.3	92	P	2022/05/16	16:08:57.7	-0.2
AK10	8.3	92	P	2022/05/16	16:08:57.7	-0.2
AK09	8.3	92	P	2022/05/16	16:08:58.0	-0.2



19.05.2022. Zona seismică Vrancea

$t_0 = 21:35:13$; $\varphi = 45,70^\circ N$; $\lambda = 26,72^\circ E$; $h = 87 \text{ km}$; $ML_v = 3,2$

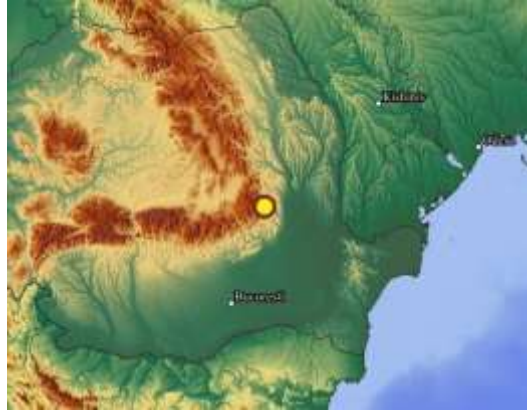
Date	Time	Latitude	Longitude	Depth	Mag
2022/05/19	21:35:13.4	45.70	26.72	87	ML _v 3.22

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.2	341	P	2022/05/19	21:35:26.7	-0.1
VRI	0.2	1	P	2022/05/19	21:35:26.9	0.1
MLR	0.6	249	P	2022/05/19	21:35:29.5	-0.4
TESR	0.8	356	P	2022/05/19	21:35:31.5	-0.0
VOIR	1.2	258	P	2022/05/19	21:35:35.4	0.0
HUMR	1.7	227	P	2022/05/19	21:35:41.4	-0.2
TIRR	1.7	135	P	2022/05/19	21:35:42.8	0.8
KIS	1.9	47	S	2022/05/19	21:36:08.7	-0.4
BURAR	2.2	332	P	2022/05/19	21:35:49.3	1.1
SORM	2.7	24	P	2022/05/19	21:35:54.9	0.4
PLVB	2.8	214	P	2022/05/19	21:35:55.4	-0.2
SIRR	3.6	281	P	2022/05/19	21:36:05.8	-0.8
LUBAR	4.3	9	P	2022/05/19	21:36:16.5	0.4
KOLS	4.4	318	P	2022/05/19	21:36:19.2	1.1
AK07	5.1	18	P	2022/05/19	21:36:27.9	0.3
AK06	5.2	18	P	2022/05/19	21:36:28.2	0.2
AK14	5.2	17	P	2022/05/19	21:36:28.4	-0.0
AK10	5.2	18	P	2022/05/19	21:36:28.2	-0.2
AK12	5.2	17	P	2022/05/19	21:36:29.4	0.7
AK09	5.2	18	P	2022/05/19	21:36:28.8	0.1
AK08	5.2	18	P	2022/05/19	21:36:29.1	0.3
AK16	5.2	17	P	2022/05/19	21:36:28.7	-0.2
AK17	5.2	17	P	2022/05/19	21:36:28.7	-0.3
AK02	5.2	18	P	2022/05/19	21:36:29.2	0.2
AK11	5.2	17	P	2022/05/19	21:36:29.1	-0.0
AK15	5.2	17	P	2022/05/19	21:36:29.2	-0.1
AK19	5.3	16	P	2022/05/19	21:36:28.9	-0.4
AK18	5.3	16	P	2022/05/19	21:36:29.1	-0.3
AK01	5.3	18	P	2022/05/19	21:36:29.5	0.0
AK20	5.3	16	P	2022/05/19	21:36:29.2	-0.4
AKBB	5.3	18	P	2022/05/19	21:36:29.9	0.2
AK04	5.3	17	P	2022/05/19	21:36:29.6	-0.1
AK03	5.3	17	P	2022/05/19	21:36:30.1	0.1

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AK22	5.3	16	P	2022/05/19	21:36:29.6	-0.3
AK21	5.3	16	P	2022/05/19	21:36:29.6	-0.5
AK23	5.3	17	P	2022/05/19	21:36:29.7	-0.4
RNPP5	5.6	355	P	2022/05/19	21:36:33.3	-0.2
RNPP9	5.7	355	P	2022/05/19	21:36:35.6	-0.4



22.05.2022. Zona seismică Vrancea

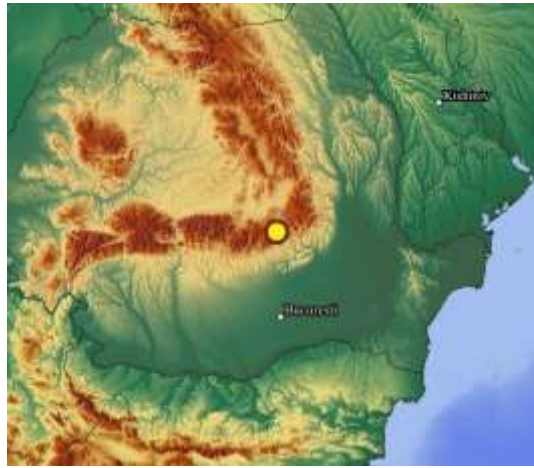
$t_0 = 00:58:56$; $\varphi = 45,47^\circ N$; $\lambda = 26,04^\circ E$; $h = 59 \text{ km}$; $ML_v = 3,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/22	00:58:56.3	45.47	26.04	59	ML _v 3.00

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
MLR	0.1	292	P	2022/05/22	00:59:06.2	0.7
MLR	0.1	292	S	2022/05/22	00:59:12.6	0.0
PLOR	0.6	48	P	2022/05/22	00:59:09.5	-0.8
VRI	0.6	50	P	2022/05/22	00:59:10.9	0.1
VRI	0.6	50	S	2022/05/22	00:59:21.7	-0.1
VOIR	0.7	268	P	2022/05/22	00:59:10.5	-0.9
VOIR	0.7	268	S	2022/05/22	00:59:22.8	-0.1
TESR	1.1	22	P	2022/05/22	00:59:16.6	0.6
HUMR	1.2	219	P	2022/05/22	00:59:17.2	0.3
BURAR	2.3	345	P	2022/05/22	00:59:32.1	1.0
PLVB	2.3	207	P	2022/05/22	00:59:31.6	-0.3
DRGR	2.7	301	P	2022/05/22	00:59:36.7	-0.1
SORM	3.1	30	P	2022/05/22	00:59:42.9	0.1
TRPA	3.6	319	P	2022/05/22	00:59:49.0	-0.3
RDO	4.3	185	P	2022/05/22	00:59:59.7	0.1
ALN	4.6	180	P	2022/05/22	01:00:03.2	0.4
LUBAR	4.6	14	P	2022/05/22	01:00:02.6	-0.6
AK07	5.5	22	P	2022/05/22	01:00:15.7	-0.0
AK06	5.5	21	P	2022/05/22	01:00:16.1	-0.0
AK14	5.6	21	P	2022/05/22	01:00:16.4	0.0
AK10	5.6	22	P	2022/05/22	01:00:16.3	-0.2
AK12	5.6	21	P	2022/05/22	01:00:16.6	-0.0
AK16	5.6	20	P	2022/05/22	01:00:16.7	-0.1
AK17	5.6	20	P	2022/05/22	01:00:16.8	-0.1
AK18	5.6	20	P	2022/05/22	01:00:17.3	-0.0
AK01	5.6	21	P	2022/05/22	01:00:17.7	0.2

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



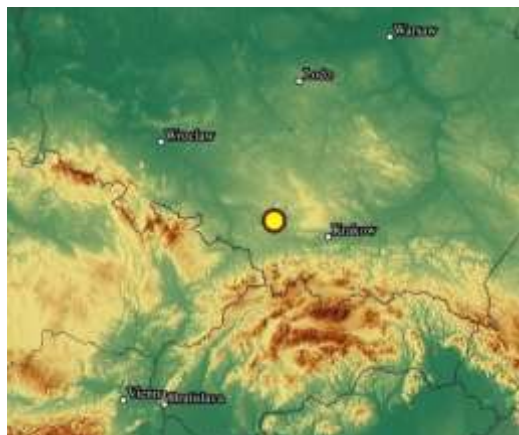
23.05.2022. Poland

$t_0 = 12:07:59$; $\varphi = 50,24^\circ N$; $\lambda = 19,01^\circ E$; $h = 4 \text{ km}$; $ML_v = 2,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/23	12:07:59.7	50.24	19.01	4	MLv 2.73

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
OJC	0.5	92	P	2022/05/23	12:08:09.4	-0.3
OJC	0.5	92	S	2022/05/23	12:08:16.9	0.1
OKC	0.7	235	P	2022/05/23	12:08:13.1	-0.1
MORC	1.1	245	P	2022/05/23	12:08:19.9	0.1
KRLC	1.4	265	P	2022/05/23	12:08:25.5	0.1
DPC	1.7	275	P	2022/05/23	12:08:30.5	0.2
DPC	1.7	275	S	2022/05/23	12:08:53.3	-0.0
VYHS	1.7	184	P	2022/05/23	12:08:30.7	0.2
VYHS	1.7	184	S	2022/05/23	12:08:54.0	0.2
OSTC	1.8	281	P	2022/05/23	12:08:31.6	0.0
KSP	1.8	290	P	2022/05/23	12:08:31.9	-0.0
CHVC	1.9	282	P	2022/05/23	12:08:33.1	-0.1
UPC	1.9	279	P	2022/05/23	12:08:33.3	-0.1
KECS	2.0	151	P	2022/05/23	12:08:34.1	-0.1
MODS	2.2	212	P	2022/05/23	12:08:36.5	-0.2
PSZ	2.4	166	P	2022/05/23	12:08:39.5	-0.1
KOLS	2.5	120	P	2022/05/23	12:08:40.8	-0.1
RNPP5	4.5	75	P	2022/05/23	12:09:08.4	0.2
RNPP8	4.5	73	P	2022/05/23	12:09:08.3	0.1
BURAR	4.8	120	P	2022/05/23	12:09:13.1	-0.0
KPD	5.1	106	P	2022/05/23	12:09:17.6	0.2
LUBAR	5.6	90	P	2022/05/23	12:09:23.9	-0.3
AKBB	6.5	82	P	2022/05/23	12:09:36.7	0.2



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

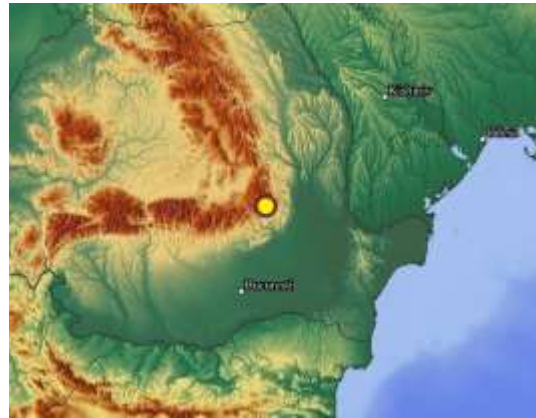
23.05.2022. Zona seismică Vrancea

$t_0 = 15:40:32$; $\varphi = 45,58^\circ N$; $\lambda = 26,57^\circ E$; $h = 123 \text{ km}$; $ML_v = 2,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/23	15:40:32.6	45.58	26.57	123	MLv 2.43

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.3	11	P	2022/05/23	15:40:50.5	-0.3
VRI	0.3	21	P	2022/05/23	15:40:50.8	-0.2
VRI	0.3	21	S	2022/05/23	15:41:05.3	0.1
MLR	0.5	258	P	2022/05/23	15:40:51.5	-0.4
MLR	0.5	258	S	2022/05/23	15:41:07.0	0.3
TESR	0.9	3	P	2022/05/23	15:40:54.6	0.1
VOIR	1.1	263	P	2022/05/23	15:40:55.6	-0.1
ARR	1.4	262	P	2022/05/23	15:40:59.0	0.0
TIRR	1.7	130	P	2022/05/23	15:41:03.2	0.3
TIRR	1.7	130	S	2022/05/23	15:41:26.4	-0.0
BURAR	2.3	336	P	2022/05/23	15:41:09.8	0.3



26.05.2022. Moldova

$t_0 = 20:49:15$; $\varphi = 48,27^\circ N$; $\lambda = 26,77^\circ E$; $h = 5 \text{ km}$; $ML_v = 2,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/26	20:49:15.9	48.27	26.77	5	MLv 2.21

MOLDOVA

Sta	Dist	EvAz	Phase	Date	Time	Res
KPD	0.4	323	Pg	2022/05/26	20:49:23.1	0.2
KPD	0.4	323	Sg	2022/05/26	20:49:27.9	0.1
SORM	1.1	97	Pg	2022/05/26	20:49:35.9	-0.3
BURAR	1.2	240	Pg	2022/05/26	20:49:38.8	-0.8
LUBAR	1.8	21	Pn	2022/05/26	20:49:47.3	0.1
TESR	1.8	183	Pn	2022/05/26	20:49:48.0	0.8
XAEC3	2.0	358	Pn	2022/05/26	20:49:50.9	0.1
PLOR	2.4	182	Pn	2022/05/26	20:49:56.4	0.1
AK13	2.8	32	Pn	2022/05/26	20:50:01.3	0.3
AK06	2.8	33	Pn	2022/05/26	20:50:00.9	-0.4
AK06	2.8	33	pP	2022/05/26	20:50:02.7	0.3
AK14	2.8	32	Pn	2022/05/26	20:50:01.0	-0.4
AK05	2.8	33	Pn	2022/05/26	20:50:01.8	0.1
AK10	2.8	34	Pn	2022/05/26	20:50:01.5	-0.3
AK09	2.9	34	Pn	2022/05/26	20:50:01.9	-0.2
AK08	2.9	33	Pn	2022/05/26	20:50:02.3	0.1
AK08	2.9	33	pP	2022/05/26	20:50:03.3	0.0
AK18	2.9	30	Pn	2022/05/26	20:50:02.5	0.3
AKBB	2.9	32	Pn	2022/05/26	20:50:02.4	-0.4
AKBB	2.9	32	pP	2022/05/26	20:50:04.0	0.0
AK03	2.9	32	Pn	2022/05/26	20:50:03.2	0.2

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



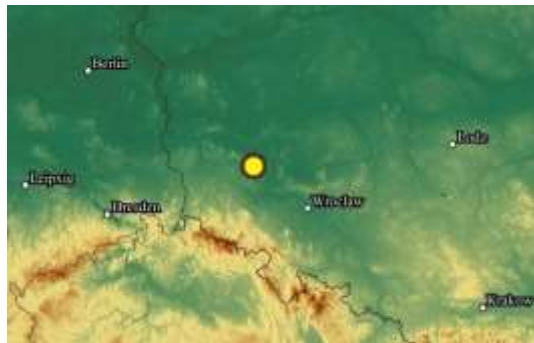
28.05.2022. Poland

$t_0 = 08:16:40$; $\varphi = 51,54^\circ N$; $\lambda = 16,15^\circ E$; $h = 10 \text{ km}$; $ML_v = 3,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/28	08:16:40.2	51.54	16.15	10	MLv 3.40

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
CHVC	1.0	184	P	2022/05/28	08:16:58.3	-0.1
OSTC	1.0	178	P	2022/05/28	08:16:59.1	0.1
UPC	1.0	185	P	2022/05/28	08:16:59.6	-0.2
DPC	1.2	175	P	2022/05/28	08:17:02.4	0.1
PVCC	1.4	225	P	2022/05/28	08:17:06.1	0.5
PRU	1.9	214	P	2022/05/28	08:17:11.7	-0.3
MORC	2.0	153	P	2022/05/28	08:17:13.4	-0.3
NKC	2.7	242	P	2022/05/28	08:17:23.4	-0.1
KHC	2.9	215	P	2022/05/28	08:17:26.3	-0.4
CKRC	3.0	204	P	2022/05/28	08:17:27.7	0.4
MODS	3.2	167	P	2022/05/28	08:17:31.4	0.2
SIRR	6.4	143	P	2022/05/28	08:18:14.8	0.2
AKBB	8.3	91	P	2022/05/28	08:18:40.0	-0.2
AK08	8.3	91	P	2022/05/28	08:18:40.6	0.0
AK10	8.3	91	P	2022/05/28	08:18:40.7	0.0
AK09	8.3	91	P	2022/05/28	08:18:40.9	0.0



29.05.2022. Zona seismica Vrancea

$t_0 = 23:12:57$; $\varphi = 46,44^\circ N$; $\lambda = 26,87^\circ E$; $h = 18 \text{ km}$; $ML_v = 2,2$

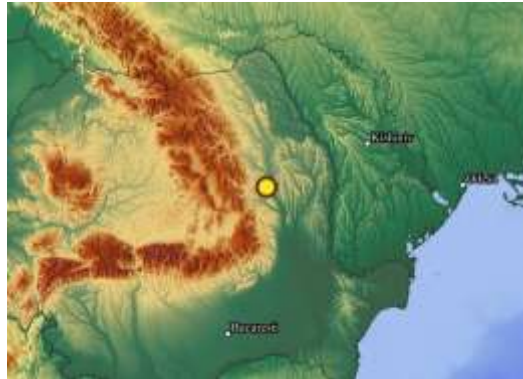
Date	Time	Latitude	Longitude	Depth	Mag
2022/05/29	23:12:57.9	46.44	26.87	18	MLv 2.20

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
TESR	0.2	296	P	2022/05/29	23:13:04.6	1.0
VRI	0.6	190	P	2022/05/29	23:13:09.9	0.2
VRI	0.6	190	S	2022/05/29	23:13:18.2	0.8
PLOR	0.6	195	P	2022/05/29	23:13:10.3	0.1
KPD	2.1	353	S	2022/05/29	23:13:59.3	0.3
LUBAR	3.5	9	S	2022/05/29	23:14:34.1	0.1
KOLS	4.0	310	P	2022/05/29	23:13:56.8	1.2
AK07	4.4	20	P	2022/05/29	23:14:04.6	0.9
AK06	4.4	20	P	2022/05/29	23:14:04.7	0.6

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AK06	4.4	20	Lg	2022/05/29	23:15:15.9	0.8
AK14	4.5	19	P	2022/05/29	23:14:05.2	0.8
AK14	4.5	19	S	2022/05/29	23:14:56.2	0.3
AK10	4.5	20	P	2022/05/29	23:14:05.5	1.1
AK05	4.5	19	Lg	2022/05/29	23:15:17.1	-0.6
AK05	4.5	19	S	2022/05/29	23:14:56.6	-0.3
AK08	4.5	20	S	2022/05/29	23:14:57.5	0.0
AK19	4.5	18	S	2022/05/29	23:14:57.3	-0.9
AK18	4.5	18	P	2022/05/29	23:14:06.6	1.1
AK18	4.5	18	S	2022/05/29	23:14:58.5	0.0



30.05.2022. Zona seismică Vrancea

$t_0 = 00:29:32$; $\varphi = 45,55^\circ N$; $\lambda = 26,62^\circ E$; $h = 150 \text{ km}$; $ML_v = 3,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/05/30	00:29:32.3	45.55	26.62	150	ML _v 3.40

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
PLOR	0.3	358	P	2022/05/30	00:29:54.2	0.0
PLOR	0.3	358	S	2022/05/30	00:30:11.6	0.8
VRI	0.3	8	P	2022/05/30	00:29:54.5	0.2
VRI	0.3	8	S	2022/05/30	00:30:10.4	-0.6
MLR	0.5	266	P	2022/05/30	00:29:55.0	-0.0
HUMR	1.6	231	P	2022/05/30	00:30:02.3	-0.6
BURAR	2.3	335	P	2022/05/30	00:30:12.3	0.4
PLVB	2.6	215	P	2022/05/30	00:30:15.8	0.8
DEV	2.7	279	P	2022/05/30	00:30:15.4	-0.4
SORM	2.9	23	P	2022/05/30	00:30:18.4	0.3
KPD	3.0	357	P	2022/05/30	00:30:19.7	-0.7
NDNU	3.1	9	P	2022/05/30	00:30:21.1	-0.1
BAL3X	3.1	39	P	2022/05/30	00:30:20.6	-1.3
SIRR	3.6	284	P	2022/05/30	00:30:26.6	-0.7
MDVR	3.6	260	P	2022/05/30	00:30:27.7	0.3
UZH	4.3	318	P	2022/05/30	00:30:38.7	1.8
LUBAR	4.5	9	P	2022/05/30	00:30:38.7	-0.0
XAEC4	4.8	1	P	2022/05/30	00:30:42.7	-0.1
AK07	5.3	18	P	2022/05/30	00:30:50.5	0.5
AK06	5.3	18	P	2022/05/30	00:30:50.9	0.5
AK10	5.4	18	P	2022/05/30	00:30:51.2	0.4
AK12	5.4	17	P	2022/05/30	00:30:51.0	-0.1
AK09	5.4	18	P	2022/05/30	00:30:51.1	0.1
AK08	5.4	18	P	2022/05/30	00:30:51.8	0.6
AK17	5.4	16	P	2022/05/30	00:30:51.2	-0.1
AK15	5.4	17	P	2022/05/30	00:30:51.6	-0.0
AK19	5.4	16	P	2022/05/30	00:30:51.1	-0.5
AK18	5.4	16	P	2022/05/30	00:30:51.4	-0.3
AK20	5.4	16	P	2022/05/30	00:30:51.8	-0.1
AK04	5.5	17	P	2022/05/30	00:30:51.9	-0.1
AK21	5.5	16	P	2022/05/30	00:30:52.3	-0.1
NIE	5.8	314	P	2022/05/30	00:30:56.7	0.1
RNPP9	5.9	355	P	2022/05/30	00:30:58.7	0.7

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01.06.2022. Belarus

$t_0 = 02:53:19$; $\varphi = 52,90^\circ N$; $\lambda = 27,45^\circ E$; $h = 17 \text{ km}$; $ML_v = 2,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/01	02:53:19.5	52.90	27.45	17	MLv 2.30

BELARUS

Sta	Dist	EvAz	Phase	Date	Time	Res
AK21	2.3	155	P	2022/06/01	02:53:56.9	-0.4
AK21	2.3	155	S	2022/06/01	02:54:26.5	-0.1
AK22	2.4	154	P	2022/06/01	02:53:57.2	-0.4
AK20	2.4	155	P	2022/06/01	02:53:57.5	-0.1
AK18	2.4	155	P	2022/06/01	02:53:58.0	-0.1
AK04	2.4	153	P	2022/06/01	02:53:58.3	-0.1
AKBB	2.5	153	P	2022/06/01	02:53:58.8	-0.2
AKBB	2.5	153	S	2022/06/01	02:54:29.5	0.1
AK11	2.5	154	P	2022/06/01	02:53:58.9	-0.1
AK01	2.5	153	P	2022/06/01	02:53:59.0	-0.0
AK14	2.5	155	P	2022/06/01	02:53:59.7	0.3
AK12	2.5	154	P	2022/06/01	02:53:59.6	0.2
AK13	2.5	156	P	2022/06/01	02:53:59.5	0.1
AK05	2.5	154	P	2022/06/01	02:53:59.9	0.0
AK08	2.5	153	P	2022/06/01	02:54:00.3	0.5
AK08	2.5	153	Pb	2022/06/01	02:54:04.6	0.0
AK09	2.6	153	P	2022/06/01	02:54:00.1	-0.1
AK06	2.6	154	P	2022/06/01	02:54:00.5	0.3
AK07	2.6	154	P	2022/06/01	02:54:01.1	0.4



04.06.2022. Zona seismică Vrancea

$t_0 = 18:45:36$; $\varphi = 48,19^\circ N$; $\lambda = 26,43^\circ E$; $h = 5 \text{ km}$; $ML_v = 2,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/04	18:45:36.7	48.19	26.43	5	MLv 2.30

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
KPD	0.4	3	Pg	2022/06/04	18:45:44.0	0.1
KPD	0.4	3	Sg	2022/06/04	18:45:49.2	0.1
BURAR	1.0	237	Pg	2022/06/04	18:45:55.3	-0.4
SORM	1.3	92	Pg	2022/06/04	18:46:01.2	-0.2
TESR	1.7	175	Pn	2022/06/04	18:46:07.4	0.6
LUBAR	1.9	26	Pn	2022/06/04	18:46:10.6	0.3

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XAEC3	2.1	4	Pn	2022/06/04	18:46:12.9	0.1
MI28	2.9	16	Pn	2022/06/04	18:46:23.2	0.3
AK14	3.0	35	Pn	2022/06/04	18:46:25.0	0.1
AK14	3.0	35	sP	2022/06/04	18:46:26.8	0.1
AK10	3.0	36	Pn	2022/06/04	18:46:24.8	-0.5
AK19	3.0	33	Pn	2022/06/04	18:46:25.2	-0.2
AK09	3.1	36	Pn	2022/06/04	18:46:25.3	-0.4
AK18	3.1	33	Pn	2022/06/04	18:46:26.2	0.5
RNPP5	3.1	354	Pn	2022/06/04	18:46:25.7	0.0
AK11	3.1	35	Pn	2022/06/04	18:46:25.8	0.1
AK22	3.1	33	Pn	2022/06/04	18:46:26.3	0.2
AK21	3.1	32	Pn	2022/06/04	18:46:25.7	-0.5
AKBB	3.1	35	Pn	2022/06/04	18:46:26.0	-0.3
AK23	3.1	33	Pn	2022/06/04	18:46:26.3	-0.2



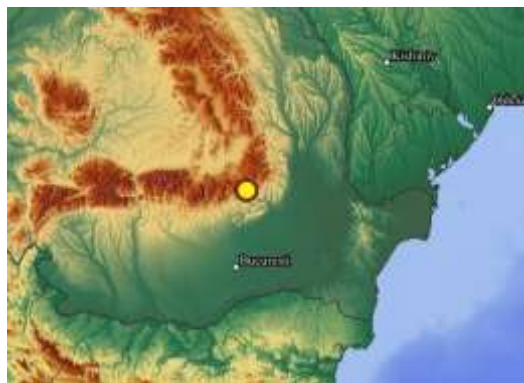
07.06.2022. Zona seismică Vrancea

$t_0 = 15:40:21$; $\varphi = 45,42^\circ N$; $\lambda = 26,30^\circ E$; $h = 112 \text{ km}$; $ML_V = 3,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/07	15:40:21.5	45.42	26.30	112	ML _V 3.39

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.5	34	P	2022/06/07	15:40:40.2	0.2
VOIR	0.9	271	P	2022/06/07	15:40:42.5	0.4
TESR	1.1	13	P	2022/06/07	15:40:44.5	0.4
ARR	1.2	268	P	2022/06/07	15:40:44.5	-0.2
HUMR	1.3	227	P	2022/06/07	15:40:46.5	0.4
HUMR	1.3	227	S	2022/06/07	15:41:04.7	-0.5
TIRR	1.8	122	P	2022/06/07	15:40:52.3	0.4
TIRR	1.8	122	S	2022/06/07	15:41:14.9	-0.7
CJR	2.3	305	P	2022/06/07	15:40:58.0	-0.1
BURAR	2.3	342	P	2022/06/07	15:40:59.8	0.8
PLVB	2.4	211	P	2022/06/07	15:40:59.7	0.5
PURM	2.7	65	P	2022/06/07	15:41:03.8	-0.1
DRGR	2.8	300	P	2022/06/07	15:41:05.3	-0.2
SORM	3.1	27	P	2022/06/07	15:41:08.2	-0.1
MDVR	3.3	260	P	2022/06/07	15:41:10.8	-0.8
RDO	4.3	188	P	2022/06/07	15:41:25.5	0.4
LUBAR	4.6	12	P	2022/06/07	15:41:28.1	-0.8



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

08.06.2022. Belarus

$t_0 = 16:07:56$; $\varphi = 52,81^\circ N$; $\lambda = 27,58^\circ E$; $h = 6 \text{ km}$; $ML_v = 2,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/08	16:07:56.3	52.81	27.58	6	MLv 2.50

BELARUS

Sta	Dist	EvAz	Phase	Date	Time	Res
RNPP9	1.8	217	P	2022/06/08	16:08:26.9	-0.1
RNPP5	1.9	214	P	2022/06/08	16:08:29.3	0.0
AK21	2.2	156	P	2022/06/08	16:08:33.3	0.5
AK22	2.3	155	P	2022/06/08	16:08:33.7	-0.4
AK20	2.3	156	P	2022/06/08	16:08:34.1	-0.0
AK19	2.3	157	P	2022/06/08	16:08:34.6	0.2
AK18	2.3	156	P	2022/06/08	16:08:34.8	0.2
AK04	2.3	154	P	2022/06/08	16:08:35.1	0.1
AK17	2.3	156	P	2022/06/08	16:08:35.1	0.1
AK03	2.3	153	P	2022/06/08	16:08:34.7	-0.4
AK15	2.3	155	P	2022/06/08	16:08:35.0	-0.1
AK16	2.3	156	P	2022/06/08	16:08:35.5	0.1
AKBB	2.3	154	P	2022/06/08	16:08:35.8	0.3
AKBB	2.3	154	lg	2022/06/08	16:09:09.9	0.0
AKBB	2.3	154	S	2022/06/08	16:09:05.5	-0.0
AK11	2.4	155	P	2022/06/08	16:08:36.0	0.5
AK01	2.4	154	P	2022/06/08	16:08:36.1	0.5
AK14	2.4	156	P	2022/06/08	16:08:36.0	0.1
AK02	2.4	154	P	2022/06/08	16:08:35.2	-0.7
AK13	2.4	157	P	2022/06/08	16:08:36.1	0.1
AK09	2.4	154	P	2022/06/08	16:08:36.7	-0.1
AK06	2.4	155	P	2022/06/08	16:08:36.7	-0.1
AK07	2.5	155	P	2022/06/08	16:08:37.4	0.1



09.06.2022. Zona seismica Vrancea

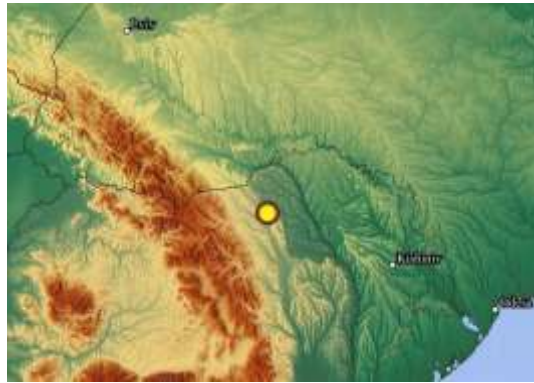
$t_0 = 17:19:33$; $\varphi = 47,66^\circ N$; $\lambda = 26,57^\circ E$; $h = 3 \text{ km}$; $ML_v = 2,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/09	17:19:33.5	47.66	26.57	3	MLv 2.44

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
KPD	0.9	355	Pg	2022/06/09	17:19:50.9	0.1
BURAR	0.9	269	Pg	2022/06/09	17:19:51.3	-0.0
TESR	1.2	177	Pg	2022/06/09	17:19:55.6	0.0
SORM	1.3	68	Pg	2022/06/09	17:19:58.0	-0.2
LUBAR	2.4	19	Pn	2022/06/09	17:20:13.0	-0.4
XAEC4	2.6	4	Pn	2022/06/09	17:20:16.6	-0.1
XAEC3	2.6	1	Pn	2022/06/09	17:20:16.7	-0.1
AK07	3.4	30	Pn	2022/06/09	17:20:26.9	0.0
AK06	3.4	30	Pn	2022/06/09	17:20:27.3	0.1
AK10	3.4	30	Pn	2022/06/09	17:20:27.9	0.3
AK05	3.4	29	Pn	2022/06/09	17:20:27.5	-0.2
AK09	3.4	30	Pn	2022/06/09	17:20:28.2	0.2
AK18	3.5	27	Pn	2022/06/09	17:20:28.7	0.4
AK01	3.5	29	Pn	2022/06/09	17:20:28.4	-0.1

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



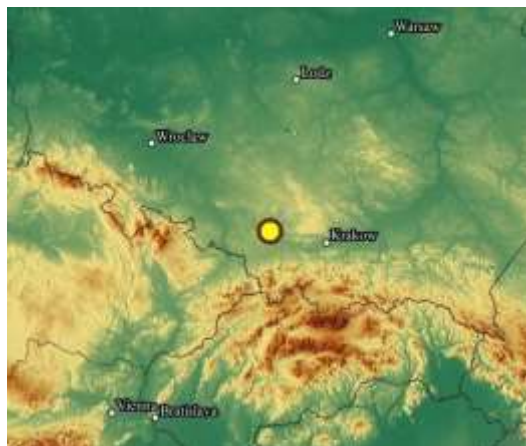
09.06.2022. Poland

$t_0 = 19:58:03$; $\varphi = 50,18^\circ N$; $\lambda = 19,00^\circ E$; $h = 3 \text{ km}$; $ML_v = 3,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/09	19:58:03.4	50.18	19.00	3	MLv 3.18

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
OJC	0.5	85	Pg	2022/06/09	19:58:13.2	-0.1
OKC	0.7	238	Pg	2022/06/09	19:58:16.0	0.1
MORC	1.0	247	Pg	2022/06/09	19:58:23.2	0.2
NIE	1.1	131	Pg	2022/06/09	19:58:24.8	-0.4
KRLC	1.4	267	Pg	2022/06/09	19:58:29.8	-0.4
KRLC	1.4	267	Sg	2022/06/09	19:58:49.1	-0.2
DPC	1.7	277	Sg	2022/06/09	19:58:59.8	-0.4
OSTC	1.8	283	Pn	2022/06/09	19:58:34.8	-0.8
OSTC	1.8	283	Sg	2022/06/09	19:59:04.2	0.8
KSP	1.9	292	Pn	2022/06/09	19:58:35.5	-0.5
CHVC	1.9	283	Pn	2022/06/09	19:58:37.0	-0.0
UPC	1.9	281	Pn	2022/06/09	19:58:37.6	0.4
BEL	2.0	34	Pn	2022/06/09	19:58:38.6	0.5
PSZ	2.3	165	Pn	2022/06/09	19:58:43.1	0.5
KWP	2.5	101	Pn	2022/06/09	19:58:43.9	-0.4
KOLS	2.5	119	Pn	2022/06/09	19:58:44.1	-0.3
PVCC	2.9	279	Pn	2022/06/09	19:58:49.9	0.1
PRU	2.9	268	Pn	2022/06/09	19:58:49.3	-0.8
MUKU	3.0	124	Pn	2022/06/09	19:58:52.2	0.9
SHIU	3.0	107	Pn	2022/06/09	19:58:51.9	0.3
TRPA	3.1	130	Pn	2022/06/09	19:58:53.3	0.2
KHC	3.7	255	Pn	2022/06/09	19:59:01.8	0.8
MORH	4.0	184	Pn	2022/06/09	19:59:05.6	0.4
DRGR	4.2	143	Pn	2022/06/09	19:59:07.8	-0.3
SIRR	4.3	155	Pn	2022/06/09	19:59:09.3	-0.3
BURAR	4.8	119	P	2022/06/09	19:59:17.0	0.4
XAEC5	5.0	84	P	2022/06/09	19:59:18.3	-0.4
KPD	5.1	106	P	2022/06/09	19:59:19.7	-1.4
AK02	6.5	82	P	2022/06/09	19:59:41.2	0.9



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

10.06.2022. Zona seismică Vrancea

$t_0 = 06:34:47$; $\varphi = 47,68^\circ N$; $\lambda = 26,55^\circ E$; $h = 8 \text{ km}$; $ML_v = 1,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/10	06:34:47.6	47.68	26.55	8	MLv 1.67

ROMANIA

sta	Dist	EvAz	Phase	Date	Time	Res
KPD	0.9	356	LR	2022/06/10	06:35:20.2	0.1
KPD	0.9	356	Sg	2022/06/10	06:35:16.7	-0.1
BURAR	0.9	268	Pg	2022/06/10	06:35:05.6	0.5
BURAR	0.9	268	Sg	2022/06/10	06:35:17.3	-0.5
TESR	1.2	177	Pg	2022/06/10	06:35:10.2	0.0
SORM	1.3	69	Pg	2022/06/10	06:35:12.8	0.3
SORM	1.3	69	Sg	2022/06/10	06:35:30.1	-0.4
AK13	3.4	28	Sn	2022/06/10	06:36:21.6	0.1
AK02	3.4	29	Sn	2022/06/10	06:36:23.4	-0.2
AK11	3.5	29	Sn	2022/06/10	06:36:23.7	0.0



19.06.2022. Zona seismică Vrancea

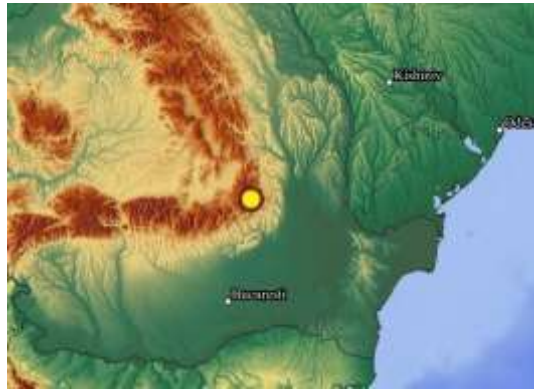
$t_0 = 20:54:43$; $\varphi = 45,65^\circ N$; $\lambda = 26,50^\circ E$; $h = 145 \text{ km}$; $ML_v = 3,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/19	20:54:43.9	45.65	26.50	145	MLv 3.30

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.3	36	P	2022/06/19	20:55:04.8	0.2
VRI	0.3	36	S	2022/06/19	20:55:21.1	0.4
TESR	0.9	7	P	2022/06/19	20:55:07.7	0.2
VOIR	1.0	259	P	2022/06/19	20:55:08.9	0.4
HUMR	1.6	224	P	2022/06/19	20:55:14.1	0.3
HUMR	1.6	224	S	2022/06/19	20:55:35.8	-1.2
TIRR	1.8	131	P	2022/06/19	20:55:17.3	0.8
TIRR	1.8	131	S	2022/06/19	20:55:41.1	-0.7
PLVB	2.6	211	P	2022/06/19	20:55:26.6	0.3
SORM	2.8	26	P	2022/06/19	20:55:28.5	0.1
DRGR	2.9	295	P	2022/06/19	20:55:28.9	-0.4
KPD	2.9	360	P	2022/06/19	20:55:29.9	0.0
NDNU	3.0	11	P	2022/06/19	20:55:31.0	0.0
MDVR	3.5	257	P	2022/06/19	20:55:37.9	0.6
LUBAR	4.4	11	P	2022/06/19	20:55:48.5	-0.1
AK07	5.2	19	P	2022/06/19	20:56:00.3	0.2
AK13	5.3	18	P	2022/06/19	20:56:00.5	0.0
AK14	5.3	18	P	2022/06/19	20:56:00.4	-0.4
AK12	5.3	19	P	2022/06/19	20:56:01.0	-0.2
AK16	5.3	18	P	2022/06/19	20:56:01.1	-0.2
MI28	5.3	8	P	2022/06/19	20:56:01.4	-0.3
AK15	5.3	18	P	2022/06/19	20:56:01.5	-0.2
AKBB	5.4	19	P	2022/06/19	20:56:02.0	-0.1

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



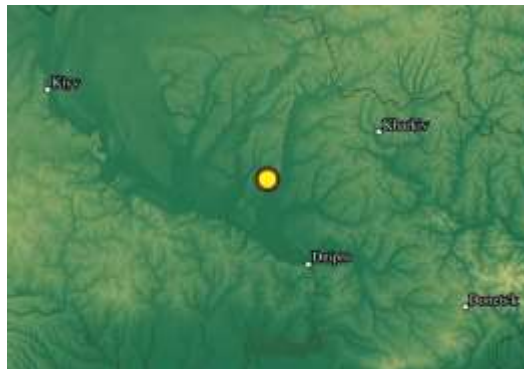
21.06.2022. Ukraine, Poltava region

$t_0 = 14:37:11$; $\varphi = 49,45^\circ N$; $\lambda = 34,33^\circ E$; $h = 10$ км; $ML_v = 3,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/21	14:37:11.5	49.45	34.33	10	MLv 3.40

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
MI02	0.2	42	Pg	2022/06/21	14:37:15.6	-0.2
MI02	0.2	42	Sg	2022/06/21	14:37:18.8	-0.2
AK09	3.5	292	Pn	2022/06/21	14:38:05.3	0.0
AK09	3.5	292	sP	2022/06/21	14:38:09.9	0.6
AK10	3.5	291	Pn	2022/06/21	14:38:05.5	0.1
AK08	3.5	292	Pn	2022/06/21	14:38:05.2	-0.4
AK08	3.5	292	Sn	2022/06/21	14:38:47.2	-0.5
AK07	3.5	290	Pn	2022/06/21	14:38:05.7	0.1
AK06	3.5	291	Pn	2022/06/21	14:38:06.1	0.3
AK05	3.5	292	Pn	2022/06/21	14:38:06.0	0.1
AK02	3.5	292	Pn	2022/06/21	14:38:06.0	-0.1
AKBB	3.5	293	Pn	2022/06/21	14:38:06.5	0.4
AKBB	3.5	293	sP	2022/06/21	14:38:09.5	-0.6
AK03	3.5	293	Pn	2022/06/21	14:38:06.4	0.1
AK12	3.5	292	Pn	2022/06/21	14:38:06.8	0.3
AK11	3.5	292	Pn	2022/06/21	14:38:06.8	0.3
AK04	3.6	293	Pn	2022/06/21	14:38:06.8	0.0
AK14	3.6	291	Pn	2022/06/21	14:38:06.8	-0.0
AK13	3.6	291	Pn	2022/06/21	14:38:07.0	-0.2
AK23	3.6	293	Pn	2022/06/21	14:38:07.6	0.3
AK18	3.6	293	Pn	2022/06/21	14:38:07.6	0.1
AK22	3.6	293	Pn	2022/06/21	14:38:07.9	0.2
AK19	3.7	292	Pn	2022/06/21	14:38:07.9	-0.1
SORM	4.2	254	Sn	2022/06/21	14:39:04.0	-0.7
LUBAR	4.3	279	Pn	2022/06/21	14:38:17.0	0.2
MI29	4.3	286	Pn	2022/06/21	14:38:17.2	0.4
XAEC5	5.0	284	Pn	2022/06/21	14:38:26.1	-0.4



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

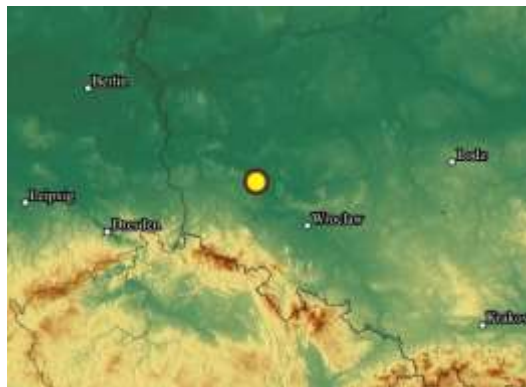
22.06.2022. Poland

$t_0 = 16:06:59$; $\varphi = 51,56^\circ N$; $\lambda = 16,19^\circ E$; $h = 11 \text{ км}$; $ML_v = 3,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/22	16:06:59.8	51.56	16.19	11	MLv 3.53

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
PVCC	1.5	225	P	2022/06/22	16:07:25.5	-0.2
KRLC	1.5	164	P	2022/06/22	16:07:26.8	0.1
RUE	1.7	302	P	2022/06/22	16:07:30.1	0.2
PRU	1.9	214	P	2022/06/22	16:07:32.1	0.1
MORC	2.0	154	P	2022/06/22	16:07:33.0	-0.3
HSKC	2.0	242	P	2022/06/22	16:07:33.2	-0.1
NKC	2.7	242	P	2022/06/22	16:07:43.4	0.0
KHC	3.0	216	P	2022/06/22	16:07:46.5	-0.2
VYHS	3.5	150	P	2022/06/22	16:07:54.4	0.2
PSZ	4.4	145	P	2022/06/22	16:08:06.3	0.3
RNPP9	6.1	88	P	2022/06/22	16:08:29.7	0.5
RNPP5	6.1	89	P	2022/06/22	16:08:29.7	0.2
DRGR	6.4	136	P	2022/06/22	16:08:34.3	0.2
SIRR	6.4	144	P	2022/06/22	16:08:34.1	0.0
XAEC3	6.7	97	P	2022/06/22	16:08:38.7	0.2
MI28	7.2	91	P	2022/06/22	16:08:45.6	0.2
MI30	7.6	91	P	2022/06/22	16:08:50.5	0.2
AK20	8.1	91	P	2022/06/22	16:08:57.0	-0.3
AK21	8.1	91	P	2022/06/22	16:08:57.7	0.2
AK22	8.1	91	P	2022/06/22	16:08:57.9	0.1
AK17	8.1	91	P	2022/06/22	16:08:57.5	-0.4
AK13	8.2	92	P	2022/06/22	16:08:57.7	-0.4
AK16	8.2	91	P	2022/06/22	16:08:57.9	-0.4
AK15	8.2	91	P	2022/06/22	16:08:58.3	-0.1
AK04	8.2	91	P	2022/06/22	16:08:58.3	-0.4
AK03	8.2	91	P	2022/06/22	16:08:59.4	0.3
AK02	8.2	91	P	2022/06/22	16:08:59.3	0.1
AKBB	8.2	91	P	2022/06/22	16:08:58.7	-0.6



23.06.2022. Poland

$t_0 = 00:57:49$; $\varphi = 51,60^\circ N$; $\lambda = 16,18^\circ E$; $h = 9 \text{ км}$; $ML_v = 3,5$

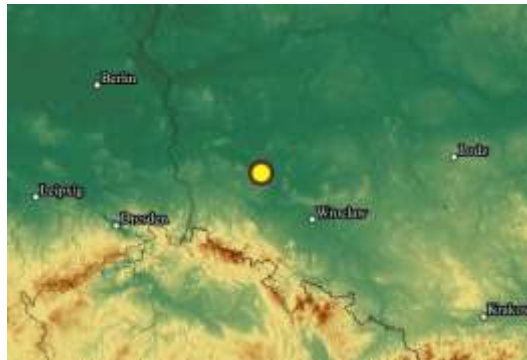
Date	Time	Latitude	Longitude	Depth	Mag
2022/06/23	00:57:49.4	51.60	16.18	9	MLv 3.52

POLAND

Sta	Dist	EvAz	Phase	Date	Time	res
CHVC	1.0	184	P	2022/06/23	00:58:08.6	-0.2
OSTC	1.0	179	P	2022/06/23	00:58:09.2	-0.1
DPC	1.3	176	P	2022/06/23	00:58:12.4	-0.1
PVCC	1.5	224	P	2022/06/23	00:58:16.5	0.7
KRLC	1.6	164	P	2022/06/23	00:58:17.3	0.3
RUE	1.7	302	P	2022/06/23	00:58:19.5	0.1
PRA	1.9	217	P	2022/06/23	00:58:21.8	0.0
PRU	1.9	213	P	2022/06/23	00:58:22.3	0.1
MORC	2.0	154	P	2022/06/23	00:58:23.5	-0.2
OKC	2.2	144	P	2022/06/23	00:58:25.2	-0.4
OJC	2.7	120	P	2022/06/23	00:58:31.6	-1.1
NKC	2.7	241	P	2022/06/23	00:58:32.6	-0.8
KHC	3.0	215	P	2022/06/23	00:58:36.4	-0.4

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

CKRC	3.0	204	P	2022/06/23	00:58:37.7	0.1
MODS	3.3	167	P	2022/06/23	00:58:41.0	-0.3
NIE	3.4	128	P	2022/06/23	00:58:43.5	0.6
SOP	3.9	176	P	2022/06/23	00:58:50.6	0.7
PSZ	4.4	145	P	2022/06/23	00:58:56.3	-0.1
CSKK	4.5	161	P	2022/06/23	00:58:57.2	0.1
KWP	4.6	113	P	2022/06/23	00:58:58.7	-0.4
KOLS	4.7	122	P	2022/06/23	00:59:00.9	0.0
UZH	4.9	125	P	2022/06/23	00:59:04.1	0.5
BEHE	5.1	175	P	2022/06/23	00:59:07.6	0.9
TRPA	5.4	128	P	2022/06/23	00:59:10.2	0.4
SIRR	6.4	144	P	2022/06/23	00:59:23.6	-0.9
XAEC5	6.8	96	P	2022/06/23	00:59:29.1	0.3
KPD	7.3	111	P	2022/06/23	00:59:36.3	0.4
LUBAR	7.5	98	P	2022/06/23	00:59:38.5	-0.9
AK20	8.1	91	P	2022/06/23	00:59:48.3	1.0
AK21	8.1	91	P	2022/06/23	00:59:47.1	-0.4
AK22	8.1	91	P	2022/06/23	00:59:47.7	-0.1
AK13	8.2	92	P	2022/06/23	00:59:48.9	0.9
AK16	8.2	91	P	2022/06/23	00:59:48.8	0.5
AK15	8.2	91	P	2022/06/23	00:59:48.9	0.5
AK12	8.2	92	P	2022/06/23	00:59:49.3	0.5
AK11	8.2	91	P	2022/06/23	00:59:49.5	0.7
AK02	8.3	91	P	2022/06/23	00:59:50.3	1.1
AKBB	8.3	91	P	2022/06/23	00:59:48.6	-0.7
AK05	8.3	92	P	2022/06/23	00:59:48.6	-0.7
AK06	8.3	92	P	2022/06/23	00:59:48.4	-1.0
AK07	8.3	92	P	2022/06/23	00:59:48.7	-0.8
AK08	8.3	92	P	2022/06/23	00:59:48.7	-1.0
AK10	8.3	92	P	2022/06/23	00:59:50.0	0.2
AK09	8.3	92	P	2022/06/23	00:59:50.2	0.2



25.06.2022. Poland

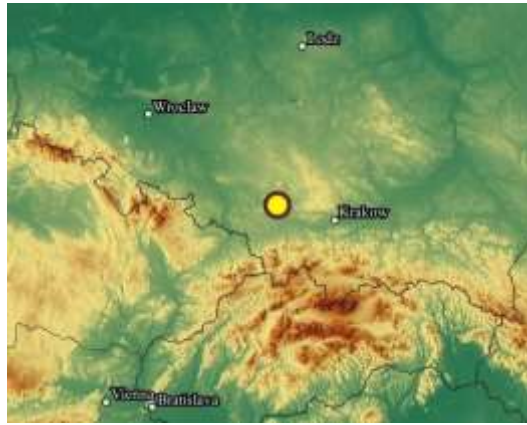
$t_0 = 04:27:07$; $\varphi = 50,21^\circ N$; $\lambda = 19,06^\circ E$; $h = 10 \text{ км}$; $ML_v = 3,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/25	04:27:07.0	50.21	19.06	10	ML _v 3.62

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
RNPP5	4.5	74	P	2022/06/25	04:28:14.5	-0.1
RNPP8	4.5	73	P	2022/06/25	04:28:14.5	-0.0
RNPP8	4.5	73	pP	2022/06/25	04:28:17.0	-0.0
RNPP9	4.5	72	P	2022/06/25	04:28:15.2	0.1
BUR31	4.8	120	P	2022/06/25	04:28:19.1	-0.1
BUR31	4.8	120	pP	2022/06/25	04:28:21.6	-0.1
XAEC2	5.0	87	P	2022/06/25	04:28:21.7	0.0
XAEC4	5.0	86	P	2022/06/25	04:28:22.1	0.1
KPD	5.1	106	P	2022/06/25	04:28:23.5	0.0
MI28	5.5	79	P	2022/06/25	04:28:29.4	0.1
MI30	5.6	85	P	2022/06/25	04:28:30.7	-0.0
MI29	5.9	81	P	2022/06/25	04:28:33.8	0.0
PABE	6.1	27	P	2022/06/25	04:28:36.8	0.0
ECH	8.0	260	P	2022/06/25	04:29:03.9	0.0
TIRR	8.6	129	P	2022/06/25	04:29:11.0	0.0
VSU	9.4	25	P	2022/06/25	04:29:22.2	-0.1

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



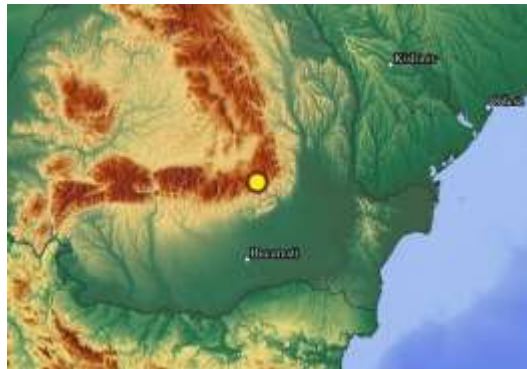
30.06.2022. Zona seismică Vrancea

$t_0 = 01:52:24$; $\varphi = 45,47^\circ N$; $\lambda = 26,30^\circ E$; $h = 130 \text{ km}$; $ML_v = 3,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/06/30	01:52:24.8	45.47	26.30	130	ML _v 3.00

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.5	38	P	2022/06/30	01:52:44.6	-0.4
VRI	0.5	38	S	2022/06/30	01:53:00.7	-0.0
VOIR	0.9	268	P	2022/06/30	01:52:47.0	-0.0
TESR	1.1	13	P	2022/06/30	01:52:48.6	0.2
ARR	1.2	265	P	2022/06/30	01:52:49.9	0.3
TIRR	1.8	123	P	2022/06/30	01:52:56.8	0.2
PLVB	2.4	210	P	2022/06/30	01:53:03.9	0.1
DEV	2.4	281	P	2022/06/30	01:53:04.3	0.4
DRGR	2.8	299	P	2022/06/30	01:53:08.8	-0.2
MDVR	3.3	260	P	2022/06/30	01:53:14.7	-0.8
SIRR	3.3	285	P	2022/06/30	01:53:16.0	0.3



01.07.2022. Poland

$t_0 = 08:23:14$; $\varphi = 50,23^\circ N$; $\lambda = 19,02^\circ E$; $h = 8 \text{ km}$; $ML_v = 3,0$

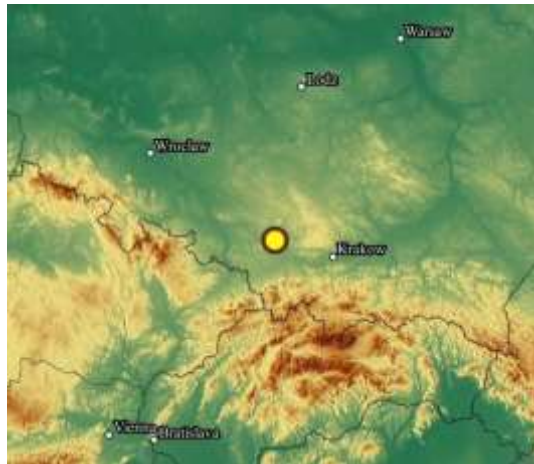
Date	Time	Latitude	Longitude	Depth	Mag
2022/07/01	08:23:14.0	50.23	19.02	8	ML _v 3.00

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
OJC	0.5	91	P	2022/07/01	08:23:22.8	-1.4
OKC	0.7	236	P	2022/07/01	08:23:27.0	-0.7
MORC	1.1	245	P	2022/07/01	08:23:33.3	-0.6
NIE	1.2	134	P	2022/07/01	08:23:34.9	-0.7
KRLC	1.4	265	P	2022/07/01	08:23:39.7	0.3
DPC	1.7	275	P	2022/07/01	08:23:44.6	0.4
VYHS	1.7	184	P	2022/07/01	08:23:43.8	-0.5
KSP	1.8	290	P	2022/07/01	08:23:45.6	-0.2
CHVC	1.9	282	P	2022/07/01	08:23:47.1	0.1
UPC	1.9	279	P	2022/07/01	08:23:47.7	0.5
PSZ	2.4	166	P	2022/07/01	08:23:55.2	2.0
KOLS	2.5	120	P	2022/07/01	08:23:55.7	1.1
PRU	2.9	267	P	2022/07/01	08:23:59.6	-0.7

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TRPA	3.1	131	P	2022/07/01	08:24:03.6	0.3
CKRC	3.4	247	P	2022/07/01	08:24:07.1	0.2
DRGR	4.2	143	P	2022/07/01	08:24:18.4	-0.1
SIRR	4.3	155	P	2022/07/01	08:24:19.6	-0.5
LUBAR	5.6	90	P	2022/07/01	08:24:36.2	-1.6
AKBB	6.5	82	P	2022/07/01	08:24:50.1	-0.0
AKBB	6.5	82	pP	2022/07/01	08:24:54.3	2.0



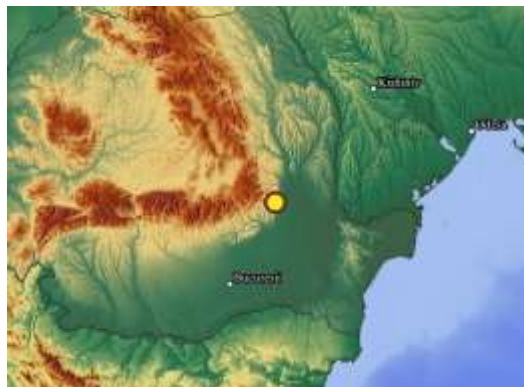
01.07.2022. Zona seismică Vrancea

$t_0 = 17:11:14$; $\varphi = 45,53^\circ N$; $\lambda = 26,97^\circ E$; $h = 11 \text{ km}$; $ML_v = 2,9$

Date	Time	Latitude	Longitude	Depth	Mag
2022/07/01	17:11:14.2	45.53	26.97	11	MLv 2.95

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.4	333	P	2022/07/01	17:11:22.2	-0.3
TESR	1.0	347	P	2022/07/01	17:11:33.9	0.6
VOIR	1.4	267	P	2022/07/01	17:11:39.6	1.0
TIRR	1.5	136	P	2022/07/01	17:11:41.0	0.5
ARR	1.7	265	P	2022/07/01	17:11:44.9	2.0
KPD	3.1	354	P	2022/07/01	17:12:10.2	7.9
DRGR	3.2	295	P	2022/07/01	17:12:05.0	0.4
DJES	3.3	256	P	2022/07/01	17:12:04.4	-1.0
SIRR	3.8	283	P	2022/07/01	17:12:12.4	0.1
MDVR	3.8	260	P	2022/07/01	17:11:58.3	-14.2
RDO	4.5	194	P	2022/07/01	17:12:22.5	0.1
KOLS	4.7	318	P	2022/07/01	17:12:25.3	0.7
XAEC2	4.7	359	P	2022/07/01	17:12:23.2	-1.4
ALN	4.7	189	P	2022/07/01	17:12:24.8	0.0
MI30	5.3	8	P	2022/07/01	17:12:33.0	0.1
AKBB	5.4	15	P	2022/07/01	17:12:34.4	0.0
RNPP9	5.9	353	P	2022/07/01	17:12:42.3	0.5
MDUB	5.9	147	P	2022/07/01	17:12:42.1	0.2
BZK	6.2	123	P	2022/07/01	17:12:45.4	-0.5



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

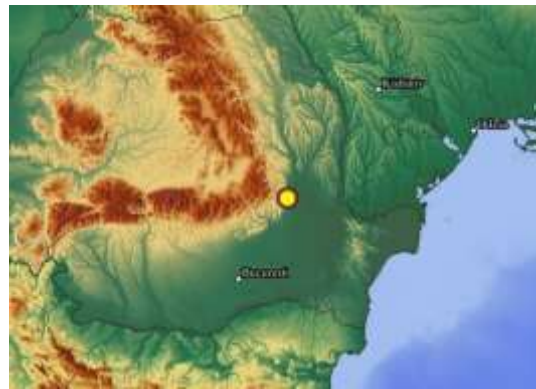
01.07.2022. Zona seismică Vrancea

$t_0 = 17:16:39$; $\varphi = 45,55^\circ N$; $\lambda = 27,06^\circ E$; $h = 10 \text{ km}$; $ML_v = 2,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/07/01	17:16:39.5	45.55	27.06	10	MLv 2.58

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.4	324	P	2022/07/01	17:16:47.2	-0.7
VRI	0.4	324	S	2022/07/01	17:16:54.6	0.6
TESR	1.0	344	P	2022/07/01	17:16:59.2	0.7
VOIR	1.4	266	P	2022/07/01	17:17:04.6	-0.2
VOIR	1.4	266	S	2022/07/01	17:17:23.4	-0.4
TIRR	1.5	138	P	2022/07/01	17:17:05.8	0.3
TIRR	1.5	138	S	2022/07/01	17:17:25.3	0.3
ARR	1.7	265	P	2022/07/01	17:17:07.7	-1.5
ARR	1.7	265	S	2022/07/01	17:17:33.1	1.3
KPD	3.0	353	P	2022/07/01	17:17:28.8	1.3
LUBAR	4.4	6	P	2022/07/01	17:17:45.8	-0.4
MI29	4.9	6	P	2022/07/01	17:17:52.8	-0.3
AKBB	5.4	15	P	2022/07/01	17:17:59.2	-0.1
RNPP9	5.9	353	P	2022/07/01	17:18:06.2	-0.8



04.07.2022. Zona seismică Vrancea

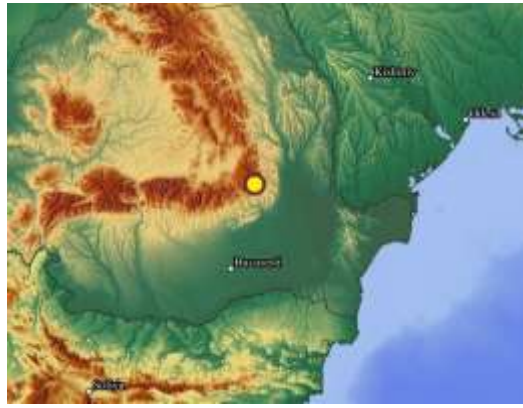
$t_0 = 10:56:45$; $\varphi = 45,59^\circ N$; $\lambda = 26,58^\circ E$; $h = 123 \text{ km}$; $ML_v = 4,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/07/04	10:56:45.9	45.59	26.58	123	MLv 3.98

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.3	21	P	2022/07/04	10:57:04.6	0.3
VRI	0.3	21	S	2022/07/04	10:57:17.8	-0.7
TESR	0.9	3	P	2022/07/04	10:57:08.3	0.5
VOIR	1.1	262	P	2022/07/04	10:57:09.4	0.3
ARR	1.4	261	P	2022/07/04	10:57:13.0	0.5
TIRR	1.7	130	P	2022/07/04	10:57:16.3	0.1
KIS	2.1	47	P	2022/07/04	10:57:21.8	1.1
PLVB	2.6	213	P	2022/07/04	10:57:27.0	-0.3
SORM	2.8	25	P	2022/07/04	10:57:30.2	0.3
KPD	3.0	358	P	2022/07/04	10:57:31.1	-0.8
LUBAR	4.4	10	P	2022/07/04	10:57:50.6	-0.2
RDO	4.5	190	P	2022/07/04	10:57:51.8	-0.5
XAEC5	4.8	1	P	2022/07/04	10:57:56.9	0.3
MI29	4.9	10	P	2022/07/04	10:57:58.2	0.7
AK07	5.3	19	P	2022/07/04	10:58:02.2	-0.2
AK13	5.3	17	P	2022/07/04	10:58:02.4	-0.3
AK06	5.3	18	P	2022/07/04	10:58:02.7	-0.1
AK14	5.3	18	P	2022/07/04	10:58:02.9	-0.2
AK10	5.3	19	P	2022/07/04	10:58:03.1	-0.0
AK20	5.4	17	P	2022/07/04	10:58:03.9	-0.4
AKBB	5.4	18	P	2022/07/04	10:58:04.5	0.2
AK04	5.4	18	P	2022/07/04	10:58:04.3	-0.2
AK03	5.4	18	P	2022/07/04	10:58:04.6	0.0
AK22	5.4	17	P	2022/07/04	10:58:04.3	-0.3
AK23	5.4	17	P	2022/07/04	10:58:04.6	-0.3
RNPP5	5.7	356	P	2022/07/04	10:58:07.9	0.2
RNPP9	5.8	356	P	2022/07/04	10:58:10.1	0.0

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10.07.2022. Ukraine, Vinnytsia region

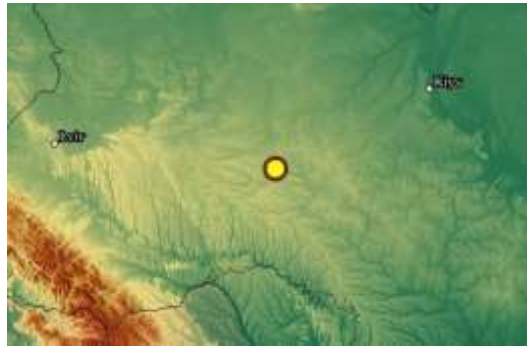
$t_0 = 22:31:01$; $\varphi = 49,56^\circ N$; $\lambda = 27,84^\circ E$; $h = 3 \text{ км}$; $ML_v = 1,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/07/10	22:31:01.2	49.56	27.84	3	ML _v 1.7

UKRAINE

Sta	Dist	EvAz	Phase	Date	Time	Res
LUBAR	0.4	343	Pg	2022/07/10	22:31:08.6	-0.9
AK13	1.3	32	Pg	2022/07/10	22:31:26.5	0.2
AK13	1.3	32	Sg	2022/07/10	22:31:43.5	-0.5
AK07	1.3	37	Pg	2022/07/10	22:31:26.9	0.5
AK07	1.3	37	Sg	2022/07/10	22:31:44.4	0.4
AK06	1.3	36	Pg	2022/07/10	22:31:27.3	0.4
AK14	1.3	33	Pg	2022/07/10	22:31:27.7	0.7
AK14	1.3	33	Sg	2022/07/10	22:31:44.7	-0.3
AK05	1.4	35	Pg	2022/07/10	22:31:28.2	0.7
AK12	1.4	34	Pg	2022/07/10	22:31:27.9	0.4
AK12	1.4	34	Sg	2022/07/10	22:31:45.8	-0.1
AK10	1.4	37	Pg	2022/07/10	22:31:27.9	0.4
AK10	1.4	37	Sg	2022/07/10	22:31:46.1	0.2
AK17	1.4	31	Pg	2022/07/10	22:31:27.9	0.4
AK17	1.4	31	Sg	2202/07/10	22:31:45.5	-0.4
AK16	1.4	32	Pg	2202/07/10	22:31:27.4	-0.2
AK16	1.4	32	Sg	2202/07/10	22:31:46.0	-0.0
AK19	1.4	29	Pg	2202/07/10	22:31:27.9	0.0
AK19	1.4	29	Sg	2202/07/10	22:31:46.4	-0.1
SORM	1.4	169	Sg	2202/07/10	22:31:45.7	-1.0
AK09	1.4	37	Pg	2202/07/10	22:31:28.2	0.2
AK09	1.4	37	Sg	2202/07/10	22:31:46.6	-0.1
AK08	1.4	36	Pg	2202/07/10	22:31:28.7	0.7
AK11	1.4	33	Pg	2022/07/10	22:31:28.4	0.2
AK20	1.4	28	Pg	2022/07/10	22:31:28.2	-0.0
AK20	1.4	28	Sg	2022/07/10	22:31:46.6	-0.4
AK18	1.4	30	Pg	2022/07/10	22:31:28.2	0.0
AK01	1.4	34	Pg	2022/07/10	22:31:29.1	0.4
AK01	1.4	34	Sg	2022/07/10	22:31:47.6	-0.2
AK04	1.4	32	Pg	2022/07/10	22:31:29.0	0.2
AK04	1.4	32	Sg	2022/07/10	22:31:47.9	-0.3
AK22	1.4	29	Sg	2022/07/10	22:31:47.6	-0.6
AKBB	1.4	34	Sg	2022/07/10	22:31:48.1	-0.2
AKBB	1.4	34	Pg	2022/07/10	22:31:28.9	0.0
AK21	1.4	28	Sg	2022/07/10	22:31:47.8	-0.6
AK23	1.5	30	Pg	2022/07/10	22:31:29.3	0.1
AK03	1.5	33	Pg	2022/07/10	22:31:29.3	0.0
AK03	1.5	33	Sg	2022/07/10	22:31:48.9	-0.1

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



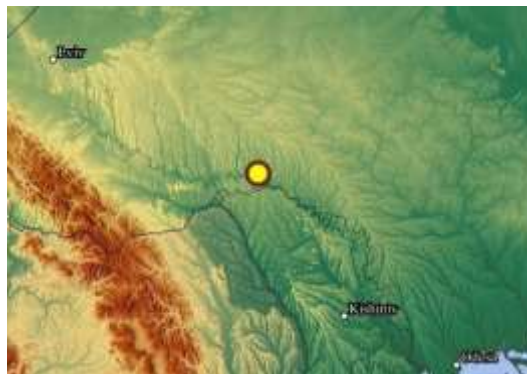
11.07.2022. Ukraine, Chernivtsi region

$t_0 = 00:50:27$; $\varphi = 48,61^\circ N$; $\lambda = 27,42^\circ E$; $h = 3 \text{ км}$; $ML_v = 2,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/07/11	00:50:27.2	48.61	27.42	3	ML _v 2.60

UKRAINE

Sta	Dist	EvAz	Phase	Date	Time	Res
KPD	0.6	275	Pg	2022/07/11	00:50:38.8	-0.1
SORM	0.8	120	Pg	2022/07/11	00:50:41.6	-0.2
XAEC4	1.8	349	Pn	2022/07/11	00:50:59.3	0.1
TESR	2.1	194	Pn	2022/07/11	00:51:02.9	0.2
AK07	2.4	30	sP	2022/07/11	00:51:08.3	0.3
AK13	2.4	27	Pn	2022/07/11	00:51:07.3	0.4
AK13	2.4	27	sP	2022/07/11	00:51:08.2	0.1
AK06	2.4	29	Pn	2022/07/11	00:51:07.1	-0.1
AK05	2.4	29	Pn	2022/07/11	00:51:07.3	-0.3
MI28	2.4	5	Pn	2022/07/11	00:51:07.4	-0.3
MI28	2.4	5	sP	2022/07/11	00:51:08.6	-0.3
AKBB	2.5	28	Pn	2022/07/11	00:51:08.9	0.2



12.07.2022. Zona seismică Vrancea

$t_0 = 00:34:57$; $\varphi = 45,84^\circ N$; $\lambda = 27,13^\circ E$; $h = 28 \text{ км}$; $ML_v = 2,7$

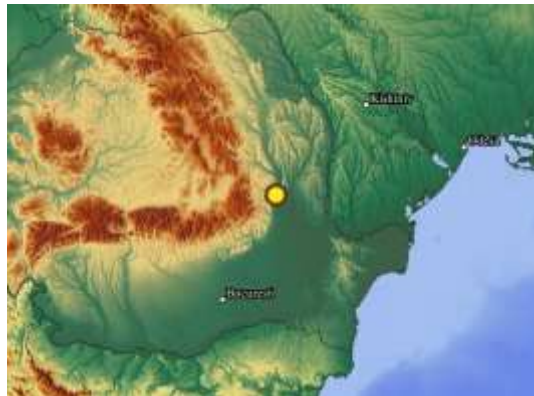
Date	Time	Latitude	Longitude	Depth	Mag
2022/07/12	00:34:57.1	45.84	27.13	28	ML _v 2.70

ROMANIA

Stat	Dist	EvAz	Phase	Date	Time	Res
VRI	0.3	275	P	2022/07/12	00:35:05.3	-0.2
TESR	0.7	334	P	2022/07/12	00:35:12.0	0.2
VOIR	1.5	255	P	2022/07/12	00:35:22.5	0.1
KIS	1.6	45	P	2022/07/12	00:35:24.8	0.8
TIRR	1.7	146	P	2022/07/12	00:35:24.6	0.3
TIRR	1.7	146	S	2022/07/12	00:35:44.7	-0.5
ARR	1.8	256	P	2022/07/12	00:35:26.7	0.3
HUMR	2.0	230	P	2022/07/12	00:35:29.1	-0.1
SORM	2.4	20	P	2022/07/12	00:35:34.8	-0.2
NDNU	2.8	3	P	2022/07/12	00:35:39.5	0.1
PLVB	3.0	217	P	2022/07/12	00:35:43.4	0.1
DRGR	3.2	289	P	2022/07/12	00:35:45.5	-0.1
SIRR	3.8	278	P	2022/07/12	00:35:54.2	0.1
KWP	4.8	323	P	2022/07/12	00:36:07.7	-0.0
RDO	4.8	194	P	2022/07/12	00:36:08.2	0.2

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AK06	4.9	15	P	2022/07/12	00:36:09.8	0.4
MI30	5.0	8	P	2022/07/12	00:36:09.8	0.2
AK05	5.0	15	P	2022/07/12	00:36:10.3	0.4
AK09	5.0	16	P	2022/07/12	00:36:10.1	0.1
AK12	5.0	15	P	2022/07/12	00:36:10.2	0.2
AK08	5.0	16	P	2022/07/12	00:36:10.7	0.5
AK16	5.0	15	P	2022/07/12	00:36:10.2	-0.1
AK17	5.0	14	P	2022/07/12	00:36:10.2	-0.1
AK11	5.0	15	P	2022/07/12	00:36:10.8	0.2
AK19	5.0	14	P	2022/07/12	00:36:10.6	-0.2
AK01	5.0	15	P	2022/07/12	00:36:11.3	0.5
AK18	5.0	14	P	2022/07/12	00:36:10.5	-0.4
AKBB	5.1	15	P	2022/07/12	00:36:11.3	0.3
AK20	5.1	14	P	2022/07/12	00:36:10.5	-0.5
AK22	5.1	14	P	2022/07/12	00:36:10.9	-0.5
AK21	5.1	14	P	2022/07/12	00:36:11.0	-0.5
AK23	5.1	14	P	2022/07/12	00:36:11.3	-0.2
MI28	5.1	4	P	2022/07/12	00:36:10.5	-1.2



13.07.2022. Zona seismică Vrancea

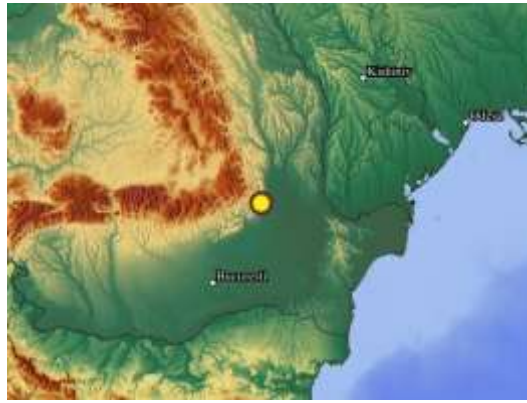
$t_0 = 09:04:15$; $\varphi = 45,45^\circ N$; $\lambda = 26,98^\circ E$; $h = 15 \text{ km}$; $ML_v = 4,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/07/13	09:04:15.7	45.45	26.98	15	MLv 3.98

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.5	337	P	2022/07/13	09:04:25.0	-0.6
TESR	1.1	348	P	2022/07/13	09:04:36.9	0.9
VOIR	1.4	270	P	2022/07/13	09:04:40.6	0.8
TIRR	1.4	134	P	2022/07/13	09:04:40.8	0.1
TIRR	1.4	134	S	2022/07/13	09:05:00.0	0.4
ARR	1.7	268	P	2022/07/13	09:04:44.8	0.8
HUMR	1.7	238	P	2022/07/13	09:04:44.0	-0.5
PLVB	2.7	220	P	2022/07/13	09:04:57.2	-0.8
SORM	2.8	19	P	2022/07/13	09:05:01.4	0.8
MDVR	3.8	262	P	2022/07/13	09:05:13.3	-0.2
SIRR	3.8	284	P	2022/07/13	09:05:13.8	0.1
RDO	4.4	194	P	2022/07/13	09:05:22.1	-0.2
LUBAR	4.5	6	P	2022/07/13	09:05:23.3	-0.1
MI29	5.0	6	P	2022/07/13	09:05:30.2	-0.0
AK07	5.3	16	P	2022/07/13	09:05:34.3	-0.2
AK06	5.4	15	P	2022/07/13	09:05:34.8	-0.2
AK13	5.4	14	P	2022/07/13	09:05:35.1	0.1
MI30	5.4	8	P	2022/07/13	09:05:35.4	0.3
AK10	5.4	16	P	2022/07/13	09:05:35.4	0.1
AK14	5.4	15	P	2022/07/13	09:05:34.6	-0.7
AK05	5.4	15	P	2022/07/13	09:05:35.7	0.3
AK09	5.4	16	P	2022/07/13	09:05:35.9	0.3
AK12	5.4	15	P	2022/07/13	09:05:35.3	-0.3
AK17	5.4	14	P	2022/07/13	09:05:35.7	-0.2
AK11	5.4	15	P	2022/07/13	09:05:35.9	-0.2
AK11	5.4	15	sP	2022/07/13	09:05:41.9	0.0
AK19	5.5	14	P	2022/07/13	09:05:35.8	-0.5
AK01	5.5	15	P	2022/07/13	09:05:36.4	0.0
AK18	5.5	14	P	2022/07/13	09:05:35.6	-0.8
PSZ	5.5	299	P	2022/07/13	09:05:36.5	0.0
AKBB	5.5	15	P	2022/07/13	09:05:36.8	0.2

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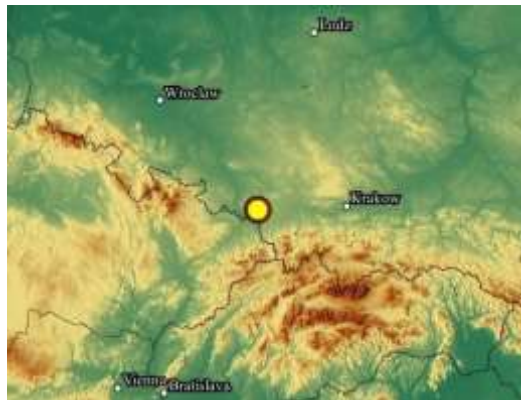
15.07.2022. Poland

$t_0 = 03:01:25$; $\varphi = 50,02^\circ N$; $\lambda = 18,56^\circ E$; $h = 3 \text{ km}$; $ML_v = 3,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/07/15	03:01:25.0	50.02	18.56	3	MLv 2.99

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
OKC	0.3	236	P	2022/07/15	03:01:31.7	-0.0
MORC	0.7	250	P	2022/07/15	03:01:38.1	-0.6
MORC	0.7	250	S	2022/07/15	03:01:48.3	0.0
OJC	0.8	76	P	2022/07/15	03:01:40.3	-0.5
NIE	1.3	117	P	2022/07/15	03:01:48.9	0.2
NIE	1.3	117	S	2022/07/15	03:02:06.7	0.5
DPC	1.5	284	P	2022/07/15	03:01:52.4	0.7
VYHS	1.5	173	P	2022/07/15	03:01:52.9	0.1
OSTC	1.6	290	P	2022/07/15	03:01:54.1	0.5
KSP	1.7	300	P	2022/07/15	03:01:54.7	0.1
CHVC	1.7	290	P	2022/07/15	03:01:55.4	0.2
UPC	1.7	287	P	2022/07/15	03:01:54.9	-0.3
PRU	2.6	271	P	2022/07/15	03:02:07.7	-0.1
PVCC	2.6	283	P	2022/07/15	03:02:07.8	-0.3
CKRC	3.0	248	P	2022/07/15	03:02:14.3	0.6
KHC	3.4	257	P	2022/07/15	03:02:17.9	-0.5
DRGR	4.3	138	P	2022/07/15	03:02:30.0	-0.6



16.07.2022. Zona seismică Vrancea

$t_0 = 07:39:21$; $\varphi = 45,11^\circ N$; $\lambda = 23,28^\circ E$; $h = 4 \text{ km}$; $ML_v = 4,1$

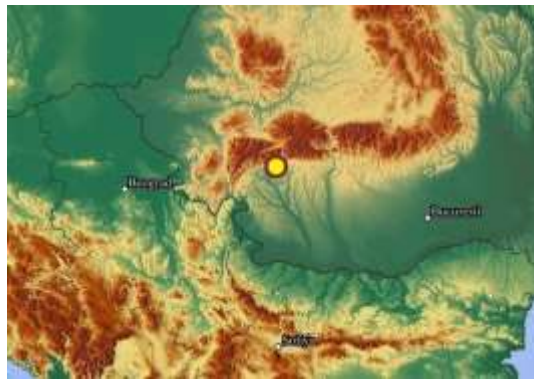
Date	Time	Latitude	Longitude	Depth	Mag
2022/07/16	07:39:21.4	45.11	23.28	4	MLv 4.06

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
DJES	0.7	231	P	2022/07/16	07:39:34.6	-0.5
DEV	0.8	341	P	2022/07/16	07:39:37.4	0.1
ARR	1.0	75	P	2022/07/16	07:39:39.5	-0.8
MDVR	1.2	254	P	2022/07/16	07:39:43.5	0.4
MDVR	1.2	254	S	2022/07/16	07:39:59.2	0.1
VOIR	1.3	75	P	2022/07/16	07:39:45.1	-0.1

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VOIR	1.3	75	S	2022/07/16	07:40:03.0	0.3
HUMR	1.3	115	P	2022/07/16	07:39:46.5	0.5
CJR	1.6	8	P	2022/07/16	07:39:50.2	-0.0
SIRR	1.6	316	P	2022/07/16	07:39:50.9	0.7
DRGR	1.7	347	P	2022/07/16	07:39:51.9	0.0
VRI	2.5	71	P	2022/07/16	07:40:03.6	0.4
VRI	2.5	71	S	2022/07/16	07:40:35.2	-0.2
TESR	2.7	58	P	2022/07/16	07:40:06.0	-0.0
TESR	2.7	58	S	2022/07/16	07:40:40.3	-0.1
TRPA	3.1	351	P	2022/07/16	07:40:09.9	-0.5
MORH	3.4	290	P	2022/07/16	07:40:15.1	-0.5
PSZ	3.7	321	P	2022/07/16	07:40:18.1	-0.5
KOVH	3.8	287	P	2022/07/16	07:40:20.6	0.5
KECS	3.9	331	P	2022/07/16	07:40:21.6	-0.1
KPD	4.1	31	P	2022/07/16	07:40:24.6	0.1
VYHS	4.6	320	P	2022/07/16	07:40:31.0	0.0
NIE	4.8	336	P	2022/07/16	07:40:33.9	0.1
MODS	5.3	310	P	2022/07/16	07:40:40.6	-0.1
LUBAR	5.7	31	P	2022/07/16	07:40:45.9	-0.5
MORC	6.1	322	P	2022/07/16	07:40:51.9	0.1
RNPF5	6.4	15	P	2022/07/16	07:40:55.6	-0.2
MI28	6.5	25	P	2022/07/16	07:40:57.8	-0.2
MI30	6.5	29	P	2022/07/16	07:40:58.3	0.2
AK07	6.7	34	P	2022/07/16	07:41:01.0	0.0
AK14	6.8	33	P	2022/07/16	07:41:01.3	-0.0
AK06	6.8	34	P	2022/07/16	07:41:01.4	0.1
AK17	6.8	33	P	2022/07/16	07:41:01.6	-0.1
AK12	6.8	33	P	2022/07/16	07:41:01.8	0.1
AK05	6.8	34	P	2022/07/16	07:41:01.8	0.1
AK16	6.8	33	P	2022/07/16	07:41:01.8	0.1
AK10	6.8	34	P	2022/07/16	07:41:01.8	0.1
AK19	6.8	32	P	2022/07/16	07:41:01.8	-0.0
AK20	6.8	32	P	2022/07/16	07:41:01.9	-0.2
AK09	6.8	34	P	2022/07/16	07:41:02.2	0.1
AK18	6.8	33	P	2022/07/16	07:41:02.1	0.0
AK15	6.8	33	P	2022/07/16	07:41:02.2	0.1
AK02	6.8	34	P	2022/07/16	07:41:02.3	0.1
AK08	6.8	34	P	2022/07/16	07:41:02.3	0.1
AK11	6.8	33	P	2022/07/16	07:41:02.3	0.1
AK01	6.9	33	P	2022/07/16	07:41:02.4	-0.2
AK22	6.9	32	P	2022/07/16	07:41:02.4	-0.2
AK21	6.9	32	P	2022/07/16	07:41:02.6	-0.0
AKBB	6.9	33	P	2022/07/16	07:41:02.8	0.1
AKBB	6.9	33	S	2022/07/16	07:42:22.8	0.4



17.07.2022. Zona seismică Vrancea

$t_0 = 23:04:30$; $\varphi = 45,76^\circ N$; $\lambda = 26,75^\circ E$; $h = 81 \text{ km}$; $ML_v = 4,0$

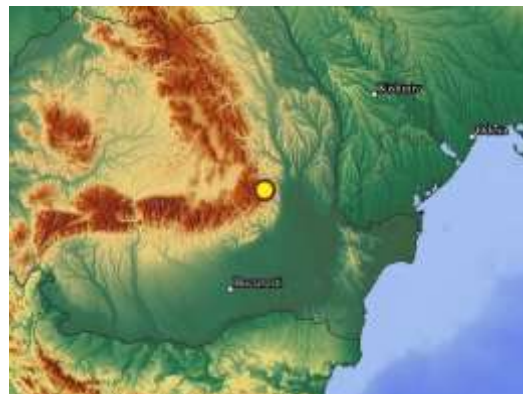
Date	Time	Latitude	Longitude	Depth	Mag
2022/07/17	23:04:30.8	45.76	26.75	81	MLv 3.97

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.1	351	P	2022/07/17	23:04:43.2	0.1
TESR	0.8	355	P	2022/07/17	23:04:47.7	-0.3
VOIR	1.2	255	P	2022/07/17	23:04:52.8	-0.1
VOIR	1.2	255	S	2022/07/17	23:05:09.6	-0.4
ARR	1.5	256	P	2022/07/17	23:04:56.5	-0.2
TIRR	1.8	137	P	2022/07/17	23:05:00.0	0.4
HUMR	1.8	226	P	2022/07/17	23:04:59.5	-0.1

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

KIS	1.9	48	P	2022/07/17	23:05:01.7	0.5
PURM	2.3	69	P	2022/07/17	23:05:07.3	0.6
CJR	2.4	295	P	2022/07/17	23:05:07.9	0.1
SORM	2.6	24	P	2022/07/17	23:05:11.1	0.3
DEV	2.7	274	P	2022/07/17	23:05:12.0	-0.0
KPD	2.8	356	P	2022/07/17	23:05:13.5	0.0
PLVB	2.8	213	P	2022/07/17	23:05:13.8	0.0
BAL3X	2.9	41	P	2022/07/17	23:05:15.6	0.5
DRGR	3.0	292	P	2022/07/17	23:05:15.9	0.0
DJES	3.2	251	P	2022/07/17	23:05:18.3	-0.3
SIRR	3.6	280	P	2022/07/17	23:05:24.3	0.3
MDVR	3.7	256	P	2022/07/17	23:05:26.0	0.5
TRPA	3.7	311	P	2022/07/17	23:05:25.9	-0.1
MI07	3.8	70	P	2022/07/17	23:05:27.6	0.5
PHSR	4.2	172	P	2022/07/17	23:05:32.1	0.1
LUBAR	4.2	9	P	2022/07/17	23:05:32.2	-0.4
KOLS	4.4	318	P	2022/07/17	23:05:35.7	0.7
XAEC1	4.5	359	P	2022/07/17	23:05:37.8	0.8
XAEC5	4.7	360	P	2022/07/17	23:05:39.3	0.7
RDO	4.7	191	P	2022/07/17	23:05:39.2	-0.0
KWP	4.7	326	P	2022/07/17	23:05:40.3	0.7
ALN	4.9	186	P	2022/07/17	23:05:42.1	0.2
AK07	5.1	18	P	2022/07/17	23:05:44.0	-0.1
MI30	5.1	10	P	2022/07/17	23:05:44.7	0.4
AK13	5.1	17	P	2022/07/17	23:05:44.5	0.0
AK06	5.1	18	P	2022/07/17	23:05:44.5	-0.0
AK14	5.1	17	P	2022/07/17	23:05:44.8	-0.1
AK10	5.1	18	P	2022/07/17	23:05:45.1	0.2
AK05	5.1	18	P	2022/07/17	23:05:45.1	0.1
AK12	5.1	17	P	2022/07/17	23:05:45.6	0.5
AK09	5.1	18	P	2022/07/17	23:05:45.2	0.0
AK08	5.2	18	P	2022/07/17	23:05:45.3	0.0
AK16	5.2	17	P	2022/07/17	23:05:44.8	-0.5
AK17	5.2	17	P	2022/07/17	23:05:44.9	-0.5
AK02	5.2	18	P	2022/07/17	23:05:45.5	0.0
PSZ	5.2	297	P	2022/07/17	23:05:45.7	0.1
AK11	5.2	17	P	2022/07/17	23:05:45.3	-0.3
AK15	5.2	17	P	2022/07/17	23:05:45.4	-0.3
AK19	5.2	16	P	2022/07/17	23:05:45.5	-0.3
AK18	5.2	16	P	2022/07/17	23:05:45.6	-0.3
AK01	5.2	18	P	2022/07/17	23:05:45.5	-0.4
AK20	5.2	16	P	2022/07/17	23:05:45.7	-0.3
MI28	5.2	6	P	2022/07/17	23:05:45.7	-0.4
AKBB	5.2	18	P	2022/07/17	23:05:45.7	-0.4
AK04	5.2	17	P	2022/07/17	23:05:45.8	-0.4
AK03	5.2	17	P	2022/07/17	23:05:46.0	-0.4
AK22	5.2	16	P	2022/07/17	23:05:46.0	-0.4
AK21	5.2	16	P	2022/07/17	23:05:46.1	-0.4
AK23	5.2	17	P	2022/07/17	23:05:46.2	-0.4
RNPP5	5.5	354	P	2022/07/17	23:05:50.4	0.3
YLV	5.5	159	P	2022/07/17	23:05:49.7	-0.9
RNPP8	5.6	354	P	2022/07/17	23:05:51.9	0.3
MORH	5.7	277	P	2022/07/17	23:05:52.1	-0.3
RNPP9	5.7	355	P	2022/07/17	23:05:52.2	-0.3
NIE	5.7	312	P	2022/07/17	23:05:53.1	0.5
SRO	6.1	293	P	2022/07/17	23:05:58.8	-0.1
BZK	6.5	123	P	2022/07/17	23:06:03.6	0.2



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

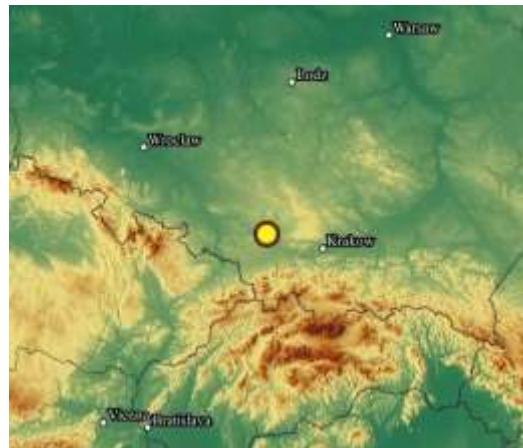
19.07.2022. Poland

$t_0 = 16:56:21$; $\varphi = 50,21^\circ N$; $\lambda = 19,04^\circ E$; $h = 7 \text{ km}$; $ML_v = 3,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/07/19	16:56:21.4	50.21	19.04	7	MLv 3.15

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
OJC	0.5	89	Pg	2022/07/19	16:56:30.6	-0.2
OJC	0.5	89	Sg	2022/07/19	16:56:38.5	0.8
OKC	0.7	237	P	2022/07/19	16:56:34.8	-0.3
MORC	1.1	246	P	2022/07/19	16:56:41.1	-0.5
NIE	1.1	134	P	2022/07/19	16:56:42.6	-0.2
KRLC	1.4	266	P	2022/07/19	16:56:47.5	0.4
VYHS	1.7	185	P	2022/07/19	16:56:51.6	-0.0
DPC	1.7	276	P	2022/07/19	16:56:52.2	0.3
OSTC	1.8	282	P	2022/07/19	16:56:53.8	0.6
KSP	1.9	291	P	2022/07/19	16:56:53.6	-0.0
KOLS	2.5	120	P	2022/07/19	16:57:02.4	0.5
PRU	2.9	267	P	2022/07/19	16:57:08.0	0.0
BSZH	3.0	164	P	2022/07/19	16:57:10.0	0.4
TRPA	3.1	131	P	2022/07/19	16:57:11.2	0.5
CKRC	3.4	247	P	2022/07/19	16:57:14.4	-0.1
CKRC	3.4	247	pP	2022/07/19	16:57:16.2	-0.1
RUE	4.0	306	P	2022/07/19	16:57:23.0	-0.1
MORH	4.0	184	P	2022/07/19	16:57:22.5	-0.7
DRGR	4.2	143	P	2022/07/19	16:57:25.5	-0.3
NKC	4.2	273	P	2022/07/19	16:57:26.5	0.3
SIRR	4.3	155	P	2022/07/19	16:57:27.5	0.0
KPD	5.1	106	P	2022/07/19	16:57:37.7	-0.7
LUBAR	5.6	90	P	2022/07/19	16:57:43.7	-1.6
MI29	5.6	85	P	2022/07/19	16:57:45.8	0.2
MDVR	5.7	161	P	2022/07/19	16:57:47.5	0.7
AK20	6.4	81	P	2022/07/19	16:57:56.3	0.5
AK16	6.4	82	P	2022/07/19	16:57:56.7	0.1
AK14	6.4	82	P	2022/07/19	16:57:56.6	-0.0
AKBB	6.5	82	P	2022/07/19	16:57:57.6	-0.1
AK08	6.5	82	P	2022/07/19	16:57:57.0	-0.9
KIS	7.2	113	P	2022/07/19	16:58:08.0	0.5
PLVB	7.8	149	P	2022/07/19	16:58:15.7	0.1



24.07.2022. Zona seismică Vrancea

$t_0 = 22:04:17$; $\varphi = 44,65^\circ N$; $\lambda = 28,90^\circ E$; $h = 7 \text{ km}$; $ML = 2,9$

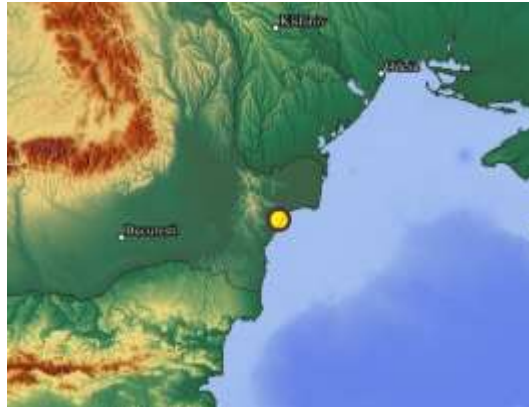
Date	Time	Latitude	Longitude	Depth	Mag
2022/07/24	22:04:17.0	44.65	28.90	7	ML 2.89

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
TIRR	0.4	242	P	2022/07/24	22:04:25.4	0.1
TIRR	0.4	242	S	2022/07/24	22:04:31.3	-0.1
PURM	2.0	20	P	2022/07/24	22:04:51.1	0.0
PURM	2.0	20	S	2022/07/24	22:05:17.6	0.3
TESR	2.4	321	P	2022/07/24	22:04:58.0	0.8
VOIR	2.8	288	P	2022/07/24	22:05:02.4	-0.2
VOIR	2.8	288	S	2022/07/24	22:05:37.9	-0.1

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

SORM	3.5	354	P	2022/07/24	22:05:11.7	-0.2
MDVR	5.1	274	P	2022/07/24	22:05:34.4	0.4
MDVR	5.1	274	S	2022/07/24	22:06:34.2	-0.2
AK09	6.0	2	P	2022/07/24	22:05:45.2	-0.5
AK04	6.1	2	P	2022/07/24	22:05:46.7	-0.4



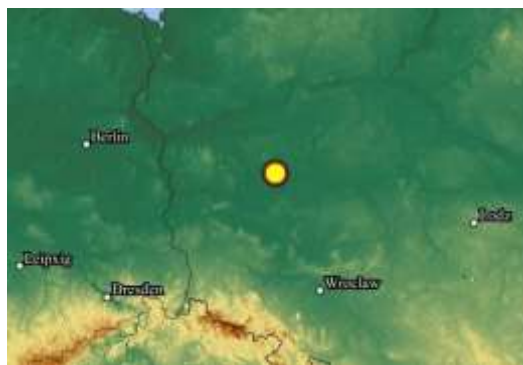
26.07.2022. Poland

$t_0 = 16:12:59$; $\varphi = 52,24^\circ N$; $\lambda = 16,34^\circ E$; $h = 10 \text{ км}$; $ML_v = 3,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/07/26	16:12:59.2	52.24	16.34	10	MLv 3.60

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
KSP	1.4	181	P	2022/07/26	16:13:23.7	-1.1
CHVC	1.7	186	P	2022/07/26	16:13:28.5	-0.5
OSTC	1.7	183	P	2022/07/26	16:13:29.1	-0.2
UPC	1.7	187	P	2022/07/26	16:13:29.7	-0.5
DPC	1.9	180	P	2022/07/26	16:13:32.4	-0.0
PVCC	2.0	214	P	2022/07/26	16:13:35.1	0.4
KRLC	2.2	171	P	2022/07/26	16:13:37.2	0.9
PRA	2.5	210	P	2022/07/26	16:13:41.3	0.6
PRU	2.5	207	P	2022/07/26	16:13:41.2	-0.1
MORC	2.6	162	P	2022/07/26	16:13:42.7	0.6
KHC	3.6	210	P	2022/07/26	16:13:56.1	0.4
MODS	3.9	171	P	2022/07/26	16:14:00.8	0.4
VYHS	4.1	156	P	2022/07/26	16:14:02.0	-0.6
RETH	4.3	279	P	2022/07/26	16:14:05.1	-0.4



01.08.2022. Poland

$t_0 = 21:14:13$; $\varphi = 51,75^\circ N$; $\lambda = 16,12^\circ E$; $h = 10 \text{ км}$; $mb = 4,0$

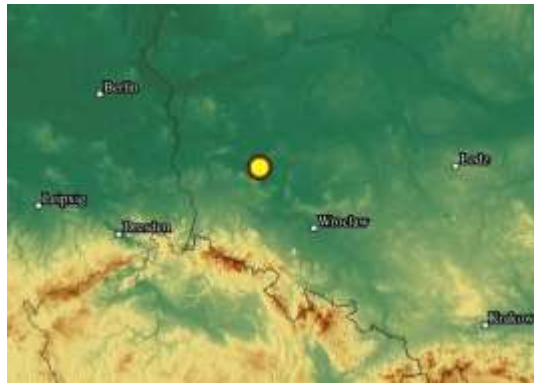
Date	Time	Latitude	Longitude	Depth	Mag
2022/08/01	21:14:13.5	51.75	16.12	10	mb 3.99

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
OSTC	1.2	177	P	2022/08/01	21:14:34.9	-0.8
OSTC	1.2	177	Sg	2022/08/01	21:14:53.9	0.6
UPC	1.3	183	P	2022/08/01	21:14:35.7	-0.7
DPC	1.4	175	P	2022/08/01	21:14:38.1	-0.7
PVCC	1.6	219	P	2022/08/01	21:14:41.5	0.4

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PVCC	1.6	219	Sg	2022/08/01	21:15:05.9	0.5
KRLC	1.7	164	P	2022/08/01	21:14:43.6	0.3
KRLC	1.7	164	Sn	2022/08/01	21:15:06.1	-0.2
PRA	2.0	213	P	2022/08/01	21:14:47.2	-0.1
PRA	2.0	213	Sn	2022/08/01	21:15:12.9	-0.3
PRU	2.0	210	P	2022/08/01	21:14:47.7	-0.1
PRU	2.0	210	Pg	2022/08/01	21:14:52.3	-0.1
PRU	2.0	210	Sn	2022/08/01	21:15:14.3	0.3
MORC	2.2	155	P	2022/08/01	21:14:49.0	-0.7
MORC	2.2	155	Sn	2022/08/01	21:15:17.6	-0.1
KHC	3.1	213	P	2022/08/01	21:15:02.2	-0.1
CKRC	3.2	202	P	2022/08/01	21:15:03.9	0.7
NIE	3.6	130	P	2022/08/01	21:15:09.1	0.4
NIE	3.6	130	Pg	2022/08/01	21:15:21.6	0.2
VYHS	3.7	151	P	2022/08/01	21:15:10.8	0.1
VYHS	3.7	151	Pg	2022/08/01	21:15:24.0	-0.4
SOP	4.1	176	P	2022/08/01	21:15:15.3	-0.7
PSZ	4.6	146	P	2022/08/01	21:15:22.9	0.6
CSKK	4.6	162	P	2022/08/01	21:15:23.0	-0.2
KWP	4.7	114	P	2022/08/01	21:15:24.8	0.5
KOLS	4.8	123	P	2022/08/01	21:15:26.7	0.3
TRPA	5.5	129	P	2022/08/01	21:15:35.6	0.1
MORH	5.8	162	P	2022/08/01	21:15:39.4	0.0
KOVH	5.8	166	P	2022/08/01	21:15:39.5	-0.3
NSLU	5.9	124	P	2022/08/01	21:15:41.6	0.4
RNPP9	6.1	89	P	2022/08/01	21:15:44.5	0.9
DRGR	6.6	136	P	2022/08/01	21:15:50.3	0.1
SIRR	6.6	144	P	2022/08/01	21:15:50.4	-0.0
MI28	7.3	92	P	2022/08/01	21:15:59.9	-0.0
MDVR	7.9	150	P	2022/08/01	21:16:08.7	0.2
AK20	8.2	92	P	2022/08/01	21:16:11.8	0.0
AK19	8.2	92	P	2022/08/01	21:16:11.9	0.0
AK21	8.2	92	P	2022/08/01	21:16:12.0	0.0
AK22	8.2	92	P	2022/08/01	21:16:12.3	0.0
AK18	8.2	92	P	2022/08/01	21:16:12.4	0.0
AK17	8.2	92	P	2022/08/01	21:16:12.2	-0.2
AK16	8.2	92	P	2022/08/01	21:16:12.6	-0.2
AK15	8.2	92	P	2022/08/01	21:16:12.7	-0.2
AK14	8.2	93	P	2022/08/01	21:16:12.8	-0.2
AK04	8.3	92	P	2022/08/01	21:16:13.0	-0.2



02.08.2022. Zona seismică Vrancea

$t_0 = 00:44:32$; $\varphi = 45,58^\circ N$; $\lambda = 27,59^\circ E$; $h = 15 \text{ km}$; $ML_v = 2,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/02	00:44:32.4	45.58	27.58	15	MLv 2.19

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.7	296	P	2022/08/02	00:44:45.6	-0.3
TESR	1.1	325	Lg	2022/08/02	00:45:08.2	-0.1
TESR	1.1	325	P	2022/08/02	00:44:53.5	0.1
VOIR	1.8	266	P	2022/08/02	00:45:03.0	0.4
PURM	1.9	58	P	2022/08/02	00:45:02.9	-0.6
PURM	1.9	58	Sg	2022/08/02	00:45:34.2	0.3
AK06	5.1	12	P	2022/08/02	00:45:48.6	0.1
AK13	5.1	11	P	2022/08/02	00:45:48.7	0.1
AK10	5.1	12	P	2022/08/02	00:45:48.9	0.1
AK08	5.2	12	P	2022/08/02	00:45:48.9	-0.4

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

AK11	5.2	11	P	2022/08/02	00:45:49.7	0.0
AK21	5.3	10	P	2022/08/02	00:45:51.0	0.2



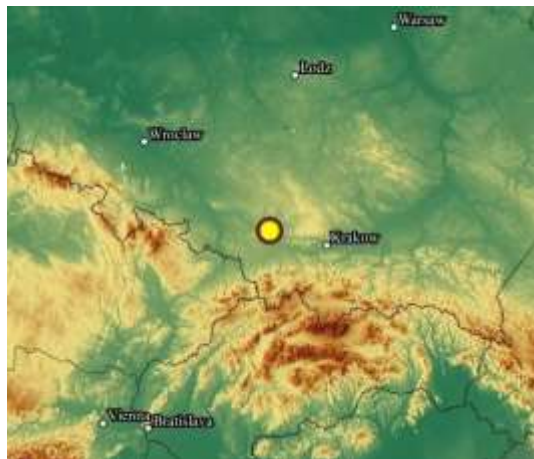
02.08.2022. Poland

$t_0 = 22:26:45$; $\varphi = 50,21^\circ N$; $\lambda = 19,04^\circ E$; $h = 5 \text{ km}$; $ML_V = 2,8$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/02	22:26:45.1	50.21	19.04	5	MLv 2.84

POLAND

Sta	Dist	EvAz	Phase	2022/08/02	Time	Res
OJC	0.5	89	P	2022/08/02	22:26:54.2	-0.6
OJC	0.5	89	S	2022/08/02	22:27:02.2	0.4
OKC	0.7	237	P	2022/08/02	22:26:58.5	-0.1
MORC	1.1	246	P	2022/08/02	22:27:04.8	-0.4
NIE	1.1	133	P	2022/08/02	22:27:06.3	-0.2
KRLC	1.4	266	P	2022/08/02	22:27:11.1	0.1
VYHS	1.7	185	P	2022/08/02	22:27:15.4	-0.0
DPC	1.8	276	P	2022/08/02	22:27:16.1	0.2
DPC	1.8	276	S	2022/08/02	22:27:39.4	0.2
OSTC	1.8	282	P	2022/08/02	22:27:17.1	-0.1
KSP	1.9	291	P	2022/08/02	22:27:17.3	-0.2
KSP	1.9	291	S	2022/08/02	22:27:42.1	-0.1
CHVC	1.9	282	P	2022/08/02	22:27:18.6	-0.2
UPC	2.0	280	P	2022/08/02	22:27:19.1	0.1
MODS	2.2	213	P	2022/08/02	22:27:21.8	-0.1
PSZ	2.4	166	P	2022/08/02	22:27:25.0	0.5
PVCC	2.9	278	P	2022/08/02	22:27:32.2	0.6



04.08.2022. Belarus

$t_0 = 10:33:37$; $\varphi = 52,84^\circ N$; $\lambda = 27,69^\circ E$; $h = 18 \text{ km}$; $ML_V = 2,3$

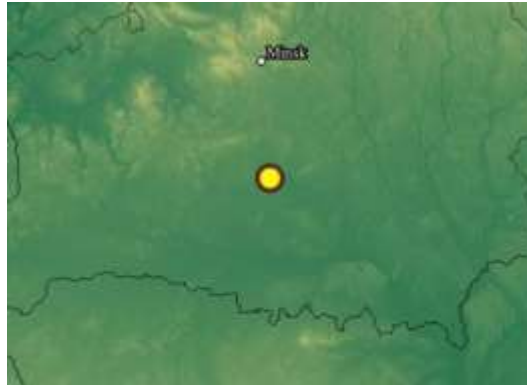
Date	Time	Latitude	Longitude	Depth	Mag
2022/08/04	10:33:37.2	52.84	27.69	18	MLv 2.30

BELARUS

Sta	Dist	EvAz	Phase	Date	Time	Res
AK21	2.2	157	Pn	2022/08/04	10:34:13.2	0.0
AK22	2.2	157	Lg	2022/08/04	10:34:48.0	0.2

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AK20	2.3	158	Pn	2022/08/04	10:34:13.5	-0.0
AK23	2.3	156	Pn	2022/08/04	10:34:13.5	-0.1
AK19	2.3	158	Pn	2022/08/04	10:34:13.2	-0.6
AK18	2.3	157	Pn	2022/08/04	10:34:13.7	-0.2
AK18	2.3	157	Lg	2022/08/04	10:34:48.3	-0.5
AK04	2.3	156	Pn	2022/08/04	10:34:13.9	-0.3
AK17	2.3	158	Pn	2022/08/04	10:34:14.3	-0.1
AK03	2.3	155	Pn	2022/08/04	10:34:14.4	-0.0
AK15	2.3	157	Pn	2022/08/04	10:34:14.4	-0.0
AK15	2.3	157	Lg	2022/08/04	10:34:50.4	0.4
AK16	2.3	157	Pn	2022/08/04	10:34:14.8	0.1
AK16	2.3	157	Lg	2022/08/04	10:34:50.6	-0.0
AKBB	2.3	155	Pn	2022/08/04	10:34:14.3	-0.4
AKBB	2.3	155	Lg	2022/08/04	10:34:50.6	-0.0
AK01	2.3	156	Pn	2022/08/04	10:34:15.0	0.2
AK11	2.3	156	Pn	2022/08/04	10:34:14.9	0.1
AK02	2.4	156	Pn	2022/08/04	10:34:15.2	-0.0
AK12	2.4	157	Pn	2022/08/04	10:34:15.5	0.2
AK14	2.4	158	Pn	2022/08/04	10:34:15.4	0.1
AK13	2.4	158	Pn	2022/08/04	10:34:15.8	0.4
AK09	2.4	155	Pn	2022/08/04	10:34:16.2	0.1
AK06	2.4	157	Pn	2022/08/04	10:34:16.4	0.3
AK10	2.4	156	Pn	2022/08/04	10:34:16.0	-0.1
AK07	2.5	157	Pn	2022/08/04	10:34:16.9	0.4



07.08.2022. Zona seismică Vrancea

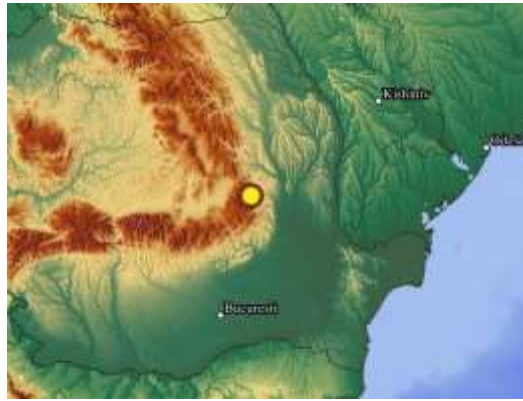
$t_0 = 16:50:22$; $\varphi = 45,89^\circ N$; $\lambda = 26,63^\circ E$; $h = 85 \text{ km}$; $ML_v = 3,5$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/07	16:50:22.3	45.89	26.63	85	MLv 3.52

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.1	111	P	2022/08/07	16:50:34.9	0.1
TESR	0.6	1	P	2022/08/07	16:50:38.5	-0.4
VOIR	1.2	248	P	2022/08/07	16:50:44.5	0.4
ARR	1.5	250	P	2022/08/07	16:50:48.7	0.8
KPD	2.7	358	P	2022/08/07	16:51:01.9	-1.4
DRGR	2.9	290	P	2022/08/07	16:51:05.3	-0.5
LUBAR	4.1	10	P	2022/08/07	16:51:23.2	0.7
RDO	4.8	190	P	2022/08/07	16:51:31.9	-0.4
AK13	5.0	18	P	2022/08/07	16:51:35.2	0.5
AK06	5.0	19	P	2022/08/07	16:51:35.2	0.4
ALN	5.0	185	P	2022/08/07	16:51:34.8	-0.3
AK14	5.0	18	P	2022/08/07	16:51:35.1	0.0
AK12	5.0	19	P	2022/08/07	16:51:36.0	0.6
AK17	5.1	18	P	2022/08/07	16:51:35.7	0.1
AK11	5.1	19	P	2022/08/07	16:51:35.9	0.0
AK19	5.1	17	P	2022/08/07	16:51:35.7	-0.3
MI28	5.1	7	P	2022/08/07	16:51:35.1	-0.9
AK18	5.1	18	P	2022/08/07	16:51:36.0	-0.1
AK22	5.1	18	P	2022/08/07	16:51:36.7	0.1
AK21	5.1	17	P	2022/08/07	16:51:36.8	0.0
RNPP5	5.4	355	P	2022/08/07	16:51:40.1	0.4

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



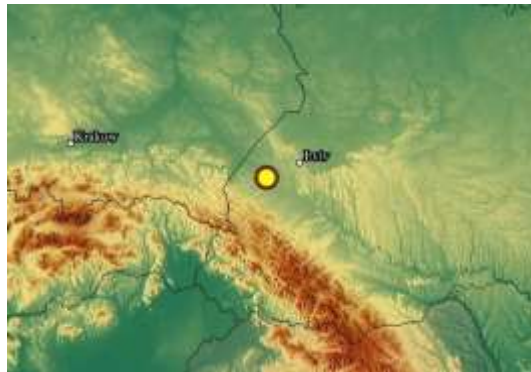
11.08.2022. Ukraine, Lviv region

$t_0 = 10:34:20$; $\varphi = 49,67^\circ N$; $\lambda = 23,43^\circ E$; $h = 5 \text{ km}$; $ML_v = 1,9$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/11	10:34:20.7	49.67	23.43	5	ML _v 1.90

UKRAINE

Sta	Dist	EvAz	Phase	Date	Time	Res
KOLS	1.1	226	P	2022/08/11	10:34:55.3	0.0
KOLS	1.1	226	P	2022/08/11	10:34:40.8	0.1
UZH	1.3	216	P	2022/08/11	10:34:44.1	-0.1
TRPA	1.6	201	P	2022/08/11	10:34:49.9	0.1
NIE	2.0	264	P	2022/08/11	10:34:55.7	0.0



15.08.2022. Poland

$t_0 = 19:26:58$; $\varphi = 51,37^\circ N$; $\lambda = 16,09^\circ E$; $h = 10 \text{ km}$; $ML_v = 3,3$

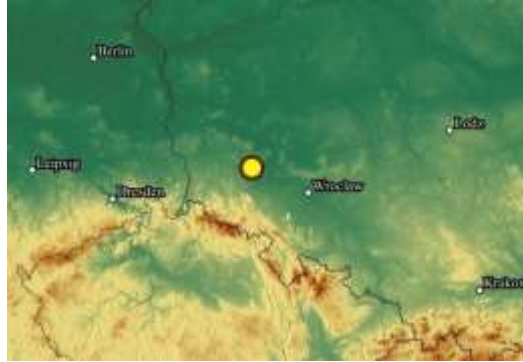
Date	Time	Latitude	Longitude	Depth	Mag
2022/08/15	19:26:58.1	51.37	16.09	10	ML _v 3.31

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
KSP	0.5	166	P	2022/08/15	19:27:08.6	-0.6
OSTC	0.8	174	P	2022/08/15	19:27:14.4	0.4
UPC	0.9	183	P	2022/08/15	19:27:15.0	0.2
DPC	1.0	172	P	2022/08/15	19:27:17.6	-0.0
PVCC	1.3	229	P	2022/08/15	19:27:21.7	0.3
KRLC	1.4	159	P	2022/08/15	19:27:23.1	0.5
PRA	1.7	220	P	2022/08/15	19:27:27.3	0.1
PRU	1.7	216	P	2022/08/15	19:27:27.3	-0.2
RUE	1.8	309	P	2022/08/15	19:27:24.7	-4.5
HSKC	1.8	247	P	2022/08/15	19:27:29.1	-0.6
MORC	1.8	149	P	2022/08/15	19:27:29.3	-0.4
OKC	2.0	139	P	2022/08/15	19:27:31.1	-1.1
GKP	2.0	20	P	2022/08/15	19:27:35.0	2.5
OJC	2.6	115	P	2022/08/15	19:27:38.3	-2.2
KHC	2.8	217	P	2022/08/15	19:27:42.0	-0.4
CKRC	2.8	205	P	2022/08/15	19:27:43.3	0.4
BEL	3.0	79	P	2022/08/15	19:27:45.1	-0.3
MODS	3.1	165	P	2022/08/15	19:27:48.1	1.1
NIE	3.3	124	P	2022/08/15	19:27:50.0	-0.3
VYHS	3.4	147	P	2022/08/15	19:27:50.5	-0.5

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SOP	3.7	175	P	2022/08/15	19:27:55.4	0.0
PSZ	4.2	143	P	2022/08/15	19:28:03.2	0.4
CSKK	4.3	160	P	2022/08/15	19:28:03.2	0.2
KOLS	4.7	119	P	2022/08/15	19:28:07.3	-1.3
TRPA	5.3	125	P	2022/08/15	19:28:16.1	-1.0
MORH	5.4	161	P	2022/08/15	19:28:19.2	0.2
KOVH	5.4	165	P	2022/08/15	19:28:19.3	-0.0
RNPP5	6.1	87	P	2022/08/15	19:28:30.0	1.0
SIRR	6.3	142	P	2022/08/15	19:28:30.6	-0.4
DRGR	6.3	134	P	2022/08/15	19:28:31.1	-0.1
KPD	7.3	109	P	2022/08/15	19:28:44.8	0.7
DJES	8.0	145	P	2022/08/15	19:28:54.2	0.3
TESR	8.5	121	P	2022/08/15	19:29:02.3	1.4



18.08.2022. Poland

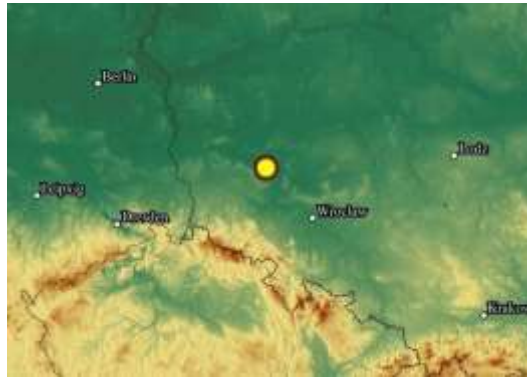
$t_0 = 14:18:36$; $\varphi = 51,63^\circ N$; $\lambda = 16,25^\circ E$; $h = 10 \text{ km}$; $mb = 3,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/18	14:18:36.2	51.63	16.25	10	mb 3.66

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
CHVC	1.0	187	P	2022/08/18	14:18:55.7	-0.4
OSTC	1.1	181	P	2022/08/18	14:18:56.2	-0.2
UPC	1.1	188	P	2022/08/18	14:18:56.9	-0.5
DPC	1.3	178	Lg	2022/08/18	14:19:16.2	-0.2
DPC	1.3	178	P	2022/08/18	14:18:59.5	-0.0
PVCC	1.5	225	P	2022/08/18	14:19:03.5	0.3
PVCC	1.5	225	S	2022/08/18	14:19:22.9	-0.7
KRLC	1.6	166	P	2022/08/18	14:19:04.6	0.6
KRLC	1.6	166	S	2022/08/18	14:19:25.2	0.2
RUE	1.7	300	P	2022/08/18	14:19:06.9	0.6
MORC	2.0	156	P	2022/08/18	14:19:10.5	0.1
MORC	2.0	156	Pg	2022/08/18	14:19:15.7	0.7
NKC	2.8	241	P	2022/08/18	14:19:21.0	0.2
KHC	3.0	215	P	2022/08/18	14:19:24.0	-0.1
TRPA	5.4	128	P	2022/08/18	14:19:57.1	0.8
DRGR	6.4	136	P	2022/08/18	14:20:11.3	0.4
SIRR	6.4	144	P	2022/08/18	14:20:10.9	-0.1
MI28	7.2	91	P	2022/08/18	14:20:20.8	-0.6
MI29	7.4	95	P	2022/08/18	14:20:25.3	0.8
AK20	8.1	91	P	2022/08/18	14:20:33.6	0.2
AK19	8.1	91	P	2022/08/18	14:20:33.3	-0.1
AK21	8.1	91	P	2022/08/18	14:20:34.3	0.7
AK22	8.1	91	P	2022/08/18	14:20:33.9	0.1
AK17	8.1	92	P	2022/08/18	14:20:33.7	-0.3
AK13	8.1	92	P	2022/08/18	14:20:33.7	-0.5
AK16	8.1	92	P	2022/08/18	14:20:33.9	-0.5
AK14	8.2	92	P	2022/08/18	14:20:34.1	-0.5
AK12	8.2	92	P	2022/08/18	14:20:34.4	-0.5
AK03	8.2	91	P	2022/08/18	14:20:34.9	-0.3
AK01	8.2	91	P	2022/08/18	14:20:35.0	-0.3
AKBB	8.2	91	P	2022/08/18	14:20:35.2	-0.1

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



21.08.2022. Belarus

$t_0 = 14:18:36$; $\varphi = 51,63^\circ N$; $\lambda = 16,25^\circ E$; $h = 10 \text{ км}$; $mb = 3,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/21	14:18:36.2	51.63	16.25	10	mb 3.66

BELARUS

Sta	Dist	EvAz	Phase	Date	Time	Res
MI28	1.8	180	S	2022/08/21	12:21:14.7	-0.3
MI28	1.8	180	P	2022/08/21	12:20:50.5	-0.7
RNPP5	1.9	217	S	2022/08/21	12:21:16.8	0.3
RNPP5	1.9	217	P	2022/08/21	12:20:52.1	0.1
MI30	2.0	171	P	2022/08/21	12:20:54.5	0.3
AK21	2.1	156	S	2022/08/21	12:21:23.7	0.2
AK21	2.1	156	P	2022/08/21	12:20:55.5	-0.4
AK22	2.2	156	P	2022/08/21	12:20:55.6	-0.5
AK20	2.2	157	P	2022/08/21	12:20:56.1	-0.1
AK23	2.2	155	P	2022/08/21	12:20:56.2	-0.1
AK19	2.2	157	P	2022/08/21	12:20:56.5	0.0
AK18	2.2	156	P	2022/08/21	12:20:56.7	0.1
AK04	2.2	155	P	2022/08/21	12:20:56.7	-0.2
AK17	2.2	157	P	2022/08/21	12:20:57.2	0.1
AK03	2.2	154	P	2022/08/21	12:20:57.1	-0.0
AK15	2.2	156	P	2022/08/21	12:20:57.2	-0.0
AK16	2.3	156	P	2022/08/21	12:20:57.4	0.0
AKBB	2.3	154	P	2022/08/21	12:20:57.5	0.0
AKBB	2.3	154	Pg	2022/08/21	12:21:03.4	0.1
AK11	2.3	155	P	2022/08/21	12:20:57.4	-0.1
AK01	2.3	154	P	2022/08/21	12:20:57.3	-0.3
AK12	2.3	156	P	2022/08/21	12:20:58.3	0.4
AK14	2.3	156	P	2022/08/21	12:20:57.6	-0.4
AK14	2.3	156	Pg	2022/08/21	12:21:04.1	0.1
AK02	2.3	155	P	2022/08/21	12:20:58.3	0.4
AK13	2.3	157	P	2022/08/21	12:20:58.2	0.2
AK05	2.3	155	P	2022/08/21	12:20:58.6	0.2
AK08	2.3	154	P	2022/08/21	12:20:58.7	0.3
AK09	2.4	154	P	2022/08/21	12:20:58.9	0.1
AK06	2.4	156	P	2022/08/21	12:20:59.0	0.1
AK10	2.4	155	P	2022/08/21	12:20:59.1	0.3
AK07	2.4	156	P	2022/08/21	12:20:59.4	0.1

25.08.2022. Poland

$t_0 = 20:10:51$; $\varphi = 49,53^\circ N$; $\lambda = 22,22^\circ E$; $h = 7 \text{ км}$; $MLv = 3,1$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/25	20:10:51.9	49.53	22.22	7	MLv 3.10

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
UZH	0.9	177	P	2022/08/25	20:11:08.9	-0.3
TRPA	1.4	171	P	2022/08/25	20:11:17.7	0.3
RNPP9	3.0	50	P	2022/08/25	20:11:39.8	-0.1
RNPP9	3.0	50	S	2022/08/25	20:12:17.2	-0.0
OSTC	4.0	287	P	2022/08/25	20:11:53.9	0.3
CHVC	4.1	287	P	2022/08/25	20:11:55.3	0.2
CHVC	4.1	287	S	2022/08/25	20:12:44.1	-0.3

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



26.08.2022. Belarus

$t_0 = 01:55:09$; $\varphi = 52,01^\circ N$; $\lambda = 26,25^\circ E$; $h = 9 \text{ км}$; $ML_v = 2,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/26	01:55:09.1	52.01	26.25	9	ML _v 2.4

BELARUS

Sta	Dist	EvAz	Phase	Date	Time	Res
RNPP9	0.6	201	P	2022/08/26	01:55:21.9	-0.1
RNPP8	0.7	200	P	2022/08/26	01:55:23.4	0.1
XAEC5	1.6	169	S	2022/08/26	01:55:58.8	-0.4
XAEC5	1.6	169	Pg	2022/08/26	01:55:40.2	-0.1
XAEC1	1.7	171	S	2022/08/26	01:56:00.7	-1.3
MI30	1.8	135	S	2022/08/26	01:56:02.5	-0.2
XAEC4	1.8	168	S	2022/08/26	01:56:02.5	-0.4
MI29	1.9	147	LR	2022/08/26	01:56:18.1	0.3
MI29	1.9	147	Sg	2022/08/26	01:56:11.6	0.1
AK21	2.1	124	S	2022/08/26	01:56:13.1	0.5
AK19	2.2	126	S	2022/08/26	01:56:12.7	-0.3
AK18	2.2	125	P	2022/08/26	01:55:45.6	-0.1
AK18	2.2	125	S	2022/08/26	01:56:12.9	-0.8
AK23	2.2	124	S	2022/08/26	01:56:13.2	-0.7
AK15	2.2	125	S	2022/08/26	01:56:13.8	-1.0
AK16	2.2	126	S	2022/08/26	01:56:13.9	-1.0
AK13	2.3	127	P	2022/08/26	01:55:46.8	0.3
AK03	2.3	123	S	2022/08/26	01:56:14.7	-0.8
AK14	2.3	127	S	2022/08/26	01:56:16.5	0.9
AK12	2.3	126	P	2022/08/26	01:55:46.1	-0.8
AKBB	2.3	124	P	2022/08/26	01:55:47.7	0.7
AKBB	2.3	124	S	2022/08/26	01:56:16.1	0.1
AK02	2.3	125	S	2022/08/26	01:56:16.5	0.1
AK02	2.3	125	P	2022/08/26	01:55:47.4	0.2
LUBAR	2.3	155	S	2022/08/26	01:56:18.4	1.9
LUBAR	2.3	155	LR	2022/08/26	01:56:32.8	-0.0
AK08	2.3	125	S	2022/08/26	01:56:18.6	1.2
AK10	2.4	126	S	2022/08/26	01:56:18.0	0.1
AK09	2.4	125	S	2022/08/26	01:56:18.9	0.9
KPD	3.5	178	S	2022/08/26	01:56:45.8	0.7



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

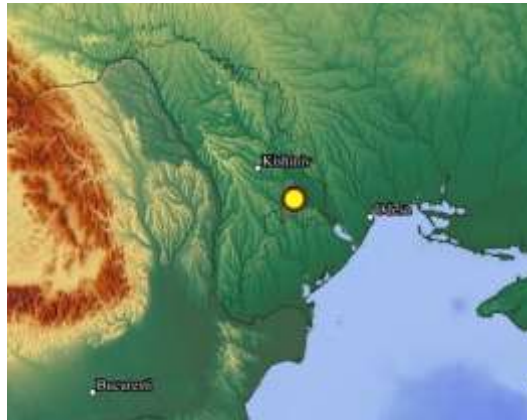
27.08.2022. Moldova

$t_0 = 14:30:08$; $\varphi = 46,67^\circ N$; $\lambda = 29,45^\circ E$; $h = 4 \text{ km}$; $ML_V = 2,9$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/27	14:30:09.3	46.64	29.54	4	MLv 2.86

MOLDOVA

Sta	Dist	EvAz	Phase	Date	Time	Res
PURM	0.2	115	P	2022/08/27	14:30:15.4	-0.0
SORM	1.7	332	P	2022/08/27	14:30:38.6	-0.2
SORM	1.7	332	S	2022/08/27	14:31:01.6	0.2
VRI	2.1	250	P	2022/08/27	14:30:44.9	0.4
VRI	2.1	250	S	2022/08/27	14:31:11.2	-0.3
TIRR	2.3	200	P	2022/08/27	14:30:47.6	0.1
AK06	4.0	357	P	2022/08/27	14:31:10.0	0.0
AK10	4.0	357	P	2022/08/27	14:31:09.9	-0.3
AK09	4.0	358	P	2022/08/27	14:31:10.2	-0.2
AK13	4.0	356	P	2022/08/27	14:31:10.4	-0.1
AK05	4.0	357	P	2022/08/27	14:31:10.4	-0.1
AK08	4.0	357	P	2022/08/27	14:31:10.7	0.0
AK14	4.0	356	P	2022/08/27	14:31:11.0	0.3
AK11	4.1	357	P	2022/08/27	14:31:11.5	0.1
AK18	4.1	356	P	2022/08/27	14:31:12.0	0.0



27.08.2022. Zona seismică Vrancea

$t_0 = 21:14:40$; $\varphi = 45,68^\circ N$; $\lambda = 26,65^\circ E$; $h = 137 \text{ km}$; $ML_V = 2,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/27	21:14:40.4	45.68	26.65	137	MLv 2.7

ROMANIA

sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.2	15	P	2022/08/27	21:15:00.2	0.4
TESR	0.8	360	P	2022/08/27	21:15:02.7	-0.4
VOIR	1.2	259	P	2022/08/27	21:15:05.9	0.4
ARR	1.5	258	P	2022/08/27	21:15:08.6	-0.1
HUMR	1.7	227	P	2022/08/27	21:15:10.9	0.1
TIRR	1.7	134	P	2022/08/27	21:15:12.6	0.8
TIRR	1.7	134	S	2022/08/27	21:15:35.4	-0.8
DEV	2.6	276	P	2022/08/27	21:15:23.1	0.5
PLVB	2.7	213	P	2022/08/27	21:15:23.7	0.2
SORM	2.7	25	P	2022/08/27	21:15:23.5	-0.2
KPD	2.9	357	P	2022/08/27	21:15:26.4	0.7
DRGR	3.0	294	P	2022/08/27	21:15:26.1	-0.6
MDVR	3.6	257	P	2022/08/27	21:15:34.8	-0.2
TRPA	3.7	313	P	2022/08/27	21:15:36.0	-0.8

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



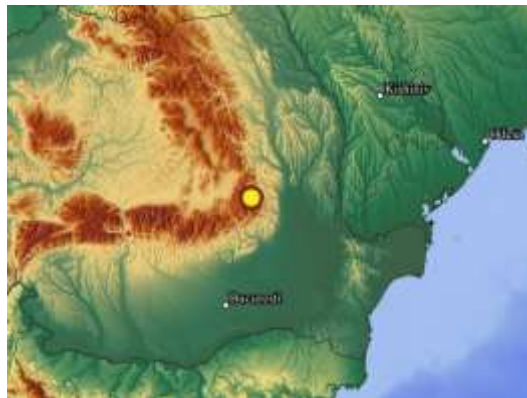
30.08.2022. Zona seismică Vrancea

$t_0 = 10:47:12$; $\varphi = 45,77^\circ N$; $\lambda = 26,56^\circ E$; $h = 131 \text{ km}$; $ML_v = 2,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/08/30	10:47:12.6	45.77	26.56	131	ML _v 2.65

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.1	51	P	2022/08/30	10:47:30.9	-0.1
VRI	0.1	51	S	2022/08/30	10:47:45.8	0.4
TESR	0.7	5	P	2022/08/30	10:47:33.5	-0.7
VOIR	1.1	253	P	2022/08/30	10:47:37.9	1.2
VOIR	1.1	253	S	2022/08/30	10:47:54.8	-0.7
KIS	2.0	51	P	2022/08/30	10:47:46.2	-0.3
KPD	2.8	359	S	2022/08/30	10:48:31.0	0.1
AK07	5.1	19	P	2022/08/30	10:48:59.5	0.4
AK06	5.1	19	P	2022/08/30	10:49:00.9	0.4



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

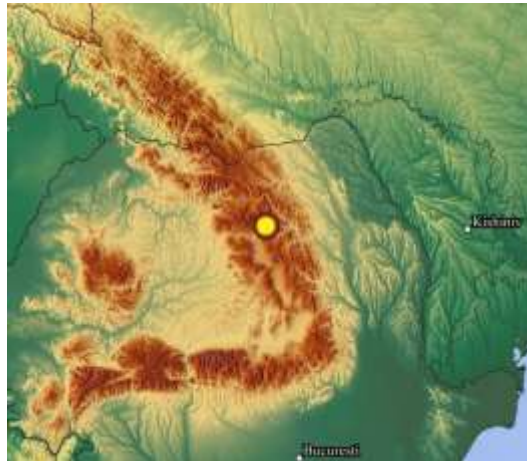
05.09.2022. Zona seismică Vrancea

$t_0 = 13:08:10$; $\varphi = 47,06^\circ N$; $\lambda = 25,57^\circ E$; $h = 2 \text{ km}$; $ML_v = 2,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/05	13:08:10.4	47.06	25.57	2	MLv 2.02

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
TESR	0.9	126	Pg	2022/09/05	13:08:27.4	-0.6
TESR	0.9	126	Sg	2022/09/05	13:08:40.6	0.2
VRI	1.4	146	Pg	2022/09/05	13:08:36.7	-1.3
VRI	1.4	146	Sg	2022/09/05	13:08:58.4	1.0
KPD	1.6	21	Sg	2022/09/05	13:09:03.4	0.0
VOIR	1.7	193	Pg	2022/09/05	13:08:42.1	-0.2
VOIR	1.7	193	Sg	2022/09/05	13:09:04.6	-0.4
ARR	1.8	201	Pn	2022/09/05	13:08:44.1	1.5
ARR	1.8	201	Sn	2022/09/05	13:09:06.6	-0.3



09.09.2022. Poland

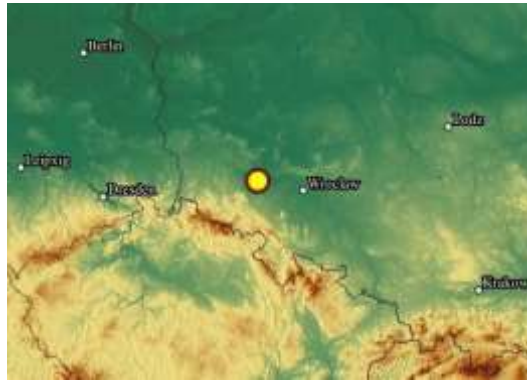
$t_0 = 06:48:08$; $\varphi = 51,20^\circ N$; $\lambda = 16,29^\circ E$; $h = 11 \text{ km}$; $mb = 3,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/09	06:48:08.6	51.20	16.29	11	mb 3.32

POLAND

Sta	Dist	EvAz	Phase	Date	Time	Res
UZH	4.7	121	P	2022/09/09	06:49:15.8	-2.4
UZH	4.7	121	pP	2022/09/09	06:49:20.8	0.0
RNPP8	6.0	85	P	2022/09/09	06:49:38.0	1.3
RNPP9	6.0	84	P	2022/09/09	06:49:36.4	-0.6
RNPP5	6.0	86	P	2022/09/09	06:49:35.2	-1.8
XAEC2	6.8	94	P	2022/09/09	06:49:47.9	1.0
BUR31	6.8	118	P	2022/09/09	06:49:48.1	0.3
KPD	7.1	108	P	2022/09/09	06:49:51.5	-0.0
MI30	7.4	92	P	2022/09/09	06:49:54.9	-0.5
MI27	7.4	96	P	2022/09/09	06:49:56.1	0.1
MI29	7.5	89	Pn	2022/09/09	06:49:57.4	-0.2
AKBB	8.2	88	Pn	2022/09/09	06:50:05.5	-1.1
VRI	8.7	124	P	2022/09/09	06:50:13.0	-1.3
PDG	9.0	166	P	2022/09/09	06:50:17.9	-0.1
BAL3X	9.2	105	P	2022/09/09	06:50:23.8	2.6
MI26	9.2	105	P	2022/09/09	06:50:23.7	2.5
SSB	9.8	237	P	2022/09/09	06:50:29.4	0.3
NC600	9.9	346	P	2022/09/09	06:50:30.4	-0.2

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



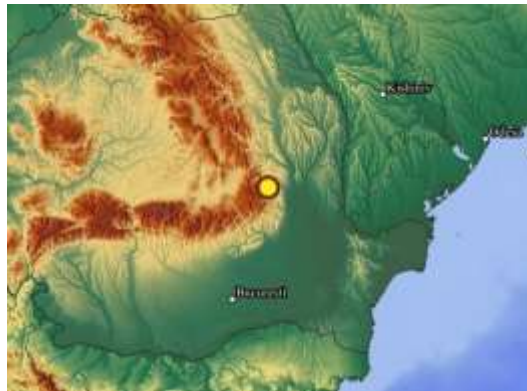
11.09.2022. Zona seismica Vrancea

$t_0 = 04:41:38$; $\varphi = 45,86^\circ N$; $\lambda = 26,75^\circ E$; $h = 114 \text{ km}$; $ML_v = 3.1$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/11	04:41:38.8	45.86	26.75	114	MLv 3.08

ROMANIA

Sta	Dist	EvAz	Phase	Date	Time	Res
VRI	0.0	284	P	2022/09/11	04:41:55.7	1.3
VRI	0.0	284	S	2022/09/11	04:42:05.3	-1.1
TESR	0.7	354	P	2022/09/11	04:41:58.9	0.7
ARR	1.6	252	P	2022/09/11	04:42:06.9	0.2
SORM	2.5	25	P	2022/09/11	04:42:18.7	0.1
KPD	2.7	356	P	2022/09/11	04:42:21.1	0.1
PLVB	2.9	212	P	2022/09/11	04:42:23.0	-0.5
TRPA	3.7	310	P	2022/09/11	04:42:33.8	0.2
AK07	5.0	18	P	2022/09/11	04:42:50.9	-0.2
AK13	5.0	17	P	2022/09/11	04:42:51.3	-0.2
AK14	5.0	17	P	2022/09/11	04:42:51.6	-0.3
AK12	5.0	18	P	2022/09/11	04:42:51.9	-0.3
OSTC	8.5	308	P	2022/09/11	04:43:38.1	-0.1



11.09.2022. Zona seismica Vrancea

$t_0 = 16:08:20$; $\varphi = 45,75^\circ N$; $\lambda = 26,66^\circ E$; $h = 132 \text{ km}$; $mb = 4,0$

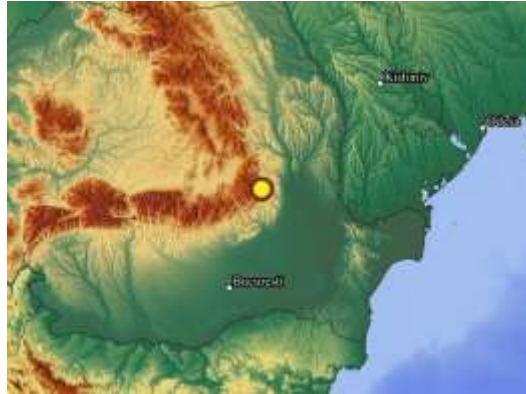
Date	Time	Latitude	Longitude	Depth	Mag
2022/09/11	16:08:20.1	45.75	26.66	132	mb 4.00

ROMANIA

Sta	Dist	Evazi	Phase	Date	Time	Res
TESR	0.8	359	P	2022/09/11	16:08:41.6	-0.3
KIS	1.9	49	P	2022/09/11	16:08:53.7	0.2
CJR	2.3	296	P	2022/09/11	16:08:58.6	0.3
SORM	2.7	25	P	2022/09/11	16:09:02.4	0.1
DRGR	2.9	292	P	2022/09/11	16:09:05.7	-0.1
MDVR	3.6	256	P	2022/09/11	16:09:14.6	-0.2
XAEC4	4.5	1	P	2022/09/11	16:09:27.1	0.1
XAEC1	4.6	360	P	2022/09/11	16:09:27.3	0.1
RDO	4.7	190	P	2022/09/11	16:09:28.9	0.1
XAEC5	4.7	1	P	2022/09/11	16:09:29.0	0.3
MI29	4.7	9	P	2022/09/11	16:09:29.8	0.2
AK07	5.1	19	P	2022/09/11	16:09:34.4	0.0

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MI30	5.1	11	P	2022/09/11	16:09:34.5	0.0
AK13	5.1	17	P	2022/09/11	16:09:34.5	-0.2
AK06	5.1	18	P	2022/09/11	16:09:34.9	0.0
AK14	5.2	18	P	2022/09/11	16:09:34.9	-0.2
AK10	5.2	19	P	2022/09/11	16:09:35.0	-0.2
AK05	5.2	18	P	2022/09/11	16:09:35.0	-0.2
AK12	5.2	18	P	2022/09/11	16:09:35.2	-0.2
AK09	5.2	19	P	2022/09/11	16:09:35.5	0.1
AK08	5.2	19	P	2022/09/11	16:09:35.6	0.0
AKBB	5.2	18	P	2022/09/11	16:09:36.4	0.0
RNPP5	5.5	355	P	2022/09/11	16:09:39.9	0.0



12.09.2022. Ukraine, Kharkiv region

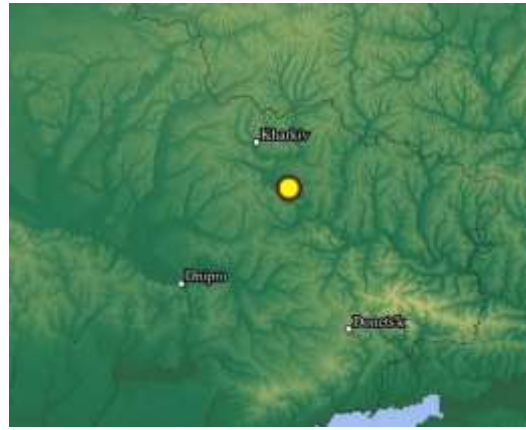
$t_0 = 02:21:09$; $\varphi = 49,08^\circ N$; $\lambda = 37,09^\circ E$; $h = 8 \text{ km}$; $mb = 3,3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/12	02:21:09.6	49.08	37.09	8	mb 3.29

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
MI06	2.2	274	Pn	2022/09/12	02:21:46.6	0.2
AK09	5.3	290	Pn	2022/09/12	02:22:28.6	-0.1
AK10	5.3	290	Pn	2022/09/12	02:22:28.8	-0.1
AK08	5.3	290	Pn	2022/09/12	02:22:28.9	-0.1
AK07	5.3	289	Pn	2022/09/12	02:22:29.3	0.2
AK06	5.3	289	Pn	2022/09/12	02:22:29.4	0.1
AK05	5.3	290	Pn	2022/09/12	02:22:29.5	0.2
AKBB	5.3	291	Pn	2022/09/12	02:22:29.7	0.2
AK01	5.3	291	Pn	2022/09/12	02:22:28.9	-0.6
AK03	5.3	291	Pn	2022/09/12	02:22:29.5	-0.1
AK12	5.4	290	Pn	2022/09/12	02:22:29.8	-0.1
AK11	5.4	290	Pn	2022/09/12	02:22:29.8	-0.1
AK04	5.4	291	Pn	2022/09/12	02:22:30.5	0.4
AK14	5.4	290	Pn	2022/09/12	02:22:30.0	-0.3
AK15	5.4	290	Pn	2022/09/12	02:22:30.2	-0.1
AK16	5.4	290	Pn	2022/09/12	02:22:30.9	0.5
AK23	5.4	291	Pn	2022/09/12	02:22:30.9	0.4
AK13	5.4	290	Pn	2022/09/12	02:22:30.4	-0.2
AK17	5.4	290	Pn	2022/09/12	02:22:31.1	0.3
AK18	5.4	291	Pn	2022/09/12	02:22:31.1	0.3
AK22	5.4	291	Pn	2022/09/12	02:22:31.2	0.2
AK21	5.5	291	Pn	2022/09/12	02:22:31.4	0.1
AK19	5.5	291	Pn	2022/09/12	02:22:31.5	0.2
AK20	5.5	291	Pn	2022/09/12	02:22:31.3	-0.1
SORM	5.9	264	Pn	2022/09/12	02:22:36.3	-0.6
SORM	5.9	264	pP	2022/09/12	02:22:38.7	0.0
MI28	6.3	291	Pn	2022/09/12	02:22:41.9	-1.4
KIV	6.4	141	Pn	2022/09/12	02:22:44.3	0.0
KPD	7.0	270	Pn	2022/09/12	02:22:53.4	0.6

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13.09.2022. Zona seismica Vrancea

$t_0 = 02:50:15$; $\varphi = 45,61^\circ N$; $\lambda = 26,35^\circ E$; $h = 142 \text{ km}$; $ML_v = 4.2$

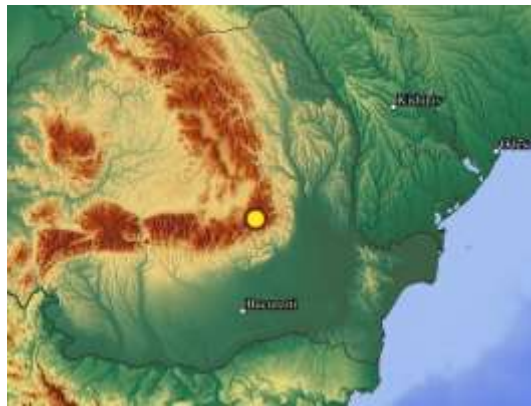
Date	Time	Latitude	Longitude	Depth	Mag
2022/09/13	02:50:15.3	45.61	26.35	142	MLv 4.18

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.4	46	P	2022/09/13	02:50:36.2	0.1
VRI	0.4	46	S	2022/09/13	02:50:52.0	-0.3
TESR	0.9	13	P	2022/09/13	02:50:39.7	0.9
ARR	1.2	259	P	2022/09/13	02:50:42.0	0.4
HUMR	1.5	222	P	2022/09/13	02:50:43.8	-0.1
TIRR	1.9	127	P	2022/09/13	02:50:48.3	-0.0
KIS	2.2	50	P	2022/09/13	02:50:53.0	0.6
KIS	2.2	50	S	2022/09/13	02:51:20.6	-0.6
CJR	2.2	301	P	2022/09/13	02:50:53.1	0.7
DEV	2.4	278	P	2022/09/13	02:50:55.4	0.2
PLVB	2.5	210	P	2022/09/13	02:50:56.2	-0.4
DRGR	2.8	296	P	2022/09/13	02:50:59.3	-0.3
DJES	2.9	252	P	2022/09/13	02:50:59.1	-1.5
SORM	2.9	28	P	2022/09/13	02:51:01.1	0.4
KPD	3.0	1	P	2022/09/13	02:51:01.9	0.2
BAL3X	3.2	43	P	2022/09/13	02:51:04.8	-0.4
MI05	3.3	70	P	2022/09/13	02:51:07.0	0.4
MDVR	3.4	257	P	2022/09/13	02:51:06.7	-0.5
TRPA	3.6	315	P	2022/09/13	02:51:10.2	-0.2
PHSR	4.1	167	P	2022/09/13	02:51:15.9	-0.3
UZH	4.1	319	P	2022/09/13	02:51:16.4	-0.1
KOLS	4.3	322	P	2022/09/13	02:51:20.6	1.0
XAEC4	4.7	4	P	2022/09/13	02:51:24.8	0.4
XAEC1	4.7	2	P	2022/09/13	02:51:25.4	0.9
KWP	4.7	330	P	2022/09/13	02:51:25.1	0.5
MI29	4.9	11	P	2022/09/13	02:51:27.9	0.6
KECS	4.9	308	P	2022/09/13	02:51:27.5	-0.0
PSZ	5.0	300	P	2022/09/13	02:51:28.0	-0.5
MI30	5.3	13	P	2022/09/13	02:51:32.7	0.5
AK07	5.3	20	P	2022/09/13	02:51:32.8	0.4
AK13	5.3	19	P	2022/09/13	02:51:32.6	-0.2
AK06	5.3	20	P	2022/09/13	02:51:33.1	0.2
AK14	5.4	19	P	2022/09/13	02:51:33.3	0.1
AK10	5.4	20	P	2022/09/13	02:51:33.4	0.2
AK05	5.4	20	P	2022/09/13	02:51:33.5	0.2
AK12	5.4	19	P	2022/09/13	02:51:32.8	-0.6
AK09	5.4	20	P	2022/09/13	02:51:33.4	-0.1
AK16	5.4	19	P	2022/09/13	02:51:33.5	-0.2
AK08	5.4	20	P	2022/09/13	02:51:33.6	-0.1
AK17	5.4	19	P	2022/09/13	02:51:33.6	-0.1
AK02	5.4	20	P	2022/09/13	02:51:33.7	-0.1
AK11	5.4	19	P	2022/09/13	02:51:33.8	-0.1
MORH	5.4	279	P	2022/09/13	02:51:34.0	0.1
AK15	5.4	19	P	2022/09/13	02:51:33.4	-0.5
AK19	5.4	18	P	2022/09/13	02:51:34.0	-0.0
AK18	5.4	19	P	2022/09/13	02:51:33.6	-0.5
AK01	5.4	20	P	2022/09/13	02:51:33.8	-0.4
AK20	5.4	18	P	2022/09/13	02:51:33.8	-0.4
AKBB	5.4	20	P	2022/09/13	02:51:34.0	-0.4

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AK04	5.5	19	P	2022/09/13	02:51:34.1	-0.4
AK22	5.5	18	P	2022/09/13	02:51:34.2	-0.4
AK03	5.5	20	P	2022/09/13	02:51:34.3	-0.4
AK21	5.5	18	P	2022/09/13	02:51:34.4	-0.4
AK23	5.5	19	P	2022/09/13	02:51:34.4	-0.4
NIE	5.6	315	P	2022/09/13	02:51:36.3	-0.0
RNPP5	5.6	357	P	2022/09/13	02:51:37.1	0.3
ZLTR	5.7	51	P	2022/09/13	02:51:37.8	-0.0
RNPP8	5.7	357	P	2022/09/13	02:51:38.5	0.2
KOVH	5.8	278	P	2022/09/13	02:51:39.3	0.3
RNPP9	5.8	357	P	2022/09/13	02:51:39.2	-0.1
CSKK	5.9	290	P	2022/09/13	02:51:39.8	-0.1
SRO	5.9	295	P	2022/09/13	02:51:41.5	0.4
MDUB	6.2	144	P	2022/09/13	02:51:46.2	1.1
OJC	6.4	319	P	2022/09/13	02:51:46.3	-0.5
OKC	7.0	310	P	2022/09/13	02:51:54.3	-0.4
SOP	7.1	291	P	2022/09/13	02:51:55.9	0.1
KRLC	7.8	308	P	2022/09/13	02:52:06.5	0.5
KSP	8.5	312	P	2022/09/13	02:52:15.4	0.1
PRA	9.2	303	P	2022/09/13	02:52:24.6	0.4
GKP	9.7	326	P	2022/09/13	02:52:30.5	-0.5



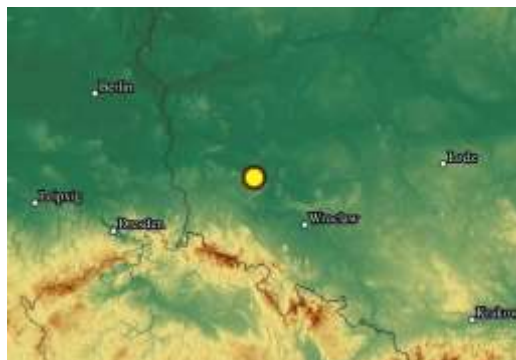
14.09.2022. Poland

$t_0 = 05:47:21$; $\varphi = 51,61^\circ N$; $\lambda = 16,17^\circ E$; $h = 10 \text{ км}$; $mb = 4.3$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/14	05:47:21.1	51.61	16.17	10	mb 4.30

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
RNPP8	6.1	89	P	2022/09/14	05:48:50.6	-0.1
PABE	6.1	47	P	2022/09/14	05:48:51.2	0.4
RNPP9	6.1	88	P	2022/09/14	05:48:50.8	-0.1
RNPP5	6.1	90	P	2022/09/14	05:48:50.9	-0.2
BUR31	7.1	121	P	2022/09/14	05:49:05.1	0.4
MI28	7.2	91	P	2022/09/14	05:49:05.8	-1.2
MI30	7.5	95	P	2022/09/14	05:49:10.0	0.0
LUBAR	7.5	98	P	2022/09/14	05:49:12.0	1.0
AKBB	8.3	91	P	2022/09/14	05:49:20.8	-0.0
BNI	9.1	228	P	2022/09/14	05:49:32.3	-0.1



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

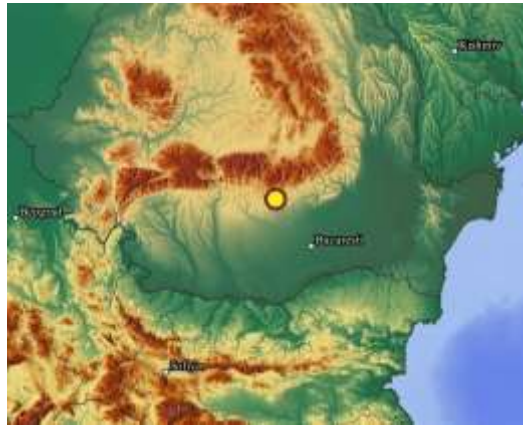
18.09.2022. Zona seismică Vrancea

$t_0 = 17:55:24$; $\varphi = 45,06^\circ N$; $\lambda = 25,43^\circ E$; $h = 22 \text{ km}$; $ML_v = 4.2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/18	17:55:24.2	45.06	25.43	22	MLv 4.04

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VOIR	0.5	324	P	2022/09/13	17:55:34.6	-0.1
VRI	1.2	48	P	2022/09/13	17:55:46.8	1.0
TESR	1.7	30	P	2022/09/13	17:55:52.4	0.1
PLVB	1.8	199	P	2022/09/13	17:55:53.4	-0.2
CJR	2.1	323	P	2022/09/13	17:55:59.1	1.1
TIRR	2.2	105	P	2022/09/13	17:55:59.6	-0.0
DRGR	2.6	313	P	2022/09/13	17:56:04.6	0.1
MDVR	2.7	265	P	2022/09/13	17:56:05.5	-0.2
KPD	3.6	11	P	2022/09/13	17:56:18.3	-0.1
TRPA	3.7	328	P	2022/09/13	17:56:18.8	-0.7
SORM	3.7	32	P	2022/09/13	17:56:18.8	-0.9
RDO	3.9	179	P	2022/09/13	17:56:23.2	0.2
PSZ	4.8	309	P	2022/09/13	17:56:35.1	0.3
LUBAR	5.1	17	P	2022/09/13	17:56:39.1	-0.3



20.09.2022. Belarus

$t_0 = 12:06:25$; $\varphi = 52,76^\circ N$; $\lambda = 27,50^\circ E$; $h = 19 \text{ km}$; $ML_v = 2,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/20	12:06:25.1	52.76	27.50	19	ML 2.01

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
MI28	1.8	177	Pn	2022/09/20	12:06:55.6	-0.0
AK15	2.3	153	Pn	2022/09/20	12:07:02.0	0.0
AKBB	2.3	152	Lg	2022/09/20	12:07:38.0	-0.0
AKBB	2.3	152	Pn	2022/09/20	12:07:02.1	-0.2
AKBB	2.3	152	sP	2022/09/20	12:07:09.7	0.0
AK11	2.3	153	Pn	2022/09/20	12:07:02.2	-0.1
AK12	2.4	153	Pn	2022/09/20	12:07:02.7	-0.0
AK02	2.4	153	Pn	2022/09/20	12:07:02.6	-0.1
AK05	2.4	153	Pn	2022/09/20	12:07:03.3	0.1
AK08	2.4	152	Pn	2022/09/20	12:07:03.4	0.1
AK06	2.4	153	Pn	2022/09/20	12:07:03.6	-0.0
AK10	2.4	153	Pn	2022/09/20	12:07:03.8	0.2

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



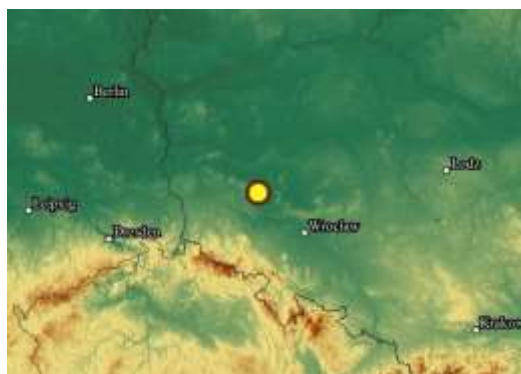
21.09.2022. Poland

$t_0 = 14:39:38$; $\varphi = 51,53^\circ N$; $\lambda = 16,26^\circ E$; $h = 9 \text{ km}$; $ML_v = 3,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/21	14:39:38.7	51.53	16.26	9	MLv 3.71

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
KSP	0.7	178	P	2022/09/21	14:39:51.7	-0.6
CHVC	1.0	188	P	2022/09/21	14:39:56.7	-0.3
CHVC	1.0	188	S	2022/09/21	14:40:10.4	0.2
OSTC	1.0	182	P	2022/09/21	14:39:57.3	-0.1
OSTC	1.0	182	S	2022/09/21	14:40:11.2	0.2
UPC	1.0	189	P	2022/09/21	14:39:57.9	-0.5
DPC	1.2	178	P	2022/09/21	14:40:00.6	-0.0
PVCC	1.5	228	P	2022/09/21	14:40:05.0	0.1
KRLC	1.5	166	P	2022/09/21	14:40:05.8	0.7
RUE	1.8	303	P	2022/09/21	14:40:09.1	-0.7
RUE	1.8	303	Pg	2022/09/21	14:40:13.4	0.1
PRA	1.9	219	P	2022/09/21	14:40:11.2	0.4
PRU	1.9	216	P	2022/09/21	14:40:11.2	0.1
MORC	1.9	155	P	2022/09/21	14:40:11.7	-0.0
OKC	2.1	144	P	2022/09/21	14:40:13.3	-0.4
CKRC	3.0	206	P	2022/09/21	14:40:27.0	0.7
VYHS	3.5	150	P	2022/09/21	14:40:32.2	-0.5
VYHS	3.5	150	Pg	2022/09/21	14:40:44.2	-0.8
MORH	5.5	163	P	2022/09/21	14:41:01.6	0.2
MORH	5.5	163	pP	2022/09/21	14:41:03.9	0.3
AK20	8.1	91	P	2022/09/21	14:41:35.5	-0.4
AK19	8.1	91	P	2022/09/21	14:41:35.6	-0.4
AK21	8.1	90	P	2022/09/21	14:41:35.8	-0.3
AK21	8.1	90	pP	2022/09/21	14:41:38.8	0.5
AK22	8.1	90	P	2022/09/21	14:41:36.6	0.2
AK23	8.1	90	P	2022/09/21	14:41:36.6	-0.2
AK14	8.1	91	P	2022/09/21	14:41:36.5	-0.5
AK12	8.2	91	P	2022/09/21	14:41:37.8	0.4
AK11	8.2	91	P	2022/09/21	14:41:38.2	0.8
AK01	8.2	91	P	2022/09/21	14:41:38.4	0.7
AKBB	8.2	91	P	2022/09/21	14:41:38.2	0.4
AK07	8.2	92	P	2022/09/21	14:41:37.8	-0.2



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

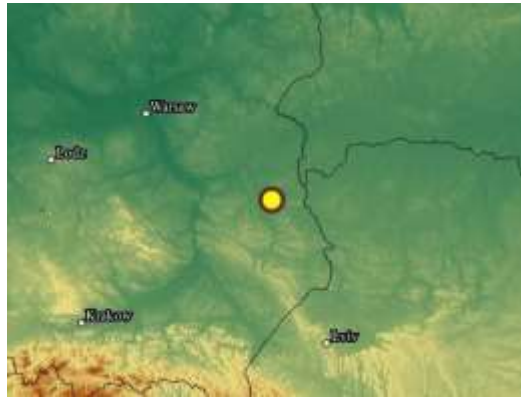
23.09.2022. Poland

$t_0 = 03:20:16$; $\varphi = 51,35^\circ N$; $\lambda = 23,10^\circ E$; $h = 5 \text{ km}$; $ML_v = 2,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/23	03:20:16.3	51.35	23.10	5	ML 2.63

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
RNPP8	1.7	90	Pn	2022/09/23	03:20:46.8	-0.2
RNPP8	1.7	90	Sn	2022/09/23	03:21:10.0	-0.3
KWP	1.7	188	Pn	2022/09/23	03:20:47.2	0.1
KWP	1.7	188	Sn	2022/09/23	03:21:10.2	-0.4
RNPP9	1.7	87	Pn	2022/09/23	03:20:47.3	0.1
RNPP9	1.7	87	Sn	2022/09/23	03:21:10.6	-0.2
RNPP5	1.8	93	Pn	2022/09/23	03:20:47.0	-0.3
RNPP5	1.8	93	Sn	2022/09/23	03:21:10.6	-0.3
OJC	2.4	243	Pn	2022/09/23	03:20:56.1	0.1
OJC	2.4	243	sP	2022/09/23	03:20:58.0	0.0
KOLS	2.5	193	Pn	2022/09/23	03:20:57.7	0.4
XAEC5	2.5	111	Sn	2022/09/23	03:21:30.0	1.0
XAEC1	2.5	114	Pn	2022/09/23	03:20:57.2	-0.2
SUW	2.7	1	Pn	2022/09/23	03:20:59.7	-0.1
SUW	2.7	1	Sn	2022/09/23	03:21:33.5	0.1
MI30	3.3	99	Sn	2022/09/23	03:21:48.6	0.3
KPD	3.5	141	Sn	2022/09/23	03:21:54.7	-0.3



24.09.2022. Zona seismică Vrancea

$t_0 = 11:57:46$; $\varphi = 45,57^\circ N$; $\lambda = 26,55^\circ E$; $h = 123 \text{ km}$; $ML_v = 3,7$

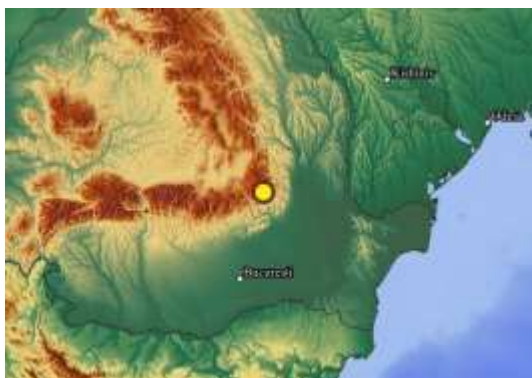
Date	Time	Latitude	Longitude	Depth	Mag
2022/09/24	11:57:46.7	45.57	26.55	123	MLv 3.67

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.3	23	P	2022/09/24	11:58:05.4	0.2
TESR	0.9	4	P	2022/09/24	11:58:09.2	0.5
VOIR	1.1	263	P	2022/09/24	11:58:10.2	0.6
ARR	1.4	262	P	2022/09/24	11:58:13.4	0.5
HUMR	1.5	227	P	2022/09/24	11:58:14.7	-0.0
TIRR	1.7	129	P	2022/09/24	11:58:17.6	0.5
TIRR	1.7	129	S	2022/09/24	11:58:39.2	-1.4
KIS	2.1	47	P	2022/09/24	11:58:23.0	1.2
KIS	2.1	47	S	2022/09/24	11:58:48.3	-0.9
PLVB	2.6	213	P	2022/09/24	11:58:28.0	0.3
SORM	2.9	25	P	2022/09/24	11:58:31.5	0.4
DRGR	2.9	296	P	2022/09/24	11:58:31.3	-0.9
KPD	3.0	359	P	2022/09/24	11:58:32.9	-0.1
MDVR	3.5	259	P	2022/09/24	11:58:38.8	-0.9
LUBAR	4.4	10	P	2022/09/24	11:58:52.0	0.0
KOLS	4.5	321	P	2022/09/24	11:58:53.1	0.9
RDO	4.5	190	P	2022/09/24	11:58:53.4	0.6
MI29	4.9	10	P	2022/09/24	11:58:59.6	0.9
KECS	5.1	307	P	2022/09/24	11:58:58.8	-1.7
AK07	5.3	19	P	2022/09/24	11:59:03.7	0.2
MI30	5.3	11	P	2022/09/24	11:59:04.0	0.4
AK13	5.3	18	P	2022/09/24	11:59:03.8	-0.1
AK06	5.3	19	P	2022/09/24	11:59:04.0	0.1
AK14	5.3	18	P	2022/09/24	11:59:04.1	-0.2

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AK10	5.3	19	P	2022/09/24	11:59:04.2	-0.1
AK05	5.4	18	P	2022/09/24	11:59:04.7	0.3
AK12	5.4	18	P	2022/09/24	11:59:04.4	-0.1
AK09	5.4	19	P	2022/09/24	11:59:04.7	0.1
AK08	5.4	19	P	2022/09/24	11:59:04.7	0.0
AK17	5.4	17	P	2022/09/24	11:59:04.5	-0.3
AK11	5.4	18	P	2022/09/24	11:59:04.9	-0.1
AK15	5.4	18	P	2022/09/24	11:59:05.0	-0.1
AK19	5.4	17	P	2022/09/24	11:59:05.0	-0.1
MT28	5.4	8	P	2022/09/24	11:59:05.1	-0.1
AK18	5.4	17	P	2022/09/24	11:59:05.2	-0.1
AK01	5.4	18	P	2022/09/24	11:59:05.1	-0.2
AK20	5.4	17	P	2022/09/24	11:59:05.2	-0.2
AKBB	5.4	18	P	2022/09/24	11:59:05.6	0.1
AK04	5.4	18	P	2022/09/24	11:59:05.6	0.0
AK22	5.5	17	P	2022/09/24	11:59:05.7	-0.1
AK21	5.5	17	P	2022/09/24	11:59:05.8	-0.1
AK23	5.5	17	P	2022/09/24	11:59:05.9	-0.0



30.09.2022. Ukraine, Ivano-Frankivsk region

$t_0 = 10:32:37$; $\varphi = 48,47^\circ N$; $\lambda = 24,46^\circ E$; $h = 2 \text{ км}$; $ML_v = 2,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/09/30	10:32:37.1	48.47	24.46	2	ML _v 2.24

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
TRPA	1.3	256	P	2022/09/30	10:33:00.8	-0.8
TRPA	1.3	256	S	2022/09/30	10:33:19.9	0.4
KPD	1.3	85	P	2022/09/30	10:33:00.6	-1.0
KPD	1.3	85	S	2022/09/30	10:33:19.9	0.4
DRGR	2.1	216	P	2022/09/30	10:33:12.6	0.0
XAEC2	2.3	41	P	2022/09/30	10:33:16.3	0.2
XAEC1	2.3	37	P	2022/09/30	10:33:16.1	-0.2
XAEC1	2.3	37	S	2022/09/30	10:33:45.9	-0.2
XAEC5	2.5	36	P	2022/09/30	10:33:17.6	-0.4
XAEC5	2.5	36	S	2022/09/30	10:33:49.6	0.3
LUBAR	2.6	55	P	2022/09/30	10:33:20.6	0.5
AK12	3.8	53	P	2022/09/30	10:33:36.5	0.6
AK15	3.8	52	P	2022/09/30	10:33:37.3	1.3
AKBB	3.8	52	S	2022/09/30	10:34:21.9	-1.1



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03.10.2022. Ukraine, Poltava region

$t_0 = 11:49:39$; $\varphi = 49,43^\circ N$; $\lambda = 33,87^\circ E$; $h = 10 \text{ km}$; $ML_v = 3,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/10/03	11:49:39.2	49.43	33.87	10	ML 3.40

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
MI06	0.3	199	Pg	2022/10/03	11:49:44.8	0.0
AK10	3.2	293	Pn	2022/10/03	11:50:29.6	0.2
AK10	3.2	293	pP	2022/10/03	11:50:32.2	0.3
AK08	3.2	294	Pn	2022/10/03	11:50:29.9	0.3
AK07	3.2	292	Pn	2022/10/03	11:50:29.8	0.2
AK06	3.2	293	Pn	2022/10/03	11:50:30.0	0.1
AK05	3.2	293	Pn	2022/10/03	11:50:30.1	0.1
AK02	3.2	294	Pn	2022/10/03	11:50:30.3	0.2
AKBB	3.3	295	Pn	2022/10/03	11:50:30.5	0.3
AKBB	3.3	295	Sn	2022/10/03	11:51:10.9	1.1
AK01	3.3	295	Pn	2022/10/03	11:50:30.2	0.0
AK01	3.3	295	pP	2022/10/03	11:50:32.3	-0.3
AK03	3.3	295	Pn	2022/10/03	11:50:30.5	0.2
AK16	3.3	294	Pn	2022/10/03	11:50:31.0	-0.0
AK13	3.3	293	Pn	2022/10/03	11:50:31.0	-0.1
AK23	3.3	295	Pn	2022/10/03	11:50:31.7	0.4
AK17	3.3	294	Pn	2022/10/03	11:50:31.3	-0.1
AK17	3.3	294	Sn	2022/10/03	11:51:12.2	0.1
AK18	3.4	294	Pn	2022/10/03	11:50:31.4	-0.1
AK19	3.4	294	Pn	2022/10/03	11:50:31.5	-0.5
AK21	3.4	295	Pn	2022/10/03	11:50:31.9	-0.2
AK20	3.4	295	Pn	2022/10/03	11:50:31.8	-0.3
MI30	3.9	292	Pn	2022/10/03	11:50:38.7	-0.2
MI30	3.9	292	Sn	2022/10/03	11:51:25.6	0.0
LUBAR	4.0	279	Pn	2022/10/03	11:50:40.0	-0.4
LUBAR	4.0	279	Sn	2022/10/03	11:51:28.1	-0.1
MI29	4.0	287	Sn	2022/10/03	11:51:27.8	-0.8
XAEC5	4.7	285	Sn	2022/10/03	11:51:47.3	1.4
RNPP5	5.4	292	Sn	2022/10/03	11:52:02.4	-1.0
RNPP9	5.5	294	Sn	2022/10/03	11:52:03.9	-0.7



03.10.2022. Zona seismică Vrancea

$t_0 = 15:14:47$; $\varphi = 45,73^\circ N$; $\lambda = 26,63^\circ E$; $h = 72 \text{ km}$; $ML_v = 3,2$

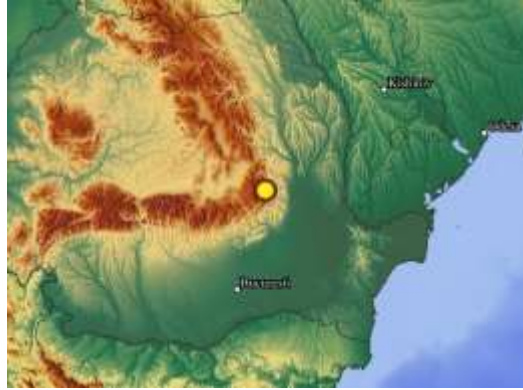
Date	Time	Latitude	Longitude	Depth	Mag
2022/10/03	15:14:47.9	45.73	26.63	72	MLv 3.19

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.2	25	P	2022/10/03	15:14:59.3	-0.1
VRI	0.2	25	S	2022/10/03	15:15:08.8	0.5
TESR	0.8	1	P	2022/10/03	15:15:04.2	-0.4
VOIR	1.1	256	P	2022/10/03	15:15:08.6	0.3
ARR	1.5	256	P	2022/10/03	15:15:12.3	0.1
TIRR	1.8	135	P	2022/10/03	15:15:17.2	0.5
TIRR	1.8	135	S	2022/10/03	15:15:38.1	-1.0
KIS	2.0	49	P	2022/10/03	15:15:19.2	0.0
SORM	2.7	25	P	2022/10/03	15:15:28.9	0.2
KPD	2.8	358	P	2022/10/03	15:15:30.5	-0.3
KPD	2.8	358	S	2022/10/03	15:16:03.1	-1.4
DRGR	2.9	293	P	2022/10/03	15:15:31.7	-0.2

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TRPA	3.7	312	P	2022/10/03	15:15:42.7	0.2
UZH	4.1	316	P	2022/10/03	15:15:48.3	-0.3
AK07	5.1	19	P	2022/10/03	15:16:02.2	0.2
AK14	5.2	18	P	2022/10/03	15:16:03.5	0.8
AK10	5.2	19	P	2022/10/03	15:16:03.1	0.4
MI28	5.3	7	P	2022/10/03	15:16:04.5	0.7
AK18	5.3	17	P	2022/10/03	15:16:03.9	0.2
AK20	5.3	17	P	2022/10/03	15:16:03.6	-0.3



03.10.2022. Zona seismică Vrancea

$t_0 = 15:44:10$; $\varphi = 45,54^\circ N$; $\lambda = 26,51^\circ E$; $h = 132 \text{ km}$; $ML_v = 3,8$

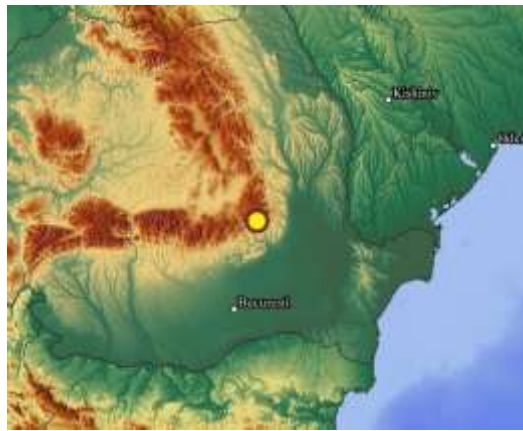
Date	Time	Latitude	Longitude	Depth	Mag
2022/10/03	15:44:10.6	45.54	26.51	132	MLv 3.77

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.4	25	P	2022/10/03	15:44:30.6	0.3
VRI	0.4	25	S	2022/10/03	15:44:45.3	-0.2
TESR	1.0	6	P	2022/10/03	15:44:34.2	0.7
VOIR	1.0	265	P	2022/10/03	15:44:34.5	0.5
ARR	1.3	263	P	2022/10/03	15:44:37.5	0.4
HUMR	1.5	227	P	2022/10/03	15:44:38.5	-0.3
TIRR	1.7	128	P	2022/10/03	15:44:42.2	0.6
TIRR	1.7	128	S	2022/10/03	15:45:05.3	-0.3
KIS	2.2	47	P	2022/10/03	15:44:47.6	1.0
KIS	2.2	47	S	2022/10/03	15:45:13.8	-1.0
CJR	2.3	301	P	2022/10/03	15:44:49.0	0.1
PLVB	2.5	213	P	2022/10/03	15:44:51.6	0.1
DEV	2.6	279	P	2022/10/03	15:44:51.8	0.3
SORM	2.9	25	P	2022/10/03	15:44:56.0	0.3
DRGR	2.9	297	P	2022/10/03	15:44:55.9	-0.3
DJES	3.0	254	P	2022/10/03	15:44:55.0	-1.6
KPD	3.0	359	P	2022/10/03	15:44:57.4	-0.0
BAL3X	3.2	41	P	2022/10/03	15:44:59.6	-0.3
MDVR	3.5	259	P	2022/10/03	15:45:02.5	-0.9
TRPA	3.8	315	P	2022/10/03	15:45:06.4	-0.7
PHSR	4.0	169	P	2022/10/03	15:45:10.4	0.4
KOLS	4.5	321	P	2022/10/03	15:45:17.3	1.0
RDO	4.5	190	P	2022/10/03	15:45:16.3	-0.1
LUBAR	4.5	10	P	2022/10/03	15:45:16.3	-0.1
ALN	4.7	184	P	2022/10/03	15:45:19.0	-0.1
XAEC4	4.8	3	P	2022/10/03	15:45:20.4	0.1
XAEC1	4.8	1	P	2022/10/03	15:45:20.8	0.3
XAEC5	4.9	2	P	2022/10/03	15:45:22.4	0.4
MI29	5.0	10	P	2022/10/03	15:45:24.2	1.2
PSZ	5.1	300	P	2022/10/03	15:45:24.9	-0.5
MI30	5.3	12	P	2022/10/03	15:45:27.9	-0.0
AK07	5.3	19	P	2022/10/03	15:45:27.8	-0.1
AK13	5.4	18	P	2022/10/03	15:45:28.1	-0.2
AK06	5.4	19	P	2022/10/03	15:45:28.3	-0.0
AK14	5.4	18	P	2022/10/03	15:45:28.6	-0.1
AK10	5.4	19	P	2022/10/03	15:45:28.8	0.1
AK05	5.4	19	P	2022/10/03	15:45:28.8	-0.0
AK12	5.4	18	P	2022/10/03	15:45:28.6	-0.3
AK09	5.4	19	P	2022/10/03	15:45:28.9	-0.1
AK08	5.4	19	P	2022/10/03	15:45:29.3	0.2
AK16	5.4	18	P	2022/10/03	15:45:28.7	-0.4
AK17	5.4	17	P	2022/10/03	15:45:29.0	-0.2

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

AK02	5.4	18	P	2022/10/03	15:45:29.5	0.2
AK11	5.4	18	P	2022/10/03	15:45:29.6	0.2
AK15	5.4	18	P	2022/10/03	15:45:29.7	0.2
AK19	5.4	17	P	2022/10/03	15:45:29.3	-0.3
MI28	5.4	8	P	2022/10/03	15:45:28.9	-0.7
AK18	5.5	17	P	2022/10/03	15:45:29.4	-0.3
AK01	5.5	18	P	2022/10/03	15:45:29.9	0.2
AK20	5.5	17	P	2022/10/03	15:45:29.5	-0.3
AKBB	5.5	18	P	2022/10/03	15:45:29.9	-0.0
AKBB	5.5	18	S	2022/10/03	15:46:28.2	-4.1
AK04	5.5	18	P	2022/10/03	15:45:29.9	-0.1
AK03	5.5	18	P	2022/10/03	15:45:29.6	-0.6
AK22	5.5	17	P	2022/10/03	15:45:30.1	-0.1
AK21	5.5	17	P	2022/10/03	15:45:30.1	-0.2
AK23	5.5	18	P	2022/10/03	15:45:30.0	-0.3
MORH	5.5	280	P	2022/10/03	15:45:31.2	0.5
ZLTR	5.7	50	P	2022/10/03	15:45:32.7	0.3
RNPP5	5.7	356	P	2022/10/03	15:45:33.6	0.6
NIE	5.7	315	P	2022/10/03	15:45:33.1	-0.0
RNPP8	5.8	356	P	2022/10/03	15:45:34.7	0.2
RNPP9	5.9	356	P	2022/10/03	15:45:35.7	0.2
KOVH	5.9	278	P	2022/10/03	15:45:36.2	0.5



06.10.2022. Ukraine, Chernivtsi region

$t_0 = 07:43:24$; $\varphi = 48,48^\circ N$; $\lambda = 27,47^\circ E$; $h = 4 \text{ km}$; $ML = 2,4$

Date	Time	Latitude	Longitude	Depth	Mag
2022/10/06	07:43:24.5	48.48	27.47	4	ML 2.46

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
LUBAR	1.5	7	P	2022/10/06	07:43:49.5	-1.3
LUBAR	1.5	7	S	2022/10/06	07:44:11.0	0.6
XAEC5	2.0	346	S	2022/10/06	07:44:25.3	0.1
AK07	2.4	28	P	2022/10/06	07:44:04.1	0.2
AK13	2.4	25	P	2022/10/06	07:44:04.2	0.0
AK13	2.4	25	S	2022/10/06	07:44:34.5	-0.0
AK06	2.4	28	P	2022/10/06	07:44:04.6	0.2
AK06	2.4	28	S	2022/10/06	07:44:34.7	-0.2
AK14	2.4	26	P	2022/10/06	07:44:04.8	0.3
AK09	2.4	28	P	2022/10/06	07:44:05.4	0.3
AK19	2.5	24	P	2022/10/06	07:44:05.2	-0.1
AK11	2.5	26	P	2022/10/06	07:44:05.5	0.2
AKBB	2.5	27	P	2022/10/06	07:44:06.0	0.2
AKBB	2.5	27	S	2022/10/06	07:44:37.2	-0.4

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



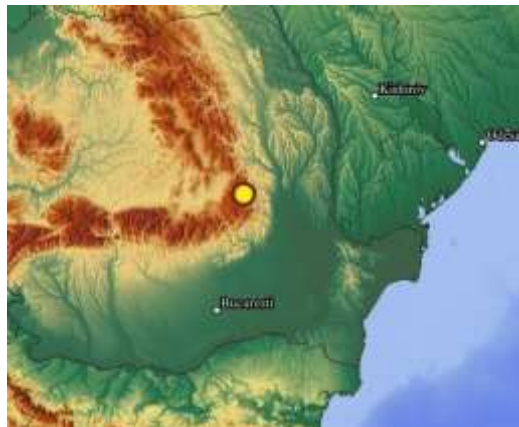
09.10.2022. Zona seismica Vrancea

$t_0 = 11:00:55$; $\varphi = 45,85^\circ N$; $\lambda = 26,58^\circ E$; $h = 76 \text{ km}$; $ML_v = 3,1$

Date	Time	Latitude	Longitude	Depth	Mag
2022/10/09	11:00:55.8	45.85	26.58	76	MLv 3.07

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.1	79	P	2022/10/09	11:01:07.2	-0.2
TESR	0.7	4	P	2022/10/09	11:01:11.7	-0.3
VOIR	1.2	250	P	2022/10/09	11:01:17.9	1.4
CJR	2.2	294	P	2022/10/09	11:01:28.3	-2.5
SORM	2.6	27	P	2022/10/09	11:01:35.6	0.2
PLVB	2.8	210	P	2022/10/09	11:01:38.9	0.2
DRGR	2.8	291	P	2022/10/09	11:01:40.2	1.3
LUBAR	4.2	11	P	2022/10/09	11:01:56.8	0.1
RDO	4.8	190	P	2022/10/09	11:02:04.4	-0.6
ALN	5.0	185	P	2022/10/09	11:02:07.6	-0.1
AK07	5.0	19	P	2022/10/09	11:02:08.7	0.2
AK13	5.0	18	P	2022/10/09	11:02:08.8	-0.0
AK14	5.1	18	P	2022/10/09	11:02:09.2	-0.0
AK10	5.1	20	P	2022/10/09	11:02:09.5	0.2
AK12	5.1	19	P	2022/10/09	11:02:09.8	0.3
AK09	5.1	20	P	2022/10/09	11:02:09.8	0.2
AK08	5.1	19	P	2022/10/09	11:02:10.0	0.2
AK17	5.1	18	P	2022/10/09	11:02:09.8	0.0
MI28	5.1	8	P	2022/10/09	11:02:09.9	-0.2
AK19	5.1	17	P	2022/10/09	11:02:10.1	-0.0
AK20	5.2	17	P	2022/10/09	11:02:10.0	-0.4
AK22	5.2	18	P	2022/10/09	11:02:10.8	-0.0
AK23	5.2	18	P	2022/10/09	11:02:11.0	-0.0
CKRC	8.9	294	P	2022/10/09	11:03:00.7	-0.1



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

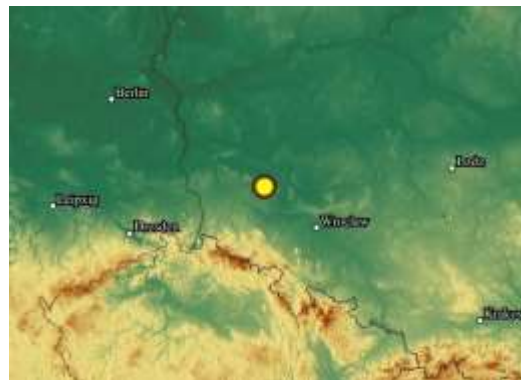
12.10.2022. Poland

$t_0 = 18:20:18$; $\varphi = 51,56^\circ N$; $\lambda = 16,12^\circ E$; $h = 6 \text{ км}$; $ML_v = 3,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/10/12	18:20:18.0	51.56	16.12	6	MLv 3.71

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
CHVC	1.0	183	P	2022/10/12	18:20:36.5	-0.2
OSTC	1.0	177	P	2022/10/12	18:20:37.1	-0.2
UPC	1.1	184	P	2022/10/12	18:20:37.7	-0.3
DPC	1.2	174	P	2022/10/12	18:20:40.5	-0.1
PVCC	1.4	224	P	2022/10/12	18:20:44.6	0.9
KRLC	1.5	163	P	2022/10/12	18:20:46.1	0.7
RUE	1.7	303	P	2022/10/12	18:20:48.9	0.8
PRA	1.8	216	P	2022/10/12	18:20:49.9	0.0
PRU	1.9	213	P	2022/10/12	18:20:50.1	-0.2
HSKC	1.9	242	P	2022/10/12	18:20:50.7	-0.7
MORC	2.0	153	P	2022/10/12	18:20:51.6	-0.7
OKC	2.2	143	P	2022/10/12	18:20:53.8	-0.5
NKC	2.7	242	P	2022/10/12	18:21:00.9	-0.7
KHC	2.9	215	P	2022/10/12	18:21:04.3	-0.7
CKRC	3.0	204	P	2022/10/12	18:21:05.4	-0.3
MODS	3.3	166	P	2022/10/12	18:21:10.0	0.2
VYHS	3.5	149	P	2022/10/12	18:21:12.9	-0.4
SOP	3.9	176	P	2022/10/12	18:21:19.3	1.1
PSZ	4.4	145	P	2022/10/12	18:21:26.5	1.4
CSKK	4.4	161	P	2022/10/12	18:21:26.7	1.1
BUD	4.5	154	P	2022/10/12	18:21:26.6	0.0
KOLS	4.7	121	P	2022/10/12	18:21:29.3	-0.6
BEHE	5.1	175	P	2022/10/12	18:21:34.2	-0.8
TRPA	5.4	127	P	2022/10/12	18:21:38.2	-0.5
MORH	5.6	162	P	2022/10/12	18:21:41.9	0.2
KOVH	5.6	166	P	2022/10/12	18:21:42.7	0.6
RNPP5	6.1	89	P	2022/10/12	18:21:47.7	-1.1
XAEC3	6.8	97	P	2022/10/12	18:21:57.4	-0.4
XAEC2	6.9	97	P	2022/10/12	18:22:00.4	1.0
MI28	7.3	90	P	2022/10/12	18:22:04.4	-0.3
LUBAR	7.6	98	P	2022/10/12	18:22:07.8	-0.8
MI30	7.6	91	P	2022/10/12	18:22:08.9	-0.7
AK19	8.2	91	P	2022/10/12	18:22:17.6	1.0
AK21	8.2	90	P	2022/10/12	18:22:16.6	-0.2
AK22	8.2	91	P	2022/10/12	18:22:17.4	0.3
AK13	8.2	92	P	2022/10/12	18:22:18.0	0.6
AK16	8.2	91	P	2022/10/12	18:22:18.7	1.1
AK14	8.2	91	P	2022/10/12	18:22:17.2	-0.6
AK04	8.2	91	P	2022/10/12	18:22:17.4	-0.6
AK11	8.3	91	P	2022/10/12	18:22:18.3	0.1
AK03	8.3	91	P	2022/10/12	18:22:18.6	0.1
AK01	8.3	91	P	2022/10/12	18:22:18.5	0.0
AK02	8.3	91	P	2022/10/12	18:22:18.5	0.0
AKBB	8.3	91	P	2022/10/12	18:22:18.3	-0.3
AK05	8.3	91	P	2022/10/12	18:22:18.8	0.2



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

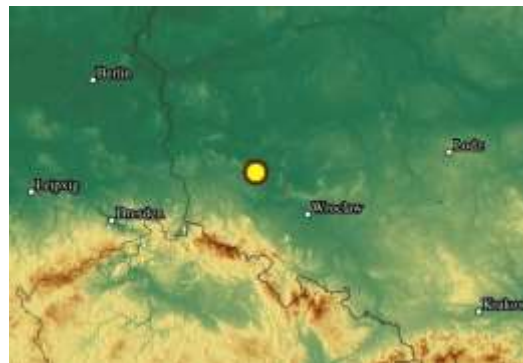
15.10.2022. Poland

$t_0 = 18:00:27$; $\varphi = 51,55^\circ N$; $\lambda = 16,16^\circ E$; $h = 10 \text{ км}$; $ML_v = 3,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/10/15	18:00:27.6	51.55	16.16	10	MLv 3.72

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
CHVC	1.0	184	P	2022/10/15	18:00:45.5	-0.5
OSTC	1.0	178	P	2022/10/15	18:00:46.2	-0.4
UPC	1.0	185	P	2022/10/15	18:00:46.8	-0.6
DPC	1.2	175	P	2022/10/15	18:00:49.6	-0.2
PVCC	1.4	225	P	2022/10/15	18:00:53.3	0.2
KRLC	1.5	163	P	2022/10/15	18:00:54.7	0.3
PRU	1.9	214	P	2022/10/15	18:00:59.2	-0.3
HSKC	2.0	242	P	2022/10/15	18:01:00.9	0.1
MORC	2.0	153	P	2022/10/15	18:01:00.7	-0.4
NKC	2.7	242	P	2022/10/15	18:01:11.1	0.2
KHC	2.9	215	P	2022/10/15	18:01:14.0	-0.1
MODS	3.3	167	P	2022/10/15	18:01:19.3	0.6
BUD	4.5	154	P	2022/10/15	18:01:36.0	0.6
KOLS	4.7	121	P	2022/10/15	18:01:38.9	0.2
MORH	5.6	162	P	2022/10/15	18:01:51.0	0.4
KOVH	5.6	166	P	2022/10/15	18:01:51.4	0.4
AK20	8.1	91	P	2022/10/15	18:02:25.5	-0.0
AK19	8.1	91	P	2022/10/15	18:02:25.4	-0.2
AK22	8.2	90	P	2022/10/15	18:02:25.9	-0.0
AK18	8.2	91	P	2022/10/15	18:02:25.8	-0.2
AK16	8.2	91	P	2022/10/15	18:02:26.6	0.0
AK01	8.3	91	P	2022/10/15	18:02:27.6	0.2
AKBB	8.3	91	P	2022/10/15	18:02:27.0	-0.4



17.10.2022. Poland

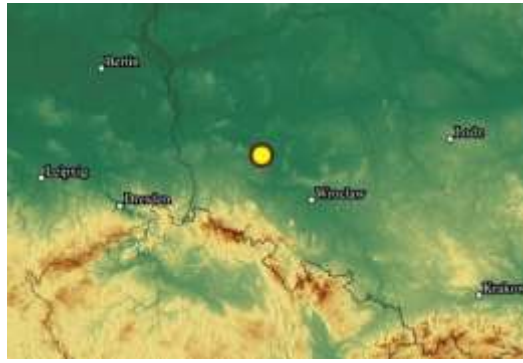
$t_0 = 09:23:40$; $\varphi = 51,59^\circ N$; $\lambda = 16,18^\circ E$; $h = 5 \text{ км}$; $ML_v = 3,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/10/17	09:23:40.4	51.59	16.18	5	MLv 3.68

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
CHVC	1.0	185	P	2022/10/17	09:23:59.6	-0.0
OSTC	1.0	179	P	2022/10/17	09:24:00.1	0.0
UPC	1.1	186	P	2022/10/17	09:24:00.8	-0.2
DPC	1.2	176	P	2022/10/17	09:24:03.5	0.1
KRLC	1.6	164	P	2022/10/17	09:24:08.3	0.2
PRU	1.9	214	P	2022/10/17	09:24:13.5	0.0
OKC	2.2	144	P	2022/10/17	09:24:16.8	-0.1
NKC	2.7	242	P	2022/10/17	09:24:24.9	0.1
KHC	3.0	215	P	2022/10/17	09:24:28.1	-0.1
MODS	3.3	167	P	2022/10/17	09:24:32.6	-0.0
KOLS	4.7	122	P	2022/10/17	09:24:52.2	-0.0
KOVH	5.6	166	P	2022/10/17	09:25:04.9	0.0
MI30	7.6	92	P	2022/10/17	09:25:31.7	0.0
AK20	8.1	91	P	2022/10/17	09:25:38.7	0.0
AK22	8.1	91	P	2022/10/17	09:25:39.1	-0.0
AK16	8.2	91	P	2022/10/17	09:25:39.7	0.0
AK12	8.2	92	P	2022/10/17	09:25:40.2	-0.0
AKBB	8.3	91	P	2022/10/17	09:25:40.6	-0.0

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



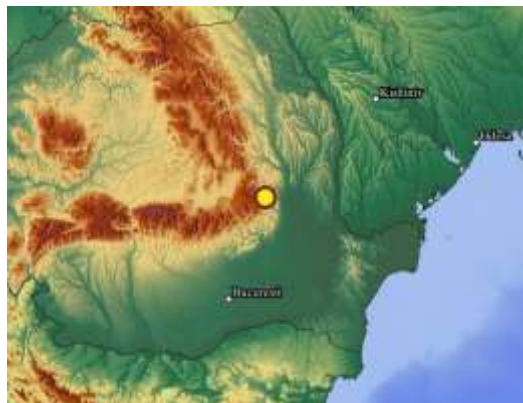
19.10.2022. Zona seismica Vrancea

$t_0 = 01:39:50$; $\varphi = 45,76^\circ N$; $\lambda = 26,78^\circ E$; $h = 113 \text{ km}$; $ML_v = 3,8$

Date	Time	Latitude	Longitude	Depth	Mag
2022/10/19	01:39:50.5	45.76	26.78	113	ML _v 3.81

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.1	340	P	2022/10/19	01:40:07.2	0.6
VRI	0.1	340	S	2022/10/19	01:40:18.9	-0.1
TESR	0.8	353	P	2022/10/19	01:40:10.0	-0.4
VOIR	1.3	256	P	2022/10/19	01:40:15.1	0.3
ARR	1.6	256	P	2022/10/19	01:40:18.4	0.1
HUMR	1.8	227	P	2022/10/19	01:40:20.8	0.0
HUMR	1.8	227	S	2022/10/19	01:40:42.1	-2.2
KIS	1.9	48	P	2022/10/19	01:40:22.8	0.8
KIS	1.9	48	S	2022/10/19	01:40:46.1	-0.5
SORM	2.6	24	P	2022/10/19	01:40:31.2	-0.2
DEV	2.7	274	P	2022/10/19	01:40:32.5	-0.3
KPD	2.8	356	P	2022/10/19	01:40:33.7	-0.3
PLVB	2.8	214	P	2022/10/19	01:40:34.3	0.0
BAL3X	2.9	41	P	2022/10/19	01:40:34.8	-0.6
MI05	3.0	71	P	2022/10/19	01:40:36.9	0.4
MDVR	3.7	257	P	2022/10/19	01:40:45.5	-0.4
TRPA	3.8	311	P	2022/10/19	01:40:46.5	0.1
LUBAR	4.2	9	P	2022/10/19	01:40:52.9	0.3
RDO	4.7	192	P	2022/10/19	01:40:59.0	-0.2
MI29	4.7	8	P	2022/10/19	01:40:59.6	0.2
AK07	5.1	18	P	2022/10/19	01:41:03.4	-0.6
AK06	5.1	18	P	2022/10/19	01:41:04.5	0.0
AK14	5.1	17	P	2022/10/19	01:41:04.5	-0.3
AK10	5.1	18	P	2022/10/19	01:41:05.7	0.9
AK05	5.1	18	P	2022/10/19	01:41:05.1	0.2
AK12	5.1	17	P	2022/10/19	01:41:04.8	-0.3
AK09	5.1	18	P	2022/10/19	01:41:05.6	0.5
AK19	5.2	16	P	2022/10/19	01:41:05.2	-0.5
AKBB	5.2	17	P	2022/10/19	01:41:06.9	0.9
MI28	5.2	6	P	2022/10/19	01:41:04.0	-2.0
AK04	5.2	17	P	2022/10/19	01:41:06.3	0.2
AK22	5.2	16	P	2022/10/19	01:41:05.8	-0.5
AK21	5.2	16	P	2022/10/19	01:41:05.9	-0.5
RNPP5	5.5	354	P	2022/10/19	01:41:09.8	-0.2
NIE	5.7	312	P	2022/10/19	01:41:13.3	0.5



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

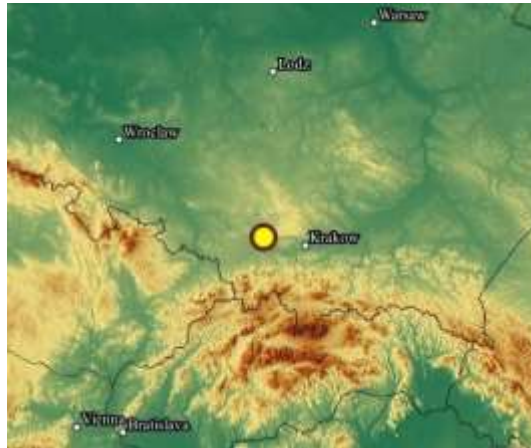
24.10.2022. Poland

$t_0 = 15:45:10$; $\varphi = 50,14^\circ N$; $\lambda = 19,29^\circ E$; $h = 5 \text{ km}$; $ML_v = 3,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/10/24	15:45:10.5	50.14	19.29	5	MLv 3.23

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
OKC	0.8	248	P	2022/10/24	15:45:26.0	0.0
NIE	1.0	137	P	2022/10/24	15:45:28.7	-0.7
MORC	1.2	253	P	2022/10/24	15:45:32.1	-0.5
MORC	1.2	253	S	2022/10/24	15:45:49.4	0.6
KRLC	1.6	269	P	2022/10/24	15:45:38.6	-0.1
KRLC	1.6	269	S	2022/10/24	15:45:59.7	-0.2
DPC	1.9	277	P	2022/10/24	15:45:42.7	-0.9
DPC	1.9	277	S	2022/10/24	15:46:08.8	-0.1
OSTC	2.0	283	P	2022/10/24	15:45:44.7	-0.3
KSP	2.0	291	P	2022/10/24	15:45:45.7	0.3
KSP	2.0	291	S	2022/10/24	15:46:12.1	0.1
CHVC	2.1	283	P	2022/10/24	15:45:46.5	0.0
CHVC	2.1	283	S	2022/10/24	15:46:14.1	0.0
UPC	2.1	281	P	2022/10/24	15:45:46.8	0.1
MODS	2.2	217	P	2022/10/24	15:45:47.3	-0.4
PSZ	2.3	170	P	2022/10/24	15:45:48.3	-0.1
KWP	2.3	102	P	2022/10/24	15:45:49.2	0.6
KOLS	2.3	121	P	2022/10/24	15:45:49.3	0.4
TRPA	2.9	132	P	2022/10/24	15:45:58.6	0.9
PVCC	3.0	279	P	2022/10/24	15:45:59.0	-0.3
PRU	3.1	269	P	2022/10/24	15:45:59.9	0.5
PRA	3.1	271	P	2022/10/24	15:46:01.1	0.8
CKRC	3.5	250	P	2022/10/24	15:46:05.1	-0.5
HSKC	3.8	279	P	2022/10/24	15:46:09.5	0.2
KHC	3.8	257	P	2022/10/24	15:46:10.6	0.4
RNPP5	4.3	73	P	2022/10/24	15:46:17.0	0.0
RNPP8	4.3	71	P	2022/10/24	15:46:16.7	-0.3
LUBAR	5.5	89	P	2022/10/24	15:46:32.1	-0.4
AK17	6.3	81	P	2022/10/24	15:46:43.8	0.3
SORM	6.3	105	P	2022/10/24	15:46:43.3	-0.3
AKBB	6.4	81	P	2022/10/24	15:46:44.0	-1.0
AKBB	6.4	81	S	2022/10/24	15:47:59.8	0.6



25.10.2022. Zona seismică Vrancea

$t_0 = 00:13:14$; $\varphi = 45,60^\circ N$; $\lambda = 26,47^\circ E$; $h = 110 \text{ km}$; $ML_v = 3,1$

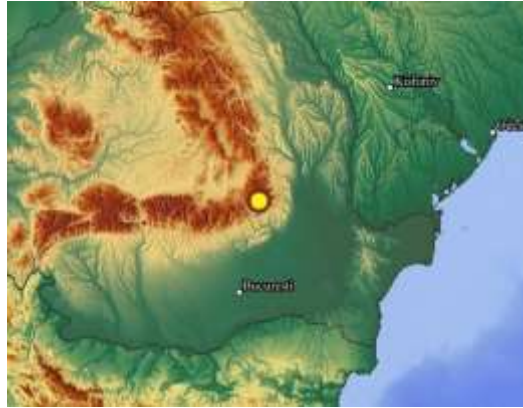
Date	Time	Latitude	Longitude	Depth	Mag
2022/10/25	00:13:14.8	45.60	26.47	110	MLv 3.11

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.3	34	P	2022/10/25	00:13:32.0	0.2
VRI	0.3	34	S	2022/10/25	00:13:44.8	-0.1
TESR	0.9	8	P	2022/10/25	00:13:35.4	-0.1
VOIR	1.0	261	P	2022/10/25	00:13:36.1	-0.0
ARR	1.3	260	P	2022/10/25	00:13:39.9	0.4
HUMR	1.5	225	P	2022/10/25	00:13:41.6	-0.2
TIRR	1.8	129	P	2022/10/25	00:13:46.0	0.9

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TIRR	1.8	129	S	2022/10/25	00:14:08.1	-0.6
KIS	2.1	48	P	2022/10/25	00:13:50.3	0.7
DEV	2.5	278	P	2022/10/25	00:13:55.3	0.8
PLVB	2.6	212	P	2022/10/25	00:13:55.1	-0.2
SORM	2.8	26	P	2022/10/25	00:13:58.5	-0.2
KPD	3.0	360	P	2022/10/25	00:13:59.7	-0.5
NDNU	3.1	11	P	2022/10/25	00:14:01.1	-0.4
MDVR	3.5	258	P	2022/10/25	00:14:06.2	-0.7
AK07	5.3	19	P	2022/10/25	00:14:32.1	0.9
AK10	5.3	19	P	2022/10/25	00:14:32.8	0.8
AK17	5.4	18	P	2022/10/25	00:14:32.1	-0.4
AK15	5.4	18	P	2022/10/25	00:14:32.5	-0.3
AK18	5.4	18	P	2022/10/25	00:14:32.6	-0.4
AKBB	5.4	19	P	2022/10/25	00:14:32.8	-0.4
AK03	5.4	19	P	2022/10/25	00:14:33.3	-0.2



31.10.2022. Poland

$t_0 = 16:45:04$; $\varphi = 51,61^\circ N$; $\lambda = 16,14^\circ E$; $h = 5 \text{ км}$; $ML_v = 3,7$

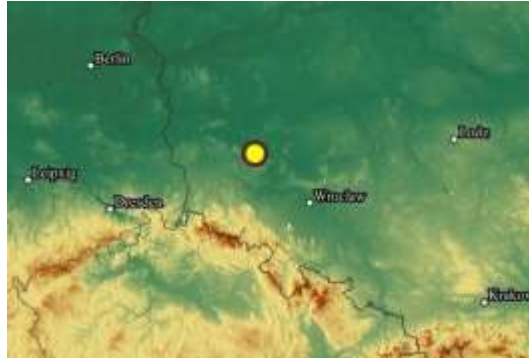
Date	Time	Latitude	Longitude	Depth	Mag
2022/10/31	16:45:04.0	51.61	16.14	5	MLv 3.67

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
CHVC	1.0	183	P	2022/10/31	16:45:23.2	-0.3
OSTC	1.1	177	P	2022/10/31	16:45:23.7	-0.3
UPC	1.1	184	P	2022/10/31	16:45:24.4	-0.4
DPC	1.3	175	P	2022/10/31	16:45:27.1	-0.2
PVCC	1.5	223	P	2022/10/31	16:45:31.0	0.6
PVCC	1.5	223	S	2022/10/31	16:45:51.1	0.9
KRLC	1.6	163	P	2022/10/31	16:45:32.1	0.1
RUE	1.7	302	P	2022/10/31	16:45:33.6	-0.3
PRA	1.9	216	P	2022/10/31	16:45:36.5	-0.1
PRU	1.9	213	P	2022/10/31	16:45:36.8	-0.3
HSKC	2.0	241	P	2022/10/31	16:45:37.6	-0.4
MORC	2.0	153	P	2022/10/31	16:45:38.2	-0.7
MORC	2.0	153	S	2022/10/31	16:46:05.3	-0.2
OKC	2.2	144	P	2022/10/31	16:45:41.0	0.2
OKC	2.2	144	S	2022/10/31	16:46:08.9	-0.2
OJC	2.7	120	P	2022/10/31	16:45:47.5	-0.4
NKC	2.7	241	P	2022/10/31	16:45:47.9	-0.1
KHC	3.0	214	P	2022/10/31	16:45:51.6	-0.1
CKRC	3.0	204	P	2022/10/31	16:45:52.9	0.4
CKRC	3.0	204	S	2022/10/31	16:46:29.5	-0.4
MODS	3.3	167	P	2022/10/31	16:45:57.3	0.9
SUW	4.9	58	P	2022/10/31	16:46:17.8	-0.4
TRPA	5.4	128	P	2022/10/31	16:46:25.2	0.1
MORH	5.6	162	P	2022/10/31	16:46:28.9	0.6
KOVH	5.7	166	P	2022/10/31	16:46:28.8	0.0
RNPP5	6.1	90	P	2022/10/31	16:46:34.4	-0.4
MI30	7.6	92	P	2022/10/31	16:46:55.2	-0.3
AK19	8.1	91	P	2022/10/31	16:47:03.1	0.5
AK04	8.2	91	P	2022/10/31	16:47:04.4	0.4
AK11	8.2	91	P	2022/10/31	16:47:04.5	0.4
AK01	8.3	91	P	2022/10/31	16:47:04.4	0.0
AK02	8.3	91	P	2022/10/31	16:47:04.9	0.4
AKBB	8.3	91	P	2022/10/31	16:47:04.8	0.3
AKBB	8.3	91	S	2022/10/31	16:48:39.7	0.2

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AK05	8.3	92	P	2022/10/31	16:47:04.7	0.2
AK09	8.3	92	P	2022/10/31	16:47:04.8	-0.4



03.11.2022. Zona seismică Vrancea

$t_0 = 04:50:25$; $\varphi = 45,51^\circ N$; $\lambda = 26,57^\circ E$; $h = 146 \text{ km}$; $ML_v = 5,4$

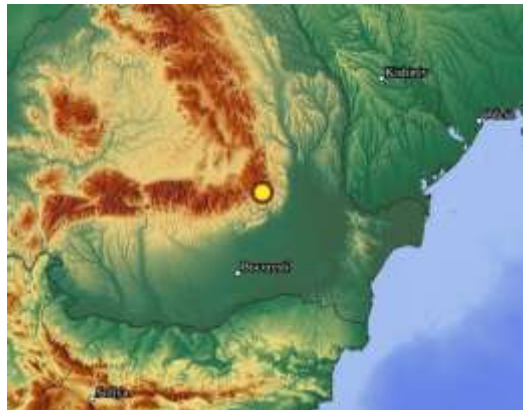
Date	Time	Latitude	Longitude	Depth	Mag
2022/11/03	04:50:25.1	45.51	26.57	146	MLv 5.4

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.4	17	P	2022/11/03	04:50:47.1	0.4
VRI	0.4	17	S	2022/11/03	04:51:02.6	-1.0
TESR	1.0	3	P	2022/11/03	04:50:50.4	0.7
TESR	1.0	3	S	2022/11/03	04:51:08.0	-0.9
VOIR	1.1	267	P	2022/11/03	04:50:51.0	0.6
ARR	1.4	265	P	2022/11/03	04:50:53.6	0.2
HUMR	1.5	230	P	2022/11/03	04:50:54.2	-0.5
KIS	2.2	46	P	2022/11/03	04:51:02.9	1.0
CJR	2.4	301	P	2022/11/03	04:51:05.5	0.7
PLVB	2.5	214	P	2022/11/03	04:51:07.1	0.4
DEV	2.6	280	P	2022/11/03	04:51:08.0	0.6
DEV	2.6	280	S	2022/11/03	04:51:40.8	0.3
SORM	2.9	24	P	2022/11/03	04:51:11.3	0.4
DRGR	3.0	297	P	2022/11/03	04:51:12.1	0.1
DJES	3.0	255	P	2022/11/03	04:51:11.0	-1.3
KPD	3.1	359	P	2022/11/03	04:51:12.6	-0.3
BAL3X	3.2	40	P	2022/11/03	04:51:14.4	-0.5
MDVR	3.5	260	P	2022/11/03	04:51:18.4	-0.5
TRPA	3.8	315	P	2022/11/03	04:51:22.3	-0.4
UZH	4.3	318	P	2022/11/03	04:51:28.9	0.1
RDO	4.4	190	P	2022/11/03	04:51:31.2	0.3
LUBAR	4.5	10	P	2022/11/03	04:51:31.8	0.3
KOLS	4.5	321	P	2022/11/03	04:51:32.9	1.1
KLYT	4.6	156	P	2022/11/03	04:51:33.8	0.4
ALN	4.6	185	P	2022/11/03	04:51:33.7	0.2
XAEC2	4.7	2	P	2022/11/03	04:51:35.4	1.1
BSZH	4.7	295	P	2022/11/03	04:51:35.1	0.5
XAEC1	4.8	1	P	2022/11/03	04:51:36.6	1.0
KWP	4.9	329	P	2022/11/03	04:51:37.8	1.0
XAEC5	4.9	1	P	2022/11/03	04:51:37.8	0.6
MI29	5.0	9	P	2022/11/03	04:51:38.7	0.6
KECS	5.1	308	P	2022/11/03	04:51:40.4	0.6
PSZ	5.2	300	P	2022/11/03	04:51:40.4	-0.4
AK07	5.3	18	P	2022/11/03	04:51:42.9	0.0
MI30	5.3	11	P	2022/11/03	04:51:43.0	0.0
AK13	5.4	17	P	2022/11/03	04:51:43.1	-0.1
AK06	5.4	18	P	2022/11/03	04:51:43.3	-0.0
AK14	5.4	17	P	2022/11/03	04:51:43.5	-0.1
AK10	5.4	18	P	2022/11/03	04:51:43.6	-0.0
AK05	5.4	18	P	2022/11/03	04:51:43.6	-0.1
AK12	5.4	18	P	2022/11/03	04:51:43.8	-0.1
AK09	5.4	19	P	2022/11/03	04:51:43.9	0.0
AK08	5.4	18	P	2022/11/03	04:51:44.0	-0.0
AK16	5.4	17	P	2022/11/03	04:51:44.0	-0.1
AK17	5.4	17	P	2022/11/03	04:51:44.1	-0.1
AK02	5.4	18	P	2022/11/03	04:51:44.1	-0.1
AK11	5.5	18	P	2022/11/03	04:51:44.2	-0.1
AK15	5.5	17	P	2022/11/03	04:51:44.4	-0.1
AK19	5.5	16	P	2022/11/03	04:51:44.3	-0.1

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MI28	5.5	7	P	2022/11/03	04:51:43.6	-1.0
AK18	5.5	17	P	2022/11/03	04:51:44.5	-0.1
AK01	5.5	18	P	2022/11/03	04:51:44.5	-0.1
AK20	5.5	16	P	2022/11/03	04:51:44.6	-0.2
AKBB	5.5	18	P	2022/11/03	04:51:44.7	-0.1
AK04	5.5	17	P	2022/11/03	04:51:44.8	-0.1
AK03	5.5	18	P	2022/11/03	04:51:45.0	-0.1
AK22	5.5	17	P	2022/11/03	04:51:45.0	-0.1
AK21	5.5	17	P	2022/11/03	04:51:45.1	-0.2
AK23	5.5	17	P	2022/11/03	04:51:45.2	-0.1
BUD	5.6	293	P	2022/11/03	04:51:45.5	-0.5
MORH	5.6	280	P	2022/11/03	04:51:46.8	0.7
ZLTR	5.6	50	P	2022/11/03	04:51:46.8	-0.1
RNPP5	5.7	356	P	2022/11/03	04:51:48.1	-0.0
NIE	5.8	315	P	2022/11/03	04:51:49.2	0.6
RNPP8	5.8	356	P	2022/11/03	04:51:49.8	0.2
RNPP9	5.9	356	P	2022/11/03	04:51:50.5	-0.1
KOVH	6.0	279	P	2022/11/03	04:51:52.0	0.9
CSKK	6.0	291	P	2022/11/03	04:51:52.3	0.1
PDG	6.1	242	P	2022/11/03	04:51:53.9	0.7
SRO	6.1	295	P	2022/11/03	04:51:54.3	0.8
BZK	6.4	121	P	2022/11/03	04:51:57.2	-0.4
BZK	6.4	121	sP	2022/11/03	04:52:30.7	-0.5
OJC	6.6	318	P	2022/11/03	04:51:58.5	-0.5
BEHE	6.9	281	P	2022/11/03	04:52:04.7	1.1
MODS	7.0	298	P	2022/11/03	04:52:04.7	0.1
OKC	7.1	310	P	2022/11/03	04:52:06.3	-0.6
AGG	7.2	207	P	2022/11/03	04:52:07.9	0.1
SOP	7.2	291	P	2022/11/03	04:52:08.4	0.3
ANTO	7.3	139	P	2022/11/03	04:52:09.5	0.9
MORC	7.4	308	P	2022/11/03	04:52:10.0	-0.9
DPC	8.4	309	P	2022/11/03	04:52:23.3	-0.5
OSTC	8.6	310	P	2022/11/03	04:52:25.7	-0.3
UPC	8.7	309	P	2022/11/03	04:52:26.6	-0.5
CHVC	8.7	310	P	2022/11/03	04:52:26.9	-0.5
KSP	8.7	312	P	2022/11/03	04:52:27.0	-0.5
SUW	8.8	347	P	2022/11/03	04:52:27.7	-1.1
CKRC	9.0	296	P	2022/11/03	04:52:32.2	0.7
PRU	9.3	303	P	2022/11/03	04:52:34.8	-0.3
PRA	9.4	304	P	2022/11/03	04:52:36.7	0.3
PVCC	9.5	306	P	2022/11/03	04:52:37.6	-0.4
KHC	9.5	297	P	2022/11/03	04:52:39.3	0.5
TIP	9.6	232	P	2022/11/03	04:52:39.4	-0.7
CUC	9.6	239	P	2022/11/03	04:52:39.3	-0.9
GKP	9.9	325	P	2022/11/03	04:52:42.0	-1.0
AQU	10.0	256	P	2022/11/03	04:52:44.3	-0.8
NKC	10.6	302	P	2022/11/03	04:52:52.4	-0.4
CEL	10.8	231	P	2022/11/03	04:52:53.7	-1.3
KIV	11.6	92	P	2022/11/03	04:53:05.9	0.2



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

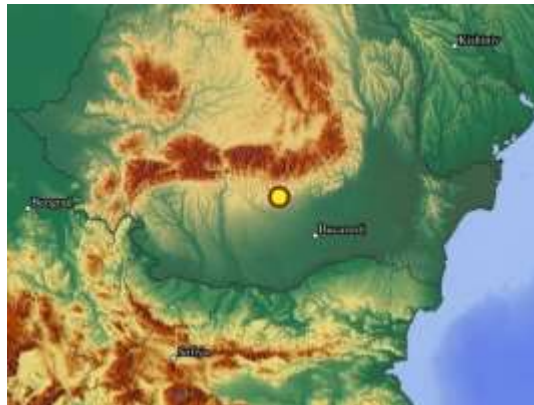
06.11.2022. Zona seismică Vrancea

$t_0 = 07:42:20$; $\varphi = 44,97^\circ N$; $\lambda = 25,39^\circ E$; $h = 9 \text{ km}$; $ML_v = 3,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/11/06	07:42:20.3	44.97	25.39	9	MLv 3.03

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
HUMR	0.5	214	P	2022/11/06	07:42:31.0	-0.1
VOIR	0.5	333	P	2022/11/06	07:42:31.3	0.1
ARR	0.7	307	P	2022/11/06	07:42:33.2	-0.4
VRI	1.3	46	P	2022/11/06	07:42:44.6	0.7
PLVB	1.7	200	P	2022/11/06	07:42:49.7	0.2
TESR	1.8	29	P	2022/11/06	07:42:51.1	0.2
DEV	2.0	299	P	2022/11/06	07:42:54.1	0.2
DRGR	2.6	315	P	2022/11/06	07:43:02.7	0.1
MDVR	2.6	267	P	2022/11/06	07:43:02.7	0.0
MDVR	2.6	267	S	2022/11/06	07:43:35.4	-0.1
KMPU	3.7	11	P	2022/11/06	07:43:17.2	0.1
TRPA	3.7	329	P	2022/11/06	07:43:18.0	0.1
RDO	3.8	178	P	2022/11/06	07:43:19.1	-0.1
BUD	5.1	302	P	2022/11/06	07:43:36.7	0.1
LUBAR	5.2	17	P	2022/11/06	07:43:38.4	0.1
KOVH	5.2	285	P	2022/11/06	07:43:38.8	0.0
MI30	6.1	17	P	2022/11/06	07:43:49.8	-0.4
AK14	6.2	22	P	2022/11/06	07:43:51.8	0.1
AK05	6.2	23	P	2022/11/06	07:43:52.2	0.2
AK03	6.3	23	P	2022/11/06	07:43:52.1	-1.3
KSP	8.5	317	P	2022/11/06	07:44:23.2	0.1
CSS	11.7	146	P	2022/11/06	07:45:07.1	-0.1



14.11.2022. Ukraine. Ivano-Frankivsk region

$t_0 = 13:45:32$; $\varphi = 48,65^\circ N$; $\lambda = 24,41^\circ E$; $h = 4 \text{ km}$; $ML_v = 2,3$

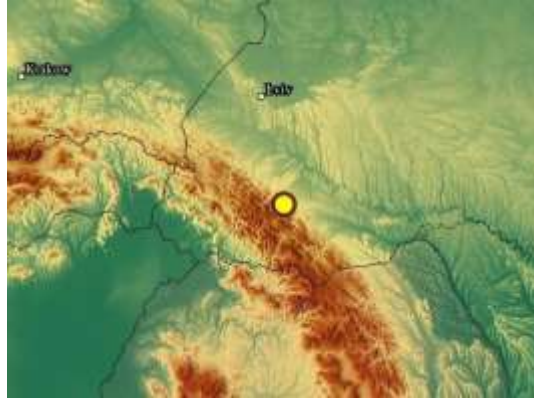
Date	Time	Latitude	Longitude	Depth	Mag
2022/11/14	13:45:32.6	48.65	24.41	4	MLv 2.28

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
KPD	1.4	93	Pg	2022/11/14	13:45:59.5	0.8
KPD	1.4	93	Sg	2022/11/14	13:46:17.3	-0.2
XAEC2	2.2	44	Pg	2022/11/14	13:46:15.3	0.6
XAEC2	2.2	44	Sg	2022/11/14	13:46:45.1	0.0
XAEC1	2.2	41	Pg	2022/11/14	13:46:15.4	0.5
XAEC1	2.2	41	Sg	2022/11/14	13:46:45.5	0.2
LUBAR	2.5	59	Pg	2022/11/14	13:46:21.0	-0.1
AK13	3.6	55	Pg	2022/11/14	13:46:42.1	0.5
AK19	3.6	53	Pg	2022/11/14	13:46:42.4	0.2
AK14	3.6	55	Pg	2022/11/14	13:46:42.7	0.4
AK17	3.6	54	Pg	2022/11/14	13:46:42.5	0.2
AK20	3.6	53	Pg	2022/11/14	13:46:42.5	0.1
AK07	3.7	57	Pg	2022/11/14	13:46:42.9	0.4
AK16	3.7	55	Pg	2022/11/14	13:46:42.8	0.2
AK16	3.7	55	Pn	2022/11/14	13:46:29.6	-0.3
AK16	3.7	55	sP	2022/11/14	13:46:31.2	-0.2
AK18	3.7	54	Pg	2022/11/14	13:46:42.7	-0.1
AK06	3.7	56	Pg	2022/11/14	13:46:43.0	0.2
AK12	3.7	55	Pg	2022/11/14	13:46:42.7	-0.1

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AK15	3.7	54	Pg	2022/11/14	13:46:43.1	-0.0
AK21	3.7	53	Pg	2022/11/14	13:46:43.0	-0.1
AK05	3.7	56	Pg	2022/11/14	13:46:42.8	-0.3
AK22	3.7	53	Pg	2022/11/14	13:46:42.4	-0.8
AK11	3.7	55	Pg	2022/11/14	13:46:43.4	0.1
AK10	3.7	56	Pg	2022/11/14	13:46:42.6	-0.8
AK02	3.7	55	Pg	2022/11/14	13:46:43.4	-0.2
AK04	3.7	54	Pg	2022/11/14	13:46:43.6	-0.2
AK08	3.7	56	Pg	2022/11/14	13:46:44.0	0.1
AK09	3.7	56	Pg	2022/11/14	13:46:43.4	-0.6
AKBB	3.7	55	Pg	2022/11/14	13:46:44.2	0.0
AK03	3.8	55	Pg	2022/11/14	13:46:43.9	-0.5



15.11.2022. Ukraine, Ivano-Frankivsk region

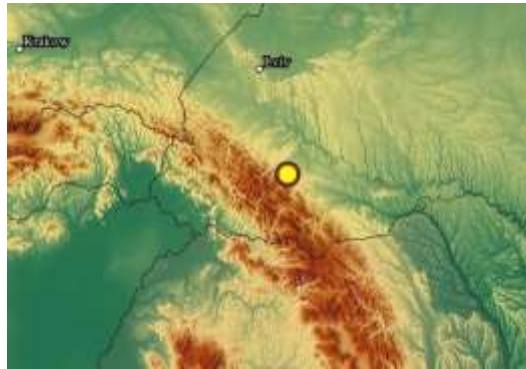
$t_0 = 12:31:09$; $\varphi = 48,68^\circ N$; $\lambda = 24,49^\circ E$; $h = 3 \text{ км}$; $ML_v = 2,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/11/15	12:31:09.7	48.68	24.49	3	ML _v 2.24

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
KPD	1.3	94	Pg	2022/11/15	12:31:35.4	0.4
KPD	1.3	94	Sg	2022/11/15	12:31:52.8	-0.1
TRPA	1.4	248	Pg	2022/11/15	12:31:38.1	1.3
XAEC2	2.1	44	Pg	2022/11/15	12:31:51.6	0.7
XAEC1	2.2	40	Sg	2022/11/15	12:32:21.2	0.5
XAEC5	2.3	39	Pg	2022/11/15	12:31:54.1	0.7
XAEC5	2.3	39	Sg	2022/11/15	12:32:24.5	-0.3
LUBAR	2.5	59	Pg	2022/11/15	12:31:58.7	1.5
PSZ	3.2	258	Pn	2022/11/15	12:31:59.3	-1.1
PSZ	3.2	258	sP	2022/11/15	12:32:00.9	-0.5
AK13	3.5	55	Pg	2022/11/15	12:32:18.0	0.3
AK19	3.6	53	Pg	2022/11/15	12:32:18.3	-0.0
AK14	3.6	55	Pg	2022/11/15	12:32:18.2	-0.2
AK17	3.6	54	Pg	2022/11/15	12:32:18.8	0.4
AK20	3.6	53	Pg	2022/11/15	12:32:18.6	0.1
AK07	3.6	57	Pg	2022/11/15	12:32:18.8	0.2
AK06	3.6	56	Pg	2022/11/15	12:32:18.2	-0.7
AK18	3.6	54	Pg	2022/11/15	12:32:18.7	-0.2
AK12	3.6	55	Pg	2022/11/15	12:32:18.7	-0.3
AK15	3.6	54	Pg	2022/11/15	12:32:18.7	-0.5
AK05	3.6	56	Pg	2022/11/15	12:32:19.2	-0.1
AK11	3.6	55	Pg	2022/11/15	12:32:19.1	-0.4
AK04	3.7	54	Pg	2022/11/15	12:32:19.1	-0.8
AK08	3.7	56	Pg	2022/11/15	12:32:19.6	-0.3
AK01	3.7	55	Pg	2022/11/15	12:32:19.8	-0.3
AK09	3.7	56	Pg	2022/11/15	12:32:20.0	-0.0
AK09	3.7	56	Sg	2022/11/15	12:33:10.8	0.0
AKBB	3.7	55	Pg	2022/11/15	12:32:19.9	-0.4

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17.11.2022. Ukraine, Chernivtsi region

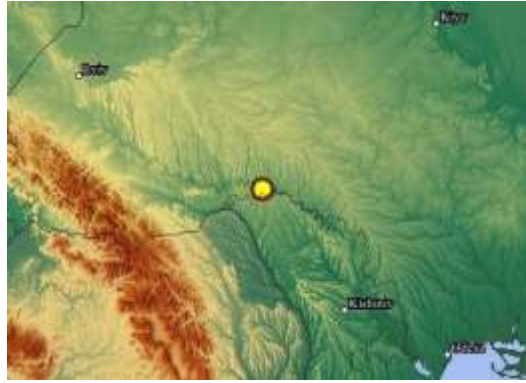
$t_0 = 22:00:46$; $\varphi = 48,50^\circ N$; $\lambda = 27,35^\circ E$; $h = 4 \text{ км}$; $ML_v = 2,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/11/17	22:00:46.9	48.50	27.35	4	MLv 2.69

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
KPD	0.6	277	Pg	2022/11/17	22:00:58.4	0.1
KPD	0.6	277	Sg	2022/11/17	22:01:05.2	-1.2
SORM	0.8	118	Pg	2022/11/17	22:01:01.1	-0.4
SORM	0.8	118	Sg	2022/11/17	22:01:10.7	-1.2
TESR	2.0	194	Pn	2022/11/17	22:01:22.1	0.1
TESR	2.0	194	sP	2022/11/17	22:01:24.0	0.5
AK07	2.4	30	Pn	2022/11/17	22:01:27.5	0.9
AK13	2.4	27	Pn	2022/11/17	22:01:27.5	0.8
AK13	2.4	27	Sn	2022/11/17	22:01:57.2	-0.1
AK13	2.4	27	sP	2022/11/17	22:01:28.5	0.2
AK06	2.4	29	Pn	2022/11/17	22:01:27.1	0.1
AK14	2.4	28	Pn	2022/11/17	22:01:27.6	0.4
AK14	2.4	28	sP	2022/11/17	22:01:29.0	0.2
AK10	2.4	30	Pn	2022/11/17	22:01:27.5	0.1
AK10	2.4	30	sP	2022/11/17	22:01:29.7	0.7
AK05	2.4	29	Pn	2022/11/17	22:01:27.6	0.2
AK05	2.4	29	sP	2022/11/17	22:01:29.3	0.3
MI28	2.4	5	Pn	2022/11/17	22:01:26.9	-0.6
MI28	2.4	5	Sn	2022/11/17	22:01:58.2	-0.4
AK12	2.4	28	Pn	2022/11/17	22:01:27.6	0.1
AK09	2.5	30	Pn	2022/11/17	22:01:27.8	0.1
AK08	2.5	29	Pn	2022/11/17	22:01:27.9	0.0
AK19	2.5	25	Pn	2022/11/17	22:01:28.2	0.3
AK19	2.5	25	Sn	2022/11/17	22:01:58.4	-1.0
AK11	2.5	28	Pn	2022/11/17	22:01:28.4	0.4
AK11	2.5	28	Sn	2022/11/17	22:01:58.7	-0.9
AK15	2.5	27	Sn	2022/11/17	22:01:58.6	-1.0
AK18	2.5	26	Pn	2022/11/17	22:01:28.5	0.3
AK01	2.5	28	Pn	2022/11/17	22:01:28.7	0.4
AK01	2.5	28	Sn	2022/11/17	22:02:00.3	0.1
AKBB	2.5	28	Pn	2022/11/17	22:01:29.0	0.5
AK04	2.5	27	Pn	2022/11/17	22:01:28.2	-0.3
AK21	2.5	25	Pn	2022/11/17	22:01:28.6	-0.1
AK21	2.5	25	Sn	2022/11/17	22:02:00.9	0.1
AK03	2.5	28	Pn	2022/11/17	22:01:28.7	-0.1
AK23	2.5	26	Pn	2022/11/17	22:01:29.0	0.2
RNPP9	3.1	343	Pn	2022/11/17	22:01:36.3	0.2

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



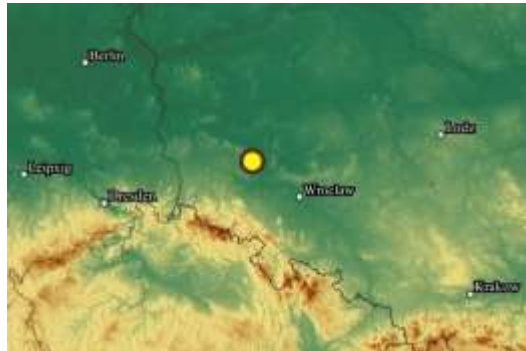
20.11.2022. Poland

$t_0 = 19:13:07$; $\varphi = 51,48^\circ N$; $\lambda = 16,24^\circ E$; $h = 7 \text{ km}$; $ML_v = 3,1$

Date	Time	Latitude	Longitude	Depth	Mag
2022/11/20	19:13:07.1	51.48	16.24	7	MLv 3.14

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
KSP	0.6	177	P	2022/11/20	19:13:20.0	0.2
KSP	0.6	177	S	2022/11/20	19:13:29.3	0.2
CHVC	0.9	187	P	2022/11/20	19:13:24.4	-0.1
UPC	1.0	188	P	2022/11/20	19:13:25.7	-0.3
DPC	1.1	177	S	2022/11/20	19:13:43.5	-0.5
PVCC	1.4	228	P	2022/11/20	19:13:33.0	0.3
RUE	1.8	304	P	2022/11/20	19:13:38.0	-0.6
PRA	1.8	220	P	2022/11/20	19:13:38.4	-0.2
PRA	1.8	220	S	2022/11/20	19:14:02.6	-0.1
PRU	1.8	216	P	2022/11/20	19:13:38.9	-0.1
MORC	1.9	154	P	2022/11/20	19:13:40.1	0.2
HSKC	2.0	245	P	2022/11/20	19:13:41.8	0.9
OKC	2.0	143	P	2022/11/20	19:13:41.7	-0.3
KHC	2.9	217	P	2022/11/20	19:13:53.5	-0.2
CKRC	2.9	206	P	2022/11/20	19:13:54.4	0.2
PSZ	4.3	145	P	2022/11/20	19:14:13.1	0.4
AK19	8.1	90	P	2022/11/20	19:15:04.1	-0.6
AK21	8.1	90	P	2022/11/20	19:15:04.7	-0.1
AK22	8.1	90	P	2022/11/20	19:15:05.0	-0.1
AK18	8.1	90	P	2022/11/20	19:15:04.7	-0.5
AK17	8.1	91	P	2022/11/20	19:15:04.4	-0.8
AK16	8.1	91	P	2022/11/20	19:15:05.2	-0.5
AK15	8.2	91	P	2022/11/20	19:15:06.4	0.6
AK14	8.2	91	P	2022/11/20	19:15:05.3	-0.5
AK12	8.2	91	P	2022/11/20	19:15:06.6	0.4
AK11	8.2	91	P	2022/11/20	19:15:06.2	0.0
AK03	8.2	90	P	2022/11/20	19:15:07.2	0.7
AKBB	8.2	90	P	2022/11/20	19:15:07.2	0.6
AK06	8.2	91	P	2022/11/20	19:15:06.7	-0.0
AK07	8.2	91	P	2022/11/20	19:15:06.9	0.1
AK08	8.2	91	P	2022/11/20	19:15:07.8	0.7



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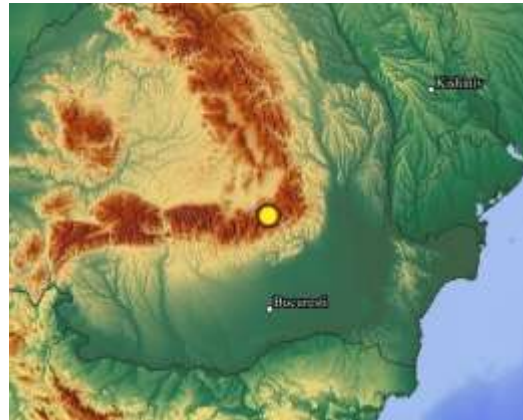
25.11.2022. Zona seismică Vrancea

$t_0 = 05:31:37$; $\varphi = 45,55^\circ N$; $\lambda = 26,08^\circ E$; $h = 54 \text{ km}$; $ML_v = 2,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/11/25	05:31:37.2	45.55	26.08	54	MLv 2.70

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.5	55	P	2022/11/25	05:31:50.5	-0.1
VRI	0.5	55	S	2022/11/25	05:32:00.9	0.0
VOIR	0.7	261	P	2022/11/25	05:31:52.7	0.2
TESR	1.0	22	P	2022/11/25	05:31:56.6	1.1
ARR	1.0	260	P	2022/11/25	05:31:55.6	0.1
ARR	1.0	260	S	2022/11/25	05:32:09.4	-0.1
ALN	4.7	180	P	2022/11/25	05:32:44.9	-0.0
AK13	5.4	20	P	2022/11/25	05:32:55.8	0.2
AK06	5.5	21	P	2022/11/25	05:32:55.8	0.1
AK05	5.5	21	P	2022/11/25	05:32:56.1	-0.1
AK12	5.5	21	P	2022/11/25	05:32:56.3	-0.0
AK17	5.5	20	P	2022/11/25	05:32:56.1	-0.4
AK19	5.5	20	P	2022/11/25	05:32:57.2	0.4
AK18	5.5	20	P	2022/11/25	05:32:56.9	-0.1
AKBB	5.6	21	P	2022/11/25	05:32:57.4	0.1
AK04	5.6	21	P	2022/11/25	05:32:57.4	0.0
AK22	5.6	20	P	2022/11/25	05:32:57.3	-0.3
AK21	5.6	20	P	2022/11/25	05:32:57.8	0.1
AK23	5.6	20	P	2022/11/25	05:32:57.8	0.1



26.11.2022. Zona seismică Vrancea

$t_0 = 01:59:27$; $\varphi = 45,51^\circ N$; $\lambda = 26,80^\circ E$; $h = 144 \text{ km}$; $ML_v = 2,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/11/26	01:59:27.9	45.51	26.80	144	MLv 2.64

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.4	352	P	2022/11/26	01:59:49.0	0.2
VRI	0.4	352	S	2022/11/26	02:00:05.4	0.3
TESR	1.0	354	P	2022/11/26	01:59:51.7	-0.4
VOIR	1.2	267	P	2022/11/26	01:59:53.7	-0.6
ARR	1.5	265	P	2022/11/26	01:59:57.7	0.3
SORM	2.8	22	P	2022/11/26	02:00:12.3	-0.5
MDVR	3.7	260	P	2022/11/26	02:00:23.9	0.3
AK07	5.3	17	P	2022/11/26	02:00:44.8	-0.2
AK13	5.3	16	P	2022/11/26	02:00:46.0	0.6
AK06	5.3	17	P	2022/11/26	02:00:45.6	0.2
AK10	5.4	17	P	2022/11/26	02:00:45.8	0.1
AK05	5.4	17	P	2022/11/26	02:00:46.4	0.5
AK16	5.4	16	P	2022/11/26	02:00:46.4	0.1
AK01	5.4	16	P	2022/11/26	02:00:46.9	0.1
AK18	5.4	15	P	2022/11/26	02:00:45.9	-0.9
AK20	5.4	15	P	2022/11/26	02:00:46.3	-0.6
AKBB	5.4	16	P	2022/11/26	02:00:47.2	0.3
AK21	5.5	15	P	2022/11/26	02:00:47.9	0.5

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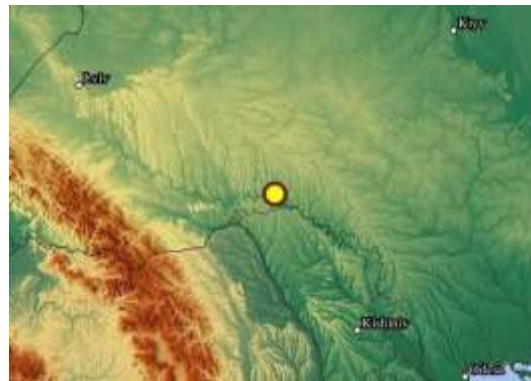
01.12.2022. Ukraine. Chernivtsi region

$t_0 = 09:02:16$; $\varphi = 48,61^\circ N$; $\lambda = 27,42^\circ E$; $h = 6 \text{ км}$; $ML_v = 2,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/01	09:02:16.7	48.61	27.42	6	ML 2.17

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
NDNU	0.0	241	Pg	2022/12/01	09:02:18.3	0.1
NDNU	0.0	241	Sg	2022/12/01	09:02:19.6	-0.0
MI30	2.2	13	Pg	2022/12/01	09:02:57.4	1.4
AK07	2.3	30	Pg	2022/12/01	09:02:57.3	0.0
AK13	2.3	27	Pg	2022/12/01	09:02:57.4	-0.0
AK06	2.3	30	Pg	2022/12/01	09:02:57.6	-0.2
AK10	2.3	30	Pg	2022/12/01	09:02:58.1	-0.2
AK05	2.3	29	Pg	2022/12/01	09:02:58.8	0.5
AK12	2.3	28	Pg	2022/12/01	09:02:58.4	0.0
MI28	2.3	4	Pg	2022/12/01	09:02:57.5	-0.8
AK09	2.3	31	Pg	2022/12/01	09:02:58.6	-0.1
AK08	2.3	30	Pg	2022/12/01	09:02:58.7	-0.1
AK19	2.3	26	Pg	2022/12/01	09:02:58.7	-0.2
AK11	2.4	28	Pg	2022/12/01	09:02:59.2	0.2
AK18	2.4	26	Pg	2022/12/01	09:02:58.8	-0.3
AK20	2.4	25	Pg	2022/12/01	09:02:59.0	-0.2
AKBB	2.4	29	Pg	2022/12/01	09:02:59.5	-0.1



02.12.2022. Zona seismică Vrancea

$t_0 = 16:23:16$; $\varphi = 44,63^\circ N$; $\lambda = 27,29^\circ E$; $h = 10 \text{ км}$; $ML_v = 2,7$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/02	16:23:16.8	44.63	27.29	10	MLv 2.66

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
TIRR	0.8	102	P	2022/12/02	16:23:32.9	-0.0
VR1	1.3	343	P	2022/12/02	16:23:40.4	0.0
HUMR	1.7	267	P	2022/12/02	16:23:45.6	0.0
VOIR	1.8	298	P	2022/12/02	16:23:47.4	-0.0
TESR	1.9	347	P	2022/12/02	16:23:49.7	0.0

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LUBAR 5.3 3 P 2022/12/02 16:24:36.0 -0.0



04.12.2022. Ukraine, Poltava region

t₀ = 05:00:57; φ = 49,57 °N; λ = 34,26 °E; h = 9 км; ML_v = 2,2

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/04	05:00:57.0	49.57	34.26	9	ML _v 2.25

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
MI02	0.2	80	Pg	2022/12/04	05:01:00.1	-0.9
MI02	0.2	80	Sg	2022/12/04	05:01:03.1	-0.7
MI06	0.5	221	Pg	2022/12/04	05:01:06.8	-0.5
AK09	3.4	290	Sn	2022/12/04	05:02:30.6	-0.1
AK10	3.4	290	Pn	2022/12/04	05:01:49.5	-0.5
AK10	3.4	290	Sn	2022/12/04	05:02:31.1	-0.0
AK07	3.4	289	Pn	2022/12/04	05:01:51.0	0.9
AK07	3.4	289	Sn	2022/12/04	05:02:30.9	-0.6
AK05	3.4	290	Pn	2022/12/04	05:01:50.4	-0.0
AKBB	3.4	291	Pn	2022/12/04	05:01:51.0	0.5
AKBB	3.4	291	Sn	2022/12/04	05:02:31.2	-1.0
AK03	3.4	292	Sn	2022/12/04	05:02:32.5	0.1
AK12	3.5	290	Sn	2022/12/04	05:02:32.9	0.1
AK04	3.5	291	Pn	2022/12/04	05:01:51.2	0.0
AK04	3.5	291	Sn	2022/12/04	05:02:33.4	0.1
AK14	3.5	290	Pn	2022/12/04	05:01:51.6	0.3
AK14	3.5	290	Sn	2022/12/04	05:02:33.0	-0.5
AK13	3.5	289	Pn	2022/12/04	05:01:52.7	1.1
AK13	3.5	289	pP	2022/12/04	05:01:54.5	0.6
AK13	3.5	289	sP	2022/12/04	05:01:55.1	-0.2
AK17	3.5	290	Pn	2022/12/04	05:01:53.2	1.3
AK18	3.5	291	Pn	2022/12/04	05:01:52.4	0.5
AK18	3.5	291	Sn	2022/12/04	05:02:34.0	-0.8
AK21	3.6	292	Pn	2022/12/04	05:01:52.7	0.4
AK21	3.6	292	Sn	2022/12/04	05:02:35.1	-0.4
AK19	3.6	291	Pn	2022/12/04	05:01:53.0	0.6
AK19	3.6	291	Sn	2022/12/04	05:02:35.1	-0.5
AK19	3.6	291	pP	2022/12/04	05:01:54.8	0.0
AK19	3.6	291	sP	2022/12/04	05:01:56.0	-0.1
AK20	3.6	291	Pn	2022/12/04	05:01:53.5	1.0
AK20	3.6	291	Sn	2022/12/04	05:02:35.1	-0.6
SORM	4.2	252	Sn	2022/12/04	05:02:49.8	-0.4



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

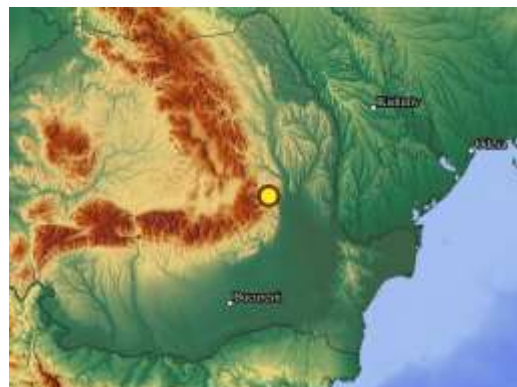
04.12.2022. Zona seismică Vrancea

$t_0 = 19:39:42$; $\varphi = 45,87^\circ N$; $\lambda = 26,85^\circ E$; $h = 79$ km; $mb = 3,8$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/04	19:39:42	45.87	26.85	79	mb 3.84

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.1	256	P	2022/12/04	19:39:54.5	-0.2
TESR	0.6	349	P	2022/12/04	19:39:58.0	-1.0
VOIR	1.3	251	P	2022/12/04	19:40:05.8	0.1
ARR	1.6	252	P	2022/12/04	19:40:10.0	0.6
KIS	1.8	50	P	2022/12/04	19:40:12.5	1.1
TIRR	1.8	141	P	2022/12/04	19:40:11.8	-0.1
HUMR	1.9	225	P	2022/12/04	19:40:12.5	-0.2
PURM	2.2	72	P	2022/12/04	19:40:18.0	0.9
SORM	2.5	24	P	2022/12/04	19:40:20.8	-0.0
KPD	2.7	355	P	2022/12/04	19:40:23.1	-0.5
PLVB	2.9	213	P	2022/12/04	19:40:26.5	-0.5
DRGR	3.0	289	P	2022/12/04	19:40:27.2	-0.3
TRPA	3.7	309	P	2022/12/04	19:40:37.0	-0.0
MDVR	3.8	255	P	2022/12/04	19:40:38.4	0.4
MDVR	3.8	255	sP	2022/12/04	19:41:00.1	0.2
LUBAR	4.1	9	P	2022/12/04	19:40:42.1	-0.3
XAEC2	4.3	360	P	2022/12/04	19:40:46.7	1.1
KOLS	4.3	316	P	2022/12/04	19:40:47.1	1.3
XAEC4	4.4	0	P	2022/12/04	19:40:46.8	0.1
XAEC1	4.4	359	P	2022/12/04	19:40:47.7	0.7
XAEC5	4.5	359	P	2022/12/04	19:40:48.4	-0.2
RDO	4.8	192	P	2022/12/04	19:40:52.2	-0.3
AK07	4.9	18	P	2022/12/04	19:40:54.2	0.2
MI30	5.0	10	P	2022/12/04	19:40:54.1	0.0
AK13	5.0	17	P	2022/12/04	19:40:54.1	-0.2
AK06	5.0	18	P	2022/12/04	19:40:54.3	-0.0
AK14	5.0	17	P	2022/12/04	19:40:54.6	-0.1
AK10	5.0	18	P	2022/12/04	19:40:54.8	0.1
AK05	5.0	18	P	2022/12/04	19:40:55.0	0.2
AK12	5.0	17	P	2022/12/04	19:40:55.2	0.2
AK09	5.0	18	P	2022/12/04	19:40:55.2	0.3
ALN	5.0	187	P	2022/12/04	19:40:54.9	-0.2
AK08	5.0	18	P	2022/12/04	19:40:55.5	0.3
AK16	5.0	17	P	2022/12/04	19:40:55.0	-0.1
AK17	5.0	16	P	2022/12/04	19:40:54.9	-0.3
AK02	5.0	18	P	2022/12/04	19:40:55.1	-0.2
AK11	5.0	17	P	2022/12/04	19:40:55.2	-0.2
AK15	5.1	17	P	2022/12/04	19:40:55.7	0.1
AK19	5.1	16	P	2022/12/04	19:40:55.2	-0.4
AK18	5.1	16	P	2022/12/04	19:40:55.4	-0.4
AK01	5.1	17	P	2022/12/04	19:40:55.8	0.0
AK20	5.1	16	P	2022/12/04	19:40:55.4	-0.5
AKBB	5.1	18	P	2022/12/04	19:40:56.4	0.5
MI28	5.1	6	P	2022/12/04	19:40:55.2	-0.7
AK04	5.1	17	P	2022/12/04	19:40:55.9	-0.1
AK22	5.1	16	P	2022/12/04	19:40:55.9	-0.4
AK21	5.1	16	P	2022/12/04	19:40:56.0	-0.4
AK23	5.1	17	P	2022/12/04	19:40:56.1	-0.3
RNPP5	5.4	354	P	2022/12/04	19:40:59.7	-0.3
RNPP8	5.5	354	P	2022/12/04	19:41:01.4	-0.1
RNPP9	5.6	354	P	2022/12/04	19:41:02.3	-0.2
YLV	5.6	160	P	2022/12/04	19:41:03.6	0.2



UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

07.12.2022. Zona seismică Vrancea

$t_0 = 01:49:38$; $\varphi = 45,58^\circ N$; $\lambda = 26,40^\circ E$; $h = 142$ km; $ML_v = 3,4$

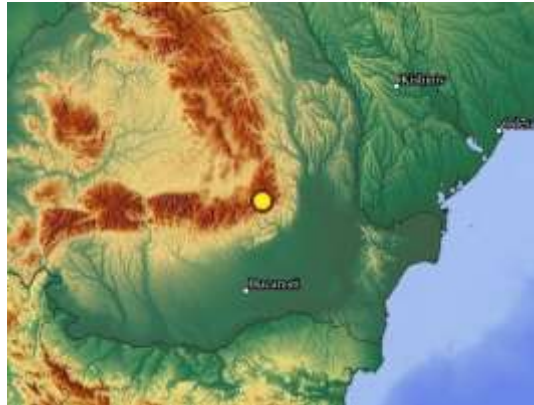
Date	Time	Latitude	Longitude	Depth	Mag
2022/12/07	01:49:39.3	45.58	26.40	142	ML _v 2.64

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.4	352	P	2022/11/07	01:59:49.0	0.2
IBZR	0.26	288	P	2022/12/07	01:49:58.8	-0.2
CVSR	0.29	315	P	2022/12/07	01:49:59.0	-0.0
PLOR	0.31	32	P	2022/12/07	01:49:59.2	0.1
VRI	0.35	38	P	2022/12/07	01:49:59.5	0.3
NEHR	0.18	207	P	2022/12/07	01:49:59.5	0.8
SAHR	0.24	53	P	2022/12/07	01:49:59.6	0.7
MLR	0.34	253	P	2022/12/07	01:49:59.6	0.2
BISRR	0.21	100	P	2022/12/07	01:49:59.6	0.8
PANC	0.59	60	P	2022/12/07	01:50:01.0	0.7
DOPR	0.81	298	P	2022/12/07	01:50:01.7	-0.2
TUDR	0.88	89	P	2022/12/07	01:50:02.6	0.3
TESR	0.94	10	P	2022/12/07	01:50:02.6	-0.2
VOIR	0.97	261	P	2022/12/07	01:50:02.9	-0.3
SULR	0.92	187	P	2022/12/07	01:50:03.3	0.7
SCHL	1.00	94	P	2022/12/07	01:50:03.5	0.1
NEGRR	1.03	92	P	2022/12/07	01:50:04.2	0.6
BIR	1.07	52	P	2022/12/07	01:50:04.4	0.4
SCTR	1.11	85	P	2022/12/07	01:50:05.0	0.6
INCR	1.16	188	P	2022/12/07	01:50:05.1	0.3
TATR	1.15	88	P	2022/12/07	01:50:05.2	0.4
VLDR	1.19	77	P	2022/12/07	01:50:05.6	0.5
AMRR	1.17	146	P	2022/12/07	01:50:05.7	0.8
CFR	1.28	108	P	2022/12/07	01:50:06.2	0.2
STFAR	1.25	235	P	2022/12/07	01:50:06.2	0.4
BUCL	1.27	192	P	2022/12/07	01:50:06.3	0.4
GIUM	1.26	94	P	2022/12/07	01:50:06.5	0.7
ARR	1.27	260	P	2022/12/07	01:50:06.5	0.5
SGRR	1.40	193	P	2022/12/07	01:50:07.3	0.1
NGRR	1.44	29	P	2022/12/07	01:50:07.4	-0.2
BIZ	1.37	351	P	2022/12/07	01:50:07.4	0.5
HARR	1.40	129	P	2022/12/07	01:50:07.5	0.4
HUMR	1.46	224	P	2022/12/07	01:50:07.7	-0.2
MDB	1.53	292	P	2022/12/07	01:50:08.9	0.3
TLBR	1.56	131	P	2022/12/07	01:50:09.2	0.3
TPGR	1.59	116	P	2022/12/07	01:50:09.3	-0.1
COPA	1.68	210	P	2022/12/07	01:50:10.1	-0.1
CVDA	1.70	136	P	2022/12/07	01:50:11.0	0.5
TLCR	1.73	102	P	2022/12/07	01:50:11.3	0.5
TIRR	1.81	127	P	2022/12/07	01:50:12.0	0.3
LOT	1.86	266	P	2022/12/07	01:50:12.5	0.0
IBZR	0.26	288	S	2022/12/07	01:50:13.3	-0.9
CVSR	0.29	315	S	2022/12/07	01:50:14.1	-0.2
PLOR	0.31	32	S	2022/12/07	01:50:14.2	-0.3
NEHR	0.18	207	S	2022/12/07	01:50:14.5	0.7
SAHR	0.24	53	S	2022/12/07	01:50:14.6	0.5
MLR	0.34	253	S	2022/12/07	01:50:14.8	-0.1
VRI	0.35	38	S	2022/12/07	01:50:14.9	0.2
VLAD	2.13	222	P	2022/12/07	01:50:15.0	-0.5
BISRR	0.21	100	S	2022/12/07	01:50:15.4	1.4
LOZB	2.22	176	P	2022/12/07	01:50:16.5	-0.1
BURAR	2.22	338	P	2022/12/07	01:50:17.2	0.4
PANC	0.59	60	S	2022/12/07	01:50:17.4	0.8
DOPR	0.81	298	S	2022/12/07	01:50:18.8	-0.6
MARR	2.53	296	P	2022/12/07	01:50:19.9	-0.6
TESR	0.94	10	S	2022/12/07	01:50:19.9	-1.3
TUDR	0.88	89	S	2022/12/07	01:50:20.3	0.1
PURM	2.58	67	P	2022/12/07	01:50:21.0	0.1
GZR	2.56	266	P	2022/12/07	01:50:21.1	0.3
SCHL	1.00	94	S	2022/12/07	01:50:22.0	-0.1
VOIR	0.97	261	S	2022/12/07	01:50:22.0	0.2
SULR	0.92	187	S	2022/12/07	01:50:22.1	1.3
ELND	2.69	188	P	2022/12/07	01:50:22.3	-0.1
NEGRR	1.03	92	S	2022/12/07	01:50:22.8	0.3
BIR	1.07	52	S	2022/12/07	01:50:23.2	0.0
SORM	2.87	26	P	2022/12/07	01:50:23.9	-0.8
SCTR	1.11	85	S	2022/12/07	01:50:23.9	0.1

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

HERR	2.90	257	P	2022/12/07	01:50:24.1	-0.9
TATR	1.15	88	S	2022/12/07	01:50:24.3	-0.3
VLDR	1.19	77	S	2022/12/07	01:50:24.9	-0.3
LEHL	1.15	165	S	2022/12/07	01:50:25.3	0.5
AMRR	1.17	146	S	2022/12/07	01:50:25.4	0.5
ARR	1.27	260	S	2022/12/07	01:50:25.8	-1.0
CFR	1.28	108	S	2022/12/07	01:50:26.1	-0.6
BUC1	1.27	192	S	2022/12/07	01:50:26.5	-0.1
STFAR	1.25	235	S	2022/12/07	01:50:27.1	0.7
NGRR	1.44	29	S	2022/12/07	01:50:28.4	-1.3
SGRR	1.40	193	S	2022/12/07	01:50:28.4	-0.5
HARR	1.40	129	S	2022/12/07	01:50:28.6	-0.3
HUMR	1.46	224	S	2022/12/07	01:50:29.2	-1.1
CICN	1.46	162	S	2022/12/07	01:50:29.5	-0.5
TLBR	1.56	131	S	2022/12/07	01:50:31.2	-0.7
TPGR	1.59	116	S	2022/12/07	01:50:31.5	-1.2
COFA	1.68	210	S	2022/12/07	01:50:33.4	-1.1
CVDA	1.70	136	S	2022/12/07	01:50:33.8	-1.0
TLCR	1.73	102	S	2022/12/07	01:50:35.4	-0.1
ICOR	1.77	145	S	2022/12/07	01:50:35.7	-0.5
LOT	1.86	266	S	2022/12/07	01:50:38.3	-0.1
MFTR	2.00	134	S	2022/12/07	01:50:40.4	-1.0
PURM	2.58	67	S	2022/12/07	01:50:52.3	-1.2
GZR	2.56	266	S	2022/12/07	01:50:53.2	-0.1



15.12.2022. Poland

$t_0 = 01:55:47$; $\varphi = 50,02^\circ N$; $\lambda = 19,28^\circ E$; $h = 10 \text{ km}$; $ML_v = 3,5$

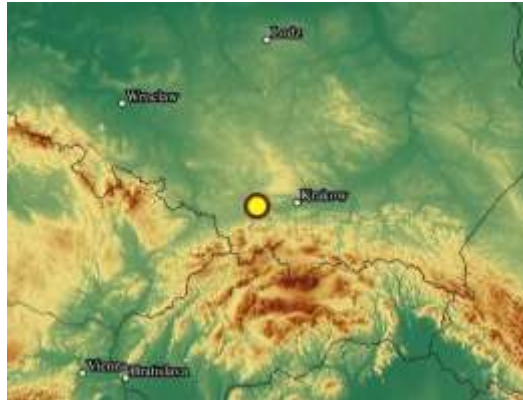
Date	Time	Latitude	Longitude	Depth	Mag
2022/12/15	01:55:47.2	50.02	19.28	10	MLv 3.49

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
OJC	0.4	59	P	2022/12/15	01:55:52.2	-3.6
OKC	0.8	256	P	2022/12/15	01:56:01.3	-0.8
NIE	0.9	132	P	2022/12/15	01:56:03.8	-0.8
MORC	1.1	258	P	2022/12/15	01:56:07.9	-0.8
KRLC	1.6	274	P	2022/12/15	01:56:14.1	-0.8
KRLC	1.6	274	S	2022/12/15	01:56:35.6	-0.3
DPC	1.9	281	P	2022/12/15	01:56:19.3	-0.8
DPC	1.9	281	S	2022/12/15	01:56:46.6	1.4
OSTC	2.0	286	P	2022/12/15	01:56:22.4	0.8
BEL	2.1	27	P	2022/12/15	01:56:22.9	1.1
KSP	2.1	294	P	2022/12/15	01:56:22.5	0.3
MODS	2.1	219	P	2022/12/15	01:56:23.1	0.6
PSZ	2.1	169	P	2022/12/15	01:56:23.5	0.5
CHVC	2.1	287	P	2022/12/15	01:56:22.5	-0.6
UPC	2.2	284	P	2022/12/15	01:56:22.7	-0.5
KOLS	2.2	118	P	2022/12/15	01:56:24.2	-0.0
KWP	2.3	99	P	2022/12/15	01:56:25.3	0.8
UZH	2.4	124	P	2022/12/15	01:56:28.3	1.6
CSKK	2.7	195	P	2022/12/15	01:56:31.6	0.4
TRPA	2.9	130	P	2022/12/15	01:56:31.7	-1.1
PRU	3.1	271	P	2022/12/15	01:56:35.4	-0.2
PVCC	3.1	281	P	2022/12/15	01:56:35.5	-0.2
PRA	3.1	273	P	2022/12/15	01:56:36.6	0.1
CKRC	3.5	252	P	2022/12/15	01:56:41.7	0.6
HSKC	3.8	281	P	2022/12/15	01:56:46.6	0.9

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

KHC	3.8	259	P	2022/12/15	01:56:45.8	-0.2
MORH	3.8	187	P	2022/12/15	01:56:46.1	-0.2
DRGR	4.0	143	P	2022/12/15	01:56:48.6	0.6
RNPP8	4.4	70	P	2022/12/15	01:56:52.6	-1.1
NKC	4.4	275	P	2022/12/15	01:56:54.0	-0.1
SUW	4.7	30	P	2022/12/15	01:56:56.9	-0.8
XAEC5	4.8	82	P	2022/12/15	01:57:00.1	0.5
KPD	4.9	105	P	2022/12/15	01:57:00.9	-0.3
MI28	5.4	77	P	2022/12/15	01:57:09.1	0.9
MDVR	5.5	62	P	2022/12/15	01:57:08.7	-0.3
MI30	5.7	79	P	2022/12/15	01:57:12.7	0.2
AK19	6.3	80	P	2022/12/15	01:57:18.9	-0.7
AK16	6.3	80	P	2022/12/15	01:57:19.6	-0.8
AK04	6.4	80	P	2022/12/15	01:57:21.0	-0.0
AK07	6.4	81	P	2022/12/15	01:57:21.3	0.1
AK01	6.4	80	P	2022/12/15	01:57:22.1	0.7
AKBB	6.4	80	P	2022/12/15	01:57:20.9	-0.6



15.12.2022. Zona seismică Vrancea

$t_0 = 23:47:12$; $\varphi = 45,77^\circ N$; $\lambda = 26,67^\circ E$; $h = 89 \text{ km}$; $ML_v = 4,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/15	23:47:12.9	45.77	26.67	89	ML _v 3.98

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.1	22	P	2022/12/15	23:47:26.4	0.3
VRI	0.1	22	S	2022/12/15	23:47:36.0	-0.2
MLR	0.6	241	P	2022/12/15	23:47:29.3	-0.3
MLR	0.6	241	S	2022/12/15	23:47:40.3	-2.0
TESR	0.7	359	P	2022/12/15	23:47:30.5	-0.2
TESR	0.7	359	S	2022/12/15	23:47:41.6	-2.7
VOIR	1.2	254	P	2022/12/15	23:47:35.2	0.4
KIS	1.9	50	P	2022/12/15	23:47:45.4	1.3
KIS	1.9	50	S	2022/12/15	23:48:07.9	-0.4
PURM	2.3	70	P	2022/12/15	23:47:50.8	1.1
PURM	2.3	70	S	2022/12/15	23:48:17.9	-0.4
SORM	2.6	25	P	2022/12/15	23:47:53.7	0.3
SORM	2.6	25	S	2022/12/15	23:48:29.1	4.1
KPD	2.8	357	P	2022/12/15	23:47:55.4	-0.2
PLVB	2.8	212	P	2022/12/15	23:47:55.4	-0.3
DRGR	2.9	292	P	2022/12/15	23:47:57.9	0.5
MDVR	3.6	256	P	2022/12/15	23:48:06.8	-0.2
LUBAR	4.2	10	P	2022/12/15	23:48:14.6	-0.1
XAEC2	4.4	1	P	2022/12/15	23:48:18.9	1.2
XAEC4	4.5	1	P	2022/12/15	23:48:19.1	0.1
XAEC3	4.5	360	P	2022/12/15	23:48:17.2	-1.9
XAEC5	4.7	0	P	2022/12/15	23:48:20.8	0.1
RDO	4.7	191	P	2022/12/15	23:48:21.1	-0.2
ALN	4.9	186	P	2022/12/15	23:48:24.0	-0.1
AK07	5.1	19	P	2022/12/15	23:48:26.4	-0.0
MI30	5.1	11	P	2022/12/15	23:48:26.5	0.0
AK13	5.1	17	P	2022/12/15	23:48:26.6	-0.2
AK06	5.1	18	P	2022/12/15	23:48:26.9	0.0
AK14	5.1	18	P	2022/12/15	23:48:27.1	-0.1
AK10	5.1	19	P	2022/12/15	23:48:27.2	-0.0
AK05	5.1	18	P	2022/12/15	23:48:27.3	-0.0
AK12	5.1	18	P	2022/12/15	23:48:27.4	-0.0

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

AK09	5.2	19	P	2022/12/15	23:48:27.5	-0.0
AK08	5.2	19	P	2022/12/15	23:48:27.5	-0.1
AK15	5.2	17	P	2022/12/15	23:48:28.0	-0.0
AK19	5.2	17	P	2022/12/15	23:48:27.8	-0.3
MI28	5.2	7	P	2022/12/15	23:48:27.7	-0.5
AK18	5.2	17	P	2022/12/15	23:48:28.0	-0.2
AK01	5.2	18	P	2022/12/15	23:48:28.2	-0.0
AK20	5.2	17	P	2022/12/15	23:48:28.0	-0.3
AKBB	5.2	18	P	2022/12/15	23:48:28.2	-0.2
AK04	5.2	18	P	2022/12/15	23:48:28.4	-0.1
AK22	5.2	17	P	2022/12/15	23:48:28.5	-0.2
AK21	5.3	17	P	2022/12/15	23:48:28.5	-0.3
AK23	5.3	17	P	2022/12/15	23:48:28.8	-0.1
RNPP8	5.6	355	P	2022/12/15	23:48:33.5	-0.0
RNPP9	5.7	355	P	2022/12/15	23:48:34.6	0.1



17.12.2022. Zona seismică Vrancea

$t_0 = 05:42:57$; $\varphi = 45,66^\circ N$; $\lambda = 26,46^\circ E$; $h = 151$ km; $ML_v = 4,4$

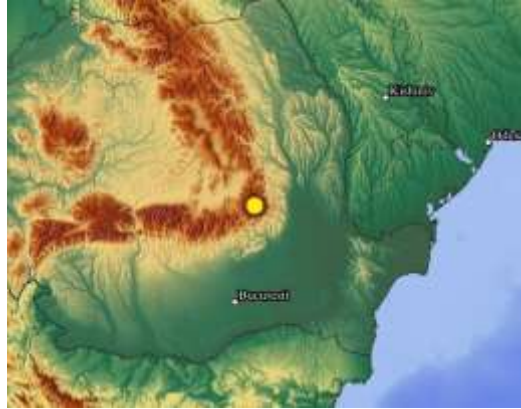
Date	Time	Latitude	Longitude	Depth	Mag
2022/12/17	05:42:57.0	45.66	26.46	151	MLv 4.40

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.3	43	P	2022/12/17	05:43:18.1	-0.3
VRI	0.3	43	S	2022/12/17	05:43:35.1	0.0
MLR	0.4	245	P	2022/12/17	05:43:18.8	-0.2
MLR	0.4	245	S	2022/12/17	05:43:34.6	-1.5
VOIR	1.0	258	P	2022/12/17	05:43:22.4	0.5
ARR	1.3	258	P	2022/12/17	05:43:25.1	0.2
TIRR	1.8	130	P	2022/12/17	05:43:30.3	0.0
KIS	2.1	50	P	2022/12/17	05:43:33.9	0.5
CJR	2.2	299	P	2022/12/17	05:43:35.8	0.7
DEV	2.5	276	P	2022/12/17	05:43:38.8	0.7
PURM	2.5	69	P	2022/12/17	05:43:38.8	0.3
PLVB	2.6	211	P	2022/12/17	05:43:39.7	0.0
SORM	2.8	27	P	2022/12/17	05:43:41.9	0.3
KPD	2.9	0	P	2022/12/17	05:43:43.2	0.1
BAL3X	3.1	42	P	2022/12/17	05:43:45.7	-0.4
MDVR	3.5	257	P	2022/12/17	05:43:51.2	1.0
TRPA	3.6	314	P	2022/12/17	05:43:52.6	0.0
PHSR	4.1	169	P	2022/12/17	05:43:58.7	0.1
UZH	4.1	318	P	2022/12/17	05:43:59.7	1.1
LUBAR	4.3	11	P	2022/12/17	05:44:01.8	0.1
XAEC2	4.5	3	P	2022/12/17	05:44:05.7	1.4
RDO	4.6	189	P	2022/12/17	05:44:04.3	-0.3
XAEC4	4.6	3	P	2022/12/17	05:44:05.6	0.2
XAEC1	4.6	2	P	2022/12/17	05:44:06.7	1.1
XAEC5	4.8	2	P	2022/12/17	05:44:07.6	0.5
KLYT	4.8	156	P	2022/12/17	05:44:07.2	-0.4
PSZ	5.0	299	P	2022/12/17	05:44:10.9	0.1
MI30	5.2	12	P	2022/12/17	05:44:13.2	0.1
AK07	5.2	20	P	2022/12/17	05:44:13.3	0.1
AK13	5.3	18	P	2022/12/17	05:44:13.5	-0.1
AK06	5.3	19	P	2022/12/17	05:44:13.7	0.1
AK14	5.3	19	P	2022/12/17	05:44:14.0	0.1
AK10	5.3	20	P	2022/12/17	05:44:14.0	0.0
AK05	5.3	19	P	2022/12/17	05:44:14.0	-0.0
AK12	5.3	19	P	2022/12/17	05:44:14.2	-0.0

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AK09	5.3	20	P	2022/12/17	05:44:14.3	0.0
AK16	5.3	19	P	2022/12/17	05:44:14.5	0.1
AK08	5.3	20	P	2022/12/17	05:44:14.3	-0.1
AK17	5.3	18	P	2022/12/17	05:44:14.4	-0.0
AK02	5.3	19	P	2022/12/17	05:44:14.5	-0.0
MI28	5.3	8	P	2022/12/17	05:44:13.9	-0.8
AK11	5.3	19	P	2022/12/17	05:44:14.7	0.0
AK15	5.3	19	P	2022/12/17	05:44:14.7	-0.1
AK19	5.3	18	P	2022/12/17	05:44:14.5	-0.3
AK18	5.4	18	P	2022/12/17	05:44:14.9	-0.0
AK01	5.4	19	P	2022/12/17	05:44:15.0	0.0
AK20	5.4	18	P	2022/12/17	05:44:14.9	-0.2
AKBB	5.4	19	P	2022/12/17	05:44:15.1	-0.1
AK22	5.4	18	P	2022/12/17	05:44:15.3	-0.2
AK03	5.4	19	P	2022/12/17	05:44:15.5	0.0
AK21	5.4	18	P	2022/12/17	05:44:15.4	-0.1
AK23	5.4	18	P	2022/12/17	05:44:15.6	-0.0
MORH	5.5	279	P	2022/12/17	05:44:17.3	0.6
NIE	5.6	314	P	2022/12/17	05:44:19.0	0.7
RNPP8	5.7	356	P	2022/12/17	05:44:19.6	0.2
RNPP9	5.8	356	P	2022/12/17	05:44:20.6	0.2
KOVH	5.9	277	P	2022/12/17	05:44:22.8	1.2
OJC	6.4	318	P	2022/12/17	05:44:28.3	-0.4
MODS	6.8	297	P	2022/12/17	05:44:34.5	-0.1
OKC	7.0	310	P	2022/12/17	05:44:36.2	-0.5
SOP	7.1	290	P	2022/12/17	05:44:38.7	0.4
MORC	7.3	308	P	2022/12/17	05:44:40.3	-0.4
KRLC	7.8	308	P	2022/12/17	05:44:47.3	-0.8
DPC	8.3	308	P	2022/12/17	05:44:52.8	-0.7
OSTC	8.4	309	P	2022/12/17	05:44:56.3	0.5
UPC	8.5	308	P	2022/12/17	05:44:56.8	-0.1
CHVC	8.5	309	P	2022/12/17	05:44:56.7	-0.5
KSP	8.5	311	P	2022/12/17	05:44:55.7	-1.5
SUW	8.6	347	P	2022/12/17	05:44:56.8	-1.6
PRU	9.1	303	P	2022/12/17	05:45:04.4	-0.5
PRA	9.2	303	P	2022/12/17	05:45:05.3	-0.9
PVCC	9.3	306	P	2022/12/17	05:45:07.6	-0.2



23.12.2022. Ukraine. Chernivtsi region

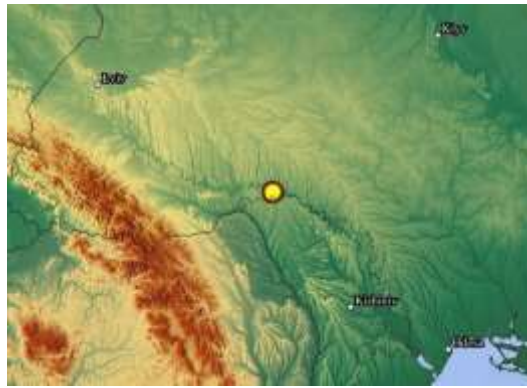
$t_0 = 04:00:42$; $\varphi = 48,50^\circ N$; $\lambda = 27,36^\circ E$; $h = 2 \text{ км}$; $ML_v = 2,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/23	04:00:41.8	48.50	27.36	2	ML _v 2.16

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
SORM	0.8	121	Pg	2022/12/23	04:00:56.5	0.3
SORM	0.8	121	Sg	2022/12/23	04:01:06.1	-0.1
XAEC4	1.8	349	Pn	2022/12/23	04:01:13.6	-0.2
XAEC4	1.8	349	Sn	2022/12/23	04:01:37.5	-0.3
XAEC5	1.9	348	Sn	2022/12/23	04:01:41.9	0.5
TESR	2.1	194	Pg	2022/12/23	04:01:21.5	-0.1
AKBB	2.5	28	Sn	2022/12/23	04:01:54.6	-0.1

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



23.12.2022. Ukraine, Chernivtsi region

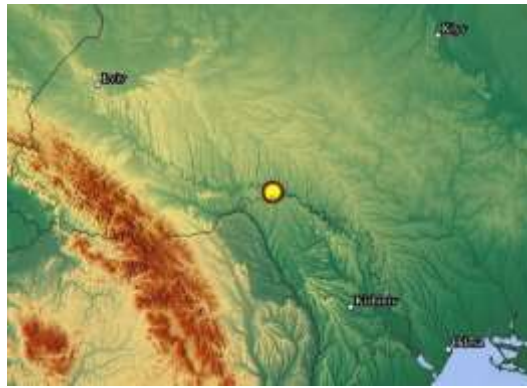
$t_0 = 04:22:01$; $\varphi = 48,56^\circ N$; $\lambda = 27,38^\circ E$; $h = 3 \text{ км}$; $ML_v = 3,0$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/23	04:22:01.6	48.56	27.38	3	ML _v 3.04

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
KPD	0.6	270	Pg	2022/12/23	04:22:13.8	0.4
KPD	0.6	270	Sg	2022/12/23	04:22:21.5	-0.2
XAEC2	1.7	347	Pn	2022/12/23	04:22:31.7	-0.1
XAEC1	1.8	345	Pn	2022/12/23	04:22:33.5	-0.0
TESR	2.1	194	Pn	2022/12/23	04:22:37.4	-0.3
AK07	2.3	30	Pn	2022/12/23	04:22:40.5	-0.1
AK13	2.3	27	Pn	2022/12/23	04:22:40.3	-0.3
AK06	2.3	30	Pn	2022/12/23	04:22:40.9	-0.0
AK06	2.3	30	sP	2022/12/23	04:22:42.6	0.3
AK14	2.4	28	Pn	2022/12/23	04:22:40.8	-0.3
AK10	2.4	30	Pn	2022/12/23	04:22:41.3	0.0
AK05	2.4	29	Pn	2022/12/23	04:22:41.3	-0.0
AK05	2.4	29	sP	2022/12/23	04:22:42.7	-0.0
MI28	2.4	4	Pn	2022/12/23	04:22:41.9	0.6
MI28	2.4	4	Sn	2022/12/23	04:23:11.3	-0.5
AK12	2.4	28	Pn	2022/12/23	04:22:41.4	0.0
AK17	2.4	27	Pn	2022/12/23	04:22:41.4	-0.1
AK16	2.4	27	Pn	2022/12/23	04:22:41.4	-0.2
AK09	2.4	30	Pn	2022/12/23	04:22:41.7	0.1
AK08	2.4	30	Pn	2022/12/23	04:22:41.8	0.1
AK08	2.4	30	pP	2022/12/23	04:22:42.6	-0.0
AK19	2.4	25	Pn	2022/12/23	04:22:41.8	0.1
AK02	2.4	29	Pn	2022/12/23	04:22:41.7	-0.1
AK02	2.4	29	pP	2022/12/23	04:22:42.7	-0.0
AK02	2.4	29	sP	2022/12/23	04:22:43.2	0.0
AK11	2.4	28	Pn	2022/12/23	04:22:42.0	0.1
AK15	2.4	27	Pn	2022/12/23	04:22:42.1	0.2
AK18	2.4	26	Pn	2022/12/23	04:22:42.1	0.1
AK18	2.4	26	sP	2022/12/23	04:22:43.3	-0.1
AK20	2.4	25	Pn	2022/12/23	04:22:41.9	-0.1
AK20	2.4	25	sP	2022/12/23	04:22:43.4	-0.1
AKBB	2.5	29	Pn	2022/12/23	04:22:42.7	0.3
AKBB	2.5	29	Sn	2022/12/23	04:23:13.6	-0.0
AK04	2.5	28	Pn	2022/12/23	04:22:42.6	0.2
AK22	2.5	26	Pn	2022/12/23	04:22:42.5	0.0
AK21	2.5	25	Pn	2022/12/23	04:22:42.3	-0.2
AK03	2.5	28	Pn	2022/12/23	04:22:43.0	0.4
AK23	2.5	27	Pn	2022/12/23	04:22:42.7	0.0

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



24.12.2022. Ukraine, Chernivtsi region

$t_0 = 01:33:12$; $\varphi = 48,63^\circ N$; $\lambda = 27,37^\circ E$; $h = 2 \text{ km}$; $ML = 2,2$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/24	01:33:12.7	48.63	27.37	2	ML 2.15

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
SORM	0.8	126	Pg	2022/12/24	01:33:28.8	0.9
SORM	0.8	126	Sg	2022/12/24	01:33:38.2	-0.5
TESR	2.1	194	Pg	2022/12/24	01:33:53.7	-0.2
AK07	2.3	31	Pg	2022/12/24	01:33:56.3	-0.1
AK13	2.3	28	Pg	2022/12/24	01:33:56.4	-0.1
AK06	2.3	30	Pg	2022/12/24	01:33:57.0	0.1
AK10	2.3	31	Pg	2022/12/24	01:33:57.6	0.1
AK05	2.3	30	Pg	2022/12/24	01:33:57.8	0.2
AK12	2.3	29	Pg	2022/12/24	01:33:57.6	-0.0
AK09	2.4	31	Pg	2022/12/24	01:33:58.2	0.2
AK08	2.4	30	Pg	2022/12/24	01:33:58.0	-0.1
AK19	2.4	26	Pg	2022/12/24	01:33:57.9	-0.2
AK11	2.4	29	Pg	2022/12/24	01:33:58.5	0.2
AK18	2.4	27	Pg	2022/12/24	01:33:58.5	0.1
AK01	2.4	29	Pg	2022/12/24	01:33:58.8	-0.0
AKBB	2.4	29	Pg	2022/12/24	01:33:59.0	0.0
AK04	2.4	28	Pg	2022/12/24	01:33:58.9	-0.1
AK22	2.4	26	Pg	2022/12/24	01:33:58.9	-0.2
AK21	2.4	26	Pg	2022/12/24	01:33:59.2	0.0
AK23	2.4	27	Pg	2022/12/24	01:33:59.0	-0.4



24.12.2022. Poland

$t_0 = 03:51:23$; $\varphi = 50,07^\circ N$; $\lambda = 19,32^\circ E$; $h = 7 \text{ km}$; $MLv = 3,4$

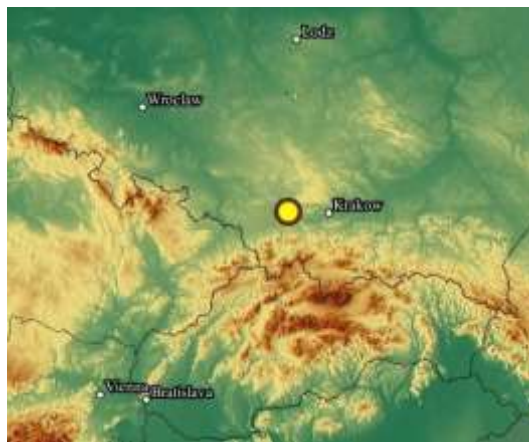
Date	Time	Latitude	Longitude	Depth	Mag
2022/12/24	03:51:23.3	50.07	19.32	7	MLv 3.44

POLAND

Sta	Dist	EvAzi	Phase	Date	Time	Res
OKC	0.8	253	P	2022/12/24	03:51:38.7	-0.2
NIE	0.9	135	P	2022/12/24	03:51:41.2	0.3
MORC	1.2	256	P	2022/12/24	03:51:45.3	0.0
KRLC	1.6	272	P	2022/12/24	03:51:51.7	0.1
KRLC	1.6	272	S	2022/12/24	03:52:13.5	0.5

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022

DPC	1.9	279	P	2022/12/24	03:51:56.2	-0.4
BEL	2.0	27	P	2022/12/24	03:51:57.7	0.3
OSTC	2.0	285	P	2022/12/24	03:51:58.1	0.0
KSP	2.1	293	P	2022/12/24	03:51:57.8	-0.7
CHVC	2.2	285	P	2022/12/24	03:51:59.4	-0.1
MODS	2.2	219	P	2022/12/24	03:51:59.3	-0.3
UPC	2.2	283	P	2022/12/24	03:51:59.9	0.3
PSZ	2.2	170	P	2022/12/24	03:52:00.2	0.3
KWP	2.2	100	P	2022/12/24	03:52:01.2	0.5
KOLS	2.2	120	P	2022/12/24	03:52:00.8	0.2
CSKK	2.8	195	P	2022/12/24	03:52:08.5	0.1
TRPA	2.9	131	P	2022/12/24	03:52:09.0	-0.4
PVCC	3.1	280	P	2022/12/24	03:52:12.4	0.2
KOVH	4.1	192	P	2022/12/24	03:52:26.1	0.2
CJR	4.4	138	P	2022/12/24	03:52:29.7	-0.7
AK20	6.2	80	P	2022/12/24	03:52:54.8	-0.6
AK19	6.2	80	P	2022/12/24	03:52:56.0	0.5
AK21	6.3	80	P	2022/12/24	03:52:55.5	-0.3
AK16	6.3	81	P	2022/12/24	03:52:55.4	-0.9
AK14	6.3	81	P	2022/12/24	03:52:56.8	0.5
AKBB	6.4	81	P	2022/12/24	03:52:57.8	0.4



26.12.2022. Zona seismică Vrancea

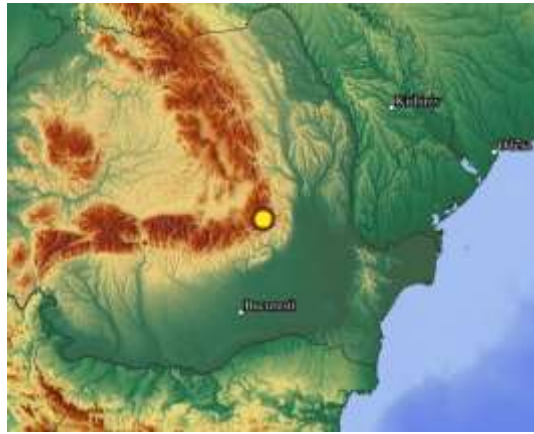
$t_0 = 07:47:09$; $\varphi = 45,62^\circ N$; $\lambda = 26,51^\circ E$; $h = 106 \text{ km}$; $ML_v = 3,6$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/26	07:47:09.5	45.62	26.51	106	ML _v 3.63

ROMANIA

Sta	Dist	EvAzi	Phase	Date	Time	Res
VRI	0.3	33	P	2022/12/26	07:47:26.2	0.3
MLR	0.4	252	P	2022/12/26	07:47:26.6	-0.0
TESR	0.9	6	P	2022/12/26	07:47:30.4	0.7
VOIR	1.0	260	P	2022/12/26	07:47:31.4	0.6
ARR	1.3	260	P	2022/12/26	07:47:35.0	0.6
HUMR	1.5	225	P	2022/12/26	07:47:36.4	-0.3
SORM	2.8	26	P	2022/12/26	07:47:53.2	0.4
DRGR	2.9	295	P	2022/12/26	07:47:53.7	-0.1
MDVR	3.5	258	P	2022/12/26	07:48:01.7	-0.3
MDVR	3.5	258	sP	2022/12/26	07:48:26.2	-0.9
RDO	4.5	189	P	2022/12/26	07:48:15.9	-0.1
XAEC2	4.6	2	P	2022/12/26	07:48:17.0	0.4
ALN	4.7	184	P	2022/12/26	07:48:18.8	0.0
AK13	5.3	18	P	2022/12/26	07:48:25.2	-0.8
AK06	5.3	19	P	2022/12/26	07:48:25.9	-0.1
AK14	5.3	18	P	2022/12/26	07:48:25.4	-1.0
AK12	5.3	18	P	2022/12/26	07:48:26.3	-0.3
AK17	5.3	18	P	2022/12/26	07:48:26.8	-0.0
MI28	5.4	8	P	2022/12/26	07:48:28.0	0.9
AK19	5.4	17	P	2022/12/26	07:48:27.0	-0.2
AK18	5.4	18	P	2022/12/26	07:48:27.3	-0.1
AK01	5.4	19	P	2022/12/26	07:48:27.6	0.2
AKBB	5.4	19	P	2022/12/26	07:48:27.4	-0.2

UKRAINIAN NATIONAL SEISMOLOGICAL BULLETIN 2022



27.12.2022. Belarus

$t_0 = 20:15:01$; $\varphi = 52,96^\circ N$; $\lambda = 27,64^\circ E$; $h = 23 \text{ км}$; $ML = 2,9$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/27	20:15:01.4	52.96	27.64	23	ML 2.91

BELARUS

Sta	Dist	EvAzi	Phase	Date	Time	Res
RNPP9	1.9	215	Sn	2022/12/27	20:15:56.1	0.1
MI28	2.0	179	Pn	2022/12/27	20:15:34.0	-0.2
MI28	2.0	179	Sn	2022/12/27	20:15:58.0	-1.5
MI30	2.2	171	Pn	2022/12/27	20:15:38.2	1.1
MI30	2.2	171	Sn	2022/12/27	20:16:06.1	1.3
AK21	2.4	158	Pn	2022/12/27	20:15:38.7	0.1
AK22	2.4	157	Pn	2022/12/27	20:15:39.3	0.4
AK20	2.4	158	Pn	2022/12/27	20:15:38.8	-0.2
AK19	2.4	159	Pn	2022/12/27	20:15:39.3	0.1
AK18	2.4	158	Pn	2022/12/27	20:15:39.7	0.4
AK04	2.4	156	Pn	2022/12/27	20:15:39.2	-0.5
AK17	2.4	158	Pn	2022/12/27	20:15:39.9	0.1
AK03	2.4	156	Pn	2022/12/27	20:15:39.4	-0.4
AKBB	2.5	156	Pn	2022/12/27	20:15:39.6	-0.5
AKBB	2.5	156	Sn	2022/12/27	20:16:10.3	0.0
AK16	2.5	158	Pn	2022/12/27	20:15:39.9	-0.3
AK11	2.5	157	Pn	2022/12/27	20:15:39.6	-0.6
AK14	2.5	158	Pn	2022/12/27	20:15:41.2	0.5
AK09	2.6	156	Pn	2022/12/27	20:15:41.0	-0.4
AK10	2.6	156	Pn	2022/12/27	20:15:41.9	0.4



28.12.2022. Ukraine, Ivano-Frankivsk region

$t_0 = 11:51:47$; $\varphi = 48,55^\circ N$; $\lambda = 24,59^\circ E$; $h = 2 \text{ км}$; $ML_v = 2,4$

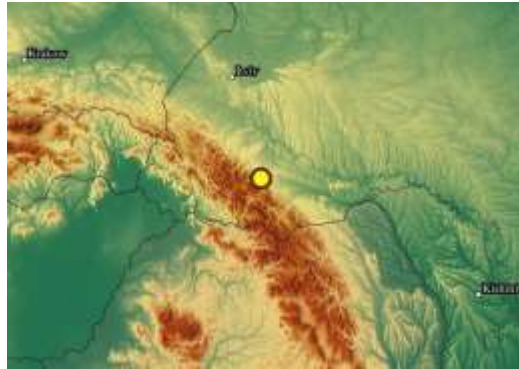
Date	Time	Latitude	Longitude	Depth	Mag
2022/12/28	11:51:47.248	48.55	24.59	2	ML _v 2.43

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
KPD	1.2	89	P	2022/12/28	11:52:09.6	-0.7

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KPD	1.2	89	Sg	2022/12/28	11:52:27.5	-0.4
KOLS	1.6	285	Pn	2022/12/28	11:52:15.6	-0.6
XAEC2	2.2	40	Pn	2022/12/28	11:52:24.8	0.3
XAEC1	2.2	37	Pn	2022/12/28	11:52:24.9	0.1
XAEC1	2.2	37	Sn	2022/12/28	11:52:53.5	0.2
XAEC3	2.2	37	Pn	2022/12/28	11:52:23.4	-1.4
XAEC3	2.2	37	Sn	2022/12/28	11:52:52.8	-0.5
XAEC5	2.3	36	Pn	2022/12/28	11:52:27.5	1.0
XAEC5	2.3	36	Sn	2022/12/28	11:52:55.5	-1.0
AK19	3.6	51	Sn	2022/12/28	11:53:29.0	1.2
AK06	3.6	54	Pn	2022/12/28	11:52:44.9	0.6
AK18	3.6	52	Sn	2022/12/28	11:53:27.6	-0.8
AK05	3.6	54	Pn	2022/12/28	11:52:44.5	-0.0
AK05	3.6	54	sP	2022/12/28	11:52:45.9	0.5
AK23	3.7	51	Pn	2022/12/28	11:52:45.3	0.3
AK01	3.7	53	Pn	2022/12/28	11:52:46.3	1.2



28.12.2022. Ukraine, Transcarpathian region

$t_0 = 12:40:59$; $\varphi = 48,22^\circ N$; $\lambda = 24,01^\circ E$; $h = 9 \text{ км}$; $ML_V = 2,8$

Date	Time	Latitude	Longitude	Depth	Mag
2022/12/28	12:40:59.6	48.22	24.01	9	ML _V 2.87

UKRAINE

Sta	Dist	EvAzi	Phase	Date	Time	Res
MEZ	0.4	305	P	2022/12/28	12:41:07.9	-0.5
MEZ	0.4	305	S	2022/12/28	12:41:15.7	0.9
BRIU	0.7	281	P	2022/12/28	12:41:13.3	0.4
BRIU	0.7	281	S	2022/12/28	12:41:21.2	-1.5
TRPA	1.0	266	P	2022/12/28	12:41:19.4	0.9
KOLS	1.4	303	P	2022/12/28	12:41:24.5	0.3
AKBB	4.2	52	P	2022/12/28	12:42:03.5	-0.4

