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SUPPLEMENT. Brief communication: How extreme was the thunderstorm rain in Vienna on 17 August 2024? A temporal and spatial analysis.

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1 TAWES station list

Synop	Name	Longitude	Latitude	Elevation (m)	Start year (1-hour resolution)
11077	Brunn am Gebirge	16°16'12"	48°6'25"	291	2008
11066	Langenlebarn	16°07'05"	48°19'26"	175	1992
11037	Gross-Enzersdorf	16°33'33"	48°11'59"	154	1994
11036	Schwechat	16°34'53"	48°7'3"	183	2008
11090	Wien-Donaufeld	16°25'53"	48°15'26"	160	1996
11035	Wien-Hohe Warte	16°21'23"	48°14'55"	198	1941
11034	Wien-Innere Stadt	16°22'1"	48°11'54"	177	1985
11044	Wien-Jubiläumswarte	16°15'55"	48°13'16"	450	2009
11080	Wien-Mariabrunn	16°13'46"	48°12'25"	225	1997
11042	Wien-Stammersdorf	16°24'20"	48°18'21"	191	2008
11040	Wien-Unterlaa	16°25'10"	48°7'30"	200	1996

Table S1. List of the eleven weather stations operated by GeoSphere Austria in the Vienna metro area
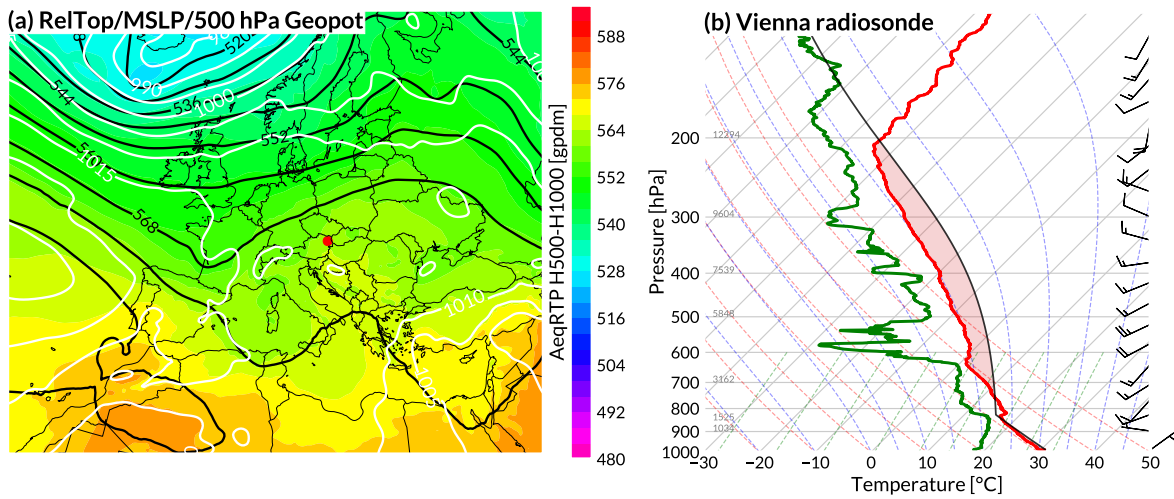
Figure S1. Weather conditions at 1200 UTC 17 August 2024. (a) Synoptic overview including equivalent relative topography (500-1000 hPa) as background colors, 500 hPa geopotential as black contours and mean sea level pressure as white contours. The red circle indicates the location of Vienna. (b) Radiosonde profile (skewT-logp diagram) at Hohe Warte. Colored lines show ambient temperature (red) and dewpoint temperature (green). Red shading indicates CAPE. Wind barbs plotted with half and full barbs indicate 5 and 10 kt, respectively.