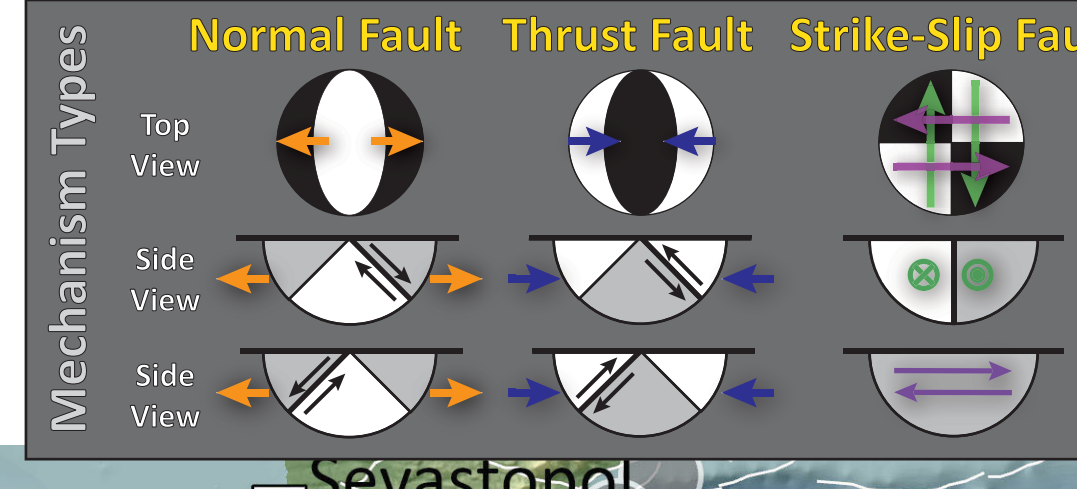
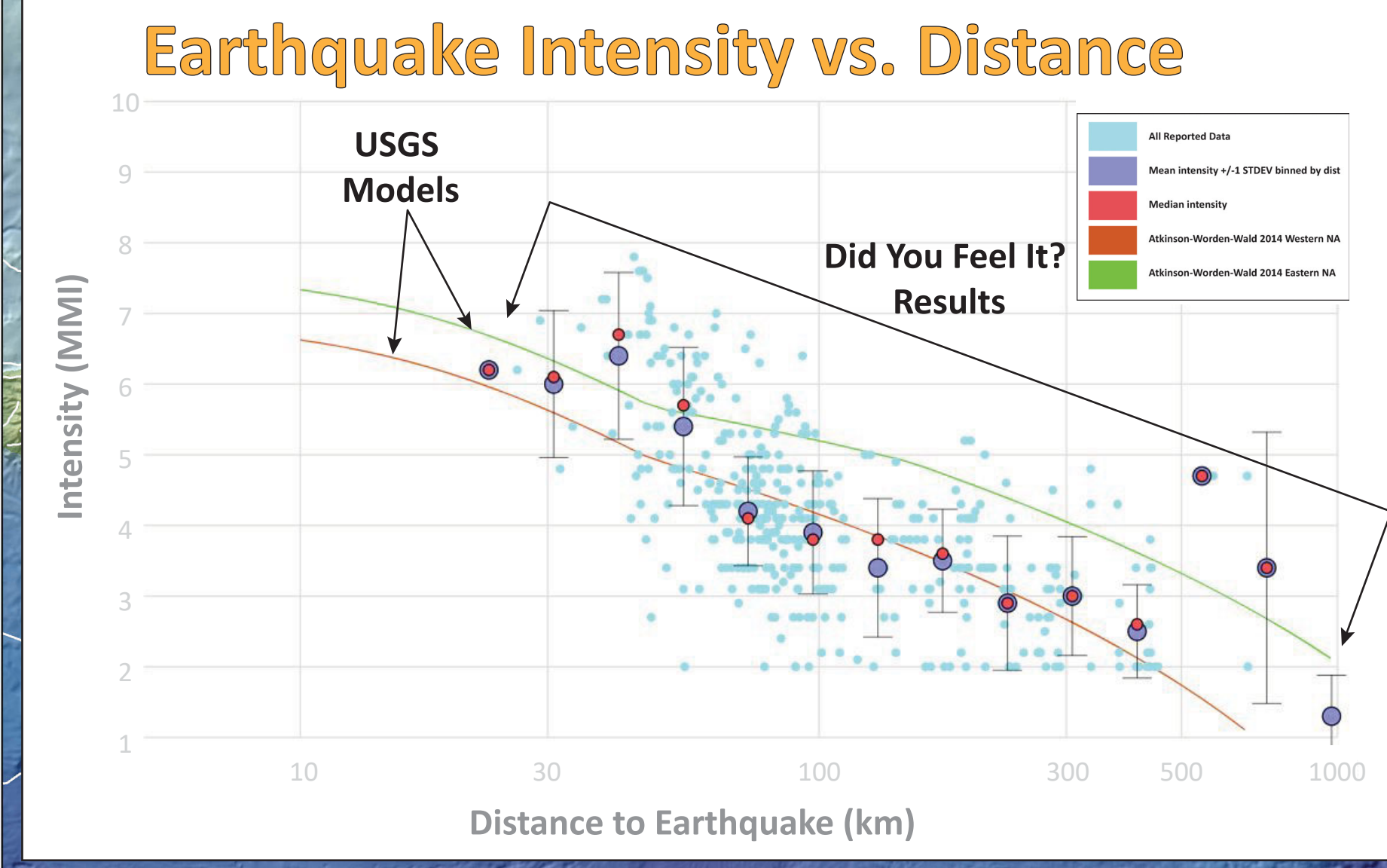
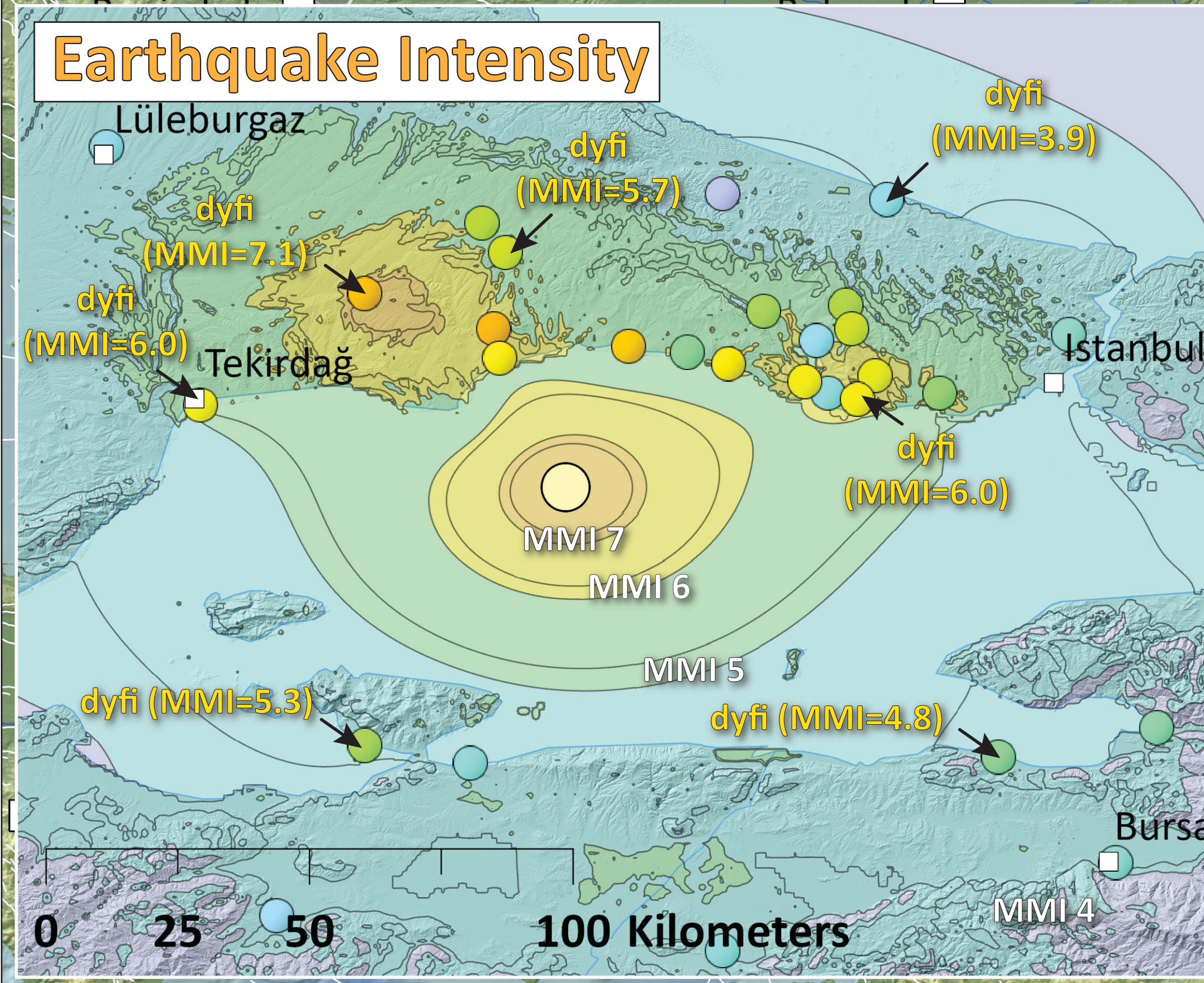


Earthquake Report: 2025.04.23

M 6.2 Turkey (& USGS Seismicity 1925-2025 M ≥ 6.0)



SHAKING	Not Felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
DAMAGE	Note	None	None	Very Light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PGA (%g)	<0.05	0.3	2.76	6.2	11.5	21.5	40.1	74.7	>139
PGV (cm/s)	<0.02	0.13	1.41	4.65	9.64	20	41.4	85.8	>178
INTENSITY	1	2-3	4	5	6	7	8	9	10



● 23 April '25 M 6.2 (Bogazici University) Populated Place
● 23 April '25 M 6.2 (USGS) Fault (AFEAD)

Seismicity (Bogazici University - 1 month)

Magnitude

- 0.6 - 1.0
- 1.1 - 2.0
- 2.1 - 3.0
- 3.1 - 4.0
- 4.1 - 5.0
- 5.1 - 6.1

Seismicity (USGS - 1 century)

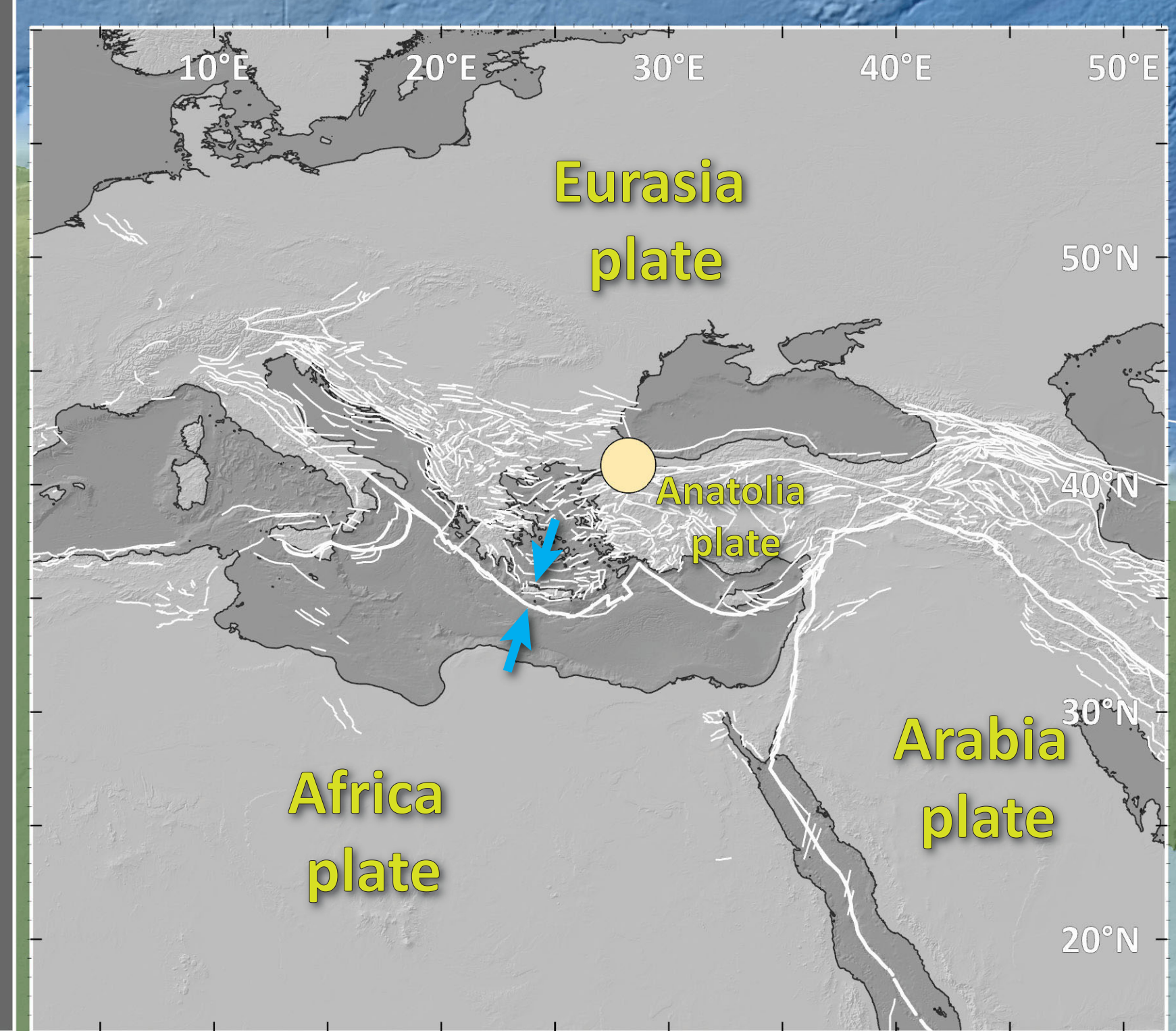
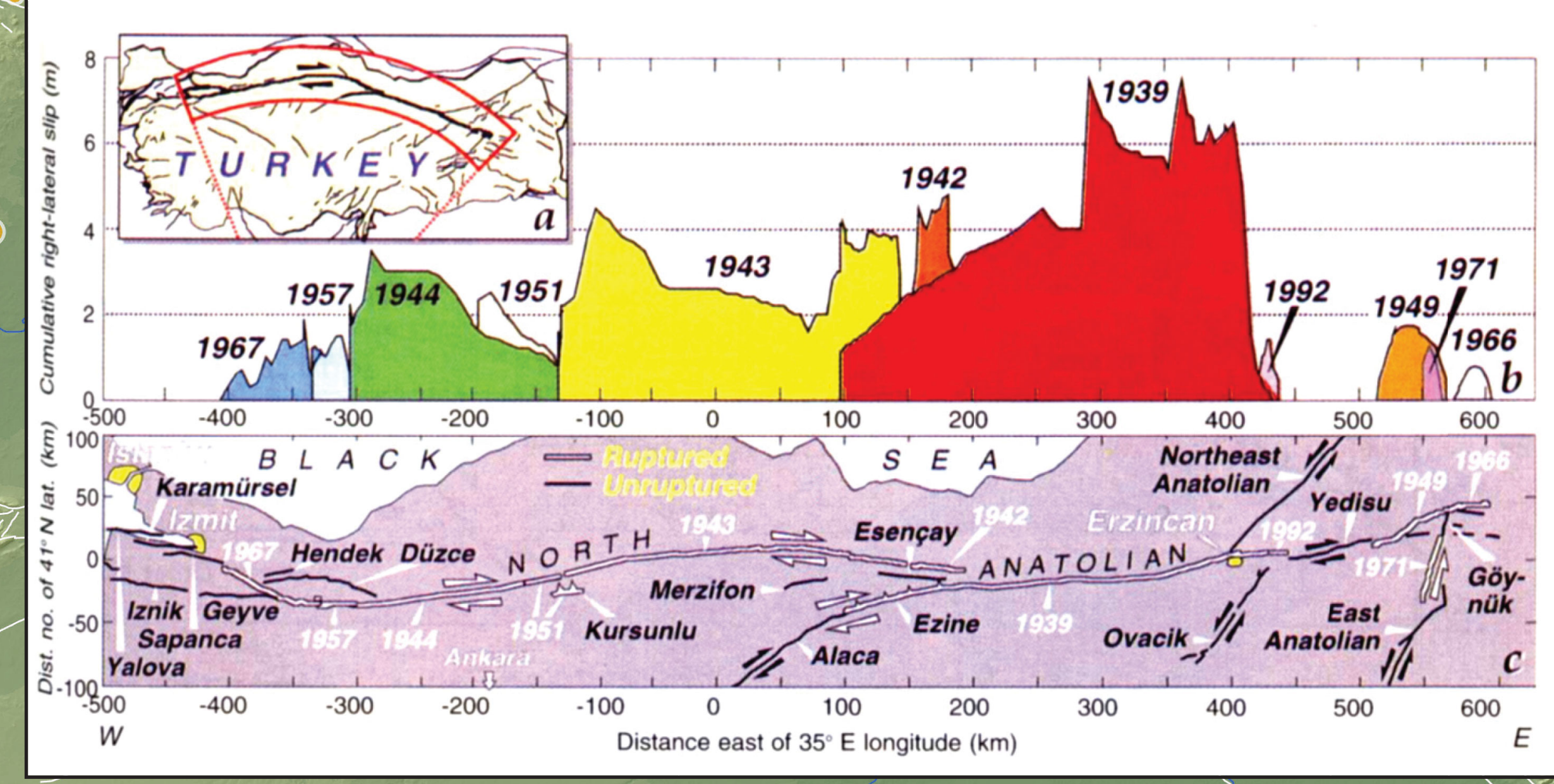
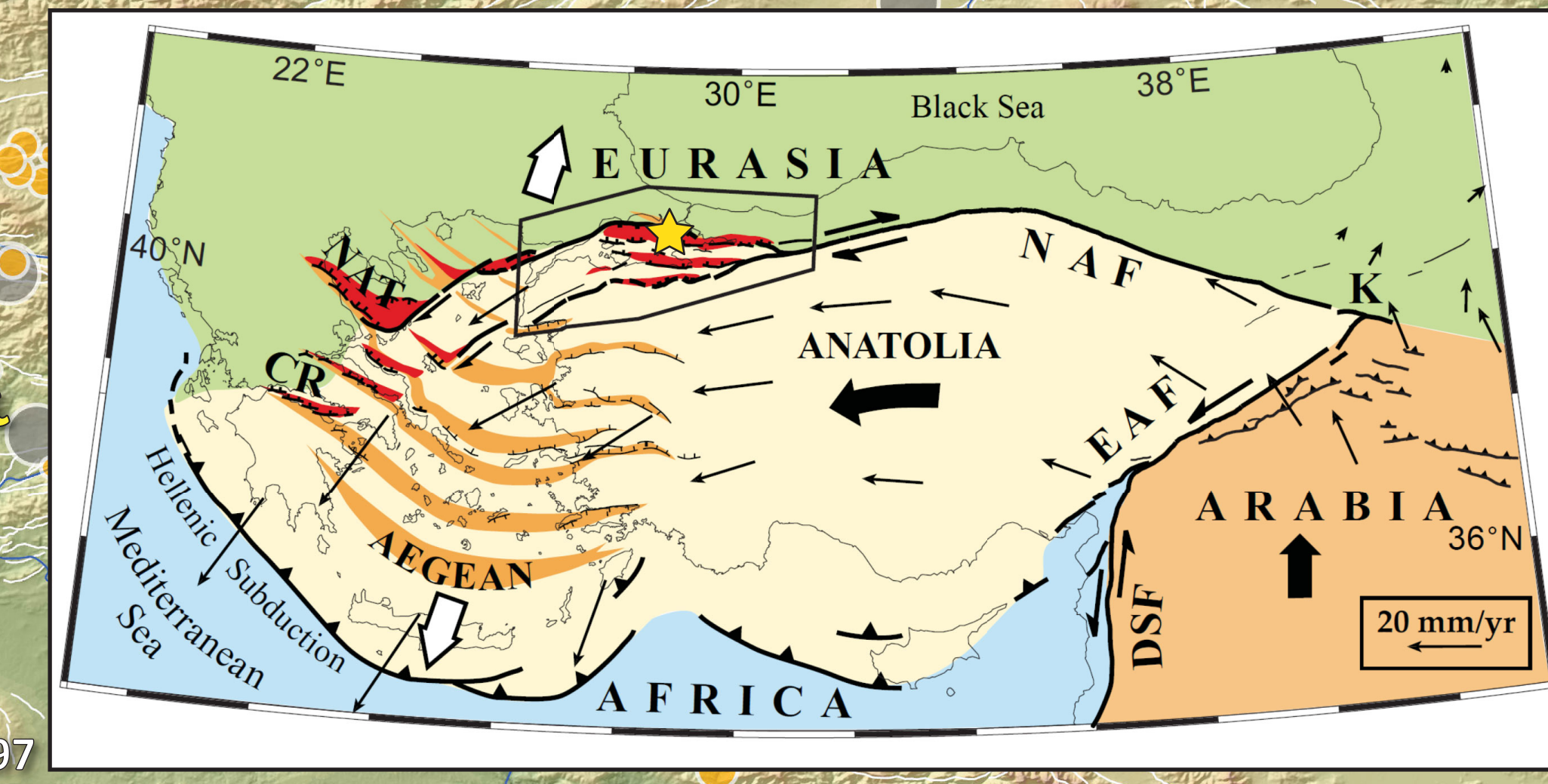
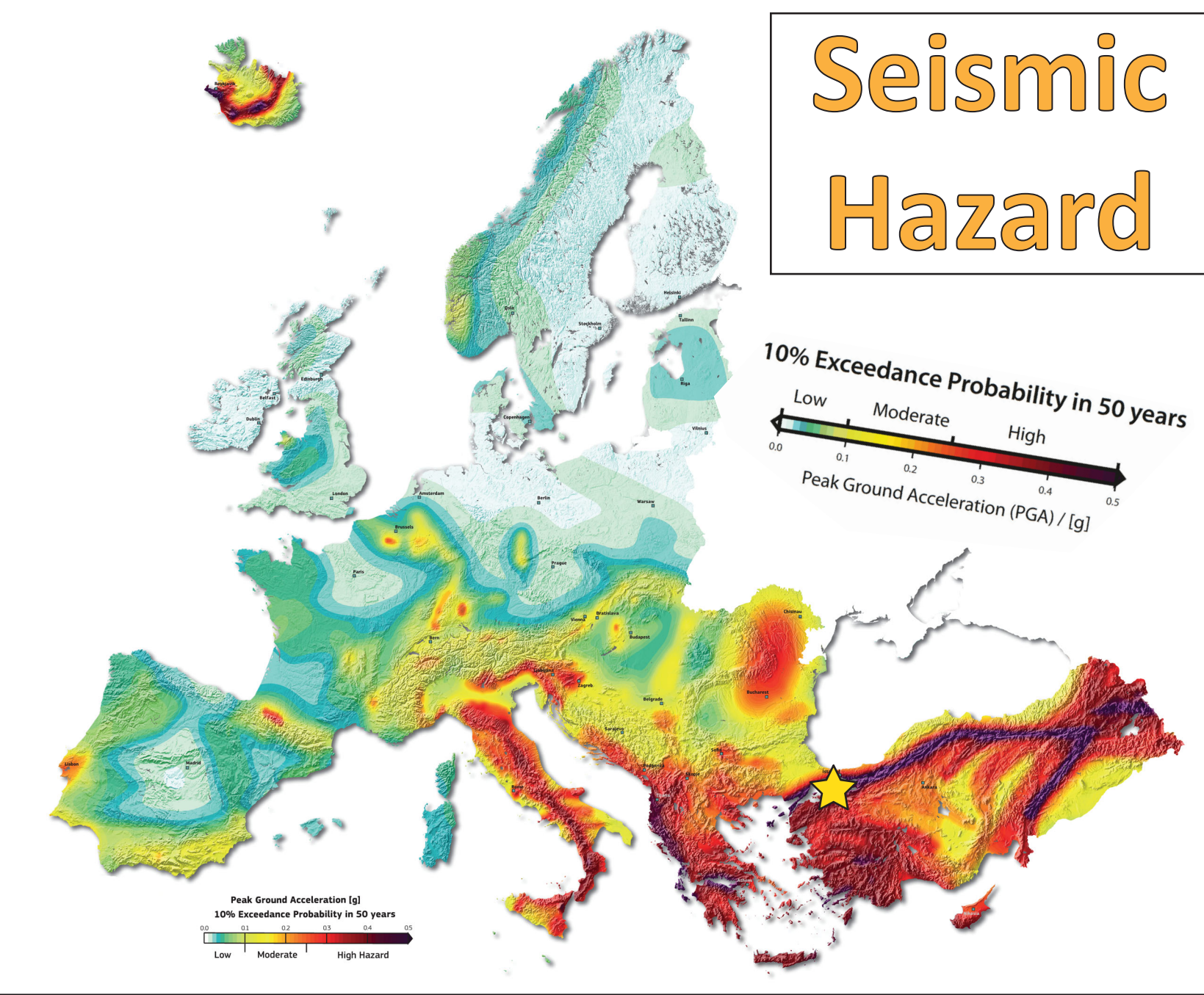
Magnitude

- 6.0 - 7.0
- 7.1 - 8.0
- 8.1 - 9.1

Elevation: GMRT - Ryan et al. (2009), ALOS World 3D™ (AW3D)

Faults: 1 - Global Earthquake Model (GEM), 2 - AFEAD - Zelenin et al., 2022, doi.org/10.5194/essd-14-4489-2022

Jason R. Patton
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23 April 2025 M 6.2 Turkey Fault Scaling Relations

$M = 4.38 + 1.49 \log(RL)$
 $M = 4.38 + 1.49 \log(35) = 6.7$
 $M = 4.38 + 1.49 \log(16.5) = 6.2$

Subsurface rupture length (km) derived earthquake magnitude estimates	
Rupture Length (km)	Moment Magnitude (M)
10	5.9
15	6.1
20	6.3
25	6.5
30	6.6
35	6.7
40	6.8

Wells and Coppersmith (1994)

