

# İTÜ



## High-Resolution Co-seismic Surface Displacement Distribution for February 6, 2023, Elbistan (Kahramanmaraş) Earthquake, Türkiye

Cengiz Yıldırım<sup>1</sup>, Orkan Özcan<sup>1</sup>, Semih Sami Akay<sup>2</sup>, Mehmet Akif Sarıkaya<sup>1</sup>, Melike Karataş<sup>1</sup>, Yusuf Gedik<sup>1</sup>, Özgür Kozacı<sup>3</sup>, Erhan Altunel<sup>4</sup>, Kevin Clahan<sup>5</sup>, Rich Koehler<sup>6</sup>

<sup>1</sup> Istanbul Technical University, Eurasia Institute of Earth Sciences, Sarıyer, Istanbul, Türkiye

<sup>2</sup> Topkapı University, Türkiye, <sup>3</sup> Pacific Gas & Electric, Geosciences, Oakland, USA, <sup>4</sup> Osmangazi University, Department of Geological Engineering, Eskişehir, Türkiye, <sup>5</sup> Lettis Consultants International, Inc. San Francisco, USA, <sup>6</sup> University of Nevada, Department of Geological Sciences and Engineering, Nevada, USA

corresponding author: Cengiz Yıldırım (cyildirim@itu.edu.tr)

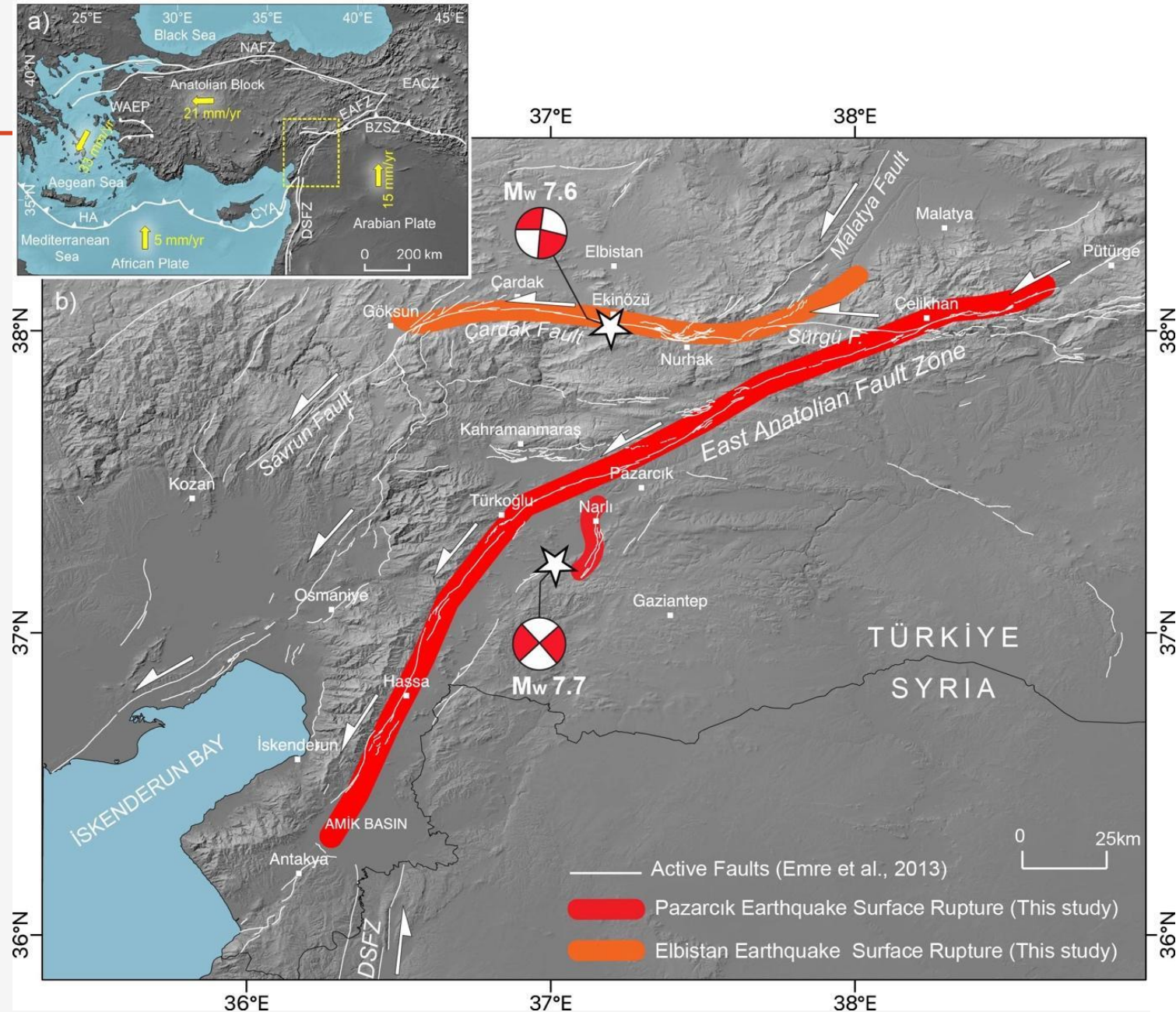
Bulgarian Academy of Sciences, 21 January 2025



Maras

# Motivation

- 1 Understand faulting mechanisms, inventory of rupture strands
- 2 Understand earthquake surface rupture processes mechanism and energy release
- 3 Help to improve earthquake scalling, and seismic hazard assesment



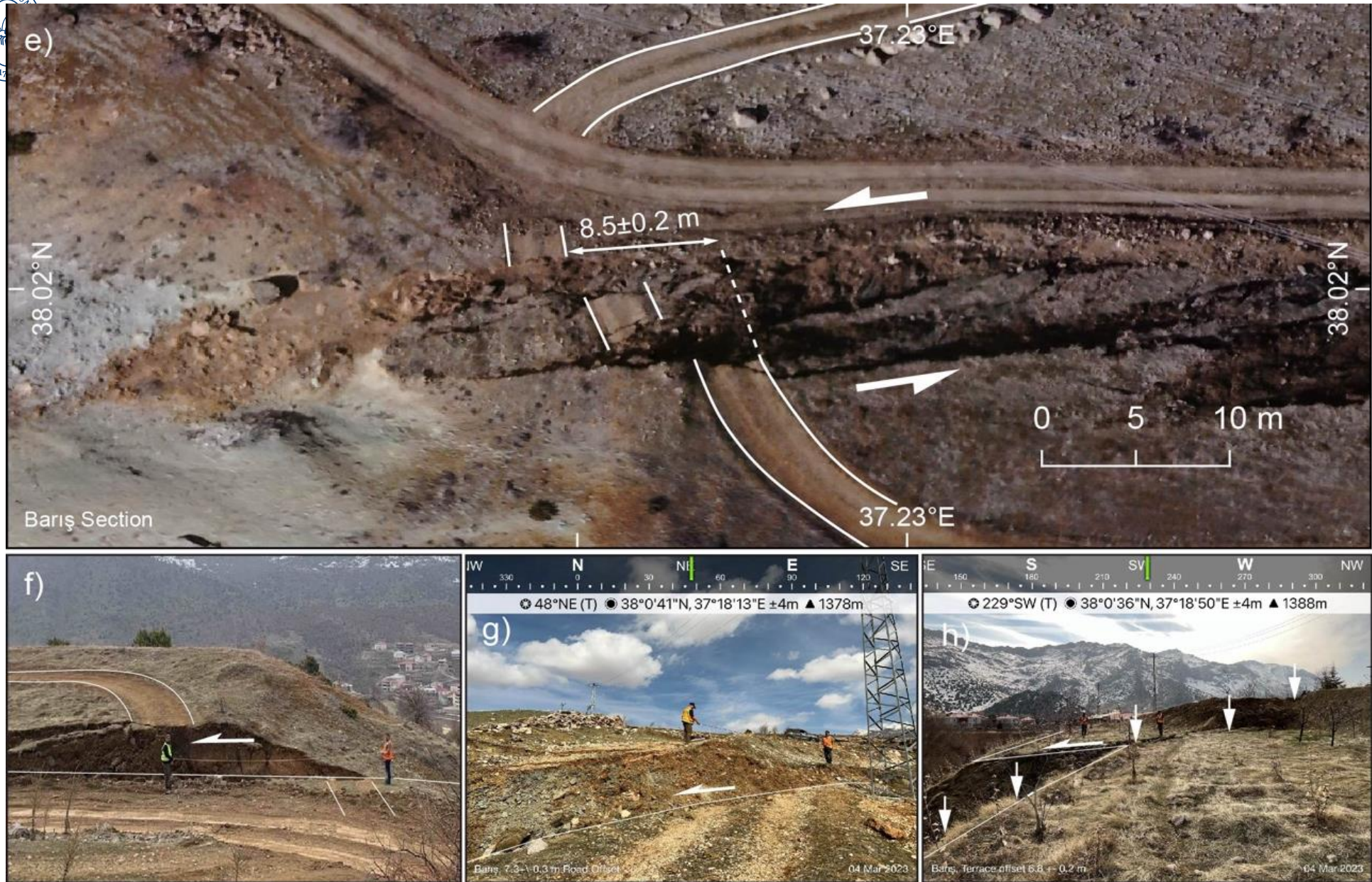


Fig.6. e) drone image of a large displacement across a dirt road in the Barış section, f) field photo of the offset shown in panel e, Barış section, g) and h) left laterally displaced road and terrace riser, respectively, in the Barış Section. Kmz files of the field photos are in the Supplementary File.