Commission of Geological Map of the World

Organisation of Africain Geological Surveys

Seismotectonic And Seismic Hazards Map Of Tunisia

خريـــطة تـــونس للمخـــاطـــر و الـــرج الزلزالـــي

2016

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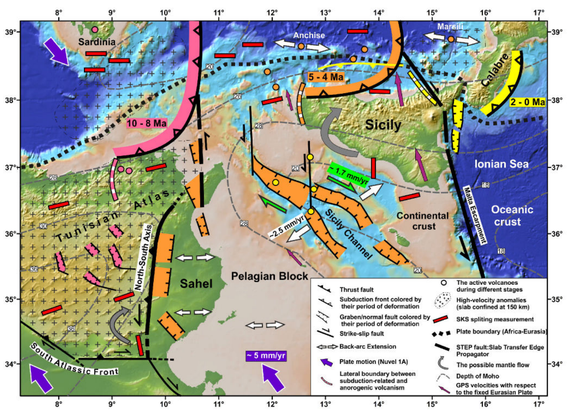
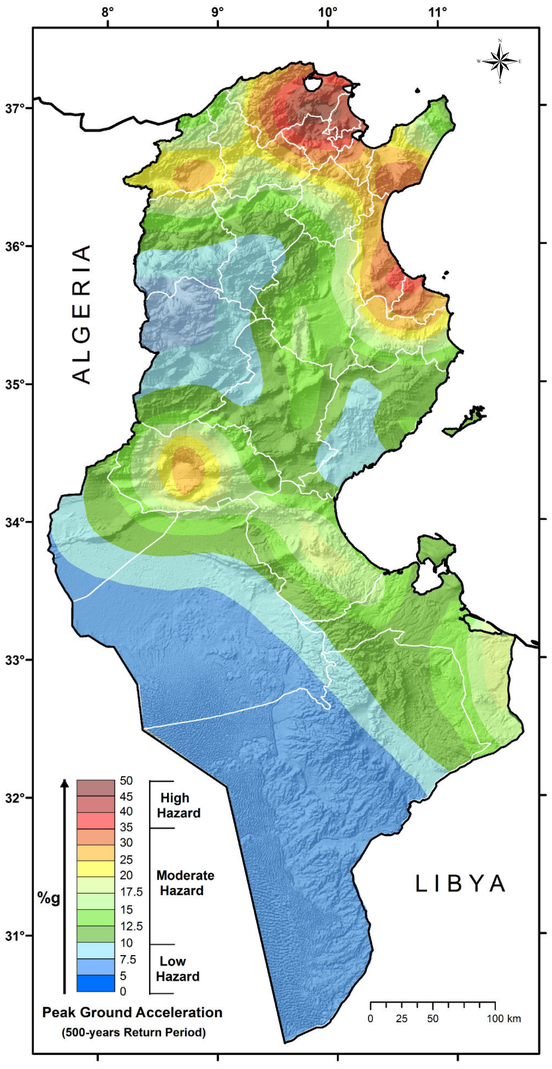
Scale: 1 / 1000 000

Introduction

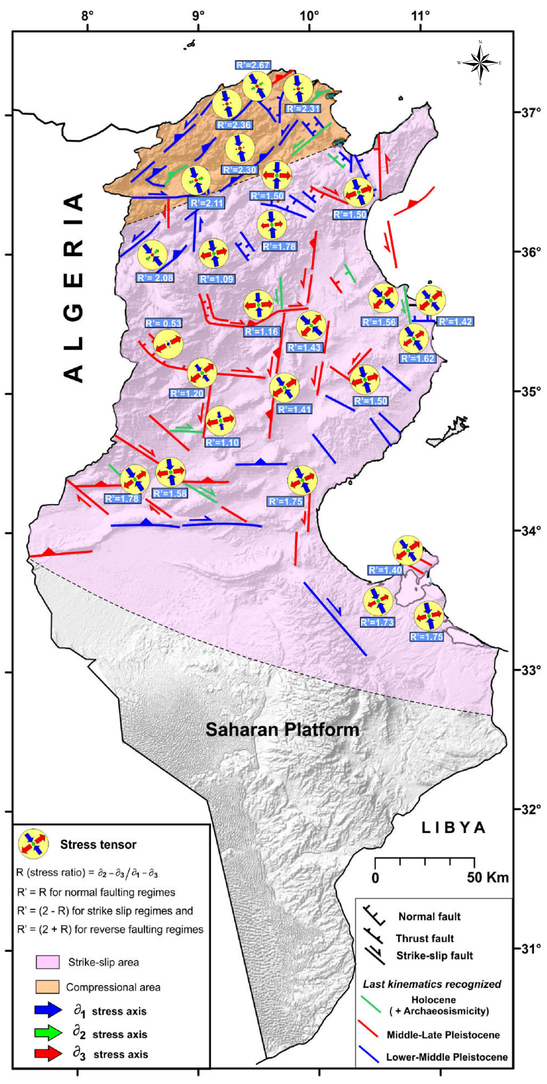
This product is a seismotectonic map of Tunisia showing data compiled from many sources.The purpose of combining all information into a single map relationships can suggest hypotheses that might have not apparent when comparing the original source. One natural hazard in Tunisia is caused by earthquakes and one way to measure the shaking risk is the probabilistic seismic-hazard map of Hfaiedh and Allouche (1993).This map display earthquake ground motions for various probability levels across Tunisia and is applied in seismic provisions of building codes, insurance rate structures, risk assessments, and other public policy. All the focal mechnisms used in this map are available in Soumaya et al., (2015) and listed with their strike, dip and rake. The instrumental (Mw) and historical seismicity data is from INM catalog. In this project, the preparation of thematic maps in earthquake hazards constitutes an important objective necessary for the social and economic development of Tunisia.
This map project has been initiad by **Hayet Khayati Ammar,** responsible of Natural Hazard Departement in the Geological Survey (National Office of Mines).



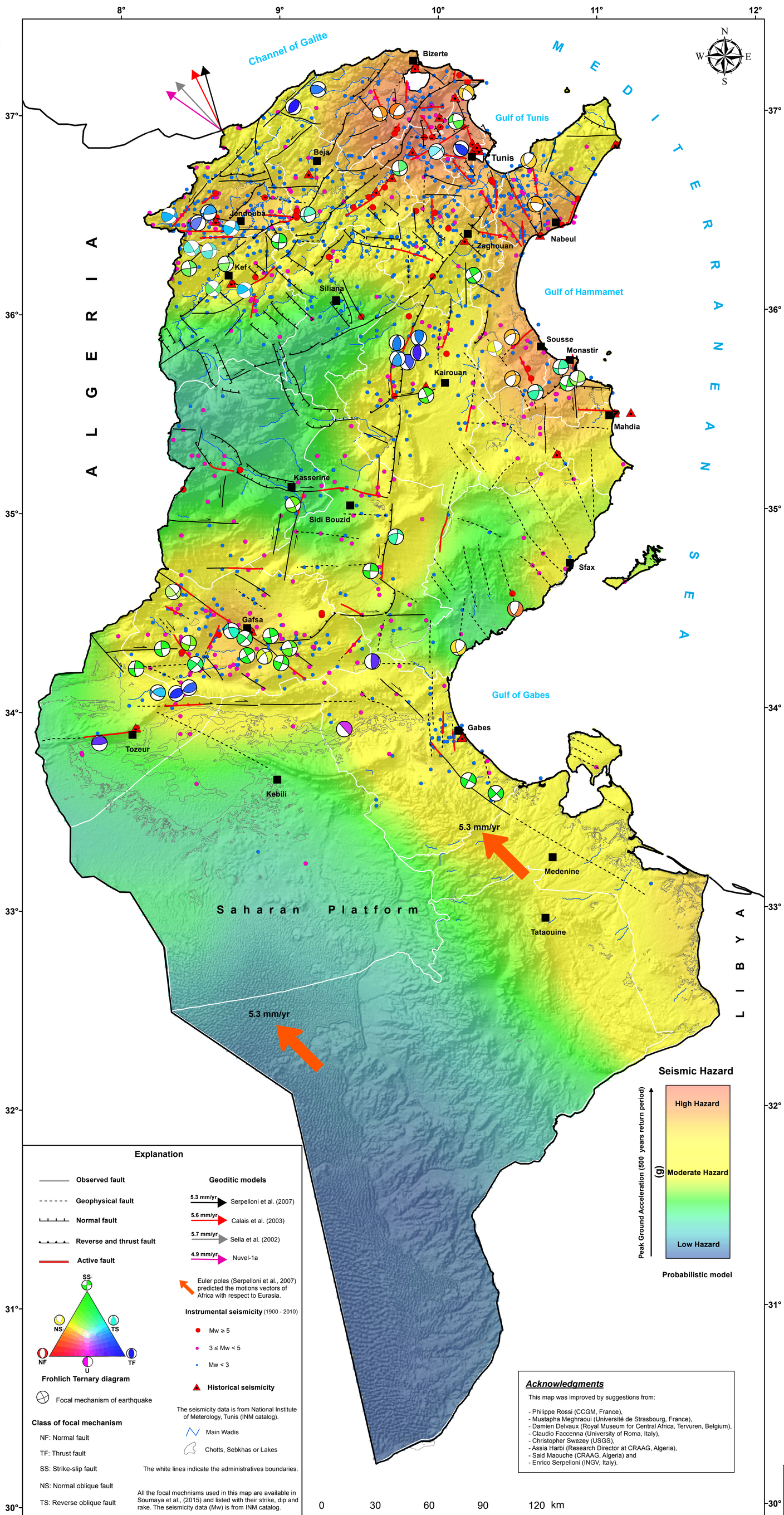
The main geodynamic elements of Tunisia and surroundings areas (Central Mediterranean).

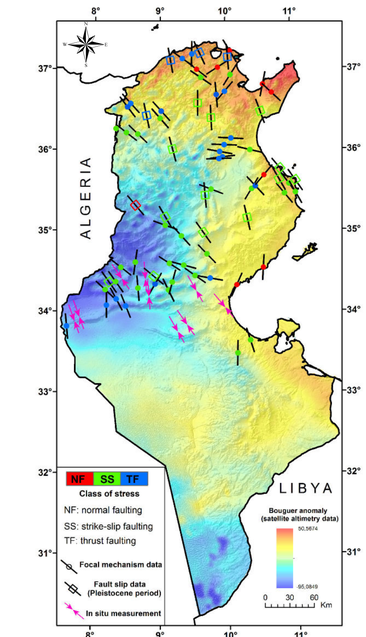


Seismic Hazards Map
(for 500 years Return Period, Probabilistic Model)

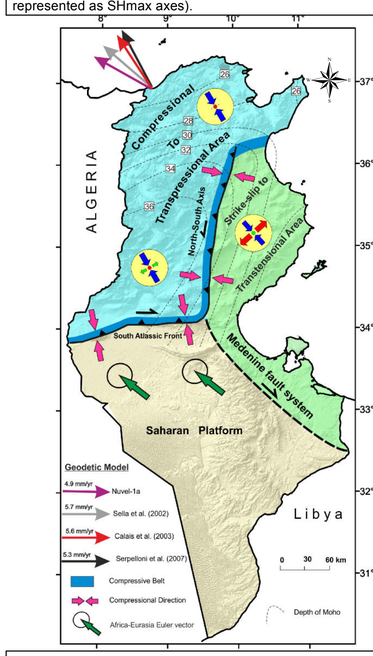


Neotectonic map
(the state of stress and dominant tectonic regime during the Pleistocene period obtained by fault slip measurement).

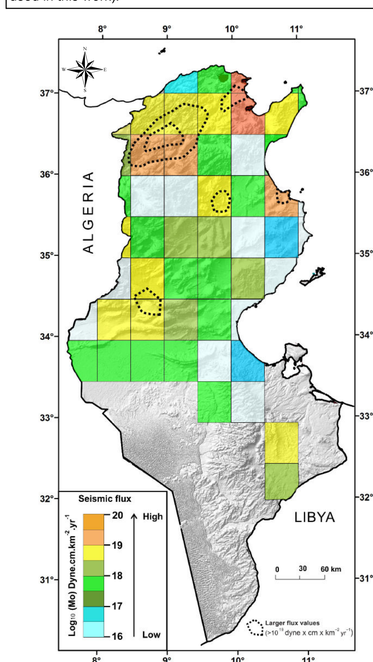




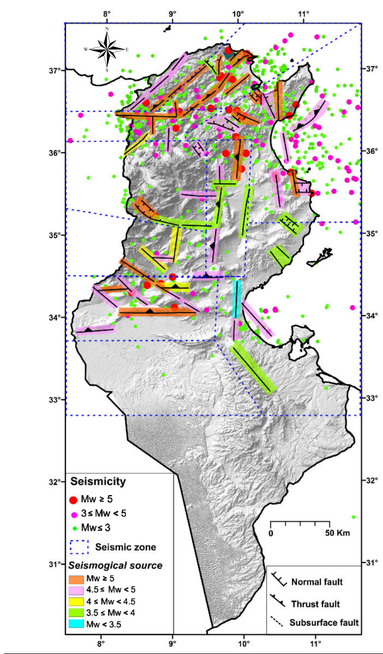
Global stress and bouguer anomaly map
(The focal mechanism and the fault slip data, (Pleistocene period) represented as SHmax axes).



Present stress regime and geoditic map
(The stress regime is obtained by inversion of focal mechanisms used in this work).



Seismic flux map
(i.e. the seismic moment released per year and per unit area, computed on a regular 0.5° × 0.5° grid, using all earthquakes with hypocentral depths <35 km).



Seismic sources and seismotectonic zones map of Tunisia

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