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They are part of the following data publication and should be cited as:

Zwaan, F., Corti, G., Sani, F., Keir, D., Muluneh, A. A., Illsley-Kemp, F., & Papini, M. (2020): Geological data from the Western Afar Margin, East Africa. GFZ Data Services. <https://doi.org/10.5880/fidgeo.2020.017>

Supplement to: Zwaan, F., Corti, G., Sani, F., Keir, D., Muluneh, A. A., Illsley-Kemp, F., & Papini, M. (2020). Structural Analysis of the Western Afar Margin, East Africa: Evidence for Multiphase Rotational Rifting. *Tectonics*, 39(7). <https://doi.org/10.1029/2019TC006043>

ZIP folder	Sub-folder	File name	File format	Content
		2020-017_Zwaan-et-al_Data-description	.pdf	Description of data and methods
		2020-017_Zwaan-et-al_List_of_files	.pdf	List of files
2020-017_Zwaan-et-al_WAM_Earthquake-analysis.zip	Earthquake_analysis	AfarRift_TectonicStress	.eps	Results of T-axis analysis (Afar)
		Earthquake_0113_Map.jpg	.jpeg	Map with locations of earthquakes (2001-2013 surveys)
		Earthquake_0713_Map	.jpeg	Map with locations of relocated earthquakes (2007-2013 surveys)
		Earthquake_0713_Selection_Map	.jpeg	Map with locations of a selection of relocated earthquake with +/- 5 km error in xyz-directions for detailed analysis (2007-2013 relocated surveys)
		Earthquake_Catalogue_0113	.txt	Complete earthquake dataset (2001-2013 surveys)
		Earthquake_Catalogue_0713	.txt	Combined relocated earthquake dataset (2007-2013 surveys).
		FocalMechanismsMap	.jpeg	Map with focal mechanism locations used in paper
		MainEthiopianRift_TectonicStress	.eps	Results of T-axis analysis (MER)
		SMR_map	.jpeg	Map of seismic moment release (SMR) along the WAM, based on the combined relocated earthquake dataset
		T-axesMap	.jpeg	Map with T-axes derived from focal mechanisms
	Earthquake_analysis/_Focal_Mechanism_Data	WesternAfarMargin_TectonicStress	.eps	Results of T-axis analysis (Western Afar Margin)
		AfarRift_20112013_FocalMechanisms	.txt	Focal mechanism data (Illsley-Kemp et al. 2018, G3)
		AfarRift_GlobalCatalogue_FocalMechanisms	.txt	Focal mechanism data (global CMT database)
		MainEthiopianRift_FocalMechanisms	.txt	Focal mechanism data (Keir et al. 2006, JGR)
		WesternAfarMargin_AFAR20112013_FocalMechanisms	.txt	Focal mechanism data (Illsley-Kemp et al. 2018, JGR)
		WesternAfarMargin_GlobalCatalogue_FocalMechanisms	.txt	Focal mechanism data (global CMT database)
2020-017_Zwaan-et-al_WAM_fault_data_analysis.zip	Fault_data_analysis	Locations_Chorowicz_et_al_1999_all	.kmz	Locations of all Chorowicz et al. (1999) fault measurements (approximative)
		Locations_Chorowicz_et_al_1999_Phase_3	.kmz	Locations of Chorowicz et al. (1999) phase 3 fault measurements (approximative)
		Locations_Sani_et_al_2017	.kmz	Locations of Sani et al. (2017) fault measurements
		WAM_extension_overview_table	.pdf	Table overview of fault-derived extension directions along the WAM (Chorowicz et al. 1999; Sani et al. 2017; Zwaan et al. 2020)
		WAM_extension_overview_table	.txt	tab delimited text version of the Table overview of fault-derived extension directions along the WAM (Chorowicz et al. 1999; Sani et al. 2017; Zwaan et al. 2020)
		WAM_extension_overview_map	.jpeg	Map overview of recent fault-derived extension directions along the WAM (Chorowicz et al. 1999; Sani et al. 2017; Zwaan et al. 2020)
		WAM_Wintensor_results.zip	.wtd	Zip-folder with Wintensor (.wtd) files
2020-017_Zwaan-et-al_WAM_Fieldwork_data.zip	Fieldwork_data	Fault_field_data	.txt	Overview of fault measurements (Ethiopia 2018 and Eritrea 2019 WAM fieldworks)
		Field_book	.pdf	Overview of field observations of Ethiopia 2018 WAM fieldwork
		Field_stops	.pdf	Summary of field stops of Ethiopia 2018 WAM fieldwork
		GPS_points_FS	.kmz	GPS points taken by Federico Sani during Ethiopia 2018 WAM fieldwork
		GPS_points_GC	.kmz	GPS points and traces taken by Giacomo Corti during Ethiopia 2018 WAM fieldwork
		Locations_total	.kmz	Overview of field stops (Ethiopia 2018 and Eritrea 2019 WAM fieldworks)
		Roads	.kmz	Roads along the WAM used for fieldwork navigation
2020-017_Zwaan-et-al_WAM_Mapping.zip	Mapping	Table_basin_details	.pdf	Table of marginal graben details
		BasinMap	.jpeg	Map of sedimentary basins along the WAM
		FaultMap	.jpeg	Map of faults along the WAM
		DikeMap	.jpeg	Map of dikes along the WAM
		WAM_structural_combined_map	.jpeg	Map of all mapped units combined (sedimentary basins, faults, dikes and potential sedimentary contacts)
		BasinMap	.kml	GIS map of sedimentary basins along the WAM
		WAM_faults	.kml	GIS map of faults along the WAM
		WAM_dikes	.kml	GIS map of dikes along the WAM
		WAM_potential_sed_contact	.kml	GIS map of potential sedimentary contacts along the WAM
2020-017_Zwaan-et-al_WAM_Well_data.zip	Well data	Well_overview_table	.pdf	Table with well details
		WellMap_Kobo	.jpeg	Map of Kobo basin with well locations
		Wells_Alamata	.kmz	locations of Alamata wells
		Wells_Kobo	.kmz	locations of Kobo wells
		Wells_Mehoni	.kmz	locations of Mehoni wells