

The area of intersection of the African, Anatolian, and Arabian plates in southeastern Turkey is an active area of research. Due to the complexity of the convergence and intersection of the three plates many questions concerning the region still remain. This report concerns a data set from this complex area built of both existing and new data that include regional fault-plane solutions, structural maps, topographic maps, event-depth cross sections, and moho depths.

This study involves the systematic application of the results of analysis of this data set to the region in order to better constrain and assess knowledge of faults, topographic structures, and crustal thickness. Results of this study suggest that plate-boundary fault triple junctions are inherently unstable, diffused, and complex, and therefore are unable to be uniquely located. This study identifies an actively extruding wedge within the Anatolian plate whose kinematic nature closely resembles that of Anatolia itself. This study also identifies the Iskenderun block as a large promontory of the African Plate which is being torn off to produce a plate fragment roughly the size of Delaware. The northern convergence of Africa and the northern convergence of Anatolia are determined to both play a role in the kinematics of the Iskenderun block.

By

Christopher Robert Sine

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Daniel S. Brumbaugh

TABLE ABSTRACT CONTENTS

The area of intersection of the African, Anatolian, and Arabian plates in southeastern Turkey is an active area of research. Due to the complexity of the convergence and intersection of the three plates many questions concerning the region still remain. This report concerns a data set from this complex area built of both existing and new data that include regional fault-plane solutions, structural maps, topographic maps, event-depth cross sections, and moho depths.

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Setting	1
Regional Maps	9
Fault-plane solution data	11
Fault-plane solution evaluation criteria	14
Depth data and event-concentration cross sections	17
Cross section B	21
Cross section D	25
Entire Study Area	26
Region 2	28

TABLE OF CONTENTS

List of Tables	iv
List of Figures	iv
Introduction	1
Setting	1
Purpose of Study	1
Background	2
Data/Methods	9
Regional Maps	9
Focal mechanisms and fault-plane solutions	10
Fault-plane solution data	11
Software used in the determination of fault-plane solutions	13
Fault-plane solution evaluation criteria	14
Centroid moment tensors and non-double-couple solutions	15
Analysis of Seismicity and Tectonics	16
Depth data and event-concentration cross sections	17
Cross section A	18
Cross section B	21
Cross section C	23
Cross section D	25
Regions of concentrated seismicity	26
Entire Study Area	26
Region 1	27
Region 2	28
Region 3	30
Region 4	31
The instability of fault triple junctions: a model for the source of AAA complexities	32
High convergence rate of the African plate and the Iskenderun block	34
Compression and tension in the southwest portion of the AAA triple junction	38
Conclusions	42
Future Research	44
Acknowledgements	46
References Cited	47

LIST OF TABLES

1. Fault-plane solutions	13
--------------------------	----

2. Proposed counter-clockwise rotation of the Iskenderun Block.	39
---	----

3. Generalized stress regime in the area of the African-Anatolian-Arabian triple junction.	41
--	----

LIST OF FIGURES

1. Regional plate boundary faults associated with the African-Anatolian-Arabian triple junction.	2
--	---

2. Regional plate velocities determined by Global Positioning System measurements.	3
--	---

3. Structural map of the East Anatolian Fault Zone.	5
---	---

4. East Anatolian Fault Zone and its three sub-parallel strands.	6
--	---

5. The western extension of the East Anatolian Fault Zone to Cyprus.	7
--	---

6. Hatay graben and associated faults.	8
--	---

7. Structural and topographical map of study area	9
---	---

8. First-motion analysis and a fault-plane solution.	11
--	----

9. Fault-plane solutions of study area.	12
---	----

10. Seismicity from 1964 to 1994.	17
-----------------------------------	----

11. Four areas enclosing events portrayed in cross section.	18
---	----

12. Event depths, topography, and moho depth of area A.	19
---	----

13. Event depths, topography, and moho depth of area B.	21
---	----

14. Event depths, topography, and moho depth of area C.	23
---	----

15. Regional moho depth.	24
--------------------------	----

16. Event depths, topography, and moho depth of area D.	25
---	----

17. Pressure and tension axes of the entire study area.	27
---	----

18. Pressure and tension axes of region one.	28
--	----

19. Pressure and tension axes of region two.	29
--	----

20. Pressure and tension axes of region three.	30
--	----

21. Pressure and tension axes of region four.	32
---	----

22. Fault-fault-fault and ridge-ridge-ridge triple junctions compared.	33
--	----

23. Evolution of a fault-fault-fault triple junction.	34
---	----

24. Length of greatest N-S strike along the Northeast Mediterranean Flower Structure	35
--	----

25. The Iskenderun Block.	37
---------------------------	----

26. The base of the Iskenderun Block and inflection along the Northeast Mediterranean Flower Structure.	38
27. Proposed counter-clockwise rotation of the Iskenderun Block.	39
28. Generalized stress regime in the area of the African-Anatolian-Arabian triple junction.	42

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