

ERITREA-ETHIOPIA BOUNDARY COMMISSION
ANNEX TO THE COMMISSION'S STATEMENT OF 27 NOVEMBER 2006
LIST OF BOUNDARY POINTS AND COORDINATES

1. The boundary points listed below, and as illustrated on the accompanying 1:25,000 maps, fall into two categories: fixed points and movable points.¹
2. The fixed boundary points are located on land. Each is identified by its grid and geographical coordinates accurate to one metre and is illustrated on the maps by the conventional sign of a small square enclosing a dot. Fixed points adjacent to rivers are located a short distance from the river bank so as to avoid the effects of flooding or river movements.
3. The movable boundary points represent the turning points of the boundary which fall within rivers. As the boundary in rivers follows the middle of the main channel and may move from time to time, these turning points cannot be fixed permanently. They are marked on the illustrative maps by small circles which indicate the location of these points at the time of the aerial photography.
4. These movable points are to be found at the confluence of two rivers, or at the intersection between the middle of the main channel of the river and the extension riverwards of the straight line between the nearest fixed boundary point and the next or preceding fixed boundary point.
5. The list of coordinates is presented in eight columns.
Column 1 contains the numbers of the boundary points which are covered by each set of coordinates or are otherwise described.
Column 2 contains the numbers of the points identified in Maps 10, 11 and 12 that illustrate the Delimitation Decision of 13 April 2002. These are referred to below simply as "Points".

¹ A simplified map only for convenience of reference appears at the end of this Annex.

Columns 3 and 4 contain the Universal Transverse Mercator (“UTM”) grid coordinates of each boundary point, not otherwise described, in the following projection:

Projection:	UTM Zone 37 extended eastward
Geodetic Datum:	Eritrea Ethiopia Boundary Datum 2002 (EEBD2002)
Longitude of Origin:	39° E
Latitude of Origin:	0° N
False Easting:	500,000m E
False Northing:	0m N
Unit of Measurement:	Metre

Columns 5 and 6 contain the geographical coordinates in degrees of latitude and longitude in terms of the Commission’s geodetic datum, EEBD2002.

Column 7 contains occasional descriptions of the location of the particular boundary point and an indication of the course of the boundary to the next boundary point.

Column 8 contains the number of the 1:25,000 map sheet on which the boundary point is located.

LIST OF BOUNDARY POINTS AND COORDINATES

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Boundary Point	Point	UTM Grid		Latitude/Longitude		Onward Course of Boundary	1:25,000 Sheet
		East	North	North	East		
1	1	Setit opposite Western Tripoint				Boundary continues along middle of main channel of Setit to BP2.	1
2	6	Confluence of Setit and Tomsa				Middle of main channel of Setit is connected to BP3 by straight-line extension of the line from BP4 to BP3.	8
3		341211	1568706	14°11'06.6"	37°31'42.8"	Short distance from north bank of Setit at its confluence with Tomsa. Boundary continues in a straight line to BP4.	8
4		382976	1646771	14°53'34.6"	37°54'43.5"	Short distance from south bank of Mareb at its confluence with Mai Ambessa. Boundary continues to middle of main channel of Mareb by straight-line extension of the line from BP3 to BP4.	13
5	9	Confluence of Mareb and Mai Ambessa				Boundary continues along middle of main channel of Mareb to BP6.	13
6	11	Confluence of Mareb and Belesa				Boundary continues along middle of main channel of Belesa to BP7.	20
7	12	Confluence of Belesa A and Belesa B				Boundary continues along middle of main channel of Belesa B to BP8.	20
8		Intersection of Belesa B and straight-line extension from BP9				Boundary turns inland to BP9.	21
9		518200	1619525	14°38'56.9"	39°10'08.4"	Boundary continues in a straight line to BP10.	21
10		518084	1619354	14°38'51.3"	39°10'04.6"	Boundary continues in a straight line to BP11.	21
11		517846	1619000	14°38'39.8"	39°09'56.6"	Boundary continues in a straight line to BP12.	21
12		517527	1618587	14°38'26.3"	39°09'45.9"	Boundary continues in a straight line to BP13.	21

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Boundary Point	Point	UTM Grid		Latitude/Longitude		Onward Course of Boundary	1:25,000 Sheet
		East	North	North	East		
13		517015	1617901	14°38'04.0"	39°09'28.8"	Boundary continues in a straight line to BP14.	21
14		516908	1617055	14°37'36.5"	39°09'25.2"	Boundary continues in a straight line to BP15.	21
15		516975	1616040	14°37'03.4"	39°09'27.4"	Boundary continues in a straight line to BP16.	21
16		517108	1615604	14°36'49.2"	39°09'31.9"	Boundary continues in a straight line to BP17.	21
17		516951	1615014	14°36'30.0"	39°09'26.6"	Boundary continues in a straight line to BP18.	21
18		518552	1613592	14°35'43.7"	39°10'20.1"	Boundary continues in a straight line to BP19.	21
19		518987	1613202	14°35'31.0"	39°10'34.6"	Boundary continues in a straight line to BP20.	21
20		519192	1612392	14°35'04.6"	39°10'41.4"	Boundary continues in a straight line to BP21.	21
21		520493	1611489	14°34'35.2"	39°11'24.9"	Boundary continues in a straight line to BP22.	21
22		521013	1611023	14°34'20.0"	39°11'42.3"	Boundary continues in a straight line to BP23.	21
23		522112	1610262	14°33'55.2"	39°12'19.0"	Boundary continues in a straight line to BP24.	21
24		523922	1610332	14°33'57.5"	39°13'19.5"	Boundary continues in a straight line to BP25.	21
25		525826	1610053	14°33'48.3"	39°14'23.1"	Boundary continues to middle of main channel of Belesa B by straight-line extension of the line from BP24 to BP25.	21
26		Intersection of Belesa B and straight-line extension from BP25				Boundary continues along middle of main channel of Belesa B to BP27.	21
27	14	Confluence of Belesa B and the tributary flowing from BP28				Boundary continues along middle of main channel of the tributary to BP28.	22
28	15	526864	1599914	14°28'18.3"	39°14'57.4"	Source of the tributary mentioned in BP27. Boundary continues in a straight line to BP29.	22

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Boundary Point	Point	UTM Grid		Latitude/Longitude		Onward Course of Boundary	1:25,000 Sheet
		East	North	North	East		
29	16	526401	1599206	14°27'55.2"	39°14'41.9"	Source of a tributary of Belesa A. Boundary continues along middle of main channel of the tributary to BP30.	22
30	17	Confluence of Belesa A and the tributary flowing from BP29				Boundary continues along middle of main channel of Belesa A to BP31.	22
31		Confluence of Belesa A and the tributary flowing from BP32				Boundary continues along middle of main channel of the tributary to BP32.	22
32		529176	1594815	14°25'32.2"	39°16'14.4"	Source of the tributary mentioned in BP31. Boundary continues in a straight line to BP33.	22
33		529308	1595256	14°25'46.6"	39°16'18.9"	Source of a tributary of Belesa B. Boundary continues along middle of main channel of the tributary to BP34.	22
34		530761	1597627	14°27'03.7"	39°17'07.5"	On edge of east bank of Belesa B opposite the tributary mentioned in BP33. Boundary continues in a straight line to BP35.	22
35		531658	1598412	14°27'29.2"	39°17'37.5"	Boundary continues in a straight line to BP36.	22
36		531846	1599274	14°27'57.2"	39°17'43.8"	Boundary continues in a straight line to BP37.	22
37		532474	1599718	14°28'11.7"	39°18'04.8"	Boundary continues in a straight line to BP38.	22
38		533846	1599802	14°28'14.3"	39°18'50.6"	Boundary continues in a straight line to BP39.	22
39		535023	1599814	14°28'14.7"	39°19'29.9"	Boundary continues in a straight line to BP40.	23
40		536051	1599537	14°28'05.6"	39°20'04.3"	Boundary continues in a straight line to BP41.	23
41		537336	1599320	14°27'58.5"	39°20'47.2"	Boundary continues in a straight line to BP42.	23
42		536950	1599806	14°28'14.3"	39°20'34.3"	Boundary continues in a straight line to BP43.	23
43		536902	1600399	14°28'33.6"	39°20'32.7"	Boundary continues in a straight line to BP44.	23

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Boundary Point	Point	UTM Grid		Latitude/Longitude		Onward Course of Boundary	1:25,000 Sheet
		East	North	North	East		
44		536398	1601176	14°28'58.9"	39°20'15.9"	Boundary continues in a straight line to BP45.	23
45		535430	1602185	14°29'31.8"	39°19'43.7"	Boundary continues in a straight line to BP46.	23
46		535413	1602382	14°29'38.2"	39°19'43.1"	Boundary continues in a straight line to BP47.	23
47		535942	1602200	14°29'32.3"	39°20'00.8"	Boundary continues in a straight line to BP48.	23
48		537041	1601817	14°29'19.8"	39°20'37.5"	Boundary continues in a straight line to BP49.	23
49		537273	1601661	14°29'14.7"	39°20'45.2"	Boundary continues in a straight line to BP50.	23
50		537455	1601546	14°29'10.9"	39°20'51.3"	Boundary continues in a straight line to BP51.	23
51		537983	1601199	14°28'59.6"	39°21'08.9"	Boundary continues in a straight line to BP52.	23
52		538798	1601208	14°28'59.9"	39°21'36.1"	Boundary continues in a straight line to BP53.	23
53		538528	1602662	14°29'47.2"	39°21'27.2"	Boundary continues in a straight line to BP54.	23
54		539482	1602526	14°29'42.7"	39°21'59.0"	Boundary continues in a straight line to BP55.	23
55		538493	1603778	14°30'23.5"	39°21'26.1"	Boundary continues in a straight line to BP56.	23
56		538352	1604031	14°30'31.8"	39°21'21.4"	Boundary continues in a straight line to BP57.	23
57		538843	1604759	14°30'55.4"	39°21'37.8"	Boundary continues in a straight line to BP58.	23
58		538562	1606101	14°31'39.1"	39°21'28.5"	Boundary continues in a straight line to BP59.	23
59		538888	1606728	14°31'59.5"	39°21'39.4"	Boundary continues in a straight line to BP60.	23
60		539045	1606574	14°31'54.5"	39°21'44.7"	Boundary continues in a straight line to BP61.	23
61		539279	1606370	14°31'47.8"	39°21'52.5"	Boundary continues in a straight line to BP62.	23
62		539719	1605996	14°31'35.7"	39°22'07.1"	Boundary continues in a straight line to BP63.	23
63		540025	1606770	14°32'00.8"	39°22'17.4"	Boundary continues in a straight line to BP64.	23
64		539924	1607174	14°32'14.0"	39°22'14.1"	Boundary continues in a straight line to BP65.	23
65		540196	1607425	14°32'22.2"	39°22'23.2"	Boundary continues in a straight line to BP66.	23

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Boundary Point	Point	UTM Grid		Latitude/Longitude		Onward Course of Boundary	1:25,000 Sheet
		East	North	North	East		
66		540494	1607249	14°32'16.4"	39°22'33.1"	Boundary continues in a straight line to BP67.	23
67		541100	1607527	14°32'25.4"	39°22'53.4"	Boundary continues in a straight line to BP68.	23
68		541268	1607568	14°32'26.8"	39°22'59.0"	Boundary continues in a straight line to BP69.	23
69		541651	1607389	14°32'20.9"	39°23'11.8"	Boundary continues in a straight line to BP70.	23
70		541693	1607200	14°32'14.7"	39°23'13.2"	Boundary continues in a straight line to BP71.	23
71		541790	1607153	14°32'13.2"	39°23'16.4"	Boundary continues in a straight line to BP72.	23
72		541889	1607223	14°32'15.5"	39°23'19.7"	Boundary continues in a straight line to BP73.	23
73		541925	1607352	14°32'19.7"	39°23'20.9"	Boundary continues in a straight line to BP74.	23
74		542174	1607363	14°32'20.0"	39°23'29.3"	Boundary continues in a straight line to BP75.	23
75		542429	1607514	14°32'24.9"	39°23'37.8"	Boundary continues in a straight line to BP76.	23
76		542497	1607743	14°32'32.4"	39°23'40.1"	Boundary continues in a straight line to BP77.	23
77		542848	1607862	14°32'36.2"	39°23'51.8"	Boundary continues in a straight line to BP78.	23
78		543091	1607563	14°32'26.5"	39°23'59.9"	Boundary continues in a straight line to BP79.	23
79		543456	1607159	14°32'13.3"	39°24'12.1"	Boundary continues in a straight line to BP80.	23
80		543594	1606743	14°31'59.8"	39°24'16.7"	Boundary continues in a straight line to BP81.	23
81		543567	1606395	14°31'48.4"	39°24'15.8"	Boundary continues in a straight line to BP82.	23
82		543757	1605931	14°31'33.3"	39°24'22.1"	Boundary continues in a straight line to BP83.	23
83		544165	1605991	14°31'35.3"	39°24'35.7"	Boundary continues in a straight line to BP84.	23
84		544782	1606036	14°31'36.7"	39°24'56.3"	Boundary continues in a straight line to BP85.	23
85		544975	1605998	14°31'35.4"	39°25'02.8"	Boundary continues in a straight line to BP86.	23
86		544890	1605456	14°31'17.8"	39°24'59.9"	Boundary continues in a straight line to BP87.	23
87		544881	1605184	14°31'08.9"	39°24'59.6"	Boundary continues in a straight line to BP88.	23

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Boundary Point	Point	UTM Grid		Latitude/Longitude		Onward Course of Boundary	1:25,000 Sheet
		East	North	North	East		
88		544981	1604979	14°31'02.3"	39°25'02.9"	Boundary continues in a straight line to BP89.	23
89		545071	1604867	14°30'58.6"	39°25'05.9"	Boundary continues in a straight line to BP90.	23
90		545163	1604573	14°30'49.0"	39°25'09.0"	Boundary continues in a straight line to BP91.	23
91		545599	1604717	14°30'53.7"	39°25'23.5"	Boundary continues in a straight line to BP92.	23
92		546708	1604848	14°30'57.9"	39°26'00.6"	Boundary continues in a straight line to BP93.	23
93		548228	1603658	14°30'19.1"	39°26'51.3"	Boundary continues in a straight line to BP94.	23
94		549224	1603811	14°30'24.0"	39°27'24.6"	Boundary continues in a straight line to BP95.	23
95		550285	1603913	14°30'27.2"	39°28'00.0"	Boundary continues in a straight line to BP96.	23
96		550952	1603096	14°30'00.6"	39°28'22.3"	Boundary continues in a straight line to BP97.	23
97		552040	1603343	14°30'08.6"	39°28'58.6"	Boundary continues in a straight line to BP98.	23
98		552740	1603656	14°30'18.7"	39°29'22.0"	Boundary continues in a straight line to BP99.	23
99		553191	1603340	14°30'08.4"	39°29'37.1"	Boundary continues in a straight line to BP100.	23
100		553273	1602765	14°29'49.7"	39°29'39.8"	Boundary continues in a straight line to BP101.	23
101		553334	1602011	14°29'25.1"	39°29'41.8"	Boundary continues in a straight line to BP102.	23
102		553325	1601557	14°29'10.4"	39°29'41.4"	Boundary continues in a straight line to BP103.	23
103		553435	1601320	14°29'02.6"	39°29'45.1"	Boundary continues to middle of main channel of Muna/Berbero Gado by straight-line extension of the line from BP102 to BP103.	23
104		Intersection of Muna/Berbero Gado and straight-line extension from BP103				Boundary continues along middle of main channel of Muna/Berbero Gado to BP105.	23
105	21	Confluence of Muna/Berbero Gado and Enda Dashim				Boundary continues along middle of main channel of Enda Dashim to BP106.	24

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Boundary Point	Point	UTM Grid		Latitude/Longitude		Onward Course of Boundary	1:25,000 Sheet
		East	North	North	East		
106	22	Confluence of Enda Dashim and the tributary flowing from BP107				Boundary continues upstream along middle of main channel of the tributary to BP107.	24
107	24	557018	1610448	14°33'59.5"	39°31'45.5"	Source of the tributary mentioned in BP106. Boundary continues in a straight line to BP108.	24
108	25	557309	1612351	14°35'01.4"	39°31'55.4"	Source of a tributary of Endeli. Boundary continues along middle of main channel of the tributary to BP109.	24
109	26	Confluence of Endeli and the tributary flowing from BP108				Boundary continues along middle of main channel of Endeli/Ragali to BP110.	24
110		Middle of main channel of Ragali nearest BP111				Boundary continues to BP111 by the shortest line.	28
111	30	623635	1607676	14°32'21.3"	40°08'51.1"	Boundary continues in a straight line to BP112.	28
112	31	630815	1590835	14°23'12.0"	40°12'48.0"	Point at which the boundary under the 1900 Treaty reaches the Salt Lake and where the boundary under the 1908 Treaty starts. Boundary continues in a straight line to BP113.	29
113		635777	1593605	14°24'41.3"	40°15'34.2"	Boundary continues in a straight line to BP114.	29
114		648180	1587363	14°21'15.9"	40°22'27.0"	Boundary continues in a straight line to BP115.	30
115		656580	1582220	14°18'26.8"	40°27'06.3"	Boundary continues in a straight line to BP116.	30
116		669700	1578050	14°16'08.4"	40°34'23.2"	Boundary continues in a straight line to BP117.	31
117		682070	1573240	14°13'29.0"	40°41'14.7"	Boundary continues in a straight line to BP118.	31
118		695208	1567549	14°10'20.7"	40°48'31.4"	Boundary continues in a straight line to BP119.	32
119		702195	1563439	14°08'05.2"	40°52'23.3"	Boundary continues in a straight line to BP120.	33
120		709697	1557620	14°04'53.9"	40°56'31.8"	Boundary continues in a straight line to BP121.	33

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Boundary Point	Point	UTM Grid		Latitude/Longitude		Onward Course of Boundary	1:25,000 Sheet
		East	North	North	East		
121		715424	1550343	14°00'55.6"	40°59'40.6"	Boundary continues in a straight line to BP122.	33
122		723722	1536679	13°53'28.8"	41°04'13.1"	Boundary continues in a straight line to BP123.	34
123		728700	1529698	13°49'40.3"	41°06'56.8"	Boundary continues in a straight line to BP124.	35
124		734656	1518798	13°43'44.0"	41°10'11.8"	Boundary continues in a straight line to BP125.	35
125		737647	1515754	13°42'04.1"	41°11'50.4"	Boundary continues in a straight line to BP126.	36
126		743336	1509458	13°38'37.6"	41°14'57.7"	Boundary continues in a straight line to BP127.	36
127		749681	1502409	13°34'46.4"	41°18'26.5"	Boundary continues in a straight line to BP128.	36
128		759980	1493976	13°30'08.9"	41°24'06.2"	Boundary continues in a straight line to BP129.	37
129		764903	1492478	13°29'18.6"	41°26'49.3"	Boundary continues in a straight line to BP130.	37
130		771157	1487947	13°26'49.2"	41°30'15.6"	Boundary continues in a straight line to BP131.	38
131		786337	1481301	13°23'07.9"	41°38'37.6"	Boundary continues in a straight line to BP132.	38
132		788954	1474505	13°19'26.0"	41°40'02.1"	Boundary continues in a straight line to BP133.	39
133		794837	1469208	13°16'31.7"	41°43'15.5"	Boundary continues in a straight line to BP134.	39
134		796468	1464926	13°14'11.9"	41°44'08.1"	Boundary continues in a straight line to BP135.	39
135		805190	1456707	13°09'41.5"	41°48'54.5"	Boundary continues in a straight line to BP136.	40
136		813540	1447044	13°04'24.3"	41°53'27.9"	Boundary continues in a straight line to BP137.	40
137		817638	1440008	13°00'34.0"	41°55'41.1"	Boundary continues in a straight line to BP138.	41
138		821900	1430658	12°55'28.4"	41°57'58.8"	Boundary continues in a straight line to BP139.	41
139		828570	1424411	12°52'02.8"	42°01'37.4"	Boundary continues in a straight line to BP140.	42
140		831844	1417116	12°48'04.4"	42°03'23.0"	Boundary continues in a straight line to BP141.	42

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8
Boundary Point	Point	UTM Grid		Latitude/Longitude		Onward Course of Boundary	1:25,000 Sheet
		East	North	North	East		
141		840086	1414588	12°46'39.0"	42°07'55.0"	Boundary continues in a straight line to BP142.	43
142		846722	1413740	12°46'08.8"	42°11'34.4"	Boundary continues in a straight line to BP143.	43
143		849493	1413319	12°45'54.0"	42°13'06.0"	Boundary continues in a straight line to BP144.	43
144	40	856238	1399036	12°38'07.1"	42°16'43.4"	Between the two checkpoints of Eritrea and Ethiopia at Bure. Boundary continues in a straight line to BP145.	44
145		861776	1391941	12°34'14.2"	42°19'43.7"	Boundary continues in a straight line to BP146.	44
146	41	870133	1380752	12°28'07.1"	42°24'15.4"	Summit of Mt. Musa'ali, Primary Monument No. 90 of the Ethiopia-Djibouti boundary.	45

COMMENTS

A. The Western Terminus

6. This Point is described in paragraph 8.1, A(1) of the Dispositif of the Delimitation Decision as follows: “The boundary begins at the tripoint between Eritrea, Ethiopia and the Sudan and then runs into the centre of the Setit opposite that point (Point 1)”. This determination has not been questioned by either Party.
7. In investigating the matter, the Commission’s experts were not able to see any previously established monument marking the tripoint between Eritrea, Ethiopia and the Sudan. In these circumstances, the Commission adheres to the description of Point 1 (designated as Point 1 in the Delimitation Decision) and which it now designates as BP1 (see Map No. 1).

B. The Line from the Setit to the Mareb (from Point 6 to Point 9 in the Delimitation Decision)

8. The Delimitation Decision determined that a straight line runs from the Setit starting at Point 6 (the confluence of the Setit and the Tomsa) to Point 9 (the confluence of the Mareb and the Mai Ambessa). These Points are now joined by a straight line drawn between them on land. The only changes that may occur in the future are the minor ones at the northern and southern termini of that line if there are movements in the middle of the main channels of the two rivers. Point 6 is now BP2 and its fixed point on land is BP3 (see Map No. 8). Point 9 is now BP5 and its fixed point on land is BP4 (see Map No. 13).

C. Tserona and Zalambessa

9. The Commission directed the demarcation team to take full account of the proposed boundaries in the Parties’ comments on Tserona and Zalambessa.² As similar considerations affect the demarcation line around both places, these two items are dealt with together.

² Demarcation Instructions, 22 August 2003, p. 1, para. 1.

1. Tserona

10. The Dispositif of the Delimitation Decision, paragraph 8.1, B. (iv), provides in part that the boundary should “leave Tserona and its environs to Eritrea. The boundary runs round Tserona at a distance of approximately one kilometre from its current outer edge, in a manner to be determined more precisely during the demarcation”.
11. The Commission has considered the submissions of the Parties and has noted in particular the comment by Ethiopia that the “outer edge and environs of Tserona should be determined using precisely the same principles as are used for the determination” of the outer edge and environs of Zalambessa³ (see paragraph 12 below). Eritrea expressed the same wish.⁴ The Commission has identified these environs by a line that leaves the Belesa B at BP8 and proceeds by a series of straight lines to BP26 where it returns to the Belesa B (see Map No. 21). BP8 is located at the intersection of the middle of the main channel of the Belesa B and the straight line extension of the line from BP10 to BP9. BP26 is located at the intersection of the middle of the main channel of the Belesa B and the straight line extension of the line from BP24 to BP25. Thence, the boundary follows the Belesa B southwards to BP27 where it leaves that river to run south-westwards towards BP28 (see Map No. 22).

2. Zalambessa

12. The Commission invited Eritrea to comment on Ethiopia’s proposed boundary for the town of Zalambessa and to submit its own proposal. Ethiopia identified a boundary which was influenced by physical obstacles to the use of certain lands around the environs of Zalambessa. Eritrea asked that whatever standard or procedures applied to Zalambessa should also be applied to Tserona.⁵ Eritrea also submitted that “Any

³ Submission by the Federal Democratic Republic of Ethiopia, 24 January 2003, Comments Pursuant to the December 2000 Agreement, the Commission’s Rules of Procedure, the Commission’s Demarcation Directions and Instructions provided at the Boundary Commission’s Meeting on 6 and 7 November 2002, p. 65, para. 1.181.

⁴ The State of Eritrea’s Comments on the Preliminary Orthophoto Maps; Boundaries within Rivers; The Boundary at Tserona, Zalambessa and Bure; and the Eastern Sector, 24 January 2003, p. 14.

⁵ *Id.*

alterations should, additionally, be balanced so that gains to one party are equalled by gains to the other.”⁶ There is a close similarity between the Eritrean and Ethiopian proposals for the boundary around Zalambessa except that the Ethiopian proposal also includes the plateau land to the east.

13. In demarcating the boundary around Zalambessa, the Commission has borne in mind the views of the Parties, the nature of its environs and the extent of manifest impracticability in parts of the area. The boundary therefore continues from BP41 through BP42 to BP103 where it meets the Muna/Berbero Gado at BP104 (see Map No. 23).

D. The boundary between Points 15 and 16

14. Paragraph 8.1. B.(v) of the Dispositif provides in part that the boundary continues to the source, at Point 15, of an unnamed tributary: “From that point it crosses the watershed by a straight line to the source of a tributary of the Belesa A at Point 16”
15. The Commission has determined that “References to the headwaters or sources of rivers or streams mean the highest point at which the flow of water can be identified or, if the stream bed has become permanently dry, then the highest point at which the stream bed can be identified”.⁷ Points 15 and 16 are now identified as BP28 and BP29 (see Map No. 22). The boundary runs as a straight line between these two points. If either of these points is found not to lie exactly at the source of the relevant tributary, it shall nonetheless be treated as if it were the source. If necessary, this point shall be linked to the nearest position of the relevant tributary by the shortest line.

⁶ The State of Eritrea’s Comments on the Eritrean-Ethiopia Boundary in the Proximity of Tserona and Zalambessa and on the Specific Provisions of Ethiopia’s Comments of 24 January 2003, 15 April 2003, p. 5.

⁷ Demarcation Directions, 8 July 2002 (as revised in November 2002, March and July 2003), para. 14D.

E. The Eritrean claim line (Points 17 to 18 of the Dispositif)

16. Paragraph 8.1. B.(v) of the Dispositif provides in part that, from Point 17, the boundary “continues up the Belesa A to follow the Eritrean claim line to Point 18 so as to leave Fort Cadorna and its environs within Eritrea. The Eritrean claim line is more precisely depicted on the 1:100,000 Soviet map referred to by Eritrea in its final submission on 20 December 2001. Point 18 lies 100 metres west of the centre of the road running from Adigrat to Zalambessa.”
17. The Eritrean claim line is now identified as BP30 to BP41. Regarding BPs 32 and 33, if either of these points is found not to lie exactly at the source of the relevant tributary, it shall nonetheless be treated as if it were the source. If necessary, this point shall be linked to the nearest position of the relevant tributary by the shortest line.
18. In its Demarcation Instructions of 22 August 2003, the Commission instructed that pillar sites should be “located within approximately 200 metres of the coordinates extracted from the Soviet map”.⁸ The positions of BPs 35-41 (see Maps Nos. 22 and 23) have been determined on this basis.

F. Boundary between Points 24 & 25

19. See paragraph 15 above. Points 24 and 25 are now marked as the highest points at which the streambed can be identified. The boundary runs as a straight line between them. These points are now BPs 107 and 108 (see Map No. 24). If either of these points is found not to lie exactly at the source of the relevant tributary it shall nonetheless be treated as if it were the source. If necessary, this point shall be linked to the nearest position of the relevant tributary by the shortest line.

⁸ Demarcation Instructions, 22 August 2003, p. 2, para. 11.

G. Points 29, 30 and 31

20. The Dispositif provides in Paragraph 8.1. B. (xii) that, “From Point 28, the line continues down the Muna/Endeli/Ragali to Point 29, northwest of the Salt Lake, and thence by straight lines to Points 30 and 31, at which last point this sector [i.e. the Central Sector] of the boundary terminates.”
21. The Commission has found that maintenance of Point 29 as a fixed point could lead in the event of a change in the main stream of the river to depriving one or other Party of access to the river’s water. The Commission has therefore decided that Point 29 must be abandoned and that, consistent with the principles enunciated in the Delimitation Decision, the course of the boundary in this area shall follow the middle of the main channel of the Ragali River until it reaches a point nearest to BP111 (Point 30) which is the point at which equal access to the river’s water is no longer significant. The middle of the main channel of the Ragali is linked to BP111 by the shortest line. A straight line is then drawn south-eastwards to BP112 (Point 31).
22. BP112 is where the Ragali River reaches the Salt Lake. Because of ground conditions, it has not been possible to determine the exact location of this Point either from field inspection carried out during pillar site assessment of the Eastern Sector or from the imagery of the aerial photography. It has therefore been necessary to estimate where the Ragali River reaches the Salt Lake and to identify BP112 accordingly.

H. The Eastern Sector

23. The Delimitation Decision described this boundary as a series of straight lines connecting Point 31 to Point 41 at the boundary with Djibouti. This line was to serve as the basis for the demarcation, leaving open the possibility at that stage of “adapting it to the nature and variation of the terrain” as contemplated in Article II of the 1908 Treaty.⁹ Demarcation Instructions for the identification of pillar sites in this Sector included the requirement that maintenance of an area balance between the lines

⁹ Delimitation Decision, 13 April 2002, p. 93, para. 6.34.

joining the Points finally chosen compared to the original delimitation line of 13 April 2002 should be in the order of three percent. These Instructions also required the determination of the mid-point between the Eritrean and Ethiopian customs posts at Bure and the reinstatement of the original pillar emplacement on Musa'ali at Point 41.

24. The Commission's field staff was able to undertake the selection of all pillar sites in the Eastern Sector in early 2003. The sites chosen were based, where possible, on the submissions of the Parties in their 24 January 2003 memoranda and were assessed according to the requirements set out by the Commission in the Demarcation Instructions of 21 March 2003. In May 2003, the Commission submitted an initial report of this work to the Parties for comment. The Parties' comments were received on 11 June 2003 and indicated acceptance of the proposals in principle. The Demarcation Team, after considering these comments, made further adjustments, and presented a final report to the Commission in August 2003. This report set out the coordinates as surveyed of all boundary positions in the Eastern Sector and achieved an almost exact area balance. The position of the mid-point between the Eritrean and Ethiopian customs posts at Bure was identified. At Musa'ali, the remains of the old monument were located and its position was fixed.
25. The boundary in the Eastern Sector is therefore now defined as passing through the boundary points from BP112 to BP146.

I. The boundary in rivers

26. The Commission has determined in the Demarcation Directions that, "Unless the Commission should decide otherwise after receiving a request from a Party that the boundary in a river requires demarcation, the Commission considers that the identification of a river as a boundary should normally suffice without actual demarcation therein, save as regards the identification of confluences, turning points that may give rise to doubts, and headwaters or sources."¹⁰ The Demarcation Instructions provide that the river "boundary is in the middle of the main channel (the

¹⁰ Demarcation Directions, July 2003 revision, para. 14B.

channel of greatest volume) and will move in accordance with any change in position of the middle of the main channel.”¹¹

27. The Demarcation Instructions further provide that “islands shall fall within the territory of either Party according to their location in relation to the main channel”.¹² Where islands are identified by the Parties in their comments, “the demarcation team shall determine by appropriate methods the position in relation to the main channel of those islands”.¹³ Although there were general comments from the Parties on some islands, these comments did not provide substantial or specific evidence requiring a variation from the Commission’s delimitation formula for boundaries in rivers; accordingly, all islands are distributed in accordance with this formula.

¹¹ Demarcation Instructions, 22 August 2003, p. 3, para. 20 (b).

¹² *Ibid.*, para. 20 (d).

¹³ *Ibid.*, para. 21.