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**Atlas of Maritime Boundary Delimitation of the Kingdom of Saudi Arabia
A Study in Political Geography**

Faraj Mobarak Jam'an Al-Muwaled

**Thesis submitted for the Degree of Doctor of Philosophy
in Social Science in the Department of Geography,
Faculty of Social Sciences, University of Durham, U.K.**

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July 1993



- 4 FEB 1994

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Chapter 2 Keys

THE MATCHING PAIRS OF ORIGINAL AND PLAIN MAPS

Original Maps		Plain Maps "Thesis Figures"
Ports Authority Numbers	Thesis Figures	
12	2.10	2.28
13	2.11	2.29
14	2.12	2.30
15	2.13	2.31
16	2.15	2.32
17	2.16	2.33
18	2.17	2.34
19	2.18	2.35
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21	2.20	2.37
22	2.21	2.38
23	2.22	2.39
24	2.23	2.40
25	2.24	2.41
26	2.25	2.42
27	2.26	2.43

Chapter 2 Keys

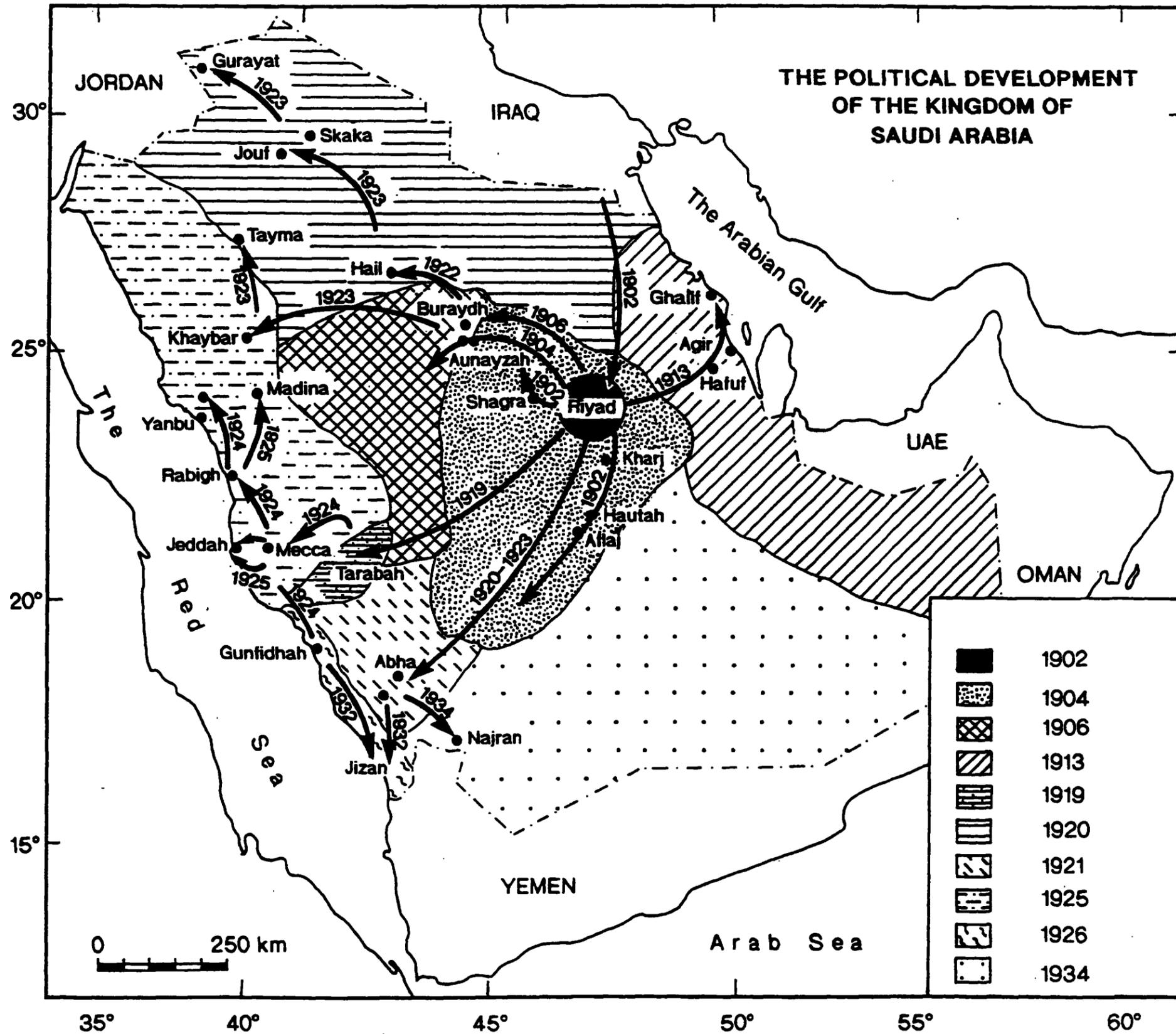
Original Maps (Figures 10 to 26)	Plain Maps (Figures 28 to 47)
Saudi 1958 SB*	Theoretical SB Based on the 1982 Convention
The 12 nm TS	The 12 nm TS
	Saudi 1958 SB*
	The 12 nm TS

* Saudi Arabia 1958 Straight Baselines

ABBREVIATIONS

SB	Straight Baselines
TS	Territorial Sea Limits
L.H.	Lighthouses
	Reef

Figure 1.1



Adapted from Bindagji, 1978

Figure 2.1

a) Shi'b Al-Kabir at High Tide



b) A close view to Shi'b Al-Kabir



The pictures taken by the author in a field work visit

c) Another close view to the Shi'b



d) The eastern part of the Shi'b



Figure 2.2

THE WATERS OF THE BAYS ALONG THE COAST
OF THE KINGDOM OF SAUDI ARABIA

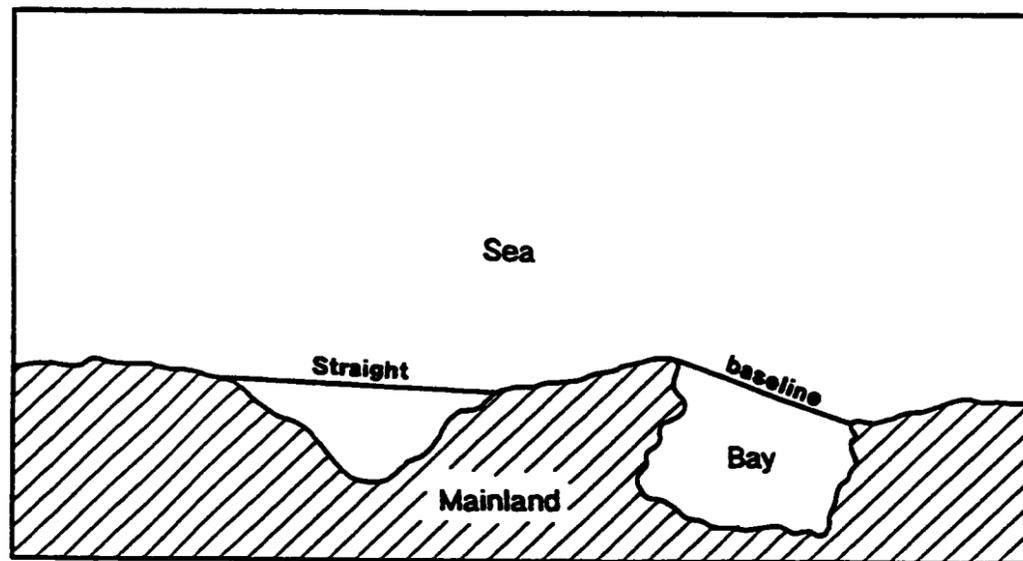


Figure 2.3(a)

THE WATERS ABOVE AND LANDWARD OF ANY SHOAL
NOT MORE THAN 12 NM FROM THE MAINLAND

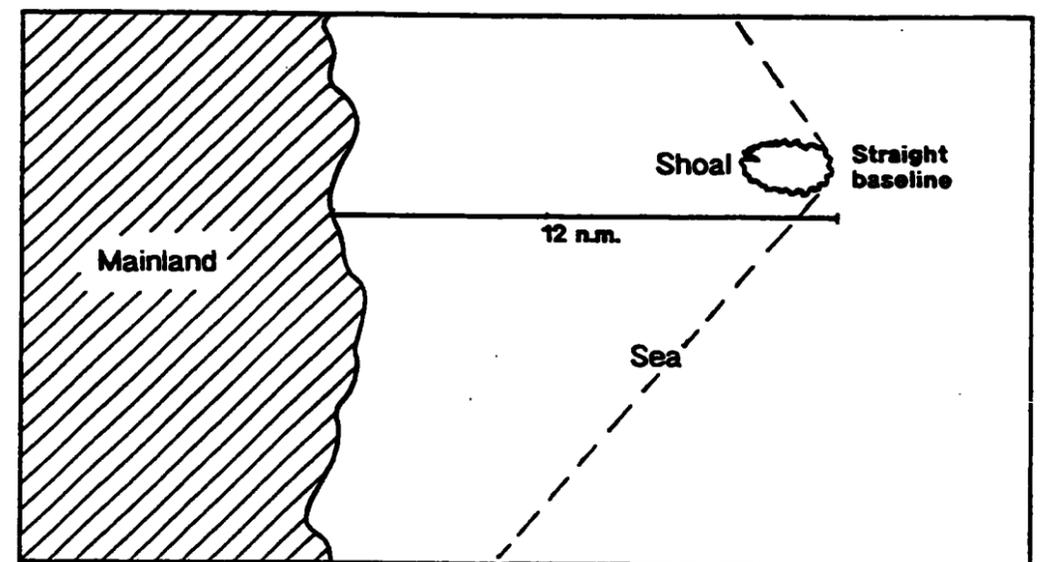


Figure 2.3(b)

THE WATERS ABOVE AND LANDWARD FROM ANY SHOAL
NOT MORE THAN 12 NM FROM A SAUDI ISLAND

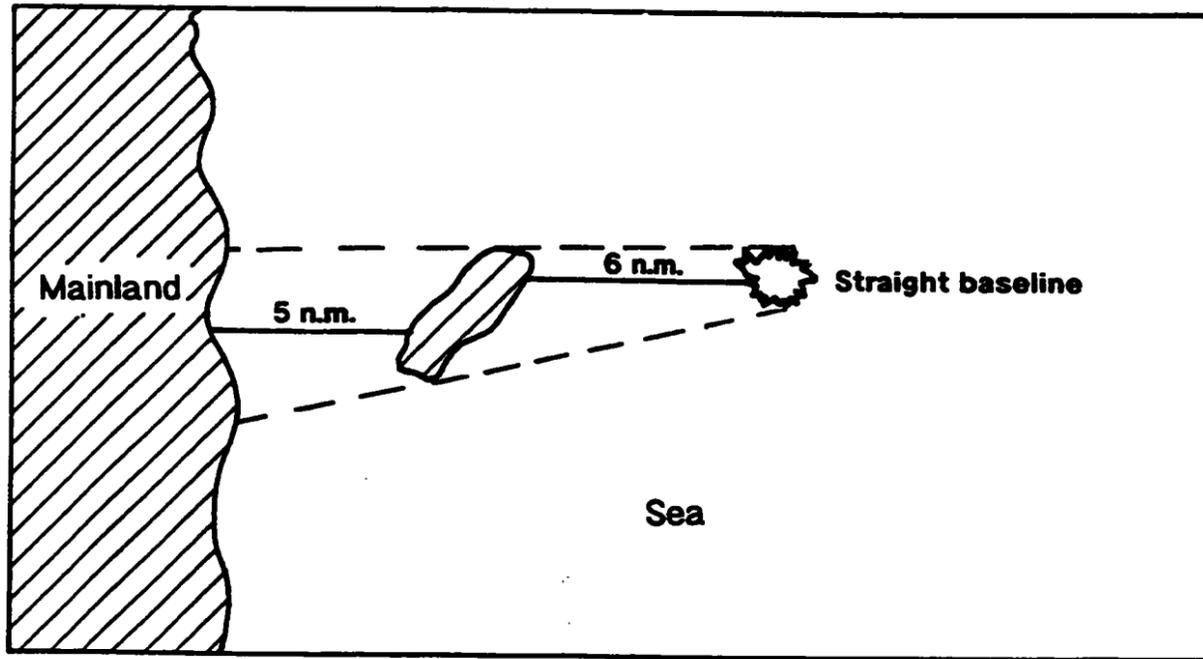


Figure 2.4

PORT CONFRONTS THE OPEN SEA: LINES SHOWN ALONG THE
SEAWARD SIDE OF THE OUTERMOST WORKS OF THE PORT

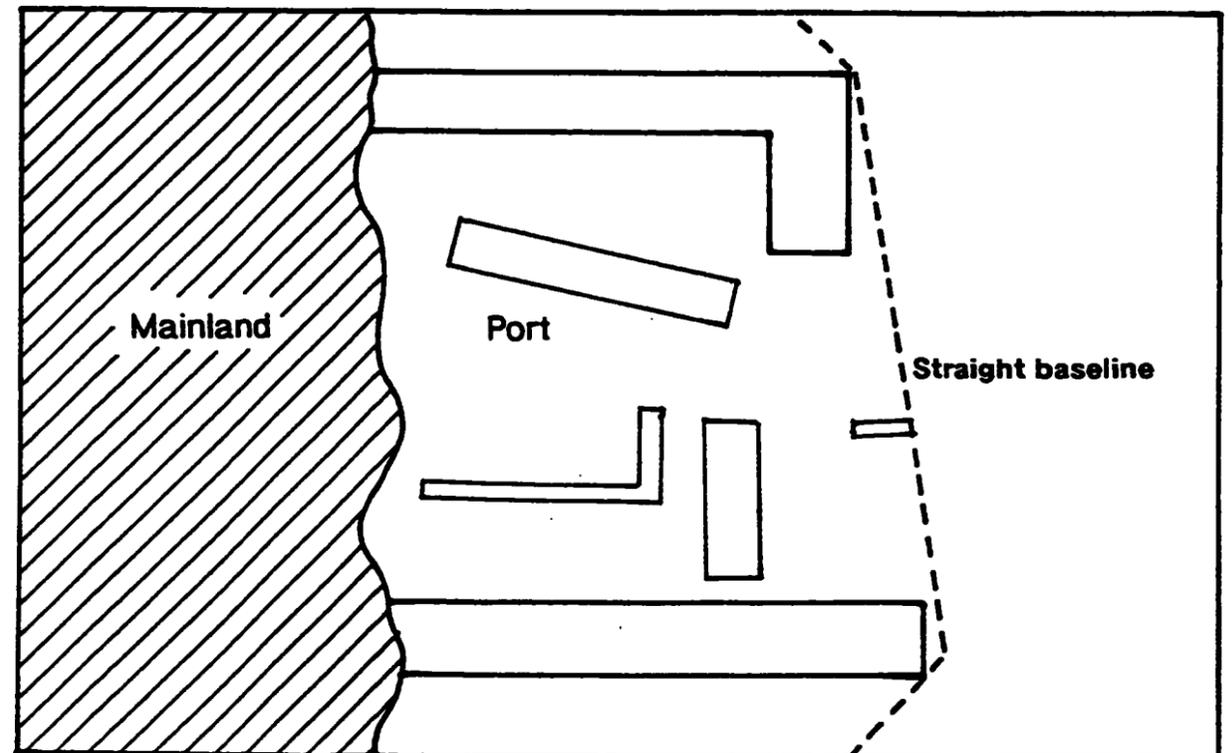


Figure 2.5

THE WATERS BETWEEN THE MAINLAND AND A SAUDI ISLAND NOT MORE THAN 12 NM FROM THE MAINLAND

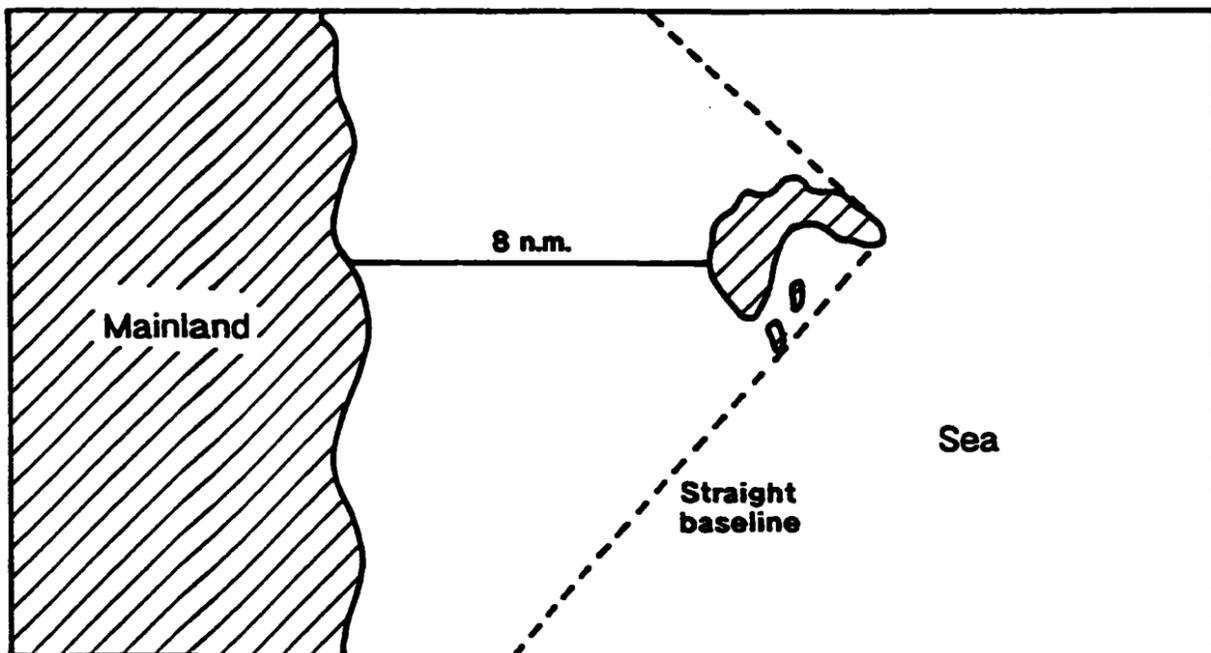


Figure 2.6

GROUP OF ISLANDS CONNECTED BY LINES NOT MORE THAN 12 NM LONG AND THE NEAREST ISLAND IS NOT MORE THAN 12 NM FROM THE MAINLAND

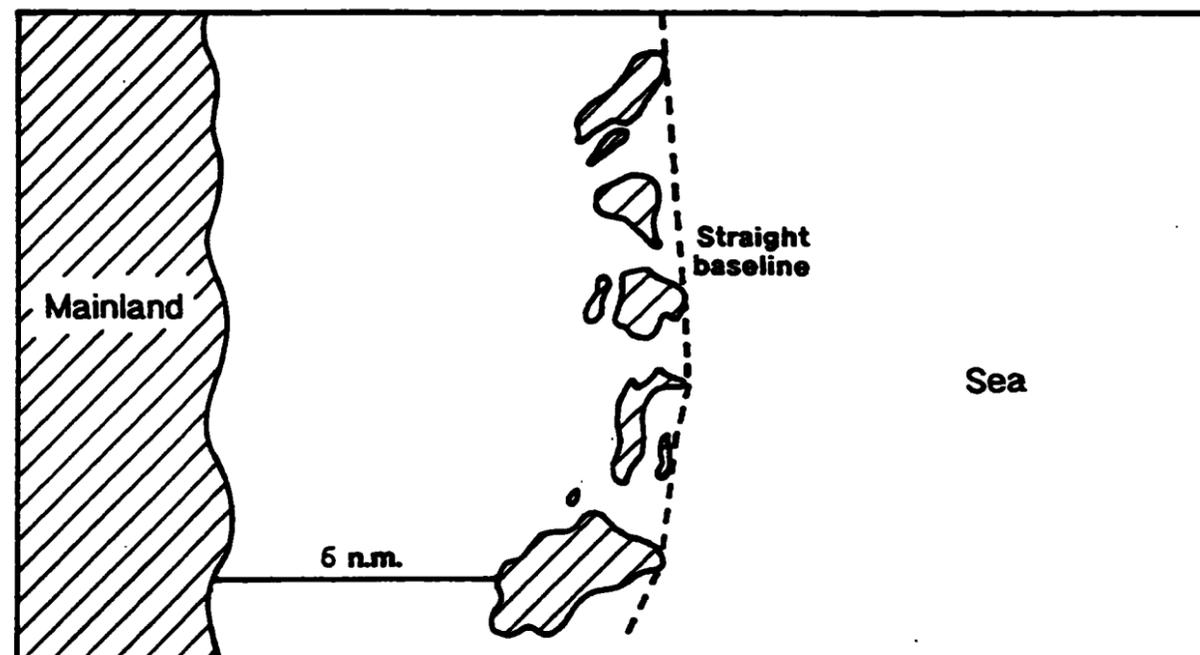


Figure 2.7

THE WATERS BETWEEN SAUDI ISLANDS
NOT FURTHER APART THAN 12 NM

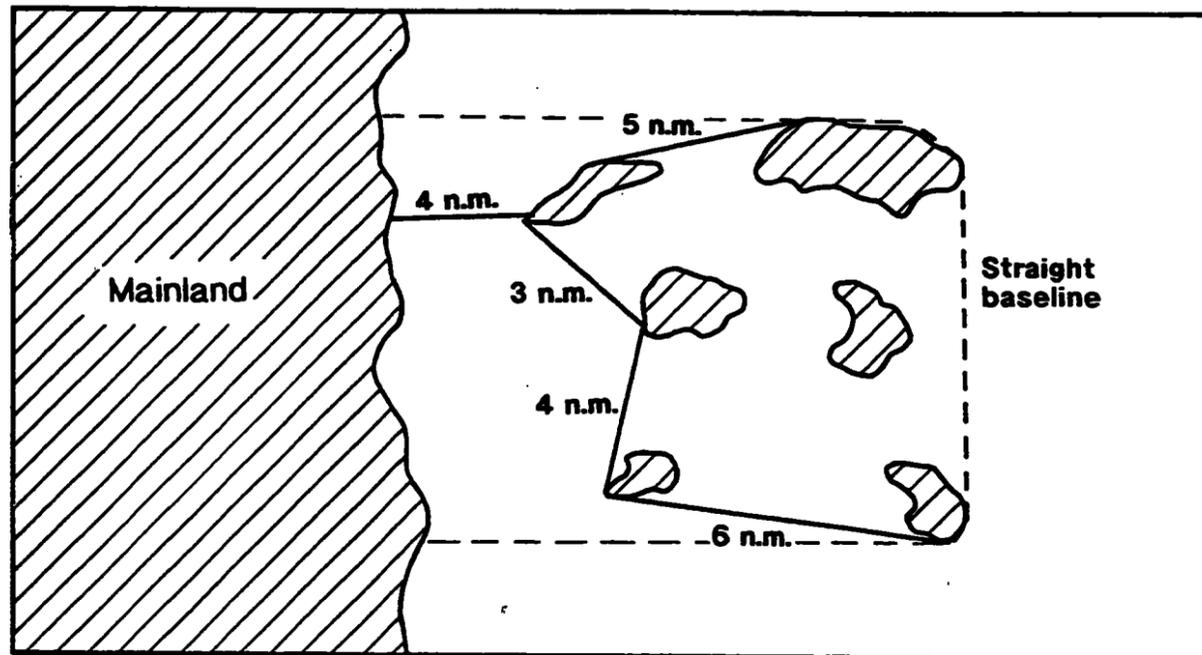


Figure 2.8

GROUP OF ISLANDS CONNECTED BY
LINES NOT MORE THAN 12 NM LONG

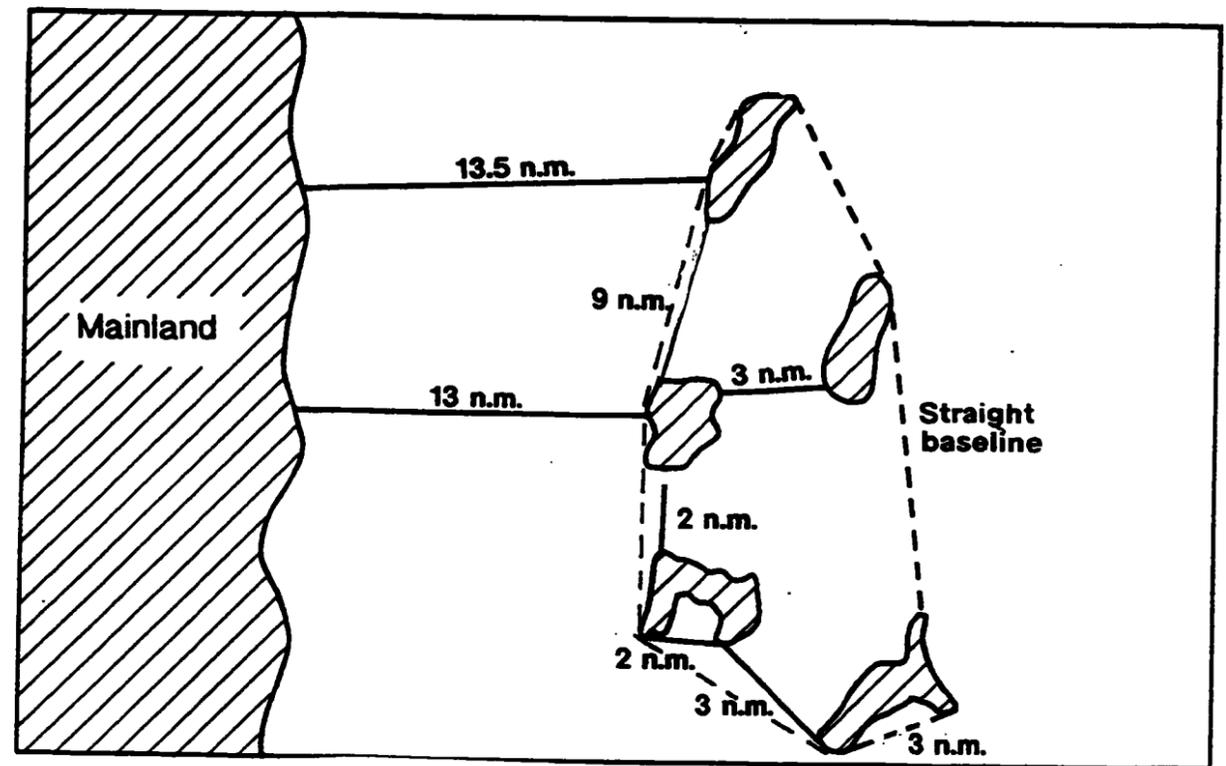


Figure 2.9

AN AREA OF HIGH SEA WHOLLY SURROUNDED BY THE TERRITORIAL SEA WHICH EXTENDS NOT MORE THAN 12 NM IN ANY DIRECTION

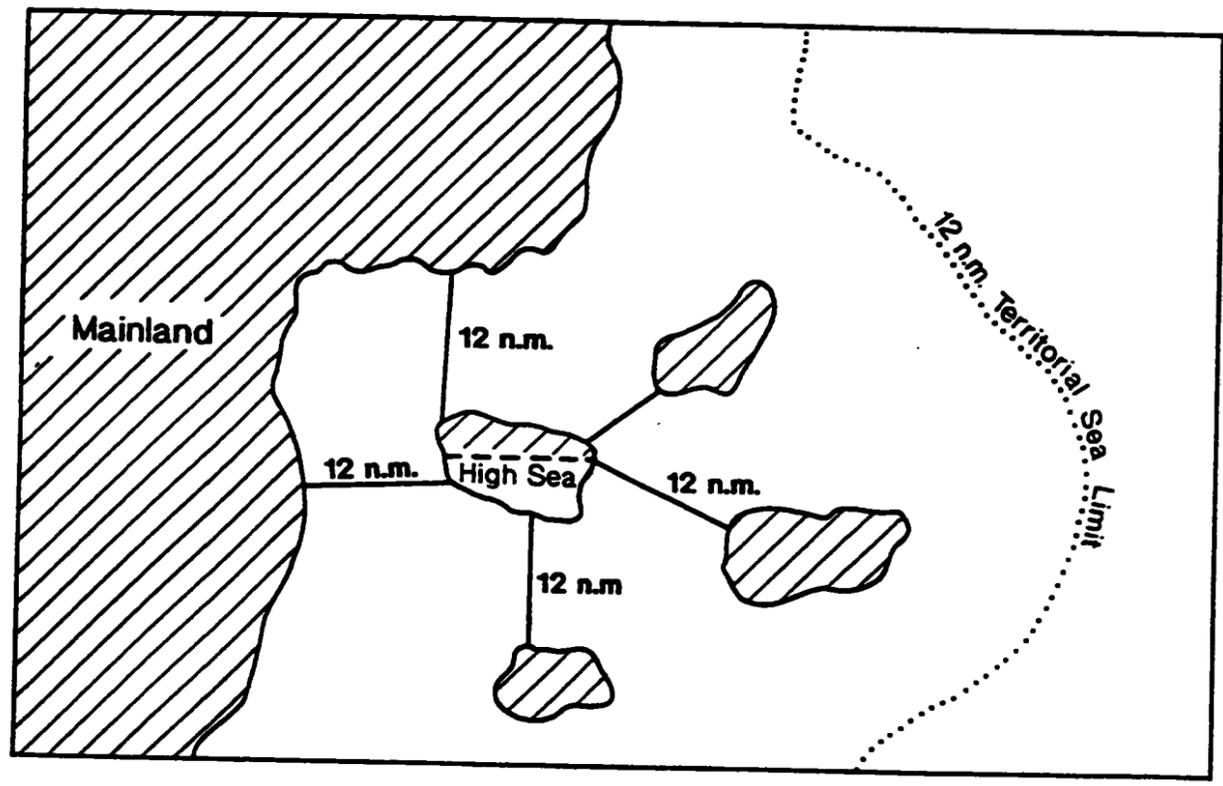


Figure 2.10

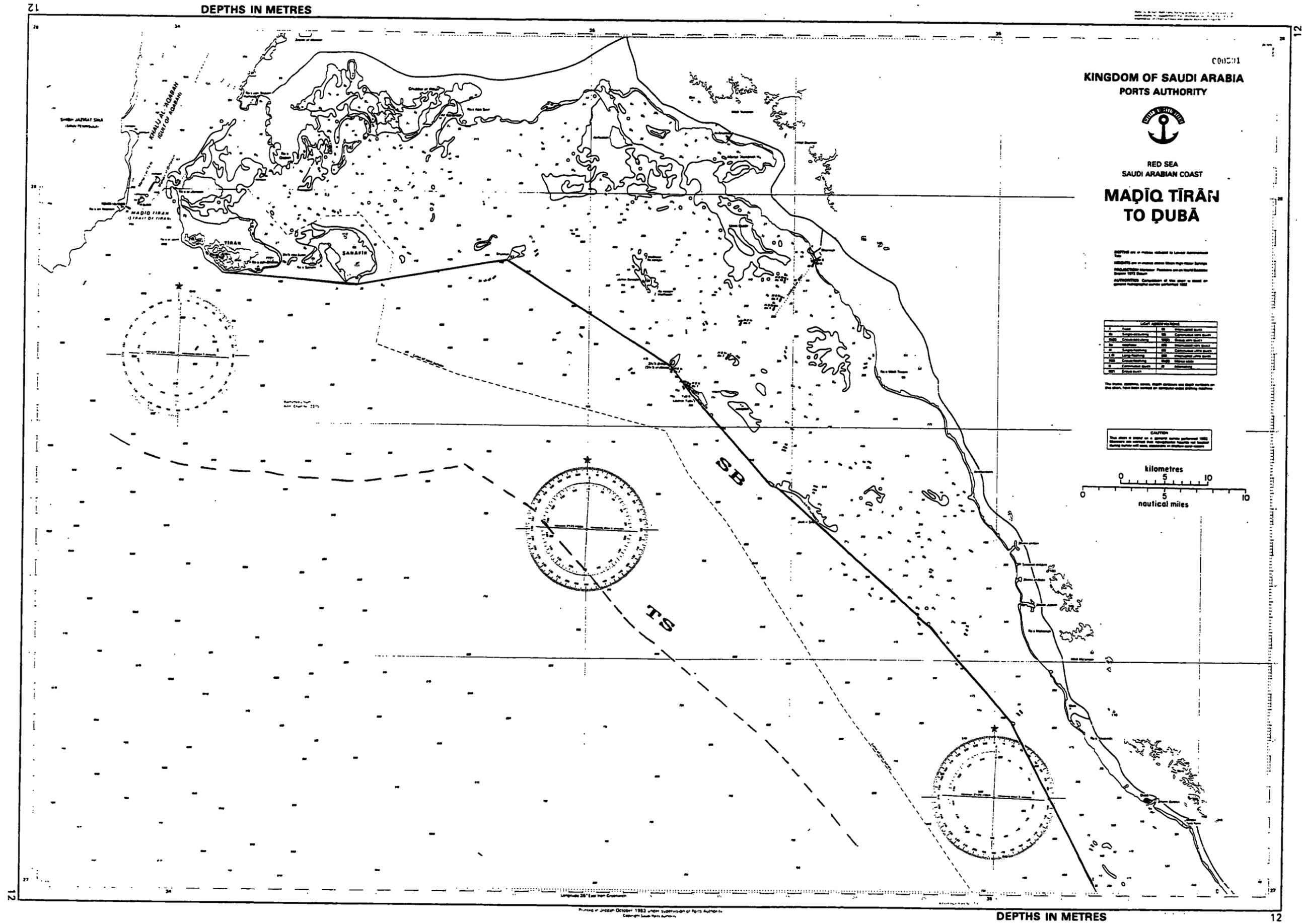


Figure 2.11

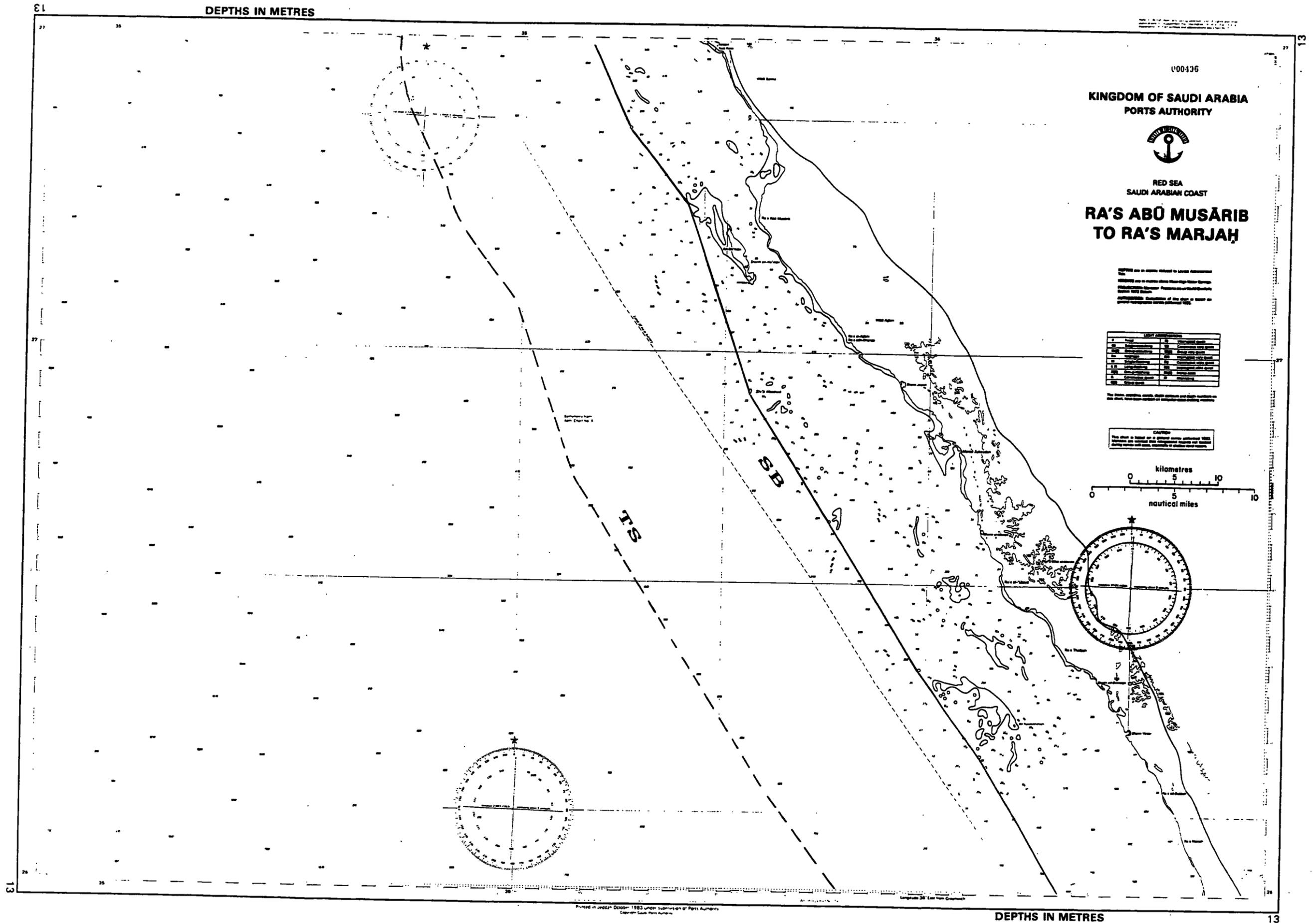
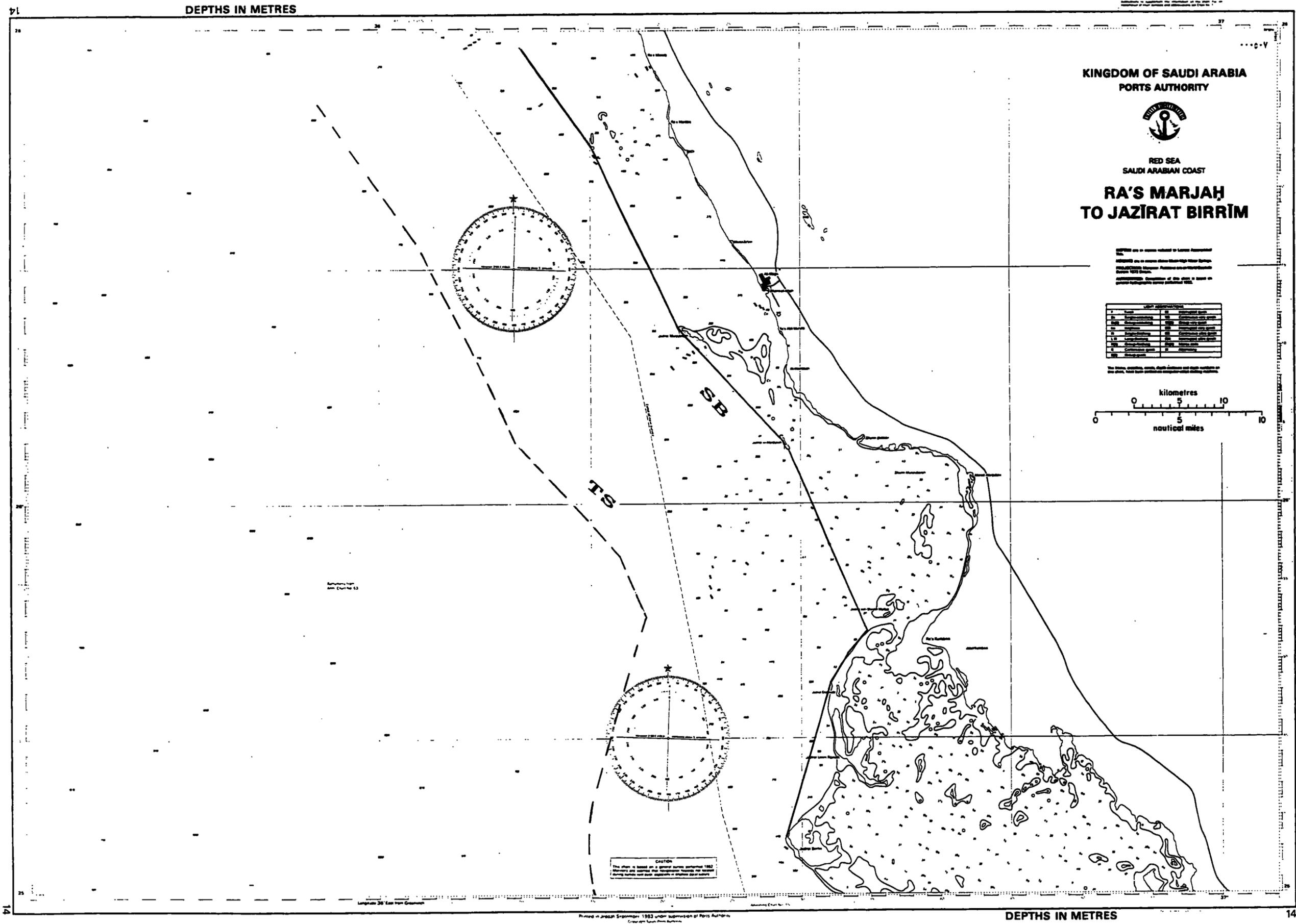


Figure 2.12



DEPTHS IN METRES

KINGDOM OF SAUDI ARABIA
PORTS AUTHORITY

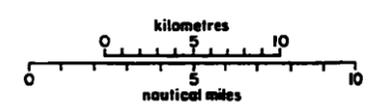


RED SEA
SAUDI ARABIAN COAST

**RA'S MARJAḤ
TO JAZĪRAT BIRRĪM**

Scale of 1:50,000
Vertical Datum: Mean Sea Level
Horizontal Datum: UTM
Projection: UTM
Spheroid: Everest
Datum: Indian
Units: Metres

LIGHT CHARACTERISTICS	
1	Flashing white
2	Flashing red
3	Flashing green
4	Flashing yellow
5	Flashing blue
6	Flashing purple
7	Flashing pink
8	Flashing black
9	Flashing grey
10	Flashing brown
11	Flashing orange
12	Flashing cyan
13	Flashing magenta
14	Flashing violet
15	Flashing indigo
16	Flashing ultraviolet
17	Flashing infrared
18	Flashing ultraviolet and infrared
19	Flashing ultraviolet and red
20	Flashing ultraviolet and green
21	Flashing ultraviolet and blue
22	Flashing ultraviolet and purple
23	Flashing ultraviolet and pink
24	Flashing ultraviolet and black
25	Flashing ultraviolet and grey
26	Flashing ultraviolet and brown
27	Flashing ultraviolet and orange
28	Flashing ultraviolet and cyan
29	Flashing ultraviolet and magenta
30	Flashing ultraviolet and violet
31	Flashing ultraviolet and indigo
32	Flashing ultraviolet and ultraviolet



CAUTION
This chart is based on a general survey conducted in 1982.
Bearings and distances are approximate. Bearings are subject
to magnetic variation and should be corrected to magnetic.

DEPTHS IN METRES

Figure 2.13

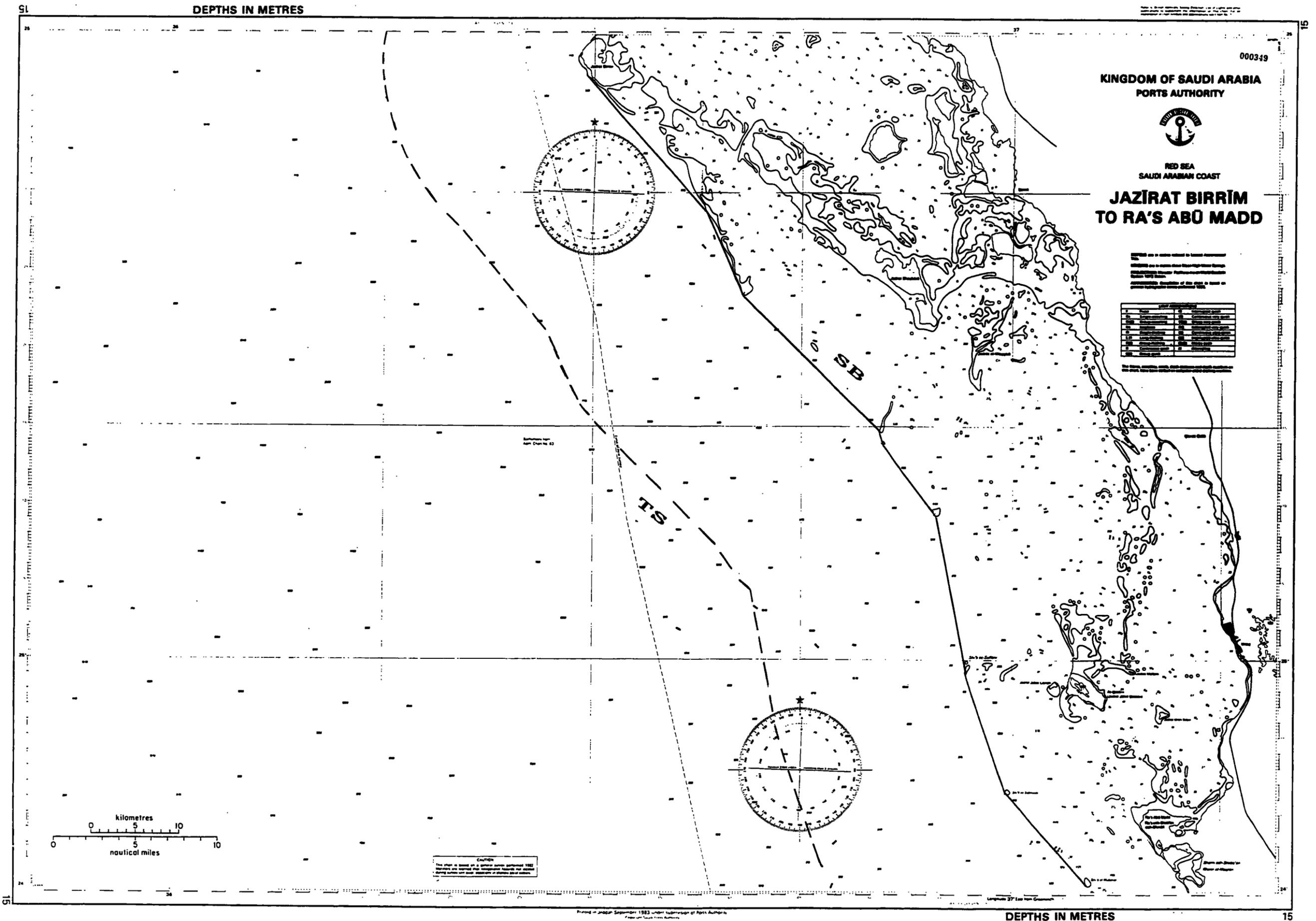
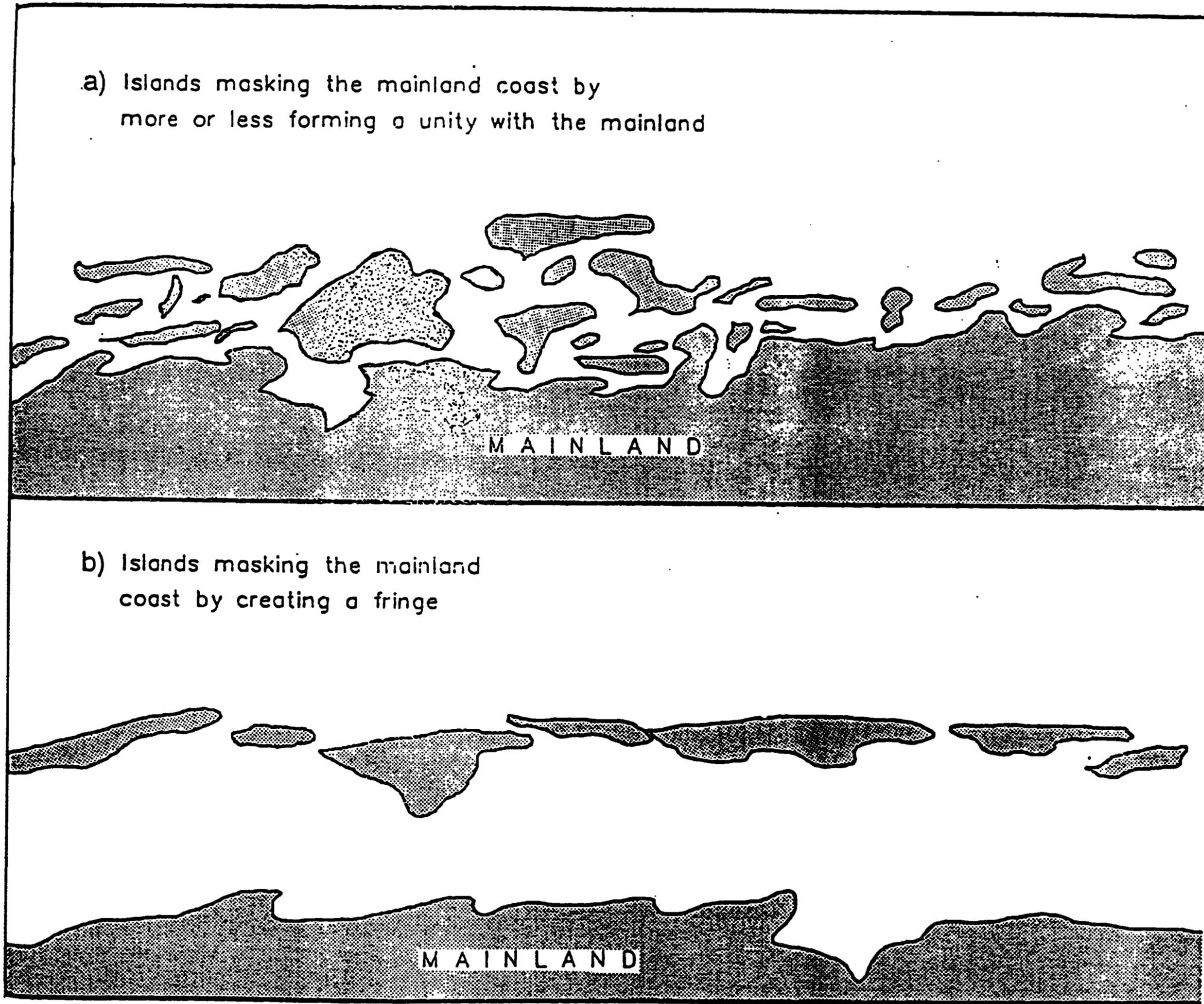


Figure 2.14



Source: US Department of State, 1987

Figure 2.15

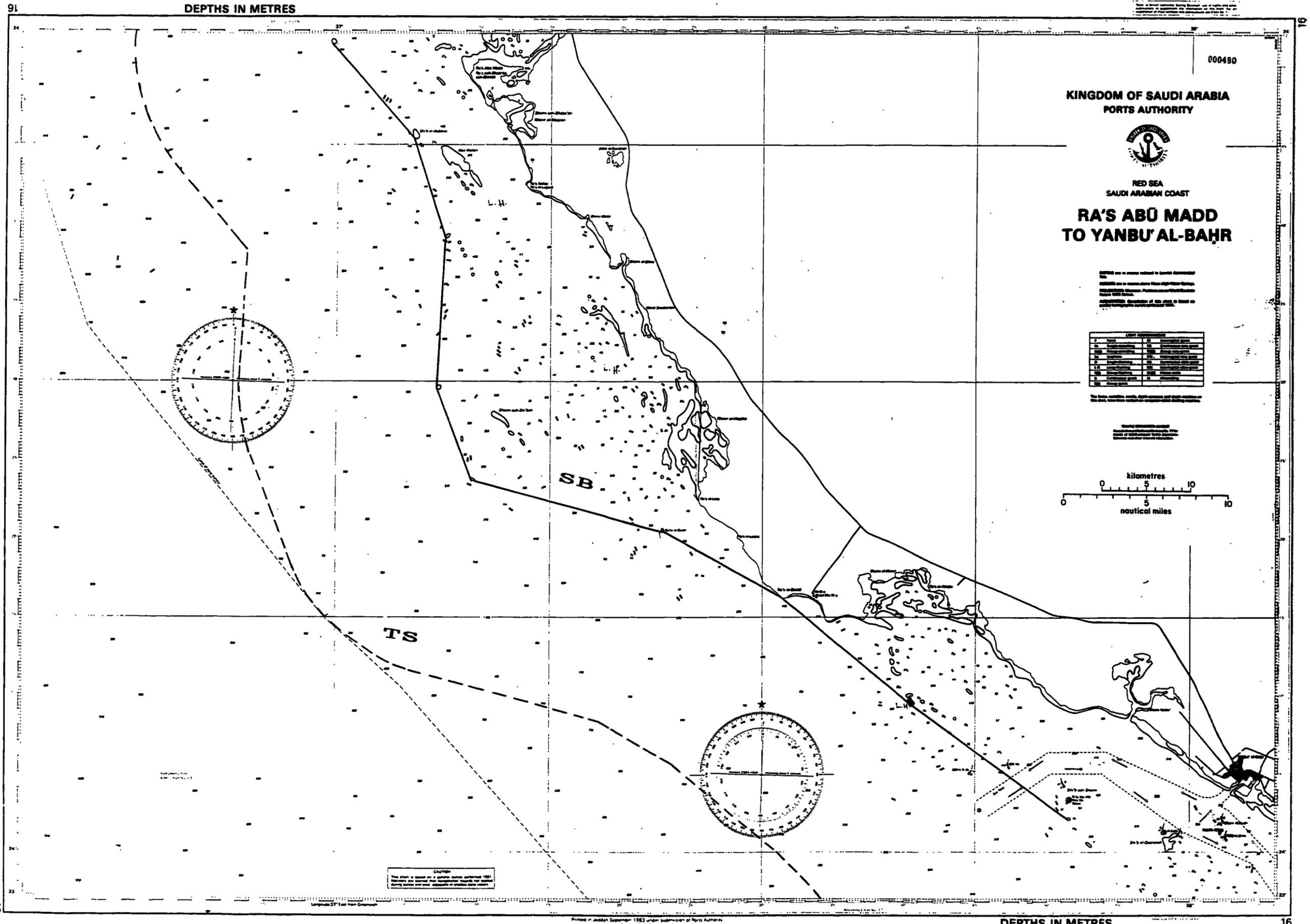


Figure 2.17

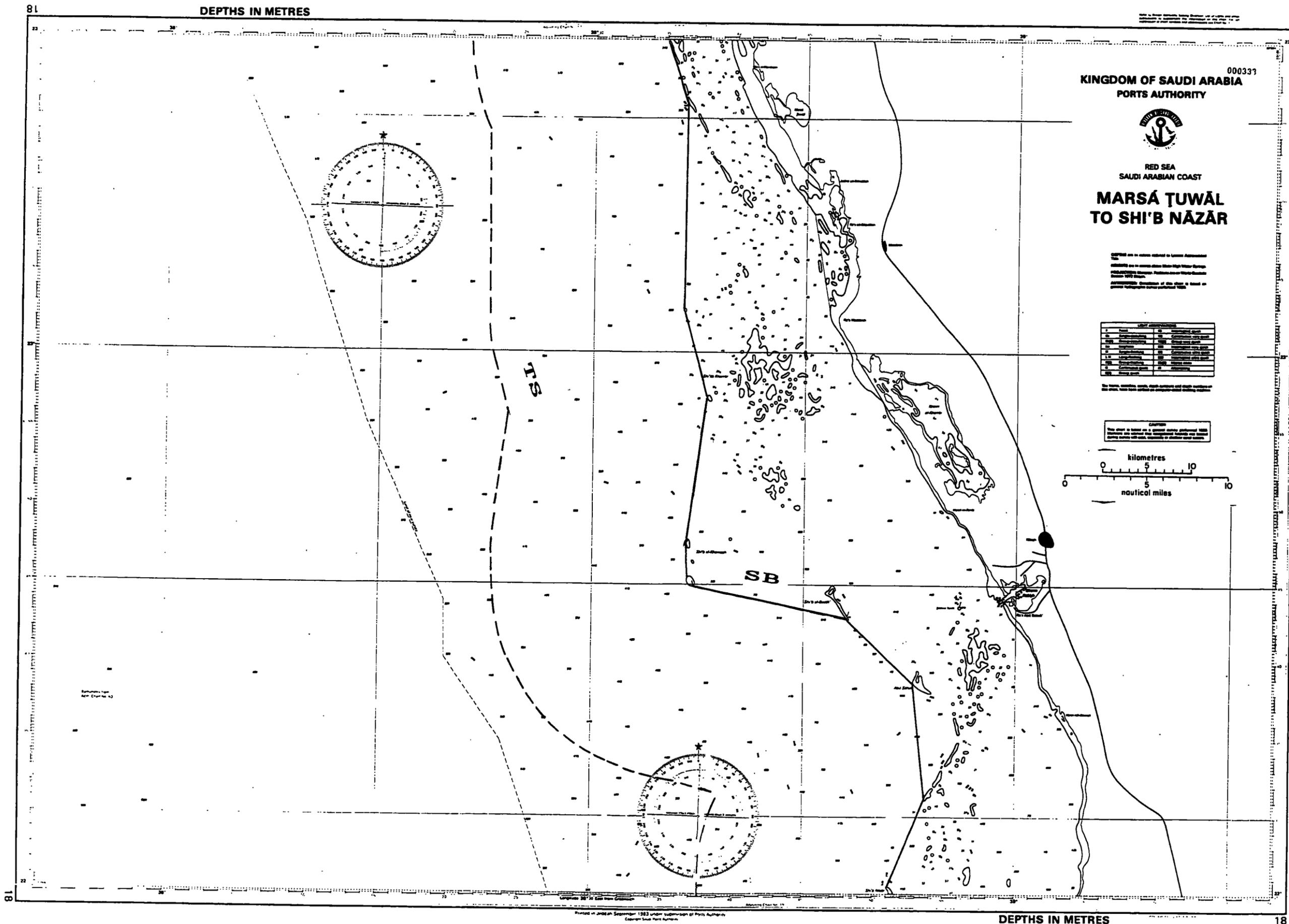


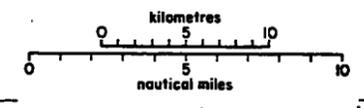
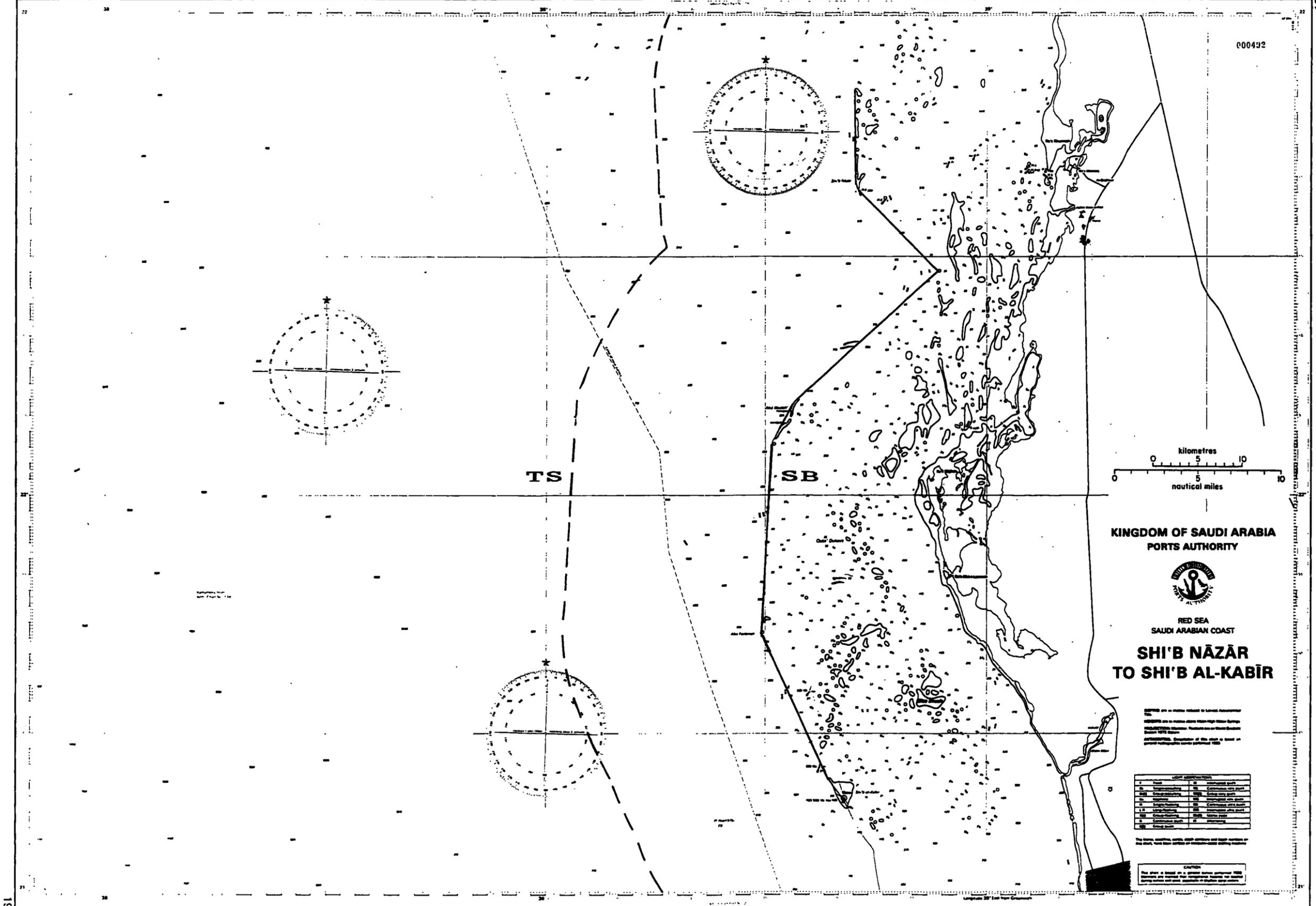
Figure 2.18

61

DEPTHS IN METRES

000492

19



KINGDOM OF SAUDI ARABIA
PORTS AUTHORITY



RED SEA
SAUDI ARABIAN COAST

**SHI'B NĀZĀR
TO SHI'B AL-KABĪR**

SHI'B NĀZĀR and SHI'B AL-KABĪR are in Saudi Arabia. The chart is based on a general survey performed in 1980. The chart is based on a general survey performed in 1980. The chart is based on a general survey performed in 1980.

LOCAL IDENTIFICATION	
1	Shi'b Nāzār
2	Shi'b al-Kabīr
3	Shi'b al-Ma'adīn
4	Shi'b al-Ma'adīn
5	Shi'b al-Ma'adīn
6	Shi'b al-Ma'adīn
7	Shi'b al-Ma'adīn
8	Shi'b al-Ma'adīn
9	Shi'b al-Ma'adīn
10	Shi'b al-Ma'adīn

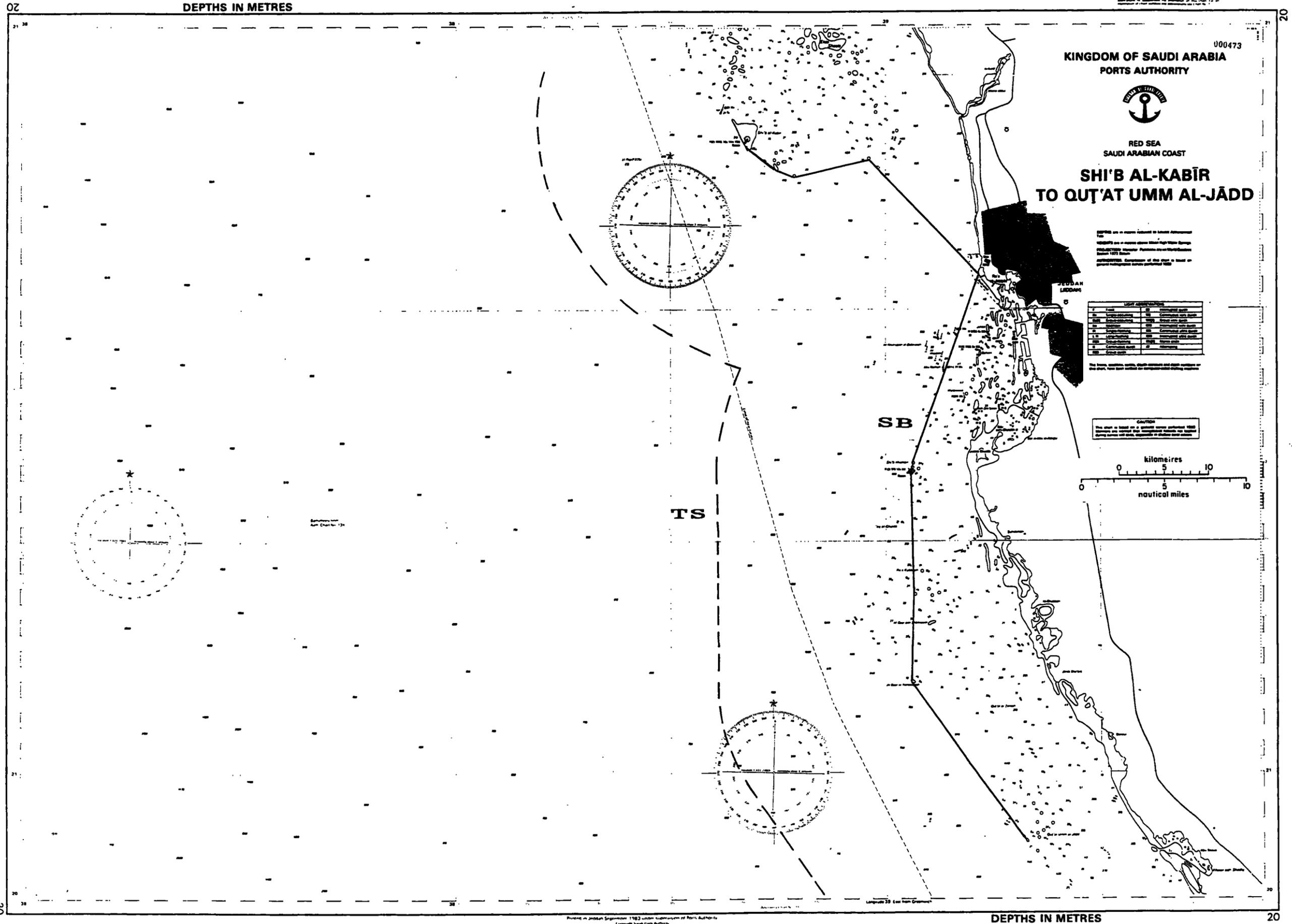
The name, number, symbol, depth and light number of the light, when shown within the chart, shall be as shown.

CAUTION
This chart is based on a general survey performed in 1980. The chart is based on a general survey performed in 1980. The chart is based on a general survey performed in 1980.

DEPTHS IN METRES

19

Figure 2.19



000473
KINGDOM OF SAUDI ARABIA
PORTS AUTHORITY



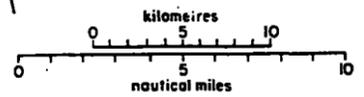
RED SEA
 SAUDI ARABIAN COAST

SHI'B AL-KABIR
TO QUT'AT UMM AL-JADD

This chart is based on a general survey conducted in 1952 and is subject to change. It is not intended for use in navigation. The depth soundings are in metres. The chart is published by the Hydrographic Department, Kingdom of Saudi Arabia.

LIGHT CHARACTERISTICS	
1. Fl. 10s	1. Fl. 10s
2. Fl. 10s	2. Fl. 10s
3. Fl. 10s	3. Fl. 10s
4. Fl. 10s	4. Fl. 10s
5. Fl. 10s	5. Fl. 10s
6. Fl. 10s	6. Fl. 10s
7. Fl. 10s	7. Fl. 10s
8. Fl. 10s	8. Fl. 10s
9. Fl. 10s	9. Fl. 10s
10. Fl. 10s	10. Fl. 10s

CAUTION
 This chart is based on a general survey conducted in 1952 and is subject to change. It is not intended for use in navigation. The depth soundings are in metres. The chart is published by the Hydrographic Department, Kingdom of Saudi Arabia.



DEPTHS IN METRES

Figure 2.21

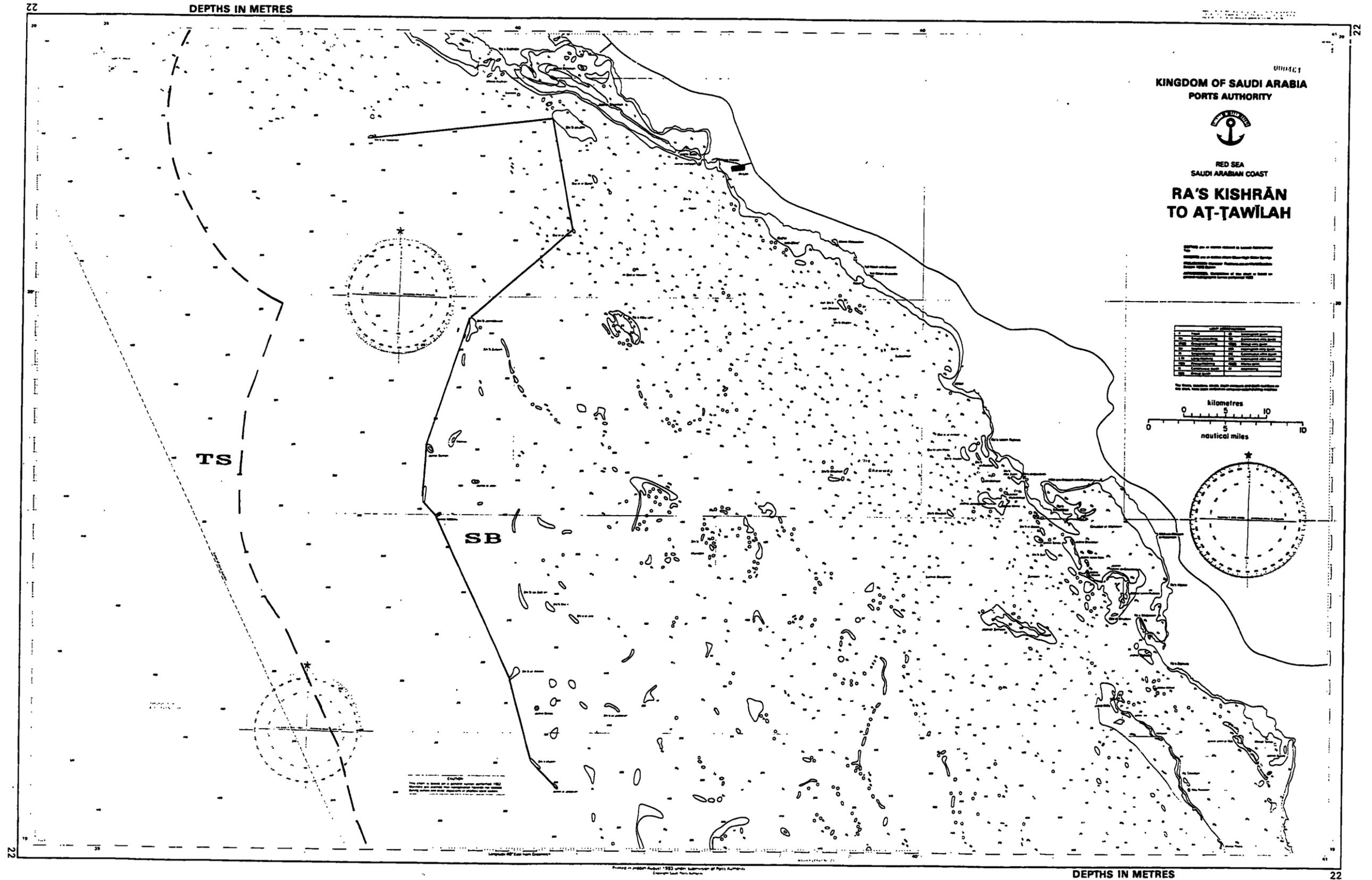


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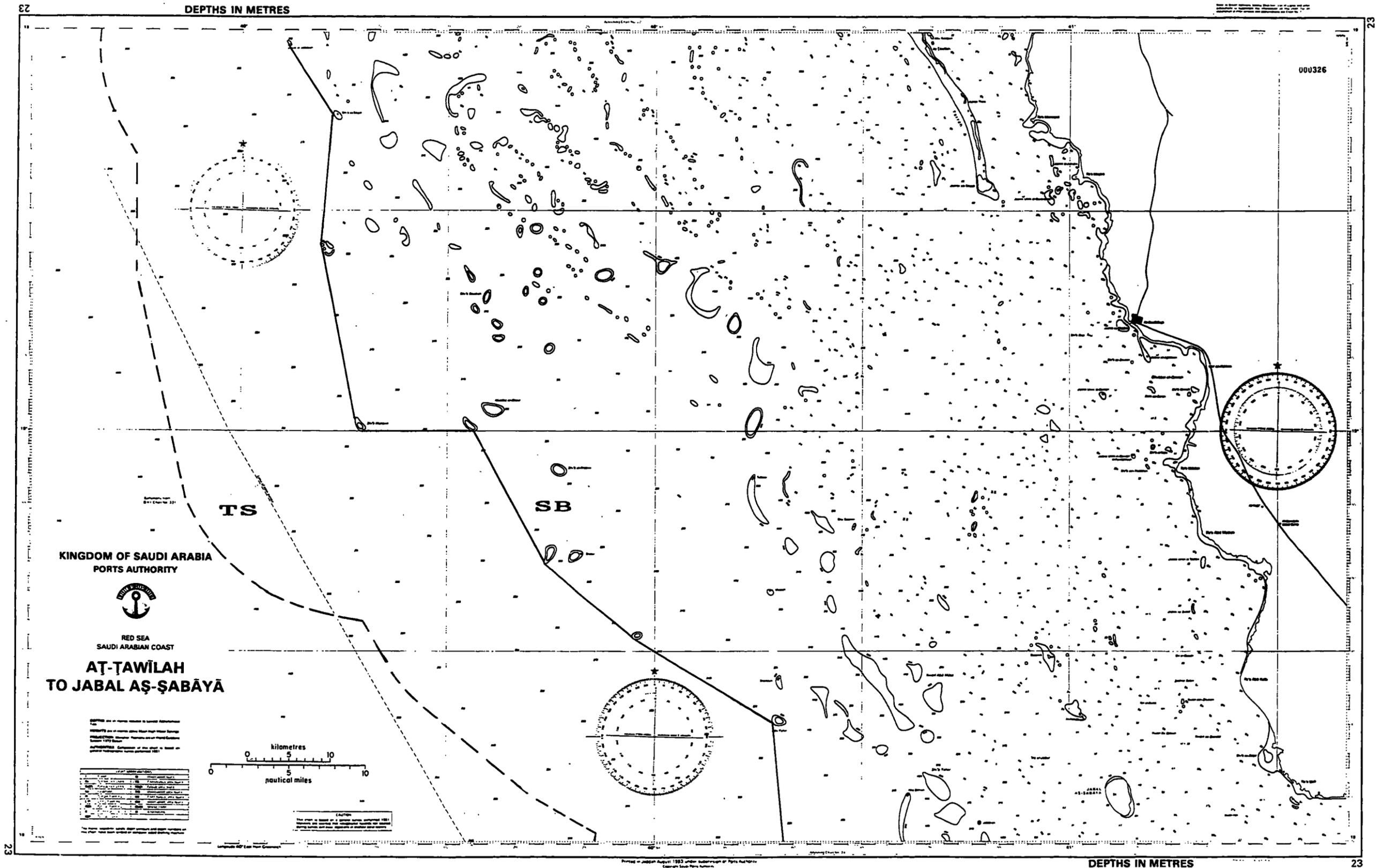


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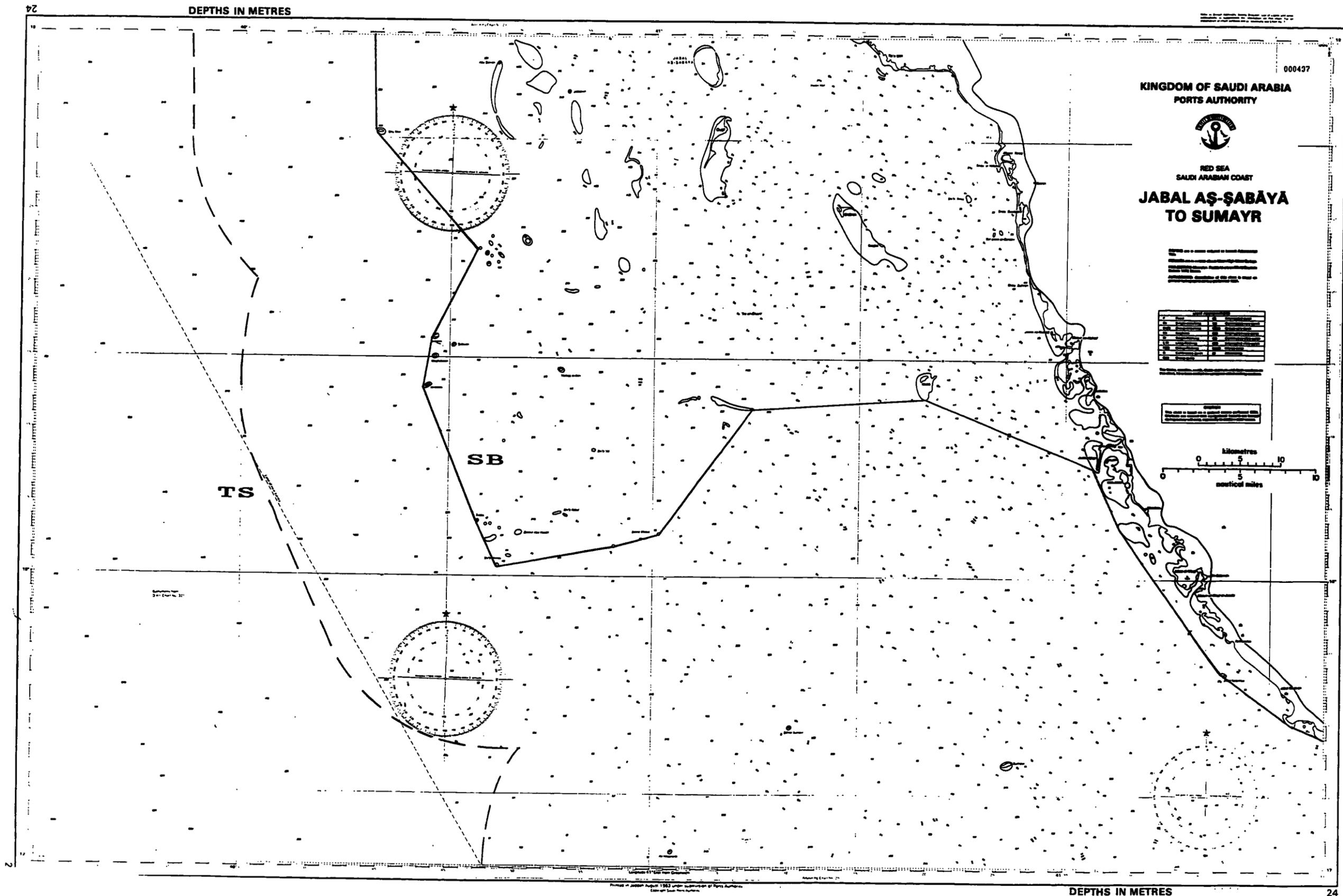


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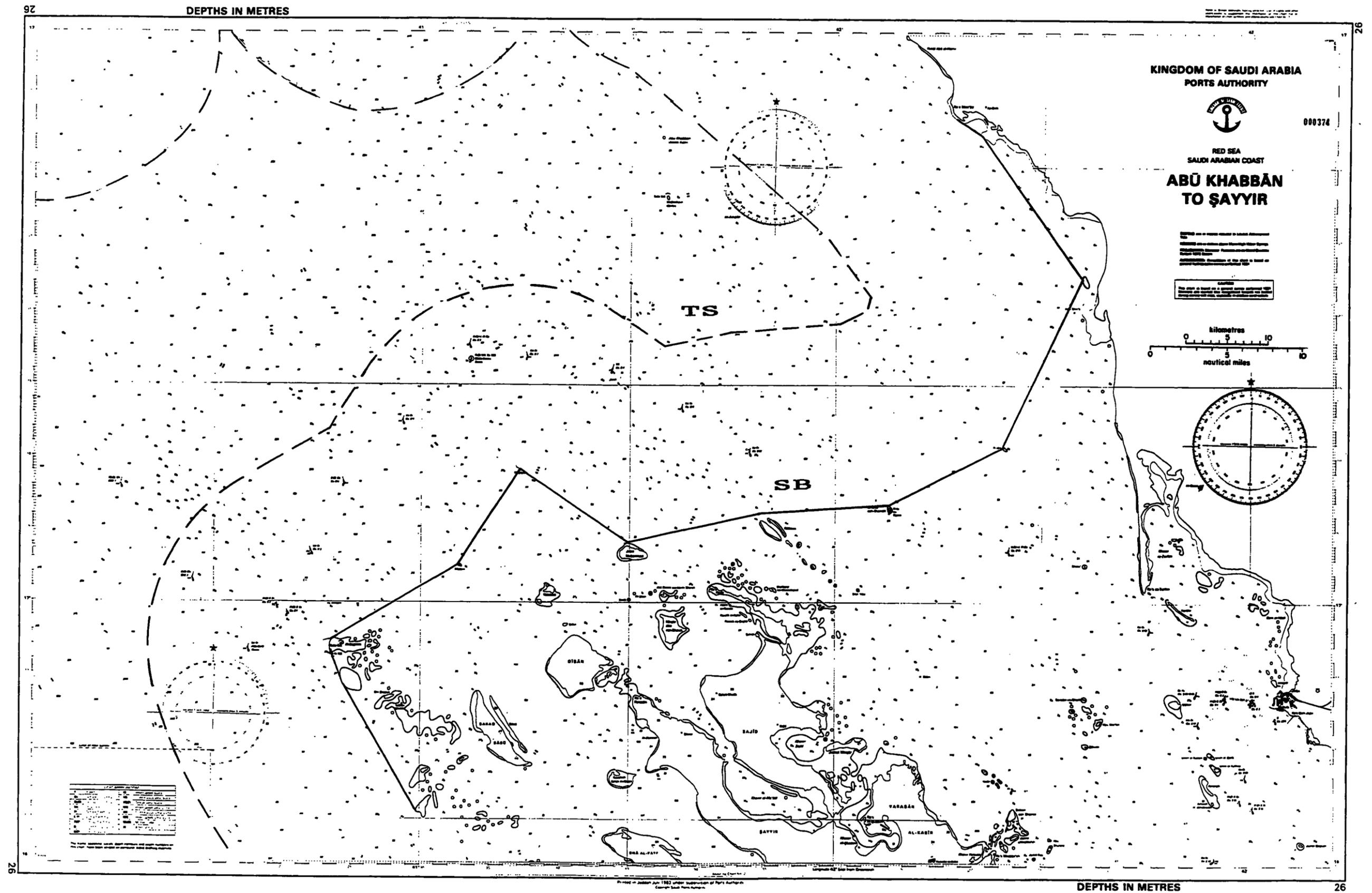


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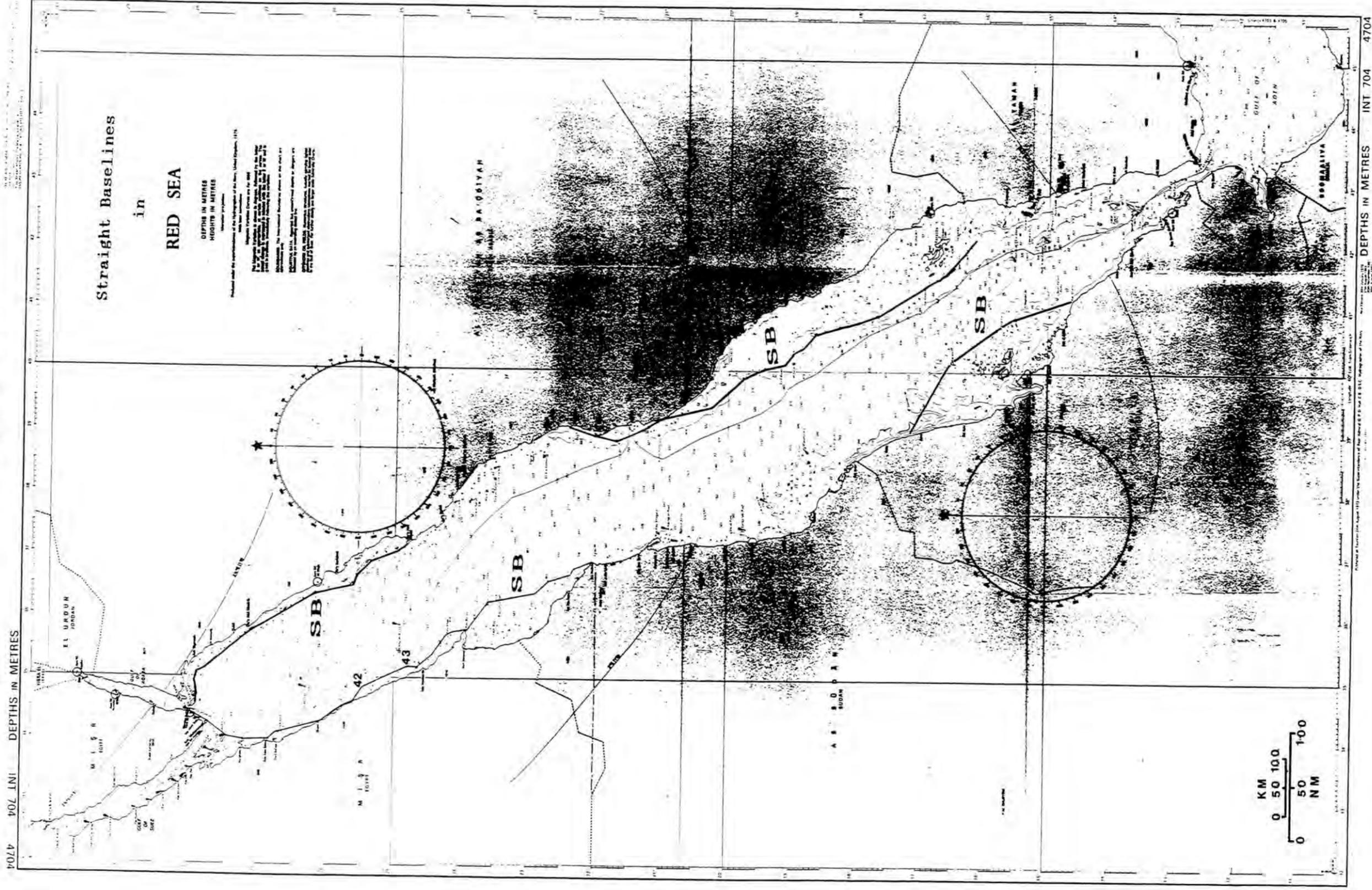


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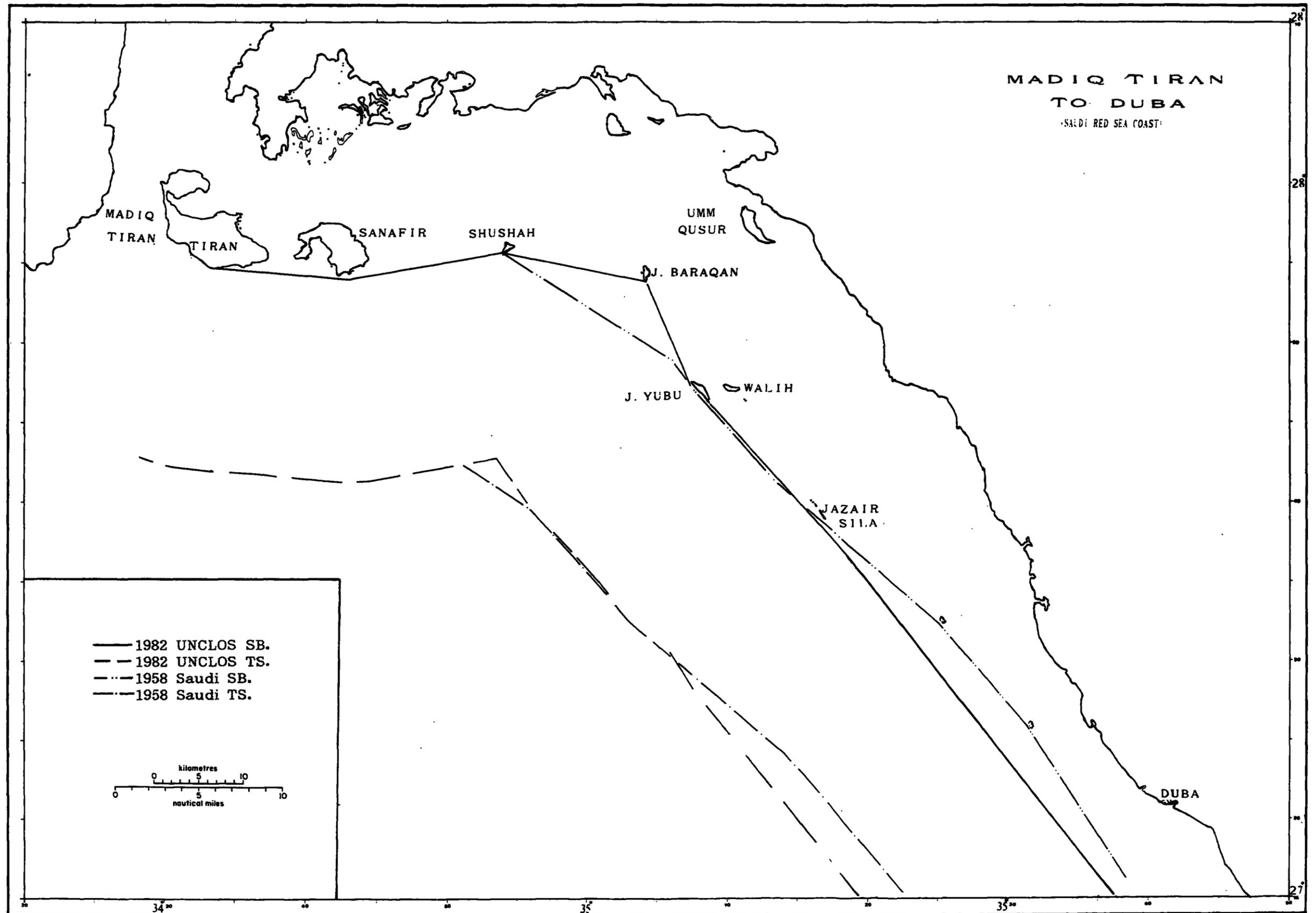


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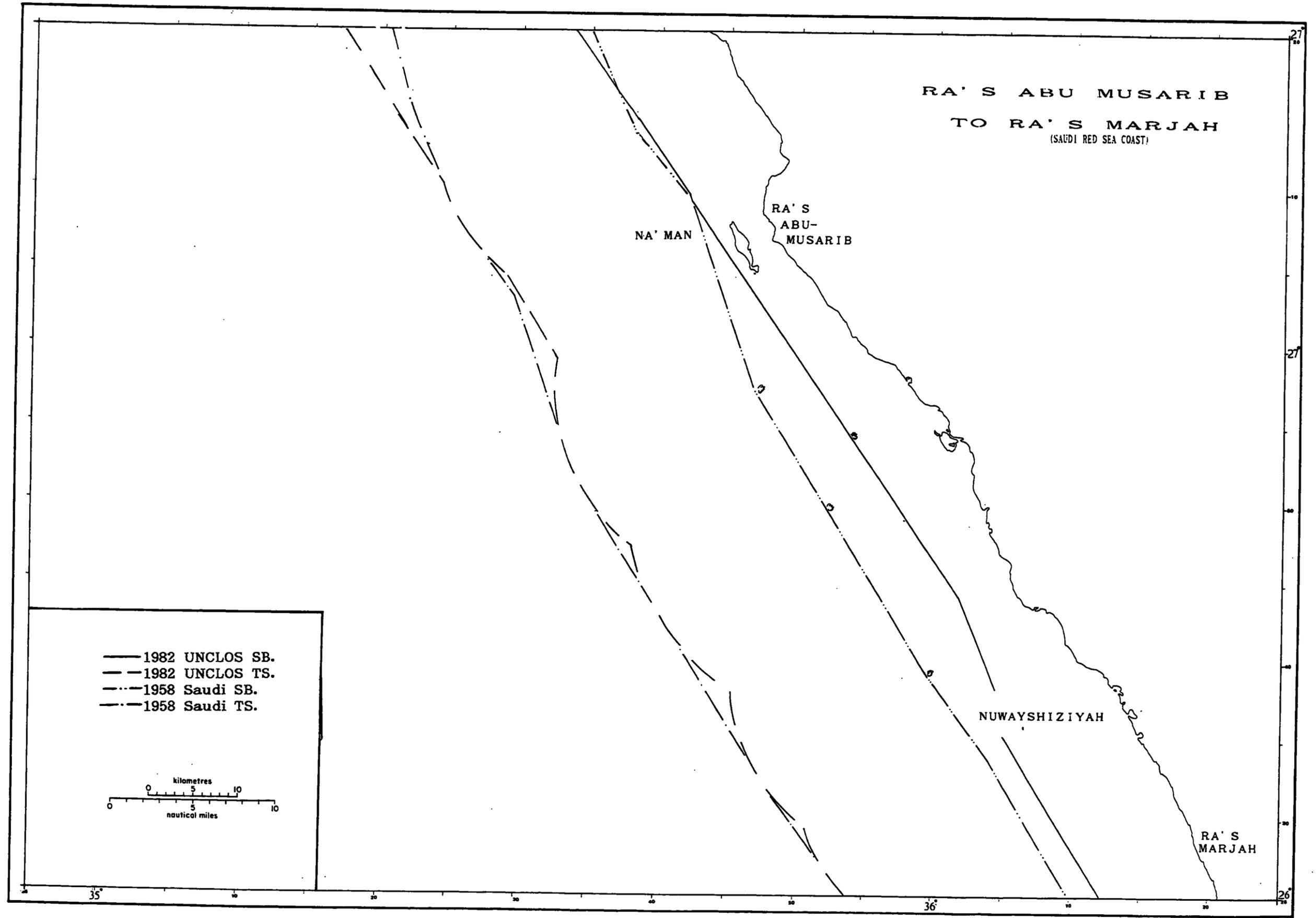


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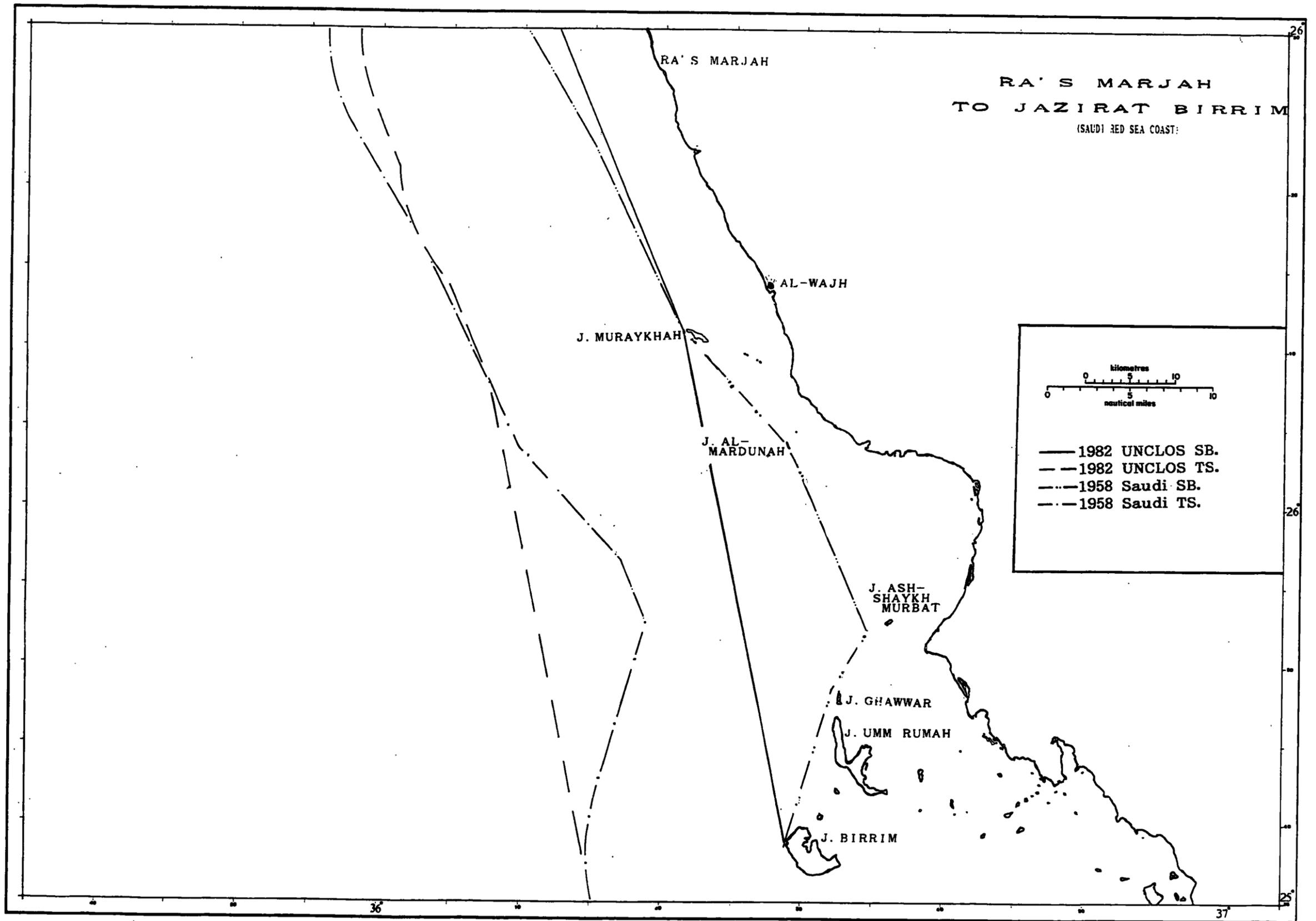


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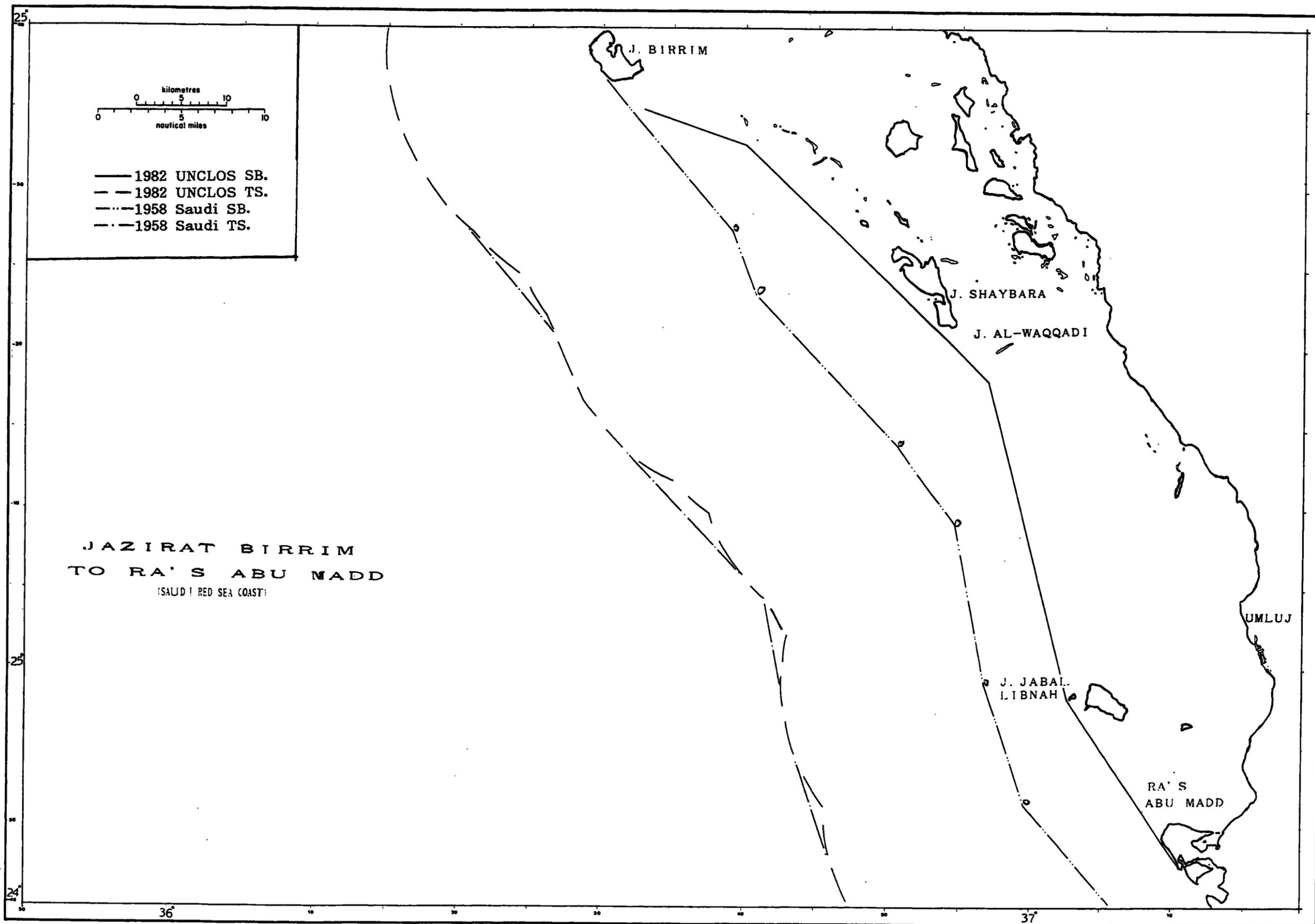


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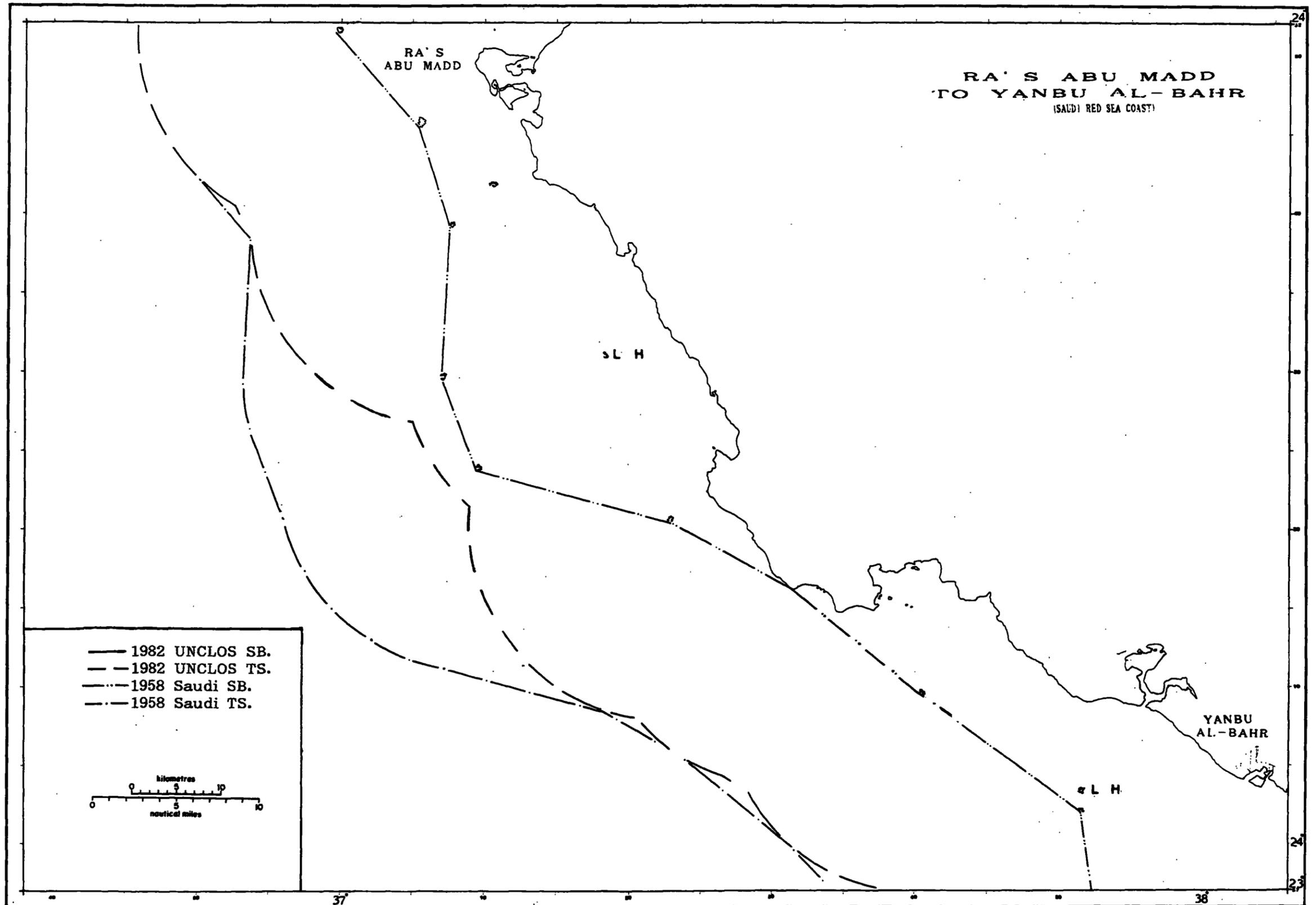


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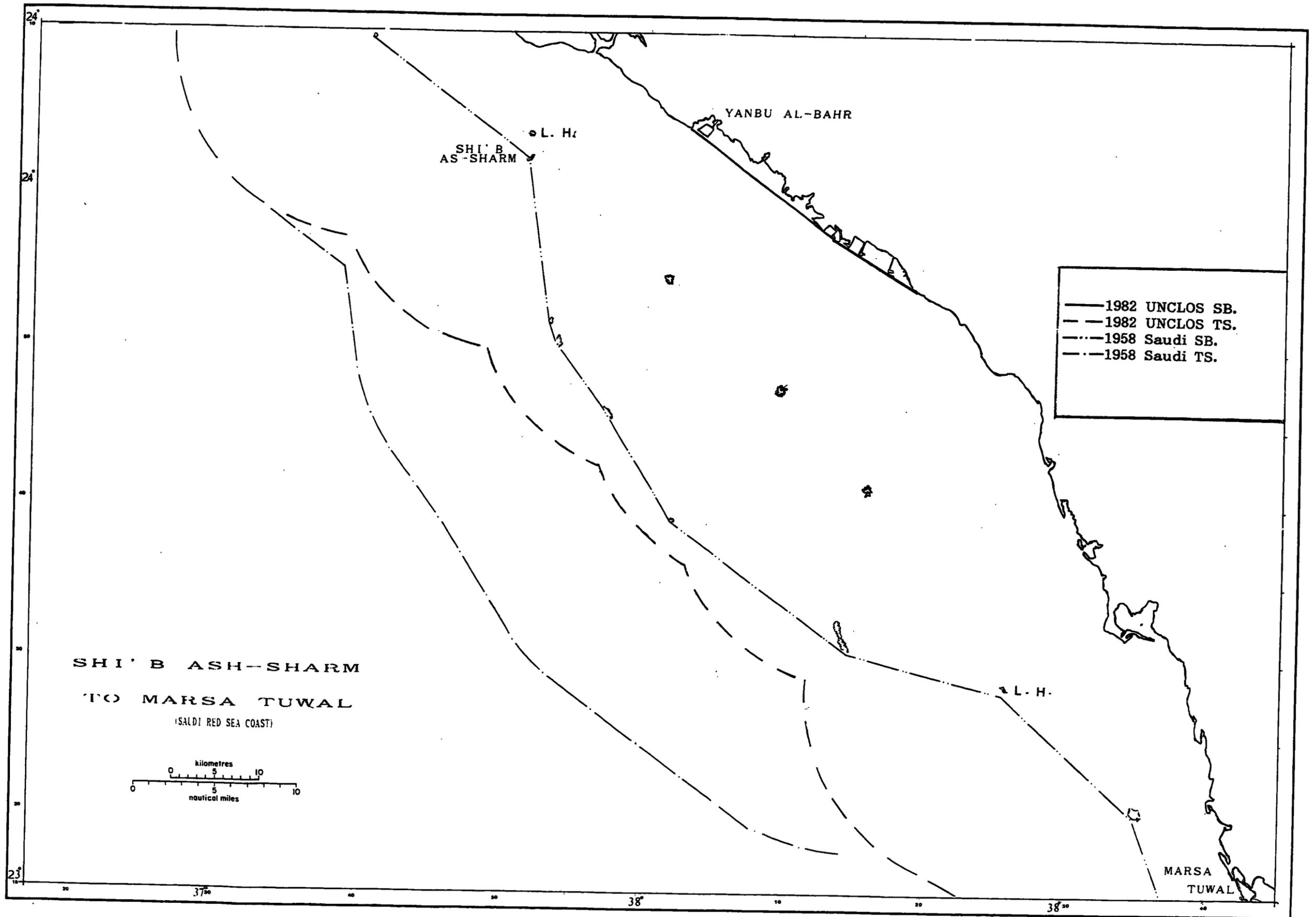


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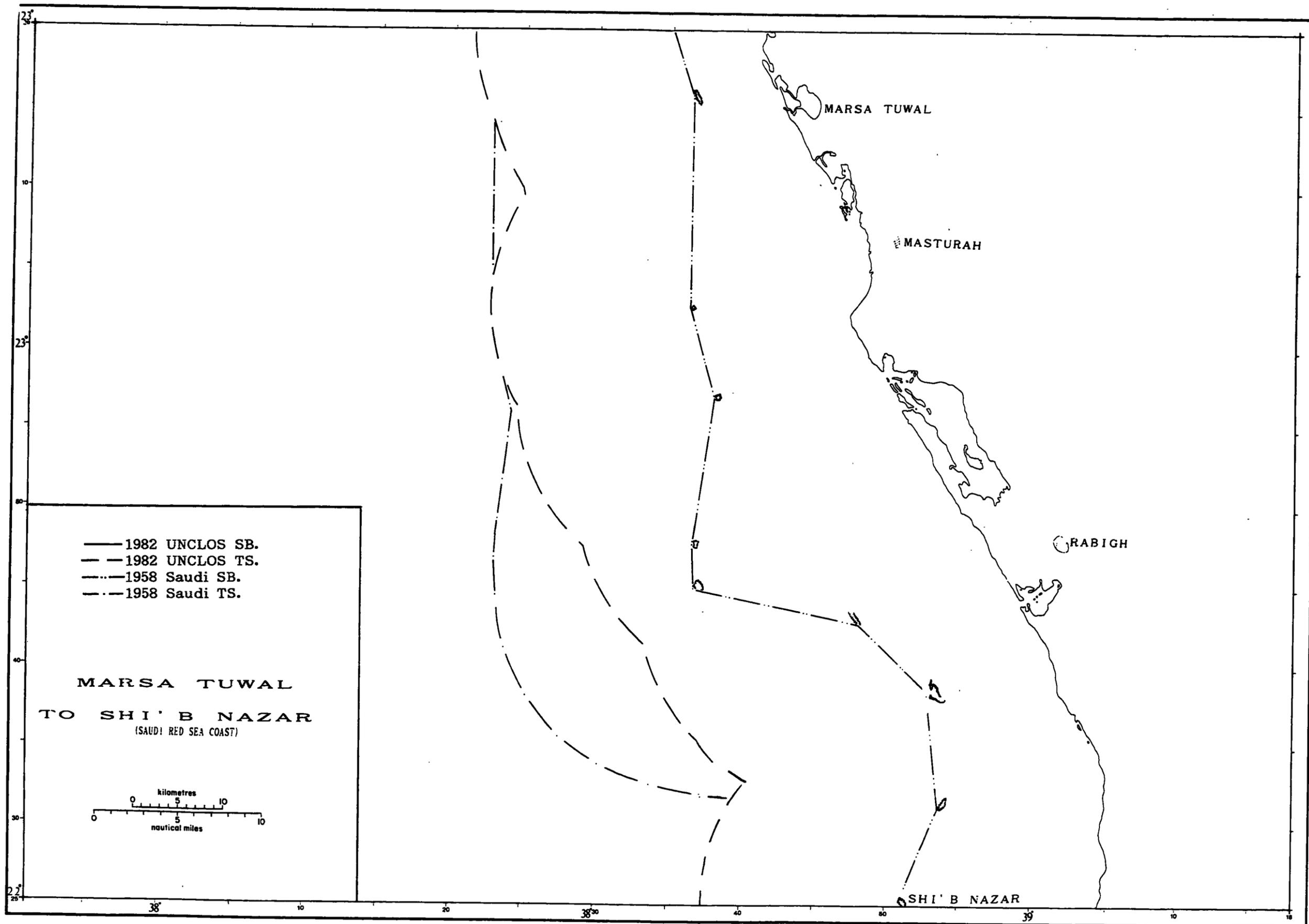


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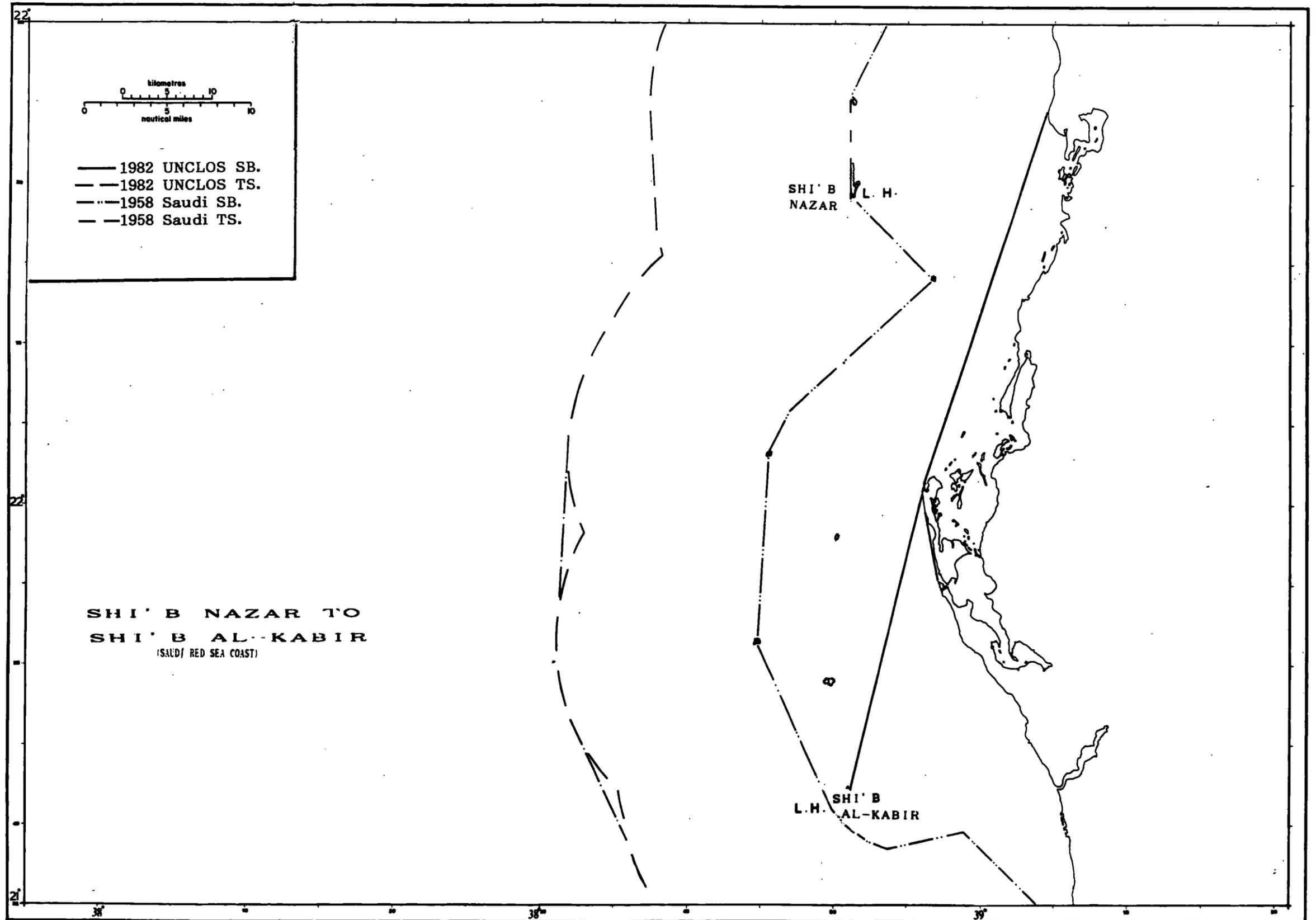


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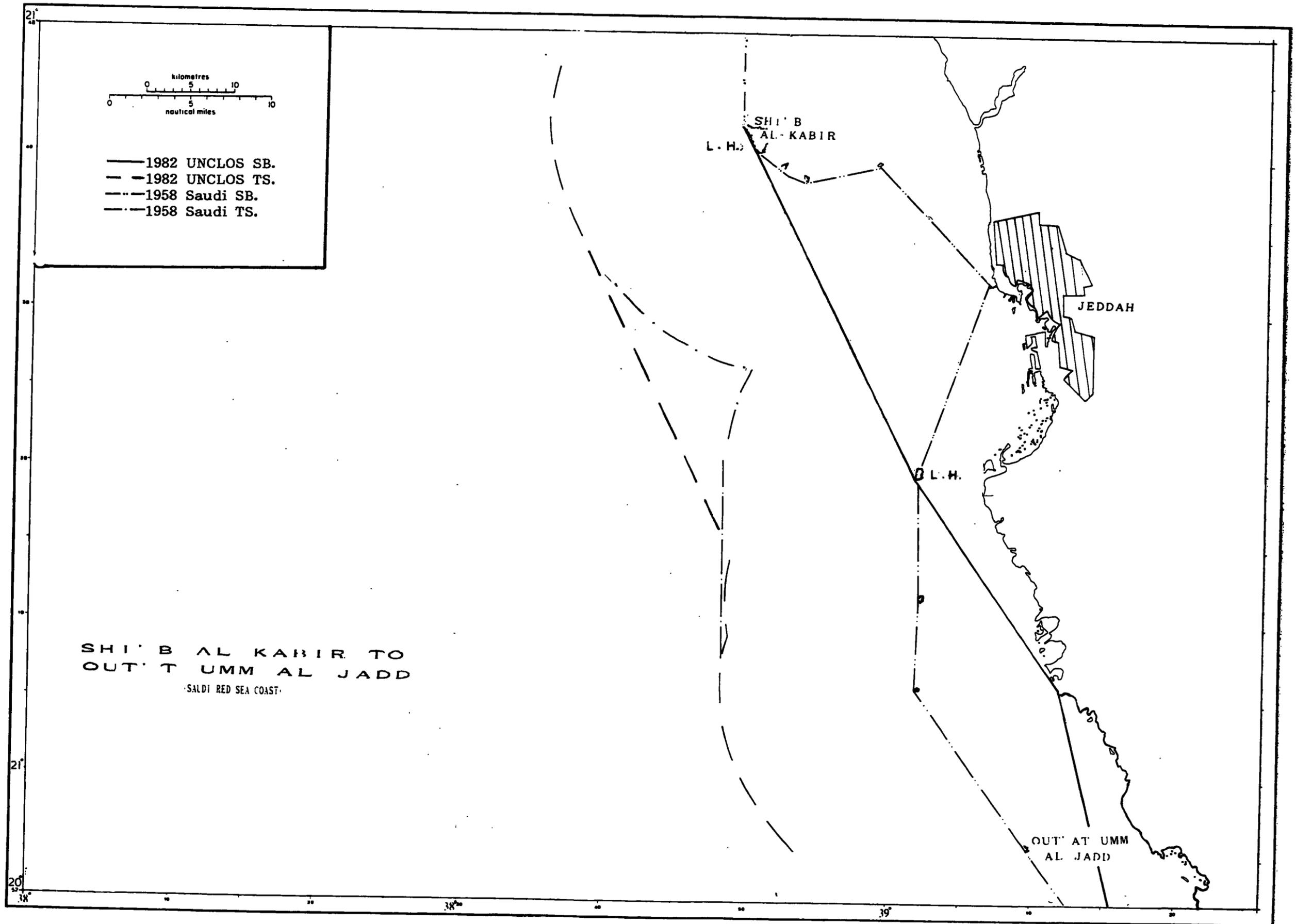


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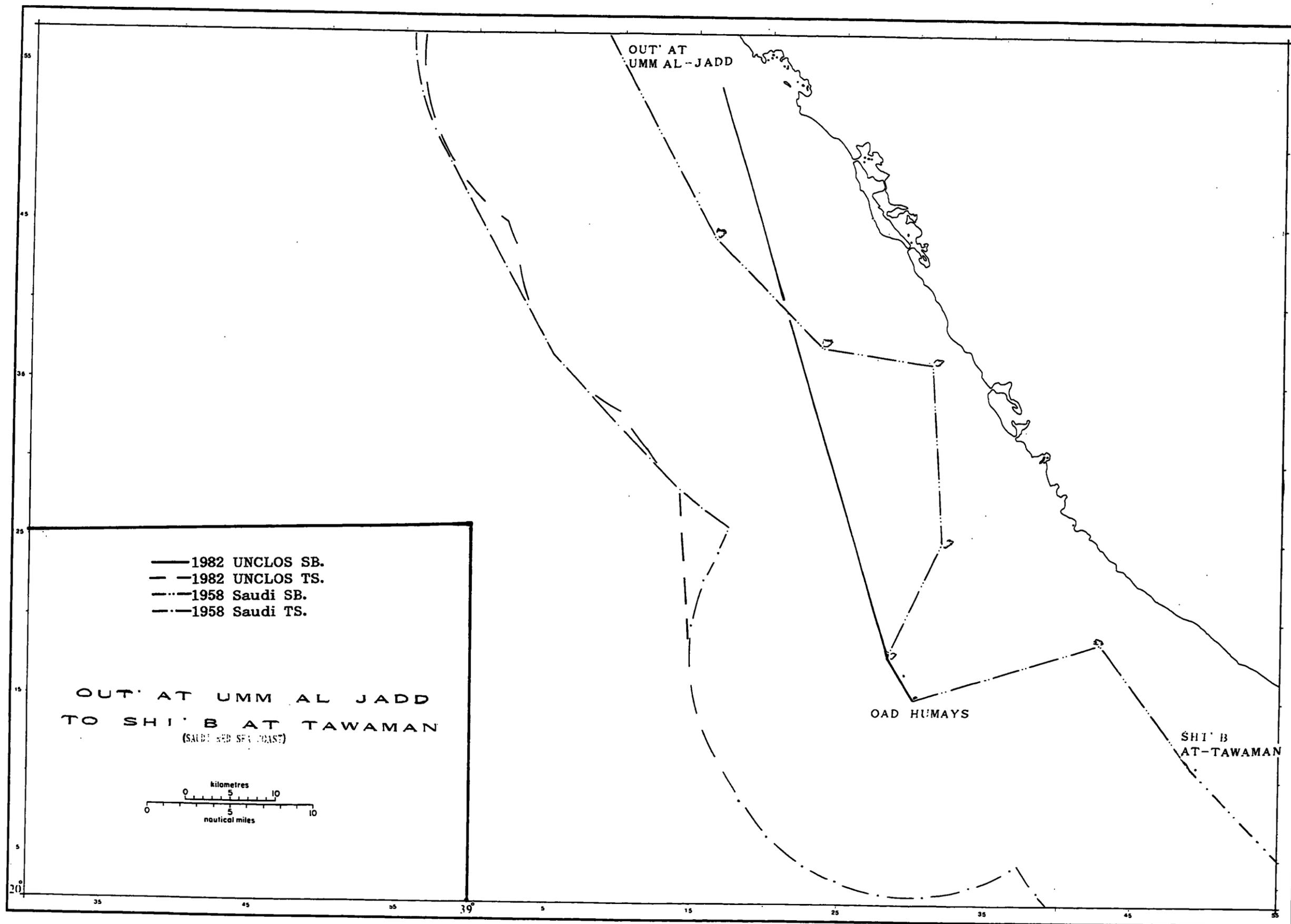


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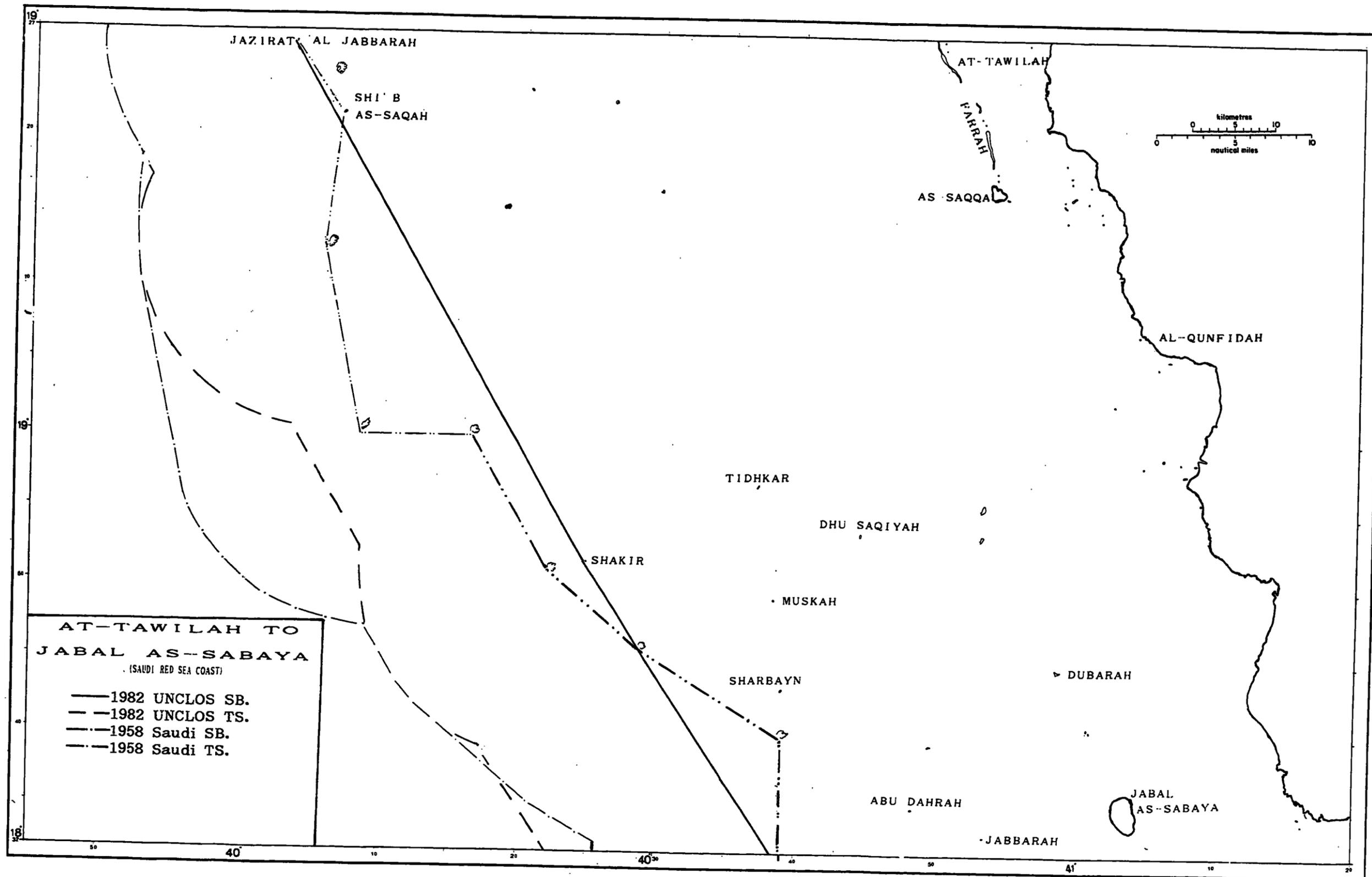


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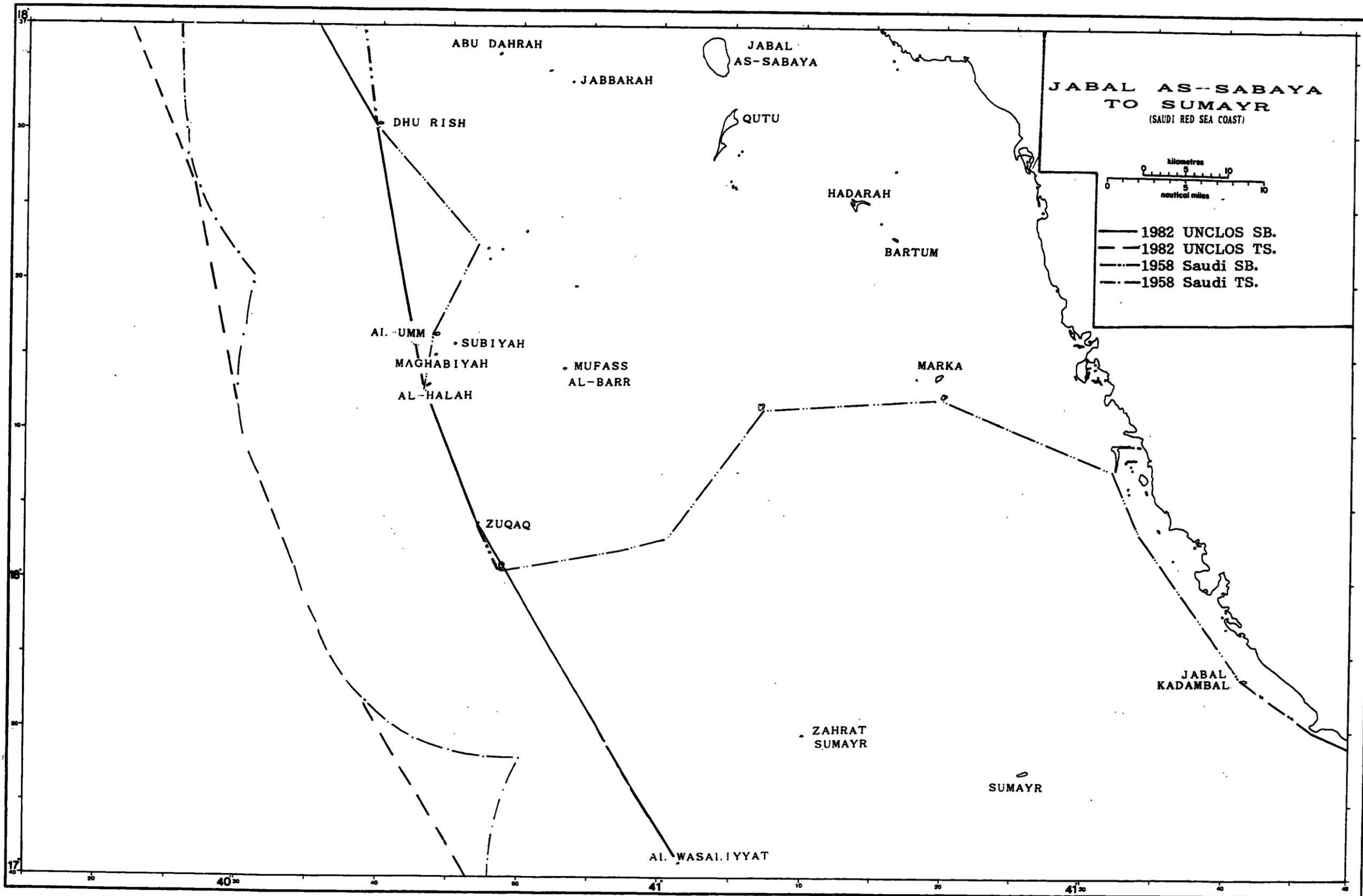


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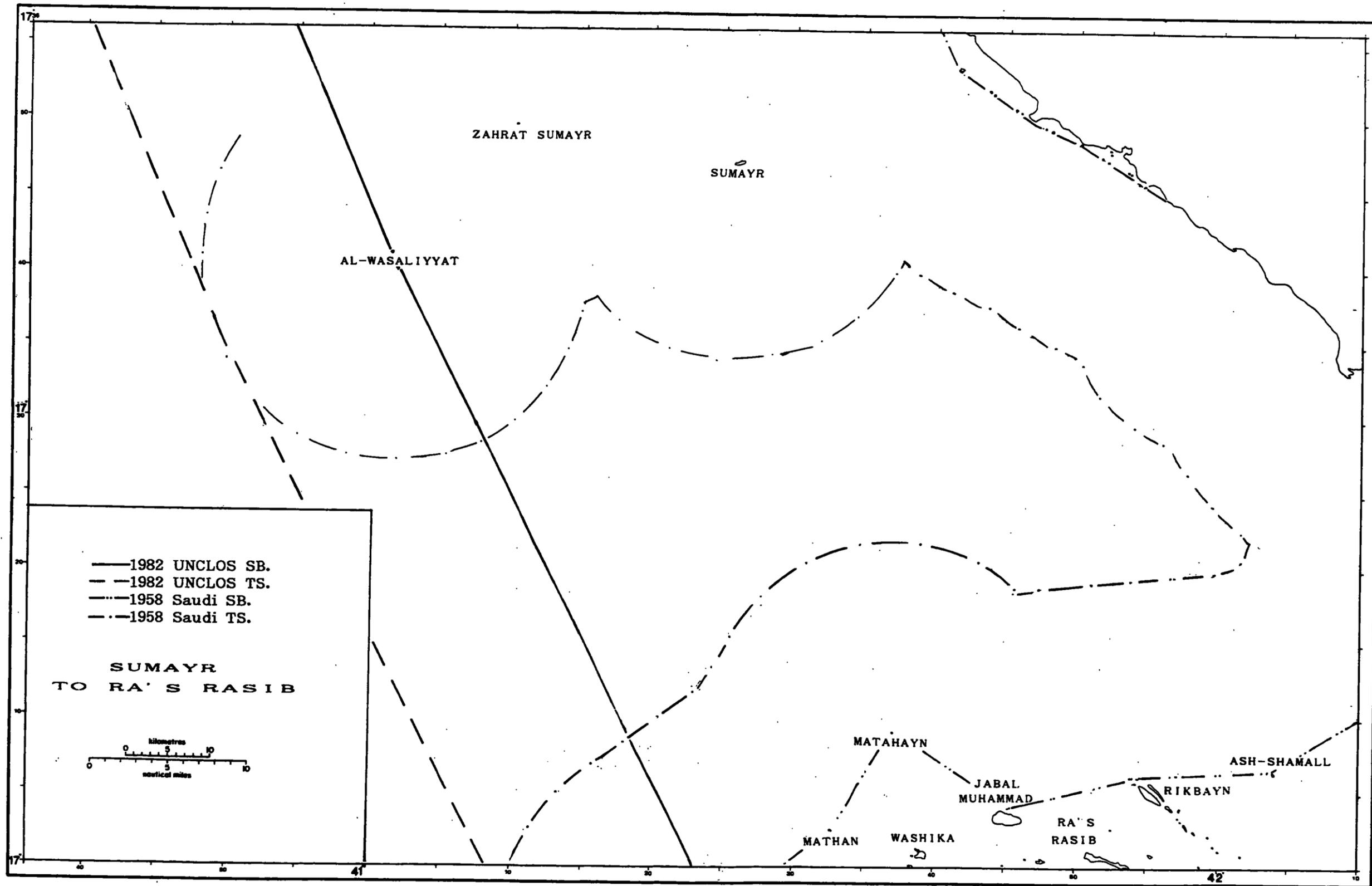


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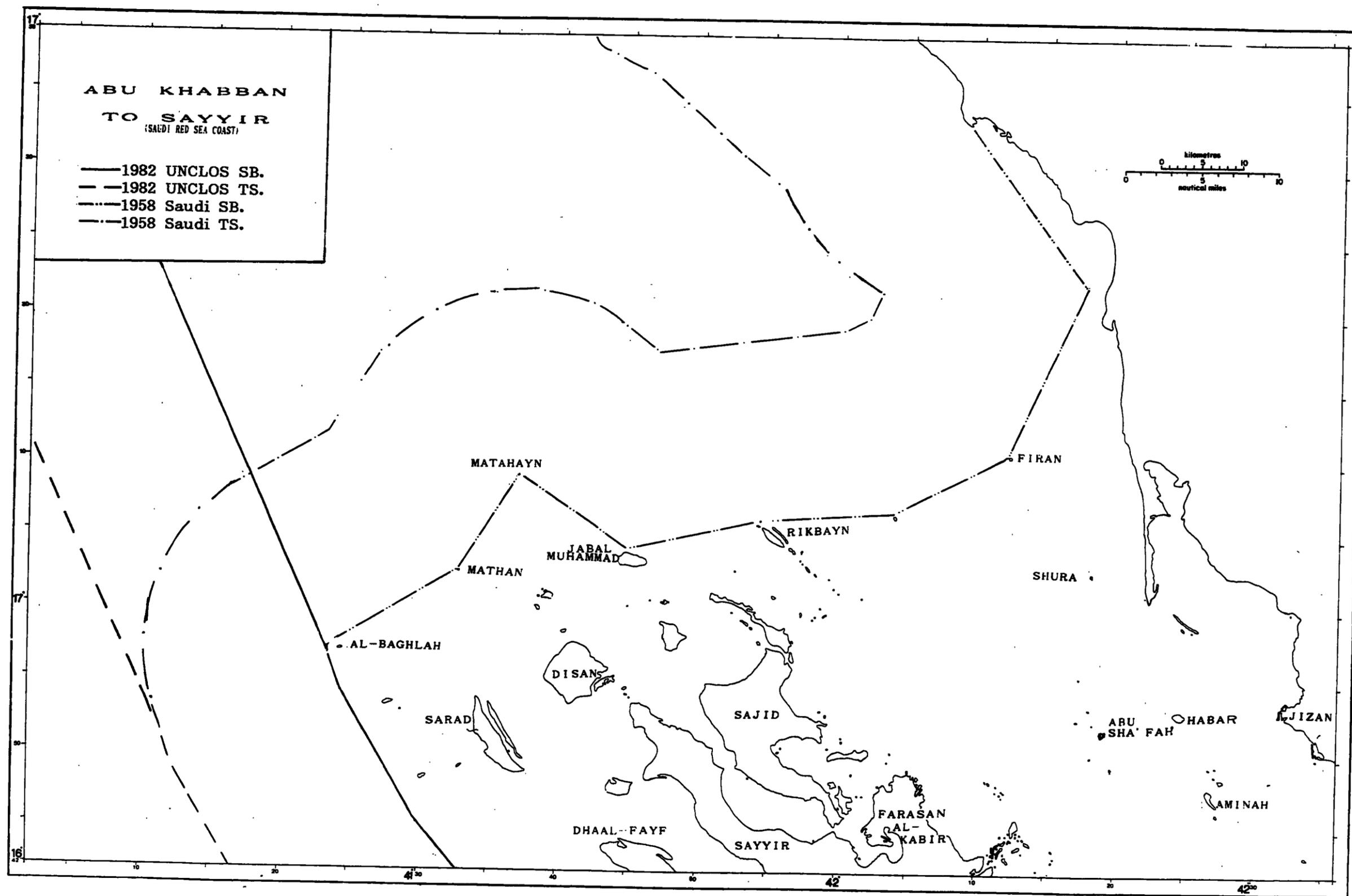


Figure 2.43

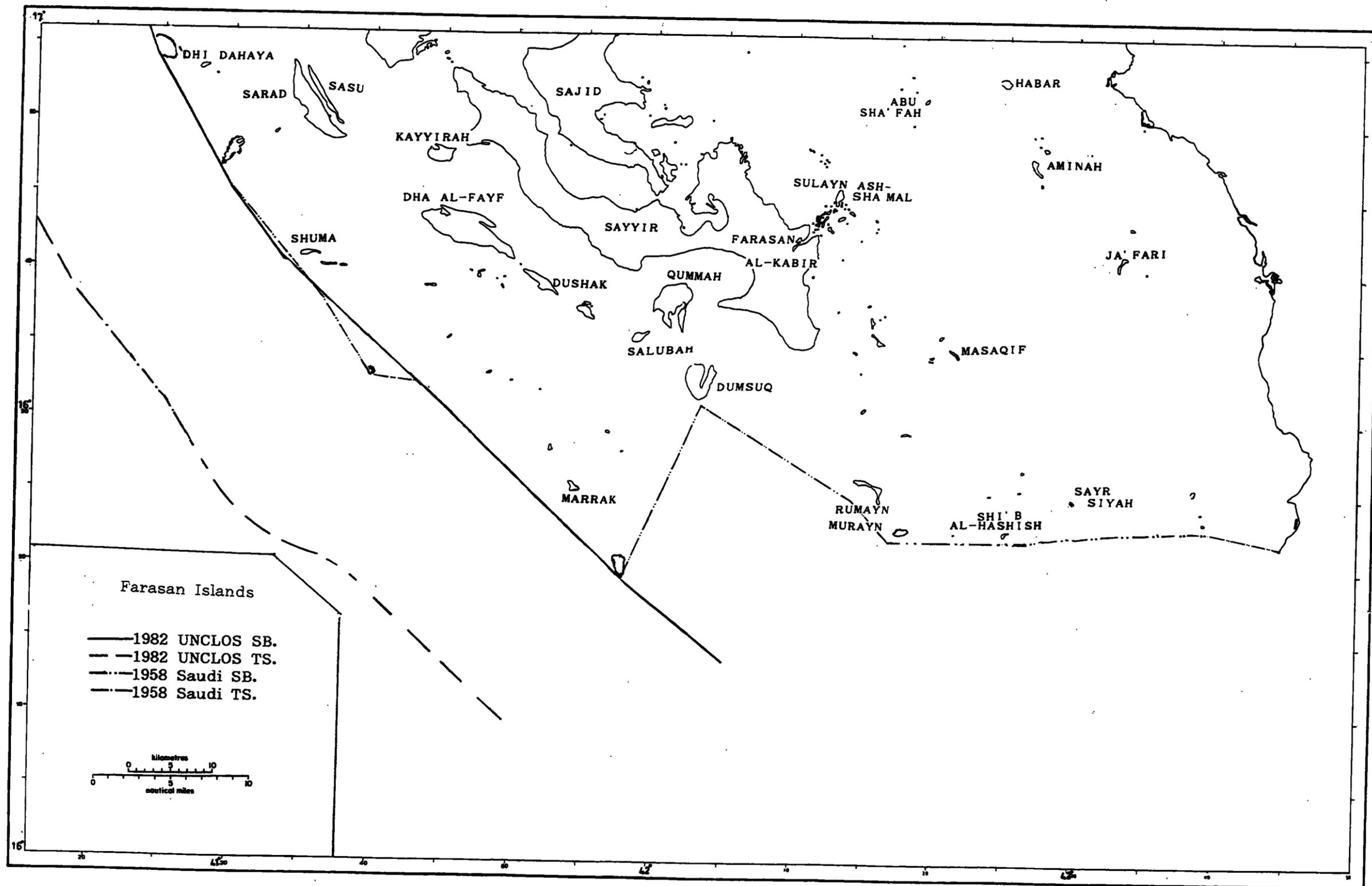


Figure 2.44

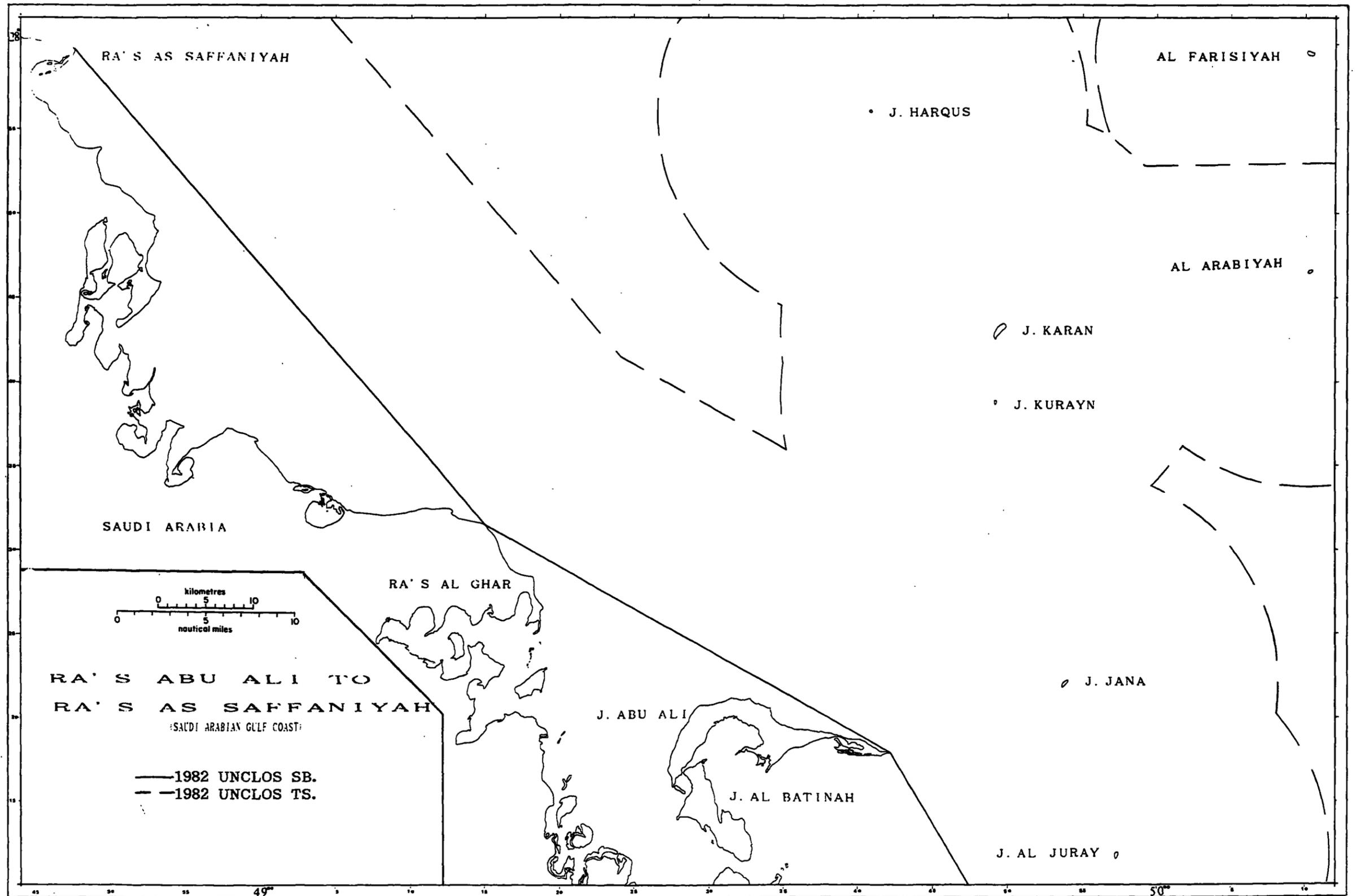


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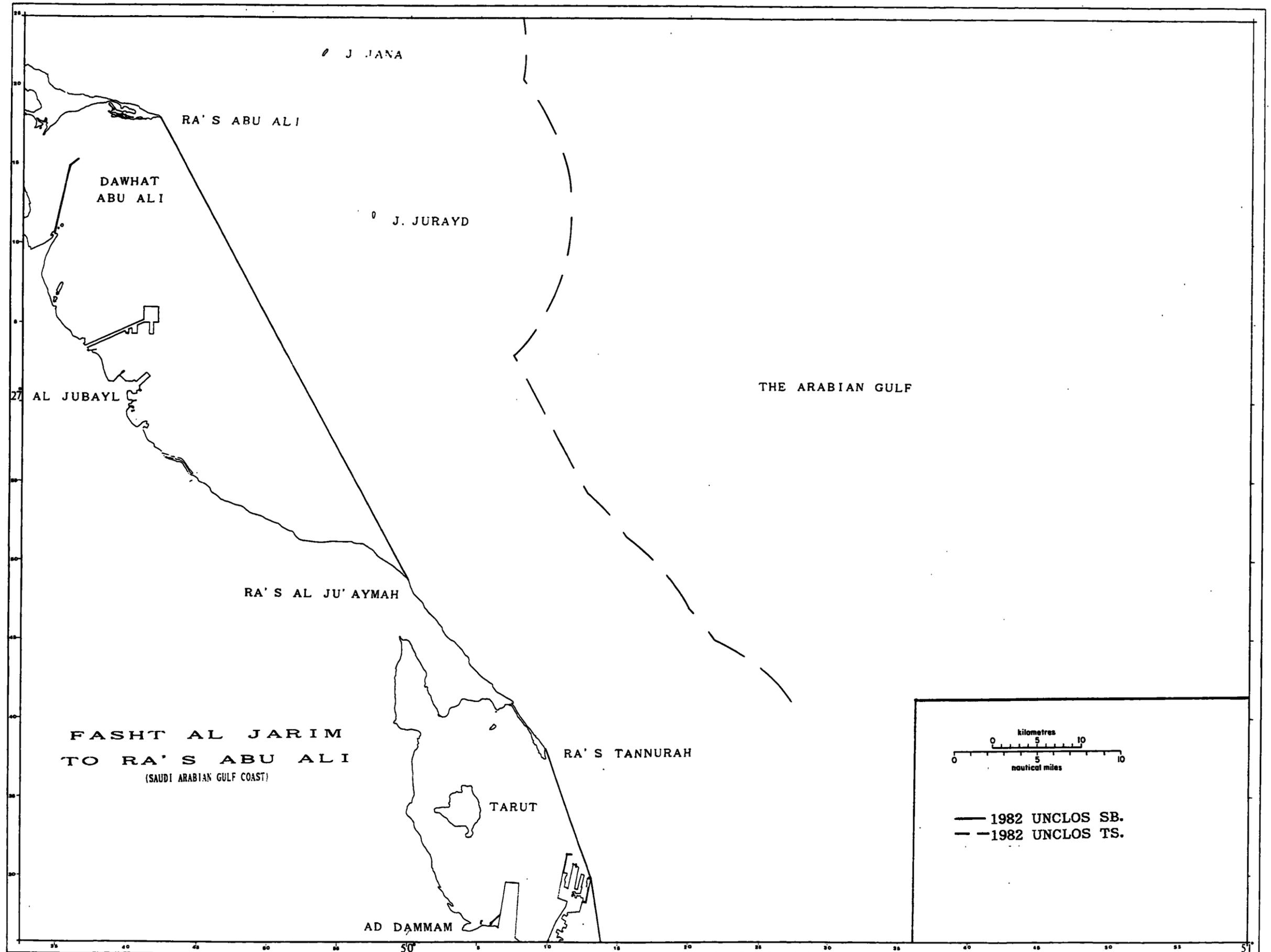


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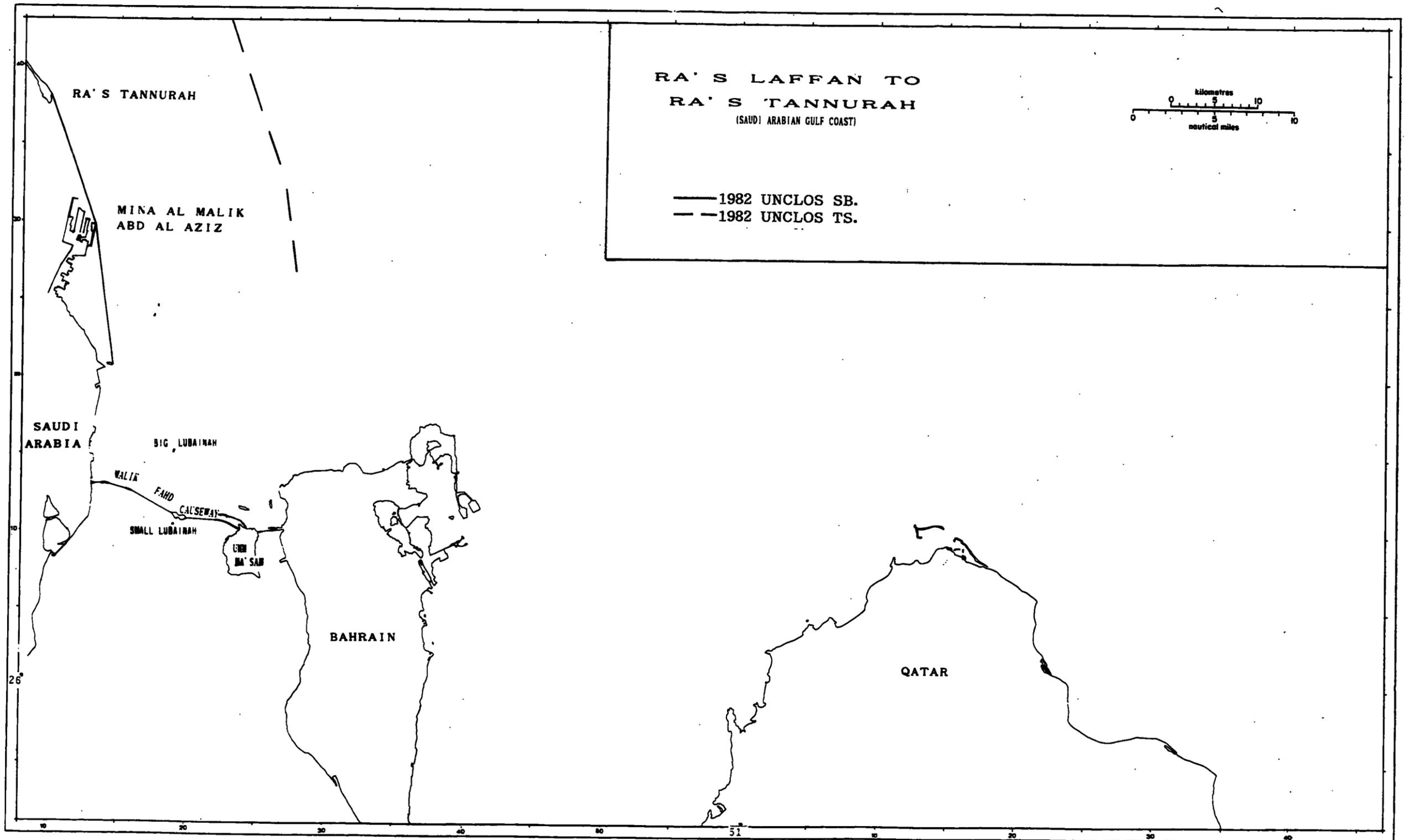


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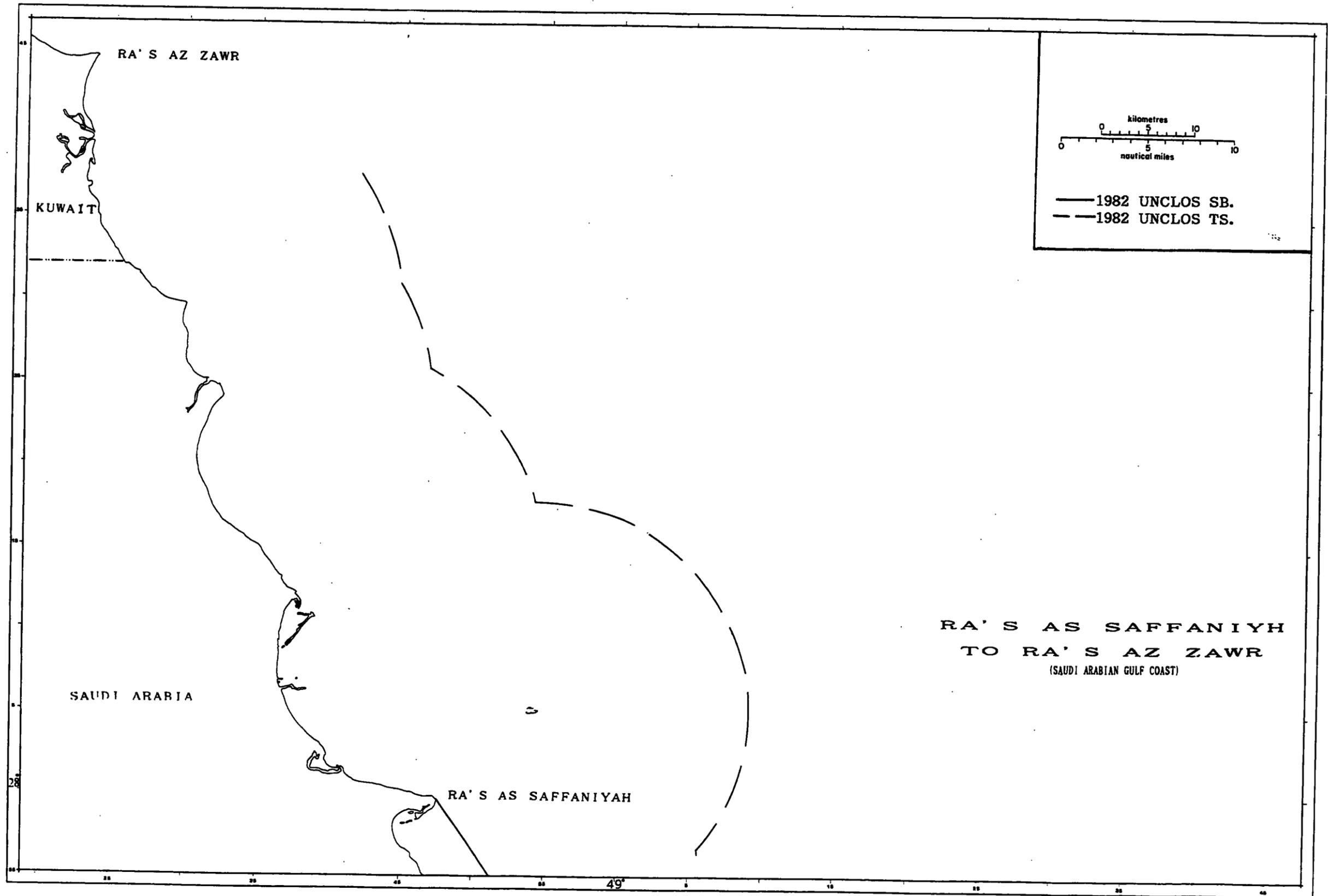


Figure 3.1

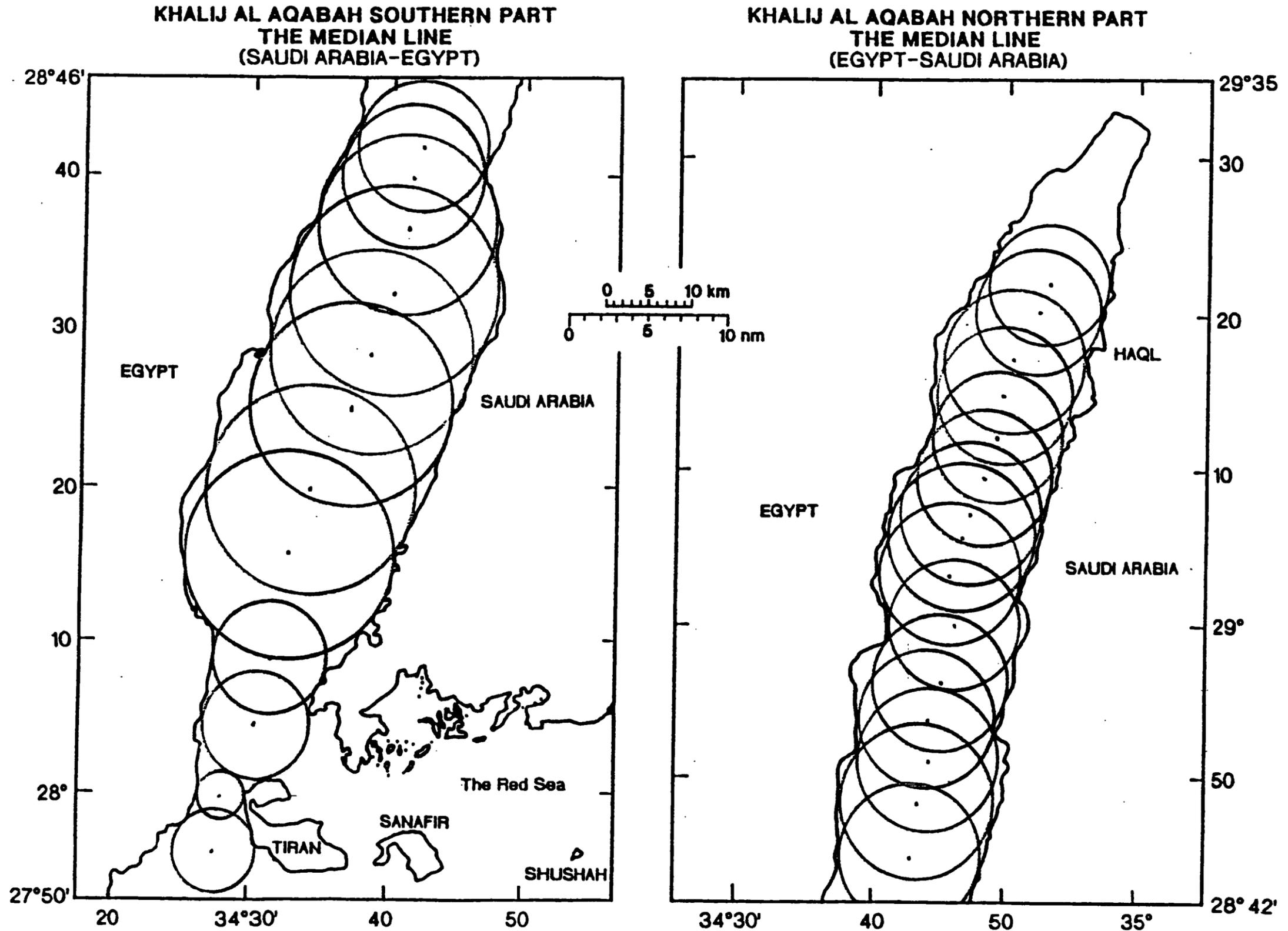


Figure 3.2

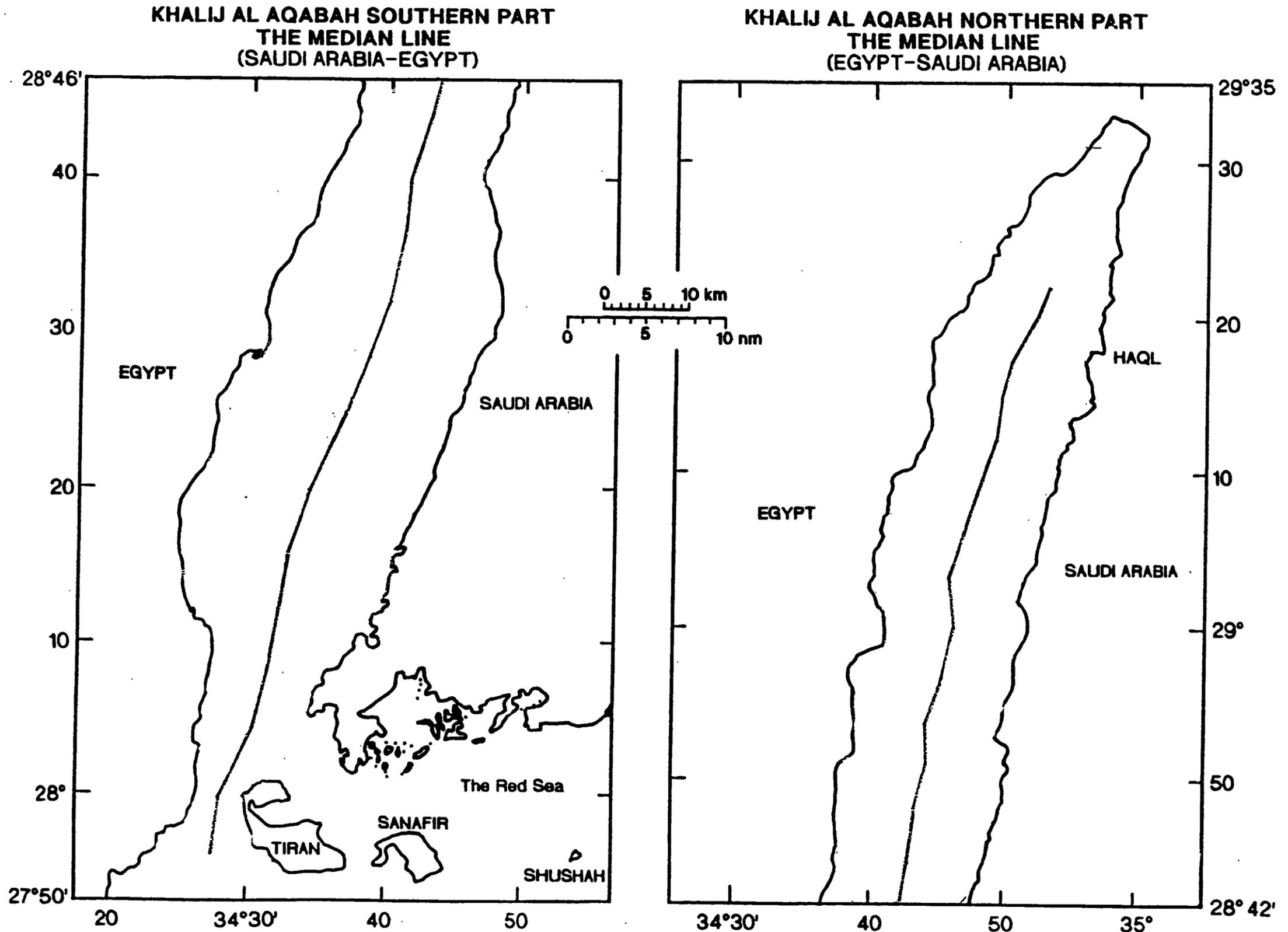
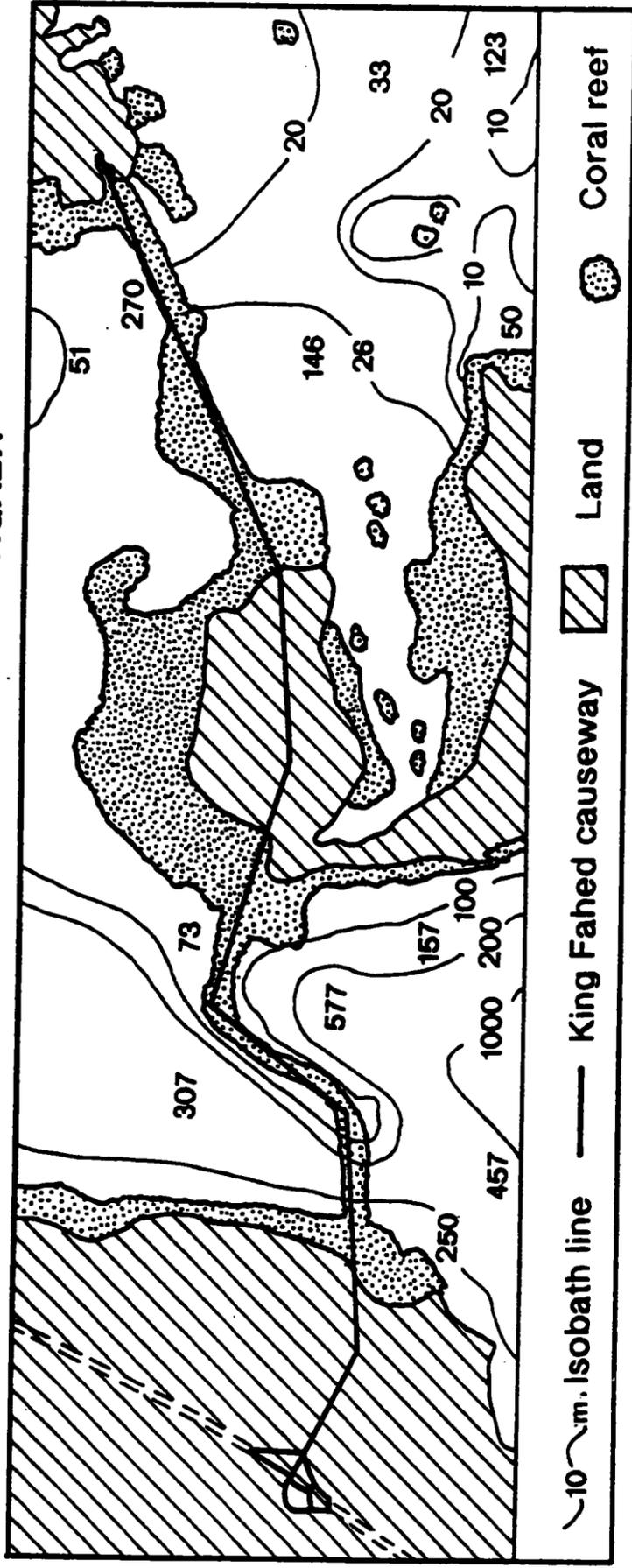
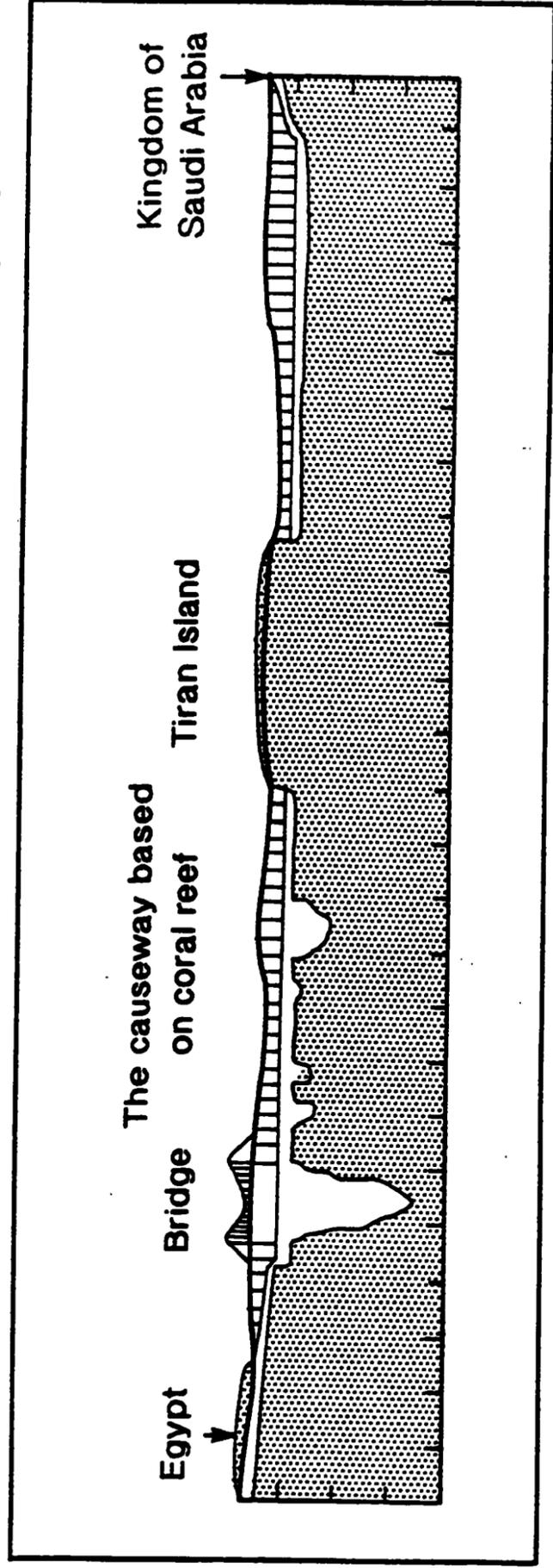


Figure 3.3

**KING FAHAD CAUSEWAY BETWEEN SAUDI ARABIA AND EGYPT
AT THE ENTRANCE OF THE GULF OF AQABA**

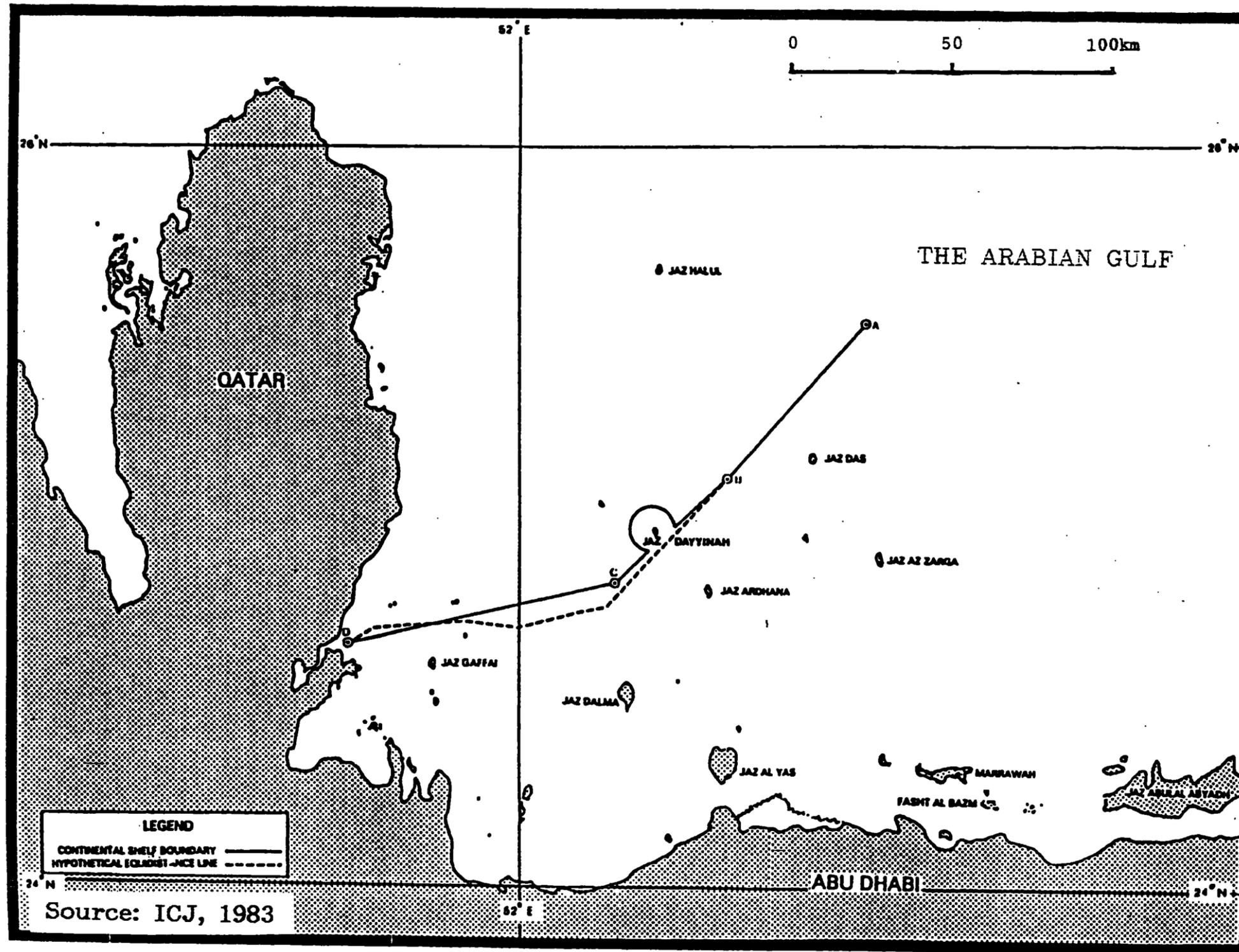


KING FAHAD CAUSEWAY PLAN BETWEEN SAUDI ARABIA AND EGYPT



SOURCE: Al-Sayt, 1990

Figure 3.4



Qatar-Abu Dhabi Continental Shelf Boundary

Figure 3.5

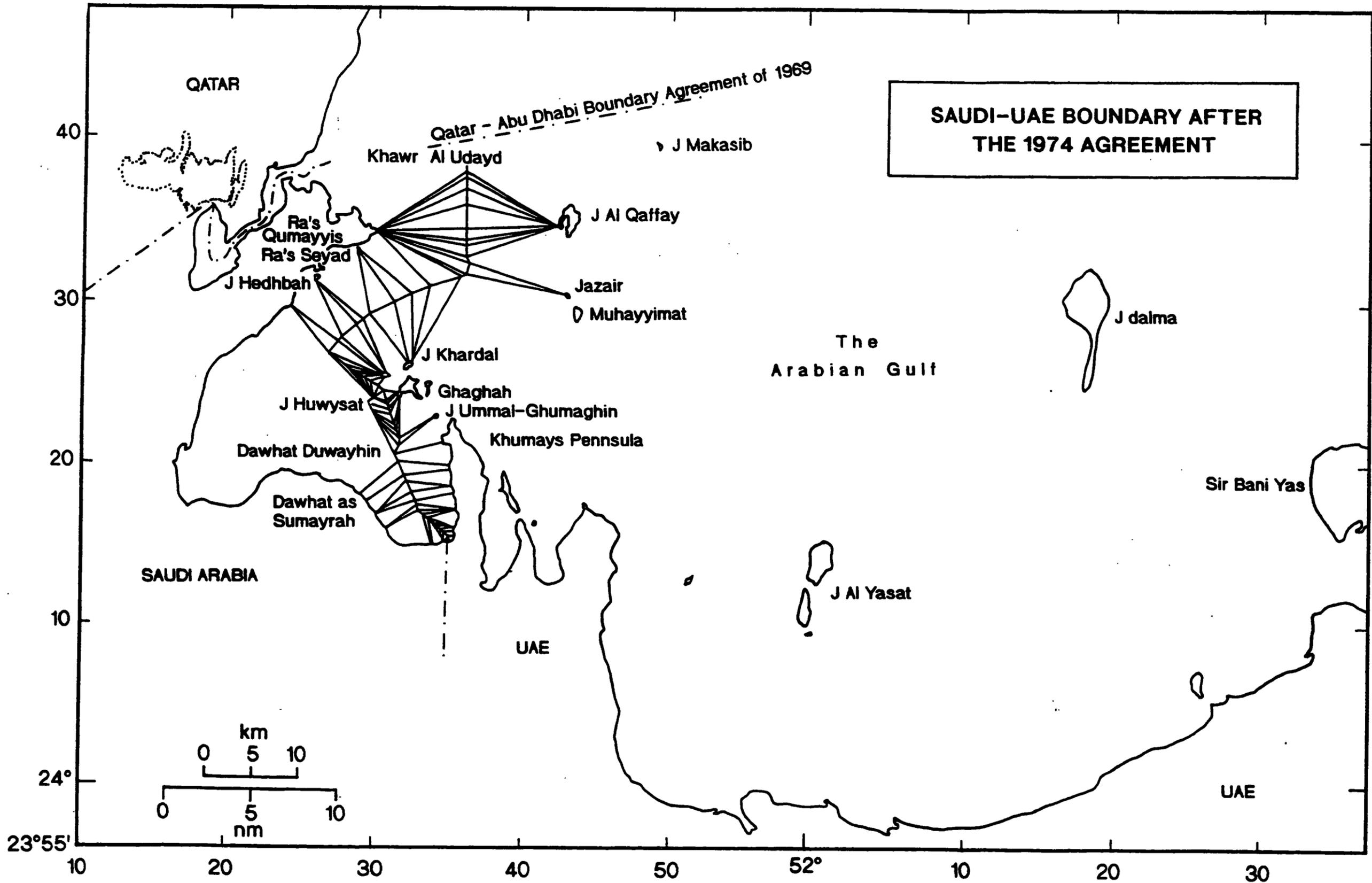


Figure 3.6

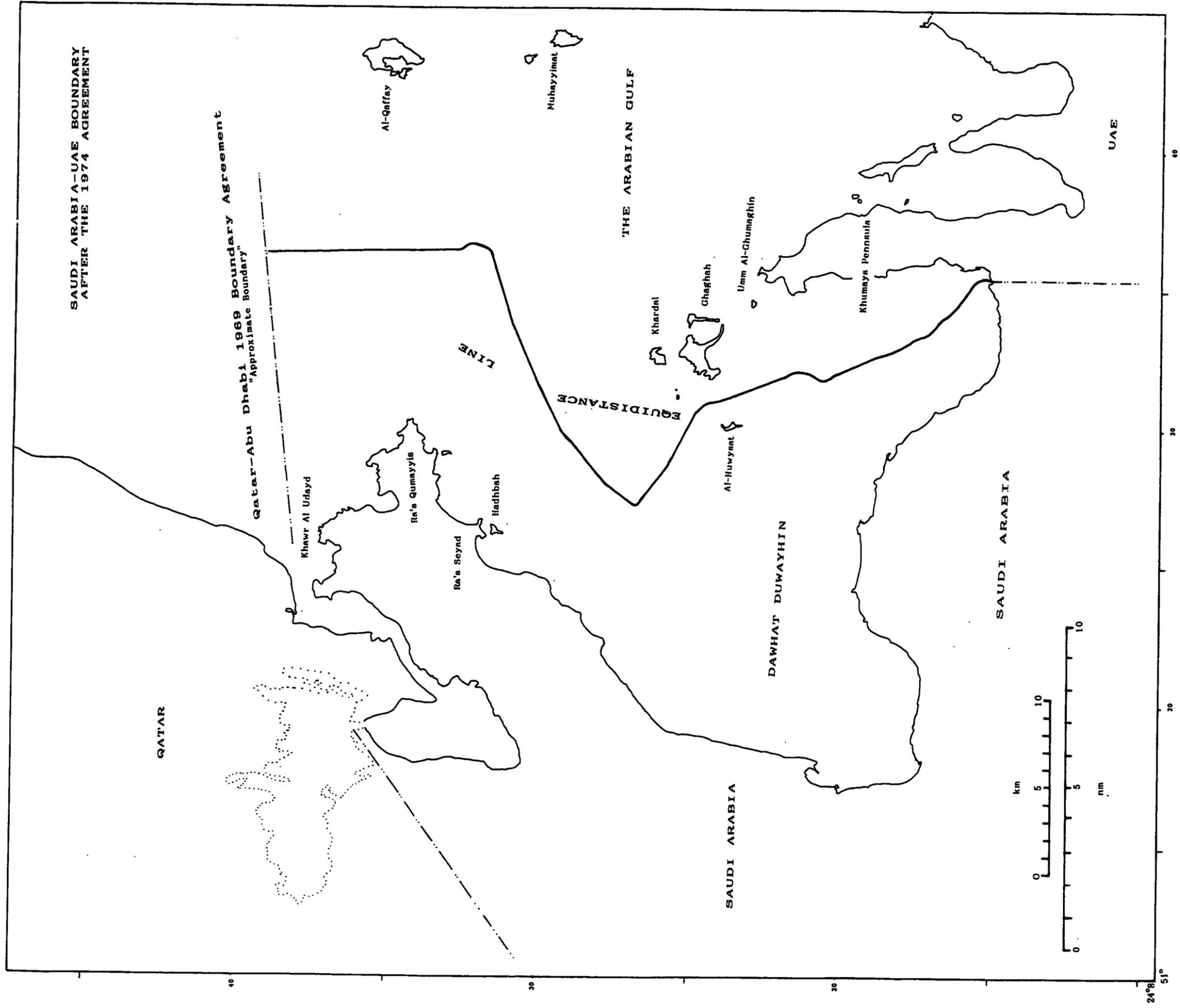
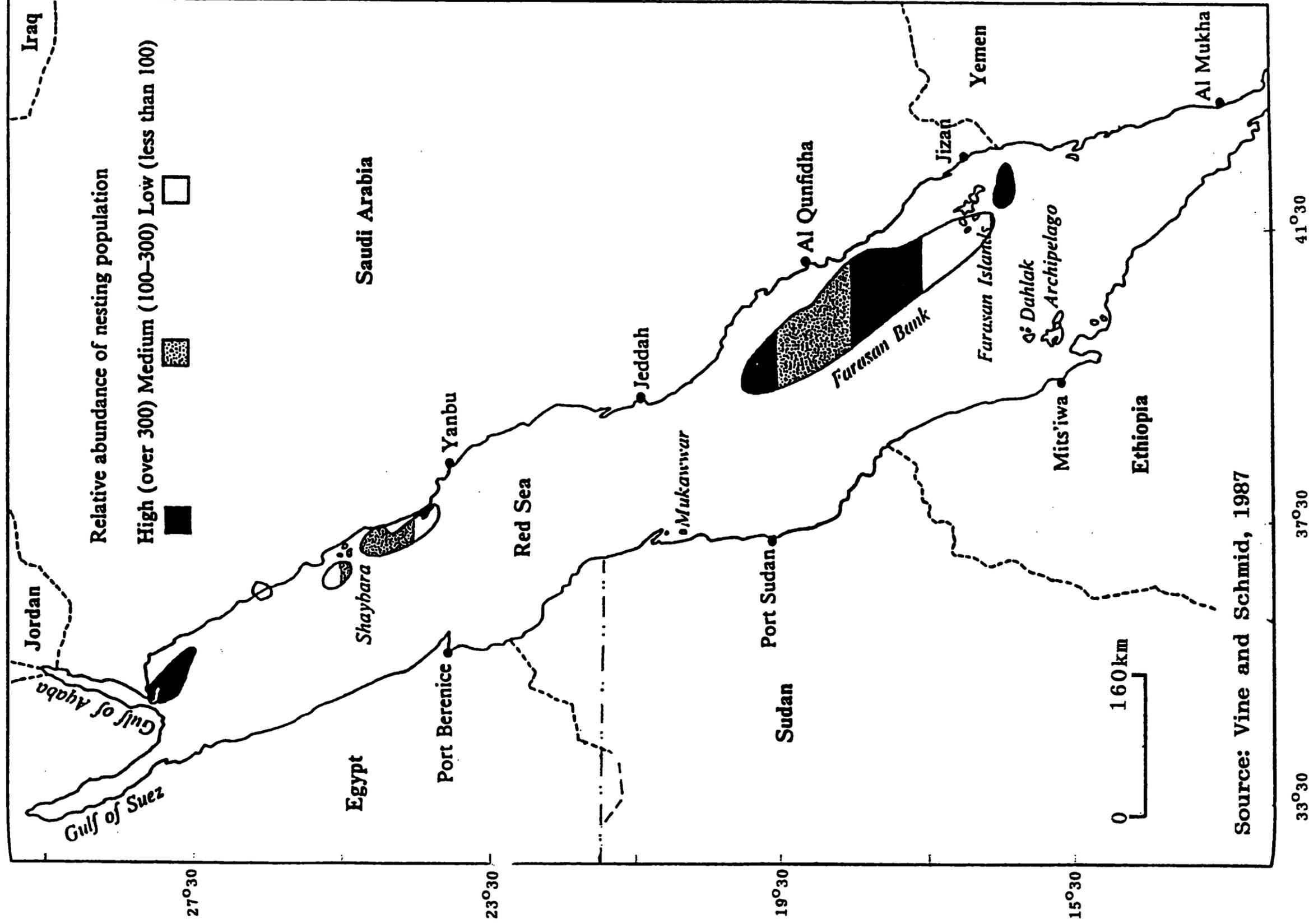


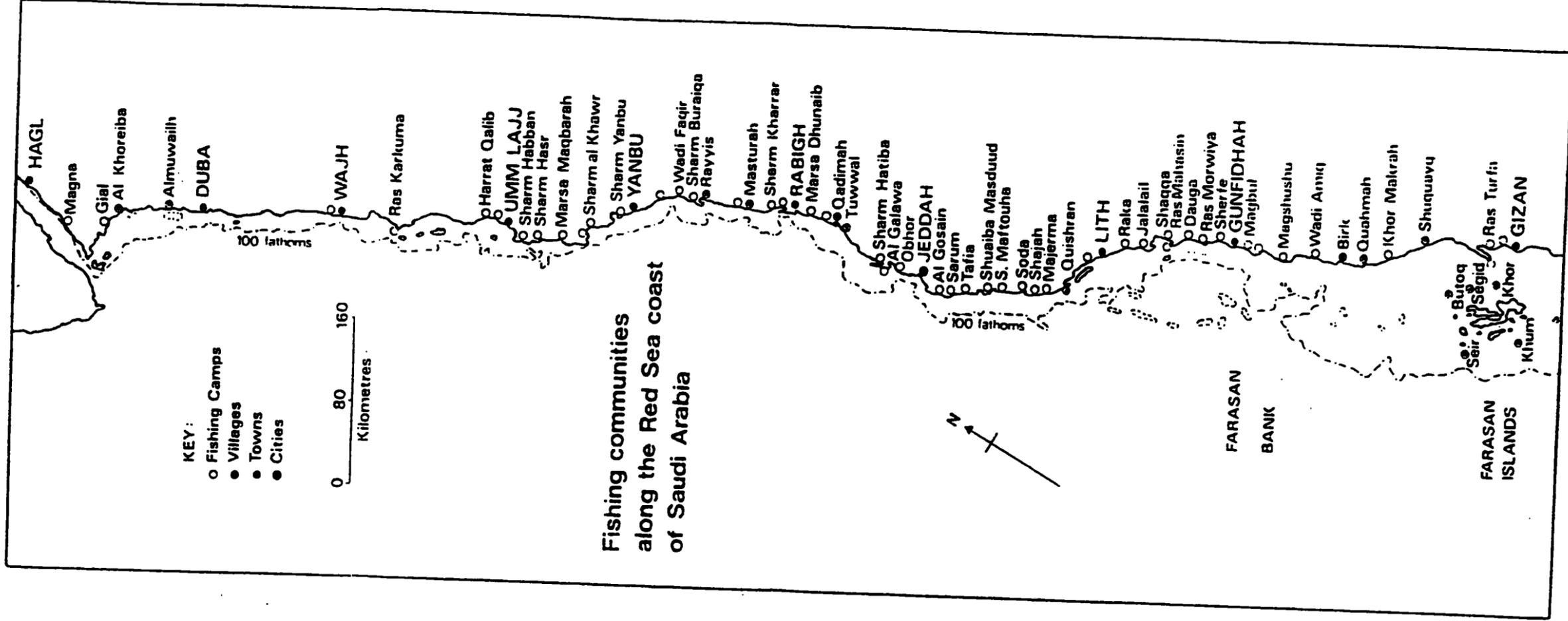
Figure 4.1



Source: Vine and Schmid, 1987

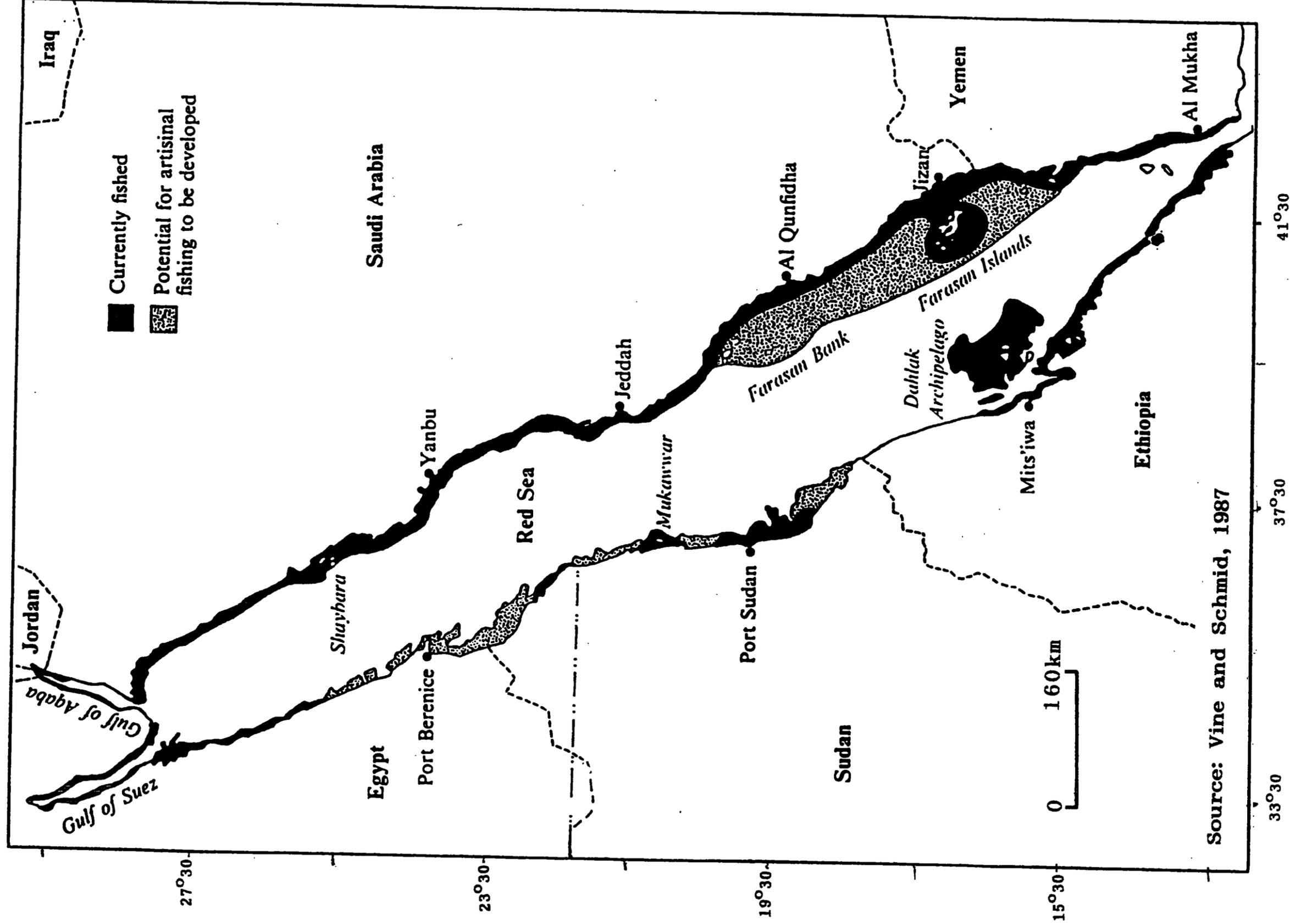
Turtle Nesting Populations in the Red Sea

Figure 4.2



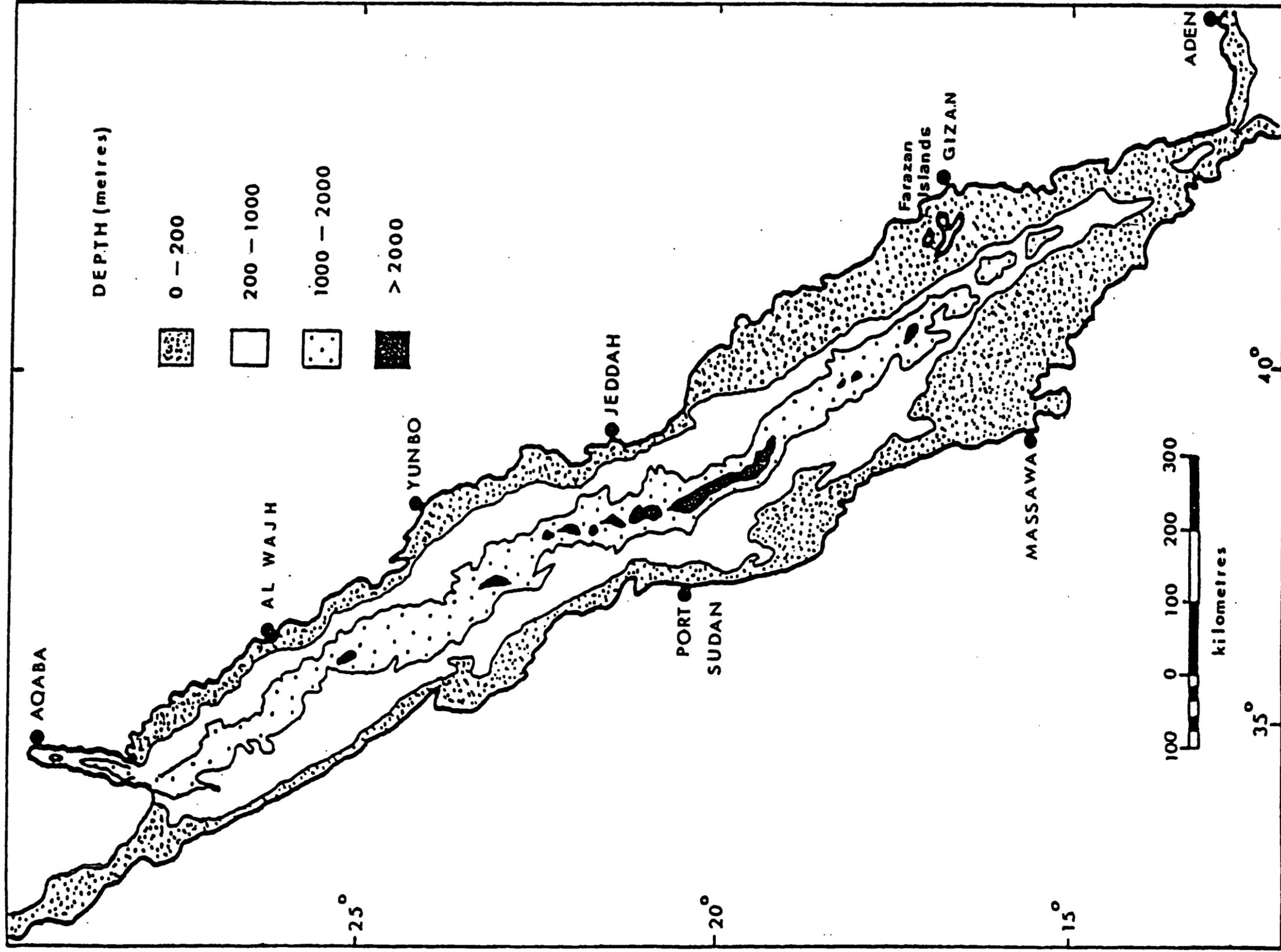
Source: MAWR, no date

Figure 4.3



Source: Vine and Schmid, 1987

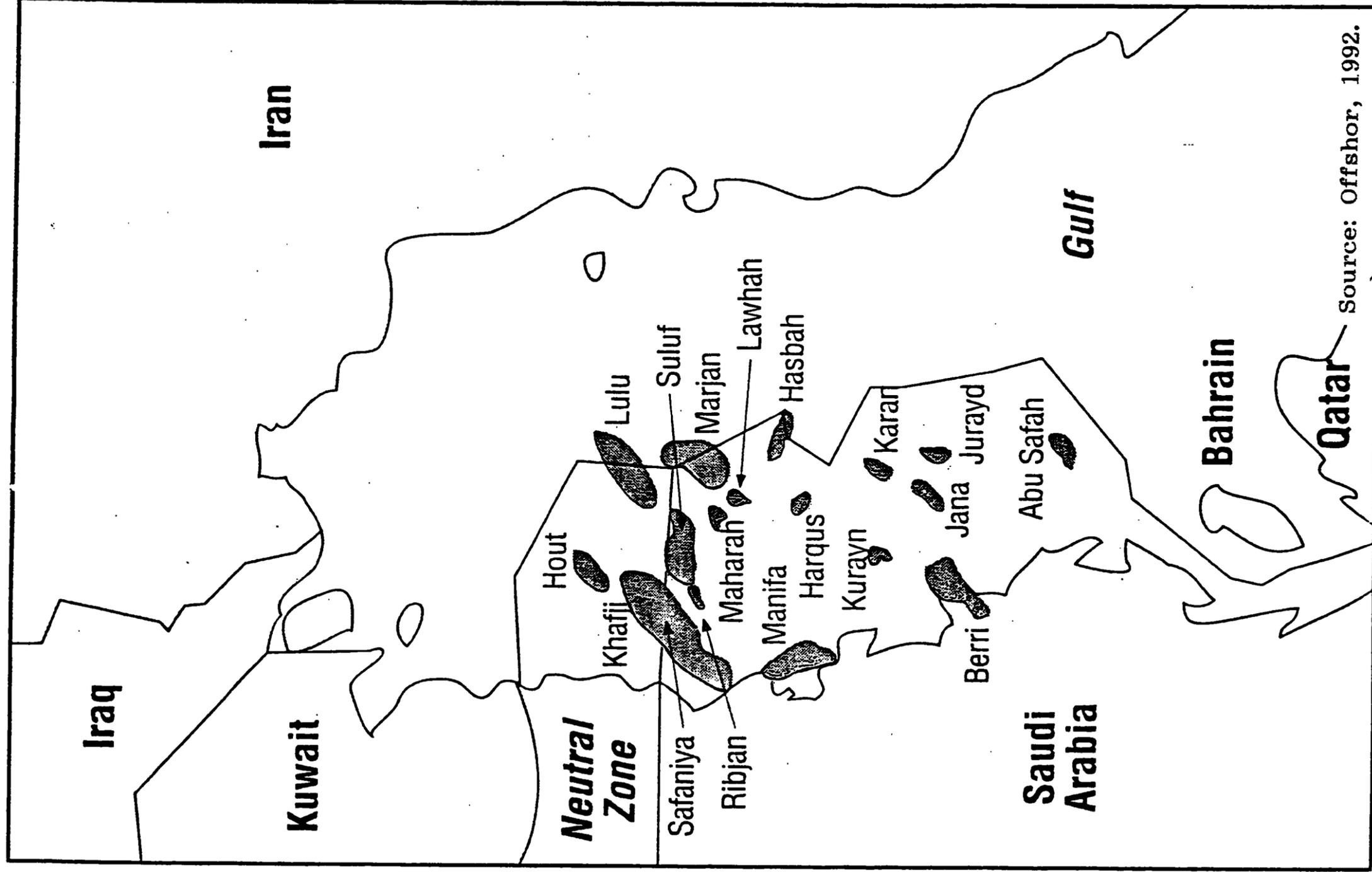
Figure 5.1



Bathymetric Chart of the Red Sea
(From data supplied by Admiralty Chart C 6359)

Source: Morley, 1975

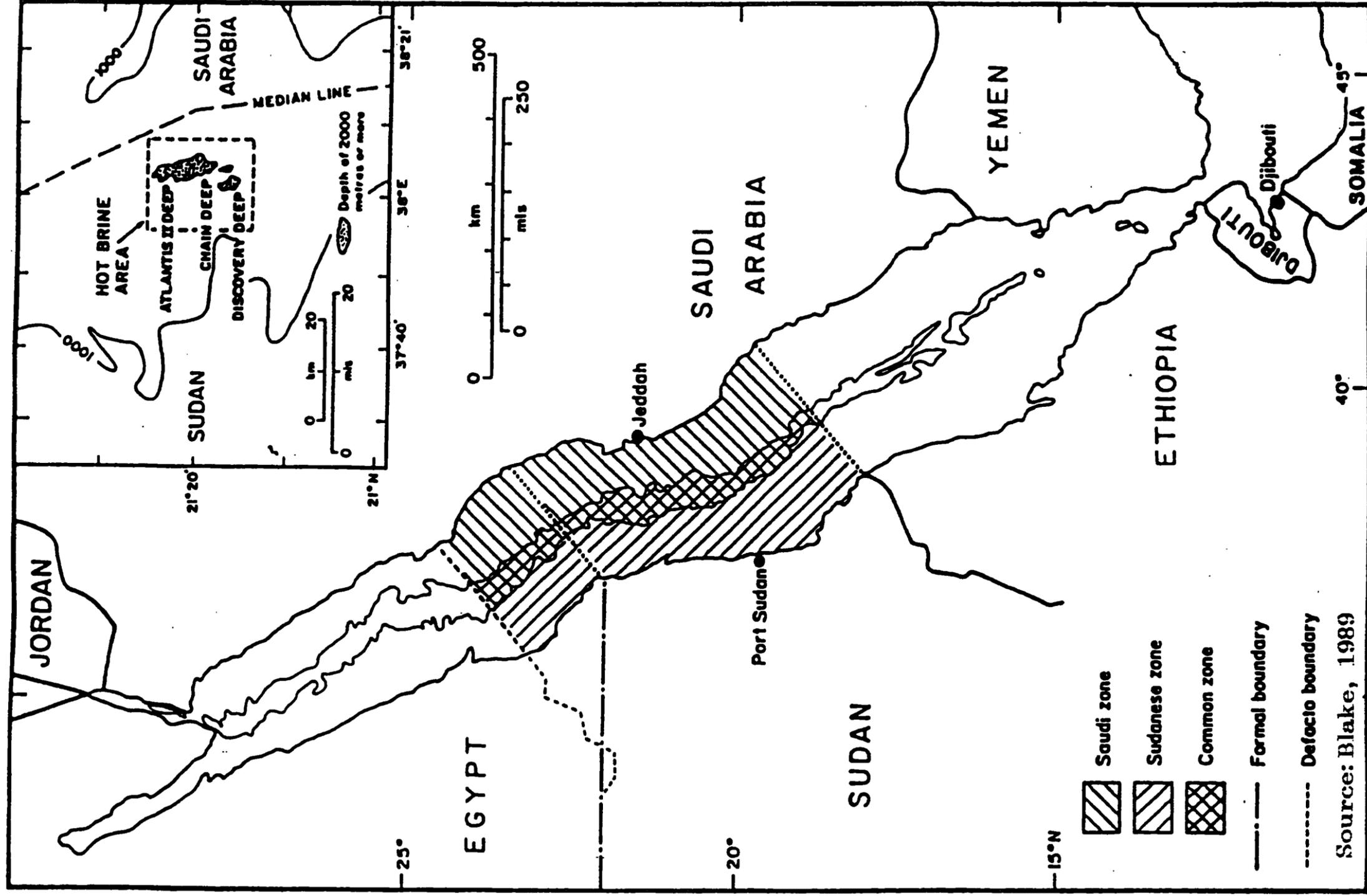
Figure 5.2



Source: Offshor, 1992.

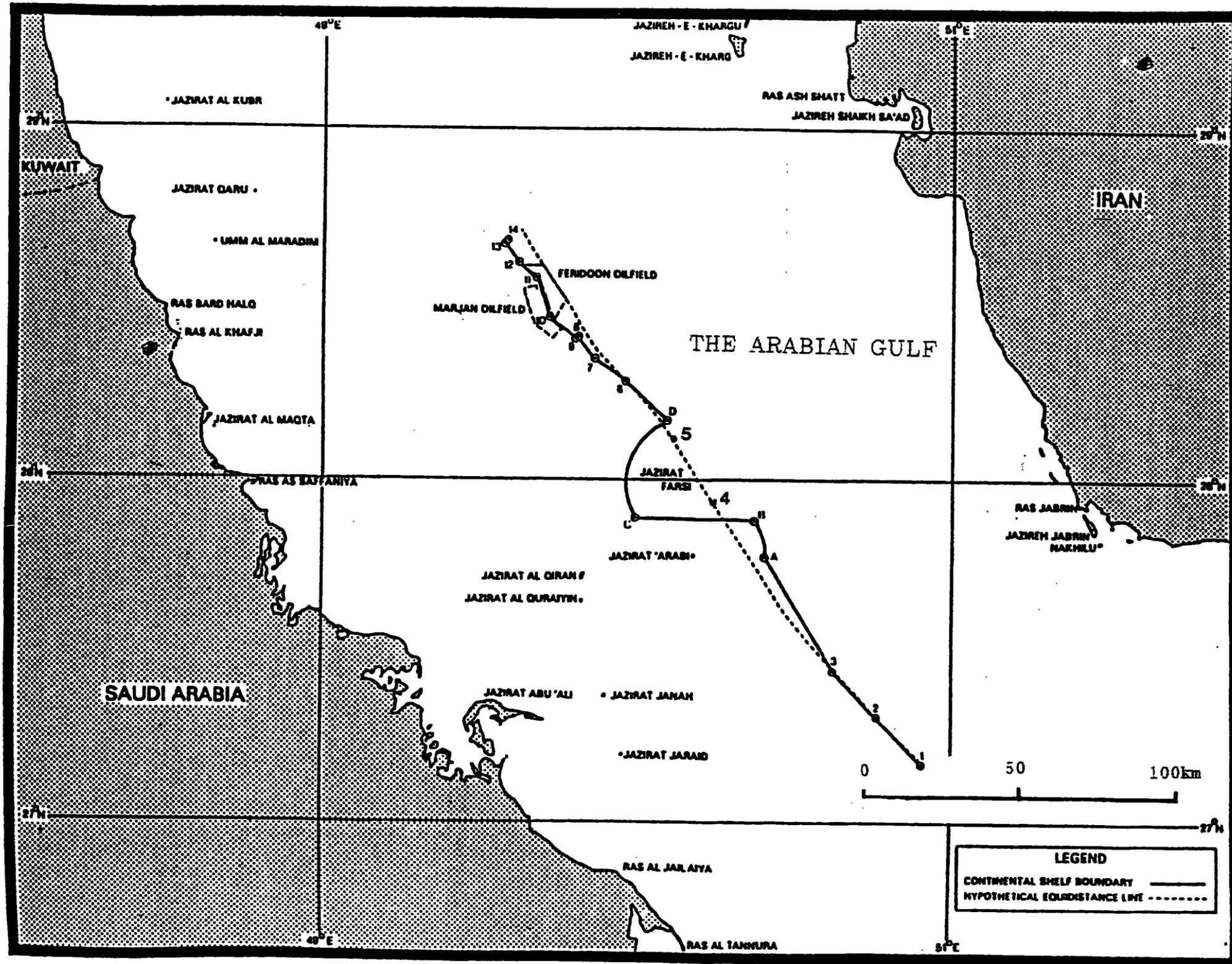
Saudi Offshore Oil Fields in the Arabian Gulf

Figure 5.3



Saudi Arabia-Sudan 1974 Agreement on the Red Sea
 Inset: Hypothetical Median Line and Atlantis II Deep

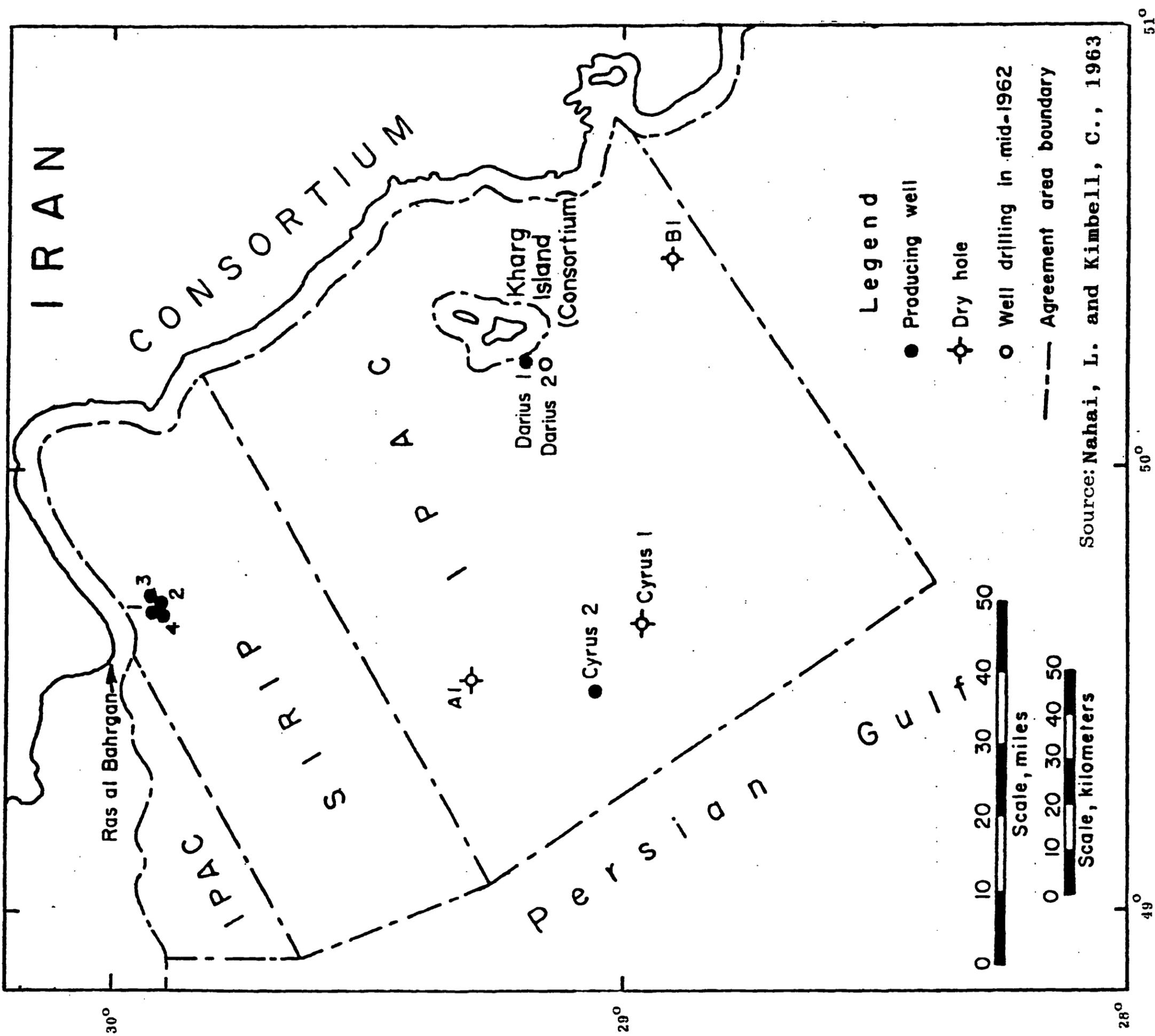
Figure 6.2



Source: ICJ, 1983

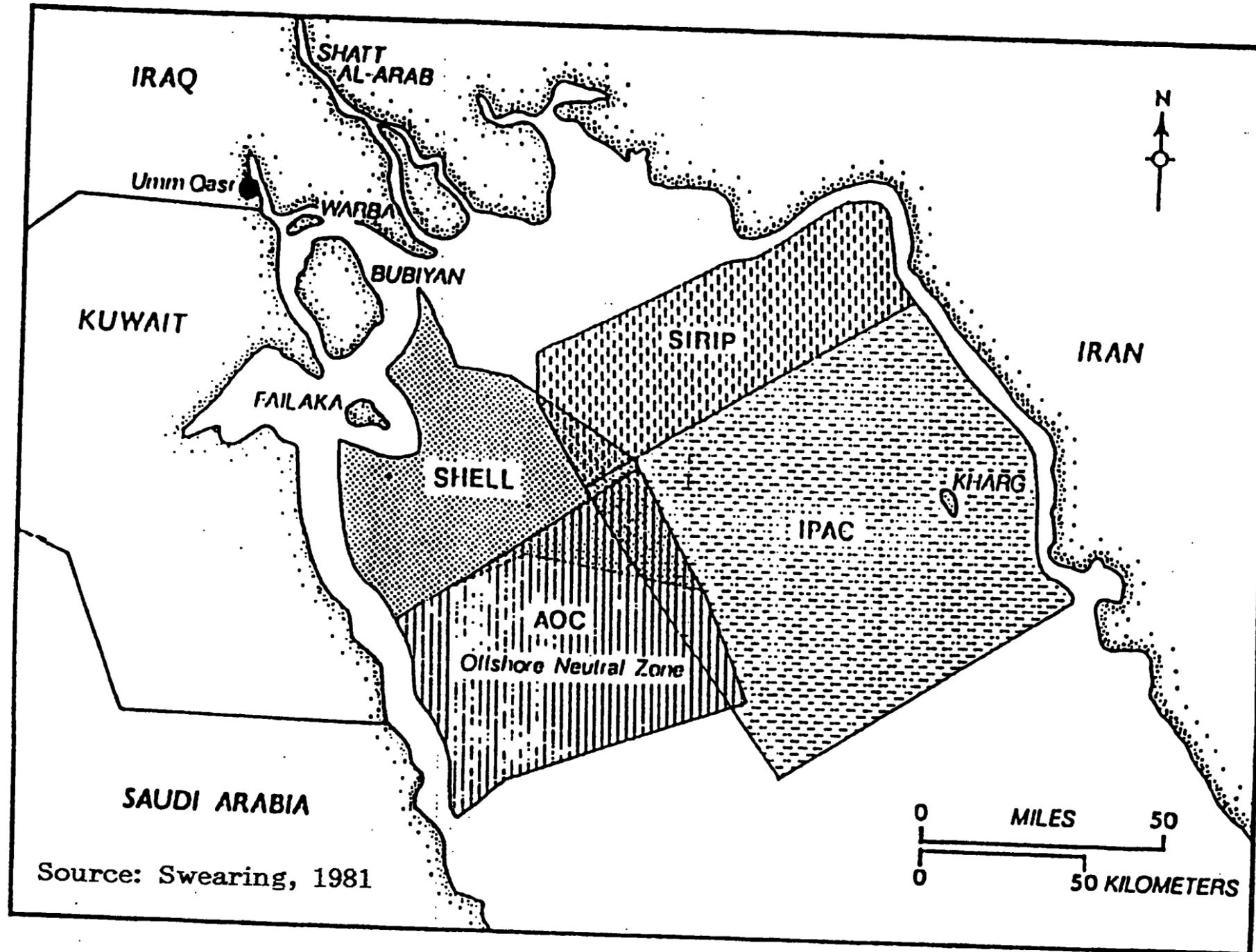
Saudi Arabia-Iran Continental Shelf Boundary

Figure 6.3



Detailed Map of Offshore Concession Areas in Iran

Figure 6.4



Source: Swearing, 1981

Overlapping Oil Concession Areas in the Upper Gulf

Figure 6.5

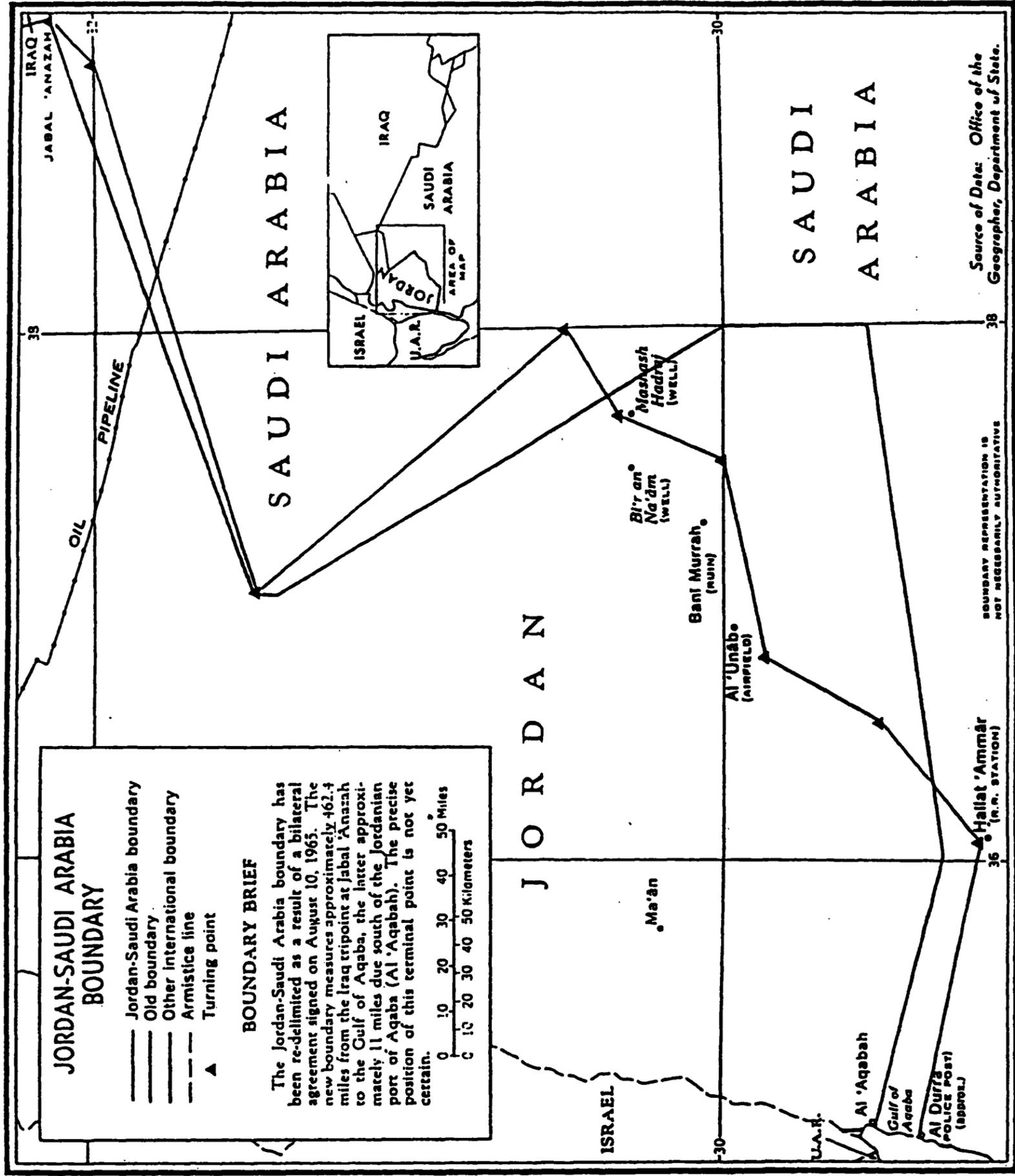


Figure 6.6

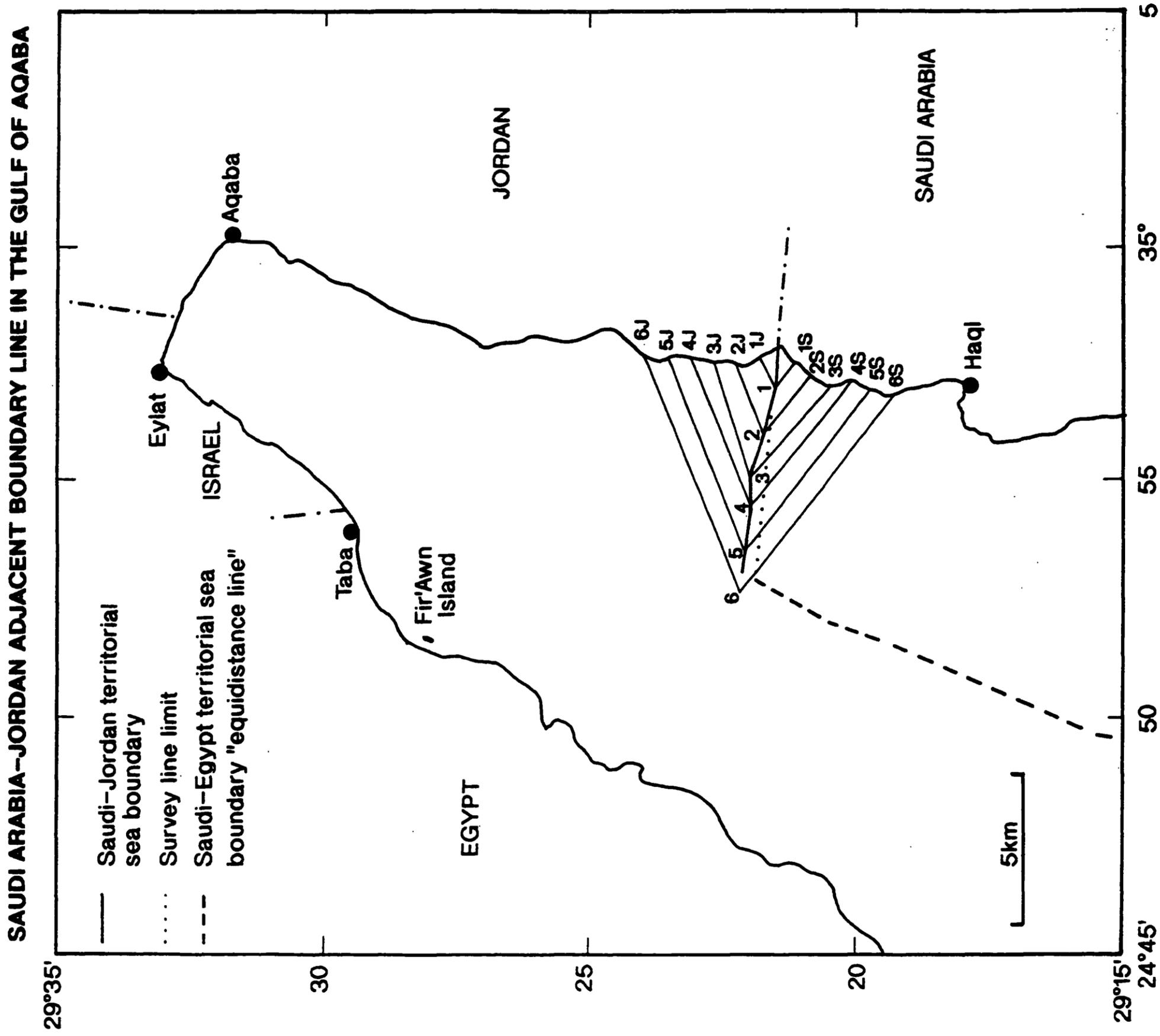
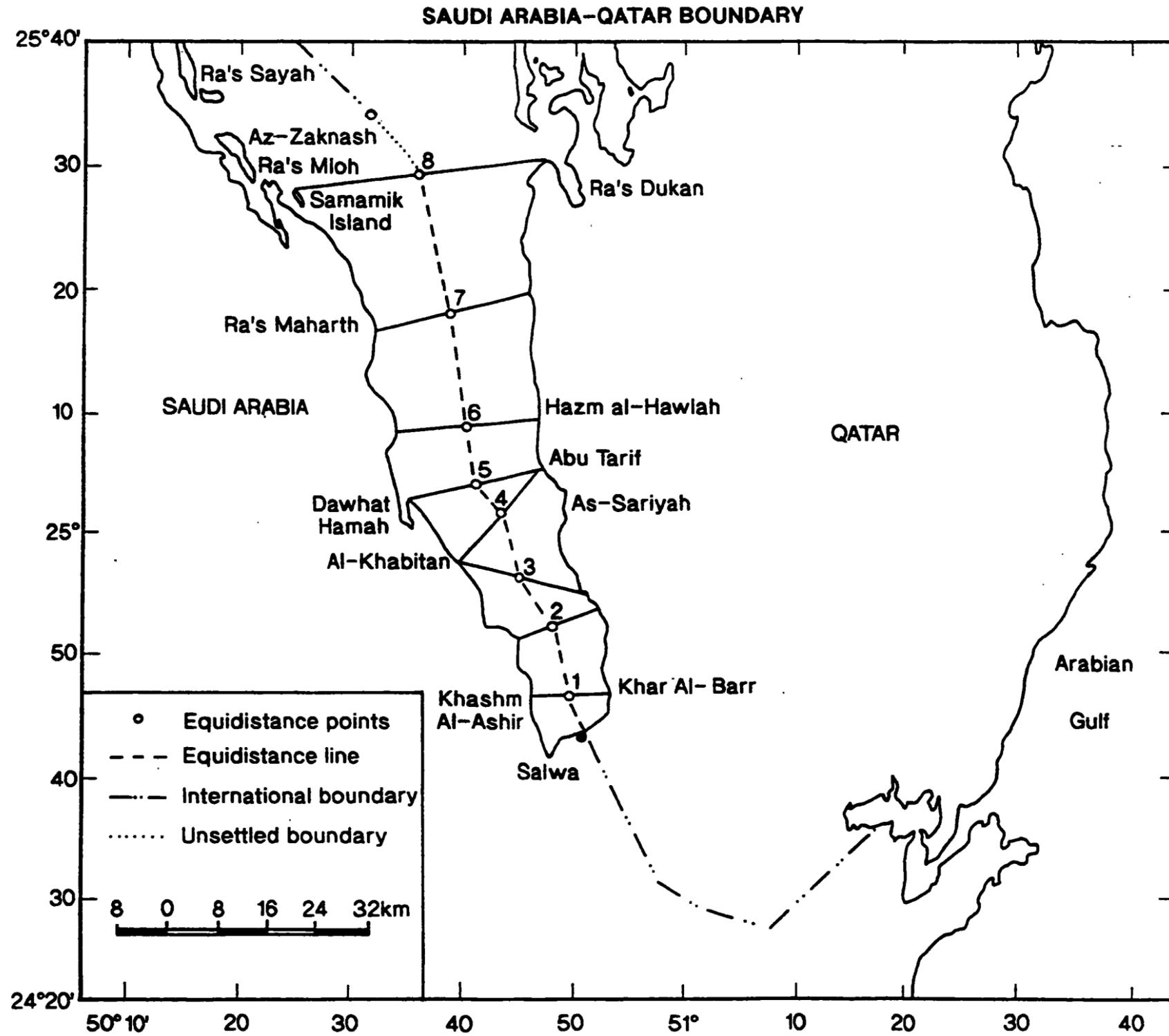
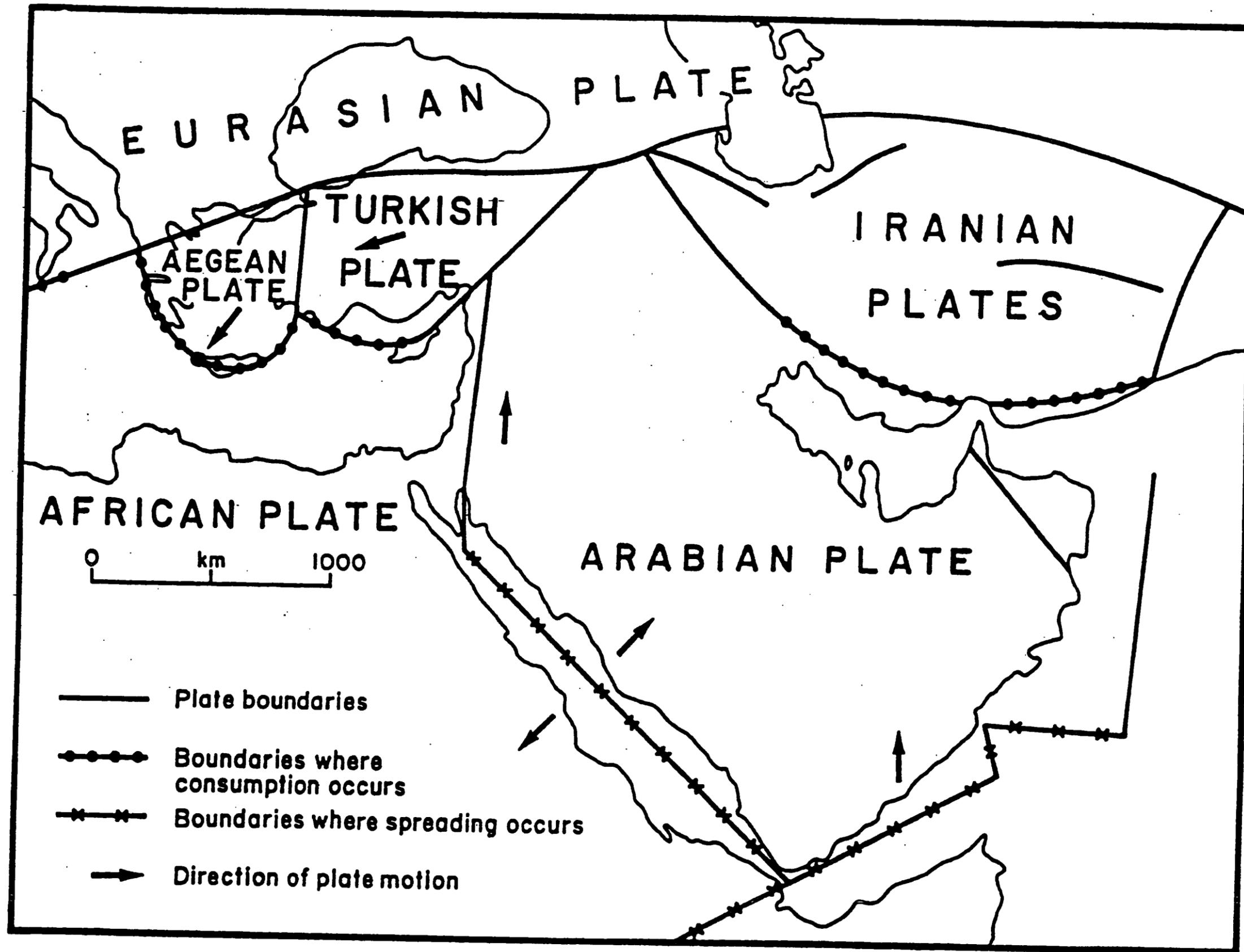


Figure 6.7



SOURCE: Al-Sayf 1990 based on Saudi Arabia-Qatar boundary map no. GF 222Y issued 1985

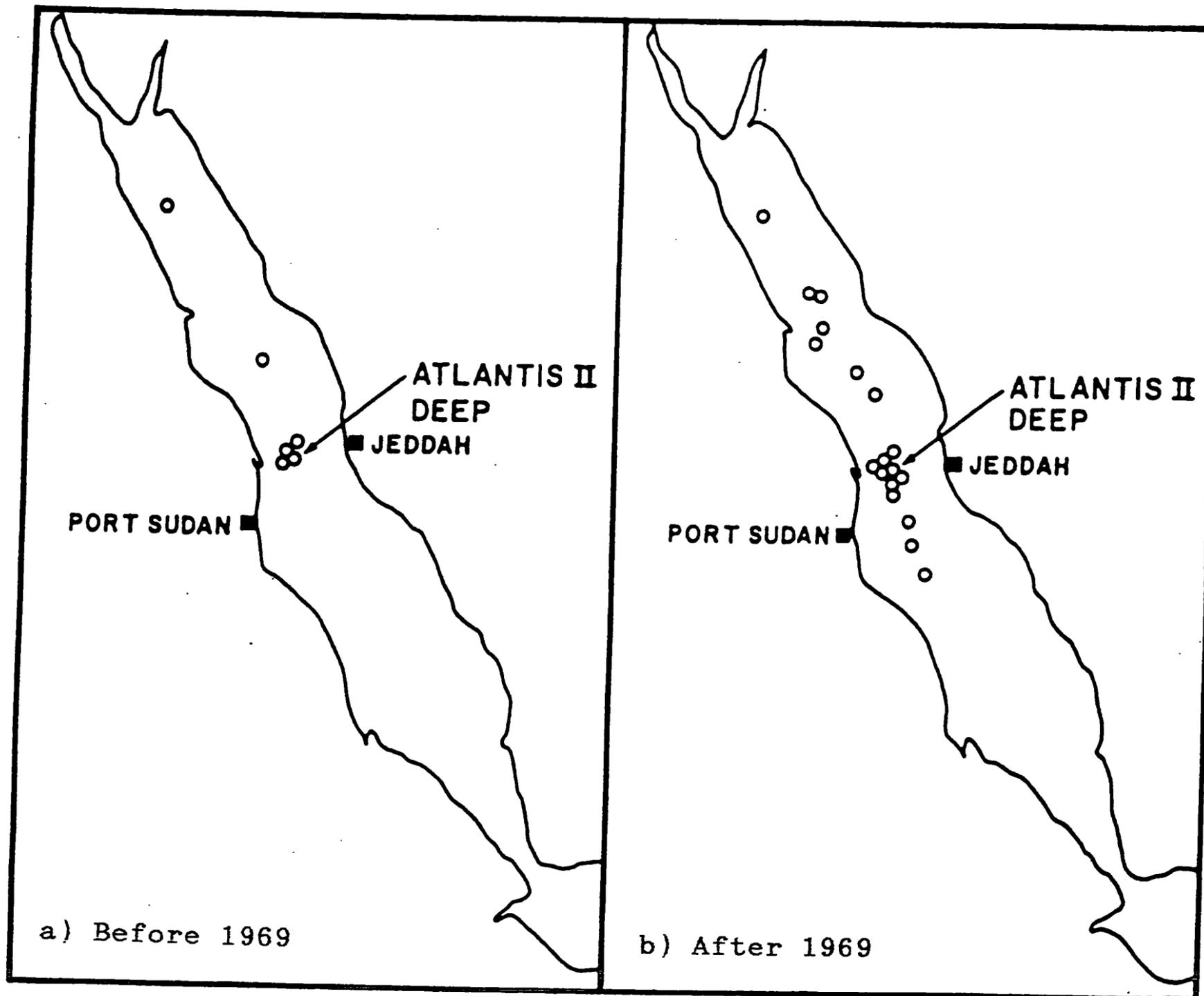
Figure 7.1



Source: Abunafeesa, 1985

Plate Tectonics and Formation of the Red Sea

Figure 7.2



Discovery of Brine Deepes and/or Metalliferous Sediments

Source: Blessenbach and Nawab, 1982

Figure 8.1

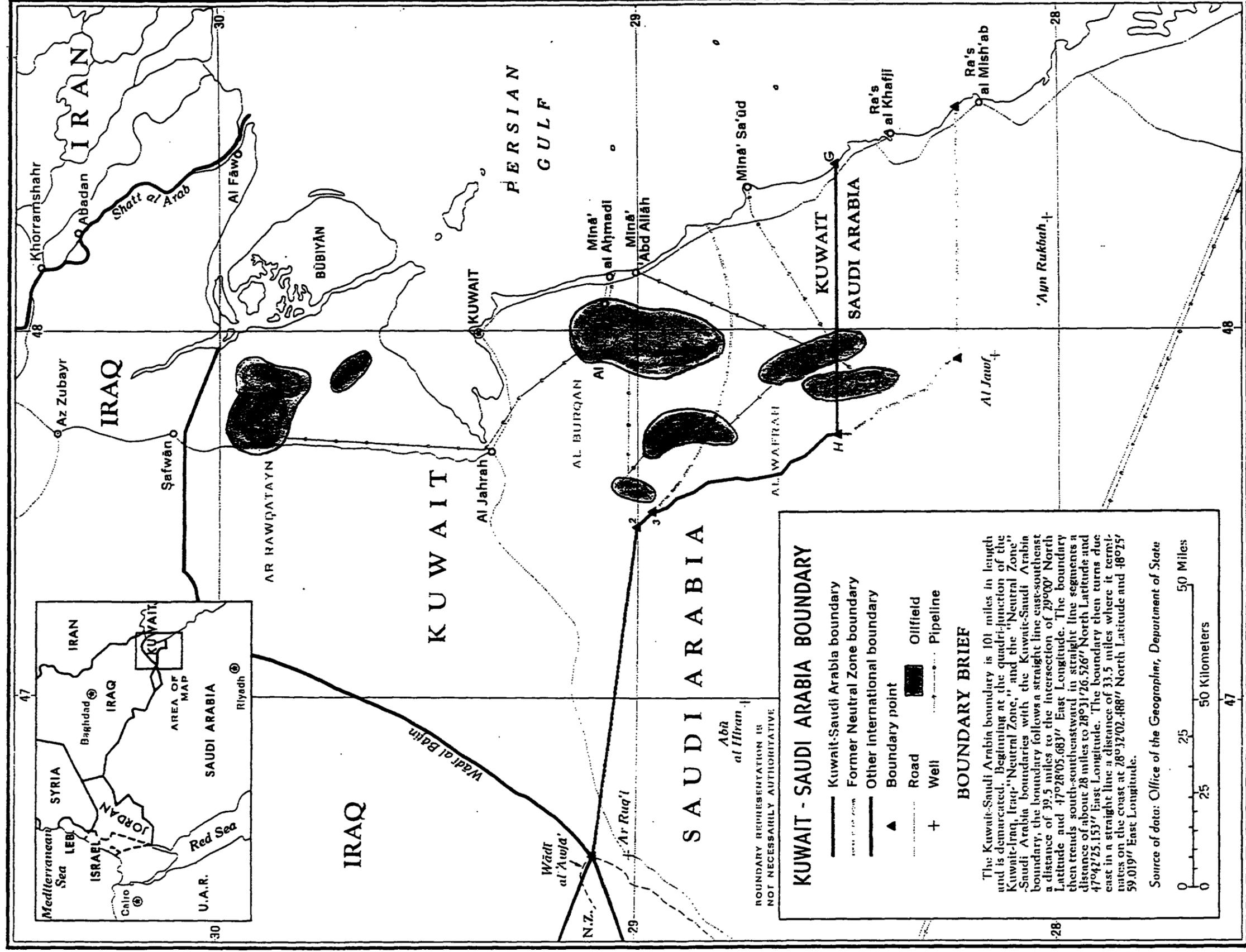
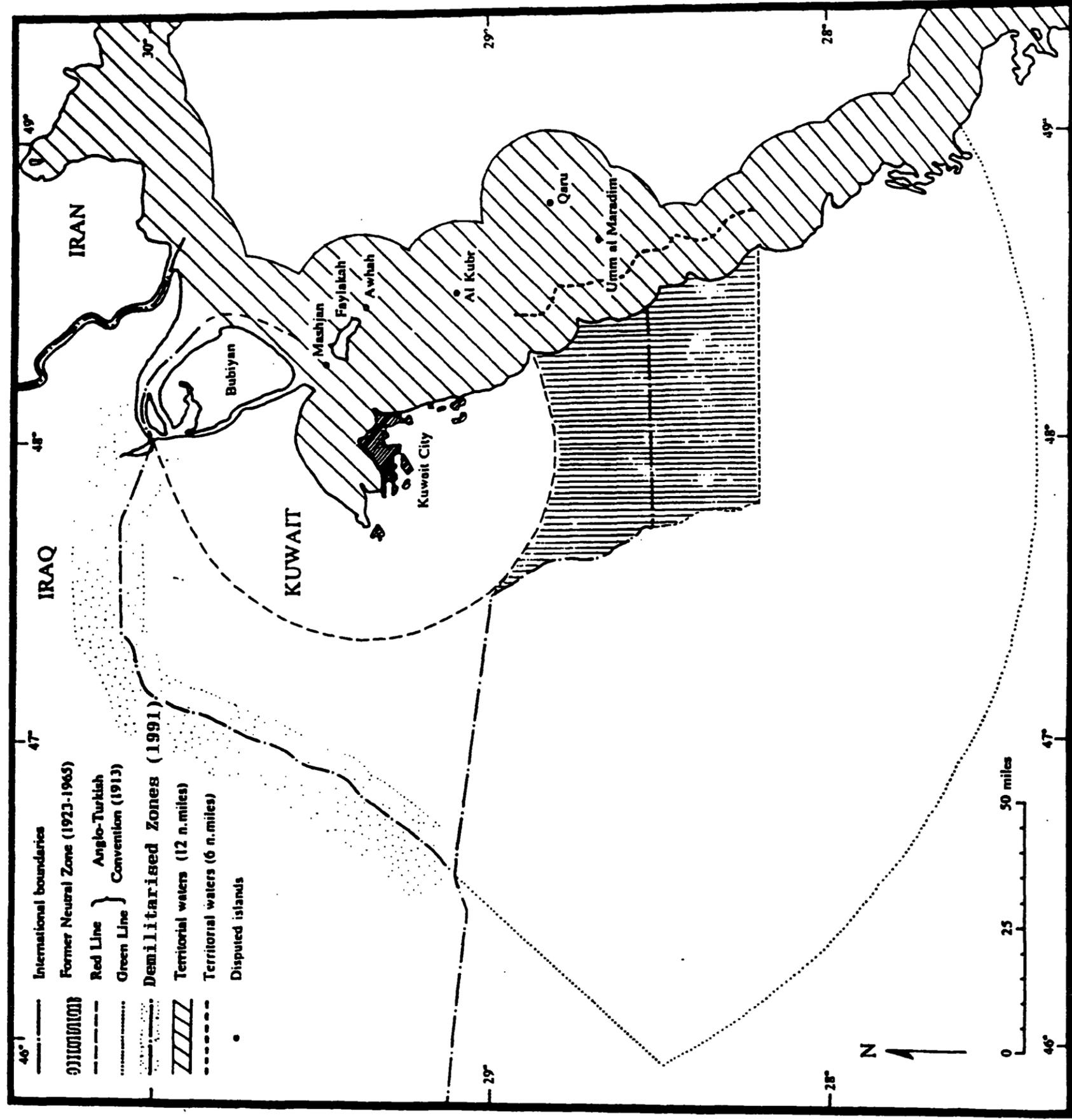


Figure 8.2



Kuwait, Showing the 1913 Red and Green lines, the Former Neutral Zone, and the 1991 Demilitarised Zone

Source: Blake, 1991

Figure 8.3

THE SAUDI ARABIA-KUWAIT
MARITIME BOUNDARY

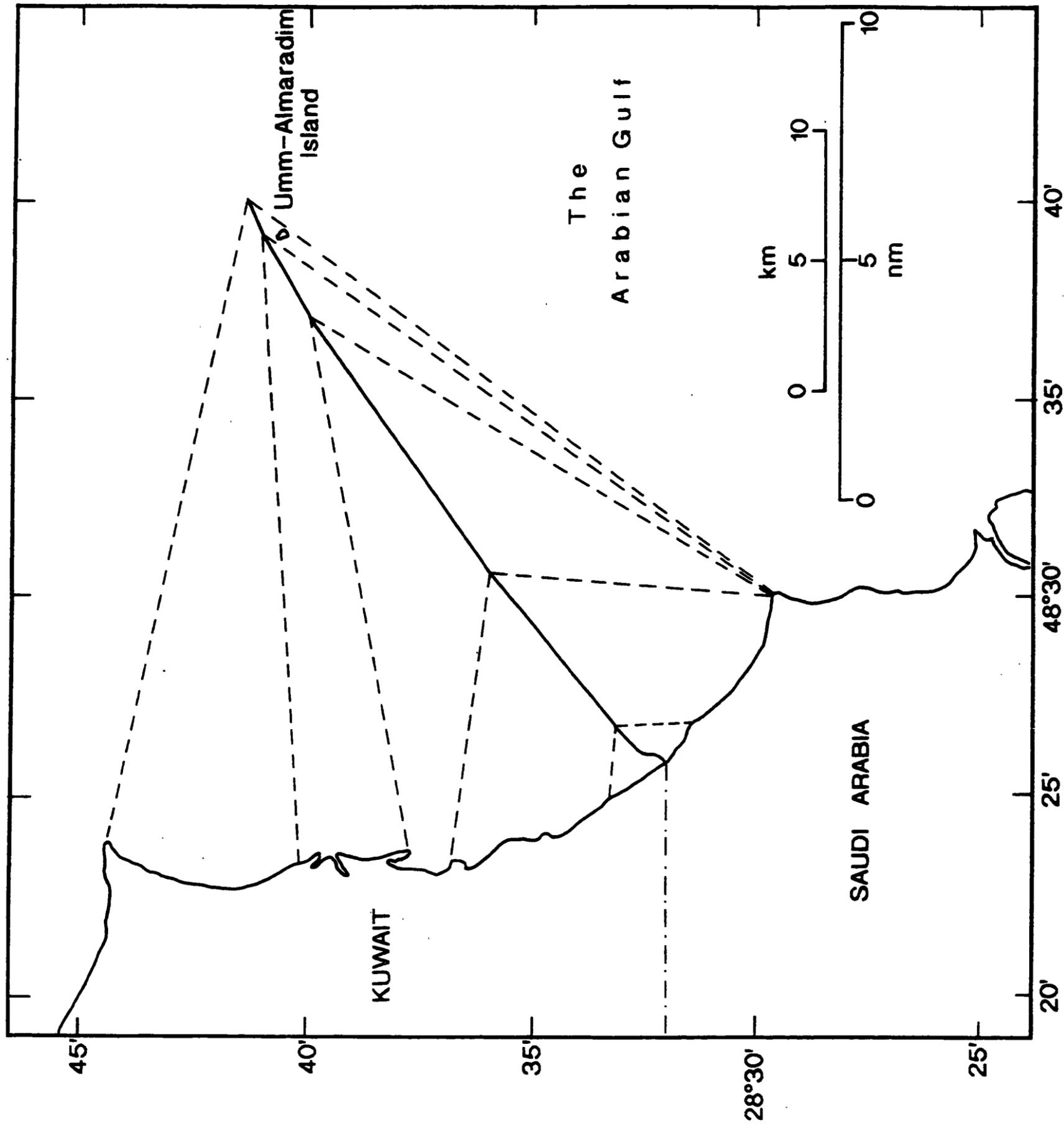
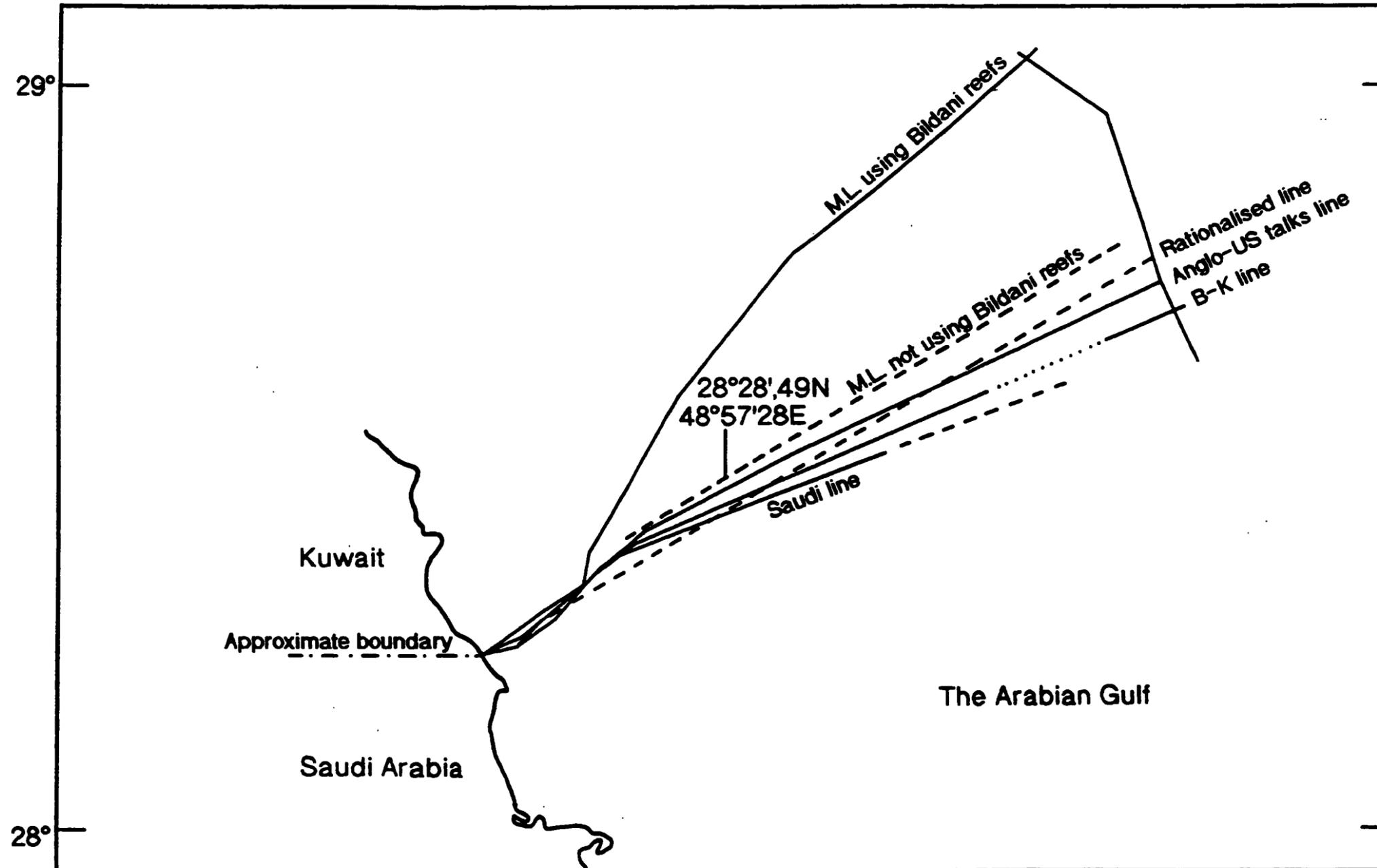


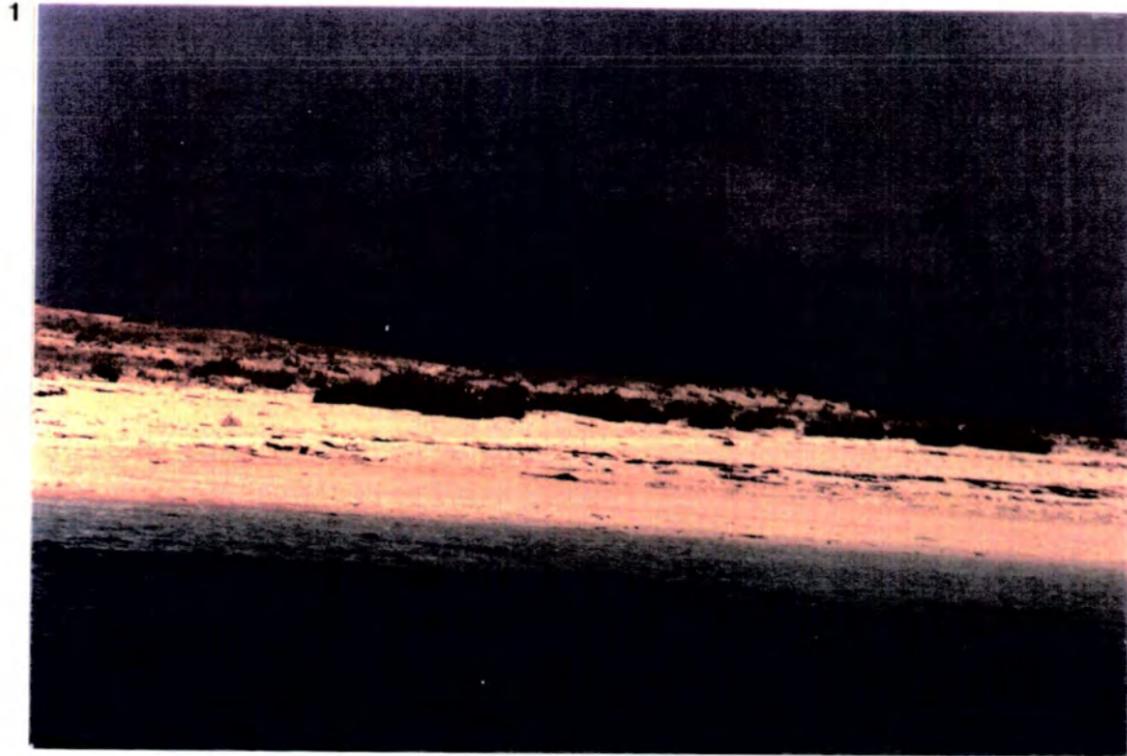
Figure 8.4

TRACING OF VARIOUS PROPOSED MEDIAN LINES (SAUDI LINE, RATIONALISED LINE, ANGLO-US TALKS LINE, LINE TAKING ACCOUNT OF BILDANI REEFS) FOR THE KUWAIT-SAUDI ARABIA NEUTRAL ZONE SEABED DIVISION, APRIL 1959



SOURCE: Schofield, 1990

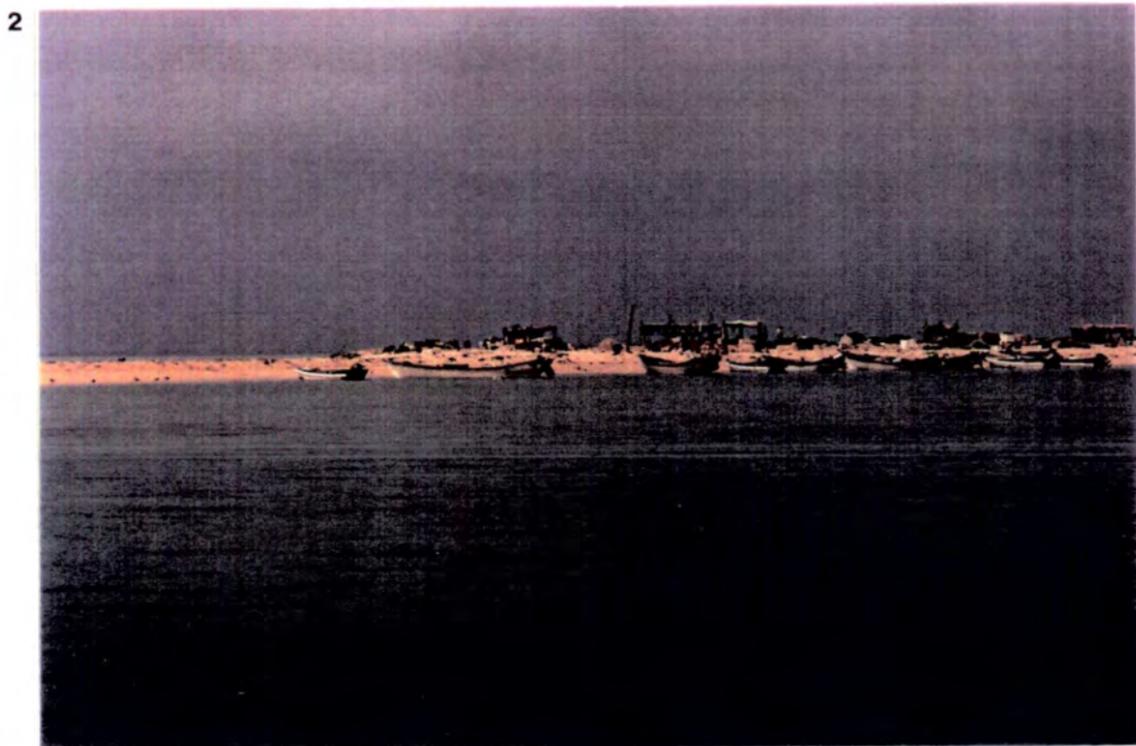
1 THE LANDSCAPE OF IMENAH ISLAND (SAUDI SOUTHERN RED SEA)



3 BIRDS AT AL-DAHRAH ISLAND (SAUDI SOUTHERN RED SEA)



2 FISHING ACTIVITIES IN AL-QADIYAH (SAUDI SOUTHERN RED SEA)

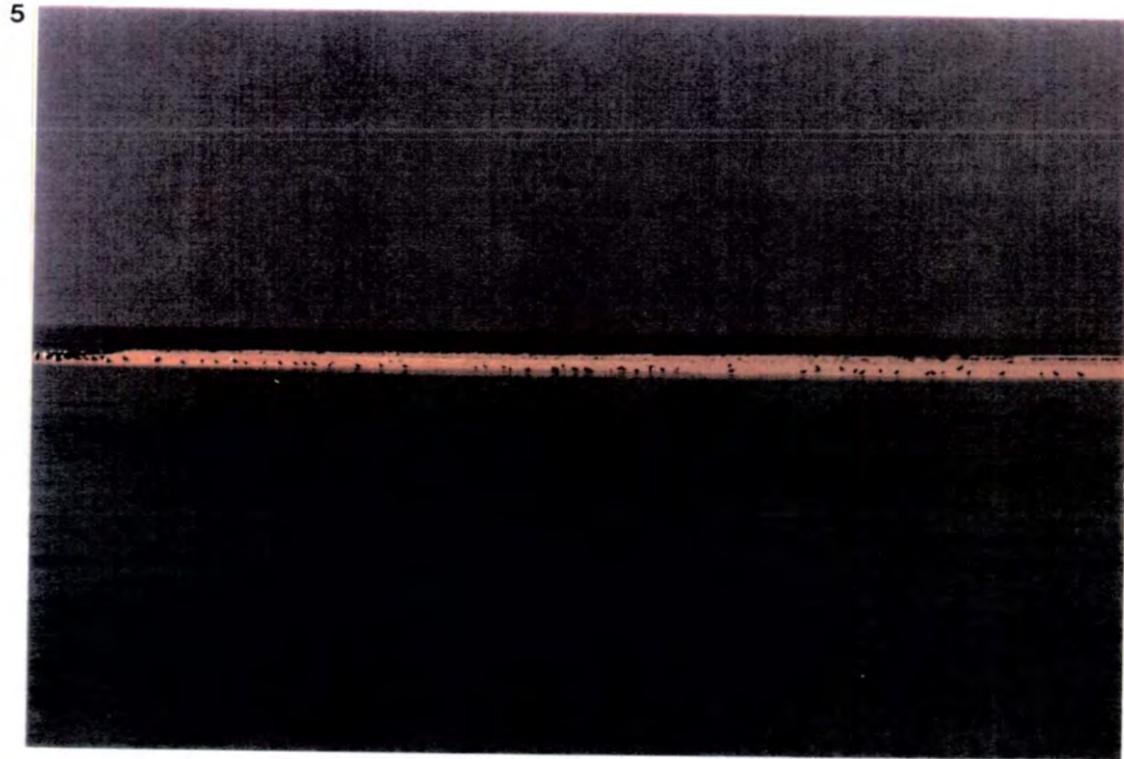


4 ISLAND WITH CIRCULAR SHAPE (SAUDI SOUTHERN RED SEA)



Figure 8.5

ANOTHER VEIW TO AL-DAHRAH ISLAND



AL-JA'AFARI IS A VERY LONG ISLAND

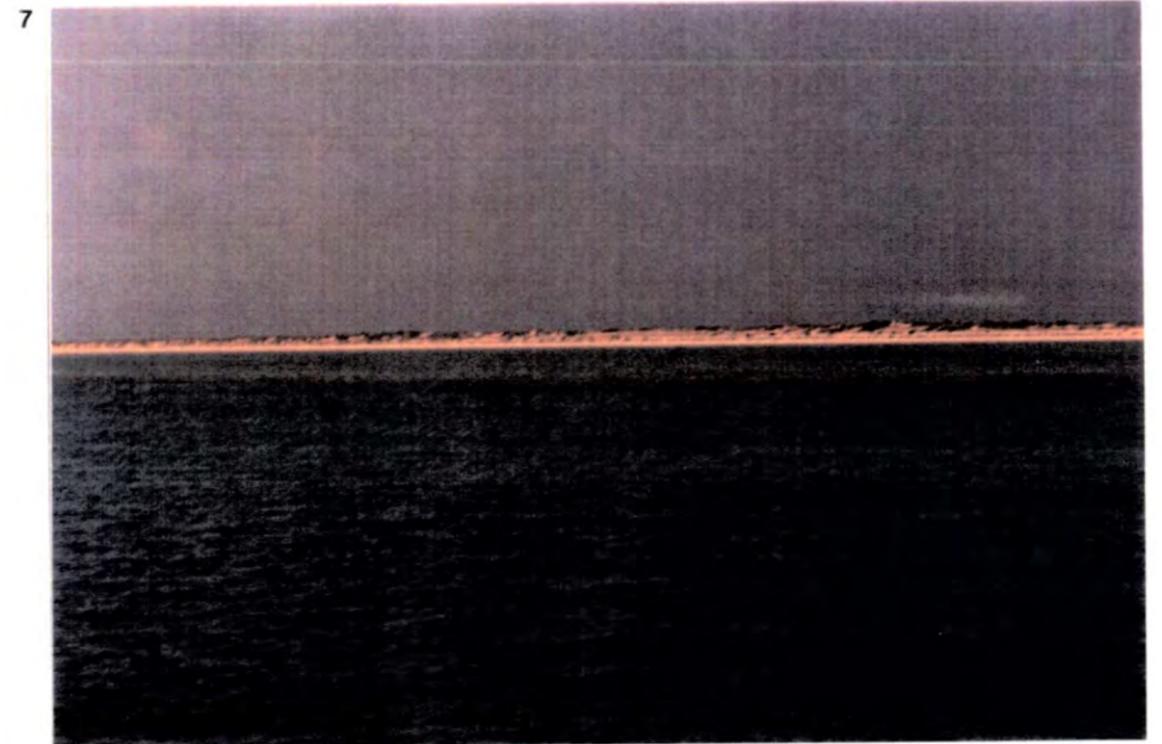
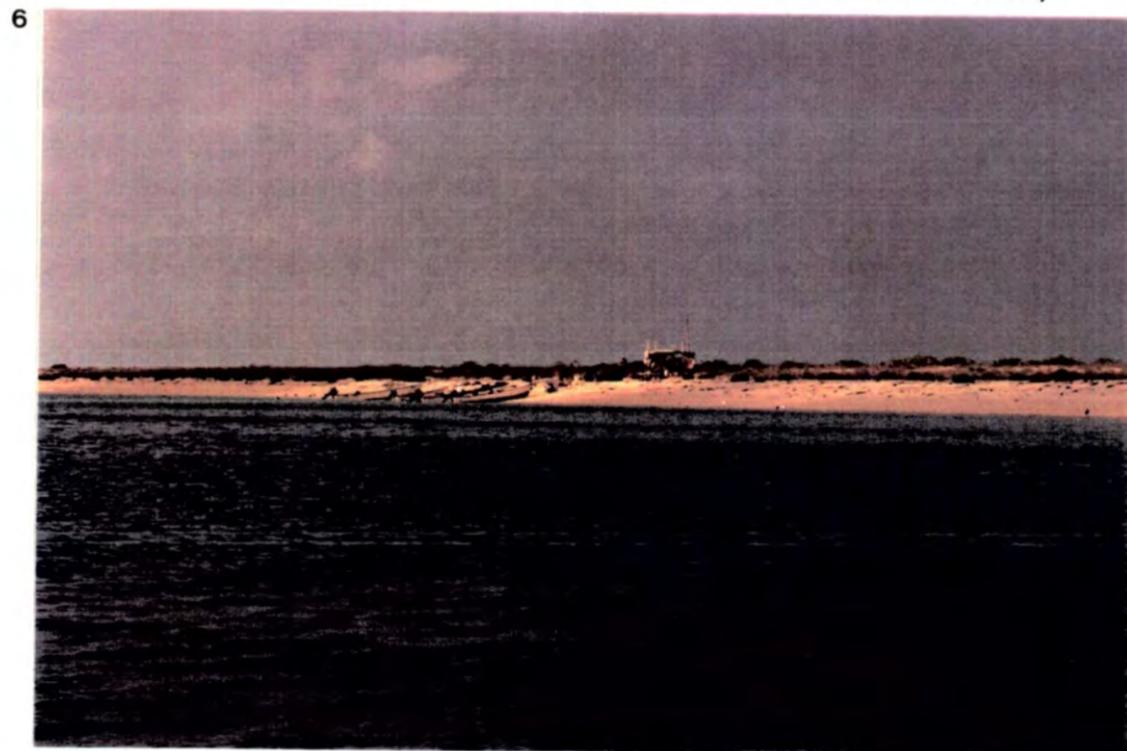
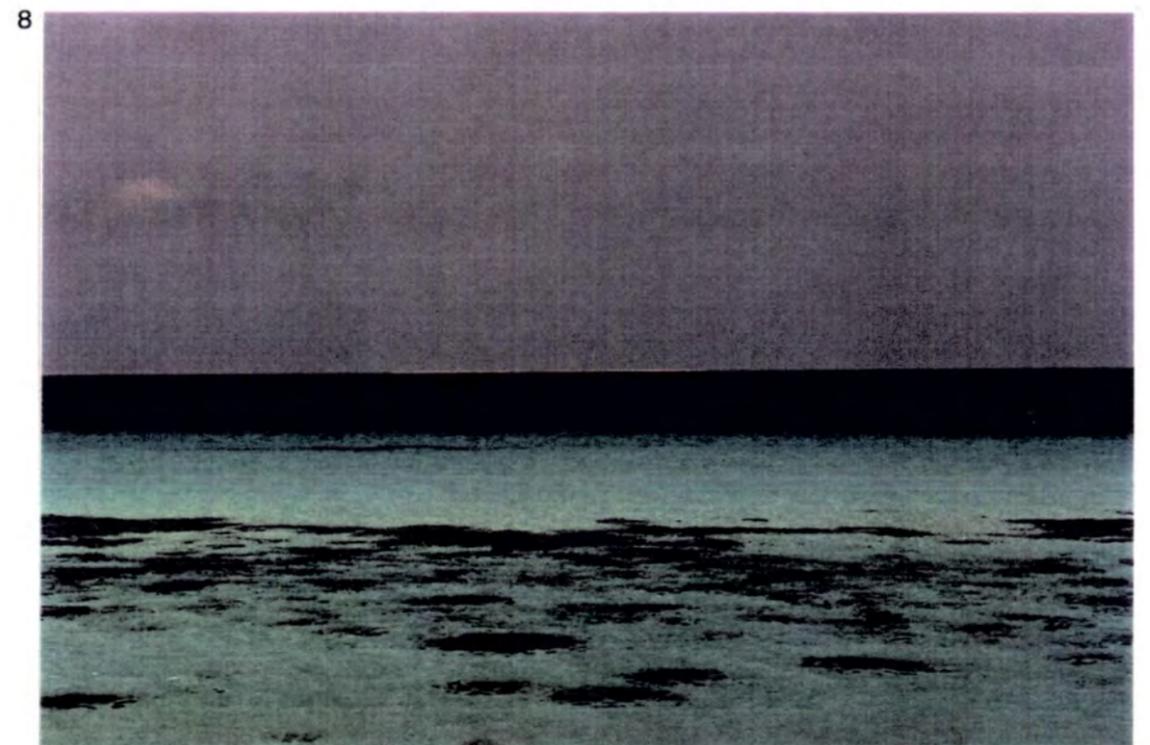


Figure 8.6

FISHING ACTIVITIES ON AL-JA'AFARI ISLAND (SAUDI SOUTHERN RED SEA)



A VEIW FROM AL-ASHIQ ISLAND SHOWS AN ISLAND AS A WHITE LINE ON THE PICTURE (SAUDI SOUTHERN RED SEA)



PART OF AL-ASHIQ ISLAND COAST

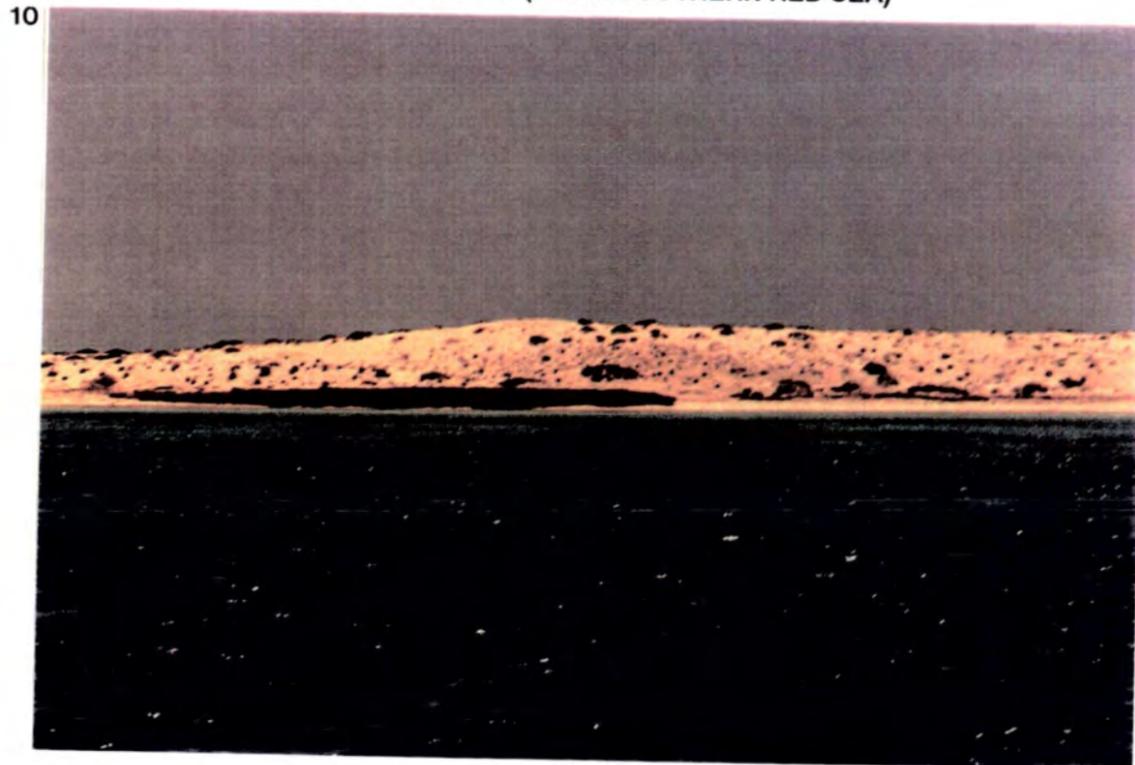


SAUDI PART ON RUMAYN ISLAND (SAUDI SOUTHERN RED SEA)



Figure 8.7

MARRYN ISLAND (SAUDI SOUTHERN RED SEA)

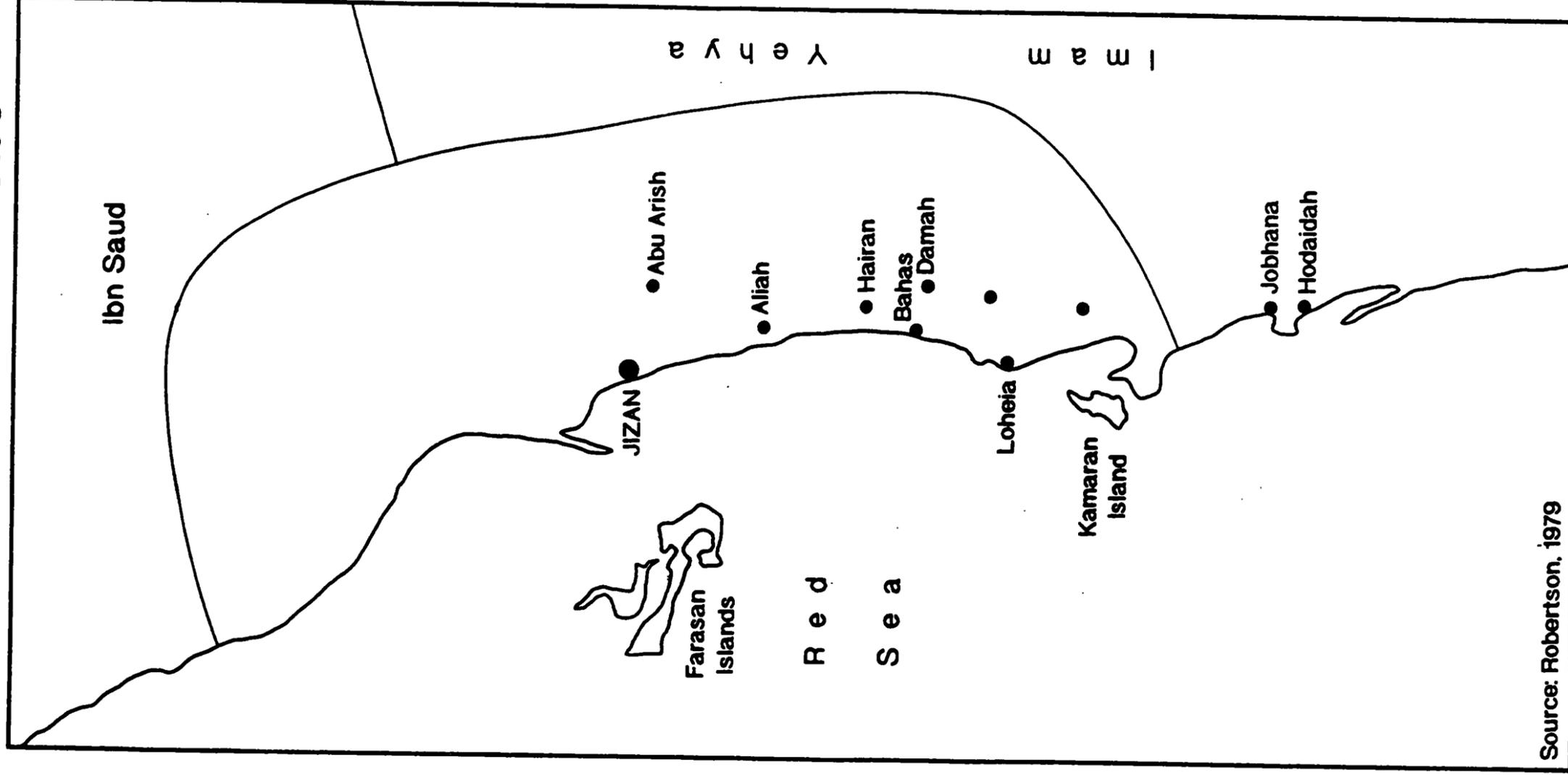


VEGETATION ON RAMAYN ISLAND



Figure 8.8

TERRITORIAL STATUS IN SOUTH WESTERN ARABIA AT THE END OF THE 1920'S



Source: Robertson, 1979

Figure 8.9

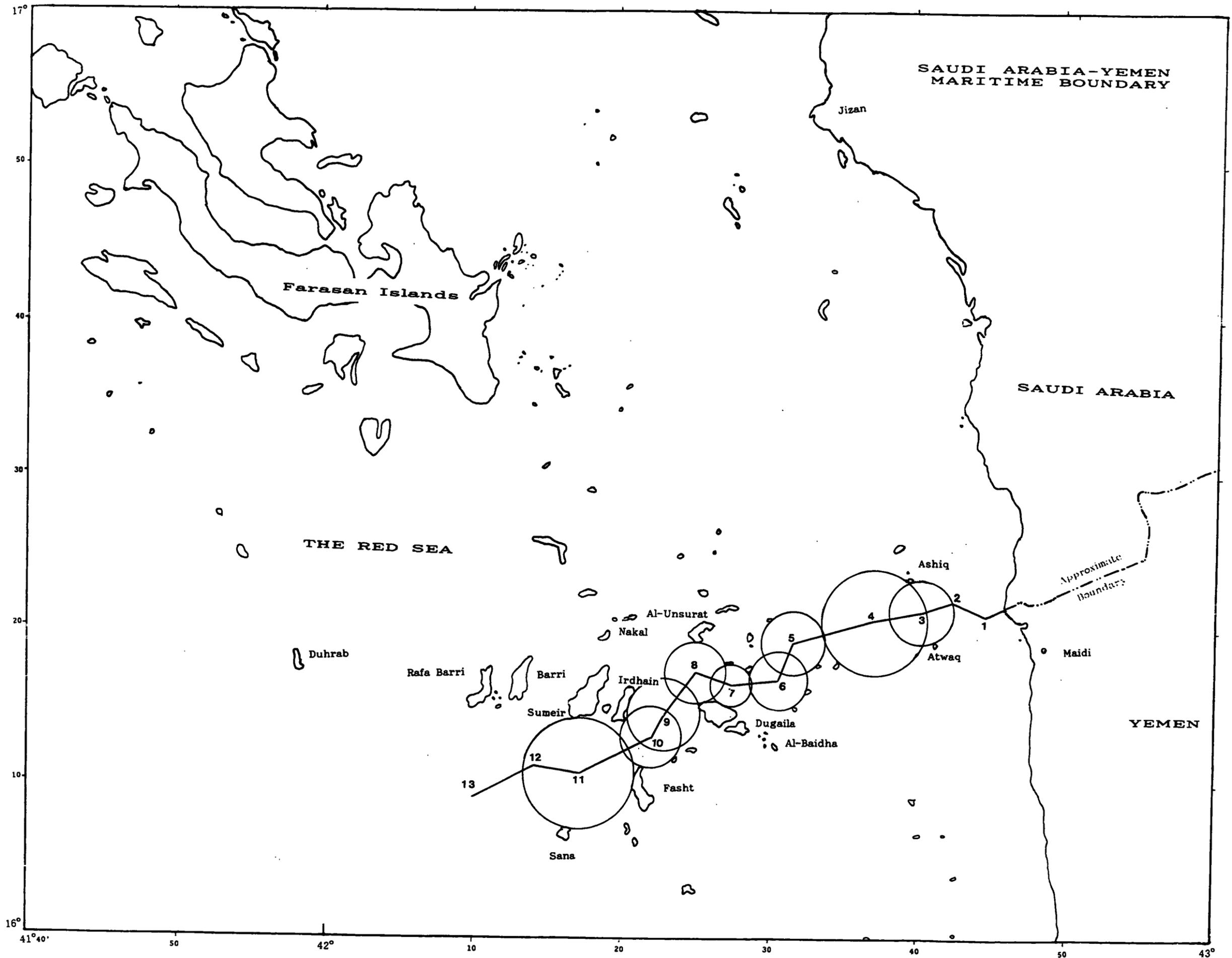


Figure 8.10

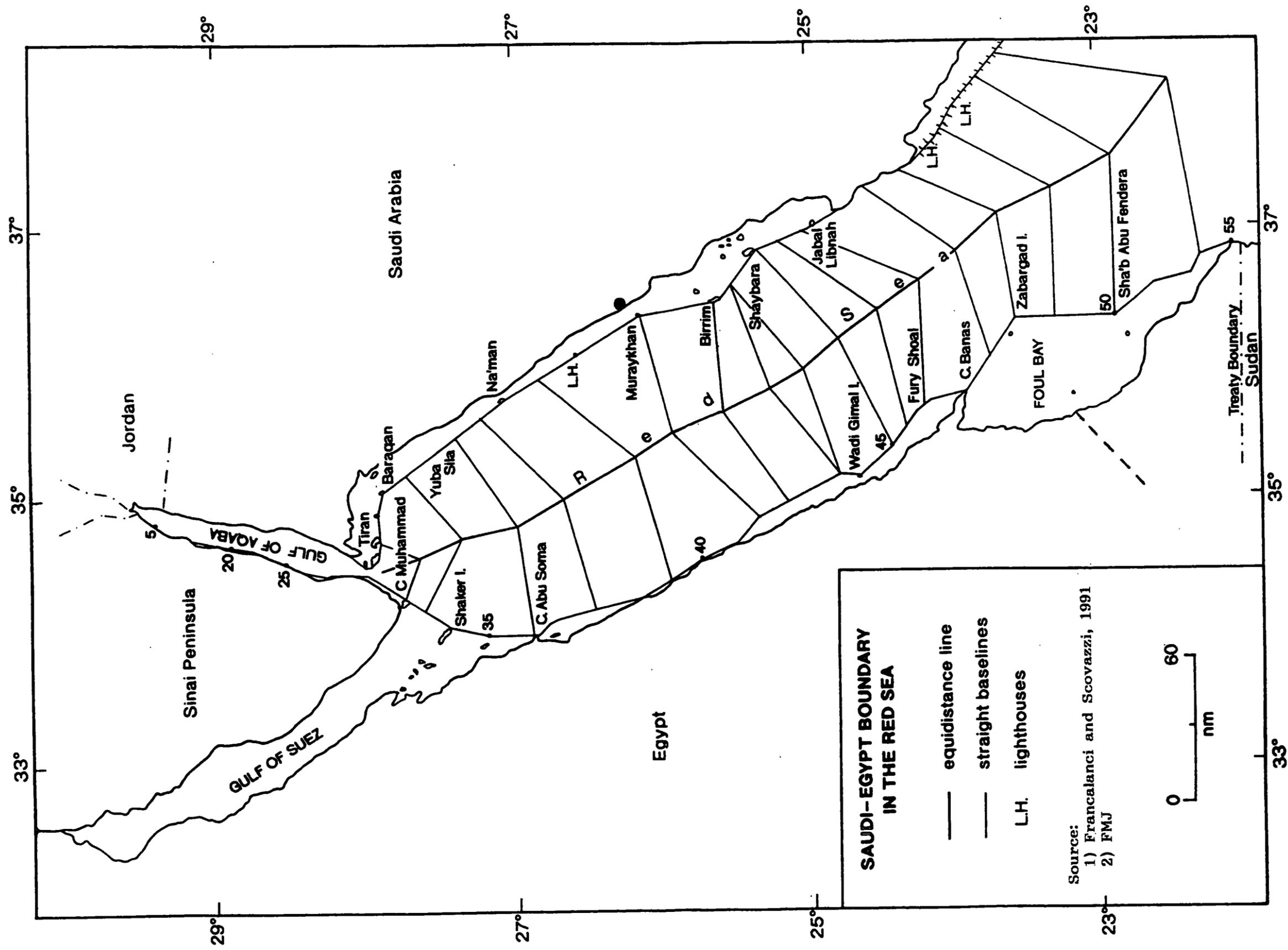
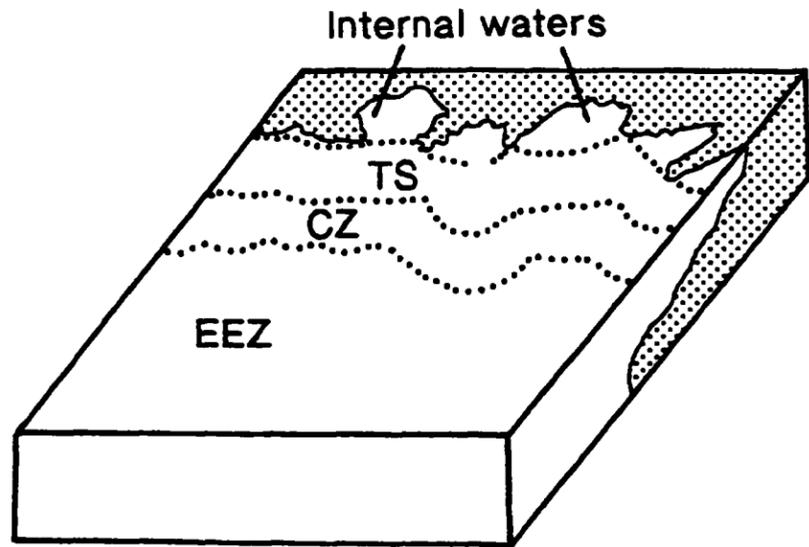
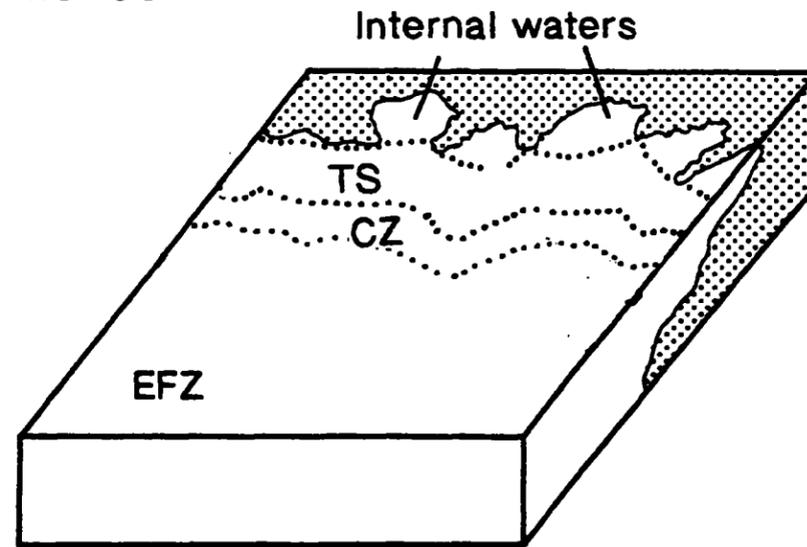


Figure 9.1

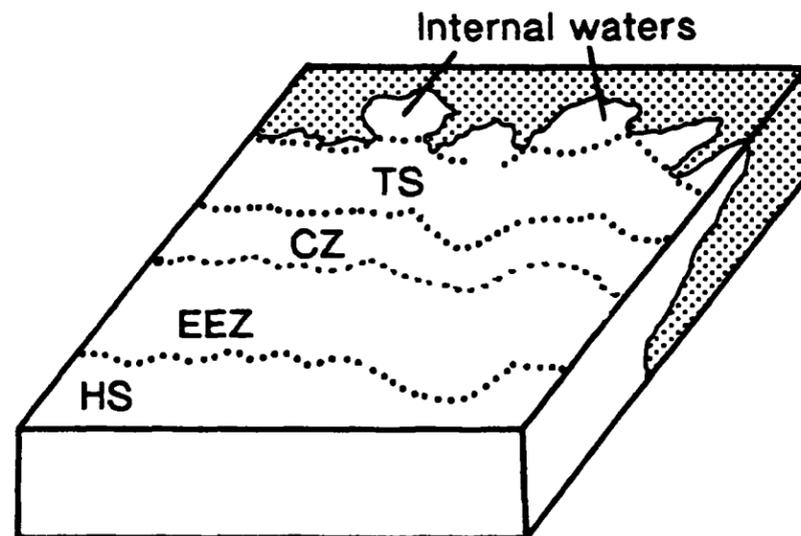
Maritime Zones



Maritime zones of Saudi Arabia according to the 1982 convention



Maritime zones according to Saudi Arabia decrees



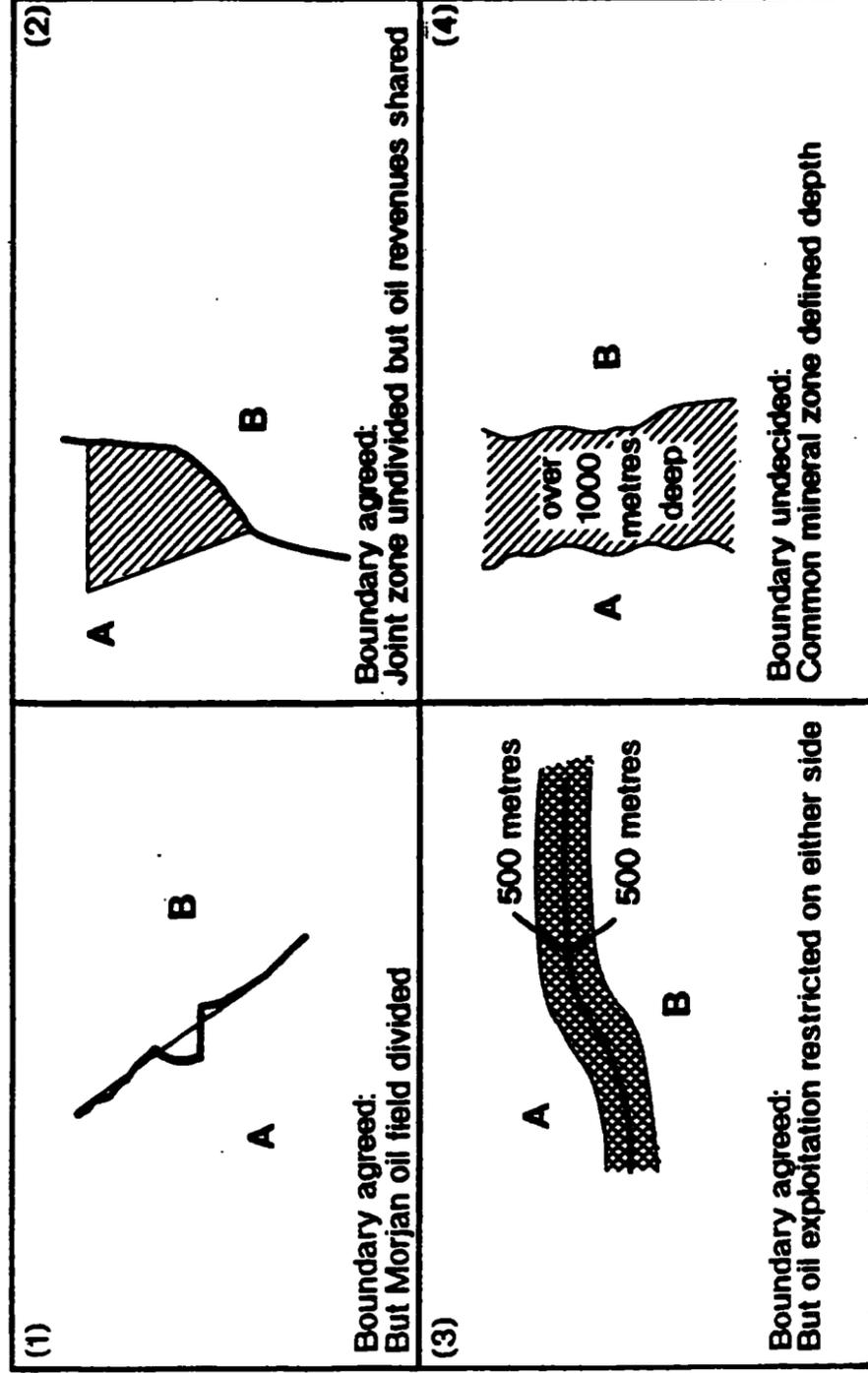
Maritime zones according to the 1982 convention

- TS -Territorial Sea
- CZ -Contiguous Zone
- EEZ -Exclusive Economic Zone
- EFZ -Exclusive Fishing Zone
- HS -High Sea

Adapted from Al-Sayf, 1990

Figure 9.2

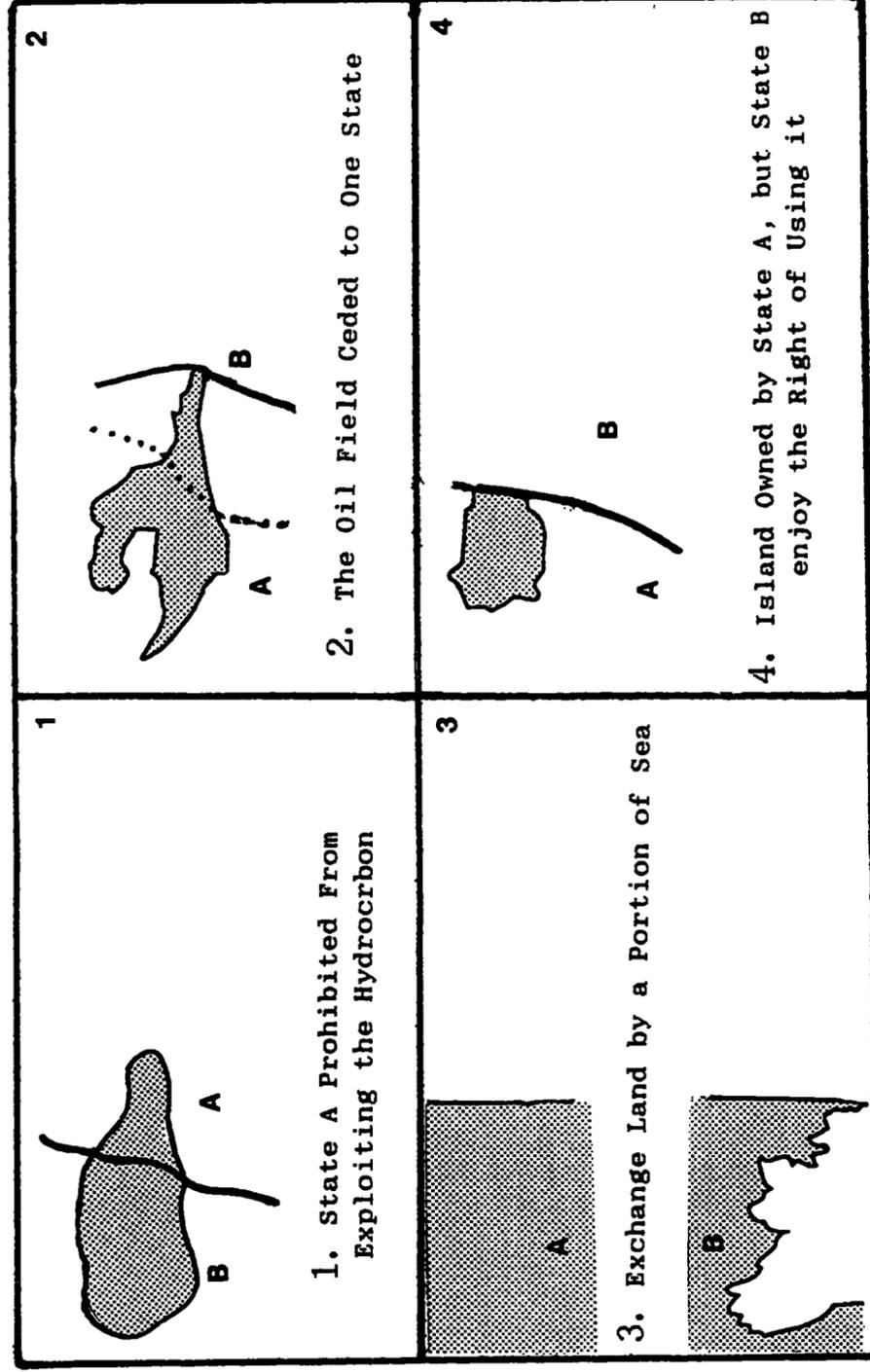
MARITIME BOUNDARIES AND ECONOMIC ZONES



- (1) Example of Saudi-Iran (1969)
 - (2) Example of Saudi-Bahrain (1958)
 - (3) Example of Saudi-Iran (1969)
 - (4) Example of Saudi-Sudan (1974)
- Source: 1) Blake, 1987
2) ICJ, 1983 (1)

Figure 9.3

Methods Used in the 1974 Saudi Arabia-UAE Agreement

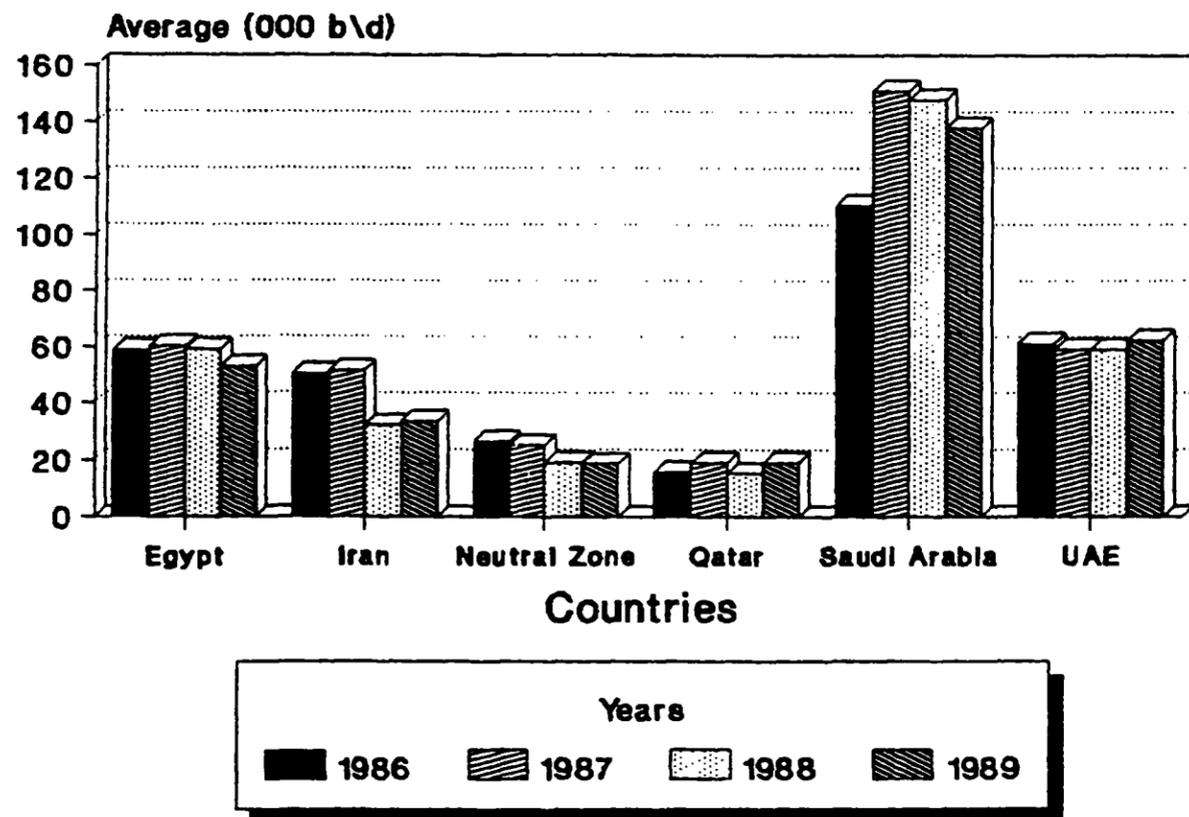


———— Agreed Boundary

..... The Boundary Before 1974 Agreement

Figure 9.4

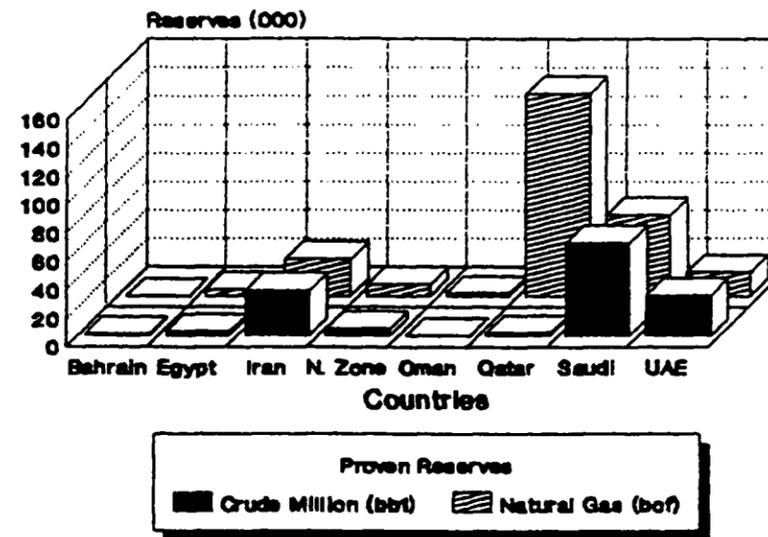
Middle East Offshore Oil Production



Source: Offshore, June 1990

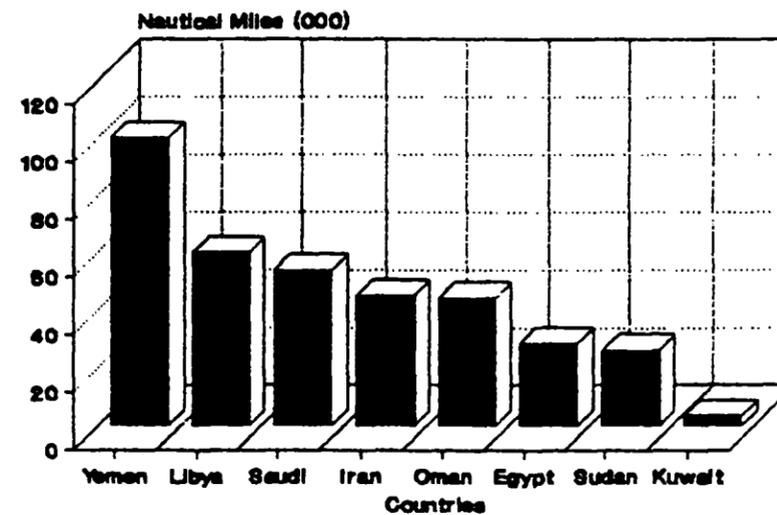
Middle East Continental Shelf Resources

Middle East Offshore Proven Reserves



Source: Offshore, June 1990

The Continental Shelf in Some Middle Eastern States



The Geographer, 1970.