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SN/Circ.
23 October 1978

Ref. T2/2.01

GUIDE TO THE PLANNING AND CONDUCT OF PASSAGES

1. The Maritime Safety Committee at its thirty-ninth session (MSC XXXIX/22, paragraphs 12.28 and 12.29) took note of the "Guide to the planning and conduct of passages" developed by the United Kingdom and amended by the Sub-Committee on Safety of Navigation.

2. The purpose of the Guide is to set out a code of practice for the following two essentially inter-related aspects:

(a) the organization required for the planning of passages, and

(b) the subsequent requirement to ensure that such passages are accomplished in compliance with the plan.

3. Recognizing that both the planning of passages and the close and continuous monitoring of position during the execution of such plans are essential and highly important for the safety of navigation, the Committee decided to bring the text, attached hereto, to the attention of all Member Governments.

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ANNEX 17

GUIDE TO THE PLANNING AND CONDUCT OF PASSAGES

INTRODUCTION

1. The aim of this Guide is to set out a code of practice for the following two essentially inter-related aspects:

(a) the organization required for the planning of passages, and

(b) the subsequent requirement to ensure that such passages are accomplished in compliance with the plan.

2. It is generally recognized that both the planning of passages and the close and continuous monitoring of position during the execution of such plans are necessary and highly important in the interests of safe navigation.

3. The need for effective planning and position monitoring during the conduct of a passage applies to all ships. More constraints apply to larger ships and there will be a corresponding need for these to be taken into account both in the preparation of the plan and equally in its subsequent monitoring.

4. A disturbing number of casualties, particularly strandings, continue to occur in restricted waters and port approaches. Although these casualties are small in number relative to the total number of ships trading, many of these could have been avoided by detailed passage planning.

5. Arrangements for ensuring the effective planning and conduct of passages are a vital element in the wider requirement for an effective bridge organization. General guidance on bridge organization is contained in IMCO Resolution A.285(VIII)*, adopted at the IMCO Assembly in November 1973. That Resolution should be studied in conjunction with this Guide, which also complements, but does not supersede, the information given in the Bridge Procedures Guide published by the International Chamber of Shipping, the relevant parts of which are:

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* Also contained in Regulation II/1 of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 and Resolution 1 of the International Conference on Training and Certification of Seafarers, 1978

Paragraph 1.2	- Passage Plan
Paragraph 2.7	- Navigation in Coastal Waters/Traffic Separation Scheme
Paragraph 2.10	- Navigation with Pilot embarked
Check List 5	- Master/pilot information exchange
Check List 6	- Navigation, Coastal Waters
Check List 8	- Navigation, Deep Sea

6. The principles outlined in this Guide are not new; they have long been practised in many ships.

BRIDGE ORGANIZATION

7. In this Guide, the term "bridge team" refers to those employed in the navigation of the ship. This does not preclude masters and skippers in small ships forming a bridge team, which would obviously be limited as to its size. It is the responsibility of the master or skipper to allocate specific tasks to his bridge team in order that safe navigation throughout the voyage can be effectively achieved. It is equally important that the master should clearly confirm any changes in the allocated tasks whenever such changes occur during the passage.

8. In view of the wide variety of circumstances that apply, nothing hard and fast can be laid down in this Guide with regard to the allocation of tasks by masters; in order to avoid misunderstanding however, especially in the case of a prolonged passage in confined waters, it is recommended that masters should issue precise instructions in writing in advance of the passage to be undertaken.

9. It will be apparent that in some areas, such as the English Channel, Southern North Sea, The Sound, the Gulf of St. Lawrence, the Japanese Inland Sea, the Gulf of Hormuz and the Malacca/Singapore Straits, ships will be in confined waters for a substantial period of time. Throughout this period the normal rotation of deck watches, with corresponding changes in officers of the watch, will apply. In these circumstances, it is even more important that all officers of the watch should be fully acquainted in advance with the details of the passage plan since, while on watch, it will be their responsibility to ensure that it is followed. Officers should also be made aware of the manoeuvres planned for the approach to the pilot boarding point, with alternative courses of action where appropriate.

PILOTAGE

10. The contribution which pilots make to the safety of navigation in confined waters and port approaches, of which they have up-to-date knowledge, requires no emphasis; but it should be stressed that the responsibilities of the ship's navigational team do not transfer to the pilot and the duties of the officer of the watch remain with that officer.

11. After his arrival on board, in addition to being advised by the master of the manoeuvring characteristics and basic details of the ship for its present condition of loading, the pilot should be closely consulted on the passage plan to be followed. The general aim of the master should be to ensure that the expertise of the pilot is fully supported by the ship's bridge team. (See also paragraph 25)

12. Attention is drawn to the following extract from IMCO Resolution A.285(VIII)*:

> "Despite the duties and obligations of a pilot, his presence on board does not relieve the officer of the watch from his duties and obligations for the safety of the ship. He should co-operate closely with the pilot and maintain an accurate check on the vessel's position and movements. If he is in any doubt as to the pilot's actions or intentions, he should seek clarification from the pilot and if doubt still exists he should notify the master immediately and take whatever action is necessary before the master arrives."

RESPONSIBILITY FOR PASSAGE PLANNING

13. In most deep-sea ships it is customary for the master to delegate the initial responsibility for preparing the plan for a passage to the officer responsible for navigational equipment and publications, usually the second officer. For the purposes of this Guide the officer concerned will be referred to as the "navigating officer".

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* See also Regulation II/1 of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 and Resolution 1 of the International Conference on the Training and Certification of Seafarers, 1978.

14. It will be evident that in small ships, including fishing boats, the master or skipper may himself need to exercise the responsibility of the navigating officer for passage planning purposes.

15. The navigating officer has the task of preparing the detailed passage plan to the master's requirements prior to departure. In those cases when the port of destination is not known or is subsequently altered, it will be necessary for the navigating officer to extend or amend the original plan as appropriate.

PRINCIPLES OF PASSAGE PLANNING

16. There are four distinct stages in the planning and achievement of a safe passage:

(a) Appraisal;

(b) Planning ;

(c) Execution;

(d) Monitoring.

17. These stages must of necessity follow each other in the order set out above. An appraisal of information available must be made before detailed plans can be drawn up and a plan must be in existence before tactics for its execution can be decided upon. Once the plan and the manner in which it is to be executed have been decided, monitoring must be carried out to ensure that the plan is followed.

Appraisal

18. This is the process of gathering together all information relevant to the contemplated passage. It will of course be concerned with navigational information shown on charts and in publications such as sailing directions, light lists, current atlas, tidal atlas, tide tables, notices to mariners, publications detailing traffic separation and other routeing schemes, and radio aids to navigation. Reference should also be made to climatic data and other appropriate meteorological information which may have a bearing upon the availability for use of navigational aids in the area under consideration such as, for example, those areas subject to periods of reduced visibility.

19. A check list should be available for the use of the navigating officer to assist him to gather together all the information necessary for a full passage appraisal and the circumstances under which it is to be made. It is necessary to recognize that more up-to-date information, for example, radio navigational warnings and meteorological forecasts, may be received after the initial appraisal.

20. In addition to the obvious requirement for charts to cover the area or areas through which the ship will proceed, which should be checked to see that they are corrected up to date in respect of both permanent and temporary notices to mariners and existing radio navigational warnings, the information necessary to make an appraisal of the intended passage will include details of:

(a) currents (direction and rate of set);

(b) tides (times, heights and direction and rate of set);

(c) draught of ship during the various stages of the intended passage;

(d) advice and recommendations given in sailing directions;

(e) navigational lights (characteristics, range, arc of visibility and anticipated raising range);

(f) navigational marks (anticipated range at which objects will show on radar and/or will be visible to the eye);

(g) traffic separation and routeing schemes;

(h) radio aids to navigation (availability and coverage of Decca, Omega, Loran and D/F and degree of accuracy of each in that locality);

(i) navigational warnings affecting the area;

(j) climatological data affecting the area;

(k) ship's manoeuvring data.

21. An overall assessment of the intended passage should be made by the master, in consultation with the navigating officer and other deck officers who will be involved, when all relevant information has been gathered. This appraisal will provide the master and his bridge team with a clear and precise indication of all areas of danger, and delineate the areas in which it will be possible to navigate safely taking into account the calculated draught of the

ship and planned under-keel clearance. Bearing in mind the condition of the ship, her equipment and any other circumstances, a balanced judgement of the margins of safety which must be allowed in the various sections of the intended passage can now be made, agreed and understood by all concerned.

Planning

22. Having made the fullest possible appraisal using all the available information on board relating to the intended passage, the navigating officer can now act upon the master's instructions to prepare a detailed plan of the passage. The detailed plan should embrace the whole passage, from berth to berth, and include all waters where a pilot will be on board.

23. The formulation of the plan will involve completion of the following tasks:

(a) Plot the intended passage on the appropriate charts and mark clearly, on the largest scale charts applicable, all areas of danger and the intended track taking into account the margins of allowable error. Where appropriate, due regard should be paid to the need for advance warning to be given on one chart of the existence of a navigational hazard immediately on transfer to the next. The planned track should be plotted to clear hazards at as safe a distance as circumstances allow. A longer distance should always be accepted in preference to a shorter more hazardous route. The possibility of main engine or steering gear breakdown at a critical moment must not be overlooked.

(b) Indicate clearly in 360 degree notation the true direction of the planned track marked on the charts.

(c) Mark on the chart those radar-conspicuous objects, ramarks or racons, which may be used in position fixing.

(d) Mark on the charts any transit marks, clearing bearings or clearing ranges (radar) which may be used to advantage. It is sometimes possible to use two conspicuous clearing marks where a line drawn through them runs clear of natural dangers with the appropriate margin of safety; if the ship proceeds on the safe side of this transit she will be clear of the danger. If no clearing marks are

available, a line or lines of bearings from a single object may be drawn at a desired safe distance from the danger; provided the ship remains in the safe segment, she will be clear of the danger.

(e) Decide upon the key elements of the navigational plan. These should include but not be limited to:

(i) safe speed having regard to the manoeuvring characteristics of the ship and, in ships restricted by draught, due allowance for reduction of draught due to squat and heel effect when turning;

(ii) speed alterations necessary to achieve desired ETA's en route, e.g. where there may be limitations on night passage, tidal restrictions etc.;

(iii) positions where a change in machinery status is required;

(iv) course alteration points, with wheel-over positions where appropriate on large scale charts taking into account the ship's turning circle at the planned speed and the effect of any tidal stream or current on the ship's movement during the turn;

(v) minimum clearance required under the keel in critical areas (having allowed for height of tide);

(vi) points where accuracy of position fixing is critical, and the primary and secondary methods by which such positions must be obtained for maximum reliability;

(vii) contingency plans for alternative action to place the ship in deep water or proceed to an anchorage in the event of any emergency necessitating abandonment of the plan.

24. Depending on circumstances, the main details of the plan referred to in paragraph 23 above should be marked in appropriate and prominent places on the charts to be used during the passage. These main details of the passage plan should in any case be recorded in a bridge notebook used specially for this purpose to allow reference to details of the plan at the conning position

without the need to consult the chart. Supporting information relative to the passage such as times of high and low water, or of sunrise or sunset, should also be recorded in this notebook.

25. It is unlikely that every detail of a passage will have been anticipated, particularly in pilotage waters. Much of what will have been planned may have to be changed after embarking the pilot. This in no way detracts from the real value of the plan, which is to mark out in advance where the ship must<u>not</u> go and the precautions which must be taken to achieve that end, or to give initial warning that the ship is standing into danger.

<u>Execution</u>

26. Having finalized the passage plan, as soon as estimated times of arrival can be made with reasonable accuracy, the tactics to be used in the execution of the plan should be decided. The factors to be taken into account will include:

(a) the reliability and condition of the ship's navigational equipment;

(b) estimated times of arrival at critical points for tide heights and flow;

(c) meteorological conditions, particularly in areas known to be affected by frequent periods of low visibility;

(d) day-time versus night-time passing of danger points, and any effect this may have upon position fixing accuracy;

(e) traffic conditions, especially at navigational focal points.

27. It will be important for the master to consider whether any particular circumstance, such as the forecast of restricted visibility in an area where position fixing by visual means at a critical point is an essential feature of the navigation plan, introduces an unacceptable hazard to the safe conduct of the passage; and thus whether that section of the passage should be attempted under the conditions prevailing, or likely to prevail. He should also consider at which specific points of the passage he may need to utilize additional deck or engine room personnel.

Monitoring

28. The close and continuous monitoring of a ship's progress along the pre-planned track is essential for the safe conduct of the passage (Bridge Procedures Guide, Chapter 3). If the officer of the watch is ever in any doubt as to the position of the ship or the manner in which the passage is proceeding he should immediately call the master and, if necessary, take whatever action he may think necessary for the safety of the ship.

29. The performance of navigational equipment should be checked prior to sailing, prior to entering restricted or hazardous waters and at regular and frequent intervals at other times throughout the passage.

30. Advantage should be taken of all the navigational equipment with which the ship is fitted for position monitoring, bearing in mind the following points:

(a) visual bearings are usually the most accurate means of position fixing;

(b) every fix should, if possible, be based on at least three position lines;

(c) transit marks, clearing bearings and clearing ranges (radar) can be of great assistance;

(d) when checking, use systems which are based on different data;

(e) positions obtained by navigational aids should be checked where practicable by visual means;

(f) the value of the echo sounder as a navigational aid;

(g) buoys should not be used for fixing but may be used for guidance when shore marks are difficult to distinguish visually; in these circumstances their positions should first be checked by other means;

(h) the functioning and correct reading of the instruments used should be checked;

(i) an informed decision in advance as to the frequency with which the position is to be fixed should be made for each section of the passage.

31. On every occasion when the ship's position is fixed and marked on the chart in use, the estimated position at a convenient interval of time in advance should be projected and plotted.

32. Radar can be used to advantage in monitoring the position of the ship by the use of parallel indexing techniques. Parallel indexing, as a simple and most effective way of continuously monitoring a ship's progress in restricted waters, can be used in any situation where a radar-conspicuous navigation mark is available and it is practicable to monitor continuously the ship's position relative to such an object. Details of parallel indexing techniques are given in Appendix I to this Guide.

33. A worked example of a planned passage from River Thames to Le Havre is given in Appendix II to this Guide. This example:

(a) suitably illustrates the planning and conduct of passages as recommended in this Guide;

(b) demonstrates that the procedure for the effective planning and conduct of passages is well within the competence of professional navigators;

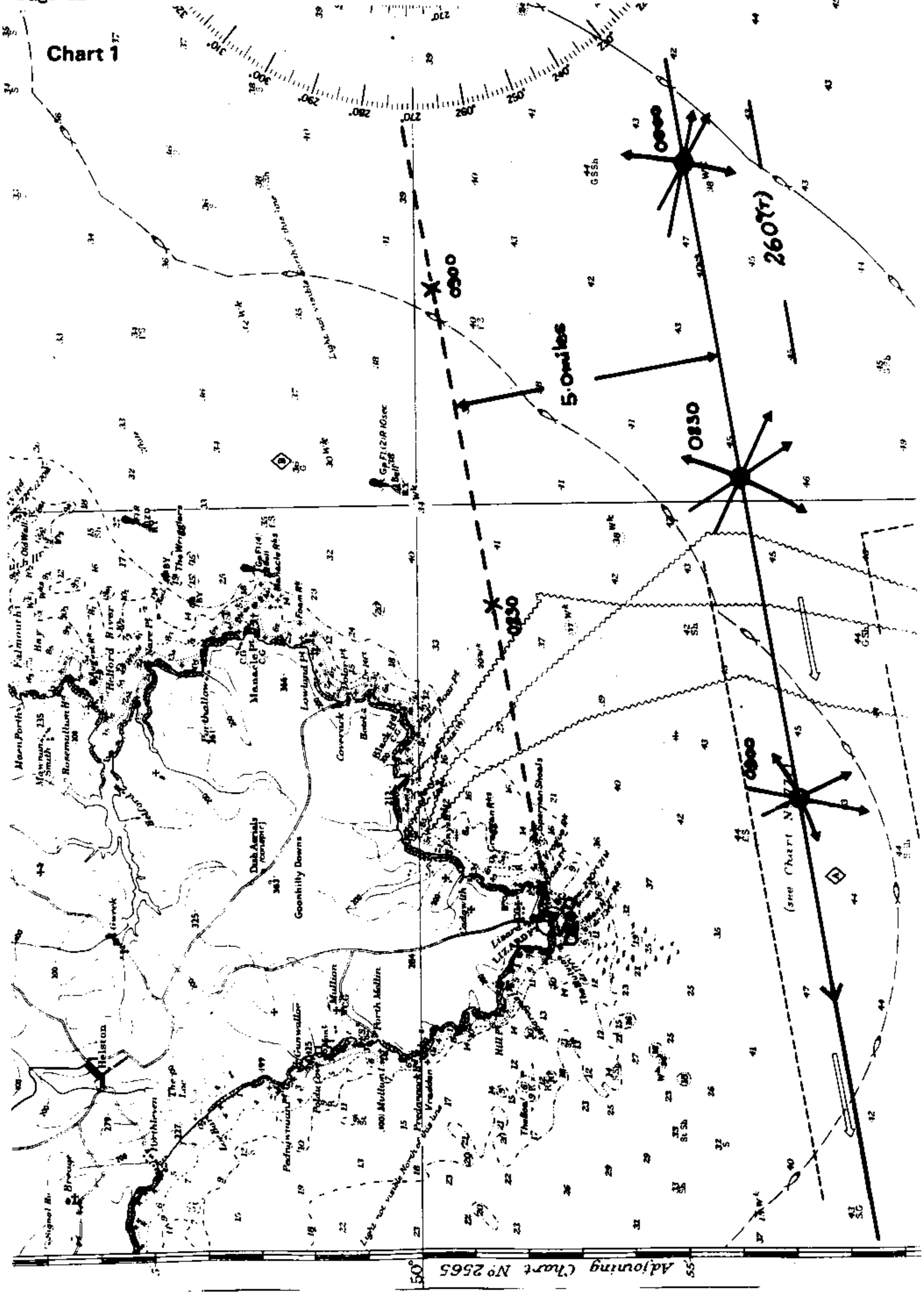
(c) provides a clear indication that given the necessary emphasis and detailed attention, the application of the principles outlined in this Guide can readily enhance the safety of navigation.

34. A sample check list of items for passage appraisal is given in Appendix III to this Guide.

Appendix I

USE OF PARALLEL INDEXING TECHNIQUES

Chart 1


0800
0830
0850
0900
5.0 miles
260°(T)
Helston
Falmouth
Helford River
Manacle Pt
Coverack
Goonhilly Downs
Dish Aerials
Lizard
Mullion
Adjoining Chart No 2565

PARALLEL INDEXING

BASIC PRINCIPLES

When a ship is steaming a steady course, any fixed object appears to move in a reciprocal direction at the same speed.

This, of course, is readily apparent on a radar screen when the radar is operating in "relative motion"— every fixed object appears to move in the opposite direction.

If, for example, a ship were proceeding down Channel at 12 knots with a course set to pass 5 miles south of Lizard Point, chart positions at 30 minute intervals might appear as shown on Chart 1. If, at the same time, the radar was operating on relative motion—i.e. with the ship's position apparently fixed in the centre of the screen—the Lizard Point would appear to move in the opposite direction (indicated on the chart by a pecked line). On the Radar Screen this movement would appear as shown in Fig. (i).

It follows that if the ship maintains its course then the Lizard Point must also maintain this reciprocal movement. Therefore, if this reciprocal course were first plotted *from* the Lizard Point, as the ship passed the Lizard any deviation from its course would result in the echo of the Lizard Point moving away from the plot on the reflector plotter.

12 mile range

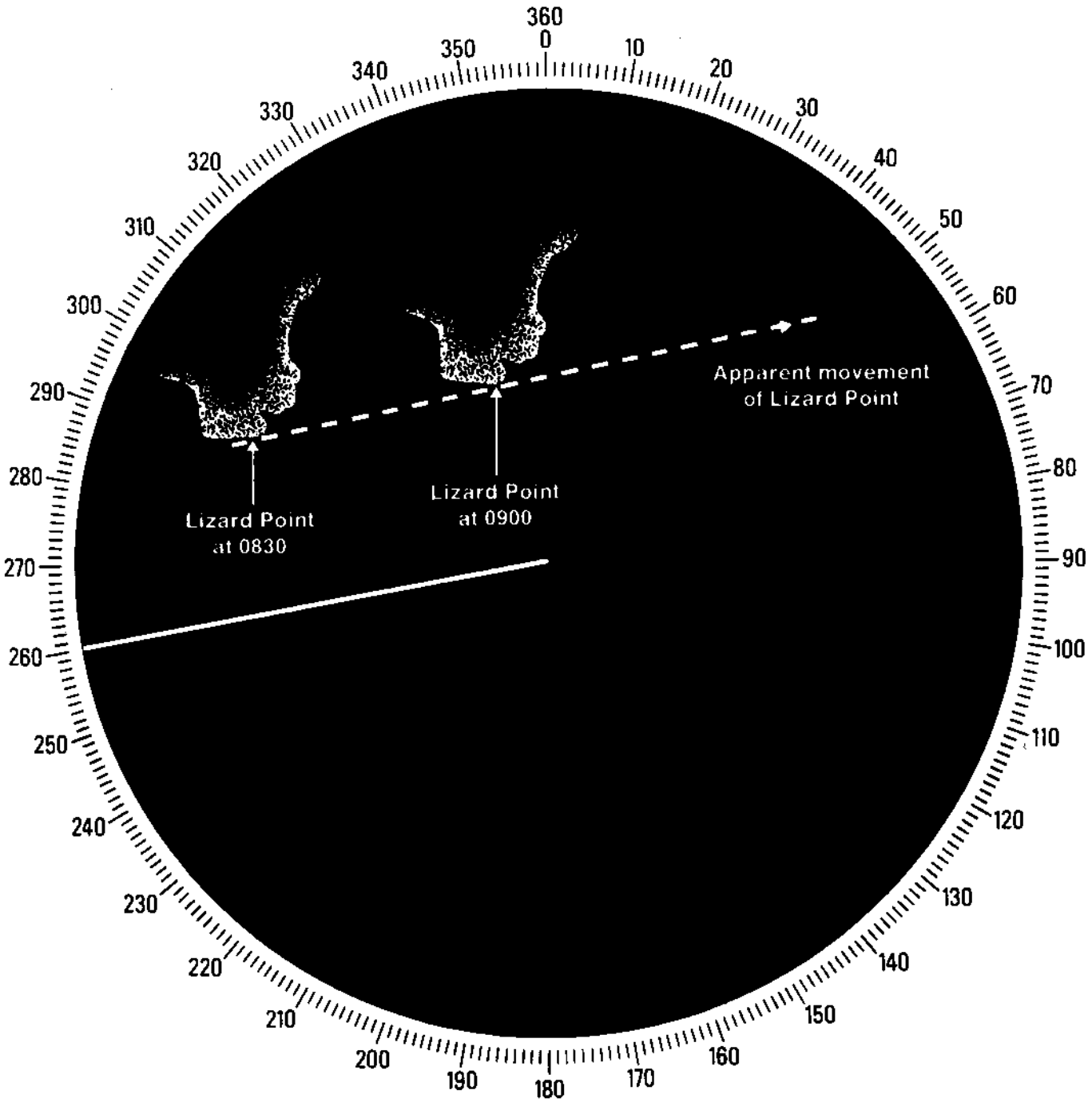


Figure (i)

PLOTTING

To make the plot on the Reflector Plotter the variable range marker and the parallel bearing cursor are used.

First, the bearing cursor is aligned with the desired course to make good, then the variable range marker is set at the "distance off"—in this case 5 miles. Then, using a plotting ruler and chinagraph pencil the reciprocal course is drawn off from the fixed radar target, i.e. Lizard Point (see Fig. ii).

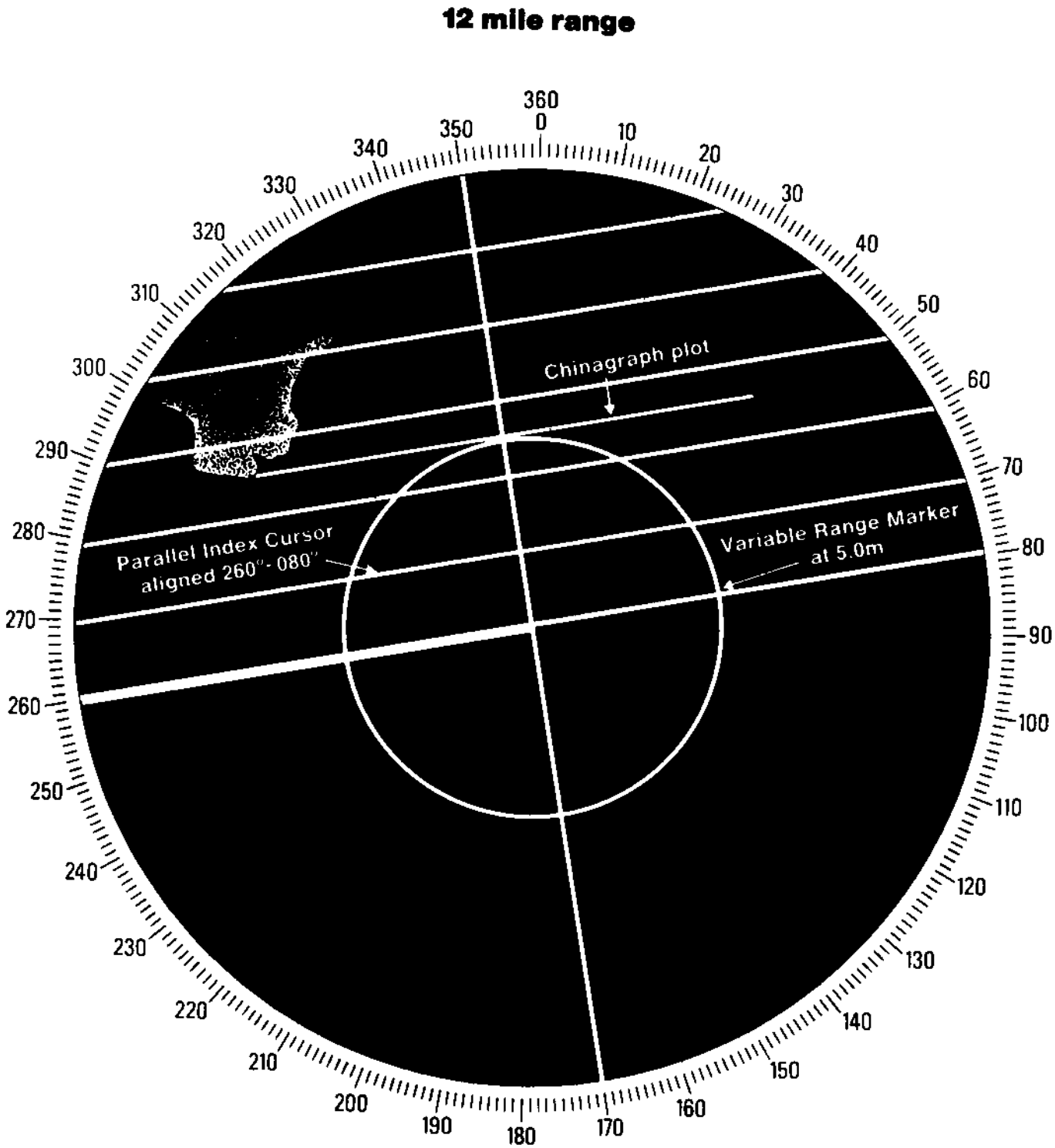

12 mile range
360
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230
240
250
260
270
280
290
300
310
320
330
340
350
Chinagraph plot
Parallel Index Cursor
aligned 260°- 080°
Variable Range Marker
at 5.0m

Figure (ii)

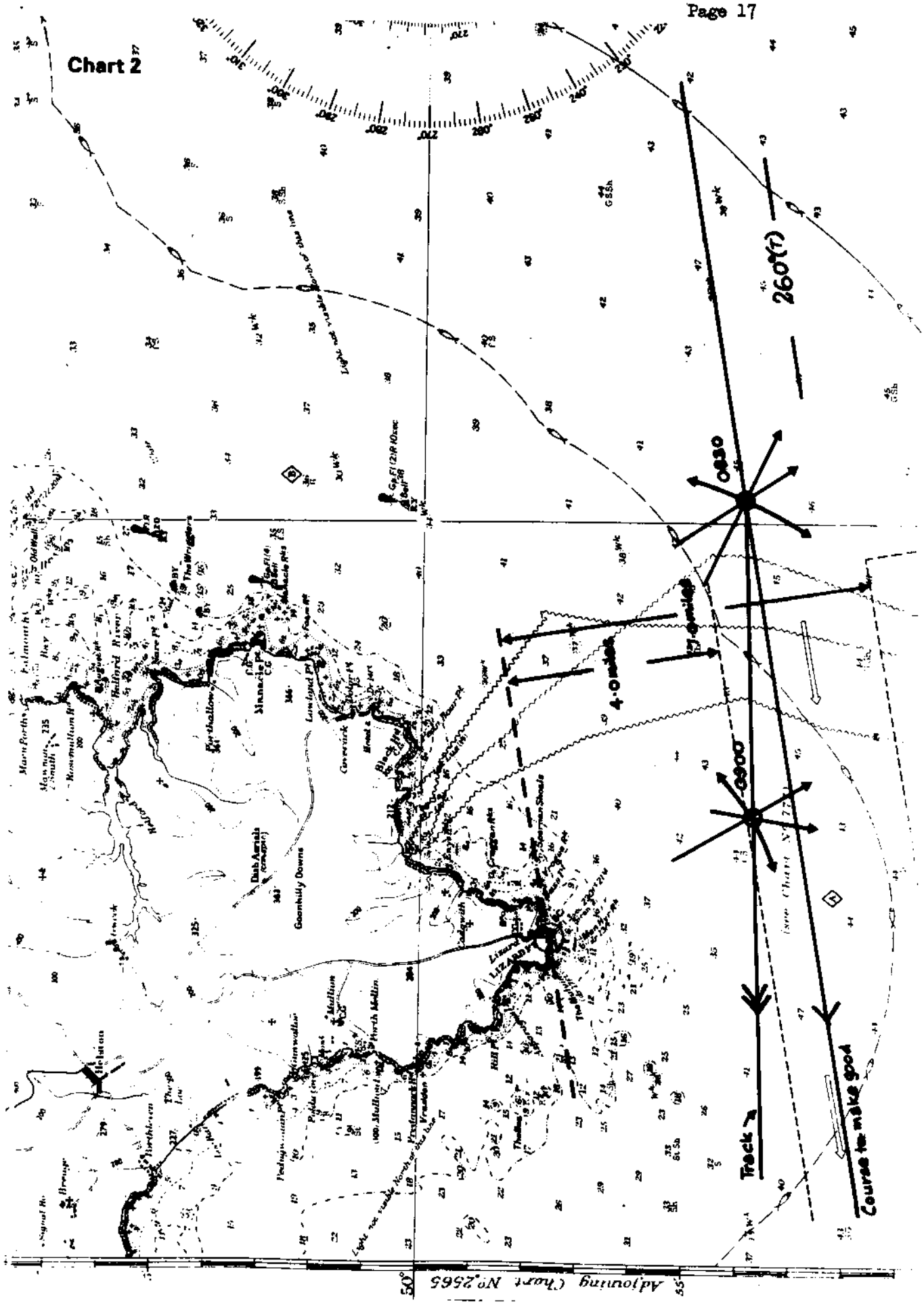


Chart 2
260°(T)
0830
0900
4·0 miles
Track
Course to make good
Adjoining Chart No. 2565

DEVIATION FROM COURSE LINE

If this ship were to set in to the coast, or be forced, for some reason, to alter course to starboard, the course made good would obviously be some other than 260° (T) — see Chart 2.

Were this to happen when parallel index plotting was in use then the deviation from the course to make good would appear on the radar as shown in Fig.(iii). The Lizard Point moves inside the plot — thus indicating that the ship is being set towards the shore. By setting the variable range marker on the parallel index line now passing through the Lizard it is seen that the ship has been set in 1 mile.

Thus parallel index plots of this kind enable a continuous watch to be kept on a vessel's track and will indicate the direction, and extent, of any deviations from the desired course.

Produced from portion of BA chart No. 442 with the sanction of the Controller, HM Stationery Office and of the Hydrographer of the Navy.

12 mile range

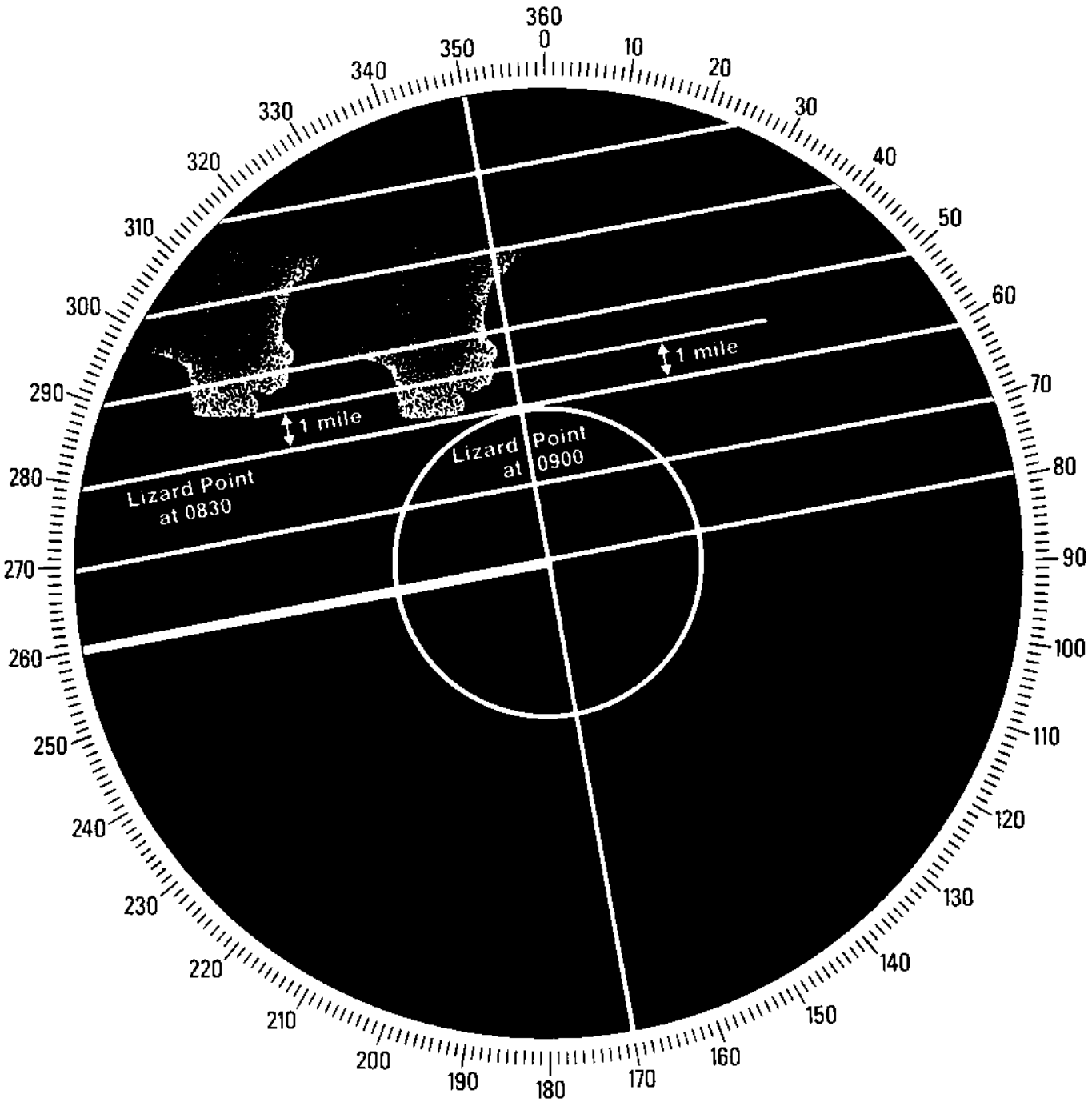


Figure (iii)

MARGINS OF SAFETY

Apart from indicating that a ship is deviating from a desired course the parallel index plots can be elaborated to show how far it is desirable or safe to deviate.

In the examples shown on Charts 1 and 2 it would be considered imprudent to venture outside the separation zone. It is possible to show the limits of the zone in conjunction with a plot of Lizard Point.

The desired passing distance is 5 miles, but a ship could pass at any distance between 4 and 7 miles without leaving the zone. Therefore, using the variable range marker and parallel bearing cursor in exactly the same way as shown above, two more parallel index plots could be drawn either side of the original plot from Lizard Point—one at 7 miles, the other at 4 miles. These would appear as shown in Fig. (iv).

If now, for any reason, it is necessary to deviate from the desired course, an Officer, by watching Lizard Point on the radar has a quick and accurate check on whether or not the ship is approaching the edges of the zone.

12 mile range

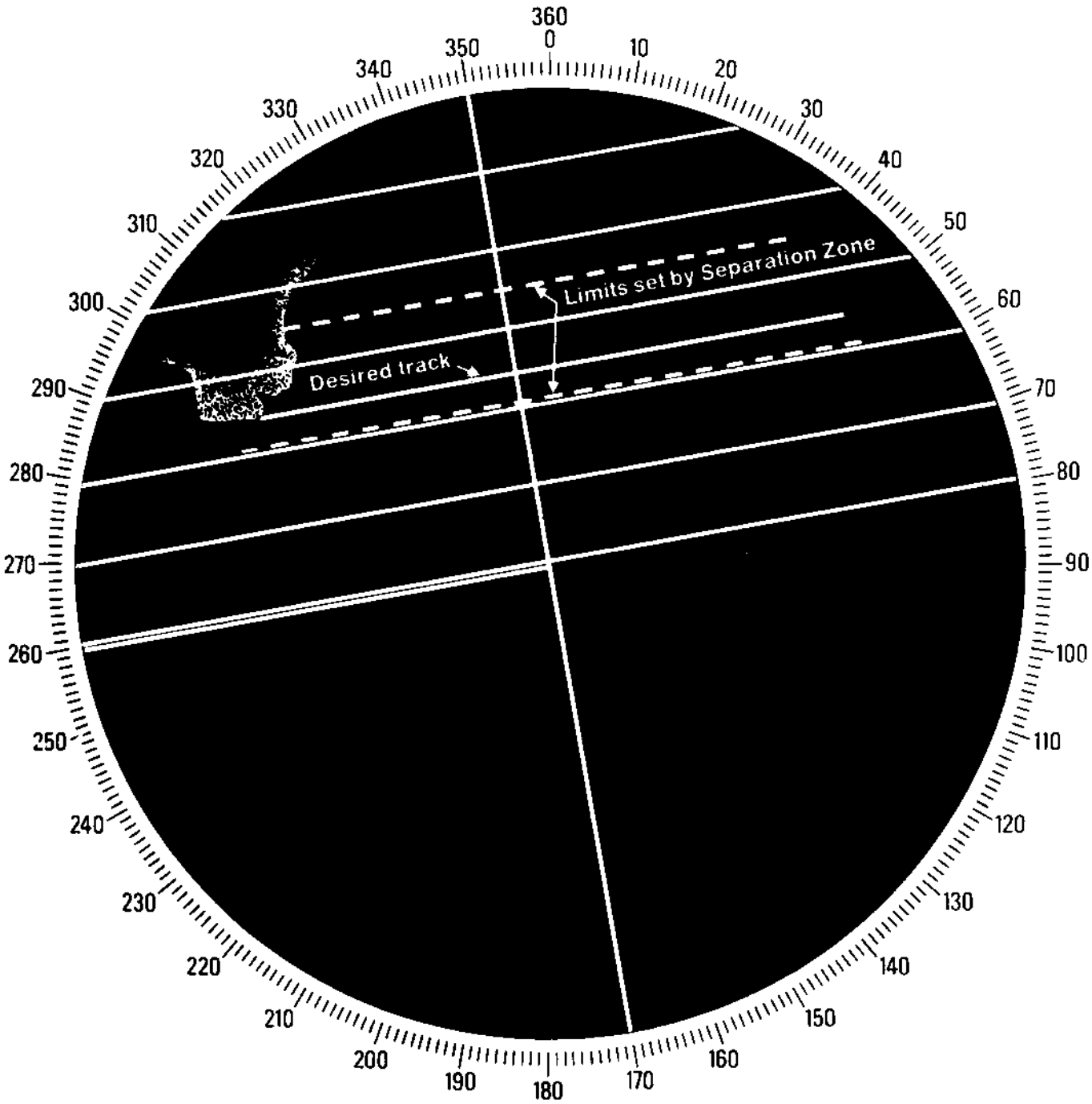


Figure (iv)

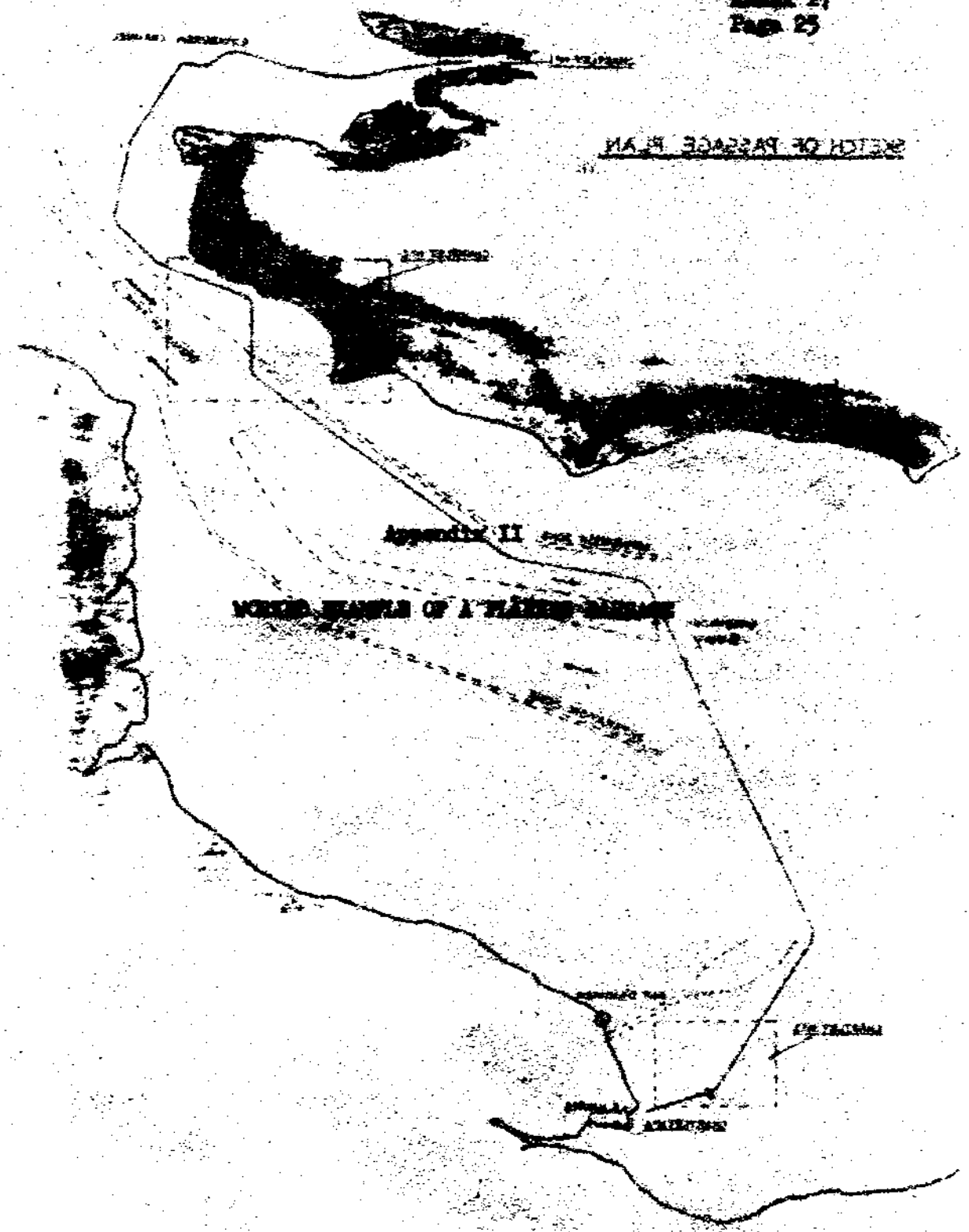
Precautions

While the technique described above will allow the Radar to be used to maximum effect in close water situations certain essential precautions must be taken.

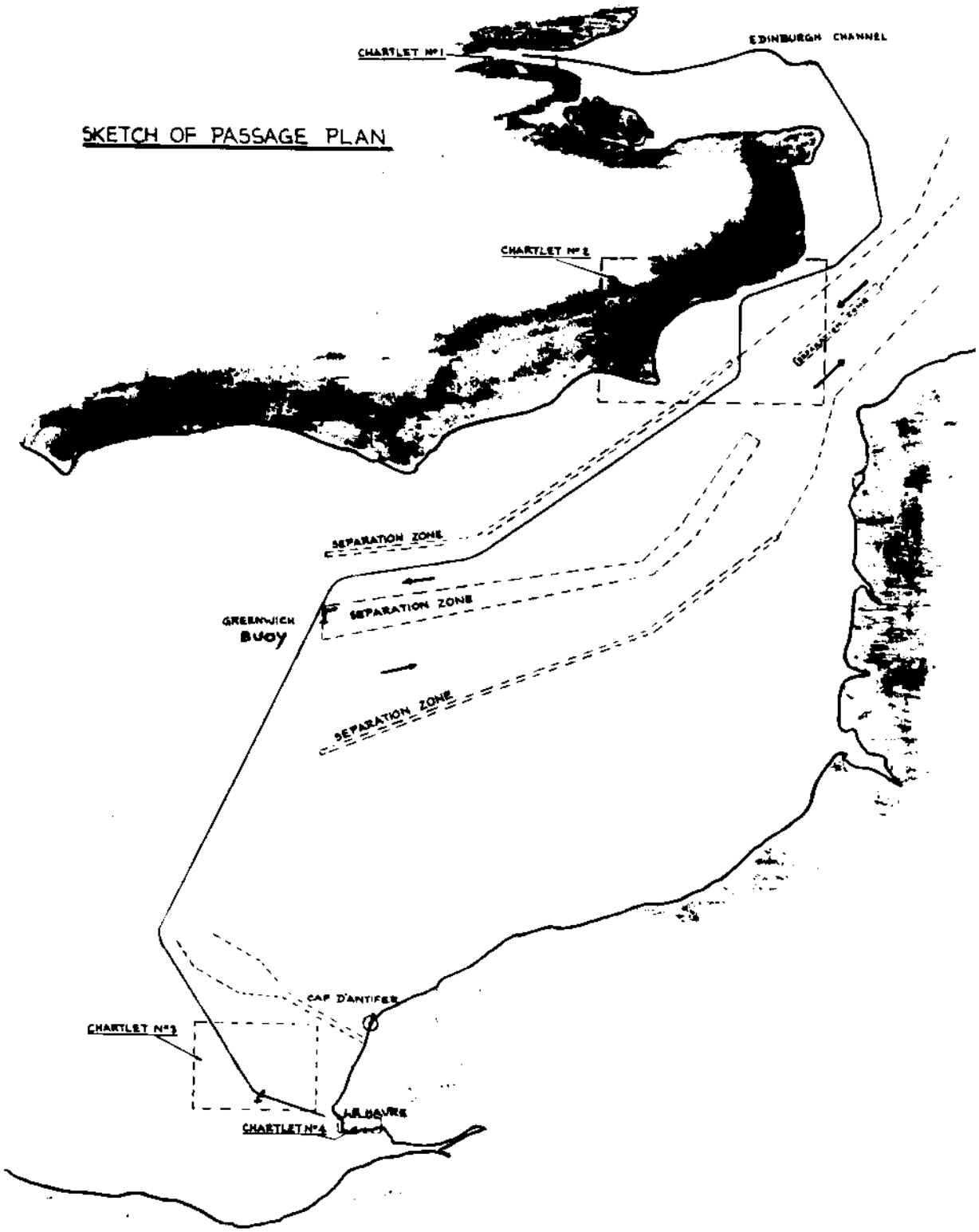
1. Use of the Radar to continuously monitor the passage *does not* relieve officers of their responsibility to make intermittent chart fixes of the ship's position at the frequency and times specified by the Master in the passage plan. However, it will supplement normal fixes and provide a quick and reliable indication that the ship is safe during the intervals between fixes.

2. Before employing the Radar in this way the following checks MUST be made:
   (1) The overall performance of the radar must be checked at frequent intervals.
   (2) The fixed target(s) to be tracked must be correctly identified.
   (3) The Radar's time base *must* be accurately centred.
   (4) A reliable check of the gyro error, and a careful alignment of the heading marker with the ship's fore and aft line and the gyro course.
   (5) The accuracy of range rings and the variable range marker should, if possible, be checked against a good fix.

To use the techniques of parallel indexing without making the checks described, and to proceed without checks from good chart fixes is highly dangerous.



Appendix II


SKETCH OF PASSAGE PLAN
CHARTLET N°1
EDINBURGH CHANNEL
CHARTLET N°2
SEPARATION ZONE
SEPARATION ZONE
GREENWICH
Buoy
SEPARATION ZONE
CAP D'ANTIFER
CHARTLET N°3
CHARTLET N°4

PASSAGE PLANNING - WORKED EXAMPLE

An 18,000 DWT steamship (manoeuvring data attached), having service speed of 15kts. and maximum manoeuvring speed (deep water) of 12kts., with maximum draft 9 metres, is to sail from the Thames (Sea Reach) to Le Havre. Equipment includes: dual radar, Decca, RDF, Echo Sounder.

This example addresses the general considerations in planning the voyage and examines four sections of the passage in detail. It includes examples of the kind of information which might be entered into a bridge notebook, and of the radar plots which might be used. The areas covered by these four sections are shown in the 'Sketch of Passage Plan' opposite (Chartlets No. 1, No. 2, No. 3 and No. 4). These chartlets are also incorporated in this 'Example', opposite the texts to which they refer. It must be emphasised that the chartlets are not intended to cover the whole passage - they merely serve as examples of the selected sections.

1. Appraisal (General)

The voyage (see fig. 1) starts with a long estuarial and inshore coastal passage from Sea Reach to Folkestone. This section will be directed by a licensed pilot, who will disembark at Folkestone.

From Folkestone the ship must cross the inshore traffic lane and enter the Dover Straits westbound traffic lane, proceeding westwards in this lane to the end of the traffic scheme, before making a course southwards towards the French coast. The approach to Le Havre must be one which avoids the controlled navigation area for Cap d'Antifer and also suitably positions the ship for pilot embarkation and port entry.

1.1 Charts and publications

British Admiralty Charts: 1186, 1185, 1605, 1828, 1892, 535, 2351, 2675, 2613, 2146, 2990.

Charts - largest scale available.
Navigation Warnings.
Sailing directions No. 27, 28. List of lights Vol. A.
Tide tables Vol. 1 Tidal streams.
List of radio signals Vols. 2 and 6.
(Port information services and navigation warnings).
Port information booklets (ports of London and Le Havre).
(Pilotage services, port restrictions and quarantine regulations).
Weather forecasts and climatological charts (seasonal weather).
Ship manoeuvring data.

Surveys for all charts are relatively recent, with wrecks and shoals reliably investigated (many having swept depths marked), therefore no special precautions need be taken over charted information. There are no areas on this passage where very small Under Keel Clearances (U.K.C.s) are expected.

1.2 Points of danger of special note

Apart from the confined waters of the estuary the following have to be taken into account:-

(a) Traffic pattern in the Inshore Navigation Zone which will include ferry traffic and other ships approaching Folkestone Pilot Station.

(b) Need to enter the westbound traffic lane at as small an angle as possible.

(c) Avoidance of controlled navigation area off C. d'Antifer and possible need to avoid waiting area (or enter waiting area) off Le Havre.

(d) Crossing from the U.K. to French coasts is virtually at right angles to the tidal streams (as well as predominant traffic flows) therefore tidal streams need very careful consideration if E.P.s are not to be grosely in error.

1.3 Weather/visibility

There is a high probability of poor visibility, either through fog, or mist and rain. This should be taken into account when planning, so that absence of visual observations for position fixing and collision avoidance does not place the ship in danger.

2. Planning

2.1 Departure and passage to Folkestone (Chartlet No. 1)

(a) Navigation to be conducted by the pilot.

(i) Confirm nav. warnings, weather, tides and traffic information with pilot.

(ii) Confirm route, speed(s) and ETA Folkestone with pilot. Also engine readiness, signals, use of anchors, etc.

(b) The pilot will not always be able to indicate the precise track to be followed, therefore the mean direction for each leg of the passage should be drawn in on the river sections, also the approximate courses to be followed from the river estuary to Folkestone. The ship should pass down starboard side of the navigation channels and margins of safety are marked in accordingly.

(c) Key points:-

(i) Track monitoring to ensure that vessel remains within margins of safety. Therefore charts marked up in preparation for P.I. plotting on selected radar conspicuous targets.

(ii) Radar used to check position of channel buoys against known fixed objects - especially those buoys at course alteration (A/C) points.

(iii) Bridge notebook to contain details of channel widths, distances between buoys and colour and characteristics of buoys, so that assessment of whether or not the ship is safe can immediately be made at any time by reference to notebook, visual observation and radar.

(d) When clear of the Edinburgh Channel the key points are:-

(i) Watch officers to maintain regular fixes of positions before and after each major course change, and never at intervals in excess of 20 minutes. Advising pilot of position at regular intervals.

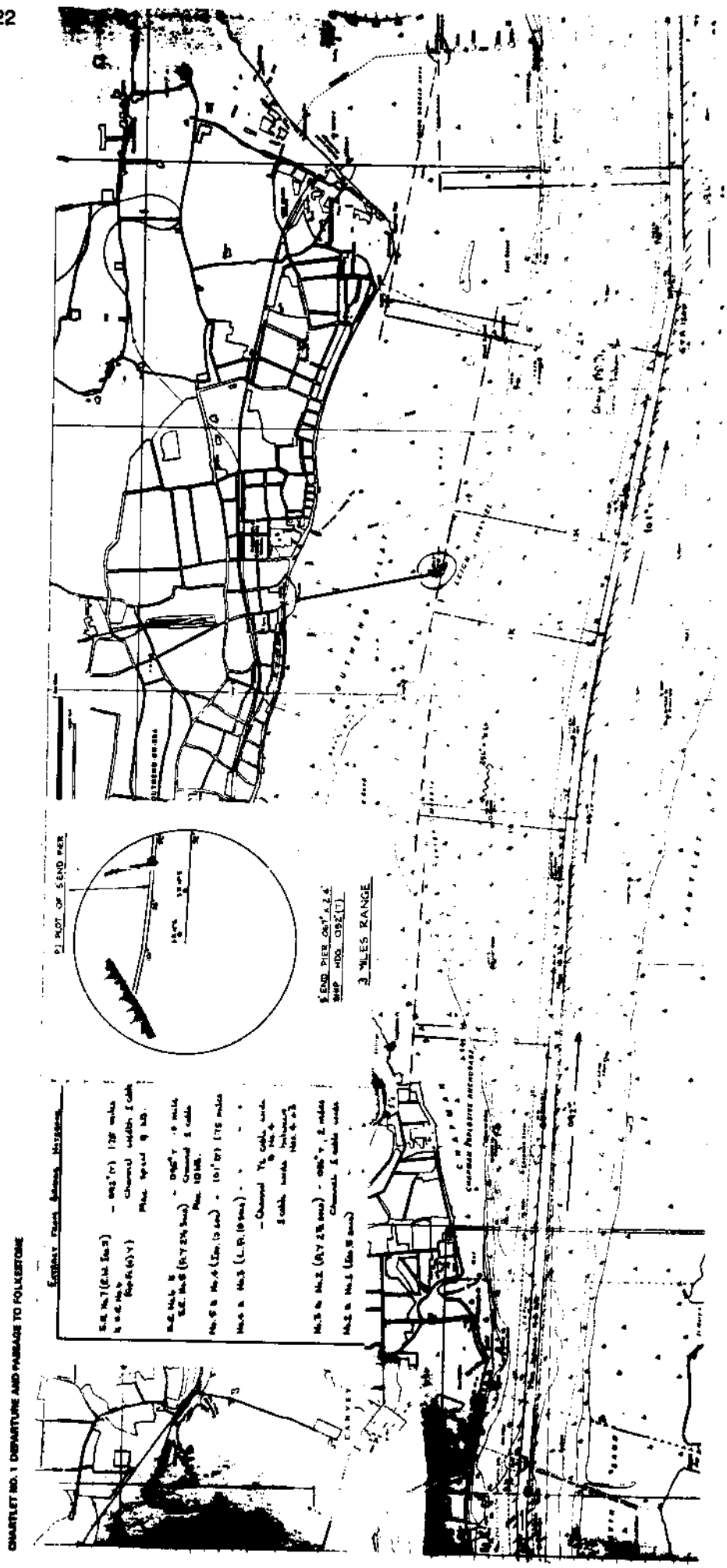
(ii) Clearing bearings of the Goodwin Sand Lt. ships marked on the chart.

(iii) Check tidal set against that anticipated.

(iv) Margins of acceptable deviations from anticipated track to be marked (as before).

(v) Bridge notebook to contain details of:-

- Approximate courses
- Distances between A/C points, and approximate steaming times (to check against actual progress)
- Clearing bearings and passing distances off Lt. vessels, etc.
- Cross-Index ranges off selected conspicuous radar targets (for quick spot checks on track keeping).


CHARTLET NO. 1 DEPARTURE AND PASSAGE TO FOLKESTONE
2) PLOT OF S END PIER
S END PIER ON 1° A.L.A.
MHP HOO OBS(T)
3 MILES RANGE

2.2 Approach to Folkestone, disembarkation of pilot and departure for Le Havre (Chartlet No. 2)

(a) Possibly heavy traffic requiring several collision avoidance manoeuvres during approach to and departure from Folkestone. Speed to be carefully monitored and controlled during the approach. Full control maintained during the disembarkation of the pilot. Cross inshore traffic zone at broad angle.

(b) Key points:

(i) Two cross-references for position fixing and track-keeping checks after passing the S. Goodwin lightvessel. Note cross-index range of Dover Harbour (southern) light in notebook as added check to those marked on the chart.

(ii) V.H.F. channels and station identities marked on the chart, and in bridge notebook.

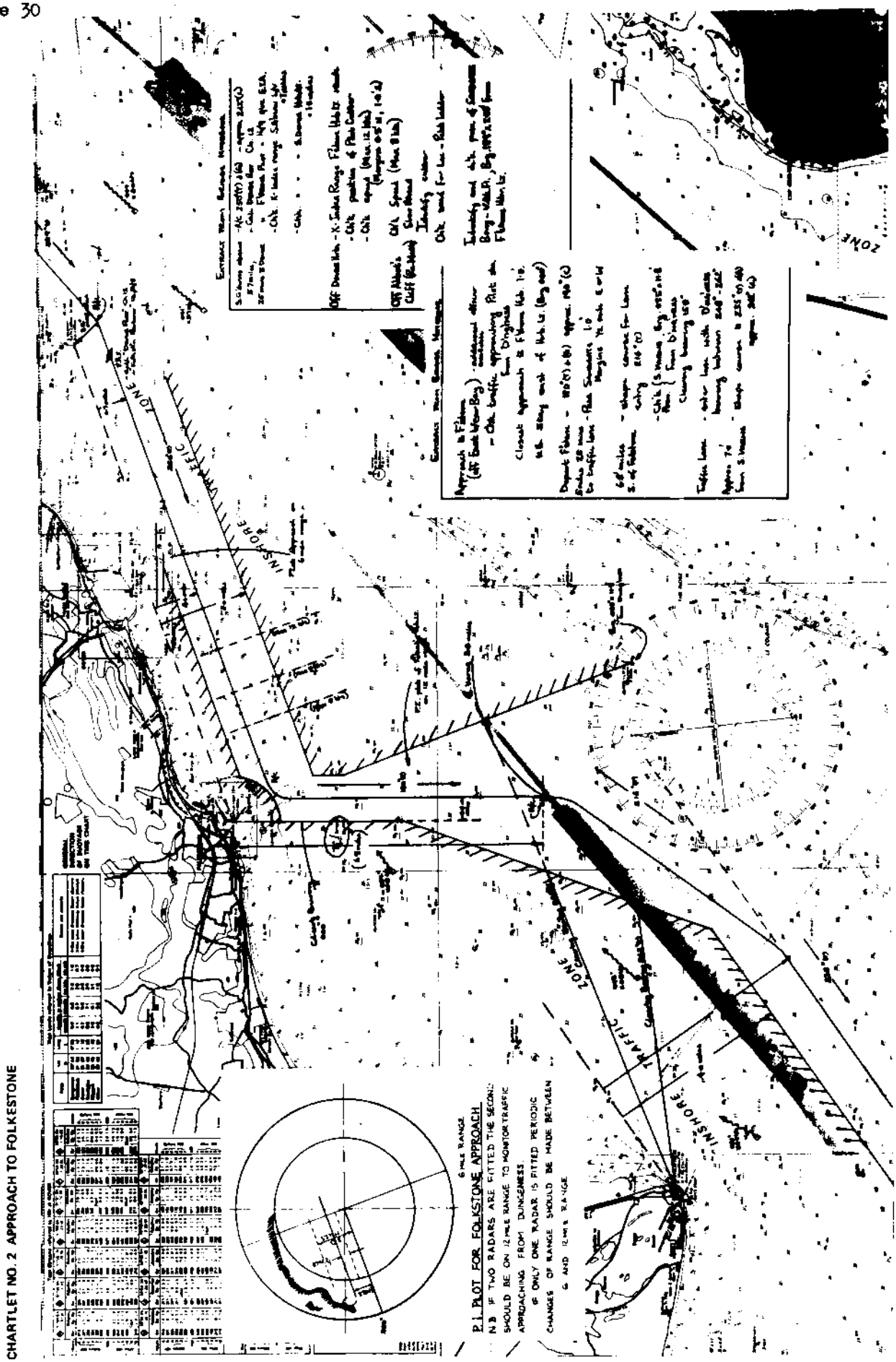
(iii) Margins of safety and maximum speeds of approach marked on the chart.

(iv) When manoeuvring to disembark pilot, the ship not to proceed west of the Sandgate buoy. This may impede ships approaching Folkestone from the west. A clearing bearing of 000° is marked towards the harbour light indicating that the ship should not stray to the west of that bearing.

(v) A course due south, with a clearing bearing of 000° to the harbour light, is set to effect departure from Folkestone. This provides a straightforward departure clearing the Sandgate buoy and providing an easy check (by compass and/or radar observations of the mole head) on whether the ship is east or west of the planned course.

(vi) Clearing bearings from Dungeness light are marked for the points between which the ship should enter the traffic lane.

(vii) Ship must enter traffic lane at a small angle (Rule 10(b)(iii)) therefore start shaping course to 216°(T) when 3.5 miles from S. Varne buoy.



CHARTLET NO. 2 APPROACH TO FOLKESTONE

2.3 **Approach to Le Havre** (Charlet No. 3)

Key points:-

(i) Avoidance of Cap d'Antifer traffic. Approach on 206°(T) to position 292° 27.0 miles from Cap d'Antifer and thence on 148° to Le Havre lightvessel.

(ii) 148° course will bring ship to waiting area. If ship is to berth on arrival, and if waiting area is conjested, alternative courses avoiding waiting area are ready.

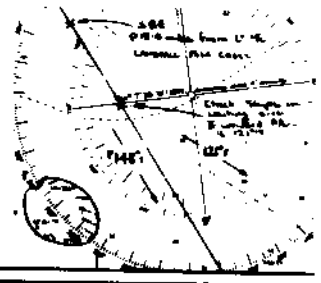
(iii) Early checks on positions of lightvessel and Le Havre buoy. Both will be important conning references.

(iv) Using radar, check positions of channel buoys using harbour entrance lights.

(v) Approach to and through buoyed channel may require continuous track monitoring - especially if visibility is poor, P.I. plot to be prepared for passage of port approach channel.

CHARTLET NO. 3 APPROACH TO LE HAVRE

Extract from present chart (No. 2612)



Extract from Source Notebook

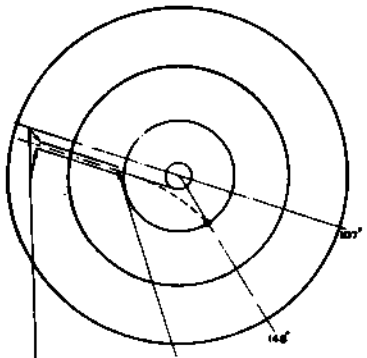
Lt Vessel 6 miles – S.B.S. From Ahead
Check given by Radar, Beam, bearings of D'Antifer, E.F. also R.C. & D'Antifer – Lt Vessel – Gp Fl. (2) R 10 sec. sweep (as)
Between ranges of Lt Vessel 12 – 11.85 miles

Lt Vessel @ 12 miles – Ch's shape on receding coast N edge abeam 7.0 miles from Lt V
S " " 4.0 " "

– ch's from square 121°(T) about 180°

Lt Vessel @ 8 miles – additional officer available
Ahead 3.45 miles from Lt Vessel – Ch's spread – max. to Mk.
– Half Ahead
– Run ch's on Lt Vessel – Brg. 045° 4.45 from platform.

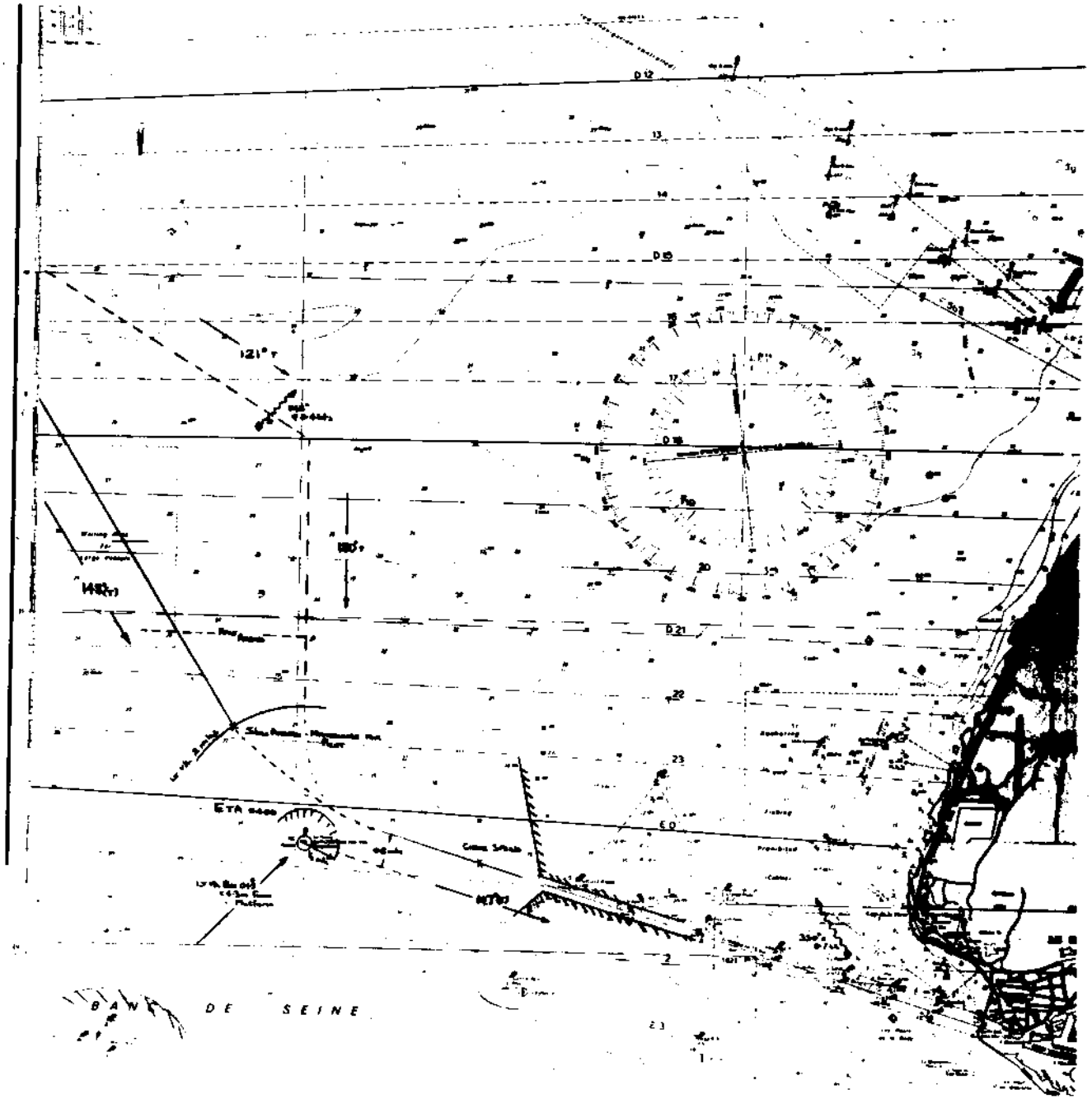
Ahead 2.0 miles from Lt Vessel – Slow Ahead, shape across southwards for pilot (Log: from 101°(T))



PLOT FOR Lt Vl. ECHO WHEN MAKING 101° COURSE

EDGES OF CHANNEL
(IF Lt Vl. DOES NOT REMAIN WITHIN PLOT SHIP IS GETTING OFF CORRECT APPROACH)

6 MILE RANGE



2.4 Berthing manoeuvre (Charlet No. 4)

Directed by pilot and with tug assistance.

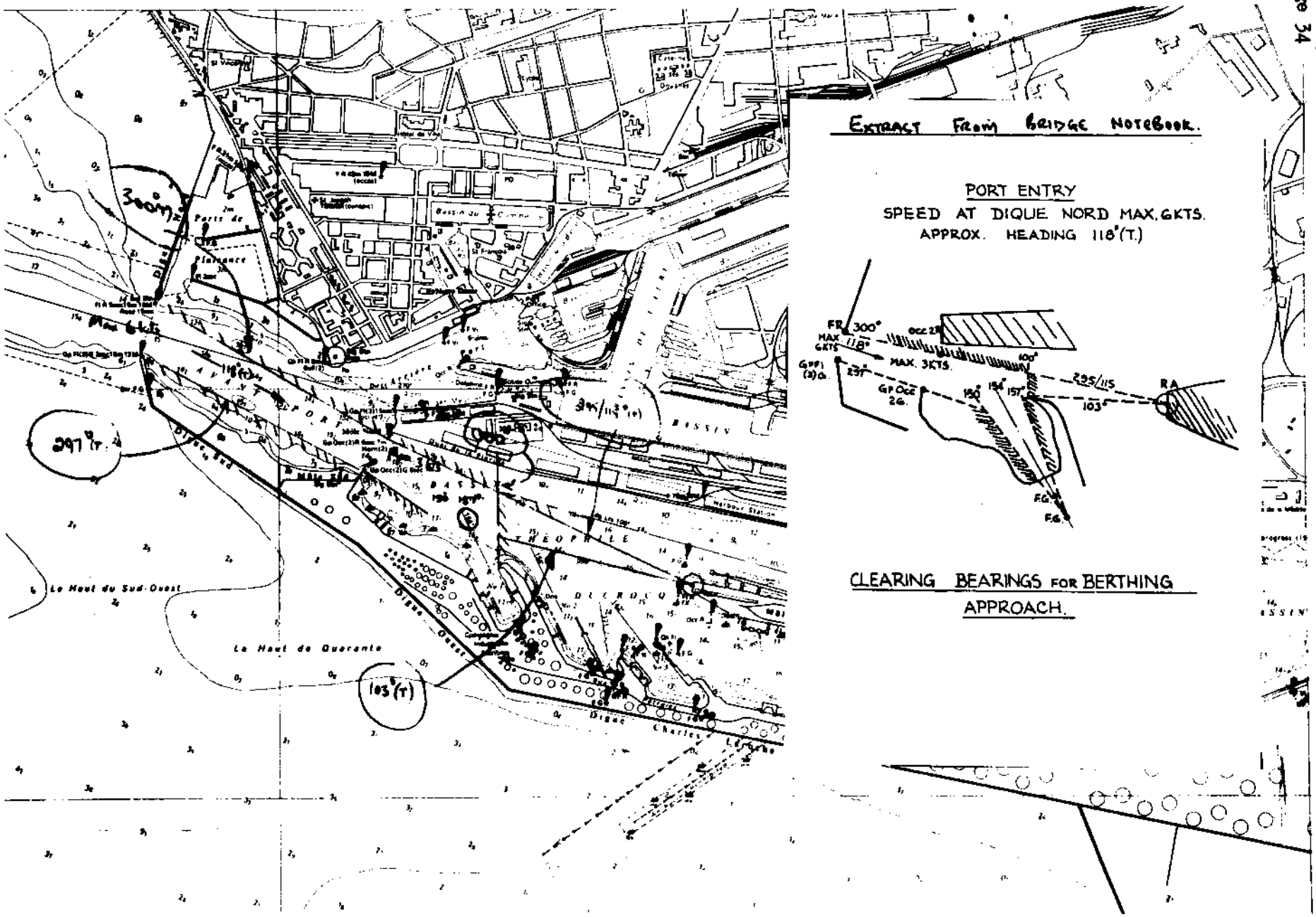
Key points:-

(i) Effective communications with tugs.

(ii) Speed monitoring during passage through Avant Port, and approach to the berth.

(iii) Visual observation of leading lines and clearing bearings, ensuring that ship manoeuvres within a safe area. Marked up in bridge notebook.

CHARTLET NO. 4 BERTHING MANOEUVRE



Appendix III

SAMPLE CHECK LIST OF ITEMS FOR PASSAGE PLANNING

1. Select largest scale appropriate charts for the passage.

2. Check that all charts to be used have been corrected up to date from the latest information available.

3. Check that all radio navigational warnings affecting the area have been received.

4. Check that sailing directions and relevant lists of lights have been corrected up to date.

5. Estimate the draught of the ship during the various stages of the passage.

6. Study sailing directions for advice and recommendations on route to be taken.

7. Consult current atlas to obtain direction and rate of set.

8. Consult tide tables and tidal atlas to obtain times, heights and direction and rate of set.

9. Study climatological information for weather characteristics of the area.

10. Study charted navigational aids and coastline characteristics for landfall and position monitoring purposes.

11. Check the requirements of traffic separation and routeing schemes.

12. Consider volume and flow of traffic likely to be encountered.

13. Assess the coverage of radio aids to navigation in the area and the degree of accuracy of each.

14. Study the manoeuvring characteristics of the ship to decide upon safe speed and, where appropriate, allowance for turning circle at course alteration points.

15. If a pilot is to be embarked, make a careful study of the area at the pilot boarding point for pre-planning intended manoeuvres.

16. Where appropriate, study all available port information data.

17. Check any additional items which may be required by the type of ship, the particular locality, or the passage to be undertaken.

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