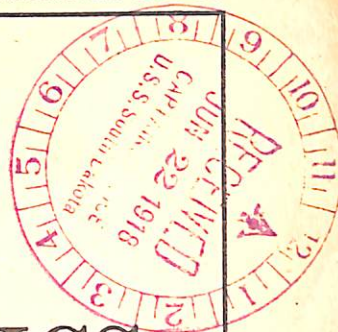


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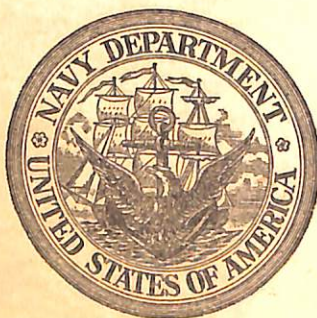
DEPTH-CHARGE TACTICS



NAVY DEPARTMENT
OFFICE OF NAVAL INTELLIGENCE



JUNE, 1918



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1918

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NAVY DEPARTMENT,
OFFICE OF NAVAL INTELLIGENCE,
Washington, D. C., June 3, 1918.

By direction of the Chief of Naval Operations this information is printed for the guidance of vessels of the United States Navy.

ROGER WELLES,
Captain, United States Navy,
Director of Naval Intelligence.

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UNITED STATES NAVAL FORCES,
OPERATING IN EUROPEAN WATERS,
U. S. S. "MELVILLE," FLAGSHIP,
Base Six, March 29, 1918.

From: Force Commander.
To: United States Destroyer Flotillas operating in European waters.
Subject: Depth charge tactics.

1. The following instructions, with blue prints, are issued for use of the destroyer flotillas. Additional instructions will be issued from time to time as found necessary.

GENERAL INSTRUCTIONS.

Submarine's mean speed is assumed as $7\frac{1}{2}$ knots.

Submarine will probably submerge at best speed to 150 to 200 feet, taking approximately two minutes, then will probably make low speed to avoid being picked up by listening devices.

Mean speed of destroyer assumed as 20 knots.

Tactical data of specimen curves taken from Eriesson's curves.

When two destroyers are available for attacking submarine, the first attacking destroyer should turn with a view of allowing second attacking destroyer to reach point of submergence in least possible time and with least maneuvering necessary, provided that first destroyer will not be delayed in reaching point of submergence. First destroyer should immediately indicate which way she will turn by sounding her whistle, one blast for starboard and two blasts for port. The signal should be repeated before arriving at submarine's point of submergence.

A buoy should be thrown over by first destroyer upon arriving at point of submergence. One or more calcium torch pots secured to buoy will make it an easy one to keep in sight by day or night.

First destroyer should keep careful lookout on area being circled by second destroyer and vice versa.

First charge dropped by first destroyer while submarine is submerging should be set for 100 feet. All other charges should be set for 150 feet, provided depth of water will permit the 150-foot setting.

To allow for delayed action of firing mechanism, pistols should be set to fire at about 75 feet less than depth of water shown on chart.

All depth charges shall be kept on *safes* during dark or thick weather and at such other times as stated in existing orders.

PLATE "A."

Curves represent locus of a submarine's most probable position for each minute after submerging, mean speed of submarine $7\frac{1}{2}$ knots.

PLATE "B."

Showing intervals for dropping depth charges. Note that with 10 and 15 second intervals a submarine making $7\frac{1}{2}$ knots will arrive in danger zone of second depth charge in case she just cleared danger zone of first charge. Twenty-second interval is shown to be too great an interval.

CASE I.

Showing pursuit curve of one destroyer which sights periscope about 650 yards distant.

If submarine holds steady course, she should be seriously damaged by first five depth charges dropped. Commanding officer of destroyer chooses to turn right or left. This case illustrates procedure where turn to left is made.

The pattern, made by two charges from stern and one from each depth charge projector, is shown in blue prints at that point where destroyer will overtake submarine, submarine speed $7\frac{1}{2}$ knots, destroyer speed 20 knots. Depth charges shown as squares.

CASE II.

Showing pursuit curves of two destroyers when first destroyer turns to left after making pattern of four charges.

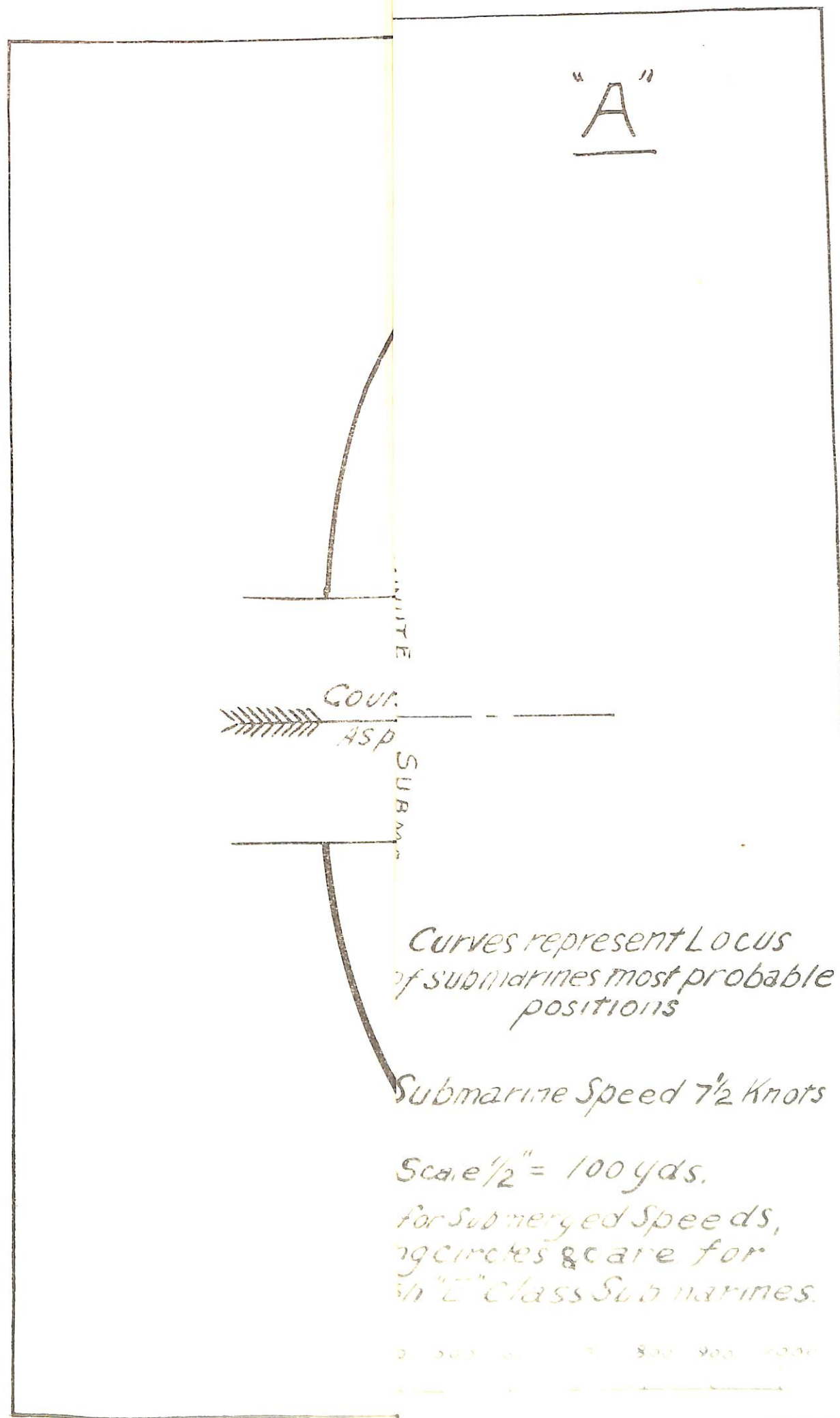
Second destroyer drops several charges before turning to left in order to cut off submarine in case she has attempted to reverse her course. Buoy dropped by first destroyer at point of submergence will greatly assist second destroyer regarding distance to be passed abeam.

Note that both destroyers are free to maneuver without danger from depth charges. Each destroyer should finish run near center of other's circle.

CASE III.

Showing pursuit curve and charges dropped by one destroyer when fitted with a depth charge howitzer. Note that first four howitzer charges are fired on that side away from which destroyer turns and that other charges located inside of pursuit curve are fired while destroyer is turning and are so placed as to embarrass submarine in case she is attempting to reverse her course. Howitzer charges shown by circular dots.

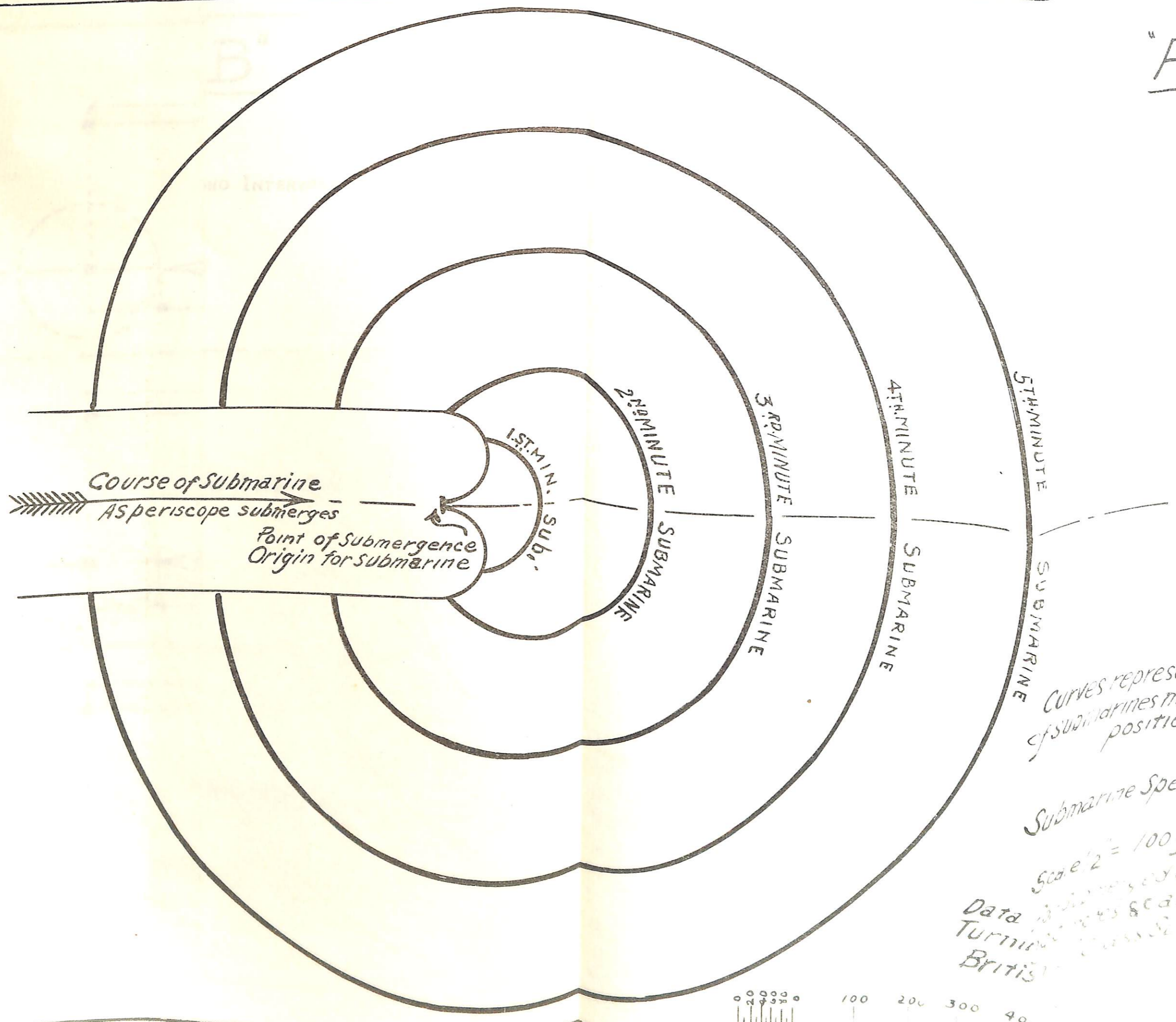
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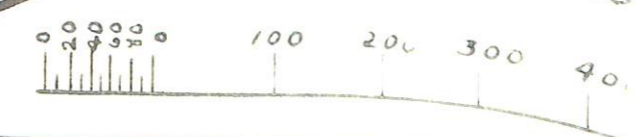
"A"



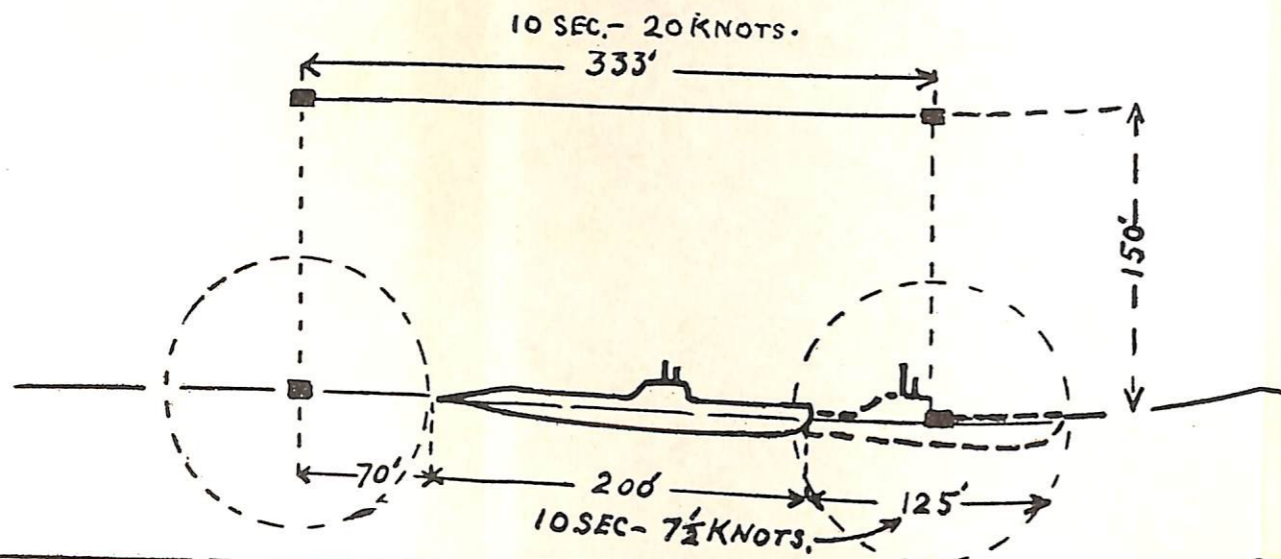
Curves represent Locus
of submarines most probable
positions

Submarine Speed $7\frac{1}{2}$ Knots

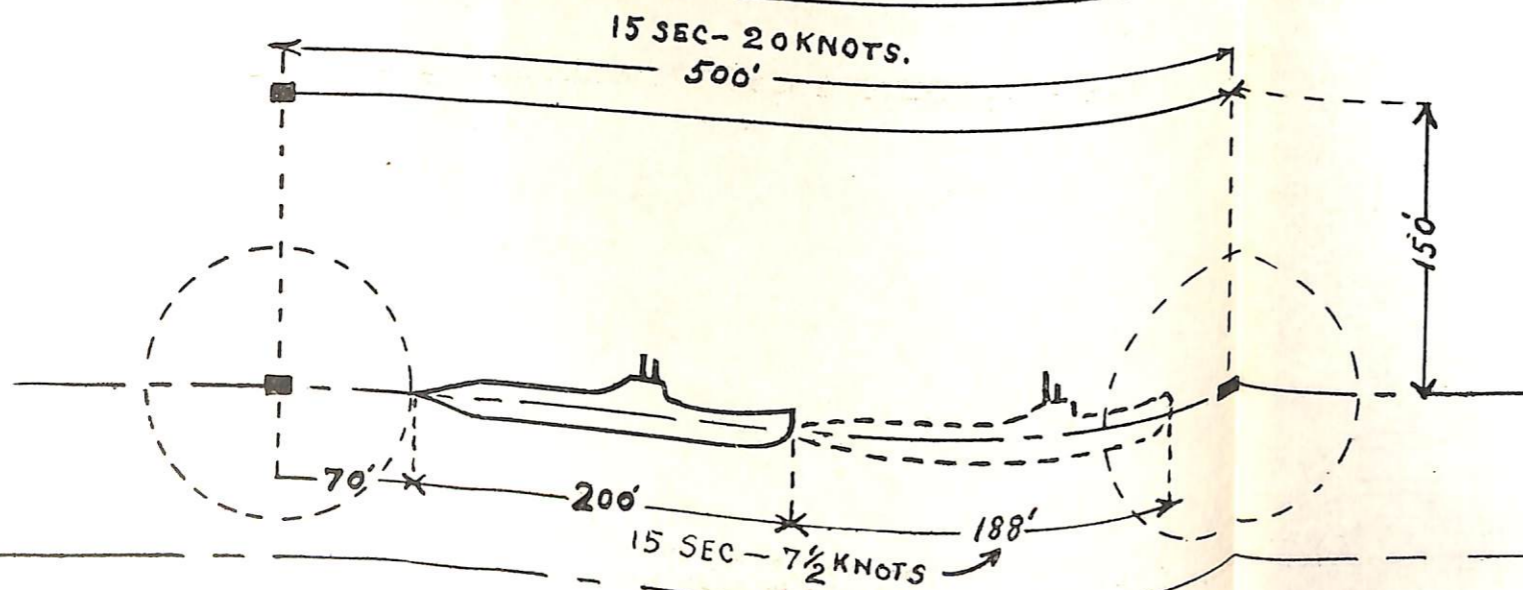
Scale $1'' = 100$ yds.
Data based on speeds,
Turning radii & scale for
British class submarines.



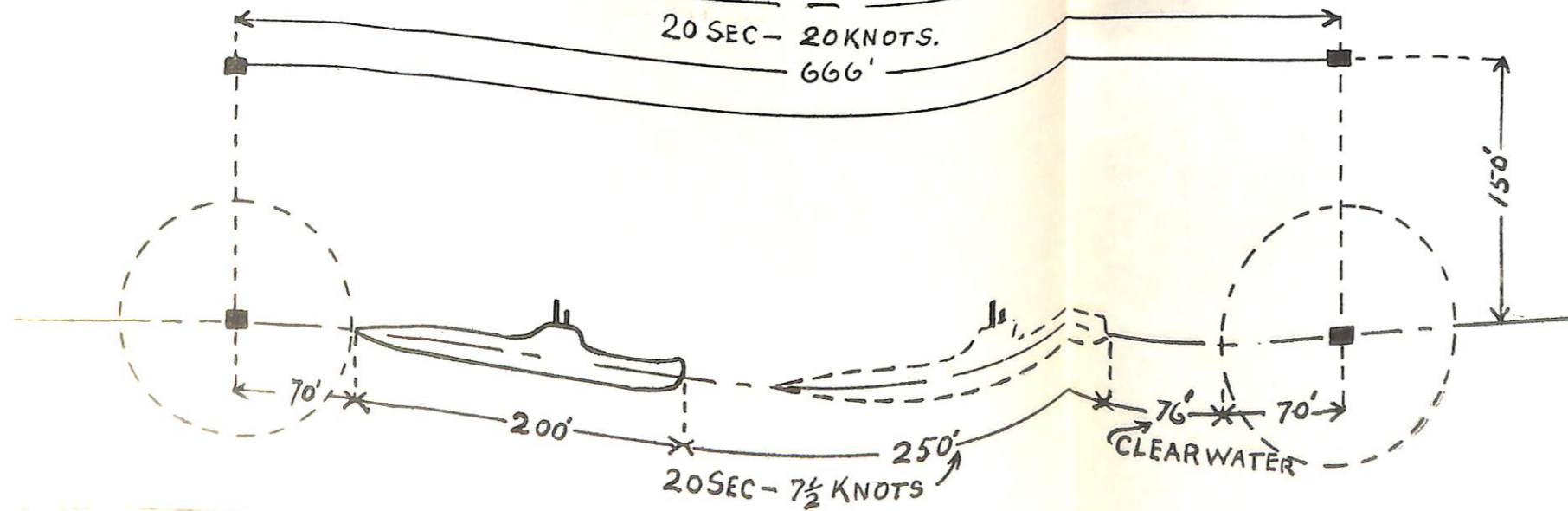
"B"



10 SECOND INTERVALS.

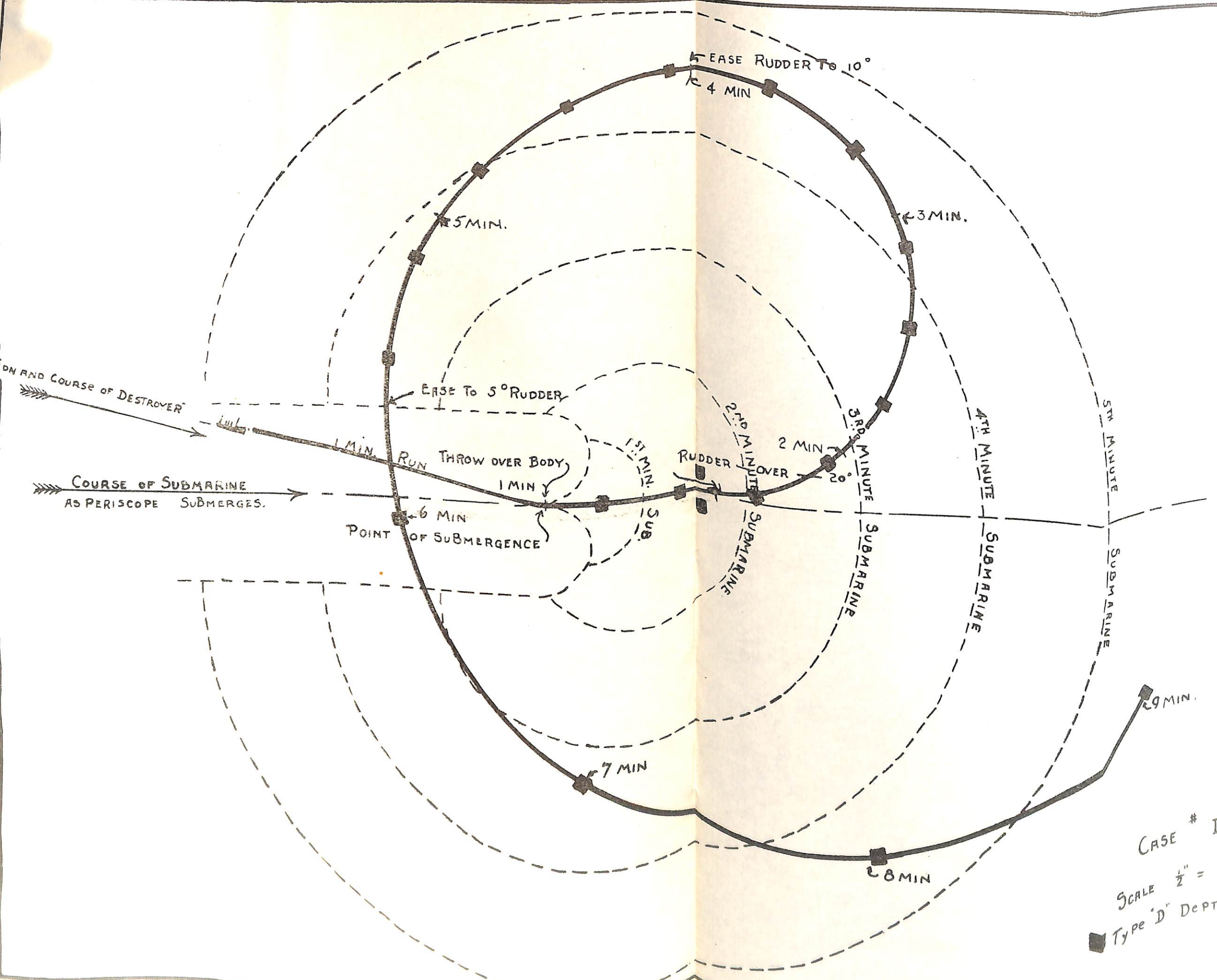


15 SECOND INTERVALS.

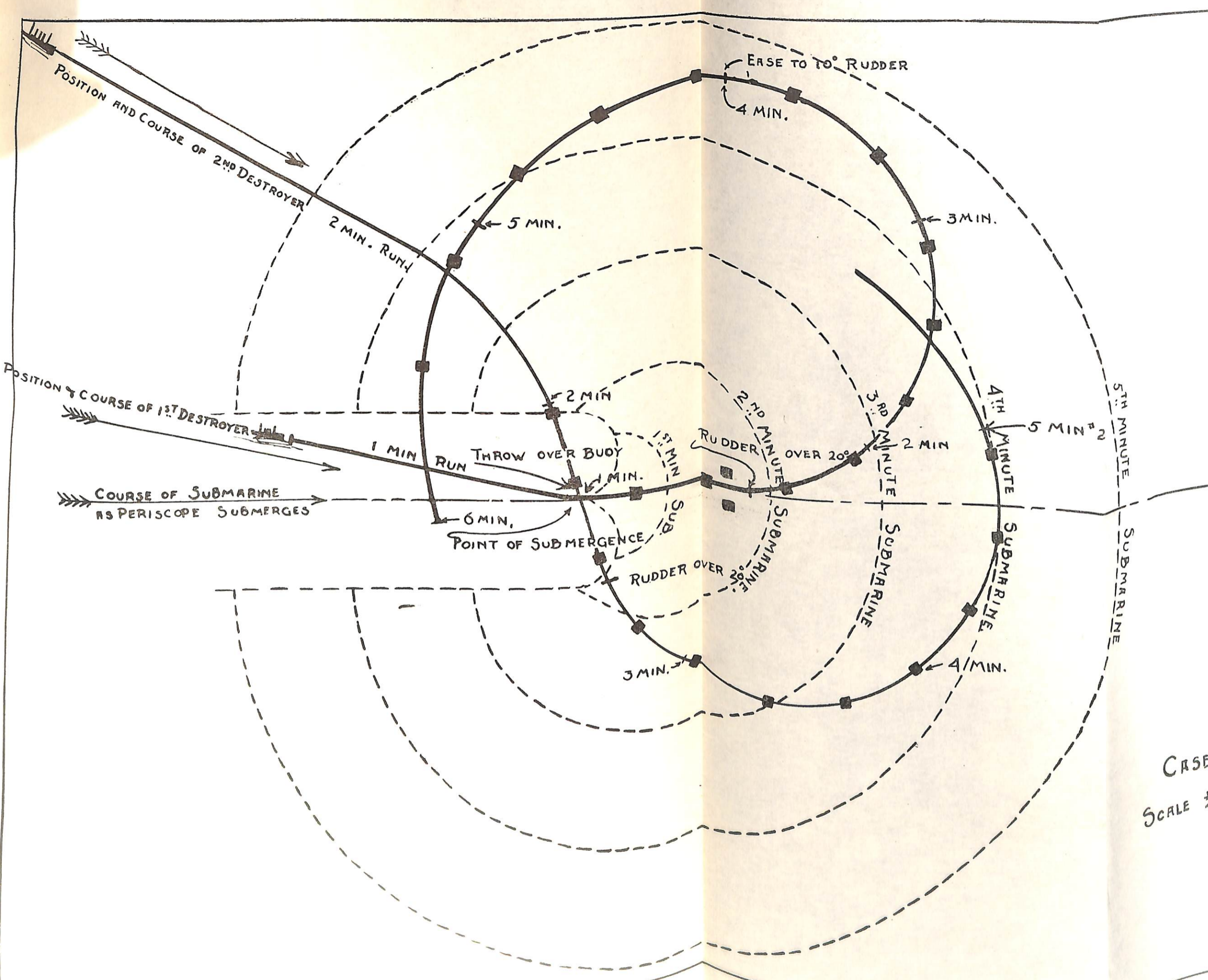


20 SECOND INTERVALS

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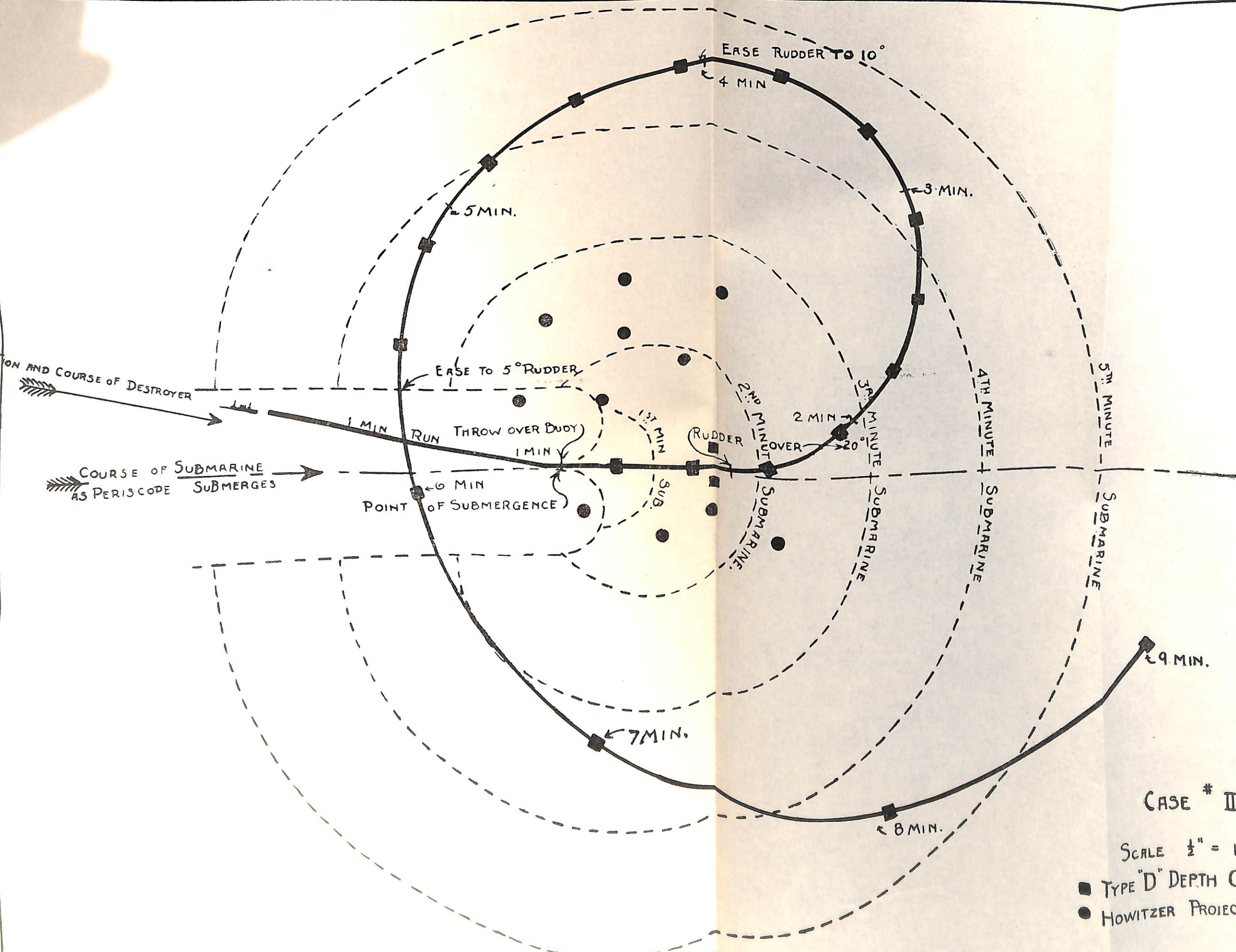


CASE # I
 SCALE 1/2" = 100 YDS.
 ■ Type 'D' Depth Charges



CASE # II
 SCALE 1/2" = 100 YDS.

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CASE # III

- SCALE 1/2" = 100 YDS.
- TYPE "D" DEPTH CHARGES
 - HOWITZER PROJECTILES