ERRATUM & ADDENDUM TO HYDROGRAPHIC REVIEW

Vol. X, N⁰ 1, May 1933

SLOPE CORRECTIONS FOR ECHO SOUNDINGS.

ERRATUM

PAGE 42 : *Line 23*. — Cancel the sentence beginning :

"At this point etc..." to end of the paragraph and substitute as follows :-

At this point of intersection (interpolating if necessary) the value of the required coefficient is read, using the *outer* scale of the border if the contour lines originated from uncorrected echo distances ; and using the *inner* scale of the border if the contour lines have been drawn from actual soundings already obtained or from previously corrected echo distances.

Diagrams N⁰ˢ 1, 2 and 3.

1⁰) In the title of each diagram, for "*outer* factor" read "*inner* factor" and for "*inner* factor" read "*outer* factor".

For "facteur *extérieur*" read "facteur *intérieur*" and for "facteur *intérieur*" read "facteur *extérieur*".

2⁰) In all three diagrams the figures within the border immediately above the words "Cables - Encablures" should be multiplied by 10.

PAGE 45 : After the *last line*, add :

The method of using these tables is as follows :

y represents the length in millimetres corresponding to the factor, measured from the top right-hand corner of the diagram (the point marked 2000 on the scale of metres) down the right-hand margin of the diagram.

x (a continuation of the y scale along the lower margin of the diagram) represents the length in millimetres corresponding to the factor, measured from the bottom left-hand corner of the diagram (the point marked 1000) along the lower margin of the diagram.

The indices 1 and 2 under the factors x and y, x' and y' correspond respectively to the factors to be used for constructing diagrams N⁰ 1 and N⁰ 2, the indices 3 and 4 correspond to the factors for the two scales of diagram N⁰ 3.

The quantities x and y shown in the left-hand columns of the tabulation correspond to the *inner* scales of the diagrams ; the quantities shown in the right-hand columns should read x' and y' and refer to the *outer* scales of the diagrams.

The distances in columns y_4 and y'_4, x_4 and x'_4, refer to the scales of the *inner* border of Diagram N⁰ 3, and should be measured from the 1900 and 960 points respectively.

P. V.

ADDENDUM

On page 42 of *Hydrographic Review*, Vol. X, Nᵒ 1, May 1933, M. de VANSSAY has stated that, where α is the true slope of the bottom and β the slope found by plotting two or more uncorrected echo distances, $\tan \beta = \sin \alpha$. A simple explanation of this appears desirable.

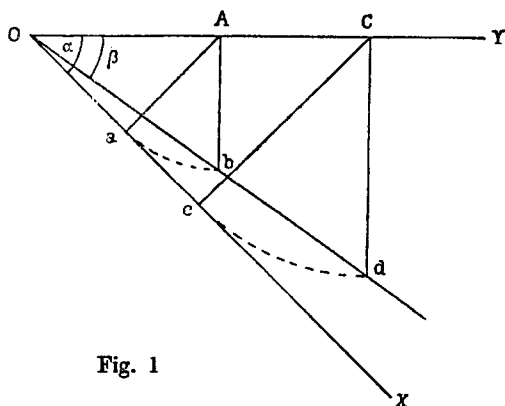Fig. 1 shows diagrammatically the connection between the two angles α and β.
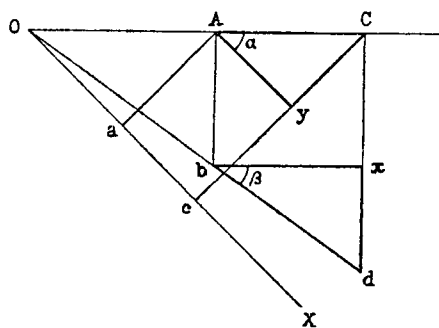

Fig. 1

Fig. 2

OY is the surface of the ocean and OX the line of true slope of the bottom ; the true angle of slope is therefore the angle between them, marked α.

The ship at A and C obtains echo distances Aa and Cc. Assuming these two echo distances to be actual soundings plot the lines Ab and Cd. The line Obd represents the fictitious slope of the bottom obtained by the two echo distances, and the angle which it forms with the surface is marked β.

Fig. 2 shows the relation between these two angles α and β.

Proceed as in Fig. 1, then draw bx parallel to OY and Ay parallel to OX. $xd =$ the difference between the two echo distances $= cv$.

$$AC = bx$$

In triangle ACy, $\qquad \dfrac{Cy}{AC} = \sin \alpha,$

and in triangle bxd, $\qquad \dfrac{xd}{bx} = \tan \beta.$

Therefore $\sin \alpha = \tan \beta$.

In the three diagrams following page 44 of the above quoted *Review* the angle α is used for calculating the inner scale and β for calculating the outer.

J. D. N.