

Section III

THE INTERNATIONAL HYDROGRAPHIC REVIEW

Vol. XXXIII

N° 2



(N° 60 OF THE SERIES)

PUBLISHED BY

THE

INTERNATIONAL HYDROGRAPHIC BUREAU
Quai des Etats-Unis - Monte-Carlo

MONACO

PRINCIPALITY



NOVEMBER 1956

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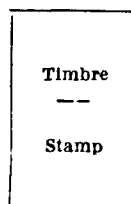
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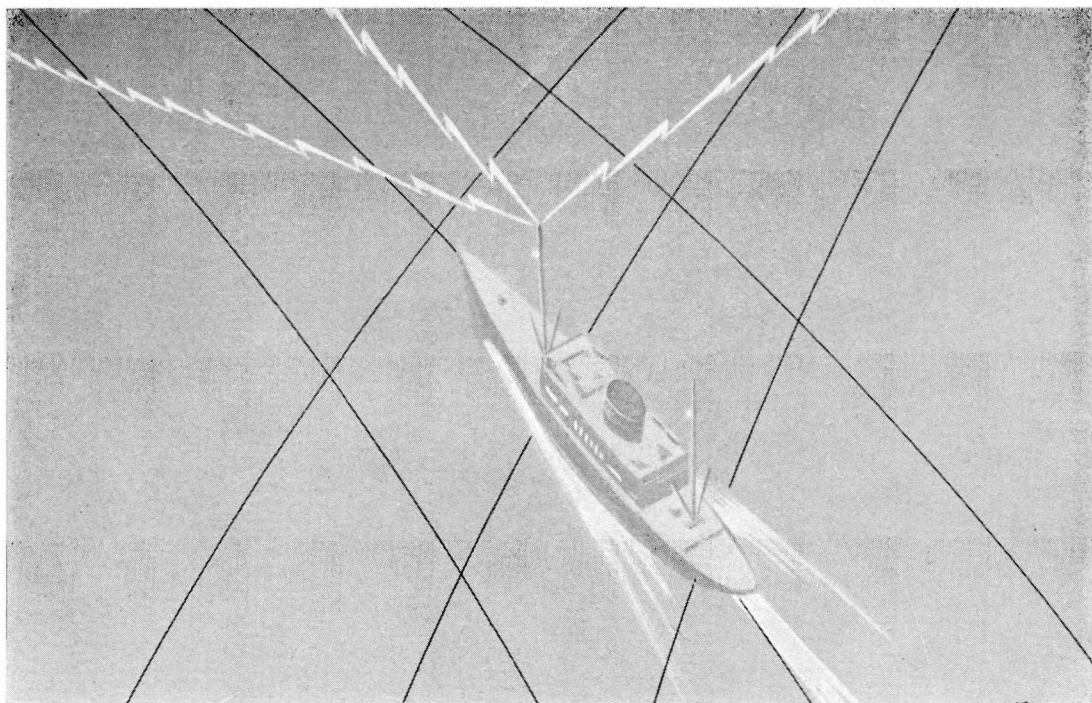
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RADIO AIDS

TO MARITIME NAVIGATION AND HYDROGRAPHY

(INTERNATIONAL HYDROGRAPHIC BUREAU SPECIAL PUBLICATION N° 39)

This publication contains the latest theoretical and practical information available regarding radio aids currently used for position-fixing in both maritime navigation and hydrography.

The summary of chapters is as follows :

CHAPTER I. — Spectrum and Propagation of Radio Waves.

- 1) Frequency Spectrum of Electromagnetic and Radio Waves - 2) Propagation of Radio Waves.

CHAPTER II. — Radio Systems Used in Maritime Navigation.

- 1) Radio Direction-Finding - 2) Loran - 3) Decca - 4) Consol.

CHAPTER III. — Radio Systems Used in Hydrographic Surveying.

- 1) Decca in Hydrographic Surveying - 2) Shoran - 3) Electronic Position Indicator (EPI) - 4) Shoran and EPI in Offshore Hydrographic Surveying - 5) Raydist - 6) Lorac - 7) Rana - 8) Computation and Plotting of Hyperbolic Lattices on Survey Plotting Sheets.

CHAPTER IV. — Radar Technique.

- 1) Radar Technique in Navigation - 2) Use of Marine Radar in Surveying.

CHAPTER V. — Radio Systems in Geodetic Surveying.

- 1) Outline of Present Situation - 2) Operational Reports.

CHAPTER VI. — Reports on Use of Radio Systems in Hydrography.

- 1) Decca - 2) Shoran - 3) EPI - 4) Raydist - 5) Lorac - 6) Rana.

The publication has been prepared in the two official languages of the I. H. B. : English and French. The French edition was issued in February 1956 and is already on sale. It consists of VIII + 481 pages, and of 223 figures including 50 full-page illustrations. The English edition will appear towards the middle of 1956.

The price per volume in either edition has been set at 8 U.S. Dollars. Conditions of sale are as follows:

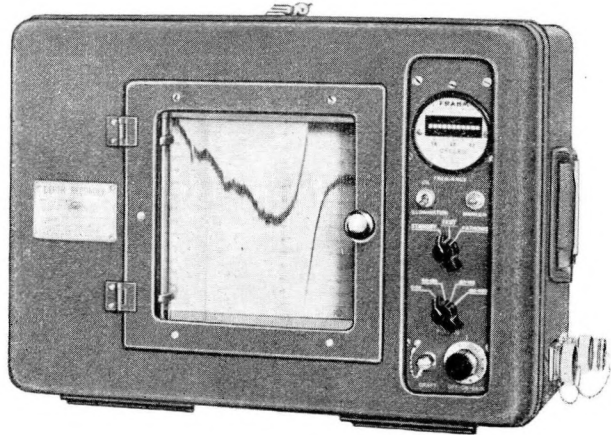
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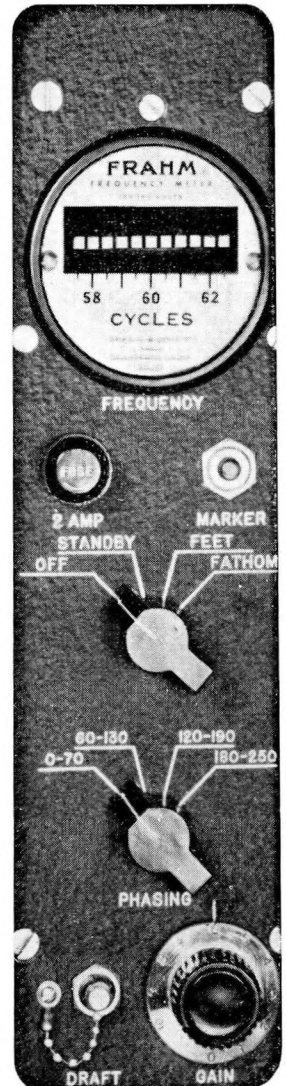
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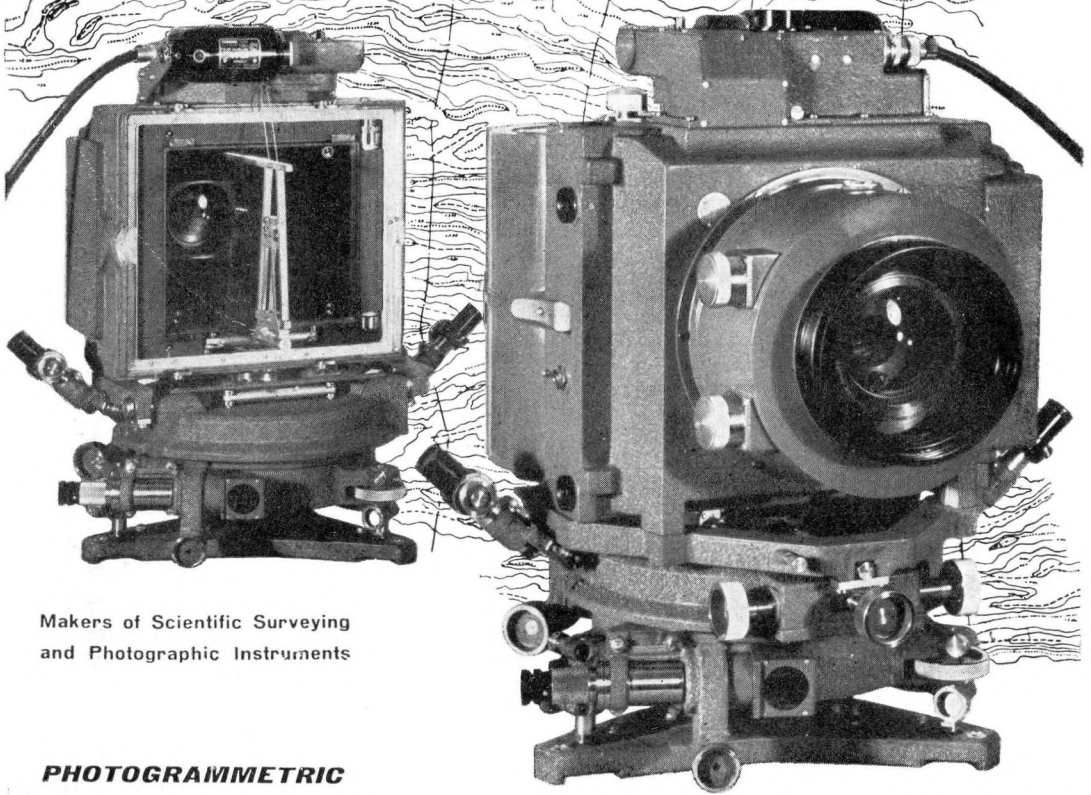
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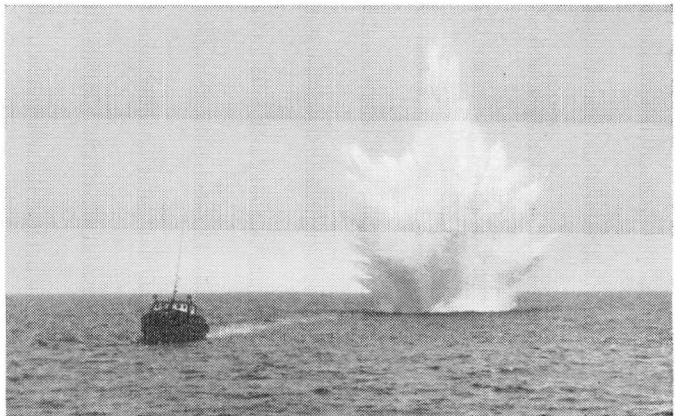
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Oil terminal at Sidon, Lebanon

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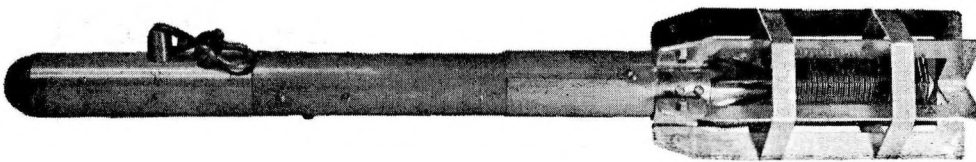
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to measure and record water temperature vs depth.



Wallace and Tiernan
Thermarine Recorder

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	MODEL N ^o	
	FA-190011	FA-190021
Depth range *	0 to 200 ft.	0 to 450 ft.
Accuracy	2 ft.	4.5 ft.
Temperature range *	+ 30° to + 90° F.	+ 30° to + 90° F.
Accuracy	± 0.1° F.	± 0.1° F.
Maximum allowable depth	225 ft.	562.5 ft.
Length	31"	31"
Diameter: Nose	2 1/8"	2 1/8"
Tail	5"	5"
Weight (pounds)	21 3/4 lb.	21 3/4 lb.
Shipping weight (pounds)	75 lb.	75 lb.
		FA-190031
		0 to 900 ft.
		9 ft.
		+ 30° to + 90° F.
		± 0.1° F.
		1125 ft.
		31"
		2 1/8"
		5"
		22 lb.
		75 lb.

ACCESSORIES:

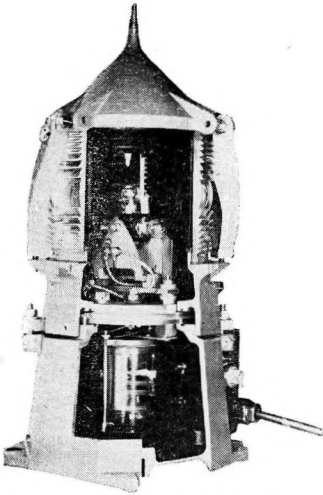
200 smoked glass slides. — Two individually calibrated grids and holders. — Two grid viewers. — Two pts. slide lacquer.
— One pt. lacquer thinner. — One slide forceps. — One thermometer. — One nose casting.

* Temperature and depth may be calibrated in °C and meters, if desired.

The accessories listed above are the same for models FA-190011, FA-190021 and FA-190031, with the exception that a deep diving rig is included with model FA-190031.

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ELECTRICITY POWERS THE MODERN AID TO NAVIGATION For Lighthouse or Buoy

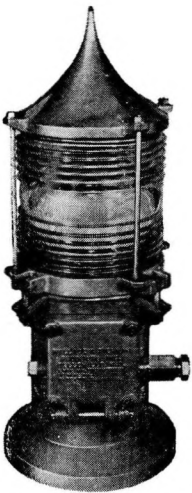


Wallace and Tiernan 200 mm. Lantern cut away to show lamp changer and flasher mechanism

Recognizing the responsibility imposed on marine lights and their accessories, Wallace and Tiernan has, over the years, developed a complete line of modern **electrically powered** aids to navigation meeting all the requirements of unfailing dependability, low initial cost, negligible maintenance and long unattended service periods.

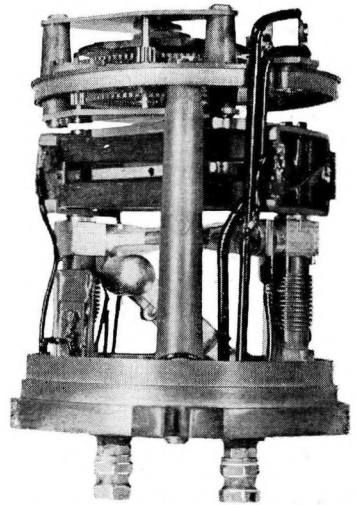
Among the design features of Wallace and Tiernan Electric Marine Beacons which have led to their use by lighthouse authorities the world over are:—

- Electrically powered operation.
- Flasher Mechanisms suitable for any flashing characteristics and operating voltage.
- Automatic lamp changers.
- Corrosion resistant, water-tight construction.
- Efficient candlepower output high visibility with low power consumption.
- Low initial cost.
- Continuous, unattended operation for long periods.



Wallace and Tiernan 150 mm. Lantern

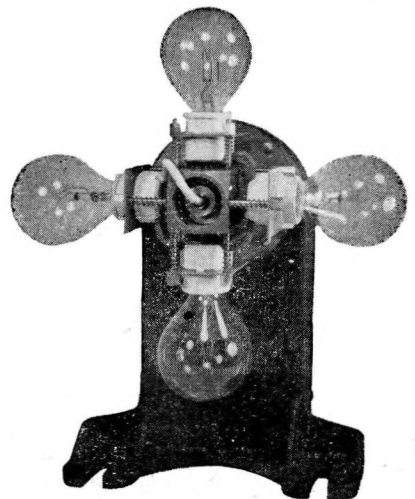
Wallace and Tiernan Specialists on aids to navigation will be glad to make recommendations on your problem without obligation—either on new installations or on the conversion of old gas or oil lights to modern electric operation. Such conversions, utilizing existing optics and structures, are both economical and practical.



Wallace and Tiernan Flasher mechanism

WALLACE & TIERNAN AIDS TO NAVIGATION INCLUDE :

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|--|----------------------------|
| • Lighthouse beacons and Lanterns from 90 mm. to 500 mm. | • Automatic lamp changers. |
| • Buoys and Structures. | • Range light lanterns. |
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The International Hydrographic Review is dependent for its value and interest on original contributions from its readers, as well as on the re-publication, in English and French, of appropriate articles which have already appeared in other publications.

Articles on any branch of hydrographic surveying, navigation and allied subjects, such as radio and other aids to navigation, new instruments, hints to hydrographic surveyors, etc., as well as articles dealing with the history and organization of hydrographic offices with descriptions of surveying ships and boats and their equipment, are of great interest to all Hydrographic Offices.

The Directing Committee of the International Hydrographic Bureau will carefully consider all articles received for publication. Free reprints in English and/or French of original articles will be supplied to their authors on request made when sending manuscript.

Articles should be typewritten if possible in duplicate and addressed to

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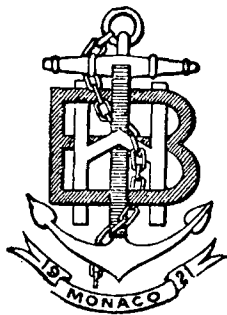
and should reach the Bureau not later than 31st January or 31st July for the May and November numbers respectively.

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MONACO

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NOVEMBER 1956

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ERRATA

for Part I of the Saunders-Blodgett paper published
in the *International Hydrographic Review*, May 1956, Vol. XXXIII, No. 1

Page 145: There is a line omitted between lines 8 and 9.

The missing line should read:

« ... parties) of these features on the respective photographs is positive
identification... »

Page 153, line 16 from bottom, should read:

«... 1 5/8 space to the right of O₄. »
