

PUBLICATION OF TIDAL HARMONIC CONSTANTS
BY THE INTERNATIONAL HYDROGRAPHIC BUREAU
(S.P. N° 26)

At the IXth General Assembly of the International Union of Geodesy and Geophysics held at Brussels from 21st August to 1st September 1951, the I.H.B. was represented by the President of the Directing Committee, who presented a Report to the International Association of Physical Oceanography on the Work carried out by the Bureau since the last General Assembly in 1948.

This report included the following two subjects « Production of Additional Sheets of I.H.B. Special Publication N° 26 »: « Tidal Harmonic Constants » and « Extension of World Network of Tidal and Tidal Stream Stations », to illustrate which the following details were given accompanied by a world map showing the general areas for which Tidal Harmonic Constants had been published by the Bureau. The Directing Committee hereby publish these for the benefit of those concerned, especially the States-Members of the I.H.B. who were not represented at the General Assembly.

It will be observed that the detailed list which follows only concerns Tidal information published since 1948, or to be issued shortly ; however, the Bureau's Special Publication N° 26 contains at the present time Harmonic Constants for a total of 2,706 Tidal Stations of the world published either in single sheets for an individual station or in grouped sheets of several stations according to the information available in the Bureau.

The attached world map shows the general areas for which Tidal Harmonic Constants have been published to date ; those shown in solid black having been published previous to the year 1948, and those indicated by shaded lines between 1948 and 1951, the latter indicating to a certain extent the recent progress which has been made in the extension of a world network of Tidal Gauge Stations, the necessity of which in many areas not adequately examined was stressed at both the 1932 and 1947 International Hydrographic Conferences.

The general areas contained in the following list include many of those mentioned in I.H.B. Circular-Letter N° 2-H of 1948 which were determined by correspondence with those States-Members of the Bureau who have made a world-wide study of Tides and Tidal Currents as being inadequately examined or wholly un-examined as determined by existing records.

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11th July 1951

Since the Meeting of the International Association of Physical Oceanography, in Oslo, 1948, the I.H.B. has issued:

34 grouped sheets dated I-VI-1949 concerning	238	stations
103 single sheets dated I-VI-1949 concerning	103	»
5 grouped sheets dated I-X-1950 concerning	35	»
5 single sheets dated I-X-1950 concerning	5	»
TOTAL	381	stations

In preparation to be issued shortly:

30 single sheets concerning	30	stations
15 grouped sheets concerning	105	»
TOTAL	135	stations
GENERAL TOTAL	516	stations

The following countries are concerned as follows:

	New Data-Comple- mentary Already Published	New Data-Comple- mentary In preparation	
<i>1° Europe, Mediterranean Sea, West Coast of Africa :</i>			
U.S.S.R.	1		
Svalbard (Spitzbergen)	1		
Iceland		6	
Norge (Norway)	2		
Sverige (Sweden)	3		
Nederland	15		
British Isles		19	10
Spain	12	9	3
Portugal	1	3	
Italy		5	1
Cyprus, Algiers, Tunis	2	1	
Morocco	2	3	2
Azores Is.	2	1	4
Canary Is.	2		
Cabo Verde Arch.	1	1	
Africa West Coast	12	2	12
	35	39	48
		17	

	New Data-Complementary		New Data-Complementary	
	Already Published		In preparation	
<i>2° Indian Ocean:</i>				
East Coast of Africa and Madagascar	3	3	9	
Saint Paul Island	1			
Kerguelen Islands			1	
Heard Island			1	
Cocos Islands (Keeling)			1	
Persian Gulf			4	4
India West Coast			1	
	—	—	—	—
	4	3	17	4

(1) *New Data*: Stations for which Harmonic Constants were not previously published by the I.H.B.

(2) *Complementary*: Corrections or additions to previously published constants.

3° Far East:

Straits Settlements and South China	5	3	1	
Philippine Is	28	3	1	2
Mindanao	19			
Indonesia (Sumatra, Java, Borneo, Celebes, New Guinea) ..	20	5	3	2
	—	—	—	—
	72	11	5	4

4° Australia and Scattered Islands in the Pacific:

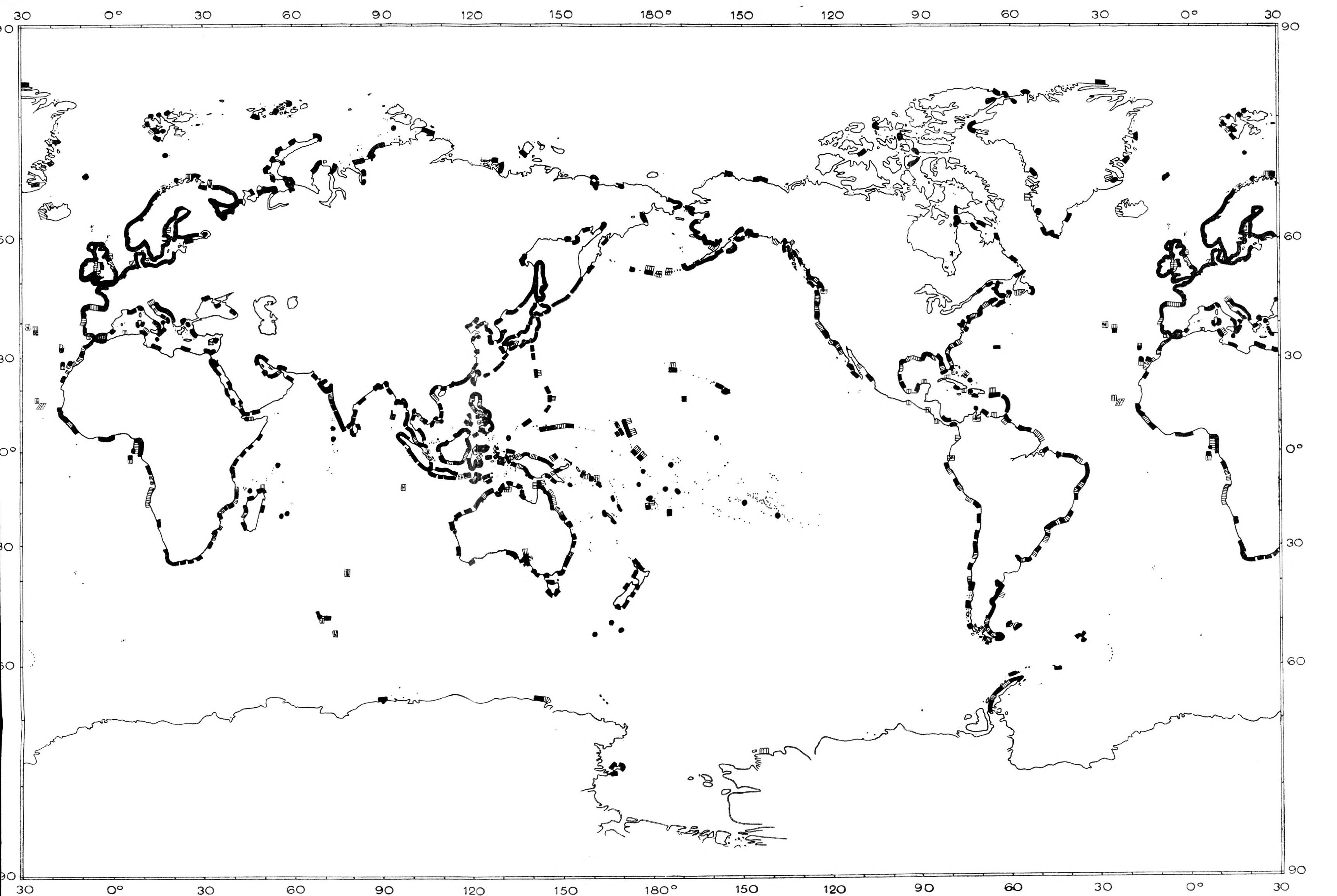
Australia	18	3	4	
Hawaiian, Mariana, Wallis, Solomon, New Hebrides, Fiji, Gilbert, Phoenix, Ellice Islands	10	3	3	5
	—	—	—	—
	28	6	7	5

5° Eastern Shores of the Pacific Ocean.

Alaska	7	5		
U.S.A., Mexico, Central America	51	8	1	1
Peru, Chile	2	4	1	
	—	—	—	—
	60	17	2	1

6° Antarctica :

Marguerite Bay, Punto Observatorio, Puerto Neko, Adelia Land, Hope Bay	4		2	
	—	—	—	—
	4		2	



INTERNATIONAL HYDROGRAPHIC
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TIDAL HARMONIC CONSTANTS STATIONS
STATIONS DE CONSTANTES HARMONIQUES DE MAREES

■ Published before August 1948 — Publiées avant août 1948.

▨ Between August 1948 and August 1951 — D'août 1948 à août 1951.

7° Western Shores of the Atlantic Ocean:	New Data-Comple- mentary		New Data-Comple- mentary	
	Already Published		In preparation	
Argentina, Brazil, Guianas ..	9	13	3	
Venezuela, West Indies, Me- xico	12	5	7	1
U.S.A.	29	28	6	2
Canada, Newfoundland	2			2
Greenland	4		2	
	<hr/>	<hr/>	<hr/>	<hr/>
	56	46	18	5
<i>Sheets already published:</i>				
New Data	35	+ 4 + 72 + 28 + 60 + 4 + 56	=	259
Complementary	39	+ 3 + 11 + 6 + 17 + 46	=	122
				<hr/>
		TOTAL		381
<i>Sheets in Preparation</i>				
New Data	48	+ 17 + 5 + 7 + 2 + 2 + 18	=	99
Complementary	17	+ 4 + 4 + 5 + 1 + 5	=	36
				<hr/>
		TOTAL		135

As regards the areas where information is most deficient (paper read at the Meeting, Oslo, 1948), data received by the I.H.B. up to date may be classified thus:

	<i>New Data</i>	<i>Complementary</i>
(1) The Arctic	9	1
(2) Eastern Siberia	Nil	
(3) China	3	3
(4) Gulf of Siam	2	
(5) Persian Gulf	3	5
(6) Africa East and West Coasts	36	6
(7) Aegean Sea	1 (Cyprus)	
(8) Papua, Gulf of Carpentaria, Louisiades	16	3
(9) Strait of Magellan	1	
(10) The Antarctic	6	

As regards the replies received from the various countries:

CANADA. — No new information available.

U.S.C.G.S. — Numerous data received concerning:

Alaska, U.S.A., Central America, South America, and Islands in the Pacific, as stated in the above list.

NORWAY. — One information received for Spitzbergen.

DENMARK. — 6 new stations concerning Greenland.

FRANCE. — New data concerning the Mediterranean Sea, Africa and Madagascar, Gulf of Siam and Antarctica.

NEW ZEALAND. — No information received.

ARGENTINA. — Several new stations concerning Argentina and Antarctica.

GERMANY. — No information received.

GREAT BRITAIN. — Numerous stations concerning the British Isles, Persian Gulf, New Guinea.