EXPLANATION

1. TIDAL STREAMS

The tidal stream arrows shown thus, $\overrightarrow{08,\ 15}$ depend on observations obtained in recent years or upon the recomputation of earlier observations and indicate the stream experienced by a vessel of about 30 feet draught. The rates are given in tenths of a knot for mean neaps and mean springs, thus 08, 15 = mean neap rate 0·8 kn., mean spring rate 1·5 kn. For method of determining rates at times other than mean neaps and mean springs, see under 3. below.

The tidal stream arrows shown thus, $\xrightarrow{11}$ are from earlier data and are less reliable. The single figure given is the approximate mean spring rate; thus 11 denotes mean spring rate of about 1·1 knots.

2. CURRENT IN THE ENGLISH CHANNEL

Currents are not included with the tidal streams shown on these Charts. They, for the most part, cause an acceleration or retardation of the tidal streams. The system is not constant but is subject to great change under the influence of varying meteorological conditions. Generally speaking, water enters the North Sea through the English Channel, and flows eastward towards the Straits of Dover at an average rate of 2 to 3 miles a day.

The currents are so much under the influence of the wind that in open stretches of water, winds of any appreciable force or persistence will set up a current in the upper layers of the water in their own direction. In inshore waters, while this will be the initial effect, the ultimate current will depend upon the trend of the coast and the extent to which the wind has raised the water level on the lee shore.

3. COMPUTATION OF RATES AT TIMES OTHER THAN MEAN NEAPS AND SPRINGS

See diagram overleaf.

Example :— Required predictions of the rate of the tidal stream in the Race of Alderney at 0800 G.M.T. on 14th July, 1953.

From Admiralty Tide Tables, Part I : H.W. Dover 1310, mean range on day 16·8 feet.

The appropriate chart in the atlas is therefore that for 5 hours before H.W. Dover.

From Chart 5173: rate = 24, 54.

From diagram : rate for this mean range = 48 i.e. 4·8 kn.

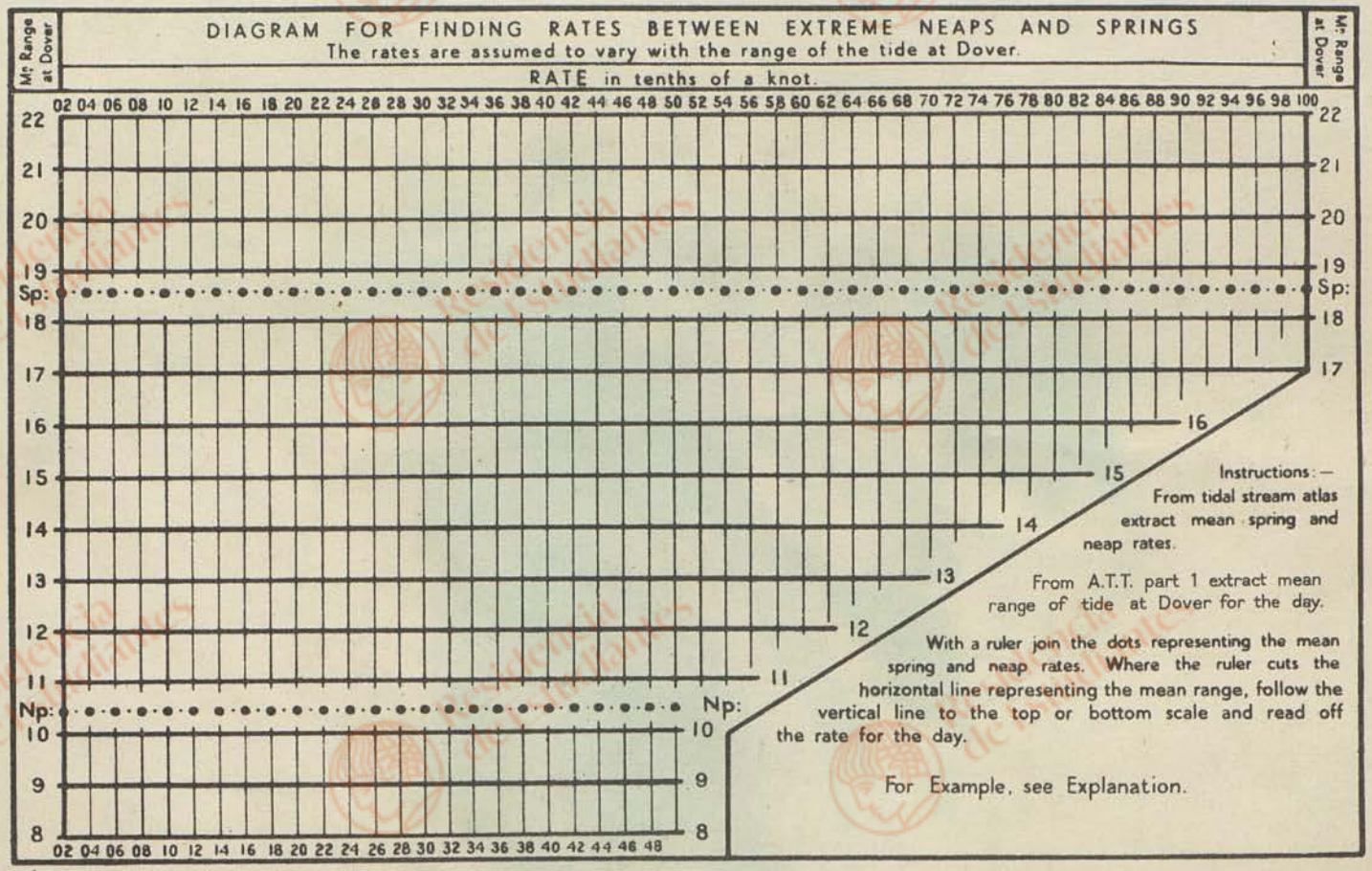
4. LARGER SCALE POCKET TIDAL STREAM ATLASES

More detailed Pocket Tidal Stream Atlases on a larger scale are published by the Hydrographic Department of the Admiralty covering the following parts of the English Channel:—

(a) The Solent and Adjacent Waters.
(b) Approaches to Portland.
(c) The Channel Islands and Adjacent Coasts of France.

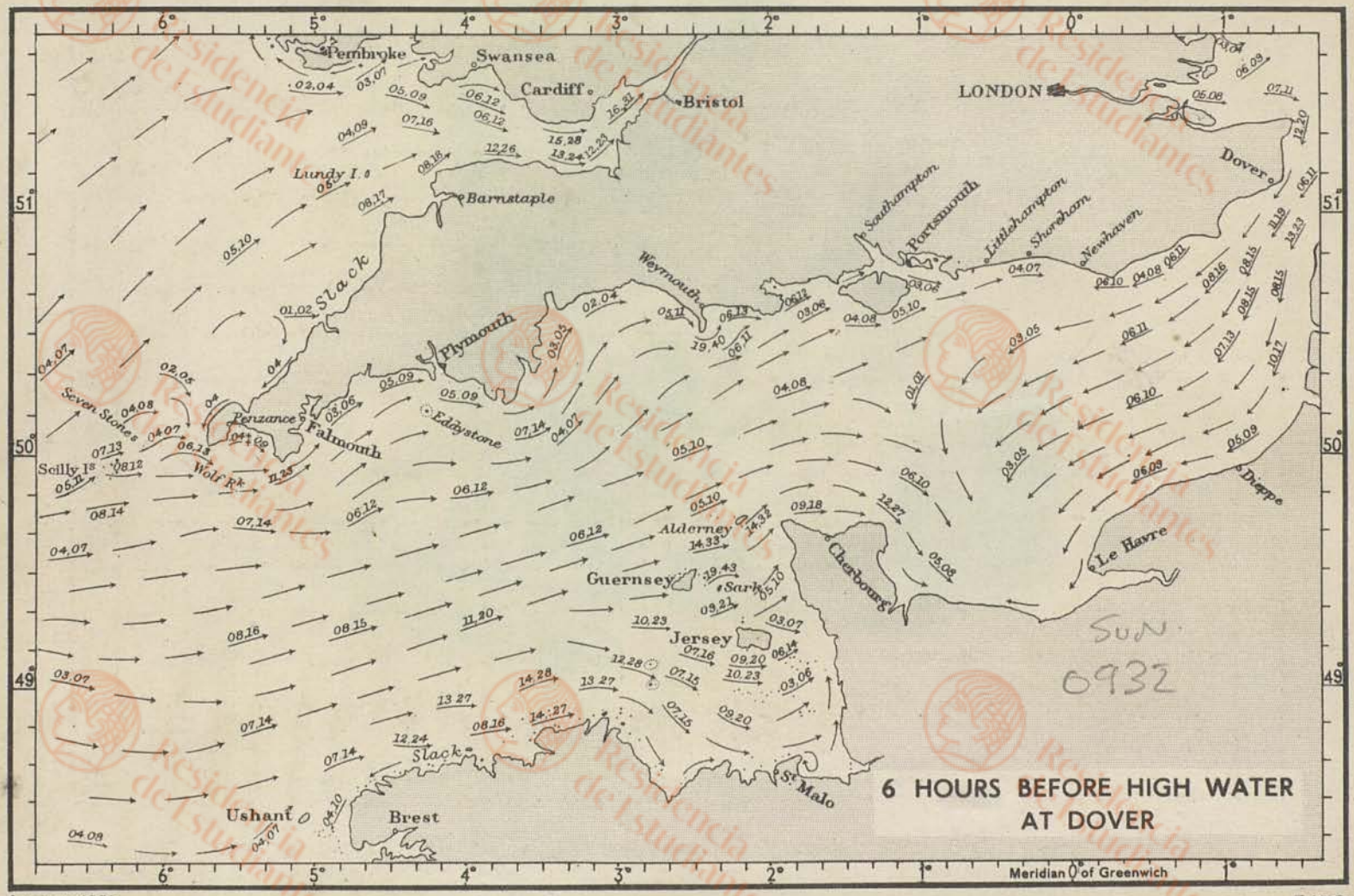
(embodying observations up to October, 1951).

COMPUTATION OF RATES BETWEEN EXTREME NEAPS AND SPRINGS

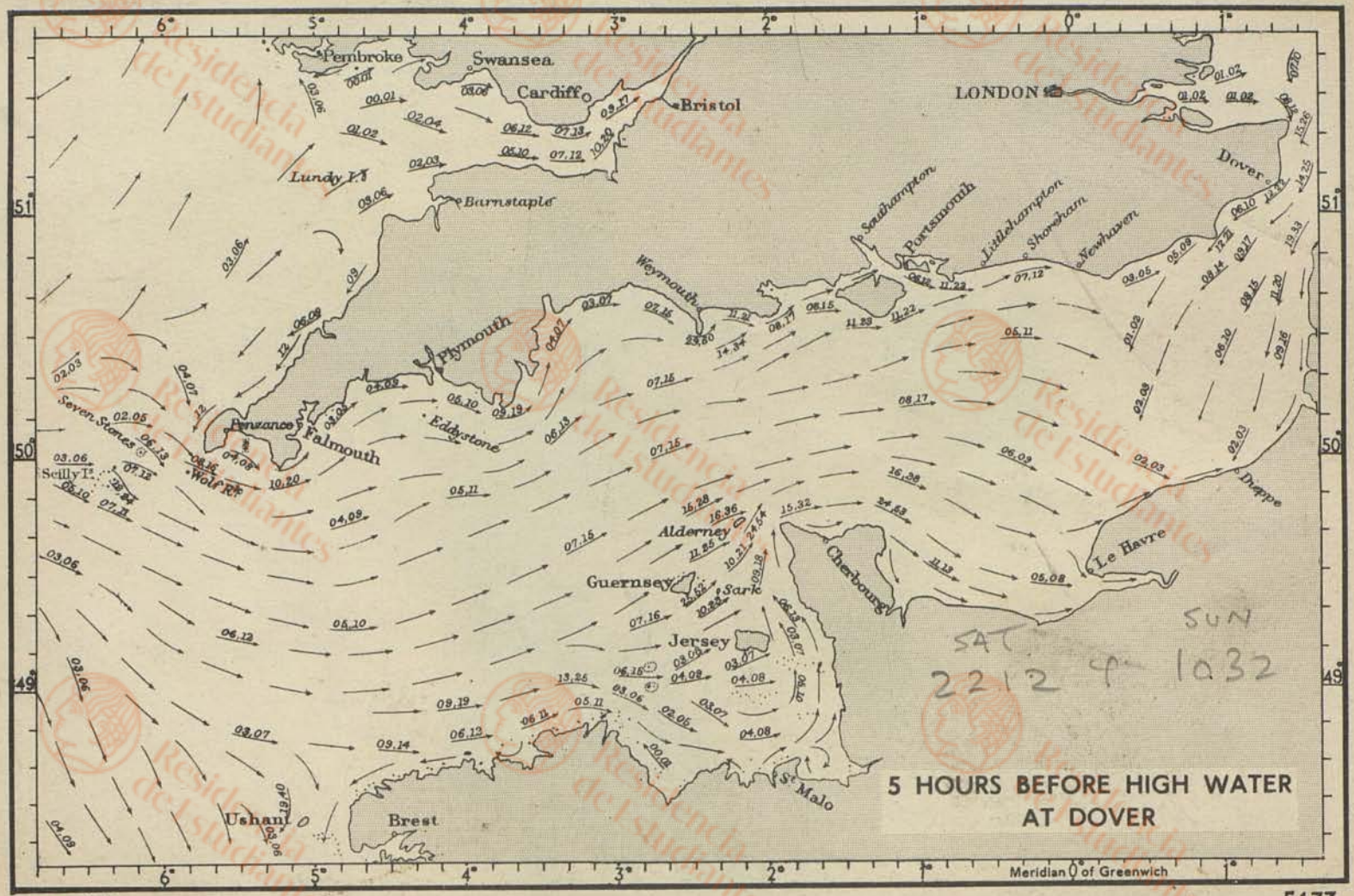


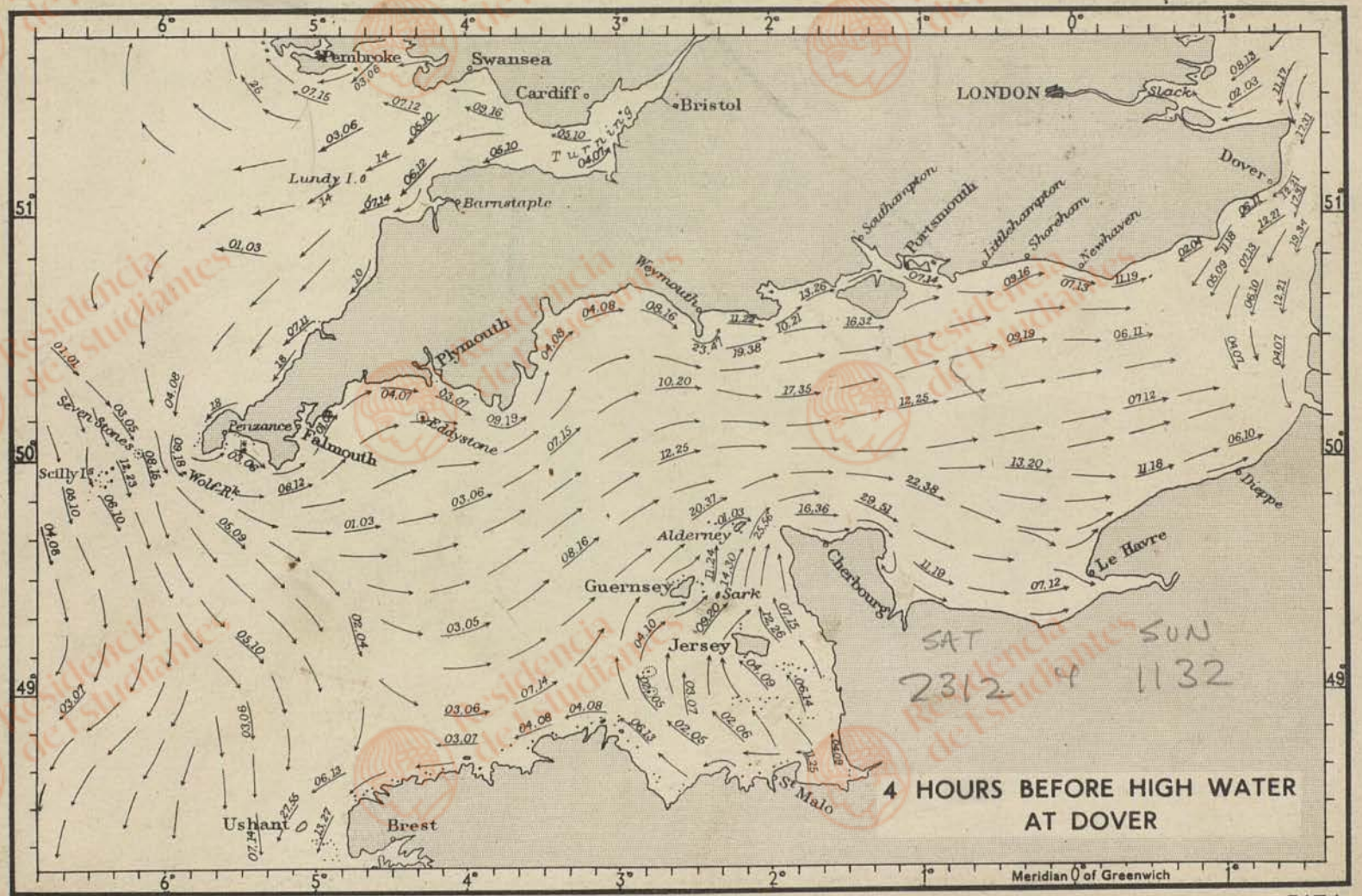
M/2260

1820



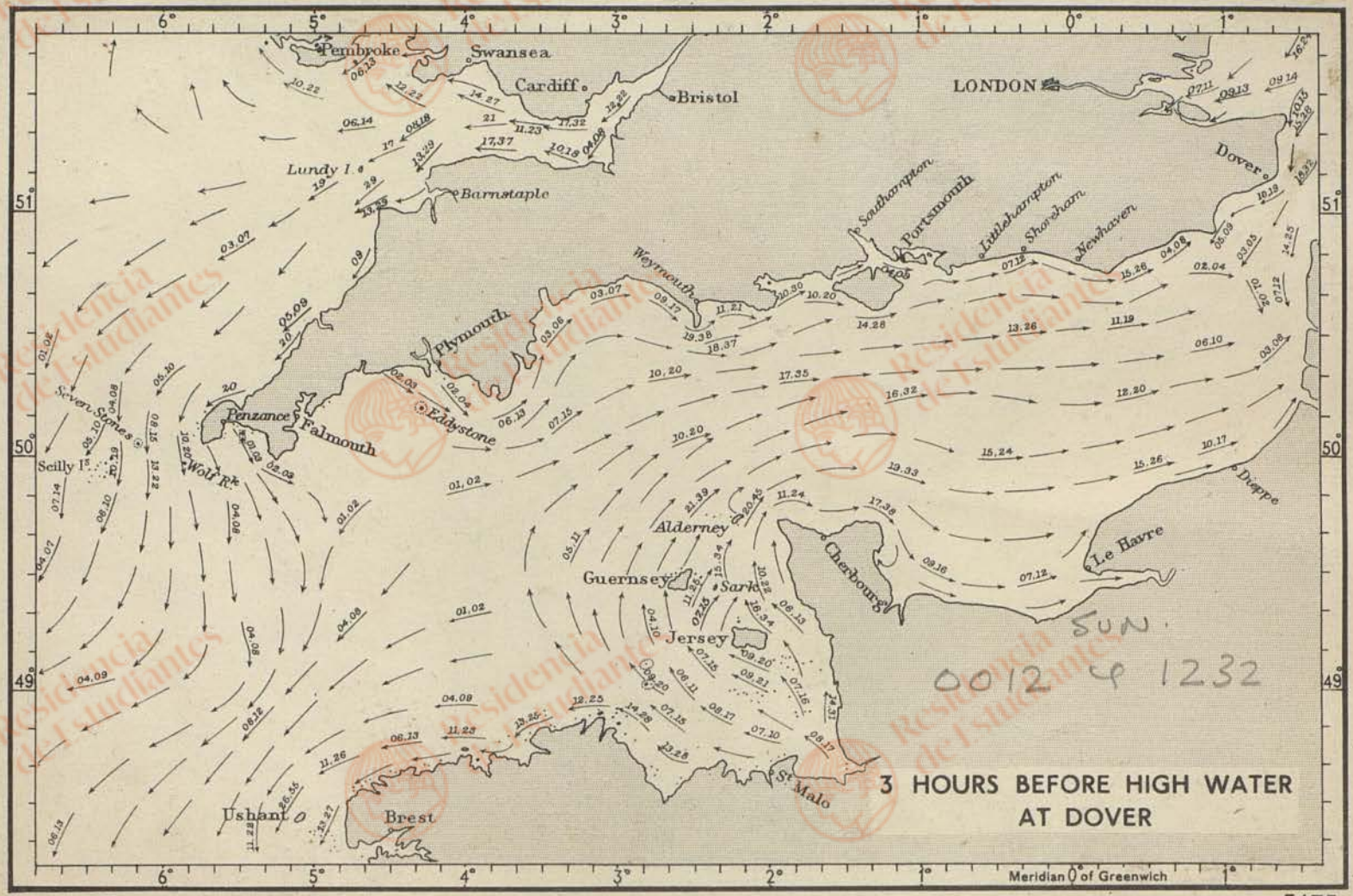
SUN. 0932


Pembroke
Swansea
Cardiff
Bristol
LONDON
Lundy I.
Barnstaple
Dover
Southampton
Portsmouth
Littlehampton
Shoreham
Newhaven
Weymouth
Plymouth
Eddystone
Penzance
Falmouth
Seven Stones
Scilly Is.
Wolf Rk.
Alderney
Guernsey
Sark
Jersey
Cherbourg
Le Havre
Dieppe
St. Malo
Brest
Ushant
5 HOURS BEFORE HIGH WATER AT DOVER
Meridian of Greenwich
January 1953
5173



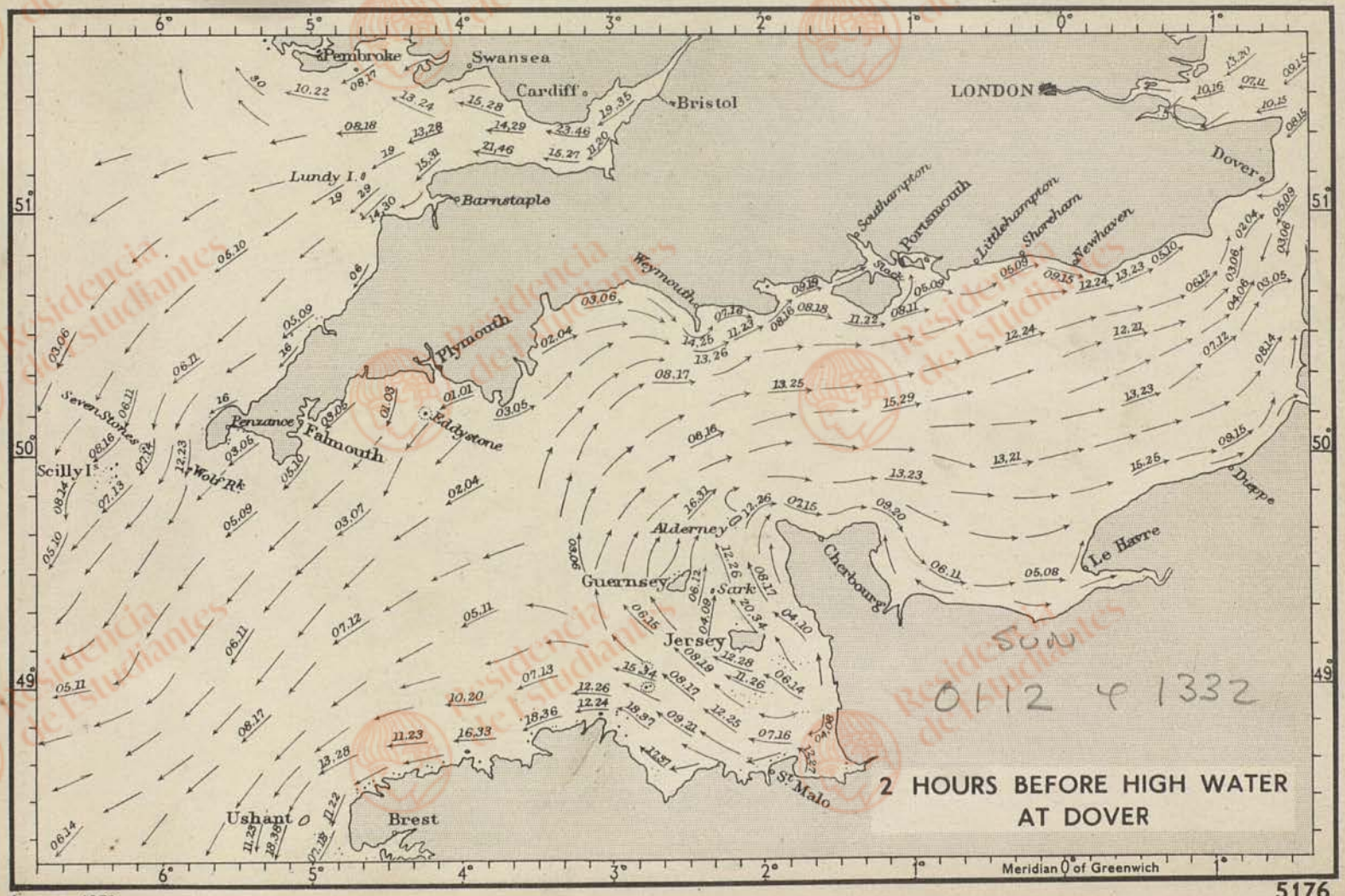
January 1953

5174



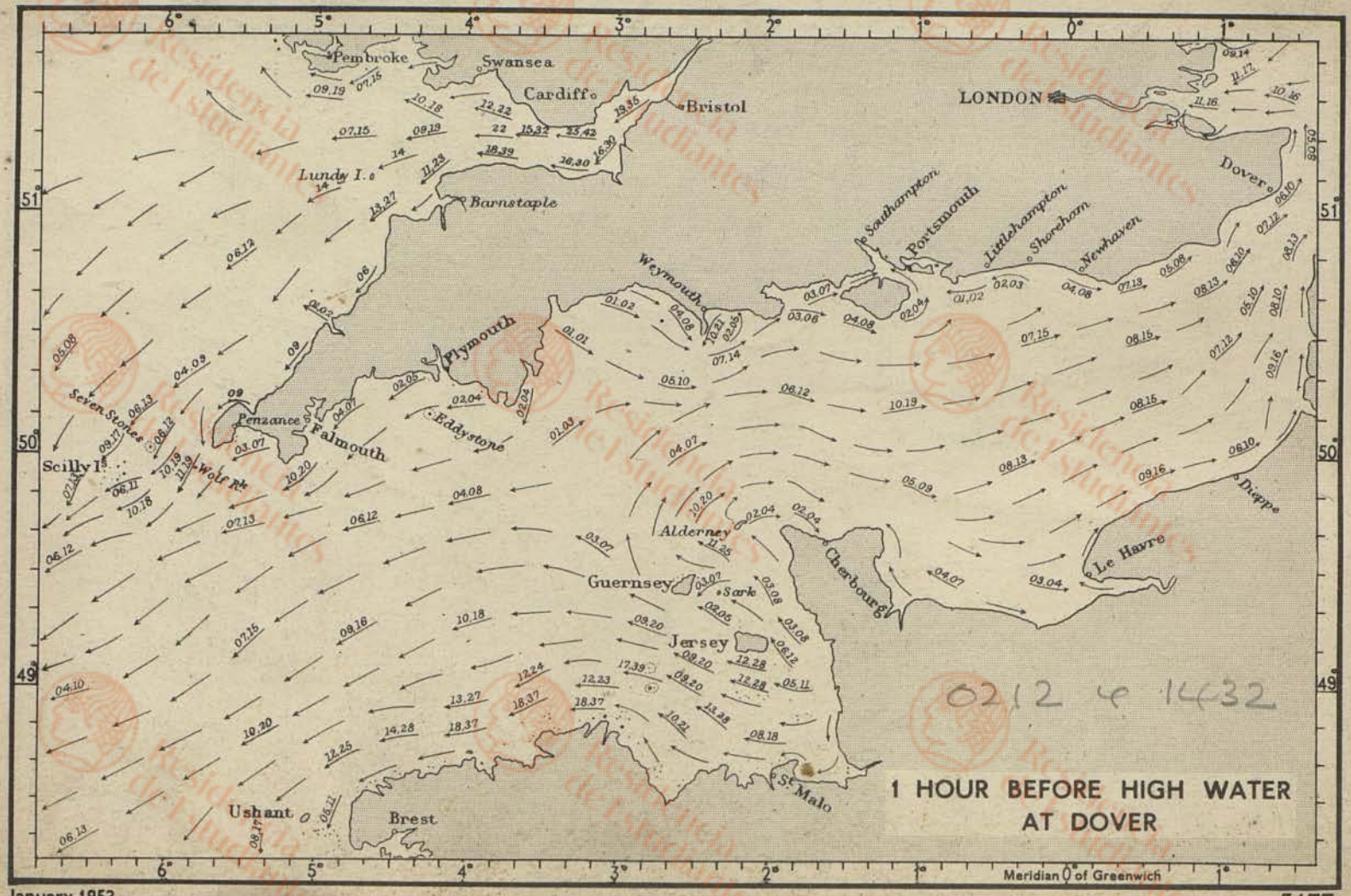
January 1953

5175



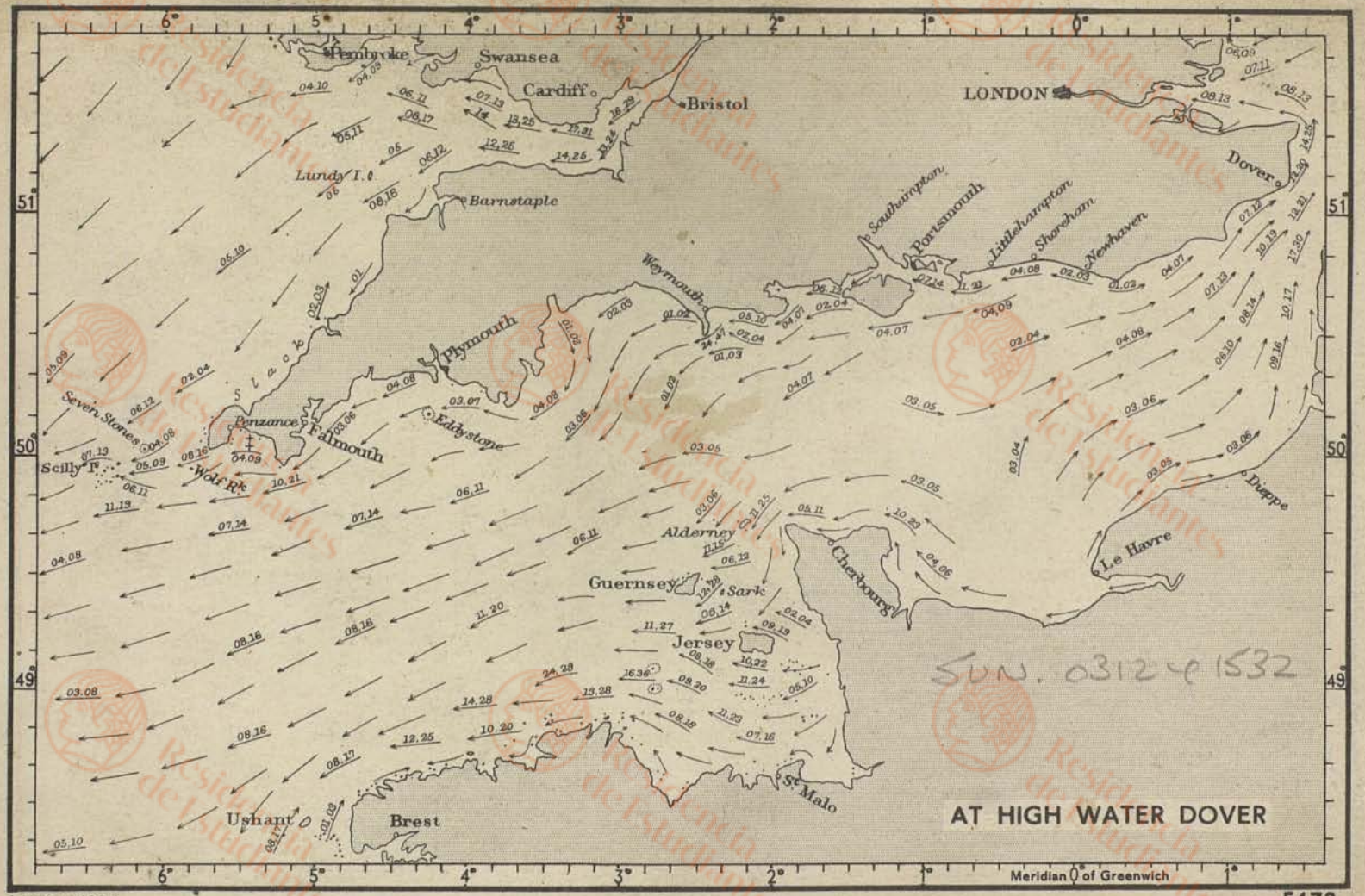
January 1953

5176



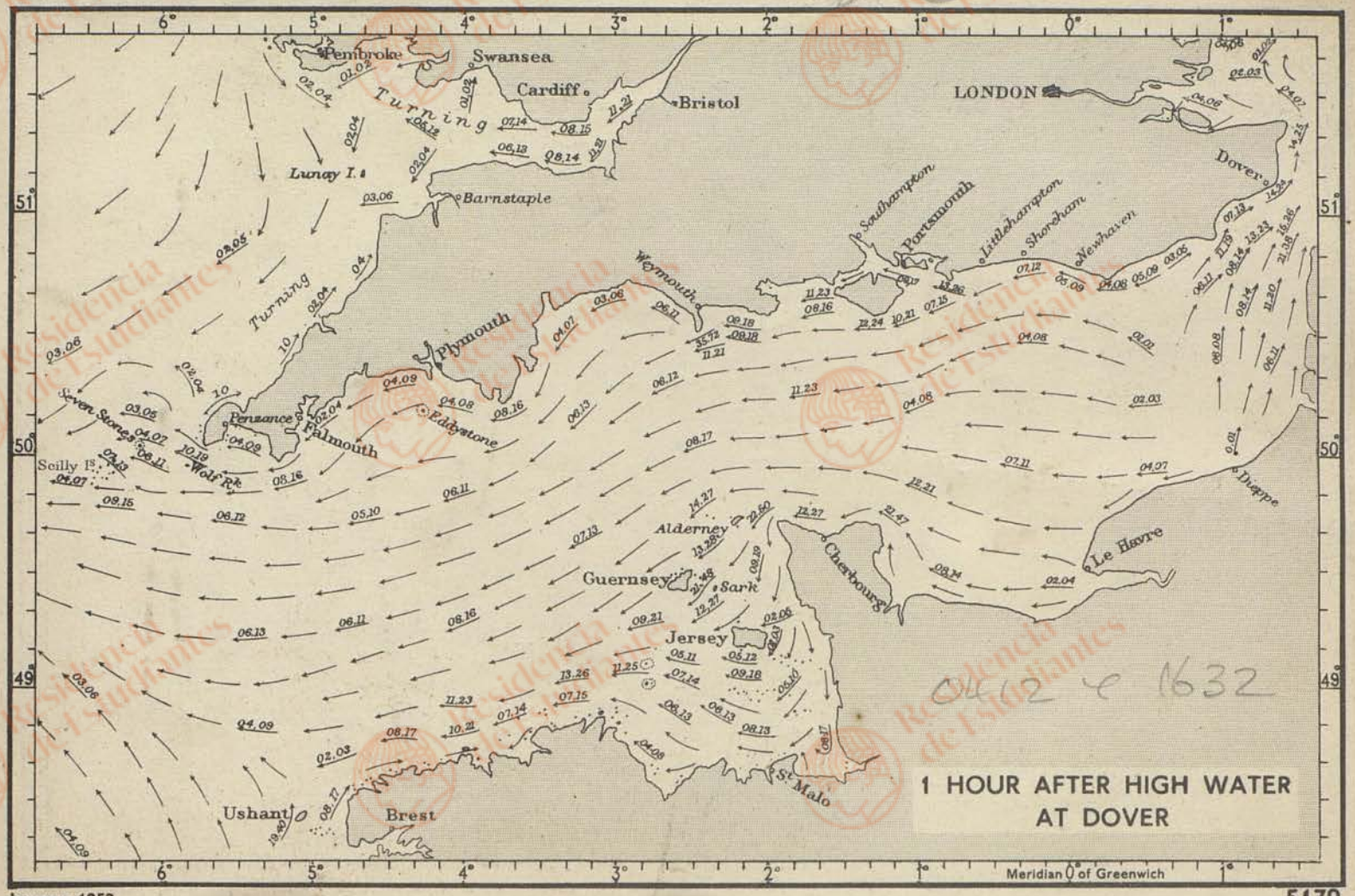
January 1953

5177



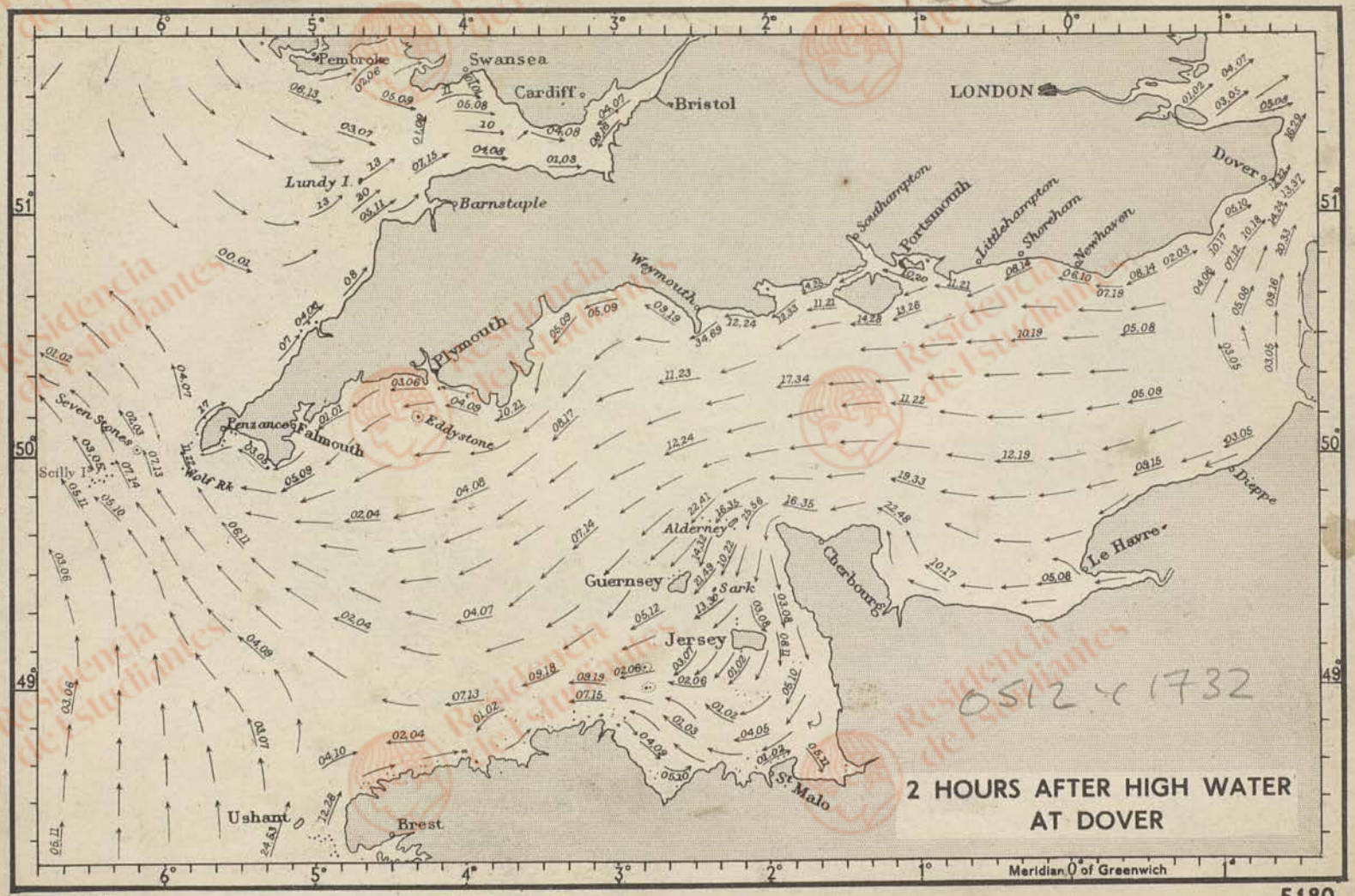
January 1953

5178



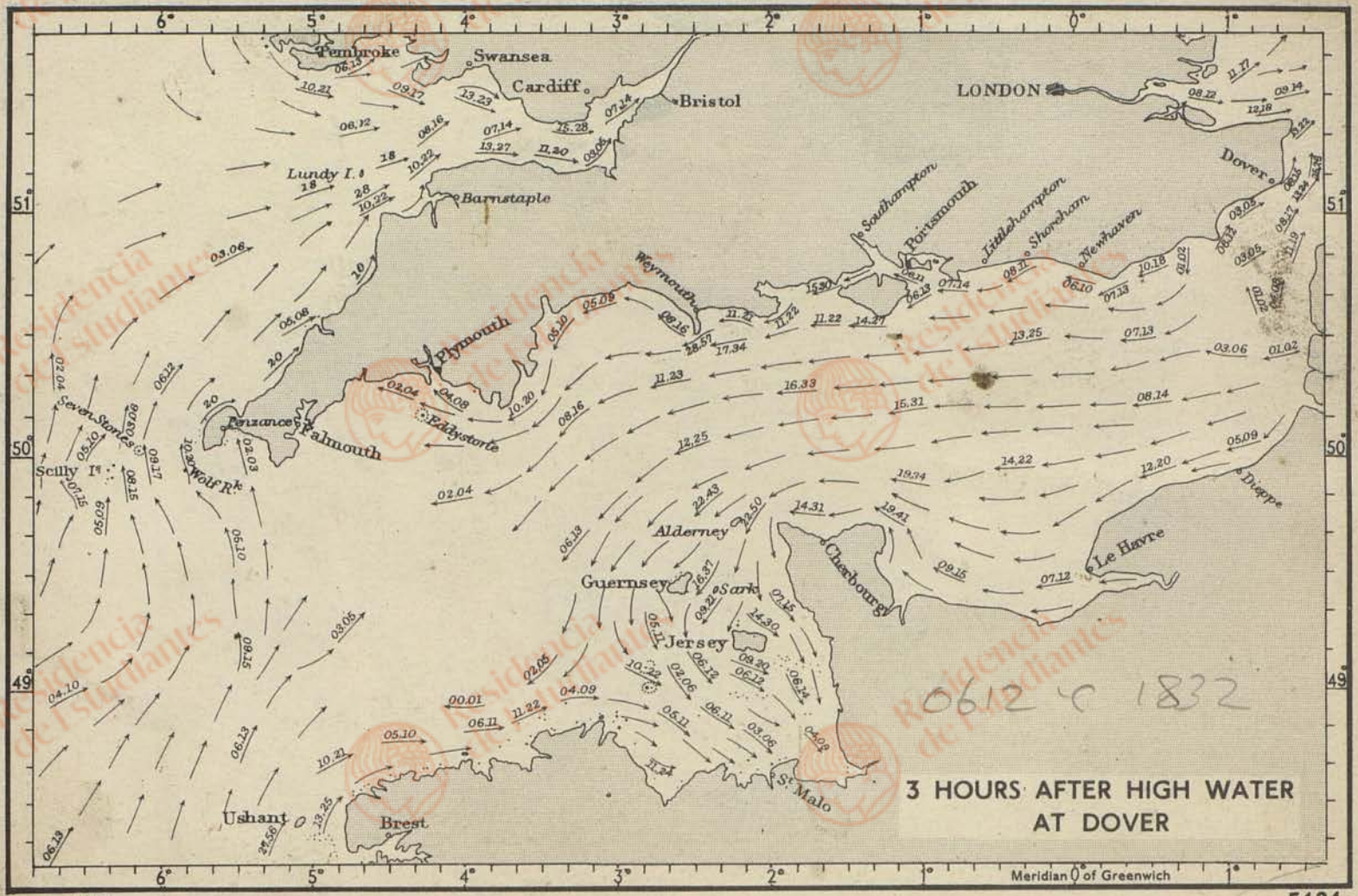
January 1953

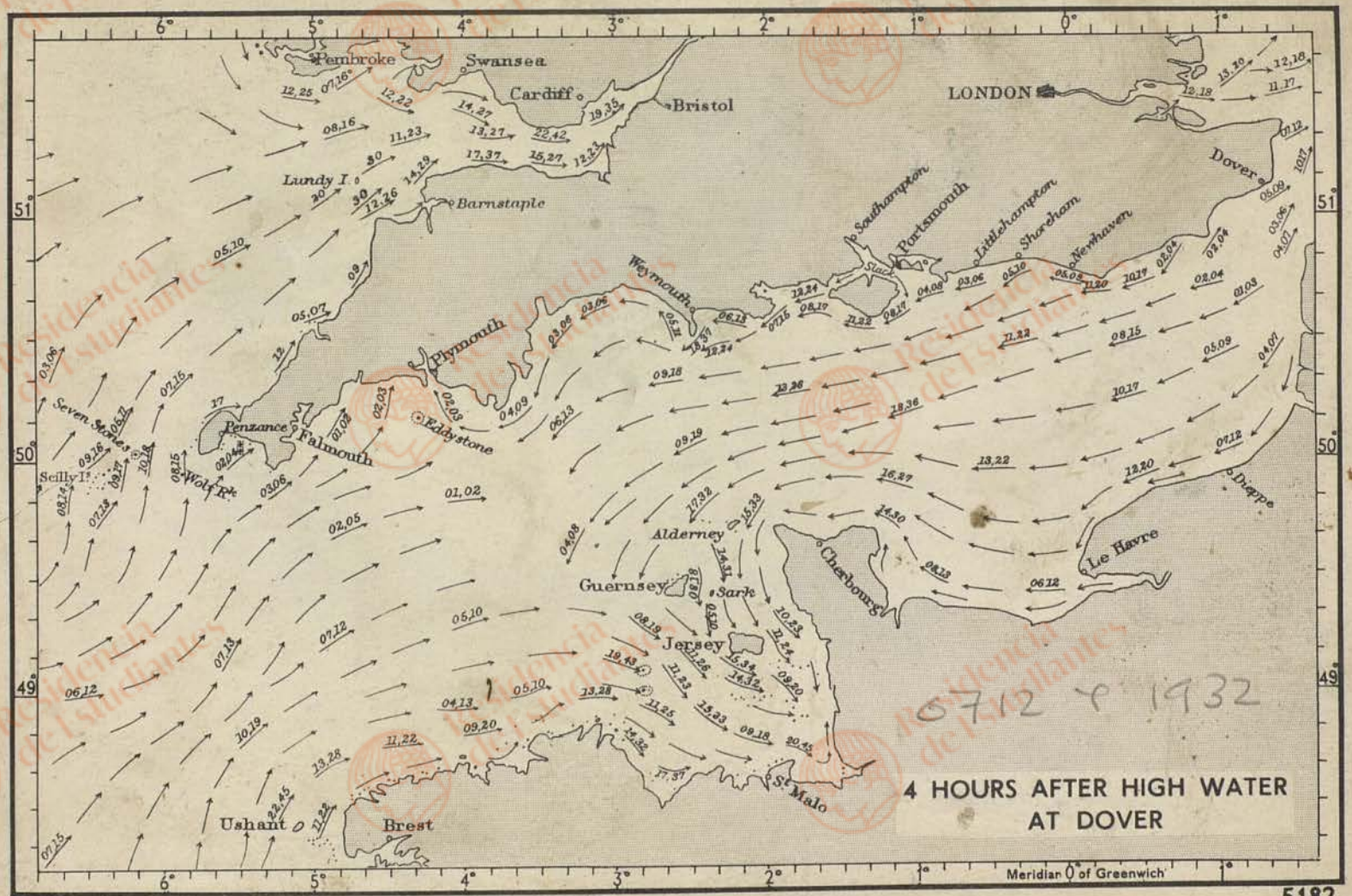
5179



January 1953

5180


Pembroke
Swansea
Cardiff
Bristol
LONDON
Dover
Lundy I.
Barnstaple
Southampton
Portsmouth
Littlehampton
Shoreham
Newhaven
Weymouth
Plymouth
Falmouth
Penzance
Eddystone
Scilly I.
Wolf Rk
Seven Stones
Alderney
Guernsey
Sark
Jersey
Cherbourg
Le Havre
Dieppe
Ushant
Brest
St. Malo
3 HOURS AFTER HIGH WATER AT DOVER
Meridian of Greenwich
January 1953
5181



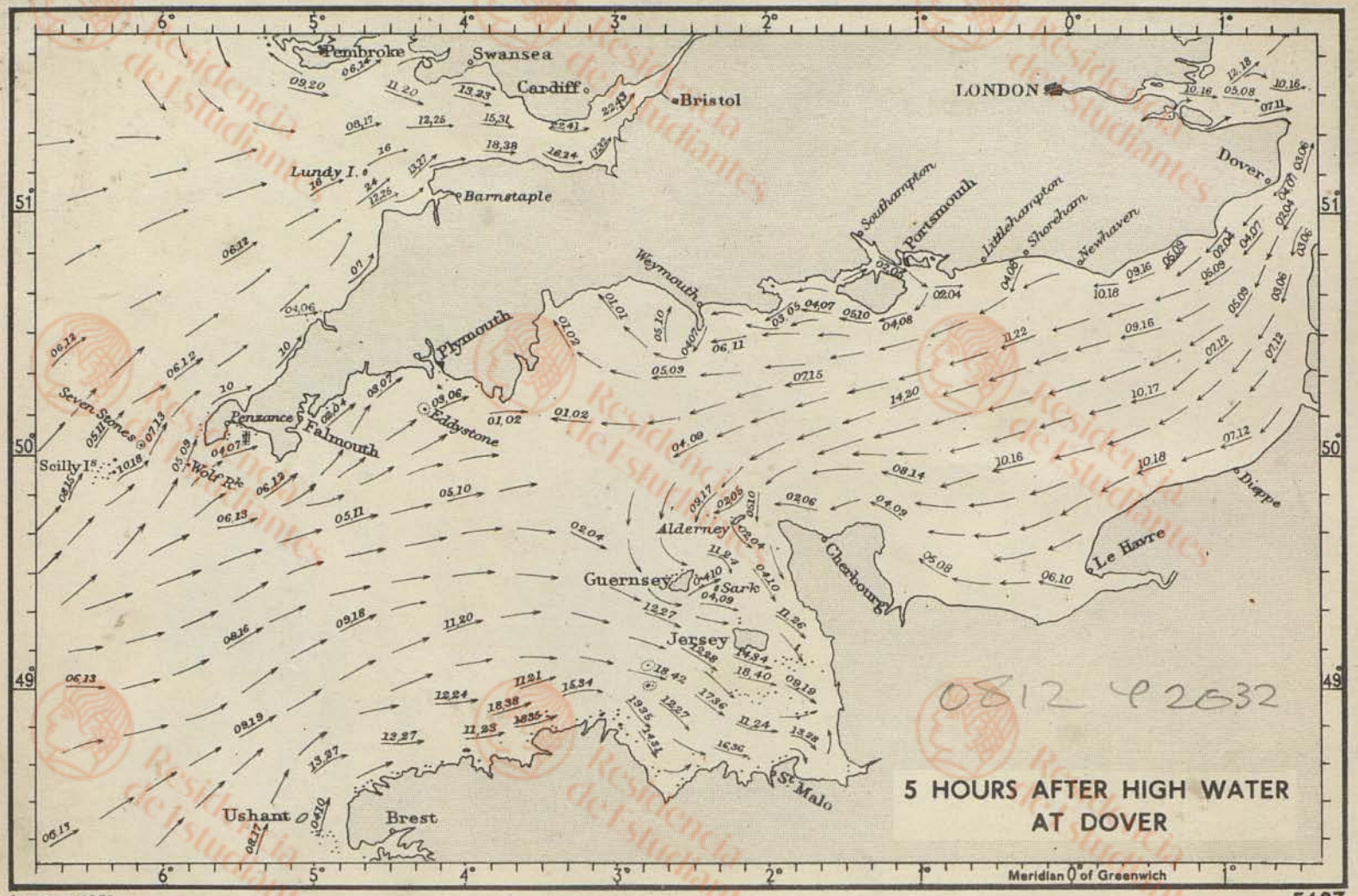
4 HOURS AFTER HIGH WATER AT DOVER

Meridian 0 of Greenwich

0712 y 1932

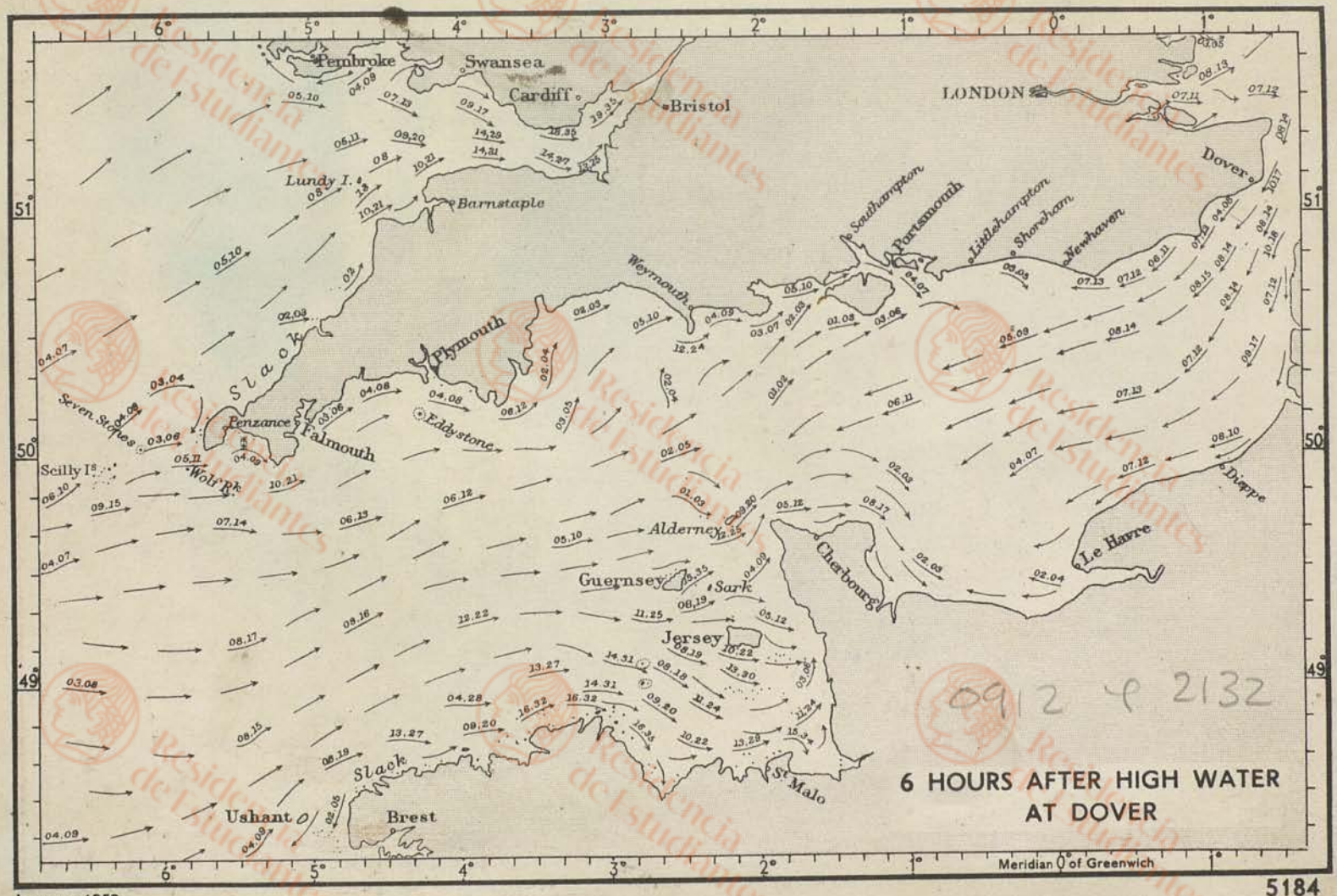
January 1953

5182



January 1953

5183


Pembroke
Swansea
Cardiff
Bristol
LONDON
Dover
Lundy I.
Barnstaple
Southampton
Portsmouth
Littlehampton
Shoreham
Newhaven
Weymouth
Plymouth
Slack
Seven Stones
Penzance
Falmouth
Eddystone
Scilly Is
Wolf Pk
Alderney
Cherbourg
Le Havre
Dieppe
Guernsey
Sark
Jersey
St Malo
Ushant
Brest
Slack
6 HOURS AFTER HIGH WATER AT DOVER
Meridian 0° of Greenwich
January 1953
5184