

NOTE ON CERTAIN SHOALS OF THE NEWFOUNDLAND BANK

by

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A report at the end of 1927 from Lieutenant-Commander (retired) GUYADER, commanding the French vessel *Ste Jeanne d'Arc*, stated that four new shoals had been discovered on the Newfoundland Bank in 1927. This report was completed by a communication from Commander GUYADER in 1928. The shoals were found in two distinct regions: the region of the shoal "15 (E.D.) 1874" and that of the "Platier". After having investigated these two areas, it would be useful to study the Virgin and Eastern Rocks also in order to elucidate the question of the "Jesse Ryder" bank.

SHOAL AREA "15 (E.D.) 1874."

On the 26th July, a 20 metre bank in 46°08' N. - 49°18' W. Gr. was discovered by the *Ste Jeanne d'Arc*. The position was calculated from a wireless bearing of Cape Race and a position line in the evening, eight hours after the discovery of the bank. The longitude is therefore a little uncertain. The sounding 20 was taken with the Warluzel sounding machine. The bank is of some extent. After having obtained, under way, a sounding of 35 metres, the *Ste Jeanne d'Arc* turned round, refound the bank without difficulty, and took another sounding of 20 metres.

Commander GUYADER thinks that he has refound the depth of 15 m. which figures on the French charts with the notation "Reported 1874, (E.D.)". Researches made in the French *Annales Hydrographiques*, *Annonces Hydrographiques* and the French *Sailing Directions*, No 468 Newfoundland Pilot, by Rear-Admiral Cloué published in 1869, No 646 Newfoundland Pilot by R. A. Cloué, (2nd edition published in 1882) do not account for the origin of the shoal. The examination of the chart sets of the FRENCH HYDROGRAPHIC OFFICE is summarised in the annexed note.

The 20 metre shoal of the *Ste Jeanne d'Arc* is 12 miles from the "15 (1874)". It is quite probable, as Commander GUYADER thinks, that it relates either to the same shoal, or at least to summits of the same extensive plateau, which has not yet been methodically explored. This plateau would be about 60 miles to the Eastward of the Virgin Rocks, and would be well separated from it, as well as quite distinct from the Eastern Shoal.

In 1845, a 6.4 m. bank was reported by the American Captain Jesse

RYDER, in Lat. $46^{\circ}29'$ N - long. $49^{\circ}41'$ W. Gr., 20 miles to the north of "15 (1874)". It might be assumed that this bank is part of the plateau of "15 (1874)" and of 20 *Ste Jeanne d'Arc*. It probably has nothing to do with it. As will be seen later, the Jesse Ryder Rock, if it exists, is part of the Eastern Shoal, or is in its immediate vicinity.

THE PLATIER AREA.

Commander GUYADER has given notice of 3 new shoals situated near the Western edge of the Platier bank, namely: an 18 m. rocky shoal, in $44^{\circ}18'5''$ N. $49^{\circ}29'5''$ W. Gr. reported on the 21st August 1927 by Captain GUILLAUME of the sailing ship *Albatros*.

A 20 m. shoal in $44^{\circ}26'5''$ N - $49^{\circ}23'$ W. Gr. reported by Captain BON of the sailing ship *Porto*.

A 15 m. rocky shoal $44^{\circ}14'$ N - $49^{\circ}26'$ W. Gr., reported by Captain MARBOU of the sailing ship *N.-D. des Flots*.

The three sailing ships were anchored, at the same time, in the regions indicated: therefore there must be three distinct shoals. The positions were determined by observations for latitude and longitude by Commander GUYADER who did not himself take soundings on these shoals, and who considered that 18 and 15 were accurately fixed, to about a mile, whilst the 20 of the *Porto* was only located within several miles (presumably 2 or 3). Moreover, Commander GUYADER ascertained that the shoal 15 R of *N.-D. des Flots*, related to a sounding reckoned in metres below sea level, and not a sounding in fathoms nor a rock the height of which might have been given above the bottom. Commander GUYADER also considers that the soundings 18 and 20 m. are truly soundings in metres, and that the figures refer to sea level, and not bottom level. Finally, it should be noted that the 18 m. rock, reported by the *Albatros*, was already known, and had been reported two years previously, by Captain HEUZE. On the charts published by the SOCIÉTÉ DES ŒUVRES DE MER, this rock is called *Heuze's pinnacle*. The three shoals are found in a region called by the fishermen "La Passée", because it seems to them to resemble a pass, or avenue of small rocks, in a S. W.-N. E. direction.

The three shoals reported in 1927 are at least 35 miles from the 13 metres "13 Bertel Shoal" (1844), marked on the French charts in $44^{\circ}42'$ N - $49^{\circ}52'$ W. Gr. It is questionable whether the position of the Bertel Shoal has been accurately determined, and whether this bank does not form part of the Passée. This conclusion would certainly have been accepted had not Commander GUYADER reported that the Bertel Shoal had been rediscovered quite recently, by Captain LECAN of the *St. Coulomb* and before that by Captain DAGORNE of the trawler *Tenace* and he considered that neither of these boats had an error of 34 miles in its position. According to this information the Bertel Shoal is not a part of the Passée. The report of Captain BERTEL, commanding the *St. Louis* of Dieppe, is in the *Moniteur Universel* of the 25th November 1844 (N^o 330, unofficial part). Six of the crew of the *St. Louis*, who were working in a boat, informed the Captain on their return on board, that they had a sounding of 10 fathoms. The Captain could not make a successful attempt to verify the position and the sounding on the

bank owing to the state of the sea and the current. In 1879 Commander MAXWELL, and in 1880 Commander YATES, searched in vain for the Bertel Shoal and the fishermen assured the former that no shoal existed in the region indicated. It should be noted that 10 French fathoms equal 16 metres and not 13. The transformation from 16 to 13 on our charts is not explicable from information obtained up to the present.

According to the Newfoundland Pilot, 2nd edition (French Sailing Directions N° 646) it should be added that, in the vicinity of Platier, but at 20 miles to the southward of the Passée, a danger called Nile Rocks has been reported, situated in 44°4' N. and 49°10' W. Gr., 388 soundings taken around this position by Commander YATES, in 1880, revealed nothing suspicious.

The examination of chart sets of the FRENCH HYDROGRAPHIC OFFICE, concerning the Bertel Shoal and the Nile Rocks, is summarised in the annexed note.

REGION OF THE VIRGIN ROCKS AND THE EASTERN SHOAL. Jesse Ryder and John Ryan shoals.

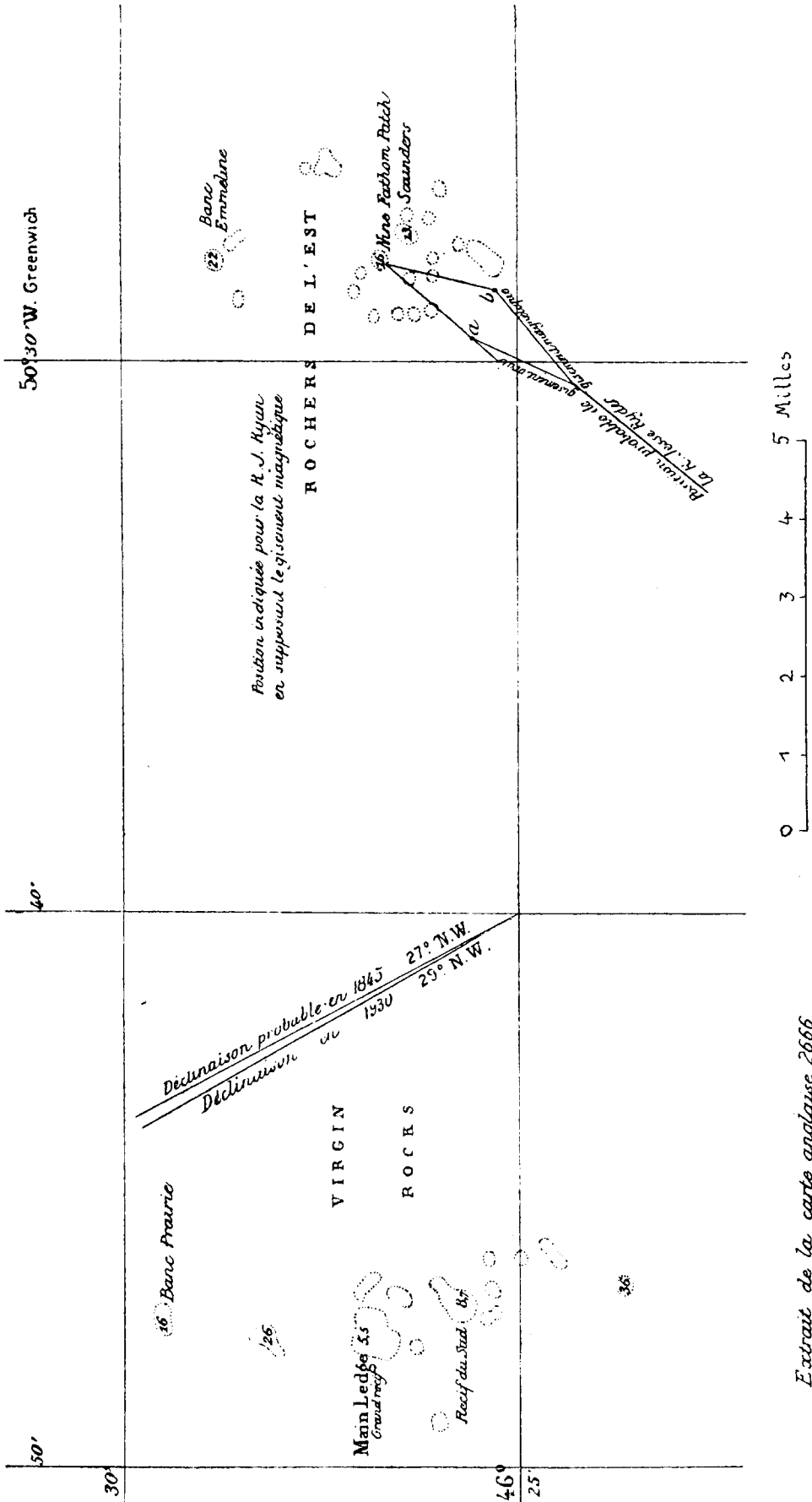
The *Virgin Rocks* were, in 1829, called Cape Race Rocks. They were explored in 1829 by Lieutenant ROSE, of the British Navy, in the *Tyne*. Lieutenant ROSE found 8.2 m. rock in 46°26' N. - 50°51' W. Gr. The Virgin Rocks were described in the French Sailing Directions N° 468 of 1869 according to the results of the reconnaissance of 1829. They were again examined in 1879 by Commander MAXWELL, and the result of this research appears in the French Sailing Directions N° 646 of 1882.

The *Eastern Shoal* is not described in the Sailing Directions N° 68. However, as will be seen, it was not unknown at the time of publication of the *Newfoundland Pilot*. Sailing Directions N° 468 points out, in fact, that in 1845, the American Captain JESSE RYDER, of the fishing smack "Bethel", discovered on the parallel of the Virgin Rocks, and 50 miles to the Eastward, a rock of 6.4 m. *which he had distinctly seen while looking for the 9 fathom bank whereon to fish*. Captain JESSE RYDER places his rock at 1.5 miles to the S. W. 1/2 S. (220°) from the 9 fathom bank.

What is this "9 fathom bank" which is alluded to but this once, and of which the Sailing Directions N° 468 makes no further mention? It is none other than one of the heads of the bank, now known by the name of "Roches de l'Est" — "Eastern Shoal" (1).

According to Rear-Admiral CLOUÉ (Newfoundland Pilot 2nd edition 1882, Sailing Directions N° 646) the "Eastern Shoal" is the most easterly bank known

(1) The Eastern shoal was examined in 1879 by Commander MAXWELL, surveyor of the British Admiralty, who found a depth of 16 m. and by Captain PICKING, of the American Sloop "Kearsage", who found a minimum depth of 18 m. In 1880, Captain YATES of the American cruiser "Alliance" did not find less than 19 m. In the same year, Captain HANSON, of the American sloop "Snow Squall" made a detailed sketch of the Eastern Shoal. He indicated 15 shoals around the "Nine fathom patch". At 1,000 metres, 148° from the 16 m. head he found a head of 13 m., the *Saunders Bank*, which is the least depth of the Eastern Shoal reported, up to now, with certainty.



Extrait de la carte anglaise 2666
 (Les sondes ont été transformées en mètres)

to the fishermen. The least depth that Captain MAXWELL found there was 16.5 m. : that is the "nine fathom patch" of the fishermen. In 1869, at the time of the first edition of his Pilot, Rear-Admiral CLOUÉ had not precise particulars of the position of the "nine fathom patch", and his theory that the Jesse RYDER bank might be in the vicinity of the Virgin Rocks has been abandoned. Moreover, Jesse RYDER stated that the 6.4 m. rock could not form a part of the Virgin Rocks, as he had seen them afterwards. The most reasonable supposition and the one that completely conforms to the declarations of Jesse RYDER is that the latter Captain was in the immediate vicinity of the "9 fathom patch", that is to say actually on the plateau of the Eastern Shoal. In 1882, Rear-Admiral CLOUÉ came to the same conclusion. He considered that there was no doubt that Jesse RYDER was over the Eastern Shoal, and that he had made a large error in the estimation of his longitude. But Rear-Admiral CLOUÉ does not appear to state clearly enough that Jesse RYDER was a little to the west of the principal heads of the Eastern Shoal, and he does not point out that since this Captain was about 1.5 miles S. W. $1/2$ S. from the "nine fathom patch", his position is no longer doubtful and that his error of estimation was about 35 miles : which statement would have led to a demand for the restoration of the 6.4 on the charts. By referring to the plan on the British chart N^o 2666, it is seen that the Jesse RYDER rock, if it exists, is in about $46^{\circ}25'$ N. - $50^{\circ}30'$ W. Gr. If the position of the "9 fathom patch" had been known in 1845, and had figured on the charts, Jesse RYDER would not have given the particulars which fixed the position of his rock in $49^{\circ}41'$ W. Gr. In fact, in the Newfoundland Pilot the information is not clear as to whether or no Jesse RYDER gave the longitude of his rock. Perhaps he was content to estimate that it was 50 miles to the East of the Virgin Rocks.

The preceding remarks show that it is not astonishing that the Jesse Ryder rock was not found, either in 1868 by Captain CHIMMO, commanding the British ship *Gannet*, who, in vain, swept the area in the vicinity of $46^{\circ}29'$ N - $49^{\circ}41'$ W. Gr. or in 1879 by Commander MAXWELL, who examined this position with the greatest care, throughout a whole day ; or in 1880 by Commander YATES who took 106 soundings in a space of 5 miles of latitude and 10 miles of longitude, encircling the assumed position of the rock. It seems astonishing that MAXWELL and YATES, who knew the position of the "nine fathom patch", undertook this vain quest, Perhaps these surveyors only knew the absolute position given on the charts, or in nautical documents, and did not know the relative position of the rock of the "9 fathom patch" indicated by Jesse RYDER (1).

The conclusion drawn from this study is as follows : Since the Jesse Ryder rock was sought in a region where it certainly was not to be found, it is impru-

(1) It is not the first time that the definite or temporary disappearance of original documents has led to long and costly researches on the spot. The unsuccessful search of 2 or 3 days, in 1910, for the "Duperré breakers", by the "Manche", is an example. Reliable and critical information relative to the various doubtful shoals of the seas of the world, would therefore be of great interest, and would eliminate unnecessary work.

dent to conclude its non-existence. If it exists, it is near Saunders. With the aid of buoys—a trawler provided with complete sounding apparatus, and 1000 m. sweep, it would be possible to solve the problem rapidly. But, until this reconnaissance can be undertaken it would be wise to put the sounding 6.4 “dangerous to navigation” in the vicinity of Saunders, or rather, since the scale of the chart is small (about 1/1, 320,000) to substitute 6 for the 13 of the Eastern Shoal. If possible, before undertaking anything, it would be advisable to find Jesse RYDER’s original particulars.

Before finishing with this region of the Eastern Shoal, other shoals reported in 1878 by John RYAN the skipper of the fishing-boat, should be mentioned. He reported having sounded on the 12th December, 1878, in 26 metres on a rock which he located 12 miles E.S.E. from the Virgin Rocks, in a region usually occupied by numerous fishing boats. Moreover, John RYAN would have been informed that a rock of 13 metres was situated at 3/4 miles S.W. of the preceding. If, as the *Annonce Hydrographique*, N° 76/408 of 1879 assumes, the bearing given is magnetic, the Ryan rock is probably one of the Eastern Shoal. The 13, of which John RYAN would have been informed, would be no other than the *Saunders*. Rear-Admiral CLOUÉ also is of this opinion. John RYAN added that there were rocky shoals covered by 9 to 18 metres of water at 20 miles S.S.W. and S.S.E. of the Virgin Rocks. In 1880, Commander YATES vainly sought these shoals for three days, having onboard the skipper RYAN, who had without doubt heard tell of these banks without having sounded over them himself.

Paris, 6th March 1928.

APPENDIX.

EXAMINATION OF THE CHART SETS OF THE FRENCH HYDROGRAPHIC OFFICE.

1°) SHOAL “15 (E.D.) (1874)”.

This shoal is not marked on the British Chart N° 2666 (edition September 1922) in use at the present time.

It has never been shown on the French chart N° 893 (in fathoms) published in 1839 and withdrawn from the standard chart sets in 1881. The Bank 15 (1875) appears for the first time in September 1887 or in May 1888, on the French chart N° 1437, published in 1853. The notation (E.D.) is introduced in the 1922 edition only. The French chart N° 3855, since its publication in 1881, shows the bank 15 (1874) and the notation (E.D.) is introduced in the 1924 edition.

2°) BERTEL SHOAL.

The Bertel shoal is not marked on the British chart N° 2666. In 1863, it appears on the French chart N° 893, under the form 10, *shoal reported by Capt. Bertel (Pos. dout.) (1844)* (it is a sounding in fathoms). The shoal is

cancelled by the correction XI. 79, probably as a result of the work of Commander MAXWELL, and does not appear again on this chart up to the time of its suppression.

On the French chart N^o 1437, published in 1853, a sounding 16 shoal reported by Capt. Bertel (P. D.) 1844, is shown. This shoal has never been cancelled but has been altered in the July 1922 edition and becomes 13 Bertel Shoal (P. A.).

Finally, the 16 Bertel Shoal (1844) only appears in 1919 on the French chart N^o 3855 by correction VII. 19 (Notice 1417 of 1919). Since the August 1924 edition the shoal becomes 13 Bertel shoal (1844).

It should be noted that 10 French fathoms are equal to 16 metres and not 13; the transformation from 16 to 13 on charts N^o 1437 and 3855 is inexplicable from the information at present available.

3^o) NILE ROCKS.

They are not marked on the British Chart and have never been put on French charts.

4^o) VIRGIN ROCKS.

French chart N^o 893, at date of publication 5 (fathoms); in March 1880, 3 (fathoms).

French chart N^o 1437, shows, at date of publication, the sounding 8. The sounding 5.5 replaces 8 by the correction III.80.

French chart N^o 3855. The 5.5 *Virgin Rocks* have been marked on this chart since its publication.

5^o) JESSE RYDER ROCK.

French chart N^o 893, the 4 *Jesse Ryder* (doubtful) appeared in 1869; it is cancelled by the correction XI. 79, as the same time as the Bertel Shoal.

French charts N^o 1437 and 3855. The Jesse Ryder bank does not appear on these two charts.

6^o) EASTERN SHOAL.

French chart N^o 893. By correction XI. 79, a sounding 16 (1879) was inserted. This sounding of 16 French fathoms, *i.e.*, 26 metres, seems to correspond numerically and very nearly in position to the John Ryan Rock, but it is not trustworthy; it is, in fact, 14 miles, 90° to the Eastward of the sounding 5 of the Virgin Rocks, whilst the Ryan Rock would be about 12 miles 84° from Virgin Rocks. In any case, it was suppressed in 1880, and at the same time a sounding 8 *Eastern Shoal*, which is the Saunders Bank of Captain HANSON, was inserted.

French chart N^o 1437. At the date of publication, the Eastern shoal was not marked on this chart.

The sounding 13 is shown by correction III.80: that is the Saunders.

Chart 3855. The sounding 13 was inserted from the date of publication.

Paris, 6th March 1928.