

IDENTIFIED SUBMERGED OBJECTS

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Recent controversy on the subject of out-dated nautical charts of increasingly utilised sea lanes, both traditional and new, comes at a time when the concept of million-ton Ultra-Large Cargo Carriers (ULCCs) is under the baleful scrutiny of big ship operators, warily eyeing the economic storm clouds. This is a factor which should not be allowed to obscure or postpone the central debate, since strandings and groundings, all over the globe, are on the increase. Hydrographers predictably lay the blame on the misuse of the charts they issue, or reissue. It can be contended, without fear of informed contradiction, that the *advisory* nature of nautical charts issued by a variety of agencies is ignored. They are, too frequently, used as oracles which are not open to either question or interpretation.

On the other hand, the shipping industry blames inadequate and inaccurate charts, quite irrelevant to the requirements of draughts often double or even quadruple those that obtained when the surveys were made. In between these two opposing views, the marine insurance industry suffers the consequences of poor navigation, inadequate manning standards, and misleading charts. The world — so short of energy sources — cannot afford the continuance of this vicious circle, carrying lost or spilled cargoes into its vortex.

Concern not shared

I have been accused of invoking the ghost of Captain Cook, and thus bestowing an anachronistic distortion to a situation that is claimed to be well in hand. In some areas the latter may well be true, but if all the marine casualties resulting from vessels striking undersea obstructions since Tuesday October 3 1972 were tabulated, the sum lost (both in lives and hardwon minerals) would be of vast proportions. On this day, the then British Minister for Shipping discounted fears, expressed at a conference on marine technology, that "hydrographic survey data ... was both inadequate and inaccurate". He added, in a subsequent report "however, shipowners

have since indicated that the concern was not generally shared, and that in most areas the existing charts were satisfactory".

The truth, supported by a wealth of scientific and well-documented evidence, is that many trading routes in daily use by deep-draught ships, and those treading paths to tomorrow's sea lanes, are dangerous for want of adequate up-to-date surveys, and of money to fund them. Further, that Britain, among other countries, devotes a woefully inadequate budget to seabed surveys, in particular in relation to the search for and recovery of hydrocarbons in Northern European Waters.

The *Metula* (*) case became a *cause célèbre* in Washington, promoted notably by Senator Gaylord NELSON to bring awareness of the vulnerability of the United States shorelines to spillages of oil and other damaging liquids. While this accident clearly cannot be laid at the door of Hydrography, such discussions in the US Senate are bound to have inhibitive effects on the movements of oil-carrying vessels, which will predictably increase costs. Further, the effect of such a spillage on the main fishing grounds, now bestrewn with oil-pumping systems (hopefully withstanding "barometric anarchy") has not yet been assessed. A distinguished Norwegian fisheries expert at a recent conference presided over by the Duke of Edinburgh, pointed out that the surface fry of mackerel and herring, vital to his country's welfare, have neither votes nor budgets, and our fish larders are not inexhaustible. His Royal Highness coined the arresting phrase: "If necessity is the mother of invention, then surely communication is its father".

The communication gap between the shipbuilding industry, the shipping industry and hydrography, in relation to the current demonstrably hideously expensive situation, has been almost total. Decisions to operate VLCCs were evidently taken without consideration of the availability of dry-docking and repair facilities on or near the trade routes they would use. This compares with introducing railways without providing either intermediate stations or fuel depots along the route. But this simile ceases to be valid when one contemplates the explosive nature, both politically and dynamically, of damaged macro-tankers seeking repair facilities.

The insurance industry's publications are used as an "information bank" by the Hydrographer, but the latter can only lament over the frequently careless or uninformed use of Admiralty charts, and where possible report the location of the resulting wrecks. The real causes of groundings are seldom traced by marine insurers, nor are they fed back to the owners responsible for their ships' safe navigation. Thus, the separation of groundings or strandings caused by out-of-date charts from those caused by misinterpretation or poor seamanship, is never clearly delineated. Each of the protagonists will continue to blame the other, to the detriment of all mankind. In these circumstances, grounding accidents cannot be curtailed or contained by strictures imposed by the demands of past experience.

(*) *Metula*: 200,000 deadweight tons (104 379 GRT). Netherlands Antilles flag. Carrying crude oil from the Persian Gulf to Chile. While transiting the Magellan Straits on 9 August 1974, stranded on a patch of boulders after passing through the first Narrows.

The "regulatory" function of Marine Insurance in keeping a viable balance between premiums and claims was considerably weakened by rivalry between Insurance Markets in different countries. This led to fierce and debilitating competition on the grounds of national interest or quick profits, caution being thrown to the winds. Experienced professional international marine insurers watched these developments with growing alarm. Manning standards and traditional and well-tried principles relating to seamanship and prudent navigation were considered by insurers new to the field to be of minimal significance, if they considered them at all. This paper chase downhill developed at a crucial time, when the insurance rate for bigger and bulkier oil carriers started to engulf both sanity and sound economics.

Clear evidence of the urgent need for comprehensive surveys of busy tanker routes comes in an increasing flow as spin-off from scientific and ecological surveys, from the crews of submersible workboats, and from divers and oceanographers, to name a few sources. A recent regional pollution survey, undertaken by a large American corporation on the East Coast of America, reported pinnacles on busy shipping routes that were not marked on any charts.

To confound a dangerous and wasteful situation, broad sections of the shipping industry appear to have been hypnotised by the attributes, or lack of them, generated by the use of automated systems at sea.

In the hey-day of charting (dare I say when Captain Cook was alive ?), seamanship and an appreciation of the effect of wind, tide and wave were of a very high order. Those who sailed through the medium of a rigid Rule Book, without interpreting wind, tide, charts, current and weather, did so at their peril. But now, with oceans, seas, new and old trade routes unsurveyed in important areas for 100 years and more, to throw prudent good seamanship overboard as being replaced by automatic pilots and digital computers spells "catastrophe" to shipowner, marine insurer, and thus the world at large.

Adhere to charts

Here there seems to be an area where the father of invention looks aghast at the enormous communication gap. Those hydrographers who are accustomed to military discipline or are backed by strong Governmental support expect the commercial purchasers of charts to respond to the requirement of reading them in close conjunction with the appropriate Sailing Directions. To prove that this advice is ignored in practice is not difficult, as evidenced by the costly *Sea Spray* (*) grounding in the China Sea, where she was led into unsurveyed "dangerous ground" while navigating on a radio beacon ! The *China Sea Pilot* reads [1] : "DANGEROUS GROUND" — A large area, north-westward of a line drawn in an 040° and a 220° direction through Royal Captain shoal, between the parallels of

(*) *Sea Spray* : 63,573 tons GRT. Swedish flag and owner. Full cargo of oil from Persian Gulf. Stranded 14 February 1974 on Ardasier Bank in the "Dangerous Ground" of the South China Sea.

7°33' N, and 12°00' N and eastward of the meridian of 112°50' E is known to abound with dangers; vessels are cautioned not to attempt to pass through this area. Chart 2660b".

There is sound evidence that the *Torrey Canyon* (*) carried no *Pilot* of the area where she stranded.

The Dominion Hydrographer of Canada informed me that the *Arrow* (***) was in a lamentable state regarding navigational aids when she struck the Canadian coast in foul weather, leading to legislation demanding the carriage of Canadian charts by all ships in Canadian waters. Another authority on this side of the Atlantic told me of a tanker carrying only one certificated officer, who on inquiry turned out to be 80 years of age. Yet another was so ignorant of navigational knowledge that he followed other ships up the Red Sea in order to reach his destination !

Central Liaison Agency

All these circumstances seem to point unerringly to the need for a central liaison agency to be set up, linking hydrography with marine insurance, and thus with shipowners. This agency's function would be to trace back the causes of every grounding, stranding, or touching the ground, in order to pinpoint the precise cause of it. Only by this means can the fog hiding the statistics of where poor seamanship begins and out-of-date charts end be dissipated, and this vital area be clarified.

To leave it undefined is to invite the continuation of inaccurate accusations on both sides, opening the gate for more costly and wasteful casualties resulting from the confusion. The few incidents followed up, with the able and willing help of hydrographers providing accurate information subsequently fed back to marine insurers, have caused many raised eyebrows, and expressions of disbelief. Each such inquiry, yielding clear and accurate information, is another potent weapon which can be effectively used both to provide hydrographers with sufficient funds, and to confront poor seamanship and ignorance of navigational techniques at their source.

Disquiet at the events described is by no means confined to the United Kingdom, or the London Insurance Market. A study is under active discussion by the Inter-Divisional Committee on Marine Surveying and Mapping of the American Congress on Surveying and Mapping. Also, I am in touch with the distinguished hull loss prevention representative of the Ocean Hull Committee of the International Union of Marine Insurance.

To conclude on a specific, rather than a general opinion, the *Igara* (***) and the *Sea Spray* casualties can be compared with a Juggernaut truck with

(*) *Torrey Canyon* : 118,285 deadweight tons. Liberian flag, Italian owned. Loaded with oil from Persian Gulf for Britain, grounded Seven Stones Reef, NE of Scilly Isles, 18 March 1967.

(**) *Arrow* : 11,379 tons GRT. Liberian flag. Cargo of oil from Venezuela. Grounded on Cerberus Rock, Chedabucto Bay, Nova Scotia, Canada, on 4 February 1970. Ship's navigational aids not functioning, and no coastal chart onboard.

(***) *Igara* : 72 741 tons GRT. Italian owners and flag. Brand new ship carrying ore from Spain to Japan. Struck submerged object 11 March 1973 close to Mendarik Island (Indonesia), 180 miles East of Singapore, after clearing Sunda Straits northbound.

fully laden trailer, striking out from a motorway across fields, rivers and gullies, in order to shorten the distance between starting point and destination, with the aid of a 30-year-old AA Road Handbook.

I recently noted with sorrow no less than 10 groundings of varying severity occurring on one single day — 17 December 1974. This undelec-
table multiple event (to paraphrase Sir Winston CHURCHILL's wartime reaction on hearing of the destruction of three German submarines in one day) up-stages the ghost of Captain Cook. On to the stage come those of Will Hay and the Marx Brothers. The humour, however, escapes those who recognise that wastage on this scale is insane and must be stopped.

REFERENCE

- [1] China Sea Pilot, Vol. II, third edition, 1961, with supplement No. 8 (1973), p. 271. Hydrographic Department, Admiralty, London.

In welcoming the new British Hydrographer of the Navy, Rear Admiral D.W. HASLAM, O.B.E., the *Nautical Magazine* notes :

“In Britain today it may be that a successful conclusion to the work of the current Hydrographic Study Group will temporarily ease the Hydrographic Department's way ahead. But one thing is entirely certain. As in a ship at sea, no sooner has one hazardous situation been resolved than another in some place begins to develop. Hydrography is a never-ending battle of too few resources against too many tasks. The situation has been like that since Alexander DALRYMPLE became the first Hydrographer in 1795 — 37 years before this magazine was born. And it will never be any different in the future. Never.”
(*Nautical Magazine*, Vol. 214(6), December 1975, p. 323. Glasgow).