

The explosive Cargo
of the
SS "RICHARD MONTGOMERY"

A study into the developing hazard from a marine wreck
in the Thames Estuary between Sheerness and
Southend-on-Sea

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This study outlines the circumstances of the stranding and loss of the "Richard Montgomery" and her subsequent history as a marine wreck. The condition, environment and security of the hull are discussed and the explosive hazard is assessed in the light of a complete inventory and description of the remaining cargo. It finds that the officially published statements relating to the wreck are wrong and also draws attention to the inadequate level of interest and concern displayed by the several departments involved in the matter.

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1.0 Introduction

1.1 The Background

In the House of Commons, on April 23rd 1952, Dr. R.F. Bennett, Member of Gosport, asked the First Lord of the Admiralty "what responsibility he holds in respect of the "Richard Montgomery" wreck. What action he has taken, or intends to take, with regard to the vessel and her cargo, and what steps he is taking to ensure that the cargo does not blow up".

Commander Noble replied "The answer to all three parts of the question is none. The responsibility lies with the Port of London Authority".

Dr. Bennett's question was the first of many occasions on which the subject was to be raised in the House, and much has been written and said elsewhere during the past twenty years, but to no avail.

The wreck, with its explosive cargo, still lurks off the Sheerness shore in the full view of the communities which it threatens.

There has only been one fundamental change in the whole situation since Dr. Bennett's question. The high explosive is now 20 years older.

1.2 The Intention of this Study

Since it is incredible that such a concentration of high explosive could be allowed to remain in this situation, it seems reasonable to enquire into the matter and establish the facts and circumstances of the last voyage of the SS "Richard Montgomery", here stranding, and her subsequent history as a marine wreck, and to compare this data with the officially published material to test its accuracy and publicly criticise weak arguments and unsound policies.

1.3 Procedure and Method

Our first objective was to gather the officially published material, mainly through the indices to Hansard and "The Times". This was entered in chronological order into the "Calendar of events", which formed the principal record.

We then collated the official statements and extracted the factual content, which became the principal material for investigation and comment in this study.

1.4 Public Response to our Enquiries

Our lines of enquiry were guided by our local knowledge of the history and background of the various activities in the Thames and Medway Estuaries. We received every assistance from the persons we interviewed in the way of advice, information, and the loan of documents, and many people expressed their satisfaction that we were undertaking a serious study of the subject. It is noteworthy that none of those who had important information on the subject had ever been asked about the matter in anyway.

2.0 Wreck

2.1 Wartime Wrecks in the Estuary

After the war ended, a number of wrecked ships remained in the Estuary, and were. For a variety of reasons, visited by watermen, fishermen and yachtsmen returning to the shore. The majority of these vessels were salvaged and removed, but the "Richard Montgomery" remained, half submerged at low water, still recognisable as a Liberty ship, with her characteristic funnel, ventilators and Oerlikon cannon housings. She became a centre of attraction when the weather and tide were right; and a list of her visitors would number into hundreds, if not thousands.

2.2 A Quarter Century of Peace

The sea and weather have removed the funnel, ventilators and most of the fittings from the midships island, but although she is barely recognisable as a Liberty Ship, the three masts remain, and the slings and nets of the stevedores continue to dangle from the cargo booms as relics and reminders of brave men who raced against time to get the bombs out, before the sea overtook them.

2.3 The Growth of Public Concern

Although many of the marine community of the Estuary know of the vague rumour that some sort of explosive cargo remained aboard the wreck, it was not until April 23rd 1952 that the matter was first raised in the House of Commons by Dr. R.F. Bennett, and ex naval officer, following a discussion with Sir Stephen McAdden, Member for Southend East. This stimulated the first official assessment of the problem.

A further twelve years were to pass before one version of the story of the "Richard Montgomery" and her cargo appeared in somewhat horrific form entitled "The Domsday Ship" as an article in the "Wide World" Magazine published in the autumn of 1964. It contained some factual material and appears to have been stimulated by two news features on the wreck which had appeared in the "Daily Sketch" in 1962. Parliamentary questions which followed this article precipitated the second survey of the wreck, and the formation of a Parliamentary Working Party. The issue has remained active ever since.

3.0 The Official View of the Situation

3.1 Public Statements

The condition of the wreck and its contents, the degree of hazard, and other matters of importance have been conveyed to the public via ministerial statements, parliamentary answers to questions, letters to M.P.s and departmental statements and press releases. A study of the material shows that the statements cover the following subjects, and is listed below as a summary of the quotation, the individuals involved, and the date.

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3.2 The Date of the Stranding

The "Richard Montgomery" was wrecked on August 20th 1944.
Mayhew (Sec. of State for Defence) – Boston 18/3/65.

3.3 Responsibility for the Wreck

3.31 First Lord of the Admiralty was asked what responsibility he holds in respect of the wreck. Answer – none – responsibility lies with P.L.A.
Noble (First Lord Admiralty) – Bennett 23/4/52.

3.32 Board of Admiralty has suggested to P.L.A. that it should re-investigate the risks involved in leaving the wrecked ship full of bombs in the estuary.
Earl Jellicoe (Minister of Defence for Navy) – Boston 10/10/64

3.33 The legal position as to who is responsible for the wreck is complicated, although it is clear that the Ministry of Defence legally has no responsibility.
Mayhew (Sec. of State for Defence) – Braine 27/10/65

3.4 The Environment of the Wreck

3.41 Divers had found that the two halves of the ship had sunk bodily into the mud. They also found that heavy silting in the holds had probably engulfed the remainder of the cargo.
Mayhew (Sec. of State for Defence) – Boston 24/11/65

3.42 The wreck has now sunk deep into the sand and mud.

3.5 The Security of the Wreck

3.51 We have written to the P.L.A. and to Medway Conservancy Board asking them to keep a sharp look out for anyone attempting a private survey and to check.
Mayhew (Sec. of State for defence) – Boston 24/11/65

3.52 We have decided not to attempt salvage, but to continue with the comprehensive precautions to ensure that the wreck is not tampered with.

The Kent Constabulary is ready to remove by force, if necessary, anyone trespassing on the wreck – in addition, the Medway Conservancy Board keep constant radar watch and conduct daily patrols.
Foley (Under Sec. of State for Navy) – Burden 14/12/67

3.6 The Explosive Cargo

3.61 Cargo was 8687 tons of bombs and detonators, of which about half was recovered in 1944.
Mayhew (Sec. of State for Defence) – Braine 27/10/65

3.7 The explosive Hazard

3.71 Chances of explosion were remote if wreck were left along.
Earl Jellicoe (Min. of defence for Navy) – Boston 15/9/64

3.72 Likelihood of explosion no greater than in 1952, possibly rather less.
Mayhew (Min. of Defence for Navy) – Braine 27/10/65

3.73 The risk of spontaneous explosion is decreasing slightly as time passes.
Foley (Under Sec. of State for Navy) – Boston 13/12/67

3.8 A Summary of the Official Statements

The ship was wrecked on August 20th 1944. Of the original cargo of 8687 tons of bombs and detonators about half, containing 1445 of T.N.T. remains in the wreck which is in two halves and sunk deep into the sand and mud. The risk is remote and decreasing as time passes, providing it is left undisturbed, and it is continuously guarded by a comprehensive security system under the responsibility of the Department of Trade and Industry. It is not in any way the responsibility of the Ministry of Defence (Navy).

3.9 A Commentary on the Official Statements

As far as we know, the statements in this section represent the total information to be released from official sources. Nearly all this material consists of estimates and opinions which are hedged with uncertainty. We do not know whose opinions they are, neither do we know what weight to place on them. Furthermore, it does not appear evident that any great efforts have been made to discover the basic facts of the matter.

The following sections of this study outline the results of our investigations, as described earlier (Sec. 1. 2 & 3).

Although the question of responsibility is part of the issue, we discuss this later, and instead commence with the details of the ship and the circumstances of her loss.

4.0 The Loss of the SS "Richard Montgomery" (USS Replaced with SS)

4.1 The Liberty Ships

In 1941 the American shipyards undertook a vast program of expansion to build the enormous tonnage of expendable merchant ships which would be required for the war which was sure to come. The original design was British and, as the result of tremendous efforts and innovations by the shipyards, about 2700 were built. (See Fig.1. for layout). They were nearly all names after men and women notable in the life and history of the United States.

4.2 SS "Richard Montgomery" 7176 G.R.Tons. Official No. 243756

The 7th of 82 dry cargo (type EC2-S-C1) Liberty Ship to be built at Jacksonville, Florida, by the St. Johns River Shipbuilding Company, and launched July 1943. Her crew would have numbered approx.. 52, together with some 30 gunners. She was named after an Irish Soldier, born in Dublin in 1738 who finally settled in America, was elected to Congress, and fought in the war against the British in Canada. He helped capture Montreal and was killed in the assault on Quebec on Dec. 31. 1775.

4.3 Her Last Voyage

After taking on bombs and munitions at Hog Island, Philadelphia, she sailed from the Delaware river to the Thames Estuary, to await a convoy for Cherbourg. On arrival off Southend, she came under the authority of the Thames Naval Control at H.M.S. "Leigh", which was in fact, Southend Pier. The King's Harbourmaster, who controlled all shipping movements and anchorages in the Estuary, ordered her to a berth off the north edge of the Sheerness Middle Sand in about 33 feet of water at low water, where she lay at anchor until she went aground.

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4.4 The Circumstances of the Stranding

Clearly, the berth to which she was directed by the King's Harbourmaster was most unsuitable for a vessel of her size, particularly since she was trimmed to a draught of 31 ft. aft, nearly 3 ft. more than was usual for a Liberty Ship. If the wind fell northerly, at low water she could not avoid touching the shoal, even with the minimum possible scope of anchor cable.

We are informed that she went aground on Sunday August 20th 1944. She was stranded on top of the Sheerness Middle Sand at the height of the spring tide, so that she was beneaped until the next good spring tide, due about September 5th, could refloat her, provided that a substantial portion of her cargo could be removed in the time, and also provided that she survived intact.

As the tide ebbed, the strain on her hull caused some of the welded plates to crack and buckle with an explosive snap as loud as a gunshot. This sudden noise was heard and remarked upon by the crew of M.L. "British Queen", who were fishing at over a mile distance away. They then saw the crew of the "Richard Montgomery", naturally apprehensive of the noise, and of the hazardous nature of their cargo, conduct an emergency evacuation of their ship via the life boats and rafts.

The crew and the Master, Captain Wilkie, were taken to Southend and provided with quarters, while the emergency salvage operation was prepared.

4.5 The Emergency Salvage Operation

Messrs. Watson and Gill, Shipbrokers, of Rochester, Kent, were instructed by the Department of the Director of Salvage at the admiralty to mount an emergency salvage operation for the removal of the explosive cargo where she lay. The job of arranging the unloading was given to Mr. T.P. Adams, Master Stevedore, who was called out at 3.00 a.m. on Tuesday, August 22nd, to inspect the condition of the ship and its cargo, and check the stowage plan, which was given to them by the "Richard Montgomery"s Chief Officer when he came aboard. The vessel did not appear to be damaged or taking water, and the cargo hatches had not

been breached or interfered with in any way.

He engaged stevedores from Rochester to carry out the operation, which commenced at about 10.00 a.m. on Wednesday 23rd August, using the ship's own cargo handling gear, the winches being powered by steam line from the vessel alongside.

At 3.0 p.m. on Thursday 24th August her hull cracked open at the fore end of No.3 hold, which flooded through to No. 1 and No.2 holds, and she finally broke her back on Friday Sept. 8th, leaving her irrevocably stranded. Salvage continued until Monday Sept. 25th, when her holds, Nos. 4 and 5 had been cleared, while the remaining contents of the forward holds have remained completely submerged to this day.

The SS "Richard Montgomery" as then abandoned and ignored. Her wreck was one of many in the River Thames. There was a war on.

4.6 The Enquiry into the Loss

A Board of Enquiry was held aboard the "Richard Montgomery" about a week after the stranding, under the Presidency of a Lieutenant Commander, United States Navy (or coastguard). The Board sat in the ship's saloon and the proceedings lasted from 10.00 hrs. to 16.00 hrs. without a break, amid "the all pervading stench of leaking fuel oil", while outside the unloading of her explosive cargo proceeded apace.

The King's Harbourmaster gave evidence of the berth which he had allocated, and the Pilot confirmed that she had been anchored in this position. The Board established that look-outs on a number of ships in the vicinity had seen the "Richard Montgomery" swinging towards the shoal in the pre-dawn light and blew their sirens in warning, while the Chief Officer, on being asked why he did not rouse the Master, who was asleep in his cabin, replied, "I don't know".

The Board found that the Master had hazarded his ship, and he and the Chief Officer were suspended for twelve months. It had sat under emergency conditions and had operated in foreign territory under difficulties. It also did not hear all the evidence relating to the stranding of the "Richard Montgomery".

4.7 Background to the Evidence

The Court did not hear evidence that the Assistant King's Harbourmaster had questioned the suitability of the Harbourmaster's choice of anchorage for the "Richard Montgomery" as being too shallow for a ship of her size and draught and that on being directed to carry out the order, had requested that it be given to him "in writing". Neither did the Court hear evidence that the argument grew heated, and attracted attention of the Harbourmaster's superior officer who listened to the dispute. The Assistant Harbourmaster suggested that the "Richard Montgomery" should interchange positions with another ship of 24 ft. draught, lying in much deeper water, and due out in the same convoy. The superior disregarded the assistant's suggestion and chided him for questioning a decision made by an officer of great experience in the matter.

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The Assistant withdrew from the room and the order was carried out. The Assistant was posted to another section two days later, and did not attend the Enquiry.

5.0 The Environment of the Wreck

5.1 The Study by the Hydraulics Research Station

The first requirements for any assessment of the security of the wreck and its explosive hazard is a full description of its condition and environment. We have therefore attempted to obtain a copy of the report of studies which were conducted by the Hydraulics Research Station, Wallingford, Berks, at the request of the Ministry of Defence (Navy). This report is entitled "An investigation into proposed schemes for protecting the wreck of the S.S. "Richard Montgomery", off Sheerness".

Our applications were refused on the grounds that it was "not proposed to publish such technical material".

5.2 Environmental Data for the Wreck Area

In the absence of this report, we have conducted a limited study of the wreck and its environment at minimum cost, using the following data:-

- 5.2.1 Photographic material covering the period 1944-72
- 5.2.2 Admiralty Chart 3683 "Sheerness and Approaches". Editions B6, B8, B12, C1, C4.
- 5.2.3 Medway Ports Authority Charts No. 1000, and No. 1001.
- 5.2.4 High altitude photos showing "Turbidity Boundaries" and tidal eddies.
- 5.2.5 Personal visits to the wreck, 18 June 1949 and 7 Feb. 1972.
- 5.2.6 Echo-Soundings recorded in the vicinity of the wreck.
- 5.2.7 Discussions with masters of local fishing vessels.
- 5.2.8 Daily reports of the emergency salvage operation 23 Aug. – 25 Sept. 1944. (Courtesy of Mr. T.P. Adams – Master stevedore)
- 5.2.9 "The Liberty Ships" L.A. Sawyer and W.H. Mitchell. Published 1970 Messrs. David and Charles. Newton Abbot.
- 5.2.10 "A History of the Medway Conservancy Board 1881 – 1969" Robert Marsh, 1971. Privately published.
- 5.2.11 Meteorological register, Shoeburyness, August – September 1944. The Meteorological Office.
- 5.2.12 Tidal Predictions, Sheerness. August – September 1944. Institute of coastal Oceanography and Tides.

5.3 The Development of the Wreck's Environment

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The "Richard Montgomery" went aground across the ridge of the shoal, her bows very nearly due north. A few days after the stranding, her hull cracked transversely at the forward end of No. 3 hold, and flooded the forward section of the ship.

As the cargo was removed from the holds No. 4 & 5, the buoyancy of the stern increased until by September 20th it was hinging on the bow section at deck level and tilting with the tidal movement, such that the whole of the skeg and propeller showed at high water. After finally flooding, the stern section separated and moved approximately 50 feet southwards and pivoted some 12° clockwise about the after mast before completely losing buoyancy and settling firmly on the ground. The interaction between the wreck's two sections and the tidal stream induced a scouring effect which quite rapidly modified the sea bed topography over a considerable area.

A further transverse break in the bow section between the forward mast and the forward end of No. 2 hatch occurred in the early 1960's.

5.4 Direction and Strength of the Tidal Streams

Because the rivers Medway and Thames can differ considerably in relative turbidity, and "interface" between "Medway" and "Thames" water can show itself as an abrupt colour discontinuity in aerial photographs when conditions are suitable. (See Fig.2). We have examined two successive frames, (numbered 2.097 and 2.080), part of a high altitude aerial survey by Fairey Surveys Ltd.) which show such an "interface" approaching the wreck area in the ebb tidal stream at 12.06 hrs. B.S.T. on May 30th 1966. The tidal situation was 1 hr. 56 minutes after predicted high water 10.10 hrs. B.S.T. of predicted height 16.9 ft.

The irregular boundary at the interface exhibited several distinctive features which could be identified in both frames, enabling the velocity and direction of the tidal stream to be estimated by measuring the displacement of these features in the known time interval of 45 seconds.

Our measurements show that the wreck had a considerable effect on the velocity and direction of the tidal stream for some 1500 ft. downstream, and about 800 ft. on either side of the wreck.

To the north of this zone we found 068°T, 1.33 M/Sec while to the south we found very nearly the same,

069°T, 1.35M/Sec. Within the zone, close to the west side of the wreck, velocities varied enormously, in general much lower, and tending to the direction 083°T, while the east side is dominated by the rip of eddies generated by the intensity of the current which flows through the main break at No. 3 hold and proceeds for some 1000 ft. in the direction 083°T before conforming to the general direction of flow 069°T. (See Fig.3).

We have not obtained any further data, but it would appear reasonable to suppose that the flood tide phenomena would be of a similar nature, although of reversed directions.

5.5 The Wreck on the Sea-Bed to-day

A perspective impression of the wreck on the sea-bed is shown in Fig.4, while Fig.5 shows sections through the wreck and adjacent ground.

It can be seen that the submerged sections of the hull lie listing to starboard in an irregular depression in the sea-bed. Banks of silt and sand have built up against the hull in places, while elsewhere it is exposed almost down to the turn of the bilge.

The main break between the principal sections passes between the severed parts of No. 3 hold and carries a powerful rip of current at half tide. There is therefore a strong probability that some of the bombs in No. 3 hold are exposed on both sides of the break, while access to the contents of No. 2 hold is available via the adjacent crack in the hull.

We consider that the wreck and its surroundings form a stable configuration, which will continue indefinitely, provided that the integrity of the hull is maintained.

6.0 THE SECURITY OF THE WRECK

6.1 The Range of Hazards

The condition and situation of the wreck is such that an assessment of the factors which could result in a dangerous disturbance is required. These could range from the continuous movement of the waves breaking over it, through the process of natural decay, right up to human intervention motivated by malice.

6.2 Types of Disturbance

6.2.1 Natural break-up and collapse of the hull, deck, cargo, masts and spars as corrosion proceeds within.

6.2.2 External disturbances by heavy seas, tidal currents, movement of sand banks and similar sources of stress.

6.2.3 Accidental impact by weighty flotsam, "drifting ships", irresponsible navigation and ships "off course" at speed.

6.2.4 Visitors and sightseers clambering around.

6.2.5 Clandestine attempts to salvage valuable parts of the wreck.

6.2.6 Clandestine removal of part of the cargo.

6.2.7 Malicious attempts to detonate the cargo "in situ".

6.3 Instances of Disturbance

Most of the subsequent material was obtained from persons known to us who were questioned in a friendly and informal manner and can only be a sample of the total activity aboard the wreck during the past 27 years. The following comments refer to the relevant item in Sec. 6.2.

6.3.1 A comparison between recent and early photos of the wreck shows that a very considerable deterioration has occurred. Seven cargo booms have fallen on to the wreck below, while five more booms and the three masts have yet to fall. The loading plan shows that the lower hatch covers of No. 1 and No. 2 holds were never opened, and the 2153 bombs weighing 297 Imp. Tons can fall 1 foot on to the bombs in no. 1 hold, while 2883 bombs of 176 Imp. Tons can drop 10 feet on to those in No. 2 lower hold when the tween decks collapse.

6.3.2 The hull crack at No. 2 hold, aft of the forward mast, probably results from a combination of stresses due to sand movements and tidal scour together with the tension from the long scope of anchor cable causing failure of the corroded hull plating.

6.3.3 We have been given an account by an eye witness of a small motor cargo ship (a 71 ton barge) passing over the wreck between the masts. Many instances have been reported to use of the practice of "dumping" munitions close to the wreck by fishermen who find bombs brought up in their gear when fishing in the vicinity.

6.3.4 Our records show at least 25 persons known to us who have visited the wreck, some supplying us with photos and cine film of the occasion. The total number of visitors during the lifetime of the wreck must be immense. www.ssrichardmontgomery.com

6.3.5 Much of the copper "degaussing" cable was stripped from the hull in 1956. Among remaining items of value is the four bladed bronze propeller, 18½ ft. in diameter, and valued in the neighbourhood of 5000 dollars (U.S.) in 1968.

6.3.6 Our informant (Ref. 6.3.5) also mentioned that several bombs were visible at low water, lying under water against the scuppers of the forward section on the starboard side. If his identification was correct (he says that he did not touch them), the question of how they got there is highly relevant, since Mr. T. Adams, in charge of the emergency salvage operation, states definitely that the deck was clear of bombs in 1944. These could have been "dumped" (Ref. 6.3.3), in which case they would still be there, if the bulwarks are intact.

6.3.7 A threat to "blow up" the ship was made by students in January 1969 as part of a rag day "jape" to gather funds for a charity. Not surprisingly this resulted in the immediate interrogation of the ring-leaders by the police. Parliamentary questions were asked and divers checked the wreck for signs on interference.

6.4 A Security Check

The probability that a determined individual would be deterred from tampering with the wreck and its contents seems small, and at present neither the means nor the will exists to detect any such activity if it is conducted in a clandestine manner.

We have ourselves visited the wreck on February 7th, 1972, and stayed in the very close vicinity for 2 hours (09.15-11.15 hrs.), taking photographs and noting its condition. This was done openly and without any attempt at concealment.

Our presence was reported to the Medway Port Authority by the Coxswain of the Sheerness life-boat, who had been fishing in the vicinity.

We do not consider the wreck to be secure.

7.0 THE CARGO OF THE "RICHARD MONTGOMERY"

7.1 The Stowage Plan and Salvage reports

The original cargo as loaded at Hog Island, Philadelphia, consisted of 6862 short tons of munitions for the United States Army Air Force. A full description showing quantities, weights and disposition in the ship is given in the stowage plan (Fig.6). We have also studied the daily reports of the emergency salvage operation, which were loaned to us by Mr. T. P. Adams, the Master Stevedore. These describe each item handled, state the hold from which it was taken, and its disposition in the vessel alongside. By referring to both these documents, a complete inventory of the cargo remaining aboard was prepared. Some indication of the magnitude of the quantity and type of material involved is given in the following summary, while the full inventory of original and remaining cargo is given in Fig.7.

7.2 Summarised Inventory

Description and Packing	Original Tonnage			Present Tonnage+		
	Short	Imp	Units	Short	Imp	Units
Loose Bombs G.P. Various	3045	2719	13064	1667	1488	5558
Loose Bombs S.A.P.	2564	2289	7739	1435	1282	4103
Cases Bombs Cluster Frag.	629	562	9022	173*	156*	2618
Cases Bombs Smoke White Phos.	107	95	1429	107	95	1429
Cases Bombs Demol'n. 100 lb.	91	81	1427	Nil		
Cases Fuses	86	77	1522	12	11	226
Cases Bursterns	2	2	28	Nil		
Cases Ammo. Small Arms	39	35	817	Nil		
Cases Signals	35	31	895	24	21	639
Cases Non Explosives (Fins)	264	236	21619	134	120	11613
TOTALS	6862	6127	-	3552	3173	-

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*Some of these items may have been incorrectly described in the salvage data, and could be reduced by 39 tons U.S. We have assumed that all the small arms ammunition was removed.

+The relatively small quantity of ammunition in the ship's magazine for her own defence was not known and is omitted.

7.3 The Loose Bombs

By far the largest classes of remaining material are the G.P. (General Purpose) and S.A.P. (Semi-Armour Piercing) bombs which have a combined weight of 2770 Imp. Tons, and comprises over 85% of the remaining cargo.

The remaining G.P. 250lb. bombs are stowed all across the forward end of No.1 Tween Deck hold, and the after end of No.2 Tween Dock hold. All other G.P. and S.A.P. bombs are stowed in the lower hold, with the exception of a stack of G.P. 500 lb. bombs, across the after end of No.1 Tween deck hold.

In the lower holds, these bombs are stowed with their axes lying "fore and aft" and are layered in stacks across the width of the holds, with dunnage boards interspersed to ensure secure packing. The depth of stacks is about 15 ft. above the floors of the holds.

The position of the contents of the after portion of No.3 hold is not precisely known. As stated in section 5.3, the stern section of the hull pivoted with the rise and fall of the tide and could have tilted at some 15 degrees to the horizontal. All or some of the contents could have piled in to the sea bed and now lie under the ridge of sand which passes between the two principal sections.

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We have also referred to the break in the bow section at the forward end of No.2 hold, which is evident in the aerial photos taken in 1966. This break has not increased substantially and we are of the opinion that no bombs have emerged through it.

7.4 Fuses and Bursters

All the fuses and bursters were cased and stowed separately in No.3 Tween deck hold, (all bursters were salvaged) and it seems likely that the remaining cases of fuses could have survived.

7.5 Cluster Fragmentation Bombs

We have received very little information concerning the cluster fragmentation bombs which are individually packed in wooden transit cases and appear to have an integral arming system.

7.6 The Non Explosive Cargo

The white phosphorous smoke bombs seem to provide a potential toxic hazard of indefinite life span, while the remaining material does not seem well suited to remain active after 27 years of total immersion.

7.7 The Principal Explosive Material

As stated in section 7.3, the G.P. and S.A.P. bombs (comprising of 5558 and 4103 units respectively) altogether weigh 2770 Imperial tons and comprise over 88% of the total remaining cargo.

The condition of these bombs is therefore fundamental to the whole issue, since their detonation alone would produce very considerable damage nearby, while if they are no longer capable of detonation, all the other groups of explosive assembly in the wreck present a hazard which is trivial by comparison.

Office of the Flag Officer, Medway
H.M. Naval Base
Chatham

Area Works Officer
Department of the Environment

10 Feb 72

RICHARD MONTGOMERY – WARNING NOTICES

1. The Harbour Master, Medway Ports Authority, has observed that the warning notice recently fitted at the North end of the Richard Montgomery has split.
2. It would be appreciated if arrangements could be made to repair or replace the notice in the near future.

M Magnus Osborn
Commander
for Rear Admiral

S J Hawkins, Esq.,
Ministry of Defence (PE)
E.R.D.E.,
Powdermill Lane,
Waltham Abbey,
Essex.

18 February, 1972

Dear Sir,

WRECK OF SS "RICHARD MONTGOMERY"

Thank you for your letter of 26 November, 1971, addressed to Mr Slade, about the possibility of unloading the unfused bombs in No.1 hold of the wreck as suggested by FO Medway.

We have now sought the comments of the interested parties on receipt of which we will consider whether a further meeting should be held to discuss the proposal.

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A copy of the letters received from FO Medway is enclosed.

Yours faithfully

V. Marlow.

V Marlow Esq
Department of Trade and Industry
Marine Division 3B
Sunley House
90 High Holborn
LONDON WC1

22 February 1972

Dear Marlow

1. Thank you for your letter dated 18 February 1972 addressed to Easton, he is at this time abroad on duty so I will reply.
2. I do not disagree with Hawkins' technical assessment in his letter dated 26 November 1971; I am unclear however on the meaning of the term "countermine" in Captain Archdale's letter dated 28 June 1971. If, as I suspect, he means "explode by means of an adjacent explosive charge" then I have some reservations.
3. Any attempt to remove the contents of number one hold must be a calculated risk and the lesson of the operations on the "Kielce" where apparently the entire cargo exploded must be taken into account.
4. My reservations on "countermining" (with the meaning as in 2 above) are that, notwithstanding the experience with the "Kielce", no guarantee can be given that all the cargo in the hold will be detonated by an external shock. It may well be that fuzes which exhibit copper azide formation will initiate the bombs to which they are fitted when subjected to very weak shocks whereas those which either have not corroded or where the copper azide itself has decomposed will be inert; the weapons in that event will only initiate under the influence of a very intense shock or from the effects of penetration by fragments.
5. The problem falls into two parts.
 - 5.1. If an attempt is made to remove the bombs from No.1 hold the immediate benefits are those accruing from the reduction in the quantity of explosive; is a reduction in the risk to external life and property. Against these benefits must be set the possible loss of life in the removal of crew and risks to life and property externally should the attempt end in disaster. Clearly one proceeds on this course only if the benefit outweighs the probability of a mishap – multiplied by its cost.
 - 5.2. If and when No.1 hold is cleared the further benefit to be obtained by detonating the remainder of the cargo is obvious enough but again one must weigh the possible disadvantages in that there might be a premature explosion if the crew went too close to the weapons or a failure to detonate some items if they attempted it too remotely. In the much simpler (technically) deliberate blowing up of the "St Bridget" recently I insisted on multiple cordtex detonating lines with a great deal of redundancy in the initiating system. I cannot advise a similar system here because of the risk to the crew in setting it up.
6. There is obviously a great temptation to say "let us do something" but I counsel caution and careful consideration of the risks involved. If a further meeting is called I will be happy to attend or be represented.

Yours sincerely

E G Whitbread

HM Chief Inspector of explosives

Department of Trade and Industry
Marine Division 3B
Sunley House 90 High Holborn London WC1

The Flag Officer Medway,
H.M. Naval Base,
Chatham.

10 March 1972

Dear Sir,

We have received a letter from a Member of Parliament about a TV programme which appeared on "Nationwide" on 1st March 1972 and in which a Leigh fisherman claimed that he had trawled up a bomb in his net and had deposited it at the site of the wreck of the ss "Richard Montgomery".

The Member of Parliament has asked-

- (a) Whether part of the cargo has been dispersed over a wide area or was the bomb taken from some other source? and,
- (b) What action can now be taken to prevent unauthorised persons dumping anything at the site of the wreck aside from alleged bombs?

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A further letter has now been received from the Member of Parliament informing us that 2 more Leigh fishermen confirmed that they have trawled up bombs and have dumped them back. One of the fishermen, who is a trawler skipper, is of the opinion that there should be far more protection. He alleges that in bad weather the audible signal can only be heard when one is almost on top of the wreck and that the lights are not visible in conditions of poor visibility.

The Member of Parliament concludes by saying that if a ship rammed the wreck there could be a most serious disaster and has asked for an assurance that improvements will be made to the warning signals and lights round the wreck.

I should be most grateful for any comments you are able to offer so as to assist the Department to furnish an early reply to the Member of Parliament.

Yours faithfully
V Marlow

From: Captain L W H Taylor Royal Navy

V Marlow Esq.
Marine Division 3B
Department of Trade and Industry
Sunley House
High Holborn
London WC1

16 March 1972

1. Thank you for your letter of the 10 March 1972 about the wreck of the "Richard Montgomery". May I preface my reply by again pointing out for the record that Flag Officer Medway has no official standing or responsibility in respect of this matter, and that the comments which follow are, as before, intended merely as a contribution which I hope will prove helpful.

2. There is no information in this office to indicate that there has been any dispersal of part of the cargo over a wide area. On the contrary it is understood that some, at least of the bombs and other explosives recovered by fishermen in the area of the wreck in recent years, have been proved not to have come from the "Richard Montgomery's" Cargo. Likewise there is no information in this office regarding the source of the bomb trawled up by the fishermen and referred to in the television programme on 1 March 1972.

3. I regret that I am unable to offer any suggestions as to the action which might be taken to prevent unauthorised persons dumping bombs or other material in the area of the wreck. I would have thought that this could only have been achieved by a continuing process of surveillance and/or patrols and this would, no doubt, be ruled out on the grounds of cost. However conspicuous the warning notices are made, and however draconian the penalties which they threaten, they are at present difficult if not impossible to enforce and this must be obvious to any would be offender. It may, however, be relevant that the Medway Ports Authority have, I understand, on at least one recent occasion, intercepted and cautioned a vessel observed alongside the wreck.

4. It would appear that several recent incursions into the area have been made with the express purpose of defying the warning notice in order to gain publicity for the parties pressing for action to be taken by the Authorities to neutralise, or dispose of the wreck.

5. The buoys, lights and sound signals currently deployed to warn mariners of the existence of the wreck are of a standard normality appropriate to an obstacle of this kind. They are, of course, under the control of the Medway Ports Authority who are, I understand, advised in this matter by Trinity House. The channel is in regular use by Naval Ships and craft, and the Naval Authorities would welcome any addition to the size, number, or capabilities of these facilities.

6. One suggestion which has been put to me is that a floating boom might be moored around the wreck to act as an obstruction to would be intruders. This suggestion would appear to have some merit but I regret I must add a rider to the effect that I am not in a position to commit the Royal Navy to any assistance in the provision or maintenance of such a boom, at least without reference to the Ministry of Defence (Navy).

7. It would seem that comments, enquiries, and pressures of the type referred to in your letter must be expected to continue whilst the "Richard Montgomery" and her contents remain in their present location and condition.

Department of Trade and Industry
Board of Trade
Marine Division 3B
Sunley House 90 High Holborn London WC1

The Flag Officer Medway
H.M. Naval Base
Chatham
Kent

Date: 17 March 1972

Dear Sir

In view of the number of recent approaches to the Department, incidents and press reports expressing public concern about the wreck of the "Richard Montgomery" it has been decided to call a meeting of interested Departments and also the Port of London Authority and the Medway Ports Authority to discuss the situation regarding the wreck and in particular the following matters:-

1. Security and warning arrangements.
2. The risk if an attempt were made to remove the contents of No. 1 or No. 2 holds.
3. The advisability of a diving survey being carried out this year to ascertain whether bombs have come out of No. 1 or No. 2 holds have been dispersed around the wreck.

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The meeting will be held on Tuesday 28th March, 1972 at 1030 hours at the above-mentioned address (Room 3/8A) and it is hoped that you will be able to attend on this date and if not to send a deputy. Should a representative from your Department or Authority be unable to attend the Department would be grateful to receive your written comments on the matters concerned.

A C T Slade

Southend Chamber of Trade

The Secretary of State for Trade and Industry,
Department of Trade and Industry,
1, Victoria Street,
London S.W.1.

18th April 1972

Dear Sir,

USS. "RICHARD MONTGOMERY.

Please find enclosed a copy of a report published by this Chamber, giving details of the U.S. Liberty Ship "Richard Montgomery" which is aground off Sheerness with it's hold full of bombs.

Also attached is a copy of a Press Release which has accompanied this report to all National and Local Newspapers who have been invited to a Press conference at the Hall of the Institute of Journalists at 2-4, Tudor Street, London E.C.4. on Thursday next, the 20th April 1972 at 11.00 a.m.

The report is sent for your information on the understanding that no part or parts of it will be conveyed to any person for publication before the embargo time for the Press Release which is 12 noon on Thursday the 20th April 1972.

Yours sincerely,
V.T. Steward,
General secretary.

PRESS RELEASE

THE CONTENTS OF THIS RELEASE AND THE ACCOMPANYING REPORT ARE NOT FOR PUBLICATION OR BROADCASTING BEFORE 12 NOON on THURSDAY 20TH APRIL 1972.

The Government seems to have the wrong facts about the wreck of a munitions ship which poses a safety hazard to towns around the Thames Estuary. This is one of the findings in a report on the U.S. Liberty Ship, Richard Montgomery which swung aground off Sheerness, Kent in 1944.

The report, published by Southend Chamber of Trade, reveals for the first time, details of the ship's original cargo and reports of the emergency salvage operation. This shows, by comparison with official statements on the wreck, that the Government has there to remain on board more than 1,000 tons of ammunition than is actually the case. He report adds, however, that most of the remaining cargo (General Purpose and Semi-Armour Piercing Bombs) is still effective.

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"The nearby centres of population are exposed to a serious explosive hazard which will continue undiminished so long as the bombs remain", the report says. At the same time, it proves, by diagrams & photographs, that the wreck, which has now broken into three sections, has not sunk deep into the mud as the Trade Department has stated.

The report concludes that the wreck is unsafe and that the chances of explosion are not remote. It expresses concern at the consequences of the possible further break-up of the ship; the effects of heavy seas or irresponsible navigation in the area; visits by sightseers; malicious attempts to detonate the cargo; or the salvaging of any of the wreck's parts. Copper cable has already been stripped from the craft and there remains a bronze propeller worth at least £2,500.

Various official bodies which have been concerned in the life of the wreck have "gathered a weak collection

of wrong and inadequate information which has been used to generate incorrect advice, bad decisions and to frame unsound policies which are unrelated to reality” the report states.

THE MEN BEHIND THE REPORT

DAVID COTGROVE – is a well known Southend caterer closely associated with the Thames fishing industry and he is chairman of the Local Affairs Committee of Southend Chamber of Trade & Industry and Treasurer of Southend Hotel and Catering Association.

DAVID ATKINSON – is a Southend Councillor and a member of the Kent & Essex Sea Fisheries Committee. He is also a former national chairman of the Young Conservatives.

ALL ENQUIRIES ABOUT THE REPORT SHOULD BE MADE DIRECT TO THE PRESS OFFICER – Brian Meggison at Southend (0702) 522068 and NOT TO SOUTHEND CHAMBER OF TRADE.

N.B. Figures 2 and 5 mentioned in the report are photographs which will be available at the Press Conference. The Conference will start at 11am prompt and conclude at 12-45pm.

From: Commander C E K Robinson Royal Navy

Office of the Flag Officer, Medway
H.M. Naval Base
Chatham

D Gibbons Esq
The Harbour Master
Medway Ports Authority
Sheerness Docks
Sheerness

10 April 1972

Thank you so much for your letter of 5 April, with its very interesting comments on the HRS report about the "Richard Montgomery". It was also noted by HMS Nurton in her recent survey that a very large scour exists downtime of the wreck, so this, too, supports your comment that there is no evidence of filling of the scour. (scour means that the wreck could tip on its side!)

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I understand that, following the meeting of 28 March, we will be meeting shortly to talk about the wreck buoyage position, and I will telephone to arrange a convenient date.

With best wishes,

C. Robinson

MEDWAY PORTS AUTHORITY
Comments on Hydraulics Research Stations
Report on their investigation of "Wreck
Of S.S. Richard Montgomery Off Sheerness"
January 1971 Report No: EX 508

Monday, August 21st. 1944.

On Tuesday, August 15th. 1944. at 2:02 p.m. pilot Mr. J. Newall aboard, proceeded towards the boom-gate. The deepest draft of the ship was 29 feet aft and decided to anchor outside the gate for the night as it was low water and the pilot Mr. Newall and I thought it not safe to go inside the gate on low water and with the incoming flood-tide, at 3:32 p.m. anchored St.B. anchor and 45 fth. of chain in 7 fath. of water, while at anchor ship was trimmed to a draft of 26 feet 10 inches forward and 28 feet 2 inches aft.

At 1:15 p.m. on Wednesday, August 16th. 1944. hove anchor, 1:23 p.m. anchor aweigh proceeded toward gate and our by the Naval authorities assigned anchorage, 1:56 p.m. passed through gate; when near our anchorage the pilot Mr. J. Newall pointed out the anchorage to me and as there was a ship apparently at our anchorage already and other ships at anchor close to our anchorage we anchored ship at an anchorage with Garrison Pt. Lt. bearing 230 degrees true and Great Nore Tower bearing 70 degrees true. These bearings were taken by the pilot and second mate and checked by me, later the second mate took another bearing of Martello Bk. which was 238 degrees true and showed the ship a little north of the afore taken bearings. all of these bearings were taken per Gyro Compass which had a 2 degree W'ly error at that time. The sounding by fathometer showed 9 fathoms of water.

On Sunday, August 20th. 1944. at 5:55 a.m. I was informed by the chief-mate Mr. L. Guder that the ship was aground aft and that he had tried at about 5:00 a.m. with assistance of the engine and helm to maneuver the ship free of the ground but did not succeed, the weather was calm and the soundings had shown aft at 4:25 a.m. 5 fathom on the stern, 5 fth. abreast of #5 hatch, 4,5 fth. abreast of the amidship-house and 5 fth. 2 feet on the bow. I also was told by Mr. L. Guder chief-mate that the anchor bearings were the same as at the time of anchoring the ship at the anchorage.

At daybreak signal was sent to Sheerness signal-station that the ship was aground and showed aft a draft of 17 foot 2 inches instead of the normal draft of 28 feet 6 inches aft and that a pilot was requested to change anchorage at the next highwater. At 7:50 a.m. ship was breaking between amidship-house and the afterpart of #3 hatch combing, signal was sent to Sheerness and also to Southend Pier that the ship was breaking and requested help. The fires in engine room and galley were extinguished at once to prevent any outbreak of fire by any possible oil fumes.

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At 8:05 a.m. lowered life-boat to bring back 3rd cook L. Ortis whom had jumped overboard, about 8:30 a.m. I left for Sheerness aboard tug and reported the happenings and the conditions of the ship to the British Naval Authorities. After several telephone calls from the station by the commander I was told to go back to the ship and to send all the excess crew off in two crafts which would arrive at the ship shortly. 11:05 a.m. the gun crew and unnecessary crew left ship. At about 11:45 a.m. signaled for tug to take off the remaining crew to stand by on tug away from the ship until high tide as fuses and detonators were stowed in #3 hatch tween-deck near where the ship had broken and I was afraid that those may explode through pressure etc. due to the rise of the fore-ship with the incoming tide.

Crew was taken off by tug at noon time and brought back on the ship at about

4:30 p.m. At about 3:30 p.m. Capt. Brooks of the British Salvage Co., Mr; L. Guder chief-mate of the vessel and myself went aboard of the Richard Montgomery where we met Mr. Johnson and Mr. Moore of the W.S.A. Capt. Brooks, Mr. Moore and chief-mate Mr. L. Guder took soundings of the bilges and then it was decided to commence discharging of the cargo the following morning. www.ssrichardmontgomery.com

At 9:10 p.m. the remaining crew was taken off the ship for safety sake and distributed on four Liberty-Ships in the immediate vicinity for the night.

Willecke
Master