



A research note on the history of ships, places, organisations and events associated with the
Royal Fleet Auxiliary (RFA)

Ocean Tugs of the RFA

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Chart reflecting fleet service of RFA tugs

1 Historical summary – World War One – Committee on Distribution of Tugs (1917) – Tug Section – The Inter-war period – World War Two – Tug Distribution Committee (1939) – Admiralty Rescue Tug Service – CCRT – Campbeltown – HMRT MINONA – HMS NIMROD – HMS BADGER (Harwich) – Sea-going capabilities – Crewing arrangements – T124T Agreement – Messing and duty free privileges – Salvage awards – Recruitment – Training – Towing equipment and emergency rescue provisions – Survivors' kits – Defensive armament – Radar – Radio communications – Demobilisation – Imperfections in the wartime Service

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and berthing) tugs – Nimble class – Coastal and Harbour tugs – Empire boats

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Infographic of fleet service or intended for service as RFA tugs

| RFA Tugs [Pendant No] | Class/Group | 1947 | 1948 | 1949 | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 RMAS | Remarks |
|-----------------------|-------------|------|------|------|------|------|------|------|------|--------------|------------------------------|
| ADVICE A89 | Confiance | | | | | ● | ● | | | | |
| AGILE A88 | Confiance | | | | | | | ● | | | |
| ANTIC A141 | Assurance | | | | | | | | | | |
| BUSTLER A240 | Bustler | | | | | | ● | | | | |
| CAUTIOUS A385 | Assurance | ● | ● | ● | ● | ● | ● | | | | Formerly PRUDENT |
| CONFIANCE A289 | Confiance | | | | | ● | ● | ● | ● | ● | |
| CONFIDENT A290 | Confiance | | | | | ● | ● | ● | ● | ● | |
| CYCLONE A111 | Bustler | | | | | | ● | ● | ● | ● | Formerly GROWLER |
| EARNER A209 | Assurance | | ● | ● | ● | ● | ● | ● | | | Formerly EARNEST |
| EMPIRE ACE A??? | Hoedic | | | | | ● | ● | ● | ● | ● | |
| EMPIRE DEMON A369 | Warrior | | | ● | | | | | ● | ● | |
| EMPIRE FRED A372 | Foremost | | | | | | ● | ● | ● | ● | |
| EMPIRE NETTA A382 | Imp Stella | | | ● | ● | ● | ● | ● | | | |
| EMPIRE PLANE A393 | Maple | | | ● | ● | ● | | | | | |
| EMPIRE RITA A396 | Imp Stella | | | ● | ● | ● | | | | | |
| EMPIRE ROSA A397 | Imp Stella | | | ● | ● | ● | ● | ● | ● | ● | |
| EMPIRE ZONA A309 | Imp Stella | | | ● | ● | ● | | | | | |
| ENCORE A379 | Envoy | | | | | ● | ● | ● | | | |
| ENFORCER A177 | Envoy | | ● | ● | ● | ● | ● | | | | |
| ENVOY A165 | Envoy | | | ● | ● | ● | ● | ● | | | |
| GROWLER A111 | Bustler | | | | | ● | | | | | Later renamed CYCLONE |
| JAUNTY A140 | Assurance | | ● | ● | ● | ● | | | | | |
| PROSPEROUS A254 | Assurance | | ● | ● | ● | ● | ● | | | | |
| REWARD A264 | Bustler | | | | | | ● | ● | ● | ● | |
| ROBUST A366 | Roysterer | | | | | | | | ● | ● | Planned construction for RFA |
| ROLLICKER A502 | Roysterer | | | | | | | | ● | ● | Planned construction for RFA |
| ROYSTERER A361 | Roysterer | | | | | | | | ● | ● | RFA service prior to RMAS |



| | | | | | | | | | | | | |
|----------|------|-----------|--|---|---|---|---|---|---|---|---|--|
| SAMSONIA | A218 | Bustler | | | | | | ● | ● | | | |
| SAUCY | A386 | Assurance | | ● | ● | | | | | | | |
| SPARKLER | A504 | – | | | ● | ● | ● | | | | | |
| TYPHOON | A95 | – | | | | | ● | ● | ● | ● | ● | |
| WARDEN | A309 | Bustler | | | | | ● | ● | ● | | | |

Source: Navy Lists



The Assurance class HMRT (later RFA) JAUNTY – paragraph 2.2 [author’s collection]



Introduction

This research note is an attempt to distil a subject that has surprisingly little primary source material. Over the post-war years Admiralty material including their glossy literature has described 'Ocean Tugs and Salvage Vessels' as '**a small but important branch of the Royal Fleet Auxiliary Service under separate control**'. Largely ignored by shipping historians and despite their clearly specialist skills and equipment they were described to me by one RFA 'tankerman' as '*not proper RFAs*'.

Naval Service tugs fell into broad groups focused upon the tasks they are designed to undertake – for instance – rescue, dockyard berthing, coastal and harbour towage. Post-World-War Two a number of tugs that undertook these tasks were crewed as **Royal Fleet Auxiliaries**.

When undertaking research one could not avoid their unique ancestry – the **Admiralty Rescue Tug Service**. However, this backgrounder is not intended to be a history of that Service but an attempt to aid the identity of those tugs that undertook service as **Royal Fleet Auxiliaries**.

During World War One the description Royal Fleet Auxiliary (RFA) included not only Admiralty tankers but also a number of miscellaneous vessels, such as, repair ships, mooring vessels and salvage vessels. By World War

Two the term RFA was being used in the more defined sense that we understand today.

Unfortunately the comment "*As a general rule... the harbour tugs and coastal salvage vessels wore the blue ensign of the RFA*" made by Trevor Lenton and Jim Colledge in their encyclopaedic 'Warships of World War II' and repeated by other reference works is somewhat misleading. Why? Because during a varied career an Admiralty tug, could have been commissioned and crewed by Royal Navy personnel (White Ensign), by Merchant Navy T124 men (White Ensign), by Merchant Navy seafarers on state service under RFA/NMB conditions (Blue Ensign), by Merchant Navy seafarers when on commercial charter (Red Ensign), and by personnel on Civil Service employment in the Royal Maritime Auxiliary Service (Blue Ensign).

Consequently, this has made it challenging to verify with total confidence those tugs that actually served as Royal Fleet Auxiliaries. Primary evidence comes from sparse official records held in The National Archives at Kew, such as, 'snapshot lists of vessels' published in Admiralty Fleet Orders, from pay and allowances information in RFA Circular Letters and from photographs. Unfortunately not assisted by Naval Stores material that was frequently addressed to: "The Master (all RFAs except Tugs and Salvage Vessels)".



1. Historical summary

1939 – World War Two commences; Tug Distribution Committee re-established; Admiralty Rescue Tug Service introduced T124T manning agreement; ASSURANCE class tugs building programme commences; Admiralty Salvage Section established.

1940 – HM Rescue Tug base MINONA established at Campbeltown; BUSTLER and NIMBLE class tugs building programmes commence; KING SALVOR class ocean salvage vessels building programme commences; coastal salvage vessel building programme commences. The 'Empire' tug acquisition programme commences.

1941 – organised training introduced for HM Rescue Tug crews.

1943 – ENVOY class tugs building programme commences. Coastal salvage vessel building programme commences.

1946 – With termination of T124T the Rescue Tugs commence transfer to 'civilian' crewing with a number becoming **RFAs** for periods of their service; Admiralty plans for post-war salvage organisation were drawn up recommending 'civilian' crewing of these vessels.

1951 – Introduction of standard colour scheme for Admiralty owned harbour vessels and naval servicing craft, eg, tugs; SAMSON class tugs building programme commences.

1952 – CONFIANCE class tugs building programme commences.

1955 – TYPHOON tug ordered as RFA.

1958 – ACCORD class tugs building.

1968 – ROYSTERER class tugs building programme commences as RFAs

1971 – CONFIANCE and ACCORD class tugs merge as CONFIANCE class.

1975 – newly formed RMAS takes over responsibility for the MoD-owned tugs and salvage vessels, including those RFAs in service (eg, TYPHOON) or under construction (eg, ROYSTERER class).

1.1. World War One – On the outbreak of World War One in 1914 the Royal Navy was the largest navy in the world. Its support fleet is estimated to have included 71 tugs – 27 of which were paddle tugs, 16 small berthing tugs of between 40 and 180 tons and five Fleet Tugs of between 400 and 700 tons. The employment of tugs was generally limited to those required for dockyard, harbour and inshore work with management conducted by local Commanders-in-Chief (Flag Officers), Port Admirals or the King's Harbour Masters.

The Admiralty's need for powerful ocean-going rescue and long-haul towage tugs can at most be described as 'occasional' and therefore was largely met by charter from the commercial towage industry.

The war brought an increased need for tugs required by the Admiralty, the War Office and the mercantile shipping



world. The Royal Proclamation of 03 August 1914 conferred powers of requisition on The Lords Commissioners of the Admiralty.

As the war progressed there were many cases of ships that had been mined or torpedoed remaining afloat for a considerable time before sinking. It was *slowly* realised that there would be a good chance of getting some of these casualties into port, and their cargoes saved, if tugs were available to assist. During 1916 the Admiralty introduced the T97F demise charter party covering tugs and other small craft. By January 1917 a plan was conceived for suitably equipped Rescue Tugs to be deployed at ports around the British Isles and in the Mediterranean. Their express purpose being to render prompt assistance to these war risk and marine casualties.

On 02 February 1917, with Admiralty approval, the **Committee on Distribution of Tugs** (more commonly called the **Tug Distribution Committee**) was appointed to enquire and report into the tug situation across the British Isles. Under the chairmanship of Captain E P F Grant CB RN, it included a Captain Peddler who represented the commercial tug industry, and administration appears to have moved rapidly with their first meeting being on 08 February. The Committee's interim report informing the Board of Admiralty on the serious shortage of ocean-going tugs and that large powerful tugs were being used inappropriately, for example, on control duties and in harbours and rivers.

The Board then authorised the purchase of any tugs and vessels suitable for use to enable the release of those large tugs employed on, eg, Examination Service.

The Committee continued to meet fortnightly. It prepared detailed lists of all British tugs and explored a surprisingly wide range of related issues. These included the building of tugs in UK yards, the purchase of tugs from overseas, rates of hire, the deficiency of crews, compulsory towage in particular areas, the amount of towing gear needed to be manufactured, the fitting of W/T sets, the arming of tugs with guns and smoke apparatus, payment of wireless operators and guns crews on board tugs, marine and war risk insurance.

May 1917 a Board of Admiralty decision instituted a **Tug Section of the War Staff of the Admiralty's Trade Division**. A Confidential Office Memorandum detailing this also indicated that the Tug Distribution Committee would remain in being as a Standing Committee tasked to adjust, as necessary, any questions that may arise between the Tug Section and the Director of Transports & Shipping. The Committee was also tasked with drawing up an organisation for tugs on the East coast to provide assistance in the event of any action with the German High Seas Fleet.

This **Tug Section** was placed under Captain Grant and in July Captain C R Watson CMG was appointed chairman of the Tug Distribution Committee. The memorandum instituted procedures for the control of all rescue tugs with allocation and employment, chain of responsibilities



– Senior Naval Officer, Director Trade Division and the Director of Transports and Shipping – covering administration, storing, manning, maintenance and movement. By May 1917 the Rescue Tugs Service had sufficiently developed that a view was taken that if these tugs were to patrol at sea, instead of waiting in port, valuable time would be saved in going to assist casualties. May 1917 also saw the Shipping Controller preside over a conference where, in order to combat inflated prices, it was decided that there should only be one purchaser, for all of HM Government – the Ministry of Shipping.

The Tug Distribution Committee issued its full report in November 1917. This included the stark conclusion that the only source available for further large ocean-going tugs was the British shipyards. On 27 November 1918, at its 54th meeting, the Tug Distribution Committee accepted that owing to the Armistice and the converting of the war tug administration into a peacetime organisation their fortnightly meetings should be suspended. Their 55th and final meeting being held on 05 June 1919.

The Admiralty had largely met its need by purchase and requisition from the trade and with the construction of new tugs. Their construction programme included the ordering of ocean-going rescue tugs, for example:

- FRISKY class (based on the design of the commercial tug RACIA), 1,050 tons designed full load

displacement, average 612grt, 158ft between perpendiculars, triple expansion engines with coal-fired boilers, twin funnels, 1,200ihp, single screw, 12+ knots, lightly armed; three (FRISKY, JAUNTY and SAUCY) were built between 1918 and 1919, all sold off commercially during late 1920s.

- STOIC class (based on a commercial tug designed for Chile), 885 tons designed full load displacement, average 500grt, 141ft between perpendiculars, triple expansion engines with coal-fired boilers, 1,200ihp, single screw, 11 knots, lightly armed; two were building for Chile when requisitioned in 1916; remainder ordered in 1917, all sold out of service early 1920s: CYNIC (ex JUAN SOVERNY), DAINITY, DANDY, SPRY and STOIC (ex PILOTO SIBBALD).
- SAINT class (based on a commercial design), 870 tons designed full load displacement, average 440grt, 142.75ft overall, triple expansion engines with two coal fired boilers, 1,250ihp, single screw, 12 knots, bunkers 230 tons maximum, range 1,700 n.miles @ 9 kts, crew 30; towing equipment – two tow hooks and steam warping capstan; armament – 12pdr gun, 20mm Oerlikons. 44 were built between October 1918 and June 1920 to Board of Trade standards, eg, ST ABBS, ST MINVER; 18 were eventually cancelled. A number seen service in World War Two but none served as RFAs.



- RESOLVE class, that was based on the commercial tug SIR RESOLVE, twin screw large ocean-going tugs, 1,360 tons full load displacement, average 739grt, 182ft overall, two triple expansion engines with four coal fired boilers, two funnels, 2,400ihp, 14 knots, bunkers 350 tons maximum, range 2,450 n.miles, crew 28; towing equipment – two tow hooks and steam warping winch, bollard pull 24 tons; fitted with W/T, armament – 20mm Oerlikons and machine guns. Six vessels were completed between September 1918 May 1919: RESOLVE, RESPOND, RETORT, ROLLICKER, ROYSTERER and ROLLCALL.

Sources: TNA Kew ADM1/9403, ADM116/1739, MT23/335, MT23/450, MT23/514, AMO1864/16.

1.2. The inter-war period – A 1934 Portsmouth harbour incident – the grounding of the Home Fleet flagship HMS NELSON – highlighted the need for more powerful and manoeuvrable tugs for handling capital ships. In the 1936 naval estimates provision was made for three large tugs with a dual role of dockyard service and fleet target towing:

- BRIGAND class (Admiralty design), 1,225 tons full load displacement, 175ft overall, two triple expansion engines with oil fired water tube boilers, 3,000ihp, twin screw, 15+ knots, bunkers 400 tons maximum, range 5,000 n.miles @ 15 kts, crew 49. Large tugs

fitted for firefighting, rescue, salvage and fleet target towing. Designed with two towing hooks and a steam-driven self-rendering winch, bollard pull 32 tons. Constructed for naval manning, to Lloyd's survey and classification. Defensive arrangements included provision for one 3-inch HA/LA and light machine guns. At an average unit cost of £100,000, they were built by Fleming and Ferguson at Port Glasgow as (pendant number/date launched):

1936: BRIGAND (W83/08.07.1937), BUCCANEER (W49/07.09.1937), BANDIT (W69/15.02.1938)

1938: MARAUDER (W98/09.11.1938)

1939: FREEBOOTER (W01/29.11.1940)

Sources: TNA Kew ADM1/9403.

1.3. World War Two – The imminent outbreak of World War Two seen an exceptional demand for tugs. They were required at existing naval bases and dockyards to augment the tug power available and to provide facilities at new bases. The only rescue tugs that the Admiralty had, available, in home waters, were:

- six SAINT class;
- three RESOLVE class; and
- two fleet target towing tugs of the BRIGAND class. A third (HMS BRIGAND) was based in the Mediterranean.



A **Tug Distribution Committee**¹ was rapidly established in August 1939 and tasked with considering and making recommendations to meet the many requirements for naval services. Representatives serving on the Committee were nominated by The Admiralty, Ministry of Transport and Ministry of Shipping and were drawn from government and the tug-operating industry. This ensured that appropriate regard was paid to both commercial and Government requirements and to make recommendations on the allocation of tugs for all purposes.

Just like in the 1914-18 war, services such as Naval Control of Shipping and Contraband Control required boarding vessels with a combination of power, sea-keeping qualities, manoeuvrability and construction strength that could generally only be found in the best tugs. Finally, a service of Rescue Tugs and of tugs for coastwise towages of all type of craft had to be introduced. Rescue tugs were assessed as vessels with an Indicated Horse Power (IHP) of at least 1,000 and capable of deep-sea operations. A September 1939 report from Director of Sea Transport (DoST) to the Tug Distribution Committee showed there were only five commercially owned British tugs in this category. The United Towing Company's: ENGLISHMAN (487grt, 1,350ihp)², SEAMAN (359grt, 1,200ihp), SUPERMAN

(349grt, 1,000ihp); together with Overseas Towing & Salvage Co's NEPTUNIA (798grt, 2,000ihp)³ and SALVONIA (571grt, 1,450 ihp).

The Rescue Tugs were primarily used to tow damaged or disabled ships to the nearest port or suitable beaching place. Initially tugs were stationed at Falmouth (Cornwall) and Campbeltown (Mull of Kintyre) using commercial tugs and crews on charter to the Crown with less formal arrangements for tugs at Peterhead, Harwich and for tug owners to pool their available resources in the Tyne, Humber and Firth of Forth areas. Before the fall of France in 1940 some French naval rescue tugs were available from Brest, Cherbourg and Lorient, Using commercial tugs and crews on charter to the Admiralty. Formal arrangements with the Irish Free State government enabled commercial rescue tugs to operate from Queenstown and Berehaven.

Overall these arrangements were both unsatisfactory and expensive. This resulted in the **Admiralty Rescue Tug Service**, that had been closed down in 1919, being reintroduced on 12 October 1939 under the Director of Trade Division. The section came under a Royal Navy Captain appointed as **Captain-in-Charge, Rescue Tugs** (CCRT). His duties were summarised as being responsible for co-operation with Admiralty departments responsible for the building and efficiency of the Rescue Tugs (both commissioned and chartered) and the provision of

¹ ADM1/19765 - first meeting held Friday 1st September 1939.

² 21 January 1941 war loss with all hands in an air attack.

³ 13 September 1939 war loss, Falmouth-based NEPTUNIA sunk by U29. All her crew survived.



essential stores and equipment. He was also responsible for the allocation and movements of all Rescue Tugs and for the recruitment and provision of all personnel at home and abroad. He also had a requirement to maintain a record of the locations and movements of all Rescue Tugs and of the work carried out by them.

A couple of officers were appointed as **Inspectors of Rescue Tug Equipment** later they adopted the Merchant Navy nomenclature of **Marine Superintendents**. Headquarters staff consisted of a **Deputy CCRT** (Personnel) [Captain RNR], a **Chief Marine Superintendent** [Temp/Commander (E) RNR], **Staff Officer (Maintenance and Equipment)** [Temp/Lt RNVR], plus a small number of civilian support staff.

Eventually there were three **Marine Superintendents** [Temp/Lt Cdr RNR or RNVR] borne on the books of HMS PRESIDENT for duty outside the Admiralty under:

- Flag Officer-in-Command (FOIC) Glasgow, covering Scotland, with the exception of Campbeltown, and responsible for all matters in connection with the commissioning of HM Rescue tugs being built or after requisitioning in the UK;
- FOIC Harwich, covering the area from Flamborough Head to Portland; and
- FOIC Cardiff, this Superintendent covered the area from the West of Portland to the Mull of Galloway.

A Temporary/Commander RNVR was appointed as **Commander-in-Charge Rescue Tug Base** (CRTB) at

Campbeltown. The **Maintenance Officer Rescue Tugs, Campbeltown** fulfilled the Marine Superintendent's duties both at Campbeltown and for Northern Ireland. Overall of this the Director of Sea Transport acted as an adviser to **CCRT**.

The duties of the Marine Superintendents (previously Inspector of Rescue Tug Equipment) was to assist their naval authority on all technical matters in connection with Rescue Tugs, in care and maintenance of hawsers and special equipment. In the early days of the Service their role also included a focus on personnel.

Sources: TNA Kew, ADM1/15548, DO35/1054/6, AFO331/43, AFO870/43.

By November 1940 **HMRT MINONA** at Campbeltown, Argyllshire⁴ was established as a tender to **HMS NIMROD** – the Rescue Tug depot. MINONA was decommissioned in May 1945 when the role transferred to **HMS BADGER** (Harwich). There it remained until circa 1948 when demobilisation arrangements terminated for the T124T scheme.

Within weeks of the outbreak of war at least 50 tugs had been requisitioned and removed from commercial ports for war service elsewhere. This resulted in a tug shortage everywhere. A tug construction programme was introduced but progress was very difficult against the

⁴ Naval Officer-in-Charge Campbeltown was Commanding Officer HMS NIMROD under the Flag Officer-in-Charge, Greenock (AFO2867/40).



higher priority for fighting vessels for the Royal Navy. Although by May 1940 the situation was eased with the arrival of 30 Dutch, French and Belgium 'refugee tugs'. This, however, led to a slowing down of the domestic building programme. The situation again became acute in late 1940 when 'the Blitz' encouraged the move of overseas shipping from London and the South Coast to West coast ports.

In mid-1940 there were 18 armed HM Rescue Tugs, all but one being rated as 'all weather deep-sea' capable. There were nine commercially managed defensively armed tugs of various capabilities with British crews. The Ministry of Shipping (later to become the Ministry of War Transport) chartered nine Dutch-crewed tugs from a managing owner acting on behalf of the Netherlands Shipping and Trading Committee. Five of these – ZWARTE ZEE, THAMES, AMSTERDAM, WITTE ZEE and SCHELDE operated as Rescue Tugs under the orders of the CCRT.

By late 1941 the Rescue Tugs organisation had expanded its ocean coverage. Tugs were now stationed at – Campbeltown, Stornoway, Kirkwall, Peterhead, Aberdeen, Leith, Tyne, Humber, Yarmouth, Harwich, Sheerness, Dover, Falmouth, Milford Haven, Holyhead, Londonderry (NI), St John's NF (Canada), Reykjavik (Iceland), Bermuda and Freetown. One Rescue Tug was kept available in HM Dockyard, Portsmouth.

January 1943 the service had 38 HM Rescue Tugs crewed by 363 officers and 1,117 ratings, also supporting them were 14 Chartered Rescue Tugs including the five

under the Dutch flag. These allied tugs each carried an RNVR Liaison Officer. Their protective coverage had expanded to include the Mediterranean (Gibraltar, Algiers, Malta and Alexandria) and at Colombo to cover the Indian Ocean.

In January 1943 a policy was implemented for sailing Rescue Tugs with Trans-Atlantic convoys and to establish a Rescue Tug Pool Base at Campbeltown with a Western Base in Newfoundland. With this the Tugs became effectively part of the Escort Group and worked in conjunction with their own attendant escort trawler. The two Bases provided administration, rest and recreation for two or two vessels. With the deployment of Tugs to support preparations for Operation Overlord (the Normandy landings) it appears that direct the direct escort support to convoys had to be reduced.

Sources: TNA Kew ADM1/15548, ADM182/102, ADM182/126 (CAFO2893/39, CAFO3139/390, CAFO3140/39), ADM182/130, AFO3680/39, AFO193/40, AFO347/40, AFO2867/40, CAFO4016/39, CAFO2074/40, CAFO2183/40, CAFO2214/40, CAFO873/41, CAFO1671/41, CAFO672/41, CAFO2498/42, CAFO338/44, ADM199/2165.

1.4. Sea-going capabilities – The Admiralty used a method of classifying its Rescue Tugs by their sea-going capabilities:

| Class | Description |
|-------|---------------------------------------|
| A | Tug can proceed to sea in any weather |



| | |
|---|---|
| B | Tug can proceed to sea in any but the heaviest Atlantic weather |
| C | Tug not suitable for heavy Atlantic or very heavy North Sea weather |

Towards the end of the war the Admiralty appeared to apply an additional system of classification:

| Type of tug | Description of tug |
|-------------|--|
| Heavy | applied to the BUSTLER class |
| Large | applied to ASSURANCE and ENVOY class |
| Small | applied to the MoWT ordered EMPIRE class |

Sources: TNA Kew CAFO1671/41, CAFO339/44.

1.5. Crewing arrangements of HM Rescue Tugs – HM Rescue Tugs were part of the Naval Service, when commissioned, they were tenders to the depot or a suitable ship at the bases to which they were attached. They were manned by personnel engaged on the **T124T Agreement**⁵ – *commissioned armed rescue tugs crewed by Merchant Navy and Fishing Fleet men serving under the authority and discipline of the Royal Navy as Naval Auxiliary Members of the Armed Forces of the Crown.* As with any other Merchant Navy employment agreement this was signed in the presence of the Superintendent of the Mercantile Marine Office alternatively by an appropriate Naval Officer. In order that the status of

⁵ This agreement was between Admiralty and a Merchant Navy officer or rating for service in His Majesty's Commissioned Rescue Tugs and was similar to the T124X Admiralty Transferable Agreement.

personnel was clear under international law⁶ they sailed under the White Ensign with a Commissioned or Warranted Commanding Officer and the ship's name was included in the Navy List. Tug masters, engineers and other officers were granted temporary RNR or RNVR Commissions, according to the Certificate of Competency professionally possessed by an individual. For example:

- Masters holding a Board of Trade (BoT)/Ministry of War Transport (MoWT) Certificate of Competence – temporary commission as Lieutenant RNR.
- First Mates holding an appropriate BoT/MoWT Certificate of Competence – granted Lieutenant RNR.
- Chief Engineers holding a BoT/MoWT 1st Class engineers Certificate of Competence – granted Lieutenant (E) RNR.
- Second Engineers holding an appropriate qualification – granted Sub-Lieutenant (E) RNR.
- Uncertified engineers were not commissioned – they were 'Mr' with MN suffixed to their name; with over one years service they could be granted Acting Sub-Lieutenant/Acting Sub-Lieutenant (E) RNVR.
- Radio Officers holding the PMG Certificate of Competence were not granted a temporary naval rank but for compensation purposes were deemed to hold the rank of Acting Sub-Lieutenant RNVR.

⁶ The Hague Convention No VII.



The general complement of HM Rescue Tugs varied slightly depending upon the size of vessel, eg, **(a)** Bustler class, **(b)** Assurance class, **(c)** Nimble class, **(d)** Saint class; this list excludes Oerlikon gunners and DEMS ratings:

| Merchant Navy rank or capacity | (a) | (b) | (c) | (d) |
|------------------------------------|-----|-----|-----|-----|
| Master (Lt RNR)* | 1* | 1* | 1 | 1 |
| Mate (S/Lt RNR) | 1 | 1 | 1 | 1 |
| 2nd Mate | 1 | 1 | 1 | 1 |
| Chief Engineer (Lt (E) RNR) | 1 | 1 | 1 | 1 |
| 2nd Engineer (S/Lt (E) RNR) | 1 | 1 | 1 | 1 |
| 3rd Engineer (S/Lt (E) RNR) | 1 | 1 | 1 | 1 |
| 4th Engineer (S/Lt (E) RNR) | 1 | – | – | – |
| Electrician (Acting/S/Lt (E) RNVR) | 1 | – | – | – |
| Radio Officers* | 2 | 2 | 2 | 2 |
| Boatswain (CPO) | 1 | 1 | 1 | 1 |
| Carpenter (CPO) | 1 | – | – | – |
| Quartermaster (Leading Seaman) | 1 | 1 | 1 | 1 |
| Seaman (AB) } | 10 | 7 | 10 | 8 |
| Ordinary Seaman } | | | | |
| Donkeyman (PO) | 2 | 1 | 1 | 1 |
| Greaser (Leading Stoker) | 6 | 3 | 6* | – |
| Fireman (Stoker) | – | 3 | 8 | 9 |
| Cook (PO) | 1 | 1 | 1 | 1 |
| Assistant Cook (Seaman) | 1 | – | 1 | – |
| Steward (PO) | 1 | 1 | 1 | 1 |
| Asst. Steward (Seaman) | 1 | 1 | 1 | 1 |

* By 1943 up to twelve senior Masters (holding Foreign Going 'tickets) had been granted the rank of Lieutenant-Commander RNR. During 1941, naval wireless telegraphists on Rescue Tugs were, when possible, to be replaced by Merchant Navy Radio Officers on T124T terms. The Brigand class tug MARAUDER has 3 additional Greasers.

The T124T articles included payment on the basis of an agreement by the National Maritime Board (NMB)⁷, ie, certainly in excess of naval pay rates. Additionally Seafarers' War Risk money, introduced in 1939, was paid and this was as high as £10.00 monthly. An allowance was made for uniform and contributing deductions were, eg, made to the Merchant Navy Officers' Pension Fund, towards National Health and Contributory Widows' Orphans'. The non-commissioned tugs were manned by Merchant Navy crews (Red Ensign) serving under the management of their owners, such as United Towing Co Ltd (Hull), Overseas Towing and Salvage Co Ltd (London).

Masters and mates had to cope with the requirements of naval discipline⁸, naval paperwork and the introduction to and following of Naval Store Accounting procedures. Things were also complicated by the commercial messing

⁷ See Annex C a note on National Maritime Board.

⁸ Naval Discipline Act, Section 90



practice where some crews at been signed on at weekly rates of pay and finding their own food⁹.

Messing and duty free privileges – In early 1940 the Admiralty introduced a modification to the crewing agreement with 'food found' arrangements, ie, free messing at Admiralty expense with provisions being drawn from Naval stocks without payment. Duty-free Government stores, such as beer and spirits, was available and the equivalent of 1lb tobacco and 400 cigarettes per person issued on a monthly basis.

Salvage awards – Salvage tended to be conducted under the 'open' Lloyd's Agreement also know as the "no cure – no pay". This was in effect a contract between the Master of the casualty and Master of the salvage tug.

Under King's Regulations and Admiralty Instructions the officers and men serving on Rescue Tugs were able to apply, via The Treasury Solicitor, for a salvage award, or bonus, for the service rendered to a vessel and her cargo.

Sources: TNA Kew ADM182/102 (AFO182/750, AFO858/40, AFO1186/40), ADM182/126 (CAFO 2893/39) (CAFO 3139/390) (CAFO 3140/39), ADM182/130 AFO3680/39, AFO193/40, AFO347/40, ADM199/1238, ADM199/2165, AFO247/43.

1.6. Recruitment and Training – Officially recognised as arduous and exacting work the sea-going personnel of HM Rescue Tug Service were borne on the books of **HMS**

⁹ Under the T124 Admiralty agreement their weekly pay included an element for food – 17 shillings for officers and 10 shillings for ratings.

NIMROD, Campbeltown for **HMRT MINONA**. D/CCRT was responsible for the appointment of officers. Initially officers for the service were recruited from former tug Masters and Merchant Navy officers who had served on small ships. Later Merchant Navy officers with Foreign Going and Home Trade 'tickets were taken on together with a number of uncertified junior officers.

Ratings were recruited from the Merchant Navy, Fishing Fleets and tugboat seamen. As the service expanded some Hostilities Only (RN) ratings were appointed to replace RN General Service ratings. Further a number of youths from the Sea Cadet Corps were accepted as Deck Boys and Ordinary Seamen. Responsibility for the recruitment and drafting of ratings rested with CCRB Campbeltown. Figures below show the manpower on T124T agreement against number of Rescue Tugs available:

| | Number of Tugs | Officers | Ratings |
|--------------|----------------|----------|---------|
| January 1941 | 33 | 54 | 318 |
| January 1942 | 33 | 144 | 566 |
| January 1943 | 51 | 363 | 1,117 |
| January 1944 | 77 | 604 | 1,602 |

1.7. Training – the training of officers recruited for or appointed to the HM Rescue Tugs was at first practical 'on-the-job' training with experienced tug Masters. During 1941 harbour training, for ratings and officers, was introduced at Campbeltown (the training establishment



and anti-submarine base) with experienced tug Masters, ex CPOs and POs RN as instructors. Training included naval procedures, gunnery, signalling, seamanship and ocean towing. During 1942 all new entries were given at least two weeks training before being drafted to a seagoing tugs – this covered application of Kings Regulations and Admiralty Instructions, naval procedures, customs and Naval Store Accounting. Guidance was issued that promotion, where appropriate will be by seniority and that every effort would be made to assist officers to sit for examinations, that continued drafting of officers and ratings from one tug to another would be avoided as far as possible. All movement of officers was directed from the Admiralty and movement of others directed from Campbeltown. In May 1943 the Commodore, Portsmouth Barracks introduced a short, but valuable, Divisional Officers course. There is no evidence of officers going to the RNVR training establishment HMS KING ALFRED.

The expansion of the Service also saw selected youths trained in signalling or gunnery. Upon passing out they were rated OS Signaller or OS Seaman Gunner and were appointed to Rescue Tugs to replace RN ratings who were returned into RN general service.

Spare personnel were initially held at HMS MINONA (Campbeltown) and at Harwich (HMS BADGER). Pools of personnel were later established at Gibraltar, St John's NF, Algiers, Malta and Colombo.

1.8. Towing equipment and emergency rescue provisions – main towing equipment was made available for the Rescue Tugs, eg:

- Hawsers, manila, cable laid, fitted with eye, thimble, and link at both ends: large tugs – two sets 18-inch x 120 fathoms; small tugs – two sets 16-inch x 115 fathoms.
- Steel wire ropes, extra special flexible, fitted with eye and thimble at both ends: large tugs – two sets 5-inch x 60 fathoms; small tugs – two sets 4-inch x 60 fathoms.
- Anchor shackles, large tugs allocated three sets 1-7/8-inch and small tugs allocated three sets 1.5-inch.

Spare sets of towing equipment was held at naval bases and HM Dockyards, and a reserve of 22 large and 12 small sets was available eg:

- Falmouth – 2 large and 2 small sets
- Greenock – 10 large and 5 small sets
- Campbeltown – 8 large sets and 4 small sets
- Rosyth – 3 large sets and 3 small sets
- Portsmouth – 1 large set and 1 small set.

In addition the Rescue Tug Service acquired quantities of steel wire rope, described as extra special flexible, in 250 fathom coils:

- 5-inch – 8 coils to Portsmouth and 8 to Rosyth;
- 4-inch – 10 coils to Portsmouth and 11 to Rosyth.

Line throwing apparatus – this was standardised as Schermuly Rocket Line carrying apparatus.



1.9. Survivors' kit – During 1940 that it was found necessary for the Rescue Tugs to carry spare dry clothing for survivors picked up at sea from sunken ships. Arrangements were made with a charity, the British Sailors' Society, to supply up to 20 sets of 'kits for survivors'¹⁰, to be carried on Rescue Tugs. Additionally arrangements were also made for Royal Naval Victualling Yards to supply these tugs with provisions¹¹ reserved for survivors and based on 20-men for four days.

Sources: TNA Kew AFO2514/40, AFO2069/40, AFO269/41, CAFO2069/40.

1.10. Defensive armament and radar – Within weeks of the start of war the arming of merchant ships including deep sea Rescue Tugs became a matter of priority. Whilst an individual ship's armament may vary from time-to-time, examples of the basic official armament shown in the table below:

Examples of the typical DEMS armament of HM Rescue Tugs by class, eg, (a) Bustler class, (b) Assurance class, (c) Nimble class, (d) Brigand class, (e) Empire group:

¹⁰ An individual survivor's set comprised: oilskins including Sou'wester, woollen vest and long pants, cardigan or sweater, trousers with braces or belt, socks, shoes, a muffler, woollen gloves or mittens and what was described as a stout handkerchief.

¹¹ Provisions: 5lbs jam, 4lbs tea, 12lbs bacon (tinned), 5lbs coffee, 36lbs corned beef, 56lbs biscuit (in tins), 72 tins assorted vegetables, 24 tins Salmon, 48 tins unsweetened milk, 12 tins sausages, 25lbs sugar, 10lbs rice, 3lbs salt and that important one gallon of rum.

| Weapon* | (a) | (b) | (c) | (d) | (e) |
|------------------------|-----|-----|-----|-----|-----|
| 3-inch HA/LA guns | 1 | 0 | 1 | 1 | 0 |
| 12pdr HA/LA guns | 1 | 1 | 0 | 0 | 0 |
| 20mm Oerlikon cannons | 2 | 2 | 1 | 1 | 1 |
| 2pdr pom-pom guns | 1 | 0 | 0 | 0 | 0 |
| Lewis machine guns | 2* | 0 | 1* | 0 | 2* |
| Hotchkiss machine guns | 0 | 2 | 0 | 2 | 0 |
| Holman projector | 0 | 0 | 0 | 0 | 0 |

*Some tugs were supplied with PAC Outfits; alternatively twin 0.5-inch Mk IV Colt gun mounts.

Armament arrangements also included degaussing and smoke apparatus. There is no evidence of the fitting of paravane bow protection against moored mines.

1.11. Radar – from around 1942 the defensive fitting of radar was actively introduced and what was then known as 'a surface warning set' was slowly introduced on mercantile type vessels. Radar was retrofitted onto many Rescue Tugs, eg, Type 253 IFF transponder, to work with Mk III IFF system, was fitted to the Bustler class as an A&A issued in 1944 and by 1946 some had the Type 268 with PPI fitted. By 1958 a further A&A authorised the fitting of Type 955 radars and IFF Mk10 transponder.

Sources: TNA Kew CAFO1671/40, CAFO796/42, CAFO339/41.



1.12. Radio communications – Communications was vital at sea and particularly for those involved in ocean towage and salvage. Marine radio installations had to comply with international conventions around the Safety of Life at Sea (SOLAS) conventions, eg, 1929, 1948. British ships (excluding warships) were subject to statutory legislation, such as, The Merchant Shipping (Wireless Telegraphy) Rules 1938 and W/T orders issued under Defence Regulations.

Ship-shore, and ship-ship communications was largely by use of Wireless Telegraphy (Morse Code). Vessels were fitted with equipment supplied by commercial companies, such as, Marconi, Siemens and IMRC, on a rental/maintenance basis. Although specified in Merchant Shipping (Wireless Telegraphy) Rules the scale of radio equipment and installation of aerial systems was really depended upon the tonnage and physical space available on an individual tug.

For example, a 1.5kW main W/T MF/HF transmitter (possibly with a voice facility) and a general purpose receiver; reserve telegraph transmitter and receiver; MF radio direction finding equipment; automatic alarm receiver set on the international W/T distress frequency (600metre/500kHz), and a mobile lifeboat radio set. Increasingly during World War Two radiotelephony (R/T) was employed and later VHF R/T equipment installed for tactical ship-ship working.¹²

¹² There is no evidence of HF D/F (Huff Duff) fittings on Rescue Tugs. By the end of the War the majority of ships in the Fleet were fitted with

Such radio installations had to be worked by qualified operators holding a Certificate of Competence in Wireless Telegraphy (the PMG) First or Second class – Radio Officers who worked commercial procedures and the Broadcast for Allied Merchant Ships (BAMS) organisation – a global-based Area system.¹³ Normal working was on MF (500kc/s). The shore-to-ship practice was that of shore stations broadcasting scheduled traffic lists, that is, the listing of ships in alphabetical call sign order so alerting each ship to stand-by for messages. After broadcasting these lists messages specific to individual vessels were then transmitted on an appropriate working frequency.

In 1939 approval was given for the Rescue Tugs to be manned by T124T personnel and this included their Radio Officers. Wartime regulations, such as, the Wireless Operators and Watches (Merchant Ships) Order 1940 and 1941, required many vessels to carry three, or more, operators maintaining a 24-hour watch resulting in an immediate shortage of trained operators. To deal with this the training was accelerated and wireless training schools ordered to focus on a lesser qualification – the PMG ‘Special’ Certificate; additionally various ‘watch

the 50 watt American TBS series of VHF MCW/RT transceiver, also known as ‘talk-between-ships’ working in 60 to 80 MHz range.

¹³ This British Commonwealth’s Area Broadcast (GBMS) scheme was phased out in 1968.



keeping work-arounds' were used but on the ocean tugs it was necessary for the Admiralty, as a temporary solution, to draft in Royal Navy Wireless Telegraphists.

This was an inappropriate situation because of the status and substantial pay differences between T124T Radio Officers and the Naval Ratings. Also the W/T Ratings were not familiar with the merchant shipping radio organisation that worked 'commercially' and independently from the Royal Navy's comprehensive system and procedures. The Admiralty agreed that W/T Ratings in Rescue Tugs would be relieved every six months.

Sources: TNA Kew ADM199/2371, AFO1683/41; QSO Journal of the ROs' Association (various editions); NAVSHIPS 900-590 TBS series handbook.

1.13. Demobilisation – It was HM Government's aim that demobilisation would be underway by 31 December 1945. Generally Merchant Navy officers and ratings did not have a demobilisation and no benefits were paid to them. In fact they were worse off as the War Risk pay ceased and their gunnery allowances ended. Under a Cabinet decision of February 1945 personnel who were signed on T124T articles were confirmed as members of the Armed Forces of the Crown. CCRT's responsibilities included the crewing, promotions, drafting and arrangements regarding pay and conditions for personnel on the Rescue Tugs. Therefore, working in conjunction with Director of Sea Transport and the Registrar General

of Shipping and Seamen, he became responsible for the arrangements and procedures for their demobilisation.

This was dependent upon age and length of service and carried release benefits that included resettlement leave and a full outfit of civilian clothing (the 'demob suit'). However, the T124s were not paid gratuities and post-war credit of wages. These gratuities were only paid to members of the armed forces who were on Service rates of pay. As T124T personnel had been paid NMB rates that were well above the Service rates and therefore excluded. This was a source of discontentment.

Source: BR1075 Demobilization of the Navy 1945-1948.

1.14. Imperfections in the wartime Service – Things were also complicated by the commercial practice of some crews being signed on at weekly rates of pay and finding their own food ¹⁴, although this was altered early 1940 with re-engagement at monthly rates with food found (called free Naval messing). One of the significant faults of the HM Rescue Tug Service that caused resentment was the system of engaging T124T officers and ratings. This Admiralty agreement was based on the lines of the Merchant Navy form of Ship's Articles of Agreement. However, unlike standard Merchant Navy Articles signatories they undertook to serve for the period of the war therefore they were on continuous articles,

¹⁴ Under the T124 Admiralty agreement their weekly pay included an element for food – 17 shillings for officers and 10 shillings for ratings.



agreed to be transferrable between ships and subject to Section 90 of the Naval Discipline Act.

Merchant Navy pay was in accordance with the National Maritime Board Agreement. This meant that T124T ratings received a higher rate of pay than RN ratings serving in the same tug. T124T personnel additionally received Seafarer's War Risk Money (introduced in 1939 to recognise the seagoing risks taken by Merchant seafarers). This rose to as high as £10.00 per month.

Management of this small diverse service, as an integral part of the Royal Navy, proved to be a challenge. So much so that by 1944 it was strongly recommended that should it be necessary to set up a similar organisation in future the Officers and Ratings should be recruited as General Service (Hostilities Only) and not on T124T Agreements.

Wartime experience also demonstrated that Warrant Engineers and Engine Room Artificers would be more than capable to run the engine rooms of Rescue Tugs instead of MN qualified engineers holding the temporary commissions.

As is common amongst seafarers the HM Rescue Tug Service was not excluded from attracting nicknames and was known as the 'Campbeltown Navy' and their T124T crews the 'Tattie Lads'.

Source: TNA Kew ADM199/2165.

2. The tugs

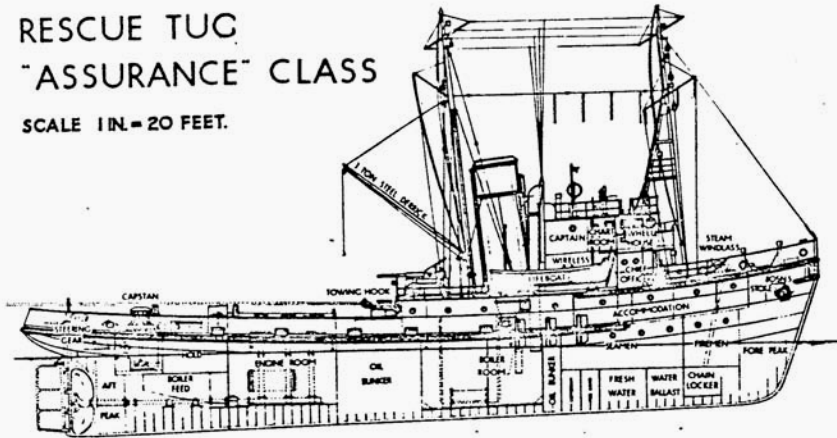
2.1. Tugs are manoeuvrable powerful vessels that range for their size from 100grt to 1,600grt that are commonly categorised by their engine power. Traditionally they have a distinct profile with a raised bow, superstructure, mast and funnel amidships to slightly forward. Their low flat deck aft is fitted with a towing winch and towing hook(s). **Rescue tugs** are large ocean-going tugs with good endurance, good speed and capable of withstanding the worst mid-ocean weather conditions; requiring a good standard of habitability with accommodation and lifesaving arrangements conforming to Board of Trade/Ministry of Transport requirements and fitted with extensive rescue, fire, salvage and towing gear.

2.2. ASSURANCE class – a new naval construction that was based on a modification of the 571grt commercial tug SALVONIA. Initially four were ordered by the Admiralty, subsequently 21 were built by Cochrane & Sons Ltd, Selby between 1939-1942. Post-war eleven are known to have been earmarked for or served for periods as RFAs.



RESCUE TUG
"ASSURANCE" CLASS

SCALE 1 IN. = 20 FEET.



- Admiralty design, 1,006 tons full load displacement, 156.5ft overall, triple expansion machinery, 1,350ihp, 13 kts, fuel oil 260 tons, range 5,000 n.miles, crew 30, endurance average 21 days; fitted for firefighting, rescue, salvage and fleet work. Designed with towing hooks and bits, a steam wrapping winch, bollard pull 13.5 tons. Built for naval manning, to Lloyd's survey and classed +100A1 for towing. Defensive arrangements included provision for one 3-inch HA/LA or 12 pdr and light machine guns, later updated to 20mm Oerlikons. At an average unit cost of £69,000. *A number served or were allocated for service as RFAs. These are shown in **bold** (pendant number/date launched):*

1939: ASSURANCE (W59/23.05.1940)

PRUDENT (W73/A385/06.08.1940) renamed **CAUTIOUS** in 1947

RESTIVE (W39/04.09.1940)

TENACITY (laid down as DILIGENT (W18/22.06.1940)

1940: FRISKY (W11/27.05.1941)

JAUNTY (W30/A140/11.06.1941)

1941: ADEPT (W107/25.08.1951)

ADHERENT (W108/25.09.1941)

CHARON (W109/21.11.1941 renamed

ALLIGATOR)

DEXTEROUS (W111/03.04.1942)

GRIPER (W112/16.05.1942)

HENGIST (W110, launched 20.12.1941 as

DECISION and not renamed until 1948)

HORSA (W97 launched 29.07.1942 as RESCUE)

PROSPEROUS (W96/A254/29.06.1942)

1942: **ALLEGIANCE** (W50/A150/22.02.1943)

ANTIC (W141/A141 launched 24.03.1943 as ANT),

ASSIDUOUS (W142/04.06.1943)

EARNER (W143/A209 launched 03.07.1943 as EARNEST)

SAUCY (W131/A386/26.10.1942)

SESAME (W144/01.10.1943)¹⁵

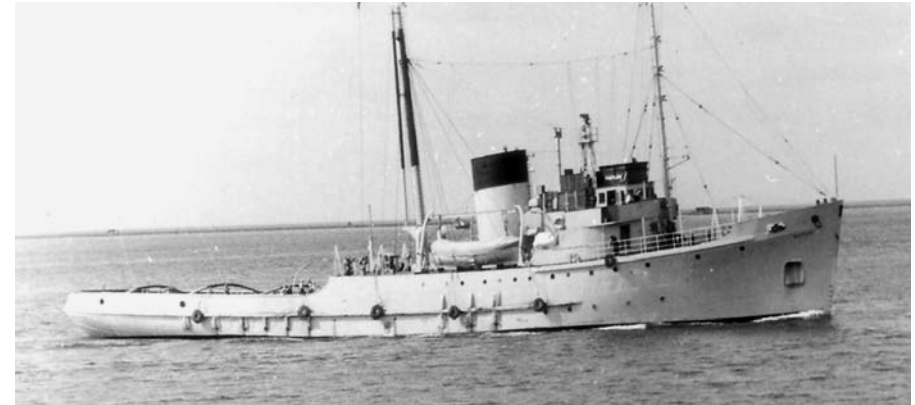
¹⁵ Throughout this Backgrounder an individual vessel names appearing in bold capitals (eg, **SAUCY**) indicates that under this name the tug served as, or was earmarked for service, a Royal Fleet Auxiliary at some during her post-war career.



STORMKING (W87 launched 24.11.1942 as STORMCOCK, renamed TRYPHON)

2.3. BUSTLER class – in April 1940 approval was given to order two single shaft diesel powered vessels from Henry Robb Ltd of Leith. These were the diesel powered fleet tugs and based on a design prepared by Robb's in conjunction with Overseas Towing and Salvage Co, London and built to Lloyd's Rules. Unusual for tugs they were fitted with a small hospital.

- 1,618 tons full load displacement, 205ft overall, two 8-cylinder Atlas diesels, around 3,200bhp, 15 kts, oil fuel 340 tons, range 14,000 n.miles, crew 42, endurance average 30 days; fitted for firefighting, rescue, salvage work. Designed with towing hook self-rendering winch, bollard pull 28 tons. Built for naval manning, to Lloyd's survey and classification. Defensive arrangements included provision for one 3-inch HA/LA or 12 pdr, two 20mm Oerlikons and light machine guns. At an average unit cost of £146,000, they. Eight BUSTLERs were eventually completed. *Six of the class are known to have served for a period as RFAs.*



RFA BUSTLER [author's collection]

The Bustler's were (pendant number/date launched):

- 1940: **BUSTLER** (W72/A240/04.12.1941),
SAMSON renamed **SAMSONIA**
(W23/A218/04.04.1942)
- 1941: GROWLER renamed **CYCLONE**
(W105/A111/10.09.1942)
HESPER renamed HESPERIA (W106/10.11.1942)
- 1942: MEDIATOR (W125/21.06.1944),
REWARD (W164/A264/13.10.1944),
TURMOIL (W169/comp. 25.08.1945)
WARDEN (W170/A309/28.06.1945)

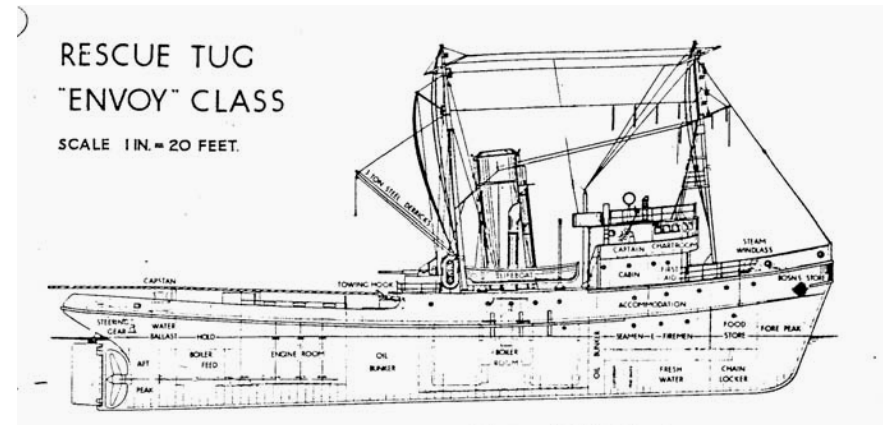
2.4. ENVOY class – in 1943 six vessels were ordered by the Ministry of War Transport through the Director of Merchant Shipbuilding for Admiralty service. Rather similar in size to the ASSURANCE class, these steam-powered, single shaft, vessels were initially known as



Improved Assurance class before settling as the **ENVOY** class. At an average unit cost of £85,000, six were ordered from Cochrane & Sons Ltd, Selby and built for cold climate service to Lloyd's class +100A1 for towing. *Three are known to have served for a period as RFAs.*

- Displacement full load 1,318 tons, length 174.5 ft overall, triple expansion with oil fired cylindrical boilers, 1,700ihp, 13 knots, oil fuel 370 tons, range ?,??? n.miles, crew 34; fitted with two tow hooks and bits, fire and salvage pumps, bollard pull 16 tons. Armament one 3-inch or 12pdr gun, two 20mm Oerlikons plus 0.5-inche Colt machine guns.

- 1943: ENCHANTER (W178/02.11.1944)
ENCORE (W179/22.12.1944)
ENFORCER (W177/22.07.1944)
 ENIGMA (W175/22.06.1944)
 ENTICER (W166/11.03.1944)
ENVOY (W165/A165/11.02.1944).



2.5. BATs and ATRs – Between 1942-44, the Admiralty acquired a number of ocean-going Rescue Tugs the under lend/lease agreement. Constructed in the United States, their American design was based on that of the ASSURANCE class. This construction programme comprised the BAT (British Ocean-going Tugs (lend-lease)) and a repeat ATR (Auxiliary Tugs Rescue). The Admiralty also acquired four slightly larger double-skin wooden hull tugs – formerly BATRs (British Auxiliary Tugs Repeat). *None of these US-built tugs entered post-war British service as Royal Fleet Auxiliaries:*

- 800 tons full load displacement, 143ft overall, breadth moulded 33ft, depth moulded 17ft; diesel-electric powered with two 950 bhp General Motors engines driving two 605kW 560v generators, 1,500 shp, twin screw, 14.5 knots, bunkers 173t diesel oil, endurance 7,200 n.miles at 13.5 knots. Designed with a self-



rendering electric towing winch and a Monarch type towing hook. Built for naval manning by a crew of 35. Officer's accommodation was described as good, but the rating's accommodation was below British standards. Defensive fittings included provision for a single 3-inch HA/LA gun and two single 20mm Oerlikons. They were of welded constructions with a building time of 5 to 10 months. Fitted with Carley Floats instead of traditional lifeboats. Fourteen BATs and ten ATRs were taken up by the Admiralty, for example: EMINENT (ex USN BAT-10), EMPHATIC (ex USN ATR-96).

- BATRs – around 1,298 tons full load displacement, overall length 165ft and steam powered by single triple expansion machinery, 1,600 ihp, single screw, 12 knots, bunkers 247 tons FFO, endurance 3,240 n.miles at 10 knots, crew 32; towing equipment – spring tow hook, bollard and electric winch. Armament similar to the BATs and ATRs. Four were completed in 1943-44: DIRECTOR (ex BATR-17), EMULOUS (ex BATR-18), FREEDOM (ex BATR-19) and JUSTICE (ex BATR-20); construction time was around 15 months.

2.6. Dockyard tugs – largely employed on towing and berthing heavy ships into harbour, reberthing, coastal towing and target towing. These tugs needed to be very manoeuvrable and were capable of some sea-going work.

Initially all five vessels of the inter-war period **BRIGAND** class came into service in a 1936-1939 programme. See paragraph 1.2.

A further class of four large tugs – the **NIMBLE class** – a modified version of the Brigand class HMS MARAUDER, were built in the 1940-1943 programme. The first, HMS NIMBLE, was built to British Corporation Rules and completed as a Rescue Tug; the rest, built to Lloyd's Rules, were rated as Dockyard Tugs.

- 1,216 tons displacement full load, 175.75ft overall, two triple expansion engines, twin screw, 3,500ihp, 15 knots, oil fuel 412 tons, range 3,600 n.miles, crew 44; fitted with two towing hooks, fire and salvage pumps, bollard pull 28+ tons. Armament one 3-inch HA/LA, up to three 20mm Oerlikons plus machine guns. EXPERT and CAPABLE were completed after end of war as unarmed.

They were originally built with an open bridge that was later built up and enclosed. Building programme was undertaken by Hall, Russell & Co Ltd, Aberdeen and by Fleming and Ferguson. CAREFUL and EXPERT were fitted for service in hot climates. CAPABLE, in 1948, was fitted for trials with a variable pitch propeller and her bollard pull was increased to 36-tons. *There is inadequate evidence to show any of this class served as RFAs:*

1940: NIMBLE (W123/A223/04.12.1941)

1943: CAPABLE (W171/A508/22.11.1945)



CAREFUL (W172/A293/23.10.1945)
EXPERT (W173/A172/14.02.1945).

2.7. Coastal and Harbour tugs – overall the majority of new wartime tug construction was ordered by the Ministry of War Transport and broadly known under the Crown prefix of **EMPIRE**. A number of vessels were allocated to the Admiralty with the majority being assigned to British tug operators and shipowners for managed service under the Red Ensign. The EMPIRE boats were not a class, but a range of tugs that with a general requirement: reciprocating engines with IHP in the range of 800 to 1,100, speed around 11 knots, typical dimensions of around 100-125ft with a gross register tonnage under 300 tons, endurance average 10 days, fitted with two towing hooks, heavy bollards and fairleads. *The following served for a period as RFAs:*

EMPIRE ACE Hoedic class tug, launched 12.09.1942 by Cochrane & Sons Ltd, Selby; 31.03.1947 handed over to Admiralty; r/n DILGENT, renamed EMPIRE ACE in 1961, 1964 RFA service

- 425 tons displacement, 278grt, 111.5ft overall, triple expansion engine, single screw, 850ihp, 11 knots, oil fuel 93 tons, range 2,600 n.miles.

EMPIRE DEMON Warrior class tug, launched 31.12.1942 by J Crown & Sons Ltd, Sunderland; 04.1949 handed over to Admiralty for RFA service.

- 425 tons displacement, 268grt, 113ft overall, triple expansion engine, single screw, 1,030ihp, 12 knots, coal bunkers 140 tons.

EMPIRE FRED Foremost class tug, launched 11.09.1942 by A Hall & Co Ltd, Aberdeen handed over to Admiralty; 1955 for RFA service.

- 391 tons displacement, 234grt, 105.2ft overall, triple expansion engine, single screw, 938ihp, 11 knots, oil fuel 100 tons.

EMPIRE NETTA Improved Stella class tug, launched 21.09.1945 by Fleming & Ferguson Ltd, Paisley; 1949 handed over to Admiralty for RFA service.

- 508 tons displacement, 268-297grt, 123ft overall, triple expansion engines, single screw, 525ihp, ?? knots, oil fuel 130 tons.

EMPIRE RITA Improved Stella class tug, launched 15.12.1945 by Blyth Dry Docks and Shipbuilding Co Ltd, Blyth; 1949 transferred to Admiralty on RFA service.

EMPIRE ROSA Improved Stella class tug, launched 06.12.1945 by Blyth Dry Docks and Shipbuilding Co Ltd, Blyth; 1949 transferred to Admiralty on RFA service.

EMPIRE ZONA Improved Stella class tug, launched 26.10.1945 by Fleming & Ferguson Ltd, Paisley; 1949 handed over to Admiralty for RFA service.

EMPIRE PLANE Maple class tug, launched 09.11.1941 by Richard Dunston Ltd, Thorne; 31.03.1947 handed over to Admiralty for RFA service.



- 275 tons displacement, 129grt, 92.5ft overall, triple expansion engine, single screw, 443ihp, 11.5 knots, coal 34 tons.

There was a single oddball vessel, a one-off estuary and harbour tug – **SPARKLER** (A504) launched 25.05.1940. Built by Yarwood (1939) Ltd, Northwich in 1940 and purchased by the Admiralty.

- 270 tons displacement, 96.5ft overall, triple expansion engine, single screw, 500ihp, 11 knots, coal bunkers, crew 9. July 1955 apparently entered RFA service for harbour duties with HMS FERRET at Londonderry.

Sources: TNA Kew ADM182/161, AFO1872/49.

3. Post-war changes in administration and new construction

3.1. Civilian crewing – With hostilities concluded the Admiralty did have a significant fleet of well found specialist tugs – 34 ocean tugs and a range of ocean-going salvage vessels and supporting equipment. A 'Department Committee for peacetime policy for salvage and deep sea rescue work' was set up. With the much criticised post-World War One sell off in mind they discussed how to go forward in peacetime and to learn the lessons gained during the war.

Planners agreed that tugs were to be transferred from naval (White Ensign) as there were no suitable naval personnel available and the 'unsuitable' T124T agreements were discontinued. To enable civilian crewing

of these ships many had to be surveyed to MoT standards and registered as merchant ships under OIC1911. It was also agreed for some of these vessels to be chartered to British commercial companies, eg, Metal Industries Ltd, and be available in event of a future emergency.

Royal Fleet Auxiliaries – By 1947 responsibility and administration for salvage, towing and wreck dispersal was transferred to the **Director of Boom Defence and Marine Salvage** (DBDMS). Much later this became the **Director General Dockyards and Maintenance (Maine Services Division)**. Around 1948 RFA Tugs were allocated Base Ports (see following tables) and they came under the administration of the Commander-in-Chief. Day-to-day administration including supervision, inspection and maintenance was conducted through the local Boom Defence Officer who around 1958 was retitled as the Mooring and Salvage Officer. It was necessary for some of these vessels to be crewed under BoT/NMB Eng.4 Foreign Trade and Home Trade Articles with RFA conditions of service consequently the responsibility for this went to a department with extensive experience in this area – the **Director of Stores**. Later to be morphed into the **Directorate of Fuel Movements and Transport (Naval)**. Responsibility for discipline, pay, accounts and manning was with the local Superintending Naval Stores Officer. Officers were nominated by the Director of Boom Defence and Marine Salvage.

Some tugs on Home Trade Articles were crewed on 'find their own food'. However most of the RFA tugs were on



free messing. Crews were also entitled to a 10 per cent Ocean Tug Allowance.

| RFA Tugs (1948) | Allocated base port |
|-----------------|---------------------|
| CAUTIOUS | Chatham |
| EARNER | Rosyth |
| ENFORCER | Rosyth |
| ENVOY | Devonport |
| JAUNTY | Devonport |
| PROSPEROUS | Portsmouth |
| SAUCY | Portsmouth |

Source: ADM182/154.

| RFA Tugs (1950) | Allocated base port | Ship's Articles |
|-----------------|---------------------|-----------------|
| CAUTIOUS | Chatham | Foreign going |
| EARNER | Rosyth | Foreign going |
| EMPIRE DEMON | Londonderry | Home Trade* |
| EMPIRE NETTA | Pembroke Dock | Home Trade |
| EMPIRE PLANE | Greenock | Home Trade* |
| EMPIRE RITA | Greenock | Home Trade* |
| EMPIRE ROSA | Pembroke Dock | Home Trade |
| EMPIRE ZONA | Greenock | Home Trade* |
| ENFORCER | Rosyth | Foreign going |
| ENVOY | Devonport | Foreign going |
| JAUNTY | Devonport | Home Trade |
| PROSPEROUS | Portsmouth | Foreign going |
| SAUCY | Portsmouth | Foreign going |
| SPARKLER | Londonderry | Home Trade* |

* find own food.

Source: ADM182/161.

3.2. New construction – The Admiralty planned a series of new construction to replace the wartime built ships and to meet the modern demands of shiphandling and salvage. During the 1950s they ordered a number of tugs. Those for sea-going towage and salvage work included the **SAMSON class** and the **CONFIANCE class**, the large ocean-going tug **TYPHOON** and finally the large and expensive **ROYSTERER** class.

3.3. SAMSON class – Three steam tugs of this class were ordered in the early 1950s. They were used mainly for dockyard work in Portsmouth, Devonport and Malta.

Construction programme: **SAMSON** (A390, completed 1954), **SEA GIANT** (A288, completed 1955), **SUPERMAN** (na, completed 1954).

- 1,200 tons displacement, 854grt, 180.5ft overall, triple expansion engines, twin screw, 825ihp, 15 knots, oil fuel 316 tons, range 5,000 n.miles, crew 30; fitted for firefighting, salvage and with oil pollution control gear, bollard pull 30 tons.

3.4. ACCORD and CONFIANCE classes – Five 760-ton motor tugs of what finally became known as the **CONFIANCE class** were ordered circa 1954 as two separate groups. Designed for sea-going towage they were fitted with salvage and firefighting equipment and a towing winch. The 'A-group' were initially rated as dockyard tugs and were added to the class in 1971. The A-group were also known as the **ACCORD class**. The two



hulls that original formed the CONFIDENCE class were actually salvage tugs built as a private venture that was taken over by the Admiralty.

Construction programme: ACCORD (A90, completed 1958), **ADVICE** (A89, completed 1959), **AGILE** (A88, completed 1959), **CONFIDANCE** (A289, completed 1956), **CONFIDENT** (A290, completed 1956).

- 760 tons displacement, 650grt, 140ft overall, diesel engines, twin screw, 1,600bhp, 13 knots, oil fuel ?? tons, range 5,000 n.miles, crew 22, bollard pull 24.6 tons. Fitted for but not with one 40mm Bofors gun.



RFA TYPHOON [author's collection]

3.5. TYPHOON (A95) completed 1960 she was a one-off 1,380 ton ocean-going salvage and rescue tug, 26.08.1955 ordered from Henry Robb & Co Ltd, Leith.

She entered service in 1960 as Royal Fleet Auxiliary crewed by Director of Stores under NMB Agreement and under the working control Director of Marine Services (Director General Dockyards and Maintenance).

- 1,380 tons displacement, 1,034grt, 198.70ft overall, diesel engines, single screw, 825ihp, 15 knots, oil fuel ?? tons, range 15,00 n.miles, crew 27, bollard pull 33 tons, bollard pull 33 tons.

3.6. ROYSTERER class later known as the **R class** – the Admiralty needed to replace its aging ocean-going assets and in 1968-70 ordered a class of three tugs for ocean towing, firefighting, salvage and heavy harbour duties. The **ROYSTERER** at 1,630 tons they were the largest and most expensive tugs build for the Naval Service. They were designed for the MoD (Navy) and ordered under 1968-1970 building programme from Charles D Holmes, Beverley. They were intended to be crewed as Royal Fleet Auxiliaries by Director of Fuel Movements and Transport (Naval) while working under the control of Director of Marine Services (Director General Dockyards and Maintenance). Built to meet Lloyd's standards, but in an attempt to save money their original design was reportedly shortened by some 30ft. Construction delays meant they entered service many years late and reportedly cost 'well' over £2m each, more expensive than a commercial equivalent. There is no verifiable evidence that they were registered under OIC1911 for service as Royal Fleet Auxiliaries and by the time they



fully entered service, operational administration was being transferred from DFMT(N) to the newly formed **Royal Maritime Auxiliary Service** (RMAS) under the administration of the Director of Marine Services (Naval) at Foxhill, Bath. Construction programme: ROBUST (A366, completed April 1974), ROLLICKER (A502, completed March 1973), **ROYSTERER** (A361, completed April 1972).

- 1,630 tons displacement, 1,036grt, 179.7ft overall, diesel engines, twin screw, 4,500 bhp, 15 knots, oil fuel 93 tons, range 12,300 n.miles, crew 31, bollard pull 50 tons.

Sources: Lloyd's Register; TNA Kew ADM1/9403, ADM116/1739, Confidential Office Memorandum 02 May 1917 on forming of Tug Section, ADM1/19386, MT63/152, MT23/153, NHB's WTSPS' early ships list', AFO2338/48, 1939-1945 Records of Warship construction – chapter XXXIII Tugs; WSS (David Sowdon, James R Smith), Maritime Journal February 2006.

Annex A. **Note on colour schemes**

In 1951 the Admiralty established a standard system of general colouring was introduced for all Admiralty owned harbour vessels and naval servicing craft:

- Hull – black
- Upperworks and funnel – buff
- Fittings – boats upper half black, lower half white
- Davits, stanchions – black
- Lifesaving appliances – white

Distinguishing colours:

- Hull – band of colour indicating administering authority, round the hull adjacent to rubbing strake or other convenient position
- Funnel – band of distinguishing colour round the funnel. For the colours white and yellow the band to be between two bands of black, the top black band being the usual black funnel top. For colours blue, green and red, the colour to be separated from the black funnel top by a band of buff colour

Colours

Colours appropriate to Administering Authorities to be:

- Director of Dockyards – Azure blue
- Director of Stores – Yellow
- Director of Victualling – Green
- Director of Armament Supply – Red
- Civil Engineer-in-Chief – White
- Naval Servicing Craft (Fleet) – Nil

Sources: TNA Kew ADM1/7746, AFO4117/51



Annex B. **Royal Maritime Auxiliary Service**

By 1959, in interest of greater efficiency and economy, the Admiralty had organised that all Yard Craft, including many of its tugs, ferries, salvage craft, self-propelled and dumb craft should be brought under one overarching body known as the **Port Auxiliary Service** (PAS)¹⁶.

On 01 October 1975 administrative changes had taken a step further and the ocean tugs and salvage vessels serving as RFAs were amalgamated into one organisation – the **Royal Maritime Auxiliary Service** (RMAS). This Service came under the administration of the Director of Marine Services (Naval) at Foxhill, Bath.

Their initial colour scheme black hull, light grey superstructure and funnel with black top band. Their pay scales and conditions of service continued to be linked with the NMB with onboard food and accommodation provided. However, later officers, who became known as Marine Services Officers, pay and conditions was aligned with those for non-industrial Civil Servants, including the Principal CS Pension Scheme. Ratings were classed as industrial Civil Servants. By 1995 the RMAS flotilla comprised nearly 100 named vessels and some 300 small craft. However, following politically-inspired marketing test the majority of the fleet was transferred to Serco-Denholm Ltd on 12 August 1996. The flagship of the remaining RMAS was the support vessel RMAS NEWTON until total privatisation was transferred to Serco-Denholm

Marine Services Ltd¹⁷ in 2007. The RMAS was disbanded on 31 March 2008 and the flag of the RMAS was last flown 01 April 2008 at a disbanding ceremony on the mooring vessel MOORHEN.

Sources: TNA Kew ADM1/10097, ADM1/20327, Office Aquaint 441 18 November 1939, CAFO3569/39; Maritime Journal February 2006

¹⁷ Serco-Denholm Marine Services is a joint venture Serco Group plc/J & J Denholm Group that has been providing marine services, using mainly RMAS craft, to the Royal Navy since 1996. This appears to be a multi-tasked Private Finance Initiative (PFI) contract with the MoD. Serco-Denholm working with the Netherlands based Damen Shipyards for the design and construction of new marine services craft and with the UK-based Briggs Marine, Burntisland for buoys and mooring support based on work relocated from HM Mooring Depot, Pembroke Dock.

¹⁶ Officially created on 01 October 1958



Annex C. **National Maritime Board (NMB)**

The National Maritime Board was set up by Ministry of Shipping in November 1917. It proved a success and in 1920 it was decided to continue it. The NMB objective was to provide a form of machinery for joint negotiations between employers (shipowners) and employees (seafarers), in matters affecting pay, hours of work, manning, leave, travelling expenses – Conditions of Employment in Merchant Navy Shipping. Administered by a permanent independent staff financed by a levy on shipowners and seafarers representatives (including RFA). It also established a jointly controlled single supply of 'sailors and firemen'.

The NMB had ceased to exist by end of 20th century.

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