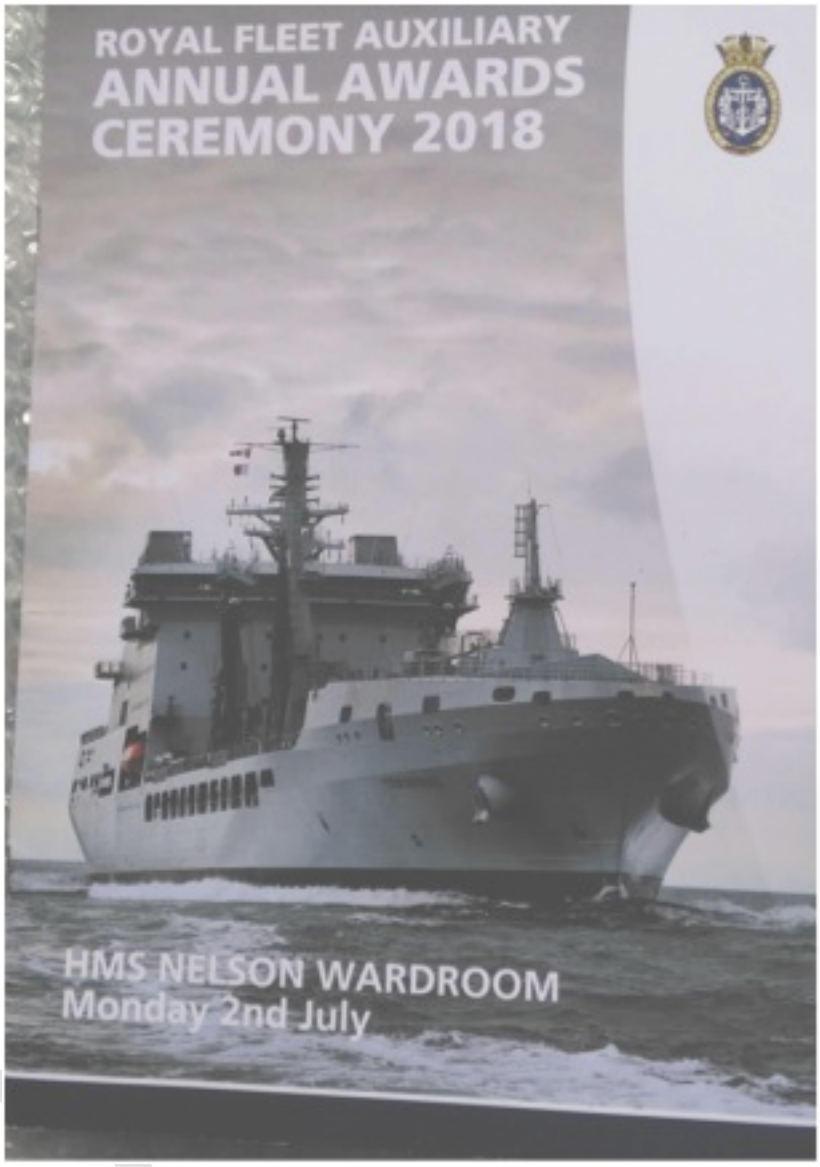

RFA ANNUAL AWARDS CEREMONY 2018

Draft of presentation from guest speaker

TOM ADAMS MBE

From commercial tankers to afloat support

- ...Good afternoon Ladies and Gentlemen...

- ...this is an Awards Ceremony so I wish to congratulate all of you who are recipients today.
- ...for a historian it is a privilege to talk to you about your Service – that has been very active for around 113 years.
- So with the following two points in mind
  - the Royal Navy's current re-development of '**Carrier Strike**'.
  - the re-capitalisation of the RFA with **new *TIDE* class tankers** – or are they **oilers?**

...I am going to take a bite out of the RFA timeline and explore the legacy around three inter-related questions:

1. How we became predominantly a **tanker** fleet?
2. How we got to purpose-build **replenishment tankers**?
3. And our relationship with the **Americans** and the **Germans**?

- A few moments ago I said '**tankers** or are they **oilers**?' I have no strong view on this ... let me tell you a short tale reportedly overheard during the launching of RFA EDDYREEF in Dundee, in May 1953...

- In 1906 a small cargo vessel the THISTLE had been purchased by the Admiralty with the intention of converting her for the carriage of petrol for our fledging submarine service and renaming her appropriately was being considered. The Third Sea Lord (The Controller) was discussing with a senior officer the question of an name. After considering a number of alternatives ...and rejecting them... he suddenly announced that the difficulty had been solved.

  The officer who spoke with the more dulcet tone of one born within the sound of Bow Bells, had unconsciously supplied the answer to the Third Sea Lord and the ship was named as '**ISLA**' ... that was the way he pronounced the word '**OILER**'...

1 Tankers

- Let me step back exactly 100 years to **July 1918** – Admiralty's Signal Department published an updated pennant list. This recorded **80** ships as RFAs … **57** of were tankers.
- Post-war there was a significant disposal of ships – and the RFA floated out as a TANKER fleet – reflecting the size, shape and practices of then commercial tanker world.
- By 1922 there were **64**.
- It would of course be amiss to overlook the handful of non-tankers – hospital ship **MAINE**, – store freighter **BACCHUS**, – Mediterranean fleet supply ship **PERTHSHIRE** (officially described as a hulk until replaced by the first **RELIANT**), – coastal store carrier **INDUSTRY**.
- If I step forward to **September 1939**, there were **61** RFA tankers.

... manpower was 580 officers and 1,850 ratings including a fledging 'head office' of Marine and Technical Superintendents.

- During this period the RFA was also RE-CAPITALISING and adopted a new commercial economic design – the British Tanker Company (BP)/Shell **'three twelves'** motor tanker – 12,000 dwt, 12 knots with a daily fuel consumption of 12 tons. These were the ***DALE*** class.
- Afloat Support capability – Oiling-at-Sea – was practically non-existent – the skill and indeed the need was not there
  - equipment was cumbersome.
  - **Stirrup rigs** (astern) with heavy flexible bronze hoses.
  - early **Trough rigs** (abeam) used canvas type hoses on a simple modification to the cargo booms rigged on Merchant Ships.
- ...then things started to change .... with **World War Two**.

- In the Atlantic, Mediterranean and even Indian Ocean the Royal Navy had relied upon an established network of bases to provide fuel, ammunition, stores, repairs.
- ...requirements rapidly changed and fuelling moved from traditional *'cosy in sheltered anchorages'* to being *'highly mobile in the open ocean'*.
- It is my view the initial operational impact on the RFA tankers came from experiences in the North Atlantic, Arctic and to a lesser extent the Malta convoys – operationally demanding 'force multiplication' that was best achieved by taking *fuel to the escorts* as opposed to them breaking off operations *to go to the fuel*.
- This was achieved by a greatly overlooked effort involving RFA staff ashore in the identifying, outfitting, training and running of Escort Oilers – over 120 commercial tankers together with a handful of hardworking and innovative RFA tankers (the small

RANGERS and a few ***DALES***) all with ordinary Merchant Navy crews.

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2 War in the Pacific and Political pressure

- This is when the **Americans** come in – with and the **War in the Pacific** and **Political pressure** .
- Historically our greatest demand was both political and geographic. Prime Minister Churchill committed the Royal Navy to work alongside the Americans against the Japanese in the Pacific.
- ...and with this 'political agreement' came the creation of the **British Pacific Fleet** (BPF). This was quite an astonishing feat because in August 1944 it did not exist – six months later it was in the thick of ocean warfare and able to launch air attacks on Japanese territory.
- ...with four fleet carriers – INDEFIATIGABLE, INDOMITABLE, ILLUSTRIOUS and

VICTORIOUS – two battleships – HOWE and KING GEORGE V – five cruisers and eleven destroyers.

- This was the first time we (Britain) deployed a carrier strike group and because of the vast distances of the Pacific Ocean this was totally dependent upon something quite new to the Navy – a **Fleet Train**.
- Whilst disappointingly little on the history of RFA survives in – The National Archive (TNA) – we are fortunate that material has been retained on the British Pacific Fleet (BPF) and as a consequence on the Fleet Train.
- The US Navy had a significant Logistics System with a high level of standardised equipment and proficiency in underway replenishment techniques. Rather more efficient and less demanding than the traditional British 'make-do' environment. Records show that we underwent a forced

revolution in the understanding of Afloat Support.

- July 1945 – our Fleet Train comprised – mixture of HM Ships, RFA and MN ships crewed by many nationalities, for instance:
    - 10 repair/maintenance ships,
    - 22 tankers,
    - 24 store carriers,
    - 4 hospital ships, and
    - interestingly an **Amenity ship** which featured a 350 seat theatre and a brewery capable of producing 250 barrels of beer per week. Disappointingly the 'powers-that-be' were sensible and did not make her a RFA!!
- The real close support element of the Fleet Train was the **Logistical Support Force**. The US Navy objective for this was:
  "To furnish direct logistic support at sea to the Fleet in and near the combat zone; in order to maintain the mobility and striking power of the Fleet."

- This forced us to have a different level of support shipping:
- **fleet tankers** – fitted with contemporary underway fuelling-at-sea arrangements – capable of carrying FFO, diesel and aviation fuels – some experience with the convoy escort oilers came into play here;
- **armament stores issuing ships** – capable of underway transferring aircraft bombs, 14-inch shells and various calibres of ammunition – new to us – we had no previous experience with this;
- **victualling and naval stores issuing ships** – capable of underway supply of dry and refrigerated provisions, fresh vegetables, a wide range of nuts and bolts for equipment and spares for machinery, radio and radar – previous experience was terribly limited to ***RELIANT*** with the Mediterranean Fleet;
- **air stores issuing ships** – capable of providing underway the vast range of stores, spares, servicing and handling equipment for

the aircraft carriers and their aircraft – new to us – we had no previous experience with this.

- In addition our planners and communicators had to learn the language of the US Navy – our ships had to use US allocated pennant numbers, and
- the BPF became **Task Force 57** later **TF37**, the Fleet Train variously known as **Task Force 112** and **117**. Our close logistic support of the Fleet was, however, handicapped by a range of deficiencies:
    - underpowered, inadequately designed commercial hulls,
    - slow speeds,
    - low endurance,
    - inadequate cargo capacity and low pumping rates of tankers,
    - the design and operation of transferring-at-sea equipment,
    - low manning levels that required some ships to have 'naval working parties'.

- With pressure on the Ministry of War Transport we rapidly were able to bring some **brand-new** tankers into service – the first four 15-knot standard-build RFA ***WAVE*** class (WAVE EMPEROR, WAVE GOVERNOR, WAVE KING and WAVE MONARCH) and the 17-knot turbo-electric ***OLNA*** – originally ordered for the Shell Fleet.
- This paints a bleak picture – but with a great deal of Admiralty 'make do' – with help from the US Navy – and with Merchant Navy grit we – did it!!
- The Director of Naval Equipment wrote *"in the Japanese War the Fleet Train barely reached Second Class standards."*

- Let me give you one example: One of our most successful tankers was the newly built RFA WAVE MONARCH – in addition to her designed cargo capacity of 8,000t FFO, 1,000t diesel oil and 700t petrol – her war logistical support included 700 drums of luboil (in

ship's hold), 50 depth charges in racks, 39 boxes of 20mm and 40mm ammunition, 7t vegetables and 100 survivor's kits. Double hose pumping rate – 350tph. I mention this because her Master Captain John 'One Punch' Humphrey OBE DSC originated with the Director of Naval Construction (DNC) the application of the RAS deck above the tank tops. Capt Humphrey's original drawing has survived in The National Archives.

Let me give you a statistic:
The service group undertook the largest at-sea replenishment operation of the War – when 15 tankers, 5 transports, 4 freighters resupplied the US Task Force and elements of the BPF ready to launch attacks on Japan (*Operation Iceberg)* with 60,000 tons of fuel oil, 6,369 tons of ammunition, 1,635 tons of supplies, 99 aircraft and 412 personnel – timescale in just over 24 hours – 21-22 Julv 1945.

- At end of the war in 1945 the personnel strength of the RFA is recorded as 932 officers and 3,500 ratings.

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3 German dimension and post-war doctrine

- So where do to the **Germans** come in?
- Following the War much of the new Afloat Support expertise seems to have disappeared with the post-war planners in the Naval Stores Department on a 'business-as-usual' trip.
- RFA re-capaitalisation of war losses and worn-out tankers was based on their pre-1939 planning with new 1,000, 1,500 ton coastal tankers, a proposed medium class of 3,500-ton tankers (simplified RANGERS) and with the new WAVES being seen as freighters.
- There were no plans for stores issuing ships.
- But the world was changing
  – we were decanting from the Empire.
  – the Cold War was fermenting.

– the Korea War highlighted new demands on the Fleet with thirsty and ordnance hungry Jet aircraft.

- Fortunately, within another part of the Admiralty they were taking an extensive look into German logistics to extract ideas and methods that could possibly improve ours.
- Let's look at the **Germans**... Please, when you think of them, do not have a picture from *'Das Boot'* in your mind with the Skipper, his cap reversed, eye pressed to the periscope.
- ...and it is more sophisticated than the German's setting the fashion trend used today by our children and grandchildren of wearing their base ball caps in reverse.
- ...back to 1936 when we were openly deciding to replace old tonnage with new 'three twelve's' tankers – what the Third Reich was doing could be said to have been both – underhand and innovative.

- They had designed and secretly ordered a class of nine – purpose-built logistics tankers – with cargo space for refrigerated food, stores for dry provisions, general spares, medical stores, and munitions. Heavy shells for their battleships and torpedoes for U-boats together with 11,000 tons of fuel oil, luboil and aviation fuel. Resembling a tanker they had a large bridge and wheelhouse and decks strengthened for armament. I'm of the view – the first AORs?
- Five were completed and they were the largest tankers in service with any Navy. Around 21,000 tons displacement with a speed of over 21 knots. They did not appear on any Navy List.
- **Mixed manning** – civilian crew and naval gunnery personnel.

  ...for issue and administration they were staffed with 'regular logistics personnel including an officer supervising

requisitioning and accounts for stores carried'.

...included a **cargo officer**, ex their Merchant Navy, with experience in handling cargo and in-charge of loading and making issues.

- **Refuelling-at-Sea** was performed over the tanker's stern running two flexible rubber hoses to the bow of the battleship – distance average 500m at speeds of 5-10 knots. The most operationally dangerous aspect they found was the **transfer of stores** – carried out by boat with provisions of up to quarter-ton hoisted in and out of the boats by ship's cranes. For this – both ships had to be practically dead in the water.

- The **Kriegsmarine's** concept of logistical support was that a 'pocket' battleship would always have a supply ship assigned to her, moving with her and providing up to 3-months supply of everything that would be normally stocked in a naval base.
- Of these German ships the ALTMARK is the most famous – when in 1940, boarded in neutral

Norwegian waters to release nearly 300 Merchant Navy prisoners – an incident that led to the phrase 'The Navy's here!" entering our history books.

- The ship we should be interested in is the **NORDMARK**. She put to sea on 19 August 1939 to support the DEUTSCHLAND.
- ...initially commanded by a seaman who had been the First Officer on the Trans-Atlantic Liner **BREMEN**. In 1945 she was allocated to the Britain as reparations and this large well constructed ship was seen as **valuable** at a time of tanker shortages.
- Considered for use as a RFA with the Pacific Fleet Train – it was decided she was too complex and it would be too costly to bring to standards needed as a registered Merchant Ship – so in 1947 she was commissioned the as **HMS BULAWAYO**.
- With splendid foresight this ship contributed to a real breakthrough in both fleet tanker and rig design. She was deployed to

undertake a series of trials and experiments in underway replenishment including Oiling-at-Sea and Storing- at-Sea. These included use of automatic tensioning winches, and introduction of the 7-inch rubber hose. Her trials also involved a comprehensive study on the effects of interaction.

- The knowledge gained resulted in the drafting of standards and doctrine – our first RAS Handbooks on the underway transfer of Liquids and Stores. Also the foundation for today's multi-national manual – NATO's ATP16.
- The crowning result from all of this effort and knowledge materialised in the mid-1950s with our first fast replenishment-at-sea tankers – purpose-built – coming in at 26,000t displacement and with a speed of 18+k, 70ft derricks and auto-tensioning winches – our first **TIDE** Class tankers.

- At this Awards Ceremony it's appropriate to reflect that there was an old RAS Efficiency Trophy that was competed for annually between RFAs and HMShips in the Mediterranean Fleet – the **Bulawayo Cup**.

4 Conclusion

I want to refer back again to 1939 and re-capitalisation with **DALE** class motor tankers. Three of these – the RFAs DERWENTADLE, DEWDALE and ENNERDALE – very ordinary tankers were part-converted into **Landing Ship Gantries**. Carrying pre-loaded landing craft – in the way that today's commercial shipping carry pre-loaded containers – these three RFAs were active on the front line in North African and Italian landings.

Decades later the RFA took responsibility for the **Landing Ship Logistics** – SIR LANCELOT, SIR GALAHAD, SIR TRISTRAM etc. During their long careers they undertook many humanitarian tasks throughout the world. All actively central in the freeing of the Falkland Islands in 1982.

Today the three BAY class **Landing Ships Dock** – very much a part of our amphibious warfare capabilities and maintaining the RFA's profile in the world of Humanitarian Assistance and Disaster Relief.

Finally – let me close with a quote from logistics specialist Tom Peters:

"Leaders win through logistics...

Vision, sure!

Strategy, yes!

But when you go to war, you need to have both toilet paper and bullets at the right place at the right time.

<presentation ends>