Foreword: ACCOUNT OF VOYAGE OF THE S.S. "EXECUTIVE" , TO MURMANSK

This account is not intended to supplement the regular Voyage Letter kept by the Master, but is merely intended to bring out a few facts not known by the writer prior to the vessel's sailing.

The vessel sailed from New York, after the usual last minute rush and general confusion on the 18th of April, 1942. The life-boats and life-rafts were, fortunately in fairly good order, altho an excessive amount of time had not been granted for their complete overhauling and checking. Consequently, the rafts were short of a few requirements, the provisions, follows: More time for the third mate in port for checking life boat gear, particularly when such a radical change from the standard equipment of a few years past is instigated. While on the subject of life-saving gear, it might be the opportune time to bring up Station Bills, and the necessity for their being prepared before the vessel leaves the dock - all drills should be held prior to sailing, and a standardized alarm signal for General Quarters adopted. (The intermittent ringing of the General Alarm Bell has been used successfully on this vessel). The boats were left swung out for the entire passage, and only swung in at ports of call en route to the port of destination. Manilla preventers were rove through the davit heads to the hooks on the boats and made fast on the davit cleats. The falls had been turned end-for-end and previous to this, but after a voyage of ten months, too much faith in their strength could not be held. More trouble with the falls was had, when upon reaching Murmansk, the boats were swung in, the process of lowering into the chocks started, and nothing happened - the falls had frozen, but had been freed of ice. the sheaves in the blocks, however were frozen solidly, and a steam hose was needed to free the blocks and lower the boats. Why not fit these boats on ships destined for Arctic runs with Wire falls. A portable Electric Motor weighing about 100 lbs. such as those used on

EXECUTIVE: the old American Merchant Lines could be used, for raising the boats at drills, etc. O r boats were absolutely worthless, in the writer's opinion due to this fact. The boats were also left uncovered, for it was a toss-up as to whether the handicap of removing frozen boat covers would overcome the difficulties of keeping the interior of the boats ice-free. Up until the last two days, no ice or snow gained access to the boats, but it came with a vengenance later, when all the boats received about a foot of ice as a result of heavy weather. The life-rafts and structures were also frozen solidly, and launching them would be quite impossible. The Water-breakers were left open with a projecting piece of wood thrust in the bung, and a few quarts of water removed before leaving port - they were found frozen solidly and half of their number were broken (These were re-coopered as it is next to impossible to obtain any replenishments at Murmansk, four were ordered, and 60 gallon barrels were sent to the ship. The boat covers were used as fenders and lashed to the gunwhales of the boats, wrapped around saw-dust bags. It is thought doubtful that these boats would stand up under the strain of difficult launching conditions - how about fore and aft canvas fenders permanently secured to the inboard gunwhales? Another item which might be brought up in regard to the jib and dipping lug combination. During frequent drills during the summer months, experiments showed that when these two sails were used in conjunction, the wind spilled past the jib rendering it quite useless. The main sail was then lashed to the gaff, two metal prongs fitted to the gaff, and the whole slung from an off-set bridle; a gaff rig was effected and the full benefit of the sails was utilized. Lee-boards were also fitted, and tacking was possible. The strong backs fitted in New York were too low, necessitating loss of time in the event that it was required to swing in the boats due to bad weather. These were slung from just below the worms on the davits. The added advantage being, that the boats were six feet higher, which would mean a considerable difference while the ship

EXECUTIVE: was in loaded condition. The strong-backs were re-inforced by the boat strong-backs, which were securely lashed to the aforementioned. One more point to be brought up - metal water-breakers are now being used on British ships on Northern runs. In regard to life-rafts and launching structures - it was noted that vessels with low structures came into port minus one or two rafts, the structure on this vessel are 21 feet above the main deck, and seemed quite adequate. The one disadvantage lies in the releasing gear which is comprised of a long bight of 5/8 Wire from the lower part of the raft structure, around the raft, over top of structure and thence secured to the deck turn-buckle and slip-hook these rafts would hardly float free, if the vessel should sink, and according to specifications, this very feature should have been embodied. The danger of this bridle being fouled in the rigging upon being released is also apparent.

Although most of the navigating was done by the Commodore Ship, no responsibility is assumed by him for any errors in navigation. Therefore sights were taken whenever the occasion arose, plotting sheets were constructed for the higher latitude, from 60 North to 75 North, and an accurate check on the vessel's position maintained, which proved invaluable, when through stress of heavy weather, the vessel became separated (as did many others) from the Commodore. Although separated for nearly two days, the main body of the convoy was picked up with little difficulty.

The compasses lose most of their directive force in the higher latitudes, and obtaining accurate azimuths is next to impossible. Upon arrival, while at anchor, numerous bearings were taken on various headings, with no appreciable increase in compass error from the last time the vessel was swung for compass adjustment. The effect of the Degaussing apparatus on the compasses on this vessel is practically negligible - however, with the removal of approximately 2200 tons of steel , a slight variance, not exceeding four or five degrees, was

EXECUTIVE: noted; this with the Degaussing System on. Experiments with the heeling magnets will be conducted, if possible, in an attempt to alleviate the wildness of the compasses on the return voyage.

The fog buoys provided for this vessel, proved inadequate due to the 3/8 inch wire that was to be used for a tow-line. The weight of the wire submerged the buoy, and one was lost. Manilla line sent aboard by the Navy (3 in. Circ.) was used effectively. The conclusions in this point are that the wire is useless as tow-lines. (It serves admirably as down-hauls for the Antennae).

One of the most important items seems to be forgotten at the dispatching end-namely, the safe loading of vessels. After spending eight idle months in Scotland, awaiting convoy, the saving of a day or two in loading does not seem to enter the case at all. In normal times, a vessel encountering heavy weather can safely alter her course to any desired. In convoy this is impossible, and the case of this ship is not an isolated one - enroute from Halifax to Scotland in late April, it was found necessary to leave the convoy in order to secure deck cargo which had come adrift due to heavy rolling in what seemed to be a moderate swell. In figuring the stability of the ship, it was found to be 3.7 feet, which according to all available books on stability and stowage, is an excessive metacentric height. The following is from "Nicol's Ship Construction and Calculations".....there seems to be a consensus of opinion in favor of limiting the minimum value of G M in steamers of about medium size to one foot when filled with a homogenuous cargo, which just brings them to the load-waterline". These figures were checked by a Naval Architect at Leith, and it was decided to remove the deck load. (The deck load was taken by the "Vermont", who accompanied us to Murmansk. Three cases were lost, and others damaged. The cases that went over the side managed to take a few steam lines with them, also the forward life-raft structure on the

port side. The discharging of the "VERMONT" was delayed considerably, as shore cranes were used, and cranes are at a premium in Murmansk). By removing the deck load, the G M was increased, as expected, but at least there was nothing to carry away. The carrying of deck loads, with a vessel properly stowed, is to be recommended, provided that the cases are strong enough to withstand the rigours of the North Atlantic Ocean in Mid-winter, all the lashings in the world are useless, if the strength of the case is such that the slightest strain on the lashings penetrates to the contents. Deck loads covering the hatches entirely, would save unnecessary labor in ice-freezing the vessel on arrival. #2 Hatch, for example, had nearly a foot of solid ice encasing the tarpaulins, battens, cleats, etc. Nearly a week was necessary, while the vessel was at anchor, to remove ice from hatches booms, heel blocks, etc. The ice on #2 Hatch was removed with sledges and mauls, steam having little effect on it. Fortunately, the possibility of demurrage did not enter, as the vessel was awaiting a berth.

A three inch gun was mounted on the forecastle head, plus two machine guns at Leith. All this armament was rendered useless until freed of ice in port at sea, as soon as the temperature fell below freezing, and the vessel shipped a few seas over the forecastle head, these guns were of no use. It is thought doubtful if they could be used successfully in warmer climes due to the well known "dirtiness" of this type of vessel in a seaway.

The anchor windlass was frozen solidly, and as the vessel was to be anchored in about 35 fathoms of water, this was somewhat of a problem, The usual method of walking the anchor back could not be resorted to, so the chain, riding pawls, wildcat and brake were freed, and the anchor checked two or three times after letting go. Steam lines and hoses were connected two or three times after two days work, the windlass was finally put in working condition. Not so much difficulty was had with the winches,

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EXECUTIVE: however; after using the steam hose on the windlass, it was found impossible to lock the windlass. Investigation showed that the melting ice had hardened again at the bottoms of the wildcats - by partially covering the windlass with canvas, much of this trouble could be avoided.

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No difficulty was experienced with the cargo gear - two of the newer ships, however put a few kinks in their booms - one ship bent two of their five-ton booms with considerably less weight upon it, the other sprung her jumbo boom. The alibi that the intense cold did it would not hold water, for the coldest weather experienced was minus 14 degrees F. In fact the temperature frequently rose above freezing (This in January and February).

The use of flexible steel 1/2 inch wire rope for guys was adopted by some of the British ships - the down-haul leading along the boom to a block on the mast table and thence to the nigger-heads of the winches or to cleats located on the mast tables - a much better rig than manilla.

Topping the booms and securing them aloft has advantages in that it keeps them (and the topping lifts) ice-free. Rigging problems in intensely cold weather would be simplified immensely by the use of permanently rigged wire-guys and booms already topped.

The longshoreman at Murmansk has but little experience - he is, as a rule a reject from the army. However, his lack of stevedoring knowledge is made up for, by his careful handling of cargo, particularly foodstuffs. (This may be due to the fact that there is a serious charge for pilfering, and the men are constantly watched). All damaged cargo, and there was much found in stowage, was coopered and sent ashore. The longshoreman use their own slings, all of good quality, wire net slings in particular. The handling of heavy lifts is a slow and painful process with them, and constant supervision is necessary. All the rigging (doubling up and singling) must be done by the ship's crew (with many protestations and much clamoring for overtime). There are a few shore cranes at Murmansk, but the heavier lifts (anything over ten tons) must be taken out either with the ship's Jumbo Gear, or by one of the two heavy lifts equipped ships that have been stationed here. This accounts for much of the delay during discharge. Another bad feature, is the lack of lighterage facilities - all the

lighters were removed to Archangel during a particularly bad spell in airraids in July, 1942 - the port had been more or less closed until the late fall. The time taken to discharge this vessel (4784 tons) was nearly ten days - the discharging was held up by the lack of flat cars and box cars, however, and not due to the lack of speed or efficiency of the stevedores - the same applies to the loading of the vessel. These figures aren't so bad when it is estimated that two-thirds of the city has been destroyed by air-attacks.

Potassium chloride was loaded here with a stowage factor of about 35 c.f. It is loaded in buckets dumped from the 'tween decks, and pyramided in the holds. The 'tween deck hatch covers are put in place, a few removed, and the buckets dumped into the holds - no trimming is necessary, it has solidifying tendencies and a large angle of repose, and should make a good ballast-cargo. 1520 tons were loaded in nearly nine days - again the delay was caused by lack of flat-cars and box-cars. The vessel's deadweight upon sailing was approximately 3720 tons. The draft fwd. was 14'09", aft 19'11", mean 17'04". About two-thirds of the cargo was loaded in the lower hold. The figures on stability showa G M of 6.3 ft., to raise the center of gravity would have meant loading over half of the total in the 'tween decks—many objections raised to this from outside sources, therefore, the major part of the cargo went in the hold. The ship will undoubtedly roll!

This covers roughly the high-spots of the voyage - any thing of importance homeward bound will be included.

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Telegraphs must be either tested at frequent intervals, or insulated and covered - our telegraphs were frozen and rendered useless during most of our stay in port. In attempting to free them, too much "beef" was applied by some over-zealous soul, and a connection was broken somewhere in the line, and not discovered until the cargo was discharged.

The steam whistle offers another minor problem, especially if not fitted with proper drains. Ours caused a delay for a few hours, with the pilot aboard, (the Russians have a habit of appearing from nowhere with sailing orders, orders to shift, etc.) again the steam hose came into its own; the whistle removed, and the end of the hose secured, with the steam on the line from below. The whistle was insulated further, and tested at frequent intervals.

The voyage came to an unexpected end on March 5, at about 9:20 am - an air attack was expected; stations were manned as if for an attack from the air, when a torpedo was seen off the starboard bow - the wheel was put hard left and this first torpedo was seen to cross the bow, with one of our gunners opening fire upon it - just before this first one struck its' mark on the ship on our port beam, we received a direct hit on the starboard side evidently between the engine room and Number 4. The engines stopped immediately - the force of the explosion was such as to clear Number 4 hatch entirely - beams, hatch covers, and the booms that were cradled above the hatch; all were removed completely, the booms landing on deck. the rest of the debris evidently landing over the side, or falling down the hold. My station was on the top bridge, where I was acting as an observer; I was thrown off balance for a few moments, recovered, and told the Master that I would get the boats ready for lowering (#1 and #2 boats were cradled due to the possibility of excessive rolling and heavy icing). When I arrived at the boat deck #4 boat had been

Continued: lowered, the ship was settling fast at this time, and developing a decided list to starboard. Unfortunately, as soon as this boat was water-borne, due to the excessive way upon the ship, and the hard left rudder, the boat sheered away from the ship's side--two men were lost as they attempted to enter the boat by going down the life-lines. (The rubber suits now provided would undoubtedly have saved these men's lives, and the other men who were blown over the side might have had a chance, if they were so equipped. #3 boat was damaged considerably, and was not launched immediately; #2 boat suffered a disastrous accident as a result of the forward davit tearing loose from the deck. The A.B. on the forward fall was one of the two men who had been standing aft of the galley (with the 2nd Asst.Eng'r) and was thrown overboard by the force of the explosion. Another sailor was given the job of lowering the forward end of the boat, an A.B. and I were attempting to check it; his hands were severely burnt. He evidently succeeded in checking the rapid descent of the boat momentarily, but the strain was such as to tear the entire davit from the deck. Five men were in the boat, and as the boat plunged downward, the after-hock was torn from the after fall. Three of the men were recovered; two were missing. Again the speed of the ship was a factor in causing the loss of life - my intentions were to lower the boat to the water's edge and delay the actual launching until most of the way was off the vesse; two of the men were picked up by the crew of #4 boat, one picked up from the ladder at #2 boat, and an unsuccessful attempt was made to pick up the fourth from the ladder near #4 boat; the fifth man was not seen. Meanwhile #1 boat had been lowered; #3 was now in the water tho' leaking badly; #4 was somewhere astern. The liferafts, with the exception of #3, refused to budge from their launching structures; the leak in the #3 boat was patched temporarily, and the remainder of the crew divided among them. As I left the ship, the after-deck was awash, but she seemed to have sufficient buoyancy to hold her there, as she was later sunk

by gun-fire. The engineer on watch, oiler and water-tender as well, evidently were killed immediately; the fireman managed to escape from the fire room.

I find it quite simple to go over the entire happenings once more, and detect the things that might have been done - mistakes were made that reflect directly upon boat drills, the proper training of the men, the necessity for discipline of the highest order - in our case, with the vessel settling so rapidly from the start (one man was up to his hips in water before he could get fully dressed) the need for haste seemed imperative. As far as drills go, our Official Log will show the number of times the boats were in the water, the number of times the crew were exercised at oars, all under nearly ideal conditions, with unfortunately the same men at the falls! With wire falls and the weighted lever safety system of lowering, the greenest man going to sea, would be able to lower a boat with the utmost safety. It seems as tho' the submarine is no respecter of weather, so why don't we have releasing gear on these antiquated vessels of ours - losing men due to the immediate effect of the torpedo is one thing, but loss of life due to out-dated life-saving equipment is another. For example, should a davit tested at 58000 to 78000 lbs. be torn out by its roots, before the parting of a 3-1/2 in. manilla line? or before a 3/4" shackle gives way? True, there is a great amount of leverage imposed upon the davit, but the total force could not have exceeded the strength of the fall.

Releasing gear would have helped the occupants of the first boat to be launched; #4 as the headway of the vessel kept an undue strain upon the falls.

The damage to #3 boat came as a result of the concussion from the explosion- it was forced against the strongback and one of the plates on the lower strake of the boat was badly damaged, the hole was stuffed temporarily, and the ingress of water was controlled until we were picked up. In closing, I might add, that I blame no one - if the lowering of the boats was not done in a seamanlike fashion,

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I have no one to blame but myself. I sincerely believe, however, that the entire proceedings under the existing conditions were done to the best of our abilities, and with a minumum of confusion. At the same time, I cannot overlook the fact, that the lives of six <u>might</u> have been saved out of the nine lost.