

## APPENDIX I

### MALTA DOCKYARD - PERIOD OF SINCE 1940 - 1943.

During the first 9 months of the war nothing unusual took place at Malta except the withdrawal of the Fleet to Alexandria and the Levant.

2. When Italy entered the war, however, Malta became a very accessible target, situated only some 60-70 miles from Sicily, and during the greater part of the next 3 years the Maltese Islands were surrounded on all sides by enemy-occupied territories.

3. Air Raids commenced at daybreak on the day on which Italy entered the war - 11th June 1940 - and continued intermittently for over 3 years, the Aerodromes, Dockyard and Harbours being the principal targets. (NOTE: There were 3328 raids, 1406 of which were at night)

4. These attacks reached their peak during the first half of 1942. Their strength and frequency then gradually diminished with the success of the Allied Armies in North Africa, and had ceased altogether by October 1943 after the surrender of Italy.

5. During this period the Dockyard establishments, maintained their constant effort to keep R.M. Ships in service by dealing with damage repairs, defects, fuelling, storing, equipping and generally servicing as required the ships of operating forces, convoys and their escorts.

6. As many skilled workmen as would volunteer were transferred to Alexandria to man up the Dockyard there and for other bases in the Eastern Mediterranean. Technical and Clerical Staff were also transferred for the same purpose.

7. The Dockyard also did a considerable amount of work for the other Services in Malta. Repairs to vessels, plant and machinery and manufacture of many thousands of articles, fittings and spare parts which were either not obtainable from the United Kingdom, or if shipped failed to arrive.

8. The Dockyard machines were adapted with considerable ingenuity for these purposes which in many cases were completely different from their normal functions.

9. In addition to the above, services performed for the Civil Government, included conversion of machinery at the Generating Station and the Poweries to oil-fuel burning, and provision of expert advice and assistance for the following vitally important services:

Flour Mills  
Generating Station  
Shelter Construction Department  
Organisation for Co-Ordination of Supplies (C.O.SUP.)

10. Numbers of workmen were loaned to the other Services as necessary for various urgent requirements. For example:-

- (a) Servicing aircraft until such time as the necessary ground-staff could be obtained.
- (b) Clearance and restoration work at the aerodromes, often under conditions of hardship and much danger.
- (c) Skilled work at R.M.E. Workshops etc.

#### 11. DOCKYARD ACTIVE DEFENCE ORGANISATIONS

##### Dockyard Defence Battery

In September 1959 the Dockyard Defence Battery (30th L.A.A. Battery R.M.A(T)) was formed from amongst the Dockyard Officers and Workmen, for the purpose of manning the Anti-aircraft guns allocated to defend H.M. Dockyard from attack by low flying aircraft.

12. The Battery....

12. The Battery attained a strength of some 15 Officers and 412 O.R's, showed a fine fighting spirit and did excellent work throughout the period of air attacks on Malta. Its success are evidenced by the number of honours given to its members:-

<u>O.R.'s</u>	- Major L.B. Bolton, Officer Commanding
<u>M.C.</u>	- Lieutenant F.W. Angle
<u>M.C.</u>	- Major L.T.H. Cooks R.A. (O.C)
<u>M.M.</u>	- Sergeant L. Atap
<u>M.M.</u>	- Sergeant H. Andrews
<u>M.M.</u>	- Bombardier G. Felsen
<u>Mention in Despatches</u>	- L/Bombardier M. Castles
	- L/Sergeant R. Vella
	- L/Bombardier S. Cacciattolo
	- Gunner W. Atkins
	- Gunner C. Zammit (1)
	- Gunner A. Pool
	- Gunner L. O'Toole
	- Gunner C. Zammit (2)
	- Gunner V. Sultana
	- Gunner P. Mangion
	- Gunner G. Fabone

Commendations by H.E.  
the Governor for  
gallant conduct.

13. With the exception of a few men who rejoined the battery on a regular enlistment, all the Officers and men were returned to their normal Dockyard employment in July 1942.

#### 14. ANTI-PARACHUTIST COMPANY ("PARASHOTS")

In May 1940 a Company was formed from amongst the English Officers and Agreement Workmen, with the Captain of the Dockyard as Commandant for the defence of the Dockyard against attack by airborne troops. All members were trained in the use of the rifle and organised in platoons conforming to the A.R.P. sectional organisation.

#### 15. DOCKYARD GUARD

In June 1941, consequent on the stationing of a detachment of troops in the Dockyard, the "PARASHOTS" were disbanded and a new corps, called the Dockyard Guard was organised, composed of all fit Agreement Workmen (in fulfilment of their Agreements) and a number of Dockyard Officers who volunteered for this service.

16. The duty of this Force was to co-operate with the troops in the defence of the Dockyard, and all members underwent a course of training to equip them to carry out their role efficiently. They formed a reserve available to reinforce the troops in emergency, and when fully trained could be employed in the important duty of providing guards for vital points in the Dockyard as circumstances might require.  
(NOTE: In this connection it is interesting to note that according to local records there was a Malta Dockyard Battalion of Artillery in 1852-1855, and it is believed that clause 7 of the agreement for service at H.M. Naval Yards abroad was introduced then owing to the refusal of a workman to undergo training. The formation of the Dockyard Guard in 1941 was the first occasion, since that period, of implementing the defence clause in the English Workmen's Agreements by the formation of such a corps.)

#### 17. CONDITIONS DURING BOMBING PERIOD

Meanwhile it was vitally necessary to excavate rock shelters for the protection of personnel and important plant, and to get as many workshops and offices as practicable sited underground as quickly as possible. This work was pressed forward with the limited labour available for the purpose.

18. Many of the....

18. Many of the families of Naval and Civilian personnel from the United Kingdom were evacuated in 1939 and early 1940 to the Near East, South Africa and United Kingdom. A large number of families still remained in Malta, and took up residence, some 5 miles away from the Dockyard, at St. George's Barracks which were allocated by the Army Authorities for this purpose. There they were able to organise Messes, and although there were no rock-shelters but only slit trenches they and their men folk were able to feel some degree of confidence in that they were away from the main targets of the enemy.

19. It was not until April 1942, that the enemy concentrated air attacks on these barracks, which were then very severely damaged and had to be evacuated.

20. It had been necessary from the start to provide living accommodation in the Dockyard for staff required for A.R.P. and Fire Services, and for emergency work. As the enemy attacks increased, the bulk of the population of the Three Cities were evacuated to more distant places in the Island. This resulted in the withdrawal of the shopping and domestic services which were necessary to enable staff to live in these towns, and accommodation had to be improvised in the Dockyard for the majority of the Officers and Agreement Workmen. Emergency Messes were formed, but the conditions under which the Officers and Men had to live were not only devoid of comfort, convenience and means of recreation but positively unhealthy due to the damp.

21. The local workmen were now dispersed to living centres away from the Dockyard but means of transport for them were reduced to a minimum owing to general shortage of petrol, loss of supplies and loss of vehicles by enemy action. The daily journeys of the workmen between their homes and the Dockyard had to be made on foot for the most part, and were arduous journeys and full of uncertainties. As enemy action might at any time have resulted in some thousands of men being unable to leave the Yard, perhaps for some days, ~~and~~ preparations to meet such a situation were organised, and emergency food dumps prepared in suitable positions with the co-operation of the Civil Government.

22. On 23rd February 1942, owing to shortage of petrol and need for economy in transport, a 5 day working week was adopted throughout the Island. To conform with this the Dockyard working hours became 9½ hours daily, Monday to Thursday inclusive, and 9 hours on Fridays and this arrangement worked very smoothly. The establishments reverted to the normal 6 day working week on 1st November 1943.

23. After each bombing raid prompt action was taken to clear debris and fill craters, so as to keep the roadways and wharves as clear as possible to allow of the passage of the fire engines and other vital traffic.

Electric light, power and telephone cables were broken and the installations put out of action time after time. These vitally important services however were always reentered in a short space of time.

24. The water and gas services were put out of action early in 1941. Improvised arrangements for supply of water throughout the Dockyard were organised by means of water-carts and tanks placed in shelter under rock as far as possible.

25. The town of Senglea was completely isolated except by passing through the Dockyard, and was completely deprived of water supply. A tank vessel from Victualling Yard was placed alongside Senglea Marina to keep the remaining inhabitants supplied with water.

26. As much undamaged machinery as could be so dealt with was transferred under rock shelter. Damaged machinery was rescued and brought into use again either under rock shelter or in its original position. The damaged shops being patched up to provide the necessary protection from the weather.

27. Aggregations of large parties of personnel in the open or in exposed buildings were to be avoided. The Muster and Pay Stations had been demolished by enemy action, and lost muster-tickets could not be replaced. Ordinary mustering was therefore impracticable and alternative arrangements were introduced. Payment of wages was made under rock shelter, but even so, currency notes were sometimes scattered by bomb blast.

28. The cumulative.....

28. The cumulative effect of the damage mounted rapidly with the increasing force of the raids. Docks were put out of use, cranes and machinery throughout the Yard were destroyed or rendered useless, tugs, lighters and boats were sunk, workshops demolished, and stores and storehouses destroyed.

29. In order to maintain effective working, the Dockyard developed methods by which work usually done by machines, was done by hand. Though slow in operation, this meant that effective functioning was still maintained.

### 30. EFFECTS OF DAMAGE

The air attacks on Malta reached their peak in April 1942 during which month there were no less than 283 raids.

31. The situation then was as follows:-

(a) All docks out of action. The only one capable of being used in the near future was No. 1, provided masonry could be repaired satisfactorily and if power supply to the pumping station could be kept in repair.

(b) The whole electrical distribution system, including underground and overhead lines for power, lighting and telephones had been repeatedly and severely damaged. Limited electric supplies were restored intermittently in the Nos. 4 and 5 Docks area and round No. 1 Dock. Power could only be supplied with any reliability to the following workshops, which were underground:-

M.C.D.'s Small Ship Fitters' Shop and Hand Benches  
M.E.D.'s Optical Instrument Repair Shop, Tool Room, Copper-smiths' Shop and Foundry

(c) No. 1 Ship Fitting Shop was severely damaged and completely out of action, and machines were being transferred to the first chamber of the underground shop, the incomplete excavation work being suspended for the purpose. Excavation of second chamber was commenced.

(d) A limited amount of joinery and smiths' work could be undertaken by hand.

(e) Pending extensive repairs to air mains, compressed air supply was dependent upon portable compressors loaned from salvage plant and by Civil Government, about 5 compressors being serviceable at any one time.

(f) Electrical Engineering work was limited by lack of material rather than damage. The damaged workshops were in process of moving into prepared sites underground or into such excavations as could receive them for the time being.

(g) Most of the Naval Stores were under masses of debris. Both diesel fuel lighters were sunk, and R.F.A. "BOXER" and two furnace fuel lighters damaged.

(h) Three tugs and one mooring vessel had been sunk, leaving only one tug and one mooring vessel available. The tug was undergoing extensive machinery repairs.

Many boats and lighters had been destroyed and many severely damaged. There were some 34 wrecks in the docks and harbours, besides remains of various lighters and small craft.

(i) The Victualling Yard and other adjacent establishments were without light, power and telephones, the cable routes and distribution having been damaged in far more places than it had been possible to cope with.

(j) The Armament Depot was without power and light, and all hydraulic cranes were out of action. A few hand cranes were expected to be useable when the wharf could be cleared, but all railway lines were broken. All of the workshops were demolished and all the above-ground stores and laboratory rooms damaged. Some gun and mine spares were recoverable. Half of the lighters had been sunk.

(k) The greater

(k) The greater part of the Yard area was pitted with craters and strewn with debris, which in many places was of a massive nature and tangled with girders. Frequent air raids still continued to do damage.

### 32. RECUPERATION

At the end of July the situation was as follows:-

- Docks - No.1 - In full use, with power supply and welding facilities.  
 No.2 - Repairs to caissons well in hand and pumping serviceable.  
 & No.3  
 No.4 - Out of use.  
 No.5 - Preparations in hand for an attempt to repair the breach in dock walls. One pump serviceable.

Power } Restoration proceeding satisfactorily. Cables being led  
Light } through excavated rock passages to minimise future risk of  
Telephones } damage. Limited supplies of power and light restored to adjacent establishments but no E.H.T. supplies yet possible.

Shops & } - Many motors for driving machine tools repaired and others in  
Plant } hand. Sufficient machines in operation to meet current requirements.  
 Compressed air available in No. 4 and 5 Docks and Factory area, and being extended to No.1 Dock.  
 Eight fixed and travelling cranes restored and operating.

#### In full working :-

Underground Compressor and Oxygen Plant  
 Underground Tool Room  
 Underground Gunning Shop  
 Underground Fitting Shop  
 Tube Shop  
 Welding Tube Shop  
 Temporary Smithery  
 Main Electrical Shop (Underground)  
 Extempore electrical workshops for mains, yard machinery and telephones.

#### Working with limited output :-

No.1 Ship Fitting Shop  
 No.3 Ship Fitting Shop (Underground)  
 Joiners' Shop (extempore)  
 Foundry (Underground)  
 Coppermiths' Shop (Underground)  
 Boiler Shop  
 Saw Mills  
 Drawing Office - M.E.D. (Underground)

Stores & } Recovery of Naval Stores proceeding. 'BOXOL' and two barges  
Fuelling } repaired and one of the barges reserved for diesel.

Armament } Light restored, also limited 440 volt D.C. power.  
Depot } One 2 ton derrick and two 1½ ton hand cranes operable.  
 Road and single rail facilities restored.  
 All workshops functioning by hand in improvised accommodation. No machines working.  
 Above ground stores and laboratory in partial use.  
 Recovery of buried material progressing.  
 18 lighters in service.

33. On 1st August 1942 the following signal was addressed to the Admiral Superintendent by the Vice-Admiral, Malta:-

"The recuperative power of the Dockyard, and steady progress are most satisfying. You and all others concerned deserve high praise for what has been accomplished in so short a time. Please convey my congratulations to all." (T.O.C.1129)

34. At this .....

34. At this period the further restoration of the electrical system was hampered by shortage of cable and other materials. In the case of the telephone lines, undamaged lengths of cable were recovered from other routes and used for the repair of the most important lines.

35. Repairs to buildings were rendered difficult owing to shortage of materials and the slowness of removal of spoil from underground excavations, this being handicapped by lack of fuel.

36. The next 5 months showed a steady increasing rate of progress towards normal working capacity, in spite of the continual air raids, shortage of supplies and plant, and the demands on the Yard arising out of the development of Allied Operations for the liberation of North Africa, Sicily and Italy.

37. The great anxiety now was the shortage of food supplies in the Island. The August convoy brought partial relief and supplies were carefully husbanded, but by October the outlook had become very grave.

38. Civilian rations had been reduced until there was scarcely anything beyond a small ration of very poor quality bread and a very insufficient amount of corned beef. The arrival of the famous November convoy towards the end of November 1942, brought the much needed relief just in the nick of time, and removed what threatened to become the main weakness of the Island's defences.

39. The situation at the end of December 1942 was as follows :-

#### Decks

- No. 1 - In full working  
No. 2 - In use for small craft. Wreck of 'LANCE' had been floated and re-docked on 29th October and undocked 12th December. Dock then occupied by Coisson of No. 3 Dock for repairs. Power and welding facilities available.  
No. 3 - In use as a wet berth for small craft only as wrecks outside precluded entry of anything larger than a trawler. Expected to be available with power and welding facilities about end of March.  
No. 4 - Repairs to Coisson and face of groove in hand. Expected to pump out mid January and commence work on wreck of 'KINGSTON'.  
No. 5 - Repairs to masonry well advanced. Expected to pump out about 26th January.

#### Electricity and Telephones

Restoration progressing satisfactorily to meet all requirements.  
Supplies of power to Armament Depot and Rinella not yet restored owing to lack of material.

#### Compressed Air

Leads extended to No. 1 Dock via Cospicua, Store Wharf, Church Tunnel and M.C.D.'s Fitting Shop. All M.E.D.'s underground shops supplied and work in hand to supply to Boat House, Canteen and Parlatorio Wharves.

#### Workshops - Percentage of normal capacity

<u>C.D. Dept.</u>	-	Sail Loft . . . . .	50
		Rigging House (re-sited) . . . . .	70
<u>Constructive</u>	-	Smithery . . . . .	85
		Joiners . . . . .	60
		Paint Shop . . . . .	90
		Plumbers . . . . .	90
		Sewalls . . . . .	40 (steadily improving)
		Boat House . . . . .	60
		Welding . . . . .	90
		No. 4 & 5 Dock Shop . . . . .	60
		Destroyers Workshop . . . . .	90
		Ship Fitting Shops . . . . .	60 (one underground)
		Submarine Workshop . . . . .	20

Engineering . . . . .

<u>Engineering</u> (Aboveground)	- Fitting Shop . . . . .	40
	Foundry . . . . .	70
	Coppersmiths . . . . .	50
	Motor Repair Shop . . . . .	20
	Tool Room . . . . .	Nil
	Pattern Shop . . . . .	75
	Yard Machinery Shop . . . . .	30
	Gunnmounting . . . . .	40
	Tube Shop . . . . .	90
	Other Boiler Shops . . . . .	20
	Smithery . . . . .	All hand work. Low output. No heavy forgings.
<u>Engineering</u> (Underground)	- Tool Room & Fitting Shop . . . . .	100
	Coppersmiths . . . . .	50
	Foundry . . . . .	(Not yet complete)
	No. 60 Fitting Shop . . . . .	100
	No 60 Gunnmounting Shop . . . . .	100
<u>Electrical</u>	- If adequate supplies of material and stores were available . . . . .	90

#### Cranes

Following cranes had been repaired and in full operation :-

Burnala Wharf	20 tons
Boiler Wharf	50 tons
No. 4 Dock	14 tons
No. 5 Dock	10 tons
Machinery WF:	5 tons
(Six other 10 ton and 5 ton travelling cranes, but limited by damaged tracks.)	
Canteen Wharf, one fixed,	4 tons
Hamilton Wharf, one fixed,	4 tons being erected with 120 feet travel.

#### Naval Stores

Recovery progressing steadily.  
Greatly increased fuelling requirements being met successfully despite restricted facilities. Length of 12" fuelling main to Dolphins, 250 feet recently renewed.

#### Armament Depot

Greatly increased commitments being met despite disabilities.  
Laboratory work reduced by weather pending repair to buildings.  
Mine Shop, capacity (Aircraft Mines 100%, Moored Mines 60 %).  
Work of supply much hampered by lack of Hydraulic Crane System pending receipt of parts.

40. The limitations in general Yard capacity at the end of December 1942 were mainly due to :-

- Lack of berths alongside, owing to submerged wrecks.
- Lack of docks (situation improved by early April).
- Lack of welding and compressed air facilities at available berths.
- Lack of sufficient portable air compressors and welding sets.
- Lack of lifting facilities at available berths.
- Lack of materials and stores.

41. The redevelopment....

41. The redevelopment undertaken was dealt with on the following general lines :-

- (a) Underground excavations to be provided as an alternative for all the more important workshops and plant.
- (b) Re-conditioning of normal workshops and provision of temporary aboveground accommodation for those items in (a) which had, of necessity, received a low priority, and for which it was not possible to provide rock cover in the immediate future.

42. Much of the progress was achieved by salvaging damaged machines and scrap materials which were freely used in extemporisation.

43. At the beginning of 1943 further progress was limited by the following factors :-

- (a) Civil Engineering Labour, of which there was a marked shortage due to heavy demands by all the Services and the Civil Government. This seriously affected excavation of underground shops, sub-stations etc, and repairs to buildings, roadways, mains etc.
- (b) Lack of materials for repairing and re-roofing damaged buildings.
- (c) Shortage of stores of all kinds.
- (d) Lack of an experienced salvage party with full equipment adequate to clear sunken wreckage from approaches to wharves and docks.
- (e) Additional supervising staff was required by all Departments in order to expedite the redevelopment programme.

44. On 18th January 1943 the Commander-in-Chief sent the following message to the Vice-Admiral, Malta and the Admiral Superintendent :-

"I have read with much interest and pleasure the account of the present state of H.M. Dockyard at Malta, contained in the Admiral Superintendent's signals " and V.A.M.'s letter ..... and signal .....  
"The immense strides made in the way of recuperation since the days of "intensive bombing have been clearly due to special efforts on the part of "every Officer and man to achieve so much in such a short space of time, and "reflects the greatest credit on all concerned. (T.O.O. 2136)"

45. Nos. 3 and 4 Docks were brought into use again early in April 1943, but the use of Nos. 2 and 5 Docks was still restricted by the presence of wrecks in the approaches. The repairs to No. 5 Dock were satisfactorily completed so that on 4th July the Dock was ready to take a Tribal Destroyer and on 24th July ready to take a Cruiser.

46. In January 1943 in order to make the best use of the man power available, the employment of women in the Dockyard was introduced for the first time. They were allocated to jobs which were normally performed by men, but which were well within the capabilities of women, thus releasing the men for other work of a nature requiring men's efforts. At one time as many as 700 women were employed, with success, but it could not be described as a popular venture as the industrial employment of women is not in accord with the traditions and beliefs of the Maltese people generally.

47. A Salvage Party arrived in February 1943 and set to work on the clearance of the dock approaches and harbours.

During the period prior to the advent of the Salvage Party, the Dockyard had salvaged the following vessels, in spite of the lack of adequate salvage plant, by persevering efforts and resourceful improvisation :-

	<u>Number Salvaged</u>	<u>Put back into Service</u>
Tugs	4	4
Drifters	2	2
Trawler	1	(scrapped)
Steam & Motor Boats	29	7
Lighters (Dockyard)	32	} 121
Lighters (Civil Govt:)	104	

48. Whilst.

48. Whilst recovery was in progress the Dockyard was faced with additional problems connected with the preparations for the invasion of Sicily and Italy for which Malta was the assembly port.

49. At this stage the receipt, storage, and disposal of Naval Stores became a particularly difficult matter. Malta came into use as a storage and transit port for vast quantities of stores of all kinds destined for various future advanced bases. The lost storehouses could not be rebuilt, and space was not available in the Dockyard. All suitable accommodation elsewhere had already been taken up.

50. As general clearance progressed and nissen huts could be obtained and erected, some improvement took place, but the vast quantities of stores and materials to be dealt with continued to increase, presenting a formidable problem.

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