

79. In addition I would like to place on record the very great assistance that I received throughout this period from my Flag Captain and Chief Staff Officer, Captain C. H. L. Woodhouse, Royal Navy.

80. The speedy arrival of H.M.S. CUMBERLAND, Captain W. H. G. Fallowfield, Royal Navy, from the Falkland Islands, was a most creditable performance, especially as that ship was self-refitting at the time the action commenced.

81. Throughout the days of waiting off the Plate, R.F.A. OLYNTHUS, Captain L. N. Hill, arrived punctually at the various rendezvous given him and did everything possible to facilitate the refuelling of H.M. Ships.

82. Within my own knowledge, and from the reports of the Commanding Officers there are many stories of bravery, devotion to duty and of the utmost efficiency which shows that H.M. Ships have been forcefully trained and made thoroughly ready to deal with the many and various exigencies of battle. In accordance with Admiralty message 1755/16th December, I am submitting separately a list of officers and ratings whom I consider to be especially deserving of award. I would remark, however, that the standard throughout has been so high that the preparation of this list has been very difficult.

83. I would like also to place on record the honour and pleasure I had to taking one of H.M. Ships of the New Zealand Division into action, and fully concur with the Commanding Officer of H.M.S. ACHILLES in paragraph 27 of his report where he remarks that "New Zealand has every reason to be proud of her seamen during their baptism of fire."

84. Further, it is most satisfactory for me to be able to inform you that the machinery and equipment generally of H.M. Ships proved to be of the highest efficiency and well able to stand up to the prolonged strain of battle.

#### *Lessons learned.*

85. The main impression left on my mind is of the adequacy of our peace training. Little that had not been practised occurred, particularly among the repair parties. Nevertheless, there are a very large number of points brought out in the reports by the Commanding Officers and I would recommend that they should be carefully studied.

86. As soon as the three ships were in company at the Falkland Islands I ordered committees of the Gunnery, Torpedo and Engineer Officers to be formed so as to analyse the lessons learned. Their conclusions have been forwarded direct to Admiralty.

#### *Enemy Tactics.*

87. The most salient point is that GRAF SPEE closed on sighting us, firing one turret at First Division and the other at EXETER.

This initial closing of the range by the enemy had the effect of bringing both the 8 in. and 6 in. cruisers into effective gun range at once and so avoided for us the most difficult problem of gaining range in the face of 11 in. gunfire.

88. It would appear that GRAF SPEE was heavily handled by the gunfire both of the First Division's concentration and also by that of EXETER in the initial phase, the culminating point perhaps being the firing of torpedoes by

H.M.S. EXETER. At this point GRAF SPEE turned away under smoke and from that time onwards her Commanding Officer displayed little offensive spirit and did not take advantage of the opportunity that was always present either to close the First Division or EXETER, the latter—and he must have known it—only having one turret in action. Instead GRAF SPEE retired between the two and allowed herself to be fired at from both flanks. Only at one period, i.e., at 0720, did she again open her "A" arcs and concentrate on the First Division, and she immediately abandoned this when AJAX fired torpedoes.

89. Her frequent alterations of course under smoke were, from an avoiding action point of view, well carried out and undoubtedly threw out our gunfire. This has shown up the necessity for more frequent practice at a highly mobile target at fine angles of inclination.

GRAF SPEE had an exceptionally high degree of manoeuvrability and apparently used full wheel for her turns. On many occasions this gave her an apparent list which raised our hopes, but she always came upright again on steadying.

90. At no time did GRAF SPEE steam at a higher speed than 24 knots, and generally her speed was between 19 and 22 knots. It was noticed that from the time of first sighting she was making a considerable amount of reddish-brown and occasionally white smoke.

91. Enemy smoke screens were good but not entirely effective as they did not rise high enough. A point brought out was the necessity for remote control of our smoke floats. Endeavours to light ours while the main armament was firing presented many difficulties.

#### *Enemy Gunnery.*

92. GRAF SPEE'S 11 in. fire was accurate throughout, particularly for line. The rate of fire was slow and there were short periods in which either one or the other turret did not appear to be firing, but by the evening phase both turrets were in action. They certainly did excellent shooting at AJAX and ACHILLES at a range of about 26,000 yards while these ships were shadowing. It was evident from this that shadowing ships should, available speed permitting, zigzag so as to prevent too accurate range plotting by the enemy. It was also found desirable to make drastic alterations of course when the first salvo was fired.

93. Perhaps the most interesting point was the mixing of armour-piercing delay action projectiles and direct action. AJAX'S one 11 in. hit and several of EXETER'S were of the delay action type. A delay of 42 feet was measured in AJAX and 65 feet in EXETER. It was most noticeable that at the short range at which the action was fought the 11 in. projectiles proceeded more or less on a horizontal course through the ship and did not directly affect the vitals below.

94. The direct action type produced most serious, and to a certain extent unexpected results. They burst on impact with either the ship or the water and showered splinters in all directions, causing a very large number of casualties to personnel and damage to rigging, electric cables and material generally. I would stress the necessity for more protection of bridges, fire control cables and such important