

Scenario: Dec 15, 1914 08:00 Hrs Scarborough Raid Dawn Shortened
British Force vs Hochseeflotte

Initial conditions

Wind W at 5 knots
Visibility 15,200 yards, dawn

Side 1, British Force (AI controlled)
Force 1, Warrender

Side 2, Hochseeflotte (AI controlled)
Force 4, Ingenohl

British Force (AI)		Hochseeflotte (AI)	
1BCS	BC Lion	I.G.-I	DN Ostfriesland
	BC Tiger		DN Thurigen
	BC Queen Mary		DN Helgoland
2BS-1	BC New Zealand	I.G.-II	DN Oldenburg
	DN King George V (F)		DN Posen
	DN Ajax		DN Rheinland
2BS-2	DN Centurion	III.G.-V	DN Nassau
	DN Orion		DN Westfalen
	DN Monarch		DN Friedrich Der Grosse (F)
2CS	DN Conqueror	III.G.-VI	DN Prinzregent Luitpold
	AC Antrim		DN Kaiserin
	AC Argyll		DN Kaiser
1LCS	AC Devonshire	II.G.-III	DN Konig Albert
	AC Roxburgh		DN Grosser Kurfurst
	CL Southampton		BB Preussen
4thFlot	CL Birmingham	II.G.-IV	BB Schlesien
	CL Nottingham		BB Hessen
	CL Falmouth		BB Lothringen
	DD 4th Flotilla (7)	III.A.G.	BB Hannover
			BB Schleswig-Holstein
			BB Pommern
		IV.A.G.	BB Deutschland
			AC Roon
			AC Prinz Heinrich
		I.Fd.T	CL Hamberg
			CL Stuttgart
			CL Muenchen
		II.Fd.T	CL Danzig
			CL Frauenlob
			CL Rostock
		Flot-VI	TB Flotille VI (11)
		Flot-V	TB Flotille V (11)
		Flot-VII	TB Flotille VII (11)
		Flot-II	TB Flotille II (11)
		Flot-VIII	TB Flotille VIII (11)

08:00 Hrs Scenario start
Warrender, course 332, speed 16 knots
Ingenohl, course 180, speed 14 knots

Turn 1
Turn 2
Turn 3
Turn 4

08:19 Hrs Hamberg sights smoke [from 1LCS] bearing SSE, about 10 NM
08:19 Hrs Southampton sights smoke [from Prinz Heinrich] bearing NNE, about 10 NM
08:19 Hrs Southampton sights smoke [from Hamberg] bearing NNW, about 10 NM

Turn 5

08:21 Hrs Southampton sights smoke [from Flotille VI] bearing NNE, about 10 NM
08:24 Hrs Hamberg sights smoke [from 2CS] bearing SSW, about 10 NM
08:24 Hrs Hamberg sights 4 funneled cruiser [Southampton leading 1LCS] bearing SSE, 8 NM
08:25 Hrs Hamberg sights smoke [from 1BCS] bearing S, about 10 NM
08:25 Hrs Hamberg sights 4 funneled cruiser [Birmingham] bearing SSE, 8 NM
08:25 Hrs Hamberg sights 4 funneled cruiser [Nottingham] bearing SSE, 8 NM

08:25 Hrs Hamberg sights 4 funneled cruiser [Falmouth] bearing SSE, 9 NM
08:25 Hrs Southampton sights smoke [from Roon] bearing NE, about 10 NM
08:25 Hrs Southampton sights 2 funneled cruiser [Prinz Heinrich] bearing NNE, 9 NM
08:25 Hrs Southampton sights 3 funneled cruiser [Hamberg] bearing NNW, 8 NM
08:25 Hrs Warrender deploys to starboard, King George V leading battleline,
course 068 to take downwind position
08:25 Hrs 2CS stationed on King George V, 3 NM ahead
08:25 Hrs 1LCS stationed on King George V, 2.3 NM port bow
08:25 Hrs Sunrise
Turn 6
08:27 Hrs Prinz Heinrich opens fire on Birmingham, range 17,100 yards
08:28 Hrs Birmingham sights smoke [from IV.A.G.] bearing N, about 10 NM
08:28 Hrs Birmingham opens fire on Hamberg, range 14,200 yards
08:29 Hrs Nottingham opens fire on Hamberg, range 13,950 yards
08:29 Hrs Falmouth opens fire on Hamberg, range 13,650 yards
08:30 Hrs Warrender battleline closes range to continue engagement, course 017
Turn 7
08:31 Hrs Falmouth sights smoke [from I.G.-I] bearing NNE, about 10 NM
08:31 Hrs Prinz Heinrich shifts fire to Falmouth, range 14,700 yards
08:32 Hrs Hamberg sights 4 funneled cruiser [Antrim leading 2CS] bearing SSW, 10 NM
08:32 Hrs Hamberg sights 4 funneled cruiser [Argyll] bearing SSW, 10 NM
08:32 Hrs Hamberg sights 4 funneled cruiser [Devonshire] bearing SSW, 10 NM
08:32 Hrs Hamberg sights 4 funneled cruiser [Roxburgh] bearing SSW, 10 NM
08:32 Hrs Hamberg opens fire on Falmouth, range 13,100 yards
08:34 Hrs Falmouth sights 8 destroyers [Flotille VI] bearing NNE, 7 NM
08:35 Hrs Warrender battleline closes range to continue engagement, course 002
08:35 Hrs Ingenohl deploys to port, Ostfriesland leading battleline,
course 153 based on enemy bearing
08:35 Hrs III.A.G. stationed on Ostfriesland, 3 NM ahead
08:35 Hrs IV.A.G. stationed on Ostfriesland, 2.3 NM starboard bow
Turn 8
08:36 Hrs Hamberg sights Lion class BC [Lion leading 1BCS] bearing SSE, 9 NM
08:37 Hrs Hamberg sights Tiger class BC [Tiger] bearing S, 9 NM
08:37 Hrs Prinz Heinrich sights smoke [from 2BS-1] bearing S, about 10 NM
08:39 Hrs Hamberg sights Lion class BC [Queen Mary] bearing S, 9 NM
08:40 Hrs Hamberg sights Indefatigable class BC [New Zealand] bearing S, 9 NM
08:40 Hrs Warrender battleline closes range to continue engagement, course 009
08:40 Hrs Ingenohl battleline closes range to continue engagement, course 202
Turn 9
08:43 Hrs Hamberg sights smoke [from 2BS-2] bearing S, about 10 NM
08:44 Hrs Lion sights smoke [from I.G.-II] bearing NNE, about 10 NM
08:45 Hrs Prinz Heinrich opens fire on Lion, range 17,200 yards
08:45 Hrs Warrender battleline closes range to continue engagement, course 027
08:45 Hrs Ingenohl battleline closes range to continue engagement, course 196
Turn 10
08:46 Hrs Lion opens fire on Prinz Heinrich, range 16,800 yards
08:46 Hrs Tiger opens fire on Prinz Heinrich, range 17,550 yards
08:47 Hrs Lion sights 4 funneled cruiser [Roon leading III.A.G.] bearing NE, 8 NM
08:47 Hrs Roon opens fire on Lion, range 17,500 yards
08:48 Hrs Lion sights Helgoland class DN [Ostfriesland leading I.G.-I] bearing NNE, 8 NM
08:48 Hrs Lion sights Helgoland class DN [Thurigen] bearing NNE, 8 NM
08:48 Hrs Lion sights smoke [from III.G.-VI] bearing N, about 10 NM
08:48 Hrs Lion sights smoke [from Rostock] bearing NE, about 10 NM
08:48 Hrs Lion sights smoke [from Flotille V] bearing NNE, about 10 NM
08:48 Hrs Queen Mary opens fire on Prinz Heinrich, range 17,150 yards
08:48 Hrs Ostfriesland opens fire on Lion, range 17,450 yards
08:48 Hrs Hamberg opens fire on Lion, range 12,550 yards
08:49 Hrs Lion sights Helgoland class DN [Helgoland] bearing NNE, 8 NM
08:49 Hrs Lion sights Helgoland class DN [Oldenburg] bearing NNE, 8 NM
08:49 Hrs Lion sights 3 funneled cruiser [Stuttgart leading IV.A.G.] bearing NNW, 7 NM
08:49 Hrs Lion sights 3 funneled cruiser [Muenchen] bearing NNW, 7 NM
08:49 Hrs Lion shifts fire to Ostfriesland, range 16,200 yards
08:49 Hrs New Zealand opens fire on Roon, range 17,350 yards
08:49 Hrs Thurigen opens fire on Lion, range 16,700 yards
08:49 Hrs Roon shifts fire to Tiger, range 15,800 yards
08:49 Hrs Prinz Heinrich shifts fire to Queen Mary, range 16,650 yards
08:50 Hrs Lion sights Westfalen class DN [Posen leading I.G.-II] bearing N, 8 NM
08:50 Hrs Lion sights Westfalen class DN [Rheinland] bearing N, 8 NM
08:50 Hrs Lion sights Westfalen class DN [Nassau] bearing N, 9 NM
08:50 Hrs Lion sights 3 funneled cruiser [Danzig] bearing NNW, 7 NM

08:50 Hrs Queen Mary shifts fire to Ostfriesland, range 16,150 yards
08:50 Hrs Helgoland opens fire on Lion, range 16,050 yards
08:50 Hrs Oldenburg opens fire on Lion, range 16,450 yards
08:50 Hrs Posen opens fire on Tiger, range 17,800 yards
08:50 Hrs Hamberg opens fire on Tiger, range 11,850 yards
08:50 Hrs 2BS-1 takes station to get support from battleline
08:50 Hrs Warrender battleline closes range to continue engagement, course 011
08:50 Hrs Ingenohl battleline closes range, course 249, current range 16350 yards

Turn 11

08:51 Hrs Lion sights Westfalen class DN [Westfalen] bearing N, 8 NM
08:51 Hrs Lion sights smoke [from II.G.-III] bearing N, about 10 NM
08:51 Hrs Lion sights 2 funneled cruiser [Frauenlob] bearing NNW, 7 NM
08:51 Hrs Tiger shifts fire to Ostfriesland, range 14,350 yards
08:51 Hrs Helgoland shifts fire to Tiger, range 15,450 yards
08:51 Hrs Hamberg shifts fire to New Zealand, range 12,850 yards
08:51 Hrs Roon launches a torpedo at Lion
08:52 Hrs Hamberg sights King George V class DN [King George V leading 2BS-1] bearing S, 8 NM
08:52 Hrs Lion sights Kaiser class DN [Friedrich Der Grosse leading III.G.-V] bearing N, 8 NM
08:52 Hrs Lion sights Kaiser class DN [Prinzregent Luitpold] bearing N, 8 NM
08:52 Hrs New Zealand shifts fire to Thurigen, range 15,250 yards
08:52 Hrs Southampton opens fire on Hamberg, range 13,550 yards
08:52 Hrs Oldenburg shifts fire to Tiger, range 14,650 yards
08:52 Hrs Rheinland opens fire on Queen Mary, range 16,450 yards
08:52 Hrs Nassau opens fire on Lion, range 15,550 yards
08:52 Hrs Westfalen opens fire on Lion, range 16,050 yards
08:53 Hrs Hamberg sights King George V class DN [Ajax] bearing S, 8 NM
08:53 Hrs Lion sights Kaiser class DN [Kaiserin] bearing N, 8 NM
08:53 Hrs Lion sights Kaiser class DN [Kaiser leading III.G.-VI] bearing N, 8 NM
08:53 Hrs Lion sights smoke [from II.G.-IV] bearing N, about 10 NM
08:53 Hrs Lion sights 4 funneled cruiser [Rostock] bearing NE, 7 NM
08:53 Hrs King George V opens fire on Roon, range 17,550 yards
08:53 Hrs Posen shifts fire to Queen Mary, range 14,800 yards
08:53 Hrs Friedrich Der Grosse opens fire on Lion, range 15,600 yards
08:53 Hrs Prinzregent Luitpold opens fire on Lion, range 16,100 yards
08:53 Hrs Kaiserin opens fire on Tiger, range 17,450 yards
08:53 Hrs Prinz Heinrich shifts fire to Southampton, range 15,000 yards
08:54 Hrs Hamberg sights King George V class DN [Centurion] bearing S, 8 NM
08:54 Hrs Lion sights Kaiser class DN [Konig Albert] bearing N, 8 NM
08:54 Hrs Lion sights Konig class DN [Grosser Kurfurst] bearing N, 8 NM
08:54 Hrs Kaiser opens fire on Lion, range 16,550 yards
08:54 Hrs Konig Albert opens fire on Lion, range 17,050 yards
08:54 Hrs Roon shifts fire to Birmingham, range 14,500 yards
08:55 Hrs Roon sights Orion class DN [Orion leading 2BS-2] bearing SSW, 8 NM
08:55 Hrs Ajax opens fire on Roon, range 16,700 yards
08:55 Hrs Grosser Kurfurst opens fire on Lion, range 16,250 yards
08:55 Hrs 2BS-1 takes station to get support from battleline

Turn 12

08:56 Hrs Roon sights Orion class DN [Monarch] bearing S, 8 NM
08:56 Hrs Centurion opens fire on Roon, range 16,850 yards
08:56 Hrs Konig Albert shifts fire to Queen Mary, range 16,000 yards
08:57 Hrs Roon sights Orion class DN [Conqueror] bearing S, 8 NM
08:57 Hrs Lion sights Braunschweig class BB [Preussen leading II.G.-III] bearing N, 8 NM
08:57 Hrs Lion sights Deutschland class BB [Schlesien] bearing N, 8 NM
08:57 Hrs Lion sights 7 destroyers [Flotille V] bearing NNW, 6 NM
08:57 Hrs Lion sights 9 destroyers [Flotille VII] bearing N, 6 NM
08:57 Hrs Monarch opens fire on Roon, range 16,950 yards
08:57 Hrs Falmouth opens fire on Hamberg, range 13,600 yards
08:57 Hrs Kaiser shifts fire to Tiger, range 13,500 yards
08:57 Hrs Grosser Kurfurst shifts fire to Queen Mary, range 15,250 yards
08:58 Hrs Lion sights Braunschweig class BB [Hessen] bearing N, 8 NM
08:58 Hrs Lion sights Braunschweig class BB [Lothringen] bearing N, 8 NM
08:58 Hrs Lion sights smoke [from Flotille II] bearing N, about 10 NM
08:58 Hrs Orion opens fire on Roon, range 15,600 yards
08:58 Hrs Conqueror opens fire on Roon, range 16,650 yards
08:58 Hrs Thurigen shifts fire to King George V, range 15,500 yards
08:58 Hrs Preussen opens fire on Lion, range 16,000 yards
08:58 Hrs Hessen opens fire on Tiger, range 17,450 yards
08:58 Hrs Danzig opens fire on Southampton, range 13,200 yards
08:58 Hrs Frauenlob opens fire on Southampton, range 13,050 yards
08:58 Hrs Rostock opens fire on Birmingham, range 13,450 yards

08:59 Hrs Rostock sights 7 destroyers [4th Flotilla] bearing SSW, 6 NM
08:59 Hrs Lion sights Deutschland class BB [Hannover leading II.G.-IV] bearing N, 8 NM
08:59 Hrs Lion sights Deutschland class BB [Schleswig-Holstein] bearing N, 8 NM
08:59 Hrs Antrim opens fire on Roon, range 13,900 yards
08:59 Hrs Schlesien opens fire on Lion, range 15,400 yards
08:59 Hrs Lothringen opens fire on Lion, range 16,100 yards
08:59 Hrs Stuttgart opens fire on Southampton, range 13,100 yards
08:59 Hrs Muenchen opens fire on Southampton, range 13,050 yards
09:00 Hrs Lion sights Deutschland class BB [Pommern] bearing N, 8 NM
09:00 Hrs Lion sights Deutschland class BB [Deutschland] bearing N, 8 NM
09:00 Hrs Argyll opens fire on Roon, range 13,750 yards
09:00 Hrs Queen Mary loses 1 gun of A turret
09:00 Hrs Lion loses 1 gun of X turret
09:00 Hrs Hannover opens fire on Tiger, range 16,700 yards
09:00 Hrs Schleswig-Holstein opens fire on Lion, range 16,500 yards
09:00 Hrs Pommern opens fire on Tiger, range 17,450 yards
09:00 Hrs 2BS-1 takes station to get support from battleline

Turn 13

09:01 Hrs Devonshire opens fire on Roon, range 13,600 yards
09:01 Hrs Roxburgh opens fire on Rostock, range 13,200 yards
09:01 Hrs Deutschland opens fire on Lion, range 16,250 yards
09:02 Hrs Lion turns away from Nassau to NE due to high damage
09:02 Hrs Lion maximum speed reduced by flooding
09:03 Hrs Ajax shifts fire to Thurigen, range 12,900 yards
09:03 Hrs Orion shifts fire to Helgoland, range 13,650 yards
09:03 Hrs Monarch shifts fire to Oldenburg, range 13,950 yards
09:03 Hrs Conqueror shifts fire to Posen, range 15,050 yards
09:03 Hrs Devonshire shifts fire to Prinz Heinrich, range 12,450 yards
09:03 Hrs Birmingham opens fire on Stuttgart, range 12,400 yards
09:03 Hrs Helgoland shifts fire to King George V, range 12,200 yards
09:03 Hrs Oldenburg shifts fire to Ajax, range 12,500 yards
09:03 Hrs Posen shifts fire to Centurion, range 14,000 yards
09:03 Hrs Rheinland shifts fire to Orion, range 13,950 yards
09:03 Hrs Nassau shifts fire to Monarch, range 14,200 yards
09:03 Hrs Konig Albert shifts fire to Tiger, range 6,800 yards
09:03 Hrs Preussen shifts fire to Queen Mary, range 12,550 yards
09:03 Hrs Schlesien shifts fire to New Zealand, range 13,600 yards
09:03 Hrs Hamberg shifts fire to Antrim, range 10,950 yards
09:03 Hrs Muenchen shifts fire to Birmingham, range 12,200 yards
09:03 Hrs Danzig shifts fire to Nottingham, range 12,500 yards
09:03 Hrs Frauenlob shifts fire to Falmouth, range 12,750 yards
09:03 Hrs Rostock shifts fire to Southampton, range 6,950 yards
09:03 Hrs Kaiser launches a torpedo at Lion
09:03 Hrs Lion uncontrolled flooding due to sea state
09:03 Hrs Lion SINKS
09:04 Hrs Ostfriesland loses E turret [guns lost: 2]
09:04 Hrs Rostock loses 1 primary gun starboard
09:04 Hrs Nottingham opens fire on Hamberg, range 7,400 yards
09:04 Hrs Ostfriesland shifts fire to Tiger, range 8,350 yards
09:04 Hrs Westfalen shifts fire to King George V, range 11,300 yards
09:04 Hrs Friedrich Der Grosse shifts fire to Conqueror, range 14,800 yards
09:04 Hrs Prinzregent Luitpold shifts fire to Ajax, range 12,850 yards
09:04 Hrs Hessen opens fire on Tiger, range 11,750 yards
09:04 Hrs Lothringen shifts fire to Queen Mary, range 12,400 yards
09:04 Hrs Hannover opens fire on New Zealand, range 14,550 yards
09:04 Hrs Tiger turns away from Kaiserin to ENE due to high damage
09:04 Hrs Tiger maximum speed reduced by flooding
09:05 Hrs Queen Mary sights 7 destroyers [Flotille VIII] bearing NNW, 6 NM
09:05 Hrs Schleswig-Holstein opens fire on Tiger, range 12,950 yards
09:05 Hrs Queen Mary machinery damaged by flooding
09:05 Hrs 2BS-1 takes station to get support from battleline

Turn 14

09:06 Hrs Ajax shifts fire to Prinz Heinrich, range 9,350 yards
09:06 Hrs Ajax loses 1 gun of B turret
09:06 Hrs Deutschland opens fire on Queen Mary, range 13,400 yards
09:06 Hrs Tiger maximum speed reduced by flooding
09:06 Hrs Queen Mary maximum speed reduced by flooding
09:07 Hrs King George V shifts fire to Helgoland, range 11,350 yards
09:07 Hrs Ajax shifts fire to Oldenburg, range 10,750 yards
09:07 Hrs Centurion shifts fire to Posen, range 11,800 yards

09:07 Hrs Orion shifts fire to Rheinland, range 11,950 yards
 09:07 Hrs Conqueror shifts fire to Nassau, range 12,300 yards
 09:07 Hrs Birmingham shifts fire to Hamberg, range 9,450 yards
 09:07 Hrs Falmouth shifts fire to Stuttgart, range 13,850 yards
 09:07 Hrs Westfalen shifts fire to Ajax, range 10,250 yards
 09:07 Hrs Konig Albert shifts fire to Centurion, range 11,600 yards
 09:07 Hrs Grosser Kurfurst shifts fire to Orion, range 11,750 yards
 09:07 Hrs Pommern shifts fire to New Zealand, range 13,800 yards
 09:07 Hrs Roan shifts fire to Argyll, range 9,500 yards
 09:07 Hrs Hamberg shifts fire to Devonshire, range 9,750 yards
 09:08 Hrs Rostock maximum speed reduced by flooding
 09:09 Hrs Rostock loses 1 primary gun starboard
 09:09 Hrs Rostock maximum speed reduced by flooding
 09:10 Hrs Prinz Heinrich machinery damaged by flooding
 09:10 Hrs Ingenohl battleline maintains range, course 333, current range 12600 yards
 Turn 15
 09:11 Hrs New Zealand shifts fire to Ostfriesland, range 14,600 yards
 09:11 Hrs Ajax shifts fire to Thurigen, range 13,800 yards
 09:11 Hrs Centurion shifts fire to Helgoland, range 12,850 yards
 09:11 Hrs Orion shifts fire to Oldenburg, range 12,050 yards
 09:11 Hrs Argyll shifts fire to Prinz Heinrich, range 10,850 yards
 09:11 Hrs Devonshire shifts fire to Rostock, range 4,250 yards
 09:11 Hrs Nottingham shifts fire to Hamberg, range 12,050 yards
 09:11 Hrs Oldenburg shifts fire to King George V, range 13,500 yards
 09:11 Hrs Conqueror loses B turret [guns lost: 2]
 09:11 Hrs Kaiserin shifts fire to Ajax, range 11,900 yards
 09:11 Hrs Kaiser shifts fire to Centurion, range 11,700 yards
 09:11 Hrs Schlesien shifts fire to Orion, range 16,500 yards
 09:11 Hrs Hamberg shifts fire to Queen Mary, range 12,200 yards
 09:11 Hrs Rostock uncontrolled flooding due to sea state
 09:12 Hrs Ajax shifts fire to Oldenburg, range 13,850 yards
 09:12 Hrs Centurion shifts fire to Posen, range 13,200 yards
 09:12 Hrs Monarch shifts fire to Posen, range 12,350 yards
 09:12 Hrs Falmouth opens fire on Hamberg, range 11,900 yards
 09:14 Hrs Orion opens fire on Ostfriesland, range 15,650 yards
 09:14 Hrs Rostock maximum speed reduced by flooding
 09:15 Hrs New Zealand sights smoke [from Stettin] bearing NNE, about 10 NM
 09:15 Hrs Monarch opens fire on Ostfriesland, range 16,100 yards
 09:15 Hrs Ingenohl battleline closes range, course 039, current range 15250 yards
 Turn 16
 09:16 Hrs Conqueror opens fire on Thurigen, range 16,050 yards
 09:16 Hrs Antrim shifts fire to Rostock, range 10,750 yards
 09:16 Hrs Argyll shifts fire to Rostock, range 10,200 yards
 09:16 Hrs Helgoland shifts fire to Centurion, range 16,900 yards
 09:16 Hrs Oldenburg shifts fire to Orion, range 16,350 yards
 09:16 Hrs Kaiser shifts fire to King George V, range 15,850 yards
 09:16 Hrs Schlesien shifts fire to Conqueror, range 15,900 yards
 09:17 Hrs Nottingham opens fire on Rostock, range 13,200 yards
 09:17 Hrs Westfalen shifts fire to Tiger, range 15,650 yards
 09:18 Hrs Falmouth opens fire on Rostock, range 13,100 yards
 09:18 Hrs Hannover shifts fire to Tiger, range 15,100 yards
 09:20 Hrs Ingenohl battleline closes range, course 100, current range 15800 yards
 Turn 17
 09:22 Hrs Westfalen opens fire on Devonshire, range 18,150 yards
 Turn 18
 09:30 Hrs Ingenohl battleline closes range to continue engagement, course 156
 Turn 19
 09:34 Hrs Rostock loses power
 09:35 Hrs Ingenohl battleline closes range to continue engagement, course 147
 Turn 20
 09:40 Hrs Ingenohl battleline closes range to continue engagement, course 155