

PLAY BOOK

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Scenario Format

Each Scenario uses the following format:

Type: Most scenarios in PQ-17 are Convoy scenarios. Other scenarios published separately may be different types (e.g., Air Strike).

Environment: Describes which turns are Day or Night, and the Predicted Ice Conditions for each Zone (E = East, W = West). Unless the Predicted Ice Condition for a Zone is underlined, place the marker face-up (with a '?').

Date: States the month and Fortnight (I or II) of the scenario, and its Starting Turn (Day # and AM or PM).

Convoy Routes: Allied starting locations and destinations are listed. If a Special Condition puts an Axis Convoy in play, its route is always Tromsø - Kirkenes.

Air Sectors: Sets the allowance of hexes that may be searched in Air Sectors each turn.

Forces:

Lists the starting locations, types, and numbers of all forces and some Dummies. **Players should also place 1 Dummy in each port with friendly forces** [4.1.3]. Heavy Ships are listed by (*Name*), Light Ships and aircraft by CS and type (e.g., “3x DD (A-I class)” means one A-I class DD counter of 3CS). Note that semicolons are used to indicate historically separate forces that started in the same port, but **players are free to split or combine forces in a port during setup as they see fit**. An asterisk (*) indicates the ship was sunk during this historical operation (which has no effect on game play). [Inop] means that unit may not leave port. Aircraft units may not be split. Although air [Unit designations] are listed for historical purposes only, Base codes on counters are valid only for the historical units, and only where not underlined. Do *not* place US aircraft (xx FS or PS) in Reykjavik or Akureyri unless *Graf Zeppelin* is in play [14].

CPs: Sets the number of *Gruppe Nord* and *Severnny Flot* Command Points available at start. The Home Fleet always starts with 8 available.

Dummies: The maximum number of Allied and Axis Dummy blocks allowed during play.

Reinforcements:

Locations, types, and numbers of Random Event Reinforcements [13.6].

Special Rules:

Any changed or supplemental rules in effect for this scenario. If they conflict with a standard rule, the Special Rule always takes precedence.

Historical Background:

A brief summary of the conditions under which the historical operation occurred and its outcome.

BASE CODES

Air unit Base Codes aid setup and air unit movement by indicating the airbase of each air unit in most scenarios. When two or more letters are listed, the player has a choice of which base to

use for that unit. Once placed, however, the unit may not change base during an Operation. When a listed air [Unit designation] is underlined, the base code is invalid for that scenario.

British

A	<i>HMS Avenger</i>
D	Dyce
F	<i>HMS Furious</i>
H	Hatston
L	Leuchars
M	Murmansk
S	Sumburgh
V	<i>HMS Victorious</i>
W	Wick

Soviet

A	Arkhangelsk
(none)	Murmansk
<hr/>	
U.S.	
(none)	Reykjavik

German

A	Aalborg
B	Banak
F	Bardufoss
G	Bergen
K	Kirkenes
L	Lista
S	Stavanger
T	Trondheim
Troms	Tromsø
Z	<i>KM Graf Zeppelin</i>

I. PQ-6: The *Kriegsmarine's* First Effort

Type: Convoy (PQ-6)

Environment: AM Turns - Night, PM Turns - Night

Ice Conditions: I & II - Solid Pack; IIIW - Thin Pack?; IIIE - Heavy Drift?; IV - Light Drift?; V - Clear?

Date: December I 1941 - AM Day 5

Convoy Routes: PQ-6 Reykjavik - Murmansk

Air Sectors: Allied - Iceland 1;
Axis - North Sea 1, Trondheim 1, Barents 1

Forces: Allied

Patrol White: 2x CA (*Suffolk, Norfolk* in hex 0305)
Reykjavik: 8x MV
Seiðisfjörður: 1x CL (*Edinburgh*), 2x DD (A-I class)
Scapa Flow: 1x BB (*King George V*), 1x CV (*Victorious* w./ 3x Albacore [1x 820 Sqn, 2x 832 Sqn]), 2x CA (*Berwick, Cumberland*), 8x DD (2x A-I, 6x J-R class [1 Green]); 1x CL (*Arctura*), 4x DD (3x A-I, 1x J-R class [Green])
Sumburgh: 1x Catalina [413 Sqn]
Soviet Sub Patrol Area: 4x Subs (SU)
Murmansk: 2x DD (Type 7); 2x Subs (BR); 2x IL-4 [72 SAP], 1x SBbis [72 SAP]
Arkhangelsk: 1x ES (1/6 MF)



Axis

Tromsø: 5x DD (Type 36A [all Green; 1 Inop]); 1x He115C [1./KüFlGr 406]
Banak: 2x He111H-5 [I/KG26], 2x Ju88A-4 [I/KG30]
Kirkenes: 1x He111H-5 [I/KG26]
Within 4 hexes of Murmansk: 3x Subs (GE), 1x Dummy



CPs:	<i>Gruppe Nord</i>	N/A
	<i>Severnny Flot</i>	N/A

Dummies:	Maximum - 5 Allied, 3 Axis
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Reinforcements: Allied

- 2x Subs (BR) in Lerwick
- 1x CL (*Kenya*) in Scapa Flow

Axis

- (None)
- Increase Barents Air Sector hexes to 2

Special Rules:

- Ignore Rule 4.3 and do not use CPs in this Operation.
- Treat 'FAA Strike' and 'Operation WUNDERLAND' Special Conditions as "None." May not use *Graf Zeppelin* or *Furious* [14].
- Soviet Wolfpacks may not start or move into hex 0715.
- Soviet surface ships must remain within the Soviet Air Radius or Air Search Sector. Once they return to port, they may not leave again.
- Twilight Attack Random Event allows *all* German bombers to attack (not just torpedo bombers).
- If using Optional Rule 8.3.1 or 8.3.2, add CA *Kent* at Scapa Flow. She must arrive at Murmansk before AM Day 6 to score +2 VPs; score an additional -1 VP if sunk enroute.

Design Note: *Kent* transported British Foreign Minister Anthony Eden to Russia for a conference in Moscow.

Historical Background: Five 'Narvik' destroyers of the *Kriegsmarine's* Flotilla 8 arrived in Kirkenes on 12 December 1941, with instructions to interdict the convoy traffic from Britain and Soviet shipping along the Murman coast. The *Luftwaffe* failed to locate PQ-6 in the near-total darkness, but four German DDs were at sea conducting a sweep as the convoy approached. Two British minesweepers sent out to meet the convoy were misidentified as Soviet destroyers, and *HMS Speedy* was damaged before the Germans broke off the engagement. Ju88s of KG30 subsequently hit the freighter *Dekabrist* with two dud bombs before it entered Murmansk — a harbinger of things to come — but the first Allied ship on the "Murmansk run" was not lost until *U134* sank the freighter *Waziristan* of PQ-7A on 2 January.

Historical VPs: +9

II. PQ-12: *Tirpitz's* Narrow Escape

Type: Convoy (PQ-12, QP-8)

Environment: AM Turns - Day, PM Turns - Night

Ice Conditions: I, II, & III - Solid Pack; IVW - Thin Pack?,
IVE - Solid Pack?, VW - Clear?,
VE - Light Drift?

Date: March 1 1942 - AM Day 5

Convoy Routes: PQ-12 Reykjavik - Murmansk;
QP-8 Murmansk - Reykjavik

Air Sectors: Allied Iceland 1, Soviet 1;
Axis North Sea 1, Trondheim 1, Barents 2

Forces: Allied

Patrol White: 2x CA (*London*, *Suffolk* in hex 0305)
Reykjavik: 1x BB (*Duke of York*), 1x BC (*Renown*),
1x CL (*Kenya*), 6x DD (4x A-I, 2x J-R class);
2x DD (J-R class), 1x ES, 18x MV
Akureyri or Reykjavik: 1x P-39D [33rd PS],
1x P-40C [33rd PS]
Seiðisfjörður: 2x CL (*Liverpool*, *Trinidad*)
Leuchars: 2x Beaufort [86 Sqn], 1x Blenheim [489 Sqn],
1x Mosquito PR I [1 PRU]
Leuchars, Wick, or Sumburgh: 2x Beaufort [42 Sqn]
Dyce, or Sumburgh: 2x Beaufighter IC [235 Sqn],
2x Blenheim [404 Sqn]
Scapa Flow: 1x BB (*King George V*), 1x CV (*Victorious* w./
2x Fulmar [809 Sqn], 3x Albacore [1x 817 Sqn,
2x 832 Sq]), 1x CA (*Berwick*), 6x DD (2x A-I,
3x J-R, 1x L-M class [Green]); 1x CL (*Sheffield*),
1x DD (J-R class)
Sumburgh: 1x Catalina [210 Sqn]
Lerwick: 1x Sub (BR)
Within 2 hexes of any
Norwegian Coastal hex(es): 5x Subs (BR), 2x Dummies
Soviet Sub Patrol Area: 6x Subs (SU)
Murmansk: 1x CL (*Nigeria*); 1x ES, 15x MV;
2x DD (Type 7), 1x ES (1/6 MF);
3x Hurricane IIB [1x 2 GSAP, 2x 78 IAP],
2x I-153 [27 IAP], 2x P-40C [147 IAP],
1x Pe-2 [[2 GSAP], 2x IL-4 [2 GSAP],
2x SB bis [2 GSAP]

Axis

Germany Box: 2x Subs (GE)
Stavanger: 1x He115C [1./KüFlGr 906]
Trondheim: 1x BB (*Tirpitz*), 1x CB (*Admiral Scheer*),
1x CA (*Prinz Eugen* [Inop]),
4x DD (3x Type 34-46, 1x Type 36A),
1x TB (Type 35-37); 1x Bf109E/F [12./JG5],
1x Ju87D [Ergs./StG5], 1x Ju88A-4 [7./KG30]
Bodø: 2x Bf109E/F [7./JG5]
Bardufoss: 2x Ju88A-4 [III/KG30]
Tromsø: 1x He115C [1./KüFlGr 406]
Banak: 3x Ju88A-4 [1x Erp, 2x I/KG30]
Kirkenes: 2x Subs (GE); 2x Bf109E/F [4./JG5],
2x Bf110D/G [6.(Z)/JG5]
Outside the British Air Radius: 3x Subs (GE), 1x Dummy

CPs:	<i>Gruppe Nord</i>	1
	<i>Severnny Flot</i>	2

Dummies:	Maximum - 8 Allied, 6 Axis
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Reinforcements: Allied

- 1x CA (*Kent*) in Reykjavik
- 2x Beaufighter IC [236 Sqn] at Leuchars or Sumburgh;
2x Beaufighter IC [248 Sqn] at Dyce

Axis

- 1x Sub (GE) in Germany Box
- 1x Sub (GE) in Trondheim; 1x Sub (GE) in Narvik
- Increase *Gruppe Nord* CPs by 1

Special Rules:

- Prinz Eugen* CS = 2 and she is *Crippled* unless Axis Special Condition is 'Reinforcements', in which case she is operational (CS = 4). If Axis Special Condition is 'Atlantic Breakout', increase *Gruppe Nord* CPs by 1.
- Soviet Wolfpacks may not start or move into hex 0715.
- U-boats in the Germany Box may be scheduled to move prior to the Starting Turn (Exception to 4.2).
- Both Allied Convoys must leave port not later than PM Day 1.
- Hitler's Restrictions on *Tirpitz* movement [5.1.8] are **not** in effect.

Historical Background: Brand-new battleship *Tirpitz* steamed to Trondheim in January 1942, followed by *Admiral Scheer* a month later. As air reconnaissance improved with the lengthening hours of daylight, the Germans were determined to put this reinforced surface force to use. *Tirpitz* and four destroyers sortied to intercept PQ-12 on 6 March and were sighted by a patrolling British submarine. Though already at sea, Adm. Tovey feared an Atlantic breakout and kept his Home Fleet too far west to intercept the German force before it reached the vicinity of the convoy. Fortunately for the Allies, snow and fog shielded both PQ-12 and homebound QP-8 from the Germans, who found and sank only the straggling freighter *Ijora* from the latter before turning back to Norway. Cued by Ultra, however, Albacore torpedo bombers from *HMS Victorious* were able to attack *Tirpitz* in the approaches to Narvik. Although Capt. Topp skillfully evaded all the weapons dropped, a concerned Hitler placed further restrictions on future employment of his heavy ships.

Historical VPs: +14

III. PQ-13: Equinoctial Gales

Type: Convoy (PQ-13, QP-9)

Environment: AM Turns - Day, PM Turns - Night

Ice Conditions: I II, & III - Solid Pack; IV - Solid Pack?;
VW - Clear?, VE - Heavy Drift?

Date: March II 1942 - AM Day 4

Convoy Routes: PQ-13 Reykjavik - Murmansk;
QP-9 Murmansk - Reykjavik

Air Sectors: Allied - Iceland 1, Soviet 1;
Axis - North Sea 1, Trondheim 1, Barents 2

Forces: Allied

Patrol White: 2x CA (*Berwick*, *London* in hex 0305)
Reykjavik: 1x ES, 1x MO, 18x MV;
1x TB (Hunt II class), 1x AO (*Oligarch*)
Akureyri or Reykjavik: 1x P-39D [33rd PS],
1x P-40C [33rd PS]
Seiðisfjörður: 1x CL (*Trinidad*), 2x DD (A-I class)
Leuchars: 1x Mosquito PR I [1 PRU]
Leuchars, Dyce, Wick, or Sumburgh: 2x Blenheim [404 Sqn]
Leuchars, Wick, or Sumburgh: 2x Beaufort [42 Sqn]
Dyce, or Sumburgh: 2x Beaufighter IC [248 Sqn]
Wick: 2x Beaufort [86 Sqn]
Scapa Flow: 2x BB (*Duke of York*, *King George V*),
1x BC (*Renown*), 1x CV (*Victorious* w./ 2x Fulmar
[809 Sqn], 3x Albacore [1x 817 Sqn, 2x 832 Sq]),
1x CA (*Kent*), 2x CL (*Edinburgh*, *Nigeria*),
13x DD (6x A-I, 6x J-R, 1x L-M class),
3x TB (Hunt II class [1 Green])
Sumburgh: 2x Beaufighter IC [235 Sqn],
1x Catalina [210 Sqn]
Within 1 hex of South Norway: 4x Subs (BR), 1x Dummy
Soviet Sub Patrol Area: 4x Subs (SU)
Murmansk: 1x CL (*Kenya*); 1x DD (J-R class), 1x ES, 18x MV;
2x DD (Type 7), 1x ES (1/6 MF); 5x Hurricane IIB
[2x 2 GSAP, 2x 78 IAP, 1x 145 IAP], 2x I-153
[27 IAP], 2x Pe-3 [95 IAP], 2x P-40C [147 IAP],
1x Pe-2 [2 GSAP], 2x SB bis [2 GSAP], 2x IL-4
[2 GSAP]

Reinforcements: Allied

- 1x DD (J-R class) in Murmansk
- 2x Beaufighter IC [236 Sqn] at Leuchars or Sumburgh;
1x Hampden [489 Sqn] at Wick
- 1x CL (*Liverpool*) in Scapa Flow

Special Rules:

1. *Prinz Eugen* CS = 2 and she is *Crippled* unless Axis Special Condition is 'Reinforcements', in which case she is operational (CS = 4). If Axis Special Condition is 'Atlantic Breakout', increase *Gruppe Nord* CPs by 1.
2. Prior to start, the Axis player must draw a second Special Condition chit and keep it secret. If this chit is P-U, *Scheer* may leave port without expending a Command Point. If it is V-Z, increase *Gruppe Nord* CPs by 1.
3. Soviet Wolfpacks may not start or move into hex 0715.
4. CL *Kenya* cannot leave Murmansk before Day 3, and must enter a British port by the end of the game to score +2 VPs. Score an additional -2 VPs if she is sunk enroute.

Design Note: *Kenya* transported 10 tons of gold bullion from Russia as part of the Anglo-Russian Trade Agreement.

Axis

Stavanger: 1x He115C [1./KüFlGr 906]
Hex 1309: 1x Sub (GE)
Trondheim: 1x BB (*Tirpitz*), 1x CA (*Prinz Eugen* [Inop]),
1x CB (*Admiral Scheer*), 3x DD (Type 36A),
2x TB (Type 35-37); 4x Bf109E/F [8, 9, 12./JG5],
1x Ju87D [Ergs./StG5], 1x Ju88A-4 [7./KG30],
1x Fw200C [2./KG40]
Bodø: 2x Bf109E/F [7./JG5]
Narvik: 1x Sub (GE)
Bardufoss: 2x Ju88A-4 [III/KG30]
Tromsø: 1x He115C [1./KüFlGr 406]
Banak: 3x Ju88A-4 [1x Erp, 2x I/KG30]
Kirkenes: 2x Subs (GE); 1x Bf109E/F [4./JG5],
2x Bf110D/G [10.(Z)/JG5]
Outside the British Air Radius: 3x Subs (GE), 1x Dummy
Within 3 hexes of Murmansk: 4x Subs (GE), 1x Dummy

CPs:	<i>Gruppe Nord</i>	0
	<i>Severnny Flot</i>	3

Dummies:	Maximum - 8 Allied, 7 Axis
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Axis

- 1x CA (*Admiral Hipper*), 1x DD (Type 34-36),
1x TB (Type 35-37) in Trondheim
- 1x Sub (GE) in Kirkenes; 1x Sub (GE) in Germany Box
- 2x Subs (GE) in Bergen; 1x Sub (GE) in Germany Box

Historical Background: PQ-13 sailed from Hvalfjörður on 20 March 1942. Within a week, severe gales had dispersed the merchantmen, making them highly vulnerable before their questing escorts relocated them; Ju88 bombers sank two. German heavy ships were immobilized by lack of fuel, but three destroyers joined the hunt. *Z26* sank the straggling *SS Bateau*, but was badly damaged by *Trinidad* and later sunk by *Eclipse*. In the process, *Trinidad* was hit by one of her own rogue torpedoes, and barely limped into Murmansk. U-boats sank two more freighters before the remainder reached port, but lost two of their own number in return: *HMS Sharpshooter* of QP-9's escort surprised, rammed, and sank *U655*, and *U585* was mined.

With the loss of over 25% of its ships, PQ-13 demonstrated the vulnerability of Arctic convoys once cohesion was lost. Nor were the ships safe even after they reached Russia, as bombers sank *SS New Westminster City* in Murmansk before she completed unloading, and one other freighter before she could return.

Historical VPs: +4.5

IV. Limping Home

Type: Transfer

Date: May I 1942 - AM Day 1

Environment: AM Turns - Day, PM Turns - Day

Convoy Routes: n/a

Ice Conditions: I & II - Solid Pack; IIIW - Heavy Drift?,
 IIIE - Solid Pack?; IVW - Light Drift?,
 IVE - Heavy Drift?; VW - Clear, VE - Clear?

Air Sectors: Allied - Iceland 1, Soviet 1;
 Axis - North Sea 1, Trondheim 1, Barents 2

Forces: Allied

Patrol White: 2x CA (*Wichita* in hex 0305, *Tuscaloosa* in Reykjavik)

Reykjavik: 1x BB (*Washington*), 4x DD (US); 1x CA (*Norfolk*)

Akureyri or Reykjavik: 2x P-39D [33rd FS]

Seiðisfjörður: 1x CA (*Kent*), 1x CL (*Liverpool*),
 2x DD (1x A-I, 1x J-R class)

Skálafjörður: (in play)

Leuchars: 4x Hampden [144, 455 Sqn],
 1x Mosquito PR I [1 PRU]

Leuchars, Dyce, Wick, or Sumburgh: 2x Blenheim [404 Sqn]

Leuchars, Wick, or Sumburgh: 2x Beaufort [42 Sqn]

Wick: 2x Beaufort [86 Sqn]

Scapa Flow: 1x BB (*Duke of York*), 1x CV (*Victorious* w./
 2x Fulmar [809 Sqn], 3x Albacore [1x 817 Sqn,
 2x 832 Sq]), 1x CA (*London*), 5x DD (3x A-I,
 1x J-R, 1x L-M class), 4x TB (Hunt II class)

Sumburgh: 4x Beaufighter IC [235, 248 Sqn],
 1x Catalina [210 Sqn]

Lerwick: 2x Subs (BR)

Soviet Sub Patrol Area: 3x Subs (SU)

Murmansk: 1x CL (*Trinidad**), 4x DD (2x A-I, 1x J-R,
 1x L-M class [Green]); 2x DD (Type 7),
 1x TB (Type IV-V), 1x ES (1/6 MF);
 4x Hurri IIb [2 GSAP, 78 IAP], 2x I-153 [27 IAP],
 1x P-40C [20 GIAP], 1x P-40E [20 GIAP],
 1x Pe-3 [95 IAP], 2x IL-4 [2 GSAP],
 1x SB bis [2 GSAP]



Axis

Stavanger: 1x He115C [1/KüFlGr 906]

Trondheim: 1x BB (*Tirpitz*), 2x CA (*Admiral Hipper*,
Prinz Eugen), 4x DD (2x Type 34-36 [1 Inop],
 2x Type 36A), 2x TB (Type 35-37), 1x Sub (GE);
 1x Bf109E/F [10./JG5], 1x Ju87D [Ergs./StG5],
 1x Ju88A-4 [7./KG30], 1x Fw200C [2./KG40]

Narvik: 1x CB (*Admiral Scheer*), 1x TB (Type 35-37)

Bardufoss: 2x He111H-6 LT [3./KG26], 2x Ju88A-4 [III/KG30]

Tromsø: 1x He115C [1./KüFlGr 406]

Banak: 7x Ju88A-4 [1x Erp, 3x I, 3x II/KG30]

Kirkenes: 4x Bf109E/F [7,8,9./JG5],
 2x Bf110D/G [10(Z)/JG5]

Within 2 hexes of Bear Is.: 1x Sub (GE), 1x Dummy

Within 4 hexes of Murmansk: 2x Subs (GE), 1x Dummy



CPs:	<i>Gruppe Nord</i>	0
	<i>Severnny Flot</i>	1

Dummies:	Maximum - 9 Allied, 6 Axis
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Reinforcements: Allied

- 2x DD (US) in Scapa Flow
- 1x P-40E, 2x P-400 [19 GIAP] at Murmansk
- 1x CL (*Kenya*) in Clyde; 2x Hampden [489 Sqn] at Wick;
 1x Beaufighter IC [236 Sqn] at Leuchars or Sumburgh

Axis

- 1x CB (*Lützow*), 4x DD (2x Type 34-36, 2x Type 36A)
 in Kiel
- 1x Sub (GE) in Bergen; 2x Subs (GE) in Narvik
- 4x Bf109E/F [4,6/JG5] at Kirkenes

Special Rules:

- Treat 'Operation WUNDERLAND' Special Condition as "None." If Axis Special Condition is 'Atlantic Breakout', increase *Gruppe Nord* CPs by 1.
- Prior to start, the Axis player must draw a second Special Condition chit and keep it secret. If this chit is P-U, *Scheer* may leave port without expending a Command Point. If it is V-Z, increase *Gruppe Nord* CPs by 1.
- Soviet Wolfpacks may not start or move into hex 0715.
- Trinidad* CS = 1. *Prinz Eugen* CS = 2. Both may deploy without activating/expending CPs. The Operation ends when *Trinidad* arrives in Reykjavik or is sunk, **and** *Eugen* and one each Type 34-36 and 36A destroyers from Trondheim arrive in Kiel or are sunk. Score 1/2 the VPs as if sunk (round up) if they have not arrived by the end of PM Day 7.

Historical Background: On 23 February 1942, *HMS Trident* torpedoed the German cruiser *Prinz Eugen* as she transited to Norway in company with *Admiral Scheer*. Following temporary repairs in Trondheim, she was ready to return to Germany on 16 May in what the Germans dubbed Operation ZAUBERFLÖTE ('Magic Flute'). Destroyers *Paul Jacobi* and *Z25*, both due for refit and the latter damaged while attacking PQ-15, were included. Coincidentally, *Trinidad* had just completed her own temporary repairs (see Scenario III), and sailed from the Kola Inlet for the United States on 13 May. Both forces faced heavy air attacks, but while the German vessels arrived in Kiel unscathed, a Ju88 of KG30 bombed *Trinidad* on 14 May as she was preoccupied with evading a torpedo attack. She sank that night.

Historical VPs: -9

V. PQ-16: The Gathering Storm

Type: Convoy (PQ-16, QP-12)

Environment: AM Turns - Day, PM Turns - Day

Ice Conditions: I & IIE - Solid Pack, IIW - Thin Pack?;
IIIW - Heavy Drift?, IIIE - Thin Pack?;
IV - Clear?; V - Clear

Date: May II 1942 - PM Day 4

Convoy Routes: PQ-16 Reykjavik - Murmansk (6x MV must go to Arkhangelsk); QP-12 Murmansk - Reykjavik

Air Sectors: Allied - Iceland 1, Soviet 1;
Axis - North Sea 1, Trondheim 1, Barents 2

Forces:

Allied



Patrol White: 2x CA (*Tuscaloosa* in hex 0305, *Cumberland* in Reykjavik)

Reykjavik: 2x BB (*Duke of York*, *Washington*),
1x CV (*Victorious* w./ 2x Fulmar [809 Sqn],
3x Albacore [1x 817 Sqn, 2x 832 Sqn],
2x CA (*London*, *Wichita*), 9x DD (5x A-I class,
4x US), 4x TB (Hunt II class); 2x CA (*Kent*, *Norfolk*), 1x CL (*Liverpool*); 1x ES, 1x MC, 34x MV

Akureyri or Reykjavik: 2x P-39D [33rd FS]

Seiðisfjörður: 1x CL (*Nigeria*), 3x DD (2x J-R, 1x L-M class);
3x DD (1x A-I, 1x J-R, 1x L-M class), 1x TB (old DD); 1x AA (*Alynbank*), 1x ES, 2x Subs (BR);
1x TB (Hunt II class), 1x AO (*Black Ranger*)

Skálafjörður: (in play)

Leuchars: 4x Hampden [144, 455 Sqn],
1x Mosquito PR I [1 PRU]

Leuchars, Dyce, Wick, or Sumburgh: 2x Blenheim [404 Sqn]

Leuchars, Wick, or Sumburgh: 2x Beaufort [42 Sqn]

Wick: 2x Beaufort [86 Sqn]

Scapa Flow: 1x CL (*Kenya*); 1x BC (*Renown*),
3x DD (1x A-I, 1x J-R, 1x L-M class)

Sumburgh: 4x Beaufighter IC [235, 248 Sqn],
1x Catalina [210 Sqn]

Lerwick: 1x Sub (BR)

Within 2 hexes of Bear Is.: 4x Subs (BR), 1x Dummy

Soviet Sub Patrol Area: 3x Subs (SU)

Murmansk: 2x DD (Type 7), 1x TB (Type IV/V),
1x ES (1/6 MF); 3x DD (A-I class),
1x TB (Hunt II class), 2x ES, 1x AA (*Ulster Queen*),
1x MC, 15x MV; 2x Hurricane IIb [2 GSAP],
2x I-153 [27 IAP], 1x P-40C [20 GIAP],
2x P-40E [19, 20 GIAP], 2x P-400 [19 GIAP],
1x Pe-3 [95 IAP], 1x SB bis [2 GSAP],
2x IL-4 [2 GSAP]

Arkhangelsk: 1x Hurricane IIb [104 IAD], 1x P-40C [104 IAD]

Reinforcements: Allied

- 1x Beaufighter IC [236 Sqn] at Leuchars or Sumburgh;
2x Hampden [489 Sqn] at Wick

Special Rules:

1. Prior to start, the Axis player must draw a second Special Condition chit and keep it secret. If this chit is A-T, the Axis player may not expend a CP to deploy *Tirpitz*. If it is U-Z, increase *Gruppe Nord* CPs to 2.
2. Soviet Subs may not start or move into hex 0715.
3. When a Convoy leaves Reykjavik, increase its ID to 1 (German agent report).

Axis



Kiel: 1x Sub (GE)

Aalborg: 2x Bf109E/F [7./JG1]

Stavanger: 1x He115C [1./KüFlGr 906]

Trondheim: 1x BB (*Tirpitz*), 1x CA (*Admiral Hipper*),
1x CB (*Lützow*), 6x DD (3x Type 34-36,
3x Type 36A), 1x TB (Type 35-37), 1x Sub (GE);
1x Bf109E/F [10./JG5], 1x Ju87D [Ergs./StG5],
1x Ju88A-4 [7./KG30], 1x Fw200C [2./KG40]

Narvik: 1x CB (*Admiral Scheer*)

Bardufoss: 3x He111H-6 LT [2,3./KG26],
2x Ju88A-4 [III/KG30]

Tromsø: 1x He115C [1./KüFlGr 406]

Banak: 7x Ju88A-4 [1x Erp, 3x I, 3x II/KG30]

Kirkenes: 8x Bf109E/F [4,6,7,8,9./JG5],
2x Bf110D/G [13(Z)/JG5]

Within 2 hexes of Jan Mayen: 1x Sub (GE), 1x Dummy

Within 4 hexes of Murmansk: 4x Subs (GE), 1x Dummy

CPs:	<i>Gruppe Nord</i>	1
	<i>Severnny Flot</i>	2

Dummies:	Maximum - 9 Allied, 7 Axis
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Axis

- 1x Sub (GE) in Narvik
- (None)
- Increase *Gruppe Nord* CPs by 1.

Historical Background: PQ-16 and QP-12 both sailed on 21 May 1942, and were screened for portions of their route by dense fog. U-boats made several attacks, but only *U703* scored by sinking the freighter *Syros*. Then heavy pack ice forced PQ-16 farther south on 27 May, where better weather and the reduced range allowed German aircraft to attack in waves. The eastbound ships ran low on AA ammunition, and six merchantmen were sunk (five by KG30, one by KG26) and several others damaged. The longer daylight hours afforded the *Luftwaffe* opportunities it did not waste.

Historical VPs: +11

VI. PQ-17: "Convoy is to Scatter"

Type: Convoy (PQ-17, QP-13)

Environment: AM Turns - Day, PM Turns - Day

Ice Conditions: I - Solid Pack?; II - Heavy Drift?;
III - Clear?; IV & V - Clear

Date: July I 1942 - AM Day 5

Convoy Routes: PQ-17 Reykjavik - Arkhangelsk;
QP-13 Arkhangelsk/Murmansk - Reykjavik

Air Sectors: Allied - Iceland 1, Soviet 1;
Axis - North Sea 1, Trondheim 1, Barents 3

Forces: Allied

Patrol White: 1x BC (*Renown*), 1x CA (*Kent*) in Reykjavik
Reykjavik: 3x DD (2x A-I, 1x J-R class),
3x TB (2x Hunt II class, 1x old DD), 3x ES,
2x Subs (BR), 2x AA (*Palomares*, *Pozarica*),
1x AO (*Gray Ranger*), 1x MC, 34x MV;
1x TB (old DD), 1x AO (*Aldersdale**)
Akureyri or Reykjavik: 2x P-39D [33rd FS]
Seiðisfjörður: 4x CA (*London*, *Norfolk*, *Tuscaloosa*, *Wichita*),
3x DD (1x J-R class, 2x US), 2x TB (Hunt II class)
Leuchars: 4x Hampden [144, 455 Sqn],
1x Mosquito PR I [1 PRU]
Leuchars, Dyce, Wick, or Sumburgh: 2x Blenheim [404 Sqn]
Wick: 2x Beaufort [86 Sqn]
Scapa Flow: 2x BB (*Duke of York*, *Washington*),
1x CV (*Victorious* w./ 2x Fulmar [809 Sqn],
3x Albacore [1x 817 Sqn, 2x 832 Sqn],
1x CA (*Cumberland*), 2x CL (*Manchester* [Green],
Nigeria), 9x DD (2x A-I, 3x J-R [1 Green],
2x L-M class, 2x US), 1x TB (Hunt II class)
Sumburgh: 1x Beaufighter IC [235 Sqn];
1x Beaufighter VIC [248 Sqn],
1x Catalina [210 Sqn]
Within 2 hexes of Bear Is.: 8x Subs (BR), 2x Dummies
Soviet Sub Patrol Area: 6x Subs (SU)
Murmansk: 2x DD (Type 7), 1x ES (1/6 MF);
1x DD (A-I class), 1x TB (old DD), 2x ES,
1x Sub (BR), 23x MV; 1x Hurricane IIb [2 GSAP],
1x I-153 [27 IAP], 2x P-40E [2 GSAP, 20 GIAP],
1x P-400 [19 GIAP], 3x IL-4 [1x 2 GSAP,
2x 35 MTAP], 4x Pe-2 [28, 29 BAP],
1x SB bis [2 GSAP]
Arkhangelsk: 1x TB (Type IV/V); 2x DD (A-I class),
1x ES, 1x AA (*Alynbank*), 12x MV;
1x Hurricane IIb [104 IAD]



Axis

Aalborg: 2x Fw190A [7./JG1]
Bergen: 1x Sub (GE)
Trondheim: 1x BB (*Tirpitz*), 1x CA (*Admiral Hipper*),
4x DD (Type 34-36), 1x TB (Type 35-37);
1x Sub (GE); 2x Bf109E/F [12./JG5],
1x Ju87D [4./StG5], 1x Ju88A-4 [7./KG30],
1x Fw200C [2./KG40]
Narvik: 2x CB (*Admiral Scheer*, *Lützow*),
6x DD (1x Type 34-36, 5x 36A)
Tromsø: 1x He115C [1./KüFlIGr 406]
Alta: 1x He115C [1./KüFlIGr 906]
Bardufoss: 3x He111H-6 LT [1,3./KG26],
3x Ju88A-4 [III/KG30]
Banak: 1x He111H-6 LT [2./KG26],
8x Ju88A-4 [2x Erp, 3x I, 3x II/KG30]
Kirkenes: 7x Bf109E/F [4,6,7,8,9./JG5],
2x Bf110D/G [13(Z)/JG5]
Within 3 hexes of Jan Mayen: 9x Subs (GE), 2x Dummies



CPs:	<i>Gruppe Nord</i>	3
	<i>Severnny Flot</i>	3

Dummies:	Maximum - 9 Allied, 6 Axis
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Reinforcements: Allied

- 1x Beaufighter IC [236 Sqn] at Leuchars or Sumburgh;
2x Hampden [489 Sqn] at Wick
- 1x CL (*Kenya*) in Scapa Flow;
2x P-38F [27th FS] at Reykjavik
- 1x BB (*King George V*) in Scapa Flow

Axis

- (None)
- 1x Sub (GE) in Kiel

Special Rules:

- BC *Renown* is the second ship required for Patrol White.
- Do not count 122 IAD as an Interceptor at Murmansk in this Operation.
- When the Convoy leaves Reykjavik, increase its ID to 2 (German agent report).
- 210 Sqn may land at Sumburgh *or* Murmansk when returning to base.

PQ-17: “Convoy is to Scatter”, continued

Historical Background: The 35 merchantmen, one naval oiler, and three rescue ships of PQ-17 left Reykjavik on 27 June 1942 in foggy conditions. One freighter ran aground, a second suffered damage from drift ice, and both were left behind as the convoy exited the Denmark Strait and headed for Arkhangelsk. They were to prove the lucky ones.



At first this was not apparent, as the convoy remained unlocated by the Germans until two U-boats and a Fw200 Kondor of KG40 spotted it near Jan Mayen on the afternoon of 1 July. The next day, the convoy passed its unscathed westbound counterpart, QP-13, and thwarted attacks by *U456* and He115 torpedo bombers of KüFlGr 406 without loss. Fog and active escorts again shielded PQ-17 on 3 July, but the weather finally cleared enough at Trondheim that afternoon for RAF reconnaissance to confirm *Tirpitz* and her consorts had deployed. Operation RÖSSELSPRUNG (“Knight’s Move”) had actually gotten underway the day before, when the squadrons at both Trondheim and Narvik sortied to rendezvous and fuel at their advanced base at Alta. Unknown to the British, however, both forces had run afoul of the treacherous Norwegian shoals, as *Lützow* ran aground while leaving Ofotfjord, and destroyers *Theodor Riedel*, *Hans Lody*, and *Karl Galster* struck uncharted rocks entering Altafjord.

Not until the early morning of 4 July did the Germans score their first success, when a lone He115 of KüFlGr 906 dove through a hole in the low overcast to surprise the convoy and torpedo *SS Christopher Newport*, which was abandoned and subsequently sunk by *U457*. Further desultory attacks during the day were driven off until a more determined evening strike by KG26’s He111 torpedo bombers sank two freighters and damaged a tanker. Morale in the convoy remained high, even though the cruiser Covering Force was due to withdraw shortly as the convoy passed east of Bear Island. Then all this changed abruptly, as three signals in the space of half an hour culminated with the ominous order at 2136: “Convoy is to scatter.”

Lack of further intelligence had convinced the First Sea Lord, Adm. Dudley Pound, that *Tirpitz* and her consorts were at sea and about to fall upon the convoy — what he would have directed in his German counterpart’s place. Fearing losses to air and submarine attack, the capital ships of the Home Fleet were too far to the west to intervene. Pound saw no choice but to order the cruisers to join the Home Fleet while the convoy ships

sought maximum dispersal to avoid their loss *en masse* (as had happened on a smaller scale to SLS-64 on 12 February 1941, when *Admiral Hipper* operating alone caught and sank 7 of its 19 ships). Alarmed by the tenor and sequence of the Admiralty’s signals, PQ-17’s escort commander and commodore complied at 2215, with the destroyers joining the cruisers to augment their force for the seemingly-imminent battle.

As it turned out, both sides flinched from phantoms. Misleading shadowers’ reports that a battleship was included in the Covering Force and that carrier aircraft protected the convoy led Adm. Carls of *Gruppe Nord* to keep his surface units at Alta until the afternoon of 5 July, when it was clear that the convoy had scattered. And as early as 0230 on 5 July, the Admiralty admitted it was “not certain [the enemy ships] are at sea.” Both actions were too late: the convoy was already dispersed, *Tirpitz* and her consorts were recalled at 2115 without ever firing a shot because they had been sighted by Allied subs and aircraft, and the slaughter of the hapless merchant ships was already well underway. By 13 July, an additional 19 freighters, oiler *Aldersdale*, and rescue ship *Zaafaran* were sunk by bombers and submarines, leaving only 11 merchantmen to straggle into Arkhangelsk.



Overshadowed by the larger tragedy and little remembered today, QP-13 blundered into an Allied minefield in the fog of the Denmark Strait on 5 July and lost minesweeper *Niger* and five of its freighters.

Although other convoys would lose a greater percentage of their ships (notably TM-1, which lost 7 of its 9 tankers to U-boats in November 1942), no other lost more ships during the course of the war. The sense that PQ-17 had been abandoned to its fate shamed the Royal Navy, poisoned morale for many of the surviving merchant sailors, and was never forgotten or forgiven by some.

Historical VPs: -43.5

VII. PQ-18: The “Golden Comb”

Type: Convoy (PQ-18, QP-14)

Environment: AM Turns - Day, PM Turns - Night

Ice Conditions: I - Light Drift?; II - Clear?;
III, IV, & V - Clear

Date: September I 1942 - PM Day 2

Convoy Routes: PQ-18 Reykjavik - Arkhangelsk;
QP-14 Arkhangelsk - Loch Ewe

Air Sectors: Allied - Iceland 1, Soviet 1;
Axis - North Sea 1, Trondheim 1, Barents 3

Forces:

Allied



Reykjavik: 2x DD (A-I class), 2x TB (old DD), 3x ES, 2x AA (*Alynbank, Ulster Queen*), 2x AO (*Black Ranger, Gray Ranger**), 1x MC, 39x MV; 3x CA (*London, Norfolk, Suffolk*), 1x TB (old DD)

Akureyri or Reykjavik: 2x P-38F [US 50th FS],
2x P-39D [33rd FS]

Seiðisfjörður: 1x CVE (*Avenger* w./2x Sea Hurricane [802 Sqn]),
2x TB (Hunt II class); 1x CLAA (*Scylla*),
8x DD (4x A-I, 4x L-M class [2 Green]);
2x Sub (BR)

Clyde: 1x BC (*Renown*), 1x CA (*Cumberland*),
1x CL (*Sheffield*), 1x DD (A-I class)

Leuchars: 1x Mosquito PR I [1 PRU]

Dyce: 3x Beaufighter VIC [2x 248 Sqn, 1x 254 Sqn]

Wick: 4x Hampden [415, 489 Sqn]

Scapa Flow: 3x BB (*King George V, Duke of York, Anson*),
1x CL (*Jamaica*), 3x DD (A-I class),
2x TB (1x old DD, 1x Hunt II class);
7x DD (J-R class), 1x TB (OP class [Green])

Lerwick: 3x Subs (BR)

Sumburgh: 1x Catalina [210 Sqn]

Bell Sound: 3x TB (1x old DD, 2x Hunt II class [1 Green]),
2x AO (*Black Ranger, Oligarch*)

Any Norwegian coastal blue(es): 4x Subs (BR), 1x Dummy

Soviet Sub Patrol Area: 6x Subs (SU)

Murmansk: 2x DD (Type 7), 1x ES (1/6 MF); 1x Spitfire
PR.IV [1 PRU], 4x Hampden [144, 455 Sqn];
4x LaGG-3 (78, 255 IAP), 4x P-40E (1x 2 GSAP,
1x 19 GIAP, 2x 20 GIAP), 2x Yak-1 (20 IAP),
3x Pe-2 [28, 29 BAP], 4x IL-4 [2 GSAP, 35 MTAP]

Arkhangelsk: 2x TB (Type IV/V); 2x TB (Hunt II class), 3x ES,
2x AA (*Palomares, Pozarica*), 15x MV;
1x Hurricane IIB [104 IAD]

Axis



Aalborg: 2x Fw190A [7./JG1], 2x Ju88A-4 [IV/KG30]

Lista: 1x Fw190A [2./JG5]

Bergen: 1x Sub (GE)

Trondheim: 1x BB (*Tirpitz*), 3x DD (2x Type 34-36 [1 Inop],
1x Type 36A [Inop]), 1x TB (Type 35-37);
1x Bf109E/F [10./JG5], 1x Fw190A [10./JG5],
1x Ju87D [4./StG5], 1x Ju88A-4 [7./KG30],
1x Fw200C [2./KG40]

Bodø: 2x Bf109E/F [12./JG5]

Narvik: 1x CA (*Admiral Hipper*), 1x CB (*Admiral Scheer*),
1x CL (*Köln*), 5x DD (1x Type 34-36,
4x Type 36A); 1x Sub (GE)

Bardufoss: 5x He111H-6 LT [1,2,3./KG26],
3x Ju88A-4 [III/KG30]

Tromsø: 1x He115C [1./KüFlGr 406]

Alta: 2x He115C [1./KüFlGr 906]

Banak: 3x Ju88A LT [III/KG26],
4x Ju88A-4 [I/KG30]

Kirkenes: 6x Bf109E/F [4,6,7,8,9./JG5],
2x Bf110D/G [13(Z)/JG5]

Within 1 hex of Jan Mayen: 3x Subs (GE), 1x Dummy

Within 2 hexes of Spitzbergen: 2x Subs (GE), 1x Dummy

Within 2 hexes of hex 0720: 1x Sub (GE), 1x Dummy

Within 1 hex of hex 0122: 1x Sub (GE)

Kara Sea Box: 2x Subs (GE)

CPs:	<i>Gruppe Nord</i>	1
	<i>Severnny Flot</i>	3

Dummies:	Maximum - 9 Allied, 7 Axis
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Reinforcements: Allied

- 1x Sub (BR) in Lerwick; 2x P-38F [337th FS - Green],
2x P-40K [33rd FS] at Reykjavik
- 1x Sub (SU) in Murmansk;
1x Beaufighter VIC [236 Sqn] at Wick or Sumburgh
- 1x CV (*Furious* w./ 2x Seafire Ib [807 Sqn],
3x Albacore [1x 822, 2x 823 Sqn]) in Scapa Flow

Axis

- 3x Subs (GE) in Narvik
- 3x Ju88A-4 [II/KG30] at Banak or Kirkenes
- 1x Sub (GE) in Trondheim; 1x Sub (GE) in Kiel
- 1x Sub (GE) in Bergen; 1x Sub (GE) in Trondheim

Special Rules:

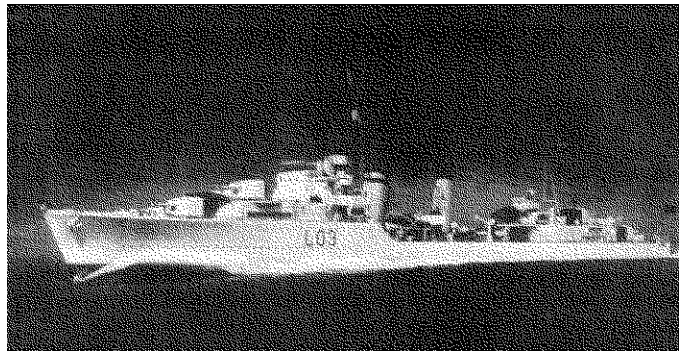
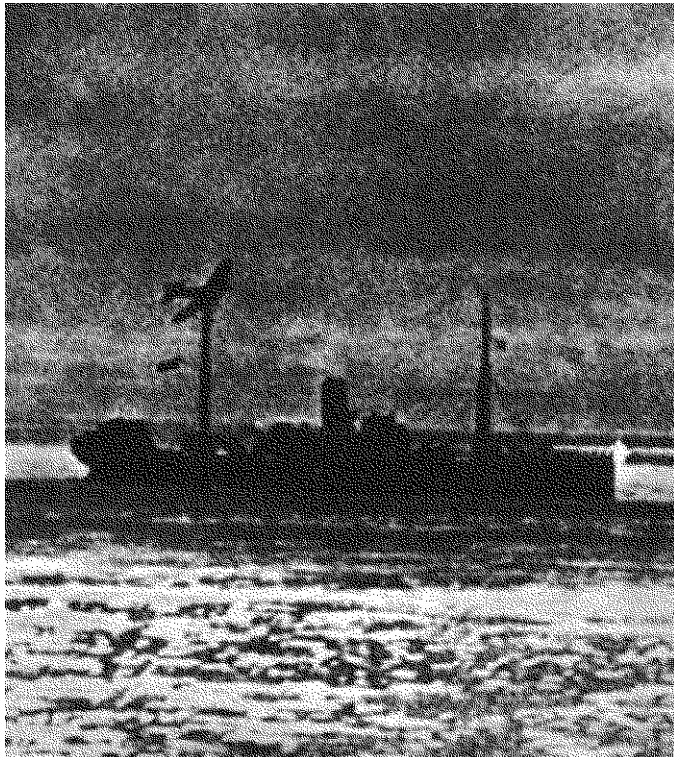
- Prior to start, the Axis player must draw a second Special Condition chit and keep it secret. If this chit is A-T, the Axis player may **not** expend a CP to deploy *Tirpitz*. If it is U-Z, increase *Gruppe Nord* CPs to 2.
- Disregard the Patrol White rule [5.1.9]. Convoy PQ-18 must leave Reykjavik Day 1.
- Avenger* does **not** generate an Air Radius during Night turns (Exception to 6.4.1).
- Wolfpacks starting in/adjacent to hex 0122 and in the Kara Sea Box have expended their torpedoes.

PQ-18: The “Golden Comb,” continued

5. Any Allied Air Movement Segment after PQ-18 exits the British Air Radius, 210 Sqn may relocate from Sumburgh to any Soviet airfield in lieu of movement. If it does, place 1x Hudson [48 Sqn] at Sumburgh.
6. Once during the operation, all KG26 units may attack the same target with torpedoes in a single wave (Exception to 7.2.4).

Historical Background: Chastened by the disaster befalling PQ-17, the Admiralty suspended the departure of convoys to Russia until the period of 24-hour daylight ended. Stalin characteristically complained, Churchill recognized the need to succor his ally as well as bolster the morale of his sailors, and a major effort was planned. Although losses sustained in Operation PEDESTAL to relieve Malta meant no fleet carriers were available, an escort otherwise rivaling that operation would be provided, including for the first time one of the new escort carriers (*HMS Avenger*) to provide air cover for the convoy itself. No less than 4 oilers were to refuel the 16 destroyers and cruiser *Scylla* of the “fighting destroyer escort” that would guard the convoy throughout the period of greatest danger. PBVs, photo reconnaissance Spitfires, and two squadrons of torpedo bombers were transferred to the Kola Peninsula to counter the threat from Axis surface forces, and were in place when the convoy passed Reykjavik on 7 September.

This latter precaution proved to be largely wasted. Although the Germans planned Operation DOPPELSCHLAG (‘Double Blow’) to employ the cruisers and destroyers against westbound convoy QP-14, Hitler expressed reluctance, and *Kriegsmarine* chief Admiral Raeder canceled their sortie. The aircraft and submarines that had decimated PQ-17 were expected to repeat their success instead, and for the first time the convoys in both directions were heavily attacked.



A questing Fw200 gained first contact on PQ-18 the afternoon of 8 September, but sustained shadowing did not begin for another four days. The U-boats then began the duel, losing *U88* before sinking two freighters the next day. The *Luftwaffe* weighed in shortly after, with the Ju88s of KG30 bombing ineffectually but occupying *Avenger*’s Sea Hurricanes while the main attack closed. At 1530, 43 torpedo bombers — the entire operational strength of KG26 in Norway — attacked near Spitzbergen in an awe-inspiring single line abreast known as the *Goldene Zange* (‘Golden Comb’). Although they lost 5 aircraft with another 14 damaged (and ultimately more than half their strength over the course of the battle), they sank 8 freighters — every ship of the two starboard columns of the convoy save one — in the single most successful air attack of the war.

The *Luftwaffe* expected more after such an auspicious beginning, but the large escort and *Avenger*’s air umbrella proved equal to the challenge. Two attacks by He115 torpedo bombers were beaten off that evening, and repeated piecemeal attacks by both KG26 and KG30 the next afternoon netted only one freighter in exchange for 7 torpedo bombers shot down and a further 9 damaged beyond repair. Ordered to sink the carrier, the KG26 aircrews concentrated on her without result, often being forced to attack from disadvantageous positions to do so. Further attacks on 15 September by KG30 scored no hits, after which bad weather grounded the *Luftwaffe* for two days. A last coordinated attack within sight of land on the morning of 18 September cost the convoy one more freighter before the remainder steamed into the White Sea.

Nor did the U-boats fare any better, sinking the tanker *Atheltemplar* on the morning of 14 September but losing *U589* hours later. The diligent escorts, supported by unarmed but vigilant Swordfish from *Avenger*, prevented any further submarine successes, and sank one more boat (*U457*) two days later. Only after the German subs shifted their attention to QP-14 did they achieve any notable results, sinking destroyer *Somali*, a minesweeper, a fleet oiler, and three homebound survivors of PQ-17 in exchange for severe damage to *U255* by a Catalina.

All told, 26 of the 40 merchantmen in PQ-18 arrived safely at Arkhangelsk, although three ran aground in a storm that delayed berthing of the remainder until 21 September. 12 of the 15 cargo ships in QP-14 reached Loch Ewe on 26 September. In exchange, the Germans lost 3 U-boats and 44 aircraft, including over three dozen torpedo bombers. It was a costly battle for both sides, and the Royal Navy lacked the resources to mount a similar effort, particularly with the demands of the upcoming invasion of North Africa. The next convoy to Russia would not sail until the near-total darkness of mid-December 1942.

Historical VPs: +3

VIII. JW-51B: Battle of the Barents Sea

Type: Convoy (JW-51B, RA-51)

Environment: AM Turns - Night, PM Turns - Night

Ice Conditions: I, II, & III - Solid Pack; IV - Thin Pack?;
V - Clear

Date: December II 1942 - AM Day 3

Convoy Routes: JW-51B Loch Ewe - Murmansk (5x MV to Arkhangelsk); RA-51 Murmansk - Loch Ewe

Air Sectors: Allied - Iceland 1;
Axis - North Sea 1, Trondheim 1, Barents 3

Forces: Allied

Patrol White: 1x CA (*Norfolk* in Reykjavik)
Reykjavik: 1x BB (*Anson*), 1x CA (*Cumberland*),
3x DD (A-I class)
Seiðisfjörður: 2x DD (J-R class),
4x TB (1x old DD, 3x O-P class [1 Green])
Loch Ewe: 3x TB (Hunt II class), 1x ES, 15x MV
Leuchars: 4x Hampden [144, 455 Sqn]
Wick: 2x Hampden [489 Sqn]
Scapa Flow: 2x CA (*Berwick, Kent*); 2x BB (*King George V, Howe*), 1x CL (*Bermuda*), 5x DD (1x A-I, 3x J-R [2 Green], 1x L-M class), 1x TB (old DD)
Sumburgh: 2x Beaufighter VIC [236 Sqn],
1x Catalina [413 Sqn]
Within 2 hexes of Bear Is.: 9x Subs (BR), 2x Dummies
Soviet Sub Patrol Area: 4x Subs (SU)
Murmansk: 2x CL (*Jamaica, Sheffield*), 1x DD (L-M class),
1x TB (O-P class); 5x DD (A-I class),
1x TB (old DD), 1x ES, 1x AO (*Oligarch*), 13x MV;
1x DD (Type 7), 1x TB (Type IV/V), 1x ES
(1/6 MF); 2x Pe-2 [28, 29 BAP],
2x IL-4 [35 MTAP]

Reinforcements: Allied

- 2x Beaufighter VIC [254 Sqn] at Wick, Hatston, or Sumburgh

Historical Background: Once total darkness fell and shipping to North Russia resumed, the Admiralty changed tactics. Rather than the large, unwieldy formations used heretofore, the British opted for smaller, more frequent convoys. The cruiser covering forces, instead of turning back near Bear Island to cover the westbound convoys, would escort the loaded ships all the way to the Soviet Union. And the summer battles had left the PQ convoys with such an air of ill repute that their designation was changed to JW.

The Axis position had worsened with the transfer of KG26 and two *Gruppen* of KG30 to the Mediterranean to oppose the new Allied offensive. *Tirpitz* was refitting at Trondheim and unavailable, and shortages of fuel oil remained acute. The first of the new convoy series, JW-51A, passed almost unnoticed, only coming under attack within 24 hours of reaching Murmansk on 25 December.

By then, JW-51B had already left Loch Ewe, and was spotted by air reconnaissance on Christmas Day before encountering a gale on 27 December that dispersed a third of the convoy. It was being shadowed by *U354*, and the Germans mounted an ambitious effort dubbed Operation REGENBOGEN ('Rainbow'). *Admiral Hipper*, *Lützow*, and six destroyers sortied, with a tactically sound plan to split and catch the convoy in a pincers movement calling for one force to occupy the escorts while a second attacked the merchantmen, silhouetted against the twilight southern horizon. Afterwards, the *Panzerschiff* would attempt to break out into the Atlantic. The plan almost worked, but...

Axis

Aalborg: 2x Ju88A-4 [IV/KG30]
Trondheim: 1x BB (*Tirpitz* [Inop]), 1x DD (Type 34-36 [Inop]);
1x He177A-1 [1./KG40], 1x Fw200C [2./KG40]
Narvik: 1x CL (*Nürnberg*), 1x DD (Type 36A [Inop]);
1x Sub (GE)
Tromsø: 2x He115C [1./KüFlGr 406]
Alta: 1x CA (*Admiral Hipper*), 1x CB (*Lützow*),
1x CL (*Köln*), 6x DD (3x Type 34-36,
3x Type 36A); 1x He115C [1./KüFlGr 906]
Within 2 hexes of Bear Is.: 3x Subs (GE), 1x Dummy

CPs:	<i>Gruppe Nord</i>	1
	<i>Severnny Flot</i>	3

Dummies:	Maximum - 9 Allied, 6 Axis
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Axis

- 1x Sub (GE) in Bergen; 1x Sub (GE) in Narvik
- 1x Sub (GE) in Kiel; 1x Sub (GE) in Narvik
- Type 36A DD in Narvik is operational

After sinking minesweeper *Bramble* (out rounding up stragglers) on 31 December, *Hipper* and 3 DDs pressed the depleted escort of 5 British destroyers and a handful of ASW escorts, sinking *HMS Achates*. When *Lützow* and the other DDs attacked as planned, they should have had a clear field. But timidity — another effect of Hitler's baleful influence — and timely intervention by *Jamaica* and *Sheffield* of the Close Cover not only drove the Germans off without further loss, but cost them *Friedrich Eckholdt* in the process.

This Battle of the Barents Sea had far-reaching consequences beyond the forces involved, leading to the replacement of Admiral Raeder as the German Navy Commander-in-Chief by Adm. Dönitz and even further restrictions on future German surface operations.

Historical VPs: +17



IX. JW-55B: Battle of the North Cape

Type: Convoy (JW-55B, RA-55A)

Environment: AM Turns - Night, PM Turns - Night

Ice Conditions: I & II - Solid Pack; IIIW - Solid Pack?,
IIIE - Thin Pack?; IVW - Thin Pack?, IVE -
Heavy Drift?; V - Clear?

Date: December II 1943 - AM Day 3

Convoy Routes: JW-55B Loch Ewe - Murmansk (9x MV
must go to Arkhangelsk); RA-55A Murmansk - Loch Ewe

Air Sectors: Allied - Iceland 1;
Axis - North Sea 1, Trondheim 1, Barents 3

Forces: Allied

Reykjavik: 1x Hampden [1407 Flt]
Akureyri: 1x BB (*Duke of York*), 1x CL (*Jamaica*),
4x DD (S-Z class)
Skálafjörður: 7x DD (1x A-I, 5x J-R, 1x S-Z class),
1x TB (O-P class)
Loch Ewe: 2x ES, 1x MO, 18x MV
Leuchars: 2x Beaufighter TF.X [489 Sqn],
1x Mosquito VI [333 Sqn]
Wick: 1x Beaufighter VIC [144 Sqn],
2x Beaufighter TF.X [144 Sqn]
Wick or Sumburgh: 2x Beaufighter TF.X [404 Sqn]
Scapa Flow: 2x CA (*Berwick, Kent*),
3x DD (1x A-I, 2x S-Z class), 1x TB (Hunt II class)
Sumburgh: 1x Catalina [190 Sqn]
Within 1 hex of South Norway: 3x Subs (BR), 1x Dummy
Within 3 hexes of Bear Island: 3x Subs (BR), 1x Dummy
Soviet Sub Patrol Area: 4x Subs (SU)
Murmansk: 1x CA (*Norfolk*), 2x CL (*Belfast, Sheffield*);
7x DD (2x J-R, 4x L-M, 1x S-Z class [Green]),
1x TB (O-P class); 2x DD (Type 7),
1x TB (Type IV/V), 1x ES (1/6 MF), 3x Subs (SU);
1x TB (old DD), 2x ES, 1x MO, 21x MV;
2x IL-4 [35 MTAP]

Axis

Aalborg: 2x Ju88A-4 [IV/KG30]
Oslo: 1x DD (Type 34-36)
Trondheim: 1x Sub (GE); 1x Fw200C [2./KG40]
Tromsø: 2x He115C [1./KüFlIGr 406]
Alta: 1x BC (*Scharnhorst**), 5x DD (Type 36A)
Within 4 hexes of Bear Island: 7x Subs (GE), 1x Dummy

CPs:	<i>Gruppe Nord</i>	1
	<i>Severnny Flot</i>	3

Dummies:	Maximum - 9 Allied, 5 Axis
-----------------	----------------------------

Reinforcements: Allied

- 2x Bftr TF.X [254 Sqn] at Wick, Hatston, or Sumburgh
- 1x BB (*King George V*), 1x TB (O-P class) in Scapa Flow

Axis

- 1x Sub (GE) in Narvik
- 2x Subs (GE) in Bergen

Special Rules:

- Treat the 'FAA Strike', 'Operation SIZILIEN', and 'Operation WUNDERLAND' Special Conditions as "None." If the Allied Special Condition is 'Reinforcements', *King George V* is available in Scapa Flow.
- Duke of York* has an AA rating of 4 vice 3 at 4CS.
- The Ju88 unit at Aalborg may fly during AM turns.
- Ships starting in Akureyri may not leave port earlier than Day 4.

Design Note: Force 2 arrived in Akureyri for refueling on 21 December (Day 2) after covering convoy JW-55A.

Historical Background: Despite the diminished German air threat, the British again suspended convoys to and from North Russia after the passage of JW-53 in February 1943. Not coincidentally, battlecruiser *Scharnhorst* — her mine damage incurred during the daring 'Channel Dash' of a year earlier finally repaired — arrived in Trondheim on 10 March. The convoys did not resume until November, when the lengthening hours of darkness again provided cover.

The first three convoys faced only submarine opposition, but the Germans mounted Operation OSTFRONT ('Eastern Front') against JW-55B. *Tirpitz* was again out of action after a daring midget submarine attack in September (Operation SOURCE). But assisted by U-boats and Bv138s, RAdm. Bey with *Scharnhorst* and 5 DDs sortied for what was hoped would be a decisive blow.

The resulting Battle of the North Cape was indeed decisive, but not as the *Kriegsmarine* planned. The *Luftwaffe* lost contact on Christmas afternoon in stormy weather, and further U-boat contact reports proved misleading. Bey's sweeping destroyers came within 8 miles of the convoy, but not only failed to find it but lost touch with the flagship. Alerted by Ultra and brilliantly handled, the covering British cruisers twice fended off *Scharnhorst* before following her as she retired towards Alta. Despite running low on fuel, Adm. Fraser brought *Duke of York*, *Jamaica*, and 4 destroyers east to intercept. Though taken by surprise, the faster and more weatherly *Scharnhorst* almost escaped, but a 14" shell severed a vital steam pipe and slowed her enough to be caught by the destroyers. Their daring torpedo attack slowed the battlecruiser further, and her fate was sealed. With her went the last hope of interdicting the traffic to North Russia by German heavy ships.

Historical VPs: +51

X. 1942 Random Scenario

Type: Convoy

Date: See below and Special Rule 2

Environment: Choose by mutual agreement, or roll one die to determine the date and environment of the operation:

Air Sectors: Allied - Iceland 1, Soviet 1;
Axis - North Sea 1, Trondheim 1, Barents 3

	Date	AM Turns	PM Turns	Ice Conditions
0	March I	Day	Night	I, II, III - <u>S. Pack</u> ; IVW - T. Pack?, IVE - S. Pack?; VW - Clear?, VE - Lt Drift?
1	April I	Day	Night	I, II, IIIE - <u>Solid Pack</u> , IIIW - Solid Pack?, IV - Thin Pack?, V - Clear?
2	May I	Day	Day	I, II - <u>Solid Pack</u> ; IIIW - Heavy Drift?, IIIE - Solid Pack?; IVW - Light Drift?, IVE - Heavy Drift?; VW - <u>Clear</u> , VE - Clear?
3	June I	Day	Day	I, IIE - <u>Solid Pack</u> ; IIW, IIIE - Thin Pack?; IIIW, IVE - Heavy Drift?; IVW - Light Drift?, V - Clear?
4	July I	Day	Day	I - Solid Pack?; II - Heavy Drift?; III - Clear?; IV, V - <u>Clear</u>
5	August I	Day	Day	IW - Hvy Drift; IE - Solid Pack?; IIW - Clear?; IIE - Lt Drift?; III, IV, V - <u>Clear</u>
6	September I	Day	Night	I - Light Drift?; II - Clear?; III, IV, & V - <u>Clear</u>
7	October I	Day	Night	I - Thin Pack?; II - Light Drift?; III - Clear?; IV, V - <u>Clear</u>
8	November I	Day	Night	I - <u>Solid Pack</u> ; II - Thin Pack?; III - Light Drift?; IV - Clear?; V - <u>Clear</u>
9	December I	Night	Night	I, II - <u>Solid Pack</u> ; IIIW - S. Pack?, IIIE - T. Pack?; IV - Hvy Drift?; V - <u>Clear?</u>

Forces: Allied



In Reykjavik or Seiðisfjörður (no more than 1 Capital Ship in Iceland) or Scapa Flow:

- 2x BB (*Duke of York* + {either *King George V* or [May-Aug] *Washington*});
- 1x CV (either *Victorious* w./2x Fulmar [809 Sqn], 3x Albacore [1x 817 Sqn, 2x 832 Sqn]) or [Aug-Oct] CVE (*Avenger* w./ 2x Sea Hurricane [802 Sqn])
- 5x CA or CL (choose randomly; *Tuscaloosa* and *Wichita* available May-Aug)
- 10x DD (6x A-I, 3x J-R, 1x L-M class) + {4x US [May-Aug only]}
- 4x TB (Hunt II class) + {1 Old DD [Apr-Dec only]}
- 1x AO (choose randomly) + {1 MC [May-Nov only]} + {1 AA [May-Oct only - choose randomly]}

Note: Some DDs or TBs may start in Russia (see below)

Leuchars: 1x Mosquito PR I

Sumburgh: 1x Catalina

At any airfields in the UK: 2x Bftr {either IC or [Jul-Dec] VI} + 8x MB (choose randomly); *No more than 4CS per base*

Within 2 hexes of Norwegian coast: 5x Subs (BR) + 1 Dummy

In Murmansk or Arkhangelsk: 2x DD (Type 7) + 1x TB (Type IV-V) + 1x ES (1/6 MF) + {1 DD or TB from British forces for every 5 MV present + any AX} from above; 4x Soviet F (choose randomly) + 2x IL-4

In Soviet Sub Patrol Area: 4x Subs (SU)

Axis



In Trondheim or Narvik:

- 1x BB (*Tirpitz*)
- 4x DD (3x Type 34-36, 1x Type 36A)
- 1x TB (Type 35-37)

At Trondheim: 1x Fw200C + {1x Ju88A-4 [Mar-Oct]}

In Kirkenes and Narvik: 4x Subs (GE) [2 per port]

At Kirkenes: 2x Bf109E/F + 2x Bf110D/F

At any airfield(s)/ports in Norway: 2x He115C + {5x Ju88A-4 [Mar-Oct]}

Within 2 hexes of Bear Island: 4x Subs (GE) + 1 Dummy

The same Environment die roll determines additional forces (select cruisers randomly). Place Allied in Reykjavik, Seiðisfjörður, or Scapa Flow, Axis in Trondheim or Narvik, or as indicated:

	Date	Allied CA/CL	Axis CA/CB	Axis CL	Note
0	Mar. I	+0	0	0	
1	April I	+0	1	0	
2	May I	+1	1	0	
3	June I	+1	2	0	
4	July I	+2	2	0	1
5	Aug. I	+2	1	0	2
6	Sept. I	+2	1	1	2
7	Oct. I	+1	1	1	3
8	Nov. I	+1	1	1	4
9	Dec. I	+1	1	1	3,4,5

Notes:

- 1: +2 Type 36A DDs; +4 GE Subs and 1 Dummy at sea outside Allied Air Sectors
- 2: +4 GE Subs and 1 Dummy at sea outside Allied Air Sectors; +1 *Severnny Flot* CP
- 3: +2 GE Subs and 1 Dummy at sea outside Allied Air Sectors; +1 *Severnny Flot* CP
- 4: +1 *Severnny Flot* CP; Axis player receives *no* He111 or Ju88 aircraft
- 5: +2 O-P class TBs; +2 BR Subs and 1 Dummy within 2 hexes of Norwegian coast

1942 Random Scenario, continued

Each player (Allied first) draws one Special Condition chit to determine additional/reduced forces available (keep the chit hidden on the Force Display). Place ships with others of the same category (subs at sea). Superscript #s indicate the order of Reinforcements.

Allied	DD (A-I/J-R/L-M cl.)	TB (H2/Old/O-P)	Subs (BR/SU)	ES + AX + MV + Miscellaneous
	– (0 / 2 / 0)	+ (–1 / 0 / 2)	+ (–1 / 1)	1 ES + 1 AA + 30 MV (Russia)
A - C	+ (1 / 2 / 1)	+ (0 / 2 / 3)	+ (2* / 0)	1 ES + 15 MV (loaded); 1 ES + 15 MV (Russia);
D - F	+ (0 / 4 / 0)	– (4 [choose])	+ (0 / 2)	1 ES + 20 MV (loaded); 1 ES + 15 MV (Russia); + BC <i>Renown</i>
G - I	+ (2 / 3 / 0)	+ (0 / 0 / 0)	– (1 / 0)	1 ES + 20 MV (loaded); 1 ES + 20 MV (Russia)
J - K	+ (0 / 4 / 1)	+ (1 / 2 / 0)	+ (1* / 0)	1 ES + 25 MV (loaded); 1 ES + 15 MV (Russia)
L - M	+ (2 / 2 / 1)	+ (2 / 2 / 0)	+ (1* / 0)	2 ES + 30 MV (loaded); 2 ES + 15 MV (Russia)
N - O	+ (3 / 0 / 1)	+ (2 / 1 / 0)	+ (2 / –1)	3 ES + 35 MV (loaded); 2 ES + 15 MV (Russia)
P - R	+ (3 / 2 / 1)	+ (3 / 3 / 0)	+ (2 / 2) + 2 BR*	3 ES + 35 MV (loaded); 3 ES + 30 MV (Russia); +2 Hampden (Reinf ²)
S - U	+ (1 / 2 / 1)	+ (1 / 3 / 0)	+ (4 / 2) + 2 BR*	3 ES + 1 AA + 1 AO + 35 MV (loaded); +2 Hampden (Reinf ²) 3 ES + 35 MV (Russia); + BB <i>King George V</i> (Reinf ³)
V - W	+ (2 / 2 / 3)	+ (3 / 5 / 1)	+ (1 / 3) + 4 BR*	3 ES + 1 AA + 3 AO + 40 MV (loaded); + BB <i>Anson</i> 3 ES + 2 AA + 15 MV (Russia); +2 Bfr VI (Reinf ²)
X - Z	+ (3 / 2 / 2)	+ (3 / 4 / 1)	+ (5 / 2)	3 ES + 1 AA + 1 AO + 40 MV (loaded); 3 ES + 25 MV (Russia)

Shift 1 Row up in November/December

*: Place with Loaded Convoy, or Reinforcement¹ at Lerwick

Axis	DD (Type 34-36/36A)	TB (Type 35-37)	Subs	Aircraft (Bf109EF/Ju88A/He111 LT/Ju88 LT) + Misc.
	+ (0 / 1)	– 1	+ 4	+ (3 / 0 / 0 / 0) + 1 DD Type 36A ¹ ; <i>Tirpitz</i> inop
A - C	+ (0 / 2)	– 1	+ 0	+ (2 / 0 / 0 / 0); <i>Tirpitz</i> inop
D - F	+ (0 / 0)	+ 0	+ 1 ²	+ (0 / 0 / 0 / 0) + 1 CA or CB (random ¹)
G - I	+ (0 / 2)	+ 2	+ 2	+ (0 / 0 / 2 / 0) + 1 CA or CB (random ¹) + 1 DD Type 36A ¹
J - K	+ (0 / 1)	+ 1	+ 2	+ (3 / 3 / 2 / 0)
L - M	+ (1 / 2)	+ 1	+ 2 + 1 ¹	+ (3 / 3 / 0 / 0) + 2 He111 LT (Reinforcement ²)
N - O	+ (0 / 2)	+ 0	+ 2	+ (6 / 4 / 3 / 0)
P - R	+ (2 / 1)	+ 0	+ 2 + 2 ¹	+ (5 / 5 / 3 / 0) + 3 Ju88 LT (Reinforcement ²)
S - U	+ (2 / 2)	+ 0	+ 2	+ (5 / 6 / 4 / 3)
V - W	+ (0 / 1)	+ 0	+ 0	+ (4 / 2 / 5 / 3) + 1 He115C; + 3 Ju88A-4 (Reinforcement ¹)
X - Z	+ (1 / 1)	+ 1	+ 3	+ (3 / 4 / 4 / 2) + 1 CA or CB (random in Trondheim or Narvik)

Shift 1 Row up in October/November/December

Place naval Reinforcements in the Germany Box or Kiel

Dummies:	Maximum - 9 Allied, 7 Axis		
CPs:	Home Fleet	8	<i>Severnny Flot</i>
	<i>Gruppe Nord</i>	1	2

Convoy Routes:

Loaded: Reykjavik or [Oct-Dec] Loch Ewe - Russia;

In Ballast: Russia - Reykjavik or [Sep-Dec] Loch Ewe

Special Rules:

- Each player draws two Special Condition chits, chooses one, and returns the other to their container. Treat 'FAA Strike' Special Condition as "None" in August, September, October, or December.
- Set up forces as determined above (Axis first). Conduct a normal Operation, including Prep and Admin Turns, except draw for additional German fuel per 15.1 and use Variable Start Rule 8.3.1.
- Soviet subs may not enter hex 0715 before June.

XI. 1942 Campaign

Environment:

Fortnights	AM Turns	PM Turns
March I - April I	Day	Night
April II - August I	Day	Day
August II - November I	Day	Night
November II - January I	Night	Night

Ice Conditions: I II, & III - Solid Pack; IVW - Thin Pack?, IVE - Solid Pack?; VW - Clear?, VE - Light Drift? For subsequent Fortnights, see 10.4.

Date: March I 1942 - January I 1943

(or end of any earlier month agreed by players)

Convoy Routes: See 15.2.1.

Air Sectors: Allied - Iceland 1, Soviet 1;
Axis - North Sea 1, Trondheim 1, Barents 2



Forces: (Allied/Axis)

Set up using Forces from Scenario II (PQ-12), plus the following Allied additions:

Scapa Flow: 1x DD (L-M class), 1x TB (Hunt II class [Green])
Murmansk: 2x DD (Type 7) + 4x MV face-down in Ballast Box + 11x MV in Unloading Box
Arkhangelsk: 2x Hurricane IIb [104 IAD] + 10x MV face-up in Ballast Box

CPs:	<i>Gruppe Nord</i>	1
	<i>Severnyy Flot</i>	2

Dummies:	Maximum - 9 Allied, 7 Axis
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Operations EV [15.8.3]

Allied: 2x DD (A-I class), 3x TB (2x old DD, 1x Hunt II class), *Ulster Queen* (Reykjavik); *Blue Ranger* (Reykjavik or Scapa Flow), *Avenger* w./ 2x Sea Hurricane [802 Sqn] (Scapa Flow), 1x Sub (BR - Lerwick), 1x TB (Type IV-V - Arkhangelsk or Murmansk), 1x Sub (SU - Murmansk); 1x Spitfire PR.IV [1 PRU] (Murmansk). Prior to the Operation, may transfer 4x Hampden [144, 455 Sqns] to Murmansk. During any Allied Air Movement Segment after the loaded Convoy leaves the British Air Radius, may relocate 1x Catalina [210 Sqn] to any Soviet airbase in lieu of movement and place 1x Hudson [48 Sqn] at Sumburgh.

Axis: Any air units removed for a Ground Offensive Special Condition [12.6] may return as a Reinforcement Random Event.

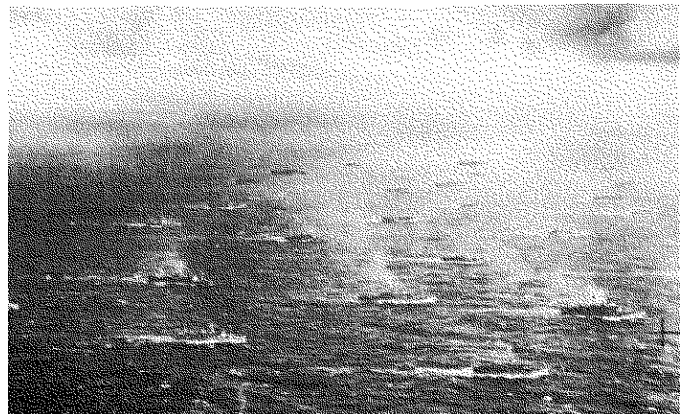
Transfer after the operation: All Allied forces listed, plus 2x Subs (SU); return Hampdens to Leuchars and 210 Sqn to Sumburgh.

Forces for named Operations [15.7.2] are as follows:

Operation	Transfer	Return
IRONCLAD	1x DD (L-M)	(None)
CALANDAR	<i>Renown</i> , 2x DD (A-I)	<i>Renown</i>
HARPOON	2x CL (<i>Liverpool, Kenya</i>), 5x DD (1x A-I, 2x J-R, 2x L-M), 3x TB (Hunt II)	1x CL (<i>Kenya</i>), 4x DD (2x A-I*, 1x J-R, 1x L-M), 1x TB (Hunt II) * [1 A-I DD from CALENDAR]
PEDESTAL	1x CV (<i>Victorious</i>), 3x CL (<i>Manchester, Kenya, Nigeria</i>), 8x DD (4x A-I, 4x J-R), 2x TB (Hunt II)	8x DD (4x A-I, 4x J-R), 2x TB (Hunt II)
TORCH	1x BB (<i>Duke of York</i>), 1x BC (<i>Renown</i>), 2x CA (<i>Cumberland, Norfolk</i>), 3x CL (<i>Sheffield, Bermuda, Jamaica</i>), 1x CLAA (<i>Scylla</i>), 11x DD (1x A-I, 6x J-R, 4x L-M), 9x TB (3x Old DD, 5x Hunt II, 1x O-P), 2x AA (<i>Palomares, Pozarica</i>), 4x ES, 5x Subs (BR)	A: 2x CA (<i>Cumberland, Norfolk</i>) B: 1x BB (<i>Duke of York</i>), 3x CL (<i>Sheffield, Bermuda, Jamaica</i>), 3x DD (1x A-I, 2x J-R), 3x TB (2x Old DD, 1x O-P), 4x Subs (BR)



Special Rules:

- Soviet Wolfpacks may not start or move into hex 0715 prior to June I.
- Prinz Eugen* is operational in Trondheim if March I Axis Special Condition is 'Reinforcements'. Otherwise, *Prinz Eugen* CS = 2, and she is *Crippled*. Remove the *Crippled* marker during the April II OOB Phase, after which she may deploy to the Germany Box or Kiel (only) without activating/expending CPs.
- Hitler's Restrictions on *Tirpitz* movement [5.1.8] are **not** in effect until she is attacked while at sea by carrier aircraft.
- Do **not** score VPs per 15.9.1 for MVs in Arkhangelsk until Ice Sector III East is Heavy Drift, Light Drift, or Clear.



OPTIONAL RULES

AHISTORICAL FORCES [14]

<i>Graf Zeppelin</i>	Jan I 42	20 VP	w./ 2x Bf109T-1 [6./TrGr 186], 3x Fi167 [2./TrGr 186], 2x Ju87C [4./TrGr 186]; add to any TF in Narvik, South Norway, Kiel, or Germany; Green until July I 42; place US Fighters in Iceland.
			
<i>Furious</i>	June I 42	10 VP	w./ 2x Sea Hurricane [804 Sqn June-July 42] or Seafire Ib [807 Sqn August 42 and later], 3x Albacore [1x 822, 2x 823 Sqs]; add to any TF in Scapa Flow if FAA Strike Special Condition is in effect or <i>Graf Zeppelin</i> is in play; Green until July I 42.
			

UNTRAINED UNITS [15.4.3]

Units listed as [Green] in a scenario are not fully trained and suffer penalties.

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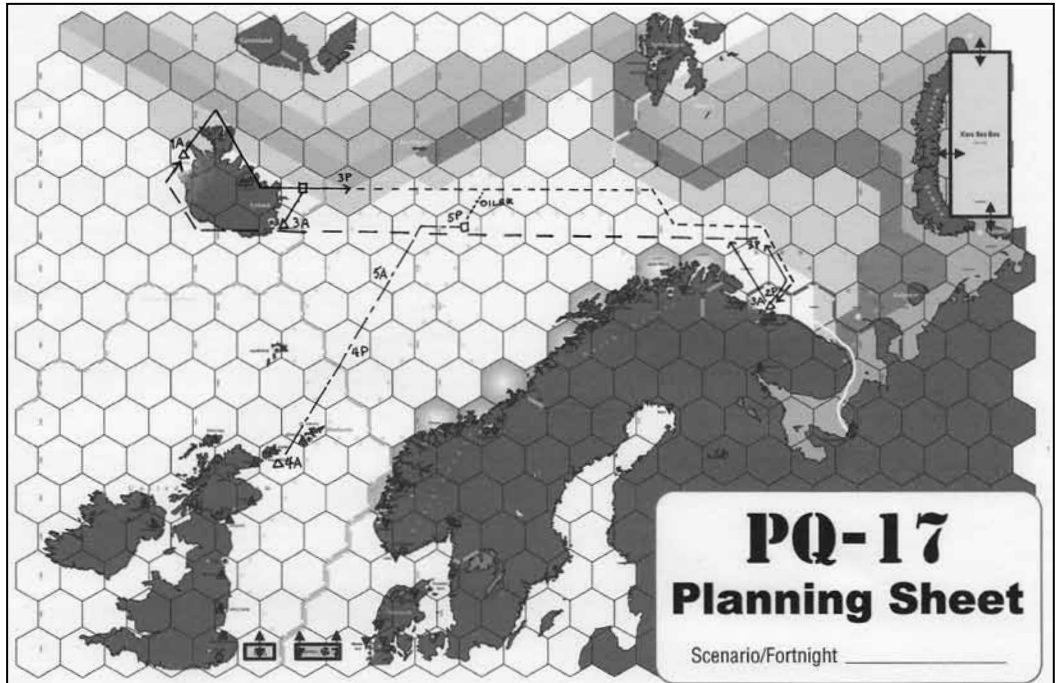
EXTENDED EXAMPLE OF PLAY

Die or dice roll and some card draw results will be shown in {brackets}. No optional rules are used except 9.4 and 11.1.4. Players are encouraged to refer to the Expanded Sequence of Play on the back of the Rule Book as they read through this example. Although Scenario III (PQ-13) is used as a starting point and most events shown actually occurred during this operation, the action is greatly “compressed” for illustrative purposes. For brevity, players will be referred to as AI (the Allied player) and Axel (the Axis player).

Preparatory Turn

After setting up the Ice Conditions per the Scenario III instructions — pretty easy since most are Solid Pack — both players draw their Special Conditions chits and, after examining them, place them face down in the boxes on the map. AI draws A (Bomber Command), while Axel gets P (Harbor Raids). Axel then draws a second chit per Special Rule 2 and places it in the Axis Fuel box, but E means he still won't get to deploy any of his heavy ships this game due to the lack of fuel. Since the Allied player has the Initiative, Axel sets up first, including a Dummy block face down in Tromsø because there is no Axis Convoy. Then AI sets up, deploying two Wolfpacks and a Dummy around Trondheim where he knows *Tirpitz* lurks.

Tromsø to Kirkenes and a pretended Atlantic Breakout, just to keep AI guessing.



AI plots the departure times and routes for his Convoys and their covering forces. Though it is only necessary to plot the latter for the first six Turns in this scenario, he prudently extends some plots in order to plan when they will refuel. The rules require at least one Convoy to leave port Day 1, and wily AI plans for Convoy 1 (C1 = PQ-13) in Reykjavik to depart Day 1 AM, but delays the departure of C2 (QP-9) until Day 2 PM. Task Force 2 (TF2 — *Trinidad* and 2 DDs) is to leave Seiðisfjörður and join C1 on Day 3 AM, and TF4 (*Kenya*) departs Murmansk the same turn. Meanwhile, Axel busily plots a Dummy convoy from

Force	Departure Port	Turn	Composition	Destination
C1	REYKJAVIK	1AM	1xES, 1xMO, 18xMV (+1x Hunt II TB, Oligarch)	Murmansk
C2	MURMANSK	2PM	1xDD, 1xES, 18xMV (+2x Sov. DD, 1x ES)	Reykjavik
TF2	SEYDISFJORDUR	3AM	Trinidad, 2xDD	
TF4	MURMANSK	3AM	Kenya	
TF1	SCAPA FLOW	4AM	Home Fleet	

Home Fleet: CP [1 2 3 4 5 6 7 8] Severnyy CP [1 2 3 4] Gruppe Nord: CP [1 2 3]
 VP [1 2 3 4 5] Flot: VP [3 6 9]

Patrol White [5.1.9]: BERWICK + LONDON (0305) Operation EV [15.8.3]:

Emergency Reinforcements [15.4]: _____

Special Condition(s) [12]: A (Bomber Command)	Victory Points	Interceptor Losses
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Allied Planning Sheet

Operation Turns

Days 1 AM-3 PM. AI rolls two dice on the Weather Table each turn. Since none of the six rolls result in Gales, the remaining phases are skipped during these turns except AI must check to see if his Convoys and Dummies encounter ice upon moving into hexes 0305, 0405, 0508, and 0617 by rolling one die for each force per hex entered on the Ice Table. Only C2's roll {8 - 1} results in other than Clear conditions, and the two cards drawn

for ice damage are negative. He places his units on the map in their positions at the end of Day 3 PM, with C1's *Fuel Warning* marker in the Day 7 AM space of his Time Track, C2's in Day 5 PM (since it includes the Soviet destroyers), and TF4's in Day 13 AM (because it includes no Light Ships). None of the Axis forces could be scheduled to move prior to the Scenario Starting Turn, so Axel just watches.



Day 3 PM — Initial Deployments

1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	C1 Fuel Warning	8 AM	9 AM	10 AM	11 AM	12 AM	TF 4 Fuel Warning	14 AM	15 AM
PM	PM	DAY Turn	PM	C 2 Fuel Warning	PM	PM	PM	PM	TF 3 Fuel Warning	PM	PM	PM	PM	PM

Allied Turn Track

Day 4 AM. AI's weather roll {0+3} results in Fair weather. He begins his Player Phase by rolling two dice on the Allied Random Events Table {2+6}. The result is Good Progress. AI elects to move C1 to 0509 and must roll on the Ice Table {1-1}. The

modified result is Light Drift, so AI draws one card and checks for Ice Damage. The result is negative, so he announces "no damage" and shows Axel the card. He also moves one of the adjacent Dummies to 0608 as allowed by the event.

In the Photo Reconnaissance segment AI sends his Mosquito from Leuchars to Trondheim and draws a card {3}. The result is 'ID3', so Axel must announce that forces in Trondheim consist of 5 warship counters, including 5CS of capital ships, 6CS of cruisers, and 5CS of light ships.

Photo: ID3 ID3 - -

At the start of his Naval Movement Segment, AI (as the Initiative player) must expend at least 1 Home Fleet CP, and crosses out the first seven boxes. This gives him 7 CPs to expend this turn. Because the Soviet destroyers already left Murmansk and moved into 0617 as part of C2, he must also expend two *Severnny Flot* CPs.

There are no ID0 forces to stand up, and AI splits off the Soviet units from C2 into a separate TF5, as he does not want to expend another *Severnny Flot* CP by moving them further outside the Air Sector. Their *Fuel Warning* marker is set at Day 5 PM, but C2's now moves ahead to Day 8 PM because it no longer includes the short-legged Soviet destroyers. He also places a *Refuel* marker on C1 on his Force Display to take advantage of the good weather. One by one, he then moves his blocks while Axel watches and shuffles the Axis deck. TF1 (the Home Fleet) departs Scapa Flow, so AI places its *Fuel Warning* marker in Day 10 AM. The 4 Capital Ships and 3 Cruisers in this force plus

1 AM	2 AM	3 AM	DAY Turn	5 AM	6 AM	C 1 Fuel Warning	8 AM	9 AM	TF 1 Fuel Warning	11 AM	12 AM	TF 4 Fuel Warning	14 AM	15 AM
PM	PM	PM	PM	TF 5 Fuel Warning	PM	PM	C 2 Fuel Warning	PM	TF 3 Fuel Warning	PM	PM	PM	PM	PM



Allied Day 4 AM Moves

Kenya and Trinidad expend 6½ of the CPs available. One Dummy and C1 advance to the east, necessitating one more ice roll {2-1} and Light Drift conditions. AI draws a card {30} and again shows it to Axel while saying, "1 DD/TB and 1 Convoy Ship" — because this is Light Drift, the "+1 AX/MX" does not apply. Since this result is for a Dummy, however, he only pretends to adjust his Force Display. The other Dummy moves northeast to stay outside Axel's Trondheim Sector. C2, TF4, and the nearby Dummy each move one hex. TF5 skirts the ice into 0817, but remains "at sea" because it would require an additional hex of movement to enter Murmansk.

DAMAGE
1 DD/TB, 1+1 AX/MX 30

In the Reconnaissance Segment, AI searches hex 0616 by drawing a card and cross-indexing the 'Force' line with the 'Fair' column. Since the 'U' result {card 14} indicates success, AI shows the card to Axel, who must reveal and remove his Dummy. AI then searches hex 0615 by drawing another card. The result {card 7} is again a 'U', but this time when AI shows the card to his opponent, Axel is able to declare "the target is a Wolfpack" to render the search unsuccessful because of the sub silhouette in the Day section. There is no combat, and AI's turn is over.

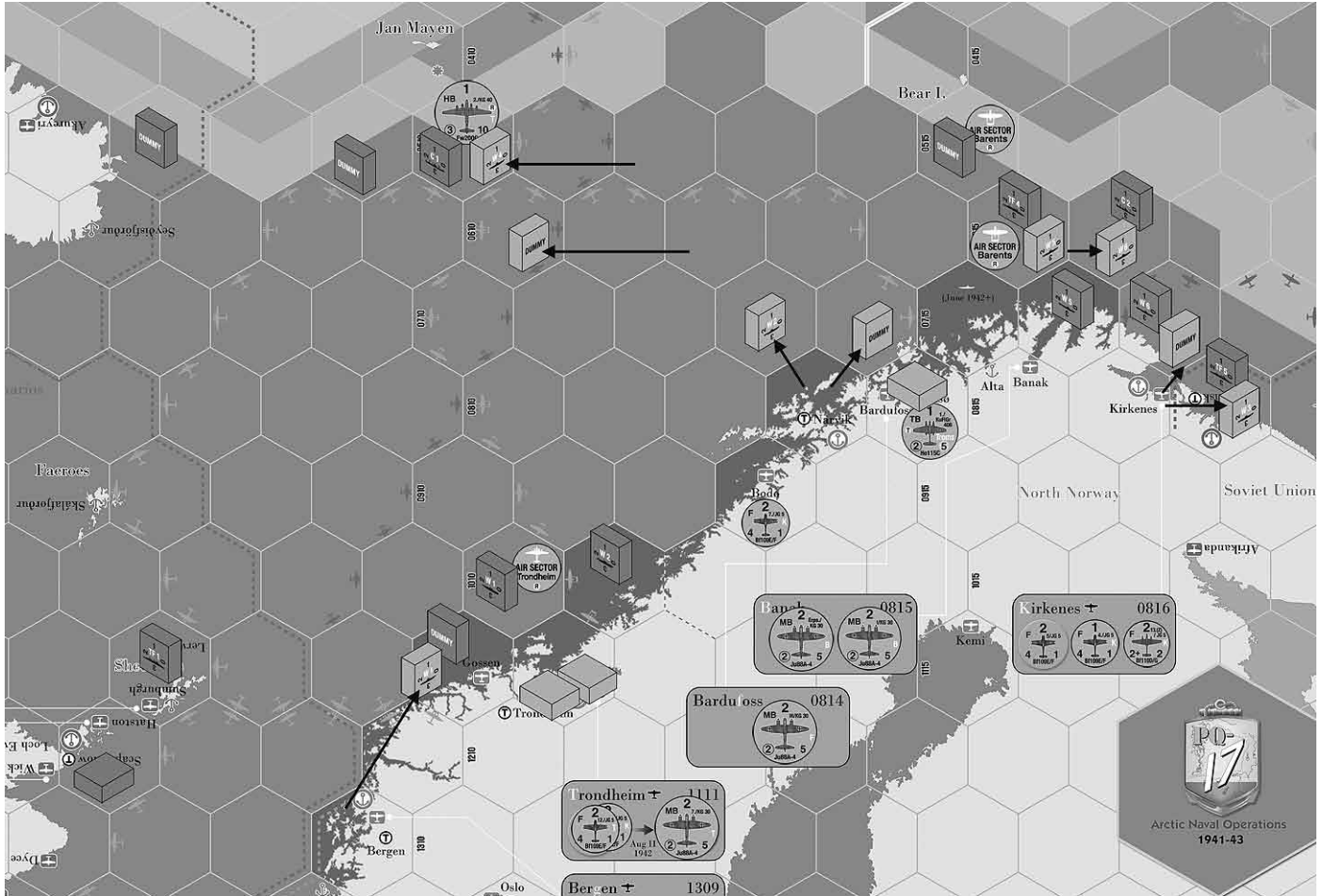
DAY	Reduced			Fog/ Gale
	Fair	Vis	Storm	
Force	U	1	2	3

DAY	Reduced			Fog/ Gale
	Fair	Vis	Storm	
Force	U	U	U	0
Air	U	U	U	U

Axel rolls for his Random Event {1+9}, Port Reconnaissance. He could conduct photo recon of Murmansk to confirm QP-9 has departed, but since Axis TFs may not leave port until an Allied TF or Convoy has actually been located *at sea*, there's no point.

In his Naval Movement Segment, Axel splits Wolfpack 5 (W5) and moves the new W6 into 0616. He moves W1 to 1110, W4 into 0510, and the Dummy into 0610. The Wolfpacks and Dummies in Narvik and Kirkenes put to sea by standing upright and moving one hex each.

With no Allied forces identified, Axel's only Air Movement is the Fw200 unit from Trondheim to 0510.



Axis Day 4 AM Moves

In the Reconnaissance Segment, Axel designates hex 1010 for search in the Trondheim Sector and hexes 0515 and 0615 in the Barents Sector. While AI shuffles his own deck, the results in Fair weather are:

- ◆ 0510 (Both) 'U' = AI tips C1 face-up.

Because the ID result is "+2," he turns it so its ID2 aspect faces himself and announces "4 warship counters, including 1 Heavy Ship and no carriers, and 20 Convoy Ships." Axel must immediately decide whether 2./KG40 and/or W4 will shadow, and flips the air unit to its back side to show it will.

- ◆ 1010 (Air) 'U' = AI tips W1 face-up to ID1
- ◆ 1110 (Force) 'S' = This is an Axis friendly shoreline hex, so AI reveals and removes his Dummy
- ◆ 0515 (Air) '1' = No contact (target needs to be ID1 or greater to be located)

- ◆ 0615 (Both) '–' = No contact
- ◆ 0616 (Force) '3' = No contact
- ◆ 0717 (Force) 'U' = No contact

Even though the result is a 'U', Axel has to frown, declare failure, and discard the card without showing it to AI because Dummies cannot successfully search.

- ◆ 0817 (Force) 'S' = No contact (Murmansk is not a friendly shoreline hex)

Because W4 moved it cannot attack, and Axel's turn is over.

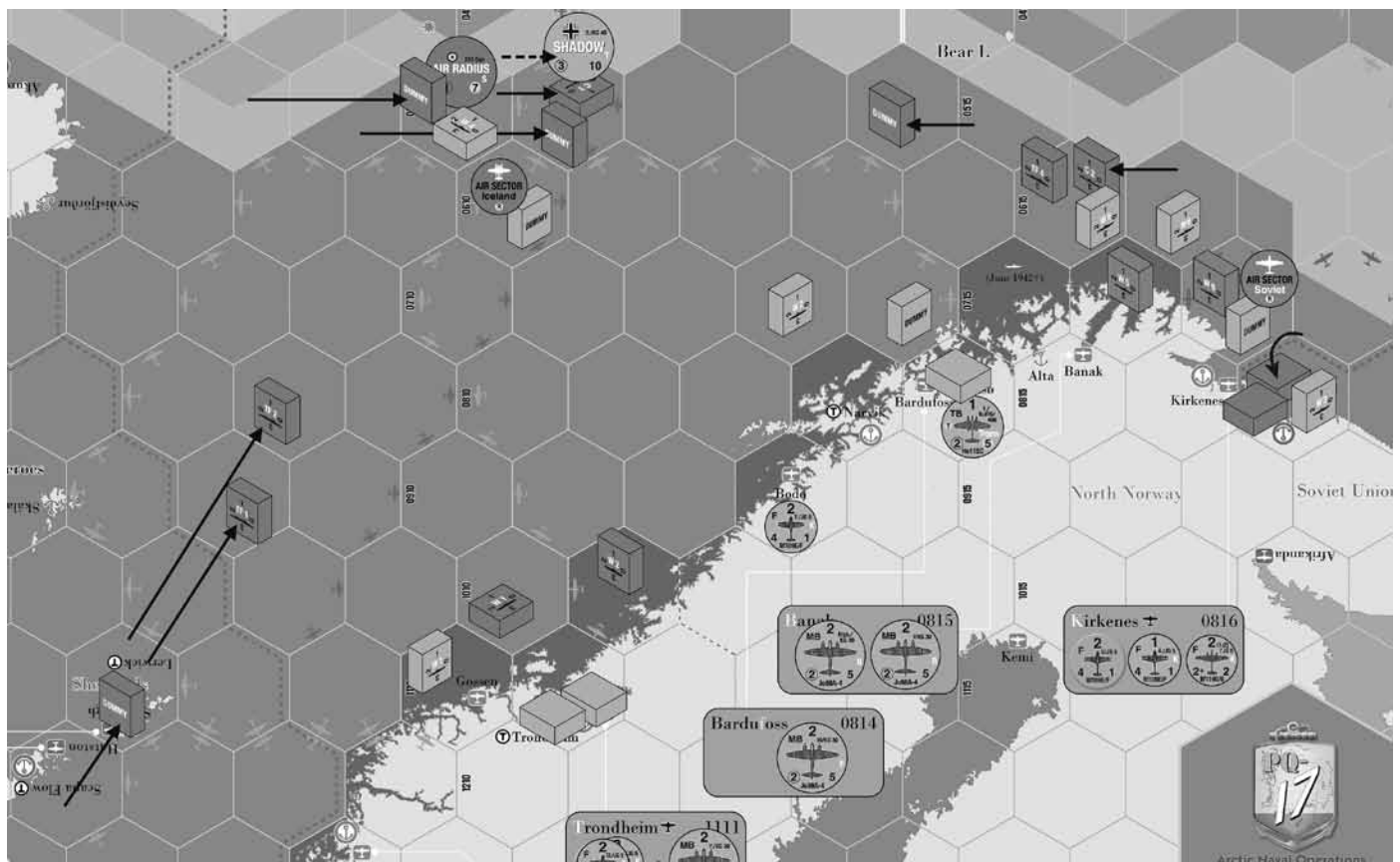
In the Fuel Phase, both players advance their Turn markers and flip them to the Night sides. C1 completes refueling from the MO (*Trinidad* + 2 DDs + 1 TB = 6CS, so it receives an *Oiler Fuel* marker on its 10 aspect) and resets its *Fuel Warning* marker to Day 13 PM.

Day 4 PM. Despite the DRM for Fair weather the previous turn, the weather {7+9-1} is Storms. AI's Random Event {0+6} is Ultra, and he chooses the Axis block in hex 0510. Axel tips W4 up to its ID2 aspect and announces that it is "one warship counter." Since in PQ-17 *every* Wolfpack consists of one and only one submarine counter, this announcement isn't exactly news.

Because it's a Night turn, there is no Photo Reconnaissance; the next Segment is Naval Movement. AI splits off *Renown, Kent*,

and *Nigeria* from TF1 into a new TF2, placing its *Fuel Warning* marker in the Day 14 AM box because it includes no Light Ships. C1 moves into hex 0511, accompanied by the shadowing Fw200 unit; its ID does *not* change. Both Dummies move two hexes east, and Axel draws a card to search for the lead block as it transits through 0510 {'0' = failure}. TF2 closes on the convoy at High Speed, and in consequence must shift its *Fuel Warning* marker back to Day 12 PM. Because the Storms prevent it moving at

1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	TF1 Fuel Warning	11 AM	12 AM	TF4 Fuel Warning	TF2 Fuel Warning	15 AM
PM	PM	PM	DAY Turn	TF5 Fuel Warning	PM	PM	C2 Fuel Warning	PM	TF3 Fuel Warning	PM	TF2 Fuel Warning	C1 Fuel Warning	PM	PM



Allied Day 4 PM Moves

High Speed, TF1 follows at moderate speed, and the Dummy leaves Scapa. C2 and the nearby Dummy move one hex west. TF5 returns to Murmansk, flipping face down to show this and also generating a face-down Dummy. Finally, W1 is rotated to its ID0 aspect even though it does not move because it is a PM turn.

AI sends his Catalina unit from Sumburgh out to hex 0510 and flips it to its 'Air Radius' side, foregoing the possibility of immediate attack in hopes of pinning the enemy Wolfpack.

He elects to search 0610 and 0717 in the Iceland and Soviet Air Sectors, and is quite fortunate:

- ◆ 0510 (Air) '1' = Axel rotates W4 to ID3

Note that if the result on the 'Both' row were not also a success, AI might choose to declare failure without showing the card in order to hide that his block there is a Dummy.

- ◆ 0610 (Air) 'U' = Axel removes his Dummy
- ◆ 0615 (Force) '–' = No contact (even though there are two Allied forces in the hex, AI still draws only one card)
- ◆ 0717 (Both) 'U' = No contact because the card {card 8} has the icon in its Night section, negating the 'U' result of this search by Soviet assets

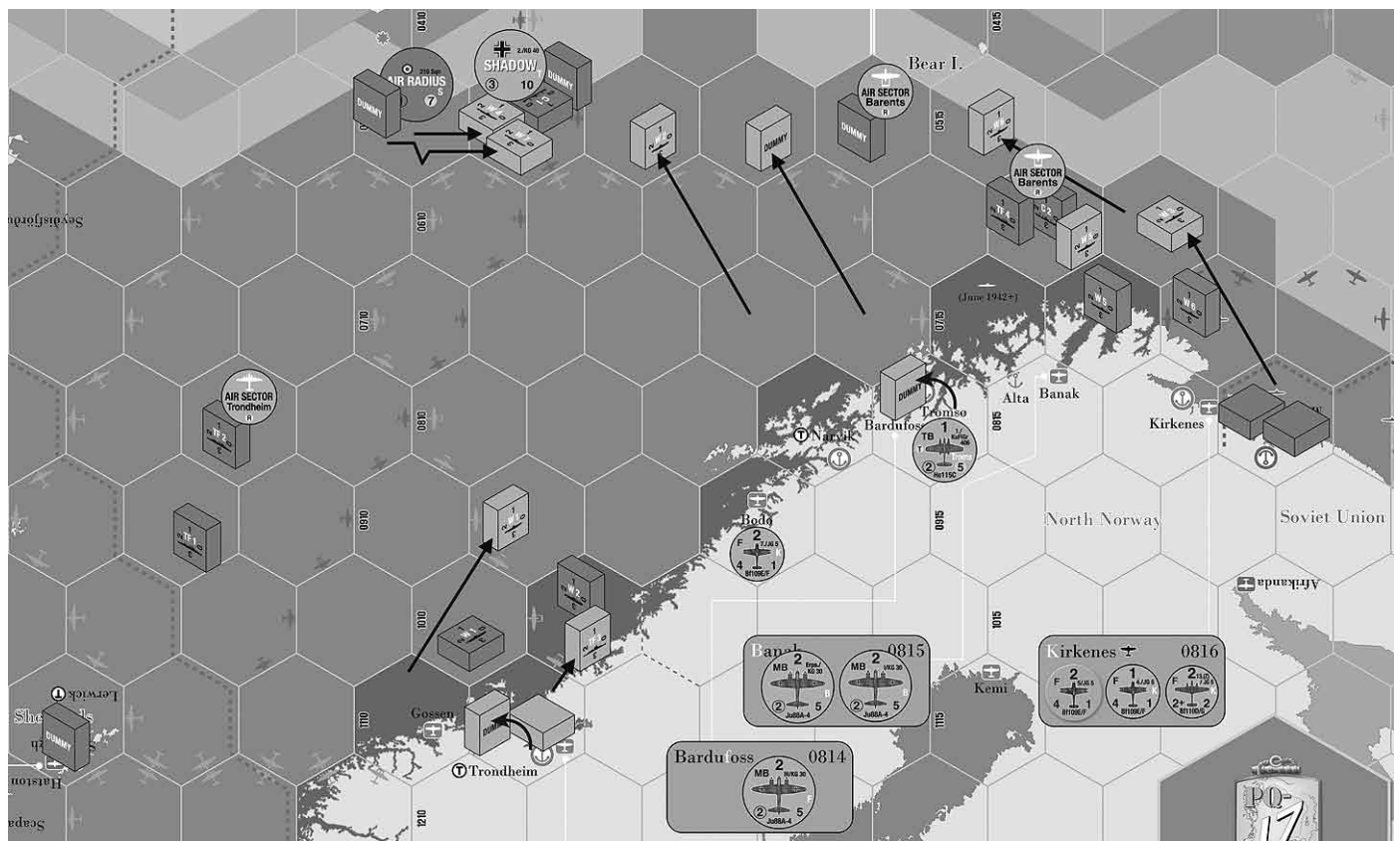
210 Sqn's Air Radius remains in place for now. In the Combine Forces Segment, AI wants TF4 to join C2, but must draw a card to do so because of the Storms. The result is 'S', so even though the "target" is always presumed to be ID3 in these circumstances, TF4 fails to locate C2 and they cannot combine.

The Axis Random Event {7+9} is Local Weather. Instead of Storms, the weather in South Norway will be Fog through the end of AI's next turn.

With C1 located, Axel splits his Type 36A destroyers into TF3 in Trondheim. Wanting to put U-boats in the path of PQ-13 so they may attack, he then splits 2CS from W4 into a new W7 (also ID3). Leaving hex 0510 into 0511, he indicates W7 is moving two hexes, so AI rolls one die on the ASW Table without having to make a locating draw. The result {8-1 in Storms} is 'Held Down,' so W7 fails to leave the hex. With one hex of movement remaining, Axel tries again, and AI's roll this time

{3-1} fails. W7 moves into 0511 but has no movement remaining and must stop there. W4 follows, and since Axel declares it is only moving one hex, it is not subject to attack. Both Wolfpacks rotate to ID2 because they moved.

Axel's remaining Wolfpacks and Dummies all move two hexes except for W5. This gives AI a chance to locate W1, W3, and W6 as they transit through occupied hexes, but only the draw in 0717 renders W3 ID1 ("1 warship counter"). Either player could try to attack as a result, but Axel does not want to end his force's movement and the probability of a sub-vs.-sub attack backfiring is high, so both decline. TF3 stands upright and moves out into hex 1011, with its *Fuel Warning* marker in the Day 10 PM box. Lastly, Axel initiates his feigned Atlantic Breakout and sends his "convoy" to sea by standing the Dummies in Trondheim and Tromsø upright.



Axis Day 4 PM Moves

Axel designates 0808 for Trondheim and 0514 and 0615 for his Barents Air Sector searches.

- ◆ 0808 (Air) '–' = No contact

Because the shadowing Kondors cannot search for any other forces in the hex, the search for the unidentified block in 0511 will be by the U-boats only:

- ◆ 0511 (Force) 'U' = AI removes his Dummy
- ◆ 0511 (Both) '2' = AI rotates C1 to ID3

Axel decides to shadow with W3 also, so places it (face up, ID2) beneath C1. Note that if this search had failed, C1 would have gone to ID1 instead! Axel remembers to use the Fog instead of

Storms column for the next search:

- ◆ 1011 (Force) '1' = No contact
- ◆ 0514 (Air) 'U' = AI reveals and removes his Dummy
- ◆ 0615 (Both) '–' = No contact (on TF4)
- ◆ 0615 (Both) '0' = No contact (on C2)

Axel now knows QP-9 is in hex 0615, but must identify it before he can attack. Because W7 moved, it cannot attack, either. AI's Catalina unit returns to Sumburgh, the Turn markers advance and flip, and Day 4 PM is over.

The Axis Random Event {2+7} is Straggler — no immediate effect. Axel moves the Dummy at Trondheim through 1110 into 1009 as part of his Atlantic Breakout feint. His forces close up on the convoys, with W1 and W3 both rotating to ID0. W7 is not so fortunate; as it attempts to slip ahead of PQ-13 through 0512, AI's transit search succeeds {card 15, a '2'}). With the convoy at ID3 anyway, AI would love to attack, but Convoys cannot, so W7 ends up in 0513 still at ID2. Finally with an identified target in the Air Movement Segment, Axel sends his bombers from Bardufoss, Banak, and Tromsø against the convoy.

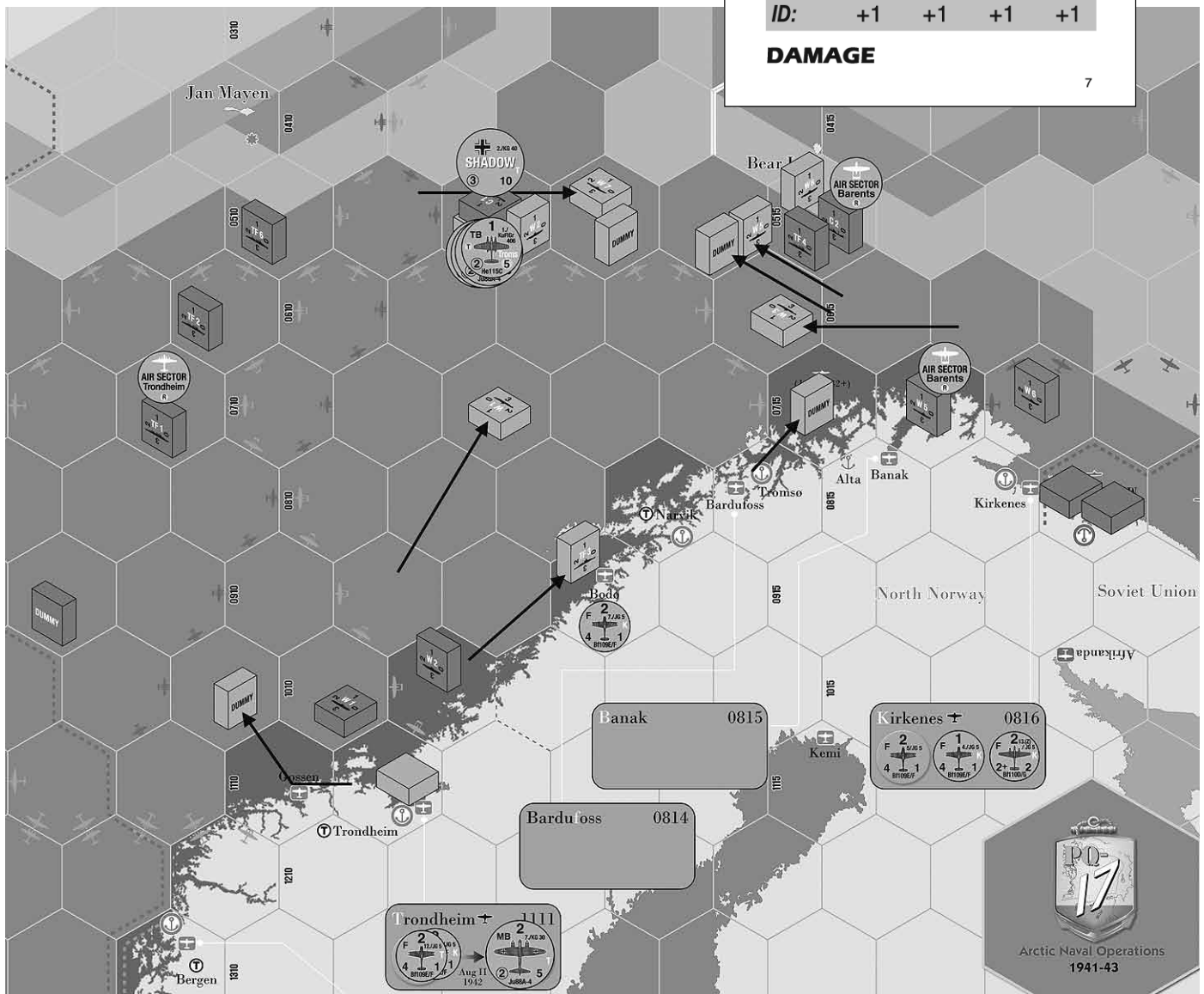
Axel employs Trondheim Sector search in 0709 and Barents Sector searches in 0515 and 0716.

He thinks he succeeds in 0709 {card 7, a '✈'}, but AI declares that he has a carrier in the force and the search fails. Except for successfully shadowing the convoy, so do the rest.

DAY	Reduced			Fog/
	Fair	Vis	Storm	Gale
Force	U	U	0	1
Air	✈	✈	U	0
Both	U	U	U	U
ID:	+1	+1	+1	+1
Photo:	-	-	-	-

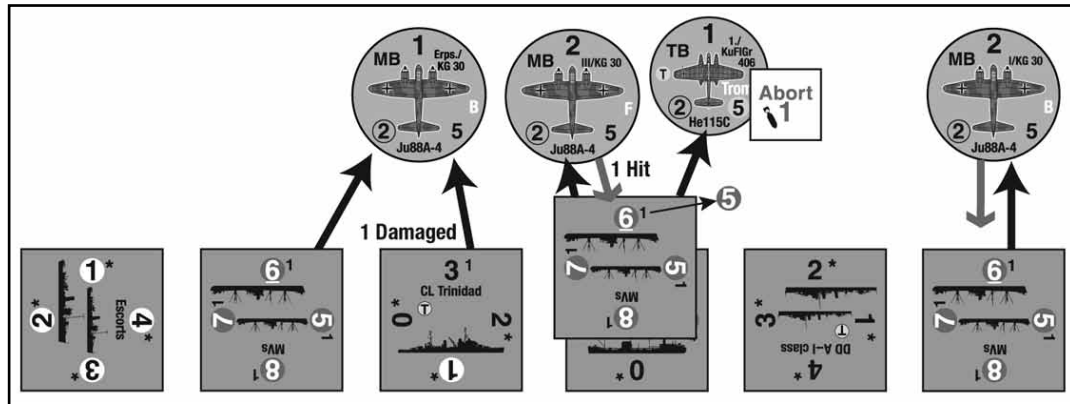
NIGHT	Reduced			Fog/
	Fair	Vis	Storm	Gale
Force	U	0	1	2
Air	U	U	0	2
Both	U	U	U	0
ID:	+1	+1	+1	+1

DAMAGE 7



Axis Day 5 AM Moves

Axel declares his air strike will attack the Convoy in the Air Combat Segment. His first locating draw fails, but because C1 is being shadowed he draws a second card, which succeeds. Al arranges the units in C1 and Axel deploys all his bombers in one wave:



Axis Day 5 AM Air Attack

The He115 and one Ju88 unit attack the stack with the oiler, while another Ju88 unit attacks a separate MV unit and the third attacks *Trinidad*. Each bomber unit attacking the Convoy Ships will face one AA die roll, while the Ju88 attacking the cruiser will face two (1 from *Trinidad* herself plus 1 from the adjacent MV unit that is not attacked). The DD and ES units do not fire, since they are not attacked and their AA values are ‘*’.

CL + MVs vs. Ju88:	4, 9	= 1 Damaged
MVs/MO vs. He115:	7+1	= 1 Abort
MVs/MO vs. Ju88s:	7	= No effect
MVs vs. Ju88s:	0	= No effect

Erps/KG30 is removed from the game, but no VPs are scored. Because of the DRM against torpedo attacks, 1./KüFlGr406 Aborts and returns to Tromsø. The remaining aircraft bomb, adding +1 to their die rolls for attacking ships in convoy:

Ju88s vs. MVs/MO:	2+1, 7+1	= 1 Hit
Ju88s vs. MVs:	1+1, 5+1	= No effect

Al randomly determines that the MO was not hit and rotates the 6CS MV counter to its 5CS aspect. The sunken MV is loaded, so scores (-)2 VPs. Axel returns the remaining bombers to their bases.

Since it did not move this turn, W2 now attacks PQ-13. Axel’s first locating draw is successful, so he rolls on the Submarine Combat Table {5+1 Reduced Visibility -1 for 1 Sub -2 for DDs/ES = 3}. He gets to attack first, declares he is targeting Convoy Ships, and rolls one die on the Torpedo Attack Table {9+1} — Success. A roll of 1 on the Torpedo Damage Table means 1 Convoy Ship is hit. This is randomly determined not to be the MO, so 1 MV CS is DiW. Because he is so far from port, Al decides to scuttle the MV rather than tow it with one of his DDs, scoring another -2 VPs. Now down to 16 MVs, he must combine the three counters into two of 8CS each. Al then rolls twice on the ASW Table {3, 6} — the maximum number of rolls he could make, even if there had been more Light Ships in the convoy. In this case, the ‘Held Down’ result is meaningless, since

the only sub in the Wolfpack already attacked. Axel must flip his sub counter to its back/torps expended side because the modified Submarine Combat roll was odd and all (one) of the subs in the Wolfpack attacked. W2 becomes ID1, and Axel’s turn ends. Note

that if one of the attempted attacks had failed both its locating draws, Axel would have gotten to make a third draw because of the Straggler Random Event.

After both players advance and flip their Turn markers in the Fuel Phase, Al removes the *Refuel* marker from TF5 and its *Fuel Warning* marker from his Turn Track. If he hadn’t refueled this turn, he would have had to flip the *Fuel Warning*

marker to its *Fuel Danger* side, move it to the Day 7 AM space, and place a *Low Fuel* marker in TF5’s Fuel box on his Force Display.

Day 5 PM. The weather worsens to Gales {9+8}. Al draws one card for each of his two Convoys; both have their Index #s



enclosed in red “stop signs,” so neither may move this turn. Since no aircraft may fly, Axel must immediately return his shadowing Fw200 unit to Trondheim.

Al’s Random Event {0+3} is Gale Damage, so both players must check for damage to Convoys and TFs in non-coastal hexes. Al announces, draws, and shows one card for each of his two Convoys and five TFs — lucky for him, both C1 and TF1 are right at the size limit to avoid having to draw a second card. Most forces are unharmed, but TF1 suffers the loss of both *Victorious* and 1 J-R class DD CS (historically *HMS Tartar*), randomly determined after a result of “1 Hvy Ship, 1 DD/TB, 1+2 AX/MX” {card 39}. TF6 has a narrow escape, as *Oligarch* is undamaged by a result of “0+2 AX/MX” {card 19}. Axel need not draw for TF3 because it is in a coastal hex, but does to maintain the fiction of his Dummy “Atlantic Breakout.”

During the Split Forces step of his Naval Movement Segment, Al checks the two convoy movement cards for Dispersal. QP-9 does not {card 30}, but PQ-13 does {card 22}, so he must roll twice for the 17 Convoy Ships in C1 {2, 6}. Subtracting 2 from each roll for the Dispersal DRM (from the Weather roll), he splits off 4 MVs into a new C3 in the same hex (at ID3), and places a *Disperse* marker in its box on his Force Display.



[END OF EXTENDED EXAMPLE OF PLAY]



DESIGNER'S NOTES

GENESIS

Work on this project began in 1994, when I was trying to come up with a naval system for Columbia Games' *EuroFront*. It didn't take long to recognize that any system tied into *EF* would lose most of the "flavor" I wanted. I had enough material for a more detailed operational game, though, and decided to pursue that instead. From the outset I intended this set of rules to apply across the spectrum of WWII naval operations, and chose the Arctic theater for the first test case because of the relatively limited number of ships and aircraft involved. I also wanted to make sure the system worked in the most difficult circumstances to model, and that's the Arctic, where the combination of extreme weather conditions, ice, widely varying hours of daylight, large distances, and length of individual operations is unmatched. The only element missing was carrier-vs.-carrier battles, and by adding in *Graf Zeppelin* (the sole real alternative-history unit in the game), this was also tested. In overcoming the challenges of simulating arctic battles, I'm confident the *Decision at Sea* (*DaS*) system works in other theaters as well.

SCALE

Named capital ships such as *Duke of York* and *Tirpitz* are vital to the game, and I quickly decided that individual cruisers are also needed to impart the necessary flavor — *Jamaica*, *Sheffield*, and *Norfolk* are in many ways the "stars" of the narrative. Smaller ships and merchantmen are grouped together to keep

the counter mix within bounds, but since even ships of different classes often share similar characteristics, it isn't necessary to give every class its own counters. Examining air units and carrier capacity, 6 aircraft per step proved about right to fit most units on a single counter while distinguishing between the different types making up a carrier air wing.

Given the large distances and length of operations — typically convoys took 10-14 days and traveled 2000 miles or more — turns need to be as long as possible to keep playing time reasonable. Since the maximum turn length allowing differentiation between day and night is 12 hours, that was decided upon. Convoy speed throughout 1942 was 8 knots, so the original version had very large 192-mile hexes with convoys moving 1 hex every other turn, submarines moving 1 hex every turn, and (most) surface warships able to move two hexes per turn. While this seemed okay, in tests it meant convoys were rather too easily "caught" and lacked what Jim Dunnigan has termed "the illusion of movement." Shrinking the hexes on the map and halving them to 96 nautical miles solved this problem, and also eliminated the rather unrealistic practice of warships moving hundreds of miles at 32 knots (although players will see this with British cruiser minelayers dashing to and from Malta in the next game of the series).

I confess I am annoyed when I see a map without a North arrow or similar directional reference, but that just doesn't work here. Because the theater is at very high latitude, the map is not a typical projection where the hex grain across the width of the map is east-west. Instead, east-west latitude lines are arcs of increasing radius as you go from the top of the map to the bottom. North is along the diagonal grain right and up on the Atlantic edge, and along the diagonal grain *left* and up on the Soviet edge: there would actually have to be *three* North arrows!

RECONNAISSANCE

The key difference between an operational naval game and a more traditional land wargame is reconnaissance, so it is THE central mechanic of the game. There should be uncertainty not only on the composition of an enemy force, but also whether it is present at all in any given location. Past games have generally used one of two methods to reflect this, either double-blind (such as Avalon Hill's *Bismarck*) or plotted movement (Avalanche Press's *Great War at Sea*). While a great deal of fun, I find neither truly satisfactory. Both can be mechanically cumbersome, and at least one player unrealistically yields information to the other while moving and/or searching. A computer is the obvious solution to this problem, serving as a tireless and reliable umpire to quickly, accurately, and confidentially resolve searches. But I enjoy the social interaction with a face-to-face opponent, so chose the harder route of designing a board game instead.

Happily, Columbia's pioneering use of blocks inspired a compromise solution. Rather than each block representing a specific unit or force, however, in *DaS* a block can represent one ship or a hundred and one, or nothing — a Dummy — and you won't know what your opponent's represents until you successfully search for it. Force blocks still have numbers around the edges, but instead of representing strength as in a traditional

block game, the number facing you represents the accuracy with which the enemy has located and identified that force. So the blocks provide valid “fog of war” while keeping the number of markers on the map to a minimum, since the ship counters themselves are kept off the map in a Force Display, hidden from your opponent. I liked the idea of a traditional Columbia Games-style block for each ship unit, but the cost (and weight!) of that many large blocks is prohibitive. The large 1” square counters are a nice compromise, allowing convenient step reduction without the need for rosters or markers.

The actual mechanic of searching proved a thornier issue. In early versions, a player rolled a 20-sided die for each search attempt to provide sufficient linear variability, with no less than 16 possible DRMs for weather, darkness, identity/type/number/disposition of searching forces, target type, etc. It was far too tedious for players learning the game, and reducing some of the variables to lines and columns on a table helped but did not fully resolve the problem. This issue may have led to the game’s demise until Andy Lewis suggested that cards might be a practical alternative, and when GMT confirmed that this would be affordable (Lee Brimmicombe-Wood contemplated using cards for a similar purpose in *The Burning Blue* at about this time), the problem was solved. Ultimately, the cards had sufficient room to also determine weather and ice damage and whether or not a convoy disperses or can make headway in gales, so they elegantly and significantly reduce the overall “wristage” in the game.

One compromise made was how many of those DRMs to incorporate into the cards. Darkness and weather were easily included, as was the presence or absence of searching air assets. Radar was trickier, but by 1942 we could assume that all British ships of destroyer size or larger and many recon aircraft (including some Albacores) had it, so by separating the Allied and Axis decks and giving the Allies better chances (while still penalizing Soviet searches), the cards account for this. Special symbols reflect target types: the watermarked subs decrease the probability of usefully detecting submarines by a significant amount, and the aircraft silhouettes in place of some ‘U’ results allow for the possibility of interceptors (particularly from carriers) shooting down a recon aircraft before it can detect the target force. You’ll see more of these air silhouettes in future Pacific volumes in this series. The one potential factor that dropped out was the size of the respective forces. One might expect that a large convoy would be easier to find than a small task force, but in practice this isn’t really the case. Even a formation as large as PQ-18 (with 45 ships in its main body) was less than four miles wide by a mile deep — a small fraction of an area 98 miles across. Similarly, a large squadron in wartime cruising formation will search about the same width as a smaller formation spread out in line abreast. So on both ends, differences in size and formation can be safely ignored.

Realistically showing air search assets without overwhelming the counter mix limits was another problem. Initially there were standing patrols (the game’s Air Radii) and lots of recon units, as I’d done enough research to have a pretty complete and detailed air order of battle. An early playtest session with old

friend Dana Lombardy suggested a third option, which became the Air Search Sectors. Just like in AH’s *Midway*, each side is allowed to search a specified number of hexes, but in *DaS* you are limited to areas tied to the bases and ranges of main reconnaissance formations. Shouldn’t you be able to search a pie-shaped wedge or arc radiating out from the base rather than just a single hex? Game design considerations as well as my personal experience conducting air reconnaissance confirms otherwise: this limitation practically offsets player knowledge of all the hexes empty of enemy blocks, and if your mission is to locate an enemy force hundreds of miles away, you seldom have time or fuel to investigate contacts short of your target.

Photo reconnaissance was the last piece of the puzzle, as it can be just as important to know if enemy forces are still in port as to find them at sea. The fast, high-flying RAF Mosquitoes and Spitfires were almost immune to German interception, so can be used whenever weather permits. By 1942, though, German reconnaissance of Scapa Flow and Iceland was more problematic, as Fighter Command (and the USAAF in Iceland) made life chancy for the Ju88s. Making this a random event for the Axis (reflecting only those occasions where the *Luftwaffe* crews made it back) better models the situation.

Overall, the combination of blocks, air assets, and cards eliminates most of the disadvantage of the act of searching giving away the position of naval forces. In *DaS*, reconnaissance success is never guaranteed, and the simple expedient of only revealing the card if the search is successful allows Dummies to “search” without giving their status away (unless you have a really pathetic poker face!).

WEATHER

Both finding the enemy and successfully engaging him are dependent on the weather, and in the Arctic theater the weather is some of the worst in the world. Clear days with unlimited visibility are very much the exception, and players will quickly realize that “Reduced Visibility” is the norm (and it is more likely to be worse rather than better). Both the Norwegian and Icelandic meteorological services were extremely helpful in providing actual data for 1942. I chose Bjørnøya (Bear Island) as the station with the most representative weather for the war at sea. For obvious reasons, however, there are no records for that station in 1942, so I substituted a combination of the average weather there for the years 1937-1940 and 1942 data from Jan Mayen.

Of course, in a theater this large, the weather is seldom the same from one end to the other. The use of Local Weather Random Events accounts for both the variations in average weather from the chosen island “norm” and for conditions around the periphery often being better (or worse) than the oceanic weather. The cards provide another means of accounting for local variation: your search failed because the target was hidden in a patch of poor visibility despite the general fair conditions, or you located it in an area clear of the prevailing storms.

Speaking of storms, some have complained that I mimic AP’s practice of ranking Gales as more severe weather than Storms when the opposite is the case on the Beaufort Scale

of wind speeds traditionally used by mariners. Quite aside from having originated the system's weather hierarchy before *Great War at Sea* was published, "correct terminology" would preclude the use of "Storms" in *PQ-17* altogether, because in differentiating between "Storms" and "Gales," in Beaufort terms we're actually only differentiating between lesser and stronger Gales — not Storms at all. More importantly, in the layman's mind a gale is a severe storm, and in real life as in the game, "storm" carries a much broader connotation of bad weather — a snow storm, a rain storm, an ice storm — which need have no direct correlation to wind speed whatsoever. As one person graphically commented, "a storm is something that knocks over my trashcan and sometimes knocks out the power and/or the cable, gales are something that happen to men at sea in the movies *and they can die*." Finally, many players will already be familiar with the weather hierarchy of the *GWaS* series, and I see no need to force them to remember which terms are used in which system. The important thing is for players to understand which is a worse condition *in the game*, and I deliberately opted for lack of confusion.

FUEL

The other major factor that is *critical* in an operational-level WWII naval game is fuel — it can't just be ignored for the sake of simplicity. Depending on the system used, this can be thoroughly tiresome, and the mechanics in *DaS* are a good compromise between ease of play and realistic effects.

The key is to recognize that the limiting factor was almost always the endurance of the destroyers. Because cruisers and capital ships had sufficiently large radii of action (and didn't go charging off to attack submarines), fuel was seldom an issue for them. So in *DaS*, we track light ship fuel.

Destroyers of the period were fairly consistent in bunkering about 500 tons of fuel oil for a range of 5-6000 nm at 15 knots. Given the game's scale, that equates to 55 hexes or 27 turns. But warship captains grow uneasy when their fuel supply drops to 50%, so the first benchmark is 12 turns — Fuel Warning. At that point, force commanders would try to avoid increased fuel consumption, so cruising at High Speed is prohibited. 36 hours later, fuel is down below 40%, and conservation becomes critical. Even in battle, captains may be forced to operate less energetically than they'd like, because they *HAVE* to get home — out of fuel not only means wallowing helplessly in the water, but also unable to power gun mounts, radars, and sonars. I've been unable to verify a single instance of a major warship actually running out of fuel at sea (although in the Med a couple British destroyers came close), so you can't in the game, either, but there is a Victory Point penalty for being careless about refueling in a timely manner. Allied players in particular should plan carefully to keep adequately-fueled escorts with their convoys.

500 tons of fuel also is a handy standard for an oiler Fuel Point. Heavy ship bunkering varied much more widely (1000-3000 tons for cruisers), but their somewhat increased efficiency means they need take on proportionately less fuel in most cases, so the Fuel Point per CS ratio works well enough.



ICE

PQ-17 must include varying "terrain" as the polar ice advances and retreats with the seasons. Besides anecdotal evidence from various accounts, my primary source for ice data is the (US) National Geospatial-Intelligence Agency's Arctic Ocean Sailing Directions. Players can risk the ice, but the hazards to progress and the ships themselves are real.

COMBAT

Players want to shoot and break things, and designers tend to oblige by making it too easy from a historical perspective, so many naval games are too bloody. *PQ-17* makes it more difficult to actually attack in two ways. First, the target has to be located by your reconnaissance assets — in game terms, Identified — before you can attack it. Commanders rarely wore out their aircraft and crews by sending out massive strikes just hoping they might find the enemy. Second, the attacking units themselves have to locate the target before combat ensues, and this isn't easy, particularly under arctic conditions. Even when the target was being shadowed, it was not uncommon for the shadower's navigation to be seriously in error, such that when the attackers arrived at the reported location, neither the target nor the shadower were to be found. An air strike might arrive in the vicinity of the target, but during the time the bombers were around the convoy, snowstorms and low clouds may have precluded effective attack. What if your Wolfpack or Task Force finds the target during the Reconnaissance Phase — shouldn't it be able to immediately attack? Sorry; maybe the radar fails, or the force is unable to reach the desired attack position before hours pass or the weather closes in.

One aspect that may seem counterintuitive is that German air attacks are no more effective close to Norway than hundreds of miles away, while the Allies deliberately routed their convoys as far from German bases as possible. Originally I allowed bombers to attack twice in hexes adjacent to their bases, but that was far too deadly. *PQ-17* does account for this, but not always in an obvious manner.

For convoys going to/from Arkhangelsk, the farther from Norway they are, the fewer hexes they must transit within range of German air reconnaissance and bombers. More subtly, the air combat model is based on a historically-correct one attack per

12-hour period. The Germans could not sustain this pace over a period of several days, but could and did for 24-36 hours, which is about all the weather normally allows. The Axis advantage attacking closer targets was not because of a significantly higher sortie rate, but because the bombers could loiter to attack under better conditions. It ends up about even, because when the convoys were steaming closer to Norway because of ice, the weather and lighting conditions were generally poorer and the *Luftwaffe* crews needed that extra time to mount any sort of decent attack at all. The single most successful attack of the war was in hex 0314 — at maximum range. So if anything, the game is (deliberately) biased to limit the effectiveness of attacks close to German bases rather than leaving those at long range too successful.

The ability to coordinate strikes from several bases into a single mass attack is an abstraction, adopted mainly for simplicity. It keeps players from having to worry about which air units came from which base when stacking them in a target hex, avoids the need for sequencing rules, and speeds up the game. But there are historical grounds. The bases in Britain (and in Norway) had reliable land-line communication with one another, so they could coordinate without resorting to radio. By 1942, RAF and *Luftwaffe* air unit commanders had years of combat experience under their belts. And these weren't carrier battles where fuel constraints and getting in the first attack were so critical; often the first units on the scene could afford to wait for their comrades to arrive rather than attacking piecemeal. So these "mass attacks" did happen fairly often (albeit not with the certainty of the basic game, of course). Also, remember that the one air attack on a target force in a turn represents *all* the attacks in a 12-hour period. The 2 units per target "wave" restriction reflects this by forcing players to spread out large attacks somewhat rather than executing them all at once. You can make a great case that every air *unit* should make its own draw, let alone those from different bases, but that's not a procedure I want to force upon players. For those of you who desire more of a challenge, Optional Rule 7.1.2 is available to make coordination more difficult.

Combat itself is deliberately abstract to keep playing time (and rules length) down. Players familiar with Victory Games' *Fleet* series will recognize the naval-air combat subsystem. We know that ships in company don't line up in the face of air attack, but in practice it's not a bad simulation: without taking the time to lay out a formation *a la* AH's *Midway*, ships can support one another to a limited extent. The stacking limit for Convoy Ships corresponds to two columns of an Allied convoy, and the inability of a supporting unit to cover more than four columns — over a mile across — is about right.

For submarine attacks, the issue is determining how many subs in the sub force attack before or after the escorts attack them. The Submarine Combat Table evolved into its present form over time to answer this question, and while it has rather more DRMs than I'd prefer, players become familiar with them fairly quickly in practice.

Surface combat is most complex, as it happened rarely enough (and was significant enough) that more detail and time

is appropriate. Here again, players tend to fight "to the death" far more readily than their historical counterparts, which led to the Hitler's Restrictions and end-of-round-die roll rules. Many considerations could lead a commander to break off an action early: risk-reward judgments, concerns over ammunition and/or fuel, fear of enemy reinforcements arriving, and casualties beneath the detail level of the game, to name a few. In an operational game the players shouldn't know or care about these, so our AI force commanders will often decide to end an action before a player might like.

VICTORY

The basis for the scale of Victory Points (VPs) is that a merchant ship is worth 2 VPs if loaded with material bound for Russia, and 1 VP if returning to the west "in ballast" (though historically some carried a cargo of timber — virtually the only resource available in north Russia that the Soviets could spare). Unless at least three quarters of an Allied convoy arrives at its destination, the Axis player scores additional VPs to represent the morale effects on Allied merchant sailors and their attackers. Destroying enemy warships and larger bombers also garners proportional VPs, so it does not pay to ravage or protect a convoy at too great a cost. The VP cost for losing Axis ships has to be higher, because they are virtually irreplaceable and would be unable to affect future ops. And expending Command Points scores VPs for the opponent, representing expenditure of scarce fuel for the Germans and general wear-and-tear and crew fatigue for the Allies.

Some designers and players like every game to be as balanced as possible, but that isn't my philosophy. I believe that if your accomplishments are such that your historical counterpart wouldn't be able to claim victory, you shouldn't either. So in an operational scenario, a win is a win, whether by 1 VP or 101. But each scenario does list the VP result achieved historically, and players may use this as a benchmark if they wish.

In the campaign scenario, however, you play multiple operations and have to account for fortnights where nothing happens. Because German losses yield proportionately more VPs and they have a serious impact on the Axis player's ability to interdict later convoys, the Axis player is effectively penalized twice for his losses, while he also has incentive to play more cautiously. To compensate, the Allies need higher average scores to win the campaign than in individual scenarios. Churchill's promise that the British would deliver 10 ships to North Russia every 10 days provides a neat formula that forces Allied players to mount operations (while also allowing players to set the scenario end point at the end of any month to suit their time available). Now a series of individually minor Allied victories will amount to a cumulative defeat, as the clock keeps ticking and a substantial absolute number of ships must get through. Add in the limitations on unloading ships in Arkhangelsk and Murmansk plus the penalty for failing to return those unloaded ships to the Atlantic, and the campaign rules provide both players with incentive to operate as vigorously as possible within the historical constraints.

Partial List of Sources

Primary

Admiralty War Diaries, 1941-1943

Interview with Ib Arneson Riis, 20 February 2009

Meteorological Report on Svalbard Archipelago Including Bear Island. [UK] Meteorological Office, 1942

Official Records of Icelandic Climate Institute, 1942

Official Records of Norwegian Meteorological Institute, 1937-1940 and 1942

Secondary

Blair, Clay. *Hitler's U-Boat War: The Hunted, 1942-1945*. New York: Random House, 1998.

Blair, Clay. *Hitler's U-Boat War: The Hunters, 1939-1942*. New York: Random House, 1996.

Excellent overview of German submarine operations, but not without some errors in the appendices

Edwards, Bernard. *The Road to Russia: Arctic Convoys 1942*. Annapolis: Naval Institute Press, 2002.

Focused mainly on PQ-13 and PQ-17, with numerous first-person accounts

Irving, David. *The Destruction of Convoy PQ-17*. New York: Richardson & Steirman, 1987.

Not without merit, though principal thesis and conclusion are controversial

Kemp, Paul. *Convoy! Drama in Arctic Waters*. London: Arms & Armour Press, 1993.

Excellent chronology of arctic convoy operations throughout the war

Koop, Gerhard, & Klaus-Peter Schmolke. *German Destroyers of World War II*. Annapolis: Naval Institute Press, 2003.

Individual histories of German destroyers, with a few mildly annoying omissions

Pope, Dudley. *73 North: The Battle of the Barents Sea, 1942*. London: Weidenfeld & Nicolson, 1958.

Colorful if biased description of the key surface engagement of the campaign

Rohwer, Jürgen. *Chronology of the War at Sea, 1939-1945* (3rd Revised Ed.). Annapolis: Naval Institute Press, 2005.

Indispensable starting point for any naval game designer

Schofield, B.B. *The Russian Convoys*. London: B.T. Batsford, 1964.

Classic account of the campaign, now somewhat dated

Smith, Peter C. *Arctic Victory: The Story of Convoy PQ-18*. London: William Kimber, 1975.

Superb description of the largest convoy battle of the campaign

Watts, A.J. *The Loss of the Scharnhorst*. London: Ian Allen, 1970.

Good, succinct rendering of the last arctic surface battle, albeit written before ULTRA became public

Whitley, M.J. *Destroyer! German Destroyers in World War II*. London: Arms and Armour Press, 1983.

Overview of German torpedo boat as well as destroyer operations

Woodman, Richard. *Arctic Convoys, 1941-1945*. London: John Murray, 1994.

The best single book on the campaign, incorporating a wealth of detail and flavorful description

Wynn, Kenneth. *U-Boat Operations of the Second World War* (2 vols). London: Caxton Editions, 2003.

Complete listing by boat with descriptions of each patrol

EXPANDED SEQUENCE OF PLAY

1. Preparatory Turn (prior to the Operation)

A. Environmental Phase — Establish predicted Ice Conditions [10.1, 10.4]

B. Planning Phase

- (1) Draw for Special Conditions (Allied player first) [12]
- (2) Determine Initiative and set up forces, including one block in Tromsø and one Dummy in every other port with any friendly force(s) [4.1, 12]
- (3) Plan Convoy schedules [4.2] and Special Conditions [12] and announce Emergency Reinforcements [15.4] or Operation EV [15.8.3].

2. Operation Turns (repeat until the Operation ends [3.4]; omit during a Campaign game if no CPs expended)

A. Weather Phase — Roll for weather [9.1] and draw for Convoy movement and Dispersal if Gales [9.2.5, 9.3.2]

B. Allied Player Phase

- (1) Random Event Segment [13]
- (2) Photo Reconnaissance Segment (Day turns only) [6.9]
- (3) Naval Movement Segment (omit AM Day 1 if Axis initiative) — Expend CPs [4.3, 11.4]
 - a. Stand ID0 forces upright and (except for Wolfpacks) generate Dummies [6.6]
 - b. Split naval forces, including Dispersal [1.2.3, 9.3.2, 11.1.1]
 - c. Designate any Convoys/TFs/Wolfpacks refueling or rearming with torpedoes [7.3.2, 11.3.2]
 - d. Move Convoys/TFs/Wolfpacks/Dummies and shadowing enemy units, reducing ID and checking for Transit ID and Intercept if appropriate [5.1-2, 6.6.1]
 - e. If a PM turn, reduce ID of non-moving forces [6.6]
- (4) Air Movement Segment [5.3]
- (5) Reconnaissance Segment — Draw one card for each enemy block subject to search [6.2]
- (6) Air Combat Segment — For each announced attack, make location draw(s) if necessary [7.1] and resolve:
 - a. During a Day turn, the defender may Scramble Fighter units in the same (or optional adjacent) hex [7.2.1]
 - b. Resolve air-to-air combat [7.2.2-3]
 - c. Deploy target units [7.2.4]
 - d. Assign attacking air units to targets and declare torpedo attacks [7.2.4]
 - e. Determine the results of each wave of attacks before resolving the next wave
 - (i) Resolve anti-aircraft fire [7.2.5]
 - (ii) Resolve ASW [7.4.2], bombing [7.2.6], and torpedo [7.3.1] attacks
 - f. Increase the target force's ID to ID2 Day/ID1 Night [6.7]; if a TF, move its Fuel Warning marker 1 turn back [11.1.3]
 - g. Return all aircraft to their original bases except those generating Air Radii or Shadowing [7.2]
- (7) Submarine Combat Segment — For each announced attack, make location draw(s) [7.1] and resolve if successful:
 - a. Determine the order of ASW combat and submarine attacks, checking for Surprise if sub vs. sub [7.4, 7.6]
 - (i) Resolve ASW combat [7.4.1] and/or
 - (ii) Resolve submarine torpedo attacks [7.4.3] in the order determined
 - b. Increase the ID of all forces involved to ID1 [6.7]; if a TF conducted Offensive ASW, move its Fuel Warning marker 1 turn back [11.1.3]
 - c. Return enemy aircraft generating air radii to their original bases [7.2]
- (8) Surface Combat Segment — For each announced target, make location draw(s) [7.1] and resolve if successful:
 - a. Attempt intercepts [7.5.1]
 - b. Check for Surprise [7.6]
 - c. Deploy engaged Task Forces and Convoys on the Battle Display [7.5.2]
 - d. Surface Combat Rounds
 - (i) Check for additional TFs engaging (active player first, never in Round 1) [7.5.2i]
 - (ii) Maneuver (defender first) [7.5.2ii]
 - (iii) Exchange gunnery attacks [7.5.2iii]
 - (iv) Resolve torpedo attacks (defender targets first) [7.5.2iv]
 - (v) Roll for withdrawal (defender first) [7.5.2v]
 - (vi) Increase the ID of all forces involved to ID3 Day/ID2 Night [6.7] and roll for end of combat [7.5.2vi]
 - e. Move engaged TFs' Fuel Warning markers 2 turns (i.e., one day) back [11.1.3]
- (9) Combine Forces Segment [1.2.4, 9.3.3, 9.4, 11.1.1] — Scuttle any DiW ships not under tow [5.1.1, 7]

C. Axis Player Phase — Repeat Phase B, reversing the player roles

D. Special Conditions Phase — Score VPs for certain Special Conditions if criteria are met [12]

E. Fuel Phase

- (1) Advance the Turn markers [8.1]
- (2) Check for fuel status change and replenish fuel/torpedoes [11.1-2]

3. Administrative Turn (after the Operation)

A. Confirmation Phase — Reveal CPs expended and Special Conditions [4.3.2, 12]

B. Victory Point Phase — Total VPs [2] and unload MXs in Soviet ports (Campaign Scenario only) [15.2.2]

C. Order of Battle Phase (Campaign Scenario only) [15]

