

Battle of the Atlantic Document Packet: Figure One

Directions: Answer each of the questions below using the information provided. Reference the Vocabulary Sheet as needed.

Year	German Submarines Sunk (Number)	Allied Shipping Sunk (In thousands of tons)	New Construction (In thousands of tons)			Net Gains or Losses
			U.S.	British	Total	
1939 (4 months)	9	810	101	231	332	- 478
1940	22	4,407	439	780	1,219	- 3,188
1941	35	4,398	1,169	815	1,984	- 2,414
1942	85	8,245	5,339	1,843	7,182	- 1,063
1943	237	3,611	12,384	2,201	14,585	+ 10,974
1944	241	1,422	11,639	1,710	13,349	+ 11,927
1945 (4 months)	153	458	3,551	283	3,834	+ 3,376
Totals	782	23,351	34,622	7,863	42,485	+ 19,134

Source: King, *Third Report to the Secretary of the Navy*, page 206

During which year(s) were more Allied ships sunk than were built? _____

How many total German U-boats were sunk during that same period? _____

Based on your answer to the first question, what does that answer imply about the relative success of Allied forces in stopping German U-boat attacks on convoys in the Battle of the Atlantic during that period?

During which year(s) were more Allied ships built than were sunk? _____

How many total German U-boats were sunk during that same period? _____

What does your answer imply about the relative success of Allied forces in stopping German U-boat attacks on convoys in the Battle of the Atlantic during that period?

Which year appears to mark an important shift for Allied success? _____

Make three predictions about how the Allies created this reversal.

Battle of the Atlantic Document Packet: Figure Two

"By the time the convoy was attacked, it was too late to do anything except fight. Any [change of course] to avoid an attack would have had to come sufficiently early so that the U-boats could not catch the convoy and get into attack position..."

Russell, *Ultra and the Campaign Against the U-boats in World War II*, 1980, page 11

"The U-boat war has been a war of wits...There is a constant interplay of new devices and new tactics on the part of forces working against the submarines..."

King, *First Report to the Secretary of the Navy*, 1946, page 82

How does Russell suggest the Allies could have protected their convoys?

What did the Allies need to be able to do to accomplish this?

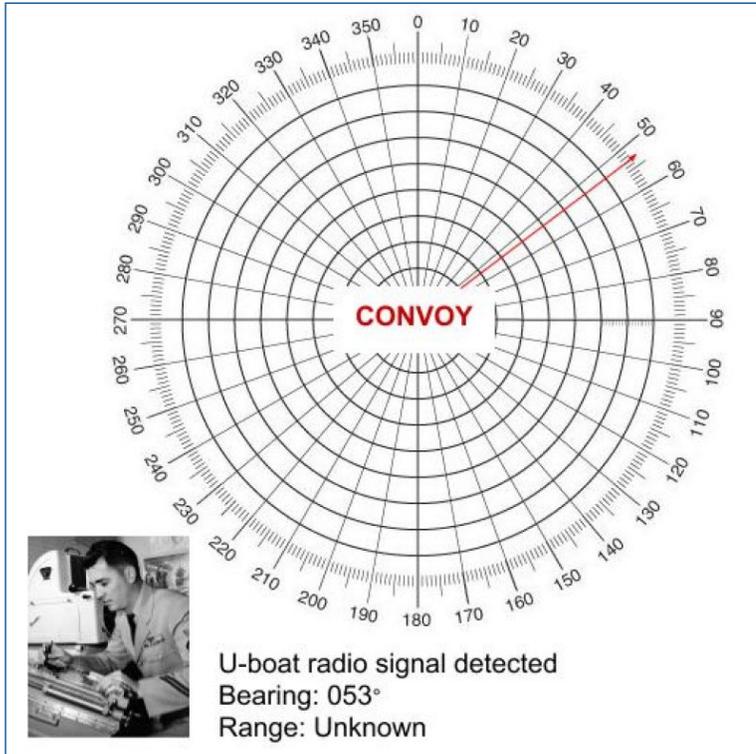
How does Admiral King describe the battle against German U-boats? What does he mean by this?

What does Admiral King suggest is the key to defeating the U-boats?

Battle of the Atlantic Document Packet: Figure Three

Directions: Using the information provided, determine how each of the items below helped Allied forces prevent U-boat attacks on their convoys.

High Frequency Direction Finder (aka HF/DF or "Huff Duff")



What information can be determined using "Huff Duff"?

How would this tool help prevent U-boat attacks on Allied convoys?

Source: Naval History and Heritage Command (L55-03.07.02), National Oceanic and Atmospheric Administration

Rate this tool on the scale below.

1	2	3	4	5
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Least Helpful

Most Helpful

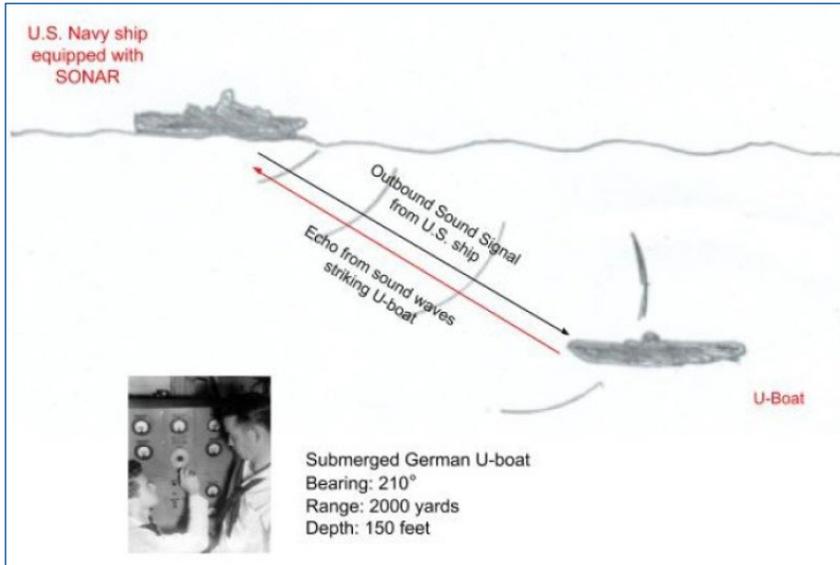
Explanation: _____

How can the information about HF/DF help us understand how the Allies won the Battle of the Atlantic?

Battle of the Atlantic Document Packet: Figure Four

Directions: Using the information provided, determine how each of the items below helped Allied forces prevent U-boat attacks on their convoys.

Sound Navigation Ranging (aka SONAR)



What information can be determined using SONAR?

How would this tool help prevent U-boat attacks on Allied convoys?

Source: Naval History and Heritage Command (L55-03.07.02), National Oceanic and Atmospheric Administration

Rate this tool on the scale below.

1	2	3	4	5
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Least Helpful

Most Helpful

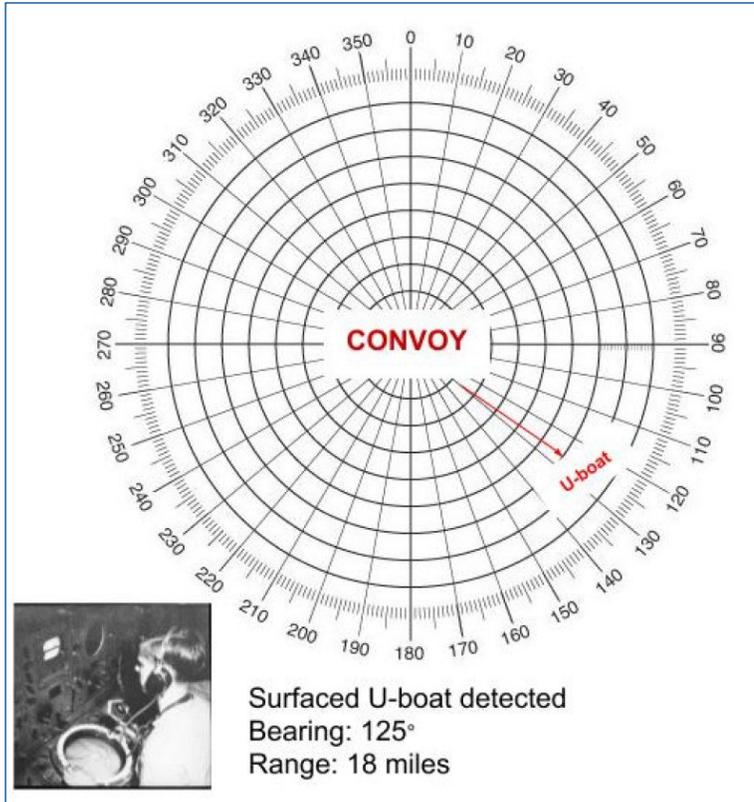
Explanation: _____

How can the information about SONAR help us understand how the Allies won the Battle of the Atlantic?

Battle of the Atlantic Document Packet: Figure Five

Directions: Using the information provided, determine how each of the items below helped Allied forces prevent U-boat attacks on their convoys.

Radio Detection and Ranging (aka RADAR)



What information can be determined using RADAR?

How would this tool help prevent U-boat attacks on Allied convoys?

Source: *Battleship North Carolina* (1982.010.0522), National Oceanic and Atmospheric Administration

Rate this tool on the scale below.

1	2	3	4	5
Least Helpful				Most Helpful

Explanation: _____

How can the information about RADAR help us understand how the Allies won the Battle of the Atlantic?

Battle of the Atlantic Document Packet: Figure Six

Directions: Using the information provided, determine how each of the items below helped Allied forces prevent U-boat attacks on their convoys.

Ultra Intelligence

1941-1942: "The Germans used a cipher machine called Enigma to put messages into secret form, and the British first broke the code...[and] were able to read German naval traffic (code-named 'Hydra')...But the Germans changed the Hydra code in February of 1942 to the more complex Triton code. This act 'blinded' both British and American code breakers for most of the remainder of 1942...By the end of 1942, Allied code breakers had broken the Triton code, and the Ultra blackout ended,"

Puleo, *Due to Enemy Action*, page 28

1943-1945: "By the summer of 1943, the most significant U-boat tracking work was performed in the security of the Secret Room, whose staff maintained three wall charts - one depicting the North Atlantic, one the South Atlantic, and a third, the Indian Ocean. They recorded individual U-boat positions with color-coded pins on the wall charts, and labeled the pins with the type and tonnage of the U-boat..."

Puleo, *Due to Enemy Action*, page 31

"[High ranking naval intelligence officers] either drafted or approved the daily U-boat situation estimate, with its forecast of where submarines were going, and then transmitted it to task forces at sea..."

What information could be determined using Ultra Intelligence?

How would this tool help prevent U-boat attacks on Allied convoys?

Rate this tool on the scale below.

1	2	3	4	5
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Least Helpful

Most Helpful

Explanation: _____

How can the information about Ultra Intelligence help us understand how the Allies won the Battle of the Atlantic?

Battle of the Atlantic Document Packet: Figure Seven

Directions: Using the information provided, determine how each of the items below helped Allied forces prevent U-boat attacks on their convoys.

Ships and Aircraft



Source: Naval History and Heritage Command (80-G-464654)

A U.S. Navy dive bomber scouts ahead of a convoy of ships being escorted by U.S. Navy vessels. Ships such as destroyers (DD), destroyer escorts (DE), and escort carriers (CVE) were often used for escort duty.

Describe how the U.S. Navy protected convoys at sea.



Source: Naval History and Heritage Command (NH 92485)

"For our four-engine, land-based search plane, we have...a plane with a range of well over 3000 miles, heavy armament and a wealth of new navigational, radio and radar equipment, enabling it to fly long hours of reconnaissance over trackless oceans. These planes, which carry bombs and depth charges, have made impressive records against...[enemy] submarines..."

King, *First Report to the Secretary of the Navy*, page 216

How would these ships and aircraft help prevent U-boat attacks on Allied convoys?

Rate this tool on the scale below.

1	2	3	4	5
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Least Helpful

Most Helpful

Explanation: _____

How can the information about ships and aircraft help us understand how the Allies won the Battle of the Atlantic?
