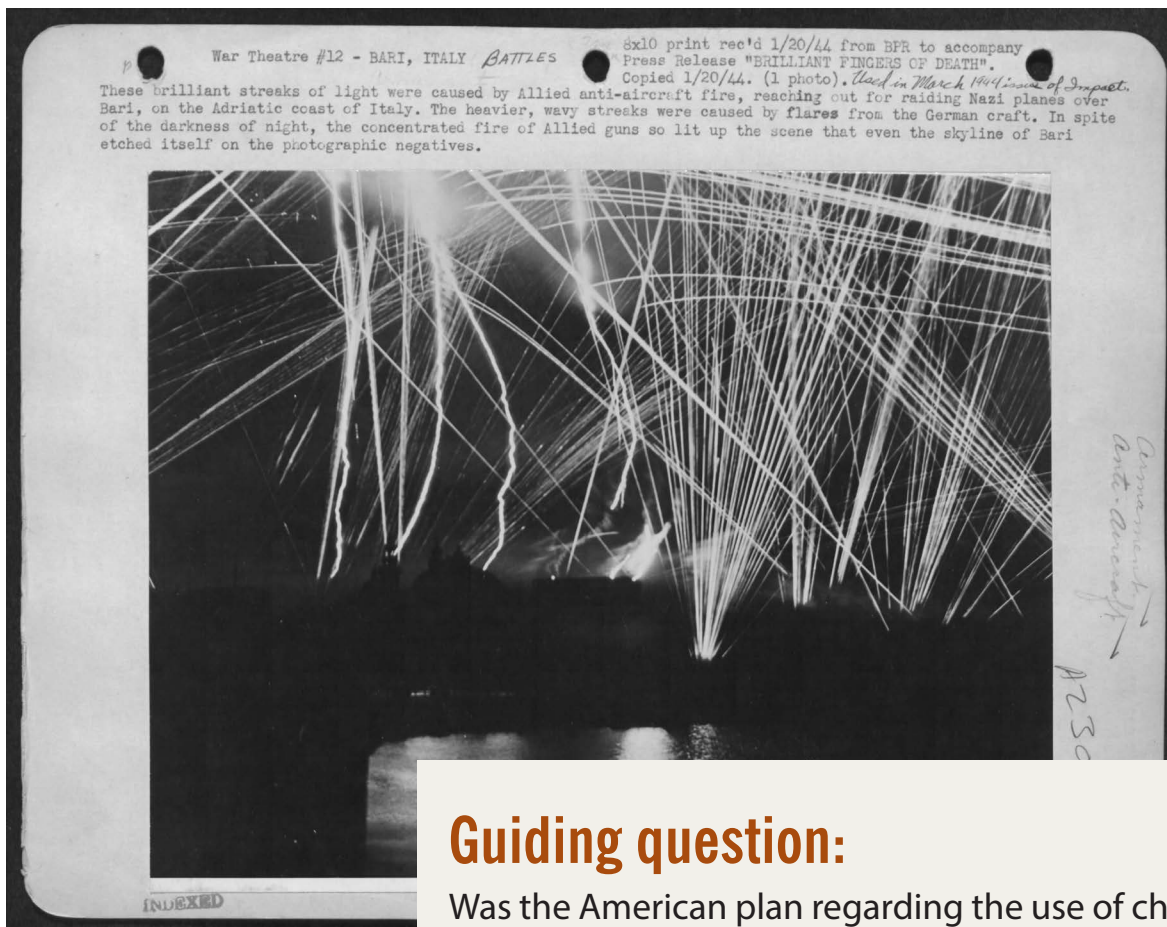




Activity: The Bari Incident: Chemical Weapons and World War II



Guiding question:

Was the American plan regarding the use of chemical weapons in response to an Axis strike during World War II justified?

DEVELOPED BY AMANDA REID-COSSENTINO

Grade Level(s): 9-12

Subject(s): Social Studies

Cemetery Connection: Sicily-Rome American Cemetery

Fallen Hero Connection: Corporal Robert S. Quirk



Overview

Students will utilize resources from the American Battle Monuments Commission and information on Sicily-Rome American Cemetery, as well as primary and secondary sources to examine the use of chemical warfare in World War II. They will review the use of gas in World War I, learn about the incident with the *John Harvey* at Bari, Italy, and complete a T-Chart illustrating pros and cons of using chemical weapons. Students will also ultimately take a personal stand on the issue in a culminating writing assessment, a letter with recommendations to President Franklin D. Roosevelt.

Historical Context

In 1943, the Allies' focus was on the Mediterranean. Bari, Italy, a town of 200,000 on the Mediterranean Sea became an important shipping port, supplying British General Bernard Montgomery's Eighth Army and American Major General Jimmy Doolittle's Fifteenth Army. American President Franklin

D. Roosevelt condemned the use of gas during World War II, but consistently promised that the U.S. would respond in kind if the Germans resorted to use of chemical weapons. On December 2, 1943, 30 Allied ships were crammed stern to bow into Bari Harbor when 105 Luftwaffe planes launched a crushing surprise attack. The U.S. Liberty ship *John Harvey* caught fire and exploded, sending her secret cargo of 2,000 bombs filled with deadly mustard gas spewing into the atmosphere.

Objectives

At the conclusion of this lesson, students will be able to

- Describe historical context and details of the Bari Incident;
- Analyze the American chemical warfare policy; and
- Synthesize sources to make a written recommendation to President Roosevelt on American policy and whether or not to continue manufacturing mustard gas.

“I was very interested to learn about the Chemical Warfare Service as I investigated the life of my Fallen Hero, Robert S. Quirk. In my research, I came across the terrible tragedy that unfolded at Bari Harbor, when a German air attack released mustard gas that had been secretly stowed on the SS John Harvey.”

— Amanda Reid-Cossentino

Reid-Cossentino teaches at Garnet Valley High School in Glen Mills, Pennsylvania.

Documents Used ★ indicates an ABMC source

Primary Sources

Action Report of the USS *Aroostook*, December 5, 1943 (excerpt)
National Archives and Records Administration

Chemical Casualties in Bari Raid, January 5, 1944
National Archives and Records Administration

Franklin D. Roosevelt, Statement Warning the Axis Against Using Poison Gas, June 8, 1943
The American Presidency Project, University of California at Santa Barbara
presidency.ucsb.edu/ws/?pid=16407

Franklin D. Roosevelt, Letter to the Senate on Chemicals in Warfare, August 4, 1937
The American Presidency Project, University of California at Santa Barbara
presidency.ucsb.edu/ws/index.php?pid=15443

George Southern, *Poisonous Inferno: World War II Tragedy at Bari Harbour* (excerpt)

Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (Geneva Protocol), June 1925
U.S. Department of State
state.gov/t/isn/4784.htm

Stewart F. Alexander, "Final Report of Bari Mustard Casualties" (excerpt)
Records of the Office of the Surgeon General
National Archives and Records Administration

Stewart F. Alexander, "Toxic Gas Burns Sustained in the Bari Harbor Catastrophe" (excerpt),
December 27, 1943
Records of the Office of the Surgeon General
National Archives and Records Administration

Winston Churchill, Prime Minister's personal minutes, July 6, 1944
Churchill Archive

Secondary Sources

Constance M. Pechura and David P. Rall, Editors *Veterans at Risk: The Health Effects of Mustard Gas and Lewisite* (excerpt), 1993

U.S. Institute of Medicine

Sicily-Rome American Cemetery Visitor Guide and Information ★

American Battle Monuments Commission

abmc.gov/Sicily-Rome

The Bari Explosion ★

American Battle Monuments Commission

youtube.com/watch?v=1QxknazeuT4

Materials

- Pros and Cons of Chemical Warfare Chart
- Letter to President Franklin D. Roosevelt Assessment
- Letter to President Franklin D. Roosevelt Assessment Rubric
- Computer with internet capability
- Projector and speakers

Lesson Preparation

- Print one copy of the following for each student:
 - Geneva Protocol
 - Pros and Cons of Chemical Warfare Chart
 - Letter to President Franklin D. Roosevelt Assessment
 - Letter to President Franklin D. Roosevelt Assessment Rubric
- Place students into groups of four to six students each.
- Print and assemble (or make available digitally) one Document Packet for each student group. The Document Packet should include the following sources:
 - Franklin Delano Roosevelt, Statement Warning the Axis Against Using Poison Gas
 - Franklin Delano Roosevelt, Letter to the Senate on Chemical Warfare
 - Stewart F. Alexander, "Toxic Gas Burns Sustained in the Bari Harbor Catastrophe"
 - Stewart F. Alexander, "Final Report of Bari Mustard Casualties"
 - Winston Churchill, Prime Minister's personal minutes, July 6, 1944
 - Action Report of the USS *Aroostook*
 - Chemical Casualties in Bari Raid
 - *Veterans at Risk* (excerpt)
 - *Poisonous Inferno* (excerpt)
- Set up classroom technology.
- Test all online resources before class.

Procedure

Activity One: Introduction to Chemical Warfare (15 minutes)

- Activate prior knowledge on the use of gas in World War I by calling upon previous student knowledge and by using casualty information.
- Ask the students: *What do you remember about the use of poison gas during World War I?*
- Distribute a copy of the Geneva Protocol for each student to read.
- **Teacher Tip:** When reviewing the Geneva Protocol, be sure to note that the U.S. did not sign until 1975. During World War II, Americans were not technically bound to these demands.
- Ask students, *Could this information be important when World War II rolls around? Why?*

Activity Two: Chemical Warfare in World War II (45 minutes)

- Show students the video clip, *The Bari Explosion*. This clip features the Wall of the Missing with members of the *John Harvey* highlighted. The clip briefly summarizes the events of December 2, 1943. Tell students they will now learn more about this tragedy and weigh the merits of the use of chemical weapons.
- Divide students into groups of four to six students each.
- Distribute one Document Packet to each group and one Pros and Cons of Chemical Warfare Chart to each student or group (at teacher discretion).
- Ask students to generate a list of pros and cons for America's policy on chemical weapons.
- Lead a class discussion, taking student input, and construct a list of all pros and cons the students generate on the board.
- Tell students, *I want you to think about all the sources you read today and make a personal decision. Imagine the front of the room is a scale or a continuum. The far left side will be for those students who think the production and use of chemical weapons in World War II was a good idea. The far right side will be for those students who think it is a terrible idea. You can be in between the two, if you are leaning one way or another. Please get up now and vote with your feet.*
- Call on students from either side and the middle to explain why they chose to stand where they did, asking them what pieces of evidence were most convincing.

Assessment (50 minutes)

- Distribute one copy of the Letter to President Franklin D. Roosevelt Assessment to each student.
- Ask students to make a recommendation to President Roosevelt on whether or not the U.S. should continue to produce chemical weapons and maintain its current policy (utilizing only in retaliation). Student arguments should be supported by evidence found in the primary and secondary sources analyzed in the previous activity.
- The Letter to President Franklin D. Roosevelt Assessment Rubric can be used to score the assessment.

Methods for Extension

- Students with more interest in the role of the Chemical Warfare Service may research the role and responsibilities of members of this division.
- Students can research more modern usage of chemical weapons in warfare and explore other historical or modern events where the Geneva Protocol has been called into question.
- Students can investigate the use of Liberty Ships and the role of Merchant Marines during World War II.
- The American Battle Monuments Commission maintains U.S. military cemeteries overseas. These cemeteries are permanent memorials to the fallen, but it is important that students know the stories of those who rest here. To learn more about the stories of Americans who made the ultimate sacrifice, visit abmc.gov/education and NHDSilentHeroes.org.
- Teachers can enhance students' interest in World War II in Italy by exploring these related lesson plans:
 - [The Army Engineers: Challenges at Anzio Beachhead](#)
 - [Duty and Dignity: Black Americans and the 92nd Infantry Division Buffalo Soldiers](#)
 - [Traveling with the Troop Carriers: An Overview of World War II in Europe and Beyond](#)

Adaptations

- Teachers can adapt the project to younger students or English language learners by reducing the requirements for the culminating assessment.
- The teacher may reduce the number of readings for activity two or annotate resources with helpful information to make them more easily digestible for younger students.

Pros and Cons of Chemical Warfare Chart

Should the United States maintain its World War II chemical weapons policy?

Yes	No
Maybe	

Letter to President Franklin D. Roosevelt Assessment

What Policy Should America Adopt Regarding Chemical Warfare?

It is January 1, 1944.

You are Henry Stimson, FDR's Secretary of War, a longtime politician and foreign policy spokesman. You have served your country previously as Herbert Hoover's Secretary of State, so you know the nuances of dealing with other nations and navigating public opinion. The president highly values your input and is looking to you for guidance at this most crucial time.

The U.S. has been entrenched in a brutal war for the past three years. Thousands of men have been lost and the end of the war is nowhere in sight. The Axis Powers have violated international law before, and the president is particularly concerned about the possibility of chemical warfare being used against the Allied military. Amidst concerns that Hitler was preparing to utilize poison gas, the U.S. authorized a shipment of mustard gas to the Italian war zone.

As you know, a mixture of bad luck, poor planning, and faulty execution led to the catastrophe at Bari Harbor on December 2, 1943. Although YOU have been briefed on the hundreds of casualties and the environmental concerns that followed the accidental release of mustard gas aboard the *John Harvey*, that information has remained highly classified. Our British allies have helped us to keep many of the details secret.

The Bari Incident has made President Roosevelt even more conflicted about the issue of chemical warfare. He is uncertain about his next move. Should the U.S. continue to prepare for the possibility of chemical warfare? Does the disaster at Bari show that the risk is too high? Should the U.S. continue the policy of only responding in kind to a German gas attack, or should the U.S. continue to utilize this weapon first in hopes of ending the war? Does the Geneva Protocol matter?

In a letter that is at least one page long, please advise the president on what YOU think America's policy should be regarding the use of chemical warfare. Answer the questions above. Please provide appropriate historical context, utilize, and cite at least four pieces of evidence from the assorted sources you utilized today.

Letter to President Franklin D. Roosevelt Assessment Rubric

	Advanced	Proficient	Basic	Emerging
Thesis Statement/ Stance on issue	The writer conveys a strong stance on the use of chemical weapons and articulates reasons why this stance was adopted.	The writer voices an opinion but needs to be more specific or detailed as to why.	The writer takes a side, but rationale is absent.	The writer does not take a side.
Persuasiveness of Letter and Integration of Sources to Support Analysis	Sophisticated analysis of situation. Incorporates four references to sources from the activity.	Solid analysis of the situation. Incorporates two or three references to sources from the activity. Claims could use more support.	Analysis of situation could use more attention. Incorporates one or two references to sources from the activity.	Analysis is not relevant or sources from the activity are not referenced.
Incorporation of Historical Detail	Excellent use of historical data and class materials.	Good use of class materials, but more connections could be made.	Acceptable use of class information, but ignores many opportunities to create ties.	Inaccurate use of information or lack of historical data.
Citations	All sources used are cited in text.	One or two references are missing citations.	More than two references lack citations.	Sources are not referenced.
Length/Format	Response is appropriate length (one page) and proper conventions are used.	Response is an appropriate length but proper conventions are absent or incorrect.	Response is less than three quarters of one page long.	Response is less than half a page long.

Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (Geneva Protocol), June 1925

U.S. Department of State

Before World War II the protocol was ratified by many countries, including all the great powers except the United States and Japan. When they ratified or acceded to the protocol, some nations -- including the United Kingdom, France, and the USSR -- declared that it would cease to be binding on them if their enemies, or the allies of their enemies, failed to respect the prohibitions of the protocol. Although Italy was a party to the protocol, it used poison gas in the Ethiopian war. Nevertheless, the protocol was generally observed in World War II. Referring to reports that the Axis powers were considering the use of gas, President Roosevelt said on June 8, 1943:

Use of such weapons has been outlawed by the general opinion of civilized mankind.

This country has not used them, and I hope that we never will be compelled to use them. I state categorically that we shall under no circumstances resort to the use of such weapons unless they are first used by our enemies.

The protocol and the convention were ratified by President Ford on January 22, 1975. The U.S. instrument of ratification of the convention was deposited on March 26, 1975, and of the protocol on April 10, 1975.

Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare

Signed at Geneva June 17, 1925

Entered into force February 8, 1928

Ratification advised by the U.S. Senate December 16, 1974

Ratified by U.S. President January 22, 1975

*U.S. ratification deposited with the
Government of France April 10, 1975*

Proclaimed by U.S. President April 29, 1975

Geneva Protocol cont.

The Undersigned Plenipotentiaries, in the name of their respective Governments:

Whereas the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, has been justly condemned by the general opinion of the civilized world; and

Whereas the prohibition of such use has been declared in Treaties to which the majority of Powers of the World are Parties; and

To the end that this prohibition shall be universally accepted as a part of International Law, binding alike the conscience and the practice of nations;

Declare:

That the High Contracting Parties, so far as they are not already Parties to Treaties prohibiting such use, accept this prohibition, agree to extend this prohibition to the use of bacteriological methods of warfare and agree to be bound as between themselves according to the terms of this declaration.

The High Contracting Parties will exert every effort to induce other States to accede to the present Protocol. Such accession will be notified to the Government of the French Republic, and by the latter to all signatory and acceding Powers, and will take effect on the date of the notification by the Government of the French Republic.

The present Protocol, of which the French and English texts are both authentic, shall be ratified as soon as possible. It shall bear today's date.

The ratifications of the present Protocol shall be addressed to the Government of the French Republic, which will at once notify the deposit of such ratification to each of the signatory and acceding Powers.

The instruments of ratification of and accession to the present Protocol will remain deposited in the archives of the Government of the French Republic.

Geneva Protocol cont.

The present Protocol will come into force for each signatory Power as from the date of deposit of its ratification, and, from that moment, each Power will be bound as regards other powers which have already deposited their ratifications.

IN WITNESS WHEREOF the Plenipotentiaries have signed the present Protocol.

DONE at Geneva in a single copy, this seventeenth day of June, One Thousand Nine Hundred and Twenty-Five.

Franklin D. Roosevelt, Statement Warning the Axis Against Using Poison Gas, June 8, 1943

The American Presidency Project, University of California at Santa Barbara

From time to time since the present war began there have been reports that one or more of the Axis powers were seriously contemplating use of poisonous or noxious gases or other inhumane devices of warfare.

I have been loath to believe that any Nation, even our present enemies, could or would be willing to loose upon mankind such terrible and inhumane weapons. However, evidence that the Axis powers are making significant preparations indicative of such an intention is being reported with increasing frequency from a variety of sources.

Use of such weapons has been outlawed by the general opinion of civilized mankind. This country has not used them, and I hope that we never will be compelled to use them. I state categorically that we shall under no circumstances resort to the use of such weapons unless they are first used by our enemies.

As President of the United States and as Commander in Chief of the American armed forces, I want to make clear beyond all doubt to any of our enemies contemplating a resort to such desperate and barbarous methods that acts of this nature committed against any one of the United Nations will be regarded as having been committed against the United States itself and will be treated accordingly. We promise to any perpetrators of such crimes full and swift retaliation in kind and I feel obliged now to warn the Axis armies and the Axis peoples, in Europe and in Asia, that the terrible consequences of any use of these inhumane methods on their part will be brought down swiftly and surely upon their own heads. Any use of gas by any Axis power, therefore, will immediately be followed by the fullest possible retaliation upon munition centers, seaports, and other military objectives throughout the whole extent of the territory of such Axis country.

Franklin D. Roosevelt, Letter to the Senate on Chemicals in Warfare, August 4, 1937

The American Presidency Project, University of California at Santa Barbara

To the Senate:

I return herewith, without my approval, Senate Bill 1284, entitled "An Act to change the name of the Chemical Warfare Service."

The Bill proposes to call the present Chemical Warfare Service the "Chemical Corps."

It is my thought that the major functions of the Chemical Warfare Service are those of a "Service" rather than a "Corps." It is desirable to designate as a Corps only those supply branches of the Army which are included in the line of the Army. To have changed the name to the "Chemical Service" would have been more in keeping with its functions than to designate it as the "Chemical Corps."

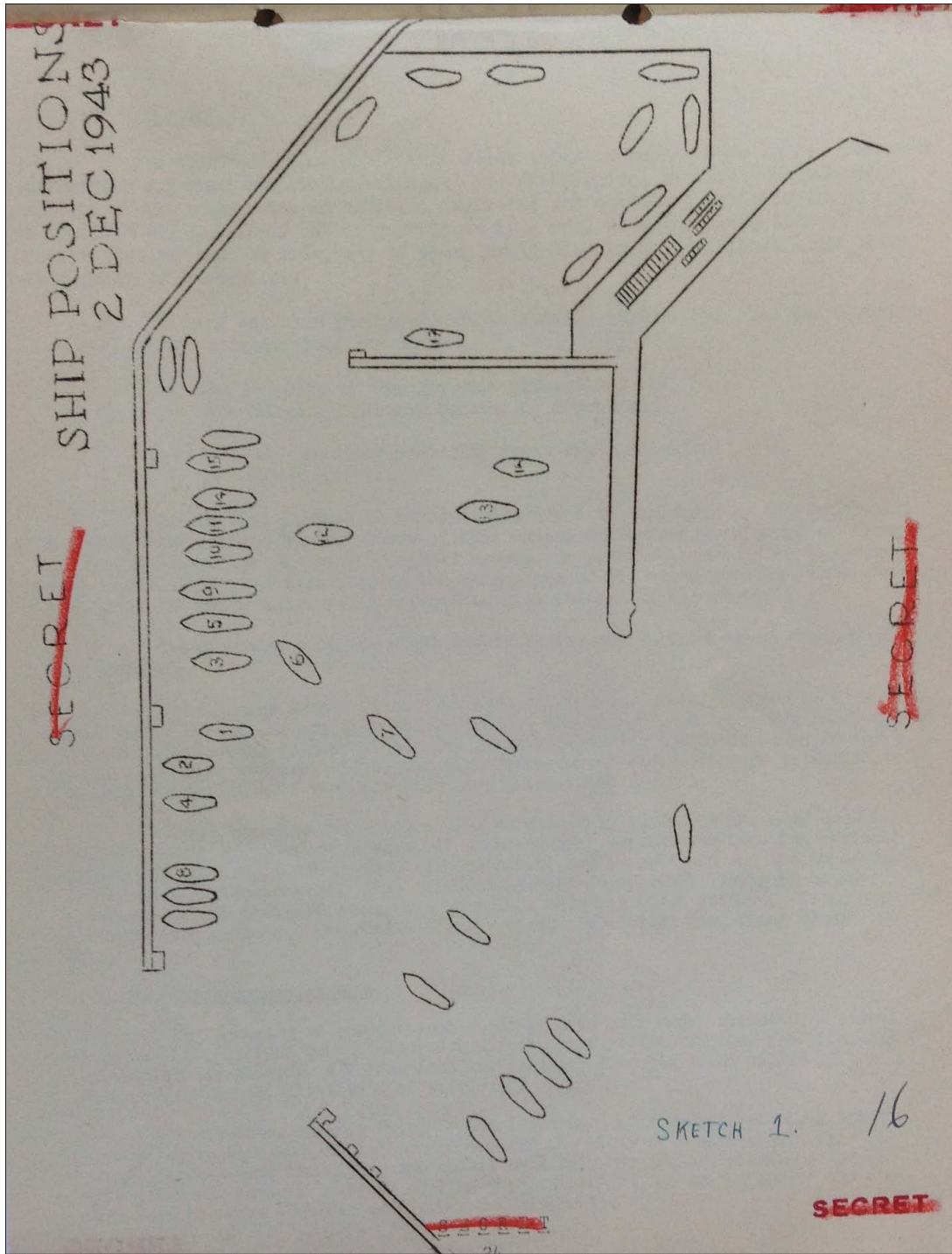
I have a far more important objection to this change of name. It has been and is the policy of this Government to do everything in its power to outlaw the use of chemicals in warfare. Such use is inhuman and contrary to what modern civilization should stand for.

I am doing everything in my power to discourage the use of gases and other chemicals in any war between nations. While, unfortunately, the defensive necessities of the United States call for study of the use of chemicals in warfare, I do not want the Government of the United States to do anything to aggrandize or make permanent any special bureau of the Army or the Navy engaged in these studies. I hope the time will come when the Chemical Warfare Service can be entirely abolished.

To dignify this Service by calling it the "Chemical Corps" is, in my judgment, contrary to a sound public policy.

Stewart F. Alexander, "Final Report of Bari Mustard Casualties" (excerpt), p. 1

Records of the Office of the Surgeon General
National Archives and Records Administration



Stewart F. Alexander, "Final Report of Bari Mustard Casualties" (excerpt), p. 2

Records of the Office of the Surgeon General
National Archives and Records Administration

6. Miscellaneous. Sections of stomach in 19 cases showed no significant change, but in almost all there were marked post mortem changes. No sections of small intestine were available.

Sections of the heart in 15 cases, pancreas in 21, thyroid in 6, adrenal in 8, and skeletal muscle, aorta and brain in 1 each, were received. None of these showed any noteworthy changes except for the aorta in which there was an unusual deposition of calcium."

5. Analysis of Deaths.

There were 83 deaths that can be classified as due to mustard exposure. The deaths were distributed by day as follows:

1st day	-	4 deaths	15th day	-	1 deaths
2nd day	-	9 deaths	16th day	-	1 deaths
3rd day	-	11 deaths	17th day	-	0 deaths
4th day	-	8 deaths	18th day	-	0 deaths
5th day	-	4 deaths	19th day	-	2 deaths
6th day	-	4 deaths	20th day	-	1 deaths
7th day	-	5 deaths	21st day	-	0 deaths
8th day	-	9 deaths	22nd day	-	0 deaths
9th day	-	9 deaths	23rd day	-	0 deaths
10th day	-	2 deaths	24th day	-	1 deaths
11th day	-	2 deaths	25th day	-	0 deaths
12th day	-	4 deaths	26th day	-	1 deaths
13th day	-	1 deaths	27th day	-	1 deaths
14th day	-	1 deaths	28th day	-	0 deaths
			After the 28th	-	2 deaths

The first death occurred 18 hours after exposure. The type of early death merits special mention as it was described as most impressive by those who witnessed them. Individuals in marked hypotonia (peripheral vascular shock) would be remarkably clear mentally. Their exodus was in many cases most sudden and abrupt, and not associated with respiratory distress, dyspnoea, cyanosis, or restlessness. Despite the possibility of certain of these early deaths being considered as blast injuries, competent observers did not feel that the deaths clinically were blast deaths. There were blast injuries in Bari that night and there were blast deaths, but these have been separated in so far as is possible from the group of casualties reported herein. While there undoubtedly may have been some elements of blast in many of these cases, the significant and the fatal factor was the exposure to mustard.

It is noted that there were two peak points in the death by day curve, one on the 3rd day and the second on the 9th day. The first peak was related to the acute systemic effects of the burns plus any acute systemic effects of the mustard. The 2nd peak represents the effects of secondary pneumonitis being imposed upon a toxic leucopenic patient. Eighty-eight percent of the deaths occurred within the first two weeks, and only 10 deaths occurred subsequent to the 14th day.

Stewart F. Alexander, “Final Report of Bari Mustard Casualties” (excerpt), p. 3

Records of the Office of the Surgeon General
National Archives and Records Administration

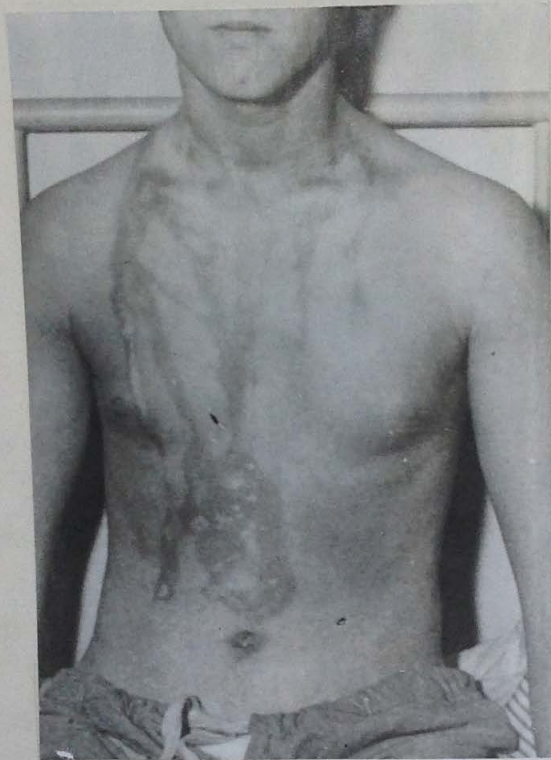


Figure 1

A skin lesion resulted in each area the mustard in oil solution contacted. Here it landed on the neck and ran down the chest and back.

Stewart F. Alexander, "Final Report of Bari Mustard Casualties" (excerpt), p. 4

Records of the Office of the Surgeon General
National Archives and Records Administration

10 Dec 43 Complains of sore throat.

11 Dec 43 Hoarse - almost complete aphonia. Cough \nearrow . Sputum \nearrow . Weak and breathless. Cyanosis. Chest - Respiratory excursion good. Small area of bronchial breathing with whispering pectoriloquy towards left base posterior. Few scattered moist sounds.

13 Dec 43 Condition improved. Cyanosis less marked. Cough less. Sputum less.

16 Dec 43 Half pint fresh blood given slowly. Off M&B 760. Total dosage - 52 gms.

18 Dec 43 General condition improved. Dressing stained with pus and smelling slightly. Sputum rusty. Cough easy and not distressing. Still has a definite patch of bronchial breathing and increased vocal resonance at left base posterior. Eyes slightly yellow - ? transient jaundice from transfusion.

19 Dec 43 Voice hoarse. Breathing tends to be obstructed by acclimation of sputum in throat which he can usually cough up easily. TPR falling slightly.

20 Dec 43 Throat sore. Copious frothy and mucopurulent sputum.

24 Dec 43 Still has complete aphonia. Cough \nearrow . Sputum \nearrow . Chest left posterior bronchial breathing and increased VR still present. Numerous moist sounds heard all over both chests.

29 Dec 43 ISQ (in statuo quo). No signs of burns healing. Very weak. Cough \nearrow . Sputum \nearrow . Chest - dullness with bronchial breathing both bases.

4 Jan 44 Much worse this morning. Rapid gasping respirations. Pulse feeble. Chest as before. Colour - grey cyanosis. Profuse purulent sputum.
1400 hours. Seen by Capt. Price. Very pale and dyspnoeic. No displacement of AB. Evidence of consolidation both bases. Expecterating large quantities of foul smelling purulent sputum. General condition very poor.
1800 hours semi-conscious and delirious at times. Pulse very feeble and barely palpable at wrist. Moribund. Died 2230 hours.

(Sgd) J. M. McInroy, Capt, RAMC.

No AF B.117 Rendered
P.M. Held and Report Attached.
The notes require no comment. A late "pulmonary" death. The lack of response to the usually successful therapeutic measures has been noted in other cases in this series.

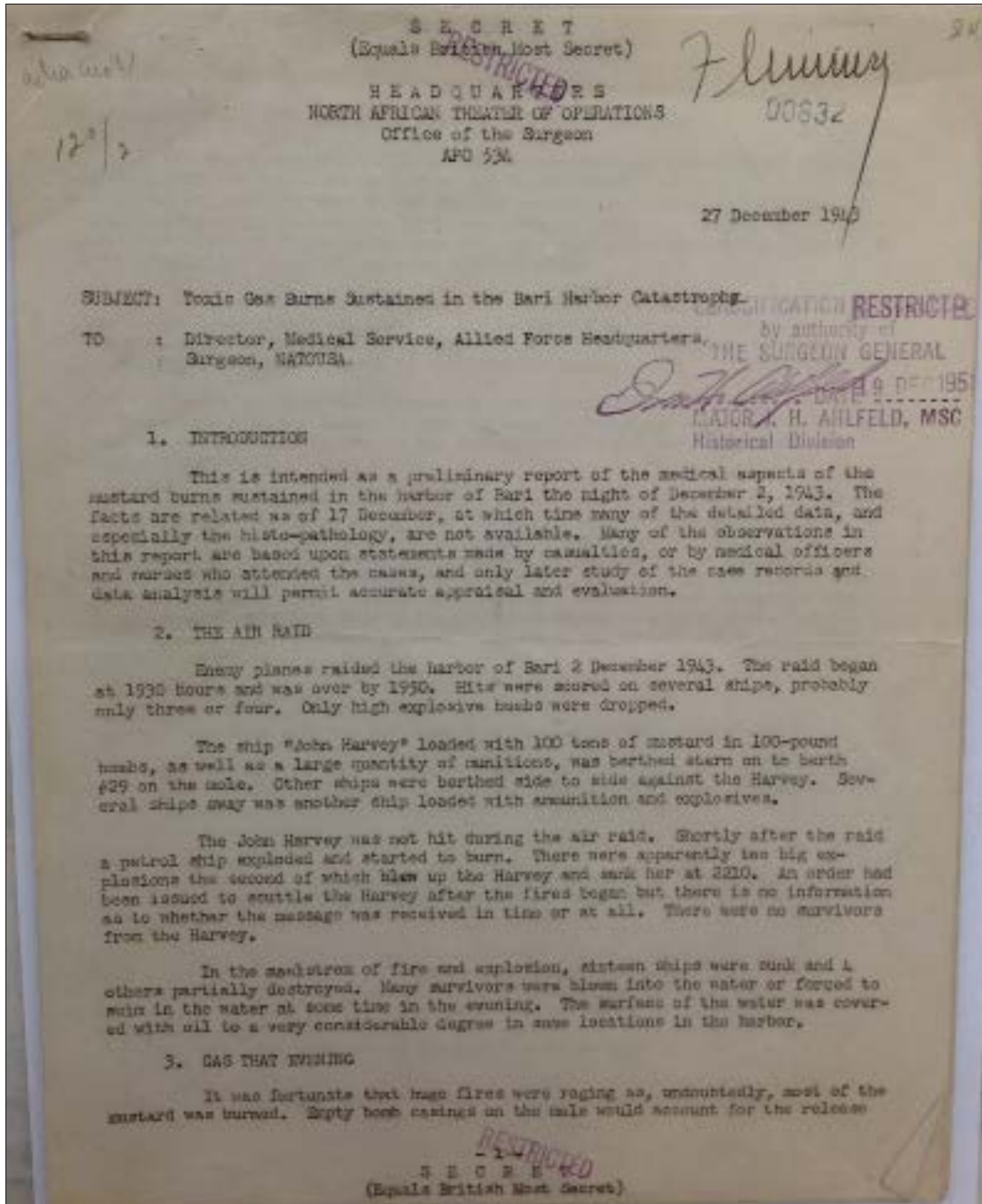
(Sgd) A. L. d'Abreu, Lt.Co., RAMC. 16
O. i/c Surgical Division

(Sgd) Colonel ~~SECRET~~
Commanding 98 General Hospital

- 54 -
~~SECRET~~

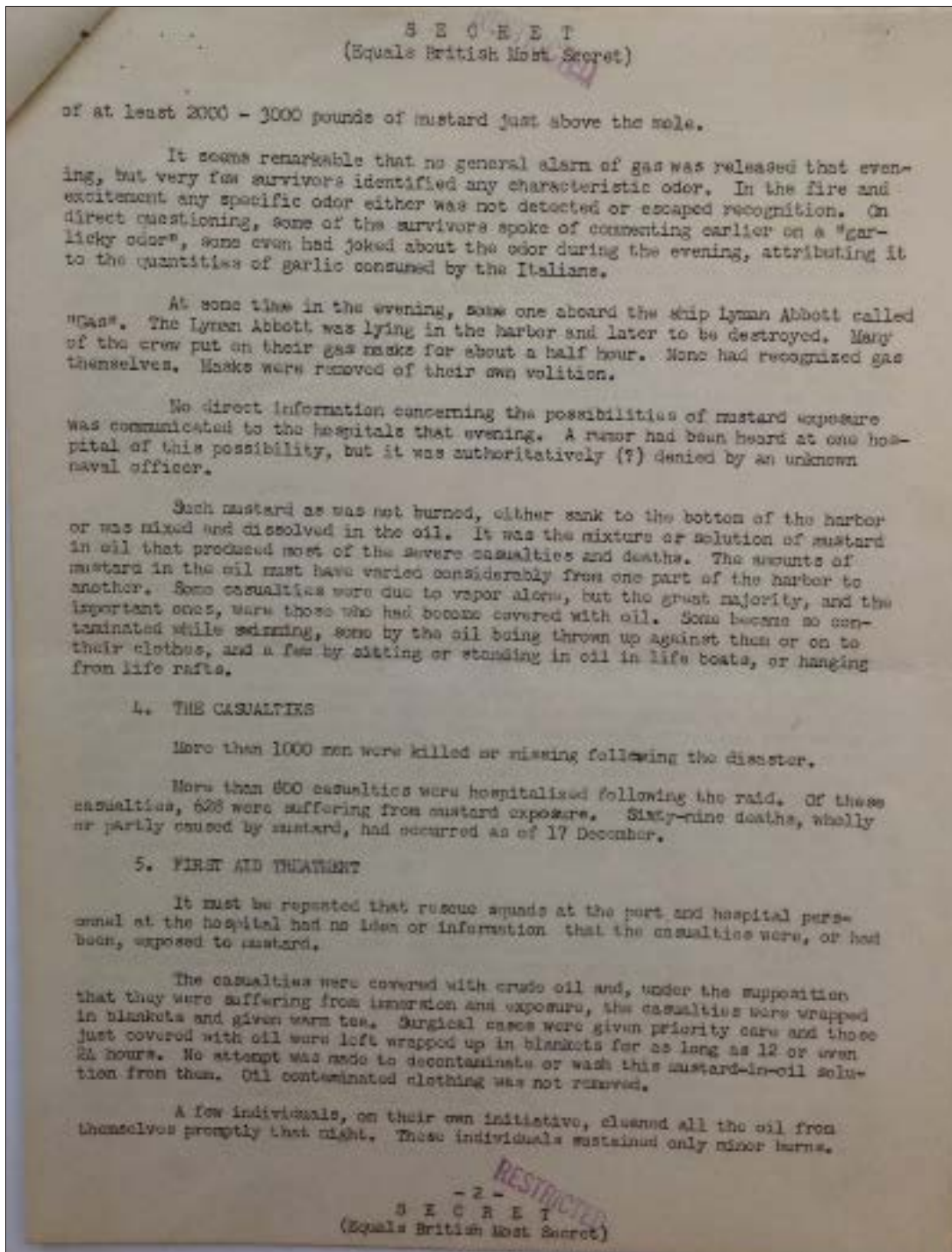
Stewart F. Alexander, "Toxic Gas Burns Sustained in the Bari Harbor Catastrophe" (excerpt), December 27, 1943, p. 1

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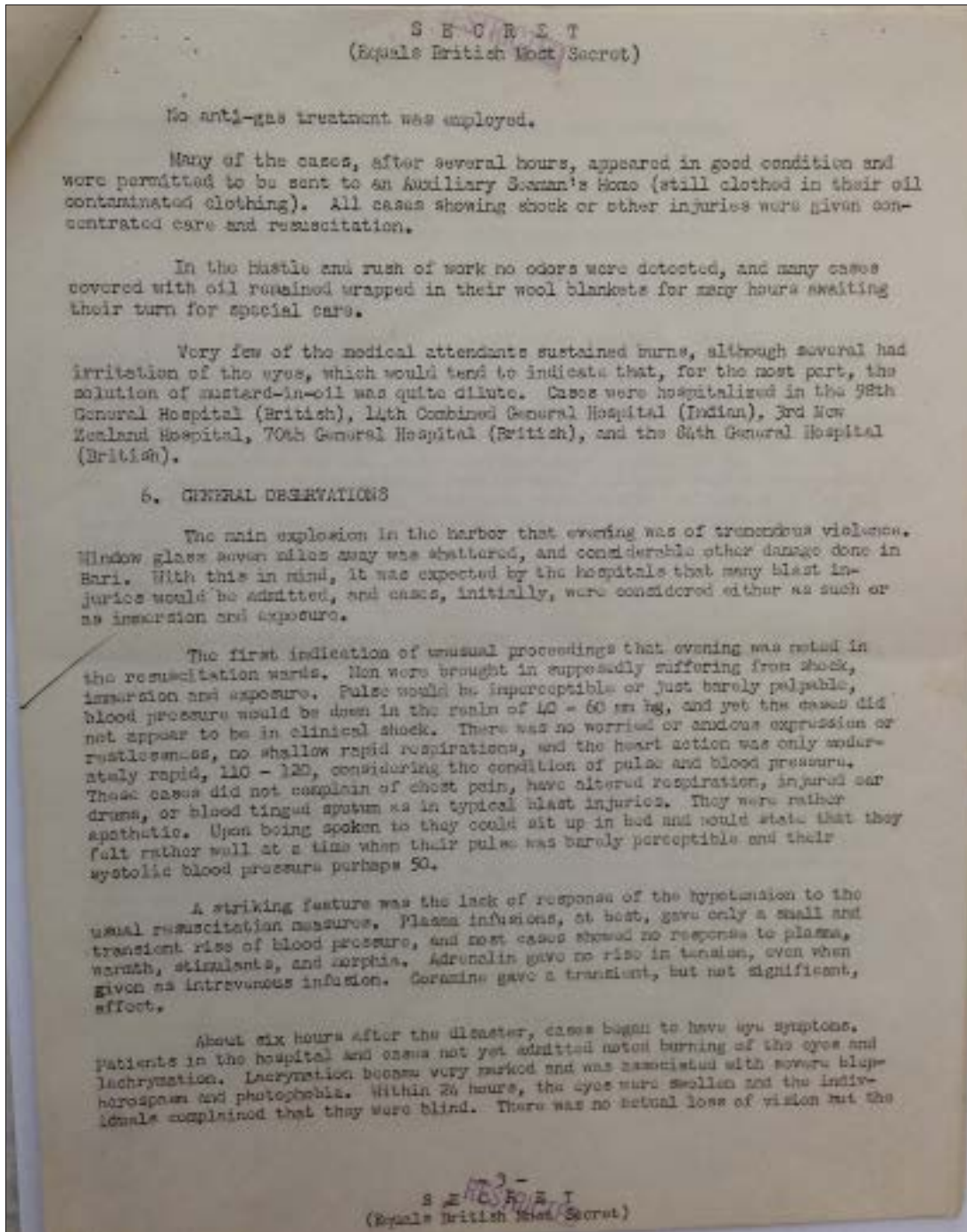
Stewart F. Alexander, "Toxic Gas Burns Sustained in the Bari Harbor Catastrophe" (excerpt), December 27, 1943, p. 2

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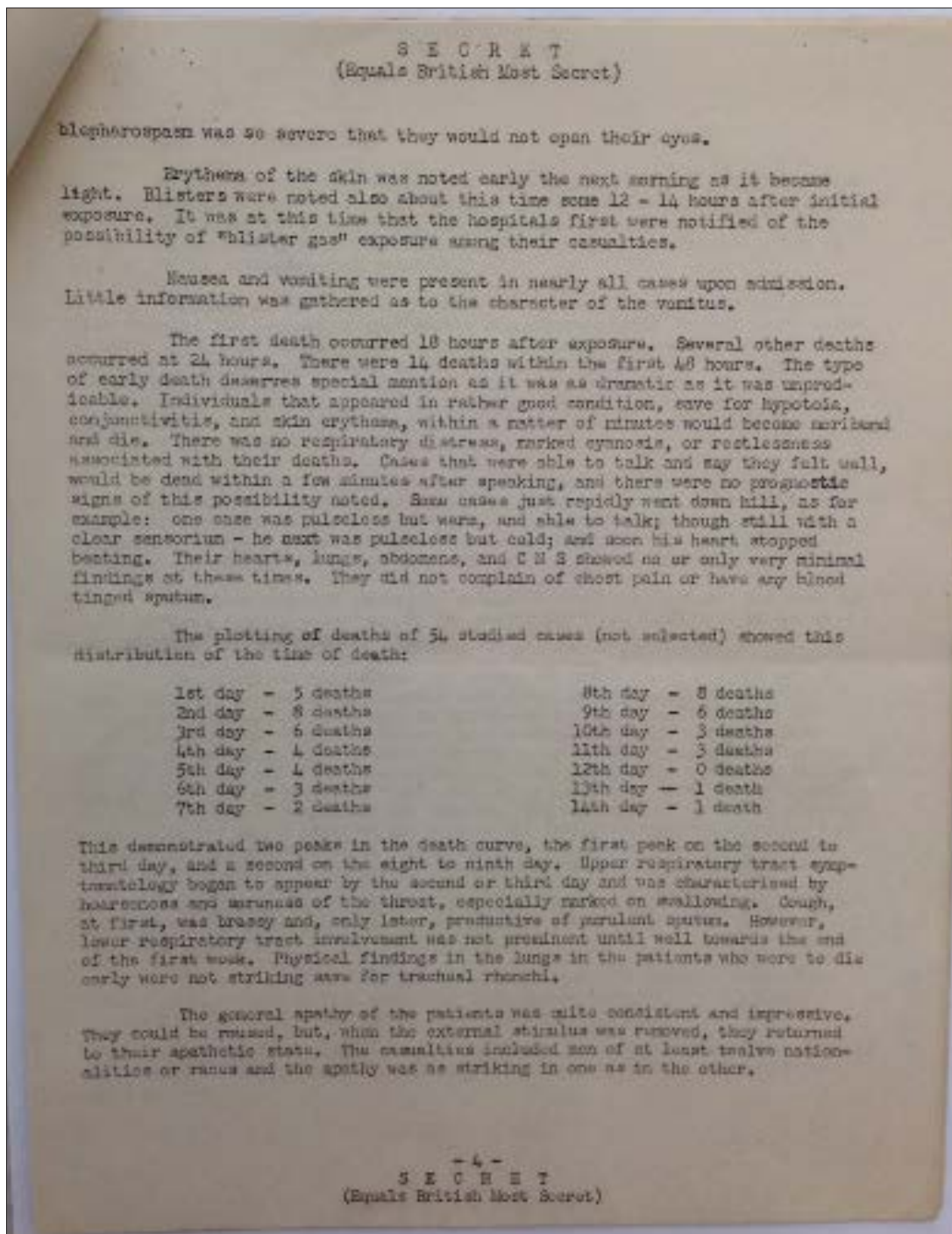
Stewart F. Alexander, "Toxic Gas Burns Sustained in the Bari Harbor Catastrophe" (excerpt), December 27, 1943, p. 3

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National Archives and Records Administration



Stewart F. Alexander, "Toxic Gas Burns Sustained in the Bari Harbor Catastrophe" (excerpt), December 27, 1943, p. 4

Records of the Office of the Surgeon General
National Archives and Records Administration



Winston Churchill, Prime Minister's personal minutes, July 6, 1944

Churchill Archives

10 Downing Street,
Whitehall

General Ismay, for C.O.S Committee

1. I want you to think very seriously over this question of poison gas. I would not use it unless it could be shown either that (a) it was life or death for us, or (b) that it would shorten the war by a year.
2. It is absurd to consider morality on this topic when everybody used it in the last war without a word of complaint from the moralists or the Church. On the other hand, in the last war bombing of open cities was regarded as forbidden. Now everybody does it as a matter of course. It is simply a question of fashion changing as she does between long and short skirts for women.
3. I want a cold-blooded calculation made as to how it would pay us to use poison gas, by which I mean principally mustard. We will want to gain more ground in Normandy so as not to be cooped up in a small area. We could probably deliver 20 tons to their 1 and for the sake of the 1 they would bring their bomber aircraft into the area against our superiority, thus paying a heavy toll.
4. Why have the Germans not used it? Not certainly out of moral scruples or affection for us. They have not used it because it does not pay them. The greatest temptation ever offered to them was the beaches of Normandy. This they could have drenched with gas greatly to the hindrance of the troops. That they thought about it is certain and that they prepared against our use of gas is also certain. But their only reason they have not used it against us is that they fear the retaliation. What is to their detriment is to our advantage.
5. Although one sees how unpleasant it is to receive poison gas attacks, from which nearly everyone recovers, it is useless to protest that an equal amount of H. E. will not inflict greater casualties and sufferings on troops and civilians. One really must not be bound within silly conventions of the mind whether they be those that ruled in the last war or those in reverse which rule in this.
6. If the bombardment of London became a serious nuisance and great rockets with far-reaching and devastating effect fell on many centres of Government and labour, I should be prepared to do anything that would hit the enemy in a murderous place. I may certainly have to ask you to support me in using poison gas. We could drench the cities of the Ruhr and many other cities in Germany in such a way that

Winston Churchill, Prime Minister's personal minutes, July 6, 1944

cont.

Churchill Archives

most of the population would be requiring constant medical attention. We could stop all work at the flying bomb starting points. I do not see why we should have the disadvantages of being the gentleman while they have all the advantages of being the cad. There are times when this may be so but not now.

7. I quite agree that it may be several weeks or even months before I shall ask you to drench Germany with poison gas, and if we do it, let us do it one hundred per cent. In the meanwhile, I want the matter studied in cold blood by sensible people and not by that particular set of psalm-singing uniformed defeatists which one runs across now here now there. Pray address yourself to this. It is a big thing and can only be discarded for a big reason. I shall of course have to square Uncle Joe and the President; but you need not bring this into your calculations at the present time. Just try to find out what it is like on its merits.

[signed] Winston Churchill [initials]

6.7.44

Action Report of the USS *Aroostook*, December 5, 1943 (excerpt), p. 1

National Archives and Records Administration

DECLASSIFIED Authority <u>NNOR 68133</u>		321 12 01513
AOC 14/116-3 Serial: 87	U.S.S. AROOSTOOK 5 WILKES POST OFFICE New York, N. Y.	few
CONFIDENTIAL		5 December 1943
From: Commanding Officer.	To: <input checked="" type="checkbox"/> The Commander in Chief, United States Fleet.	
Subject: Anti-aircraft action against the enemy - Report of.	Reference: (a) Cominch. Restricted ltr. PV1/112-1/116-3 Serial 3899; October 19, 1942.	
Enclosure: <input checked="" type="checkbox"/> (A) Bari Berthing Plan, showing disposition of shipping.	<input checked="" type="checkbox"/> (B) Copy of letter to Commander, U. S. Naval Forces, Northwest African Waters, describing action and recommendations for awards to personnel.	
<p>1. At 1927 to 2100, December 2, 1943, this vessel was in action against the enemy, suffering considerable minor damage, when a large force of enemy bombers, estimated at about fifty (50) in number, type unknown, inflicted a surprise attack on shipping and harbour installations in the port of Bari, Italy. Direct hits were scored on many ships, resulting in damage either by sinking, burning, or explosion, or a combination of all three, of an estimated eighteen (18) to twenty-one (21) ships out of a total of probably thirty-eight (38) to forty (40) ships of various types, mostly merchantmen, concentrated in the harbour and port.</p> <p>2. The U. S. S. AROOSTOOK, loaded with a cargo of approximately 19,000 barrels of 100 octane gasoline, was lying at anchor in the harbour in the position A, shown on Enclosure (A), with forty-five (45) fathoms of chain to port anchor in four (4) fathoms of water, head bottom.</p> <p>3. At 1925, without previous warning or alert, several flares were dropped over the harbour, and approximately fifteen (15) seconds later the first firing was opened by some of the shore batteries. At 1927 the U. S. S. AROOSTOOK opened fire with all guns, following the lead of the master gun on shore until that gun was silenced by a near-by explosion at about 1938.</p> <p>4. At approximately 1931, direct hits were scored on one or more merchant ships in berths 29-31, and on San Cataldo mole, about 1,300 feet distant from the seaward end, and until</p>		
53-1	- 1 -	

Action Report of the USS *Aroostook*, December 5, 1943 (excerpt), p. 2

National Archives and Records Administration

DECLASSIFIED Authority <u>NND968133</u>		12 01513
ACC 14/16-3 Serial: 87	5 December 1943	
CONFIDENTIAL		
Subject: Anti-aircraft action against the enemy - Report of.		
<p>About 1950, direct hits were scored on other merchant vessels, including a tanker and ammunition ship, near berths 28-30, and at anchor in the harbour, causing great fires and terrific explosions. Fuel oil and gasoline from the sunken and damaged ships ignited and the fire spread over much of the harbour and partially across the harbour entrance. The U.S.S. <i>AROOSTOOK</i> was lying approximately 400 yards distant from the area where the most intense fires were raging and was still at this anchorage when the ammunition ship exploded. At 2133 she got underway and shifted anchorage further into the harbour, A-1, enclosure (A).</p>		
<p>5. Many bombs were seen to explode in the waters of the harbour, three of which fell approximately ninety (90) yards astern of the U.S.S. <i>AROOSTOOK</i>, seemingly lifting her entire stern out of the water. Judging from the force of the explosions, the intense fires started, and the rapid sinking of at least four medium and large sized merchantmen anchored in the harbour, it is believed that most of the bombs dropped were of five-hundred (500) to one-thousand (1,000) pounds in weight. It was later learned that from five (5) to seven (7) heavy caliber bombs were dropped at scattered points in the city, causing great damage to property and the loss of very much life.</p>		
<p>6. The "All Clear" was sounded at 2100 and, although two additional "Red" alerts were subsequently sounded, it is believed no enemy planes returned to the harbour area.</p>		
<p>7. At about 2130 the ammunition ship, at berth 28 or 29, exploded, sending flames, debris, and smoke what appeared to be at least 6,000 to 8,000 feet into the air. This explosion was felt as far as sixty-two (62) miles away, and the damage to ships, harbour installations, and buildings throughout the city as a result of this explosion was great. Explosions of a lesser intensity occurred throughout the night and following day as the fires reached the magazines and explosive cargoes carried in the burning ships. All of the ships in berths 11, 12, 17-31, and at anchor at different points in the harbour as shown on the plan, enclosure (A), were either sunk, burned, or severely damaged, as a result of direct hits by bombs or fires started from adjacent burning ships. The entire outer mole, berths 11 to 31 and adjacent waters, was a solid mass of fire and explosions, as well as in several areas among the anchorages.</p>		
<p>8. The U.S.S. <i>AROOSTOOK</i> maintained effective and consistent barrage throughout the entire action. All guns performed ex-</p>		
23-2	- 2 -	

Action Report of the USS *Aroostook*, December 5, 1943 (excerpt), p. 3

National Archives and Records Administration

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Authority ND 0160133

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AOG 14/416-3
Serial: 87

5 December 1943

~~CONFIDENTIAL~~

Subject: Aircraft action against the enemy - Report of.

colently, thirty-nine (39) rounds having been fired from the 3" 50 caliber without mishap, and 1,200 rounds fired from the four 20 L.V. guns with but two (2) minor jams, which were quickly cleared. All personnel performed in a highly commendable manner throughout the entire action. There were no casualties, other than concussion and partial deafness, sustained by personnel, which fact is considered nothing short of miraculous in view of the great amount of shrapnel and other missiles which fell on and about different parts of the ship. Approximately forty-five (45) pounds of this shrapnel and metal debris was collected from the decks and various other parts of the ship, some of the pieces weighing from six (6) to eight and one-half (8½) pounds.

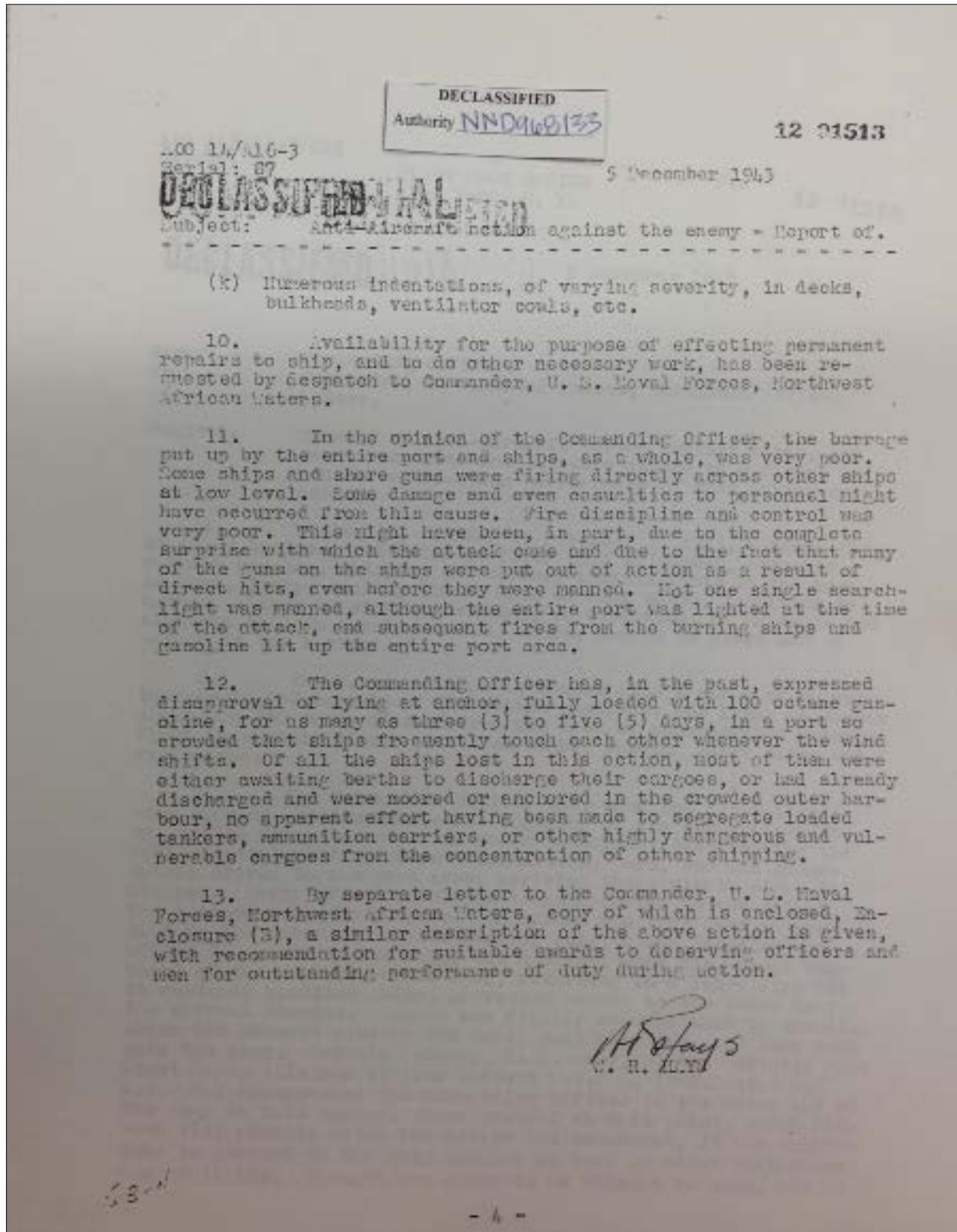
9. The ship suffered no serious damage which would impair her fighting ability, though considerable minor and superficial damage was inflicted, which, until rectified, renders her uncomfortable, and unfit to perform fully and safely her present duties as a cargo gasoline carrier. Following is a summary of the damages sustained:

- (a) Both Wellin life boats pierced by shrapnel and seams opened in one (1) boat. (Temporary emergency repairs have already been made.)
- (b) Hole (3" x 5") in deck, midships, overhead of officer's Water Closet and shower, caused by shrapnel or other falling object from great height. (Temporary patch in place.)
- (c) Practically all plumbing fixtures, brackets, hangers, etc., throughout ship damaged. (Being repaired as time and material permits.)
- (d) All doors, officer's country, passageway and staterooms, blown off. (Ship's force can probably make temporary repairs to two (2) doors and nail canvas in place to serve satisfactorily on the others until permanent repairs can be effected.)
- (e) Six-inch fueling hose pierced by shrapnel. Must be replaced with new hose.
- (f) All windows in lower wheel house blown out.
- (g) 20 L.V. ammunition ready box pierced by shrapnel.
- (h) Belt under cooling line to heat exchanger carried away. Various other lines throughout ship ruptured and broken. (Ship's force repairing as time and material permits.)
- (i) Numerous shorts in electrical circuits. (Being cleared by ship's force.)
- (j) Suspected damage to starboard main diesel engine and engine foundation.

- 3 -

Action Report of the USS *Aroostook*, December 5, 1943 (excerpt), p. 4

National Archives and Records Administration



Chemical Casualties in Bari Raid, January 5, 1944

National Archives and Records Administration

~~SECRET~~ EQUALS BRITISH MOST ~~SECRET~~
AFHQ MESSAGE CENTER
OUTGOING MESSAGE
OPERATIONAL PRIORITY

INC

TO: (FOR ACTION): CHIEF BRITISH BASE CONTROL HQ, PLANS FOR
WOODCOCK (BASE CONTROL) AND B(FORWARD CONTROL),
INS FOR GRAVE FOR HOOVER.

REF ID: 8426
SIGNED: CINC CITE: FEBC

No mention whatsoever of gas or gas casualties.
BARI raid to be permitted.

OPERATOR: INC ✓ AUTHENTICATION: COL. A.C.W. ROBSON
INFORMATION: 808

DECLASSIFIED
Authority *NN3 911586*

MC OUT: 1301 5 Jan 44 1808A Ref No. 8426 s/H

DECLASSIFIED
E.O. 12154, Sec. 1.3
NN3 911586
By *[Signature]* NARA Date *3/13/91*

1

~~SECRET~~ EQUALS BRITISH MOST ~~SECRET~~ COPY No.
THE MAKING OF AN EXACT COPY OF THIS MESSAGE IS FORBIDDEN

Constance M. Pechura and David P. Rall, Editors, *Veterans at Risk: The Health Effects of Mustard Gas and Lewisite* (excerpt)

U.S. Institute of Medicine, 1993

The Bari Harbor Disaster

The only combat casualties from sulfur mustard in WWII were those injured or killed following a German air raid on the harbor of Bari, Italy, on December 2, 1943 (Alexander, 1947; Cochrane, 1946; Gage, 1946; Harris and Paxman, 1982; Infield, 1976; Perera and Thomas, 1986). Under conditions of secrecy, 2,000 bombs, each of which held 60 to 70 pounds of sulfur mustard, had been loaded on the merchant marine ship *S.S. John Harvey* before it had sailed from Baltimore to Bari. During the raid on Bari harbor, the *John Harvey* was sunk and some of its load of mustard bombs was damaged, causing liquid mustard to spill out into water already heavily contaminated with an oily slick from other damaged ships. Men who abandoned their ships for the safety of the water became covered with this oily mixture that provided an ideal solvent for sulfur mustard. The casualties were pulled from the water and sent to medical facilities unaware of what they carried with them on their clothes and skin. Equally unaware were the medical personnel who treated these casualties. Before a day passed, symptoms of mustard poisoning appeared in both the casualties and the medics. This disturbing and puzzling development was further compounded by the arrival of hundreds of civilians for treatment; they had been poisoned by a cloud of sulfur mustard vapor that blew over the city from some of the bombs that had exploded when the ship sank.

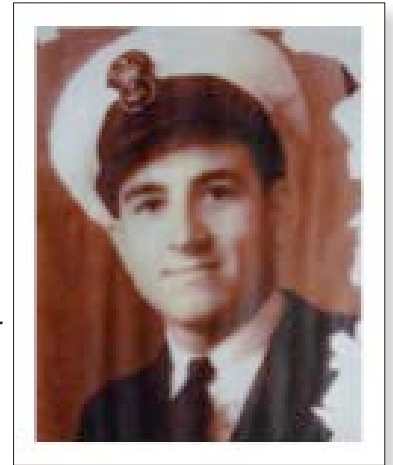
As the medical crisis worsened, little information was available about what was causing these symptoms. U.S. military command did not want to reveal to the enemy its preparations to position sulfur mustard in Europe for possible use against German forces. Eventually, however, the secret could not be kept (Harris and Paxman, 1982). The destroyer U.S.S. *Bistera*, well outside the harbor and undamaged by the raid, had pulled 30 men from the water in a rescue effort. By the next day, the officers and crew of the *Bistera* were blinded from the effects of the sulfur mustard carried onto the ship by those rescued. Bari was overloaded with casualties by then, and the *Bistera* and its crew struggled to nearby Taranto for treatment. Soon the U.S. command had no choice but to confirm the cause of these injuries. With the assistance of Colonel Stewart Alexander, a military physician with extensive knowledge of mustard poisoning, better precautions and treatment were begun. By the end of the disaster, over 600 victims of mustard poisoning were treated from the harbor area alone; of these, 83 died (Alexander, 1947). Close to 1,000 civilians from the town also died (Harris and Paxman, 1982).

Unfortunately, no long-term medical follow-up of survivors of the Bari harbor disaster has been reported.

Constance M. Pechura and David P. Rall, Editors. *Veterans at Risk: The Health Effects of Mustard Gas and Lewisite*. Washington, D.C.: National Academies Press, 1993. Available at: <http://www.ncbi.nlm.nih.gov/books/NBK236059/>.

George Southern, *Poisonous Inferno: World War II Tragedy at Bari Harbour* (excerpt)

George Southern served in the British Royal Navy from 1942-1946 aboard ships escorting convoys in the Atlantic and Mediterranean. At the time of the Bari tragedy, he was a gunlayer on the destroyer HMS *Zetland*, one of the convoy's ill-fated escort vessels. It was not until a reunion in 1976 that he learned of the mustard gas and that seventeen ships had been lost on that dreadful night. This is the only book to have been published by a survivor...



Bari - Arrival and Attack

Shepherding the newly arrived convoy into Bari's outer harbour on that sunny morning of 2 December 1943 were the convoy escorts consisting of *Zetland* and *Bicester* and three minesweepers. Closed up at the actions stations I noticed, as everyone on the upper deck did, a lone German reconnaissance plane high in the sky. It passed over the port in a north-westerly direction, evidently returning to a base in northern Italy....

Between *John Motley* and *Testbank* lay the ship that was destined to create a horrifying situation never before encountered in the history of warfare - the USS *John Harvey* carrying a cargo of 5,037 tons of what were described as "war supplies"...According to official accounts, Allied Headquarters Algiers gave instructions for 24,430 Bombs Chemical, HS (HS was the code description for mustard) to be loaded onto the USS *John Harvey* at Oran...

We heard the sound of aircraft overhead. It was instantly followed by a single flare which illuminated the harbor and then several more. Both of us knew what that meant...as the flares slowly descended, the first bombs dropped. It signalled an outburst of activity. The scream of falling bombs rent the air and the crash and crump as they landed sent shock waves along the breakwater...in a mad scramble, lorries, half-tracks, jeeps, vans and motor bikes made a concerted dash along the mole....anyone walking, as we were....took their life in their hands.... For some time bombs fell all over the harbour...the result was catastrophic. As the fires gained hold, preparations were underway on several vessels to abandon ship. Other ships at anchor in the harbour had received direct hits and the crews were already taking to lifeboats and rafts.

At the end of the raid, the *Lyman Abbott* suffered a near miss... Donald Meissner stuffed cotton wool in his ears, put on his helmet and ran to his gun platform...'three bombs hit the water off our bow and the fourth hit just off the stern. It was so close the mud from the bottom of the harbor struck me in the face. I know the ship rose out of the water because I felt it slap the surface as it came down again. Suddenly there was a blinding flash as if night had turned to day, then a thunderous explosion sent all of us sprawling onto the deck, whose steel was vibrating

as if to tear itself apart. It then began to rain shrapnel...when all the fury of the explosion subsided, there was a deathly silence except for the moans and cries of the wounded and dying.'

We all discovered that we were not soaked with rain but with a thick, greasy liquid which was as black as pitch and gave off a foul stench...the explosion dumped me underneath the star-board side bridge some 20 feet from where I had been standing...when I moved along the deck and went below, survivors from other ships, covered head to foot in what at the time we thought was fuel oil, were being hosed down...

98th British General Base Hospital

Meanwhile in the hospital...it was not long before the influx of patients began. Nurse Gladys Rees recalled 'The aftermath of the explosion was almost too pathetic and grim to describe. Only a few hours before dawn following the raid we began to realise that most of our patients had been contaminated by something beyond all imagination. I first noticed it when one or two of my patients went to the sink looking for a drink of water...they were complaining of intense heat and began stripping off their clothes...what little knowledge we had, our first thought was that these boys were suffering from mustard gas burns for their were blisters as big as balloons and heavy with fluid on these young bodies. We were not sure whether the staff was at risk...we tried to get tests done, we were never informed of the results...it was horrible to see these boys so young and in such obvious pain...The medical officers tried to get through to the War Office in London for information, advice and an anti-dote, but none was forthcoming..we were at a loss to battle this poison and we couldn't save the majority of the wounded. Almost one thousand men died in one night and just as many in the aftermath...

In her diary, Nurse Gay Trevithic wrote: What a night followed, ambulances screamed into the hospital all night long with casualties from the raid...The majority of them were either burned or covered in oil or had limbs blown off...It was so bad that when the boys came in we did not know whether they were Italians, Indians, or British...I only hope I never live to experience another night like this...

Aftermath: Legacy of Secrets

Some time later, he [Lt. Cdr. Morgan Giles, Staff Officer Special Operations at Bari] learned that USS *John Harvey* carried amongst its cargo white phosphorus bombs, and even worse, mustard gas bombs which were not fused...their contents thrown into the air and scattered on the water and neighboring ships...

It was obvious that not just one or two people had prior knowledge of the mustard gas aboard the *John Harvey* but a number of service personnel, probably as many as ten, were fully aware of its existence. One person who was not aware and who certainly should have

been was NOIC Bari, Captain Campbell, RN...it would appear that not one of the several people who knew of the mustard gas were capable of releasing the true facts to the hospital...

In the 1970s, the British official accounts were released and for the first time John [Adams, who had served in Royal Corps of Signals at Bari] learned about the existence of mustard gas at Bari. His doctor, an ex-RAF surgeon who had studied the effects of mustard gas...looked up his records and remarked that he was 99 percent certain that the lesion [in his lung] was the result of exposure to mustard gas...

On 24 February 1995, Bert Stevens gave up the struggle...he was the first survivor to be officially recognised as having been contaminated by the mustard gas at Bari, and the first to be awarded a pension...

Medical records are not due to be released until 2018, by which time no one who was in Bari in 1943 will be around to refute it. To the best of my knowledge, there has never been a comment or letter published concerning mustard gas by any doctor who was serving in Bari at the time...how many more people suffered like Bert Stevens and his family, totally unaware of the real reason, we will never know...

Perhaps it was a case of 'head in the sand' or the fact that the words 'mustard gas' were too controversial to be mentioned, so compounding the secrecy. The Official Account admits that many men died because of the lack of information, or more to the point, bungling secrecy...

Differences Between WWI and Bari

On 22 April 1915, at Ypres, Belgium, mustard gas was used for the first time when the German forces deployed 150 tons of chlorine against unprotected French troops...there was no censorship of the information...it was good propaganda. In the years following the armistice in 1918, many ex-soldiers who had been exposed to mustard gas suffered illness and sickness... [but] these ex-servicemen had one advantage that the survivors of Bari were denied. A great number of general practitioners had returned from war service and had experienced life in the trenches of Flanders and the effects of mustard gas...they helped them and procured war pensions for many of them. There was no such help for the contaminated at Bari, though that was not the fault of general practitioners. There were no medical records showing exposure to mustard gas, which could have assisted in diagnosing various ailments brought on in later years...

Continued Impact in Italy

The port of Molfetta, some 50 miles (80km) north of Bari had been singled out as a disposal point for a certain quantity of mustard gas still in Bari...in order to save on fuel oil, and not

knowing the nature of the materials they were dumping, the barge and boat-owners cut corners by jettisoning the highly toxic cargoes in an area of the sea 40 miles (64km) north-east of Molfetta. This area, though not as far, was of course much shallower than the designated one. When fishing resumed after 1945, incidents began to occur. Nobody knew what the metal bomb and shell casings dragged up in the fishing nets contained...Dr Angelo Neve is the enthusiastic co-ordinator and director of a group studying the long-term effects of the contamination of the seas around Bari...[he] sent me a video tape filmed aboard a diving support vessel...the diver turned round to show viewers his leg, on which ugly red blisters covered a large area from his knee to his thigh. It showed contamination still occurring more than fifty years after the disaster...

To learn more about Bari, see

Southern, George. *Poisonous Inferno: World War II Tragedy at Bari Harbour*. Shrewsbury: Airlife, 2002.