

## ACTIVITY I

### Introduction

Geography is an integral part of studying history. It reveals all the wonderful changes and activities that have been going on in the world since the beginning of time. Through studying history, students learn not only about our own country but also about countries beyond the seas. We also learn about the mountains, oceans, islands, lakes, volcanoes, and how mankind has interacted with the natural landscape. Geography puts this understanding of social and physical processes within the essential context of places and regions - recognizing the great differences in cultures, political systems, economies, landscapes and environments across the world, and the links between them. Geographical knowledge and understanding is the basis for informed concern about the earth and its people. The understanding of the relationships and impacts between people and the environment and its resources is one of the areas that lies at the heart of geography, and is essential to the understanding and management of the world today.

One in five American students cannot locate the United States of America on a map of the world. Students need more than a textbook that describes the island hopping of WWII. Today's students need to have a visual display of the world and how countries interact with each other and the environments they are faced with. Students are visual, hand-on learners. By indentifying and labeling the countries around Japan and those absorbed by the Empire of Japan, the information will not seem so foreign to students. By completing a map, students will understand how island-hopping was not a trivial capturing of tiny islands, but instead a pathway to mainland Japan.

### Guiding Question

- What do we know about the geography of the Empire of Japan? What were the major events of the Pacific War? Were all of the battles fought on mainland Japan? What was the extent of the island hopping strategy?

### Assignment

- Distribute and instruct students to complete the *Japan Map* handout.
- Distribute and instruct students to complete the *Empire of Japan Map* handout.
- Distribute the *War in the Pacific Timeline* handout.
- Students should use their textbooks and online resources to find the correct date for major events in the War in the Pacific.

## **Learning Objectives**

After completing this lesson, students should be able to:

- Correctly locate major Japanese cities and geographic features.
- Correctly identify nations that had been absorbed by the Empire of Japan.
- Learn the population of major Japanese cities in 1945.
- Correctly identify and chronologically order major events of the War in the Pacific.

## **Duration**

- 1 day, possibly 2

## **PA Standards**

- 8.1.A, 7.1.A, 7.1.B, 7.2.A, 7.3.A, 7.4.A

**Map One – Japan**



- 1.) Correctly label the following cities: Tokyo/Eto, Kyoto, Osaka, Hiroshima, Nagasaki, Kobe, and Yokohama.
- 2.) Label the following bodies of water: Pacific Ocean, Sea of Japan, Sea of Okhotsk, and the East China Sea.
- 3.) Label the following cities with their population during WWII: Tokyo, Kyoto, Hiroshima, and Nagasaki.
- 4.) Label the following countries/territories: China, Russia, South Korea, and North Korea.

## Map Two – Empire of Japan



- 1.) Correctly label the following countries/territories: Japan, China, Korea, Mongolia, Russia, Manchukuo, Vietnam, Thailand, Taiwan, Burma, Indonesia, the Philippines, and Australia.
- 2.) Correctly label the following cities: Hong Kong, Singapore, Tokyo, Darwin, Hiroshima, and Nagasaki.
- 3.) Correctly label the following islands: Okinawa, Tinian Island, Iwo Jima, Solomon Island, Marshall Islands, and the Midway Islands.
- 4.) Correctly label the following bodies of water: Pacific Ocean, Indian Ocean, Sea of Japan, Sea of Okhotsk, the Bay of Bengal, and the East China Sea.

## War in the Pacific Timeline Handout

Directions: Students should look up the dates for the following events of WWII. Furthermore, students should highlight the names of American military leaders in blue and Japanese military leaders in green.

\_\_\_\_\_ Japanese bomb Pearl Harbor.

\_\_\_\_\_ War declared on Japan.

\_\_\_\_\_ Japanese invade the Philippines.

\_\_\_\_\_ Japanese invade Burma.

\_\_\_\_\_ Japanese invade Hong Kong.

\_\_\_\_\_ German-Japanese-Italian military agreement signed in Berlin.

\_\_\_\_\_ Siege of Singapore begins.

\_\_\_\_\_ Largest Japanese air raid since Pearl Harbor occurs in Darwin, Australia.

\_\_\_\_\_ Gen. MacArthur appointed commander of the Southwest Pacific.

\_\_\_\_\_ War Relocation Authority established in the U.S. It will round up 120,000 Japanese-Americans.

\_\_\_\_\_ Bataan Death March begins as 76,000 Allied POWs walk 60 miles under a blazing sun without food or water.

\_\_\_\_\_ Turning point in the war occurs with a decisive victory for the U.S. against Japan in the Battle of Midway.

\_\_\_\_\_ U.S. defeat the Japanese at the Battle of the Eastern Solomons.

\_\_\_\_\_ Enrico Fermi conducts first nuclear chain reaction test.

\_\_\_\_\_ U.S. Marines invade Tinian.

\_\_\_\_\_ The first suicide air (Kamikaze) attacks occur against U.S. warships.

\_\_\_\_\_ Gen. MacArthur is placed in command of all U.S. ground forces.

\_\_\_\_\_ U.S. Marines invade Iwo Jima.

\_\_\_\_\_ 15 sq. miles of Tokyo erupt in flames after it is fire bombed by 279 B-29s.

\_\_\_\_\_ President Roosevelt dies, succeeded by Harry S. Truman.

\_\_\_\_\_ First Atomic Bomb is successfully tested in the U.S.

\_\_\_\_\_ Components of the Atomic Bomb "Little Boy" are unloaded at Tinian Island in the South Pacific.

\_\_\_\_\_ A Japanese submarine sinks the Cruiser INDIANAPOLIS resulting in the loss of 881 crewmen. Surviving soldiers were adrift for two days.

\_\_\_\_\_ First Atomic Bomb dropped on Hiroshima from a B-29 flown by Col. Paul Tibbets.

\_\_\_\_\_ U.S.S.R. declares war on Japan.

\_\_\_\_\_ Second Atomic Bomb is dropped on Nagasaki. Emperor Hirohito and Japanese Prime Minister Suzuki then decide to seek an immediate peace with the Allies.

\_\_\_\_\_ Japanese accept unconditional surrender; Gen. MacArthur is appointed to head the occupation forces in Japan.

## ACTIVITY II

### Introduction

The bombing of Hiroshima was a pivotal moment in history. Having dropped the atomic bomb on Hiroshima and three days later Nagasaki, the United States ended the War in the Pacific. Young American servicemen returned home to their families and the United States saw a new dawn of power and prosperity. As American military officials prepared for General MacArthur's grand arrival into a defeated Tokyo, few thought twice about the defeated Japanese spirit. The bombing of Hiroshima resulted in over 80,000 deaths. Did anyone care to learn how the everyday Japanese citizen was reacting to defeat, US occupation, and having suffered from the first (and only) atomic bomb attack in history?

For this assignment the class will be reading excerpts from *Hiroshima Diary: The Journal of a Japanese Physician*. Michihiko Hachiya began writing the diary on August 6<sup>th</sup>, 1945 and continued to journal his experiences and encounters two months after the bombing of Hiroshima. This book addresses the concept of perspective to students. Through the pages, students will begin to understand more about the Japanese way of thinking and what their opinion on Hiroshima was. Instructors should encourage students to put themselves into the mind frame of a defeated Japanese citizen, not a victorious American. Furthermore, students will learn what many of the Hiroshima survivors were faced with. As a conclusion to this lesson, students will be required to complete a creative expression of Japanese perspective regarding Hiroshima.

### Guiding Question

- What is perspective? How can a single event have two different perspectives? How did the Japanese feel and react on the day the atomic bomb was dropped and the following weeks?

### Assignment

#### Day 1

- Teacher will open the lesson with a ten minute slide show (PowerPoint or overhead – Pictures provided) of Hiroshima pictures (destruction, victims, and mushroom cloud).
- Instruct students to take out a piece of paper (or journal) and answer the following question: Was dropping the atomic bomb a reasonable way to have ended World War II? Why or Why not? Explain in 3-5 sentences.

- Have a five to ten minute conversation with students to discuss who believe it was a reasonable way to stop the war and who believes it was not a reasonable way to end the war.
- Distribute and instruct students to complete the *Hiroshima Terminology Worksheet*. Students can use classroom dictionaries or online resources. Student should save this recourse in order to review for the test.

## Day 2

- Define the word “Perspective” to students by writing definition on the board or overhead projector. Have students copy the word and definition into their social studies journals or notebooks.
- Have an open discussion on how each person can see the same event completely different (different perspectives). You could discuss school uniforms or being grounded.
- Pass out the *Hiroshima Diary* packet to the students. The teacher should read the first entry (August 6<sup>th</sup>, 1945) aloud to the class.
- At this point break students into groups of four and have the groups take turns reading the journal entries August 7<sup>th</sup>, 8<sup>th</sup>, 11<sup>th</sup> (only page 48), and 13<sup>th</sup>. Each group member should take turns reading two paragraphs at a time.
- After students have completed their reading, pass out 1 Post-it note to each student. Instruct students to write the one image or statement that stuck in their minds the most from today’s reading.
- Collect Post-it notes and display them on the board.

## Day 3

- Open the class by reading a few of the Post-it notes from yesterday. Explain what made the statement so effective and what image it was trying to display.
- Have a class discussion of the physical and mental affects from the bombing. Furthermore, discuss what students believe could be the long-term affects of the bombing on Japan. Think about: geography, population, mental state of the citizens
- Have students break into their reading groups from yesterday. Have the students read the journal entries from August 15<sup>th</sup>, September 9<sup>th</sup>, 12<sup>th</sup>, and 26<sup>th</sup>.

- After students have finished their reading, create a time line (chalkboard or large white piece of paper) and have students place the following information on the timeline: For example: Date of Bombing, realization of type of bomb, when certain symptoms started to set into victims, announcements from Japanese president, discovery of another atomic bomb attack on Nagasaki, date of surrender, ect.
- Teacher should emphasize how so many things can happen to change a nation in a short period of time.
- Redefine: Perspective— ask students to give the perspective that the Japanese people may be feeling at this time (despair or anger towards the US)

#### Day 4

- Once the students have taken their seats, show *Overhead #1: Perspective Choice Board*
- Students will imagine that they are a Japanese citizen. Each student will choose one way to describing some of the issues that a Japanese citizen, their family, or their country are facing.
- *Overhead #1: Perspective Choice Board* instructs students to choose any of the following options to illustrate Japanese perspective:
  - Write a journal entry
  - Write a poem
  - Compose a song
  - Create a political Cartoon and provide a description of the cartoon
  - Write a skit
  - Create a news report.
  - Create a poster.
  - Write a research paper.
- Students should use the remainder of the class time to work on their project and finish the rest for homework.

#### Day 5

- If willing, the teacher can give the students 20-25 minutes at the beginning of class to work on their project.
- On the overhead the whole class will come up with adjectives to describe the reading of *Hiroshima Diary* and how the Japanese people felt during that period



- Wrap of lesson. Explaining that the perspective of the Japanese and the perspective of the American about the events of the Atomic Bomb attack will always be very different. But a person must always look at different perspectives to truly understand the event.

## **Learning Objectives**

After completing this lesson, students should be able to:

- Define the word perspective and other keys terms involved in the dropping of the atomic bomb.
- Put together a timeline of the events of Hiroshima.
- Have a greater understanding of what Japanese survivors experienced at Hiroshima.
- Understand how a single event can have to different perspectives.
- Creatively express another person's perspective to tragedy.

## **Duration**

- 5 days

## **Extension**

- Instructors may want to show video testimony of Hiroshima survivors. Those videos can be found at
  - <http://www.workingtv.com/kinuko.html>
  - [http://www.pcf.city.hiroshima.jp/index\\_e2.html](http://www.pcf.city.hiroshima.jp/index_e2.html)

## **PA Standards**

- 8.1.A, 8.1.B, 8.1.C, 8.1.D, 8.2.A, 8.2.B, 8.3.A, 8.3.B, 5.4.A, 5.4.B

## Hiroshima Terminology Worksheet

Directions: Use the classroom dictionary or online research to define each of the following Hiroshima terms.

1.) Hiroshima -

12.) Xenophobic -

2.) Atom -

13.) Conflagration -

3.) Uranium -

14.) Incapacitated -

4.) Bombardier -

15.) Ionization -

5.) Radiation -

16.) Vortex -

6.) Ground Zero -

17.) Hemorrhages -

7.) Dia Nippon -

18.) Remnants -

8.) B-san -

19.) Scavenged -

9.) Seppuku -

20.) Radiation Poisoning -

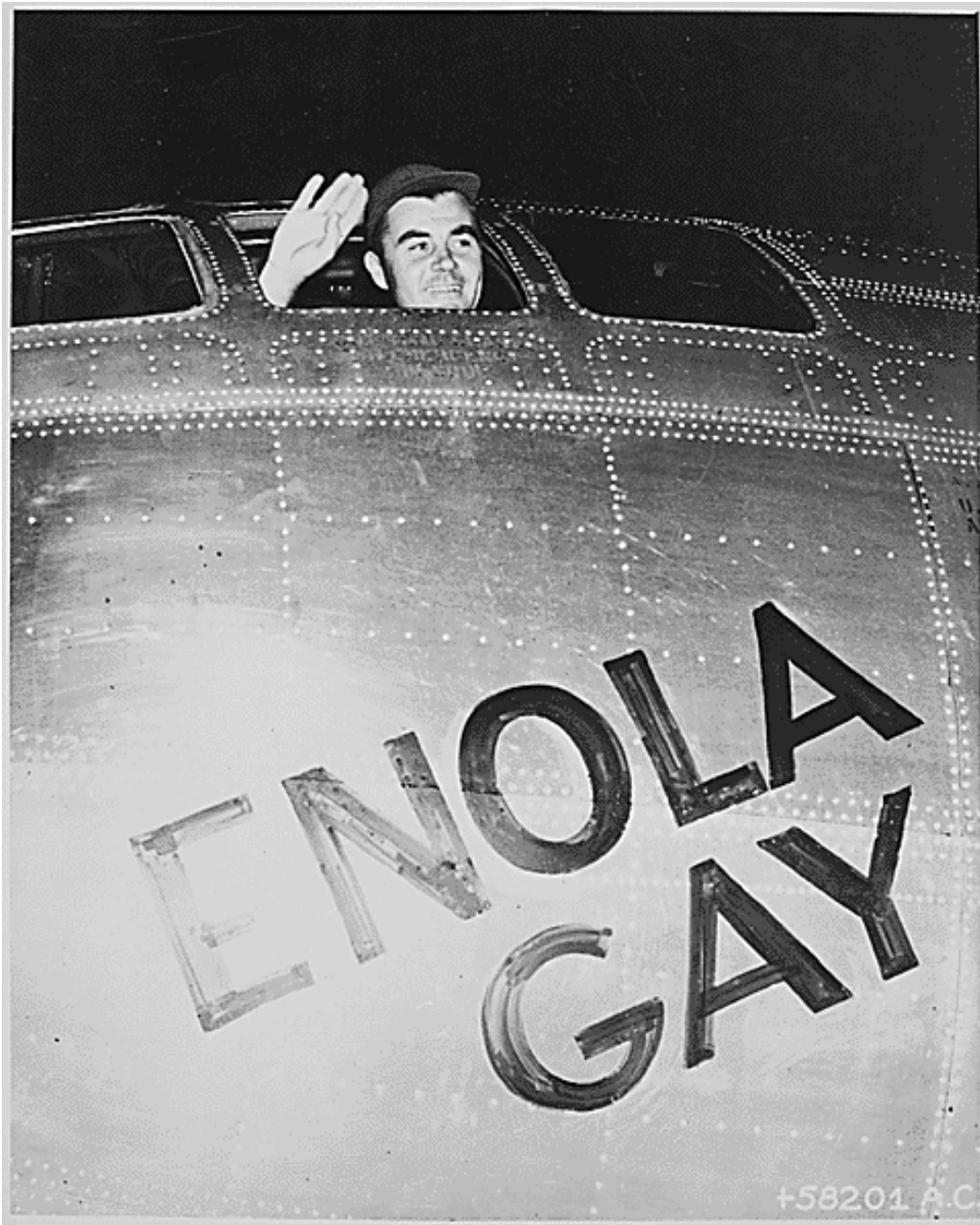
10.) Dysentery -

21.) "Little Boy"

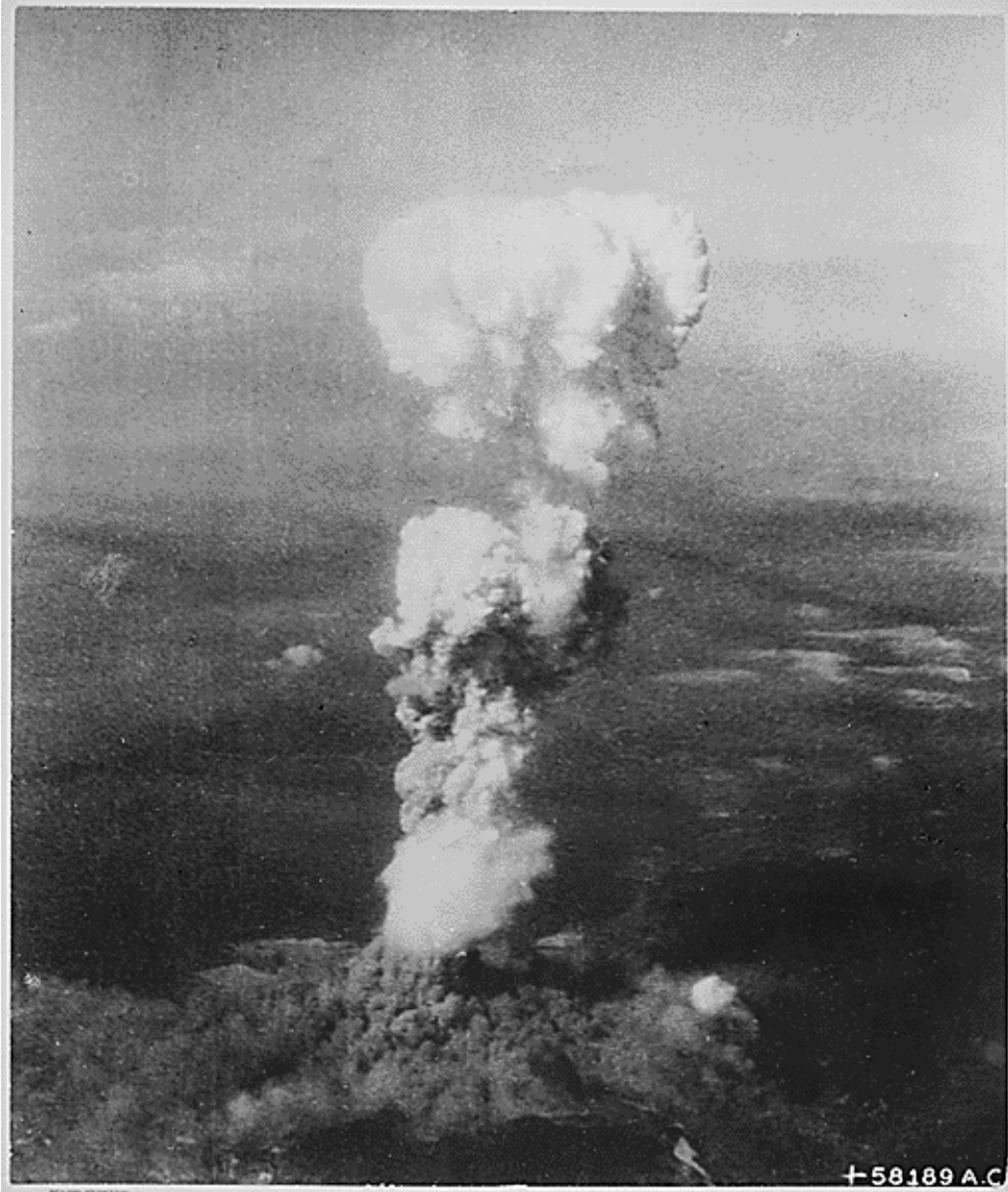
11.) Pummeled -

22. Enola Gay -

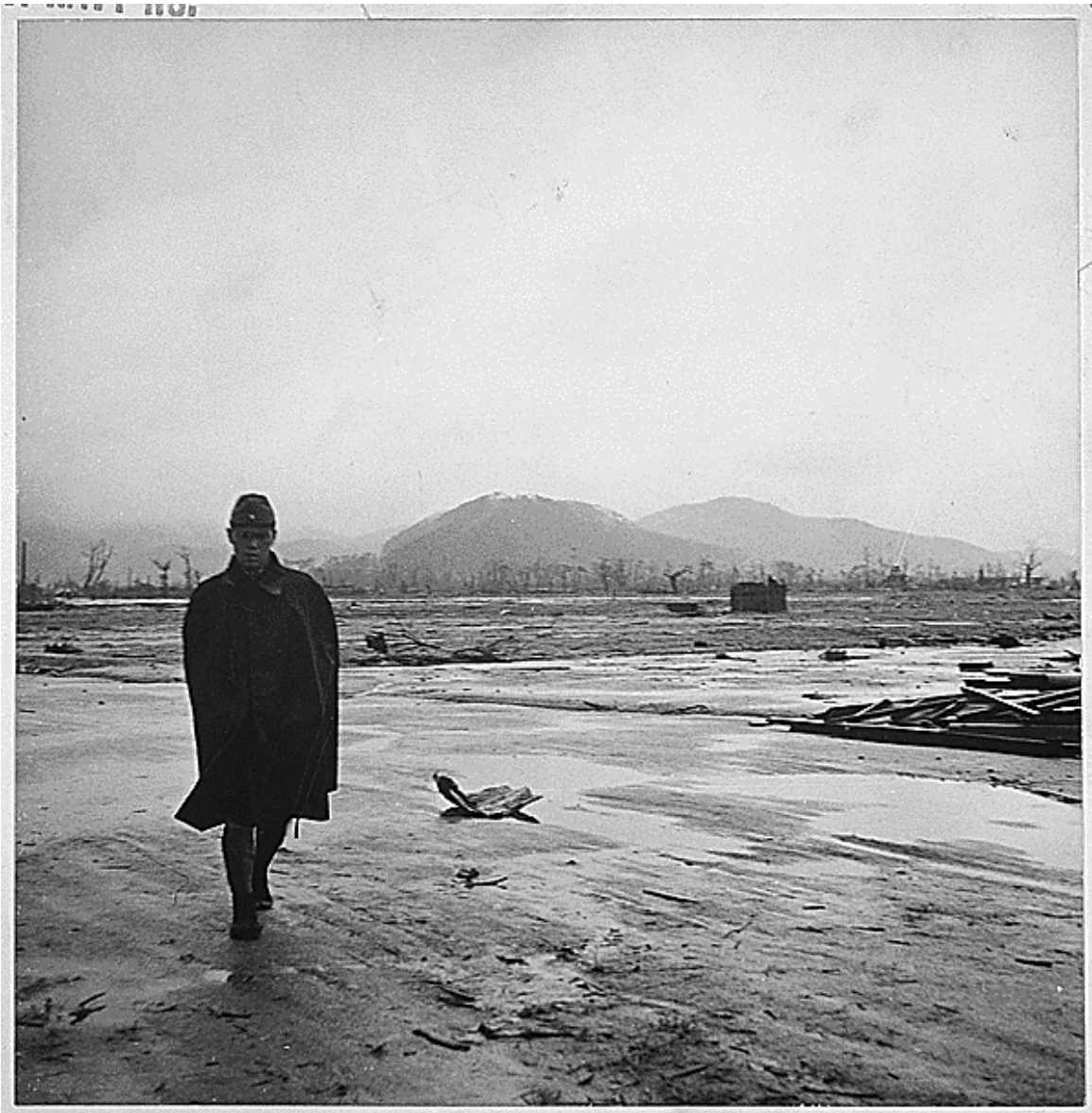
**Hiroshima Slide Show**



Col. Paul W. Tibbets, Jr., pilot of the ENOLA GAY, the plane that dropped the atomic bomb on Hiroshima, waves from his cockpit before the takeoff. (August 6, 1945)



At the time this photo was made, smoke billowed 20,000 feet above Hiroshima while smoke from the burst of the first atomic bomb had spread over 10,000 feet on the target at the base of the rising column. Two planes of the 509th Composite Group, part of the 313th Wing of the 20th Air Force, participated in this mission, one to carry the bomb, the other to act as escort. (August 6, 1945)



Navy photographer pictures suffering and ruins that resulted from atom bomb blast in Hiroshima, Japan. Japanese soldier walks through leveled area. (September 1945)



Effects of atomic heat and radiation on humans. (1945)





Effects of atomic heat and radiation on humans. Japan, 1945.

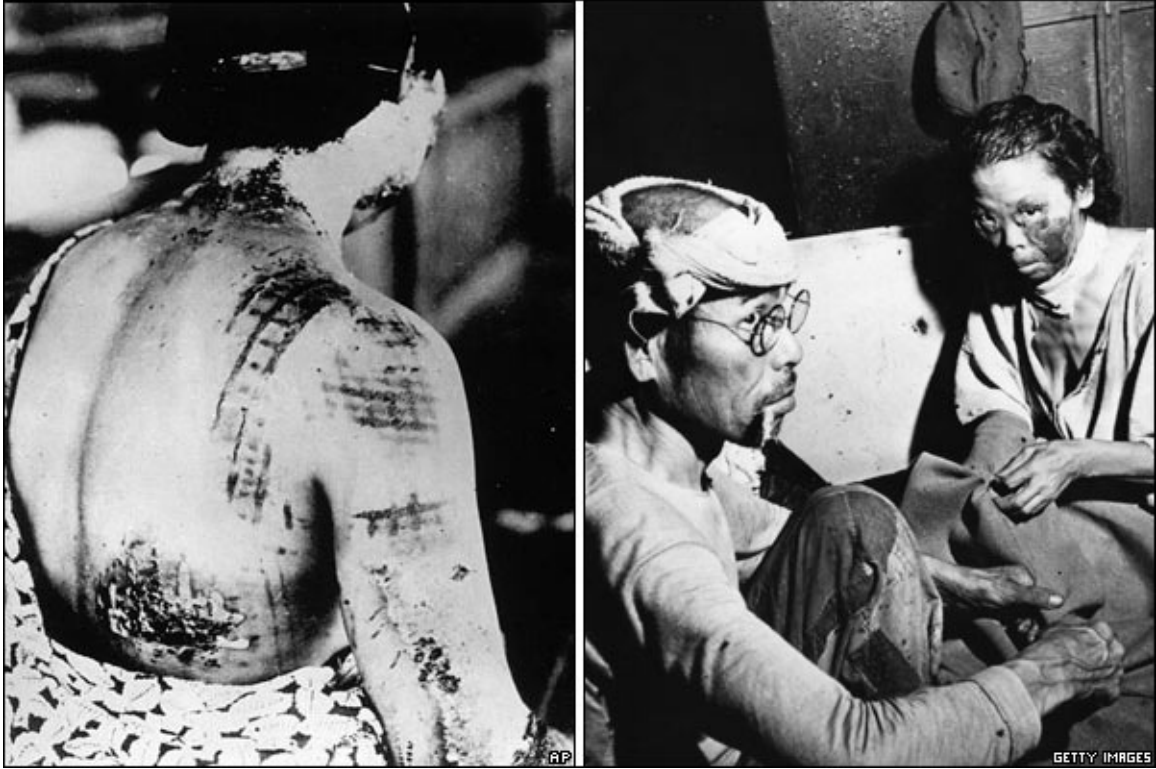


Survivors hospitalized in Hiroshima, show their bodies covered with keloids (excess growth of scar tissue at the site of a healed skin injury) caused by atomic radiation.





In 1945 Hiroshima was a Japanese army base and an important port, with a population of about 350,000. The atomic bomb, which generated a powerful blast wind, destroyed buildings within a 1.5-mile radius.



About a third of Hiroshima's population was killed within a week of the bombing. Many more have since died through radiation sickness.



A flattened neighborhood moments after the bomb hit.



Burned out busses the day after the attack.



Enola Gay dropped Little Boy, the first atomic bomb ever to be used in a war, over Hiroshima. 70,000 people were killed right away, often simply evaporating in the intense heat of the blast, leaving only eerie shadows on the walls behind them.

## **Hiroshima Diary: The Journal of a Japanese Physician** **By: Michihiko Hachiya**

### **6 August 1945**

THE HOUR was early; the morning still, warm, and beautiful. Shimmering leaves, reflecting

sunlight from a cloudless sky, made a pleasant contrast with shadows in my garden as I gazed absently through wide-flung doors opening to the south.

Clad in drawers and undershirt, I was sprawled on the living room floor exhausted because I had just spent a sleepless night on duty as an air warden in my hospital.

Suddenly, a strong flash of light startled me--and then another. So well does one recall little things that I remember vividly how a stone lantern in the garden became brilliantly lit and I debated whether this light was caused by a magnesium flare or sparks from a passing trolley.

Garden shadows disappeared. The view where a moment before all had been so bright and sunny was now dark and hazy. Through swirling dust I could barely discern a wooden column that had supported one corner of my house. It was leaning crazily and the roof sagged dangerously.

Moving instinctively, I tried to escape, but rubble and fallen timbers barred the way. By picking my way cautiously I managed to reach the *rōka* and stepped down into my garden. A profound weakness overcame me, so I stopped to regain my strength. To my surprise I discovered that I was completely naked. How odd! Where were my drawers and undershirt?

What had happened?

All over the right side of my body I was cut and bleeding. A large splinter was protruding from a mangled wound in my thigh, and something warm trickled into my mouth. My cheek was torn, I discovered as I felt it gingerly, with the lower lip laid wide open. Embedded in my neck was a sizable fragment of glass which I matter-of-factly dislodged, and with the detachment of one stunned and shocked I studied it and my blood-stained hand.

Where was my wife?

Suddenly thoroughly alarmed, I began to yell for her: "Yaekosan! Yacko-san! Where are you?"

Blood began to spurt. Had my carotid artery been cut? Would I bleed to death? Frightened and irrational, I called out again: "It's a five-hundred-ton bomb! Yaeko-san, where are you? A fivehundred-ton bomb has fallen!"

Yaeko-san, pale and frightened, her clothes torn and bloodstained, emerged from the ruins of our house holding her elbow. Seeing her, I was reassured. My own panic assuaged, I tried to reassure her.

"We'll be all right," I exclaimed. "Only let's get out of here as fast as we can."

She nodded, and I motioned for her to follow me.

The shortest path to the street lay through the house next door so through the house we went--running, stumbling, falling, and then running again until in headlong flight we tripped over something

and fell sprawling into the street. Getting to my feet, I discovered that I had tripped over a man's head.

"Excuse me! Excuse me, please!" I cried hysterically.

There was no answer. The man was dead. The head had belonged to a young officer whose body was crushed beneath a massive gate.

We stood in the street, uncertain and afraid, until a house across from us began to sway and then with a rending motion fell almost at our feet. Our own house began to sway, and in a minute it, too, collapsed in a cloud of dust. Other buildings caved in or toppled. Fires sprang up and whipped by a vicious wind began to spread.

It finally dawned on us that we could not stay there in the street, so we turned our steps towards the hospital. Our home was gone; we were wounded and needed treatment; and after all, it was my duty to be with my staff. This latter was an irrational thought-what good could I be to anyone, hurt as I was.

We started out, but after twenty or thirty steps I had to stop. My breath became short, my heart pounded, and my legs gave way under me. An overpowering thirst seized me and I begged Yaekosan to find me some water. But there was no water to be found. After a little my strength somewhat returned and we were able to go on.

I was still naked, and although I did not feel the least bit of shame, I was disturbed to realize that modesty had deserted me. On rounding a corner we came upon a soldier standing idly in the street. He had a towel draped across his shoulder, and I asked if he would give it to me to cover my nakedness. The soldier surrendered the towel quite willingly but said not a word. A little later I lost the towel, and Yaeko-san took off her apron and tied it around my loins.

Our progress towards the hospital was interminably slow, until finally, my legs, stiff from drying blood, refused to carry me farther. The strength, even the will, to go on deserted me, so I told my wife, who was almost as badly hurt as I, to go on alone. This she objected to, but there was no choice. She had to go ahead and try to find someone to come back for me.

Yaeko-san looked into my face for a moment, and then, without saying a word, turned away and began running towards the hospital. Once, she looked back and waved and in a moment she was swallowed up in the gloom. It was quite dark now, and with my wife gone, a feeling of dreadful loneliness overcame me.

I must have gone out of my head lying there in the road because the next thing I recall was discovering that the clot on my thigh had been dislodged and blood was again spurting from the wound.

I pressed my hand to the bleeding area and after a while the bleeding stopped and I felt better.

Could I go on?

I tried. It was all a nightmare--my wounds, the darkness, the road ahead. My movements were ever so slow; only my mind was running at top speed.

In time I came to an open space where the houses had been removed to make a fire lane. Through the dim light I could make out ahead of me the hazy outlines of the Communications Bureau's big concrete building, and beyond it the hospital. My spirits rose because I knew that now someone would find me; and if I should die, at least my body would be found.

I paused to rest. Gradually things around me came into focus. There were the shadowy forms of people, some of whom looked like walking ghosts. Others moved as though in pain, like scarecrows, their arms held out from their bodies with forearms and hands dangling. These people puzzled me until I suddenly realized that they had been burned and were holding their arms out to prevent the painful friction of raw surfaces rubbing together. A naked woman carrying a naked baby came into view. I averted my gaze. Perhaps they had been in the bath. But then I saw a naked man, and it occurred to me that, like myself, some strange thing had deprived them of their clothes. An old woman lay near me with an expression of suffering on her face; but she made no sound. Indeed, one thing was common to everyone I saw--complete silence.

All who could were moving in the direction of the hospital. I joined in the dismal parade when my strength was somewhat recovered, and at last reached the gates of the Communications Bureau.

Familiar surroundings, familiar faces. There was Mr. Iguchi and Mr. Yoshihiro and my old friend, Mr. Sera, the head of the business office. They hastened to give me a hand, their expressions of pleasure changing to alarm when they saw that I was hurt. I was too happy to see them to share their concern.

No time was lost over greetings. They eased me onto a stretcher and carried me into the Communications Building, ignoring my protests that I could walk. Later, I learned that the hospital was so overrun that the Communications Bureau had to be used as an emergency hospital. The rooms and corridors were crowded with people, many of whom I recognized as neighbors. To me it seemed that the whole community was there.

My friends passed me through an open window into a janitor's room recently converted to an emergency first-aid station. The room was a shambles; fallen plaster, broken furniture, and debris littered the floor; the walls were cracked; and a heavy steel window casement was twisted and almost wrenched from its seating. What a place to dress the wounds of the injured.

To my great surprise who should appear but my private nurse, Miss Kado, and Mr. Mizoguchi, and old Mrs. Saeki. Miss Kado set about examining my wounds without speaking a word. No one spoke. I asked for a shirt and pajamas. They got them for me, but still no one spoke. Why was everyone so quiet?

Miss Kado finished the examination, and in a moment it felt as if my chest was on fire. She had begun to paint my wounds with iodine and no amount of entreaty would make her stop. With no alternative but to endure the iodine, I tried to divert myself by looking out the window.

The hospital lay directly opposite with part of the roof and the third floor sunroom in plain view, and as I looked up, I witnessed a sight which made me forget my smarting wounds. Smoke was pouring out of the sunroom windows. The hospital was afire!

"Fire!" I shouted. "Fire! Fire! The hospital is on fire!"

My friends looked up. It was true. The hospital *was* on fire.

The alarm was given and from all sides people took up the cry. The high-pitched voice of Mr. Sera, the business officer, rose above the others, and it seemed as if his was the first voice I had heard that day. The uncanny stillness was broken. Our little world was now in pandemonium.

I remember that Dr. Sasada, chief of the Pediatric Service, came in and tried to reassure me, but I could scarcely hear him above the din. I heard Dr. Hinoi's voice and then Dr. Koyama's.

Both were shouting orders to evacuate the hospital and with such vigor that it sounded as though the sheer strength of their voices could hasten those who were slow to obey.



The sky became bright as flames from the hospital mounted. Soon the Bureau was threatened and Mr. Sera gave the order to evacuate. My stretcher was moved into a rear garden and placed beneath an old cherry tree. Other patients limped into the garden or were carried until soon the entire area became so crowded that only the very ill had room to lie down. No one talked, and the ominous silence was relieved only by a subdued rustle among so many people, restless, in pain, anxious, and afraid, waiting for something else to happen.

The sky filled with black smoke and glowing sparks. Flames rose and the heat set currents of air in motion. Updrafts became so violent that sheets of zinc roofing were hurled aloft and released, humming and twirling, in erratic flight. Pieces of flaming wood soared and fell like fiery swallows. While I was trying to beat out the flames, a hot ember seared my ankle. It was all I could do to keep from being burned alive.

The Bureau started to burn, and window after window became a square of flame until the whole structure was converted into a crackling, hissing inferno.

Scorching winds howled around us, whipping dust and ashes into our eyes and up our noses. Our mouths became dry, our throats raw and sore from the biting smoke pulled into our lungs. Coughing was uncontrollable. We would have moved back, but a group of wooden barracks behind us caught fire and began to burn like tinder.

The heat finally became too intense to endure, and we were left no choice but to abandon the garden. Those who could fled; those who could not perished. Had it not been for my devoted friends, I would have died, but again, they came to the rescue and carried my stretcher to the main gate on the other side of the Bureau.

Here, a small group of people were already clustered, and here I found my wife. Dr. Sasada and Miss Kado joined us.

Fires sprang up on every side as violent winds fanned flames from one building to another. Soon, we were surrounded. The ground we held in front of the Communications Bureau became an oasis in a desert of fire. As the flames came closer the heat became more intense, and if someone in our group had not had the presence of mind to drench us with water from a fire hose, I doubt if anyone could have survived.

Hot as it was, I began to shiver. The drenching was too much. My heart pounded; things began to whirl until all before me blurred.

"*Kurushii*," I murmured weakly. "I am done."

The sound of voices reached my ears as though from a great distance and finally became louder as if close at hand. I opened my eyes; Dr. Sasada was feeling my pulse. What had happened? Miss Kado gave me an injection. My strength gradually returned. I must have fainted.

Huge raindrops began to fall. Some thought a thunderstorm was beginning and would extinguish the fires. But these drops were capricious. A few fell and then a few more and that was all the rain we saw.

The first floor of the Bureau was now ablaze and flames were spreading rapidly towards our little oasis by the gate. Right then, I could hardly understand the situation, much less do anything about it.

An iron window frame, loosened by fire, crashed to the ground behind us. A ball of fire whizzed by me, setting my clothes ablaze. They drenched me with water again. From then on I am confused as to what happened.

I do remember Dr. Hinoi because of the pain, the pain I felt when he jerked me to my feet. I remember being moved or rather

dragged, and my whole spirit rebelling against the torment I was made to endure.

My next memory is of an open area. The fires must have receded. I was alive. My friends had somehow managed to rescue me again.

A head popped out of an air-raid dugout, and I heard the unmistakable voice of old Mrs. Saeki: "Cheer up, doctor! Everything will be all right. The north side is burnt out. We have nothing further to fear from the fire."

I might have been her son, the way the old lady calmed and reassured me. And indeed, she was right. The entire northern side of the city was completely burned. The sky was still dark, but whether it was evening or midday I could not tell. It might even have been the next day. Time had no meaning. What I had experienced might have been crowded into a moment or been endured through the monotony of eternity.

Smoke was still rising from the second floor of the hospital, but the fire had stopped. There was nothing left to burn, I thought; but later I learned that the first floor of the hospital had escaped destruction largely through the courageous efforts of Dr. Koyama and Dr. Hinoi.

The streets were deserted except for the dead. Some looked as if they had been frozen by death while in the full action of flight; others lay sprawled as though some giant had flung them to their death from a great height.

Hiroshima was no longer a city, but a burnt-over prairie. To the east and to the west everything was flattened. The distant mountains seemed nearer than I could ever remember. The hills of Ushita and the woods of Nigitsu loomed out of the haze and smoke like the nose and eyes on a face. How small Hiroshima was with its houses gone.

The wind changed and the sky again darkened with smoke.

Suddenly, I heard someone shout: "Planes! Enemy planes!"

Could that be possible after what had already happened? What was there left to bomb? My thoughts were interrupted by the sound of a familiar name.

A nurse calling Dr. Katsube.

"It is Dr. Katsube! It's him!" shouted old Mrs. Saeki, a happy ring to her voice. "Dr. Katsube has come!"

It was Dr. Katsube, our head surgeon, but he seemed completely unaware of us as he hurried past, making a straight line for the hospital. Enemy planes were forgotten, so great was our happiness that Dr. Katsube had been spared to return to us.

Before I could protest, my friends were carrying me into the hospital. The distance was only a hundred meters, but it was enough to cause my heart to pound and make me sick and faint.

I recall the hard table and the pain when my face and lip were sutured, but I have no recollection of the forty or more other wounds Dr. Katsube closed before night.

They removed me to an adjoining room, and I remember feeling relaxed and sleepy. The sun had gone down, leaving a dark red sky. The red flames of the burning city had scorched the heavens. I gazed at the sky until sleep overtook me.

## 7 August 1945

I MUST have slept soundly because when I opened my eyes a piercing hot sun was shining in on me. There were no shutters or curtains to lessen the glare--and for that matter no windows.

The groans of patients assaulted my ears. Everything was in a turmoil.

Instruments, window frames, and debris littered the floor. The walls and ceilings were scarred and picked as though someone had sprinkled sesame seeds over their surfaces. Most of the marks had been made by slivers of flying glass but the larger scars had been caused by hurtling instruments and pieces of window casements.

Near a window an instrument cabinet was overturned. The head piece had been knocked off the ear, nose, and throat examining chair, and a broken sunlamp was overturned across the seat. I saw nothing that was not broken or in disorder.

Dr. Sasada, who had looked after me yesterday, lay on my left. I had thought he escaped injury, but now I could see that he was badly burned. His arms and hands were bandaged and his childish face so obscured by swelling that I would not have recognized him had it not been for his voice.

My wife lay to my right. Her face was covered with a white ointment, giving her a ghostly appearance. Her right arm was in a sling.

Miss Kado, only slightly wounded, was between me and my wife. She had nursed all of us throughout the night.

My wife, seeing that I was awake, turned and said: "Last night, you seemed to be suffering."

"Yes," said Miss Kado, chiming in. "I don't know how many times I examined your breathing."

I recognized Dr. Fujii's wife sitting motionless on a bench near the wall. Her face bore an expression of anguish and despair. Turning to Miss Kado, I asked what the matter was, and she replied: "Mrs. Fujii was not hurt very much, but her baby was. It died during the night."

"Where is Dr. Fujii?" I inquired.

"Their older daughter is lost," she answered. "He's been out all night looking for her and hasn't returned."

Dr. Koyama came in to inquire how we were. The sight of him, with his head bandaged and an arm in a sling, brought tears to my eyes. He had worked all night and was even now thinking of others before himself.

Dr. Katsube, our surgeon, and Miss Takao, a surgical nurse, were with Dr. Koyama, who was now deputy director. They all looked tired and haggard, and their white clothes were dirty and blood-stained. I learned that Mr. Iguchi, our driver, had contrived to rig up an emergency operating light from a car battery and headlight with which they had managed to operate until the light went out just before day.

Dr. Koyama, observing my concern, remarked: "Doctor, everything is all right."

Dr. Katsube looked me over and after feeling my pulse, said: "You received many wounds, but they all missed vital spots."

He then described them and told me how they had been treated. I was surprised to learn that my shoulder had been severely cut but relieved at his optimism for my recovery.

"How many patients are in the hospital?" I asked Dr. Koyama.

"About a hundred and fifty," he replied. "Quite a few have died, but there are still so many that there is no place to put one's foot down. They are packed in everywhere, even the toilets."

Nodding, Dr. Katsube added: "There are about a half dozen beneath the stairway, and about fifty in the front garden of the hospital."

They discussed methods for restoring order, at least to the extent of making the corridors passable.

In the space of one night patients had become packed, like the rice in *sushi*, into every nook and cranny of the hospital. The majority were badly burned, a few severely injured. All were critically ill. Many had been near the heart of the city and in their efforts to flee managed to get only as far as the Communications Hospital before their strength failed. Others, from nearer by, came deliberately to seek treatment or because this building, standing alone where all else was destroyed, represented shelter and a place of refuge. They came as an avalanche and overran the hospital.

There was no friend or relative to minister to their needs, no one to prepare their food. Everything was in disorder. And to make matters worse was the vomiting and diarrhea. Patients who could not walk urinated and defecated where they lay. Those who could walk would feel their way to the exits and relieve themselves there. Persons entering or leaving the hospital could not avoid stepping in the filth, so closely was it spread. The front entrance became covered with feces overnight, and nothing could be done for there were no bed pans and, even if there had been, no one to carry them to the patients.

Disposing of the dead was a minor problem, but to clean the rooms and corridors of urine, feces, and vomitus was impossible.

The people who were burned suffered most because as their skin peeled away, glistening raw wounds were exposed to the heat and filth. This was the environment patients had to live in. It made one's hair stand on end, but there was no way to help the situation.

This was the pattern conversation took as I lay there and listened. It was inconceivable.

"When can I get up?" I asked Dr. Katsube. "Perhaps I can do something to help."

"Not until your sutures are out," he answered. "And that won't be for at least a week."

With that to think about they left me.

I was not left long with my thoughts. One after another the staff came in to express their concern over my injuries and to wish me a speedy recovery. Some of my visitors embarrassed me, for they appeared to be as badly injured as myself. Had it been possible, I would have concealed my whereabouts.

Dr. Nishimura, President of the Okayama Medical Association, came all the way from my native city, ninety miles away, to see me. He had been crew captain of the boat team when we were classmates in Medical School. As soon as he saw me, tears welled up in his eyes. He looked at me a moment, and then exclaimed: "I say, old fellow, you are alive! What a pleasant surprise. How are you getting along?"

Without waiting for an answer, he continued: "Last night, we heard that Hiroshima had been attacked by a new weapon. The damage was slight, they told us, but in order to see for myself and to lend a hand if extra physicians were needed, I secured a truck and came on down. What a frightful mess greeted us when we arrived. Are you sure *you* are all right?"

And again, without stopping for me to reply, he went on to tell about the heartbreaking things he witnessed from the truck as he entered the city. These were the first details any of us had heard, so we listened intently.

While he talked, all I could think of was the fear and uncertainty that must be preying on my old mother who lived in the country near Okayama. When he had finished, I asked Dr. Nishimura if he would get word to my mother, and also to a sister who lived in Okayama, that Yaeko-san and I were safe. He assured me that he would, and before leaving he also promised to organize a team of doctors and nurses to come down and help as soon as he could get them together.

Dr. Tabuchi, an old friend from Ushita, came in. His face and hands had been burned, though not badly, and after an exchange of greetings, I asked if he knew what had happened.

"I was in the back yard pruning some trees when it exploded," he answered. "The first thing I knew, there was a blinding white flash of light, and a wave of intense heat struck my cheek. This was odd, I thought, when in the next instant there was a tremendous blast.

"The force of it knocked me clean over," he continued, "but fortunately, it didn't hurt me; and my wife wasn't hurt either. But you should have seen our house! It didn't topple over, it just inclined. I have never seen such a mess. Inside and out everything was simply ruined. Even so, we are happy to be alive, and what's more Ryoji, our son, survived. I didn't tell you that he had gone into the city on business that morning. About midnight, after we had given up all hope that he could possibly survive in the dreadful fire that followed the blast, he came home. Listen!" he continued, "why don't you come on home with me? My house is certainly nothing to look at now, but it is better than here."

It was impossible for me to accept his kind offer, and I tried to decline in a way that would not hurt his feelings.

"Dr. Tabuchi," I replied, "we are all grateful for your kind offer, but Dr. Katsube has just warned me that I must lie perfectly still until my wounds are healed."

Dr. Tabuchi accepted my explanation with some reluctance, and after a pause he made ready to go.

"Don't go," I said. "Please tell us more of what occurred yesterday."

"It was a horrible sight," said Dr. Tabuchi. "Hundreds of injured people who were trying to escape to the hills passed our house. The sight of them was almost unbearable. Their faces and hands were burnt and swollen; and great sheets of skin had peeled away from their tissues to hang down like rags on a scarecrow. They moved like a line of ants. All through the night, they went past our house, but this morning they had stopped. I found them lying on both sides of the road so thick that it was impossible to pass without stepping on them."

I lay with my eyes shut while Dr. Tabuchi was talking, picturing in my mind the horror he was describing. I neither saw nor heard Mr. Katsutani when he came in. It was not until I heard someone

sobbing that my attention was attracted, and I recognized my old friend. I had known Mr. Katsutani for many years and knew him to be an emotional person, but even so, to see him break down made tears come to my eyes. He had come all the way from Jigozen to look for me, and now that he had found me, emotion overcame him.

He turned to Dr. Sasada and said brokenly: "Yesterday, it was impossible to enter Hiroshima, else I would have come. Even today fires are still burning in some places. You should see how the city has changed. When I reached the Misasa Bridge this morning, everything before me was gone, even the castle. These buildings here are the only ones left anywhere around. The Communications Bureau seemed to loom right in front of me long before I got anywhere near here."

Mr. Katsutani paused for a moment to catch his breath and went on: "I *really* walked along the railroad tracks to get here, but even they were littered with electric wires and broken railway cars, and the dead and wounded lay everywhere. When I reached the bridge, I saw a dreadful thing. It was unbelievable. There was a man, stone dead, sitting on his bicycle as it leaned against the bridge railing. It is hard to believe that such a thing could happen!"

He repeated himself two or three times as if to convince himself that what he said was true and then continued: "It seems that most of the dead people were either on the bridge or beneath it. You could tell that many had gone down to the river to get a drink of water and had died where they lay. I saw a few live people still in the water, knocking against the dead as they floated down the river. There must have been hundreds and thousands who fled to the river to escape the fire and then drowned.

"The sight of the soldiers, though, was more dreadful than the dead people floating down the river. I came onto I don't know how many, burned from the hips up; and where the skin had peeled, their flesh was wet and mushy. They must have been wearing their military caps because the black hair on top of their heads was not burned. It made them look like they were wearing black lacquer bowls.

"And they had no faces! Their eyes, noses and mouths had been burned away, and it looked like their ears had melted off. It was hard to tell front from back. One soldier, whose features had been destroyed and was left with his white teeth sticking out, asked me for some water, but I didn't have any. I clasped my hands and prayed for him. He didn't say anything more. His plea for water must have been his last words. The way they were burned, I wonder if they didn't have their coats off when the bomb exploded."

It seemed to give Mr. Katsutani some relief to pour out his

terrifying experiences on us; and there was no one who would have stopped him, so fascinating was his tale of horror. While he was talking, several people came in and stayed to listen. Somebody asked him what he was doing when the explosion occurred.

"I had just finished breakfast," he replied, "and was getting ready to light a cigarette, when all of a sudden I saw a white flash. In a moment there was a tremendous blast. Not stopping to think, I let out a yell and jumped into an air-raid dugout. In a moment there was such a blast as I have never heard before. It was terrific! I jumped out of the dugout and pushed my wife into it. Realizing something terrible must have happened in Hiroshima, I climbed up onto the roof of my storehouse to have a look."

Mr. Katsutani became more intense and, gesticulating wildly, went on: "Towards Hiroshima, I saw a big black cloud go billowing up, like a puffy summer cloud. Knowing for sure then that something terrible had happened in the city, I jumped down from my storehouse and ran as fast as I could to the military post at Hatsukaichi. I ran up to the officer in charge and told him what I had seen and begged him to send somebody to help in Hiroshima. But he didn't even take me seriously. He looked at me for a moment with a threatening expression, and then do you know what he said? He said, 'There isn't much to worry about. One or two bombs won't hurt Hiroshima.' There was no use talking to that fool!

"I was the ranking officer in the local branch of the Ex-officer's Association, but even I didn't know what to do because that day the villagers under my command had been sent off to Miyajima for labor service. I looked all around to find someone to help me make a rescue squad, but I couldn't find anybody. While I was still looking for help, wounded people began to stream into the village. I asked them what had happened, but all they could tell me was that Hiroshima had been destroyed and everybody was leaving the city. With that I got on my bicycle and rode as fast as I could towards Itsukaichi. By the time I got there, the road was jammed with people, and so was every path and byway.

"Again I tried to find out what had happened, but nobody could give me a clear answer. When I asked these people where they had come from, they would point towards Hiroshima and say, 'This way.' And when I asked where they were going, they would point toward Miyajima and say, 'That way.' Everybody said the same thing.

"I saw no badly wounded or burned people around Itsukaichi, but when I reached Kusatsu, nearly everybody was badly hurt. The nearer I got to Hiroshima the more I saw until by the time I had reached Koi, they were all so badly injured, I could not bear to look into their faces. They smelled like burning hair."

Mr. Katsutani paused for a moment to take a deep breath and then continued: "The area around Koi station was not burned, but the station and the houses nearby were badly damaged. Every square inch of the station platform was packed with wounded people. Some were standing; others lying down. They were all pleading for water. Now and then you could hear a child calling for its mother. It was a living hell, I tell you. It was a living hell!

"Today it was the same way.

"Did Dr. Hanaoka come to the hospital yesterday? I saw him cross the streetcar trestle at Koi and head in this direction, but I can't believe that he could have made his way through that fire."

"No, we haven't seen him," someone answered.

Mr. Katsutani nodded reflectively and went on: "I left Koi station and went over to the Koi primary school. By then, the school had been turned into an emergency hospital and was already crowded with desperately injured people. Even the playground was packed with the dead and dying. They looked like so many cod fish spread out for drying. What a pitiful sight it was to see them lying there in the hot sun. Even I could tell they were all going to die.

"Towards evening, I was making my way back to the highway when I ran into my sister. My sister, whose home had been in Tokaichi, must surely have been killed. But here she was-alive! She was so happy, she couldn't utter a word! All she could do was cry. If ever anyone shed tears of joy, she did. Some kind people lent me a hand in making a stretcher and helped carry her back to my home in Jigozen near Miyajima Guchi. Even my little village, as far removed as it was from Hiroshima, had become a living hell. Every shrine, every temple was packed and jammed with wounded people."

Mr. Katsutani had said all he had in him to say. He left our room, but instead of going home, he stayed to help with the wounded.

The stories of Dr. Nishimura, Dr. Tabuchi, and Mr. Katsutani left no doubt in my mind about the destruction of Hiroshima. I had seen enough to know that the damage was heavy, but what they had told me was unbelievable.

When I thought of the injured, lying in the sun begging for water, I felt as though I were committing a sin by being where I was. I no longer felt quite so sorry for those of our patients who were obliged to lie on the hard concrete floors in the toilets.

My thoughts turned to myself.

"If only I hadn't been hurt," I mused, "I could be doing something instead of lying here as a patient, requiring the attention of my comrades. Wounded and helpless. What a plight, when all about me there is so much to do!"

Fortunately, my dismal thoughts were interrupted. Who should make an appearance but Dr. Hanaoka, our internist, whom Mr. Katsutani had just told us was last seen at Hatsukaichi.

"Dr. Hachiya, you don't know how happy I am to see you!" exclaimed Dr. Hanaoka. "After seeing what has happened to Hiroshima, it's a miracle anyone survived."

"We have been worrying about you, Dr. Hanaoka," I replied, "because Mr. Katsutani told us only a few minutes ago that he saw you disappear in the direction of Hiroshima while he was at the Koi station yesterday. Where have you been, and how did you get here?"

"Now that I'm here, I wonder myself," said Dr. Hanaoka. "Let me tell you, if I can, what happened. Somebody told me that a special, new bomb was dropped near the Gokoku Shrine. If what I was told is true, then that bomb must have had terrific power, for from the Gokoku Shrine clean out to the Red Cross Hospital everything is completely destroyed. The Red Cross Hospital, though badly damaged, was spared, and beyond, going towards Ujina the damage is slight."

"I stopped by the Red Cross Hospital on my way here. It is swamped with patients, and outside the dead and dying are lined up on either side of the street as far east as the Miyuki Bridge.

"Between the Red Cross Hospital and the center of the city I saw nothing that wasn't burned to a crisp. Streetcars were standing at Kawaya-cho and Kamiya-cho and inside were dozens of bodies, blackened beyond recognition. I saw fire reservoirs filled to the brim with dead people who looked as though they had been boiled alive. In one reservoir I saw a man, horribly burned, crouching beside another man who was dead. He was drinking blood-stained water out of the reservoir. Even if I had tried to stop him, it wouldn't have done any good; he was completely out of his head. In one reservoir there were so many dead people there wasn't enough room for them to fall over. They must have died sitting in the water.

"Even the swimming pool at the Prefectural First Middle School is filled with dead people. They must have suffocated while they sat in the water trying to escape the fire because they didn't appear to be burned."

Dr. Hanaoka cleared his throat, and after a moment continued:

"Dr. Hachiya, that pool wasn't big enough to accommodate everybody who tried to get in it. You could tell that by looking around the sides. I don't know how many were caught by death with their heads hanging over the edge. In one pool I saw some people who were still alive, sitting in the water with dead all around them. They were too weak to get out. People were trying to help them, but I am sure they must have died. I apologize for telling you these things, but they are true. I don't see how anyone got out alive."

Dr. Hanaoka paused, and I could see he was anxious to get to work. With what there was to do, it would have been criminal to detain him.

Gradually, what these visitors were telling me began to fit into a pattern. A few comments from this one, a few remarks from another, were beginning to give me a picture of what Hiroshima was like.

Dr. Hanaoka had barely left when Dr. Akiyama, head of obstetrics and gynecology, came in. He was unhurt but looked tired and worn.



"Sit down and rest a few minutes," I said. "You must have been through a great deal. Where were you when the bombing occurred?"

"I was just leaving my home when it went off," said Dr. Akiyama in a tremulous voice. "A blinding flash, a tremendous explosion, and over I went on my back. And then a big black cloud, such as you see in the summer before a storm, began to rise above Hiroshima. '*Yarareta*,' I shouted; and that was it. What a hodgepodge was made of my house. The ceilings, the walls, the sliding doors--everything--ruined beyond repair.

"Almost at once, injured people began to line up before my gate, and from then until a little while ago, I stayed and treated them. But my supplies are all gone, and there is nothing left to treat them with. Twenty or thirty people are still lying in the house and there is nobody to take care of them. There is nothing anybody can do, unless I find some more supplies."

Dr. Akiyama, ordinarily easy-going and happy, had the look of a man distraught. Dr. Koyama came in while Dr. Akiyama was talking and so heard most of what he had been saying.

"Knowing you, I can imagine what you have gone through," said Dr. Koyama.

"I don't know," sighed Dr. Akiyama. "Today it's the same as it was yesterday. There is no end to that stream of miserable souls who stop at my house to ask for help. They are trying to reach Kabe, but they will never get there. And there is nothing I can do; nothing anybody can do."

Since Dr. Akiyama's home was in Nagatsuka, I got a general idea of what that suburb was like. The problem there was the same as in the Koi area. I could picture in my mind the wounded people walking in silence, like lost spirits, and answering, when questioned, that they had come "this way" and were going "that way." I could see them begging for water, hear their moaning, and see them dying. I might have been there myself, so vividly had my friends recounted to me what they had seen.

It was reported that none of the patients had any appetite and that one by one they were beginning to vomit and have diarrhea. Did the new weapon I had heard about throw off a poison gas or perhaps some deadly germ? I asked Dr. Hanaoka to confirm if he could the report of vomiting and diarrhea and to find out if any of the patients looked as if they might have an infectious disease. He inquired and brought word that there were many who not only had diarrhea but bloody stools and that some had had as many as forty to fifty stools during the previous night. This convinced me that we were dealing with bacillary dysentery and had no choice but to isolate those who were infected.

Dr. Koyama, as deputy director, was given the responsibility of setting up an isolation ward. He chose a site on the grounds beyond the south side of the hospital, and with the help of some soldiers who happened along he managed to construct what amounted to a crude outdoor pavillion. What we were trying to do probably was not worth much, but it helped our morale to think we were doing something.

Dr. Katsube and his staff had an impossible task. There was scarcely a patient who was not in need of urgent surgical care. The doctors and nurses were all busy helping him. Even the clerical staff and janitors, and those among the patients who could so much as get about, were organized and instructed to help. If progress was made, it was hard to see. How Dr. Katsube did what he did was a miracle.

The corridors were cleared enough to be passable, but in a little while they were as crowded as before. One difficulty was the influx of people looking for friends and relatives.

Parents, half crazy with grief, searched for their children. Husbands looked for their wives, and children for their parents. One poor woman, insane with anxiety, walked aimlessly here and there through the hospital calling her child's name. It was dreadfully upsetting to patients, but no one had

the heart to stop her. Another woman stood at the entrance, shouting mournfully for someone she thought was inside. She, too, upset us.

Not a few came in from the country to look for friends or relatives. They would wander among the patients and peer rudely into every face, until finally their behavior became so intolerable that we had to refuse them entrance to the hospital.

A new noise reached us from outside. On inquiry, I was told that Dr. Koyama had procured a company of soldiers to clean out the fire-damaged Communications Bureau, so that it could be put in use again as an annex to the hospital.

The pharmacy came to life. Our meager supply of drugs was sorted and prepared for use under the watchful supervision of Dr. Hinoi and Mr. Mizoguchi.

A little order was appearing; something positive was being done. Perhaps in time we could get control of the situation.

Mr. Sera, the business manager, reported. He told me that sixteen patients had died during the night and that he had shrouded their bodies in white blankets and deposited them at the side entrance to the hospital.

"Can we spare those blankets at a time like this?" I thought to myself.

I was reluctant to object openly to what Mr. Sera had done because his action had been prompted by his sense of propriety and respect for the dead. When I discovered, however, that the army detail, dispatched to remove the dead, had thrown the bodies, blankets and all, onto the platform of a truck without any ceremony whatsoever, I seized on this indignity to suggest that our blankets be saved. The living needed the blankets more than the dead.

Patients continued to come from all directions, and since we were not far removed from the center of the explosion, those who came were in a critical condition.

Their behavior was remarkable. Even though the ones in the hospital fared little better than those on the outside, they were grateful for a pallet in the most crowded ward. It seemed to satisfy them if they could get so much as a glimpse of a whiterobed doctor or nurse. A kind word was enough to set them crying. For the most trivial service they would clasp their hands and pray for you. All were sufferers together and were confident that the doctors and nurses would do their best for them. Later, word came that this hospital was considered a good place to be in. The remark pleased us, but we were never able to feel that we had done as much as we should.

Earlier in the day Mr. Imachi and those who worked with him in the kitchen managed to prepare some rice gruel which they brought in by the bucketful and dished out with big wooden spoons. For me, this simple gruel made the one bright spot in the day. It was served again that afternoon, and the mouthful I had, and the grain of rice that remained on my tongue, made me feel that I was going to get well. But there were many who were too weak or too sick to eat. In time, the weakness of hunger added to their misery.

Night approached and still the only beds were straw mats laid over the concrete floor. Wounds were becoming more painful, and there were not enough drugs to make them easy. Fevers rose and the patients became thirsty, but there was no one to bring cool water to quench the thirst.

Dr. Harada, one of our pharmacists, was brought into the hospital severely burned, and right after him, old Mrs. Saeki's son in the same condition. Miss Hinada, one of our nurses, had to be confined because of a severe diarrhea that had begun earlier in the day. Since there was no one to nurse her, her mother, despite being seriously burned, was trying to do the job.

Mr. Mizoguchi came in: "Dr. Hachiya, I must tell you that Miss Hinada and her mother have become worse. It doesn't look like either of them will live through the night, and old Mrs. Saeki's son is losing consciousness."

All day I had listened to visitors telling me about the destruction of Hiroshima and the scenes of horror they had witnessed. I had seen my friends wounded, their families separated, their homes destroyed. I was aware of the problems our staff had to face, and I knew how bravely they struggled against superhuman odds. I knew what the patients had to endure and the trust they put in the doctors and nurses, who, could they know the truth, were as helpless as themselves.

By degrees my capacity to comprehend the magnitude of their sorrow, to share with them the pain, frustration, and horror became so dulled that I found myself accepting whatever was told me with equanimity and a detachment I would have never believed possible.

In two days I had become at home in this environment of chaos and despair.

I felt lonely, but it was an animal loneliness. I became part of the darkness of the night. There were no radios, no electric lights, not even a candle. The only light that came to me was reflected in flickering shadows made by the burning city. The only sounds were the groans and sobs of the patients. Now and then a patient in delirium would call for his mother, or the voice of one in pain would breathe out the word *eraiyo*--"the pain is unbearable; I cannot endure it!"

What kind of a bomb was it that had destroyed Hiroshima? What had my visitors told me earlier? Whatever it was, it did not make sense.

There could not have been more than a few planes. Even *my* memory would agree to that. Before the air-raid alarm there was the metallic sound of one plane and no more. Otherwise why did the alarm stop? Why was there no further alarm during the five or six minutes before the explosion occurred?

Reason as I would, I could not make the ends meet when I considered the destruction that followed. Perhaps it was a new weapon! More than one of my visitors spoke vaguely of a "new bomb," a "secret weapon," a "special bomb," and someone even said that the bomb was suspended from two parachutes when it burst! Whatever it was, it was beyond my comprehension. Damage of this order could have no explanation! All we had were stories no more substantial than the clouds from which we had reached to snatch them.

One thing was certain-- Hiroshima was destroyed; and with it the army that had been quartered in Hiroshima. Gone were headquarters, gone the command post of the Second General Army and the Military School for young people, the General Headquarters for the Western Command, the Corps of Engineers, and the Army Hospital. Gone was the hope of Japan! The war was lost! No more help would come from the gods!

American forces would soon be landing; and when they landed, there would be streetfighting; and our hospital would become a place of attack and defense. Had I not heard earlier that soldiers were coming to set up headquarters in the Communications Bureau? Would we be turned out? Were there no answers?

Dr. Sasada, Miss Kado, and my wife were asleep. That was good, but there was no sleep for me.

I heard footsteps, and a man appeared at the door, outlined in the flickering darkness. His elbows were out and his hands down, like the burned people I had seen on my way to the hospital. As he came nearer, I could see his face--or what had been his face because this face had been melted away by the fire. The man was blind and had lost his way.

"You are in the wrong room!" I shouted, suddenly stricken with terror.

The poor fellow turned and shuffled back into the night. I was ashamed for having behaved as I did, but I was frightened. Now more awake than ever, every nerve taut, I could find no sleep.

To the east there was a perceptible lightening of the sky.

My shouting must have wakened my wife because she got up and left the room, I suppose to find the toilet. Before long she was back.

"What is the matter, Yaeko-san?" I asked, sensing she was upset.

"*O-tōsan*, the hall was so full of patients that I could find nowhere to walk without disturbing someone," she answered, trying to suppress her agitation. "I had to excuse myself every step I took. Oh! it was terrible. Finally, I stepped on somebody's foot, and when I asked to be excused, there was no answer. I looked down; and do you know what I had done?"

"What?" I asked.

"I had stepped on a dead man's foot," she said and with a shudder moved nearer.

## 8 August 1945

THE DAY began hot and clear. The sun was hardly up before my body was moist with oily sweat that dripped from my armpits and the inner sides of my thighs.

Smoke no longer rose from the second floor.

Dr. Sasada's face was more swollen this morning than yesterday, and blood-stained pus oozed from his bandaged arms and hands. I felt a wave of pity when I thought how he had used those hands to help me two days ago.

A noise outside the window caused me to recall a patient I neglected to mention yesterday. From time to time during the night I had heard him walking about, and this morning, he was walking again. You could hear him especially well when he stumbled into the fence or against the building.

"Has he been fed?" I asked Miss Kado.

"Don't worry, Doctor," replied Miss Kado. "There are plenty of potato leaves in the garden, so I don't think he'll be hungry."

The patient we were talking about was a horse who had been burned and blinded by the fire. Whoever saw him first did not have the heart to turn him away, so he was put in the garden under our window.

This garden had been a tennis court, but some time ago I thought it could be better used as a garden and I planted it in potatoes. My try at gardening caused no little amusement, and my potatoes came to be a joke.

"Miss Kado," I asked, "don't you think we had better dig up the potatoes? They must be quite big by now."

My companions laughed, and for a moment misery was forgotten.

My left ankle began to hurt. Looking down, I discovered that it had become wet and sticky through the bandage. Miss Kado saw my concern and offered to change the dressing, and when she finished, the

ankle felt better. While she was changing the dressing though, I noticed a big blister on my left knee. This was a surprise because I could not recollect having received any burns. Later I remembered the hot ember that struck my leg while I was lying in the garden behind the Communications Bureau.

My appetite was better this morning and I seemed to be stronger. Even my spirits were improved, and the dark thoughts that beset me during the night were less oppressive.

Dr. Katsube came early. Instead of greeting him with a good morning, I asked him point-blank when I could get up. He told me again that it would be at least a week before he could remove the stitches and that I was to say no more about getting up until then.

"You are too impatient," he said. "You should be thankful that you are going to live."

That I might die had never crossed my mind, but now that Dr. Katsube had spoken so bluntly, I realized that I must have been hurt worse than I thought.

"Was I that bad off?" I asked, trying to appear nonchalant.

"We were all worried about you," Dr. Katsube stated. "Perhaps you don't realize how much blood you lost. Why, you remained comatose for the better part of the night! Your wife, Miss Kado, and Dr. Sasada, as well as Dr. Koyama and I, were, one or the other of us, at your side all night."

"No wonder I remember so little of what happened that night," I replied, trying to pass off his comments lightly.

I should have been content to rest. Dr. Koyama was certainly doing a good job of running the hospital, and I was in touch with things. Not only did he keep me informed, but he referred matters to me for opinion where he might have acted without doing me that courtesy.

A note, for example, came from Dr. Chodo, one of our dentists, which stated that he and his family were hiding in the hills behind Ushita. His family was unhurt, but he had been badly burned and asked if someone could bring him to the hospital. I sent for him, in spite of our critical shortage at the hospital.

Another report informed us that the Welfare Department of the Communications Bureau had between two hundred and three hundred sleeping mats or *tatami* which could be procured for use in the hospital. Since these mats were roughly three by six feet in dimensions, the question arose, since we were so crowded, how we could get them under the patients. Mr. Sera and I felt that, crowded or not, the sleeping mats must be used, even if it meant clearing all the corridors.

A rumor that Mr. Yoshida, chief of the Communications Bureau, had been killed proved to be true. His charred body, identified by a belt buckle, was found near the hospital, and his remains were cremated in front of the Communications Bureau. In his death we lost a kind and loyal friend. Another prominent person to be killed was Mayor Otsuka.

I was startled to learn that I had been reported killed. The news was brought by two old friends, Mr. and Mrs. Nagao of Nishihara, who came looking for Yaeko-san and me this morning. We were happy to disprove the report of my death.

During the day, an effort was made to sort and rearrange the patients according to the nature and severity of their injuries, and not a few dead were found among the living, though fewer than yesterday. It irritated me when I heard the report, for I felt that the dead should be moved with greater dispatch in order to make room for the living. This is another example of my changed outlook. People were dying so fast that I had begun to accept death as a matter of course and ceased to

respect its awfulness. I considered a family lucky if it had not lost more than two of its members. How could I hold my head up among the citizens of Hiroshima with thoughts like that in my mind?

Soldiers began to work again in the Communications Bureau. Dr. Koyama and I discussed the feasibility of getting them to help clear one of the floors for the patients quartered in the toilets and corridors. While we were talking, Dr. Hanaoka informed us that bloody diarrhea was increasing and that some had had as many as sixty stools since daybreak.

For the moment, a hospital annex in the Communications Bureau seemed less urgently needed than an enlarged isolation ward, so the soldiers were asked to help with the latter.

The problem of how to reutilize the hospital came up for discussion because the fire-damaged second story had cooled down enough to be used. Before the fire there had been fourteen rooms above us, but since all the partitions were now destroyed, nothing remained but one single large room.

The question as to who among the patients should be moved upstairs provoked lively debate since it seemed at the time that the burned out second floor was far less desirable than the first, despite the crowding. It was finally decided that we, as staff members, should be the first to go up and leave the more desirable ground floor for patients from the outside.

I was moved first, and when my stretcher cleared the landing, my inquiring eyes fixed on the stark and twisted remains of thirtyodd iron bed frames, under each of which lay a white ash residue of the straw mattresses that had once covered them. There was not a sound bedframe on the floor, but after the two days spent lying on the concrete floor, the very sight of these beds was magnificent. Yaeko-san and I found beds near each other that were not too badly bent. Our sleeping mats were placed over the frames, and without further ado we were ready to resume life in our new quarters.

Dr. Sasada, Miss Susukida, and Miss Omoto joined us, and one by one other members of the staff were brought up until the big room became alive with people. One might have complained about the soot and ashes or about the pipes and curtain rods that hung crazily from the ceiling, but patients never lived in a hospital ward so nearly free of bacteria as this one that was sterilized by fire.

In all four walls were large casement windows which afforded a commanding view in every direction. There were no shutters, no curtains, nor even glass to impose the least obstruction to air or light. Looking east, south, and west, was an unobstructed view of Hiroshima and in Hiroshima Bay we could see the island Ninoshima.

Near the center of the city, some fifteen hundred meters distant, one could see the blackened ruins of the two largest buildings in Hiroshima, the Fukuya Department Store and the Chūgoku Press Building. Hijiyama, the sacred and beautiful little mountain in the eastern sector of the city, looked almost close enough to touch. To our north no buildings remained.

For the first time, I could understand what my friends had meant when they said Hiroshima was destroyed. Nothing remained except a few buildings of reinforced concrete, two of which I have just mentioned. For acres and acres the city was like a desert except for scattered piles of brick and roof tile. I had to revise my meaning of the word destruction or choose some other word to describe what I saw. Devastation may be a better word, but really, I know of no word or words to describe the view from my twisted iron bed in the fire-gutted ward of the Communications Hospital.

I could see the soldiers working on our isolation ward. One took the lead in a work song and the others answered in chorus, verse for verse. In no time a ten *tsubo* addition to the ward was completed. Behind this they constructed an outdoor toilet with partitions of straw mats. From where I lay the mats provided no concealment.

A gentle breeze blew through the windows, bringing relief to our fevered bodies. Gone were the confusion and disorder we had known downstairs. The abundant light from wide open windows and

the distant vistas did something to our spirits. The very simplicity of our surroundings, contrasted with the chaos below, had a soothing effect.

We thought we had left the better part of the hospital for the patients downstairs, but now that we had moved in all agreed that ours were the better quarters. I resolved to have this room made available to the others as soon as possible.

Towards evening, a light southerly wind blowing across the city wafted to us an odor suggestive of burning sardines. I wondered what could cause such a smell until somebody, noticing it too, informed me that sanitation teams were cremating the remains of people who had been killed. Looking out, I could discern numerous fires scattered about the city. Previously I had assumed the fires were caused by burning rubble. Towards Nigitsu was an especially large fire where the dead were being burned by hundreds. To suddenly realize that these fires were funeral pyres made me shudder, and I became a little nauseated.

Concrete buildings near the center of the city, still afire on the inside, made eerie silhouettes against the night sky. These glowing ruins and the blazing funeral pyres set me to wondering if Pompeii had not looked like this during its last days. But I think there were not so many dead in Pompeii as there were in Hiroshima.

For nearly three days the hospital staff had been laboring with scarcely a break, so tonight in order to give them a little respite, a space was cleared in our upstairs ward and alternate shifts were ordered to rest.

Dr. Koyama stopped to talk a few minutes before lying down and told me some of the things that had happened during the day.

In the morning a group of soldiers had come to the entrance, demanding bandages for the Second General Army, and despite the staff's assertion that our materials were low, made away

with nearly all we had. These men behaved more like brigands than soldiers. Moreover, what they did was contrary to what we had been told to expect because the army had repeatedly promised to supply us with emergency goods in case of attack. These soldiers could not have come from the army that had been stationed in Hiroshima. There were not enough soldiers left in that group to help with the wounded soldiers brought to the hospital. The army was unable to provide for the wounded family of the local commandant whom we had made room for in one of the toilets. When the commandant's adjutant found them, he could find no better place to take them and was grateful when we managed to squeeze them into the janitor's office. The soldiers who got our supplies must have come from somewhere else.

We had further cause to worry. Dr. Koyama told me that soldiers from somewhere had been around all day cleaning out the Communications Bureau, and that rumors were current that an army headquarters was to be set up to direct a defense of Hiroshima in case of invasion. We both agreed that if an army should move in, our hospital would become a target for more bombing, and next time we would all be killed.

After Dr. Koyama left I continued to think along these lines, became upset, and could not sleep. I could hear every little sigh during the night, every plea for water, every groan. One of the dysentery patients who had been transferred to the isolation ward went to the back of the Bureau to get a drink of water. I heard a rude man scold him and tell him to go away lest he pass his dysentery on to him.

One voice called repeatedly for water, and as the night wore on the voice became weaker. I asked a nurse who the patient was, and she told me that he was a young officer who appeared to be from a decent family because every time she gave him a drink of water he thanked her politely.

Mention of the young officer called to mind a visit Yaeko-san and I had had on the second of August. A cousin, Captain Urabe, and his wife spent the day with us. Captain Urabe had been recruited as an army doctor shortly after he graduated from medical school, and when I saw him he had been eating army food for six or seven years in northern and central China. To me he appeared well-disciplined and courageous.

I was pessimistic about the outcome of the war and told him so. I confided that I thought we were going to lose because everything was becoming scarce, and the soldiers were no longer disciplined. I said that I was afraid Hiroshima was going to be bombed and that if it were the anti-aircraft guns would be useless. Our defenses had been prepared for incendiary bombing, and I considered it nonsensical to think the enemy would use incendiary bombs on a city with as many rivers and vacant lots as there were in Hiroshima.

To this my cousin listened calmly, and then replied: "*Niisan*, don't you worry for a minute. The chief of staff has said that no matter how much the nation criticizes the army, the army will reply with victory!"

As I lay there in the dark, I mumbled to myself, "Reply with victory." Where was my cousin now? If I could find him, he might be able to get us the medical supplies we needed. Captain Urabe must be busy, otherwise he would have come to see me before now.

## 11 August 1945

This was unbelievable! We now had enemies in front of and behind us. Assuredly there was no hope. I felt as if a great weight were crushing my chest.

Later in the day news came that a mysterious new weapon had been used to bomb Nagasaki with the same result as in Hiroshima. It, too, had produced a bright flash and a loud sound.

*Pikadon* was accepted as a new word in our vocabulary, although some, like old Mrs. Saeki, who had been in the city at the time of the bombing, continued to say simply *pika*. Those who had been outside the city insisted on saying *pikadon*. The latter finally won out.

Following the news that Nagasaki had been bombed, a man came in from Fuchu with the incredible story that Japan had the same mysterious weapon, but until now, had kept it a strict secret and had not used it because it was judged too horrible even to mention. This man went on to say that a special attack squad from the navy had now used the bomb on the mainland of America and that his news had come from no less a source than General Headquarters. The blow had been dealt by a squadron of sixengined, trans-Pacific bombers, two of which failed to return. Those bombers were assumed to have dived right into their targets to make certain of success.

If San Francisco, San Diego, and Los Angeles had been hit like Hiroshima, what chaos there must be in those cities!

At last Japan was retaliating!

The whole atmosphere in the ward changed, and for the first time since Hiroshima was bombed, everyone became cheerful and bright. Those who had been hurt the most were the happiest. Jokes were made, and some began singing the victory song. Prayers were said for the soldiers. Everyone was now convinced that the tide of war had turned.



## 13 August 1945

ANOTHER HOT, sunny day.

After breakfast I borrowed a bicycle and pedalled to the Prefectural Office. The experience was altogether different from the one I shared with Dr. Hinoi because I was stronger and my wounds no longer hurt so much. To feel well enough again to go about unassisted was a pleasant experience. The electric wires, the power lines, all the other obstructions of day before yesterday, were still present but no longer seemed insurmountable.

I examined a gutted streetcar and discovered with surprise how simple the motor was. Curiosity deserted me though when my eyes fastened on the remains of a blackened body slumped in a corner. Such an unexpected encounter with grim death in broad daylight startled me so that I did not regain my composure until I had put a considerable distance between me and the streetcar.

Since the bomb was said to have exploded near the *torii* of the Gokoku Shrine, I pedalled in that direction and was surprised to find the *torii* still standing. Even the medallion in its center remained, but everything else in the area was either destroyed or badly damaged.

The Aoi Bridge, whose structural steel arches spanned a wide branch of the Ōta River, was so buckled and sprung that its reinforced concrete surface had been thrown into waves; it was so cracked and shattered that gaping holes exposed the river below. It was a pitiful sight to see how this beautiful bridge had been destroyed.

Below the bridge, on the east bank of the river, had stood the bronze-domed Museum of Science and Industry. This building, symbolic of the poetic name of Hiroshima --*Mizu no Miyako* (The City or Metropolis of Water)--had been the most beloved structure in Hiroshima. Its bronze dome was gone, its sturdy walls of brick and stone cracked and crumbled, and its interior devoured by fire. For some time, I studied these ruins and they became the symbol and epitome of a destroyed city and its people.

Backtracking, I followed the streetcar line until I reached the Prefectural Office. My reason for going here this morning was to obtain news, so both ears were cocked and ready when I reached my destination.

The staff had increased since day before yesterday, and among the newcomers were many familiar faces. After an exchange of amenities, I asked if I could see Dr. Kitajima and was promptly directed to his office.

After thanking him for his prompt compliance with our request for more doctors and nurses, I started to ask if we could have some more supplies when I saw he was upset.

"Is something the matter?" I asked, fearful that the news I had been so anxious to get might not be welcome news.

"You've no doubt heard that an 'atom bomb' was dropped on Hiroshima?" Dr. Kitajima answered. "Well, I've learned that no one will be able to live in Hiroshima for the next seventy-five years."

"One of our nurses died suddenly, yesterday," I answered, as if to confirm the ominous import of his words.

After I had spoken, I was annoyed at having given credence to what my mind recognized only as an ugly rumor. Yesterday I determined, after my talk with Dr. Fujihara, that I would think

and act calmly whatever the news, and here I was, the next day, jumping to conclusions without knowing facts.

"What about the war in Manchuria?" I asked, trying to change the subject.

"Things aren't going well," replied Dr. Kitajima. "The enemy is already in Korea."

I left the Prefectural Office depressed and lonely and, nourishing a renewed doubt, returned to the hospital to hide my grief and despair.

What should I do about the patients? What about my staff and their families? Should I tell them to flee because I was overburdened with responsibility? After thinking for some time, I concluded that no problem could be settled by flight.

Think how many days have already passed since the *pika*, I said to myself. More than a week, and none but the one nurse on our staff is dead yet. My own wounds are healing, and I feel stronger every day. How preposterous to believe that Hiroshima will be uninhabitable for seventy-five years! Such a statement cannot be true. It is an enemy stratagem aimed to deprave a people already demoralized. To believe such a thing is sheer nonsense because here I am, improving day by day, despite having been so near the center of the *pika*. Mumbling and talking, I gradually reconquered my spirits.

Nothing is so unstable as a man's mind, especially when it is fatigued. Regardless of the direction one's thoughts take, the mind is ever active, ever moving, at times slowly, at times with lightning rapidity. My mind was a confusion of strength and weakness, sometimes fused, sometimes separated.

"If you must die, die like a man," I would tell myself. Then, I would look myself over and find no part that appeared to be dead.

"So far, so good. You are still alive, so lie down and rest your mind," my stronger nature would argue. If the stronger won, I would become calm until weakness reared its head again.

Someone with a long beard was standing near the door looking around the room. His eyes finally rested on me, and he approached the bed. For a moment this stranger stared with a wry face, and then, closing his eyes, began to mumble in his beard. It was Mr. Kajitani, the postmaster of a small post office in Yamagata County, whom I had visited years ago when he was critically ill. I could not understand him but guessed he was inquiring about my health. When it dawned on me that this kind, warmhearted, sympathetic man had come all the way from his home in Yamagata County to see me, something welled up in my heart.

Conversation was difficult for Mr. Kajitani, and the harder he tried to express his wish to help, the more confused and embarrassed he became. Finally, he thrust his bentō into my hand and despite my protests, insisted that I eat it all. A simple lunch never tasted so good. It was a *hinomaru bentō*, made of cooked rice balls filled with red-coloured, sour plums.

Dr. Horie, from the San-in District northwest of Hiroshima, paid me a visit today and was as surprised as others had been to find how much greater the damage had been than he had been led to believe.

When Dr. Horie left, I went downstairs and found the patients discussing the rumors I had heard at the Prefectural Office, but no one seemed very excited.

"What nonsense!" someone said, "to be told that Hiroshima will be uninhabitable for the next seventy-five years."

Dr. Chodo, the dentist, was worse. He was not able to recognize me, so my feeble words of encouragement made no impression.

I was told that Mrs. Yoshida, who occupied a room on the third floor of the Bureau, had taken a turn for the worse. Using a cane, for I was still quite weak, I went up to her room. Old Mr. Ushio, head of General Affairs, introduced us, and I learned that she had been injured at her home in the small southeast suburb of Komachi. She had sustained multiple glass wounds to both arms, but no burns. None of her wounds measured longer than five centimeters, and they appeared to be healing. Notwithstanding, she was extremely pale and her face had a mottled, cyanotic, unhealthy appearance. In addition, she had a weak pulse, pain on swallowing, and a persistent, non-bloody diarrhea. Except for slight inflammation, I could detect nothing unusual in her throat or mouth. I was at a loss to understand her condition and answered Mr. Ushio evasively when he asked my opinion.

"There isn't much to worry about now, and her condition isn't bad. But be on the lookout!" I said, more like a fortune teller than a doctor who should know what he is doing. What else could I say?

After I left the room it occurred to me that Mr. Ushio looked sicker than Mrs. Yoshida, and I wondered who would die first. He had certainly aged during the last ten days.

Near the entrance to the Bureau I met an old friend, Mr. Kobata, who despite his age, had been searching for his brother ever since the *pika*. He had an astonishing reserve of energy. We chatted for a while and he related some of his experiences in the city. One story remains vivid in my mind.

"I ran into four middle-school students near the hypocenter in Tenjim-machi who were badly burned," recounted Mr. Kobata. "Desperately ill and forlorn, they sat in a small circle beside the road, and I stopped to ask one where his home was. He replied that this was his home and asked that if I should encounter his mother or sister would I tell them not to waste time looking for him or his companions because they were all going to die. The others nodded in agreement. The lot of these boys was all the more tragic because nothing *could* be done for them, and so there they sat under the hot sun in dust and rubble. Tears came to my eyes.

"One boy asked if I would make some shade for them, and by borrowing a few straw mats and sheets of galvanized iron from some soldiers, I made them a shelter. I asked another boy where his home was, but he was too weak to say anything but 'ya' so I couldn't discover whether he was from Yano, Yagi, or Yaga.

"Some tomatoes I had for my lunch I cut into halves and squeezed the juice into the boys' mouths. They could hardly swallow but all mumbled '*oishii!*'--'delicious!'

"One boy begged for water and as I had no container with me I told him I would try to get some in my hat. This I did, and finally left with the promise I would try to find a first-aid squad to come to their assistance. I had a few pieces of Jintan, and this I divided among them.

"I couldn't find a first-aid squad, search as I might, so all night the thought of those poor boys was on my mind. When I left home the next morning I took some things I thought might add to their comfort, and searched until I found them. I found them all right, but they were dead, huddled in the same small circle I had left them in the night before."

Mr. Kobata had many such stories to tell.

On returning to my bed I found the General Chief of the Western Bureau had come to visit for the second time since I was hurt. He complimented my trim whiskers and remarked that I looked better. He tried to be cheerful and optimistic about the war, but before he left he confessed that Japan's only chance of winning was with thousands of planes and atom bombs. No comment was required. I asked if he could get some medical supplies for us from the Western Army and he promised to do what he could.

During the early evening, most of the talk centered on opinions as to why Hiroshima should not be habitable for seventy-five years. This rumor was given emphasis and a note of credence by the fact that many people who appeared to be healthy and had escaped uninjured were beginning to die with symptoms of vaginal bleeding, nose bleed, bloody sputum, bloody vomitus, and hemorrhages beneath the skin and in the tissues. The most popular explanation was still that some poison gas had been liberated and was still rising from the ruins. My conjecture that deaths were due to the effects of a germ bomb causing dysentery I had to discard because diarrhea and bloody stools were decreasing. I was forced to fall back on my earlier thesis that the dead and injured had suffered the devastating effects of a sudden change in atmospheric pressure incident to the tremendous blast and intense heat.

There was not a breath of air stirring and my tatami was hot and uncomfortable. Like everyone else I was sweating. My head was itchy and my ears felt flushed and hot. Perhaps I had done too much thinking.

"*Atsui ne!*" I sighed. "It is really hot."

"Isn't it?" replied Dr. Sasada, turning towards me.

Mr. Shiota, who lay nearby, voiced his agreement. He had managed to procure some *shōji* which arranged around his bed afforded a degree of privacy as well as protection from the slanting rays of the setting sun.

"Shiota-san, are you all right now?" I queried.

"Thank you, I'm much better," he replied.

"What are you doing behind that old, torn *shōji*?" I asked.

"Doctor, you are incurable!" he answered, laughing.

Somebody giggled behind the screen. It was Mr. Shiota's wife.

From the kitchen down the corridor I heard laughing voices, and going to investigate, found old Mrs. Saeki and Mr. Mizoguchi. I joined them and we sat talking until late in the night.

## 15 August 1945

THIS WAS the day for the broadcast.

Despite my resolve to avoid speculation or conjecture I succumbed to a personal debate and finally concluded that the broadcast would announce an enemy invasion on our shores. General headquarters would order us to fight to the bitter end. What a hopeless situation.

I could escape to the hills, but what route should I take? To follow the Sanyō Line would be dangerous. The safest bet would be to follow the Hamada or Geibi Line into the Chūgoku Mountains. I had friends in many of the little mountain towns: Miyoshi, Shobara, Seijo, Tojo, Uji, Yoshii. It would be best, perhaps, to go to Uji where my son had been evacuated or to Yoshii where my mother was living, but what difference did it make? More than once I had heard Dr. Akiyama, my old friend who participated in the Shansii operation, say that the side which escaped to the mountains lost the war.

The army had been losing the war since April. Many soldiers had no guns and morale was bad. Only children and old people were permitted to leave the cities, and among those who remained all under forty were assigned to the civil defense corps. In case of emergency we would all be drafted. Our

comments and actions were watched by the military police and during recent months their domination had become more and more oppressive. In areas designated as fire lanes or escape channels the houses had been ruthlessly destroyed.

Everything had gone wrong, and now, an enemy was to land in Japan. The mere thought made me feel sick.

Hiroshima was destroyed, and here we were working our hearts out to sustain life in the ruins. We had no army barracks and no army. The army had escaped and deserted us. Even the few soldiers left to police the area deserted their posts every time an air-raid alarm sounded. Many hid behind the hospital.

Even before the *pika*, the arsenal and most of the barracks were empty. As early as April the officers' families had been evacuated, but after April civilian evacuation was prohibited. My petition was certainly denied.

Whether or not the army had barracks and fortifications built in the mountains, one thing was certain; we were deserted and undefended. Things I should not think about kept crowding into my mind.

Word came to assemble in the office of the Communications Bureau. A radio had been set up and when I arrived the room was already crowded. I leaned against the entrance and waited. In a few minutes, the radio began to hum and crackle with noisy static. One could hear an indistinct voice which only now and then came through clearly. I caught only one phrase which sounded something like, "Bear the unbearable." The static ceased and the broadcast was at an end.

Chief Okamoto, who had been standing by the radio, turned to us and said: "The broadcast was in the Emperor's own voice, and he has just said that we've lost the war. Until further notice, I want you to go about your duties."

I had been prepared for the broadcast to tell us to dig in and fight to the end, but this unexpected message left me stunned. It had been the Emperor's voice and he had read the Imperial Proclamation of Surrender! My psychic apparatus stopped working, and my tear glands stopped, too. Like others in the room, I had come to attention at the mention of the Emperor's voice, and for a while we all remained silent and at attention. Darkness clouded my eyes, my teeth chattered, and I felt cold sweat running down my back.

After a bit, I went quietly back to the hospital and got into my bed. Over and over the words "a lost battle!" rang in my ears.

The ward was quiet and silence reigned for a long time. Finally, the silence was broken by the sound of weeping. I looked around. There was no look of gallantry here, but rather, the faces of all showed expressions of despair and desperation.

By degrees people began to whisper and then to talk in low voices until, out of the blue sky, someone shouted: "How can we lose the war!"

Following this outburst, expressions of anger were unleashed.

"Only a coward would back out now!"

"There is a limit to deceiving us!"

"I would rather die than be defeated!"

"What have we been suffering for?"

"Those who died can't go to heaven in peace now!"

The hospital suddenly turned into an uproar, and there was nothing one could do. Many who had been strong advocates of peace and others who had lost their taste for war following the *pika* were now shouting for the war to continue. Now that surrender was an accomplished fact, irrefutable and final, there was no soothing the people who had heard the news. With everything lost and no fear of losing more they became desperate. I began to feel the same way--fight to the bloody end and die. Why try to live with a scarred body? Would it not be better to die for one's country and crown life with perfection rather than live in shame and disgrace?

The one word-surrender-had produced a greater shock than the bombing of our city. The more I thought, the more wretched and miserable I became.

But the order to surrender was the Emperor's order and to this we could not object. His injunction to bear the unbearable could mean but one thing. As a nation we must be patient. I repeated his words again and again to myself, but no matter how hard I tried, I could not rid my mind of despair. Finally, I found myself thinking of something else.

When war was declared four years ago, no one was unhappy about the consequences, but no one then had thought of this day. Why had the Emperor not been requested to speak then? He was not requested because Tojo was the only actor on the stage and did what he pleased. I can still hear his high-pitched voice ringing in my ears.

To myself, I began denouncing the army: "What do you fellows think about the Emperor? You started the war at your pleasure. When the outlook was good, you behaved with importance; but when you began to lose, you tried to conceal your losses, and when you could move no more, you turned to the Emperor! Can you people call yourselves soldiers? You have no choice but to commit *harakiri* and die!"

As if echoing my thoughts, someone shouted: "General Tojo, you great, thick-headed fool; cut your stomach and die!"

Goaded by the tumult in my mind and the general excitement, I thought I must flee and had reached the back gate of the Bureau when I was stopped by a voice that exclaimed: "Doctor, what's the matter?"

This question brought me to my senses and I became ashamed that I had been on the verge of fleeing. I returned to the Bureau and my patients.

My rounds were not professional today. I could not focus mentally on the patients' problems, but I went to each bed and did what I could to calm their fears.

"Things don't look good, but the Emperor has so ordered," I repeated to everyone I saw.

The nurses were going about duties as if nothing had happened. These innocent figures working calmly seemed to achieve an air of greatness and their presence did much to calm my feelings.

I missed the old lady who had lain near the hospital entrance, so I went to the business office and asked Mr. Sera and Mr. Kitao where she was. After a pause one of them said: "She died last night. *Basan* died without knowing about the surrender and we are glad she did."

In the corridor, a soldier stopped to ask: "Doctor, what shall we do?"

"I don't know where your headquarters are," I answered, "but you may stay here until you are recovered. Don't worry; leave the responsibility to me."

"When will *they* land?" he asked.

"It won't matter if they do," I rejoined. "You are a patient. Leave me to explain the situation. If the need arises, I might even help you escape, but for goodness sake don't be upset. You might relay the message to the other soldiers."

"Sir, I will relay your orders!" replied the soldier, a look of relief on his face. Saluting smartly, he withdrew, dragging his blood-soaked trousers.

Supper was served, but having no appetite, I drank a cup of hot water and went to bed. What little spirit I had declined with the setting sun. Everyone on the ward was worrying about the Emperor and I, too, had a feeling of sorrow when I thought of him. Slipping out of bed, I went up to the balcony and, bowing toward the east, prayed for his peace of mind.

I walked about for a while and then sat down on a ventilator where I could gaze out over the ruins. The night was lonely with the *obi*-like Ōta River glittering faintly as it made its tortuous way through the dark city. The pitch-black outlines of Futabayama stood out against the dark eastern sky. Even in a nation defeated, the rivers and mountains remained the same. I became overwhelmingly lonely as I experienced the emotions of defeat and thought of the future before us.

## 9 September 1945

CLOUDY WITH clearing skies.

I got up at 8:00 and looked over my paper until breakfast time. What had appeared so good last night when I was in the high heat of my writing ordeal now seemed poor, indeed. I had gone up like a rocket and come down like a stick. Or like the old proverb: "The head is like a dragon and the tail like a snake." Worrying over it this morning, I shaved its head and pulled its tail up and down but still my paper was not good. I patched legs, wings, and fins on it until it finally assumed a shape, but the shape was something funny.

When Mr. Matsumoto, the newspaper man, returned shortly after lunch to get the manuscript, I asked him if I could not have at least one more day to work on it. He laughed and said he would rather look at the manuscript first. After reading it he reassured me somewhat by remarking:

"*Sensei*, this manuscript is excellent! I'll take good care of it and return it as soon as it is published."

Before he left, he took my picture holding the manuscript. What I had written was as follows:

### ATOM BOMB AND A-BOMB DISEASE

What was the power of the atom bomb that blasted the city and the citizens of Hiroshima, scorched the hills, and killed the fishes in the rivers? It was a momentary white flash which possessed the most astounding destructive power. I am a survivor who barely reached the hospital. I was covered with blood from wounds that were caused by bits of flying glass, and I was pinned under my house. My home was about 1700-1800 meters from the hypocenter and the hospital about 1500-1600 meters. After my injuries, I thought I would die and decided if I were to die, I wanted to be in my hospital. The fires had not started by the time I reached the hospital and on arriving my first words were: "Anybody killed?"--and from there on I was completely demoralized. I was placed on a stretcher where I became a burden to my staff and nurses and was carried hither and thither by them as flames from approaching fires spread around us. Fortunately, nobody was killed for the hospital was some distance from the hypocenter and the building itself strongly constructed. All the staff were wounded, but despite their wounds, they fought courageously. Through the excitement and commotion of the day they were the epitome of brotherly love. Even though enured to death and disaster I was amazed at their calmness and coolness and from my heart wish to express gratitude. During the critical period I

only wished I could have shown the same calm the nurses expressed. From that day to the present I have been living in a well-ventilated hospital. I have been able to experience the feelings of a patient as well as those of a doctor and have tried to study the changes occurring day by day in our patients. The explosion was a momentary happening but it profoundly changed the lives of the Hiroshima citizens. Those who were close to the hypocenter are dead. Those who were somewhat removed have recovered. A month has passed and we have treated and studied some 5,000 patients and our work continues. I would like to summarize the results of our study and present the following conclusions:

1. Those who were exposed within 500 meters out of doors were killed instantly or died within four or five days.
2. Some who were within 500 meters were protected by buildings and hence not burned. Within a period of two to fifteen days many of these people developed the so-called "radiation sickness" and died. This sickness was manifested by anorexia, vomiting, hematemesis, and hemoptysis.
3. Those exposed in the 500-1000 meter zone have shown symptoms similar to those who were exposed within 500 meters, but the onset of symptoms was late and insidious. The death rate in this group has been high.
4. I have studied the location of the in-patients and a great number of the out-patients and found most of them were exposed between 1000 and 3000 meters. Those in this group who were closest to the center became critically ill and some have died, but the majority are in stable condition or well.
5. A great number of patients have complained of falling hair that began as late as two weeks following the explosion. Some of these patients have had an uneventful course while others have had a bad one.
6. The most serious clinical sign of radiation sickness is a decrease in the white blood cells, and pathologically, great changes were found in the hematopoietic system, especially in the bone marrow. Those who received fatal injuries have died within the past month. Patients with low white blood counts who survived this period are now stable or convalescing. Within the past week the hospital has become very cheerful.

Recently, we were told the effects of the bomb were announced through American newspapers or radios, but we had no way of knowing this for there were no radios or newspapers in Hiroshima. Earlier, public feeling was agitated by the rumor that a place baptized by this bomb would be uninhabitable for seventy-five years. Because of this rumor people living in the outskirts of the city, not to mention those in other places, were reluctant to come into Hiroshima, so our hospital and the Communications Bureau were isolated and very nearly paralyzed for lack of outside assistance. In an effort to combat this rumor we began doing physical examinations near the end of August on the few who had come into the city from the suburbs and surrounding areas after the bombing. None of these people showed any abnormalities. Their white blood counts were within the normal range of 5,000-7,000. We even examined some persons who were very near the hypocenter, for example: persons who were in the heavily shielded basement of the Telephone Bureau, persons thoroughly protected in nearby airraid shelters, and a few persons near the hypocenter who were otherwise shielded by heavy pieces of machinery or other objects, and all of these showed normal white counts and a normal physical examination. These findings convinced us there was no poison abroad in Hiroshima subsequent to the detonation of the bomb itself. The results of this study were announced to everyone working in the Communications Bureau and they were urged to continue work without fear of suffering any consequences, providing they had not been exposed near the center of the explosion. Almost simultaneously, Professor Tsuzuki and a group from Tokyo visited Hiroshima and after a similar study expressed an opinion similar to ours and likewise denied the rumors that Hiroshima would be uninhabitable for seventy-five years.

Almost without exception the staff of the Communications Hospital was exposed and has remained in Hiroshima and lived in the hospital, which is not far from the hypocenter, for over thirty days already. The fact that we have not suffered any ill effects is further evidence that the rumor is untrue.

One cannot but marvel at the power of a bomb which can devastate the city of Hiroshima and leave 500,000 dead or injured people. We were defeated in a scientific war, not by one of quantity. If one thinks of the past and future, he will find matters for reconsideration.

By way of treatment, the hematopoietic system should be stimulated and what is lacking should be supplemented. Professor Tsuzuki of the Tokyo Imperial University has recommended vitamin C



injections or foods rich in vitamin C, liver preparations or cooked liver, blood transfusions, auto-transfusion, heterogeneous protein therapy, and moxibustion. We are using all the recommendations made by Professor Tsuzuki. On ten patients I have followed the old Chinese proverb which says that patients with an appetite will not die. To these patients we gave ample food without injections or transfusions and saw to it, of course, that their burns or wounds received the greatest care. This group of ten patients had a smoother course and showed more rapid improvement than patients given ordinary food, injections, and transfusions. Those who were in Hiroshima at the time of the bombing should receive a careful physical examination at once, and if the white blood count is low or any other symptoms of radiation sickness are present, they should remain quiet and eat plenty of good food. Even those who show no evidence of trouble should eat more than usual, and those who are sick should try to eat as much as possible. In view of the serious shortage of doctors and medical supplies it is our belief that adherence to this simple form of home remedy will provide the best insurance toward recovery.

I prayed in my heart that Mr. Matsumoto would fashion my paper into a good report by cutting off the dragon's legs without

## 12 September 1945

CLOUDY WITH occasional rain.

For a day or two it looked as though we might have some fair weather, but rain set in again and left us as uncomfortable as ever. Nearly every morning, I would awaken with my blankets wet, and each day, old Mrs. Saeki would hang them out in the corridor to dry. This morning, when she came in to get them, she said:

"It doesn't do any good to keep trying to dry out your blankets because as soon as I put them back on the bed the wind blows the rain in again. Today, I'm going to ask Mr. Mizoguchi to put boards across the windows. It's bad for your health the way it is now."

After breakfast, *baba-san* had a cup of *matcha* with me. I had hoped Dr. Tamagawa would join us but he was too busy. There were still enough patients dying so he was obliged to spend all of his time in the autopsy room. It was as though he were being chased by the dead. Dr. Miyasho, who had just been demobilized from the army, was assisting him as well as the medical student, Mr. Ogawa, but even the three of them were unable to keep up with the work and showed signs of the strain. To their growing fatigue was added the discomfort of the rain. Every day, they looked more and more like wet rats.

In the afternoon, Mr. Matsumoto brought me the newspaper in which my article appeared. I had been given an entire page and my picture was published with the article. The headlines read: *The Atom Bomb and Radiation Sickness*. The headlines stated it was possible for one to live right under the hypocenter and that radiation illness could be cured with nourishing food. In speaking of me and my work, I was described as badly wounded and obliged to conduct my studies under handicap and in isolation, denied the benefits of previous reports. The article itself was published almost verbatim and appended to it I was surprised to find the notice about radiation sickness I had posted in the hospital and Bureau. All in all, the newspaper had dealt with my article generously, much more generously, in fact, than the work merited.

I was pleased, but at the same time, chagrined. The article was hardly out of my hands before I realized I forgot to mention the decrease in blood platelets, and in the second paragraph I had used the term "without complaining symptoms" where I should have used the term "asymptomatic course." Moreover, it now seemed I had spoken a little too confidently; two hundred cases were hardly enough to permit sweeping conclusions. I did not doubt I had been a little too bold.

I made up my mind to bathe today. I had endured my dirty, clammy, sticky skin, and my repulsive body odor as long as I could, and if my thigh wound was not completely healed, I was not going to let

it stand in the way any longer. Around 9:00 in the evening the rain let up a little, and I went down to the kitchen and took off my clothes. The air was cold to my skin and cold rain drops splattered over me as I walked barefooted across the courtyard from the kitchen to the bath. Finding the water a little too hot, I poured in two or three buckets of cold water and then eased myself down in the tub, adhesive tape and all. The walls of the tub were hot, so I had to sit carefully to keep from being burned. I quickly discovered this outdoor bath tub was hardly a luxury. Each time the wind blew, cold drops of water fell on me from the oak tree overhead. Smoke came up around the tub, and since the wind was constantly changing, I almost suffocated. Smoke got in my eyes and made tears run down my cheeks. Notwithstanding these annoyances, this bath, the first I had had since the *pika*, was wonderful. When the wind was not blowing too hard, I could be fairly comfortable and enjoy the sparkling drops of water as they caught the reflection of the fire. Beyond the foliage of a low-growing hedge I could admire the black silhouette of the Futaba hills in the distance. Behind me was the Bureau.

## 26 September 1945

CLEAR. LATER, cloudy with rain.

I remained much the same today as yesterday with continued tenesmus, diarrhea, aching, and profound weakness. Codeine was added to my other medicine and all day I ate nothing but three bowls of rice gruel. Altogether, I had a miserable day.

Toward evening, the codeine seemed to take effect, tenesmus became less, and I felt better. During the night, I had only a few movements and slept quietly between times.

## Hiroshima Perspective Project Handout

**Directions:** Complete one of the following creative expression projects. Remember – this project must reflect the Japanese perspective, not the American perspective.

All projects will be presented in class. The class presentation will account for part of your final grade.

# Creative Expression

1.) Write a skit (must be at least 3 pages double spaced).	2.) Compose a song in memory of the casualties.	3.) Write a poem (Must be in iambic pentameter and 20 lines long).
4.) Write a news report that the Japanese would have read after hearing about Hiroshima.	5.) Create a story book that could explain the tragedy to younger students.	6.) Research a related topic and teach it to the class.
7.) Draw a political cartoon and provide a written explanation of the cartoon.	8.) Create a collage.	9.) Write a research paper about a disease or illness caused by the bombs (2 double spaced pages in length).

## Hiroshima Perspective Project Rubric

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Project Title: \_\_\_\_\_

Teacher(s): Ms. Carter

### Hiroshima Perspective Project Rubric



<b>Process</b>	<b>Below Avg.</b>	<b>Satisfactory</b>	<b>Excellent</b>
1. Has clear vision of final product	1, 2, 3	4, 5, 6	7, 8, 9
2. Properly organized to complete project	1, 2, 3	4, 5, 6	7, 8, 9
3. Managed time wisely	1, 2, 3	4, 5, 6	7, 8, 9
4. Acquired needed knowledge base	1, 2, 3	4, 5, 6	7, 8, 9
5. Communicated efforts with teacher	1, 2, 3	4, 5, 6	7, 8, 9
<b>Product (Project)</b>	<b>Below Avg.</b>	<b>Satisfactory</b>	<b>Excellent</b>
1. Format	1, 2, 3	4, 5, 6	7, 8, 9
2. Mechanics of speaking/writing	1, 2, 3	4, 5, 6	7, 8, 9
3. Organization and structure	1, 2, 3	4, 5, 6	7, 8, 9
4. Creativity	1, 2, 3	4, 5, 6	7, 8, 9
5. Demonstrates knowledge	1, 2, 3	4, 5, 6	7, 8, 9, 10
6. Other:	1, 2, 3	4, 5, 6	7, 8, 9

Total Score: \_\_\_\_\_

## ACTIVITY III

### Introduction

August 6, 1945 – The bomb was dropped on Hiroshima.

August 9, 1945 – The bomb was dropped on Nagasaki.

Shortly after these two bombings Hirohito and the Japanese government agreed to an unconditional surrender that ended the War in the Pacific. To many the bomb was dropped and that was the end of it. Many are unaware how largely debated using the bomb was before the bomb was even dropped. President Truman was in favor of using the bomb and ultimately issued the order to drop the bomb in two different cities with largely civilian populations. However, what did other American policy makers have to say on the matter? Scientists, politicians, and military leaders all must have had an opinion on the use of atomic weapons.

Those who supported using the atomic bomb claimed that dropping the bomb would see millions of American lives that would be lost in a military invasion. Furthermore, using the atomic bomb would bring a speedy end to the war and would convince the Japanese leaders to finally surrender. Those who protested use of the atomic bomb, especially on civilian populations, believed the bombs to be immoral, a war crime, and largely unnecessary. Opponents of the atomic bomb also argued that it was cruel considering the Japanese nuclear program was undeveloped and dropping the bomb was only a result of endless propaganda depicting the Japanese as subhuman monsters.

Students will research the opinions of President Truman, US military leaders, politicians, and scientists through primary sources. Through this research, students will conclude who supported and opposed dropping the atomic bomb and for what reasons. Students will also review the table provided by the teacher that outlines the arguments for and against dropping the atomic bomb. Finally, students will compose a 2-3 page paper on whether or not they believe dropping the atomic bomb was the correct choice. The paper should be supported with independent research, information gained from the *Physicians Diary*, videos of Hiroshima survivors, and information from the primary sources found in this activity.

### Guiding Question

- Was dropping the atomic bomb on Hiroshima the correct course of action? Did American policy makers agree on using the atomic bomb? Furthermore, the decision to use atomic weapons is one of the most highly debated government actions. What do you (the students) think the supporting and opposing argument are for bombing Hiroshima? Finally, what side of the debate do you (the students) stand on?

## Assignment

- Open with a 5-7 minute discussion about whether or not students think using an atomic bomb in WWII was justified. Make sure to ask students' opinion on why it was right or wrong (expect to students to only have a knowledge of their textbook and the *Hiroshima Diaries*).
- Distribute the *Arguments Supporting and Opposing Using the Atomic Bomb on Hiroshima* worksheet and *Arguments Supporting and Opposing Using the Atomic Bomb on Hiroshima Questions* worksheet.
- Instruct students to read the worksheet and answer all the questions.
- Distribute *Diaries and Letters from President Truman on Bombing Hiroshima* worksheet, *Diaries and Letters from Military Leaders on Bombing Hiroshima* worksheet, and *Diaries and Letters from American Scientist on Bombing Hiroshima* worksheet. Be sure to inform students that these are primary sources and considered valuable to historical research.
- Walk students through the diaries and letters. As they are reading the handouts, distribute *Diary and Letter Questions* worksheet. Students can work on this worksheet individually, in pairs, or all together as a class through discussion.
- As a wrap-up to the lesson, students will write a 2-3 page paper discussing whether they think dropping the atomic bomb was justified or unjustified. Students will use information from their textbook, the *Hiroshima Diaries*, video clips, primary sources, and information found throughout their handouts.

## Learning Objectives

After completing this lesson, students should be able to:

- Recognize a primary source.
- Understand the various arguments surrounding Hiroshima.
- Learn what famous historical figures thought about dropping the atomic bomb on Hiroshima.
- Students will draw their own conclusions about Hiroshima.
- Defend their opinions by writing an original persuasive paper.

## Duration

- 2 days

## **PA Standards**

- 8.1.B, 8.1.C, 8.1.D, 8.3.A, 8.3.B, 5.2.C, 5.2.D, 5.4.A, 5.4.B, 5.4.C

## **Extension**

- Students could have a class debate on whether bombing Hiroshima was justified. Instructors should allow each student 60 seconds to summarize their opinion about Hiroshima and the facts that led them to that opinion.
- Furthermore, the teacher could model the class debate after a session of Congress. After each student has spoken, hold a mock vote to see whether the class could reach a majority decision on whether or not to drop the bomb.

## Arguments Supporting and Opposing Using the Atomic Bomb on Hiroshima

<u><i>Justified</i></u>	<u><i>Unjustified</i></u>
The Japanese had demonstrated near-fanatical resistance, fighting to almost the last man on Pacific islands, committing mass suicide on Saipan and unleashing kamikaze attacks at Okinawa. Fire bombing had killed 100,000 in Tokyo with no discernible political effect. Only the atomic bomb could jolt Japan's leadership to surrender.	Japan was ready to call it quits anyway. More than 60 of its cities had been destroyed by conventional bombing, the home islands were being blockaded by the American Navy, and the Soviet Union entered the war by attacking Japanese troops in Manchuria.
With only two bombs ready (and a third on the way by late August 1945) it was too risky to "waste" one in a demonstration over an unpopulated area.	American refusal to modify its "unconditional surrender" demand to allow the Japanese to keep their emperor needlessly prolonged Japan's resistance.
An invasion of Japan would have caused casualties on both sides that could easily have exceeded the toll at Hiroshima and Nagasaki.	A demonstration explosion over Tokyo harbor would have convinced Japan's leaders to quit without killing many people.
The two targeted cities would have been firebombed anyway.	Even if Hiroshima was necessary, the U.S. did not give enough time for word to filter out of its devastation before bombing Nagasaki.
Immediate use of the bomb convinced the world of its horror and prevented future use when nuclear stockpiles were far larger.	The bomb was used partly to justify the \$2 billion spent on its development.
The bomb's use impressed the Soviet Union and halted the war quickly enough that the USSR did not demand joint occupation of Japan.	The two cities were of limited military value. Civilians outnumbered troops in Hiroshima five or six to one.
	Japanese lives were sacrificed simply for power politics between the U.S. and the Soviet Union.
	Conventional firebombing would have caused as much significant damage without making the U.S. the first nation to use nuclear weapons.



## **Arguments Supporting and Opposing Using the Atomic Bomb on Hiroshima – Questions**

Directions – Answer the following worksheet based on the arguments surrounding the use of the atomic bomb.

1.) Before you began your study of Hiroshima, did you agree or disagree with using the atomic bomb? Explain.

2.) Which of the above statements most strongly supports the justified and unjustified arguments? Explain?

3.) Has reading the arguments, studying Hiroshima survivor testimony, and watching the survivors oral history changed your opinion on using the atomic bomb? Why or why not?

4.) “Even if Hiroshima was necessary, the U.S. did not give enough time for word to filter out of its devastation before bombing Nagasaki.” IS this a true statement, or do you think three days was plenty of enough time for the Japanese government to assess damage and surrender? Why or why not?

5.) None of the arguments mention anything about the long-term effects of atomic bombs, such as radiation poisoning. Do you think that American scientists and policy makers were unaware of these long-term effects? Why or why not?

## Diaries and Letters From President Truman on Bombing Hiroshima

### 5/17/45 Truman Appointment Sheet Entry - meeting with Sec. of the Navy James Forrestal

"Held a session in projection room to outline the proposed campaign in Pacific for the Japanese war. Apparently a very detailed plan worked out with the idea of invasion of Japan."

### 6/17/45 Diary Entry:

"I have to decide Japanese strategy - shall we invade Japan proper or shall we bomb and blockade? That is my hardest decision to date. But I'll make it when I have all the

*[7/16/45: The first atomic bomb was successfully tested. That night Truman, who was in Potsdam, Germany at a conference with Churchill and Stalin, received a brief secret notification that the atomic bomb test had "exceeded expectations". It's likely that Truman's diary reference on 7/17/45 to his "dynamite" refers to the a-bomb news, of which he had not told Stalin, from the 16th.]*

### 7/17/45 Diary Entry:

"I told Stalin that I am no diplomat but usually said yes & no to questions after hearing all the argument. It pleased him. I asked him if he had the agenda for the meeting. He said he had and that he had some more questions to present. I told him to fire away. He did and it is dynamite - but I have some dynamite too which I'm not exploding now."

### 7/18/45 Letter to Bess Truman:

"...I've gotten what I came for - Stalin goes to war *[against Japan]* August 15 with no strings on it. He wanted a Chinese settlement *[in return for entering the Pacific war, China would give Russia some land and other concessions]* - and it is practically made - in a better form than I expected. *[Chinese Foreign Minister]* Soong did better than I asked him. I'll say that we'll end the war a year sooner now, and think of the kids who won't be killed! That is the important thing."

### 7/18/45 Diary Entry:

"P.M. *[Prime Minister Winston Churchill]* & I ate alone. Discussed Manhattan *[atomic bomb]* (it is a success). Decided to tell Stalin about it. Stalin had told P.M. of telegram from Jap Emperor asking for peace. Stalin also read his answer to me. It was satisfactory. Believe Japs will fold up before Russia comes in. I am sure they will when Manhattan appears over their homeland. I shall inform Stalin about it at an opportune time."

**7/20/45 Letter to Bess Truman:**

"I have to make it perfectly plain to them [*Russia and Great Britain*] at least once a day that so far as this President is concerned Santa Claus is dead and that my first interest is U.S.A., then I want the Jap war won and I want 'em both in it. Then I want peace - world peace and will do what can be done by us to get it."

*[7/24/45: Truman was given more specific dates for when an atomic bomb would be ready to drop on Japan: "...some chance August 1 to 3, good chance August 4 to 5 and barring unexpected relapse almost certain before August 10."*

*[7/25/45: Sec. of War Henry Stimson and Army Chief of Staff George Marshall approved and sent the order to drop atomic bombs on Japan "after about 3 August 1945"*

**7/25/45 Diary Entry:**

"We met at 11 A.M. today. That is Stalin, Churchill and the U.S. President. But I had a most important session with Lord Mountbatten & General Marshall before than. We have discovered the most terrible bomb in the history of the world. It may be the fire destruction prophesied in the Euphrates Valley Era, after Noah and his fabulous Ark.

"Anyway we 'think' we have found the way to cause a disintegration of the atom. An experiment in the New Mexican desert was startling - to put it mildly. Thirteen pounds of the explosive caused the complete disintegration of a steel tower 60 feet high, created a crater 6 feet deep and 1,200 feet in diameter, knocked over a steel tower 1/2 mile away and knocked men down 10,000 yards away. The explosion was visible for more than 200 miles and audible for 40 miles and more.

"The weapon is to be used against Japan between now and August 10th. I have told the Sec. of War, Mr. Stimson, to use it so that military objectives and soldiers and sailors are the target and not women and children. Even if the Japs are savages, ruthless, merciless and fanatic, we as the leader of the world for the common welfare cannot drop this terrible bomb on the old capital or the new [*Kyoto or Tokyo*].

"He [*Stimson*] and I are in accord. The target will be a purely military one and we will issue a warning statement [*known as the Potsdam Proclamation*] asking the Japs to surrender and save lives. I'm sure they will not do that, but we will have given them the chance. It is certainly a good thing for the world that Hitler's crowd or Stalin's did not discover this atomic bomb. It seems to be the most terrible thing ever discovered, but it can be made the most useful."

*[7/26/45: The U.S., Great Britain, and China issued the Potsdam Proclamation, which called for Japan's "unconditional surrender". It made no reference to the future status of the Emperor, Russia's secret agreement to declare war on Japan, or the atomic bomb. It was rejected by Japan's Prime Minister Suzuki.]*

**7/31/45 Letter to Bess Truman:**

*"He [Stalin] doesn't know it but I have an ace in the hole and another one showing - so unless he has threes or two pair (and I know he has not) we are sitting all right." [A possible reference to the atomic bomb, possessed at the time by the U.S. but not by Russia.]*

*[8/6/45: An atomic bomb was dropped on the people of Hiroshima.]*

**8/6/45: Excerpt from public statement by President Truman. This was the first time he publicly gave a reason for using the atomic bomb on Japan:**

"The Japanese began the war from the air at Pearl Harbor. They have been repaid many fold.

"If they do not now accept our terms they may expect a rain of ruin from the air, the like of which has never been seen on this earth."

*[8/9/45: An atomic bomb was dropped on the people of Nagasaki.]*

**8/9/45: Excerpt from public statement by President Truman. This was the second time he had publicly given reasons for using the atomic bomb on Japan:**

*"The world will note that the first atomic bomb was dropped on Hiroshima, a military base. That was because we wished in this first attack to avoid, insofar as possible, the killing of civilians. But that attack is only a warning of things to come. If Japan does not surrender, bombs will have to be dropped on her war industries and, unfortunately, thousands of civilian lives will be lost.*

*"Having found the bomb we have used it. We have used it against those who attacked us without warning at Pearl Harbor, against those who have starved and beaten and executed American prisoners of war, against those who have abandoned all pretense of obeying international laws of warfare. We have used it in order to shorten the agony of war, in order to save the lives of thousands and thousands of young Americans.*

*"We shall continue to use it until we completely destroy Japan's power to make war. Only a Japanese surrender will stop us."*

**8/9/45 Letter to Senator Richard Russell:**

*[In response to Sen. Russell's wish that Japan be hit with more atomic and conventional bombing:]*

*"I know that Japan is a terribly cruel and uncivilized nation in warfare but I can't bring myself to believe that, because they are beasts, we should ourselves act in the same manner.*

*"For myself, I certainly regret the necessity of wiping out whole populations because of the 'pigheadedness' of the leaders of a nation and, for your information, I am not going to do it until it is absolutely necessary...*

*"My object is to save as many American lives as possible but I also have a humane feeling for the women and children in Japan."*

*[8/10/45: Japan makes surrender offer to Allies.]*

*[8/10/45: Having received reports and photographs of the effects of the Hiroshima bomb, Truman ordered a halt to further atomic bombings. Sec. of Commerce Henry Wallace recorded in his diary on the 10th, "Truman said he had given orders to stop atomic bombing. He said the thought of wiping out another 100,000 people was too horrible. He didn't like the idea of killing, as he said, 'all those kids'." ]*

**8/10/45 Diary Entry:**

"Ate lunch at my desk and discussed the Jap offer to surrender which came in a couple of hours earlier. They wanted to make a condition precedent to the surrender. Our terms are 'unconditional'. They wanted to keep the Emperor. We told 'em we'd tell 'em how to keep him, but we'd make the terms."

**8/11/45 Letter to Samuel McCrea Cavert, general secretary of the Federal Council of Churches:**

"Nobody is more disturbed over the use of Atomic bombs than I am but I was greatly disturbed over the unwarranted attack by the Japanese on Pearl Harbor and their murder of our prisoners of war. The only language they seem to understand is the one we have been using to bombard them.

"When you have to deal with a beast you have to treat him as a beast. It is most regrettable but nevertheless true." (Gar Alperovitz, *The Decision to Use the Atomic Bomb*, material quoted from pg. 563).

## **Diaries and Letters From US Military Leaders on Bombing Hiroshima**

### **Navy Leaders**

#### **Admiral William D. Leahy, the President's Chief of Staff memoirs:**

[T]he use of this barbarous weapon at Hiroshima and Nagasaki was of no material assistance in our war against Japan. The Japanese were already defeated and ready to surrender. . . .

[I]n being the first to use it, we . . . adopted an ethical standard common to the barbarians of the Dark Ages. I was not taught to make war in that fashion, and wars cannot be won by destroying women and children. (See p. 3, Introduction)

*Privately*, on June 18, 1945--almost a month before the Emperor's July intervention to seek an end to the war and seven weeks before the atomic bomb was used--Leahy recorded in his diary:

#### **Fleet Admiral Chester W. Nimitz, Commander in Chief of the Pacific Fleet stated in a public address given at the Washington Monument on October 5, 1945:**

The Japanese had, in fact, already sued for peace before the atomic age was announced to the world with the destruction of Hiroshima and before the Russian entry into the war.

#### **Admiral William F. Halsey, Jr., Commander U.S. Third Fleet, stated publicly in 1946:**

The first atomic bomb was an unnecessary experiment. . . . It was a mistake to ever drop it. . . . [the scientists] had this toy and they wanted to try it out, so they dropped it. . . . It killed a lot of Japs, but the Japs had put out a lot of peace feelers through Russia long before. (See p. 331, Chapter 26)

#### **Ernest J. King, Commander in chief of the U.S. Fleet and chief of Naval Operations:**

The President in giving his approval for these [atomic] attacks appeared to believe that many thousands of American troops would be killed in invading Japan, and in this he was entirely correct; but King felt, as he had pointed out many times, that the dilemma was an unnecessary one, for had we been willing to wait, the effective naval blockade would, in the course of time, have starved the Japanese into submission through lack of oil, rice, medicines, and other essential materials.

### Air Force Leaders

#### **Henry H. "Hap" Arnold, commanding general of the U.S. Army Air Forces:**

The Japanese position was hopeless even before the first atomic bomb fell, because the Japanese had lost control of their own air.

In his 1949 memoirs Arnold observed that "it always appeared to us that, atomic bomb or no atomic bomb, the Japanese were already on the verge of collapse."

#### **Claire Chennault, Air Force General, Army Air Forces commander in China, and founder of the American Volunteer Group (the famed "Flying Tigers"):**

Russia's entry into the Japanese war was the decisive factor in speeding its end and would have been so even if no atomic bombs had been dropped.

### Army Leaders

#### **On the 40th Anniversary of the bombing former President Richard M. Nixon reported that:**

[General Douglas] MacArthur once spoke to me very eloquently about it, pacing the floor of his apartment in the Waldorf. He thought it a tragedy that the Bomb was ever exploded. MacArthur believed that the same restrictions ought to apply to atomic weapons as to conventional weapons, that the military objective should always be limited damage to noncombatants. . . . MacArthur, you see, was a soldier. He believed in using force only against military targets, and that is why the nuclear thing turned him off.

#### **The day after Hiroshima was bombed MacArthur's pilot, Weldon E. Rhoades, noted in his diary:**

General MacArthur definitely is appalled and depressed by this Frankenstein monster [the bomb]. I had a long talk with him today, necessitated by the impending trip to Okinawa.

**In an article reprinted in 1947 by *Reader's Digest*, Brigadier General Bonner Fellers (in charge of psychological warfare on MacArthur's wartime staff and subsequently MacArthur's military secretary in Tokyo) stated:**

Obviously . . . the atomic bomb neither induced the Emperor's decision to surrender nor had any effect on the ultimate outcome of the war."

**In his memoirs President Dwight D. Eisenhower reports the following reaction when Secretary of War Stimson informed him the atomic bomb would be used:**

During his recitation of the relevant facts, I had been conscious of a feeling of depression and so I voiced to him my grave misgivings, first on the basis of my belief that Japan was already defeated and that dropping the bomb was completely unnecessary, and secondly because I thought that our country should avoid shocking world opinion by the use of a weapon whose employment was, I thought, no longer mandatory as a measure to save American lives.



## **Diaries and Letters from American Scientists on Bombing Hiroshima**

### **Albert Einstein**

Einstein was not directly involved in the Manhattan Project (which developed the atomic bomb). In 1905, as part of his Special Theory of Relativity, he made the intriguing point that a relatively large amount of energy was contained in and could be released from a relatively small amount of matter. This became best known by the equation  $E=mc^2$ . The atomic bomb was not based upon this theory but clearly illustrated it.

In 1939 Einstein signed a letter to President Roosevelt that was drafted by the scientist Leo Szilard. Received by FDR in October of that year, the letter from Einstein called for and sparked the beginning of U.S. government support for a program to build an atomic bomb, lest the Nazis build one first.

Einstein did not speak publicly on the atomic bombing of Japan until a year afterward. A short article on the front page of the New York Times contained his view:

"Prof. Albert Einstein... said that he was sure that President Roosevelt would have forbidden the atomic bombing of Hiroshima had he been alive and that it was probably carried out to end the Pacific war before Russia could participate."

Regarding the 1939 letter to Roosevelt, his biographer, Ronald Clark, has noted:

"As far as his own life was concerned, one thing seemed quite clear. 'I made one great mistake in my life,' he said to Linus Pauling, who spent an hour with him on the morning of November 11, 1954, '...when I signed the letter to President Roosevelt recommending that atom bombs be made; but there was some justification - the danger that the Germans would make them.'"

### **Leo Szilard**

(The first scientist to conceive of how an atomic bomb might be made - 1933)

For many scientists, one motivation for developing the atomic bomb was to make sure Germany, well known for its scientific capabilities, did not get it first. This was true for Szilard, a Manhattan Project scientist.

"In the spring of '45 it was clear that the war against Germany would soon end, and so I began to ask myself, 'What is the purpose of continuing the development of the bomb, and how would the bomb be used if the war with Japan has not ended by the time we have the first bombs?'"

After Germany surrendered, Szilard attempted to meet with President Truman. Instead, he was given an appointment with Truman's Sec. of State to be, James Byrnes. In that meeting of May 28, 1945, Szilard told Byrnes that the atomic bomb should not be used on Japan. Szilard recommended, instead, coming to an international agreement on the control of atomic weapons before shocking other nations by their use:

"I thought that it would be a mistake to disclose the existence of the bomb to the world before the government had made up its mind about how to handle the situation after the war. Using the bomb certainly would disclose that the bomb existed." According to Szilard, Byrnes was not interested in international control: "Byrnes... was concerned about Russia's postwar behavior. Russian troops had moved into Hungary and Rumania, and Byrnes thought it would be very difficult to persuade Russia to withdraw her troops from these countries, that Russia might be more manageable if impressed by American military might, and that a demonstration of the bomb might impress Russia." Szilard could see that he wasn't getting through to Byrnes; "I was concerned at this point that by demonstrating the bomb and using it in the war against Japan, we might start an atomic arms race between America and Russia which might end with the destruction of both countries."

Two days later, Szilard met with J. Robert Oppenheimer, the head scientist in the Manhattan Project. "I told Oppenheimer that I thought it would be a very serious mistake to use the bomb against the cities of Japan. Oppenheimer didn't share my view." "Well, said Oppenheimer, 'don't you think that if we tell the Russians what we intend to do and then use the bomb in Japan, the Russians will understand it?'. 'They'll understand it only too well,' Szilard replied, no doubt with Byrnes's intentions in mind."

## Diaries and Letters Questions

Directions: Read the diaries and letters of President Truman, military leaders, and scientists. Then answer the following questions. Use complete sentence.

- 1.) Having read the diary entries and letters, who supported using the atomic bomb and who were against using the atomic bomb?
  
  
  
  
  
  
  
  
  
  
- 2.) Why do you think that military leaders were against using the atomic bomb? Should they be the most interested in new technology?
  
  
  
  
  
  
  
  
  
  
- 3.) President Truman dedicated a lot of his diary entries and letters to President Stalin and the USSR's reaction to the atomic bomb? Do you think President Truman was interested in defeating Japan, as well as demonstrating America's power to the communist Soviet Union?
  
  
  
  
  
  
  
  
  
  
- 4.) How valuable do you feel the scientists' opinion is? Why?
  
  
  
  
  
  
  
  
  
  
- 5.) Many scientists disagreed with using the atomic bomb on Hiroshima. They created the bomb, why would they disagree with using on Hiroshima?
  
  
  
  
  
  
  
  
  
  
- 6.) What was General MacArthur's opinion on using the atomic bomb?

## Hiroshima Opinion Paper Rubric

### Opinion Report : Hiroshima - Reasonable or Unreasonable Way to End a War

Teacher Name: **Ms. Carter**

Student Name: \_\_\_\_\_

CATEGORY	4 - Excellent	3 - Above Average	2 - Average	1 - Poor
<b>Organization</b>	Information is very organized with well-constructed paragraphs.	Information is organized with well-constructed paragraphs.	Information is organized, but paragraphs are not well-constructed.	The information appears to be disorganized.
<b>Amount of Information</b>	All topics are addressed and all questions answered. Paper is 3-4 pages in length.	All topics are addressed and most questions answered. Paper is 3-4 pages in length.	All topics are addressed, and most questions answered. Paper is 1-2 pages in length.	One or more topics were not addressed. Paper is 1-2 pages in length.
<b>Quality of Information</b>	Information clearly relates to the main topic. It includes several supporting details and/or examples from the readings, videos, and diary entries.	Information clearly relates to the main topic. It provides 1-2 supporting details and/or examples from the readings, videos, and diary entries.	Information clearly relates to the main topic. No details and/or examples are given from the readings, videos, and diary entries.	Information has little or nothing to do with the main topic.
<b>Paragraph Construction</b>	All paragraphs include introductory sentence, explanations or details, and concluding sentence.	Most paragraphs include introductory sentence, explanations or details, and concluding sentence.	Paragraphs included related information but were typically not constructed well.	Paragraphing structure was not clear and sentences were not typically related within the paragraphs.
<b>Mechanics</b>	No grammatical, spelling or punctuation errors.	Almost no grammatical, spelling or punctuation errors	A few grammatical spelling, or punctuation errors.	Many grammatical, spelling, or punctuation errors.
<b>Sources</b>	All sources (information and graphics) are accurately documented in the desired format.	All sources (information and graphics) are accurately documented, but a few are not in the desired format.	All sources (information and graphics) are accurately documented, but many are not in the desired format.	Some sources are not accurately documented.

## ACTIVITY IV

### Introduction

The atomic bombings of Hiroshima and Nagasaki have played a major role in shaping Japan's nuclear policy. Through the activities, students should have come to realize the legacy Hiroshima left on Japanese citizens. Today, Japan promotes non-proliferation and disarmament. Not only does the Japanese government support these policies, but they hold annual non-proliferation education events for their own citizens and members of the international community. Non-proliferation and disarmament are two issues of high importance to both Japan and the United States; especially as countries such as, North Korea, Iran, and Pakistan develop their nuclear power.

In this lesson, students will examine the history of non-proliferation treaties (a majority of them from the Cold War Era). They will also view a timeline which illustrates the various countries that gained nuclear power over the past six decades (Japan being a nation that has obtained from developing a nuclear weapon program). Furthermore, students will examine two documents that explain Japan's policy of non-proliferation and disarmament. To conclude students will answer two sets of non-proliferation questions. Students will answer the first set as if they were a representative of Japan. The second set of questions will require students to compete outside research on the nuclear weapons program and non-proliferation/disarmament policies of USA, Russia, Iran, Pakistan, North Korea, China, or Great Britain.

### Guiding Question

- What is non-proliferation and disarmament? What is Japan's policy on having a nuclear weapons program? How does Japan spread its message to its own citizens and the international community.

### Assignment

#### Day 1

- Review what students have learned so far about the bombing of Hiroshima by having a 3-5 minute brainstorming session.
- Distribute the *Nuclear Weapons Discussion Handout* and instruct students to answer the questions. Students should use the information covered in previous videos and diary entries.
- Introduce student to non-proliferation by having the students read the *Non-Proliferation Treaty* handout.

**Day 2**

- Pass out the *History of Nuclear Proliferation Timeline*. Point out to students how the number of countries that obtained nuclear power has grown over the years.
- Lead students in a discussion to answer the following questions.
  - Are there any countries on the map that you believe should not be allowed to have nuclear weapons? Why?
  - What threat does the world face from countries with unconfirmed nuclear weapons or those reportedly developing nuclear weapons (i.e., North Korea and Iran)?
  - Based on this map, what are the “hotspots” in the world for the development of nuclear weapons?
  - How much nuclear development had Japan had in the past fifty years?
- Explain to students that in May 2005, 188 countries had signed the Non-Proliferation Treaty, including Japan.
- Distribute *Japan’s Efforts in Disarmament and Non-Proliferation Education* and the *Delegation of Japan to the Conference of Disarmament*. Students should read these pieces for the rest of the period.

**Day 3**

- Allow students an extra fifteen minutes to complete their reading.
- Pass out *Nuclear Research Handout* to students. Instruct students that they will answer the first page of questions as if they were a representative of Japan. On the second page of questions, students will select a country of their choice (USA, Russia, Iran, Pakistan, North Korea, China, or Great Britain) and answer the questions as if they were a representative of that country.
- Student will have to do outside research for homework to answer their individual country’s questions.

**Day 4**

- To wrap up, have students provide a written response to questions such as:
  - What did you learn about international relations from completing this activity?
  - What did you learn about nuclear weapons and the threat they pose world wide?
  - How did preparation and research change your ideas about nuclear weapons and their regulation?

## **Learning Objectives**

After completing this lesson, students should be able to:

- Define non-proliferation and disarmament.
- See how the issue of non-proliferation has been a hot topic in international politics since the 1950s.
- Understand Japan's non-proliferation policies and one other country's non-proliferation policies.
- Have a greater understanding of what countries have nuclear weapons.
- Form an opinion on non-proliferation and how important an issue it is for the safety of the world.

## **Duration**

- 1-2 days

## **PA Standards**

- 8.1.B, 8.1.D, 8.1.D, 8.3.A, 8.3.B, 5.2.C, 5.2.D, 5.2.E, 5.4.A, 5.4.B, 5.4.C

## **Nuclear Weapons Discussion Handout**

**Directions:** In pairs or small groups, discuss and record answers for each question below.

### Part 1

1. When was the first nuclear weapon used by one country to attack another?
2. Who used the first nuclear weapon to attack another country?
3. What type of weapon was used?
4. Where was this weapon used?
5. How did the use of this weapon affect the people and place where it exploded?
6. Why was the decision made to use this weapon?

**Directions:** After reading and hearing stories of survivors, write a complete answer for each question below and be prepared to discuss your opinions with classmates.

1. Do you believe nuclear weapons should be regulated to prevent future use? Explain why.
2. How did you feel about the use of nuclear weapons after hearing/reading the “A-Bomb Survivors” stories?
3. What penalties, if any, do you believe countries should face if they attack others using nuclear weapons?



## **Non-Proliferation Worksheet**

### **International Treaties**

The nuclear arms race between the Soviet Union and the United States was in full gear when the 1962 Cuban Missile Crisis brought the two powers to the brink of global thermonuclear war. A last-second political compromise prevented the crisis from erupting into atomic Armageddon, but the experience fundamentally shifted the two nations' approach to nuclear weapons.

After the crisis, the USSR and United States opened a series of negotiations aimed at limiting the threat posed by nuclear war. The two nations, along with the United Nations' International Atomic Energy Agency, set about negotiating a way to limit the scope and dangers posed by the global atomic arms race.

The following is a list of the major agreements aimed at stabilizing, slowing and eventually reversing the nuclear arms race.

### **Partial Test Ban Treaty - 1963**

Signed on Aug. 5, 1963 in Moscow, the treaty ended all nuclear weapons tests "or any other nuclear explosion" in the atmosphere, in outer space, or underwater in perpetuity. While not banning underground tests, the PTBT did prohibit underground nuclear explosions that cause radioactive debris to reach outside the territorial limits of the state where the explosions were conducted. France and China, both nuclear weapons countries, have never signed the treaty.

### **Non-Proliferation Treaty - 1968**

Signed in the Soviet Union, the United States and the United Kingdom on July 1, 1968, the treaty sought to control the spread and use of nuclear technology for the manufacture of weapons. This pact pledged to restrict countries already in possession of nuclear weapons to refrain from giving control of those weapons to others and from transmitting information for their manufacture to states not possessing them. Countries without nuclear weapons that signed the pact agreed not to receive or manufacture them. The NPT also gave authority to the IAEA to police the nuclear activities of member countries to ensure nonproliferation. It has been approved by 187 countries, including all five major nuclear powers.

### **Strategic Arms Limitation Talks I (SALT I) - 1969-1972**

Strategic Arms Limitation Talks between the United States and the Soviet Union sought to limit and restrain land- and submarine-based offensive nuclear weapons. The talks, riddled with diplomatic and political obstacles, dragged on from November 1969 to May 1972. Efforts to limit the strategic nuclear arms were difficult given that the United States possessed far more

warheads than the Soviets. This made it difficult to equate the number, type or categories of weapons and to define overall strategic equivalence.

### **Anti-Ballistic Missile Treaty - 1972**

The ABM, signed in Moscow on May 26, 1972 was the first real nuclear-related agreement between the United States and the former Soviet Union. The treaty on the Limitation of Anti-Ballistic Missile Systems restricted the development of a defensive missile system that would prevent the penetration of others' retaliatory missiles. The United States and the Soviet Union agreed that each would have only two deployment areas, one to protect the capital and another at a major missile base. The sites would be at least 807 miles apart.

### **Threshold Test Ban Treaty - 1974**

Despite the prolonged and ultimately unsuccessful SALT II work, Brezhnev and President Ford did reach an agreement during the 1974 summit to scale back the giant, thermonuclear tests taking place. The treaty prohibited underground nuclear weapons testing exceeding 150 kilotons, far smaller than many of the tests taking place in the 1960s and early '70s. In addition, the treaty required both nations to share much of the data learned from future tests.

### **Intermediate-range Nuclear Forces Treaty - 1987**

The Soviets and Americans crossed a major threshold when President Ronald Reagan and Soviet Premier Mikhail Gorbachev signed the Intermediate-range Nuclear Forces Treaty on December 8, 1987. The pact marked the first time the two major powers had agreed to reduce the number of nuclear missiles in its arsenal, rather than set a ceiling the two sides would not exceed in the future. The treaty focused on the ground-launched ballistic and cruise missiles with ranges of about 300 to 3,400 miles based mostly in Europe.

### **Strategic Arms Reduction Treaty (START I) - July 31, 1991**

The Strategic Arms Reduction Treaty, signed by President George H.W. Bush and Soviet leader Mikhail Gorbachev on July 31, 1991, was the most sweeping arms reduction treaty ever entered into by the two great nuclear superpowers. The result of nearly a decade of difficult negotiation, the treaty required the United States and Soviet Union to reduce their strategic nuclear forces.

With the reductions, each nation would still control:

- 1,600 Strategic Nuclear Delivery Vehicles -- that is the sum of all inter-continental ballistic missiles, submarine-launched missiles and deployed heavy bombers
- 6,000 nuclear warheads of which no more than 4,900 could be on ballistic missiles.

- No more than 1,100 nuclear missiles deployed on mobile launchers

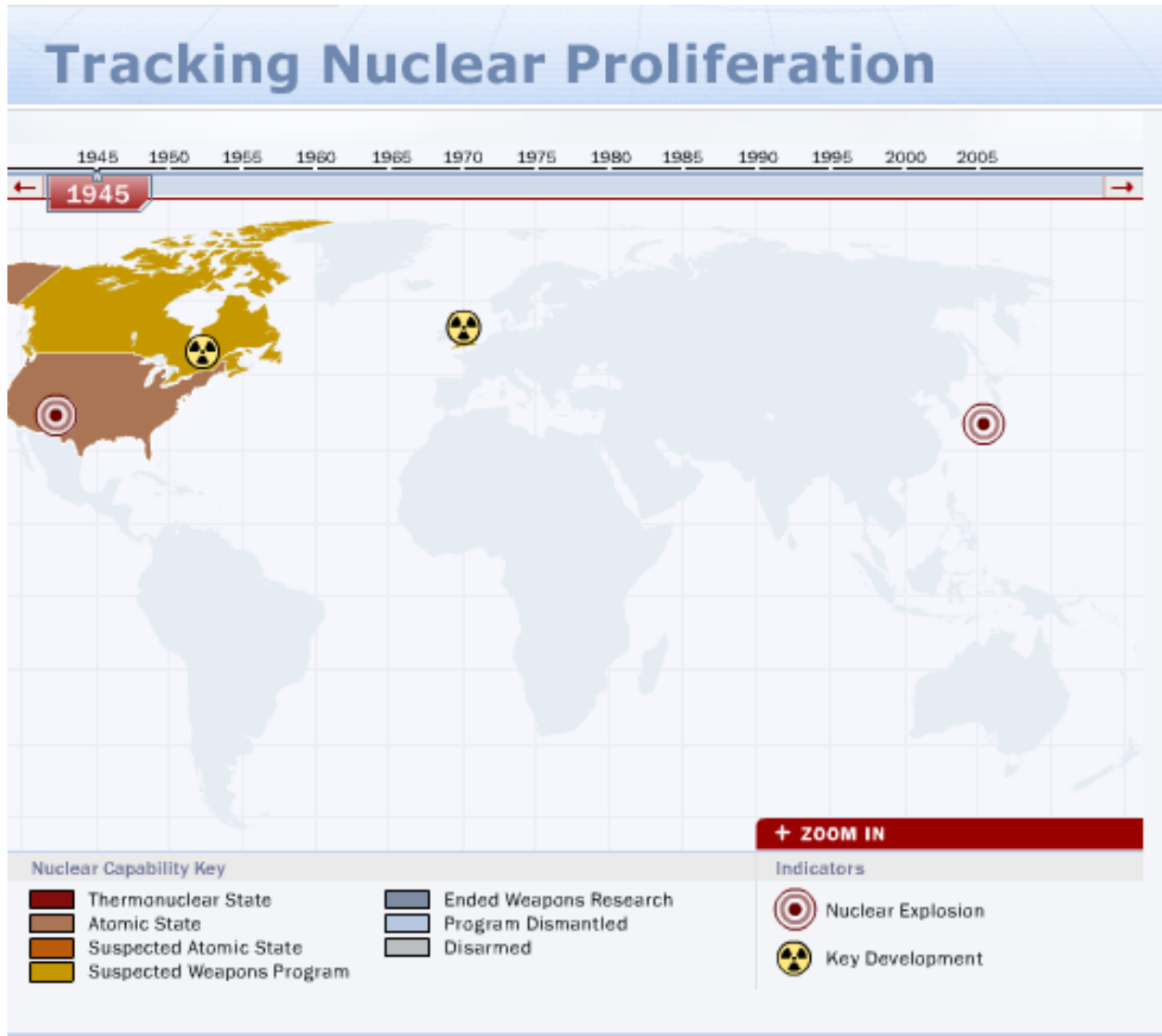
### **Strategic Arms Reduction Treaty (START II) - 1993**

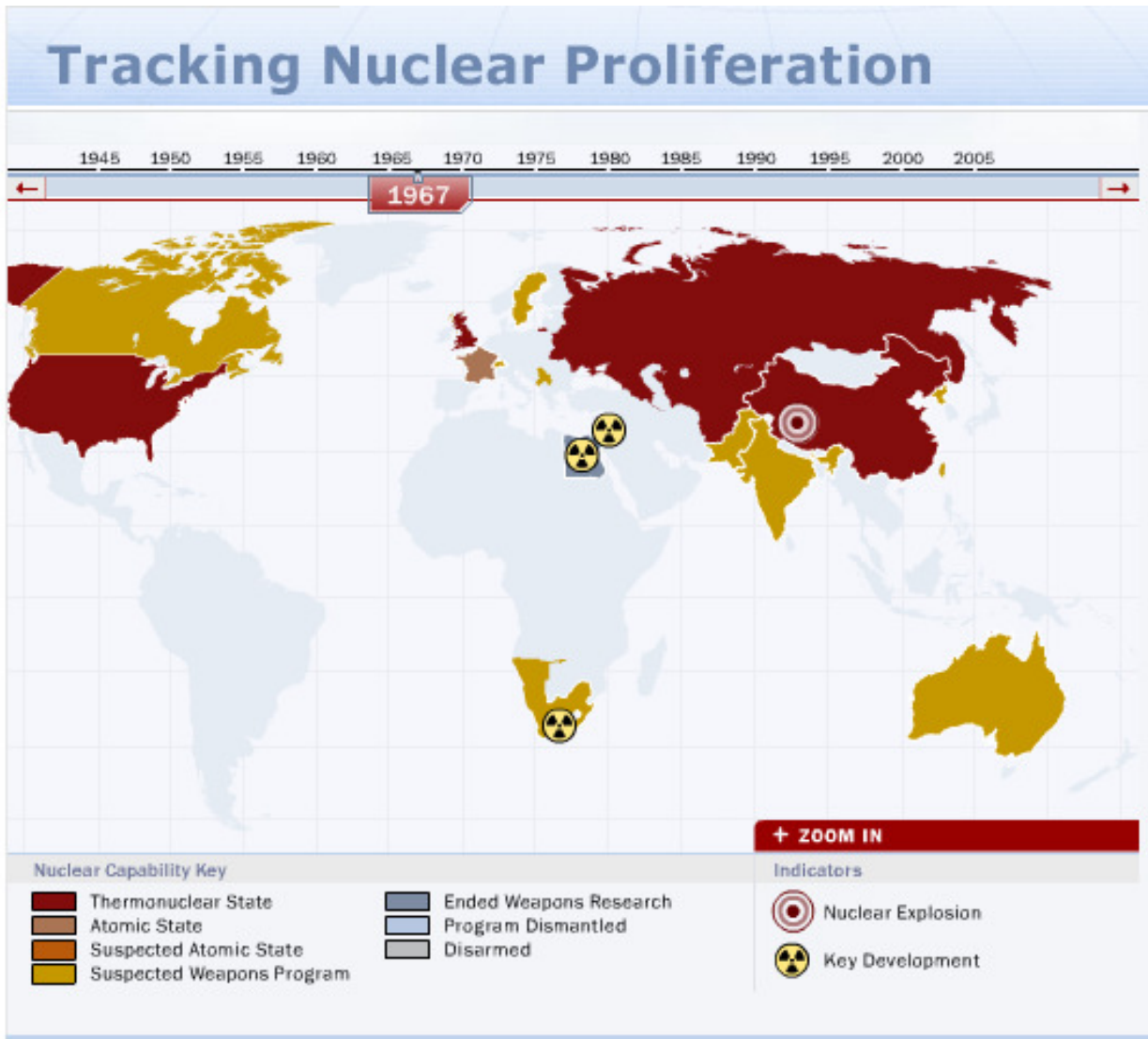
Built on the foundations of the START agreement, the Russian and American governments negotiated a second treaty to further reduce nuclear stockpiles by roughly two-thirds compared to pre-START levels. President George H.W. Bush and Russian President Boris Yeltsin signed the Treaty Between the United States of America and the Russian Federation on Further Reduction and Limitation of Strategic Offensive Arms, or START II for short, on Jan. 3, 1993.

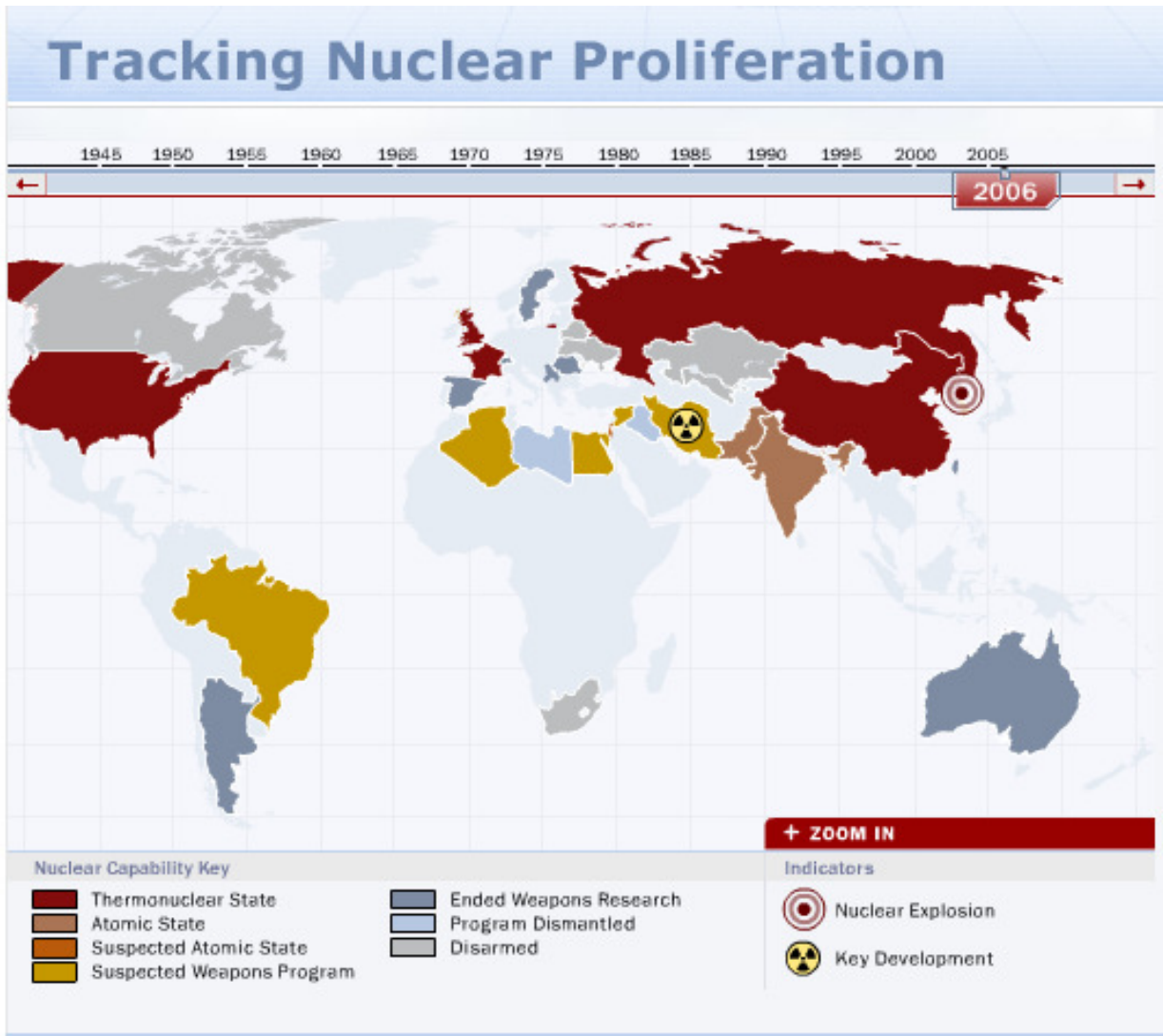
### **Treaty of Moscow - 2002**

Signed by the United States and Russia on May 26, 2002, the treaty called for both sides to reduce their nuclear warheads from 6,000 to 2,200 by the year 2012. Once ratified, the new treaty will replace the START II treaty. Despite this agreement, both Russia and America have said they will continue to invest in modernizing the remaining forces. Additionally, both nations have said the additional warheads will be placed in storage rather than dismantled

## History of Non-Proliferation Timeline







## **Japan's Efforts In Disarmament and Non-Proliferation Education - Submitted By Delegation of Japan to the Conference of Disarmament**

### **Introduction**

Japan has made its position clear to the international community that it is as a nation dedicated to peace and working towards a safe world free of nuclear weapons. As the only country to have experienced the devastation of atomic bombs, Japan is committed to ensuring that Hiroshima and Nagasaki are never forgotten, thereby preventing the recurrence of such tragedies. At the same time, we recognize that achieving the goal of nuclear disarmament and non-proliferation requires long term efforts by a number of generations as it is closely linked to the national security of each country. Therefore, it is extremely important to hand down our desire for peace and our collective memory and experiences on disarmament and non-proliferation to future generations. With this aim, Japan places its utmost importance on disarmament and non-proliferation education, especially for the younger generation. On the other hand, the younger generation can make its own contribution by providing new insights or perspectives when we tackle the challenges we are facing today. Based on these viewpoints, Japan has been taking initiatives in the field of disarmament and non-proliferation. This paper aims to share Japan's efforts in this field with other States Parties to the NPT so as to promote further disarmament and non-proliferation education.

### **UN Fellowship Program**

Each year since 1983, Japan has been inviting around 25 promising diplomats from all over the world to Japan, amounting to a total of more than 620 participants to date. In this fellowship program, participants receive briefings on the disarmament and non-proliferation policies of Japan. The program includes a visit to Hiroshima and Nagasaki to learn about Japan's experience of the atomic bombs. A large number of diplomats who have participated in this program are now actively working in the front lines of global disarmament diplomacy. Japan will continue to actively contribute to this program.

### **UN Conference**

Each year since 1989, Japan has sponsored a UN Conference on Disarmament Issues in a different local city, providing a valuable opportunity for distinguished disarmament experts from around the world to engage in useful discussions. Last year in August the conference was held in Yokohama under the theme "Alarming nuclear proliferation crisis and regional and international peace and security" and gave rise to a very meaningful exchange of views. This year's Conference is to be held in Sapporo in August.

### **Citizen's Forum**

In August 2003, during the UN Conference on Disarmament Issues held in Osaka, a citizen's forum on disarmament and non-proliferation education was held with participation by 50 teachers from primary, junior high and senior high schools in Osaka, officials of international organizations, as well as various experts on disarmament and non-proliferation. A citizen's forum on disarmament and non-proliferation education was also held in July 2004 during the UN Conference on Disarmament Issues in Sapporo, and active discussions took place among teachers and experts.

### **Participation in the UN Governmental Experts Groups**

Japan participated in the Group of Governmental Experts on Disarmament and Non-proliferation Education, established following the 55th UN General Assembly resolution adopted in August 2000, requesting the Secretary-General to prepare a study toward the advancement of disarmament and non-proliferation. The Group submitted a report to the Secretary-General two years later, containing a series of recommendations for immediate and long-term implementation, which formed the basis for the draft resolutions adopted at the UNGA in 2002, 2004 and 2006.

### **Inviting Disarmament Experts**

Based on the recommendations from the UN study on disarmament and non-proliferation education, since 2002 the Government of Japan has invited to Japan prominent educators on disarmament and non-proliferation. In November 2002 Dr. Kathleen Sullivan, representative of Educators for Social Responsibility (ESR), was invited to conduct a nuclear disarmament education tour in Japan, working with high school students, civic leaders, and Hibakusha or atomic bomb survivors in Hiroshima, Nagasaki and Tokyo.

Furthermore, to date Japan invited the following experts:

- Dr. Natalie Goldring from the Programme on Global Security and Disarmament at the University of Maryland, in January 2004,
- Professor William Potter from the Monterey Institute of International Studies, in February 2005,
- Dr. Jean Pascal Zanders, director of Bio Weapons Prevention Project (BWPP), in February 2006,
- Dr. Owen Greene, expert on small arms and light weapons, in March 2007.

### **Disarmament and Non-Proliferation Seminar**

The Center for the Promotion of Disarmament and Non-Proliferation in Japan held a 'Disarmament and Non-Proliferation Seminar' in September 2005, for two days. The aim of this seminar was to deepen understanding on recent disarmament and non-proliferation trends, mainly for those citizens considering to take active roles in this field in the future. A seminar was also held over 3 days in 2006 and 2007 with a series of presentations covering a variety of



related issues, resulting in a lively exchange between participants. Furthermore, lecturers from the Ministry of Foreign Affairs also attended the seminar.

### **Peace Efforts by Local Governments**

Hiroshima and Nagasaki, the only cities to have suffered the devastation of atomic bombs, hold a yearly Peace Ceremony in August, in the hope that they never see the recurrence of such a tragedy. At the ceremony, in front of numerous people from Japan and the world, the mayors of Hiroshima and Nagasaki respectively deliver a peace declaration, appealing for peace and expressing the hope that nuclear weapons will never be used again.

The World Conference of Mayors for Peace was launched by the mayors of Hiroshima and Nagasaki in 1982 and has been held every four years to encourage cities to work together towards the total elimination of nuclear weapons. Last time it was convened in Hiroshima in 2005, and currently there are 1578 member cities in 120 countries, including major cities of the nuclear-weapon states.

The cities of Hiroshima and Nagasaki along with the International Peace Research Association have established Hiroshima-Nagasaki Peace Study Courses in universities around the world by sending peace education materials and lecturers, establishing university-level peace education models and exchanging opinions and methodology.

The Government of Japan has supported a number of efforts by local governments, universities, NGOs and various organizations to organize exhibitions in foreign countries relating to atomic bombs, including the Hiroshima-Nagasaki A-bomb exhibitions in La Paz, Bolivia, in August 2006.

### **Student Debating Cup on Disarmament and Non-Proliferation**

Japan is of the view that it is important not only to inform the younger generation of the tragedy of nuclear weapons but also cultivate their "critical thinking" abilities. From this point of view, Japan intends to invite students from several countries, including nuclear weapon states, and hold a debating competition with Japanese students, so as to provide them with the opportunity to obtain knowledge first hand and think in a pragmatic manner.

### **Use of Manga Comics**

In order to attract attention to a rather difficult subject, it is helpful to take advantage of a tool that is easily accepted by young people. One of those tools is Manga, a part of Japanese pop-culture which has become popular over the decades. It can convey Japan's message effectively to young people on this issue.

## **Delegation of Japan to the Conference on Disarmament (April-May 2007)**

### **Japan's Approaches to Non-Proliferation**

#### **Overview**

Japan attaches great importance to non-proliferation efforts in order to contribute to the enhancement of global and regional peace and stability as part of its security policies. After the 9.11 events, the prevention of CBRN terrorism is gaining increasingly greater importance. In Northeast Asia, in particular, proliferation of weapons of mass destruction and ballistic missiles has continued throughout the 90's.

North Korea's WMD and missile activities related are destabilizing factors for Japan's own security as well as that of the region. Accordingly, North Korea's WMD and missile related activities are of primary concern for Japan's non-proliferation policy. At the same time, the proliferation of WMD and missile related technologies from North Korea would also affect global peace and security. Japan's non-proliferation efforts thus reflect its interest and responsibility in contributing to global peace and stability.

Based on the policy guideline described above, Japan's non-proliferation efforts consist of the following four pillars: dealing with North Korea's WMD and missile related activities, containing proliferation risks in the regions, upgrading regional non-proliferation endeavors and strengthening multilateral non-proliferation mechanisms.

#### **Dealing with North Korea's WMD and Missiles related activities**

Concerning North Korea's WMD and missile related activities, Japan has made the following efforts described below to tackle this issue. In order to cope with this issue, policy coordination among countries concerned is important. From this point of view, Japan attaches great importance to the Trilateral Coordination and Oversight Group (TCOG) process among Japan, the U.S. and South Korea to coordinate policies towards North Korea, including security issues such as ballistic missile issues.

1) Japan regards KEDO (Korean Peninsular Energy Development Organization) as an effective and realistic framework to solve the issue of nuclear weapons development in North Korea. Japan has made significant contributions to KEDO from its earliest stage and has been actively supporting the implementation of the Agreed Framework reached between the U.S. and North Korea. As one of the original Executive Board Members of KEDO, Japan has committed 116.5 billion Yen in loans to KEDO and has already disbursed 311 million U.S. dollars through the Japan Bank for International Cooperation (JBIC), and 9.38 million dollars for KEDO's payment of interest to JBIC. In addition, Japan has contributed 29 million U.S. dollars to help cover administrative expenses of the KEDO office.

2) Japan's goal is to remove ballistic missiles that have been already deployed in the Korean Peninsula, as well as to ensure the implementation of effective verification measures established as a result of U.S.-North Korean consultations. Meanwhile, in various bilateral consultations and

multilateral forums such as MTCR, Japan endeavors to ensure that North Korea's missile program is not supported or assisted by other countries.

3) In the bilateral dialogue between Japan and North Korea, the WMD and missile development by North Korea is one of the most important issues on the agenda. Japan seeks to persuade North Korea to ultimately abandon its WMD option.

### **Containing Proliferation Risks in the Regions**

Through its direct contacts with countries developing WMD and ballistic missiles, Japan is seeking to discourage these countries from pursuing the WMD option and to contain the proliferation of WMD and their delivery means in those regions with high proliferation risks.

1) Regarding the development of nuclear capabilities and ballistic missiles by India and Pakistan, Japan has been urging both countries to make further efforts in disarmament and non-proliferation of WMD and their means of delivery, including signing of the CTBT. In response to the ballistic missile tests conducted by India in January and by Pakistan in May, Japan expressed its serious concern over those tests and urged both countries to exercise maximum restraints.

2) Iran's ballistic missiles and suspected WMD development is also a major concern for Japan. Japan has been raising this issue with Iran during high-level visits, including the visit by Iranian President Khatami to Japan in October 2000. Japan has continued to express its concern and call for concrete action by Iran to eliminate international concern over Iran's suspected development of WMDs in the interest of global and regional security.

### **Upgrading Regional Non-Proliferation Endeavors**

As regional non-proliferation efforts are indispensable for truly strengthening global non-proliferation, Japan puts much emphasis on non-proliferation in East / South East Asia and Central Asia.

1) Japan has invited East Asian countries to a number of seminars and workshops on various issues of non-proliferation. Some of these countries are thought to be acquiring capabilities for producing dual-use goods and technologies convertible to WMDs due to their rapid economic development and some countries are also important as transshipment points, while their non-proliferation policies are not necessarily adequate enough. Japan, therefore, has been hosting a number of seminars and workshops on an annual or ad-hoc basis to raise those countries' awareness of the importance of non-proliferation. Those seminars include those on the universalization and strengthening of CWC (March 2002), universalization of the Additional Protocol of IAEA Safeguards Agreements (June 2001), strengthening of export control systems (1993-2001) and raising awareness on missile proliferation (March 2001 and March 2002). Japan received a South Korean task force team of export control officers in September 2002 to assist the introduction of catch-all controls in ROK.

2) Since Central Asian countries have yet to implement their system for non-proliferation, Japan has been receiving export control experts every year to help establish effective national export control systems in those countries for the past nine years.

### **Strengthening Multilateral Non-Proliferation Mechanisms**

#### **Strengthening Multilateral Frameworks**

Japan believes that efforts for non-proliferation should be undertaken by all members of the international community. From this viewpoint, Japan considers that multilateral frameworks to deal with this issue should be strengthened.

i) First, Japan firmly supports the process of strengthening the NPT, BWC and CWC. The universalization of the Additional Protocol of IAEA Safeguards Agreements, strengthening of the effective functioning of the CWC mechanism, including the administration and financing of OPCW, and enhancement of the effectiveness of BWC are of particular importance.

ii) Japan believes that the CTBT plays a central role in sustaining the international nuclear disarmament and non-proliferation regime founded on the NPT, and is a practical and concrete measure for realizing a peaceful and safe world free from nuclear weapons. In this spirit Japan is pursuing the early entry into force of the CTBT and the establishment of the verification mechanism.

iii) Japan also puts priority on strengthening the export control regimes and gaining broader support for its objectives by countries outside the regimes. Outreach activities targeting East Asian and Central Asian countries (see 4. above) serve this purpose. Japan supports the universalization process of ICOC since it sees in the Code an attempt to introduce to the international community certain new norms in the field of ballistic missile non-proliferation. In this context, it is of utmost importance to establish norms that truly contribute to non-proliferation objectives.

### **G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction**

Countries that have produced weapons of mass destruction should be held responsible for their elimination. However, if the proliferation risks of dangerous substances pose a serious security challenge to the international community, they should be controlled by joint international endeavors.

i) Japan actively participated in the discussion at the G8 Kananaskis Summit on the "G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction", particularly in the formulation of "Guidelines for New or Expanded Cooperation Projects". Japan strongly hopes that the Partnership and its Guidelines will facilitate smooth implementation of cooperation projects.

ii) At the G8 Kananaskis Summit, Japan committed financial contributions amounting up to a little more than 200 million U.S. dollars to the G8 Global Partnership. Out of this, 100 million

U.S. dollars will be contributed to the international organization that the G8 will newly establish to address the issue of the disposal of surplus weapons-grade plutonium.

iii) Japan has firmly supported the IAEA's efforts in these states to address possible threat of nuclear terrorism. After the IAEA announced its "Action Plan for Protection against Nuclear Terrorism" last March, Japan immediately contributed half a million U.S. dollars to the special fund. To respond effectively to the threat of nuclear terrorism, Japan believes that a strict control of nuclear and other radioactive sources is crucial as well as strengthened safeguards regimes.

iv) Japan has also made a significant contribution of 53 million U.S. dollars to the ISTC to support efforts to prevent the brain drain of former Soviet scientists to countries of concern.

### **Conclusion**

Today, efforts to prevent the proliferation of weapons of mass destruction and their delivery means have become increasingly important for the maintenance of international and regional peace and security. Japan is determined to play an active role in this regard.

## Individual Country Research Questions

### Directions:

Use the reading materials provided by your teacher, as well as other Internet and library resource materials, to answer each question below based upon the beliefs and policies held by the Japan. Be as specific as possible.

How do you think Japan would respond to....

- 1.) a five year freeze on building new facilities for uranium enrichment and plutonium separation, which are key processes in developing nuclear power and weapons? Why?
  
  
  
  
  
  
  
  
  
  
- 2.) expanding IAEA inspectors access to physical structures and information related to nuclear programs? Why?
  
  
  
  
  
  
  
  
  
  
- 3.) the pursuit and prosecution of countries trading nuclear materials and/or technology? Why?
  
  
  
  
  
  
  
  
  
  
- 4.) a ban on the production of all new nuclear weapons? Why?
  
  
  
  
  
  
  
  
  
  
- 5.) actions to address security issues in world hotspots such as the Middle East and Korean Peninsula in order to provide world security against nuclear proliferation? Why?

## Part Two

Use your textbook and other internet resources to answer each question below based upon the beliefs and policies held by a country of your choice. Be as specific as possible.

Countries you can pick from: USA, Russia, Iran, Pakistan, North Korea, China, or Great Britain

How do you think your country would respond to....

- 1.) a five year freeze on building new facilities for uranium enrichment and plutonium separation, which are key processes in developing nuclear power and weapons? Why?
  
- 2.) expanding IAEA inspectors access to physical structures and information related to nuclear programs? Why?
  
- 3.) the pursuit and prosecution of countries trading nuclear materials and/or technology? Why?
  
- 4.) a ban on the production of all new nuclear weapons? Why?
  
- 5.) actions to address security issues in world hotspots such as the Middle East and Korean Peninsula in order to provide world security against nuclear proliferation? Why?