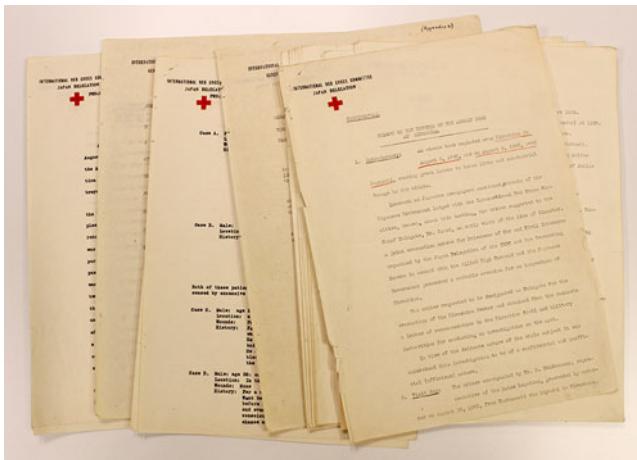


## REPORTS AND DOCUMENTS

# ICRC report on the effects of the atomic bomb at Hiroshima

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On 29 August 1945, ICRC delegate Fritz Bilfinger arrived in Hiroshima and was the first outsider to witness the devastation wrought by the atomic bomb. The next day, he sent a telegram to the ICRC delegation in Tokyo describing the horrific conditions and calling for immediate relief action; this action was subsequently organized by Dr Marcel Junod, who had arrived in Japan as the ICRC's head of delegation on 9 August 1945. Dr Junod would later travel to Hiroshima to witness for himself the scale of the destruction there.

The following is Bilfinger's report (including annexes), dated 24 October 1945, detailing the effects of the atomic bomb in Hiroshima as he witnessed them three weeks after the bomb was dropped on 6 August 1945. It was confidential at the time of writing. It was made public in January 1996 and is being reproduced in full, with annexes, for the first time in the pages of the Review. The ICRC's public archives are available for consultation by the public, by appointment.

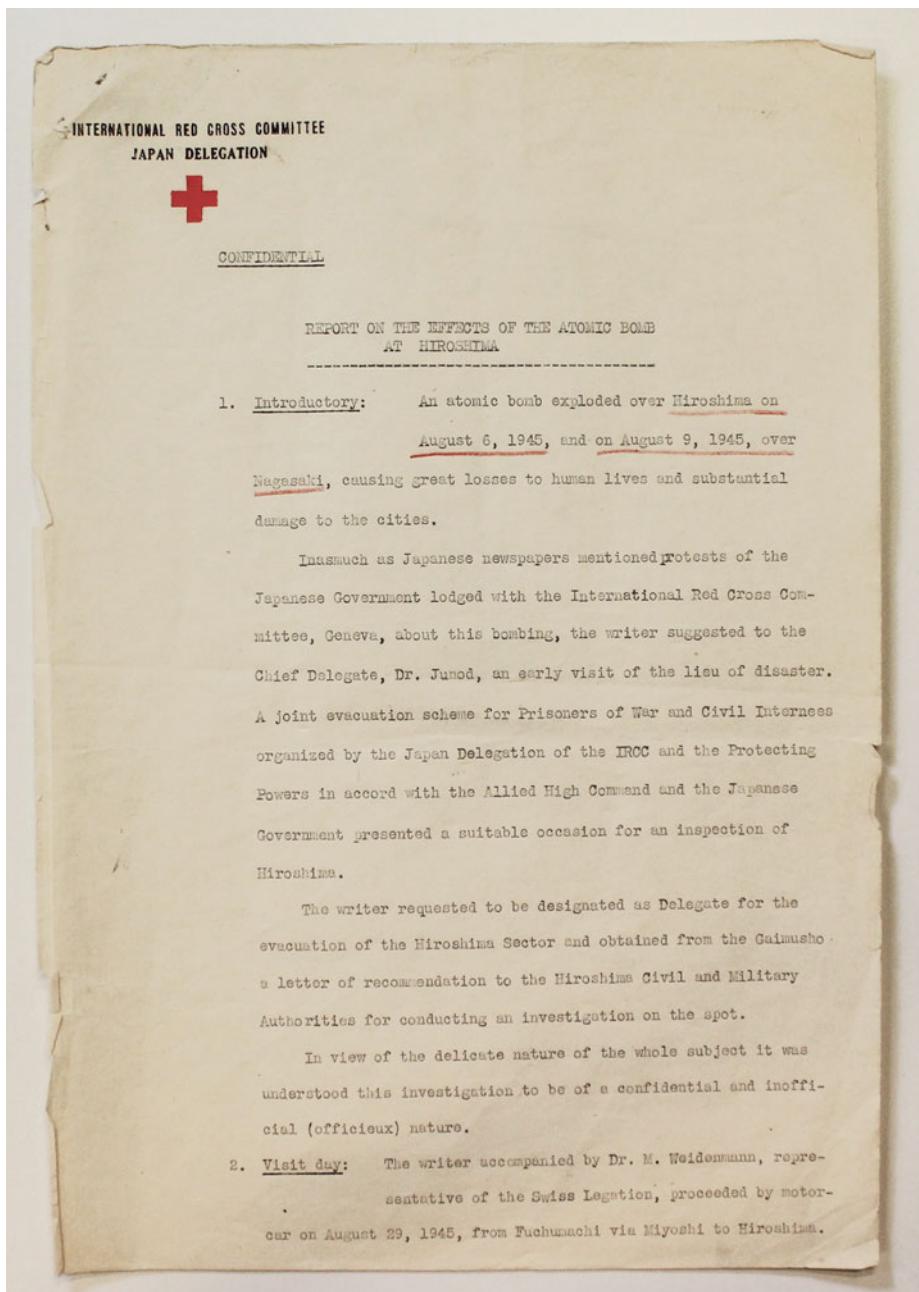
Archival source: ACICR, B G 008/76-X. Photos © Sarah Roxas/ICRC.

## ICRC historical archives

The following document comes from the ICRC historical archives. The ICRC archives collect and preserve ICRC documents dating from the organization's inception to the present day, and make them available for research. The ICRC's historical archives, run by professional archivists and historians, comprise 6,700 linear metres of textual records and a collection of photographs, films and other audio archives.

The ICRC's public archives represent an essential historical source for surveying, studying and debating contemporary diplomatic history, particularly in the field of humanitarian operations and their impact on States, societies, cultures and armed conflicts or other situations of violence.

The public archives cover the history of the ICRC since its foundation in 1863 to 1975, and are available for consultation, by appointment. If you wish to consult the ICRC's historical archives in Geneva, you may schedule an appointment via email at [archives@icrc.org](mailto:archives@icrc.org).



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3. Diary:

- August 29, 1945: Arrival outskirts of Hiroshima at 1100.  
Arrival at Prefectural Office (Kencho) at 1130.  
Official call on Governor J. Takano.  
Introduced to Vice-Governor Mr. Ishibashi,  
Mr. H. Dazai, Chief of Special High Police  
(Tokkoka), and Mr. Kitajima, Chief of Public  
Health Department.  
  
Made arrangements for City inspection.  
  
At 1500 official call on Lt. Gen. Tani, Com-  
mander of Hiroshima Garrison.  
Conducted investigations about two missing  
U.S. Airmen.  
  
Made arrangements for the following day for  
touring city conducted by Captain Shishido,  
eye-witness of the bombing.  
  
Was informed that Marshal Hata, whom the writer  
met in China, was unharmed, as the former was  
staying at Miyajima during the time of the  
bombing.  
  
1800 left for Miyajima, staying there overnight.  
  
August 30, 1945: 1000 toured City with Capt. Shishido.  
Visited one emergency hospital in centre of City.

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Called on Red Cross Hospital of Japan Red Cross Society, introduced to Prof. K. Takeuchi, President of the Japan Red Cross Society, Hiroshima Chapter and Vice-President Mr. Shigeto.

1700 departure by motorcar for Fuchumachi.

4. Report of Eye-witnesses: Obtained detailed verbal report from Mr. Dazai, Chief of Special High Police (App. 1) and Captain Shishido, both eye-witnesses. Mr. Tomino the IRCC interpreter translated these statements into English.
5. Geographical Description: The City of Hiroshima lies at the mouth of the Ota River (Otagawa) within a triangular delta, the base of which is estimated to be about 20 kilometers and the depth 12 kilometers, surrounded, with the exception of the river mouth, by wooded hills ranging up to about 500 meters. The City is built on the delta plain, crossed by at least 6-7 river arms, connected by many bridges.
6. Weather conditions: On the day of the bombing it was fine weather.
7. Effects of bombing: Three-fold: by air-pressure, rays and heat.
8. Point of explosion: There are unmistakable signs that the explosion took place at a point above the centre of the City. Captain Shishido claims that military experts estimate the height where the bomb exploded to <sup>be</sup> about 500 meters.  
  
The centre of the explosion must have been above Aioi Bridge, near the Chamber of Commerce building (Shoko Kaigi-sho). Noticeable were the effects of pressure on the bridge rails of the Aioi Bridge, both bent outwards. Most of the telegraph, light and tramway poles were broken or bent away from the centre of explosion. No signs

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of a suction effect as a result of the explosion could be traced.

9. The affected area conveniently sub-divided into three sections, one innercircle, totally destroyed, two kilometers diameter, an adjoining ring with houses greatly damaged extending up to six kilometers diameter and an outer periphery including slightly damaged houses, their location extending up to 10 kilometers away from the centre (see Map App.2).

The surrounding hillside covered by forests showed reddish patches of burnt trees within the woods which indicated the effects of heat or rays on the vegetation of hillsides.

10. Sound effect: Eye-witnesses of the City interviewed confirm that whilst they all noticed a strong light effect similar to electric arc welding or magnesium flashlight, they did not hear any sound. On the other hand, persons further away beginning within the suburbs heard the sound of an enormous blast. It is claimed that the explosion was heard 16 kilometers away.

11. Effects on structures, vehicles, etc.: With the exception of some concrete buildings in the centre most of the houses, like in many other Japanese cities of this size, are built of wood, a mixture of clay, mud and straw (kabe). Practically all houses of such structure collapsed within the city under the pressure from above, causing a huge dust cloud to rise to heaven. A number of casualties resulted from the destruction of these houses, whereby people were buried or wounded by the debris. Vast areas of the town were thereby flattened out, the only exception being chimney stacks. Also concrete buildings of the heaviest construction within the centre

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were heavily damaged, but not completely destroyed. All inflammable parts within these buildings were burnt as a result of the intense heat. However, heavy concrete bridges within the centre were only superficially damaged. The Aioi Bridge showed large transversal cracks in the pavement near the supports which seemed to indicate the force of the air-pressure in the centre of the bridge which must have caused this peculiar deformation.

Noteworthy is also the fact that some steel structures including steel bridges in the centre collapsed completely.

Large trees within the centre having a diameter of up to two meters were uprooted and some of the heavy branches of at least 80 cm diameter broken like matches by the force of the concussion.

Damaged vehicles within the city were strewn all over the place. Burnt-out tramways were thrown out of their rails and seen at least thirty meters away from the street. One eye-witness reported that all passengers of these tramways were instantly killed with all bodies found still in sitting or standing position. Burnt-out automobiles were crushed like tin-boxes, clearly indicating that pressure came from above.

The time of explosion being 0815, most of the population were already on their way to work, having finished their breakfast, therefore most of the fire places (hibachis) were extinguished. Nevertheless great fires broke out mostly caused by the enormous heat radiating from the explosion. Numerous isolated trees far from the nearest buildings were completely scorched in the central section clearly indicating that they were burnt by the explosion heat. One eye-witness related that he distinctly saw after his house had

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collapsed, the broken main wooden roof beam of his house starting to burn at both ends of the fracture.

12. Effects on men: The first apparent effects to victims were burns of the exposed parts of their bodies by heat, possibly by the rays. Victims inspected at the Hospitals showed burns mostly ~~in~~ faces, hands and legs, and breasts or backs, whichever was exposed at the time of the explosion. Strange enough no serious damage to eye-sight has been noticed or reported to the investigators.

Generally speaking, men seem to have been more burnt than women as their bodies were less covered.

Another more serious consequence seemed to be the effects of the rays. Many dying cases were shown to the investigators with no apparent surface wounds. They showed black blood spots on the skin, were losing their hair, suffering from heavy fever, diarrhoea and died within a few days all showing these symptoms. Doctors claim that their marrow bones ~~have~~ been affected by the rays resulting in a partial paralysis, thereby failing to renew the reproduction of white blood cells. Many of the dying victims showed a reduced number of white blood cells being as low as 600.

Those victims who were in the immediate vicinity of the centre in the streets were completely burnt and unrecognizable. The Military Authorities say that they could only identify the dead soldiers by their shoes. The Police Authorities also mention that parents could not recognize their youngsters as all victims of the school looked completely alike. On the day of the investigation still carloads of dead bodies were being carried away to the cremation

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place and the city was filled with the stench of the corpses.

There was considerable discussion as to the after-effects of the bomb and some opinion voiced whereby the damaged area was still radiating destructive rays. One case was cited of a family arriving from Osaka after the bombing and digging for eight days within the shambles of the city showing symptoms noticed on victims (see app. report). No confirmation could be obtained and the investigators rather doubt that they are radiation after effects. Films had been brought along for taking pictures. Unfortunately, the camera jammed and the films were not exposed. The developed films were clear and did not show any signs of fogginess, perhaps an indication that there was no longer radioactive material in the area.

13. Effects on Animals: Animals exposed to the explosion showed similar symptoms as men. When leaving Hiroshima one wounded horse showing signs of burns was noticed. On the investigators' inquiry the Authorities claimed that no effects on fishes in the various river channels, even near the centre, have been observed.

One member of the Police alluded that even the worms in the earth were killed by the rays and heat within the centre, but this could not be verified.

14. Effects on Vegetation: All trees within the centre were completely destroyed, broken and charred. Near the City castle where the Military Headquarters was installed, large ponds of lotus fields showed that most of the leaves had been burnt. However, there were still some new green leaves noticeable; as well as small patches of green grass at various places in the centre.

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Police Authorities claimed that the growth of vegetation, although not completely stopped, has been considerably slowed down. This could also not be verified.

Woodson the surrounding hills were partly burnt indicating a rather irregular effect, either of heat or rays on these forests.

Some newspapers published pictures whereby rice fields were affected by the explosion 6-7 kilometers away from the centre. Investigators could not notice any effects on the rice fields they passed by.

15. Various effects: Newspapers also reported different effects of the bomb rays on white and dark materials, whereby the latter were more affected than the former. The Police Authorities seem to have heard about this phenomenon but could not obtain for the investigators any confirmation. However, it seems likely that white clothing acted as a protective medium against the rays.

16. Medical aid: Due to the complete destruction of all hospitals within the city and the loss of the major part of medical personnel and nurses, the medical attendance for the victims was sadly deficient.

Although the city authorities immediately established about eighty emergency hospitals, which hardly deserve this name in view of the appalling sanitary conditions existing there, very little medical care could be given to the victims at first.

Investigators visited on August 30, 1945, the Morikawa Emergency Hospital, established in the Centre of the city within the ruins of a concrete building and operated by the Prefectural Office. It was opened on the 16th of August and accepted 290 patients. On the day

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of this visit 197 patients were present, 45 had died and about fifty transferred to other places, probably in the country.

Conditions in this hospital surpass all imagination, as patients are still lying on the concrete floor, only very few having straw mats. Few have mosquito nets and myriads of flies cover the wounded. Many cases were seen where large body burns were left without bandages, the patients probably expected to die. Sanitary conditions are terrible, patients lying in their excrements.

As the roof of this building was demolished and it being a rainy day, water was dripping on the wounded and dying. The few bandages noticed on some patients were old and full of puss. Medical equipment was practically non-existent. The place looked more like a morgue than an emergency hospital.

Honour must be paid to Dr. Nagasaki Goro, who, with insufficient means was working with three assistants and about twenty girl nurses day and night.

The Red Cross Hospital of the Japan Red Cross Society being located in the outskirts of the city remained in a better condition, although all windows had been shattered and all medical equipment, including the X-Ray Department, and blood transfusion equipment destroyed.

Of the Red Cross Hospital 75% of its personnel had been wounded or killed. Out of 450 nurses 300 were wounded and 150, some slightly wounded, still working at the Hospital. The Hospital has a capacity for 1000 patients, but at present only 400 beds were occupied. No reason was given why not more patients were accepted.

The situation with regard to medicines was somewhat better there, but bandages and surgical pads in dire need. The Hospital claimed

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to be able to make blood tests, but had no blood transfusion equipment, as the latter had been destroyed during the disaster. The doctors also claimed to be very short of Sulfamides.

17. Statistics: Statistics and estimates of dead and wounded in relation with this disaster vary for several reasons.

On account of the war situation the city of Hiroshima, showing at the last census a population of 400,000, was somewhat reduced by various measures. Men were called to military service and labour corps, and many children previously evacuated. The nearest estimate seems to be a population of 250,000 on the day of the bombing.

At the moment of the disaster many people were on the streets on the way to offices, factories and for labour service, with the result that casualties were very high.

Due to the complete breakdown of the civil administration as a result of the bombing it was next to impossible to establish reliable statistics of the dead and wounded, in fact, additional bodies are being unearthed daily. Furthermore, no organized assistance for the victims was possible for some days. Many wounded were brought by their relatives to the neighbouring villages and towns and cared for by their families.

Figures given by the Military Authorities and by the civil authorities are at variance, and change daily as many wounded still die everyday.

Hiroshima being an important naval arsenal and at the time a mobilization centre of the Army there was at the time of bombing a considerable strength of Japanese soldiers stationed in Hiroshima. Most of the Armed Forces were billeted at the Hiroshima Castle compound nearby the centre of the disaster and the casualties among

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the military were therefore exceptionally high. Several eye-witnesses report that they saw many soldiers who were located in a military camp about three kilometers away from the centre all severely wounded rushing on the main street northward away from the fires. Most of them must have been working with the upper part of their bodies uncovered, which was not unusual in this season of the year, causing severe burns to their backs and chests. Most of them died on the spot but many ran, severely wounded and terror-stricken along the main street, their hair turning brown, heads swollen up within a few hours almost twice the normal size, their faces darkened, their lips swollen and bleeding and their eyes almost closed on account of swollen lids. The exposed part of their bodies, either chest or backs and bare arms showed the bare flesh or huge blisters which were cut open at some emergency dispensary in order to relieve the pain. A great number of these soldiers collapsed on the street. At an emergency military hospital many of them were treated only by covering the open wounds with Mercuro-chrome or castor oil. A few hours after the disaster a penetrant repelling odour came from these wounded persons.

The investigators' estimate of victims on the visiting day at Hiroshima and surroundings amounts to approximately 100,000 wounded.

16. Relief: In view of the appalling conditions particularly with regard to the care of the wounded a telegram (Appendix 3) was dispatched on August 30, 1945, to the Chief Delegate requesting the assistance of the Allied High Command to immediately supply Hiroshima with medical relief, and recommending the immediate dispatch of a medical commission to study conditions.

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On September 9, 1945 an American Military Technical Commission headed by General Farrell, accompanied by Dr. Junod with six planes, carrying about 12 tons of medical supplies for the city of Hiroshima arrived. This medical relief has been distributed to the hospitals under the auspices of the I.R.C.C. (App.4).

Mr. Tomino, interpreter of the Japan Delegation of the International Red Cross Committee was dispatched on September 14, 1945, to Hiroshima to attend to the administration of this medical relief. Unfortunately, he happened to be in Miyajima on the night of September 17 when a severe typhoon struck the Hiroshima area. On account of a landslide the guest house in which Mr. Tomino lived was washed away and he was severely wounded. Three days later he died of his injuries. The Japan Delegation of the International Red Cross Committee was unaware of this account until a week later as all communications with the Hiroshima Prefecture were interrupted. Over 4000 persons lost their lives during this typhoon in this area.

20. CONCLUSION: Although many other bombed cities in Japan show similar large devastated areas as Hiroshima the fundamental difference lies therein that the atomic bombed city was blasted away within one instant which accounts for the disastrous effects, particularly as regards the large loss of human lives.

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The Hiroshima catastrophe will require the full attention of the International Red Cross Committee presenting a major new problem:

The effects of the atomic bomb surpass by far those of other known military weapons, including poison gas. The International Red Cross Committee should participate in the international discussions concerning the control of nuclear energy and exercise its influence to have the use of atomic power as a destructive force outlawed.

TOKYO October 24, 1945

*Fritz Bilfinger*

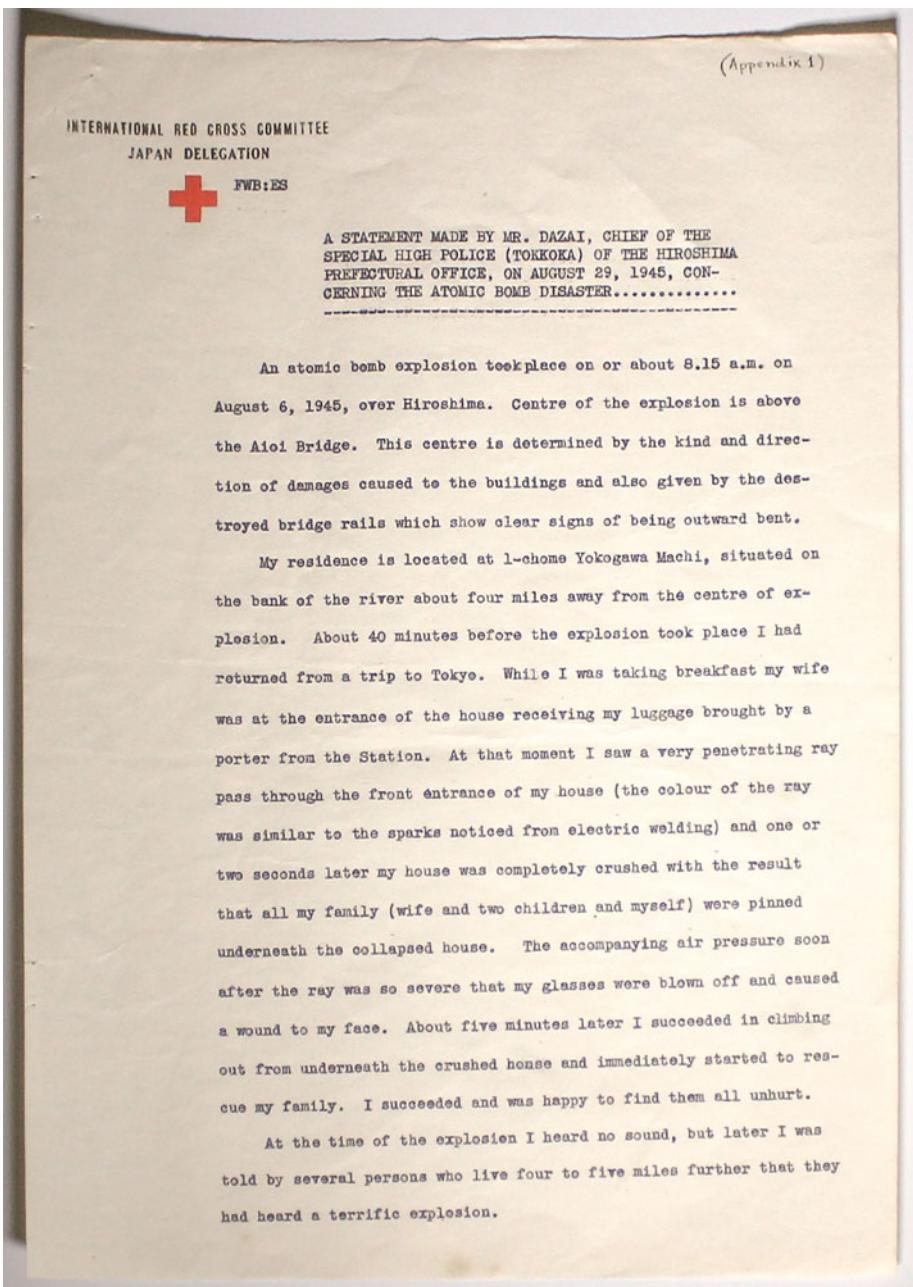
F.W. Bilfinger  
Delegate

Encls.:

Appendices  
and 48 photographs  
secured from Domei News  
Agency which form an  
integral part of this  
report.

## Appendix 1

Statement made by Mr Dazai, chief of the special high police (*Tokkoka*) of the Hiroshima prefectoral office, on 29 August 1945, concerning the atomic bomb disaster.



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As soon as I had collected the members of my family from the destroyed house I intended to proceed to an open field located about a few blocks away from my house, but found out that I could not direct my steps to that place as we were completely enveloped in a cover of smoke. I noticed that not only my immediate surrounding but also the mountains and the city were enveloped in a cloud of smoke. Eventually, I found one way open northward and we proceeded until we arrived at an open place on which vegetables were grown. On the way from my house to this field I noticed a number of people on the street who were crying in agony covered with blood. The street was covered with wiring and cables torn down by the air pressure and stones, bricks and lumber were scattered obstructing our passage. Just as we arrived to the vegetable field I noticed that a huge fire started up in the centre of the town. I left my family in this field and went to the Automobile Training School in Oshiba, where I borrowed a car and proceeded to the Kabe Police Station. From there I sent several Policemen and members of the Protection Association into all directions with the purpose of finding out if there was any road open to the centre of the City. This action was repeated several times until 4 p.m. as every road was blocked by fire and heat. At the Kabe Police Station I dispatched my first report to the Home Ministry (Naimusho) in Tokyo and at the same time I issued instructions to the eleven Police Stations located in the vicinity of Hiroshima City, instructing them to arrange immediately for a supply of food and medical attendance for the

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wounded and burnt.

Late in the afternoon I obtained the information that there was a way leading to Tammonin one of the emergency centres designated by the Governor for the Prefectural Police to assemble. I started off with some policemen and arrived at 8 p.m. the same evening. On the way from Kabe to Tammonin I expected to encounter strong heat and fires. However, this was not the case as by noon nearly all buildings were more or less burnt out and by 4 p.m. most of the heat had already radiated. As I am very shortsighted and I had lost my glasses during the explosion I was unable to see distinctly my surroundings on the way to Tammonin, but my Policemen who accompanied me explained that trams had been shifted from the rails to the side of the street; numerous corpses as well as wounded and burnt persons were lying all over the road. Steel telegraph poles were bent and broken and lying in the passages and trees were torn to pieces.

When I arrived at Tammonin the Governor, who later found out that he had lost his wife and children, and several other staff members were already there. The Governor happened to be in Fuchimachi at the time of the explosion. From then on systematic rescue work was being organized by the Prefectural personnel.

At 5 a.m. of the following day we proceeded to Higashi Police Station. This Station is very strongly constructed and some houses surrounding it were evacuated and torn down before the explosion. Policemen attached to this Station did their best to prevent the

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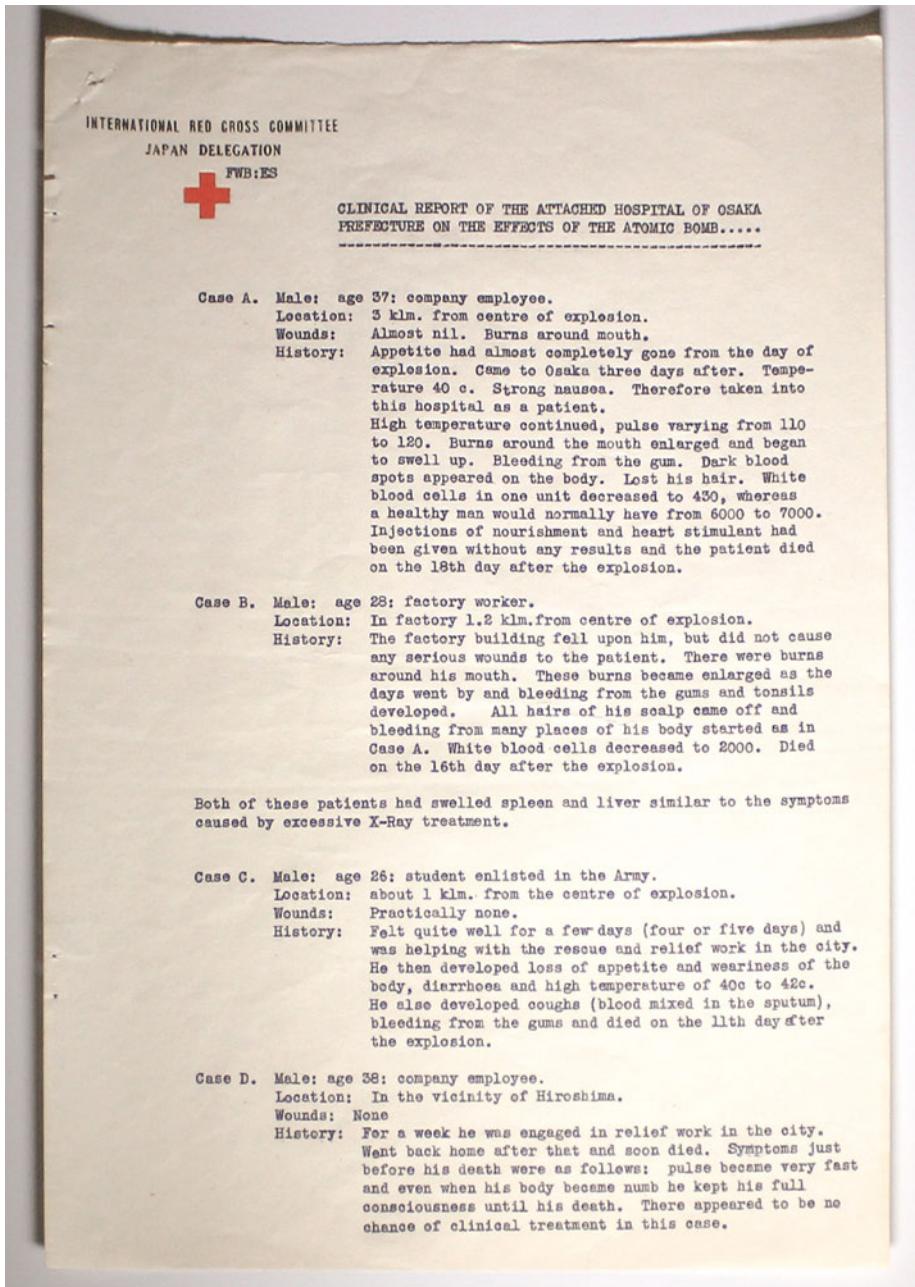


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building from catching fire from outside and thus we found this building almost intact. We therefore transferred our Government Prefectural Office for the next 10 days to this Station and worked and lodged in this building.

## Appendix 2

Clinical report of the hospital in Osaka prefecture on the effects of the atomic bomb.



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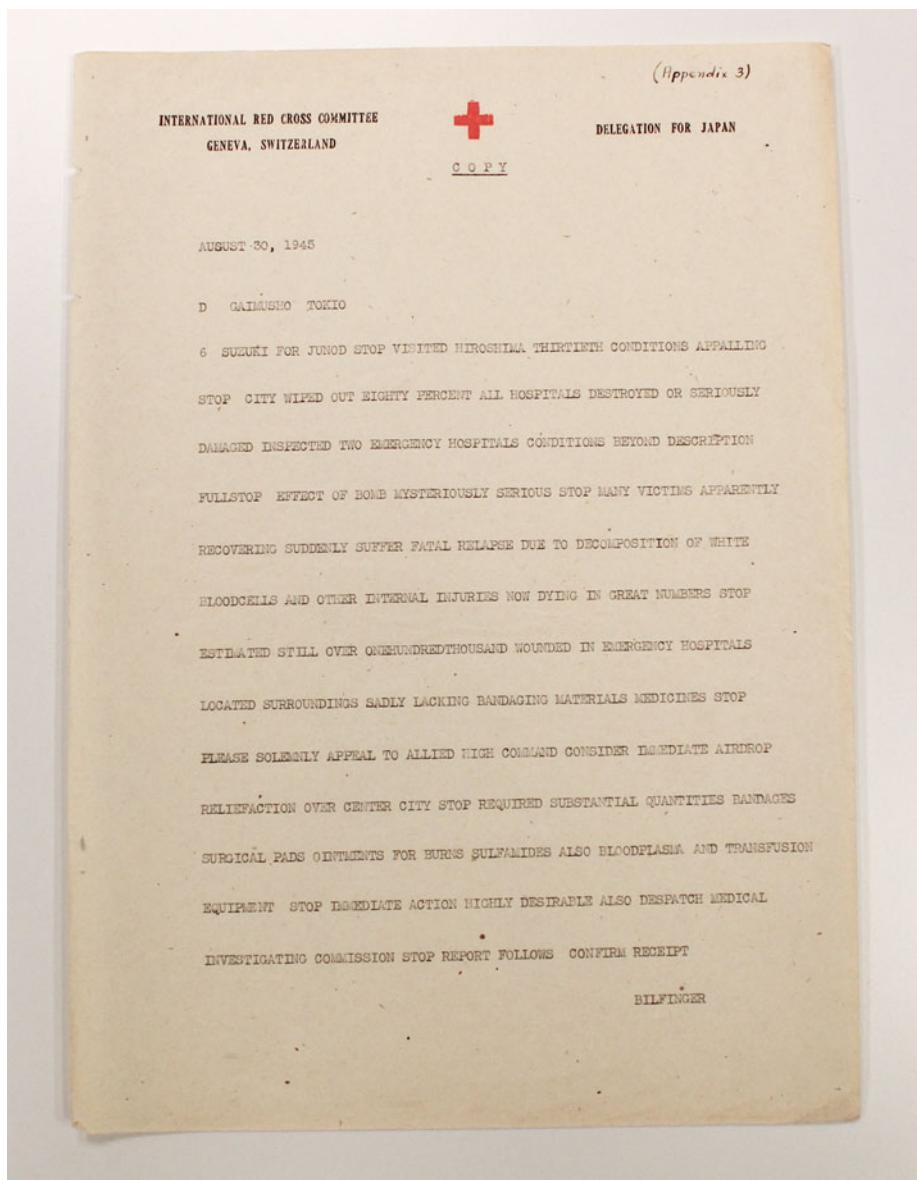


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These who moved about immediately after the explosion, doing relief and rescue work seemed to have become the most serious cases. Those who were transported by stretchers received less effects of the rays. In this Osaka Hospital approximately 400 patients have been brought in and an average of 40 patients are dying everyday and it looks as if the cases are all hopeless.

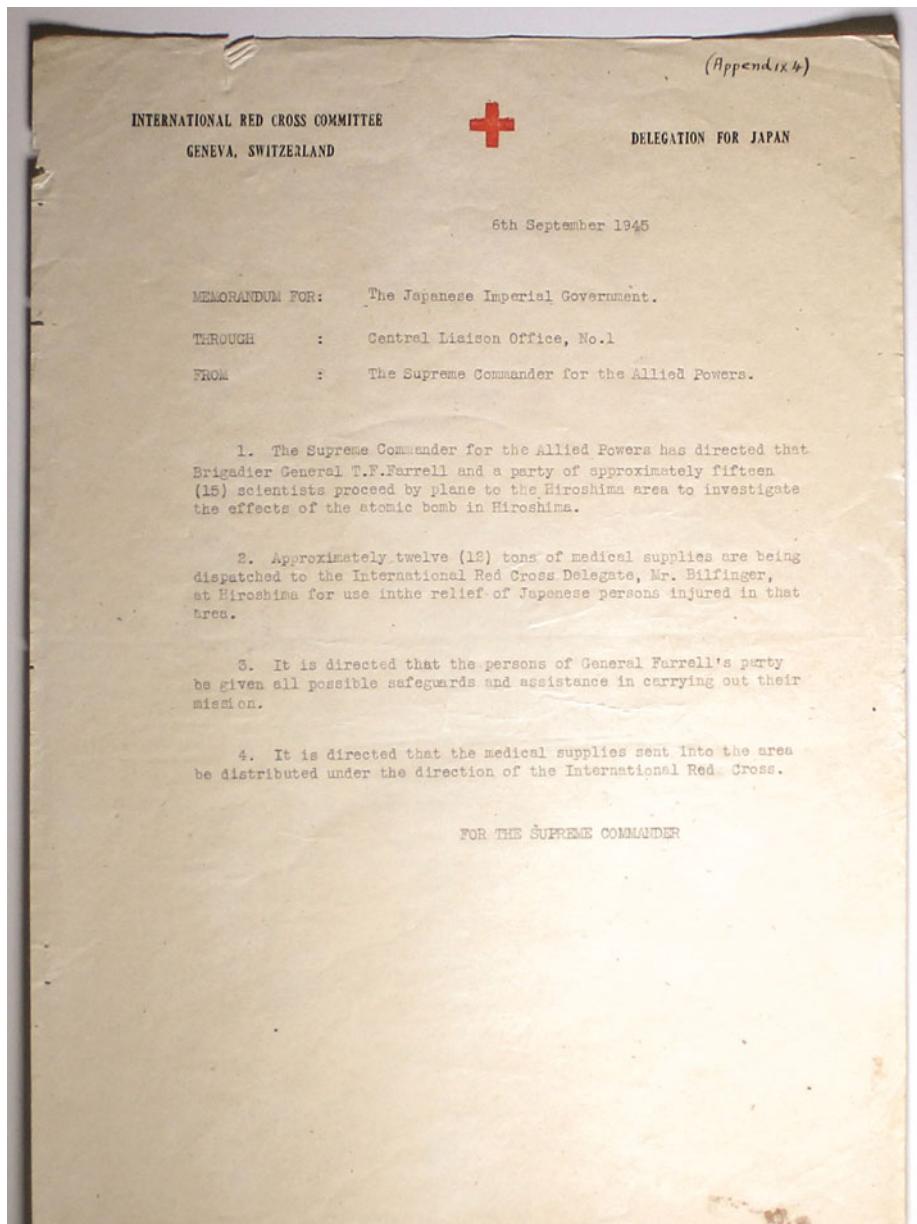
## Appendix 3

Copy of the telegram from ICRC delegate Fritz Bilfinger sent on 30 August 1945 describing the effects of the atomic bomb in Hiroshima.



## Appendix 4

Memorandum from the Supreme Commander for the Allied Powers to the Japanese Imperial Government detailing the interim medical relief to be provided by the allied powers, the distribution of which was ensured by the ICRC.



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PREFECTURAL POLICE STATISTICS ON HIROSHIMA CASUALTIES

(Excluding Armed Forces stationed in Hiroshima)

Dated August 20, 1945 \*\*

Population	250,000
Casualties	200,000
Dead	33,000
Missing	30,000
Severely wounded*	14,000
Slightly " *	43,500

\* Concerning the two latter figures it must be stated that they continuously decrease as many of the wounded die. On September 1, 1945, the reported death rate reached 53,000.

\*\* Above figures are the official figures reported to the Prefectural Police and therefore do not include the many victims who are daily dying in the surrounding villages and towns where they have been brought to.