

RECNA Newsletter

長崎大学核兵器廃絶研究センター

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A Project to Monitor “The World’s Nuclear Warheads Count”

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Nuclear Warheads Data Poster 2014

In September 2012, RECNA launched a team to monitor the nuclear warhead count. As a part of building a database, one of RECNA's major projects, the role of this team is to analyze a variety of information about nuclear weapons stockpiles (nuclear warheads, their number, and nuclear delivery vehicles) in countries promoting nuclear armament and share that information in the form of detailed data collection. In addition to myself, the team members include Dr. Hiromichi Umebayashi (director and chairman, RECNA), Prof. Keiko Nakamura (associate professor and coordinator, RECNA), and Mr. Ichiro Yuasa (representative of the NPO, Peace Depot).

such as current plans to develop nuclear weapons and missile launch tests. There are a total of 122 footnotes to the completed database, and 207 reference documents (some duplicates).

RECNA and the PCU-Nagasaki Council presented “The World’s Nuclear Warheads Count” database and posters at a press conference on August 1, 2013. It was widely reported on.

Our work on this project made future issues apparent. Currently, estimated data that is considered reliable is heavily dependent on Mr. Hans M. Kristensen (director of the Nuclear Information Project, Federation of American Scientists). Therefore, it is necessary to understand the evaluation method Mr. Kristensen uses, but it has not been made clear, apart from a portion (based on satellite photos of the number of Russian bombers). In relation to this, literature by Dr. Igor Sutyagin (principal researcher at the Royal United Services Institute for Defense and Security Studies) regarding Russian tactical nuclear weapons suggests the necessity of reconsidering the concept of operational deployment, centralized storage, reserves, etc. in accordance with army characteristics in each country. Furthermore, RECNA is calling for the analysis and judgment of conformity to the nuclear warhead count under the New START Treaty officially announced by the governments of the United States and Russia.

To date, published estimated data on nuclear weapons has included the “Status of World Nuclear Forces” (Federation of American Scientists), the “Nuclear Notebook” (Bulletin of the Atomic Scientists), the “SIPRI Yearbook” (Stockholm International Peace Research Institute), and the Nuclear Weapon & Nuclear Test Monitor (Peace Depot). However, those records are primarily published in English and have issues, such as providing content that is too technical, slow updates to data, and a presentation that hampers the ability to grasp the entire picture. The publications do not possess the function of a database that citizens can easily utilize.

On October 30, 2013, the Russian strategic command conducted a large-scale military exercise. They launched 2 ICBMs, 2 SLBMs, an anti-ballistic missile, and 4 short-range ballistic missiles. Strategic bombers were also dispatched, and 3 cruise missiles fired. These are included in the database. The exercise was truly a drill for nuclear war, and I keenly felt the danger posed by the fact that “So Many Exist Ready To Be Used.”

The monitoring team met numerous times (Mr. Yuasa participated via Skype) with the aim of building a database that adheres to the following points. (1) Friendly expressions are utilized as much as possible. (2) The distinction of operational deployment/non-operational reserve stockpile is considered desirable from the perspective of ordinary citizens, rather than the conventional distinction of strategic nuclear weapons/tactical nuclear weapons. That is appropriate, given also that the concept of this distinction does not apply in countries outside of the United States and Russia. (3) In accordance with circumstances such as reduction in the United States and Russia, the database can be updated as needed and past data can be viewed. (4) Various literature and materials are scrutinized to present persuasive grounds for argument. (5) The content can provide answers for users ranging from beginners to researchers.

In addition, scandalous events have occurred one after another in the United States, such as B52 strategic bombers mistakenly equipped with 6 nuclear cruise missiles flying over the United States (2007), seventeen military officers in a unit using the “Minuteman III” ICBM being relieved from office after being deemed unfit for duty, and two commissioned officers in the same unit being investigated for suspicion of illegal drug possession (2014). We must not forget that we are living with the danger of nuclear weapons being used because of human error.

Since there is a significant disparity in the estimated data content and amount of information regarding nuclear warheads and nuclear delivery vehicles in each country, the team abandoned the idea of summarizing all data in the form of a uniform presentation, and instead created 3 different presentations, (1) the United States/Russia, (2) France/Britain/China, and (3) other countries. In addition, linked pages that include detailed information and simple displays through pop-ups were created for the United States/Russia, for which there is a lot of information. Furthermore, the database includes information



(The Author (right) with Dr. Tatsujiro Suzuki, a member of the Executive Committee of Pugwash Council (left))

The 61st Pugwash Conference will be held in Japan. Perhaps many are unfamiliar with the Pugwash Conference, which is a long-established gathering of researchers from around the globe held to deepen discussions on the total destruction of nuclear weapons, disarmament, and peace, and present proposals to countries around the world.

In 1945, atomic bombs were dropped on Hiroshima and Nagasaki. Although the Pacific War ended, the era of the Cold War was ushered in, and conversely the nuclear arms race advanced around the world.

Concerned with this situation, and spurred by the 1954 Bikini Atoll nuclear test and radiation exposure suffered by the Daigo Fukuryu Maru, the philosopher Sir Bertrand Russell drafted a manifesto that aimed to abolish nuclear weapons in an effort to seek peace. He petitioned the physicist, Dr. Albert Einstein to sign it.

Dr. Albert Einstein signed it just days before his death, and having received his signature, Sir Russell released the manifesto to the world in 1955. This was called the Russell-Einstein Manifesto.

The Russell-Einstein Manifesto called for an international conference of scientists for the survival of humankind. This was realized in 1955 when a Canadian businessman, impressed by the Russell-Einstein Manifesto presented by Nobel Prize-winning scientists, invited the scientists to his summer home in the small fishing village of Pugwash, which is located in the east coast of Canada in Nova Scotia. This was the first Pugwash Conference. From Japan, Dr. Hideki Yukawa, Dr. Shin'ichiro Tomonaga, and Dr. Iwao Ogawa participated. Since then, the conference has been held once or twice a year in various locations around the world.

In Japan, the 45th Pugwash Conference was held for seven days in July 1995 at Hiroshima under the theme, "Towards a Nuclear Weapon-Free World." Immediately following this conference, the Nobel Peace Prize was awarded to the Pugwash Conference and the then chairman of the Pugwash Conference, Dr. Joseph Rotblat.

Sixty years after the atomic bombs were dropped on Hiroshima and Nagasaki, the 55th Pugwash Conference was held in Hiroshima in 2005 from July 23rd–27th under the theme, "60 Years After Hiroshima and Nagasaki." Over those five days, lively debates were held on

peace and the abolition of nuclear weapons, and on the final day of the conference the "Hiroshima Declaration of the Pugwash Council" was presented.

Last year, the 60th Pugwash Conference was held in Istanbul, Turkey from November 1st–5th. During the conference, a session was held on the Fukushima nuclear accident, and with a referral from the International Pugwash Council, I introduced efforts in Fukushima carried out by Nagasaki University and reported on the current situation regarding damage to health following the earthquake in Fukushima.

Given that this conference was held in a corner of the Middle East in Istanbul, which was once called the powder keg of the world, there was a tense atmosphere amid the calm gathering of researchers that contrasted with international conferences I normally participate in. Perhaps it stemmed from anticipation of the power of communication the Pugwash Conference possesses. The meeting was held with the participation of the Turkish president and foreign minister, and passionate discussions continued from early morning until late at night.

I was especially impressed by the continuation of a panel discussion where specialists and politicians from the countries of Iran and Turkey, Israel and Palestine, and India and Pakistan, which are presently at opposition to one another in international politics, sat at the same table and exchanged opinions. In particular, the panel discussion in which the foreign ministers from Iran and Turkey participated led to the groundbreaking diplomatic achievement of both countries expressing the will to cooperate in abolishing weapons of mass destruction in the Middle East.

In this way, scientists from around the world establish a place for talks that go beyond confrontation. I sensed the heritage of the Pugwash Conferences in the frank exchange of ideas that took place in an unofficial capacity among experts, including high-ranking government officials.

The Pugwash Conference still retains its importance even 68 years after the war. In the watershed year marking 70 years since the bombing of Hiroshima and Nagasaki, the decision was made to hold the conference in Japan as suggested by some.

It is my hope that we succeed in holding the Pugwash Conference in Nagasaki and sharing a detailed proposal on the total abolition of nuclear weapons with the world.

To realize this, the PCU-Nagasaki Council will call on all of Nagasaki, including Nagasaki University, Nagasaki City, and Nagasaki Prefecture, to embark on endeavors aimed at holding the conference.

Passing On the Atomic Bomb Experience & the Total Abolition of Nuclear Weapons

Makoto Takayama (Visiting researcher, RECNA)

In the fall of 2013, the visiting researchers at the Research Center for Nuclear Weapons Abolition (RECNA), Dr. Chie Shijo and I became coordinators and held a series of workshops under the theme, "How to Talk About the Bombing of Nagasaki." The presenters were Mr.

Shunji Inoue, a lecturer at the NHK Culture Center (October 29th), Dr. Shijo (November 26th), and myself (November 27th).

During those 3 days, lively discussions were held on the topic of speaking about the atomic bombing in relation to issues in media,

history, and recollections. Researchers involved in the total abolition of nuclear weapons asked questions to researchers involved in researching atomic bomb victims regarding each of the reports. The conversations between them were an attempt to approach the weighty theme given to this report, “passing on the atomic bomb experience and the total abolition of nuclear weapons.”

Mr. Inoue, who has for many years been in charge of producing programs for NHK (Japan Broadcasting Association), spoke about creating a documentary on prisoners of the old Japanese army who became bombing survivors in Nagasaki. Few realize that during the war Dutch soldiers were held prisoner in Nagasaki. This film encompasses the impact of an unknown past and emotional exchanges between the program producer, Mr. Inoue and the bombing survivors living in the Netherlands, and stirs emotions in the viewers. The film asks how we can understand the feelings and perspectives of the bombing victims who suffered in Nagasaki as Dutch soldiers.

The exchanges between Mr. Inoue and the bombing survivors living in the Netherlands also suggest that the practice of creating a documentary hinges on the act of conducting interviews. The activity, which is representative of a past mediated by double and triple colonialism, together with research of written materials, shares many similarities with the practice of oral history. Questions were asked about Mr. Inoue’s report regarding the location of materials on Dutch bombing victims, and differences in the perceptions of imprisoned bombing victims and historical awareness of bombing victims associated with Japan’s invasion of Asia.

In contrast to the transnational aspect of the atomic bomb devastation on which Mr. Inoue’s report focused, Dr. Shijo’s report concentrated on local stories from Urakami, a place in Nagasaki where the atomic bomb was dropped and has been well known for its long Catholic tradition, rooted in painstaking document research and interviews. With the question in mind of “why stories of the atomic bombing in Urakami during the Occupation predominantly involve the view advanced by Dr. Takashi Nagai*1 that the victims of the atomic bomb were “hansai” (burnt offerings), the report examined the methods of historical narrative theory and the utility of considering Urakami in comparison to Hiroshima. Dr. Shijo reviewed Dr. Nagai’s life and previous work on the “hansai” theory of burnt offerings.

Based on the significant impact of Dr. Nagai’s ideas, the fact that focus is not placed on stories of Catholic believers in Urakami, and that the acceptance of those ideas has not been examined, Dr. Shijo focused on the word, “rift.” Because of suspicion and feelings of indebtedness toward selfish acts in an extreme situation, the “rift” that opened up between neighbors is understood to be a “rift” in the Catholic community of Urakami, and the focus is placed on “the atomic bombing as divine punishment,” with an eye on “statements from people from the old town.” The examination of these stories was linked to issues in restoring Urakami, indicating a tendency to consider stories of Urakami as a power to rebuild an individual’s identity within the group. In regard to Dr. Shijo’s report, questions were asked about the relation

to previous research on atomic bomb victims, the relationship between the view on atomic bombs in a country that has been bombed and stories of Urakami, as well as questions regarding handling of data.

My report looked at issues of harm pointed out by Mr. Inoue, and stories of bombing survivors concerning “communication to the next generation” that encompass problems in local stories indicated by Dr. Shijo. Specifically, the report detailed research on life-story interviews with Nagasaki bombing victims that has been ongoing since 2005, with the basic theme being the representation of, and passing on of, unspeakable experiences. Focusing on differences in perspectives of “communication to the next generation” that arise in stories told by the living through storytelling, the report examined the relationship between the power of discourse (distance from the epicenter, degree of acceptance of peace education) and individual stories to discover the possibility of passing on stories produced from this reality to “become a Hibakusya.”

My report prompted comments on encountering “bombing survivors” rooted in life experiences and questions regarding the perspectives on bombing held by “those who have experienced it” and “those who have not.” The former comments simulate the research experiences and path of the speaker, and the latter question is attributable to the difference in perceptions between positivism and constructionism. My report took the fundamental stand of constructionism that questions anew the very framework of perceptions held by “those who have experienced it/those who have not.” Given the lack of discourse by bombing victims on their experiences, (in terms of constructionism) speaking of oneself is unsettling to the self-evident category of bombing victim (empirical). Within the rent in this category lies the potential to “become a Hibakusya.”

Furthermore, the 16th meeting in the continuing series of RECNA meetings presented an opportunity to meet Dr. Yuki Miyamoto from DePaul University in Chicago, and under the theme, “Nuclear Stories and Dissecting Myths in the Nuclear Age,” examined the problems introduced here from the standpoint of ethics, which is Dr. Miyamoto’s area of expertise.

In anticipation of the 70th anniversary of the atomic bombing next year, RECNA is beginning to conceive a new project addressing how to continue passing on the stories of the atomic bombing survivors.

*1 Dr. Takashi Nagai was a faculty of Nagasaki Medical University (now Nagasaki University) and A-Bomb survivor who lost his wife by A-bomb. He is well known for his Catholic faith and he wrote many books and articles on A-bomb both in fields of medical science and literature.

Report: Participating in the Nayarit Conference on the Inhumanity of Nuclear Weapons

Keiko Nakamura (RECNA Associate Professor)

The Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean was entered into on February 14, 1967, marking the creation of the first nuclear-weapon-free zone in a populated area. Against the backdrop of the Cuban Missile Crisis, which brought us to the brink of a nuclear missile launch, this regional effort toward complete elimination of nuclear weapons can truly be said to have paved the way for a comprehensive approach from non-nuclear-weapon state leaders that aims to realize a “world free from nuclear weapons.” Forty-seven years later, those same governments held an international conference in Nayarit, Mexico on the theme of the inhumanity of nuclear weapons from February 13th–14th this year. That conference underlined the fact that calls for such a comprehensive

approach are gaining ground in the international community, and it once again gave a strong impression of the heavy responsibility of non-nuclear-weapon states that continue to rely on nuclear weapons, such as Japan.

The official title of the meeting was the Second International Conference on the Humanitarian Impact of Nuclear Weapons. With the aim of globally sharing scientific and objective information on the impact of the use of nuclear weapons, this conference was positioned as a follow up to the international meeting held by the government of Norway in March last year. In addition to representatives from 146

governments, the conference was attended by representatives of international organizations including the United Nations and the International Committee of the Red Cross, as well as many civic communities (out of the nations possessing nuclear arms, 5 nuclear-weapon states, Israel, and North Korea were not in attendance). RECNA received an invitation from the Mexican government as an academic institute, and I participated.

To summarize the Nayarit meeting, I will present two elements that I think impacted the overall course of the discussions. First, at the start of the conference there was a 1 hour and 45 minute session on “the testimony of atomic bomb victims,” which was the outcome of efforts by NGOs. Mr. Yasuaki Yamashita and four other victims of the Nagasaki bombing now living in Mexico each spoke about their experience and emotions, painting a picture for the participants of the calamity of Hiroshima and Nagasaki, which is ground zero for discussions on inhumanity.

In addition, an important element was an announcement made on the morning of the first day of the conference. The Austrian government revealed that the third conference is to be held in Austria in the latter half of this year. This announcement enabled the various government representatives to hold discussions in anticipation of what should be addressed next, particularly in the exchange of ideas during the final session. I would like to readdress this point.

During the four working sessions, Dr. Masao Tomonaga, Director of The Japanese Red Cross Nagasaki Genbaku Hospital (RECNA visiting professor) and other experts took to the podium, and multifaceted discussions were held on the global and long-term result that the detonation of nuclear weapons would have on issues including public health, humanitarian aid, the economy, the environment, climate change, and food security. As a new perspective not touched on during the Oslo conference, I would especially like to focus on the scrutiny placed on the risk of accidental use of nuclear weapons. Panelists presented occurrences of accidents and incidences where nuclear weapons were on the verge of being used, indicating the heightened danger of nuclear weapons being launched because of factors such as vulnerabilities in command control systems, human error, elevated vigilance, and nuclear terrorism. The catchphrase, “So Many Exist Ready To Be Used” printed on RECNA posters showing “The World’s Nuclear Warheads Count” is not just a slogan. We must realize anew

that it is a fact supported by scientific data.

During the exchange of ideas in the session presided over by Mexico and Austria, both governments made comments one after another, significantly running over the scheduled session time. The remarks were primarily appeals for the necessity of moving toward nuclear weapon prohibition based on an argument of inhumanity. On the other hand, countries dependent on nuclear weapons such as Japan, Australia, and NATO member nations expressed a negative stance as in the past, asserting that “actions should be based on the reality of security guarantees.”

Finally, the Undersecretary for Foreign Affairs Juan Manuel Gomez-Robledo of Mexico presented the Chair’s summary (a full Japanese translation is available on the RECNA database). The summary expressed the viewpoint that, just as with other weapons, the process of first banning and then disposing of them is the path to achieving a “world free from nuclear weapons,” and the current discussion on the inhumanity of nuclear weapons should be linked to “achieving a new global standard and model through the conclusion of treaties that have legally binding power.” The summary also stated that the time had come to begin “the diplomatic process that will contribute to this aim,” including the examination of “specific time frames,” “the definition of optimum venues for discussion,” and “clear and substantive frameworks.”

The Chair’s closing summary was simply a personal summation that possesses no binding power. Nevertheless, it can be said that it showed the extraordinary will of the Mexican government to call for the promotion of substantive arguments for the prohibition of nuclear weapons in the next conference to be held within the year. On the other hand, at this point the Japanese government has yet to clarify its stance, including whether it will participate, saying, “Japan needs to consider what response to take” (from the homepage of the Ministry of Foreign Affairs, speaking on a summary of the conference). Discussions on inhumanity continue to have an important aspect that impact the international mood toward Hiroshima/Nagasaki Atomic-bomb Day, The First Committee of the UN General Assembly, the conference in Australia, and the 2015 NPT Review Conference. We will closely observe actions taken in the future.

Nagasaki Youth Delegation

Towards a Building New Bridges Between Heiden and Nagasaki

Kenichi Ejima (6th year, Nagasaki University School of Medicine)



(The Author and Ms. Maekawa presenting a message from the Heiden meeting to Mayor Taue of Nagasaki, 4 November 2013, at the conference hall of Nagasaki Atomic Bomb Museum)

the opportunity to visit the United Nations Office in Geneva, Switzerland and give a presentation on activities carried out prior to departure and after returning to Japan.

The activities of the Nagasaki Youth Delegation are a large part of the reason young adults from Nagasaki were extended an invitation. There is also a very strong link between Nagasaki and Heiden, where

We were honored to receive an invitation to the international conference (sponsored by the Swiss Red cross, etc.), the “Swiss Youth Bans the Bomb” (10/31-11/1, 2013), which was held in the town of Heiden in Switzerland. Ms. Haruka Maekawa (3rd year, Nagasaki University Faculty of Economics) and I participated from Nagasaki. In the spring of 2013, the Nagasaki Youth Delegation was presented with

Henri Dunant, the founder of the Red Cross spent his last years.

In 2009, a replica of the Peace Bell of Nagasaki was presented by medical department volunteers to the Henri Dunant Museum in Heiden. This came about because 3 years earlier the museum directly asked Prof. Yamashita, then assigned to WHO headquarters in Geneva, for the Peace Bell of Nagasaki to be donated as a symbol of desire for peace and to commemorate the 100th year of Henri Dunant’s death, observed in 2010.

Volunteer medical students agreed with that objective, contributions were solicited, and the Peace Bell of Nagasaki was created and gifted as a symbol of recovery from the atomic bomb disaster and a bell of peace. That bell is rung every year on August 9th and special occasions in the far-away town of Heiden.

At the conference, workshops for high school students and university students were simultaneously carried out. There were approximately 30 high school students and 50 university students that participated. Many of the students knew little about nuclear weapons. Even so, we were surprised to see that many were interested and gathered from all over Switzerland. We primarily participated in the workshops for university students. At the conference, the university students took the view that action should be taken to prohibit banks from investing in companies that manufacture nuclear weapons. We thought highly of their strong awareness of the issues and clear vision.

One aspect was memorable. We gave our presentation and realized there was not a single person among the 50 university students who knew the word "hibakusha", atomic bomb survivors. Though some may think that the atomic bomb survivors' stories being told by our generation lacks validity, we think we should continue to share their stories in creative ways.

In addition, at the end of the conference, we received a letter addressed to the mayor of Nagasaki from the students who held the conference, and were able to hand it to the mayor in person at the

closing ceremony for The 5th Nagasaki Global Citizens' Assembly for the Elimination of Nuclear Weapons, which was held soon after.

We met new young friends taking action in Switzerland and reunited with young friends we met in Geneva. It is encouraging to have partners who are working hard toward the same goals. Just as our counterparts are, we youth of Nagasaki also hope to continue taking action as only we can.

New Staff

Vice Director, Professor



SUZUKI, Tatsujiro

Born in 1951. Before joining RECNA, he was a Vice Chairman of Japan Atomic Energy Commission (JAEC) of the Cabinet office (2010-2014). He is also a Council Member of Pugwash Conferences on Science and World Affairs (2007-09 and from 2014~). Dr. Suzuki has a PhD in nuclear engineering from Tokyo University (1988).

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Steven Lloyd Leeper



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