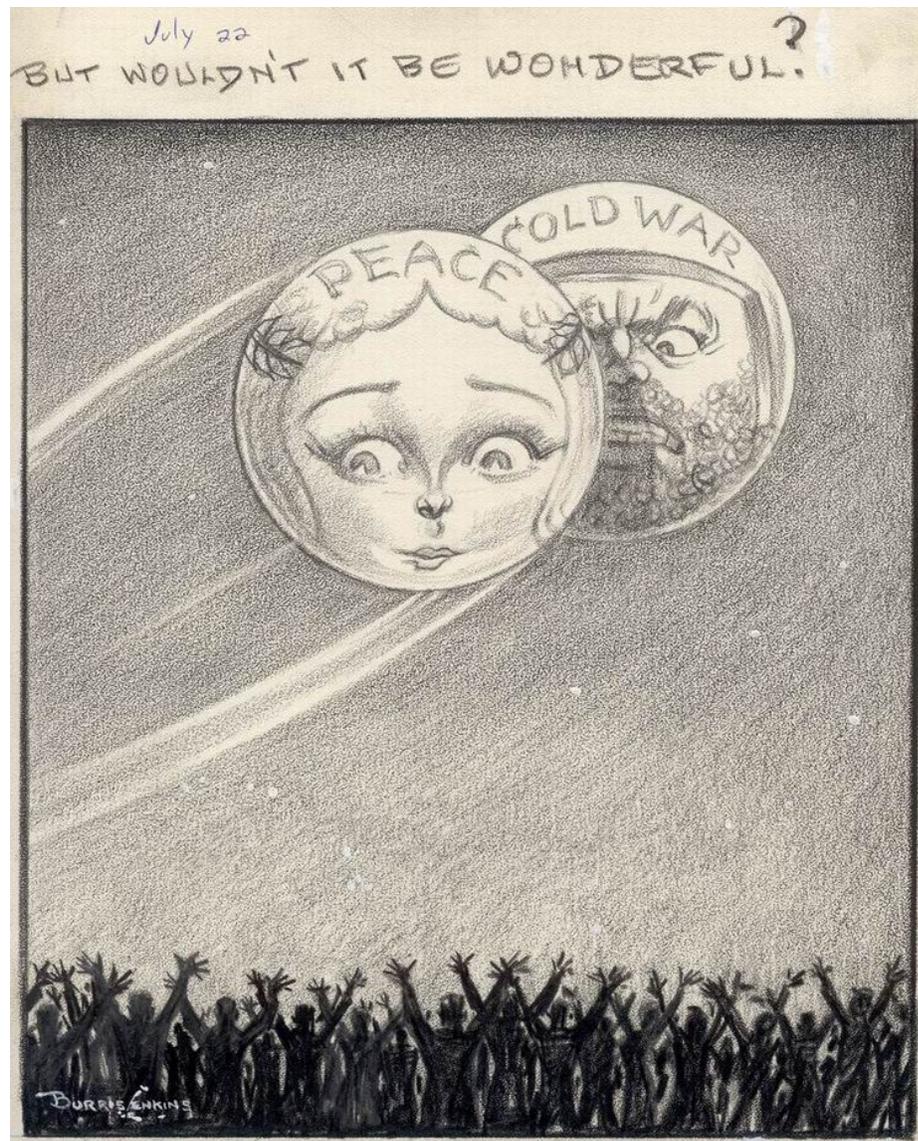


Cold War Times

The Internet Newsletter for the Cold War Museum
and Cold War Veterans Association

May/June 2004

Volume 4, Issue 2



"Peace Eclipses Cold War" by Burriss Jenkins, Jr., 1944. Original sketch from private collection of Scott L'Ecuyer.

In this political satire sketch, "Peace" is seen overcoming the beast, "Cold War". Note the artist's comment, "But wouldn't it be wonderful?" So profound was his vision that as early as 1944 he visualized that peace would be victorious over the Cold War as he captured the people's celebration that would occur nearly 50 years later. Was it irony? Was it vision? Was it hope? This month we celebrate the 13th anniversary of victory and celebrate the realization of this vision.



The Cold War Museum®
www.coldwar.org



In This Issue:

Cold War Museum Update	3
Preservation in the West	6
CWVA Chairman's Corner.....	8
A Community Remembers	9
<i>By Scott T. L'Ecuyer</i>	
Bail Out Over China and The Long Walk Home	11
Growing Up Atomic.....	11
<i>By Joe Bageant</i>	
Forgotton Families of The Cold War.....	15
Frank Murray: A Veteran's Story	17
<i>By Connie Pardew</i>	
The Japanese Bomb and Why It Matters	19
<i>By Willian J. Pellas</i>	

About the Cold War Museum

Founded in 1996 by Francis Gary Powers, Jr. and John C. Welch, the Cold War Museum is dedicated to preserving Cold War history and honoring Cold War Veterans. For more information, call 703-273-2381, go online to www.coldwar.org or write: **Cold War Museum, P.O. Box 178, Fairfax, VA 22030.**

The opinions expressed herein are not necessarily those of Cold War Times, the Cold War Museum, the Cold War Veterans Association, and/or their Association, and/or their respective Board of Directors. As is the case with all history, the history of the Cold War is subject to some degree of interpretation.

The Cold War Museum Update

Dear Friends and Supporters of The Cold War Museum,

I am pleased to report that we continue to make advancements in our efforts to build the **National Cold War Museum and National Cold War Memorial**. May 4 is the final public hearing pertaining to the Nike missile base in Lorton, Virginia, which is where we are planning to locate the Museum facility. If you could take a moment to write a letter of support to the [Board of Directors of the Fairfax County Park Authority at 12000 Government Center Parkway, Fairfax, VA 22033](#), it would be greatly appreciated. The more letters of support we receive from Fairfax County residents and other interested companies, foundations, and organizations, the more likely it is that the Park Authority Board will accept our proposal to locate at the Nike site. On May 26, Dr. Gerald Gordon, President of the Fairfax County Economic Development Office, Dr. Stephen Fuller with the School of Public Policy at George Mason University and I will give a presentation to the Fairfax County Park Authority Board about our feasibility study which forecasts that over 300,000 people will visit the Museum at the Lorton site.

May 7-12 we are co-sponsoring a conference with the **USS Saratoga Museum Foundation, Naval War College, Brown University, the Naval Undersea Warfare Center and Submarine Force Museum about US/USSR Naval Operations during the Cold War**. In October we are co-sponsoring a conference "From the Quagmire to Détente: The Cold War from 1963 to 1975" with the **Virginia Military Institute and the Robert R. McCormick Tribune Foundation**. This conference will be held at the Virginia Military Institute in Lexington, Virginia, October 8-9, 2004.

The last weekend of June, the **mobile exhibit on the U-2 Incident of May 1, 1960**, currently on display at the **Atomic Testing Museum in Las Vegas, Nevada**, will be dismantled. The exhibit is currently available for display starting July 2004. It consists of a variety of unique artifacts, text cards, and photographs associated with the U-2 Program and Incident of May 1, 1960. If you are aware of any museums, government facilities, or locations that would like to exhibit the display, please contact me by email at gpowersjr@coldwar.org

Our next **Spy Tour** is scheduled for Saturday May 22, 2004. On July 3, our Spy Tour will include a stop at the **International Spy Museum**. Visit <http://www.spytour.com/> for more details or to order tickets. Recently, improvements have been made to our online gift store where you can purchase unique Cold War Museum novelty items and other Cold War collectables.

Please consider making a donation to the **Cold War Museum's general fund**. Your gift will help us plan for the new physical location. Tax-deductible contributions and artifact donations to the Museum will ensure that future generations will remember Cold War events and personalities that forever altered our understanding of national security, international relations, and personal sacrifice for one's country. Please help spread the word about the Museum. Together we can make this vision a reality. If you have any questions or want additional information, please contact do not hesitate to contact me.

Thanks for your continued support,

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The Cold War Museum Ads on Google

Google, the world's largest search engine, offers the fastest, easiest way to find information on the web and responds to more than 200 million search queries per day. Google is one of the ten most popular sites on the Internet and is used around the world by millions of people. The Google search engine is available in 88 language interfaces.

Google recently launched **Google Grants**, a test program that provides free Google AdWords advertising to selected non-profits that apply to the program. The Cold War Museum was selected to participate in the program, and our text-based ads now appear alongside or above Google search results whenever someone enters a search into Google that matches the keywords selected for our campaign. Clicking on the ad takes the searcher to our website where they can find additional information.

Midwest Chapter Update

Cell Door Exhibit Opened

On Friday, March 13, the Chapter opened the East German Stasi Cell Door Exhibit at the Milwaukee County War Memorial Center in Wisconsin, located on Milwaukee's beautiful lakefront. Our presentation featured two former Stasi prisoners, Werner Juretzko and John Van Altena, who shared their experiences and discussed their insights to the deplorable East German Prison system. Werner had been convicted of espionage for Western intelligence and served six years starting in 1955. John had served 19 months for the intent of smuggling a family out of East Berlin in 1962. CWM is thankful for their efforts in preserving Cold War history.

Cold War Victory Day, 2004

On Saturday, May 1, we will be hosting a "Cold War Victory Day" event at the Safe House Newsroom, Home to the Milwaukee Press Club at 2pm. We will feature a presentation by Air Force Major Tim Cornell (ret) as well as feature official proclamations from both the Governor and State Legislature of Wisconsin. Major Cornell participated in the Euro-NATO Joint Jet Pilot Training Program before transitioning into the Air Force Special Office of Investigations (AFOSI). He was eventually promoted to become Air Force Director of Counterintelligence in Europe after the fall of the Berlin Wall. During his tenure he linked and apprehended a dozen members of the former East German Stasi apparatus forming new espionage contacts with the newly formed Russian intelligence agency. The service of over 20 million Cold War Veterans was a key element that allowed America and its allies to become victorious in this decades old conflict – appropriately, we are happy to observe Cold War Victory Day on May 1, 2004.

Veteran's History Project

I continue to actively pursue histories of Cold War Veterans for the Cold War Veteran's Association. To date I have received a limited number of accounts from veterans of America's longest and costliest conflict. Please consider sharing your story as part of an archive of preserved veteran's histories that will be accessible for generations as a reminder of the service and vigilance kept during the Cold War period.



Posing around the original cell door #218 from the former KGB/Stasi prison compound in East Berlin, Hohenschoenhausen, now part of the Cold War Exhibition at Milwaukee's America's Freedom Center, are, from left to right: Chris Sturdevant, Chairman, CWM- Midwest Chapter; Werner I. Juretzko, communist prisoner, 1955-1961; Dave Baldwin, Milwaukee Safe House; Francis Gary Powers Jr., Founder, Cold War Museum; and James E. Bunce, Command Sergeant Major, Ret., America's Freedom Center. Standing in back is John VanAltena Jr., communist prisoner, 1964-1965.



At the entrance to the Nike Missile bunker: Chris Sturdevant, Jorgen May and Francis Gary Powers Jr.



Standing on the steps to the once camouflaged missile site are: Gary Francis Powers Jr., Werner I. Juretzko and Chris Sturdevant.

Preservation In The West

By Scott L'Ecuyer, CWT Editor

In the continuing efforts to secure historic Cold War sites, the historic White Point missile launch facility in San Pedro, California, is of particular importance as a possible location for a west coast chapter of the Cold War Museum. The following is an update of how the project is moving forward.



LA-43 White Point

Background: In August 2000 Nike site LA-43 and the WWII Coastal Artillery battery “Paul D Bunker” (bcn127) were combined to form an historic district on the State of California Register of Historic Places. This gave the site some protection from the planned development of the former White Point Military Reservation, which was once part of Fort MacArthur.

Now the real work begins and the clock is ticking. We are currently in year three of a five-year agreement with the City of Los Angeles that prevented the destruction of these structures, which was designed to allow those who want these structures preserved, the time necessary to do three things.

- Come up with a plan for the reuse of the structures,
- Form an organization to support and protect them as well as implement the plan,
- Begin fundraising.

Latest Developments: The Preserve LA Getty Grant for \$35,000 has been used to complete a study for stabilization and reuse of the Nike Historical Resources at White Point Park. The final report from Tom Michali, Architect, “M2A”, should be completed soon. Drafts have been proofed and returned.

On March 6th and 7th, 2004, Ron Parshall from the Nike Historical Society, San Francisco, flew to Burbank and toured the Van Nuys Nike Launcher Site 96 to assess the conditions of the magazines in consideration of removal of hydraulic system components for Site 43L.

Approval to relocate magazine parts from Van Nuys Launcher Site 96 to White Point Launcher Site 43 is pending by the City Department of Recreation and Parks, Office of the General Manager, Mr. Jon K. Mukri. A letter of notification was mailed to him on March 28, 2004.

Lieutenant Colonel Erich Muschinske, Commander of the The California Air National Guard's 261st CBCS, has agreed to provide access to three underground Nike missile magazines to remove all electrical and hydraulic parts associated with the magazines' elevator and door system. Detailed arrangements are pending.

A meeting was held on March 13 at the Los Angeles Maritime Museum to establish the Coalition of Historic White Point. Representatives from the Palos Verdes Peninsula Conservancy, Los Angeles City Department of Recreation and Parks, the White Point Project Steering Committee, the Fort MacArthur Museum Association and the Los Angeles Conservancy were present. Frank Evans of the Los Angeles Air Defense Museum Association and Trudi Sandmeier of the Los Angeles Conservancy hosted the meeting. Although progress was made concerning contributions for historical research, the PVPLC representative Bruce Beiesman-Simons was adamant in voicing the opinion of the PVPLC Board of Directors and the Home Owners Associations for the total demolition of the historic Nike buildings and to disapprove any form of museum setting at White Point.

A meeting on Friday, March 26 at Los Angeles City Hall, with representatives Elise Swanson and Robert Urteaga from Councilwoman Janice Hahn's 15th Council District Office, confirmed continued support to stabilize, restore and preserve the Nike site buildings at White Point. We updated her office on the Getty Grant study, the Air National Guard's offer for materials, and the need to seek support from the Department of Recreation and Parks. The meeting was also attended by Frank Evans and Trudi Sandmeier.

To further our application for nonprofit status in the State of California, Sam Stokes continues to meet with representatives from the Small Business Associations SCORE program and private attorneys. Bylaws and Articles of Incorporation are near completion and the name "Los Angeles Air Defense Museum Association" has been searched and reserved.

A project plan is being written to detail the tasks and objectives for removal of the equipment at Van Nuys Site 96 magazines, packing, documentation and shipment to White Point for storage in an underground magazine.

The plan includes a list of supplies* needed for a quick deployment when the small window of time (date not yet set) comes to deploy, strip and recover all the NIKE hardware components from the Van Nuys location before the commercial construction razes the site. With the proper help, this will take approximately two consecutive 4-day weekends.

How can you help to make this project happen?

The immediate needs:

1. Corporate support, funding and/or sponsorship.
2. Volunteers for manual labor to assist and relocate materials.
3. Vehicles to transport materials. (Including semi-tractor/flatbed)
4. Material handling equipment. (Industrial type)
5. Skilled labor is always welcome!

*Contact Frank or Scott, below, for a comprehensive list.

*Items can be donated, loaned or funds supplied to rent equipment.

To volunteer or have resources to donate to this important project please contact us:

Frank H. Evans
430-A East San Jose Ave.
Burbank, CA 91501-2654
Home: (818) 562-1515
Email: FEvans@GlobalMedTech.net

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CWVA California Chapter
P.O. Box 15968
Newport Beach, CA 92659
Home: (949) 722-0794
Email: stlecuyer@prodigy.net
Website: www.cwva-ca.com

Preservation Volunteer in Florida

My name is Mike Mclemore. I served in Ditchelbach, Germany as a 16b20. I have visited SF-88 site and it looks nice. I am wondering if there are any restoration projects in the works in the Homestead, Florida, area. I would like to volunteer to help if needed. Please contact me at: m.mclemore@att.net

Chairman's Corner

By Vince Milum, CWVA Chairman

With this issue of the Cold War Times, we take special note of two events — **Cold War Victory Day** (May 1st) and **Memorial Day** (May 31st).

Cold War Victory Day is a celebratory event that allows us to revel in the freedom we have won at great cost. Because of the growing success and influence of the Cold War Veterans Association, numerous governors (along with other government authorities) have joined the CWVA in proclaiming May 1st to be Cold War Victory Day. To access the numerous governmental proclamations of this great achievement, please visit the CWVA home page at www.coldwarveterans.com.

While Cold War Victory Day is celebratory in nature, Memorial Day is a solemn occasion which calls us to remembrance of all the great sacrifices which were paid with the lives of our loved ones in the cause of freedom. Once again this year, the Cold War Veterans Association will lay a wreath at the tomb of the Unknowns as part of the Official US recognition of this "holy day."

In unifying these themes, I close by asking you to join with me in saying a [Cold War Victory Day Prayer](#) that was prepared by CWVA Senior Chaplain David Clevenger:

Cold War Victory Prayer

Dear God,

We praise your Holy Name and THANK YOU for preserving the human race from the terrors of the Cold War. We thank you for giving courage and dedication to the men and women who served — and sacrificed — during this period (September 2, 1945 to December 26, 1991). In so doing, the freedoms we now enjoy — often without adequate reflection — have been preserved so that they may be passed down to another generation.

On this day — May 1st, 2004, we do give thanks in recognition of the freedom that has been preserved at great cost. And we pray that you will continue to guide and lead our people so that one day everyone — everywhere — will be free at last. Amen.

Prayer by Dr. David Clevenger
Senior Chaplain, Cold War Veterans Association

California Chapter Update

The Chapter was appointed to **The Redondo Beach Memorial Day Parade Board of Directors** for 2004. The Chapter, along with partner VSO organizations partook and supported the ceremonies of **The Moving Wall Experience** as it came through the city of Newport Beach. The Chapter is keeping vigilant to ensure that Cold War veterans' sacrifices are remembered in all related functions appropriate to the service years -- including the veterans on the Vietnam Memorial Wall that served in Cold War duty -- therefore they are not still forgotten. We attended the **Blue Star Highway** dedication in the City of Redondo Beach with other VSO partners and a fundraising plan has begun to dedicate highways in California on behalf of the Cold War veteran.



Upcoming chapter initiatives include raising funds for the restoration of a **War Dog Cemetery** at Fort MacArthur that was desecrated after the Fort closed in 1975 and is an injustice that needs to be corrected. We urge those of you that wish to get involved with these initiatives or to donate to contact us through the Chapter website:

<http://www.cwva-ca.com/>

A Community Remembers

By Scott L'Ecuyer

The Second Annual Redondo Beach, CA, Memorial Day Parade & Tribute 2004

Purpose & Mission

To produce an annual hometown Memorial Day Parade and Tribute to honor and pay tribute to the men and women of America's Armed Forces who have selflessly sacrificed their lives for God and Country that we might inherit a free and democratic nation and live as free people.

History

In March of 2003, the Reverend Bhagavan Friend of Redondo Beach appeared before the Redondo Beach City Council and made a passionate case that the City needed to pay public tribute to our soldiers on Memorial Day. He proposed the first Redondo Beach Memorial Day Parade and Tribute to fill this need.

With the blessings of The Mayor & Redondo Beach City Council, he formed a committee that, in little over eight weeks, had collected around \$20,000 in contributions and, with the help of a local prominent event promoter, Reverend Friend produced the First Annual Redondo Beach Memorial Day Parade and Tribute. This first parade was composed of over 80 units, including veterans' service organizations including the Cold War Veterans Association, city dignitaries, military color guards, military vehicles, scouts, and many other colorful cars, trucks and floats.

After the parade, a tribute was held that lasted nearly two hours and included speeches by local veterans and city officials and patriotic music. Particularly notable was the inclusion and acknowledgement of the Cold War and its veterans and recognition of the Cold War Veterans Association at the event. The Marine Corps provided a 21 gun salute and the tribute ended with a rousing song.

One of the high points of the tribute was a prayer that was written cooperatively by a number of local ministers and religious representatives from diverse religions that Reverend Friend had brought together. They recited the prayer together and each ended it with his or her own particular blessing. The theme was that all religions should come together to honor and pay tribute to the men and women who have given their lives so that we can believe and worship in the manner of our own free choosing in America. It was well received with a standing ovation from the more than 800 citizens who attended.

All in all, the First Annual Redondo Beach Memorial Day Parade and Tribute to America's Fallen Heroes was a great success.

What is New for 2004

The Organization

This year, the CWVA took a more formal role in planning the event and now is part of the board of directors. The Parade and Tribute Committee has now been completely reorganized as a separate nonprofit corporation for Public Benefit with its own federal and state non-profit, tax-exempt status. This corporation has no connection to any religious organization.

The Committee

- Reverend Bhagavan Friend, Chairman
- Shanti Friend, Vice-Chairman



- Ila Friend, Secretary
- Tara Friend, Treasurer
- Shraddha Friend
- Brigadier General Michael Teilmann, Bob Hope USO
- Tony Ugliano, General Manager of Ruby's Restaurant in the Marina
- Christopher Meyers, The Vietnam Veterans of America, Chapter 53
- Ray Molina, Commander, VFW Post 2828
- Scott L'Ecuyer, The Cold War Veterans Association
- Joe Janesic, The Fort MacArthur Museum Association
- Hugo Rojas, President and Founder of the California Youth Karate Club, Inc.
- Terence M. Hammer, M.D.
- Ted Hayes, Justiceville/Homeless, USA (JHUSA)
- Ron Smith
- Jim Allan
- Ellen Allan
- Jim Light
- Pat Light

The Parade

The upcoming parade will take place on Memorial Day, May 31, 2004, at 10 a.m., starting from Knob Hill and Pacific Coast Highway in south Redondo Beach, proceeding north on Catalina Avenue and ending at Veteran's Park at Torrance Blvd. and Catalina. There the Tribute to America's Fallen Heroes will be held.

This year we expect there to be many returning participants from the 2003 Parade and Tribute. We also expect many new participants from all branches of our military, the Cold War Veterans Association, Vietnam Veterans of America, American Legion, the Boy Scouts, Girl Scouts, and numerous local business and civic groups.

This year we have asked the United States Navy to commit one of their ships to make a port call during the event. The Redondo Beach Pier will host special activities to honor America's fallen heroes and the Navy visitors. In addition to this, an exciting fly-over by two or more jet fighter aircraft has received FAA approval and is in the process of military finalization.

In all, this Second Annual Redondo Beach Memorial Day Parade and Tribute 2004, promises to be a great and exciting event. The Cold War Veterans Association will sponsor a float in the parade. If you are in the southern California area for Memorial Day, please contact me at stlecuyer@prodigy.net so you can join us.

To participate, volunteer, or donate contact:

Parade website: www.rbmdp.com

Email: Parade@patriotcities.us

Mail: The Parade and Tribute Committee, P.O. Box 4002, Redondo Beach, CA 90277-1734

Telephone: (310) 540-6044

Cold War Veterans California website: www.cwva-ca.com

Keep aiming high,

Scott T. L'Ecuyer

Editor

Bail Out Over China and The Long Walk Home

The Arthur Humby Story

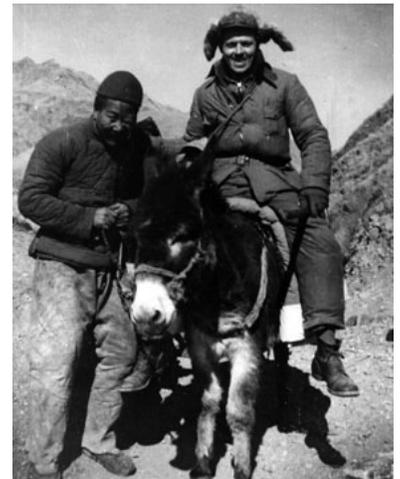
As the “Hot War” we remember as “WW II” was winding down in the summer of 1945, what has become known as the “Cold War” began to put a chill in the air even as early as the close of 1944. When the Soviet Union became a part of the Allied Forces, it was truly a marriage of convenience, with doubts, concerns and suspicions encountered at every turn of events. As this “Big Chill” evolved into the Cold War, many actions, initiatives and events took place that seldom, sometimes never, made public news that was fully and accurately reported.

Beginning with this issue of the Cold War Times, in subsequent issues, it is our intention to highlight one of these relatively untold stories from our Internet archival collection that will, collectively, shed additional light on the complex and often little understood actions that were played out behind the general public view. Largely, these will be personal stories of individuals and aircrews that were performing services that, by design, were not available for public consumption. They are stories that give one a feeling of being present and participating in a form of clandestine service that, even today, is neither known nor understood by the general public. Take time to read these stories as they appear in the Cold War Times. It will be time well invested.

The first Cold War story is the tale of Art Humby's crew who were shot up and bailed out over eastern China in February 1945. They then hiked west across China to freedom with the help of the Chinese Communist Guerrillas: <http://www.rb-29.net/HTML/74Humbystory/00.25Humby.htm>

This story is a perfect example of one of the few and last times there was any cooperation between the Communist Forces (Chinese and Soviet) and the US in their common interests. At that stage of the war with Japan, the Chinese Communists were striving to gain support, supplies and favor with the US. They demonstrated this by helping smuggle the Humby Crew back to their home base deep within western China.

The stories which will follow, successively will demonstrate the growing enmity which became known as the Cold War. This story is personal, exciting, gripping and well illustrated, and should get this series off to a good start.



Growing Up Atomic

By Joe Bageant

-Between 1945 and 1955 America struggled with the problem of preparing its youth for "the promise and the peril of the atom."

Americans of a certain age can remember that chilling pause when our radios suddenly went silent. Then came the announcement: "This is CONELRAD. This is CONELRAD." After another minute of dead airwaves and breathless fear on the listener's part, an authoritative voice would tell us: "Had this been an actual nuclear attack, you would have been asked to turn to 640 or 1240 on your radio dial...." If you can remember CONELRAD, you are, at the very least, on the tail end of the atomic generation.

Coming of age between 1945 and 1955 meant growing up amid the repercussive national anxiety that followed Hiroshima. And contrary to the popular media version today, there was a lot more to the experience than just practicing Duck and Cover under our school desks, as instructed by Bert the Turtle in the 1952 cartoon classic of the same name. It was an adolescence bombarded with messages about "the peril and promise of the new atomic

age," from a multitude of voices permeating the post World War II culture. These unrelenting references to the atom bomb, aptly named "atomic narratives" by historian and author Michael Scheibach, were everywhere: newspapers, books, radio, television, classroom materials and activities, movies and magazines.

This atomic narrative -- society's overarching account of events and their meaning -- shaped the concerns and attitudes of those reaching adolescence during the late 1940s and first half of the 1950s, just as the Great Depression affected the generation growing up in the 1930s, and the Vietnam war would affect the Sixties Generation, born between 1945 and 1955.

Making Ready the "Atom-Agers"

The radioactive dust had barely settled over Nagasaki before educators became concerned with the atom bomb's implications for America's young people. Obviously they would be serious for the next generation and clearly some form of indoctrination was in order. The concept that youth needed to be prepared to deal with "atomics" spawned all sorts of curricular and extracurricular activities. Youth Councils on atomic energy were formed in 25 states, as "Atom-Agers look[ed] to the future," according to a 1950 issue of *Progressive Education*. To encourage knowledge of the Atomic Age and to prepare morally responsible youth fit for the challenge of handling atomic energy, schools formed Current Affairs Clubs, Youthbuilders, United Nations Youth, Green and White Clubs, and International Discussion Clubs. It was an era of organizations that would give birth to "the organization man" of the Sixties. In 1949 a nationwide survey showed 78 percent of American students belonged to a youth organization or club.

In a nation just settling down from a protracted war military indoctrination came most readily. Thus, adolescent boys learned map reading, first aid, weaponry and tactics as cadets in the Junior Reserve Officer Training Corps (JRTC). Military indoctrination was a basic part of high school and community life, and when civil defense drills were instituted in the early 1950s, JROTC cadets served as air-raid wardens and practiced evacuation of the wounded. Outside school, the National Rifle Association offered additional weapons training through the Junior Rifle Corps.

On the coeducational side, there was the Civil Air Patrol, wherein boys and girls met at local airports for classroom instruction in identifying enemy bomber silhouettes and practicing emergency procedures for an airborne atomic attack. Nor were less militarily inclined female students, most of who expected to become homemakers (98% would marry) overlooked. In 1957 the U.S. government published *Civil Defense Practices and References for Homemaking Classes*, which tackled the problems of appropriate provisions, furnishings and even décor for a fallout shelter. And if a lad or lass were too young for these activities, The Atomic Energy Commission (AEC) would gladly provide a comic book explaining atomic principles called *Dagwood Splits the Atom*.

At the same time educators sought to prepare students on non-military aspects of the atom, the general idea being that if you understand the nature of the atom, you fear it less, and if you understand it thoroughly you can put it to peaceful, productive use. This effort was aimed at the scientific and practical level, to understand and exploit the "magic of the atom," as it would relate to health, industry, electricity production and a host of other as-yet-undeveloped applications. Cooperation between the AEC, McGraw-Hill, General Electric, MGM and others, produced hundreds of classroom films with titles such as *The Atom and Agriculture* and *How We Get Our Power*, much to the delight of millions of students who preferred movie watching to the classroom regimen.

Often as not, the films presented very unlikely scenarios. Westinghouse's 33-minute film, *Dawn's Early Light*, made in 1955, depicted a high school senior seriously frightened by the atom's horribly destructive power. Well, wouldn't you know it! His dad is a nuclear physicist! Together they build a model of an atomic reactor, thereby dispelling all of the boy's fears and teaching him how the nuclear powered submarine *Nautilus* operates to boot.

However, the indoctrination of Atomic Generation was clear on one point: They had a unique responsibility and a unique place in history because of being born into the atomic age. They must be self-reliant, informed and capable of dealing with this new challenge in science and society. But there was also a contradictory message. On one hand the atom promised to change forever such things as medicine, agriculture and industry. On the other side of

the equation lay the apocalypse, which could happen at any moment, rendering all efforts irrelevant. Many narratives contained both messages, plus a religious one thrown in for good measure.

The Cold War Cometh

Before it hardened into the Cold War, the national narrative dealing with the atom was, for the most part, a call for international brotherhood. As hard as it is for us to imagine today, in 1946 some 54% of Americans thought the United Nations should control all nuclear weapons, including those of the U.S. And a staggering 40% endorsed some form of One World government, according to Gallup polls. That same year 14 states adopted the Constitution for the Federation of the World, as an expression of their belief in "One World or None," and "Peace in the World" (or the World in Pieces.) With the emergence of the Cold War, atomic fear, which was always the essential core of the Cold War, took on a new face. It was a Chinese face, a Russian face, a Korean face. But most of all it was a Communist face. Educational materials shifted from the theme of international cooperation toward opposing communism and the sheer survival of American values. Samples of student materials reflected the shift. In the 1953-54 school year, *Senior Scholastic*, a magazine handed out to students, carried 25 articles titled "*Freedom Answers Communism.*" Each week students learned about communism's evil goal of global domination of free people everywhere. (Given what we know about "Uncle Joe" Stalin today, the articles may not have been far from the mark.)

The headlong, all-out arms race made the efforts of educators difficult. For instance, students learned in December of 1953 that the arms race had come to a draw, only to be informed in the spring of that the new hydrogen bomb escalated the stakes to an all-time high. This "H-bomb" could blast 50 square miles into powder and burn 800 square miles down to a crisp in less than a minute. All fallout shelters were now rendered useless and, as John Foster Dulles publicly announced, the hydrogen bomb was capable of wiping mankind from the planet. Given the events of the time, it is small wonder that *Senior Scholastic* presented a rather schizoid selection of textual and visual material, featuring peaceful international developments, interspersed with chilling reports on the communist malignancy, the arms race and the decreasing survivability odds of nuclear war.

Lest anyone young or old overlook the seriousness of matters, in 1954 the federal government launched Operation Alert, jacking the atomic frenzy to new heights. Operation Alert was a hypothetical three-day Russian nuclear attack on 55 American "target" cities, wherein Americans were instructed to find cover and take other appropriate measures. Failure to do so in New York was punishable with a \$500 fine and a year in jail. Simultaneously, the press added to the drama with fictional stories of 8.2 million being killed and another 6 million being horribly injured. Even President Eisenhower left the White House for a tent city erected outside Washington. The government continued Operation Alert, expanding the number of target cities to 125 before it was discontinued in 1962.

Fortunately, there were diversions enough, chief among them the movies and the growing phenomena of television. But even they mirrored the anxiousness of the times, as the film industry catered to atomic youth, one of the most movie going generations ever. Two new teen-flick genres emerged to serve their tastes—the juvenile delinquent and the science fiction movies. The "juvie movie," which made its arrival in the mid-Fifties, played to youth alienation and violence, and refusal to join the adult world under the shade of the mushroom cloud with such films as *The Wild One* (1954), *Rebel Without a Cause* (1955) and *Blackboard Jungle* (1955).

The sci fi movies centered on a burned out, contaminated world under attack by monstrous forces. Science fiction movies depicted inhumanity and destruction via warfare against evil forces, often as not in a desert suspiciously similar to Los Alamos. Their themes of alien infiltration and unstoppable malevolent power alluded to the communist threat.

The movies in particular illustrate the swiftness of the national narrative's transition during the post-Hiroshima era. In just five years there was a shift away from the universalistic One World phase of the atomic narrative that dominated such movies as the 1951 classic, *The Day the Earth Stood Still*. In the movie Klaatu and his robot, Gort, come to Earth from a distant civilization to deliver their pacifist message of brotherhood across the universe. Of course Klaatu is shot in the first 30 seconds of the movie, but that itself is a message about man's basic instincts.

After a miraculous healing from the gunshot wound, Klaatu, played by Michael Rennie, enlists an Albert Einstein-like scientist to help him elaborate on his message to the extent that, if earthlings extend their violence into space, the planet will be reduced to a smoking cinder. The movie's message to the Atomic Generation was the same one being delivered by media and educators: Humans are not advanced enough to handle atomic energy; Man's survival depends on world peace. Subsequent movies tended to depict all-out war against ungodly alien (read communist) invasions.

But neither the movies, nor the mass media nor the classroom was answering the most potent question coiled at the bottom of the Atomic Generation's minds: Are we or are we not all going to die?

1955: The High Water Mark?

Michael Scheibach, in his excellent book, *Atomic Narratives and American Youth*, chose 1955 as a cut-off point for the Atomic Generation's formative years. Even knowing that social history is a continuum, and that any cut-off point is arbitrary, it was nonetheless a smart choice. As Scheibach points out, atomic survival had by 1955 "become an everyday dimension of American life," even to the point of accepting the massive nuclear stalemate and all the close calls made at NORAD as the norm. That alone probably represents some sort of high water mark in the American psyche.

The Atomic Generation, as the first to be submersed in the narrative of the nuclear threat to civilization, was surely the progenitor of the Sixties Generation counterculture. It is easy to see the common themes passed on, the most obvious being the late 1940s concept of "One World or None" reflected in the Sixties world peace movement, and its "Ban the Bomb" protests.

The student radicals of the Sixties Generation constituting the New Left and the communal flower children of that era may have differed in approach, but they agreed something needed to be done to lest the world end in a nuclear flash. And both believed that fixing what was wrong with the world begins on an individual level. The dominant peace-seeking themes of the Atomic Generation had been passed on. Not only passed on, but often transferred directly through key players in the Sixties movements who were themselves of the Atomic Generation: Ken Kesey (born 1935), Martin Luther King (born 1929) Tom Hayden (born 1939), Abbie Hoffman (born 1936), Grace Slick (born 1939), Bill Graham (born 1931) and Jim Morrison (born 1940).

Scheibach quotes a girl graduating in the class of 1955: "Living has been a difficult and insecure thing; at worst, an insurmountable wall of bewilderment and frustration ... we've never lived a minute of our lives without war or the threat of war." Such haunting testimony from someone just 17 years old...

Yet, any given generation takes for granted what the previous one struggled hard to understand and reconcile, and the Sixties Generation seems to have done just that. Certainly the Sixties Generation with its activism, hippie hedonism and exuberant plunge toward self-realization was not as much haunted by the specter of the mushroom cloud as the group of Americans just a decade or so older. Moreover, the Sixties Generation paid homage to it (for instance, embracing the atom-laced beatnik poetics of Allen Ginsberg's *Howl*) absorbed it, and moved on with their lives.

But if any of them had cared to look back to the year 1955, when the last murmurs of the post-war atomic narrative were fading, they would have noticed something that would much affect their own problematic era: In 1955 the United States government decided to send foreign aid and "other support" to a place called Vietnam.

Forgotten Families of the Cold War

By Sherry Sullivan -- www.forgottenfamilies.com

How and why forgotten families got started

Approximately 20 years ago Sherry Sullivan became compelled to find her father, Geoffrey Sullivan, who at that time had been missing for more than 22 years. Geoffrey and Alexander Rorke, Jr., performed covert operations for the U.S. government during the Cold War. After their joint disappearance government agencies denied knowing or accounting for these men.



Determined to find answers, Sherry presented Freedom of Information Act (FOIA) requests to several U. S. government agencies. Little time passed before it became evident that the FOIA is not free and does not provide the information requested. Documents were either withheld or redacted to a large degree. Due to the lack of U.S. government cooperation in regards to the FOIA requests, two families (Sullivan and Thompson) were forced to spend six years in court to obtain requested information.

Nonetheless, review of the documents did lead Sherry to other families, as well as individuals that were involved in the Cold War and who knew her father. As she progressed with her investigation, Sherry realized that the families (particularly the widows and fatherless children) of the missing men from the Cold War could benefit from a collaborative effort.

It was also discovered that existing organizations such as MIA/POW, Amnesty International, and ACLU were unable to support her efforts for varying reasons. So in 1989 Sherry established the Forgotten Families of the Cold War (Forgotten Families) as a Maine corporation. In the early 1990's the IRS granted Forgotten Families a ruling that designates the organization as a tax-deductible non-profit organization (pursuant to Section 501(c)(3)).

The Forgotten Families' mission is to unite the families, share information, support investigations, and bring closure to open wounds that the Cold War inflicted on many families across the United States; these families seek government accountability.

Forgotten Families Current Status

Over 25 file drawers of documentation have been gathered -- from FOIA requests and lawsuits, individual investigation files and national publicity documentation. The documentary evidence is organized by source and well indexed.

To date Forgotten Families has identified 13 missing men and some of their family members. Sherry Sullivan, its founder, has presented her father's story to such national media organizations as CNN, Unsolved Mysteries, and Dateline. A web site has been published to help the Forgotten Families' efforts to locate more loved ones of the missing men.

Forgotten Families' Board of Directors is comprised of various professionals: an attorney, accountant, and private investigator. Also on staff are an administrative assistant and a paralegal. The Board is committed to seeing through the organization's efforts to bring about the accountability of these men by the U.S. government.

Where Forgotten Families is Headed

The headquarters for Forgotten Families recently moved to a building in Stockton Springs, Maine. In its most recent history, the building was the town office; it was donated by the original owners with the caveat that interest

income on its sale go to the benefit of widows and women with dependent children. Forgotten Families shares that same vision, specifically for those of the Cold War.

Several other families around the country are investigating and gathering information regarding the disappearance of a family member during the Cold War. Forgotten Families has begun writing grants in order to obtain moneys needed to fund the continuation of all the investigations; collaboration with all families and to demand U.S. government accountability.

Thousands of documents need compiling, cross-indexed, data needs to be entered and made accessible to all families and researchers. Once the documentation is data based, Forgotten Families will be in a position to efficiently share information with other families and researchers. The information obtained from the documentation will also put Forgotten Families in a position to present the necessary evidence through the courts to hold the U.S. government accountable for the missing men from the Cold War. Ultimately, Forgotten Families will work toward legislation that will prevent this type of governmental nonaccountability from happening again.

State of Maine



Proclamation

WHEREAS, Geoffrey Sullivan began serving our nation by joining the United States Air Force in 1952; and

WHEREAS, Geoffrey Sullivan was honorably discharged in 1959; and

WHEREAS, he continued his service beyond those eight years in the Air Force by enlisting in the Army Reserves in 1961; and

WHEREAS, Geoffrey Sullivan disappeared in 1963 while piloting an aircraft into Central America during a covert operation concerning Cuba; and

WHEREAS, his daughter, Sherry Sullivan, began searching for her father in 1985 and learned that through voluntary action, other men disappeared in this same conflict; and

WHEREAS, due to the number of families around the country who lost loved ones in a similar manner, Sherry Sullivan founded Forgotten Families of the Cold War in an effort to bring these families together; and

WHEREAS, the Veterans Administration recognized Geoffrey Sullivan as MIA in 2002, issuing a grave marker and placing it in Augusta, Maine at the Veterans Memorial Cemetery, in the "Garden of Remembrance," which is dedicated to those missing in action,

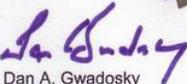
NOW, THEREFORE, I, JOHN E. BALDACCI, Governor of the State of Maine do hereby proclaim September 23, 2003 as

FORGOTTEN FAMILIES OF THE COLD WAR RECOGNITION AND APPRECIATION DAY

throughout the State of Maine, and encourage all citizens to recognize this observance.



In testimony whereof, I have caused the Great Seal of the State to be hereunto affixed GIVEN under my hand at Augusta this seventeenth day of September in the year of our Lord Two Thousand and Three.


Dan A. Gwadosky
Secretary of State
TRUE ATTESTED COPY


John E. Baldacci
Governor

Frank Murray -- A Veteran's Story

By Connie Pardew

He was a Cold War warrior, paid by the Central Intelligence Agency (CIA) to fly missions in a top-secret aircraft that was tested in the remote southern Nevada desert at Groom Lake. Frank Murray, 73, of Gardnerville, Nev. flew the A-12 in classified missions at the height of the Cold War over North Vietnam and North Korea in the 1960s. Now he can talk about it.

Murray, flying at an altitude in excess of 80,000 feet, and faster than Mach 3, was one of the few whose job was to flyover and photograph denied areas, eluding radar tracking. The A-12 program, code named OXCART was a part of Lockheed Advanced Development Projects. In April 1962, Lockheed's chief test pilot Lou Schalk took the first A-12, known as Article 121 on its maiden flight at Groom Lake.

The next year, Murray, along with 10 others was selected as pilots for the OXCART program. As an Air Force fighter pilot, he thought he was volunteering to be a chase pilot on NASA projects. "When I found out what it really was, I just about jumped out of my skin," he said. "I knew I was going to have the time of my life. It was a high caliber of personnel," he said. "We all had to go through intense psychological and physical testing, not to mention being able to stand wearing a pressure suit."

Murray was accustomed to flying F-101's and F-86's, but the OXCART program would be a whole new experience. His squadron, Detachment 1129 Special Activities Squadron, also known as the Roadrunners, consisted of six CIA operational pilots who were deployed out of Groom Lake to Kadena Air Force Base in Okinawa for overflights of North Vietnam. The squadron's first operational flight was May 31, 1967 where the A-12 photographed 70 of the known 190 SAM missile sites in North Vietnam. A total of 29 operational sorties were flown out of Kadena.

On January 26, 1968, Murray was the first to fly over and photograph North Korea to assess the seizure of the USS Pueblo by North Korean gunboats. The Pueblo, a Navy reconnaissance ship came under attack and was captured off the east coast of North Korea on January 23, 1968. One crewmember was killed and several were wounded. The 82 surviving crewmembers were captured and held prisoner for 11 months. The Kadena Detachment was alerted and the first attempted overflight on January 25 by fellow CIA pilot Jack Weeks was aborted due to mechanical reasons. The next day Murray's mission was to do several passes to locate the Pueblo and to use the A-12's systems to visibly assess overall responses to the increased tension at the moment. "During my mission briefing I was advised of the numerous SAM missile sites in the country and the probable response if the A-12 was detected," he said. "I didn't know what to expect. I didn't know if I'd be detected. The first of three passes started with entry into denied territory about the center of the west coast of North Korea." His pass ended when he flew over the Harbor at Wonsen, where the Pueblo was estimated to be located. The over flight called for flight above 80,000 feet and speed in excess of Mach 3.1. Camera on and off sequences was prompted by the data on the filmstrip and by Murray's judgment using the view scope images. "I made the three passes over North Korea and took lots of imagery, he said." "I photographed the entire country." After returning to Kadena the film was offloaded and send to the National Photographic Interpretation Agency.

While in the states, Murray went to work like most people; only he boarded a plane that took him to Groom Lake, aka Area 51. The Squadron would live at the base Monday through Friday and come home on weekends. Stella, his wife of 50 years didn't know where he was, but she had a way to get in touch with him should the need arise. But on June 26, 1968, Stella was among other project pilots' spouses invited to the base to witness Murray and his colleagues receive the CIA Intelligence Star for Valor-the highest intelligence honor awarded by the Agency. Shortly before that, the A-12 was officially retired. The Air Forces's SR-71's had already arrived at Kadena as the A-12's replacement. From Groom Lake, Murray had the privilege of making the final flight in Article 131 to Palmdale, Calif. "I was honored to have that opportunity," he said. "I hated to shut the engines down after that

flight with the knowledge that those wonderful airplanes were certainly not worn out, just put to bed long before they should have been. It was a sad end to the OXCART program.”

Following the demise of OXCART Murray returned to Air Force duty. While assigned to Tyndall AFB, Murray flew the F-101 and T-33 until he volunteered for training in the A-1 Skyraider. “Along came my turn to go to the scuffle in Vietnam flying the A-1 Skyraider out of Thailand,” he said. Murray flew 67 combat missions before being reassigned to Tyndall. “I started my military career as an airplane and engine mechanic and was an instructor in the A&E school at Sheppard Air Force base in Texas,” he said.

Murray’s pilot training started in 1952 at Columbus, Miss. and Laredo, Texas. While in training, Frank met Stella. “My first Fighter Squadron assignment was at Chaumont, France flying F-84G’s and the F-86 Sabrejet. It was a great tour, he said. “Lovely assignment for newlyweds.”

In 1956 Murray returned to the states, where he flew the F-84F, the F101A, the F-94C and the F-101B fighters. He retired as a Lt. Col. and in 1999 he moved from Flagstaff, Arizona, to Gardnerville, Nevada, where he and Stella are close to their two daughters and grandchildren.

In 2002, Murray along with five of his fellow OXCART pilots was inducted into the Blackbird Laurels Society. The Blackbird Laurels, founded by the Flight Test Historical Foundation is based at Edwards Air Force Base, California.

Murray is past president and now historian of Roadrunners Internationale. The group is comprised of those who worked on both the U-2 and A-12 spyplane projects, including government contractors, CIA, project pilots and crewmembers. The organization, which boasts a membership of more than 300, meets biennially to catch up on each other’s lives and trade war stories.

Murray keeps a scrapbook with newspaper clippings and photos from the old days, which adds to his office full of memorabilia and medals from his Air Force and CIA careers. With more than six thousand total flying hours, Murray, now retired, is busy with a variety of hobbies, including building and flying Radio Controlled Airplanes, restoring vintage motorcycles, talking to old friends through his Ham Radio, and reminiscing about his flying days. Behind his house sits a 1,200 square foot workshop/RV barn where he spends time enjoying his hobbies. Murray is a member of the Gardnerville-based Sierra SageBrush Flyers, a radio-controlled model airplane club. “I am still fairly active,” he said. “I do fixed wing and helicopters as well as a bit of Hydro.” The group gets together for fly-ins and contests on a regular basis in addition to involvement in a variety of community service activities. Murray is also an avid Ham Radio operator. “I keep regular scheduled contacts with about 10 old friends from all over the country,” he said. “It’s a great hobby for people of all ages.”

For more information visit: www.roadrunnersinternationale.com/murray.html



Pictured: Frank Murray, left, and Ronald “Jack” Layton at the 2003 International Roadrunners reunion.

The Japanese Bomb And Why It Matters

By William J. Pellas -- <http://www.williamjpellas.com/>

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It's now been almost a decade since I first heard about Robert Wilcox's book *Japan's Secret War* and began my own research into Japanese and Axis efforts aimed at creating their own atomic bombs during World War II. *Secret War*, I soon discovered, had produced a firestorm of academic apoplexy upon its first appearance in 1985. Accustomed to their own all but unchallenged dogmatic conclusion that Japan was a nuclear victim of American imperialism, some "New Left" historians and not a few others reacted to Wilcox with all the horror of an abbot confronted with some shocking new heresy. Certainly it should have been easy to dismiss the book and its claims if the conventional view (or at least, the conventional liberal academic view) was in fact correct. It turned out that *Secret War* was not so readily vanquished, despite an ironically similar stance by critics on both sides of the Pacific. Because he also wrote television screenplays in addition to being an author and journalist, many American and Japanese scholars alike essentially extended their pinkies and said, "Wilcox is nothing but a hack screenwriter, what does *he* know?"ⁱ Quite a lot, as it happened, but even if these critics were disingenuous, in the interest of truth their question still had to be asked. This leads us into both the actual history of the Japanese and Axis atomic projects and the history of scholarly inquiry into those efforts.

Wilcox's work had its origins in an obscure interview conducted by an American Army officer named David Snell, who in 1945 had a question and answer session with a Japanese officer who "had been in charge of counter-espionage at the atomic developing project in Korea".ⁱⁱ Snell, at the time an agent with the Twenty-Fourth Criminal Investigation Detachment during the first days of the American occupation, did not give the other officer's actual name. Due to reasons of political necessity as well as ruthless Soviet espionage (the Russians were by then firmly encamped nearby in what is today North Korea) he could refer to him only by the pseudonym "Captain Tsetusuo Wakabayashi".ⁱⁱⁱ The paths of the two men had crossed at a Shinto shrine overlooking the Korean capital where Japanese soldiers were being repatriated following their surrender. Snell was already interested in Japanese atomic research due to "wisps of information"^{iv}---meaning word of mouth, rumors, Top Secret Ultra "Magic"codebreaking intercepts, and OSS reports---that had reached American intelligence officers late in the war and in the days immediately following it. "Wakabayashi" told Snell that Japan had been trying to build its own nuclear bombs since at least as far back as 1938, upon hearing of German success in splitting the atom. He recounted the appointment by the Imperial Japanese Army of Dr. Yoshio Nishina---one of the world's foremost nuclear physicists and a former student of Neils Bohr---to head the bomb assembly effort at the national science academy, Tokyo's Riken Institute. Research proceeded at a relatively leisurely pace until the tide of war turned against Japan, after which the Army and, later, the Navy^v began pouring more and more resources into building a working device and turning it into a practical weapon. When American B-29s arrived to firebomb

mainland cities, the program was disrupted and had to be largely evacuated and reconstituted in Korea, at Hungnam (Konan), where Japanese *zaibatsu* colonial entrepreneurs had built a gigantic military industrial complex after taking control of the area in the 1904-5 Russo-Japanese War. It was here, Wakabayashi claimed, that the Japanese atomic bomb, the *genzai bakudan* (“greatest fighter”) was completed and test-fired on August 12, just after Nagasaki. He said it would have been finished three months earlier had it not been for the B-29s, which he considered to have been the decisive weapon in the war. Alas for Japan, there was only enough uranium fuel to power the test detonation, and with the Soviets bearing down on Hungnam---the largest industrial installation in all of Asia at that time---the decision was made to abandon the project and destroy as much of it as possible. Much documentation accordingly vanished, along with several bomb casings for additional, not yet completed *genzai bakudan*, but the Soviet advance was so fast and overwhelming that most of the complex fell into Russian hands intact, and a number of prominent Japanese atomic scientists were captured---and, later, ruthlessly tortured.

Obviously this was quite a story, one with profound implications for international relations in the emerging post-nuclear, Cold War world. In addition, the popular understanding(s) of the history of the end of World War II would need to be rewritten to incorporate Wakabayashi’s information. Could it be that the Russians came into the Pacific War for reasons other than Stalinist territorial expansion? Might they have been after more than a chance to be in on the kill when they jumped into the conflict only days before Japan surrendered? Were they trying to get their hands on Japanese atomic bomb technology, and might that be part of the explanation for why they so swiftly overcame the initial American lead in the field? What evidence was there, if any, that a substantial Japanese atomic bomb program actually existed before and during the War years? Was the tale told by a shadowy counterintelligence operative and relayed to the West through an obscure American Army officer in fact true?

The first people in position to discover the answers were, of course, the American Occupation forces under General MacArthur that began flowing into Japan in the fall of 1945. There were two bureaucratic entities charged with investigating Japanese bomb progress: the Atomic Bomb Mission, attached to the Manhattan Engineer District and thus an Asian version of the highly successful “Alsos” European atomic intelligence-gathering effort, and the Scientific Intelligence Survey, headed by the prominent American scientist Dr. Karl T. Compton. Compton was also a member of the “Interim Committee”, an advisory think tank formed by President Truman soon after he took office whose mission was to recommend the best use of the newly perfected American a-bomb.

Both the Mission and the Survey began their investigations almost immediately upon their arrival in Japan. But a split in their respective assessments of Japanese progress soon emerged, a split that continues to drive disagreement on the issue to this day.^{vi} Compton’s group conceded that Japan possessed a relatively small number of world-class physicists good enough to grasp the essentials of weapons theory, but asserted that “Japanese science had been poorly organized for war purposes”^{vii} (an oft-repeated quote brandished *ad nauseum* by

revisionists) and brushed aside any notion that there was ever any genuine threat of the *genzai bakudan* becoming reality.

The Manhattan Project's Mission, however, was never quite so sure that something awesome wasn't brewing only just beneath the surface in defeated Japan. For one thing, Dr. Bunsaku Arakatsu was mouthing off to anyone who would listen that America would not long enjoy its atomic monopoly. Arakatsu, a one time student of Einstein himself, had been the lead scientist of the Imperial Japanese Navy's "Project *F-Go*", which was the counterpart and, later, the successor to the Army's "*Ni*" program, so called after the first two letters in Nishina's surname.^{viii} For another, it was discovered that Japan had a much larger (if still apparently disjointed) research infrastructure on the main islands than had ever been realized. Even after the incredibly destructive American aerial bombardment, there were still five cyclotrons---first generation atom smashers^{ix}---in existence, and they were capable of, or could easily be modified for, uranium separation, albeit on a relatively small scale. The cyclotron was a machine originally invented by American scientist Dr. Ernest Lawrence (for whom Lawrence Livermore National Laboratory is named) at Cal-Berkeley in the 1930s. He later became one of the leading figures in the Manhattan Project, in particular with his work on the cyclotron-derived "calutron", a much larger device built in some numbers specifically for the separation of weapons grade U-235 from the naturally-occurring U-238. Riken's 60-inch cyclotron, a photo of which can be seen today in the "History" section of the Institute's website, was in fact a copy of Lawrence's machine at Berkeley. Prior to the War, he had personally given the plans for this device to the Japanese scientist himself. Nishina would go on to use his cyclotron to begin measuring the neutron fission cross-section of uranium---the first step in determining the critical mass necessary for detonation.^{x xi}

Now, in the fall of 1945, it seemed that Japanese science had taken Lawrence's work and run with it to a disconcertingly distant destination. Accordingly, on November 22, 1945, Army vehicles loaded with troops wielding axes and carrying dynamite arrived at the various universities and research facilities housing the Japanese cyclotrons. By the end of the day, every device in existence had been smashed to pieces, with the wreckage ending up at the bottom of Tokyo Bay. Protest, both official and unofficial, was immediate and vocal, with Nishina being one of the leading figures. He argued that the destruction of the cyclotrons was a great blow to the rebuilding of peaceful postwar Japanese science, a claim not entirely without merit, since Hideki Yukawa would soon earn Japan's first ever Nobel prize for science---even if both he and Nishina had been working furiously during the war to build atomic bombs. The incident became a source of great journalistic criticism of the American occupation, and a PR nightmare for Supreme Commander General MacArthur. General Leslie Groves, chief officer of the Manhattan Project, seemed to issue the ultimate *mea culpa* when he claimed in his 1962 book "Now It Can Be Told" that the whole thing had been a misunderstanding and a bureaucratic screw-up.^{xii} But was misdirected paper-shuffling really a plausible explanation for the systematic American extermination of what amounted to almost the entire remaining Japanese atomic research infrastructure?

It is now certain that even if Groves believed what he was saying^{xiii}---which is highly unlikely---Atomic Bomb Mission personnel, along with some OSS operatives, believed something entirely different. From the first days of

the occupation, a small trickle of stories asserted that highly sensitive documents pertaining to advanced Japanese atomic weapons research had been found by the OSS. A few of these tales have seen print over the years, usually in popular history publications such as *Military and World War II* magazine^{xiv}, but rarely in the stalwart, scholarly historical mainstream, where the idea of the *genzai bakudan* either faced determined ideological opposition or else was simply considered too fantastic to be believed. Some Pacific War veterans---such as my father---heard “scuttlebutt” when they landed in Japan, though most gave such rumors little credence. But in the summer of 2002, definitive proof surfaced. A BBC website story confirmed that the Atomic Bomb Mission had been correct in its rejection of the Compton group’s conclusions. The widow of Japanese chemist Kazuo Kuroda came forward, in America of all places, bearing blueprints and a 23-page dossier describing in exacting detail a Japanese uranium warhead design.^{xv} These papers included “text written by a military officer who interviewed the scientist at the head of the atomic bomb development team”^{xvi}---obviously Nishina. Kuroda, who had been attached to Riken during the War, was given the plans upon Japan’s surrender and told to destroy them. Instead, he kept them hidden and escaped with them to the United States, where at the time of his death he was a professor emeritus at the University of Arkansas. Although “experts” who have studied the design have pronounced it “not very powerful”, even a “not very powerful” atomic explosion would still have produced cataclysmic results had it been used against America during the War. (The most likely target would have been the Operation OLYMPIC Kyushu invasion armada, of which my father was part, and/or an American West Coast city such as San Francisco.) The assessment of the Riken weapon’s likely yield is a curious statement. Probably, this reflects either continuing unwillingness to accept “non-orthodox” historical data or else possibly an informed estimate based on assessment of the design’s fast neutron reaction efficiency and/or the likelihood that a Japanese bomb would probably have been fueled by a lower grade of HEU (Highly Enriched Uranium) than was used by the Americans in their “Little Boy” Hiroshima bomb.^{xvii} Although I am not aware at this time of any public admission by American authorities or veterans that discovery of a copy of the Kuroda blueprints was behind the cyclotron destruction, such a discovery is surely the precise reason why the Japanese machines were attacked.

The reappearance of the Kuroda blueprints means the undeniable reappearance of the *genzai bakudan* into the pages of mainstream history. It also means that Dr. Compton’s Scientific Intelligence Survey, unlike the Atomic Bomb Mission, was either grossly mistaken in its assessment of Japanese science, or else deliberately looked the other way. I am inclined to conclude that the latter is the case. Remember that Compton had by 1945 become one of the leading voices among, and was a primary liaison between, the Manhattan Project scientists and the executive body politic in America. As such, he was privy to many of the innermost policy debates then taking place in the embryonic Truman administration and was himself more of a policymaker than he was anything else. With or without the atomic bomb, Truman had given the go ahead for Operation OLYMPIC in June, 1945, and was prepared to go through with an amphibious invasion of the Japanese homeland itself, in accordance with Army thinking that only a landing in force could guarantee a surrender. No amount of revisionist spin-doctoring can ever change the fact that such an operation would have produced one of, if not the greatest, slaughters in all of human history. Is it too much to conclude that Compton, like Truman and his leading generals and admirals, was

so relieved at the prospect of a bloodless landing and occupation that he didn't want to rock the boat by publicizing inconvenient and potentially incendiary facts?

Following the destruction of the cyclotrons, although OSS and G-2 (Army intelligence) reports that particularly emphasized the Hungnam installation continued to trickle in^{xviii}, a blanket of official silence steadily descended over the wartime Japanese a-bomb projects, a blanket that was only occasionally penetrated by investigative journalists and a handful of participants willing to speak for the record. The Korean War and the larger Cold War also served to consign the truth about the *genzai bakudan* to the historical gulag, although there were several stories in the Western press during the Korean "police action" of American troops overrunning World War II Japanese atomic installations.^{xix}

The American occupation of Japan ended in 1952, and the vast majority of the millions of documents produced by the various occupation bureaucracies were simply boxed up, stored in a warehouse in Maryland, and largely forgotten. ("Raiders of the Lost Ark" comes to mind.) The first salvo in the battle to reclaim occupation data---most of which had to be pried loose through the Freedom of Information Act---was fired by Deborah Shapley, in her 1978 *Science* magazine article, "Nuclear Weapons History: Japan's Wartime Bomb Projects Revealed". This piece reconstructed the broad outlines of the Japanese weapon and also succinctly summarized the implications:

"The project is highly significant to the history of nuclear weapons, to Japan's subsequent self-denial of nuclear weapons, and to the relationship that developed between Japan and the United States after the US atomic bombing(s)..." Writing before the Kuroda blueprints came to light, she added "...the historical importance of the project lies not in the fact that Japan *failed* but that she *tried*, and that Japan's post-war attitude, that she, as the one nation victimized by atomic weapons, is above seeking to acquire them for herself, is NOT historically accurate. The historical record shows---on the basis of the eagerness of her military and the willing cooperation of her scientists---that if other factors had made a bomb possible, the leadership---which by the end of the war were placing their own youth in torpedoes to home them on the advancing US fleet---would not have hesitated to use the bomb against the United States." This last point has been repeatedly confirmed in subsequent years by various Japanese wartime military and scientific establishment figures. From naval aviator Captain Minoru Genda ("Why wouldn't we have used it?"^{xx}) to industrial chemist and Army Lt. Col. Tatsusaburo Suzuki ("We had no doubts about using it if we could...we were just doing our best to put it together"^{xxi}) and others, over and over the Japanese themselves left no doubt whatsoever that in Japan no moral hand-wringing or retroactive deconstruction would have resulted had the *genzai bakudan* actually been used.

Further, one may reasonably ask if the Japanese program really failed if it was able to produce a working warhead design that lacked only sufficient HEU in order to become reality. This brings us to another long-overlooked area of inquiry, that of the attempts by dying Nazi Germany to furnish Japan with the exact material they needed in order to complete their weapon. When I wrote to the US Army's official historical establishment, the Carlisle Barracks, about this, I received a copy of a section of the essay "'Ni' and 'F': Japan's Wartime Atomic

Bomb Research", from John Dower's 1993 book, "Japan in War and Peace: Selected Essays". Dower may be described without too much fear of hyperbole as "the Anti-Wilcox", one of *Secret War's* most outspoken critics.^{xxii} It is curious that Dower's book would be chosen by the Carlisle Barracks; at the very least, it is curious that they sent me his work and no one else's, particularly since no less an august body than the Federation of American Scientists sides with the broad outline of Wilcox's book on their official website.^{xxiii} In any case, his essay still constitutes one of the more honest and thorough examinations of *Secret War* from an antagonist's point of view. Three points in this work stand out. First is his review of the prominent scientists involved in the *Ni* program, and his conclusion (based on postwar testimony from Nishina) that although these men certainly made up an impressive roster, they were based at Riken primarily because Nishina, already trying to prepare for the reconstitution of Japanese science, was trying to save them from becoming *kamikaze* troops in a war that was already lost. Again keeping in mind that Dower was writing before the Kuroda blueprints came to light, this still seems to me an assessment entirely too credulous in its acceptance of statements by Nishina that were clearly evasive at best. Did the eminent academic possibly have in mind the postwar benefits likely to be produced by the great scientists at Riken if only they could survive? Given the cosmopolitan nature of Nishina's own education, including his close friendship with Westerners like Neils Bohr and Oskar Klein, this is certainly reasonable. But it is also reasonable to wonder if the peaceful postwar science he had in mind would have flowered in a world ruled by Japan. Other sources have documented his determined attempts at completing his Army-mandated mission^{xxiv}, and it was *Ni's* logistics chief himself who appealed directly to Germany in the hope that the Reich's abundant supply of uranium could be mated to Japan's more advanced research.^{xxv}

This brings us to the second salient point, Dower's curt dismissal of the importance of German submarine U-234 and its mission. U-234 was off the American east coast en route to Japan when it was captured after her captain decided to give up upon hearing of Germany's surrender. Referring to the diplomatic links between the *Kriegsmarine* and the Imperial Japanese Navy as "moribund",^{xxvi} Dower makes it plain that he thinks little of the submarine's cargo, which included more than half a ton of uranium that may or may not have already been weapons-grade U-235. Also aboard U-234 were such provocative little items as: a fully functional, disassembled Me-262 jet fighter, blueprints and specialized tools for the construction of V-2 ballistic missiles, several of the most prominent remaining German air defense and advanced weapons R & D experts, and two IJN officers charged with overseeing the successful completion of the mission. It could not possibly be clearer that the intent was to enable Japan to prolong its struggle with America and the Allies through a transfusion of German technology, especially German uranium and oh by the way a tailor made delivery system (the V-2) more than capable of carrying a relatively small first generation atomic warhead. Even if Dower was the victim of a lack of information when he wrote his essay (or perhaps was following the lead of earlier writers who had assumed that Japan might have had in mind a "dirty bomb"^{xxvii} instead of a true supercritical weapon since it was assumed her science was not far enough advanced to build a working device), his stance demonstrates ignorance of the history of the Imperial Japanese Navy, whose advanced R & D efforts had birthed *F-Go* in the first place.^{xxviii} Of all the organs of World War II-era Japanese society, it was the Navy that was most Western in its organization,

traditions, and outlook. Its leading prewar thinker, Admiral Isoroku Yamamoto, was educated in America and emulated the successful British attack on the Italian fleet at Taranto in his planning for Pearl Harbor. Unlike the Army, which was still dominated almost totally by Shinto samurai *bushido* ideology, Japan's Navy had looked to the West from the beginning of its efforts to produce a modern fighting force in the late 19th century. The modern IJN had in fact been built originally by Great Britain, either directly or by proxy through technical assistance.^{xxix} While the more openly fascist and racist Army might have spurned the possibility of technical aid from a Western nation such as Germany, the Navy would not have (and did not). Thus, IJN maintained an attache office in Berlin until the very end of the war. It was through this back channel that Nishina and other forward thinkers in Japan attempted to secure the aid they needed to complete their desperate task.

It should also be pointed out that U-234 was *not* the only cargo-carrying submarine that attempted to reach Japan loaded with advanced German materials and weaponry. Although accounts vary as to exactly how many such missions were mounted and completed, a July 2003 "History Undercover" documentary on the History Channel contained testimony by a Japanese official that at least three Japanese submarines had tried to go from Germany to Japan *before* U-234's voyage. (They were all, supposedly, sunk in the attempt.) There were also certainly additional German boats that braved the long voyage to the Home Islands. Dower, predictably, downplays the additional German missions and makes no mention whatsoever of the Japanese submarines. Nevertheless, it is safe to say, in concert with FAS' assessment, that "there are indications that Japan had a more sizable program than is commonly understood, and that there was close cooperation among the Axis powers, including a secretive exchange of war materiel".^{xxx xxxi}

Even if Dower and other critics had conceded these points, though, there was still the question of whether or not the Japanese possessed the technology to process the uranium they acquired, whether by their own mining efforts in Korea, Japan, and Indonesia, or through the auspices of the Germans. It is here on this third point, unfortunately, that we enter the murkiest waters. To this day, separation/enrichment of uranium is among the most difficult of all industrial tasks. While it is technically much simpler to build a uranium bomb than one based on plutonium, it is easier to produce large quantities of plutonium in a breeder reactor than it is to separate enough U-235 to enable a working nuclear warhead. (Although a separator is of course itself much easier to construct than is a reactor.) Of the four potential processes available during World War II, Japan chose thermal diffusion as its method of choice in producing bomb-grade uranium. This was no doubt because Germany had already developed a device called a clausius tube (after its industrial chemist inventor) that could be applied directly to the problem. The Anglo-American Manhattan Project considered this process and rejected it as too technically complex and, probably, too slow, but the *Ni* program decided to proceed. This would prove to be a fateful decision because although Riken did manage to build a single thermal diffusion separator, it had severe metallurgical problems and did not work well enough to be practical. The Riken machine did serve as a prototype for five much larger and much improved devices built at Sumitomo Corporation's Amagasaki factory in 1944-45, and there were three additional separators at Osaka University. Unfortunately for Japan, these machines were too

few in number, were probably too spread out geographically, and were constructed too late in the war to have succeeded in their task in the few months left before an American invasion, especially with B-29s raining down destruction on almost every major city---unless there were additional resources that could be brought to bear.

This is where Wakabayashi's information comes to the fore, since his story was concerned almost entirely with IJN's *F-Go* and its fanatical end of the war attempt to produce the *genzai bakudan* in Korea. Unlike its mainland counterpart, *F-Go* was not wedded to thermal diffusion technology, although there is strong evidence that a number of such machines were either built in or near Hungnam or else had been shipped there from the Home Islands. Sumitomo was once again the contractor of choice when the Korean project went looking for other ways to produce HEU; in a forward leap of engineering that is today the world standard, *F-Go* settled on centrifugal separation. Some design drawings of the Sumitomo centrifuges survived the war, but I am not aware as of this writing of definitive evidence that shows they were actually built, be it at Amagasaki or Hungnam or both. Even if they were completed, Dower claims that engineering analysis indicates they would not have been capable of the fantastic speeds necessary to have been practical working devices, being too slow by a factor of four or five.^{xxxii} If this is so, it means that for *F-Go* to have actually produced enough weapons grade material for at least one warhead, the U-235 would have had to be either separated almost entirely by thermal diffusion machines, or else delivered by the Germans, or both. (The mainland cyclotrons were too few in number to have contributed significant amounts of bomb grade material even if they had been modified along calutron lines and dedicated solely to uranium separation, and there is no evidence of which I am aware that this was ever done.)

Obviously the separation angle is the most speculative aspect of the whole Wakabayashi story.^{xxxiii} Significant along this line of inquiry is the fact that repeated German attempts at sending U-238 and/or U-235 to Japan would certainly be consistent with a program that had solved all the theoretical problems of bomb design, but could not complete the industrial process.^{xxxiv} But there is still a tantalizing thread of evidence indicating that there may yet have been just enough of an infrastructure at Hungnam---which was, again, the mightiest industrial complex in all of Asia in World War II. Some postwar intelligence reports indicated heavy water production by the Soviets at the captured installations, which was subsequently carried back to the USSR in submarines. This substance was the chosen moderator in German wartime reactor designs (as well as in many postwar plants) and is a useful material in some types of advanced atomic research. A wartime heavy water facility in Hungnam could be an indicator of indigenous Japanese reactor construction efforts, or else an attempt at duplicating German work, though this is, again, highly speculative pending additional data if it ever comes to light. There is very little evidence in available Japanese records and testimony that serious progress was ever made toward the construction of a working "atomic pile" such as the Americans had at Oak Ridge, TN and Hanford, WA---and that the Germans, try as the might, never did manage to build.^{xxxv} But what a heavy water plant certainly represents is another indication of the advanced capabilities of the Korean facilities.

Unfortunately, we may never know for certain whether the *genzai bakudan* really was completed and tested in prototype form, or whether it was stillborn. Too much documentation was either destroyed or else remains

hidden. Perhaps the Kuroda blueprints are a hopeful sign that additional clandestine material may yet see the light of day, as well. It might even be possible that *F-Go* papers and documentation are still held by the Russians. For now, we cannot be sure exactly how close the Japanese scientists came in their bid to make their bomb an industrial reality. *But we do know that their warhead design would have worked.*

That alone should put to rest once and for all the entire edifice of political correctness that in recent years has sprung up around the American atomic missions. At the very least, it should once and for all remove the question of the necessity of Hiroshima and Nagasaki from the realm of moral outrage and return it to its proper sphere of strategic calculation. The issue of whether or not the American bombings were justified rests, as it always has, on whether they were necessary in order to force Japan to surrender, *not* on a falsely constructed moral chasm between the two powers that never existed in the first place---except inasmuch as Japan was guilty of war crimes that far exceeded anything America did during the conflict. World War II was, in a way that is foreign to the modern mind, *total war*, in which the distinction between soldier and civilian in terms of the overall war effort of the combatant nations was eliminated to a greater degree than was ever the case previously. The atomic missions were carried out in this context and this alone. Further, Japanese willingness to use their own atomic bombs against America is proof positive that, unlike her enemies, Japan's leadership never once flinched in the face of the awful results of the actual use of weapons of mass destruction. Had Japan been able, either through domestic production or German assistance or both, to complete the *genzai bakudan* in numbers, the end of World War II would have been very different from the history we know today. It is disturbing to contemplate such an alternate future. But we do a disservice to posterity if we fail to consider honestly both the bona fide evidence pertaining to the Japanese bomb, and the implications of such a weapon.

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ⁱ Wilcox describes the hostile reaction of many Japanese associated with the wartime bomb making efforts in *Secret War*, 34-5. Typical was the comment by Hidehiko Tamaki, one of Nishina's wartime Riken lieutenants, who sniffed, "He's just a

novelist”. Despite such attempts at discrediting him, Wilcox is in fact an award-winning journalist who has written for the *New York Times* among others. H<http://www.robertkwilcox.com/H>

ⁱⁱ “Newsman Says Japanese Had Atom Bomb And Russians Now Hold the Inventors”, *The New York Times*, Thursday, October 3, 1946, p. 22. This is a brief article recapping and commenting upon the complete story that originally ran in the *Atlanta Constitution* the previous day. My copy of this story is courtesy Robert K. Wilcox.

ⁱⁱⁱ Wilcox interviewed Snell before his death, and in Wilcox’s words, “...he was a reputable newsman and convinced me that his story had merit”, per Wilcox’s note to me, 19 January, 2003.

^{iv} Snell, David, “The Korean A-Bomb Project”, 2 October 1946, p.2, published in the *Atlanta Constitution*. I am here using the page numbering from a copy of Snell’s own autograph of the story rather than the newspaper’s numbering. My copy of the Snell story is courtesy of Robert K. Wilcox.

^v For clarification, the so-called “Japanese Bomb Project” was actually two separate projects that were not consolidated until very late in the war. The Army’s effort, the result of an industrial and mineralogical survey conducted by Lt. Col. Tatsusaburo Suzuki in 1940 which concluded that a bomb was indeed feasible, was headed by Nishina, based at Riken, and known as “Project *Ni*”. *Ni* was largely destroyed when B-29 firebombing raids almost totally levelled Riken in April, 1945. What was left was folded into the Navy’s program, known as “Project *F-Go*”. Although not formally authorized until 1943, it was *F-Go* that, according to Wakabayashi, actually completed and test fired a single warhead, utilizing the facilities at Hungnam, Korea.

^{vi} To be fair, it should be noted that the Survey’s mission was not, officially, to assess Japanese bomb progress; rather, it was to determine the overall state of Japanese science in general and in particular as it related to the war effort. In practice, members of the Survey and the Mission sometimes encountered one another in the course of their respective investigations.

^{vii} The quote appears here as it was used in the book *Combat Scientists*, (written by Thiesmeyer, L., and Burchard, John E., Boston: Little, Brown, 1947), which based its conclusions on the work of the Scientific Intelligence Survey itself, and thus by extension reflects the “conclusions” of Compton himself, as well as other Survey members.

^{viii} In some sources, notably Dower, Japanese “first” and “last” names appear in opposite order. I am here following most Western sources in using the eminent scientist’s name as “Yoshio Nishina” and not “Nishina Yoshio”.

^{ix} I am here playing fast and loose with the term “atom smasher” and using it broadly for convenience.

^x The Nishina cross-section cyclotron research is cited in the Japanese source “Chronological Table of Nuclear Weapon...compiled in Japanese by Masaaki Koarashi and then translated into English”, found at the URL, H<http://www.ask.ne.jp/~hankaku/english/chronotbl.html>H.

^{xi} Sublette, Carey, “Nuclear Weapons Frequently Asked Questions: Introduction to Nuclear Weapon Physics and Design”, Version 2.15:20, February 1999, from the URL, H<http://nuketesting.enviroweb.org/hew/Nwfaq/Nfaq2.html>H.

^{xii} The relevant passages from Groves’ book are used as cited in *Secret War*, 193.

^{xiii} Wilcox critic John Dower takes Groves at face value and cites another passage from *Now It Can Be Told* in building his case against *Secret War*. See Dower, John, *Japan In War and Peace, Selected Essays, 'Ni' and 'F', Japan's Wartime Atomic Bomb Research*, (New Press, New York, NY: 1993), 89.

^{xiv} See for example Thompson, Leon, “Japan’s Atomic Bomb”, here archived on the website, Hwww.grunt.com/japansatomicbomb.htmH, and Hemingway, Al, “Did the Japanese Successfully Test-Fire Their Own Atomic Bomb Shortly After American A-bombs Fell On Japan?”, *World War II*, July 1995, 8ff. The Hemingway article is courtesy of 509th Composite Group veteran Mr. Russell Gachenbach, personal correspondence, November 2002. In his article, Mr. Thompson makes two mistakes. First, he confuses the cargo of U-234, thinking it was plutonium and not uranium. Second, he echoes a popular rumor of the day (planted by a downed Superfortress crewman) when he states that Tokyo would have been the target of a third American atomic attack. Captain Don Albury, co-pilot of the B-29 *Bockscar* in the second attack, told me personally in 2002 that Kokura, the primary target of the Nagasaki mission, would have been the primary once again for the third bomb. But it is noteworthy that the rest of Thompson’s recollection dovetails perfectly with Wilcox’s book and research. For instance, his claim that the OSS had learned that the OLYMPIC invasion fleet would have

been the target of the Japanese atomic bomb, and his statement that part of the reason Japan dragged its feet in surrender negotiations was because her leadership hoped that a last-second nuclear weapon might come to their rescue.

^{xv} BBC News, “Atomic Plans Returned to Japan”, 3 August 2002. From the URL, news.bbc.co.uk/1/hi/world/asia-pacific/2170881.stm.

^{xvi} *Ibid.*

^{xvii} Although in subsequent years it has been discovered that uranium is actually much more abundant than was believed to be the case during World War II, this was not known at the time. Also, much of the uranium that Japan was mining was generally of a lower grade than that which was acquired by her American enemies. This factor, combined with Japan’s generally smaller atomic industrial infrastructure, could mean that a completed warhead would have been powered by HEU with a lower percentage of pure U-235. If this is so, the Japanese bomb would have had a lower yield than its otherwise broadly comparable American cousin, though it should go without saying that even a relatively weak atomic explosion is still incredibly destructive. (Consider that Nishina, at least initially, probably thought as little as 10-20% enrichment might produce a detonation. (See *Secret War*, 60.) Little Boy’s core was about 80-85% HEU; compare this with modern weapons grade uranium at 93%.) The “expert” assessment of the Kuroda/Riken bomb as being “not very powerful” may perhaps reflect this sort of specific knowledge, though I think it more likely that it is the product of American political correctness and ongoing official Japanese disingenuousness and refusal to admit responsibility for the war. On the postwar discovery of more abundant uranium, a good source is Cohen, Avner, *Israel and the Bomb*, (Columbia University Press, New York, NY, 1998), 31-4, 45, 105-6. Even as small a nation as Israel was able to develop and patent viable processes that could produce sufficiently pure uranium even from low grade ores.

^{xviii} Among many other examples, Wilcox cites Cecil Nist, a Colonel with G-2 Army Intelligence, and his March 21, 1946 summary report concerning “an apparent undercover research laboratory operated by the Japanese at...Hungnam...it is felt that a great deal of credence should be attached to these reports...” See *Secret War*, 27-8, 221.

^{xix} For example, “North Korean Plant Held Uranium Works”, from the 26 October 1950 *New York Times*, page 3. A halfhearted “retraction” of this story was subsequently printed on the back page on 3 November, quoting “Tenth Corps Headquarters” in Korea. Both and others are cited in *Secret War*, 212-3.

^{xx} Genda is here quoted in Allen, Thomas B., and Polmar, Norman, *Code-Name Downfall*, (New York: Simon & Schuster, 1995), 272, notes 330. Genda made his statement while visiting the US Naval Academy in Annapolis in 1969 and was at the time a member of the Japanese Diet.

^{xxi} *Las Vegas Review-Journal*, July 20, 1995, article, “Japanese Physicist, 83, Says Japan Tried to Build an Atomic Bomb”.

^{xxii} See for example Dower’s review of *Secret War* in *Bulletin of the Atomic Scientists* 43, No. 1, (Aug.-Sept. 1986), pgs 61-2.

^{xxiii} Federation of American Scientists, “Japan Nuclear Weapons Program”, from the URL, [Hhttp://www.fas.org/nuke/guide/japan/nukeH](http://www.fas.org/nuke/guide/japan/nukeH). Further, FAS in ideological terms is certainly not the kind of right-wing organ one might suspect of being overly sympathetic to American-friendly historical analyses that might fall short in the truth department. FAS is in fact well to the left in terms of its political orientation, although its website’s informational content is world class. In my view this makes the information on their site akin to the positive testimony of a hostile witness, always the best ammunition in a court of law.

^{xxiv} See among others Benke, Richard, “New Evidence Tracks Japan’s Efforts to Create Atomic Bomb,” *San Diego Union-Tribune*, June 1, 1997, A-25. Dower claims that the amount of uranium Nishina planned to refine was “hundreds of kilograms” and not the “hundreds of tons” cited in Benke’s article, saying this is the result of “a mistranslation”. Here the elephant is in plain sight and the distinguished scholar does not see him; obviously “hundreds of kilograms” could still equal many tons of uranium-bearing material and might still be enough for a bomb, depending upon other factors, namely, the quality of the ores, how many “hundreds”, and whether or not Nishina and his staff were in fact trying to build a weapon. See Dower, note 52, page 98 of *Japan In War and Peace: Selected Essays: 'Ni' and 'F': Japan's Wartime Atomic Bomb Research*, (New Press, New York, NY: 1993).

^{xxv} I am here describing General Toranosuke Kawashima as “Ni’s logistics chief” because he was directly responsible for the acquisition of uranium and other necessary supplies for the project following direct military takeover of Ni in 1943.

Kawashima has been labelled “the General Groves of the Japanese project” by some sources. It is a rough parallel but generally accurate.

^{xxvi} Dower, *Selected Essays: "Ni" and "F": Japan's Wartime Atomic Bomb Research*, 80.

^{xxvii} See Brooks, Geoffrey, *Hitler's Atomic Weapons: The Development and Attempted Deployment of Radiological Armaments by Nazi Germany*, 168, originally published in 1968. Brooks follows the standard party line of assuming that neither German nor Japanese science was anywhere close to producing an actual supercritical warhead and so he concludes that the cargo of U-234 must have been intended for use as a radiological weapon. While it is well documented that Germany was in fact on the “dirty bomb” track, Japan intended to produce a fission bomb right from the start. The failure of Brooks and other investigators to recognize this key difference and to discern the true nature of the Japanese atomic programs demonstrates just how successful the tacit coverup of those programs really was.

^{xxviii} Dower either fails to consider or else deliberately ignores the Kuroda bomb blueprints. First, he makes reference to earlier knowledge of them than the 2002 BBC website article, apparently from a story in the Japanese press, in the notes to his essay. For example, in note 19 he writes, "Some of the reports pertaining to Japan's wartime A-bomb research that were supposed to have been destroyed surfaced in the hands of a Japanese scientist on the faculty of the University of Arkansas in 1983." But he dismisses them, apparently without bothering to check into them himself, when he adds, "To judge from journalistic accounts, these materials add little to the information already available to date". A *working Japanese warhead design* "adds little to the information already available"??? He also asserts "---the Japanese never progressed to the stage of actually working seriously on the theory of the bomb itself..."(pg. 84), which is obviously false.

^{xxix} A good overview of the early modern Imperial Japanese Navy and its coming of age against Czarist Russia can be found in Bruce, George. *Sea Battles of the 20th Century: Tsushima*.

^{xxx} FAS, “Japan Nuclear Weapons Program”, from the URL, [Hhttp://www.fas.org/nuke/guide/japan/nuke/H](http://www.fas.org/nuke/guide/japan/nuke/H).

^{xxxi} There have also been persistent reports over the years that the uranium cargo of U-234 was in fact HEU rather than uranium-bearing ores; although I have yet to verify this as fact, it is certainly another area worthy of thorough inquiry. Per Wilcox's email to me, 29 July 2003. The same History Channel program mentioned earlier stated definitively that the German uranium was in fact used in Little Boy's core. When I visited Oak Ridge National Laboratory in October 2002, none of the Manhattan Project officials with whom I spoke would confirm that this was the case.

^{xxxii} See Dower, 81. He also states definitively that the machines were never built, citing the Japanese source "Showashi no Tenno" (The Emperor and Showa History), Tokyo: Yomiuri Shimbunsha, 1968, vol. 4, pgs. 78-229.

^{xxxiii} It is telling that nowhere in Dower's book does he address the issue of the credibility of Snell's original information. Snell was a very prominent journalist who worked for NBC and Life magazine, among others. If the Wakabayashi story was false---and to the end of his life Snell stood by it as factual---it is up to Dower and like minded critics to demonstrate how and why Snell ought not to be taken seriously.

^{xxxiv} Particularly relevant to this issue is exactly how much uranium was mined by the Japanese during the war, and of what quality the material was. Here Dower actually echoes Wilcox in his citation of a Joint Chiefs of Staff report that catalogued "...3,400 pounds of "uranium compounds" and 15,200 pounds of "thorium compounds" (which had been located in Japan, along with over 5,100 tons of "thorium and uranium-bearing ores" (consisting primarily of black sand from Korea)", parenthesis Dower's. See Dower, note 57, pages 98-9. Although most sources indicate that the uranium-bearing ores mined by Japan were of relatively low quality, one wonders if this is also spin-doctoring when one considers the modern indigenous North Korean success in producing fission bombs using locally-produced material. Even allowing for a half-century of technological advances, it would seem highly unlikely that North Korea could succeed in its own project if the prevailing wisdom is correct. (It is also possible that Pyongyang's atomic warheads are powered by plutonium and not uranium, and/or that Pakistan or some other nation or entity provided essential technical assistance.) It should also be pointed out that this particular JCS report was concerned only with material that was mined and successfully shipped to Japan, then catalogued after the surrender. It does *not* address how much additional uranium was mined in Korea and not sent to Japan, nor does it catalog how much was lost in transit due to enemy action. For an overview of the North Korean nuclear program as well as the uranium mines present in the DPRK, see FAS, “North Korea Nuclear Weapons Program”, from the URL, [Hhttp://www.fas.org/nuke/guide/dprk/nuke/H](http://www.fas.org/nuke/guide/dprk/nuke/H), as well as the transcript of the Congressional Hearings, Special Weapons, North Korean Mass Destruction Weapons, Hearing before the Subcommittee on International Security, Proliferation, and Federal Services of the Committee on Governmental Affairs, United States Senate, October 21, 1997, archived at the URL, [Hhttp://www.fas.org/spp/starwars/congress/1997_h/s971021choi.htm](http://www.fas.org/spp/starwars/congress/1997_h/s971021choi.htm)H.

^{xxxv} The German choice of heavy water as the moderator in their own abortive reactor construction efforts was an error much greater than the Japanese choice of thermal diffusion as their method of uranium separation/enrichment. Apparently, German physicists made a basic mathematical miscalculation that caused them to disregard the much more abundant graphite that the Americans under Enrico Fermi would use to control their own first generation “atomic piles”. By the time Werner Heisenberg and other German scientists discovered their mistake, the war was already lost and they no longer had the time or the resources to complete the job. A good overview of the German reactor and bomb programs is found in Parker, Danny, “A Single Miscalculation May Have Kept the Atomic Bomb out of Hitler’s Hands During World War II”, *World War II*, May 1995, 8, 62-4. A more detailed picture is available in Powers, Thomas, *Heisenberg’s War* (Alfred A. Knopf, 1993). Although Powers’ heroic portrait of Heisenberg is almost certainly wrong given the contents of documents recently released by the estate of his mentor, Neils Bohr, Powers’ book is still an excellent read with much useful information and research. My copy of the Parker article is courtesy of Mr. Russell Gachenbach.

