

The 3 Horsemen, and Corruption of the Port Chicago Navy Court of Inquiry.

On 27 July 1944, the same day that James Conant wrote his "Historical note" to report his 17 July conversation with J. Robert Oppenheimer at the University of Chicago on the subject of the Mark II, Conant also wrote a letter to J. Robert Oppenheimer at P. O. Box 1663, Santa Fe, New Mexico. The letter informs "Dear Oppie":

"I shall arrive in Lamy on the 'Chief' at the usual time on Thursday, August 17, and plan to leave on Sunday, August 20, by the 'Chief.' I am sorry the visit must be so short, but if we can arrange for another session of a couple of hours with the same group I met with on my last trip, I am sure we can accomplish a good deal in a short time. I should hope that I can spend the best part of a day with George [Kistiakowski] . . . I hope the visitation of the Nobel Prize winners went off successfully. I expect to hear a report from the General tomorrow . . . Without being over-optimistic I still reaffirm my complete confidence in your ability to make at least a mark two gadget work (one crit or better one-half!) by the first of February, but of this more when we meet."

We have here Conant's statement that on 27 July 1944 some unidentified "Nobel Prize winners" were then visiting at Los Alamos, and this letter informs Oppenheimer that Conant expected Gen. Groves to provide a report on the "visitation" of the Nobel Prize winners the following day, 28 July. Apparently, and in fact, Gen. Groves was at Los Alamos on 27 July, and Conant correctly expected the General

would return to Washington on 28 July and then make a report of that visit.

General Groves, from his Washington, D.C., office, did inform Oppenheimer in telephone conversation on **10 July 1944** at 11:00 A.M. that he would "talk to JBC [James Bryant Conant] and RCT [Richard Chace Tolman] re: 3 horsemen's visit." On **12 July 1944** at 10:45 A.M. the General "called Dr. Oppenheimer, Santa Fe, N.M. re: visit of 3 horsemen to Y [Los Alamos]. To arrive July 31st and department [sic] August 3rd. Gen. Groves to send written invitations to all three."

On **12 July** the dates were set for that meeting of the "3 horsemen" at Los Alamos. The 3 horsemen would arrive at Los Alamos 31 July and depart the morning of 3 August. The meeting of the 3 horsemen at Los Alamos was set to begin 31 July and was <u>not</u> in progress 27 July—as Conant's letter to Oppenheimer of 27 July incorrectly reports. But Gen. Groves was, in fact, at Los Alamos the day of 27 July, did return from Los Alamos to Washington on 28 July, and did that late afternoon make a report of his 27 July Los Alamos visit to James Conant and the Military Policy Committee.

General Groves' Los Alamos visit of 27 July 1944

The General's office logbooks, known as the "Groves Diaries," for 26 July 1944 disclose that Gen. Groves left his Washington office at 5:45 P.M., "for the airport to go to Santa Fe." Given that time of departure from Washington, Groves arrived at Los Alamos the morning of 27 July. The General's office log for 28 July discloses that the Gen. "returned from the airport at 4:10 P.M." and "at 5:45 P.M. entered a meeting of the Military Policy Committee." The General's office log discloses that Vannevar Bush, James Conant and Admiral Purnell were present at that committee meeting; Gen. Styer was absent.

The National Archives has been unable to locate any minutes or notes taken during that 28 July 1944 meeting of the Military Policy Committee, so we cannot know certainly what particular matters were discussed during that committee meeting, but we can make a well-reasoned surmise—which is that Gen. Groves returned from Los

Alamos in possession of the first written analyses of the Port Chicago explosion that had been prepared by Los Alamos, and that the Port Chicago explosion and those analyses were the principal topic of discussion during that 28 July 1944 meeting of the Atomic Bomb Military Policy Committee.

The first completed Los Alamos summary report of the Port Chicago explosion, written by Captain William S. Parsons, is dated 24 July 1944. In addition to that first summary report dated 24 July, a comprehensive first analysis of the blast damage that did result from the Port Chicago explosion was completed by Ensign George T. Reynolds, USNR, at Los Alamos and dated 27 July 1944. Both documents were completed and available to Gen. Groves during his 27 July visit at Los Alamos.

The first written Los Alamos report on the Port Chicago explosion, "Port Chicago Disaster: Preliminary Data," was Capt. William S. Parsons' 24 July 1944 memorandum of that title addressed to Rear Admiral William R. Purnell, the Navy member of the Atomic Bomb Military Policy Committee and Capt. Parsons' commanding officer. Ensign Reynolds' Port Chicago blast damage analysis dated 27 July 1944, "Report on Port Chicago July 20-24, 1944," was addressed to Capt. Parsons, Ensign Reynolds' commanding officer. Ensign Reynolds' report on Port Chicago would be made Enclosure (C) of Capt. Parsons' memorandum to Admiral Purnell, "Port Chicago Disaster: Second Preliminary Report," dated 4 August 1944. Both documents were intended for delivery to Admiral Purnell in Washington, D.C.

Captain Parsons' 24 July memorandum "Port Chicago Disaster: Preliminary Data" and Ensign Reynolds' 27 July "Report on Port Chicago July 20-24, 1944" were both completed and available to Gen. Groves at Los Alamos on 27 July—before the General returned to Washington from Los Alamos on 28 July. Those established circumstances educe the conclusion of fact that Gen. Groves, who was the Military Policy Committee's executive officer, did take possession of those two reports at Los Alamos and did deliver them to the person for whom they were intended, Adm. Purnell, during the meeting of the Military Policy

Committee which did convene in the General's office on 28 July at 5:45 P.M., and at which meeting Admiral Purnell was present.

In the context of the Manhattan Project history it's impossible to discover any other matter or event of sufficient importance on or about 26 July that would have compelled the General to travel by air from Washington to Los Alamos and return 48 hours later, except the important matter of receiving the first Los Alamos analyses of the Port Chicago proof of the Mark II bomb, and making delivery of those analyses to Admiral Purnell and the Military Policy Committee.

At Los Alamos on 27 July Gen. Groves undoubtedly had general discussions of the Port Chicago explosion, as well as specific discussions of those first two explosion analyses, with Oppenheimer and others of the scientific staff at Los Alamos. During the 28 July meeting of the Military Policy Committee Gen. Groves undoubtedly introduced discussion and review of those first two Port Chicago explosion analyses made by Los Alamos, and also made report to the committee of such incidental information concerning the Port Chicago explosion that he had received in discussions with Oppenheimer and others at Los Alamos on 27 July.

However, lacking any minutes or notes that report the matters discussed by the Military Policy Committee during that 28 July meeting in Washington we can only educe as a conclusion of fact that the purpose of Gen. Groves' quick trip to Los Alamos was to receive those documents, to discuss the Port Chicago explosion with Oppenheimer and others at Los Alamos on 27 July, to deliver those Port Chicago analyses to Admiral Purnell at the 28 July Military Policy Committee meeting, and to verbally report such additional information concerning the Port Chicago explosion that the General had learned from discussions of the explosion at Los Alamos on 27 July.

The "3 horsemen"

"Now in my vision this is how I saw the horses and their riders. They wore red, blue, and yellow breastplates, and the horses' heads were like heads of lions, and out of their mouths came fire, smoke and sulfur. By these three plagues of fire, smoke and sulfur that came

out of their mouths a third of the human race was killed." — The Revelation of John.

I first learned from James Conant's letter of 27 July 1944 to Oppenheimer that some unidentified Nobel Prize winners had visited Los Alamos precisely at the time the first Los Alamos reports and analyses of the Port Chicago explosion had been available, but Conant's letter to Oppenheimer does not identify those Nobel Laureates.

Nowhere does the commercially published Manhattan Project historical literature report a visit by any Nobel Laureate to Los Alamos on or about 27 July 1944, but we can safely assume that the "Nobel Prize winners" whom Conant believed were visiting at Los Alamos on 27 July 1944 were men whose scientific contributions were important to the work undertaken at Los Alamos in development of the atomic bombs in summer 1944, rather than perhaps Pearl S. Buck who received the Nobel Prize for Literature in 1938.

In previous chapters are identified three Nobel Laureates whose contributions in science were fundamental to the development of the atomic bombs at Los Alamos, and specifically fundamental to development of the Mark II: Sir James Chadwick who received the 1935 Nobel Prize in Physics for his discovery of the neutron, which enabled artificially induced nuclear fission in the active uranium hydride material of the Mark II; Ernest O. Lawrence who received the 1939 Nobel Prize in Physics for the invention and development of the cyclotron, which was used by the Manhattan Project as an essential contributing technology to the U²³⁵ isotope separation necessary to produce the slightly U²³⁵-enriched uranium hydride active of the Mark II; and Harold Clayton Urey who received the 1934 Nobel Prize in Chemistry for his discovery of the deuterium isotope of hydrogen (H₂), which was essential to the uranium hydride (deuterium) Mark II. Harold Urey had also isolated the B¹⁰ boron isotope essential to the autocatalytic uranium hydride Mark II, and he had developed the industrial scale methods of production necessary to produce the deuterium and B¹⁰ isotopes essential to detonation of the Mark II autocatalytic uranium hydride lateral implosion experimental device.

A close reading of the General's office logbooks, which are held by the National Archives at College Park, Maryland, first discloses that on **10 July 1944** at 11:00 A.M. in Washington, "Gen. Groves held a telephone conversation with Dr. Oppenheimer at Los Alamos. Gen. Groves to talk to JBC [James Bryant Conant] and RCT [Richard Chace Tolman] re: 3 horsemen's visit." On **12 July 1944** at 10:45 A.M. the General's office log reports, "Gen. Groves called Dr. Oppenheimer, Santa Fe, N.M. re: visit of 3 horsemen to Y. To arrive July 31st and department August 3rd. Gen. Groves to send written invitations to all three."

The investigator need only read a few more days through Gen. Groves' office log to discover that the General invited Nobel Laureates Chadwick, Lawrence and Urey to arrive for a visit at Los Alamos 31 July and to depart the morning of 3 August 1944.

Nobel Laureate James Chadwick and his wife Aileen had arrived in the United States from England before the end of 1943 and by early 1944 had taken up residence at Los Alamos. James Chadwick, however, was infrequently at Los Alamos more than a few days in succession because his principal diplomatic and administrative functions required his presence mostly in Washington, D.C., where he quickly established close working relationships and rapport with Secretary of War Henry Stimson, Vannevar Bush, James Conant, and Gen. Groves.

Professor Chadwick was the senior technical adviser to the British members of the Combined Policy Committee, which had been established by the fifth provision of the Quebec Agreement, signed by Prime Minister Winston Churchill and President Franklin D. Roosevelt, 19 August 1943. The Quebec Agreement defined the intent and methods of cooperation among British, Canadian and U.S. scientists to advance, for mutual security, the wartime development of atomic bombs. Among the functions delegated to the Combined Policy Committee were the activities necessary "to keep all sections of the project under constant review" and to maintain "complete interchange of information and ideas on all sections of the project between members of the Combined Policy Committee and their immediate technical advisers."

On or about 21 August 1943 at Quebec the British and Canadian members of the newly established Combined Policy Committee were

informed of the information disclosed by the U.S. Military Policy Committee on Atomic Bombs "Report of August 21, 1943 on Present Status and Future Program on Atomic Fission Bombs." That report forecast, "There is a chance, and a fair one if a process involving the use of a hydride form of material proves feasible, that the first bomb can be produced in the fall of 1944."

James Chadwick was the senior technical adviser to the British members of the Combined Policy Committee and, according to the directive of that committee to maintain "complete interchange of information and ideas on all sections of the project between members of the Combined Policy Committee and their immediate technical advisers," James Chadwick would necessarily be informed that the uranium hydride Mark II had been successfully proof-fired 17 July 1944. The Combined Policy Committee as a whole consisted of:

- The Secretary of War, (Henry Stimson, United States)
- Dr. Vannevar Bush. (United States)
- Dr. James B. Conant. (United States)
- Field-Marshal Sir John Dill, G.C.B., C.M.G., D.S.O. (United Kingdom)
- Colonel the Right Hon. J. J. Llewellin, C.B.E.1 M-0., M.P. (United Kingdom)
- The Honorable C. D. Howe. (Canada)

General Groves' office log records that on **20 July** at 10:35 A.M. "Dr. Chadwick called JO'L [Jean O'Leary, Gen. Groves' secretary] re: would like a priority 3 to travel by Flight 6:15 P.M. Friday [28 July] TWA [Trans World Airlines] from Wash. to Y." Nobel Laureate James Chadwick arrived at Los Alamos, Saturday, 29 July 1944.

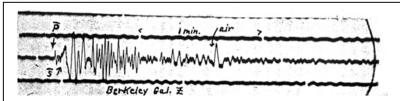
During 1944 Professor Ernest O. Lawrence divided his time between his radiation laboratories at the University of California, Berkeley, campus and the Manhattan Project Y-12 facility at Oak Ridge, Tennessee, near Knoxville, where the Tennessee Eastman Corporation was making excellent progress in the installation of Lawrence's electromagnetic U²³⁵ isotope separation calutrons, ever changing in their

design specifications to improve output, and training the necessary hundreds of personnel in the methods of operating the calutron race-tracks. Gen. Groves' office log records that on **13 July** at 12:20 P.M., "Gen. Groves called E. O. Lawrence, Knoxville, Tenn. re: plans to be at Y to arrive on July 31st and to depart August 3rd in the [A].M." Nobel Laureate Ernest O. Lawrence arrived at Los Alamos 31 July 1944.

From 1934 Harold Clayton Urey was Professor of Chemistry at Columbia University in New York City and, during the war was Columbia's Director of War Research, including the atomic bomb project. Professor Urey divided his time between Columbia University and the Army's Wabash Valley Ordnance Works, established in 1942, where in 1943 Standard Oil Company of Indiana had established the industrial facility to produce the deuterium necessary to the Mark II. Gen. Groves' office log records that on **13 July** at 12:40 P.M., "Gen Groves called Dr. Urey, Wabash, Indiana, to invite him to be present at Y on July 31st to stay until morning of August 3rd." Nobel Laureate Harold Clayton Urey arrived at Los Alamos 31 July 1944.

General Groves did himself return to Los Alamos from Washington to be present for the visitation of the Nobel Prize winners. The General's office log discloses that the General's secretary on **2 August**, "Called Gen. Groves in Santa Fe. w/weather news and summary of what had occured [sic] in his absence." The date the General arrived at Los Alamos is not disclosed by his office log, but his office log does disclose that the General departed Los Alamos 3 August.

As we have seen above, Capt. Parsons' first report on the Port Chicago explosion had been completed 24 July 1944 and Ensign Reynolds' first analysis of the blast damage that did result from the Port Chicago explosion had been completed 27 July. At least those two documents were completed and available by the date the 3 horsemen arrived at Los Alamos—Chadwick on 29 July; Lawrence and Urey on 31 July. However, several more complex analyses of the Port Chicago explosion were also available to the 3 horsemen and Gen. Groves during their visit, and before their departure the morning of 3 August.



Port Chicago explosion seismic record, "Gal. Z." One seismogram of the 17 July 1944 Port Chicago Naval Magazine explosion, made 30 kilometers from the source on the Galitzin Z recorder at the University of California, Berkeley.

Captain Parsons' memorandum to Admiral Purnell, "Port Chicago Disaster: Second Preliminary Report," is dated 4 August 1944. That memorandum includes, as **Enclosure** (**C**), Ensign Reynolds' first blast damage analysis, "Report on Port Chicago July 20-24, 1944," dated July 27. Captain Parsons' "Second Preliminary Report" of 4 August 1944 also includes, as **Enclosure** (**D**), Dr. Maurice M. Shapiro's undated "Preliminary Report: Observations on the Effects of the Tidal Wave, Port Chicago Explosion, July 17, 1944," and, as **Enclosure** (**E**), Ensign Reynolds' undated "Report on Seismic Evidence, Port Chicago Explosion," which on the report title page is also named "Report on Port Chicago July 20-24,1944."

Captain Parsons' 4 August 1944 memorandum to Admiral Purnell, "Port Chicago Disaster: Second Preliminary Report," in addition to **Enclosures (C)**, **(D)**, and **(E)**, also provides as **Enclosure (A)**, "Marked copy of layout of U. S. Naval Magazine, Port Chicago, California"; **Enclosure (B)**, "Notes on Enclosure (A)"; and **Enclosure (F)**, "Prints of Mare Island Navy Yard Photographs Nos. . . . [38 in total]." All those Port Chicago explosion effects reports, maps and photographs, which would be Enclosures with Capt. Parsons' 4 August 1944 report to Admiral Purnell, were also available for review by the 3 horsemen and Gen. Groves during their visit at Los Alamos from 31 July through the morning of 3 August.

Moreover, the text of Capt. Parsons' 4 August 1944 memorandum to Admiral Purnell, "Port Chicago Disaster: Second Preliminary Report," informs the admiral that "two Army airplanes witnessed the explosion, the pilots agreeing that the flame rose to 8,000 feet." That particular information was also available to the 3 horsemen and Gen. Groves

during their Los Alamos visit, which information provided the conclusive evidence that the fireball of the Port Chicago explosion had been typical of a nuclear fission explosion and, therefore, that the Mark II had been successfully proof fired at Port Chicago.

We must show by what means all those documents and information were available at Los Alamos during the visitation of the 3 horsemen. Captain Parsons in his first Port Chicago report of 24 July to Admiral Purnell, "Port Chicago Disaster: Preliminary Data," states that he, Ensign Reynolds and Dr. Shapiro "arrived at Mare Island [Navy Yard] about noon 20 July and, with Captain Crenshaw, proceeded to Port Chicago." Four days later, on 24 July, the party had returned to Los Alamos where Capt. Parsons wrote his first Port Chicago disaster report of 24 July and where, by 27 July, Ensign Reynolds had completed his first Port Chicago blast damage report.

Aerial photographs of the destruction at the Port Chicago Naval Magazine had been made during the early afternoon of 18 July by Mare Island Navy Yard. More than 100 photographs on the ground of the destruction were made by Mare Island on 18 July and immediately subsequent days. Prints of those photographs of the Port Chicago Naval Magazine destruction were available to Capt. Parsons and party prior to their return to Los Alamos 24 July, as were the "Marked copy of layout of U. S. Naval Magazine, Port Chicago, California" and associated notes.

All the information necessary to Dr. Shapiro's "Preliminary Report: Observations on the Effects of the Tidal Wave, Port Chicago Explosion, July 17, 1944" had been investigated and collected by Dr. Shapiro from 20 July through 24 July. Ensign Reynolds in his report on the seismic evidence states, "On Monday [24 July] Reynolds and Shapiro conferred with Prof. Perry Byerly in his office at the University of California in Berkeley . . . This part of the report is concerned with what we learned from him and from the inspections of the [seismic] records."

When the 3 horsemen arrived at Los Alamos on 29 July and 31 July 1944, the information available at Los Alamos descriptive of the Port Chicago explosion included Capt. Parsons' 24 July "preliminary data";

Ensign Reynolds' blast damage analysis; Ensign Reynolds' information on the seismic evidence; Dr. Shapiro's observations on the effects of the tidal wave; a marked copy of the layout of the Port Chicago Naval Magazine; and 38 aerial and surface photographs of the destruction wrought at Port Chicago. Additionally, Capt. Parsons, Ensign Reynolds and Dr. Shapiro were available to be called to augment their documented reports of the explosion by their subjective eyewitness accounts of the destruction wrought by the proof of the Mark II at Port Chicago. Hans Bethe, Joseph O. Hirschfelder, George Kistiakowski, William George Penney, and Edward Teller were also present at Los Alamos during the visit of the 3 horsemen and were available to provide additional comment and analysis of the documented and anecdotal reports of the Port Chicago explosion, as were J. Robert Oppenheimer and Gen. Groves who together had arranged the meeting of the 3 horsemen.

On 3 March 2000 this author filed a Freedom of Information Act request with Los Alamos National Laboratory Archives and immediately thereafter with the National Nuclear Security Administration, Department of Energy, Albuquerque, New Mexico, (FOIA Request 00-054-C) to obtain "whatever documentary materials you may have in the archives that are pertinent to a meeting held at Los Alamos July 31 through the morning of August 3, 1944 at which were present James Chadwick, Gen. Groves, Ernest O. Lawrence, J. Robert Oppenheimer, Harold Urey, with the probable participation of Capt. Parsons and Edward Teller and possible participation of others."

By 20 April 2000 Los Alamos Archivist Roger Meade informed DOE, Albuquerque, he had conducted a search of the "Project Y" Collection A-84-019 and the Archives Access Data Base for any documents under the keywords "Chadwick," "Groves," "Lawrence," "Oppenheimer," "Urey," "3 horsemen" and "three horsemen." Dr. Meade reported, "No responsive documents were located at the LANL Archives."

If no documentary records do exist that disclose even the fact of the meeting of the 3 horsemen and Gen. Groves at Los Alamos for the period 29 July through the morning of 3 August 1944, except those pertinent entries in Gen. Groves' office log, that meeting was clearly

intended to be conducted without a single recoverable trace, but that meeting is established as a conclusion of fact.

Implicit in the entries in Gen. Groves' office log that establish the dates for the visit of the 3 horsemen and Gen. Groves to Los Alamos is the reality that the method and plan for the proof of the Mark II at the Port Chicago Naval Magazine had been determined and concluded by 12 July 1944, on which date the schedule for the meeting of the 3 horsemen at Los Alamos was set.

James Conant was apparently first cryptically informed that the proof of the Mark II had been successful in Oppenheimer's letter to him of 3 August 1944, the same date the 3 horsemen and Gen. Groves departed Los Alamos: "We are looking forward to your visit on the seventeenth and will plan to meet you at the Chief at Lamy . . . We have had the first positive indications as far as our main program goes, and although the results have not been checked, they do lend some encouragement. By the time you are out we should know pretty well how sound they are."

The "main program" was, of course, fulfillment of the Manhattan Project mandate to produce a militarily-decisive atomic bomb for use against the enemy during World War II. The "first positive indications," which had not been checked by 3 August, were the reports made by Capt. Parsons, Ensign Reynolds and Maurice Shapiro of the Port Chicago explosion that were available at Los Alamos by 3 August and were transmitted to Admiral Purnell as Capt. Parsons' 4 August 1944 memorandum and Enclosures, "Port Chicago Disaster: Second Preliminary Report."

The composite of augmented and extensively elaborated information and analyses of the effects of the Port Chicago explosion that would be developed following Capt. Parsons' 4 August 1944 "Port Chicago Disaster: Second Preliminary Report," and before James Conant's Los Alamos visit of 17 August, would be the materials and Enclosures of Capt. Parsons' 31 August 1944 "Port Chicago Disaster: Third Preliminary Report." The augmented information and elaborated data and analytical reports of that "Third Preliminary Report" would indeed

show "how sound" the "first positive indications" had been that were available to Oppenheimer, the 3 horsemen and Gen. Groves by 3 August.

By the time James Conant arrived at Los Alamos 17 August 1944, evidence of every manifestation and effect of the 17 July 1944 Port Chicago explosion had been collected, analyzed, reviewed, and systematically reported by Capt. Parsons, Ensign Reynolds and Dr. Shapiro at Los Alamos. Consequently, in his "Report to Gen. Groves on Visit to Los Alamos on August 17, 1944" Conant wrote:

"It is agreed that the Mark II should be put on the shelf for the present. If all other implosion methods fail, it could be taken off the shelf and developed for combat use in 3 or 4 months time . . . If the explosive lens development then looks very bad it may be necessary to work on improving Mark II to see if at least the upper limit of effectiveness [SENSITIVE INFORMATION DELETED] cannot be raised somewhat . . . It was agreed that Class B damage was damage beyond repair. For the phrase to be of significance the type of structure must also be named. It was agree that for dwelling houses the area of Class B damage was about as follows for 1,000 tons TNT: 90% Class B damage = 0.5 mile radius = .75 square mile area . . . For 10,000 tons TNT these figures are to be multiplied by 4."

Captain J. S. Crenshaw, USN. Corruption of the Port Chicago Navy Court of Inquiry

On 21 July 1944 Commandant of the Twelfth Naval District (San Francisco) Rear Admiral Carleton H. Wright appointed a 3-man Court of Inquiry, "To investigate the facts surrounding the explosion of 17 July 1944." Admiral Wright's appointments to the court were Navy Captains Albert G. Cook, Jr., John S. Crenshaw and William B. Holden. Captain Cook was named president of the court. The transcript of the record of the court proceedings, completed after 40 days of testimony, and all official records finally concerned with the Court of Inquiry, report that "John S. Crenshaw, Captain, United States Navy" was a member of the court.

Captain Parsons' 24 July 1944 memorandum to Admiral Purnell, "Port Chicago Disaster: Preliminary Data," states, "My party arrived at Mare

Island about noon on 20 July and, with Capt. Crenshaw, proceeded to Port Chicago."

Captain Parsons' 4 August 1944 memorandum to Admiral Purnell, "Port Chicago Disaster: Second Preliminary Report," states, "Discussion with Capt. J. S. Crenshaw of the Court of Inquiry on 3 August, indicated that considerable progress is being made and that good evidence from eyewitnesses has been taken."

Captain J. S. Crenshaw was Capt. John Stewardson Crenshaw, United States Naval Academy, Class of 1921. To his family members in youth, to friends and acquaintances during his years at the Naval Academy, and until his death (19 May 1975), John Stewardson Crenshaw was always known as Jack Crenshaw. "Jack" is, of course, derived from John or Jacques. Usually, in public records, Capt. John Stewardson Crenshaw is identified as Capt. J. S. Crenshaw, as for example from the *Dictionary of American Naval Fighting Ships:* "USS *Frontier* (AD-25) was launched on 25 March 1945 by the Todd Shipyards, San Pedro, Calif.; sponsored by Mrs. George M. Ravenscroft, and commissioned 2 March 1946, Capt. J. S. Crenshaw, in command." At his retirement, Capt. J. S. Crenshaw was elevated to the rank of Rear Admiral.

Captain John Stewardson Crenshaw was, in fact, Capt. William S. Parsons' brother-in-law. Captain Crenshaw had been appointed to the Port Chicago Court of Inquiry specifically in consequence of Capt. Parsons' request for that appointment that he had made to Admiral Purnell.

"On 20 July, accompanied by a Los Alamos officer and a scientist, Parsons joined his brother-in law Capt. Jack Crenshaw (a member of the official inquiry into cause) at Mare Island, and they went together to the Port Chicago site."—Al Christman, *Target Hiroshima*, p. 154.

Captain Crenshaw and Capt. William S. "Deak" ("Deacon") Parsons had been acquainted for 25 years since their years together at the U. S. Naval Academy. Al Christman in his biography of Admiral Parsons, *Target Hiroshima*, wrote, "Deak's friendship with Jack Crenshaw went back to his second year at the academy, when Jack was one of the

upperclassmen Deak tutored in Spanish. Now [1927] Jack was one of the five other ordnance postgraduate students with him at Annapolis." Crenshaw and Parsons had, respectively, married sisters Betty and Martha Cluverius. Betty and Martha were the daughters of Rear Admiral Wat Tyler Cluverius, USN, who as Captain Cluverius was commandant of midshipmen at Annapolis during the years Crenshaw and Parsons were there. Deak Parsons and Martha Cluverius were introduced at the rehearsal for the wedding of Betty Cluverius and Jack Crenshaw in the fall of 1928; Deak Parsons was Jack Crenshaw's best man. Martha preceded Betty and her father down the aisle of the Norfolk Navy chapel. One year later, in November 1929, Martha Cluverius and Deak Parsons were married in the Norfolk Navy chapel; Jack and Betty Crenshaw were best man and matron of honor.

Martha's father was Rear Admiral Wat Tyler Cluverius, USN; her maternal grandfather was Admiral William Sampson, USN, who was of course Admiral Cluverius' father-in-law; Deak Parsons, Martha's husband until his death in 1953, was Rear Admiral William Sterling Parsons; several years following Admiral Parsons' death Martha remarried to take as her second husband Rear Admiral Robert Burroughs, USN. The extraordinary military credits and honors of each of these admirals and the statuesque character and nobility of their wives are known to the more inquiring readers of U. S. naval history but the family history, including the succeeding generations, is an American epic which no author has not yet comprehended. The Golden Plates of the Mormon Church, as example, were discovered on Admiral William Sampson's farm in New York state. Martha Cluverius Parsons Burroughs was a woman of extraordinary character and abilities, as are her daughters, and their children's generation.

However, in July 1944 Capt. Parsons at Los Alamos arranged with Admiral Purnell to have his brother-in-law, Capt. John "Jack" S. Crenshaw, appointed to the Port Chicago Navy Court of Inquiry by Commandant of the Twelfth Naval District (San Francisco) Rear Admiral Carleton H. Wright.

By the appointment of Capt. Crenshaw to the Port Chicago Navy Court of Inquiry the judicial integrity of the court was corrupted. The

Archives at Los Alamos National Laboratory hold many documents, including transcriptions of telephone conversations between Captains Crenshaw and Parsons made during the proceedings of the court, which show that Capt. Crenshaw had, if not specific cognizance, at least sufficient reason to believe that the cause of the Port Chicago explosion had not been the accidental detonation of conventional munitions but had been the purposeful proof detonation of the Mark II nuclear fission bomb.

Captain Crenshaw did not, in the record of the proceedings of the court, disclose that information to the court, and that known cause of the Port Chicago explosion was not therefore disclosed to assist the defense of those men subsequently charged and convicted in summary courts-martial proceedings nor disclosed to assist the defense of those men subsequently charged and convicted of mutiny-in-wartime by formal court-martial proceedings in the aftermath of the Port Chicago explosion. That information was then SECRET, but even so those men convicted in summary and formal courts-martial proceedings were by that deprivation of substantive fact denied procedural due process and all those courts-martial convictions, summary and formal, should now immediately be vacated by the Judge Advocate General of the United States Navy.

Photographs and illustrations credits.

Port Chicago explosion seismic record, "Gal. Z." One seismogram of the 17 July 1944 Port Chicago Naval Magazine explosion, made 30 kilometers from the source on the Galitzin Z recorder at the University of California, Berkeley. The Government seized all the original seismic records of the Port Chicago explosion and did not permit University of California, Berkeley, seismologist Professor Perry Byerly to publish those seismograms and analysis of those seismograms until October 1946. The same journal issue in which Professor Byerly's analysis of the Port Chicago seismic records was published also published California Institute of Technology Professor B. Gutenberg's "Interpretation of records obtained from the New Mexico atomic bomb test, July 16, 1945." The Government did not permit Professor Gutenberg to publish the seismograms of the 16 July 1945 Trinity Site test; those seismograms have not since been published. Several years ago Los Alamos National Laboratory Archives found the seismograms of the Trinity Site test could not be located. Source: Byerly, Perry. "The Seismic Waves from the Port Chicago Explosion." Bulletin of the Seismological Society of America, Vol. 36, No. 4, October 1946.