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Glenn T. Seaborg, Chairman, Atomic Energy Commission, Diary Entry for 20 and 21 October 1964 Source: [Journals of Glenn Seaborg, Volume 9 \(Lawrence Berkeley Laboratory, University of California, 1979\)](#) These Seaborg diary entries report on a Cabinet meeting and a conversation with DCI John McCone respectively. At the Cabinet meeting, Seaborg reported that, "to our surprise," the Chinese device apparently contained uranium-235, rather than plutonium. U.S. intelligence analysts had believed that the basis for the first Chinese bomb would be plutonium. In his telephone conversation with McCone, Seaborg reported the conclusion that China's bomb was based on U-235. McCone said that he would explore the possible source of the uranium--whether it came from the Soviet Union or an indigenous Chinese facility.

Seaborg reports on a National Security Council meeting he attended on October 17, 1964--three days after China first detonated a nuclear device. Seaborg's entry describes the information provided to the group by Director of Central Intelligence John McCone, concerning the Chinese nuclear program as well as the removal of former Soviet Premier Nikita Khrushchev from power. Seaborg also reports President Johnson's questioning of Carl Rowan, head of the U.S. Information Agency, on world-reaction to the Chinese test, along with Rowan's response. Johnson observed that it was important to remain calm, avoid panic, and make clear to the American people that the administration was alert to the situation. Glenn T. Seaborg, Chairman, Atomic Energy Commission, Diary Entry for 17 October 1964 Source: [Journals of Glenn Seaborg, Volume 9 \(Lawrence Berkeley Laboratory, University of California, 1979\)](#)

The big news today is that the Red Chinese exploded an atomic bomb (in the atmosphere). Our electromagnetic and acoustic detection devices picked it up and the Chinese announced it. President Johnson made the U.S. announcement of the test (after the Chinese announcement). The yield appears to be in the range of tens of Kilotons (as expected). Intelligence sources had picked up indications that this test would come soon.

At 12:30 p.m. Arnold Fritsch and I had lunch with Paul McDaniel and Pief Panofsky at which we discussed High Energy Physics.

I received calls from reporters (e.g., Newsweek) asking for my impressions of Brezhnev on the basis of my first conference with him in Moscow in May 1963. Apparently, I am one of very few Americans who have talked to him for any length of time.

At 4 p.m. I called Father Paul Reinert (president of St. Louis University) to discuss the presentation to me of the Spirit of St. Louis Award on October 26th. I told him I have received his letter of October 12th, that I have real problems flying late at night and would rather leave St. Louis earlier than the midnight flight for Los Angeles. He didn't seem to think that the 9:40 p.m. flight would give them time to seat the great number of people, have his short speech, present the award, and then have my acceptance speech. Father Reinert said he would give my travel more thought and let me hear from him.

The announcement of the new Tripartite Contract for operation of Argonne National Laboratory is being prepared and will probably be made on October 20th.

I wrote a reply to Professor Harvey Diehl to tell him I could not consider the presidency at Iowa State University.

Saturday, October 17, 1964 - D.C.

At 9:30 a.m. I presided over the annual meeting of the Chemical Education Material Study Steering Committee at the AEC's "H" Street office.

At noon I attended the National Security Council meeting held in the Cabinet Room of the White House. Others present at the meeting included President Johnson, McNamara, Rusk, Vance, LeMay, Bromley Smith, Bundy, McCone, McDermott, Llewellyn Thompson, Rowan, Ball, Cater, Hornig, McNaughton and Clifton. The first topic was the Chinese atomic bomb test yesterday. McCone described the 10 megawatt research reactor in China, which is based upon a similar Russian reactor which both McCone and I had seen in Moscow; a possible gas-cooled production reactor of some 30 megawatt capable of producing plutonium; a gaseous diffusion plant under construction, which apparently won't be operable for two or three years; and he mentioned a possible water-cooled production reactor of about 100 megawatts capacity, and, therefore, a production capacity for plutonium. He said that the device exploded yesterday probably had plutonium, and, hence, the Chinese might be capable of producing many weapons per year. McCone said that he had briefed the heads of eight European countries during his recent trip to Europe, saying that a Chinese atomic bomb explosion might take place within 30-60 days, which was a good prediction, considering that the first briefing was just 31 days ago.

One potential area of China has not been covered by photographic reconnaissance, and, therefore, could have an additional reactor (or reactors), and McCone said he

wouldn't be surprised if there were a plant in this area. McCone also indicated that the evidence this morning indicates that the Chinese may conduct another test almost immediately. All of the usual signs with respect to transportation, weather reports, etc.—as occurred the day before yesterday—are occurring now; so, there may be another event today or tomorrow. The Chinese have 290 IR-28 subsonic short-range jet aircraft, with a range radius of 600 miles, which could deliver crude bombs. It will be necessary to have air samples before we can determine whether the device detonated yesterday could fit into the IR-28.

McCone went on to discuss the Soviet situation, saying that Khrushchev had been removed due to discontent over the conduct of his office—a general discontent and no one source of trouble. Khrushchev had made a strong demand in September for greater emphasis on consumer goods, rather than on heavy military products, which may have contributed to his downfall. Some changes of policy are expected. The relationship of Brezhnev and Kosygin is not yet clear, although no upheaval is expected; either Brezhnev or Kosygin, or a third party, may move in a little later to take over the leadership in a single job as Khrushchev had it. The President asked whether the CIA had any forewarning that there would be a change in leadership or of whom it would be. McCone said there was no indication of an immediately impending change, although there was some indication of dissension. He went on to say that Brezhnev and Kosygin are not imaginative and won't play the world role that Khrushchev has. President Johnson recalled that Harriman had told him that Khrushchev said that when a change came it would be Brezhnev and Kosygin. The President asked "Tommy" whether he had any ideas on the situation. Thompson said he thought the first changes would be within the Soviet bloc, and then there might be changes in their relationships with the outside.

President Johnson asked whether there had been any indications of unrest or seething within the Soviet Union or was the only indication that Khrushchev had said he would retire soon and had indicated the two men who would succeed him. Thompson said that the presidium had suggested to Khrushchev that he might take a holiday. He said that in the last seven years Khrushchev had spent two and a quarter years outside Moscow, and one and a quarter years outside the country, indicating that others ran the country a good deal of the time, and this was Kosygin. Rusk recalled that Khrushchev had told him in August 1963 when he was in the USSR to sign the test ban treaty, that he was going to cut the defense budget; he said that Malinovsky did not agree, so he would have to be sent on a vacation. Khrushchev said this to Rusk in the presence of many others who could hear.

Rusk then turned to discuss the British election. The President inquired as to the exact margin of the Labor victory, and Rusk indicated that it was four or five seats. President Johnson indicated he thought this would mean that it wouldn't be very much of a government—and not for very long. Rusk said that our Embassy in London estimates that the government will last ten months to a year. The President inquired whether the polls in Great Britain had forecast the results, and Bundy said that two polls forecast the results within 1 to 2 percent. Rusk, in describing the significance of the election, said that Britain usually doesn't make great changes in direction when a new party comes in. He indicated that the new leadership is relatively inexperienced since only two have had previous ministerial experience, but he said they are a young, alert group.

Rusk indicated that the new Russian government said they would continue the principles enunciated in the 20th, 21st and 22nd Congress. He said there are some indications that Gromyko will be replaced. He said that an Associated Press tape from Moscow, which he had in his hand, directed a new blast against Red China, indicating not much change in attitude in that area. With respect to the Chinese test explosion, Rusk said we should be careful not to downgrade their capabilities.

too much. He said that the President's decision to announce in September that the Chinese were ready to conduct a test was a good thing because it prepared many countries for the event. He said that in the long run this will add to the prestige of the Chinese government. He said that the U.S. will be in touch with the Japanese and the Indian governments to try to mitigate the effects on these countries.

Rusk said he thought there would be some advantage for the President to make a television statement on the Chinese situation, the Russian situation, the British election, etc. McNamara also urged the President to consider a report to the American people on these matters. President Johnson questioned the value of this, asking what he might be able to add to what he had already said. Bundy said that it might be too soon to say in detail what he might say, but we will know in two or three days; he could certainly give a number of facts and could reassure the American people that the United Kingdom labor government is not communistic. Rusk also gave a number of arguments why the President should give such a television talk. The President then asked that he be given quickly some ideas upon which to base such a talk, and Rusk indicated he would have a draft for him this afternoon.

The President then turned to Carl Rowan and asked what people around the world are saying. Rowan replied that they are saying a lot. The Japanese and the Yugoslavians have let out a blast against the Chinese. Sweden and other Scandinavian countries have said that the Chinese should now be admitted to the U.N. He also thought that there would be some pro-Chinese effects in Africa. He felt that the U.S. will need to use every persuasive effort in its power to counteract some of these pro-Chinese effects.

President Johnson indicated it is important to remain calm, that is, avoid a panic attitude, but also to make it clear to the American people that we are alert to the situation. The President said that we should give serious consideration to having the top people of the Congressional Foreign Relations and Armed Services Committees in for a briefing, and he mentioned such congressional leaders as Russell, Fulbright, McCormack, and Mansfield, and that perhaps the meeting should be held on Monday, October 19th. He said that Rusk, McNamara and I should be among those to give them an outline of the situation. He indicated that Bundy might tell the press that we are having periodic meetings with the congressional leadership, and that a bipartisan group was going to be brought in for such a meeting. He asked whether Rusk and McNamara see any hazards in this course of action. Rusk felt that such a course of action would be O.K. if the congressional leaders were given a few days' notice. He said that maybe there should be a meeting with the Cabinet on Monday for a preview of the meeting with congressional leaders on Tuesday.

The President then went quickly around the table and asked a number of us, including me, whether we agreed with this plan. I indicated that I did. He reiterated that Bundy might tell the press that we are having such a meeting, and that it would be here, rather than sending men all over the country to brief these leaders. Bundy mentioned the advantages of having the congressional leadership meeting on Monday and the Cabinet meeting on Tuesday. Rusk indicated that he preferred it the other way around. The President indicated that this should be thought about carefully before a decision is made, and McNamara agreed.

Bundy asked whether I had anything to add with respect to the Chinese bomb test situation, and I said that I feel we should be very careful not to underestimate or downgrade Chinese capabilities or future course of action. I said that they may have deliberately planned to set off two or more weapons in quick succession. This seemed to impress President Johnson, and he said that McNamara, LeMay, and I

might get together in order to be ready to participate in the briefings that had previously been discussed. The President then asked McCone whether there is anything else of an alarming nature that is coming up, and McCone didn't indicate anything in particular.

The President then went on to discuss the Jenkins case. The President indicated that he had Jenkins in his office about ten days ago and told him to issue an order to all department and agency heads admonishing them on the importance of proper security measures and security clearances. He said he wanted to admonish us again as to the need for precautionary steps, and he emphasized that this applied to every one of us. He said that when he came into the presidency, he had asked for an FBI check on everybody in the White House. He said that the FBI and the Secret Service filed the information on Jenkins's 1959 arrest so that he (President Johnson) didn't know about it, and that the first he learned of it was last Wednesday (October 14th) at about 5 or 6 p.m. when he was with Mrs. Kennedy in New York and somebody told him about it. He asked Bundy to get together with Bill Moyers to be sure that everyone is security checked, beginning first in the White House and then outside.

The President said that the people who are exploiting the Jenkins case are more expert on McCarthyism than McCarthy himself. He said that they are using improved methods. He indicated that since September one of the biggest corporations in the country has been paying \$1,000 a week, plus \$500 a week for expenses, to investigators to work to get derogatory information on him and Mrs. Johnson. He thus admonished us to take every precaution and again indicated that Bundy and Dillon and others should make complete checks of the security system. Hornig said he thought a great deal could be done by automating the records of the FBI. President Johnson asked Hornig to get a plan for this, and Hornig said he would do so. The President went on to ask whether the FBI had interviewed a number of us, and McNamara and Rusk indicated that they had, but that they had told the FBI that they had no contacts with Jenkins on security sensitive issues.

The President went on to say that he had never used Jenkins on security sensitive issues. The President recalled that Jenkins was secretary to the dean of the faculty at the University when he first employed him, which was about the same time that he employed Connally. He recalled that, after that, Jenkins went into the Army on his own initiative, and that when he came back he called Johnson to politely inquire whether Johnson needed him back on the job. As an indication of Jenkins's character, the President related that Goldwater's aide had come to discuss his impending resignation with Jenkins and that Jenkins talked him out of it on the basis that Goldwater needed him. (This was the aide who later resigned anyway.) At the conclusion of these remarks, the President arose to leave the room and the meeting was adjourned.

At 1:30 p.m. I had lunch at the Golden Ox (1615 "L" Street, N.W.) with members of the Chemical Education Material Study Steering Committee.

Sunday, October 18, 1964 - D.C. - Philadelphia, Pennsylvania

I read AEC papers, after which I took Dianne and Abbe to Rock Creek Nature Center where we hiked the two nature trails and took a 45-minute nature walk with the ranger-naturalist.

At 7:30 p.m. John Napier and I left Washington D.C. by train and arrived in Philadelphia, Pennsylvania, at 9:45 p.m. We stayed overnight at the Bellevue-Stratford Hotel.



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Monday, October 19, 1964 - Philadelphia, Pennsylvania - D.C.

At 7:30 a.m. I had breakfast with Merrill A. Scheil (President, American Society for Metals), John A. Fellows (Vice President), Steward G. Fletcher (Secretary), Robert J. Raudebaugh (Past President), and John B. Giacobbe (Convention Chairman).

At 9 a.m. I attended the opening of the 1964 Metals/Materials Congress and Exposition, held in the Grand Ballroom of the Bellevue Stratford Hotel. I sat on the stage with Merrill Scheil, John A. Fellows, Allan Ray Putnam and others. I gave a speech, shortened version (30 minutes), entitled, "Our Heritage of the Elements."

After my talk I held a short press conference at which I was questioned about the Chinese atomic bomb test of last Friday, and I ventured the opinion that it was a plutonium bomb.

At 11:30 a.m. John Napier and I left Philadelphia on Allegheny Flight No. 903, and arrived in Washington at 11:40 a.m.

At 1:30 p.m. I attended the President's meeting with Congressional Leaders in the Cabinet Room of the White House. Those present included President Johnson, McNamara, Rusk, McCone, Ball, Reedy and Valenti (part of the time), Bundy, Llewelyn Thompson; Senators William Fulbright, Carl Hayden, Hubert Humphrey, Bourke Hickenlooper, George Aiken, Everett Dirksen, Thomas Kuchel, Eugene McCarthy, Mike Mansfield, Leverett Saltonstall; Congressmen Hale Boggs, Mike McCormack, Charles Halleck, Frances Bolton, Carl Albert, Leslie Arends, and Thomas Morgan. McCone, Thompson, McNamara, Rusk and I gave presentations covering the Chinese bomb test, the Russian change in leadership, and the significance of the United Kingdom election.

I tried to indicate the type of device the Chinese might have tested by comparing it with the U.S., USSR, United Kingdom, and French programs, thus implying that it might be a simple plutonium device. I stated that these four countries took a five-to seven-year period to go from fission to fusion devices but the Chinese might make some kind of crude fusion device tests sooner. President Johnson gave an account of the Jenkins case, including his observation that he had not known about either of the arrests before last Wednesday night. Photographers took pictures at the end of the meeting and President Johnson read a prepared statement.

Tuesday, October 20, 1964 - D.C.

At 11 a.m. Commissioners Gerald Tape, John Palfrey, Mary Bunting, members of the staff, and I attended the meeting of the Board of Directors of the Atomic Industrial Forum (James F. Young, Kenneth D. Nichols, Louis H. Roddis, Jr., W. Kenneth Davis, Sherman R. Knapp, Richard S. Newlin, Chauncey Starr, Malcolm Tait, Oscar M. Ruebhausen and others) in the Red Room of the Army-Navy Town Club. I heard and commented upon reports by Young (advocating the renewal of the Price-Anderson Act), Nichols ("Implementation of Private Ownership and Toll Enriching"), Kenneth Davis (on production and use of plutonium and uranium-233), Mowton Waring ("Finding of 'Practical Value'"), and Ruebhausen (control of private restricted data--they oppose the AEC proposal).

At 12:30 p.m. I had lunch in the office with Arnold Fritsch.

At 1:10 p.m. I attended the Cabinet Meeting held in the Cabinet Room of the White House. Others present at the meeting included President Johnson, Rusk, Dillon 25.

- McNamara, Gronouski, Wirtz, Freeman, Celebrezze, Adlai Stevenson, Hodges, Gordon, Moyers, Bundy, Reedy, Webb, Shriver, Cater, Hornig, Heller, and Valenti (part of the time). Again the Russian changeover, the Chinese test and the United Kingdom election were discussed as well as individual reports by Cabinet members, discussion of the economic and political situation and the Jenkins situation. I gave a report on the Chinese test saying that analyses of air debris now indicate, to our surprise, that the device apparently contained uranium-235. I explained the Chinese production capability and use of plutonium and uranium-235 to make fission and thermonuclear weapons. I admonished them to be very conservative in estimating Chinese weapons capabilities at this time.

At 5 p.m. I received a telephone call from William Webster. He said that the Edison Electric Institute has their annual meeting next year in Miami, and they are anxious to have me speak at their major meeting on "Atomic Power," and how it has turned the corner. Their meeting opens on Monday, May 3rd, with their major meeting being held the morning of May 4th at 9 or 9:30 a.m. They would hope that my speech would take about 40 minutes. He said, in a pinch, I could switch to either Monday, May 3rd, or Wednesday May 5th, but they would prefer Tuesday, May 4th. Bill said that this is a big meeting with 4,000 or 5,000 people attending and he thinks it would be worthwhile for me to consider speaking to them. Because of the large number of people attending, he feels that a question and answer period following my speech would not be too helpful. I told Bill I would give this some thought and let him know my decision.

At 5:40 p.m. I received a telephone call from John Finney (New York Times). Finney asked whether we had reached at least a tentative conclusion on the nature of the Chinese device which was detonated last week. I said that such information could compromise our detection capability. Finney urged that we consider putting out a statement that the device was triggered by plutonium or enriched uranium-235. I suggested we get together for lunch. Finney said he was leaving on October 25th to 26th to cover Congressman William Miller's campaigning, and would not be back until about election day (November 3rd). It was left that he would be in touch with me upon his return.

Helen and I visited a number of David's and Lynne's classes at Wilson High School at parents' night and, hence, met a number of their teachers such as Truesdell (Lynne--English), Carter (Lynne--French), Breitler (Lynne--Physics), Strosnider (Dave--Biology), Ashby (Dave--History), and Irwin (Dave--English).

Wednesday, October 21, 1964 - D.C.

At 11 a.m. I presided over Information Meeting 418 (notes attached).

At 11 a.m. I called John McCone. I told him it looked clear to us that the Chinese bomb which was detonated was a uranium-235 device, and I thought we should get word to the Joint Committee. McCone said that he would do this. McCone said he would explore further the source of the uranium-235 which they used; it may be the material which Khrushchev said he gave the Chinese, or it may have come out of Lanchow. McCone said they were having a USIB (U.S. Intelligence Board) meeting this afternoon at 3 p.m. and would like to have me attend if I wish. I told him I couldn't make it this afternoon, but I would like to sit in on some of these meetings. He will call or have someone call me about future meetings. I told him it was inevitable that the news media would want to know whether the device used by the Chinese was a plutonium or uranium-235 one; in fact, we have already begun to get calls. He said he was at the White House with McNamara and Bundy, and he would get a response on this.

At 11:20 a.m. McCone called back and said, in talking to McNamara and Bundy about releasing our knowledge of the content of the Chinese bomb, they felt we should do nothing for at least 24 hours; that we could say this was a matter which has not been fully determined. McCone said he would like me to investigate this matter, through the JAEG, as to what the implications are from the standpoint of weapon capability; if the source comes from their own products it would mean larger production; also there is the question of implosion. I said we are already thinking about this, and I have asked George Kavanagh to work on this from an overall point of view. McCone advised that he is taking care of the Joint Committee by having an interim oral statement made to John Conway or George Murphy.

The Commission decided to offer Ed Bloch the position of Deputy General Manager and John Swartout the position of Director of the Reactor Division (or Assistant General Manager for Reactors).

Helen hosted a meeting of the International Neighbors Club at the "H" Street Office. Polly Bunting and I spoke on AEC programs, the Geneva Conference, etc. Movies of the "International Atom," the Sedan shot and the Rover test were shown, followed by refreshments. The meeting seemed to go very well.

The problem of the Bodega reactor is coming to a head--the Advisory Committee on Reactor Safeguards is for it and the staff is against it!

The AEC made an announcement today that the Chinese device used was uranium-235, which, of course, caught the news media by surprise. There is great speculation in and out of government about what this means as to Chinese nuclear weapon's capability. The other four nuclear powers all exploded a plutonium bomb first.

The Commission announced today the new plan for management of Argonne National Laboratory (press release attached).

Thursday, October 22, 1964 - Germantown

The Commission discussed the General Advisory Committee's recommendation that the Fermi Award be given to Rickover and Groves. Commissioner Ramey is unwilling to include Groves; so consideration is deferred until next week. The Commission discussed a report of the Advisory Committee on Reactor Safeguards (ACRS) favoring the issuance of a construction permit to Pacific Gas and Electric (PG&E) for the Bodega Reactor and the staff is opposing this action. We approved the idea of making these reports public early next week. This is going to be a very difficult decision for the Commissioners.

The SALMON shot (5 kilotons) in the Dribble series went off successfully in Mississippi today without venting. The Commissioners were present in the communications room when the shot was fired at 12 noon and heard it over the communications system.

At 12:30 p.m. the Commissioners and I had lunch in the Commissioners executive dining room with Hearing Examiners Samuel Jensch, Bond, and McConnell.

At 2:45 p.m. I presided over Information Meeting 419 (notes attached).

Lynne flew to Boston today to visit Radcliffe and Pete.

Friday, October 23, 1964 - Germantown

At 10:35 a.m. I called William Webster and told him that I would speak at the