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*Remembering Art Lundahl*

## A Legacy of Excellence

Dino A. Brugioni

Arthur C. Lundahl, founder of the National Photographic Interpretation Center (NPIC), was my friend, my mentor, my supervisor and my inspiration. This outstanding intelligence officer died on 22 June 1992 at the age of 77.

A native of Chicago, Lundahl attended the University of Chicago and graduated with an M.S. in Geology. His study toward a PhD. was interrupted by World War II, when he entered the Navy as an ensign. He trained at Dartmouth College, the Anacostia Naval Air Station, and the University of North Carolina before being assigned to Adak, Alaska, as a photographic interpreter. He interpreted aerial photos of enemy targets in the Aleutian Islands, Japan, and the Kuril Islands. In 1943, he was awarded the Navy Commendation Medal. Wartime intelligence successes convinced him that photographic interpretation had virtually limitless peacetime military and civilian applications, and he decided to make it his career.

### Joining CIA

After the war, Lundahl served as Chief of the Photogrammetry Division and later as Assistant Chief Engineer of the Anacostia Naval Photographic Interpretation Center. The CIA lured Lundahl away from the Navy in May 1953 to head its nascent Photographic Intelligence Division (PID). In December 1954, President Eisenhower approved the U-2 program, and Lundahl, along with 12 officers, began planning an organization to extract information gleaned from U-2 missions of the Soviet Union.

Lundahl envisioned his organization as a wheel, with the photographic interpreters as the hub and other personnel with diverse talents and disciplines such as photogrammetry, printing and photo processing, automatic data processing, graphic arts, collateral and analytical research, technical analysis, and mail and courier support as spokes that would make the wheel turn. The organization was housed in the Steuart Building, which had few physical amenities.

In the late 1950s, with slightly more than 100 people, Lundahl and his PID proved in rapid succession that the "bomber gap," "missile gap," and "megatonnage gap,"—as President Eisenhower would later explain—were myths fabricated and encouraged by Soviet Premier Khrushchev.

During this period, PID also was involved in tactical U-2 reconnaissance situations, providing information to the President and his policymakers on the Suez Canal crisis, the Chinese offshore island dispute, the Lebanon crisis, and the Vietnamese incursion into Laos, to name a few. Impressed with the quality and quantity of information provided to his administration, Eisenhower signed National Security Directive No. 8 in 1961, establishing the multidepartmental NPIC under CIA administration, naming Lundahl as its director.

One of Lundahl's great moments came when President Nixon called DCI Helms and said that General Eisenhower had rallied from his fourth heart attack at Walter Reed Hospital and would like to be updated on reconnaissance. We prepared a special package of the progress that had been made in reconnaissance since the General became President. Helms and Lundahl were ushered into the General's room. Lundahl remembered the briefing: "Everything he wanted to know we had in spades, before and after. He couldn't have been nicer. When we finished, he shook our hands, stating that it has been a most exhilarating and enjoyable experience."

A few weeks later, Eisenhower was dead. To Lundahl, this briefing was his thanks to a President who in six years has introduced four revolutionary reconnaissance systems into the US inventory: the Genetrix reconnaissance balloon, the U-2, the SR-71, and the photographic satellite.

*Excellence*

### Cuban Missile Crisis

The use of U-2 photography of Cuba in October 1962 led to the detection and reporting of offensive missiles capable of delivering nuclear warheads to almost any location in the US. This discovery was Lundahl's premier achievement as Director of NPIC, and he often repeated the briefing—initially given to President Kennedy—on the missile sites.

Despite the gravity of the crisis, there were some humorous moments. From time to time, President Kennedy asked that particular briefing boards be left on his desk for him to ponder later. On one occasion, Caroline Kennedy came into his office and used a blue crayon all over one of the boards. The President did not return that board. The Center maintained a

folio of the critical photos on the crisis. Its cover bore the title of "Caroline's Blue Coloring Book."

When the Cuban missile crisis was over, the President sent Lundahl a letter that stated in part, "I want you and your people to know of my very deep appreciation of the tremendous task you are performing under the most trying circumstances. The analysis and interpretation of the Cuban photography and the reporting of your finds promptly and succinctly to me and to my principal policymakers, most particularly the Secretary of State and the Secretary of Defense, has been exemplary. You have my thanks and the thanks of your government for a very remarkable performance of duty, and my personal commendation goes to all of you."

*Excellence*

Lundahl argued that instead of giving poorer nations seeds and spades, we should analyze the photos and imagery of such nations and make effective recommendations to them as to how to use their renewable resources. He said that space technology demands an overview with a command-and-control system to preserve Earth. Lundahl summed up the current haphazard efforts to protect the environment this

way: "We are so busy running around with buckets of water putting out our national fires that we haven't taken time to build a national firehouse." Ironically, the day after Lundahl's death, there was a long article in the *New York Times* that the Agency, in the future, may help in this effort. That would have pleased him very much.

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AA

23 February 1967

## MEMORANDUM FOR THE RECORD

SUBJECT: Visit of Dr. Condon to NPIC, 20 February 1967

1. The U.S. Air Force has let a \$300,000 contract to the University of Colorado to study reported UFO sightings. Brig. Gen. Edward B. Gillers, USAF, is senior Air Force contact and Dr. Thomas Rachford is senior Air Force Scientist on the project. The senior scientist from the University of Colorado is Dr. E.U. Condon.

2. On 20 February 1967 at 0915 Dr. Condon and four members of his investigative team visited NPIC. With Dr. Condon were Dr. Richard Lowe, University of Colorado, Dr. David Saunders, University of Colorado, Dr. William Price, Executive Director of AFROST, and Dr. Rachford, USAF. The purpose of this visit was to familiarize Dr. Condon and members of his team with selected photogrammetric and photographic analysis capabilities of NPIC.

3. The clearance level for the meeting was SECRET.

4. Upon arrival at NPIC, 0915, [redacted] escorted the group to Mr. Lundahl's office. In the ensuing 10-15 minute discussion between Mr. Lundahl and Dr. Condon the following points were clearly established:

a. Any work performed by NPIC to assist Dr. Condon in his investigation will not be identified as work accomplished by CIA. Dr. Condon was advised by Mr. Lundahl to make no reference to CIA in regard to this work effort. Dr. Condon stated that if he felt it necessary to obtain an official CIA consent he would make a separate distinct entry into CIA not related to contacts he has with NPIC.

b. NPIC will not prepare any written comments, will not analyze information with the intent of drawing a conclusion, nor prepare written reports. NPIC personnel

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SUBJECT: Visit of Dr. Condon to NPIC, 20 February 1967

will be available to assist Dr. Condon by performing work of a photogrammetric nature, such as attempting to measure objects imaged on photographs that may be part of Dr. Condon's analysis. Work performed by NPIC will be strictly of a technical nature using services and equipment generally not available elsewhere.

5. Following this brief discussion in Mr. Lundahl's office the group adjourned to the conference room where a series of briefings was presented to Dr. Condon and his group. Following a short introduction by the following briefings were presented:

a. General discussion of photogrammetry, including definition, terminology and, in general, what photogrammetry is and what it can do. presented this discussion.

b. followed with a presentation of the analysis he had been conducting on UFO photography furnished NPIC by Dr. Bachford. discussion was of a general nature and outlined the problems he had encountered because of lack of basic information, such as camera focal length, make of camera, unspecified enlargements, etc.

c. then gave a general discussion on the microdensitometer and its application to image analysis.

d. followed this with a presentation on isodensitometer experiments he has been conducting.

e. then escorted the group into the new clean area where they viewed and discussed the isodensitometer and the new Mann Microdensitometer.

f. Returning to the conference room, briefed the group on measuring instruments used in and followed by a general presentation on the success and failure had experienced in trying to measure objects imaged on the second UFO project assigned. Following this discussion then conducted the group into the instrument area where the Point Transfer Device, Mann 880 Comparator, the Benson-Lehner Plotter and the NMI were viewed by the group.

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SUBJECT: Visit of Dr. Condon to NPIC, 20 February 1967

6. At about 1215 [redacted] escorted the group back to Mr. Lundahl's office where a general discussion on UFOs ensued. At about 1235 the group adjourned to lunch and following lunch they left NPIC for a meeting with Brig. Gen. Gillers at the pentagon.

7. Most all the discussion during the morning was of an unclassified nature dealing with primary basic fundamentals of photogrammetry, photographic analysis and problems related to the acquiring of enough information to conduct meaningful analyses.

Arthur Lundahl, the head of NPIC, passed the news to CIA headquarters out in Langley, Virginia.<sup>1</sup>

In ignorance of what was in progress at NPIC, McNamara had met that afternoon with the Joint Chiefs of Staff, dozens of lower-level officials, and presidential assistant Bundy. Although McNamara explained that Kennedy had decided not to take any military action against Cuba during the next 3 months, the group reviewed plans for a massive air strike on Cuba and for an invasion. For McNamara and Bundy, it was a contingency plan if Kennedy's September 13 warning was defied. For many of the military officers present, it may have seemed preparation for something actually to happen.

That evening, Bundy and his wife gave a small dinner at their home on Foxhall Road for Charles and Avis Bohlen. Though a veteran Soviet expert, formerly ambassador in Moscow, "Chip" Bohlen was going off to be U.S. Ambassador to France. Called away to the telephone, Bundy heard CIA Deputy Director for Intelligence Ray Cline say cryptically, "Those things we've been worrying about—it looks as though we've really got something." "It was a hell of a secret," Bundy wrote later. Though he considered immediately calling Kennedy, he concluded that a few hours made no difference. The President had been in New York State, speaking for Democratic congressional candidates, and was expected back in Washington in the early hours of the morning. Bundy, as he also wrote later, "decided that a quiet evening and a night of sleep were the best preparation" the President could have for what lay ahead of him. Kennedy never reproached him for the decision.<sup>2</sup>

Bundy brought his news to the private quarters of the White House at about 9:00 A.M. on Tuesday, October 16. In the major morning papers, the President had seen one front-page story about Cuba. The *Washington Post* reported that "Communist sources" were floating a rumor of a possible trade—the West to make concessions on Berlin in return for a slowdown in the Soviet buildup of Cuba. State Department spokesman Lincoln White had denied having seen any such proposal. The *Post's* front page also carried, and that of the *New York Times* featured, a Boston address by Eisenhower, attacking the Kennedy administration's "dreary foreign record." In his administration, Eisenhower said, "No walls were built. No threatening foreign bases were established."

1. Full details are in Dino A. Brugioni, *Eyeball to Eyeball: The Inside Story of the Cuban Missile Crisis*, ed. Robert F. McCort (New York: Random House, 1991), pp. 187–217.

2. McGeorge Bundy, *Danger and Survival: Choices about the Bomb in the First Fifty Years* (New York: Random House, 1988), pp. 395–396.

Recognizing that Cuba now had to be *his* preoccupation but hoping to be able to think for a time about what to do without also having to think about what to say to reporters, Kennedy instructed Bundy to have his top advisers come to the White House for a secret meeting to begin at 11:45. Then he contacted his brother Robert. Before the meeting began, Kennedy discussed the missiles with Bohlen, who paid a previously scheduled farewell call as he prepared to depart for Paris.

Kennedy was in the Cabinet Room with his 5-year-old daughter, Caroline, when the advisers filed in, accompanied by Arthur Lundahl from NPIC and another CIA expert, Sidney Graybeal. CIA as a whole was represented by Acting Director Marshall Carter. McCone was on the West Coast, arranging the burial of his stepson. As Caroline left and the meeting began, Kennedy turned on the tape recorder.

*President Kennedy:* Okay.

*Lundahl:* This is a result of the photography taken Sunday, sir. There's a medium-range ballistic-missile launch site and 2 new military encampments on the southern edge of Sierra del Rosario, in west-central Cuba.

*President Kennedy:* Where would that be?

*Lundahl:* West-central, sir. That's south of [unclear]. I think this [unclear] represents your 3 dots we're talking about. Have you got the [unclear]?

*Unidentified:* Yes, sir.

*Lundahl:* The President would like to see those. On site, one of the encampments contains a total of at least 14 canvas-covered missile trailers measuring 67 feet in length, 9 feet in width. The overall length of the trailers plus the towbars is approximately 80 feet. The other encampment contains vehicles and tents but with no missile trailers.

*Carter:* These are the launchers here. These are missile bases up the [unclear]. In this instance the missile trailer is backing up to the launch point. The launch point of this particular vehicle is here. The missile [unclear] feet long.

*Lundahl:* The site that you have there contains at least 8 canvas-covered missile trailers. Four deployed probable missile erector-launchers. These are unrevetted.<sup>3</sup> The probable launch positions as indicated are approximately 850 feet, 700 feet, 450 feet, for a total distance of about 2,000 feet.

3. An erector-launcher trailer can carry a missile and then be secured in place at a designated launch point. The missile launcher is then raised to the firing angle, and the missile is fired from

The Kennedy Tapes: Ernest R. May & Philip D. Zelikow  
Harvard U. Press 1997 London

In area 2, there are at least 6 canvas-covered missile trailers, about 75 vehicles, about 18 tents. And in area number 3 we have 35 vehicles, 15 large tents, 8 small tents, 7 buildings, and one building under construction. The critical one—do you see what I mean?—is this one.

*Carter:* There is [unclear] right there, see? The missile trailer is backing up to it at the moment. It's got to be. And the missile trailer is here. Seven more have been enlarged here. Those canvas-covered objects on the trailers were 67 feet long, and there's a small billet between the two of them. The gate on that side of the particular trailer [unclear]. That looks like the most advanced one.

Then the other area is about 5 miles away. There are no launcher-erectors over there, just missiles.

*President Kennedy:* How far advanced is this?

*Lundahl:* Sir, we've never seen this kind of an installation before.

*President Kennedy:* Not even in the Soviet Union?

*Lundahl:* No, sir. Our last look was when we had TALENT coverage of [3 seconds excised as classified information]<sup>4</sup> and we had a 350-mile [range] missile erected just on hard earth with a kind of field exercise going on. But from May of 60 on we have never had any U-2 coverage of the Soviet Union. So we do not know what kind of a practice they would use in connection with—

*President Kennedy:* How do you know this is a medium-range ballistic missile?

*Lundahl:* The length, sir.

*President Kennedy:* The what? The length?

*Lundahl:* The length of it, yes.

*President Kennedy:* The length of the missile? Which part? I mean which—

*Lundahl:* The missile is—

*President Kennedy:* Which one is that?

*Lundahl:* This will show it, sir.

*President Kennedy:* That?

*Lundahl:* Yes. Mr. Graybeal, our missile man, has some pictures of the equivalent Soviet equipment that has been dragged through the streets of Moscow. That can give you some feel for it, sir.

*Graybeal:* There are 2 missiles involved. One of them is our [designation]

it. An unrevetted site lacks earthworks or fortifications to protect against attack or the blast from the missile.

4. TALENT was a code word for overhead photography. The briefer was probably describing photography of a particular missile test range in the Soviet Union.

SS-3, which is 630-mile [range] and on up to 700. It's 68 feet long. These missiles measure out to be 67 foot long. The other missile, the 1,100 [-mile range] one, is 73 foot long.

The question we have in the photography is the nose itself. If the nose cone is not on that missile and it measures 67 feet—the nose cone would be 4 to 5 feet longer, sir—and with this extra length we could have a missile that'd have a range of 1,100 miles, sir. The missile that was drawn through the Moscow parade was [unclear] from the pictures, but—

*President Kennedy:* Is this ready to be fired?

*Graybeal:* No, sir.

*President Kennedy:* How long have we got? We can't tell, can we, how long before it can be fired?

*Graybeal:* No, sir. That depends on how ready the GSC [ground support for the missile]—how—

*President Kennedy:* But what does it have to be fired from?

*Graybeal:* It would have to be fired from a stable, hard surface. This could be packed dirt. It could be concrete, or asphalt. The surface has to be hard. Then you put a flame-deflector plate on there to direct the missile.

*McNamara:* Would you care to comment on the position of nuclear warheads? This is in relation to the question from the President—when can these be fired.

*Graybeal:* Sir, we've looked very hard. We can find nothing that would spell nuclear warhead in terms of any isolated area or unique security in this particular area. The mating of the nuclear warhead to the missile from some of the other short-range missiles there would take about a couple of hours—to do this.

*McNamara:* This is not defended, I believe, at the moment?

*Lundahl:* Not yet, sir.

*McNamara:* This is important, as it relates to whether these, today, are ready to fire, Mr. President. It seems almost impossible to me that they would be ready to fire with nuclear warheads on the site without even a fence around it. It may not take long to place them there, to erect a fence. But at least at the moment there is some reason to believe the warheads aren't present and hence they are not ready to fire.

*Graybeal:* Yes, sir. We do not believe they are ready to fire.

*Taylor:* However, there is no feeling that they can't fire from this kind of field position very quickly, isn't that true? It's not a question of waiting for extensive concrete pads and that sort of thing.

*Graybeal:* The unknown factor here, sir, is the degree to which the equip-

ment has been checked out after it's been shipped from the Soviet Union here. It's the readiness of the equipment. If the equipment is checked out, the site has to be accurately surveyed, the position has to be known. Once this is known, then you're talking a matter of hours.

*Rusk:* Well, could this be an operational site except perhaps for the fact that at this point there are no fences? Could this be operational now?

*Graybeal:* There is only one missile there, sir, and it's at the actual, apparently, launching area. It would take them—if everything were checked out—it would still take them in the order of 2 to 3 hours before they could get that one missile up and ready to go, sir.

*Lundahl:* Collateral reports indicated from ground observers that convoys of 50 to 60 of these kinds of Soviet vehicles were moving down into the San Cristóbal area in the first couple of weeks of August. But this is the first time we have been able to watch them on photography, at a location.

*Sorensen:* You say there is only one missile there?

*Graybeal:* There are 8 missiles there. One of them is in what appears to be the position from which they're launched, in the horizontal, apparently near an erector to be erected in vertical position.

*Rusk:* You have to erect one? You mean something has to be built? Or is that something that can be done in a couple of hours?

*Graybeal:* Mobile piece of equipment, sir. We haven't any specifics yet on this, but here is the way we believe that it could actually be lifted. Something of this nature. Now this would be the erectors, helping to raise the missile from this transporter up into a vertical position on the ground.

*McNamara:* Am I correct in saying that we have not located any nuclear storage sites with certainty as yet?

This is one of the most important thoughts we face in properly interpreting the readiness of these missiles. It's inconceivable to me that the Soviets would deploy nuclear warheads on an unfenced piece of ground. There must be some storage site there. It should be one of our important objectives, to find that storage site.

*Lundahl:* May I report, sir, that 2 additional SAC missions were executed yesterday.<sup>5</sup> They were taken to the Washington area last night. They're currently being chemically processed at the Naval Center in Suitland, and they're due to

5. The Strategic Air Command had taken over responsibility from the CIA for flying U-2 missions over Cuba.

reach us at the National PI Center around 8:00 tonight.<sup>6</sup> Both of these missions go from one end of Cuba to the other, one along the north coast and one along the south. So additional data on activities, or these storage sites which we consider critical, may be in our grasp, if we can find them.

*McNamara:* And is it correct that there is, outside of Havana, an installation that appears to be hardened that might be the type of installation they would use for nuclear warheads, and therefore is a prospective source of such warheads?

*Lundahl:* Sir, I couldn't put my finger on that. The Joint Atomic Energy people<sup>7</sup> may be looking at that and forming a judgment. But from photos alone I cannot attest to that.

*Carter:* There would appear to be little need for putting this type of missile in there, however, unless it were associated with nuclear warheads.

*Rusk:* Don't you have to assume these are nuclear?

*McNamara:* Oh, I think there's no question about that. The question is one of readiness to fire, and this is highly critical in forming our plans. The time between today and the time when the readiness-to-fire capability develops is a very important thing. To estimate that, we need to know where these warheads are. And we have not yet found any probable storage of warheads. And hence it seems extremely unlikely that they are now ready to fire, or may be ready to fire within a matter of hours, or even a day or two.

[30 seconds of recording excised as classified information, apparently referring to U-2 or other collection of electronic intelligence.]

*Lundahl:* . . . If new types of radars, or known associated missile-firing radars or [radars] associated with missile firing, are coming up on that, that might be another indicator of readiness. We know nothing of what those tapes [of electromagnetic emissions] hold, at the moment.

*Taylor:* When will those be ready? Sometime today?

*Lundahl:* They're supposed to be in, sir. I think that's right. Isn't it, General Carter?

*Carter:* Yes, it is. The readout from Sunday should be available now. We have done some—

6. The Naval Photographic Intelligence Center in Suitland, Maryland; and the National Photographic Interpretation Center, directed by Lundahl, which was part of the CIA.

7. The Joint Atomic Energy Intelligence Committee (JAEIC) of the U.S. Intelligence Board. The latter was an interagency body of representatives from various government intelligence bureaus. Though not part of the CIA, the Board was under the purview of the Director of Central Intelligence in his capacity as (at least nominal) head of the U.S. intelligence community.

*Taylor:* Weren't there flights yesterday as well, too?

*Carter:* Two flights yesterday.

*Taylor:* You don't have the results from those yet?

*Carter:* No.

[The room is silent for about 8 seconds.]

*President Kennedy:* Thank you.

*Lundahl:* Yes, sir.

*President Kennedy:* Well, when is there any further flights scheduled?

*Lundahl:* There are no more scheduled, sir.

*President Kennedy:* These flights yesterday, I presume, cover the . . .

*Bundy:* We hope so, sir, because the weather won't have been clear all along the island. So we can't claim that we will have been—certainly we surely do not have up-to-date photographic coverage on the whole island. I should think one of our first questions is to consider whether we should not authorize more flights on the basis of COMOR priorities.<sup>8</sup>

There's a specific question of whether we want a closer and sharper look at this area. That, however, I think should be looked at in the context of the question [of] whether we wish to give tactical warning—any other possible activities.

*McNamara:* I would recommend, Mr. President, that you authorize such flights as are considered necessary to obtain complete coverage of the island. Now, this seems to be ill-defined. But I purposely define it that way because we're running into cloud cover on some of these flights, and I would suggest that we simply repeat the flight if we have cloud cover and repeat it sufficiently often to obtain the coverage we require.

*President Kennedy:* Are your thoughts good on that?

*Carter:* Yes, sir.

*McNamara:* Now, this is U-2 flying.

*Carter:* U-2, sir.

*McNamara:* This specifically excludes the question that Mac [Bundy] raised of low-level flying,<sup>9</sup> which I think we ought to take up later, after our further discussions on these possibilities here.

8. The interagency Committee on Overhead Reconnaissance, also a part of the U.S. Intelligence Board. Chaired by James Reber, COMOR set guidelines and priorities for American surveillance overflights of other countries.

9. Low-level reconnaissance overflights went underneath clouds, low and fast, over their targets. These flights were carried out by Air Force or Navy tactical reconnaissance units. In September the CIA had asked McNamara to dispatch low-level overflights over Cuba, but at that time he had declined, preferring to leave the work to the U-2.

*Lundahl:* I have one additional note, sir, if I may offer it.

Of the collateral information from ground observers as to where these kinds of trailers have gone, we don't have any indications elsewhere on the island of Cuba except for this San Cristóbal area, where we do have coverage. So we have no ground collateral which indicates there might be an equivalent thing going on somewhere else.

*President Kennedy:* In other words, the only missile base—

*Carter:* Intermediate-range missile.

*President Kennedy:* —missile base that we now know about is this one?

*Carter:* That is correct.

*President Kennedy:* Is this one or 2? This is one . . .

*Carter:* There's 3 of them.

*Lundahl:* Three, sir.

*Carter:* Three that are associated.

*Bundy:* Do I understand that this is a battalion, as you estimate it, Mr. Graybeal?

*Graybeal:* Yes, sir. We estimate that 4 missiles make up a battalion. So that in this one that you're looking at, Mr. President, has 8 missiles. That'd be 2 battalions out of a regiment size. This one in front of the table is a second separate installation from which we can see 6 missiles. So there are probably 2 more battalions there. The other missiles may be under the tree. The third installation has the tents, but there are no missiles identified anywhere in that area.

*President Kennedy:* These are the only ones we now know about?

*Graybeal:* Yes, sir.

*Lundahl:* Other than those cruise missiles that you're familiar with, those coastal ones. And the surface-to-air missiles.<sup>10</sup>

*Unidentified:* Any intelligence on that thing?

10. The Soviet SAM sites in Cuba were first identified after a U-2 overflight of Cuba on August 29; the White House was briefed about this discovery on August 31. The discoveries prompted the first U.S. warning to the Soviets on September 4 against deploying "offensive weapons." The same U-2 mission revealed another kind of missile site, near Banes, in eastern Cuba, which CIA analysts needed more time to analyze. They finally judged (correctly) that this missile was a cruise missile (more akin to a small unguided jet aircraft, without a ballistic trajectory) with a range of 20–40 nautical miles, apparently designed for coastal defense. President Kennedy was briefed in person about this finding on September 7. See Brugioni, *Eyeball to Eyeball*, pp. 120–127.

President Kennedy was concerned that the nature of this arguably defensive system not be misunderstood, and that news about it not leak out into the ongoing, volatile domestic debate over his response to the Soviet buildup in Cuba. A new code-word classification, PSALM, was thereupon created—with a tightly restricted distribution—for future reports on Soviet deploy-

*Lundahl:* We'll have preliminaries by 6:00 tomorrow morning.

*President Kennedy:* Well, there is the part of the island that isn't covered by this flight we're [expecting to learn about] by tomorrow morning. What about doing that tomorrow, plus the clouded part, doing low-level? Have we got a plane that goes—

*Bundy:* We can certainly go low-level, and we have been reluctant to do that. The one thing to worry about on low-level is that that will create a sense of tactical alert in the island. And I'm not sure we want to do that. Our guess is that the high-level ones have not, in fact, been detected.

*Taylor:* I think that's correct.

*Bundy:* No reactions.

*President Kennedy:* I would think that if we are going to go in and take out this, and any others we find, that we would at the same time do a general low-level photographic reconnaissance.

*Bundy:* You could at the same time do a low-level of all that we have not seen. That would certainly be sensible.

*President Kennedy:* Then we would be prepared, almost any day, to take those out.

*Bundy:* As a matter of fact, for evidentiary purposes, someone has made the point this morning, that if we go in on a quick strike, we ought to have a photographic plane take shots of the sites.

*President Kennedy:* All right. Well, now, I think we've got to watch out for this, for us to be doing anything quickly and quietly and completely. That's what we've got to be doing the next 2 or 3 days. So, we'll meet at 6:00?

*Robert Kennedy:* How long? Excuse me. I just wondered how long it would take, if you took it and had an invasion.

*Taylor:* To mount an invasion?

*Robert Kennedy:* No. How long would it take to take over the island?

*Taylor:* Very hard to estimate, Bobby. But I would say that in 5 or 6 days the main resistance ought to be overcome. We might then be in there for a month thereafter, cleaning that up.

*McNamara:* Five or 7 days of air, plus 5 days of invasion, plus—

*President Kennedy:* I wonder if CIA could give us what state . . . Yeah, so we get some idea about our reception there.

I just hate to waste these 6 hours. So it may be that we will want to be doing some movements in the next 6 hours.

*Unidentified:* About the execution of the [unclear]?

*President Kennedy:* Yeah.

[The meeting now begins to break up. Various separate conversations begin

as some people leave. President Kennedy's next appointment is for a formal lunch with the Crown Prince of Libya.]

*President Kennedy:* I want to add [unclear], better also. Are you coming to lunch?

*Rusk:* I was supposed to, but . . .

*President Kennedy:* George, are you supposed to come?

[Unclear exchange.]

*President Kennedy:* 6:00 tonight?

*Unidentified:* 6:00.

*President Kennedy:* All right, 7:00.

*Bundy:* 7:00 is better actually for you, Mr. President. Is 6:30 manageable? That would be still better because you're supposed to be out there [at a dinner party] at 8:00.

*President Kennedy:* Well, that's all right. That, then, 7:00. Between 6:30 and 7:00. As close to 6:30 as you can, be here.

How many would there be? I'd like to have, if you add the members of the Joint Chiefs of Staff here . . . [unclear]. Well, then, you bring who you think ought to be brought.

*Bundy* (calling to departing participants): May I urge everybody to use the East Gate rather than the West Gate?<sup>23</sup>

*President Kennedy:* I think we ought to get . . . What's Mr. McCone doing up here, General?

*Carter:* He's burying his stepson tomorrow morning, back [unclear].

*President Kennedy:* So, why don't you discuss [unclear]. Is he familiar with this information?

*Carter:* Yes, sir. He's aware of what has happened.

*Robert Kennedy:* I talked with him about an hour ago. He'll be back here tomorrow morning. They're burying the child today, his son.

*President Kennedy:* Why don't we leave it with his judgment, tonight.

*Robert Kennedy:* Well, he asked me to [unclear]. I think we might tell him [unclear]. He said he was going to call after the meeting. Maybe just tell him we had a meeting.

*President Kennedy:* All right. Now, the other question is on the General, Eisenhower. Where is the General now?

*Unidentified:* I'll take care of that.

23. The West Gate, on the same side of the White House as the White House Press Room, was the usual entrance for official visitors. The East Gate, the usual entrance for the residential side of the White House, was used more for social functions and tours.

*Rusk* approach, he said, was for a strike without warning. The "Bohlen approach" would first approach Khrushchev.<sup>7</sup>

Meanwhile, intelligence analysts had pored over photos from the earlier U-2 flights. They found something new—evidence of fixed IRBM sites in addition to the MRBM sites that had already been identified. With twice the range of MRBMs (2,200 miles instead of 1,100) and warheads of roughly twice as much yield (up to 5 megatons), these missiles could menace all parts of the continental United States except the Pacific Northwest.

As officials received this new information on the morning of October 18, their attitudes hardened. McNamara called McCone to say that he now thought prompt and decisive action necessary. Taylor told the Joint Chiefs that the news tipped him toward supporting the maximum option—full invasion of Cuba. This then became the unanimous position of the JCS. These early-morning discussions of the new intelligence set the mood as President Kennedy again took the chair and his advisers filed into the Cabinet Room.

*McCone:* . . . based on photography from Sunday, October 14, and 2 [flights] from Monday, October 15. These are completely read out. We continued to run [flights] yesterday. We expect the initial readout to start later tonight and probably take 36 to 48 hours to complete the readout from the 6 [U-2] missions [flown on October 17].

*President Kennedy:* These missions [unclear]? They don't know what coverage they got, do they?

*Lundahl:* The total picture has not yet emerged yet, sir. We're flying in clouds, and we don't have the film yet in the National PI Center. It starts to come in this afternoon, shortly after lunch.

*McCone:* We think we got the entire island. But we didn't get the [unclear]. I think you should know that these 6 missions involve about 28,000 linear feet of film. When this is enlarged, it means the Center has to examine a strip of film 100 miles long, 20 feet wide. Quite a job.

Go ahead.

*Lundahl:* Yes, sir. Mr. President, gentlemen, the first and most important item I would seek to call to your attention is a new area hitherto never seen by us, some 21 miles to the southwest of Havana, which we have at the moment

7. Sorensen to Kennedy, October 18, 1962, National Security Files, Cuba—General: 10/15/62–10/23/62, JFKL. Dillon's approach—an ultimatum/blockade, then a strike—was thus close to Bohlen's. Ball's suggestion, for a blockade followed by political pressure, was different.

labeled a probable MRBM/IRBM launch complex. The name of the town nearest is this [Guanajay]. It is there.

The 2 sites, sir, numbers 1 and 2—are 2½ miles apart. And enlarging this one, we look at it, and we see for the first time a pattern of medium/IRBM sites that looks like the things we have been seeing in the Soviet Union. There are 2 [launch] pads, here—and here. They are separated by 750 feet. There's a control bunker with cable scars [marks on the ground showing cable emplacements] going up into small buildings inboard of each of the pads. There's no equipment on the pads yet. They're under construction. The security fence has been superimposed around the place, and on 29 August, the last time we went over this area, the ground had just scarcely started to be scratched.

At the same time, 2½ miles south of there is site number 2. On 29 August, there were no scratchings on the ground at all, and, since that time, these scratchings have taken a form slightly different. There's this pattern 2-1-2-1-2, [which] is called the "offset inline." There's slightly more inline in here. There looks like there's going to be a fourth one [pad] up in here, but the spacing is the same.

The orientation of the axis of the pads, 315 [degrees], will bring you into the central massif of the United States. We call it M/IRBM, sir. We have never identified, irrevocably, the signature of the Soviet intermediate-range ballistic missile, which is estimatedly a 2,000-mile missile. But the elongation of the pads and the location of the control bunkers, between each pair of pads, has been the thing that has suggested to our hearts, if not our minds, the kind of thing that might accompany an IRBM.

So we have at the moment labeled it as such and let the guided-missiles intelligence analysts come up, finally, with a true analysis of what the range of these missiles might be that are eventually accommodated on this set of pads.

If I may switch to the next one, sir.

*President Kennedy:* [Can I] go look?

*Lundahl:* Yes, sir. For comparison purposes, Mr. President, I showed the other day, when I was here [Tuesday, October 16], the sites that we had described to you the other day, the 3 that we showed you were [unclear] near San Cristóbal. The one with erectors and missiles. The one here, just with the missiles and no erectors. And this one here at an early stage of construction, with tenting and encamping materials, but neither missiles nor erectors. The date of that photography was 14 October, and the impression of this third site is contained in this illusion here, wherein I think you can see the equipment, the buildings and the housing, and so forth.

On the next day, and admittedly with better photographic cover, we see this

same area that is shown in here with, now, missile erectors, probably off in here, vehicles, more vehicles, buildings, missile transporters, and a variety of equipment and additional things under construction. The impression one would gather is that there is some sense of speed with which they are proceeding in the construction on this particular base. May I pass that one over to you, sir?

Also, earlier, Mr. President, we reported to you a number of what we call cruise-missile sites, short-range coastal defense-type missiles starting out with the Banes site, with another one located at Santa Cruz del Norte, up here in the Havana area.<sup>8</sup> At the time of that reporting, there were 2 launchers at this position, here and here.

Since the coverage of that day, 2 more launching positions have been added outboard of those 2 positions. The launcher here is uncovered. You can actually see the launcher itself, and, down in this small revetment here, appears to be the winged kind of air-breathing missile which will go on it. It's a short, stubby-winged fellow which conforms with the cruise type of missile that we have seen before. So our opinion of this thing remains the same. We now just would report 2 additional launching positions at that complex.

Finally, Mr. President, at the very westernmost tip of Cuba, the island, we have San Julian airfield, 7,000 feet by 150 feet, which has hitherto been barricaded. Rows of stones and other kinds of materials preventing this [from being able] to be used by anybody. Now we see the barricades being removed from the 2 runways. And in this hardstand at the edge of the tarmac, enlarged up in here, we find 22 of those crates, some 60 feet long, which we have interpreted, from the deckside photography that the Navy had taken, to be, possibly, the crates that would accommodate the IL-28, or Beagle, types of aircraft. This field is long enough to accommodate those craft. I think they need something around 6,000 feet to take off. We have 7,000 feet. We definitely had not yet seen the Beagle IL-28. One fuselage had been taken from one of the boxes. It's up at this location. It's 58 feet long, which is about the length of the Beagle fuselage, and you can see the wing widths, but the actual wing tips have not yet been installed. We just caught them, apparently, at the start of the assembly operation. And it would appear that San Julian, this hitherto unused airfield, may be the locus for IL-28 activity.

That's all I have at the moment, Mr. President.

8. These briefings had been given on September 7. See page 53, note 10.

*President Kennedy:* What percentage of the island have we got covered up to here?

*Lundahl:* These separate missions, the one on Sunday, October the 14th, and 2 on Monday, October the 15th, represent a considerable percentage from north to south and from east to west. But the business of plotting the [areas obscured by] clouds has not been completely done, so I can't give you a good figure.

*President Kennedy:* But, in other words, from the information we have prior to the development of these new films, you would say that there are how many different missile sites? As well as how many different launch pads on each site?

*Lundahl:* Well, sir, we had not found anything like the MRBM sites in any of the photography up to this 15 October bit. We had found, and added to it last night, one more surface-to-air missile site, so that made a total of 23, as of this location. However, one of them has been pulled up and moved away, at Santa Lucia. We don't know where they pull these things up and move them to, but we have seen 23 surface-to-air missile sites. We've seen 3 of these surface-to-surface cruise type of missiles sites at Banes and up here over at del Norte, and then down on the Isle of Pines.

We have one other type of missile site up here north of Havana which we haven't been able to identify yet, that's being either cruise or some other type of site, but which we're carrying [as] unknown.

And now we've added to this. In the briefings of the last couple of days we've added the field type of installation, this 650- or 1,100-mile missile, as it probably is, near San Cristóbal, with these 3 sites located here which we briefed on the other day [October 16]. And in the photography of Monday of this week, we've now added what looks like a more fixed type of site, conforming to a signature which we have seen—

*President Kennedy:* In other words, you have got 5 different missile sites?

*Lundahl:* Yes, sir.

*President Kennedy:* And how many pads on each site?

*Lundahl:* Well sir, at this location here we don't have pads, we have these erectors, these 60-foot-long objects that lay on the ground. There were 4 erectors there. We have found 3 erectors not yet in position but lying around indisposed here. And we have more erectors that are under the trees. We can't tell. But it would seem as though there's going to be 4 erectors at each of those locations, and it would appear that there's going to be 4 launch pads at each of those too. But these [new sites] will be [a] firmer type of launchings. And these will be the portable field type of launching equipment.

*McCone:* The GMAIC made an estimate that between 16 and 32 missiles would be operational within a week, or slightly more. This was an estimate made yesterday.

*Taylor:* Have any electronic emissions from the AA [antiaircraft radars for the SAMs] been picked up by the report that came in?

*McCone:* No. There are some SIGINT [Signals Intelligence] responses on Monday [October 15] that did not state conclusively that the radars were operational. However, we do estimate some of these SAM sites will be operational within a week's time.

*President Kennedy:* If an unsophisticated observer . . . If we wanted to ever release these pictures to demonstrate that there were missiles there, it might be possible to demonstrate this to the satisfaction of an untrained observer?

*Lundahl:* I think it would be difficult, sir. By some 8 years of experience in looking at the evolution in the Soviet Union, the signature emerges very clearly to us. I think the uninitiated would like to see the missile, in the tube.

*President Kennedy:* May I—

*Bundy:* If we go in by air [with a strike], we would have instantaneous low-level coverage.

*President Kennedy:* Go ahead.

*McNamara:* And there is a picture that is not here of what I call site number 1, by which I believe the uninitiated could be persuaded there were missiles.

*Lundahl:* I would concur on that, sir. The canvas coverings of all those missiles lying on trailers, in that low of a level, particularly as Mr. Bundy says, could, I think, very clearly impact on people.

*President Kennedy:* Thank you. When will we get the data, really, on the entire island, to the extent that we can?

*Lundahl:* Sir, there are 5 missions coming in today, as Mr. McCone says, some 28,000 feet [of film], the first 2 of which were inside [NPIC as of] this afternoon. We would seek to read them during the night. And then as the others come in, in the next 2 to 3 days, we will be going all out to read it on a 24-hour basis. But it is quite a volume of film to look at. We're trying to be accurate, as accurate as we possibly can. I would hope that, comes the weekend, we might have a fair grasp on all 5, plus whatever number of additional ones Mr. McNamara will run between yesterday and the end of the week.

Yes, sir. [He appears to collect his briefing materials.]

*Rusk:* Mr. President, it would seem that one of the first questions that we need to answer is: Is it necessary to take action? And I would suppose that there is plenty of reason to take action here. But, the more [Soviet] action that is

taken . . . It looks now as though Cuba is not going to be an incidental base for a few of these things, but, basically [unclear] with MRBMs, and IRBMs, and that sort of thing, Cuba could become a powerful military problem in any contest we would have with the Soviet Union and a threat in any other part of the world. I think our colleagues in Defense will count on that very carefully, because that's a very important point. But we think that, when the full scope of this becomes known, that [taking] no action would undermine our alliances all over the world very promptly.

On September 4th you said: "There is no evidence of any organized combat force in Cuba from any Soviet or foreign country, or of military bases provided by Russia, in violation of the '34 treaty relating to Guantanamo, or of the presence of offensive ground-to-ground missiles; or other significant offensive capability either in Cuban hands or under Soviet direction and guidance. Were it to be otherwise the gravest issues would arise."

Now, that statement was not made lightly at that time. These elements that were mentioned were pointing our fingers to things that were very unknown to us. And it was intended as a clear warning to the Soviet Union that these were matters that we will take with the utmost seriousness. Then you talked about the various issues, generalizing, saying that would mean something very serious.

I think also we have to think of the effect on the Soviets if we were to do nothing. Now suppose that they were to consider this a major backdown, then this would free their hands for almost any kind of intervention that they might want to try in other parts of the world. If we are unable to face up to the situation in Cuba against this kind of threat, I think that they would be critically encouraged to go ahead and eventually feel like they've got it made as far as intimidating the United States is concerned.

I think also that we have an almost unmanageable problem in this country getting any support for a foreign policy that would assume we were going to sustain the cause of independence of states here and in all parts of the world. We have a million men in uniform outside the United States. We've got foreign-aid programs. We've got a major effort in the making in every continent. And it seems to me that inaction in this situation would undermine and undercut the long support that we need for the kind of foreign policy that will eventually ensure our survival.

Action involves very high risks indeed, and I think this additional information maybe even increases the risk because the challenge is much more serious and the kind of action, I would suppose, would have to be heavier than we

the other in a stage indicating operational readiness between 15 December and the end of the year.

We have not seen nuclear warheads for any of these missiles, but we do not rely on ever seeing them in our photography. [Small excision of classified information.] We have found what appears to be a nuclear warhead storage facility at one of the IRBM sites at Guanajay, near Havana. It will probably be completed about 1 December along with the missile site itself.

Since the missile systems in question are relatively ineffective without them, we believe warheads either are or will be available. They could be in temporary storage prior to completion of the storage facility we have seen. The *Poltava*, a Soviet ship which we think is the most likely carrier of security-sensitive military cargoes into the tightly guarded port of Mariel, has made 2 trips to Cuba and is due back in about 10 days.

In summary, we believe the evidence indicates the probability that 8 MRBM missiles can be fired from Cuba today. Naturally operational readiness is likely to be degraded by many factors, but if all 8 missiles could be launched with nuclear warheads, they could deliver a total load of 16–24 megatons (2 to 3 MT per warhead). If able to refire, they could theoretically deliver the same load approximately 5 hours later.

When the full installation of missile sites we now see under construction is completed at the end of the year, the initial salvo capability if all missiles on launchers were to reach target would be 56–88 MT.

Lundahl then went through the photographs. When he had finished he turned to the President and said: "Mr. President, gentlemen, this summarizes the totality of the missile and other threats as we've been able to determine it from aerial photography. During the past week we were able to achieve coverage of over 95% of the island and we are convinced that because of the terrain in the remaining 5%, no additional threat will be found there."<sup>5</sup>

According to someone who talked to Lundahl, "The president was on his feet the moment Lundahl finished. He crossed the room directly toward Lundahl and said, 'I want to extend to your organization my gratitude for a job very well done.' Lundahl, rather embarrassed, hesitantly thanked the president."<sup>6</sup>

Nonverbatim minutes, presumably recorded by NSC Executive Secretary Bromley Smith, pick up at this point:<sup>7</sup>

5. Brugioni, *Eyeball to Eyeball*, p. 314.

6. *Ibid.* About 2 hours earlier Robert Kennedy and McNamara had visited NPIC, escorted by McCone, and reviewed its operations.

7. Minutes of the 505th Meeting of the National Security Council, October 20, 1962, 2:30–5:10 P.M., in *FRUS 1961–1963*, vol. 11: *Cuban Missile Crisis and Aftermath*, pp. 126–136.

The President summarized the discussion of the intelligence material as follows. There is something to destroy in Cuba now and, if it is destroyed, a strategic missile capability would be difficult to restore . . .

Secretary McNamara explained to the President that there were differences among his advisers which had resulted in the drafting of alternative courses of action. He added that the military planners are at work on measures to carry out all recommended courses of action in order that, following a Presidential decision, fast action could be taken.

Secretary McNamara described his view as the "blockade route." This route is aimed at preventing any addition to the strategic missiles already deployed in Cuba and eventually to eliminate these missiles. He said to do this we should institute a blockade and be prepared to take armed action in specified instances.

(The President was handed a copy of Ted Sorensen's "blockade route" draft of a Presidential message, which he read.)<sup>8</sup>

Secretary McNamara concluded by explaining that following the blockade, the United States would negotiate for the removal of the strategic missiles from Turkey and Italy and possibly agreement to limit our use of Guantanamo to a specified limited time. He added that we could obtain the removal of the missiles from Cuba only if we were prepared to offer something in return during negotiations. He opposed as too risky the suggestion that we should issue an ultimatum to the effect that we would order an air attack on Cuba if the missiles were not removed.<sup>9</sup> He said he was prepared to tell Khrushchev we consider the missiles in Cuba as Soviet missiles and that if they were used against us, we would retaliate by launching missiles against the USSR.

Secretary McNamara pointed out that SNIE 11-19-62, dated October 20, 1962, estimates that the Russians will not use force to push their ships through our blockade.<sup>10</sup> He cited Ambassador Bohlen's view that the USSR would not take military action, but would limit its reaction to political measures in the United Nations.

Secretary McNamara listed the disadvantages of the blockade route as follows:

8. No copy of this draft has been found: *ibid.*, p. 128, n. 3.

9. Afterward, McNamara recalled in some detail the arguments that he had made at this meeting for and against a blockade, but he appeared to have no recollection of taking this Stevenson-like position with regard to possible negotiations with the Soviets. Interview with Robert McNamara conducted by Arthur M. Schlesinger Jr., John F. Kennedy Library Oral History Project, 1964, pp. 23–25.

10. "Major Consequences of Certain U.S. Courses of Action on Cuba," in McAuliffe, *CIA Documents*, pp. 211–220.

whether it would be well if Dean Rusk tries the argument that was so effective about why we started to build these alliances around the world. To meet the argument that George made [unclear].<sup>11</sup>

[Unclear reply by Rusk.]

*President Kennedy:* We've kept adding there. But, we've got a memorandum being prepared, George [Ball] is [unclear].

[Someone refers to "working on it by noon."]

*Bundy:* That's what they're getting. They're getting that together. We're getting all the facts on what we can use.

*Robert Kennedy:* Contrasted with this [in Cuba].

*McCone:* Arthur [Lundahl] suggests, on page 21 we'd better take out the references to the 32 missiles with atomic warheads being in the press. [Unclear] cannot be compromising our intelligence.

[Pause.]

*President Kennedy:* Okay. What do we do now?

*Alexis Johnson?:* OAS resolution at the bottom of the page there.

*President Kennedy:* This'll be tomorrow night?

[Unclear exchange.]

Okay. Fine.

I spoke to someone this morning about the desirability of getting some Latin American ships on this quarantine.

*Ball:* Our message to them is that we'll be in touch with them on that.

[Unclear exchange.]

*Rusk:* Our armed forces never allow any foreign forces [unclear].

*President Kennedy:* That's all right. But I think it would be good to have a . . .

*Ball:* We've made that offer in your letters, the instructions to the [ambassadors conveying the President's message to Latin American leaders] . . .

[Unclear reference to Berlin.]

*President Kennedy:* The Berlin group.

[Aside to someone else] You want to go see what's in there?

*Nitze:* You want to just glance over the . . . ?

[Unclear.]

There are a couple of issues.

[Unclear.]

11. An exchange during the 11:00 A.M. meeting on October 18.

*Martin:* An hour before you speak, sir, we'll talk to the OAS and NATO ambassadors at the [State Department] Operations Center.

*President Kennedy:* Who'll make the speech?

*Martin:* I will, sir. A couple of issues are: I think that the Secretary of State should not give numbers of missiles, or show the map that shows the IRBM sites. The issues are that the photo [unclear]. I have slides, which are just illustrative. They are actual pictures of missiles. They're actual photographs. And I will pass out photographs of the sites.

*President Kennedy:* Got that?

*Lundahl:* Yes, sir.

*President Kennedy:* Not to take with them. We don't want them . . .

*Martin:* No, sir, not to take with them. But just to look around. Ask questions.

[Unclear discussion of the UN, use of photos, and background briefings for the press; someone refers to William R. Tyler, Assistant Secretary of State for European Affairs.]

*President Kennedy:* [Unclear.] Adlai [Stevenson] can have them available for background briefings, but not to show them up there. [Unclear.]

Now, with the press briefings of the various kinds. I don't suppose we have to have a formal press conference [unclear]. There'll be a lot of things we won't want to discuss. So . . . background.<sup>12</sup>

*Unidentified:* [Unclear] it would be on background. But on Tuesday [October 23] or Monday night, after . . .

*President Kennedy:* The first story, I think, would be my speech.

*Ball:* The idea was that McNamara would give one [background briefing], and then I would, possibly with Martin.

*President Kennedy:* McNamara would give one at 8:00. And then they'd come over and get one from . . .

*Ball:* No, no. The McNamara one would be solely on the military aspect. We've got a lot of questions to answer on the other moves. But on background.

*President Kennedy:* Do we show the press the pictures?

*Martin:* Two backgrounders. One is—let's call it the intelligence backgrounder. Give them the facts. The other is the policy one.

12. A "background" press briefing. The ground rule for a background briefing is that the briefer may be quoted not by name, on the record, but instead by more general references, such as to a "senior administration official." An "off the record" briefing is one in which the official may not be quoted at all.

seen about 30 medium-range missiles. We have not yet seen any intermediate-range missiles, although they may be in Cuba under cover, or on the ship *Poltava*, which is due to arrive in Cuba in about 5 days and is peculiarly arranged for the carrying of long cylindrical items and cargo.

The sites are in varying degrees of operational readiness. On the basis of latest evidence, we now believe 4 MRBM sites containing 16 launchers are in full operational readiness as of October the 22nd. We now estimate the remaining 2 MRBM sites containing 8 additional launchers will come into full operational readiness on the 25th and 29th of October, respectively.

*Dirksen:* Eight?

*McCone:* Eight more, yeah.

The building of these MRBM sites is a rather simple operation and is accomplished in a week to 10 days' time. These MRBMs are considered mobile. They are fired from a trailer-bed type launcher, and their location as now established might suddenly shift to a new location difficult to determine by surveillance methods.

The 3 IRBM sites containing 12 launch pads still seem likely not to reach full operational readiness until December. However, emergency operational readiness for firing some of the IRBM missiles might be reached somewhat earlier.

In addition, there are 24 primary surface-to-air missile sites in Cuba, of which we believe 22 are now operational. There are also, we believe, 3 coastal-defense missile installations with surface-to-surface cruise missiles of about 40-mile range, and 12 missile-launching patrol craft, each craft capable of carrying 2 surface-to-surface missiles with an effective range of 10 to 15 miles.

Finally, we know that about 40 MiG-21s, an advanced-model Soviet supersonic interceptor aircraft, and 20 IL-28s, a Soviet jet bomber with a range of about 1,500 miles, have been delivered to Cuba.

Amid all of this buildup of military strength, evidence of the presence of nuclear warheads has been carefully sought, needless to say. We have found 1 and possibly 3 of what appear to be nuclear-weapon storage sites. We cannot produce evidence to show that nuclear warheads for these missiles are in Cuba, but we are afraid firm evidence on this point may never become available from intelligence resources at our command. The warheads could be in Cuba, in concealment or temporary storage, without our discovering them. Nevertheless, since the medium-range and intermediate-range ballistic missiles are relatively ineffective weapons without nuclear warheads, we think it prudent to assume that nuclear weapons are now or shortly will be available in Cuba.

Mr. Lundahl is here, and he has some of these photographs, and, with your permission, Mr. President, I'd like to display them.

*Lundahl:* Mr. President, gentlemen, I would seek to very briefly summarize in graphic form the statistics which Mr. McCone has shown to you.

Starting from the west end of the Cuban island the medium-range ballistic-missile launching sites are at the following positions: MR-1, MR-2, MR-3, MR-6, which was discovered later, MR-4, and MR-5. These missiles shoot over a thousand miles, are mobile, rapidly put into position and fired from launcher erectors. After we've summarized the graphic in simple form, I will seek to show you a couple of the photographic examples which firmly support the conclusions drawn.

The intermediate-range ballistic missiles are where the red dots are shown: IR-1, here; IR-2, here; IR-3 over here. These shoot 2,200 miles, which covers all of the United States except the Pacific Northwest, which I think you can readily gather from this chart up here. This is a 2,200-mile range, this is 1,000-mile range, this is a 700-mile range [pointing to radii circles drawn over a map of the United States].

In addition, there is sited for you surface-to-air missiles, which were the first of the defensive forces being built up in Cuba. These are symbolized by the black dots that go completely around the perimeter of Cuba at these locations shown, a total of 24 of them at the present time, 6 missiles in each position, high-altitude firing. Of these 24, 22 are operational right now. In addition, we found at this point on the coast at Banes, where the red triangle is shown, and then again at Santa Cruz del Norte, and here, and then again at the Island of Pines, cruise missiles, short and stubby-winged missiles which are primarily used in attacks against shipping, short-range, 30-odd-mile type of affair.

In addition to that, in the center of the island, at Santa Clara airfield, we have found approximately—exactly—so far 39 MiG-21s, which are the equivalent of our F-106s. We call them "Fishbeds," or delta-winged fighters. Very, very high-performing aircraft.

In addition to that, at the far end of the island, at San Julian airfield we have found unloading, at the present time, IL-28 aircraft, Soviet designated "Beagle," jetlike bombers. We, I think, must assume that all 21 of those crates is going to divulge one of these craft, but as of the last date of our coverage a few days ago, just one of them had been assembled. The fuselages for 3 or 4 were being put together and the other crates were being emptied at that time.

We have also found at the locations where the arrows are shown, the red

arrow here, and the red arrow here, what look like good possibilities for nuclear weapons type of storage sites. And I will seek to show you, in the few minutes that we have, some of the buildup at least as is supported by the photographic evidence at hand.

If I may drop this one down—may I make one more remark, Mr. McCone? I forgot it—Mariel port here. We have found something new: guided-missile-configured PT boats with 2 launchers on the aft end of each of these craft, firing forward. This is an antishipping type of device. A total of 12 of these KOMAR class guided-missile-configured PT boats.<sup>2</sup>

If I drop these down, I will seek now to show you, in briefest of terms here, what these things look like, starting first off with the most significant items: intermediate-range ballistic missiles. This is one—the IR-1 site over here. These are the pads. They are elongated scraped-out areas with control bunkers between each. The cables go from the control bunkers to the edges of the pads, where there are small buildings on the inboard side. Another pair of pads over here, with the control bunker between them and the cables going to the inboard side. These are 750 feet apart [8 seconds excised as classified information]. Most significantly, the axis of these long pads is on a bearing of 3-1-5 [315 degrees], which brings you from this area straight up the middle part of the United States.

Right at the eastern part of this particular area, I would cite for your attention a security-fence arrangement where we think one of the possible nuclear-storage sites exist. They are producing concrete in arches for mounding of structures probably to go underground. We have one good-sized building partially mounded already, 114 by 60 feet, at this location here. The security fencing comes around on this side, work is going on, lots of construction material and mobile [vehicles] here and there. A good possibility right next to an IRBM launching site.

If I drop this one down, I would like to show you one of the—this is the second IRBM site. This first one was in the mid-stage of construction, this second one is slightly slower. You can see the long bearings to the scratches, three of them clearly here, the fourth one coming in, the control bunker between the two of them and the bearing, again, 3-1-5. The second site is 2½ miles away from the first site. This is in the early stage of construction. The other one I showed you was in the mid-stage of construction.

2. The KOMARs were 83-foot-long patrol boats, each with 2 canisters firing 15-mile-range radar-guided SS-N-2 (STYX) cruise missiles. See Dino A. Brugioni, *Eyeball to Eyeball: The Inside Story of the Cuban Missile Crisis*, ed. Robert F. McCort (New York: Random House, 1991), p. 388.

Next, if I might, Mr. President, I would seek to show an example of what the third IRBM site looks like, which was farther down the coast at a place called Remedios. This is, again, in an early stage of construction. But the launch pads are here and here and here and here, the control bunkers between each, the cables going out to each and, again, the bearing of the long axis 3-1-5. Arched-roof buildings going in close by, possibly additional storage, tents where Soviet-type troops live, vehicles, and another concrete-batch plant to make the arches and construction materials to support this particular base.

Coming on down to our next example, Mr. President, I will seek to show what one of the secured port installations looks like. In this instance right on the coast, a little ways down from Mariel, we have found the only place in Cuba where we have double security fences in here. We have a deep-water facing at this point, where oceangoing freighters or ships can pull up alongside. This used to be a molasses factory. There are guard posts at the edge of the fence in this pit, which is 300 feet in diameter. At the base of the excavation are 3 structures, each of which is 90 by 20 feet. There are guard tents around here and additional mobile equipment. A strong suggestion as a possible nuclear-storage site.

I would like to show you an example or two of the medium-range ballistic-missile launching sites—if you could get one for me, Ray [Cline]. First off, while we're getting that out, I would like to show you the MiG-21 buildup. This is shown here at the center at Santa Clara airfield, which is 10,400 feet long and here 16 "Fishbeds" in this locale, 12 "Fishbeds" in here. Those are the MiG-21s, 11 more over here, a total of 39, and some 15 MiG-15 [and] -17s as well. The field is well developed, and the craft are flying. We have seen some in operation taking off of the field during the course of our operation.

We have also gathered information about the jetlike bombers to which Mr. McCone referred. This is at the westernmost tip of the island, at a place called San Julian. This field has been not used for over a year. It has been barricaded with rock piles stretching across. These have been cleared away and at this edge of the tarmac—enlarged for your attention down here—are these crates which are being unloaded. There are 17 crates in here standing side by side and 4 that are starting to be unloaded, and one of the aircraft has come into full form, and it is indeed an IL-28 jetlike bomber.

We have several MRBM sites which I think would be interesting to show you. This is MR-3, which is one of the 3 at the western end of the island. These are slightly different from the ones we have shown you before. We have missile erectors, vehicles, buildings, missile erectors over in here, new buildings under construction, concrete arches. The whole place in a few days has seen the

extensions of the military personnel, vehicles, and construction equipment and leaves little doubt in our mind to the fact that this is what we feel conforms to the MRBM launching site.

We have, in addition, enlarged for you, at MR site number 1 at 3 different scales of enlargement—10 times, 20 times, and 30 times—the missiles themselves. There are 7 missiles aligned side by side this carrier here. I think you can see the missiles. They are cylindrical. They are approximately 65 feet long. They are blunt-ended because the canvas hangs over them, which implies that the conical-shape warhead, the nose cone, when put on to the front would add another 6 or 7 feet to bring it up to some 72 feet, which conforms to the SS-4 "Sandal," which is the 1,000-mile missile. We've seen this kind of missile carried through the streets of Moscow on the May Day parade. We have said, as Mr. McCone pointed out to you, there are something in the vicinity of 24 of these missiles lying around at separate MR bases to which we have referred.

Here is the case, down the point, at MR-2, a few miles away again, we have 6 missiles. They have canvas or netting stretched over the top of them and missile erectors beside them. These missiles are carried into position. The erector launches it directly at the point where the vehicle stops, and it is prepared to fire right then at that point. Little preparation, just hard ground, flat and clear. They are wheeled into position, and they are ready to fire within 6 to 8 hours.

We have dozens and dozens of other examples. But if I've made the point with you that the facts that have been drawn on this chart are backed up by photographic data, that there is no doubt in our mind of our identification, I think I will have accomplished my point, Mr. President.

*President Kennedy:* Are there any questions?

*Fulbright?:* What's the radius of the IL-28?

*Lundahl:* 1,500 miles, sir.

*McCone:* That's range, sir.

*Lundahl:* Range. Radius is 750.

*Fulbright?:* Do they carry atomic weapons, bombs?

*Lundahl:* They certainly can.

*McCone:* Yes, they can carry them—atomic bombs. About 4,000 kilotons [yield].

*Russell:* I understood there was some discussion about that intermediate missile. Some of our people think that missile can shoot 1,700 miles, don't they?

*McCone:* 2,200, the IR—the intermediate—

*Russell:* When you're talking about 1,000, I thought the minimum that we

put them, that missile, back when you was putting it in Russia was 1,100, and some people thought it was good to have a range of 1,700. This is the one that's wheeled up on the truck.

*Cline:* I have an intelligence report that puts it at 1,020 miles, nautical miles.

*Russell:* I beg your pardon?

*Cline:* 1,020 nautical miles is what the general agreement—

*Russell:* Oh, that. Nautical miles. That's considerable [unclear]. 1,100 is statute miles.

*Unidentified:* Yes.

*Russell:* That's where I got confused.

*Lundahl:* This is the conceptual notion, if I may just point out how a trailer-tractor arrangement pulls the missile on this trailer bed to the position of firing. It releases. The lines go from the front end of the missile over a winching relationship. It is powered and pulled up into its firing position and the front end of the tractor-trailer rolls off. This is the thing we've conceived of and drawn from what we've seen in the Moscow missile parade. This is the kind of missile which has been identified on the ground in Cuba.

*McCone:* I have only one thing to add, Mr. President. And that is from a variety of intelligence sources we have concluded that these bases, both the ground-to-air SAM sites as well as the missile sites, are manned by Soviets and, for the most part, put the Soviet guards to keep the Cubans out. We don't think that there are very many Cubans on these things.

*Russell:* Mr. McCone, one question. I am sure you are monitoring this. Do you think that they have in their complex any electronics installed yet?

*McCone:* We do on the MRBMs, the more advanced. We do, yes.

*Russell:* Is that true as to the surface-to-air sites?

*McCone:* Yes. On the surface-to-air we have found that their radar have been latching on to our U-2s the last couple of days, and, while they have not fired a missile at us, we think that they will within a short time.

*Kushel:* My God. Are those pictures taken with a U-2?

*McCone:* They are taken with a U-2. And, Mr. President, I would just like to say for the advantage of . . . Everybody here knows we have briefed a number of people. We're just referring these to pictures taken from military reconnaissance planes. We're making no reference to the U-2s involved.

*President Kennedy:* Another thing is the numbers. We're not using the precise numbers.

*McCone:* Yeah, we're not using the precise numbers publicly, nor are we making any reference to the U-2s' military reconnaissance.

That's all I have.

question, photographs similar in places in the U.S.S.R. They then came back and said couldn't they have them pre-May 1960 because it was clear we were flying U-2s before that time. I told them I thought that this was quite unlikely. They are very concerned about having this evidence, and—

*Bundy:* Mr. President, I suggest that we proceed on a two-stage basis. Your operation you just ordered will produce much more interesting and effective evidence tomorrow.

*President Kennedy:* Yes.

*Bundy:* Say ample evidence is available and will be presented if the question is challenged. We doubt if the opposition dares to challenge it. But it is perfectly natural to take the tactical position for 24 hours.

*Ball:* Excuse me, I'm sorry. It will be more than 24 hours, wouldn't it? You fly these—

*McNamara:* No, no. Wait a minute. That's the tactical intelligence to be done in 2 or 3 hours after they've landed.

*President Kennedy:* If that is challenged, if these pictures we're now getting don't come out, then we can release at least a couple of these [U-2 photos], enough to sustain them. I invite them to challenge it.

*McCone:* I think, from an intelligence point of view, we can meet most of these requirements. I'd like to think about that pre-1960 flight. There's a question of the effect on you, Bob, from a military point of view.

*McNamara:* I think that the way to meet that is to take a picture of a May Day [Moscow military] parade. Nuclear weapons. Take that.

*McCone:* We have that.

*President Kennedy:* Actually, John, if you don't say at what altitude these were taken or the date, then . . . If you don't say what altitude, you're not giving much away, are you, of these pictures?

*McCone:* It indicates the number—

*President Kennedy:* I'll tell you what we'll do. Let's let Mr. McCone and Mr. Lundahl settle as to what we ought to give to them and then under what condition.

*Ball:* I have nothing more.

*President Kennedy:* Well, the only thing, as I say, is, Mac, once again, is that if the Russians respond with actions which make an invasion desirable or inevitable, I want to be able to—people to feel that we haven't wasted any days to get going.

*Taylor:* The real problem is the shipping problem, Mr. President.

*President Kennedy:* I think we ought to have Bob look at that, and I think we probably ought to be [ready] for the next week, talking to lumber and

everybody else that we need to be . . . if that's the only way we can do it. And then it may be that other . . . There may be some emergency powers which will exempt them from the Jones Act,<sup>17</sup> and they can go on foreign bottoms for this 2-week period. And let them do it, and who's going to challenge it? Necessity?

*Thompson:* Mr. President, there are two questions I'd like to raise. One is, if we don't get OAS action today for this period, it appears we're going to get it the next day. Do you want, in effect, to actually stop Soviet ships beginning tomorrow? The point is that they're much less apt to run a legal blockade than they are an illegal one. I think you might want to keep that in mind.

*President Kennedy:* All right. Well, we'll be in touch if we're not going to get it.

*Thompson:* The second thing is, I'm meeting with the ambassadorial group this afternoon, and they'll—we will be discussing what we do about an action in Germany against Berlin. The most likely minimum thing is they will insist on inspecting U.S. convoys more than they do now.

*President Kennedy:* I think we ought to accept that. That's my quick reaction, unless somebody else says . . . But I don't think we're in very good shape to have a big fight about whether they inspect our trucks or something else. We ought to—

*Taylor:* We're going to take time out, Mr. President, and not go through until we look it over very hard.

*Thompson:* Wouldn't it be any better to stop these convoys [into Berlin] in the next day or so?

*President Kennedy:* And then we'd be getting in the pattern where it's tough to begin again. I would rather have them inspecting them.

*Bundy:* Mr. President, my suggestion is that we ought to have the second meeting with this committee in the afternoon. We will know about the OAS. We will know about the initial reaction of the ambassadorial group. We will know if the [low-level reconnaissance] pictures came through. We will know about what Kohler's message is [from Moscow].

*President Kennedy:* Right. Try to keep these meetings as brief as possible.

[The meeting starts to break up. Some fragments of conversations are audible.]

*Bundy:* I'll set an hour [for the next meeting] when I know a little more, probably about 5:00.

17. The Jones Act of 1928 required certain exporters to use American ships except in emergencies.

[Pause.]

*McCone:* There were messages of one of the 7 ships this morning at 1:00, but we couldn't read them out. So I don't think anybody knows what's going on.

Now, Tommy Thompson's question suggested one approach that you might consider, Governor. And that is that you tell your members of your committee that these pictures have been shown to all non-Communist ambassadors and they invite them to come to your office to see them, as a means of getting around presenting them in public. Now, I don't know whether that—[Pause.] Yeah. [Pause.] That's fine. [Pause.] That's correct.

Yeah, [unclear] if necessary, and we'll throw them into the public domain, which we don't want to do. Well, but you think it over, and I'll have Lundahl up there. [Pause.] Mm-hmm. [Pause.] Yeah. [Pause.] Yeah. [Pause.]

Well, you think it over, and I'll let you know when he calls again. And Lundahl and one man will come with him. [Pause.]

Well, he'll probably get away from here at 12:30, take an hour on the plane, so he'd be in your office at a quarter past 2:00. [Pause.] Real good. [Pause.] All right.

[Ball hangs up.]

*Thompson:* Does he like that idea?

*McCone:* Yes, he thought it was good. He was going to go ahead with it with a friendly ambassador. He's going to think about the UAR [United Arab Republic: Egypt and Syria] and Romania.

*Thompson:* Well, I wouldn't think about the UAR.

*McCone:* [on the phone to someone else] Listen, it's Mr. McCone. Would you get Mr. Ray Cline for me? Dr. Cline at the CIA. And put the call in here? Thank you.

*Ball:* Maybe I should get Roger [Hilsman], too, so we don't cross things. [Unclear.] Roger worked with this.

*Unidentified:* I've talked to Roger. Roger was going up [to New York], and I talked to him.

*McCone:* I'll send Ray, Ray Cline and Lundahl, up there.

*Ball:* Yeah, yeah. And have him get in touch with Roger so that we—

*Unidentified:* Oh, yeah. OK, gentlemen.

*McCone:* George, if it's this hard to start a blockade around Cuba, how are they ever going to be able to start World War III? [Laughter.]

*Unidentified:* Ray Cline.

*McCone:* Oh, thanks.

Hello? Say, Ray, Governor Stevenson and Jack McCloy are having some difficulty on putting together a convincing case to the Security Council. In the

event they're challenged, you see. I told them that we could not surface Lundahl, but I have Lundahl going up there to help him with his scenario. Actually, Lundahl probably couldn't get in the place if they wanted him to, see?

Now, what I'd like to do is to have Lundahl and you, if you could, or if you can pick the best man you can to work with Lundahl. This is a matter of helping Stevenson, McCloy, and Lovett, you see.<sup>21</sup> That's a pretty senior group of people. And you know them all.

[Aside to Jerome Wiesner] Jerry, just a minute.

Now, what they were going to do, what they would like to do, would be show the map, would show one location of the medium [-range ballistic missile], you see, and one location of the IRBMs. And then the progressive pictures of those two, you see. And then they might want some other things.

See, we're in a real bad spot because at the time of the Bay of Pigs, Stevenson showed some fake pictures and they later turned out to be fake, you see. So he got in some trouble there.

So, what I would like to . . . We ordered the low-level flights, and they're laid on. And we'll get those pictures back early this afternoon. And that will do us a lot of good. [Pause.]

No, because he's got to be prepared at 4:00. So you get Lundahl and get what's-his-name on his plane and then go on up. You'll need some security men. And they can meet you there and all the rest. [Pause.]

Yeah, Lundahl knows how to do all that. [Pause.] Yeah, and if that plane is not available, get a MATS [Military Air Transportation System] plane. [Pause.] Yeah. [Pause.] Yeah. [Pause.] Yeah. [Pause.] All right. [Pause.] Yeah, do that.

Now, they're pulling Roger [Hilsman] out of this UN operation, and we're going to take that, see? [Pause.]

Yeah, I told Stevenson you'd be in his office at a quarter past 2:00. [Pause.] Well, you better find out exactly. They'll know in New York. The thing for you to do is to get going—okay.

[McCone hangs up.]

Mr. Wiesner?

*Wiesner:* You started to talk about something yesterday that I didn't pick up enough on, and then I had a second question for you. We had talked about possible neutron detectors.

*Unidentified:* About what?

21. President Kennedy had asked Lovett and McCloy to aid Stevenson in presenting and supporting the American position at the UN. Arthur Schlesinger Jr. was also in New York helping Stevenson.

Communist reaction to the U.S. quarantine action against Cuba has not gone beyond the highly critical but uncommitting statement issued yesterday by the Soviet government.

Surveillance of Cuba indicates the continued rapid progress in completion of the IRBMs and MRBMs. No new sites have been discovered. We had these two [low-level reconnaissance] flights yesterday, but one of them had 40 percent cloud coverage. Another one had 15 percent [unclear]. Buildings believed to afford nuclear storage are being assembled with great rapidity. Cuban naval vessels have been ordered to blocking positions at Banes and Santiago Bays.

Survey of Soviet shipping shows 16 dry-cargo and 6 tanker ships en route to arrive in Cuba. Of these 22, 9 are in position to begin arriving by the end of October. Three ships have hatches suitable for carrying missiles, and 2 of these are among the ships that have received urgent coded traffic from Moscow. [Unclear.] At 1:00 A.M. yesterday, there were 7 ships, including the *Poltava* but not the *Kimovsk*. At 2:30 A.M. this morning, all ships, including the *Kimovsk*, were contacted. [Unclear] then, shortly afterwards, that both [messages to the ships] came out of Odessa control [station for Soviet shipping]. Shortly after that, the Odessa control station notified all ships that, hereafter, all orders would come from Moscow.

The official world reaction showed generally favorable response to the U.S. action, particularly in Latin America.

There are no indications of any Soviet aircraft approaching Cuba. Additional information reported a [Soviet] submarine is tracking the *Kimovsk*. However, the latest position report indicates they're about 200 miles from [unclear]. There are 3, or possibly 4, submarines in the Atlantic.

A Cuban airliner left Goose Bay this morning, from Dakar, bound for Havana, and had aboard 75 people and [unclear] thousand pounds of cargo.

[24 seconds excised as classified information. After the excision there are references to "black boxes," "detection," "aircraft," and "ships."]

I have ordered the [interagency intelligence] Watch Committee to meet every morning at 8:00. Today they reported [unclear]. They concluded that the Soviet Union, for the past several days, has taken steps to bring its military forces into a complete state of readiness. There are indications of preparations for the deployment of long-range aircraft to Arctic bases. We have so far noted no major redeployment of other Soviet-bloc forces. However, there are tentative indications [unclear] in the European area. Bloc military forces [unclear] higher state of readiness.

I think that's all of the . . .

*Dillon:* A practical thing, Coast Guard and Treasury have lifted up 6 of these "black boxes" for CIA's use. As a result, we're out of them, and we're not in a position to carry out our port security, as far as . . .

*President Kennedy:* Who would have the responsibility for replacing them? The CIA?

*McCone:* I don't know. We'll get some more. We ordered . . . It'll take a little while to get any.

*President Kennedy:* I would think we'd need enough for additional responsibility to the agency [CIA] as well as of the civilian actors. You do your part of getting [unclear].

*McCone:* Mr. Lundahl has two or three words on this low-level flying that he'd like to explain.

*Lundahl:* Can I come around beside you, sir?

*President Kennedy:* All right.

*Lundahl:* This [photo] is one of the old favorites, sir. This is not a low-level flight. But to give some orientation of the new flight, this is an MRBM launch site, number 5, and right back to accompany it is the low-level flight which was consummated yesterday.

Down around the south you see the architecture. The missile bay buildings are here. That is a missile on a trailer that is probably battened down with canvas, as you can see. The erector and launch pad is also covered.

*President Kennedy:* Camouflaged?

*Lundahl:* Yes, sir. They've got some kind of markings on the top of it. In some instances, you can see it better than others. This is the hydrogen peroxide. The auxiliary vehicles are over in here. This is another erector and launch pad, again battened down with canvas and various kinds of materials to make it harder to see. This is the missile ready building. These are fueling vehicles, and I think it fits very closely [unclear].

There is one pad here, sir, with the erector on it, and the secondary is over at this area here. And these are the missiles already shown. We don't get a clear, unobstructed look at a missile because they're all covered over.

I have a couple [of] others that relate to the same story. Here is a high-level—a high-speed aircraft is going by one of the erectors. Sir, you can see the kind of camouflage netting over the top of it. I think you can see the large cable that goes back into the power system that erects that thing. You see the supporting vehicles, at the base of that cliff. This is again on that same MR-5 rig.

I have another one here, sir. This is again at MR-5. This is another look at one of these launcher-erectors. See, it's covered over with canvas netting.

*President Kennedy:* It would be awfully difficult. If they could get the ground cover down, they'd be awfully difficult to find.

*Lundahl:* It never was successful in World War II, sir. We always managed to get through the camouflage. It was successful best against high-level bombers who were trying to pick their aiming points. But the PI [National Photographic Interpretation Center] uses camouflage detection, and a lot of other things that haven't been brought into this meeting here. I think we'll find them once we know what they are.

[Unclear brief exchange.]

There are 5 missiles there, sir, lying side by side right along the road.

[Mixed voices.]

This is [unclear], sir. There's nothing but light framing, and canvas stretched over these missiles. They're all covered over, as you can see. Support personnel walking around on the ground down there on the parking lot. This is the old [unclear], the MR-4 site, and actually I can show you one of the low-level shots which ties to that one.

This is an IRBM site with fairly extensive construction. You can see the troops standing around. That is one launch pad there with a kind of a pup tent over the hole in the ground. The conduiting goes back to this black wall here. Here are the cables that come out of the control bunker in here. This is the cable track that goes into the specific vehicle positioned here. This is the other launch pad over here. There is generally no concrete bunker or bearing structures in here. This is what we think is probably one of the nuclear storage bunkers. It's the [unclear].

[Unclear exchange.]

*McCone:* I would like to have more of these [unclear] low-level [unclear]. This is the complete readout. I would like extend the [unclear] . . . send them up between 11:00 and 12:00 this morning.

*President Kennedy:* Actually, these are not particularly, not as dramatic as those earlier ones which had the active missiles early on.

*McCone:* Well, he used camouflage.

[Unclear exchange.]

*Rusk:* . . . indications that the Cuban armed forces have been given their instructions not to shoot at overflying aircraft, except in self-defense.

[Unclear exchange in which Rusk discusses the source of the information] . . . got that from a naval communications ship.<sup>2</sup>

2. A U.S. Navy electronic intelligence ship, the U.S.S. *Oxford*, was then deployed in international waters just off the coast of Cuba.

Mr. President, I would like [unclear] hostile reaction. And there has been, all the way through, an element of caution and [no] freedom of action from Moscow [unclear]. His [Khrushchev's] public line seems designed to leave him with some option to back off, if he chooses. The impression of a pure U.S.-Cuban fracas will be hard to maintain once we're in a U.S.-Soviet incident at sea.

On balance we think the probable Soviet [unclear] is to provoke such an incident, in the expectation that the result [unclear] will stimulate pressures on the U.S. to end the quarantine. Here lies the very kinds of compromise proposed. This will gain time for the Soviets to determine whether the U.S. [unclear] on the issues, and whether the [unclear] Soviet line that the [unclear] are defensive can be sustained, whether a formula is available whereby the missiles can be withdrawn safely, or whether the risk of escalation and countermeasures . . .

*Bundy:* There's one general problem that has been received [unclear] this morning, but I think we may want to do our other operational matters first. That is the communication problem. Dr. Wiesner and an interdepartmental team is standing by. But perhaps first you want to hear from the Secretary of Defense on the current military situation.

*McNamara:* Mr. President, first [unclear mention of the vulnerability of U.S. aircraft on crowded airfields in Florida; photos of the U.S. aircraft on these fields are being displayed]. These are our own aircraft, about 150 of them in position. [Unclear; reference to Homestead Air Force Base.]

*Taylor:* [Unclear] . . . What we have done is to put them in a very high state of readiness, beyond, I would say, the level which is now necessary.<sup>3</sup>

The question then is if we backtrack somewhat, and we at least move the planes out, perhaps leaving the logistical support in place while moving onto . . . [Unclear] . . . below the level [of readiness] which we now maintain, which is [being able to launch strike aircraft within] 4 hours.

*President Kennedy:* Where are you dispersing these planes [unclear]? [Unclear reply by Taylor.]

[Unclear] . . . the site, 50 to 60 MiGs that come over, they'll shoot up, they'll take out a lot of our men.

*Taylor:* We're making every preparation against that that we can, and that

3. The Joint Chiefs of Staff had met earlier that morning. Taylor had explained that McNamara would be bringing photos of crowded Florida airfields to the White House and asked whether the planes should disperse. LeMay thought it was best to stay on the good concrete airfields with the 450 aircraft, 150 on each of 3 fields; Notes Taken from Transcripts of Meetings of the Joint Chiefs of Staff, p. 17.

FRIDAY, OCTOBER 26

AFTERNOON AND EVENING

OVAL OFFICE

After the members of the Executive Committee departed, President Kennedy returned a phone call from David Ormsby-Gore.<sup>1</sup> The British ambassador asked how long President Kennedy felt he could wait for U Thant to try for an adequate, verified standstill. President Kennedy told him that the Soviets were pushing ahead to finish the missile sites. The United States could not, therefore, wait much longer.

At the State Department several Executive Committee members discussed a possible air strike against Cuba. Taylor reported back to the Chiefs that a consensus seemed to be emerging in favor of starting with a limited strike just against the missile sites and the IL-28s. The air defenses in Florida were now so strong that fears of a retaliatory air strike by the MiGs had apparently diminished. Taylor and the Chiefs continued to favor a larger air strike, at least extending to the SAM sites as well.

More ominous intelligence news had been digested during the morning, however, especially from the low-level photography mission flown on October 25. The photos gave new evidence about the pace of Soviet preparations to ready the MRBM sites for firing, and the possible deployment of tactical nuclear weapons. Intelligence analysts concluded that the MRBMs were becoming fully operational, readied for imminent possible use. McCone, with Lundahl, sought and received a private meeting with President Ken-

1. This may have been the call he was told about during the meeting, which he asked his secretary to say he would return in an hour.

nedy to brief him on this information. Robert Kennedy may also have been present.<sup>2</sup>

*President Kennedy:* [looking at imagery] . . . and if we hadn't? Isn't this peculiar? If we hadn't gotten those early pictures, we might have missed them.<sup>3</sup> Wonder why they didn't put a cover over it. They think they're so smart that . . . Here's another similar one.

*McCone:* This is the missile stand. There's the blocks. Here are the 2 missile shelter tents. Here are 2 missiles and the third one.

*Unidentified:* Those are missiles?

*Unidentified:* Yeah.

*President Kennedy:* Did you see the New York or London *Times* where it said we've misread the pictures?

*Unidentified:* Yeah.

[9 seconds excised as classified information.]

*Unidentified:* [Unclear] Strong. I gave him a debriefing on that yesterday [unclear].

*President Kennedy:* He actually said: "I guess they're missile sites." But what he said were missiles were actually ground to air. But now you don't see any people, do you?

*Unidentified:* I don't see any people here.

*President Kennedy:* What would be a good question, it seems to me, in the future is to find out what our pilots see themselves compared to what the pictures show.

*Unidentified:* Well, they don't see much.

*President Kennedy:* If we're going to do an air strike—whether the fellows can pick this up themselves—

*McCone:* I don't know what this shows here. This picture unfortunately doesn't show it very well. Let's get one or two others.

There's a whole complex here. See, here is the missile erector. Here's a cable that goes over into a power source. Then, in other parts of the pictures, there are the fueling trucks, of which there are two types. And there's—and then

2. Robert Kennedy's memoir includes an accurate quotation from McCone's briefing, though it is placed incorrectly in the morning Executive Committee meeting; *Thirteen Days: A Memoir of the Cuban Missile Crisis* (New York: W. W. Norton, 1971), pp. 85–86. So we presume that he either sat in on this briefing, later listened to a recording of it, or both.

3. The missiles were now being concealed by much more aggressive camouflage efforts, which troubled them. The analysts were now able to spot the missiles only with the aid of the photographs taken of them earlier in October.

There's the missile stored over in the missiles building. I've concluded that it isn't possible to really hide these things as we have sometimes thought. They're mobile, but they're not quite as mobile as a tractor-trailer. Furthermore, they're big.

*President Kennedy:* Is this all there is in this thing which can be fired now?

*Unidentified:* No, this can be fired. I'll have to ask him to bring in [Lundahl]. Bring in Art.

*McCone:* It's quite an extensive installation, even though it's portable. And hence it is, first, a larger target and a more sensitive target than [an IRBM].

We've had our people make a study of it quite independently. We have, as you know, a lot of military people that are seconded to the Agency so that amateurs aren't in military billets. We conclude that—we feel that—[there is a] higher probability of immobilizing these missiles, all of them in the strike, than I think our thinking has tended in the last few days. Now, it won't be final because we don't see all the missiles for which there are launchers and SAM sites. Therefore, there are some that have been able to move them. And also those in repair. Now, I would see that picture that shows the extent of the complex—

*President Kennedy:* Have we got a mobile missile that's transportable by plane that has a range of 1,000 miles?

*Unidentified:* I don't believe so. I take that back. Mr. McNamara said something about that the other day at the meeting which was news to me. But I think he said it tentatively. I don't know whether this—

*President Kennedy:* It couldn't fly. We could—if we ever have to fly, say, 15 into Berlin—if we wanted to—

*McCone:* I would think so, yes.

[Lundahl has come in. Unclear exchange.]

Well, let the President see, Art, if one or two of those pictures would show those, the low-level pictures, would show how extensive the complex is.

*Lundahl:* I displayed some of these.

*Unidentified:* Yesterday?

*Lundahl:* Yes. The 23rd, sir [actually the 25th].

*President Kennedy:* Is this one of the places that we had earlier, pictures that show—?

*Unidentified:* Yes, sir.

*Unidentified:* We hadn't released these at the time, have we?

*Unidentified:* No, sir.

*McCone:* This is a picture—this is a picture that we released for use in the pamphlet [to be dropped over Cuba]. Now, you see? Here is your launcher.

Your missile's stored here. Here are the oxidizer-tank trailers. Here are the fuel tanks.

*President Kennedy:* There wouldn't be much to that. [Unclear.] Did it blow or just—?

*Lundahl:* Assuming red nitric acid, sir, very heavily lined trucks, so if they're opened up, they might make some real trouble for those who are trying to contain it. That's the oxidizer that they use with their SAMs, the mediums [MRBMs] and the intermediates [IRBMs].

*Unidentified:* Now, let me see [this] equipment.

*McCone:* Well, we have evidence that they are . . . Let me see this picture.

*President Kennedy:* This photography is more than enough. We took more pictures today, didn't we?

*Unidentified:* Yes.

*McCone:* Here are missile shelters. Here are tanks camouflaged here. Here they covered the [unclear]. Here's an erector covered with netting. Here's trucks camouflaged again over here. Here's something, we don't know what that is.

*President Kennedy:* Just a question, how much [unclear]? I don't see any people there, so . . .

*Lundahl:* The ground is so wet they have to lay their cables above ground on little stanchions. And they have to put catwalks around it because there's all kind of water. There's been lots of rain there in just the last couple of days. Here's some of their advanced equipment.

*Unidentified:* Now, this is interesting.

[38 seconds excised as classified information. From the context this appears to be a briefing about the discovery of possible Soviet tactical nuclear weapons, in the form of a short-range nuclear missile called the FROG.]<sup>4</sup>

*President Kennedy:* But you couldn't shoot these up much, could you? Just guess. No, it shows. Is this the only place we've got with sort of an armory?

*Unidentified:* So far, sir. We have others, but we haven't made—

*President Kennedy:* It would indicate that.

*McCone:* There's a real concentration of effort now. Here are your launchers. Here are those 2 pads for the wheel chocks. There's another erector here. Here's

4. The FROG missile launchers were discovered by the same low-level photography of October 25 that was a main subject of this briefing. The next day's GMAIC, JAEIC, NPIC joint report included the following: "Photography (Mission 5012 of 25 October) confirmed the presence of a FROG missile launcher in a vehicle park near Remedios. (The FROG is a tactical unguided rocket of 40,000 to 50,000 yard range, and is similar to the US Honest John); "Supplement 7 to Joint Evaluation of Soviet Missile Threat in Cuba," 27 October 1962, in McAuliffe, *CLA Documents*, p. 325.

toward the climactic issue of whether or not Khrushchev will agree to stop construction and pull out the "offensive weapons" he has already deployed in Cuba. The Americans are plainly feeling time pressure to resolve the matter, with the military planning for a strike before the end of the month. The pressure seems to be related to the missile buildup.

Why the rush? It is still hard to know. At first, of course, they are concerned about when the MRBMs will become operational. But by October 26 and 27 it is too late; the MRBMs are judged to be ready for action. The IRBMs are still projected to be weeks away from completion, and (unknown to the Americans) the missiles to go on those launch pads have been kept out by the blockade. Nuclear warheads, though not yet found, are always assumed to be already on the island.

The question "Why the rush?" will probably never have a complete answer. Some officials fear that the missiles are becoming more elusive, harder to hit, as frantic Soviet efforts belie some of Lundahl's early optimism about the futility of camouflage. There also seems to be a strong sense that if the momentum relaxes, and negotiations string out, then the world might realize that the MRBMs really are a *fait accompli*. That fact was obscured only by the lack of general knowledge that the missiles were complete, and by the Americans' robust exercise of diplomatic initiative. Yet, as time passed, American insistence that the finished missiles be removed might become increasingly hollow and incredible. Bundy, McNamara, and others warn about letting the situation "freeze" or reach a "plateau," constantly urging that momentum be sustained.

President Kennedy and the advisers who had favored starting with a blockade may have sensed, consciously or semiconsciously, that perhaps they had already waited too long. By October 27 the Soviet MRBMs were deployed and ready. The country was galvanized by the crisis, anxious and expectant, and congressional elections were only 10 days away.

The turning point of the crisis may have been October 25, the day that Khrushchev decided that he would withdraw the missiles on terms that would abandon his most important original goals for the deployment. At that moment Khrushchev had made the fundamental decision that he could not so readily change the strategic balance of missile power; nor would he be able to use this new position to break the stalemate over Berlin. The Americans talked with relief about being able to discuss trading useless Jupiters rather than trading Berlin. What would have happened, had Khrushchev not made this bitter choice, is awful to contemplate.

Even having made the choice, Khrushchev hesitated. He did nothing on

October 25, and little on the day following. When no invasion materialized he hardened his stance, constantly holding open the possibility of keeping the missiles in Cuba until he was convinced—again—that U.S. military action might really be imminent.<sup>103</sup>

From the evidence of these recordings, we feel confident that the White House would have continued to escalate pressure on the Soviets. Kennedy would have chosen either a direct strike against the missiles, possibly followed by an invasion; or a tightened blockade to include POL, the oil that made Cuba run. If Khrushchev had continued to condition withdrawal of the missiles on a deal in Turkey, Kennedy might have worked with the Turks and NATO to acquiesce, but in some way that put withdrawals from Cuba first and strengthened or spotlighted the new, replacement deterrent forces. A more intransigent stance by Khrushchev would have made U.S. military action against the missiles very likely.

All these steps would have carried grave dangers of further escalation, as Kennedy knew. The shutdown of the U-2 on October 27 should, according to the agreed plan, have prompted an immediate U.S. air strike; but Kennedy overrode the contingency plan and held back the planes. Had Khrushchev's acceptance of Kennedy's offer not come through, President Kennedy probably would have authorized more reconnaissance flights on October 28, along with renewed readiness to respond to another shutdown with a general air strike.

The Americans were also already worried about an encounter with the *Grozy* at the quarantine line on October 28. A total blockade would have extended the issue from the missiles to the whole survival of the Castro government, and Soviet officials could then have been expected to renew suggestions that Khrushchev counter with a blockade of Berlin. We doubt that the weary, impatient American officials, already pressed by the sense that time was against them, would have waited long for a tighter blockade of Cuba to produce results, if they had bothered with it at all. McNamara's civilian experts at the Pentagon had already told him that such a blockade would be inadequate and would even make matters worse.

On the other hand, President Kennedy would certainly have paused and talked through the original military plan to follow a strike with an invasion of Cuba. Intelligence had discovered the tactical nuclear arms on October 25, and Kennedy was briefed about them the next day. On October 28 the JCS formally asked Admiral Dennison to revise his invasion planning accordingly, though they turned down his request to provide the invasion force with counterpart tactical nuclear missiles of its own. Reviewing military contingency plans on

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**Date:** Thu, 07 Dec 2000 11:42:15 -0500  
**To:** <squishy@altavista.com>  
**Cc:** <File@nara.gov>  
**Subject:** Re: Arthur Lundahl

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According to the Presidential Appointments Index Arthur Lundahl met with President John F. Kennedy 3 times on April 28, 1962, September 7, 1962, and March 27, 1963.

For information about archival collections at the Kennedy Library please refer to Historical Materials at the John Fitzgerald Kennedy Library at <http://www.jfklibrary.org/guide.htm>.

Thank you for your interest.

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Can you tell from your files how many times Lundahl met with President Kennedy "outside" of the Oct/Nov 1962 Cuban missile crisis timeframe.

Secondly can you tell me what portion of the Kennedy collection has been processed, and how many documents are in the entire collection?

Thank-you very much.

Grant Cameron

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U.S. Department of Justice

Federal Bureau of Investigation

Washington, D.C. 20535

MR GRANT CAMERON  
649 SILVERSTONE AVENUE  
WINNIPEG MANITOBA  
CANADA R3T2V8

JANUARY 11, 2001

Request No.: 0936048- 000  
Subject:LUNDAHL, ARTHUR C

Dear Requester:

- This acknowledges receipt of your Freedom of Information-Privacy Acts (FOIPA) request to the FBI. The FOIPA number listed above has been assigned to your request.
- For an accurate search of our records, please provide the complete name, alias, date and place of birth for the subject of your request. Any other specific data you could provide such as prior addresses, or employment information would also be helpful. If your subject is deceased, please include date and proof of death.
- To make sure information about you is not released to someone else, we require your notarized signature or, in place of a notarized signature, a declaration pursuant to Title 28, United States Code 1746. For your convenience, the reverse side of this letter contains a form which may be used for this purpose.
- If you want the FBI's Criminal Justice Information System (CJIS) to perform a search for your arrest record, please follow the enclosed instructions in Attorney General Order 556-73. You must submit fingerprint impressions so a comparison can be made with the records kept by CJIS. This is to make sure your information is not released to an unauthorized person.
- We are searching the indices to our central records system at FBI Headquarters for the information you requested, and will inform you of the results as soon as possible.
- Processing delays have been caused by the large number of requests received by the FOIPA. We will process your request(s) as soon as possible.

Your request has been assigned the number indicated above. Please use this number in all correspondence with us. Your patience is appreciated.

Sincerely yours,

John M. Kelso Jr.  
Section Chief,  
Freedom of Information-  
Privacy Acts Section  
Office of Public and  
Congressional Affairs.

# FBI FILE FACT SHEET

- The primary function of the FBI is law enforcement.  
The FBI does not keep a file on every citizen of the United States.
- The FBI was not established until 1908 and we have very few records prior to the 1920's.
- FBI files generally contain written reports of FBI investigations of a wide range of matters, including counterterrorism, foreign counter-intelligence, organized crime/drugs, violent crime, white-collar crime, applicants, and civil rights.
- The FBI does not issue clearances or nonclearances for anyone other than its own personnel or persons having access to FBI facilities. Background investigations for security clearances are conducted by many different Government agencies. Persons who received a clearance while in the military or employed with some other government agency should write directly to that entity.
- An FBI identification record or "rap sheet" is NOT the same as an FBI "file" - it is simply a listing of information taken from fingerprint cards submitted to the FBI in connection with arrests, federal employment, naturalization, or military service. The subject of a "rap sheet" may obtain a copy by submitting a written request to FBI, CJIS Division, Attn: SCU, Mod. D-2, 1000 Custer Hollow Road, Clarksburg, West Virginia 26306. Each request must have proof of identity which shall consist of **name, date and place of birth and a set of rolled-ink fingerprint impressions** placed upon fingerprint cards or forms commonly utilized for applicant or law enforcement purposes by law enforcement agencies, plus payment of \$18.00 in the form of a certified check or money order, payable to the Treasury of the United States.
- If you believe that files exist in one of the FBI field offices, it is incumbent upon you to direct a request to the appropriate office.

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07 December 2000

Dear Mr. Cameron,

To answer your questions -

>>Could you tell me on the b&w photographs  
>>-where is Lundahl in the photograph compared to  
the President?

In the first b/w image (AR 7790A), Mr. Lundahl is  
in a group of 14 men in the office with the President.  
He is separated from the President by one man, Bernard  
L. Gladieux of the National Civil Service League.

In the second b/w image (AR 7790B), only three other  
men are seen with the President, but Mr. Lundahl is  
still separated from the President by Mr. Gladieux.

>>-are the identities of all the people in the photo  
recorded?

In AR 7790A, no. There are several people seen in  
this image whose identities were not recorded. Although  
the President's appointment schedule lists all those  
who attended the brief ceremony, it seems that putting  
a face with a name on the image has not fully accomplished.

In AR 7790B, yes. The men in the image have been identified  
(from left to right as one views the image) as 1)  
Arthur C. Lundahl, CIA; 2) Barnard L. Gladieux, National  
Civil Service League; 3) The President; 4) Rocco C.  
Siciliano, National Civil Service League; and 5)  
James R. Watson, National Civil Service League.

>>-if once I get the photograph, and I get another  
photo made with part of the photo is the copywrite

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still in effect?

>>-who holds the copywrite, and what are the conditions of using the photo?

To answer both of these questions together, the image was made by Abbie Rowe of the National Park Service, and is in the public domain. There are no copyrights assigned to this image. Even if you crop or otherwise alter the image, the original image is still in the public domain.

Rights of privacy or publicity may be involved, but I am not an attorney and would not presume to advise anyone in those matters. That being said, this was a public occasion, and both military and civilian public servants made photographic documents of the occasion, and those images are held in a public institution administered by an administrative agency of the United States. Public domain photographs from these collections have been used in illustrative and editorial contexts for many years by many thousands of researchers, writers, editors, publishers, film-makers, and others.

>>Thanks for you efforts. They are sincerely appreciated!!

You are welcome. If I may be of other service, please do not hesitate to call, write, fax, or e-mail.

Sincerely,

James B. Hill  
John Fitzgerald Kennedy Library  
Audiovisual Archives  
Columbia Point  
Boston, MA 02125  
(617) 929-4573 voice (617) 929-4599 fax jim.hill@kennedy.nara.gov

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U.S. Department of Justice

Federal Bureau of Investigation

Washington, D.C. 20535

MR GRANT CAMERON  
649 SILVERSTONE AVENUE  
WINNIPEG MANITOBA  
CANADA R3T2V8

February 5, 2001

Request No.: 0936048- 000  
Subject: LUNDAHL, ARTHUR C

Dear Requester:

This is in response to your Freedom of Information-Privacy Acts (FOIPA) request noted above.

Based on the information furnished, a search of the automated indices to our central records system files at FBI Headquarters located no records responsive to your FOIPA request to indicate you and/or the subject(s) of your request have ever been of investigatory interest to the FBI. The automated indices is an index to all records created since January 1, 1958, in security, applicant, and administrative matters, as well as to all records created since January 1, 1973, in criminal matters.

If you have reason to believe records responsive to your request exist prior to the above dates, you will have to request another search. In order to respond to our many requests in a timely manner, our focus is to identify responsive records in the automated indices that are indexed as main files. A main index record carries the names of subjects of FBI investigations.

Although no main file records responsive to your FOIPA request were located in our automated indices, we are required to inform you that you are entitled to file an administrative appeal if you so desire. Appeals should be directed in writing to the Co-Director, Office of Information and Privacy, U. S. Department of Justice, Suite 570, Flag Building, Washington, D. C. 20530, within 60 days from receipt of this letter. The envelope and the letter should be clearly marked "Information Appeal." Please cite the FOIPA request number assigned to your request so that it may easily be identified.

Sincerely yours,

A handwritten signature in cursive script that reads "John M. Kelso Jr." is positioned below the typed name.

John M. Kelso Jr.  
Section Chief,  
Freedom of Information-  
Privacy Acts Section  
Office of Public and  
Congressional Affairs

*Lundahl*

The RAAF sent the Drury film to the Air Technical Intelligence Centre in Dayton, Ohio, by November, 1953. It may have been handled by a Major Jeffers and then been passed onto the Photographic Interpretation Centre (PIC), located in the Stewart Building, 5th & K streets, Washington D.C. Ted Zachary (aka Todd Zechel) claimed in a "UFO Report" article, August, 1977, entitled "The CIA has Proof that UFOs exist!", the Drury film came under CIA scrutiny via Art Lundahl's photographic analysis group.

PIC or the Photographic Group were reportedly by then a CIA operation. It was originally staffed by personnel who had transferred from the Naval Photographic Interpretation Centre, NavPIC, Anacostia, Maryland. Art Lundahl was the director of the CIA photographic group and some of his team included Robert Neasham and Harry Woo, who had shown the Newhouse film to the Robertson Panel in January, 1953.

UFO researcher and aerospace engineer, Brad Sparks, knew Art Lundahl in the 70s and 80s. Sparks interviewed him extensively. Sparks did not ask him about the Drury film then, nor did Lundahl volunteer anything about it. Lundahl joined the CIA in April 1953 at the behest of Robert Amory Jr. (DDI). He came from the Naval Photographic Interpretation Centre (NavPIC), which had been involved in the Tremonton and Great Falls films. Sparks indicated to me that NavPIC continued to be involved with UFO photo analyses after Lundahl's departure to the CIA.

Lundahl formed a Photographic Intelligence Branch in the Office of Research & Reports (ORR) of the CIA, however Sparks indicated

that that group did not have much prominence at the time. He indicated, "It gained stature in 1955 when DDI Amory elevated the branch out of ORR into its own separate office-level Photographic Intelligence Centre (PIC), which was evidently to gear up for the upcoming U-2 Aquatone photos. Hence it seems unlikely that in Dec 1953 - January 1954 that the Port Moresby Film would have been passed on to Lundahl at CIA for analysis.

It would have been studied at the USAF Photo Reconnaissance Lab, Wright-Patterson AFB, and NavPIC, both of which studied the Tremonton and Great Falls films in 1952-53. There is a remote chance that NavPIC might have passed a copy on to Lundahl at CIA unofficially. But I gathered from my discussions with Lundahl that his growing interest in UFOs was begun in the 1950s by hearing of the Tremonton film analysis at NavPIC, though he was not involved in it, and by his later friendship with CIA missile intelligence analyst Alvin E. Moore, who was a Navy man assigned to the CIA Office of Scientific Intelligence off and on from 1949 to 1955.

Moore was the first OSI officer assigned to the Flying Saucers/UFO file for the first year or two ... Lt. Col. Frederick C. E. Oder was in charge of the OSI UFO files from 1953 to 1955 and he remembered that Lundahl would come over to look at the UFO files and stay till late at night. But how much of Lundahl's personal interest in UFOs was known outside the CIA in 1953-54, so that he would be a likely official recipient of a film such as the Morseby film remains in doubt. His old colleagues at NavPIC would have known of his UFO interest but they would also have known that Lundahl still had relatively little equipment and resources at CIA in that formative period.

Moreover, the Air Force and Navy would not have automatically sent film to the CIA for analysis in the 50's due to interagency jealousy and rivalry. This changed when the (US) Defense Dept collaborated with the CIA in establishment of NPIC in 1961, so maybe it wasn't automatic but at least NPIC was well known in the US intelligence community and the UKUSA agencies. None of the released CIA documents on UFOs mention the Port Moresby film.

But then the CIA never released Lundahl's two file drawers of UFO photos and reports either (only a couple of NPIC documents were released), nor admitted that they existed. Lundahl told me that he had an unclassified drawer of UFO photos for his "personal interest" in the subject and he had a classified drawer of "anomalous" overhead recon photos, etc."

*Lundahl*

From: "Library Kennedy" <library@kennedy.nara.gov>  
Date: Thu, 07 Dec 2000 11:42:15 -0500  
To: <sqquishy@altavista.com>  
Cc: <File@nara.gov>  
Subject: Re: Arthur Lundahl

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LeMay / Lundahl

from Dino A. Buozioni Random NY  
"Eyeball to Eyeball: The Inside  
Story of the Cuban Missile Crisis." 1990

- it was partly at LeMay's recommendation  
that the U-2 was built (head of SAC) wanted  
increased intelligence and reconnaissance

Stewart Motor Car Co.

4 top floor NPIC

3 lower Stewart Motor Car Co. along with Stewart  
Real Estate Co.

Robert Neesham team to develop equipment to extract  
information captured on the film

Duane W. "Doc" Limber also on team.

"enhanced light source and a microstereoscope  
with rhomboids for stereoscopic viewing of the film."

LeMay AF Chief of Staff during Cuban crisis  
running his own photo intelligence flights over Cuba.