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NATIONAL RECONNAISSANCE OFFICE

14675 Lee Road
Chantilly, VA 20151-1715

17 May 2004

John Greenwald, Jr.
The Black Vault Headquarters

Dear Mr. Greenwald:

This is in response to your letter dated 31 March 2004, received in the Information Access and Release Center of the National Reconnaissance Office (NRO) on 29 April 2004. Pursuant to the Freedom of Information Act (FOIA), you requested a copy of "Motion Picture Script: A Point in Time: The Corona Story."


Your request was processed in accordance with the FOIA, 5 U.S.C. § 552, as amended, and Section 502 of the Intelligence Authorization Act of 2003. One document totaling 52 pages was located. This record is being released to you in part. Material redacted is denied pursuant to FOIA exemption (b)(1) as properly classified information under Executive Order 12958, Section 1.4(c); and exemption (b)(3) which applies to information specifically exempt by statute, the National Security Act of 1947, 50 U.S.C. § 403-3(c)(7) which protects intelligence sources and methods from unauthorized disclosure.

The FOIA authorizes federal agencies to assess fees for record services. Based upon the information provided, you were placed in the "other" category of requesters, which means that a requester is responsible for charges incurred for duplication in excess of the first 100 pages of document reproduction costs in the processing of this request. You also expressed a willingness to pay all costs. In this case, no fees were incurred.

You have the right to appeal this determination by addressing your appeal to the NRO Appeal Authority, 14675 Lee Road, Chantilly, VA 20151-1715, within 60 days of the above date. Should you decide to do this, please explain the basis of your appeal.

If you have any questions, please call me, Acting Chief,
Information Access and Release Center, on (703) 227-9128 and
reference case number F04-0077.

Sincerely,



Linda S. Hathaway

Enclosure:
Motion Picture Script, Jun 73

"C" ~~SECRET~~



A Motion Picture Script
for a 40-50 minute color
film entitled:

"A POINT IN TIME"
(The Corona Story)

For:

CENTRAL INTELLIGENCE AGENCY
DD/S&T, Office of Special Projects
Photo Reconnaissance Systems Division

From:

OFFICE OF TRAINING
Film Branch

Declassified and Released by the N R C

In Accordance with E. O. 12958

ON NOV 26 1997

25 June 1973

"C" ~~SECRET~~

3. MCU
Mr. Helms as he looks
up.

4. MLS
As above.

5. MCS
Different angle.

This was a significant decision, particularly for that era. Just 20 days before, the Soviet Union had orbited the world's first satellite, Sputnik I, from the Tyuratam Range. The United States was still over three months away from launching its first small satellite. But the need for reliable intelligence on Soviet missile deployment was becoming more and more urgent. The so-called "missile lag" debate was already under way with the Senate Preparedness Subcommittee holding hearings on this issue. The White House responded rapidly to the Board's recommendations. Dr. James Killian, who had just assumed his new position as Special Assistant to the President for Science and Technology, arranged a meeting for the first week in December among the President, Director of Central Intelligence Mr. Allen Dulles, and the Deputy Secretary of Defense Mr. Donald Quarles. At this meeting only eight weeks after Sputnik I, the President decided to proceed with a joint CIA/Air Force interim

7. MLS
Es-establishing shot.

photo reconnaissance satellite program to answer the critical intelligence questions about Soviet missiles. The system was to be based upon physical recovery of film from the space vehicle. This decision marked the birth of the remarkable CORONA Project. The full import of the decision, however, can be comprehended only if we recall the primitive nature of our understanding of space technology and the critical need for hard intelligence information which existed at that "point in time."

FADE OUT

FADE IN

7. TITLE
Over live-action of
a slow motion Agena
launch, superimpose:

TITLE MUSIC: In and up.

"A POINT IN TIME"

MUSIC: Swells to emphasize main title.

DISSOLVE TO:

8. TITLE
Over model animation
of CORONA satellite, su-
perimpose:

"The Story of CORONA"

MUSIC: Swells again to point up sub-title.

FADE OUT

MUSIC: Title music ends.

FADE IN

MUSIC: Starts an aviation theme.
Down and under narration.

9. MS
U-2 Pilot and plane
captain walk toward
aircraft.

NARRATOR:

By the fall of 1957, the U-2 had al-
ready spent a year in service. It had
never been intended as operational for
more than a year or two. The operation-
al life expectancy was based on the like-
lihood that the Soviets would in some
months track it successfully and with
accurate tracking data in hand, bring
pressures to discontinue the flights.

10. MLS
They climb stairway
and pilot begins to
prepare for flight.

11. MCU
Pilot is in cockpit and
plane captain helps with
life support system.

DISSOLVE TO:

As it turned out we had misjudged the
Soviet air surveillance capability at the
time and their radars had tracked every
flight from the first. The Soviets filed
a protest and a standdown was ordered.

12. LS
U-2 begins to roll on
taxiway.

After that, overflights were made only
sporadically although for three more
years the U-2 ranged over much of the rest
of the world.

13. VLS
U-2 Takes off.

14. AIR TO AIR
U-2 in Flight.

And so we set out on December 8, 1957 to
build and develop what has become known
as CORONA, the world's first photographic

reconnaissance satellite. Its importance in the perspective of today's time was momentous.

DISSOLVE TO:

15. AERIAL
View of White House.

However, in the weeks after Sputnik I, there was pressure from all quarters to accelerate the U.S. missile and space program and there was much public debate about military versus civilian control of the Space program. In the perspective of that time, President Eisenhower addressed the nation.

FADE OUT

FADE IN

16. STOCK
President Eisenhower addresses the nation on the subject of space science.

PRESIDENT EISENHOWER (synch):

"... long range ballistic missiles as they exist today, do not cancel the deterrent and destructive power of our strategic Air Force. The Soviet launching of earth satellites is an achievement of the first importance and the scientists who brought it about deserve full credit and recognition. Already useful new facts on outer space have been produced and more are on the way as new satellites with added instruments are launched.

Earth satellites in themselves have no direct present effect upon the nation's

16. (Continued)

security. However, there is real military significance to these launches as I have previously mentioned publically. Their current military significance lies in the advanced techniques and the competence in military technology they imply. For example, the powerful propulsion equipment necessarily used.

FADE OUT

MUSIC: In and up to bridge.

FADE IN

NARRATOR:

17. AERIAL
Pentagon circa 1958.

On 8 February, 1958 the President placed authority for all military space projects under the newly formed Advanced Research Projects Agency (ARPA). The splitting off of CORONA from WS-117L was accomplished by ARPA just 20 days later. Although CORONA was removed from WS-117L and placed under separate management, as a covert activity, overt procurement was made possible by cover experimental programs.

DISSOLVE TO:

18. AERIAL
CIA Headquarters Building.

MUSIC: Changes to a new theme suggesting historical events.

NARRATOR:

At about the time CIA's Headquarters was being built, Project CORONA was begun.

It was decided at the beginning that the

18. (Continued)

photographic subsystem of the Air Force's WS-117L, offering the best prospect for early success, be placed under joint CIA/Air Force management--an approach which had been highly successful in covertly developing and operating the U-2's under OXCART.

DISSOLVE TO:

MUSIC: Ends

SOUND EFFECT: Bissell & Ritland Dialogue.

19. MS
Bissell and Ritland, featuring Bissell. They are talking about how CORONA began.

NARRATOR:

The CORONA Development Projects Staff was formed under the direction of Richard Bissell, then Special Assistant to the Director of Central Intelligence for Plans and Development.

20. MCU
General Ritland as he speaks to Bissell.

His Air Force counterpart was Brigadier General Osmund Ritland, who had served on the U-2 development program under Bissell.

GENERAL RITLAND:

"... and they began to say, 'What was that program you guys were talking about when you were in here mid-summer?' From then on maybe you'd better take it."

21. MCU
Bissell tells how he learned about the program.

BISSELL:

Well, I came aboard what came to be called CORONA and the manner in which I was told

21. (Continued)

about it was even more informal and disorganized than when I had learned about the U-2 program some four years before. This time it was Din Land who said that it had been decided at the highest level that a program would be transferred to be managed like the U-2. He appeared in my office and said that he supposed that I knew a decision had been taken to shift that program over to me. And I didn't know what program and I didn't know what shifting it meant. He told me it was part of the 117L program that was Air Force and that it was to be managed in the same way that the U-2 had been managed but, of course, he couldn't answer any of my questions about who was going to pay for it or who would do it on the Air Force side.

22. MS
Feature Ritland.

RITLAND:

My indoctrination program was a little bit more formal than that in that General Shriver, when he returned from Washington, instructed me quite precisely what I was

=8=

22. (Continued)

to do. Much work had been done by yourself and some of your colleagues in Washington but the main job was to re-orient the present Air Force 117L program, kill the recoverable portion of it and try to continue on in the covert side, the same kind of a program on an accelerated basis and funded more actively than we had been funded in the past.

23. CU
Richard Bissell.

BISSELL:

The initial problems in this program--the cover and security problems--were very different from that of the U-2 because there was already a quite widely known and defined for studies, by your command of the Air Force, an interim and preliminary satellite reconnaissance program, that would not involve readout and where the emphasis would be on fairly readily available hardware and speed. It would run for about a year and a half and would, as CORONA eventually did, produce film in a capsule which would somehow be recovered. Because hundreds, if not thousands of people knew of the existence of that plan, we had to

23. (Continued)

first devise a way it could be plausibly and convincingly cancelled and then we had to inform a select minority of those people that it hadn't really been cancelled but would be carried on in a different way.

24. MS
Feature General Ritland.

RITLAND:

And I was to come in here and the first thing to do was to correct the policy and paperwork that existed in the Air Force at the time and within the DOD regarding the 117L program. And our job was to kill, if you will, the 2A program which was the recoverable capsule of the 117L program and continue on with the Atlas-Agena read-out portion of it but to accelerate the 2A program under the CORONA guise. And our job at the outset was to develop a rationale to have this happen without causing too much consternation among all the people involved.

25. MCU
Feature Bissell.

BISSELL:

That was a subject to which you and I addressed ourselves on our first meeting and, as you have said, about this time ARPA had come into existence and it seems to me a decision had been made, again at

25. (Continued)

the White House level, that the funding would not be Air Force within the Pentagon but it would be ARPA funded with the CIA funding the payload. And that in any event is the way it turned out

26. MLS
The two continue talking.

SOUND EFFECT: Dialogue down and under narration.

NARRATOR:

CORONA got under way in March 1958 at a three day conference in San Mateo, California among CIA, Air Force Ballistic Missile Division, Lockheed, General Electric and Fairchild. The meeting brought out that while plans for a design were under way it was far from complete. Major complications arose over basic design of the camera.

27. MCU
Feature Bissell

BISSELL:

... a great many of the technical decisions were decided at that time. But it turned out, in fact, that there was quite a lot to be decided because the cancelled program was going to use a spin stabilized camera designed by Fairchild which had many advocates in the Air Force, RAND and in the Agency and I think the principal change that you and I

27. (Continued)

made in the plans was a decision that we go instead for a camera that was proposed

DISSOLVE TO:

by ITEK which required vehicle stabili-

28. AERIAL
View of Boston featuring
Boston College and MIT.

zation but would give us almost three times
the resolution.

MUSIC: In and under.

NARRATOR:

ITEK Corporation was a relatively new optical sciences firm, formed by a group of scientists from the university research centers in the Boston area. ITEK's concept proposed a longer focal length lens for the camera and scanning within an earth-centered stabilized pod.

The decision to turn to this new design was agonizing for it meant moving from a relatively simple method of stabilization to one that was untried and technically more complicated. The advantage would be lower cost and much greater definition of intelligence targets.

DISSOLVE TO:

MUSIC: Down and out.

29. MS
Mr. Wolfe of ITEK
demonstrates model
of CORONA stabiliza-
tion system.

WOLFE (synchronous sound):

A panoramic camera takes a picture by rotating the lens through an angle like

DOUBLEPRINT:

Zoom closer.

Zoom out.

Zoom in close to
mechanism.

this. In this model we just took a picture through a large angle. In the original CORONA camera the lens, after taking the panoramic picture, would rotate back into position for the next picture like this. The trouble with that kind of action is that the high torques generated by the lens rotating requires putting a counterbalancing mechanism in so that the action would not vibrate or shake the whole space platform. The electrical and mechanical complexity of doing that--of counterbalancing that high torque--reduced the reliability of that early model. The second version, the so-called "J" version, was one in which we learned to separate the light part of the lens--the upper part near the film--from the heavy part of the lens and we rotate the lens the way the early camera did and at the end of the picture taking cycle the heavy part of the lens would keep on moving and the light part would come back not creating much disturbance. Then the heavy part would be mechanically connected to it and synchronized and another picture taken.

DISSOLVE TO:

MUSIC: In and under.

30. AERIAL
ITEK facilities.

NARRATOR:

On 16 April 1958 the final project proposal, including the ITEK design, was forwarded to the President's Staff Secretary with ARPA's review and approval.

30X (if available)
Scene of handwritten note.

The proposal was promptly approved although never in writing under the strict security rules surrounding the program.

The only record of the President's approval reportedly was in the form of a handwritten report on the back of an envelope.

DISSOLVE TO:

Work on the approved design commenced immediately. The camera optics were optimally designed utilizing then new, computer design techniques. The Itek lens was a 24 inch focal length Tessar type design. Early models were f/5.0 speed and later ones developed to an f/3.5 speed. Although of relatively conventional lens element design, these were far from ordinary.

31. MLS
Optical scientist walks to computer and keys in program for CORONA lens readout.

32. MS
Scientist above looks at computer graphics print-out

33. MCU
Zoom in on computer drawn optical design.

DISSOLVE TO:

34. MLS
Lens grinding facility at Itek.

At the time the CORONA lenses were made, they were equal in quality to any ever previously made. Lens blanks were taken

34A. MCU
Row of grinding machines
operating.

from the finest available glasses and
precision ground

DISSOLVE TO:

35. MS
Optical technician has
CORONA lens on optical
bench.

... checked and mounted to bring out the
highest performance then known to optical
science.

DISSOLVE TO:

36. STOCK
VLS Raising a Thor-
Agena, circa 1958-59.

The CORONA payload would ride the Thor-
Agena vehicle, a hybrid made of a Thor
Intermediate Range Ballistic Missile and
a second stage Bell Laboratories' developed
HUSTLER engine. later to be modified by
Lockheed and known as Agena. It's important
to remember that at that point in time
today's commonplace reliability of systems
was unknown.

37. STOCK
Different view.

MUSIC: Up and play.

38. STOCK
Still longer view.

MUSIC: Down and out.

39. MLS
Ed Plummer in Agena test
area at Lockheed.

PLUMMER:

DOUBLEPRINT:
"Mr. Ed Plummer,
Lockheed Aircraft"

The Agena vehicle consists of a forward
section which encompasses the camera and
the recovery system. Behind that an
electronics area which contains a horizon
sensor, electronics power system and so
forth. Behind the large tanks and finally
on the back, the engine and the aft rack

40. MONTAGE
Various views of work
on Agena by Lockheed
technicians.

which contains the attitude control
gas and actuators.

MUSIC: In and under.

NARRATOR:

Contractor chosen for the Agena sub-system
was Lockheed Aircraft, which also served
as the prime contractor. Lockheed had
responsibility for integrating the payload,
operating the launch preparation facility
and managing the sub-contracts.

Agena was more than a means to place the
camera in orbit. The planned recovery
sequence involved a series of controlled
maneuvers by the Agena, any one of which
was critical or the mission would fail.

DISSOLVE TO:

41. MONTAGE
GE recovery vehicle build-
ing activities.

However, CORONA's most unique feature was
its payload recovery system. History would
show that the crucial decade of the 1960's
intelligence needs could not have been
served by the state of readout technology at
the time. Actual recovery from space was
necessary. It should be noted that both
the manned and unmanned U.S. space recovery
programs were benefited considerably by the

DISSOLVE TO:

42. MLS

Ken Morton of GE outside clean room with model of system. Inside clean room can be seen recovery system.

DOUBLEPRINT:

"Kenneth Morton,
General Electric Co."

43. CU

The model of recovery system.

pioneering re-entry technology developed for CORONA.

Sub-contractor for the CORONA recovery system was General Electric Company.

MUSIC: Down and out.

MORTON:

"This is the front end portion of the system--the recovery portion. This attached to the Agena and when the Agena tips down in attitude, this front end part of the system is ejected from the Agena. It's put into a return trajectory by means of this thrust cone assembly which is then jettisoned after re-entry. Then the parachute deploys pulling the recovery capsule out of the re-entry heat shield portion of the front end. This portion, after it has done its re-entry job is then dispensed with and this is the portion that we recover. It comes down on its parachute into the water or can be retrieved in air--air snatched by means of aircraft."

=17=

DISSOLVE TO:

44. AERIAL
Overflight of Vandenberg Base and launch facility.

MUSIC: In and under.

NARRATOR:

The mission of CORONA necessitated a near-polar orbit, either by launching to the north or south. However, the launch site must be one which prevents danger for highly populated areas so the logical choice, with a ballistic missile squadron already in place, was Cooke Air Force Base, later to be called Vandenberg Air Force Base.

45. STOCK
Preparations of vehicle and payload circa 1959.

Under the highest priorities the preparations for test launches was completed by January, 1959. However, the first vehicle aborted on the launch pad due to inadvertent firing of the separation system.

46. (If available)
Launch of Discoverer I.

Success would not come easy to CORONA. The second Agena, labeled Discoverer I, was launched on 28 February 1959 and never heard from again.

DISSOLVE TO:

47. MLS
Two Lockheed veterans at launch site (Four).

MUSIC: Down and out.

KURT:

Well, Ray, this brings back memories. From pad 4 here in February of 1959, we launched Discoverer I. For a time we thought it achieved orbit but I think in

47. (Continued)

later years people believed that it didn't make it. It probably went in down around the South Pole.

48. MCU
Feature Ray.

RAY:

You know the fellows at the launch base at that time were kind of skeptical that it made orbit.

KURT:

Were you in the block house that day, Ray?

RAY:

No, I was in the LOCC with Colonel Heisler. [REDACTED] was the Lockheed Launch Conductor in the Blockhouse on that day

MUSIC: In to bridge. Then fade out.

SFX: Kruschev's oratory.

49. STOCK
MS Vice President Nixon
listens as bombastic
Kruschev talks.

NARRATOR:

Meanwhile the undertainties about Soviet missile capability mounted. Vice President Nixon faced a beligerant Kruschev in what came to be called the "Kitchen Debate."

49A. STOCK
Nixon replies.

NIXON:

...there are some instances where you may be ahead of us. For example, in development of the thrust of your rockets for the investigation of outer space....

DISSOLVE TO:

50. (If available)
Launch of Discoverer II
and/or montage of launch-
es including ones that
blew up on the launch
pad.

MUSIC: In and under.

NARRATOR:

The third Agena launched a biomedical capsule on 13 April, 1959 and achieved orbit, but due to an incorrect setting of a timing device, ejected within hours over the North Pole and came down in the snow near Spitzbergen, Norway. The capsule was never recovered--at least by a U.S. team. A few years later a movie called "Ice Station Zebra," resulted from speculations about the event.

Problem after problem plagued the early CORONA launch attempts. These were truly the days of space pioneers where the solution to last month's failure only surfaced new problems for which engineering solutions must be found today. And finding them meant little time to look for optimized solutions requiring long development spans. However, the gravity of such events was not without lighter moments.

DISSOLVE TO:

51. MS
Engineer and technician
ready "test" for ping
ball security cover.

A prize example was the solution to security's requirement for an on-pad payload cover. While design of a shroud

51. (Continued)

DISSOLVE TO:

52. LS

The sportscar pulls out into a stream of traffic.

52A. MLS

Motorcycle policeman overtakes the engineer and writes him a ticket. Zoom in on the two.

FADE OUT:

FADE IN:

53. STOCK

JFK listens to a question by newsman.

JFK speaks to the point.

was eventually completed, the interim solution was prepared from ping pong balls, brown paper and piano wire. The test vehicle was what was then a high speed sports car tried out "down range" on the Bayshore Freeway. Unfortunately, the test was aborted by a speeding ticket for the test engineer, and this design was phased out after one "flight."

MUSIC: Turns to more somber bridge.

NARRATOR:

Meanwhile concern about intelligence and our missile posture grew and became a major item of debate in the presidential election of 1959.

JOHN F. KENNEDY:

... my source of concern is a remark made by the President's secretary, Mr. McElroy, about a month ago. He said if the Russians build all the missiles they are capable of building and if we build all we're planning to build, then quite obviously the Soviet Union will enjoy an advantage in the missile area. I would go under the assumption they will build all they can. I'm quite aware of what we are planning to build. I therefore

53. (Continued)

think the President, however expert he may be, has come to the wrong conclusion about the needs of defense....

DISSOLVE TO:

MUSIC: In and up, then under narration.

54. STOCK

Scene depicting Russian missile technology, circa 1959.

NARRATOR:

The Central Intelligence Agency's National Estimate for guided missiles for the year 1959 contained footnotes by both the Army and Air Force intelligence agencies taking issue with CIA's estimate of Soviet missile strength. The discrepancies emphasized the need for hard intelligence. The U-2 had improved knowledge of the Soviet Union but the answers to the critical questions went unanswered.

DISSOLVE TO:

MUSIC: Builds anticipation.

55. STOCK

Countdown scenes for the launch of Explorer XIII.

NARRATOR:

Then on 10 August 1960 the diagnostic flight thirteen was readied for launch.

56. STOCK

XLS Agena ready for launch and then firing.

SFX: Sounds of countdown.

MUSIC: Out.

SFX: The take-off of Discoverer XIII. Let sound effect play for dramatic effect.

Camera pans with the Agena.

MUSIC: Builds suspense.

SFX: Fade under music.

LONG DISSOLVE TO:

MUSIC: Down and under.

57. ANIMATION
Separation of last
stage.

NARRATOR:

At the time Discoverer XIII was launched,
a number of major problems remained to
be solved: achieving an acceptable orbit,
operating the camera and in the all
important recovering of the payload film.

58. STOCK
Antenna tracking the
satellite.

Telemetry quickly revealed that Thirteen
did achieve orbit

59. ANIMATION
Satellite rotates to
proper position.

... and that initial positioning was correct.

DISSOLVE TO:

60. ANIMATION
Satellite deploys for
re-entry.

On the 17th orbit, the recovery package
ejected, retro-fired and descended normally

61. STOCK
Ejection and retro-fire.

62. STOCK
Parachute deploys.

... except for missing its intended impact
point by 313 miles.

DISSOLVE TO:

63. STOCK
Aerial of capsule bobbing
in ocean.

Although beyond the range of recovery air-
craft, Thirteen's capsule splashed down
near enough for water recovery.

64. STOCK
Inside helicopter with
frogmen silhouetted in
window.

For the first time ever, man had orbited
an object in space and recovered it
according to plan.

65. STOCK
LS Helicopter arrives
over the capsule.

Although the capsule carried no film, we
had proved the ability to do it and beat
the Russians in their similar Sputnik V,
dog-carrying capsule, by just 9 days.

66. STOCK
MLS Frogman deploys.

Indeed CORONA had paved the way--through
its back-up technology--for splash-down
recovery of the U.S. Man-in-Space program
missions.

67. STOCK
MS Frogmen attach a
cable and begin hoisting
out of water.

DISSOLVE TO:

68. STOCK
Newsreel of President
Eisenhower at news
conference displaying
the capsule.

President Eisenhower proudly proclaimed
Discoverer XIII, "First Returning Space
Voyager." History would show that much
credit for the success was due to a new
cold gas spin and despin technique
applied first to Discoverer XIII.

DISSOLVE TO:

69. STOCK
LS Launch of Discoverer
XIV.

MUSIC: Builds triumphantly.

NARRATOR:

Just 8 days after this first success,
Discoverer XIV was successfully launched.
It carried a 20 pound film payload.

70. STOCK
Closer as it moves
through clouds.

DISSOLVE TO:

71. ANIMATION
The satellite in orbit.
It is corrected into
proper position.

Discoverer XIV was a cliff hanger from
the start. The satellite was on the verge
of tumbling on the first orbits but was
finally stabilized by expending precious gas.

DISSOLVE TO:

72. STOCK
C-119's take off
from Hickham.

Air Force C-119's deployed in hopes of
air snatching the capsule

73. STOCK
Men Aboard Pelican 9.

... and the secret space drama began.

DISSOLVE TO:

74. STOCK
Ejection of capsule.

The satellite recovery vehicle was ejected
on the 17th pass.

75. STOCK
Parachute deployment.

This time the capsule deployed right in
the "ballpark." Test Squadron 6593 raced
to the proper coordinates.

76. STOCK
View from port as
the parachute is missed.

The first two passes missed but on the
third try, the capsule was air snatched

77. STOCK
Successful air snatch.

by Pelican 9 adding still another first
to CORONA's history.

78. STOCK
Bringing in the capsule.

Although the initial photography was sub-
stantially lower in resolution than that
from the U-2, it was of intelligence value.

DISSOLVE TO:

79. PHOTOGRAPHS
Illustration of resolution
on early flights.

This one mission yielded more photographic
area coverage than the total of all U-2
missions over the Soviet Union.

80. PHOTOGRAPHS
Blow-ups of interest-
ing military installation.

More importantly the mission covered areas
never previously reached. And a new age
of technical intelligence had begun.

81. PHOTOGRAPHS
Other early photographs
from CORONA missions.

MUSIC: Up and play.

DISSOLVE TO:

MUSIC: Down and under.

82. STOCK
Kruschev is welcomed
by President Eisenhower.

NARRATOR:

Meanwhile, Soviet Party Chairman Kruschev
visited the United States.

82A. STOCK
Sequence of train ride.
We see Kruschev looking
out train window.

An interesting side-light is that his
journey from San Francisco to Los Angeles

82B. STOCK
View of Pacific Coast
at Vandenberg

by train took him through a part of the
Vandenberg base, virtually within a mile
of the CORONA launch complex. While

82C STOCK
Kruschev looking out
window at California
countryside.

Chairman Kruschev was sightseeing, still
another CORONA launch was being readied.

82D. EXTERIOR
Train moves along track.
Pan up from the train to
show launch facilities in
distance.

In the practice of the time, the count-
down was halted while trains passed to
prevent unauthorized viewing of a launch.

Launches were made during the "window"
between trains.

DISSOLVE TO:

83. STOCK
MLS Kruschev pounds table
at U.N.

While Kruschev pounded the table at the
United Nations, our photointerpreters were
busy evaluating the substance behind his
boast.

DISSOLVE TO:

MUSIC: Up to bridge. then down and out.

84. INTERIOR DAY
MLS Establish Carl Duckett

CARL DUCKETT:

Today we hear a great deal about the Soviet
SS-9 and SS-11 ICBM's. We know a great
deal about these weapons--in fact enough to

84. (Continued)

Camera zooms in to MCU.

make these very accurate models. However, much earlier in the late 1950's our situation was very different indeed.

It was that year I first became involved with analysis of Soviet weapons systems. It was also in that year that 3 major things occurred. First we obtained U-2 photographs of the Soviet missile test facilities and learned the extent of that program. Secondly, Mr. Krushchev announced that the Soviets had achieved an inter-continental ballistic missile capability. Third, and most dramatic I believe, was the beginning of the space era.

85. INTERIOR DAY
LS Carl Duckett near display.

He walks to CORONA model

Well before CORONA the Soviets put in orbit, in the year 1957, Sputnik I. It was a dramatic illustration that the Soviets indeed possessed the capability to launch a weapon against the United States.

85B. INTERIOR DAY
MCU He continues.

The very question, however, was whether such systems were being deployed. We could not provide an answer to that question. This led rather directly to the famous missile gap debates that occurred during the presidential campaign in 1960. In fact, in

85B (Continued)

that same year CORONA was successfully recovered--that is the film of the Soviet Union that was brought back to the United States and we could begin to provide answers. By the mid-1960's we knew with great confidence the exact number of weapons of all types that were deployed in the Soviet Union. It was this information which made it possible for us to start to consider strategic arms talks with the Soviet Union and indeed because of the high confidence that we knew the exact number of weapons this country entered those discussions and as you know, they were successfully completed.

Slight zoom in.

DISSOLVE TO:

86. STOCK
Launch of Discoverer XV
(still photograph if no
footage available).

MUSIC: In and under.

NARRATOR:

On September 13, 1960 Discoverer XV was sent aloft and soon proved that the CORONA problems were still not yet solved.

DISSOLVE TO:

87. STOCK
Capsule bobbing in water--
no one near to recover it.

Although XV apparently worked properly, it re-entered at the wrong pitch attitude, causing the capsule to fall outside the recovery zone. It sank before a recovery ship could reach it.

DISSOLVE TO:

88. STILL PHOTO
DISCOVERER XVI

Discoverer XVI in October failed to
achieve orbit.

DISSOLVE TO:

89. STOCK
Air snatch sequence
that is different from
that seen for
Discoverer XIV.

Discoverer XVII was launched in November
of 1960 and seemed to be a near perfect
mission right up through successful air
snatch ... except for one problem--the
film broke before any photographs were
exposed.

DISSOLVE TO:

90. STOCK
Launch of an Agena "B"

Then on 10 December, success came again to
CORONA. Discoverer XVIII returned 39 pounds
of film and proved the effectiveness of an
improved camera capacity and a more powerful
Agena "B" launch vehicle.

DISSOLVE TO:

91. STOCK
Handling cassettes.

Slowly technology was emerging to correct
each fault as it appeared. For example,

DISSOLVE TO:

92. PHOTOGRAPHS
Quick cuts of CORONA
static marks on film.

mysterious aberrations began appearing on
the film from time to time. Scientists
soon established that it was the result of
a build-up of static electrical charge,
coincidentally called "corona." Although
this phenomenon was well known, its cause

92. (Continued)

in a space environment was not known until it was accidentally duplicated during a series of component tests. The culprit turned out to be the formulation used in certain rubber parts and once identified could be re-formulated to eliminate the problem.

DISSOLVE TO:

93. STOCK
Eastman Kodak research
on film base.

An earlier, far more serious "film" problem was solved by Eastman Kodak researchers who developed a new polyester base to replace the brittle, weaker acetate film. And again CORONA scored a technological "first" by employing the thinner base material and ushering in a new era of film technology. Polyester film development solved one of the major space reconnaissance problems. By 1960 the new film was being used on every flight.

DISSOLVE TO:

94. STOCK
A series of launch
scenes of Agena "B"
circa 1961.

The year 1961 was the time for the maturing of CORONA. With each series of launches increasing sophistication was added. Discoverer XXI proved the feasibility of re-starting the Agena engine in space--a technique to prove useful to later CORONA and NASA missions.

94. (Continued)

Then on August 30, 1961 the missions began to carry an improved camera system. A mapping capability was developed, re-entry programming debugged and additional launch vehicle difficulties worked out. Slowly but surely the problems were solved but it often seemed that when one was laid to rest, another rose to take its place.

DISSOLVE TO:

95. INTERIOR DAY
MS Mr. Plummer of
Lockheed near vehicle

PLUMMER:

One of the very interesting design problems we faced early in the CORONA program was the thermal control of the overall vehicle and camera payload. It was desirable to maintain this temperature within very narrow limits around a room ambient of about 70 degrees Fahrenheit. This had to be accomplished in spite of the fact we were in the hard vacuum of space and must provide for all the internal power consumption of the vehicle, the radiant heat from the sun and the earth and the loss of heat to free space.

96. INTERIOR DAY
CU The thermal surfaces
as he points to them.

This was accomplished by covering the vehicle with thermal control surfaces, for example on the vehicle tank you see the white paint against the polished aluminium.

97. INTERIOR DAY
MCU Plummer continues.

Another example, where we wanted a low emicity is in this thruster where the entire assembly is covered with gold because of its particular thermal characteristics. The same technique was used throughout the vehicle with special emphasis on the camera payload where the temperature limits were much tighter.

DISSOLVE TO:

98. INTERIOR DAY
Mr. Morton of GE
with model of capsule.

MORTON:

There were many technical problems--some of them quite horrendous. For example, in the capsule itself, the locating devices were very troublesome....

I guess the primary and most fundamental problem was the heat shield itself. The heat shield turned out to be a selection of materials called "Melamine"--melamine glass. This material fit the design specs very well but there were all kinds of other problems: direction of expansion and cracking and that sort of thing which gave rise to a design consisting of these cuts, annular rings, which allowed certain areas to move with respect to others and keep the thing intact through the re-entry regime.

DISSOLVE TO:

99. INTERIOR DAY

WOLFE:

Camera zooms out.

In the early days of the program there were a number of flight failures which we eventually ascribed to film breakage for reasons we really didn't understand. We had a very extensive program back in the Boston area to try to find out the source of that trouble

100. INTERIOR DAY
MCU Wolfe continues.

But the solution turned out to be discovered by accident because it was accidentally duplicated in a test chamber. It turned out that the vacuum chamber was not properly grounded and there was a certain amount of AC ripple riding on the tank. That is to say, the vacuum tank's steel chamber was actually introducing some ripple voltage into the chamber. There's a particular circuit in the camera whose function is to make the camera start up slowly in space and slow down when it stops so as not to break the film. We found that the ripple in the tank was actuating a circuit which made that capability go away. The camera was starting up with a jerk. That gave us a clue so we went back then and looked at

100. (Continued)

the vehicle to see if something like that was occurring and indeed it was.

DISSOLVE TO:

101. INTERIOR DAY
MS Mr. Morton

MORTON:

I think one of the important points we can observe from the program is the tremendous dedication, resolve and purpose that the CORONA team had--government agencies, the service, industry, all up and down the line--to get this thing accomplished. I don't think it could have been done in today's climate. We probably wouldn't have been allowed to go beyond the 6th flight before the program would have been canceled rather than go 12 flights before a successful one on the thirteenth.

Camera zooms into CU.

That isn't to say we didn't have our discouraging moments and our frustrations. I remember some time along mid-stream--I guess about the 8th or 9th flight--when we didn't get it back and one of the members of the team opined at one of our meetings that perhaps there was some fundamental reason why something couldn't come back into orbit. Which just shows the direction of thought at the time. It didn't make much

101. (Continued)

difference and we went right along with accomplishment. We also had a lot of fun with this incident later when we had the thing back in our hands.

DISSOLVE TO:

102. INTERIOR DAY
MLS Mr. Wolfe in front
of CORONA test device.

WOLFE:

... Today when we've landed men on the moon several times and we're about to drop a lander on Mars and we've done do many other incredible things, it's a little hard to believe or get the feeling for 13 years ago and how relatively unsophisticated we were, how little we knew about all the intricate things that had to be done to make a space system work. We ask ourselves today, after the fact, why this program worked so well and particularly what the operating environment was like--how we got along with the other companies in the field, how we got along with the Government and they with us? I think to understand why it worked so well you have to remember that we were a small army in the first place and we were an army banded against a common enemy, namely the apparent impossibility of doing what we were about to try to do.

=35=

102. (Continued)

It's really very difficult to convey, particularly to a young person today who has lived the last 10 or so years with all the space achievements which are so common. It's difficult to realize that we were all operating in those days in a field in which we didn't really feel it could be done--we were just going to try and under those conditions the way in which a company or a team works is really different.

DISSOLVE TO:

103. INTERIOR DAY
MS Plummer summarizes.

PLUMMER:

I have a list of the flights that were conducted on the CORONA program. Many people referring to the program remember the large number of failures which preceded the final success in Discoverer XIV. In fact, there were a large number of failures. We had a launch attempt aborted on the pad; we had a capsule that was impacted into the earth in the wrong area; we had an unsuccessful launch where the vehicle did not achieve proper velocity; we had a capsule which was ejected from the vehicle but went off into a new orbit instead of into

103. (Continued)

the earth's atmosphere; we had power failures; we had thermal problems; we had procedural problems and so forth. But while these were a lot of failures, they were also the necessary development to get us to eventual success. For example, we did prove the booster; we did prove the ground control system; we did prove orbital operations; we proved the camera, the re-entry body and finally we proved the overall system. But, of course, to all of us who worked closely with the program--Government and contractors alike--we did not consider the program a success until we returned exposed film to Washington, D.C.

DISSOLVE TO:

104. STOCK
Mission Control scenes
from Discoverer days.

MUSIC: In and under.

NARRATOR:

With the beginning of 1962, the Discoverer series came to an end. After 37 attempts the cover story was simply worn out. With the improved record of success and the near-certainty of continued success, there were too many launches to suggest a continuing scientific program. So beginning

104. (Continued)

with the 38th launch on 18 April 1962, all CORONA missions were announced merely as secret Air Force missions.

105. STOCK
Montage of scenes depicting 1959-1962 operations.

In the first two years, only 7 missions had returned film. But what those yielded is an indication of what was in store.

Most of the areas of vital interest had been covered--some 25 million square miles and had yielded many times the number of images of all previous reconnaissance in

106. STOCK
Capsule air snatch recovery, circa 1962.

history. By now the most apparent limitation was the length of missions and the amount of recoverable film. So an extensive R&D effort had produced a two camera system known as MURAL.

DISSOLVE TO:

107. PHOTOGRAPHS
Stereoptic views from a two camera system.

The MURAL series produced more film coverage but more importantly literally added dimension by taking two photographs of the same area from slightly varying angles. This allowed photointerpreters the advantage of looking at photographs stereoptically and thus allowing a third dimension and the ability to accurately measure heights.

DISSOLVE TO:

This intelligence

108. STOCK
Soviet missile display,
circa 1962-1963.

... along with that gathered by other means allowed CIA to put together highly detailed technical data on Soviet weapon systems. Thus we now knew how many were deployed and could define their capabilities. The reliability of the intelligence community product improved quantitatively.

Interestingly, this knowledge meant we need not overreact to conjectures about threats but rather expend our defense resources more realistically.

109. STOCK
Launch of a TAT.

Our own space capability was also growing by now. No small part of our technological strength was coming from the development of CORONA itself. For example, the boosting capacity of the first stage Thor vehicle was increased substantially by attaching a cluster of small solid-propellant rockets. This "Thrust Augmented Thor" or T-A-T as it was called, allowed heavier payloads and meant the camera systems could be improved even further.

We see the boosters
jetison.

DISSOLVE TO:

110. PHOTOGRAPHS
Series of still pictures
showing the J-1 series
camera.

The next step was development of a new series "J" camera system which had the

110. (Continued)

significant advantage of carrying two recoverable "buckets" which meant that one launch could provide film while the satellite was still in position and then be directed to produce another run of photographs.

111. STOCK
Another air snatch recovery.

The J System and the improved launch capability plus all the development effort turned the recovery of capsules from an "event" to a routine operation.

112. STOCK
Crowd listening to President Kennedy.

SFX: Kennedy's speech and roar of crowd.

NARRATOR:

By the time John F. Kennedy stood at the Berlin Wall we knew with confidence that we were unsurpassed militarily.

113. STOCK
MLS Kennedy on the speaker's stand.

KENNEDY:

" ... Freedom is indivisible and if one man is enslaved, all are not free. All free men wherever they may live are citizens of Berlin. And therefore as a free man I take pride in the words, 'Ich bin ein Berliner!'

(Crowd roar)

MUSIC: In and under.

114. STOCK
Another successful launch.

NARRATOR:

In the early 1960's the CORONA capability continually improved. An even more powerful

114. (Continued)

THORAD booster was employed and the J-1 camera gave rise to the J-3. However, one can't leave the story of the J-1 successes without mentioning its most

DISSOLVE TO:

115. STOCK
Ground to air of TAT
launch, circa 1964

spectacular failure. Mission number One Zero Zero Five was launched on April 27, 1964. Launch and insertion into orbit were uneventful. Then telemetry indicated film break after partial completion and a power failure. [REDACTED] trans-

116. STOCK
Radar and radio
antennas connected
with CORONA.

mitted an ejection command but nothing happened. Back-up commands were transmitted from other stations but ejection still did not occur. A month later radar sightings indicated the satellite had probably burned up on entering the atmosphere.

DISSOLVE TO:

117. PHOTOGRAPHS
Zoom out from boy on
bicycle to show
campesinos carrying
the damaged capsule.

However, on July 7 two farm employees in southwestern Venezuela found a battered, glimmering gold object. A photographer from San Cristobal who photographed the object notified the American Embassy and a CORONA team was sent to purchase it from the Venezuelan government. The event was dismissed as a minor NASA experiment gone astray.

117A. PHOTOGRAPH
CU The reel side of
the capsule.

117B. PHOTOGRAPH
CU The crumpled
bucket.

DISSOLVE TO:

MUSIC: Changes themes.

118. STOCK
Preparing and weighing
film.

NARRATOR:
By 1965 the rate of success was phenom-
inal. On the average, three or four
recoveries were made every month. The
seven years of frustration and effort
were paying off.

119. STOCK
Loading film onto truck
for a mission.

A mission in 1964 yielded four full days
over target on each of its two buckets.
In 1965 this capacity was raised to 5 per
bucket for a total mission of 10 days
coverage and by 1966 this had been more
than doubled.

DISSOLVE TO:

120. INTERIOR NIGHT
MLS From inside special
truck as container with
satellite is loaded.

All phases of the operation were performed
under strict security.

121. EXTERIOR NIGHT
MLS Driver takes papers,
signals guard and leaves
Sunnyvale compound. A
security car follows
close behind.

Movements were made at times when they
aroused the least interest and under maximum
security control.

DISSOLVE TO:

MUSIC: Up and play.

122. AERIAL
Westover Air Force Base

NARRATOR:
Recovery, transporting and processing the
exposed film was assigned routinely to the
Air Force. The highest priority was given
to getting the film into the hands of

122. (Continued)

interpreters. The bulk of exposed film was rushed to Westover Air Force Base where special facilities were set up to expedite the processing under rigid quality control standards.

DISSOLVE TO:

123. INTERIOR NIGHT
Arrival of cassettes.

Elaborate systems for handling and identifying each exposure were evolved, assuring that no human error could pre-empt the intelligence to be gained.

123A. INTERIOR
MCU Attaching cassette to processing machine.

DISSOLVE TO:

124. INTERIOR
Zoom out from machine where frames are being examined and read with a densitometer.

No time went to waste. Yesterday's recovery was today's processing run and tomorrow's photogrametry assignment at the National Photographic Interpretation Center.

124A. INTERIOR
Technicians work at other machines. We see images crossing light box, etc.

The flow of substantive intelligence increased and the speed of information to users went from days and months to hours. The quality of the results was well summarized, "off the record," by President Johnson.

124B. INTERIOR
MS Inspecting and packaging the film.

DISSOLVE TO:

125. STOCK
Night shot of White House, circa 1967

The President speaking at a conference of educators on March 17, 1967 said that

125A. STOCK
CU Burning light in window of White House

because of satellite reconnaissance, "I know how many missiles the enemy has." At one point he added that the nation had

126. STOCK
President Johnson works
at desk.

spent \$35 to \$40 billion for military and
space programs, but that the benefits of
satellite photography alone would justify
ten times as much expenditure.

126A. STOCK
CU Johnson at desk.

DISSOLVE TO:

127. STOCK
Series of American silos
and submarines.

What is interesting at that point in time
was the effect of CORONA photography to
the then current debate over whether the
United States should deploy an anti-ballistic
missile system. CORONA intelligence proved
the Soviets were deploying such a system
and we took steps to meet the threat and
urge the Russians to curb the arms race.

DISSOLVE TO:

128. STOCK
Presidential Seal.

Thanks to CORONA, the apprehension ushered
in by Sputnik gave way to reasoned and
affordable reaction.

MUSIC: Down and out.

129. STOCK
Establishing shot of
Russian May Day Parade,
circa 1967.

NARRATOR:

In the first decade of the Space Age CORONA
had played a vital role. Not only had we
achieved the ability to weigh the balance
of power in the world correctly

130. STOCK
Parade marshalls begin
military parade.

... and differentiate the mock threat from

131. STOCK
Long shot of crowd as a
missile shaped balloon
is launched.

132. STOCK
ICBM's pass in review
on mobile carriers.

... the real one ... but we had completely
revolutionized the intelligence process.

If new weapons were tested in hidden areas
of the world

133. STOCK
Soviet tanks and troops
pass in review.

... or if troops moved or significant
changes of any kind occurred, we were no
longer vulnerable to the vagaries of chance.
CORONA had made possible a new era of
technical intelligence. As a result, we were
warned before the Soviets intervened in
Czechoslovakia and successfully monitored
preparation for the 1967 war in the Middle
East.

DISSOLVE TO:

134. STOCK
President Johnson
addressing Congress.

LYNDON JOHNSON:

We have proved that we are a good and
reliable friend to those who seek peace
and freedom. We have shown that we can
also be a formidable foe to those who
reject the path of peace and those who
seek to impose on us or our allies the
yoke of tyranny.

DISSOLVE TO:

MUSIC: In and under.

135. PHOTOGRAPH
J-3 color photo-
graphs.

NARRATOR:

In 1967 the final evolution of the CORONA
camera took place. Although the J-1 was

135. (Continued)

performing perfectly, it had been developed to the limit of its potential.

136. INSERT
Close-up of mechanism
in the J-3

The J-3 was designed to eliminate vibration, improve resolution and improve calibration data. The sophistication for command

137. INSERT
Film transport system
in J-3

response gave the J-3 much greater versatility.

138. INSERT
Lens rotating on the J-3.

The history of the J-3 improved the intelligence quality substantially and proved to be even more reliable than the excellent J-1.

DISSOLVE TO:

139. STOCK
Preparations of J-3 for
a mission.

MUSIC: Changes theme.

NARRATOR:

However, the real test of the improvements can be seen in the evolution of image quality.

DISSOLVE TO:

140. MONTAGE
Aerial photographs
starting with earliest
missions showing improve-
ments up through those from
J-3 (COR 756 series of
photographs).

On the earliest CORONA missions, target images of 25 foot resolution were all that was obtainable but as lenses, stability and film technology improved the images resolved smaller and smaller detail until with the J-3 images resolution was down to a "few feet." This quantum improvement in resolution improved the quality of intelligence on the order of magnitudes.

141. MONTAGE
Series of color and
infrared CORONA photo-
graphs (SO 180
Mission 1104).

Then in 1968, tests proved the value of
color and infrared imagery. Photographs
from space could detect crop and environ-
mental conditions--of value to strategic
intelligence and ushering in a new field
of earth resources studies from space.

142. INTERIOR DAY
LS Museum at NPIC as
Harold Brownman unveils
"bucket" trophy pre-
sented to Art Lundahl.

MUSIC: Ends.

SFX: Ceremonies at NPIC dedication
featuring Art Lundahl.

NARRATOR:

The impact on photographic interpretation
was enormous.

143. INTERIOR DAY
MCU Lundahl speaks.

ART LUNDAHL:

Before the early 1950's, the Central
Intelligence Agency had no photographic
intelligence activity at all. We started
with a handful of people and one of the
great consequences of the program is the
enormous rush of growth it has created
in our own photographic intelligence
resource. Now the National P.I. Center is
probably the largest--or one of the largest--
photo intelligence activities in the world,
certainly the largest in the West.

=47=

144. INTERIOR DAY
MS Lundahl continues.

[REDACTED]

145. INTERIOR DAY
MCU Lundahl enumerates
changes.

[REDACTED];

146. INTERIOR DAY
MS Lundahl and listeners.

Little did we realize what was going to develop so quickly when on the 18th day of August in 1960, this first satellite was successfully retrieved. It flew for only one day; it had 16-17 passes--8 of them over the Soviet Union--and 20 pounds of film came back. And with that film in hand, we turned to and in less than 7 days we had produced 130 pages of text; we had a 1.5 million square miles of coverage of the Soviet Union. This was the harbinger that warned us of what was coming. And as we were steadily gearing up and trying to get ready for what was coming, both in instrumentation and data handling procedure, the

146. (Continued)

film was flowing in. By the time the program ended, we were dealing with film that was coming in at the rate of 32,000 instead of 3,600 linear feet per mission; we had covered over 520 million square miles of real estate; we had produced millions of pages of reporting and we were involved in all the major issues of our time.

147. INTERIOR DAY
MLS Lundahl concludes.

All of the ICBM's in the Soviet Union--the complexes--had been discovered by 1964, all their SAM sites, all their air fields, all their nuclear weapons and storage sites, all their "Y" class submarines, all their enigmatic problems, we were right on top of these.

Zoom to MS

We were involved in the major decisions of our time. There was no single issue we were not intimately involved with.

DISSOLVE TO:

MUSIC: In and under.

148. STOCK
Preparing for launch.

NARRATOR:
The 145th and final CORONA launch took place on 25 May 1972.

149. STOCK
LS The Agena moves into place near gantry.

CORONA had proved to be a remarkable investment. The Totality of CORONA's

149. (Continued)

contributions to U.S. intelligence holdings on denied areas of the world and the U.S. space program in general is virtually unmeasurable.

150. STOCK
CU Image as above
on TV monitor

What had begun as a desperate attempt to meet a most sinister threat had succeeded beyond the wildest imaginings of the program's initiators.

151. STOCK
Mission control.

The list of CORONA firsts is unparalleled.

The first recovered objects from orbit, first to deliver intelligence information from a satellite, first mapping and first

152. STOCK
Launch of the last
CORONA

stereoptic pictures from space, first satellite to employ multiple re-entry vehicles and the first reconnaissance program to pass the 100 plus mission mark.

And not least, the first photography from a satellite. CORONA's 167 successful

153. STOCK
Separation of the TAT
pods and follow the
flaming missile.

recoveries are more than the total of all the other United States programs combined.

CORONA provided photographic coverage of over 500,000,000 square nautical miles of the earth's surface--a dramatic achievement in itself.

DISSOLVE TO:

=50=

154. STOCK
Russian space
achievements.

But the true importance of national
security came from the intelligence

155. STOCK
Russian offensive
weapons.

... from lifting the curtain of secrecy
which surrounded the Soviet Union

156. STOCK
Peking footage.

... and the People's Republic of China.

DISSOLVE TO:

157. STOCK
Nixon visits China.

The contribution of CORONA between 1960
and 1972 can be summarized by saying it
made possible for the President in office
to react more wisely to crucial inter-
national situations at a point in time of
critical balance between peace and war.

DISSOLVE TO:

MUSIC: Begins final build-up.

158. STOCK
Nixon signs SALT
agreements.

NARRATOR:

It was confidence in our intelligence that
has allowed the United States to enter
into the Strategic Arms Limitations Treaty.

There can be no doubt about the role of
CORONA in history.

DISSOLVE TO:

159. MONTAGE
Fast build up of dramatic
CORONA scenes (i.e., launches,
parachutes, etc.). Pick
scenes for visual impact.

MUSIC: Triumphant passage.

NARRATOR:

CORONA is now history. It stands as an
important POINT IN TIME--the first, the

159. (Continued)

longest and most successful of the nation's intelligence programs to date. CORONA explored and conquered the unknowns of space reconnaissance and it opened the way for more sophisticated follow-on systems.

There were no elaborate facilities. The work was done in a dairy farm building in Boston, a grocery warehouse in Philadelphia and a "skunk works" section of a helicopter plant in Palo Alto, California. The cost was modest and CORONA paid a huge dividend--vital intelligence and an important POINT IN TIME.

DISSOLVE TO:

MUSIC: Up to play ending.

160. TITLE BACK-
GROUND
Model photography of
CORONA

THE END

A CIA Production

FADE OUT

MUSIC: End with final fade.