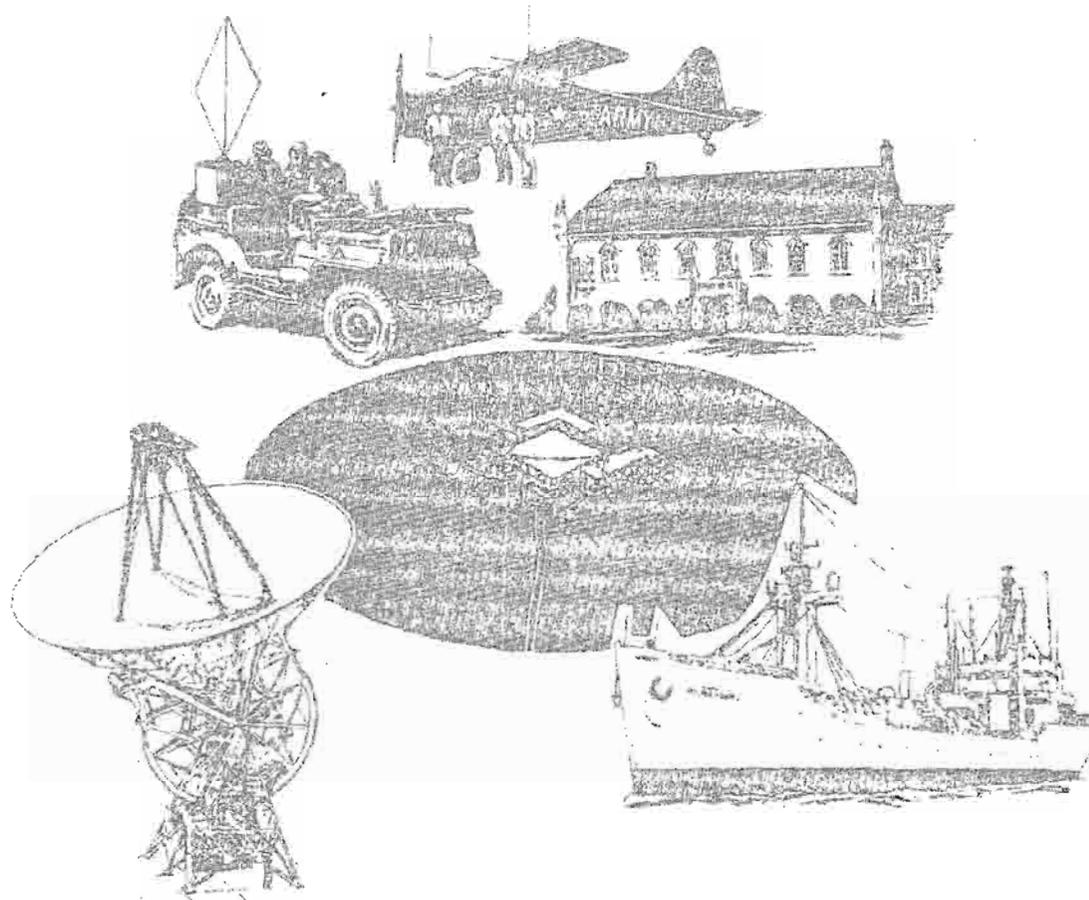


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## UNITED STATES CRYPTOLOGIC HISTORY

*(U) American Cryptology during the  
Cold War, 1945-1989**(U) Book IV: Cryptologic Rebirth, 1981-1989*

Approved for Release by  
NSA on Appeal on  
01-14-2011, FOIA Case  
# 54492

Derived From: ~~NSA/GSSM 123-2~~  
~~Dated 24 February 1998~~  
Declassify on: ~~X1, X6, X6~~



CCH-S54-99-01

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*UNITED STATES CRYPTOLOGIC HISTORY*

*Series VI  
The NSA Period  
1952 - Present  
Volume 5*

*American Cryptology during the  
Cold War, 1945-1989  
Book IV: Cryptologic Rebirth, 1981-1989*

**Thomas R. Johnson**



CENTER FOR CRYPTOLOGIC HISTORY  
NATIONAL SECURITY AGENCY

1999

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~~(U//FOUO)~~ Chapter 21  
The Reagan Revolution

**(U) BACKGROUND**

(U) Nineteen-eighty marked more than just a change of decade. It was a change of mood. Some have called it the Reagan Revolution. Reagan, a forever optimistic actor from California, came to office with a world view in complete contrast with that of the 1970s. He was tired of talk about limitations, wanted none of the gloom that had settled over the White House in the late Carter years. He would restore America's power in the world. He would start by spending the nation back into prosperity.

(U) When Gerald Ford left office, the national debt was \$644 billion. When Jimmy Carter departed, it was \$909 billion. When Ronald Reagan left office, it was more than 2 and one half trillion dollars. The severe gap between income and expenditures had a long-term impact on many areas of national life, not the least on the funding of defense programs.

(U) It was Reagan's dual approach that created the problem. He would generate demand by cutting taxes, but, paradoxically, he would increase spending on national defense. This would leave a gap between revenues and expenditures that would be made up by cutting domestic programs. But domestic programs could not be cut that much, and a considerable portion of the national debt came from the funding of defense programs.

(U) At the core of Reagan's defense revival was intelligence. It meant getting good information on adversaries, and it meant employing that information in active ways – a strong covert action program. The new DCI was a long-time Reagan friend, the manager of his successful presidential campaign in 1980 – William Casey. Casey's intelligence background was OSS in World War II. OSS had been excluded from COMINT during the war, and so to them intelligence meant HUMINT, i.e., agents. He had no experience with SIGINT, but he was a fast learner.

(U) When Casey became DCI, "technical intelligence" had just about taken over. The Carter administration believed in it, and most of the money went toward it. Despite the well-known Reaganesque proclivity toward agents and covert actions, this did not really change during his administration. His transition team wanted more money dumped into satellite programs, and the Reagan administration cut its sails in that direction from the first day.<sup>1</sup> Casey himself quickly came to understand the value of SIGINT, and did not share the institutional view of NSA that so dominated the thinking of his own staff. His own deputy, Bobby Inman, said later that

(U) For all of my difficulties with Bill Casey on so many other issues, on this one I would give him a clean bill of health....While he set out to rebuild and revitalize the DDO, he recognized the value of Signals Intelligence and the role it played....He did not bring an instinctively parochial view to the issue. Was it relevant? Was it timely? Was it useful? Did you need more money? These were the sorts of basic attitudes he brought.<sup>2</sup>

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(U) William Casey and Ronald Reagan

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(U) The Reagan administration marked the height of the Cold War. The president referred to the Soviet Union as the Evil Empire, and was determined to spend it into the ground. The Politburo reciprocated, and the rhetoric on both sides, especially during the first Reagan administration, drove the hysteria. Some called it the Second Cold War. The period 1982-1984 marked the most dangerous Soviet-American confrontation since the Cuban Missile Crisis.

(U) Despite the president's support of intelligence programs, NSA was wary. The White House viewed intelligence as a foreign policy tool, and used it to advance larger foreign policy interests, regardless of security implications. Three instances make the case.

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~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

~~(TS//SI-UMBRA)~~ The best known exposure of SIGINT since the Pearl Harbor hearings of 1945 had actually come in 1983, when the Reagan administration played the intercepted cockpit conversations of the Soviet pilot as he shot down KAL-007. The SIGINT gave the administration a tremendous foreign policy coup

(U) There were numerous other instances. British historian Christopher Andrew cites just one – the 1988 exposure of the decrypt of Iraqi military communications relating to the Iraqi use of poison gas on their Kurdish population.<sup>3</sup> It came from an atmosphere in which the loss of sources and methods was deemed less important than the foreign policy gains.

~~(FOUO)~~ Counterbalancing the Reagan administration's penchant for misuse of intelligence was the president's strong support of his intelligence agencies. In 1986 he became the first American president to visit NSA, as he gave the official dedication speech for NSA's two new buildings, Ops 2A and Ops 2B. He wanted to loosen the legal reins governing intelligence, and signed a new executive order, 12333, which gave NSA latitude in SIGINT collection that it had not had during the Carter years. Reagan revived the President's Foreign Intelligence Advisory Board (PFIAB), moribund under Carter. The new chair, Anne Armstrong, was a strong and effective advocate for the intelligence community.<sup>4</sup>

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## (U) THE NATIONAL SECURITY MECHANISM UNDER REAGAN

### (U) *The Inman Appointment*

(U) Casey needed a deputy, and he was not inclined to go to the existing CIA structure. Thus the search turned outside CIA, and eventually settled on NSA director Admiral Bobby Inman. The way that Inman was selected became a Washington legend. His prime sponsor was Senator Barry Goldwater, who had urged that Reagan make Inman the DCI. As DIRNSA, Inman's reputation had become so special that he was regarded as essentially untouchable. Bob Woodward, in his book *Veil*, described Inman in the adulatory tone of the times:

(U) Inman knew the intelligence business cold. He was the best source on everything from the latest spy satellite to the bureaucratic maneuvering required to get intelligence programs going. He had a fabulous memory. With his boyish, toothy smile, large head, thick glasses, Inman looked like a grown-up whiz kid. He was one of the few intelligence officials who would talk to reporters and get them to hold off on stories that compromised intelligence. He had nurtured all the important relationships in the Congress. Goldwater could not recall an instance in which Inman had failed to return a phone call or to track down an answer on the rare occasion when he didn't know it.<sup>5</sup>

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(U) Others in the news media had similar comments. According to the *Washington Star*, "It is reassuring both to those who want to see U.S. intelligence operations strengthened and to those who don't want to see the CIA crashing through the forest in its previous 'rogue elephant' role.... 'There is not a mark on him,' says a former admiral who worked with Inman in naval intelligence." At the Senate confirmation hearing, Senator Goldwater opened by saying: "You have my vote even before I hear your testimony...." Inman became the first superstar to emerge from NSA. Most expected him to maximize the role of SIGINT and to turn up his nose at covert operations and other messy programs. <sup>6</sup>

**(U) General Faurer Becomes NSA's Director**



**(U) General Lincoln D. Faurer**

(U) Inman's successor as DIRNSA was Air Force Lieutenant General Lincoln D. Faurer. Faurer had a strong flying background (he piloted both B29s and RB-47s) and experience in missile and space operations. Although he had no direct experience in cryptology, he had served two tours at DIA and three others in intelligence-related jobs. He came to NSA from Europe, where he had been both J2 USEUCOM, and deputy chairman of the NATO Military Committee. He thoroughly understood the intelligence needs of theater commanders, and he made support to military operations a central theme of his tenure at NSA.<sup>7</sup>

(U//~~FOUO~~) If Inman could be described as "brilliant and brittle," "Linc" Faurer might have been accurately depicted as avuncular but determined. He valued accommodation and collegiality, and he tried to reconstruct

NSA's management system based on new management principles emphasizing cooperation and corporate decision-making.<sup>8</sup> It was difficult to redirect NSA's staff system in such a radical way. Under Inman, management had been top down, and Inman neither needed nor wanted a staff system. Faurer was just the opposite.

~~(S//SI)~~ Much of Faurer's energy was directed toward sharpening support to military operations. As the former deputy chairman of NATO's Military Committee, he focused on SIGINT support to NATO

Multilateralism was the only feasible approach in the NATO environment.<sup>9</sup>

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(S//SI) Much of his effort along this line was doomed to frustration. During the Grenada operation, NSA was shut out of operational details (see page 372), bringing the dispute over this long-running problem to a boil. After the bombing of the Marine barracks in Lebanon in 1983, the Navy insisted that SIGINT support to the remaining Marines be routed through Sixth Fleet. Faurer, experienced in the ways of military operations, rejected that approach. "We fought that battle and it got more heated after the bombing than it did before and it's dead wrong. I mean, you just can't live with it that way." He cultivated his relationships with the J3 (chief of the JCS operations staff) throughout his tenure, trying to educate each successive occupant of the chair, and he got understanding nods but no results. "And it went on the entire time. We never solved the problem."<sup>10</sup>

(U//FOUO) Faurer developed a high regard for both his bosses, Casey and Weinberger. As for Casey, once Faurer got over the difficulty of understanding what he was saying (a problem that followed Casey his whole life - unintelligible speech), he acquired great respect for the DCI. "I happen to think Bill Casey is as fine a DCI as we've had in the time I've been associated with intelligence, and I go back to Jim Schlesinger."<sup>11</sup> But Faurer read his own charter literally, and believed that in DoD, his direct supervisor was Weinberger. He never accepted the delegation of NSA to the deputy secretary of defense, William Taft. Faurer fought Taft constantly to insure that NSA's national role remained an independent responsibility. They had disputes over NSA's national role in policy issues and over budget issues that transcended the Defense Department. They were never resolved, and Faurer was actually fired at Taft's behest over a now-obscure budget issue several weeks prior to the agreed-upon retirement date. General Faurer, a bulldog to the end, went down fighting for what he believed in.<sup>12</sup>



(U) Caspar Weinberger

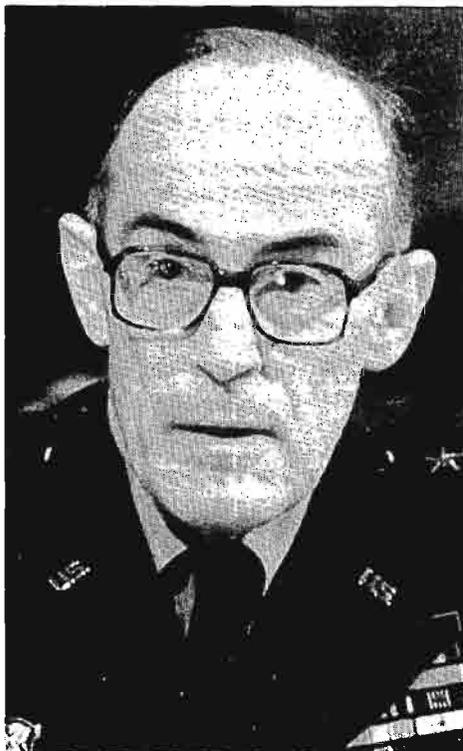
#### (U) *The Odom Administration*

(U//FOUO) Faurer's replacement in 1985 was a former armor officer who had become one of the Army's top Sovietologists. William Odom had had a tour at the Potsdam mission in the mid-1960s. The Potsdam mission was one of the best training grounds for attaché work, and it was followed six years later by a tour as assistant Army attaché in Moscow.

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Odom was exposed to SIGINT, especially in Moscow, and over the years he developed a keen appreciation for the interplay of intelligence disciplines.<sup>13</sup>



(U) General William Odom

(U) When Zbigniew Brzezinski became Jimmy Carter's national security advisor, he plucked his former student, William Odom, out of the Army to serve on his staff. Said Brzezinski, "I knew him from an earlier association with me at the Research Institute on International Change at Columbia, I respected his views on Soviet military affairs and strategy, and I considered him to be an innovative strategic thinker."<sup>14</sup>

(U) After four years in the White House, Odom had gone on to serve as the deputy assistant chief of staff for intelligence in the Pentagon, and soon took over as the ACSI.<sup>15</sup> His broad exposure to Army intelligence made him a prime candidate to succeed Faurer. And the Army had not had a director since Marshall Carter departed in 1969.

(U//~~FOUO~~) Odom brought a unique personality to the job. According to his deputy, Robert Rich, he was a good listener and a reasonable person to work for, who could

examine the intellectual facets of a decision and come up with the right answer. But he did not project this image. What most NSAers remember was a different Odom: "...ready, fire, aim; loud, boisterous, ranging over all kinds of intellectual territory, strategy of the nation, strategic concepts, tactical concepts."<sup>16</sup> Many felt that he suffered from the typical disease of ivory tower intellectuals – hearing one voice only: his own.

(U//~~FOUO~~) Odom had a different perspective on NSA. He likened the job to that of commanding a specified command. It had, he liked to point out, operational control over three service components, a worldwide scope of operation, its own logistics system, its own training school, a unique research and development organization, its own procurement system, and so forth. Next to the DCI, it was the most powerful job in American intelligence.<sup>17</sup>

(U//~~FOUO~~) For a specified command, though, it lacked certain essentials. Most prominently, NSA had no staff system analogous to that of a military command. Without a staff, the director simply had to accept the judgments of his deputy directors, and had no independent means of managing actions or verifying information. It was a consequence of historical evolution at NSA, and it fitted NSA's unique way of doing business. Odom

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battled the system his entire time at NSA, but felt that he never changed the way NSA operated.<sup>18</sup>

(U//~~FOUO~~) What NSAers remembered most distinctly from the Odom era were the Ten Thrusts (see Table 18). Originally written by Odom himself, these began as six thrusts relating to SIGINT, and focused primarily on maintaining NSA's edge in various technical disciplines such as cryptomath and in sharpening the focus of customer support. Harry Daniels, the DDI, took immediate exception to a list of thrusts which excluded INFOSEC issues, and submitted his own. Odom struck one of the original six from the list and added Daniel's five, to come up with a nice round number. It was a good list, just right for the mid-1980s. Odom did seem to understand the business.

~~(S//SI)~~ Table 18  
General Odom's Ten Thrusts

1. Modernize the SIGINT collection and processing systems to cope with the changing target communications technology.
2. Integrate tactical and national SIGINT capabilities to satisfy more effectively military requirements in peace, crisis, and war.
3. Maintain and improve our capabilities to support diplomatic, economic, and other nonmilitary requirements for SIGINT support.
4. Maintain a large U.S. lead in cryptanalytic capabilities (both computer capability and personnel).
5. Design a framework for a survivable SIGINT system, under all conditions, including general war, which we acquire incrementally and through astute dual-use applications over the next decade.
6. Provide easily attainable, inexpensive, user-friendly Information Systems Security features.
7. Speed up research for major breakthroughs in the technology of computer security; at the same time, help industry manufacture more "trustworthy" computer products for defense and other government needs.
8. Establish a program to reduce significantly the HUMINT threat to Information Security Systems.
9. Provide modern, secure, user-friendly key management systems.
10. Remove the COMSEC block obsolescence condition by the end of 1991 and establish a program to protect against this condition in the future.

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~~(S//SI)~~ The most controversial thrust was to insure a survivable system. Fashioned during the Second Cold War, it made a lot of sense at the time. [REDACTED]

[REDACTED] According to his successor, Rear Admiral William Studeman, there was a tendency at NSA to try to wait out the Odom directorship in hopes that [REDACTED] would simply go away.<sup>19</sup>

(U//~~FOUO~~) Like Faurer, Odom worked for two bosses, Weinberger and Casey, but he managed the trick with aplomb. Within DoD he generally reported directly to the secretary of defense but, aware of the Faurer-Taft confrontations, carefully kept William Taft in the loop with occasional briefings. His real affinity, however, was clearly for Casey. The two got on well together, and Odom held Casey in high respect for his substantive knowledge of intelligence issues and his ability to deal with them off the cuff. They formed a united team in 1986 to try to stop the press from publishing leaks that damaged intelligence sources and methods.<sup>20</sup>

**(U) At the White House**

P.L. 86-36

(~~FOUO~~) NSA still enjoyed a special relationship with the White House. After a brief and fitful flirtation with the idea of bringing someone from State Department in to run the Situation Room, Richard Allen, the first of a long line of Reagan's national security advisors, chose NSAer [REDACTED] as his Situation Room chief. [REDACTED] stayed during the first Reagan administration, long enough to get a clear picture of how intelligence issues were handled.

(U//~~FOUO~~) Under Carter, intelligence and national security topics got a highly organized, if somewhat egocentric, direction from Brzezinski. But this process never got started under Reagan. The leaks, the employment of SIGINT to push a foreign policy agenda, the disjointed way in which intelligence in general was treated (culminating in the Iran-Contra imbroglio) was a true bill of the process. For in fact, there never was a process under Reagan.

(U) Reagan modeled his White House administrative procedures after Nixon, with a strong staff chief, Edwin Meese. Everything was routed through Meese, and even Richard Allen contacted the president through him. This cut off the president from direct access to intelligence, and when Allen departed he had never been able to establish a relationship with Reagan. His successor, Judge William Clark, accepted the job only on condition that he enjoy access to the president, but the damage had been done, and during the first Reagan administration the White House never had a strong national security advisor, nor did it ever have a system in which tailored, focused intelligence arrived in the Oval Office. The job became a revolving door, with first Allen, then Clark, then Robert McFarlane, John Poindexter, and finally Frank Carlucci, cycling through. According to [REDACTED] the

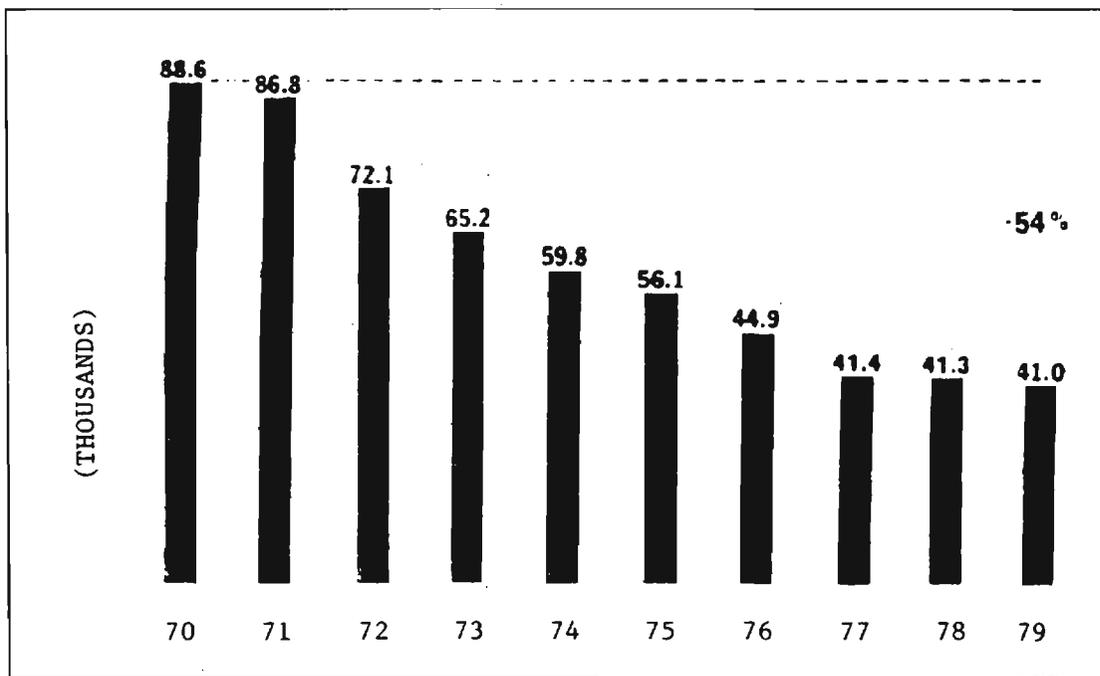
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process, if there was a process, lacked substance, and difficult intelligence issues were dealt with in a superficial way.<sup>21</sup>

~~(U//FOUO)~~ SIGINT RESOURCES IN THE REAGAN YEARS

~~(C)~~ Ronald Reagan inherited a cryptologic system in parlous shape. Manpower over the previous decade had dropped from 88,600 to about 41,000 (see Table 19). At first glance, money appeared to be on the increase, but that was before inflation was factored in. The 1970s was a decade of high inflation, and the gap between current and constant dollars had widened progressively through the ten years (see Tables 19 and 20).

~~(C)~~ Table 19  
Cryptologic Manpower, FY 1970-FY 1979<sup>22</sup>

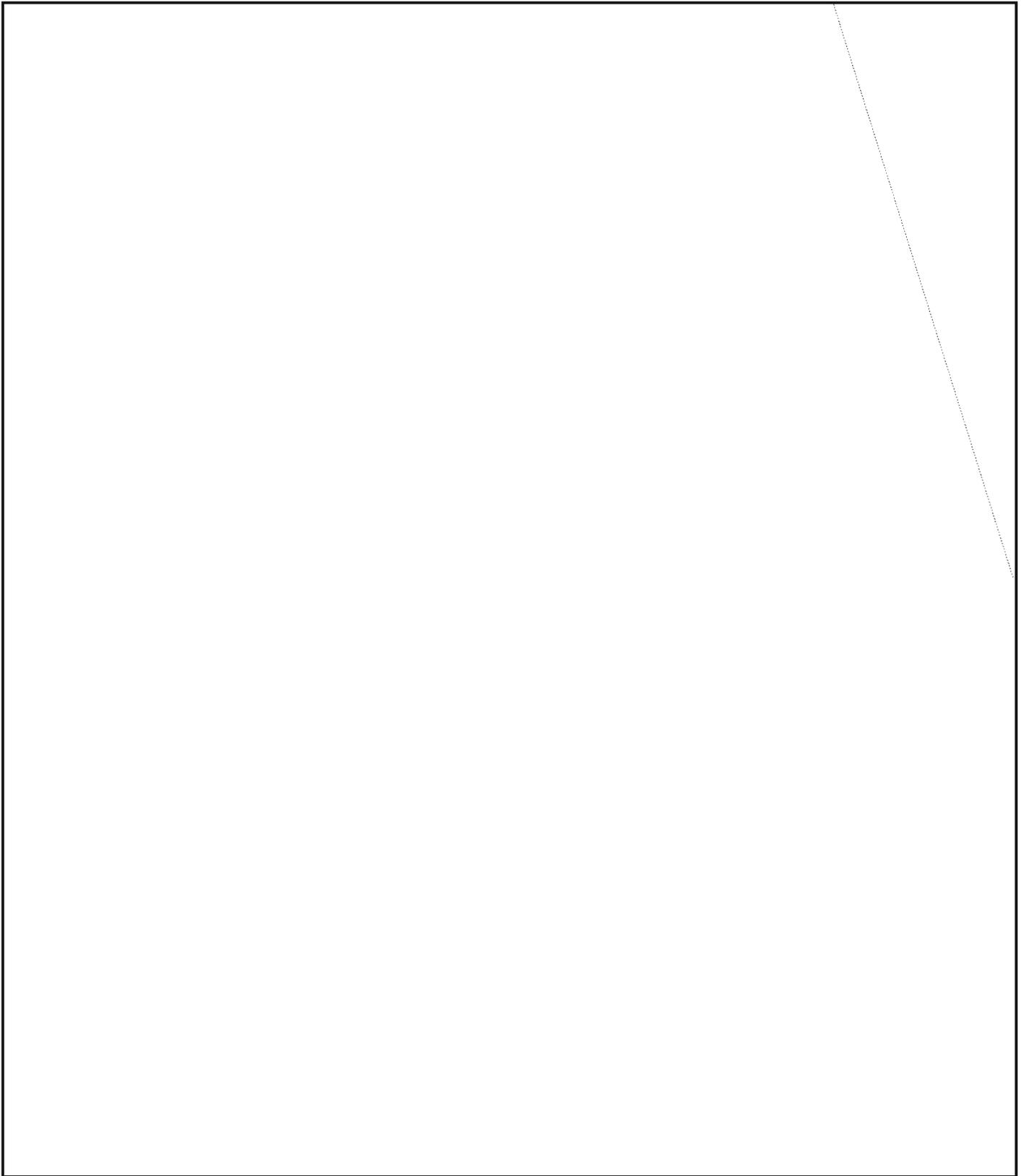


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~~(S)~~ The Reagan administration began pumping money back into intelligence programs. From the 1980 through 1986 fiscal years, the overall cryptologic budget rose



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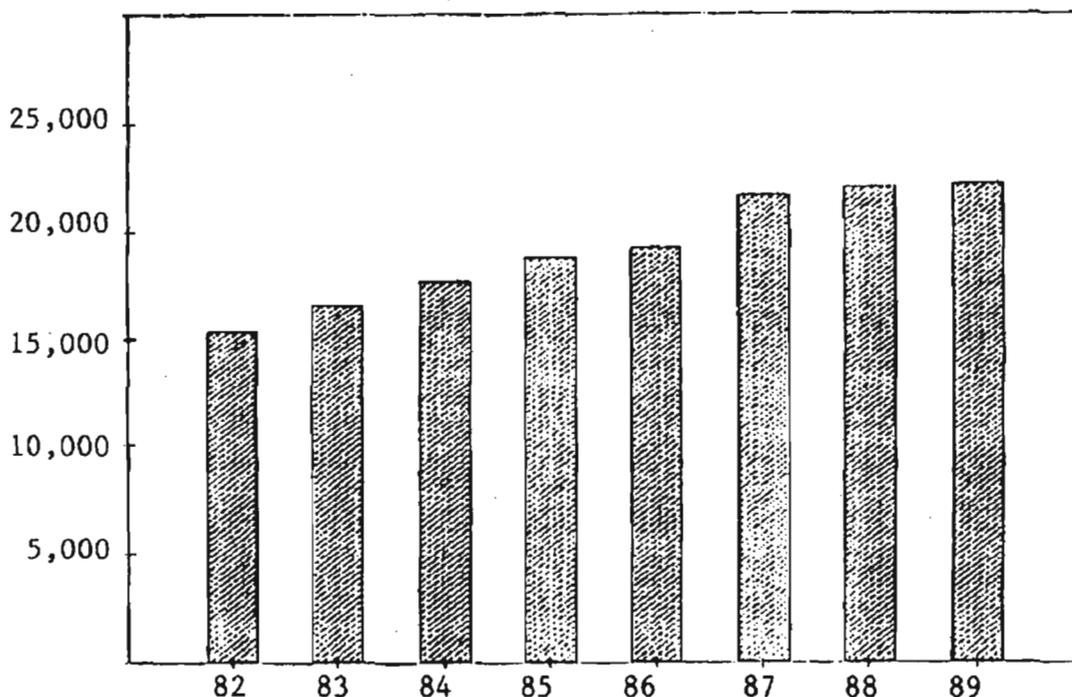


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~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//XI~~

(C) Along with money came people – lots of them. NSA's total population rose by 40 percent during the 1980s. Beginning with 19,018 in 1983, the Agency's population peaked in 1990, just before the collapse of the Soviet Union, at a total of 26,679. The dramatic rise was across the board, civilian and military, but was most pronounced on the civilian side (see Table 22). While the military component rose 24 percent, the civilian side increased by 46 percent.<sup>26</sup>

(C) Table 22  
NSA's Full-Time Civilian Strength, 1982-1989<sup>27</sup>



(U) Almost a thousand billets came to NSA in 1986 as the result of a decision by the General Services Administration to turn over support operations. Part of a broader plan to relinquish maintenance to single-tenant government-owned facilities, the GSA plan for NSA involved both maintenance (542 billets) and security guards (381 people). In October of 1985 Terence Golden, administrator of GSA, met with General Odom, and in April of 1986 Odom formally accepted the plan.<sup>28</sup>

(U) The hiring glut took place mostly at the lower grades, but NSA's average grade level stayed in the range of GG-10, substantially higher than the government-wide average. What took place to level it out was rapid promotions. The 1980s saw a major surge in promotions, with a dramatic spike in fiscal year 1985. But the downside was the slide in average experience level, as new hires replaced old hands.<sup>29</sup>

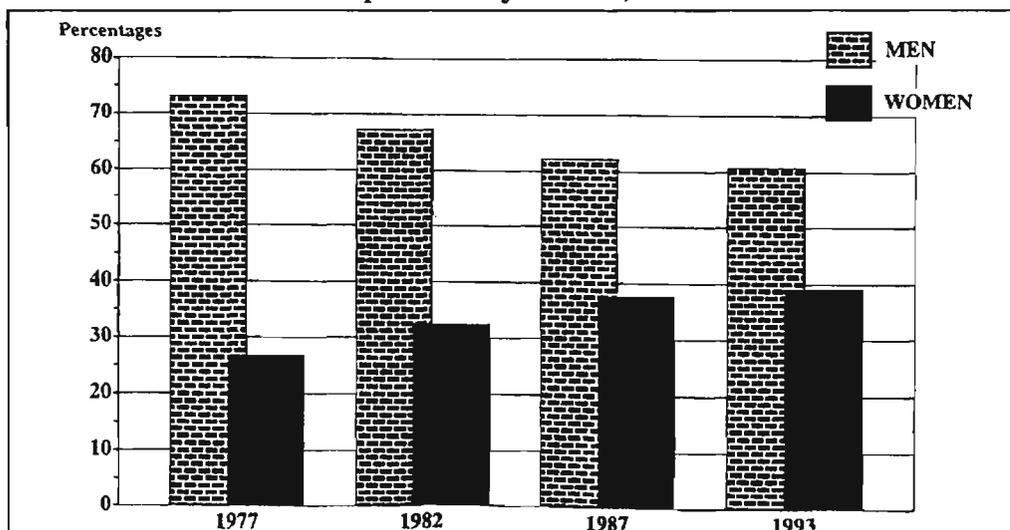
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(U//FOUO) In the light of the rapid civilian hiring program, the military contribution to cryptology became a source of concern. As the percentage of the military population declined, its influence would also inevitably decrease, along with military cryptologic experience levels. This could unfavorably impact support to military operations. Moreover, rapid civilian hiring was taking place primarily out of colleges, and military conversions, once a dominant source of civilian manpower, had declined by 1982 to 6.7 percent of all hiring actions. In 1988 Dr. James Donnelly headed a panel that looked at military manpower in the cryptologic system. Donnelly's main concern was the increasing congregation of military billets at the front end of the system, leaving very few at NSA, where much of the "technology transfer" had to take place.<sup>30</sup> EO 1.4.(c)

—(C)—The fastest-growing segment of NSA's population during the 1980s was actually the part-time work force. A product of the Carter administration, the part-time segment grew [redacted] This explosive growth outstripped all other hiring areas, and a significant percentage of hiring actions (8.7 percent in fiscal year 1982) came from part-time to full-time conversions. One major reason for the increases in part-time employees was that NSA management discovered that they did not count against the Agency's official strength. It was thus a way to increase personnel without appearing to do so.<sup>31</sup>

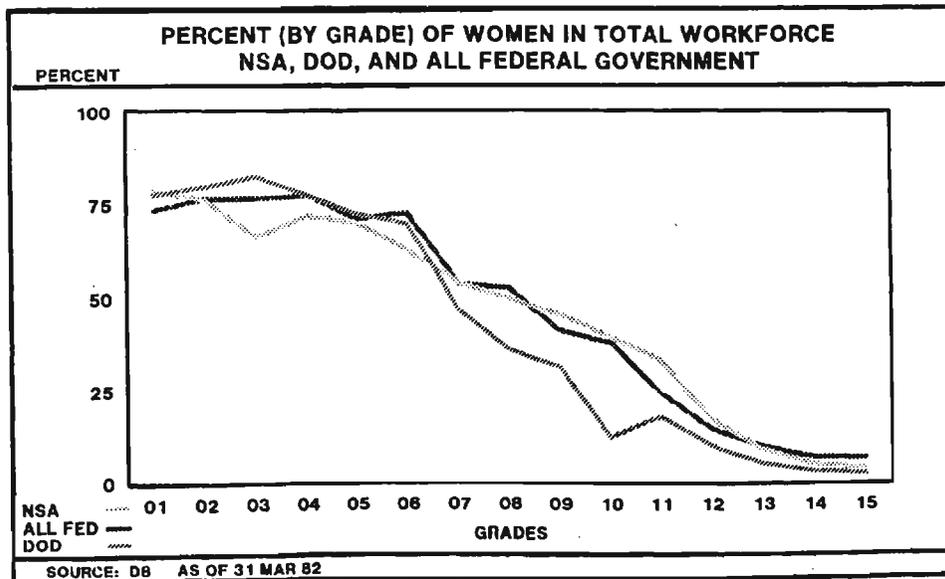
(U) As the work force grew, so did the percentage of women and minorities on the rolls. From 1977 to 1993, for instance, the percentage of women at NSA grew from about 26 percent to 39 percent (see Table 23). But the percentage of women by grade declined dramatically as grade rose, even though the decade opened with NSA's first female deputy director, Ann Caracristi. Women constituted a majority up through grade eight, but at that point the chart dipped dramatically, and women made up less than five percent of the grade fifteens. This compared closely with the overall government statistics, as Table 24 shows.

(C) Table 23  
NSA's Population by Gender, 1977-1993<sup>32</sup>



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(U) Table 24  
 Percentage of Women by Grade at NSA, DoD and Federal Workforce<sup>33</sup>



(U) The concentration on college-level hiring increasingly tipped the scales toward a more highly educated workforce. In the ten fiscal years from 1972 to 1982, for instance, the percentage of employees with college degrees increased 24 percent, while those with advanced degrees increased 125 percent. Those with less than two years of college actually declined by 22 percent.<sup>34</sup>

(U) More people required more space. And as personal computers became more common (during the decade 70 percent of the workforce was provided with a PC), people tended to require larger offices. So NSA launched an unprecedented building boom which resulted in the addition of 240,000 square feet per year during the decade. Much of it was leased space. The International Tower Building came under an NSA lease in 1980. The following year the Agency began leasing the new Airport Square buildings, which were replacing woods and fields in the vicinity of the FANX complex at BWI.

That same year General Faurer broke ground on Ops 2A and Ops 2B, which were dedicated by President Reagan five years later. In 1990 the new Research and Engineering building was dedicated, to add to the Special Processing Lab (opened in 1988) and numerous leased facilities in the general Fort Meade vicinity. (see Table 25)<sup>35</sup>

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(U) Construction of Ops 2A

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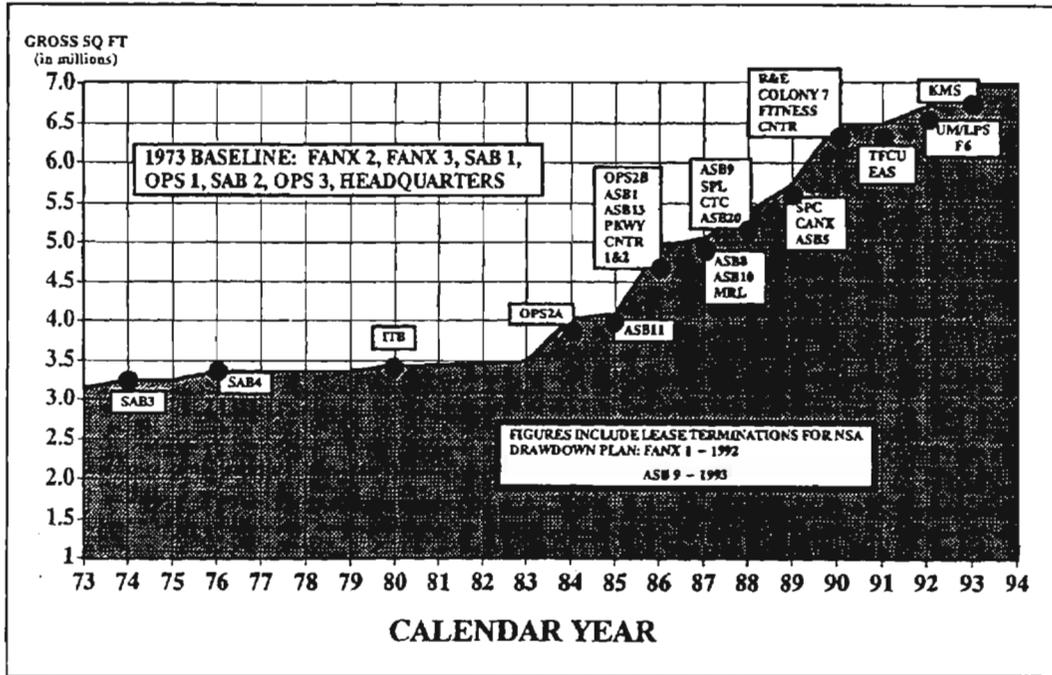
(U) Dedication of Ops 2A and 2B by President Reagan

(U) One solution to the space problem was to go upward. In 1983 NSA awarded a contract to American Seating Company to provide and install systems furniture, which would permit the workforce to add personal computers and other office aids without increasing floor space per person. The original contract provided for some 8,000 workstations at a price of about \$5 million. But it was only the beginning, and by 1993 approximately 20,000 workstations had been installed at a cost of \$60 million. This improvement came in the late stages of an earlier movement to provide raised flooring. Begun in the basement of Ops-1 in the 1960s, raised flooring was originally installed only in rooms with computer mainframes. As smaller computers took over the Agency, people got tired of tripping over cables strung across tile floors from one machine to another. Slowly, workspaces were vacated and raised flooring installed. By 1993 some five million square feet of raised flooring had been installed in NSA buildings at Fort Meade. It not only got unsightly and potentially dangerous electrical cables off floors; it had the attendant benefit of providing carpet tiles, which reduced noise (and looked nicer).<sup>37</sup>

(U) In the early days Fort Meade had been serviced (excepting only the Baltimore-Washington Parkway) by narrow, winding roads going east and west to bedroom suburbs

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

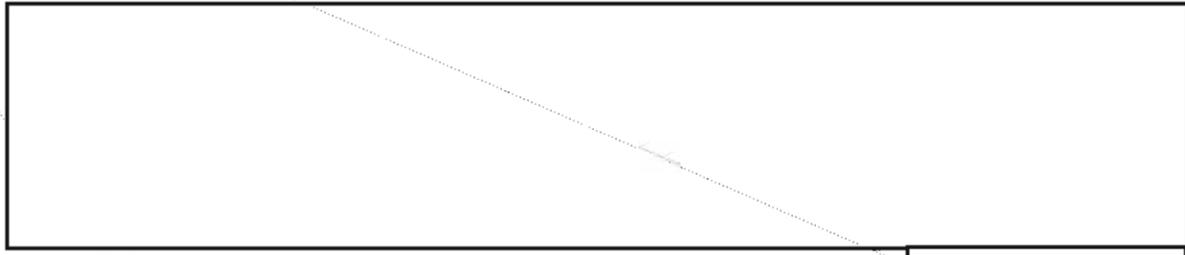
(U) Table 25  
Growth of NSA Space from 1973 to 1994



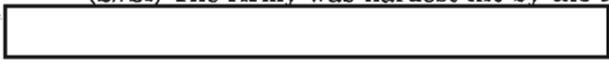
of Severna Park, Glen Burnie, Laurel and Columbia. The drive to either Severna Park or Columbia commonly took half an hour or more, much of it spent waiting in a long snake of cars twisting through the Maryland countryside. With NSA population projections going virtually through the roof, NSA began looking at an environmental overhaul. In the early 1980s the State of Maryland began widening Route 32 both toward the east and west. It was called the Patuxent Freeway project, and as sections became functional in the late 1980s and early 1990s, traffic congestion around Fort Meade declined (but didn't go away).<sup>38</sup>

EO 1.4.(c)

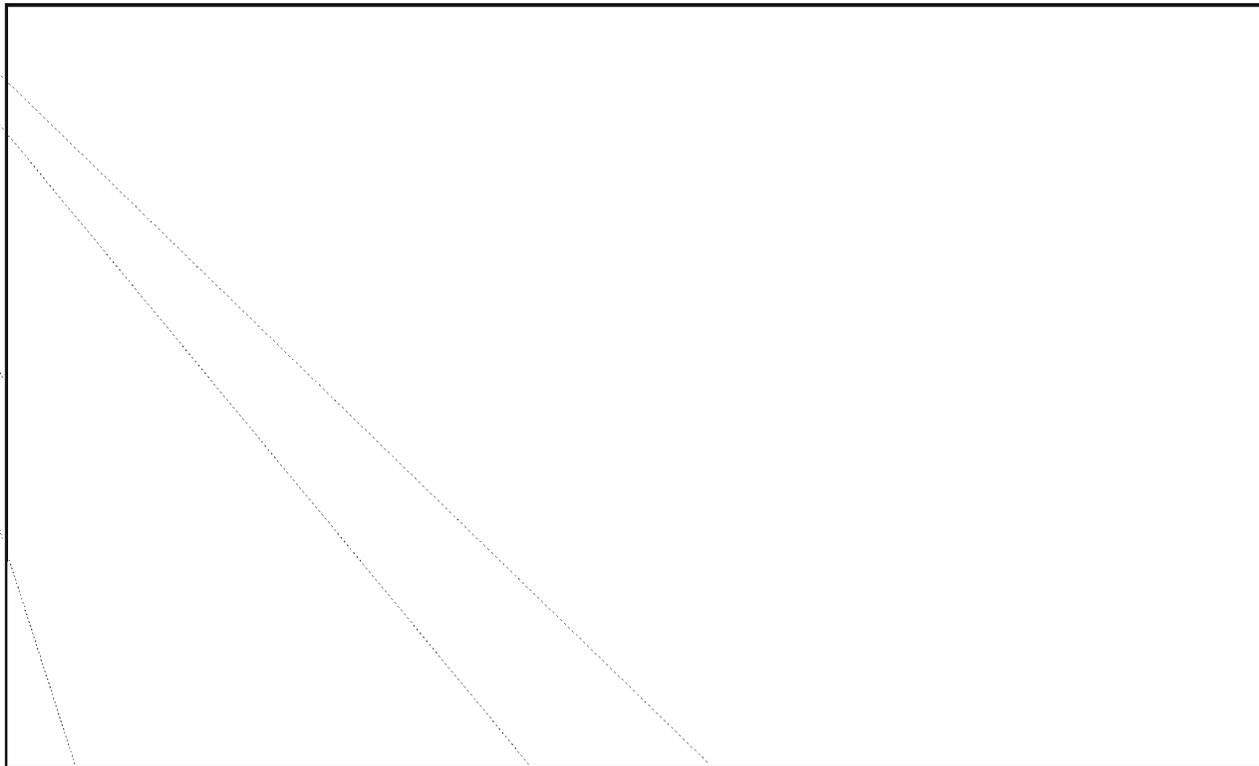
(U) THE CRYPTOLOGIC SYSTEM IN THE 1980s



(S//SI) The Army was hardest hit by the reductions of the 1970s.



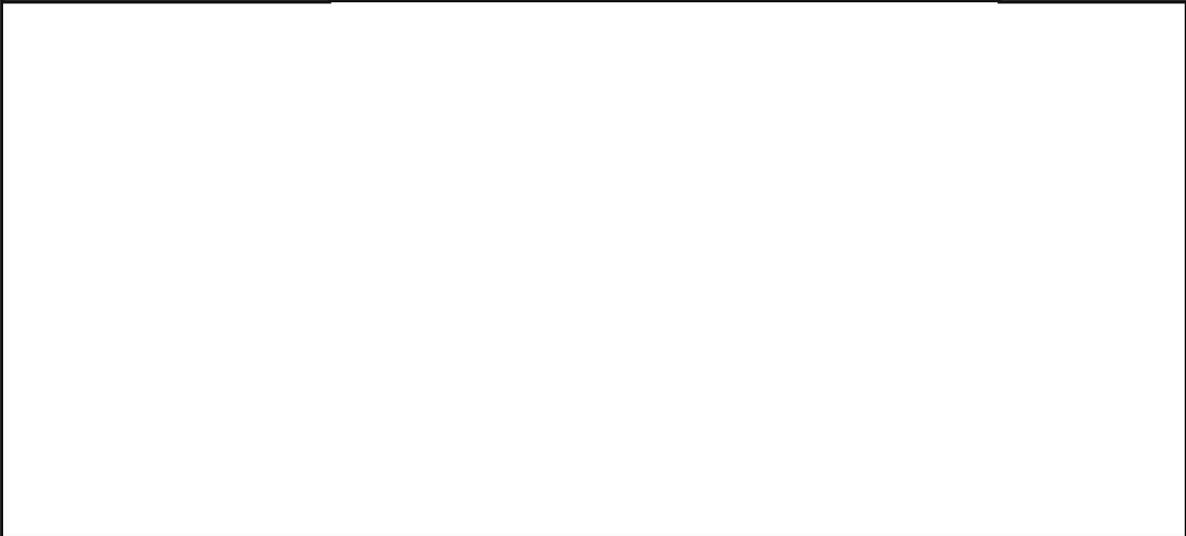
Gone were five sites in Southeast Asia and



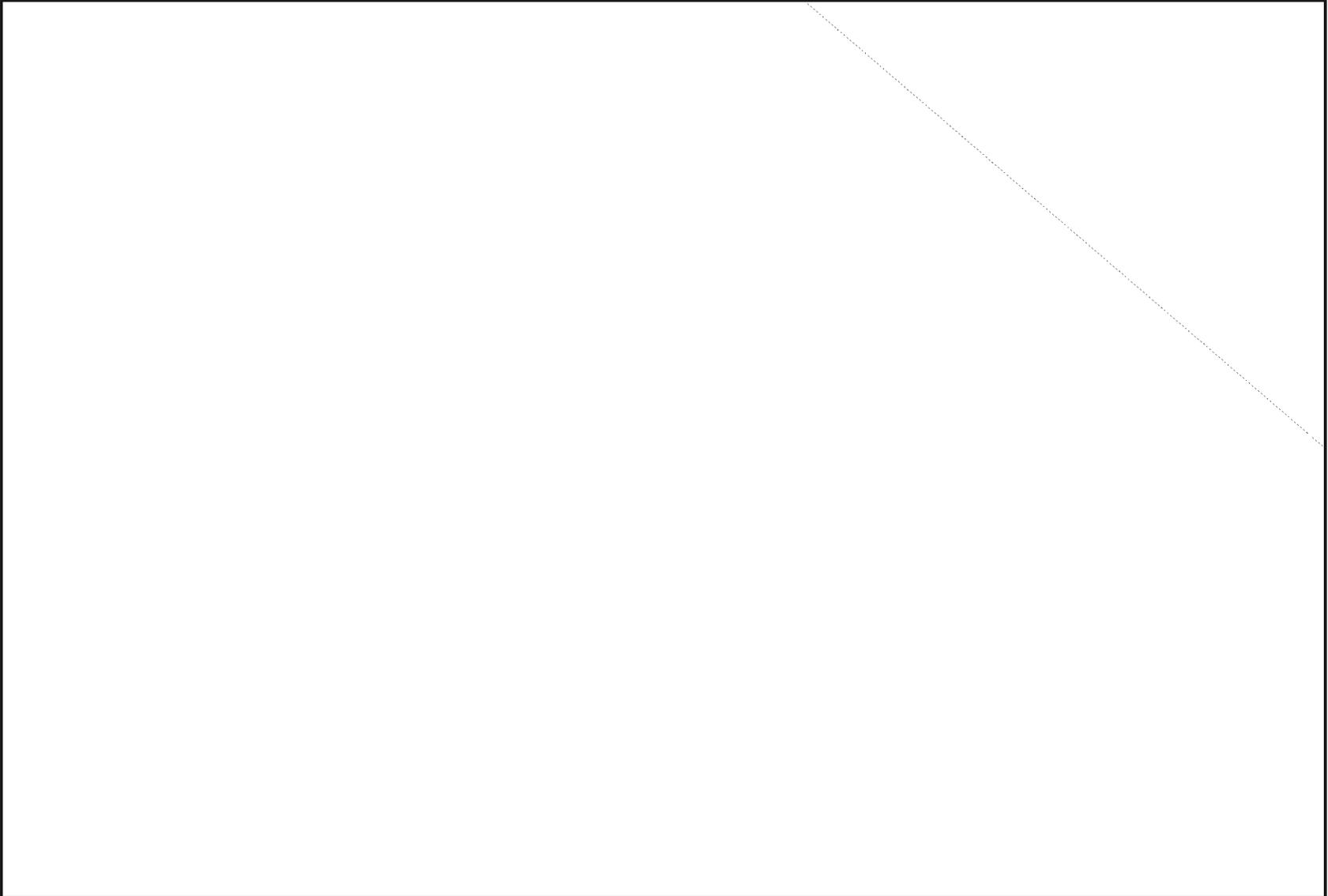
[redacted] plus scattered locations in [redacted] Virginia and California. The only true addition was the INSCOM component of the cryptologic conglomerate at Kunia. To a degree this reflected the fact that Army SIGINT collection was the least technologically sophisticated of the services (see map page 280).

(S//SI)

[redacted]  
Security Service lost three sites in Southeast Asia, [redacted]



EO 1.4.(c)



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**(U) The FSCS Study**

~~(TS//SI//TK)~~ In 1983 NSA began a study of the increasing cost of the system

[redacted] its conclusions caught the attention of the DCI and Congress, and in December of that year Vice Admiral Burkhalter, director of the Intelligence Community Staff, established the Future SIGINT Capabilities Study (FSCS). Burkhalter broadened the study to the entire SIGINT system. The objective was to match existing and programmed systems against assumed target changes and to identify the gaps. Phases I and II would look at everything [redacted]<sup>39</sup>

~~(C)~~ The resulting documents highlighted the increasing technological sophistication of the targets, and they marked a watershed of sorts. It was no longer possible to think of the SIGINT system in the same terms as professional cryptologists had thought of it since World War I. [redacted]

~~(S//SI)~~ The study focused on target changes that would affect collection and processing.

[redacted]

[redacted]

~~(S//SI)~~ Though FSCS concentrated on hardware and software, it did stray into manpower implications. [redacted]

[redacted] Moreover, the skill mix would move rapidly into high-tech areas, and the people hired would be engineers, cryptomathematicians, and computer systems designers. The armed services did not produce people like that - NSA would have to hire increasingly from colleges or private industry to find the kinds of people it needed. Retention would be more difficult as NSA would have to compete with private industry for college-trained

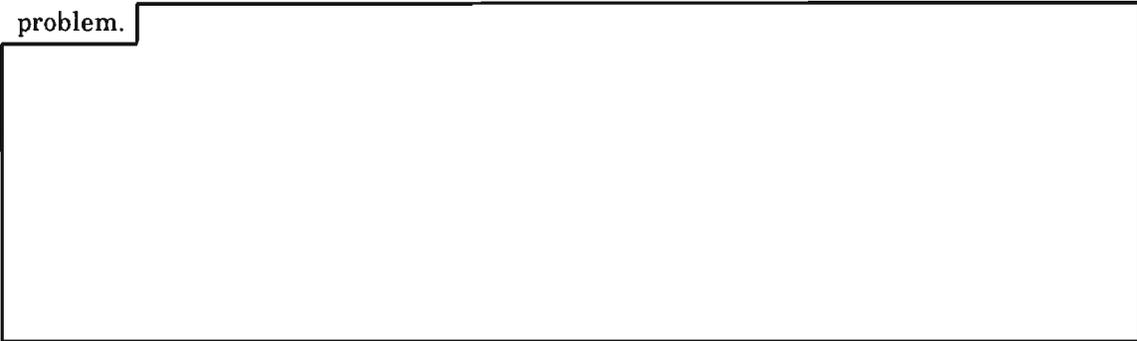
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EO 1.4.(c)

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technical people. The federal salary structure simply could not compete in these areas – job satisfaction would have to be the carrot.<sup>40</sup>

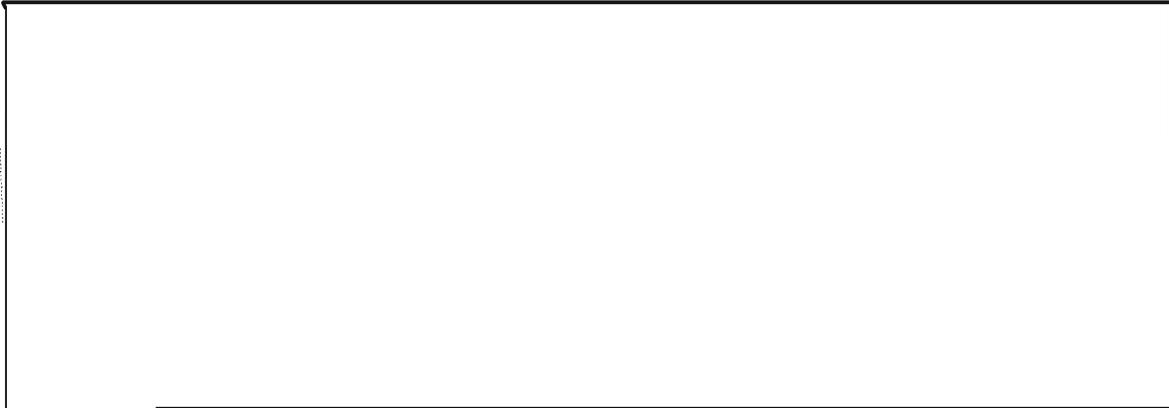
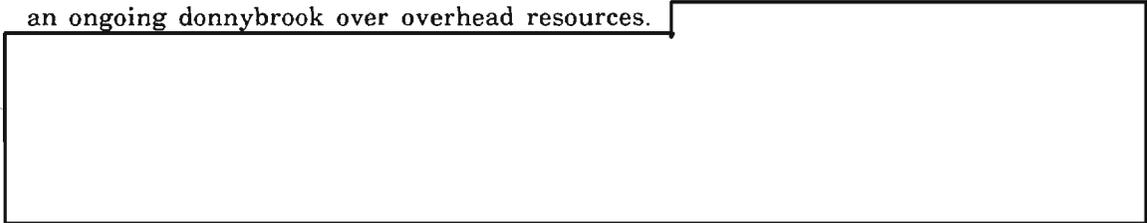
~~(TS//SI//TK)~~ To a workforce of the late 1990s grown accustomed to the new communications challenges, this sounds very familiar. In the mid-1980s, it was visionary. The FSCS study spawned a plethora of committees looking at various aspects of the problem.



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EO 1.4.(d)

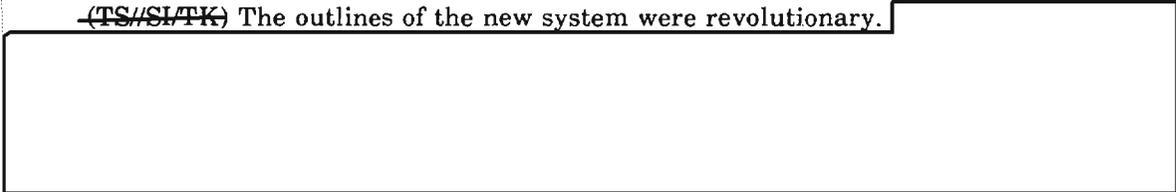
**(U) "Battlestar Galactica"**

~~(TS//SI//TK)~~ The plan for an overall SIGINT system was dependent on the resolution of an ongoing donnybrook over overhead resources.



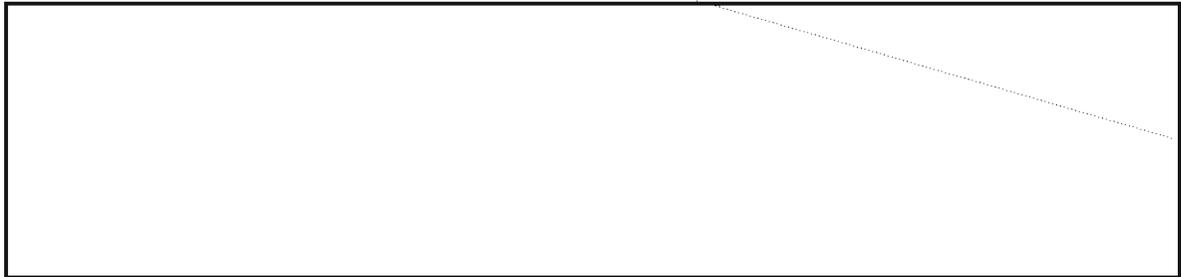
The proposed system was so grandiose that it was referred to by Admiral Inman as "Battlestar Galactica."<sup>42</sup>

~~(TS//SI//TK)~~ The outlines of the new system were revolutionary.



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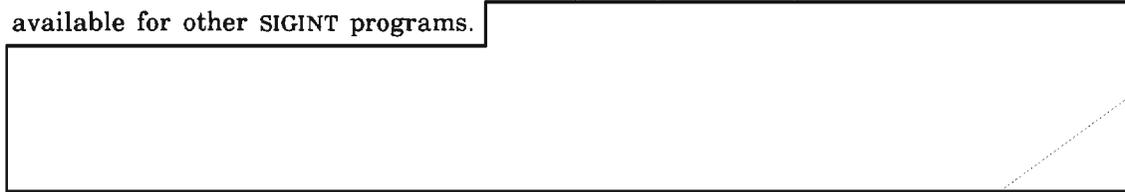


~~(S//SI//TK)~~ NSA, being the signal processing organization, participated in all the system discussions and studies. The Agency generally kept its political opinions to itself, confining its advice to technical assessments of the feasibility of various approaches. Robert Hermann, director of NRO in the early 1980s, once said "NSA didn't care, shouldn't have cared."<sup>45</sup> But under the surface there was growing concern at the Agency about costs. An NSA advisory board wrote to General Odom in July of 1985 that SIGINT satellite costs in the National Reconnaissance Program were growing so fast that they could squeeze out some favored programs in the CCP. It would be a good idea to get a handle on satellite program costs, and soon.<sup>46</sup>

EO 1.4.(c)  
EO 1.4.(d)

~~(S//SI//TK)~~ In fact, NSA's role in the overhead system was not so sterile as it appeared from the outside. Within the vortex was a fierce bureaucratic battle to control the SIGINT satellite business. Part of this undoubtedly stemmed from the philosophy of SIGINT management that NSA had always lived by. In the United States, SIGINT was monolithic, and control was vested in a national manager. But the overhead business was controlled by the NRO, and when NSA tried to intervene, either to manage the satellite planning and programming, or to exercise day-to-day direction over satellite operations, it was on NRO's turf.

~~(TS//SI//TK)~~ But viewed from NSA's perspective, the issue revolved around a management system that was inefficient from a cost standpoint. NSA managers believed that NRO was paying far too much to its favored contractors for satellite system design, launch and operation, and that this was impacting on money that should have been available for other SIGINT programs.



EO 1.4.(c)

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~~(TS//SI//TK)~~ Despite disagreements at the top, NSA and NRO managed to cooperate in the creation of a new system tasking center, the Overhead Collection Management Center (OCMC). It resulted from a July 1983 conference between [redacted] (chairman of the SIGINT Committee), Robert Rich (deputy director of NSA) and Jimmy Hill (deputy director of NRO). [redacted] could not secure agreement even in such a small group, so he wrote a memo to John McMahon (deputy DCI) proposing a new joint tasking center on the DEFSMAC model. (Attached to the memo was a two and a half page nonconcurrency from Hill. [redacted] presented McMahon with three options, and McMahon selected one which created an OCMC at NSA headquarters, and permitted DIRNSA to name the director, the director of NRO to name the deputy, and the DCI to name the chief of requirements. This permitted conflict resolution at a technical level, and resulted in a joint organization that soon proved its worth.<sup>48</sup>

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~~(TS//SI//TK)~~ Disputes over satellite system control continued into the program. [redacted]

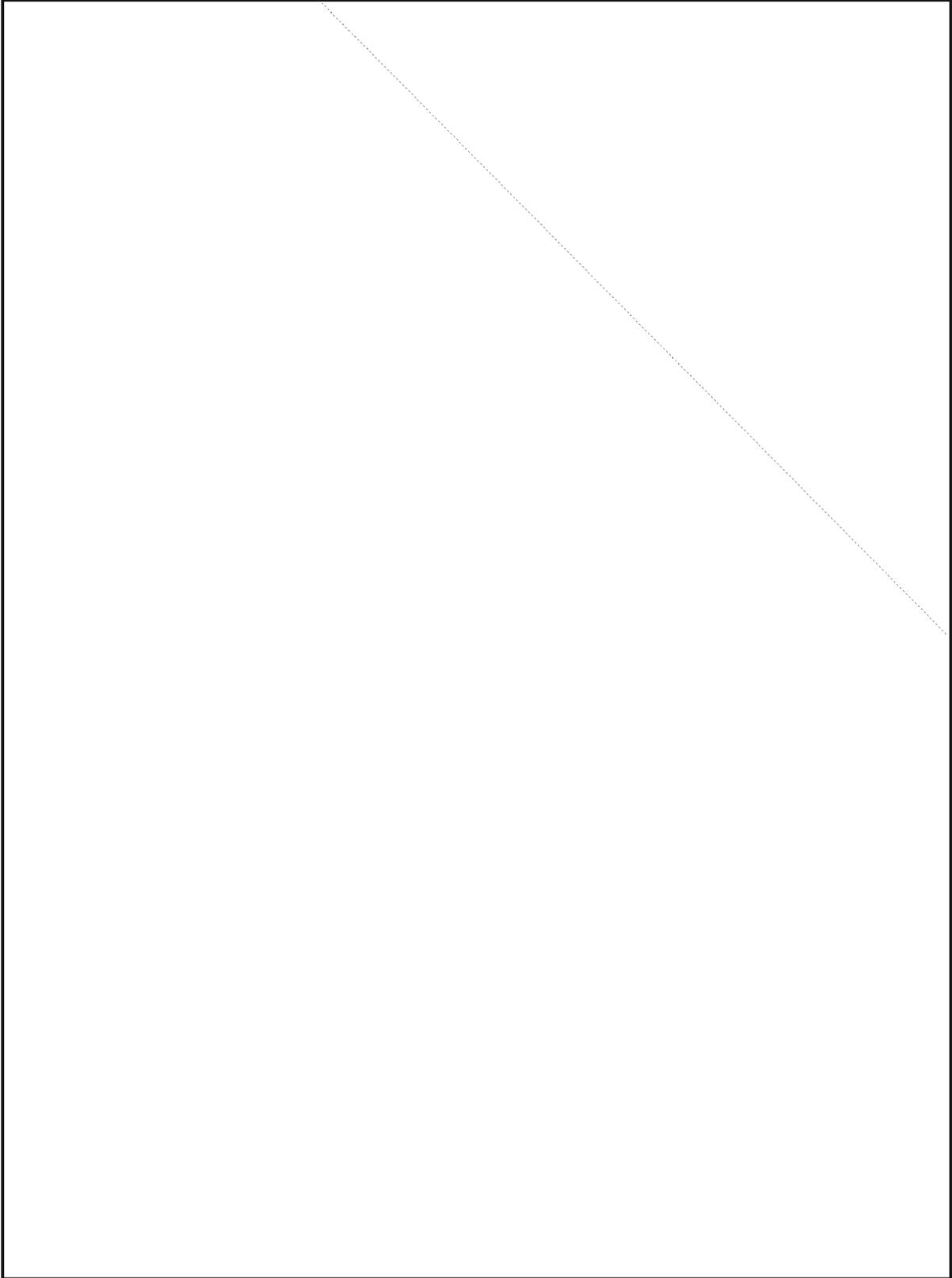


(U) George Cotter



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~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//XT~~



~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//XT~~

[Redacted]

[Redacted]

—(TS//SI//TK) In the fall of 1987, after a war of paper between NSA and the intelligence community staff, General William Odom took NSA's case to Congress. He had several complaints.

[Redacted]

EO 1.4.(c)

And he did not like the vast sums required. "I thought [the new system] was sheer robbery of the public purse," he said later.<sup>55</sup>

—(TS//SI//TK) Much of NSA's dislike came down to system control. Odom felt that NSA's views had not been taken into account by NRO. He viewed NRO as a vast bureaucracy in which two programs, A and B, warred with each other, to the detriment of the national SIGINT manager. NRO tended to view the issue as a simple competition between a new program on the one hand, [Redacted] on the other. NSA looked at it in the context of the entire SIGINT system, and from that perspective a decision that seemed right to NRO looked wrong to NSA.<sup>56</sup>

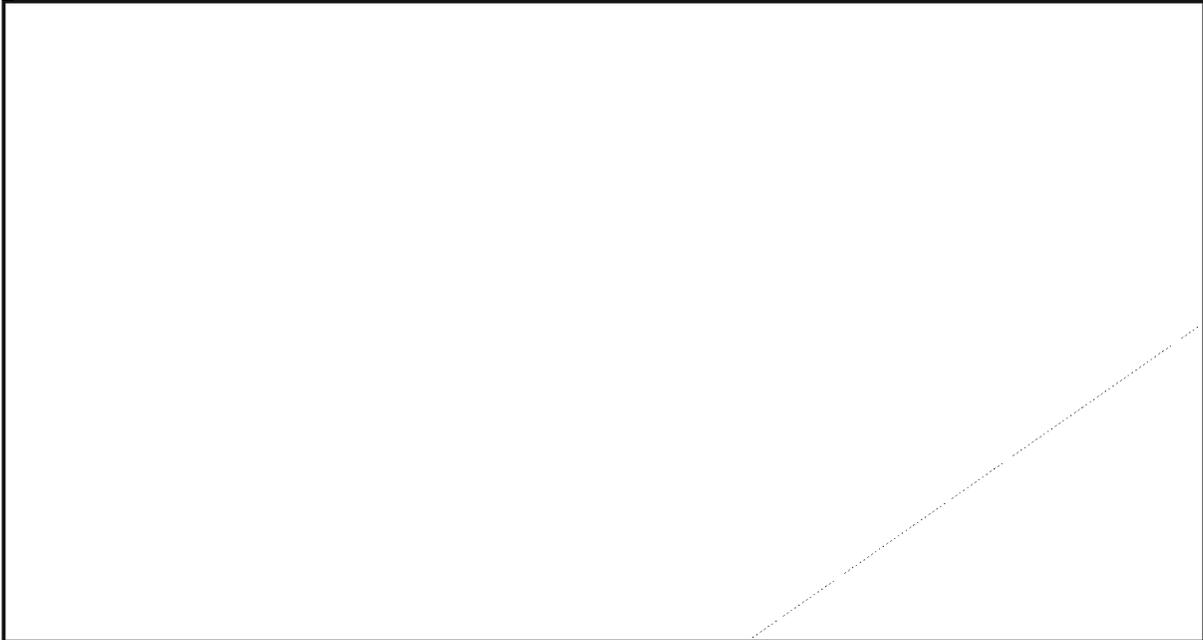
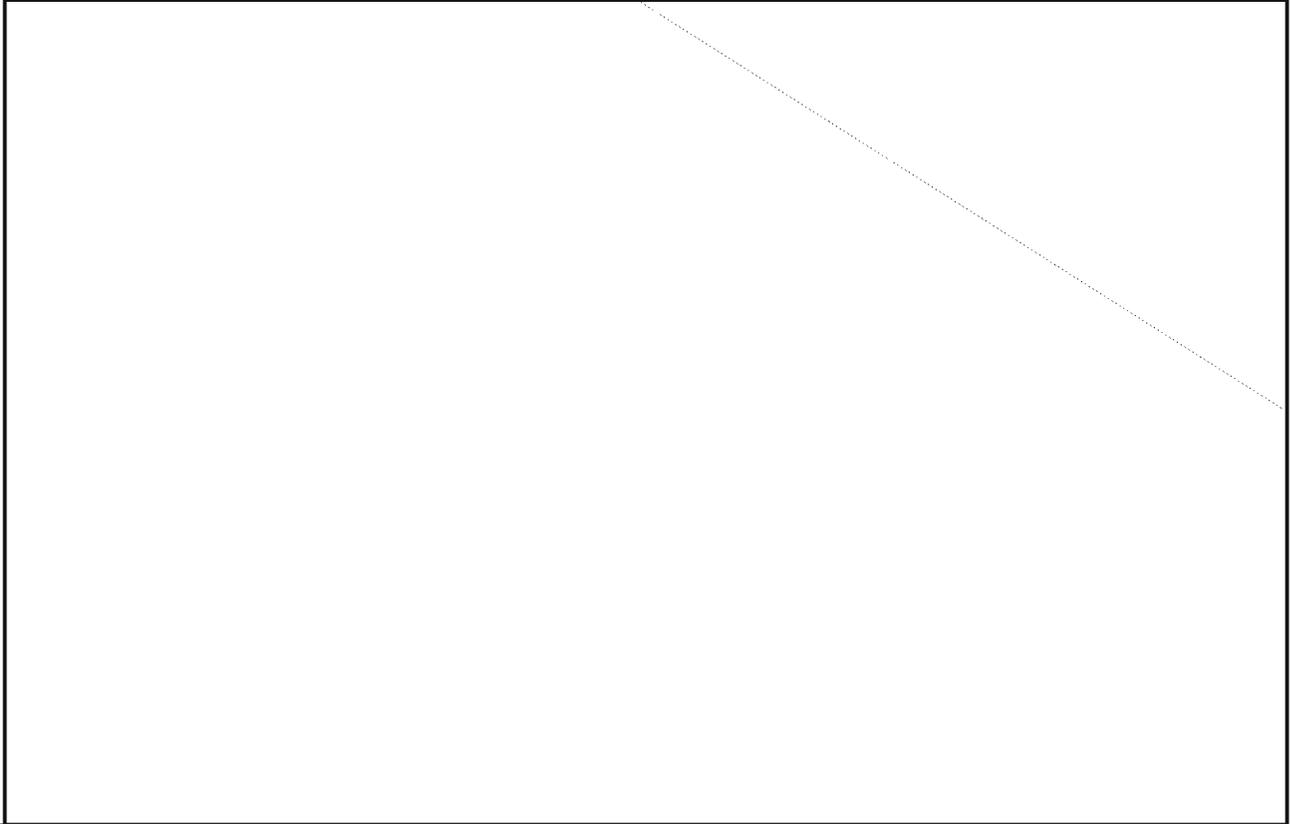
(TS//SI//TK) In January of 1988 the new DCI, Judge William Webster, cancelled the new system. In a letter to Senator David Boren of the SSCI, he explained that recent budget cuts put too much of a squeeze on the program. The NRO could save [Redacted] by not deploying it, and intended to do so. What he did not say was that NSA, the chief operator of the SIGINT system, was now in active opposition. But this was not news to Boren, owing to Odom's testimony on Capitol Hill.<sup>57</sup>

EO 1.4.(c)  
EO 1.4.(d)

(U) Comsat

[Redacted]

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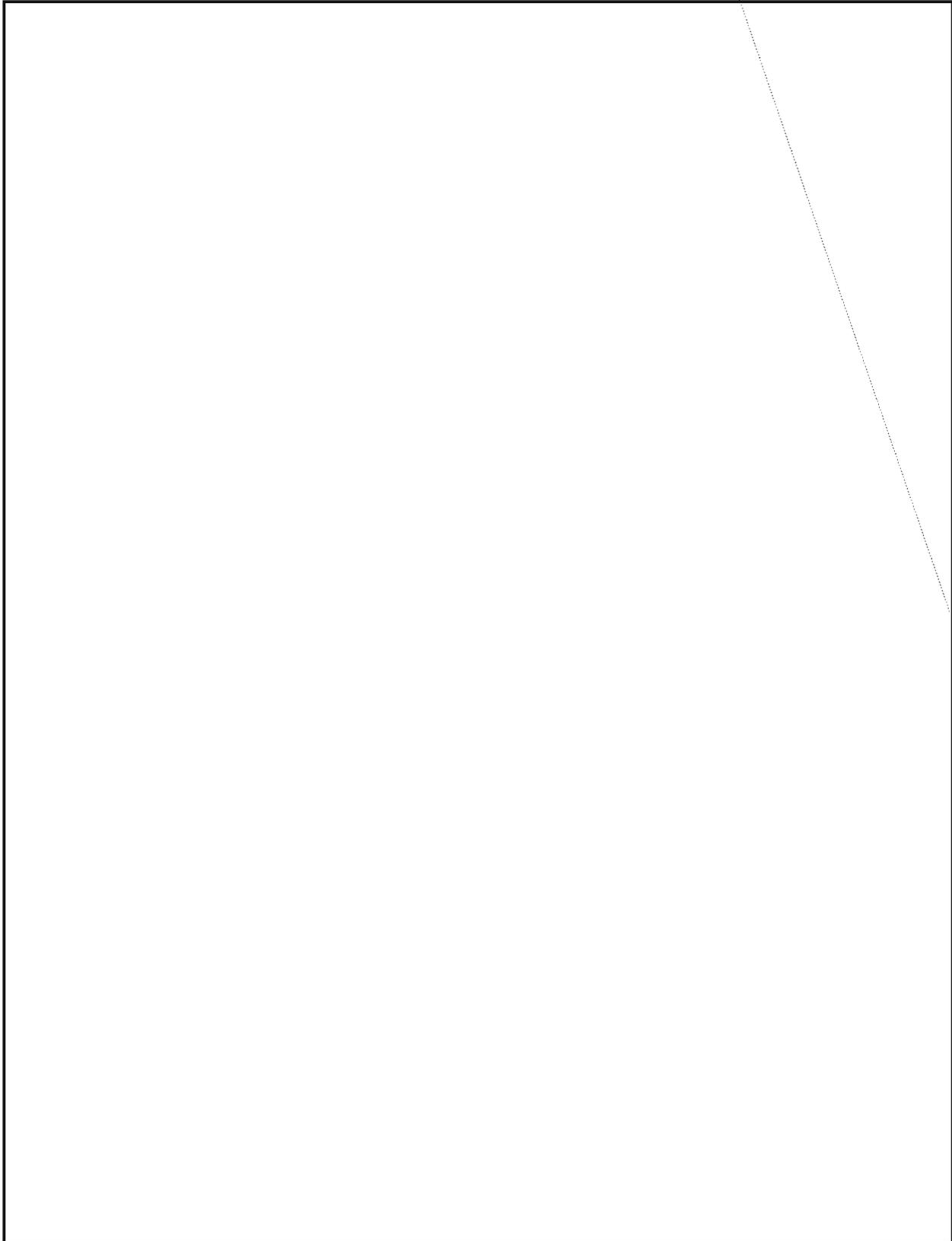


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EO 1.4.(d)

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**(U) Cryptologic Communications**

~~(C)~~ No area of cryptologic operations was expanding faster than communications. A chart of communications capacity from 1973 to 1993 (Table 28), [redacted]

[redacted]

Yet the system was being operated by about the same number of people as it had required twenty years earlier.

~~(S//SI)~~ Table 28

**Cryptologic Communications, 1973-1993**

EO 1.4.(c)

	[redacted]
Worldwide capacity	[redacted]
Number of circuits	[redacted]
Messages annually	[redacted]
Secure phone systems	[redacted]
Instruments	[redacted]
Cost of communications	[redacted]
Manpower	[redacted]

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EO 1.4.(c)

(U//~~FOUO~~) NSA had become the largest single user of the DSSCS system, and by the early 1980s had outrun the ability of the DoD system to support it. The only answer was to lease large numbers of commercial circuits, from landline and microwave to satellite.<sup>65</sup>

(U//~~FOUO~~) Internally, NSA replaced its communications terminal system under a new project called EMBROIDERY. Under EMBROIDERY every communications terminal became a computer, just as field site collection positions were being computerized. Using off-the-shelf IBM equipment, NSA outfitted its [redacted] IDDF/[redacted] [redacted] TIDEWAY, and DAYSEND communications systems with new equipment and new methodology. [redacted] replaced STREAMLINER, which had been deployed in the mid-1970s.<sup>66</sup>

(U) NSA's impressive communications design capability was sometimes employed in the service of other organizations. This was the case with a system called Umstead, a commercial design originally adapted for government use by an NSA engineer named [redacted] to transmit voice and data via satellite. It was light, mobile and inexpensive, and looked like the answer to an Army tactical communications problem. The Army's problem came into rather stark relief during a large 1981 exercise called Crested Eagle. Army tactical forces simply lacked enough communications channels to carry what they needed, and intelligence got such a low priority that little of it got to the

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customers. Sixty percent of the signals intelligence traffic had to be couriered, and much of it was still in courier two weeks after the exercise had ended.

(U) Through mid-decade, top Army field commanders insisted that Umstead would solve the problem. But it was opposed by Signal Corps generals on somewhat obscure grounds, and was never purchased. Umstead was used on a few occasions by NSA, but never achieved its true potential, and wound up sitting on the shelf.<sup>67</sup>

#### **(U) Cryptologic Computers**

(U//~~FOUO~~) If the 1960s and 1970s were the era of mainframe computers, the 1980s were an era of small systems. By the late 1970s the mainframes at Fort Meade were becoming so congested that they looked like the Beltway at rush hour. As access time increased, a movement away from mainframes accelerated. In the early 1980s computer companies were beginning to produce personal computers in large quantities at low prices, and NSA managers began defecting to these systems. Kermit Speierman and Walter Deeley were early proponents of personal computers and off-the-shelf software.

(U//~~FOUO~~) The improved efficiency and cost effectiveness of the computer-on-every-desk approach was counterbalanced by a strong trend toward nonstandard equipment and software. With so many products available in stores, it was difficult for NSA's computer people to keep up. The driver was maintenance: when hardware and software malfunctioned, it was impossible to keep everything running. Moreover, central control over formats, file access, etc., the basis of the cryptologic system's effectiveness, could be lost. Chaos could be the result.<sup>68</sup>

(U//~~FOUO~~) To save the situation, NSA tried to standardize PC hardware. In 1984 it issued a request for proposal for an Agency Standard Terminal Workstation (ASTW). The IBM PC XT, a relatively new entry in the world of personal computers, won the award. It was a big win: the contract was ultimately valued at \$199 million, and NSA bought 21,000 units. The next year the Agency awarded a contract for an Agency Standard Host (ASH), which would interconnect the ASTWs. American Telephone and Telegraph won the contract, valued at \$150 million. Seven hundred twenty systems were finally sold to NSA.<sup>69</sup>

(U) In the early days, most personal computers ran on the DOS operating system, but it was not suitable for internettted systems. Kermit Speierman of NSA discovered that Bell Laboratories had devised an operating system called UNIX, which was at the time the only system that operated in a multi-user, internettted environment. UNIX became the dominant operating system in the 1980s.<sup>70</sup>

(U//~~FOUO~~) Computer power was the essential ingredient in cryptanalysis. In the 1970s NSA had forged ahead with the help of supercomputers, first from Control Data Corporation (CDC) and later from Cray. But the early 1980s were a period of tension in the supercomputer business. The Japanese were rumored to be about to enter the business, and in view of their devastating impact on the commercial VCR business, there

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was a potential threat to national security if American supercomputer companies were to be bested or even driven out of business. These problems were part of the background noise of 1982, when NSA's Kermit Speierman was doing some work at Los Alamos and talking to scientists there about NSA's computer power problems. The outgrowth of those discussions was a decision to jointly host a conference at NSA in 1983 on supercomputer problems. Called "Frontiers in Supercomputing," the week-long conference focused on how to design and build faster supercomputers. It was clear that serial processing would not be fast enough – the industry needed massively parallel processing to have a chance of staying ahead.<sup>71</sup>

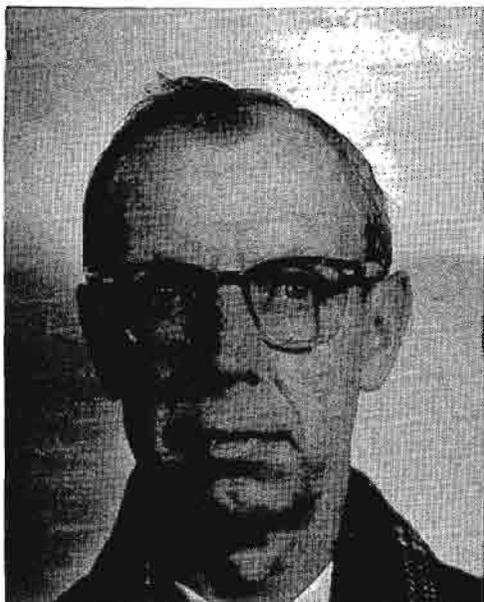
(U//~~FOUO~~) General Faurer, who gave the closing speech, had become convinced that a permanent institute was needed, and asked Speierman to create one. Working through an NSA committee, Speierman put together a concept for a Supercomputer Research Center. Faurer needed \$16 million and a lot of executive push, so he briefed the outlines of the research center around Washington. He was able to muster support from every quarter but the JCS and the Office of the Secretary of Defense, where his boss, William Taft, was staunchly opposed. But Taft was ultimately outflanked, and NSA began looking for a home for the center. Although Boston and North Carolina were considered, NSA finally selected the nearby Bowie area, and on November 27, 1984, Maryland governor Harry Hughes announced from the steps of the State House in Annapolis the creation of the Supercomputer Research Center.<sup>72</sup> The center would not have survived without Faurer's forceful intervention at the DoD level. Said Speierman several years later, "...he was completely convinced. I think that's a real tribute to him. And he never flinched from that conviction. Without that 100 percent conviction on his part...I don't think any of this would have happened."<sup>73</sup> It was one of the disputes with Taft that resulted in Faurer's early departure from NSA.

### **(U) Computer Security**

(U) In 1965 a small computer science firm called SDC of Santa Monica, California, became concerned about security of their computer products. With computer networking in the offing, computer files could become vulnerable to unauthorized users, almost as if a safe had been jimmed. SDC hosted a conference attended by several computer companies and by the head of the Rand Corporation computer sciences division, Dr. Willis Ware. Ware quickly took the lead on the issue.<sup>74</sup>

(U//~~FOUO~~) Ware, as it happened, sat on NSA's Scientific Advisory Board, and called General Carter to tell him that he was about to get a hot new issue on his plate. Contending that NSA was the only agency in the federal government that had the technical expertise, Ware plugged for the Agency's direct involvement. The issue bubbled slowly for two years, but in 1967 the Defense Supply Agency (DSA) at Cameron Station, Virginia, made a formal request to the secretary of defense that NSA be named the computer security authority. This was followed in short order by requests from several other federal agencies. NSA first became involved with these requests on a voluntary basis – it had no charter to do this unless cryptographic equipment was involved, and

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(U) Dr. Willis Ware

in this case it wasn't. Nor did NSA have an organization officially tasked with the job. The DSA request to the secretary was still pending and had generated a lot of controversy within NSA. Many felt that NSA should avoid the task.

(U//~~FOUO~~) Having dodged responsibility for the new COMPUSEC mission for several years, NSA finally made a partial step in 1969 with the issuance of a memorandum by the deputy director, Louis Tordella. Noting that NSA possessed no official responsibility, Tordella nonetheless acknowledged that a moral responsibility was involved. Thenceforth, NSA would provide assistance to other intelligence community (IC) organizations based on experiences that NSA had had with its own systems. NSA would not assist non-IC organizations.<sup>75</sup>

(~~C~~) In 1972, the consequences of continued inaction were starkly illustrated by an incident involving DIA. The Defense Intelligence Agency had created several intelligence community databases designed for multilevel security access, and DIA contacted USIB about running a security check of the system so that they could get their systems accredited for SI and TK information. NSA and other members of the intelligence community, with participation from defense contractors, obliged. By the time the attacks terminated, the penetration was so thorough that a penetrator at a distant remote terminal had actually seized control of the system. DIA never got its accreditation, and the results of the exercise made many at NSA skeptical that multilevel security could ever be achieved.

(U//~~FOUO~~) NSA's role in computer security expanded in 1973. Needing a focus for research on the subject, Tordella named the ADC (assistant director for comsec) as the responsible official, and ADC established a small center for technical information on the subject, specifically to support federal agencies. Despite Tordella's decision, however, little happened through the end of the decade. Lew Allen requested sixty-seven billets for the fiscal year 1975 program, but was turned down, in part because NSA's role was still controversial.<sup>76</sup>

(U//~~FOUO~~) Late in the decade an OSD staffer and former NSA employee, Stephen Walker, approached Bobby Inman about the computer security mess. Walker explained that in OSD there was a strong feeling that NSA should expand its effort and become the office of primary responsibility for computer security in the federal government. However, Walker personally opposed locating the organization within COMSEC. Inman agreed and asked George Cotter, the assistant director for telecommunications, to take on the task.

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Working closely with Walker, Cotter set up the Computer Security Center as a separate organization. It was formally created on the first of January, 1981, as the Department of Defense Computer Security Center, with a small staff working directly for Cotter. Originally it was to have a separate building, to be located in the parking lot outside Ops-3 on the main Fort Meade campus. But, as often happens with money, the line item was diverted, and went into construction of the Special Processing Laboratory. In the end, the center never got its own building, and it continued to operate out of borrowed spaces.<sup>77</sup>

(U//~~FOUO~~) NSA's role in computer security remained a lightning rod for dissent both within NSA and in the outside world. That role waxed and waned depending on the political winds. Under Reagan, it expanded, and under NSDD 145 the DoD Computer Security Center became the National Computer Security Center, with an expanded mission to bring computer security products to non-national security organizations. At the same time, Walter Deeley and Harry Daniels, who were running the COMSEC organization, convinced General Odom that COMPUSEC should be part of their organization, and so the Center was resubordinated to the (now called) DDI, responsible for INFOSEC, which included both COMSEC and COMPUSEC.<sup>78</sup>

(U) But NSDD 145 encountered congressional opposition, and it was overturned in 1987 by the Computer Security Act. This legislation split the mission between NSA and the National Bureau of Standards (NBS, which soon changed its name to NIST, National Institute of Standards and Technology). NSA retained its role within the national security community, but NBS got the mission to deal with all others. It was clear from the legislation, however, that NSA would retain a strong technical advisory role with NBS, which lacked the expertise on the subject.<sup>79</sup>

### **(U) Operations Security**

(U) The experience in Vietnam had generated an operations security program called Purple Dragon (see Vol II, 551). NSA had been the core of the effort, and it became the institutional memory for OPSEC. But as Vietnam faded from mind, memories of OPSEC programs grew dim. So in the early 1980s NSA began holding OPSEC seminars around the Pacific Rim for military organizations. The program quickly expanded to the Coast Guard, the White House, GSA, Customs, and NASA. This nascent effort became a full-blown OPSEC training program at the National Cryptologic School. The National OPSEC Course was open to all federal agencies, and 80 percent of the attendees were non-NSA.<sup>80</sup>

~~(C)~~ In 1983 Caspar Weinberger directed that all DoD organizations have OPSEC programs, and NSA became responsible for OPSEC education. But while NSA spread the word about effective OPSEC programs, it had none itself. The "Year of the Spy" (see page 401) brought on a thorough internal examination of security practices. The panel, headed by David Boak concluded in 1986 that NSA had effectively flunked its own OPSEC exam. This led to the establishment of a DDI OPSEC working group to bring NSA into compliance with its own established standards.<sup>81</sup>

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(U) In 1988, President Reagan signed NSDD 298, which established the OPSEC program of the federal government. Every agency with "classified or sensitive activities" would establish a formal OPSEC program. The order gave NSA the training and technical support mission for all federal programs. It also established an Interagency OPSEC Support Staff, with representatives from NSA, FBI, CIA, DOE, and GSA. A SIGINT professional,  was named to head the NSA effort.<sup>82</sup>

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**(U) INFOSEC and the New Way of Doing Business**

~~(C)~~ In 1983 the Communications Security organization got a new boss. Walter Deeley, who had revolutionized SIGINT timely reporting, was sent by General Faurer to do the same thing to the COMSEC business. Deeley took stock of American COMSEC, and did not like what he saw. As he later said to a congressional committee, "I was appalled. Within weeks I told Faurer that I would rank the United States in the top half of the Third World countries when it comes to protecting its communications. What I found was a secluded organization with fewer than 2,000 people, including all the printers of our codes and ciphers, no charter to effect change, no money except to engage in research and development, and customers who really didn't want our products."<sup>83</sup> Two years later he said to another committee: "The United States is in jeopardy because it does poorly protecting its vital communications....As a nation so far, we have not made this commitment...."<sup>84</sup>

(U) The New Way of Doing Business, as the Deeley revolution was termed, was based on embeddable COMSEC products, or "COMSEC on a chip." Instead of protecting point-to-point circuits, NSA would go for bulk encryption. The Agency would get into a partnership with commercial manufacturers to produce encryption technology. The revolution did not just happen; it was carefully planned and executed.<sup>85</sup>

(U//~~FOUO~~) One of the first battles of the Deeley era was over national policy. The struggles of the Carter administration over what federal agency was to control national COMSEC policy continued into the Reagan years. Admiral Bobby Inman had been sure that Carter would lean toward expanded authorities by the Department of Commerce, and he successfully stalled the Carter White House on the issue, hoping for a more favorable decision from the incoming Reagan people.

~~(C)~~ The new administration was temperamentally inclined to give the problem to DoD. This was strongly reinforced by the problems in Soviet exploitation of U.S. domestic communications, the problems with Moscow embassy security, exposure of the Walker ring, and concern over potential penetration of American computer systems. A coterie of NSC staffers, headed by Kenneth deGraffenreid, pushed hard for NSA involvement. The result was a new National Security Decision Directive, NSDD 145. Issued in 1984, it established COMSEC as a high-priority national objective, and named the secretary of defense as the executive agent for the security of government communications related to national security. NSA was designated the "National Manager for Telecommunications Security and Automated Information Systems Security," a longish title which placed the

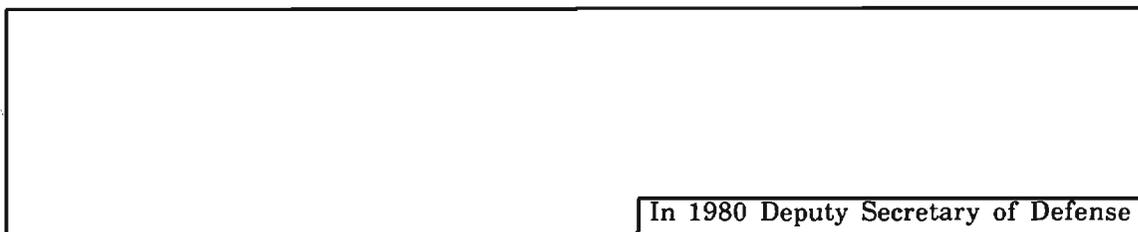
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Agency directly in the center of the COMSEC business. Moreover, NSDD 145 did away with the old United States Communications Security Board, which had accomplished so little over the years. Instead, the directive replaced it with a new Systems Security Working Group (SSSC) and, under it, the National Telecommunications Information Systems Security Committee (NTISSC, pronounced "entissic"). NBS had separate responsibility for the private sector, but even there, NSA had a technical and advisory role. NTISSC, the real player in this game, was dominated by NSA, and its secretariat was located in NSA spaces.<sup>86</sup>

~~(U)~~ The ink on NSDD 145 was hardly dry when it was attacked in Congress. The issue turned on a congressional distrust of DoD involvement in computer security. The Department of Commerce, which had been involved in COMPUSEC by the Carter order (PD 24), was anxious to reverse the course of NSDD 145, and a behind-the-scenes brawl developed between NSA and Commerce over the COMPUSEC authority. The fight was ultimately settled by Congress, which in 1987 passed Public Law 200-135, legislation which was promoted by Congressman Jack Brooks of Texas. This gave Commerce control over COMPUSEC in all cases except those involving classified government contracts, in which NSA was still the prime actor. Although the new law was supposed to affect only computer security, NIST was expected to establish crypto standards and policy for computer security, a domain in which NSA had formerly operated with complete freedom. The hearings which led to the legislation revealed the huge technological lead that NSA enjoyed in the field of computer security, but the demons of congressional distrust could not be overcome.<sup>87</sup>

~~(S)~~ The secure voice revolution that had begun in the 1970s accelerated under Deeley. He brought with him the perspective of a SIGINTER who knew how to exploit other countries' communications.



In 1980 Deputy Secretary of Defense Graham Claytor endorsed the STU-II program and recommended large-scale procurement. In 1982, his successor, Frank Carlucci, decided to buy 5,000 STU-II sets and allocated \$120 million for the program. The STU-II was strongly endorsed by Alexander Haig, Carlucci and President Reagan himself.<sup>88</sup>

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EO 1.4.(c)

~~(S)~~ But STU-II was just a waystation. The revolution in voice security was wrought by a new product, the STU-III. The basis for the STU-III was a public key algorithm called [redacted] designed by engineers from NSA's R1. When Deeley came to the COMSEC organization, he "captured" R1 and created a special projects office to develop the STU-III. Deeley made the decision to have the STU-III built by private industry, and three contractors - RCA, AT&T, and Motorola - each developed a unique STU-III device, all three of which sold competitively. It was a low-cost (about \$2,000 per copy) terminal that would sit on a desk. There would be unique plastic key for each device, but the device would not work without another key, developed on demand from a central key management center. [redacted]

(U) The key management facility was originally collocated with a contractor in Waltham, Massachusetts. In 1988 NSA moved the facility to an old 1950s-era bomb shelter in the Maryland countryside owned by AT&T, near Finksburg.<sup>90</sup>

(U) The crypto gear that NSA had designed for the new communications era had, by the early 1980s, come to the end of the rope. The KW-26, a marvel of its day, could only secure 100-word-per-minute circuits. The KG-13 and KW-7 were out of production and becoming more difficult to maintain every day. The replacement device, developed under a project named [redacted] would be the KG-84. Small, lightweight (20 lbs), cheap (base price of about \$5,100), it was designed to operate at speeds up to 9600 bps. Cost of maintenance was also a big selling point: while the KW-26 mean time between failure (MTBF) was 1,840 hours, the worst-case MTBF for the KG-84 was 17,000 hours. The KG-84 began appearing in comm centers in the mid-1980s.<sup>91</sup>

~~(C)~~ One of the COMSEC improvements of the 1980s was OTAR (over-the-air re-keying). NSA had long wanted to dispense with paper tape re-keying, with its attendant courier problems and possibility of loss or pilferage. The Agency had incorporated OTAR into the Vinson tactical voice system of the late 1970s, but the rationale was combat. If an American unit with a Vinson were overrun, the field commander would need a way to quickly re-key all other Vinson equipments. Vinson was an OTAR device by exception only; it was normally keyed just like any other COMSEC device. The KG-84 was designed with an optional OTAR capability, but DCA thought so little about it that at one time it directed that all KG-84s be rewired to disable the OTAR feature.<sup>92</sup>

~~(C)~~ But two events in the 1980s spurred a reversal of fortunes for the OTAR concept. One was the invasion of Grenada, which conclusively demonstrated that the services could not easily talk to each other, and drove the JCS to reform the concept of jointness and to direct the services to marry their communications system. This led, ultimately, to a new COMSEC key distribution doctrine which would permit U.S. forces to communicate with each other on almost all tactical crypto devices using electronically distributed key.<sup>93</sup>

EO 1.4.(c)

(U) The second was the arrest of John Walker in May of 1985 (see page 417). Walker had been stealing crypto key since 1968 and selling it to the Soviets. The massive hemorrhage of classified information was directly attributable to the wide and easy availability of crypto key, and sparked a complete re-look at COMSEC keying doctrine.

~~(S)~~ What resulted was a JCS decision in 1988 to implement OTAR on every KG-84 device in the world. Vice Admiral Jerry Tuttle, the JCS J6 in 1988, forced the issue after being told that NSA was having a hard time keeping up with the demand for paper keying tape and that the KG-84 had been designed with an OTAR capability that was not being used. Tuttle made the historic decision to require OTAR on KG-84 circuits, and by the early 1990s the KG-84 had been completely converted to the new method of operation.<sup>94</sup>

EO 1.4.(c)

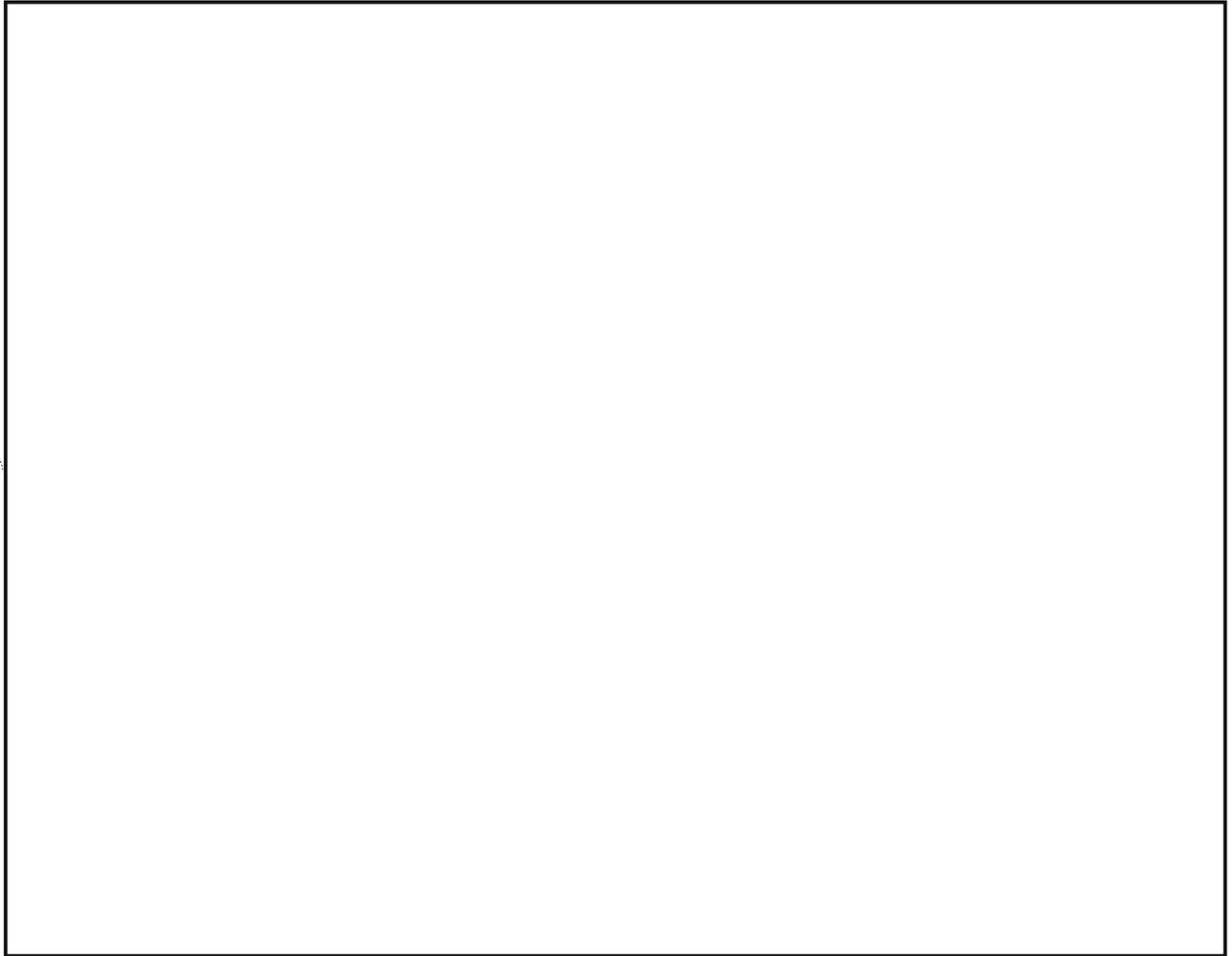
(U//~~FOUO~~) Until NSA came up with an effective OTAR strategy in the 1980s, the best it could do was to protect the crypto keys from tampering. The Agency always had a small group working on protective packaging, but the big breakthrough came with the hiring of a chemist named [redacted] in the 1960s. [redacted] a Harvard Ph.D. in chemistry, had specialized in the detection of poison gasses during World War II. [redacted]

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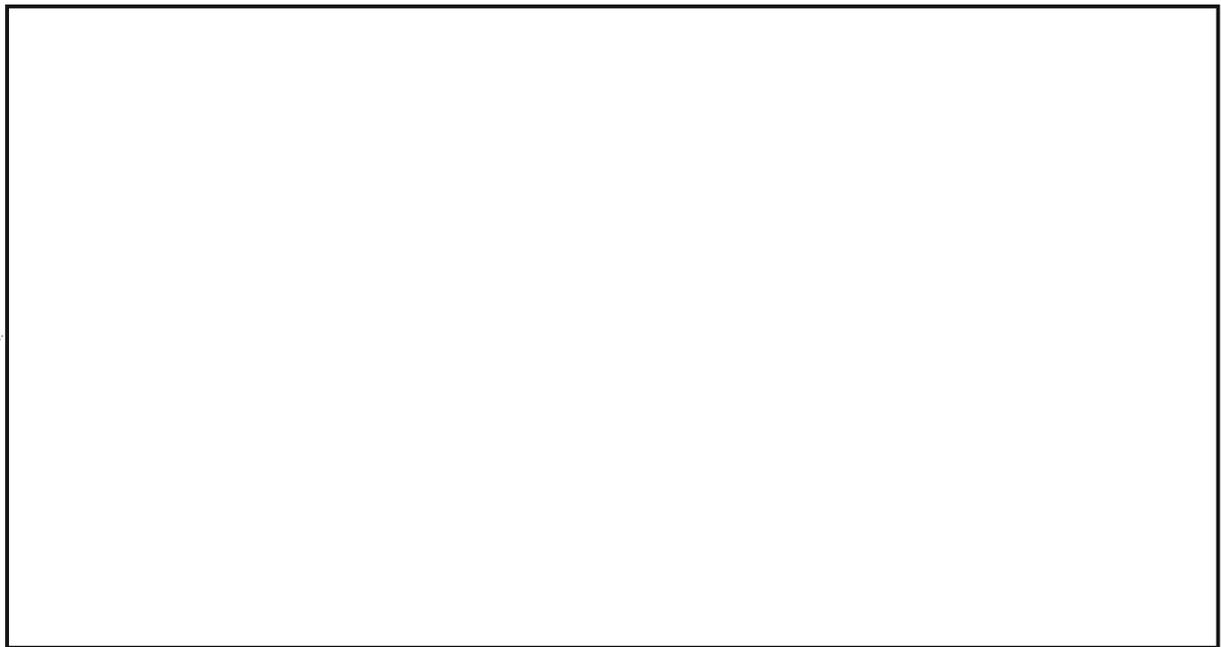
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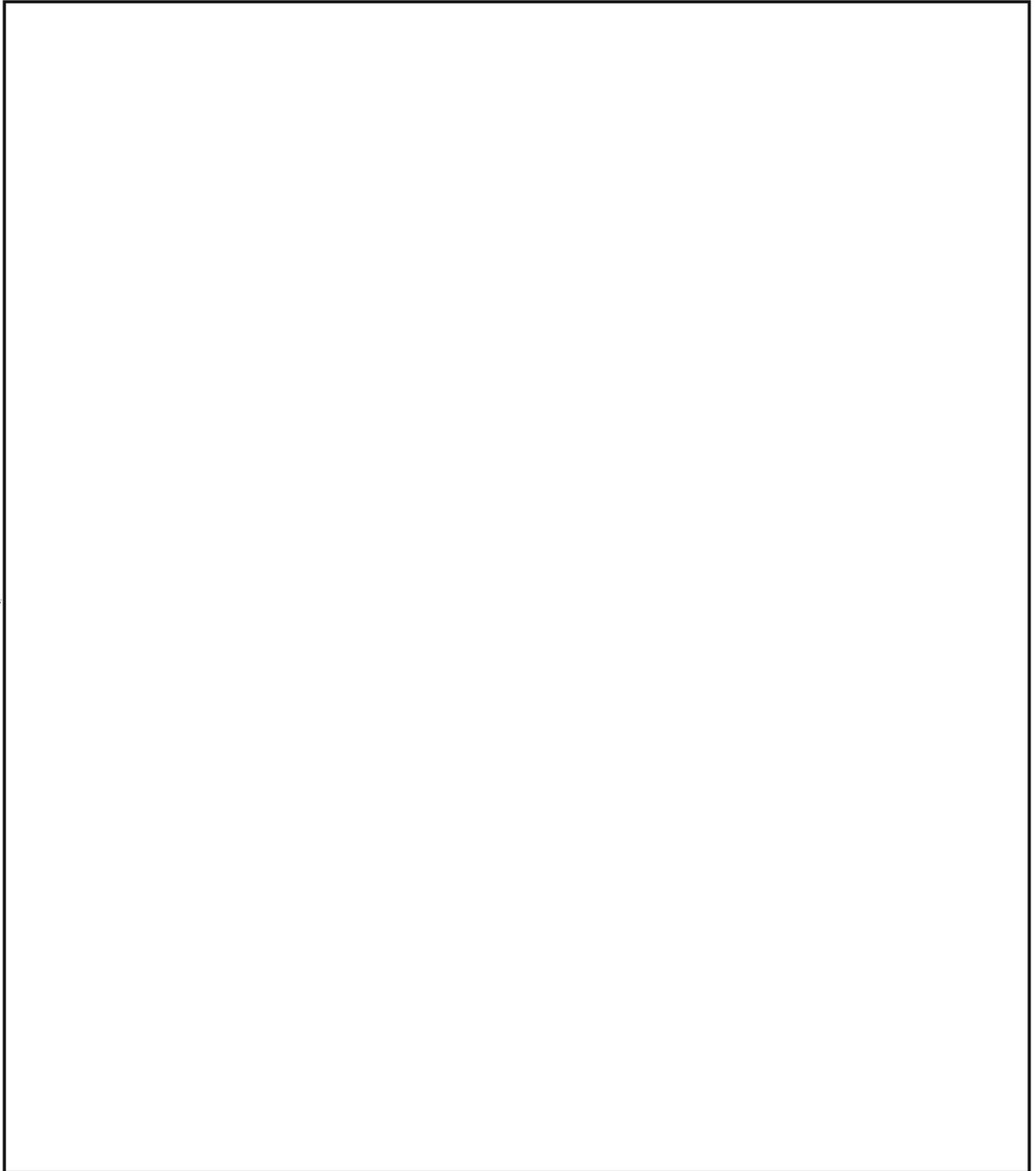


~~(U) The Second Parties - the United Kingdom~~



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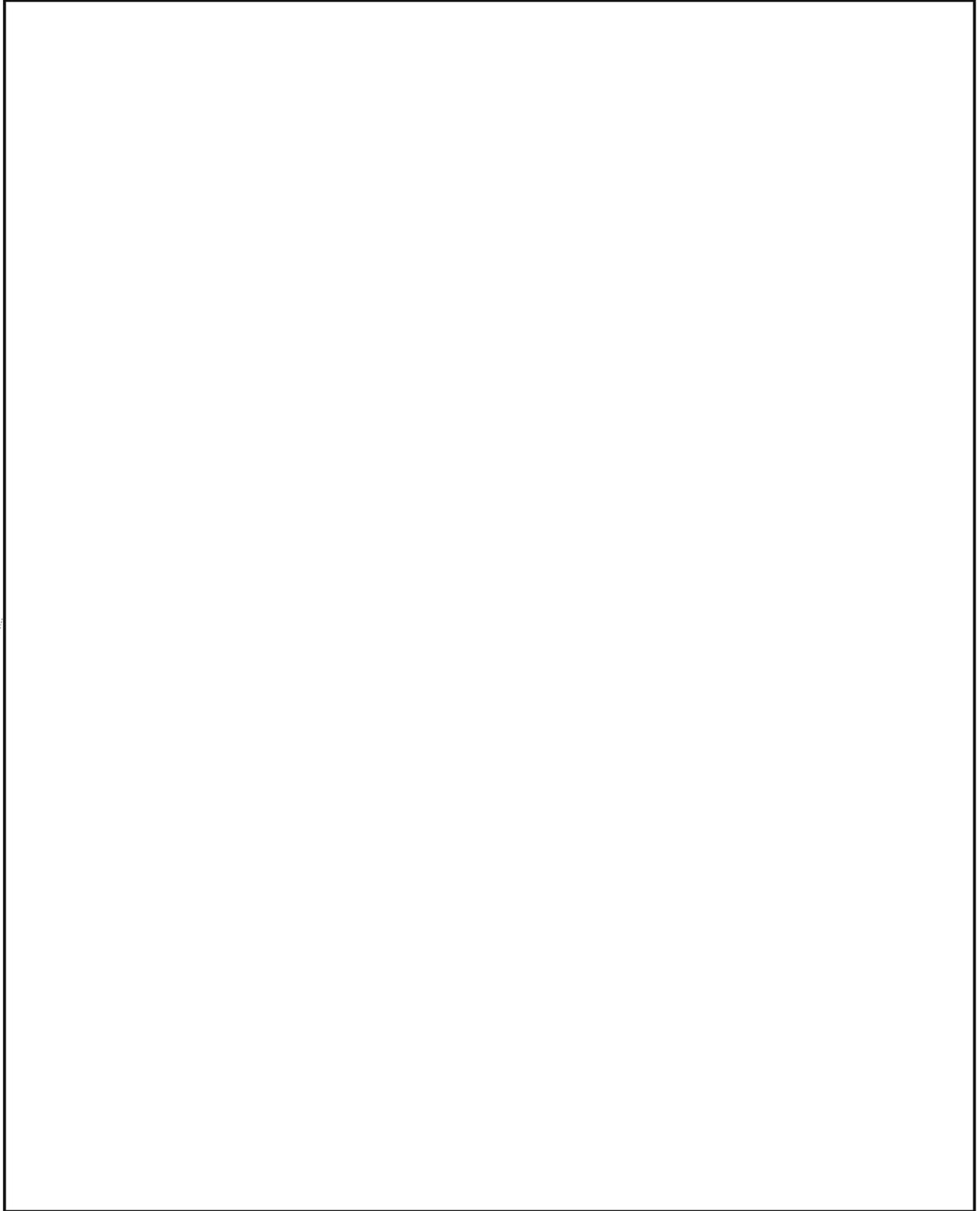
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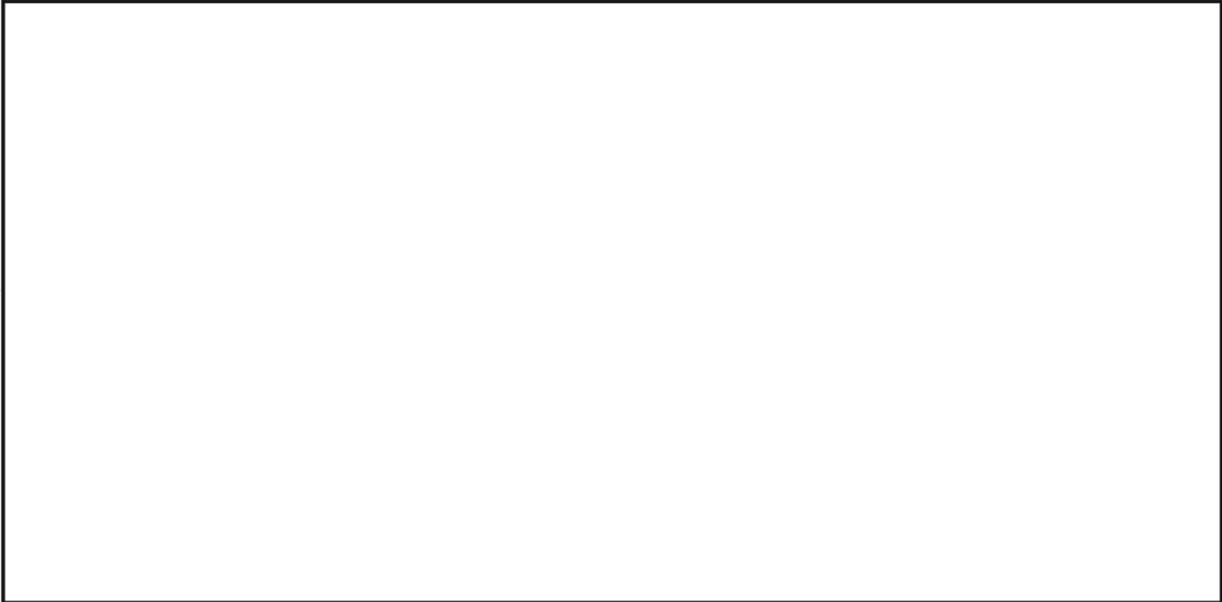
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**(U) Australia**



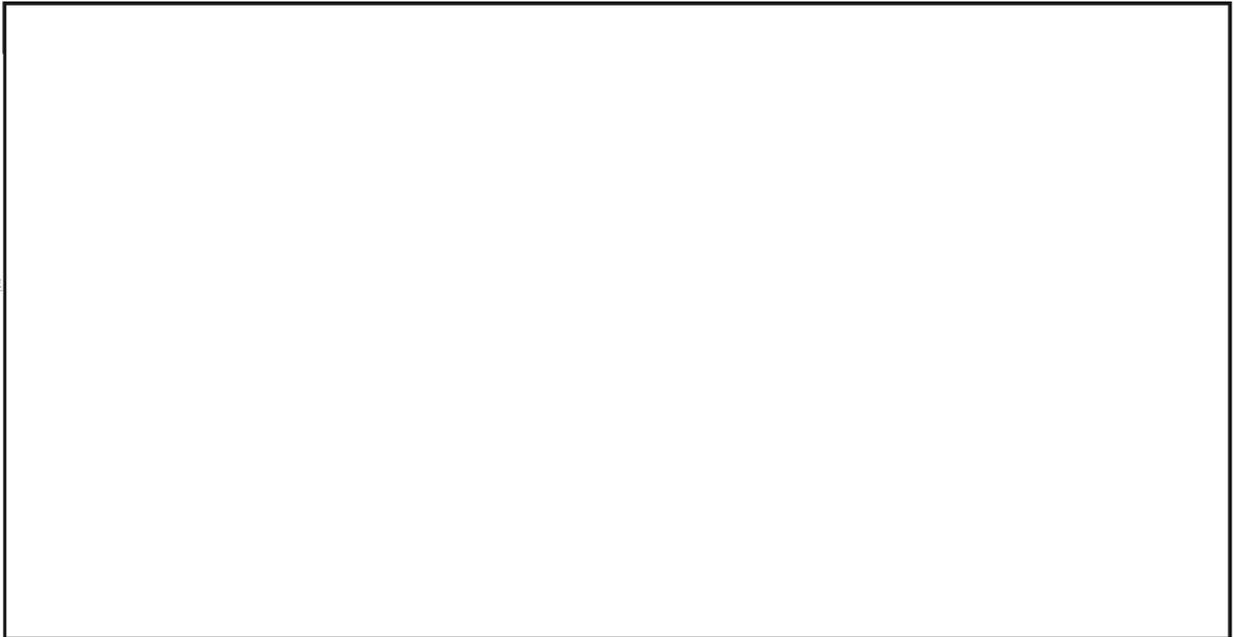
(U) Australia's parliament had been controlled by Conservatives since the sacking of Gough Whitlam in 1975. But in 1983 the Australian Labor Party (ALP) regained control. The left wing of the party had been critical of Prime Minister Malcolm Fraser's close relationship with the United States. There were threats to close Aussie ports to American warships and strident declarations of brotherhood with the government of Vietnam. But when party leader Bob Hawke took the premiership, he excluded the left wing of the party and repudiated the anti-U.S. planks of the party platform. In foreign affairs he formed a close bond with Ronald Reagan. Soon after his election he publicly declared that the U.S. would continue to enjoy access to defence facilities in Australia, including Alice Springs (also known as Pine Gap). His public statement in support of the facility revealed the base's purpose: "...provision of early warning by receiving from space satellites information about missile launches - and the occurrence of nuclear explosions." It was more than the U.S. wanted him to say, but was received with relatively good graces in view of his strong support for the joint effort.<sup>106</sup>

EO 1.4.(c)  
EO 1.4.(d)





(U) Bob Hawke, second from left

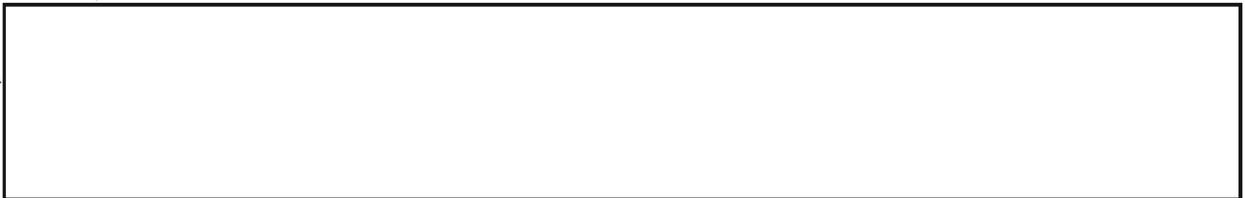


(U) *New Zealand*

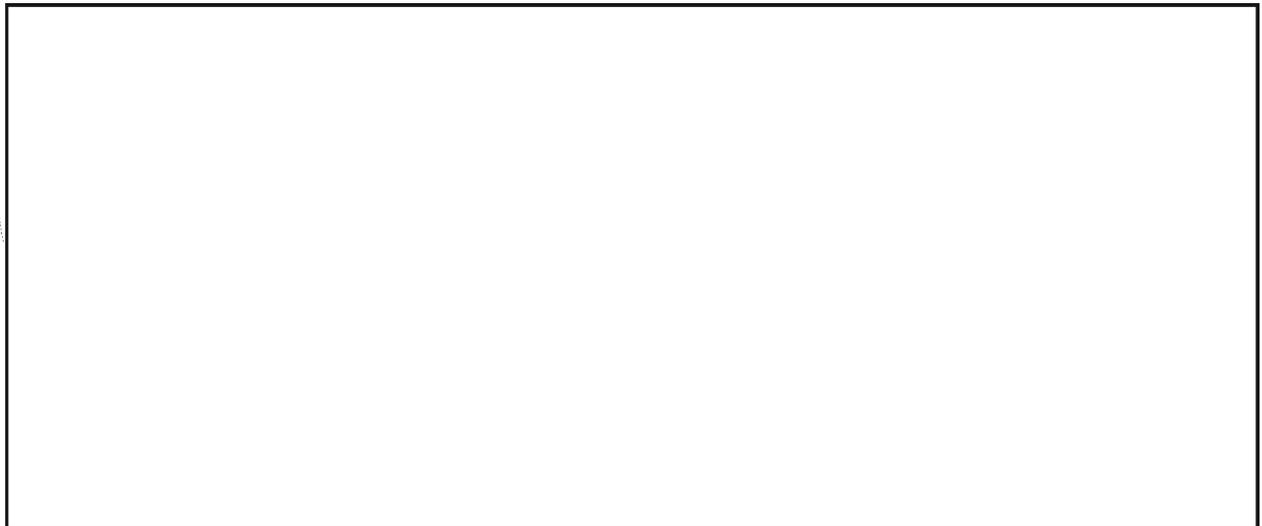




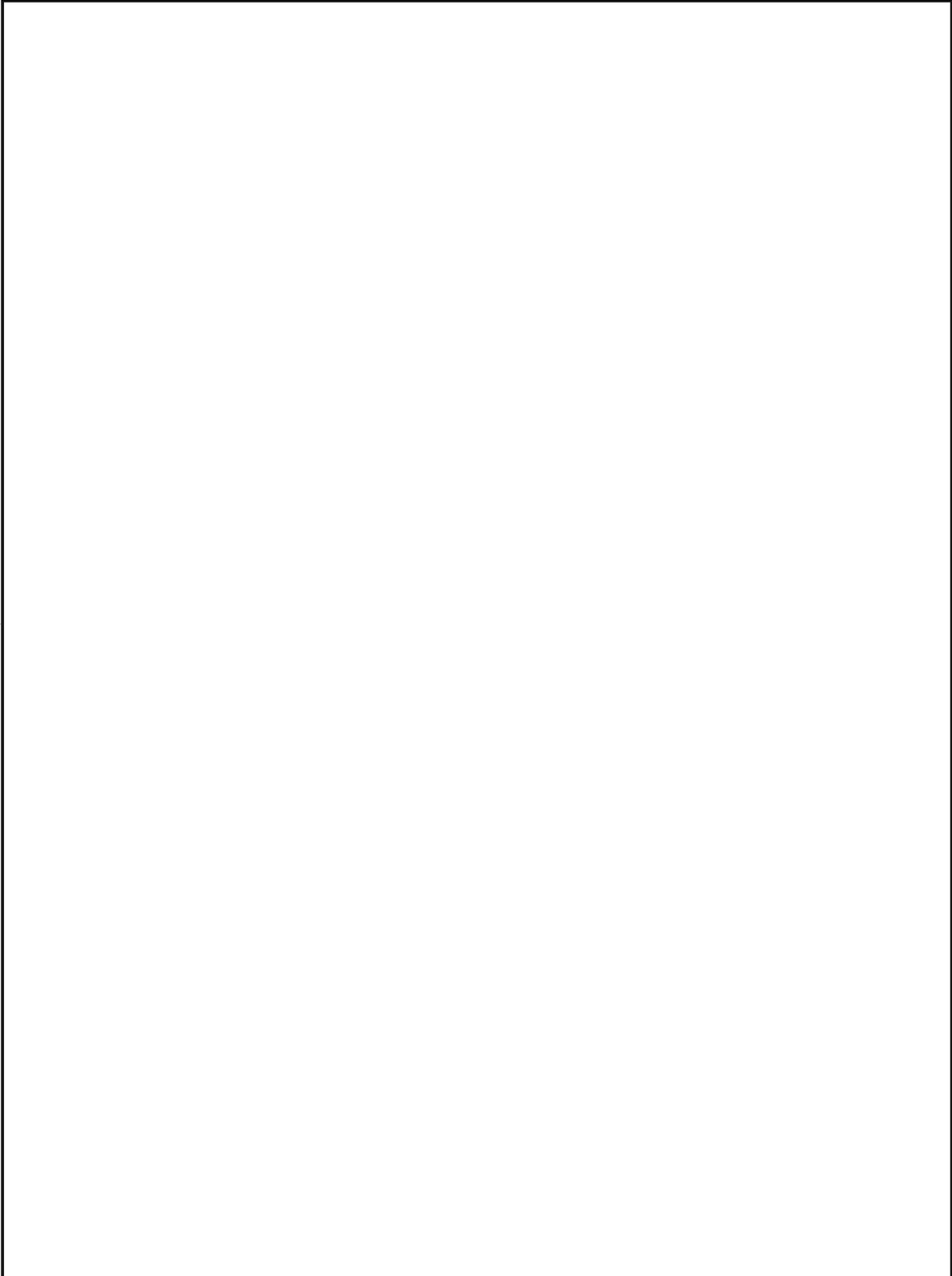
(U) The new relationship occurred just in time for controversy. In the summer of 1984 the Labor Party under David Lange assumed power in New Zealand. The party had long had a nuclear-free plank, and left-wing members were pressing for withdrawal from ANZUS. Lange, being a centrist by persuasion, tried to ignore the anti-U.S. tide, continuing to push a decision into the future. The Reagan administration also tried to ride out the storm, believing that Lange would be a New Zealand Bob Hawke on the issue. But it did not understand the depth of Lange's difficulties. Lange's problem turned on the nuclear-free issue and the determination of his left wing that no American nuclear vessels would be permitted in New Zealand ports. The U.S. delayed port visits in hopes that Lange could solve the political problem. Finally, in March of 1985 the U.S. requested permission for a non-nuclear vessel, the USS *Buchanan*, to visit Auckland in connection with a scheduled naval exercise. This was done under a tacit agreement with the Lange government that the first port visit would be by an obviously non-nuclear vessel, following which Lange could announce that he had determined that it was not a nuclear vessel and could enter. But the deal broke down because Lange could not push it through his party caucus, and he announced that the *Buchanan* would not be permitted to enter port. The outraged Reagan administration cancelled the joint exercise and suspended all military cooperation with New Zealand, including the flow of intelligence information.<sup>109</sup>



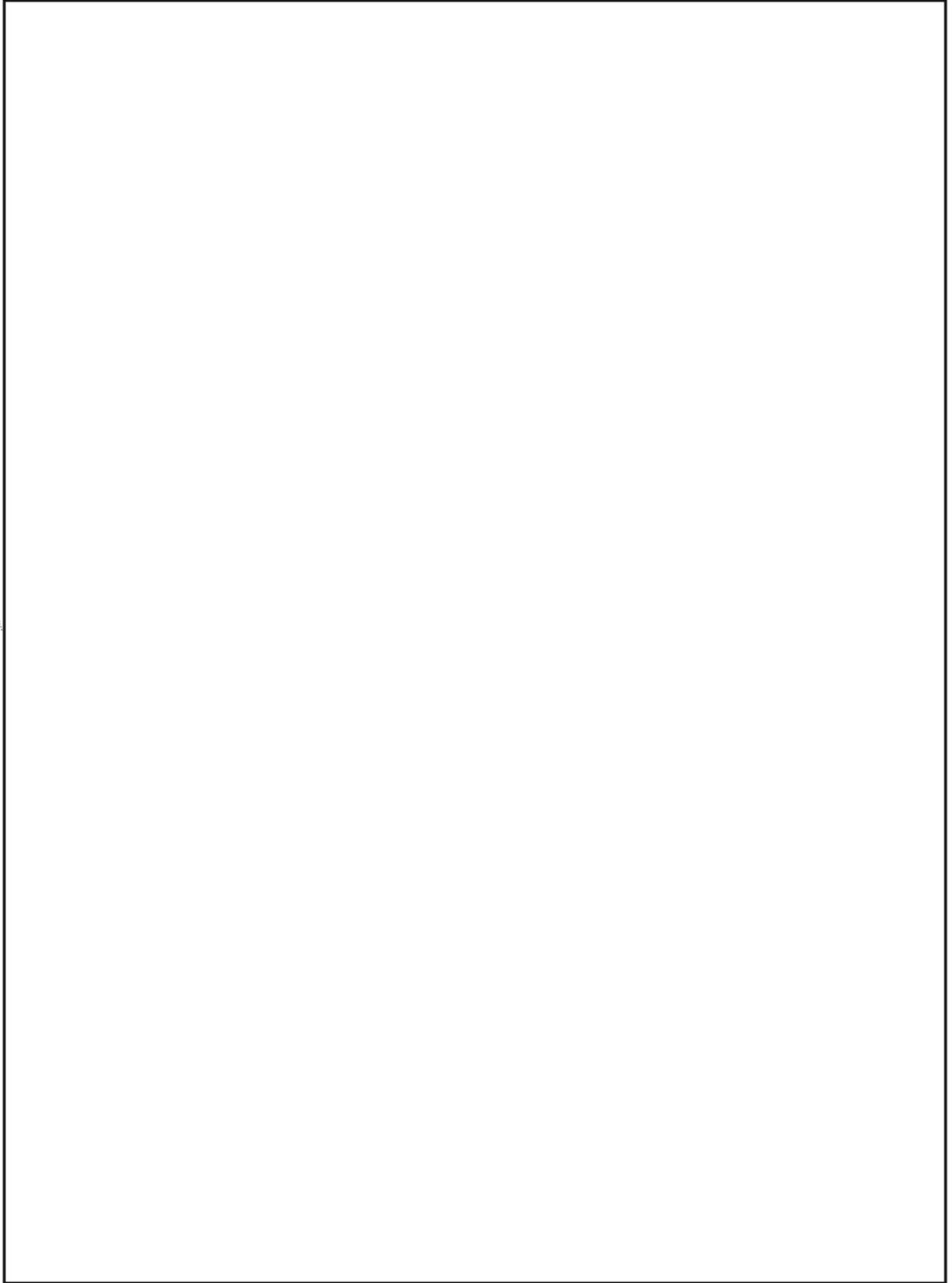
**(U) Third Parties**



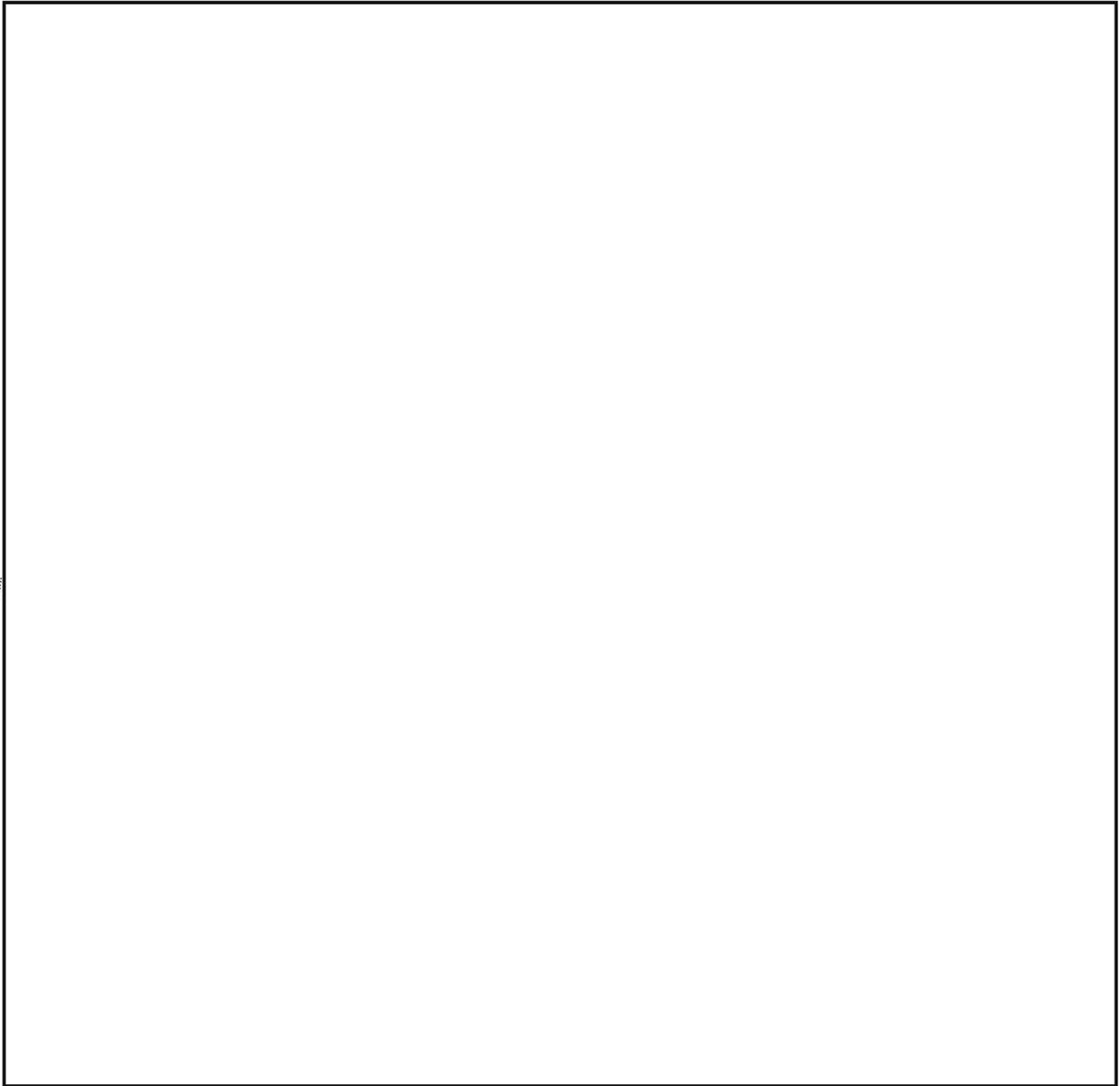
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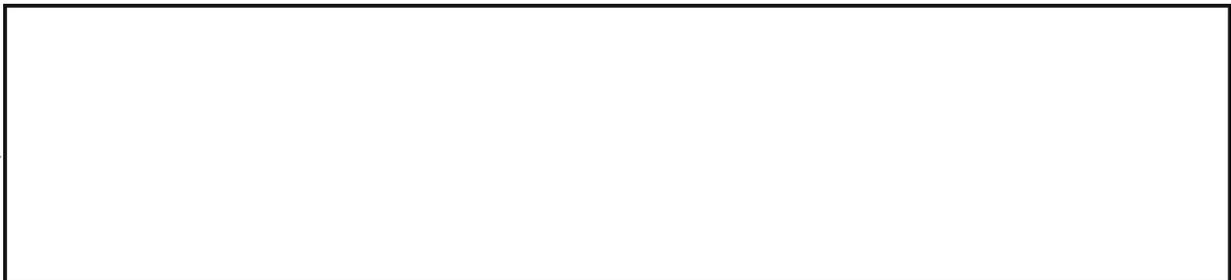
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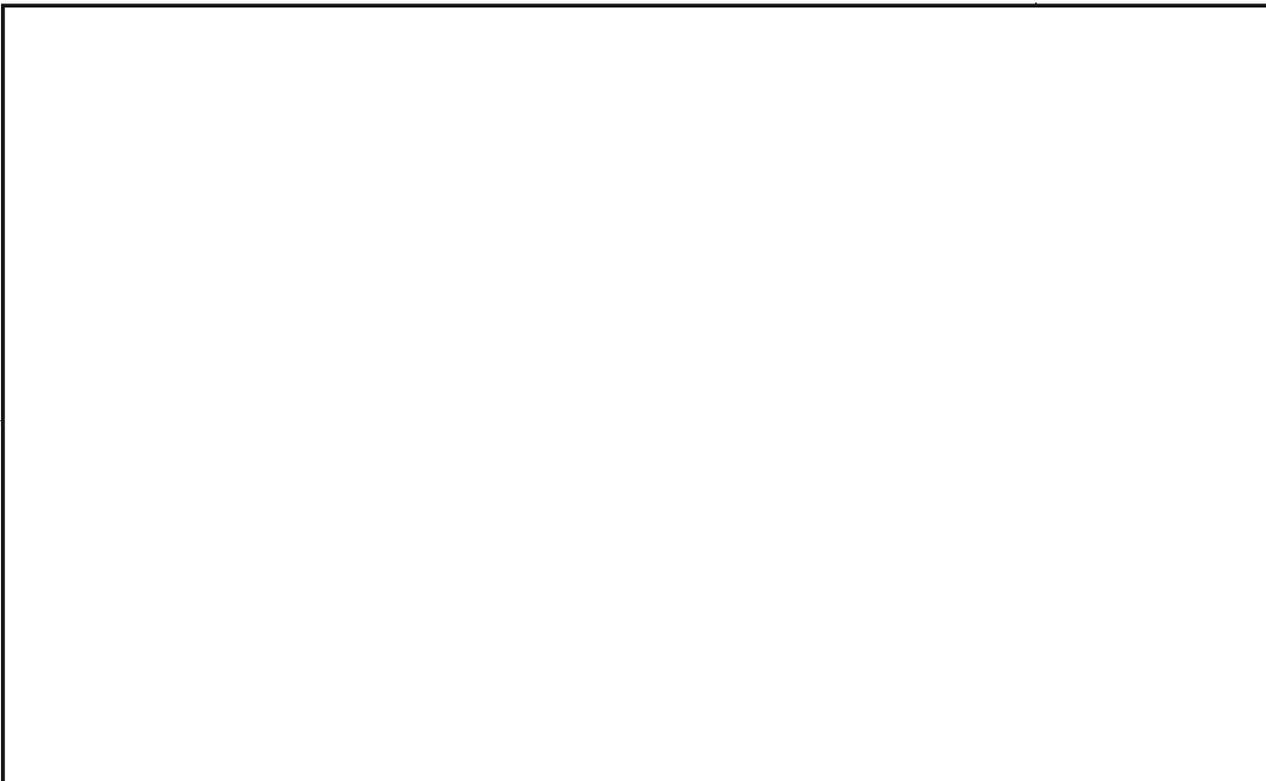


**(U) All The Rest**



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EO 1.4.(d)

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1. (U) John Ranelagh, *The Agency: The Rise and Decline of the CIA* (New York: Simon and Schuster, 1986), 666-72.
2. (U) Inman interview.
3. (U) Christopher Andrew, *For the President's Eyes Only: Secret Intelligence and the American Presidency from Washington to Bush* (New York: HarperCollins, 1994), 501.
4. (U) DDIR files, in NSA retired records 96026, Box 10, "President Reagan." interview, Juanita M. Moody, by David Hatch, [redacted] 16 June 1994, OH 32-94, NSA. NSA Archives 44700NZ, G15-0306-1.
5. (U) Bob Woodward, *Veil: The Secret Wars of the CIA 1981-1987* (New York: Simon and Schuster, 1987), 46-47.
6. (U) *Washington Star*, 3 February 1981. U.S., Congress, Senate Select Committee on Intelligence, Nomination of Admiral B. R. Inman to be Deputy Director of Central Intelligence. 97th Cong., 1st sess., 1981, 1.
7. (U) CCH Series VI.D.2.15.
8. (U) Interview, Robert Rich, by Tom Johnson [redacted] OH 12-97, NSA.
9. (U) Interview, Sir Peter Marychurch, by Henry Schorreck, 17-18 October 1989, OH 11-89, NSA.

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EO 1.4.(c)  
EO 1.4.(d)~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

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10. (U) Interview, Lincoln D. Faurer, by Robert D. Farley, Tom Johnson and [redacted] 20 March 1987, OH 8-87, NSA.
11. (U) Ibid.
12. (U) Faurer interview. *Washington Post*, 20 April 1985, article by George Wilson.
13. (U) Interview, Lt Gen William Odom, by Tom Johnson, 19 August 1997, OH 13-97, NSA.
14. (U) NSASAB Special Task Group for G Group Study: Report on G Group Machine Systems, 16 March 1979.
15. (U) Odom interview.
16. (U) Rich interview. Interview, Robert J. Hermann, by [redacted] and Tom Johnson, 2 September 1994, OH 45-94, NSA.
17. (U) Odom interview.
18. (U) Ibid.
19. (U) Odom interview. Chief, A2 executive files, in NSA retired records 96228, Box 4, "Programming Data, 1988." QMR, 3/87. Interview, Adm William O. Studeman, by Robert Farley, OH 5-91, NSA.
20. (U) Odom interview.
21. (U) Interview, [redacted], by Tom Johnson, 30 May 1997, OH -97, NSA.
22. (U) NSA Archives, acc nr 92456, Box 72942.
23. (U) Ibid.
24. (U) CCH Series XII.OO, Box 4, "SIGINT Satellite Program Costs."
25. (U) NSA retired records, shipment 90176, Box 63063, "FY 87 Hearings/Testimony/Brief, FY-86 CCP."
26. (U) Informal documentation on population provided by [redacted] of S22. CCH Series XII.D., "Military Manpower Review Group, 1988."
27. (U) CCH Series XII.D., [redacted] "Space Management from a Resource Management Perspective," no date.
28. (U) QMR, 1.87.
29. (U) Ibid.
30. (U) QMR, 3/83, 2/82. CCH Series XII.D., "Military Manpower Study."
31. (U) QMR, 2/94, 2/82.
32. (U) QMR, 2.82.
33. (U) Ibid.
34. (U) Ibid.
35. (U) [redacted] "Space Management...." [Edward Wiley] *On Watch: Profiles from the National Security Agency's Past Forty Years*, 91.

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36. (U) QMR, 2/93.
37. (U) QMR, 4/83, 2/93.
38. (U) QMR, 4/83.
39. (U) CCH Series XI.R. DDIR files, Box 1, "FSCS Phase II Wrapup Report."
40. (U) Chief A2 files, "FSCS."
41. (U) Ibid.
42. (U) CCH Series XI.R (papers of Maj Gen John Morrison). Interview, [redacted] by Tom Johnson, 10, 17 July, 6 August, 1996, OH -96, NSA. DDIR files, Box 3, "Overhead Senior Steering Council." Inman interview.

- [redacted]
43. (U) DDIR files, Box 3, "Overhead Senior Steering Council"; Box 1, "FSCS Phase III Wrapup Report."
44. (U) DDIR files, Box 1, "FSCS Phase III Wrapup Report."
45. (U) Hermann interview.
46. (U) CCH Series XI.R.

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47. (U) Hermann interview. CCH Series XI.R
48. (U) Memo from John McMahon, 15 July 1983, in CCH Series XII.OO, Box 4, "DCI Letters." Interview [redacted] [redacted] by Tom Johnson and [redacted] 3 May 1994, unnumbered NSA OH [redacted] interview.
49. (U) DDIR files, Box 3, "Overhead Senior Steering Council," memo dated 21 December 1987.
50. (U) DDIR files, Box 11, "Overhead SIGINT Strategy Study," memo dated 25 July 1988.
51. (U) Ch A2 files, "SSCI Study, 1987." Black papers, memos dated 18 November 86 and 28 July 1986. Interview [redacted] by Tom Johnson, 19 February 1997, NSA OH 04-97, NSA.
52. (U) Black papers, memo dated November 1986. NSA Archives acc nr 25892Z, CBOB 75. Ch A2 files, Box 5, "Ch A2 Strategic Planning."
53. (U) Black papers, "Project [redacted] Baseline Summary," 31 October 1986.
54. (U) Interview with [redacted], by Tom Johnson, 6 August 1997. [redacted] interview. DDIR files, Box 3, "Overhead Senior Steering Council."
55. (U) Odom interview. DDIR files, Box 3, "Overhead Senior Steering Council," memos dated 16 and 18 December 1987.
56. (U) DDIR files, Box 3, "Overhead Senior Steering Council," 14 January 1988 memo.
57. (U) DDIR files, Box 3, "Overhead Senior Steering Council." Ch, A2 files, "Strengthening Intelligence Capabilities Against [redacted]"
58. (U) DDIR files, Box 13, "Collection and Processing of Intelligence, 1981." Interview [redacted] by Tom Johnson, 4 June 1996, OH 18-96, NSA.

EO 1.4.(c)

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59. (U) Ch, A2 files, "A213 Working Aid 004-87."
60. (U) Ch, A2 files. DDIR files, Box 13, "Collection and Processing of Intelligence, 1981." NSA Archives acc nr 46092, H04-0208-7.
61. (U) [redacted] "The Selection of [redacted] as Alternate Headquarters and Reconstitution Site for NSA/CSS," 15 February 1984. DDIR files, Box 13, "Collection and Processing of Intelligence." EO 1.4.(c)
62. (U) Henry Millington, untitled manuscript on the history [redacted] CCH Series XII.D.
63. (U) Ibid.
64. (U) Ibid.
65. (U) NSA Archives, acc nr 44602, H03-0609-6.
66. (U) NSA Archives, acc nr 32597, H01-0101-7; 44602, H03-0609-6; 36692, H03-0203-5.
67. (U) Eugene Becker, manuscript on Umstead available in CCH Series XII.D. P.L. 86-36
68. (U) Interview, George Cotter, by Tom Johnson, December 1996, OH 7-96, NSA.
69. (U) QMR, 2/93, 95. Cotter interview.
70. (U) Cotter interview.
71. (U) Interview, Kermit H. Speierman, by Robert D. Farley, 16 January 1986, OH 2-86, NSA.
72. (U) Speierman interview. E-mail note from George Cotter to Tom Johnson, 19 August 1997, NSA.
73. (U) Ibid.
74. (U) [redacted] untitled draft history of NSA computer security, in NSA CCH Series XII.D.
75. (U) Comsec History, and Background and Papers, 1946-1970, in CCH Series V.H.1.1. [redacted] draft.
76. (U) [redacted] draft.
77. (U) [redacted] draft. David G. Boak, *A History of U.S. Communications Security* [The David G. Boak Lectures] (Fort Meade: NSA, 1973). Cotter interview.
78. (U) Boak lectures. QMR, 1/87.
79. (U) *Codes, Keys and Conflicts: Issues in U.S. Cryptographic Policy*, Report of a Special Panel of the ACM U.S. Public Policy Committee (USACM), June 1994 (New York: ACM, 1994).
80. (U) [redacted], *Purple Dragon: The Origin and Development of the United States OPSEC Program*, Ft. Meade, MD: Center for Cryptologic History, 1993.
81. (U) CCH Series VI.F.2.1.
82. (U) [redacted] *Purple Dragon*.
83. (U) NSA Archives, acc nr 36741, CBPJ 46.
84. (U) NSA Archives, acc nr 36740, CBPJ 46.

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85. (U) [redacted] interview. QMR, 2/93. Interview, Lt Gen Lincoln D. Faurer, USAF (Ret.), by Robert D. Farley, [redacted] and Tom Johnson.

86. (U) George F. Jelen, "Information Security: An Elusive Goal," Harvard University Center for Information Policy Research, 1985. Interview, [redacted] by [redacted] and Tom Johnson, 2 February 1993, OH 2-93, NSA. Faurer interview. DDir files, 96026, Box 14, "Embassy Telecommunications Security Assessments."

87. (U) Deputy Director's Records, Box 11, "Compusec." [redacted] interview. NSA Archives, acc nr 36740, CBPJ 46.

88. (U) Deeley quote from c-2527; OH 29-93. NSA Archives, acc nr 42366, H03-0409-1.

89. (U) Interview, [redacted], by Tom Johnson, 18 February 1997. STU-III video in CCH video collection.

90. (U) Interview, [redacted] by Tom Johnson, 5 March 1997.

91. (U) NSA Archives, acc nr 32597, H01-0101-7. QMR, 1/83.

92. (U) [redacted] draft history of OTAR, in CCH Series XII.D. Interview, [redacted] by Tom Johnson, 12 February 1997.

93. (U) [redacted] draft history.

94. (U) [redacted] draft history. Boak Lectures.

95. (U) Interview [redacted], by Tom Johnson and [redacted], 15 May 1997, OH 7-97, NSA.

96. (U) Interview [redacted] by Tom Johnson, 16 January 1997.

97. (U) [redacted] interview. [redacted] interview.

98. (U) [redacted] interview.

99. (U) Interview, [redacted], by Tom Johnson and [redacted], 10, 1998, OH 14-98, NSA. V52 (Threat Analysis) file [redacted] retained in OPI spaces.

100. (U) Foreign Relations Directorate, CDO UK files, "IPC-Kern Committee."

101. (U) CDO UK files, "STU-III."

102. (U) CDO UK files, [redacted] Interview, Milton Zaslow, by Tom Johnson, 21 May 1998.

103. (U) Ibid.

104. (U) QMR, 1/83. Interview, Timothy W. James, by Tom Johnson, OH 10-97, NSA.

105. (U) James interview.

106. (U) [redacted] and [redacted] "An Alliance Unravels: The United States and ANZUS," *Naval War College Review* (Summer 1993), 109-10. CCH Series XII.OO., Box 3, History of Rainfall, 25-26.

107. (U) DDIR files, Box 3, "U.S.-Australian Relations." Odom interview. Foreign Relations Directorate, U.S.-Australian Agreement [redacted] James interview.

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EO 1.4.(c)

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108. (U) [redacted] *NSA's Involvement in U.S. Foreign SIGINT Relationships*, U.S. Cryptologic History, Series 6, Vol. 4 (Fort Meade: NSA, 1995).
109. (U) [redacted] "An Alliance Unravels."
110. (U) [redacted] *NSA's Involvement in U.S. Foreign SIGINT Relationships*.
111. (U) CCH Series VI.C.4; XII.D., "Development of the [redacted] SIGINT Relationships, 1962-1985." Ch, A2 files.
112. (U) DDIR files, Box 13, "Collection and Processing of Intelligence." CCH Series VI.K.1.5.
113. (U) [redacted] "Foreign SIGINT Operations: The Legal Side," IAI International Notes and News (Fort Meade: NSA, June 1993).
114. (U) [redacted] *NSA's Involvement in U.S. Foreign SIGINT Relationships*, 102, 113-14.
115. (U) Ibid., 120.
116. (S//SI) Foreign Relations Directorate, CDO [redacted] files, "Development of the [redacted] SIGINT Relationships," in CCH Series XII.D.
117. (S//SI) Foreign Relations Directorate, CDO [redacted] "Record of Meeting [redacted]" [redacted] February 20, 1975.
118. (S//SI) CDO [redacted] files, the [redacted] Agreement.
119. (S//SI) "Development of the [redacted] SIGINT Relationship 1962-1985," [redacted] 24 March 1986. Interview, Whitney E. Reed, by Tom Johnson. CDO [redacted] files, "Developments of the [redacted] SIGINT Relationship..." [redacted] interview.
120. (U) [redacted] interview. CDO [redacted] files.
121. (U) [redacted] interview. NSA Archives, acc nr 32941Z, G14-0308-6, Orion Agreement, undated.
122. (U) CCH Series VI.C.4.
123. (S//SI) [redacted] "A Historical Overview of the U.S. SIGINT Effor [redacted] October 1998, in CCH Series VI [redacted] *NSA's Involvement in U.S. Foreign SIGINT Relationships*, 115-16.
124. (U) Ibid., 118.
125. (U) [redacted] *NSA's Involvement in U.S. Foreign SIGINT Relationships*, 119. Foreign Relations Directorate, CDO [redacted] "Country Handbook," 1982.

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EO 1.4.(d)

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EO 1.4.(c)

## (U) Chapter 22 The Second Cold War

### (U) THE SIGINT SYSTEM AND THE SOVIET PROBLEM

~~(TS//SI)~~ By the end of the 1970s, the SIGINT system was optimized for its principal target, the Soviet Union. [REDACTED]

[REDACTED]

~~(TS//SI)~~ What distinguished the system, however, was the way that it all knitted together. Analysis of Soviet force posture was a complex weave [REDACTED]

[REDACTED]

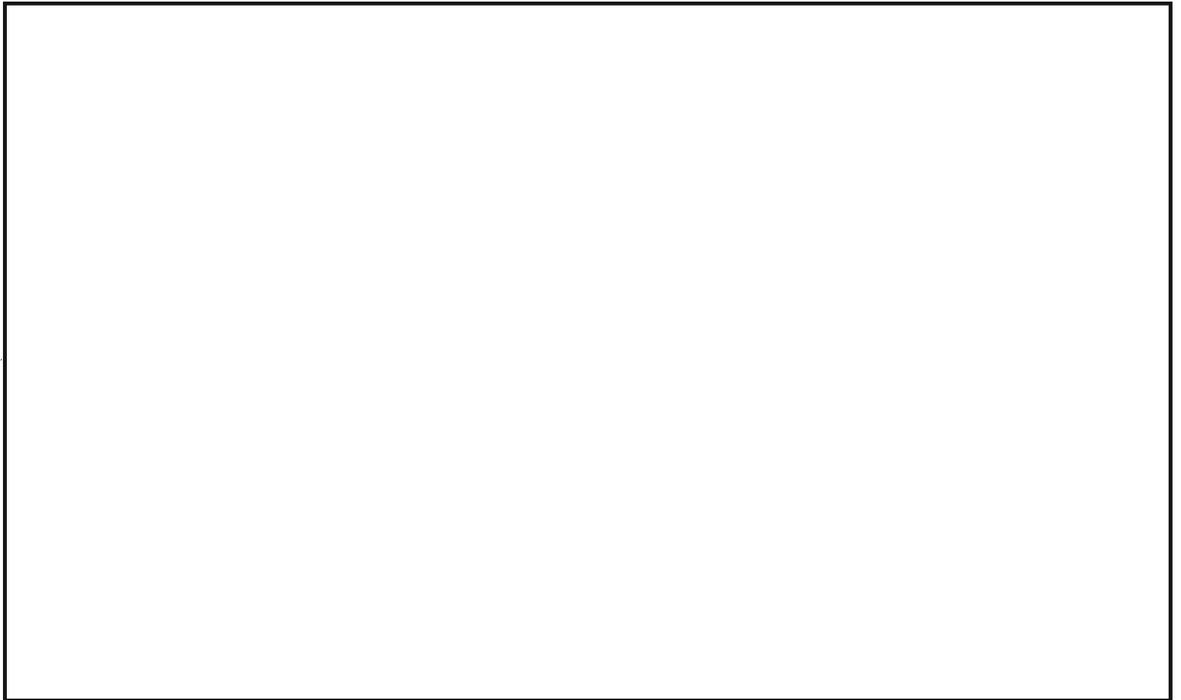
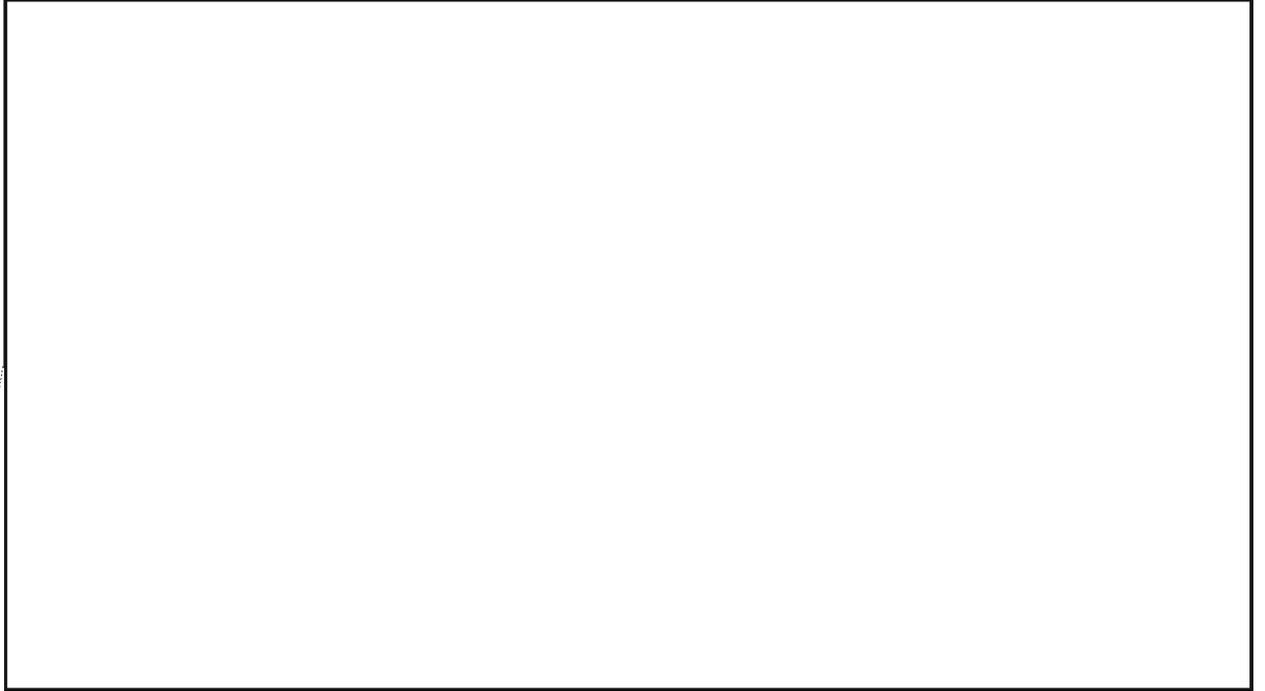
[REDACTED] Exploitation of the best source, [REDACTED] was prioritized for processing based on an assessment of all the other indicators.

~~(S//SI)~~ This system had been employed in an analysis of Soviet and Warsaw Pact

[REDACTED]

[REDACTED]

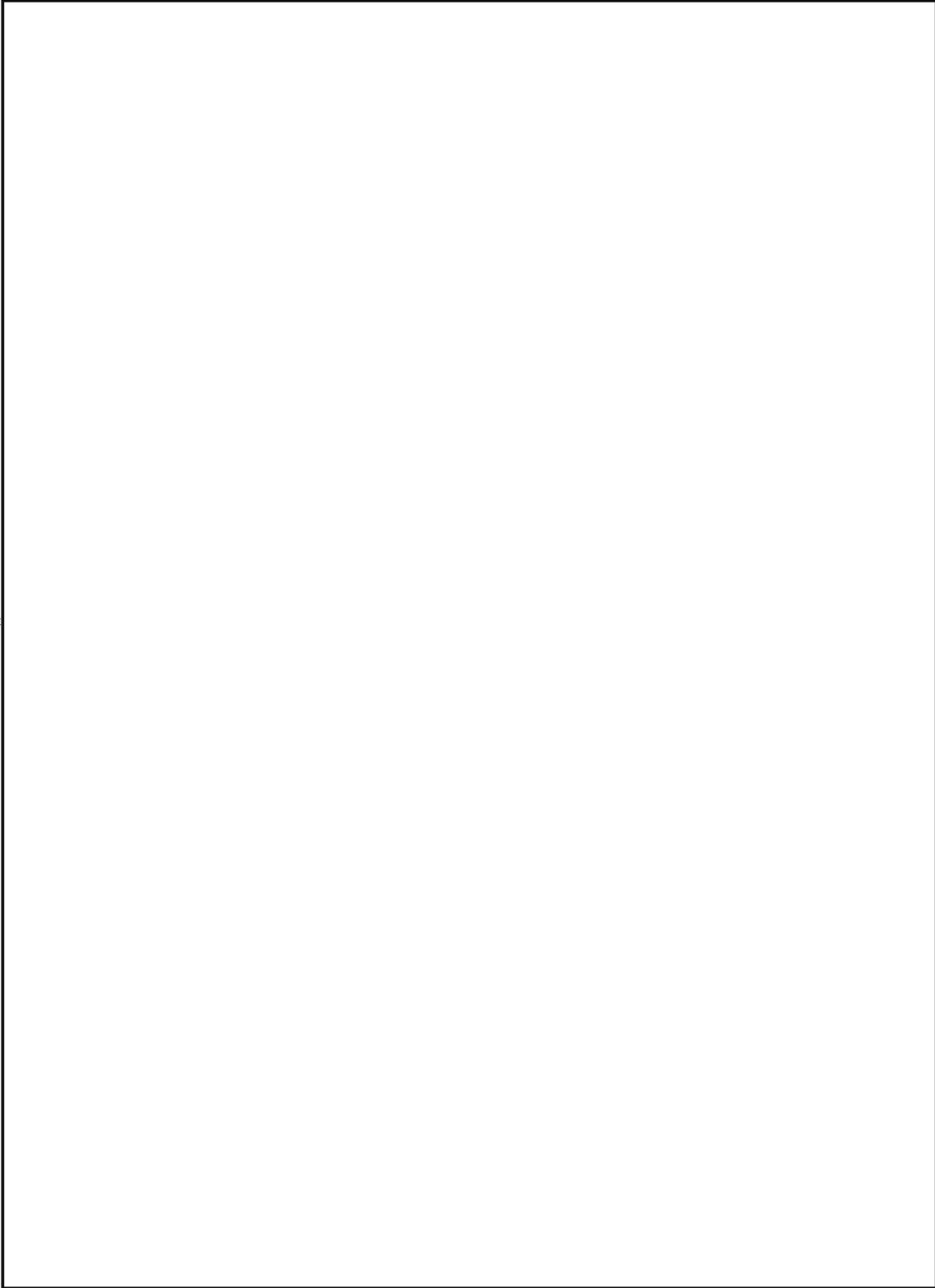
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**(U) *The Second Cold War***

(U) The most distinguishable characteristic of American foreign policy during the Reagan administration was hard-line anticommunism. Reagan's views were so well-known that they apparently induced great consternation in Moscow. The Soviet view of Reagan was confirmed when, barely two months into his first term, Reagan referred to the USSR as the "focus of evil," and seized every opportunity to brand the Soviet Union as an international outlaw. The Soviets reciprocated by launching a propaganda blitz, at one point comparing Reagan to Hitler. This was not in the spirit of detente.<sup>14</sup>



(U) Yuri Andropov

(U) Militarily, the Reagan administration opened a campaign of psychological military warfare. American aircraft, especially from the Strategic Air Command, probed East Bloc borders in increasingly provocative flights. SAC sent B-52 flights over the North Pole to see what the Soviet reaction would be. The Navy was by all odds the most daring, however. Two huge naval exercises – one near the Murmansk coast in 1981, the other in the Sea of Okhotsk in April of 1983 – served notice that Allied naval forces would intrude into what the Soviets had come to regard as their own private lakes. The Navy also delighted in using sophisticated evasion techniques to elude the USSR's ocean reconnaissance systems. These techniques would frequently be turned against the Soviets in high-tech sub-shadowing exercises.<sup>15</sup>

(U) These actions were calculated to induce paranoia, and they did. In early 1981, KGB chief Yuri Andropov, who had apparently come

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to believe that the U.S. had decided to launch a first nuclear strike, launched Operation Ryan. Ryan was an attempt to get as much information as possible about this supposed attack. The scare peaked in 1983. In February of that year the U.S. began the deployment of nuclear-armed Pershing missiles. In March, Reagan made his famous "evil empire" speech, and only two weeks later he announced the inauguration of his Strategic Defense Initiative, later dubbed "Star Wars."<sup>16</sup>

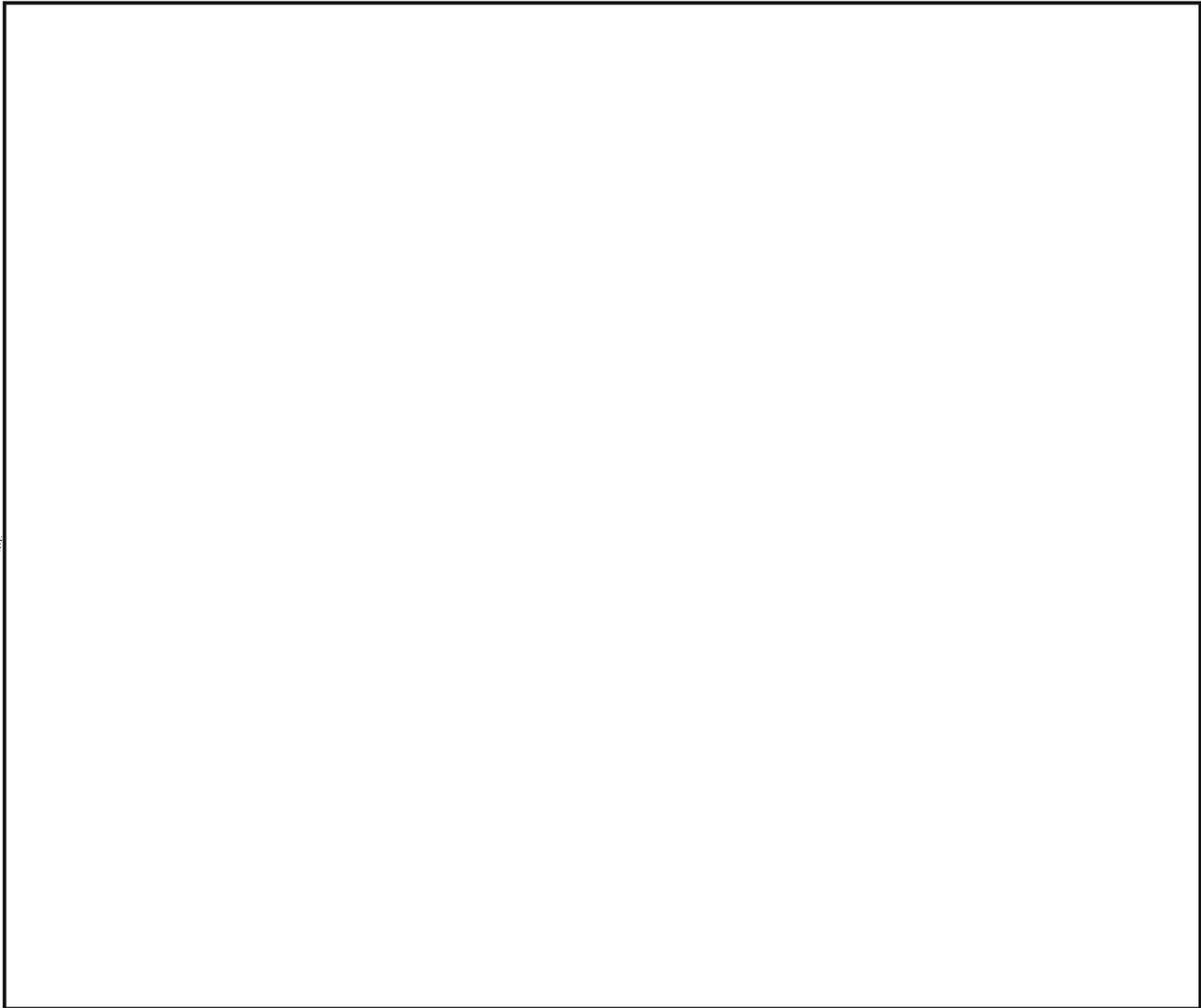
(U) Cold War hysteria reached a peak in the autumn of the year with two events: the Soviet shutdown of KAL-007 (see page 320) and the NATO exercise Able Archer. The latter was an annual NATO command post exercise of a distinctly nonthreatening nature. But in 1983 the scenario was changed to involve the secretary of defense, the chairman of the JCS, the president, and the vice president. Moreover, Able Archer 1983 added a practice drill that took NATO forces from the use of conventional forces through nuclear release. This, says Gordievsky, was interpreted in Moscow as the possible initiation of a preemptive strike, and this extremely dangerous postulation was used as a spur to intensify intelligence collection. It also, according to the same source, resulted in a very high state of KGB alert.<sup>17</sup>

(U) A last bit of melodrama was provided by the "Bogus War Message" of 1984. This bizarre episode had its origins in Reagan's penchant to ham for the microphones. Just prior to his weekly radio address on August 11, 1984, he was asked to do a voice check. Not content to do a routine countdown, he said "My fellow Americans. I'm pleased to tell you today that I've signed legislation that will outlaw Russia forever. We begin bombing in five minutes." Although this was supposedly off the record, it was overheard by all three networks and was broadcast over NBC and ABC. The Soviets took a very dim view of the incident, calling it "unprecedentedly hostile toward the USSR and dangerous to the cause of peace."<sup>18</sup>

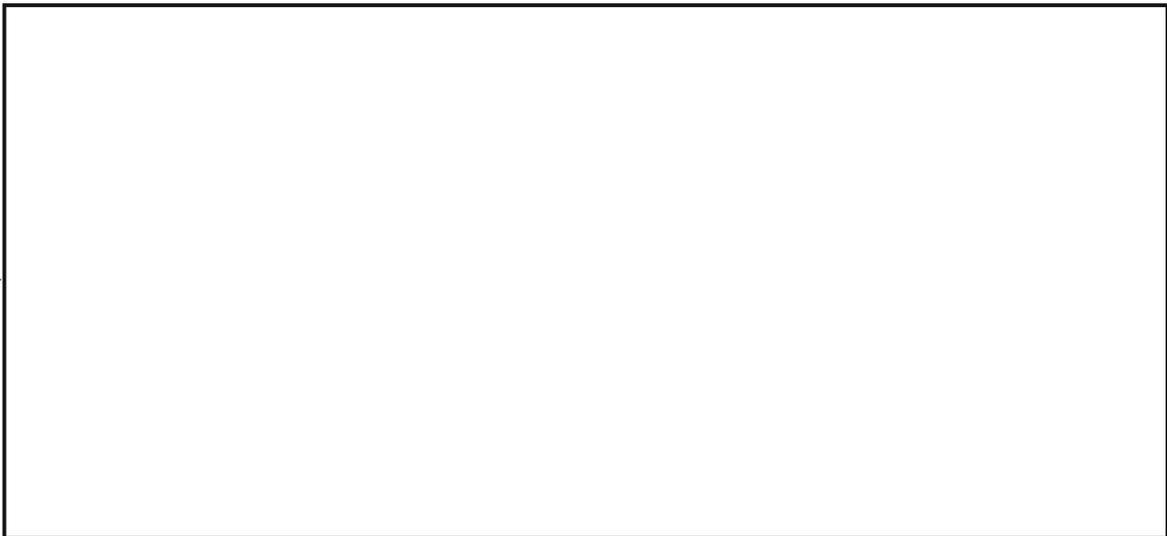


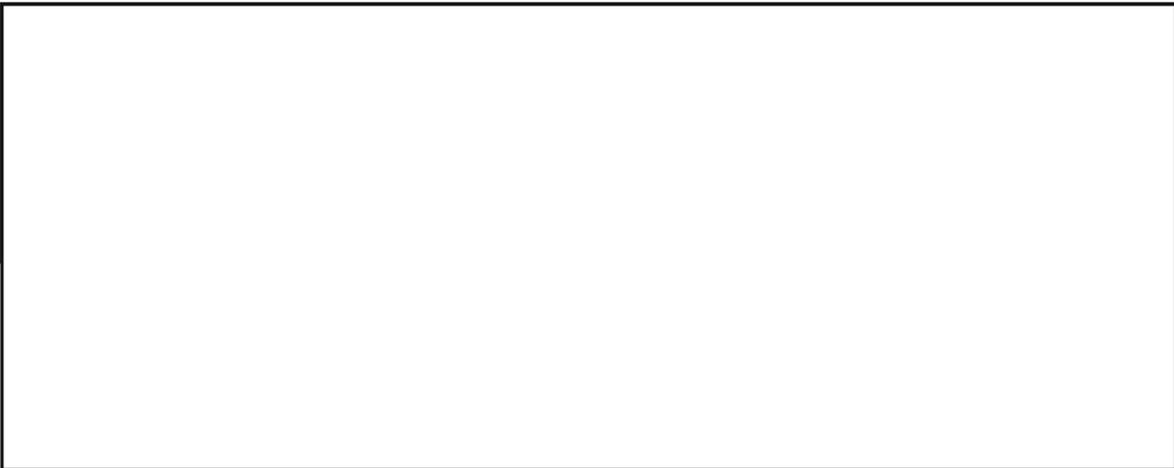
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(U) KAL-007

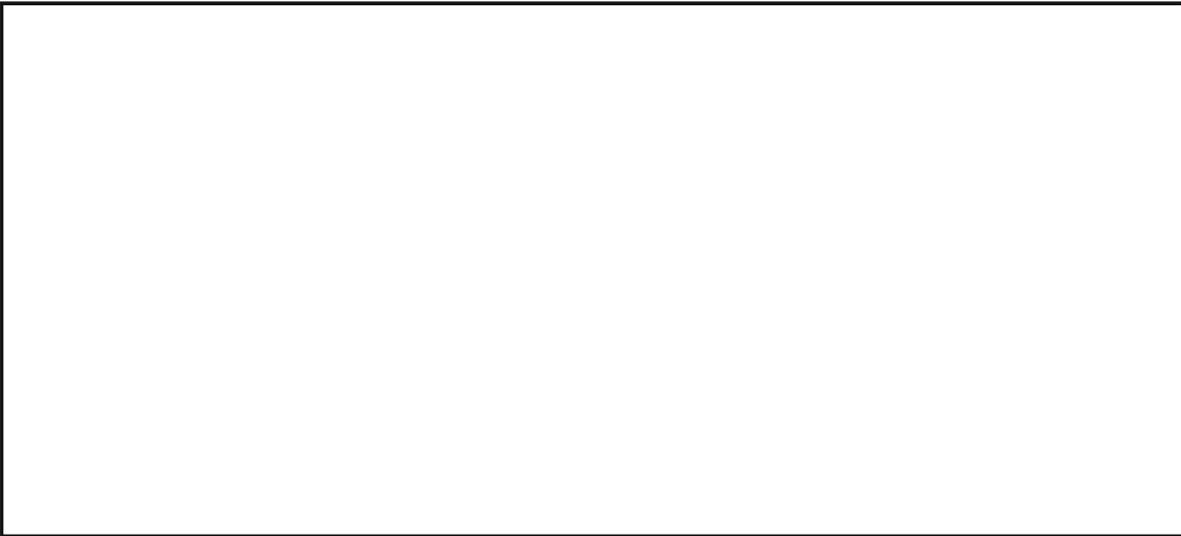




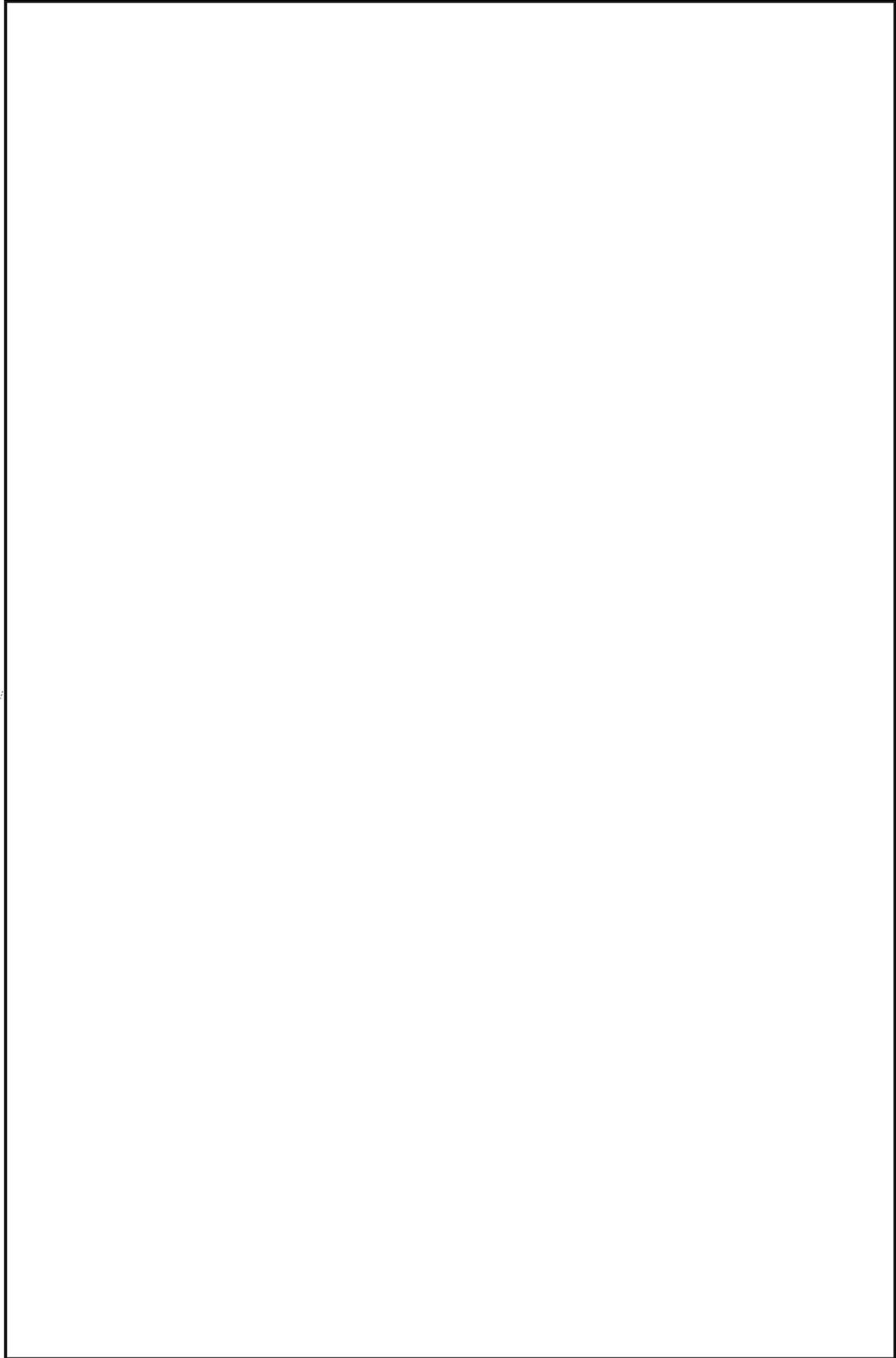
(U) But it was a real aircraft. Early on September 1, Korean Airlines flight 007 had taken off from Anchorage, Alaska, on its way to Seoul. It was programmed to fly commercial track R20, which skirted Soviet airspace along Kamchatka. It was obviously off course.



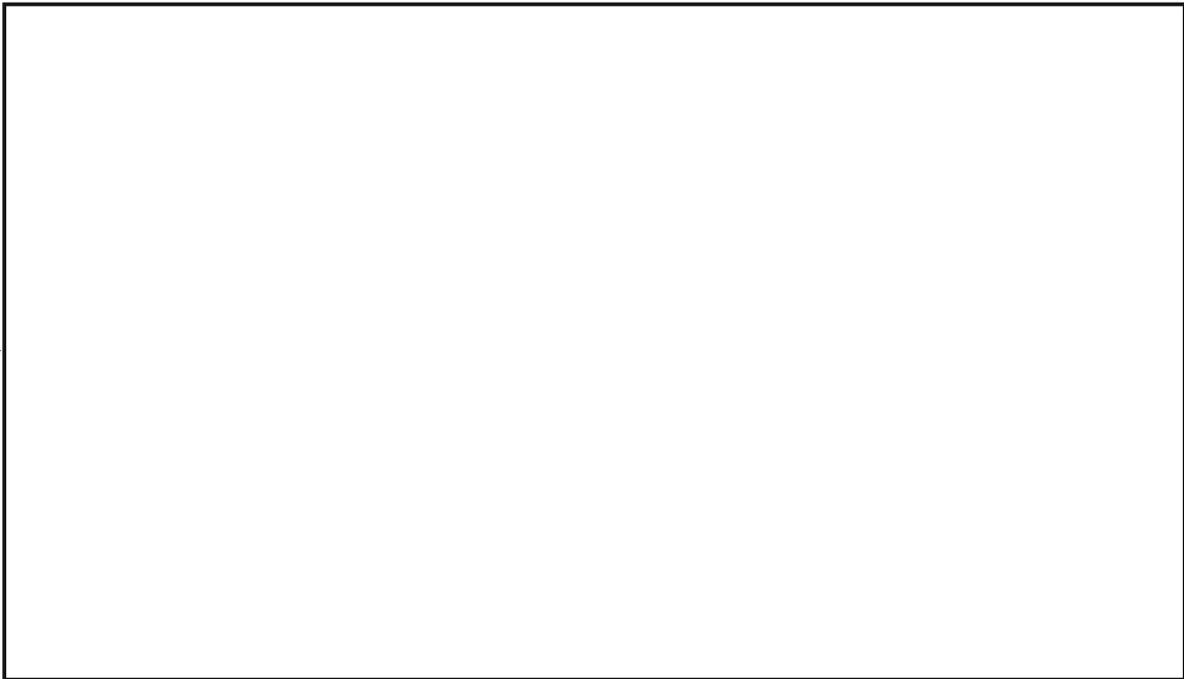
(U) While the SU-15 maneuvered, the airline pilot was engaged in routine conversations with the tower at Narita airport, outside Tokyo. At 0320 the tower controller gave KAL-007 permission for an altitude change, and three minutes later the pilot reported that he had climbed to the new altitude and had leveled off. At 0327 the controller tried to contact KAL-007, but the answer was lost in a haze of static. Tokyo tower never heard from KAL-007 again.<sup>25</sup>



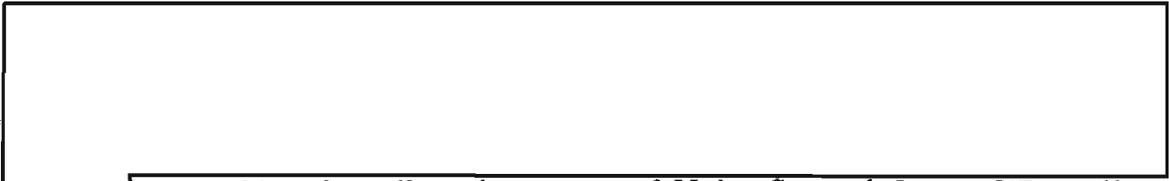
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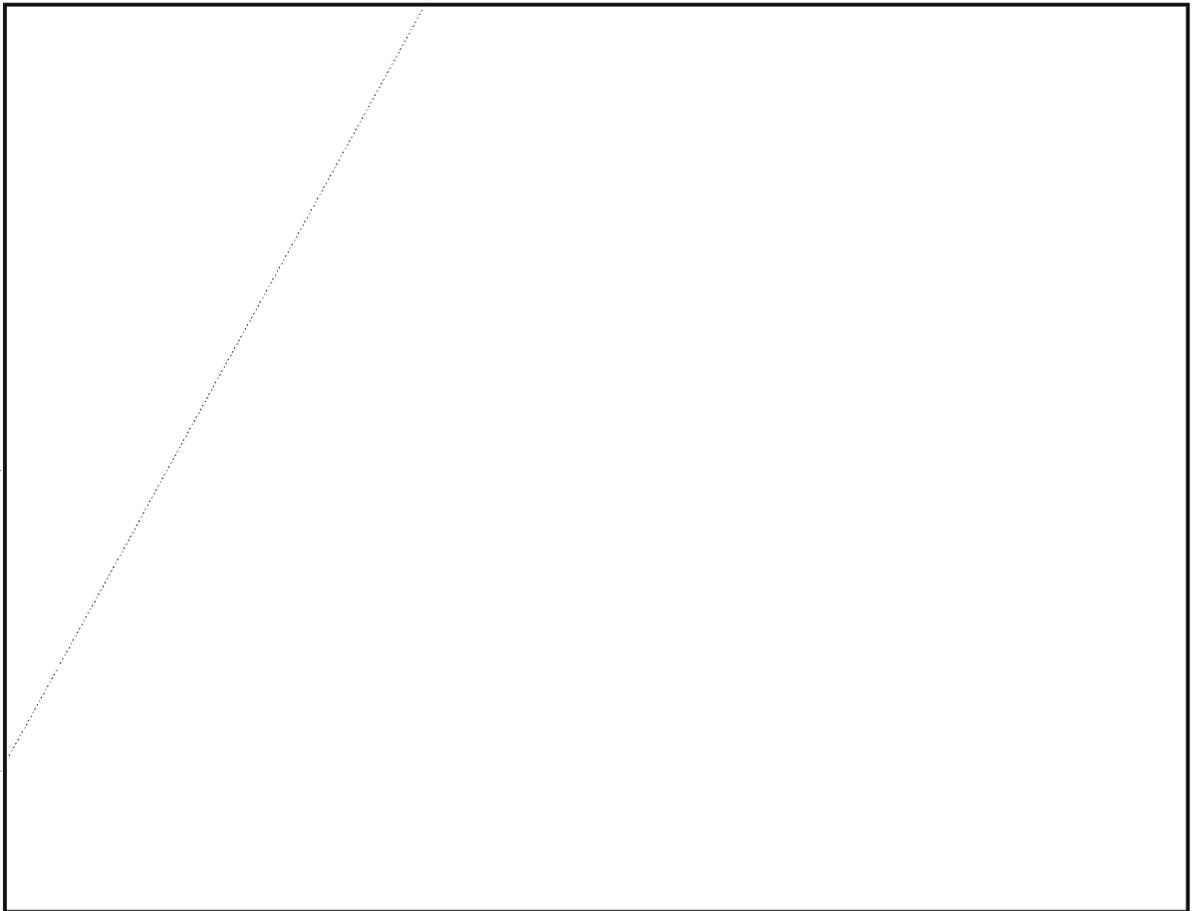


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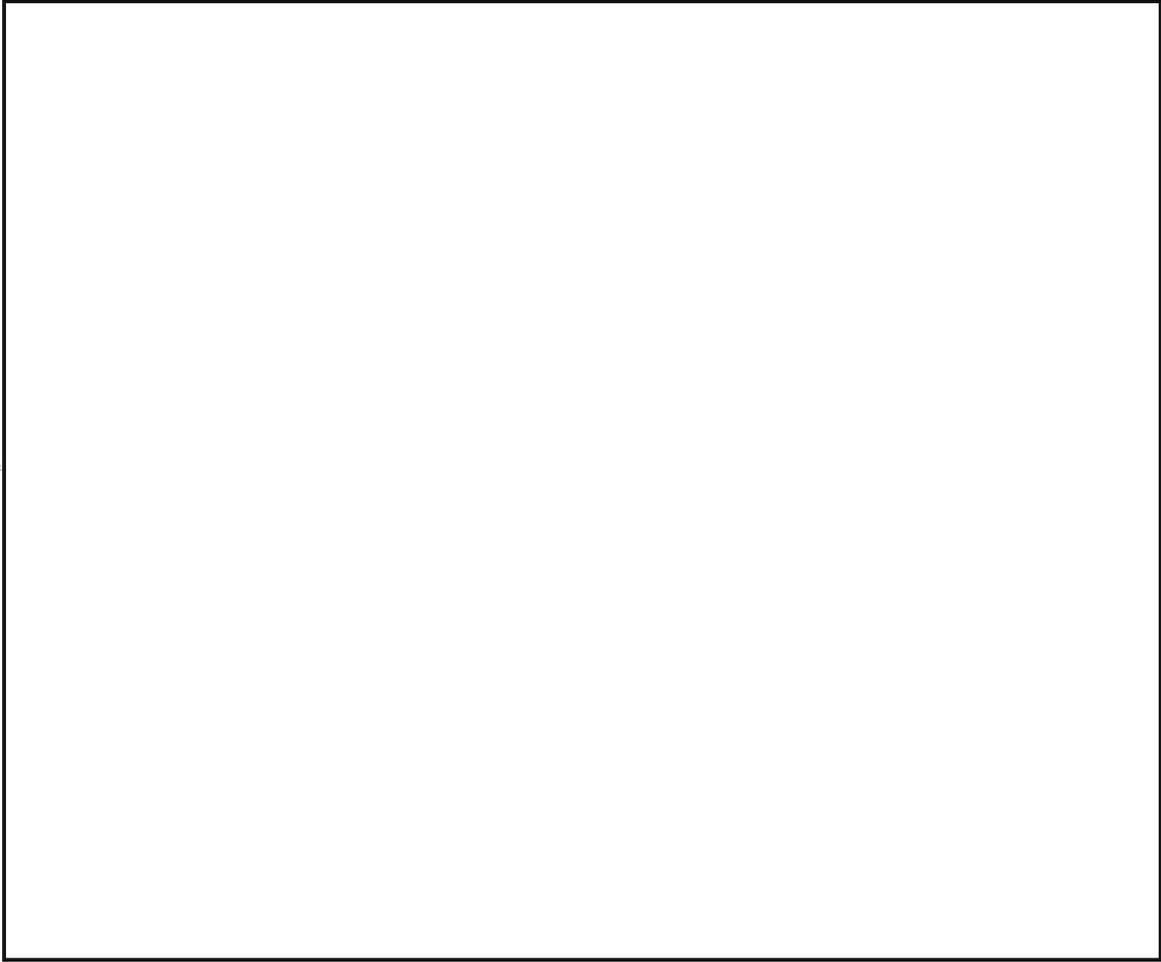


[redacted] was making the call at the request of Major General James O'Donnell, commander of 5th AF.) The analyst at [redacted] began reading a just-published UPI dispatch:

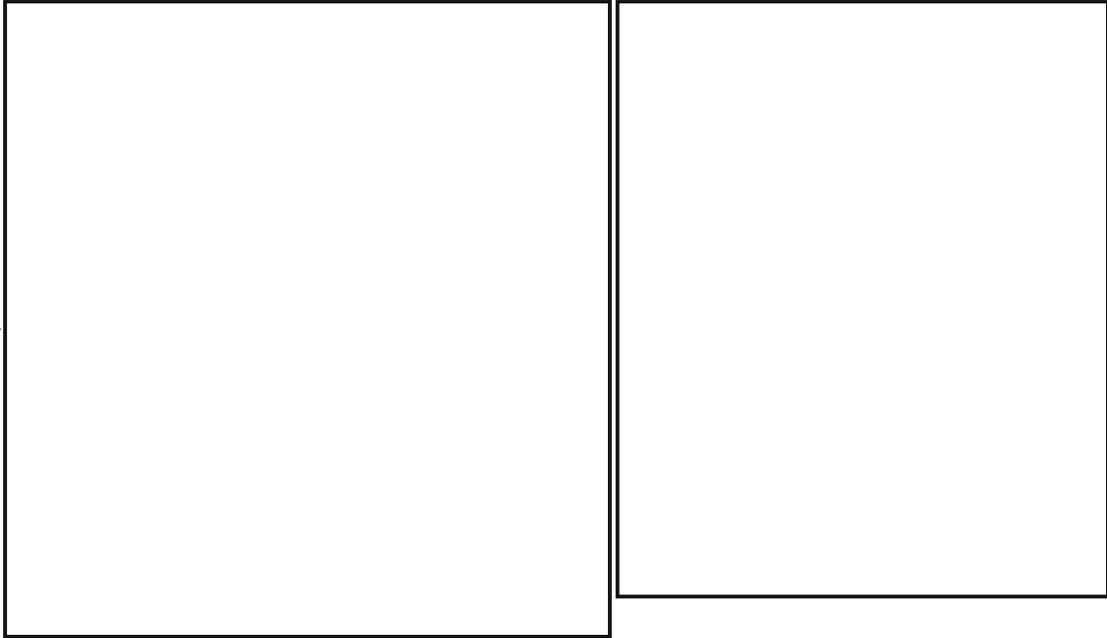
A Korean Air Lines jumbo jet flying from New York to Seoul Wednesday with 269 people aboard, including a U.S. congressman, was forced to land on Sakhalin, a Soviet-occupied island north of Japan. The congressman was identified as Larry MacDonald, Democratic representative of Georgia....



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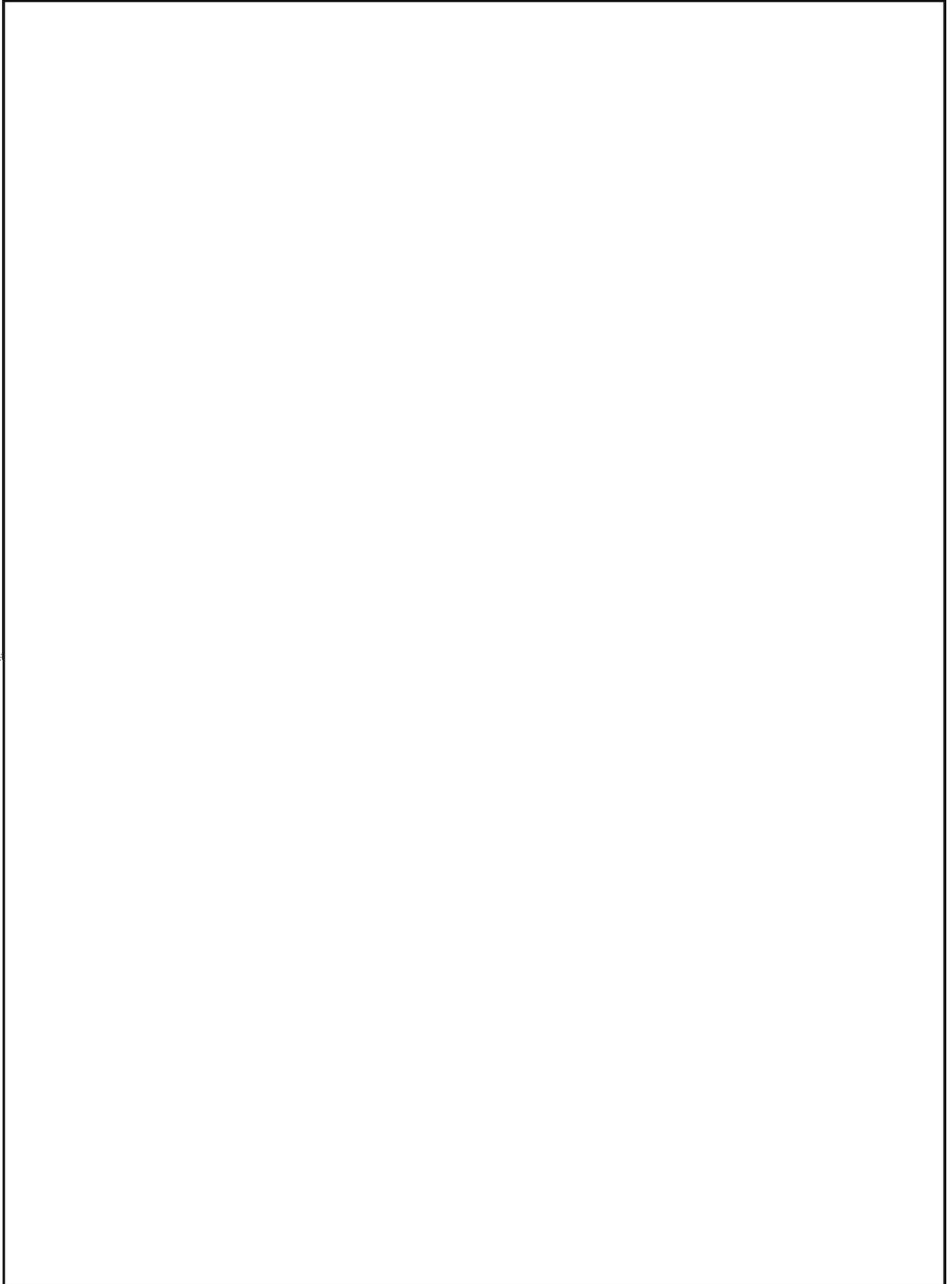
(U) Washington



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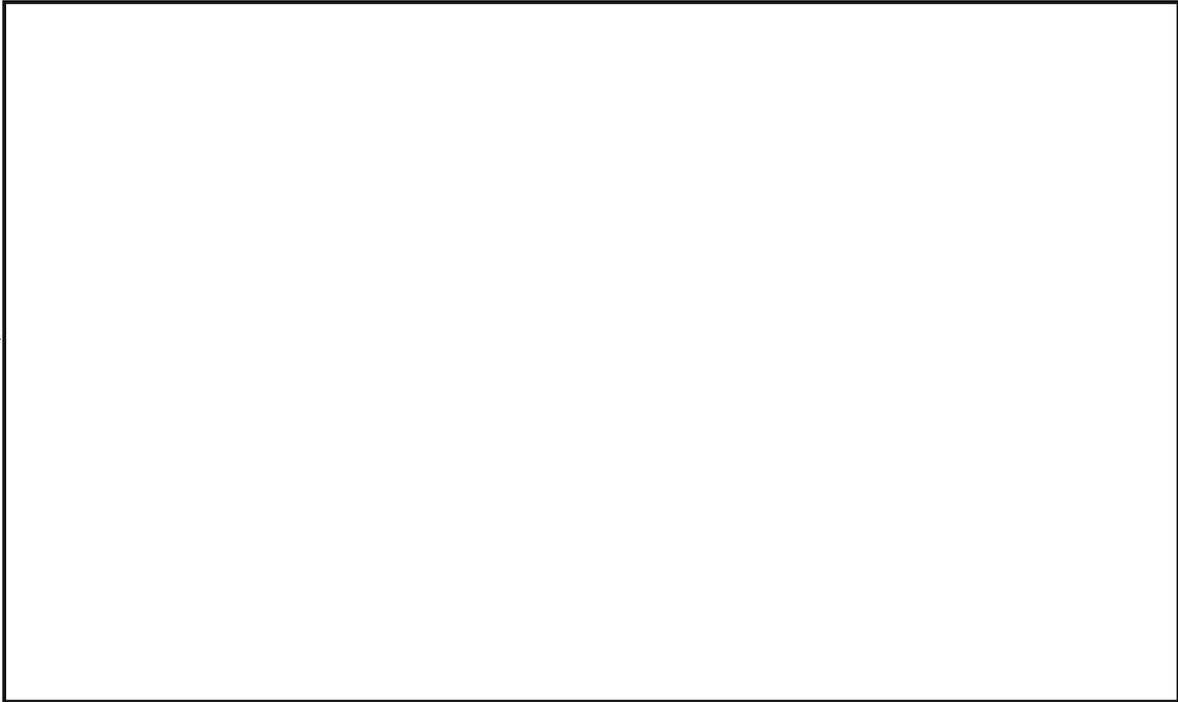
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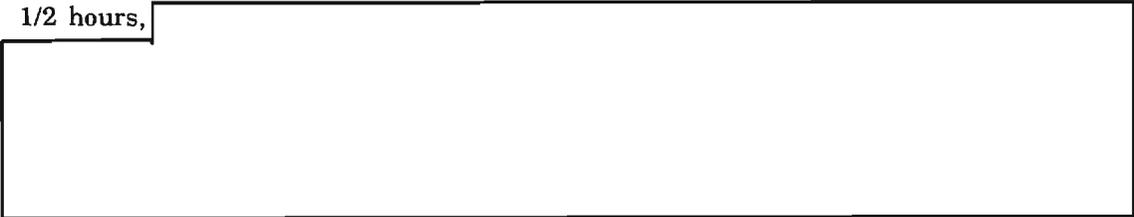


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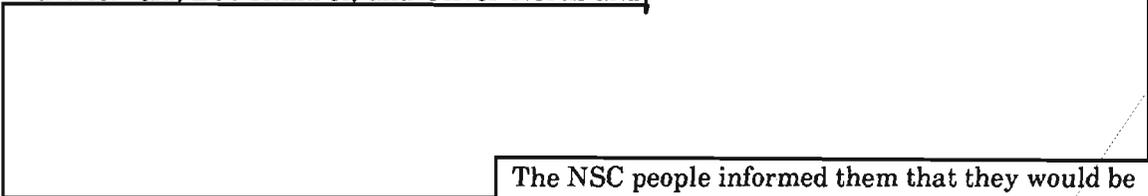


~~(S//SI)~~ Saturday afternoon an outraged secretary of state, George Shultz, who was the ranking administration official in Washington that day, accused the Soviets of shooting the aircraft down in cold blood. He stated that the the Soviets had tracked KAL-007 for 2 1/2 hours,



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~~(S//SI)~~ [redacted] arrived at the White House just before 1700 that Saturday. They met in the Situation Room with NSC officials John Poindexter, Ken de Graffenreid, Bob Kimmel, and Oliver North and



The NSC people informed them that they would be briefing President Reagan the next morning.<sup>42</sup>

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EO 1.4.(c)

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(S//SI) [redacted] returned to the White House at 0800 Sunday, and were ushered into the Cabinet Room, where they briefed the president. [redacted]

[redacted] The briefing lasted only ten minutes, but the questions that followed went on for almost forty. Following that, the president conducted a highly unusual Sunday morning press conference to condemn the Soviets and demand an admission of guilt.<sup>43</sup>



(U) Briefing President Reagan. Clockwise: President Reagan, George Shultz, Robert McFarlane, William Casey, and Caspar Weinberger.

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(U) On Monday evening Reagan went on television again to repeat his charges and outline a program of sanctions against the USSR. To back up his charges, he played part of the tape. At the same time, administration officials were appearing on TV talk shows to condemn the Soviet shutdown. The State department frantically rounded up support for sanctions from friendly capitals. It was a full-scale propaganda blitz.<sup>44</sup>

#### (U) Moscow

(U) The Soviets went into public denial. In the first official press release from Moscow, almost twelve hours after the shutdown and some nine hours after debris was confirmed floating on the ocean, *Tass* reported an encounter with an unidentified plane, which, it was alleged, failed to respond to queries and continued on its way. The next day *Tass* still denied any knowledge of the fate of the aircraft, but began hinting that it might have been some sort of "spy flight." It was not until Sunday, September 3, that Soviet official sources

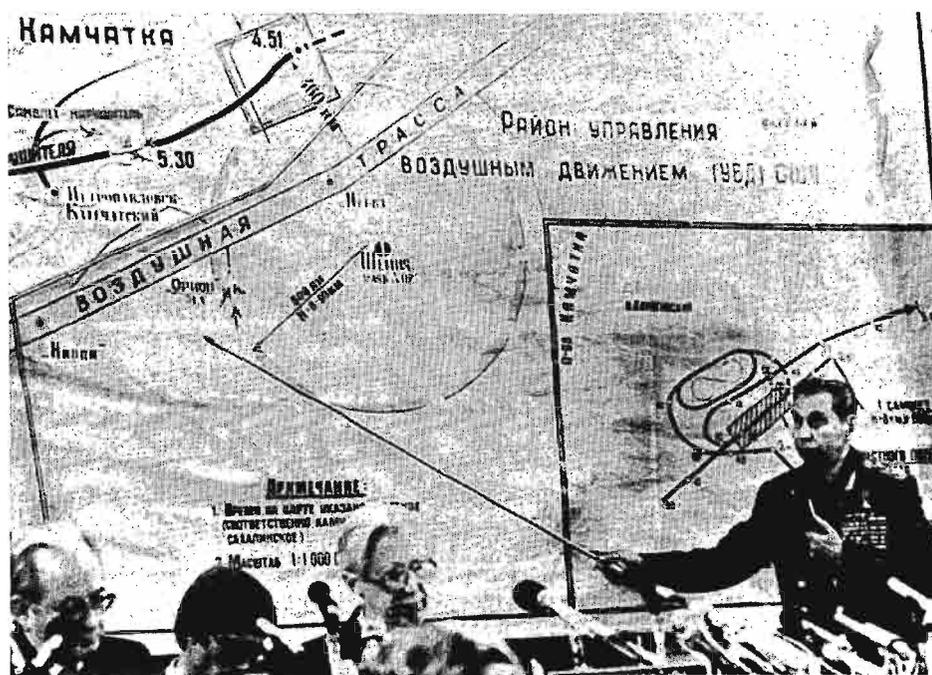
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admitted that it might have been the missing KAL flight; but they reiterated that it was undoubtedly on an espionage mission.<sup>45</sup>

(U) The spy scenario was one that the Soviets repeated and embellished. A writer in the *Moscow Literaturnaya Gazeta* for September 7 alleged that KAL-007 was "...a provocation hatched a long time ago and carefully prepared by the US CIA." He went on: "It is universally known that Boeing passenger aircraft are equipped with modern control instruments and also that they can be fitted with the most advanced intelligence gathering instruments to carry out highly secret assignments."<sup>46</sup>

(U) The Soviets did not finally admit that they had shot the aircraft down until September 6, three days after President Reagan had played the incriminating tapes. They expressed regret that it had proved to be a civilian aircraft, but held the U.S. "fully responsible," in line with their contention that its flight course had been charted by the CIA.<sup>47</sup>



(U) Nikolay Ogarkov

(U) On September 9, with worldwide criticism mounting, the Soviets took the unprecedented action of putting the chief of their general staff on television to explain the Soviet side of the story. Nikolay Ogarkov proved to be an articulate spokesman for the Soviet story, gesticulating at the flight route on the map and hammering away at the spy theme: It has been proved irrefutably that the intrusion of the South Korean airlines plane into Soviet airspace was a deliberately, thoroughly planned intelligence operation. It was directed from certain centers in the territory of the United States and Japan. A civilian plane was chosen for the mission, deliberately disregarding or, possibly, counting

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on the loss of human life. American radars, he asserted, tracked the flight (ignoring the laws of physics which prevented that) and would have warned the plane had it not been a spy flight. He contended that it flew in tandem with the RC-135, in a pattern designed to confuse Soviet air defense, then broke off into Soviet territory, deliberately evading pursuit.<sup>48</sup>

— ~~(S//SI-SPOKE)~~ A by-product of the press conference was Ogarkov's assertion that the Sukhoi pilot fired cannon bursts at the airliner. [REDACTED]

[REDACTED]

[REDACTED]

— ~~(S//SI-SPOKE)~~ Soviet reactions to KAL-007 were a product of history. The insular nature of the regime had produced over years an obsessive concern with safety and secrecy,

[REDACTED]

The 1983 shutdown was, in fact,

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preceded by a similar incident involving a Korean Airlines commercial flight five and a half years earlier. On April 20, 1978, a KAL 707 flying from Paris to Seoul by way of Anchorage strayed into Soviet airspace over the Kola Peninsula. [REDACTED]



~~(S//SI-SPOKE)~~ The Soviet concern for border security had escalated to paranoid intensity by August of 1983. The Reagan administration's campaign of psychological warfare and border probing had been bringing up the temperature for two years. Soviet tempers boiled over in April of 1983 as a result of the U.S. naval exercise in the Sea of Okhotsk. [REDACTED]

**(U) New York**

(U) U.S. ambassador Jeane Kirkpatrick represented the United States at the UN. The Reagan administration intended to lay the wood to the Soviet Union, and she was well equipped to do this. Acerbic even in calm seas, she could be ferocious in a fight.

(U) After listening to denials from the Soviet ambassador, she launched an attack reminiscent of Adlai Stevenson's charge during the Cuban Missile Crisis in 1962. She played the tape [REDACTED]

[REDACTED] following which she made a point-by-point refutation of Soviet denials and evasions: Contrary to Soviet statements, there is no indication whatsoever that the interceptor pilot made any attempt either to communicate with the

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airliner or to signal it to land....at no point did the pilots raise the question of the identity of the target aircraft....At a distance of two kilometers, under the conditions prevailing at the that time, it was easily possible to identify a 747 passenger airliner. Either the Soviet pilot did not know the Korean plane was a commercial airliner, or he did not know what he was firing at [sic].<sup>53</sup> Her interpretation of what had happened was near perfect, and her language was supported by the voice transcript. Her more general charge later in the speech about historic Soviet brutality and disregard of international law had much less to do with the evidence, and was part of the Reagan administration's diplomatic offensive against the USSR. KAL-007 simply opened the door of opportunity.



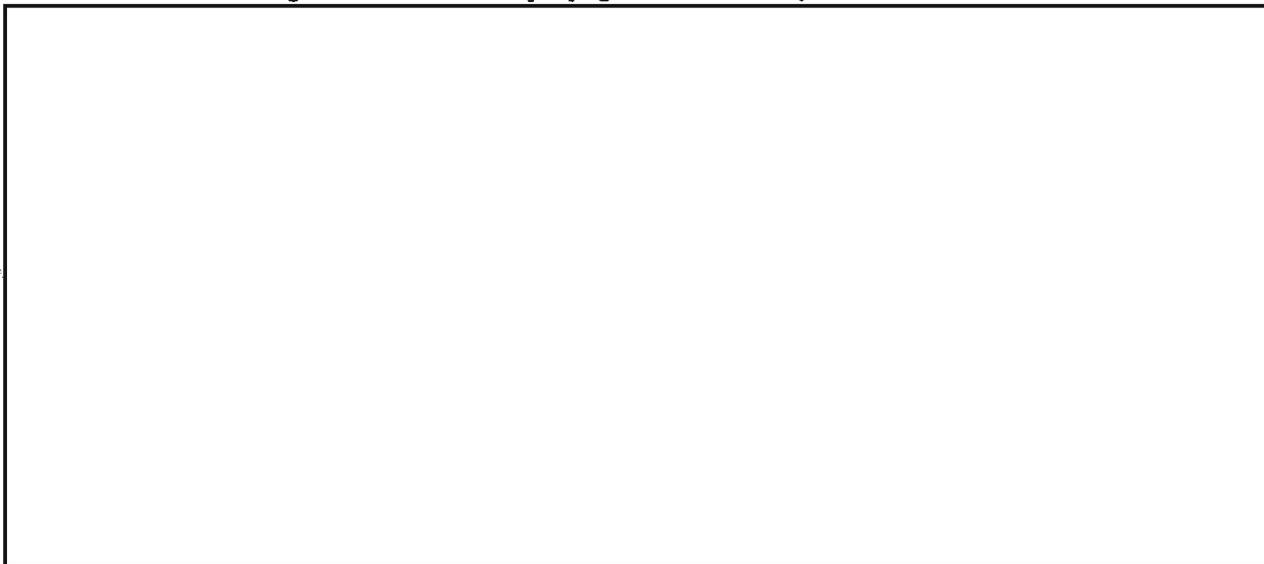
(U) Jeane Kirkpatrick

**(U) The Postmortems**

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(U) When it was all over, the intelligence community, as well as the journalistic world, had some reassessing to do. What did the Soviets know, and when did they know it? What did the intelligence community know, and how did they use it? And what contributions did the White House make to the situation?

(U) To answer the last question first, the White House pounced on the shutdown and squeezed it dry of propaganda value. It was one of those opportunities that comes but once in a lifetime. There is no question that the Reagan administration made the very, very most of it. In years following the collapse of the Soviet Union, a Russian journalist assessed it as the single most disastrous propaganda defeat they ever suffered.<sup>54</sup>

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[Redacted]

~~(S//SI)~~

[Redacted]

It was an example of how quickly a large and far-flung bureaucracy could move once pricked. It is hard to see how anyone could have done better. Seymour Hersh, one journalist [Redacted] singled out NSA for excellence and for a non-political approach. (He did not, however, have kind words for the Reagan people.)<sup>58</sup>

[Redacted]

~~(TS//SI-UMBRA)~~

[Redacted]

[Redacted] William Casey decreed on September 21, 1983, that "...it is now time to circle the wagons and stop talking." But the Reagan administration, in some ways the most porous in memory, could not seem to stop talking.<sup>58</sup>

~~(S//SI-SPOKE)~~ And, finally, how culpable were the Soviets in the incident? [Redacted]

[Redacted] Given the paranoia that had existed since April, it was unthinkable that such a penetration could be permitted without action. A scenario like that would place everyone's jobs at stake.

(U) The Soviet SU-15 pilot claimed that he did not recognize it to be a civilian airliner. Flying in the dim light of an early dawn, with the cabin blacked out so passengers could sleep, it could have looked like a military aircraft from a distance. The size of the silhouette, the rotating beacon, argue the opposite case. But far more egregious errors of visual identification are made every day, and were made during the attack on the *Liberty* in 1967, to name just one case.

[Redacted]

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It was the Reagan people who insisted that the Soviets could not have mistaken a 747 for a 707. That was their value judgment. It was wrong, but not so wide of the mark that one can impute anything more sinister than righteous wrath. It was the height of the Second Cold War.

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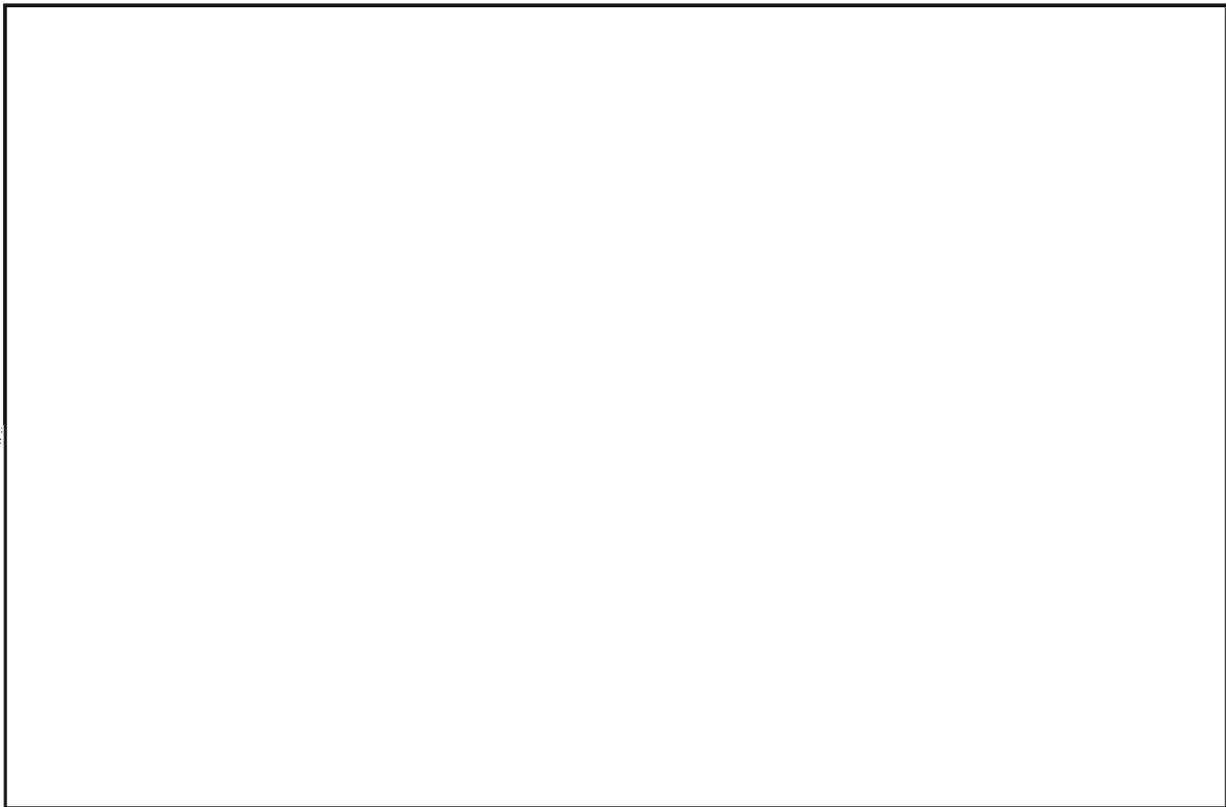
**(U) VERIFICATION**

(U) SALT II was never ratified by the Senate, thus leaving a huge question mark about the fate of strategic arms limitation. In the absence of a ratified treaty, however, both sides decided independently to abide by the provisions of the draft. When Reagan became president, that was how matters stood.

(U) Reagan, too, continued the informal arrangements that the Carter administration had left him. But under Reagan there was much less trust. The issue of a "Soviet strategic breakout" from the treaty was never far from anyone's mind, and the intelligence work to discover such a "breakout" was intense. In late 1982 intercepted telemetry from a Soviet missile test showed 95 percent encryption, the first time Soviet telemetry encryption had ever hit that level. The intelligence community assessed that above 70 percent amounted to denial of capability to monitor treaty compliance. The next year, as the debate of telemetry encryption continued to rage, an advisory committee reported to the president on a long history of Soviet arms control treaties, including SALT I. The report reinforced Reagan's natural tendency to distrust the Soviets anyway.<sup>59</sup>

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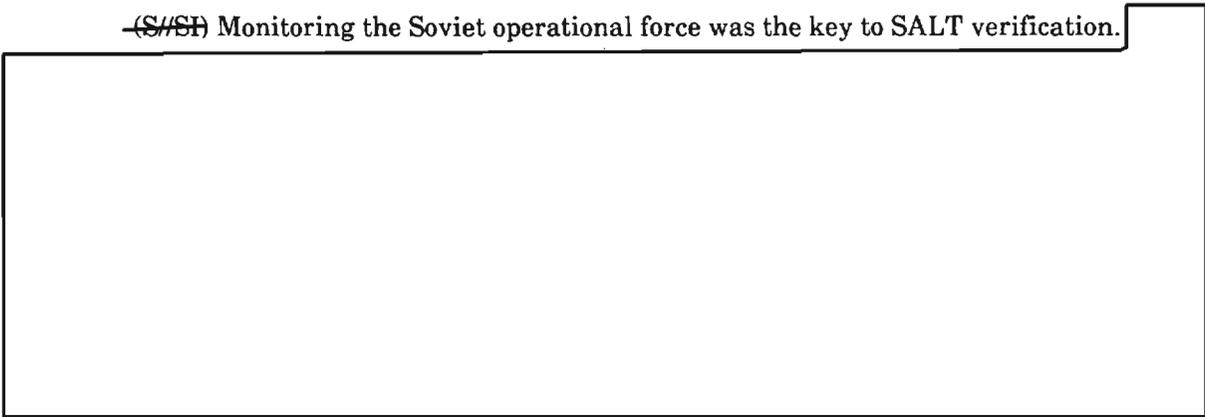
~~(S)~~In 1983, the Reagan administration decided that all future U.S. ICBMs would have encrypted telemetry, partly in retaliation for the earlier Soviet decision to encrypt theirs.



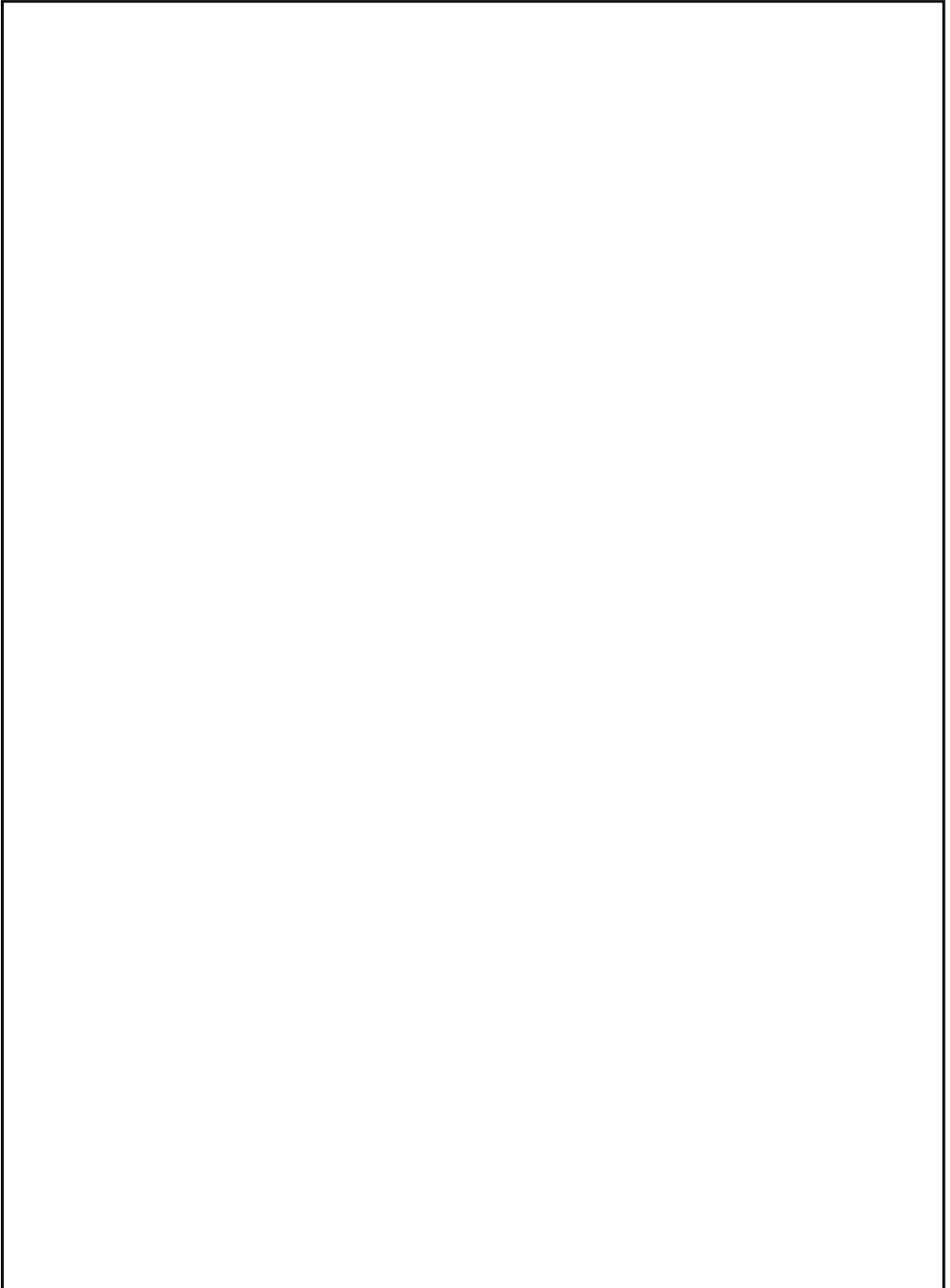
In this case the defense won, and U.S. telemetry became unreadable.<sup>62</sup>

**(U) *The Relocatable Targets Problem***

~~(S//SI)~~ Monitoring the Soviet operational force was the key to SALT verification.



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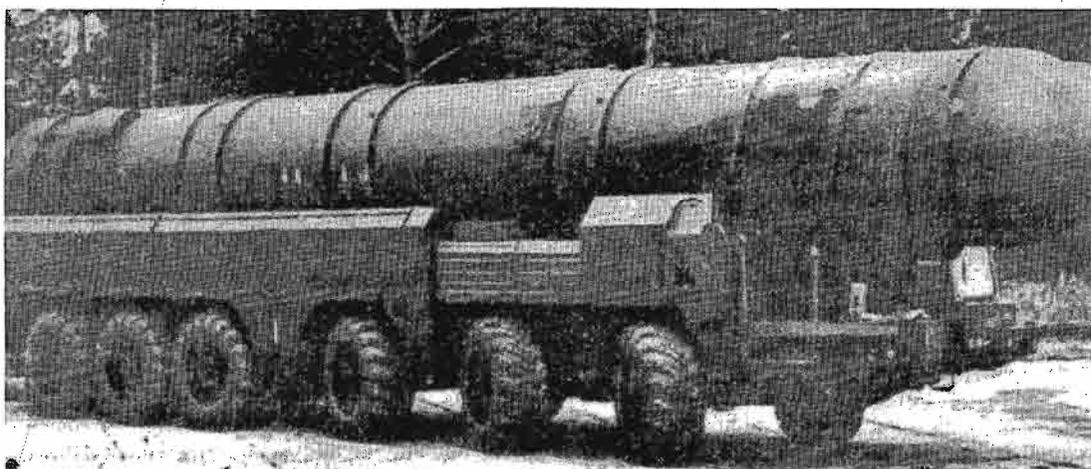


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(U) The Soviets introduced the SS-20 in 1977. The SS-20 was an IRBM with a range of 5,000 kilometers. [REDACTED] This made it a threat to NATO forces. But the real news about it was its mobility. The SS-20 was the first relocatable strategic missile in the inventory.<sup>67</sup>



(U) SS-20

~~(S)~~ SS-20 units moved into former SS-4 and SS-5 sites in the western USSR, and in the Far East they occupied former SS-7 complexes. By the mid-1980s the Soviet SRF had ten SS-20 divisions composed of 48 regiments and [REDACTED] Units in garrison were not fully operational - to achieve that, the unit had to go to the field.

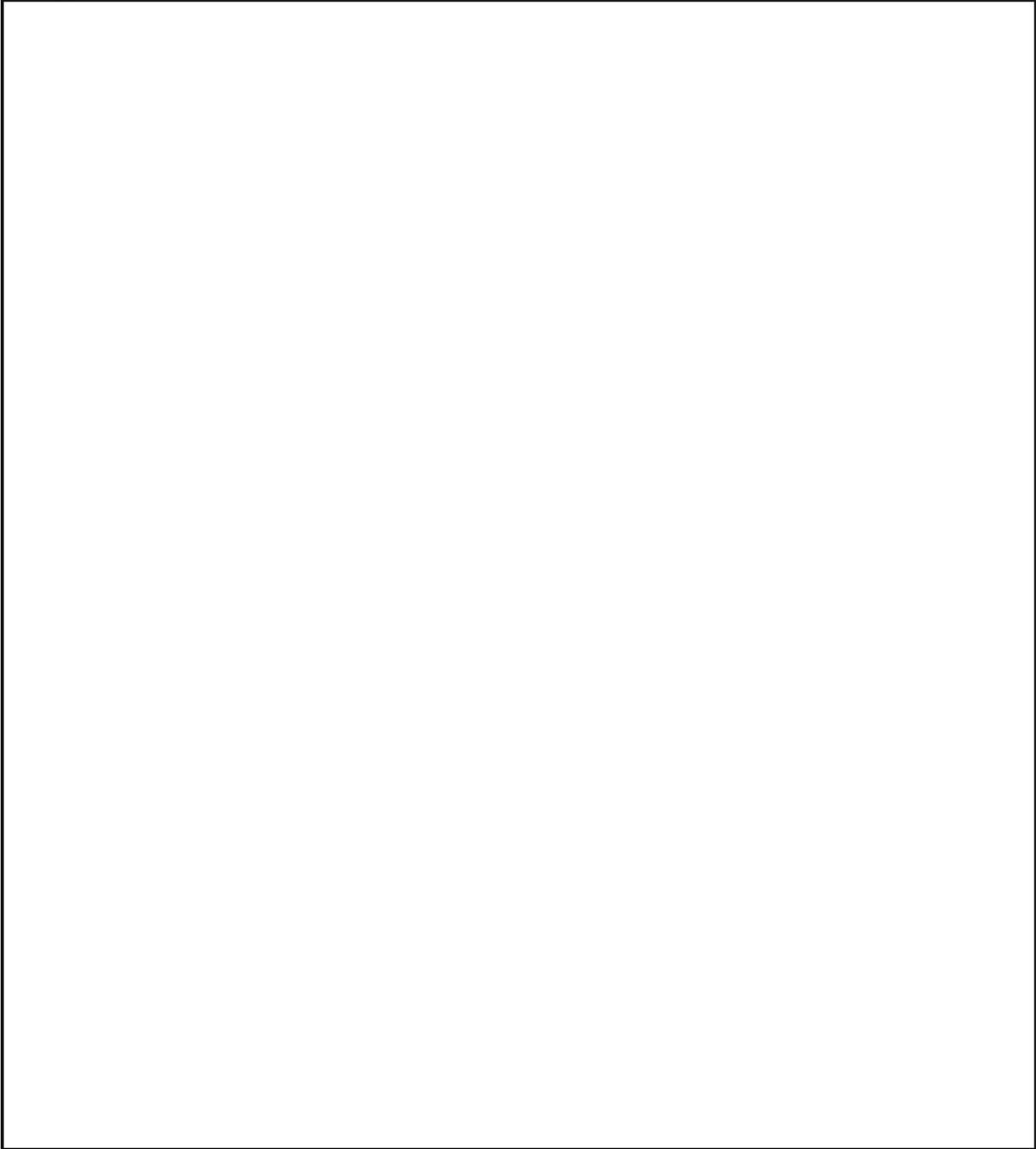


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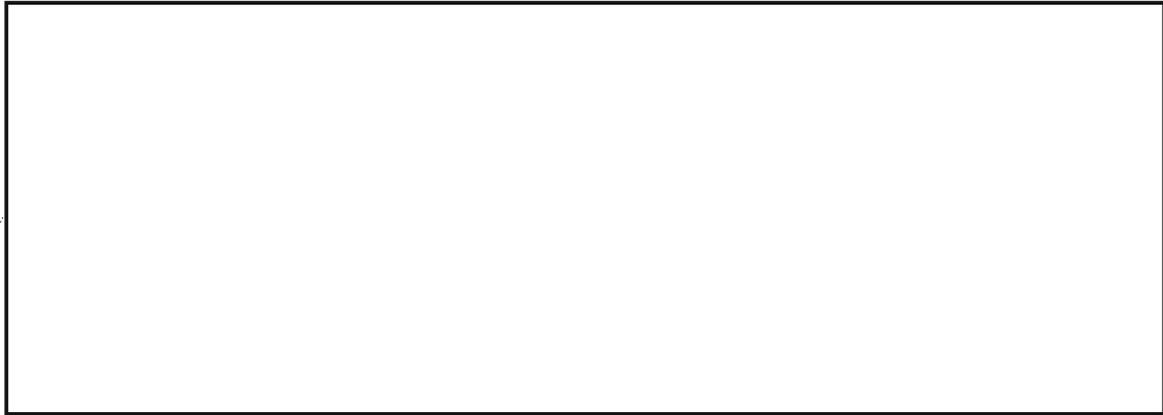


(S) Following on the heels of the SS-20 was a new threat - the SS-25 ICBM. With a range of 10,500 kilometers and a deployment MO similar to the SS-20, the SS-25 soon became the highest priority in the intelligence community. The first units became operational in 1985.<sup>69</sup>



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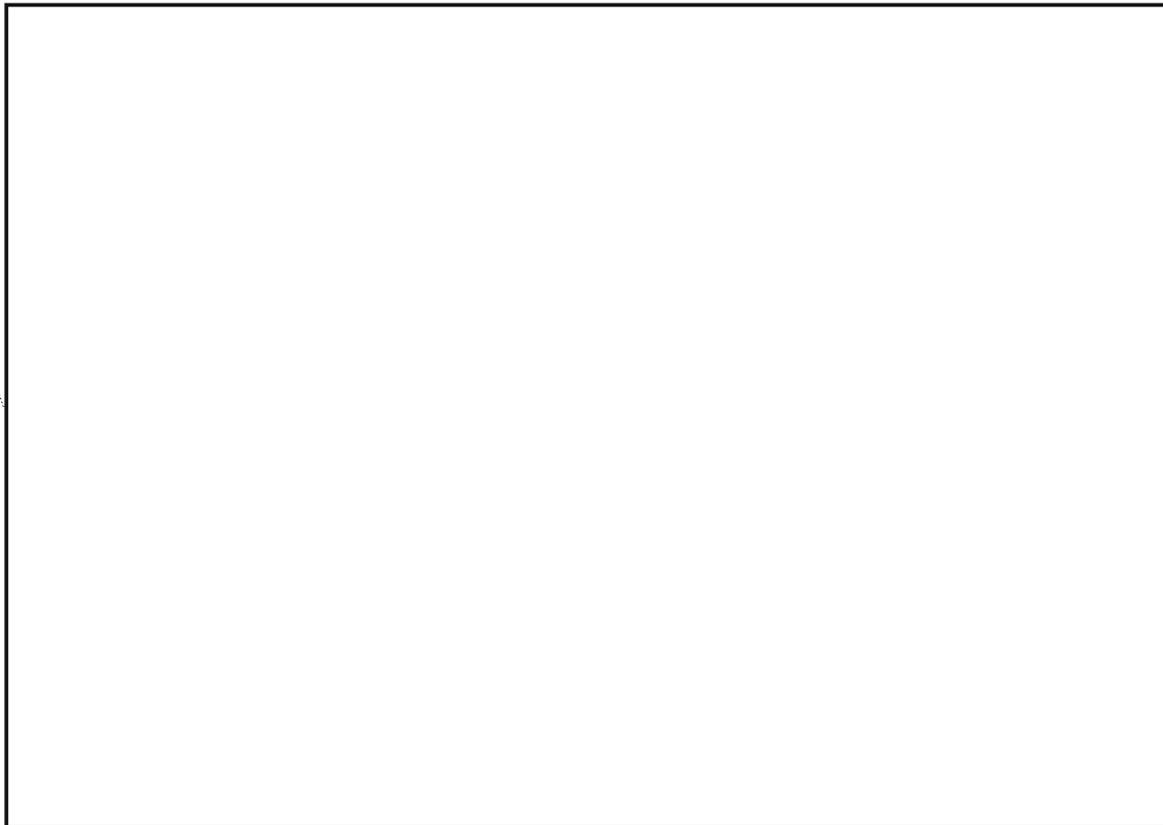
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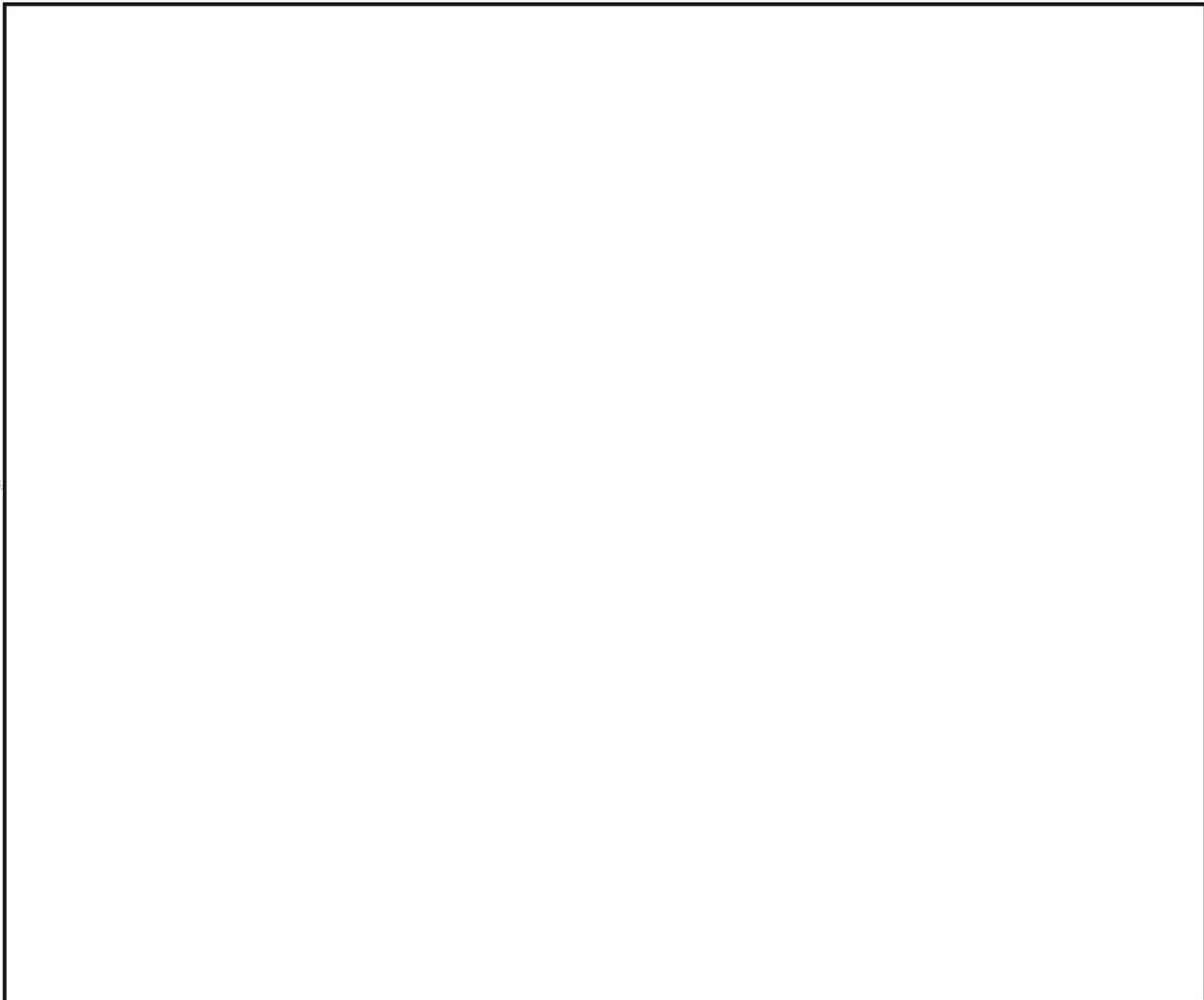


~~(S)~~ The relocatable target problem continued to be a research effort until 1985. Then, in July of that year, the intelligence community got its marching orders, in the form of NSDD-178. The directive was specific and unambiguous. It directed the Department of Defense "to develop a program to provide a capability to attack relocatable targets with U.S. strategic forces..." Soviet relocatable targets would be placed at risk and kept that way beyond the year 2000. "At risk" was defined as having the ability to destroy at least 50-75 percent of the force.<sup>76</sup>

EO 1.4.(c)

~~(S)~~ NSDD-178 generated money and priority. Essentially, the intelligence community was to remove all stops to find relocatable targets. The effort was headed by the Mobile Missile Task Force, a multi-agency committee set up within DoD to direct the effort.<sup>77</sup>





(U) Notes

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1. (U) Interview [redacted] by Tom Johnson and [redacted], 16 September 1997, OH 15-97, NSA.



3. (U) Interview [redacted] by [redacted], 20 July 1992, OH 1-92, NSA.

4. (U) [redacted] interview. Carter Presidential Library, NSF, in CCH Series XVI.I., "Poland."

5. (U) *Washington Post*, 27 September 1992. Zbigniew Brzezinski, *Power and Principle: Memoirs of the National Security Advisor, 1977-1981* (New York: Straus, Giroux, 1983), 465-68. Bernstein and Politi, 259.

6. (U) Carter Library, NSF, PDB, 2 December 1980.



[Redacted]

8. (U) [Redacted] interview.

9. (U) CCH Series XII.M [Redacted] papers, [Redacted]

EO 1.4.(c)

10. (U) Ibid. Ploss, Moscow [Redacted] 76.

11. (U) CCH Series XII.M.

12. (U) Ibid.

13. (U) Inman interview.

14. (U) [Redacted]

15. (U) Ibid.

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16. (U) Ibid. John Prados, "The War Scare of 1983," *Military History Quarterly* (Spring 1997), 9: 63-73. Anatoly Dobrynin, *In Confidence: Moscow's Ambassador to America's Six Cold War Presidents (1962-1986)* (New York: Times Books Division of Random House, 1995), 522-23.

17. (U) [Redacted] *For the President's Eyes Only*, 475. Prados, "The War Scare of 1983," 68.

18. (U) Facts on File, 604.

19. (U) CCH Series XII.D.

20. (U) [Redacted] interview.

21. (U) ESC, *A Historical Monograph of the KAL 007 Incident* (San Antonio: Kelly AFB, 1984), in CCH Series X.J.

22. (U) DDIR files, Box 2, "KAL-007"; Box 2, [Redacted]

EO 1.4.(c)

23. (U) CCH Series VIII.35 [Redacted] A2505 Memo 27 June 1984.

24. (U) ESC, *Historical Monograph....*

25. (U) Tower conversations quoted in Amembassy Tokyo message 051354Z September 1983, as provided from Japanese authorities. Typewriter barMessage contained in CCH Series VIII.35.

26. (U) ESC, *Historical Monograph....*

27. (U) [Redacted] interview. ESC, *Historical Monograph.*

28. (U) Interview [Redacted] by Tom Johnson, 12 June 1986, OH 18-86, NSA.

29. (U) ESC, *Historical Monograph....*

30. (U) ESC, *Historical Monograph.* To add to the mix, South Korean television reported shortly after 0900 that the flight had been forced down by the Soviets and had landed safely on Sakhalin Island. This appeared to have

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

been pulled out of thin air and may have been done to calm families waiting at Kimpo Airport for the flight to arrive, according to [redacted] See interview [redacted] by Robert Farley and Tom Johnson, 15 April 1986, OH 14-86, NSA.

31. (U) ESC, *Historical Monograph*....

32. (U) Interview, [redacted] ESC, *Historical Monograph*....

33. (U) ESC, *Historical Monograph*.... Interview, [redacted]

34. (U) CCH Series XI.4, [redacted]

35. (U) [redacted] in CCH Series VIII.35.

36. (U) Interview, [redacted], by Robert Farley and Tom Johnson, 20 February 1986, OH 9-86, NSA. Interview, [redacted] by Robert D. Farley and Tom Johnson, 10 October 1986, OH 24-86, NSA.

37. (U) [redacted] interview. [redacted] interview. [redacted] interview. CCH Series VIII.35, message series in II.B.

38. (U) Interview, [redacted] by Tom Johnson and Robert D. Farley, 10 April 1986, OH 13-86, NSA. [redacted] interview. Interview, [redacted] by Tom Johnson, 1 September 1998, OH 1998-19, NSA.

39. (U) [redacted] interview.

40. (U) DDIR Memo to William Clark, William Casey, and others, 1 September 1983, in CCH Series VIII.35.

41. (U) Schultz press conference, 1 September 1983, in CCH Series VIII.35. CCH Series XI.R. Dobrynin, *In Confidence*, 536.

42. (U) [redacted] summary of events can be found in CCH Series VIII.35.

43. (U) IWO Press Review, in CCH Series XI.R. Interview, [redacted] by Robert D. Farley, 18 December 1985, OH 19-85, NSA.

44. (U) IWO Press Review, 6 September 1983, and State Department KAL Working Group Report #3, in CCH Series VIII.35.

45. (U) FBIS Bulletins in CCH Series VIII.35.

46. (U) CCH Series VIII.35. According to Soviet ambassador to Washington Anatoly Dobrynin, Andropov, though convinced that the CIA had used the aircraft for espionage, was highly upset that it had been shot down and wanted to "come clean" with the foreign press. He was talked out of it by Defense Minister Ustinov. See *In Confidence*, 537-8.

47. (U) IWO Press Review for 7 September 1983, in CCH Series XI.R.

48. (U) FBIS item 118 from Moscow domestic service, in CCH Series VIII.35.

49. (U) [redacted] interview.

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~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

50. (U) [redacted] in CCH Series VIII.35. All important Soviet sources confirm that the decision was made in the Far East. See, for instance, Dobrynin, *In Confidence*, 538. (Dobrynin also confirms that the radar system on Kamchatka was basically inoperative that night.)

51. (U) [redacted] a copy can be found in CCH Series VIII.35. Other facts about the incident came from *Facts on File*, 28 April 1978.

EO 1.4.(c)

52. (U) NSA/CSS message 261419Z August 1983, in CCH Series VIII.35 [redacted]

53. (U) *New York Times*, 7 September 1983, 15, in CCH Series VIII.35.

54. (U) *Washington Post*, September 1, 1996, in CCH Series VIII.35. Reagan Library, NSF, in CCH Series XVI.J, "KAL 007."

55. (U) P05 critique, undated, in CCH Series VIII.35. Faurer interview.

56. (U) Seymour M. Hersh, *The Target is Destroyed: What Really Happened to Flight 007 and What America Knew About It* (New York: Random House, 1986).

57. (U) DIRNSA message to [redacted] 7 March 1985, in CCH Series VIII.35.

P.L. 86-36

58. (U) DCI memo, 21 September 1983, in CCH Series VIII.35.

59. (U) Reagan Library, NSF, in CCH Series XVI.J, "SALT Monitoring."

60. (U) Folder on arms control and SIGINT, in CCH Series XII.D.

61. (U) Ch A2 files, Box 3, "RT Location Project." DEFSMAC papers, paper dated 1994. QMR, 1/79. NSA Archives, acc nr 25759, CBOL 16. [redacted] "The [redacted] Acquisition," *Cryptologic Quarterly* (Winter 1983), 79.

62. (U) Ch A2 files, Box 3, "RT Location Project."

62. (U) Interview, [redacted] by Tom Johnson, 27 July 1998, OH 13-98, NSA. SISR Vol IV, Foreign Instrumentation Signals, June 1987, in CCH Series XII.D.

63. (U) Ibid.

64. (S//SI) [redacted] [redacted] *Cryptologic Quarterly* (Spring 1997), 75-89.

65. (U) NSA Archives, acc nr 420-83Z, H03-0503-1.

66. (U) Informal interview with [redacted] by Tom Johnson, 4 February 1997.

67. (U) *Jane's Strategic Weapon Systems*, 1989, issue 0.

EO 1.4.(c)

68. (U) Ch A2 files, Box 2 [redacted]

69. (U) Ch A2 files, Box 3, "RT Location Project."

70. (U) Interview [redacted] by Tom Johnson, OH 12-96, NSA Interview, [redacted] by Tom Johnson, 23 May 1996, OH 15-96, NSA.

71. (U) [redacted] interview. Ch A2 files, Box 3, "RT Location Project."

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- 72. (U) [redacted] interview. *Jane's Strategic Weapon Systems*, Issue 22, September 1996.
- 73. (U) [redacted] interview.
- 74. (U) CCH Series VI.FF.7.1. P. L. 86-36
- 75. (U) Ibid.
- 76. (U) [redacted] files, Box 3, "RT Location Project"; "Relocatable Targets Master Plan"; Box 4, "A2 Ops, General."
- 77. (U) CCH Series VI.FF.7.1.
- 78. (U) [redacted] files, Box 2, [redacted]; Box 3, [redacted] Final Report"; Box 3, "RT Location Project"; Box 3, "Project Illustration." [redacted] interview. [redacted] interview.
- 79. (U) [redacted] interview. EO 1.4.(c)
- 80. (U) [redacted] files, Box 3, "RT Location Project"; Box 4, "CSPAR Steering Group."
- 81. (U) [redacted] interview.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

**(U) Chapter 23**  
**The Rise of Terrorism and**  
**Unconventional Targets in the 1980s**

(U//~~FOUO~~) The U.S. SIGINT system had developed a modus operandi in dealing with military targets which drove the functioning of the system for many years. When faced with other types of targets, however, the system tended to become unstuck and dysfunctional. Paradoxically, the Reagan period, with its focus on Soviet strategic forces, became the time when the system was first wrenched into a response to unconventional targets.

EO 1.4.(c)

~~(S//SI)~~ They had been there all the time, of course. One of the earliest targets of the post-World War I period were the rumrunners, a target that virtually defined the successful Coast Guard SIGINT effort in the interwar period. The establishment of NSA was due partly to CIA's insistence [REDACTED]

[REDACTED] But resources were hard to come by, and most of the money went to watching the Soviets and fighting the Vietnam War.

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~~(S//SI)~~ In the late 1960s, as SIGINT budgets began to slide, some of NSA's prime contractors, [REDACTED] attempted to sell their wares on the international market. [REDACTED]

**(U) TERRORISM**

(U) The single biggest factor in nonmilitary targeting, however, was the rise of international terrorism. Originating in the Middle East as an Arab reaction to successive military defeats at the hands of Israel, the disease spread to Northern Ireland in 1969, to the Basque country of northern Spain in the 1970s, and elsewhere. From 1968 to 1970 terrorist incidents worldwide increased 113 percent each year, and 24 percent from 1970 to 1972. The infamous Palestinian assault at the 1972 Munich Olympics was followed by a brief decline in incidents, but in 1976 they began to rise again - 41 percent each year from 1975 to 1978. Moreover, terrorists shifted their attention from property to people. In 1970 half the incidents were directed against people, but in 1981, 80 percent were.<sup>3</sup>

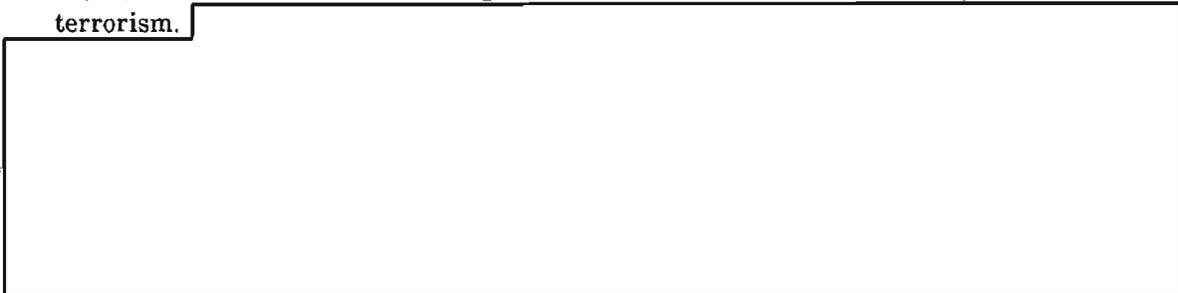
~~(TS//SI)~~ NSA's response was delayed by organization and methodology. From the latter standpoint, international terrorism [REDACTED]

EO 1.4.(c)

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~



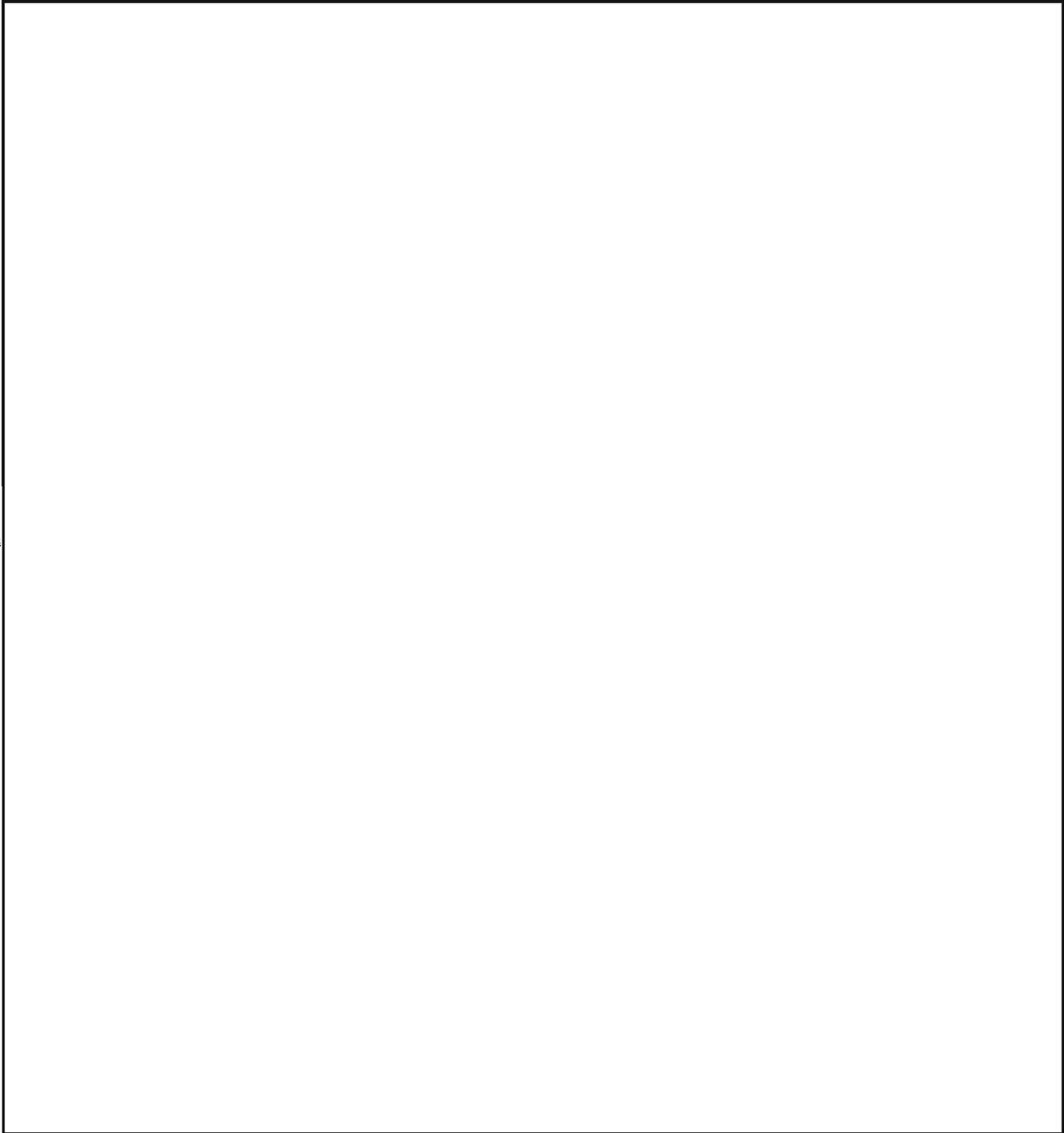
~~(S//SI)~~ The other problem was organizational. It was not until after the Munich Olympics that NSA created an organization whose task was, specifically, international terrorism.



~~(TS//SI-UMBRA)~~ In 1981, following the conclusion of the Iranian hostage crisis, Dick Lord, who was then chief of G, commissioned a study to see if NSA could do better than it had been doing on the terrorist problem. At about the same time the fledgling Reagan administration directed that all intelligence agencies devote more resources to counter-terrorism.

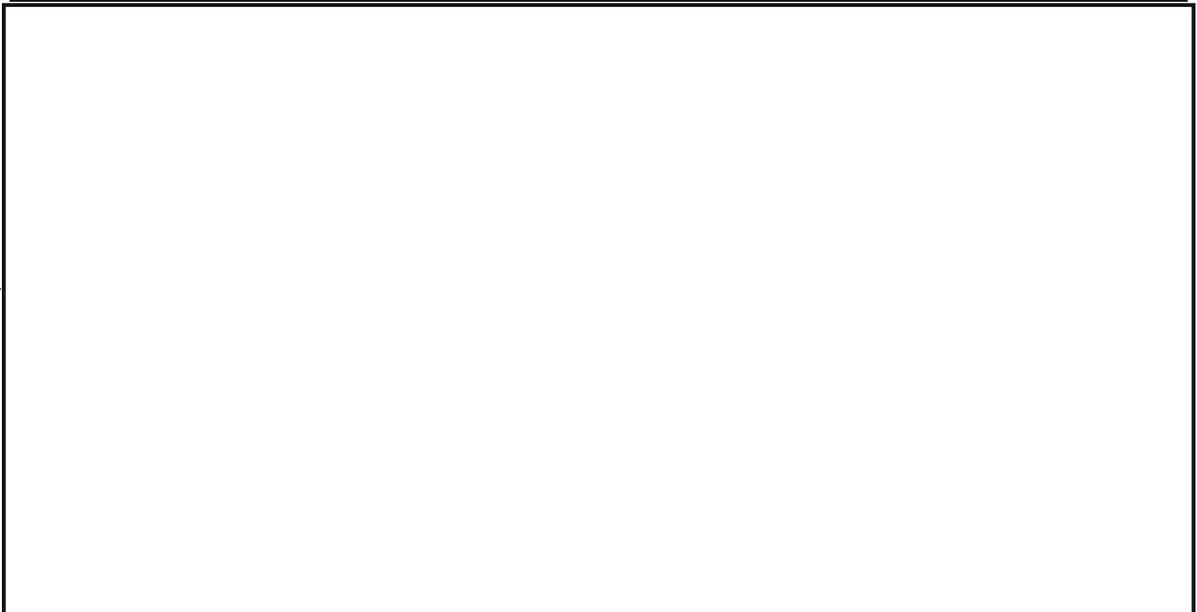


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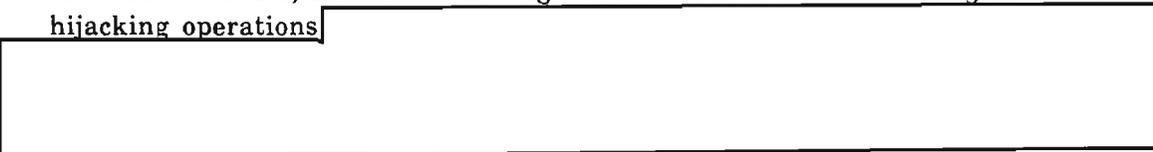
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**(U) Airline Hijackings**

~~(S//SI)~~ Terrorism in the 1980s was dominated by a series of high-profile hijackings. Most, though not all, were orchestrated by Middle Eastern political organizations like Amal and Hezbollah. President Reagan, like President Carter before him, was seized by these incidents, and each in turn claimed the total attention of his NSC staff until it was resolved. Likewise, most of the intelligence available to the NSC during the course of hijacking operations

EO 1.4.(c)

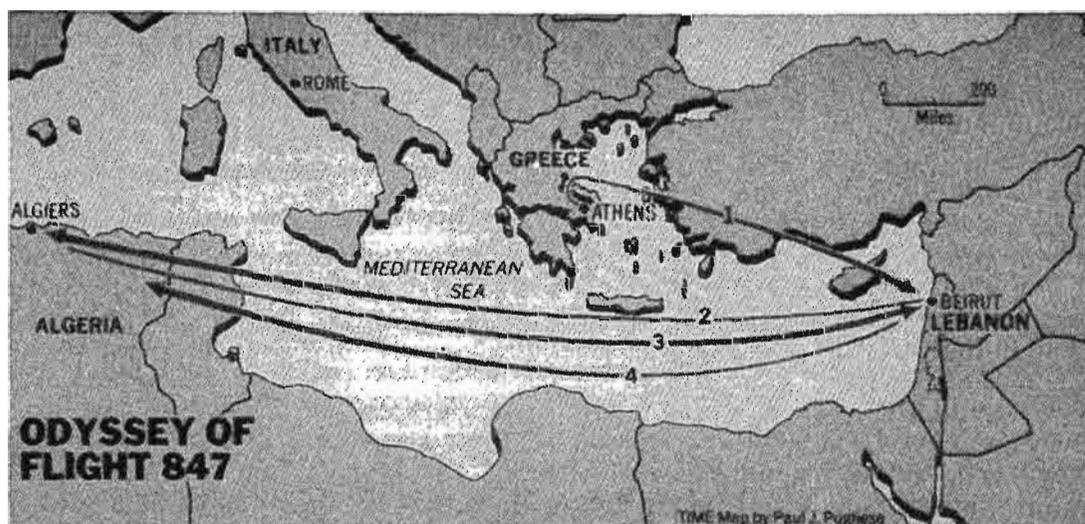


(U) Typical of these support operations was the reporting series on TWA 847. Hijacked by Islamic terrorists on a flight from Athens to Rome on June 14, 1985, the flight was diverted to Beirut. Over the ensuing three days it played hopscotch across the

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) Trans World Airlines 847

Mediterranean between Algiers and Beirut. At one of its Beirut stops the terrorists executed an American naval enlisted man, Robert Stethem, and threw his body on the tarmac beside the plane. They threatened to execute many more. On June 16 the plane departed Algiers for the last time and came to rest in Beirut. There ensued two weeks of diplomatic negotiations among the United States, Israel, Syria and the Amal organization under Nabih Barri. Ultimately, Syrian president Hafez al-Assad of Syria obtained the release of the American hostages from TWA 847, in return for the Israeli release of several

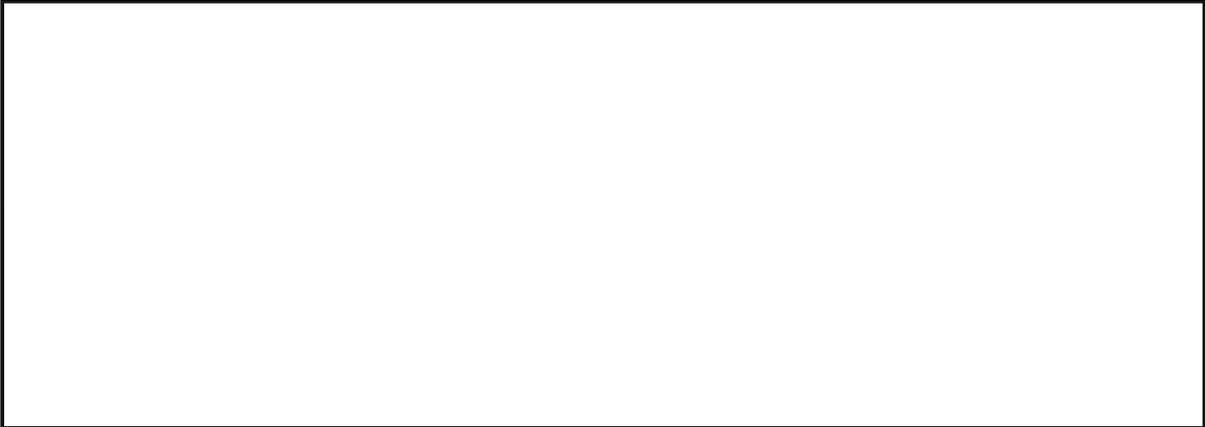


(U) The flight of TWA 847

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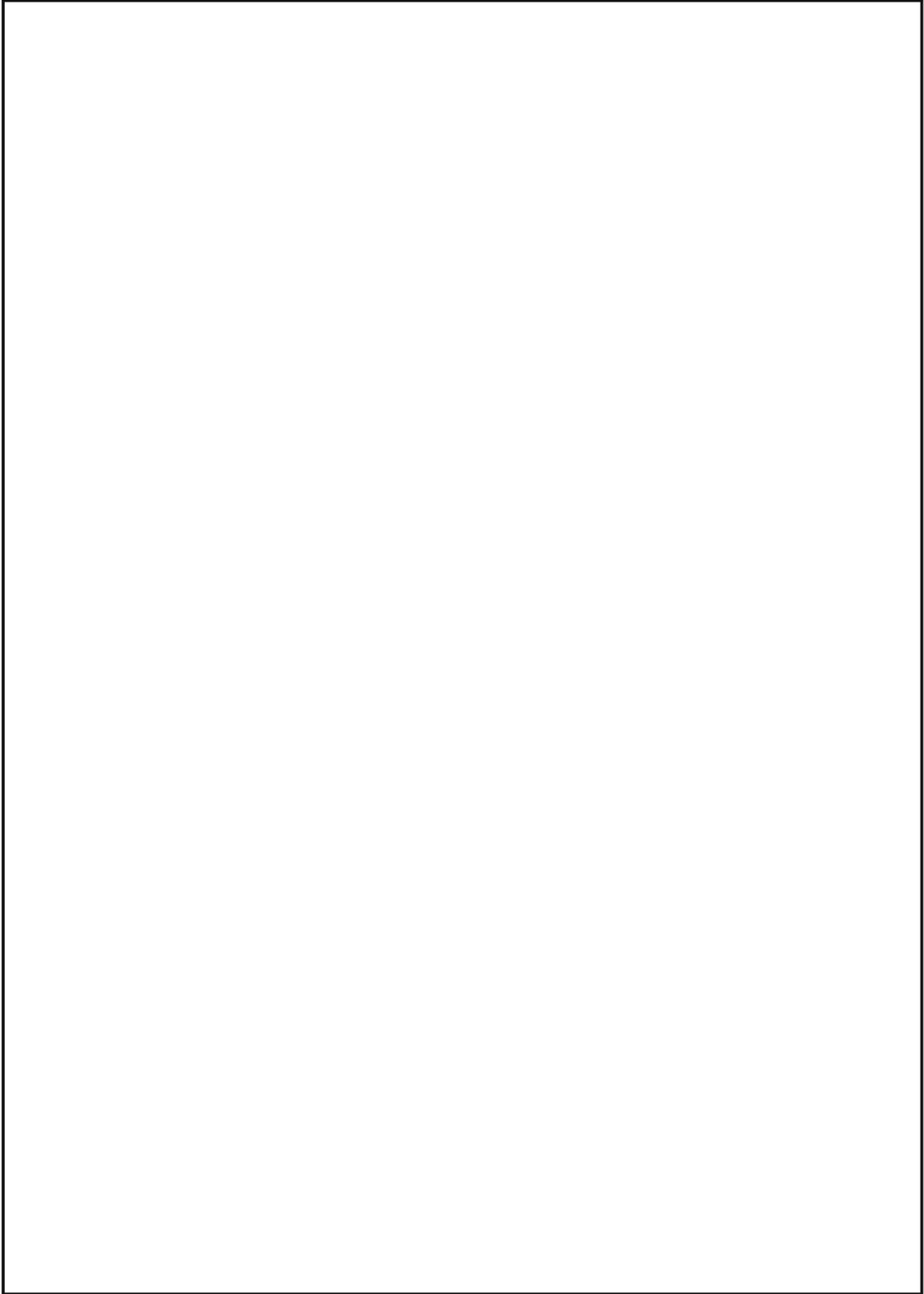
~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

hundred Lebanese Shiite captives being held illegally in Israeli jails after an Israeli army raid into southern Lebanon. The hijackers never succeeded in their primary aim - the release of seventeen terrorists being held in Kuwaiti jails.



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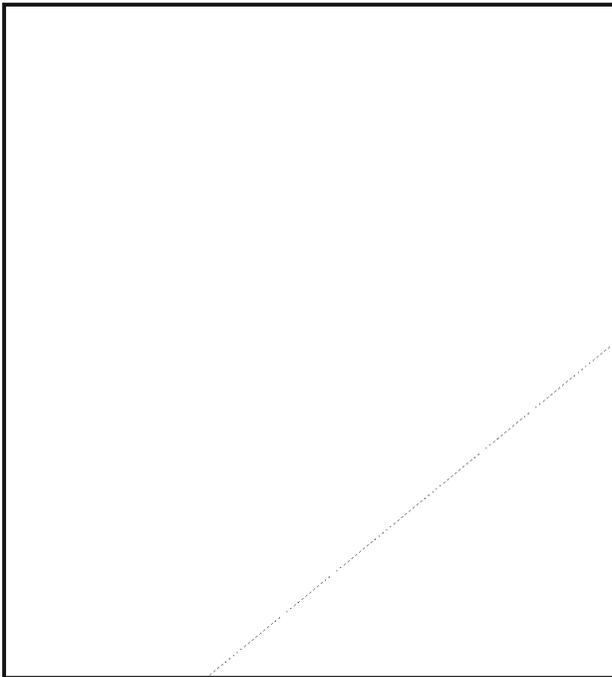
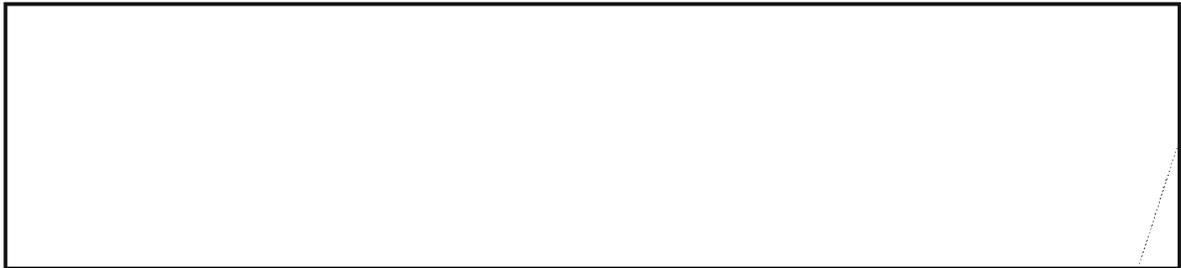
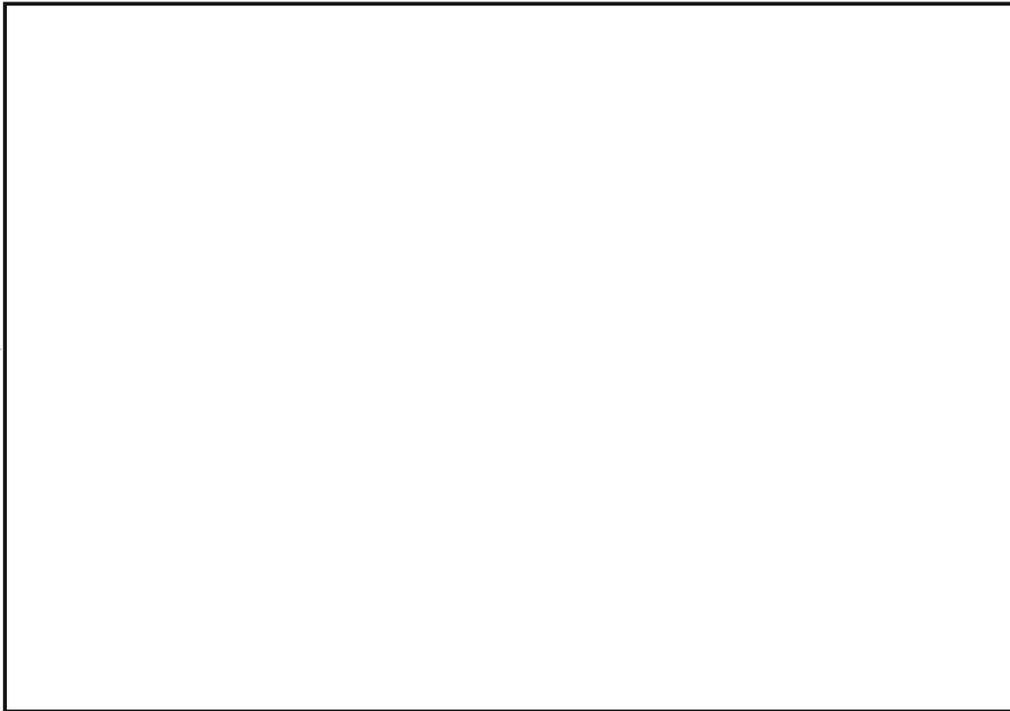
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EO 1.4.(c)

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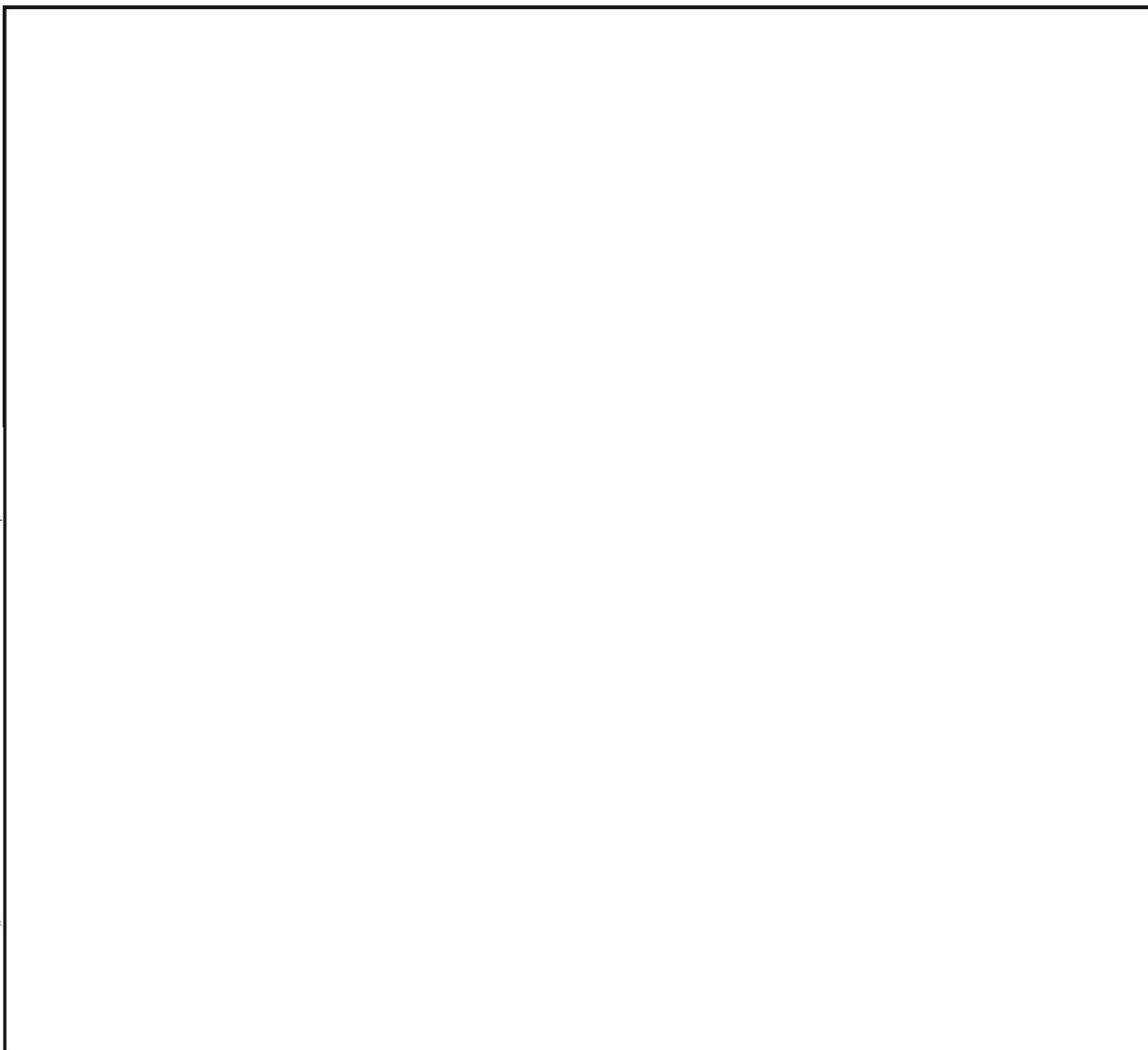
(U) Egyptian president Mubarak

EO 1.4.(c)

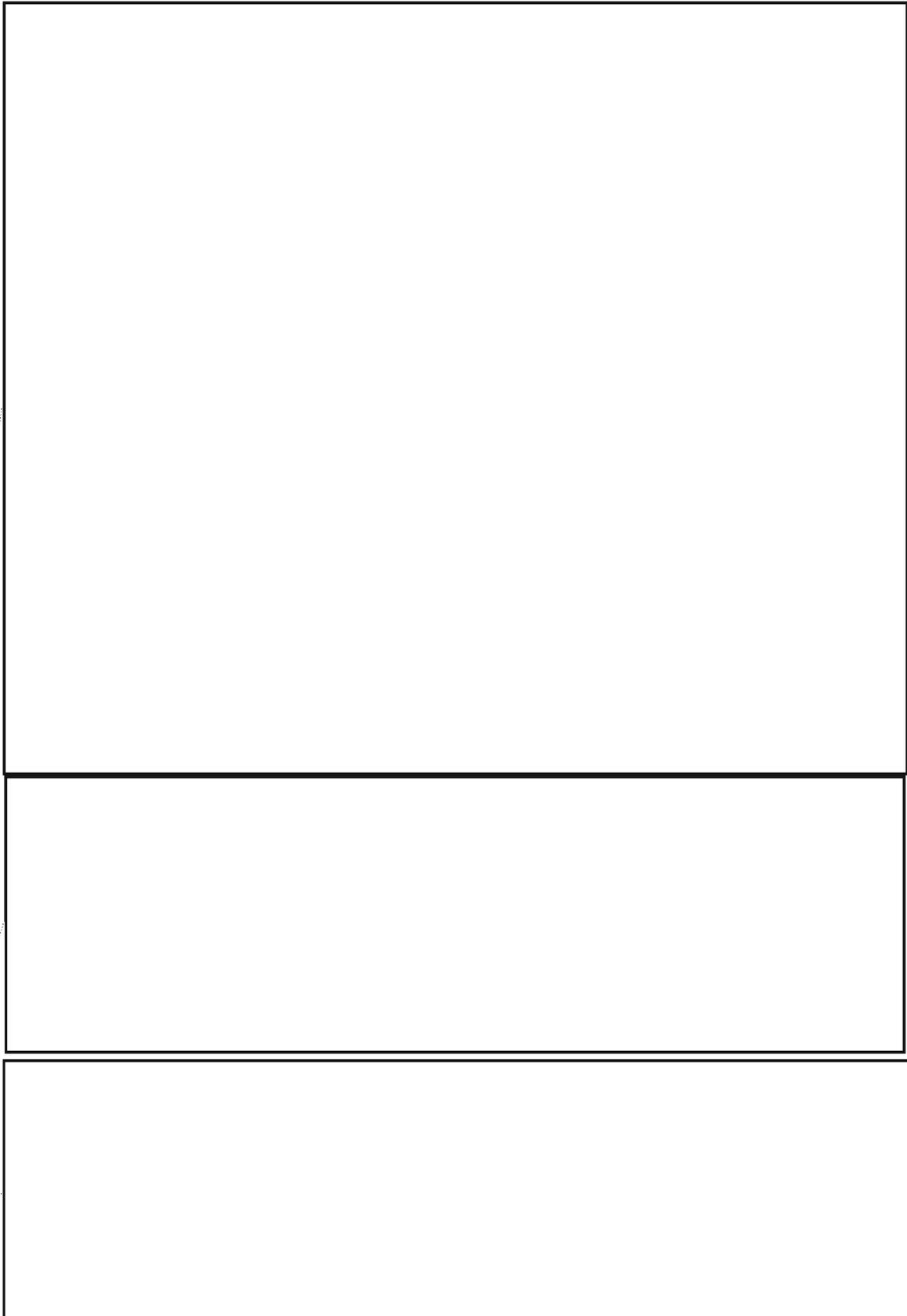
EO 1.4.(c) ~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//XI~~



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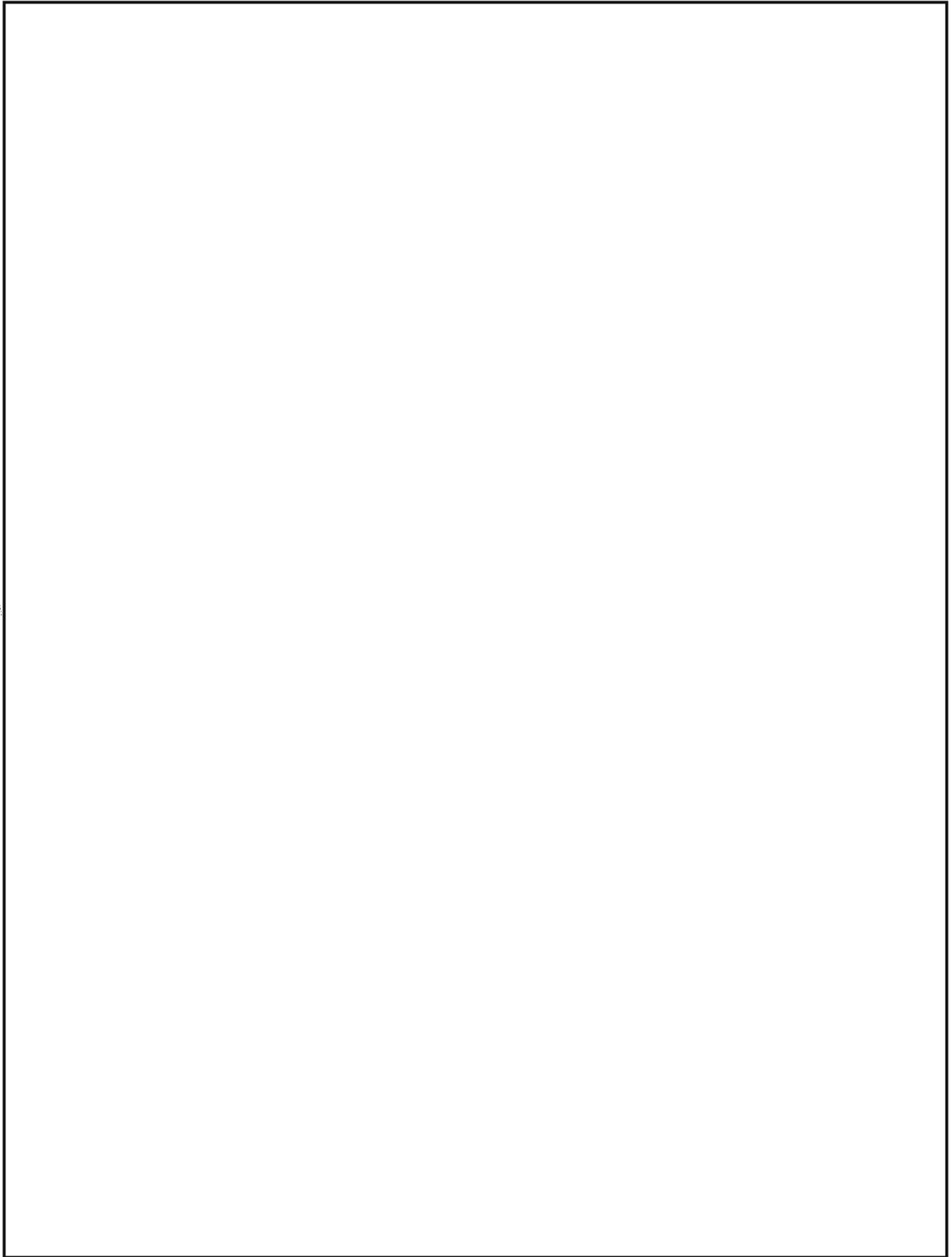


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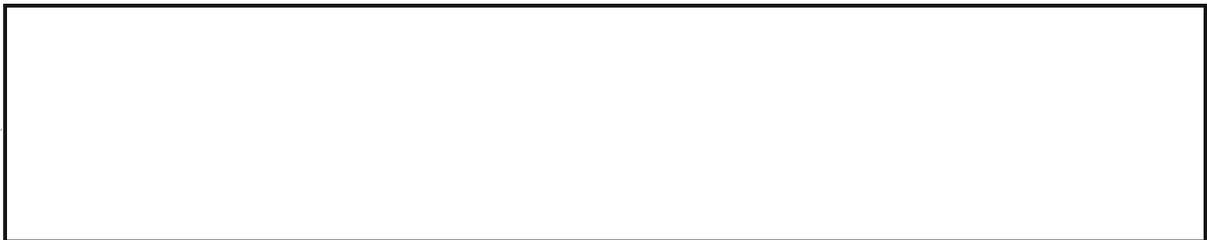
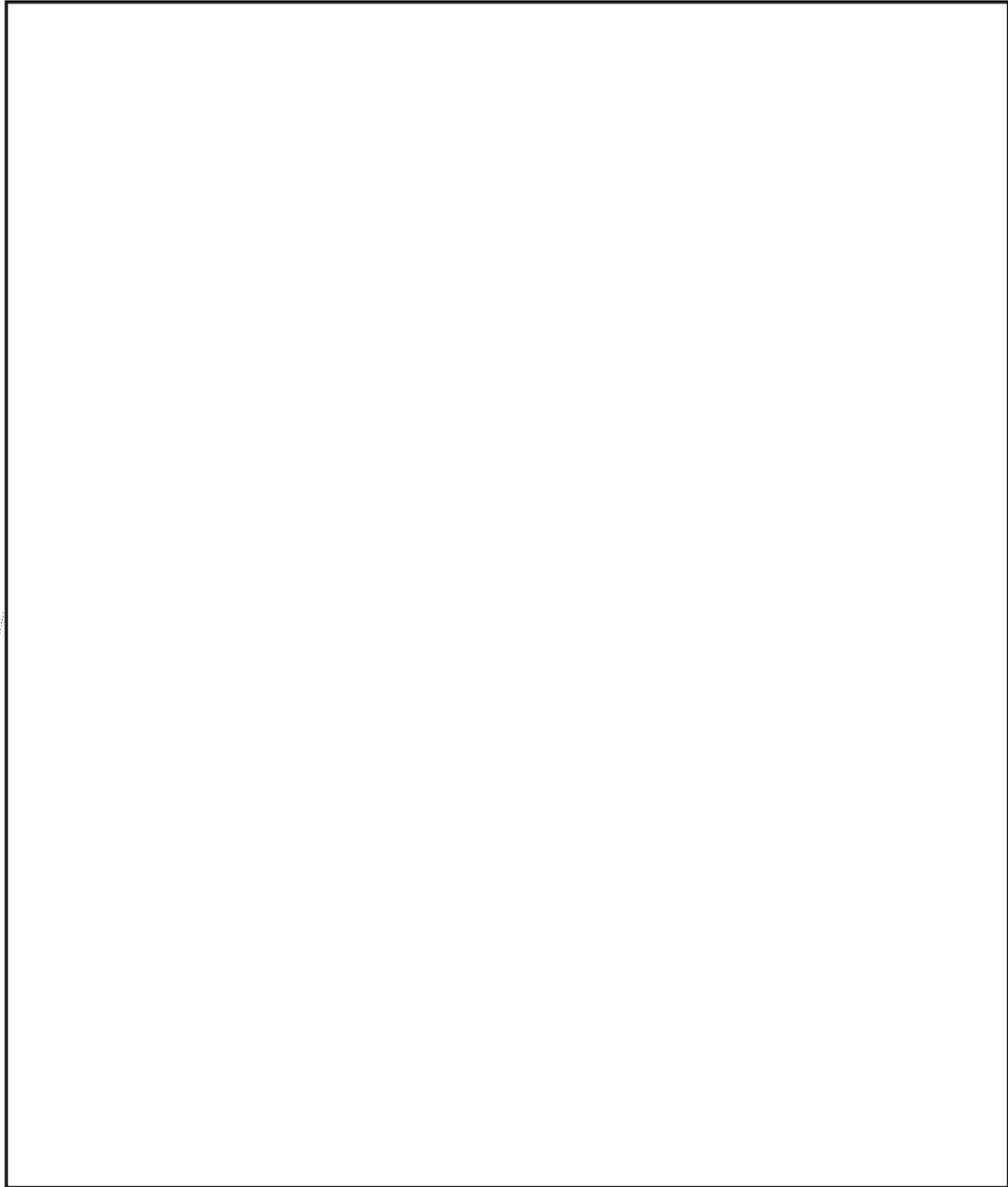


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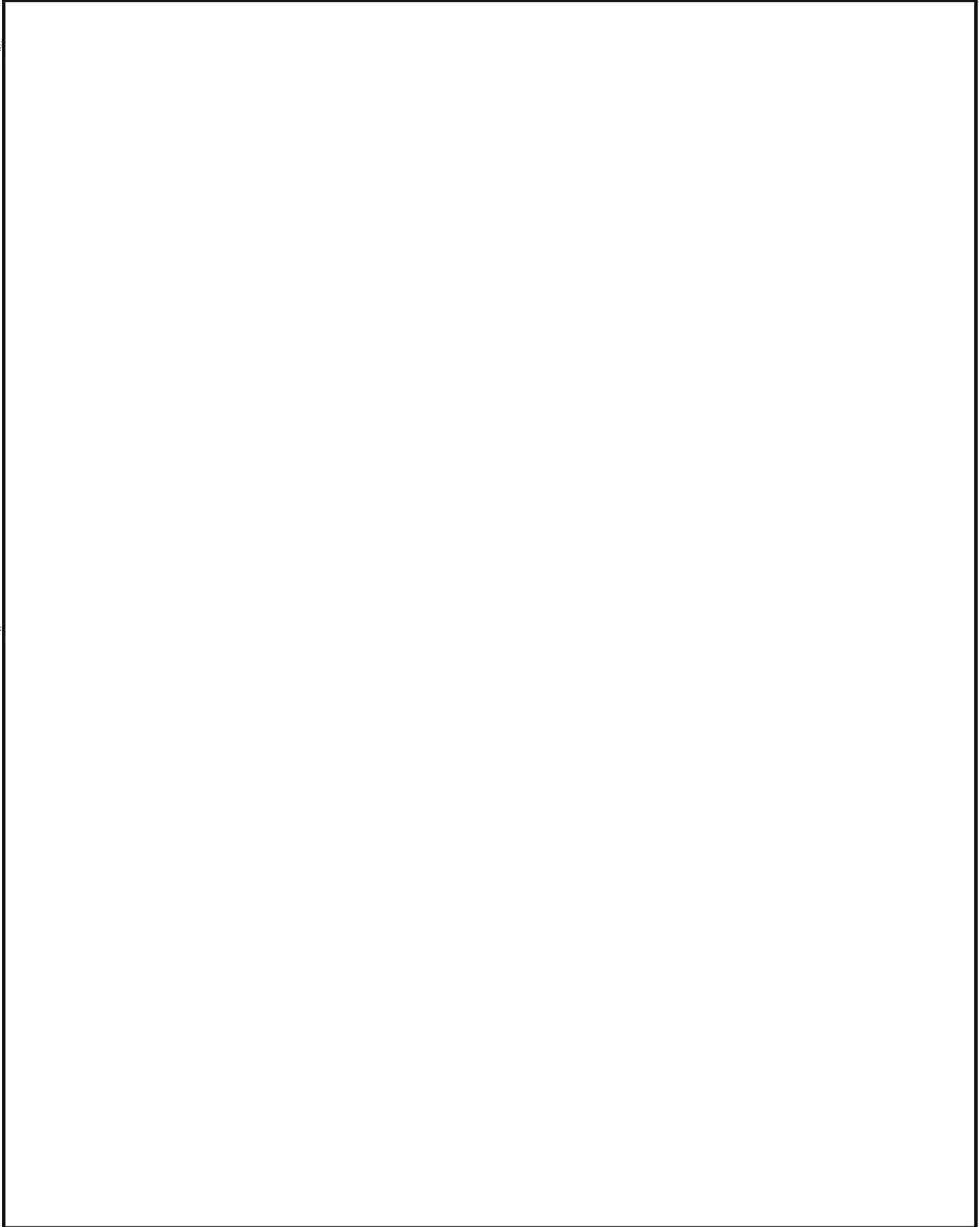




(U) Briefing President Reagan

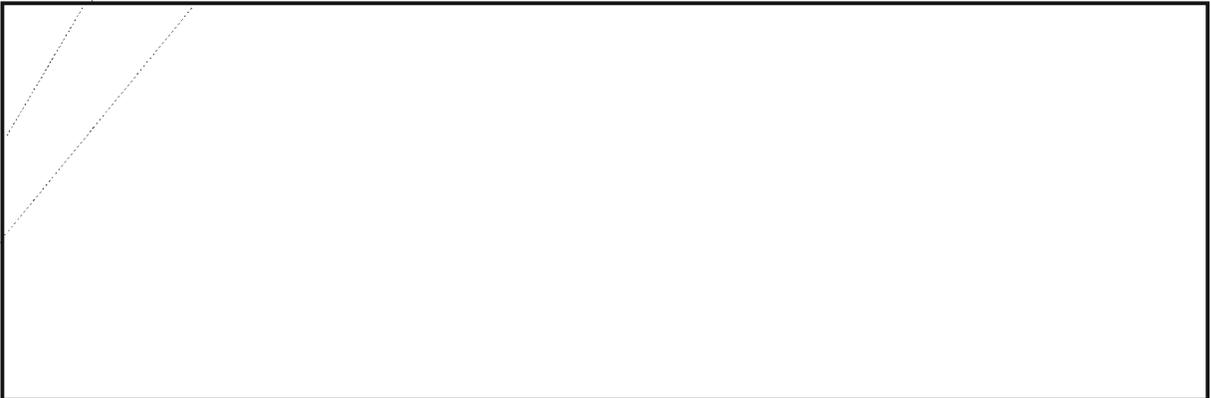
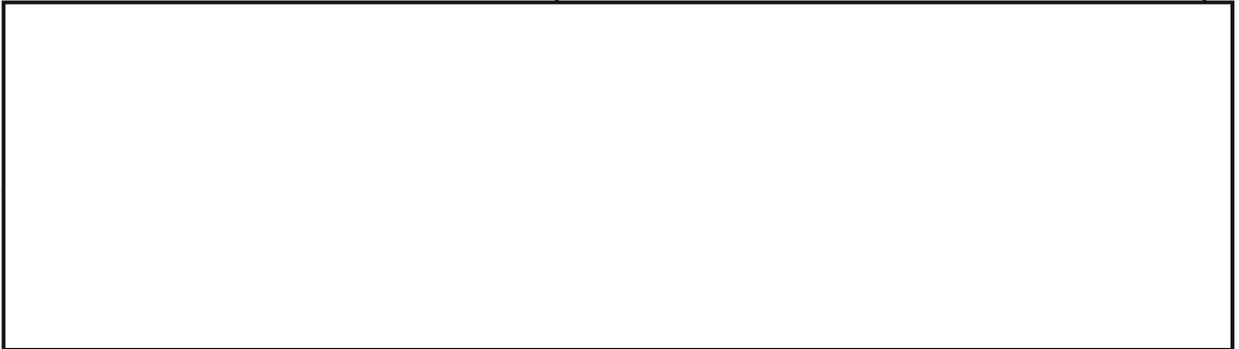
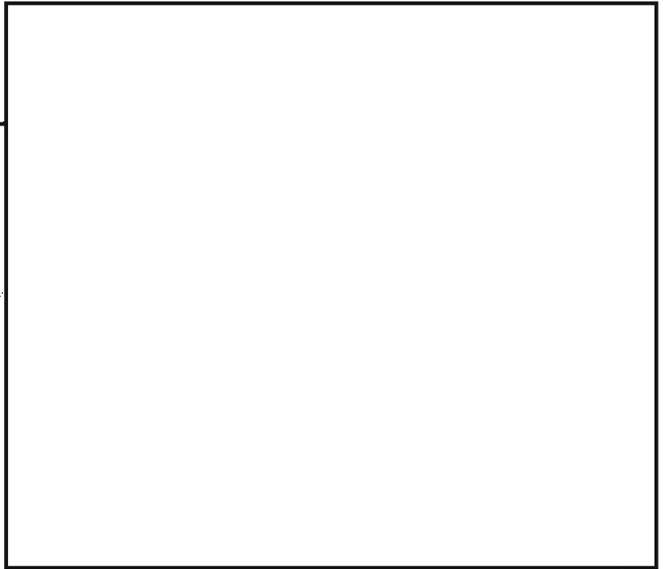
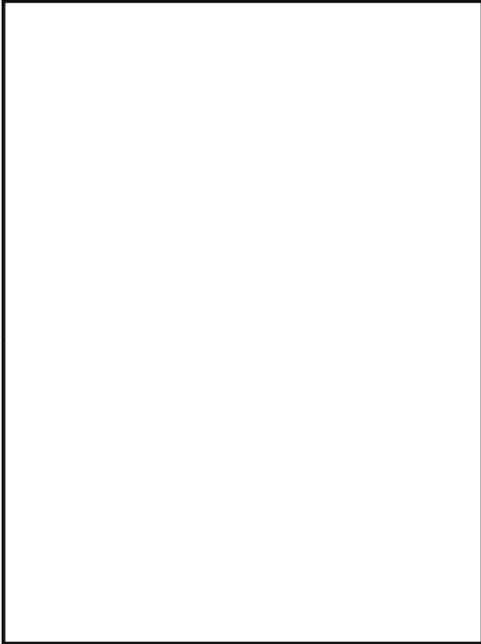


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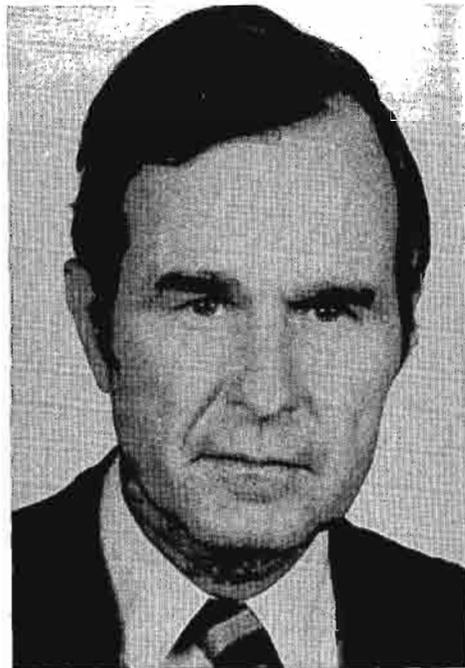
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**(U) THE WAR ON DRUGS**

(U) Although the federal government had always been concerned about drug trafficking, the first significant effort did not occur until 1972, with Nixon's "War on Drugs." This campaign was mostly words and was soon drowned out by the Watergate affair. President Ford created the Drug Enforcement Administration, and under Jimmy Carter the State Department got involved through the creation of the Bureau for International Narcotics Matters. But it did not receive much push until the administration of Ronald Reagan. Although the Reagan approach came to be symbolized by Nancy Reagan's "Just Say No" advice on the use of drugs, Reagan's thrust was to stop drugs before they arrived in the country. The idea was that, eventually, there would be nothing to say No to.

(U) Faced with rising complaints about the burgeoning drug trade in Florida, in 1982 Reagan created the South Florida Task Force, an unfunded consortium of federal and state agencies involved in combatting drugs and the drug trade. In order to give it prestige, Reagan named his vice president, George Bush, to head the task force.

(U) Growing out of this was the National Narcotics Border Interdiction System, or NNBS, an attempt to combat drug smugglers at U.S borders. Under NNBS, the federal government organized six regional centers in New York, Chicago, Long Beach, El Paso, New Orleans and Miami. Each center was staffed by representatives from participating agencies - fourteen on the federal side, including DEA, FBI, Customs, Coast Guard, Bureau of Alcohol, Tobacco and Firearms (BATF), Immigration and Naturalization Service, and the Border Patrol. Associated with it were more than 14,000 state and local law enforcement agencies.<sup>47</sup>



(U) George Bush

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U//~~FOUO~~) Intelligence support for the effort was critical, and NSA was called in almost immediately. In 1983 NSA sent a representative [redacted] [redacted] in response to a specific request from the vice president's office. Later, the Agency sent representatives [redacted]<sup>48</sup>

[redacted]

~~(S//SI)~~ From the first, legal issues drove much of the effort. The Posse Comitatus Act prohibited defense organizations from participating in law enforcement except in certain very narrowly defined circumstances relating to the information having been collected as incidental to the foreign intelligence mission. In May of 1983 NSA, under pressure to assume a more proactive stance, requested clarification of the rules of engagement. The Department of Justice reply was not an especially useful restatement of the rule that the information could be disseminated to the Coast Guard and Customs Service as a by-product of NSA's foreign intelligence mission. But the next year the attorney general issued a new set of guidelines which loosened the rules. [redacted]

EO 1.4.(c)

[redacted]

[redacted]

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

[REDACTED]

—(S//SI) When SIGINT support began, law enforcement agencies were enthusiastic, and all kinds of partners turned up in NSA's antechamber. One of the closest working relationships was with the Coast Guard

[REDACTED]

—(S//SI) Other partnerships were more difficult. The Drug Enforcement Administration had no experience with foreign intelligence organizations, working instead with the law enforcement authorities in various countries. Unlike the FBI, DEA had no experience in using SIGINT leads to help an investigation, and chafed under any restrictions regarding the use of evidence in court. If SIGINT could not be introduced at trial, many in DEA did not understand its value.<sup>54</sup> In the late years of the decade, relations with DEA cooled.

(U//FOUO) Once involved in counternarcotics, NSA discovered a big wide world of SIGINT efforts beyond the confines of NSCID 6.

[REDACTED]

[REDACTED]

(U) The Asian drug problem, though far less visible to the administration, was of much longer standing. At least 90 percent of the world's opium came from Burma, Iran, Afghanistan and Lebanon, and the Golden Triangle (a point where the borders of Burma, Laos and Thailand meet) was the single most productive area. In Burma, the Shan United Army (SUA), a nation unto itself, managed the reduction of raw opium into # 4 heroin (a process that reduced its volume by a factor of ten) and transportation, often by pack

animals, over the border into Thailand for onward shipment. Owing to the complete lack of cooperation of the Burmese and Laotian governments, opium production rose dramatically in the 1970s.<sup>57</sup>



**(U) Shan United Army (SUA)  
drug shipment**

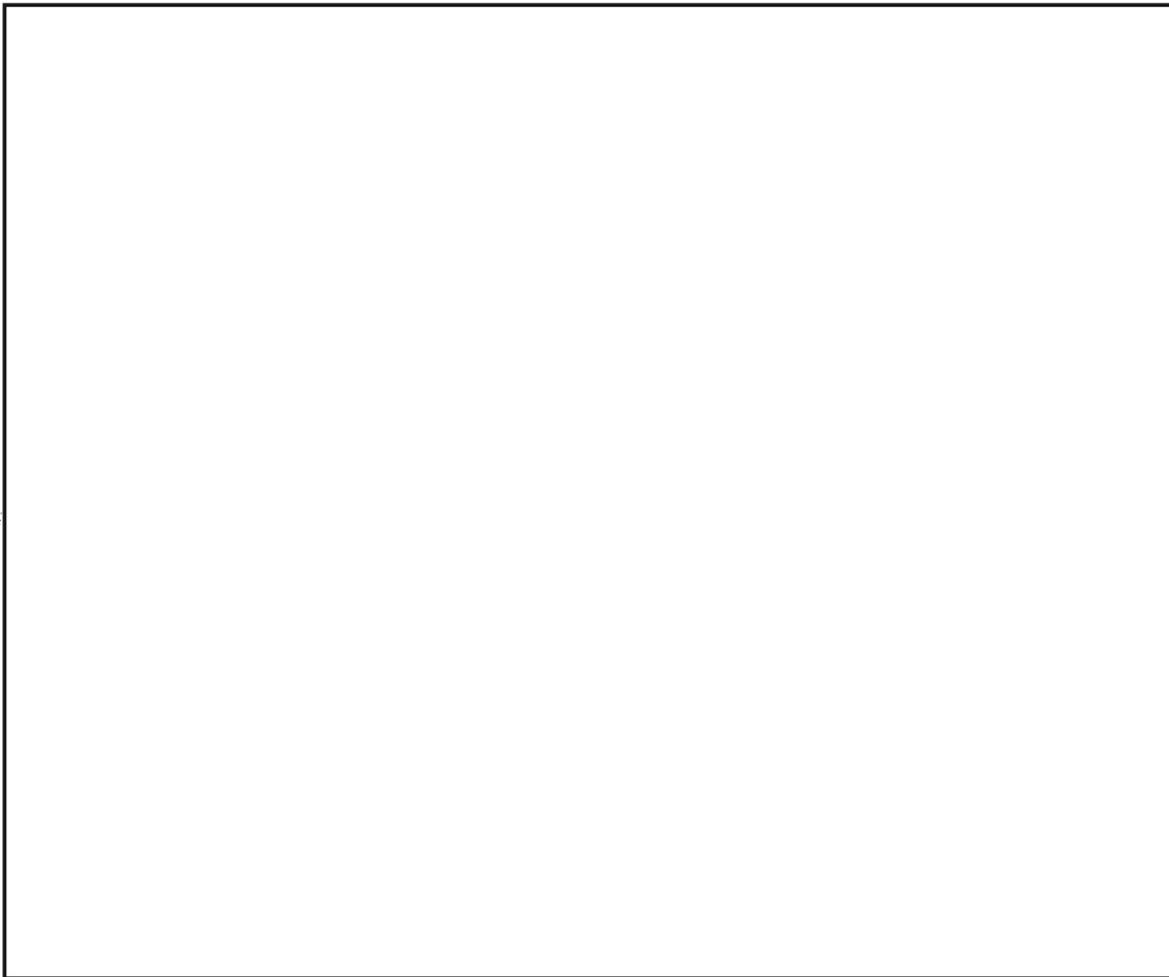
[Redacted]

The push came from the U.S. Army. In 1971 it was estimated that between ten and fifteen percent of U.S. troops in Southeast Asia were addicted. In the United States, the dramatic rise in drug addiction prompted President Nixon's War on Drugs campaign.

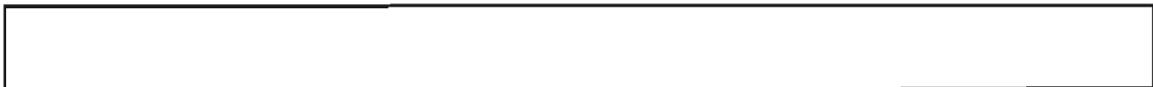
[Redacted]

[Redacted]

[Redacted]



**(U) SIGINT AND COUNTERINTELLIGENCE**



Project VENONA had resided in that office. As productive as VENONA had been, it represented [redacted]

(U) CIA, too, had fallen on parlous times. The counterintelligence division headed by James Angleton had acquired a lurid reputation (made famous by David Martin's book *A Wilderness of Mirrors*). CIA director William Colby had fired Angleton in 1974, and in the ensuing commotion the counterintelligence mission had been virtually shut down.<sup>64</sup>

EO 1.4.(c)

~~(S//SI)~~ The resurrection began in 1981 with the Casey regime at CIA. In response to increasing intelligence community calls for more emphasis, NSA in 1983 created G14, the counterintelligence division.<sup>65</sup>



EO 1.4.(c)  
EO 1.4.(d)

[REDACTED]

[REDACTED]

[REDACTED]

This and Vienna had emerged in the 1980s as the key international cities for KGB operations. (Pelton and Walker, for instance were both summoned to Vienna for meetings; see page 412.)

[REDACTED]

—(S//SI) NSA's participation in counterterrorist, counternarcotics, and counter-intelligence problems gave Agency people valuable experience in these nontraditional areas. The pessimism of the late 1970s turned into optimism within ten years. Yes, SIGINT could make a real difference, and NSA did not have to cede the field to HUMINT efforts.

[REDACTED]

In the White House and the NSC staff, where it really counted, SIGINT had become an integral part of the national security apparatus. It was to give the cryptologists a big jump on the SIGINT problems that were to confront the nation in the post-Cold War World.

EO 1.4.(c)

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

## (U) Notes

1. (U) [redacted]  
available from CIA history office.
2. (U) Director of Central Intelligence, "Report on the Intelligence Community," January 1978, 37-38, in CCH Series VI.C.1.23. David Kahn, "Cryptology Goes Public," *Foreign Affairs* (Fall, 1979), 141-59. P. L. 86-36
3. (U) [redacted], "International Terrorism and the National Security Agency: The Evolution of a Centralized Response," 1986, 2, unpublished manuscript in CCH files.
4. (U) Ibid., 6-8, 11.
5. (U) Ibid., 9-11.
6. (U) Interview [redacted] by Tom Johnson, 20 February 1997, OH 5-97, NSA. [redacted] "International Terrorism...", 6-11.
7. (U) [redacted] *Cryptologic Quarterly*, Vol 10 (Fall/Winter 1991), 1-29. [redacted] "International Terrorism...", 13. EO 1.4.(c)
8. (U) [redacted]
9. (U) Ibid.
10. (U) Ibid.
11. (U) Ibid. [redacted] "International Terrorism..." Ch. III.
12. (U) [redacted] [redacted] "... Faurer interview. Interview [redacted] by Tom Johnson, 15 August 1997, OH 11-97, NSA.
13. (U) [redacted] interview. [redacted] "International Terrorism...", Ch IV.
14. (U) NSG file 5750/15, [redacted]
15. (U) Reagan Library, NSF, in CCH Series XVI.J, "Hijack of TWA 847." [redacted] June 1985 and follow-ups thereto, in CCH Series CII.D. George P. Shultz, *Turmoil and Triumph: My Years as Secretary of State* (New York: Charles Scribner's Sons, 1993), 653-664.
16. (U) Interview, [redacted] by Tom Johnson and Robert Farley, 20 February 1987, OH 7-87, NSA.
17. (U) [redacted] interview. Reagan Library, NSF, in CCH Series XVI.J., [redacted] EO 1.4.(c)
18. (U) Reagan Library, NSF, [redacted] Shultz's frustration appeared in his autobiographical account of his years as secretary of state, *Turmoil and Triumph...*, 673.
19. (U) Henry Millington, untitled manuscript on the history [redacted] in CCH files. CCH Series VIII.45.
20. (U) CCH Series VIII.45.
21. (U) Memo from LTG Odom to William Casey, 12 May 1987, in CCH Series VIII.45.
22. (U) Memo from LTG Odom to George Shultz, undated, in CCH Series VIII.45.

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23. (U) CCH Series VIII.42. [redacted] *For the President's Eyes Only...*, 464. According to journalist Bob Woodward, this threat came from both HUMINT and SIGINT sources, and was considered highly credible by Casey. See Woodward, *Veil: The Secret Wars of the CIA 1981-1987* (New York: Simon and Schuster, 1987), 167.

24. (U) Interview [redacted], by Tom Johnson and [redacted] 2 January 1996, OH 1-96, NSA.

25. (U) Ibid.

26. [redacted] Woodward, *Veil*.... EO 1.4.(c)

27. (U) [redacted] interview. CCH Series VIII.51.1.; VIII.40, *New York Times* article 26 March 1986.

28. (U) [redacted] interview.

29. (U) CCH Series VIII.51.1.

30. (U) [redacted] in CCH Series XII.D.

31. (U) CCH Series VIII.51.1.

32. (U) [redacted] in CCH Series XII.D. [redacted] interview.

33. (U) [redacted] interview.

34. [redacted]

35. (U) NSOC logs available in CCH Series XII.D. CCH Series VIII.51.1.

36. (U) CCH Series VIII.51.1.

37. (U) *New York Times*, April 15, 1986, in CCH Series VIII.51.1.

38. [redacted]

39. (U) CCH Series VIII.51.1. Deputy Director's files, 96026, Box 1, "Iran Situation - 1986." Interview, [redacted] by Tom Johnson, 11 July 1997 [redacted]

40. (U) CCH Series VIII.51.1.

41. (U) [redacted] interview. [redacted] EO 1.4.(c)

42. (U) CCH Series VIII.42, VIII.51.1.

43. (U) *Washington Post*, August 2, 1994, in CCH Series VIII.51.1.

44. (U) Ibid.

45. (U) [redacted] in CCH Series VIII.D. [redacted] interview. Duane R. Clarridge (with Digby Diehl), *A Spy for All Seasons: My Life in the CIA* (New York: Charles Scribner's Sons, 1997), 332-33.

46. (U) [redacted] interview. Hyland interview.

47. (U) CCH Series VII.75.

48. (U) Interview [redacted] by Robert Farley and Tom Johnson, 2 April 1987, OH 10-87, NSA.

49. (U) [redacted] interview. CCH Series VII.75.

- 50. (U) CCH Series VII.75. [redacted] article in *Cryptolog* (August-September 1986), 1.
- 51. (U) CCH Series VII.75. [redacted] article. [redacted] interview.
- 52. (U) [redacted] interview. Interview, [redacted], by Tom Johnson, 10 September 1997.
- 53. (U) Ibid.
- 54. (U) Ibid.
- 55. (U) [redacted] interview.
- 56. (U) Ibid.
- 57. ~~(S//SI)~~ NSA, Foreign Relations Directorate, CDO [redacted] files.
- 58. (U) Ibid.
- 59. (U) Ibid.
- 60. ~~(S//SI)~~ CDO [redacted] 1984."
- 61. ~~(S//SI)~~ CDO [redacted] Interview, [redacted] by Tom Johnson, 17 December 1996.
- 62. (U) Ibid.
- 63. (U) [redacted] interview.
- 64. (U) Interview, [redacted] and [redacted] by Tom Johnson, 25 September 1997.
- 65. (U) Statement by [redacted] to SSCI, 13 November 1985, in CCH Series XII.D., "C/I file." "Reasons for the Creation of G14," in CCH Series XII.D.
- 66. (U) [redacted] interview. Reagan Library, NSF, in CCH Series XVI.J., "Counter-Intelligence."
- 67. (U) Ibid.
- 68. (U) [redacted] interview. Memo from [redacted] to Guy Vanderpool, 17 August 1987, and Casey testimony before SSCI, in CCH Series XII.D., "C/I File."

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**(U) Chapter 24**  
**Military Crises and SIGINT Support during**  
**the Reagan Administration**

~~(TS//SI-UMBRA)~~ The effects of Vietnam lingered on in NSA's relationship with military commanders. Through the late 1970s the JCS and NSA continued to squabble over the ownership and employment of SIGINT assets, and a new JCS directive, "Concept of SIGINT Support to Military Commanders," issued in 1982, failed to completely set things to rest. Within NSA, however, there were new efforts to satisfy requests for SIGINT support throughout the period. One of the key issues, which was rapidly being resolved by 1980, was that of making available information [redacted] through rapid sanitized reporting.

(U//~~FOUO~~) General Faurer probably struck the best balance between strategic SIGINT management and military support mechanisms. It was paradoxical, then, that the biggest disaster in the military support arena occurred during his administration. It was the invasion of Grenada.

**(U) URGENT FURY**

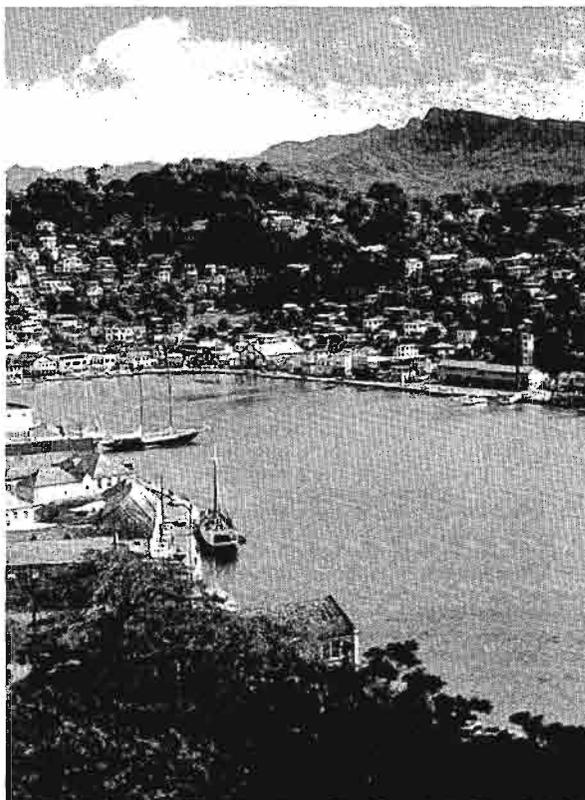
~~(S//SI-SPOKE)~~ Grenada, a microscopic speck in the far eastern Caribbean Sea, had virtually no name recognition for Americans before October of 1983. A British colony since 1763, it had gained improbable autonomy in 1967 and complete independence seven years later. Widespread dissatisfaction with its prime minister led to a coup and a new leader, Maurice Bishop, a charismatic Marxist. Bishop appeared to fall under the influence of Fidel Castro's Cuba. Cubans began showing up in waves to "assist" the Marxist regime, and the government began construction of a 9,000-foot runway near the capital which, [redacted] would be ideal for Soviet Bloc military aircraft. Then, just when the U.S. intelligence community was becoming concerned, the Bishop government was supplanted on October 13 by a more radical movement under the finance minister, Bernard Coard. Six days later Bishop and three other cabinet ministers were executed under the direction of the army commander, Hudson Austin. [redacted]

(U) Amid the civil disturbances that spread throughout the island during the coup, the Reagan administration became concerned about the fate of approximately 1,000 American and other foreign nationals, and began considering a rescue mission. But the postulated influence of Cubans in the situation undoubtedly weighed more heavily on their minds than the fate of innocents. On October 14 the JCS was told to whip up an invasion plan in very short order. General Vessey, the chairman of the Joint Chiefs of Staff, requested an implementation date of 25 October, less than two weeks away.<sup>2</sup>

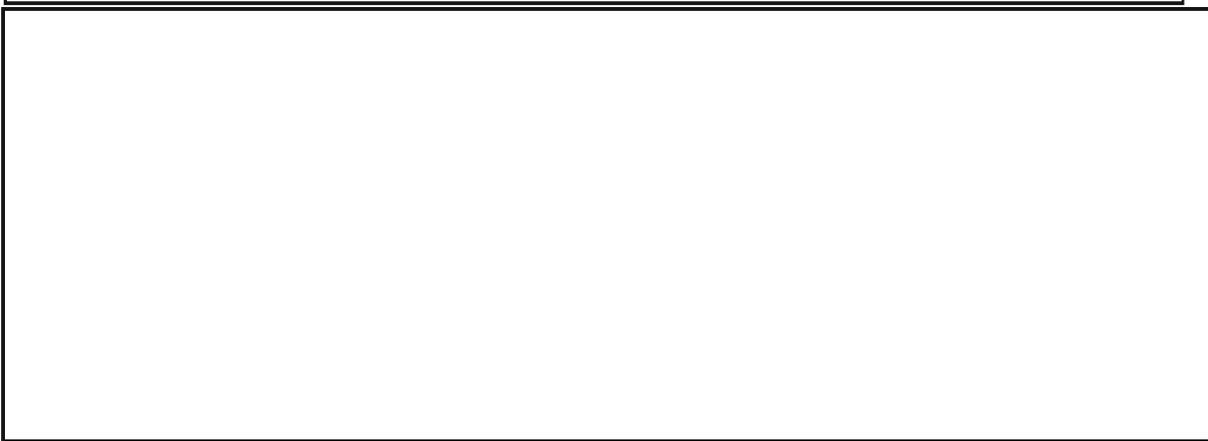
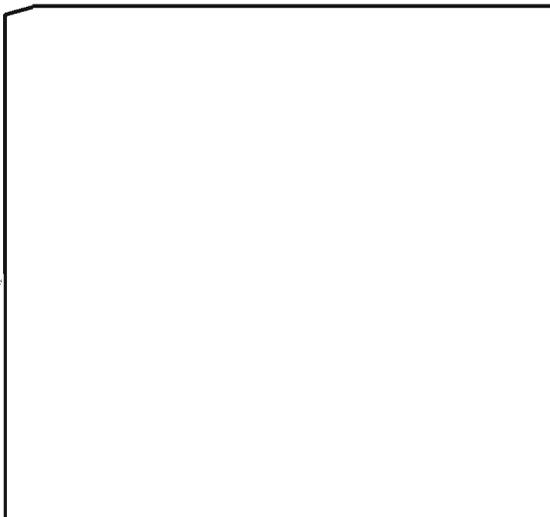
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(U) Owing to an extremely compressed time schedule, the plan was not a model of coordination. Vessey decided at the outset to exclude a number of peripheral organizations, including the Strategic Air Command, Defense Management Agency, NSA, and four parts of the JCS staff, J4, J5, the Deputy Directorate for Political-Military Affairs, and the Public Affairs Office. Vessey chose to rely entirely on DIA for intelligence. This was done partly for secrecy, partly because of the short time schedule.<sup>3</sup>

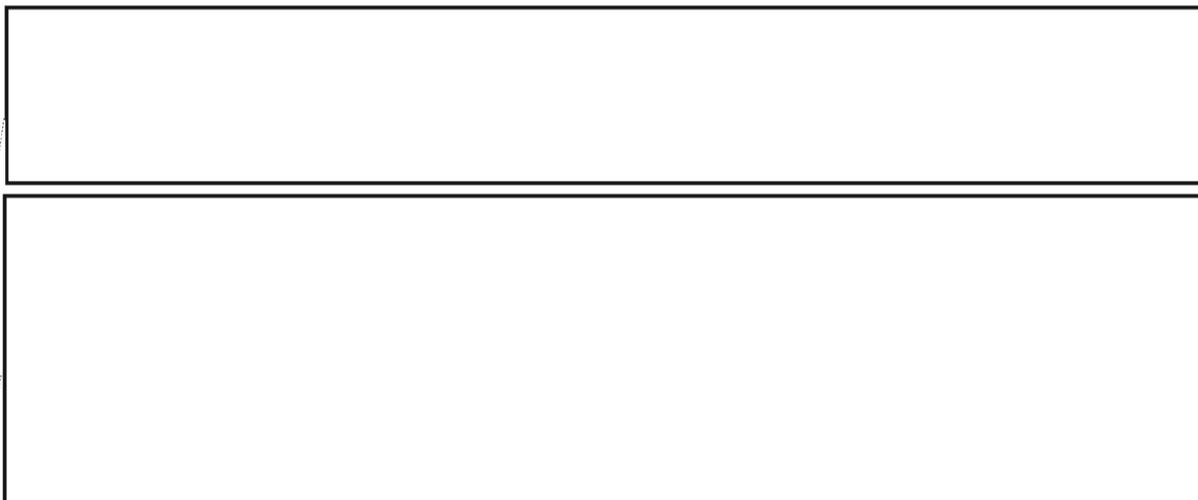
~~(S//SI)~~ The JCS decision to exclude NSA and the Public Affairs Office turned into a major fiasco. The exclusion of NSA had been tried before,



(U) St. George's, Grenada



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(U) The operation succeeded, in the sense that the JCS got 8,000 U.S. troops onto the island, rescued nearly 600 Americans and 120 foreign nationals trapped by the political chaos, restored popular government, and eliminated the potential threat to U.S. lines of communications in the Caribbean. All this was accomplished with only nineteen Americans killed and 116 wounded. The main antagonists turned out to be the Cuban soldiers on Grenada, who had established a much more secure foothold than American intelligence had suspected.<sup>7</sup>

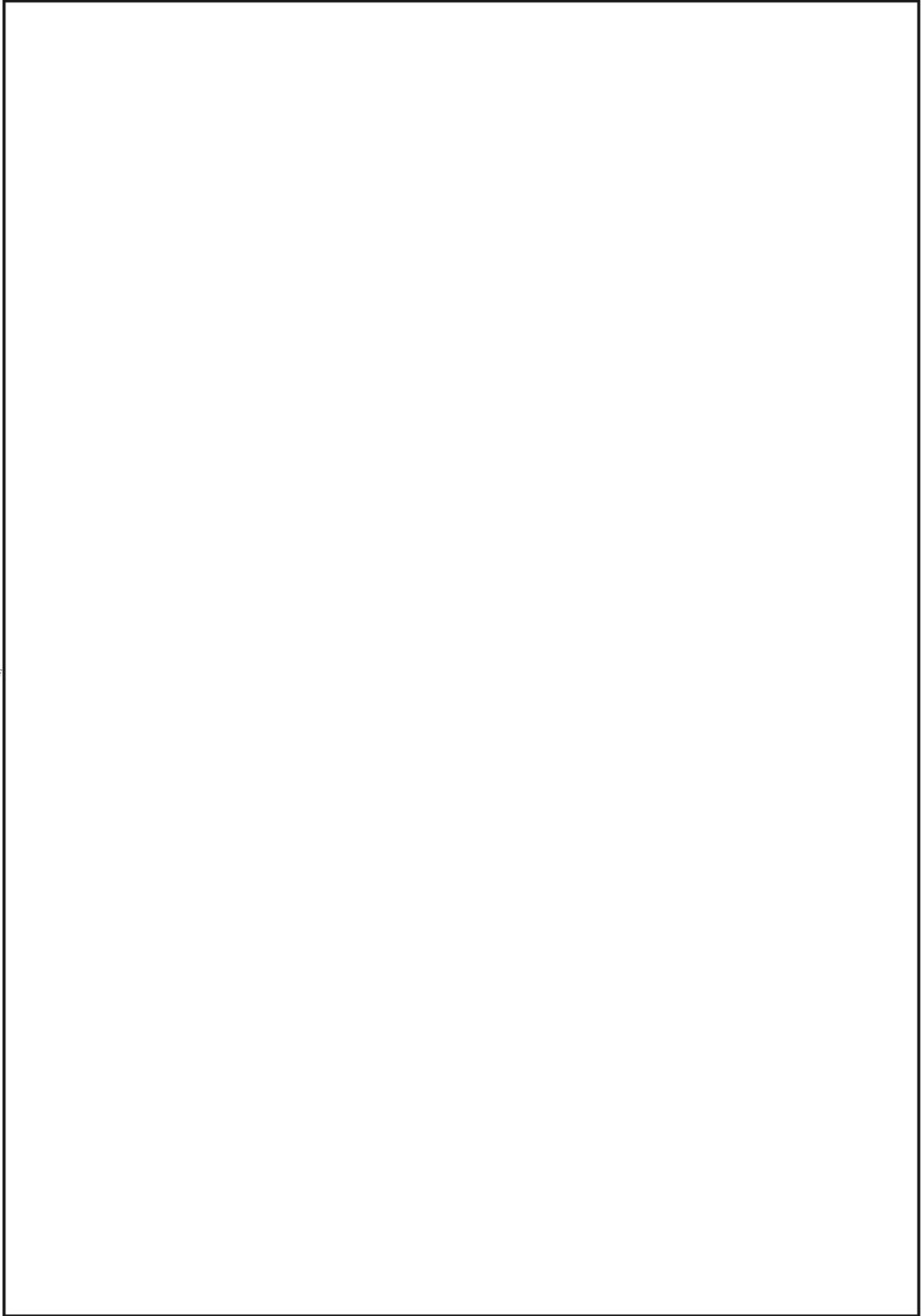
(U) But it was recognized by everyone involved as a "learning experience" for a military machine gone rusty since Vietnam. The post-operation critiques named intelligence as one of the areas of failure, but did not come to the obvious conclusion that intelligence was hamstrung by the JCS refusal to involve any agency but DIA in the preparation. It also identified communications as an abysmal failure. In their haste, units deployed without compatible CEOI (communications equipment operating instructions). Secure voice equipments (i.e., Vinson-equipped radios) supplied by NSA could not talk to each other because they did not have compatible key. On several occasions Army units on the ground could not call the Navy vessels anchored just offshore for air and artillery support, and twice the Navy began bombing Army units, but the Army could not reach the Navy to tell them to stop firing. In one well-publicized incident, an officer of the 82nd Airborne Division had to use a pay phone on the island to call Fort Bragg to ask authorities there to call the Navy.<sup>8</sup>

(U//~~FOUO~~) After the invasion a dispute erupted between NSA and the Pentagon about the exclusion from planning. This resulted in a commitment by the director of DIA, Lieutenant General Williams, to routinely involve NSA in the planning, but this commitment lasted for only a few days - NSA was not even invited to the JCS critique sessions.<sup>9</sup> In reviewing the situation, General Faurer blamed the top man:

*So General Vessey undoubtedly had his reasons and I applaud them for everybody but us. I recognize the advantage of secrecy in what he did. I also recognize the difficulty of having secrecy in our government, but I have no sympathy for secrecy being used as an excuse for not finding a way to get NSA involved....<sup>10</sup>*

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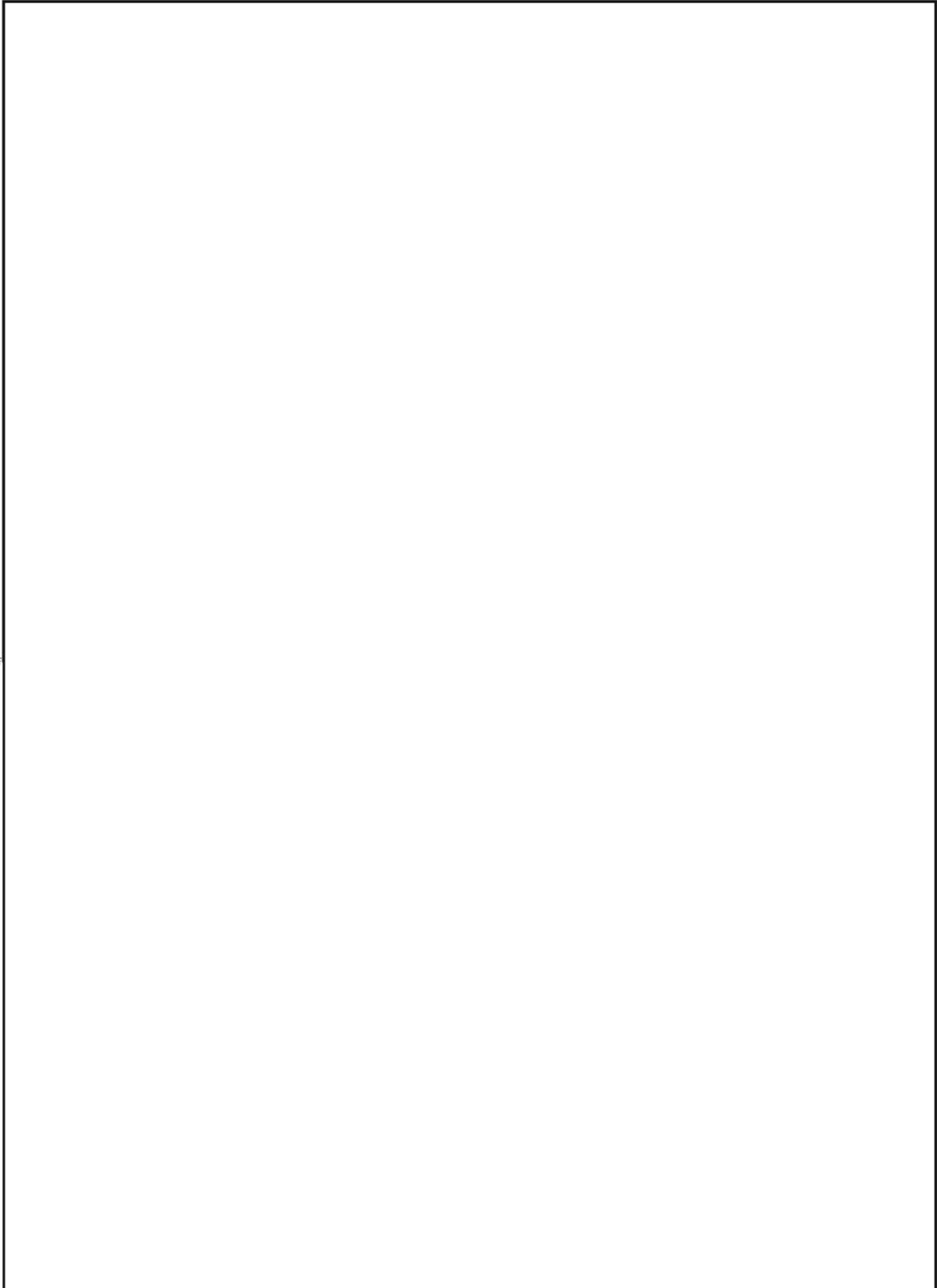
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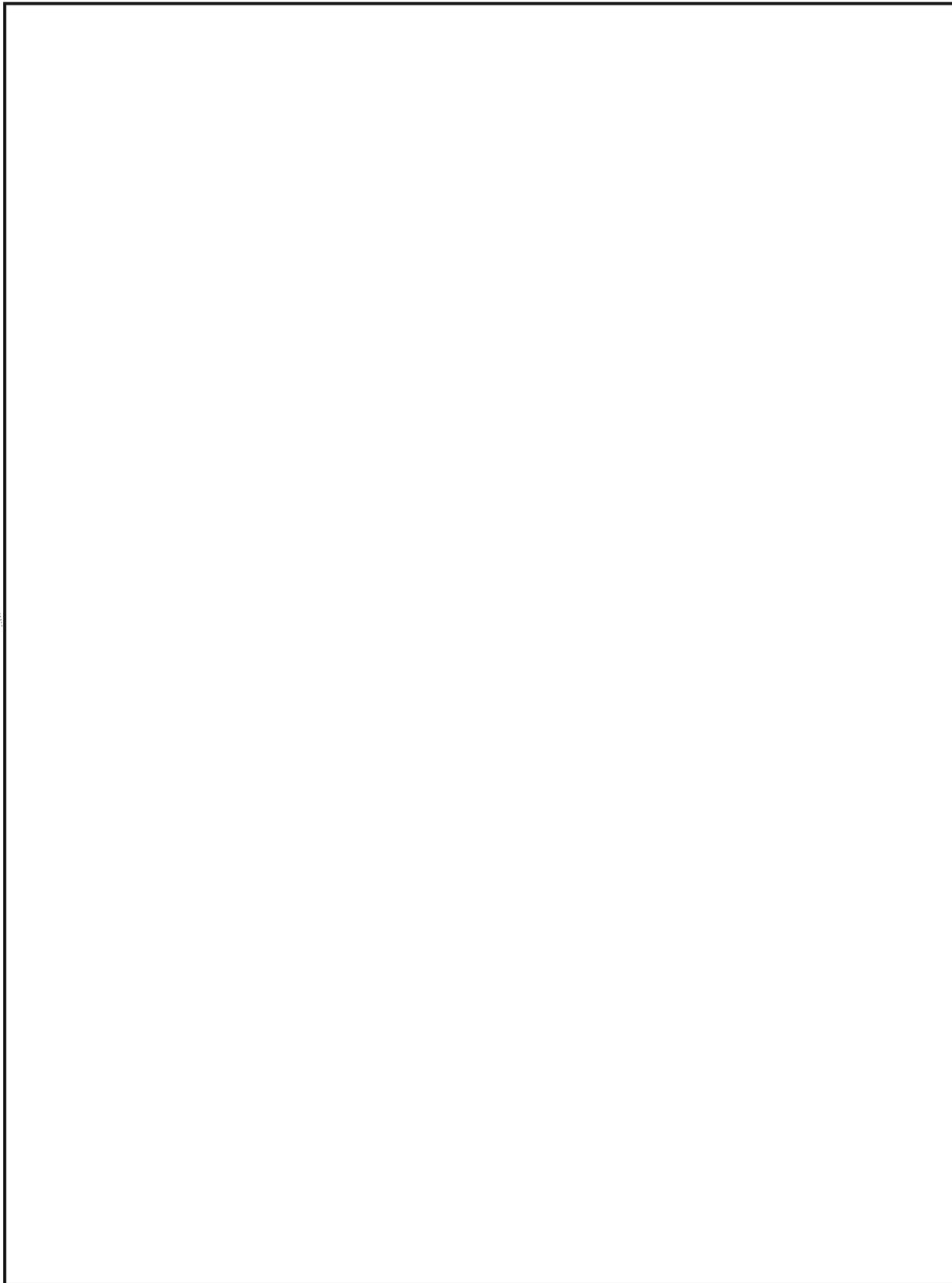
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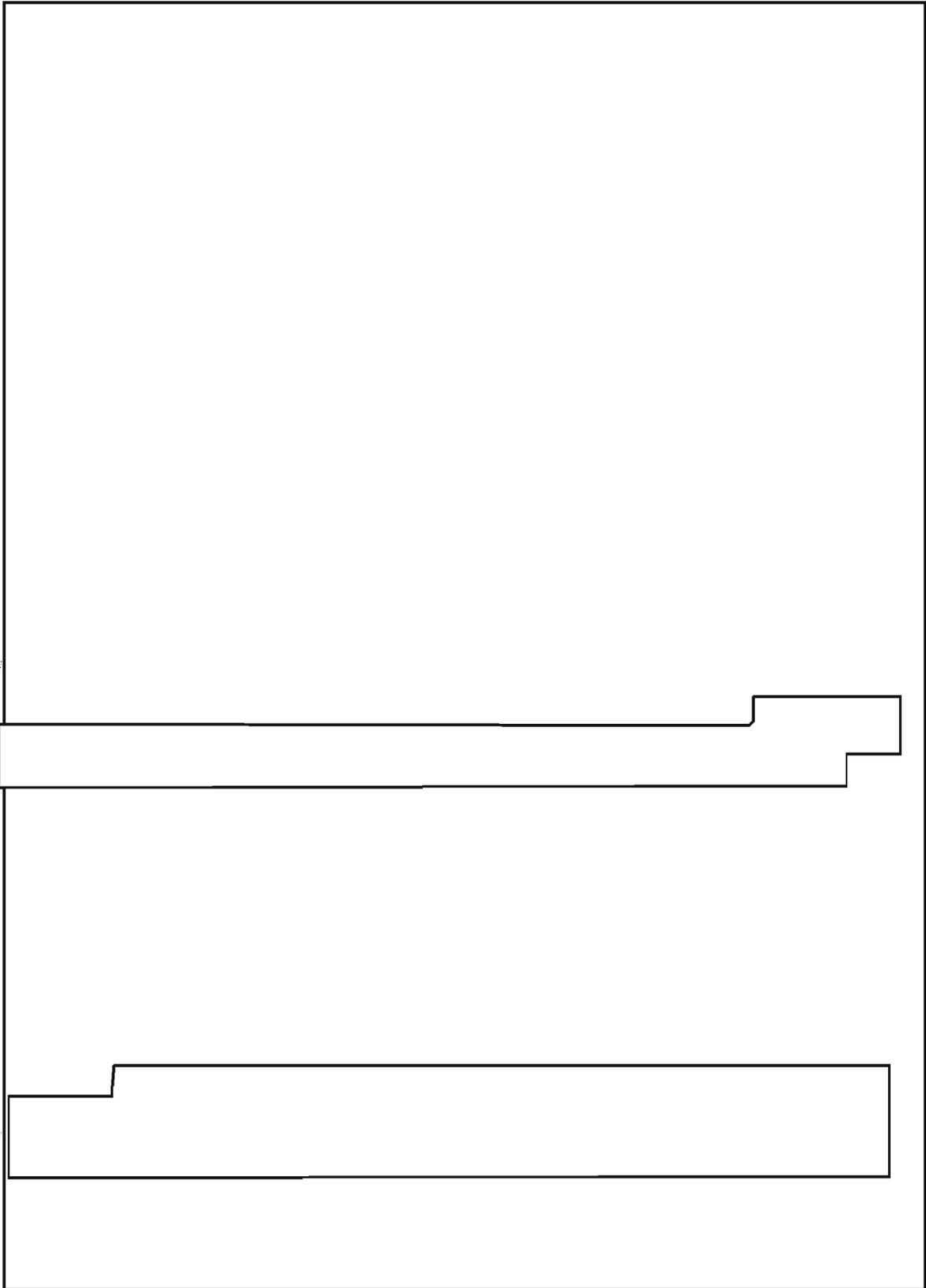
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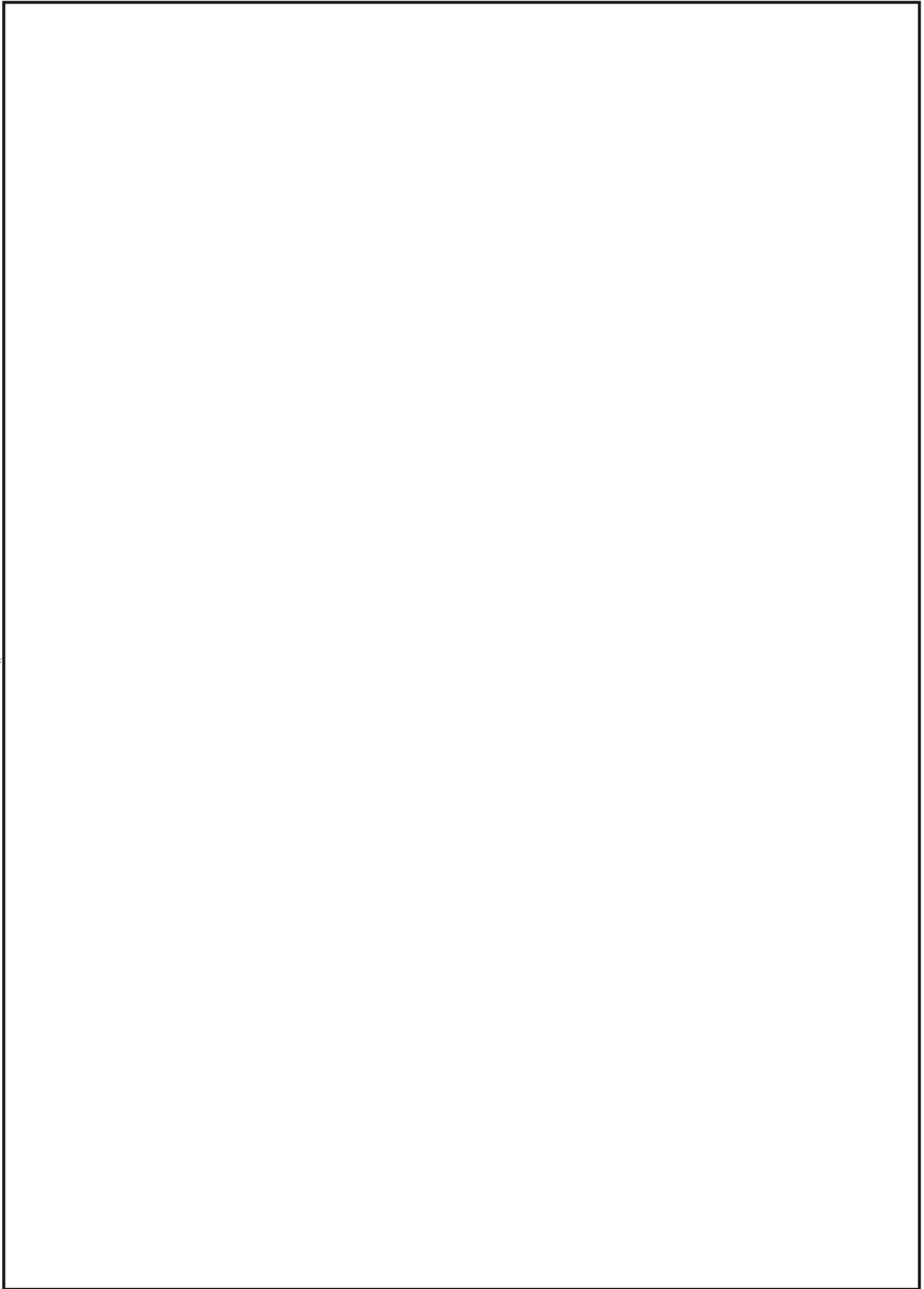
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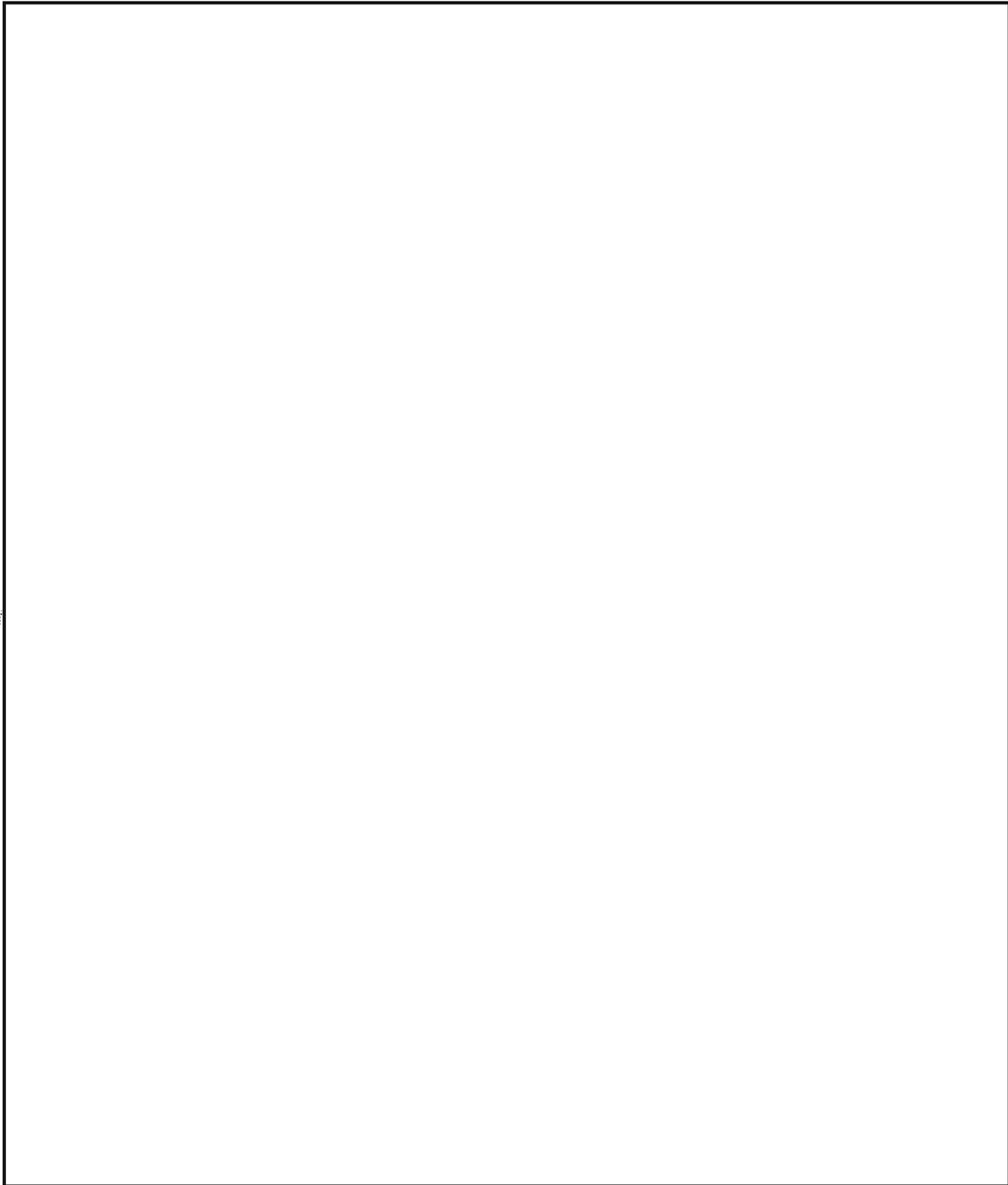


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**(U) JUST CAUSE**

~~(S//SI)~~ The American military invasion of Panama in 1989 was as smooth as Urgent Fury had been rocky. The crisis in American-Panamanian relations had been in slow-motion evolution for several years, and this allowed the JCS to do long-range planning. Many of the units involved in Grenada also participated in Just Cause and learned from

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the earlier experience. [REDACTED]

(U) Following his successful Panama Canal Treaty negotiations, Panamanian strongman Omar Torrijos enjoyed almost messianic popularity in his home country. But Torrijos was killed in a plane crash in 1981, and the country was temporarily rudderless. This did not last long, however. A new strongman, Manuel Noriega, soon grabbed the tiller.<sup>14</sup>

(U) Noriega had joined the Torrijos entourage soon after the ousting of the Arias government in 1968. His specialty was intelligence, and he worked closely with American military intelligence people over the years, attending special training at Fort Bragg in 1967. When Torrijos died, Noriega emerged as one of three powerful army officers heading the Guardia Nacional. But Noriega was the smartest of the three, and soon eased the other two into early retirement. He gained control of the Guardia and, through a succession of figurehead presidents, the governmental machinery.<sup>15</sup>



(U) Manuel Noriega

(U) His relationships with the U.S. were convoluted. Of all the Guardia figures, U.S. intelligence regarded him as the least appetizing, and the State Department viewed his rise as a scarcely mitigated disaster. But he proved a useful partner in many respects, [REDACTED]

[REDACTED] U.S. military authorities at SOUTHCOM were forced to work closely with him, but they did not enjoy the experience. His sexual escapades were legendary, and it was rumored that he was involved with drug trafficking.

(U) Noriega's reputation, already vile among knowledgeable Americans, took a turn for the worse when he "stole" the Panamanian elections in 1984. With his own man in the presidency, the way appeared clear for him, but the next year a Noriega opponent, Dr. Hugo Spadafora, was brutally murdered, and it was widely rumored that Noriega had ordered the execution because Spadafora had exposed Noriega's drug dealings. In the midst of the Spadafora crisis, Noriega replaced the mostly compliant president, Nicolas Ardito Barletta, with an even more compliant operative, Arturo Delvalle. Alarmed, the State Department sent its Latin American troubleshooter, Elliott Abrams, with National Security Advisor John Poindexter, to warn Noriega to back off. The warning had little

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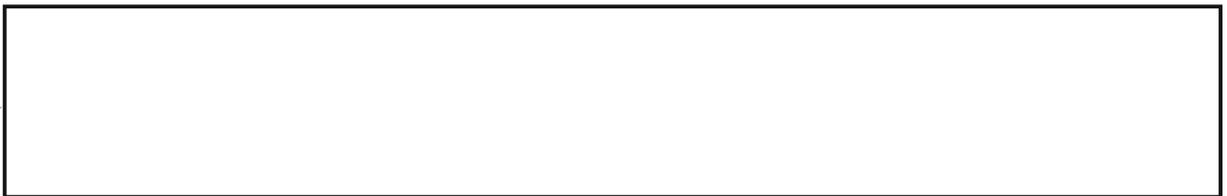
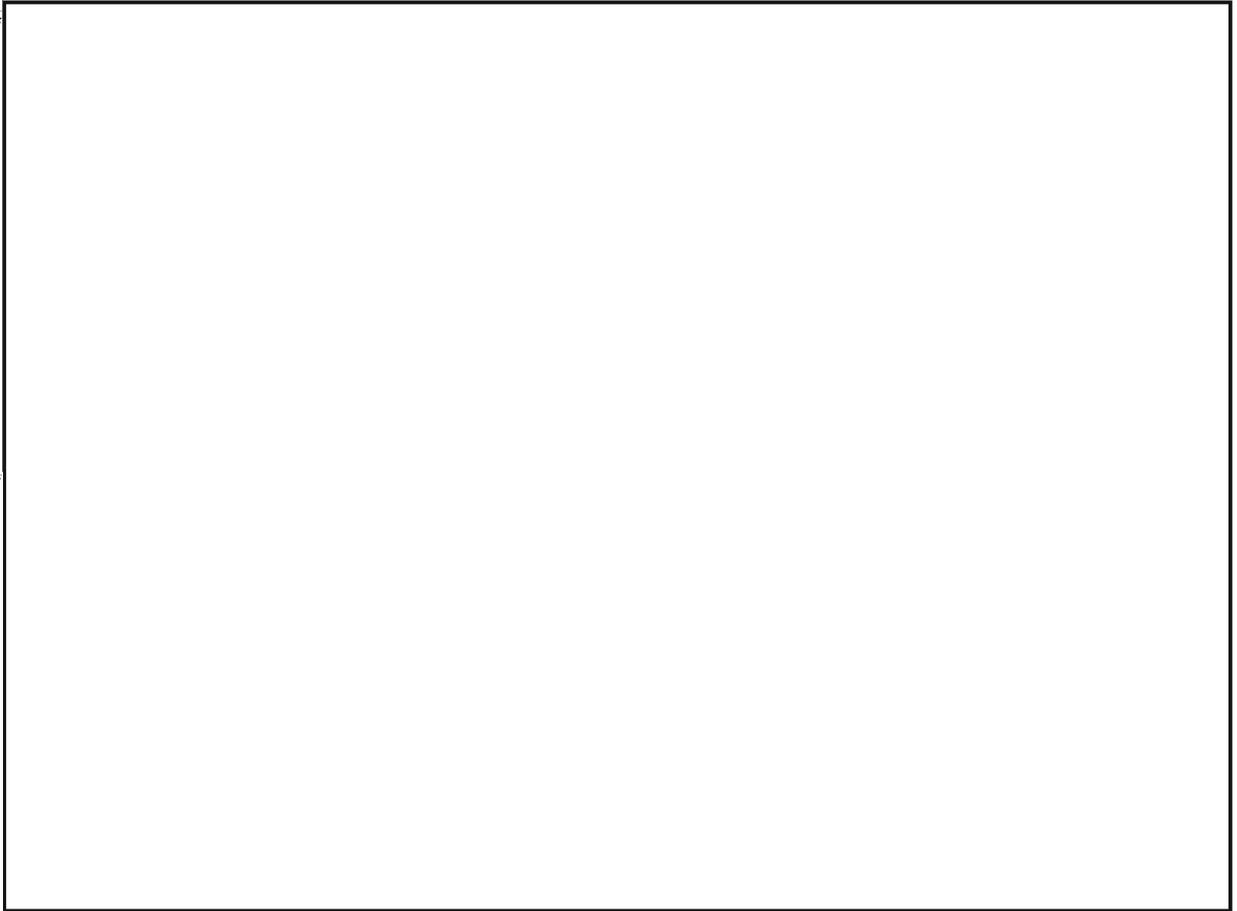
effect, partly because Noriega was deeply involved in supporting the Reagan administration's undeclared war against the Sandinistas, and thus considered himself invulnerable.<sup>16</sup>

(U) With the onset of the Iran-Contra scandal in 1986, Noriega's usefulness came to an end, and the Reagan administration began exerting considerable pressure on him to reform. In June of that year, journalist Seymour Hersh published a *New York Times* article exposing Noriega's drug trafficking, and Senator Jesse Helms opened a Senate investigation into the matter. In February of 1988, two Florida grand juries simultaneously indicted him for drug trafficking, and he became a fugitive from the American judicial system. While all this was going on, Panamanians were rioting in the streets, and the Guardia, which had been renamed the Panamanian Defense Force (PDF) by Noriega, initiated brutal repression. The economy was in collapse, and under intense pressure, Noriega agreed to "democratic" elections for May of 1989. Although the elections occurred as scheduled, the opposition appeared headed for victory. Noriega then annulled the elections and appointed his own man.<sup>17</sup>

~~(S//SI)~~ JCS planning for intervention in Panama had begun in 1988, following the Florida indictments, in an operation code-named Blue Spoon. The operation envisioned a quick military strike composed of SOUTHCOM troops on the ground, considerably augmented by airborne troops from Fort Bragg.

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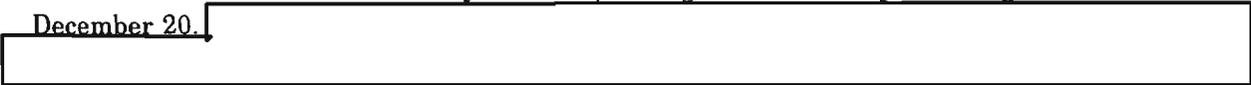
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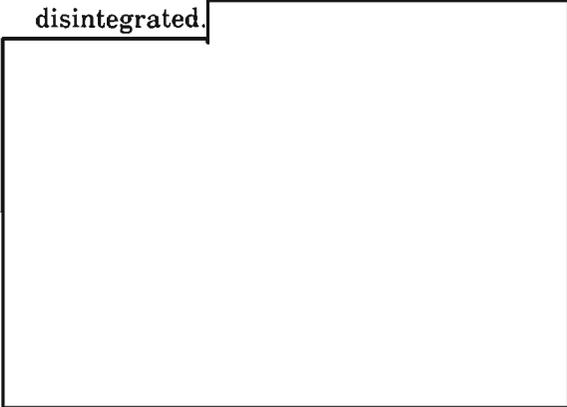
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(~~S//SI~~) On December 16, Panamanian forces shot and killed a Marine officer. On the same date, they detained and interrogated a Navy lieutenant and his wife. These two incidents culminated months of calculated harassment by the PDF, and the next day President Bush directed a military invasion, to begin in the early morning hours of December 20.



(~~S//SI-SPOKE~~) Airborne forces hit the country so quickly, in so many places, that the Panamanian military quickly disintegrated.



(U) U.S. airborne soldier

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~~(S//SI-SPOKE)~~ Noriega disappeared from view at the outset of operation Just Cause, and he was never located [redacted] until he took refuge in the Papal Nunciature on December 24. His last known location, during the evening of December 19,

[redacted] By the time troops were on the ground, he had disappeared.<sup>26</sup>

~~(S//SI-SPOKE)~~ The mystery was eventually cleared up by one of his bodyguards who surrendered and was debriefed by U.S. intelligence. [redacted]

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[redacted] Partway to Panama City, however, he split from his convoy and headed for a recreation area outside the Torrijos-Tocumen Airport, where he had planned to spend the night with a prostitute. This dalliance was interrupted at about 10 that evening by a phone call from the minister of health, who reported that the Americans were planning to invade. According to the bodyguard, Noriega ignored the warning until he heard explosions at the airport. (It was the XVIII Airborne Corps paratropping into the area.) In panic, he got into his car and drove around in circles for the rest of the night, not daring to stop anywhere for longer than a few minutes. The next day he went to the house of his secretary's husband's sister and stayed there until December 24, when he sought Papal asylum.<sup>27</sup>

~~(S//SI-SPOKE)~~ Meanwhile, [redacted] HUMINT sent U.S. Special Forces charging first in one direction, then in another, presumably hot on his trail. At one point they invaded Farallon, finding hot coffee and still-smoking cigarettes, but no Noriega. Everyone believed that they were only minutes behind their quarry, but if the bodyguard is to be believed, these forays were all blind alleys. He was never at Farallon, or, for that matter, at any of the other hideouts the Army was monitoring. In all, Special Forces conducted more than forty attempted snatch operations.<sup>28</sup>

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[Redacted]

[Redacted]

~~(S//SI)~~ There were other problems, too.

[Redacted]

~~(U//FOUO)~~ All in all, however, Just Cause did much to restore relationships between SIGINTers and the supported forces. This relationship became critical during Desert Storm two years later.

**(U) Notes**

1. (U) NSA/P051, "Grenada Invasion - A SIGINT Perspective," 1 February 1984, CCH Series VIII.36. Ronald H. Cole, *Operation Urgent Fury* (Washington: JCS Joint History Office, 1997).
2. (U) Cole, *Operation Urgent Fury*.
3. (U) Ibid.
4. (U) Ibid.
5. (U) Ibid.
6. (U) Memo, P53, Subject: USSS Support to Grenada Operations, 16 February 1984, in CCH Series XII.D.
7. (U) Ibid.

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8. (U) Telephone interview with [redacted] 17 April 1998. Cole, *Operation Urgent Fury*.

9. (U) Cole, *Operation Urgent Fury*.

10. (U) Faurer interview.

11. (U) Unless otherwise annotated, information for this section was taken from [redacted] *The*

[redacted]

12. (U) Inman interview.

13. (U) Andrew, *For the President's Eyes Only*, 467.

14. (U) Thomas Donnelly, Margaret Roth and Caleb Baker, *Operation Just Cause: The Storming of Panama* (New York: Lexington Books, 1991), 4-5.

15. (U) Ibid.

16. (U) Ibid., 8-10.

17. (U) [redacted] "Support to Military Operations: NSA's Contribution to Operation Just Cause," November 1991 MSSSI thesis, Joint Military Intelligence College, Washington, D.C.

18. (U) Ibid. 19 March 1990 memo from [redacted] "After-Action Report," CCH Series VIII.11.A.

19. (U) [redacted] thesis.

20. (U) Ibid. [redacted] memo.

21. (U) XVIII Airborne Corps Briefing on Just Cause, in CCH Series VIII.11.A.

22. (U) [redacted] et al., *Operation Just Cause*. XVIII Airborne Corps Briefing on Just Cause.

23. (U) [redacted] thesis. [redacted] memo.

24. (U) [redacted] memo. XVIII Airborne Corp Briefing.

25. (U) CCH Series VIII.11.A.

26. (U) [redacted] memo.

27. (U) [redacted]

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28. (U) [redacted] et al., *Operation Just Cause*, 104-06.

29. (U) [redacted] memo.

30. (U) Ibid.

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## (U) Chapter 25 Iran-Contra

(U) The Iran-Contra scandal dominated the newspapers during the second Reagan administration. The affair hit the newsstands in October of 1986 when the Sandinistas shot down an aircraft making arms deliveries to the Contras, and captured an American, Eugene Hasenfus, who had been kicking pallets of material out the back end of the aircraft for the Contras waiting on the ground. Almost simultaneously, a Lebanese newspaper broke the story of attempts by the Reagan administration to free American hostages in Lebanon with sales of arms. From that time on, it was never out of the press.

### (U) CONTRA



(U) Ronald Reagan's Republican Party had generally opposed an accommodation with Panama, and when Reagan was elected president there was some talk about trying to reverse the treaty. But it was never a serious threat, and Congress chose to let the issue ride, in hopes that arrangements with Torrijos would work out. Reagan's Latin American focus was decidedly elsewhere - toward Nicaragua.

### (U) *The Nicaraguan Revolution and the Concern about Communist Subversion*

(U) Nicaragua, in company with most Central American principalities, was a country wracked by periodic revolution, military coups, tyranny and subversion. The situation had gotten so bad that in 1912 President Taft had sent in the Marines. They stayed until 1933. In 1927, Henry Stimson was sent to the country to negotiate a political settlement. He succeeded in obtaining the agreement of all but one general, Augusto Cesar Sandino. Sandino fled to the hills with a few followers and tried to disrupt the American-sponsored elections of 1928. He and his followers continued fighting a guerrilla war for seven years, but in 1934 National Guard troops under an emerging strongman, Anastasio Somoza, collared the obstreperous revolutionary and summarily executed him. Later that year Somoza ousted the government and inaugurated forty-five years of dictatorship.<sup>1</sup>

(U) Sandino remained the hero of the dispossessed, and the movement, which came to be named after him, took on an anti-American hue. Somoza and his greedy family stayed in power, imposing one of Latin America's least enlightened regimes on the defenseless country.

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(U) By the early 1970s Somoza's son, Anastasio Somoza Debayle, was in power. Less politically adept than his father, he fought off the growing Sandinista guerrilla movement through brute force. His resort to force attracted the attention of Amnesty International, as well as the liberal wing of the American Democratic Party, which demanded that foreign aid to the Nicaraguan government be cut off. The issue resonated with President Carter, but Carter had his hands full with other matters and tried to let the Nicaraguan situation ride. Omar Torrijos, no stranger himself to strongman rule, once said, "...the crisis in Nicaragua can be described as a simple problem: a mentally deranged man with an army of criminals is attacking a defenseless population....This is not a problem for the OAS; what we need is a psychiatrist."<sup>2</sup>

(U) On August 22, 1978, the Nicaraguan scene was permanently disrupted. On that date an obscure Sandinista general, Eden Pastora, captured the National Palace while congress was in session and extorted from Somoza a list of concessions, including releasing various Sandinista figures from jail. Nicaragua went into a state of long-term turmoil, with mob rioting, looting, government retaliation, executions, and the like. For almost a year the country descended into chaos, a descent that was finally interrupted on July 17, 1979, when Somoza and his family finally left the country. The Sandinistas took over.<sup>3</sup>

(U) The triumph of a viscerally anti-American revolutionary group in Nicaragua presented the Carter administration with a square dilemma. Carter, always predisposed toward such popular movements, on the one hand welcomed the overthrow of the odious Somoza regime, while on the other tried to convince the Sandinistas not to throw in their lot with Cuba and the Soviet Union. The U.S. promptly shipped \$39 million in food aid to Nicaragua.

(U) It didn't work. The Sandinistas turned slowly but surely toward Moscow. In March of 1980 they signed a comprehensive economic, scientific and cultural agreement with the USSR. In July, on the anniversary of the revolution, Fidel Castro was the most prominent speaker. Cuban advisors moved into Managua. In the meantime, the Sandinista leader, Daniel Ortega, announced that democratic elections were to be postponed until 1985, and forced the moderate element, led by newspaper publisher Violetta Chamorro and Alfonso Robelo, into opposition.<sup>4</sup>

(U) The problem for Carter was not Nicaragua, but the tinderbox satrapies to the north - El Salvador, Honduras and Guatemala. Following the treaty with Moscow, the [redacted] Nicaraguan support for similar guerrilla movements, especially in El Salvador. Carter tried to play the issue both ways. In order to continue foreign aid to Nicaragua (the carrot approach to Ortega and company), he publicly certified that the Sandinistas were not supplying arms to neighboring guerrilla movements. [redacted] Carter privately signed a finding to support democratic elements (read Contras) in Nicaragua. Just before the elections that would result in Ronald Reagan becoming president, the Sandinistas began flooding El Salvador with arms in hopes of overthrowing the government outright. An outraged Carter sent his ambassador, Anthony Pezullo, to deliver a stinging rebuke to

OGA

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Ortega. Rejected, Carter continued arms deliveries to the repressive right-wing government of El Salvador.<sup>5</sup>

OGA [redacted] While Carter smoldered with pent-up fury at Sandinista perfidy, Reagan was completely out front with it. The Republican platform for the election of 1980 called for the overthrow of the Nicaraguan government. As soon as Reagan became president, he suspended the final \$15 million of a \$75-million aid package for the country, and in March [redacted] that Carter had begun. A finding of December 1981 stated that the American objective was to interdict the flow of arms to neighboring countries, rather than to overthrow the Nicaraguan government. [redacted]

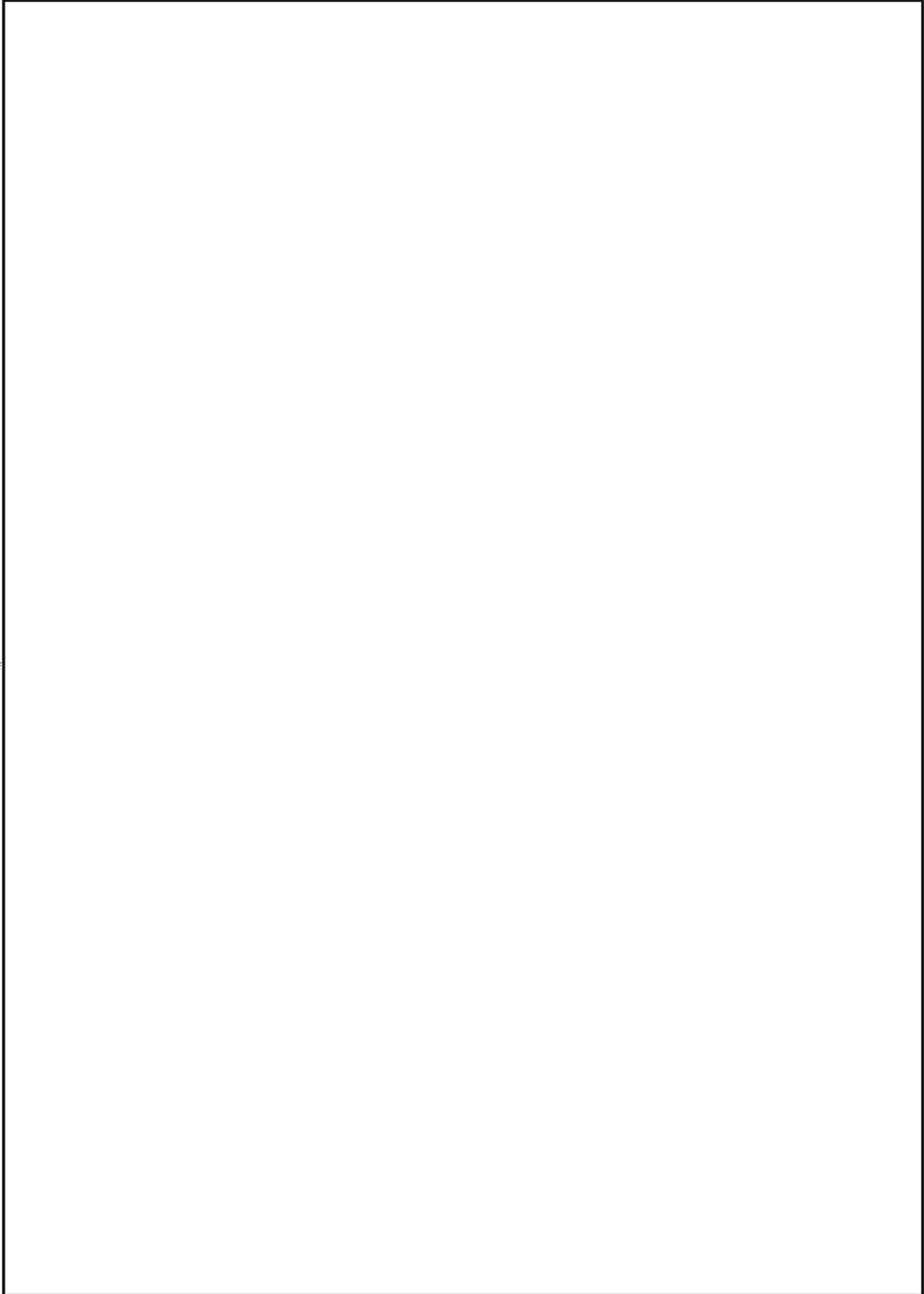
EO 1.4.(c) (U) The Contra movement in Nicaragua had begun in 1980 as an inchoate agrarian protest against government policies. As the Sandinistas swung to the left, the Contras got stronger. There were small Contra groups in the south, unorganized at first, but led later by the very same Eden Pastora who had begun his public life as a prominent Sandinista general. In the north the groups were larger and better organized; they came to be dominated by a unified organization under a former National Guard officer, Enrique Bermudez. Pastora and Bermudez did not get along (for obvious ideological reasons, if nothing else). Forced to choose, [redacted]

(U) It is essential to understand the U.S. political conditions under which the guerrilla war was being fought. A 1974 amendment to the annual Foreign Assistance Act, called the Hughes-Ryan Amendment, required the president to "find" that each covert activity was "important to the national security of the United States," and that the president report such operations to Congress "in a timely fashion."<sup>8</sup>

(U) It had become customary to report such "findings" to the HPSCI and SSCI - that constituted "notification." Thus Congress was aware of, and had acquiesced in, the Contra operation. But in November of 1982 the "covert" effort was publicly exposed in the nation's leading newspapers. This produced a great deal of congressional agitation for an end to the effort, and resulted in a compromise, called the Boland Amendment, after Edward Boland of Massachusetts, the Democratic chairman of HPSCI. According to the amendment, no appropriations could be spent "for the purpose of overthrowing the government of Nicaragua or provoking an exchange between Nicaragua and Honduras." Although somewhat restrictive, the amendment dealt with intent, not activities. Support to the Contras remained legal as long as its overt objective was not overthrow, just interdiction of arms. But the next year, following the harbor mining episode (see page 391), a second Boland Amendment (called "Boland Two") prohibited the expenditure of funds for the purpose of Contra support, whatever the motivation. This meant that, at least for fiscal year 1985, the flow of aid would run dry.<sup>9</sup>

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[REDACTED]

It was clear, long before Eugene Hasenfus was shot down, that the Nicaraguans had a good handle on [REDACTED] resupply flights and that the Sandinistas had shoulder-launched missiles that could bring them down. (This was how the Hasenfus aircraft was grounded.)<sup>15</sup>

EO 1.4.(c)

OGA



(U) Eugene Hasenfus

[REDACTED]

(U) The Reagan administration's effort to stop Sandinista subversion in Central American ran into all sorts of political problems. It had only a hair-thin majority in Congress when, in April of 1984, *The Wall Street Journal* released a story claiming that CIA was helping mine Nicaraguan harbors, thus endangering commercial shipping. (Several ships, including a Soviet tanker had been damaged.) The story created chaos

in Congress, where administration allies were delicately trying to steer the 1985 Contra aid package to approval. Barry Goldwater broke openly with William Casey, alleging that he had not been informed of the operation (not that he did not approve, however). Other congressmen opposed a direct CIA presence in the operation. Aid was voted down, and the administration was confronted with its first outright break in the funding cycle for its Contra guerrilla groups. Aid was not restored in any fashion until the 1987 budget year. But no sooner was aid reestablished than a Contra resupply flight was shot down in late 1986 with a CIA contractor, Eugene Hasenfus, aboard. Chaos again roiled the Contra program.<sup>17</sup>

(U) The Reagan effort against the Sandinistas was smart because it was broad-based. Not putting its eggs in one basket, the administration funneled military aid to El Salvador and Honduras, increased intelligence surveillance, and mounted a public information program to build domestic support. Despite missteps like the harbor mining, they could rely on Sandinista administrative incompetence and heavy-handed domestic repression.<sup>18</sup> Slowly, the tide began to turn.

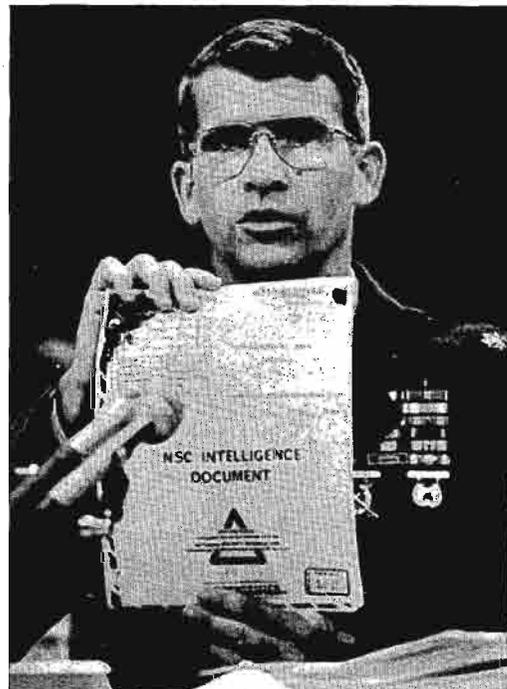
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[redacted] The problem was not just CIA's dealings with its clients; it also related to the legality of applying money to a problem whose spending authorization was constantly in question. Sometimes money had been appropriated; sometimes it hadn't. Sometimes CIA was trying an end run around congressional restrictions by trying to use defense money. [redacted] actions required a legal ruling. Should an employee inadvertently step over a line, would he or she be liable? And who would pay legal fees if the matter ever went to court? It was not a moot question, as the Iran-Contra scandal would soon demonstrate.

**(U) IRAN**

(U) In the summer of 1985, Oliver North, an obscure Marine lieutenant colonel on the NSC staff, was running a covert operation to try to get Western hostages out of Lebanon. His primary contacts were with Iranians, who were presumably backing the Lebanese terrorists holding the hostages. It involved covert dealings with Israeli intelligence, trips to Iran, and direct dealings with an Iranian businessman named Ghorbanifar. The operation suffered from leaky security.

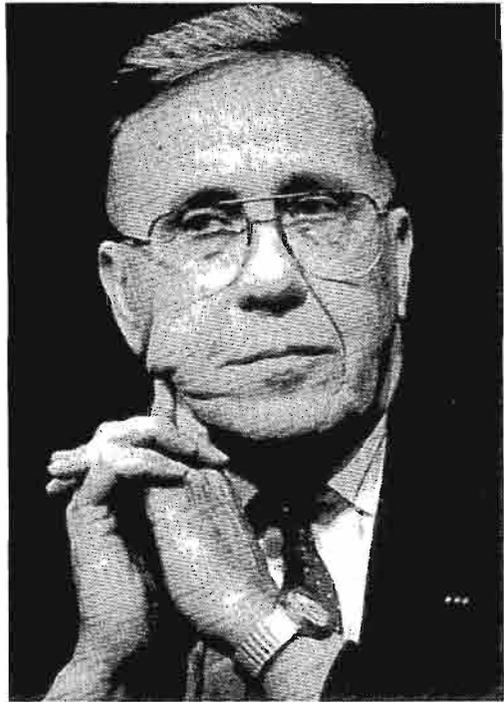
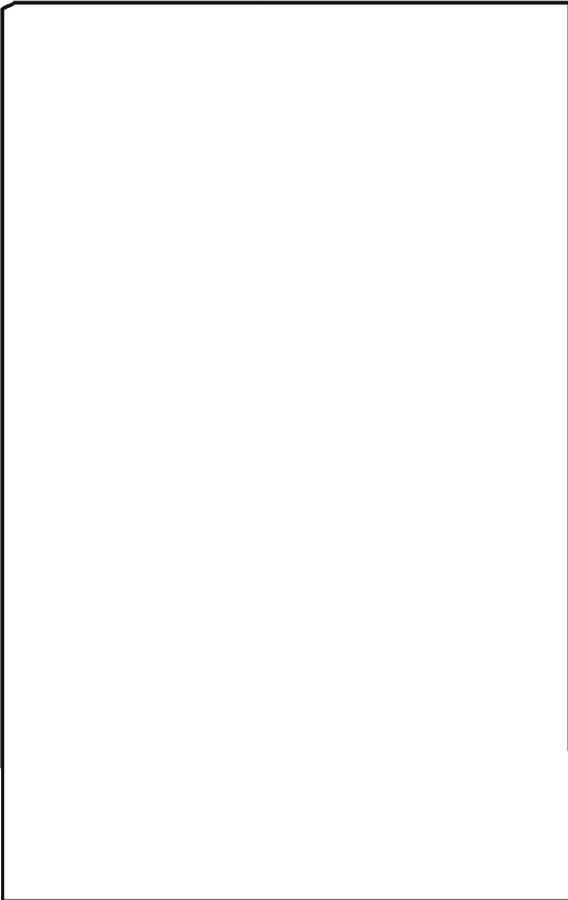


(U) Oliver North

~~(TS//SI-UMBRA)~~ The matter remained strictly a White House affair until, on September 12, 1985, [redacted]

[redacted] Charlie Allen, the NIO for counter-terrorism and the

designated CIA contact point for Oliver North's hostage release project,



(U) Charles Allen



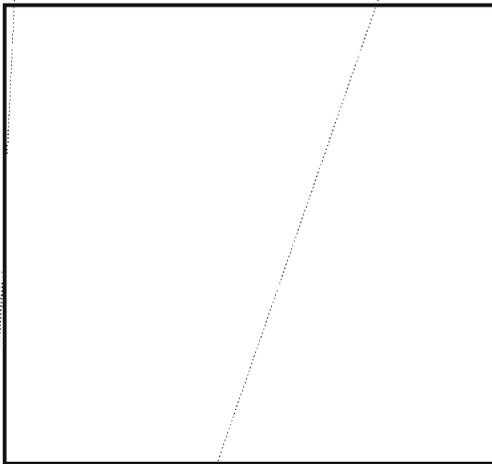
(S) In November of 1985, Ken deGraffenreid, the NSC staffer in charge of intelligence issues, discovered that North was devising hand codes for use in the operation. DeGraffenreid, who fully appreciated the insecurity inherent in such a bootleg code, called NSA's [redacted] Harry Daniels, the assistant deputy director for information security (DDI). [redacted] went to the White House that afternoon and discussed the matter with deGraffenreid, and they decided that [redacted] should give North a threat briefing. North understood the problem and asked about COMSEC equipment.<sup>22</sup>

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~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(S) The problem was tangled. North would need COMSEC equipment to secure his own communications, but he did not tell [redacted] who else might be involved in the communications. The relationship with North broadened as [redacted] continued to work with him to protect the operation. In December, North told him that he was involved in an effort to free the hostages in Lebanon, and was dealing with Iranians. Thus, [redacted] understood from an early date that North was engaged in trying to extricate the hostages from Lebanon.<sup>23</sup>

(S) [redacted] had limited choices. If only U.S. government officials were involved,



(U//FOUO) [redacted] first gave North [redacted] advising him that if he were not satisfied, to come back. North soon called to say that the [redacted] equipment was not doing the job. [redacted] then provided a certain number (the precise number is unclear) [redacted] and demonstrated their use to North in the White House on at least one occasion.

(U//FOUO) On several occasions North's Iranian contacts requested encryption support, and in February of 1986 North called [redacted] to ask for some encryption equipment that "might fall into Iranian hands." [redacted] delivered [redacted] equipment to North for this purpose, but the equipment was never actually handed over to the Iranians.<sup>25</sup>

(U//FOUO) Unknown to NSA and [redacted] North had, in early 1986, decided to mix the Iran and Contra operations. He needed money to support the Contras, and could get it by overcharging the Iranians for the missiles that they so badly wanted. But the two operations got intertwined in other areas too. North used some of [redacted] to secure communications in Latin America in order to cover the drop zones where arms were being supplied to the Contras. Some of this equipment might have been used by non-Americans. [redacted] on the other hand, were used to secure hostage-related communications, and some of them might have been made available to Israelis.<sup>26</sup>

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~~(S)~~ There was no "standard operating procedure" for support to the White House. [redacted] did things on the fly and did not keep good track of receipts, much less monitor exactly how, and by whom, the equipment was being used. Because of the sensitivity of the mission, he had little or no staff support. He kept the DDI, Walter Deeley, and his deputy, Harry Daniels, informed, and also touched base with the DDO, Dick Lord (who was primarily concerned about Oliver North's method of operation) and Robert Rich, the deputy director. He received general guidance to press ahead and give the White House whatever it wanted, but to make sure that North understood [redacted]

[redacted] He followed those instructions.<sup>27</sup>

(U//~~FOUO~~) One of the consequences of the press exposure of Iran-Contra was exposure of NSA's dealings with North on encryption gear. General Odom was outraged. He had tried his best to keep NSA out of the scandal, and believed that he had done so, but the North-[redacted] connection dragged NSA into the investigations. This produced an investigation within NSA itself to determine if procedures had been followed. The NSA inspector general discovered numerous procedural violations and concluded that some of [redacted] were still not accounted for. The hindsight report also concluded that both [redacted] had been "loaned" to foreign nationals. But it was more difficult to sort out the "What would I have done in his shoes" issue. The investigation came up with clear contradiction between [redacted] version of what happened and Odom's. According to [redacted] he briefed Odom on the whole matter in March of 1986 and got the approval to continue; according to Odom, this meeting never happened.<sup>28</sup>

(U//~~FOUO~~) There was no resolving the differing accounts, but because there were procedural violations, Odom decided to discipline [redacted] suspending him without pay for fifteen days. [redacted] hired a lawyer and fought the charges. He appealed, and a review panel ruled that the disciplinary action should be dropped and [redacted] legal fees (at that point amounting to about \$40,000) be paid by the government. Odom was reportedly furious at the board action and decided to lower the recompense of legal fees to less than \$10,000. [redacted] appealed to Secretary of Defense Frank Carlucci. The appeal dragged on until 1988, when a new director, Admiral William Studeman, ruled in [redacted] favor.<sup>29</sup>

(U//~~FOUO~~) Outside of NSA, the [redacted] affair" was a very minor blip on the public radar. It never had the potential to rock the Agency the way Watergate had. But inside NSA, it was one of the most divisive personnel issues in Agency history. It pitted a director determined to keep NSA out of public scandal against virtually the entire civilian hierarchy, determined to protect one of its own from retaliation that they perceived as scapegoatism. The puzzling gaps in chronology and differing recollections of what had happened were never resolved. But the bottom line was a verdict in favor of [redacted] by the investigative board, by one former director (Bobby Inman, a member of the board), and by General Odom's successor, Admiral William Studeman.

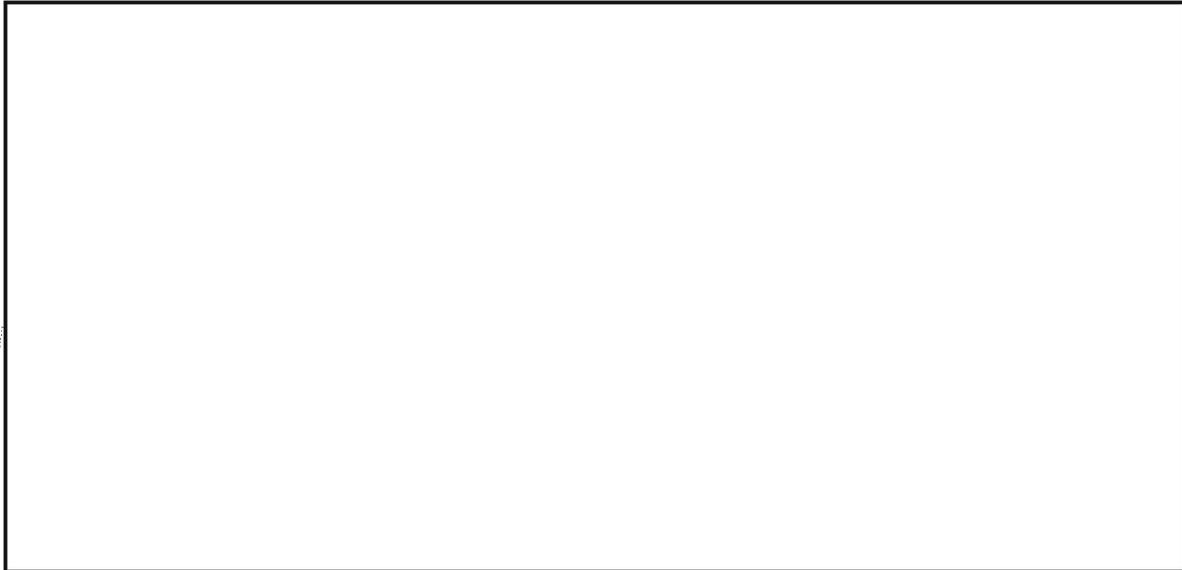
~~(S//SI)~~ But that was not the end of the affair. North had overcharged the Iranians for the weapons, and had siphoned the profits (which amounted to several million dollars) into

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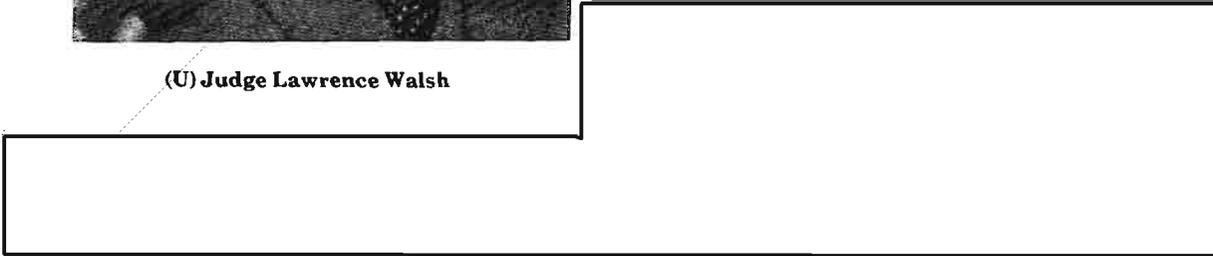
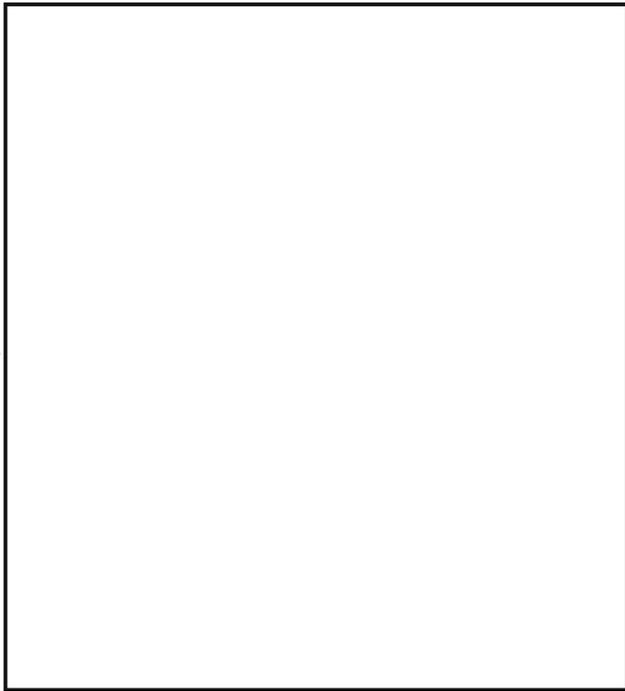
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special bank accounts to fund the Contra operations during periods when congressional funds were either not appropriated or outright prohibited. A special prosecutor, Lawrence Walsh, was called in to investigate the possible illegal diversion of funds to the Contras.



(U) Judge Lawrence Walsh



EO 1.4.(c)

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This approach had worked with in the Pelton investigation in 1985 and during the Church Committee hearings a decade earlier.

(U) It did not work with Walsh's team. The prosecutors, failing to appreciate the sensitivity of the information, structured an indictment of North that made [redacted] [redacted] central to the issue, thus virtually guaranteeing that North's attorney, Brendan Sullivan, would request their use in court. The inevitable Sullivan request was a classic case of "grey mail" – a demand to introduce documents in court, the sensitivity of which guaranteed that prosecutors would not use them. Sullivan alleged that the reports would show that North's superiors in the NSC were being kept informed of the operation at every step. Walsh wanted to use them for the opposite purpose – to depict in considerable detail how the arms-for-hostages operation functioned.<sup>33</sup>

(U//FOUO) Sullivan's request [redacted] touched off a fierce dispute between NSA and the Walsh team. Walsh simply could not understand NSA's concerns about [redacted] and contended that, since aspects of NSA's mission had already been discussed in the press, revealing [redacted] would do no further damage. In December of 1988 NSA and the Walsh team tried to patch together a compromise position, but could not arrive at an agreement that the federal judge, Gerhard Gesell, would accept. In a climactic meeting on December 21, Walsh confronted NSA's general counsel, Elizabeth Rindskopf, who refused to back down. The matter was referred to the attorney general, Richard Thornburg, who backed Rindskopf. Walsh, in frustration, moved to dismiss the conspiracy counts which were the centerpiece of the indictment against Oliver North.<sup>34</sup>

EO 1.4.(c)

(U) Although the principals in the Iran-Contra investigation were ultimately pardoned, the decisive moment had actually been reached on December 21, 1988. It was a constitutional crisis nearly as significant as that which nearly brought an end to Executive Department cooperation with the Pike Committee in 1975 (see Vol III, 97-98). Once again, the sensitivity of NSA materials was the centerpiece of the dispute, and once again, the administration came down on the side of NSA.

(U) Like Otis Pike, Walsh never forgave the intelligence community, and specifically NSA. He viewed the Agency's conduct as part of a Reagan administration conspiracy to thwart the Iran-Contra investigation and free North, Poindexter, McFarlane and others involved in the operation. In his account of the investigation he discussed the forces arrayed against him:

If I had overlooked the invisible forces on Capitol Hill, I had also underestimated the power of the formidable departments and agencies responsible for national security. The national security community comprised the largest and most protected government entities, each with its own legal staff....We had not begun to address our greatest vulnerability, which derived from the national security community's power to overclassify information to prevent the full exposure of its misconduct.<sup>35</sup>

He never seemed to consider the inherent sensitivity of the source – to Walsh, it was all a smokescreen intended to hide malfeasance.

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## (U) Notes

1. (U) Robert Kagan, *A Twilight Struggle: American Power and Nicaragua, 1977-1990* (New York: Free Press, 1996), 21.
2. (U) Ibid, 81.
3. (U) Ibid., 56-77.
4. (U) Theodore Draper, *A Very Thin Line: The Iran-Contra Affair* (New York: Hill and Wang, 1991).
5. (U) Kagan, *A Twilight Struggle*, 16.
6. (U) Draper, *A Very Thin Line*, 16. Examples of [redacted] were found in the Reagan Library, NSF, and samples retained at NSA, in CCH Series XVI.J, "Miscellaneous."
7. (U) Kagan, *A Twilight Struggle*, 148-50. Draper, *A Very Thin Line*, 17. EO 1.4.(c)
8. (U) Draper, *A Very Thin Line*, 13-14.
9. (U) Kagan, *A Twilight Struggle*, 321-22, 337. Draper, *A Very Thin Line*, 22-23. P.L. 86-36
10. (U) Interview with [redacted] by Tom Johnson, 13 January 1997.
11. (U) [redacted] manuscript on the history [redacted] Interview with [redacted] by Tom Johnson, 30 January 1997. NSA Archives, acc nr 40991, H03-0405-7.
12. (U) [redacted] interview. Interview with [redacted] by Tom Johnson, 29 January 1997.
13. (U) NSA Archives, acc nr 44850, H03-0611-2.
14. (U) [redacted] interview. NSA Archives, acc nr 46117, H04-0210-7.
15. (U) NSA Archives, acc nr 46117, H04-0210-7. [redacted] interview. NSA retired records, 96567, GC Iran-Contra files, "Documents."
16. (U) [redacted] interview.
17. (U) Kagan, *A Twilight Struggle*, 377-81.
18. (U) Ibid.
19. (U) NSA Archives, acc nr 46117, H04-0207-7 [redacted] interview. [redacted] NSA Involvement..., 103.
20. (U) Odom interview. Interview, Robert Mueller, OH 6-98, NSA. NSA retired records, 966567, Box 108267, "Working file Alsup."
21. (U) Colin L. Powell (with Joseph Persico), *My American Journey* (New York: Random House, 1995), 307. Odom interview.
22. (U) Interview [redacted] by Tom Johnson, 8 November 1996, OH 34-96, NSA. Interview, Kenneth deGraffenreid, by Tom Johnson, 20 February 1998, OH 5-98, NSA.
23. (U) deGraffenreid interview [redacted] interview.

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24. (U) Interview, [redacted] by Tom Johnson, 1997. DDIR files, Box 10, "Iran-Contra." [redacted] interrogation in NSA retired records, 96567.
25. (U) [redacted] interview. DDIR files, Box 10, "Iran-Contra." *Congressional Quarterly, The Iran-Contra Puzzle* (Washington, D.C.: *Congressional Quarterly*, 1987). Draper, *A Very Thin Line*, 177.
26. (U) *Iran-Contra Puzzle*. Draper, *A Very Thin Line*, 97, 102. [redacted] interrogation in NSA retired records 96567.
27. (U) DDIR files, Box 10, "Iran-Contra." [redacted] interrogation in NSA retired records, 96567. P. L. 86-36
28. (U) Interview, Eugene Becker, by Tom Johnson, 14 May and 13 June 1996, OH 11-96, NSA.
29. (U) [redacted] interview. DDIR files, Box 10, "Iran-Contra." *New York Times*, 3 June 1988.
30. (U) Interview [redacted] November 1997, by Tom Johnson and [redacted], OH 14-97, NSA.
31. (U) Mueller interview.
32. (U) Reagan Library, NSF, in CCH Series XVI.J, "Iran-Contra."
33. (U) Lawrence E. Walsh, *Firewall: The Iran-Contra Conspiracy and Cover-Up* (New York: W.W. Norton and Co., 1997), 177-78.
34. (U) Walsh, *Firewall*, 177-78. Interview, Elizabeth Rindskopf, by Tom Johnson, 20 February 1998, OH 4-98, NSA.
35. (U) Walsh, *Firewall*, 51, 54.

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## (U) Chapter 26 The Year of the Spy

(U) The Cold War topped off with a series of bizarre counterespionage incidents in the mid-1980s which served to increase mutual U.S.-Soviet paranoia. More newspaper ink was expended on these incidents than almost anything since Watergate. They came to be lumped into a convenient moniker, like Watergate: the "Year of the Spy." Like Black Friday, the term was not quite accurate in a technical sense – far more than just 1985 was involved, and far more than just agents were in question. But like Black Friday, the term stuck as a convenient shorthand. In most of these incidents, NSA was heavily involved.

### (U) GUNMAN

~~(S)~~ Of all the problems, the troubles with the new embassy building (termed the NOB, New Office Building) in Moscow appeared to be the least likely venue for NSA involvement. But appearances sometimes deceive, and embassy security was one of those cases. In fact, NSA had developed a certain technological expertise by virtue of its oversight of the Tempest emanations control program. This, combined with NSA's charter to establish standards for the protection of all COMSEC equipments, which included the communications centers in State Department's overseas embassies, got NSA into the act.

~~(S)~~ NSA representatives began serving on a committee in the mid-1950s that dealt with this problem and began to assert both its expertise and authority in the area. By 1960 NSA was firmly entrenched in embassy security matters, much to the disquiet of State, which squirmed at any oversight of the overseas physical plant by a DoD agency.<sup>1</sup>

~~(S)~~ When, in the 1960s, the U.S. and the USSR arranged to build new chanceries, NSA was one of the first agencies to express reservations about the security of the U.S. building in Moscow. It had become well known in the early 1950s that the Soviets were inclined to bug anything in the U.S. embassy that they could get their hands on. The infamous bugging of the Great Seal (exposed in 1952) showed that they possessed sophistication beyond what would normally have been expected. In 1966, in commenting on the plans for the NOB in Moscow [redacted] of NSA wrote to U.S. Ambassador to Moscow Malcolm Toon that "In past Soviet building activity concerning embassies it could be predicted that every attempt would be made to 'fix' the materials and the construction. Experience has shown that some of the fixes can only be found by extensive destruction. In the case of the Moscow site every attempt should be made to use U.S. building materials and construction personnel."<sup>2</sup>

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(U) State did not follow the NSA advice. When construction of the NOB began in Moscow in 1979, the state-owned Soviet company was permitted to prefabricate concrete columns and other components off site, without American inspection. Meanwhile, the

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Soviets insisted that all components for their embassy in Washington be fabricated under the watchful eye of their own inspectors. Once on-site construction began, the Soviets used thirty security people to monitor an American work force of about 100 people, while in Moscow twenty to thirty Navy Seabees tried to watch six hundred to eight hundred Soviet laborers.<sup>3</sup>

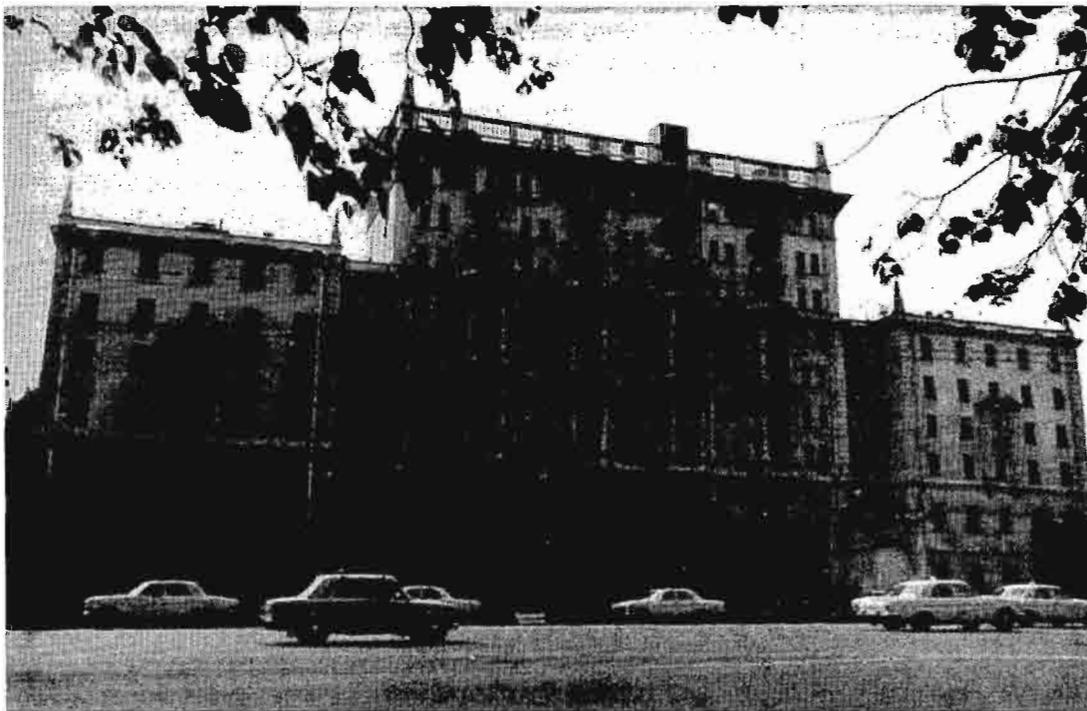
(TS) In the early 1980s people on Reagan's National Security Council became concerned about the hostile foreign intelligence threat in general and about the security of the Moscow embassy in particular. So in 1982 NSA sent a team of people to look at technical penetrations in the Moscow embassy. They found the chancery honeycombed with insecurities, including cipher locks that didn't cipher and alarms that didn't sound. NSA alerted the FBI, which did its own survey and confirmed the problems that NSA had found, plus others. [REDACTED] teamed up with an FBI representative to brief President Reagan on the matter. The State Department, already suspicious of NSA "meddling" in embassy affairs, was reportedly unamused.<sup>4</sup>



(U) The project, called Gunman, involved the removal of eleven tons of electronic equipment from the Moscow embassy – teletypes, printers, computers, crypto devices, copiers – almost anything that plugged into a wall socket. Every piece of equipment had to be replaced with the same or an upgraded model on a one-for-one swap-out. NSA's cover story was that the equipment was being shipped back to the States for an OSHA inspection.

(U) NSA procured the replacement equipment from sources in the U.S. and Europe and packaged it for shipment in specially constructed boxes to Frankfurt, Germany, where it would be staged for shipment to Moscow. The boxes were equipped with special sensing devices that could detect any attempt at tampering. (At the Moscow end no such tampering was detected.) NSA logisticians loaded all eleven tons onto two chartered

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(U) U.S. embassy, Moscow

Lufthansa Airbuses. They were flown directly from Frankfurt to Moscow, where they were trucked on flatbeds to the embassy. They were then winched manually to the attic, which was the only area large enough to stage that much equipment. Then, as equipment was pulled from working spaces and trucked to the attic, new equipment was carted down the stairs to the working spaces.

(U) The last items crammed into the boxes at NSA were fifty IBM Selectric typewriters. The typewriters were an afterthought. They were electric, and some of them did process classified or sensitive information, but this had been overlooked in the initial evaluation. A hurried inventory revealed about 250 of them in use in the embassy, but the IBM plant at Lexington, Kentucky, could spare only fifty, and NSA took them all. Said the NSA official in charge of the swap-out, "I had no targeting against typewriters....Had those typewriters not come [in time] from Lexington..., I would have shipped without them without a wink...."<sup>6</sup>

(U) Back at NSA, a team of about twenty-five technicians worked around the clock to try to find bugs in the equipment taken from the embassy. Everyone was aware that the operation involved huge sums of money and had required presidential approval. NSA's reputation was literally on the line. Walter Deeley, the DDI, had personally pushed Gunman through to the White House and in turn pushed his own people to lay out a maximum effort. But for two desperate months, nothing turned up.

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(U) Then they turned to the typewriters, a lower priority than the equipment that had come from the communications center. One evening in July Michael Arneson, a technician analyzing one of the typewriters, found a "ghostly gray" image on his x-ray film coming from the power cord. Immediately suspicious, he x-rayed the set from the top down. The x-ray images coming from the center of the set were cluttered and definitely nonstandard.

(U) What Arneson had found was a sophisticated bug implanted in a structural metal bar that ran the length of the machine undercarriage. It consisted of sensing devices that picked up tiny fluctuations in current caused by the typewriter ball rotating as it selected the next letter to be typed. It drew its power by bleeding the power line (that was the "ghostly gray image" that Arneson first noticed) and stored the information for periodic burst transmissions to KGB receivers waiting in locations outside the embassy. The bug was undetectable using current technical survey equipment, and the modifications to the metal bar were imperceptible to routine examination. It could be found only by x-ray devices.

(U) Technicians discovered ten bugged Selectrics in that first shipment. NSA immediately retrieved the Selectrics that still resided in Moscow (and in the consulate in Leningrad). Ultimately they found sixteen implants – but only in typewriters. They had been installed somewhere in transit (perhaps Poland or Moscow itself) as they awaited customs inspection. There was a rule that equipment to be used for processing classified information was to be shipped only in courier channels, but a small percentage had "escaped" and were shipped in regular shipping channels with office furniture. The KGB could easily identify candidate typewriters by finding those with Tempest modifications.<sup>7</sup>

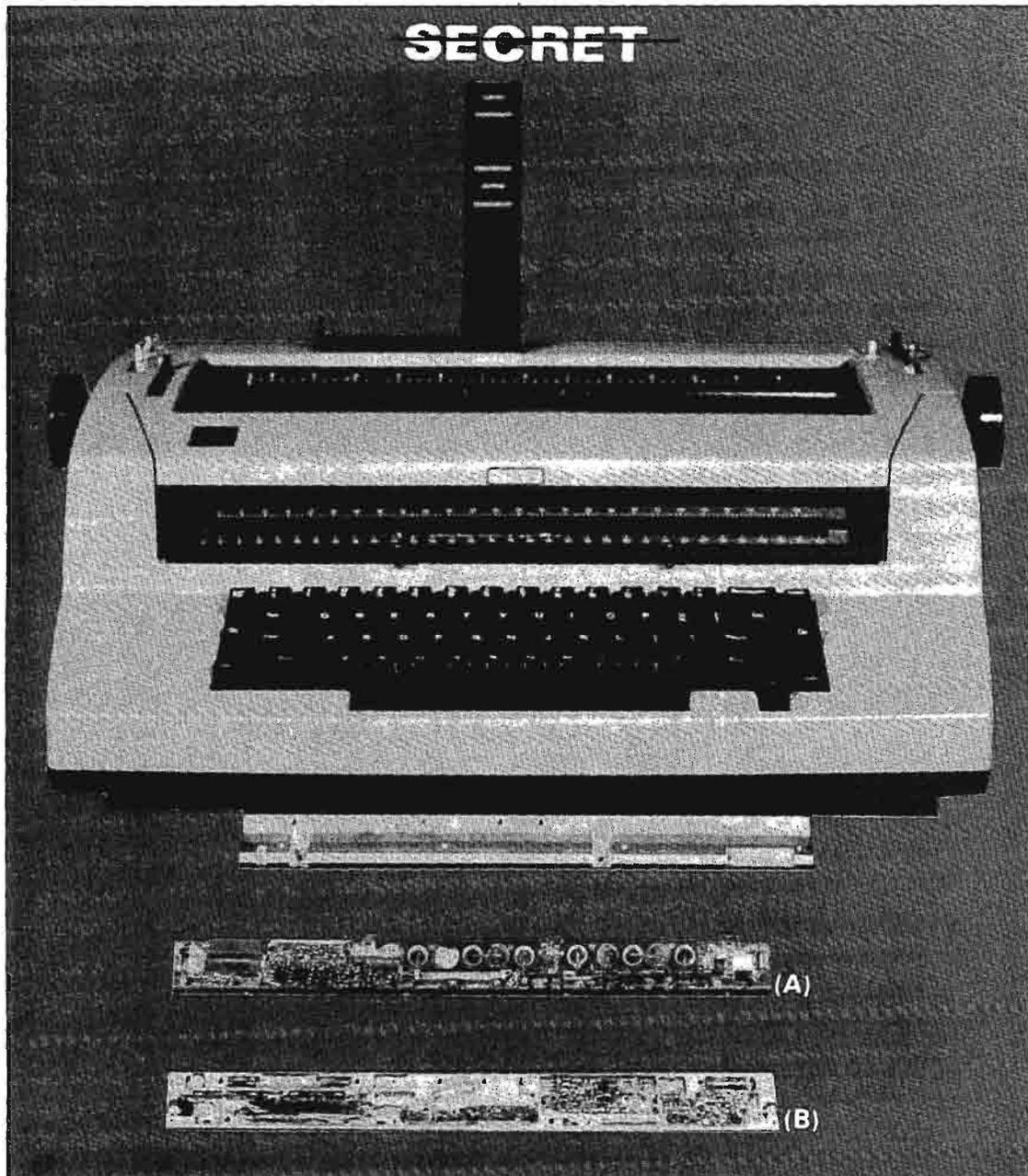
(S) Bugged typewriters had been used in the deputy chief of missions office in Moscow, by the consul general in Leningrad, and by the human rights officer. Others were in less sensitive areas, like the office of the agricultural attaché, but paradoxically it was that typewriter that yielded some of the best information. [REDACTED]

(TS) NSA had additional information on the Soviet project. In 1978 NSA people had discovered a large antenna attached to a chimney in the south wing of the embassy. It was cut for 60 and 90 MHz, but had no known function. The bugged typewriters emanated on 60 and 90 MHz. The batteries in the typewriters were dated 1976 and 1979.<sup>9</sup> The entire thing amounted to a major penetration of the embassy.

(U//FOUO) Back in Washington, [REDACTED] backed up by an FBI representative, briefed President Reagan about the Moscow embassy situation. [REDACTED]

[REDACTED] Although the president was supportive, NSA received little cooperation from State Department below the Shultz-Eagleburger level. The ambassador was

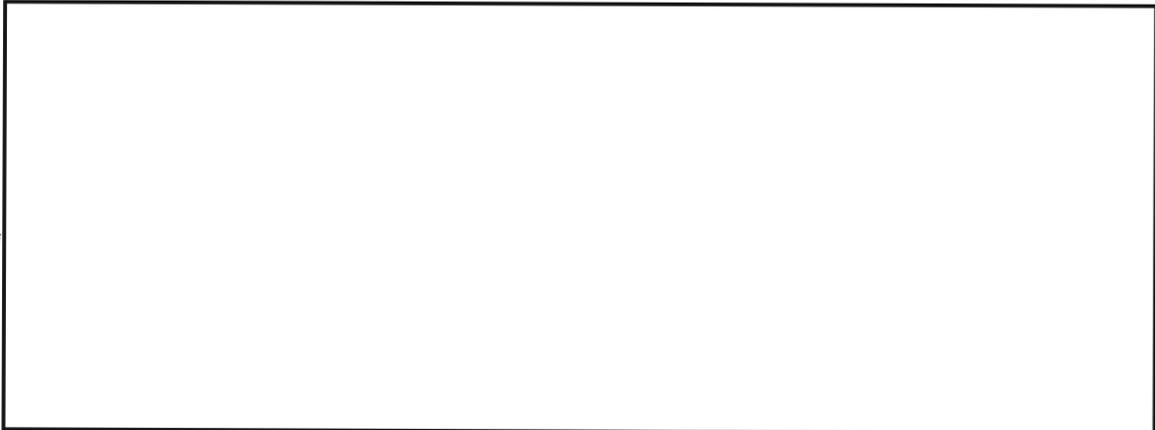
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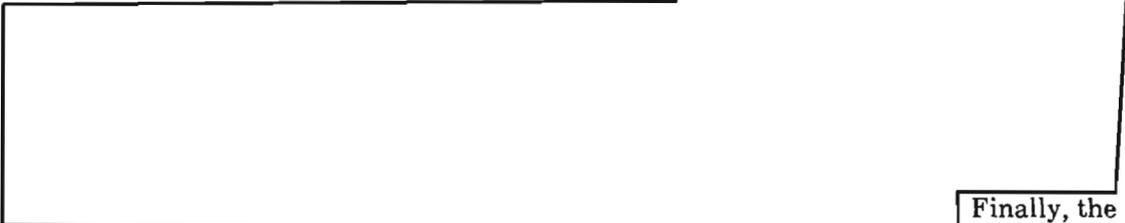
~~(S)~~ One of the Gunman typewriters. Under it is the bar, both assembled and disassembled to show the embedded electronics.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

reluctant to accept the Gunman discovery, and actions at the State Department end proceeded very slowly until the matter came to the attention of the press. In 1985, Walter Deeley was asked about State Department cooperation. In a statement uncharacteristically low-key, Deeley replied: "I guess I can tell you the bureaucracy was opposed to any operation in there."<sup>10</sup> This visit began the eventual unraveling of the State Department defense of its own security practices, and it led eventually to the decision not to accept the new embassy building in downtown Moscow, an imbroglio with the Soviets that stretched well beyond the time frame of the Cold War.



~~(S)~~ Probably no diplomatic problem was ever subjected to as many high-level investigative panels as the Moscow embassy. In 1985 The Reagan administration halted construction of the NOB and barred Soviet workers from the site. A panel headed by former NSA director Bobby Inman looked at embassy security worldwide, with special reference to the problems in Moscow. Inman was especially critical of the way State handled technical security issues. Two years later former Secretary of Defense Melvin Laird specifically examined the situation in Moscow.



Finally, the PFIAB subjected the much-examined Moscow embassy to its own microscope and made recommendations concerning the improvement of the administrative arrangements for embassy security.<sup>12</sup>

~~(S)~~ NSA recommended a "tiger team" approach to fixing the problems. The NSA plan would have established an interagency Protective Security Engineering and Evaluation Center that would monitor the situation and devise new solutions. It would need seventy-six people and just over \$28 million per year. The proposal got active NSC support but opposition from State Department. After a long bureaucratic wrangle, it died. In the process, however, NSA's technical expertise in the detection of bugs had become generally recognized within and outside of government, and it was considered essential that

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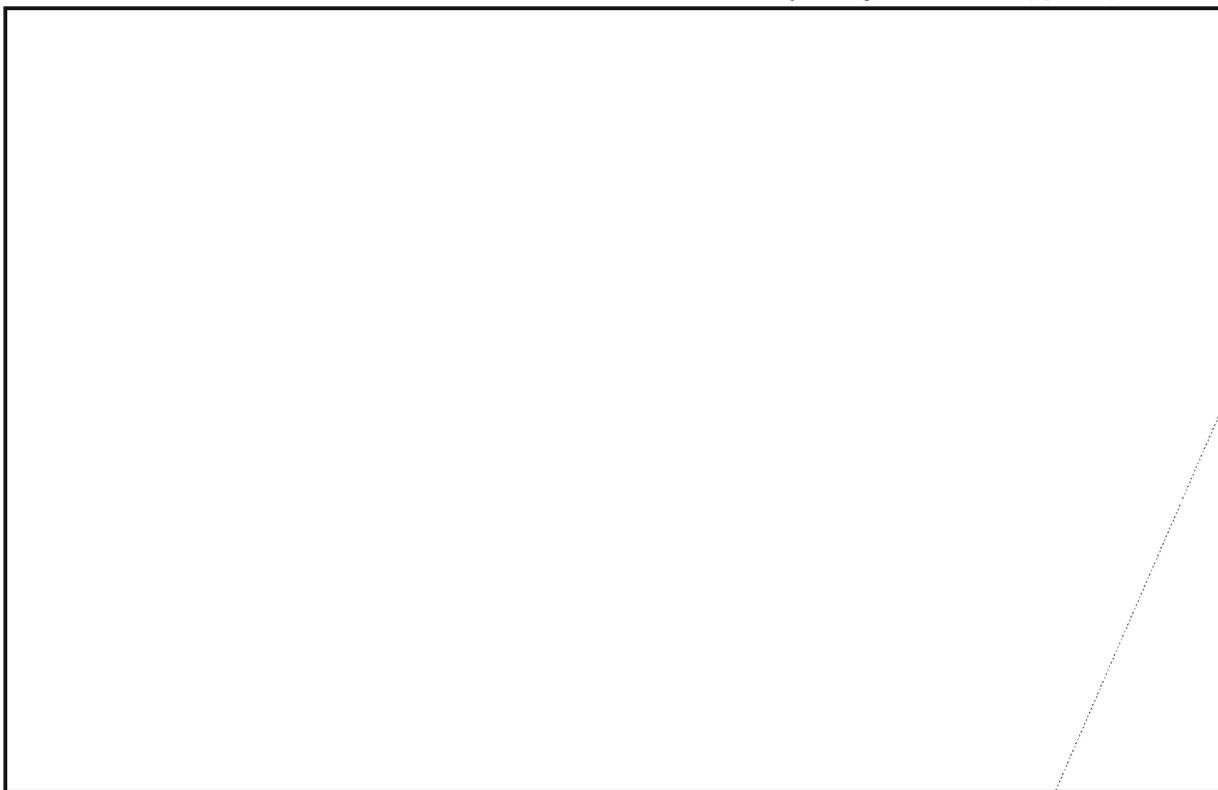
expertise be employed in diplomatic protection. NSA's insistence on employing only Americans received full support. When the federal government set up new administrative arrangements for embassy security, NSA was asked to send representatives to virtually every organization. It was a mission that was a natural outgrowth of the Agency's expertise.<sup>13</sup>

(U) The technical penetration of the embassy had long-term effects on the way Americans did business in Moscow. Buildings were considered penetrated until proven otherwise. According to historian Michael Beschloss, in the late 1980s Ambassador Jack Matlock refused to type out messages on electric typewriters, assuming that the impulses would go straight to the KGB. He wrote his drafts in longhand.<sup>14</sup>

### (U) PRIME

(U) From January of 1984 to the spring of 1987, twenty-eight people, almost all of them Americans, were accused of espionage against the United States. One slipped out of the grasp of the FBI, but the rest were arrested. Twenty-one pleaded guilty, and almost all received lengthy prison sentences. Of the seven remaining, all went to trial, and six were convicted. There were probably others who were never caught.<sup>15</sup>

(U) The first spy was not an American. He was Geoffrey Prime, a British linguist who worked for GCHQ from 1964 to 1977. Prime's case was of major importance to cryptology.

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EO 1.4.(d)

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(TS//SI)

But amazingly enough, he was at the time out of touch with the KGB, and apparently did not report to them again until 1980. Even then the KGB seemed slow to recognize what they had, and it was not until the following year, 1981, that they got a knowledgeable interrogator to debrief Prime on the operations.<sup>17</sup>

(U) But by that time Geoffrey Prime was no longer "in the know." He had resigned from GCHQ in 1977 without informing his Russian handlers. Prime seems to have become uninterested in both GCHQ and espionage and simply drifted away from the work. His official reason for leaving was a dislike of lecturing, but that was a comparatively small part of his job. He did not like to supervise, and he did not get along with computers. The KGB did little to keep him engaged. GCHQ speculated in later years that Prime may have become tired of the mental stress of spying, and his private life was in a state of turmoil during the later 1970s. But no one really knew why he quit.

(U) Prime was finally uncovered as a result of an investigation into allegations of a bizarre sex life, including pederasty. But the sex allegations eventually spread into espionage, and Prime pleaded guilty to both. In January of 1982 he was sentenced to three years on sex charges and thirty-six years for espionage.<sup>18</sup>

EO 1.4.(c)

EO 1.4.(d)

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~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~**(U) PELTON**

(U) On January 14, 1980, FBI surveillance recorded the following telephone call made to the Soviet embassy in Washington:

First person: May I know who is calling?

Caller: I would not like to use my name if it's all right for the moment.

First person: Hold on, please. Sir?

Caller: Yes, um.

First person: Hold the line, please.

Caller: All right

Second person: Hello, sir,

Caller: Ah, yes. I would---

Second person: Ah, Vladimir Sorokin speaking. My name is Vladimir.

Caller: Vladimir. Yes. Ah, I have, ah, I don't like to talk on the telephone.

Sorokin: I see.

Caller: Ah, I have something I would like to discuss with you I think that would be very interesting to you.

Sorokin: Uh-huh, uh-huh.

Caller: Is there any way to do so, in, ah, confidence or in privacy?

Sorokin. I see....

Caller: I come from - I, I, I am in, with the United States government.

Sorokin: Ah, huh, United States government....Maybe you can visit.

(U) A meeting was set up for the next evening, when it would be dark. But at 2:32 the next afternoon the caller phoned the embassy and said he would be there in two minutes, and abruptly entered the embassy. FBI surveillance was caught off guard, and managed only to get a picture of the mystery caller's back as he darted into the embassy grounds.<sup>20</sup>

(U) When the caller walked in, he was interviewed by the duty officer, who also happened to be a KGB colonel, Vitaly Yurchenko. Yurchenko did not know who he was dealing with, and the interview proceeded gingerly, until the caller pulled out an NSA Personnel Summary and began discussing highly sensitive operations [REDACTED]

[REDACTED] The mood changed abruptly. Yurchenko did not know enough about the technical aspects of NSA's work to proceed further, but he knew that he had a very valuable potential defector. He made elaborate arrangements to get the caller out of the

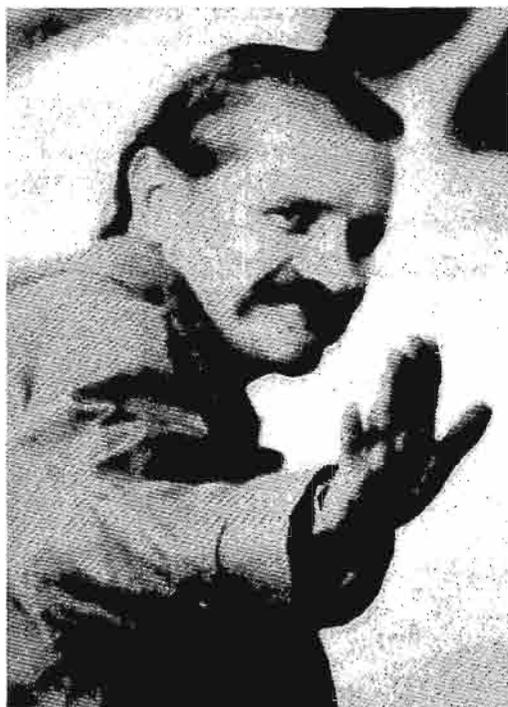
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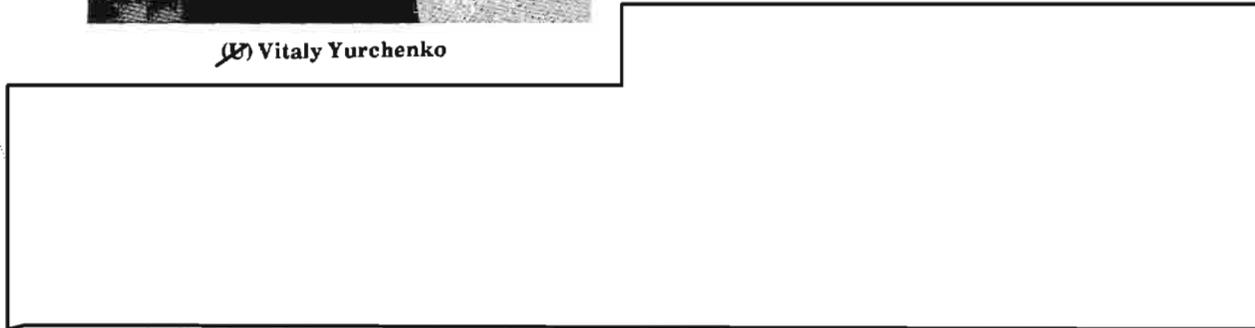
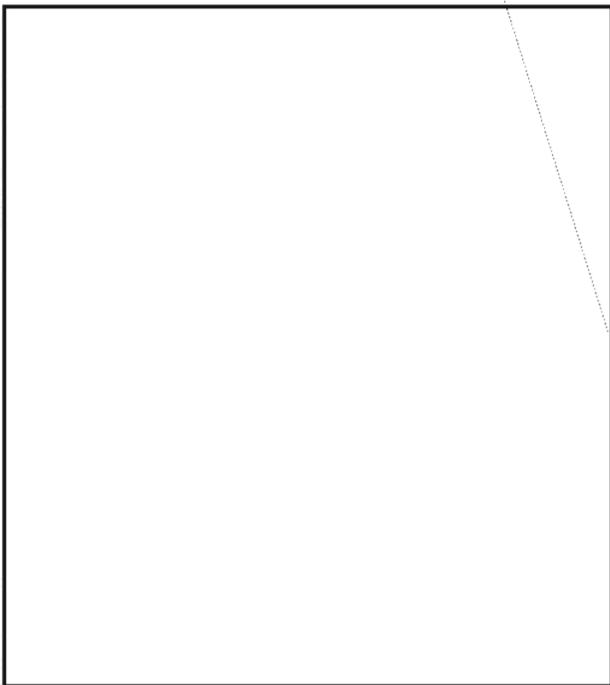
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embassy disguised as a Soviet workman, gave him \$500 and instructions on how to establish the next contact.<sup>21</sup> Yurchenko never saw him again.

(U//~~FOUO~~) Five years later, the same Vitaly Yurchenko appeared in Washington once again, but this time as a KGB defector. During the initial interrogations Yurchenko recalled the conversation with the mystery caller, whom he (Yurchenko) identified as a former NSA employee.



~~(S//SI)~~ Vitaly Yurchenko



~~(S//SI)~~ Ron Pelton, then forty-five years old, had come into the cryptologic business in June of 1960, as a USAFSS Russian language intercept operator. After four years in the Air Force, he converted to an NSA civilian billet. Through his years with NSA, Pelton had become identified with collection technology and collection management. He had participated in some of NSA's most sensitive collection projects, but gradually drifted into jobs associated with cryptanalysis. By 1979 he was a very highly regarded staff officer

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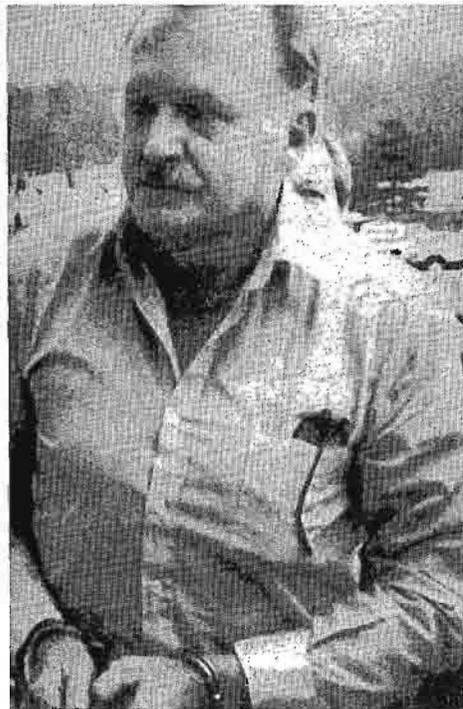
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[REDACTED] Pelton had, in fact, written the manual describing those systems. He had served as a staff member on the Wagner Committee, which had worked on plans for Bauded Signals Upgrade. Given his grade level (GS-12), it was hard to imagine a more damaging defector.<sup>23</sup>

(U) Pelton possessed a nearly photographic memory and a gift of gab which marked him as a rising star in A5. But unknown to his management chain, he had also been operating on the margins of financial ruin. In the early 1970s he decided to house his family [REDACTED]

Without proper funding, he began building a large house on a five-acre tract in rural Howard County, Maryland, doing the work himself as he could scrounge the materials. Meanwhile, his family lived in squalor, [REDACTED]

But Pelton soon ran into financial difficulty, and in April of 1979 he filed for bankruptcy. He resigned from NSA the following July, evidently to improve his financial condition. Outside of NSA, Pelton failed at everything he tried, and without a regular paycheck his condition sank further. He tried marketing a product that was supposed to improve automobile gas mileage, but it didn't work, and he drifted from job to job in retail sales.<sup>24</sup>



~~(U)~~ Ronald Pelton

(U) On October 23, 1985, just three days [REDACTED] the FBI found Pelton living in an apartment in downtown Washington and working as a boat and RV salesman for Safford Yacht Sales in Annapolis. Previously religious and abstemious, he had undergone a complete personality change. He and his wife since 1961 were divorced, and Pelton was living with another woman. Financially, Pelton was doing better than at any time since his resignation from NSA, but the FBI quickly discovered that the two drank heavily and were deeply into drugs. They could be observed on frequent drug buys.<sup>25</sup> The FBI initiated twenty-four-hour surveillance.

(U) Yurchenko's information was old, and no one was sure if Pelton was still passing information to the Soviets. Then on November 4 Yurchenko redefected to the Soviet Union, and the FBI lost its only witness, were they to arrest Pelton and bring him to trial. Not only had they lost Yurchenko, but they had recently let former CIA agent and Soviet spy Edward Lee Howard slip through surveillance to escape to the USSR. With

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Yurchenko and Howard gone, could Pelton be far behind? The FBI threw a virtual blanket over Pelton – at one point over 200 agents were involved in the surveillance.<sup>26</sup>

(U) David Faulkner, the FBI agent in charge of the case, was afraid Pelton would flee the country, but had no evidence to hold him, unless Pelton himself gave it to them. Wiretaps (authorized by the Foreign Intelligence Surveillance Court) showed that Pelton and his girlfriend, Ann Barry, were into alcohol and drugs. [REDACTED]

[REDACTED] But there (b) (7) (C) was no evidence of contact with the USSR. So Faulkner, after a thorough workup on Pelton's character and personality, decided on a risky strategy. He rented rooms at the Annapolis Hilton and set one of them up as an interrogation room for him, Pelton, and a second agent Dudley "Butch" Hodgson. Then, at 0930 on Sunday, November 24, Faulkner called Pelton, who was at the yacht company office, identified himself, and asked Pelton to come to the hotel to talk to him on a matter of "extreme urgency" involving sensitive national security.

(U) Once Pelton was in the room, Faulkner proceeded to detail the life of a hypothetical person, who clearly was Pelton himself. The two FBI agents also played the tape of the phone calls to the Soviet embassy in 1980. Pelton immediately understood that the FBI knew all about his espionage, but seemed to think that they wanted him to become a double agent. So, declining the offer to have a lawyer present, he proceeded to try to talk his way out of it, admitting obliquely that the person that Faulkner and Hodgson sketched was really himself. He admitted a lot – contacts with Soviets, trips to Vienna, payments of \$35,000 plus expense money, all to secure the FBI's "cooperation."<sup>27</sup>

EO 1.4.(c)

(U) By the end of the interview, Pelton so trusted the two agents that he gave up his passport to them and was permitted to go back to his apartment in Washington. But that evening Faulkner again called Pelton, who was by this time at the apartment, and asked him to come back for more questions. During this second interrogation in Annapolis, Pelton placed an X on a map [REDACTED] (His mark was off by a considerable distance.) Once Pelton admitted that what he had done would damage the United States (a key element in the evidentiary chain), Faulkner and Hodgson gave Pelton a waiver of rights, which he signed. Once they had his signature, they arrested him.<sup>28</sup>

(U) Pelton's "confession" told the FBI that he had several contacts with the Soviets in Washington and had met KGB interrogators at the Soviet embassy in Vienna, Austria, twice: once in 1980 and once in 1983. A third trip was planned in October of 1985, but Pelton missed his contact in Virginia in September, and made no further contact with the Soviets. In fact, by the time of his arrest he was trying to avoid them.<sup>29</sup>

~~(TS//SI-UMBRA)~~ His first Vienna meeting had been very thorough, consisting of some forty-four hours of debriefing, but it was conducted by people who had no expertise in cryptology and was less productive. The 1983 meeting was conducted by a KGB handler who, although not an expert in cryptology, was highly skilled at interrogation. This time there was very little that Pelton did not tell them about his job. [REDACTED]

EO 1.4.(c)

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EO 1.4.(c)

(U) Throughout, Pelton had been unhappy with the amount of his KGB payments, and he tried to drop contact following each meeting. He initially demanded \$400,000, but in the end settled for \$35,000 spread over five years. For him, spying was not very lucrative.<sup>30</sup>

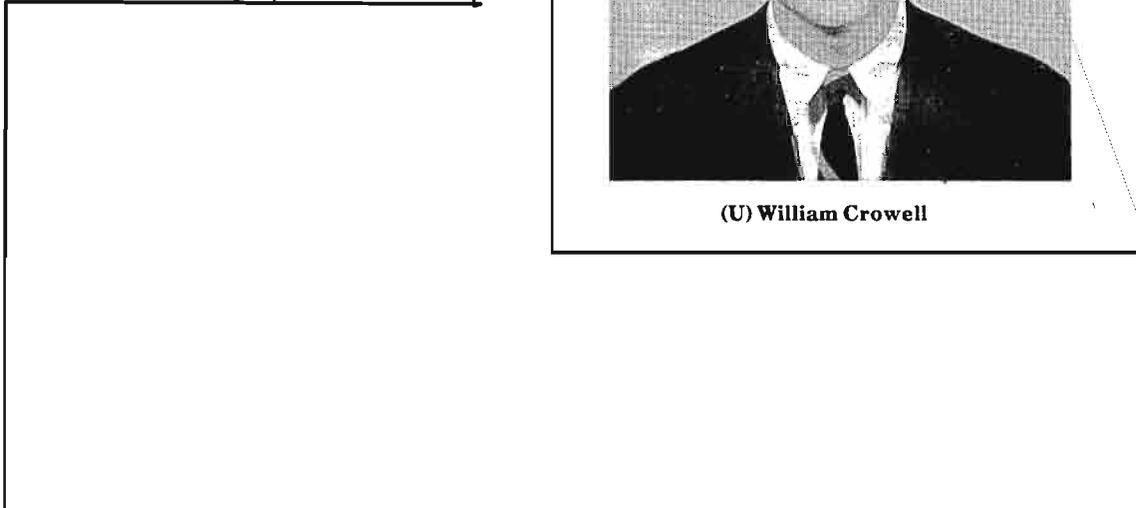
(U) Ronald Pelton was the first spy that NSA took to court. In pretrial negotiations NSA worked gingerly toward a plea bargain, which was how all previous espionage cases had been resolved. But Pelton's defense lawyer, Fred Warren Bennett (who had also defended John Walker earlier in the year; see page 420) advised Pelton to hang tough and go to trial. Bennett expected that the "confession," consisting of unrecorded admissions to two FBI agents in a hotel room, would be thrown out. Without it, the government didn't have a case.<sup>31</sup>

EO 1.4.(c)

~~(TS//SI)~~ The trial was scheduled to begin on May 27, 1986. Preparations were lengthy and elaborate. The government had to establish the sensitivity and fragility of SIGINT, and had to reveal in open court SIGINT of value that Pelton had revealed to the Soviets. The Agency decided to put William Crowell, the chief of A Group, on the stand to tell the jury about SIGINT.



(U) William Crowell

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[Redacted]

(U) The strategy worked. The judge allowed FBI agents to testify about Pelton's admissions in the hotel room, even though they did not amount to a signed confession. Crowell's testimony and cross-examination did not result in damaging revelations beyond those already agreed upon. In the end, the jury convicted Pelton on four of the six counts. Sentencing was left to the judge.<sup>33</sup>

(U//~~FOUO~~) The trial was followed by a long interval before sentencing, agreed to in order to debrief Pelton on what he had told the Soviets. The carrot was the sentence: if he cooperated, the government would ask for a lighter sentence. The debriefing was done in a

[Redacted] It lasted from July to December, and was excruciating. Without documents, it was a matter of dredging through Pelton's memory. [Redacted]

[Redacted] NSA came away with information that it would never have thought to ask Pelton. One of the most jolting was the revelation that, before going to the Soviets, Pelton had tried to sell his wares to muckraking journalist Jack Anderson. Anderson took the information and published it, but never paid Pelton. Desperate for cash, Pelton then decided to contact the Soviets.

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(U) At the sentencing, the FBI indicated that Pelton had cooperated. But it wasn't sufficient. An outraged judge gave him the maximum sentence on all counts - three consecutive life terms plus ten years.<sup>34</sup> He was remanded to Lewisburg Penitentiary in Pennsylvania.

~~(TS//SI-UMBRA)~~ Ronald Pelton was the most damaging cryptologic spy since William Weisband in the 1940s. [Redacted]

[Redacted]

It was a devastating blow, far exceeding anything that other, more famous spies like Aldrich Ames later gave to the Soviets.

EO 1.4.(c)

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(U//FOUO) But to the public Pelton was a minor spy, and today few Americans even remember who he was. This curious twist resulted partly from Pelton's own personality. He came across as a buffoon - haggard, stubbly chin, hang-dog expression. The press constantly referred to him as a minor functionary at a relatively low salary level, as if this somehow separated him from truly sensitive information.



(U) Benjamin Bradlee

(U) The Pelton trial eventually became notorious for a sideshow - the Ivy Bells incident. This bizarre story overshadowed the trial itself, and became a cause célèbre on the issue of First Amendment rights.

(U) It began in December of 1985, soon after Pelton was arraigned in federal court in Baltimore. An alert newspaper reporter heard the name "Ivy Bells" being introduced by the defense lawyer, and it appeared in the newspapers the next day. An even more alert *Washington Post* reporter, Bob Woodward, picked up the reference and went to his editor, Benjamin Bradlee, with a proposal that the *Post* publish a story on Ivy Bells, an operation that Woodward had been tracking for years through his collection of various bits of journalistic exposé. But instead of approving the article for publication, Bradlee called the federal government.

~~(TS//SI-UMBRA)~~ The first meeting took place in the offices of the intelligence community staff on F Street in downtown Washington, on December 5. Bradlee attended, in company with Len Downie (the managing editor) and his lawyers. The principal for the government was General Odom, along with his own lawyer, Elizabeth Rindskopf, and the director of naval intelligence, Admiral Richard Haver. Bradlee outlined the story that Woodward had put together, and said that, since Pelton had told the Soviets all about the [redacted] he could see no damage to national security. Odom replied that [redacted] that publication could result in severe damage to national security. Bradlee scoffed at this and gave to the government team a synopsis of previous publications [redacted]

[redacted] beginning with a *New York Times* article by Seymour Hersh in 1975, during the Church and Pike Committee hearings. Admiral Haver later summarized Bradlee's charge: "All of this indicates that the security of very

EO 1.4.(c)

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sensitive information with the U.S. government is very poor, a fact that Mr. Bradlee finds most disturbing." But Rindskopf assured the *Post* that NSA did not intend to use Ivy Bells at trial except in a very general sense, and Bradlee agreed to withhold publication, at least until he could examine the trial transcript to see how much information the government revealed. Odom remarked later about Bradlee that "I found his behavior in that situation beyond reproach." And so the immediate threat receded.<sup>37</sup>

(U) But the story "had legs," as journalists like to say. The next April, with trial about to begin, Woodward put together a story on the Ivy Bells operation that would run concurrent with the trial. Scheduled to run on May 4, its publication was once again delayed after William Casey called Bradlee to protest. On the tenth, Ronald Reagan called *Post* publisher Katharine Graham, urging that portions of the article be deleted in the interest of national security. But he added ominously that, if the *Post* did not police itself, the Department of Justice might initiate prosecution under Section 798 of the criminal statute.

(U) The issue remained secret until later in May, when NBC released a rather general story on Ivy Bells. Casey stated publicly that he was considering recommending prosecution of NBC under Section 798. But with the story already out, the *Post* decided the time was ripe for its own story. A newspaper that had published *The Pentagon Papers* and the Watergate story, both under threat of retaliation by the Nixon administration, was not likely to back down in this case, but Bradlee ultimately agreed to delete details of the story. He later said that fear of prosecution did not faze him, but national security did. "In my heart, I think the Russians already know what we kept out of the story. But I'm not absolutely sure of that."<sup>38</sup>

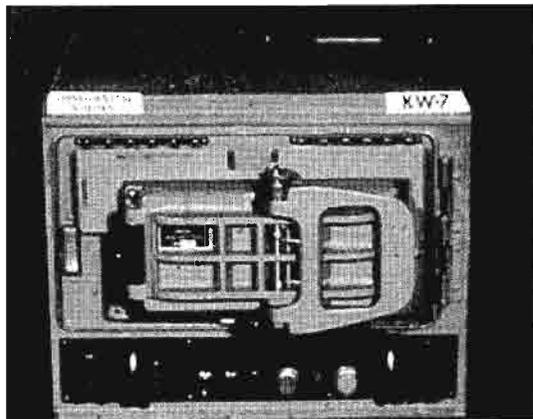
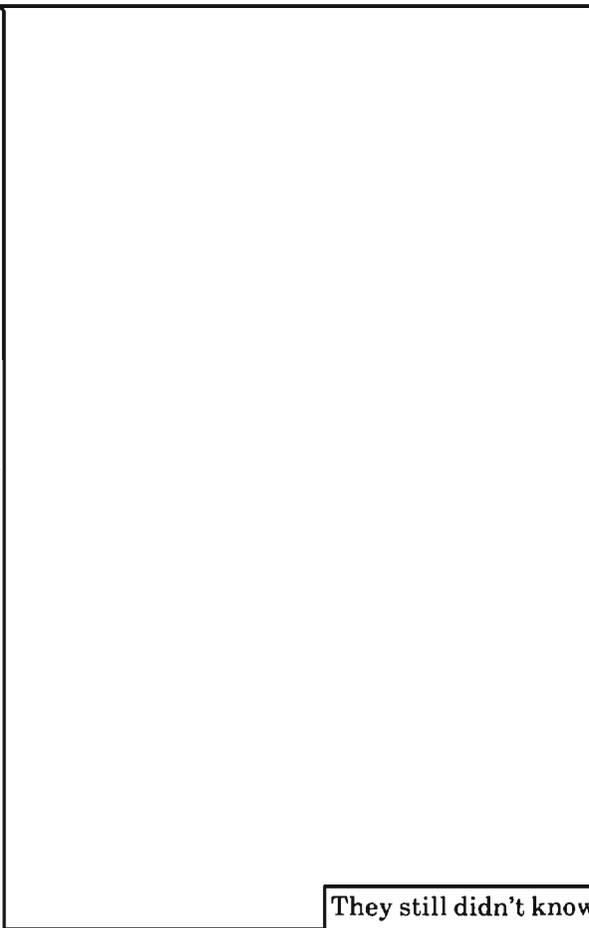
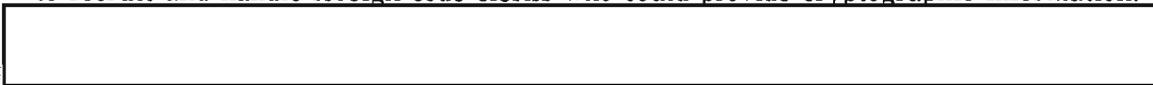
(U) Once again, Casey went to Justice with a request to prosecute and issued a public warning to news organizations not to publish "speculation" on sensitive national security issues. The warning related to material that was being revealed in the Pelton trial. But the DCI was out on his own limb. Justice Department lawyers were notoriously reluctant to prosecute news organizations in situations where first amendment rights could be at issue. In this case, they openly scoffed at the idea of prosecuting for "speculation."<sup>39</sup>

(U) The Pelton trial occurred at the tail end of military operations against Libya resulting from the La Belle Discoteque bombing. Government leaks in that case led to threats by Casey and NSA director Odom to prosecute news organizations that published the leaks (see page 359). It also led the Reagan administration to threaten to polygraph everyone with access to "sensitive intelligence" (read primarily SIGINT), a threat that was derailed when Secretary of State George Shultz threatened to resign if anyone from his department were confronted with a demand to be polygraphed.<sup>40</sup> Senator David Durenburger of the SSCI examined the issue from both sides and cast a pox on both houses. The Reagan administration had been a notably leaky ship and had to tighten up if it were to have any credibility in the courtroom when prosecuting news organizations. But, on the other hand, news media seemed to have taken the wraps off. "...for whatever reason, there is a growing sense that there is nothing which is not fair game."<sup>41</sup>

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(U) WALKER

~~(S)~~ In the late 1960s, the KGB created a new organization. Called the Sixteenth Department of the First Chief Directorate (foreign intelligence), it was set up specifically to recruit and handle foreign code clerks who could provide cryptographic information.



(U) KW-7

They still didn't know about John Walker.<sup>44</sup>

(U) In November of 1984, one Barbara Walker, then living in Maine, contacted the FBI about her ex-husband, John A. Walker, who was living in Virginia. John, she alleged, was a spy. Barbara Walker was an admitted alcoholic, and the FBI initially did nothing about her charges. But agents in the Norfolk office took her charges more seriously, and retrieved Walker's personnel file from the Navy. It was written in almost unintelligible

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Navy personnel language, and they needed an interpreter. The agent in charge of counterintelligence investigations in Norfolk had recently collaborated with a threat analysis office in NSA's COMSEC organization. He called his contacts at NSA and asked them to look at the Walker file. NSA's conclusion that, if Walker were a spy, the United States had a big problem. John Walker had had access to a huge number of cryptographic keys and equipments.

(U) The Bureau opened a full field investigation and got a court order to tap his phones. For some weeks it seemed that they were running aground, but then he began talking about an important meeting in the Washington suburbs. On the assumption that he would be going to a dead drop, the FBI deployed a huge tracking team.



(U) John Walker (on left)



(U) Drop point

(U) On May 19, Walker drove north on I-95 to the Maryland suburbs of Washington. Once there, he proceeded along a serpentine route that had him driving to and fro for hours (the FBI estimated that the full route would have taken four hours) to the drop location on a country road outside of Poolesville, Maryland. There, just after 8:30 in the evening, by a telephone pole with a "No Hunting" sign on it, he deposited a package containing classified material. The FBI swooped down and picked it up as soon as he was out of sight. But when he proceeded to the Soviet drop location, there was no package there (which would have contained the Soviet payments for Walker's previous drop material). Puzzled, he drove back to his own drop location, which was the alternate location

for the Soviet material. He found neither the Soviet payment nor the package he had so recently deposited there. He drove back and forth between the two locations several times, checking and rechecking. Then, puzzled and suspicious, he returned to his motel, a Ramada Inn in Rockville, Maryland, which he reached just before midnight.<sup>45</sup>

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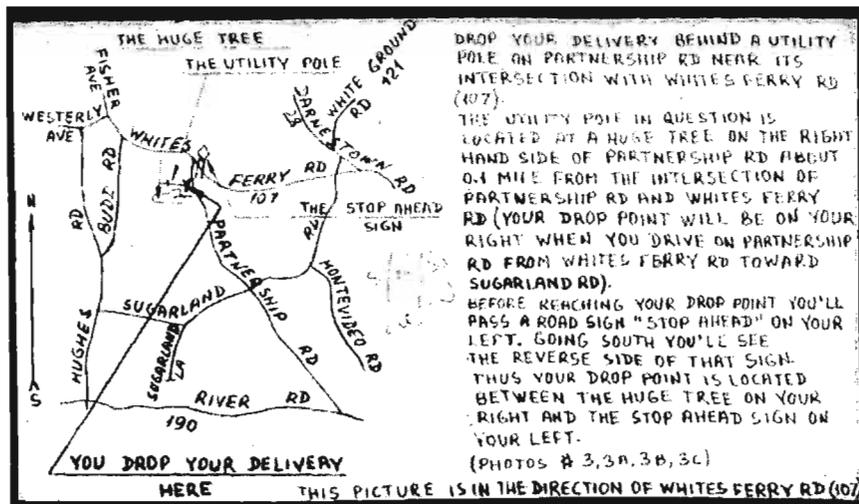
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(U) At 3:30 A.M., an FBI agent posing as a motel desk clerk phoned Walker's room to tell him that his car had been hit and damaged and that he was needed downstairs. As Walker left the room he was confronted by two FBI agents. In the confrontation, all three drew their weapons - Walker dropped his first. The Bureau had just bagged the most damaging spy in American history.<sup>46</sup>



(U) KGB agent's map for Walker

(U) Detailed map



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(U) Walker became Walkers, with Whitworth thrown in. It was not just a spy – it was an entire ring. Walker, a comm center operator and crypto technician when he had been in the Navy, had been supplying crypto key to the Soviets since 1968. Walker had recruited Jerry Whitworth, another Navy man in the same line of work, and when John Walker retired from the Navy in 1976, Whitworth continued to provide crypto material to Walker, who passed it on to the Soviets. He had recruited his brother, Arthur, and his son, Michael, and when arrested, John Walker was attempting to pass documents stolen from the Navy by Michael. The Walker ring had passed operational and technical documents to the Soviets. But more important, they had supplied crypto key for the KW-7, as well as several other devices, including the KW-37, KL-47, and KG-13.<sup>47</sup>

(U) The Walker operation was built around supplying used KW-7 key. Once a key had expired, the crypto security person (i.e., Walker) had seventy-two hours to destroy it. Walker (or Whitworth as the case may be) simply copied the key cards before destroying. Periodically (generally a matter of months), Walker would give the copied key cards to a Soviet agent using the dead drop procedure.



(S) The Soviet operation of the Walker ring was a textbook in how to handle an espionage ring. They assigned only their very best KGB agents to the case. These agents went to unprecedented lengths to keep the operation from exposure, and the instructions that Walker received to dead drop operations were breathtakingly detailed and precise. The FBI believed that at any given time, only three people in the Soviet embassy in Washington were cleared for the operation. In Moscow, only the agents supervising the operation and a few top KGB officials were in on the secret.<sup>49</sup>

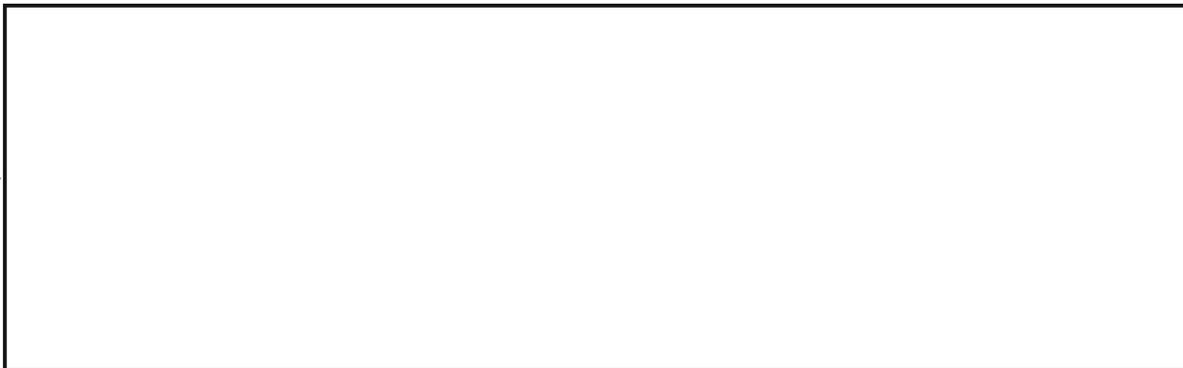
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(S) Processing the take that was potentially available would have strained the resources of the best espionage organization. Vitaly Yurchenko claimed that the KGB had "thousands" of people exploiting the material, and decrypted over a million messages, but this has never been confirmed. [REDACTED]

[REDACTED] He knew nothing of any other exploitation group. It is possible that only a fraction of the available material was exploited because of the inefficiencies inherent in the Soviet bureaucracy.<sup>52</sup>



(U) These reforms were uncontroversial and relatively speedily accomplished. More divisive was the demand that the use of the polygraph be broadened. This reform was already being implemented within the military population at NSA when the Walker ring was exposed. But it undoubtedly reduced opposition to the polygraph in the wider armed services. NSA's Walter Deeley, the chief of Communications Security at NSA, informed the SSCI that he was reinstating the crypto clearance, with its requirement for a non-lifestyle polygraph. His determination to force this despite doubt about his authority to do it on his own drew chuckles of admiration from the senators.<sup>53</sup>

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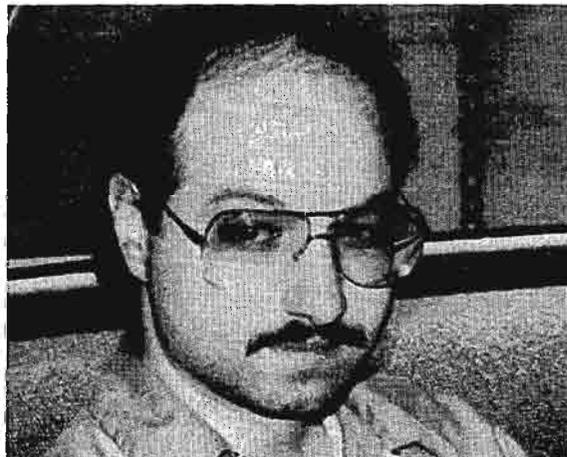
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(U) John Walker, the principal villain in the story, was paid over a million dollars by the Soviets. Jerry Whitworth received about \$400,000, while the others received considerably lesser amounts. It is thus paradoxical that John Walker himself did not receive the longest prison sentence. In the days before his trial was to begin, he plea bargained to two concurrent life sentences plus ten years. Under the impenetrable mysteries of the federal sentencing guidelines, this means that he could theoretically get out of jail by age 75. His son pleaded guilty at the same time and received a twenty-five year sentence. Both agreed to cooperate with federal prosecutors.

(U) John Walker's cooperation was most unhelpful to his former friend and compatriot Jerry Whitworth. Whitworth, receiving decidedly bad advice from a coterie of San Francisco lawyers, chose to go to court. Walker testified at Whitworth's trial and was a key factor in Whitworth's sentence of 365 years in prison and a \$410,000 fine. Jerry Whitworth will die in prison.<sup>54</sup>

### (U) POLLARD

(U) In September of 1979 the Navy hired a young Stanford graduate named Jonathan Jay Pollard to be an intelligence research specialist. Pollard was assigned to the Naval Intelligence Support Center (NISC) in Suitland, Maryland, where he was given a set of special clearances that would permit him to go to work. Included was access to SIGINT material.<sup>55</sup>



(U) Jonathan Pollard

(U) In 1984 Pollard made contact with Israeli intelligence. He showed them samples of what he could provide, and they were interested. A flurry of meetings ensued, including trips to Paris and Israel. One of his contacts was Rafael Eitan, a legendary Mossad agent who had masterminded the capture of Adolf Eichmann and had headed the vengeance squad that tracked down and killed Palestinians who had participated in the 1972 Munich Olympics affair. Clearly, Pollard was regarded as a potential star in the espionage world.<sup>56</sup>

(U) Pollard was assigned to the antiterrorism alert center at NISC. His routine duties would thus give him access to information that Israel was interested in. But Pollard didn't stop at passive collection. He took a "shopping list" of desired information from his handlers and scanned DIA's computer databases for "hits." When he found something that

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looked interesting, he simply asked the relevant office for the document. He was rarely refused.

(U) He accumulated documents quickly, and three times a week he put them into a briefcase and, using his courier pass, simply walked out with them. He batched the documents and once a week delivered them to a handler in a safe house in downtown Washington, D.C., not far from where Ronald Pelton lived. (They lived so close, in fact, that Pelton's girl friend noted surveillance, but decided that it was unrelated. It was FBI surveillance of Pollard.) There, the accountable documents would be copied so that Pollard could return the original; the rest they would not bother to copy. Once a month, Pollard made contact with his main handler, Joseph Yagur, who would evaluate the month's take and pay Pollard.<sup>57</sup>

(U) In September of 1985, Pollard's commanding officer at NISC, Commander Jerry Agee, learned that Pollard's computer searches had included excursions into some material unrelated to his job. Agee directed that a close watch be placed on Pollard. On October 25, a coworker reported to Agee that Pollard had apparently walked out of the building with classified documents. Surveillance of his activities became intense. A computer check showed that Pollard had acquired a huge number of documents on the Middle East, and a surreptitious search of his work spaces turned up none of them. At this point Agee called in Naval Investigative Service and the FBI.

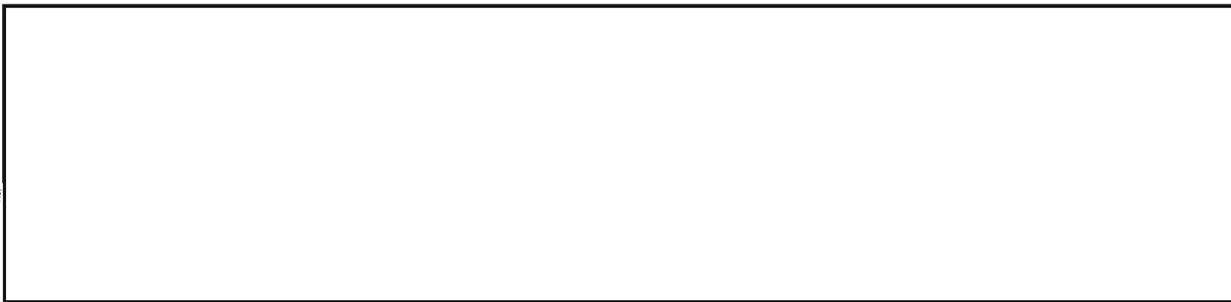
(U) The net closed on Monday, November 18. Pollard was arrested trying to leave NISC in his Mustang with a satchel full of classified documents. Interrogation continued off and on all week, as Pollard gradually admitted more and more facts about his espionage. On Thursday he tried to flee to the Israeli embassy but was refused admittance. The FBI finally arrested him outside the embassy. Pollard and his wife Anne, who was deeply involved in the espionage, were out of options. His handlers had fled the country, and Israel was disowning him. Naval and FBI agents had recovered large numbers of documents in his apartment. A full confession was in order.<sup>58</sup>

(U) The Pollard arrest on November 21 came only three days before the arrest of Pelton and overlapped the exposure of the Walker ring. It heightened the sense of betrayal during the "Year of the Spy."

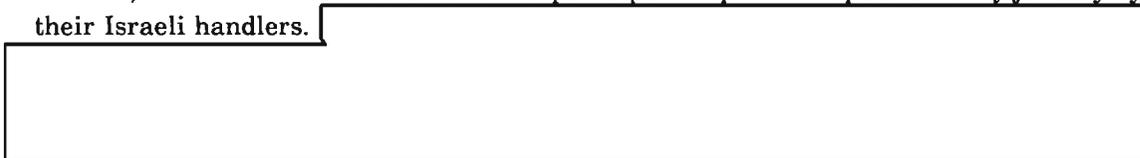


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(U) The Department of Justice legal team wanted to try Pollard, but State pleaded that the diplomatic embarrassment would be too great. Ultimately DOJ fashioned a plea bargain that worked. Jay Pollard pleaded guilty and was sentenced to life in prison. (But the terms of a life sentence have already allowed him to petition for parole, which has been denied.) In return, Anne Pollard was given only two concurrent five-year terms and is already out of jail. All along the Pollards maintained that their motivation was ideology. But they received \$2,500 in cash monthly, had \$30,000 per year going into a "retirement account," and were treated to lavish all-expense paid trips to Europe and flashy jewelry by their Israeli handlers.



P.L. 86-36

**(U) HALL**

~~(S//SI)~~ James Hall, a young Army enlisted man, was assigned to INSCOM [redacted] in 1983. Hall liked money, and in 1983 he contacted Soviet intelligence in Berlin. By this time he had become [redacted] and he offered to share with the Soviets everything that he knew [redacted]. From February of 1983 to his reassignment to the U.S. in 1985, Hall did just that, in thirteen face-to-face meetings with his Soviet handlers, along with dead drops in various locations around Berlin.

(U) Prior to his reassignment, Hall had contacted an East German intelligence agent, Hussein Yildirim, who headed the post auto shop. In order to supplement his already substantial income, Hall agreed to provide East Germany the same information that he has giving the Soviets.

(U) During his year in the States, Hall continued to provide information to Yildirim, although the value was down because he was no longer associated with INSCOM. The Soviets also set up procedures for receiving Hall's information, but they were complex and difficult, and Hall chose to drop the association. Then, just a year later, he was back in Germany with 5th Corps and renewed his contacts with East Bloc intelligence. When he PCSed to Fort Stewart, Georgia, in 1988, he maintained contact with Yildirim, who moved to Florida to continue to work his contact with Hall. But by then the rigidities of the Cold

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War were beginning to crack, and an East German source identified Hall as one of their agents.

(U) The FBI got Hall on a sting, in which one of their employees posed as a Soviet agent wanting to know what Hall had been providing to the East Germans. In a videotaped meeting Hall essentially confessed to espionage. He was arrested and is serving a forty-year sentence at Fort Leavenworth. Yildirim, arrested the day after Hall, is serving life without parole.<sup>62</sup>

(U//~~FOUO~~) Hall provided the Soviets and East Germans with "tradecraft" information. [REDACTED]

[REDACTED] In return, Hall took away somewhere between \$200,000 and \$400,000. He was definitely in it for the money.

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EO 1.4.(c)

### (U) CARNEY

(U) In the spring of 1990, [REDACTED] that he had information [REDACTED] It was an old lead; the spy had been active in the mid-1980s, but was no longer in the business. [REDACTED]

[REDACTED] The information was fragmentary and conflicting, and it became bogged down. Then a second source identified the spy as one "Yens Carney." The FBI traced Yens Carney to one Jeffrey Martin Carney, a former Air Force German linguist then living in the Soviet sector of East Berlin.

(~~C~~) Carney came from a difficult family background. He had dropped out of high school and had enlisted in the Air Force at seventeen. But he was extremely bright, and had been sent to German school, where he had gotten awards as the best German linguist in his class. [REDACTED]

[REDACTED] This began a downward spiral in his Air Force work relationship. Carney became argumentative and difficult on the job. He also realized that he was homosexual, which led to an identity crisis. In the midst of this turmoil, the immature Carney, then only nineteen, made a sudden decision to defect to East Germany, and went to Checkpoint Charlie, where he made contact with the other side. They, however, convinced him to spy, and he remained on the job.

(U) Carney began carrying a hidden camera in a Lipton Tea can. He collected miscellaneous documents while on burn detail and smuggled them out of the operations building. He met with his East German handlers every three weeks. In 1985 he PCSed to Goodfellow Air Force Base, where he continued to photograph documents. These he passed to his handlers during meetings in Berlin, Rio and Mexico City. But he became increasingly unstable and finally got his clearance pulled after an incident of uncontrolled

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rage with his supervisors. At that point Carney defected to East Germany through Mexico City and Cuba (the same route that Martin and Mitchell had taken in 1961).

(U) He became a driver on the U-Bahn (Berlin's subway system) while continuing to work for East German intelligence. But he was in the wrong country. After the fall of the Berlin Wall it was not impossible to arrest spies, and Carney was arrested in April of 1991 outside his apartment. Brought back to the U.S. to stand espionage charges, he plea bargained for a twenty-five year sentence in exchange for his cooperation. He was debriefed, and NSA got a good picture of the damage. Fortunately, it was much less than it would have been had Carney worked within NSA.<sup>63</sup>

(U) [redacted] They were both active in Berlin at the same time, one working in ASA, the other in ESC. They also worked for East German intelligence, although Hall passed information to the Soviets, too. Although neither had high-level information, [redacted]

#### (U) THE PUZZLE PALACE

(U) The 1982 publication of a book about NSA, *The Puzzle Palace*, by James Bamford, brought a new focus to the efforts of journalists and independent writers to break down the Agency's vaunted anonymity. *The Puzzle Palace* became the most significant breach in NSA's anonymity since David Kahn's *The Codebreakers* in 1967.

(U) As a former NSG enlisted man, Bamford had participated directly in the cryptologic process. While still in the Navy he had volunteered to help the Church Committee during its 1975 investigations. The late 1970s found him out of the Navy and working in Boston as a part-time private detective. He had gone to law school, but had not taken (or had not passed) the bar exam. In 1979 he approached publisher Houghton-Mifflin with a proposal to do a book on NSA. The publisher accepted and gave him a \$7,500 advance.<sup>64</sup>

(U) Bamford proposed a comprehensive description and history of the Agency, a task that had never been attempted. Public Law 86-36 had served as a useful barrier against this type of research, but Bamford proved to be cleverer than others. He began with a barrage of requests for information under the Freedom of Information Act (FOIA). Through this and a lot of poking through publicly available information, he accumulated a small but useful stack of documents. Then he hit the Mother Lode – a collection of documents that William Friedman had deposited at the George Marshall Library at Virginia Military Institute in Lexington, Virginia. Among the scattered remains of Friedman's lifetime accumulations were copies of the *NSA Newsletter*, addressed to "NSA Employees and their families." Bamford then submitted a FOIA for the entire collection, using as his rationale the offending phrase indicating that the information had been intended for dissemination to uncleared people. NSA succeeded in redacting portions

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using PL 86-36, but a disgruntled former NSA employee gave Bamford an almost complete collection which permitted him to fill in the redacted blanks.<sup>65</sup>

(U//~~FOUO~~) During the Church Committee hearings of 1975, the attorney general had asked his staff to investigate the legal culpability of the various intelligence agencies. Bamford FOIA'ed the resulting document, and he got most of it from the Justice Department. (Justice did not inform NSA because, they reasoned, the investigation was still on-going, and they could not inform a possible target of the investigation.) The document, with some Justice redactions, contained a good deal of information about the NSA-GCHQ relationship, and served as the basis for Bamford's information on Second Party issues. During the ensuing negotiations between NSA and Bamford's lawyer, the government claimed that the documents had been improperly released and should be returned under threat of prosecution. The lawyer, veteran civil rights attorney Mark Lynch, invited Justice to do just that, but no case was ever brought.<sup>66</sup>

(U//~~FOUO~~) Bamford knew how to get information. He drove through the NSA parking lot jotting down diplomatic license plates and checking known lists to see which countries maintained representatives at Fort Meade. He badgered retired NSA senior officials, including famed cryptanalyst Frank Raven, former head of NSA research and development Ray Tate, and former director Marshall Carter, for information, using as a wedge the information that he had already gotten from unclassified sources. Some pushed him aside, but others agreed to talk at length about NSA operations. Carter, for instance, talked with him for a day and a half at his retirement residence in Colorado Springs. All was technically unclassified, but it helped Bamford complete his mosaic. NSA policy makers felt that Raven was especially indiscreet [REDACTED]

(U//~~FOUO~~) James Bamford broke new ground in intelligence agency research, and his techniques were adopted by others seeking to investigate reclusive federal agencies. He did it all within the limits of the law - through attributable interviews, FOIA'ed documents, and meticulous research in public libraries and newspapers, not with classified documents provided by unnamed accomplices under cover of darkness. He "wrote the book" on how to put together a comprehensive picture of an organization that wanted no such comprehensive picture. [REDACTED]

(U//~~FOUO~~) The single exception was the exposure of the relationship with the British. This was properly classified, and GCHQ was not amused.<sup>69</sup> Bamford's lawyers turned out to be tough and determined, and the information stayed in the public domain. The release of classified material by, of all organizations, the U.S. Justice Department, left NSA non-plussed.

(U) Bamford produced a book that was [REDACTED] and a preoccupation with a lack of statutory controls on NSA. Like Jack Anderson's columns,

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the book - [REDACTED]

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**(U) THE AMERICAN LIBRARY ASSOCIATION SUIT**

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(U) Following publication of *The Puzzle Palace*, General Faurer sent NSA's [REDACTED] [REDACTED] to the Marshall Library to see where Bamford had gotten so much of his information. [REDACTED] discovered that an archivist had given Bamford access to sequestered portions of the Friedman collection. NSA re-sequestered the documents, and was challenged in court by Bamford's lawyer, Mark Lynch of the American Civil Liberties Union, acting on behalf of the American Library Association.<sup>70</sup>

(U) This time the law was on NSA's side. Since the early negotiations with Lynch over the FOIA'ed Justice Department records, President Reagan had signed a new executive order, 12033, which permitted publicly available documents to be withdrawn if it could be shown that they had been improperly declassified. NSA's argument was supported by the U.S. District Court of Appeals in 1987, which dismissed the case against NSA and ruled that the plaintiff, the American Library Association, lacked standing.<sup>71</sup>

**(U) EPILOGUE**

(U) On November 9, 1989, the East German government announced that its citizens could leave the country without special permission. Within hours, jubilant crowds were surging through the formerly impenetrable Berlin Wall, to be greeted by their West German countrymen. The crowds sang and danced that night. They hacked at chunks of the infamous Wall, and swirled through the Brandenburg Gate. It was liberation day.

(U) November 9 was the culmination of both long- and short-term events. Such imponderables as the inherent weaknesses of Marxism and the latent inefficiencies of the Soviet state moved glacially, but they eventually produced Gorbachev, a man who recognized the situation and tried to reform it. *Glasnost* and *perestroika* (openness and economic restructuring) were the pillars of his reform program.

(U) But short-term events overtook socialist reform. It was not necessary for the Soviet government to invent a new form of socialism - a dandy economic model glittered just across the Iron Curtain in Western Europe. Encouraged to devise their own socialist economic models, Hungary and Poland moved quickly. In East Germany, Eric Honecker, the long-time Communist Party boss, thumbed his nose at reform, and got in return unrest and agitation. Agitation turned into street demonstrations in August. Gorbachev withdrew Soviet support for more repression, and without this guarantee the East German authorities could no longer contain the population. In October, Gorbachev personally told Honecker that the Soviet forces in his country would not come to his rescue. Honecker, sick with gall bladder cancer, knew the end was near.

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(U) So the end of the Cold War swept in like a sudden storm, leaving prognosticators dazed. It happened so fast and went so far that it would take a breathless world some considerable time to assess the event.

(U) For the cryptologic community, it was a new beginning. Nothing like it had happened since the end of World War II. Major target countries disappeared literally overnight. Foreign relationships changed, and former enemies became new Third Parties with scarcely an intervening day.

(U) But from a historical perspective, it was also an ending, a milepost in the course of history. The bipolar world had defined American cryptology for forty-four years. It was now over, and it was time to write the history.

**(U) Notes**EO 1.4.(c)  
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1. (U) Interview, David Boak, by Tom Johnson, 20 January 1998.
2. (U) Deputy Director's files, 96026, Box 14, Schlesinger papers, NSA memo 21 October 1966.
3. (U) [redacted] "A Case of Bureaucracy in Action: the U.S. Embassy in Moscow," *International Journal of Intelligence and Counterintelligence* (Fall, 1993).
4. (U) Inman interview. Interview [redacted] by Tom Johnson, 8 November 1996, OH 34-96, NSA. de Graffenreid interview.
5. (U) [redacted]  
[redacted] See interview, Lt. Gen. Lincoln D. Faurer, by Tom Johnson, 20 August 1998, OH 15-98, NSA; CCH Series XII.D., "Gunman," Evaluation of Project Gunman by S65, 28 January 1985. [redacted] interview. Interview, [redacted] by Tom Johnson and [redacted] 20 July 1998, OH 14-98, NSA. Deputy Director's files, 96026, Box 14, Schlesinger papers.
6. (U) [redacted] interview. CCH Series XII.D., "Gunman."
7. (U) Interview [redacted] by Tom Johnson, 4 August 1998, OH 15-98, NSA. [redacted] interview. [redacted] interview. CCH Series XII.D., "Gunman." Deputy Director's files, 96026, Box 14, "CIA Damage Assessment."
8. (U) XII.D., "Gunman." Deputy Director's files, 96026, Box 14, "CIA Damage Assessment."
9. (U) Deputy Director's Files, 96026, Box 14, "CIA Damage Assessment;" Box 10, "Moscow Embassy - 1987."
10. (U) Faurer interview; [redacted] interview.
11. (U) Deputy Director's files, 96026, Box 14, Schlesinger paper; "Lonetree-Bracy Chronology and Damage Assessment."
12. (U) [redacted] "A Case of Bureaucracy in Action...." Deputy Director's files, 96026, Box 10, "Moscow Embassy - 1987"; "Laird Panel."

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13. (U) Reagan Library, NSF, in CCH Series XIV.J, "Embassy Security." Deputy Director's files, 96026, Box 10, "Moscow Embassy - 1987."
14. (U) Michael Beschloss and Strobe Talbot, *At the Highest Levels: The Inside Story of the End of the Cold War* (Boston: Little, Brown and Company, 1991), 33-34, 94.
15. (U) Polmar and Allen, *Merchants of Treason*, 181.
16. (U) Deputy Director's files, 96026, Box 14, "Prime Case Damage Assessment."
17. (U) Ibid.
18. (U) Deputy Director's files, 96026, Box 9, "Milkman Damage Assessment." 5001, 40. Polmar and Allen, *Merchants of Treason*, 40.
19. (U) Deputy Director's files, 96026, Box 9, "Milkman Damage Assessment."
20. (U) Norman Polmar and Thomas B. Allen, *Merchants of Treason* (New York: Delacourte Press, 1988), 205-06.
21. (U) Deputy Director's files, 96026, Box 4, "Pelton File."
22. (U) NSA, S4 videotape briefing on Pelton. Deputy Director's files, 96026, Box 14, "Pelton Damage Assessment."
23. (U) NSA, GC office files, U.S. v. Pelton working papers. Deputy Director's files, 96026, Box 14, "Pelton Damage Assessment."
24. (U) NSA, S4 videotape briefing on Pelton. NSA, GC office files, U.S. v. Pelton, Pleadings.
25. (U) Ibid.
26. (U) S4 Pelton videotape [redacted] interview.
27. (U) Polmar and Allen, *Merchants of Treason*, 207-14. Interview [redacted] by Tom Johnson, 20 February 1997, OH 5-97, NSA.
28. (U) [redacted] interview.
29. (U) Deputy Director's files, 96026, Box 4, "Pelton File."
30. (U) Ibid [redacted] interview.
31. (U) [redacted] interview.
32. (U) Interview, William P. Crowell, by David A. Hatch and [redacted] 29 May 1996, OH 16-96, NSA. [redacted] interview. NSA, GC office files, Pelton file [redacted] interview.
33. (U) [redacted] interview.
34. (U) Ibid.
35. (U) NSA, GC office files, U.S. v. Pelton, working papers. Deputy Director's files, 96026, Box 14, "Pelton Damage Assessment"; "CIA Damage Assessment." Ch A2 files, 96228, Box 4, A/J Joint Conference 1987; Box 6 "T230."
36. (U) Ch, A2 files, 96228, Box 4, "Miscellaneous Studies."

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37. (U) NSA, GC office files, Pelton; U.S. v. Pelton, Working Papers. Interview, Lt. Gen. William Odom, by Tom Johnson, 19 August 1997, OH 13-97, NSA.

38. (U) NSA, GC office files, "U.S. v. Pelton, Working Papers." Bradlee quote is from *Time*, June 2, 1986.

39. (U) NSA, GC office files, Pelton. Odom interview.

40. (U) NSA, GC office files, Pelton.

41. (U) Ibid., Durenberger letter to SSCI members, 7 May 1986.

42. (U) Interview [redacted] by [redacted] and Tom Johnson, 2 February 1993, OH 2-93, NSA. Boak interview. U.S. Department of Justice, Federal Bureau of Investigation, "John A. Walker Espionage Network," July 1987.

43. (U) Telephone interview with [redacted], by Tom Johnson, 19 December 1997. [redacted] interview. [redacted] interview.

44. (U) Ibid.

45. (U) FBI, "John A. Walker Espionage Network." [redacted] interview.

46. (U) Deputy Director's files, 96026, Box 14, "CIA Damage Assessment." Pete Early, *Family of Spies: Inside the John Walker Spy Ring* (New York: Bantam Books, 1988). FBI, "John A. Walker Espionage Ring."

47. (U) Early, *Family of Spies*. NSA Archives, acc nr 20960, CBOF 33.

48. (U) [redacted], 157-59: Polmar and Allen, *Merchants of Treason*, 18.

EO 1.4.(c)

49. (U) FBI, "John A. Walker Espionage Ring."

50. (U) Deputy Director's files, 96026, Box 1, "Overview of Damage from Recent Espionage." NSA Archives, acc nr 20960, CBOF 33. FBI, "John A. Walker Espionage Ring."

51. (U) Deputy Director's files, 96026, Box 14, "CIA Damage Assessment."

52. (U) FBI, "John A. Walker Espionage Ring." Interview [redacted] by Tom Johnson and [redacted] 22 June 1998, OH 11-98, NSA.

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53. (U) NSA Archives, acc nr 20960, CBOF 33; acc nr 19217, H03-0102-6. Deputy Director's files, 96026, Box 14, "CIA Damage Assessment."

54. (U) FBI, "John A. Walker Espionage Ring."

55. (U) Polmar and Allen, *Merchants of Treason*, 292-87.

56. (U) Ibid., 295.

57. (U) Ibid., 288-90.

58. (U) Ibid., 291-93.

59. (U) [redacted] interview. CCH Series XII.D., Pollard file, debriefing notes, 13/14 August 1986.

60. (U) Ibid.

61. (U) Polmar and Allen, *Merchants of Treason*, 288-89, 297.

- 62. (U) S4 files, James Hall, 63.
- 63. (U) S4 files, Jeffrey Carney.
- 64. (U) Interview, [redacted] by Robert Farley and Tom Johnson, 14 January 1987, OH 2-87, NSA. Paul Constance, "How Jim Bamford Probed the NSA," *Cryptologia*, 21 (January 1997), 71-74.
- 65. (U) David C. Martin, "Putting Secret Puzzles Together," *The Washingtonian* (March 1983), 89-95. Constance, "How Jim Bamford Probed the NSA," 72 [redacted] interview.
- 66. (U) [redacted] interview. Constance, "How Jim Bamford Probed the NSA."
- 67. (U) [redacted] interview. Interview, LTG Marshall S. Carter, by Robert Farley, 3-6 October 1988, OH 15-88, NSA.
- 68. (U) NSA, CCH Series VI.G.4.
- 69. (U) Ibid.
- 70. (U) [redacted] interview. NSA, CCH Series VI.G.2.1.
- 71. (U) Ibid.

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### (U) Glossary

ABM – antiballistic missile

ACE – American Council on Education

ACRP – Airborne Communications Reconnaissance Program

ACSI – Assistant Chief of Staff, Intelligence (Army)

ADC – Assistant Director for COMSEC

[Redacted]

AFSCC – Air Force Special Communications Center

AFSS – Air Force Security Service

[Redacted]

EO 1.4.(c)

ALP – Australian Labor Party

ALTROF – alternate remote operations facility

AMPS – Automated Message Processing System

ANO – Abu Nidal Organization

ANZUS – Australia, New Zealand and the United States (diplomatic treaty)

EO 1.4.(d)

ARDF – airborne radio direction finding

AROF – A Remote Operations Facility

ARVN – Army of the Republic of Vietnam (i.e., South Vietnam)

ASA – Army Security Agency

ASRP – Airborne SIGINT Reconnaissance Platform

ASTW – Agency Standard Terminal Workstation

ASW – antisubmarine warfare

AT&T – American Telephone and Telegraph Corporation

[Redacted]

BROF – B Remote Operations Facility

BSU – Bauded Signals Upgrade

BWI – Baltimore-Washington International Airport

C3CM – command, control and communications countermeasures

CBR – chemical, biological and radiological

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

CCP – Consolidated Cryptologic Program

CDAA – circularly disposed antenna array

CDC – Control Data Corporation

CENTCOM – Central Command

EO 1.4.(c)

EO 1.4.(d)

CINCPAC – Command-in-Chief, Pacific

CNO – Chief of Naval Operations

COC – Collection Operations Center

COINS – Community On-line Information System

CONUS – continental United States

COPEPES – Collection Operations Position Evaluation Standard

COS – Chief of Station (CIA)

CSG – cryptologic support group

CSOC – Current SIGINT Operations Center

CSS – Central Security Service

DARPA – Defense Advanced Research Projects Agency

DAO – Defense Attaché Office

DCA – Defense Communications Agency

DCI – Director of Central Intelligence

DDF – Deputy Director for Field Management and Evaluation

DDO – Deputy Director for Operations (NSA)

DDR – Deputy Director for Research

DDT – Deputy Director for Telecommunications and Computer Services

DEA – Drug Enforcement Administration

DEFCON – Defense Condition

DEFSMAC – Defense Special Missile and Astronautics Center

DES – data encryption standard

DGTS – Directorate General of Technical Security (South Vietnamese SIGINT service)

DIRNSA – Director, NSA

DO – Director for Operations (CIA)

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

DOJ - Department of Justice

DMZ - demilitarized zone

DSA - Defense Supply Agency (U.S. DoD)

EO 1.4.(c)

EO 1.4.(d)

DSD - Defence Signals Directorate

DSCS - DoD Satellite Communications System

DSE - direct support element (Navy)

DSSCS - Defense Special Security Communications System

GDRS - General Directorate of Rear Services (North Vietnamese logistics network)  
supporting infiltration into South Vietnam)

DSU - direct support unit (Army)

ECCM - electronic counter-countermeasures

ECM - electronic countermeasures

ESC - Electronic Security Command

ESM - electronic (warfare) support measures

EUCOM - European Command

EW - electronic warfare

FANX - Friendship Annex

FCC - Federal Communications Commission

FISA - Foreign Intelligence Surveillance Act

FOIA - Freedom of Information Act

FRG - Federal Republic of Germany

FSCS - Future SIGINT Capabilities Study

GE - General Electric Company

GROF - G Remote Operations Facility

GSA - General Services Administration

GSFG - Group of Soviet Forces Germany

GTOF - G Tennis Operations Facility

HAC - House Appropriations Committee

HPSCI - House Permanent Select Committee on Intelligence

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

IATS – Improved AG-22 Terminal System

IC – intelligence community

ICBM – intercontinental ballistic missile

IDA/CRD – Institute for Defense Analyses/Communications Research Division

IDDF – Internal Data Distribution Facility

IEEE – Institute of Electrical and Electronics Engineers

IFF – identification friend or foe

[REDACTED]

EO 1.4.(c)

INR – [Bureau of] Intelligence and Research (State Department)

INSCOM – Intelligence and Security Command

IR – infrared

IRBM – intermediate range ballistic missile

ITAR – International Traffic in Arms Regulation

ITT – International Telephone and Telegraph [corporation]

I&W – indications and warning

JASDF – Japanese Air Self-Defense Force

[REDACTED]

EO 1.4.(c)

EO 1.4.(d)

JUSMAG – Joint U.S. Military Assistance Group

KAL – Korean Air Lines

KC – Khmer Rouge (communist insurgent force in Cambodia)

LLVI – low-level voice intercept

LMSC – Lockheed Missile and Space Corporation

[REDACTED]

MAAG – Military Advisory Assistance Group

MAC – Military Airlift Command

MACV – Military Assistance Command Vietnam

MCSF – Mobile Cryptologic Support Facility

MEAR – Maintenance, Engineering, and Architecture (team)

MENAS – Middle East and North Africa Summary

MIJI – meaconing, intrusion, jamming and interference

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//XT~~

MO – method of operation

MIRV – multiple independently targetted re-entry vehicle

MODE – Monitoring of Overseas Direct Employment

NBS – National Bureau of Standards

NCC – National Cryptologic Command

NCO – noncommissioned officer

[REDACTED]

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NIO – National Intelligence Officer

NISC – Naval Intelligence Support Center

NIST – National Institute for Standards and Technology

NNBIS – National Narcotics Border Interdiction System

NOB – new office building (American embassy chancery, Moscow)

NOIWON – National Operations and Intelligence Watch Officers Network

NORAD – North American Air Defense Command

NPIC – National Photographic Interpretation Center

NRL – Naval Research Laboratory

NRO – National Reconnaissance Office

NSASAB – NSA Scientific Advisory Board

NSC – National Security Council

NSCID – National Security Council Intelligence Directive

NSF – National Science Foundation

NSG – Naval Security Group

NSOC – National SIGINT Operations Center

NTIA – National Telecommunications and Information Administration

NTISSC – National Telecommunications Information Security Committee

NVA – North Vietnamese Army

OCCM – Overhead Collection Management Center

OCR – optical character reader

OMB – Office of Manpower and Budget

ONI – Office of Naval Intelligence

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//XT~~

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

ONR – Office of Naval Research  
OPEC – Organization of Petroleum Exporting Countries  
OSD – Office of the Secretary of Defense  
OSHA – Occupational Safety and Health Administration  
OTAR – over-the-air rekeying  
PACAF – Pacific Air Forces  
PACOM – Pacific Command  
PARPRO – Peacetime Aerial Reconnaissance Program  
PC – Problem Center  
PDF – Panamanian Defense Force  
PERSUM – NSA personnel summary  
PFIAB – President’s Foreign Intelligence Advisory Board  
PFLP – Popular Front for the Liberation of Palestine  
PLO – Palestine Liberation Organization  
PRC – People’s Republic of China  
PX – post exchange facility  
RASIN – Radio Signal Notation  
RCA – Radio Corporation of America  

RIF – reduction in force  
ROC – Republic of China (Taiwan)  
ROF – remote operations facility  
ROFA – Remote Operations Facility  
RSA – Rivest, Shamir and Adelman [name of an encryption algorithm]  
SAC – Strategic Air Command  
SACEUR – Supreme Allied Commander Europe  
SAFSPD – Secretary of the Air Force Special Projects Division  
SALT – Strategic Arms Limitation Talks  
SCA – Service Cryptologic Agency  
SCE – Service Cryptologic Element

EO 1.4.(c)  
EO 1.4.(d)

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

[Redacted]

SDS - Students for a Democratic Society

[Redacted]

SIGSUM - SIGINT Summary

SIOP - single integrated operational plan (U.S. nuclear targetting plan)

[Redacted]

SLO - SIGINT Liaison Office

SOO - Senior Operations Officer

SORS - SIGINT Overhead Reconnaissance Subcommittee

[Redacted]

SOUTHCOM - Southern Command

SSA - Special Support Activity

SSBN - ship submersible, nuclear

SSCI - Senate Select Committee on Intelligence

SSO - Special Security Office

STU - Secure Telephone Unit

SUA - Shan United Army

SUSLO - Senior U.S. Liaison Officer [to GCHQ]

TACREP - tactical SIGINT report

TAREX - Target Exploitation

[Redacted]

TDOA - time difference of arrival

TENCAP - Tactical Exploitation of National Capabilities

[Redacted]

TVD - Soviet term for theater of military operations (TMO)

UKUSA - United Kingdom-United States [agreement on cryptologic matters]

USAFE - U.S. Air Forces Europe

USAFSS - U.S. Air Force Security Service

USIB - United States Intelligence Board

U&S - unified and specified [commanders/commands]

EO 1.4.(c)  
EO 1.4.(d)

EO 1.4.(c)

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

USSAG - United States Support Activities Group (the successor to MACV)

USSID - U.S. Signals Intelligence Directive

VTA - Soviet military air transport arm

ZI - Zone of the interior (i.e., continental United States)

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~**(U) Sources**

EO 1.4.(c)

~~(S//SI)~~ The time period covered by Books III and IV is so recent that there were few secondary histories of any of it. Notable exceptions were [redacted] very fine history [redacted], and [redacted] *Cryptologic Quarterly* article on public cryptography during the Inman administration. [redacted] forthcoming history of [redacted] also played a useful part. There were few other internally published secondary sources available. Thus, Books III and IV were produced through research in primary documents. The two most extensive collections were:

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1. (U) The NSA Archives. This consists of two categories of records:

a. (U) Archived records, which have been accessioned into the permanently retained collection. These appear in footnotes as an accession number (e.g., acc nr 39471) and a shelf location (e.g., H03-0311-4).

b. (U) Retired records. These are still the property of the donating office and have not been accessioned. They are identified by a shipment and box number, e.g., 43852, 105915-56.

2. (U) The historical collection of the Center for Cryptologic History (CCH), S542. This collection of historical documents actually predates the archived collection, and it contains records going back to the earliest days of cryptology. Records in this collection generally duplicate those in the Archives, but they are maintained as a separate file for ease of access by historians. The CCH collection is organized into the following series:

- I. Pre-1915
- II. 1915-1918 (World War I)
- III. 1919-1939 (Interwar period)
- IV. 1939-1945 (World War II)
- V. 1946-1952 (pre-AFSA and AFSA period)
- VI. 1952-present
- VII. Special and miscellaneous collections
- VIII. Crisis files
- IX. Press and journal items
- X. References
- XI. Papers collected by NSA and pre-NSA officials
- XII. Papers collected by NSA historians
- XIII. Equipment manuals
- XIV. COMSEC documents
- XVI. Cryptologic papers duplicated from presidential libraries

Citations from this collection are by series number, followed by subseries designations, for instance, VI.A.1.9.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

3. (U) Oral histories. NSA's oral history collection now comprises nearly 600 interviews with mostly NSA officials on cryptologic topics. This collection is extremely useful, especially in view of the paucity of official records. Very few subjects covered by this history were done without reference to oral histories. They are identified by the year and a one-up number, e.g., 12-94. The most useful for Books III and IV were:

- Lew Allen, Jr., 19-96
- Eugene Becker, 11-96
- [redacted] 19-96
- [redacted] 33-96
- [redacted] 50-94
- [redacted] 1977, unnumbered
- [redacted] 15-94 and 18-96
- [redacted] 9-86
- [redacted] December 1996, unnumbered
- David G. Boak, May 1998, unnumbered
- [redacted] 3-86
- [redacted] 40-95
- James V. Boone, 27-86 and unnumbered interview, June 1998
- [redacted] 22-95
- [redacted] 1976, unnumbered
- [redacted] 6-92
- [redacted] 25-96
- [redacted] 13-98
- [redacted] 2-97
- George R. Cotter, 7-96
- William P. Crowell, 16-96
- [redacted] September 1997, unnumbered
- Kenneth deGraffenreid, 5-98
- John P. Devine, 1-95
- [redacted] January 1997, unnumbered
- [redacted] 14-86
- [redacted]
- 4-93
- Lincoln D. Faurer, 8-87
- [redacted] 1997, unnumbered
- [redacted] 30-87
- [redacted] 15-96
- [redacted] 4-86
- [redacted] 5-97
- [redacted] 32-87
- [redacted] July 1997, unnumbered
- Robert J. Hermann, 45-94

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[redacted] February 1997, unnumbered  
 James G. Hudec, 17-96  
 [redacted] 6-86  
 [redacted] 11-97  
 Bobby R. Inman, 9-97  
 [redacted] 97  
 Robert Jackson, February 1997, unnumbered  
 Timothy W. S. James, 10-97  
 [redacted] 4-97  
 [redacted] 10-98  
 [redacted] 13-86  
 [redacted] 25-96  
 [redacted] 2-87  
 [redacted] 18-86  
 [redacted] 10-87  
 [redacted] 1-96  
 Doyle E. Larson, 15-94, 15-97  
 [redacted], 1997, unnumbered  
 [redacted] 8-92  
 [redacted] February 1997 and April 1998, unnumbered  
 [redacted] 7-97  
 Sir Peter Marychurch, 11-89  
 [redacted] 19-85  
 [redacted] January 1997, unnumbered  
 [redacted] 2-93  
 [redacted] 23-94  
 [redacted] March 1997, unnumbered  
 [redacted] 41-94  
 Robert Mueller, 6-8  
 [redacted], January 1997, unnumbered  
 William E. Odom, 13-97  
 [redacted] 34-96  
 [redacted], September 1997, unnumbered  
 [redacted] 20-82  
 Russel L. Parker, 52-94  
 Cecil J. Phillips, 23-93  
 [redacted] 12-98.  
 [redacted] 1966, unnumbered  
 Whitney E. Reed, 39-96  
 Robert E. Rich, 12-97  
 Elizabeth Rindskopf, 4-98  
 [redacted] January 1997, unnumbered  
 Howard E. Rosenblum, 3-91

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- [redacted] 8-97
  - [redacted] 15-97
  - [redacted] 1-92
  - [redacted] 1992.
  - [redacted] AIA oral history
  - Kermit H. Speierman, 2-86
  - [redacted] 29-93
  - [redacted] ESC interview, 1986
  - [redacted] 24-86
  - William O. Studeman, 5-91
  - [redacted] 35-96
  - [redacted] 12-96
  - David H. Williams, 23-87
  - [redacted]
  - [redacted] 1977, unnumbered
  - Milton Zaslow, 17-93
  - [redacted] 4-92
- P.L. 86-36

4. (U) Internally published, classified, histories included the following:

(U) [redacted] "Establishment of the [redacted] 1979" EO 1.4.(c)  
EO 1.4.(d)  
*Cryptologic Quarterly*, 12:5 (Noform Issue, 1993)

(U) Boak, David G. A History of U.S. Communications Security [The David G. Boak Lectures]. Fort Meade: NSA, 1973.

(U) Bradburn, Maj Gen David D. (USAF, Ret.), Col John O. Copley (USAF, Ret.), Raymond B. Potts and [redacted] *The SIGINT Reconnaissance Satellites*. Washington: NRO, 1994

(U) [redacted] Interview. *Cryptolog*, December 1976.

(U) [redacted] "Guardrail: A Joint Tactical SIGINT Support System," *Cryptologic Spectrum* (Spring 1975), 15-18. EO 1.4.(c)

(U) [redacted] [redacted] 1972-1975: An Inside View of Indications and Warning," *Cryptolog* (1st Issue, 1978), 1-8.

(S//SI) [redacted] [redacted] [redacted]  
[redacted] *Cryptologic Quarterly*, 10:3-4 (Fall/Winter 1991), 1-29.

(U) [redacted] *The Soviet Invasion of Afghanistan: A Cryptologic History*. U.S. Cryptologic History, Special Series [redacted] Vol. 8. Fort Meade: NSA, 1993.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) [redacted] "The 1983 War Scare in U.S.-Soviet Relations, *Studies in Intelligence*, 39:4 (1995), 61-72.

(S//SI) [redacted]

[redacted] *Cryptologic Quarterly*, 16:1 (Spring 1997), 75-89.

(U) Hanyok, Robert J. "Scaling Down NSA," *NSA Newsletter*, January 1995.

EO 1.4.(c)

(U) [redacted]. "The Relevant Truths: SIGINT Issues of the Indochina War, 1950-1975 (Part II)" *Cryptologic Quarterly*, 16:3 (Fall 1997), 1-50.

(U) [redacted] "OPSEC as a Management Tool." *Cryptolog* (1st issue, 1972), 7-9.

(U) [redacted] *PURPLE DRAGON: The Origin and Development of the United States OPSEC Program*. U.S. Cryptologic History, Series VI, Vol. 2. Ft. Meade: NSA, 1993.

P.L. 86-36

(U) [redacted]. *NSA's Involvement in U.S. Foreign SIGINT Relationships through 1993*. U.S. Cryptologic History, Series VI, Vol. 4. Ft. Meade: NSA, 1995.

(U) [redacted] "NSA Comes Out of the Closet: The Debate Over Public Cryptography in the Inman Era." *Cryptologic Quarterly*, 15:1 (Spring 1996), 5-44.

(U) [redacted] "The Platform Network Evolution," *Cryptologic Quarterly*, 9:4 (Winter 1991).

(U) Newton, Robert E. [redacted] *An American Perspective*. U.S. Cryptologic History Series, Special Series, Crisis Collection, Vol. 4. Ft. Meade: NSA, 1991.

(U) Nolte, William. [redacted] *An Interim History*. U.S. Cryptologic History Series, # 1. Ft. Meade: NSA, 1981.

(U) [redacted] 1968-1977. Fort Meade: NSA, 1977.

(U) [redacted] "Foreign SIGINT Operations: The Legal Side." *IAI International Notes and News*. Fort Meade: NSA, 1993.

(U) [redacted] "The Great Conversation." *Cryptolog* (1st Issue 1992), 2-6.

(U) [redacted] *Fifty Years of Mathematical Cryptanalysis*. Fort Meade: NSA, 1988.

(U) [redacted] et al. "Report of the Second Computer Study Group," *NSA Technical Journal* 19:1 (Winter 1974), 21-61.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) [Wiley, Edward] *On Watch: Profiles from the National Security Agency's Past 40 Years*. Ft. Meade: NSA, n.d.

[redacted] *Studies in Intelligence* (Fall, 1991), 21-31. (Published by CIA.)

5. (U) Internal, but unpublished, historical studies often contain important information. The more important ones used in this study were:

- (U) [redacted] "The Reemployed Annuitant (REA) Program in NSA: An Evaluation of the Agency Archives." CCH files.
- (S//SI) [redacted] "A Historical Overview of the U.S. SIGINT Effort in [redacted] October 1988, in CCH Series VI.K.1.4. EO 1.4.(c)  
EO 1.4.(d)
- (U) [redacted] "A Decade of Change in SIGINT Reporting: The 1970s." 7 August 1979. CCH Series XII.D.
- (U) [redacted] "IOSS and After." 1987. Available at HQ INSCOM, Fort Belvoir, Virginia.
- (U) [redacted] "Support to Military Operations: NSA's Contribution to Operation 'Just Cause'." NSA/PGIP Class 9101.
- (U) "Historical Study of NSA Telecommunications, Annual, 1973-1975." CCH Series A.1.10.
- (U) "History of the Poppy Satellite System." October 1978. CCH Series XII.OO.
- (U) "History of Yakima Research Station: [redacted] CCH Series VI.I.1.3.
- (S//SI) [redacted] History of [redacted] CCH Series VII.89. P.L. 86-36
- (U) [redacted] "Development of the Australian SIGINT Organization: A Synopsis of Major Events from 1947 to 1992." CCH Series VI.J.1.2.1.
- (U) [redacted] "A Brief History of GROF." CCH files, 1996. EO 1.4.(c)
- (U) [redacted] Draft history of OTAR, 1998, in CCH Series XII.D.
- (U) [redacted] "International Terrorism and the National Security Agency: The Evolution of a Centralized Response." 1986. CCH files.
- (U) [redacted] Untitled manuscript on the history [redacted] CCH collection.
- (U) [redacted] "As We Were: An Informal History of Bad Aibling Station, 1936-1988." CCH Series VI.I.1.10.
- (U) [redacted] "History of Menwith Hill Station." CCH Series VI.I.2.11.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) [redacted] "The Eagle Watches the Bear: Soviet Involvement in Afghanistan, 1978-1980." CCH Series VIII.44.

(U) "SIGINT Support to Military Operations" [the Hermann Study]. NSA retired records, 28792, 80-079.

(U) "Summary of Statutes Which Relate Specifically to NSA and the Cryptologic Activities of the Government." Undated manuscript file in CCH files.

(U) [redacted] Draft history of computer security at NSA. CCH files.

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6. (U) There are several important documents or collections of historically valuable documents that repose in various locations within NSA. The most useful were:

(U) [redacted] Study. 1978. CCH Series XII.D.

~~(S//SI)~~ CDO [redacted] files. NSA, Directorate of Foreign Relations.

~~(S//SI)~~ CDO [redacted] files. NSA, Directorate of Foreign Relations.

~~(S//SI)~~ CDO [redacted] files. NSA, Directorate of Foreign Relations.

(U) CDO UK files. NSA, Directorate of Foreign Relations.

(U) Drawstring Task Force Report, 10 December 1973. NSA Archives, acc nr 32545.

(U) Files of NSA's deputy directors, retired records, shipment nr 96026, boxes 104545-10458. This collection was the single most valuable source for these two books.

(U) Files of the chief, A2 (office of Soviet analysis), retired records, shipment nr 96226, boxes 105951-56.

(U) History of the Soviet Nuclear Weapons Program. [redacted] NSA. DCI/ICS 5321/87JX.

(U) HF Modernization Plan (draft). 11 April 1980. CCH Series XII.D.

(U) HF Target Studies, 1975, 1978. CCH Series XII.D.

(U) Morrison, John R. (Maj Gen, USAF, Ret.), personal and professional papers in CCH Series XI.R.

(U) "National Security Agency: The Evolution of a Centralized Response." CCH files, 1986.

(U) Pelton file. NSA General Counsel office.

(U) Rockefeller Commission Report and related correspondence. NSA Archives, acc nr 45146N, H07-0201-6.

EO 1.4.(c)  
EO 1.4.(d)~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

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(U) "Technology for Special Purpose Processors." March 1978. NSA Archives, acc nr 27451, CBUI 31.

7. (U) A few files and studies by SCE components were used. Available at AIA at Kelly AFB, San Antonio, are:

(U) "A Historical Monograph of the KAL 007 Incident."

(U) "A History of the USAFSS Airborne SIGINT Reconnaissance Program (ASRP), 1950-1977."

(U) "History of the Electronic Security Command." Annual. (Most are available in CCH Series X; others can be obtained from AIA, Kelly AFB, San Antonio, TX.)

(U)  "A  
Chronology of Significant Events in the History of the Electronic Security Command, 1948-1988." EO 1.4.(c)  
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(U)  "A Historical Study of the Drawdown of USAFSS Operations in Southeast Asia (SEA)." San Antonio: USAFSS, 1974. 86-36

8. (U) In contrast to Books I and II, outside scholarship played a big role in certain aspects of the current two books. As NSA's role has become more public, this source of information will inevitably expand.

Andrew, Christopher. *For the President's Eyes Only: Secret Intelligence and the American Presidency from Washington to Bush*. New York: HarperCollins, 1994.

\_\_\_\_\_. "The Growth of the Australian Intelligence Community and the Anglo-American Connection," *Intelligence and National Security*, 4:2 (April 1989), 213-256.

Bamford, James. *The Puzzle Palace: A Report on America's Most Secret Agency*. Boston: Houghton Mifflin Co., 1982.

Beschloss, Michael, and Strobe Talbot. *At the Highest Levels: The Inside Story of the End of the Cold War*. Boston: Little, Brown and Company, 1991.

Brzezinski, Zbigniew. *Power and Principle: Memoirs of the National Security Advisor, 1977-1981*. New York: Farrar, Straus, Giroux, 1983.

Burrows, William E. *Deep Black: Space Espionage and National Security*. New York: Random House, 1986.

Butler, David. *The Fall of Saigon*. New York: Dell Books, 1985.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

- Cline, Ray S. *The CIA Under Reagan, Bush and Casey*. Washington, D.C.: Acropolis Books, 1981.
- Codes, Keys, and Conflicts: Issues in U.S. Crypto Policy. Report of a Special Panel of the ACM U.S. Public Policy Committee (USACM). New York: ACM, 1994.
- Codevilla, Angelo. *Informing Statecraft: Intelligence for a New Century*. New York: Free Press, 1992.
- Cole, Ronald H. *Operation Urgent Fury*. Washington, D.C.: JCS Joint History Office, 1997.
- Congressional Quarterly*. "The Iran-Contra Puzzle." Washington, D.C.: *Congressional Quarterly*, 1987.
- Constance, Paul. "How Jim Bamford Probed the NSA," *Cryptologia*, 21:1 (January 1997), 71-74.
- Dam, Kenneth W., and Herbert S. Lin (eds.). *Cryptography's Role in Securing the Information Society*. National Research Council, Computer Science and Telecommunications Board. Washington, D.C.: National Academy Press, 1996.
- Dobrynin, Anatoly. *In Confidence: Moscow's Ambassador to America's Six Cold War Presidents (1962-1986)*. New York: Times Books Division of Random House, 1995.
- Donnelly, Thomas, Margaret Roth and Caleb Baker. *Operation Just Cause: The Storming of Panama*. New York: Lexington Books, 1991.
- Draper, Theodore. *A Very Thin Line: The Iran-Contra Affair*. New York: Hill and Wang, 1991.
- Early, Pete. *Family of Spies: Inside the John Walker Spy Ring*. New York: Bantam Books, 1988.
- Goldschmidt, Arthur. *A Concise History of the Middle East*. Boulder: Westview Press, 1979.
- Greene, John Robert. *The Presidency of Gerald Ford*. Lawrence, Kansas: University of Kansas Press, 1995.
- Guilmartin, John F. Jr. *A Very Short War: The Mayaguez and the Battle of Koh Tang*. College Station, Texas: Texas A & M Press, 1995.
- Herring, George. *America's Longest War: The United States and Vietnam, 1950-1975*. Philadelphia: Temple University Press, 1986.
- Hersh, Seymour. *The Price of Power: Kissinger in the Nixon White House*. New York: Summit Books, 1983.
- \_\_\_\_\_. *The Target is Destroyed: What Really Happened to Flight 007 and What America Knew About It*. New York: Random House, 1986.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Johnson, L. K. *A Season of Inquiry: The Senate Intelligence Investigation*. Lexington, Kentucky: University of Kentucky Press, 1985.

Kagan, Robert. *A Twilight Struggle: American Power and Nicaragua, 1977-1990*. New York: Free Press, 1996.

Kahn, David. "Cryptology Goes Public." *Foreign Affairs*, Vol 58:1 (Fall 1979), 141-59.

\_\_\_\_\_. "Big Ear or Big Brother?" *New York Times Magazine*, May 16, 1976, 62-72

\_\_\_\_\_. "Soviet COMINT in the Cold War," *Cryptologia*, 1:18 (January 1988).

Karnow, Stanley. *Vietnam: A History*. New York: Penguin Books, 1983.

Kneece, Jack. *Family Treason: The Walker Spy Case*. Briarcliffe Manor, NY: Stein and Day, 1986.

Nelson, Dick, and Julie Koenen-Grant. "A Case of Bureaucracy in Action: The U.S. Embassy in Moscow," *International Journal of Intelligence and Counterintelligence*, Fall, 1993.

O'Toole, G.J.A. *Honorable Treachery: A History of U.S. Intelligence Espionage and Covert Action from the American Revolution to the CIA*. New York: Atlantic Monthly Press, 1991.

Peck, Winslow. "U.S. Electronic Espionage: A Memoir." *Ramparts*, August 1972, 36-50.

Persico, Joseph. *Casey: From the OSS to the CIA*. New York: Viking Penguin, 1990.

Ploss, Sidney I. *Moscow and the Polish Crisis: An Interpretation of Soviet Policies and Intentions*. Boulder: Westview Press, 1986.

Polmar, Norman, and Thomas B. Allen. *Merchants of Treason*. New York: Delacourte Press, 1988.

Powers, Thomas. *The Man Who Kept the Secrets: Richard Helms and the CIA*. New York: Alfred A. Knopf, 1979.

Prados, John. "The War Scare of 1983," *Military History Quarterly*, 9:3 (Spring 1997), 63-73.

Ranelagh, John. *The Agency: The Rise and Decline of the CIA*. New York: Simon and Schuster, 1986.

Shultz, George P. *Turmoil and Triumph: My Years as Secretary of State*. New York: Charles Scribner's Sons, 1993.

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Smist, Frank. *Congress Oversees the United States Intelligence Community, 1947-1989*. Knoxville: University of Tennessee Press, 1990.

Spiegel, Steven L. *The Soviet-American Competition in the Middle East*. Lexington, Massachusetts: Lexington Books, 1988.

Talbot, Strobe. *Endgame: The Inside Story of SALT II*. New York: Harper and Row, 1979.

Theis, Wallace J., and James D. Harris. "An Alliance Unravels: The United States and ANZUS." *Naval War College Review*, Summer 1993, 98-123.

Theoharis, Athan. *Spying on Americans: Political Surveillance from Hoover to the Huston Plan*. Philadelphia: Temple University Press, 1978.

Toohy, Brian, and William Pinwill. *Oyster: The Story of the Australian Secret Intelligence Service*. Port Melbourne, Australia: Octopus Publishing Group, 1990.

Turner, Stansfield. *Secrecy and Democracy: The CIA in Transition*. Boston: Houghton Mifflin, 1983.

Walsh, Lawrence E. *Firewall: The Iran-Contra Conspiracy and Cover-Up*. New York: Norton and Co., 1997.

Weaver, Mary Ann. "Burying the Martyrs," *New Yorker*, January 1993.

White, Theodore H. *Breach of Faith: The Fall of Richard Nixon*. 1st ed. New York: Atheneum Publishers, 1975.

Woodward, Bob. *Veil: The Secret Wars of the CIA 1981-1987*. New York: Simon and Schuster, 1987.

9. (U) Material from the presidential libraries played a key role in this book. Those visited were:

Jimmy Carter Presidential Library, Atlanta, Georgia

Gerald R. Ford Presidential Library, Ann Arbor, Michigan

Ronald Reagan Presidential Library, Simi Valley, California

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