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ALLEN WELSH DULLES  
AS DIRECTOR OF CENTRAL INTELLIGENCE  
26 FEBRUARY 1953 - 29 NOVEMBER 1961

VOLUME II COORDINATION OF INTELLIGENCE

#003

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DCI-2

July 1973

series B copy 3 of 6

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Date 26 APR 94

HRP 91-2

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dissatisfied with these "worst case" estimates.

Whether or not these two last-mentioned factors were in fact operative, the most important change was the movement from estimating the largest technically feasible weapons systems towards estimating the most likely assortment of weapons, a movement which pushed the estimating task more and more towards the nontechnical procedures followed for other estimates, i.e. towards ONE. At any rate, McCone, shortly after becoming DCI at the end of 1961, ruled that all estimates should go through the ONE procedure. 54/

#### ELINT

In the still-short history of US scientific intelligence it may be said that the development of few fields has been accompanied by more pulling and hauling, internal and external to CIA, than that of ELINT.

So states the history of OSI, written in 1969. 55/

It is certainly true that ELINT is a good example of an intelligence activity which appeared to require coordination of the practical as well as the bureaucratic hurdles that stood in the way, both inside

and outside of CIA, and of the long time needed to set up a framework for coordination. Even today- (1973), there remain areas of obscurity and differing interpretation in matters of who should do what, and the effectiveness of the coordinating mechanism is by no means clear.

One murky question was "What is ELINT?" The answer given by the NSC is that ELINT consists of

the collection (observation and recording) and the technical processing for later intelligence purposes, of information on foreign, non-communications, electromagnetic radiations emanating from other than atomic detonation sources. 56/

This definition, which is virtually unchanged today, leaves many uncertainties.\* As Charles A. Kroger, Jr., points out in his article, "ELINT, A Scientific Intelligence System," 57/ the whole electromagnetic spectrum ranges from electric power at one end, through the radio and TV frequencies, radiated heat, visible light, ultra-violet, X-rays and gamma rays, to cosmic rays. ELINT, for intelligence purposes, actually concerns itself with certain radiations in what Kroger calls the radio-wave part of the

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\* Even today (1973) there are differences of opinion as to whether "ELINT" stands for Electronic Intelligence or Electronic Intercept.

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spectrum, from "very low frequency" through "extremely high frequency." In general, communications intelligence (COMINT) covers the exploitation of radiations carrying encrypted or plaintext word messages, while ELINT deals with the rest of this part of the spectrum, including radar, telemetry, radio beacons, and the like. Any definition is, of course, arbitrary, and the more generalized term of signals intelligence (SIGINT) is in many cases a more useful term, avoiding some of the problems raised by attempts at more precise definition. It does not, however, help resolve the practical differences between COMINT and ELINT, i.e., the way security is handled, who engages in its collection and processing, and the funds and attention devoted to each. It is these problems that made the difficulties requiring coordination.

COMINT, the interception and analysis of human messages, had, of course, long been a source of great intelligence significance. CIA had only a minor operational role in COMINT activities, though it was an important consumer of the product. Further-

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more, it was directly concerned with COMINT by reason of the fact that the DCI was chairman (albeit nonvoting) of the US Communications Intelligence Board (USCIB), and in addition CIA was a member of that Board.\* The structure and operational arrangements for carrying out COMINT activities had been pretty well developed after NSA was formed in 1952 to consolidate the security agencies of the services.

ELINT, in the form of the interception and analysis of radar and of guidance beacons, had become of major concern to the armed forces during and after World War II. The British had been pioneers in this field and had an active, if small, program which they called "noise listening." The potentialities of ELINT as a means of understanding technical developments in the USSR were recognized early in CIA, particularly in OSI. Starting in 1951, this office was the channel for giving assistance to the British program, and a start was made in building up a substantive competence in the field. Further-

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\* The overall responsibility for COMINT policy had been given to USCIB by NSCID 9 of 29 December 1952.

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more, officers in OSI -- in particular, James Sears, George Miller, and Ralph Clark -- were zealous missionaries propounding the intelligence value of ELINT. Impetus to CIA's interest was given in 1953 when the NSC, in NSC 169, gave CIA the task of evaluating Soviet and Satellite capabilities for jamming radio signals.

The interest of CIA was in new and unusual signals, which would indicate research and development, rather than in electronic order of battle (O/B), which was then the primary concern of the services, particularly the Air Force. Close working relations were established on an informal basis with the components of the services, particularly the Army and Navy, which were engaged in ELINT activities. (The Air Force seems to have shied away from cooperation and exchange of information in this field, perhaps because so many of its activities were outside Washington.)

By 1953 the Agency was involved in ELINT deeply enough to warrant an ELINT program of its own, and an Agency ELINT Task Force was established to

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formulate a suitable Agency-wide plan. On 29 May 1954 Dulles approved the first Agency ELINT program. 58/

There was need for an Agency program because within CIA a variety of components were involved: DDP through clandestine collection activities and its role in intelligence liaison in foreign countries, OSI through its responsibility for analysis and evaluation of the material collected, and the Office of Communications through its role in the design and production of collection and processing equipment in cooperation with OSI and the DDP technical services. An Agency ELINT Staff Officer was named. He was for many years a member of the staff of OSI and had the duty of coordinating Agency activities. The diversity of the interests was such, however, that much had to be done at the level of the DCI's office. General Cabell, the DDCI, took on this responsibility since such matters were neither particularly congenial to Dulles nor within the field of his talents. Thus much of the history of ELINT during the Dulles administration of CIA, both internally and in the community, revolved around

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Cabell's office. The Agency ELINT Staff Officer was de facto attached to the DDCI's office, even though he was technically in OSI.

The scope and nature of the Agency ELINT program is set out in the papers attached to a memorandum of 17 August 1954 from the Chief of the Management Staff to the Acting DDA. 59/ This memorandum dealt with the nuts and bolts without which a new activity cannot operate -- personnel ceilings, T/O's, and budgets. Of particular note is a memorandum from General Cabell to all components of the Agency concerned. 60/ Its special interest is in the language of the first sentence, which reads

Until further notice, the CIA policy concerning the ELINT problem, is fully to support a progressive, piecemeal approach.

Government memoranda are full of sentences starting in the same way but almost invariably they call for a "progressive, fully integrated, comprehensive, well-thought-out, etc., etc., program." It is almost unique for a policy directive to call for a "piecemeal" approach. Cabell undoubtedly recognized the well-entrenched and valid service interests as

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well as other departmental interests and was clear in his own mind that CIA should restrict itself to activities which would not duplicate those of other departments and were strictly within its mandate. His memorandum, after specifying what fields CIA would concentrate on (setting priorities, analysis and evaluation of the product, equipment research, etc.), went on to say

Other than for the general coordination of ELINT which has already been assumed by USCIB, the CIA does not wish to consider at this time the question of either the need for a greater degree of centralized overall control of ELINT, or the establishment of such. In this regard, CIA recognizes the intimacy of ELINT with various Service activities and the complexities of any attempt at centralized control. CIA personnel will adhere to this policy in all discussions dealing with the ELINT problem.

This last sentence showed that Cabell was worried that some of the Agency evangelists of ELINT might press for a centralized control of ELINT activities before the community was ready for it.

As the intelligence value of ELINT was recognized by other parts of the community, particularly the services, it became apparent that a national ELINT

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policy was needed. One basis of this need was the very practical one of money and slots. The funds and personnel for ELINT had been diverted from other purposes, since neither people nor money had been formally allocated to this activity. The preliminary discussions in the community led to agreement that there should be a national center which should have a general responsibility for collection and technical processing. This would require dollars and bodies. An indication of this activity is found in a memorandum from the AD/SI to the DDCI in March 1955 in which the former asked for approval for his going ahead with recruiting for OSI manpower to assist in manning the national ELINT Center which was proposed as well as to provide manpower and space to support a USCIB ELINT committee and secretariat. Cabell approved this proposal on 29 March 1955, and Dulles initialed his approval. The USCIB had already set up an ELINT Committee by CIBD 17 (3 March 1955), and NSCID 17 was approved on 16 May 1955.

NSCID 17 assigned to the USCIB, which had been set up by NSCID 9 on 29 December 1952, the responsibility

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for being the

national policy body for ELINT, including policy in relation to the Technical Processing Center. . . arrangements with foreign governments in the field of ELINT, and recommendations concerning research and development requirements.

It went on to provide that

The technical processing of all ELINT shall be accomplished in a center to be organized and administered by the Department of Defense. However, parallel processing in the field may be accomplished for essential immediate operational or tactical purposes. This center shall be jointly staffed by individuals detailed from the Department of Defense and the CIA in a proportion to be determined by the Secretary of Defense and the DCI.

It specified that all data collected should be made available forthwith to the Technical Processing Center, subject to delays resulting from field exploitation for urgent tactical or operational purposes, and that the results of the Center's processing should be made available to interested departments and agencies.

This directive appears simple, but there were catches in it. Paragraph 3 provided that subject to USCIB's policy guidance,

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the Department of Defense and the Central Intelligence Agency shall be responsible for their respective ELINT collection activities.

This allowed everyone to engage in collection.

Further, the provision allowing field processing for urgent reasons was an invitation to the multiplication of processing facilities, particularly since CIA and the services could justify the urgency of their own operational needs. Nevertheless, the NSCID gave a basis for the allocation of funds and manpower to ELINT activities and the technical center could theoretically have led to a cooperative effort.

It apparently did not. The Department of Defense designated the Air Force as its executive agent for ELINT. The Air Force proposed to set up the technical center in Dayton, Ohio, attached to the large Air Force Technical Intelligence Center there. There had been in operation for a number of years an informal center in Washington where some coordination of processing and read-out had been carried on by CIA, Army, and Navy (the Air Force taking no part). 61/ If the processing center specified in NSCID 17 were set up in Dayton, it

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would suit the Air Force but would, as a practical matter, dissipate the trained assets and the experience of the other agencies engaged in ELINT. Dulles wrote to the Secretary of the Air Force in November 1955, protesting the proposal to set up the processing center in Dayton. 62/ The proposal was dropped and the center was set up at the Naval Security Station premises on Nebraska Avenue in Washington, D.C. This had been the location of the informal cooperative center which preceded NSCID 17. 63/ As provided in that directive, CIA supplied personnel to help man the center.

This arrangement did not, however, function in a very satisfactory manner. The Air Force was dominated by SAC, which was principally interested in radar order of battle. CIA officers believed that the Air Force did not give sufficient emphasis to the acquisition of technical intelligence, which was of major concern to CIA, and the exploration of many other fields in which ELINT could be a useful source. 64/

In 1957, at Presidential direction, the Science

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Advisory Committee of the Office of Defense Mobilization set up a panel under the chairmanship of William O. Baker, the head of the Bell Laboratories. The purpose of this panel was to explore and make recommendations regarding a number of problems in the field of electronic intelligence. While the principal concerns of the Baker Panel dealt with COMINT matters, Recommendation 4 of this report of 23 January 1958 urged that

the responsibility for control of ELINT processing and analysis be assigned to the National Security Agency.

The Baker Panel report was referred to the Special Committee of the NSC which dealt with COMINT matters, 65/ which in turn made recommendations to the President which the latter approved. With regard to Recommendation 4 relative to ELINT, the Special Committee suggested that action be deferred

pending completion of a study by the USCIB in consultation with appropriate members of the Science Advisory Committee, reporting to the President through the Special Committee of the NSC for COMINT within six months.

The USCIB set up an ELINT Task Force with Philip Strong, DAD/SI of CIA, as chairman, which

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reported on 9 June 1958. 66/ It was obvious that there were enough differing opinions as to how ELINT should be handled, enough vested interests and jurisdictional disagreements, to warrant an attempt to work out a mutually agreed setup. This is what the Task Force tried to do.

The Task Force explored various possible arrangements and concluded (with the Air Force representative dissenting) that the Secretary of Defense should be made executive agent of the Government for ELINT and that to the Director of NSA should be assigned

the authority and responsibility for providing an effective unified organization to control and direct the ELINT intercept, processing, and reporting activities of the US Government.

The advantages which the Task Force found for this course of action were that it would make possible the retention of the integrity of those ELINT functions not directly related to COMINT and would allow the delegation of unique functions to units needing them for operational reasons such as SAC. Centralization in NSA would also allow the integration of ELINT and COMINT when such integration was desirable and would centralize final signal analysis, thus

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facilitating the definition of COMINT and ELINT emanations and making optimum use of the combined analytic skills and experience of both ELINT and COMINT experts. The Task Force saw NSA as providing integrated operational policies and technical doctrine and procedures and as coordinating relevant research and development.

This Task Force report was made at the time when all the NSCID's were being revised under the leadership of the DD/C, Truscott, and when, pursuant to the Presidential decision in NSC Action 1873 (13 March 1958), the IAC and the USCIB were being merged into a single Board, the USIB. As a result, old NSCID's 9 and 17 were revised and merged, and a new directive, NSCID 6, was finally promulgated 15 September 1958. The most important change, for the purposes discussed here, was in the role of USIB in relation to ELINT. While the USCIB had been the "National Policy body for ELINT..." and the DCI the nonvoting chairman, the new USIB was only advisory to the DCI. Although NSCID 6 on its face seemed to give USIB certain policymaking

functions in relation to COMINT and ELINT, the basic charter of the USIB was in NSCID 1, and the powers of the DCI were delineated there.\*

The new directive followed the old in that it designated the Secretary of Defense as the executive agent for both COMINT and ELINT and gave him the responsibility for conducting

those ELINT collection and processing activities which the Secretary of Defense determines are essential to provide direct support to commanders who plan and conduct military operations.

Such activities would be delegated "to those commanders, or to the cryptologic agencies which support them." As to NSA, NSCID 6 provided that

To the extent he deems feasible and in consonance with the aims of maximum overall efficiency, economy, and effectiveness [the Director of NSA should] centralize or consolidate the performance of COMINT and ELINT functions for which he is responsible.

As if this dual delegation of functions by the NSC did not provide enough space for jurisdictional

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\* The matter of the merger of IAC and USCIB to form USIB is treated in Chapter 3, below.

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battles between the services and NSA, NSCID 6 went on to say

It is recognized that the Armed Forces and other departments and agencies being served require direct COMINT and ELINT support of various kinds. In providing this support, operational control of specified COMINT and ELINT facilities and resources will at times be delegated by the Director, for such periods and for such tasks as are determined by him, to an appropriate agent.

The mandate to the Director of NSA was far from that recommended by the Baker Panel.

NSCID 6 purported to provide a framework within which the COMINT and ELINT activities of the Government could be carried out in an integrated manner. But it is an excellent example of the fact that a system which looks satisfactory on paper will not work out in practice if the parties concerned do not find that it meets their genuine needs. In the field of COMINT, the community had as a practical matter worked out most of its troubles with the role assigned to NSA, even though there were complaints that NSA devoted its assets too much to targets which were the most readily susceptible to observation, such as order of battle and warning

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indicators, at the expense of more difficult targets. NSA was apparently much less interested in ELINT, and its customers in CIA believed it slighted this field in the allocation of assets and personnel. For example, CIA believed that NSA paid too little attention to the analysis of Soviet missile telemetry. 67/ Furthermore, in the ELINT field, NSA had neither the expertise nor the continuity of experienced personnel which were needed.

General Cabell felt strongly that an effort to press for a highly centralized direction of ELINT by NSA would result, in practice, in a serious setback to the ELINT effort. This would not be because of any ill will on the part of NSA but rather because NSA was a well-established bureaucracy which had developed COMINT, its first responsibility, to a state of great usefulness. Its staff had long been focused on COMINT and recognized its importance and the grave problems in the path of its continued advance. Hence, little interest or expertise would be made available to the new step-child, ELINT. The people in the other departments and agencies

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interested in ELINT were relatively junior and would not be able to make their weight felt in the many conflicts which were certain to arise. They would need to gain more experience and more confidence. Hence they should be allowed to have their heads for a time; otherwise, ELINT would be set back for a long period. Furthermore, the cost of an active centralized ELINT effort would be great and it was unrealistic to expect that funds would be given to NSA which were wholly in addition to the funds provided for COMINT. Thus ELINT would to some extent have to compete, in the allocation of NSA resources, with well-established COMINT. ELINT would thus be considered to be encroaching at a time when it was too new and weak to compete. 68/

The services were not happy with the powers which had nominally been delegated to NSA. It was not until six months after NSCID 6 was issued that the Department of Defense directives pertaining to NSA's ELINT responsibilities were issued. 69/ Under the Department of Defense system, the NSCID was ineffective operationally in that Department until departmental directives providing for the methods of

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carrying it out were issued.

In this situation, full advantage was taken of the loopholes in the directive, most of which consisted of scars left by the opposition of particular members of the community to the initial delegation of broad responsibilities to NSA. CIA and the services, under NSCID 6, engaged in collection and parallel processing of ELINT, particularly in the case of telemetry, as Soviet missile activity became a priority target of intelligence. Coordination of activities was, however, by no means absent. It developed as collection techniques became more sophisticated with the advent of the U-2 and satellite reconnaissance. In many cases, the coordination was a by-product of cooperation in the management of collection devices. Thus ELINT was a field in which the coordination of activities was imperfect, to say the least, and where the legitimate operational requirements of the services and the failure of the principal coordinator, NSA, to perform to the satisfaction of its customers combined to negate the purposes of the organizational framework.

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It should not be assumed that bureaucratic pride and jealousy were the principal moving forces at work. The capabilities of SAC were the backbone of the US defenses against the USSR. Enemy radar order of battle was of vital concern to SAC, and it had built up a considerable capability in this field. Radar order of battle of a different sort was of major importance to the Navy at a time when the carrier was its most important weapons system. CIA was concerned, under direction of the NSC, with Soviet capabilities for jamming radio signals. These are only a few of the legitimate concerns of the various members of the community. Each had developed collection techniques suited to its needs, and also analysis for its particular purposes. An attempt to impose a tidy "coordinated" structure would have been doomed. The cooperation which developed, informally in most cases, between various operators probably was more effective than any theoretically defensible overall coordinating system.

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