

# STUDIES in INTELLIGENCE



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# STUDIES IN INTELLIGENCE

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## CONTENTS

	<i>Page</i>
Mission to Birch Woods . . . . . Henry S. Lowenhaupt	1
<i>The U-2 first spies Soviet atomic sites. SECRET</i>	
Identifying the Future Threat . . . . . Herbert C. Rothenberg	13
<i>From scientific advance to new Soviet weapon system. SECRET</i>	
Microtechnology . . . . . Donald Reiser & Harry Wood	23
<i>Vanishing bulk and power drain of electronic devices. SECRET</i>	
View from the Hot Shop Averill T. Stewart & Joseph O. Matthews	39
<i>The CIA Operations Center in the service of evaluative judgments. SECRET</i>	
Singapore's People's Association . . . . . Walter B. Kimball	47
<i>A gimmick linking leaders and grass roots promotes political stability. OFFICIAL USE</i>	
The Vietnamese as Operational Target . . . . . Titus Leidesdorf	57
<i>Psychological peculiarities for exploitation. SECRET</i>	
With Vandenberg as DCI; Part II . . . . . Arthur B. Darling	73
<i>Attempts at community coordination. CONFIDENTIAL</i>	
Intelligence in Recent Public Literature	
<i>Classic Soviet networks. CONFIDENTIAL . . . . .</i>	95
<i>Industrial intelligence and espionage. OFFICIAL USE . . . . .</i>	114
<i>Miscellaneous. OFFICIAL USE . . . . .</i>	119

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No Foreign Dissem

*Targeting the first U-2 coverage  
of Soviet nuclear facilities.*

**MISSION TO BIRCH WOODS**  
**Via Seven Tents and New Siberia**  
**Henry S. Lowenhaupt**

I suppose I remember so distinctly working on nuclear targets for the U-2 missions of late August 1957 because this was my first direct experience with reconnaissance operations, and first impressions are lasting. Besides, it was a striking reminder of my 1944 mission from a basic training camp in Alabama to a telephone number in Knoxville, Tennessee, which turned out to be the secret atomic city of Oak Ridge. Here in 1957 my prime target was a secret atomic city known as the Post Box, Tomsk, in central Siberia.

There was also at the time an anticipatory feeling of self-vindication. In 1945 I had been impressed with the accuracy of a wartime estimate of the output from the famous Joachimsthal uranium mines of Czechoslovakia, an estimate based on aerial photographs taken a year apart. So in 1949, after the first Soviet nuclear test, I had advocated photo-reconnaissance of the nuclear production sites in the Urals. I actually persuaded the Air Force member of the Joint Atomic Energy Intelligence Committee to submit a formal proposal for flying the Urals in a B-25 which would take off from Iran and afterwards be ditched beside an aircraft carrier in the Barents Sea off Novaya Zemlya. We still have in the files Secretary of State Dean Acheson's reply, through the DCI to the Chairman of JAEIC, denying as of 30 December 1949 permission to implement the scheme.

*U-2 Against the Atom*

I was convinced that satisfactory photographic coverage of a U-235 separation plant, or of a plutonium production reactor, would be worth the proverbial thousand words, giving information "on electric power consumption, cooling water consumption, plant arrangement and size, new construction, and the physical details which, when analyzed, should enable us to make a much better estimate of Soviet critical material production."<sup>1</sup> I would have been shocked at the

<sup>1</sup> Briefing of Joint Chiefs of Staff by General Charles P. Cabell, DDCI, 28 August 1957.

MORI/HRP  
from pg.  
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suggestion that it might take months of steady work by competent photointerpreters aided by the best procurable consultants to work out the real intelligence meaning of a picture. Yet this was to be the case. The Russians, not being able to copy our atomic facilities, had had to engineer and design their own from scratch. We were thus to face a real cryptographic problem in trying to interpret the totally foreign engineering shown in the U-2 photography.

The atomic sites near Tomsk, those to the east near Krasnoyarsk, and the nuclear weapon proving ground known through seismic measurements to be near Semipalatinsk had been selected on 27 May 1957 by interagency agreement in the Ad Hoc Requirements Committee as three prime objectives for flights over central Asia and Siberia. Other major objectives than the atomic ones included what is now the Tyura Tam missile test range east of the Aral Sea, the aircraft industry in Omsk and Novosibirsk, and beyond the latter all of Stalin's second industrial bastion, the Kuznetsk Basin. It was the conjunction of all these targets with immediate bearing on weapon systems that had persuaded first the ARC, and then eventually U-2 Project Director Richard M. Bissel and DCI Allen Dulles to cash in the blue chips necessary to procure take-off bases along the southern periphery of the USSR and China.

As an analyst in CIA's Office of Scientific Intelligence, I was therefore directed in July 1957 to work up target briefs, by priority, for all atomic targets in the enormous geographical area of central Asia and Siberia. The U-2 program was still being kept under extraordinary security measures, and I did my targeting in the Blue Room, a small centrally located secure area away from my normal desk. Psychologically, we were prepared to be not only secure but devious: the Blue Room was in fact painted light green.

The targets thus identified were to be used by the operational side of the program in planning the actual flights or missions. The procedure was to plan each specific mission around one or two of the ARC's highest-priority targets but to cover as many lower-priority targets as possible along the way. As targeteer, I became involved in selecting the flight path because the best photography, that from the vertical angle, covered a band only five miles wide: it was desirable to orient this band lengthwise over an oblong target and adjust it in

other respects so as to counteract possible errors in target location or in navigation.

### *Seven Tents*

Semipalatinsk had been so named because seven trading companies had maintained residencies there when it was an important crossroads on the caravan trails to China and the fabled cities of Samarkand and Bukhara to the south. Twenty-odd nuclear tests had occurred near there in the last eight years, but the exact location of any test was not known closer than within thirty miles. I had no idea how big the test area was. Our own atomic test site at Frenchman's Flats in Nevada, measured against a five-mile-wide camera swath, was of astronomical size.

I finally asked Doctor Donald Rock of the Air Force Technical Applications Center (then AFOAT-1)<sup>2</sup> to average for me the seismic epicenters of the five largest nuclear detonations at Semipalatinsk. The geographic coordinates for this "centroid" turned out to designate a spot in the featureless desert some seventy miles due west of Semipalatinsk, about one-third of the way to Karaganda. It was south of the old caravan trail, and the only names on the map in the vicinity were those of seasonally dry salt lakes. This was an arbitrary pin-point for a highest-priority target whose location was so poorly known that it ought to be represented as a hand-sized blur on a standard aeronautical chart—a hardly realistic target in operational terms.

This difficulty in locating the Semipalatinsk nuclear proving ground pointed up the essence of our dilemma: we needed and wanted U-2 flights in central Asia and Siberia because we knew so little about what was going on there; yet unless we had precise knowledge of an activity and where it was located, we would stand little chance of photographing it. General Philip G. Strong, director of scientific collection in CIA, who had had much World War II reconnaissance experience, was on the side of precision in targeting and of detailed justification for the collection priority given each target. He questioned the accuracy of maps and suggested that targets be located relative to major features that could be identified visually rather than by coordinate systems of longitude and latitude. That we could not do in this case.

<sup>2</sup> For the early history of AFOAT-1 see Northrup and Rock's "The Detection of Joe 1" in *Studies X 4*, p. 23 ff.

### *Nearer Targets*

Thus it was with renewed care that I assembled data on other atomic targets in this area. I reviewed the atomic sites which had been listed in 1955 for the Genetrix program, in which free balloons bearing cameras were allowed to drift across the USSR on predetermined paths. Lower-priority targets included the uranium concentration plants of Combine 6 in the Fergana Valley, notably one just south of Leninabad at Ispisar, one north of Leninabad near Taboshar, and one a good many miles to the east near Andizhan. These had already been located as well as possible: a 1947 Jewish refugee who had driven a bread truck to each of them had been interrogated exhaustively and then resettled with appreciation in Brazil. Incidentally, there had been a curious problem with the maps he drew: east of where the Syr Darya river turns north on its way to the Aral Sea he had swapped north and south, but west of there his maps were right side up. In several instances his reporting had been confirmed by returned prisoners of war.

Other uranium concentration plants which belonged to Combine 8 lay east of these toward the Pamir Knot and south of Alma Ata, but their locations were at best poorly known and targeting was considered doubtful.

### *Krasnoyarsk*

Ever since we had learned that Novosibirsk, Tomsk, and Krasnoyarsk, deep in Siberia north and east from Semipalatinsk, were the location of the second generation of Russian atomic sites fathered by those in the Urals<sup>3</sup> we had maintained a special watch on these cities and the countryside nearby. Krasnoyarsk had been made off limits to foreigners by 1948, and information about the atomic site on the east bank of the Yenisey river some 35 miles downstream (north) from the city had been especially hard to come by. The defector Icarus reported in early 1951 that many trainloads of mining equipment had been sent there the year before from Wismut, A.G., the vast Russian uranium mining enterprise in East Germany, so he believed the purpose of the new enterprise at Krasnoyarsk to be the mining of uranium. By 1952 all administrative centers in the peninsula of land south of the confluence of the Kan and Yenisey rivers and north of the Trans-Siberian

<sup>3</sup> For the Ural plants see the author's "The Decryption of a Picture" in *Studies* XI 3, p. 41 ff.

Railroad had disappeared from the annual editions of "Deleniye," the published MVD listing of administrative centers in the USSR.

Then a German prisoner of war had been returned to West Germany, who, despite all the Russian rules and regulations, had actually spent several years as a construction worker at the Krasnoyarsk atomic site. He reported hearsay information about many kilometers of tunnels all lined with concrete. His name for the associated town was Komsomolsk na Yenisey. In early 1957 a Genetrix balloon was recovered from the Aleutian Islands with a number of aerial photographs of Dodonovo, as the Krasnoyarsk site came to be known after an old village there. These photographs showed an enormous construction effort—a new city of apartment houses, laboratories, warehouses, and machine shops—and a vast mining enterprise. There was every reason to believe that higher-resolution photography would clarify the functions of the large, complex, and possibly underground installation.

#### *New Siberia*

The uranium metal plant northeast of Novosibirsk had also first been identified by the defector Icarus. In 1956 Doctor Nikolaus Riehl and other German scientists formerly engaged at Elektrostal, near Moscow, in research on uranium metal manufacture<sup>4</sup> confirmed and updated Icarus' testimony. Attachés had photographed it from the Trans-Siberian Railroad in 1952 and 1954 because of its evident size and importance, and George Monk, now State Department representative on JAEIC, had identified it by comparing these photographs with material filed in the old Industrial Register under the name "Stalin Auto Works," apparently the local cover name for the enterprise. It could be located within half a mile of permanent map features.

A uranium metal manufacturing facility was basically of second priority as a U-2 mission objective, but across the Trans-Siberian Railroad was the Novosibirsk Airframe Plant, an additional reason for the U-2 to visit this northeast suburb of Novosibirsk.

#### *Post Box, Tomsk*

The atomic site near Tomsk was a matter of more concern, though the amount of information on its function and location was woefully

<sup>4</sup> See the author's "On the Soviet Nuclear Scent" in *Studies* XI 4, p. 13 ff.

sparse. Furthermore, it was at extreme range so that the aircraft could not, in fact, spend time hunting for it even though we felt we could justify such an effort as against a prime target. Our collection effort against this site had been especially impeded by the 15 January 1952 Soviet order closing Tomsk, Novosibirsk, Omsk, and other specific areas to foreigners because Tomsk was not accessible, like Novosibirsk, to attaché photography from the Trans-Siberian Railway.

There had been a number of remarks in reporting about something atomic or about a special post box in connection with Tomsk. These had led to the location and interrogation of a few prisoners of war who had at one time or other been in the area before returning to West Germany in 1954 and of a few ethnic Germans who had been returned in 1956. By now in 1957, however, the resulting evidence of a kind one could put one's finger on was all contained in just three reports and the analysis of a fur hat.

The latest of these reports was from an ethnic German who claimed to have been employed in Tomsk in 1955 as a blacksmith. He told his Army interrogator that local inhabitants had facetiously suggested "Atomsk" would be a better name for the town. He knew of no clearly atomic installation in particular but had heard of an underground secret plant and settlement called "Kolonne [Labor Brigade] 5" located northeast of the Tomsk II railroad station.

Another returned ethnic German told his British interrogator he had heard of an industrial enterprise engaged "in manufacturing fillings for atomic weapons locally known as the Post Box." In Tomsk II he had seen a large building with barred windows on all floors and a large sign saying "Information Office, Personnel Department, Post Box." He knew of two relatively small sites belonging to the enterprise, one east and the other northeast of Tomsk.

On reinterrogation this man mentioned traveling north from Tomsk II on a bus belonging to the Post Box when going to visit a friend of his in a lunatic asylum located on the southern fringe of a prohibited area. He reported seeing railway trains running into the prohibited area carrying coal, wood, and building materials. He had also heard that persons employed there were well paid and received preferential treatment in the distribution of foodstuffs, etc. He mentioned seeing at a distance of six to eight kilometers north of Tomsk II three large chimneys which emitted black smoke.

The interrogator noted that the source had a very poor memory, seemed to be suffering from some kind of mental disorder, and was

preoccupied with his plans to emigrate to Canada. Clearly, neither of these two reports tended to inspire confidence in the existence of a major atomic installation in the Tomsk area, let alone its precise location.

The story of a returned German prisoner of war who had been employed in 1949 as a tailor in a small factory northwest of Beloborodovo, some twelve kilometers north of Tomsk city, seemed much more persuasive. Interrogated by the Air Force, he reported that within eight days in April or May 1949 some 12,000 penal workers passed through the bathing and delousing facilities of the Beloborodovo penal camp and were put to work in a secure area fenced off between his factory and the village of Iglakovo, several kilometers north and west down the Tom river. The tailor, clearly proud of his professional ability and reputation, said that many military officers of the construction staff in charge of this project came to his tailor shop to get their uniforms fitted properly.

This military construction outfit had arrived, complete with families, from Tallin where they had just completed another large job. In charge was a Soviet general who had arrived in April with his staff. Interestingly, from the point of view of MVD responsibility for nuclear facilities, the guard force was of a different subordination and neither lived nor mingled with the construction staff officers. The tailor's Russian supervisor had told him that the fenced-off area was to be an atomic energy plant.

In an application of environmental sampling, CIA scientific officer John R. Craig had obtained in the summer of 1956 a fur hat from one of the ethnic Germans who had recently lived in Tomsk. Its analysis, done by AFTAC with the aid of AEC laboratories, was at last conclusive: its exterior surface contained 50 parts per billion of uranium that was slightly, but definitely, enriched in the U-235 isotope. Since no U-236 was detectable, the uranium was not from fall-out, nor had it been through a reactor. Additional analyses for plutonium, radio-iodine, and separated lithium isotopes were all negative.

The U-235 enrichment was evidence of U-235 separation in the Tomsk area. The fabrication of nuclear warhead components was an alternative possibility, but the size of this atomic operation seemed much too great for that. The evidence was against its being a reactor with associated chemical plant or a lithium isotope separator. I made my target a U-235 separation plant and centered it on the spot where

the German tailor had seen 12,000 prisoners go to work. The die was cast.

### *Luck at the Proving Ground*

In late August 1957 the missions were flown—rapidly to minimize possible counteraction, and many of them to cover as much useful area as possible. Here we cannot review all the results but will cite some of the outstanding ones.

One flight was planned around Stalinsk in the Kuznetsk Basin and Alma Ata in the Kirgiz SSR as prime targets. In between, the Semipalatinsk proving ground was a prime target, but confidence in its location was so low that the cities of Semipalatinsk and Karaganda were made way-stations and the flight path between them adjusted to hit the latitude and longitude of my seismic centroid. Mention of the proving ground was dropped from the flight plan for security reasons (“Why give away knowledge if you don’t have to?”). I doubt that anyone thought seriously about the danger of flying into a nuclear test.

The coordinates turned out to be good. The U-2 passed directly over the proving ground on 22 August 1957, and the pilot got a *thrill*. He had many times flown over our Frenchman’s Flats, and he recognized what he saw. Moreover, he saw that the shot-zone had been cleared and they were ready to fire.

It was actually four hours later that Joe 36 was detonated; it was airdropped and went half a megaton. The pilot had photographed it and its carrier aircraft on the ground when he had flown over the Semipalatinsk airfield and associated nuclear weapon assembly facility. The nuclear weapon “cab” he apprehensively spotted on the shot-tower at the proving ground was for a low-yield device that was not to be detonated until 13 September.

### *Other Findings*

The same mission photographed a well-planned, modern community of 20,000 people not previously known of on the north shore of Lake Balkhash. This turned out to be the headquarters of the Sary Shagan antimissile test range, a real find. It also covered the uranium mill at Kadzhi-Say near the west end (not the east end as I had thought) of Lake Issyk Kul<sup>5</sup> south of Alma Ata, proving that the Russians had

<sup>5</sup>“Warm Water,” so named because its salinity kept it from freezing.

large modern uranium mills. The uranium mines of Bystrovka were covered but not found in the film for another year.

The flight that was to cover the Dodonovo mining site near Krasnoyarsk failed with respect to this target because of heavy cloud cover, an all too familiar occurrence in the reconnaissance business.

The uranium metal plant at Novosibirsk turned out to be quite a large installation, including what is probably a large lithium isotope separation plant then under construction between its raw uranium ore facility and its thermal power plant.

#### *Birch Woods*

The outstanding target, the Tomsk atomic site, was covered on 21 August in clear vertical photography. The tailor's location for it proved correct. Allen Dulles is said to have exclaimed jubilantly, when he heard the news, "You mean you really did know that something atomic was going on 'way out there in the wilds of Siberia!"

As summarized in the mission report, the installation

covers an irregular shaped area of about 40 square miles on the right bank of the Tom River. No single atomic energy complex in the western world includes the range of processes taking place here. The villages of Iglakovo and Beloborodovo are encompassed in the housing and administration area along the river. On the west edge of the area, a large thermal power plant with an estimated capacity of 400 megawatts is undergoing further expansion. Further power is provided by Gres II in Tomsk and by tie-ins to the Kuzbas Grid. East of this plant is located the feed and processing section and gaseous diffusion plants. One gaseous diffusion building is uncompleted. On the east edge is located the reactor area. One of the two reactors appears to be in the final stage of construction. A maintenance and construction area is just north of these areas. On the northeast edge, a plutonium chemical separation area is uncompleted. A mud lake dump area is on the north edge of the complex outside of the fence which encompasses the whole installation. It is rail served by a spur line from Tomsk.

Actually, one reactor was already in operation, and two more were under construction. These latter would eventually turn out by-product electric power. The gaseous diffusion U-235 separation facility, with its four operating buildings and a fifth under construction, was about one-sixth the size of that at Oak Ridge, which drew about 2000 megawatts of electric power.

The photograph could not tell us, of course, for the purpose of production estimates just how long each installation had been operating or would begin, nor what the Russians called them. Fortunately, we





The Tomsk Site

were able in the spring of 1958 to talk to a defector who had been a soldier in a military construction brigade working there from July 1955 to February 1956. He solved many of our time schedule problems and supplied names and identities. The general address of the whole installation was Post Box 5, Tomsk. The new city was named Berezki, Birch Woods, and the birch forest was still preserved around the city then, for the Russians love such forests. Beloborodovo had apparently been expanded to become the construction workers' town of Chekist (Tomsk 19), presumably in honor of their connection with the MVD, and Iglakovo had become Kuzminka (Tomsk 17). The man in charge was Major General Tzarevskiy, who had built the steel town of Nizhniy Tagil in the Urals in the 1930's.

This was the important atomic installation that now took shape out of mere indications and the vague rumors given substance by a fur hat and location by a tailor.

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*Patterns of basic research as indicators  
of possible new enemy weapon systems.*

## IDENTIFYING THE FUTURE THREAT

Herbert C. Rothenberg

Although threats to the position or security of the United States include all conditions disruptive of world peace, such as political instability, hunger, and disease, we shall be concerned here only with threats of a predominantly military nature which derive from advances in the physical sciences and engineering, and we shall analyze the problem of projecting such threats from the research done to achieve the advances. Experience of the recent past with complex modern weapon systems has shown that in general a period of 10 to 15 years is required to bring a new system from the research stage to utilization. This is then the outer limit in time of such projection. At the near end, minor improvements which can be effected in periods of 5 years or less can generally be predicted by fairly straightforward extrapolation from current capabilities. The critical period in our anticipation of new enemy weapon systems therefore lies from 5 to 15 years ahead.

In order to be useful our projections must meet other criteria besides that of the future time they span. The first and foremost requirement is credibility: our data base and rationale must be sound and open to independent verification. Another important requirement is for sufficient detail and specificity to meet the operational needs of the consumer. At the highest levels of policy, details on how the projected weapon system may operate are not so important as its general characteristics and capabilities and a fairly precise time scale. At a somewhat lower level of management, more detail is required in order to make decisions concerning the allocation of intelligence resources to confirm the threat and development resources to counter it. At the research and development level, finally, even greater detail is required to enable our scientists and engineers to devise specific countermeasures.

Perhaps the most difficult constraint is the need to work with the kinds of information that are obtainable. The availability of information during the development of a weapon system follows a

SECRET

13

MORI/HRP  
from pg.  
13-21

"bathtub" curve with time: during the early phases publication of basic research in the open literature is quite common; then as the applicability of this work to the weapon system becomes more immediate, the publication rate drops until information is almost nonexistent; finally, when the test and evaluation stage is reached, information can again be obtained through observation and technical collection. By this latter stage, of course, the time available for taking effective counteraction is short. It is in the early research phase, when open publication is still permitted and when there are still 10 to 15 years left in which to take counteraction, that an accurate prediction of the resulting system is both vitally important and extremely difficult.

#### *Inductive and Deductive Methods*

An obvious approach to such prediction is by induction or synthesis: one examines current R&D activities, identifies advances they are likely to lead to in basic science and technology, and then attempts to build up from these advances successively higher levels of development leading to new weapons. In this way one goes from new phenomena or properties of materials to new devices, components, subsystems, and finally a complete new weapon system. This is a logical and necessary method for the projection of future threats.

By itself, however, it is an extremely difficult one. While it may be possible to guess at advances in the basic sciences that will be made within a reasonable time ahead—say the next 5 years—the way these advances could be utilized in the construction of new weapon systems is a matter of much greater difficulty. Each basic advance can proliferate into many different applications, and to identify the most likely ones demands both knowledge of a vast number of applied scientific and technological fields and a great imagination and inventiveness. This is not to say that the approach should be discarded; the weapon systems that may emerge from new scientific advances are precisely the ones most likely to surprise us. It requires, however, that we learn how to handle problems having such uncertainty in data and so many different possible directions of development. Both the mathematical techniques and the intelligence sources needed will have to have considerable more study than has thus far been applied to them.

The second possible method of attack is the deductive. It proceeds from the postulation of possible or desirable objectives, in the eyes

of the enemy, to the weapon systems, subsystems, components, devices, and basic R&D required to reach those objectives. This approach has the advantage that once a potential system has been identified the determination of its pyramid of required supporting activities is a more easily soluble problem than the reverse. Problems of this nature have been attacked with some success, notably for purposes of industrial planning. The procedure requires that at each descending level of complexity decisions be made as to the appropriateness of each of the possible means of building up to that level. When there are many different levels of complexity, as in a modern weapon system, the number of decisions and appropriateness factors becomes exceedingly large. They are manageable, however, by modern mathematical techniques, and in principle this procedure can be used to identify and label all the scientific and technological activities that would be required to carry out the whole development program.

Since the number of potential threats that could be postulated is very large, it is desirable to assign priorities among them in order to concentrate analysis on the most likely. This can be done on the basis of probable mission requirements as seen by the government of the country in question, say the USSR. Most broadly, one must determine first what the Soviet leaders believe the world looks like now and will look like 10 to 20 years in the future, then project missions which they might consider required to further their political, ideological, social, economic, and military objectives, then derive systems for the accomplishment of these missions, including weapon systems for military missions. This process provides a set of reasonable criteria for an initial assignment of priorities. It does not constitute a means of making final judgments as to the probability that a threat will actually be developed.

An alternative means of identifying potential threats for deductive purposes is to determine what the military posture and capabilities of the United States will be in the period under consideration. One may then propose that any Soviet system, defensive or offensive, capable of degrading our planned military capabilities would constitute a threat. The assignment of priorities among the systems so identified can now proceed on the basis of a priori probability or, as above, according to how they appear to fit in with Soviet philosophy or needs.

*Problems of Induction*

Let us return for a more detailed discussion and comparison of the two proposed methods. In the inductive approach the starting point was a large number of scientific and technological advances postulated to have arisen out of essentially undirected research. At least it is assumed that the reasons for engaging in this research are irrelevant to any weapon system that might be based on the advances.

Addressing oneself to these advances with ingenuity, inventiveness, and a broad familiarity with the state of the art, one attempts to apply them through various levels of increasing complexity to create a new weapon system. Four such levels can be distinguished: creation of new devices or materials capable of performing either new functions or old ones significantly better; the combination of these devices or materials into components which perform more complex functions; the assembling of such components into subsystems, each of which contributes some major independent activity to the overall performance of the projected weapon system; finally this system itself, performing the mission assigned to it.

Since we are presupposing that the initial scientific and technological advances were made without the motivation of specific projected applications, there is no certain way of deciding in which of the many possible ways they might actually be applied to create new devices. Clearly, even inventing the various possible devices on the basis of a scientific advance which has not yet occurred is a very difficult step. Further, each of these possible devices might be used in many different combinations with other new or old devices to yield components with advanced or considerably different capabilities than previously available. And these components, again, could be assembled in various ways into subsystems with different capabilities. The characteristics of the ultimate system can then vary enormously, depending on the choices made all along this complex path.

There are various ways to try to thread this maze. One could give each alternative an equal probability and use statistical procedures such as the "random walk" or "Monte Carlo" methods which have proved useful in similar problems. Or one could use something like the PERT technique which has been successfully applied to systems development and management.<sup>1</sup> These approaches are being

<sup>1</sup>The Program Evaluation and Review Technique, developed for the Polaris missile program, performs a probabilistic analysis on uncertain input data and time relationships and calculates the probabilities for time or cost factors in a complete project.

examined, but it appears that a major simplification of the problem would result from an initial exercise of judgment in assigning probability weightings to the various alternatives at each level in the hierarchy.

Despite these major difficulties with the inductive approach, it can provide one with a view of totally new weapon systems that might arise from scientific and technological advances made during the next several years—threats of which the present-day state of science and technology is not an adequate base for prediction. The product of the inductive approach would be a set of predictions of developmental activities based on the probable uses of the postulated scientific advances. A number of different templates of such developmental activities would be produced, and actual activities subsequently observed would be compared with these templates in order to determine which of the several possible paths through the systems development maze the USSR had chosen.

We have passed rather casually over the matter of identifying the scientific and technological advances likely to occur in the next few years. Certainly precise identification of the details of an advance would presuppose sufficient knowledge to effect the advance immediately, something of a self-contradiction. It appears, however, that the general nature of the advances in any field of science can probably be foreseen through the use of such criteria as the current activity in the field, the need for a solution to particular problems, the absence of any fundamental laws prohibiting an advance, and the like. Consultation with scientists and engineers active in the various fields probably constitutes the best method of identifying the likely advances. Several groups concerned with technological forecasting have engaged in such consultations and manipulated the results in various ways trying to achieve some degree of unanimity among the expert consultants.

While this approach is the most promising one for the prediction of scientific/technological advances, there is one major pitfall that must be taken into account in using as one of the criteria for an area of probable advance the level of activity in that area. Since scientific research is largely supported by government funds, decisions by government administrators determine to a large extent the level of research activity in any area; and the decisions of these administrators are frequently weighted heavily toward areas considered important to particular objectives rather than having intrinsic importance in

the scientific field. The inductive approach is thus contaminated by a priori decisions which must be analyzed deductively.

#### *Problems of Deduction*

In contrast to the inductive approach which works its way up from the simplest elements to the full complex system, the deductive approach requires the postulation of the full-blown weapon system and then attempts to work down to the individual advances in science or technology needed to achieve it. Although it is in principle possible to start with a list of all conceivable weapon systems and analyze each of these into the required subassemblies and elementary advances, this would require an enormous expenditure of manpower and time. We pointed out above how the list can be narrowed by giving first consideration to systems designed to perform various alternative missions contributing to the achievement of Soviet goals. Each of these systems can then be analyzed into progressively simpler component levels until the elementary R&D requirements are identified.

At each level in this procedural sequence the various alternatives must be examined and ranked in terms of desirability, feasibility, cost, etc. In other words, a series of criteria for selection among the alternatives must be established. One thus arrives at a matrix of alternatives versus criteria for each of the levels. The over-all procedure, commonly and understandably referred to as a "decision tree," is fairly widely used for developmental planning. In adapting it for use in the intelligence field, however, there are a number of problems to be solved.

The first problem is that the intelligence user is not planning a development program for himself but attempting to determine what the Soviets have done. Hence it becomes necessary for him to think at all times like a Soviet planner. This requires that the historical and cultural backgrounds of the Soviet planners be incorporated into the decision matrix; they will show up particularly in the criteria used for evaluation.

A second problem is to determine the extent to which such a logical and carefully worked out decision process is applicable to Soviet planning. The primary reason for using the procedure in planning is that when the number of factors entering into a decision becomes larger than 25 to 50 it is almost impossible for one individual to make a knowledgeable decision. Since a major weapon system



contains some millions of such factors, knowledgeable decisions about it are impossible unless assistance of some sort is provided. The decision tree provides this assistance by breaking down the complex problem into a number of decisions each small enough to be made knowledgeably, keeping account of all such decisions, factoring in their relative weight, and summing them all up. It is clear, however, that many major decisions are not made in this country in this way, and we have no real evidence that the Soviets make their major decisions in such a manner. If they do not, then we must be prepared for the decisions to show characteristics of illogic by the standards of the decision tree process. This is a problem not fully encompassed by the phrase, "Thinking like a Soviet."

#### *Pattern Recognition*

Assuming for the moment that these problems can be solved, our analysis will have provided us with a list of R&D areas that need to be emphasized in order to achieve a given weapon system. It will also have told us the intensity of effort required in each area relative to other areas, so that we have a sort of spectrum or template of needed R&D that will vary with time. This is the indicator which the analyst will then seek to identify in the all-source information available on current Soviet activities. The template might consist of a single unique area of R&D which would be a dead giveaway; alternatively it might be the over-all shape of the spectrum and its time-dependence.

As long as only one weapon system is being considered, it might not be especially difficult to identify the corresponding R&D pattern in the available information. If two or more systems are concurrently under development, each will have generated requirements for R&D and the spectra will then be superimposed. If these spectra were totally independent of one another their identification, though considerably more difficult than that of a single system, would still be amenable to fairly straightforward procedures, especially since the time element provides a useful filter. A complication is introduced, however, by the "commonality" factor: if systems  $x$  and  $y$  both require R&D in a certain area, it is reasonable to assume that the total effort applied will be less than the sum of the two requirements, allowing for a measure of efficiency in the combination. It therefore becomes necessary to estimate the extent to which the R&D require-

ments for any system are modified by the codevelopment of other systems with similar needs.

Having predicted through this process the pattern of R&D needed for the several high-priority weapon systems which it is estimated the Soviets might logically wish to develop, the analyst will look at the information on their current activities and compare it with his predictions. This process, analogous to what is usually called "pattern recognition," requires that the available information first be corrected for various disturbances. First there is the background "noise" of R&D that would be in process regardless of the needs of any particular system, the work being done for pure scientific or technological purposes. Second, there may be deliberate distortion, as by suppression through classification, although it is hoped that the early research phases will not suffer significantly from suppression.

The comparison of predicted pattern with actuality then proceeds and yields an estimate with the following kind of wording:

There is a  $q$  percent probability that the Soviets have made the decision to develop weapon system  $x$  which will have such and such characteristics and capability and could be completed by the year blank.

Note that this estimate addresses only the decision to develop and does not attempt to wrestle with the decision to deploy or utilize.

Just as the inductive approach could not be totally stripped of deductive elements, so is the converse true. In working our way down a decision tree from the highest levels of national goals and policy through missions, weapon systems, etc., to the required R&D, we have thus far ignored any effect that research carried out for one system may have on another, unrelated system. Yet it is clear that scientific advances, no matter how generated or for what purpose, may significantly affect any system. In other words, any scientific advance acquires a life and influence of its own and can make possible new and different systems and capabilities which can be identified only by the application of inductive logic. At all times, then, these two methodologies must be carefully examined for their interrelationships and the effect each can have on the other.

A question frequently asked with respect to prediction is "How about the breakthrough?" The question points to a vulnerability in all prediction but involves an inherent contradiction. If a breakthrough is a major scientific achievement leading to totally new concepts which could not have been anticipated, it is unpredictable by definition and so cannot be factored into our projections in advance.

All one can hope to do is maintain a high state of awareness of activities in all scientific fields so that immediately upon the occurrence of such a breakthrough, or rather its recognition, steps can be taken to evaluate and factor in its influence upon our entire threat analysis, using the approaches which have been described above.

*Status in Practice*

Over the past decade and more, various attempts have been made to provide credible estimates of long-range threats, but without any consistent success. Within the past year a formal long-term attack on the problem has been mounted in CIA's scientific intelligence organization. Believing that a major impediment in the past has been the failure to develop a sound methodology before trying to come up with a quick answer, we have concentrated our principal efforts thus far on method. The foregoing discussion reviewing the kinds of approach that have been considered describes in particular, with some generality, the deductive technique, the one that has been selected for initial application. In spite of its acknowledged difficulties and limitations, this method is believed to offer the greatest promise of any thus far found. It is hoped that the difficulties can be overcome although it is not yet certain just how.

During the methodological study support has been sought and obtained from within the intelligence community and from external sources. As time goes on and the methodology is refined to a point where there is some confidence in its validity, the next step will be to begin to apply it and produce specific projections. For this it will be necessary to draw on the combined scientific and engineering knowledge of the government and the industrial and academic worlds. Large numbers of people will have to be consulted and vast amounts of information and open literature screened and evaluated. Suitable formats, computer programs, and data-handling capabilities will have to be developed. Steps in these directions are already being taken.

It is hoped that such a program may one day provide U.S. planners with credible predictions on the basis of which they can make maximum use of intelligence community findings to reach the decisions necessary for the security of the nation.

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*Intelligence needs impel giant advances  
in micropowered microelectronic systems.*

## MICROTECHNOLOGY

Donald Reiser  
and  
Harry Wood

It can be said that in general ideal intelligence collection systems perform best when placed as close to the target as possible. This certainly was the principle adopted by the ancients in their liberal use of harlots as informers. But in the absence of a desire on the part of the target to have it in close proximity, the collection system needs a completely different set of qualifications. To list but a few of the more obvious, it must operate in a hostile environment, be as undetectable as possible, have an extremely long life, and provide reliable, high-quality information. These general requirements apply to audio, video, optical, and electronic intelligence gathering systems. A common need among all such systems is for minimum size and weight. And the satisfaction of this need often entails a requirement for micropower as well.

Micropower, as the term implies, is the operation of equipment with greatly reduced power drain.<sup>1</sup> Minimizing power needs vastly simplifies the size and weight problem by eliminating bulky power supply components. It is also possible to turn the coin over and say that for a given power supply a greatly enhanced capability and reliability can be obtained from micropower operation; more functions can be performed and redundancy provided by the same amount of energy. Thus micropower operation will improve any system, whether airborne, animal- or man-borne, or permanently installed, whether the power source is a battery, a generator, or a solar cell.

### *Intelligence Initiative*

In mid-1965 the authors made a survey of eighteen top U.S. microelectronic firms to determine the current status of micropower technology. The results were of sufficient interest to warrant a staff paper on micropower and microelectronics in handbook form. The cover

<sup>1</sup> The prefix micro is appropriate both in its general sense of "very small" and in its precise scientific usage as one of the series micro=a millionth, nano=a thousandth of a millionth, and pico=a millionth of a millionth. Some have suggested, indeed, that the nanopower stage is not far in the future.

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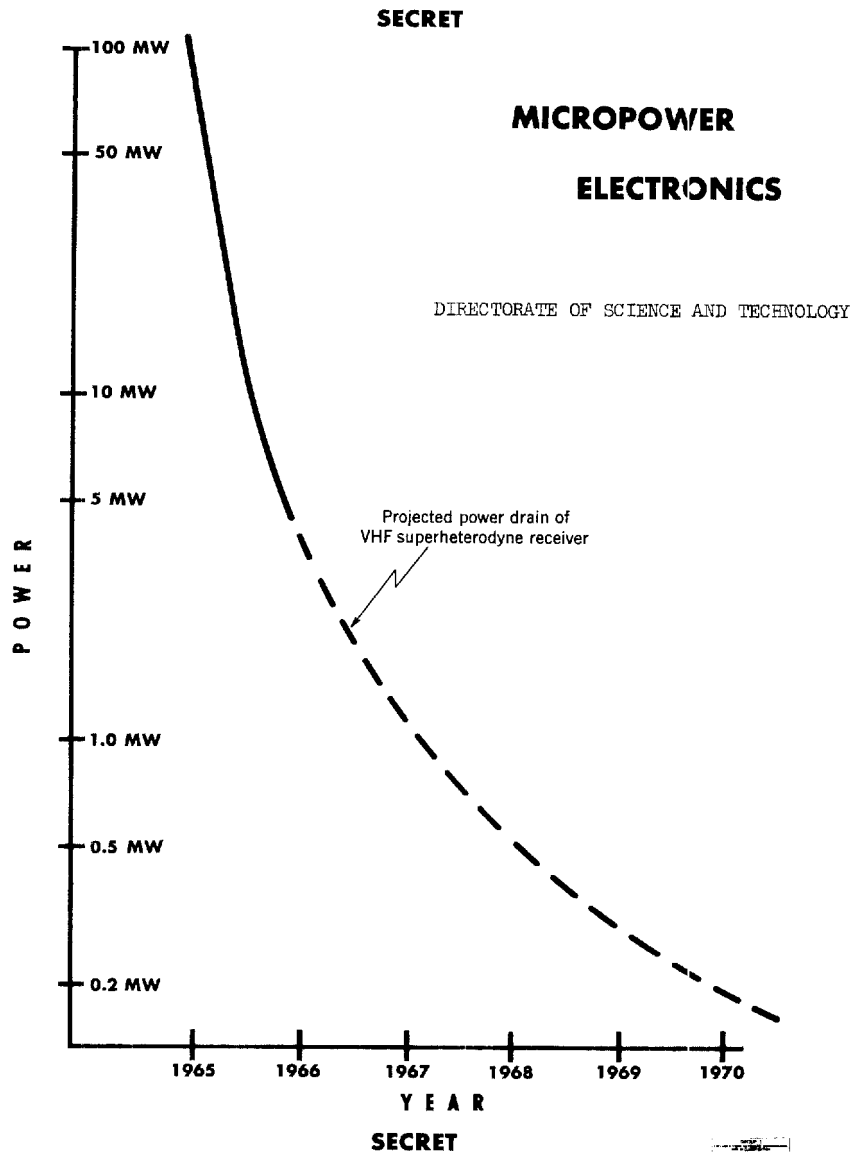


Figure 1.

of that handbook is reproduced in Figure 1. It shows the power drain in milliwatts of a VHF superheterodyne receiver projected from 1965 to a date in 1970. The rapidly falling curve was based on estimates of the improvement that could be made in industrial technology over this span of time if the effort received sufficient emphasis. Up to 1968 it indicated a reduction in the power required for this representative complex receiver from as much as 50 mw to as little as 0.5 mw, two orders of magnitude. It is extremely gratifying to be able to state that this is in fact the nature of the progress that has been made.

On the basis of the 1965 findings CIA approached the Advanced Research Projects Agency with a proposal to sponsor accelerated micro-power development, and ARPA agreed to divert substantial funding to the program. An arrangement was established with three selected contractors under which the government would contribute fifty percent of the costs. Calculations at that time showed that power efficiency could theoretically be improved by seven or eight orders of magnitude, while only three to five were necessary for the results desired in many advanced intelligence devices. Improvement by five orders of magnitude would permit important systems to operate on ambient power, that is on the light, heat, radiation at radio frequencies, etc. available in the environment.

One of the keys to microtechnology is the practice of building electronic devices and circuits with thin deposits or diffusions of conducting or semiconducting material on the surface of wafers, but progress in minimizing the size of these requires a corresponding maximizing of precision in the fabrication. We shall not treat here the details of improvements in the industrial processes—photo-etching, controlled deposition, surface cleanliness control, etc.—that are being achieved. Broadly, the requirement is for advances in the following fields of solid-state technology:

- Fabrication of very small active devices (notably transistors) through improved topography, masking, etc.
- Low-parasitic isolation and interconnection (the elimination of unwanted by-product frequencies in the circuits)
- Surface characteristics
- Structure control
- Ultimately, development of new materials.

#### *Micro Transistors*

The field of microelectronics was born with the advent of the transistor in the early 1950's. Operating voltages dropped, the size of devices became significantly smaller, and there was motivation to reduce the over-all size of most passive electronic components also.

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Microtechnology

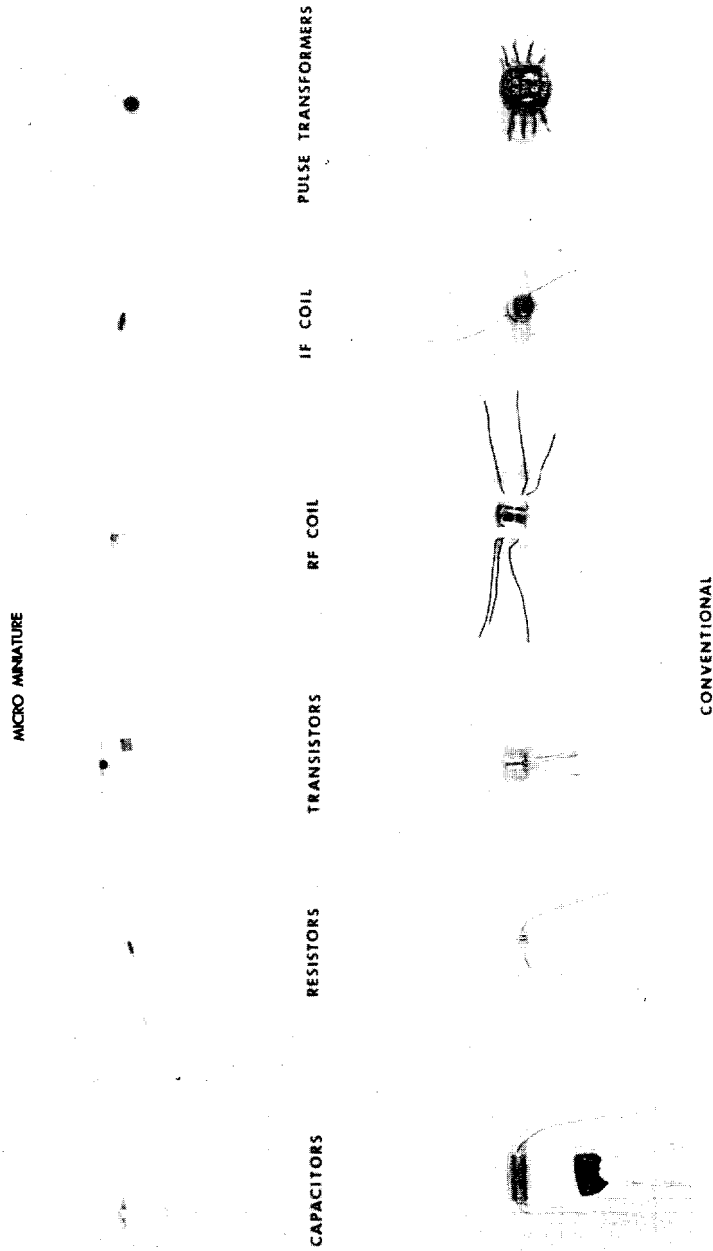


Figure 2.

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Starting with very modest beginnings by researchers at Bell Labs, transistor technology progressed from the crude audio-frequency devices of that era to the high-frequency transistors of the early 60's.

Along with this growth in transistor technology, an industrial complex based on a concept of all-solid-state electronics came into being. All manner of electronic components were redesigned, the new differing radically from the old primarily in size. See Figure 2. Number 24 wire (20 thousandths of an inch in diameter) gave way to one mil metalization (a metal layer one thousandth of an inch thick) for interconnection between devices. One no longer manipulated circuits by hand but packaged them complete in containers such as the "flat pack" and the "TO-18 can." Figure 3 illustrates such packaging.

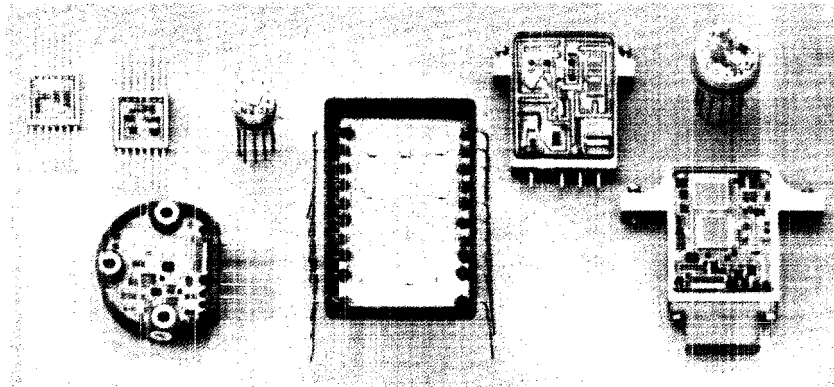


Figure 3. Various packages each holding a complete electronic circuit. Flat packs are at upper left, the TO-18 at upper right.

This new technology had immediate applications in intelligence; size reduction obviously satisfied a pressing need to make surveillance devices much more unobtrusive. As solid-state technology provided circuit functions which could be packaged in increasingly high-density microminiature form, the projection of a million components per cubic inch was not out of the question from a size point of view. But if each of these components used a milliwatt of power there would be dissipated a kilowatt of heat in that same cubic inch—a situation undesirable to say the least. Heat dissipation per unit volume was what limited the useful application of microminiaturization. Thus the development of microelectronics led directly to that of micro-



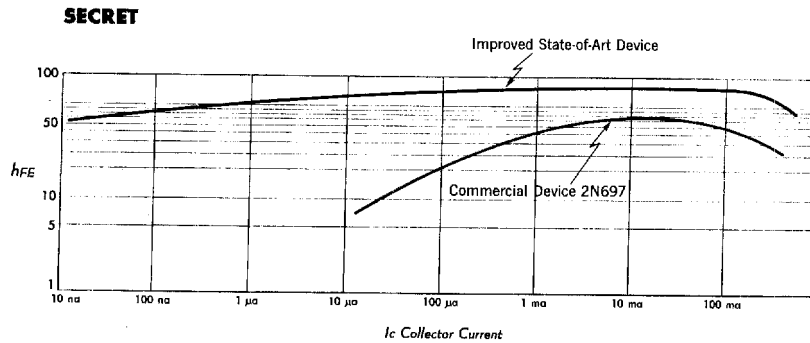


Figure 4. Early measurement shows micropower transistor performing as well at less than 100 nanoamperes as its commercial counterpart at about 12 milliamps.

power—or, to group the two together under a single designation, to microtechnology.

The development of micropower systems was approached by working first on their basic components, above all the transistors. Figure 4, which appeared in the original micropower handbook, foreshadowed the drop in power consumption that might be achieved in advanced transistors. These early results were obtained only at very low fre-

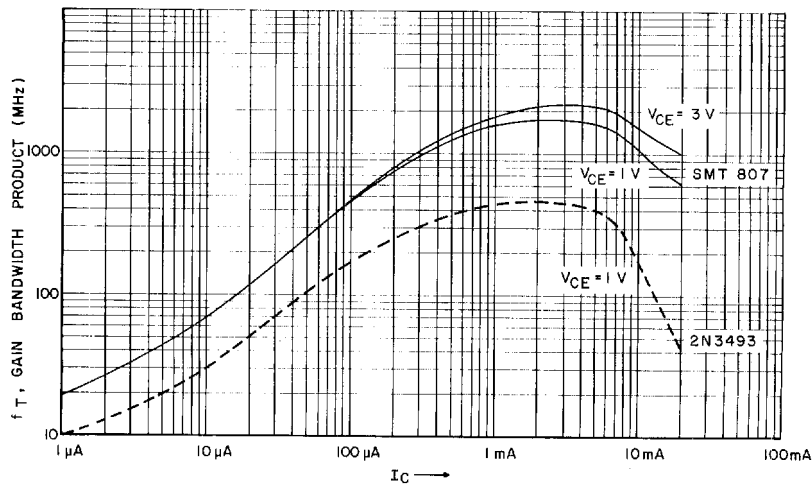


Figure 5. Performance of micropower transistor at 100 microamperes equals that of commercial counterpart at 2 milliamps.

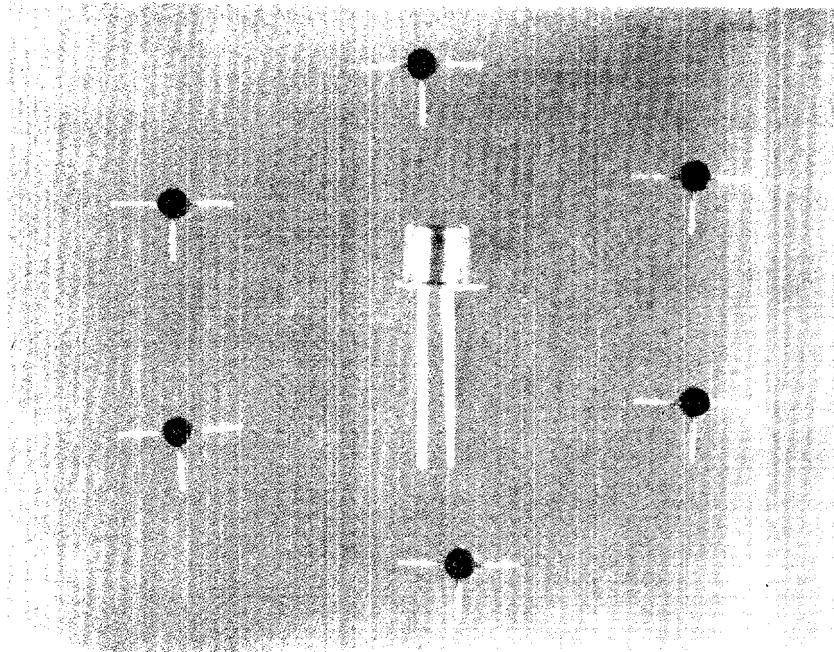


Figure 6. Micro-T packages compared with TO-18 can.

	DISPLACEMENT VOLUME (cu. in.)		PLAN AREA (sq. in.)	
	Excluding leads	Including leads	Excluding leads	Including leads
Micro-T Package . . . . .	.00030	.00033	.0057	.0107
TO-18 package . . . . .	.0058	.0063	.044	.044
Ratio: TO-18 to Micro-T	19:1	19:1	8:1	4:1

quency, but constant development efforts over the past two years have now produced a high-performance high-frequency micropower transistor. Figure 5 shows its gain-bandwidth product—a measure of performance—versus bias current (a function of power) compared with that of a commercially available counterpart. The special micropower devices are already available in quantity to the intelligence community.

The reduction in operating power and increase in frequency brought a further reduction in size. Figure 6 shows a half dozen of the Micro-T packages surrounding a TO-18 can. The reduction in size and power is not limited to a particular type of transistor but applies

in general to an entire family. Four complementary devices suitable for both digital and analog applications are presently available.

*Micro Circuits*

Transistors, though the key active elements, are not the whole story, and progress with them led to further, and continuing, developmental work in circuit design and fabrication. Circuits of progressively increasing complexity were chosen to challenge the developing technology. Results in this area have also been quite dramatic.

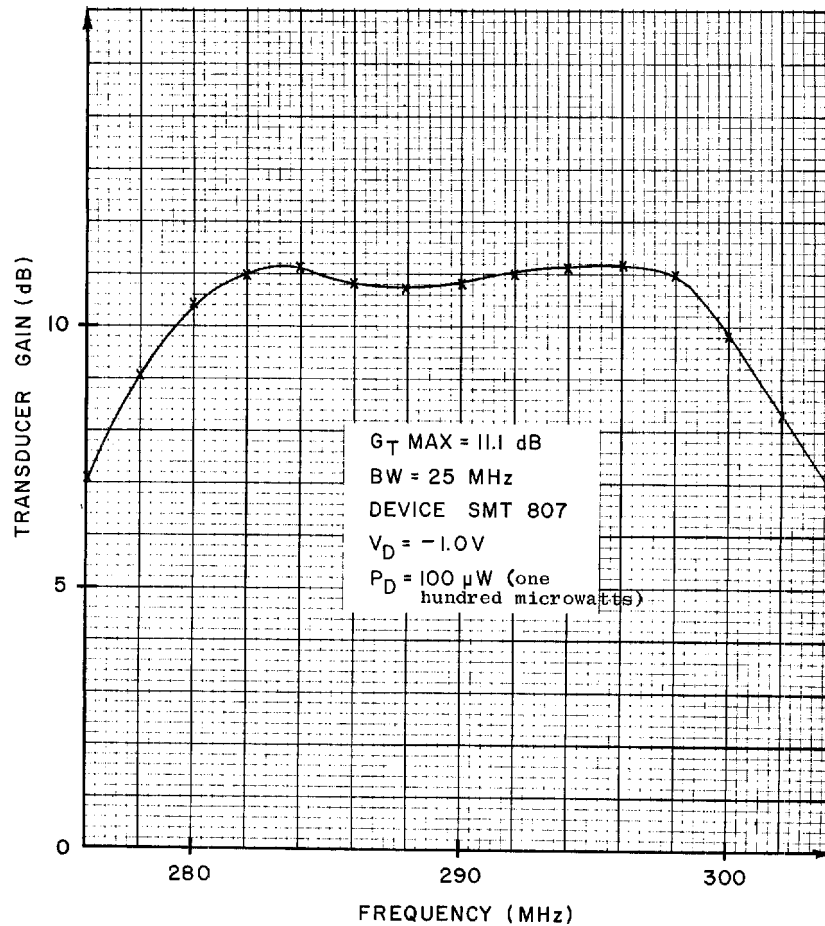


Figure 7. Performance of micropower RF amplifier.

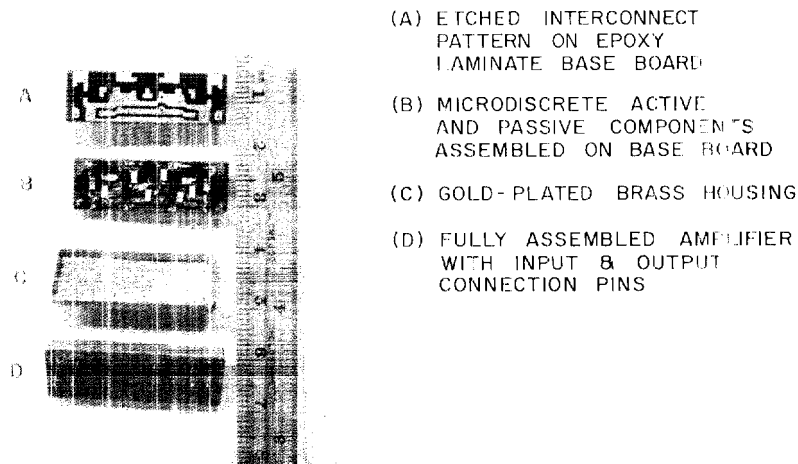


Figure 8. Three-stage wide-band micropower IF amplifier (150 MHz).

During the first year the efforts of the program were devoted to designing and fabricating two representative circuits, a radio-frequency amplifier and a digital logic function. In the amplifier a reduction in power drain of two orders of magnitude as compared to the best available commercial circuit was achieved, and size was also reduced by a factor of 100. The curve in Figure 7 shows its gain of 11 decibels, almost flat over 16 megahertz (thousand kilocycles per second), with a power input of 100 microwatts.

An equally impressive improvement was made in the digital circuit, whose power drain was reduced by a factor of 1000. Thus after a year's effort the power reduction achieved was at least 100-fold while other parameters of both circuits were maintained at the original level or improved. These accomplishments rested on careful and clever circuit design and utilization of the new micropower transistor family. The prospect of further advances along these lines continued to be extremely good when the first year's program was assessed at its conclusion.

The next logical step was to push on to more complicated circuits and subsystems, and the results were again highly favorable. The goals were accordingly expanded to include all the basic building blocks of radio receivers and transmitters. Figure 8 shows the fabrication details of a micropower intermediate-frequency amplifier, the

heart of any good superheterodyne receiver. The power consumption of this device is at least 100-fold, or two orders of magnitude, lower than that of any previous subsystem.

Oscillators have been built and tested. Converter circuits and transmitters have been fabricated with equal success and demonstrated capability. In short, a great reservoir of new technology has been tapped and brought to bear on the technical side of intelligence collection. At the present time there is every reason to believe that active pursuit of the basic program will continue to yield further advances.

#### *Micropower Systems*

The ultimate objective, that of creating complete micropower equipment, is really the criterion of success as far as intelligence gathering is concerned, so it is gratifying to be able to report that system development has been as successful as the work on component circuits. In a truly spectacular demonstration of what can be achieved, candlepower has been used to operate a complex repeater unit consisting of a receiver, a transmitter, digital processing circuits, and a solar cell network for energy conversion. The entire unit, literally driven by the light from a candle, continued to function perfectly in conjunction with the other units of the repeater network.



Figure 9. Micropower receiver.

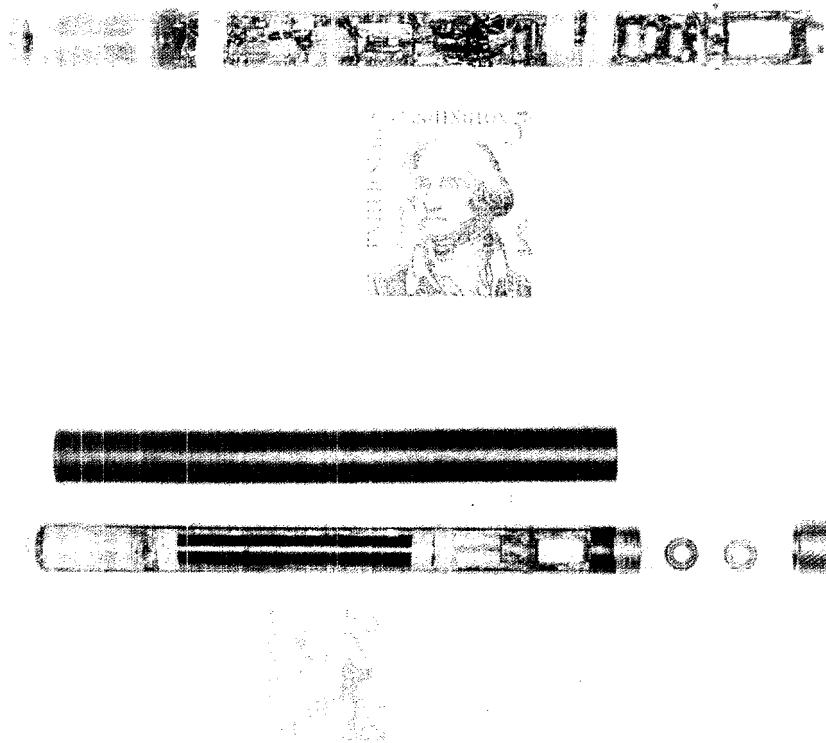


Figure 10. Micropower pencil receiver. Circuitry visible at top; assembly shown below.

The receiver in this repeater is shown in Figure 9. Its performance is comparable to that of a standard communications receiver, normally about 12" x 12" x 3". At a center frequency of 300 MHz it has a noise figure of 2.6 decibels in a bandwidth of 15 MHz—a figure not so unusual except that only one thousandth of a watt is required to operate it.

The impact of the availability of this type of electronic equipment is very significant. The operation of a repeater from a candle, of receivers such as the above from single batteries, and almost as many other marvels as one cares to dream about are at hand. The actual application of these possibilities is not so straightforward as it may at first seem; we have not discussed the mechanical problems associated with microtechnology. But these problems, though many and complex, are certainly not unsolvable. That solutions are possible is

perhaps best illustrated in Figure 10, showing a full superheterodyne receiver, including antenna, audio section, and battery, inside a pencil. The system runs on two hearing-aid batteries and performs as well as any conventional portable.

#### *Some Future Goals*

With systems like those described above available, the intelligence community can begin to approach operational problems from an entirely different point of view. Problems that were impossible just a few years ago have become solvable through micropower techniques. When a communications-quality receiver considerably smaller than a package of cigarettes can be operated from the light of a candle, battery life and resupply no longer trouble an agent in hostile territory. The problems are not radically different, but the range of possible solutions has been tremendously broadened.

The scope of this technology can be illustrated by a few advanced concepts as listed below. These are at present either undergoing development or being conceptually explored.

**High-density digital storage:** The fabrication of a microminiature unit capable of storing 200,000 bits of digital information in a cubic inch. This unit, operating on a 10-milliwatt total power drain, will make on-site processing or storage a reasonable design requirement in future intelligence collection systems.

A 50- to 10,000 megahertz surveillance receiver in a five-pound microminiature package. Putting into five pounds what ordinarily requires a full rack of equipment has enormous implications for the size and range of the reconnaissance vehicle.

**Distributed jammers.** Considering the high efficiency of the micropower transmitters, it is reasonable to consider deploying vast arrays of low-power oscillators in the area of any potential electromagnetic intruder. An orbital vehicle would be particularly susceptible to such jammers since they could be put into orbit too and powered by the sun.

A 6-bit analog-to-digital converter powered by one penlight cell and one cell  $\frac{5}{8}$ " in diameter by  $\frac{7}{32}$ " long. The life expectancy of the batteries would be ten years.

The remarkable nature of such developments leads one to speculate whether they are about to reach a fundamental limit that nature has surely set. Many people like to draw comparisons between the human brain and the electronic computer. If we adopt, therefore, the brain

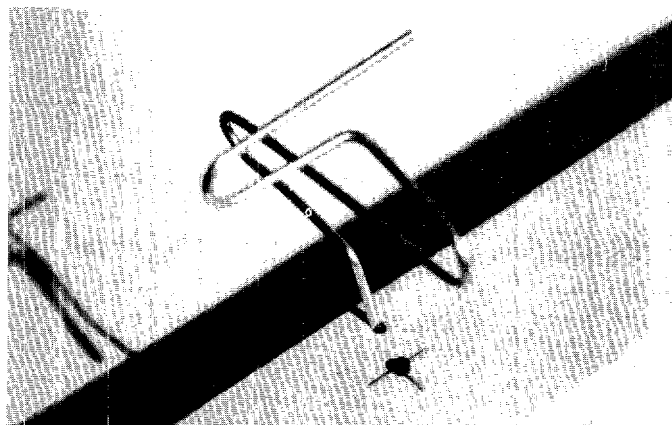
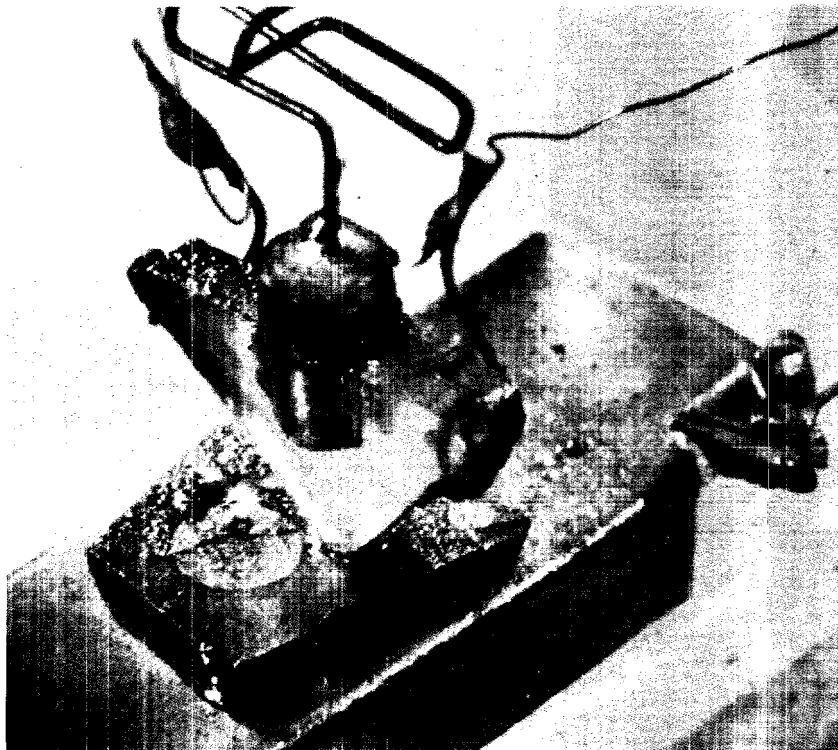


Figure 11. Two transistors.



as our standard, we can measure how close we are to this standard with micropower circuits.

A logic element, the basic building block of the computer, compares with the brain's neuron on a one-to-one functional basis. The neuron is a hundred times smaller than any micropower circuit, though also 100,000 times slower in operating. The real surprise comes, however, in power consumption: a neuron operates at about one-tenth of a nanowatt, 10,000 times less power than the best micropower circuit made to date. It is therefore apparent that much remains to be done in the future before we achieve the goal nature has set up for us. We have been working only three years, to be sure, and Mother Nature a billion.

#### *The Latest in Transistor Fabrication*

Finally, let us examine the results of work done under recent contracts involving even more advanced concepts. One aspect of this work is the use of a highly sophisticated optical projection masking system for depositing accurately the elements of a minute transistor. This equipment will constitute the means for fabrication of the next generation of micropower transistors. Reducing the size of a given transistor by one half, if all other parameters remain proportionately the same, reduces its power consumption by one half; but this reduction in size automatically doubles the requirement for precision in the fabrication.

First let us compare the micropower transistors currently in production with previous devices. The original Shockley alloy transistor made in Bell Laboratories 18 years ago is shown in Figure 11 above one of the current series.

A fairer comparison can be drawn between the current micropower transistor and its best previous counterpart. Figure 12 is a photomicrograph of one of the best high-frequency, low-power transistors available in 1965. The important feature is the narrow finger-like stripes 0.2 mil (5 microns) in width. It should be observed that some of the fingers are of slightly different widths and do not always fall directly in the center of the window space provided for them. The difficulties experienced in trying to achieve uniformity and precision are evident.

In the photomicrograph in Figure 13, one of our current micropower devices, the finger-like stripes are 3 microns in width, reduced by al-

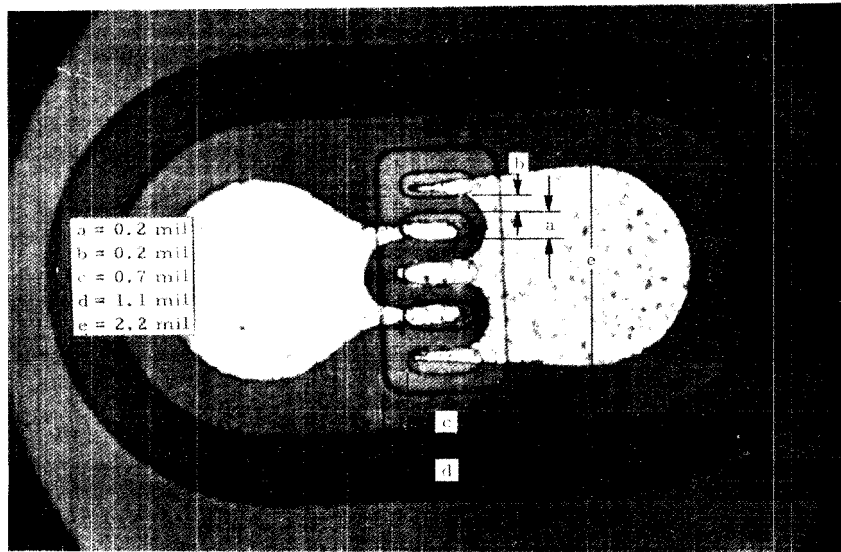


Figure 12. 1965 transistor.

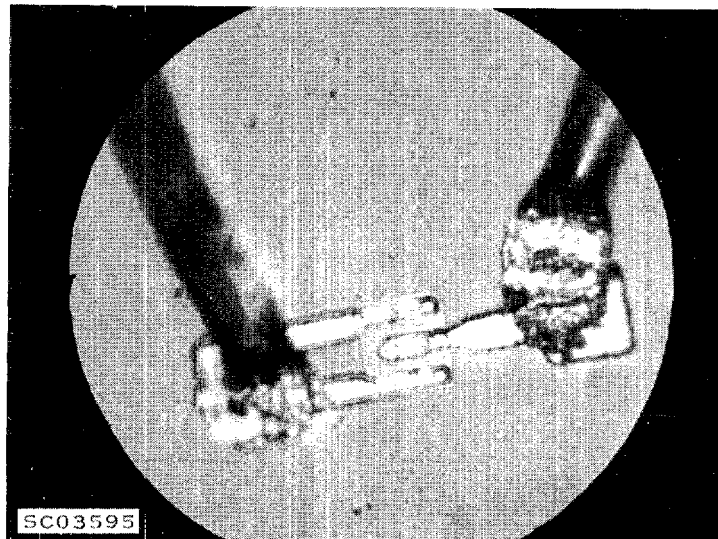


Figure 13. Current device.

most half. Note particularly the linear edge and uniformity of these stripes and their superior alignment within the window. These are the reasons for the improvement in performance.

Figure 14 shows the achievement of the counterpart elements for the next advanced micropower transistor. The characteristic fingers here are *one* micron wide and the space between them is also one micron. This structure, fabricated with the new projection masking system, constitutes the smallest transistor elements fabricated to date. It is planned to integrate this projection masking system into the over-all micropower program and begin the regular production of transistors of this size. We are budgeting research and development funds to produce two prototypes of the optical system for delivery to two principal micropower transistor developers so that they can make these smaller devices.

There are many other facets of the effort to improve the performance of micropower devices; but the technique for size reduction and improved precision discussed above, which has yet to be employed, illustrates how we can achieve some of the advances needed to narrow the gap between existing capabilities and the theoretical limit.

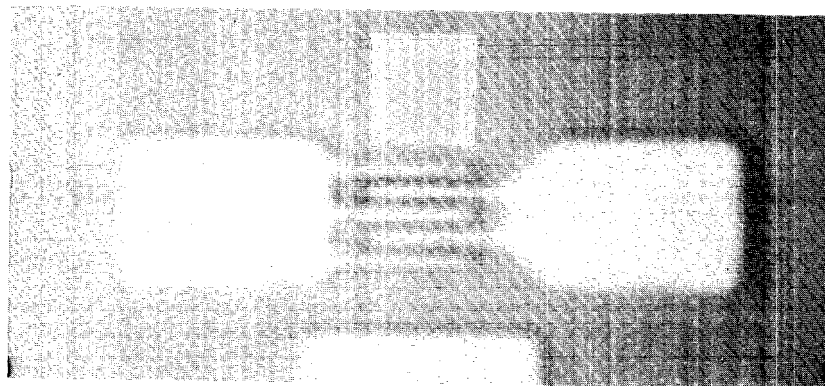


Figure 14. Latest advance.

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*The craft of intelligence as seen  
from the CIA Operations Center.*

### VIEW FROM THE HOT SHOP

Averill T. Stewart and Joseph O. Matthews

Shortly after 0600 on the morning of 12 December 1967, a high-precedence operational cable was passed to the senior duty officer by his colleague, the clandestine services duty officer, in the CIA Operations Center. Its point of origin was [redacted]. Its subject was an impending attempt at a counter-coup against the [redacted] junta by [redacted] and several army officers. Here is what ensued during the next hour and forty-eight minutes:

0607—Senior Duty Officer briefs the CIA current intelligence chief and the DCI's Deputy for Intelligence by telephone. They order that appropriate intelligence analysts be called in at once and that the DCI be alerted.

0612—Watch officers phone analysts as ordered.

0615—SDO canvasses intelligence community seeking additional information. State has received a high-precedence cable from the [redacted] embassy and is phoning Assistant Secretary Battle.

0620—SDO briefs DCI. DCI instructs SDO to brief Walt Rostow by telephone at his home.

0625—SDO briefs Rostow. Rostow instructs SDO to inform White House situation room<sup>1</sup> that he will be coming to his office immediately, but that the President should not be awakened.

0630—Rostow's instructions passed to White House situation room.

0636—Rostow phones to make sure that Secretary of State Rusk (in Brussels) is being informed. SDO confirms that State's [redacted] desk is sending a cable to Rusk.

0637—DCI phones and is brought up to date.

<sup>1</sup> Staffed by officers seconded from the CIA Operations Center, the Situation Room performs a parallel function for the President and his national security assistants.

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- 0642—State sends copy of the cable from [ ] embassy by LDX.<sup>2</sup> Reuters is now reporting that tanks have surrounded Prime Minister's residence in [ ]
- 0650—SDO sends copy of the cable from [ ] embassy to White House situation room via LDX.
- 0657—SDO, with concurrence of clandestine services duty officer, authorizes CIA action officer at National Military Command Center, Pentagon, to pass a sanitized version of the CIA [ ] cable to the ranking duty officer at the NMCC for the purpose of briefing Chairman, Joint Chiefs of Staff.
- 0719—Rostow instructs SDO to set up a teleconference with [ ] station to procure certain information [ ] embassy had been unable to obtain.
- 0723—SDO proceeds to Signal Center to arrange the direct teleprinter connection.
- 0755—SDO briefs Rostow to the effect that [ ] had left [ ] arrived safely in [ ] in northern [ ] and broadcast a message to the nation. State operations center and NMCC also briefed.

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The record of this activity in the Operations Center at the dawn of 12 December, when a potentially serious crisis appeared about to engulf an ally of the United States, is significant because it shows that the standard intelligence processes, from collection and communication to evaluation and dissemination, were successfully accomplished—out of normal business hours—despite the speed with which the crisis developed. Senior policy officials of the government were thus placed in possession not merely of information but of finished intelligence in which they could repose confidence.

The Operations Center is an instrument by which the DCI can provide intelligence to the right quarters at the propitious time, i.e., when decisions about action have to be made. The [ ] example is but one of many that might be cited to illustrate the manner in which the Center, in business around the clock, performs an alerting function and facilitates rapid transmission of intelligence throughout the intelligence community and to the White House. This instance

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<sup>2</sup> Long-distance xerography. This is a system for secure and virtually instantaneous facsimile transmission. Terminals are at the White House, the Department of State, the Pentagon, NSA, and the CIA Operations Center. A manuscript the size of the Encyclopedia Britannica could be transmitted in two and a half days by this process.

illustrates also the vital relation between the Operations Center and the substantive resources of the Agency, whose analytic and current intelligence reporting responsibilities it supports.

Finally, the [ ] episode exemplifies the extreme pressure for detailed and timely intelligence support that builds up at the nexus of the policy-making and intelligence communities in periods of crisis. The growth of this avidity for the product of intelligence is surely one of the significant developments in the American governmental system during the past decade or so. The Operations Center is a systematic attempt to help satisfy this appetite, which almost certainly will not diminish.

#### *The Mechanics*

Regardless of the method chosen, an attempt to provide round-the-clock continuity in current intelligence support is bound to be an intricate undertaking. The general problem is the troublesome one common to all intelligence, that of converting an input categorized by source into an output separated out by subject and significance. During the normal working day, principles of division of labor and quite detailed specialization can be applied in organizing the institutional solution. As for the rest of the time, it was long debated whether it would in peacetime be possible to fund and staff a reduced but similar operation for around-the-clock alerting. The alternative approach, that of the Operations Center, is to concentrate attention on the inputs most likely to be productive in a still more skeletonized and specialized operation, mechanically equipped to the fullest degree feasible. From the substantive point of view, this kind of operation will be successful to the extent that it can call upon the effective backing of major research and analytical resources.

Very roughly speaking, the inputs to the Operations Center are selected according to the way in which they have been communicated. The general category with which the Center mainly deals is information electrically communicated through official channels. As will be seen, however, there are many exceptions even to this.

The channels into the Center are complex. An adjacent signal facility receives special intelligence from NSA and advance cable traffic from the State Department. The Cable Secretariat, which disseminates within CIA most message traffic, provides State and Defense Department cables and intelligence information reports cabled from CIA field stations. The clandestine services duty officer makes avail-

able intelligence from operational cable traffic which otherwise might not be disseminated for some hours.

The Operations Center also maintains constant contact by secure means with other intelligence centers in the Washington area. The NSA Command Center answers questions concerning special intelligence. The State Department Operations Center makes immediately available via LDX any particularly sensitive traffic. The National Military Command Center of the JCS puts on the LDX military operations cables which might otherwise be delayed for several hours or not be sent to CIA at all. The DIA Intelligence Support and Indications Center, the National Indications Center, and other duty offices throughout the government also provide the Operations Center with information or evaluations in areas in which they possess special competence.

In addition, the Center subscribes to the full wire services of the Associated Press, United Press International, and Reuters and receives the teletyped output of the Foreign Broadcast Information Service.

From the stream of information flowing in through these channels—and it averages 135 separate reports every hour around the clock—the Center seeks to filter out first that which is of critical significance, and secondly that which may be less critical but is nevertheless of capital importance. The second of these categories is in practice considerably larger than the first.

#### *Some Critical Cases*

In the category of critical intelligence, a degree of automatic selection has been built into the process in the form of the Criti[cal]-com[munications] System, under which messages designated *CRITIC* by the field in accordance with a criterion that they “may require the immediate attention of the President,”<sup>3</sup> are expedited by NSA to the intelligence community and the White House. The first report on 22 January 1968 of what quickly developed into the “Pueblo” incident was an example of a *CRITIC*. So was the CIA cable of 30 January reporting the Viet Cong attack on the U.S. Embassy compound in Saigon.

Critical intelligence, however, does not invariably get put into the Criticom System. On 20 April 1967 at 2058 hours the U.S. Embassy in Athens reported by a merely *FLASH* cable that the Prime Minister

<sup>3</sup> See W. A. Tidwell's “Notes on the *CRITIC* System” in *Studies* IV 2, p. 19 ff.

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of Greece had been seized in a military coup. On 15 November 1967 at 0950 the U.S. Embassy in Nicosia reported under FLASH precedence that fighting had broken out between the Greeks and Turks at Kophinori, beginning the Cyprus crisis. On 5 June 1967 at 0300 the U.S. Embassy at Tel Aviv confirmed by FLASH precedence that fighting between the Arabs and the Israelis had begun. In all these cases it was up to the Operations Center to recognize that the reports fell well within the definition of critical intelligence and take action accordingly.

To complicate matters further, critical intelligence may come from many sources other than high-precedence cables. For instance, the earliest intimation of the freshened tension that led to the Six Day War was supplied by Reuters on 17 May 1967 when Egyptian forces replaced those of the U.N. on the Israeli border. FBIS was the first to report the outbreak of fighting between the antagonists at 0240 on 5 June. UPI was the first press agency to report that the Egyptians had broken the cease fire on 9 June.

On 24 June 1967, the CIA domestic collection staff in New York provided the first information that Premier Kosygin was leaving New York to go to Cuba; it was the sole source of this information for the Washington intelligence community. The CIA action officer at the NMCC relayed word from Eglin Air Force Base on 4 January 1967 that a Mace missile had escaped control and was on its way over Cuba despite attempts at automatic self-destruction and an unsuccessful pursuit by F-104s. On 27 July 1967, the D. C. Civil Defense Emergency Operations Center at Lorton, Virginia, reported disturbances close to CIA facilities in Alexandria, Virginia, as a result of the arrest of H. Rap Brown. In all these instances, the role of the Operations Center was to recognize the potentially critical significance of the information and to initiate the appropriate alert and action procedures.

#### *The Less than Critical*

In a sense, coping with the second category of information, that which is less than critical but nevertheless important, presents the more difficulties. This is only partly because there is substantially more of it. Lacking the formal or mechanical aids which often identify critical traffic and its almost invariably self-evident importance, the lower category requires resort to judgment, general knowledge, imagination, and all-around lore in the techniques of intelligence. Here it

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is not enough to be knowledgeable about the principal situations and intelligence questions of primary current interest. The ideal is to be able not only to detect evidence of significant movement in matters known to be of concern but also to recognize the advent of new problems that may well become of concern. Successful anticipation is of course one of the objects of intelligence. The analytical attack upon the evidence of such emergent problems begins in the Operations Center and the headquarters components with which it is so closely linked.

Both the Cable Secretariat and the Operations Center are involved in the mechanical process. The Secretariat, as the primary reception and dissemination point within CIA for State, Defense, and CIA information cables, selects the most significant and perishable traffic for rapid distribution to Agency officials and, in the case of CIA cables, to the White House. It sends material selected for current intelligence components in the CIA Directorate of Intelligence directly to the Operations Center in enough copies for fast distribution. There the SDO reviews it substantively and may alert senior officials in the Directorate immediately if he thinks this warranted.

As a precaution, the Cable Secretariat also sends to the Operations Center copies of the remaining traffic received but not selected for rapid distribution. All this material is reviewed in the Center, which may then request the distribution of any items that have eluded the Secretariat and at the same time alert or consult with the appropriate area specialists about them. The Operations Center thus is in a position to insure that all available significant intelligence information, regardless of source, is quickly reviewed, checked with other operations centers, evaluated by specialists, and distributed to senior officials.

#### *Trends and Principles*

It is perhaps obvious from the foregoing that considerable technical and bureaucratic ingenuity—not to speak of money—has been lavished on the effort to buy time for the making of informed judgments. This effort has so far evidently been on the whole successful. There is, moreover, reason to believe that communications and other technical improvements now in the developmental stage will in time both enlarge the volume of information available to the Center and facilitate its handling. Some categories of potentially valuable reporting which for a variety of reasons are not now readily accessible to the Center

may in time become so. Other improvements in the system that cannot presently be foreseen may be forthcoming in due course to increase efficiency and perhaps the quality of the product. Certainly, in the era of the computer it would be rash to predict that the task of the Operations Center will remain unchanged.

Other trends that are also now visible, however, raise some serious questions, not only for the Operations Center but for the business of current intelligence in general. We have seen how there is increasing demand for greater volumes of detailed intelligence at times of crisis. At such times the classic responsibility of intelligence for evaluation of raw information tends to become absorbed in policy-making. The question being put to intelligence more and more often nowadays—and not necessarily only at times of crisis—is, “What is happening in country X *at this moment?*” This bespeaks the impulse of the policy-maker, himself subject to relentless pressures, to get at his problem as directly as possible, the better to grapple with it. His real desire, in a word, is to experience personally the events that concern him as they are occurring. One effect of this tendency, as we have seen, is greatly to constrict the time available to intelligence to practice its arcane arts. But the effect is compounded because the demand is not only for speed but for the greatest possible precision, which necessarily implies detail.

It is indeed up to intelligence to answer speedily the question, “What is happening in country X at this moment?” but this is not the most important question it is responsible for answering, and the intelligence community ought not to encourage the assumption that it is. Rather, intelligence renders its highest service in answering the question, “What do you make of what is happening in country X?” Answering this requires the application of analytical judgment.

A kind of Gresham’s Law that operates in the market place for intelligence could favor a trend to the first question: mistaken intelligence tends to erode confidence in the commodity in general and in the institution that produces it. The existence of a certain field of confidence is thus essential if intelligence is to perform its useful service. It is therefore to be hoped that future technical innovations to speed the acquisition of information in intelligence work in general, as well as in the Operations Center, will have as their ultimate purpose the improvement of intelligence judgments. It should not be a system for rapid communication of raw material that rouses mighty chiefs from their couches in the murk of early dawn, but confidence in our selection and evaluation and in the finished intelligence we produce.

*Countering city insurgency: a case study in urban nation-building.*

## SINGAPORE'S PEOPLE'S ASSOCIATION

Walter B. Kimball

The outbreak of insurgency in many parts of the world has already made a marked imprint on mid-twentieth century history. Concern over the relationship of our national interests to insurgent movements has led to a widespread and continuing involvement of many elements of our government in countering insurgencies. Underlying this involvement is the stubborn fact that insurgency is basically a political problem, a fact frequently obscured by the commitment of military and paramilitary forces in efforts to counter insurgent movements.

Mao Tse-tung's theory that a rural-based movement can gradually isolate and choke urban centers into submission has exerted considerable influence on our own counterinsurgency concepts. Although the theory offers ways to shape insurgency in the countryside, it recognizes the urban centers as the ultimate targets. In the face of Mao's theory, and abetted by the worldwide population shift to urban centers, agencies of our government have become increasingly interested in finding means to counter insurgent activity in the cities.

### *Mother Necessity*

Singapore offers a unique case history of counterinsurgency in an urban setting, where the leadership early recognized the problem in its political form and developed programs of a political nature with which to stunt insurgent growth. In this happy situation there was no requirement for direct American participation, but an opportunity was offered to learn lessons which can and should be applied elsewhere.

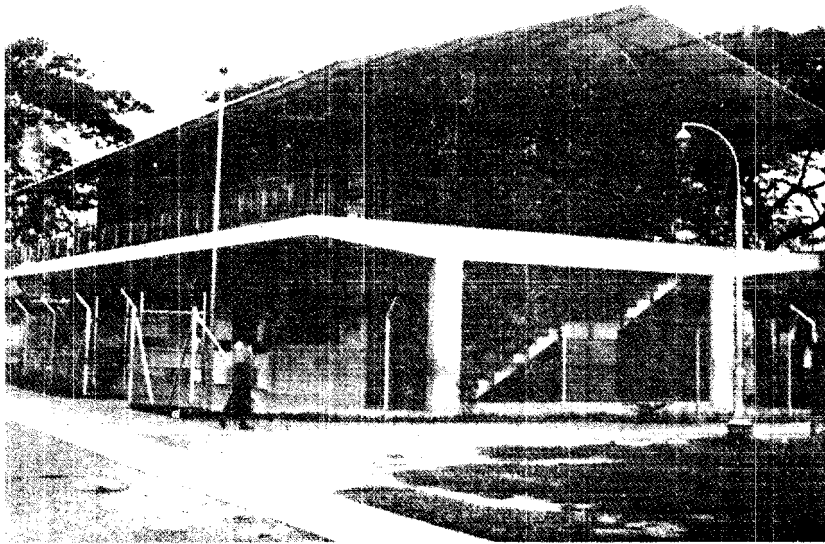
Singapore is a city without a countryside, with more than two million people packed into an urban area not much larger than Richmond, Va. In this environment social problems multiply. It came as no surprise when the large pro-Communist left wing of the ruling People's Action Party split off in 1961 to form an opposition whose purpose it was to exploit these multiplying problems. As a consequence, there emerged two parties with almost equal strength in the legislature and an almost equal call on the loyalties of the people.

When PAP leaders surveyed their shrunken mandate after the split, they decided to meet the crisis head on with a nation-building program designed to wean pro-Communist voters away from the opposition. Their plan was unique in several ways. First, it was wholly an Asian creation and at no time depended to an important degree on ideas or resources from outside. Second, the program aimed at two-way communication between government and ruling party at the top and the people below, and it aimed also to prove that the government could be responsive to the people's needs. Finally, the program deliberately confused the roles of government and party so that the people tended to praise the party for activities undertaken by the government. Funded by the government but exploited by the ruling party, it cultivated an image independent of both. Thus Singapore's unique People's Association was born.

#### *The Community Centers*

Focal point of the People's Association is the neighborhood community center. Today there are almost 200 of them scattered throughout the city on busy streets, on the ground floors of public housing projects, or along a quiet road in the suburbs. Small centers typically have three rooms, larger ones up to six or seven, and nearly all have well-equipped playgrounds. There is office space for the center's small staff and for the committee of neighborhood leaders responsible for day-to-day management. Two other organizations also make their headquarters in the centers: a neighborhood vigilante organization, and the local political committee. Though center construction is not luxurious, plain cement walls and fluorescent lights are more than adequate if the activities inside can be made to measure up.

One important activity carried on by the centers is the supply of information. From the start, the quest for ways to get the party's message to the people led planners to look on the centers as a useful channel for disseminating information. Except for the party newspaper, considered too partisan even for the People's Association, political publications soon found their way into every center. Published by the government, their message blurred distinctions between government and party while conferring approval on both. One weekly publication will carry laudatory statements about the government, another photographs of political leaders opening new schools and housing projects. Speeches made on these occasions are also readily



A Typical Community Center

available in mimeographed form. Government-produced news and editorial programs are always available on the center's one or more television sets.

Athletics is another important center activity. Usually the playground is equipped for basketball and volleyball, and an inside room has facilities for ping pong, wrestling, and body building. Wherever the staff has the energy and drive, considerable effort goes into using these facilities to draw the young people of the neighborhood into the center's orbit. Often this is readily achieved, especially if no other playground is available. The People's Association, moreover, is always prepared to assign qualified athletic instructors on a temporary basis.

In addition, there is a wide range of educational activity carried out at the centers under the supervision of professional instructors. Most centers offer practical instruction for adults in such subjects as reading, languages, sewing, typing, weaving, and painting. There are kindergartens for the children established both as a supplement to the



Kindergarten in a Community Center

regular educational system and as an answer to the opposition party, which has opened a number of kindergartens of its own.

Quite apart from informational, athletic, and educational activities, most of which are "loss leaders" designed to expand neighborhood participation, the centers are also at the heart of grass-roots political activity in the neighborhood. Thus when an elected PAP representative is looking for a platform from which to cajole, praise, or inform his constituents, he usually chooses a community center as an auditorium or arranges a party-sponsored dinner there. Either way the roles of community center, government, and party become inextricably entwined. But since the center theoretically should not play host to a purely political activity, the neighborhood political committee often becomes the sponsor.

#### *Neighborhood Political Committees*

It was partly the need for sponsorship of political activity in the centers and partly also Prime Minister Lee Kuan Yew's need for a personal political organization which led to the creation of political committees throughout the city in 1964. Like so many other organizations touching on the People's Association complex, the committees pretend not to be political organizations at all. In each electoral district the members of the committee are appointed by the elected PAP

representative. All appointments are then reviewed by the Prime Minister's office, and the appointees thus consider themselves to be partially responsible to the Prime Minister himself.

The duties of committee members suggest a cross between ward heeler, opinion sampler, and local leader, with a little of the neighborhood cop thrown in for good measure. Thus the committee acts as eyes, ears, and sounding board for the elected representative. Further, it acts as the intermediary through which the representative dispenses patronage and favors. Complaints against the government filter up; remedies decided upon by the party percolate down. In nurturing two-way communication with the people, the political committees indeed play a primary role. Nor has Prime Minister Lee failed to note the committees' usefulness in this sense. Hardly a week passes without his requesting an opinion or assessment from the almost 200 active committees throughout the city. How will your neighborhood react to this policy or that initiative?

Whether the committees function as a private intelligence system, as groupings of well-intentioned neighborhood leaders, or as thinly disguised political organizations, their respectability is undeniably enhanced by close identification with the "non-political" community centers. In this they are infinitely more acceptable than the PAP's local branch offices. Perhaps the one clear point in the confusion is that they are partly responsible to the Prime Minister. His understanding of neighborhood attitudes is accordingly more accurate, his ability to act quickly enhanced.

#### *Management Committees*

Not all the requirements of the community center are satisfied by the political committee, which has neither authority nor capacity to cope with daily administrative chores, financial needs, or policy matters. In each center there is a management committee with authority over daily operations. These committees are made up of local citizens who volunteer their time and resources for the good of the neighborhood. As counterweight to the political committee, the management committees are appointed by the People's Association and have less relation to politics or the party in power. Their primary task is to make the center run effectively. So long as the committee has an energetic chairman and is composed of capable neighborhood leaders, the center usually functions smoothly, its professional staff receiving from the committee most of the guidance and direction that is needed. More



Management Committee Gives Dinner for Neighborhood Leaders

important, committee members often become advocates of the PAP. Since their roots run deep into the neighborhood communities, they provide control and two-way communication into the very heart of the city.

#### *Community Center Staff*

Past efforts to operate centers with inadequately trained personnel often led to a low level of use by people in the neighborhood. Because the People's Association has wanted to avoid restricting, compelling, or formalizing use of the centers, there has never been provision for membership in a center or other formal association. This in turn has made the caliber of the staff an indispensable element in encouraging use of the center. In the beginning there was no alternative to employing untrained personnel, but increasingly these early recruits are either receiving professional training at a special institute or, if they are not judged competent, being replaced altogether by the institute's graduates.

The staff, it can be seen, serves two masters, who do not necessarily hold identical views on how the job should be done. The management committee directs daily operations, but the People's Association headquarters, a centralized bureaucracy acting as an umbrella for Peo-



ple's Association activities, provides overall guidance and policy. The one responds to purely local needs, the other to the broader requirements of all 200 centers. Somewhere between, taking direction from one, but bureaucratically responsible to the other, is the staff. Compounding the problem is the certain fact that the comparatively young staff must cope with the natural reluctance of management committees composed mostly of people in their forties and fifties to respond to new suggestions. Staff members often avoid the problem by concerning themselves with purely administrative aspects of the center's operation. They schedule athletic events, arrange for vocational classes, see to the routine distribution of government publications and newspapers, and avoid becoming involved in matters of policy. But the most efficient centers are always those run by a forceful and capable staff.

#### *People's Association Headquarters*

The staff's other master, the People's Association headquarters, is the more powerful but less effective. Now that enough centers have been built and the program is well on the tracks, a number of its more vigorous headquarters officials have been replaced. There has been a consequent atrophying of the bureaucracy, which no longer has either the sense of mission or the drive that was once its hallmark.

The basic headquarters organization is divided between general administration and direct supervision of the centers, with a deputy director for each function. The administrative deputy director subdivides his duties into functions, such as publications, budget, maintenance, educational programs, physical education, and women's activities. The operational deputy director supervises the centers through subordinates. Over both deputies is a director who answers to the Board of Directors of the People's Association, composed mostly of PAP ministers and supporters. Thus the public-private character of the People's Association is perpetuated.

#### *Government Services*

More than one Singaporean, drawn into daily use of his neighborhood center, is unable to tell whether he owes its presence to the ruling party, the government, or the private sector. This ambiguity is precisely what the PAP wants. To enhance the effect, moreover, the party sees to it that all possible services are dispensed by the government on the premises of the centers, so that the identification of the

center with government as well as party is immeasurably increased. The reputation for responsive government thus acquired is excellent insurance against an occasional unfortunate policy or unpopular decision.

Perhaps the most important of the services dispensed through the centers is the weekly welfare payment which enables many unemployed families to lead a comparatively decent life. Another is health services, whether TB X-ray trucks, mobile dental clinics, birth control units, or dispensaries. Yet another is the neighborhood vigilante organization, a paramilitary group backed and funded by the government and trained to supplement the police by providing all-night coverage at the block level.

Agricultural extension services are dispensed from rural centers; all centers offer newspapers, government publications, and books; and announcements of forthcoming improvements in neighborhood services are made from whichever center is closest. If in need of a job, the best place to apply is at the office of the political committee in the center; if bothered by vandalism in the neighborhood, the vigilante organization offers satisfaction; and if you want to watch television but do not have a set, the community center offers one. Thus the people of the neighborhood look on the center as the chief point of



X-Ray Truck at a Community Center

contact between themselves and the government, and the ruling party reaps the benefits.

*Effectiveness*

Though the People's Association complex has weaknesses, its total impact has been decisive in promoting responsive government and two-way communication with the people. Furthermore, it has played a major role in reducing to manageable proportions the threat from the pro-Communist opposition. Certainly the community center is an institution of major significance in Singapore, where it offers effective grass-roots public administration and political contact.

A primary reason for the center's acceptance in Singapore neighborhoods is that sound, honest public administration at the local level has enabled the government to deliver on promises made by the political leadership. Without that indispensable responsiveness, it is doubtful whether the complex could be made to work. Thus the mobile clinics do arrive at the appointed hour; the political committee willingly transmits neighborhood grievances to the government and seeks satisfaction; and welfare payments are made on time without the imposed "commission" once customary in Singapore.

In the light of the enormous task which faced the PAP in 1961, its achievements have been extremely impressive ones. The main problem then was to encourage responsive government and communication with the people. This problem has been solved. What remains to be done is the refinement of techniques and programs which have already been established. It is difficult to think of other urban areas in either the developing or the developed world which could not profit from this unique example.

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No Foreign Dissem

*A psychologist's analysis of vulnerabilities among the Viet Cong and North Vietnamese elite.*

## THE VIETNAMESE AS OPERATIONAL TARGET

Titus Leidesdorf

Like the Chinese, the Vietnamese project the image of a homogeneous people, proud of their heritage and their ethnic superiority and comforted by a great sense of unbroachable unity. But like the Chinese, they manifest this sense and appearance of unity almost wholly as a defense against outside forces, and it masks a diversity of characteristics and attitudes which far transcends it. More compelling than the Chinese sense of a common personality is his awareness of the differences between a Yunnan peasant and a Peking intellectual; and what stirs the Vietnamese more than his sense of ethnic pride is his conviction that he's better than a Northerner (if he's from the South), or than a Southerner (if he's from the North), or than either (if he's from Hue). The regional differences are only the most obvious in a catalog of dimensions along which individual Vietnamese differ, and in an intensely individualistic people these differences are a constant threat to the unity and purpose of any organized effort.

Douglas Pike points out that:

Understanding sociopolitical developments in Vietnam involves cataloging the various social and political groups, organizations, cliques, and clans—some of them covert and almost all of them parochial or regional in nature—and then mapping the interrelationships among these various forces.<sup>1</sup>

Similarly, assessing a Vietnamese in operational terms consists largely of classifying his various parochial, regional, attitudinal and cultural characteristics and watching for circumstances in which these personal peculiarities are likely to be in conflict with some "larger purpose" of his organization.

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<sup>1</sup> Douglas Pike, *Vietcong* (MIT Press, 1966), p. 374. Pike will be cited frequently in this paper, and perhaps sometimes plagiarized, since his work shows a particular awareness of the human factors in the Vietnamese effort. A reading of his first and last three chapters is highly recommended to those who are concerned with the human and personal aspects of the Vietnamese target or colleague.

### *Conflicting Goals*

From this vantage point, the apparent unity within the DRV/NLF community almost has to be illusory, or at best temporary, "for the duration" until victory is achieved. The goal of victory, which provides the interim cement, is as difficult to define for them as it has been for their enemies. To achieve a sense of common purpose the NLF has had to be all things to all people; and while this provides enough satisfaction for many people, it is much too diverse in its ultimate promise to be satisfying or comforting to any one person who has true goals of his own. Vietnam is a country in which people rarely get involved in anything, and if they do get involved it is because there is something in it for them—status, reward, protection, or plain survival.

Although the appeals of nationalism, communism, regional loyalty, xenophobia, and even personal capitalism each play some role, there is no single cause that captures everyone; and of course many of the promises are mutually exclusive. The Southern regionalist cannot be happy with the prospect of domination from Hanoi which motivates the politically ambitious Northerner, and the Viet Minh veteran who was "sold out" in 1954 cannot be happy with a shift in strategy from military victory to internationally negotiated settlement. Interestingly, the vulnerability to rupture becomes most acute at opposite ends of the scale of fortune: when the system is threatened with defeat and the individual seeks a better prospect; or when the organization's goal is closest to achievement and the personal goal is in danger of being lost, submerged, or turned aside in the process.<sup>2</sup>

Accordingly, the approach to the DRV/NLF target takes place in an unusual atmosphere: the closer the Vietnam conflict comes to termination, the more anxious the truly motivated target will become about seeing it terminated on his terms. He will want to stay to see the matter won *properly*; and as this brings him into direct conflict with the diverse goals of others and face-to-face with the threat of ultimate failure-in-victory, he can become increasingly desperate, and increasingly responsive to opportunities for support and assistance.

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<sup>2</sup> This can be observed quite directly in South Vietnamese responses to the threat that peace or negotiations pose to their personal equities in the outcome.

*The Basic Personality*<sup>3</sup>

Most Vietnamese are singularly self-centered people who, like the Chinese, view the broadest events and circumstances in the most personal terms. Like the Chinese, they make a great show of social behavior and group activity; and like the Thais and the Filipinos, they are substantially more shrewd and clever than the Chinese about this and often seem to be truly involved with other people and truly committed to outside interests. But in most cases this is wholesale deception (albeit habitual, often unconscious, and even innocent); what the Vietnamese does is usually done out of commitment to himself and to his own needs, not to some grand purpose, some great ideal, or some compelling loyalty. Ideals and loyalties exist, to be sure, but in most cases they are projections of the selfish needs of the individual. Even his participation in mass activities (*à la* Red Guards) is most likely to come about "because it appears to be the wise *individual* thing to do."<sup>4</sup>

It is true, in some sense, that everyone is motivated by his own needs and interests. But while the Westerner (and particularly the American) accepts direction from others, commits himself to external causes and obligations, and endeavors to submerge his selfish interests in some greater social purpose (usually experiencing a sense of guilt if he fails to do so), the Vietnamese *qua* Oriental is free from this sense of compulsion, and rather comfortably so. Thus a major characteristic of his is detachment—especially noted in the rural peasant, but also observable in different forms of insulation and dispassionate bystanding among urban dwellers. (Mao's Cultural Revolution was certainly motivated in part by his anxiety about this characteristic among the Chinese and his determination to get them, especially the youth, involved in something bigger than themselves. The Vietnamese, like their northern neighbors, assert this disassociation from external events; similarly, they use it as a defense from getting painfully involved in things which "don't concern them"; and they have perhaps an even greater capacity for acting involved, when necessary, in a wholly superficial way.) The great American concern

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<sup>3</sup> Any effort to generalize about any group will necessarily do some injustice to every member of it. This stereotype of the Vietnamese personality structure is presented with the recognition that there will be individual exceptions to every statement, which nevertheless do not destroy the applicability of the over-all pattern for purposes of general analysis and general planning.

<sup>4</sup> Pike in *The Washington Post*, Feb. 25, 1968, p. D3. Emphasis added.

that the Vietnamese do not lend their support by pointing out Vietcong minefields in the paddylands or fingering Vietcong agents in the cities is not a reflection of anti-Americanism or pro-VCism; it is a commentary on Vietnamese insulation, which certainly hampers VC operations as well.

The Vietnamese can "get involved" when it is to their personal advantage to do so—because of coercion, for the sake of survival, or out of an opportunistic awareness of the direction in which things are moving.<sup>5</sup> (They will not help us win by pointing out minefields, but we can be sure we are winning when they start to do so.) Thus on their own motivation (or in self-protection) they can support a movement, and in their own interests they can develop close and very personal loyalties. This support rendered either to movements or to individuals tends to be quite circular: the Vietnamese supports a movement which is strong enough to protect him or meet his needs and thus helps keep it strong enough to attract him; and he identifies with a leader on whom he can depend for support and protection, adding thus to the following which makes the leader strong enough to provide the protection and to earn more support.

In both cases the attachment is personal, deriving from the individual's need for support, protection, survival, or aggrandizement, and has little to do with issues, goals, or grand purposes. The Vietnamese is looking for insurance, and he will buy it wherever he can get it, without any misgivings about doubling up on his coverage. His loyalties can be intense, but they are not necessarily singular nor total. Insofar as he has some defined goals of his own, he does not necessarily have to ride the same horse all the way to reach them. Nothing succeeds like success, especially as a criterion for leadership, and "loyalty may be a virtue, but consistency is not."<sup>6</sup> Even in their religions the Vietnamese are likely to defend themselves in depth,<sup>7</sup>

<sup>5</sup> Words like "insulation," "selfishness" and "opportunism" have an inescapably negative quality to the conditioned American ear. It does not follow that all Vietnamese are the sneaky hoods that these terms may suggest. These qualities arise from the subtleties of development in this society, and the Vietnamese who did not cultivate them would not be understood by his own colleagues and would actually lose their respect.

<sup>6</sup> Pike, p. 10.

<sup>7</sup> Pike, p. 12. Also see Lucian Pye's *Some Observations on the Political Behavior of Overseas Chinese* (CENIS/MIT, 1 June 1954) for a discussion of the pragmatic, personal, opportunistic, back-the-winner, non-ideological political orientation of the Chinese, which is quite relevant to the approach which the Vietnamese typically takes to political and social considerations.

sharing with the Chinese and the Japanese a sense that if one religion is a good idea, two or three are probably better.

Despite this independence and looseness, the Vietnamese is not entirely his own free agent, however. With the attachments he makes he assumes reciprocal obligations, and these obligations substantially control his freedom of movement. He has obligations to his family and its wider ramifications, to his hamlet, village, or its equivalent in some other geographic-social-political group. In seeking affiliations with groups, movements, or leaders who can offer protection or other rewards, he assumes obligations to give them support as long as the loyalty relationships exist; and although these can be severed, there are unwritten rules which govern the proprieties of separation. Conversely, the leaders and authorities who have the power which attracts support do have the obligation to protect or otherwise meet the needs and expectations of those who support them. Because the Vietnamese has attachments in many dimensions and directions—family, religious, geographical, scholastic, political, fraternal—and because many of these are contradictory or competitive (especially in the atmosphere which exists today), he is simultaneously pulled in many directions and effectively pinned down by a network of subtle, informal, but nevertheless compelling social forces.

In sum, then, the typical Vietnamese is intensely individualistic in outlook and purpose—often bovine, passive, and seemingly uninspired (in Western terms), but adequately motivated to pursue his own interests or to secure his own survival. His consequent loyalties and attachments can be intensely expressed and pursued but also tend to be diverse (to accommodate a variety of pressures in the complex society) and opportunistic. His outlook is inclined to be narrow; his sense of loyalty diminishes as one moves away from his immediate colleagues, family, or neighborhood; and his concerns, if authority ends at the hamlet gate, will rarely extend far beyond the hamlet hedge—or its symbolic equivalent in terms of the needs of his family or the interests of his colleagues. He seeks attachments for the support and protection he can derive from them; he seeks a job or an office (if at all) for the immediate rewards or opportunities it provides for him—rarely in order to accomplish something in a Western sense of productivity and social service. Altruism is virtually absent; and with his detachment he can be heartless, ruthless, or cruel.

But he can also be charming, and he certainly shares the typical Oriental determination (in most normal circumstances) to maintain



pleasant relationships and avoid disagreements. For the Westerner this raises the troublesome problems of "face," "true understanding," and "honesty" or "frankness." To the Vietnamese it is part of the struggle to survive in a society whose complex dimensions impose competing and often contradictory demands, where opposition is subtle, loyalties are conditional, flexibility is essential, and clandestinity is a way of life.

#### *Modifying Factors*

The qualities which constitute this basic personality are likely to be encountered in all Vietnamese societies but to be modified by a number of factors which may emphasize one characteristic or another. These factors arise from geographical origin (North, South, Central), early environment (urban-rural), educational experience (provincial-parochial-foreign), cultural exposure, professional training and experience, revolutionary history, etc. For example, the basic description is probably most typical of the Southern rural peasant with a local education; it is probably subjected to greatest modification among well-to-do Northern urbanites who have received professional education and cultural exposure in a foreign (probably French) environment.

Among themselves, Vietnamese are said to "size up" and type new acquaintances very quickly according to the geographic implications of their dialects; for what it's worth, Pike gives an example of "the regional designations that Vietnamese love to dispense":

Southerners are lazy and slow-witted (Northerners), or boorish and un-intellectual (Centerites); Centerites are hide-bound and overly traditional (Northerners), or vague-speaking and too political (Southerners); Northerners are aggressive and warlike (Southerners), or money-hungry and overly sharp in business deals (Centerites). On the other hand, the Northerner tends to regard himself as a dynamic and progressive; the Centerite pictures himself as a cultivated individual, the guardian of a treasured cultural legacy; and the Southerner believes he is the possessor of true happiness, whose secret is the leisurely enjoyment of simple pleasures and the pastoral harmony of a bountiful nature . . . The Vietnamese are as conscious of region as an Indian is of caste.<sup>6</sup>

Certainly history and economics have played a role in fashioning differences of environment, influence, and attitude among the regions. The North has been inhabited longer; it has a closer and more direct involvement with China, with a history of interaction, domination,

<sup>6</sup> Pike, p. 5.

rebellion, and warfare; and it has more of an industrialized-urbanized base. Other things being equal, Northerners are more likely to have an awareness of international conflict and threat; also more of a citified outlook, which weans them from the land and its narrower parochialism and disposes them toward social organization and really cooperative effort. Thus there should be more dynamism, more aggressiveness, more social consciousness, more awareness of and reaction to foreign influence among Northerners than among Southerners (speaking generally), because these are natural consequences of urbanization and foreign contact. This would be most pronounced among those raised and educated in the cities, but it is likely to occur among the rural types as well—at least to a greater extent than in the Southern delta—because of the greater influence that the Northern cities have probably had with time in the compacter rural areas that surround them.

Foreign exposure has been greater, generally, in the North in spite of the strong French entrenchment in Saigon and the Southern plantations; but North or South, the response of individuals who have been heavily exposed is likely to follow one of three patterns: xenophobic (general or selective); assimilative; or adaptive. In the first category are those who earnestly despise the Chinese or the French or the Americans, or all foreigners, and want no part of foreign influence or domination in the “new Vietnam” for which they are struggling. Struggling partly out of hatred, they would take a dim view of international negotiations unless they had really won an overwhelming military victory. At the other extreme are the assimilators—probably quite rare among the DRV/NLF leadership—who have psychologically surrendered their Vietnameseness to some other cultural concept, most likely French or Chinese. They would be happy to commit themselves to their chosen mentors and would thus be regarded with some mistrust by their colleagues.

The intermediate adaptive types are sufficiently confident and comfortable with their own identity to retain their Vietnameseness while adopting those aspects of the foreign influence which appeal to them—dress, foods, cultural tastes, technical skills, organizational methods, etc. They may also be militantly opposed to foreign domination, and some may be hateful toward certain foreign individuals or groups; but they retain a taste, a respect, or a practical appreciation for certain foreign influences or values. These certainly make the best communicators. The xenophobes are of course threatened

by the assimilators and anxious about what the adapters might come up with. The adapters are likely to be more tolerant of the others; but they could become anxious over what they might lose under a puritanical regime.

#### *Ideology and Organization*

There has been much argument over the relative influence of ideology and discipline as factors affecting the behavior of the Vietnamese (as well as other) Communist forces. For the purpose of the present discussion, ideology means a personal, psychologically motivating, intellectual involvement with ideas, principles, and abstract purposes, while discipline means a willingness to behave in accordance with expectations and directives irrespective of personal preferences or beliefs. The true ideologist can reject discipline if his purposes and ideas come into conflict with those of the organization. The disciplined person has less investment in ideas and large purposes, and may have no involvement with them at all in organizational terms; he follows his orders without resistance, at least as far as non-personal, organizational matters are concerned.

The kinds of people with the basic personality described above are more likely to respond to discipline than to involve themselves in serious, behavior-determining ideological pursuits. Insofar as this personality description applies, DRV/NLF functionaries are not likely to be heavily committed to Communist ideology in the abstract sense, despite their association with the Communist bloc, nor are they likely to be heavily populated with classical revolutionaries. True ideology does not appear to play much of a role in Asian personality or politics, and Communism is an alien ideology, besides. Certainly there are exceptions to every generalization; we are bound to find occasional ideologists, social theorists, zealots, and martyrs. By curious implication, there will probably be an occasional assimilator who is more passionately committed to Chinese Communism than Mao and most of his colleagues are.

But most Vietnamese are seeking a salvation more concrete and realistic than the promise of an abstract ideology. They are searching for a sense of personal security, of certainty, of predictability in a chaotic world; and many are seeking some release from the tensions and pressures of their social obligations, especially when these are overly confining or overly diverse and competitive. They are not concerned with personal freedom in the Western sense, which

exacts a high price in social responsibility in return for freedom of thought and behavior. Rather they seek a well-defined program of expectations and requirements and the assurance that they can achieve psychological independence as long as they behave in accordance with these directions and rituals.

Thus many are attracted to the Communist organization not because of its intellectual or ideological appeal but because its structure, its discipline, and its determinism provide a kind of social womb. They derive a sense of real satisfaction from being part of a disciplined and purposive organization that tells them what to do, relieving them of independent or personal responsibility for their own destiny and actions. The organization can also provide a release from the diverse and compelling social commitments which otherwise burden the Vietnamese. By submitting to organizational discipline, the member can sometimes find a socially acceptable escape from his traditional obligations.<sup>9</sup> These people have found a "home" in the organization, a welcome sense of certainty in what they are doing and in the knowledge that the system has an answer for everything.

Discipline, organization, and unrelenting ritualistic exposure to Communist ideology have certainly had some effect on the thinking processes of these people over the years, but greater significance is more likely to lie in the effectiveness with which the DRV/NLF mechanisms have brought political, social, and behavioral order to the Vietnamese scene—a discipline to do things, more than a commitment to believe things. There is, of course, a large willingness to believe; but it is more of a disposition to accept what is said than an active, critical concern with what it means.

There will be ample pragmatic use of Communist methods and Communist utterances at the tactical level; but the individuals themselves are more likely to be committed to or concerned with matters which are more personal, more local, more immediate, or more his-

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<sup>9</sup> Nguyen Huu Tho, NLF Central Committee Chairman, is an interesting case in point. We tend to regard him as a reformed visionary—an enlightened idealist who has magnanimously given up home and family to live a celibate life of service in a jungle retreat. It is just plausible, however, that he remains as irresponsible in his proper social obligations as he was in his youth, that he has found in the secret service an escape from a deranged wife and the cares of raising two daughters. Similarly, Li Thi Rieng, a cadrewoman for 25 years, found she could subordinate the compelling demands of wife and motherhood to the disciplines of the service and escape the chattel status which was being forced on her as an orphaned peasant girl in her own village.

torically Vietnamese than dialectical materialism. (The superficial adaptation to American political theory in the South is probably a fair commentary on the extent to which a commitment to Communist political and economic principles really penetrates the psyche of much of the opposition leadership. Similarly, the ideological chaos fomented in China during the Cultural Revolution—in which Liu Shao-chi's accepted classical doctrine can become heresy by definition in the flip of a switch, for example—shows the shallowness of commitment to any particular belief among the most orthodox Communists in Asia.)

This compartmentation between ideological commitment and behavioral compliance creates an interesting and potentially confusing problem for assessing loyalties and commitment among functionaries—as much of a problem for the guardian within the authoritarian system as for the detached observer outside. Those who make the greatest display of commitment to party or organizational purposes and directives—and thereby earn the unquestioning trust of their colleagues—may be extremely shallow in their true convictions or loyalties. People of this type may be ritualistic role-players who have no emotional or intellectual involvement with the doctrines or beliefs of the movement at all; they are able to act enthusiastic as though accepting everything because in truth they are not really concerned with anything. (The man with a conscience, or a sense of intellectual integrity, is bound to be disturbed or disaffected to some degree, at some time, with any organization.)

Paradoxically, then, “perfect” behavior can mask the most superficial commitment, and those who have earned the greatest trust may be those who are least concerned with what it is all about. These are not potential ideological defectors, because they are not concerned about purposes; but they can transfer their loyalties quite readily to new leadership, or to another system which provides the same kind of support and comfort. Moreover, this same kind of behavior can mask the intentions of the disgruntled person who is waiting for an opportunity to escape. Interviews with VC defectors have revealed that many

. . . carefully hid their true feelings not only from the cadres but also from their comrades. Apparently as a result of this, the interviewees were often not aware of changes in the morale of their units . . . It thus happened not infrequently that a defector believed himself the only disaffected man in his

unit, and that he was surprised to discover other defectors from his outfit in the Chieu Hoi Center.<sup>10</sup>

For similar reasons, these people are not revolutionaries in the psychological sense, or at least psychological revolutionism is likely to be less characteristic of the later-generation personnel than of the earlier organizers and leaders. In psychological terms, the true revolutionary combines some kind of ideological commitment with an inability to adapt to the existing social or political order. Hence his recourse is to tear down the existing order and create a new one that suits him. But allowing for exceptions (especially among the elders), these people are neither heavily committed to ideology nor incapable of adapting to an existing system. In their own view, at least, they represent the true order of things in Vietnam—as opposed to French colonialism, American imperialism, or mandarin or puppet governments in the South—and are endeavoring to preserve or restore their heritage and independent destiny. Many, if not most, are psychologically more disposed to preserve some sense of order and status quo than to disturb it.

Thus some who show up as firebrands or zealots may be cloaking exploitable vulnerabilities. Others may appear more like bureaucrats in a well-established career program. Age and experience with the movement will be factors in determining how each sees himself and the movement in these respects. Pike again provides a handy summary describing the characteristics of successive generations of NLF leadership:

The initial NLF leadership corps was made up of ex-Viet Minh. Many of these, probably the majority, were professionals such as doctors, lawyers, and teachers. They were competent and enjoyed high status among their followers. Most of them had been in the movement, either Viet Minh or NLF, for most of their lives, although generally the guerrilla leaders had served longer than the civilians. Within the NLF these early leaders came to hold the main-line administrative posts or became commanders of the Main Force units. They were inclined to be more nationalistic and less doctrinal than those who came after them, and they were far less pro-DRV.

Those who rose in prominence after the launching of the NLF, that is in the early 1960's, were more politically oriented, less apt to have a professional background, and therefore of somewhat lower status in the eyes of the rank and file. They were more doctrinal, more anti-GVN, pro-DRV, and pro-Communist.

<sup>10</sup> L. Goure and C. A. H. Thompson, "Some Impressions of Viet Cong Vulnerabilities: an Interim Report," RAND memorandum 4699-ISA/ARPA, August 1965. Page 29.

With the regularization came both cadres and top leaders from the North; their great social trauma had been the Viet Minh war. Most had been young cadres during the Viet Minh war and had climbed the status ladder in the North according to DRV standards, which meant that they excelled in Communist virtues, technical competence, zeal, discipline, and unwavering faith in the cause. They had a vested interest in victory through following orders from Hanoi, for it was there that their homes were located, their families lived, and their careers were rooted. Their motivation was quite different; it was North Vietnamese whether or not they had originally come from the South. Above all, these Northern-trained leaders, and they were found chiefly in the NLF military apparatus, were professionals, less marked by the self-righteous puritanism that characterized the earliest NLF leadership group or the individual initiative and revolutionary consciousness that marked those who rose in the ranks during the early stages of the insurgency. They were less moved by the deep sense of frustration that drove the earlier leaders, and their devotion to the cause stemmed more from career building than from ideology or hatred.<sup>11</sup>

To summarize: One's experience is a factor in the strength of one's discipline or the quality of one's apparent commitment, and discipline has a more significant influence on the behavior of these people than purpose or conviction in the abstract or ideological sense. Abstract purpose or ideology will rarely have greater significance for them than factors which have more personal meaning. Even in its strongest manifestations, discipline can range from a kind of reassuring support for the individual to a form of escape from other responsibilities, to a mask for superficiality of commitment, to a cloak for disaffection. And both discipline and apparent commitment are merely additional factors in the assessment of a Vietnamese to be viewed along with all the other contributions to his make-up.

#### *Issues of Conflict*

Among these rather personally oriented people, then, it appears that many readily discernible factors such as age, experience, and origin can affect views and attitudes about the movement and its purposes, and that many of these attitudes are necessarily contradictory, giving rise to conflicts between people and to anxieties within them concerning purposes, strategies, and outcomes. Differences in origins can make for differences in loyalties; differences in motivations make for differences in goals and acceptable solutions. These differences can be accommodated as long as the movement is far enough removed from victory that any outcome is still possible; but they

<sup>11</sup> Pike, p. 375-6.

are bound to come into conflict as the outlines of a revolution become more and more defined, and the conflicts can be viewed as operational vulnerabilities. Some of the inescapable (and interrelated) issues are these:

The problem of unification. To Northerners, and to Southerners whose lives and careers have been shaped by association with the North, a victory without unification is no victory at all. To some Southerners and Centerites who have strong regional ties or are primarily motivated by some purpose or sense of parochial independence not especially related to the politics of Hanoi's leadership, the realities of unification could be as bad as those of foreign domination, and perhaps even worse. Thus within the movement there will be some strongly motivated people who see true unification as a particular threat to their most important interests and others who feel just as strongly that without unification their purposes have been betrayed again.

The problem of coalition. The NLF has shown a great deal of ambiguity in the past toward the question of coalition and has lost the support of some elements who favor a truly cooperative political solution in the South—unusual though this would be in Vietnamese political history. (Compromise is a factor in their continuing effort to balance their diverse obligations, but it usually entails agreements within groups, not between opposing political factions.) While the more militant interests will show no tolerance for affiliations with GVN elements, there are other interests, and some political careers, which would be best served in a true coalition. Again, such interests are most likely to be found among those who are looking for Southern solutions without Northern hegemony.

The problem of neutralism. Because this is an appealing alternative to militancy, it is naturally attractive to those who are sincerely interested in peace and some kind of honest solution to the conflict in local terms. But since every conflict breeds people whose careers depend on conflict (especially when it continues long enough for careers to mature), real neutralism constitutes a threat to those who have become experts in international power politics, military affairs, and similar pursuits.

The problem of ideology. Even though these people are not especially susceptible to real ideological commitment, some few will be found who are true believers in one creed or another;



and all are involved at least in rendering lip service to some portion of the DRV/NLF litany. While the lip-servers maintain some greater freedom of movement, they are nevertheless identified with certain sub-groups; and other members of these groups may expect commitments and actions from them which they find quite uncomfortable, or well beyond *their* expectations. At any rate, when the crunch comes, there is bound to be some scrambling among those who are, or are not, identified with Communism, Marxism, nationalism, regionalism, localism, Sinophilia, Sinophobia, xenophobia, neutralism, unification, or anything else, since not all of these can come out on top. In a society in which nothing succeeds like success, the pressures and tensions will be quite diverse: there will be protectionism and jealousy on the part of those who are members of the successful "in" groups, and in the "out" groups there will be hostility among the true believers toward the defecting lip-servers who didn't pull their weight.

The problem of ultimate domination. All of these issues relate, ultimately, to one general concern: who or what will be the dominating force in Vietnam, with or without unification? An individual's concern in this respect will arise not only from the essential investment he may have in the outcome but often more importantly from the associations he has established with particular leaders in the informal manipulations for power within the organization.

The problem of careerism. Related to the problem of ideology is the essential disparity which evolves between the old timers who are in the fight for some grand purpose (selfish though it may be) and the youngsters and newcomers who are in it not so much out of intrinsic purpose as because this is the order of things today and the only thing to do at this developmental stage of their lives and careers. Among these will be bureaucrats, technocrats, petty organizational politicians, and other types who are much more concerned about where they are going in the organization than where the organization is going.

These are some (and only some) of the issues or problems which DRV/NLF functionaries cannot completely ignore, whether or not they are deeply concerned with any one of them. And the modifying factors of individual background and experience discussed above will point a man toward these issues through their influence on his

attitudes, motivations, and personal loyalties. They may predispose him to anxiety, hostility, antagonism, or disaffection towards certain possible solutions to the conflict, certain policies or tactics of his organization, or certain people within it.

Characteristically, the Vietnamese like support and insurance; they respond to strength and power; they want their side to win, but they want to be on the winning side. They are out for what they can get, in a society which expects each man to look out for himself and in which manipulation, subtlety, and the covert approach are second nature. In each case a man's decision to act or not to act, positively or negatively, for or against an individual, a group, or a purpose will evolve from his calculation of what's in it for him, his evaluation of the rewards, threats, and risks of taking action, versus a disposition to let things go their own way.

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*Uphill struggle to achieve coordination of departmental intelligence activities, June 1946 through March 1947.*

## WITH VANDENBERG AS DCI

Arthur B. Darling

### Part II: Coordination in Practice<sup>1</sup>

ORE 1, published on July 23, 1946, as the first product of the new Office of Research and Evaluation, was a masterly demonstration of what could be done by a single person in correlating, evaluating, and producing strategic intelligence. It had involved coordination too, of a sort, but not the kind that its author, Central Reports Staff chief L. L. Montague, wished to have. From his wartime experience on the Joint Intelligence Staff, he had proposed that full-time assistants in the new Central Reports Staff should both represent their respective departments and at the same time work with him to synthesize departmental intelligence and produce national estimates. As Staff Chief he would decide, subject to DCI ratification, what the CIG estimate would be; the departmental representatives would record, subject to their chiefs' approval, any substantial dissents from that estimate.<sup>2</sup>

#### *Coordination of Estimates*

An effort was made in October to effect this arrangement which had been set up on paper for the Central Reports Staff. Admiral Inglis, Director of Naval Intelligence, objected to the fact that ORE 1 bore no indication that the intelligence agencies of the departments had concurred prior to its dissemination. He argued that the Intelligence Advisory Board, that is the departmental intelligence chiefs, should approve the CIG estimates through a voting system such as that used by the Joint Intelligence Committee of the Joint Chiefs of Staff. He was not willing to leave these estimates, as opposed to the "factual" Daily and Weekly Summaries, to the judg-

<sup>1</sup> For Part I, "Some Functions Centralized," see *Studies* XII 3, p. 79 ff.

<sup>2</sup> This plan is described in greater detail in *Studies* XII 1, p. 66 f.

MORI/HRP  
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ment of the Navy men in ORE; they should be reported severally to the DNI, and he should have at least two or three days to consider each paper. In case of delay, the estimate could go forward with a statement that a dissent or concurrence would follow. Inglis was willing to have a part-time Navy representative assigned to the estimating staff, but that officer, he said, should be only a "messenger" to ONI.

At its best, such a system meant that the proposed estimate would receive painstaking and diligent review by the chief intelligence officer in each department. At its worst, it would be obstructive and time-consuming. In any case, it did not provide what Montague and others with estimating experience sought—representation and responsibility for the departments at the working level. With the Inglis system there was likely to be no real fusion of departmental intelligence into a national estimate, whereas if the departmental representatives worked day after day with the evidence, giving their full time to the business, they would come to make more effective syntheses of the materials. They did not have to lose their sense of responsibility to their departments because they became expert in the common concern of all.

Montague's plan was taken up by General Vandenberg before the IAB on October 31. It was debated at length, or rather the debate ranged for some time over many phases of the relation between the DCI and the IAB. At first glance, it seemed to have been adopted and put into operation by administrative order on November 1. Closer examination reveals that it was not. It was agreed that each member of the IAB should designate a personal representative as liaison in the estimating division of ORE, who would concur or present dissenting opinions as directed by his chief. But there was no stipulation that he spend his full time participating in the development of estimates.

A review of the record on April 15, 1947, at the end of Vandenberg's administration, showed that the departments had in fact been more than wary in their cooperation. The IAB members appointed their personal representatives as agreed, but none of them gave his full time to the work of estimating. Only one even had an office in CIG. They were, as Admiral Inglis wished, no more than messengers to their chiefs.

The average lapse of time between submission of estimates and receipt of concurrence or dissent from the departments was seven-

teen days. A later survey, covering the twenty reports and estimates which had been fully coordinated by August 1947, when CIG became an Agency, showed differences in promptness among the several departments. The median, average, and extreme delays for the Air Force were seven, eight, and fourteen days respectively, for the Navy eight, nine, and seventeen, for Army eight, eleven, and twenty-seven, and for State eleven, fourteen, and fifty-five.

The story of the central estimating function has been carried into the summer of 1947 to show that ORE had not effectively produced coordinated national estimates up to that time. The failure was due in largest part to the fact that the intelligence officers of the departments were not ready to make the work of the central agency swift and definitive. But there were other handicaps as well.

#### *Personnel Problems*

For months ORE could not undertake the research and evaluation it was intended to do. For example, Assistant Director for Special Operations Galloway inquired on August 1, 1946, about getting evaluations of OSO reports, and Montague had to reply that ORE had neither the personnel nor the working files for appraising them. The Reports Staff was at half strength and equipped only for current intelligence and attempting to synthesize departmental estimates. CIG would have to ask G-2 to continue grading these secret reports. Even at the end of the year Assistant Director Huddle reported that ORE (now called the Office of Reports and Estimates, rather than Research and Evaluation, at the request of the Department of State) was still operating at only 20 percent of its proposed strength. It was not until June 1947 that OSO began to get a file of evaluations from ORE, which even then had to strain its facilities to produce them.

Another problem was friction that developed between the Intelligence (formerly Reports) Staff—Montague and his deputy, Deforest Van Slyck—and the regional branches of ORE. Beyond personal antagonisms it was the ancient dispute between area experts and those who temper their expert findings with over-all judgments, coupled with the chronic irritation of writers at editorial meddling. The Intelligence Staff maintained that it was to have the final review of the finished ORE product, subject of course to the approval of the Assistant Director and the DCI. But as the number of the regional branches increased, some of them came to insist that the only sound practice was for intelligence to pass directly from the

experts in the branches to those who used it, with any necessary review performed by the branch chiefs, who were the authorities in daily contact with the problems of their areas.

In the end the experts won a temporary victory. At the beginning of May 1947, as Admiral Hillenkoetter became Director of Central Intelligence, the Assistant Director for ORE assumed the duties of the Chief of the Intelligence Staff. Montague and Van Slyck were placed off to the side in a new Global Survey Group.

#### ICAPS

Admiral Souers' Central Planning Staff, whose chief job had been to prepare studies and recommendations for the departmental chiefs of intelligence to consider, individually or in the IAB, took upon itself, we saw, the additional function of planning for the other CIG staffs and offices.<sup>3</sup> As a result of this activity, which proved irksome to others, Vandenberg came to the directorship inclined to let each office make its own plans and policies for his approval. On July 20 he broke up the Central Planning Staff and distributed its members among the various offices. But his struggle with the IAB over the fifth NIA directive<sup>4</sup> convinced him that he needed a staff of departmental representatives to prepare the way in future dealings with the IAB.

He established the Interdepartmental Coordinating and Planning Staff for that purpose. Its membership represented the departments, its chief the Department of State. They were to work with him on behalf of the IAB as he formulated his opinions and reached his decisions; the chief intelligence officers of the departments would then know in advance what entered into his thinking. In short, ICAPS was to have been a working staff within CIG for the IAB. Like the Central Planning Staff preceding it, however, it gained more of a reputation for action inside CIG than for coordinating the activities of the departments.

The Central Planning Staff had conceived of a whole series of interdepartmental coordinating committees which should handle matters of foreign scientific, military, political, economic, and geographic intelligence. This scheme was now abandoned with the explanation that such committees and boards were not necessary; all CIG per-

<sup>3</sup> *Studies XII* 1, pp. 62-3 and 67-8.

<sup>4</sup> See Part I in *Studies XII* 3, pp. 79-83.

sonnel were authorized and encouraged to establish relations and consult with persons of similar positions in other intelligence agencies. (An exception, as we have seen, was the Office of Special Operations.) One interdepartmental coordinating committee was sufficient. ICAPS instructed itself to act for the DCI in coordinating the intelligence activities of the departments, assuring that the facilities of each department were ample, that each was covering its proper fields of intelligence, and that its methods, procedures, and controls were adequate for the collection, integrated research and evaluation, and dissemination of strategic and national policy intelligence.

The most optimistic advocate of central intelligence could not have imagined in August 1946 that the intelligence services of the departments would tolerate such supervision and control. It would have meant inspection—a right which neither Souers nor Vandenberg dreamed of exercising at this stage—of the most vigorous and persistent nature. But ICAPS could perform much more effective inspection and direction within CIG, where it proposed to maintain continuous supervision over planning and coordination.

Its Chief at once sent a memorandum to the heads of the Offices of Collection, Research and Evaluation, and Dissemination requesting information on the Peace Conference that opened in Paris on July 28. What steps had been taken by the State, War, and Navy Departments to provide reports and disseminate the information when it arrived in Washington? The offices should find out from the departments and report. It is revealing that a staff established to work with the IAB members should have taken this indirect approach to getting information from them.

On August 5 ICAPS asked that ORE undertake a general study of the periodic and special reports of the intelligence agencies of the government. Montague replied on August 9 that the task fell within the jurisdiction of the Office of Dissemination, which had already issued one directive on the subject.

In January 1947 ICAPS proposed a program of production for ORE. It should have a staff giving its whole time to current intelligence; it should issue "situation reports" on the world's several geographic and strategic areas monthly; it should draw from the personnel of its branches a group to prepare for "National Intelligence Digests"—the eventual NIS program.

ORE favored the idea of area "situation reports," which had been requested earlier by the Navy, but thought they should not be reis-

sued rigidly month by month but governed by events. With respect to forming a group for the production of National Intelligence Digests, ORE simply did not have the staff, nor any immediate chance of obtaining it. It had fifteen key persons in its six regional branches and only two more in prospect where a total of seventy-seven had been authorized. The Chief of ICAPS, however, insisted that ORE undertake the enlarged program of production against preposterously close deadlines. He ordered one of his men to make a tour of inspection in ORE by July 10 to see how it was progressing.

In dictating a program unrealistic in terms of possible achievement, the planning staff was also distorting the central purpose of ORE, the production of "definitive estimates of the capabilities and intentions of foreign countries" as they affected the security of the nation. General Vandenberg himself had made some contribution to this distortion when he insisted upon taking over the function of research and evaluation and greatly enlarging CIG as an independent producing agency. This meant duplication and intensified efforts on the part of established services to defend their prerogatives. It impeded establishment of the close interdepartmental cooperation indispensable to the production of strategic intelligence.

ICAPS members submitted weekly reports of their activities, conferences, and accomplishments. The candor of one reporter deserves whatever immortality this study can give him. He wrote on October 14, 1946, that he had made "no progress worthy of reporting." A week later he had finished the organization charts, but there was "no other progress of note," he said, "except in frustration."

At the end of 1946 the Chief compiled an annual report listing projects completed and pending and surveying the difficulties ICAPS had encountered in endeavoring to plan and coordinate with the departments for the DCI. They were the difficulties which General Donovan, General Magruder, Colonel McCormack, Admiral Souers, and others had experienced whenever they sought to bring the intelligence officers of the departments together. These men seemed not to understand each others' problems. They did not like to turn "operational" information over to civilians. They shied away from the centralization of common functions. They deplored others' duplication of their efforts but were unwilling to give up their own activities. They came to interdepartmental meetings poorly prepared to discuss matters which had been for some time on the agenda. And there were frequent changes in announced policy which threw all negotiation back to the beginning.



The Intelligence Advisory Board did not accept ICAPS in the role of working staff that Vandenberg intended. Instead, it sent ad hoc committees to confer with ICAPS, and these specially appointed representatives carried back to the IAB members word about what was being pondered for the DCI. The procedure did not make for speed or decisiveness in coordinating the intelligence activities of the departments. It certainly did not expedite the central formulation of policies and procedures in matters of common concern.

#### *Basic Intelligence*

The Director of Naval Intelligence offered on September 6, 1946, a plan for merging the "static intelligence function" of the State, War, and Navy Departments in CIG. By "static intelligence" he meant stable political, economic, sociological, topographic, and technical information such as composed the Joint Army-Navy Studies—papers prepared for the Joint War Planners of the two departments—and the Defense Project<sup>5</sup> then under way in the Pentagon. This subject of common concern had been discussed before. The chief obstacle in CIG was the lack of personnel and equipment. It made sense to have the work done centrally if for no other reason than to eliminate the waste of public funds by duplication.

The matter came before the IAB on October 1. The representative of the State Department, Mr. Eddy, caused some distraction by declaring that his department was not willing to turn over to CIG its responsibility for obtaining economic and political intelligence. The representative of the War Department, General Chamberlin, caused more by wondering if it were not possible to "parcel out functions on the basis of primary responsibility." Each department would furnish finished intelligence, he said, to the others and they could then "rework it to meet their particular needs." In other words, there would be no central operation.

Admiral Inglis answered the objection of the State Department by stating that he was talking about processing, not collection. But there was further rambling discussion as to whether the departments wished to have CIG as a "middleman" and whether one department used the same kind of political and economic intelligence as another. Admiral Inglis reduced it to simple terms. Each department should retain its own operational intelligence but should supply the raw ma-

<sup>5</sup> Forerunner of the NIS on the USSR.

materials of static intelligence to CIG, which would do the processing very much as a publishing house and turn the product over to the departments. These could put it in a different final form, if so desired by their customers, and assume the responsibility for its dissemination.

The IAB came to no conclusion at this meeting; a special committee was to make further study of the problem. This committee met on October 8. It too ranged the fields of intelligence near and far from the question at issue. The Office of Naval Intelligence offered to transfer to CIG its personnel engaged in strategic intelligence if other agencies did so. But the Military Intelligence Division of the War Department declined on the ground that it would lose direct control over intelligence functions related to its problems of staff and command. The representative of the State Department emphasized again its "inescapable responsibilities," particularly for political and economic intelligence.

The special committee suggested recourse to bilateral agreements in particular fields between CIG and the departmental agencies, and asked to be relieved. CIG on its own responsibility made further study of the problem of basic intelligence over the following winter and spring. A member of ORE became chairman of the Working Committee of the Defense Project in March, 1947. Eventually the Joint Army and Navy Studies were taken over by CIG on October 1, 1947, as it began its program of National Intelligence Surveys.

#### *Coordination of Collection*

Another problem of importance before the IAB in the fall of 1946 was the collection of intelligence, though it became entangled with production and dissemination as the debate progressed. The State Department offered on October 18 to eliminate duplication by assuming complete responsibility for the overt collection of intelligence in foreign areas on all political, economic, social, and cultural matters. There would be some overlapping and mutual assistance, but State would be responsible. It would share with the armed services the collection of scientific intelligence.

The Military Intelligence Division of the War Department matched this proposal with a plan to coordinate the intelligence activities of the three departments. This was not so much an answer to the State offer, however, as notice to General Vandenberg that the departmental secretaries and not the DCI would manage the intelli-

gence activities of the departments. The plan would have the departments not only retain determination of their primary interests but also do their own research, evaluation, and analysis in those areas. Collection in the field would follow the same lines of primary interest. Matters of principle would be coordinated between the departments in Washington. Coordination of collection in the field would be the function of the Chief of Mission.

Regardless of source, reports would be sent directly to the agency primarily concerned. Estimates too would be the responsibility of each agency; they would provide information on their respective subjects to other agencies as the needs required. Communication would be direct from one agency to another, not through CIG. Each would collect and maintain files of biographic information within its primary responsibility, though a central file should be maintained for common reference. Each agency should contribute chapters of a Strategic Intelligence Digest like the Defense Project.

The central agency, thus carefully segregated from the departmental activities of "primary responsibility," was nevertheless to maintain supervision over interdepartmental cooperation and production. No explicit indication was given as to what authority should determine which department had primary responsibility in case two or more claimed it; presumably the departmental secretaries in the National Intelligence Authority would do that, with the view of the President's representative decisive.

This War Department plan came before the Intelligence Advisory Board on November 26, together with the State proposal, the draft of an NIA directive combining these two prepared by ICAPS, and specific reservations by General Vandenberg. The directive, if adopted by the NIA, was to be accompanied by a DCI directive providing definitions and detailed arrangements for coordinating collection. Vandenberg's reservations concerned the secret activities of the Office of Special Operations, overt collection by FBIS, and the information obtained by the Contact Branch from American businesses and travelers. What had been drawn into the central organization Vandenberg was not disposed to put back into the field of departmental activity and control.

The ICAPS draft added to the State and War proposals provisions for coordinators in foreign areas, along with the DCI in Washington. The stress was on his position as the chief coordinator of the whole system of collection and that of CIG as the central intelligence or-

ganization. The duties of the field coordinator were precisely indicated according to the situation in the area. He might be the chief of the diplomatic mission or the senior military commander; if neither had sole responsibility the DCI, with IAB approval, would designate someone to supervise them. (We shall find this provision, with the DCI in central position, missing from the final directive.)

By agreement among the departments the fields of primary responsibility would be assigned in careful detail: to the State Department political, cultural, sociological, economic, and international matters; to the War and Navy Departments their respective military and naval concerns; scientific intelligence to each agency according to its particular interests. A specific list was constructed to fix the assignments and reduce misunderstandings and conflicts of interest to a minimum.

Admiral Inglis commended ICAPS for its fine paper but wished to have another week to study it. General Vandenberg asked if it might not be approved in principle as a guide, with controversial parts to be considered later; he felt that there should be no further delay. General Chamberlin too praised the paper, but he still wished to assign fields of primary responsibility for activities other than collection; and because ambassadors as political officers went abroad without training in intelligence, certain principles should be defined for their guidance. And so the IAB agreed to have another ad hoc committee study the matter with ICAPS and bring back another report. A companion piece should also be prepared on the coordination of production and dissemination of intelligence. It was clear by now that ICAPS was not a representative working staff of IAB.

The ad hoc committee met with ICAPS on December 3. They defined "area" to mean a country which had a station of the Foreign Service. They recommended that the word "coordinator" be dropped and "senior U.S. representative" be used. Reference to theater commanders should be omitted because coordination in occupied areas was a temporary thing. They listened to an Army division of intelligence into categories in which "factual" took the place of basic and "staff" replaced departmental. Strategic and national policy intelligence did not enter the discussion. One cannot escape the conclusion that the representatives of the Departments were not present to advance the case for the Director of Central Intelligence and the Central Intelligence Group.

The ICAPS draft as modified by the ad hoc committee went without the supplementary DCI directive to the IAB on December 17 in

what proved to be its last meeting with General Vandenberg as DCI. The DCI directive, he explained, which did not require IAB approval, had been gone over by ICAPS and their ad hoc committee and the latter's recommendations accepted. There should be no further need for extensive discussion. The requirement was urgent. The NIA directive regarding collection should be completed and put into effect.

But there was further discussion. Should collectors in the field make their reports on duplicating mats or not? Should political intelligence be listed separately from economic intelligence, after having been bracketed with it in the State Department for years? Mr. Eddy asked for State that the section in the DCI directive concerning the allocation of primary responsibilities be incorporated in the NIA directive. General Vandenberg consented. With it was included a provision that collectors in the field might send copies to their own agencies when they transmitted materials directly to the field representatives of the agencies primarily concerned.

The IAB adjourned without taking a vote, but the final draft of the directive went to the members individually. By the end of the month all had approved without further change. It was issued on January 2, 1947, as Directive No. 7 of the National Intelligence Authority.

There was no mention in the directive of the Central Intelligence Group nor of the Director of Central Intelligence. The several members of the IAB had obtained control over the collection of intelligence for their departments, except for the secret intelligence of OSO and the collections of the Foreign Broadcast Intelligence and Contact branches in the Office of Operations. Vandenberg let the directive pass. He might have withheld his approval formally, but there was no point in arguing further with the chiefs of intelligence. He was about to take his case up to the secretaries in the NIA.

### *China*

Now that the general matter of collection had been settled for the time being, the specific question of collection in China perhaps could be answered. This had been proposed as an area in which to try out the coordination of collection. As a member of the IAB under Admiral Souers, General Vandenberg had urged that the Strategic Services Unit which was keeping alive the secret operations of OSS be kept at work in China until it could be replaced, as it now was by

OSO. Admiral Goggins had gone to the Far East during the summer to make arrangements with General MacArthur and Admiral Cooke. Vanderberg was in correspondence with General Willoughby in regard to CIG stations in Tokyo and Seoul.

ORE had prepared on October 1, at the request of ICAPS, a draft set of intelligence requirements for China. From this beginning ICAPS had developed, in conference with another ad hoc committee for the IAB, the draft of an NIA directive, "National Intelligence Requirements on China." It did not include requirements for basic intelligence, and it omitted those for scientific information on the assumption that there would be little there. It focused upon current intelligence. Little exception was taken to the draft in the IAB meeting on November 7, except that the phrase "essential elements" was changed to "current essentials" and "requirements" to "objectives." But General Chamberlin blocked its acceptance and issue as a directive until he could study a specific directive for collection which should be based upon these requirements.

It was not until January 8, 1947, after the general NIA directive on collection had been issued, that General Chamberlin came again to the question of intelligence on China and gave his views to General Vanderberg. The general directive on collection, he said, and a plan for coordinating the production of intelligence which seemed about to be approved by the IAB appeared to make "the China experiment" unnecessary. He thought it should be withdrawn or at least postponed "to insure that it be brought into full consonance with the broader directives."

Vanderberg apparently found this a last straw. He replied on January 23 that the Chamberlin proposal indicated a "misunderstanding of the national intelligence program" as it was being developed by CIG with the "advice and the assistance" of the IAB. The DCI was endeavoring to develop the program laid down in the President's Directive of January 22 the year before—the foundations of a central intelligence system which should furnish the President and the departments with strategic and national policy intelligence. The program was designed to facilitate departmental intelligence as well as national; but it had been assigned by the President to the DCI alone. He had therefore to determine its requirements and procedures for collection, research, and dissemination.

General Vanderberg became peremptory. He requested that General Chamberlin concur in the immediate release of NIR China and

that he furnish the G-2 personnel he had already named to assist CIG in preparing similar papers on the Soviet Union and the Near East. Moreover, said Vandenberg, he was withdrawing the collection directive for NIR China from IAB consideration and referring the matter to his Assistant Director for Collection and Dissemination, who would issue such requests as might be necessary. So on February 12 NIR China appeared as the eighth NIA directive, with the concurrence of the IAB and without further official comment of any kind.

*Agent for the Secretaries*

This was the day of the historic ninth session of the NIA. It met to discuss the correlation of intelligence in the field of atomic energy (a problem whose history will be traced later) and to hear a report from the DCI. Secretary Patterson made a brief statement on the transfer of intelligence personnel and files from the Atomic Energy Commission to the CIG, and then the NIA members heard General Vandenberg pass quickly over CIG accomplishments since he last addressed them—on October 16, 1946, concerning the budget for 1948—in order to concentrate on his present difficulties.

They grew from uncertainty with regard to the directive authority of the DCI. He found this adequately stated in the President's Directive of January 22, 1946, and the fifth NIA directive on July 8 of that year: he was to "act for" the NIA in coordinating foreign intelligence activities. The interpretation of the agencies, however, was coordination "by mutual agreement"; and in some instances this had taken from six to eight months. He requested authority to act as agent for the secretaries of the departments. The alternative was that CIG should forward its directives to the NIA members for issuance from their own offices. This would be cumbersome and it would involve great loss of time for all concerned.

The production of strategic and national policy intelligence by CIG, its primary purpose as the central intelligence organization of the government, was further hindered by uncertainty among the agencies over its definition. Vandenberg asked the NIA to approve the definition established in CIG thinking ever since it had picked up the torch from Donovan and Magruder. It was intelligence collected from every available source, both covert and overt, and then verified, appraised, and synthesized in estimates for the benefit of the policy-makers of the government.

After listening to General Vandenberg's statements, Secretary Patterson saw no alternative to approving his request, provided that any aggrieved agency might appeal to the NIA itself through the secretary of the department concerned. Vandenberg acknowledged such a right as inherent. Admiral Leahy agreed with Patterson. Secretary Forrestal gave his consent. Mr. Eddy of the IAB, who was present with Secretary Marshall for the State Department, assumed that normally any directive would have prior discussion by the IAB. Vandenberg assented.

The NIA now approved the statement that the Director of Central Intelligence should "operate within his jurisdiction as an agent of the Secretaries of State, War, and the Navy," and delegated the necessary authority to him so that "his decisions, orders and directives" should have full force and effect as though emanating from the secretaries. Any aggrieved departmental agency might have access to its own secretary and through him to the NIA. And then to make General Vandenberg's satisfaction complete, the NIA authorized the definition: "Strategic and national policy intelligence is that composite intelligence, interdepartmental in character, which is required by the President and other high officers and staffs to assist them in determining policies with respect to national planning and security in peace and in war and for the advancement of broad national policy. It is in that political-economic-military area of concern to more than one agency, must be objective, and must transcend the exclusive competence of any one department."

It would seem as though these decisions should have been enough. They were not; the departmental intelligence chiefs did not give up so easily. Admiral Hillenkoetter was to inherit a still bitter controversy.

#### *The Joint Chiefs*

Vandenberg also brought the relationship between CIG and the Joint Chiefs of Staff up before this NIA meeting. The matter had had a considerable recent history. In August 1946 Kingman Douglass and William H. Jackson had made a report showing that the British had brought about an effective articulation of their intelligence system with their Chiefs of Staff, in spite of a permeating influence of the Foreign Office that gave this country's military and naval authorities much to consider. There had been representation from the State Department, the Foreign Economic Administration, and the Office



CONFIDENTIAL

of Strategic Services on the Joint Intelligence Committee of the JCS during the war, but the presence of civilians in military councils was not generally acceptable to the Army and the Navy.

On August 12 Admiral Inglis had proposed to General Vandenberg that a channel be established between the CIG and the JCS to avoid useless duplication when they were working on subjects of common interest. Specifically, the Joint Intelligence Staff of the JCS's Joint Intelligence Committee might serve as the staff also of the Intelligence Advisory Board; the JIC and IAB were composed of the same persons and could logically have the same staff. But General Vandenberg had other ideas. He replied on September 4 that with a full-time staff the IAB would have to act unanimously, whereas at present its recommendations could be submitted to the NIA even though a member did not concur. He urged Inglis to join in sponsoring a joint study of the problem by ICAPS and the Joint Intelligence Staff. Then, before Inglis could make another move, ICAPS, working with Secretary Lay of the NIA, had prepared a counterplan to his.

The ICAPS plan would establish the DCI as the chief adviser on intelligence to the JCS, thus ranking him above the Joint Intelligence Committee. He would meet with the Chiefs of Staff in the same way as he sat, without a vote, in the meetings of the National Intelligence Authority. He would submit appropriate matters to the Joint Intelligence Committee, of which he should be chairman, as he was presiding officer of the IAB. The subcommittees of the Joint Intelligence Committee and its Joint Intelligence Staff would be integrated into CIG to create a compact and efficient intelligence organization serving both the Joint Chiefs of Staff and the secretaries of the departments constituting the National Intelligence Authority.

This plan had features which the military and naval authorities were reluctant to accept. Colonel Carter W. Clarke, deputy to General Chamberlin, summarized for him its weakness as he saw it. The DCI would be chief intelligence adviser to the Joint Chiefs of Staff, but they would have no authority over him; he was responsible to the NIA. An external agency which the Chiefs did not control would thus come between them and their subordinates. This violated the principle of command.

In further conversation Colonel Clarke remarked for himself that the Joint Intelligence Committee should be abolished; the one good reason for keeping it was its relationship with the British committee.

CONFIDENTIAL

87

Clarke believed that the DCI should be a member of the Joint Chiefs of Staff and he felt sure that General Eisenhower would agree. He was doubtful whether Navy would. If the DCI were included with the JCS, the Central Intelligence Group would be in an echelon above the Joint Intelligence Committee, and there would be little use for this Committee whose membership sat elsewhere as the IAB.

At this juncture, on September 25, 1946, Vandenberg had first taken the matter before the NIA. He set the scene by declaring that CIG could not produce national intelligence unless it had all of the information available in the government. He was getting complete coverage, he thought, from the State Department and the Navy; but he had not obtained access to the President's messages, General Marshall's, or those of the War Department marked "OPD Eyes Only." He would like to have a CIG officer in the message center of each department to review and transmit, under any necessary restrictions, the items of intelligence value. Secretary Patterson thought such an arrangement could be made. Vandenberg could have added that he was getting from his Office of Special Operations secret intelligence which he should have received from G-2.

Against this sharp background Vandenberg pointed out to the NIA that the JCS Joint Intelligence Committee was duplicating work of the CIG, and the coordinating activities of the two often conflicted with each other. The studies of the JIC got priority in the intelligence agencies of the War and Navy Departments because the Chiefs of Staff were the immediate superiors of the heads of those agencies. It had been suggested, he said, that CIG should be combined with the Joint Intelligence Staff. Secretary Patterson responded that he saw no reason why the Staff should not be disbanded. Admiral Leahy agreed with Patterson and remarked that he had so stated to the Joint Chiefs.

But when Vandenberg offered his plan to the IAB on October 1, there was random demur and objection in small detail. The real cause for hesitance on the part of the military men became obvious with the question from General Chamberlin whether it would be acceptable to the Planners for the JCS, whether they would be willing to let an outside agency know their secrets. He knew well, in fact, that the Planners would not. General Vandenberg knew that too. He suggested further study. General Chamberlin, agreeing, said he would like to discuss the problem with General Eisenhower.

When the IAB met on November 7 Admiral Inglis had a new proposal. It modified Vandenberg's plan by confining the Joint Intelligence Committee to representatives of the armed services, eliminating the State Department. The Joint Intelligence Staff would also lose its representation from the State Department. State should have contact henceforth only through the IAB and NIA. The DCI should be responsible to the NIA in peacetime but to the Joint Chiefs of Staff in time of war. Admiral Inglis had evidently been in touch with higher authority in the Navy. The Chief of Naval Operations proposed a similar plan to the Joint Chiefs on the following December 9.

General Chamberlin told this IAB meeting of five principles which emerged from his discussion with General Eisenhower. Eisenhower too had misgivings about civilian participation in the committees of the Joint Chiefs of Staff; it must remain essentially a military agency. But he would hesitate to change the existing arrangements for coordination with the Department of State. The second fundamental in Eisenhower's thinking was that the DCI had duties beyond the scope of the Joint Chiefs of Staff; this fact should be allowed for. Third, there should be no obstacle between the President and the Chiefs of Staff in wartime. Fourth, no civilian agency should be interpolated between the Chiefs of Staff and their agencies engaged in making war plans. Similarly, no agencies not strictly military should have access to military plans.

General Vandenberg accepted these principles but replied that CIG proposed to have a "watertight compartment" for military secrets. The war planners needed the best intelligence available; CIG should therefore work closely with them. The talk went on and on but reached no conclusion. General Chamberlin doubted the wisdom of mixing with the Joint Chiefs of Staff the head of an agency which reported to civilian authority, the NIA. Admiral Inglis said that since the DCI reported to the NIA, he should have additional duties for the Joint Chiefs of Staff. It did not seem to matter to either that the NIA "civilian" members were the superiors of the Joint Chiefs of Staff. Vandenberg brought the discussion finally to an end by proposing further work on the problem by staff members. Another ad hoc committee therefore was named to deliberate with ICAPS and bring in majority and minority reports.

This committee agreed on December 3 that each agency should submit its own plan, but the proceeding came to naught. In the

meantime the members of the Joint Intelligence Committee had endorsed Admiral Inglis' original plan to let the Joint Intelligence Staff serve them also when they sat as the Intelligence Advisory Board. Vandenberg saw no point in discussing the question further with these men and took it to the NIA in this meeting of February 12.

General Vandenberg stated his position to Secretaries Marshall, Patterson, and Forrestal and Admiral Leahy—men who understood the operations of the Joint Chiefs and the concept of central intelligence. Those who had created CIC, Vandenberg understood, had in mind that it would replace the Joint Intelligence Committee. This, however, had not occurred; nor had any working relationship been achieved. The two organizations continued with parallel responsibilities and no effective coordination. There was constant friction with the intelligence agencies of the War and Navy Departments over priorities. The duplication was unnecessary. He recommended that the Joint Intelligence Committee be abolished. CIC should provide the necessary intelligence for the Joint Chiefs of Staff.

Secretary Forrestal inquired if this plan had been taken up with the Joint Chiefs. Vandenberg was sure that it had, through the members of the IAB, that is the JIC. Mr. Eddy, present for the State Department, thought it important to abolish the JIC and have all interdepartmental intelligence under CIC. Without further comment the NIA agreed that the Joint Intelligence Committee should be abolished and its functions assumed by CIC, subject to the views of the Joint Chiefs, to be obtained by Admiral Leahy.

What the Joint Chiefs were likely to decide had already been indicated. On the preceding December 9 the Chief of Naval Operations, Admiral Nimitz, declared that the time had come to reorganize the JIC on the principle that it should consist only of representatives from the military services. Coordination with other agencies should be done through CIC. Of the wartime civilian representation only that of State remained; it should now be removed. The Joint Chiefs approved this concept on February 21, 1947; and there the matter rested for months, as all were far more concerned with actions in Congress over the merger of the armed forces and the creation of a National Security Council. When the question rose again, General Vandenberg was no longer Director of Central Intelligence, was soon to be a member of the Joint Chiefs of Staff.

### *Scientific Intelligence*

Soon after CIG was established, Admiral Souers took the initiative to coordinate scientific intelligence with the war-created Office of Scientific Research and Development, directing his Central Planning Staff to look into the problem. He obtained Dr. H. P. Robertson as his scientific consultant. The Secretaries of State, War, and the Navy through their Coordinating Committee, predecessor of the National Security Council, investigated Japanese research in nuclear energy and examined the results of the atomic tests at Bikini in the summer of 1946. On August 1, Congress passed the act creating the Atomic Energy Commission.

Anticipating the AEC's takeover of the Manhattan Engineering District from the War Department, General Vandenberg had a directive prepared to place intelligence about foreign development of atomic energy within the jurisdiction of the CIG. Vandenberg knew from his experience with the fifth directive in July that his plan would never get by the IAB with phrases like "control and supervision" in it. He accepted the looser concept of "coordination." The papers were circulated to the NIA members on August 13. Secretaries Patterson and Forrestal approved. Admiral Leahy wished only a few editorial changes. But Dean Acheson, Acting Secretary of State while Byrnes attended the peace conference in Paris, would not permit the directive to issue and called a meeting of the NIA for August 21.

Secretary Patterson opened the discussion. It seemed senseless to him that the small division in General Groves' office engaged in collecting information about foreign activities in the field of atomic energy should be kept apart from the CIG. This division was not concerned with the production of atomic energy in this country; there was no reason to leave it under the AEC. Secretary Forrestal agreed, if the AEC were not denied the information. Admiral Leahy favored the plan. Vandenberg assured them that it was designed to provide and not to deny information; he would certainly furnish the intelligence to the AEC as directed by the NIA. But Acheson demurred. He did not want to interfere with the organization which was searching for uranium ore. In any case, they should wait until President Truman had appointed the AEC and it could establish its policies. He had reason to believe that the President would so prefer.

Secretary Patterson persisted in saying that the matter was already within the province of the NIA and was urgent. Admiral Leahy gave Patterson further support. And so Acheson suggested that Leahy clear the directive with the President. This Leahy did by telegraph, noting that the NIA could make any change in the future which the AEC might desire. The President replied on August 23 that he wished to postpone action until he had returned to Washington. This delay was prolonged into December when the appointment of David Lilienthal to the AEC chairmanship aroused opposition.

In the meantime ICAPS became much interested in coordinating the intelligence of several agencies on guided missiles and the requirements of scientific intelligence concerning Russia. General Vandenberg was endeavoring to obtain a close relationship with the Joint Research and Development Board which Secretaries Patterson and Forrestal had established on July 3, 1946. President Truman had been inclined to continue the Office of Scientific Research and Development which had done so well during the war under the chairmanship of Vannevar Bush. But it was Bush's own opinion that the OSRD had come to the logical end of its career and should go out of existence, much as the OSS and other wartime agencies had done. He and other members of the old organization were willing to stay at the request of the secretaries and carry on those functions and programs which should be continued.

The new Joint Board was to be more concerned with planning than with the operations which had engaged so much of the OSRD time. It was not to be an independent executive agency associated with the Joint Chiefs of Staff, but was directly responsible to the Secretaries of War and the Navy. It would not collect intelligence on foreign scientific activities as the OSRD had, but would like to rely on the new Central Intelligence Group for this while it concentrated on planning for the Army and Navy.

It was in this spirit that the Technical Advisors of the JRDB held a preliminary meeting on October 23, 1946. At their next meeting, November 20, they had an ORE estimate to read and consider on Soviet capabilities for developing an atomic bomb, guided missiles, heavy bombers, fighters, radar, and submarines during the next ten years. It was, as it said, at best "educated guesswork." But it was impressive as an interdepartmental product, and in the end it proved surprisingly accurate. With this substantial evidence before

CONFIDENTIAL

them of CIG capabilities, the Technical Advisors listened to Dr. H. P. Robertson, scientific consultant of the DCI, explain the organization of the CIG, discuss problems in the field of scientific intelligence, and suggest ways of mutual assistance for CIG and the JRDB.

The third meeting of the Technical Advisors on December 6, 7, and 8 brought together General Vandenberg, Allen W. Dulles, and General Donovan for a thorough discussion of foreign intelligence. There was no stenotypist present to make a record of their remarks, but a member of the secretariat recalls that Mr. Dulles related his war-time experiences as OSS station chief at Berne, Switzerland. General Donovan repeated with his usual fervor the principles he advocated and the corresponding criticisms of CIG which he had made in *Life* for September 30, 1946. He did not like having the NIA as a board of control; the DCI should be responsible directly to the President, and the secretaries of the departments should serve as his advisers, not superiors.

General Vandenberg reviewed his difficulties with the Intelligence Advisory Board. He was at that time, as we have seen, at odds with the chief intelligence officers of the Army and Navy over his authority in relation to them over requirements and the coordination of collection, and over the place the DCI and CIG should have with the Joint Chiefs of Staff.

The result of this three-day conference was agreement that the Joint Research and Development Board should find a head for a CIG section to have charge of evaluating scientific and technical intelligence and should help him obtain the experts necessary for his work. It was further agreed that there should be a statement of the scope of the term "scientific and technical intelligence," a general plan for securing coverage of foreign developments in science, and a definite relationship between the JRDB and CIG.

Vannevar Bush and General Vandenberg issued their program for cooperation in the field of scientific intelligence on January 10, 1947. It provided that the Scientific Branch of ORE should assume the initiative and responsibility for developing a national program of scientific intelligence. The head of the Branch, serving as adviser on scientific intelligence to the DCI, should have direct access to JRDB activities pertaining to his work.

The Scientific Branch would formulate requirements for scientific intelligence in collaboration with JRDB and the departments and agencies concerned. It would be responsible for planning and coor-

CONFIDENTIAL

93

minating collection. It would prepare estimates on the scientific capabilities and intentions of foreign countries. It would correlate these scientific estimates with those in other fields of intelligence for the production of strategic intelligence.

CIG undertook to provide the JRDB with the intelligence to meet its needs, particularly in regard to foreign items of specific interest. On its part, the JRDB undertook to cooperate in supplying CIG with qualified personnel, special facilities, and close day-to-day liaison on scientific matters.

General Vandenberg had endeavored to arrange a meeting of the NIA for January 6 to approve this agreement with Bush before issuing it, but was unable to do so. Nor had the person to head the Scientific Branch been obtained when it was formally established on January 23. Vandenberg wrote to Bush on March 13 to say that he was appointing an acting chief from within CIG who would report to the chairman of the JRDB and make himself and the Branch as a whole fully available. It was a long while, however, before the Branch was equipped to perform the functions stipulated in the agreed program of cooperation.

In accordance with Secretary Patterson's report to the NIA on February 12 about the arrangement for transferring the files and personnel in the intelligence division of the Manhattan Engineering District—not including information about uranium deposits—to the CIG, the transfer was completed on February 18. On March 28 they became the Nuclear Energy Group in the Scientific Branch of ORE. A directive authorizing the DCI to coordinate all intelligence related to foreign development of atomic energy was issued on April 18.



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No Foreign Dissem

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- MY SILENT WAR. By *Harold Adrian Russell Philby*. (New York: Grove Press. 1968. 262 pp. \$5.95.)
- THE PHILBY CONSPIRACY. By *Bruce Page, David Leitch, and Phillip Knightley*. (New York: Doubleday. 1968. 300 pp. \$5.95.)
- THE THIRD MAN. By *E. H. Cookridge* (pseudonym for Edward Spiro). (New York: G. P. Putnam's Sons. 1968. 281 pp. \$5.95.)
- KIM PHILBY: The Spy I Married. By *Eleanor Philby*. (New York: Ballantine Books. Paperback. 1968. 174 pp. \$.75.)

Each of these four books reflects a special attitude toward the most spectacularly successful spy of our generation, Harold Adrian Russell Philby, better known as "Kim." His success is in fact frightening to contemplate; if it had not been for his loyalty to two highly unstable and risky comrades, Guy Burgess and Donald Maclean, and an unanticipated Soviet defection, he might well have been appointed head of the British intelligence service and would have then perhaps been able to protect his identity as Russia's greatest espionage agent for the rest of his life. Though the present books reveal much about Philby, his British environment, the historical climate within which he lived and evolved, and MI-6 and MI-5, there is still much left to be revealed in the future.<sup>1</sup>

<sup>1</sup> Philby's book has already generated retrospective contributions by three of his former colleagues in the service. These, along with earlier articles by the same authors, are of more than ephemeral interest because they contain factual detail and appreciation which are primary contributions to an understanding of Philby the operator. It is probably no coincidence that each of the writers is himself discussed by Philby at various points in his memoir. The articles appeared as indicated below.

Graham Greene: ". . . Security in Room 51," *The Sunday Times*, 14 July 1963; "Our Man in Moscow," *The Observer* (London), 18 February 1968, p. 26; "Reflections on the Character of Kim Philby," *Esquire*, September 1968, p. 111.

Malcolm Muggeridge: "The Case of Kim Philby," *Sunday Telegraph*, 7 July 1963; "Refractions in the Character of Kim Philby," *Esquire*, September 1968, pp. 113, 165-170.

Hugh Trevor-Roper: "Espionage, Treason, and Secret Services," *Encounter*, April 1968, pp. 3-26, followed by *The Philby Affair* (London, 1968).

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from pg.

CONFIDENTIAL

85

95-100

In the preface to *My Silent War*, Philby actually declares that his book is merely prologue to what will follow at a later date. His present reticence about his close relationship with U.S. intelligence and his activities since 1955 suggest that these will be the subjects of a sequel to appear when the KGB deems it propitious. In an epilogue he explains the delay:

The compelling reason is that while the British and American intelligence services can reconstruct pretty accurately my activities up to 1955, there is positive and negative evidence that they know nothing about my subsequent career in the Soviet Service.

This confidence may be justified to some degree, but on the threshold of the later period, when he served as correspondent for *The Economist* and *The Observer*, he moved all over the Middle East meeting every leading statesmen and politician in the Arab world and reporting on the concatenation of events which were to explode in the Sinai Campaign of 1956. It was logical for the Soviets to instruct him to seek an assignment in the Middle East: he was the son of that great Arabist, St. John Philby, and he had recently humiliated perfidious Albion, qualifications that would give him an enviable entrée to a volatile area high on their target list. A close reading of his dispatches shows that he made a serious effort to reflect the standards of an objective "Western" reporter, but through them all runs a subtle condemnation of imperialism and the American presence, always expressed in the pronouncements of anti-imperialist Arabs. There is never any criticism of the Soviet machinations which were beginning to manifest themselves at the time. Knowing the British and American attitudes as well as the Arab mind, Philby may very well have become one of the guiding lights of KGB, if not Soviet, policy in the Middle East.

Why would a man of his background and connections sell his soul to the devil without ever a tinge of Faustian remorse? One of his first acts in going up to Cambridge in 1929 was to join the Socialist Society, and he admits that when he left the university he was a Communist. Not long thereafter came his recruitment. His own explanation is:

It is a sobering thought that, but for the power of the Soviet Union and the Communist idea, the Old World, if not the whole world, would now be ruled by Hitler and Hirohito.

But that is after-the-fact rationalization, not motivation in the early thirties.

CONFIDENTIAL

John le Carré, the disillusioned British author of *The Spy Who Came in from the Cold*, has written a stimulating introduction to the Page-Leitch-Knightley book. Himself apparently beset with a constant antipathy for the British Establishment, Le Carré makes a big case for Philby's hatred of the Establishment, derived from his father, as motivation for his treason:

Duplicity for Kim Philby was something of a family tradition. However Philby reacted to his eminently distasteful father, whether he wished to destroy or outshine him, or merely to follow in his footsteps, he could hardly fail, in the outposts where they lived, to inherit many of his characteristics. St. John Philby did not hide from his son his contempt for his superiors in London.

Le Carré believes that Kim acquired from his father the "neo-fascist" instincts of a slightly beserk English gentleman.

The three authors' *Philby Conspiracy* is certainly the most ambitious and comprehensive of these books and reads better than most good spy stories. Despite their peripatetic efforts, however, and their serious labors to uncover the clandestine lives of their three unholy subjects, the fact that they did not have access to official classified information leaves their work still incomplete and full of gaps. There are also inaccuracies. Philby's downfall was not precipitated by a Polish defector. It is questionable that he remained a "field agent" of MI-6 after his dismissal in 1951. Since the authors were youngsters during the war and not intelligence professionals, they could not be expected to appreciate Philby's work against the Germans from 1941 to 1945, but they might have mentioned it. With the confluence of British and Russian interests against the Germans, it is presumed that he contributed as much to MI-6 as he did to the NKVD. But his role in Operation North Pole and his connection with the Communist resistance in France and the Rote Kapelle are ignored.

Did Philby, for instance, assist the NKVD in the assassination of General Sikorsky at Gibraltar? Sabotage of the general's plane has been laid to both the Russians and the British, and Philby was in charge of MI-6 counterintelligence operations for the Iberian Peninsula at the time. The Cookridge book says that he was in touch with certain Soviet agents possibly implicated in the case, but we do not know as yet his connection with them, and we cannot suppose that Cookridge knows more than we do. Yet it is not farfetched to surmise that Philby's Soviet case officer may have got from him informa-

CONFIDENTIAL

tion essential to the success of the operation; it was the kind of operation that needed inside assistance.

E. H. Cookridge acquired a reputation of "former secret agent" and "international authority on espionage" from his earlier *Secrets of the British Secret Service* and *The Soviet Spy Net*, written without benefit of connection with either British or Soviet intelligence. Like the present *Third Man*, they were based on voluminous press clippings from British, American and continental newspapers and supplemented by official documents accessible to public scrutiny. All these books are a curious mixture of fact and wild inaccuracies, made to sound professional by use of the right jargon.

Cookridge knew Philby in Vienna in 1933-1934 and subsequently, a fact that entitles him to speak with some authority. He says Philby was a Communist in Vienna, as Philby himself does. But the book contains many disconcerting discrepancies and outright guesses. It describes Philby's elegant and luxurious living in Washington, something denied by everybody who knew him. It calls his second wife American; she was British. Perhaps this error is forgivable inasmuch as Philby has had four wives—an Austrian Communist who became British, a Britisher, and two Americans. But there are many other mistaken names, dates, places, and facts. The book is definitely less authoritative than it reads, but it should be read as a complement to the other two.

Third wife Eleanor Philby's *Kim Philby: The Spy I Married*, says very little about spying and too much about her husband's drinking orgies. One gets the impression that they had little time for anything else, though she claims that these were the happiest years of her life. He obviously was cracking under the strain of thirty years of deception—even of his wife when he most professed to love her. After he went "home" to Moscow, he lightly discarded her for Melinda Maclean, who must be something of a kook too. Her easy desertion of Maclean, after having followed him to Moscow and lived with him until Philby's arrival, suggests that he was even more maladjusted in Moscow than he had been in the West. It does seem incredible that Eleanor never learned or suspected anything about Philby's true character and that she could have been so unfeminine as to be personally incurious about his political attitudes and nocturnal activities. But if he could fool the British intelligence service for eleven years, I suppose he could deceive a wife for five. Her book is valuable to the professional

analyst for its psychological insights. Philby's own book avoids the sensitive areas of personality treated by her and Cookridge.

Why did Philby write his book? To counteract the nonsense and defamation being published in London, he says. But as he must have known or at least learned after his arrival in Moscow, nobody, not even a Hero of the Soviet Union, publishes anything touching on Soviet state secrets or activities without the *nihil obstat* of the KGB or under its specific instructions. The book must therefore be looked upon as a tactic of the continuing cold war—an instrument of blackmail, deception, and disinformation. If his memoirs had no political purpose, why did he first offer to withdraw publication of a not yet seen but assuredly embarrassing manuscript in exchange for a political concession by the British government—the release from prison of the Krogers (Cohens), the veteran Soviet agents picked up with Lonsdale?

There is a long-term goal in this new Soviet policy of publicizing intelligence successes. It is an advanced stage of psychological warfare intended both to embarrass the West and to undermine the morale of the intelligence services and the public in Britain and the United States. Philby did an exceedingly smooth job of denigrating MI-6 and MI-5, past and present. The other half of the same program is the KGB's defamation of the CIA by all devices, including disinformation. Philby accuses CIA, for example, of having murdered Stepan Bandera in Munich, ignoring the fact that a Russian defector, Bogdan Stashinsky, confessed to having done this murder on KGB instruction.

The Philby case is a real mystery thriller and will remain mysterious until some informed defector or defectors reveal unknown facts and clarify disputed points. It could be and should be a subject of long study for all young men who have embarked on intelligence careers. It offers many lessons from several specialized points of view—counter-intelligence, recruiting, psychological and moral assessment, operational control, security of operations, and security of the service. Above all it brings home the patient, long-term approach of the Soviet services, which their adversaries should never forget.

Philby, like other contemporaries of his, was disenchanted with the Establishment. Thirty years later our society is experiencing another period of distaste for the establishment on the part of the youth. Rest assured that the Soviets, far more sophisticated than they were in 1930, are already at work in this murky milieu, not for today but for the 1980's and 1990's. The lines and personalities of the Philby case, inextricably interwoven with the Rote Kapelle, the Rote Drei and

Operation North Pole, will continue to surface again and again, perhaps even close to home, for the United States and the CIA are major targets of the KGB and will be for many years to come.

James Lullingstone

L'ORCHESTRE ROUGE. By Gilles Perrault. (Paris: Fayard. 1967. 576 pp. 22.50 fr.)

In preparation for writing this account of the famous Soviet wartime espionage network which German counterintelligence called the Rote Kapelle, the author is said to have spent three years in research, travelling thousands of miles and interviewing a score of still living participants in the affair, including: the "Grand Chief" Leopold Trepper, @ Leiba Domb; his mistress Georgie de Winter; Claude Spaak, brother of the former Belgian prime minister; and Margarete Barcza, mistress of "Little Chief" Victor Sukolov. In Germany he talked to some of the surviving Abwehr and Gestapo officers involved in the investigation of the net—"Franz Fortner," Heinz Pannwitz, Oscar Reile, and Heinrich Reiser—as well as Manfred Roeder, the judge who sentenced many of its members to death. He obviously enjoyed the cooperation of the French intelligence services. And it is possible that he obtained the *nihil obstat* of the Russians, or at least the Poles.

The resulting Hollywood-worthy scenario of who was doing what to whom in that underworld of agents and double agents is hard to read because it is incredibly complicated and poorly organized. It is full of blinding flashbacks, and the narrative is interrupted for commentaries by the author or by the witnesses he interviewed, which are in turn then annotated and editorialized. All too often the good guys cannot be distinguished from the bad guys, but there is no question about one thing: Trepper is a good guy, with many-splendored virtues. "He would have made an excellent confessor." He "had the vitality and strength of a bull." "He was a brave man." "He displayed extraordinary humanism." "An excellent businessman, very friendly, someone well-bred." "A good comedian."

The real Trepper was a great agent, but Perrault's Trepper is more. He is the virtuoso of the Red Orchestra, the perceptive genius who alone saw clearly through the dark labyrinth of the Gestapo's Funkspiel—radio deception—and was phenomenally successful in double and triple operations. He was a worthy representative of the omnipotent and omniscient Soviet intelligence services, which

CONFIDENTIAL

beat "the stupid Germans" hands down. This superman, at home in the arena of espionage where the individual and his qualities are still decisive, exposed himself to all dangers and humiliated all adversaries. No mercenary spy, he burns with the political faith of "a revolutionary who incarnates the best of the men of his generation." He is still "nobly serving the Communist cause" in Poland.

There are hints, to be sure, of another side of the story. Gestapo chief Pannwitz sketches thus the man who from the age of 18 had hidden behind a false identity and moved in a clandestine world:

When he thought he wasn't being observed, he looked very tough and distrustful, cold and aloof. The moment someone paid attention to him, his appearance changed and he played an actor's role. If someone pressed him with questions, he would put his hand on his heart to remind his interlocutor that he had a heart condition.

Perrault, of course, discredits Pannwitz's view: "Pannwitz is slippery . . . at his touch one has the sensation of getting dirty."

Pannwitz tells how the Germans located the clandestine networks of the Kapelle in Brussels, Berlin, Amsterdam, and Paris and then did not merely liquidate them but instead doubled the agents and used them as deception channels to the Soviets. According to Perrault, Trepper managed to warn Moscow of the Funkspiel, but in vain: Moscow ignored the warning and decided that Trepper was disloyal. He felt he was best equipped to make decisions in the field; Moscow felt otherwise. He "was the victim of in-fighting in Moscow." "There was distrust at the Center where everyone is always under suspicion of leaning to the Left, of leaning to the Right, of weakness for women, of preferring men, of weakness for money, of belonging to British intelligence."

Perrault has Trepper making only one mistake: when he arrived in Moscow in 1945, he demanded an explanation from the Director of the Soviet service. What awaited him was a cell in the Lubyanka; his masters punished him for having been right. After the death of Stalin he was released and rehabilitated. He went back to Poland, apparently disillusioned but not disheartened. He now explains the episode: "Stalinism was an epidemic. We had to wait for it to pass. The trip from Moscow to Warsaw lasted 11 years . . . trains are often late." He emerged from the Lubyanka as he entered it: a Communist. "And for us who are not Communists," the author observes, "we are glad Trepper remained a Communist because the de-

CONFIDENTIAL

feat of a man who has rejected his convictions because they were too onerous is a defeat for all men."

The book has some virtues. It traces in detail the complications of the Funkspiel. It provides an excellent account of the bitter struggle between the Gestapo and the Abwehr, between Himmler and Bormann, between headquarters and field, and between the Comintern and Soviet military intelligence. It reflects a grasp of agent motivation. And certainly the interviews with many witnesses have developed new information.

But making Trepper ten feet tall, Soviet intelligence invincible, and the Germans naive are only the most pervasive of its caricatures. The adroit Comintern agent Robinson is downgraded to a jealous, temperamental, blundering fool, and "Little Chief" Sukolov is shown lovesick, lazy, and incompetent. Trepper is surrounded by traitors: Hillel Katz, Leon Grossvogel, Abraham Rajchmann, Constantin Yefremov, Isidor Springer, and others. Although some of the bad guys are on the Soviet side, the dominant effect of Perrault's subjective slant makes this a pro-Moscow version of the history of the Rote Kapelle.

In the course of glorifying Trepper and the Soviet service, Perrault also distorts or handles carelessly some smaller facts. Item: his main Abwehr source, "Franz Fortner," is clearly Henry Friedrich Wilhelm Piepe, born 25 July 1893 in Uelzer, Germany; and what he cites from this source does not coincide well with what Peipe has told us. Item: Trepper's wife Luba, the book reports, bore him two sons; no mention is made of Sara Orschitzer, née Broida, to whom also Trepper was once married and with whom he also fathered sons.

Perrault says that Pannwitz, a professional criminal officer in Amt IV of the Reichssicherheitshauptamt, opted to flee to the USSR with double agent Sukolov because "he was an intellectual gangster of the Third Reich." Pannwitz told us he believed the United States intended to adopt the Morgenthau plan to reduce Germany to pastoral status, but if the USSR were split from the Western Allies, there might be hope of rebuilding the nation. It is probable that Pannwitz considered a compromise peace between Germany and Russia both possible and necessary, but it may be still closer to the whole truth that he was a Soviet agent all along and in cahoots, it could be, with his bosses Heinrich Mueller and Martin Bormann.

The author appears to accept without question the authenticity of the Hohenlohe papers found in the RSHA files in Berlin which Bloc propaganda has used to impute pro-Nazi sympathies to Allen Dulles.



Perrault depicts Schulze-Boysen and his coterie of German sources as devoted principally to resistance work against the Nazi regime rather than giving aid and comfort to an enemy power. This is a slippery thesis, and where it may lead is shown in Margaret Boveri's *Treason in the 20th Century*; she defends the heretics of yesterday and the traitors of today and calls for caution before passing judgment on anyone for so-called acts of treason. Someday, someone is going to have to write objectively of the false and perverted "patriotism" of the agents of the Schulze-Boysen net in Germany, the Corby case in Canada, and the Silvermaster case in the United States, three Soviet networks that show close parallels.

Perrault may already regret some of his lionizing of the Rote Kapelle and Trepper @ Domb. In the last page of his book, he reports that Leiba Domb was at Auschwitz on 11 April 1965, commemorating the liberation of that infamous concentration camp, and as President of the Jewish community of Poland addressed the 80,000 persons there. Perrault waxes oratorical himself:

Listen to him: Through him all the dead of the Rote Kapelle speak to the dead of Auschwitz, and to the living throughout the world. . . . Listen to him: It is well that his words resound over Auschwitz where the unspeakable crimes were committed, where a whole people was exterminated, because it was precisely to bring an end to this that those of the Rote Kapelle fought and died. . . . Listen to him: It is well . . . to hear the voice of the Jews who undoubtedly gave Nazism its deadliest blows.

It is ironical that after these words were written the hero found himself in the Communist doghouse. According to the *New York Times* of 28 March 1968, Leopold Domb, President of the Jewish Cultural Society, "who during World War II ran a Soviet espionage ring in France and Belgium," was one of a number of Poles attacked for the "anti-Polish campaign staged by Zionist centers in the West."

As Paul A. Ladame, a specialist on disinformation, has written: "Truth is always on the side of the conqueror . . . since it is he who dictates to the historian." If Hitler had won the war it is probable that Auschwitz would have been only a footnote in history and Trepper's counterpart would now be commemorating the Katyn Forest massacre. The Rote Kapelle agents who survived were the victors, and this book is an ambitious attempt to upgrade and glorify the Grand Chief and his Communist comrades.

*L'Orchestre Rouge* will have a place in the bibliography of the still unwritten definitive work on this subject. The author of that future

book will thank Perrault for digging out new facts and for the other virtues of his account cited above, unless he is overwhelmed with disgust at the Frenchman's exaggerated biases and the distortions which they caused.

Maurice Lesuer

LA GUERRE A ETE GAGNEE EN SUISSE. By *Pierre Accoce* and *Pierre Quet*. (Paris: Perrin. 1966. 317 pp. 15 fr.) Also published in German, British, and American editions as *Moskau Wusste Alles*, translated by R. J. Humm (Zürich: Schweizer Verlag, 1966, 269 pp.), *The Lucy Ring*, translated by A. M. Sheridan Smith (London: W. H. Allen, 1967, 224 pp.), and *A Man Called Lucy*, above translator (New York: Coward-McCann, 1967, 248 pp.)

VERRAT IM ZWEITEN WELTKRIEG. .By *Wilhelm Ritter von Schramm*. (Düsseldorf-Vienna: Econ-Verlag. 1967. 401 pp. 400 S.)

These books, for all their broad titles, are chiefly concerned with Rudolf Roessler, Alexander Foote's and Sandor Rado's most important source "Lucy" in the Soviet wartime net which the Germans called the Rote Drei. The French edition of the Accoce-Quet book, "The War Was Won in Switzerland," has been reviewed before<sup>1</sup> and shown to be unreliable, but it will be worth while to compare it with its various translations and with Von Schramm's "Treason in the Second World War."

Accoce and Quet seem to owe their unreliability to more than an inadequate knowledge of history and espionage. When distortion and falsification are deliberately employed—and the French writers have since admitted that their "identifications" of Lucy's sources by first name and initial letter of surname were their own invention—then we are well advised to scrutinize the motives of the writers. The errors and misinterpretations of Von Schramm, on the other hand, appear to spring from a wistful, old-fashioned, militaristic patriotism which compels him to argue that no professional German soldier betrayed his country.

One of the motives of Accoce and Quet appears to be merely mercenary: they set out after all the sales they could get. Their use of quoted dialogue in scenes to which there are no witnesses is only

<sup>1</sup> *Studies X 3*, p. 102 ff.

CONFIDENTIAL

one of many cheap and transparent tricks of the trade. Their lack of serious research is also obvious; as Burke Wilkinson<sup>2</sup> has pointed out, they don't even know that the *Oberkommando der Wehrmacht* was the top command level for all the German armed forces, not just the Army. And their misunderstanding of espionage is writ large when they describe Lucy as "the real head of his resistance network" (p. 159 of the British edition) and "probably the world's greatest spy . . ." (foreword to the American edition). Roessler was neither the head of a net nor a spy; he was a link in a communications chain that ran from Germany via Switzerland to the USSR. Another silly fiction is their declaration that General Fritz T. (evidently intended to suggest General Fritz Thiele, Chief Signals Officer of the German General Staff) *personally* encoded all messages to Lucy, a task which would on many days have left little time to do anything else.

A comparison of the four editions shows other ways in which the writers have played fast and loose with Lucy. The British and American versions, for example, have a smirking photo of Walter Schellenberg which makes him look cunning and reptilian. The French version crops and enlarges the same picture to enhance this effect. But the German version uses a different photo in which Schellenberg looks handsome, intellectual, and intent. Similarly, the French and British editions refer to the Soviet-created Bull-Pauls myth, the canard that Allen Dulles was pro-Fascist and met secretly with representatives of Schellenberg to establish a separate peace between Germany and the Western powers and to ensure the survival of Nazi Germany as a factor in the postwar world, while the American and German versions omit this fabrication for obvious reasons.

What is intriguing about the A & Q book is not, however, that it is inaccurate, deliberately dishonest, and aimed at the market; the same can be said of many other books. This one is distinct in that it distorts the record of Roessler's work in Switzerland to support two underlying propaganda themes.

The first of these is that the USSR saved the world from Fascism both by fighting heroically and by having the wit to make full use of Lucy's priceless information, which the West stupidly disregarded. All four versions give considerable attention to the battles in the East, whereas the Western allies are nearly ignored. And the West's alleged failure to use Lucy's product is hammered home again and again. Roessler ". . . did not yet realize that the West would take

<sup>2</sup> *New York Times*, Book Review Section, 11 June 1967.

no account of the exceptional value of his information." "Strategists . . . will find no valid explanation for this tragic fact: the French and British High Commands made no use of the extraordinary information that had been communicated to them. . . . These high commands were very largely responsible for the defeat of 1940. They cannot seek to evade that responsibility. They will never be able to exculpate themselves." "In their wilful blindness these men had refused to see the signs of the coming Nazi cataclysm. As a result, millions of innocent people fell victim to their indifference." "The information that [Lucy] carried every day to the Villa Stutz did not, unfortunately, receive the same welcome from the Western Allies as it had done from the Russians."

In short, the USSR alone saved all of us from the consequences of Western folly.

The second propaganda theme is the insistent assertion that the 20th of July conspirators were unimportant and that none of them were sources for Roessler. "The abortive attempt on Hitler's life on July 20, 1944, has been given a great deal of attention. In fact, it was merely the culmination of a line of earlier plots . . . a permanent, but really quite unserious conspiracy. Rudolf Roessler's ten friends . . . kept well away from this . . . mass of plotters."

*Der Stern*,<sup>3</sup> noting this point, commented: "Through this untruth do the authors seek to reach a conclusion turned upside down: that the plotters of the 20th of July . . . were not—in contrast to Roessler's friends—true opponents of National Socialism? This [thesis] corresponds to the Communist opinion that the resistance fighters of the 20th of July were merely reactionary *putschists*."

In advancing the twin arguments that only the USSR won the war and that to find effective opposition to the Nazis one must look elsewhere than to the 20th of July circle, the French writers are close to the standard Communist line. Their interpretation is not surprising. The available information on their political leanings is sparse but does include an unconfirmed report that Accoce is or was a Communist and that he once worked for *Ce Soir*. *Der Stern* is more specific: ". . . Accoce wrote for years for the Communist newspaper 'Ce Soir,' which has since gone under but which employed only Communist Party members."<sup>4</sup>

<sup>3</sup> Hamburg, No. 20, 15 May 1966, pp. 7-9.

<sup>4</sup> *Ibid.*

CONFIDENTIAL

The Communist press has nevertheless been dissatisfied with Accoce and Quet, or has pretended to be. Tass International Service (English), Moscow, 20 February 1968, complained that the very title "The War Was Won in Switzerland" shows "the authors' intention—to belittle the importance of the great sacrifices, the struggle of the Soviet people, and the successes of its armed forces . . . The aim of the propaganda smokescreen about the activities of antifascist intelligence men is to obscure the lofty political content of the work of the Soviet intelligence service . . . as well as to whitewash fascism."

Perhaps the Soviet reviewers scarcely got beyond the title. At only one point do they have valid cause for discontent. A & Q persistently and dogmatically argue that the 20th of July group contained none of Lucy's sources, but they also invent ten German officers of high rank to correspond to Werther, Teddy, Anna, and the rest—a Tweedledum-Tweedledee kind of difference in Soviet eyes. On this score they have reason to be happier with Ritter von Schramm, who asserts that Lucy's sources were civilians and Communists, not German officers, although he does so in defense of German military honor and not because he feels anything but repugnance for Communism.

"The War Was Won in Switzerland," like "Treason in the Second World War," is a contribution to the myth that is growing more and more verdantly around Rudolf Roessler. Like weeds crowding into a sparse lawn, the Lucy legends flourish best where the facts are thinnest. If the first of the Rote Drei books, Alexander Foote's *Handbook for Spies*, had been as accurate as its author knew how to make it, some of the later errors could not have gained a foothold. But though Foote's book is by far the best of a bad lot, it is at times misleading; Foote himself remarked during a 1953 interview that some British official or officials—whom he did not identify—had changed his manuscript beyond recognition, inserting entire passages that were "wholly new to him."

Accoce and Quet, in contrast, have done their own inventing. Intelligence professionals who are interested in the Rote Drei should therefore know that no sober, reliable work on the subject has appeared to date, both because the chroniclers have had axes to grind and because they did not have access to enough hard information for the purpose. The best touchstone today, when Roessler and Foote are dead and Rado is in Hungary,<sup>5</sup> is a collection of Rote Drei messages which is

<sup>5</sup> For his history and current activities see *Studies* XII 3, p. 41 ff.

CONFIDENTIAL

as complete as possible. Such a collection would at least permit the writing of a study stating the known facts and the areas of remaining darkness. Accoce and Quet are the writers farthest from this bedrock of the messages themselves, most inclined to play ducks and drakes with the facts in order to sensationalize, by all odds likeliest to make the most money.

For the past several years Ritter von Schramm has been writing magazine and newspaper articles about the Rote Drei, and he claims to have worked intensively to solve the Lucy enigmas. He says that he conducted research in Kaufbeuren, where Roessler was born, in the National Archives in Washington, and in Alexandria, Virginia, where captured German documents were stored. In February 1967, during one of several trips to Switzerland, he acquired a set of Rote Drei messages, 220 units of reporting which he calls the Swiss collection. He also has a German collection, duplicating the Swiss but somewhat larger, up to 300 units. He examined these texts with Percy Ernst Schramm, who had kept the war diary of the *Wehrmachts-fuehrungsstab* (General Staff of the Armed Forces).

Nevertheless, Von Schramm's book literally adds nothing to our knowledge. Everything that he says is old or false or speculative. His information about Lucy is drawn from earlier publications, most heavily from Wilhelm F. Flicke's *Agenten Funken Nach Moskau* (Muenchen-Wels, 1954), an unreliable work by an unreliable writer.<sup>6</sup>

Von Schramm's loosely organized work presents, near the end, an idea which the book as a whole is supposed to validate:

Moreover, one must note a remarkable circumstance concerning the Second World War: from 1939 to 1945 *two* kinds of war were actually conducted. In the West in 1940 the outcome was determined predominantly by military and soldierly means; in the East, on the contrary, by an ideology, a political passion. . . . The war in the West . . . [was] a completely fair contest on both sides . . . The war in the East was wholly different: the campaign in Poland in 1939 had already led to the outbreak of political hatred, to the 'dirty war.' This transformation was wholly completed in Russia after the 22nd of June 1941.

A former professional staff officer, Von Schramm reminds one of Edwin Arlington Robinson's Miniver Cheevy, who "missed the mediaeval grace of iron clothing." War, he feels, should be the clash of

<sup>6</sup> Flicke quotes 68 Rote Drei messages, of which 57 match our own holdings except for minor mistakes. Five others are seriously truncated. The remaining six do not exist in our holdings, and several indications suggest that they are fabrications. Von Schramm's German collection probably originated with Flicke.

CONFIDENTIAL

valorous knights fighting for the hell of it, not an ideological struggle which persists after the battles end and gives rise to treason long before. Apart from figures in the Rote Kapelle and the Rote Drei, Von Schramm mentions only two Germans as possible traitors. The first is a flying courier whom he typically does not even name.<sup>7</sup> Von Schramm suggests that his unplanned landing might be considered unintentional treason. The second is General (then Colonel) Hans Oster, who passed to the Dutch military attaché in Berlin, Colonel J. G. Sas, the planned date of the German attack on Belgium and Holland. Unfortunately, his interest in this event does not lead Von Schramm to wonder what else Oster, with the facilities of the Abwehr at his disposal, might have done. He sidesteps the whole moral problem of treason against an evil government by arguing that Oster's act had no influence upon the war: "The capitulation of Holland on 14 May, of Belgium on 27 May, and of France on 22 June 1940 were not prevented thereby, and indeed were not even delayed."

To Von Schramm, in short, treason was not an act that military officers committed (although Harro Schulze-Boysen of the Rote Kapelle gives him some trouble on this score). Roessler, yes, and Von Schramm is at pains to point out that Roessler played a "very small, almost pitiful role" in World War I. He was frequently sick, hospitalized, and away from his unit. Legend notwithstanding, he was not the comrade of any man who later became a general. Lucy never "made his *Abitur*," was not a secondary school graduate. Worst of all, he never even reached the grade of corporal.

Similarly, Von Schramm strives to magnify the role of Pakbo,<sup>8</sup> a Swiss journalist, and minimize (to the vanishing point) the role of "Werther," identified with the most important Rote Drei messages and widely considered to have been a very senior officer in the *Oberkommando der Wehrmacht*. In his quaint, obsessive defense of German military honor, he advances the following arguments, all of them patently improbable or demonstrably false:

1. *Information from Germany could not have reached Lucy via the Swiss General Staff because its officers would never have*

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<sup>7</sup> He was Major Helmut Reinberger, who on 10 January 1940 got lost in some clouds over Belgium and made a forced landing. In his plane were the entire plans for the German attack in the West. He made two determined but unsuccessful attempts to destroy these papers, which the Belgians retrieved.

<sup>8</sup> Although the identity is widely known, Von Schramm does not give Pakbo's true name, Otto Punter.

CONFIDENTIAL

*passed such secret intelligence to an agent like Roessler. This statement is untrue. Rado sent the following on 28 October 1941: ". . . All this information, available to the Swiss General Staff, came from a German officer who serves in the OKW. In the future I will call the intelligence service of the Swiss General Staff 'Luise.'"*

2. *Harro Schulze-Boysen of the Rote Kapelle was arrested at the door of the Air Ministry on 30 August 1942, and the Gestapo rolled up a large part of this Soviet espionage network in Germany and Belgium. But those not caught then began to send their information to Lucy for relay to Moscow. That is why "from then on there are many more encoded radio messages than before, especially those from Moscow." Von Schramm's collection of some 300 messages is less than five percent of the traffic and not a representative sample, so that such volume comparisons are quite indefensible. Moreover, a number of sources were cited in the traffic before 30 August 1942 but only one new one inside Germany during the rest of the year. Von Schramm's efforts to show that the key Rote Drei agents were really agents of the Rote Kapelle—so that those who betrayed Germany's secrets from inside her borders were not soldiers but Bolsheviks—are not merely unsupported by the evidence; they are contradicted by it.*
3. *Flicke identifies a Rote Drei agent whose cover name was Maurice, arrested in the spring of 1943, with a Rote Kapelle courier whose true name was Maurice Aenishaenslin. But Flicke made a practice of trying to identify Rote Drei personnel by assuming that their cover names were their true first names (and sometimes even true last names: he maintained that "Salter," still unidentified, was Erwin John Salter, an Englishman living in Switzerland) whereas of all the Rote Drei personnel whose identities have been established none have matching cover and true names. Moreover, the cover name in question appears in the traffic to be not Maurice but "Marius," and the real Maurice Aenis-Haenslin, a Swiss citizen born 20 February 1893 in St. Denis, was arrested by the Gestapo in 1942 and sent to a concentration camp at Brandenburg. He was eventually released on Swiss demand, but it seems unlikely that he was out soon enough to be rearrested the next spring in France.*



4. *Hans Oster could not have been Werther or any other major source of Lucy, because he was removed from his Abwehr post and placed under house arrest in April 1943. But Schulze-Boysen, Von Schramm's nominee as a key source for Roessler, had been arrested in August 1942. The fact is that a number of high-ranking fellow-officers of Oster, including Canaris' successor Colonel Georg Hansen, were part of the 20th of July conspiracy and could have continued to send Lucy information long past the date of his last known message, 8 October 1943.*
5. *Werther was not a person. The last radio message containing military intelligence and attributed to Werther ran as follows: "Fanny has learned from deserters about a large number of locations of reserve infantry battalions and reserve artillery units in Germany. Most of these units consist of only a few hundred men. Shall I report such assertions?" If Werther had been a real person in the Fuehrer's headquarters, he would hardly have found it necessary to concern himself with deserters or the little picture. Here Von Schramm has merely run together two messages radioed to Moscow on 11 October 1943. The Werther message, a brief two sentences, was sent just ahead of the Fanny message. Von Schramm should have known that Fanny was a minor sub-source who had nothing to do with Werther or anyone else in the Lucy group. It may be true that Werther was a phantom, but the same can be said of any other unidentified source. There is much to recommend Von Schramm's speculation that Roessler invented Werther at the instigation of the Swiss, who wanted to conceal from Moscow the fact that they were passing classified and evaluated intelligence to Lucy. What surprises is Von Schramm's bland unawareness of his own earlier claim that the Swiss would never have taken this step.*
6. *Pakbo was a much more important member of the Rote Drei than has been recognized. The original manuscript of Flicke's book contained 31 pages chiefly concerned with Otto Puentner including a series of messages that are not in my Swiss collection but substantially supplied me by Flicke. Our holdings for the year 1943 contain 69 messages sourced to Werther and 4 sourced to Pakbo. Von Schramm, or perhaps his source Flicke, try to redress this balance in two ways. The first is to*

invent messages out of whole cloth or create them by combining reports from other sources and attributing them to Pakbo. The second is by listing Pakbo as the source of valid reports that actually came from Werther. Two examples of the latter category were transmitted on 17 March and 29 March, the second misdated 1 April by Von Schramm.

This manipulation of Rote Drei messages is in line with Von Schramm's predilection for "proving" that Communist civilians, not German officers, were Lucy's sources. The danger, however, is potent. These garbled and fabricated Pakbo messages will tend to be accepted by the uninformed and thus to creep into the record, distorting it permanently.

Von Schramm also generates confusion because he is himself untidy. He charges off on a lengthy discourse about a Dr. Wilhelm Scheidt, adjutant to Major General Walter Scherff, listing reasons why Scheidt might have been Werther. Later he argues that Werther did not exist as a person, and near the end of the book he acknowledges that Scheidt turned out to be a false lead.

In only one respect does he perform a significant service for truth and himself. He takes up the Bull-Pauls fabrication, the Soviet product intended to "prove" that a pro-Nazi Allen Dulles conducted secret negotiations to arrive at a separate peace in the West behind the Russian back. Von Schramm points out that one of the Bull-Pauls extravaganzas which he had seen in the Moscow *New Times* reprinted only extracts accompanied by tendentious commentary clearly designed to serve the propaganda purposes of the USSR. And he asks why a *Sicherheitsdienst* report concerning events in mid-February 1943 was first forwarded inside the service on 30 April. The answer, incidentally, is that at some time after the war the Soviets, for propaganda purposes, attached the forwarding memorandum to an entirely different paper.

*Verrat im Zweiten Weltkrieg* resembles the Accoce-Quet book in that both are bad because both muddy the waters. But the two Frenchmen have written a novel while pretending to historical accuracy, and they seem to have done so knowingly and cynically, whether for profit or to serve a political cause. Wilhelm Ritter von Schramm has a different cause to serve. He is out to prove that if treason was committed by Germans during World War II, those who did the foul deed were not typical, because the typical German was a brave and fair soldier and a benevolent occupier. (He even argues that both

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France and Germany benefited from the occupation of the one by the other.) The traitors were oddballs, journalists and drama critics, who had fallen for Communism. One gains the impression that all of his heavy-handed distortion and misinterpretation of the record results not from opportunism but rather from preconceptions so strong that they have created acute mental astigmatism. Whatever the underlying causes, however, the central fact is that his book is wrong in much of what it says, is misleading, and is an impediment to the discovery and revelation of the truth about the subject with which it deals.

Fred H. Juneman

CONFIDENTIAL

### Industrial Intelligence and Espionage

The proliferation of books dealing, like the half dozen listed below as references, with industrial intelligence and espionage activities may, as many authors claim, reflect a real increase in efforts by adversary governments and business competitors to ferret out the private industrial secrets of the United States and other leading Western nations. In a field in which there are obviously no reliable statistics, since neither professional spies nor legitimate private intelligence organizations need to report their operations to national authorities, the available guideposts do indeed point to the likelihood of an increase in such activities.

What makes industrial espionage profitable is gaining knowledge of some industrial process or technique without incurring the R&D expenditures which would otherwise be necessary to master it via the laboratory. It is a method of closing the technological gap "on the cheap." One can conclude that since research and development is a rapidly growing component of gross national product, not only in the United States but in the industrial West generally, the resulting technological innovations provide a multiplication of targets for industrial espionage. That neither governments nor private firms have been able to resist the temptation is reflected in the number of publicized cases of espionage in those industries devoting the highest relative effort to research and development—aero-space and associated weaponry, chemical (including drug), and electronics, all of which generate an unusual amount of proprietary information.

The efforts of Communist governments, particularly the Soviet Union, in this field have been well publicized. In 1964 they were summarized in the *Harvard Business Review* by J. Edgar Hoover in an article entitled, "U.S. Businessman Faces the Soviet Spy." Mr. Hoover's analysis concluded that the Soviet Bloc nations were carrying out a massive systematic and purposive attempt through their intelligence services to obtain information about American industry. While the activities of their clandestine agents, particularly in connection with the nuclear energy industry, are much publicized, Mr. Hoover estimated that 95% of the information which Moscow needs is obtained openly and legally.

MORI/HRP  
from pg.  
114-118

Since intelligence officers are relatively familiar with Soviet espionage, for us the more novel and interesting aspects of the industrial intelligence literature are those on the activities of private firms and individuals. Several of the authors listed make a distinction between business or industrial intelligence on the one hand and industrial espionage on the other. Any business firm needs reasonably adequate information on the sales activities of its rivals and on potential customers in order to survive. Business intelligence units are therefore frequently organized in marketing departments. An appendix to the November-December 1959 *Harvard Business Review* based on a survey of over 1,500 companies found that 85 percent had an organized system for reporting on their competitors, and 35 percent had a formally designated department of competitive information.

Richard Greene's *Business Intelligence and Espionage* devotes most of its text to the nuts and bolts of organizing and operating a business intelligence unit designed to help guide policy decisions by supplying, on a systematic basis, analyzed information secured in an above-board manner. It devotes chapters specifically to data sources and their evaluation, to automatic information storage and retrieval systems, and to methods of using overt business intelligence in various decision situations; it deals only briefly with private investigators and electronic eavesdropping. The book consists of a series of articles by West Coast management consultants and is based almost entirely on their experience in the aero-space industry. It could well have been titled *How to Get and Use the Facts Needed to Bid on Government Aero-Space Contracts*.

The reader of such works would find the goals and, in large part, the methods of industrial intelligence to be similar to those of military intelligence. But when he turns to privately initiated covert operations, or industrial espionage, there are apparent differences between these and national spying activities. There is first of all the question of the level of ethics which a society will demand of its industrial leaders. Not all industrial espionage, to be sure, seems devious enough to bring public condemnation if exposed. For example, it is well known that automobile manufacturers use long-range cameras and electronic devices to gain knowledge of their competitors' new models in as early a stage of development as possible, and these activities are not condemned by an indignant public.

But when General Motors, through the services of ex-FBI agent Vincent Gillen, probed too closely into author Ralph Nader's private life, it was a different story. General Motors President James Roche

himself went to Washington and, before an audience of Senators asking pointedly embarrassing questions, apologized to the author of *Unsafe At Any Speed*. Strangely enough, none of the authors here discussed seems to have been interested in the key question of the ethical limits imposed on corporate espionage by society through the threat of public revulsion which would damage the company's earning power.

Peter Hamilton, in his straightforward *Espionage and Subversion in an Industrial Society*, includes a chapter on "The English Way of Industrial Espionage," which he concludes to be limited because of the high level of British ethics. Not that English managing directors have no thirst for non-public information about their business rivals; they have other ways of procuring it, including the "old boy" network. Indeed, there are cases on record of drug firms, when offered secret formulae by disgruntled employees of their competitors, not only turning down the offers but cooperating in prosecution of the culprits.

Business ethics are not uniformly high, however, as the famous American Cyanamid case showed. This was the instance when Italian pharmaceutical firms took the initiative in obtaining antibiotic cultures and procedural information clandestinely from a U.S. producer, gaining access through a disaffected employee of Cyanamid. This case is discussed in varying detail by Payne and Engberg as well as Hamilton and is mentioned by Wade. The Hamilton volume contains a number of detailed appendices, including one on "Graphology as an Aid to Personnel Selection." The author believes that handwriting is a useful discriminant.

A review of the sources used for these works reveals that most of the authors relied heavily for their information on materials published in court decisions, in journal articles, and in the press. Wade is an exception; he is a practicing patent attorney. His *Industrial Espionage and Mis-Use of Trade Secrets* reflects this background, having chapters on the legal remedies to which a company may resort in industrial espionage cases and extensive coverage of patent protection, requirements of the Department of Defense for plant industrial security, etc. Wade's intended audience is the company manager, for whom the book is designed to give a good deal of practical advice and to serve as a ready reference. It contains an extensive bibliography, largely legal case citations but also references to the press and periodical literature.

At the opposite end of the spectrum is Payne's *Private Spies*, a chatty collection of potpourri which covers the subject of industrial espionage from 300 AD (the Chinese silk case) up to the latest press reporting on cases in the United States and United Kingdom. Payne obviously has the famous "general reader" in mind; his book contains lots of familiar but colorful material on oil intrigues in the Middle East, Zaharoff's machinations on behalf of Vickers munition sales, and Japanese and Soviet industrial espionage. Payne's work is definitely not a "how to cope with" volume. But if you have never heard of Ulmont Cumming, who for 40 years was the acknowledged number one industrial spy in the United States and employed by many respectable firms, his story plus the other yarns that Payne spins will make a pleasant evening's reading.

At the bottom of the readability scale stands the brief (100 pages) *The Scope and Limitation of Industrial Security* by Knight and Richardson. They describe their purpose as seeking "to acquaint the reader with an overall theory of the industrial security function, and to indicate its scope and limitations as an integral aspect of the contemporary economic scene." Apparently aimed at college students studying industrial security, the book displays the same dull, ritualistic formalism that one associates with many "how to" courses in teachers' colleges. What Knight and Richardson do—without developing the promised overall theory, unless the entire 100 pages are intended to be that—is to outline their topic under a variety of functional headings. The resultant chapters are so short that little emerges except a skeleton of fundamental points arranged according to the authors' preferences. The brief bibliography is confined largely to U.S. Government manuals on plant protection and security. Reading is not recommended.

The subtitle of Engberg's volume on *The Spy in the Corporate Structure* is *And the Right to Privacy*. This is a tipoff to the broad sweep of subject matter that he covers and to the fact that many of his essays have nothing to do with industrial espionage and many of the spies he talks about are outside of the corporate structure. For example, his several chapters on individual privacy end up discussing the proposed National Data Center (a scheme, on which the Gallagher Committee held hearings in 1966, to combine all the Federal Government's files on each citizen in a central place as an aid to operations research and planning) and advocating that access to the data on an individual, except by the individual himself, be granted by court

order only. Engberg also believes that the American Telephone and Telegraph Company should be held liable for the integrity of its circuits.

Engberg titillates the reader with a series of pieces about restrictions imposed on the passing of trade information by the guild system of the Middle Ages until the breakup of that system with the industrial revolution, recounts Samuel Slater's famous purloining of the secrets of Arkwright's textile machinery, and winds up with a recap of some of the present-day industrial espionage cases, including those involving Cyanamid, Merck, and SKF. Indeed, he ranges widely over things that obviously interest him, whether or not they shed light on the theme implied by his title. In short, this is another "general reader" volume, designed to inform, to entertain, to philosophize and propagandize the author's ideas. It is not a comprehensive nuts-and-bolts book that would give the intelligence professional or plant manager a grasp of industrial espionage.

Edward L. Allen

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### Miscellaneous

ROOM 39: A Study in Naval Intelligence. By *Donald McLachlan*.  
(New York: Atheneum. 1968. 438 pp. \$7.50.)

Surely this is a major contribution to the literature of intelligence, as well as to the history of World War II, of Great Britain, and of the British Navy. It is an insider's lengthy, detailed description and analysis of the structure, basic principles, operations, successes and failures of a Great Power's modern intelligence organization—Britain's Naval Intelligence Department.

The NID was founded in 1882 because of alarms occasioned by Russian and German activities; it ceased to exist in 1965 when it was merged into a department of Service Intelligence in an integrated Ministry of Defence. This story, however, covers only the wartime rejuvenation of its activity, not the full sweep of its 83 years. Author Donald McLachlan is a prewar foreign correspondent and distinguished postwar editor who in between served on the personal staff of NID's two World War II directors, the first of whom, Rear Admiral John Godfrey, is clearly the hero of its rebirth.

McLachlan has drawn upon the experiences, in some cases the unpublished papers, of some 200 wartime associates, especially Admiral Godfrey, his successor Admiral Rushbrooke, and Major-General Sir Kenneth Strong, the first Director General of Intelligence at the Ministry of Defence. He tells the story—with nostalgia and pride—from the point of view of the Admiralty's Room 39, which he calls "the bridge of the NID ship." Here, just outside Godfrey's Room 38, was managed the collection and coordination of intelligence, liaison with the other services, and the dissemination of intelligence to the War Cabinet and the Chiefs of Staff.

Much of the book is devoted, first, to an authoritative description and evaluation of such sources of naval intelligence as signal interceptions, documents, radio direction finding, air photography, sightings, agents, POWs, naval attachés, refugees, coastal watchers, and survivors of ship disasters, and second, to accounts of events like the sinking of the *Bismarck* in 1941, which provide some justification for the jacket's otherwise deceptive promise of an "exciting story."

MORI/HRP  
from pg.  
119-120

The fruit of all this experience is garnered in Chapter 15, where McLachlan propounds and explains thirteen "principal lessons" learned about the nature of intelligence. Briefly, he stresses intelligence as the servant of policy, the need for its direction by civilians, the need for constantly re-examining premises and revising estimates, and the indivisibility, especially in wartime, of intelligence supplied by the various military services. Intelligence, he asserts, must know about operations and plans, but these must not be dominated by the facts and views of intelligence. He warns against wishful thinking and a bias against intelligence among top political and military leaders and urges the need for showmanship in the presentation of intelligence.

The American reader may find especially interesting one major and one minor theme that run through the book. The first is the recurring and familiar need for the coordination of intelligence, which finally led to the integration of the British army, navy, and air intelligence services. The second is the relationship between British and American intelligence services, particularly in the pre-OSS period.

McLachlan, echoing H. Montgomery Hyde in *Room 3603*, repeats a thesis, which still needs investigation on the American side, that the British Secret Intelligence chief in New York was successful in 1940-41 in "*finding and backing* a man [General Donovan] with whom the British could work as head of a *proper* secret organization [italics added]." He also adds new circumstance to bolster a British claim to the paternity of modern U.S. intelligence. He says that Ian Fleming, then personal assistant to Godfrey, played a major role in drafting, in June 1941 in General Donovan's home, the memorandum recommending to the President the establishment of the Office of the Coordinator of Information, the forerunner of OSS. There is nothing implausible about this, but it also requires investigation on the American side.

Thomas F. Troy

DONBAS. By Jacques Sandulescu. (New York: David McKay, 1968. 217 pp. \$4.95.)

In the winter of 1947-48, after an improbable journey from the USSR, Jacques Sandulescu reached a U.S. military hospital in Germany where he was interrogated in depth. Since he is now settled in the United States, there is little reason to doubt the main outline of his story.

The author's trials begin in 1945 when he was a 15-year old school-boy in his native Rumania. Picked up by the Soviets and transported to the USSR to work in a Donbas mine, he survived two years of backbreaking toil, beatings, skimpy food, and inadequate shelter. Up to this point his story is similar to that of others who lived through forced labor ordeals. The difference is in his escape.

Sandulescu had thought about escape from the beginning and had concluded that freight trains offered the only hope of getting away from the Donbas. But Ravenki, the nearest terminal where a train could be boarded, was some distance from his workplace. This was as far as his escape thinking had progressed when he was seriously injured in a mine accident and hospitalized in Ravenki. Faced with the amputation of his legs, he got up from his hospital bed, stole extra clothing, and boarded a coal train in the dead of winter. With fantastic luck in obtaining food and assistance en route, not to mention selecting the right trains, he made it to the American zone of Germany. Although he came close to freezing to death, the bitter Russian winter seems, on balance, to have been more friend than foe. It reduced railroad surveillance to a minimum, solved his water supply problem with snow, and numbed with cold the pain from his injured legs. Trackside snow banks facilitated jumps from moving trains.

Nevertheless, few factors favored this escape and many augured against it. A logical weighing of the chances could lead to only one conclusion: impossible. But great escapes are seldom completely logical; they seem instead to be rooted, like Sandulescu's, in an elusive blend of will, luck, fate, and resilience of the human spirit.

Louis Thomas

SCARLET PIMPERNEL OF THE VATICAN. By *J. P. Gallagher*.  
(New York: Coward-McCann. 1968. 184 pp. \$4.95.)

During World War II Monsignor Hugh O'Flaherty directed a Vatican-based organization for aiding evaders in the Rome area which when the city was finally liberated was clandestinely caring for some 4,000 people, mostly escaped Allied POW's. Much has already been written<sup>1</sup> about the accomplishments of this organization. J. P. Gallagher now retells the story with emphasis on O'Flaherty's role, background, and personality.

<sup>1</sup> Among other works: John Furman, *Be Not Fearful* (London, 1959) and Sam Derry, *The Rome Escape Line* (London, 1960).

O'Flaherty was a humanitarian willing to help anyone in distress regardless of nationality or circumstances. That he did so impartially was, according to Gallagher, the main reason his Church superiors tolerated the liberties he took with his status as a functionary of the neutral Vatican. There is no doubt that aid to the distressed absorbed the bulk of O'Flaherty's time and energies, but there is also no doubt that he dabbled in intelligence in direct support of Allied military operations. The scope and importance of this dabbling and the degree to which it was condoned by the Church are still grey areas in the open-source history of World War II intelligence. Gallagher's book lights a few candles in the Rome catacombs, but large shadows remain and may always remain, for the paradoxical O'Flaherty seems to have told his full story to no one prior to his death in 1963.

Louis Thomas

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