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COMMUNICATIONS SECTION

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### AGENT RADIO OPERATION DURING WORLD WAR II

During World War II the use of clandestine radio for agent communications was widespread. Literally hundreds of agent circuits were operated during the war. On the enemy side they ranged in type from highly organized nets involving German diplomatic installations to single operations in such widely scattered places as Mozambique and isolated locations in the United States. On the Allied side there was no part of Axis territory where we did not have clandestine communications representatives—"Joes," as they were called. It was almost impossible to tune a communications receiver of an evening without running across signals which were so obviously not what they were trying to seem that you wondered why they were not wrapped up the first time they came on the air.

On both sides the signal plans (call signs, frequencies, and times of transmission) and procedures used by agents were for the most part of utmost simplicity. One service was also easily distinguishable from another by their different characteristics. The random contact times and frequent changes in wavelength considered so essential today were represented by uncomplicated regular patterns simple to reconstruct. In many cases the rota—the cycle in which the plan repeated itself—was of only a week's duration. Often only the list of call signs was carried out to a 31-day rota.

The agent was generally given a reasonably good range of operating frequencies, usually between five and ten, to help protect him from detection and arrest, but he was often his own worst enemy. Certain times and frequencies, because they afforded better operating conditions either radiowise or from a personal standpoint, became his favorites. Almost nothing his base could say or do would convince an agent that he was endangering himself when he abandoned even the simple non-repetitive pattern of his signal plan in favor of the convenience of operating day after day on the same frequency at the same hour. It must be said, in all fairness, that in some cases this practice was almost unavoidable because of the agent's need to live his cover. In others, however, it was stupidity, laziness, or complete incomprehension of the need

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for good radio security. Security laxness was particularly foolhardy of those who operated alone and without benefit of "watchers" to warn when enemy personnel were approaching.

Four types of agent radio operators can be distinguished—those who operated in metropolitan areas in concert with well-organized watcher organizations; those who operated on their own in cities; those who were with the guerrilla groups; and those who worked alone in isolated rural areas.

### *The City Mouse*

In cities a variety of techniques was employed to protect the operator. In one case as many as five operators in widely separated areas were geared to function as one station. All had transmitters on the same frequency and copies of the traffic for a given schedule. If the enemy approached the vicinity of a particular operator, he would stop transmitting when signaled by his watcher, and at the same time another operator in a remote part of the city who had been listening to his colleague would, with hardly a perceptible pause, continue the transmission. As necessary, a third would take over from the second and so on, much to the frustration of the opposition. In another instance long-abandoned telephone lines were used to key distant transmitters, whose remoteness from the operator greatly increased his security. These and other sophisticated devices were employed successfully in target areas where an extensive and highly organized underground was able to create the conditions for them.

In the main, however, a less imaginative but equally effective means of protecting the operator was used—teams of watchers strategically placed in the streets around or on the roof of the building in which the agent was working his set. When enemy direction-finding trucks or personnel with portable sets were spotted approaching, a signal would be sent to another watcher either in the room with the operator or close enough to warn him to stop transmitting. Usually the warning was enough; but one agent was so intensely anxious to get the traffic off that he repeatedly ignored the warnings of his watcher on the roof above him. A string had to be fastened to this man's wrist, with the roof watcher holding the other end, so that he could literally yank the operator's hand away from the key!

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Less is known about the singletons who operated in cities. They lived lonely, frightened lives, particularly tense during their transmissions. Frequently they had the feeling that the enemy was just outside the door waiting for the right moment to break in, and sometimes he was. The most grateful moment in the singleton's day came when he heard the base say "Roger. Nothing more." Sometimes the base operator would impulsively end with the letters GB ES GL—"Good bye and good luck"—even though he knew it was against the rules.

The lone agents who survived owed their lives to a highly developed sense of security and intelligent use of the resources available to them. They went on the air only when they had material they considered really important and they kept their transmissions short. They either were or became such good operators that they approached the professional level in skill. Sometimes they were able to change their transmitting procedure from what they had been taught to one which enabled them to reduce greatly their time on the air. They took advantage of unusual operating locations and moved frequently. In addition, they undoubtedly owed something to good fortune: many who were caught were victims as much of bad luck as of enemy action. One German agent in Italy who had most skillfully and successfully evaded Allied apprehension over a long period was caught only with the casual help of an Italian woman. After watching with curiosity the efforts of a DF crew in the street for some time, she finally approached the officer in charge and diffidently offered the suggestion, "If you're looking for the man with the radio, he's up there."

Some singleton agents who were unable to live alone with their secrets were spotted because of their inability to keep their mouths shut. Their compulsion to tell a sweetheart or a friend or to draw attention to themselves by living or talking in a manner out of keeping with their covers resulted in their apprehension. And yet they sometimes got by with incredible indiscretions. There was one case in which the base, having taken traffic from a "Joe" in northern Italy, was about to close down when Joe, in clear text, asked if it would take traffic from "George," an agent who had been trained and dispatched from a completely different location. The base operator was flabbergasted, but took down the transmission and

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then asked the man in the field to stand by for a short message, which was being enciphered, to the following effect: "Where did you get that traffic and where the hell is George?" The answer was prompt and again *en clair*: "From George, he's on leave." For several days Joe continued to send in George's messages, evidently prepared in advance, as well as his own, until George showed up on his own schedule and resumed business as usual. To the best of our knowledge these two agents remained unmolested and free of control; they were contacted regularly until Allied troops overran the area.

#### *The Country Mouse*

The radio operator with a guerrilla group came in for his share of difficulties too. First of all, he usually arrived at his destination by parachute. Often his equipment was damaged in the drop. Many times he had to lug it over almost impassable terrain in a wild scramble to protect it and avoid capture. Sometimes he never got on the air at all, and he and his teammates would be the subject of melancholy speculation on the part of his comrades at headquarters until some word trickled back as to what had happened to them. The radio man was expected to do his share of the fighting when the situation demanded it; and injured or sick, he was supposed to keep at his radio as long as he was strong enough to operate it.

The singleton in the country usually had a specified mission such as the retraining of an already infiltrated agent or the transmission of information being gathered by specific sources. He frequently could use some city-type methods of operation, being protected by watchers as he worked in some lonely spot, or had the advantages of the guerrilla type, in that he was among friendly irregulars or in their territory. Very often he had little privacy, let alone security, of operation, and his sole protection was the good will of the populace of the area through which he was travelling. Frequently he had to meet contact schedules in the open in broad daylight, with interested indigenous bystanders looking on. Given good will, however, this circumstance was not bad; it provided volunteers to crank the generator and hold up the poles on which his antenna was strung.

The country singleton was usually no worse off than his counterparts in other situations, and sometimes much better

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off; occasionally he was treated as an honored guest. But his status varied with the moods and political views of the so-called friendly leaders of the area, and at times he was viewed with suspicion or open hostility. The agent or agents he was supposed to retrain often resented him and added to his difficulties. He developed skills beyond those he had brought with him: equivocation, tact, flattery, subterfuge, and downright dishonesty became abilities essential to the doing of his job. His one thought was to get it done and get out in one piece and on to the next assignment.

Occasionally the agent operator interjected into his otherwise anonymous transmission bursts of temper, displeasure or eloquent disgust. Usually these outbursts were spontaneous profanity, unenciphered, directed at the quality of the base signal, the base operator's poor sending, or some other immediate cause of annoyance. They most often came in the agent's mother-tongue, but a certain group of German clandestine agents used to swear at their base operators with great eloquence in beautifully spelled-out English.

Not all such expressions of opinion were sent in the clear. Over the years, enciphered messages have been generously spiked with agent invective and profanity. One such message received during the war, a marvel of succinctness, spoke volumes on the subject of what makes an agent tick. The agent in question had been trained as a singleton. It had been planned, with good reason, that he should be dropped several hundred miles ahead of the bulk of his equipment, of which there was a great deal, and make his way to it later. The operation went according to plan except in this respect; all the agent's gear was dropped with him. In due time the base heard him calling, established contact, and took a brief but carefully enciphered message, which when decoded was found to consist of one extremely vulgar French word. The agent was never heard from again.

### *The Ingredients of Partnership*

What kind of person made a good agent operator? His special qualifications required that he be young or old, tall or short, thin or fat, nervous or phlegmatic, intelligent or stupid, educated or unlettered. His political views were of no conse-

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quence. If he had a burning resentment at having been thrown out of his country, of having lost family or friends to the enemy, so much the better—or maybe worse: uncontrolled hatred could create security problems. He didn't even have to like radio very much. About the only attributes he really needed were: ability to put up with all the unpleasantness of six weeks of radio training to get at least a nodding acquaintance with the subject; a willingness or desire to go anywhere by any reasonable means of conveyance—"reasonable" includes dropping fifty feet from a plane into water—and stay for an unspecified period of time; and the abiding conviction, in spite of feeling constantly that someone was looking over his shoulder, that it would always be the other guy who got caught. In short, he must come to like his work and take, with the well-educated call-girl, the view that he was just plain lucky to get such a good job.

At the base end of a clandestine circuit a good operator was, in his own way, different from any other radio operator developed during the war. And he was proud of it. In the first place he had to learn to live in a world of noise, an experience which occasionally resulted in permanent psychoses or suicide. The agent transmitter was and is a miserably feeble communications instrument, capable under the best of circumstances of putting only very small amounts of radio energy into the ether. Being illegal, it had to compete with jammers, commercial telegraph, and broadcast stations, whose signals often exceeded its power tens of thousands of times. If the reader can picture himself surrounded by the brass section of a large orchestra playing one of the lustier passages from Wagner while he is trying to hear and identify a different melody coming from a piccolo played by an asthmatic midget in the balcony, he will in some measure approximate the auditory frustrations of the base radio operator searching for and copying some of the typical agent signals.

Yet this small group of men not only took pride in their work, but because they understood the problems of their unseen friends on the other end of the line, went out of their way to make sure that their agents got the best service possible. Frequently they would become so concerned about a certain agent that they would get up during off hours at what-

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ever time of day or night their particular Joe was scheduled to come on, to make sure that he would be properly copied, even though the base operator assigned to that watch was thoroughly competent. And the regular operator never resented this interference with his watch; he probably had done or would do the same thing himself.

The devotion and skill of these otherwise apparently undedicated and average men was equal to almost any demand. Sometimes as many as five operators would voluntarily concentrate on one agent transmission, piecing together the fragments each made out, so the man could get off the air as fast as possible. They learned to recognize the agent's signal as he was tuning up, in order to shorten the dangerous calling time. They managed to make sense of the spastic tappings of obviously nervous agents and through their own efforts and example frequently instilled confidence in them. If they did not accept with good grace the often unwarranted criticism leveled at them by the agent, at least they did not reply in kind.

They recognized their special friends by the way they sent their characters and were in many cases able to tell when the agent was in trouble or had been replaced at the key by an enemy operator. In many instances they developed a sixth sense which enabled them to hear and copy signals correctly through prolonged bursts of static or interference, and they developed shortcuts which further reduced the agent's time on the air. Many of these shortcuts became the foundation for more efficient and sophisticated methods of operation.

Their patience was truly marvelous. When necessary, they would sit day after day listening for a man who had never been contacted or who had disappeared for months. That he might be without equipment, drunk, or dead made no difference to them. As long as his schedule was on their contact sheet, he was real and they looked for him. If he showed up they nearly always established contact.

Not every man assigned as radio operator to this type of base station made the grade. Some tried and just didn't have it. These nobody criticized, and other useful duties were found for them; but those who didn't take the work seriously

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were not tolerated and soon left the station. The good ones came from all walks of life. Unlike the agents, they were trusted nationals of the country operating the station. They were draftees, professional communicators, amateur radio operators, philologists; but almost without exception they had imagination, skill, and a deep (if frequently unrecognized) love for both radio and that type of radio work in particular. They were in short a new breed, the clandestine intelligence service radio operator.