

**Ken Follett**

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**From:** Daniel Starer [dstarer@researchforwriters.com]  
**Sent:** 07 November 2000 16:34  
**To:** Ken Follett  
**Subject:** 3 of 3

Dear Ken,

Below are various pieces of information my French translator and I deem worthy of your attention. More information on any of these topics is available.

First of all, the story of Keller. In an email some weeks ago I said that one of our sources in France believed this telephone engineer had successfully broken the communications links between Paris and Berlin. This appears now not to be the case. That source in France may have been thinking of the "Violet Plan", which I will deal with further below. My translator has read some materials about Keller and has written this summary:

"Robert Keller was a telecommunications engineer, fairly high up in the ranks of the P.T.T. when the war broke out. After the armistice in 1940, he planned a major phone-tapping operation, known as the "Source K." The operation occurred in April 1942. The idea was to tap into the actual long distance cables on the Paris-Metz line, which was one of the main lines which linked the German High Command to Paris. The Paris-Metz cables had 376 separate lines in 70 circuits. It was too risky to listen in at phone exchanges or at amplifier stations, because there was so much direct supervision. Keller's plan involved setting up a center of operations at Noisy-Le-Grand, just outside of Paris, where special listening devices and amplifiers were installed. Then Keller himself, along with a team of other engineers, faked a breakdown in the cables, dug up the cables and spliced in some kind of branching device. I don't know how this worked, but I am pretty sure the details are available. This took the greater part of a night, and the Germans investigated, but were reassured by Keller's presence. The process was tricky because any change in the cables, as well as the addition of amplifiers and listening devices in the area, would change the electrical variables (I suppose primarily voltage) measured at the official amplifiers, and would cause suspicion.

A team of multilingual specialists were installed at Noisy-Le-Grand, and large amounts of top-secret communications between Berlin and Paris were overheard, and retransmitted immediately by radio to London. This went on for five months, until Keller became worried by indiscretions on the part of Resistance members. He shut down the connection, but then in December 1942 set up a similar one on the Paris-Strasbourg cable, which was an even bigger line. The center of operations this time was a town called Livry-Gargan.

Six days later, Keller was arrested by the Gestapo- he had been denounced by an informant. He died in a concentration camp (Buchenwald?)."

KEN: if Keller interests you, an entire book about his activities is available at the NY Public Library (in French), and France Telecom has much additional information about him.

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We have found evidence of a German mobile exchange truck, sabotaged in Lyon in 1943. My translator offers this basic synopsis:

"The Germans had telecommunications trucks, 15 meters long, which were capable of replacing native telephone exchanges. They were called "Deutschland-Vermittlung," (or D.V.s), and they contained equipment which received, amplified, and redirected telephone lines which were originally received by the local exchange. The cables which entered the exchange had to be simply reconnected to the truck. Therefore the truck had to be located as close as possible to the original exchange, or the site of the original exchange. These were implemented in 1943 as a response to what had occurred in Russia, where the retreating Russians destroyed all exchanges as they went. The idea was to progressively replace the primary P.T.T. exchanges in France with these trucks. However, near the end of 1943, the Germans only had 5 of these trucks, and only one was in France- the other 4 were scattered throughout Eastern Europe (some were in Poland).

In an evening in November 1943, when many of the guards and operators were on break, a Resistance group led by Charles Spitz (important Lyon Resistance person), carried out a six-minute operation in which one man got up next to the truck and planted two bombs which went off almost immediately afterwards. The truck was completely obliterated, and all the operators were killed. The account I read did not explain the details of the explosives." [end of translator's summary]

Hoping it would have useful information, I bought an out-of-print book called "Communications Equipment of the German Army, 1933-1945," by Charles J. Barger. Most of the book contains photos and descriptions of smaller field switchboards, transmitters, receivers, and telephones used by German Army. It has nothing on land lines. But it does have photographs of two types of longer-range telephone and wireless trucks. I will fax this page to you separately today, and send the book with my next Fedex package.

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KEN: below are sections from various books available in New York. My instructions to the translator were to provide the key information but not to waste time creating an elegant translation. The somewhat uneven phrasing may reflect both the source materials and the translating efficiency I requested.

>From Ingérence allemandes dans les transports et communications. Monographie T.C. 7: P.T.T. Imprimerie Nationale, 1947.

[This is a document compiled by the French government in 1947. This passage documents destruction of telephone installations which occurred under the Occupation, whether by members of the Resistance, acts of war, or the German army.]

The destruction, classed according to the cause of the damage, is as follows:

- a. The destruction caused by the Resistance involves almost exclusively small exchange stations/offices, roughly one hundred. The destruction consists mainly of cable cutting, removal or damage by axe to telephone station equipment: rural stations, either standard or automatic.
- b. The destruction caused by acts of war include 26 out of 211 automatic exchanges, 67 manual multipliers out of 222. In addition, 50,000 users' telephone units disappeared during the bombing.
- c. The retreating German troops systematically destroyed two large automatic exchanges: Lille-Faidherbe and Montpellier, as well as 10 manual multipliers and a very large number of local stations/offices. An even higher number of exchanges suffered varying amounts of damage, leading to interruptions of service for periods of several days to several months. In addition, 5,000 users' telephone units were destroyed.

>From *En Passant par la Meurthe-et-Moselle* (1993), p. 61

[This is from a tourism/coffee-table book about the Meurthe-et-Moselle region, around Nancy.]

#### The Secret of the Laxou Blockhouses

In the complex arrangement of the Maginot line, two blockhouses constructed at Laxou sheltered, starting in 1938, a top-secret telephone exchange, designed to serve the military staff in residence at Nancy. The site on the rue du Plateau (on the border between Nancy and Laxou, near the road to Paris) had been chosen because it was a hilly region which created air holes [?], and therefore out of range of bombardment. Sabotaged at the time of the German advance in 1940, the first blockhouse was too visible from the exterior to not attract the attention of the [German] Occupiers [of Laxou], who restored the installation and made use of it. But on the eve of the entrance of the Americans into Nancy, the entire building was detonated by the Germans.

Two hundred and fifty meters further, in the full countryside surrounding Laxou, the second blockhouse protected an important shelter with two subterranean levels, in which telegraph operators worked during the entire "Drôle de Guerre" [the 'phony war', 1939-40]. In the case of a regional sector breakdown or of a failure in the starter system for the generator, a sort of "apartment push-bikes" were used to guarantee the necessary ventilation. Neutralized, like the first on June 20 1940, this blockhouse was similarly recuperated and used by the Germans until 1945.

At the end of the 1950s, it was decided that a transit exchange should be built at the site. But the walls were too resistant that the plan to destroy the old building was given up. So now the current elegant white building still hides this witness to the telephone in Meurthe-et-Moselle.

>From *L'Oeil et l'oreille de la Résistance* (1986), pp. 152-154

[This passage is from one of the three initiators of the "Violet plan", Lucien Simon—he gives a brief history of the plan, and of its initial aims. N.B. I believe that 'aerial lines' refer to lines above ground, on poles—Jeremy]

After the very interesting presentation by Mme Grall, which situated the question of sabotage on the local level, I think it would not be irrelevant to talk about the Violet plan, of its initial conception, of its putting into place and implementation.

Its initial conception goes back to the last months of 1940 and resulted from a conversation between 3 engineers of long-distance underground lines (I remember that it was the service in charge of upkeep and exploitation of the long-distance cable network which covered all of France). These 3 engineers were Croze—who subsequently became General Director of Telecommunications, and who is now unfortunately deceased—Keller, and myself. The experience of the 1939-40 war had clearly demonstrated to us that, in a war in which aerial weaponry preponderates, in the preparation of the battle and in the course of battle, one absolutely cannot count on aerial lines. The military organizations, which over the course of 1940 were connected exclusively by aerial lines, were immediately cut off from communication. On the other hand, those which were served by long-distance cables, that is, communications which were underground from one end to the other, had had their communications guaranteed until the end. Experience showed us as well that the long-distance cable network was far less vulnerable: there were, over the course of the 1940 campaign, a very small number of cable cuts, by acts of war, they were counted on ten fingers, and they were, in general, repaired very rapidly. Our conversation involved two aspects. The first was that, in executing the clauses of the armistice which imposed upon the administration to repair the network, we wanted to do it as completely as possible, for the good of the country, of course, but equally in order to inspire confidence in the Germans. Experience showed that they had enormously invested in the network, so that their vital communications (those of the general quarters) were guaranteed by the long-distance cables. This is what had been put into effect at the time. We saw it occur in front of our own eyes, since we had the wire notebooks which showed the importance of the long-distance cable circuits. Our second concern was to not blindly sabotage, but on the contrary to perform sabotages as technical in nature as possible, that is, difficult to reveal/decipher, but equally easy to repair by technicians who knew how the sabotage had been done. Very quickly, we arrived at the notion of the isolation zone, that is, we took a map of France with long-distance cables and we determined, by purely geographical considerations in keeping with physical geography and the cable network geography, what were the zones in which all communications must be interrupted so that the general German quarters found in these zones would be completely isolated. We therefore took a map and traced out a certain number of zones. We also used geography for military projects. It turned out that one of these zones was exactly the zone of the disembarkment/landing in Normandy. It was completely ordinary, completely by chance. Once the plan was made, we charged ourselves with carrying it out. I didn't know the path that was then followed. We didn't hear anything more about it until the day when, long afterward, at the beginning of 1944, I made it to London. I made contact with the B.C.R.A. where my comrade Combaux was. He had been forced to flee to London after the denunciations which led to the arrest of Keller, and he was in the third office of the B.C.R.A. One day, he said to me: "We must start up again that plan of the cable network sabotage." We then took it up again, and he got out the plan that we made in 1940, and which had arrived at his desk somehow quite naturally. We didn't find the slightest correction to make to the plan. He simply took a colored pencil from his desk, which was colored violet, and he outlined the isolation zones: there was the birth of the Violet Plan. This plan had not been able to be put into operation because there had not been in France the necessary unity in the resistance movements. Its implementation had not really been possible until the moment when there were military delegates from each zone, who had quite naturally a transmission deputy [?] charged with carrying out the plan. In order to perfect the carrying out of the Violet plan, we decided, Combeux and I, to send a special agent, who would go from region to region, supervising the implementation. It was a PTT agent, a controller of

electromechanical installations, who was in Morocco at the moment of D-Day, who had been mobilized, who had been involved in various campaigns and who had parachuted in France under the name Rose. He went to Paris, where he made contact with Croze for me, and then, from region to region, he went to see how the Violet Plan was being applied. One can say that the realization of the plan was a success, because, of course, in Calvados and in many other places, there was a very large number of sabotages of aerial cable lines, but it was essentially all local lines. The long-distance cables had not been touched. The long-distance cable sabotage was set into action by code phrases decided upon and planned in advance, which were broadcast by the BBC in the evening and night of the 5th and 6th of June 1944. Unfortunately, instead of broadcasting only the phrases corresponding to the zone of each department, the phrases corresponding to almost the totality of the territory were broadcast. How could it have been otherwise? It was a question of secrecy. However, a pitfall must be avoided: in case anything had leaked out, the Germans who intercepted the phrases knew that they applied only to the Normandy zone, and consequently, they would know that it was this Normandy zone which was targeted. From this phrase, a very large number of cuts were carried out and under excellent conditions. On June 6 1944, 7 cables were cut--on June 7 1944, 32 more. Therefore as early as June 6, the essential zone around the disembarkment was practically isolated. And as the Germans only had these cables for their connections to the general quarters, these connections were extremely disrupted. Of course, there were radio connections listened in on by the English, and we know now by the Edigma affair that even the coded telegrams, surcoded by the Edigma machine, were decoded by the English. We therefore had really everything in our hands. It is estimated that there were 1,140 cuts, without counting those which corresponded to acts of war and notably to bridges which were detonated, mined by the Germans. In total, there were over 2,000 cables cut. We can say that the Violet Plan completely achieved its goal.

[There is another long paragraph about the Allies not entrusting the projects' members enough, and that they didn't have very high security clearance--this was due to much higher standards of secrecy with the English and Americans than the French. Amusing details about clearance levels entitled things like "My God"--also a bit about using poems by Verlaine to announce the disembarkment, which the Germans intercepted by didn't believe, which contributed to the success of the plan- I will translate this if it seems interesting]

Other participants intervene, adding comments about the success of the Violet plan, as well as some criticism:

Ferdinand Jourdan

The conception [of the Violet plan] was perfect, I have nothing to say, it was a first-rate document, and I am grateful to M. Simon and his collaborators... [M. Bussière, chief of the long-distance cable section at the ministry,] had given me a complete list of underground cables and distributed this list to all the regional representatives. They used it at useful moments. As far as the execution was concerned, I must admit that it did not always obtain extraordinary results. First all, because the conception was too technical. One had to respect certain givens, to not damage the cable for long, etc. Often, it was done by people who didn't have time, who had the Gestapo behind them and who were hurrying to do their job. It was in these conditions that I took part in two cable destructions.... It goes without saying that security conditions, and conditions of preservation for the cables, were not respected, there was no other way... We had a considerable number of cuts but not all of them were done in keeping with the Violet plan. Many were done by locals, according to the circumstances. And very often, the Violet plan was not applied at all.. I have to say despite everything that it [the plan] was an essential monument but it was not the only one, and it is not to the plan which all the cuts must be attributed.

More comments. One about local cables being destroyed by PTT people in Normandy. One about destroying and repairing the same cables almost daily, in Paris, after June 6.

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KEN: here are notes the translator, Jeremy, made on some other materials seen in at NY libraries:

Hajdu, Clairette, Au coeur du téléphone: Histoire des Instal'. Paris: Temps des Cerises, 1995.

NYPL JFE 96-12862

The intro pages have some interesting stuff on pre-war developments, where automatic centrals were first built, who owned them. Not much on stuff during the war, but there is something interesting about a semi-secret lab in Lyon during the war, which developed the most powerful mobil transmitter then available, and gave it to the American Army in 1944. pp. 16-17.

"Après l'armistice de 1940, un laboratoire a été transféré à Lyon. Par la suite, des recherches y sont menées secrètement. Et en septembre 1944, L.M.T. met à la disposition de l'Armée Américaine un des plus puissants émetteurs mobiles du monde, destiné au trafic téléphonique et télégraphique à travers l'Atlantique." (17)

L.M.T. is Le Matériel Téléphonique, which was the major owner of the telephone equipment between the wars- including centrals. It was a small company began in 1889, named after owner G. Aboilard; in 1911 it becomes the LMT, by WWII it is major company.

Michel, Henri, Bibliographie critique de la Résistance. Institut Pédagogique National, 1964.

p. 122 a few refs on sabotage

NYPL E-13 5755

Ingérence allemandes dans les transports et communications. Monographie T.C. 7: P.T.T. Imprimerie Nationale, 1947.

NYPL BZAY+ (France. Dommages et...)

This book has several monographs on German takeovers and modifications of various French service industries during the Occupation. T.C. 7 is about the P.T.T., and includes stuff on German use and/or destruction of French telephone lines. It includes statements from the Convention at the Hague, the Armistice in 40, and the official German statement from 40 about how it will use French telecommunication services when needed, and that France must supply material and personnel.

In particular: the retreating German army destroyed two large automatic centrals, one in Lille-Faidherbe and one in Montpellier.

Sabotage by members of the Resistance were almost exclusively smaller central offices, about 100 of these. This was mainly through cable cutting or destruction of telephone meubles by axe. (p. 13)

Ruffin, Raymond, Résistance PTT, 1983

NYPL JFE 85-18

Good intro chapter on Keller

Ch. on sabotage in Lyon- important?

Leproux, Marc, Nous, les Terroristes. 2 vols. Raoul Solar, 1947.

NYPL BZAD (France. Leproux)

Too big and without an index, so hard to use, but in vol.1 there is an appendix entitled "Petit manuel du saboteur" which gives techniques and

explosive materials, etc. p. 278.

Lots of anecdotal accounts of rail sabotage, including many details, what they wore, how timing went, who did what. Maybe photocopy a few anecdotes? Ask Follett?

End of notes by translator.

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[end of email 3 of 3]