

441 ALIVE: GERMAN TRANSMISSIONS IN PARIS 1943-44: A POSTSCRIPT

by M. Janot

Reprinted with acknowledgement from the Journal des Radiophiles Français. The writer was responding to a previous article by Gunthard Kraus.

He [the author of the earlier article] said that 100 or 200 German TV receivers (by Telefunken and Loewe) were transported from Berlin to Paris. The Gramont factory made some replicas as well. Sadly for our pride, and to re-establish historical fact, the Compagnie du Compteurs (CdC) furnished the German army with at least a hundred 17 or 19-valve receivers of which all internal parts (except the 4673 valves and some minor materials) were made by CdC.

The 36cm diameter tube was made by CdC as were the power transformer, the deflection coils, the blocking transformer, various coils, the cabinet (I know, I was the designer) and the chassis (I know, I was the designer). The circuit was by Paul Maudel, a Hungarian Jew from Berlin Polytechnic who was picked up by the police and rediscovered at Drancy (moved out by the Germans themselves). He was a political refugee and his parents had been massacred by the Germans in (?) 1918.

The author makes no mention (perhaps from ignorance, I hope) of the major role played by the French television industry at that time in civil and military equipment. We were working with 1015 lines, rather different from 451 lines!

PS: I was extremely involved with the TV receivers since under the leadership of Paul Maudel I built from A to Z the receiver destined for the German army, I was entrusted with designing the cabinet, with the supervision and checking the production of the sets, with the installation of them on site and with the after-sales service and repairs.

441 ALIVE: AU REVOIR 441 LIGNES

by Andy Emmerson

A marriage (of love or convenience?) between technology, politics and art is the recurring theme underlying the entire history of television in France, some of whose early landmarks are noted below.

On the occasion of the International Exhibition of 1937 in Paris, a new transmitter came into service at the Eiffel Tower and a television studio was set up in the Radio Pavilion at the Exhibition. This incorporated the first French equipment for what was then regarded as "high-definition" television, with 455 lines, and pictures were displayed on a one square metre screen. In the provinces, meanwhile, demonstrations were organised with a 180-line system in Dijon with others following in Limoges in 1938 and Lille and Lyon in 1939.

On 1st July 1938, the bold step was taken of fixing a television transmission standard with 455 lines, intended to remain in force for the next three years. Daily

broadcasts were made from the Eiffel Tower in the 455 line standard, with a transmitter that was to remain in service until 1956. One of the first major programmes was coverage of a visit from 18th to 22nd July by the British sovereigns, and four public viewing rooms were built for the event. Public interest was growing, and about this time "amateur" receivers were available; these had circular screens of 16-cm diameter and they could receive the Eiffel Tower transmissions at distances up to 80 km. The following year the transmitter power was increased to 30 kW (peak), but with the outbreak of war in September 1939 the French television service closed for the duration.

All television activity did not cease, however, and despite the precarious and difficult conditions, research and testing continued with systems having 800 and 1200-line scanning. Also during the war years, the Radiodiffusion Nationale began training specialist broadcast engineers who, when peace was restored, were to be responsible for installing television broadcasting facilities.

On 1st October 1944, just a few weeks after the liberation of Paris, broadcasts were resumed on a restricted basis. Operations were based at premises in rue Cognacq Jay (a name familiar to anyone involved with French television, to the present day) and transmissions were in the 441 line standard introduced by the occupying forces. In subsequent years studies were made to improve the pre-war technology and tests were made with higher definition systems, leading on 20th November 1948 to publication of the official text establishing the French television system using 819-line scanning.

This text also safeguarded the interests of viewers who already had receivers for the 441-line standard, by requiring transmissions in the latter standard to be continued for a limited period. Experimental transmissions in the 819-line standard began in December 1949, with a low-power transmitter installed, once again, at the Eiffel Tower.

On the programming front, 1948 was notable for the first television news broadcast (29th June), and live coverage of the finish of the Tour de France (26th July) and of an international television conference in Paris.

«Le 441 est mort, vive le 819!». Such sentiments were expressed in France following the announcement of the new 819 line standard for French television. This was little comfort for viewers who had sets made for the 441 line programmes emanating from the original transmitter at the Eiffel Tower (NB: the transmitter was at the foot of the tower, connected to the aerials, latterly at least, by waveguide.). In fact they need not have worried (at the time at least) because the decree published in the «Journal Officiel» stated that 441 line transmissions would be maintained for ten years; it did not say explicitly that they would finish then either, though the implication was that adequate 819 line services would be available.

Alas the prediction was not fulfilled, as disaster struck on 3rd January 1956. A spectacular fire at the Eiffel Tower transmitter brought the old standard to an abrupt and premature end. The transmitter which had twice been saved from destruction during the war by German director Kurt Hinzmann against orders from Berlin had fallen victim to an avoidable fate. Viewers with a 441 line receiver were given financial aid to buy a new 819 line set ...

TECHNICAL SUMMARY (as at 1952)

Channel no.: Spécial.
Frequencies, vision: 46.00 MHz, sound: 42.00 MHz.
Name of the station: Paris 441.
Power, vision: 25 kW, sound: 5 kW.
Polarisation: vertical.

The service area was drawn as a circle around Paris, not quite reaching Amiens and Rouen.

[This article draws heavily on material written by M. B. Pauchon in the December 1986 issue of the EBU Technical Review and other sources.]