



## Roland Pièce and the Beginning of Radio Broadcasting in Switzerland

---

Pierre-Yves Pièce

EasyChair preprints are intended for rapid dissemination of research results and are integrated with the rest of EasyChair.

June 19, 2023

# Roland Pièce and the beginning of Radio Broadcasting in Switzerland

Pierre-Yves Pièce  
Bex, Switzerland  
Pierre-Yves.Piece@cumgranosalis.ch

**Abstract**—The beginnings of Radio Broadcasting in Switzerland are linked to the development of the first aeronautical liaison between Paris and Lausanne. To ensure the safety of flights on this route, which was officially inaugurated on October 28, 1921, radio communication was necessary between the pilot and the airfields. Two people are at the origin of the creation of the first radio station in Lausanne: Professor Paul-Louis Mercanton and Roland Pièce, who was his student. This article retraces the milestones of this adventure, from the first experimentation of wireless telegraphy in Lausanne in 1911 to the first live broadcasting of a vocal and instrumental concert at the official inauguration of the Champ-de-l'Air transmitter on October 14, 1922.

**Keywords**—History, Radio, Switzerland, Roland Pièce

## I. THE FIRST TESTS OF WIRELESS RECEPTION IN LAUSANNE

In Lausanne, it was Professor Paul-Louis Mercanton (1876-1963), an electrical engineer and doctor of physics, who was the first to succeed in receiving the time signals emitted by the Eiffel Tower (radio FL, 24 kW / 2200 m) by means of a receiver built by his student Jules Meystre (1891-1920). It was in May 1911. In November of the same year, he obtained the first concession of wireless telegraphy of Switzerland [1]. During the 1912-1913 Swiss expedition to Greenland, Paul-Louis Mercanton had taken a portable wireless receiver in a wooden case, with an electrolytic detector, also made by Jules Meystre (Fig. 1), but the tests of reception of the Eiffel Tower signals remained unsuccessful [2].



Fig. 1. Wireless receiver built by Jules Meystre in Lausanne and used by Paul-Louis Mercanton during the 1912-1913 Swiss expedition to Greenland. Collection of scientific instruments UNIL/EPFL.

## II. 60 KILOMETERS AWAY, A YOUNG STUDENT IS ALSO PASSIONATE ABOUT WIRELESS TELEGRAPHY

At the same time, in Bex (VD), a town once famous for its salt water cures [3], the young Roland Pièce (Fig. 2), born on February 15, 1897, son of Paul Pièce (1870-1955) and Elise Minod (1870-1932), was strongly impressed by the story of the sinking of the Titanic in 1912. A few years earlier, Roland Pièce had already come across an article on Marconi's first experiments in the Almanach du Messager boiteux of 1905 and found it wonderful. As the use of wireless technology saved many lives, the young student decided that he would make a career in this exciting field.

Immediately, Roland Pièce tried to reproduce Marconi's experiments in the family property, which his father, who had become a justice of the peace in 1897, had built at the Avenue de la Gare in Bex. The spark transmitter consisted of a Ruhmkorff coil and a Herz exciter made from two tin cans and two brass balls. For the receiver, Roland Pièce used a Leclanché battery, a Branly coherer made from a glass tube, some filings and two sewing needles taken from his mother. An old doorbell salvaged from the nearby Grand-Hôtel des Bains completed the device. And every time a spark would fly in the kitchen, the bell in the dining room would ring. "It was more exciting and moving than listening to a concert on the radio," recalls Roland Pièce in *La Radio ma vie* [4].



Fig. 2. Roland Pièce as a young student. Photographed in Ouchy by his uncle Henri Fontannaz around 1912.

### III. THE BEGINNINGS AT THE SCIENTIFIC GYMNASIUM IN LAUSANNE

On the strength of his success, Roland Pièce decided to enter the *Gymnase scientifique* in Lausanne. He then went to live with his aunt Marguerite, the wife of the Lausanne photographer Henri Fontannaz. He soon learned that some of his classmates were picking up the time signals from the Eiffel Tower. He then set about building a receiver, making the basic components himself, as he was unable to buy equipment that was too expensive for a student. For the tuning coil, he asked his friend, the guide and woodturner Philippe Allamand, who provided him with a wooden cylinder on which he could wind a layer of insulated wire. A slider that moves along the length of the cylinder is used to make the tuning. Roland Pièce had no difficulty in making a capacitor: tinfoil from a chocolate plate and paraffin paper did the trick! However, things became more complicated for Ferrié's electrolytic detector. Roland Pièce took advantage of the resources of the Gymnasium's chemistry laboratory, where he found all the necessary equipment. A telephone receiver was borrowed from a neighbour, as his father, the judge, did not yet have a telephone at home!

The equipment is now operational and can be coupled to the antenna made up of two 50-metre galvanised wires, which Roland Pièce had the audacity to deploy between the roof of the family home and that of the *Grand-Hôtel des Bains* located just next door. At noon on 2 January 1914, the success is there. From the roof of the house in Bex, Roland Pièce shouted: "Papa, papa, come up quickly, it's working! The family interrupted their meal and climbed to the top of the house to listen to the famous time signals from the Eiffel Tower. However, the antenna did not comply with the regulations, as it passed over private property and cut a telephone line. Paul-Louis Mercanton had experienced the same adventures in 1911, with the wire cable stretched between the belfry of Lausanne cathedral and the bell tower of the Palud town hall! In order to be perfectly in order, Roland Pièce requested and obtained a concession on 7 April 1914. He also moved his antenna to the family garden [5].

On 1 August 1914, the Federal Council declared the general mobilisation of the army. The next day, it adopted a text prohibiting all private use of radio communication [6]. Shortly afterwards, the network manager of the region informed Roland Pièce that he would come and dismantle his antenna and sequester his receiver. The young student hastily made a fake receiver, handed it to the inspector and dismantled the antenna. But the passion is too strong! He immediately imagines that he can use the house's electrical network as an antenna and hides his receiver in the house's attic. The results were even better than with the outdoor antenna: the reception of the signals from the Eiffel Tower (FL) was improved, and the signals from Nauen (POZ) near Berlin, from Lyon (YN) in France, from Carnavon (MUU) in England and from the Palazzina Marconi in Coltano (ICI) in Italy were even very well received. And so it was that during the First World War, Roland Pièce, hidden in the attic of the judge's house, listened to the official communiqués from France, Germany and Italy!

### IV. LAUSANNE MODERNISES ITS AIRFIELD

As early as 1911, the City of Lausanne had its own airfield at La Blécherette, one of the first civil airfields in Switzerland. In the early 1920s, the municipality of Lausanne took the necessary steps to establish an international aeronautical link with France. The municipal council, Rosset,

asked Roland Pièce, who was studying engineering at the University of Lausanne's Faculty of Science and School of Engineering, to look into the possibility of setting up a radio station in Lausanne. Enthusiastic about the idea, the young student went to Paris in 1921 to make contact with the French aeronautical service and visit the facilities at Le Bourget airfield. Back in Lausanne, Roland Pièce proposed to the municipality of Lausanne to purchase a radio similar to the one used by the French [7].

Events then followed in quick succession. A first test flight with a Goliath Farman biplane took place in October 1921. The plane left Paris and returned to its point of departure to repair a damaged radiator. Then, after a stopover in Dijon to spend the night, the aircraft landed at La Blécherette on Friday 28 October 1921, with a number of personalities on board, welcomed by the municipal councillor Boiceau. The provisional radio and telephone link was provided by Jean Lugeon (1898-1976), the future director of the Swiss Central Meteorological Institute in Zurich [8].

Ten days later, at its meeting on 11 November 1921, the Lausanne municipal council decided to develop the Place de la Blécherette, to create a radio station and to build the hangars needed to house the Goliath. On this occasion, it sent Professor Paul Louis Mercanton to the International Air Navigation Congress in Paris [9].

On 14 February 1922, the Lausanne Municipal Council granted a credit of CHF 250,000 for the transformation of the Blécherette airfield and for the construction of the Champ-de-l'Air radio station. A month later, in its session of 14 March 1922, the Lausanne municipality decided, "despite the inaccuracies of the French government with regard to the operating guarantees for the Paris-Lausanne air line", to place an order with the *Société indépendante de télégraphie sans fil* in Paris for the station to be installed at the Champ-de-l'Air [10].



Fig. 3. Paris-Lausanne Air Travel Guide, 1922.

The Champ-de-l'Air was chosen because of its unobstructed position on the heights of Lausanne, its immediate proximity to the Vaud Meteorological Service, directed by Paul-Louis Mercanton, and the fact that the State of Vaud was making premises available to the city of Lausanne. The enquiry opened from 6 to 15 June 1922 for the installation of the wireless telegraphy station did not give rise to any comments, and installation work began rapidly. The installation of the transmitter was entrusted to Roland Pièce, with the exception of the two 50 m masts supporting the 70 m antenna. On 26 September, the Lausanne Works Department announced that the tests of the Champ-de-l'Air wireless telegraphy station had given good results, and that the supply had been accepted [11]. The installation uses a wavelength of 900 m for radio telephony (communication with the aircraft) and a wavelength of 1400 m for wireless telegraphy (connection with the airfields).

The Municipality of Lausanne then proposed to Roland Pièce to ensure the service of the transmitter, which he accepted with great pleasure (Fig. 4).

#### V. ROLAND PIÈCE BECOMES THE ONE-MAN BAND OF THE AIRWAVES

Before the official inauguration of the Champ-de-l'Air transmitter, scheduled for Saturday 14 October 1922, Roland Pièce carried out various radio transmission tests. Although the transmitter was intended solely for the needs of the Paris-Lausanne airline, he had the idea of using a roller phonograph, which he placed in front of the microphone, to transmit music to the passengers of the Goliath! The French journalist and writer Louise Faure-Favier, author of the guide to Paris-Lausanne air travel (1922) (Fig. 3), said that the flight was marvellous and that "as the plane crossed the Swiss border, she heard a fragment of William Tell" by Rossini!

One day before the inauguration, Roland Pièce proceeded, in great secrecy, to the final tests of the surprise he intended to offer to all the official guests of the Municipality of Lausanne. With the help of his friend Albert Moiton from Jupiter (a Lausanne radio shop), Roland Pièce hides a state-of-the-art receiver and loudspeaker, the Radio-Table, behind the curtains of the reception room of the Beau-Rivage Palace in Ouchy, where the official banquet is to be held. On Friday evening, he carried out some broadcasting tests from the transmitter at the Champs-de-l'Air. These tests are fortunately attested to in a letter sent to him by the vicar Pierre Joseph Jacques Van de Voord, professor of physics at the Collège Notre-Dame de Tongres (B): "The piece of music with your old gramophone was very well received" and "Of course, you also announced a concert at 11.30 a.m. with the help of the symphony of the Hôtel Central and with the help of Miss (the name escapes me), first prize of the Geneva Conservatory" [12].

In fact, during the official meal, Roland Pièce, who had remained at the Champ-de-l'Air, took his microphone and announced "Ici station radiophonique de la ville de Lausanne", then the singer Jeanne Rouilly and the Central-Bellevue orchestra began the Marseillaise and the Swiss national anthem! This first live broadcast of a vocal and instrumental concert marked the beginning of radio broadcasting in Switzerland. But it was a pirate broadcast, as the concession granted by the federal authorities only allowed the transmission of meteorological information to airmen! However, the idea was launched and four months later, on 26 February 1923, the brand new Lausanne-based

company "Utilitas" began broadcasting its entertainment programmes from the Champ-de-l'Air transmitter, when there were no flights of course. "Utilitas" was thus one of the first European radio programme organisations. It was soon replaced by the Société romande de radiophonie [13].

The financial means were still very modest. Roland Pièce was responsible for the technical side of things, but also for the creation of a small studio next to the transmitter.

In November 1925, the Lausanne town council voted a credit of CHF 32,500 for the modernisation of the Champ-de-l'Air transmitter and the purchase of a new Marconi transmitter. The canton allocated an equivalent amount and the Société romande de radiophonie contributed CHF 10,000. Roland Pièce was asked to make all the arrangements with the Marconi company in London. He visited the BBC studios several times and met Guglielmo Marconi in person at Marconi House. He also supervised the installation of the new station, which was inaugurated in March 1926 [14].

Following the rapid increase in the number of listeners, the Société romande de radiophonie decided to create a "grand auditorium" in the city of Lausanne, in order to be able to broadcast larger orchestral concerts. A location was found in the Grand-Chêne, in the former Théâtre des Marionnettes of the Maison Mercier. Once again, Roland Pièce was in charge of the technical installation of this auditorium, which became operational on 24 March 1928.

#### VI. THE END OF A HEROIC ERA

Radio is growing, and the heroic days when Roland Pièce could interrupt his broadcasts for military service are coming to an end. As a result of various political decisions, broadcasting in Switzerland undergoes many changes. Radio-Lausanne was condemned. The city of Lausanne asks Roland Pièce to find a location for a new transmitter. He surveys the Jorat region of Vaud and proposes Sottens as the ideal site. But he will not have the pleasure to realize this project. Roland Pièce considered leaving for Indochina to install a transmitter, or working as a radiotelegraphist for a maritime travel agency in Marseille.

Finally, he was entrusted with the management of the future national transmitter in Sottens. He then left Lausanne for Prangins, where he learned how to operate a high-power transmitter. After his training period, he married Germaine Antenen and the newlyweds settled in Sottens, at the foot of the new transmitter. On 21 May 1933 Roland wrote to his cousin Fontannaz: "We are right in the countryside. At this time of year the weather is very nice, but the winter is very long and sad."

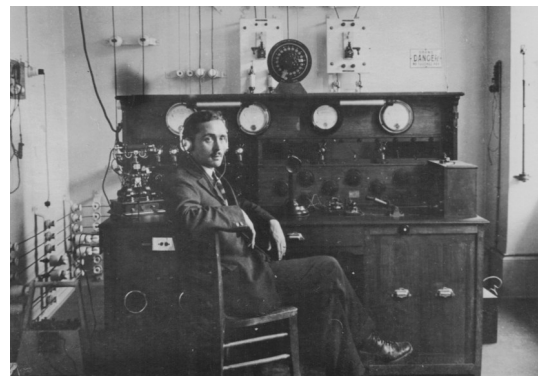


Fig. 4. Roland Pièce in front of the Champ de l'Air transmitter in 1922.

## VII. CONCLUSION

Today there is no reminder of Roland Pièce's existence in his home village, although the authorities named him an honorary burgher of the commune of Bex, shortly before his death on 7 October 1972 in Sottens, almost exactly 50 years after the first Champ-de-l'Air broadcast. His grave, which can still be seen in the Bex cemetery, is in danger of disappearing in the near future, with total indifference on the part of the current authorities.

During the radio centenary celebrations in 2022, a commemorative plaque was placed in Lausanne on the site of the Champ-de-l'Air radio station.

This pioneer of radio in Switzerland deserves to be honoured. An endearing and ingenious character, Roland Pièce enabled Switzerland to become the fourth country in Europe to equip itself with a radio broadcasting transmitter. Roland Pièce participated in all the stages of the creation of radio in Switzerland, sparing no effort. Radio was his life, and what a life it was!

## ACKNOWLEDGMENT

The author wishes to thank honorary professor Jean-François Loude, LSM IEEE, for the fruitful exchanges about the beginnings of radio in Switzerland and the ENTER Museum which keeps the first radio station of the Champ-de-l'Air.

## REFERENCES

- [1] M. Bezençon, Radio-Lausanne a vingt-cinq ans : 1923-1948. [éditeur non identifié], 1948.
- [2] W. Baar, "Alfred de Quervain's Swiss Greenland expeditions, 1909 and 1912", in Polar Record , Volume 51 , Issue 4 , July 2015 , pp. 366-385.
- [3] S. Cirafici, P.-Y. Pièce, "La santé par les eaux ! "ou l'épopée de Bex-les-Bains à travers ses premiers hôteliers" in Revue vaudoise de généalogie et d'histoire des familles, Cercle vaudois de généalogie, Chavannes-près-Renens, 2019, pp. 17-55.
- [4] R. Pièce, La radio ma vie, Imprimerie Bach, Bex, 1972.
- [5] R. Pièce, La radio ma vie, Imprimerie Bach, Bex, 1972.
- [6] M. T. Drack, T. Egger, La radio et la télévision en Suisse : histoire de la Société suisse de radiodiffusion SSR jusqu'en 1958. Hier + Jetzt Verlag für Kultur und Geschichte, 2000.
- [7] R. Pièce, La radio ma vie, Imprimerie Bach, Bex, 1972.
- [8] "Le Goliath à Lausanne", La Revue Organe du Parti démocratique et fédéraliste vaudois, Lausanne, No 298, p. 5, 29 October 1921.
- [9] "Procès-verbaux des séances de la Municipalité année 1921", Archives de la Ville de Lausanne, 1921.
- [10] "Procès-verbaux des séances de la Municipalité année 1922", Archives de la Ville de Lausanne, 1922.
- [11] "Procès-verbaux des séances de la Municipalité année 1922", Archives de la Ville de Lausanne, 1922.
- [12] "Lettre de Pierre Joseph Jacques Van de Voord adressée à Monsieur le Directeur de la station de Radiotéléphonie à Lausanne", 14 October 1922, Archives de la Ville de Lausanne, 1922.
- [13] M. Bezençon, Radio-Lausanne a vingt-cinq ans : 1923-1948. [éditeur non identifié], 1948.
- [14] "Numéro spécial édité par la Société Romande de Radiophonie à l'occasion de l'Inauguration de la Nouvelle Station d'Emission Marconi à Lausanne", Le Radio Journal des Amateurs de T.S.F. Organe officiel de la Société Romande de Radiophonie, Lausanne, 9 March 1926.