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OUTLINE

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TEXT

- 1 Radio, audio-visual media without image, is a sound medium which enters the intimacy of homes and appeals to the listeners imagination, particularly because it is not based on anything visual¹. The French film-maker Jacques Tati himself used to say that he preferred radio to cinema "because on the radio, the screen is bigger"².
- 2 Since the creation of the first radio stations in the early 1920s³, the radio medium constructed itself at the crossroads of existing formats: written press, drama, or cinema. Radio offered reports, radio plays, news or popular science broadcasts⁴. Although radio came after the first steps of the conquest of the skies, its creation was part of modern technical innovations. From the early hot-air balloon flights to the beginnings of space exploration, how did French radio seize the conquest of the skies? What did radio, as an imaginary medium, produce when dealing with aviation or astronautics? How could the words from witnesses, pilots, explorers, writers, scientists and even passengers cross each other in these broadcasts?

- 3 This paper deals with the imagery of the conquest of the skies on radio, from historical to popular science broadcasts, through reports on board aircraft or hot-air balloons.
- 4 The sample of broadcasts used in this study has been selected by searching the National Institute of Audiovisual's (INA)⁵ database, using several key-words related to the conquest of the skies. The profusion of available archives was a difficulty: in fact, more than 15 000 results came up with the key-word "airplane". Sometimes, however, the search returned fewer results. For instance, there were only 222 results for the search term "hot-air balloon" (*montgolfière*), and 107 for "conquest of the skies" (*conquête de l'air*), and these were the main key words used to research this paper.
- 5 To limit the number of results, we chose to focus on the oldest sources, in order to detect the first traces of the conquest of the skies broadcast the radio, concentrating on archives from the 1930s, 1940s and 1950s, without going further than 1969, the year of the first human steps on the moon.
- 6 There are not many French radio archives available prior to the Second World War, but a few records from the 1930s remain on this topic. Few parts remain, and if these elements have been preserved, it's probably because these broadcasts were considered particularly worthy of interest, whereas a huge majority of radio broadcasts made prior to 1940 has disappeared. This lack of archives is a recurring problem for historians studying radio, even though it's possible to fill the gaps by cross-referencing the lack of sources with other types of archives, such as radio timetables, for instance⁶.
- 7 At first, historiography about French radio built itself mainly in political and institutional dimensions. After 1995 with the opening of the InaTHEQUE, a research centre giving access to the archives of French public radio and television⁷, the development of studies more specifically about the broadcasts and their contents became possible. Some works had then been done about the history of certain types of radio shows (detective plays⁸, radio games⁹, or news¹⁰), while some historians proposed monographic approaches about specific broadcasts¹¹. Radio is sometimes studied as an object of history, but it can also be used as a source for historians, next to other archives, written or audio-visual.

- 8 For this study, we listened to several available archives and grouped them between three main types of broadcasts related to the conquest of the skies. These three groups were also used as a structure for this paper. First, there are some shows about history and memory, consisting in collecting the words of the pioneers, witnesses and actors of the first flights. Then, some radio professionals produced broadcasts about the news of the conquest, close to the events themselves, sometimes even with reports on board. Finally, there are some less realistic shows, distant from the news, consisting of creative broadcasts: radio dramas. With the INA archives, it will be interesting to wonder if radio could create some a certain “poetry” about flights in the sky and space, thanks especially to some radio processes, such as sound effects and musical illustrations. Overall, we will analyse how radio participated to construct the idea of a conquest of the skies.

1. Broadcasts about history and memory

- 9 Radio didn't exist at the beginning of the conquest of the skies (it was invented in the late nineteenth century¹²), but it accompanied its rise and development. Wireless telegraphy was even widely used by the pioneers of this conquest. It had equipped airships since the beginning of the twentieth century¹³, and soon airplanes as well, a decade before public radio stations appeared. The first communication through a radio emitter between the ground and a plane occurred in the United States in 1910¹⁴. Even if the main concern for flights during those years was to manage to stay in the air the longest, finding the fastest way of transmission was essential. In France, the first trials were led by Captain Paul Brénot during spring 1911¹⁵. They were transmissions of 30 miles around Paris (the Eiffel tower was used as a reception antenna). The First World War considerably accelerated the diffusion of this technique, wireless telegraphy becoming the most efficient way of communication, while aviation was progressing very quickly during the conflict.
- 10 After the Great War, radio soon left the only spheres of army and radio amateurs to meet the general audience. The Eiffel tower public radio station started to broadcast daily from the 24th of December 1921, and Radio the private station opened in November 1922¹⁶.

- 11 The oldest available French radio sound archives are from the 1930s. According to these sources, French radio during that time regularly offered stories about the first exploits and first steps of the conquest of the skies, recording afterwards tales from the pioneers, the heroes of this story. In doing so, radio workers were collecting records of the people still alive. These sound archives now constitute a precious material for any researcher interested in aviation history.
- 12 These archives are usually short and were generally broadcast during news programmes. For instance, in a record from May 1936, the first man who flew above the Eiffel tower in 1909¹⁷ (the Comte de Lambert), is narrating his exploit and recounts how he learned about aviation from the American pioneer Wilbur Wright¹⁸.
- 13 Anniversaries were often the occasion to record speech from aviation history actors. In 1938, for the 30th anniversary of the first kilometre in a plane by Henri Farman¹⁹, a tale from the aviator was broadcast on radio²⁰. Another example, in September 1946, 36 years after the Peruvian pioneer Geo Chavez²¹ had crossed the Alps by plane, before being killed at the end of this crossing, three of his friends evoked his memory on national radio: Jean Bielovucic²², Raymond Saladin and Léon Bathiat, three French men who were also aviation pioneers. In this record they were speaking about the different preparation phases of this crossing, as well as the accident.
- 14 By collecting these stories after the Second World War, the then nationalized²³ French radio was paying tribute to this generation of first conquerors of the air, recording voices of these elderly men. Radio participated to construct the imagery of the memory of conquest of the skies²⁴, a national history in which the role of French pilots was often exaggerated. As underlined by the historians François Lucbert and Stéphane Tison in “L’imaginaire de l’aviation pionnière”, every country involved in the course for aeronautic progress managed to build “an ideal tale around its national figures”²⁵. These speeches broadcast on radio, and collected decades after the events were necessarily oriented by these discourses, and distorted by the filter of memories and time.
- 15 Even if most aviation pioneers were men, radio sometimes paid tribute to women who were part of aviation’s beginnings. In May 1949, the French pioneer Marie Marvingt obtained the literary award from

the Women's Aeronautical Association of Los Angeles for "My crossing of the North Sea with a balloon". She spoke to the radio after, and retold the story that happened 40 years before in November 1909:

I left from Nancy, crossed Alsace-Lorraine, Belgium, North Germany, Holland, and I left earth above Amsterdam. From there I crossed 200 kilometres in a middle of a November storm [...]. Around half past one in the morning I arrived in Southwold, south-west England. This trip had never been done again by any pilot. Afterwards I realised several raids above the Manche Sea, as many of my comrades, but it has never been done again above the North Sea. Trust me, this is a kind of memory which stays for ever²⁶!

- 16 This woman aviator, born in 1875, was then 74²⁷. The owner of a pilot's licence for plane, balloon, and seaplane, she was also a nurse and an alpinist. This short interview (less than three minutes long) constitutes one of the rare recordings of her voice. She was later interviewed three times on television, in the mid' 1950s, when she was over 80²⁸. These television archives²⁹ show an old and very confident woman, enumerating in a rather automatic way the list of her records and distinctions.
- 17 According to one of her biographers Rosalie Maggio³⁰, "at the end of her life, some people were suspicious about everything she was telling. All these exploits, it was too much."³¹ It's interesting to see how, with time, the advances of air pioneers were moving away from reality as technical progress was going on and aviation becoming ordinary.
- 18 An archive particularly illustrates this phenomenon: a broadcast from June 1955 named *L'Avion a son histoire*³². In this thirty-minute programme, the journalist Georges Jouin narrates the history of flying machines and aviation pioneers, and reminds the listeners of the 1950s of their exploits. At the beginning of this broadcast, the journalist insists on the fact that everyone finds aviation progresses normal:

We were almost not surprised the other day when Le Trident went through the sound barrier in ascending speed³³. We found it very natural as well when the Alouette helicopter beat the helicopter world speed record by going largely above the altitude of 8 000

meters. In fact, the twentieth century man considers the plane as its thing, and aviation as a possibility with infinite techniques. And yet, it was not so long ago when nobody believed that the heavier than air could fly. Today, when a man is in a hurry he can choose between the plane and the car, and when he gets an ocean to cross he doesn't hesitate anymore, he rents his seats onboard the first plane leaving. He arrives on time, calm and rested, after having slept and eaten onboard. [Sounds of a plane engine.] When you hear the engine throbbing of a *Breguet deux ponts* named Provence, do you get the impression that 51 600 kilograms, 51 tonnes 600 are suspended above your head? No, we really don't think any more about the inventive genius of precise and methodical work needed by the plane crossing our sky so quickly.

[Mysterious music.] And yet, so much patience and perseverance were needed from Clement Ader when, after he had dissected a bat, he started to build the first mechanical engine which ever flew in the world, and which looked strangely like this bat. You can judge it by yourself if you go admire it at the *Conservatoire des Arts et Métiers* in Paris³⁴.

- 19 The relationship with progress evoked in this archive is particularly interesting. Even if the nascent aviation had not been immediately perceived as an advance worth generalizing³⁵, radio and media finally participated in building evidence of its technical progress and acceptance. Before radio, newspapers³⁶ had widely contributed to trivialize this invention of aviation, which, until then, and for several generations, had only been a dream, supposedly inaccessible³⁷. Quickly, nascent aviation technical exploits had been treated and related as sporting exploits³⁸, while the notions of risk and danger constituted a background behind the development of this technique³⁹. Following the “*légende des airs*” (legend of the skies) term coined by the French historian Pascal Ory⁴⁰ after the era of the fulfilled dream at the beginning of the twentieth century, aviation still got a fabulous dimension before the Second World War. It however became at the end of the conflict a kind of “ordinary miracle”.
- 20 With this radio broadcast, the journalist Georges Jouin contributed to remind the 1950s listeners what aviation was at its beginnings, insisting on the extraordinary dimension of a miraculous phenomenon which had yet to become ordinary, and on the fact that technical progress had never been something unalterable and inexorable. This

journalist interviews Charles Dollfus, pilot and curator of the *musée de l'Air*,⁴¹ as well as colonel Bellanger, pioneer pilot. It's interesting to notice that the pilot Charles Dollfus had been one of the first French historians working on aviation and aerospace history.⁴² These two men are thus actors and authors of this history at the same time. At the end of the radio programme, colonel Bellanger concludes by saying that with aviation progresses and technical advancements, the "feeling of the bird" or the "flying feeling" of the old days had disappeared. When becoming a common, "ordinary miracle", aviation had partly distended the link between the humans and the air itself.

- 21 Multiple aviation sound effects were used in this broadcast (plane engines, wind blowing), as well as several tunes, some of them being particularly oneiric. Radio could here contribute to immerge the audience into sound and sensations. In fact, one of the strengths of radio is this ability to plunge listeners into a specific sound universe, and to make them feel again⁴³, because sound is intimately linked with emotion and imagination, as mentioned by Richard Hand, specialised in British radio dramas:

Contrary to expectations, music or a voice or auditory ambience can conjure up a memory or a feeling more profoundly than a snapshot image – or object from – a time and place⁴⁴.

- 22 Thanks to its evocative power, sound can act as a kind of "*madeleine de Proust*" for those who had known the nascent aviation. It can even create for the majority of listeners, foreign to the pioneers of aviation, a feeling of nostalgia about a time they hadn't even lived in. We don't have any access to sources which could help us to apprehend the reception of this broadcast, as well the radio archives studied for this paper. However, some letters sent by listeners to other radio hosts⁴⁵ underline the emotional force of evocation provoked by radio, and this ability to virtually transport to other times and spaces⁴⁶.
- 23 If French radio narrated and recalled exploits from the past, broadcasts tend to also deal with the most recent achievements, and to anticipate about the future.

2. Broadcasts about the current events of the conquest

- 24 Behind this historical and sometimes dreamy dimension of collecting pioneer's words, radio tended to closely follow the different steps of the conquest of the skies, and even recording them live. This ability of instantaneity was one of the advantages of radio compared to written press, because sound media could give almost immediately a voice to pilots, to heroes of new feats and records, shortly after their landing. This rapidity also allowed to tell the unhappier stories about accidents. Sometimes, a journalist reporter was even on board of a machine, in order to live the experience from the inside, and to make it live, through the air, to his listeners. This ability of radio to immerge into present time had been synthetized by Pierre Schaeffer:

Cinema can say "I was there", radio says "I am here". The present tense belongs to radio. [...] I could even say that this is not what is happening which interests us, but the naked fact that in this moment something is happening⁴⁷.

2.1. Event's tales: words form the heroes of the time

- 25 As previously evoked, tales of events broadcast live or shortly after they happened contributed to build legendary people, national heroic figures. Pilots became heroes because the press and media followed them, they were the voice for their adventures and misadventures, covering their records and accidents⁴⁸.
- 26 Writer and pilot Antoine de Saint-Exupéry was one of these national figures particularly followed by the French press. In a radio archive from January 1936⁴⁹, he narrated the accident he just had in the Libyan desert, during a Paris-Saigon raid⁵⁰. Back in Marseille he recalled the event in the radio microphone. If he saved the exclusivity of his words to the newspaper *L'Intransigeant*, in which he would publish in several episodes the story of the accident and the days which followed in the desert⁵¹, he first narrated on the radio a condensed version of this story. Here is an extract of this seven minutes

and a half radiophonic tale, which was first written by the writer-aviator and then read by him with a calm and serene voice:

I decided to let myself slide under the clouds after having tacked straight to the North, so that I could receive in my left window [...] the fires from the towns I supposed I had passed. During this manoeuvre and already outside the clouds, the height of 400m on my altimeter, real height around 300m, that I crashed into the ground. Even if I was out of the cumulus, I didn't see anything. Yet I was busy, at this moment, looking underneath myself for some lights, but a light and low fog split on the desert created a false impression of depth. The night, overlooked by cumulus, was extremely opaque. The first cracking sound, instead of ending in a definitive crash, prolonged in to the cabin, such as an earthquake. I was subjected to a continuing tremor, of an extreme violence, which extended for about six seconds. I didn't know how to interpret this phenomenon, when I suffered the stop tremor, which was stronger than the other, and destroyed the right aisle. [...] Prévot⁵² and I jumped outside the plane, fearing fire. With an electric lamp, I inspected the ground right away, it was sand, covered with black rocks. [...] Not any grass, not any trace of vegetation. I made a long tour, with Prévot and his lamp as a landmark, and I finally admitted that I crashed in the desert⁵³.

- 27 This story is very detailed from a technical point of view and is also particularly literary with an epic dimension. Antoine de Saint-Exupéry describes the landscape, the material, the numbers on the different dials in his plane, and tells us about the physical difficulties endured, particularly during the last 85 kilometre walk through the desert, before André Prévot and him were saved by a caravan. He describes hunger, thirst, tiredness, nausea, tactical changes. The grain of this sound archive and the sobriety of his voice contribute to give to this story a particularly strong emotional load. The mental images might enter into the listener's mind easier, because this story is told in in the first person by the aviator himself. Without any archives allowing us to know how this story was received, we can suppose that this broadcast of a legendary figure's voice on the radio⁵⁴ could create a particular emotion, the feeling, for the listeners, to be a privileged interlocutor of the survived pilot. Researchers working on radio agree to say radio is an intimate media⁵⁵, with which the

listener often gets the impression that the person speaking on the radio is “talking to oneself”⁵⁶. Contrary to a broadcast such as *L'Avion a son histoire*, there are no sound effects and no music there, only the aviator's naked voice, the voice of a man who risked his life to realise a new raid, and who recalls after the event, how he survived from this accident.

- 28 This broadcast contributes to consolidate the heroic and even mythical figure of Antoine de Saint Exupéry⁵⁷. If this accident actually happened, Saint-Exupéry necessarily staged his experience a little bit for the radio. This broadcast echoes the exotic travel show stories set in new scenes that some radio programs narrated to the listeners.
- 29 The air raids of the interwar period were spectacular and particularly well adapted to the media. Shaped for the media, cut in episodes, these raids could keep the audience in suspense for days. Moreover, the tales of accidents, insisting on the dangers and the risks, contributed to straighten the mythic stature of the air heroes.
- 30 Sometimes, radio gives floor to the aviation heroes for happier episodes, particularly for records. For example, in June 1951, the radio broadcast a speech from Jacqueline Auriol, the “fastest woman pilot in the world” who had just beat a speed record with a jet aeroplane. With a hesitant voice, she said that she was “very intimidated”⁵⁸.
- 31 This archive contributed also to shape the figures of heroes and heroines of the air, Jacqueline Auriol had been the victim of a serious accident two years earlier. By insisting on her embarrassment talking to the microphone, this female aviator showed that despite her aviation abilities, she stayed a rather ordinary woman, not prepared to express herself for the radio.
- 32 Even if the image of a pilot became more and more common, it still benefited with time from a great social prestige, and some radio broadcasts insisted on this status, particularly after the Second World War. Sometimes, pilots were interviewed after having tested new aeroplanes⁵⁹, some other times the merit and stature of the pilots were analysed and enhanced, especially air force pilots. In a show from September 1945 named “the new race of aviation pilots”, commander Jules Roy explained, in a poetic and literary way, that the souls of pilots had been brutally transformed by the violence of the

war. He opposed the idealised figure of the “prince”⁶⁰ of the air, filling the imagination with the reality of men who served during the conflict:

This prince who gets out of his cabin, the wind in his hair, only gets a kingdom of illusion. He passes, as the wind blows in the trees, he slams the doors, wrinkles the waters. [...] He doesn't know any dream, neither any rest. He is the wind. When he disappears [...] it's because he fell asleep some hours in a port of call room. Then he goes back in to the skies, always uncatchable, acid or tender, unleashing its gusts, or landing in the sweetness of a summer night, with an aureole of legend.

But he didn't embrace anything. Nothing from his victory remains, because he won them on enemies he is the only one to meet. Mist, blocked pass, flight without visibility, fire, icing, mountains hidden under the clouds, radio breakdown, fear. He didn't keep anything for himself, and yet he is here. He passed the anxiety river, blindfolded. [...] He is his own victory as he is his own fight, but he is the only one to know it. Not prince anymore, but conductor of a train launched at 400 kilometres per hour in the fog with a loading of bombs, and risks of derailment. To escape, he should leave his own envelope of habits and flesh, as a city encircled by the enemy. [...] Men observe him discretely, looking for his reactions. They think he's strong, and he is, in fact, but he knows his weaknesses, and he analyses them constantly, trying to defeat them. When it's his turn to be beaten, and that a judgement error or a treason for the engine crashes him against a hill, he is the gladiator that a knee tackles on the ground, and who waits for the grace of an indifferent king⁶¹.

- 33 With this column the commander pays homage to the deceased pilots during the Second World War, insisting on the gap between dreams of ideal flights and the use of military aviation, as the aviation dimension was particularly important during the conflict⁶².
- 34 In the same spirit, several radio reports were broadcast about the flying school of Salon-de-Provence during the years following the war, bringing at the foreground the military aviation and its future recruits. For instance, a report broadcast in April 1947 dealt with the role of these class years during the last war, about the important losses endured, as well as about the recruitment of line pilots formed

by the air force. In another broadcast from 1948, several students of the school were invited to express themselves in the show from André Gillois⁶³ *Vous avez la parole*, to speak about their preoccupations. The first of them is speaking about the marital status of the officers, saying that despite the inherent difficulties of the profession, it is better for them to be able to get married and have a family if they want to⁶⁴.

2.2. A point about the technical progresses: creation of desire

- 35 Outside a strictly heroic and epic story of the events, pilots or scientists were regularly taking stock of the situation about the last technical progresses on aviation, those recently realised, and those which remained unaccomplished.
- 36 For instance, in 1937, the aviator Paul Codos⁶⁵ confided to the radio that the difficulties of crossing the North Atlantic, made it then impossible to establish a regular liaison. The ideal of technical progress underlined in this report, calls to always go above and beyond, to beat records, and to improve continuously the material in order to be more performant. The journalist found himself dreaming about a future regular plane liaison between Europe and the United States, and invited the audience to join him in his reverie:

Journalist: As pathetic settled men, let's go further and even upper, with the pilot Codos who just comes back from a 27 000 kilometres journey. Tell me, can we speak a little bit about the North Atlantic?

Paul Codos: It's very delicate to speak about it. There, the problem remains entire. We can obviously make some short-live demonstration flights, but if we really want to get some results, we need a very wide politic of material. Notice that if this material wouldn't work on the North Atlantic, it would be still useful on the South Atlantic.

[Sounds of engine.]

Journalist: Thanks to the patient heroism and reasonable recklessness of these men, the regular liaison Europe-America will soon be a

comfortable reality. To when, dear listeners, weekends in New-York⁶⁶?

- 37 This broadcast might have contributed to awaken the audience's desire and solicit its imagination⁶⁷. In the same way, it was noticeable from the press that the imaginary of aircraft had finally beaten the desire of hot-air balloons in the early twentieth century, as showed by the historian Benoît Lenoble⁶⁸.
- 38 This regular liaison between Europe and the United States, dreamed of in 1937, was then set up almost ten years later, in 1946. The 6th of December 1946, day of the inauguration of this first commercial line between New York and Paris, a journalist from the national radio was present at Orly on the tarmac for the landing. He collected views from passengers and people who there for this inauguration. The journalist insisted on several occasions that with this new line, French people were entering in to a new era. In fact, this step of the conquest of the skies opened the door to a new way of traveling across the north-American continent, creating a more obvious proximity link. This new possibility arrived just after the Second World War, at a time when the United States still benefited from a positive image in France, the image of Allies who played an important role during the landings and the outcome of the conflict. With this report, listeners from a wide part of France⁶⁹ could be witnesses of this historical time and have the feeling of being part of the event, almost on the airport ground too. While aviation reduces geographic distances with foreign countries, radio, since its creation, also abolishes distances and frontiers. Radio immerses listeners from geographic and social origins different into the same bath, making them live the event, and linking them between each other, creating an "imagined community" of listeners, as developed by Benedict Anderson⁷⁰.
- 39 Apart from the mythical and idealistic figure of pilots described earlier, for oneself to pilot a private plane progressively became an almost accessible hobby. In a broadcast from 1956, named "Flying tourists", the journalist Georges Jouin invites the audience to get on a little private plane in order to leave the terrestrial and noisy world, and then to see things from above:

[Sounds from horns, noisy rumble of a big city.]

Oh! no, no. What a noise, what a hullabaloo! Oh! Where's the bird song and the sound of the wind in the trees? Is that true that we have to hear all of this to walk on the surface of the earth? This cacophony kills me! And you? Would you mind a change of atmosphere?

Do you want to take a plane? A small little private plane, and I can lead you to Brussels, Dijon, Nice! You don't want to? Of course, planes make some noise too, but it's a regular noise, at least. And when you're on a plane you can see things from so much above! Come on, make a little effort! I take you!

[Sound of a starting engine.]⁷¹

40 In this broadcast, Georges Jouin was pretending to plan a trip with a private plane (checking the condition of the aeroplane and the weather forecast), before visiting a flying club from the Touring Club de France, where he interviewed some members. Listening to this report, we can at first get the impression that it has become easy and accessible to fly a private plane. In fact, it's necessary to qualify this archive: such a practice remained a hobby for a happy few. This show was made by the French public radio, around ten years after the end of the Second World War, when the government was willing to develop aerial sport activities and formation of young pilots. However, this broadcast insisted on the problem of the price, which remained a problematic obstacle for the development of this practice, despite a tax reduction on petrol for aviation.

41 Moreover, several radio broadcasts contributed to fuel the dream of always pursuing further the conquest of the skies, until the hope to reach one day outer space. For instance, in a broadcast from November 1945 called "Jet engines and the future of aeronautics", an engineer from the Air Ministry⁷² was interviewed about the functioning of jet engines, while a speed record of 980 kilometres per hour had just been accomplished by an American pilot. This engineer affirmed that the sound barrier would be passed soon, hoping that after that, "the quest for progress would be able to continue"⁷³.

42 In 1948, the journalist Stéphane Pizella hosted a show called "The future of artificial satellites", in which he interviewed the physician Albert Ducrocq, who wrote a book about interplanetary navigation⁷⁴.

This scientist described future possibilities to launch orbital artificial satellites around the earth, imagining a “flying island” which could be “an inestimable place for studies”.

2.3. On board broadcasts: immersive reports to live the event

- 43 Radio also offered onboard broadcasts, so the audience could experience flights from the inside.
- 44 In November 1946, some days after the inaugural flight of the first French jet aeroplane⁷⁵, and in the context of the International Aviation fair in Paris⁷⁶, a report was broadcast onboard of an English jet engine. For the armies of the industrial great powers, the afterwar corresponded to the transition from propulsion aviation to jet aviation.
- 45 The journalist Raymond Marcillac embarked on board a modified Avro Lancastrian⁷⁷, behind a Royal Air Force captain Thomas Sheperd, for a demonstration flight. The day before⁷⁸, this pilot completed the trip London-Le Bourget with this plane equipped with two piston engines and two jet engines, in order to get to the international aviation fair. It was the first time that a jet plane did a civil flight from one country to another with passengers⁷⁹. That is how the 18th of November 1946, French listeners could listen to a distant and elusive voice on their radio for some minutes:

Hello, hello! Raymond Marcillac speaking, who is onboard an English Lancastrian plane, which is a plane with mixed propulsion, meaning it has got two piston engines and two jet engines. These two engines develop for each of them 3 500 horsepower. We took off some moments ago from the aerodrome of Villacoublay. Now that we're flying, we cut the piston engines, and we only function with our two jet engines. The take off went very well, and even much faster than with any other aeroplane, because the four engines were functioning and developing, at that moment, a power of 10 000 horsepower. I am behind the pilot, Captain Sheperd from the Royal Air Force. He piloted this plane from London to Paris and doing so he beat the distance record London-Paris, without looking to do so. We are now performing a curve above a loop of the river Seine. We are overlooking the Eiffel Tower, which is blurring behind a light mist. [...] The pilot just

started the two other piston engines, that's why you heard a supplementary sound. [...] We are about to land on the Villacoublay ground [...] and we will again be functioning with four engines, because for landing, these four are necessary⁸⁰.

- 46 To do this broadcast was also a technical exploit for this media, because the reporter was connected to a radio car on the ground. The two technical performances respond to each other. Once again, radio allowed listeners to live an extraordinary event from a distance, and to feel involved into the race for the conquest of the skies.

- 47 Sometimes onboard reports were first made to allow the audience to experience sounds heard when travelling, before any scientific based reports. For instance, in June 1950, French radio broadcast an immersive report during the test of an airship balloon. In this 15-minute report, we can hear the professional jargon between the pilot and the operators:

Hello 3SC Santiago Canada, here is F8OF Oceania Florida on the microphone of 4 CD Canada calling. Ok old boy, I can hear you admirably well, it works very well, we will now proceed to take off old boy, under a splendid weather, magnificent. We have a slightly cloudy sky but with a radiant sun, and we will be able to take off and hear you admirably. Then be careful, I'm giving you back the tablet old boy, let's go⁸¹!

- 48 Listeners also get the chance to live the moment of take-off live, meticulously described, including in the technical aspects.

Drop!... Catch again!... Be careful behind the ballasts. Drop!... The balloon just emptied its first water ballasts. [...] The balloon is already going up some centimetres. The balloon just made a little static test and everything is ok now, we can start the engine. Contact!... Cut!... The engine is a little bit cut despite the good temperature, some petrol injections are now useful. Keep going old boy, keep going! Contact!... *Sounds of an engine starting.* Here is the small 40 horsepower engine which just started. I recall this is not a very big airship as the ones we used to see before the war, but a moto-balloon type, which is activated with a very small engine. Here is the machine raising, two meters, three meters... five meters, he's raising almost vertically

and goes toward Paris. [...] Good bye old boy and see you later. We are taking off, we are taking off⁸²!

- 49 Another example, in January 1950, when the journalist Fernand Pelatan was speaking from a distance with Marcelle Choynet, who was onboard a glider, and who was beating, at the time the flight endurance world record aboard a glider in a closed circuit⁸³. She spoke about the flight conditions and described what she saw. This type of broadcast gave the audience the feeling of being at the heart of the event, as if almost on board, thanks to the evocative power of sound. Indeed, these broadcasts largely solicit the imagination of the listeners, with accurate descriptions and engine sounds (here they are not sound effects created in studio, but actual sounds from flying planes). In these programs, the terms and technical aspects are not concealed, because the professionals of the skies didn't hesitate to use technical terms or jargon. This kind of report contributed then to popularize the progress of aviation⁸⁴.

2.4. Broadcasts of debates and reflections

- 50 A fourth type of radio broadcast focused on the conquest of the skies' current events can be listed: broadcasts with several specialists invited to debate and to comment the technical or regulatory evolutions of aviation. The best example of this kind of program is *La Tribune de Paris*, created in 1946 and broadcast every night on the National channel. Paul Guimard, the host of this show, later retold the origins of this program:

One day, Arno Charles Brun (a radio producer I really liked) told me: we will try to launch a new show. *La Tribune de Paris* will be every night a discussion between people from different opinions but representing the best level, each one in their specialty, and we thought you might be the good person to present this program. At first, the ambition was really simple: every morning, we tried to explore all the questions of the current affairs, and we managed to organise a debate every night⁸⁵.

- 51 People invited to the *Tribune de Paris* were scientists, but also journalists, politicians, and for what concerns us, actors of the conquest of the skies and aviation. This daily broadcast was one of the first construct the figure of the media expert⁸⁶.
- 52 In this 20-minute program, specialists usually set aside the spectacular or sensational dimension. They dealt with technical or problematic themes related to aviation and tried to convey some messages. For instance, after several Air France air crashes (two accidents in 1946 and one in February 1947), the show *La Tribune de Paris* on the 21st of February 1947 was about the question of security within air transport, a theme which was then debated at the National Assembly. The specialists invited that night were Louis Hauten Sozert⁸⁷, former commandant from the Free French Air Force and then director of the Air Transport Company; Paul Bigart, general director of the South-West airlines; Gabriel Monet, representative in Paris of the newspaper *Dépêche de l'air* from Lausanne, and Raymond Saladin, journalist for the French radio, who was also a pilot and a former aviation pioneer.
- 53 This debate is interesting to understand the idea of progress and risk, even if this is not really a debate, because all the guests were also actors of aviation, and thereby ardent partisans of this kind of transport. Whereas the journalist evoked the public fear provoked by a string of air crashes⁸⁸, the specialists were unanimous to minimize the importance of these crashes, and to condemn the press for the large place they gave to these tragic events. For instance, Paul Guimard regretted that plane accidents systematically made the headlines of the newspapers, while coach accidents, even when responsible of dozens of deaths, were relegated in the fourth or fifth page. According to the different participants, the fear of plane accidents that had been created had nothing to do with the actual proportion of danger (they recalled that a civil plane took off every second, while there were around fifteen plane accidents for the last six months). In this broadcast, the guests tended to reassure the audience, with discourses full of confidence about the reality of aviation security and its low risk⁸⁹, than to rationally explain the accidents⁹⁰. Thus, after the Second World War, national French radio broadcast messages which were openly in favour of air transport's development.

- 54 While aviation was developing, becoming common, and trying to become better in order to reduce the risks of accidents, there was another theme which sparked a debate in the media: the question of space exploration. In November 1947, the *Tribune de Paris* dedicated one of its editions to the question “Is interplanetary travel possible?”⁹¹, while the newspapers just echoed an American experience of a little space rocket launched by V2 planes. Five specialists were invited that night: Gérard Lefebvre from the journal *Sciences et avenir*, Albert Ducrocq professor of electric physics, Georges Jabert M.D., André Cléry scientific redactor for the newspaper *France Libre*, and Alexandre Ananoff director of the astronomic section of the aeroclubs in France. If the discussion was very technical (the host Paul Guimard even asked his guest to “come down to earth” and to talk at the audience’s level), Alexandre Ananoff concluded the broadcast by affirming that a resolution of engines problems would allow travel to the moon.
- 55 Thus, radio broadcast some speeches close toward the advent of space conquest, which represented a new step in the dream of the conquest of the skies. In his memoirs published in 1978, Alexandre Ananoff payed incidentally tribute to the journalists for their action in spreading such ideas: “We owe a lot to journalists, who, since the beginning, broadcast our ideas and astronautic aspirations through the world”⁹².
- 56 In 1956 a program called “The conquest of the skies” was broadcast⁹³. Several scientists and professionals appeared in this show to relate the history of aviation, but also to evoke space conquest and space rockets. They explained the steps of development of the satellites and referred to science fiction.
- 57 Sometimes, some intellectuals who were not specialists of these topics expressed themselves on the radio to give their point of view about space conquest. In October 1957, a debate show was entitled “At the age of the aerospace conquest”. The three co-presenters of this broadcast were a comedian (Anne-Marie Carrière⁹⁴), and two writers (Max-Pol Fouchet⁹⁵ and Paul Guth⁹⁶). They discussed space exploration, a few days after the launch of the first artificial missile in space (Spoutnik 1) which took place on the 4th of October 1957. During this discussion, free words flew. The three speakers all said that they

were sad and nostalgic when they thought about the space conquest, particularly about the moon which would lose its mystery, according to them. They wondered if the notions of impossible, inaccessible and human imagination would disappear with this conquest. They also wondered about the interest of future travel to the moon and engaged in metaphysical reflections about the condition and place of mankind in this new astronautic era.

Max-Pol Fouchet – We can't escape from the shock produced in ourselves to know that tomorrow we might be able to go to the moon, I mean, it's important. And in the same time, I rather feel a kind of sadness, of melancholia...

Anne-Marie Carrière – Aw, I think we will all agree about this!

Max-Pol Fouchet – A kind of melancholia, of lunar melancholia...!

Paul Guth – [...] The day we learnt that we will be able to go to the moon, [...] I had the feeling I was living my last terrestrial day⁹⁷.

- 58 This particularly interesting archive echoes a text published in the newspaper *Le Matin* in 1908, at the beginning of the conquest of the skies. In this article, the journalist regretted the fact that the technical achievement of flight would put an end to the dream, to the “fairy tale”:

The fairy tale will soon no longer exist: we'll need to find something else. We now move in the air, and the admirable saga we are experiencing now will be at the end a very natural thing, that our children and grandchildren will find very simple: the fact of flying and gliding in the space. And yet the kids who will receive gifts or unkind sticks will no longer be surprised that the honest and good man could travel in the air like this, with his full sack: they will imagine that Father Christmas would naturally use an airship or an aeroplane. And one of these children will say at loud to his mummy, showing her *la Ville-de-Bordeaux* [an airship]: “Then, Santa came to our chimney with that⁹⁸?”

- 59 The kind of discourse held during the 1956 broadcast “The conquest of the air” then was neither unique nor isolated. The advent of aerial

conquest could lead to a sort of deceived fascination, the sky and the stars losing their magic as humanity was getting closer to them.

- 60 But while this dreamy dimension tended to move away as the technical development was progressing, radio kept its own creative and oneiric ability, which would contribute to reintroduce reverie inside the race of aerial conquest, with specific creative broadcasts.

3. Radio creation and the conquest of the skies

- 61 Beyond broadcasts of tales and reflections, the imaginary conveyed by the aerial conquest inspired literature, as well as radio literature, with the creation of radio dramas dealing with this subject. We will quote here two examples which seem to be particularly representative of this kind of program, both contributing to reinject dream and mystery inside an object which became more accessible. One of these broadcasts dealt with aviation and the other one with space conquest.

3.1. “Les Conquérants de l’air”, 12th of october1951

- 62 In October 1951 “Les Conquérants de l’air” was broadcast, as part of the *Roman de la science*⁹⁹ program. The radio presenter depicts, in the first twenty minutes, the history of this conquest, thanks to an imaginary movie, a supposed documentary allegedly directed by Jules Verne. Here is the introduction of this creative “talking picture”:

[Man voice:] Suppose, dear listeners from the *Roman de la science*, that you are seated in an obscure room, in front of a cinema screen [sound of reel, of projection]. The movie starts as a little music, more or less appropriated, rises.

[Music: Queen Hall light orchestra & Robert Farnon, “Mountain Grandeur”]

The nineteenth century movies present: *The Aviator*, a documentary from Jules Verne, with the exceptional cooperation of Robur, amer-

ican engineer, known as Robur the conqueror...

Since humans don't walk on all fours anymore, they don't have their eyes naturally fixed on the ground, they look at the sky, the wonderful sky where clouds are soaring, the magical sky where birds are flying, and they envy the lightness of the clouds, and they are jealous of the aerial power...

Since humans don't walk on all fours anymore, they dream about gliding, and flying. They dream about the conquest of the air¹⁰⁰!

- 63 This creative broadcast leaned on the potentialities of radio art, by using music and sound effects to a great extent. During the 1950s, French public radio was particularly elaborated and creative, mostly made by writers and poets¹⁰¹ (between 1946 and 1963 French public radio was managed by the poet Paul Gilson). With the “Conquérants de l'air” broadcast, the journalist entirely created a “false” imaginary talking movie, to narrate the history of the conquest of the skies. The different technical progresses are described step by step, in a mix between reality and fiction. We cross paths with the great names of this saga: Icare, the brothers Montgolfier and their balloons, Henri Giffard, the brothers Tissandier, but also Robur the Conqueror, hero of the anticipation novel from Jules Verne. The choice of the different characters took part to the creation of a national and linear history of progress (the importance given to the French participants is overestimated), but also to the construction and rebuilding of legends, with some mythological and oneiric elements (the presence of Icare as well as the one of Robur the Conqueror, who became a character on his own in this story).
- 64 By interlocking closely fiction and reality, memories and legends, this program constituted an atypical radio broadcast. It provided another way to narrate the conquest of the skies, by reintroducing a part of dream into the ordinary miracle, at a time when civil aviation tended to become common.
- 65 If the space conquest seemed to stay inaccessible and distant for a few more years, a quite similar kind of broadcast would be created when the man walked on the moon.

3.2. “Il y a mille ans des hommes sur la lune”, 21st of July 1969

- 66 Several science fiction radio dramas were broadcast in the 1950s and 1960s, and the space conquest constituted for their authors a major inspiration. For instance, during the year 1956, the Parisian Channel played the series “Croisière Astrale” a radio creation of science fiction¹⁰² in 25 episodes, created by the journalist and polemist Jean Nocher¹⁰³, and produced by Bernard Gandrey Rety¹⁰⁴. This short program of 15 minutes was broadcast every Saturday night at 8.45 pm. This time of broadcasting suggested it was a family friendly show. In fact, it corresponded to a time amusement in the evening, a moment when the radio listeners or television viewers wanted to relax by listening to some stories¹⁰⁵.
- 67 The list of the “Croisière Astrale” episodes is referenced in the INA archives database, but unfortunately none of these broadcasts can be consulted. We only have the titles (“Martians have landed”, “Meeting with those from elsewhere”, “SOS to the stars”, “Celest mysteries”, or “We are capturing a flying saucer”). Even if we can’t listen to these archives, we can notice that these titles are largely oriented toward the question of a meeting with aliens, more than only just space conquest itself. The progresses of this conquest fed in fact an imaginary about the possibility of life outside earth, and about a way to enter in contact with these other forms of life. In the 1950s and 1960s, while several filmmakers directed fantasy and science fiction movies about space conquest and aliens¹⁰⁶, with a backdrop of cold war and race for the stars, French radio took also possession of this imaginary.
- 68 The 21st of July 1969, just after the first human steps on the moon, French public radio proposed a radio drama entitled “A thousand years ago, some men on the moon”. This radio play was based on the current events of the Appolo XI mission. The science fiction plot was in 2969, a thousand years after the first steps on the moon, when a historian rediscovers this event, which had been forgotten, probably because of inadequate computer archives.

[Sound effects. High-pitched and “space sound”. Concrete music.]

Man 1 [interpreted by José Artur] – But, come on, this can't be true! A thousand years ago, some men on the moon! No, no!

Man 2 [interpreted by Jean-Pierre Joris] – Yes, my dear friend. I am in a position to prove that a thousand years ago, ten centuries ago if you prefer, some men from the planet earth landed on the moon and walked on it, with their big shoes, their spacesuit, which made their moves clumsily.

Man 1 – Who do you want to convince with this story?

Man 2 – Well, you!

Man 1 – A thousand years ago, men on the moon...

Man 2 – Yes, yes... Do you want an additional precision? The event took place exactly a thousand years ago to the day, it was a 21st of July. Don't you think this coincidence is extraordinary?

Man 1 – But this is exactly why this is extraordinary! A serious historian like you must be wary of such coincidences, come on!

Man 2 – But, come on, my dear colleague, would you doubt my professional abilities? You can imagine that before saying such a statement, which revolutionises the official science, I surrounded myself with certain guarantees...

Man 1 – Well, I hope for you, because as soon as this news spreads amongst the public, you will be the object of everyone's laughing stock¹⁰⁷!

69 As indicated by the presenter in the introduction, this radio drama constituted an “exceptional adventure”. In fact, this kind of radio play, based on an improvisation on the event itself, had never been done before. Real technical and scientific data from the Apollo XI mission, then still going, had been used to write this fiction. Just before its live production, the presenter indicated that if Houston called, the show would be suspended.

- 70 This way of staging a rediscovery of the man on the moon in a distant future contributed to underline the nonstandard and exceptional nature of this crucial step of space exploration. Moreover, this broadcast tended to point out a radio specificity: its evocative and imaginary power. The absence of images in radio broadcasts constituted an obstacle to report this space mission. To follow this event, public from all over the world needed to actually see these men walking on the lunar ground, that's why they widely abandoned radio in favour of television (there were 700 million of TV viewers across the world)¹⁰⁸. Here, however, this radio dramatization allowed review this fascinating event, by making it happen in a future when it seemed unreal.
- 71 While the idea to send some men to the moon had provoked a lot of debates, fantasies and reflections in literature¹⁰⁹, media¹¹⁰ and society¹¹¹, this fruit of millenary human imagination just happened to happen during the summer of 1969. In doing so, the dream of moon and space exploration seemed to vanish and lose a part of its magic. With this radio drama, the radio professionals contributed to create a new oneiric universe, by reintroducing a part of dream, or even of doubt about this extraordinary event. Essentially, the question underpinning this radio drama could be: did we really walk on the moon? Do we have to believe in the unbelievable? That is in fact on the imaginary ground that radio can stand out, its strength being its ability of creating dreamlike and fictive atmospheres, particularly with the use of sound effects and music. Whilst television shows, radio suggests.

Conclusion

- 72 If radio didn't exist at the beginning of the conquest of the skies, it followed however its rise and development. Radio collected the voices of the first pioneers, offering stories of exploits and catastrophes, compiling memories and contributing to build heroic and legendary aviation figures. Radio was also following and broadcasting the current events of this conquest, provoking the listeners desire by appealing to their imagination, by immersing them inside onboard reports, or making them dream with radio dramas inspired by aviation and astronautics.
- 73 Radio created a "poetry" about the conquest of the skies, using the evocative power of sound, potential of reverie and invitation to travel.

Because there's no image, the descriptions are detailed, full of imagery and particularly evocative, precise and meticulous, or abstract and fictional. In several programs there are sound effects and music: the sound of engines inviting to take off, melodies suggesting flights and dreams.

- 74 This paper constitutes a first immersion through French radio sources related to the conquest of the skies. Only a small part of the available broadcasts has been used. Historians working on the history of aviation or aeronautics should take an interest in sound archives in general. Radio sources can be very rich, and are complementary with the written press. Radio archives played a part in the construction of the idea of the conquest of the skies itself, and in the creation or the maintenance of air and space imaginaries.
- 75 For what we know, this field of research combining radio and aeronautics remains unexplored, even on an international scale.

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NOTES

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- 15 See P. Brenot, *Le Siècle de la T.S.F.* (Paris: éditions de Minuit, 1959).

16 See Brochand, *op. cit.* 48-49. About the beginnings of the radio, see also Ulmann-Mauriat, *op. cit.*

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21 His real name was Jorge Chavez Dartnell. He was yet born in Paris in 1887.

22 Jean Bielovucic realised the second aerial crossing of the Alps in 1913, after Geo Chavez.

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25 *Ibid.*, 11.

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46 See for instance the letter from a man incarcerated in prison, who listened to Macha Béranger's show before his detention: "I find again every night with pleasure the Macha I listened to in 1978, around two or three am, I was free then... Now, between ten pm and midnight, I just need to close my eyes to be free again. Thank you miss Macha", CAC, AN, 19980208/1, 1986, File A, Letter from Patrick C., Muret Jail, 18th of August 1986.

47 P. Schaeffer, *Machines à communiquer* (Paris: Seuil, 1970), 85. Our translation.

48 About the construction of legends and heroic figures, see F. Lucbert, S. Tison (eds.), *op. cit.* 4th section "La création des légendes", 247-293. See also S. Tison, "Du sportsman au combattant: archéologie de la figure de l'as (1910-1916)", in L. Robène (ed.), *Le Sport et la guerre XIX^e et XX^e siècle* (Rennes: Presses universitaires de Rennes, 2012), 345-355.

49 The date of this archive is the 1st of January 1936, but there is a mistake, because Saint-Exupéry and his mechanic and friend Prévot came back in the Cairo only the 3rd of January.

50 The 29th of December 1935, Antoine de Saint-Exupéry and his mechanic (André Prévot) were victim from a forced landing in the desert. They would pass three days in the desert, suffering from thirst and hunger, before being found by a Bedouins caravan.

51 This story, entitled "Le Vol brisé. Prison de sable" (The broken flight. Prison of sand) was published daily in episodes, from the 30th of January 1936.

52 André Prévot, his mechanic.

53 “Antoine de Saint Exupéry à propos de son atterrissage forcé en Tripolitaine”, recorded in Marseille, 1st of January 1936, archive Ina. Our translation.

54 In the 1930s, radio was still quite a heavy dispositive. Radio receivers were a sort of furniture, large and massive, which stayed in the middle of the living room, and around which family gathered to take the programs, collectively.

55 See for instance B. Mouandjo, P. Lewis, P. Mbianda, *Théorie et pratique de la communication* (Paris: L'Harmattan, 2010), 689. See also A. Crisell, *Understanding Radio* (London: Routledge, 1994) and G. Starkey, “La bande sonore de nos vies”, *Médiamorphoses*, 28 (2008). About the reception of media: P. Goetschel, F. Jost, M. Tsikounas (eds.), *Lire, voir, entendre: la réception des objets médiatiques* (Paris: Publications de la Sorbonne, 2010).

56 P. Cavelier, O. Morel-Maroger, *op. cit.* 99.

57 At that time, he was already an almost legendary figure. His disappearance during three days kept the press and media in suspense.

58 “Jacqueline Auriol, femme pilote la plus rapide du monde”, *Le ciel est à vous: Magazine de l'aviation*, 27th of June 1951, INA archive.

59 See, for instance, “Interview d'un pilote d'un avion”, Chaîne nationale, 1st of June 1946, INA archive.

60 This use of the word “prince” is also probably a reference to “The Little Prince”, and then to Antoine de Saint-Exupéry, disappeared in the Mediterranean Sea with his plane in July 1944, while he was effecting a mission of photographic reconnaissance in order to prepare the landing of Provence.

61 “La race nouvelle des pilotes d'aviation”, *Paris vous parle*, Chaîne nationale, 2nd of September 1945, INA archive. Our translation.

62 About the aviation during the Second World War, see: P. Garraud, “L'action de l'armée de l'air en 1939-1940: facteurs structurels et conjoncturels d'une défaite”, *Guerres mondiales et conflits contemporains*, 2/202-203 (2001), 7-31.

63 André Gillois, from his real name Maurice Diamant-Berger was one of the voice of the BBC French service during the war. After the war, he was one major figure of the national French radio.

64 “École de l'air de Salon de Provence”, *Vous avez la parole*, Chaîne parisienne, 3rd of Septembre 1948.

65 Some years earlier, the 7th of August 1933, the aviator had beaten the world record of distance in a straight line. He took off in New York and landed in Rayak, Lebanon, after 55 hours and 9 104 kilometres without any stop.

66 “Paul Codos à propos de la traversée de l’Atlantique Nord”, *Actualités*, 18th of December 1937, INA archive. Our translation.

67 About desires provoked by the media, see: Y. Citton (ed.), “Envoûtements médiatiques”, *Multitudes*, 4/51 (2012), 56-64; S. Zielinski, *Deep Time of the Media* (Cambridge: MIT Press, 2006).

68 B. Lenoble, *op. cit.* 209-220.

69 Even if, at that moment, the web of radio transmitters, which had been widely destroyed during the war, is still not repaired.

70 B. Anderson, *Imagined communities* (London: Verso, 1983).

71 “Touristes de l’air”, *Documents*, 9th of January 1956, INA archive. Our translation.

72 Created in 1928, this Ministry would be dissolved in 1947.

73 See for instance the reflections in the broadcast “Les moteurs à réaction et l’avenir de l’aéronautique”, 8th of November 1945, INA archive.

74 A. Ducrocq, *L’Humanité devant la navigation interplanétaire* (Paris: Le Club des éditeurs, 1948).

75 The first French jet plane, the SO 6000 Triton, created by Lucien Servanty, completed its first flight in November 1946.

76 This fair opened its door the 15th of November.

77 Avro Lancastrian C.1 VH742.

78 The 17th of November 1946.

79 “The Nene-Lanc, Flies to Paris”, *Flight and aircraft engineer*, 50/1978 (21st of November 1946), 561.

80 R. Marcillac, “À bord d’un avion à réaction”, 12nd of November 1945. Our translation.

81 “Essai de ballon dirigeable à Toussus Le Noble”, *Ainsi va le monde*, 9th of June 1950, INA archive. Our translation.

82 *Ibid.*

83 “Record de durée en planeur de Mademoiselle Choisnet”, 4th of January 1950, INA archive.

84 About reception of mass media: G. Poels, *Les Trente Glorieuses du téléspectateur. Une histoire de la réception télévisuelle des années 1950 aux années 1980* (Bry-Sur-Marne: Ina, 2015). See also J.-P. Rioux, J.-F. Sirinelli (eds.), *op. cit.* and J.-Y. Mollier, J.-F. Sirinelli, F. Vallotton (eds.), *op. cit.*

85 Story broadcast in the show “La Radio dans la vie politique française / 1944 et 1958, une liberté surveillée”, by B. Leroux, J. Antoine, France Culture, 21th of November 1985, INA archive.

86 About media experts: Y. Chevalier, *L’“expert” à la télévision. Traditions électives et légitimités médiatiques* (Paris: CNRS Editions, 1999); C. Lensing-Hebben, *Les Experts cathodiques. Chercheurs face à la tentation médiatique* (Lormont: Le Bord de l’eau, 2008) and L. Bantigny, “Usages, mésusages et contre-usages de l’expertise. Une perspective historique”, *Histoire@Politique*, 2/14 (2011), 3-13.

87 We are not sure of this name spelling.

88 The term “black series” was used by the press to describe the succession of plane accidents.

89 About the history of risk, in the history of sciences and techniques: F. Jarrige, *op. cit.* and J.-B. Fressoz, *op. cit.*

90 According to these guests, plane accidents are mostly due to atmospheric conditions.

91 “Le voyage interplanétaire est-il possible?”, *Tribune de Paris*, Chaîne parisienne, 12th of November 1947, INA archive.

92 A. Ananoff, *Les Mémoires d’un astronaute ou L’astronautique française* (Paris: Albert Blanchard, 1978), 115.

93 “La Conquête de l’air”, *Voici le monde*, Chaîne Nationale, 15th of April 1956, INA archive. Our translation.

94 Anne-Marie Carrière is a comedian, singer and radio host.

95 Poet and writer, Max-Pol Fouchet was a resistance fighter.

96 Paul Guth was a novelist and essayist. He also wrote some books for children.

97 “À l’ère de la conquête astronautique”, *Propos en l’air*, Paris Inter, 30th of October 1957, INA archive. Our translation.

98 “Le Salon prodige”, *Le Matin*, 25th of December 1908, 2. Our translation.

99 *The Science Nove*.

100 “Les Conquérants de l’air”, *Le Roman de la Science*, Chaîne Parisienne, 12nd of October 1951, INA archive. Our translation.

101 About French writers and radio, see P.-M. Héron (ed.), *Les Écrivains hommes de radio (1940-1970)* (Montpellier: Publications de Montpellier III, 2001) and P.-M. Héron (ed.), *Les Écrivains et la radio* (Montpellier: Publication de Montpellier III, 2003). About afterwar radio, see also H. Eck, *La Radiodiffusion française sous la IV^e République, monopole et service public, août 1944 – décembre 1953* (doctoral dissertation in history, under the direction of J.-J. Becker, Université Paris 10 Nanterre, 1997).

102 About science-fiction radio, see J. Baudou, *op. cit.*

103 Jean Nocher, from his real name Gaston Charon, was a member of the resistance.

104 Composer and radio producer. Cf. “Bernard Gandrey Rety”, *Cahiers d’histoire de la radiodiffusion*, 48 (March-May 1996).

105 About the reception of radio during the evening: M. Beccarelli, *Micros de nuit. Histoire de la radio nocturne en France, 1945-2012* (doctoral dissertation in contemporary history, under the direction of M. Tsikounas, Université Paris 1, 2016). See also G. Starkey, “La bande sonore de nos vies”, *Médiamorphoses*, 28 (2008); H. Glevarec, *Libre Antenne, La réception de la radio par les adolescents* (Paris: Armand Colin, 2005); H. Glevarec, M. Pinet, “Les deux écoutes de la radio: fréquence et présence au média radiophonique”, *Quaderni*, 65 (2007), 111-119; J.-J. Cheval (ed.), *Audiences, publics et pratiques radiophoniques* (Bordeaux: Maison des sciences de l’homme d’Aquitaine, 2003).

106 See: *The Thing from another world*, from H. Hawks and C. Nyby, 1951; *The Day the Earth stood still* from R. Wise, 1952; *The Island Earth* from J. Newman and J. Arnold, 1955; *Forbidden Planet* from F. Wilcox, 1957; *First spaceship on Venus*, from K. Maetzig, 1960; *Ikarie XB 1* from J. Pólak, 1963; *Atragon* from I. Honda, 1963; *Voyage to the Prehistoric Planet*, from C. Harrington and P. Klushantsev, 1965; *Planet of the Apes*, from S. Kubrick, 1968.

107 “Il y a mille ans des hommes sur la lune”, Radio-Terre, ORTF, 21st of July 1969, INA archive. Our translation.

108 “1969: en direct de la lune”, *Mystères d’archives*, Arte, 20th of July 2009, INA archive.

109 J.-P. Luminet, *Les Poètes et l'univers* (Paris: Le Cherche midi, 2012) and C. Aziza (ed.), *Le Roman de la lune* (Paris, Omnibus, 2009).

110 See the examples developed in this paper.

111 See, for the United States: T. Dubost, "Exploration spatiale et imaginaire populaire américain, 1957-2009", *Bulletin de l'Institut Pierre Renouvin*, 31 (spring 2010); H. E. McCurdy, *Space and the American Imagination* (Washington: Smithsonian Institution Press, 1997; 2nd ed. Baltimore: The Johns Hopkins University Press, 2011); R. D. Launius, *Frontiers of Space Exploration, Westport* (Westport: Greenwich Press, 2004) and D. T. Courtwright, *Sky as Frontier: Adventure, Aviation and Empire* (College Station: Texas A&M University Press, 2005).

ABSTRACTS

English

From narrative historical broadcasts to popular science shows, through reports aboard planes or hot-air balloons, this paper deals with the imaginary of the conquest of the air conveyed by French radio, from the 1930s to the late 1960s. From the balloons flights to the spatial conquest story, radio fully captured this topic. It recorded the voice of the pioneers, offered stories about exploits, as well as tragic accidents, compiled memories. Radio followed also the current events of this conquest, contributing to stimulate the listeners' desire, soliciting their imagination, immersing themselves inside onboard reports, or making them dream with dramas inspired by this conquest. Moreover, the sound archives allow to explore the poetic of the conquest of the air on radio, going through the evocative power of the sound, with the use of sound effects and music.

Français

Des émissions de récit historique aux programmes de vulgarisation, en passant par les reportages embarqués à bord d'un avion ou d'une montgolfière, cet article s'intéresse à l'imaginaire de la conquête de l'air véhiculé par les programmes du média radiophonique français, des années 1930 à la fin des années 1960. Des vols en ballons au récit de la conquête spatiale, la radio s'est largement emparée de cette thématique. Elle a recueilli les voix des premiers héros, proposant des récits des exploits comme des catastrophes, compilant des souvenirs. Elle s'est également fait le porte-voix de l'actualité de cette conquête, contribuant à susciter le désir des auditeurs, en sollicitant leur imaginaire, en les immergeant dans des reportages embarqués ou en les faisant rêver avec des dramatiques inspirés par cette conquête. Par ailleurs, les archives conservées à l'Ina permettent une exploration de la poétique particulière de la conquête de l'air à la radio, passant par le pou-

voir évocateur du son, avec la spécificité de l'utilisation de bruitages et de musiques.

INDEX

Mots-clés

aviation, conquête spatiale, radio, archives sonores, médias

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