

Mr Henry Coanda of Bristol, England

I have often wondered, travelling out of Bucharest towards Pitesti, why there is a fighter jet mounted on a building on the right hand side of the road. Last month I had the opportunity to pass through the gates that the airplane guards. Inside, I discovered something quite remarkable and unexpected.

The plane stands in front of Romania's National Institute for Aeronautical Research (INCAS) and my visit there was to discuss our latest plans to bring the UK and Romanian aerospace industries together in joint ventures for sales in our own and third country markets. What I discovered is that this cooperation has a very long and extraordinary history, stretching right back to the very dawn of aviation.

Take the fighter jet for starters. It is a training jet, the IAR-93, manufactured in the 1970s in a joint programme between the Yugoslav and Romanian governments, and powered by the Rolls Royce Viper turbojet engine. Just pause for a moment to consider that fact. At the height of the Cold War, Romania was manufacturing a military jet with a British engine. This was an unusual era, when Communist Romania reached out to the West, and the West responded with access to military and civil technology – including the supersonic wind tunnel which Canada provided to INCAS.

It also harked back to an earlier era of Romanian-British cooperation in the aviation industry. Let's follow the ancestry of that Rolls Royce Viper engine. It was first produced in 1953 by a company called Armstrong Siddeley, which in 1960 merged with the Bristol Aeroplane Company to become Bristol Siddeley, which was later purchased by Rolls Royce.

The Bristol Aeroplane Company was founded back in 1910 as the British and Colonial Aeroplane Company by Sir George White. In 1911, Sir George decided to give a young engineering student his first proper job. He dispatched his colleague Captain Dickson to Paris, to contact Mr. Henri Coanda, who had created a sensation at the 2nd Aeronautic Exhibition with his Coanda 1910 machine (No.1), the first to be fitted with a reaction propulsion device.

Henri Coanda had been enjoying a Bohemian existence in Paris, studying at the Ecole Superieure d'Aeronautique et des Constructions Mecaniques, and also pursuing his love of sculpture and painting by attending workshops at Rodin's studio. It was there in 1907 that he met Constantin Brancusi, and immediately hit it off with his fellow Oltenian. He seems to have hung out frequently at Brancusi's digs in Montparnasse, a meeting point for many Romanian intellectuals in Paris at the time.

However, Coanda did not miss the chance offered by Captain Dickson to take on the position of Sir George's Technical Director and move to England. Looking at his smart address in Bristol - [17 Westbury Road](#) – it must have been a well-paid job, though Coanda worked incredibly hard for his pay. In 1912 the company's monoplane designer Mr. Prier left the company, in 1913 the seaplane designer left too. Coanda took on all their duties, and in his three years in Bristol was incredibly prolific, designing an extraordinary number of aircraft and other machines.

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The most successful was probably the Bristol-Coanda monoplane, but he also designed sea bi-planes, an early bomber (complete with bomb launcher and sighting device), reconnaissance planes and the first armoured bi-plane with a steel fuselage, known as the 'bathtub'. Perhaps one of the most extraordinary inventions was a wind tunnel which used a mixture of smoke and air to trace the wind currents over the wings of a model aeroplane, and even included a camera to capture the images – this as early as 1912.

Coanda's machines went higher, faster, farther than anything that had gone before. The French were clearly somewhat put out that this genius of aviation had skipped over the Channel to England, as "L'Aero" magazine observed on January 7th 1914. "A few days ago we mentioned that a Bristol biplane recently delivered had accomplished the splendid performance of rising to 1,200 feet in 58 seconds with a passenger and three hours' fuel. ... We have no machine in France capable of competing with the Bristol ... a machine derived from our old machines, but scientifically studied and improved by a technician, an apostle of the science and of laboratory experiments, and who moreover is French in culture – Henri Coanda, technical Director of the celebrated English firm ..."

However, Sir George's ability to profit from Coanda's designs suffered a setback on 10 September 1912 when one of the monoplanes that had been sold to the newly-formed Royal Flying Corps crashed near Oxford, killing the pilot and passenger. The War Cabinet took the radical decision to ban the RFC's pilots from flying monoplanes. Fortunately, Sir George had already been investigating the export market – Italy and also (presumably influenced by his young Technical Director) Romania.

It was on a bright autumn afternoon in September 1911 that the Bristol-Coanda monoplane was first demonstrated at the Cotroceni airfield in Bucharest. The British and Colonial Aeroplane Company had brought along its own pilot, Howard Pixton, to show it off. Unfortunately, the trial did not go entirely to plan. Coming down to land, Pixton had to take evasive action to avoid a herd of buffalo and the plane landed on its nose upright in a swamp. However the Romanian Ministry of War was not deterred and bought the plane. It may have helped that Henri Coanda's father was a General in the Army, and went up himself in the plane as a passenger piloted by Lt Aviator Stefan Protopopescu.

Romanian pilots were sent to Britain to complete their training, and orders placed for aircraft to form Romania's own Air Corps. As "The Aeroplane" magazine commented in April 1914 "The Romanian Air Corps is largely equipped with Bristol aeroplanes. The commander of the Bristol squadron is Cpt Popovich Andrei, who obtained his pilot certificate at Salisbury Plain... The Romanian patriots regard the Bristol aeroplanes favourably because Mr. Coanda, the designer, is a Romanian."

So there is nothing new about British-Romanian cooperation in aviation. In this industry, our two countries have been joined at the hip since its inception one hundred years ago. The UK gave Romania's greatest aeronautical engineer his first job. Romania formed its Air Corps from the flying machines that were built to his design at the British and Colonial Aeroplane factory in Bristol.

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