

Donald Cameron reel two.

So following your transatlantic attempt in 1978, and not quite making it, did that actually have some benefits for the company? Was there renewed interest in what you were doing? Yes, I think so certainly, there was the feeling that we had learned a lot. And obviously, we weren't going to use that kind of gas containing fabric again. But the next balloon on the rosier principle was a much different thing designed from scratch, and really much better all together.

And which, which balloon was that? What was your next project?

What was the next one? We've done various projects, my own flights in the Atlantic race in 92. And the flight to Russia was in 90, but we built balloons at different times for different people. I'm really struggling to remember the dates of them all.

Well, just looking at it chronologically. Perhaps we could talk about your flight into what was I think just about still, the Soviet Union at the time was made in 19 years.

Yes it was a flight to the Soviet Union from from England. And that is the only time that flight will ever be made. Because the Soviet Union broke up. It was a big struggle to get permission. But we had been, we've made a visit to the Soviet Union and got to know some people. And one of these was a chap called Gennady Oparin, who was an ex Aeroflot person who was known instructor at the Civil Aviation Academy in Leningrad, as it was then called, and he managed to get permission for us the I hope he didn't contrive it. But the permission was conditional on being a Soviet citizen as one of the crew. So he and I did the flight. It went reasonably well, we took off from Cardington, very luxurious place to take off from because you can inflate indoors in perfect calm, and then take the balloon out after it's fully inflated. I remember we took off that evening, I flew on, like a gas balloon putting out sand balloon was in climb, and then it would round out, and then it would slowly descend and radioed the crew to say, don't go back to Bristol yet, you might be picking this up from a field in East Anglia, because there might be a leak. And but eventually, it stopped doing that. And all it had been doing was cooling during the evening, and eventually settled out to a perfect equilibrium. And I just put out the right amount of sand. And it was just in a steady equilibrium and didn't need any any heat or any more control at all, it just flew itself. And then towards the end of the night it started a very slow descent. So I thought it's nearly sunrise. So rather than waste any more ballast, I'll use the little bit of heat, because it when the sun hits it, it'll climb anyway. So I switched on the pilot burner, and I didn't ever get to use the burner, the pilot burner was enough to just change his track and make it start descending again.

How long did you think the whole flight would take?

Well, they did take about two days, we went into the night going out from Cardington and flying over the channel. And then sunrise as we were coming across Holland going into Germany, and totally different from flying the Atlantic, because you have to talk to aircraft control units the whole way. Whereas of the Atlantic, the airwaves are dead, so to keep talking to these people, and I realise it was, but by this time, I realised that sleep was an important thing on these things. And I had to talk to them every hour. So I tried to get a bit of sleep in the intervening time, I had to do it all the time, because gonad his English wasn't good enough. And of course, my Russian wasn't good enough, although we managed to communicate with each other. All right, as we crossed it into into Denmark, it became night time again. And I remember flying over Copenhagen, looking down and seeing people in cars in the street and quite different from saying the Atlantic where you, you might well be in space. Here we were really quite near

civilization. And then we crossed southern Sweden, which was very dark during the night and the sun rose as we came across the Baltic again. Then we were coming into the Soviet airspace. And at that point, Kennedy had to do all the radio and they measured the altitude in metres. So I had to use a calculator to look at the instruments and work out how many metres altitude was so that he could report it. And at the time we were sort of officially Cold War had ended.

But The Soviet Union still existed. So I'm wondering what if any political or diplomatic implications your mission had?

Well, I don't know, I think maybe it had become more easy to get this permission than it would have been 10 years earlier. But anyhow, we landed in a on a farm in Latvia, which was part of the Soviet Union at the time. And the farming, people were very kind, they took us to their house and put us up. And I remember that, we were pretty exhausted, of course, and they let us go to sleep, gave us beds. And in the middle of the night, we were woken up because a party had arrived. And this was air traffic control people, and journalists, and police and so on. And of course, we didn't think about it. But when an aircraft comes in to the Soviet Union, and then disappears after talking to them on the radio, it usually means there's been a crash or something. So they were looking for the wreckage, and we had to sort of apologise and talk to them for a while and then get back to sleep again.

So you'd forgotten to inform air traffic control that you've just landed safely. ?

Well, of course, VHF works very much in line of sight. So after we were on the ground, we'd lost control, lost contact, so we weren't able to do that.

Had you publicised this flight at all in advance? And I'm wondering if the UK Government and the Russian government's saw any advantage to you doing this?

I don't think it was that organised. But we had a sponsor doctors, and the obviously wanted to get some publicity, so there was a bit of publicity about it.

Now, prior to that flight. you'd also been involved in designing the D 38. airship that was back in the early 80s. Can you explain technically, how advanced that was? How was it different to previous aircraft?

Well, the D 38 was original one was not very advanced. In fact, we tried to make it as easy to operate as a hot air balloon. And it was a great fun little machine, we made quite a number of them.

Who were the customers?

We did one for Coke cars. I remember, an advertising machine. We we did one for Jack O'Neill, who was the founder of the sports equipment manufacturer. So we did quite a number of them.

But the difference with an airship is that it's powered, presumably?

Yes, it's powered along. I remember taking it to the meeting at Chateau D'Oex where they have a competition where you have to drop a marker on a target. And of course, you can steer in their ship and and I steered to the to the target and put the marker exactly on it. But they wouldn't give me the prize because they recognise cheating.

Well, do you think? Is it cheating?

Well, of course. Yes, it's very much easier to reach the target. If you in relatively come here if you if you have a steerable motor driven loom. Now a year after your transatlantic attempt in 1979. You found at the Bristol Balloon Fiesta. So presumably there was enough interest growing in the UK by them to support such an event. Can you tell me how you organised it and what the first year was like?

Well, there had been quite a bit of publicity about it. And I was a member of the Junior Chamber in Bristol at that time, their meetings are usually we'd have a meeting and then then follow it by having an invited speaker to talk about something, too. I was invited to be the speaker to talk about this balloon next flight. And we went to the pub afterwards. And we discussed the things and I suggested Why don't we hold a balloon event. And he thought that was a good idea because the Junior Chamber sort of does projects. And this sounded like a good project to them. And it was modelled on a balloon event in the States. And it worked very well. The initial one was quite small, of course, about I think there were 14 Balloons and not much public there because nobody really knew about it. And we had a sort of Chuck waggon which produced some sausage rolls or something. And that was all but were you given local support by Bristol City Council for example. Well, we were allowed to do it in the park and we always have been allowed to do it in the park. Although we've had some times there's been a little bit of sniffing about that because many events have charged to have to hold it in the park. But by 1983 It has been so successful it became the international balloon festival we call it the international because we'd wanted to people from abroad attending as the it's it certainly has grown and also during this period you'd won various awards.

Also you'd won the gold, silver and bronze medals from the Royal Aero Club, but you'd also receive the Harmon Trophy in the United States. Do you remember how that went to the presentation?

Oh, well, I think it was a pretty grim presentation in the in the White House. This was for creating the world's for the first hot air airship I think. So it was a grand presentation. But unfortunately, I wasn't there. And it was collected on my behalf by the British ambassador. The problem was that there had been a tremendous storm and the airports were actually closed for a while. Anyhow, I didn't get organised to get over there.

but you're in quite prestigious company in recipients of that award?

Oh, yes. And quite elevated. People have been given that when they think the Wright Brothers, Amy Johnson, that sort of company. So I was a small fish in a big pond during this period.

As you made these quite pioneering flights with your own design, the Cameron Rosier design, were you modifying it and perfecting it with each each attempt?

Yes, a little bit. We were modifying it. Although I think the basic design really persisted. There were very few refinements .

Have other people copied it ?

I don't think they have mainly because these flights are pretty rare, many of the people because we built a reputation for many of the people who have come to us, but there have been some other resumed flights. And in 1992, you did achieve your transatlantic crossing. What was the change in the design? What did you learn by that time to make it successful?

Well, we had a balloon that didn't fall apart, that was an important ingredient. And the we had the understanding the meteorological understanding by that time, and better meteorological

forecasting by that time, new computer models and advanced. Of course, we had GPS, I think I was the only person on that race, it took a sextant with me, but I never got it out of its box, because the GPS worked the whole time.

And on this occasion, not only were you successful, but you were in company, it was actually a competition, a race.

It was five balloons, it was a fairly gentle competition, we had spent about six weeks waiting for the for the weather, maybe more, I can't remember. But the season was getting rather late. And we were becoming anxious that we might have to go home and try it the following year. And that we've raised budget problems and all sorts of things. So we had a window, which looked more or less, right, and we decided to go. And I think it wasn't perfect. But we found when once we were airborne, that we weren't making the progress we expected. And we had to go down low and catch a wind that would take us further north and then rise up into the air stream. And then we could get across. So that's what we did. But it was not so good. Because one of the plans is to stay in good weather all the way across. But we did in fact get into rain. And the the German team got into very heavy rain. And it actually brought them down. They were picked up by a boat. Of course, we had survivable gondolas by this time. Another lesson from the past.

And again, was it a two man crew?

Yes.

Who were you with this time?

I was with Rob Bailey. And there were two people from each of the other four countries. Rob Bailey, in fact, was a BBC man.

And was he making a programme for broadcast during the flight ?

He made a film during the flight. I'm not sure how much it was broadcast, but he made a full length film.

But was he an experienced and qualified balloon pilot?

Yes, he was.

And what about communication between the race participants, we were able to contact balloon to balloon?

Well, of course, VHF is only available line of sight or something close. In fact, the balloons were mostly out of sight of each other. But we could still get through on VHF. So although we were in competition, because we thought we're we're actually trying to survive here. We were actually helping each other in seeing what weather conditions we had in different places.

So the competitive side of it was really a very small element.

I think it was although we still had a competition. And eventually when we got across it was the Belgian Swiss team. The Swiss member was Bertrand Picard who later went on to great things. They landed in Spain, and they were the first and we landed. Second. We were on the beach in Portugal. The American team, they got caught in a wind that took them further south. And they actually flew in over Morocco and landed in Morocco .

Can you describe the balloon? What what what was the name of the balloon on this flight?

Chrysler? Number three, I think Chrysler was a sponsor. I don't think we actually had a separate name on each balloon.

And how would the design improved? Since your earlier attempt? Can you think of any technical differences?

There are a few differences, turnings, other things, but essentially, the design remains similar. We have trouble deflating the balloon at the time. So we've made improvements to that is essentially the same design, we have a balloon, which the top half is made of gas containing fabric, and then hot air fabric coming down to the base. And then from the equator, there's a gas containing membrane, which separates the gas from the hot air.

And is this quite an expensive design? I mean, you said you had a sponsor? Is that always going to be necessary on something like this?

I think so that the balloon is probably only a little more expensive than a regular balloon, but we're filling it with helium, and helium is dreadfully expensive these days. So it can only really be used for special occasions.

And what about the carrying of stores, presumably you need to over store in case of emergencies, what were you carrying on board for survival and for nutrition?

With the Rosier balloon, it really removes the problem of being able to carry enough stores because we might as well carry stores rather than sand ballast. So you can carry any amount and if you really need it, you can chuck them out. But we've certainly never been short of something to eat on these flights, you can take quite a lot of extra weight and it's not a problem.

What is in flight catering, like on a transatlantic Balloon Race.

The Catering is not very luxurious, I'm afraid. We had some type of patented self heating can, this is a can which has food on the inside can and in between that and the outside cameras, some chemical, which when it's exposed to the air by puncturing the top it starts to heat, the food inside is heated. So that's a good luxury.

And what about sanitation ?

Sanitation is rather similar to the yachtsman principle, which is known as bucket and chuck it.

Now the Rozier Cameron design, of course has gone on to support many other famous missions. I'm thinking of, for example, Steve Fossett, and the Breitling orbiter later on. And then spirit of freedom in in 2002. Can you just describe your involvement in some of those projects?

Well, we our involvement was mainly as balloon manufacturer. But we've also helped with the control room on the Brightling Orbiter 3, for example, we helped to staff the control room, and we were available for any information if we can provide it.

And where was that located?

The control was at an airport in Switzerland, Lucern, I think,

And did you meet Steve Fossett himself and discuss the mission with him?

Oh, yes, he visited us here.

What was he like to work with?

He was a wonderful chap, really? People think of Americans as being brash, but he certainly wasn't he was really quite self effacing. And he was very good to work with.

And what's your opinion of him as as a pilot?

Pretty good, pretty good. We had to train him to use the Rozier. Of course, we did briefings. But since the Atlantic race, we've we've had them fairly good manual on how to do it. And we generally say in the Civil Aviation Authority agrees with us that to qualify to fly Rozier you do it indoors, instructing the principles, but to someone who's already a balloon pilot, but anything else would be prohibitively expensive apart from the benefit of actually doing it. But helium is so expensive to go for a short trip is no good. And in any case, you don't learn much about what's special about her Rozier until you go through a night and a day and get experience a different heating conditions.

And what is special about a Rozier?

It's a beautiful balloon. It's just able to fly for such a long time is possible at certain times and it just flies itself. So you can totally relax, even go to sleep for a while.

And the spirit of freedom mission in in 2002. That flight took about two weeks for the solo circumnavigation. What sort of altitudes would the balloon have been flying at for that time?

This was Steve Fossett. And he he had trained himself to fly in altitude without oxygen. He lived it is his home was at quite high altitude in the Rocky Mountains. And he would go and train higher in the mountains. So he was very good at that. But he chose to do it in an unpressurized gondola, which is hard going for at that altitude for weeks.

And this was a gondola, as you describe, it was actually a survival capsule in effect, designed by Tim Cole. How did you get to know Tim Cole? And how closely did you work together?

Yes, we've worked well zoom calls use of balloons from the States. And he he did the he flew the first time was Steve Fossett. I think Steve Fossett didn't like the fact that people were saying, Oh, well. It's Tim called really flew it. And for so he was just a rich passenger. So he flew all his flights himself.

And this spirit of freedom was quite a high speed flight, I believe.?

Yeah. So which one was it?

This was in 2002. So from around the world and landing in Queensland in July 2002?

Yes, he landed in the water, I think. Yes, he did. All right. I don't know why he landed in the water. But a lot of these early round the world attempts didn't make it, of course. But we kept trying to learn from everyone. What could we improve? He did one flight out of the states. And he finished up in in Russia near the Crimea. Maybe it was the Crimea, I can't remember . It was Russia just after the Crimea. He had flown over southern England at a tremendous speed. The winds on the surface were about 70 miles. Now. If he'd had to land he would have killed himself, when he was flying, flew in this Airstream and didn't land of course. And it was much better when he can get actually came to land.

So what sort of speeds are we talking about at high altitude for that sort of flight.?

If you can get up into the jet stream, you can find 100 miles an hour plus, and yet you don't feel that there's any wind in the balloon, because you're going at the same speed as the air. So the

ideal thing is to use the the jet stream or the airflow not far under it, which is very much influenced by these give much better direction than the surface situations which of all the circulating loads and things.

Now by 2016. There was yet another high profile attempt and this is Fedor Konyukhov the Russian pilot. How did you go about designing that project? This was the Rozier 550

Well, we hadn't done around the world balloon for quite some time at that time. So it was very much a question of looking at your designs and tidying up any improvements that we needed.

But Fedor was not actually a pilot was he?

No, he had to learn to fly balloon?

Did you teach him?

I didn't personally, but he did enough hours and learned to be a hot air balloon pilot. And of course, we did the internal training, the indoor training on the subject of the Rosia.

Now just prior to that you'd been awarded the MBE. Can you tell me about that? Were you surprised or proud or shocked?

Well, surprised. Indeed. It was very nice. Indeed.

Can you tell me about the day you received that?

Yes, we went up to Windsor Castle, we were given a careful briefing how to conduct ourselves and then went into the main event. And it was presented by Her Majesty the Queen was was very pleasant indeed. In fact, she chatted quite a bit and, and, in fact, she remembered visiting the factory here, which was remarkable. She had come here after the Brightling Orbiter three event. She was visiting Bristol anyway. And the Lord Lieutenant. He had arranged that the Duke of Edinburgh would come here. And I remember him saying that, if they make it, he said, we'll have the queen as well. So we did.

And has the Queen ever flown in Cameron balloon?

I don't think she's ever flown in any balloon, nor indeed the present King.

Have you ever carried royal passengers?

Well, we've carried some passenger like the Grand Duke of Luxembourg. But I don't think we've carried any major member of the royal family has flown in a balloon.

Yet you have carried royalty of a sort in that you worked with Sir David Attenborough. I think back in the 1980s.

Yes, I flew with David Attenborough. And we, we had great difficulty with looking for the weather. And the weather in the south of England didn't seem to be good. So we decided to go up to Scotland to fly and the

there actually was some good weather forecast there. So we didn't want to get stuck in the mountains. So we went to a place called Blair Gowrie, which is just on the southern edge of the of the mountains, and it's agricultural land to the south. And the wind was coming with some North in it. So we flew from there, quite a big basket because we had an entire film crew. And we could hardly move in this quite large basket. But anyhow, we did. And remember, we flew quite a long way. And in fact, we landed were in another range of hills and small hills. But we

learned in the hills and David Attenborough had an aluminium box device with a fan in it, which was designed to suck in any insects that we found at high altitude. But in fact, we didn't find any. Any had to say, here's some that we've prepared earlier. But unfortunately, this box apparatus which have been carefully prepared, the balloon came down very slowly. But it slid into a large rock. And the box was crushed beyond recognition, which was rather sad. But anyhow, we all landed safely. And we were on this little hill farm. And the farm house was a very modest little house, halfway up the hillside. And the little girl was having her birthday party it really quite amusing. Because David Attenborough was actually inside her Wendy house. So this was something they didn't expect. The birthday party.

Now you've had a long career, and you're on you're still here in the office in the factory. And you've written several books of manuals about ballooning. What is it that made this your destiny? Was it your grandfather's early influence, or why ballooning?

I think it probably was, I don't think it was this is what made me get into ballooning. But I do have one memory of my grandfather, the only ballooning memory I had of him is that he demonstrated a trick. And he took a paper bag, and most bags were paper in those days. And he opened it out and the two corners were there. And he put it on the floor. In the house, he lit the two corners, and this paper bag burned down to the floor. And as it got to the floor, the ashes remained lifted up in the hot air. And it went right up to the ceiling. And this was a trick he demonstrated. I've tried it since and couldn't make it work. But is the principle of hot air lifting something.

How easy or difficult? Is it to become a balloon pilot? Could you teach me for example?

Oh, yes. I think if you can drive a car, you can fly balloon.

But how long did it take you was it it sounds like it was it was in your blood almost?

Well it took me rather a long time compared to most people nowadays. Because we flew during that summer of 1967 gradually accumulated the hours required. And the deal is that you when you've got enough, the examiner checks you out. And Gerry Turnbull was the examiner. So he checked me out as being okay to go on to do a solo flight. And then the next thing the newspapers were full of Foot and Mouth Disease. And of course, when Foot and Mouth Disease is happening, you are not going to be very welcome if you come out of the sky and land on a farm. So we had to stop. We had to stop all ballooning. When it happened. Many years later, we had the whole balloon movement stopped again. So there it was, and it lasted the whole winter. So it wasn't until the next spring the day and you had to fly solo. So I often tell some students who have seen who have been frustrated that it's not as frustrating as that.

But one frustration or potential difficulty is that you can't really file a flight plan can you you can't take off from one airport and land at another it's there's a sort of random element to a hot air balloon..

Well, that's true flight to an unknown destination. But you've got a pretty good idea, you look at the general direction of the wind. And then you can say, on a wedge really where you sort of where you're going to end up. But he does mean that when the time comes to land, you have to look for a suitable landing spot, you have to look for somewhere where you won't do any damage or you won't disturb animals. So certainly not land in crops. It's a case of finding something but you have very good control of up and down. So you simply have to wait until the right place comes and you have a bit of control from left to right. By using the wind at different

heights, you can steer a bit. So sometimes if you see a sensible place to land, you can steer a bit to get towards it.

You mentioned earlier how you had to use celestial navigation earlier on in your career. And now of course, GPS is freely available, but is it still important to have quite a deep knowledge of meteorology before you fly a balloon?