Spaceward

Lebanon's Forgotten Space Race: In 1961, Manoug Manougian Aimed the Middle East at the Stars

By Rashed Aqrabawi

Photos from Manoug Manougian's collection.

In the 1960s, as the US and the USSR began a decades-long war of nerve-wracking almosts on the edge of space, a group of Lebanese scientists and engineers were quietly contemplating their own foray into the final frontier.

This “quiet contemplation” developed into the only thriving space program ever established in the Middle East. Then it disappeared entirely from collective memory. It’s as if an entire generation contracted selective amnesia between 1960 and 1967—no one remembers the small nation's ambitious stab at making it to space. That is, until two Lebanese filmmakers, Joana Hadjithomas and Khalil Joreige, decided to remind the world of the effort. They recently produced a feature documentary that breathed life back into the Lebanese Rocket Society.

They capture the moment when, in 1960, while Lebanon was still reeling from the high of independence and Arabism still lingered in the cafes and publishing houses, Beirut’s Haigazian University began working on a project that would make Lebanon a serious player in the space race for the next seven years. The project was the brainchild of mathematics and physics professor Manoug Manougian, who, on an autumn day in 1960 put up a sign on the student bulletin board that read “Do You Want to be Part of the Haigazian College Rocket Society?”

Manougian is now a distinguished professor at the University of South Florida. He's also the first man to launch a rocket in the Middle East. The rockets were called Cedars, in reference to the cedar trimmings on the Lebanese flag. It took me three weeks, but I finally managed to get

ahold of Manougian, and he recounted the strange and heartbreaking story of the Haigazian College Rocket Society–now called the Lebanese Rocket Society.

Motherboard: How did you go about getting approval to start the rocket society? What was the process like?

Manoug Manougian: I was teaching at Haigazian College—it was a college back then—in 1960 and I was assigned to be in charge of the faculty of science. Since talk of the world was about rockets and space exploration, I suggested to the president of the university that the emphasis of the society be rocketry and space exploration. I changed its name to the Haigazian College Rocket Society and we proceeded.

How did your first launch go? What happened exactly?

What happened was, we had a rocket a little over a meter long and we were launching it. It was very primitive at the time. We didn't have any money to work with. There was simply a metal rod that we used and stuck in the ground. The area was desolate, no houses, nothing, so we knew it was safe to launch in that direction. But then at ignition, the rocket moved the launcher backwards, to a mountain behind us. That's where it landed; mere steps outside the oak doors of a Greek orthodox church. I then received a call from lieutenant Wehbe.

How did you first feel when you first received a call from the military? Were you concerned?

It was strange. I met lieutenant Wehbe; we were both at a hotel in Beirut, for different things. He called me and said that he's interested in what we were doing and I was very excited by the fact that he was, his field was actually in ballistics. So I asked him if he would join our group and permit us to use the military workshop and he said yes to both of them. From then on he would work with us on the project. He became a captain during his time with us.

On what grounds did General Wehbe initially contact you?

His main concern was that we launch in a safe area; a controlled environment. There was no written statement about that, they simply said you can launch in this location and in this direction and that's what we did. In fact they assigned a beautiful area overlooking the Mediterranean, it used to be their artillery range. There were no planes overhead and no ships in the vicinity of where we were launching. The military was in charge of that.

Dbayeh: launch site just outside of Beirut

What was the area called in Beirut?

Dbayeh. It's a beautiful place; we had some great times there. This is way before you were born, the city was absolutely beautiful, the country is beautiful, the beaches are beautiful and the mountains are beautiful. We were hoping it would stay that way.

When did you start launching from Dbayeh then?

The first Cedar to launch from Dbayeh was Cedar 2C. We had several Cedar 2s. The exciting thing about is that is the cedar 2 series were all 2-stage rockets. We had to find a way to separate the 2 stages. At the time we had no remote control or anything like that so we had to use physics and mathematics to affect the separation of the two stages. That was what the society was all about; teaching the students to work with these sciences and put them together, and it worked beautifully.

Why do you think the project became a huge national campaign?

It was like wildfire. While everyone was reading about what the Soviet Union and the U.S were doing, there is Lebanon, a tiny country, that was launching rockets that were reaching considerable distances. There was this feeling among the Lebanese in general, that this was a Lebanese project; they became very proud of it. Large crowds would come and watch the launchings. Once we were successful, the military thought, wait a minute, this seems viable for something more than just launching rockets. Military personnel would come and watch the launches.

We launched towards the evening, so people could see the

first and second separation and we all rejoiced and had a great party after that; it was beautiful.

Around when did the military began showing serious interest?

Around 1962, at that point, they would ask "if we were to put a certain load on the nose cone how far would it go? How accurate would it be?" At this point I would stop them and say "This is not a military operation, rather it is as scientific venture for me and my students to understand what rocketry is all about" I felt that there interest changed after 62. I understood that, General Wehbe was a military man, so he would have to look at this from a military point of view. And he understood that my students and I were scientists.

How did you feel when you came back to Beirut? You haven't been there since 1966. How did you find it?

I was very glad to be there, I haven't been there in a long time. My wife and I were there in April. Both of us were very glad to be there and we were saddened. We were saddened to see many of the buildings with bullet holes all over them. Why would a small country, such as Lebanon, have its people divided to the point they would kill each other? But we still had a very good visit.

What was your most successful launch?

Cedar 4. It was the one that was placed on the Lebanese postage stamps commemorating Lebanon's 21st birthday. I wasn't actually present for the launching of Cedar 3 and Cedar 4, although I designed the two. Our calculations showed that it had a range of more than 500 KM, depending on the angle. They were fairly successful; they achieved the projected distances we had. For me, however, the most important one was cedar 8; that was a powerful rocket with a range of 125 miles.

That was the last one I launched. Just before launching we got information from the president's office to make sure that it wasn't directed towards Cyprus, because Cyprus was complaining.

Sure enough they did go beyond Cyprus. It landed close to a British destroyer off the coast. [laughs] Thankfully no one was hurt. I didn't know this until I got involved in the movie! [sighs] But in our last launching, we had flares, people were watching. We launched towards the evening, so people could see the first and second separation and we all rejoiced and had a great party after that; it was beautiful.

At the end of the documentary, Hadjithomas and Joreige, create an animated version of what Lebanon would be like if the project had succeeded. Do you think that the success of the project would have changed Lebanon's history in those crucial years?

Absolutely, I think it was wonderful of Joana and Khalil to end the movie with that. Hopefully, it awakened some of the Lebanese to what could have been done if we could have pursued that instead of war and destruction. Of course, things were getting intense at the time. In 1966, I was advised to take my family and leave. On the one hand, I only had a Masters degree and I didn't want to wait too long to get my doctorate. At the same time I realized the emphasis was changing from a scientific venture to possibly a military one. And the possibility of war was looming; the whole region was in turmoil. We were certain that there was going to be a war. Three months later we had the 1967 war, war broke out before we landed in Texas.

What terminated the project? It was partly due to the 1967 war that put a dent in every Arab state in the region that was involved, but was it also the fact that there was a vested military interest that began to rear its head?

I wanted to continue my education and there was no choice but to terminate the project. But the military wanted to continue and of course I had no control over what the military wanted to do, they launched one more rocket after I left, and I had nothing to do with that, not even the design. Unlike the previous cedars, three and four, which were launched to celebrate Independence Day, the one launched in 1967 was totally a military one. At that point the government of France and the U.S and Britain advised President Chehab to shut down the project.

So these countries started getting involved in the project after you left. Did they contribute to the launching of the rockets?

Not financially. France sent us experimental propellers, we used them for the last three rockets that we launched while I was still there. We had no help from the U.S, France or Britain, we were just students figuring out what to do based on the experiments we were performing. As I said the only thing that we finally got, were the propellers that France sent us from 64-67.

I find it quite ironic that the project began plummeting when France started propelling the rockets, Britain got interested in the project and the military began nudging it in their direction.

That's a good observation. It was very exciting and we were ready to work very hard at achieving what we were trying to achieve, so long as it

That's a good observation. It was very exciting and we were ready to work very hard at achieving what we were trying to achieve, so long as it was for science. When the military wanted to get into the project we were very cautious, none of us, not me nor my students, wanted to be part of a military venture. I personally am against war and destruction and violence of any kind. I want the best for Lebanon; I want it to be a shining example for the rest of the Arab world. You can use science for good, not necessarily for war. You can have chemicals to kill people, you can also you use chemicals to improve their health. You can use atomic power for energy or you can use it to kill people. You have that choice. You always have that choice. I think that Lebanon being a tiny country as it is, as beautiful as it is, it has a wonderful opportunity to take on this aspect of its history, to excel in science and technology and other things.

Why do you think there is such a large gap in the Lebanese collective memory where the Lebanese Rocket Society should be?

Well, one of the photographers of the whole project, had taken hundreds of photos but he said he only has maybe eight or ten of them left. His brother, his relatives, burned them, because if you recall at the time, Israel invaded Lebanon, and they were afraid of possessing anything that showed that they were involved in rocketry. So there were trying to hide the things as if it never happened. They were scared of arrest or imprisonment.

I have two or three large boxes of photos and newspaper clippings of press relating to the society that no one else has. Even in *The Daily Star, l'Orient le Jour* and *al-Nahar* and some Armenian newspapers, they had a hard time finding these articles in their archives because some of them were destroyed. I'm looking at some of them now; they're all over the place. Every now and then I revisit these boxes and read what the papers were saying about us.

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