

Airplanes, Helicopters And Some Secret Stuff

Do you know how to build airplanes, helicopters and all the equipment inside them? Sounds complicated! Today, we're meeting Jay Shapiro, a physicist who knows all about that.

Hi, Mr. Shapiro. Please tell us about your background.

I was born in 1935 in Philadelphia, Pennsylvania. I went to a Lubavitch elementary school, where we had sixth, seventh and eighth grades all in one room, with one teacher for about nine or 10 pupils. It was like an old-time country school in the city. The people who ran the school were real pioneers. Chabad did then and continues to do what no one else does — sending emissaries to far-out places around the world to help other Jews. I'm not a Chabad Chassid but I'm extremely appreciative for what Chabad does.

Then I attended Yeshivah Torah Vodaath in New York from 1948 to 1955. While I was there, I also went to night school and eventually earned two degrees in physics from the University of Pennsylvania.

Why did you choose to study physics?

I was interested in science, literature and history, but I figured I could read literature and history myself. At that time, many yeshivah students working toward an academic degree were majoring in some branch of science or engineering. Today, it's computers. We felt that subjects like chemistry, physics and engineering are serious subjects that help people appreciate Hashem more. We wanted to study Hashem's handiwork; we felt that science was intellectually challenging and would make us appreciate how Hashem operates the world. Some of these young men went on to become *Roshei Yeshivah*.

What did you do next?

I was employed by the U.S. government. I was heavily involved in projects that were secret at the time. The field that I worked in is still secret, but that was 50 years ago and many details are no longer secret.

Can you tell us about it?

Sorry, but I can't discuss it.

So then you moved to Eretz Yisrael?

Yes, in 1969 I moved to Eretz Yisrael with my wife and our two oldest children. I had to promise the U.S. government that in Israel I would not work in the field that I had been involved with in the United States. So I worked in a different aspect of physics for Israel Aircraft Industries. I worked primarily in quality control, making sure that products were produced consistently at a certain level of quality. To do this, I needed a scientific background.

Can you tell us about one of your projects?

One big project was a fighter aircraft called Lavi, which means "young lion." I remember in 1982 the company claimed that they would have the first plane flying before the end of the decade — and on December 31, 1986, the first plane made its test flight. It was a tremendous accomplishment for Israel. The Lavi was an extremely successful plane — small, maneuverable and able to fly very fast over long distances — but the entire project was canceled because of American pressure.

What do you mean?

Some U.S. aircraft companies didn't want competition from Israel. So these companies pressured the U.S. government to pressure the Israeli government to stop the project. The Cabinet voted by a margin of one vote, 12-11, to cancel the Lavi project. As I said, it was a major accomplishment for the state of Israel to design, build and fly its own aircraft. Unfortunately, the company laid off thousands of workers when the project was canceled.

What did you do after that?

I worked on different projects, mostly helicopters. Up to that point attack helicopters could not function effectively after dark because they did not have night-vision capability. In conjunction with U.S. companies, we developed a system that enabled a helicopter to attack and destroy enemies at night. Both American and Israeli helicopters use our system.