Taking to the SKIES

The Singapore Amazing Flying Machine Competition saw a lot of high fliers taking part.
By **Lim Pow Hong**

A toilet bowl took to the skies at the Singapore Science Centre last Saturday.

Sounds inconceivable, but this flying machine built by one-man team Zennith, was one of many that blew spectators away during the inaugural Singapore Amazing Flying Machine Competition (SAFMC).

The flying machine made by Mr Philip Tan, 42, in the shape of a toilet bowl, was the winning entry in Category E, the category open to the public.

Temasek Secondary School's Factor X, which participated in both the secondary school and pre-tertiary institution categories, won six awards, including the Championship Award in the latter category.

The team comprised Joshua Lim, Warren Cheong and Lim Hian Hui, who are 15 and in Secondary 3.

Winning the Best Range award in the secondary schools category was Hillgrove Team Respect, for launching their balsa wood plane the farthest distance, 18.5 m.

The team of Sec 2 to Sec 4 students intends to carry its passion for flying even further.

"We want to participate in this year's National Day Parade by taking part in an aerobatic display," team leader Goh Zong Yuan, 14, said.

ST PHOTO: ALPHONSUS CHERN

Elemental Heroes Airmen from Ping Yi Secondary School (from left) Lee Zi Yu, Carmel Phillips, Khamarul Ariffin and Kevin Peter won the Championship Award in the Singapore Amazing Flying Machine Competition.

We are the champions!

They did not expect to win but they managed to triumph over 58 other teams in the secondary school category of the Singapore Amazing Flying Machine Competition (SAFMC).

The Secondary 4 students from Ping Yi Secondary – Khamarul Ariffin, Carmel Phillips, Kevin Peter, Lee Zi Yu, and Muhammad Haikal Zainal – made up Elemental Heroes Airmen who won the Championship Award. IN finds out from them how they did it.

IN: Why did you take part in the competition?

Kevin: For the prizes – the Xboxes! But seriously, it was for the experience.

Carmel: To learn something new. We had to learn about the theory of flight for this competition - how planes fly and the types of wing profile to be used.

IN: What was the most difficult challenge that you had to overcome?

Carmel: The presentation! There was a lot of memorising to do. Our knowledge was really tested by the judges.

IN: What was the factor that helped you to win?

Kevin: Knowing the theories well helped a lot.

Carmel: A lot of credit goes to our teacher-in-charge, Mr Johnny Wee, who helped us to source for information.

IN: How do you feel now that you have won?

Khamarul: A sense of achievement.

Zi Yu: Happy to make our school proud.

IN: Would you want to do this again?

Khamarul: Yes, I would want to participate in Category C, which is a radio-controlled flight challenge.

Carmel: I will definitely do it all over again because there's so much support from the school, including the principal, teachers and our schoolmates.

BY LIM POW HONG

First powered and controlled flight

The Wright brothers, Orville (1871–1948) and Wilbur (1867–1912), were not the first to build and fly experimental aircraft, but they were the first to invent and build a flier which was capable of powered and controlled flight.

These brothers, who were bicycle mechanics from Dayton, Ohio, and never went to university, were brilliant engineers who taught themselves through sheer hard work and determination.

They realised that the key to human flight was control, and so they worked on developing a method for the pilot to control the aeroplane. Eventually, they invented the three-axis control, which enabled the pilot to effectively steer the aircraft up and down, and side to side.

This became the standard and continues to be so in fixed-wing aircraft of all kinds.

The Wright brothers were also the first to discover that a long, narrow wing shape was the ideal architecture for flight.

When they realised that a lightweight petrol-powered engine which they would need for their aircraft did not exist, the siblings were undeterred and went on to design and build their own.

Not bad for two young men who never went to college!

Their ingenious innovation and efforts paid off in 1903 when they developed the Wright Flyer, which lifted off and flew to over 6m in height and covered nearly 37m in distance during an historic 12-second flight.

BY LIM JUN YI