

Launch Control: Hold!

High winds force postponement of Karoo rocket launch

It happens to the biggest and best space agencies of the world -bad weather. If even a giant like the US National Aeronautics and Space Administration, with its huge rockets, has, on occasion, to bow before the weather and put a launch on hold, how much more vulnerable is a team of amateurs seeking to launch a small rocket in the Karoo?

The enthusiasts of the South African Rocketry Association (SARA) had planned to launch their Anglo Platinum-sponsored 5-m-tall, 110-mm-diameter 'SarAnglo' rocket from Verneukpan, in the Karoo, on either Friday, June 17, or Saturday, June 18, (see Engineering News June 17,2005).

Verneukpan proved, in many ways, to be an ideal site - the ground was very flat and very hard, both beneficial attributes from SARA's point of view, and the association hopes to make much more use of it in the future, especially for the launch of its larger rockets.

But the weather did not play ball. On the Friday, the wind gusted up to 10 km/h - being a group of amateurs, the SARA team had no idea of how far above the ground the wind extended, as they lacked the necessary meteorological support.

Small hobby rockets launched during the day, although they reached their maximum altitudes of between 200 m and 1 km, were blown between 500 m and 600 m downrange.

The only serious launch of the day, SARA's first successful flight of an 'I-class' rocket, saw the craft reach 950 m in altitude but land almost a kilometre downrange of the launch tower.

Under these circumstances, and with a report indicating much better weather for the Saturday, the SarAnglo launch was postponed for 24 hours. Instead of the hoped-for improvement, the rocketeers got a full-blown Karoo dust storm, with the wind averaging 45 km/h and peaking at 70 km/h. As the team needed Sunday to get home to Gauteng, to return to their jobs on Monday, that was the end of the first attempt to launch SarAnglo.

"We agreed to make the second attempt at Potchefstroom in the first or second week of August," reports SARA chairperson and CEO Albert Smuts.

Potchefstroom was selected because it is much closer to Gauteng than Verneukpan, which is some 900km from Pretoria.