

## CWSF 2010 - Peterborough, Ontario



### Mackenzie Carter

#### STOL 'n Lift

**Division:** Life Sciences

**Category:** Senior

**Region:** Waterloo-Wellington

**City:** Maryhill, ON

**School:** St. John's-Kilmarnock School

**Abstract:** This project tested a new wing design that provides short take-off and landing characteristics for aircraft by redirecting the high velocity air from the engines overtop of the wing. The effect of the design on both thrust and lift were tested to determine that the stall speed of any aircraft can be greatly reduced.

#### Biography

My name is Mackenzie Carter and this is my second time attending the Canada-Wide Science Fair. I build and fly model airplanes as a hobby. I am on the varsity soccer team at my school and I am a competitive Alpine snowboard racer. This year I trained with the Ontario Snowboard Club and represented Ontario at the Canadian Junior National Snowboard Championships. I have won best of fair at my school science fair for three years. At the 2008 Canada-Wide Science Fair, I was awarded bronze medals in Engineering and Automotive. During the summer I work as a soccer referee and kiteboard. Next year I will be attending university to pursuing my career as an Aerospace Engineer.

#### Awards

#### Value

International Summer School for Young Physicists Award Sponsor: Perimeter Institute for Theoretical Physics	\$2 500
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$4 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$20,000 Entrance Scholarship (\$5,000 each year for 4 years) Sponsor: University of Ottawa	\$20 000
The University of Western Ontario Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: University of Western Ontario	\$4 000
Gold Medal - Engineering - Senior Sponsor: Youth Science Canada	\$1 500
<b>Total</b>	<b>\$32 000</b>