

# CWSF 2013 - Lethbridge, Alberta



## Caroline Mahut

### Groundeffect Aircrafts: Is it a more energy efficient way to travel?

**Challenge:** Innovation

**Category:** Junior

**Region:** Bay Area

**City:** Burlington, ON

**School:** Rolling Meadows P.S.

**Abstract:** The project purpose is to determine if ground effect aircrafts are more efficient than conventional aircrafts. Using a miniature wind tunnel, conventional wing, ground effects wing and a lift/drag measuring rig, I tested 5 angles at 6 ground heights. The ground effect wing produced a higher lift to drag ratio, so I designed my own ground effect wing which performed even better.

#### Biography

My name is Caroline Mahut and I am 14 years old. I was born February 1st 1999 in Burlington, Ontario. I am a Grade 8 student in the French Immersion Program at Rolling Meadows Public School. As I have a Polish heritage, I am fluent in the Polish language as well as French and English. My favourite hobbies include reading, playing piano and cross country running. I am also a member of the Polish girl guides and attend Polish language classes. I plan to become a lifeguard and, to date, have completed the Bronze Medallion Swimming course. My project inspiration came from research for a French speaking contest about my family's history in aviation. I discovered that my great grandfather designed 5 planes in Europe and my great uncle worked on the Avro Arrow. I hope to follow in their footsteps by incorporating exciting new types of transportation in my project. My ground effect project started from there and I am still finding many new ways of developing this aviation concept. If you are considering doing a science project it is best to start with an exciting topic that really interests you and keep exploring new ideas that improve it.

#### Awards

#### Value

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|---|----------------|
| Excellence Award - Junior - Bronze Medal<br>Sponsor: Youth Science Canada                                       | \$100          |
| Western University Scholarship<br>Bronze Medallist - \$1000 Entrance Scholarship<br>Sponsor: Western University | \$1 000        |
| <b>Total</b>  | <b>\$1 100</b> |