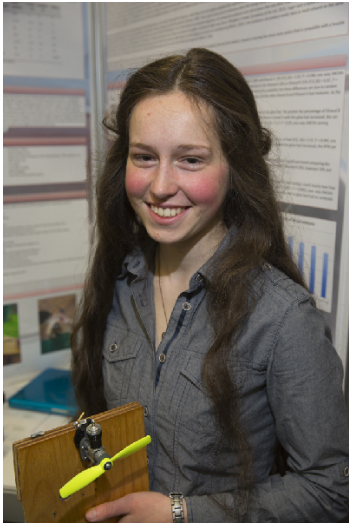


## CWSF 2016 - Montreal, Quebec



### Ellena Schuffert

#### Green Aviation = Today's Engines + Alternative Fuels?

**Challenge:** Energy

**Category:** Senior

**Region:** Pacific Northwest

**City:** Smithers, BC

**School:** Smithers Secondary

**Abstract:** Most aircraft that zoom us around the world today are fueled by kerosene, which is refined from crude oil. The continued burning of fossil fuels could have a devastating impact on life as we know it. Biofuels have already been tested in commercial aircraft, so I wanted to see if I could get a cox .049 engine to run on various fuel mixtures containing biofuel.

#### Biography

I love music, science, and languages. I have done science fair projects since grade 3, and I also play the violin. I just participated in our high school musical "Beauty and the Beast" as part of the pit band, where I played the trombone. Besides French and English I also speak German. I live on a small farm with eleven goats and a few other small animals. My favourite subject in school is Aviation, I finished my ground school for my private pilots license in January this year. When I grow up I would like to work for the CSA or for ESA as an astronaut. For my last science fair project in highschool, I wanted to involve my future career plans. After talking with numerous pilots I decided to look into running a model airplane engine (cox .049) on a mixture of biofuels. Future research would include trying to run commercial aircraft on mixtures of biofuels to make our air travel friendlier to the environment. This will be my 4th time at CWSF as a finalist, I hope to become an ambassador for future CWSF's. Selecting a topic that is interesting encourages me to learn more.

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