

## EPREUVE ECRITE D'ANGLAIS

Cette épreuve comporte une (01) page

### Jet Engines and Pollution

In a world worried about global warming, improving the cleanliness and efficiency of jet engines is a priority for airlines and aircraft manufactures. It is not just altruism: greener engines also use less fuel, and so cut cost. Gradual improvements over the years have made a difference. Modern jets burn only half as much fuel per unit of thrust as their 1960s counterparts. But some people think it is time for a radical redesign. One of those people is Davis Lior, the boss of a small firm, who proposes an approach to reduce fuel consumption and the emissions of carbon dioxide and nitrogen oxide through what he calls an Orbiting Combustion Nozzle (OCN).

Why are airlines not beating their way to Mr. Lior's company? With any radical change to an existing technology especially a jet engine, a large installed base of expertise together with lots of regulation mean it can be hard for a new comer to make headway. To facilitate its entry into the market, Mr Lior thinks that OCN engines could be used first as generators to produce electricity, or to power unmanned drone aircraft. Having established a track record for themselves in this way, the engines could then migrate to their intended use on airlines.

Adapted from The Economist Technology Quarterly, September 4<sup>th</sup>, 2010

#### A. Guided Commentary

- 1) Relying on the text, what is the main concern of aircraft manufactures and airlines? (2 points)
- 2) State two advantages of green energy, as given in the text? (3 points)
- 3) What are the advantages of Lior's approach on the environment, according to the text? (3 points)
- 4) Why are airlines not running to Mr Lior's firm, relying on the text? (3 points)
- 5) What strategies did Mr Lior develop to enter the market, basing on the text? (3 points)

#### B. Guided Essay: (6 points)

What actions can be taken in your country to reduce pollution? Justify your answer in ten to fifteen lines.

-----