CORRIGE

. **Ces éléments de correction n'ont qu'une valeur indicative. Ils ne peuvent en aucun cas engager la responsabilité des autorités académiques, chaque jury est souverain.**

Trent 800 tests aim to silence critics

Boeing, Rolls-Royce step up efforts to develop technology to meet stricter Stage 4 requirements across product range

PROPOSITION DE CORRIGÉ

1 – Traduction

Premier paragraphe

La technologie QTD (Quiet Technology Demonstrater) - constituée essentiellement de dents de scie ou chevrons autour de la tuyère primaire et secondaire et de plus grandes zones de revêtement acoustique - s'applique à une large gamme de produits, déclare Belur Shivashankara, ingénieur du bruit chez Boeing. Les chevrons génèrent des tourbillons et améliorent le mélange des flux d'éjection du moteur et de la soufflante.

Deuxième paragraphe

Les vols doivent se dérouler avec la première des 2 tuyères d'essai à partir du 18 au 20 septembre.

Une seconde phase, qui durera 10 jours, est ensuite prévue, phase au cours de laquelle seront testés les effets sur les tuyères primaires et secondaires.

Monsieur Shivashankara dit que on s'attend à des réductions du bruit des réacteurs de l'ordre de 3 EPN décibels.

2 – Rédaction

What kind of pollution in induced by air traffic? When asked this question, we can't help thinking of exhaust gases, as we would about car pollution. But there's another dimension to pollution due to air traffic: noise. True, the depletion of the ozone layer is a huge problem, but the noise made by scores of aircraft around major airports is a hot issue as well.

Whether we like it or not, and in spite of the latest events in the United States of America, air traffic has been regularly increasing all over the world. The manufacturers' answer has been the building of bigger and bigger airliners, while airlines have multiplied flights and improved their connections at their main hubs.

At the same time, more and more people, more ecology-minded than they used to be a few decades ago, have begun to put airport authorities to the test. Those pressure groups are extremely active as regards noise. How come noise is still such a problem? are manufacturers unable to build quiet engines? Well, it's not so easy.

First, noise reduction is not necessarily a priority from the outset. It's studied once the basic design of the engine has been thoroughly tested and validated. Designers first seek performance, efficiency, safety and economy. Noise pollution comes next, even though it's now considered essential, especially under the pressure from some environmental protectionist organizations.

And so, studies have been going on for years, in order to minimize noise, especially at take-off. « Departure noise footprints » are actually available, visually describing the impact of noise on a given area. Likewise, « hushkits » have been designed, built and installed on older-generation jets, so as to comply with the tougher new regulations.

But this is no easy job, as we can see in this article: Rolls-Royce and Boeing still have a long vay to go until they meet the tough « Quota Count 2 requirements ».