

KEY - Student copy – Future Planes

(complete corrected text at the end of the document)

Actually (1), **researches** (2) are being **made** (3) to find innovations concerning fuel consumption, and improve the **lightweight** (4) of aircraft. Therefore, we can hope to develop hybrid aircraft in the coming years. The video talks about the future of **aircrafts** (5), and gives **many informations** (6) on how we will power them.

(1) actually veut dire “en réalité”, alors que vous voulez probablement dire « actuellement »: **now** / currently / nowadays

(2) **Research** est indénombrable: toujours au singulier quand il s’agit des sciences et technologies ou de recherche universitaire. Il faut penser à accorder le verbe au singulier, après : **research is being done**

(3) to **do** / to carry out / conduct research :

(4) **lightweight** est en général un adjective (léger), ou alors il a un sens qui n’a rien à voir avec le context. (**Go and see** by yourself). Here you need « **weight** ».

(5) **aircraft** est toujours orthographié sans “s”, au singulier et au pluriel.

(6) **information** est indénombrable: toujours au singulier. **Many** n’est donc pas correct : **much information**

In a **first time** (1), I present **you** (2) a new aircraft design from Boeing, called Sugar Volt. This aircraft has **wings more long and thin** (3) than usual, allowing to **lighten** (4) it and there is a truss structure **witch** (5) has been **design** (6) to support the wings. This contributes **for reduce** (7) **drags** (8), leading to **an aircraft more efficient** (9) to operate.

(1) **First** ou **firstly**, tout simplement.

(2) “I will present Ø”, tout simplement. (Or “I will present a new aircraft design from Boeing **TO** you”)

(3) « longer and thinner wings »: « long » et « thin » sont des adjectifs courts: ils forment leur comparatif en ajoutant le suffixe –er

(4) “to make it lighter”

(5) “which” (orthographe); witch veut dire sorcière. Dans le contexte, c’est pour le moins curieux.

(6) “has been **designed**”: le passif est formé de “be” au temps dont on a besoin + participe passé.

(7) « reducing » . Construction du verbe : contribute to + ing

(8) “drag” est indénombrable: toujours au singulier avec ce sens-là.

(9) “to an aircraft **that is** more efficient to operate”. Or “to a more efficient aircraft to operate”

Moreover, the propulsion system of the Sugar Volt **is combining** (1) two fuel sources : gas and electricity. The electricity source requires advances to **batterie technologie** (2) : indeed, the batteries **must have to be** (3) light but **in** (4) the same time provide enough power content. With these batteries, electric engines are needed to propel the aircraft but current generators are too heavy and take up too **many spaces**(5). With the superconducting materials, we could make smaller engines, and solve this problem. Some engineers want to keep fuel turbines on a hybrid concept. The fuel-powered propulsion system would be used on take-off and during flight if needed, and this will lead to **an important** (6) reduction in the fuel consumption - up to 70%.

(1) “combines”: present simple: fait scientifique.

(2) “battery technology”

(3) “have to be”: c’est une nécessité protique. « Must have to » est redondant

(4) “at the same time”

(5) “space” est indénombrable dans ce sens-là: too **much space**

(6) **considerable**. Erreur inspirée par le français. Il faut changer l'article : **a considerable reduction**

Finally, a project **leaded (1)** by the MIT and NASA, named The Double Bubble, **aim (2)** to reduce the fuel burn. The idea is to move the lift from the wings to the fuselage, which will enable laminar flow. Two design changes **going to (3)** be made: the wing position will be perpendicular to the side of the plane, the objective being to maintain laminar flow. In addition to this, a different engine configuration will be chosen : the potted configuration or the pi tail configuration, **wich (4)** are more **efficacy (5)** for propulsion.

(1) **led** (participle passé)

(2) **aims** (troisième personne du singulier)

(3) **are going to be made** (il manquait l'auxiliaire). Ou **will be made**.

(4) **WHICH** (orthographe)

(5) efficacy est un nom; il nous faut un adjective, ici: **efficient**.

Today, research is being **conducted** to find innovations concerning fuel consumption, and improve the **weight** of aircraft. Therefore, we can hope to develop hybrid aircraft in the coming years. The video talks about the future of **aircraft**, and gives **much information** on how we will power them.

First, I will present **you** a new aircraft design from Boeing, called Sugar Volt. This aircraft has longer and thinner **wings** than usual, allowing to **make** it **lighter** and there is a truss structure **which** has been **designed** to support the wings. This contributes **to reducing drag**, leading to **an aircraft that is more efficient** to operate.

Moreover, the propulsion system of the Sugar Volt **combines** two fuel sources : gas and electricity. The electricity source requires advances to **battery technology** : indeed, the batteries **have to be** light but **at** the same time provide enough power content. With these batteries, electric engines are needed to propel the aircraft but current generators are too heavy and take up too **much space**. With the superconducting materials, we could make smaller engines, and solve this problem. Some engineers want to keep fuel turbines on a hybrid concept. The fuel-powered propulsion system would be used on take-off and during flight if needed, and this will lead to **a considerable** reduction in the fuel consumption - up to 70%.

Finally, a project **led** by the MIT and NASA, named The Double Bubble **aims** to reduce the fuel burn. The idea is to move the lift from the wings to the fuselage, which will enable laminar flow. Two design changes **are going to** be made: the wing position will be perpendicular to the side of the plane, the objective being to maintain laminar flow. In addition to this, a different engine configuration will be chosen : the potted configuration or the pi tail configuration, **which** are more **efficient** for propulsion.