

Beechcraft Baron 58

Het gebruik van een populair
tweemotorig vliegtuig in FS X



Opzet presentatie

- Beechcraft
- Techniek van de Baron 58
- Een vlucht met de Baron 58
- Twee korte filmpjes



Inleiding Beechcraft

- Walter Herschel Beech, richt in 1932 Beechcraft op in Wichita, Kansas.
- Staggerwing.





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- Walter Herschel Beech, richt in 1932 Beechcraft op in Wichita, Kansas.
- Staggerwing.
- In 1947 introductie van de Bonanza.
- 1950 overlijdt Walter Beech
- In 1969 introductie van de Baron 58.
- 1980 - 2007 van Raytheon Aircraft
- Sinds 2007 Hawker Beechcraft



Modellen

- Bonanza



Bonanza



Modellen

- Bonanza
- Baron



Baron



Modellen

- Bonanza
- Baron
- Duchess



Duchess



Modellen

- Bonanza
- Baron
- Duchess
- Queen Air



Queen air



Modellen

- Bonanza
- Baron
- Duchess
- Queen Air
- King Air



King Air



Modellen

- Bonanza
- Baron
- Duchess
- Queen Air
- King Air
- Premier I



Premier I



Modellen

- Bonanza
- Baron
- Duchess
- Queen Air
- King Air
- Premier I
- 1900



1900



Beechcraft Baron 58



Complexe vliegtuigen

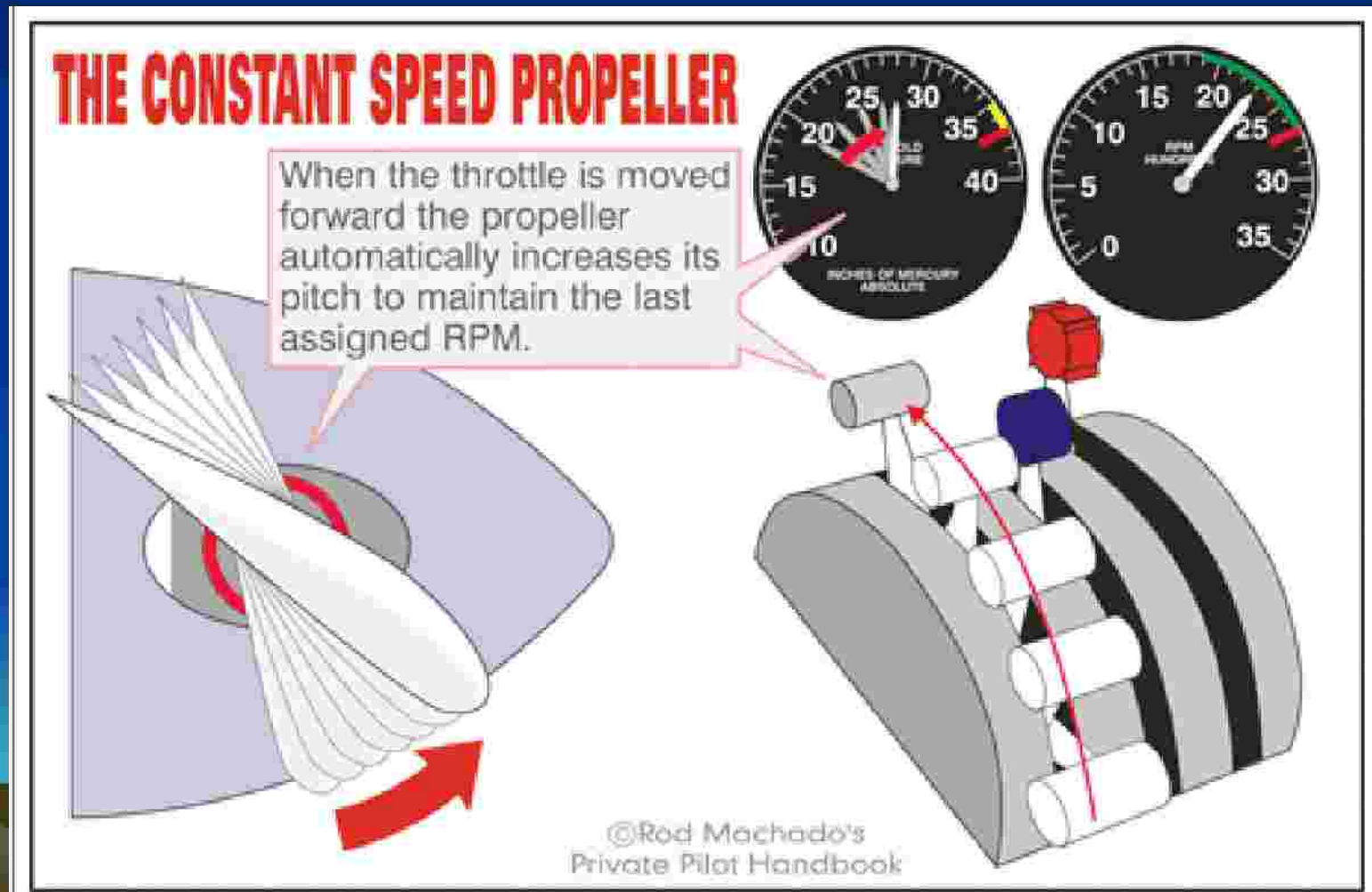
- Flaps
- Intrekbaar landingsgestel
- Regelbare propeller-omwentelingsnelheid



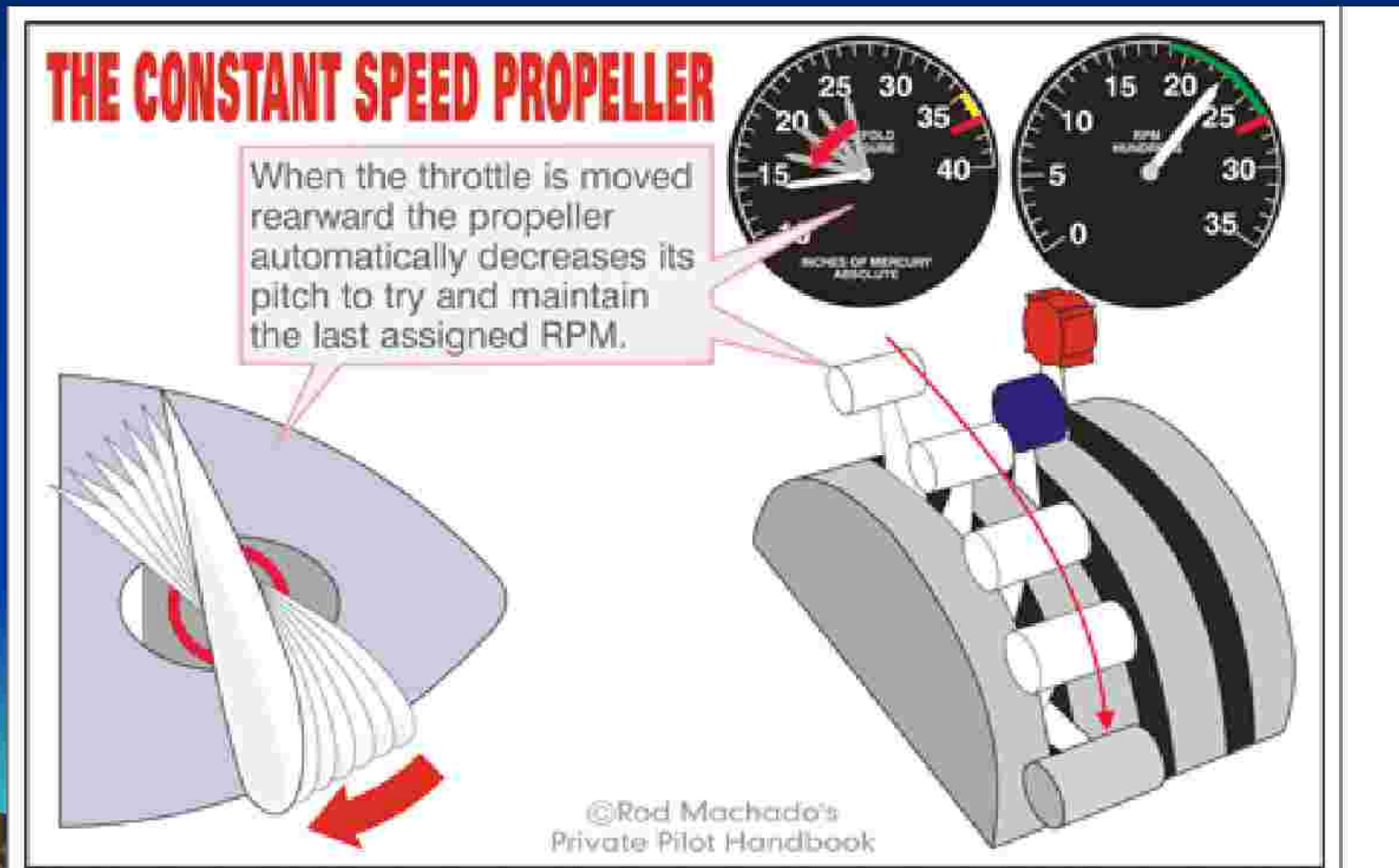
Regelbare propeller

- De stand van de propellerbladen, de spoed, kan worden gewijzigd.
- Optimale kromme
- Luchtdichtheid verandering automatisch compenseren door verandering van de spoed.
- Regulateur regelt constante RPM.
- Invloed op motorvermogen.
- Aanpassen van de MP.

- Wanneer meer gas wordt gegeven zal de reguleur de propeller spoed automatisch aanpassen aan de ingestelde RPM.



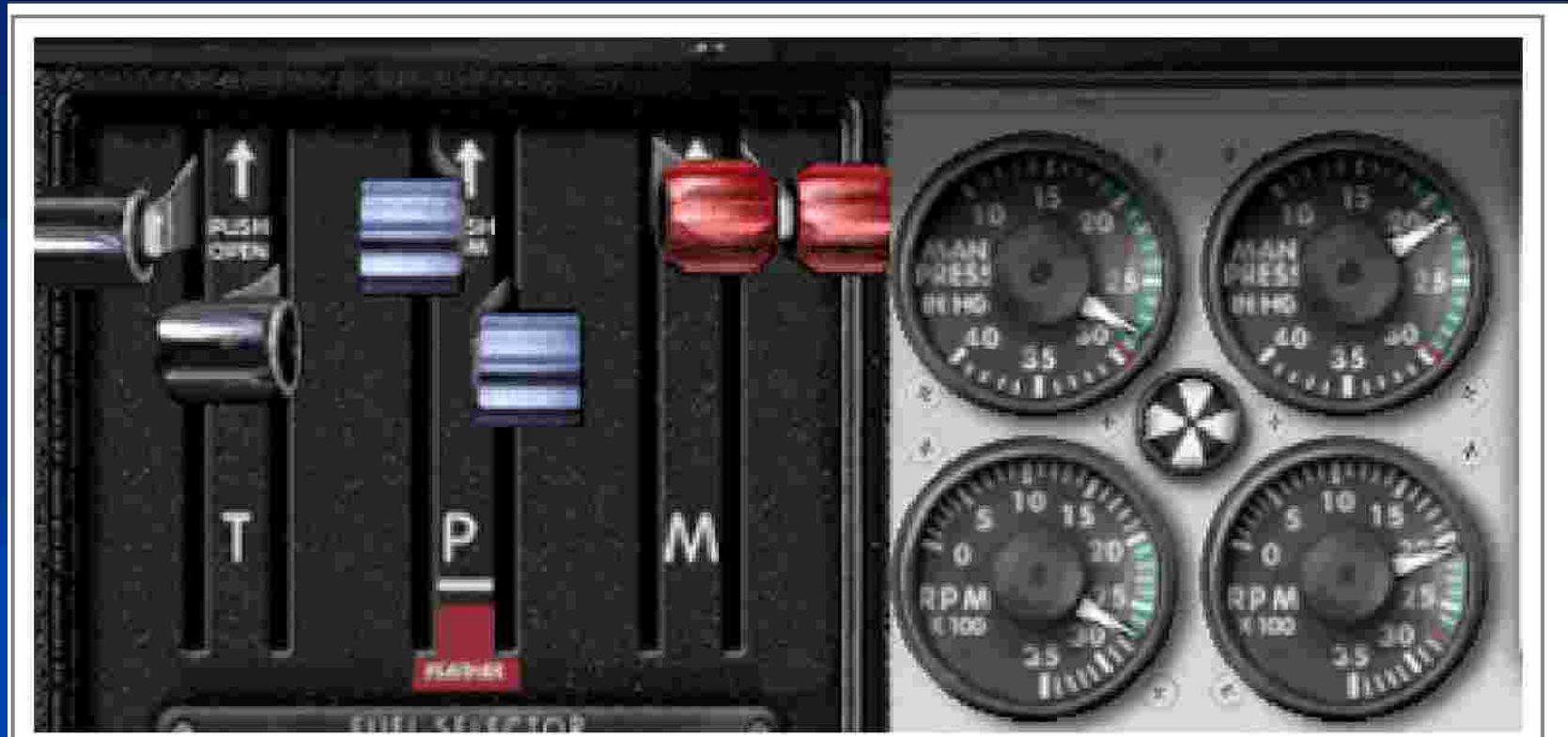
- En bij gas verminderen uiteraard andersom.



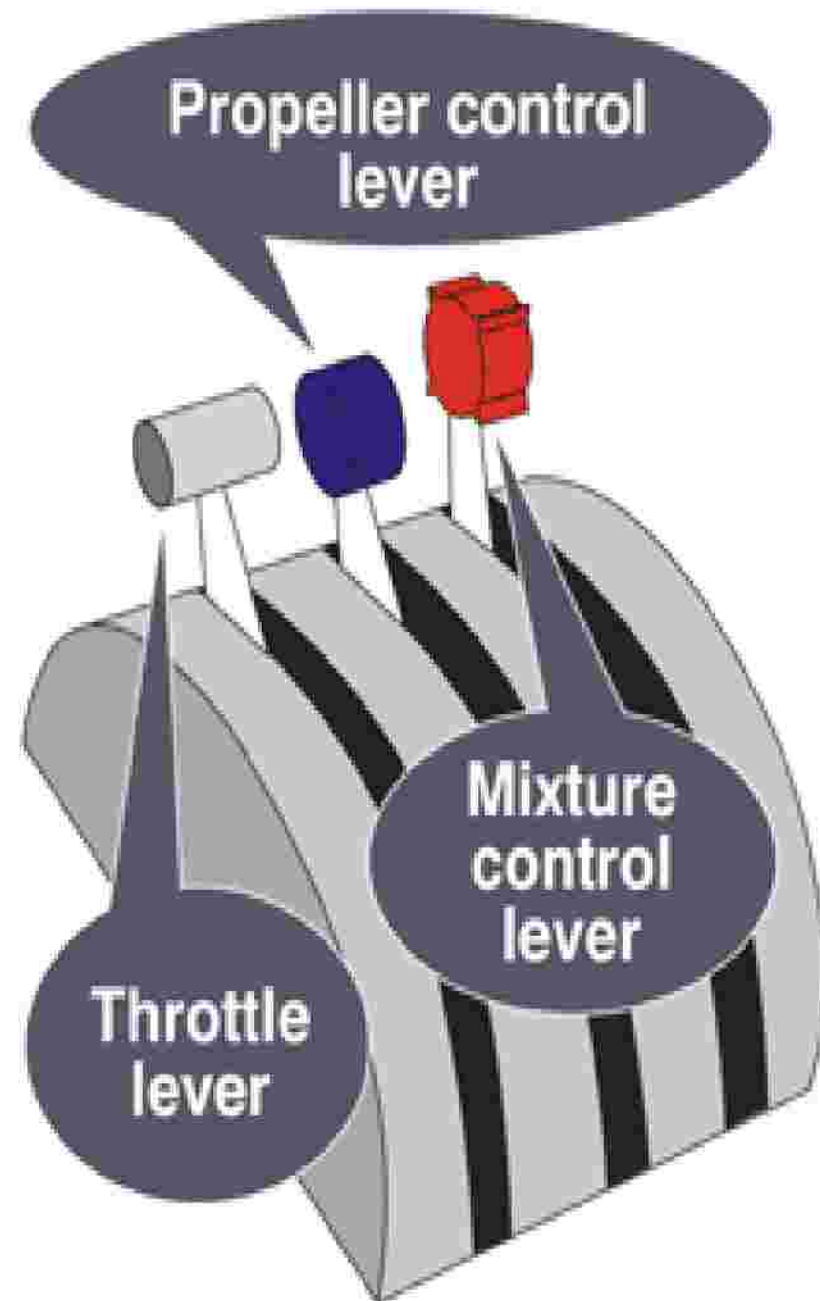
- Hoe werkt dit in de praktijk in Flightsim bij de Baron 58?



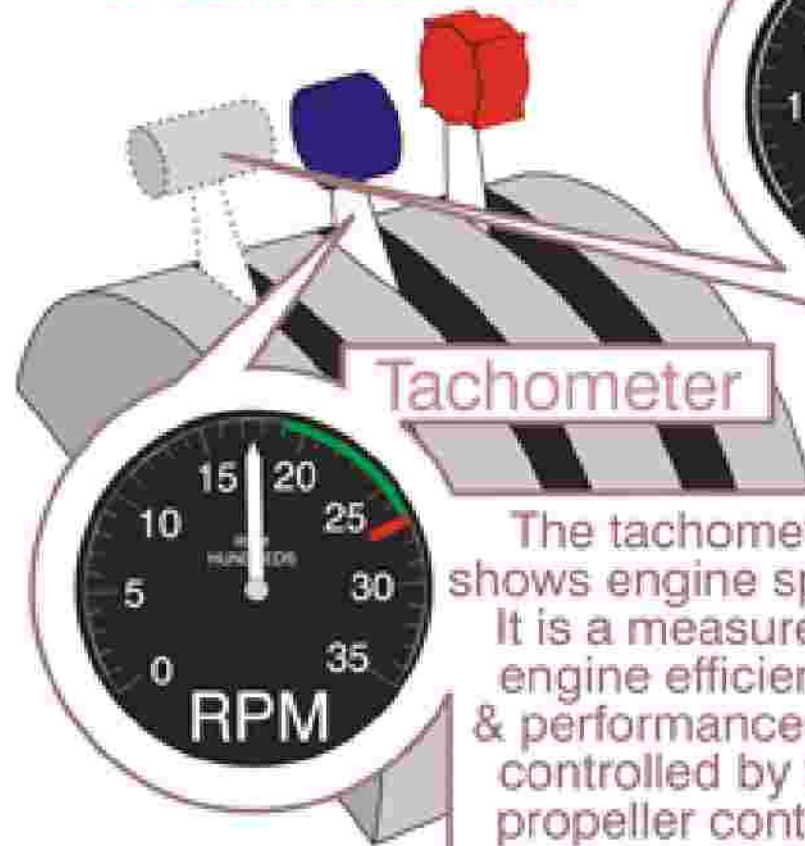




ENGINE CONTROLS FOR AIRPLANES WITH CONSTANT SPEED PROPELLERS



POWER LEVERS ON AIRPLANES WITH CONSTANT SPEED PROPELLERS



Manifold Pressure Gauge

Manifold pressure is controlled by the throttle and shows the pressure of air downstream of throttle valve. Think of it as a rough measurement of engine power.

Tachometer

The tachometer shows engine speed. It is a measure of engine efficiency & performance & is controlled by the propeller control.

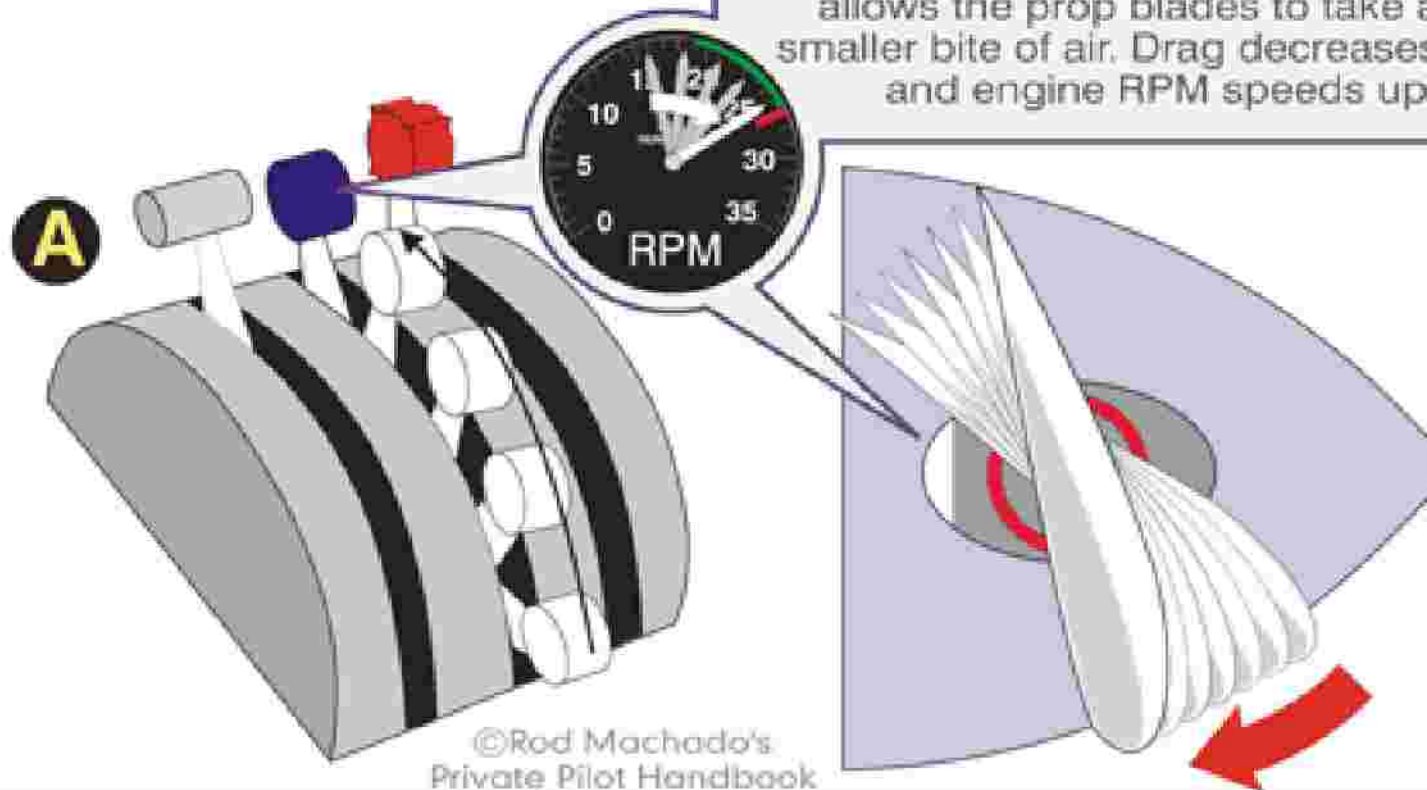
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Figure 1-11

- Propeller hendel naar voren verhoogt het toerental.

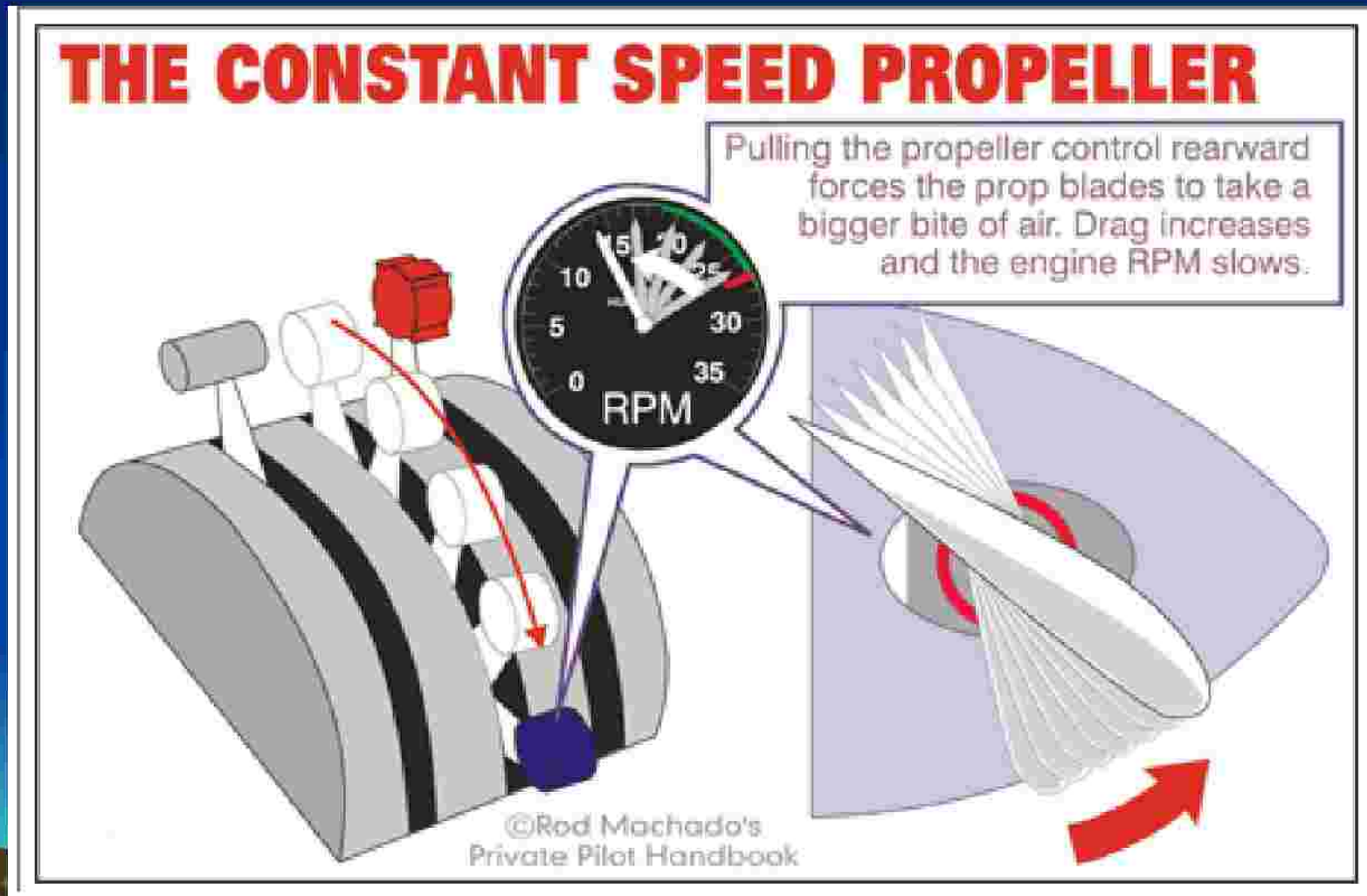
THE CONSTANT SPEED PROPELLER

Moving the propeller control forward allows the prop blades to take a smaller bite of air. Drag decreases and engine RPM speeds up.

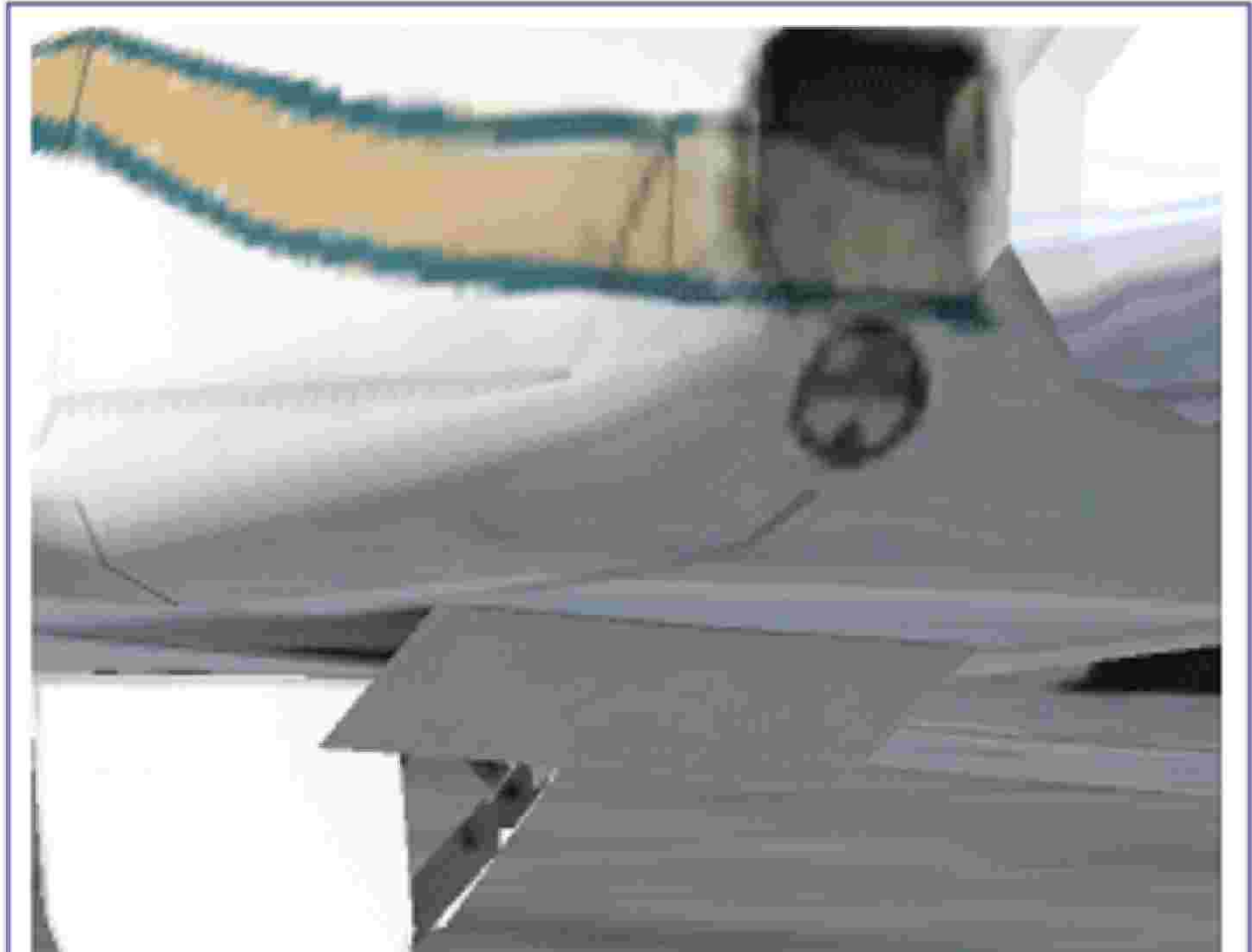


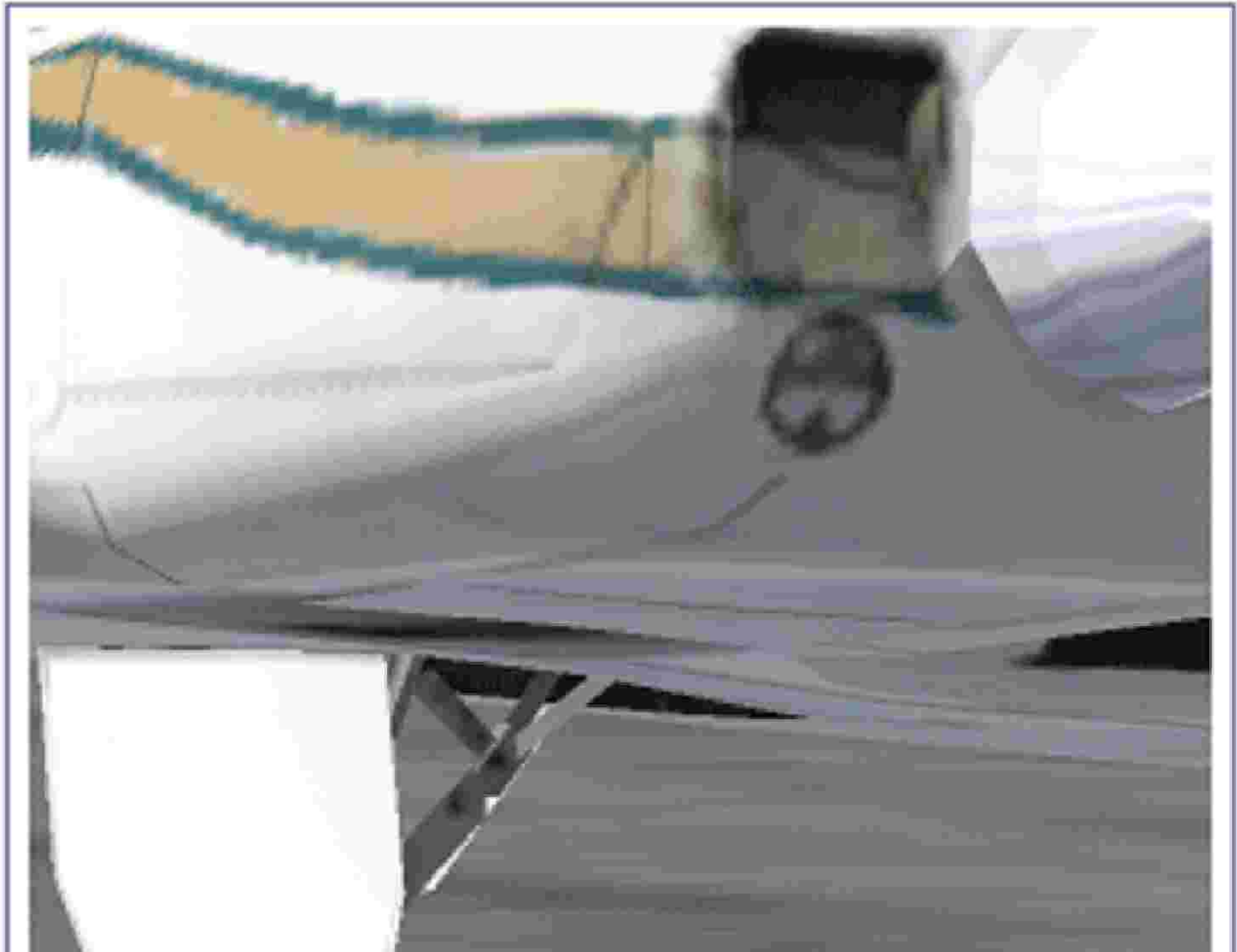
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- Propellerhendel naar je toe verlaagt het toerental.









- Bij de start en de klim de propeller in de laagste spoed zetten. Hendel naar voren.

PROPELLER POSITION FOR TAKEOFF & CLIMB

The car starts out in low gear when going up hill. The engine turns fast & more power is delivered to the wheels.

A



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Airplane also starts out in low gear when going up hill. In other words, when climbing, the prop is set to its full forward, high RPM position allowing the engine to develop maximum speed, thus maximum power. More power means more thrust.

B

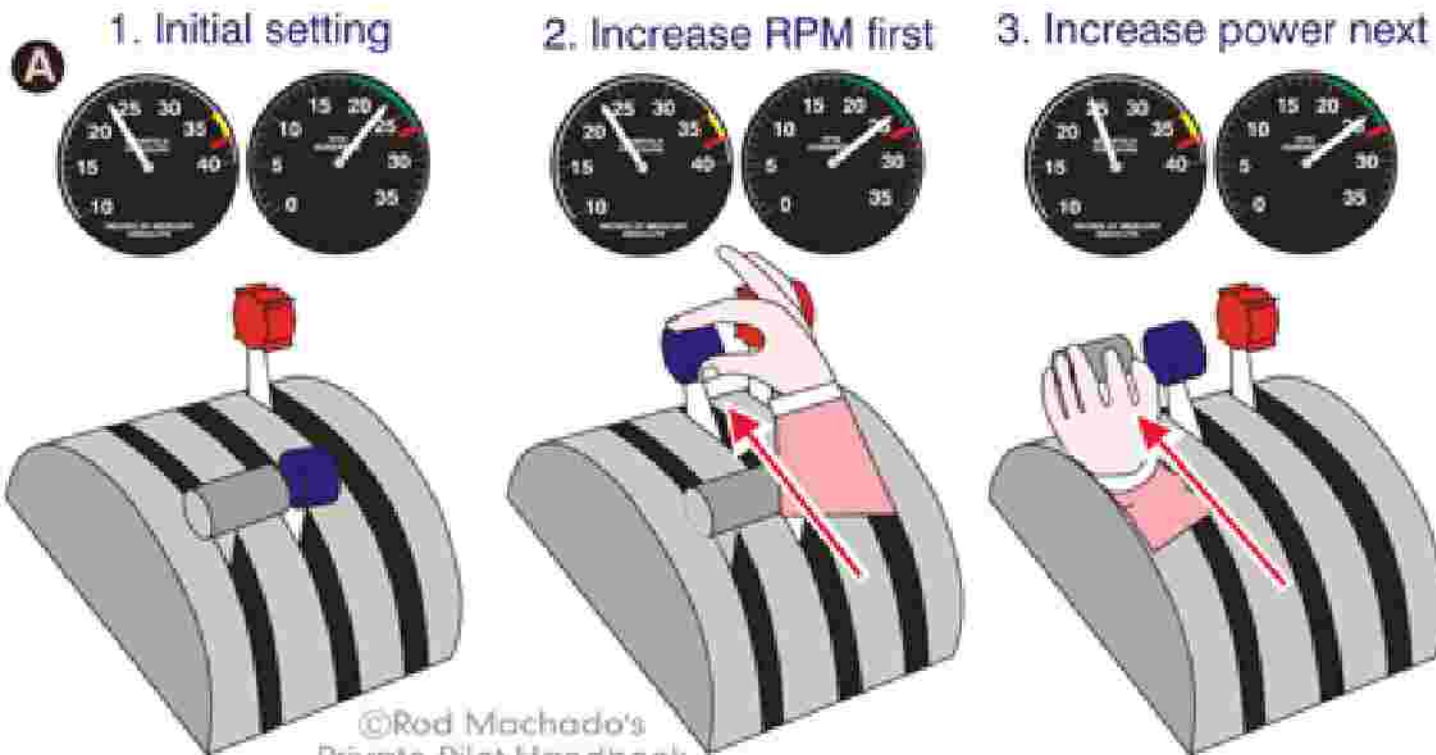


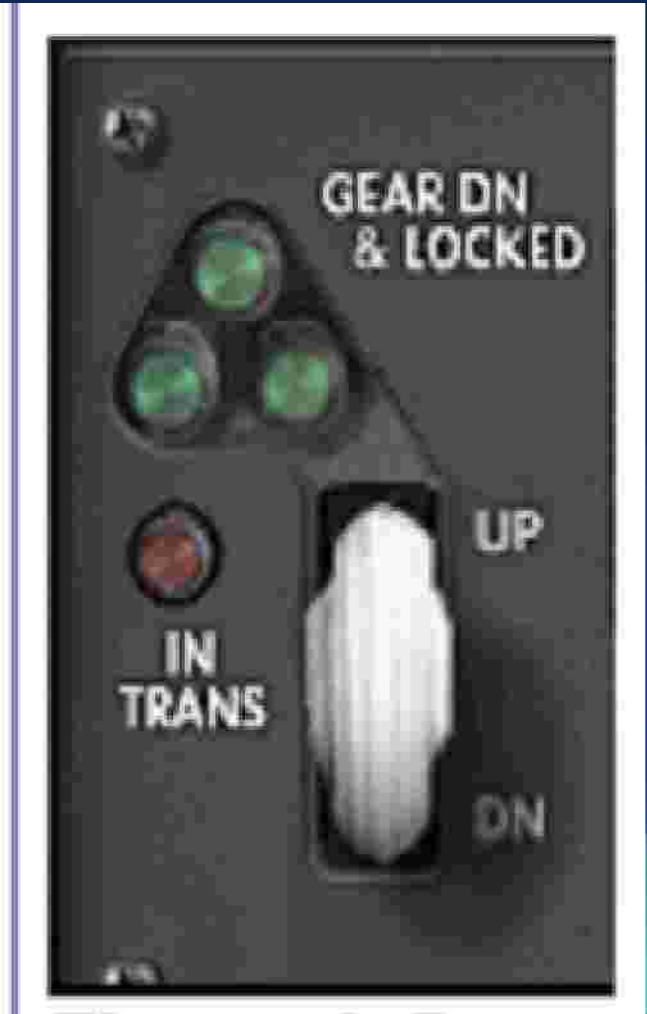
With the prop level set full forward, the prop blades take a small bite of air, which means less drag, thus higher prop speed.

Het verhogen van het vermogen

THE PROPER WAY TO MAKE POWER CHANGES

INCREASING POWER IN AN AIRPLANE WITH A CONSTANT SPEED PROP





- V1 (beslissnelheid) = 85 KIAS
- Vr = 90 KIAS
- Klimmen: de eerste 1000 ft met 15 graden, 105 KIAS, daarna met 10 graden verder.
- Klimsnelheid 140 KIAS



- Op kruishoogte RPM verlagen. Hendels gedeeltelijk naar beneden.

PROPELLER POSITION FOR CRUISE FLIGHT

In cruise, the car doesn't need to develop maximum power. Therefore, higher gears allow the engine to turn slower while sufficient power is developed for freeway speeds.

A



Airplanes also cruise in high gear. In other words, in cruise flight the prop is set to a higher pitch (big bite of air). This allows the engine to run slower, use less fuel and still develop the necessary thrust for a reasonably fast cruise speed.

B



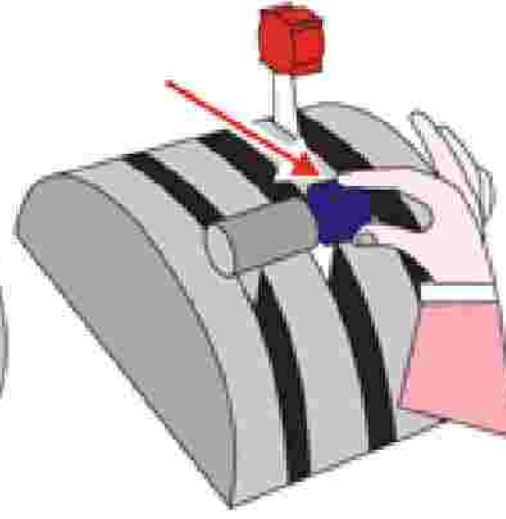
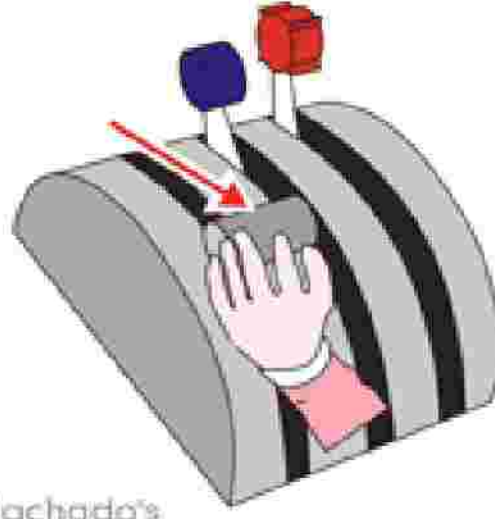
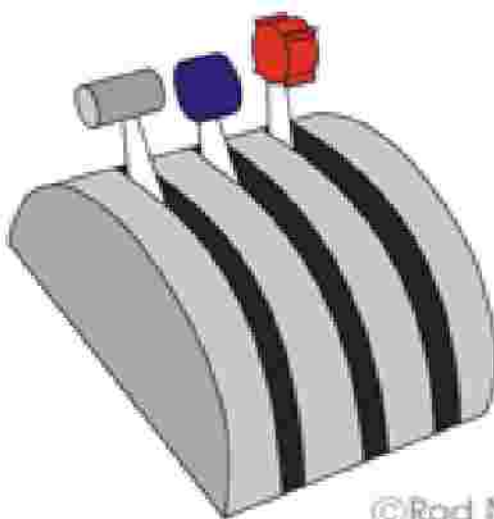
With the prop lever pulled slightly aft, the prop blades take a larger bite of air. This results in more drag, less propeller speed (RPM) and better fuel efficiency.

Het verlagen van het vermogen.

THE PROPER WAY TO MAKE POWER CHANGES

DECREASING POWER IN AN AIRPLANE WITH A CONSTANT SPEED PROP

- B** 1. Initial settings 2. Decrease power first 3. Decrease RPM next



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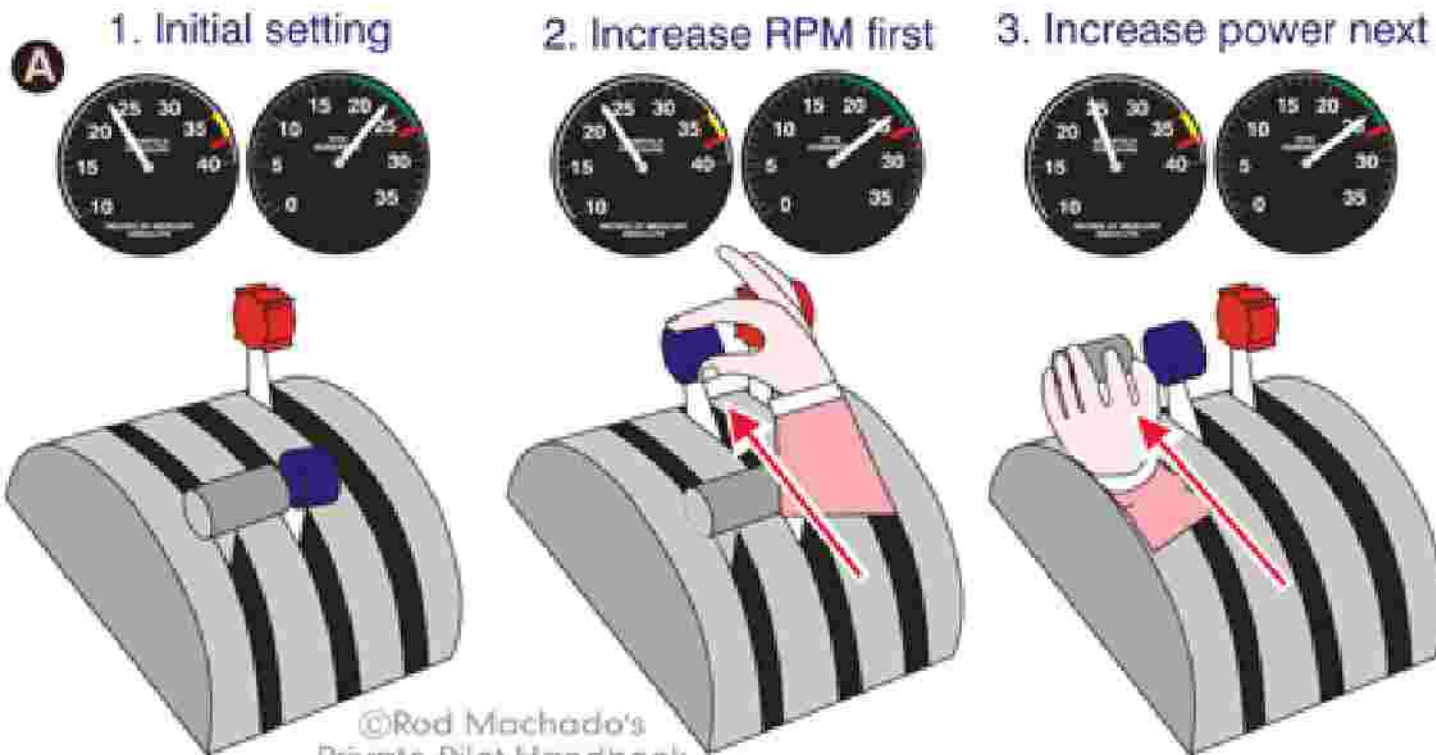
- Kruissnelheid: 160 – 170 KIAS, Manifold Pressure op 22. RPM = 2300



Het verhogen van het vermogen

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INCREASING POWER IN AN AIRPLANE WITH A CONSTANT SPEED PROP

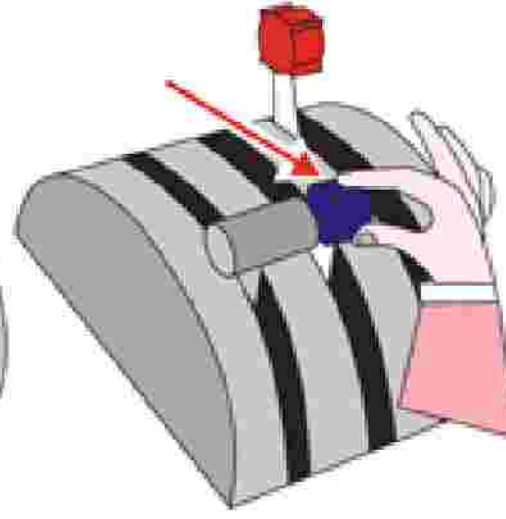
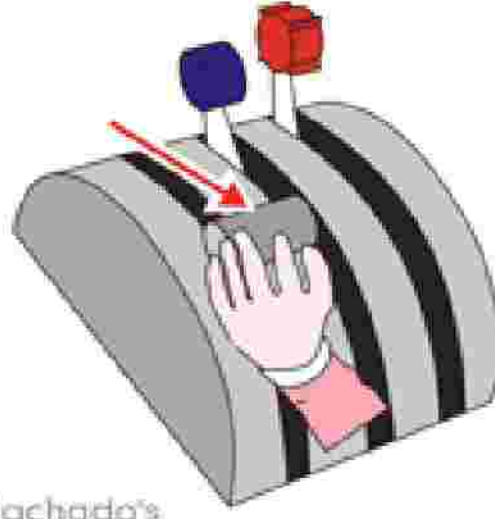
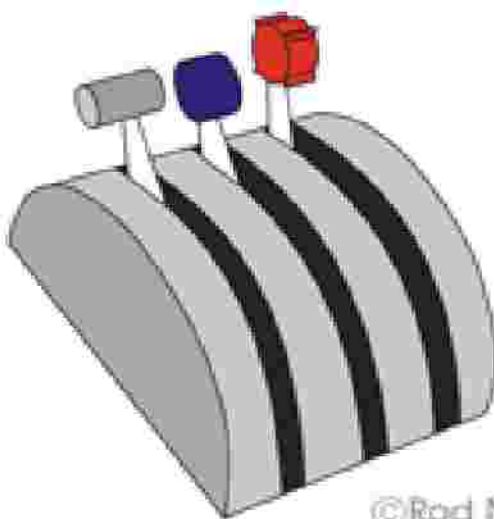


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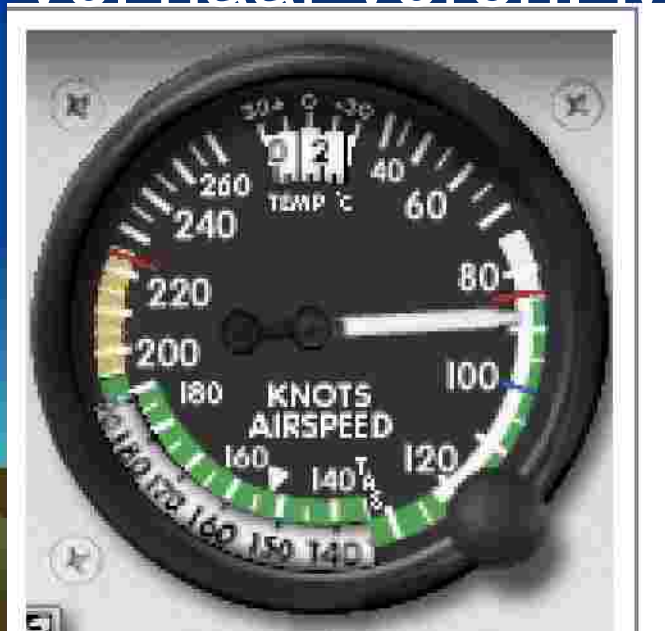


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PROP ON TOP



- Daalsnelheid: 170 KIAS, -700 fpm.
- MP = 1 inch
- 152 KIAS (Gear down)
- 145 KIAS Flaps op APPR. MP naar 17 tot vlak voor de landing.
- MP naar 15, 120 KIAS. Propeller hendel vol naar voren. MP naar 17, Flaps down.



- Final glijpad 100 KIAS.
- Landen met 95 KIAS.

