

It is also important to include the engine indications in the scan. Individualized scan methods may require adjustment if engine indications are presented on a separate MFD. A modified radial scan can be performed to incorporate these instruments into the scan pattern. Another critical component to include in the scan is the moving map display located on the MFD. To aid in situational awareness and facilitate a more centralized scan, a smaller inset map can be displayed in the lower left corner of the PFD screen.

Trend Indicators

One improvement the glass panel displays brought to the general aviation industry is the trend vector. Trend vectors are colored lines that appear on the airspeed and altitude tapes, as well as on the turn rate indicator. The color of the line may vary depending on the airplane manufacturer. For example, on a Cirrus SR-20, the trend vector lines are magenta and on the B-737 they are green. These colored lines indicate what the associated airspeed, altitude, or heading will be in 6 seconds for the Cirrus SR-20 and 10 seconds for the B-737 if the current rate is maintained. The example shown in *Figure 6-35* uses the color and data that represents the trend vector for a Cirrus SR-20. The trend vector is not displayed if there is no change to the associated tape and the value remains constant [*Figure 6-36*] or if there is a failure in some portion of the system that would preclude the vector from being determined.

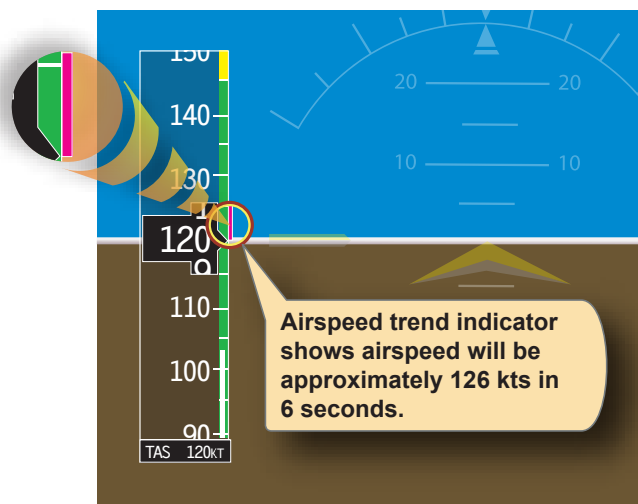


Figure 6-35. *Airspeed trend indicators.*

Trend vectors are a very good source of information for the new instrument rated pilot(s). Pilots who utilize good scanning techniques can pick up subtle deviations from desired parameters and make small correction to the desired attitude. As soon as a trend is indicated on the PFD, a conscientious pilot can adjust to regain the desired attitude. [*Figure 6-37*]

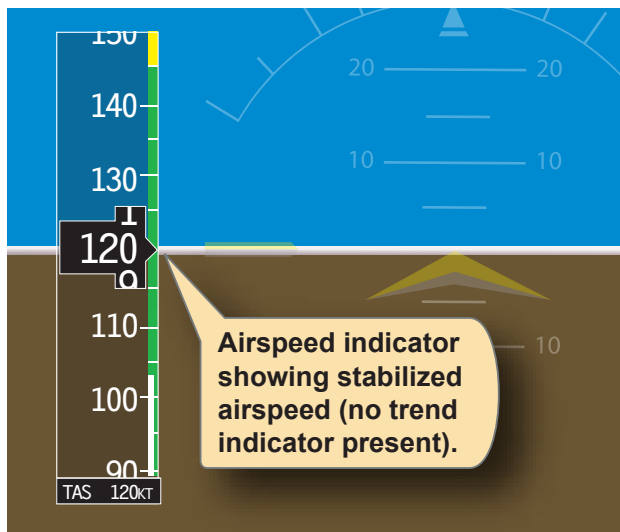


Figure 6-36. *Airspeed indicators with no trend present.*

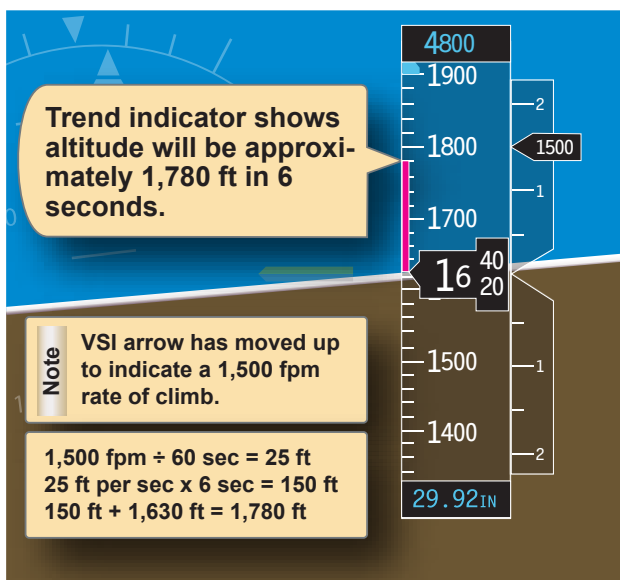


Figure 6-37. *Altimeter trend indicators.*

Another advancement in attitude instrument flying is the turn rate trend indicator. As in the cases of airspeed, altitude, and vertical speed trend indicators, the turn rate trend indicator depicts what the aircraft's heading will be in 6 seconds. While examining the top of the heading indicator, notice two white lines on the exterior of the compass rose. [*Figure 6-38*] These two tick marks located on both sides of the top of the heading indicator show half-standard rate turns as well as standard rate turns.

In *Figure 6-39*, when the aircraft begins its turn to the left, the magenta trend indicator elongates proportionally with the rate of turn. To initiate a half-standard rate turn, position the