REFINEMENTS FOR ACCURACY

Moist Air Corrections

- humidity matters at this level of precision
- Use R_a, c_p, γ adjusted for humidity

Pointing Angle Corrections

- $v_l = v\cos(\theta)$ where v_l is the speed measured by LAMS
- $\cos\theta \simeq \cos(\theta_1 + \alpha)\cos(\theta_2 - \beta)$
  - θ_1 is the pointing angle above the longitudinal axis=0.1°
  - θ_2 is the pointing angle to starboard of the longitudinal axis=-0.2°
  - if $\alpha = -4°$,$\cos\theta \simeq 0.9976$ and at 130 m/s $\delta v = 0.3$ m/s.
- Therefore, use $v = v_l/\cos(\theta)$ in the preceding equation