BASIS FOR THE APPROACH

Steps:

1. $p_t = p + q$ is accurate
2. Errors in p and q arise from error at static sources
3. Find Δq required to match LAMS; hence Δp
4. Refinements for accuracy
5. Δp is a function of measured quantities like p_m, q_m, α_m
6. Flight maneuvers: checks and to calibrate T
7. Use LAMS with the above results to measure T directly.

LAMS-based measurement of temperature

- LAMS provides TAS=v
- p and q determine Mach number $M = v/v_s$
- $v_s = \sqrt{\gamma R_a T}$ so measured M and $v \Rightarrow T$ without reference to a temperature sensor