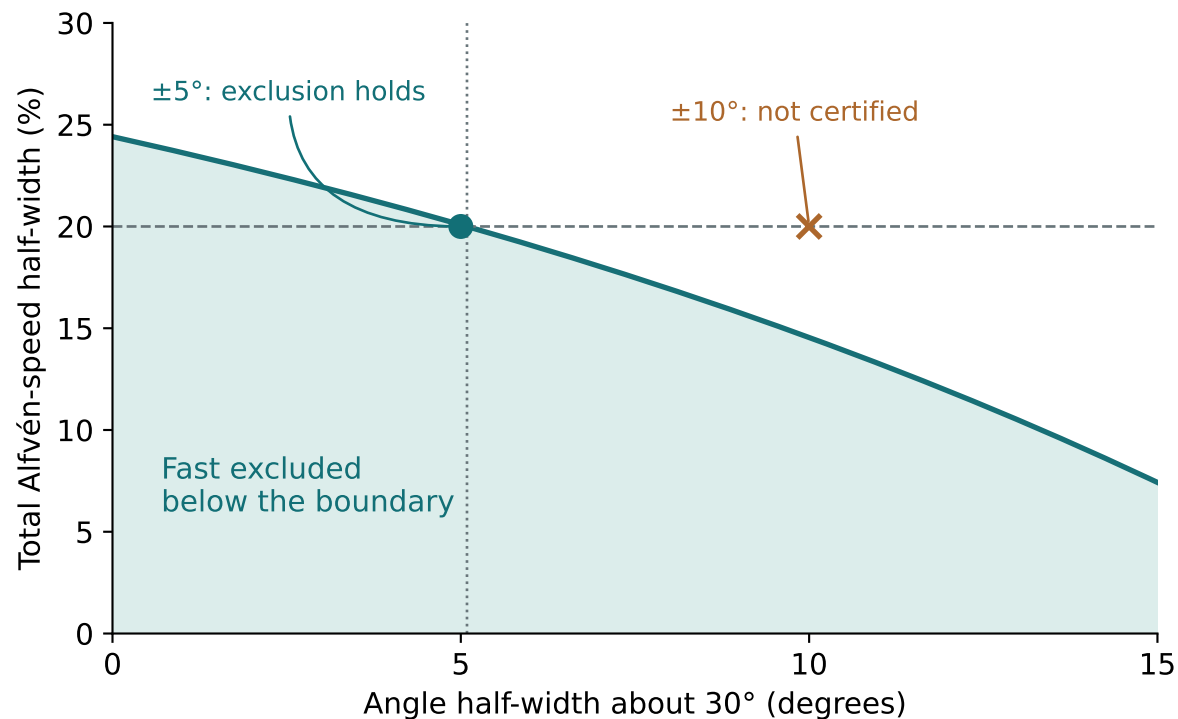


R103 | Total speed $\pm 20\%$ and field angle $30^\circ \pm 5^\circ$ preserve fast exclusion

Central total speed $c_{A,0} = w_0 / \cos 30^\circ$. Hard bounds, not 1σ .



At total-speed bounds $\pm 20\%$

Angle $30^\circ \pm 5^\circ$: passes

Small angular reserve: the criterion limit is a half-width of about 5.09° .

Angle $30^\circ \pm 10^\circ$: not certified

At this angle range, the total-speed half-width must instead be below about 14.55% for this criterion.

Saved slow state is inside both sets.
No competing fast state constructed.

Included simultaneously: compression $r_0 \pm 0.05$ (absolute) and normal acoustic Mach $\pm 10\%$.

The exact boundary is not excluded by this strict criterion. The curve displays a certified analytic bound.

Declared model inputs; no solar identification. Uncertain TOTAL speed is projected onto the local front normal.