F-5SSBD/SSBE Data Reduction

- Initial Finding:
  - Sonic Boom Shaping persisted through a real atmosphere at lower turbulence conditions
- My Work in Progress
  - Validated and Calibrated design methodology
  - Average turbulence time-of-arrival distortion on shaped booms (rounding)
  - Persistence of Loudness Reduction through turbulence (close-behind flight)

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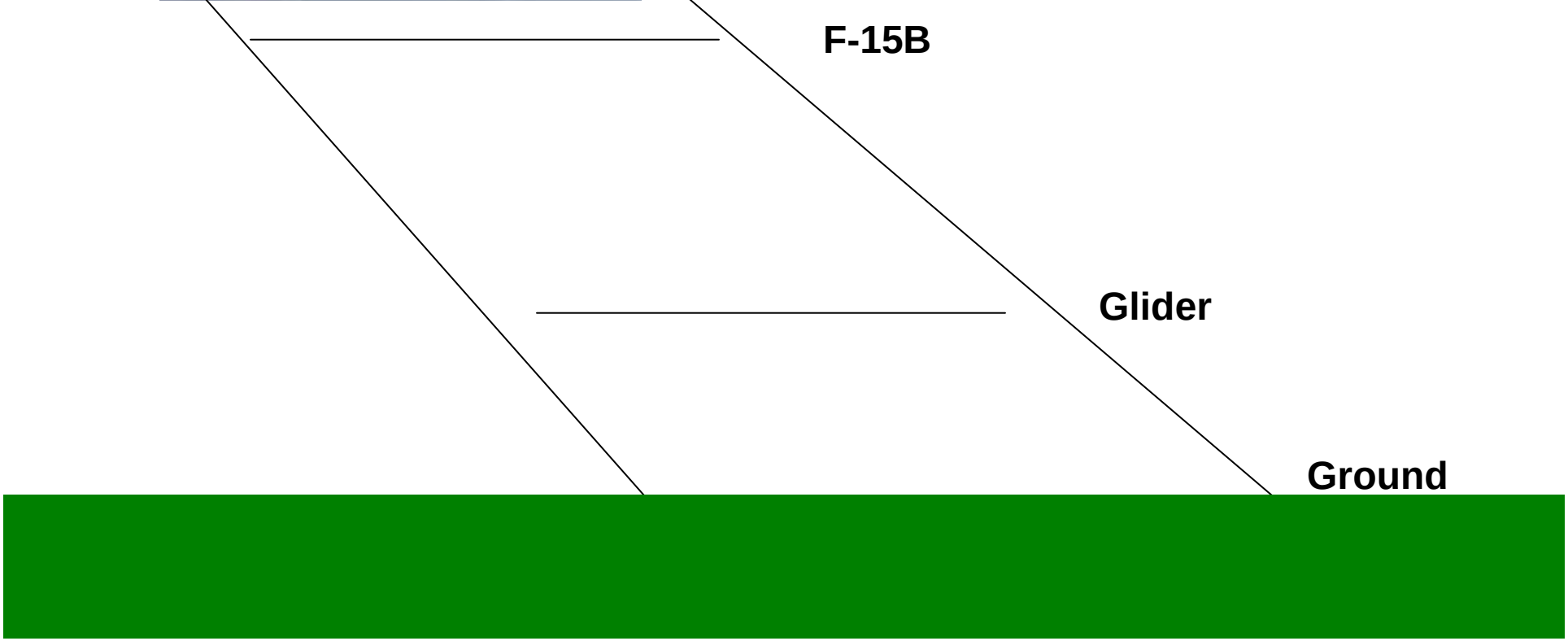
- Validated and Calibrated design methodology



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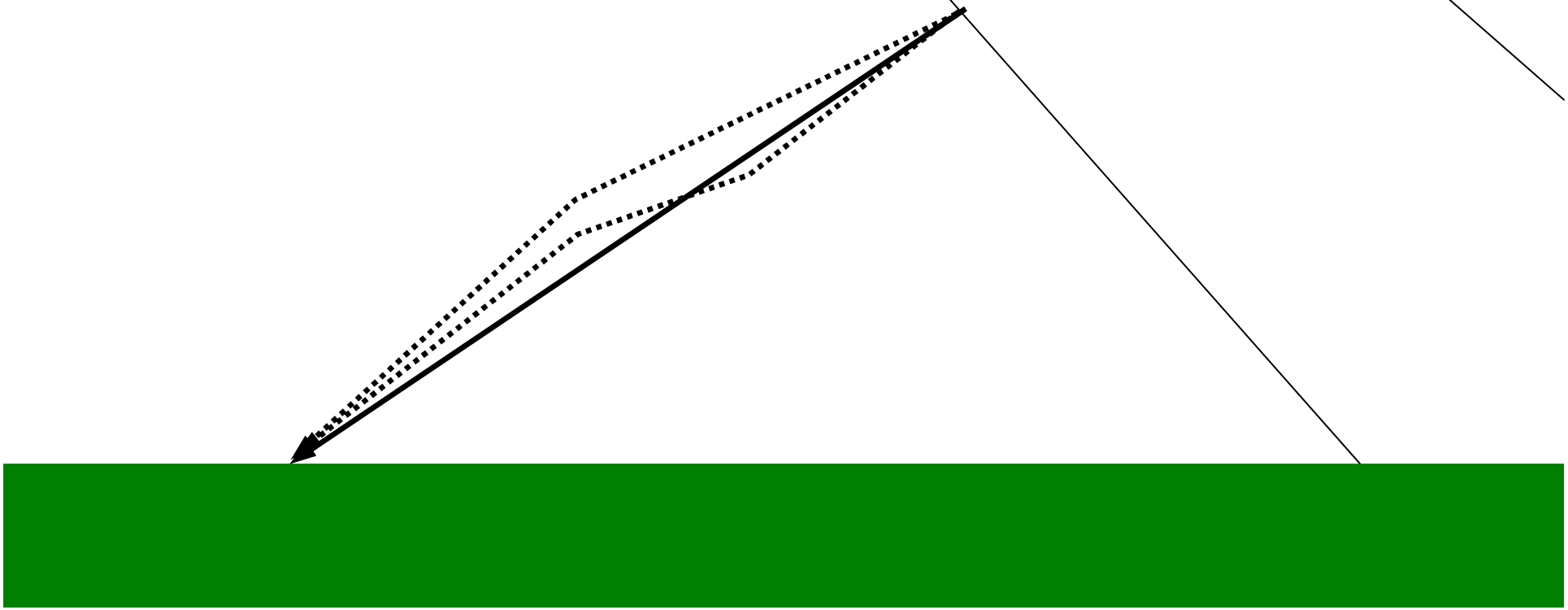
- Average turbulence time-of-arrival distortion on shaped booms (rounding)



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- Persistence of Loudness Reduction through turbulence (close-behind flight)
  - Show statistically that the pressure and loudness difference between a baseline F-5E and the modified F-5SSBD persists
  - Hope to show that “under similar turbulence conditions” the difference between a baseline F-5E and the modified F-5SSBD increment persists more consistently: close-behind flight. F-5E actually flew about 2500 ft. behind instead of 500 ft. so the time and flight path deviation were more than desired. Hope to show that the increment is more consistent.

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