



Aircraft Modifications

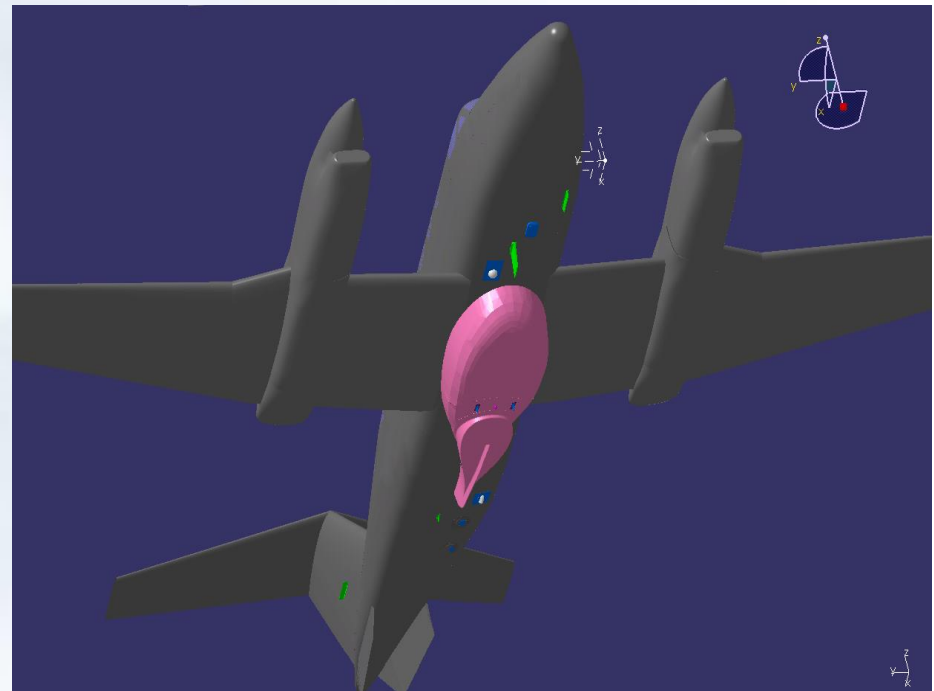
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Impact on Altimetry System Error

Overview

- ✈ Aerodynamic modifications near static sources
 - ✈ Combinations of mods
 - ✈ One aircraft - multiple configurations
- ✈ Changes to RVSM Flight Envelope
 - ✈ ASE in an expanded flight envelope
 - ✈ ASE above FL410
- ✈ Damage and Maintenance Issues

Combining Aerodynamic Mods



Combining Aerodynamic Mods

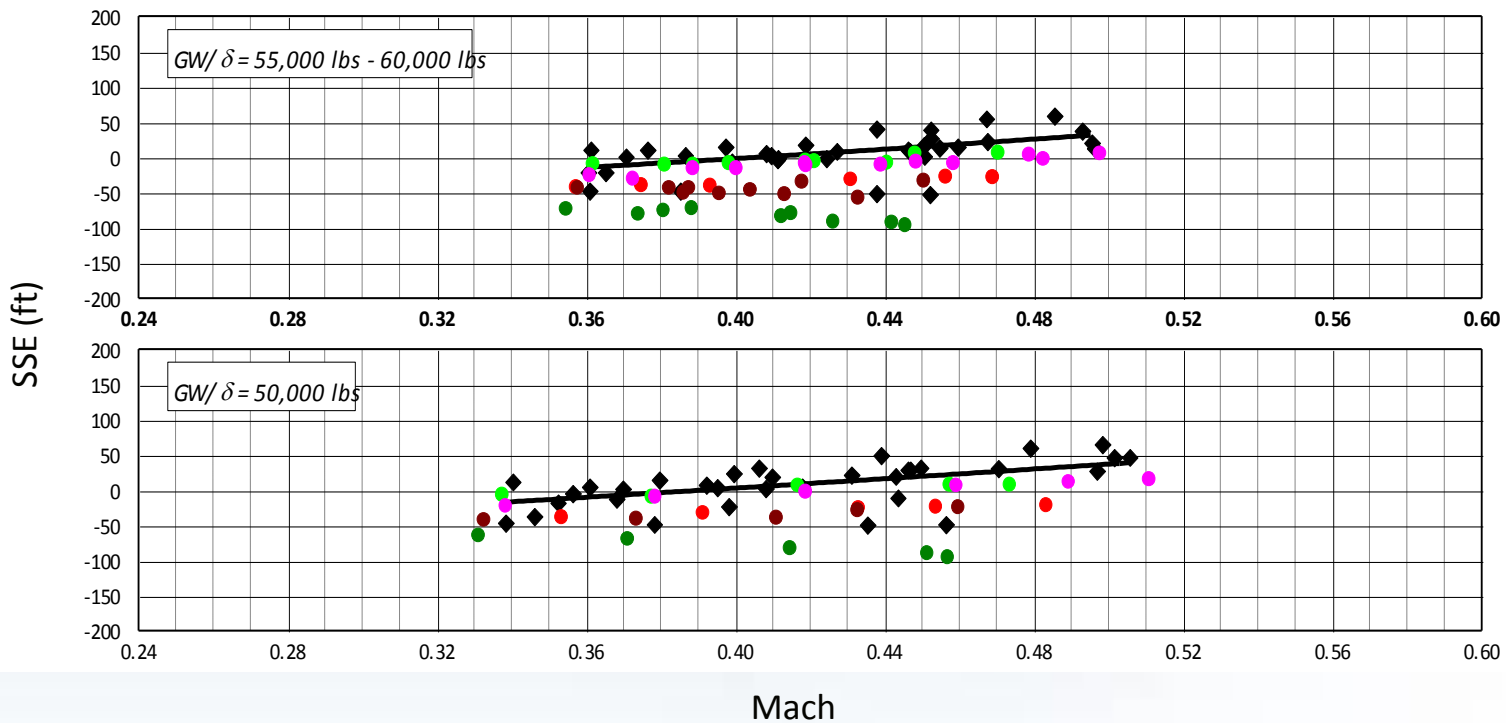


Combining Aerodynamic Mods



Combining Aerodynamic Mods

- unmodified
- single camera pod
- dual camera
- dual camera & bubble window
- radome
- radome & bubble window



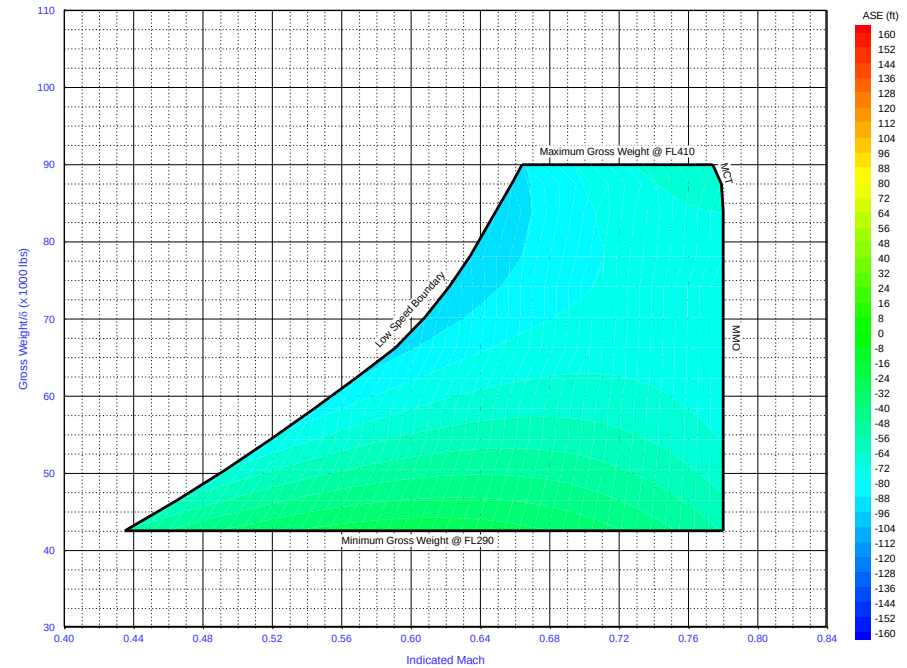
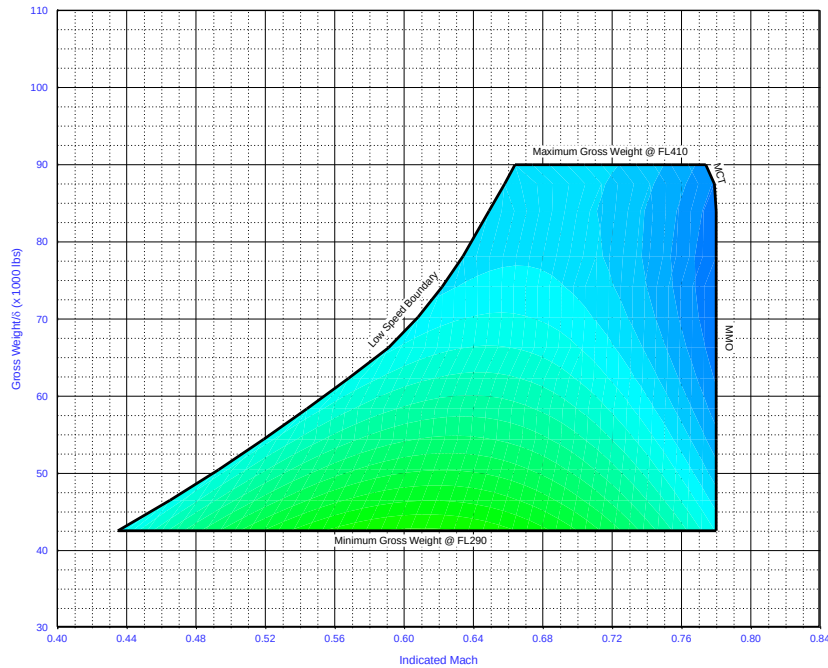
Combining Aerodynamic Mods



One Aircraft – Multiple Configurations (Non-Group)



One Aircraft – Multiple Configurations



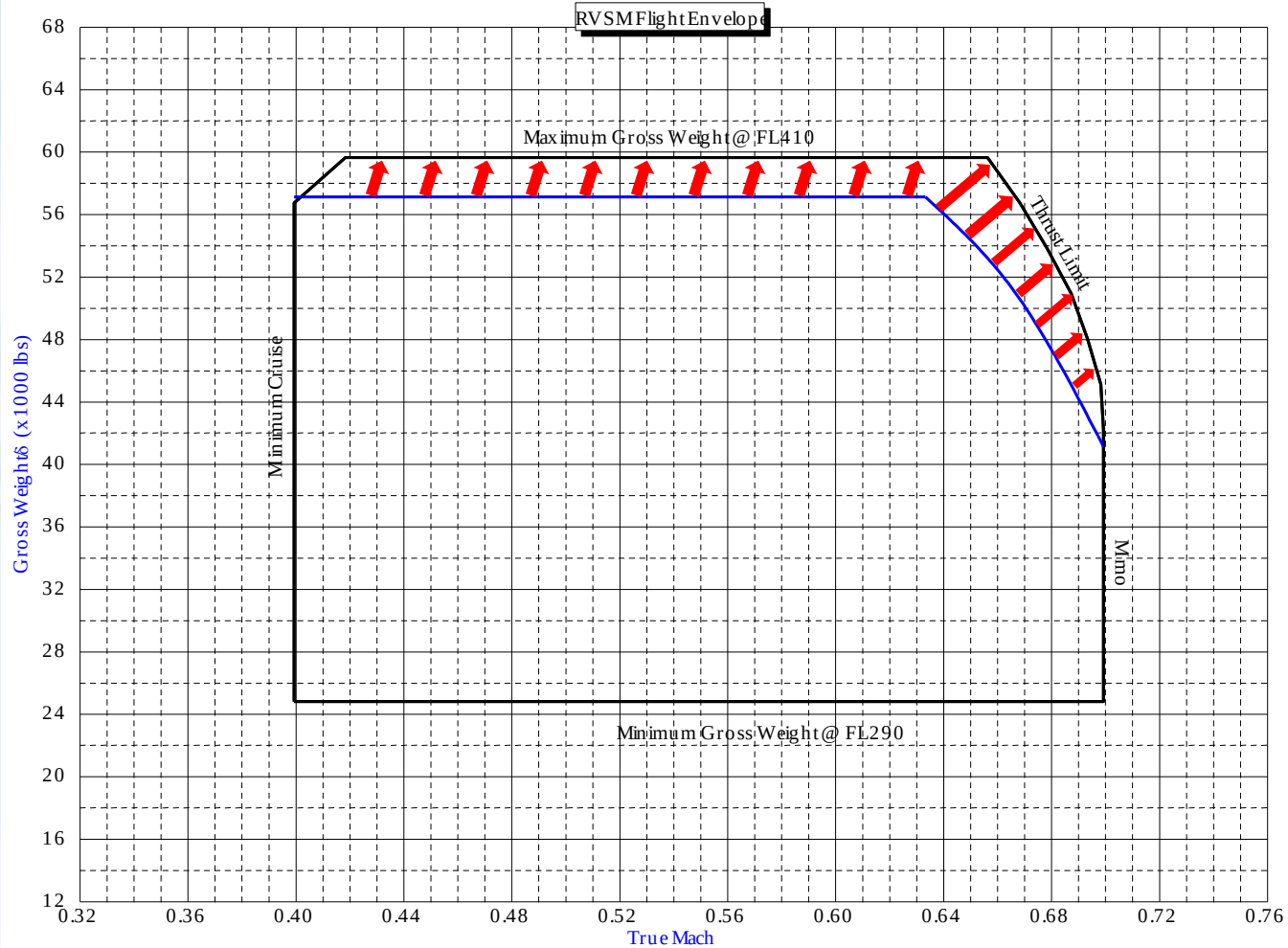
- Single SSEC for both configurations
- Monitoring may not reflect both configurations

Expanded Flight Envelope

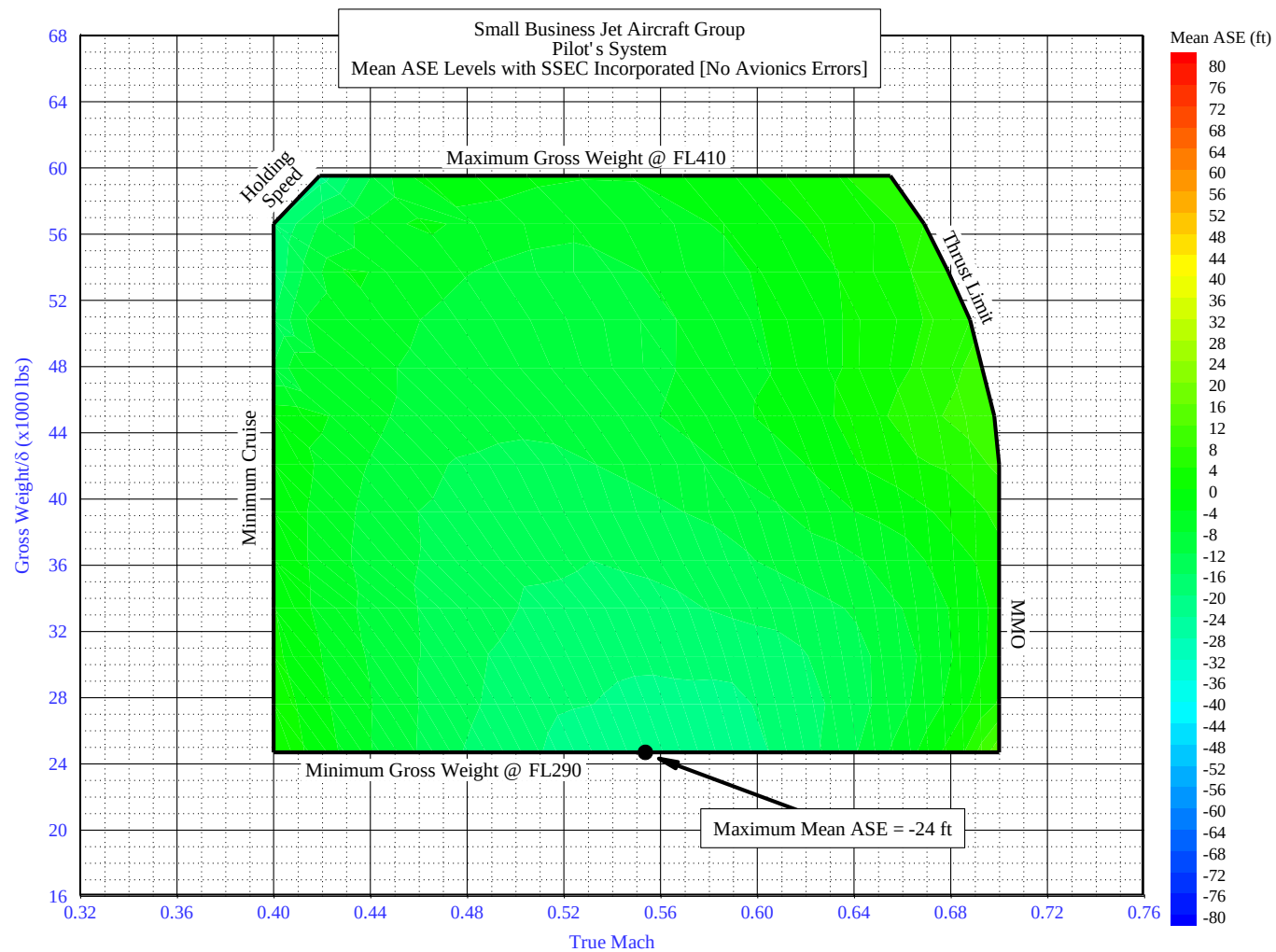
- ✈ Engine thrust increase
- ✈ Fuel consumption improvement
- ✈ Winglets
- ✈ Gross weight increase



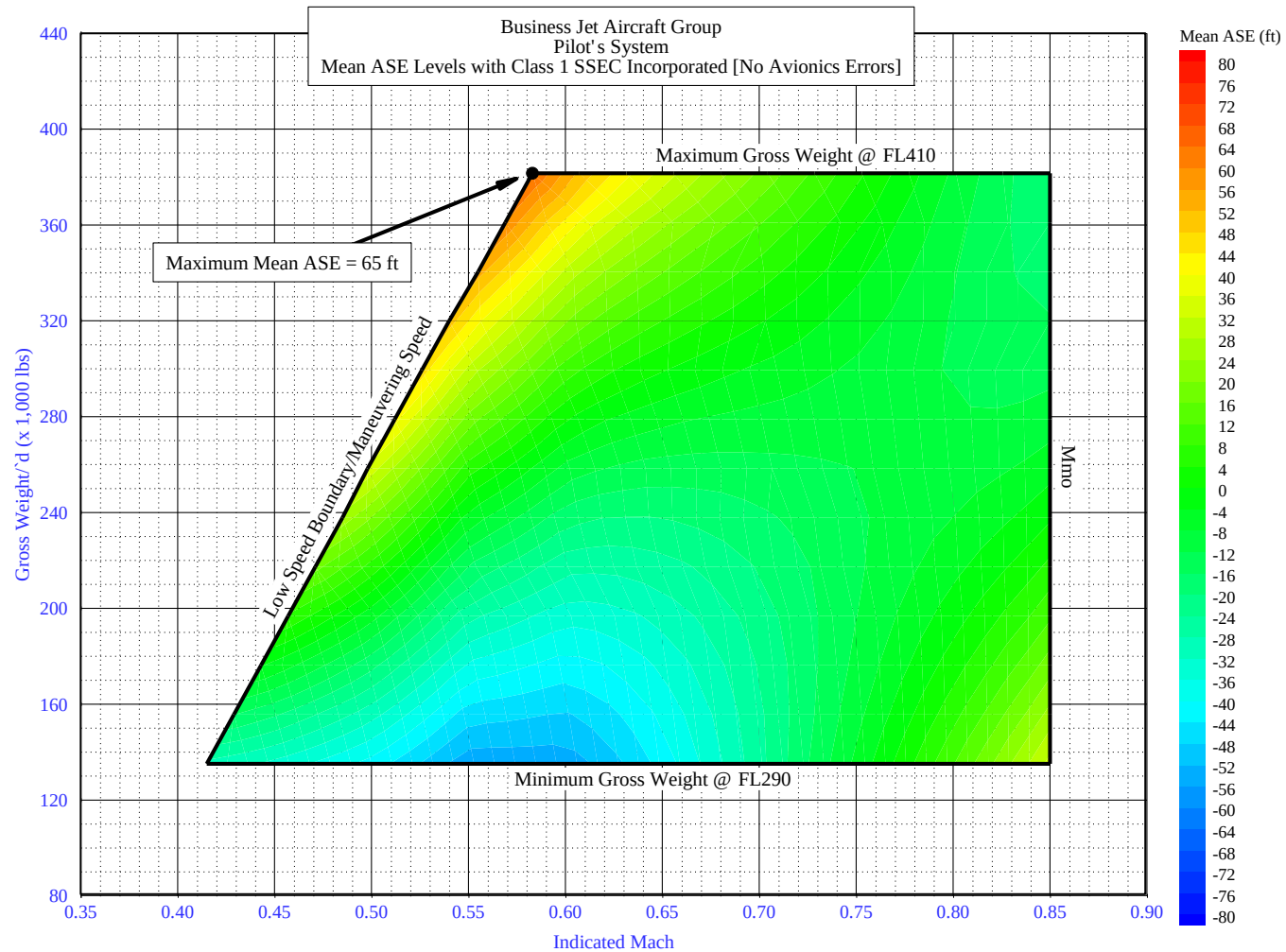
Expanded Flight Envelope



Expanded Flight Envelope – ASE



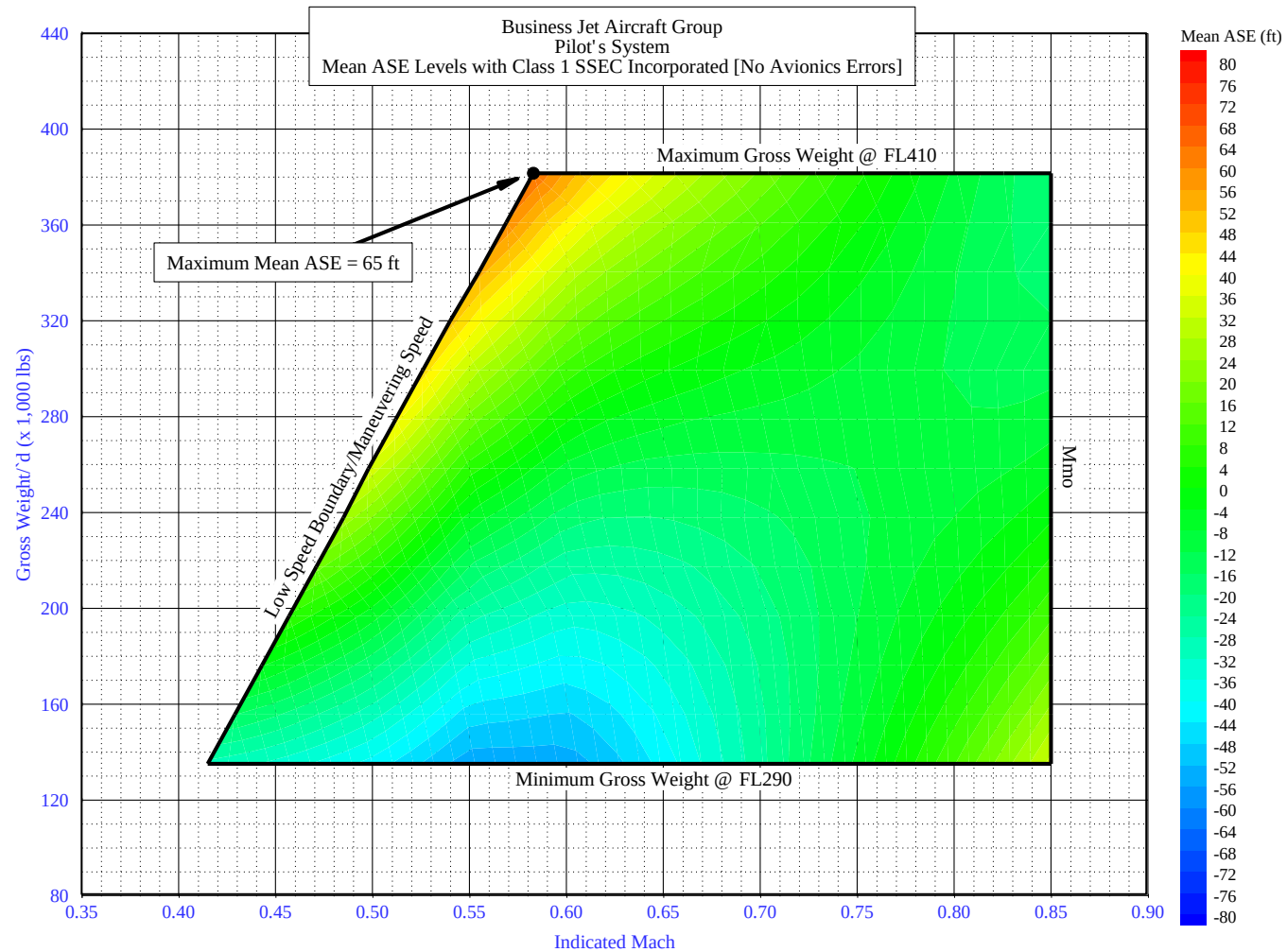
Expanded Flight Envelope – ASE



ASE Above FL410

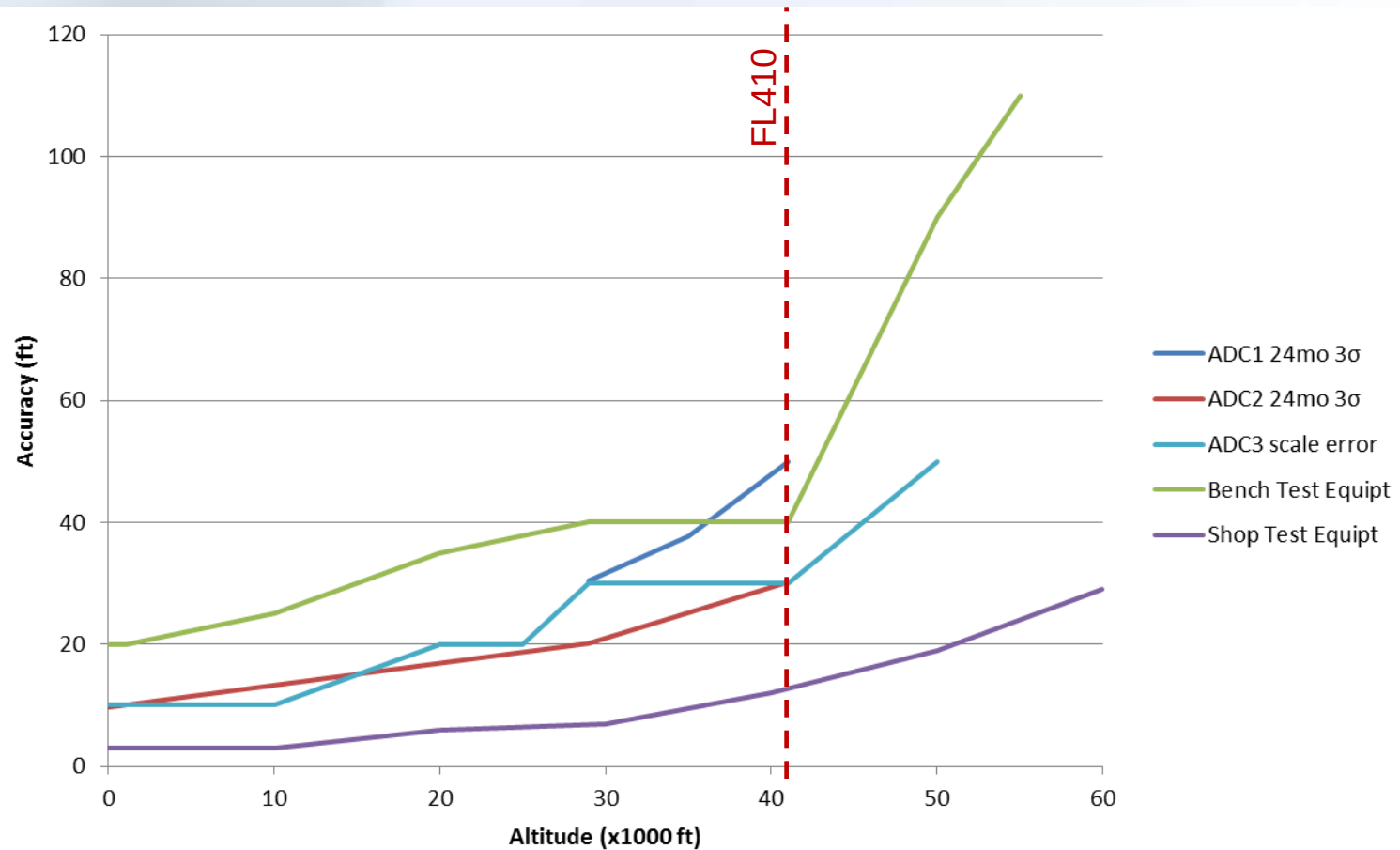
- ✈ Expansion of RVSM Flight Envelope
- ✈ Increased avionics sensor errors at higher altitudes

ASE Above FL410 – Flight Envelope Expansion





ASE Above FL410 – Sensor Errors and Altitude



Damage and Maintenance Issues



Damage and Maintenance Issues





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