



# Observing Altimetry System Error (ASE) Nominal ASE Observations

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FAA ANG-E61

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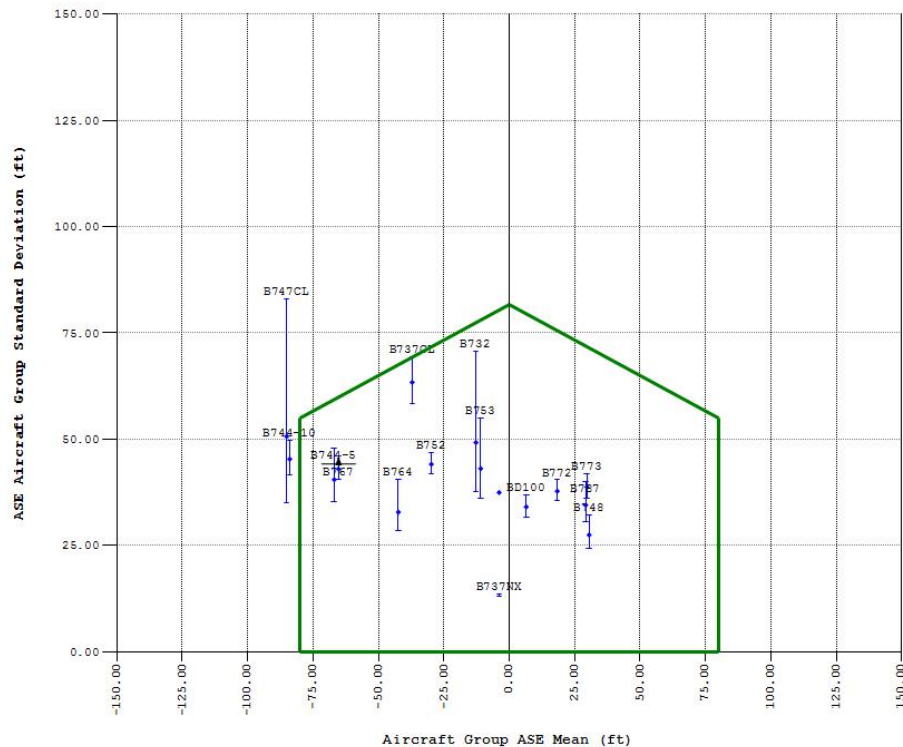
Federal Aviation  
Administration

# Overview

- Prior to reviewing ASE case studies, several nominal cases are provided for discussion

# ASE Group Performance Requirement

Results for Airworthiness-Approved Airframes



Aircraft Groups Monitored	
B732	26
B737CL	288
B737NX	1781
B744-10	309
B744-5	86
B747CL	16
B748	70
B752	651
B753	38
B764	37
B767	504
B772	416
B773	351
B787	95
BD100	341

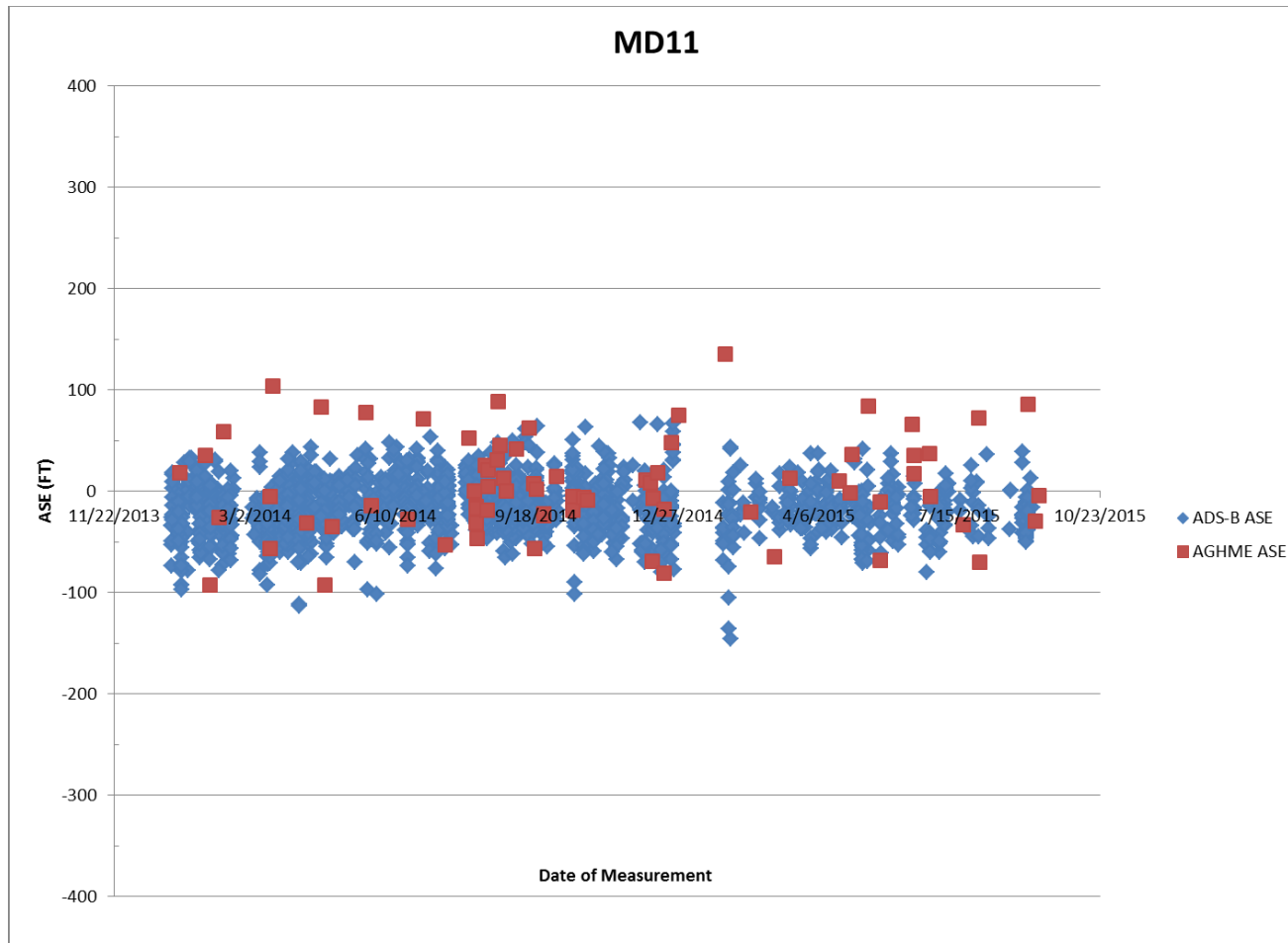
Note: ASE variance estimate reduced by assumed measurement variance of (45.4 ft<sup>2</sup>)  
Date of Chart: Friday, February 13, 2015



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**NextGEN**

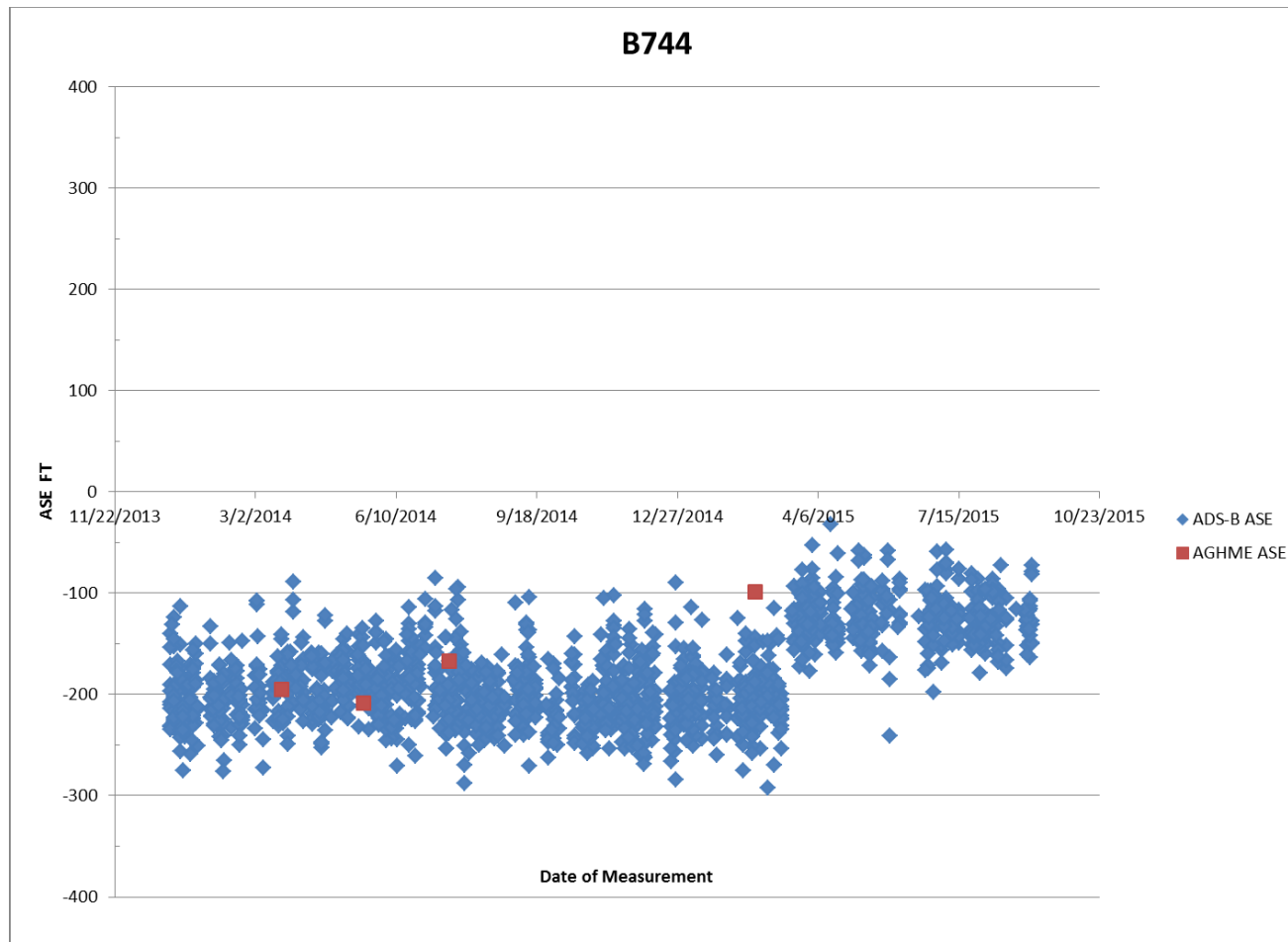
# Example ASE Measurement (1)



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Next**GEN**

# Example ASE Measurement (2)

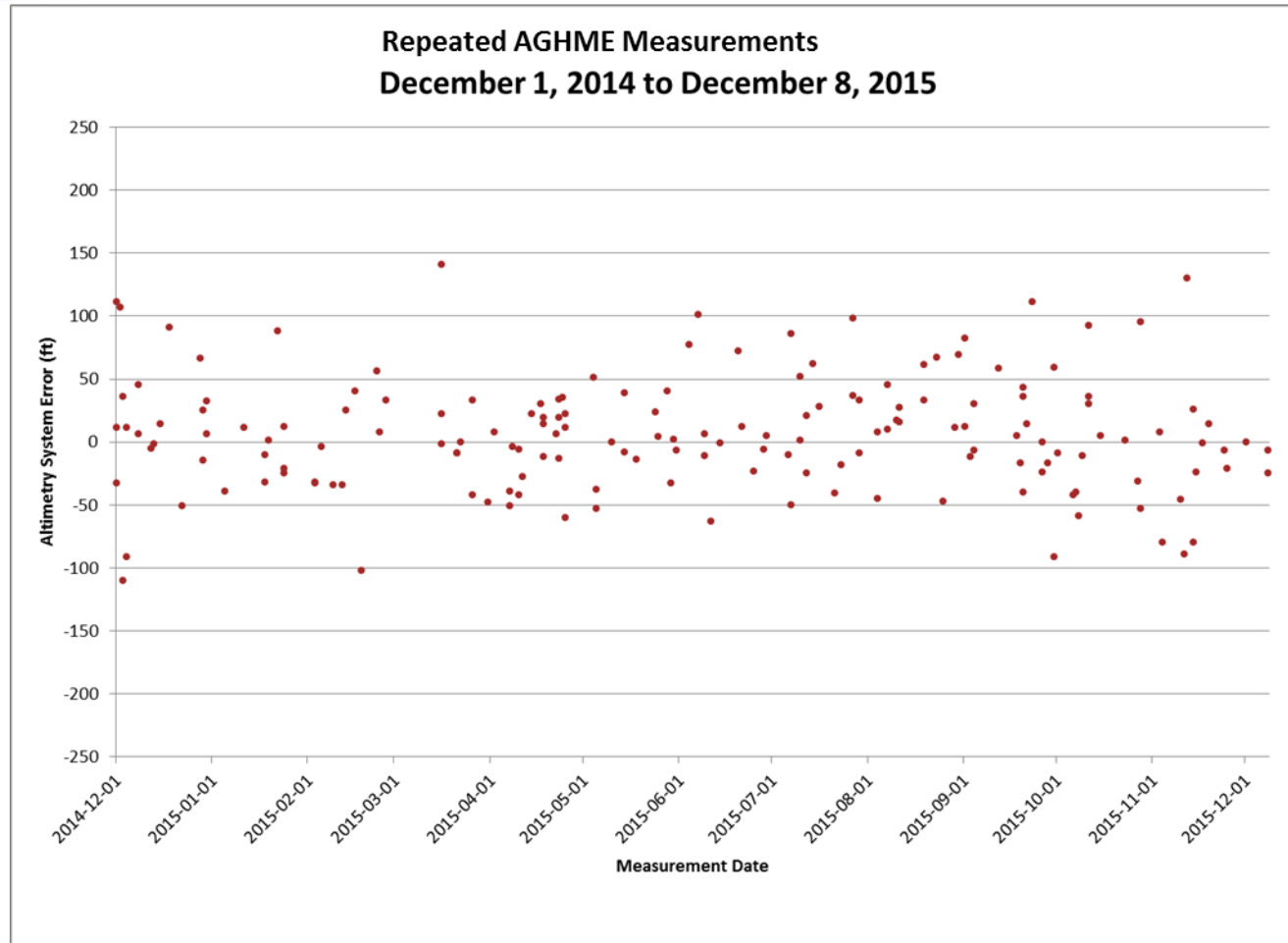


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**NextGEN**

# Example ASE Measurement

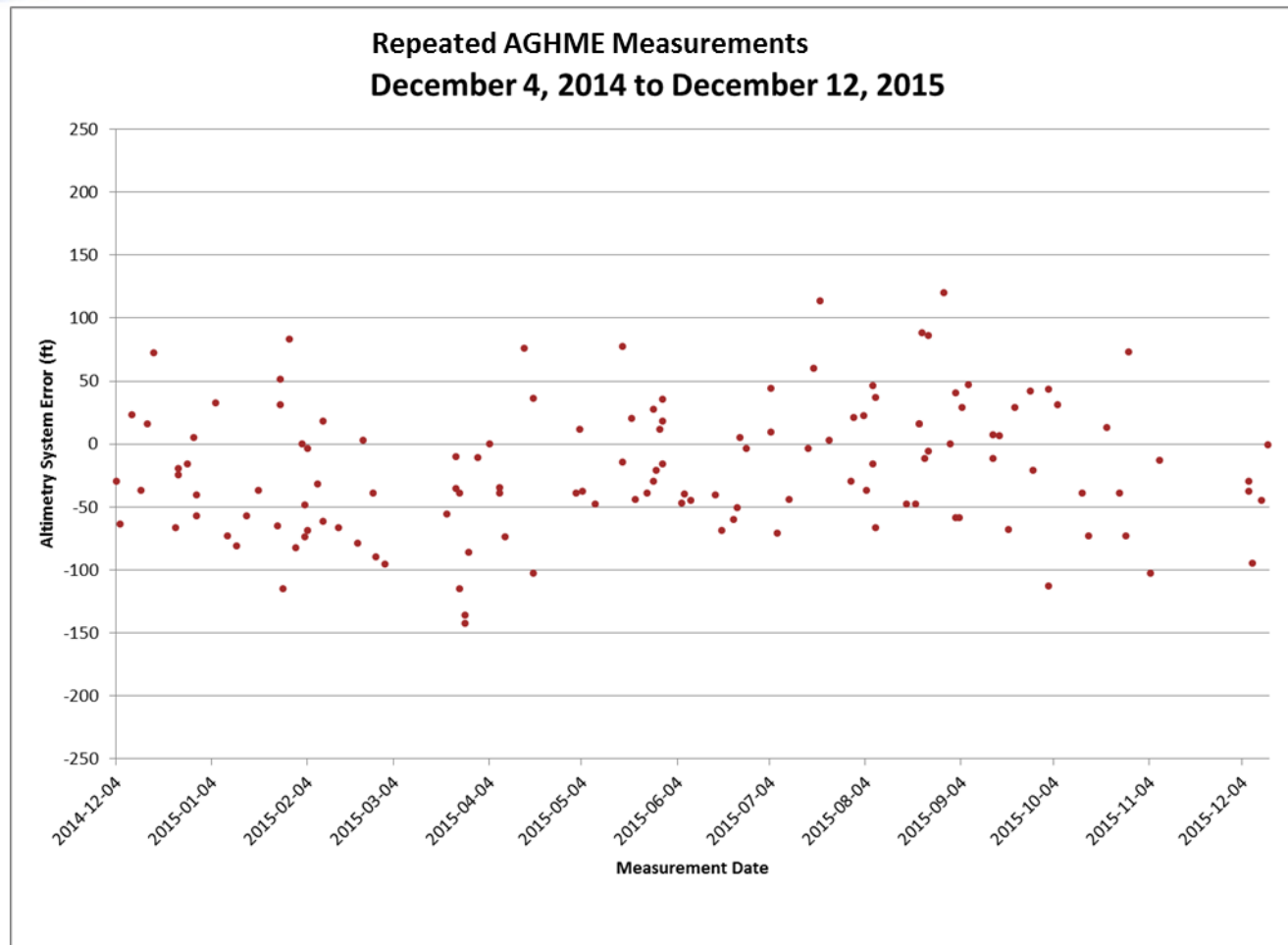
737-7H4 (NX) Delivered 10/04/2009



## Nominal

# Example ASE Measurement

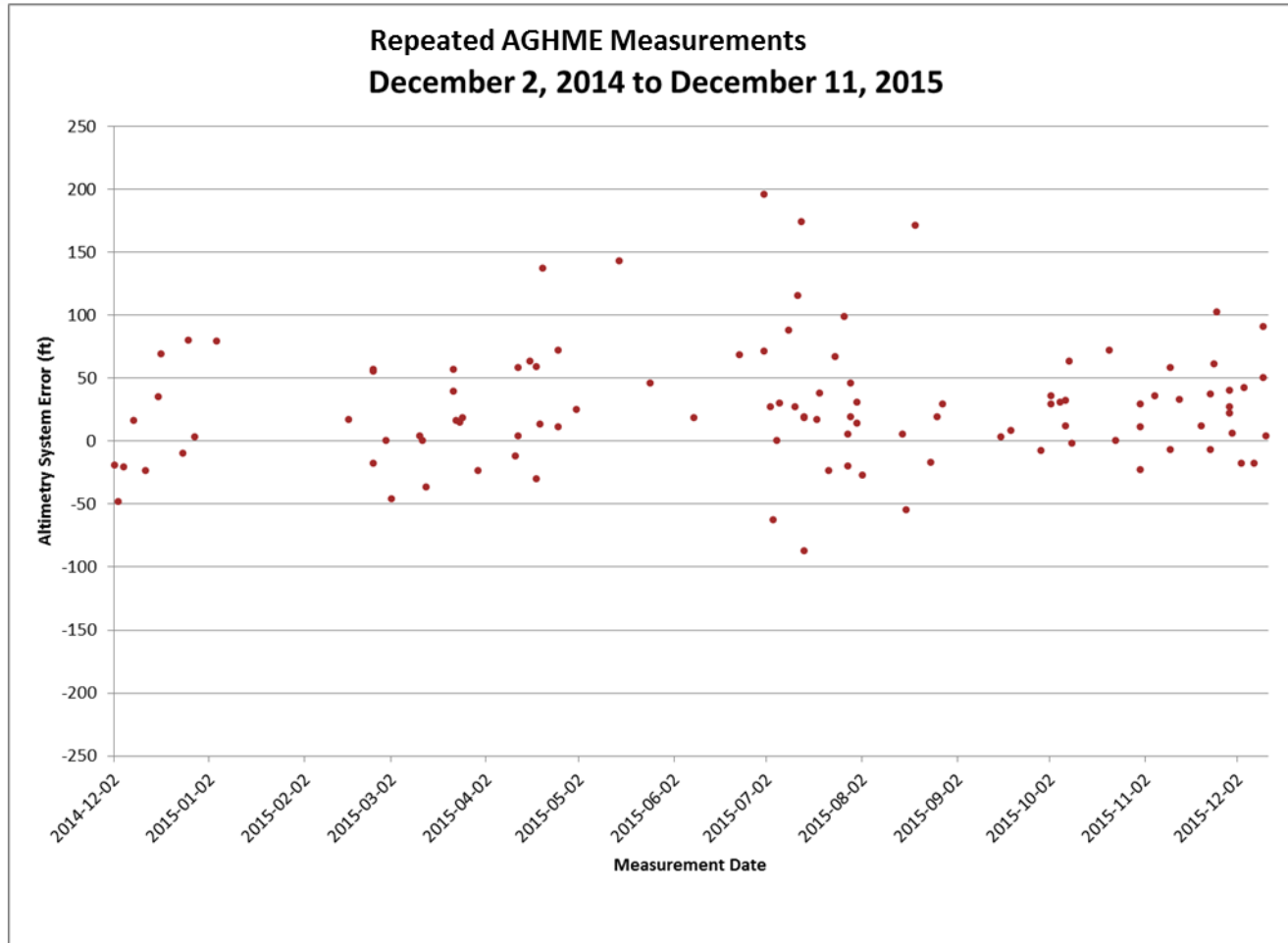
## 737-7H4 (NX) First Flight 2/23/2006



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# Example ASE Measurement

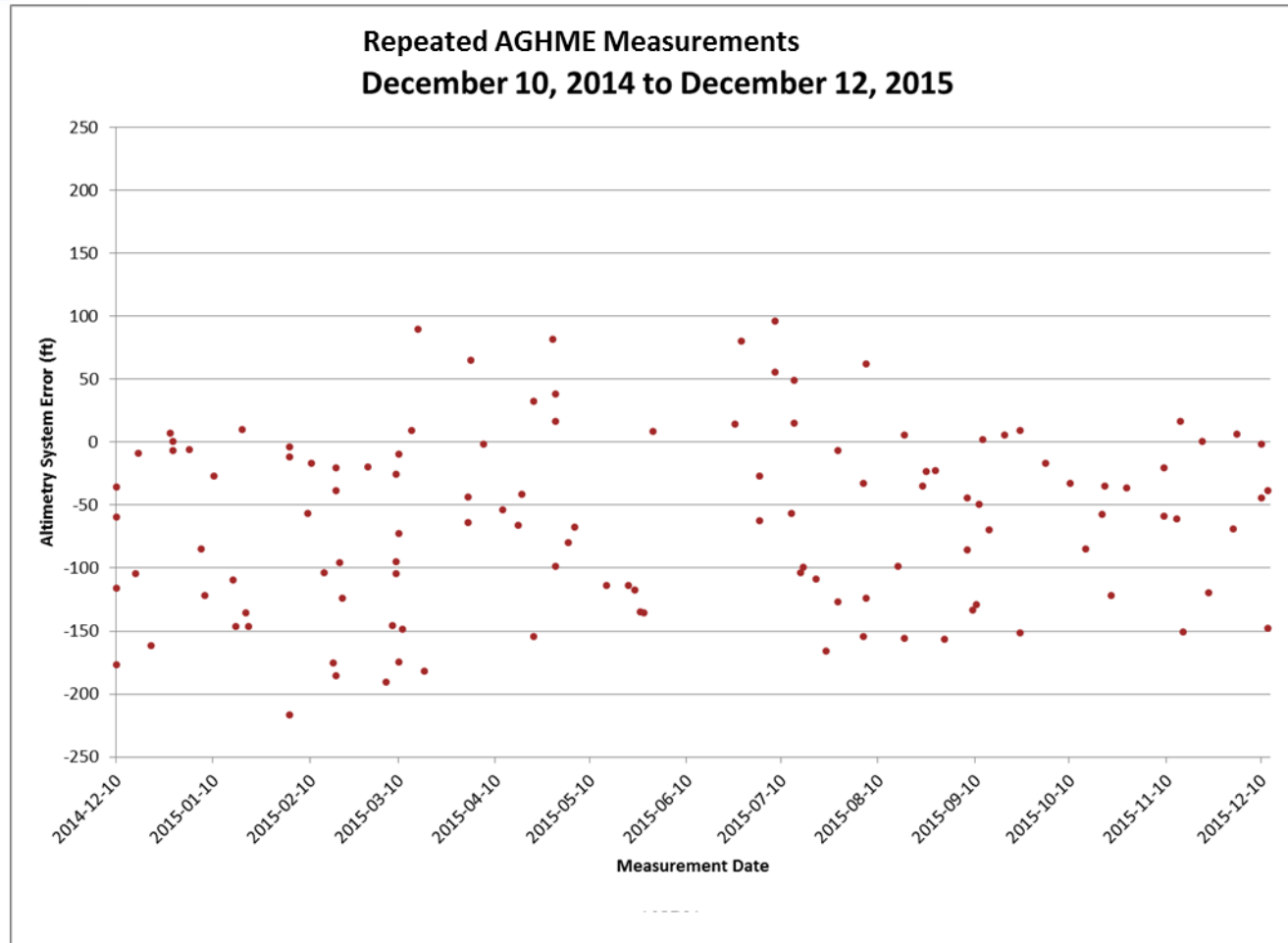
## 737-7H4 (NX) First Flight 1/26/1999



# Nominal

# Example ASE Measurement

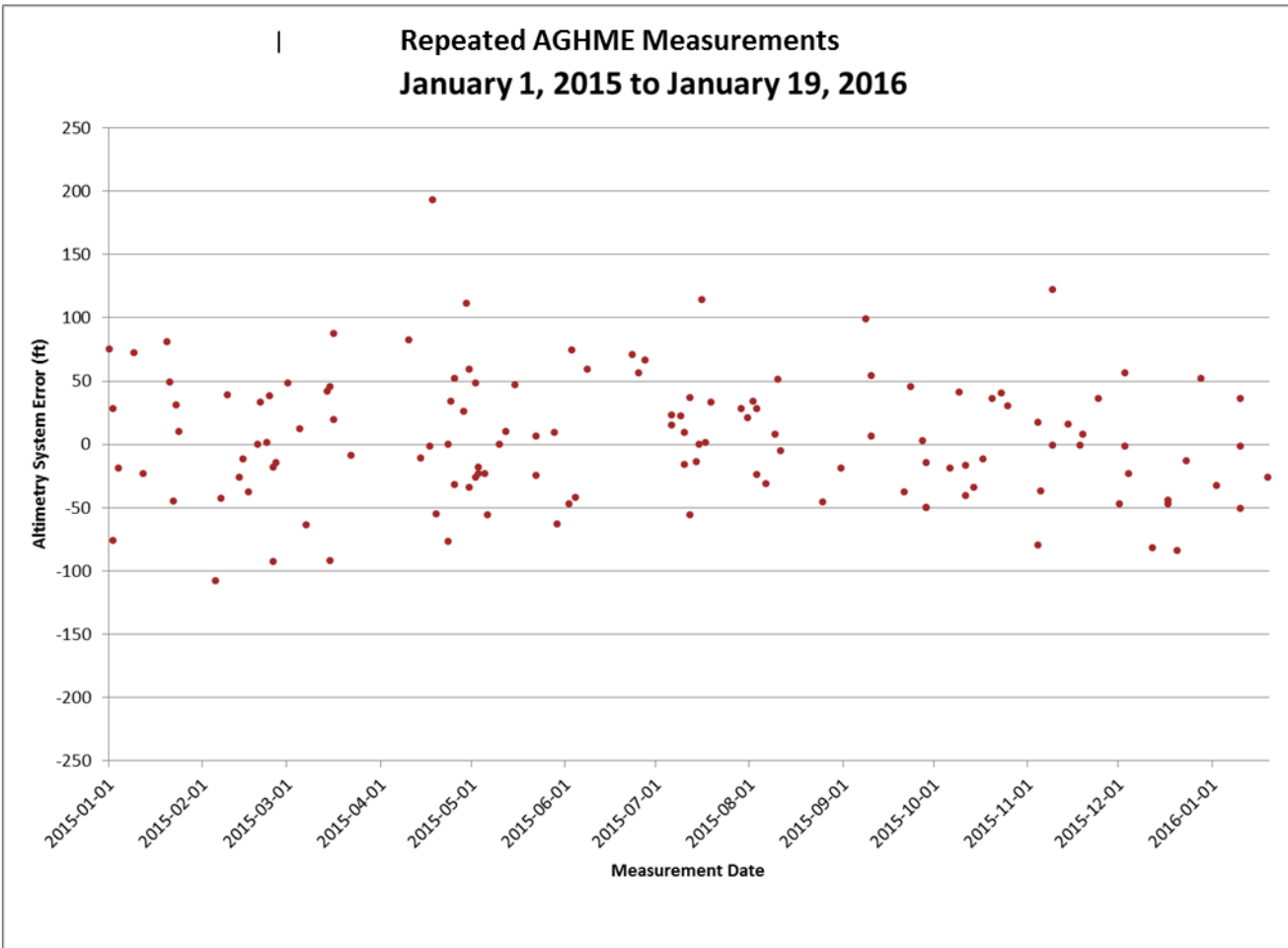
## 737-7HX (NX) First Flight 4/02/1999



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# Example ASE Measurement

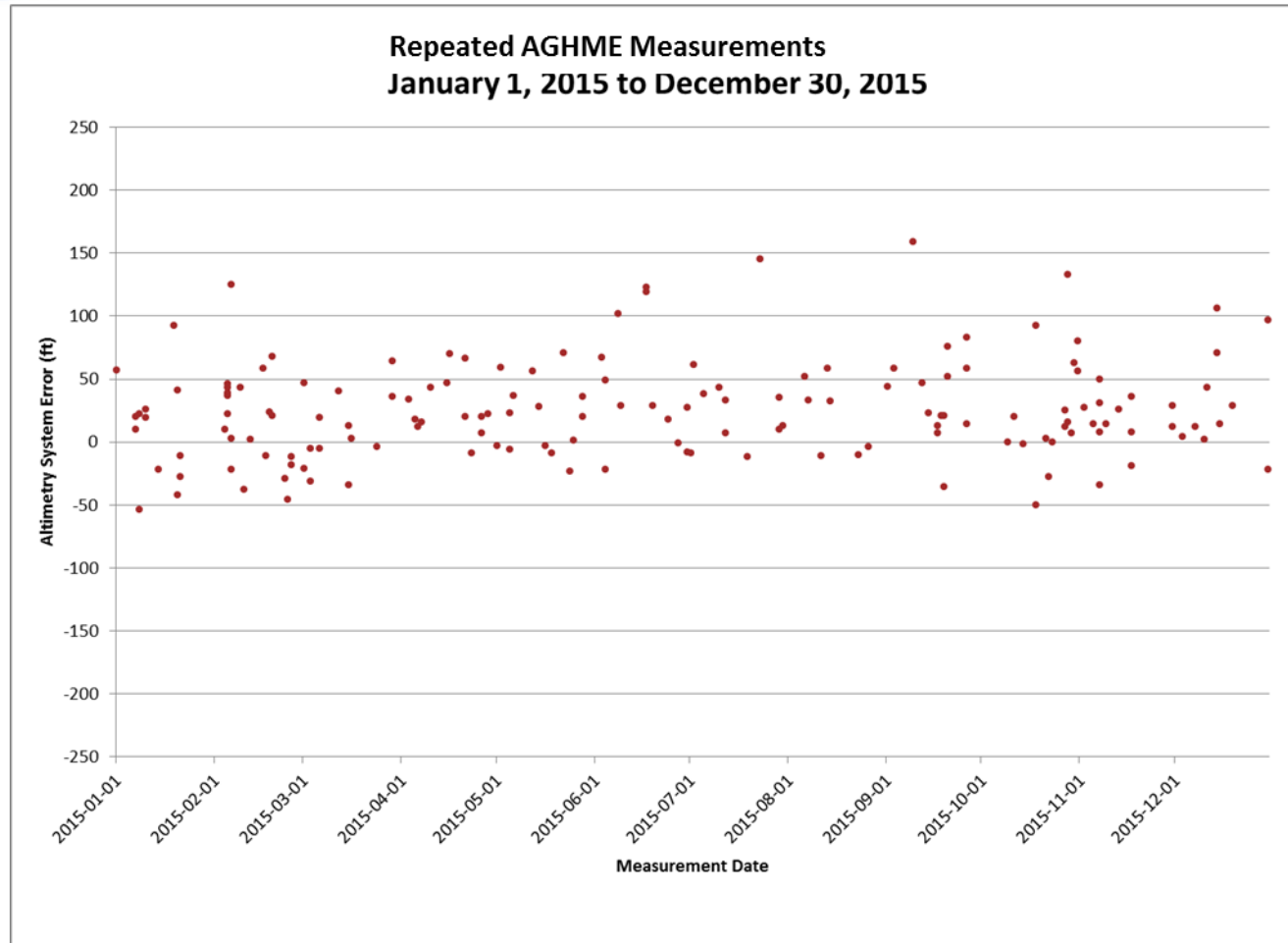
## First Flight 07/12/2000



## Nominal

# Example ASE Measurement

## 737-924 (ER)(WL) (NX) First Flight 02/10/2013



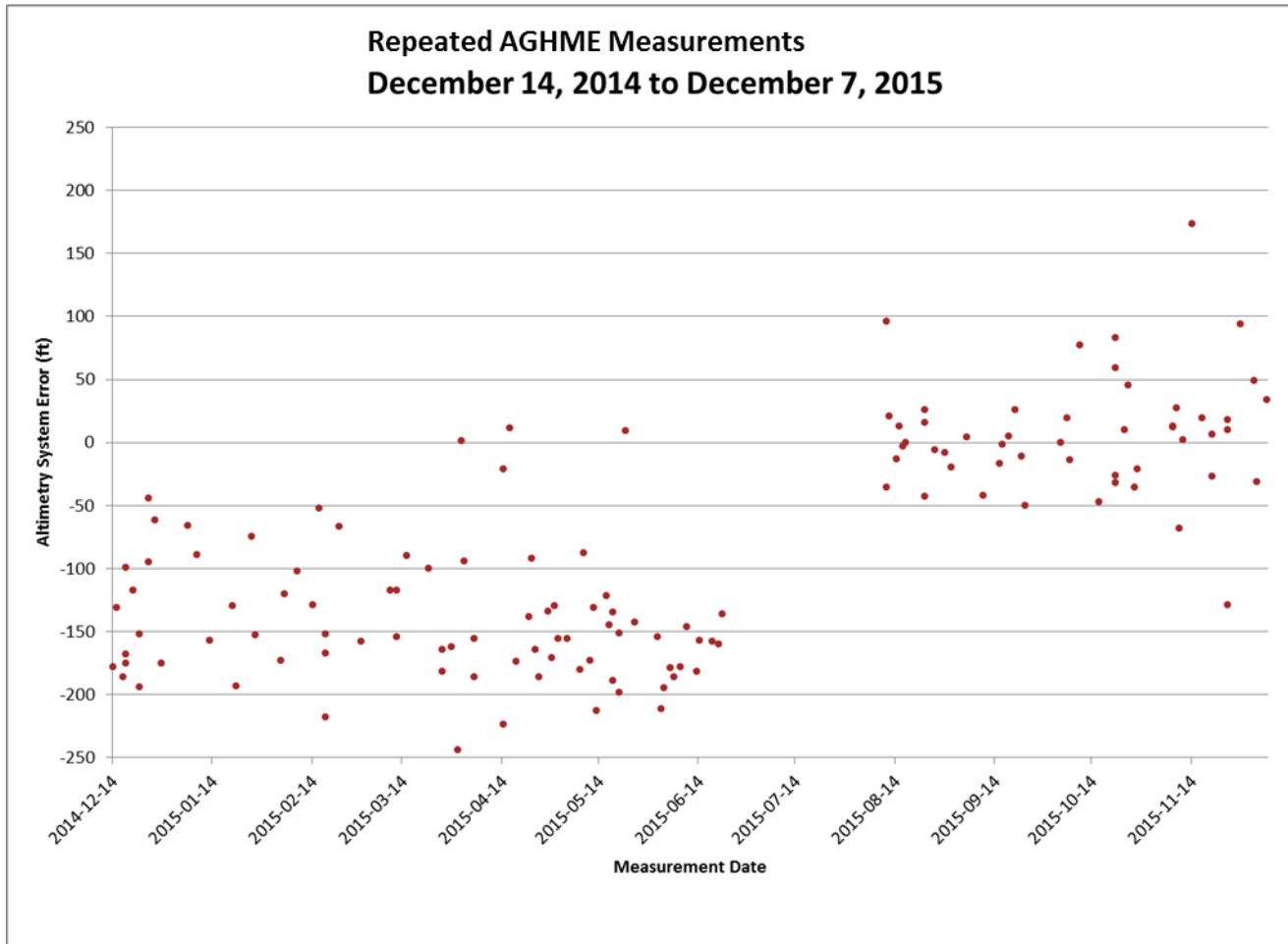
Nominal



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# Example ASE Measurement

## 737-7H4 (NX) First Flight 1/07/1999



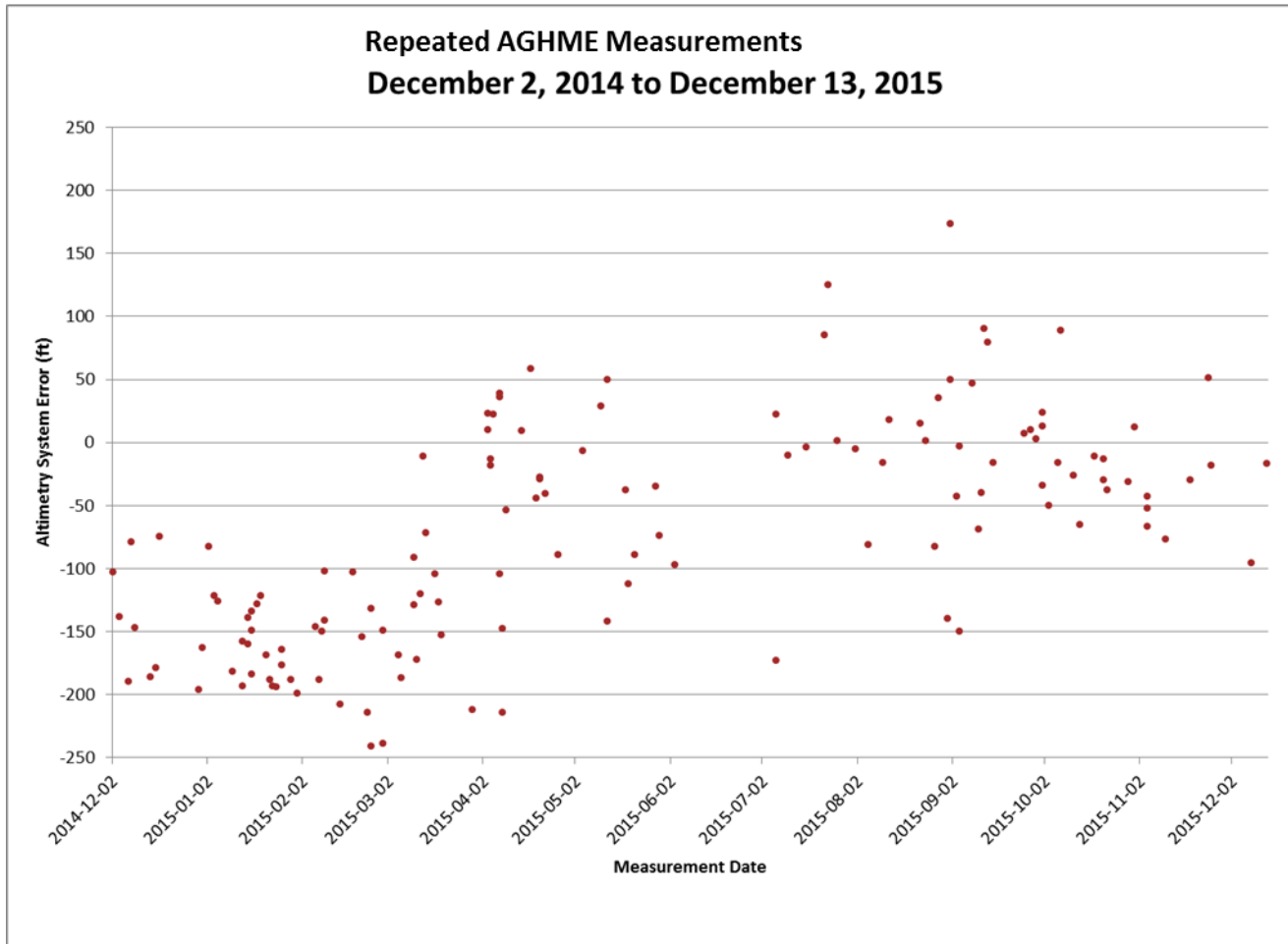
ASE  
Step  
Change



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# Example ASE Measurement

## 737-7H4 (NX) First Flight 7/26/1999



ASE  
Step  
Change



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# Summary

- ASE is measured regularly on aircraft that fly over the AGHME sites located throughout the US and Canada
  - ✦ ASE is also calculated on ADS-B version DO-260B aircraft
- ASE Measurement Noise includes positioning errors as well as meteorological model errors
- ASE compliance is determined by an experienced team that evaluates multiple ASE measurements and cross-checks
- Feedback on performance changes after maintenance may assist with corrections on aircraft with issues