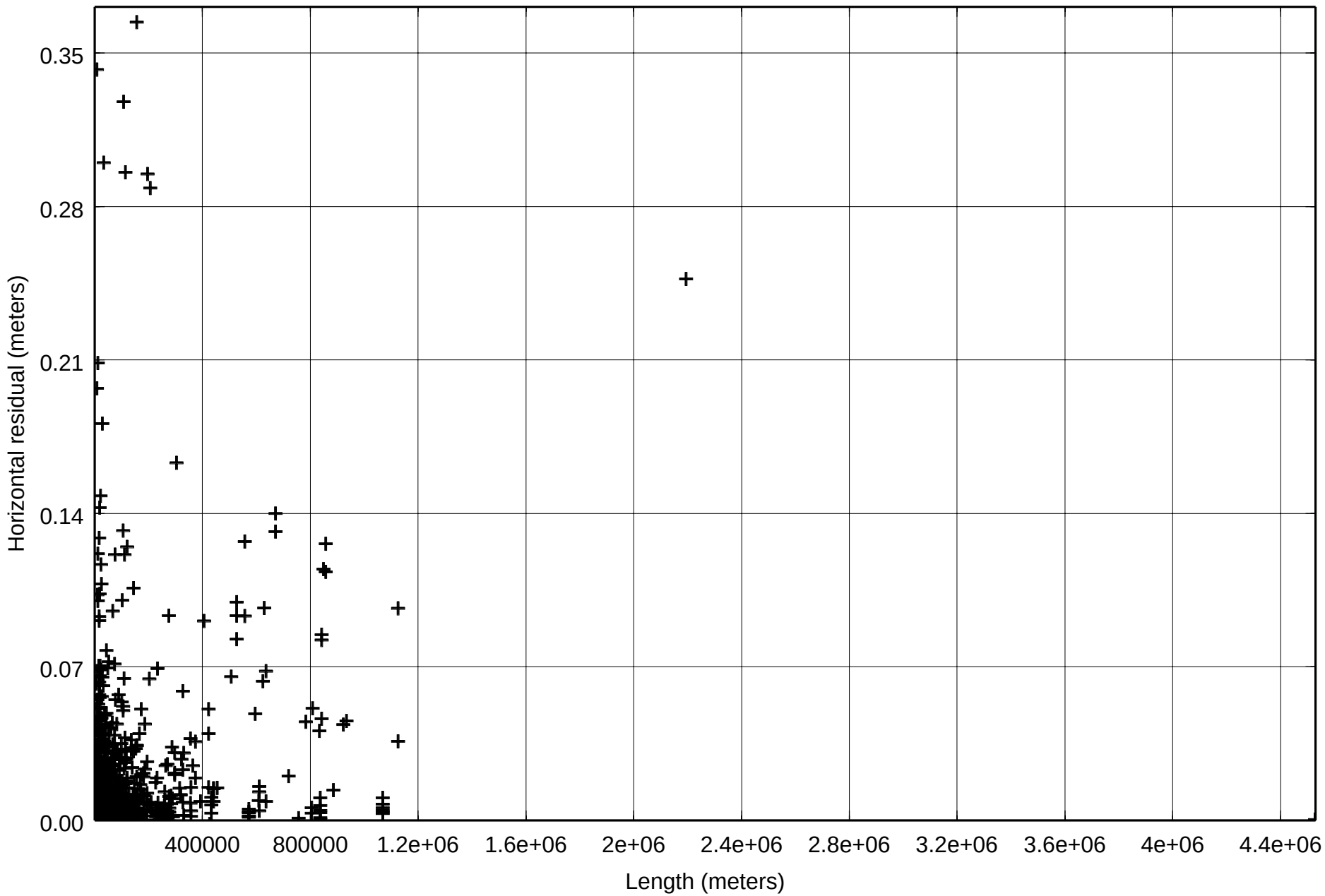ALASKA FINAL CONSTRAINED Horizontal Residuals