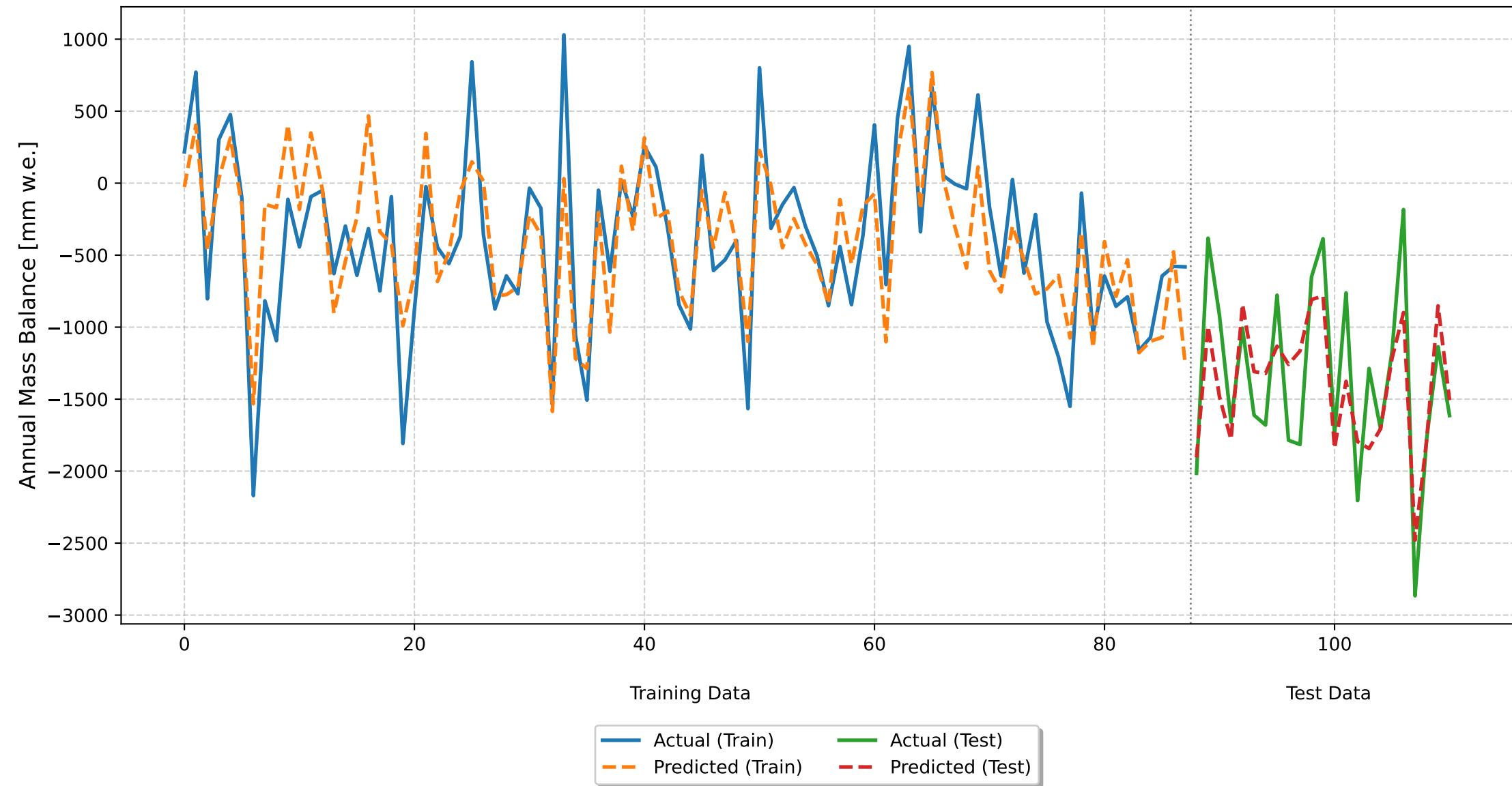


# Glacier Mass Balance Model Results: Grosser Aletschgletscher

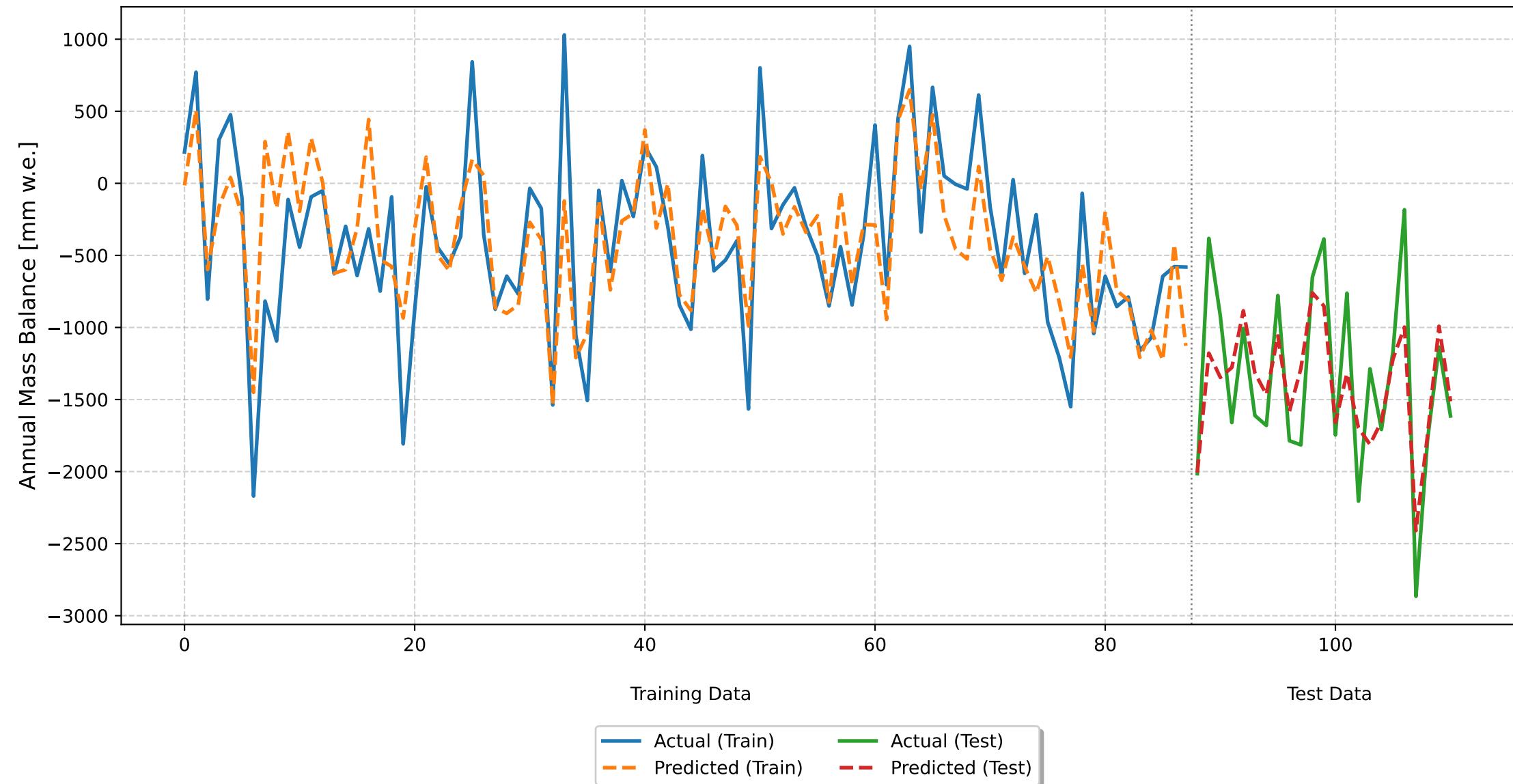
Monthly Deviations Model  
Time Series 80-20 Split  
CV RMSE: 484.80 ( $\pm 105.92$ )  
Train RMSE: 363.87, Test RMSE: 395.29  
Train R<sup>2</sup>: 0.6514, Test R<sup>2</sup>: 0.6204



## Monthly Deviations Model - Performance Metrics and Coefficients

Metric	Value
Cross-Validation RMSE	484.80 ( $\pm 105.92$ )
Training RMSE	363.87
Training R <sup>2</sup>	0.6514
Test RMSE	395.29
Test R <sup>2</sup>	0.6204
Feature	Coefficient
may_td	-135.7609
june_td	-144.0990
july_td	-230.3832
august_td	-80.2246
september_td	-114.2787
october_pd	131.7376
november_pd	107.9588
december_pd	123.6752
january_pd	69.3526
february_pd	47.9404
march_pd	32.8391
april_pd	-17.7641
Intercept	-399.0000

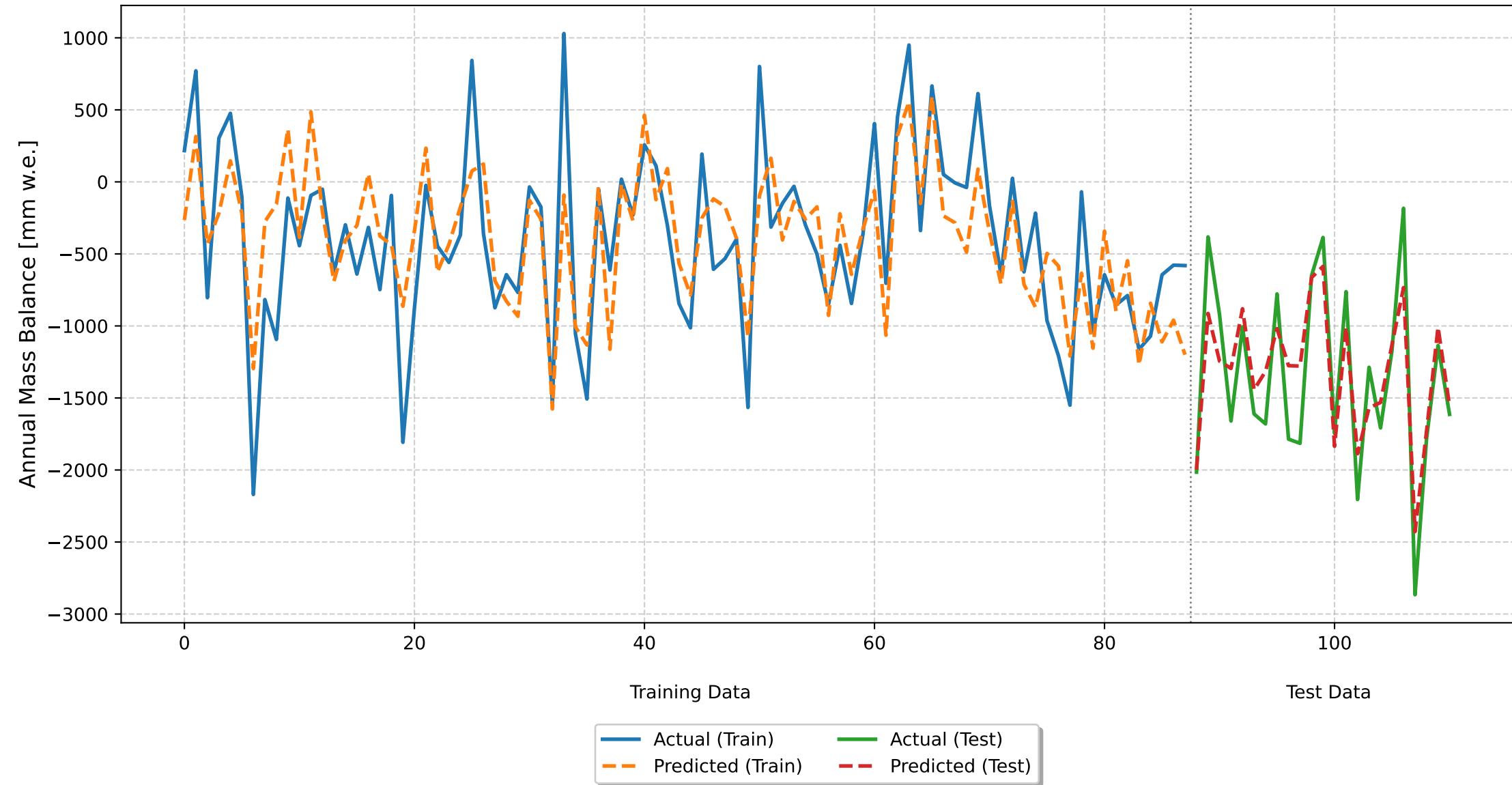
Seasonal Deviations Model  
Time Series 80-20 Split  
CV RMSE: 399.92 ( $\pm 66.73$ )  
Train RMSE: 394.61, Test RMSE: 390.13  
Train R<sup>2</sup>: 0.5900, Test R<sup>2</sup>: 0.6302



## Seasonal Deviations Model - Performance Metrics and Coefficients

Metric	Value
Cross-Validation RMSE	399.92 ( $\pm 66.73$ )
Training RMSE	394.61
Training R <sup>2</sup>	0.5900
Test RMSE	390.13
Test R <sup>2</sup>	0.6302
Feature	Coefficient
summer_temp_dev	-396.3760
winter_precip_dev	220.3379
Intercept	-399.0000

Optimal Seasonal Deviations Model  
Time Series 80-20 Split  
CV RMSE: 401.37 ( $\pm 89.27$ )  
Train RMSE: 401.85, Test RMSE: 305.31  
Train R<sup>2</sup>: 0.5748, Test R<sup>2</sup>: 0.7735



## Optimal Seasonal Deviations Model - Performance Metrics and Coefficients

Metric	Value
Cross-Validation RMSE	401.37 ( $\pm 89.27$ )
Training RMSE	401.85
Training R <sup>2</sup>	0.5748
Test RMSE	305.31
Test R <sup>2</sup>	0.7735
Feature	Coefficient
optimal_summer_temp_dev	-388.5778
optimal_winter_precip_dev	221.1221
Intercept	-399.0000