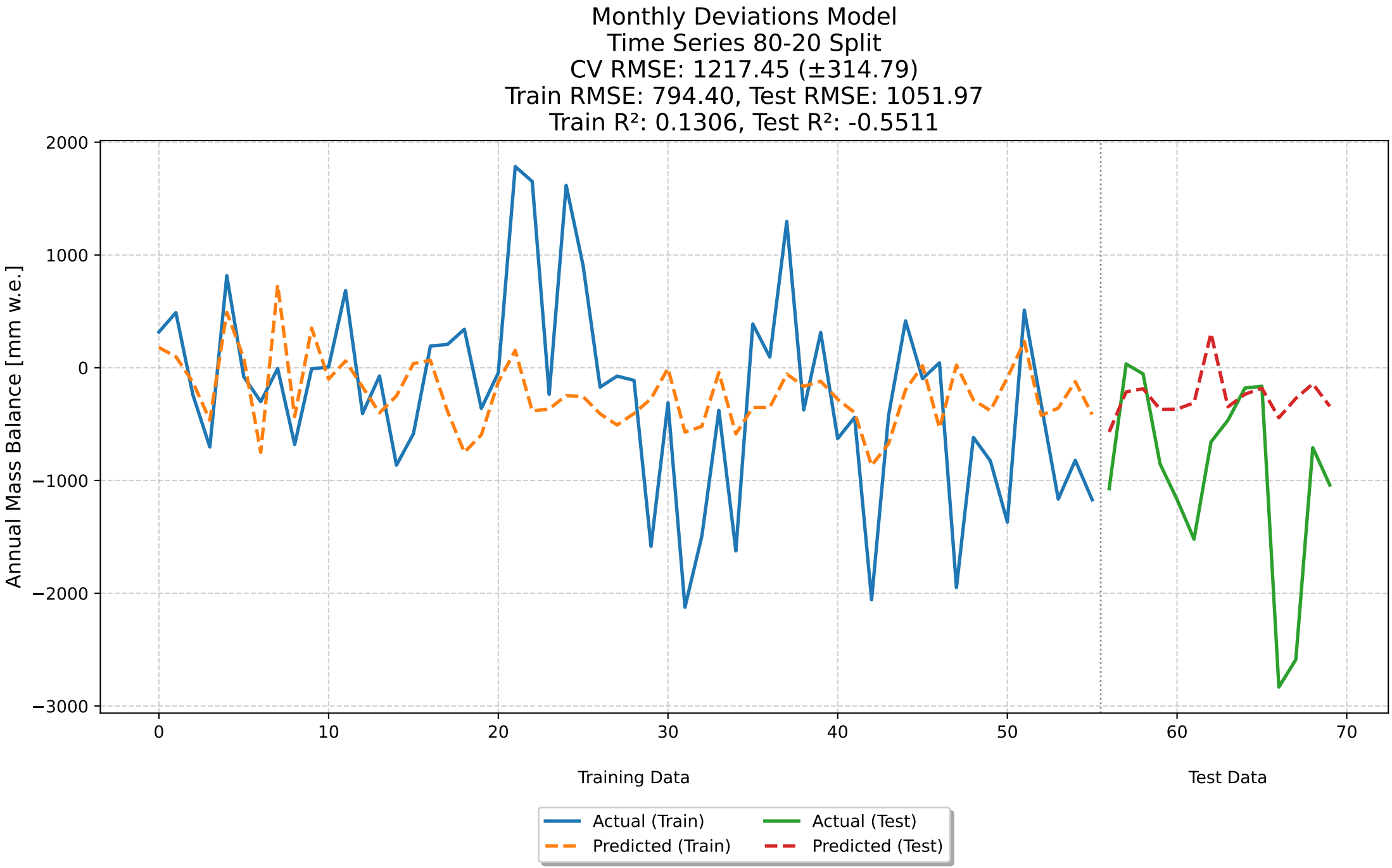
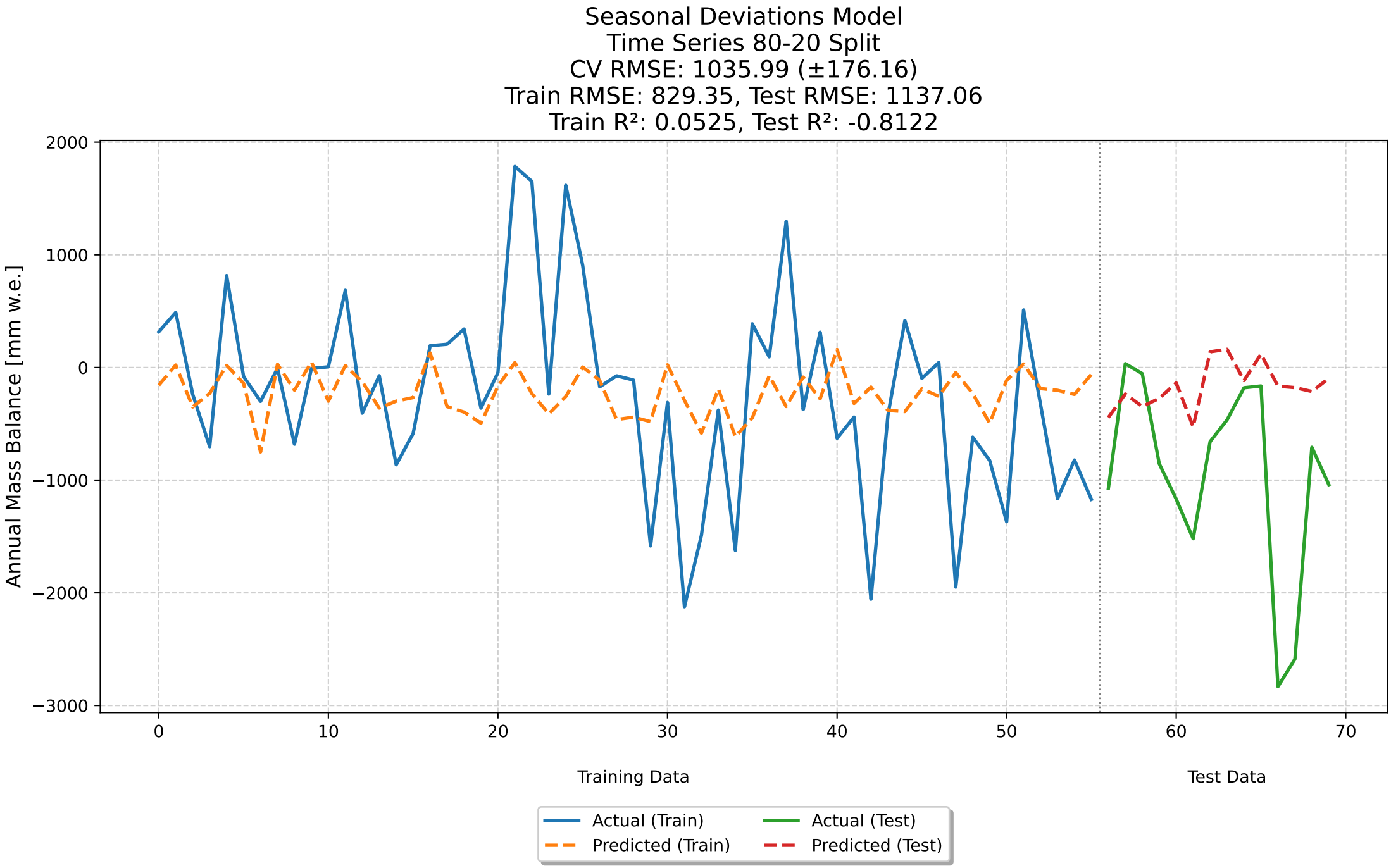
Glacier Mass Balance Model Results: Hohlaubgletscher


Monthly Deviations Model
Time Series 80-20 Split
CV RMSE: 1217.45 (±314.79)
Train RMSE: 794.40, Test RMSE: 1051.97
Train R²: 0.1306, Test R²: -0.5511
Annual Mass Balance [mm w.e.]
2000
1000
0
−1000
−2000
−3000
0
10
20
30
40
50
60
70
Training Data
Test Data
Actual (Train)
Predicted (Train)
Actual (Test)
Predicted (Test)

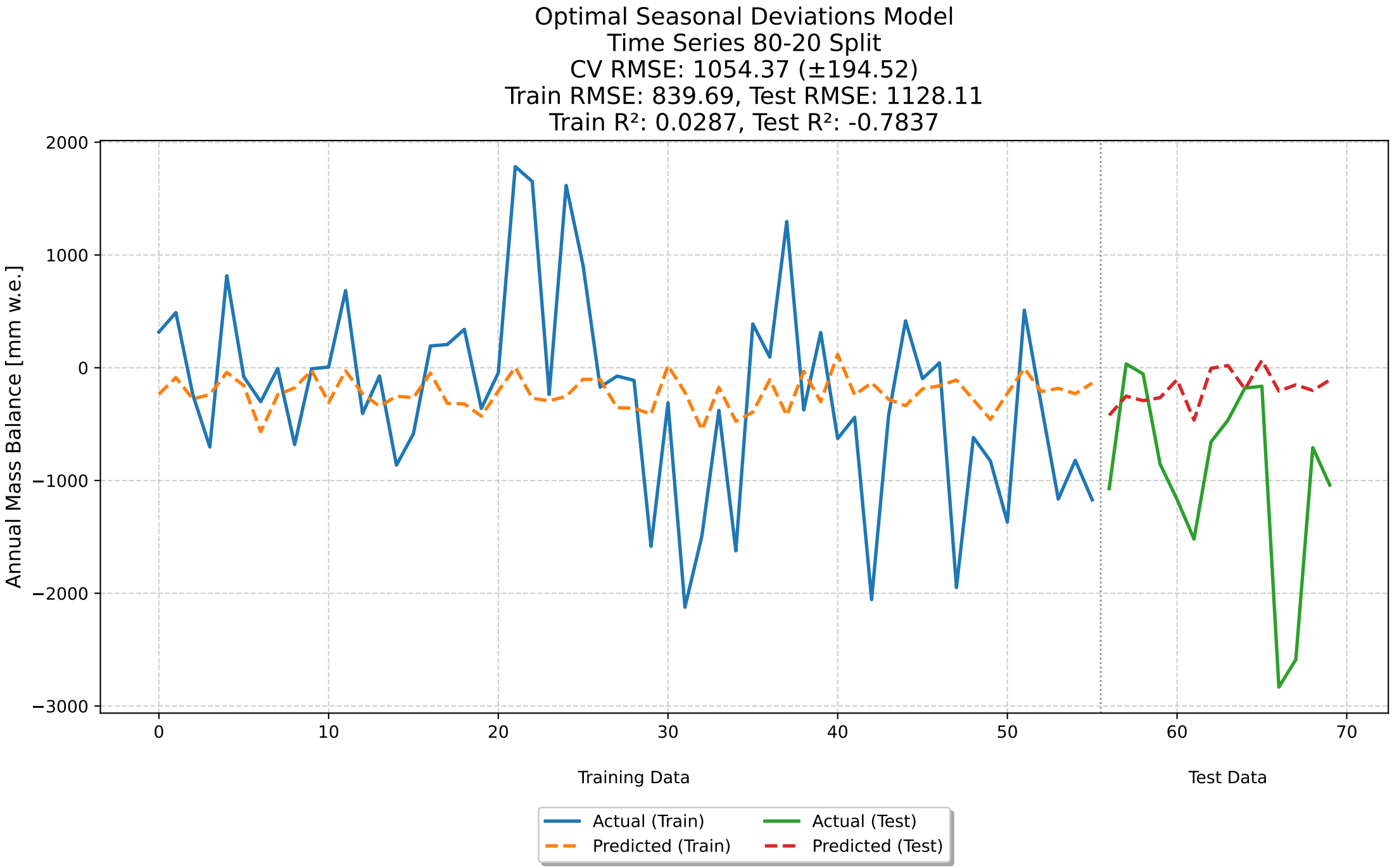
Monthly Deviations Model - Performance Metrics and Coefficients

Metric	Value
Cross-Validation RMSE	1217.45 (±314.79)
Training RMSE	794.40
Training R^2	0.1306
Test RMSE	1051.97
Test R^2	-0.5511
Feature	Coefficient
may_td	6.3643
june_td	50.9000
july_td	-92.7354
august_td	53.1215
september_td	-144.5698
october_pd	-5.3844
november_pd	35.6698
december_pd	193.0764
january_pd	7.6782
february_pd	-70.2096
march_pd	2.7541
april_pd	159.4791
Intercept	-225.9821


Seasonal Deviations Model
Time Series 80-20 Split
CV RMSE: 1035.99 (±176.16)
Train RMSE: 829.35, Test RMSE: 1137.06
Train R²: 0.0525, Test R²: -0.8122
Annual Mass Balance [mm w.e.]
2000
1000
0
−1000
−2000
−3000
0
10
20
30
40
50
60
70
Training Data
Test Data
Actual (Train)
Predicted (Train)
Actual (Test)
Predicted (Test)

Seasonal Deviations Model - Performance Metrics and Coefficients

Metric	Value
Cross-Validation RMSE	1035.99 (±176.16)
Training RMSE	829.35
Training R^2	0.0525
Test RMSE	1137.06
Test R^2	-0.8122
Feature	Coefficient
summer_temp_dev	-97.4297
winter_precip_dev	154.0672
Intercept	-225.9821


Optimal Seasonal Deviations Model
Time Series 80-20 Split
CV RMSE: 1054.37 (±194.52)
Train RMSE: 839.69, Test RMSE: 1128.11
Train R²: 0.0287, Test R²: -0.7837
Annual Mass Balance [mm w.e.]
2000
1000
0
−1000
−2000
−3000
0
10
20
30
40
50
60
70
Training Data
Test Data
Actual (Train)
Predicted (Train)
Actual (Test)
Predicted (Test)

Optimal Seasonal Deviations Model - Performance Metrics and Coefficients

Metric	Value
Cross-Validation RMSE	1054.37 (±194.52)
Training RMSE	839.69
Training R^2	0.0287
Test RMSE	1128.11
Test R^2	-0.7837
Feature	Coefficient
optimal_summer_temp_dev	-70.4155
optimal_winter_precip_dev	117.3592
Intercept	-225.9821