# **Report Generated by Test Manager**

Title: Branch: 1-hexarotorModelAddition

**Author:** Previous Commit Hash: 78160a19360e77

63db602dd690dd524f1cd25b5a

**Date:** 06-May-2025 13:49:37

# **Test Environment**

Platform: PCWIN64 MATLAB: (R2024a)

# Summary

Name	Outcome	Duration (Seconds)
Results: 2025-May-06 13:49:16	12 🗹	20.002
<u>hexarotor</u>	5 🗷	8.086
☐ <u>Vehicle Tests</u>	5 🗷	8.087
hexAero	•	2.552
hexAddFM	•	1.238
hexGroundContact	•	1.109
hexMotorModel	•	1.433
hexAeroCoefficientsModel	•	0.982
sensors sensors	4 🗸	5.712
Sensor Tests	4 🗸	5.712
ins ins	•	1.293
I <u>Iteration1</u>	•	1.293
adc adc	•	1.157
I <u>Iteration1</u>	•	1.158
<b>■</b> g <u>ps</u>	<b>⊘</b>	1.224
I <u>Iteration1</u>	<b>⊘</b>	1.224
sensors sensors	<b>⊘</b>	1.549
I <u>Iteration1</u>	<b>⊘</b>	1.549
environment	3 🗸	4.09
Environment Tests	3 🗸	4.091
<u>Air</u>	<b>⊘</b>	1.015
I <u>Iteration1</u>	•	1.015
Earth Earth	•	2.191
I <u>Iteration1</u>	•	2.191
<u>LocalTerrain</u>	<b>②</b>	0.717

# Results: 2025-May-06 13:49:16

Result Type: Result Set Parent: None

Start Time: 06-May-2025 13:49:17 End Time: 06-May-2025 13:49:37 Outcome: Total: 12, Passed: 12

**Back to Report Summary** 

### hexarotor

### **Test Result Information**

Result Type: Test File Result

Parent: <u>Results: 2025-May-06 13:49:16</u>

Start Time: 06-May-2025 13:49:17 End Time: 06-May-2025 13:49:25 Outcome: Total: 5, Passed: 5

#### **Test Suite Information**

Name: hexarotor

**Back to Report Summary** 

# **Vehicle Tests**

#### **Test Result Information**

Result Type: Test Suite Result

Parent: <u>hexarotor</u>

Start Time: 06-May-2025 13:49:17 End Time: 06-May-2025 13:49:25 Outcome: Total: 5, Passed: 5

#### **Test Suite Information**

Name: Vehicle Tests

**Back to Report Summary** 

# hexAero

# **Test Result Information**

Result Type: Test Case Result Parent: Vehicle Tests

Start Time: 06-May-2025 13:49:17 End Time: 06-May-2025 13:49:19

Outcome: Passed

# **Test Case Information**

Name: hexAero Type: Baseline Test

# **Verify Result**

Name
Test Sequence1//CheckDnPitchNoYaw:verify(aeroForcesMomentsBus.forcesInBody_N(1) < 0)
Test Sequence1//CheckDnPitchNoYaw:verify(isClose(aeroForcesMomentsBus.forcesInBody_N(2), 0))
☑ Test Sequence1//CheckDnPitchNoYaw:verify(aeroForcesMomentsBus.forcesInBody_N(3) > 0)
Test Sequence1//CheckDnPitchNoYaw:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(1), 0))
Test Sequence1//CheckDnPitchNoYaw:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(2), 0))
Test Sequence1//CheckDnPitchNoYaw:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(3), 0))
Test Sequence1//CheckDnPitchNoYaw:verify(isClose(airDataBus.airspeedInBody_mps(1), 10))
Test Sequence1//CheckDnPitchNoYaw:verify(isClose(airDataBus.airspeedInBody_mps(2), 0))
Test Sequence1//CheckDnPitchNoYaw:verify(isClose(airDataBus.airspeedInBody_mps(3), -1))
Test Sequence1//CheckDnPitchNoYaw:verify(isClose(airDataBus.alpha_rad, -0.1, 'rtol',0.01))
Test Sequence1//CheckDnPitchNoYaw:verify(isClose(airDataBus.beta_rad, 0, 'rtol',0.01))
Test Sequence1//CheckUpPitchNoYaw:verify(aeroForcesMomentsBus.forcesInBody_N(1) < 0)
Test Sequence1//CheckUpPitchNoYaw:verify(isClose(aeroForcesMomentsBus.forcesInBody_N(2), 0))
Test Sequence1//CheckUpPitchNoYaw:verify(aeroForcesMomentsBus.forcesInBody_N(3) < 0)
Test Sequence1//CheckUpPitchNoYaw:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(1), 0))
Test Sequence1//CheckUpPitchNoYaw:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(2), 0))
Test Sequence1//CheckUpPitchNoYaw:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(3), 0))
Test Sequence1//CheckUpPitchNoYaw:verify(isClose(airDataBus.airspeedInBody_mps(1), 10))
Test Sequence1//CheckUpPitchNoYaw:verify(isClose(airDataBus.airspeedInBody_mps(2), 0))
Test Sequence1//CheckUpPitchNoYaw:verify(isClose(airDataBus.airspeedInBody_mps(3), 1))
Test Sequence1//CheckUpPitchNoYaw:verify(isClose(airDataBus.alpha_rad, 0.1, 'rtol',0.01))

Test Sequence1//CheckUpPitchNoYaw:verify(isClose(airDataBus.beta_rad, 0, 'rtol',0.01))
Test Sequence1//CheckDnPitchNoseLeft:verify(aeroForcesMomentsBus.forcesInBody_N(1) < 0)
Test Sequence1//CheckDnPitchNoseLeft:verify(aeroForcesMomentsBus.forcesInBody_N(2) < 0)
Test Sequence1//CheckDnPitchNoseLeft:verify(aeroForcesMomentsBus.forcesInBody_N(3) > 0)
Test Sequence1//CheckDnPitchNoseLeft:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(1), 0))
Test Sequence1//CheckDnPitchNoseLeft:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(2), 0))
Test Sequence1//CheckDnPitchNoseLeft:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(3), 0))
Test Sequence1//CheckDnPitchNoseLeft:verify(isClose(airDataBus.airspeedInBody_mps(1), 10))
Test Sequence1//CheckDnPitchNoseLeft:verify(isClose(airDataBus.airspeedInBody_mps(2), 1))
Test Sequence1//CheckDnPitchNoseLeft:verify(isClose(airDataBus.airspeedInBody_mps(3), -1))
Test Sequence1//CheckDnPitchNoseLeft:verify(isClose(airDataBus.alpha_rad, -0.1, 'rtol',0.01))
Test Sequence1//CheckDnPitchNoseLeft:verify(isClose(airDataBus.beta_rad, 0.1, 'rtol',0.01))
Test Sequence1//CheckDnPitchNoseRight:verify(aeroForcesMomentsBus.forcesInBody_N(1) < 0)
Test Sequence1//CheckDnPitchNoseRight:verify(aeroForcesMomentsBus.forcesInBody_N(2) > 0)
Test Sequence1//CheckDnPitchNoseRight:verify(aeroForcesMomentsBus.forcesInBody_N(3) > 0)
Test Sequence1//CheckDnPitchNoseRight:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(1), 0))
Test Sequence1//CheckDnPitchNoseRight:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(2), 0))
Test Sequence1//CheckDnPitchNoseRight:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(3), 0))
Test Sequence1//CheckDnPitchNoseRight:verify(isClose(airDataBus.airspeedInBody_mps(1), 10))
Test Sequence1//CheckDnPitchNoseRight:verify(isClose(airDataBus.airspeedInBody_mps(2), -1))
Test Sequence1//CheckDnPitchNoseRight:verify(isClose(airDataBus.airspeedInBody_mps(3), -1))
Test Sequence1//CheckDnPitchNoseRight:verify(isClose(airDataBus.alpha_rad, -0.1, 'rtol',0.01))
Test Sequence1//CheckDnPitchNoseRight:verify(isClose(airDataBus.beta_rad, -0.1, 'rtol',0.01))
■ Test Sequence1//CheckUpPitchNoseRightWind:verify(aeroForcesMomentsBus.forcesInBody_N(1) < 0)
Test Sequence1//CheckUpPitchNoseRightWind:verify(aeroForcesMomentsBus.forcesInBody_N(2) > 0)
■ Test Sequence1//CheckUpPitchNoseRightWind:verify(aeroForcesMomentsBus.forcesInBody_N(3) < 0)
Test Sequence1//CheckUpPitchNoseRightWind:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(1), 0))
Test Sequence1//CheckUpPitchNoseRightWind:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(2), 0))
Test Sequence1//CheckUpPitchNoseRightWind:verify(isClose(aeroForcesMomentsBus.momentsInBody_Nm(3), 0))
Test Sequence1//CheckUpPitchNoseRightWind:verify(isClose(airDataBus.airspeedInBody_mps(1), 10, 'rtol',0.1))
Test Sequence1//CheckUpPitchNoseRightWind:verify(isClose(airDataBus.airspeedInBody_mps(2), -1, 'rtol',0.1))
Test Sequence1//CheckUpPitchNoseRightWind:verify(isClose(airDataBus.airspeedInBody_mps(3), 1, 'rtol',0.1))
Test Sequence1//CheckUpPitchNoseRightWind:verify(isClose(airDataBus.alpha_rad, 0.1, 'rtol',0.1))
Test Sequence1//CheckUpPitchNoseRightWind:verify(isClose(airDataBus.beta_rad, -0.1, 'rtol',0.1))

### **Simulation**

## **System Under Test Information**

Model: hexAero

Harness: hexAeroTestHarness

Harness Owner: hexAero Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration

Start Time: 0 Stop Time: 5.024

Checksum: 2508330184 3522135311 2581022549 2850232783

## Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

# **Back to Report Summary**

# hexAddFM

### **Test Result Information**

Result Type: Test Case Result Parent: Vehicle Tests

Start Time: 06-May-2025 13:49:20 End Time: 06-May-2025 13:49:21

Outcome: Passed

#### **Test Case Information**

Name: hexAddFM Type: Baseline Test

# **Verify Result**

Name
Test Sequence1//Test1:verify(all(isClose(aircraftForcesMomentsBus.forcesInBody_N, aeroForcesMomentsBus.forcesInBody_N + e
ngineForcesMomentsBus.forcesInBody_N + groundForcesMomentsBus.forcesInBody_N + weightForcesMomentsBus.forcesInBody_N)
))
Test Sequence1//Test1:verify(all(isClose(aircraftForcesMomentsBus.momentsInBody_Nm, engineForcesMomentsBus.momentsIn
Body_Nm + aeroForcesMomentsBus.momentsInBody_Nm + weightForcesMomentsBus.momentsInBody_Nm + groundForcesMoments
Bus.momentsInBody_Nm)))
Test Sequence1//Test2:verify(all(isClose(aircraftForcesMomentsBus.forcesInBody_N, aeroForcesMomentsBus.forcesInBody_N + e
ngineForcesMomentsBus.forcesInBody_N + groundForcesMomentsBus.forcesInBody_N + weightForcesMomentsBus.forcesInBody_N)
))
Test Sequence1//Test2:verify(all(isClose(aircraftForcesMomentsBus.momentsInBody_Nm, aeroForcesMomentsBus.momentsInB
ody_Nm + engineForcesMomentsBus.momentsInBody_Nm + weightForcesMomentsBus.momentsInBody_Nm + groundForcesMoments
sBus.momentsInBody_Nm)))

#### **Simulation**

# **System Under Test Information**

Model: hexAddFm

Harness: hexAddFmTestHarness

Harness Owner: hexAddFm Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration

Test Sequence Block: hexAddFmTestHarness/Test Sequence1

Test Sequence Scenario: Scenario\_1

Start Time: 0 Stop Time: 3.012

Checksum: 1105659589 4136729376 4074788328 2150945003

## Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

## **Back to Report Summary**

## hexGroundContact

#### **Test Result Information**

Result Type: Test Case Result Parent: Vehicle Tests

Start Time: 06-May-2025 13:49:21 End Time: 06-May-2025 13:49:22

Outcome: Passed

#### **Test Case Information**

Name: hexGroundContact

Type: Baseline Test

#### **Simulation**

# System Under Test Information

Model: hexGroundContact

Harness: hexGroundContactTestHarness

Harness Owner: hexGroundContact

Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration

Test Sequence Block: hexGroundContactTestHarness/Test Sequence

Test Sequence Scenario: Scenario\_1

Start Time: 0

Stop Time: 0.004000000000000001

Checksum: 1947350973 3930521946 2397348193 14377200

Simulation Logs:

No data is logged for the model 'hexGroundContactTestHarness'.

# **Back to Report Summary**

# Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

# **Back to Report Summary**

# hexMotorModel

### **Test Result Information**

Result Type: Test Case Result Parent: Vehicle Tests

Start Time: 06-May-2025 13:49:22 End Time: 06-May-2025 13:49:24

Outcome: Passed

# **Test Case Information**

Name: hexMotorModel Type: Baseline Test

# **Verify Result**

Name
Test Sequence//verifyNoSpin:verify(isClose(sum(propulsionBus.rotorAngVel_radps),0))
Test Sequence//verifyNoSpin:verify(isClose(sum(propulsionBus.engineForcesMoments.forcesInBody_N),0))
Test Sequence//verifyNoSpin:verify(isClose(sum(propulsionBus.engineForcesMoments.momentsInBody_Nm),0))
Test Sequence//verifyControllerArm:verify(isClose(sum(propulsionBus.rotorAngVel_radps)/6, 3473 * rpm2radps ))
Test Sequence//verifyControllerArm:verify(propulsionBus.engineForcesMoments.forcesInBody_N(3) < 0)
Test Sequence//verifyControllerArm:verify(isClose(sum(propulsionBus.engineForcesMoments.momentsInBody_Nm(3)), 0))
Test Sequence//verifyOutputNoChange:verify(isClose(propulsionBus.engineForcesMoments.forcesInBody_N(1),maxForce(1)))
Test Sequence//verifyOutputNoChange:verify(isClose(propulsionBus.engineForcesMoments.forcesInBody_N(2),maxForce(2)))

Test Sequence//verifyOutputNoChange:verify(isClose(propulsionBus.engineForcesMoments.forcesInBody_N(3),maxForce(3))
Test Sequence//verifyOutputNoChange:verify(isClose(maxAngVel_radps,propulsionBus.rotorAngVel_radps(1)))
Test Sequence//verifyMotor1OnlyRunning:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(1) < 0)
Test Sequence//verifyMotor1OnlyRunning:verify(isClose(propulsionBus.engineForcesMoments.momentsInBody_Nm(2), 0))
Test Sequence//verifyMotor1OnlyRunning:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(3) < 0)
Test Sequence//verifyMotor1OnlyRunning:verify(isClose(propulsionBus.engineForcesMoments.forcesInBody_N(3),maxForce
/ 6))
Test Sequence//verifyMotor2OnlyRunning:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(1) > 0)
Test Sequence//verifyMotor2OnlyRunning:verify(isClose(propulsionBus.engineForcesMoments.momentsInBody_Nm(2), 0))
Test Sequence//verifyMotor2OnlyRunning:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(3) > 0)
Test Sequence//verifyMotor2OnlyRunning:verify(isClose(propulsionBus.engineForcesMoments.forcesInBody_N(3),maxForce
/ 6))
Test Sequence//verifyMotor3:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(1) > 0)
Test Sequence//verifyMotor3:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(2) > 0)
Test Sequence//verifyMotor3:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(3) < 0)
Test Sequence//verifyMotor3:verify(isClose(propulsionBus.engineForcesMoments.forcesInBody_N(3),maxForce(3) / 6))
Test Sequence//verifyMotor4:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(1) < 0)
Test Sequence//verifyMotor4:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(2) < 0)
Test Sequence//verifyMotor4:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(3) > 0)
Test Sequence//verifyMotor4:verify(isClose(propulsionBus.engineForcesMoments.forcesInBody_N(3),maxForce(3) / 6))
Test Sequence//verifyMotor5:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(1) < 0)
Test Sequence//verifyMotor5:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(2) > 0)
Test Sequence//verifyMotor5:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(3) < 0)
Test Sequence//verifyMotor5:verify(isClose(propulsionBus.engineForcesMoments.forcesInBody_N(3),maxForce(3) / 6))
Test Sequence//verifyMotor6:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(1) > 0)
Test Sequence//verifyMotor6:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(2) < 0)
Test Sequence//verifyMotor6:verify(propulsionBus.engineForcesMoments.momentsInBody_Nm(3) > 0)
Test Sequence//verifyMotor6:verify(isClose(propulsionBus.engineForcesMoments.forcesInBody_N(3),maxForce(3) / 6))
Test Sequence//verifyOutputZero:verify(isClose(sum(propulsionBus.rotorAngVel_radps),0))
Test Sequence//verifyOutputZero:verify(isClose(sum(propulsionBus.engineForcesMoments.forcesInBody_N),0))
Test Sequence//verifyOutputZero:verify(isClose(sum(propulsionBus.engineForcesMoments.momentsInBody_Nm),0))

# Simulation

# **System Under Test Information**

Model: hexMotorModel

Harness: hexMotorModelTestHarness

Harness Owner: hexMotorModel

Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration

Test Sequence Block: hexMotorModelTestHarness/Test Sequence

Test Sequence Scenario: Scenario\_1

Start Time: 0

Stop Time: 10.044

Checksum: 462101642 3654188142 2552653443 1389725198

#### Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

## **Back to Report Summary**

### hexAeroCoefficientsModel

#### **Test Result Information**

Result Type: Test Case Result Parent: Vehicle Tests

Start Time: 06-May-2025 13:49:24 End Time: 06-May-2025 13:49:25

Outcome: Passed

#### **Test Case Information**

Name: hexAeroCoefficientsModel

Type: Baseline Test

**Verify Result** 

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Test Sequence//checkNoseDn:verify(CF(1) < 0)
Test Sequence//checkNoseDn:verify(isClose(CF(2), 0))
Test Sequence//checkNoseDn:verify(CF(3) > 0)
Test Sequence//checkNoseDn:verify(isClose(CM(1), 0))
Test Sequence//checkNoseDn:verify(isClose(CM(2), 0))
Test Sequence//checkNoseDn:verify(isClose(CM(3), 0))
Test Sequence//checkNoseUp:verify(CF(1) < 0)
Test Sequence//checkNoseUp:verify(isClose(CF(2), 0))
☑ Test Sequence//checkNoseUp:verify(CF(3) < 0)
☑ Test Sequence//checkNoseUp:verify(isClose(CM(1), 0))
☑ Test Sequence//checkNoseUp:verify(isClose(CM(2), 0))
☑ Test Sequence//checkNoseUp:verify(isClose(CM(3), 0))
☑ Test Sequence//checkNoseDnLeft:verify(CF(1) < 0)
☑ Test Sequence//checkNoseDnLeft:verify(CF(2) < 0)
✓ Test Sequence//checkNoseDnLeft:verify(CF(3) > 0)
Test Sequence//checkNoseDnLeft:verify(isClose(CM(1), 0))
Test Sequence//checkNoseDnLeft:verify(isClose(CM(2), 0))
✓ Test Sequence//checkNoseDnLeft:verify(isClose(CM(3), 0))
✓ Test Sequence//checkNoseDnRight:verify(CF(1) < 0)
☑ Test Sequence//checkNoseDnRight:verify(CF(2) > 0)
✓ Test Sequence//checkNoseDnRight:verify(CF(3) > 0)
Test Sequence//checkNoseDnRight:verify(isClose(CM(1), 0))
Test Sequence//checkNoseDnRight:verify(isClose(CM(2), 0))
Test Sequence//checkNoseDnRight:verify(isClose(CM(3), 0))

# **Simulation**

# **System Under Test Information**

Model: hexAeroCoefficientsModel

Harness: hexAeroCoefficientsModelTestHarness

Harness Owner: hexAeroCoefficientsModel

Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration

Test Sequence Block: hexAeroCoefficientsModelTestHarness/Test

Sequence

Test Sequence Scenario: Scenario\_1

Start Time: 0

Stop Time: 4.02000000000005

Checksum: 695379032 3674786713 3823592554 390687074

Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

**Back to Report Summary** 

#### sensors

#### **Test Result Information**

Result Type: Test File Result

Parent: Results: 2025-May-06 13:49:16

Start Time: 06-May-2025 13:49:25 End Time: 06-May-2025 13:49:31 Outcome: Total: 4, Passed: 4

### **Test Suite Information**

Name: sensors

**Back to Report Summary** 

# **Sensor Tests**

#### **Test Result Information**

Result Type: Test Suite Result

Parent: <u>sensors</u>

Start Time: 06-May-2025 13:49:25

End Time: 06-May-2025 13:49:31 Outcome: Total: 4, Passed: 4

#### **Test Suite Information**

Name: Sensor Tests

**Back to Report Summary** 

## ins

### **Test Result Information**

Result Type: Test Case Result Parent: Sensor Tests

Start Time: 06-May-2025 13:49:25 End Time: 06-May-2025 13:49:27

Outcome: Passed

# **Test Case Information**

Name: ins

Type: Baseline Test

# Iteration1

# **Test Result Information**

Result Type: Test Iteration Result

Parent: <u>ins</u>

Start Time: 06-May-2025 13:49:25 End Time: 06-May-2025 13:49:27

Outcome: Passed

#### **Test Case Information**

Name: Iteration1
Type: Baseline Test

# **Iteration Settings**

### **Test Overrides**

Parameter Name	Value
TestSequenceScena	Scenario_1
rio	

# **Verify Result**

Name
Test Sequence//checkInsStatic:verify(isClose(INSSensorBus.GyroSensorBus.x_radps, 0, 'atol', 0.01))
Test Sequence//checkInsStatic:verify(isClose(INSSensorBus.GyroSensorBus.y_radps, 0, 'atol', 0.01))
Test Sequence//checkInsStatic:verify(isClose(INSSensorBus.GyroSensorBus.z_radps, 0, 'atol', 0.01))
Test Sequence//checkInsStatic:verify(isClose(INSSensorBus.AccelSensorBus.x_mps2, 0, 'atol', 0.01))
Test Sequence//checkInsStatic:verify(isClose(INSSensorBus.AccelSensorBus.y_mps2, 0, 'atol', 0.01))
Test Sequence//checkInsStatic:verify(isClose(INSSensorBus.AccelSensorBus.z_mps2, 0, 'atol', 0.01))
Test Sequence//checkInsDynamic:verify(isClose(INSSensorBus.GyroSensorBus.x_radps, 0.1, 'atol', 0.01))
Test Sequence//checkInsDynamic:verify(isClose(INSSensorBus.GyroSensorBus.y_radps, 0.2, 'atol', 0.01))
Test Sequence//checkInsDynamic:verify(isClose(INSSensorBus.GyroSensorBus.z_radps, 0.3, 'atol', 0.01))
Test Sequence//checkInsDynamic:verify(isClose(INSSensorBus.MagSensorBus.x_Gauss, 0, 'atol', 0.01))
Test Sequence//checkInsDynamic:verify(isClose(INSSensorBus.MagSensorBus.y_Gauss, 0, 'atol', 0.01))
Test Sequence//checkInsDynamic:verify(isClose(INSSensorBus.MagSensorBus.z_Gauss, 0, 'atol', 0.01))
Test Sequence//checkInsDynamic:verify(isClose(INSSensorBus.AccelSensorBus.x_mps2, 1, 'atol', 0.01))
Test Sequence//checkInsDynamic:verify(isClose(INSSensorBus.AccelSensorBus.y_mps2, 2, 'atol', 0.01))
Test Sequence//checkInsDynamic:verify(isClose(INSSensorBus.AccelSensorBus.z_mps2, 3, 'atol', 0.01))

### **Simulation**

# **System Under Test Information**

Model: ins

Harness: insTestHarness

Harness Owner: ins

Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration
Test Sequence Block: insTestHarness/Test Sequence

Test Sequence Scenario: Scenario\_1

Start Time: 0

Stop Time: 10.00800000000001

Checksum: 3180580520 4092729406 197588729 847202452

## Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

# **Back to Report Summary**

# adc

### **Test Result Information**

Result Type: Test Case Result Parent: Sensor Tests

Start Time: 06-May-2025 13:49:27 End Time: 06-May-2025 13:49:28

Outcome: Passed

### **Test Case Information**

Name: adc

Type: Baseline Test

# Iteration1

# **Test Result Information**

Result Type: Test Iteration Result

Parent: adc

Start Time: 06-May-2025 13:49:27 End Time: 06-May-2025 13:49:28

Outcome: Passed

# **Test Case Information**

Name: Iteration1
Type: Baseline Test

# **Iteration Settings**

# **Test Overrides**

Parameter Name	Value
TestSequenceScena	Scenario_1
rio	

# **Verify Result**

Name
Test Sequence//checkSensors:verify(isClose(ADCSensorBus.BaroSensorBus.altitude_m, 0, 'atol', 20))
Test Sequence//checkSensors:verify(isClose(ADCSensorBus.BaroSensorBus.pressure_pa, 101325, 'atol', 100))
Test Sequence//checkSensors:verify(isClose(ADCSensorBus.BaroSensorBus.temperature_degC, 15, 'atol', 2))
Test Sequence//checkSensors:verify(isClose(ADCSensorBus.DiffPressureSensorBus.differential_pressure_pa, 0, 'atol', 100))
Test Sequence//checkSensors:verify(isClose(ADCSensorBus.DiffPressureSensorBus.temperature_degC, 15, 'atol', 2))
Test Sequence//checkSensors10kft:verify(isClose(ADCSensorBus.BaroSensorBus.altitude_m, 3048, 'atol', 20))
Test Sequence//checkSensors10kft:verify(isClose(ADCSensorBus.BaroSensorBus.pressure_pa, 69681.66, 'atol', 100))
Test Sequence//checkSensors10kft:verify(isClose(ADCSensorBus.BaroSensorBus.temperature_degC, -4.8, 'atol', 2))
Test Sequence//checkSensors10kft:verify(isClose(ADCSensorBus.DiffPressureSensorBus.differential_pressure_pa, 0, 'atol', 100))
Test Sequence//checkSensors10kft:verify(isClose(ADCSensorBus.DiffPressureSensorBus.temperature_degC, -4.8, 'atol', 2))
Test Sequence//checkSensors20kft:verify(isClose(ADCSensorBus.BaroSensorBus.altitude_m, 6096, 'atol', 20))
Test Sequence//checkSensors20kft:verify(isClose(ADCSensorBus.BaroSensorBus.pressure_pa, 46563.26, 'atol', 100))
Test Sequence//checkSensors20kft:verify(isClose(ADCSensorBus.BaroSensorBus.temperature_degC, -24.624, 'atol', 2))
Test Sequence//checkSensors20kft:verify(isClose(ADCSensorBus.DiffPressureSensorBus.differential_pressure_pa, 0, 'atol', 100))
Test Sequence//checkSensors20kft:verify(isClose(ADCSensorBus.DiffPressureSensorBus.temperature_degC, -24.624, 'atol', 2))
Test Sequence//checkDiffPress:verify(ADCSensorBus.DiffPressureSensorBus.differential_pressure_pa > 0)

# **Simulation**

# **System Under Test Information**

Model: adc

Harness: adcTestHarness

Harness Owner: adc

Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration
Test Sequence Block: adcTestHarness/Test Sequence

Test Sequence Scenario: Scenario\_1

Start Time: 0

Stop Time: 0.03200000000000001

Checksum: 2809421967 1308668717 4053094731 2792199182

### Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

# **Back to Report Summary**

# gps

#### **Test Result Information**

Result Type: Test Case Result Parent: Sensor Tests

Start Time: 06-May-2025 13:49:28 End Time: 06-May-2025 13:49:29

Outcome: Passed

# **Test Case Information**

Name: gps

Type: Baseline Test

# Iteration1

#### **Test Result Information**

Test Iteration Result Result Type:

Parent:

gps 06-May-2025 13:49:28 Start Time: End Time: 06-May-2025 13:49:29

Passed Outcome:

# **Test Case Information**

Iteration1 Name: Type: **Baseline Test** 

# **Iteration Settings**

# **Test Overrides**

	Parameter Name	Value	
	TestSequenceScena	Scenario_1	
	rio		

# **Verify Result**

Name		
Test Sequence//checkGpsStatic:verify(isClose(GPSSensorBus.lat_deg, referenceLatitude_deg))		
Test Sequence//checkGpsStatic:verify(isClose(GPSSensorBus.lon_deg, referenceLongitude_deg))		
Test Sequence//checkGpsStatic:verify(isClose(GPSSensorBus.alt_m, terrainHeightNED_m, 'atol', 0.5))		
Test Sequence//checkGpsStatic:verify(isClose(GPSSensorBus.vel_mps, 0, 'atol', 0.5))		
Test Sequence//checkGpsStatic:verify(isClose(GPSSensorBus.vel_n_mps, 0, 'atol', 0.5))		
☑ Test Sequence//checkGpsStatic:verify(isClose(GPSSensorBus.vel_e_mps, 0, 'atol', 0.5))		
☑ Test Sequence//checkGpsStatic:verify(isClose(GPSSensorBus.vel_d_mps, 0, 'atol', 0.5))		
Test Sequence//checkHighDynamic:verify(isClose(GPSSensorBus.lat_deg, referenceLatitude_deg))		
Test Sequence//checkHighDynamic:verify(isClose(GPSSensorBus.lon_deg, referenceLongitude_deg))		
☑ Test Sequence//checkHighDynamic:verify(isClose(GPSSensorBus.alt_m, 3048 + terrainHeightNED_m))		
Test Sequence//checkHighDynamic:verify(isClose(GPSSensorBus.vel_mps, norm([10 20 30]), 'rtol', 0.8))		
Test Sequence//checkHighDynamic:verify(isClose(GPSSensorBus.vel_n_mps, 10, 'rtol', 0.1))		
Test Sequence//checkHighDynamic:verify(isClose(GPSSensorBus.vel_e_mps, 20, 'rtol', 0.1))		
Test Sequence//checkHighDynamic:verify(isClose(GPSSensorBus.vel_d_mps, 30, 'rtol', 0.1))		

### **Simulation**

## **System Under Test Information**

Model: gps

Harness: gpsTestHarness

Harness Owner: gps
Release: Current
Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration
Test Sequence Block: gpsTestHarness/Test Sequence

Test Sequence Scenario: Scenario\_1

Start Time: 0 Stop Time: 0.016

Checksum: 1261040433 1750074340 274485945 283260561

## Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

# **Back to Report Summary**

#### sensors

#### **Test Result Information**

Result Type: Test Case Result Parent: Sensor Tests

Start Time: 06-May-2025 13:49:29 End Time: 06-May-2025 13:49:31

Outcome: Passed

#### **Test Case Information**

Name: sensors

Type: Baseline Test

# Iteration1

# **Test Result Information**

Result Type: Test Iteration Result

Parent: sensors

Start Time: 06-May-2025 13:49:29 End Time: 06-May-2025 13:49:31

Outcome: Passed

### **Test Case Information**

Name: Iteration1
Type: Baseline Test

# **Iteration Settings**

#### **Test Overrides**

Parameter Name	Value
TestSequenceScena	Scenario_1
rio	

#### **Simulation**

# **System Under Test Information**

Model: sensors

Harness: sensorsTestHarness

Harness Owner: sensors
Release: Current
Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration

Test Sequence Block: sensorsTestHarness/Test Sequence

Test Sequence Scenario: Scenario\_1

Start Time: 0

Stop Time: 0.2000000000000001

Checksum: 3685639760 4247597233 3511659855 3311356939

## Simulation Logs:

No data is logged for the model 'sensorsTestHarness'.

# **Back to Report Summary**

# Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

# **Back to Report Summary**

# environment

#### **Test Result Information**

Result Type: Test File Result

Parent: <u>Results: 2025-May-06 13:49:16</u>

Start Time: 06-May-2025 13:49:31 End Time: 06-May-2025 13:49:35 Outcome: Total: 3, Passed: 3

### **Test Suite Information**

Name: environment

**Back to Report Summary** 

# **Environment Tests**

#### **Test Result Information**

Result Type: Test Suite Result

Parent: <u>environment</u>

Start Time: 06-May-2025 13:49:31 End Time: 06-May-2025 13:49:35 Outcome: Total: 3, Passed: 3

#### **Test Suite Information**

Name: Environment Tests

**Back to Report Summary** 

#### Air

### **Test Result Information**

Result Type: Test Case Result
Parent: Environment Tests
Start Time: 06-May-2025 13:49:31
End Time: 06-May-2025 13:49:32

Outcome: Passed

#### **Test Case Information**

Name: Air

Type: Baseline Test

# Iteration1

# **Test Result Information**

Result Type: Test Iteration Result

Parent: Air

Start Time: 06-May-2025 13:49:31 End Time: 06-May-2025 13:49:32

Outcome: Passed

#### **Test Case Information**

Name: Iteration1

Type: Baseline Test

# **Iteration Settings**

#### **Test Overrides**

1000 0 10111400	
Parameter Name	Value
TestSequenceScena	Scenario_1
rio	

# **Verify Result**

Name		
Test Sequence//Test1:verify(isClose(AirEnvironmentBus.windSpeedInNED_mps(1), 4))		
Test Sequence//Test1:verify(isClose(AirEnvironmentBus.windSpeedInNED_mps(2), 3))		
☑ Test Sequence//Test1:verify(isClose(AirEnvironmentBus.windSpeedInNED_mps(3), 2))		
Test Sequence//Test1:verify(isClose(AirEnvironmentBus.airTemperature_K, 288.15))		
Test Sequence//Test1:verify(isClose(AirEnvironmentBus.airPressure_Pa, 1.01325e5))		
Test Sequence//Test1:verify(isClose(AirEnvironmentBus.airDensity_kgpm3, 1.225))		
Test Sequence//Test1:verify(isClose(AirEnvironmentBus.speedOfSound_mps, 340.29412435))		

### **Simulation**

# **System Under Test Information**

Model: Air

Harness: AirTestHarness

Harness Owner: Air

Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration
Test Sequence Block: AirTestHarness/Test Sequence

Test Sequence Scenario: Scenario\_1

Start Time: 0 Stop Time: 3.004

Checksum: 2333579960 118194984 3293710571 2811700376

Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

# **Back to Report Summary**

## Earth

### **Test Result Information**

Result Type: Test Case Result
Parent: Environment Tests
Start Time: 06-May-2025 13:49:32
End Time: 06-May-2025 13:49:35

Outcome: Passed

#### **Test Case Information**

Name: Earth

Type: Baseline Test

# Iteration1

### **Test Result Information**

Result Type: Test Iteration Result

Parent: Earth

Start Time: 06-May-2025 13:49:32 End Time: 06-May-2025 13:49:35

Outcome: Passed

# **Test Case Information**

Name: Iteration1
Type: Baseline Test

# **Iteration Settings**

#### **Test Overrides**

Parameter Name	Value
TestSequenceScena	Scenario_1
rio	

# **Verify Result**

Name	Į.		
Test Sequence1//verifyAircraftZChange:verify(gravLow_mps2 > EarthEnvironmentBus.gravityScalar_mps2)			

### **Simulation**

# **System Under Test Information**

Model: Earth

Harness: EarthTestHarness

Harness Owner: Earth Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration

Test Sequence Block: EarthTestHarness/Test Sequence1

Test Sequence Scenario: Scenario\_1

Start Time: 0 Stop Time: 7

Checksum: 1175429799 1798864983 927034458 1191542450

### Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

**Back to Report Summary** 

# LocalTerrain

#### **Test Result Information**

Result Type: Test Case Result
Parent: Environment Tests
Start Time: 06-May-2025 13:49:35
End Time: 06-May-2025 13:49:35

Outcome: Passed

#### **Test Case Information**

Name: LocalTerrain Type: Baseline Test

# Iteration1

#### **Test Result Information**

Result Type: Test Iteration Result

Parent: LocalTerrain

Start Time: 06-May-2025 13:49:35 End Time: 06-May-2025 13:49:35

Outcome: Passed

### **Test Case Information**

Name: Iteration1
Type: Baseline Test

# **Iteration Settings**

#### **Test Overrides**

Parameter Name	Value
TestSequenceScena	Scenario_1
rio	

### **Simulation**

# **System Under Test Information**

Model: LocalTerrain

Harness: LocalTerrainTestHarness

Harness Owner: LocalTerrain

Release: Current Simulation Mode: normal

Override SIL or PIL Mode: 0

Configuration Set: standardSILConfiguration

Test Sequence Block: LocalTerrainTestHarness/Test Sequence

Test Sequence Scenario: Scenario\_1

Start Time: 0

Stop Time: 0.004000000000000001

Checksum: 3805200661 3804672667 1828039431 394193071

## Simulation Logs:

No data is logged for the model 'LocalTerrainTestHarness'.

# **Back to Report Summary**

# Test Logs:

No baseline criteria evaluation performed as no baseline data is available for this test.

**Back to Report Summary**