

ARMD Test Data Portal (ATDP)

Overview



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Agenda



- Introduction to ATDP
- System Access
- Project On-Boarding
- Overview of ATDP Pages
- ATDP 'live' Demo
- Summary | Q & A

Please note the ARMD Flight Data Portal (AFDP) is being renamed to the ARMD Test Data Portal (ATDP). However, some slides still show the old AFDP name.

Introduction



PROBLEM

NASA Aeronautical Research Mission Directorate (ARMD) decided that NASA Aeronautics needed a better way to collect and distribute data from tests.

Data in the form of electronic documents, pictures, audio recordings, video and more are lost or effectively unavailable through the following:

- The use of personal, organization, and a variety of cloud data stores
- The use of removable drives and media for long term storage
- Inconsistent retention policies
- Inconsistent naming conventions
- Insufficient metadata
- Inconsistent information control and security

Introduction – What is ATDP?



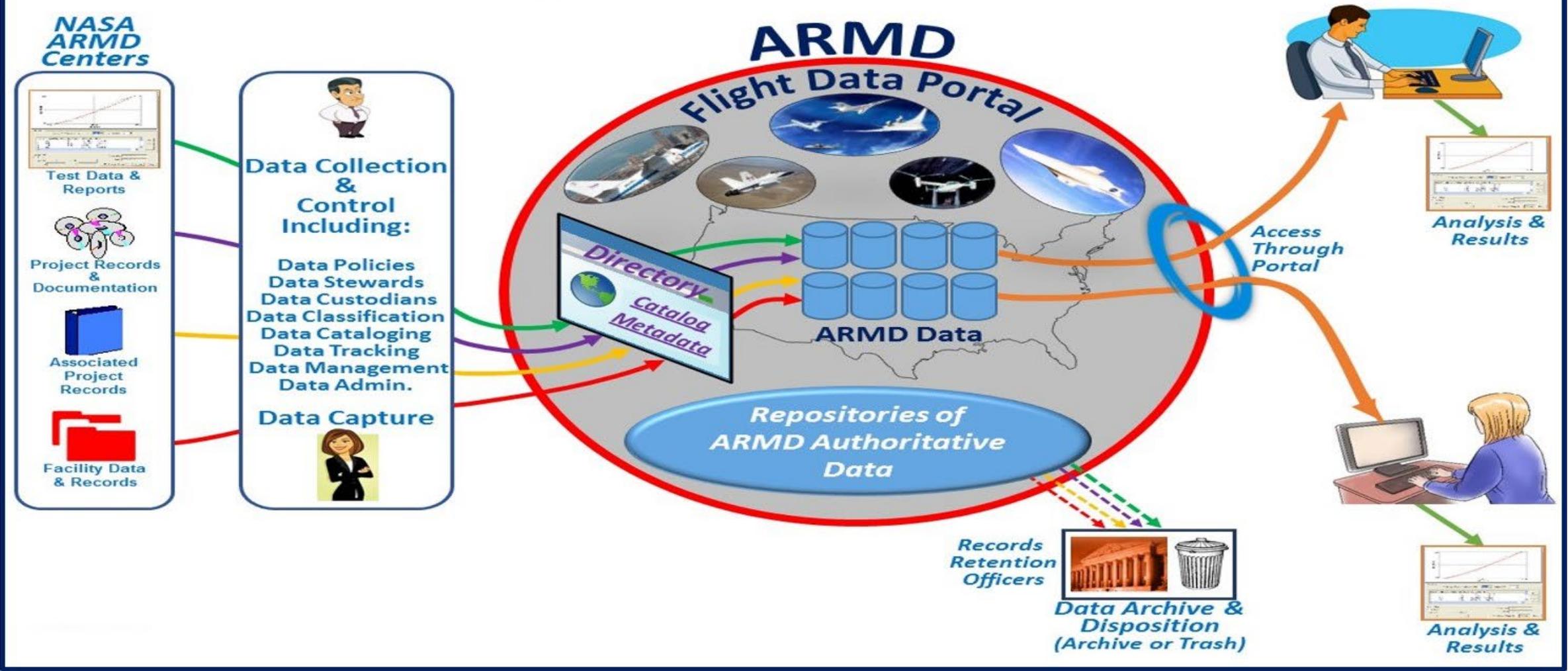
The ARMD Test Data Portal (ATDP) is a data archive that allows NASA personnel to remotely *upload and register* ARMD test data, as well as to quickly *search, access, extract, and download* test data for further analysis.

- ATDP is a secure system, authorized to store Controlled Unclassified Information (CUI) data.
- ATDP Login requires multi-factor authentication.
- ATDP is a replacement for the NASA Flight Data Archive (FDAS) system.
- ATDP currently supports HDF5 data
- ATDP will support of other test data formats such as pdf, docx, csv, yaml, TIFF, JPEG, PNG, Raw, MP4, WAV, etc.

ATDP Operational View



ARMD Flight Data Portal Operational View (OV-1)



System Access



- All user functions are through a web-based Graphical User Interface (GUI) called Portal User Interface (PUI).
- ATDP implements **Role Based Access Control (RBAC)** via user account membership to *groups* and *roles*.
 - Groups** – ATDP has identified the following types of groups
 - **Project** – *This group type is used to identify users for a specific Project of Record*
 - **Specific** – *This group type is used to identify users (within the project) to receive access to CUI parameter data*
 - **Facility** – *This group type is used to identify users in a test facility or laboratory*
 - **Global** – *This is a specialized group type (used to identify basic users, AFDP Admin, and AFDP Data Custodian)*
 - Roles** – ATDP has identified the following types of roles
 - **Basic User** – *All users receive this role. It grants access to ATDP, the Dashboard, the Search page, and the Help & Support page*
 - **Data Steward** – *This role grants permissions to access the Parameter Access Rights Handling (PARH) Registration page*
 - NOTE:** *A PARH file defines all parameters (and derived parameters) to be used during testing, assign CUI markings, and assign access rights to CUI parameters.*
 - **Data Producer** – *This role grants permissions to access the Event Registration page and is assigned to users who will be responsible for loading test data files (HDF5) and registering test events for a project*
 - **Project-Level** – *This role grants permission to the Time Slice Creation page and the Time Slice Management page. It is assigned to users who will be accessing test event data for Time Slice download and analysis*
 - **Project-Specific-Access** – *This additional role is granted to project-level users who require access to perform Time Slice analysis on CUI parameter data*
- ATDP is a secure system, authorized to store CUI data. Login requires multi-factor authentication.

ATDP Demonstration



DEMO

NOTE: During the live demonstration, Controlled Unclassified Information (CUI) marks are displayed for example only. No actual CUI data will be displayed/accessed!

Overview of ATDP pages



- Dashboard
- Navigating ATDP
- Help & Support
- Facet Search
- Time Slice Creation
- Parameter Access Handling Rights (PARH) Registration
- Event Registration

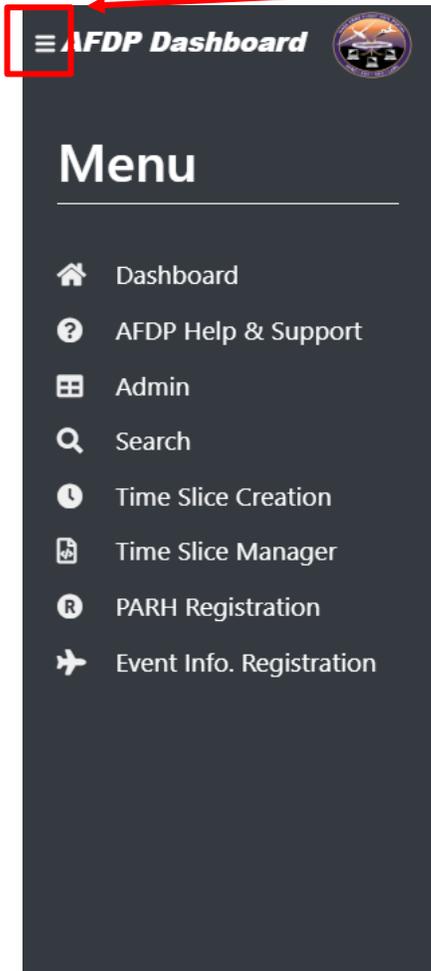
NOTE: Controlled Unclassified Information (CUI) marks that appear within the ATDP system screenshots are for illustrative purposes only. No actual CUI data is contained in these examples.

Navigating ATDP



Clicking the hamburger icon will expand/collapse the ATDP Menu.

- The ATDP Menu provides access to various ATDP pages.
- These pages are permissioned for access.



Dashboard



Upon successful login to ATDP [[ATDP Training](#)], the Dashboard will display.

- The **Registered Flight Events** widget displays test events for projects of which the user is a member.
- The **Time Slice Requests** widget displays status of time slice requests and the ability to download time slice requests.
- The **Status** widget displays information to Data Stewards and Data Producers, regarding PARH Registration and Event Registration status.

The screenshot displays the AFDP Dashboard interface. At the top left, it says "AFDP Dashboard" and "Yergensen, Michael". Below the header, there are three main widgets:

- Registered Flight Events:** Shows a list of events with filters (All Projects, AVTPE, DATR_TEST, FLL_TEST, LBFD, SIM_TEST, Options). Each event card includes a title (e.g., SIM - 0002), a lock icon, a timestamp, and details like Project of Record (LBFD), Platform ID (N859NA), Experiment ID (0001), and Test Phase (1).
- Time Slice Requests:** Has tabs for Available for Download, Processing, Failed, Expired, and Downloaded. It contains a table with columns: Slice Request Name, Requested, Updated, Keywords, and Notes. One request is shown: SIM_000_HLV_SlicePackage1, requested on Wed, Aug 17, 2022 at 14:17:15.041, updated on Wed, Aug 17, 2022 at 14:20:40.731, with keywords subprojectAcronym: SOFIA and a note "Failed to Download HDF5 file".
- Status:** Shows a search bar and a table with columns: AUJD, Requested, Updated, Type, Status, Keywords, and Notes. It lists two entries for "myergens": one with a "FAILED" status and a detailed error message, and another with a "COMPLETE" status and a note about event registration.

At the bottom of the dashboard, there is a footer: "© 2022 Copyright Contact: afrc-helpdesk@mail.nasa.gov This system contains CUI".

Help & Support



This system contains CUI

AFDP Help & Support  Yergensen, Michael

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AFDP Training

AFDP Users ^

Project On-Boarding Process ^

This document provides step-by-step instructions for on-boarding a new project of record to the AFDP. This document must be completed by a project POC before a new project of record can begin using the AFDP system.

[Project On-Boarding Process](#)

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Parameter Access Rights Handling (PARH) Specification v

AFDP Administrators v

AFDP User Request Forms

AFDP User Request Form v

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This system contains CUI

The ATDP Help & Support page is accessible by all AFDP users. It provides access to the following:

- ATDP Training - *Access to all user guides. Video tutorials will be available soon!*
- ATDP Support - *Link to submit questions to AFDP via email.*
- Frequently Asked Questions – *This section contains FAQs.*
- ATDP Enhancement Requests and Issue Reporting – *This explains how to report bugs, issues and requests for enhancement.*

Facet Search



All users can search for registered test events (for any project of record) and see the results.

- A user must be a member of the project in order to access the data.

The screenshot displays the AFDP Event Search interface. On the left, there are filter sections for 'Project of Record' (with checkboxes for AVTPE, LBFD, and SOFIA), 'Experiment ID' (with a search box and a list of IDs from 0000 to 0005), 'Platform ID' (with checkboxes for N747SP and N859NA), and 'Test Phase' (with checkboxes for 1, 12, and 2). The main area shows 'Results' with 10 results. Each result includes a lock icon (yellow for CUI, red for no access) and an info icon (blue). A popup window titled 'Document Security Markings for SIM - 0000' is open, showing details for the first result. The popup contains a table with the following information:

SECURITY CONTROLS	CUI//SP-EXPT/PROPIN//FEDCON
ACCESS PROFILE VALUES	SOFIA-boeing-test, SOFIA-lockheed-test
CONTROLLED BY	NASA-AFRC, SOFIA, buzz.aldrin@nasa.gov
DECONTROL SCHEDULE	2041-12-31
NOTICE	WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et seq) or the Export Administration Act of 1979 (Title 50, U.S.C. App. 2401 et seq), as amended. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.2 DISTRIBUTION STATEMENT - Distribution authorized to U.S. Government Agencies and their contractor; DESTRUCTION NOTICE - Destroy by any method that will prevent disclosure of contents or reconstruction of the document.

Search page example

A yellow lock icon  identifies the test event contains CUI. Clicking the lock will display the CUI Document Markings.

A red 'no access' icon  appears beside each project and test event that the user cannot access.

A blue info icon  provides details related to the associated item, such as flight event information, parameter details, source file name, PARH file name, access group.

Time Slice Creation



The Time Slice Creation page allows a user to search for test events by Project of Record, Experiment ID, Platform ID, Test Phase, Op Type and Op Number. Results will only display parameters related to the test event (and for a project) the user has permissions to access. Users can select the parameters and identify other details for the time slice they wish to create.

Time Slice Creation Yergensen, Michael

This system contains CUI

Project of Record:
Experiment Id:
Platform Id:
Test Phase:
Op Type:
Op Number:

Set Default Data Alignment Method

Set Sync Parameter

Event Start Date:
Event End Date:
Desired Start Date:
Desired End Date:
Slice/File Name:

Slice Names Show Available from Database

Search filter:

Parameter	Description	Source
<input type="checkbox"/> roll_stick	Cs.out.roll_stick	Sim_SOFIA_Test_100Hz
<input type="checkbox"/> roll_trim	Cs.cntrl.roll_trim	Sim_SOFIA_Test_100Hz
<input type="checkbox"/> thrust_all	Eng.thrust	Sim_SOFIA_Test_100Hz
<input type="checkbox"/> yaw_trim	Cs.cntrl.yaw_trim	Sim_SOFIA_Test_100Hz
<input type="checkbox"/> alp	"Angle of attack"	Sim_SOFIA_Test_CUI_20
<input type="checkbox"/> alpdot	"Rate of change of angle of attack"	Sim_SOFIA_Test_CUI_20
<input type="checkbox"/> bta	"Angle of sideloop"	Sim_SOFIA_Test_CUI_20

Search filter:

Parameter	Description	Interpolation
<input type="checkbox"/> pitch_stick	Cs.out.pitch_stick	DEFAULT (NONE)
<input type="checkbox"/> pitch_trim	Cs.cntrl.pitch_trim	DEFAULT (NONE)
<input type="checkbox"/> q	"Body axis pitch rate"	DEFAULT (NONE)
<input type="checkbox"/> qbar	"Dynamic	DEFAULT (NONE)
<input type="checkbox"/> qdot	"Pitch acceleration"	DEFAULT (NONE)

Package Name:
Estimated Time:

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This system contains CUI

A blue info icon provides details related to the associated item, such as flight event information, parameter details, source file name, PARH file name, access group.

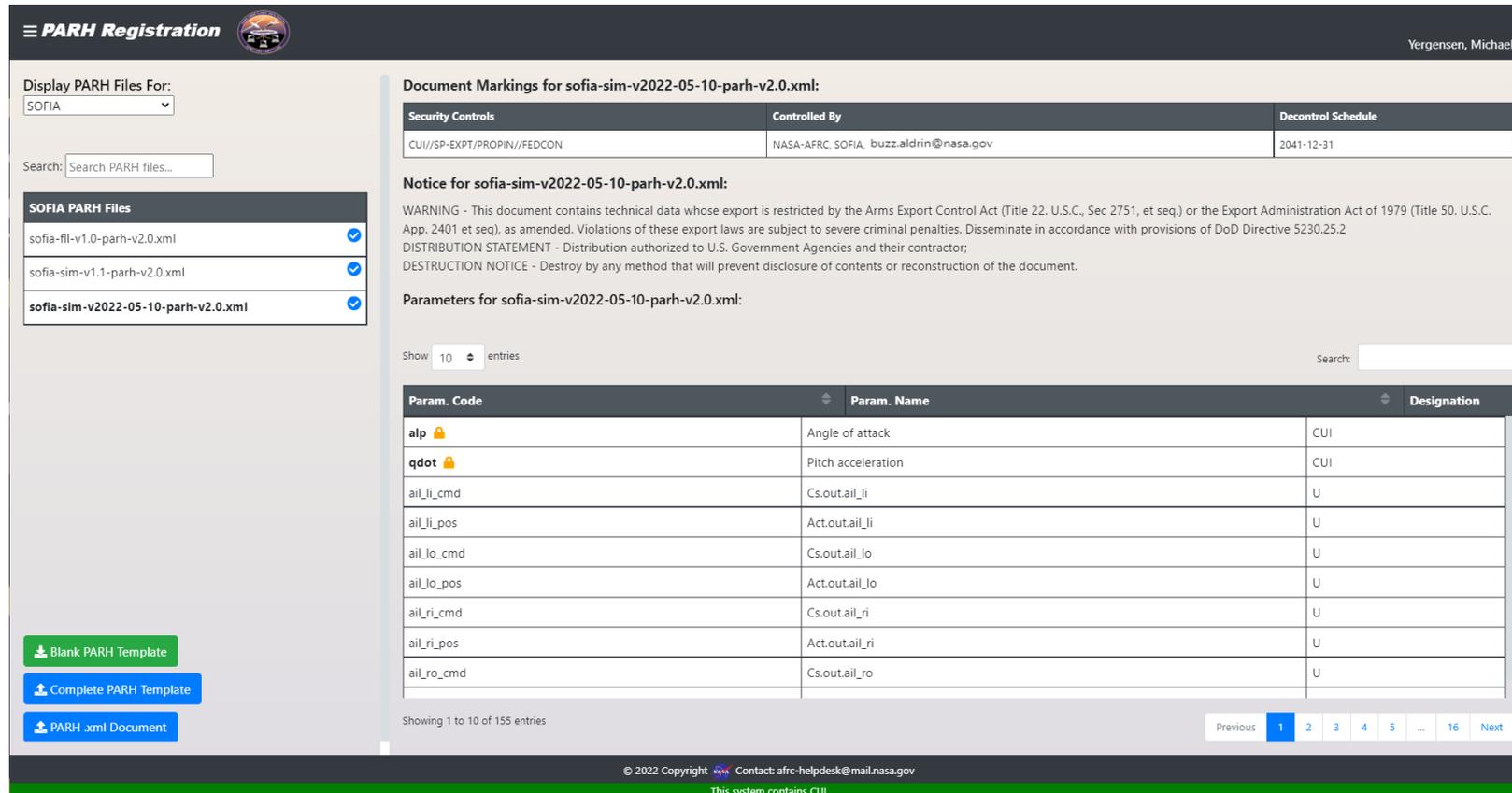
A red locked icon alerts users to a restricted parameter containing CUI data they cannot access.

A green unlocked icon alerts users to a restricted parameter containing CUI data they can access.

Hovering over a lock icon will display the CUI Portion Marks.

Parameter Access Rights Handling (PARH) Registration

This step will be performed by someone who is familiar with building a Master Measurement List (MML) spreadsheet.



PARH Registration  Yergensen, Michael

Display PARH Files For: SOFIA

Search: Search PARH files...

SOFIA PARH Files

- sofia-ill-v1.0-parh-v2.0.xml
- sofia-sim-v1.1-parh-v2.0.xml
- sofia-sim-v2022-05-10-parh-v2.0.xml

Document Markings for sofia-sim-v2022-05-10-parh-v2.0.xml:

Security Controls	Controlled By	Decontrol Schedule
CUI//SP-EXPT//PROPIN//FEDCON	NASA-AFRC, SOFIA, buzz.aldrin@nasa.gov	2041-12-31

Notice for sofia-sim-v2022-05-10-parh-v2.0.xml:

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Parameters for sofia-sim-v2022-05-10-parh-v2.0.xml:

Show 10 entries Search:

Param. Code	Param. Name	Designation
alp	Angle of attack	CUI
qdot	Pitch acceleration	CUI
ail_li_cmd	Cs.out.ail_li	U
ail_li_pos	Act.out.ail_li	U
ail_lo_cmd	Cs.out.ail_lo	U
ail_lo_pos	Act.out.ail_lo	U
ail_ri_cmd	Cs.out.ail_ri	U
ail_ri_pos	Act.out.ail_ri	U
ail_ro_cmd	Cs.out.ail_ro	U

Showing 1 to 10 of 155 entries

Previous 1 2 3 4 5 ... 16 Next

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This system contains CUI

During PARH Registration, a user [assigned the Data Steward role] will identify all parameters, security values, and RBAC groups in a PARH file.

- PARH values are used by AFDP to render
- CUI Document Markings on test events
 - CUI Portion Marks on individual parameters
 - Implement access controls to restricted CUI parameters

Event Registration

This step will be performed by a member of a test facility (DATR, FLL, SIM, CITC).

Once the event registration process is complete, ATDP will store the event information, render CUI markings, and implement access controls.

Event Registration Yergensen, Michael

SOFIA PARH for SOFIA: sofia-sim-v1.0-parh-v2.0.xml

Document Markings for sofia-sim-v1.0-parh-v2.0.xml:

Security Controls	Controlled By	Decontrol Schedule
CUI//SP-EXPT//PROPIN//FEDCON	NASA-AFRC, SOFIA, buzz.aldrin@nasa.gov	2041-12-31

Notice for sofia-sim-v1.0-parh-v2.0.xml:
 WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et seq.) or the Export Administration Act of 1979 (Title 50, U.S.C. App. 2401 et seq.), as amended. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.2
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Param. Code	Param. Name	Designation
ail_li_cmd	Cs.out.ail_li	U
ail_li_pos	Act.out.ail_li	U
ail_lo_cmd	Cs.out.ail_lo	U
ail_lo_pos	Act.out.ail_lo	U
ail_ri_cmd	Cs.out.ail_ri	U
ail_ri_pos	Act.out.ail_ri	U
ail_ro_cmd	Cs.out.ail_ro	U
ail_ro_pos	Act.out.ail_ro	U
alp	Angle of attack	CUI
alpdot	Rate of change of angle of attack	U

Showing 1 to 10 of 121 entries

SOFIA Event Information

Experiment ID: 0000
 Platform ID: N747SP
 Test Phase: Simulation
 OP Type: SIM
 OP Number: 0000
 PARH: sofia-sim-v1.0-parh-v2.0.xml

Select Project of Record
 Upload .h5 File(s)
 Select PARH File
 Enter Event Information

Register Flight Test Data

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 This system contains CUI

During Event Registration, a user [assigned the Data Producer role] will perform the steps identified below.

1. Project of Record – Select the project of record associated with the flight event and flight test data (HDF5) files being registered.
2. Load Test Data (HDF5) files – Upload and select the test data files to be registered with the flight event.
3. Parameter Access Rights Handling (PARH) – Select the PARH file to be assigned to the flight event and associated test data (HDF5) files for data validation, rendering of required security markings, and to implement access rights handling.
4. Event Information – Enter the Event Information values for the flight event.
5. Register Flight Test Data – Click the button to complete the process.

Questions?

