



ICAO

The Second Meeting of the Asia/Pacific Air Traffic Management Automation System Task Force (APAC ATMAS TF/2)

Video Tele-Conference, 14 - 16 September 2021

Agenda Item 3: Global and Regional ATM Automation System Updates**AIR TRAFFIC MANAGEMENT AUTOMATION SYSTEM
PROBLEM REPORTING DATABASE**

(Presented by Hong Kong, China)

SUMMARY

As a follow-up action of ATMAS TF/1, Hong Kong, China has studied the feasibility of expanding the existing ADS-B Avionics Problem Reporting Database (APRD) managed by the ICAO APAC Regional Office to cover the report and sharing of issues/problems related to ATM Automation System (ATMAS). This paper presents a technically sound and cost-effective proposal of implementing the ATMAS Problem Reporting Database by leveraging the framework of APRD.

1. INTRODUCTION

1.1 A robust, safe and efficient ATM Automation System (ATMAS) is crucial to the provision of uninterrupted air traffic services by State/Administrations. Experience sharing of issues on the ATMAS encountered by States/Administrations is beneficial to the implementation of a harmonized and reliable ATMAS. To facilitate the sharing of experience and information related to the implementation of ATMAS, an idea of setting up a centralized database for reporting ATMAS-related issues/problems was brought up during the First Meeting of Air Traffic Management Automation System Task Force of APANPIRG (ATMAS TF/1).

1.2 Hong Kong, China has taken up the action item from ATMAS TF/1 on studying the feasibility of expanding the ADS-B Avionics Problem Reporting Database (APRD) currently managed by ICAO APAC Regional Office to cover the report and sharing of ATMAS-related problems by States/Administrations in APAC region. The following paragraphs illustrate the outcome of our feasibility study of implementing the ATMAS Problem Reporting Database (ATMAS PRD) by leveraging the framework of APRD.

2. DISCUSSION

2.1 APRD has been set up in the ICAO APAC website for States/Administrations in the region to report and share ADS-B avionics problems. After our study, it is considered technically feasible to ride on the same software framework of APRD with adaptations to the data schema and workflow to cater for ATMAS-related problems. Therefore, it is technically feasible to expand the existing APRD website with additional pages and database tables for ATMAS PRD.

2.2 For the required hardware resources for hosting additional data of ATMAS PRD, our preliminary assessment is that the hardware resources of APRD would be sufficient to cater for the extra data of ATMAS PRD. Further coordination with ICAO APAC Regional Office's IT division is

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required during the development stage in ascertaining no additional hardware resources are required for ATMAS PRD. Since no additional hardware resources are anticipated, it is considered a cost-effective approach to leverage on existing hardware resources of APRD to cover ATMAS PRD instead of setting up new hardware.

2.3 In conclusion, it is technically feasible and cost-effective to implement ATMAS PRD by leveraging the framework and hardware resources of APRD. Detailed proposal on the changes is given in **Attachment 1** for consideration by the Meeting.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) consider the cost-effective proposal of implementing ATMAS PRD by leveraging the framework and hardware resources of APRD;
- b) encourage States/Administrations to volunteer in participating in the development of ATMAS PRD in conjunction with the ICAO APAC Regional Office with a view to facilitating the experience sharing of issues/problems of ATM Automation System for the region; and
- c) discuss any relevant matter as appropriate.

ATM Automation System Problem Reporting Database

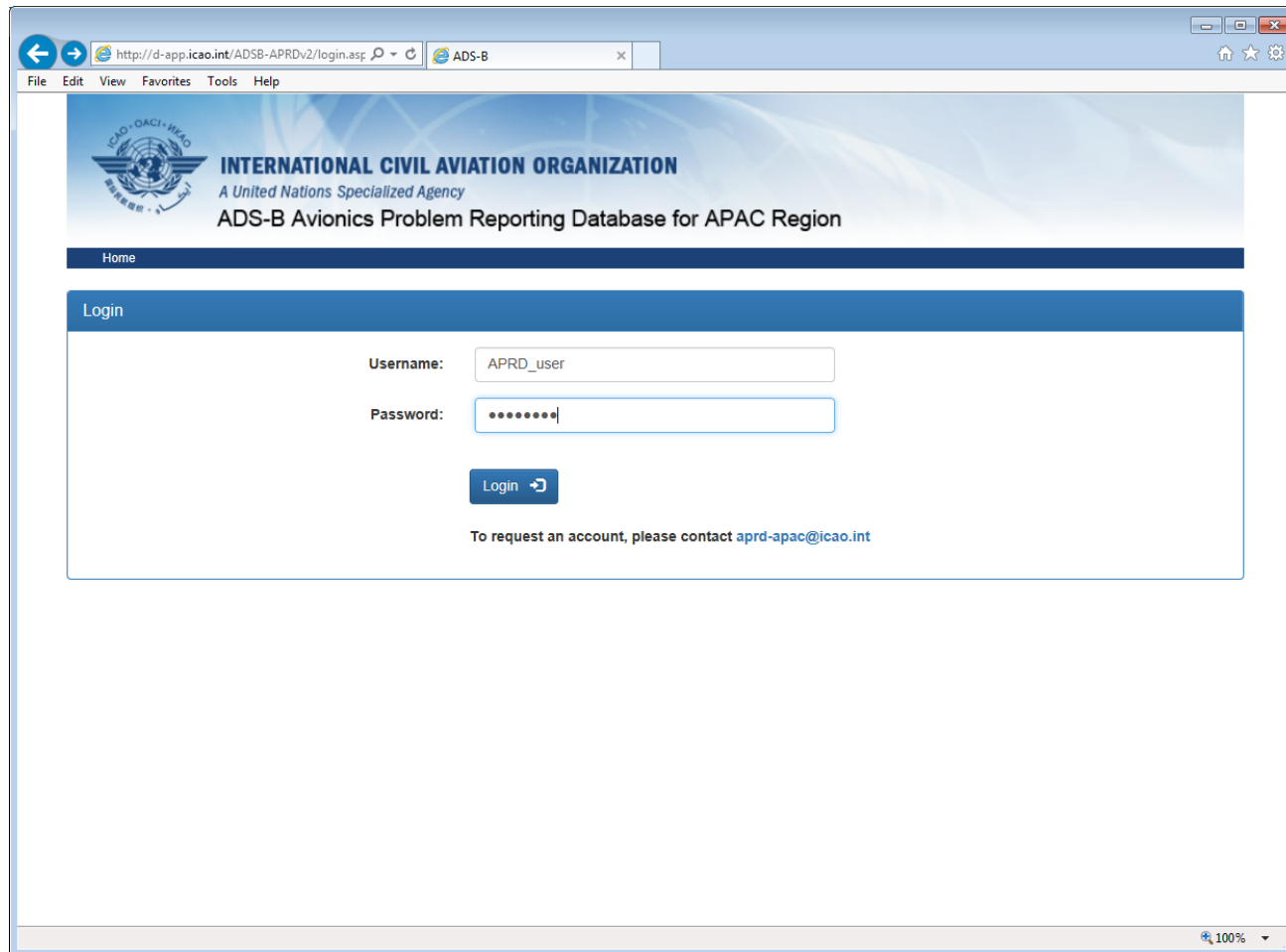
Hong Kong, China
September 2021

Background

- The idea of setting up a centralized database for reporting ATM Automation System (ATMAS) Problem was proposed during ATMAS TF/1
- Action item for Hong Kong China to study the feasibility on expanding ADS-B Avionics Problem Reporting Database (APRD) to cover ATMAS issues for APAC Region

Existing APRD Web Site

- <http://d-app.icao.int/ADSB-APRDv2/login.aspx>



Login Page of Problem Reporting Database

- Single login page for both databases

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ADS-B Avionics Problem & ATM Automation System Problem Reporting Database for APAC Region

Home

Login

Username: Database_User

Password:

Login →

To request an account, please contact aprd-apac@icao.int

Name amended

Continue to use login information of APRD

Database Selection

- Will be directed to Database Selection Page upon successful login

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ADS-B Avionics Problem & ATM Automation System Problem Reporting Database for APAC Region

Home

Login

ADS-B Avionics Problem Reporting Database

ATM Automation System Problem Reporting Database

Selection of database based on access right of the user account after successful login

Database Selection

- Will be directed to Home Tab of the selected database

1. ADS-B Avionics Problem Reporting Database

The screenshot shows the header of the International Civil Aviation Organization (ICAO) website. The logo is on the left, followed by the text "INTERNATIONAL CIVIL AVIATION ORGANIZATION" and "A United Nations Specialized Agency". Below this, a red box highlights the text "ADS-B Avionics System Problem Reporting Database for APAC Region". To the right, another red box highlights a "Switch database" button. Below the header is a navigation bar with links: Home, Report Case, Verifying Case, Follow-up Case, Search, Problem Type, and Discussion Forum. On the right of the navigation bar, it says "Welcome USER_NAME" and "Logout". Below the navigation bar is a "Home" tab. The main content area shows "Welcome" and "Last Login: Thu Jun 8 03:01:22 UTCZ200 2017".

Name showed which database is accessed

Switch button is added for returning to database selection page

2. ATM Automation System Problem Reporting Database

The screenshot shows the header of the International Civil Aviation Organization (ICAO) website. The logo is on the left, followed by the text "INTERNATIONAL CIVIL AVIATION ORGANIZATION" and "A United Nations Specialized Agency". Below this, a red box highlights the text "ATM Automation System Problem Reporting Database for APAC Region". To the right, another red box highlights a "Switch database" button. Below the header is a navigation bar with links: Home, Reported Issue(s), Search, and Discussion Forum. On the right of the navigation bar, it says "Welcome USER_NAME" and "Logout". Below the navigation bar is a "Home" tab. The main content area shows "Welcome" and "Last Login: Thu Jun 8 03:01:22 UTCZ200 2017".

Name showed which database is accessed

Switch button is added for returning to database selection page

Homepage of ATMAS Problem Reporting Database

- Adopt the same layout as homepage of APRD
- Adapted to the workflow of ATMAS Problem Reporting Database

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ATM Automation System Problem Reporting Database for APAC Region

Switch database

Home | Reported Issue(s) | Search | Discussion Forum

Welcome USER_NAME Logout

Home

Welcome
Last Login: Thu Jun 8 03:01:22 UTCZ00 2017

New Reported Issue(s) / New Update(s) since last login

New Messages
New Reported Issue(s) / New Update(s) since your last login:

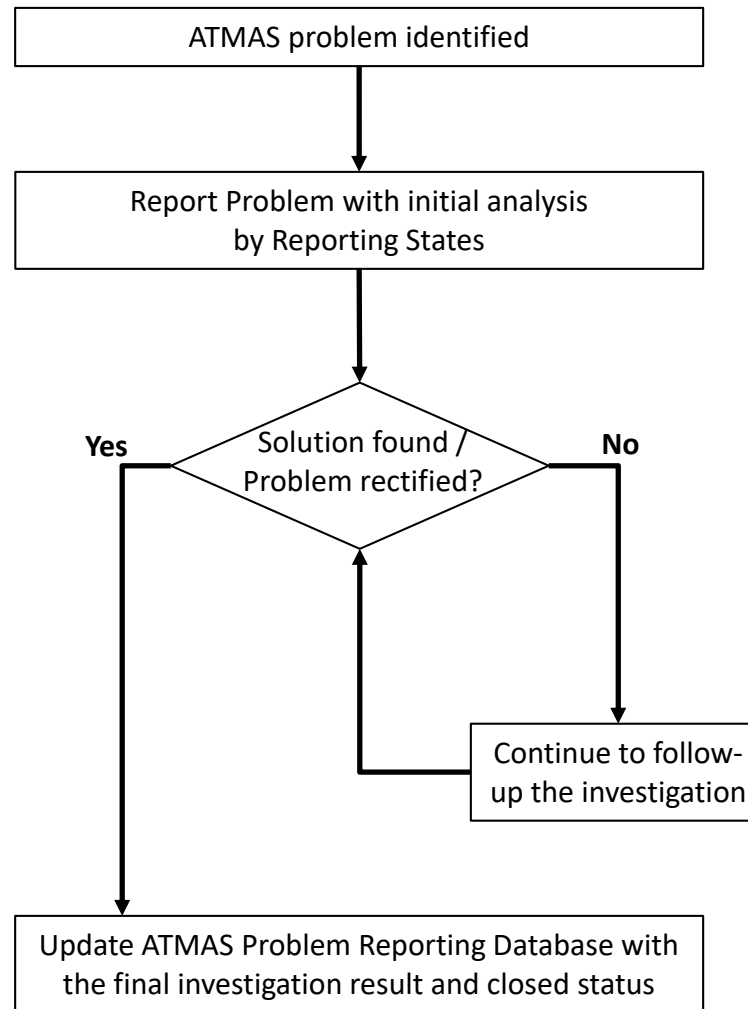
Case ID	Reporting State	Problem Title	Problem Fixed?
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Reported Issue(s)
The following issue your state reported

Case ID	Reporting State	Problem Title	Problem Fixed?
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Reported Issue(s) from your state

Workflow of ATMAS Problem Reporting Database



Report Problem to ATMAS Problem Reporting Database

- Via “Reported Issue(s)” Tab

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ATM Automation System Problem Reporting Database for APAC Region

Switch database

Home | **Reported Issue(s)** | Search | Discussion Forum

Welcome USER_NAME Logout

Reporting State

Welcome (Reporting State)
Last Login: Thu Jun 8 03:01:22 UTCZ00 2017

Messages
The following active case your state reported

Case ID	Reporting State	Problem Title	Problem Fixed?

+ Add new issue

1. Select “Reported Issue(s)” Tab

2. Click “Add new issue”

Report Problem to ATMAS Problem Reporting Database

ATM Automation System Problem Reporting

* Problem Title:

Date of occurrence:

Time:

To:

* Problem Description:

Cause / Inital Analysis:

ATC operation affected : Yes No

Name of FIR:

* Manufacturer:

* Software Version:

Upload Supplementary Information: No file chosen

* Problem Fixed: Yes No

New Report Form
for ATMAS Problem

3. Fill in the details of the problem. Mandatory fields are denoted by asterisk (*).

4. Select: "Yes" to continue updating the Final Analysis and Solutions; "No" for further follow-up later

Report Problem to ATMAS Problem Reporting Database

- If “Yes” is selected for “Problem Fixed”

* Problem Fixed: Yes No

Final Analysis

Rectification Date:

* Root Cause / Analysis:

Solutions:

Upload Supplementary Information: No file chosen

5. Fill in the details of Final Analysis and Solutions. Mandatory fields are denoted by asterisk (*).

6. Click “Submit” to send the case to database →

- If “No” is selected for “Problem Fixed”

* Problem Fixed: Yes No

5. Click “Submit” to send the case to database →

Report Problem to ATMAS Problem Reporting Database

INTERNATIONAL CIVIL AVIATION ORGANIZATION
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ATM Automation System Problem Reporting Database for APAC Region

Switch database

Home | Reported Issue(s) | Search | Discussion Forum

Welcome USER_NAME Logout

Home

Welcome
Last Login: Thu Jun 8 03:01:22 UTCZ00 2017

New Messages
New Reported Issue(s) / New Update(s) since your last login:

Case ID	Reporting State	Problem Title	Problem Fixed?
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Reported Issue(s)
The following issue your state reported

Case ID	Reporting State	Problem Title	Problem Fixed?
A00001	Hong Kong, China	Sample Issue (1)	N

Reported issue will be shown in "Home" tab or "Reported Issue(s)" tab

Update the status of a report issue (1)

The screenshot shows the ICAO ATM Automation System Problem Reporting Database for APAC Region. The header includes the ICAO logo and the text "INTERNATIONAL CIVIL AVIATION ORGANIZATION A United Nations Specialized Agency". Below the header, there is a navigation bar with links for Home, Reported Issue(s), Search, and Discussion Forum. A "Switch database" button is located in the top right corner. The main content area displays a "Welcome" message with the last login time "Thu Jun 8 03:01:22 UTCZ00 2017". Under "New Messages", it states "New Reported Issue(s) / New Update(s) since your last login:". A table lists reported issues with columns for Case ID, Reporting State, Problem Title, and Problem Fixed?. The first row shows Case ID "A00001", Reporting State "Hong Kong, China", Problem Title "Sample Issue (1)", and Problem Fixed? "N". The "Sample Issue (1)" link is highlighted with a red box and a red arrow pointing to it.

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ATM Automation System Problem Reporting Database for APAC Region

Switch database

Home | Reported Issue(s) | Search | Discussion Forum

Welcome USER_NAME Logout

Home

Welcome
Last Login: Thu Jun 8 03:01:22 UTCZ00 2017

New Messages
New Reported Issue(s) / New Update(s) since your last login:

Case ID	Reporting State	Problem Title	Problem Fixed?
A00001	Hong Kong, China	Sample Issue (1)	N

1. Click the problem title

Update of a Reported Problem

Home | Reported Issue(s) | Search | Discussion Forum Welcome USER_NAME [Logout](#)

ATM Automation System Problem Reporting **Edit**

*** Problem Title:**

Date of occurrence:

Time:

To:

*** Problem Description:**

Cause / Inital Analysis:

ATC operation affected: Yes No

Name of FIR:

*** Manufacturer:**

*** Software Version:**

Upload Supplementary Information: No file chosen

*** Problem Fixed:** Yes No

2. Click Edit

Update of a Reported Problem

ATM Automation System Problem Reporting

* Problem Title:

Date of occurrence:

Time:

To:

* Problem Description:

Cause / Inital Analysis:

ATC operation affected : Yes No

Name of FIR:

* Manufacturer:

* Software Version:

Upload Supplementary Information: No file chosen

* Problem Fixed: Yes No

Final Analysis

Rectification Date:

* Root Cause / Analysis:

Solutions:

Upload Supplementary Information: No file chosen

3. Click Update button to apply the input



Search Reported Problem

- Similar Search Function as that in APRD

The screenshot shows the ICAD ATM Automation System Problem Reporting Database for APAC Region. The header includes the ICAD logo and the text "INTERNATIONAL CIVIL AVIATION ORGANIZATION A United Nations Specialized Agency". Below the header is a navigation bar with "Home", "Reported Issue(s)", "Search", and "Discussion Forum". A red box highlights the "Search" tab, with a red arrow pointing to it from the text "1. Select 'Search' tab".

The main content area is titled "ATM Automation System Reported Problem Search". It contains several search criteria fields: "Reporting State" (dropdown), "Manufacturer" (dropdown), "Keywords in problem title" (text input), and "Keywords in problem description" (text input). Below these fields are radio buttons for "Case Status": "All" (checked), "Following-up", and "Problem fixed". A red bracket on the left side of the page groups these search criteria fields with the text "2. Fill in search criteria".

At the bottom right of the search form is a blue "Search" button, which is highlighted with a red box and a red arrow pointing to it from the text "3. Click Search button".

Additional elements include a "Switch database" button in the top right, a "Welcome USER_NAME" message, and a "Logout" button in the top right navigation bar.

Discussion Forum

- Separate “Discussion Forum” for ATMAS Problem Reporting Database
- Same design and functionality as that of APRD

The screenshot shows the header of the ATMAS Problem Reporting Database for APAC Region. On the left is the ICAO logo and the text "INTERNATIONAL CIVIL AVIATION ORGANIZATION A United Nations Specialized Agency". In the center, it says "ATM Automation System Problem Reporting Database for APAC Region". On the right, there is a "Switch database" button. Below the header is a dark blue navigation bar with links for "Home", "Reported Issue(s)", "Search", and "Discussion Forum". The "Discussion Forum" link is highlighted with a red box and a red arrow pointing to it from the label "Discussion Forum tab". On the right side of the navigation bar, it says "Welcome USER_NAME" and a "Logout" button.

The screenshot shows the "Discussion Forum" table. At the top right of the table area is a green button labeled "Add new topic +". The table has four columns: "Topic", "Author", "Last replied by", and "Action". The first row contains the text "Welcome to Discussion Forum" under the "Topic" column and "Admin" under the "Author" column. The "Action" column for this row contains a "Delete" button. A red box highlights the entire table area, and a red arrow points from the label "Discussion Topics" below to the table. A green box highlights the "Action" column, and a green arrow points from the label "Only admin can see this column" below to the "Delete" button.

Topic	Author	Last replied by	Action
Welcome to Discussion Forum	Admin		Delete

Discussion Topics

Only admin can see this column

End