

UPDATE OF INCONSISTENT ICAO AIRCRAFT ADDRESS AND TARGET IDENTIFICATION BETWEEN SURVEILLANCE DATA AND FLIGHT PLAN



Workshop on ICAO Aircraft Address and Target
Identification in Surveillance Data and Flight
Plan

6th June 2023

SUMMARY

This presentation provides an update on IATA Airline members discrepancies observed of ICAO Aircraft Address and Target Identification between surveillance data and flight plan for aircrafts flying within Hong Kong Flight Information Region (HKFIR).

Following the Conclusions endorsed by SURICG/6 and CNS SG/25 and CNS SG/26 requesting States/Administrations to proactively follow up with air operators to address discrepancies, IATA is analyzing ICAO/HKCAD data, in order to assess IATA Airline members occurrences, its impact and whether if it is needed to set corrective actions.

1 Introduction

- » At SURICG/6, and at CNS SG/26, Hong Kong, China presented working papers on recurring inconsistencies of ICAO Aircraft Address and Target Identification (AD and ID) observed between received ADS-B data and filed flight plan for some aircraft flying within Hong Kong Flight Information Region (HKFIR).
- » A Conclusion was endorsed by SURICG/6, CNS SG/25 and CNS/26 to urge States/Administrations to proactively follow up with air operators to address discrepancies of ICAO Aircraft Address and Target Identification between ADS-B / MLAT / Mode S data and flight plan

- » HKCAD has shared said recurring inconsistencies with IATA.
- » IATA has analyzed the latest data provided (period from August 2022 until March 2023), to assess:
 - *What inconsistencies are coming from IATA Airlines Members*
 - *What are the number of occurrences*
 - *Are there any patterns to be addressed, and*
 - *What can IATA do/request (any actions to be undertaken?)*

2 Discussion

HKCAD shared with IATA a document containing the discrepancies of ICAO Aircraft Address and Target Identification between ADS-B / MLAT / Mode S data and flight plan from **August 2022 to March 2023**.

Document of HKCAD contains following info (format):

Date (UTC)	ACID (Flight Plan)	ICAO Aircraft Address (Flight Plan)	Aircraft Registration (Flight Plan)	Target Address (ADS-B)	Aircraft Registration (Actual)	Response from Air Operators	Airline	IATA Member?
06/08/2022	NEP952	75050D	9MNEY	75047E	9MNEY	Pending reply from the Operator	Nepal Airlines	NO
06/08/2022	NEP863	7504DF	9MNEW	7504E5	9MNEW	Pending reply from the Operator	Nepal Airlines	NO
15/08/2022	TMG817	840847	PKYGW	8A0608	PKYGW	Human error	Asia Cargo Airline	NO
27/08/2022	HSWEH	885CA8	HSWEH	001408	HSWEH	Engineering error	MJETS Private	NO
02/09/2022	SWM216	70E082	XU724	70E084	XU724	Engineering error	Sky Angkor - Cambodia	NO
06/09/2022	CAL7916	8990E0	B18107	8990E9	B18107	Human error	China Airlines	YES
07/09/2022	SWM216	70E082	XU724	70E084	XU724	Engineering error	Sky Angkor - Cambodia	NO
08/09/2022	JJA2205	71C061	HL8061	71C321	HL8061	Human error	JEJU AIR	YES
08/09/2022	SWM215	70E082	XU724	70E084	XU724	Engineering error	Sky Angkor - Cambodia	NO
09/09/2022	SWM216	70E082	XU724	70E084	XU724	Engineering error	Sky Angkor - Cambodia	NO
13/09/2022	SWM216	70E082	XU724	70E084	XU724	Engineering error	Sky Angkor - Cambodia	NO
14/09/2022	JJA2903	71C333	HL8064	71C064	HL8064	Human error	JEJU AIR	YES



2 Discussion – Aircraft Address (AD):

ICAO Aircraft Address (AD) Discrepancies from Aug22-Mar23

AD - TOTAL Occurrences	73	
IATA Members (19 airlines)	45	61.6%
Non IATA Members	28	38.4%

AD discrepancies: The 45 occurrences of Aircraft Address (AD) discrepancies from 19 IATA Airlines Members are displayed below (Airline / Number of Occurrences):

AD Discrepancies	
Vietjet	15
Cathay Pacific	4
Philippine Airlines	4
Greater Bay Airlines	2
JEJU AIR	2
Jin Air	2
Saudi Arabian Airlines	2
Turkish Airlines	2
Vietnam Airlines	2
Atlas Air	1
China Airlines	1
Fedex	1
Hong Kong Express	1
Malaysian Airlines	1
Silk Way West Airlines	1
Singapore Airlines	1
Thai Airways	1
T'Way Air	1
YTO Cargo Airlines	1

Among the 45 occurrences of Aircraft Address (AD) discrepancies from 19 IATA Airlines Members during the period of August 2022 to March 2023, the most repeated number of occurrences is 1 discrepancy (11 airlines), and 2 discrepancies (6 airlines).

- Vietjet, with 15 AD discrepancy Occurrences is an exceptional case that might require special attention.



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Among the 45 occurrences of Aircraft Address (AD) discrepancies from 19 IATA Airlines Members during the period of August 2022 to March 2023, the most repeated number of occurrences is 1 discrepancy (11 airlines), and 2 discrepancies (6 airlines).

- Vietjet, with 15 AD discrepancy Occurrences is an exceptional case that might require special attention.

These 15 discrepancies from Vietjet are displayed below. No significant pattern is detected, although further consultation should be done.

Date (UTC)	ACID (Flight Plan)	ICAO Aircraft Address (Flight Plan)	Aircraft Registration (Flight Plan)	Target Address (ADS-B)	Aircraft Registration (Actual)
17/12/2022	VJC974	888159	VNA654	8881AC	VNA654
28/12/2022	VJC943	888180	VNA540	888169	VNA540
30/12/2022	VJC943	888180	VNA540	888169	VNA540
14/01/2023	VJC852	888174	VNA661	88811A	VNA661
30/01/2023	VJC866	8880CC	VNA691	8880CD	VNA691
03/02/2023	VJC866	8880CD	VNA691	8880CC	VNA691
05/02/2023	VJC948	8880CD	VNA691	8880CC	VNA691
08/02/2023	VJC822	8881DA	VNA814	8881DB	VNA814
10/02/2023	VJC946	888151	VNA639	888174	VNA639
12/02/2023	VJC890	888125	VNA600	88815D	VNA600
13/02/2023	VJC866	8880CD	VNA691	8880CC	VNA691
14/02/2023	VJC822	8881DA	VNA814	8881DB	VNA814
15/02/2023	VJC822	8881DA	VNA814	8881DB	VNA814
16/02/2023	VJC822	8881DA	VNA814	8881DB	VNA814
17/02/2023	VJC822	8881DA	VNA814	8881DB	VNA814



2 Discussion – Target Identification (ID):

ICAO Target ID (ID) Discrepancies from Aug22-Mar23		
ID TOTAL Occurrences	45	
IATA Members (18 airlines)	23	51. %
Non IATA Members	22	48. %

ID Discrepancies: The 23 occurrences of Target Identification (ID) discrepancies from 18 IATA Airlines Members are displayed below (Airline / Number of Occurrences):

ID Discrepancies	
Cathay Pacific	2
Cebu Pacific	2
Eastern Airlines	2
Vietjet	2
Vietnam Airlines	2
Air India	1
China Eastern Airlines	1
DHL	1
Ethiopian Airlines	1
Hong Kong Air Cargo	1
Hong Kong Express Airways	1
Jeju AIR	1
Korean Air	1
Polar Air Cargo	1
Qatar Airways	1
Thai Airways	1
T'way	1
UPS	1

- Among the 23 occurrences of Target Identification (ID) discrepancies from 18 IATA Airlines Members during the period of August 2022 to March 2023, the most repeated number of occurrences is 1 discrepancy (13 airlines), and 2 discrepancies (5 airlines).
- Very punctual occurrences among IATA Airlines Members (only one or two during the eight-month period analyzed. No significant patterns are detected.

3 Conclusions

Among the HKCAD reported AD and ID discrepancies during the period of August 2022 to March 2023, 19 IATA Airlines Members occurrences contributed to 45 out of 73 AD discrepancies (61.6%), and 18 IATA Airlines Members occurrences contributed to 23 out of 45 ID discrepancies (51.1%).

Regarding AD discrepancies, data shows that most airlines incurred in 1 or 2 discrepancies during August 2022 to March 2023 period. Vietjet is an exception (15 AD discrepancy occurrences), with no detected pattern on those cases. Hence, IATA will assess this particular issue.

Regarding ID discrepancies, data shows that most airlines incurred in 1 or 2 discrepancies during the period of August 2022 to March 2023.

Overall, and with the exception of Vietjet AD discrepancies, IATA understands that ID and AD discrepancies reported do not follow a clear operational pattern, but rather individual occurrences (mostly 1 or 2 cases of reported Airlines).

IATA will inform its Airlines Members about the current situation and will continue monitoring with its Airlines Members future ID and AD discrepancies, aiming to minimize the number of cases.



Thank You

Diego Albert
Assistant Director, Operations, Safety and Security
Asia Pacific

Tel: +65 6499 2539
Mob: +65 9017 7895;

