

**57th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGION**

*Incheon, Republic of Korea
4 – 8 July 2022*

AGENDA ITEM 4: AIR NAVIGATION

IMPLEMENTATION OF VOLUNTARY REPORTING SYSTEM

Presented by the Republic of Korea

INFORMATION PAPER

SUMMARY

The Directors General of Civil Aviation (DGCA) is invited to take a note on the information regarding the vitalization efforts in implementation and its outcomes of the voluntary reporting system by the air traffic management office (ATMO) of the Republic of Korea (ROK), which provides enroute controls and air traffic flow management in the Incheon FIR, and suggest to discuss the recommendable practices among participants on the floor

IMPLEMENTATION OF VOLUNTARY REPORTING SYSTEM

1. INTRODUCTION

1.1 With the aviation industry gradually recovering from the impact of the pandemic, global air traffic volume continues to increase. This calls for safety management capacity enhancements in air traffic management. While traditional risk identification measures such as mandatory safety reporting system, safety audit, normal operation monitoring, safety observation, and control system analysis remain significant and valid, voluntary reporting of potential hazard risks by air traffic controllers in the field has proven to be one of the most effective ways to identify safety hazards and ensure the safety level in air traffic management.

1.2 Newly emerging and rapidly evolving technologies such as artificial intelligence, big data, unmanned aerial vehicles such as UAM, drones, and RPAS, remote/digital control towers, and decision support tools will inevitably affect the existing safety-related regulatory framework in air traffic management. They will also make it challenging for States and regulatory bodies to effectively identify risk factors that may arise from the use of such technologies.

1.3 Amid this emerging risk, Contracting States are required to implement a risk-based safety management system as part of their national safety program, going beyond their conventional safety management system. In line with this innovative challenge, States should restructure their voluntary safety reporting system to make it more effective and convenient in order to support the change toward a risk-based safety management system.

1.4 Air Traffic Management Office (ATMO) of the Republic of Korea (ROK) would like to share the experiences of the Office with regard to the vitalization efforts in implementation and its outcomes so far for the voluntary safety reporting system in preparation for upcoming challenges in the future ATM environment.

2. DISCUSSION

2.1 ICAO provides guidance on the voluntary safety reporting system in Chapter 5 of the Safety Management Manual (Doc 9859) to encourage States to actively utilize the voluntary aviation safety reporting system to identify risk factors in advance from the viewpoint of aviation safety management. Chapter 7 of the manual also provides guidance on the protection of safety data, safety information and related sources captured by voluntary safety reporting systems.

2.2 However, this guidance alone may not be sufficient to vitalize the voluntary reporting system since it is always hard to make it operated as planned or designed. The ATMO recognized the need to take additional measures to encourage voluntary reporting in order to create safety culture in air traffic management. Accordingly, it has taken several measures and some examples are as follows:

- a) Assuring non-punitive policy and providing timely compensations: The security of privacy and non-disclosure principles and data anonymization in the voluntary report process will help ease a burden for the report sources, and incentives for the reporters should be provided in order to encourage the voluntary reporting and promote just cultures;
- b) User-friendly reporting tool: Convenience associated with voluntary reporting process has been increased by adding digitalized reporting methods such as a mobile social media channel and web-page (Air Traffic Service Data Management System (ADAMS)) to conventional channels such as phone, mail, fax, voluntary reporting box, and email;
- c) Enhanced advertisement and various promotion activities: To vitalize the voluntary reporting, promotional activities have been strengthened such as customized education and trainings, distribution of promotional posters, brochures and goods and sharing appealing slogans could have encouraged air traffic controllers to take continued interests in voluntary reporting and

creating a safety culture in the organization; and

- d) Analyzing voluntary reports and constantly sharing the results: Voluntary reporting has helped the ATMO have a better understanding of safety trends with the case analysis of various types and frequencies of risk factors, and failure or performance degradation of mission-critical safety systems and equipment. Details of voluntary reports, which are not subject to non-disclosure requirements, and case analysis results have been broadly shared via safety bulletins or newsletters.

2.3 The ATMO takes responsibility for air traffic management activities which include safe aircraft operations, air traffic control and flow management, airspace management, flight and aviation information provision, search and rescue, and air navigation safety facility expansion. In 2017, the ATMO was reorganized into two Air Traffic Centers (ACCs) with initiating the safety management system (SMS) in ATM area.

2.4 In the need of more participations by air traffic controllers in voluntary reporting system, the ATMO has put in place the following four measures:

- a) Enhancing privacy protection;
- b) Raising awareness on the voluntary reporting system;
- c) Development of reporting tools and improved accessibility for reporter-centric reporting; and
- d) Incentives for self-reporting excellent performers.

2.4.1 First of all, the ATMO has implemented privacy protection measures as follows:

- a) All personal information related to voluntary reports received via email, phone, social media (KakaoTalk), hand delivery, fax, and voluntary reporting box shall be destructed immediately after case analysis;
- b) The Air Traffic Service Data Management System (ADAMS) has been developed to enable the system master to delete personal information contained in voluntary reports uploaded to the system;
- c) Detailed case analysis results have been shared only with the persons in charge of voluntary reporting and safety managers to ensure a high level of privacy protection for reporters and the persons involved; and
- d) When case analysis results are shared across the organization, cases have been de-identified to prevent the disclosure of the reporters or the persons concerned.

2.4.2 Second, the ATMO has implemented measures to improve awareness on the voluntary reporting system as follows:

- a) Produced and distributed promotional materials such as posters, brochures, and goods to maximize the effect of promotional activities using visual content; and
- b) Periodically renewed promotional materials such as slogans and videos, and distributed them through easy-to-access channels such as social media (KakaoTalk), YouTube, text messages, and internal email communication.



관련규정

자율보고자의 면책, 익명성 보장 강화

항공안전법 제61조 (항공안전자율보고)
자율보고대상 항공안전장애 또는 항공안전위해요인을 발생시킨 사람이 그 발생일부터 10일 이내 자율보고를 한 경우에는 고의 또는 중대한 과실로 발생시킨 경우에 해하지 아니하면 처벌을 하여서는 아니 됨

우리본부 내부자율보고는 처벌이 아닌 원인 조사 등을 통해 불합리한 시스템을 개선하기 위한 목적으로 운영하며, 자율보고 담당자를 지정하여 보고자의 신분(유추할 수 있는 내용 비공개)을 철저히 보호합니다.

카카오톡 채널로 자율보고 접수하기

KakaoTalk

▶ 항공교통본부 내부자율보고

[상당 가능 시간]

24시간 언제나!!

인센티브

자율보고 등록자 인센티브 제공

2021년 자율보고 최다 등록자에게 인센티브 제공		
2021년 자율보고 등록건수 1위	1명	10만원 상당의 상품권
2021년 자율보고 등록건수 2위~3위	2명	5만원 상당의 상품권
2021년 자율보고 등록건수 4위~6위	3명	3만원 상당의 상품권

월 자율보고 등록건수 1위에게도 3만원 상당의 상품 제공

자율보고 등록 시엔 안전마일리지(3점)와 사은품도 드려요!

숨은 위해요인찾는

내부자율보고

ADAMS. 자율보고함. 이메일을 이용하여 자율보고 접수하기

Adams 항공교통본부 자율보고센터
<http://adams.esky.go.kr>

ADAMS를 통해 자율보고 등록을 하면 안전마일리지(2점)를 추가로 드립니다!

2020년 1월~12월간 항공교통본부 자율보고 등록 버너를 클릭!!!

반짝반짝 은색으로 빛나고 있는 자율보고함을 보시려 있나요? 같이 비치되어있는 보고서에 내용을 적어 스캔 넣어주시면 담당자가 확인 후 연락을 드립니다!

atssafety@moli.go.kr
숏넷망 이메일에서도 접수 받고 있어요!

우러본부의 자율보고 접수기관

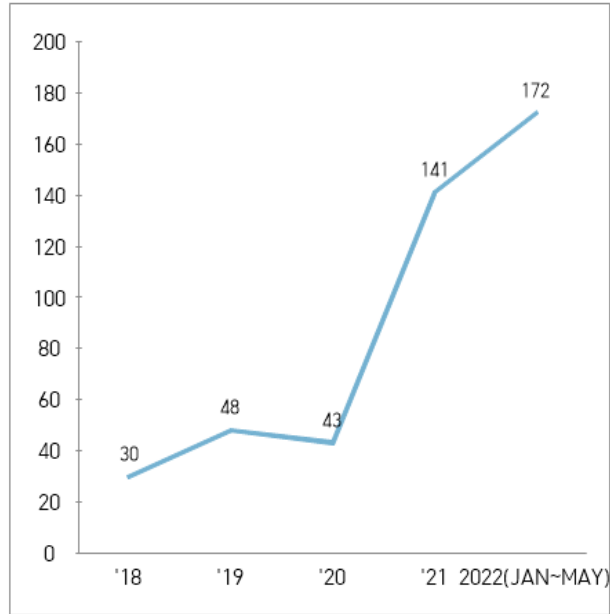
구분	접수기관	연락처	주소
내부자율보고 운영 총괄 (전 분야)	항공교통본부	☎ 053)668-0225	대구광역시 동구 매곡로 1길 50-12 항공교통본부 항공교통안전과 우)41059
	항공교통안전과	fax 053)668-0274	
대구지역관제센터 (관제분야)	항공교통본부	☎ 053)668-0249	대구광역시 동구 매곡로 1길 50-12 항공교통본부 항공관제과 우)41059
	항공관제과	fax 053)668-0276	
인천지역관제센터 (관제분야)	인천항공교통관제소	☎ 032)880-0233	인천광역시 중구 공항로 272 인천공항우체국 사서함26
	항공관제과	fax 032)889-2381	

we are the key of aviation safety

항공교통본부 항공교통안전과

2.4.3 Third, the ATMO has developed reporting tools and improved accessibility for reporter-centric reporting as follows:

- a) SNS (KakaoTalk channel) with a designated channel to collect voices of workers, and webpage (ADAMS) to increase the accessibility and to make reporter-centric reporting process; and
- b) Periodic surveys conducted to collect from workers thoughts and ideas on the voluntary reporting system and the creation of a culture of safety.



2.4.4 Fourth, the ATMO implemented giving incentives for excellent voluntary reporters as a reward such as flight ticket to vacation place.

2.5 The ATMO’s aforementioned measures proved fruitful and effective as the number of voluntary reporting made by air traffic controllers increased 4.7 times to 141 cases in 2021 compared to a mere 30 cases in 2018, 48 cases in 2019, and 43 cases in 2020. The ATMO will continue to take each and every effort to increase the use of the voluntary reporting system.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this paper.