



WORKING PAPER

ASSEMBLY — 40TH SESSION

TECHNICAL COMMISSION

Agenda Item 30: Other issues to be considered by the Technical Commission

**IMPACT ASSESSMENT REPORT REGARDING SUSPENDED SAFETY
AND SECURITY SERVICES**

(Presented by the Democratic People's Republic of Korea)

EXECUTIVE SUMMARY

The purpose of this report is to provide an impact analysis which addresses the aviation safety and operational aspects for each item identified in the following suspended services: SITA, SADIS, Jeppesen, Collins (Avionics).

This report describes the issues concerned, the safety impacts and what is currently being done without the services.

Action: The Assembly is invited to:

- a) note the information provided in this paper; and
- b) support the efforts rendered by DPR Korea for the reinstatement of suspended services.

<i>Strategic Objectives:</i>	
<i>Financial implications:</i>	
<i>References:</i>	

1. INTRODUCTION

1.1 Restriction to service: SADIS

1.1.1 In the Asia and Pacific Regions, world area forecast centre (WAFC) London and Washington have been designated as the centres for the operation of the aeronautical fixed service satellite distribution system, the internet-based Secure Aviation Data Information Service (SADIS) and the world area forecast system (WAFS) Internet File Service (SADIS 2G, Secure SADIS FTP and WIFS), respectively.

1.1.2 The United Kingdom (which is the SADIS provider State) has ceased the provision of the satellite distribution system for information relating to air navigation (formerly known as the SADIS 2G Service) at 1200UTC on 31 July 2016 and furthermore, the United Kingdom in collaboration with the

ICAO had advised users in the APAC Region to transition to the replacement, internet-based delivery system-known as the Secure SADIS FTP.

1.1.3 The DPR Korea was a user State of satellite distribution system for meteorological (MET) information relating to air navigation formerly known as the SADIS 2G service provided from United Kingdom.

1.1.4 The DPR Korea had communicated several times with the SADIS provider in the United Kingdom in order that DPR Korea could receive necessary Secure SADIS FTP information. Unfortunately, DPR Korea was informed in September of 2017 that the SADIS service provider could not provide the service due to sanctions against DPR Korea.

1.2 Restriction to service: SITA

1.2.1 In January 2017, SITA was suddenly terminated for of Air Koryo's PSS service which has been in place for many years subject to an agreement between Air Koryo and SITA.

1.2.2 Due to the actions of SITA, Air Koryo is currently not able to comply with international regulatory standards including the passenger reservation/departure control system (DCS) and advance passenger information (API).

1.2.3 The loss of SITA was validated by a field investigation conducted by the General Administration of Civil Aviation (GACA), DPR Korea on 26 January 2017.

1.3 Restriction to service: Jeppesen

1.3.1 Jeppesen is committed to delivering the highest quality and most advanced products and service in the aviation industry.

1.3.2 Jeppesen navigation data is used to inform commercial NavData subscribers, including airlines, avionics equipment companies and aviation service providers.

1.3.3 The Jeppesen manual was developed to meet the need for a publication providing current information in a condensed form required for modern air navigation under instrument and visual flight conditions. Information contained in the copyrighted Jeppesen charts is independently available from publications produced by the appropriate governing authority.

1.3.4 It is designed for use by experienced, instrument-rated pilots who must be thoroughly familiar and competent with instrument navigation of aircraft. Jeppesen's flight procedure charts depict in a graphic form, convenient for the use of knowledgeable, instrument-rated pilots, the flight procedures exactly as designed, flight-tested and prescribed by government authorities.

1.3.5 In addition, Jeppesen including all subsequent revision, contains a wide variety of information useful to pilots which Jeppesen has obtained from many outside sources.

1.3.6 DPR Korea received a letter on November 2017 which informed Air Koryo of the termination of all services provided by Jeppesen.

2. DISCUSSION /IMPACT ASSESSMENT

2.1 Suspended service – SADIS

2.1.1 *Safety impact*

2.1.1.1 The following information is no longer provided to service providers in DPR Korea.

a) Gridded global forecast of:

- upper wind;
- upper-air temperature and humidity;
- geopotential altitude of flight levels;
- flight level and temperature of tropopause;
- direction, speed and flight level of maximum wind;
- cumulonimbus clouds;
- icing; and
- turbulence

b) Global forecast of significant weather phenomena (SIG WX)

2.1.1.2 The SIGWX, Upper wind temperature charts necessary for flight preparation are no longer provided to flight crews in DPR Korea.

2.1.2 *Regulatory compliance impact*

2.1.2.1 The ICAO Standards and Recommended Practices (SARPs) including conclusions adopted by ICAO cannot be implemented.

2.1.2.2 The requirements of ICAO Annex 3 — *Meteorological Service for International Air Navigation* are described below:

3.1 Objective of the world area forecast system. The objective of the world area forecast system (WAFS) shall be to supply meteorological authorities and other users with global aeronautical meteorological en-route forecasts in digital form. This objective shall be achieved through a comprehensive, integrated, worldwide and, as far as practicable, uniform systems, and in a cost-effective manner, taking full advantage of evolving technologies.

3.2 World area forecast centres

3.2.1 A Contracting State, having accepted the responsibility for providing a world area forecast centre (WAFC) within the framework of the WAFS, shall arrange for that centre:

Conclusion of the 19th Sub-group Meeting, APAC

Conclusion19/5 – SADIS user states and SADIS users to prepare for cessation of SADIS 2G:

That, ICAO be invited to urge SADIS user States and SADIS users to confirm the nature of their SADIS service, and where necessary ensure that they are prepared for the cessation of SADIS 2G. For those users not yet using, or who have not yet arranged

accounts for, Secure FTP, it is strongly recommended that they undertake actions to migrate to the Secure SADIS FTP service at the earliest opportunity.

2.1.3 *Efficiency impact*

2.1.3.1 The efficiency of using an alternative source other than SADIS is very low as ICAO requires that forecast information to be provided by two (London, Washington) WAFCs (World Area Forecast Centre) and shall be used for flight operations.

2.1.4 *Financial impact*

2.1.4.1 Purchasing MET information from other worldwide service providers necessary for regularity of flight operations involves extremely high costs.

2.2 **Suspended service – SITA**

2.2.1 *Efficiency impact*

2.2.1.1 Aircraft operators offering international air transport services cannot participate in electronic data interchange systems for ensuring the efficiency in the processing of passenger traffic at international terminals including:

- SITA reservation (advanced passenger information (API), passenger name record (PNR), transit/transferring service);
- SITA airfare price;
- SITA ticketing (air ticketing in paper form or electronic form);
- SITA departure control service (check-in, weight and balance calculation, automatic load planning, bagtag and boarding pass printing, operational message generation, flight histories, operational reports); and
- aircraft movement information (takeoff/landing).

2.2.2 *Regulatory compliance impact*

2.2.2.1 International SARPs relating to safety and security of passengers developed by international organizations under the United Nations such as ICAO cannot be implemented:

Resolution of ICAO 39th Assembly Meeting.

A39-20: Consolidated statement of containing ICAO policies related to facilitation.

APPENDIX D.

Passenger Data Exchange Systems.

The Assembly:

- *Urges Member States to call upon aircraft operators offering international air transport services to participate in electronic data interchange systems by providing advance passenger information in order to achieve maximum efficiency levels in the processing of passenger traffic at international terminals; and*

- *Urges Member States, in the use of electronic data interchange systems, to ensure that the passenger data requirements conform to international standards adopted by relevant United Nations agencies for this purpose, and to ensure the security, fair processing and safeguarding of such data;*

2.2.3 *Financial impact*

2.2.3.1 Developing and using alternative software compatible with SITA for the use of international line operations is extremely expensive.

2.2.4 *Security impact*

2.2.4.1 Security of international passenger traffic and safe flight operation cannot be ensured to any high degree.

2.3 **Suspended service: Jeppesen**

2.3.1 *Safety impact*

2.3.1.1 Flight safety cannot be ensured as flight crews are not be provided with Standard Airway Manual and En-route charts during flight preparation considered necessary for safe line operations.

2.3.2 *Financial impact*

2.3.2.1 Purchasing the necessary charts and flight information related to intended use airports and routes from various sources of each States involves extremely high costs for the service provider.

3. **CURRENT PRACTICE**

3.1 **Restricted service of SITA:**

3.1.1 Line operations are being conducted while receiving all passenger information necessary for flight operation from each airline through manual processing.

3.2 **Restricted service of SADIS:**

3.2.1 En-route MET information and relevant charts are being purchased by local MET service center and used for current flight operation.

3.3 **Restricted service of Jeppesen:**

3.3.1 Relevant AIPs from each State are being used for flight preparation.

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