International Civil Aviation Organization

Sixteenth Meeting of the ICAO Aeronautical Information Services − Aeronautical Information Management Implementation Task Force (AAITF/16)

Video Teleconference, 07 – 11 June 2021

Agenda Item 3: Review of Air Navigation Deficiencies in the AIS Field

SUPPORTING IMPROVEMENTS IN AERONAUTICAL INFORMATION

(Presented by IATA)

SUMMARY

This paper presents observations and recommendations from IATA and member airlines' perspective for consideration to improve overall delivery of aeronautical information.

1. INTRODUCTION

1.1 In past AAITF meetings IATA has provided summaries of issues encountered from incorrect publication of aeronautical information or lack of quality management in its development. Discussions each year have helped to improve specifically identified areas and this paper seeks to continue those progressive discussions and actions.

1.2 As an immediate priority, IATA and member airlines support the current work progressing under ICAO to improve the promulgation and distribution of NOTAMs, and specifically reducing the volume of 'old' NOTAMs in global systems.

1.3 Complementary to this work, and in alignment with airline input to this Task Force in previous years, IATA has coordinated with member airlines to collate a recent list of ongoing concerns and examples where Aeronautical Information is either falling below expected quality, or in need of clarification for improved interpretation and use.

1.4 This paper captures a summary of the most recent feedback and reporting however unresolved issues from previous years' papers that are not captured here should also be constantly reviewed and addressed.

1.5 Additional to this paper you have also heard from IATA member Qatar Airways at the ICAO Webinar on day one this week, through two presentations on specific examples they have encountered and the impacts on operations of a single global airline.

2. DISCUSSION

Consolidation and reduction of 'old' NOTAMs

2.1 Pre-meditated long-term or permanent changes are required under the provisions of Annex 15 to be promulgated via AIP Amendment / AIP SUP rather than by extended-period NOTAMs where possible. Each notification should use the relevant AIS product (AIP Amendment, AIP SUP, NOTAM) and provide the necessary prior notice according to the published AIRAC process.

2.2 It may be unavoidable to issue a NOTAM because of timing of the change with the next published AIRAC date, but in this case, the issued NOTAM content should be immediately reflected in the AIP in the next AIRAC cycle and cancelled to prevent excessive increase in the number of NOTAMs.

2.3 Quality Management Processes should clearly describe a review process where long-term NOTAMs are checked at least once per month for expiration or their need to be absorbed into the AIP Book (not just translated into AIP SUPs).

Compliance with NOTAM formats

2.4 While the industry continues to progress from AIS to AIM, aeronautical information providers need to continually focus on ensuring Quality Management systems are in place and utilised so as to deliver the end user requirements.

2.5 To better support the transformation from AIS to AIM, and to conform with standards that have been in place for more than two decades, it is imperative that information be presented in a form compliant with the ICAO standards.

2.6 There is ongoing feedback of States continuing to issue NOTAMs that are not in compliance with the ICAO standard format, however the past twelve (12) months has seen improvements with the publication of COVID-related NOTAMs.

2.7 Any format inconsistencies can contribute to errors in the NOTAM management system and an onerous cycle in which many resources must be devoted to data cleansing to remove potential confusion. The confusion caused by non-compliance to standard format can lead to a misinterpretation of the NOTAM information and pose a risk to safety.

2.8 NOTAMs transmitted in legacy text format must be processed separately for input into NOTAM databases. In addition, translating the core content from free text doesn't fully exploit the capabilities of modern technologies that can automate many processes providing significantly more and richer data.

2.9 Development of electronic NOTAM formats and standards for transformation to digital-based NOTAM management must continue. This must include a quality-controlled transition from AIS to AIM within a priority timeframe so that standardisation exists across the entire aviation community.

Standardised & Consistent Content

2.10 Multiple NOTAMs on similar topics can create confusion when they use differing descriptors for elements of the content. For example, inconsistent descriptions of crane obstacles near aerodromes can create unnecessary workload for determining take-off performance.

2.11 Example 1: A crane NOTAM was issued effective 2059 and the crane started at 2115. That provided performance engineers sixteen (16) minutes notice to evaluate the effects and issue a brief to operating crew.

Bxxxx/21 NOTAMN
Q) XXXX/QOBCE/IV/M /A /000/999/3752S17520E005
A) XXXX B) 2103152115 C) 2103160530
E) MULTIPLE CRANES OPR 840M NE THR RWY 18L. MAX HGT 104FT AGL

2.12 The position of multiple cranes was described as a singular point "840M NE THR RWY 18L. MAX HGT 104FT AGL". Determination was required to clarify that the most limiting crane was at that position with the others in a small radius as multiple cranes could not be in the same location.

2.13 The performance engineers had the challenge of converting the bearing and distance information into a Lat/Long, and then ascertain the elevation of the ground at that point to enable them to apply the height Above Mean Sea Level (AMSL) to then be able to determine the effect on take-off performance. The short notice of the NOTAM can induce errors in making those calculations.

2.14 Other examples use "APRX" to describe the position of the obstacle which adds to the complexity of identifying an accurate position to provide relevant performance impacts in crew briefs.

2.15 Example 2: By comparison, the following example NOTAM (apart from using only AGL) provides readily usable information – 5 days' notice, Lat/Long plus bearing/distance, and clear statement of operating hours (actual hours of operation are not always clear if different to NOTAM duration unless specified).

Bxxxx/21 NOTAMN
Q) XXXX/QOBCE/IV/M /A /000/999/4019S17537E005
A) XXXX B) 2103211800 C) 2104010430
E) MON-FRI 0700-1730 XXXX DAYLIGHT TIME (XXDT).
XXDT IS xxHR AHEAD OF UTC.
CRANE OPR AT 40 19 17.93 S 175 37 36.08 E, 205M SE OF DTHR RWY 25.
MAX HGT 197FT AGL. OBSTACLE LIMITATION SFC INFRINGED BY 183FT.

2.16 Some recommendations were provided from the Aircraft Operator as feedback to the relevant Regulator and included:

- NOTAM published at least 72 hours prior to activation (48 hours minimum)
- Use of both Lat/Longs and bearing/distance (for VFR aircraft)
- Centre as Lat/Long and radius if multiple cranes are involved. Bearing (M)/distance optional if of value to VFR operations.
- Elevation described as Above Mean Sea Level (AMSL). Height Above Ground Level (AGL) optional if of value to VFR operations.

2.17 The consultative process between the Aircraft Operator and the Regulator has already resulted in significant improvement in NOTAM consistency for the specific advice of crane obstacles.

Change Process

2.18 The change processes for aeronautical information products are still often inconsistent for different States in APAC and not always aligned to ICAO's Aeronautical Information Regulation And Control (AIRAC) standards and the related steps in Annex 15 - Aeronautical Information Services (AIS) document. AIRAC defines a series of common dates and an associated standard aeronautical information publication procedure for States.

2.19 ICAO currently publishes the schedule of AIRAC effective dates from 2015 to 2029 at https://www.icao.int/safety/information-management/Pages/AIRACAdherence.aspx.

2.20 States are reminded of the need for timely promulgation of information, particularly where it requires a lead time for the navigation service providers to update airline data bases. ICAO guidance material is available and clearly states adequate lead time must be given to worldwide agencies to adjust databases and should be notified to coincide with AIRAC cycles where possible.

2.21 It is also important that the appropriate AIS products are being utilised to communicate the relevant changes depending on the change element, magnitude, timing and duration.

2.22 We also note the separate work within AAITF to manage short-notice amendments, deferrals or cancellations to published information prior to effective date.

Aerodrome Information

2.23 Publishing information on aerodrome layouts, facilities and services shall be done in accordance with the standards in Annexes 4 and 15, and with the mandatory procedures in Doc 10066 – PANS-AIM.

2.24 There continues to be examples of States not publishing adequate information regarding changes resulting from airfield works.

2.25 States are also again encouraged to conduct regular reviews to ensure all aerodrome information is accurate and published, particularly regarding the layout of the movement areas for an airport and the associated facilities.

NOTAM Q-Codes

2.26 Q-Codes must properly reflect the content and/or priority of the NOTAM. The most limiting Q-Codes must be used as standard practice to ensure automation systems prioritise correctly.

2.27 A single NOTAM should not normally include two or more subject of change or advice, particularly if the change elements are as equally important. Instead there should be two or more NOTAMs with the individual elements with their relevant Q-Code.

2.28 If a second subject is included as being considered related and minor, or as a consequence of a first element with greater magnitude or impact, it should be communicated using the most limiting Q-Code.

2.29 Code QXXXX is not supported in Q-Code orientated systems and NOTAM recipients must correct these manually. Where an existing appropriate code cannot be identified, and QXXXX is being used for what is becoming a routine scenario, a change should be proposed to the AIM Working Group.

Timing of NOTAMs

2.30 Some NOTAMs are being published with very little notice despite the changed condition being known well in advance, e.g.: closure of an airway, notification of a crane or cranes near a runway.

2.31 Where changed conditions are to occur on a daily basis at same or slightly different times, such as a runway closure or activation of a Danger Area, it is preferred to have a single NOTAM for the whole duration that contains the daily times rather than a new NOTAM issued each day.

2.32 Publication of NOTAMs for contingency airspace responses must be absolutely clear in intent and precise in timing. This is of paramount importance for the Aircraft Operators and neighboring FIRs to know when ATC services cease or are resumed.

Geographical Coverage

2.33 If the NOTAM conditions are to affect a large geographical area it enhances awareness of pilots and dispatchers if all affected ATS routes are clearly listed. The following example lists the affected air-routes within the NOTAM area:

GG VHZZNMXX
210914 RJAAYNYX
(P1564/21 NOTAMN
Q) RJJJ/QRACA/IV/NBO/W/050/300/4044N14148E044
A) RJJJ B) 2104220545 C) 2104220800
E) JAPAN AIR SELF DEFENCE FORCE ACT WILL BE CONDUCTED, AS FLW
BOUNDED BY THE POINTS
412500N1412945E 412500N1420700E 401210N1421347E
400116N1415354E 405008N1412402E 410440N1412400E
TO POINT OF ORIGIN,
THE LINE CONNECTING POINT 400116N1415354E TO
405008N1412402E IS ALONG THE COASTLINE
EXCLUDING THE OVERLAPPING AIRSPACE OF HACHINOHE CTR AND MISAWA CTR
AND MISAWA NR1/NR2 POSITIVE CONTROL AREA
ATC WILL NOT CLEAR NON-PARTICIPATING IFR FLT THRU THIS AREA.

PORTION OF AWY V22, Y10 AND Y302 AFFECTED AT OR BELOW FL310, REQ TO
FILE ALTN AWY AS FLW EXC DEPARTURE ACFT FROM RJCC.
V22 - CHE V30 HWE V31 MRE V13 WAPPA HPE V33/V34
Y10 - CHE Y12 HWE Y144 IWASE Y125 METEL Y102 SDE Y106 RUBIS
Y302 - CHE Y12 HWE Y144 MAGGY Y32 YTE Y304 GUGBI Y30 SWAMP
RMK/ATM CENTER TEL:81-92-608-8872
F) 5000FT AMSL G) FL300)

Constant Changes

2.34 NOTAMs have been published for a defined period but then cancelled regularly (sometimes daily) with a new similar NOTAM issued with only minor changes. In one example, a single Restricted Area was activated by NOTAM for five days, but then cancelled and re-issued as a new NOTAM four times during that duration with only minor changes. Not only is it difficult to track what change is active for this single area, this occurs with multiple other Restricted Areas activated by NOTAMs as well adding to the potential confusion.

2.35 In the event of a simple due date or period change that is not accompanied with a content change, it is more effective to promulgate those by "REPLACE" NOTAM (NOTAMR) than to cancel the NOTAM and then issue a completely new one. Revision processing will reduce the number of NOTAM issues and make it much easier to track the history of NOTAM changes.

Availability of Aeronautical Information

2.36 Whilst priority remains to progress the digitization of aeronautical information and move from AIS to AIM, there is a still the need to ensure aeronautical information products are current, accurate, updated correctly, and always easily available and accessible to Airspace Users within the appropriate timeframes. Many States now provide very good online access to AIS.

2.37 Contact details are also very important for dealing with Aircraft Operator queries. AIS offices must ensure accuracy and correctness of contact details as published in AIP GEN. This helps to avoid issues that can arise from phone numbers being incorrect or outdated, and emails not having company domains and not published in formal documentation.

2.38 Nominated persons or positions of contact, either by phone or email, must be manned and available as notified in the AIP or other related documents.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper; and

b) discuss any relevant matters as appropriate.

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