



ICAO

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Fifteenth Meeting of the ICAO Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/15)

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Agenda Item 4: Review of Air Navigation Deficiencies in the AIS Field

AERONAUTICAL INFORMATION REQUIREMENTS – AN AIRLINE PERSPECTIVE

(Presented by IATA)

SUMMARY

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

1. INTRODUCTION

1.1 Standardisation and consistency in aeronautical data requirements and processes are vital for Airspace Users. In ensuring the product is fit-for-purpose there are multiple considerations including:

1. Data quality specifications required by airlines
2. How airlines utilize aeronautical information
3. Aeronautical Information - airline challenges

1.2 There is also a priority on the flow of aeronautical information from source to user and the obstacles encountered that can cause issue to airlines.

1.3 This paper and related presentation provides examples of the aeronautical data requirements and processes from the users' perspective and also provides case studies and observations of information flow and related obstacles and challenges.

2. DISCUSSION

Data Quality Specifications Required By Airlines

2.1 Data has many key attributes that contribute to its quality and effective value-add for its use. In terms of use by airlines, these key attributes can be categorized as:

1. Timely:
 - On time distribution;
 - Complies with ICAO SARPs e.g. AIRAC system;
 - Electronic distribution for fastest path.

2. Format:
 - Standardized format;
 - AIP, NOTAM Format - Correct use of QCODES.
3. Accuracy:
 - Close to reality, error free.
4. Integrity and Resolution:
 - Assurance that information has not been corrupted;
 - Meets required precision standards.
5. Complete:
 - Adequate content in publications.

How Airlines Utilize Aeronautical Information

2.2 The following list describes the access and use of aeronautical information for the presenting airline:

- Monitors 164+ State AIPs. Other data not available in AIPs received directly from airports;
- 2210 NOTAMs received daily into the NOTAM Manager application (based on specific criteria);
 - Airport studies, pilot airport briefing, airline operational manuals;
 - In-house databases used by operational staff;
 - Assessment of the impact brought by aeronautical information changes;
- Data published is used in flight planning system, navigation charts, FMS navigation databases, take-off performance calculations, and pilot briefing packages (NOTAMs / MET, company info); and,
- Decision Making – airport selection, airspace utilized and avoided, airways / FLs flown, company policies.

Aeronautical Information – Airline Challenges

2.3 The following table provides examples of elements commonly missing from aeronautical information sources and its effect on the users.

Data Element	Common elements missing from publications	Relevance / importance to airlines
Airport	<ul style="list-style-type: none"> • ICAO Airport reference code • Low Visibility Procedures (LVP) – availability and approval process • Service available during scheduled operational hours 	<ul style="list-style-type: none"> • Assessment of Airport adequacy • Impacts operating minima (take-off & Landing) • Determine availability of aerodrome
Runways	<ul style="list-style-type: none"> • RWY shoulders 	<ul style="list-style-type: none"> • Impact operational procedures for A380 / B748

Data Element	Common elements missing from publications	Relevance / importance to airlines
Parking stands and aprons	<ul style="list-style-type: none"> • PCN values • Aircraft parking stand limitations (using codes) not just listing examples of the aircraft types • Guidance systems availability (VGDS) and operation 	<ul style="list-style-type: none"> • Assessment of airport adequacy for A380, B748, B773
Taxiways	<ul style="list-style-type: none"> • PCN values, width • Aircraft restrictions – if applicable 	<ul style="list-style-type: none"> • Assessment of airport adequacy for A380, B748, B773
Approach Procedures	<ul style="list-style-type: none"> • Wording such as “Trial / experimental procedures” need explanation of the actual constraint(s) expected in their use. 	<ul style="list-style-type: none"> • Constraints of such procedures are known, and risk assessment done
Temporary Displaced Threshold	<ul style="list-style-type: none"> • Affected Instrument Approach Procedure, e.g. ILS • Alternative Landing AIDs e.g. Temporary PAPI, DTHR markings • Additional restrictions-if any 	<ul style="list-style-type: none"> • Prepare for alternate approach procedures • Recommended altitude descent calculations
Unserviceable NAVAIDs	<ul style="list-style-type: none"> • Affected IAPs • Alternate Approach procedures • Alternate missed approach procedures • The NAV AID’s ident and frequency 	<ul style="list-style-type: none"> • Prepare for alternate approach procedures
OCA(H) changes	<ul style="list-style-type: none"> • Revised Aerodrome Operating Minima – if published by the State 	<ul style="list-style-type: none"> • Approach minima determination
Work-in-progress (WIP)	<ul style="list-style-type: none"> • Lack of published Information on works • Lack of regular updates on the progress of works through NOTAM with relevant caution to crew • Use of official AIS publications (AIP SUP) instead of safety bulletins published on websites 	<ul style="list-style-type: none"> • Avoid crew confusion when new infrastructure is visible

Aeronautical Information Flow Obstacles

2.4 The following provides observations from the users’ perspective of the aeronautical data requirements and processes and the benefits of minimising or altogether removing related obstacles and challenges to accessing quality data and information.

2.5 Website - States publishing Aeronautical Information on their respective websites provide the following benefits:

- Timely distribution;
- Centralized location for reference;
- Effective communication and notification; and
- Analysis and impact of changes

2.6 Bilingual with English – airlines face challenges related to publications not issued in English. Translation of AIPs published in non-English languages pose a challenge to end users, especially the meaning of technical instructions which may get ‘Lost In translation’ when doing direct translation.

2.7 Contact details – AIS offices must ensure accuracy and correctness of contact details as published in AIP GEN Section. Challenges encountered include:

- Published phone numbers - either incorrect or nobody answers;
- Email - non-company email addresses being used office contacts, not published in AIP or NOTAMs;
- Contact being sought through Industry engagement, i.e. AIS AGORA, data-houses providers, IATA regional offices.

2.8 The following are some additional general observations from the presenting airline that can provide support for changes to minimise or altogether remove obstacles and challenges that are still encountered in sourcing aeronautical information products:

- Lack of notification / distribution of new publications;
- AIS office may struggle to locate correct expertise to answer questions. Originators providing aeronautical data should have awareness, guidance and training to perform tasks proficiently;
- Stakeholder(s) consultation (the airline had to assist an agency in writing a NOTAM for DISPL THR);
- Aeronautical data not shared with appropriate agencies (cross border co-ordination, i.e. WPTs);
- Not recognizing which aeronautical data and in what timeframe must be communicated to appropriate agencies;
- Originator(s) need to understand importance of providing aeronautical data to AIS/AIM;
- Lack of understanding on how aeronautical data impacts airline operation;
- Lack of information for all agencies can lead to safety occurrence;
- Lack of response to queries raised, significant time spent on follow ups; and,
- Language and cultural challenges.

2.9 **Appendix A** provides case studies of events affecting the efficient and effective flow of aeronautical information.

Conclusion

2.10 The quality of information provided by State AIS regularly falls short of user requirements. While the industry continues to progress from AIS to AIM, aeronautical information providers need to continually focus on end user requirement(s).

2.11 Regulatory and quality management oversight must continue to improve in order to ensure that airlines, pilots, data houses and other end users can rely on receipt of data and information with the attributes of timeliness, completeness, accuracy, required integrity & resolution, and presented in consistent and standardized format.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) discuss any relevant matters as appropriate; and
- c) lead changes within your relevant organizations and agencies to ensure the quality generation and distribution of aeronautical information for airspace users.

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APPENDIX A: AERONAUTICAL INFORMATION FLOW OBSTACLES - CASE STUDIES
A.1: Construction works notification & progress update

1. May 2019, Flight Crew reported: TWYs under construction, poor marking and lighting to indicate closure.
 - No AIS publications available on construction of new TWYs. Potential risk of aircraft entering a construction area during ground maneuvering
 - Aerodrome Operator contacted, confirmed two (2) new TWYs were under construction
 - Regular NOTAMs issued advising of RWY closures (TWY linking works to RWY?)
A0123/19 NOTAMN
B) 1905030800 C) 1905031500
E) RWY 07L/25R BTN TWY 'A' AND 'B' CLSD.
 - Once these NOTAMs expired, there were no details on TWY construction. Airline had to take responsibility to inform flight crew on new TWYs through a Company NOTAM
 - No NOTAM or AIP SUP detailing TWY Specifications - Location, Length, Width, PCN, Speed Restrictions, Lighting, HST status
 - If AIP SUP had been issued with relevant details and drawing, navigation charting data houses could have updated charts used by flight crew showing TWY construction location(s).
2. Feb 2020, Flight crew reported ongoing WIP for construction with multiple TWYs closures
 - No aeronautical information (NOTAMs / AIP SUP) published about ongoing infrastructure construction.
 - Published NOTAMs did not advise of closed TWYs
 - State did not take action to publish NOTAM / AIP SUP after query raised.
 - Lack of published NOTAMs /AIP SUPs leads to reduced situational awareness of construction areas by flight crew, workload increase.
 - To enhance visualization of construction areas, an AIP SUP is preferred with amended aerodrome charts.
 - Temporary charts provided by states allow data houses to produce charts to reflect situation on ground

A.2: New apron, parking stand

- For new/upgraded apron and parking stands the following information is a must
- Apron - Location, PCN, Strength, Taxi Lane Restrictions if any
- Parking Stands – Coordinates, PCN, VGDS, A/C Type or Length & Width it can accommodate.
- Preference to have AIP SUP issued to include relevant textual details and layout charts
- Examples of NOTAMs with required details for a new apron and parking stand:

E) ADDITIONAL AD DATA AS FLW: NEW APRON SURFACE: CONCRETE STRENGTH: PCN 54 R/C/W/T DIMENSION :130 X 291M	E) NEW PARKING STANDS: PARKING ORIENTATION POWER-IN/POWER-OUT. ALL ACFT WILL BE PARKED FACING NORTH. LOCATION: EASTERN PART OF THE APRON SURFACE: CEMENT CONCRETE STRENGTH: PCN 32 R/B/W/T DIMENSIONS: TOTAL APRON 151.6M X
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	75M SHOULDERS: 7.5M ALL AROUND EXCEPTION TOWARDS WESTERN SIDE AS APRON IS CONTINUOUS ON WESTERN SIDE. MARKINGS: TAXI-LANE GUIDELINES, APRON EDGE, AIRCRAFT STAND GUIDELINES, APRON SAFETY LINES, STOP BAR, STAND IDENTIFICATION NUMBER. LIGHTING: APRON EDGE LGTS, APRON FLOOD LGTS CONNECTING TWY: N1 STAND NO.10: WING SPAN-27.05M LENGTH-27.15M TYPE POWER-IN/POWER-OUT SUITABLE FOR ATR-72-500
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A.3: Temporary Displaced Threshold

For DTHR, operators require the following to be included:

- Declared Distance
- NAVAIDs Availability
- Instrument Approach Procedures (Impact)
- Altitude Ribbons recalculated
- Visual Landing Aids (Temporary PAPI)
- Lighting availability
- Surface markings
- Special Procedure/Restriction as applicable
- Obstacles located in construction area for performance calculations
- Example of a NOTAM lacking sufficient details:
 - E) RWY 18/36 LEN DECREASED TO 11129FT (3392M).
DTHR ABM TWY D.
RWY DESIGNATION TODA TORA ASDA LDA
18 3392 3392 3392 3188
36 3392 3392 3392 3392.
- Example of a NOTAM containing relevant details:
 - E) THR RWY 32 DISPLACED 1430M
MARKED BY 5 GREEN LIGHTS EACH SIDE HN DUE WIP
RWY 14/32 1330M EAST END NOT AVBL
OBST 13FT AGL ON RWY 1170M FM START OF TORA RWY 14
DECLARED DISTANCE AND GRADIENT CHANGES
RWY TORA TODA ASDA LDA
14 1010 1070(4) 1010 1010
32 1070 1130(1.2) 1070 1010
SUPPLEMENTARY TKOF DISTANCE
RWY14- 920(1.6) 960(1.9) 989(2.2) 1010(2.5) 1049(3.3)
RWY 32 TKOF TO COMMENCE AT RED LIGHTS
RWY 32 PAPI NOT AVBL
RWY 14 INT DIST MARKERS READ INCORRECTLY WHEN RWY 32 DISPLACED
- Sample NOTAMs showing variance of detail published
 - H----/20 NOTAMN
 - Q) ----/QMTCM/IV/NBO/A/000/999/3336S15047E005
 - A) ----

B) 2005122230 C) 2005130030
E) DTHR RWY 28 607M (1992) DUE WIP EASTERN HOOKCABLE
MARKED WITH WHITE V-BAR MARKERS EACH SIDE OF THE RWY
TWY A AND TWY B NOT AVBL
PAPI RWY 28 NOT AVBL
RWY LGT NOT AVBL
RWY 28 PERM THR MARKINGS NOT OBSCURED
RWY 28 AIMING POINT AND TDZ MARKINGS INCORRECT
RWY 10 DIST MARKER BOARDS INCORRECT
CRITICAL OBST VEHICLE 6.6FT AGL 1750M FROM START OF
TORA RWY 10 DECLARED DISTANCE AND GRADIENT CHANGES
RWY TORA TODA ASDA LDA
10 1587(5206) 1647(5403)(2.0) 1587(5206) 1587(5206)
28 1587(5206) 1647(5403)(4.6) 1647(5403) 1527(5009)
SUPPLEMENTARY TKOF DISTANCES
RWY28- 1293(4242)(3.3)
RWY10- 1450(4757)(1.6) 1576(5170)(1.9)

A---/20 NOTAMR A----/20
Q) ----/QMTCM/IV/NBO/A/000/999/----N-----E005
A) --- B) 2004100920 C) 2006010800
E) RWY 20: THR DISPLACED TOWARDS ARP BY 2480M.
RWY AVBL DIMENSIONS: 2520X97M.
RWY 02/20: TORA TODA ASDA LDA 2520M.
RWY 20: ONLY 2 NDB APPROACH AVBL.
LOM DIST FROM DTHR 6770M, LOM CROSSING HGT (330)M.
LMM DIST FROM DTHR 3500M, LMM CROSSING HGT (180)M.
TWY 1 CLSD FOR TAX OF ALL ACFT TYPES.
DAY AND NIGHT MARKING FOR DTHR PROVIDED.
RCLL OPR. 10 RTHL AND RENL INSTL ON DTHR LINE.
ALL-ROUND LIGHTS OPR IN LGT SYSTEM.
REDL AND LIGHTS FOR TOUCHDOWN ZONE SIGN BOARDS UP TO DTHR 20 U/S.

- NOTAM includes details about revised IAP crossing value, no info about VISUAL AIDs

A----/20 NOTAMN
Q) ----/QMTCM/IV/NBO/A/000/999/5610N09230E005
A) ---- B) 2008010000 C) 2008312359
E) TWY M CONSTRUCTION WIP.
THR 29 DISPLACED BY 400M TOWARDS ARP.
DTHR COORD: 561004.15N 0923052.92E.
RWY USABLE LEN 3300M.
EQPT UP TO 3.4M HIGH OPR IN CLSD RWY SEGMENT.
DAY AND NIGHT MARKINGS PROVIDED.
RWY 29:
- VORDME APCH: FAF D 5.0 KRS HGT (350)M, SDF D 3.1 KRS HGT (250)M.
- 2 NDB APCH: FAF D 5.0 KRS HGT (350)M, LOM CROSSING HGT (270)M,
SDF D 3.1 KRS HGT (240)M, LMM CROSSING HGT (110)M.
DECLARED DIST:
RWY 29: TORA ASDA LDA 3300M, TODA 3700M.
RWY 11: TORA ASDA LDA TODA 3300M,
- INT TWY D: TORA ASDA LDA TODA 1907M,
- INT TWY C: TORA ASDA LDA TODA 2531M.

A.4: NAVAID Unserviceability

- NOTAM advising NAVAID unserviceability should have complete information including RWY, IDENT, FREQ.
- Where NAVAID (VOR / DME / NDB) is used in a procedure, clear guidance should be given on actions to follow i.e. ILS missed approach procedure utilizing a VOR that's declared unserviceable.
- Example of NOTAM missing critical information:
E) ILS/DME U/S
- Example of NOTAM with complete information:
E) ILS BVT 111.150MHZ RWY12 U/S DUE TO MAINTENANCE, DO NOT USE, POSSIBLE FALSE INDICATIONS
- Example of NOTAMs where a NAVAID is unserviceable and impacting associated procedures:
E) DVOR/DME 'BEL' FREQ 117.20 MHZ CHANNEL 119X. BOTH U/S
E) MISSED APPROACH PROCEDURE RWY 07/25 AND RWY 17/35 CHANGED, FLY STRAIGHT AHEAD TO 3000FT, THEN AS DIRECTED BY ATC, DUE BEL VOR OUT OF SERVICE.

A.5: Permanent changes made at Short Notice

Two (2) NOTAMs issued advising of IAP withdrawn:

- E) IAC VOR RWY26 WITHDRAWN.
- E) IAC ILS Z OR LOC Z RWY 26 WITHDRAWN.

Operational impact:

- Only RNAV procedures available to both RWY ends
- Aerodrome Operating Minima - ILS 200'/550m vs RNAV 430'/1300m
- GPS outage consideration, airline operational rules on conducting visual approaches

Airline requirements:

- Advance Notification (Communications through AOC / Airline, Aeronautical Publications)
- AIRAC adherence

A.6: Runway Surface Condition

- Examples of NOTAMs missing Location of slippery area:
E) END OF RWY 25L AND 07R IS SLIPPERY. PILOTS ARE ADVISED TO EXERCISE CAUTION DURING AND LANDING AND TAKEOFF
E) PARTS A AND B OF RWY 09/27 MAY BE SLIPPERY WHEN WET.
- Examples of NOTAM with location of slippery surface area:
E) TDZ OF RWY 08 AND 26 IS SLIPPERY WHEN WET. PILOTS TO EXERCISE CAUTION
E) A PORTION OF RWY 04/22 MAY BE SLIPPERY WHEN WET BTN 400M TO 800M FM THR RWY 22 (WI TDZ RWY 22). PILOTS TO EXER CTN.

- Note the writing styles applied to content, abbreviations versus full wording. This can impact automation used by airline and data-house operational systems.

A.7: Obstacle, OCA/H & minima

States which publish visibility values are encouraged to include revised visibility values when changes to OCA/H are NOTAMed.

For states that do not publish visibility values the airline operational staff recalculates the values and publishes as a company NOTAM for pilots.

E) AERODROME OPERATING MINIMA FOR RWY 33 CHANGED AS FOLLOWS:
ILS RWY XX CAT I:
CAT A DA(H) - 244(217) FT
CAT B DA(H) - 256(229) FT
CAT C DA(H) - 264(237) FT
CAT D DA(H) - 293(266) FT
CAT E DA(H) - 336(309) FT
ILS RWY XX CAT II:
CAT A DA(H) - 199(172) FT
CAT B DA(H) - 217(190) FT
CAT C DA(H) - 228(201) FT
CAT D DA(H) - 243(216) FT
CAT E DA(H) - 269(242) FT
REF AIP SECTION XXXX AD 2.22 FLIGHT PROCEDURES, SUBSECTION 3.1
LANDING OPERATING MINIMA AND XXXX AD 2.24 CHARTS RELATED TO AN
AD, IAC - ICAO RWY 33 ILS.

A.8: New RWY under construction

- New parallel RWY under construction EAST of existing RWY
- AIC issued Jul 2017 to provide information and advice regarding works
- No work timeframe and no NOTAMs published during construction
- As outline of RWY progressed, crew reports received and so a Company NOTAM was issued
- QR contacted responsible agencies (APR2018) asking for a NOTAM to be issued for flight crew awareness. NOTAM was issued on 6th JUN 2018.
- Regular updates of WIP via NOTAM help to heightened crew awareness to avoid RWY misidentification
- Navigation Charting providers unable to include new RWY construction on airport layout chart due missing timeframe details.
- Example of a NOTAM advising of WIP progressing for a new RWY

E) NEW SOUTH PARALLEL RWY CONSTRUCTION WIP SOUTH OF EXISTING RWY. BLACK TOPPING IN PROGRESS. ALL PILOTS TO EXERCISE CAUTION WHILE APPROACHING XXXXXXX RWY09/27

A.9: Runway closure and associated works

- Airport NOTAMS making reference to Method of Works (MOWP) or Safety Bulletin Pages as a means of communicating major works.
- NOTAM referenced “Safety Bulletin Page” detailing works including graphics. “Safety Bulletin Page” is not listed as an authorized Aeronautical Publication in respective AIP.

E) RWY 10L/28R CLSD TO LANDING/TAKE-OFF TRAFFIC. SEE:
WWW.XXXXX.DHMI.GOV.XX 2018/6 [SAFETY BULLETIN PAGE](#)

- Separate NOTAMs issued advising RWY/TWY/Stand CLSD, ILS unserviceable etc. DOMESTIC and INT'L NOTAMs on same subjects were written differently, for example:

E) ILS IBDR RWY 10L U/S versus E) ILS RWY 10L OUT OF SERVICE

Operational Impact:

- Initial RWY closure for 3 months (SEPT 2018). RWY remains CLSD as of MAY2020
- Aerodrome layout chart displaying CLSD RWY, TWY and stands was delayed due late NOTAM notification.
- No prior airline consultation, operational impact to IAP
- All details published via NOTAM
- Airline needed to produce in-house document for pilot awareness

A.10: New Apron & Terminal

- AIP SUP issued indicating that 5 days later both new apron and terminal would be operational;
- AIP SUP content provided required information to make analysis, i.e. apron layout, parking stand(s) ident. Lat/long, aircraft type applicable for each stand. Only VGDS availability was not stated.

Operational Impact:

- Due to late publication, navigation chart displaying aerodrome layout could not be updated;
- Non-standard marking for stop lines, marking indicated numbers but not aircraft type;
- Flight crews are not familiar with AIP chart formats, so confusion could arise due presentation; and,
- Airline had to produce an in-house document to assist pilot guidance when using new apron and associated parking stands.

A.11: NOTAM observations

- NOTAM format not complying with ICAO standards.
- Use of XXXX instead of relevant QCODE as per ICAO DOC 8126 NSC, Incomplete QCODES, Lack of consistency in the use of QCODES for similar information.
- Missing or errors in Q-Line fields (Traffic, purpose, scope, upper/lower limits, coordinates, Radius)
- Multiple FIRs in Item A) not separated by space and instead separated by a forward slash
- NOTAM with start date-time same as the end date-time (period of validity zero)
- Date formats i.e. Year/Month/Date/Hour/Minute not adhered to in Item B) and C)
- NOTAM without Item E) and instead NOTAM text appears in Item D)
- Use of confusing/conflicting statements (such as temporary or suspended in Item E) for a NOTAM with the word PERM in Item C) causing confusion and lack of clarity on the required action
- NOTAM with format errors cannot be processed by airline in-house NOTAM processing systems.

- NOTAM containing information of a permanent nature not having the word PERM in Item C)
 - Airline data service providers can only update pilot charts when they are sure that the information received from states is permanent.
- PERM NOTAM not incorporated in the AIP within 3 months from date of issue.
- EST NOTAM not replaced or cancelled before the date specified in Item C)
- Trigger NOTAM not issued or issued too late (We prefer Trigger NOTAM to be issued at least on the publication date or at least 28 days before the effective date to alert end users of forthcoming AIP SUP / AIP AMDT for proper planning)
- NOTAMs issued at very short notice impacting operations, in some cases aircraft is already enroute, i.e. AWY closures, Flight levels blocked, aerodrome not available as alternate.
- Examples of NOTAMs observed with various discrepancies

A----/19 NOTAMN (Incomplete QCODE, relevant QCODE should be used as per DOC 8126 NSC instead of XXXX)

Q) ---- /QXXX/IV/NBO/AW/000/010/-----

A) ----

B)1904260000

C)1904290200

D)26 27 29 0000-0200

E) FLARE FRNG EXER WILL TAKE PLACE WI THE AREA BOUNDED BY COORD

U----/20 NOTAMN (Radius should between 001 – 999 and not 000)

Q) ----/QPDAU/I/NBO/A/000/999/---N-----E000

A) ---- B)2005150100 C)2009120100

E) RWY02L SID, RWY02R SID, RWY20R SID PROCEDURE U/S DUE TO MAINT.)

G----/19 NOTAMR G----/19 (Item A multiple FIRs to be separated by space and not forward slash)

Q) ----/QOEXX/IV/NBO/E/000/999/

A) ----/----/----/----

B) B) 1912301230 C) 2003122359EST

(A----/20 NOTAMN (start and end dates-time of an activity cannot be same)

Q) ----/QANLT/I /NBO/E /000/312/----N----E111

A) ---- B) 2001100938 C) 2001100938

E)

(A----/19 NOTAMC A----/19 (Missing Item E Instead NOTAM text is inserted in item D)

Q) ----/QXXXX/IV/NBO/A/000/999/----N-----E005

A) ----

B)1906091134

D)WORK CMPL)

A---/20 NOTAMR A--- /20 (NOTAM issued with different QCODE within same country.

NOTAM was corrected after AIS contacted, which we really appreciated their support)

Q) ---- /QFMXX/IV/BO/A/000/999/----N-----E005

A) ---

B) 2005180359 C) 2005250400EST

E) DUE TO COVID-19,ISSUING TIME OF METARS REVISED AS

FOLLOWS.0000,0100,0200,0300,0400,0500,0600,0700,0800,0900,1000,1100,1200,1300,1400,1500,1800 AND 2100.REF AIP GEN 3.5 TABLE GEN 3.5.3.

A----/20 NOTAMR A---/20
 Q) ----/QFMLT/IV/BO/A/000/999/----N-----E005
 A) ----
 B) 2005180358 C) 2005250400EST
 E) DUE TO COVID-19, METARS WILL BE ISSUED EVERY 03 HOURS AS FOLLOWS.0000, 0300, 0600, 0900, 1200, 1500 AND 1800.FURTHER AN ADDITIONAL UPDATED METAR WILL BE ISSUED IN BETWEEN THESE TIMES DEPENDING ON ETA/ETD OF AIRCRAFT. IN CASE OF BAD WEATHER SITUATION, SPECI AND NECESSARY WARNINGS WILL ALSO BE ISSUED.

Multi part NOTAM format

- Several formats being published. Lack of guidance to AIS in handling this.
- Operational systems require multiple formats to be implemented for automation

A---/20A04 NOTAMN
 Q) ----/QAFXX/IV/NBO/E/000/999/----N-----E999
 A) ----
 B) 2005271538 C) 2006082200EST
 E) THE PERSON WHO CARRIES OUT THE TRANSPORT OF GOODS TO OR FROM THE XXXXXX AND FOR TRAFFIC OF GOODS IN TRANSIT, - A PERSON HOLDING A DIPLOMATIC PASSPORT

M---/20 NOTAMR M---/20
 Q) ---/QKXXX/K/K/K/000/999/
 A) ---- ---- PART 1 OF 2 B) 2005010008 C) 2005312359 EST
 E) CHECKLIST OF NOTAM SERIES MIKE VALID ON 01 MAY 2020 HR 0:8
 YEAR=2012
 4894 4909 4910
 YEAR=2013
 2684 4205 6108
 YEAR=2014

Q----/20 NOTAMR Q---/20
 Q) --- /QAFXX/IV/NBO/E/000/999/----N-----E999
 A) ----
 B) 2005260501 C) 2005261500
 E) CONTINUED FM ----- Q0962/20
 (6)MIDDLE EAST
 UNITED ARAB EMIRATES, ISRAEL, IRAN, SULTANATE OF OMAN,
 STATE OF QATAR, STATE OF KUWAIT, KINGDOM OF SAUDI ARABIA,
 TURKEY, BAHRAIN
 CONCLUDED

A12.: Ambiguous NOTAM & AIP statements

The following are examples of NOTAMs and AIP statements that have the potential to cause confusion and create uncertainty as to the application and intent of their content:

NOTAM / AIP	Issue
E) ANNUAL WGS-84 SURVEY NOT COMPLETED. ALL AERODROME DATA NOT VALIDATED	Aerodrome operator confirmed no impact to aircraft ops.
E) REF AIP XXXXXX VOL III AMDT 44 DATED 29 OCT 2015 PAGE XXXX, NEW AFTN ADDRESS AND APRON DATA AS FOLLOWS:	A NOTAM should only address one topic. Separate NOTAMS for different topics.

<p>-AFTN: XXXXYOYW, XXXXZAZW, XXXXZTZW -APRON STRENGTH: PCN 51/F/C/X/T</p>	
<p>B) 1907210123 C) 1909202359 E) BIRD BATH CLSD</p>	Refer Annex 15 on when to issue a NOTAM.
<p>B) 1909021200 C) 1909201800 D) 02 1200-1800, 03-20 0600-1800 E) 50 PER CENT RWY 12 APPROACH LIGHTS SUBJECT TO INTERRUPTION</p>	Operational guidance only provides for impact to length of lighting and not %. Planning minima difficult to determine.
<p>E) REF AIP XXXXXX AD2.24-9A (2015-6-15), AD2.24-10A(2016-10-15), AD2.24-10E(2015-6-15), IAF R245DEG 38.0FKG/1800M OR ABOVE CHANGE TO IAF R245DEG D38.0FKG/R274DEG URC/1800M OR ABOVE, OTHERS REMAIN.</p>	How will this NOTAM benefit a pilot if there is NO reference to IAP? Pilots don't carry AIPs onboard aircraft.
<p>E) BIRD CONCENTRATION IN VICINITY OF AD TYPE OF BIRDS: PAINTED STORK, GREY HERON, BLACK-HEADED IBIS, PURPLE HERON, OPEN-BILL STORK, BRAHMINY KITE, BLACK-SHOULDERED KITE, CRESTED SERPENT-EAGLE, LESSER WHISTLING DUCK, GREAT EGRET, INTERMEDIATE EGRET, CATTLE EGRET, LITTLE EGRET, BLACK-CROWNED NIGHT HERON, BARN OWL, LITTLE CORMORANT BIRD WEIGHT: FM 300 UP TO 3000 GRAMS, MAX FLOCK LARGE SIZE: 26 BIRDS</p>	Too much unnecessary information. The AIS administrator should have queried the amount of content and sought a more condensed version.
<p>U---/20 NOTAMN Q)---/QMPCS/IV/M/A/000/999/----N1----E005 A) ---- B) 2001231000 C) PERM E) NEW PARKING STAND NR.801-815,L816 PUT IN USE: 1. PARKING STAND NR.801-815,L816. SURFACE: CEMENT CONCRETE, PCN98/R/B/W/T. 2. WINGSPAN LIMITATION. NR.801-807:LESS THAN 36M. NR.808-815:LESS THAN 30.5M. NR.L816:LESS THAN 65M. 3. OPERATION LIMITATION: NR.801-807,L816: TAXI IN/OUT BY OWN POWER. NR.808-815: TAXI IN BY OWN POWER AND BE PUSHED BACK. 4. NOTE:</p>	Where are the stands located? Which apron? Is a follow me vehicle provided? NOTAM missing critical information)

WHEN STAND NR.L816 IN USE, STAND NR.801-815 CAN NOT USE.	
WHEN ANY STAND IN USE BTN NR.801-815, STAND NR.L816 CAN NOT USE.	

A13.: Aeronautical Information Publication

- AIP to be published in standard ICAO Format.
 - Users are familiar with ICAO AIP format making it easy to locate and identify data with ease.
- Military airfield available for commercial use (existing domestic airline operations) are frequently excluded from AIP. There's a challenge to obtain both contact and aerodrome details. A published procedure contained in AIP providing operators with guidelines on how to obtain aeronautical data for those airfield excluded from AIP.
- Some States publish large numbers of AIRAC AIP SUP and PERM NOTAM instead of having regular AIP AMDTs
- Notification of NON-AIRAC material (AIP AMDT / AIP SUP / AIC) should have equivalent to a trigger NOTAM
- ICAO to review wording used to define trigger NOTAM release timelines, recommendation is that trigger NOTAM is released AIRAC AMDT publication day or minimum of 28 days in advance of effective date. Recommendations documented in OPADD to be considered.
- States issuing multiple AIP AMDTs instead of a single AMDT for each NON-AIRAC Cycle.
 - What's published on 28 MAR 19 dated 1APR2019 has different content to document published 28FEB19 dated 01APR2019
 - This increases workload to track changes.

A14.: Operational requirement vs ICAO standard

We see operational difference in LAT/LON presentation between ICAO standards and what pilots insert into FMS.

- Pilot preferred coordinate format is N2515.7E05133.9, format accepted by FMS
- Examples of LAT/LON. Displayed in NOTAMs.
 - A1832/20 NOTAMN
 - Q)KZAK/QRACA/IV/NBO/W/000/999/3224N12323W082
 - A) KZAK
 - B) 2005131500 C) 2005140001
 - E) AIRSPACE NOVA 20-1 STNR ALT RESERVATION WI AN AREA DEFINED AS 3308N12215W TO 3222N12148W TO 3119N12419W TO 3251N12453W TO POINT OF ORIGIN.
 - F) SFC G) UNL

A0822/20 NOTAMN
Q)NFFF/QAPCS/IV/BO/E/000/999/1750S17723E001
A) NFFF
B) 2005122145 C) PERM
E) REPORTING POINT 'ALATI' INSTALLED AT COORDS S174932.36E1772313.38

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