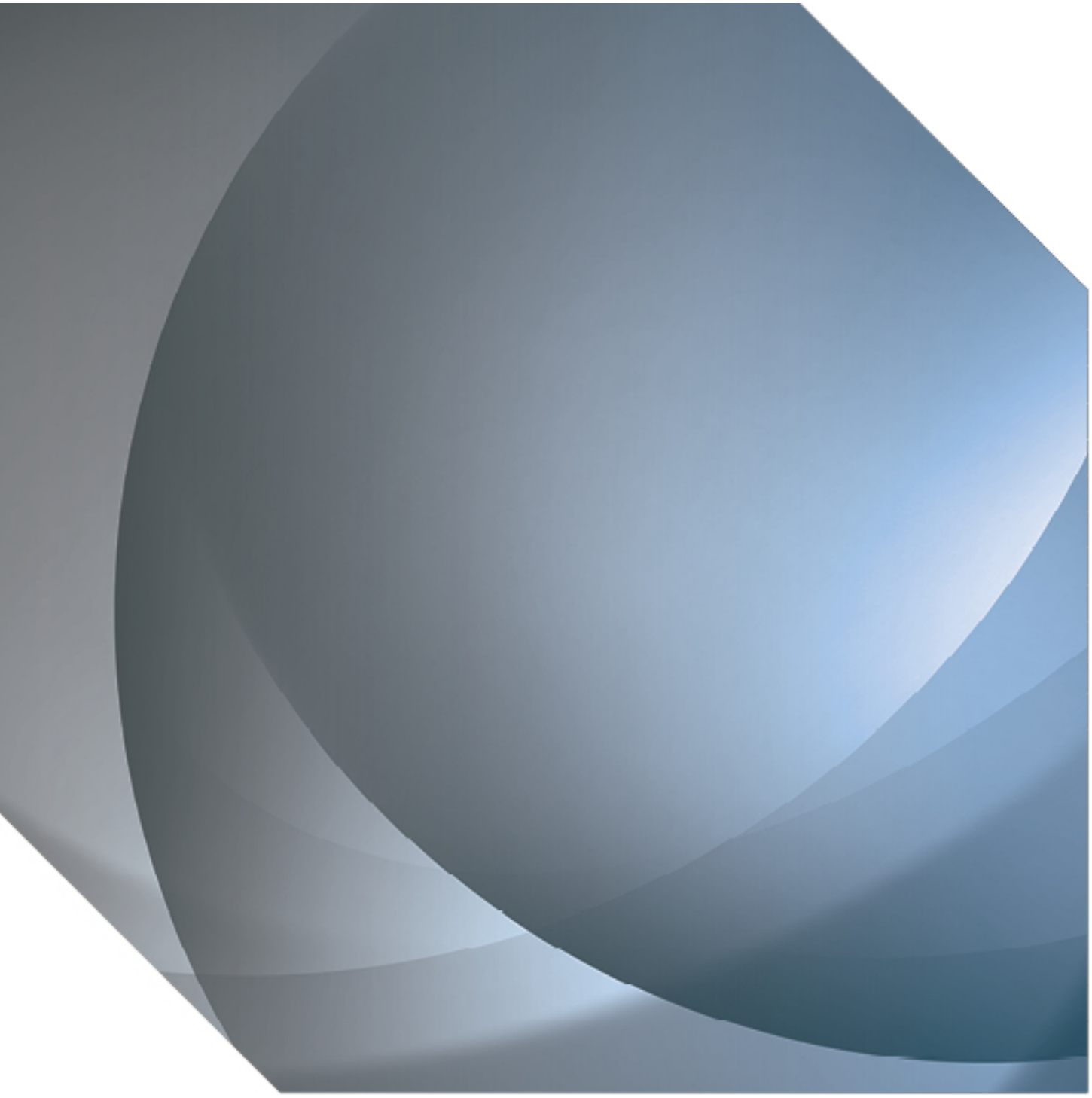
Civil Aviation Authority

Aeronautical Information Management

CAP 1054



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Introduction

This CAP has been introduced to notify United Kingdom policy and provide guidance for the origination, management, transmission and distribution of aeronautical data and aeronautical information published in the Integrated Aeronautical Information Package (IAIP).

This CAP also specifies the applicable guidance and acceptable standards for complying with European Regulation (EU) No. 73/2010 & (EU) No. 1029/2014.

The terminology used throughout this CAP is such that State level requirements (non legislative) may be described as ‘shall’ where appropriate. This is necessary to ensure that aeronautical information and data is provided in a manner commensurate with the licensed obligations placed upon Aeronautical Information Service Providers (AISP) by the CAA.

Glossary of terms and recognised acronyms

Accuracy	A degree of conformance between the estimated or measured value and the true value.
Aeronautical Data Quality Implementing Rule (ADQIR)	European Regulation (EU) No 73/2010 & 1029/2014 laying down the requirements for the Quality of Aeronautical Data and Aeronautical Information for the Single European Sky.
Area Navigation (RNAV)	A method of navigation which permits aircraft operation on any desired flight path within the coverage of ground- or space based navigation aids or within the limits of the capability of self-contained aids, or a combination of these.
Aerodrome (ADR)	A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure or surface movement of aircraft.
Aerodrome Elevation (Elev)	The elevation of the highest point of the landing area. This is the highest point of that part of the runway used for both landing and take-off. See also 'Landing Area'.
Aerodrome Reference Point (ARP)	The aerodrome reference point is the geographical location of the aerodrome and the centre of its traffic zone where an ATZ is established.
Aerodrome Mapping Data (AMD)	Information that represents standardised aerodrome features for a defined area, including geospatial data and metadata.
Aerodrome Traffic Zone (ATZ)	The airspace specified as being airspace in the vicinity of an aerodrome notified for the purposes of Rule 38 of the Rules of the Air Regulations.
Aeronautical Data	A representation of aeronautical facts, concepts or instructions in a formalised manner suitable for communication, interpretation of processing.
Aeronautical Information (AI)	Information resulting from the assembly, analysis and formatting of aeronautical data.
Aeronautical Information	A notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the AIP, but which relates to flight safety, air

Circular (AIC)	navigation, technical, administrative or legislative matters.
Aeronautical Information Management (AIM)	The dynamic, integrated management of aeronautical information services – safely, economically and efficiently – through the provision and exchange of quality-assured digital aeronautical data collaboration with all parties.
Aeronautical Information Publication (AIP)	A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.
Aeronautical Information Service Provider (AISP/AIS)	The organisation responsible for the provision of an aeronautical information service, certified in accordance with European Commission Regulation No 2096/2005.
Aircraft Stand	A designated area on an aerodrome intended to be used for parking an aircraft.
Air Navigation Service Provider (ANSP)	Any public or private entity providing air navigation services for general air traffic.
Apron	A defined area on a land aerodrome provided for the stationing of aircraft for the embarkation and disembarkation of passengers, the loading and unloading of cargo, fuelling, and for parking.
Authorised Source	Person ultimately accountable for aeronautical information published in the IAIP.
Calculated Point	A point in space that need not be specified explicitly in latitude and longitude, but that has been derived, by mathematical manipulation, from a known surveyed point.
Clearway	An area at the end of the take-off run available and under the control of the aerodrome licence holder, selected or prepared as a suitable area over which an aircraft may make a portion of its initial climb to a specified height.
Constituents	Tangible objects such as hardware and intangible objects such as software upon which the interoperability of the EATMN depends. In context of the ADQIR, the constituents are those that specifically make up the systems for AIS.
Critical Data	ICAO integrity level equivalent to a Data Assurance Level of DAL 1.

Cyclic Redundancy Check (CRC)	A mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data.
Danger Area (DA)	An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.
Database (db)	One or more files of data so structured that appropriate applications may draw from the files and update them.
Data Chain	Describes all the elements of the Controlled and Harmonised Aeronautical Information Network from origination through to publication.
Data Item	A single attribute of a complete data set, which is allocated a value that defines its current status.
Data Origination (DO)	The creation of a new data item with its associated value, the modification of the value of an existing data item or the deletion of an existing data item.
Data Originator	Person or persons authorised to originate aeronautical information and data on behalf of the 'Authorised Source'.
Data Quality (DQ)	A degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, resolution and integrity.
Data Validation	The process of ensuring that data meets the requirements for the specified application or intended use.
Data Verification	The evaluation of the output of an aeronautical data process to ensure correctness and consistency with respect to the inputs and applicable data standards, rules and conventions used in that process.
Declared Distances	The distances declared by the aerodrome authority for the purpose of application of the requirement of the Air Navigation (General) Regulations in respect of airplanes flying for the purpose of public transport.
Declared Point	A point in space, defined by latitude and longitude, that is not dependent upon, nor formally related to, any known surveyed point.
Derived Point	A point in space not determined by survey but derived from source data that

	has been defined in WGS-84.
Digital NOTAM	A data set that contains the information included in a NOTAM in a structured format which can be fully interpreted by an automated computer system without human interpretation.
Direct Electronic Connection	A digital connection between computer systems such that data may be transferred between them without manual interaction with the data itself (thus avoiding error prone copy/paste actions).
European Air Traffic Management Network (EATMN)	Network of constituents and systems that together form the interoperable functions of the Single European Sky.
Electronic Obstacle	A digital data-set representing the vertical and horizontal extent of the obstacle
Electronic Terrain	A digital data-set representing the terrain surface in the form of continuous elevation values at all intersections (points) of a defined grid, referenced to a common datum.
Essential Data	ICAO integrity level equivalent to a Data Assurance Level of DAL 2.
Extensible Mark-up Language (XML)	A version of SGML that allows design of a customized mark-up language, used to allow for easy interchange of documents and data on the World Wide Web or between software components.
Feature Catalogue	Catalogue containing definitions and descriptions of the feature types, feature attributes, and feature associations occurring in one or more sets of geographic data, together with any feature operations that may be applied.
Geoid	The equipotential surface in the gravity field of the Earth, which coincides with the undisturbed mean sea level extended continuously through the continents.
Geospatial	Information that identifies where particular features are in relation to the earth's surface.
Integrated Aeronautical Information Package (IAIP)	A package that consists of the following elements: Aeronautical Information publications (AIP) inc amendments.

	Supplements to the AIP. NOTAM and pre-flight bulletins. Aeronautical information circulars. Checklists and valid NOTAMs.
Integrity	A degree of assurance that a data item and its value have not been lost or altered since the data origination or authorised amendment.
Intermediate holding position	A designated position intended for traffic control at which taxiing aircraft and vehicles shall stop and hold until further cleared to proceed, when so instructed by the aerodrome control tower.
Landing Area	That part of a movement area intended for the landing and take-off of aircraft.
Landing Distance Available (LDA)	The distance from the point on the surface of the aerodrome above which the airplane can commence its landing, having regard to the obstructions in its approach path, to the nearest point in the direction of landing at which the surface of the aerodrome is incapable of bearing the weight of the airplane under normal operating conditions or at which there is an obstacle capable of affecting the safety of the airplane.
Mean Sea Level (MSL)	The Sea Level halfway between the mean levels of high and low water.
Metadata	A set of data that describes and gives information about other data.
Next Intended User	The entity that receives the aeronautical information from the aeronautical information service provider.
Notice to Airmen (NOTAM)	A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.
Notified Body	A body listed in the Official Journal of the European Union who has been appointed to carry out tasks pertaining to the assessment of conformity and declaration of suitability for use of constituents.
Obstacle data	All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that are located on an area intended for the surface movement of aircraft or that extend above a defined surface intended to protect aircraft in

	flight, or that stand outside those defined surfaces and that have been assessed as being a hazard to air navigation.
Period of Validity	The period between the date and time on which aeronautical information is published and the date and time on which the information ceases to be effective.
Procedure Design	The combination of aeronautical data with specific flight instructions to define instrument arrival and/or departure procedures that ensures adequate standards of flight safety.
Quality Management System (QMS)	Coordinated activities to direct and control an organization with regard to quality
Resolution	A number of units or digits to which a measured or calculated value is expressed and used.
Routine Data	ICAO integrity level equivalent to a Data Assurance Level of DAL 3.
Runway (RWY)	A defined rectangular area, on a land aerodrome prepared for the landing and take-off run of aircraft along its length.
Runway End Safety Area (RESA)	An area symmetrical about the extended runway centre-line and adjacent to the end of the strip primarily intended to reduce the risk of damage to an aeroplane undershooting or overrunning the runway.
Runway Holding Position	A designated position intended to protect a runway, an obstacle limitation surface, or an ILS/MLS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorised by the aerodrome control tower.
Runway Strip	An area of specified dimensions enclosing a runway intended to reduce the risk of damage to an aircraft running off the runway and to protect aircraft flying over it when taking-off or landing.
Runway Threshold	The beginning of that portion of the runway usable for landing.
Safety Management System (SMS)	A safety management system (SMS) is an organised approach to managing safety including the necessary organisational structure, accountabilities, policies and procedures.

Single European Sky (SES)	A legislative framework for European Aviation development.
Standard Generalised Mark-up Language (SGML)	A standardised mark-up language for describing the logical structure of a computer document.
Stand	See Aircraft Stand.
Stopway	A defined rectangular area beyond the end of the TORA suitably prepared and designated as an area in which an aeroplane can be safely brought to a stop in the event of an abandoned take-off.
Sub-Contractor	A firm or person that carries out work for a company as part of a larger project.
Survey Data	Geospatial data that is determined by measurement or survey.
Surveyed Point	A clearly defined physical point, specified by latitude and longitude, that has been determined by a survey in accordance with CAP 232.
Take-off Distance Available (TODA)	Either the distance from the point on the surface of the aerodrome at which the aeroplane can commence its take-off run to the nearest obstacle in the direction of take-off projecting above the surface of the aerodrome and capable of affecting the safety of the airplane, or one and one half times the take-off run available, whichever is less.
Take-off Run Available (TORA)	The distance from the point on the surface of the aerodrome at which the aeroplane can commence its take-off run to the nearest point in the direction of take-off at which the surface of the aerodrome is incapable of bearing the weight of the airplane under normal operating conditions.
Taxiway (TWY)	A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including: a) Aircraft stand taxi lane. A portion of an apron designated as a taxi route intended to provide access to aircraft stands only. b) Apron taxiway. A portion of a taxiway system located on an apron and intended to provide a through taxi route across the apron. c) Rapid exit taxiway. A taxiway connected to a runway at an acute angle and designed to allow landing airplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimising runway occupancy

	times.
Taxiway Strip	An area of specified dimension enclosing a taxiway and intended to protect aircraft operating on the taxiway and to reduce the risk of damage to an aircraft running off the taxiway.
Taxiway Holding Position	A designated position at which taxiing aircraft and vehicles may be required to hold in order to provide adequate clearance from a runway or another taxiway. 1. Runway Taxi Holding Position. A Taxi Holding Position intended to protect a runway. 2. Intermediate Taxi Holding Position.
Taxiway Intersection	A junction of two or more taxiways.
Terrain Data	Data about the surface of the earth containing naturally occurring features such as mountains, hills, ridges, valleys, bodies of water, permanent ice and snow obstacles;
Unified Modelling Language (UML)	UML is an ISO Standard for modeling objects and a refinement of earlier Oriented Design and Object Oriented Analysis methodologies.

Policy and guidance documents referred to in this CAP

- Annex 15 to the Convention on International Civil Aviation – Aeronautical Information Services.
- Annex 4 to the Convention on International Civil Aviation – Aeronautical Charts.
- European Regulation (EU) No. 73/2010 & 1029/2014 – Aeronautical Data Quality Implementing Rule.
- European Regulation (EU) No. 139/2014 – EASA Aerodrome Certification
- European Regulation (EU) No. 1035/2011 – Common Requirements for the Provision of Air Navigation Services.
- European Regulation (EC) No. 552/2004 – Interoperability of the European Air Traffic Management Network.
- Eurocontrol Specification for the electronic Aeronautical Information Publication (eAIP).
- Eurocontrol Specification for the Origination of Aeronautical Data (DO) Vol I.
- Eurocontrol Specification for the Origination of Aeronautical Data (DO) Vol II.
- Eurocontrol Specification for Data Assurance Levels (DAL).
- Eurocontrol Specification for Data Quality Requirements (DQR).
- Eurocontrol Specification for Aeronautical Information Exchange (AIX).
- CAA Publication CAP 232 – Aerodrome Survey Requirements.

Chapter 1

Aeronautical Information Management in the UK

Background to Aeronautical Information Provision

International Civil Aviation Organisation (ICAO)

1.1 The Civil Aviation Authority (CAA) is responsible, under the Civil Aviation Authority (Air Navigation) Directions 2001 given by the Secretary of State under Section 66(1) of the Transport Act 2000, ("the Directions"), for the form and content of the UK Aeronautical Information Publication (AIP) and to ensure that an Aeronautical Information Service (AIS) is provided in accordance with international obligations and any additional requirements the CAA may determine from time to time.

1.2 The Secretary of State for Transport has additionally given the CAA the Civil Aviation Authority (Chicago Convention) Directions 2007, in order to ensure that the CAA, when exercising its statutory functions, acts consistently with the obligations placed on the United Kingdom under the Chicago Convention (1944).

1.3 The CAA's Safety & Airspace Regulation Group (SARG) carries out the CAA's functions under the Directions, and the Infrastructure (INF) section of the Airspace ATM & Aerodromes (AAA) department undertakes this function in respect of AIS on behalf of the CAA.

1.4 The Secretary of State has granted a licence to NATS (En Route) Plc (NATS for the purposes of this document) under Section 6(1) of the Transport Act 2000 authorising NATS to provide Air Traffic Services (ATS) in the United Kingdom and certain other international airspace for which the UK is responsible, including the Shanwick Oceanic area.

1.5 Under this licence NATS is required to make available Specified Services which include the UK Aeronautical Information Service (AIS).

1.6 The objective of the AIS is to ensure the flow of accurate aeronautical information necessary for the safety, regularity and efficiency of international air navigation. This is achieved by the publication and distribution of the Integrated Aeronautical Information Package (IAIP), the elements of which originate from the requirements specified in:

1. ICAO Annex 15 – Standards and Recommended Practices for Aeronautical Information Services, and:
2. ICAO Annex 4 – Standards and Recommended practices for Aeronautical Charts.

European Commission Regulation

Article 1

- *The Regulation lays down the requirements on the quality or aeronautical data and aeronautical information in terms of accuracy, resolution and integrity.*

1.7 European Commission Regulation (EU) No 73/2010 lays down the requirements on the quality of aeronautical data and information for the Single European Sky (SES). The regulation first entered into force on 27th January 2010, and was subsequently updated on 26 September 2014 as (EU) No. 1029/2014 to reflect updated document references and minor administrative changes. Together they supplement and strengthen the requirements of ICAO Annex 15. The regulation is commonly referred to as the 'ADQIR' and will be referred to as such throughout this CAP. It also supplements the 'Common Requirements' Regulation (EU) No 1035/2011 which provides for the certification of ANSPs including providers of AIS. This is currently applicable only to NATS as the UK's national AISP.

1.8 The ADQIR was introduced to achieve aeronautical data and information of sufficient quality as a key enabler of the European Air Traffic Management Network (EATMN) and takes into account the provisions of the Single European Sky (SES) Regulations and in particular the Interoperability Regulation (EC) No 552/2004.

1.9 The scope of the ADQIR extends from the point of origination of the data, through to the publication of the data in the IAIP, including printing and distribution, to the point of delivery to the next intended user, with the intent of maintaining assigned integrity levels throughout.

1.10 This CAA Publication (CAP) identifies those parties responsible for the origination, management, and publication of aeronautical information and data required to meet the ADQIR requirements.

1.11 This CAP also states the preferred means of compliance to be adopted in meeting the ADQIR requirements.

Applicability

1.12 This CAP applies to those parties involved in data origination, processing and IAIP publication processes as defined in the ADQIR. This CAP also describes the specific responsibilities and relevant standards for aeronautical data quality that is required of each party.

1.13 This CAP applies up to the moment when the aeronautical data and/or information are made available by the provider of the aeronautical information service (AISP) to the next intended user.

1. In the case of provision via the AISP web-site, this CAP applies up to the moment the information has been made available for download to a user's web browsing device.
2. In the case of distribution by physical means, this CAP applies up to the moment when the aeronautical data and/or information has been published and made available to the organisation responsible for providing the physical distribution service.
3. In the case of automatic distribution through the use of a direct electronic connection between the aeronautical information service provider and the entity receiving the data, this CAP applies up to the moment when the aeronautical data and/or information is made available by the aeronautical information service provider.

1.14 This CAP describes the ADQIR requirements for Quality Management, Safety, Security and Data protection arrangements with which data originators and NATS as the AISP shall comply in meeting their respective obligations under EU law and/or CAA licence.

1.15 This CAP also describes the ADQIR requirement for the establishment of formal arrangements between all parties exchanging aeronautical data or information between themselves.

1.16 The CAA has included guidance in this CAP for data originators, providers and managers to enable them to comply with the ADQIR requirements, and also included reference to this CAP in associated CAA policy documents, such as aerodrome licences, Letters of Agreement (LoA) or by inclusion in other CAA policy documentation where aeronautical information is mentioned.

1.17 As well as providing guidance in meeting the ADQIR legal requirements, this CAP also includes CAA requirements for the provision of aeronautical information that are not included in the ADQIR. This ensures that all aspects of aeronautical information management have been considered by CAA.

Chapter 2

Authorised Sources of Aeronautical Information

Authorised Sources

2.1 The UK AIP is the product of an amalgamation of Aeronautical Information and Data derived from various sources which are submitted to the AISP for publication.

2.2 Throughout this CAP the term 'Authorised Source' refers to the regulated party ultimately accountable for providing specific aeronautical information and data for publication in the UK AIP, including permanent data as part of NOTAM and AIP Supplements. The Authorised Source and aeronautical information for which they are responsible for are shown in the table at Annex A.

2.3 The responsibilities for the provision of aeronautical information and data for the UK IAIP are identified in various European regulations and CAA licensing, guidance and policy documents. Where aeronautical information is identified in the following documents, it shall be provided in accordance with this CAP.

- (EU) No. 139/2014 – EASA Aerodrome Certification
- Licensing of Aerodromes (EASA) – CAP 1168
- Air Navigation: The Order and the Regulations – CAP 393
- Aerodrome Survey Information – CAP 232
- CAA Guidance on the Application of the Airspace Change Process – CAP 725
- Approval Requirements for Instrument Flight Procedures – CAP 785
- Application for Instrument Approach Procedures to Aerodromes without an Instrument Runway and/or Approach Control – CAP 1122

Registration of Authorised Sources

2.4 Authorised Sources are required to register with the AISP. Once registered, the Authorised Source will be ultimately accountable for the content, currency and completeness of the aeronautical information and data they are registered for.

2.5 A request to add, amend or withdraw published AIP information by a party, other than the registered Authorised Source, will be denied by the AISP.

2.6 The registered Authorised Source will also be responsible for notifying the AISP of any change to their registered details.

2.7 The Authorised Source shall notify the AISP of any changes to their contact details or the transfer of Authorised Source responsibilities to another party.

Further information on the Authorised Source registration process can be found on the NATS/AIS web-site.

Delegation of Authorised Source responsibility

2.8 An Authorised Source may wish to delegate responsibility for maintaining the content, currency and completeness of their information published in the AIP to a third party. This is permissible on the condition that this type of arrangement is reflected in the formal arrangements required between the Authorised Source and the third party concerned. In turn the third party shall also register their details with the AISP. Irrespectively, the Authorised Source remains ultimately accountable for their aeronautical information listed at Annex A. Formal Arrangements are described in greater detail at Chapter 5

Chapter 3

Regulatory Approval of Aeronautical Information & Data

Aeronautical Information and Data Requiring CAA Regulatory Approval

3.1 Certain aeronautical information and data submitted to the AISP will require regulatory approval by the CAA before submission can be accepted by the AISP for publication in the AIP.

3.2 Aeronautical information and data requiring approval by the CAA is identified in the table at Annex A. This data includes but is not limited to;

- Controlled/Regulated Airspace
- Ground/Satellite based Navigation Systems
- Instrument Flight Procedures
- VHF/UHF frequencies
- Danger/Restricted Areas
- Civil/Military Aerodrome Traffic Zones
- Aerodrome Runway Declared Distances
- Aerodrome Rescue & Fire Fighting categories

3.3 The table at Annex A also identifies the CAA regulatory department responsible for providing regulatory approval. A decode of the CAA department abbreviations and contact details is provided at Annex B.

Regulatory Approval Process

3.4 Upon submission of the Aeronautical Data to the AISP, an automated system will alert the appropriate CAA department if CAA regulatory approval is required. The CAA departments will then either:

- Approve the aeronautical data for publication by AISP; or
- Engage with the Authorised Source if approval is denied.

3.5 For aeronautical data that requires regulatory approval, Authorised Sources shall take account of the additional time required by the CAA for the approvals process. Authorised Sources' shall therefore submit their AIP change requests to the AISP at least three working days earlier than the latest date for AIP Change Requests specified on the AISP publication schedules available on the NATS/AIS web-site.

Chapter 4

European Regulation (EU) No 73/2010 & 1029/2014 - Aeronautical Data Quality Implementing Rule (ADQIR)

Data required to meet ADQIR requirements

4.1 This chapter describes the applicability of the ADQIR to specific data types, their constituents and associated procedures involved in the origination, production, storage, handling, processing, transfer and distribution of aeronautical information and data.

4.2 All the requirements laid down in this chapter and all subsequent chapters up to chapter 8 are required under EU law. This CAP can therefore be used as a definitive source of requirements for meeting the EU law, and additional State requirements.

4.3 Requirements from the ADQIR are transposed into this CAP together with explanatory text to aid interpretation and understanding. Selected ADQIR transpositions are indicated in *italic text* within a grey bound text box.

4.4 This ADQIR applies to aeronautical information and data included in the following products made available by or through the UK AISP:

ADQIR - Article 2.1

- The Integrated Aeronautical Information Package IAIP including:
  - AIP and amendments
  - Supplements to the AIP
  - NOTAM and pre-flight information bulletins
  - Check lists and lists of valid NOTAM
- Electronic obstacle data, or elements thereof, where made available:
  - Data concerning all fixed and mobile obstructions (whether temporary or permanent) or parts thereof, that are located on an area intended for the surface movement of aircraft or that extend above an ICAO Annex 14 defined surface intended to protect aircraft in-flight.

- *Electronic terrain data, or elements thereof specified in ICAO Annex 15, Chapter 10, where made available:*

- Data about the surface of the earth containing naturally occurring features such as mountains, hills, ridges, valleys, bodies of water, permanent ice and snow, and excluding obstacles;

- *Aerodrome mapping data specified in ICAO Annex 15, Chapter 11, where made available:*

  - Information that represents standardised aerodrome features for a defined area, including geospatial data and metadata.

4.5 Aeronautical Information Circulars (AIC) are exempt from the regulation.

4.6 The aeronautical Information and data required to meet ADQIR requirements is listed at Annex A.

Applicability of the ADQIR

4.7 Certain Authorised Sources are required to originate, manage and distribute specific aeronautical data in accordance with the ADQIR. The Authorised Sources responsible for this information and data are identified at Annex A. Any party originating, managing or publishing this information and data, are subject to the provisions of the ADQIR.

4.8 The parties as defined by the ADQIR are:

ADQIR - Article 2.2

- *Air Navigation Service Providers, i.e. providers of:-*
  - *Aeronautical Information Services*
  - *Air Traffic Services (ATS)*
  - *Communication Services*
  - *Navigation Services*
  - *Surveillance Services*
- *Operators of those aerodromes and heliports, for which Instrument Flight Rules (IFR) or Special-Visual Flight Rules (SVFR) procedures have been published in the IAIP;*
- *Services for the origination and provision of survey data:*
  - *Private or publicly owned organisations providing CAP 232 surveying services to IFR/SVFR aerodromes and heliports;*
- *Procedure Design services:*
  - *Private or publicly owned organisations, approved by the CAA and in accordance with CAP 785, providing Instrument Flight Procedure Design services;*
- *Airspace and En-Route Design services:*

- *Private or publicly owned organisations providing services for the design of Terminal and En-Route Airspace in accordance with CAP 725;*
- *Electronic terrain data*
  - *National Geodetic Agencies*
  - *Commercial survey companies;*
- *Electronic obstacle data:*
  - *National Geodetic Agencies*
  - *Commercial survey companies;*

4.9 Without prejudice to the provisions of Article 6.5 of the regulation, the ADQIR does not apply to the operators of those aerodromes and heliports for which no IFR (or SVFR) procedure is published in the AIP, even if those aerodromes/heliports are referenced in any part of the AIP.

ADQIR - Article 6.5

- *AISP shall ensure that aeronautical data and aeronautical information provided by data originators not referred to in Article 2.2 are made available to the next intended user with sufficient quality to meet the intended use*

Means of Compliance

4.10 Five Eurocontrol Specifications, (DAL, DQR, DO, AIX and eAIP have been produced under the Eurocontrol Regulatory and Advisory Framework as "possible means of compliance" with the relevant articles and annexes of the ADQIR. They are not technically "Community Specifications" under Article 4 of the SES Interoperability Regulation ((EC) No 552/2004), compliance with which would have resulted in a legal presumption of compliance with the ADQ Regulation itself. However, the CAA has adopted these specifications as the "UK preferred means of compliance", and their use will presume conformity with the relevant ADQIR articles and annexes. This does not exclude the possibility of stakeholders submitting alternative means of compliance to the CAA, but these would need to be evaluated for compliance on a case by case basis by CAA.

4.11 The 'preferred means of compliance' are;

- Data Assurance Levels (DAL) - Specifies all applicable data assurance objectives
- Data Quality Requirements (DQR) – Specifies the Data Assurance Level for aeronautical data in-scope of the ADQIR. (refer to chapter 6 'Data Assurance for the applicability of this document in the UK)

- Data Origination Vol 1 & 2 – Specifies the data origination standards applicable to originators such as surveyors, instrument flight procedure designers, airspace designers. Volume 1 contains the objectives necessary to meet the ADQIR obligations. Volume 2 contains recommended objectives that may be adopted.
- Aeronautical Information Exchange (AIX) – Includes common data-set and data exchange methods to meet the ADQIR.
- Electronic Aeronautical Information Publication (eAIP) – Specifies the common standard for the representation of aeronautical information in the AIP, and is applicable only to the AISP.

These Eurocontrol Specifications are available to download from the Media & Info Centre area of the Eurocontrol web site www.eurocontrol.int

NOTAM

4.12 ADQIR Data set and Data exchange requirements assumes that all aeronautical information and data in-scope of the ADQIR is of a digital nature. However, in the UK the NOTAM function is provided by AIS via the Aeronautical Fixed Telecommunications Network (AFTN). Consequently, until NOTAM, Pre-flight Information Bulletins, and Check lists of NOTAM, are able to be provided digitally, the Data set and Data exchange requirements are not applicable to NOTAM, SNOWTAM, NOTAM checklists and Pre-flight Information Bulletins. .

4.13 In accordance with Article 1(1) (a), the remaining provisions (other than the data-set and data exchange) of the ADQIR are applicable to NOTAM. However, the implementation of the ADQIR should not inhibit the publication of aeronautical information, the timely distribution of which is essential to personnel concerned with flight operations.

Therefore, in consideration of 4.13 above;

- Any AIP data item listed at Annex A, and identified as being in scope of the ADQIR, shall also be subject to the same ADQIR requirements stated in this CAP if included as part of a temporary NOTAM, except when to do so would inhibit the distribution of aeronautical information necessary to ensure the safety of flight.
- Any AIP data item listed at Annex A, and identified as being in scope of the ADQIR, shall also be subject to the same ADQIR requirements stated in this CAP if included as part of a permanent NOTAM.
- Only registered Authorised Sources of the permanent aeronautical Information published in the AIP, and in scope of the ADQIR, as referred to in Chapter 2.2, are permitted to change or withdraw that same permanent information published in the AIP via NOTAM. Any request from a party other than the Authorised Source will be denied by AIS.

Supplements to the AIP

4.14 Any AIP data item listed at Annex A, and identified as being in scope of the ADQIR, shall also be subject to the same ADQIR requirements stated in this CAP if included as part of a Supplement to the AIP.

Applicable Compliance Dates

4.15 The ADQIR specifies three applicable compliance dates to be met by all parties in-scope of the regulation;

ADQIR - Article 14

- *Aeronautical information & data published after the 1st July 2013 shall meet the requirements of the ADQIR.**
- *From 1st July 2014 aeronautical information & data shall comply with the Data-Set and Data exchange requirements detailed in Chapter 7 & 8.**
- *Aeronautical information & data published before 1 July 2013 and not amended shall be brought into line with the ADQIR by 30 June 2017 at the latest.*

*As this CAP has entered into force after the first two ADQIR compliance dates, the CAA recognises that compliance to the 1st July 2013 and 1st July 2014 deadlines cannot be achieved. However, CAA requires that all new or revised aeronautical information shall be compliant to the ADQIR eighteen months after publication of this CAP.

Chapter 5

ADQIR - Generic Requirements

Quality Management System

5.1 The Authorised Source responsible for data in scope of the ADQIR referred to in Annex A and any party originating or handling this data and information shall implement and maintain a Quality Management System (QMS) which takes account of their aeronautical information and data provision activities.

ADQIR - Article 10, *Annex VII, Part A.*

- *A QMS supporting the origination, production, storage, handling, processing, transfer and distribution of aeronautical information and data shall;*

  a) define the quality policy in such a way as to meet the needs of different users as closely as possible.

  b) set-up a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with applicable requirements, standards and procedures, including the relevant requirements of the ADQIR.

  c) provide evidence of the functioning of the quality system by means of manuals and monitoring documents.

  d) appoint management representatives to monitor compliance with, and adequacy of, procedures to ensure safe and efficient practices.

  e) perform reviews of the quality system in place and take remedial actions, as appropriate.

- *An EN ISO 9001 certificate, issued by an appropriately accredited organisation, is considered as sufficient means of compliance to the requirements of point 1.2. The parties referred to in Article 2(2) of the ADQIR shall accept the disclosure of the documentation related to the certification to the national supervisory authority upon the latter's request.*

5.2 Without prejudice to Article 10 requirements, a suitable equivalent QMS would be an acceptable alternative means of compliance.

Personnel Security

5.3 In meeting ADQIR Article 13 'Additional requirements', the Authorised Source responsible for data in-scope of the ADQIR referred to in Annex A and any party originating, exchanging, processing or publishing this data and information shall:

ADQIR - Article 13

- *ensure the security clearance of their personnel responsible for tasks in the origination, production, storage, handling, processing, transfer and distribution of aeronautical data and/or aeronautical information.*

5.4 A Disclosure & Barring Service (DBS) Check is considered as the minimum acceptable level of security clearance. Further information regarding these checks can be found on the Disclosure & Barring Service web page of the GOV.UK website.

- *ensure that personnel responsible for tasks in the provision of aeronautical information are made duly aware of the requirements laid down in the ADQIR.*
- *develop and maintain operations manuals containing the necessary instructions and information to enable their personnel responsible for tasks in the provision of aeronautical data and/or information to apply the ADQIR.*
- *ensure that manuals referred to in point d are accessible and kept up to date and that their update and distribution are subject to appropriate quality and documentation configuration management;*
- *ensure that their working methods and procedures comply with the ADQIR.*

Error Reporting and Rectification

5.5 In meeting Article 6 ADQIR requirements for Error Reporting and Rectification, the parties responsible for data in scope of the ADQIR and any party handling this information and data shall ensure that error reporting, feedback and rectification mechanisms are established and included in the QMS, and operated in accordance with the following:

5.6 The error reporting, measurement and corrective action mechanisms shall ensure that:

ADQIR - Article 6, *Annex IV, part F.*

- *problems identified during aeronautical information and data origination, production, storage, handling and processing, or those identified by users after publication, are recorded and reported to the Aeronautical Information Service Provider.*

1. problems identified by users and reported to the AISP as mentioned in point a, should also be referred to the Authorised Source identified at Annex A.
2. all errors, inconsistencies and anomalies detected in published critical and essential aeronautical information and data (DAL 1 and DAL 2) are notified immediately by the Authorised Source to all users via the promulgation of a temporary NOTAM, and resolved permanently as soon as possible thereafter.

- *error feedback from the data users and other aeronautical information and data providers is facilitated and encouraged;*
- *error rates for aeronautical information and data are recorded on each occasion that it is transferred between parties;*
- *error rates for those errors detected prior to transfer and those reported after transfer can be identified separately.*

Safety Management

5.7 The parties responsible for data in scope of the ADQIR, and any party originating, exchanging, processing or publishing this information and data shall ensure that the quality management system referred to in paragraph 1 of this chapter defines the procedures to meet the safety management objectives as follows –

ADQIR - Article 10, *Annex VII, Part B.*

- *The safety management objectives shall be:*
  - *to minimise the contribution to the risk of an aircraft accident arising from data errors as far as reasonably practicable;*
  - *to promote awareness of safety around the organisation by sharing lessons arising from safety activities and by involving all staff to propose solutions to identified safety issues and improvements to assist the effectiveness and efficiency of the processes;*
  - *to ensure that a function is identified within the organisation being responsible for development and maintenance of the safety management objectives;*
  - *to ensure that records are kept and monitoring is carried out to provide safety assurance of their activities;*
  - *to ensure improvements are recommended, where needed, to provide assurance of safety of activities.*
- *The achievement of the safety management objectives shall be afforded the highest priority over commercial, operational, environmental or social pressures.*
- *The parties referred to in Article 2(2) of the ADQIR shall ensure that any changes to existing systems referred to in the first subparagraph of Article 2(1) of the ADQIR, or the introduction of new systems are preceded by a safety assessment, including hazard identification, risk assessment and mitigation, conducted by the parties concerned.*
- *During that safety assessment, the safety management objective requirements referred to in this chapter shall be considered as safety requirements.*

5.8 Article 2(1) defines the scope of the ADQIR as the European air traffic management network (EATMN) systems, their constituents and associated procedures involved in the origination, production, storage, handling, processing, transfer and distribution of aeronautical information and data. The safety and security management objectives described in this chapter therefore applies to any party involved in these activities; it is not limited to the AISP alone.

Security Management

ADQIR - Article 10, Annex VII, Part C.

- *The parties referred to in Article 2(2) of the ADQIR shall ensure that the quality management system referred to in paragraph 1 of this chapter defines the procedures to meet the security management objectives as follows-*
- *The security management objectives shall be:*
  - *to ensure the security of aeronautical data and information received, produced or otherwise employed so that it is protected from interference and access to it is restricted only to those authorised.*
  - *to ensure that the security management measures of an organisation meet appropriate national or international requirements for critical infrastructure and business continuity, and international standards for security management, including the ISO standards ISO/IEC17799:2005 and ISO 28000:2007.*

5.9 ISO 28000:2007 details requirements for an SMS for a supply chain, an alternative standard ISO 27001 provides an information security management system which ensures the risk of information being compromised (by any means) is mitigated to an acceptable level. ISO 27001 therefore provides an appropriate degree of equivalence to meet the ADQIR security objectives.

5.10 Whilst the ISO standards referred to above provides a sufficient means of compliance to the ADQIR Article 10 security management objectives, they are not the only means. The ISO standards do however illustrate the level of security management equivalence expected within an organisation.

Formal Arrangements

5.11 To comply with ADQIR Article 6 requirements for exchanging aeronautical information and data, the parties responsible for data captured under the ADQIR and any party handling this data and information shall establish formal arrangements between themselves. The formal arrangements shall include the following minimum content:

ADQIR - Article 6, *Annex IV, part C*

- *the scope of aeronautical information and/or data to be provided.*
- *the accuracy, resolution and integrity requirements for each data item supplied.*
- *the required method for demonstrating that the data provided conforms to the specified requirements.*
- *the nature of action to be taken in the event of discovery of a data error or inconsistency in any data provided.*
- *the following minimum criteria for notification of data changes.*
- *criteria for determining the timeliness of data provision based on the operational or safety significance of the change.*
- *any prior notice of expected changes.*
- *the means to be adopted for notification.*
- *the party responsible for documenting data changes.*
- *the means to resolve any potential ambiguities caused where different formats are used to exchange aeronautical information and/or data.*
- *any limitations on the use of the aeronautical information and data.*
- *Requirements for the production of quality reports by data providers to facilitate verification of data quality by the data users.*
- *metadata requirements.*
- *contingency requirements concerning the continuity of data provision.*

5.12 A declaration shall be included in the formal arrangement that the requirements of the ADQIR will be met by all parties to the arrangement.

5.13 An example template of a formal arrangement is provided at Annex D.

5.14 The Authorised Source may discharge their data origination, management, submission activities to a third party, either within or outside of their own

organisation. This arrangement shall be reflected in the formal arrangements specified at chapter 5.

5.15 The Authorised Source remains the party ultimately accountable for the information published in the UK AIP.

Consistency, Timeliness and Personnel Performance

5.16 To comply with ADQIR Article 7 requirements for consistency, timeliness and personnel performance the following shall apply:

5.17 The Aeronautical Information Service Provider (AISP) shall indicate in GEN 1.7. of the UK AIP those sections and sub-sections of the AIP which contain aeronautical data and/or information items not meeting the data quality requirements..

5.18 The AISP shall ensure that the most current update cycles applicable to AIP amendments and AIP supplements are made publicly available.

ADQIR - Article 7.

- *The parties responsible for aeronautical information and data in scope of the ADQIR and any party handling this information and data shall ensure that their personnel responsible for tasks associated with the provision of aeronautical data are made aware of and apply:*
  - *the requirements for AIP amendments, AIP supplements and NOTAM laid down in the ICAO standards referred to in ICAO Annex 15.*
  - *the update cycles applicable to the issue of AIP amendments and supplements for the areas for which they are providing aeronautical data or information, as published on the AIS web-site.*
- *The parties responsible for data captured under the ADQIR and any party handling this information and data shall ensure that their personnel responsible for tasks in the provision of aeronautical data and information are adequately trained; competent and authorised for the job they are required to do.*

Tools and Software

ADQIR - Article 8, Annex V.

- *The parties responsible for aeronautical information and data, and any party handling this data and information shall ensure that all tools and software used to support the origination, production, storage, handling, processing and transfer of aeronautical data and/or information comply with the following -*

5.19 To clarify the applicability of the Tool & Software requirements of the ADQIR Article 8, any tools or software used to originate, process, store, exchange or

publish DAL 1 or DAL 2 data referred to in Annex A, such as aerodrome survey equipment, instrument flight procedure (IFP) design systems, airspace design systems, data storage, retrieval and exchange systems, AIP production systems, are all considered as in-scope of ADQIR Article 8 provisions.

- *Tools used to support or automate aeronautical information and data processes shall meet the following requirements where the tool has the potential to create errors in critical or essential data items or is the sole means of detecting errors in critical or essential data items, or is the sole means of detecting discrepancies between multiple versions of manually entered data.*
  - *Performance, functionality and integrity level requirements shall be defined to ensure that the tool performs its function within the data process without adversely impacting the quality of aeronautical data and/or information.*
  - *Tools referred to in Article 8 shall be validated and verified against the requirements referred to above.*
- *Tools referred to in Article 8, which are implemented fully or partially in software, shall satisfy the following additional requirements.*
  - *the software requirements shall correctly state what is required by the software in order to satisfy the tool requirements.*
  - *all software shall be traceable to the tool requirements referred to in Annex V of the ADQIR.*
  - *the validation and verification of software, as defined in points 8.4 and 8.5 shall be applied to a known executable version of the software in its target operating environment.*
- *The validation of software means the process of ensuring that software meets the requirements for the specified application or intended use of the aeronautical information and data.*
- *The verification of software means the evaluation of the output of an aeronautical information and data software development process to ensure correctness and consistency with respect to the inputs and applicable software standards, rules and conventions used in that process.*

Verification of Systems (ANSP)

5.20 Article 12 of the ADQIR applies to Air Navigation Service Providers only, i.e. Any public or private entity providing air navigation services as identified in Chapter 4, para 2.2. An aerodrome ATS units certified by CAA as an ANSP, in accordance with European Regulation (EU) No 1035/2011 – Common Requirements for the

Provision of Air Navigation Services, are therefore regarded as ANSP in terms of the ADQIR, if they are involved in the aeronautical information and data process.

5.21 The requirements for ANSP to verify their systems means that any ANSP involved in the origination, production, storage, handling, processing, transfer and distribution of aeronautical information shall verify any part of their systems or constituents used in accordance with the requirements laid down in the ADQIR.

5.22 A certified ANSP involved in the management of aeronautical information, at an aerodrome with Instrument Flight Procedures published in the AIP, and who is also the Authorised Source identified at Annex A, may elect to sub contract its aeronautical information management activity to a third party outside of the certified ANSP. This arrangement shall be reflected in the formal arrangement required in this chapter at section 6. If the contracted party is not a certified ANSP as described at point 9.1 then ADQIR Article 12 requirements would not apply. However, Article 8 Tools & software requirements would pertain.

Article 12, *Annex X, Part A.*

- *Air Navigation Service Providers who can demonstrate or have demonstrated that they fulfil the conditions stated below shall conduct a verification of their systems in accordance with the requirements specified, All parties shall;*
  - *Have reporting methods in place within the organisation that ensure and demonstrate impartiality and independence of judgement in relation to the verification activities. Ensure that the personnel involved in verification processes carry out the checks with the greatest possible professional integrity and the greatest possible technical competence, and are free of any pressure and incentive, in particular of a financial type, which could affect their judgment or the results of their checks, in particular from persons or groups of persons affected by the results of the checks.*
  - *Ensure that the personnel involved in verification processes, have access to the equipment that enables them to properly perform the required checks.*
  - *Ensure that the personnel involved in verification processes, have sound technical and vocational training, satisfactory knowledge of the requirements of the verifications they have to carry out, adequate experience of such operations, and the ability to draw up the declarations, records and reports to demonstrate that the verifications have been carried out.*
  - *Ensure that the personnel involved in verification processes, are able to perform their checks with impartiality. Their remuneration shall not depend on the number of checks carried out, or on the results of such checks.*

Requirements for the Verification of Systems (ANSP)

Article 12, Annex X, Part B

- *The verification of systems shall demonstrate the conformity of these systems with the interoperability, performance and safety requirements of the ADQIR in an assessment environment that reflects the operational context of these systems.*
- *The verification of systems identified in the first subparagraph of Article 2.1 of the ADQIR shall be conducted in accordance with appropriate and recognised testing practises.*
- *Test tools used for the verification of systems identified in the first subparagraph of Article 2.1 of the ADQIR shall have appropriate functionalities.*
- *The verification of systems identified in the first subparagraph of Article 2.1 shall produce the elements of the technical file required by point 3 of Annex IV to EC Regulation No 552/2004 including the following elements:*
  - *Description of the implementation*
  - *The report of inspections and tests achieved before putting the system into service.*
  - *ANSPs shall manage the verification activities and shall in particular:*
- *Determine the appropriate simulated operational and technical environment reflecting the operational environment.*
- *Verify that the test plan provides full coverage of the applicable interoperability, performance and safety requirements of the ADQIR.*
  - *Ensure that consistency and quality of the technical documentation and the test plan,*
  - *Plan the test organisation, staff installation and configuration of the test plan,*
  - *Perform the inspections and tests as specified in the test plan,*
  - *Write the report presenting the results of inspections and tests,*
- *ANSPs shall ensure that the systems identified in the first subparagraph of Article 2.1 of the ADQIR meet the interoperability performance and safety requirements of the ADQIR in an assessment environment that reflects the operational context of these systems.*
- *Upon satisfying completion of verification of conformity, ANSPs shall draw up the EC declaration of verification of system and submit it to the national supervisory authority together with the technical file as required by Article 6 of the Interoperability Regulation ((EC) No 552/2004).*

5.23 The following ADQIR requirements shall be met by the registered ANSP responsible for aeronautical information mentioned at Chapter 2.

Verification of Systems (ANSP – Sub-Contractor)

5.24 ANSPs which cannot demonstrate that they fulfil the conditions laid down above shall sub-contract to a notified body a verification of the systems referred to in this chapter. That verification shall be conducted in accordance with the requirements for verification of systems (sub-contractor) specified below.

Requirements for the Verification of Systems (ANSP-Sub-Contractor)

- *The verification of systems shall demonstrate the conformity of the systems with the interoperability, performance and safety requirements of the ADQIR, in an assessment environment that reflects the operational context of these systems.*
- *The verification requirements specified in this chapter shall be conducted in accordance with appropriate and recognised testing practices.*
- *Test tools used to demonstrate system verification shall be identified.*
- *The verification of systems identified in the Article 2.1 of the ADQIR shall produce the elements of the technical file required by point 3 of Annex IV to EC Regulation No 552/2004 including the following elements:*
  - *Description of the implementation*
  - *The report of inspections and tests achieved before putting the system into service.*
- *The ANSP shall determine the appropriate operational and technical assessment environment and have verification activities performed by a notified body.*
- *The notified body shall manage the verification activities and shall in particular:*
  - *Verify that the test plan describes the integration of systems identified in this chapter.*
  - *Verify that the test plan provides full coverage of the applicable interoperability, performance and safety requirements of the ADQIR, as specified in this CAP.*
  - *Ensure that consistency and quality of the technical documentation and the test plan*
  - *Plan the test organisation, staff installation and configuration of the test plan,*
  - *Perform the inspections and tests as specified in the test plan,*
  - *Write the report presenting the results of inspections and tests,*
- *The notified body shall ensure that the systems identified in this chapter and operated in an operational assessment environment meet the interoperability, performance and safety requirements of the ADQIR.*
- *Upon satisfying completion of verification tasks, the notified body shall draw up a certificate of conformity in relation to the tasks it carried out.*

- *The ANSP shall draw up the EC declaration of verification of system and submit it to the national supervisor authority together with the technical file as required by Article 6 of Regulation EC No. 552/2004.*

5.25 Should a suitable notified body not be available to verify the ANSPs systems or software, then the ANSP is responsible for ensuring the suitability of use of that particular system or software.

5.26 Further guidance for ANSPs, and manufactures of systems used by ANSPs, regarding EC Declarations of Verification (DoV) is available on the 'Interoperability' page, under the 'Single European Sky' section in the 'About the CAA' area of the CAA website.

Chapter 6

ADQIR - Data Quality Requirements

Aeronautical Data Origination

6.1 Data Origination means the creation of a new data item with its associated value, the modification of the value of an existing data item or the deletion of an existing data item.

6.2 Data originators providing aeronautical data and information as indicated in the table at Annex A shall comply with the data origination requirements as follows:

Article 6, *Annex IV, Part D.*

- *The surveying of radio navigation aids and the origination of calculated or derived points whose coordinates are published in the AIP shall at least be carried out in accordance with the following:*
  - *i. World Geodetic System 1984 Manual - ICAO Doc 9674.*
  - *ii. Aerodrome Survey Information - Civil Aviation Authority Publication (CAP 232).*
  - *iii. Data Origination Vol 1 – Eurocontrol Guidance to (EU) Reg.73/2010 & 1029/2014.*
- *All surveyed data shall be referenced to WGS 84 as specified in chapter 3 of Aeronautical Information Services – ICAO Annex 15.*
- *A geoid model sufficient to meet the ICAO provisions referred to in ICAO Annex 15 and the aeronautical data quality requirements laid down in Annex i=IV of the ADQIR, shall be used in order that all vertical data (surveyed, calculated or derived) may be expressed relative to mean sea level via the Earth Gravitational Model 1996. A 'geoid' means the equipotential surface in the gravity field of the Earth, which coincides with the undisturbed mean sea level extended continuously through the continents.*

1. To meet the ADQIR requirements of Article 6, Annex IV, Part D. The OSGM02 geoid model shall be used to express all vertical data relative to mean sea level. The model is available from the Ordnance Survey - Link to OSGM02 model

- *Surveyed, calculated and derived data shall be maintained throughout the lifetime of each data item.*
- *Surveyed data categorised as critical or essential shall be subject to full initial survey, and thereafter shall be monitored for changes on a yearly basis, as a minimum. Where changes are detected, re-survey of the relevant data shall be undertaken.*

2. In accordance with the adopted means of compliance referred to in Chapter 4, paragraph 3.2, the equivalent data assurance level to that mentioned above would be DAL 1 (critical), DAL 2 (essential).

3. Aeronautical information and data to be provided by surveyors, procedure designers, and airspace designers shall include all attributes (complete data-set) or part (if amending existing full data-set) described at Annex C. The data required is stated with its associated life-cycle or periodicity requirements, these are;

   - permanent data that once initially originated shall not be subject to re-origination unless the authorised source identifies a physical change.
   - data with a defined periodicity that once expired shall be revalidated or re-originated and re-submitted to the AISP.

4. Full details regarding CAA survey requirements and periodicity are specified in CAP 232 (Aerodrome Survey Information) available via the CAA website - CAP 232

Article 6, *Annex IV, Part D.*

- *The following electronic survey data capture and storage techniques shall be employed:*
  - *i. Reference point co-ordinates shall be loaded to the surveying equipment by digital data transfer;*
  - *ii. The measurements shall be stored digitally;*
  - *iii. Raw data shall be digitally transferred and loaded into the processing software.*
- *All survey data with an assurance level of critical shall be subject to sufficient additional measurement to identify survey errors not detectable by single measurement.*
- *Aeronautical data and information shall be validated and verified prior to use in deriving or calculating other data.*

6.3 Notices shall be issued by the AISP to the Authorised Source, referred to in Annex A, of the survey data identified at Annex C, where;

- The validity of surveyed data is due to expire in six months time.
- The validity of surveyed data has expired.

6.4 Surveyed data with an assurance level of DAL 1 or DAL 2, and beyond the survey validity period by six months, can no longer be assured and will be referenced in the AIP at GEN 1.7 as not meeting the data quality requirements of the ADQIR, as mentioned in Chapter 5, para 7. The Authorised Source is

responsible for ensuring that any non-compliant survey data is rectified as soon as possible.

6.5 Aerodrome survey data origination, capture, storage, error identification and validation requirements are specified in the Eurocontrol Data Origination volume 1 & 2 and Data Assurance Level 'preferred means of compliance'.

1.6 When acting as the entity responsible for the official request for a data origination activity the parties referred to in Article 2 of the ADQIR shall ensure that:

- *the data are created, modified or deleted in compliance with their instructions;*

1.7 Without prejudice to Annex 4, part C of the ADQIR, their data origination instructions contain, as a minimum;

- *an unambiguous description of the data that is to be created, modified or deleted;*
- *confirmation of the entity to which the data that is to be provided;*
- *the date and time by which the data is to be provided;*
- *the data origination report format to be used by the data originator.*

6.6 All parties originating data in scope of the ADQIR shall demonstrate that accuracy and resolution requirements for each data item have been established at point of origination, and integrity maintained up to the point of data exchange.

Data Quality Attributes

6.7 Aeronautical information and data quality attributes for specific items in scope of the ADQIR are based upon ICAO Annex 15, Appendix 7 standards and are specified at Annex A.

6.8 The aeronautical information and data quality attributes for items referred to in Annex A have been developed in accordance with a standardised process describing the methodology for the derivation and validation of these requirements prior to publication, taking due account of the potential impact on relevant ICAO provisions.

6.9 In accordance with the evidence requirements of Article 6, Annex IV, Part B of the ADQIR, Aeronautical data items in scope of the ADQIR as specified at Annex A shall demonstrate accuracy, resolution and integrity levels as stated together with the ability to determine the origin of the item.

6.10 ADQIR evidence requirements also require all parties responsible for aeronautical information and data in scope of the ADQIR referred to in Annex A and any party handling this information and data shall demonstrate that accuracy

and resolution requirements for each item have been maintained from the point of origination through to point of publication by the AISP.

6.11 All parties responsible for aeronautical information and data in scope of the ADQIR referred to in Annex A and any party handling this information and data shall record and maintain evidence and change history for each item identified in this chapter and make available for audit purposes.

6.12 The parties responsible for aeronautical information and data in scope of the ADQIR referred to in Annex A, and any party handling this information and data, shall ensure the information and data is complete and as agreed in the formal arrangements between the parties concerned. Any missing data items shall be declared by the party providing the data.

6.13 The ICAO standards for Accuracy, Resolution and Integrity are taken from ICAO Annex 15, Appendix 7, and Annex 14, Volume 1, Appendix 5, and are defined as follows -

Accuracy

6.14 For measured and positional data accuracy is expressed in terms of a distance from a stated position within which there is a defined confidence of the true position falling. Accuracy/Confidence levels are specified at Annex A.

Resolution

6.15 Publication Resolution is the smallest separation that can be employed to make the positional statement. Publication Resolution is always a rounded value. Resolution values are specified at Annex A.

Integrity

6.16 The integrity of aeronautical data shall be maintained throughout the data process from survey/origin to distribution to the next intended user (the entity that receives the aeronautical information from the AISP). Based on the applicable integrity classification, the validation and verification procedures shall:

- **For critical data:** assure that corruption does not occur at any stage of the entire process and include additional integrity assurance processes to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks.
- **For essential data:** assure corruption does not occur at any stage of the entire process and may include additional processes as needed to address potential risks in the overall system architecture to further assure data integrity at this level.
- **For routine data:** avoid corruption throughout the processing of the data.

Data Assurance

6.17 As a means of maintaining ICAO data integrity levels throughout the aeronautical data management and origination process, Eurocontrol's Data Assurance Level (DAL) can be adopted as the UK's 'preferred Means of Compliance'. The DAL can therefore be applied by all parties' in-scope of the ADQIR to maintain and demonstrate data integrity at all stages of data origination, transfer and management of aeronautical data and information in-scope of the ADQIR. The DAL document is available from the Media & Info area of the Eurocontrol website. www.eurocontrol.int

6.18 The Eurocontrol DAL specification defines specific objectives (or staged processes) for all parties in scope of the ADQIR, that enables data integrity to be maintained at all stages of aeronautical data management from origination through to publication in the AIP.

6.19 To assist in determining the applicable data assurance objectives to be applied at each stage of the data management process, the table at Annex E may be used. The DAL objectives are only applicable to aeronautical information and data identified in Annex A as being required to meet the provisions of the ADQIR.

6.20 Eurocontrol Data Quality Requirements (DQR) referred to in Chapter 4 contains a table described as the 'The Harmonised List' (HL). The HL defines the data assurance level (DAL) for data items included in the AIP and is based upon a generic data items list published in Appendix 7 of ICAO Annex 15.

6.21 The UK version of the Eurocontrol HL (Annex A) can however be used in preference to the HL as it includes additional detail of the data assurance levels required for each data item included in the AIP that are in-scope of the ADQIR, together with the identification of the accountable Authorised Source, the method of origination, and the applicable accuracy and resolution standards.

6.22 Should the Eurocontrol Specifications, including the DAL & DQR, not be used by stakeholders to achieve compliance to the ADQIR, then stakeholders will need to provide alternative means of demonstrating compliance.

6.23 ICAO Data Integrity values equate to the Eurocontrol Data Assurance Levels as follows;

ICAO Integrity Value	Equivalent DAL
Critical	DAL 1
Essential	DAL 2
Routine	DAL 3

Chapter 7

ADQIR - Aeronautical Information Data Process & Data Specifications

Aeronautical Data Process

7.1 The parties responsible for aeronautical information and data in scope of the ADQIR identified in Annex A, and any party handling this information and data shall comply with the following:

Annex IV, part E.

- *Where processes or parts of processes used in the origination, production, storage, handling, processing, transfer and distribution of aeronautical information and/or data are subject to automation they shall be:*
  - *a) automated to a level commensurate with the context of the data process.*
  - *b) automated to optimise the allocation and interaction of human and machine to achieve a high degree of safety and quality benefits of the process;*
  - *c) designed to avoid the introduction of data errors;*
  - *d) designed to detect errors in received/input data.*
- *Where aeronautical information and data is entered manually, it shall be subject to verification by an independent person or process and recorded to identify and rectify any errors that may have been introduced.*

7.2 In meeting the ADQIR requirement mentioned above, data originated by surveyors, IFP designers and airspace designers, the majority of data in-scope of the ADQIR, can only be provided to the AISP as AIXM data-sets.

7.3 In recognition that smaller organisations with limited resources may find it challenging to meet the requirement for independent verification, the CAA is adopting a pragmatic approach by allowing this data to be manually inputted through standard input forms (SIF) provided by the AISP. Manually entered data requires independent verification and therefore these SIF will include the functionality for double blind entry for aeronautical information and data with an ICAO integrity level of critical or essential (DAL 1 or DAL 2). This ensures a proportionate degree of data quality assurance which CAA accepts as meeting ADQIR requirements.

7.4 The parties responsible for aeronautical information and data in scope of the ADQIR identified at Annex A, and any party handling this information and data shall ensure that it is complete or any missing items are declared to the AISP.

Aeronautical Data Process (outside the scope of the ADQIR)

7.5 Other aeronautical information and data contained in the AIP that is outside of the scope of ADQIR should also be exchanged via SIF as mentioned in point 7.3. The SIF, provided by the AISP, will include the functionality for double blind entry of manually input data for aeronautical information and data with an ICAO integrity level of critical or essential. This ensures a proportionate degree of data quality assurance to meet ICAO Annex 15 integrity requirements.

Metadata

7.6 Aeronautical information and data specified as required to meet the ADQIR requirements identified in Annex A shall include additional metadata. Some metadata may originate from another Authorised Source further back in the aeronautical data chain, such as survey data provided to an aerodrome prior to submission by the aerodrome to the AIS. This original metadata, as defined below, shall be retained at all stages of data management and final submission to the AIS.

7.7 To ensure consistent metadata from the data origination stages of aeronautical information through to publication in the AIP, or when made available to the next intended user, the Eurocontrol Metadata profile shall be used. The Eurocontrol Metadata profile can be obtained from the media and info area of the Eurocontrol web-site. www.eurocontrol.int

7.8 Failure to include the required metadata will result in the aeronautical data submission to the AIS for publication in the AIP being rejected.

7.9 Aeronautical information and data shall reflect Accuracy, Resolution and Integrity levels as defined in Annex A together with the ability to determine the origin of the data item.

7.10 The following tables specify the required metadata for each category of data required to meet ADQIR Article 4 provisions.

Common Metadata Attributes (applicable to all information / data)

Attribute	Description	Status
Person Responsible	The name of the person who entered or amended the data	Mandatory
Role (Unit)	The role of the person who entered, amended or withdrew the data	Mandatory
Operation Performed	The action performed (new data, amended data or withdrawn data.	Mandatory
Date Performed	The date on which the data was captured, entered, amended or withdrawn.	Mandatory
Approver	The name of the person within the organisation concerned who approved the data for release to the AISP.	Mandatory
Date of Approval	The date on which the data was approved for submission to the AISP.	Mandatory
Standards Applied	The standards applied in originating the data. (applicable ICAO standards)	Mandatory for DAL 1 and DAL 2 data. Optional for DAL 3.
Effective Date	The effective date of the change	Mandatory
Effective Time	The effective time of the change	Mandatory

For specific data types, the following additional metadata shall also be provided:

Co-ordinate Data

Attribute	Description	Status
Reference System	The reference system used in the derivation of the co-ordinate.	Mandatory
Method Used	The method used to obtain the co-ordinate. E.g. Surveyed, Calculated or Declared.	Mandatory
Quality Attributes – Accuracy	The recorded accuracy of the originated data.	Mandatory
Quality Attributes – Resolution	The resolution of the data provided.	Mandatory

Distance Data

Attribute	Description	Status
Reference System	The reference system used in the derivation of the distance.	Mandatory
Method Used	The method used to obtain the distance. E.g. Surveyed, Derived or Declared.	Mandatory
Quality Attributes – Accuracy	The recorded accuracy of the calculation performed.	Mandatory
Quality Attributes – Resolution	The resolution of the data provided.	Mandatory

Bearing Data

Attribute	Description	Status
Reference System	The reference system used in the derivation of the bearing.	Mandatory
Method Used	The method used to obtain the bearing. E.g. Surveyed, Derived or Declared.	Mandatory
Quality Attributes – Accuracy	The recorded accuracy of the originated data.	Mandatory
Quality Attributes – Resolution	The resolution of the data provided.	Mandatory

Elevation Data

Attribute	Description	Status
Reference System	The reference system used in the derivation of the Elevation.	Mandatory
Method Used	The method used to obtain the Elevation. E.g. Surveyed, Derived or Declared.	Mandatory
Quality Attributes – Accuracy	The recorded accuracy of the originated data.	Mandatory
Quality Attributes – Resolution	The resolution of the data provided.	Mandatory

Converted/Transformed Data

Attribute	Description	Status
Conversion Used	The method used to convert the units of measurement or perform the transformation.	Mandatory

Tools

Attribute	Description	Status
Tool	The tool used in the process of originating the data provided.	Mandatory
Version	The version of the tool used	Mandatory

Data Set Specification

7.11 To meet the data set specification required by Article 4 and Annex I of the ADQIR, the Aeronautical Information Exchange Model (AIXM) developed by Eurocontrol and the Federal Aviation Authority (FAA) shall be used. Guidance on AIXM can be found on the Eurocontrol website at http://www.aixm.aero/public/standard_page/download.html

7.12 Certain aeronautical information and data required to meet ADQIR may be formatted as a complete consolidated AIXM data-set. The applicable datasets and the applicable required attributes can be found at Annex C. These datasets are those originated by Surveyors, Instrument Flight Procedure Designers, and Airspace designers.

7.13 The AIXM model has two main components. One component describes the concepts of the aeronautical information domain as a collection of features, properties and relationships. This component is referred to as the AIXM logical information model and it is defined using the Unified Modelling Language (UML) and shall be used as the basis of the UK common data set specification.

7.14 A common data set specification does not mean that existing or future systems have to use it for their internal data management. It only means that the data input/output by the system needs to be organised according to the common data set specification, which is achievable through mapping and data conversions.

7.15 The AIXM logical information model enforces the use of Universally Unique Identifiers (UUID). For the provision of data to the AISP, UUID’s shall persist for the entire lifecycle of the feature and shall not be re-used upon deprecation of the feature.

7.16 The second component is derived from the AIXM logical information model and describes how to encode aeronautical data in a format that can be transmitted electronically between computer systems. The second component uses XML (Extensible Mark-up Language) as a language for system-to-system exchange. This component is also referred to as the XML Schema of AIXM and shall be used as the basis of the UK common data exchange specification.

7.17 The dataset and exchange specification requirement is designed to ensure not only that a whole and complete data set can be exchanged but also that a particular feature can be exchanged individually. This is particularly important for providers of limited subsets of the whole data set or even just the value of one property, such as a position, elevation, frequency, identifier, etc.

7.18 In order to ensure a common implementation of the exchange specification the AISP will publish data harmonisation rules as necessary.

Electronic Terrain Data Sets

7.19 The electronic terrain data referred to in this chapter shall:

1. be provided digitally in accordance with ICAO Annex 15 standards.
2. include the metadata items as detailed in this chapter.

Aeronautical Data Protection (Storage & Exchange)

7.20 To meet ADQIR Article 9 provisions for ‘Data Protection’ the parties responsible for aeronautical information and data in scope of the ADQIR identified in Annex A shall ensure that it is protected in accordance with the following requirements:

1. aeronautical data and/or information shall be given an appropriate level of security protection during storage and when exchanged between the parties in the data chain, to ensure that the data cannot be accidentally changed or subjected to unauthorised access and/or alteration at any stage.
2. the use of publically available encryption algorithms, using public and private keys, that restricts access to data to only those authorised is required in fulfilling the requirements of point a above.
3. the application of the CRC32Q algorithm as specified in Chapter 7 of ICAO Doc 9674-AN946 (WGS84 manual) may be applied, as an alternative to point b to validate and verify the data prior to storage or transfer. However, the present lack of availability of suitable commercially available CRC32Q security software makes this ADQIR requirement difficult to meet. To address the issue resulting from the unavailability of suitable CRC 32Q data protection products, the CAA requires all aeronautical data being submitted to the AISP in AIXM formatted data-sets, as detailed at Annex C, to be subject to the application of file compression software (zip utility). The password protection and data encryption functions that many zip utilities provide shall not be applied as the basic zip function provides sufficient level of authentification to ensure that data integrity is maintained.

Aeronautical Data Traceability

7.21 In meeting ADQIR Article 9 provisions for Data Protection, the parties responsible for aeronautical information and data in scope of the ADQIR shall ensure that traceability is maintained on each data item during its period of validity and for at least 5 years following the end of that period or until 5 years after the end of the period of validity for any data item calculated or derived from it, whichever is later.

7.22 All Authorised Parties responsible for aeronautical information and data in scope of the ADQIR referred to in Annex A, shall record and maintain evidence and change history for each data item.

Chapter 8

ADQIR – Data Exchange

Aeronautical Data Exchange (Between parties in the Data-Chain)

8.1 To meet ADQIR Article 5 provisions for Data Exchange, the Authorised Source responsible for aeronautical information and data in scope of the ADQIR identified in Annex A, and any party providing or handling this data shall ensure that the aeronautical data and/or information is transferred between themselves by direct electronic connection, i.e. the systems available to each party are connected via a suitable 'digital' network.

8.2 For single data items or small data-sets, an internet connection such as dial-up or broadband would be suitable. For delivery of large data-sets e.g. aerodrome survey data, a permanent private network (PPN) or equivalent is preferred.

8.3 In the case where no direct electronic network connection is available between parties in the data chain, other than with the AISP, it is acceptable to use e-mail if the following conditions can be met:

- Aeronautical data and information is provided in an attached file that can be automatically ingested into the recipients system without the need for manual input.
- Receipt of the data can be confirmed to the sender.

8.4 Data originators exchanging data within the confines of an ANSP do not necessarily have to meet electronic data exchange provisions.

8.5 Final transmission of data to the AISP shall, shall nevertheless be performed via electronic connection, i.e. not e-mail.

Aeronautical Data Submission to the AISP

8.6 To meet the data exchange requirements of Article 5, and Annex II of the ADQIR, all parties involved in the origination, management and publication of aeronautical information and data listed at Annex A shall submit their data and information to the AISP as follows -

- The aeronautical data and information referred to in Annex C and formatted in accordance with the data-set specification described in chapter 7 (AIXM) may be provided to the AISP as either a complete AIXM file, or as individual AIXM data items via the AIP amendment functionality provided by the AISP.

- Individual data elements from the AIXM data-sets described at Annex C but manually inputted, and data not in-scope of the ADQIR, shall be submitted to the AISP using the on-line Standard Input Form (SIF) also available via the NATS/AIS website.

8.7 In order to access the AIP change request functions for uploading AIXM formatted data sets and SIF submission, Authorised Sources, or the third party nominated by the Authorised Source to perform the task, shall first register their details with the AISP as described in Chapter 2.

Aeronautical Data Availability

8.8 The aeronautical data and information in-scope of the ADQIR referred to in Annex A shall be made available to the AISP prior to its effective date and in accordance with the printing and publication schedules made available by the AISP.

8.9 The AISP shall ensure that all aeronautical data and information within the AIP, AIP amendments and AIP supplements are made available to the next intended user, as a minimum:

1. In accordance with the publication requirements stated in ICAO Annex 15, Chapters 4 and 8.
2. In a way that allows the content and format of the AIP, AIP amendments and supplements to be directly readable on a computer screen; and
3. In accordance with the data exchange formats specified in this Chapter.

Electronic Terrain Data

8.10 Electronic terrain data referred to in chapter 7 shall be provided in a common format compliant with the ISO standards ISO 19107 2003, ISO 19115/2003, ISO 19139/2007, ISO 19118/2005 and ISO 19136 2007.

Chapter 9
Regulation

Evidence requirements

9.1 Article 6 paragraph 2 and Annex IV part B of the ADQIR lays down evidence requirements applicable to all parties in-scope of the ADQIR.

9.2 The CAA in its capacity as the National Supervisory Authority (NSA) will establish if the Authorised Sources referred to in Annex A, and any party referred to in the formal arrangements with the Authorised Source, as described at Chapter 5, paragraph 6, have met the evidence requirements of Article 6. This shall be achieved through periodic audits, assessments and as part of pre-existing CAA approvals schemes.

9.3 The Authorised Source responsible for data in scope of the ADQIR identified in Annex A and any party originating, processing, exchanging, publishing this information will need to provide evidence to show that:

1. ICAO Annex 15 accuracy requirements and data capture resolution requirements (stated at Annex C) are complied with at data origination and provided to the AISP. The AISP shall subsequently apply and maintain ICAO Annex 15 publication resolution values, replicated at Annex A, through to publication in the AIP or when made available to the next intended user.
2. the functioning of the quality system by means of manuals and monitoring documents.
3. the origin and change history for each data item is recorded and available for audit.
4. the aeronautical information and/or data is complete or any missing items are declared.
5. all data origination, production, storage, handling, processing, transfer or distribution processes used for each data item are defined and adequate for the assigned level of integrity.
6. data validation and verification processes are adequate for the assigned integrity level of the data item.
7. manual or semi-automated data processes are performed by trained and qualified staff, with clearly defined roles and responsibilities that are recorded in the organisations QMS.
8. all tools and/or software used to support or implement the processes are validated as fit for purpose in accordance with Chapter 5 of this CAP.
9. an effective error reporting, measurement and corrective action process is in operation in accordance with the error reporting and rectification requirements specified in this chapter.

10. The parties responsible for aeronautical data and information in scope of the ADQIR identified in Annex A, shall accept the disclosure of their certification document, as evidence of means of compliance to the safety management objectives stated in chapter 5.
11. The parties responsible for aeronautical data and information in scope of the ADQIR identified in Annex A, shall record and maintain evidence and change history for each data item and make it available for audit.

CAA Regulatory Oversight

9.4 The table at Annex A indicates that the CAA will conduct regulatory oversight of the Authorised Sources, and any party mentioned in the Formal Arrangements at Chapter 5 that originates, manages or publishes aeronautical information and data in-scope of the ADQIR.

9.5 Wherever possible, the regulatory oversight activities necessary to ensure compliance to the ADQIR will be subsumed into current CAA oversight arrangements. If the Authorised Source responsible for aeronautical data and information in scope the ADQIR identified in Annex A, is already being audited by the CAA for another area of its organisation, then the audit for compliance against the requirements of this CAP will normally be carried out to align, so far as practicable, with existing regulatory oversight activities.

9.6 If the Authorised Source or party handling the data identified as requiring conformance to the ADQIR, is not currently subject to any CAA regulatory oversight activities then the CAA will notify the party concerned of the oversight arrangements on an individual basis.

9.7 The contact details of CAA regulatory departments can be found at Annex B.

Regulatory Non-compliance

9.8 The Authorised Source of aeronautical information remains ultimately accountable for any contracted services mentioned in the formal arrangements with the Authorised Source. Parties to the formal arrangements, who fail to meet the evidence requirements of the ADQIR, shall be subject, so far as practicable, to regulatory enforcement action.

9.9 Where the Authorised Source for aeronautical information and data listed at Annex A or any party mentioned in the formal arrangements with the Authorised Source is not currently being regulated by the CAA, the CAA will take appropriate and proportionate regulatory action on a case by case basis and depending on the severity of non-conformance.

UK AIP AUTHORISED DATA SOURCES & DATA REQUIREMENTS TO MEET EU No. 73/2010 & 1029/2014.

N/a = Not applicable

Sub Heading	AIP Section	Authorised Source	*CAA Regulatory Approval Required - indicated by approving CAA Dept*	*Required to meet EU No 73/2010 & 1029/2014*	*Data Assurance Level (DAL)*	*Accuracy Requirements (ICAO Annex 15 App 7)*	*Publication Resolution (ICAO Annex 15, App 7)*	*Method of Origination Surveyed (S), Calculated (C),*
GEN								
Summary of National Regulations and International Agreements/Conventions								
Tables And Codes								
Measuring System, Aircraft Markings, Holidays								
Chart Symbols								
Chart Symbols	GEN	2.3	NATS/AIM	AIM	No	N/a	N/a	N/a	N/a	N/a
Location Indicators								

Location Indicators	GEN	2.4	ANSP- CACC	AR	No	N/a	N/a	N/a	N/a

List of Radio Navigation Aids

List of Radio Navigation Aids	GEN	2.5	AERODROME/ ANSP	ANS	No	N/a	N/a	N/a	N/a

ENR

Air Traffic Flow Management (ATFM)

Air Traffic Flow Management (ATFM)	ENR	1.9	CAA/AR, NATS/ATFCM O	AR	No	N/a	N/a	N/a	N/a

Air Traffic Services Airspace

FIR, UIR, TMA

Name	ENR	2.1	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Lateral Limits (FIR/UIR)	ENR	2.1	ANSP	AR	Yes	DAL 3	2km	1 min	C/D
Lateral Limits (TMA/CTA/CTR)	ENR	2.1	ANSP	AR	Yes	DAL 2	100m	1 sec	C/D
Vertical Limits	ENR	2.1	ANSP	AR	Yes	DAL 3	50m	50m or 100ft	C
Class of Airspace	ENR	2.1	ANSP	AR	Yes	DAL 3	N/a	N/a	N/a
Unit Providing Service	ENR	2.1	ANSP	S&S M	No	N/a	N/a	N/a	N/a

Call Sign	ENR	2.1	ANSP	S&S M	No	N/a	N/a	N/a	N/a
Languages	ENR	2.1	ANSP	AR	No	N/a	N/a	N/a	N/a
Area and Conditions of Use	ENR	2.1	ANSP	AR	No	N/a	N/a	N/a	N/a
Hours of Service	ENR	2.1	ANSP	AR	No	N/a	N/a	N/a	N/a
Frequency / Purpose	ENR	2.1	ANSP	S&S M	Yes	DAL 3	N/a	N/a	N/a
Remarks Col 5 (Descriptive table FIR/TMA/CTR/CTA)	ENR	2.1	ANSP	AR	Yes	Cont C	N/a	N/a	N/a

Other Regulated Airspace

MIL/ATZ	ENR	2.2	MOD	AR	No	N/a	N/a	N/a	N/a
MATZ	ENR	2.2	MOD	AR	No	N/a	N/a	N/a	N/a
Shanwick OCA (NAT)	ENR	2.2.1	ANSP	AR	No	N/a	N/a	N/a	N/a

ATS Routes

Lower ATS Routes

Route Designator	ENR	3.1	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
RNP Type	ENR	3.1	ANSP	AR	No	N/a	N/a	N/a	N/a
Track Mag	ENR	3.1	ANSP	AR	Yes	DAL 3	$^{1/10}$ degree	1 degree	C

Name of Significant Points	ENR	3.1	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Co-ordinates	ENR	3.1	ANSP	AR	Yes	DAL 2	100m	1 sec	C/D
Dist	ENR	3.1	ANSP	AR	Yes	DAL 3	$^{1/10}$ km	$^{1/10}$ km or $^{1/10}$ NM	C
Upper Limits	ENR	3.1	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Lower Limits	ENR	3.1	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Minimum Flight Altitude	ENR	3.1	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Airspace Classification	ENR	3.1	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Lateral Limits (Fillets of airspace)	ENR	3.1	ANSP	AR	Yes	DAL 2	100m	1 sec	C
Lateral Limits (airway width)	ENR	3.1	ANSP	AR	Yes	DAL 2	$^{1/10}$ NM	1 NM	C
Direction of Cruising Levels	ENR	3.1	ANSP	AR	No	N/a	N/a	N/a	N/a
Remarks	ENR	3.1	ANSP	AR	Yes	Cont C	N/a	N/a	N/a
Controlling Unit	ENR	3.1	ANSP	S&S M	No	N/a	N/a	N/a	N/a
Frequency	ENR	3.1	ANSP	S&S M	No	N/a	N/a	N/a	N/a

Upper ATS Routes

Route Designator	ENR	3.2	ANSP	AR	Yes	Ref C	N/a	N/a	N/a

RNP Type	ENR	3.2	ANSP	AR	No	N/a	N/a	N/a	N/a
Track Mag	ENR	3.1	ANSP	AR	Yes	DAL 3	1/10 degree	1 degree	C
Name of Significant Points	ENR	3.2	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Co-ordinates	ENR	3.2	ANSP	AR	Yes	DAL 2	100m	1 sec	C/D
Dist	ENR	3.2	ANSP	AR	Yes	DAL 3	1/10 km	1/10 km or 1/10 NM	C
Upper Limits	ENR	3.2	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Lower Limits	ENR	3.2	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Airspace Classification	ENR	3.2	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Lateral Limits (fillets of airspace)	ENR	3.2	ANSP	AR	Yes	DAL 2	100m	1 sec	C
Lateral Limits (airway width)	ENR	3.1	ANSP	AR	Yes	DAL 2	1/10 NM	1 NM	C
Direction of Cruising Levels	ENR	3.2	ANSP	AR	No	N/a	N/a	N/a	N/a
Remarks	ENR	3.2	ANSP	AR	Yes	Cont C	N/a	N/a	N/a
Controlling Unit	ENR	3.2	ANSP	S&S M	No	N/a	N/a	N/a	N/a
Frequency	ENR	3.2	ANSP	S&S M	No	N/a	N/a	N/a	N/a

Area Navigation Routes

Route Designator	ENR	3.3	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
RNP Type	ENR	3.3	ANSP	AR	No	N/a	N/a	N/a	N/a
Name of Significant Points	ENR	3.3	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Co-ordinates	ENR	3.3	ANSP	AR	Yes	DAL 2	100m	1 sec	C/D
Waypoint	ENR	3.3	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Ident of VOR / DME	ENR	3.3	ANSP	AR	No	Ref C	N/a	N/a	N/a
BRG & DIST	ENR	3.3	ANSP	AR	Yes	DAL 3	$^{1/10}$ degree	1 degree	C
ELEV DME Antenna	ENR	3.3	ANSP	AR	Yes	DAL 2	30m (100ft)	30m (100ft)	S
Geodesic DIST	ENR	3.3	ANSP	AR	Yes	DAL 3	$^{1/10}$ km	$^{1/10}$ km or $^{1/10}$ NM	C
Upper Limits	ENR	3.3	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Lower Limits	ENR	3.3	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Airspace Classification	ENR	3.3	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Direction of Cruising Levels	ENR	3.3	ANSP	AR	No	N/a	N/a	N/a	N/a
Remarks	ENR	3.3	ANSP	AR	Yes	Cont C	N/a	N/a	N/a
Controlling Unit	ENR	3.3	ANSP	S&S M	No	N/a	N/a	N/a	N/a
Frequency	ENR	3.3	ANSP	S&S	No	N/a	N/a	N/a	N/a

				M					

Helicopter Routes

Route Designator	ENR	3.3	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
RNP Type	ENR	3.3	ANSP	AR	No	N/a	N/a	N/a	N/a
Name of Significant Points	ENR	3.3	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Co-ordinates	ENR	3.3	ANSP	AR	Yes	DAL 2	100m	1 sec	C/D
Waypoint	ENR	3.3	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Ident of VOR / DME	ENR	3.3	ANSP	AR	No	Ref C	N/a	N/a	N/a
BRG & DIST	ENR	3.3	ANSP	AR	Yes	DAL 3	$^{1/10}$ degree	1 degree	C
ELEV DME Antenna	ENR	3.3	ANSP	AR	Yes	DAL 2	30m (100ft)	30m (100ft)	S
Geodesic DIST	ENR	3.3	ANSP	AR	Yes	DAL 3	$^{1/10}$ km	$^{1/10}$ km or $^{1/10}$ NM	C
Upper Limits	ENR	3.3	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Lower Limits	ENR	3.3	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Airspace Classification	ENR	3.3	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Direction of Cruising Levels	ENR	3.3	ANSP	AR	No	N/a	N/a	N/a	N/a
Remarks	ENR	3.3	ANSP	AR	Yes	Cont C	N/a	N/a	N/a

Controlling Unit	ENR	3.3	ANSP	S&S M	No	N/a	N/a	N/a	N/a
Frequency	ENR	3.3	ANSP	S&S M	No	N/a	N/a	N/a	N/a

Other Routes

Route Designator	ENR	3.5	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
RNP Type	ENR	3.5	ANSP	AR	No	N/a	N/a	N/a	N/a
Name of Significant Points	ENR	3.5	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Co-ordinates	ENR	3.5	ANSP	AR	Yes	DAL 2	100m	1 sec	C/D
Waypoint	ENR	3.5	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Ident of VOR / DME	ENR	3.5	ANSP	AR	No	Ref C	N/a	N/a	N/a
BRG & DIST	ENR	3.5	ANSP	AR	Yes	DAL 3	$^{1/10}$ degree	1 degree	C
ELEV DME Antenna	ENR	3.5	ANSP	AR	Yes	DAL 2	30m (100ft)	30m (100ft)	S
Great Circle DIST	ENR	3.5	ANSP	AR	Yes	DAL 3	$^{1/10}$ km	$^{1/10}$ km or $^{1/10}$ NM	C
Upper Limits	ENR	3.5	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Lower Limits	ENR	3.5	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
Airspace Classification	ENR	3.5	ANSP	AR	Yes	Ref C	N/a	N/a	N/a

Direction of Cruising Levels	ENR	3.5	ANSP	AR	No	N/a	N/a	N/a	N/a
Remarks	ENR	3.5	ANSP	AR	Yes	Cont C	N/a	N/a	N/a
Controlling Unit	ENR	3.5	ANSP	S&S M	No	N/a	N/a	N/a	N/a
Frequency	ENR	3.5	ANSP	S&S M	No	N/a	N/a	N/a	N/a

En-Route Holding

HOLD ID/FIX/WPT	ENR	3.6	ANSP	AR	Yes	DAL 2	100m	1 sec	C
INBD TR	ENR	3.6	ANSP	AR	Yes	DAL 3	$^{1/10}$ degree	1 degree	C
Direction of PTN	ENR	3.6	ANSP	AR	No	N/a	N/a	N/a	N/a
MAX IAS	ENR	3.6	ANSP	AR	No	N/a	N/a	N/a	N/a
MNM-MAX HLDG LVL	ENR	3.6	ANSP	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C
TIME (MIN)	ENR	3.6	ANSP	AR	No	N/a	N/a	N/a	N/a
DIST OUBD	ENR	3.6	ANSP	AR	No	N/a	N/a	N/a	N/a
Controlling Unit	ENR	3.6	ANSP	S&S M	No	N/a	N/a	N/a	N/a
Frequency	ENR	3.6	ANSP	S&S M	No	N/a	N/a	N/a	N/a

Radio Navigation Aids / Systems

Radio Navigation Aids – En-Route

Name of Station	ENR	4.1	ANSP	S&S	Yes	Ref C	N/a	N/a	N/a
VAR	ENR	4.1	ANSP	S&S M	Yes	DAL 2	1 degree	1 degree	C
VOR Declination	ENR	4.1	ANSP	S&S M	Yes	DAL 2	1 degree	1 degree	D
ID	ENR	4.1	ANSP	S&S M	Yes	Ref C	N/a	N/a	N/a
FREQ	ENR	4.1	ANSP	S&S M	No	N/a	N/a	N/a	N/a
CH	ENR	4.1	ANSP	S&S M	No	N/a	N/a	N/a	N/a
Hours of Operation	ENR	4.1	ANSP	S&S M	No	N/a	N/a	N/a	N/a
Coordinates	ENR	4.1	ANSP	S&S M	Yes	DAL 2	100m	1 sec	S
ELEV DME Antenna	ENR	4.1	ANSP	S&S M	No	N/a	N/a	N/a	S
Remarks	ENR	4.1	ANSP	S&S M	Yes	Con C	N/a	N/a	N/a

Name-Code Designators for Significant Points

Name-code designator	ENR	4.4	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Coordinates	ENR	4.4	ANSP	AR	Yes	DAL 2	100m	1 sec	C
ATS Route	ENR	4.4	ANSP	AR	Yes	Ref C	N/a	N/a	N/a
Other name	ENR	4.4	ANSP	AR	Yes	Ref C	N/a	N/a	N/a

Navigation Warnings

Prohibited, Restricted and Danger Areas

Identification	ENR	5.1	GOV, MOD,	AR	Yes	Ref C	N/a	N/a	N/a
Name	ENR	5.1	GOV, MOD,	AR	Yes	Ref C	N/a	N/a	N/a
Lateral Limits	ENR	5.1	GOV, MOD,	AR	Yes	DAL 2	100m	1 sec	C/D
Upper Limit	ENR	5.1	GOV, MOD,	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C/D
Lower Limit	ENR	5.1	GOV, MOD,	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C/D
Remarks	ENR	5.1	GOV, MOD,	AR	Yes	Cont C	N/a	N/a	N/a

Military Exercise and Training Areas and Air Defence Identification Zone (ADIZ)

Name	ENR	5.2	MOD	AR	Yes	Ref C	N/a	N/a	N/a
Lateral Limits	ENR	5.2	MOD	AR	Yes	DAL 2	100m	1 sec	C/D
Upper Limit	ENR	5.2	MOD	AR	Yes	DAL 3	50m or	50m or	C/D

							100ft	100ft	
Lower Limit	ENR	5.2	MOD	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C/D
System	ENR	5.2	MOD	AR	No	N/a	N/a	N/a	N/a
Means of activation	ENR	5.2	MOD	AR	No	N/a	N/a	N/a	N/a
INFO for CIV FLT	ENR	5.2	MOD	AR	No	N/a	N/a	N/a	N/a
Remarks	ENR	5.2	MOD	AR	Yes	Cont C	N/a	N/a	N/a
Time of ACT	ENR	5.2	MOD	AR	No	N/a	N/a	N/a	N/a
Risk of Interception (ADIZ)	ENR	5.2	MOD	AR	No	N/a	N/a	N/a	N/a

Other Activities of a Dangerous Nature and Other Potential Hazards

Coordinates	ENR	5.3	GOV, MOD, IND, UNI	AR	Yes	DAL 3	1 sec	1 sec	C/D
Vertical Limits	ENR	5.3	GOV, MOD, IND, UNI	AR	Yes	DAL 3	50m or 100ft	50m or 100ft	C/D
Advisory Measures	ENR	5.3	GOV, MOD, IND, UNI	AR	Yes	Cont C	N/a	N/a	N/a
Authority responsible for INFO	ENR	5.3	GOV, MOD, IND, UNI	AR	No	N/a	N/a	N/a	N/a
Remarks	ENR	5.3	GOV, MOD, IND, UNI	AR	Yes	Cont C	N/a	N/a	N/a
Time of ACT	ENR	5.3	GOV, MOD, IND, UNI	AR	No	N/a	N/a	N/a	N/a

Air Navigational Obstacles – En-route

Designation	ENR	5.4	MOD	No	Yes	Ref C	N/a	N/a	N/a
Type of Obstacle	ENR	5.4	MOD	No	No	Ref C	N/a	N/a	N/a
Coordinates	ENR	5.4	MOD	No	Yes	DAL 3	50m	1 sec	S
ELEV (AMSL)	ENR	5.4	MOD	No	Yes	DAL 3	3m	1m or 1ft	S
Height (AGL)	ENR	5.4	MOD	No	Yes	DAL 3	3m	1m or 1ft	S
OBST LGT – Type	ENR	5.4	MOD	No	No	Ref C	N/a	N/a	N/a
OBST LGT – Colour	ENR	5.4	MOD	No	No	Ref C	N/a	N/a	N/a
OBST LGT – Colour OFFSHORE	ENR	5.4	MOD	No	No	Ref C	N/a	N/a	N/a

Aerial Sporting and Recreational Activities

Designation	ENR	5.5	OPERATOR, OWNER.	AR	No	N/a	N/a	N/a	N/a
Lateral Limits	ENR	5.5	OPERATOR, OWNER.	AR	No	N/a	N/a	N/a	N/a
Vertical Limits	ENR	5.5	OPERATOR, OWNER.	AR	No	N/a	N/a	N/a	N/a
Operator	ENR	5.5	OPERATOR, OWNER.	AR	No	N/a	N/a	N/a	N/a
User	ENR	5.5	OPERATOR, OWNER.	AR	No	N/a	N/a	N/a	N/a

Tel Nr	ENR	5.5	OPERATOR, OWNER.	AR	No	N/a	N/a	N/a	N/a
Remarks	ENR	5.5	OPERATOR, OWNER.	AR	No	N/a	N/a	N/a	N/a
Time of ACT	ENR	5.5	OPERATOR, OWNER.	AR	No	N/a	N/a	N/a	N/a

Bird Migration and Areas with Sensitive Fauna

Bird Migration and Areas with Sensitive Fauna	ENR	5.6	RSPB, WTT, RPRA	AR	No	N/a	N/a	N/a	N/a

AD

Aerodromes

Aerodrome Location Indicator and Name

(substitute XX for ICAO location indicator code)

Location Indicator	AD-EGXX	2.1.1	AERODROME	AR	Yes	Ref C	N/a	N/a	N/a

Aerodrome Geographical and Administrative Data.

(substitute XX for ICAO location indicator code)

ARP Coordinates	AD-EGXX	2.2.1	AERODROME	No	Yes	DAL 3	30m	1 sec	C/D
Elevation	AD-EGXX	2.2.3	AERODROME	No	Yes	DAL 2	0.5m	1m or 1ft	S
Geoid Undulation at ADR ELEV PSN	AD-EGXX	2.2.4	AERODROME	No	Yes	DAL 2	0.5m	1m or 1ft	S
MAG VAR	AD-EGXX	2.2.5	NATS/AIM	No	Yes	DAL 2	1 degree	1 degree	C
Annual Change	AD-EGXX	2.2.5	NATS/AIM	No	Yes	DAL 2	1 degree	1 degree	C
Remarks	AD-EGXX	2.2.8	AERODROME	No	Yes	Cont C	N/a	N/a	N/a

Aprons, Taxiways and Check Locations/Positions Data

(substitute XX for ICAO location indicator code)

Taxiway width	AD-EGXX	2.8.2	AERODROME	No	Yes	DAL 2	1m	1m or 1 ft	S/D
Altimeter checkpoint location and elevation	AD-EGXX	2.8.3	AERODROME	No	Yes	DAL 3	0.5m	$^{1/100}$sec	S
VOR Checkpoints	AD-EGXX	2.8.4	AERODROME	No	Yes	DAL 3	0.5m	$^{1/100}$sec	S
INS Checkpoints	AD-EGXX	2.8.5	AERODROME	No	Yes	DAL 3	0.5m	$^{1/100}$sec	S
Remarks	AD-EGXX	2.8.6	AERODROME	No	Yes	Cont C	N/a	N/a	N/a

Aerodrome Obstacles

(substitute XX for ICAO location indicator code)

Area 2 - Obstacle ID or designation	AD-EGXX	2.10.1	AERODROME	No	Yes	Ref C	N/a	N/a	N/a
Area 2 - Obstacle position	AD-EGXX	2.10.1	AERODROME	No	Yes	DAL 2	5m	1/10 sec	S
Area 2 - Obstacle elevation (AMSL)	AD-EGXX	2.10.1	AERODROME	No	Yes	DAL 2	3m	1m or 1ft	S
Area 2 – Obstacle height (AGL)	AD-EGXX	2.10.1	AERODROME	No	Yes	DAL 2	3m	1m or 1ft	S
Area 2 - Remarks	AD-EGXX	2.10.1	AERODROME	No	Yes	Cont C	N/a	N/a	N/a
Area 3 - Obstacle ID or designation	AD-EGXX	2.10.2	AERODROME	No	Yes	Ref C	N/a	N/a	N/a
Area 3 - Obstacle position	AD-EGXX	2.10.2	AERODROME	No	Yes	DAL 2	0.5m	1/10 sec	S
Area 3 - Obstacle elevation (AMSL)	AD-EGXX	2.10.2	AERODROME	No	Yes	DAL 2	0.5m	0.1m or 0.1ft	S
Area 3 - Obstacle height (AGL)	AD-EGXX	2.10.2	AERODROME	No	Yes	DAL 2	0.5m	0.1m or 0.1ft	S
Area 3 - Remarks	AD-EGXX	2.10.2	AERODROME	No	Yes	Cont C	N/A	N/A	N/a

Runway Physical Characteristics

(substitute XX for ICAO location indicator code)

Designations	AD-EGXX	2.12.1	AERODROME	No	Yes	Cont C	N/a	N/a	N/a
TRUE BRG	AD-EGXX	2.12.2	NATS/AIM	No	Yes	DAL 3	1/100 degree	1/100 degree	S
Dimensions of RWY	AD-EGXX	2.12.3	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	S
Strength and Surface of RWY and SWY	AD-EGXX	2.12.4	AERODROME	No	No	N/a	N/a	N/a	N/a
THR Coordinates	AD-EGXX	2.12.5	AERODROME	No	Yes	DAL 1	1m	1/100 sec	S
RWY end coordinates	AD-EGXX	2.12.5	AERODROME	No	Yes	DAL 1	1m	1/100 sec	S
THR Elevation & Geoid undulation– (non-precision)	AD-EGXX	2.12.6	AERODROME	No	Yes	DAL 2	0.5m	1m or 1ft	S
THR Elevation & Geoid undulation– (precision)	AD-EGXX	2.12.6	AERODROME	No	Yes	DAL 1	0.25m	0.1m or 0.1ft	S
Highest elevation of TDZ of precision APP RWY	AD-EGXX	2.12.6	AERODROME	No	Yes	DAL 1	0.25m	0.1m or 0.1ft	S
Slope of RWY	AD-EGXX	2.12.7	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	S/C
SWY Dimensions	AD-EGXX	2.12.8	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	S/C

CWY Dimensions	AD-EGXX	2.12.9	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	S/C
RWY Strip Length	AD-EGXX	2.12.9	AERODORME	AD	Yes	DAL 1	1m	1m or 1ft	S/C
RWY Strip Width	AD-EGXX	2.12.9	AERODORME	AD	Yes	DAL 1	1m	1m or 1ft	S/C
OFZ	AD-EGXX	2.12.11	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	S/C
Remarks	AD-EGXX	2.12.12	AERODROME	No	Yes	Cont C	N/a	N/a	N/a

Declared Distances

(substitute XX for ICAO location indicator code)

RWY Designator	AD-EGXX	2.13.1	AERODROME	No	Yes	Cont C	N/a	N/a	N/a
TORA	AD-EGXX	2.13.2	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	D
TODA	AD-EGXX	2.13.3	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	D
ASDA	AD-EGXX	2.13.4	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	D
LDA	AD-EGXX	2.13.5	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	D
Remarks	AD-	2.13.	AERODROME	AD	Yes	Cont C	N/a	N/a	N/a

	EGXX	6							

Helicopter landing area

(substitute XX for ICAO location indicator code)

Co-ords TLOF, FATO, FATO	AD-EGXX	2.16.1	AERODROME	AD	Yes	DAL 1	1m	1/100 sec	S
TLOF / FATO Geoid Undulation. non precision	AD-EGXX	2.16.2	AERODROME	AD	Yes	DAL 2	0.5m	1m or 1ft	S
TLOF / FATO Geoid Undulation. precision	AD-EGXX	2.16.2	AERODROME	AD	Yes	DAL 1	0.25m	0.1m or 0.1ft	S
TLOF / FATO Area Elev non precision	AD-EGXX	2.16.3	AERODROME	AD	Yes	DAL 2	0.5m	1m or 1ft	S
TLOF / FATO Area Elev precision	AD-EGXX	2.16.3	AERODROME	AD	Yes	DAL 1	0.25m	0.1m or 0.1ft	S
FATO True BRG	AD-EGXX	2.16.4	NATS/AIM	No	Yes	DAL 3	1/100 degree	1/100 degree	S
Declared distance available	AD-EGXX	2.16.5	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	D

ATS Airspace

(substitute XX for ICAO location indicator code)

Designation	AD-EGXX	2.17.1	AERODROME	No	Yes	Ref C	N/a	N/a	N/a

Lateral Limits (Lat/Long) (Use vertical limit attributes if not described as lat/long)	AD-EGXX	2.17.1	AERODROME	AR	Yes	DAL 2	100m	1 sec	C/D
Vertical limits	AD-EGXX	2.17.2	AERODROME	AR	Yes	DAL 3	50m	50m or 100ft	C/D
Airspace classification	AD-EGXX	2.17.3	AERODROME	AR	Yes	Ref C	N/a	N/a	N/a
Transition Altitude	AD-EGXX	2.17.5	AERODROME	AR	Yes	DAL 3	50m	50m or 100ft	C/D
Remarks	AD-EGXX	2.17.6	AERODROME	No	Yes	Cont C	N/a	N/a	N/a

ATS Communication Facilities

(substitute XX for ICAO location indicator code)

Service Designation	AD-EGXX	2.18.1	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Call Sign	AD-EGXX	2.18.2	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Frequency	AD-EGXX	2.18.3	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Hours of operation	AD-EGXX	2.18.4	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Remarks	AD-EGXX	2.18.5	AERODROME	S&SM	No	N/a	N/a	N/a	N/a

Radio Navigation and Landing Aids.

(substitute XX for ICAO location indicator code)

Type of Aid	AD-EGXX	2.19.1	AERODROME	S&SM	Yes	Ref C	N/a	N/a	N/a
MAG VAR	AD-EGXX	2.19.1	NATS/AIM	S&SM	Yes	DAL 2	1 degree	1 degree	C
CAT of ILS/MLS	AD-EGXX	2.19.1	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Declination	AD-EGXX	2.19.1	NATS/AIM	S&SM	Yes	DAL 2	1 degree	1 degree	C
ID	AD-EGXX	2.19.2	AERODROME	S&SM	Yes	Ref C	N/a	N/a	N/a
Frequency	AD-EGXX	2.19.3	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Hours of Operation	AD-EGXX	2.19.4	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Coordinates	AD-EGXX	2.19.5	AERODROME	S&SM	Yes	DAL 2	3m	$^{1/10}$ sec	S
Elevation of antenna	AD-EGXX	2.19.6	AERODROME	S&SM	Yes	DAL 2	3m	3m or 10ft	S
Remarks	AD-EGXX	2.19.7	AERODROME	S&SM	Yes	Cont C	N/a	N/a	N/a

Noise Abatement Procedures

(substitute XX for ICAO location indicator code)

Noise Abatement Text & Tables	AD-EGXX	2.21	AERODROME	ERC	Yes	Cont C	N/a	N/a	C/D

Flight Procedures

(substitute XX for ICAO location indicator code)

VRPs	AD-EGXX	2.22	AERODROME	AR	Yes	Cont C	N/a	N/a	N/a
Holding	AD-EGXX	2.22	AERODROME	AR	Yes	Cont C	N/a	N/a	N/a
Missed Approaches	AD-EGXX	2.22	AERODROME	AR	Yes	Cont C	N/a	N/a	N/a
Special VFR Flight	AD-EGXX	2.22	AERODROME	AR	Yes	Cont C	N/a	N/a	N/a
London Heli Routes	AD-EGXX	2.22	AERODROME	AR	Yes	Cont C	N/a	N/a	N/a

Heliport Location Indicator and Name

(substitute XX for ICAO location indicator code)

Heliport location indicator	AD-EGXX	3.1.1	AERODROME	AR	Yes	Ref C	N/a	N/a	N/a

Heliport Geographical and Administrative Data.

(substitute XX for ICAO location indicator code)

Coordinates	AD-EGXX	3.2.1	AERODROME	No	Yes	DAL 3	30m	1 sec	C/D
Elevation	AD-EGXX	3.2.3	AERODROME	No	Yes	DAL 2	0.5m	1m or 1ft	S
Geoid Undulation at ELEV PSN	AD-EGXX	3.2.4	AERODROME	No	Yes	DAL 2	0.5m	1m or 1ft	S
MAG VAR	AD-EGXX	3.2.5	AERODROME	No	Yes	DAL 2	1 degree	1 degree	C
Annual Change	AD-EGXX	3.2.5	AERODROME	No	Yes	DAL 2	1 degree	1 degree	C

Rescue and Fire Fighting Services.

(substitute XX for ICAO location indicator code)

Heliport Category for Fire Fighting	AD-EGXX	3.6.1	AERODROME	AD	No	N/a	N/a	N/a	N/a
Rescue equipment	AD-EGXX	3.6.2	AERODROME	AD	No	N/a	N/a	N/a	N/a
Capability for removal of disabled helicopter	AD-EGXX	3.6.3	AERODROME	AD	No	N/a	N/a	N/a	N/a
Remarks	AD-EGXX	3.6.4	AERODROME	AD	No	N/a	N/a	N/a	N/a

Aprons, Taxiways and Check Locations/Positions Data

(substitute XX for ICAO location indicator code)

Ground Taxiway width	AD-EGXX	3.8.2	AERODROME	No	Yes	DAL 2	1m	1m or 1ft	S/D
Air Taxiway width	AD-EGXX	3.8.3	AERODROME	No	Yes	DAL 2	1m	1m or 1ft	S/D
Altimeter checkpoint location and elevation	AD-EGXX	3.8.4	AERODROME	No	Yes	DAL 3	0.5m	1/100 sec	S
VOR Checkpoints	AD-EGXX	3.8.5	AERODROME	No	Yes	DAL 3	0.5m	1/100 sec	S
INS Checkpoints	AD-EGXX	3.8.6	AERODROME	No	Yes	DAL 3	0.5m	1/100 sec	S
Remarks	AD-EGXX	3.8.7	AERODROME	No	Yes	Cont C	N/a	N/a	N/a

Heliport Obstacles

(substitute XX for ICAO location indicator code)

Area 2 – Obstacle ID or designation	AD-EGXX	3.10.1	AERODROME	No	Yes	Ref C	N/a	N/a	N/a
Area 2 – Obstacle position	AD-EGXX	3.10.1	AERODROME	No	Yes	DAL 2	5m	1/10 sec	S
Area 2 – Obstacle elevation	AD-EGXX	3.10.1	AERODROME	No	Yes	DAL2	3m	1m or 1ft	S

Area 2 - Remarks	AD-EGXX	3.10.1	AERODROME	No	Yes	Cont C	N/a	N/a	N/a
Area 3 – Obstacle ID or designation	AD-EGXX	3.10.2	AERODROME	No	Yes	Ref C	N/a	N/a	N/a
Area 3 – Obstacle position	AD-EGXX	3.10.2	AERODROME	No	Yes	DAL 2	0.5m	1/10 sec	S
Area 3 – Obstacle elevation	AD-EGXX	3.10.2	AERODROME	No	Yes	DAL2	0.5m	0.1m or 0.1ft	S
Area 3 - Remarks	AD-EGXX	3.10.2	AERODROME	No	Yes	Cont C	N/a	N/a	N/a

Heliport Data

(substitute XX for ICAO location indicator code)

TLOF dimensions	AD-EGXX	3.12.2	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	S
FATO GEO Bearings	AD-EGXX	3.12.3	AERODROME	No	Yes	DAL 3	1/100 degree	1/100 degree	S
FATO dimensions	AD-EGXX	3.12.4	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	S
TLOF SFC bearing strength	AD-EGXX	3.12.5	AERODROME	AD	No	N/a	N/a	N/a	N/a
Co-ordinates of TLOF Centre or Thresholds	AD-EGXX	3.12.6	AERODROME	Yes	Yes	DAL 1	1m	1/100 sec	S
TLOF Slope	AD-	3.12.	AERODROME	No	No	N/a	N/a	N/a	S/C

	EGXX	7							
TLOF Elevation	AD-EGXX	3.12.7	AERODROME	No	Yes	DAL 1	0.25m	0.1m or 0.1ft	S
Safety Area dimensions	AD-EGXX	3.12.8	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	S
HEL CWY dimensions	AD-EGXX	3.12.9	AERODROME	AD	Yes	DAL 2	1m	1m or 1ft	S
Obstacle Free Sector	AD-EGXX	3.12.10	AERODROME	AD	Yes	DAL 2	1m	1m or 1ft	S

Declared Distances

(substitute XX for ICAO location indicator code)

TODAH	AD-EGXX	3.13.1	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	D
RTODAH	AD-EGXX	3.13.2	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	D
LDAH	AD-EGXX	3.13.3	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	D
Remarks	AD-EGXX	3.13.4	AERODROME	AD	Yes	Cont C	N/a	N/a	N/a

ATS Airspace

(substitute XX for ICAO location indicator code)

Designation	AD-EGXX	3.16.1	AERODROME	No	Yes	Ref C	N/a	N/a	N/a
Lateral limits (Use vertical limit attributes if not described as lat/long)	AD-EGXX	3.16.1	AERODROME	AR	Yes	DAL 2	100m	1 sec	C/D
Vertical limits	AD-EGXX	3.16.2	AERODROME	AR	Yes	DAL 3	50m	50m or 100ft	C/D
Airspace classification	AD-EGXX	3.16.3	AERODROME	AR	Yes	Ref C	N/a	N/a	N/a
ATS Unit(s) Call Sign	AD-EGXX	3.16.4	AERODROME	No	No	N/a	N/a	N/a	N/a
Language(s)	AD-EGXX	3.16.4	AERODROME	No	No	N/a	N/a	N/a	N/a
Transition Altitude	AD-EGXX	3.16.5	AERODROME	AR	Yes	DAL 3	50m	50m or 100ft	C/D
Remarks	AD-EGXX	3.16.6	AERODROME	No	Yes	Cont C	N/a	N/a	N/a

ATS Communication Facilities

(substitute XX for ICAO location indicator code)

Service Designation	AD-EGXX	3.17.1	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Call Sign	AD-EGXX	3.17.2	AERODROME	S&SM	No	N/a	N/a	N/a	N/a

Frequency	AD-EGXX	3.17.3	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Hours of operation	AD-EGXX	3.17.4	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Remarks	AD-EGXX	3.17.5	AERODROME	S&SM	No	N/a	N/a	N/a	N/a

Radio Navigation and Landing Aids

(substitute XX for ICAO location indicator code)

Type of Aid	AD-EGXX	3.18.1	AERODROME	S&SM	Yes	Ref C	N/a	N/a	N/a
MAG VAR	AD-EGXX	3.18.1	AERODROME	S&SM	Yes	DAL 2	1 degree	1 degree	C
CAT of ILS/MLS	AD-EGXX	3.18.1	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Declination	AD-EGXX	3.18.1	AERODROME	S&SM	Yes	DAL 2	1 degree	1 degree	C
ID	AD-EGXX	3.18.2	AERODROME	S&SM	Yes	Ref C	N/a	N/a	N/a
Frequency	AD-EGXX	3.18.3	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Hours of Operation	AD-EGXX	3.18.4	AERODROME	S&SM	No	N/a	N/a	N/a	N/a
Coordinates	AD-	3.18.	AERODROME	S&S	Yes	DAL 2	3m	1/10 sec	S

	EGXX	5		M					
Elevation of antenna	AD-EGXX	3.18.6	AERODROME	S&SM	Yes	DAL 2	3m	3m or 10ft	S
Remarks	AD-EGXX	3.18.7	AERODROME	S&SM	Yes	Cont C	N/a	N/a	N/a

Local Traffic Regulations

(substitute XX for ICAO location indicator code)

Local traffic regulations (Noise Preferential Routes)	AD-EGXX	3.19	AERODROME	ERC	Yes	Cont C	N/a	N/a	

Flight Procedures

(substitute XX for ICAO location indicator code)

Flight procedures	AD-EGXX	3.21	AERODROME	No	Yes	Cont C	N/a	N/a	

Additional Data Items (applicable to all Aerodromes & Heliports with IFR/SVFR procedures published in the AIP)

Hours of Operation	AD-EGXX	N/a	AERODROME	No	Cont C	N/a	N/a	hh/mm-hh/mm	N/a
Runway holding position	AD-EGXX	N/a	AERODROME	No	Yes	DAL 1	0.5m	$^{1/100}$ sec	S

Stopebars and RWY Markings	AD-EGXX	N/a	AERODROME	No	Yes	DAL 1	0.5m	1/100 sec	S
Clearway length and width	AD-EGXX	N/a	AERODROME	AD	Yes	DAL 2	1m	1m or 1ft	S/D
Stopway length and width	AD-EGXX	N/a	AERODROME	AD	Yes	DAL 1	1m	1m or 1ft	S/D
Taxiway centre line/parking guidance line points	AD-EGXX	N/a	AERODROME	No	Yes	DAL 2	0.5m	1/100 sec	S
Apron boundaries (polygon)	AD-EGXX	N/a	AERODROME	No	Yes	DAL 3	1m	1/10sec	S
De-icing/anti-icing facility (polygon)	AD-EGXX	N/a	AERODROME	No	Yes	DAL 3	1m	1/10sec	S
Exit guidance line	AD-EGXX	N/a	AERODROME	No	Yes	DAL 2	0.5m	1/100 sec	S
Runway shoulder width	AD-EGXX	N/a	AERODROME	AD	Yes	DAL 2	1m	1m or 1ft	S
Taxiway intersection marking line	AD-EGXX	N/a	AERODROME	No	Yes	DAL 2	0.5m	1/100 sec	S
Taxiway shoulder width	AD-EGXX	N/a	AERODROME	No	Yes	DAL 2	1m	1m or 1ft	S
ILS localiser antenna-runway end, distance	AD-EGXX	N/a	AERODROME	No	Yes	DAL 3	3m or 10ft	3m (10ft)	S
ILS glide-slope antenna-threshold C/L distance	AD-EGXX	N/a	AERODROME	No	Yes	DAL 3	3m or 10ft	3m (10ft)	S
ILS DME antenna-threshold C/L distance	AD-	N/a	AERODROME	No	Yes	DAL 2	3m or 10ft	3m (10ft)	S

	EGXX								
Terminal arrival/departure route segments	AD-EGXX	N/a	AERODROME	AR	Yes	DAL 3	1/10 degree	1 degree	C
Final Approach fixes and other essential fixes/points comprising the Instrument Approach	AD-EGXX	N/a	AERODROME	AR	Yes	DAL 2	1/100 degree	1/100 degree	C
Speed Limit Point (SLP)	AD-EGXX	N/a	AERODROME	AR	Yes	DAL 2	1NM	1NM	C
ILS localiser alignment (True)	AD-EGXX	N/a	AERODROME	No	Yes	DAL 2	1/100 degree	1/100 degree	S
MLS zero azimuth alignment (True)	AD-EGXX	N/a	AERODROME	No	Yes	DAL 2	1/100 degree	1/100 degree	S
MLS azimuth antenna-runway end, distance	AD-EGXX	N/a	AERODROME	No	Yes	DAL 3	3m or 10ft	3m (10ft)	S
MLS elev antenna-THR distance along C/L	AD-EGXX	N/a	AERODROME	No	Yes	DAL 3	3m or 10ft	3m (10ft)	S
MLS DME/P antenna-THR distance along C/L	AD-EGXX	N/a	AERODROME	No	Yes	DAL 3	3m or 10ft	3m (10ft)	S
Threshold Crossing Height (TCH)	AD-EGXX	N/a	AERODORME	No	Yes	DAL 1	0.5m or 1 ft	0.5m or 1 ft	C
Obstacle clearance altitude/height (OCA/H)	AD-EGXX	N/a	AERODROME	AR	Yes	DAL 1	1 ft	1 ft	C
Terminal and Instrument Approach Procedure fix formation distance	AD-EGXX	N/a	AERODROME	AR	Yes	DAL 2	1/100km or 1/100 NM	1/100km or 1/100 NM	C
Displaced threshold distance	AD-EGXX	N/a	AERODORME	AD	Yes	DAL 3	1m	1m or 1ft	S

Notes

1. Any AIP data item listed at Annex A, and identified as being in scope of the ADQIR, shall also be subject to the same ADQIR requirements stated in this CAP if included as part of a permanent digital NOTAM.
2. Any AIP data item listed at Annex A, and identified as being in scope of the ADQIR, shall also be subject to the same ADQIR requirements stated in this CAP if included as part of a temporary digital NOTAM, except where to do so would inhibit the distribution of aeronautical information necessary to ensure the safety of a flight.
3. Any AIP data item listed at Annex A, and identified as being in scope of the ADQIR, shall also be subject to the same ADQIR requirements stated in this CAP if included as part of an AIP Supplement.
4. This data requirements table may be used in preference to the Harmonised List contained in the Eurocontrol Data Quality Requirements (DQR) guidance specification. (See Chapter 6 ‘Data Assurance’ for details).
5. ‘Ref C’ or ‘Reference Conditional’ indicates that the integrity value for this data is conditionally referenced to the data that it is combined with. An example of Ref C might be the aerodrome ICAO code ‘EGXX’ when combined with DAL 1 survey data such as a threshold position and elevation.
6. ‘Cont C’ or ‘Content Conditional’ indicates that this section of the AIP may contain data that has a notion of accuracy, resolution or integrity and shall be subject to same data quality requirements as similar aeronautical information required to meet the ADQIR.

Contact Details of CAA Authorising/Regulatory Departments referred to in Annex A

AIMR	Aerodromes, Airspace, & ATM Aeronautical Information Management	G3/K6, CAA House, 45-59 Kingsway, London, WC2B 6TE aimr@caa.co.uk
AD	Aerodromes, Airspace, & ATM Aerodromes	2W, Aviation House, Gatwick Airport South, RH6 0YR
AR	Aerodromes, Airspace, & ATM Airspace Regulation	G1/K6, CAA House, 45-59 Kingsway, London, WC2B 6TE Controlled.airsapce@caa.co.uk
ERCD	Environmental Research & Consultancy Department	5/K4 CAA House, 45-59 Kingsway, London, WC2B 6TE ERCD@caa.co.uk
S&SM	Aerodromes, Airspace, & ATM Surveillance & Spectrum Management	G4/K6, CAA House, 45-59 Kingsway, London, WC2B 6TE spectrum@caa.co.uk

Survey Data-Set

Data Type & Resolution Required

DATA ITEM	Periodicity	ICAO Aerodrome Location Indicator	Identification	Association to other features	Latitude (1/100sec)	Longitude (1/100 sec)	Orthometric Height (1/100m)	Height (AGL)	Horizontal/Vertical Datum	Vertical Accuracy (1/100m)	Geoid Undulation (1/100m)	Horizontal Accuracy (1/100sec)	Length/Distance/ Dimension (1/100m)	Length/Distance/ Dimension Accuracy (1/100m)	True Bearing (1/100degree)	True Bearing Accuracy (1/100degree)	Station Declination (1/100degree)
VHF nav-aid station declination	Perm	■	■		■	■	■		■	■	■	■					■
DME antenna	Perm	■	■		■	■	■		■	■	■	■					
Nav aid (En-route)	Perm		■		■	■	■		■	■	■	■					
Nav aid (Aerodrome/Heli)	Perm	■	■		■	■	■		■	■	■	■					
ARP	Perm	■			■	■						■					
ADR/Heli Elevation point	Perm	■			■	■	■		■	■	■	■					
TWY width	Perm	■		■									■	■			
Altimeter Check Point	Perm	■			■	■	■		■	■	■	■					
VOR Checkpoint	Perm	■	■		■	■	■		■	■	■	■					
INS Checkpoint	Perm	■			■	■	■		■	■	■	■					
TWY Guidelines	Perm	■		■	■	■	■		■	■	■	■					
RWY Markings	Perm	■			■	■	■		■	■	■	■					
TWY centreline points	Perm	■	■	■	■	■	■		■	■	■	■					
TWY Holding position	Perm	■	■	■	■	■	■		■	■	■	■					
Stop Bars	Perm	■	■		■	■	■		■	■		■					
RWY/FATO Bearing	Perm	■		■											■	■	
RWY/FATO Length	Perm	■		■									■	■			
RWY/FATO Width	Perm	■		■									■	■			
Displaced threshold distance	Perm	■		■									■	■			
RWY Strip (length)	Perm	■		■									■	■			
RWY Strip (width)	Perm	■		■									■	■			
RWY centreline points	Perm	■	■	■	■	■	■		■	■	■	■					
RWY/FATO Threshold	Perm	■		■	■	■	■		■	■	■	■					
Threshold (S-BAS)	Perm	■		■	■	■	■		■	■	■	■					

DATA ITEM	Periodicity	ICAO Aerodrome Location Indicator	Identification	Association to other features	Latitude (1/100sec)	Longitude (1/100sec)	Orthometric Height (1/100m)	Height (AGL)	Vertical/Horizontal Datum	Vertical Accuracy (1/100m)	Geoid Undulation (1/100m)	Horizontal Accuracy (1/100sec)	Length/Distance/ Dimension (1/100m)	Length/Distance/ Dimension Accuracy (1/100m)	True Bearing (1/100degree)	True Bearing Accuracy (1/100degree)	Station Declination (1/100degree)
Highest Point in TDZ	Perm	■		■			■		■	■	■						
Stop-way length	Perm	■		■									■	■			
Stop-way width	Perm	■		■									■	■			
Clearway length (ADR, Heli)	Perm	■		■									■	■			
Clearway width (ADR, Heli)	Perm	■		■									■	■			
TORA	Perm	■		■									■	■			
TODA	Perm	■		■									■	■			
ASDA	Perm	■		■									■	■			
LDA	Perm	■		■									■	■			
TLOF aiming point	Perm	■		■	■	■	■		■	■	■	■					
FATO Declared Distance	Perm	■		■									■	■			
TLOF Dimensions	Perm	■		■									■	■			
Obstacles within TOFP/OLS	1 Yr	■	■		■	■	■	■	■	■	■	■					
Data Type & Resolution Required																	

Instrument Flight Procedure Data-Set

Data Type & Resolution Required

DATA ITEM	Periodicity	Identification Code (ICAO Location, 5LNC)	Procedure Type	Procedure Name	Latitude (1/100sec)	Longitude(1/100sec)	Horizontal Accuracy (1/100 sec)	Radial-Angle /Distance (1/100 degree/1/10Nm)	Altitude Interpretation (0.3m)	Altitude/Height (1ft)	Vertical Accuracy (1ft)	Course (1/100degree T)	Magnetic Variation (1/100degree)	Speed Limit (10Kts)	Speed Interpretation	Time (1sec)	Distance/Length (1/10Nm)	Turn Direction (L/R)	Descent Rate (1ft)	Aircraft Category	FAS Data Block/CRC	Free Text
Procedure Type	5 Yr	■	■	■																■		
Hold/Race Track	5 Yr	■			■	■	■			■	■	■	■	■		■	■	■				
Initial Approach	5 Yr	■							■	■	■	■	■	■			■					
IAF	5 Yr	■			■	■	■	■	■	■	■						■					
Outbound Leg	5 Yr	■							■							■	■			■		
Base Turn	5 Yr	■							■	■	■	■	■	■	■			■		■		
FAF/FAP	5 Yr	■			■	■	■		■	■	■	■	■				■					
Significant Point/Fix	5 Yr	■			■	■	■	■	■	■	■											
Final Approach	5 Yr	■										■	■	■			■		■		■	
FAT Gradient/Slope	5 Yr	■																	■			
Step Down Fix	5 Yr	■			■	■	■		■	■	■						■					
MOCA	5 Yr	■								■	■						■					
Missed Approach Point	5 Yr	■			■	■	■			■	■						■					
Missed Approach	5 Yr	■										■	■	■		■	■					■
Missed Approach Turn	5 Yr	■							■	■	■	■	■	■	■		■	■		■		
Rate of Descent	5 Yr	■												■		■						
OCH(A)	5 Yr	■								■	■									■		
VMC	5 Yr	■								■	■									■		
MSA	5 Yr	■			■	■	■			■	■	■	■				■					

DATA ITEM	Periodicity	Identification Code (ICAO Location, 5LNC)	Procedure Type	Procedure Name	Latitude (1/100sec)	Longitude(1/100sec)	Horizontal Accuracy (1/100 sec)	Radial-Angle /Distance (1/100 degree/1/10Nm)	Altitude Interpretation (0.3m)	Altitude/Height (1ft)	Vertical Accuracy (1ft)	Course (1/100degree T)	Magnetic Variation (1/100degree)	Speed Limit (10Kts)	Speed Interpretation	Time (1sec)	Distance/Length (1/10Nm)	Turn Direction (L/R)	Descent Rate (1Ft)	Aircraft Category	FAS Data Block/CRC	Free Text
		Data Type & Resolution Required																				
TAA	5 Yr	■			■	■	■			■	■	■	■				■					
DME range at THR	5 Yr	■															■					
Dominant Obstacles/ High Ground	5 Yr	■			■	■	■			■	■											
Recommended Profile	5 Yr	■								■	■						■					
Direct Arrival	5 Yr	■							■			■	■	■			■	■				■
Direct Arrival Turn	5 Yr	■							■	■	■	■	■					■				
Notes/Warnings/Gen Info	5 Yr	■																				■
SID/STAR route description	5 Yr	■																				■
Area Minimum Altitude	5 Yr	■			■	■	■			■	■											
Speed Limit Point	5 Yr	■			■	■	■					■	■					■				
Communications Failure	5 Yr	■																				■

Airspace Data-Set

DATA ITEM	Periodicity	ICAO Aerodrome code	Designator	Description - Name	Required Navigation performance	Latitude – start/end point (1/100sec)	Longitude – start/end point (1/100sec)	Horizontal Accuracy (1/100sec)	Lateral Limits (describing circle or polygon)	Upper Limit (100ft)	Lower Limit (100ft)	Vertical Accuracy (1ft)	Lateral Limits (1Nm)	Forward Track (1/100 degree T)	Reverse Track (1/100 degree T)	Cruising Levels min/max (100ft)	Distance (1/100Nm)	Route Direction (N/S)	Activity Time (hh/mm)	ATS Unit Providing Service	Hours of service	Airspace Classification	Call-sign	Frequency
ATS Significant Point	Perm		■			■	■	■																
ATS Segment	Perm		■		■	■	■	■		■	■	■	■	■	■	■	■	■				■		
FIR	Perm		■	■		■	■	■	■	■	■	■								■	■	■	■	■
UIR	Perm		■	■		■	■	■	■	■	■	■								■	■	■	■	■
CTA	Perm	■	■	■		■	■	■	■	■	■	■								■	■	■	■	■
TMA	Perm		■	■		■	■	■	■	■	■	■								■	■	■	■	■
CTR	Perm	■	■	■		■	■	■	■	■	■	■								■	■	■	■	■
ATZ/MATZ	Perm		■	■		■	■	■	■	■	■	■								■	■	■	■	■
Danger Area	Perm		■	■		■	■	■	■	■	■	■							■					
Prohibited Area	Perm		■	■		■	■	■	■	■	■	■							■					
Restricted Area	Perm		■	■		■	■	■	■	■	■	■							■					
OTHER	Perm																							
DATA ITEM	Periodicity	ICAO Aerodrome code	Designator	Description - Name	Required Navigation Performance	Latitude – start/end point (1/100sec)	Longitude – start/end point (1/100sec)	Horizontal Accuracy (1/100sec)	Lateral Limits (describing circle or polygon)	Upper Limit (100ft)	Lower Limit (100ft)	Vertical Accuracy (1ft)	Lateral Limits (1Nm)	Forward Track (1/100 degree T)	Reverse Track (1/100 degree T)	Cruising Levels min/max (100ft)	Distance (1/100Nm)	Route direction (N/S)	Activity Time (hh/mm)	ATS Unit Providing Service	Hours of service	Airspace Classification	Call-sign	Frequency

Example of Formal Arrangement

Scope

This Formal Arrangement (FA) documents the agreed provision of services for the supply of Aeronautical Information or Data by **[organisation name]** (The Data Originator/Authorised Source) to **[organisation name]** (The requesting Authorised Source/AISP), and the agreed standards to which said information or data shall be provided.

Signatories to the Agreement

The following signatories have reviewed and approved this FA.

[Insert Data recipient's details here] **[Insert Data Originator details here]**

Term

The term of this FA shall be as follows-

Start Date: **[Insert start date here]**

End Date: **[Insert end date here]**

or

Duration: **[Insert duration here]**

Once agreed specified parties cannot withdraw from this FA within the above dates without the consent of the other signatories.

Service Description

The Data Originator/Provider will provide the Aeronautical Information/Data to the signatory identified above.

[List here a description of the aeronautical information/data being provided/received]

Exclusions

[Detail any exclusions to the Service Description]

Limitations

[Detail any limitations on the use of the aeronautical information/data being provided/received]

Entities Involved

[Detail any other entities involved in the FA here]

Service Levels – Data Originator/Provider

All Data shall be provided in accordance with the following criteria:

- A declaration by each party mentioned in the FA that the legislation requirements of the ADQIR have been met.
- The signatories to this FA shall meet the regulatory requirements of CAP1054.
- The Data shall include its effective date.
- The Data shall include its period of validity
- The Data shall be provided at least **[insert timeliness requirement]** days prior to the effective date
- The Data shall be provided by **[insert delivery requirement]**

Service Levels – AISP(only)

- The AISP shall process the Data upon receipt.
- The AISP shall publish the Data within the requested publication unless otherwise agreed, in writing, with the Data Originator.

Reporting

Any signatory to this FA shall report to the other signatory any failure to uphold the requirements detailed in this FA.

Changes to this FA

Any changes to this FA shall be agreed by all signatories beforehand.

Regulative Control

A number of documents specify the requirements and standards for the provision of Aeronautical Data & Information specified in this FA. These include:

- Civil Aviation Authority - Aeronautical Information Management Policy document CAP
- Civil Aviation Authority - Aerodrome Survey Information CAP232
- European Commission Regulation - (EU) No 73/2010 & 1029/2014
- European Commission Regulation - (EU) No 139/2014
- ICAO Annex 4 - Aeronautical Charts
- ICAO Annex 5 - Units of Measurement to be Used in Air and Ground Operations
- ICAO Annex 11 - Air Traffic Services
- ICAO Annex 14 - Aerodromes
- ICAO Annex 15 - Aeronautical Information Services

These documents are further supported by guidance material, including-

- Guidance Specifications to EU No 73/2010 & 1029/2014 including-
- Eurocontrol Specification on eAIP
- Eurocontrol Specification for Data Origination Vol 1 & 2
- Eurocontrol Specification for Data Quality Requirements
- Eurocontrol Specification for Data Assurance Levels
- Eurocontrol Specification for Aeronautical Information Exchange
- ICAO Doc 8126 - AIS Manual
- ICAO Doc 8697 - Aeronautical Chart Manual
- ICAO Doc 9674 - WGS-84 Manual
- Operating Procedures for AIS Dynamic Data (OPADD).

Data Assurance Table

Data Assurance Group Objectives applicable at each data chain stage is determined by Data item Assurance Level identified in Annex A. (see Eurocontrol DAL guidance for complete list of objectives).