



Australian Government

Civil Aviation Safety Authority

NOTICE OF PROPOSED RULE MAKING

Aeronautical Information Services

Proposed CASR Part 175 of the Civil Aviation
Safety Regulations 1998 (CASR)

This NPRM will be of interest to:

- Airservices Australia;
- publishers of aeronautical information products;
- originators of aeronautical information;
- Geoscience Australia;
- aerodrome operators;
- airlines;
- aircraft operators;
- pilots; and
- consumers of aeronautical information products.

Foreword

Context of this NPRM

This Notice of Proposed Rule Making (NPRM) is issued by the Civil Aviation Safety Authority (CASA) as part of its program of regulatory reform to replace current *Civil Aviation Regulations 1988* (CARs) and *Civil Aviation Orders* (CAOs) with *Civil Aviation Safety Regulations 1998* (CASRs).

CASR Part 175 addresses the risks associated with the publication of erroneous or corrupt aeronautical information. The use of erroneous or corrupt critical aeronautical data can put the safety of flight at risk. CASR Part 175 seeks to regulate those organisations and persons involved in the aeronautical information data chain to ensure that the integrity of aeronautical data is not compromised during receipt, processing, storage, transmission and publication.

Airservices Australia (AA) is required to provide an Aeronautical Information Service (AIS), under the *Air Services Act 1995*. The *Civil Aviation Act 1988* requires CASA to carry out any safety-related functions conferred on it under the *Airspace Act 2007*, and the *Airspace Act 2007* confers responsibility on CASA to regulate the provision of aeronautical information services. Australia has a responsibility as a Contracting State to the Chicago Convention for complying with the Standards and Recommended Practices (SARPs) of the International Civil Aviation Organization (ICAO) Annex 15 (Aeronautical Information Services) and Annex 4 (Aeronautical Charts). Under Annex 15, the AIS provider is required to provide an Integrated Aeronautical Information Package (IAIP) consisting of an Aeronautical Information Publication (AIP), AIP Supplements, Aeronautical Information Circulars (AIC), Notices to Airmen (NOTAM), Pre-flight Information Bulletins (PIB) and Checklists and lists of valid NOTAM. Under Annex 4, the AIS provider is required to publish aeronautical charts that provide specific functions for each stage of flight.

CAR 233 (1)(h) requires pilots to carry aeronautical maps, charts, aeronautical information and instructions published in the AIP relevant to the route being flown and any alternate route that may be flown. Additionally, pilots are permitted to use aeronautical maps, charts, aeronautical information and instructions if they are published by holders of an instrument of approval issued under CAR 233 (1)(h).

CASR Part 175 will establish a regulatory framework for the provision of aeronautical information services. Australia will be able to demonstrate compliance with the ICAO SARPs, and conduct surveillance of organisations that are engaged in aeronautical information and data service provision.

Proposed Changes in a Page

The **time-conscious reader** will obtain a quick appreciation of this NPRM through the **Proposed Changes in a Page** (NPRM Section 1).

A **text synopsis** of the proposed changes is provided as background (NPRM Section 2).

How you can help us

CASA is responsible under the Civil Aviation Act 1988, amongst other functions, for developing and promulgating appropriate, clear and concise aviation safety standards. In the performance of this function and the exercise of its powers, CASA must, where appropriate, consult with government, commercial, industrial, consumer and other relevant bodies and organisations.

Civil Aviation Act 1988 Subsection 9(1)(c) and Section 16

To ensure clear and relevant safety standards, we need the benefit of your knowledge as an aviator, aviation consumer and/or provider of related products and services **by completing the Response Form** (in this NPRM or online) **and returning it to CASA by 04/12/2009.**

Implementation Schedule

The date of the making of the regulations is dependent on the time required by the Office of Legislative Drafting and Publishing (OLDP) to draft the regulations, and their passage through the legislative process.

The proposed CASR Part 175 is scheduled to be submitted to OLDP for drafting by the end of the third quarter in 2009. CASA anticipates that CASR Part 175 will be approved and made by the Governor General in late 2010.

An implementation and transition phase for CASR Part 175 will begin after the regulations have been made. This phase is expected to take 12 months.

I would like to thank you for expressing interest in this proposal and emphasise that no rule changes will be undertaken until all NPRM responses and submissions received by the closing date **04/12/2009** have been considered.



Peter Boyd
Executive Manager
Standards Development and Future Technology

6 October 2009

Contents

Acronyms	4
1. The Consultation Process	7
What CASA does with your comments	7
2. Proposed Changes in a Page	8
3. Synopsis of Change Proposals	9
3.1 Purpose of this NPRM	9
3.2 Background	10
3.3 Reasons for change	17
3.4 Objective	19
3.5 Options considered	20
3.6 Key change proposals	24
3.7 Methodology used to create Annex A – Proposed CASR Part 175.....	28
3.8 Benefits and impacts	29
3.9 Implementation and review	29
NPRM Response Form	31
* <u>YOU CAN RESPOND ONLINE OR BY FAX, POST OR E-MAIL</u> *	
<p>A web-based online response form is offered as an alternative to the printed form in this NPRM. Online submission is the preferred method of sending your comments to CASA. If you are connected to the Internet, type casa.gov.au/newrules/ors into your web browser and follow the links for this NPRM.</p>	
Annex A – Technical Working Draft – Proposed Civil Aviation Safety Regulation (CASR) Part 175	A1

Acronyms

AA	Airservices Australia
AC	Advisory Circular
AIC	Aeronautical Information Circular
AIM	Aeronautical Information Management
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIS	Aeronautical Information Service
AMC	Acceptable Means of Compliance
ANC	Air Navigation Commission
ATS	Air Traffic Service
CAA	Civil Aviation Authority
CAO	Civil Aviation Order
CAP	Civil Aviation Publication
CAR	Civil Aviation Regulations 1988
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations 1998
DOD	Department of Defence
EFB	Electronic Flight Bag
eTOD	Electronic Terrain and Obstacle Data
EUROCAE	European Organization for Civil Aviation Equipment
FAA	Federal Aviation Administration
FMS	Flight Management System
GM	Guidance Material
GPS	Global Positioning System
IAIP	Integrated Aeronautical Information Package
ICAO	International Civil Aviation Organization
ISO	International Organization for Standardisation
MOS	Manual of Standards

Acronyms (continued)

NFRM	Notice of Final Rule Making
NOTAM	Notice to Airmen
NPRM	Notice of Proposed Rule Making
OLDP	Office of Legislative Drafting and Publishing
PIB	Pre-flight Information Bulletin
QMS	Quality Management System
RAAF	Royal Australian Air Force
RNAV	Area Navigation
RTCA	Radio Technical Commission for Aeronautics
SARP	Standards and Recommended Practices (ICAO)
SCC	Standards Consultative Committee
SMS	Safety Management System

INTENTIONALLY LEFT BLANK

1. The Consultation Process

1.1 CASA is committed to working cooperatively with the aviation industry to maintain and enhance aviation safety. The Standards Consultative Committee (SCC) is a joint industry/CASA forum that brings together CASA staff and representatives from a diverse range of aviation industry organisations to involve the aviation industry formally during the development phase of regulatory proposals. CASA and industry experts work together in SCC sub-committees and project teams to develop regulatory material (both new regulations and amendments) and advisory material related to the regulations.

1.2 The people involved in the development and formulation of the proposals contained in this NPRM include the following CASA and industry representatives:

Industry

Buck Brooksbank – representing the Guild of Air Pilots and Air Navigators
Mike Davidson – representing the Australian and International Pilots Association
Walter Dollman – representing Qantas Airways Limited
Peter Hobson – representing Airservices Australia
Richard Low – representing Jeppesen Australia
Bruce Darlington – representing Australian Defence Force
Torsten Speyer – representing Lufthansa Systems Flight Nav Inc

CASA

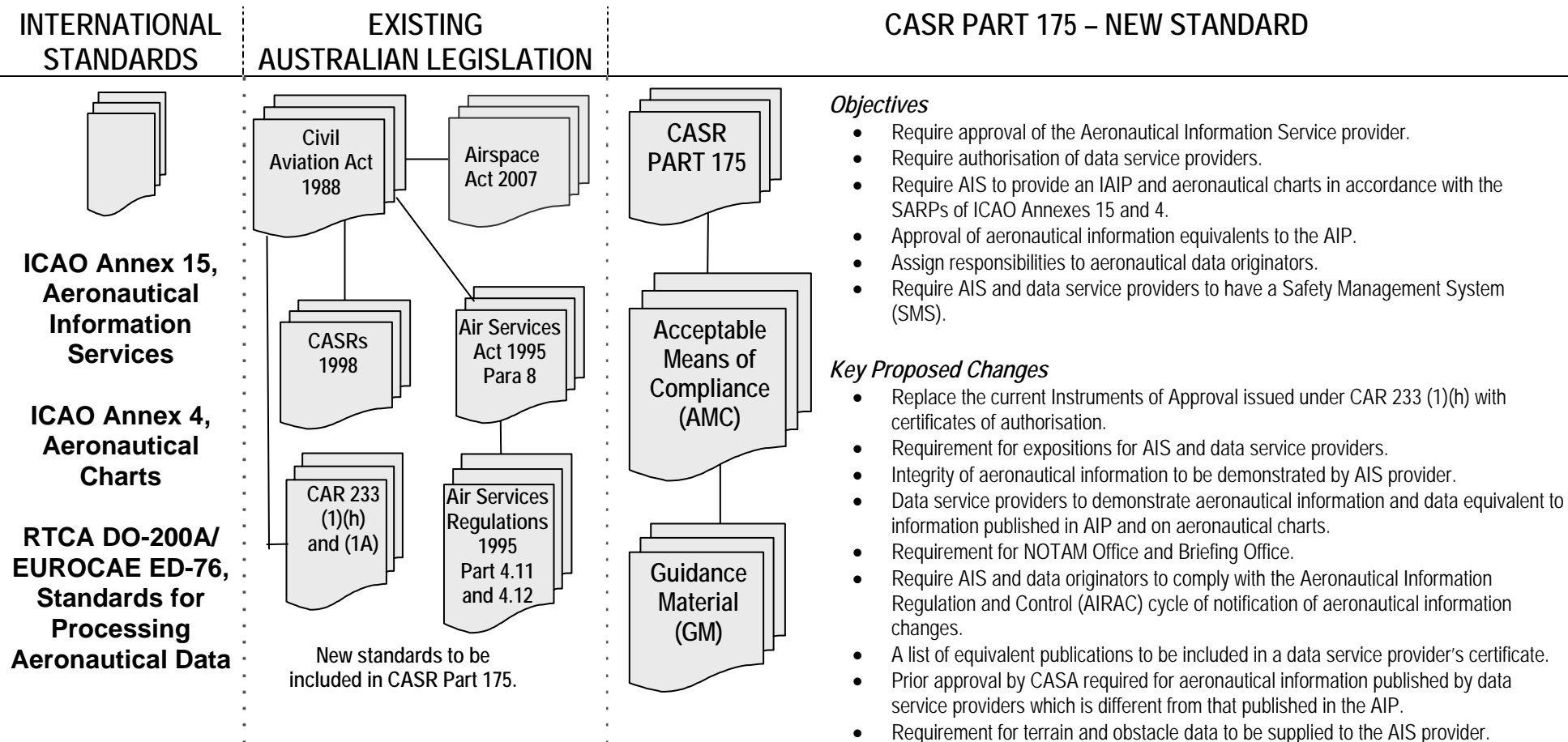
Roy Tuomela – Part 175 Project Leader
Nick Fisher – Standards Development Branch

What CASA does with your comments

1.3 At the end of the response period for public comments, all submissions will be analysed, evaluated and considered. Subsequent to the closing date for comments, a Notice of Final Rule Making (NFRM) will be prepared, and made publicly available in conjunction with the making of the Final Rule.

1.4 CASA is required to register each comment and submission received, but will not individually acknowledge a response unless specifically requested. However, the names of contributors will be published in the subsequent NFRM, except where CASA is specifically requested not to do so.

2. Proposed Changes in a Page



3. Synopsis of Change Proposals

3.1 Purpose of this NPRM

3.1.1 ICAO Annex 15 states that ‘the role and importance of aeronautical information/data changed significantly with the implementation of area navigation (RNAV), required navigation performance (RNP), airborne computer based navigation systems and data link systems. Corrupt or erroneous aeronautical information/data can potentially affect the safety of air navigation’. This risk can only be managed if the organisation responsible for the provision of an aeronautical information service can ensure the integrity of aeronautical data through its documented processes and procedures. Data service providers who publish aeronautical information that pilots are permitted to use as an alternative to the AIP must also be able to demonstrate that the aeronautical information and data that they publish is consistent with the aeronautical information and data published in the AIP. Data integrity can only be verified if the AIS provider and data service providers can demonstrate that their procedures do not introduce errors or corruption during receipt, processing, storage, transmission and publication of aeronautical information and data.

3.1.2 The purpose of this NPRM is to outline the requirements for establishing a regulatory framework for the provision of aeronautical information services. This framework is proposed to consist of:

- approval of the AIS provider;
- authorisation of data service providers;
- a requirement for AIS to provide an IAIP and aeronautical charts in accordance with the SARPs of ICAO Annexes 15 and 4;
- approval of aeronautical information equivalents to the AIP;
- responsibilities for data originators; and
- a requirement for AIS and data service providers to have an SMS.

3.1.3 Establishment of a regulatory framework for the provision of aeronautical information services will allow Australia to demonstrate compliance with the ICAO SARPs, and conduct surveillance of organisations that are engaged in aeronautical information and data service provision.

3.2 Background

3.2.1 Under the Chicago Convention, ICAO requires each Contracting State to provide an AIS. As a result of this requirement Australia has already enacted a significant amount of legislation with regard to AIS as follows:

- *Air Services Act 1995* paragraph 8 (1) (a) – requires AA to provide an AIS;
- *Air Services Regulations 1995* Part 4.11 and 4.12 – outlines the functions of the AIS and details the requirements to publish an AIP and NOTAM;
- *Airspace Act 2007* Part 3 paragraph 11 (2) (j) – confers responsibility on CASA to regulate the provision of aeronautical information services;
- *Civil Aviation Act 1988* Part II paragraph 9 (3) (cc) – requires CASA to carry out any safety-related functions conferred on it under the *Airspace Act 2007*;
- *Civil Aviation Act 1988* Part VIII subparagraph 98 (3) (s) (i) – gives CASA the power to make regulations in relation to the services and facilities of the kind covered by paragraph 8 (1) (a) of the *Air Services Act 1995*;
- *Civil Aviation Act 1988* Part II section 11- states that CASA shall perform its functions in a manner consistent with the obligations of Australia under the Chicago Convention; and
- *Civil Aviation Act 1988* Part VIII paragraph 98 (1) (c) – allows regulations to be made carrying out and giving effect to the provisions of the Chicago Convention relating to safety.

3.2.2 In 2008, the ICAO Universal Safety Oversight Audit Programme Final Report on the Civil Aviation System of Australia made finding ANS/02 that ‘Australia has not established or implemented a safety oversight system or any other mechanism to ensure in an objective manner the effective implementation of safety-related policy and procedures for Aeronautical Information Services (AIS) and Aeronautical Maps and Charts (MAP)’.

3.2.3 Civil Aviation Regulation 233 (1)(h) and (1A) allows pilots to use aeronautical maps, charts, aeronautical information and instructions, other than those published in the AIP, that are published by holders of an instrument of approval. Current instruments of approval detail the aeronautical information that can be published and makes provision for the instrument of approval holder to have a Quality Management System (QMS) and to allow CASA inspections and audits.

Functions of an Aeronautical Information Service

3.2.4 ICAO Annex 15 – (Aeronautical Information Services) requires each Contracting State to the Chicago Convention to provide an AIS. Delegation to a non-government agency is permissible, however, the State concerned shall be responsible for the information published.

3.2.5 An AIS is responsible for performing the following functions in relation to aeronautical information and data:

- receipt and origination;
- verification;
- collation and assembly;
- editing;
- formatting;
- storing;
- publishing; and
- distribution.

3.2.6 An AIS is required to publish an IAIP consisting of the following:

- Aeronautical Information Publication (AIP) - AIP are intended primarily to satisfy international requirements for the exchange of aeronautical information of a lasting character essential to air navigation. When practicable, the form of presentation is designed to facilitate their use in flight;
- The AIP constitutes the basic information source for permanent information and long duration temporary changes;
- AIP Supplements – advise temporary changes of long duration (three months or longer) and information of short duration which contains extensive text and/or graphics;
- NOTAM – are originated and issued promptly whenever information to be distributed is of a temporary nature and of short duration or when operationally significant permanent changes, or temporary changes of long duration, are made at short notice;
- AIC – are originated whenever it is necessary to promulgate aeronautical information which does not qualify for inclusion in AIP or NOTAM;
- PIB – is an automated pre-flight information system used to provide harmonised, common point access by operations personnel, including flight crew members and other aeronautical personnel concerned, to aeronautical information/data and meteorological information; and
- Checklists and lists of valid NOTAM.

3.2.7 ICAO Annex 15 requires Contracting States to provide an aeronautical information service in accordance with a quality system. It is recommended by ICAO that the quality system conforms to the International Organization for Standardisation (ISO) 9000 series of quality assurance standards. The quality system should contain procedures, processes and resources necessary for quality assurance at each function stage of the aeronautical information processing chain.

3.2.8 Additionally, an AIS is required to fulfil the following roles on behalf of Australia:

- Receive aeronautical information from other Contracting States to provide pre-flight and in-flight information;
- Make available to other Contracting States aeronautical information necessary for the safety, regularity or efficiency of air navigation;

- Designate an office to which all elements of the IAIP originated by other States can be addressed. This office shall also be qualified to deal with requests for aeronautical information originated by other States; and
- Notify ICAO of any differences between Australia's regulations and SARPs contained in the ICAO Annexes.

3.2.9 Article 38 of the Chicago Convention requires Contracting States to notify ICAO of any differences between their national regulations and practices and the SARPs contained in the ICAO Annexes. All significant differences notified to ICAO must also be included in the AIP in a form that will enable a user to differentiate easily between the rules and practices of a State and the related ICAO provisions.

3.2.10 ICAO Annex 15 requires Contracting States to adhere to the AIRAC cycle of data changes. Information concerning significant changes to facilities, services or procedures generally requires amendments to be made to airline operations manuals and navigation databases. There is a requirement that 28 days advance notice is given before these changes take effect. Furthermore, for major changes such as the introduction of a new aerodrome, new approach and/or departure procedures at international aerodromes and new Air Traffic Service (ATS) routes ICAO recommends 56 days advance notice.

3.2.11 ICAO Annex 15 also recognises each State's right to apply copyright in order to protect the State's investment in the products of an AIS as well as to ensure better control over the use of a State's products. Additionally, ICAO recognises the right of States to vary the format of their publications and has directed that '... the precise format and arrangement may be left to the discretion of the State provided that an adequate table of contents is included'.

Transition from AIS to Aeronautical Information Management (AIM) System

3.2.12 The Air Navigation Commission (ANC), in response to the Global Air Navigation Plan for Communication, Navigation and Surveillance/Air Traffic Management (CNS/ATM) Systems (Doc 9750), established a Study Group in 2008 to look at transitioning AIS to an AIM system. The purpose of this ICAO Study Group is to look at transitioning the traditional, paper based AIS to a global aeronautical information management system that supports a digital, real-time, automatic aeronautical information environment.

3.2.13 The ANC has recently informed Contracting States of proposed amendments to Annex 15 which are due to take effect from 18 November 2010. These amendments include:

- refining the requirements for a QMS;
- the use of automation enabling digital data exchange;
- electronic aeronautical information publications (eAIP);
- NOTAM format; and
- electronic terrain and obstacle data (eTOD).

These are the first stages which will eventually and inevitably lead to the following evolutionary requirements:

- changing the focus from products to a standardisation of data elements;
- creation of a digital data catalogue;
- exchange of data through an Aeronautical Information Exchange Model (AIXM); and
- digital NOTAM.

3.2.14 The transition from AIS to AIM will take some time to implement but we can see that ICAO is already taking the first steps toward requiring Contracting States to provide digital formatting and exchange of data and interoperability of systems which transmit and receive aeronautical data and information. The ICAO Study Group is looking at reorganising Annex 15 to include all of the IAIP elements into the one chapter and moving the guidance material from the Appendices to the AIS Manual (Doc 8126). Additionally, the ICAO Study Group has stated that the ICAO SARPs should only provide a regulatory framework, not detailed technical specifications.

3.2.15 The commercial arrangements that exist between AA and data service providers are outside the scope of Part 175, however, ICAO Annex 15 explains the responsibility of the Contracting State ‘to ensure the integrity of aeronautical data is maintained throughout the data process from survey/origin to distribution to the next intended user’. This concept of ‘next intended user’ is important to understand in the context of the scope of Part 175. ICAO defines ‘next intended user’ as ‘the entity that receives the aeronautical information from the aeronautical information service provider’.

Responsibility of Data Originators

3.2.16 ICAO allocates responsibility for data integrity to the originators of aeronautical data through the requirements of ICAO Annex 15. Paragraph 3.1.1.2 states that arrangements will be made ‘for the timely provision of required information/data to the aeronautical information service by each of the State services associated with aircraft operations’. Paragraph 3.2.12 states that ‘Material to be issued as part of the Integrated Aeronautical Information Package shall be thoroughly checked and coordinated with the responsible services before it is submitted to the aeronautical information service, in order to make certain that all necessary information has been included and that it is correct in detail prior to distribution. Validation and verification procedures shall be established which ensure that quality requirements (accuracy, resolution, integrity) and traceability of aeronautical data are met’.

3.2.17 ICAO Annex 15 further explains the responsibility of the Contracting State ‘to ensure the integrity of aeronautical data is maintained throughout the data process from survey/origin to distribution to the next intended user’. When receiving raw data AIS is responsible for verifying and validating that the data meets the following standards and that the data is:

- from an authorised source;
- in the correct format;
- of the required accuracy;
- provided to the necessary resolution;

- traceable to the data's source;
- complete; and
- fully understood in terms of the data's meaning.

3.2.18 AIS is responsible for having quality systems in place to ensure that integrity of data is maintained through all stages of data processing, however, most of the data changes are originated outside of AIS. Some of the originators of data are:

- AA;
- CASA;
- aerodrome operators and owners;
- Department of Infrastructure, Transport, Regional Development and Local Government;
- Australian Customs and Border Protection;
- Bureau of Meteorology;
- Royal Australian Air Force (RAAF); and
- Australian Maritime Safety Authority (AMSA).

3.2.19 ICAO Annex 15 requires that the details of the designated government authorities that are responsible for the facilitation of international air navigation are published in the AIP. The organisations responsible for the provision of ATS, communication services, meteorological services and search and rescue services are also required to have their details published in the AIP. The following CASR Parts require their certificate holders to provide information to AIS as soon as they become aware of changes to aerodrome conditions, changes to the operational status of their facilities, changes to the services provided or changes to aeronautical information and data published in the AIP:

- Part 139 – Aerodromes;
- Part 171 – Aeronautical telecommunications service and radio-navigation service providers;
- Part 172 – Air traffic service providers; and
- Part 173 – Instrument flight procedure design.

3.2.20 ICAO Annex 11 (Air Traffic Services) and Annex 14 (Aerodromes) both contain requirements for determination and reporting of aeronautical data in terms of its accuracy and integrity. Most importantly, these Annexes require changes to aeronautical information that affects charts and/or computer-based navigation systems to be notified in accordance with the AIRAC cycle of aeronautical information publication. Furthermore, these Annexes require the data originator to provide the raw aeronautical information and data to AIS according to the accuracy and integrity requirements contained in their respective Annexes.

3.2.21 ICAO Doc 8126 (Aeronautical Information Services Manual) states that each of the services responsible for providing AIS with raw data should designate an individual who is responsible for maintaining direct and continuous liaison with AIS.

International Standards and Legislation

3.2.22 According to CASA's regulatory policy, as well as complying with the ICAO SARPs, Australia's aviation safety regulations are to be aligned with the standards and practices of leading aviation countries.

3.2.23 The Radio Technical Commission for Aeronautics (RTCA) is a body which functions as a US Federal Advisory Committee and its recommendations are used by the US Federal Aviation Administration (FAA) as the basis for policy and regulatory decisions and by the private sector as the basis for development, investment and other business decisions. RTCA recommendations, generally speaking, form the basis for the standards that ICAO adopts.

3.2.24 The RTCA/DO-200A - Standards for Processing Aeronautical Data document 'provides the minimum standards and guidance for the processing of aeronautical data that are used for navigation, flight planning, terrain awareness, flight simulators and for other applications. Such data would be passed on to the user as a database. The standard provides requirements that should be used to develop, assess change, and support implementation of data processing quality assurance and data quality management. When applied, the standard will provide the user with assurance of the level of quality that can be associated with the processed data, e.g. aeronautical database'. RTCA/DO-200A describes the processes involved in the aeronautical data chain as they relate to aeronautical data preparation and aeronautical data transmission. The aeronautical data chain is a series of interrelated links where each link provides a function that facilitates the origination, transmission and use of aeronautical data for a specific purpose. These functions are carried out specifically by data service providers and aeronautical information service providers, but also by data originators. RTCA/DO-200A is used as the standard by which the FAA issues Letters of Acceptance (LOA) to data service providers who are in the business of processing data and providing it in a form suitable for Application Providers (e.g. Garmin, Honeywell, Universal etc). RTCA/DO-200A is used as a standard for data service providers in much the same way that ICAO Annex 15 provides the standards for aeronautical information service providers. The importance of RTCA/DO-200A is further emphasised by the proposed inclusion in Amendment 36 to ICAO Annex 15 of a new Note under '3.2 Quality management system' which states that 'Supporting material in respect to the processing of aeronautical data is contained in RTCA Document DO-200A and European Organization for Civil Aviation Equipment (EUROCAE) Document ED-76 — Standards for Processing Aeronautical Data'.

3.2.25 In the preparation of this NPRM research has been conducted on the relevant ICAO Annexes and Documents, other international standards, existing overseas legislation and other relevant material which includes the following:

- ICAO Annex 15 – Aeronautical Information Services;
- ICAO Annex 4 – Aeronautical Charts;
- ICAO Doc 8126 AN/872 – Aeronautical Information Services Manual;
- ICAO Doc 8697 AN/889 – Aeronautical Chart Manual;
- ICAO Doc 9854 AN/458 – Global Air Traffic Management Operational Concept;

- ICAO Doc 9750 AN/963 - Global Air Navigation Plan;
- RTCA DO-200A/EUROCAE ED-76 – Standards for Processing Aeronautical Data;
- Civil Aviation Authority (CAA) of New Zealand Part 175 – Aeronautical Information Service Organisations – Certification;
- CAA of New Zealand Advisory Circular (AC) 175-1 - Aeronautical Information Service Organisations – Certification;
- CAA of New Zealand Advisory Circular 00-3 – Internal Quality Assurance;
- CAA of United Kingdom Civil Aviation Publication (CAP) 779 – Regulation of Aeronautical Information Management Services;
- ICAO Aeronautical Information Services – Aeronautical Information Management Study Group (AIS-AIMSG) – Study Notes;
- United States Federal Aviation Administration (FAA) AC 20-153 – Acceptance of Data Processes and Associated Navigation Databases;
- European Organisation for the Safety of Air Navigation (EUROCONTROL) – Controlled and Harmonised Aeronautical Information Network – CHAIN/0072;
- FAA AC 120-76A - Guidelines for the certification, airworthiness, and operational approval of electronic flight bag computing devices;
- FAA Notice N 8900.17 - Electronic Flight Bag Used in Aircraft Operated under Part 91; and
- ICAO Air Navigation Commission AN-WP/8375 – Preliminary Review of a Proposed Amendment to Annex 15, and Consequential Amendments to Annexes 4, 11, 14, Volumes I and II, and the PANS-ABC, and Introduction of the Roadmap for the Transition from AIS to AIM.

Data Service Providers

3.2.26 Australia's CARs allow pilots to use aeronautical maps, charts and other aeronautical information and instructions, other than those published in the AIP, if they are published by the holder of an instrument of approval issued under CAR 233 (1)(h). The aeronautical maps, charts and other aeronautical information and instructions must be relevant to the proposed route to be flown and any probable alternate route.

3.2.27 In this NPRM, instrument of approval holders will be referred to as data service providers. The reason this terminology has been used is that ICAO has adopted the convention of referring to organisations which provide services as service providers e.g. AIS providers, ATS providers, Air Navigation Service providers, Air-ground Service providers etc. The term data service provider is also used in both RTCA documentation and the FAA's Advisory Circulars (ACs).

3.2.28 A data service provider is a commercial organisation which uses the aeronautical information and data published in a State's AIP and reformats the information and data in a format suitable for incorporation in an aircraft's Flight Management System (FMS), Global Positioning System (GPS) or Electronic Flight Bag (EFB). The approvals given under CAR 233 (1)(h) and (1A) are issued to a specific organisation. The instrument of approval provides a description of the aeronautical maps, charts and other aeronautical information and instructions that the data service provider is approved to publish. The approval is subject to the data service provider informing CASA of the following:

- changes that may affect the production of the publications;
- changes to the QMS; and
- changes to the publication specifications.

Additionally, the data service provider must give access to CASA inspectors to audit and inspect the data service providers' systems and premises.

3.2.29 The provisions of CAR 233 (1)(h) and (1A) will eventually be replaced by CASR Part 91 – General operating and flight rules. Draft CASR Part 91.335 (6) is proposed to have a requirement that pilots use current aeronautical maps, charts and other aeronautical information published in the AIP, or approved equivalents, applicable to the route of the proposed flight and any probable diversionary route. The draft proposals contained in Part 91.335 (6) shift the focus from an organisation being approved to publish information to publications being approved as equivalent. The associated draft AC 91.335 details which aeronautical maps, charts and other aeronautical information should be carried and defines the term 'approved equivalents' as referring to both the format of the information (i.e. whether on paper or in electronic form) and the publisher of the information where the publisher is not AA.

3.3 Reasons for change

3.3.1 The *Air Services Act 1995* clearly defines the responsibility for AA to provide the AIS. Providing an AIS, in itself, does not satisfy all of Australia's responsibilities as a Contracting State to the Chicago Convention. Australia needs to be able to demonstrate compliance with the ICAO SARPs of Annexes 15 and 4 in order to address the findings of the 2008 ICAO Universal Safety Oversight Audit Programme Final Report of the Civil Aviation System of Australia.

3.3.2 Data service providers currently operate under an instrument of approval. The requirements provided in the instruments of approval are not detailed to any great lengths and do not provide for any specific set of standards or requirements to be met. The instruments of approval do not include any direction for the manner in which data service providers are to conduct their activities. Most importantly, the instruments of approval do not contain any requirements for data service providers to demonstrate that the aeronautical data and information they publish is equivalent to the aeronautical data and information published in the AIP.

3.3.3 The *Civil Aviation Act 1988* Paragraph 98 (1) (c) allows regulations to be made carrying out and giving effect to the provisions of the Chicago Convention relating to safety. Until the creation of CASR Part 175 CASA does not have a regulatory framework with which to conduct safety oversight of the provision of aeronautical information services.

3.3.4 The overarching need to create Part 175 is to ensure the safety of air navigation by eliminating the risks associated with publication of erroneous or corrupt aeronautical information and critical data. Aeronautical information and data is used for some or all of the following purposes:

- airspace and air route design;
- RNAV and performance based navigation (PBN) procedures;
- departure and approach procedures;
- air traffic control systems;
- flight management systems;
- global positioning systems; and
- electronic flight bags.

3.3.5 Terrain and obstacle data, in conjunction with aeronautical data, supports some of the following air navigation applications:

- ground proximity warning systems with minimum safe altitude warning systems;
- determination of contingency procedures for use in the event of an emergency during a missed approach or take-off;
- instrument procedure design;
- advanced surface movement guidance and control systems; and
- aeronautical chart production and onboard databases.

The collection of obstacle data has become problematic for most Contracting States. There are no legislative requirements for the owners of telecommunication towers, wind farm owners and other obstacles assessed to be a hazard to the safety of air navigation to report the presence of these obstacles beyond the vicinity of an aerodrome.

3.3.6 A high level institutional working group has been established comprising representatives from AA, Department of Infrastructure, Department of Defence (DOD), Geoscience Australia and CASA to investigate Australia's ability to comply with the ICAO eTOD SARPS. This working group is taking a 'whole of government' approach to the institutional and governance issues relating to terrain and obstacle data management with a view to creating a national resource that can be utilised by many different organisations.

3.3.7 An eTOD Technical Working Group comprising representatives from Geoscience Australia, AA, DOD and CASA has been specifically created to examine how Australia can comply with the ICAO data standards for terrain and obstacle data contained in Annex 15.

3.3.8 Organisations which are involved in the receipt, processing, storage, transmission and publication of aeronautical information and data need to be able to demonstrate that their internal systems and procedures and their business processes and practices are safe enough and transparent enough to stand up to independent scrutiny.

3.3.9 Every participant in the aeronautical data chain needs to be responsible for their role in protecting or ensuring the integrity of aeronautical information and data under their control. Data originators need to be recognised as part of this process and be held accountable and responsible for the information that is provided to AIS. Without assigning responsibility to aeronautical data originators, the danger is that aeronautical information will be published that is inaccurate, incomplete or has not been subject to review.

3.3.10 Australia needs to be able to conduct surveillance of the organisations that are engaged in the publication of aeronautical information and data. Surveillance is carried out primarily by means of audit so that the results of the AIS provider's and data service providers' performance can be measured against the requirements of Part 175. Without the development of Part 175 the mechanism to conduct this surveillance does not exist.

3.4 Objective

3.4.1 The primary objective of the development of Part 175 is to ensure the safety of air navigation. This can only be achieved by limiting the risks involved in the publication of corrupt or erroneous aeronautical information and data. Part 175 will establish a regulatory framework for the provision of aeronautical information services within Australia.

3.4.2 Australia must have a means by which to demonstrate compliance with the SARPs of ICAO Annex 15 and Annex 4. Only by ensuring compliance with the recognised international standards contained in the ICAO Annexes can the aviation industry be assured that the published data meets the requirements of the aviation industry in terms of the data's fitness for purpose. The AIS provider must be able to demonstrate compliance with the ICAO SARPs, and surveillance of AIS needs to be conducted. The AIS provider's role in the aeronautical data chain is pivotal to ensuring the integrity of the published aeronautical information and data.

3.4.3 There is an expectation from industry that, if CASA authorises pilots to use publications, other than the AIP, there will be a level of assurance given regarding the integrity and quality of the aeronautical information published. The most important requirement for data service providers will be the ability to demonstrate that their published aeronautical information is consistent with the data published as part of the AIP. This can only be achieved if these data service providers are subject to surveillance.

3.4.4 The role of data service providers in providing aeronautical information and data in Aeronautical Radio, Incorporated (ARINC) 424 format, suitable for use by data application providers who provide the software applications necessary for FMS, GPS and EFB manufacturers, places a great deal of importance on their role in the data chain. The integrity of aeronautical information and data needs to be demonstrated by all participants in the data chain.

3.4.5 Organisations that are engaged in the activity of processing, transmitting and publishing aeronautical information and data would be expected to have systems in place designed to eliminate risks which may result in the publication of corrupt or erroneous data. The key mechanism available to organisations to limit risks associated with the processing, transmission and publication of aeronautical information and data is the SMS. Part 175 will allow these organisations to demonstrate that their internal systems and procedures and business processes and practices fulfil the requirements of such an SMS.

3.5 Options considered

3.5.1 Prior to preparation of this NPRM, 5 principal options were considered:

- **Option 1** – Do nothing;
- **Option 2** – Regulate the AIS provider and authorised data service providers using a system developed within Australia for Australian conditions;
- **Option 3** – Use another country’s regulatory system, adapted to Australian conditions;
- **Option 4** – Regulate the AIS provider only; or
- **Option 5** – Regulate the AIS provider and all commercial aeronautical information publishers.

Option 1 – Do nothing

3.5.2 The *Civil Aviation Act 1988* requires that CASA carry out any safety-related functions conferred on it under the *Airspace Act 2007*, and the *Airspace Act 2007* confers responsibility on CASA to regulate the provision of aeronautical information services. *Civil Aviation Act 1988* Part II section 11 states that CASA shall perform its functions in a manner consistent with the obligations of Australia under the Chicago Convention. Additionally, Australia has not addressed the audit findings resulting from the ICAO audit carried out under ICAO’s State Safety Programme.

3.5.3 CASA will be unable to fulfil its legislative responsibilities without the creation of Part 175. Australia is a Contracting State to the Chicago Convention, but is unable to demonstrate compliance with the SARPs contained in the ICAO Annexes. Australia would continue to be the subject of adverse ICAO Audit findings until a regulatory framework has been established. In the event of an aviation accident occurring, as a result of the publication of erroneous or corrupt critical aeronautical information, any subsequent inquiry could find that CASA had not met its regulatory oversight responsibilities with regard to the publication of aeronautical information. The Australian Transport Safety Bureau (ATSB) report into the Lockhart River crash provides an example of the scrutiny to which all participants in the data chain would be subjected in the event of an aviation accident.

3.5.4 The provision of electronic terrain and obstacle data sets has become a major requirement for AIS providers under Annex 15. Currently Geoscience Australia provides AIS with terrain and topographical data and the RAAF AIS maintains an obstacle database on behalf of Australia. There are currently no legislative requirements for terrain data, of the required quality, to be provided to AIS to fulfil Australia's obligations. There are no mechanisms for reporting of obstacles outside the vicinity of an aerodrome. Australia is unable to meet the current ICAO requirements, and future requirements, for the provision of obstacle data.

3.5.5 Failure to regulate the provision of aeronautical information services will not provide the aviation industry with the levels of assurance necessary to satisfy their requirements for the integrity of aeronautical information and data.

Option 2 – Regulate the AIS provider and authorised data service providers using a system developed within Australia for Australian conditions – Recommended

3.5.6 Regulation of AIS would allow CASA to fulfil its legislative and statutory responsibilities under the *Airspace Act 2007* and the *Civil Aviation Act 1988*. Introducing a requirement in Part 175 that the AIS provider is to provide an IAIP and aeronautical charts in accordance with the SARPs contained in Annex 15 and Annex 4 will ensure that Australia can fulfil its obligations as a Contracting State to the Chicago Convention. The added advantage of aligning Australia's standards for the IAIP and aeronautical charts to the ICAO SARPs is that, as the SARPs are modified and updated over time, Australia's standards will continue to keep pace with the ICAO standards without the need for legislative changes. The other problem with publishing ICAO standards and formats directly in Part 175, or in a Part 175 Manual of Standards (MOS), is that Australia's published standards could be different from the ICAO standards when the Annexes are amended.

3.5.7 When CASA allows pilots to use aeronautical information and aeronautical charts other than that published in the AIP, CASA has a responsibility to ensure that the alternate aeronautical information and aeronautical charts provide the same aeronautical data that is contained in the AIP.

3.5.8 Part 175 would create a standard for data service providers to meet. Additional provisions, which relate to the responsibilities of aeronautical data originators, ensure that Part 175 can provide a regulatory framework which takes in all participants in the data chain as required by Annex 15. The data chain commences with aeronautical data originators who provide raw aeronautical information and data to the AIS provider. Part 175 will require the AIS provider to provide data sets to the data service providers in line with the Annex 15 requirement for ensuring the integrity of aeronautical information and data through to distribution to the next intended user. This will complete the data chain from AIS provider through to next intended user.

3.5.9 All of the participants in the data chain are to be included in Part 175 so that the focus of Part 175 can be on the data integrity processes that exist between each of the participants. By regulating the AIS provider and data service providers, and including provisions which place responsibilities on aeronautical data originators, the data integrity processes can be demonstrated throughout the data chain and the aviation industry will have the necessary assurance that data integrity has been maintained from its origination through to publication.

Option 3 – Use another country’s regulatory system, adapted to Australian conditions

3.5.10 A number of countries have implemented provisions to regulate aeronautical information services, as described in the following paragraphs.

New Zealand

3.5.11 New Zealand has regulatory provisions (CAR Part 175). These regulations came into force on 1 September 1994. Although these regulations have been amended over time they do not reflect the current and future requirements for the provision of aeronautical information services. They also do not contain rules regarding the publication of aeronautical information by data service providers as required by Australia’s existing CAR 233.

3.5.12 A visit was conducted to New Zealand in March 2009 to undertake discussions with AIS specialists over the New Zealand approach to AIS regulation and its relevance to the development of CASR Part 175. Meetings were held with the Civil Aviation Authority and Airways New Zealand centring on the development, standardisation and implementation aspects of CASR Part 175.

3.5.13 The New Zealand regulatory authorities agreed that regulation of data service providers was necessary and that their Part 175 was in need of updating. The NZ CAR Part 175 will be taken into account in the development of CASR Part 175.

United Kingdom

3.5.14 United Kingdom has regulatory provisions in CAP 779. These regulations came into effect in April 2008. As with the New Zealand regulations, the UK provisions do not include data service providers. These regulations are not in a format that allows for easy integration with Australian CASRs.

Canada

3.5.15 Canada has regulatory provisions (CAR 803.01 and 800.03) that require aeronautical information services to be provided in accordance with the standards set out in Annexes 15 and 4. Aeronautical information forming part of the IAIP is required to be provided according to the processes and procedures of the AIS provider. The Canadian regulations do not include any procedures for certification of AIS or data service providers and do not provide direction for the manner in which aeronautical information and data service providers are to conduct their activities.

3.5.16 It is appropriate that Australia develops a new set of regulations which take into account current ICAO Annex 15 and 4 requirements as well as proposed amendments which will be coming into effect in the near future. Part 175 is also required to align with the provisions contained in CAR 233 (1)(h) and (1A). Part 175 should also be consistent with other CASR Parts which are currently in force.

Option 4 – Regulate the AIS provider only

3.5.17 The SARPs contained in the ICAO Annexes apply only to the State provided AIS or the agency to which that responsibility is delegated. Part 175 could be restricted to regulation of AIS only.

3.5.18 CAR 233 (1)(h) and (1A) provide pilots with the ability to use aeronautical information and publications published by instrument of approval holders. The compliance requirements contained in the instruments of approval are very limited and do not provide for any set of standards to be met. There are no requirements for the aeronautical information and data published by data service providers to be consistent with the aeronautical information and data published in the IAIP and on aeronautical charts.

3.5.19 Regulation of AIS only would focus on only one participant in the data chain, albeit an important participant. Without looking at the processes of each participant in the data chain, data integrity cannot be assured. Therefore, the option of regulation of AIS only is not recommended as it does not provide the aviation industry with the necessary levels of assurance required for the integrity of data published by data service providers.

Option 5 – Regulate the AIS provider and all commercial aeronautical information publishers

3.5.20 This option would require the most comprehensive regulatory framework. Regulating all commercial aeronautical information publishers would place the greatest burden on the aviation industry in terms of demonstrating compliance with the regulations. It would be impracticable for CASA to regulate every organisation that publishes aeronautical information and this would not provide any demonstrable safety benefit in return. Conducting surveillance of every organisation which publishes aeronautical information or charts would also be the most difficult to carry out. The reasons that this option was not adopted are as follows:

- FMS, GPS and EFBs are hardware platforms and, as such, outside the scope of Part 175;
- the software applications used in the above platforms are the responsibility of the pilot or aircraft operator; and
- flight planning software is considered to be an on-ground tool used as an aid to flight planning.

3.5.21 RTCA DO-200A/EUROCAE ED-76 states that ‘final responsibility for meeting the data quality requirements remains with the end-user. For airborne applications, the approval of the avionics function and performance includes an explicit approval of the features that utilise the stored aeronautical data. These requirements are passed to the end-user to be applied when obtaining data updates. The end-user may add requirements based on intended operation’. The end user is defined as the pilot or aircraft operator. This statement supports the options examined and the decision to proceed with Option 2.

3.5.22 The scope of Part 175 is the regulation of aeronautical information services. Aeronautical information services is defined in Annex 15 as the aeronautical information services provided by AIS to the ‘next intended user’ of the aeronautical information and data. The ‘next intended user’ is defined in this NPRM as the data service providers whose aeronautical information and data is approved as an AIP equivalent.

3.6 Key change proposals

Approval of AIS provider

3.6.1 The AIS provider will require an approval to provide aeronautical information services. The terms and conditions of the approval will be listed in the certificate issued to the AIS provider. The certificate will remain in force perpetually until such time as it is cancelled or suspended. The AIS certificate will contain:

- the list of aeronautical information services to be provided;
- the coverage (geographical, aerodromes, airspace and ATS routes) for each aeronautical information service provided;
- the hours of operation for each service provided; and
- any conditions imposed on the AIS approval.

Exposition

3.6.2 The AIS provider and any data service providers will be required to have an exposition. The exposition will detail the services or products that the provider will provide or publish. The exposition will set out how a provider proposes to provide the services or publish the products covered by its approval or authorisation. The exposition will contain an example of the format of all published aeronautical information and aeronautical charts. The service provider will be required to comply with the procedures contained in their approved exposition. Changes to the exposition will have to be approved by CASA in accordance with the procedures contained in Part 175.

AIS to publish IAIP in accordance with ICAO Annex 15

3.6.3 In order for Part 175 to maintain its relevance and currency, and to ensure that Part 175 is not unnecessarily duplicating the standards, formats, resolutions, accuracy and quality requirements for aeronautical information and data contained in the Annexes, Part 175 will contain a provision that AIS must provide an IAIP in accordance with ICAO Annex 15 and any related Annexes and Documents. The elements of the IAIP will be specified in Part 175 along with a provision that any new elements introduced by ICAO are considered to be included in Part 175. The reason that we need to specify the elements of the IAIP, particularly the AIP, is so a standard can be established with which data service providers will be required to comply.

AIS to publish aeronautical charts in accordance with ICAO Annex 4

3.6.4 It is important to require the AIS provider to publish aeronautical charts in accordance with the standards contained in Annex 4 and any related Annexes and Documents. The requirement will be for AIS to publish aeronautical charts which provide the appropriate functions for the six phases of flight. The requirement to produce aeronautical charts is also necessary to establish the standard with which data service providers will be required to comply.

CASA may direct changes to the IAIP or aeronautical charts

3.6.5 Airservices Australia and CASA are both responsible for information that is published in the AIP, however, control over the aeronautical information and data published in the IAIP and on the aeronautical charts needs to be established. Part 175 requires a safety provision to prevent a situation arising where safety could be put at risk without control being able to be exercised over the publication of aeronautical information. CASA needs to have a mechanism to establish that control over published aeronautical information and data in the interests of aviation safety.

Provision for Manual of Standards to be included in Part 175

3.6.6 Whilst it is not envisaged that a MOS will be required at this stage it is appropriate that Part 175 contains provision for one to be created. This will allow for future eventualities that may necessitate the creation of a MOS without requiring a rewrite of Part 175.

NOTAM Office and Briefing Office

3.6.7 The requirement for AIS to comply with the SARPs of Annex 15 takes into account the provision of a NOTAM service and publication of a PIB, however, Part 175 needs to specify more clearly the requirements to provide for a NOTAM Office and a Briefing Office. An Automated Pre-flight Information System will be mandated by ICAO in the amendments to Annex 15 scheduled to commence on 18 November 2010 and the requirements of this system are currently provided in Australia through AA's National Aeronautical Information Processing System (NAIPS). The NOTAM Office and the Briefing Office are significant organisations in their own right and warrant attention in Part 175 to ensure adequate surveillance of these services is provided.

Integrity of aeronautical information and data

3.6.8 While the provisions of Part 175 will require AIS to comply with the SARPs of Annex 15 as they relate to the IAIP and Annex 4 as they relate to aeronautical charts, it is important to have specific provisions which ensure that the systems, processes and procedures that AIS has in place will ensure that data integrity will be maintained through all processes involved in the data chain. These provisions relate to the following aeronautical information processes:

- receipt from aeronautical data originator;
- format of aeronautical information and data;
- traceability of aeronautical information and data;
- storage of aeronautical information and data; and
- publishing of aeronautical information and data.

Adherence to AIRAC notification requirements

3.6.9 The requirements for Flight Management Computers, navigation databases and airline operations manuals to have aeronautical information and data available according to the AIRAC cycle of data changes is considered to be particularly important to aviation safety. A provision will be made to require AIS to adhere to the AIRAC cycle of data release. A caveat will be placed on this requirement that, in the event of an emergency or in the interests of aviation safety, any action necessary to address the safety risk may be taken.

AIS to provide data sets to data service providers

3.6.10 In order to ensure the integrity of aeronautical data as it progresses through the data chain it is necessary to include a provision that AA supplies data service providers with aeronautical information and data that forms part or all of the AIP. The contents, format and medium for this exchange of data should be specified in any licence agreement which exists between AA and the data service provider. This provision recognises that there is a commercial relationship between AA and a data service provider and that the data supplied by AA to the data service provider has an intrinsic value.

Requirement for the AIS provider and data service providers to have an SMS

3.6.11 In order to minimise the risks to safety of the publication of erroneous or corrupt aeronautical information and data, the AIS provider and data service providers will be required to have an SMS. Required elements of the SMS will be detailed in Part 175. One key requirement will be to have a QMS which is certified to AS/NZS ISO 9001 standards.

Authorisation of data service providers

3.6.12 Data service providers will be required to be authorised. The instruments of approval issued under CAR 233 (1)(h) will be superseded by certificates issued to data service providers authorised under Part 175. As with the AIS certificate, the certification requirements for a data service provider certificate will be specified as well as the requirements to be complied with by a data service provider. A person will be required to be nominated who is responsible for fulfilling the data service provider's responsibilities under the certificate. Due to the extensive requirements to be met by data service providers, certificates issued to data service providers under Part 175 will remain in force perpetually until such time as they are cancelled or suspended.

Data service providers to publish aeronautical information and charts equivalent to AIP

3.6.13 The most important provisions for data service providers will be the ability to demonstrate that their published aeronautical information is consistent with the data published as part of the AIP. In order ensure Part 175 is consistent with the provisions of CAR 233 (1)(h), the data service provider will be required to ensure the aeronautical maps, charts and other aeronautical information published are equivalent to the aeronautical maps, charts and other aeronautical information published as part of the AIP. Part 175 will establish a mechanism by which aeronautical information and charts can be approved as equivalent to the AIP.

Error correction and notification

3.6.14 One of the most important provisions contained in Part 175 will relate to error correction and notification. Whilst this forms part of the data integrity process, the procedures for error correction and notification need to be specifically addressed. The AIS provider and data service providers will need to establish procedures for error identification, correction and notification. Systems will need to be established to ensure that the source of the error is identified so measures can be taken to ensure the error is not repeated.

Data service providers to notify differences to AIP

3.6.15 Data service providers will be required to request approval from CASA to publish aeronautical information and data that is different to the aeronautical information and data published in the AIP. This will allow CASA to determine the safety implications of altered aeronautical information and data. Data service providers will require approval from CASA before altered aeronautical information and data can be published.

Data originators to nominate responsible person

3.6.16 It would enhance safety if a requirement was placed in Part 175 for those persons responsible for aeronautical information and data that is published in the AIP (data originators) to be formally recognised as being responsible for the accuracy, integrity, currency and content of the information published. This will be achieved by requiring the data originator to nominate a responsible person and to notify the AIS provider who the responsible person is. Only the responsible person will be authorised to provide the AIS provider with IAIP and aeronautical chart change requests. The responsible person may nominate an email account which is used as the authorised account for communication with the AIS provider. The AIS provider is to establish procedures to maintain a list of responsible persons authorised to make change requests. The responsible person will also be required to coordinate amendments with all affected parties.

Data originators to nominate authorised persons to issue NOTAM

3.6.17 Whilst it is important for one person from each State service or aerodrome to be responsible for static data changes to the AIP, it is equally important for more than one person from each data originator to be authorised to issue, review and cancel NOTAM which contain dynamic data. It is appropriate that the AIS provider maintains a list of all persons authorised to issue, review and cancel NOTAM.

Data originators to review aeronautical information and data

3.6.18 Furthermore, data originators should be required to review their aeronautical information and data, at least annually, and provide AIS with a report, including a nil return if there are no changes to the published aeronautical information and data.

Data originators to adhere to AIRAC cycle of effective dates

3.6.19 In order for the AIS provider to be able to comply with the requirements of AIRAC notification, data originators must provide the AIP and aeronautical chart changes to the AIS provider in a timeframe in order to meet the AIRAC distribution requirements. Part 175 shall require that data originators adhere to the AIRAC cycle of information publication, for changes to aeronautical information that affects charts and/or computer-based navigation systems and to provide the data in the format,

accuracy, integrity and quality required by the relevant ICAO Annexes.

Terrain and obstacle data

3.6.20 Terrain and obstacle data supports a number of air navigation applications. It is appropriate to require Australia's national geoscience organisation, Geoscience Australia to provide the AIS provider with the terrain datasets to satisfy the requirements of Annex 15. Additionally, in order to satisfy Australia's Annex 15 obstacle data requirements, CASA must be able to request obstacle data from owners of towers and buildings that are assessed as a hazard to the safety of air navigation, and organisations which hold information on obstacles. The obstacle data is to be supplied to the AIS provider in the required format.

3.7 Methodology used to create Annex A – Proposed CASR Part 175

3.7.1 It is important to understand that the CASR Part 175 draft proposals contained in Annex A of this NPRM have not been drafted by the Attorney General's Office of Legislative Drafting and Publishing. The draft proposals have been provided in this format because there are a number of provisions in Part 175 which are common to other CASR Parts and MOS. These include provisions which relate to:

- Applicability;
- Definitions;
- What is a provider;
- What is an approval;
- What is an authorisation;
- Issue of Manual of Standards;
- Application;
- Exposition;
- Standards;
- Safety Management System;
- Organisation;
- Personnel;
- Supervisory personnel;
- Training and checking program;
- Facilities and equipment;
- Reference material;
- Document and records; and
- Administration.

3.7.2 Where there is a relevant existing provision in another CASR Part this has been included as a draft proposal and a reference to the existing provision has been provided in the Annex table. This will allow CASA to facilitate drafting of Part 175 by being able to provide OLDP with existing similar regulations when drafting instructions are prepared.

3.7.3 The New Zealand Part 175 has been taken into account in accordance with CASA's philosophy of aligning Australia's aviation safety regulations with the standards and practices of leading aviation countries. If a New Zealand Part 175 provision has been taken into account the reference to the applicable provision has been provided.

3.7.4 The format of Annex A has been designed to clarify the intention of the provisions of the proposed CASR Part 175 to the aviation industry. The language used in Annex A has been adopted with the intention of ensuring that the Part 175 provisions will achieve, in terms of policy, the required safety outcomes. The last column in the table has been created to state the intent of the draft proposals.

3.8 Benefits and impacts

3.8.1 The benefits of the recommended option are as follows:

- A means will be provided whereby Australia can demonstrate compliance with the ICAO SARPs;
- A means will be provided whereby aeronautical information equivalents to the AIP can be approved;
- Safety will be enhanced by the provision of requirements for organisations involved with the provision of aeronautical information to have an SMS in place;
- There will be greater responsibility placed on data originators to ensure the quality of aeronautical information provided to AIS;
- Data service providers will be required to demonstrate that their aeronautical information is equivalent to the aeronautical information published as part of the IAIP and on aeronautical charts; and
- A means will be provided by which surveillance of AIS and data service providers can be conducted.

3.8.2 The impact of these regulations on AIS and data service providers in terms of cost should not be significant. AIS is required to have a QMS in place under the ICAO SARPs contained in Annex 15. Data service providers who are currently covered by the provisions of CAR 233 (1)(h) and (1A) are also required to have a QMS in place. The additional requirements of an SMS should not place a significant extra burden financially or organisationally. Organisations that are engaged in the activity of collecting, processing, transmitting and publishing aeronautical information and data would be expected to have systems in place designed to eliminate risks which may result in the publication of corrupt or erroneous data. Part 175 will allow these organisations to demonstrate that their systems and procedures and business practices and processes are appropriate for the responsibilities required in the collecting, processing, transmission and publication of aeronautical information and data.

3.9 Implementation and review

3.9.1 Further changes may be made to the proposed regulations depending on the input received in response to this NPRM.

3.9.2 The final policy will be sent as drafting instructions to OLDP for the development of the draft regulations.

3.9.3 The draft regulations will be reviewed by CASA and the SCC before they are finalised and made as law.

3.9.4 The date of the making of the regulations is dependent on the time required by OLDP to draft the regulations, and their passage through the legislative process.

3.9.5 The proposed CASR Part 175 is scheduled to be passed to OLDP for final drafting by the end of the third quarter in 2009. CASA anticipates that CASR Part 175 will be approved and made by the Governor General in late 2010.

3.9.6 An implementation and transition phase for CASR Part 175 will begin after the regulations have been made. This phase is expected to take 12 months and will require the following actions:

- issue of an AIS provider certificate;
- issue of data service provider certificates;
- development and approval of the necessary expositions;
- ISO certification of AIS and data service providers;
- development of Acceptable Means of Compliance (AMC) and Guidance Material (GM); and
- application of the new rules.

3.9.7 The monitoring and review of CASR Part 175 will be conducted on an ongoing basis during the implementation and transition phase. Thereafter, and following the commencement of the regulations, monitoring and review would be conducted on an as required basis, including when required by Government. CASA policy is to conduct a post implementation review of new CASR Parts within 1-2 years of their coming into effect.

NPRM Response Form

AERONAUTICAL INFORMATION SERVICES – PROPOSED CASR PART 175

Please complete your response by 04/12/2009 and return it by one of the following means:

Online (preferred method) casa.gov.au/newrules/ors

Fax 1800 653 897 (free call)

Post (no stamp required)
CASA Standards Development Branch
Reply Paid 2005
Canberra ACT 2601, Australia

E-mail nprm0901as@casa.gov.au

* A web-based online response form is offered as an alternative to the printed form in this NPRM. Online submission is the preferred method of sending your comments to CASA. If you are connected to the Internet, type casa.gov.au/newrules/ors into your web browser and follow the links for this NPRM.

Your Details

Please provide relevant information below and indicate your acceptance or otherwise of the proposal presented in this Notice of Proposed Rule Making by ticking [✓] the appropriate boxes.

Your name: _____ ARN* (if known): _____

Organisation: _____ ARN* (if known): _____

*Aviation Reference Number, usually your CASA-issued licence or certificate number

Address: _____

Your telephone number (optional): _____ (to enable the Project Leader to contact you as necessary)

Do you consent to have your name published as a respondent to this NPRM? YES [] NO []

Signed: Date:

How are you responding to this questionnaire/proposal, i.e. whose views are represented in your response?

- | | | | | | |
|---|---|---|--|--|--------------------------------|
| <input type="checkbox"/> Private individual | <input type="checkbox"/> Aviation industry body/association | <input type="checkbox"/> Staff association/ union | <input type="checkbox"/> Government agency/authority/ department/council | <input type="checkbox"/> Aviation business owner/ service provider | <input type="checkbox"/> Other |
|---|---|---|--|--|--------------------------------|

Please advise your main involvement in aviation:

- | | | | | | |
|--|---|---|---|---|---|
| <input type="checkbox"/> Passenger/ public consumer of aviation services | <input type="checkbox"/> Air crew for passenger-carrying activities | <input type="checkbox"/> Air crew for non-passenger-carrying activities | <input type="checkbox"/> Ground support for passenger-carrying activities | <input type="checkbox"/> Ground support for non-passenger-carrying activities | <input type="checkbox"/> Other (specify below*, e.g. parachutist) |
|--|---|---|---|---|---|

* **Details:** _____

Are you satisfied with CASA's consultation on this issue?

- Very satisfied Satisfied No opinion Dissatisfied Very dissatisfied

Key Change Proposals (refer to NPRM Section 3)

CASA invites you to advise your comments on the subject matter proposed in this NPRM by indicating your preference by ticking [✓] the appropriate box and commenting below:

Key Proposal 1 – Approval of AIS provider

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 2 – Exposition

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 3 – AIS to publish IAIP in accordance with ICAO Annex 15

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 4 – AIS to publish aeronautical charts in accordance with ICAO Annex 4

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 5 – CASA may direct changes to the IAIP or aeronautical charts

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 6 – Provision for Manual of Standards to be included in Part 175

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 7 – NOTAM Office and Briefing Office

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 8 – Integrity of aeronautical information and data

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 9 – Adherence to AIRAC notification requirements

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 10 – AIS to provide data sets to data service providers

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 11 – Requirement for the AIS provider and data service providers to have an SMS

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 12 – Authorisation of data service providers

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 13 – Data service providers to publish aeronautical information and charts equivalent to AIP

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 14 – Error correction and notification

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 15 – Data service providers to notify differences to AIP

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 16 – Data originators to nominate responsible person

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 17 – Data originators to nominate authorised persons to issue NOTAM

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 18 – Data originators to review aeronautical information and data

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 19 – Data originators to adhere to AIRAC cycle of effective dates

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

Key Proposal 20 – Terrain and obstacle data

- proposal is acceptable without change
- changes would improve it, but it is acceptable (please provide details below)
- changes would make it acceptable (please provide details below)
- not acceptable under any circumstances

Comments or suggested changes (including an estimate of additional costs/impacts if applicable): ___

INTENTIONALLY LEFT BLANK

Additional information is available from:

Roy Tuomela, CASR Part 175 Project Leader

Post (no stamp required) Reply Paid 2005

Airways and Aerodromes Branch

Civil Aviation Safety Authority

Canberra ACT 2601, Australia

E-mail roy.tuomela@casa.gov.au

Telephone 02 6217 1421 or 131 757 (for the cost of a local call)

International +612 6217 1421

Fax 02 6217 1500

International +612 6217 1500