

Request for Information
Regarding the provision of Aircraft Meteorological Data Relay (AMDAR) Data and Services in
Canada

Contents

1. Background and Purpose	3
1.1 Introduction.....	3
1.2 Request for Information (RFI) Purpose.....	3
2. Response Information	5
2.1 Objectives of this RFI.....	5
2.2 Nature of RFI.....	5
2.3 Confidentiality	5
2.4 Response Costs	6
2.5 Process to Submit Responses and Closing Date	6
2.6 Response Structure	6
2.7 Treatment of Responses.....	7
2.8 Reserved Rights.....	8
3. Response Template – Requirements.....	9
3.1 Corporate Profile	9
4. Reference Documents.....	10
WMO AMDAR Program - https://www.wmo.int/amdar	10
Annex A	11
Technical Requirements	11

1. Background and Purpose

1.1 Introduction

The World Meteorological Organization's (WMO) Aircraft Meteorological Data Relay ([AMDAR](#)) program uses existing sensors and systems upon commercial aircraft to collect and distribute key meteorological data (e.g. wind speed/direction, temperature) during flight for improved weather reporting and forecasting. Environment and Climate Change Canada's (ECCC) current Canadian AMDAR program consists of a partnership with Jazz Aviation LP. The stabilization and potential expansion of the Canadian AMDAR program is currently being considered by ECCC as part of an initiative looking to transform its current Upper Air network; towards ensuring its long-term sustainability through optimal network design and the acquisition of new and complimentary data sets.

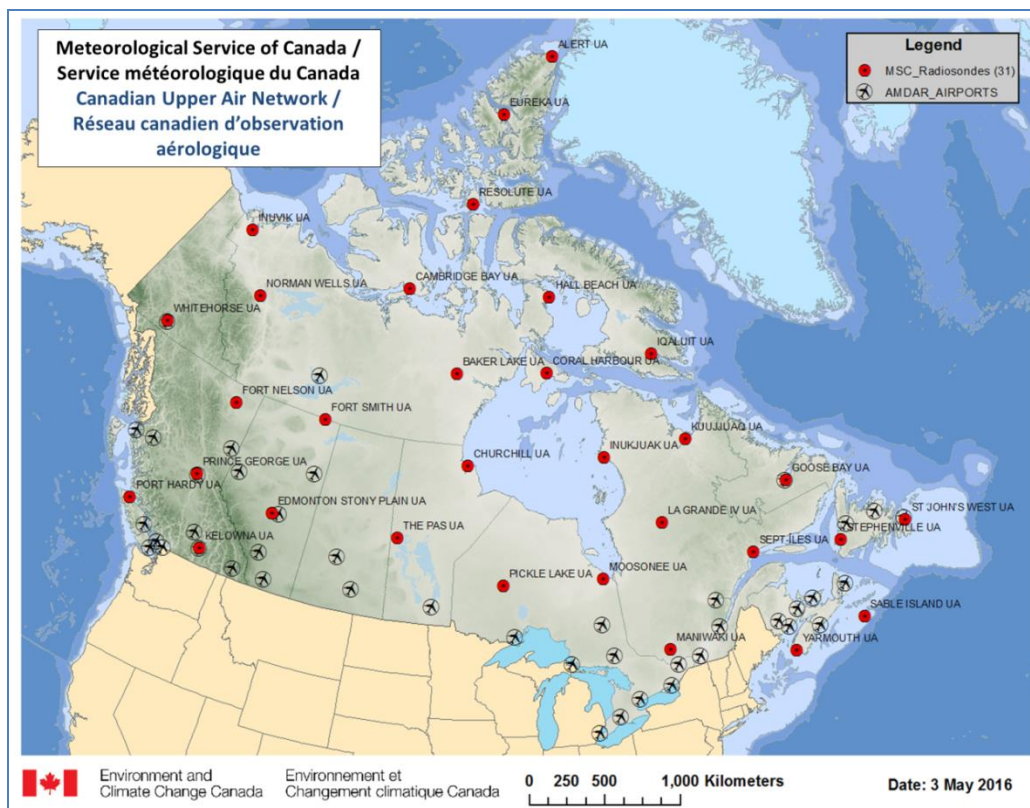


Figure 1 – Map of ECC's existing Canadian Upper Air Network (Radiosondes & Jazz serviced airports)

1.2 Request for Information (RFI) Purpose

The purpose of this Request for Information (RFI) is to gather information from Respondents regarding their potential ability to provide AMDAR data and services to ECCC over the Canadian territory.

Responses will help:

- a) To identify various airline communication Data Service Providers (DSP) which could potentially provide AMDAR data and services over the Canadian territory
- b) To determine what AMDAR data services and business models the various airline DSPs could provide (e.g. potential AMDAR data volumes, coverage, general costing models, etc.).

2. Response Information

2.1 Objectives of this RFI

A RFI is used when detailed information and feedback are required from respondents. This request outlines a potential requirement, and requests respondents to describe their ability to satisfy all or a portion of the requirements and to provide ideas and suggestions on how a solicitation might be structured. Responses will be used to assist ECCC to finalize its plan for the requirement and to develop achievable objectives and deliverables.

The main objectives of the RFI are to:

- a) Inform the Department on potential options for external services that meet the needs of the requirement;
- b) Offer suggestions regarding potential alternative solutions that would meet requirements, such as solution with a lower environmental impact;
- c) Provide information to assist the Department to determine whether to proceed with requirements/strategy as planned, and if so, further developing internal planning, approval and solicitation documents that may potentially lead to a solicitation;
- d) Refine the procurement strategy, project structure, cost estimate, timelines, requirements definition, and other aspects of the requirement;
- e) Become a more "informed buyer" with an enhanced understanding of industry goods and service offerings in the areas of interest; and
- f) Assess potential alternative solution concepts that would meet its requirement, such as environmentally preferable solutions.

2.2 Nature of RFI

This RFI will not necessarily result in any procurement action. This RFI is for informational purposes only and does not constitute a commitment by the Government of Canada. Responses to this RFI will not constitute a commitment from the industry provider. Potential suppliers of any goods or services described in this RFI should not allocate resources or incur undue costs as a result of any information contained in this RFI. Nor will this RFI result in the creation of any source list. Therefore, whether or not any potential supplier responds to this RFI will not preclude that supplier from participating in any future procurement.

This RFI contains draft requirements that may be used in future procurement action. This document remains a work in progress and respondents should not assume that requirements will not be added, changed or removed from any bid solicitation that is ultimately published by ECCC. Comments regarding any aspect of the requirements are welcome.

2.3 Confidentiality

All information obtained with this RFI will be treated as confidential.

- a) Although ECCC is seeking detailed responses from respondents to this RFI, it is understood that respondents may not be willing or able to address all of the information sought by ECCC.
- b) Nevertheless, and in an effort to encourage respondents to be as forthcoming as possible, it is understood and agreed that ECCC shall, during and after the period of the RFI, treat as

confidential and not divulge, unless authorized in writing by respondents, any information obtained from respondents that has been identified by respondents as “confidential” or “proprietary”, within their written response to this RFI.

- c) Although one of the primary purposes of this RFI is to obtain information and recommendations directly from industry knowledge leaders that will be used to support ECCC’s preparation in project planning, ECCC will in no way make any direct attribution of any information obtained from respondents that has been identified by respondents as “confidential” or “proprietary” within their responses.
- d) ECCC will also not impose any future obligations or commitments on respondents with respect to claims or cost information contained within their responses to this RFI.

2.4 Response Costs

ECCC will not reimburse any respondent for expenses incurred in the preparation of responses to this RFI. This RFI will not result in the award of any contract. Potential suppliers of any goods or services described in this RFI should not reserve stock or facilities, nor allocate resources, as a result of any information contained in this RFI.

2.5 Process to Submit Responses and Closing Date

1. Responses are to be submitted electronically to the Contracting Authority.
2. It is requested that responses are not submitted by facsimile (fax) or physical mail, but rather only in softcopy format, submitted to the electronic mailing address above.
3. Any response submitted will become the sole property of the Government of Canada and will not be returned to the Respondent. The response will be used to assist Environment and Climate Change Canada in further analysing the presented requirement and, as such, may be used in the development of a future solicitation process to be posted on Buy and Sell.
4. Because this is not a bid solicitation, Canada will not necessarily respond to enquiries in writing or by circulating answers to all potential suppliers. However, respondents with questions regarding this RFI may direct their enquiries to:

Contracting Authority: Heidi Noble
Email Address: heidi.noble@canada.ca
Telephone: 905-319-6982
5. Responses are required by the closing date: August 1, 2018 at 2:00 p.m. (Eastern Daylight Time).

2.6 Response Structure

- a) **Cover Page:** Respondents are requested to indicate on the front cover page the RFI number and the full legal name of the Respondent, as well as the title of the response.
- b) **Title Page:** The first page after the cover page, should be the title page should contain:
 - (i) the title of the Respondent’s response;
 - (ii) the name and address of the Respondent;
 - (iii) the name, address and telephone number of the Respondent’s contact;
 - (iv) the date; and

(v) the RFI number.

- c) Response Template:** In order to facilitate a consistent and structured assessment of the information provided to the Department within the responses, respondents are asked to structure their responses to match the order in which questions are asked in the “Response Template” in Section 3 of this RFI package.

Respondents are requested to provide comments, concerns and, where applicable, alternative recommendations, regarding how the requirements or objectives described in this RFI could be satisfied. Respondents are also invited to provide comments regarding the content, format and/or organization of any draft documents included in this RFI. Respondents should explain any assumptions made in their responses.

Any functionality identified by respondents must be based upon the most recent release of a product that is currently commercially available.

- d) Documentation and Number of Copies:** Respondents are requested to provide one (1) softcopy of their response and one (1) softcopy of any product datasheets, user, system and/or other manuals that describe the functionality and technical specifications of the Respondent’s product / solution. The documentation should be in one of the following file formats – PDF, MS Word or HTML.
- e) Additional Capabilities:** Respondents may also provide explanations of additional functionality (e.g. functionality not mentioned in Section 3 that the supplier believes may be relevant to the Department’s business requirements) or extended capabilities (e.g. functionality that exceeds the requirements set out in Section 3). Respondents wishing to provide such information are asked to clearly identify where their response deviates from the RFI template, and may include with their submission a separate attachment that clearly itemizes additional functionality elements and extended capabilities, providing a brief description and including page references where more complete descriptions can be found in their documentation.
- f) Numbering System:** Respondents are requested to prepare their response using a numbering system corresponding to the one in the Response Template in Section 3 of this RFI. All references to descriptive material, technical manuals and brochures included as part of the response should be referenced accordingly.
- g) Complete Responses:** Respondents are requested to address all concepts outlined in the Response Template in Section 3 of this RFI package where possible, however responses will still be accepted if the proposed solution only meets part of the requirements. It is preferable that respondents clarify up front which aspects can be met, and why others are out of scope.

Product brochures and other vendor documentation provided **without** an RFI response will not be evaluated. ECCC reserves the right to determine which RFI response will be evaluated based on the quality and completeness of the responses received.

2.7 Treatment of Responses

- a) Use of Responses:** Responses will not be formally evaluated. However, the responses received may be used by ECCC to develop or modify procurement strategies or any draft documents contained in this RFI. ECCC will review all responses that are received by the RFI closing date.

- b) **Review Team:** A review team composed of representatives of ECCC will review the responses. ECCC reserves the right to hire any independent consultant, or use any Government resources that it considers necessary to review any response. Not all members of the review team will necessarily review all responses.
- c) **Confidentiality:** Respondents should mark any portions of their response that they consider *Proprietary* or *Confidential*. ECCC will handle the responses in accordance with the *Access to Information Act*.

Although one of the primary purposes of this RFI is to obtain information directly from industry that will be used by ECCC to develop or modify procurement strategies or any draft documents contained in this RFI, ECCC will in no way make any direct attribution of any information obtained from respondents that has been identified by respondents as “confidential” or “proprietary” within their Responses.

- d) **Follow-up Activity:** Should respondents include information which is of particular relevance and interest to ECCC, and should ECCC (at its exclusive option) determine that follow-on clarification meeting(s) with one or more respondents would be of potential benefit to ECCC, then ECCC may (at its exclusive option) invite selected respondents to participate in one-on-one “clarification meeting(s)” to provide clarification on their response(s), demonstrate their technologies or make a presentation to ECCC Representatives, in order for ECCC to learn more about the capabilities and features of their Response.

In the event of such an occurrence, any requested clarification meetings may take place at ECCC’s facilities, location to be determined, or may take place via teleconference or other mutually convenient means, as agreed to between ECCC and the selected respondents.

ECCC will not reimburse any respondent for expenses incurred in responding to this RFI. Respondents will be responsible for all costs associated with the preparation and submission of any response to this RFI, including any costs associated with accepting ECCC’s invitation(s) to participate in any clarification meeting(s).

2.8 Reserved Rights

In addition to any other expressed or implied rights, ECCC reserves the right to:

- a) Cancel this RFI process at any time;
- b) Issue a new RFI for the same or similar information;
- c) Change the structure of the RFI process;
- d) Vary or extend any date or time in this RFI at any time, and for such period as ECCC, in its absolute discretion, considers appropriate;
- e) Make changes, including substantial changes to the requirements as described in this RFI. Substantial changes will be communicated to all potential respondents;
- f) Request written clarification or the submission of supplementary information from any or all respondents, or provide additional information or clarification;
- g) Contact any customer or reference provided within a respondent’s response, as part of its assessment process (contacting references); and
- h) Not consider any response which contains information which ECCC (in its exclusive opinion) believes to contain misrepresentations or any other inaccurate, suspicious or misleading information.

3. Response Template – Requirements

In order to gain the greatest value from responses to this RFI and to facilitate a consistent and structured assessment of the information provided to ECCC, respondents are asked to structure their responses in accordance with the following sections. Some sub-sections are posed as questions, while others provide further details about what specifications the system should include. Comments are encouraged under every sub-section, including a NIL response.

3.1 Corporate Profile

Please provide basic information on the company providing the Response, including:

- a) number of years in business;
- b) countries in which the Respondent does business;
- c) listing of current commercial aviation clients;
- d) number and location of Canadian offices;
- e) other related business lines/products;
- f) recent corporate highlights (e.g. accomplishments, awards, etc.); and
- g) level of government security clearance, if available.

4. Reference Documents

WMO AMDAR Program - <https://www.wmo.int/amdar>

Annex A

Technical Requirements

- The provision of “AMDAR data” refers to a requirement for a continuous and reliable supply of good/verified quality* upper air meteorological data from aircraft while in flight. The frequency of the observations is predetermined and varies according to the phase of the flight (i.e. ascent, level flight/cruising altitude, descent)
- The mandatory parameters of the basic AMDAR program include:
 - Non-meteorological: aircraft ID, latitude, longitude, date, time, roll and pitch angle; and
 - Meteorological: pressure altitude, wind direction, wind speed, temperature ,
 - Additional parameters (if available and of verified quality) would also be considered (e.g. Humidity)

**Verified Quality – as defined by the WMO and validated by the Canadian Center for Meteorological and Environmental Prediction (CCMEP)*

- Please provide a description of the proposed potential AMDAR capability and coverage which could be offered, including information and maps (if available) detailing (on an airline by airline basis):
 - Current fleets
 - Routes & Destinations
 - Estimations of the average number of potential flights or total ascents/descents by airport/per unit time (e.g. day, week)
 - Estimations of potential total numbers of AMDAR observations/year (if available)
- Please provide a description of potential business and costing models, for example:
 - Fee-per observation
 - One-time yearly fee
- Please provide a description of potential costing types (and general cost estimates if available) for any potential AMDAR services, including:
 - potential software development
 - software installation
 - data quality testing
 - communication set-up
 - full fleet roll-out/implementation
 - ongoing service costs
- The AMDAR data would likely be required to be coded to the ARINC 620 standard. Data may also include an encrypted aircraft ID code (which must be unique to that aircraft in all AMDAR reports) in place of the aircraft registration number
- Please also provide a description of any potential contractual arrangements or considerations which may be required for data provisioning. For example, potential indemnification by the Data Service Provider and ECCC for the use and potential distribution of weather data collected and provided by airlines and their aircraft.
- As a contributing member of the WMO, the MSC shares its meteorological data with the international community freely and openly. This includes AMDAR data from its current upper air

program. Any information regarding potential limitations on the dissemination of AMDAR data should also be described within the response.