EAA Chapter 1410

High River, Alberta

December
2022
Newsletter

What's Inside

Vice-President's Message

By Kelvin Downs

Another year is about to be entered into the history books and it turned out that much of 2022 provided some semblance of normalcy compared to the previous couple of years. I know that myself as well as other members of our Chapter are thankful that we have been able to resume our regular meetings, Young Eagle's event, barbeques etc. We now have 2023 to look forward to including new leadership. Doug Eaglesham, our long time President has indicated that he will step down from this position and will not be accepting a nomination or election for another term. We all know and appreciate Doug's tireless efforts when it comes to volunteering and serving within our EAA Chapter and the aviation community in general. This means that we will need someone to take on the position of President and that someone could be you. We will be holding elections for President and Treasurer at our regular meeting on Thursday, December 1, 2022. Please consider putting your name forward or accepting a nomination.

In addition to elections, we will also continue our tradition of a meal and some beverages as well as a couple of videos. If anyone wants to make a short presentation or lead a discussion your efforts would be greatly appreciated.

During last month's meeting we had a good discussion concerning ADS-B in Canada. A summary of that discussion is included in this month's newsletter.

See you Thursday.

ADS-B in Canada

There has been much discussion in Canada and other countries throughout the world concerning the implementation of Automatic Dependent Surveillance - Broadcast (ADS-B). The key component or improvement that ADS-B provides over current transponder technology is that it is “automatic” as opposed to the requirement to assign and set unique squawk codes. Up until the implementation of ADS-B, the use of transponders was only to the benefit of ATC providing them with information on an aircraft's speed, altitude, location etc. in order to manage traffic in controlled airspace.

The new ADS-B technology continues to provide this important function to ATC but more efficiently. The reason that ADS-B has resonated so loudly with the General Aviation (GA) community is for basically two reasons, On the negative side is the substantial cost to equip existing aircraft with the new technology and on the positive side is the increased situational awareness of being able see and be seen by other aircraft within the airspace that you may be flying. Although this is the primary motivation for pilots in the GA community it is not necessarily so for Nav Canada and Transport Canada. In their website where they list the benefits of ADS-B, they do include one line referring to pilot situational awareness but in general its purpose is to improve ATC safety and efficiency.

Here are some of the examples that Nav Canada suggests how ADS-B will improve efficiency.

- *More customer preferred routes, speeds and flight levels*
- *Improved traffic flows in oceanic airspace that reduce limitations around the current Organized Track System (OTS)*
- *Improved operational commonality in technology and procedures to support flexible service delivery*
- *Reduced GHG emissions.*

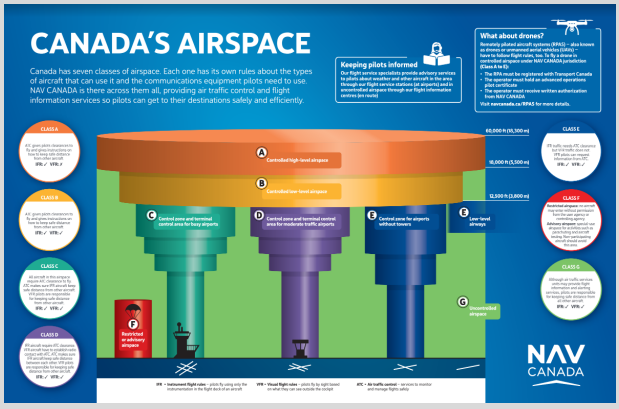
For example, more flights over the North Atlantic are now operating at their requested profile thanks to space-based ADS-B. Flights that are cleared to a more efficient flight level average 470 kg in fuel savings per flight for a three hour duration over the ocean. This translates to a reduction in greenhouse gas (GHG) emissions of 1,480 kg of CO2 equivalent per flight.

Nav Canada in conjunction with Transport Canada have decided to proceed with a phased implementation of a Space based ADS-B at a frequency of 1090Mhz. Canada is currently the only country that will be implementing a 100% satellite system. The UK does use a similar satellite based system for controlling flights in the North Atlantic airspace.

The satellite system is called Aireon providing the first fully global air traffic service (ATS) surveillance system using a space-based ADS-B receiver network hosted on the Iridium NEXT satellite constellation. Each ADS-B payload on the linked network of 66 satellites receives messages from equipped aircraft that include position, speed and heading. These position updates are received by NAV CANADA within two to four seconds of their broadcast by the aircraft transponder.

The current planned phased implementation of ADS-B from the Nav Canada website is as follows:

- *Class A airspace commencing 10 August 2023.*
- *Class B airspace commencing 16 May 2024.*
- *Class C, D and E airspace commencing no earlier than 2026.*



The mandated requirements according to the Nav Canada website will be as follows:

- *Be equipped with an appropriate transponder with ADS-B Out capabilities and performance with the applicable standard of Radio Technical Commission for Aeronautics (RTCA) DO-260B, “Minimum Operational Performance Standards,” or newer.*
- *Have antenna capability for broadcast toward space-based ADS-B receivers emitting 1090 MHz extended squitter. This requirement can be met either through antenna diversity (the use of a top and bottom antenna) or with a single antenna that is capable of transmitting both towards the ground and up towards satellites.*

We have three years, perhaps more before everyone flying in any Controlled Airspace will need to meet the mandated requirements listed above. There are some discussions within Nav Canada that they may implement some Type Restrictions and that they will make further decisions based on assessments and stakeholder engagement. Despite this promise of engagement, I doubt that there will be any wholesale changes considering that Nav Canada have already clearly defined their objectives along with a substantial investment for the implementation.

Perhaps they may consider allowing the sale of alternate ADS-B devices such as the UAvionix SkyEhco for use in uncontrolled Class G airspace. The SkyEhco is currently being sold and used in Europe and would be a good alternative for those wanting situational awareness but never intend to fly in Controlled Airspace. It has a limited transmitting range, is not satellite based and therefore would not meet the mandated requirements for Controlled Airspace.

Since Nav Canada's mandated requirements are somewhat unique in the world, the choices are currently limited for Canadian GA pilots. Hopefully by the time 2026 there will be more inexpensive options available.

I think that most of us agree that ADS-B will provide a great benefit to the GA community with respect to seeing and being seen by other aircraft within the airspace that we are flying.

Below are links to the short presentation that was made at last month's meeting, Nav Canada ADS-B website, and a spreadsheet that was hastily put together from the Aircraft Spruce and AVionix catalogs to indicate current ADS-B options.

ADS-B (Automatic Dependent Surveilla...

NAV CANADA ADS-B Performance Requirements

ADS-B Comparison

Schedule of Upcoming Events

Dec 1	Regular Monthly Meeting - Nominations & Elections Canadian Forces Snowbirds video High River Air Cadet Hangar Time 18:30
Jan 5	Regular Monthly Meeting - Details to follow High River Air Cadet Hangar Time 18:30
Feb 2	Regular Monthly Meeting - Details to follow High River Air Cadet Hangar Time 18:30

Canadian Forces Snowbirds

Overview

The CT-114 Tutor is primarily flown by the Canadian Forces Snowbirds demonstration team at public events throughout North America. The Snowbirds showcase the high level of skill, professionalism, teamwork, discipline and dedication inherent in the Canadian Armed Forces.

The Tutor was the primary jet trainer for the Royal Canadian Air Force until 2000. The Tutors flown by the Snowbirds are slightly modified for show features and enhanced performance during low-level aerobatic flying.

Length	9.75 m
Wingspan	11.12 m
Height	2.84 m
Empty weight	2,409 kg
Maximum standard thrust	1,225 kg
Maximum speed	763 km/h
Range	648 km
Locations	Moose Jaw, Sask. Cold Lake, Alta.
This aircraft is used for	Air demonstration

A short video will be shown at our meeting December 1, 2022

Smile!

- ★ A couple were in a busy shopping centre just before Christmas. The wife suddenly realised her husband was missing and they had a lot to do , so she called him on her cell to find out where he was. He said, "Do you remember that jeweller we went into about 10 years ago and you fell in love with that diamond necklace? I couldn't afford it and said that someday I would get it for you." Little tears started to fall down her cheek and she got all choked up. "Yes, I do remember that shop," she replied. "Well, I'm in the Bar next to it".
- ★ Once you stop believing in Santa Claus, you get underwear for Christmas
- ★ Dear Santa; Define good.

Chapter Classified Ads

For Sale

Luscombe Silvaire, CF-MNS, Model C, Ser. 1501, original date of manufacture - Sept. 1940 (Pre War aircraft) I purchased this aircraft in the summer of 1994 from Dave Hilte, (Airworthiness Inspector for the Yukon). The aircraft had been dismantled and was stored in a garage. I restored it with the services of Rodan Aircraft in Whitehorse, Yukon. At that time. it had logged a total of 1932.4 hours. My late wife (Jean) and I flew it until May of 2002, logging an additional 323 hours, when it was overturned and damaged. I again restored it to flying condition, including repairs to the empennage system, the nose cowling, and engine removal and overhauled to zero hours. As an MD-RA inspector for Transport Canada, I was aware that there was, at that time, the opportunity to have it reclassified as an Amateur-built and I did so. It is now registered as a Dueck, C-FLCD, Mode D5-LC, Serial No. 1501. Its first flight as an Amateurbuilt was on Aug. 5, 2012. It still looks like a Luscombe and still flies like a Luscombe. Today it has flown an additional 36 hours in this classification. The engine (Continental 85), has 50 hours logged, SMOH. It is well equipped, with an electric turn and bank, and an electric Gemini DG. It also has a Becker Com, a Trig Encoding Transponder, a Garmin GPS Map 296 and a 406 ELT. I no longer have a pilot license and although my wife has her own PPL, She doesn't feel comfortable flying a tail-dragger. We have not flown C-FCLD since September 2020. We are currently re-building a Van's RV-7A that will be our preferred aircraft. In my mind, C-FLCD is in the best classification possible. All the benefits of a "Owner Maintenance" while also having all the benefits of the "Amateur-Built" category, allowing flight into the USA. This is a nicely restored 81-year-old vintage aircraft with low time on both its restoration and the engine SMOH. I would like to get $49,000 CAD, but will accept a reasonable offer.
Jack Dueck (debradueck@gmail.com)

Aviation Magazines - Approximately 700

1. EAA Sport Aviation 1969 -
2. Kitplanes
3. RAA
4. Homebuilt Aircraft

All in great condition.
Asking $350 for all.

Contact:
Robert Friedman
ch250calgary@gmail.com

Who we are!

We are an enthusiastic group of like minded individuals from various backgrounds who share a passion for recreational aviation in Southern Alberta and we offer a chance to meet others who combine fun with learning.

Join us for our monthly meetings held the first Thursday of the month at the Cadet Hangar located at the High River Airport

For more information visit our Website

Chapter 1410 High River, Alberta

How to Join Our Chapter

Attend our next meeting. Meetings are held on the first Thursday of the month at the Air Cadet Hangar at the High River Airport. Ask anyone and they will be pleased to help. All the required forms will be made available for you to fill out. You must be a current member of EAA International, you may complete your registration prior to the meeting or someone will assist at the meeting.
For registration forms, contact the Treasurer from the Executive list below.

Members Action List

Newsletter Input
We are always looking for input and content for the Newsletter including any project updates, classifieds etc. It doesn't have to be a long detailed article, a photo and description is often enough. For any ideas or suggestions for Newsletter content please contact: Kelvin Downs downskelvin@gmail.com

Meeting Presenters\Ideas
If anyone is interested in presenting or has a great idea for a meeting topic please contact Doug or Kelvin.

Website Input
For any changes or updates to members profiles or website content please contact: Carl Forman webmaster@eaahighriver.org

Chapter Dues Reminder
Chapter 1410 fees of $40 will be due soon. Please make payments via e-transfer, cheque or cash to Vance Lucas. E-transfers are preferred emailed to vlucas@live.ca.

EAA 1410 2022 Executive		
President	**Doug Eaglesham**	**president@highriver.org**
Vice President	**Kelvin Downs**	**vicepresident@highriver.org**
Treasurer	**Vance Lucas**	**treasurer@highriver.org**
Secretary	**Soren Christiansen**	**secretary@highriver.org**