Black Cat ACARS
Version 1.0.0 April 1, 2019

Black Cat ACARS is an app to decode and display ACARS aircraft messages sent over VHF radio. The emphasis of this app is good reception of even weak signals received under marginal conditions.

Requirements:

Macintosh: macOS 10.9.5 or later.

Windows: Windows 7, 8, 10.

Installation:

Presumably you've gotten this far, and have downloaded and unzipped the .zip file.

If you are running on macOS, move the application anywhere you wish.

If you are running Windows, you can move the entire download directory/folder wherever you wish, but you must keep the Libs and Resources directories with the EXE file, or the app will not run.

First Things First:

Run the program by double clicking on the app's icon. You'll see the main window.

First, select the correct sound input device. This is done via the Sound Input popup menu. Also set the input gain appropriately (note that not all sound input devices let you change the gain).

The Basics:

I'd strong suggest reading the entire documentation below, so you know how to use the app. But here are the basics, to receive ACARS messages.

Make sure you have selected the correct sound input device and set the gain appropriately.

Feed sound into that device from your radio, set the volume of the radio appropriately. The volume indicator should be showing activity, but not pegged to the right.

Tune to an ACARS frequency, using AM mode on your radio. Make sure the radio's squelch is disabled, so you always hear static when there are no transmissions. If your radio has an adjustable AGC setting, you may need to adjust it for best reception (most decodes).

It is entirely normal for only some audible ACARS transmissions to decode, as weak or garbled transmissions cannot be decoded.

There are three settings checkboxes:

Format: selects the display format style

Suppress Parity Errors: won't display transmissions that have detected errors

Graph: displays a moving window graph of the signal level, useful for diagnostics.

Statistics for the number and percent of good and bad packets is displayed. These can be cleared to zero using the Reset button.

Black Cat ACARS has a built in database with model information about many planes. As such information can quickly become out of date, you can add your own plane information. Create a text file called ACARS.TXT (note this must be a plain text file, not an RTF or word processing format file!). This file contains one line of information for each plane. The first 7 characters of each line are the plane registration number, followed by a space. The rest of the line contains the text to be displayed. Leading period(s) are required to force the registration number to be seven characters long.

When a packet is decoded, the plane registration number is compared to the registration numbers of the planes in the ACARS.TXT file. If a match is found, the text from that line of the file is displayed after the timestamp. You may use this file to display text or comments about each aircraft. Any entries in this file supersede those from the built in database.

An example of the file format follows below:

```
.N814US This is plane number 1
.N320US This is plane number 2
.NIM5AA This is plane number 3
.N781NC This is plane number 4
.N609AA This is plane number 5
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