Tutorial for downloading and analyzing flight occurrence data from the <u>Civil Aviation Daily Occurrence Reporting System</u> (CADORS)

When two passengers' unruly behaviour forced a Cuba-bound charter flight to land pre-maturely, the incident drew <u>international headlines</u>. While the initial stories were interesting and somewhat salacious, the follow-up stories shed more light on a kind of behaviour that is surprisingly common. What's more, a Transport Canada database of aircraft "occurrences" keeps track of it all. CADORS, the acronym for the Civil Aviation Daily Occurrence Reporting System, contains a trove of information that can be mined for follow-up stories like Arik Ligeti's August 31 <u>piece</u> on the problems that unruly passengers have caused airlines over the years, especially WestJet. In his story's lead, Arik informs us that the two women on that Sunwing flight to Cuba "are among hundreds of Canadians who have caused trouble in the skies in the past decade."

So how did Arik come up with the number "hundreds"? And how can journalists use CADORS to find original stories or follow-ups to the incidents involving aircraft (planes, helicopters, hot air balloons, etc.) that inevitably make news week in and week out? This tutorial is designed to answer that question.

Let's get started!!

1) Go to CADORS main page. Before dealing with any database, it's important to understand what it can tell you and what it can't. Think of a database like a source and the way we assess his or her usefulness before conducting the interview. Just like that source, we must interview the database by studying its contents: columns with numbers that could be dates, times of day, aircraft model numbers; description of the phase of flight the incident occurred; the airline involved; the aerodrome or airport. This information is usually contained in a readme file, or in this case the CADORS:Help file, which explains that the fields (or columns in the tables) are "grouped together by occurrence information, aircraft information, event

information, and detail information", as you can see in this screenshot.

QUERY PAGE

If the <u>CADORS</u> Query link is selected, the user will be brought to the CADORS Query page. The fields that are available for querying are grouped by occurrence information, aircraft information, event information, and detail information.

Occurrence Information

The following fields may be queried upon:

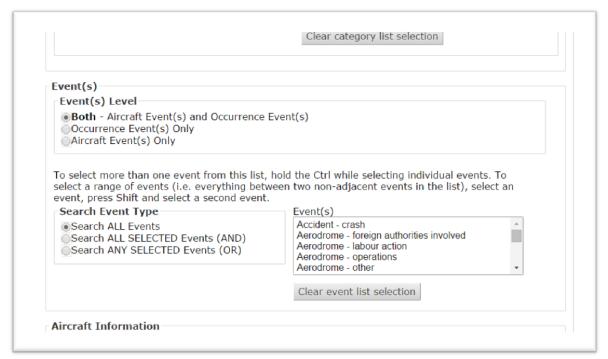
Field Name	Definition	Value / Format	Data Rule / Functionality	Comments
<u>CADORS</u> Number	Identifier used to uniquely identify each report of an occurrence.	YYYYANNNN	Assigned by the system using the following logic:	The user may enter a <u>CADORS</u> number to search for a particular record.
			-The first 4 digits represent the current year.	
			-The next character represents the region from which the report originated	
			(Atlantic, Quebec, Ontario, Prairie & Northern C, Pacific,	

- 2) In addition to explaining the information contained in each column, this help page walks you through the process of downloading the table, and saving it to your hard drive. We'll repeat those steps, and then go a little further by pulling the tables into Excel.
- 3) Now let's return to the main menu.
- 4) Click on the "Query", the link at the top of the list.
- 5) This will bring you to the Query page. There are many ways you can slice and dice this information by selecting a date range, specifying the number of injuries, the province or region, aircraft category.
- 6) You can even plug certain key words such as "alcohol" "drunk" or "drinking" into the narrative field, which is what Arik did for his story. There

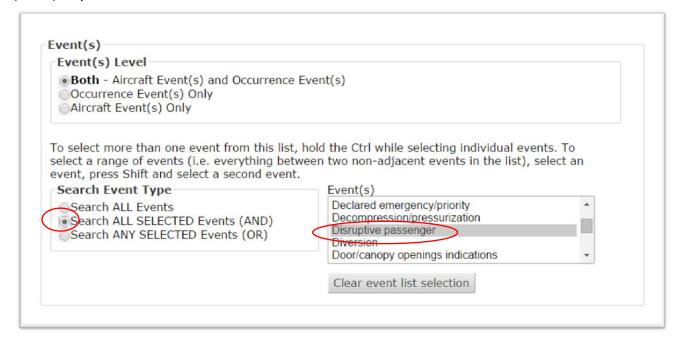
are many possibilities.



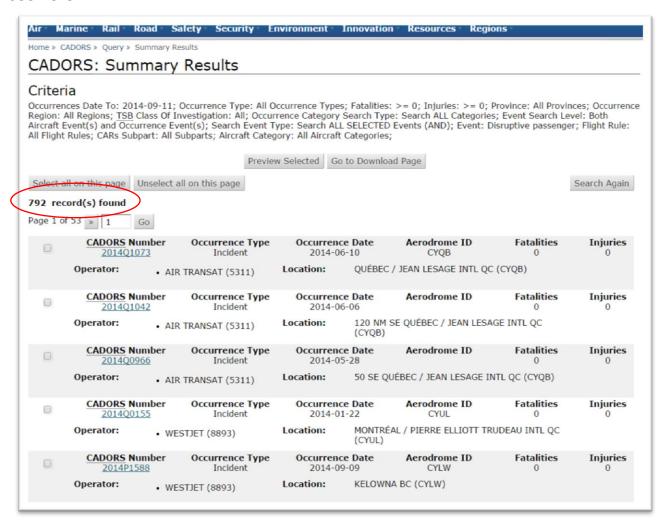
7) For the purposes of this tutorial, and as a follow up to an incident involving unruly passengers, let's scroll down to the "Event(s)" section of the query.



8) Select "Disruptive passenger" from the Event(s) drop-down menu, and then check the radio button to the left of the Search "ALL SELECTED EVENTS (AND)" option as in the screen shot blow

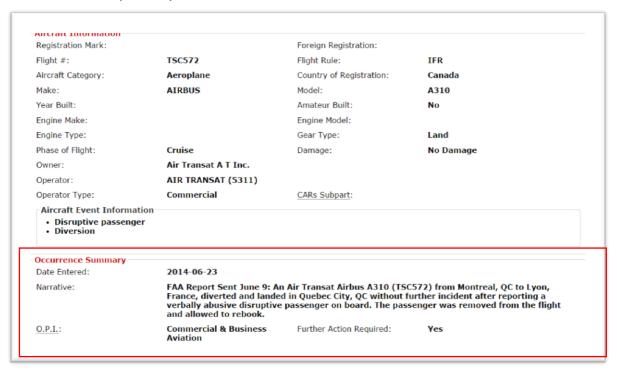


9) Scroll to the bottom and select the "Search" tab to produce the result you see here.



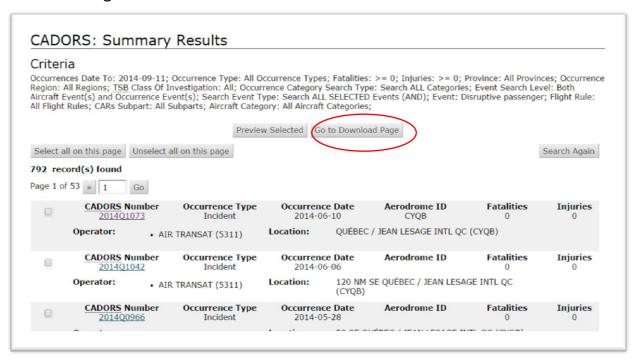
10) The key number is 792. That is, there were 792 occasions when Transport Canada recorded occurrences in which passengers' became so disruptive -- in many cases aided and abetted by stimulants -- that they had to be reported, many times to the police. To find out what happened in each case, click on the CADORS Number, which provides all the

information, especially the details in the narrative.



- 11) In this case the passenger was "removed" (I'm sure you could find a better verb!!) and allowed to get on another one.
- 12) Ploughing through each case is too time-consuming. Especially when the alternative is much more appealing: downloading the entire table that you've selected from the CADORS database.

13) Return to your "Summary Results" page, and select the "Go to Download Page" tab.

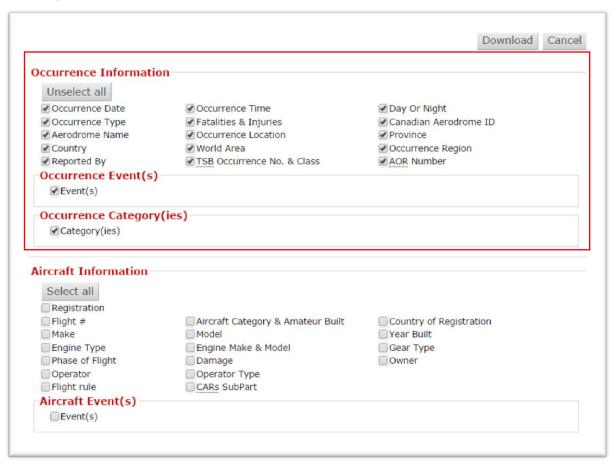


14) The Download page contains all the columns, or fields, for each table and the option to select which ones you want.

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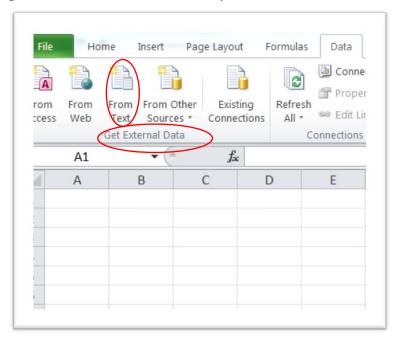
15) Select ALL the fields in the Occurrence Information Table, which also includes Occurrence Event(s) and Occurrence Category(ies) (the type of

aircraft)



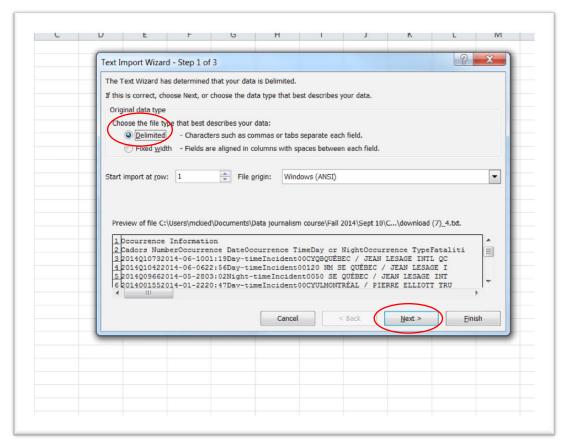
- 16) Download the result, which produces a text file with the generic title "download.txt"
- 17) Move the text file from your download folder into the one you've created for this tutorial, and give it a label that describes its contents more accurately ("Occurrence Information").
- 18) Open an Excel workbook. A word of caution, since this tutorial was produced on a Dell computer, my Excel screenshots will differ slightly.

19) Once in Excel, go to the "Data" section on your menu and select the

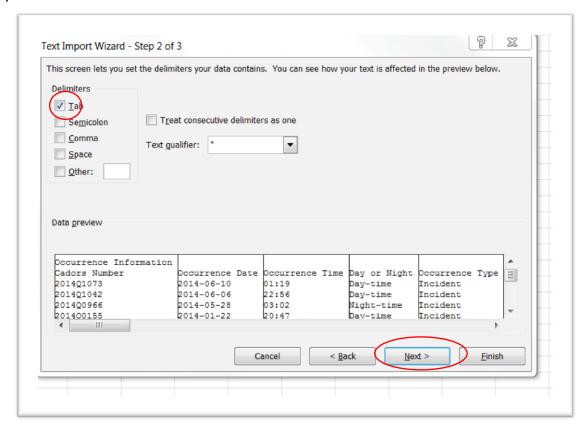


"From Text" option.

20) Browse for the text file that you've just renamed. The first step of the import produces a "Text Import Wizard".

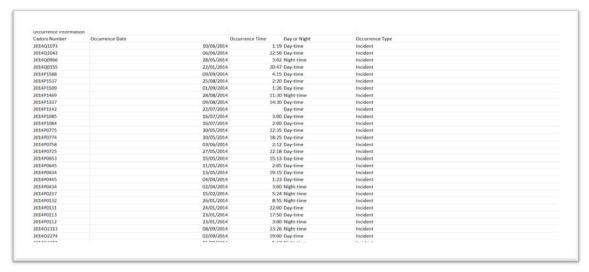


- 21) The Import Wizard defaults to the "Delimited" option. (NOTE: for more information on delimiters, consult our textbook, Computer-Assisted Reporting, beginning on page 44).
- 22) Select the "Next" tab.

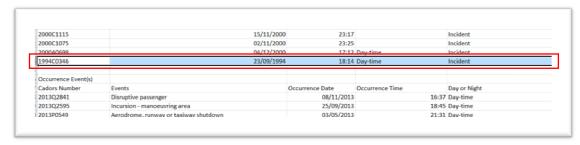


23) The delimiter for this text file is a tab. Select the "Next", and then the "Finish" tabs.

Once you get the "Import Data" dialog box, select the "OK" tab.



- 25) Label the worksheet, "Original".
- 26) What you have is two separate tables, one with all the fields from "Occurrence Information", the first table is from the CADORS query. There are two more tables below this one that are merely expanded versions, but with the additional fields, "Events" and "Categories". For the purposes of this tutorial, let's with the first table, which ends at row 794

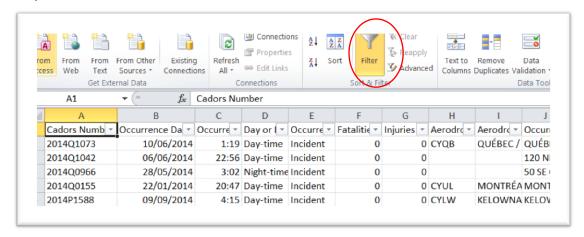


27) Use your vertical scroll bar to navigate back to the top, and use your keyboard's shortcut keys to highlight and copy the table (A2:S794)

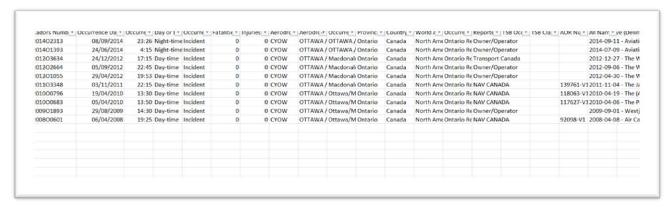


- 28) You'll notice that we excluded the first row, which is not necessary because we already know that name of the table, which we'll use as the label for our new worksheet.
- 29) Insert a new worksheet (Excel has an annoying habit of inserting new elements to the left. You can use your cursor to drag the new worksheet to the right-hand side.).
- 30) Paste the table into the new worksheet, which you will label "OccurInfoWorkingCopy" (databases don't like titles with spaces, which is why the words in our new worksheet title are jumbled together. There is also a word limit, which is why I have truncated my title).
- This is where we begin the process of "interviewing" the data, just like we would a human source. Begin by taking note of all the columns and the kind of information they contain. It may help to write the column names on a sheet of paper, along with a brief description of the contents. This will help when determining how to "filter" the data to produce certain results.

32) And speaking of filters, activate the filter, which should be a funnel on your menu bar.



- 33) Filtering, which is the textbook introduces on pages 58-63, is one of the easiest ways to begin interviewing the data.
- 34) Given that we live in Ottawa, let's filter column I, Aerodrome, or airport, name.
- 35) De-select all the categories and select, "Ottawa/Macdonald-Cartier Intl ON)(CYOW).



- 36) Sort column B, "Occurrence Date", in descending order to obtain the most recent event.
- 37) Scroll to column S, the "All Narrative" field, to find out what happened. You can re-resize the menu bar to read the entire description.



- 38) The narrative reads: "2014-09-11 Aviation Incident Report#13631: A WestJet Boeing 737-700 (WJA370) from Toronto, ON (CYYZ) to Ottawa, ON (CYOW) experienced a passenger related incident. The flight crew requested Police meet the aircraft in CYOW for an unruly passenger. Police met the flight and the passenger was released without further incident."
- 39) From sorting the dates in descending order, we can see that this was the second "disruptive passenger" incident to occur at the Ottawa airport in 2014.
- 40) No doubt this is a story that you can pitch, especially if you peg it to the day that the disruptive passengers from the initial headline-grabbing story are set to appear in court.
- 41) In the follow-up tutorial, we'll learn how to use a pivot table to conduct more sophisticated analysis.