

Step Action Checklist for Search Manager Program by 4D

Thanks to a former student, Richard Judd and a company called 4D, we have replaced the previous used excel based air and ground spreadsheets with a more stable database software. Below are the instructions for downloading and using this new database. Problems, questions and critiques of the new software should be directed to the National SAR School, attn: Air Force Inland SAR.

- Download Zip file using the following procedures:
 - USING A BROWSER:
<https://ftp.secure.intertech-usa.com/thinclient>
Username: **afrcc** OR afrcc#ftp.secure.intertech-usa.com
Password: **17bottle^8Large**
 - There should be only one file available for download. Currently it is: SearchManager_v103f24.zip. This is subject to change, the file available for download will be the most current.
 - Save this file to an appropriate location on your disk.
 - We suggest you create a folder to save it to, prior to downloading it.
 - Double-click on the Zip file to unzip and install the program (may have to click on setup).
 - You can install the program to the same folder you had previously created.
 - When prompted for a password, the password is **AFRCC_UPDATE** (all CAPS) the **first time** you are asked for a password; this occurs after a series of next and accepting the agreement. The **second time** you are asked for a password, use **AFRCC** (all CAPS).
 - Once the program installs, it is now ready for use.
 - A shortcut will be added to your desktop and your start menu.
 - To use the program, double-click the Search Manager shortcut.
 - **The open screen appears asking for a filename...click on “new”**
 - The create a data file screen appears...click on “save” (you are creating and saving a new data file in the 4D database.
 - Read the disclaimer and select the button which reads “I understand that this program is a learning tool”.
 - The program will appear with a small text box that gives two options “Air Search” or “Ground Search”
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AIR SEARCH:

- Select the Air Search button in the text box for Air or Ground Search.
- A screen will appear for an air search planning tool.
- If you are beginning a new search, select the “Add Record” button. This button will be the far left button on the toolbar. If you hover your cursor over the button, the text “Add Record” will appear.
- If you desire to open an existing search planning tool, select the “Show All Records” button, this button will be the third from the left. Again, if you hover over the button, the words “Show All Records” will appear.
 - If you are opening an existing search, just double-click on that search and the pages will open up for you.
- For a New Search: (****Note: Only make inputs into the white cells on the worksheets.**)
- First you will need to complete the Set-Up Tab.
 - Input date, time and location in the top of the tab. (*If you do not complete this information, the program will not allow you to save the search data.*)
 - Select the type of flight plan for the statistics: All, VFR, IFR. (*Use all unless certain the aircraft was on a specific flight plan.*)
 - Next, complete the Regions Tab.
 - Select the “Add Regions” icon. It should be a page with a “plus” on it.
 - Fill in the appropriate information such as flight length, and sweep width for each region. (The search length box will populate with the data to include the 10 miles before, after or both, to the flight length. Depends on whether you are searching the entire length, or a portion with each segment)
 - Sweep width can be automatically calculated by clicking on the ESW calculation button. It then can be pasted into each region if have more than one region on the calculation page. The calculation page has the various tables depending on the type of search you are doing. To calculate the ESW click on the appropriate information (self-explanatory). To paste it into the region you want, you must select the region then you must click “copy to changes search” button.
 - Once you have completed the inputs for each region, select the “Add New Search” button to the right.

- A Search #1 Tab will appear next to the Set-Up Tab.
 - The first input you will want to make is the number of SRU/Segments for each Region. This will create the equal number of columns in the “Effort and Search” box on the page.
 - Enter the appropriate information in the Effort box.
 - For the Endurances, you will enter the total hours for each. *The program will calculate each time by the .85 Correction Factor for turns and re-positioning on each search leg.*
 - The last line in this box is the number of tracks that will be needed to complete the search for that segment. This number will need to be input into the Region box at the top. If you need to determine to round up or down right click in the column and pick the appropriate question (What if I round up? What if I round down?) A window will appear to show you in nautical miles and minutes what the difference would be).
 - The resource ID (i.e. tail number) may be inputted as well. To use this click the right mouse button while on a cell in the grid (effort and search box...NOT the line that says “search resource ID) . Then select the option that says enter the search resource. After you do this, the resource is added to the footer.
 - Once this is done, the POC comparison data will be complete in the “POC Comparisons” box at the bottom.
 - You will need to select an offset for this search. Simply select the Offset column you prefer and it will be highlighted “red”.
 - At the bottom of the search page, the POS for that selected search will appear.
 - You will also see that information in the “Search POS” Tab to the right. As you add searches, the POS’s will cumulate, as long as you do not change the search area parameters.
 - **REMEMBER:** *If you change the parameters, you will need to complete a new worksheet.*
 - If you can only search a portion of the route or segment, you can select the “POC Worksheet” button and a segment POC worksheet will appear. Fill in the appropriate information, select the “Set Segment POC” button, then “Done” and that POC for that segment will show up in the “POC Comparison” box for the offset selected.
 - New “Searches” can be added by selecting the “Add New Search” button on the right.
 - If a mistake is made on the search, you can delete that search without deleting the set up information.
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GROUND SEARCH:

- Select the “Ground Search” Button from the initial Search Manager Screen
- If you are beginning a new search select “Add Record” button.
- If you are opening an existing search, select the “Show All Records” button.
- New Search:
 - Fill in date, time and location. (*Again, you will not be able to save the data unless this information is completed.*)
 - Complete the Region Data Tab.
 - Select the Add Record Icon to make region inputs.
 - Fill in number of segments for each region (area will automatically be calculated when get the area for the segments)
 - *POC will populate once a consensus has been completed*
 - Each time you want to add a region, you will need to select the Add Record icon.
 - Once the number of regions is selected, you will need to complete the “Consensus” Tab. (You can input the number of segments at a different time)
 - Select “Add Record” icon to make individual inputs into “Consensus” Tab.
 - Once consensus is complete, note POC data is populated in the “Region” tab.
 - Next, If you have not inputted the number of segments in the region data, input that number for each region then complete the Segments” tab for each segment.
 - Input length and baseline entries FIRST. ****NOTE: The program will calculate the area of the segment. If your segments are extremely irregular, it is probably best to manually measure the area of the segment and then manually input that data in the area cell. However, the base and length entries MUST BE MADE PRIOR to the manual entries because of the calculate function.**
 - Enter the Sweep Width and Sped into the appropriate cells. Time to Search and Team Tracks will be calculated by the program. However, if for operational reasons you desire a different time OR more than one track, you can do input the desired time OR desired tracks.
 - Next, select the “Add New Search” button.
 - This will bring up an “Effort Allocation” Tab.
 - Input the number of searchers and search period information at the top of the tab.
 - All the information from the set-up page should have migrated to this Effort tab.
 - Input the number of searchers for each segment (Line 11)
 - ***You can play with searcher allocation till you feel you have maximized POS for that search.***
 - ***Or you can clear the number of searchers from Line 11 and select the “Optimize Search” button to the right.***
 - ***The program will optimize the searcher allocation using the existing data for that search.***

- Note: The Search POS to the right will be populated with the POS from each search and the cumulative POS's from all searches.
- To add a second search and “run the numbers” again, simply select “Add New Search” and perform the previous steps again.
- Complete these steps as many times as needed or until the search area parameters change. At that point you will need to complete a new worksheet.
- Two new functions in the ground search allow this program to have “one stop shopping” capabilities.
 - On the tool bar select “Tools”.
 - Select the option “Worksheets”
 - The Worksheets provides three tabs> First tab is a description of Hill’s study of lost person behavior, the second tab is a table developed by hill that shows how far persons have traveled. The third tab contains a calculation page.
 - The calculation page uses $A=vtstn$ formula. It is useful to help determine number of searchers needed given an area, speed, time and spacing. Or it can be used to determine the spacing required given area, speed, time, and number of searchers. Additionally, there is a calculation for the area if using the circle method.
 - The other option that is available is “system documents”
 - If you open this – a window will appear with available documents on the left side of the form. To view a document, click (single click) on the document name and the document should appear on the right side of the window. There’s a bit of a time lag as the window opens and it uses Internet Explorer or Firefox to view the document. This form uses the browser to display the document and the valid document types are pdf, jpg, and gif. You can also use it like a normal browser. The documents that are available are placed into a new folder in the installation called “Documents”. To make additional documents available to the user, all you have to do is place the document in this folder and it should show in the list the next time the form is opened. Examples of documents include: ICS/NIMS forms, lost person questionnaire, local lost person statistics, etc.
- **SAVING YOUR DATA**
 - Once you have completed all inputs in your search worksheets, remember to save your data.
 - This can be done by simply selecting the “disk” icon on the top toolbar (the one with the green able is save and remain while the other is save and leave). The file will be named the same as the information you input into the “Location” information for that search, whether air or ground.

- Congratulations, you have successfully completed an air or ground search!

If you have any questions, or need any assistance, please feel free to contact the USAF Element of the National SAR School by either, phone or email. Contact information is provided on our website at <http://www.uscg.mil/tcyorktown/ops/sar/inland/default.asp>

Good luck, good searching. Please, if you use this tool and find it to be of benefit, please contact us so we can pass it on to the developers of this program and the SAR community as a whole. Our desire is to find the objective fast, save money and most importantly, save lives. We thank you for your support to the SAR Community.