in with. If you want to change this name, you can do so. Record the name of the file you have created in the space provided:

FILE NAME_____.

Having saved the data in a file, letís now analyze it.

5. First **close** the receivers by **clicking on the x** in the upper right corner of the main receiver window.

6. Under the **File** menu on the main control screen, **choose Run...Data Analysis**. If you have not turned off the program, a window should appear showing you the general information on the data file you just created (otherwise, it will ask you to use the **Files..load** menu to choose from a menu of data files by name.)

7. **Click on the file containing the data you want to analyze**. When you are sure you have the right file loaded for analysis, you will see a measuring window with the three traces labeled. This is similar your three receivers, but it displays the stored data you just received.
   - ï You can set down measuring lines, and scroll back and forth in the display at your leisure.
   - ï Experiment with using the horizontal pan buttons, which move the traces right and left.
   - ï Experiment with the zoom in and zoom out buttons, which magnify the scale of the traces.

8. Now letís measure the times of arrival of a pulse at the three different frequencies you recorded. **Zoom in until you can see about two pulses across the screen**. This high magnification will let you measure the pulse arrival times more readily. Pan the screen so that there is a pulse at 400 MHz in the right half of the top screen.
You should see the same pulse arriving earlier (to the left, at an earlier time) at the 600 MHz frequency, and still earlier (even further to the left) at the 800 MHz frequency.

9. Now letís measure. **Holding down the *left hand* mouse button** while youíre moving the mouse in a measuring window will move a vertical line back and forth across the screen. **Set one line in the middle of the 400 MHz pulse.** You can read the time of arrival in the blue window to the right of the measuring window. **Set measuring lines similarly in the 600 MHz and 800 MHz windows.**

10. Record the times of arrival of the pulse at the three frequencies T_{400}, T_{600} and T_{800} on the table below.

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T_{400}_____

T_{600}_____

T_{800}_____

11. Now, using the dispersion formula for radio waves described above, use the *difference* in arrival times at two different frequencies to calculate the distance to the pulsar. (Since there are three different pairs of frequencies, you can calculate this three ways, just to check youíre doing it right.

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