To conclude section 9, we will do a short exercise using the aircraft data. Recall that in most of the sections here, in fact all of the sections, we used the aircraft data from 914 m above ground, but we used the second pass, that occurred around 0300 on the 26th. All the examples were for that case. What we're going to do in the exercise is redo the simulation, but we're going to redo it for the pass that occurred around 0100.

Now you probably recall that to use these data, these flight data, we had had to edit this file, so that all the samples for this pass started 0300. Well the same thing needs to be done with these data, but in this case we would have to have a starting time of 0100, it’s provided for you already, so you do not have to do this editing yourself. So this is the exact same file but the starting times have been set to the same time. So the exercise is to go ahead and do the simulation but use the measured data at this other time and let's compare the results between that first flight and the one later at 0300.

So I'm going to pause, or you should pause the video I should say, and then when you've completed the simulation, go ahead and start it up again.

Now that you're ready to see if you got the right answer, let's go ahead and go to the graphical user interface and you should probably do a reset if you're coming from having done many other different simulations. Otherwise, but in any case, you should then probably retrieve the CONTROL file from the base case, optimized case that we

had done, and you should do the same thing for the name list file.

And to do the simulation is actually pretty easy, let's go to the grids menu and we can just have the output start at 0100 to get a one hour average sample, and we don't need to run for 11 hours, we can just run for nine hours, and then run model, and display the results.

Make sure that the 1000 m level is selected, you have the multiplier for picograms, and we are setting the contours, forcing the contours, and we are going to plot the file data_case0.txt, which is the edited file for this first flight. And if you made all those changes, you should see this result, and the plume appears to be, the model plume appears to be lined up with the measurements, in the sense, but the peak of the measurements is on the eastern edge of the calculated plume, which is interesting. It tells us something, because we know that two hours later, if we go to the original example, the plume is even further to the west.

Now this perhaps appears a little contradictory that you know, it almost, you would think that the plume direction is lined up with the elongated axis, but this is not the case, and you can prove that by actually going back and re-running the model, maybe 12 hours this time, and let's start earlier, maybe at midnight, so we can watch the hourly progression. And display the results. And this is at hour zero. Now watch what happens when we go to hour one, this is where we have the measurements, and it

shifted slightly to the west, and it shifts to the west again, at 0300 it shifts to the west again, so that this elongation is not actually the direction of motion. The direction of motion was west to east. This elongation is the result of the wind direction that occurred during the three hours that the tracer was released.

So that concludes the exercise for section 9