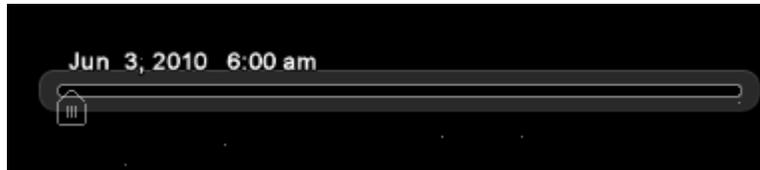


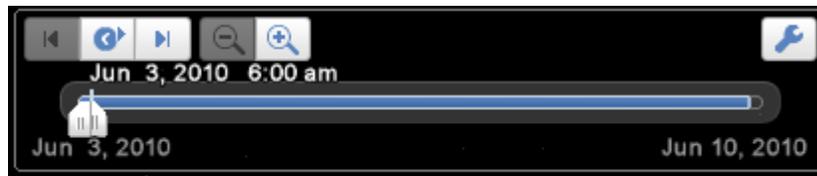
**A Primer on How to Use the Google Earth Animation Controls
to Display GFS Forecast Animations at
http://ahlquist.met.fsu.edu/research/ensproducts_beta.html**

Version: 3:00 pm, 3 June 2010

Section 1 – The Animation Toolbar



The picture above shows the toolbar for controlling animations in Google Earth. By default, it is found in the upper left corner of the Google Earth screen. You'll notice that it is quite barren, but putting the cursor over the bar will present more features, shown below:



Here is an explanation of the tools in this window.

 This button starts and stops the animation.

 These buttons decrease/increase the resolution of the time scale. Increasing the resolution (that is, clicking on the  option) will cause the animation to advance in shorter time increments (down to 1 second). The coarsest resolution (3 hours for our images) is preferred for our products, so click the  option until it is blacked out, as in the screen capture above.

 These buttons move the animation backward/forward one time step, where the length of the time step is set in the preceding paragraph. With 3 hours as the time step, it will take 2 clicks to change to our preceding or following image because the increment between our images is 6 hours.



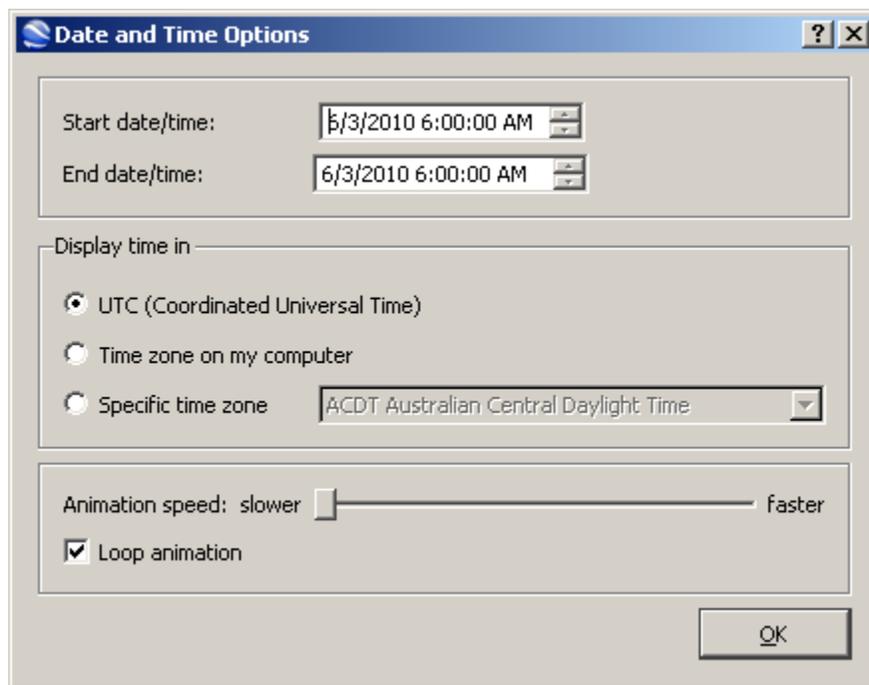
This is the animation bar itself. The presence of << at the left end or >> at the right end of the blue bar, as in the screen capture above, means that extra images exist at times before or after those represented at the ends of the blue bar.



These sliders appear on the animation bar. In all the examples above, they are together, but they can be separated. The space between the sliders determines how many images are displayed simultaneously. Separating the two farther apart will cause more images to be displayed at once. The slider on the right indicates the time of the current image in the animation. See Appendix A for a visual example of this.



This button brings up the “Date and Time Options” window, shown below.

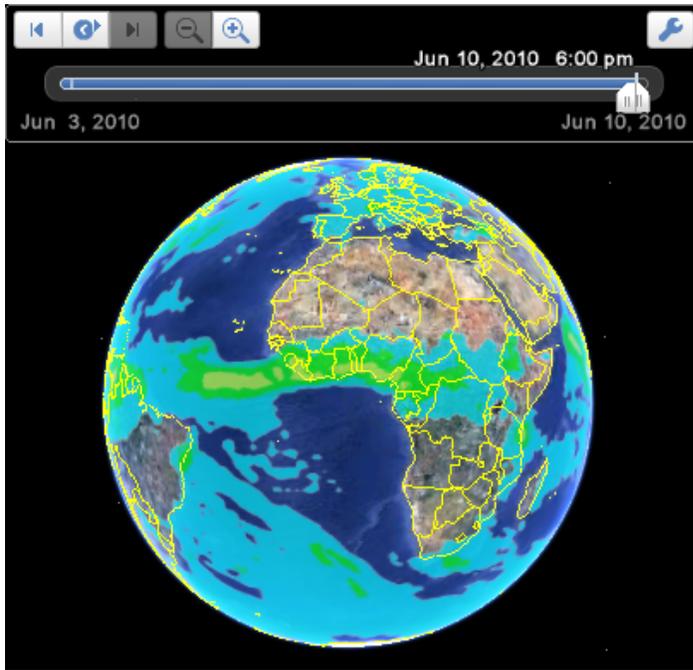


For our products, you will not have to adjust the start or end date/time. The default time display option for Google Earth is the time zone on your computer. For the NCEP ensemble forecasts, we recommend using UTC, i.e., GMT. Choose an animation speed that is comfortable for you. Try the middle as a starting point. Lastly, choose whether or not you want the animation to loop, i.e., repeat when it reaches the end of the animation.

Section 2 – Tips and Tricks for a Smooth Operating Experience

One of the limitations of Google Earth is how it loads images. Rather than loading all of the images on startup, it loads them as it encounters them. On less-powerful systems, this is fine, as the program will “choke” on each image step, which will give the program time to load each image. However, on more powerful systems the program will not choke and will continuously cycle through the animation without loading a single image. One way around this is to move the right slider to the right end of the time bar and to move the left slider to the left end of the time bar (see image B in Appendix A). This will force the program to load all the images at once. Note that each image is 3200x2400, roughly 300 kb in size and there are 30 of them. This will cause the program to slow down to the point of being temporarily unusable. In time, the program will catch up and then you can drag the right slider back to its original position the left end. Then click the “start animation” button described at the beginning of this document. Attempt this method only if your computer has a multi-core processor; a system with a single core processor may freeze.

Appendix A – Visual Example of how the Sliders Work



A: In this image, we can see that the two sliders are joined together so that only the forecast image for Jun 10, 2010 6:00 pm is displayed.

B: In this image, the sliders are separated. All the forecast images for Jun 3, 2010 through Jun 10, 2010 6:00 pm are displayed simultaneously.

