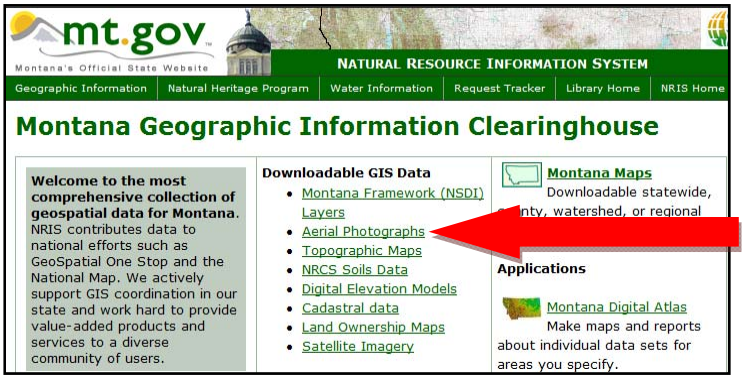
NRIS Data into ArcMap

Aerial photos are often used as background layers in ArcMap. The high resolution imagery provides superior detail for all areas of Montana. These aerial photos are saved in a MrSID format because they are very large and they must be saved in a compressed format in order to make them more manageable as we move them across the Internet. There are only certain programs that are able to open the MrSID format, ArcMap is one of them.

Navigating NRIS, Montana's Natural Resource Information System (NRIS)

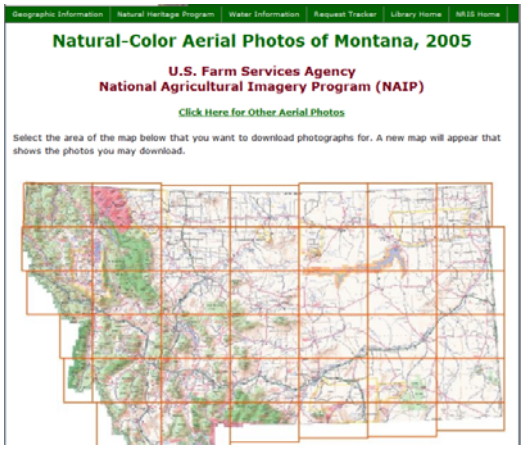
In your web browser, type in the following address: http://nris.state.mt.us/gis/

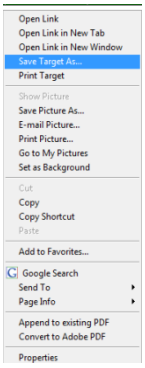
NRIS serves as Montana's Geographic Information Clearinghouse. This site contains several different types of GIS data that can be downloaded into ArcMap. Notice the number of choices you have for browsing geographic data. For the purposes of this activity we will focus on aerial photographs section of the NRIS site.



On the Montana Geographic Information System page, click on the "Aerial Photographs" link under the Downloadable GIS Data section and you will be taken to a new page.

Notice there are several links to choose from. For this exercise, we will be selecting the State Color Photographs, 2005. A page similar to the figure below appears with several squares across the state. Find the square that covers the area of the aerial photo you are trying to retrieve and click on it. A new page opens with a close-up view of the area. Notice each of the squares covers a smaller area and has a number associated with it. This is where it gets tricky! Using the geographic landmarks, cities, and roads locate the section you want to download and right click on it. A pop-up window appears, select "Save Target As" from the menu, and select a location to save the file and click "OK". The aerial photo should now be saved to your hard drive.

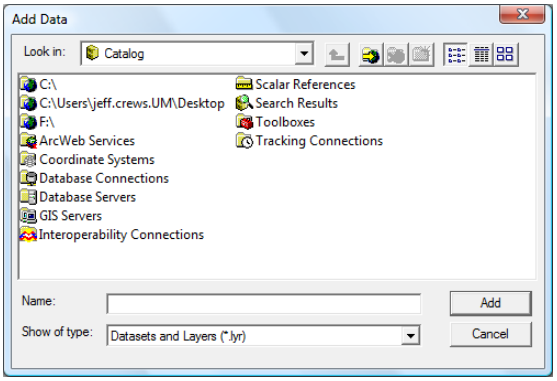




Downloading the Aux File

In order for the imagery to properly display in ArcMap we also need to download the accompanying "aux" file. This file provides a spatial reference so ArcMap knows how and where to place the image. Without this file the image would not be placed correctly into ArcMap and an accompanying error message would result. In the same window you downloaded the aerial photo, scroll down below the map and look for the paragraph that addresses the use of these images in ArcMap. Click on the link titled, "Click Here" and a new window appears asking where you want to save the file. Select the folder that has the aerial photo (these this file needs to be in the same folder as the aerial photo) and click save. This file contains "aux" files for the entire state so you will only have to download it once. It is a "zip" file so you will need to unzip the file once it has saved to your computer.

To unzip the file, navigate to the folder where the zipped file is stored, right click on the file scroll down to Winzip and select "Extract to here" from the menu. You will see the zip file uncompress and place all of the "aux" files into the selected folder.

Bringing Aerial Data into ArcMap

You are now ready to bring the aerial photo into ArcMap. Simply open a new or existing project click on the "Add Data" icon and a new window opens. Navigate to the folder with the aerial photo and click on data file to select it and then click "Add". Your aerial photo should now appear in your ArcMap data view.