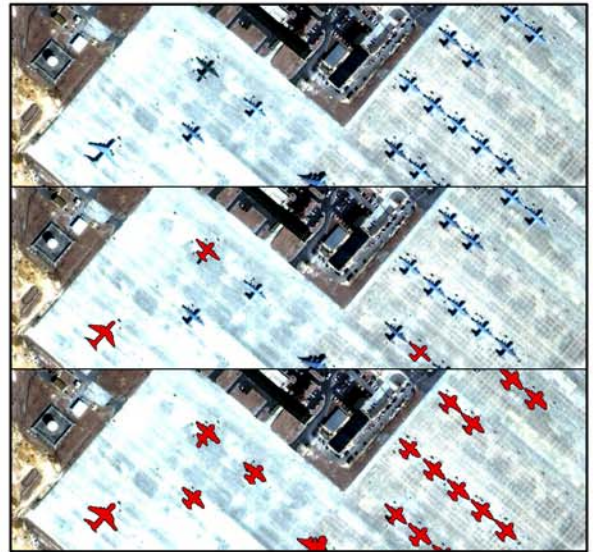


# Creating a Training Set

Feature Analyst® learns from a small and simple set of training examples (i.e. sample features hand-digitized by the user) and classifies the remainder of the image. When extracting features of interest, the GIS analyst draws representative samples that identify the important aspects of the object: color, orientation, surroundings, etc. Drawing training polygons that clearly identify the feature of interest will return clean results with a minimum of clean up required.

In the example below, the three circled airplanes illustrate a good sample set that represents the variety in the airplane color, brightness, contrast, size, shape, background, etc. Feature Analyst takes all of these aspects into account when searching for similar features.



Capture the variety. Select representative samples throughout the image to give Feature Analyst a variety of examples to learn from. In the example, the selected airplanes are scattered about the image and they represent the range in color, size shape, etc.



Neatly trace the border. As shown in the example at left, good training polygons extend to the edge of the airplane, but not past. This trains Feature Analyst to extract pixels right up to the outline of your features of interest. Zoom in on the image to better analyze the feature you are extracting.



After drawing your training set, use the Feature Analyst Set Up Learning tool to define the type of feature you are looking for.

In the Feature Selector category, choose Manmade Feature (>5 m). In Advanced Learning Settings, under the Learning Options tab, set the aggregate areas to a minimum area of 200 pixels.

