Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class\_\_\_\_\_\_\_\_\_\_\_\_

**Independent Work: Contrails**

**Weather Factors**

**Contrails**

Airplanes and jets release a lot of water vapor in the exhaust from their

engines. When aircraft fly at high altitudes where temperatures are low, the

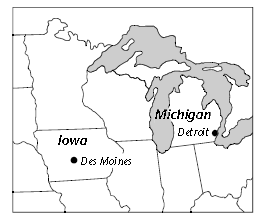
water vapor condenses immediately into water droplets. These droplets

form a cloud that trails behind the plane. This cloud is called a contrail, or

condensation trail. When large numbers of contrails occur in an area, they

may blend together to form a sheet of cirrus clouds, although the contrails

evaporate quickly if the air is dry.



One area in which large numbers of contrails appear is the 860-kilometer

stretch between Detroit, Michigan, and Des Moines, Iowa. Every day, some

700 jet planes fly through the area between these two cities.

***TYPE*** *the answers to the following questions on a separate sheet of paper.*

**1.** What can you infer about the height at which jet airplanes fly based on

the fact that their contrails form cirrus clouds? Explain.

**2.** Weather scientists believe that jet contrails between cities such as Detroit,

Michigan, and Des Moines, Iowa, may be changing the weather in these

areas. Explain how contrails could change the weather.

**3.** When a plane flies through a cloud, it sometimes leaves a clear trail called

a distrail, or dissipation trail. Why do you think distrails form? (*Hint:*

Plane engines get very hot and heat the air they fly through.)