



## ■ The Airline case

In 1980, some Eastern Airlines flight attendants aboard a new type of airplane (A 320) began to develop a red rash that lasted for about 24 hours. The rash was limited to the attendants' arms, faces and hands. Furthermore, it only appeared on routes that traveled over large bodies of water. In addition, only some – not all—attendants were affected on any given flight, but the same number of attendants contracted the rash on every flight.

When those flight attendants who had contracted the rash recovered and then flew on other older planes (737) over the same water routes, no rashes appeared.

The attendants became anxious about this mysterious illness, and numerous physicians were asked to determine the cause for the problem – to no avail. In addition, industrial hygienists examined the airplane cabins, but again nothing was found to be amiss.

What would be your approach to solve this problem? What are the causes?

### Hints:

- a) Don't try to define the problem in the traditional manner.
- b) Carefully do through the description of the problem.
- c) Collect or collate the hints that lie within the description
- d) Stitch the hints together by logical reasoning
- e) Come to the solutions.

### Notes:

It represents a real life problem. And like most real life problem it does not have much data to work upon. The trick that is needed is to visualize the events and the problems. However, experience with airline travel is a must. This is because observation is the fundamental component of problem solving in real life.

**Source:** The problem has been taken from: **Engineering by Design** by Gerard Volland, Addison-Wesley, 1999