**1. Discuss the importance of redundancy to such safety-critical systems as the Airbus A380’s cabin.**

**Ans:** The importance of redundancy to such safety-critical systems is to reduce the superjumbo A380’s weight. Airbus decided to install four outflow valves-each operated by only motor, and each motor driven by TTTech controller chip.

Mangan says he discovered that these chips were executing unpredictable commands when fed certain data. If one chips fails, he contends, all four will fail. He say if the four valves failed it would cause the 555-seat jetliner to crash.

**2. If TTTech were located in Kansas City rather than Vienna, what protection would Joseph Mangan recieves as a whistle-blower?**

**Ans**: If TTTech were located in Kansas city, Joseph Mangan might receive bigger protection rather than that of Vienna, his fine may lesser than that of $185,000 for violating that gag order, he might not facing jail because he may able to pay such amount. He will be well-protected if the TTTech was found in Kansas City.

**3. Mangan risk a year in jail and went bankrupt trying to convince people of a problem. If he were simply a disgruntled emplyee, there are many ways he could do damage without putting himself under such pressure. Is it possible that there was a problem and that Mangan’s actions forced TTTech to address and fix before EASA and FAA discovered it themselves?**

**Ans:** Mangan’s actions forced TTTech to address and fix it before EASA and FAA discovered it themselves. His actions are very complicated to the part of TTTech Company. The latter might destroy if their profit decrease inasmuch the clients no longer adopt their services.

TTTech company should should settle the problem as soon as possible because it would become more worst if EASA and FAA discovered it themselves.