

Mick Zaatra
AE-457
9-17-2018
ITEM 1

For a problem, the background should answer the following questions:

1. What is the nature of the problem?

Controlling the attitude of a satellite or any flying object

2. Can the problem be solved?

The problem can be solved, a wide variety of attitude control systems have been developed and used.

3. What are the effects of the problem?

If attitude control isn't allowed, then satellites can no longer point appropriately to their targets rendering them useless for their tasks.

4. How long has the problem existed?

This problem has always existed ever since we were able to launch satellites into space

5. How severe is the problem?

The problem is quite severe, without attitude control satellites could point away from sources of energy and from points of interests.

6. Where does the problem occur?

The problem occurs mainly when they are launched into space.

7. When did the problem develop?

This problem has always existed.

8. What caused the problem?

Nature, Physics

9. Who is affected by the problem?

Any company or organization that has ever launched a satellite into space.

10. How many people are affected by the problem?

Almost everyone in the world is affected, without proper satellite control, we could lose cellphone services and many other services that rely on satellites like satellite TV or GPS.

11. Who will benefit from the solution?

Everyone can benefit from this solution because we all rely on satellites for at least one aspect of everyday life.

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12. Who else is involved in solving the problem?

Many space agencies and independent researchers are continually developing more efficient and precise attitude control systems.

13. What is needed to solve the problem?

Understanding how satellites behave in space and understand how they can be rotate about in their orbits to point at their targets.