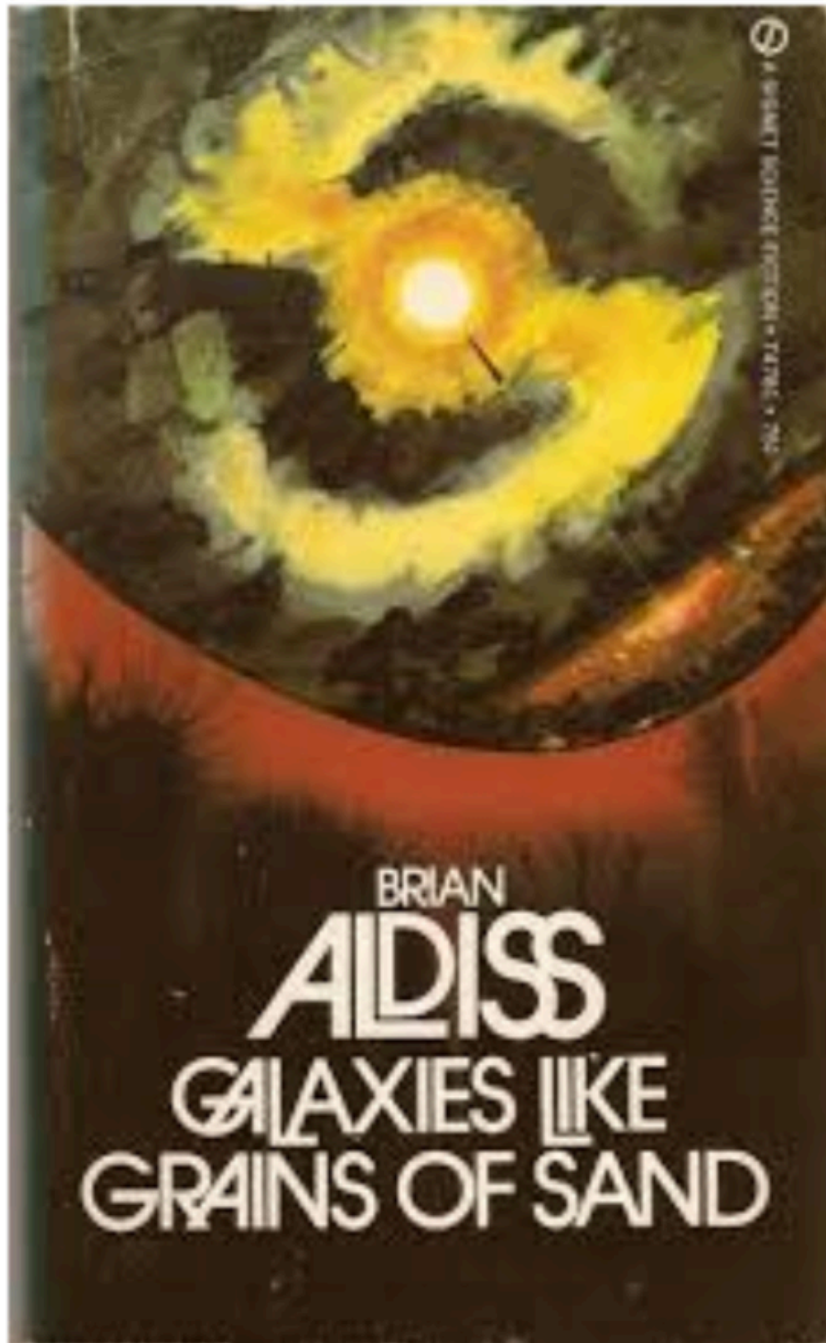




Transistors like Grains of Sand

Transistors like



Grains of Sand

The video link to the top image is a history of Gordon Moore. He estimates that the number of Transistors in the world is roughly equivalent to the number of grains of sand on all the beaches of the world...

With this in mind, we must rapidly determine WHICH DEVICES are most sensitive to failure... and rebuild control systems with adaptive architectures.



From: Chuck Darling

Re: Flip Fail-safes

Flight Control Processors, as used on Drones, are small and cheap ...

Our shifting magnetic field is weakening, allowing more Cosmic Rays to penetrate the atmosphere, and aircraft electronics...

Bit flips happen, with chaotic results.

An error correcting system could be built, with several parallel controller chips, perhaps located at different points of the Airframe.

A supervisor chip would detect state changes in these chips, and would shift flight control to an unaffected chip.

*Strategically placed magnets outside the chips **might** steer charged particles away from the processors.*

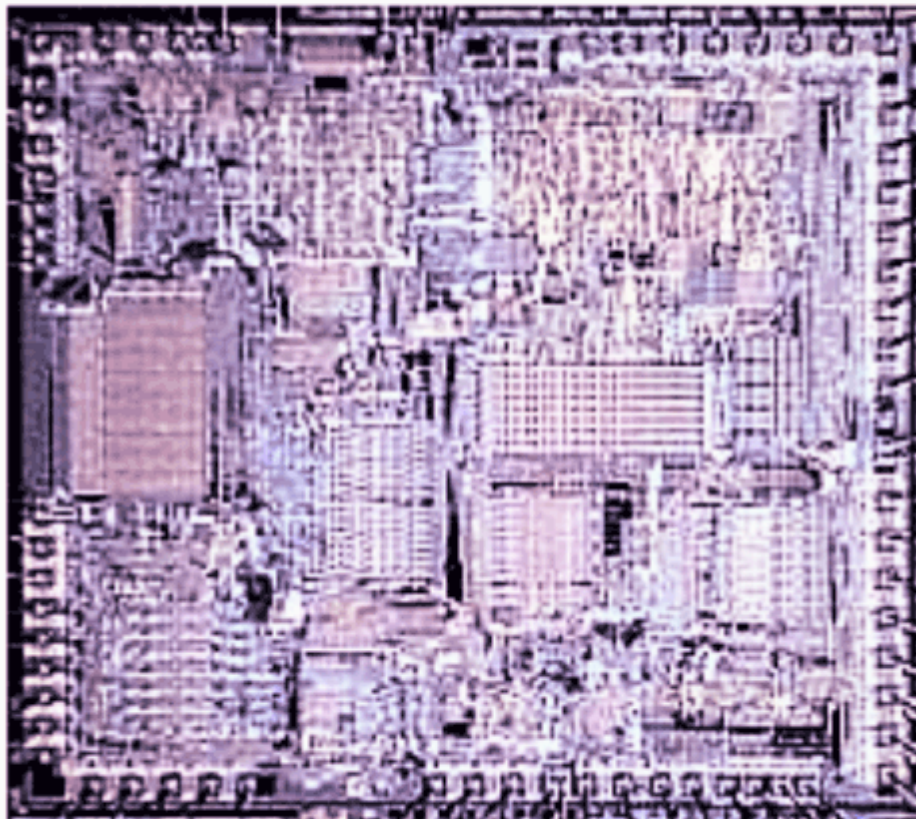
This development process of Cosmic Ray defense is best done on small, cheap drones...

then once it is shaken down, the commercial aircraft designers will follow suit.

Satellites and spacecraft will benefit too.

Chuck

The forgotten 186



Built before the PC

6000 transistors

2000 Nanometer Architecture

might be more resistant...

Huh.



- [Build a ZX80...?](#)
- [Dumb Terminals...](#)
- [The 1985 Amiga was way ahead...](#)
- [Internet 1878](#)
- <https://www.notebookcheck>
- [Fun with Transistors](#)
- [BASIC RADIO CIRCUITRY](#)
- [Diode Chain Water Heater](#)

Computers

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Beans

