Difference Engine

Relay Moon Prototyping Facility, probability device prototype batch ANE-2b, Head Mastermind Pascal. Progress was slow today...the QUASI got it into its processing buffer that it would be *funny* to attempt to apply the "infinite monkey" playwright theorem to the device by generating an unlimited probability current – which logically isn't even possible. What it actually ended up creating was an *unfavorable* event field instead of a favorable one. As the QUASI tried to process what was happening, it became stuck in a feedback loop for approximately 2.481 seconds, during which the upspin wing of the building suffered catastrophic cascade failures. The halls would have collapsed in on themselves had it not been turned off in time – thank the Maker it was. Still, all in all it was a very ungood day. Addendum; note to self. Must issue a memo to staff advising that the phase, 'I was bored' is never an excuse for generating unstable quantum events. – Mastermind Pascal Nine Five 95-2918-1453, Diary Transcript Log Inversion Engineering, Probability Mechanics Division

Favorable Event Generation

Chaos theory dictates to so-called "chaos" in systems are actually the result of not *randomness*, but by the behavior of quantum wave functions. These wave functions are quantum events that become microscopic events, then macroscopic events; just as atoms are the foundation of matter, quantum wave functions are the foundation of any chance-based event, in a manner of speaking. By comprehending and manipulating these wave functions one can effectively "create" luck, or more accurately, encourage the manifestation of favorable events.

This device is a combined computer-generator unit designed to find and predict how quantum wave functions interact with their environment. By performing subtle changes in the immediate environment the wave functions manifest in, one can manipulate large-scale events with a relatively small expenditure of energy. Due to the inherent difficulty of performing calculations this technology is can only perform calculations for short-term events; one can only change events not even seconds prior. Another problem is the sensitivity to initial conditions; a seemingly insignificant wave function could exponentially grow into a rampant problem, so most of the machine's capacity is consumed controlling these uncalculated aftereffects and preventing them from becoming Big Problems. For this reason significant manipulations may require several minutes until aftereffects normalize, depending on the scale of the changes made.

Examples of potential uses for this device may include: nullifying stray signals to decrease energy signatures, creating minute imbalances in natural energy levels to increase or decrease the accuracy of weapons fire, stalling the failure of ship integrity or overloading of systems, changing the vector of bomb fragments to strike or avoid critical systems, and numerous other small-scale "luck" based events.

Hybrid Gravitic Propulsion

The propulsion is two-tiered; firstly is a form of gravimetric propulsion that directly ties into the 'Difference Engine' (hence the pun on its name). A gravitic field is sustained around the vessel and the so-called wave function manipulation uses its capacity for chaos theory calculations to predict and manipulate the way the field collapses, so as to make the ship "fall" in the desired direction.

This system is supplemented by an inertialess drive which like its smaller predecessor, the inertial

dampening system, can reduce the stress of rapid acceleration. The device takes things a step further by having the capacity to nullify inertia and effective mass almost completely – not just for the crew, but for the entire ship itself. Together these systems allow the vessel to perform very precise turns with little strain on the superstructure, thereby endowing with the capability to outmaneuver most ships of similar or even smaller size. This will give a crew the superior handling needed to turn spaceborne hazards, such as asteroid belts, debris fields and minefields, into either escape routes of a defensive advantage in combat.

Hyperspace Folding

> "They say that the shortest distance between two given locales is always zero, because any two points in our perceivable space are actually contiguous in some extradimensional universe. Postulating infinity, of course." – QUA-SI Jargon Two One 21-6777-1431 The Art of Never Again, Chapter 473: Hyperspatial Dynamics

A quick way to get from point A to point B. The Pizza delivery guy used it to get to the party in less than a minute. Unfortunately, the molten cheese burned some dude's chin pretty bad because it was still hot. The fold drive is capable of moving the ship through hyperspace at speeds up to 5 light-years a minute. Time, however, does not move the same for those on the ship as for those in "real" space, which can make a seemingly short trip take a long time. Since this FTL technology relies directly on the same fields as the Difference Engine's STL propulsion, the two were combined into inter-related propulsion systems.