**Satellite management.**

Core gameplay loop:

* Launch new satellites
* Maneuver current ones
  + Manage fuel
* Use satellites to cover missions
  + Footprint that covers certain points
  + Certain orbital parameters
    - “above x km”
    - geosynchronous
    - Etc.
  + Reward – money or points

Story

* New satellite company
* Options
  + Text/picture based story through mission descriptions

Structure

* Options
  + Individual puzzle levels – limited cash/in-orbit sats
  + High-score arcade – limited cash or time, maximize missions met
  + Puzzle w/ high score – several scenarios, maximize points
  + Sandbox – random missions added over time, unlimited money
  + Story – random missions added over time, limited money, must research tech.
* End state
  + Complete all puzzles
  + Complete all scenarios
  + Get to the end of the story

Spacecraft deltaV notes

* Propellant exit speed is an important factor
  + For a total deltaV that is close the the exit speed, the mass of propellant needed is ~ 1.7 \* the dry mass of the spacecraft
  + Total deltaV significantly above exit speed is not feasible
  + Chemical propellants range from 2-4 km/s exit speed
  + Electric systems are around 30 km/s
* For GEO:
  + North/South station keeping is ~ 50m/s per year
  + East/West station keeping is at most 5m/s per year

Old style, pixelated models/graphics

* picoCAD
* Blender - low poly w/ low-res textures