**Hard Landing**

Telecommunications orbital stations around Zhdant at the eve of the Dzaqtlas (TL7) provide satellite transfer of broadcast and beamcast audio and video to stations and receivers all across the surface of the planet and points beyond, such as spacecraft in cis-Viepchakl space and stations on Viepchakl itself. There are two dozen of these telecom stations in various orbits, mostly low ones, around Zhdant.

These stations are generally manned by crews of 3-6 astronauts for periods of several months before relief crews arrive by booster from the surface. They return aboard simple ballistic re-entry ‘landers’ not unlike the Terran Soyuz descent modules. The station crews also perform other tasks such as mapping, scientific investigations, and astronomical observations.

*PCs will have several skills not ordinarily available to other characters during the Dzaqtlas/Second Dark Age, including Computers, Small Craft Pilot, Science (Astronomy).*

The crews on orbit at the time of the Dzaqtlas very quickly became stranded aboard them when all space operations from the surface ceased within a week or two of the infection’s spread through the Human population of Zhdant. Only a few crews were infected by recent crew transfers, and those crews died out soon. Those who didn’t had some tough decisions to make.

*Roleplay: decision whether and how long to delay return*

They first had to decide whether to try to return as soon as possible to the surface or wait for more developments. Official news and information about the Dzaqtlas and situations dirtside were incomplete from the beginning, since no one had any real idea of what was going on. They became less frequent very rapidly, until the ground stations and launch facilities shut down completely and all communications to the stations from the ground ceased. Stations with survivors aboard could communicate with one another and with any spacecraft in orbit, as well as any survivors on the ground who still might be listening such as ships at sea, military units, or even amateur radio operators.

*Contact a ground station: Comms 8+, (time), degree of success indicates desirability/availability of landing site*

Early in the unfolding infection, crews could return to Zhdant with at least some ground support, such as computer assistance from the surface facilities to calculate re-entry trajectories and landing zones. The landers used by these crews had very little on-board ability to calculate re-entries or choose precise landing zones, though a good pilot and navigator could generally get them down within a few hundred kilometers of a designated point without MUCH trouble.

*Guide the lander to a desired/designated point: Small Craft 10+, (time), degree of success (or failure) indicates miss distance; roll 1D for direction of deviation*

Those crew deciding to hold out for a change in the circumstances dirtside had limited resources aboard the stations, generally no more than at most a few months of oxygen, water, and food. Eventually- and SOON- they would have to decide to suffocate aboard the stations (oxygen being the limiting factor) or take their chances with a ‘manual’ landing without ANY assistance from the ground.

*Optional task: produce oxygen from liquid water using station’s solar panels, Mechanical 12+, 1D hours, degree of success indicates how many more hours of O2 are produced. Critical failure causes an explosion resulting in destruction of the solar panels, damage to the station, and 2D damage to all crew. Immediate evacuation now required.*

The telecom stations have good maps of Zhdant’s surface, while the 3-person landers do have some navigation support installed (TL7 orbital navigation systems and avionics) and a radio communicator with a 50-km range on the ground. The crewpeople will have TL7 light ‘survival’ vacc suits not intended for EVA, merely support in case the lander depressurizes. The landers have a bare minimum of survival equipment, consisting of personal flotation devices, an inflatable 3-person raft, cold weather clothing, two day’s survival rations, a tent, one first aid kit per crewperson and one sidearm per crewperson plus a single carbine, each with 50 rounds. This equipment was carried in case the lander suffered a navigation mishap and ended up far from ground support in rough country.

*Survival Equipment available: Inflatable raft, cold weather clothing, survival rations, tent, 3x first aid kits, 3x autopistol w/3 magazines, 1x carbine w/3 magazines*

The landers were not designed to remain in orbit for more than a few months. TL7 Zhdantia space technology is not terribly robust. Their orbital maneuvering thrusters, retro-rockets, re-entry shields and parachute descent equipment begin to degrade after 6 months ‘on orbit’, since they were intended to only remain on orbit that long after arrival before they took the next crew to the surface.

*Roll 11+ for equipment failure, once for each major system (thrusters, retro rockets, re-entry shield, parachute in that order).*

Once a crew decided to return to the ground, they had to undertake several tasks. First, loading aboard the lander and securing it; second, detaching from the station; third, maneuvering into a re-entry profile that would take them to the chosen landing site; fourth, triggering the retro-rockets for de-orbit burn. The third and fourth tasks can be aided from ground stations early in the Dzaqtlas while ground crews and computer operators can calculate and transmit the needed profiles to the lander’s controls. Later, after the space operations support facilities have all been deserted (or destroyed!) the crew-people MUST compute these profiles manually using Navigation and Mathematics skills and execute them using Pilot (space capsule) Skill.

*Load the lander (1D hours)*

*Manually detatch the lander from the station (Pilot 6+, 1D x 10 seconds, catastrophic failure means damage to the docking ring and possible decompression)*

*Maneuver the lander to re-entry profile OR configure the onboard computer for one of the pre-programmed glide plans (Pilot 8+, 1D minutes OR Computer 8+, 1D minutes)*

*Obtain assistance from a Mission Ground Station (Comms 8+, 1D x 10 minutes)*

*Guid the lander from orbit to surface (Pilot 10+, 1D hours, degree of success indicates proximity to desired landing site)*

‘Fresh’ landers will suffer almost no chance for a mishap with the orbital maneuvering, retro-rocket, or parachute descent systems. Landers that have been ‘on orbit’ longer than 6 months will have a radically increased rate of errors or failure. These mishaps should not be fatal but could result in the lander coming down WAY off course and possibly injuring one or more of the lander’s three-person crew.

Once the lander hits the ground, of course, the REAL adventure begins . . .

Option 1: a member of the crew was unknowingly infected with the Dzaqtlas during a later orbital transfer mission and died on the station. The station is now contaminated with infected particles and the crew has no choice. They now are also carriers in Stage 1, further complicating survival once they reach the surface.

Option 2: The crew land near a settled area that has been devastated by the Dzaqtlas. Roll 2D for reaction; high results indicate a more positive reaction; lower results indicate hostility.