

allowed colonists to evacuate outposts that became too damaged or simply too difficult to sustain. Eventually, many *Conestogas* became so integrated into the space frame of their parent 44s that it became difficult to tell that they were not manufactured as one unit.

The end of the War did not mark the end of the *Marquisa Gras*; in fact, the spacecraft got a new lease on life as the newly integrated EASA began manufacturing after-market add-ons and rebuild packages. Bolstered with the assets of RKK Energy's western holdings, The EurAfrican Space Agency had since been able to provide factory upgrades and orbital servicing around both Terra and, through the Consensus, Mars. In addition, a fully upgraded design is being offered for fabrication, along with several variants, in an effort to stimulate the economy and allow EurAfrica to take the place of its predecessor governments.

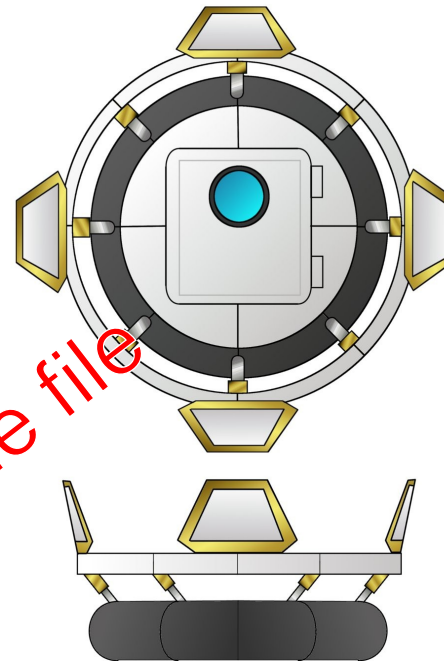
Because of this support, the *Marquisa Gras* continues to be a common sight throughout The Black Desert. Given the popularity and resilience of these spacecraft, it is probable that they will remain in service for some time to come.

DESCRIPTION

The *Marquisa Gras* was never intended to enter an atmosphere, and she looks the part. Having neither the grace nor aerodynamic appearance of a spaceplane or traditional rocket, the TO-44 lives up to its name, "the fat Duchess".

The space frame of the *Marquisa Gras* is built around two cylinders, one six meters in diameter, one three. The main cylinder supports the life system, the payload bay, and the main engines, while the smaller cylinder houses the main and EVA airlocks and the connecting tube between them.

The life system is housed in the bow of the spacecraft. In the center of the main cylinder is the cockpit, which is dominated by a large cupola that offers a 360° view of the 44's nose. Centered on the secondary cylinder is the main docking ring, which uses the CADS (Common Androgynous Docking System) configuration.



The bulk of the spacecraft is taken up by the payload bay. This large space is enclosed in an armored shell, which allows the *Marquisa Gras* to carry fragile cargos such as satellites or, more commonly, rovers. The bay is large enough to hold two of the aforementioned *Conestoga* habitats, complete with drive trains and docking node. The two robotic arms installed in the payload bay are strong enough to lift one complete rover and an attach node at a time, allowing the

TO-44 to deploy the rovers anywhere it can land without assistance.

The central spine of the secondary cylinder is a simple truss of exposed girders with an inflatable pressurized tube linking the fore and aft of the craft. The truss also supports a bank of six passive radiators that disburse the waste heat of the life system. The EVA airlock, in addition to offering access to the aft of the spacecraft, also features access to the cargo bay and has an elevator mounted in the floor of the compartment, for use when the *Marquisa Gras* is landed.

The main engines are mounted just aft of the payload bay. The drive system on the TO-44 is relic of a bygone age: Chemical rocket engines. Four of these antiquated units give the *Marquisa Gras* enough Delta-V to shape an orbit between Terra and Luna, which is more than enough to navigate through any of the asteroid nodes in the Black Desert. This primitive rocket system offers an additional benefit; because the engine assembly was designed to be modular, the entire drive housing can be replaced with ease. This allows the TO-44 to mount engines that burn LOX/LH2, Methane, Ethanol, or any other fuel available in its regular ports of call. Engine performance will vary greatly, however, depending on what type of system is installed.

Mounted around the very aft of the spacecraft are a set of three exposed landing legs. These legs are essentially large hydraulic pistons that each move independently of one another and are linked to a leveling system that uses radar and the precise laser measurements of a gravity sensor. The system is sensitive enough to detect gravity fields as low as one-tenth of a millegee, allowing the *Marquisa Gras* to come to a three-point landing on the smallest asteroids and in the roughest terrain.

ABOUT THE MAP

What follows is an explanation of the *Marquisa Gras*' major compartments and systems:

1. Airlock: In one sense, the airlock on the *Marquisa Gras* encompasses the entire secondary cylinder of the space frame. This system is divided into two fully functioning airlocks: The Primary Airlock, which is in the nose of the spacecraft, and the EVA Airlock, which is located aft.

The Primary Airlock is the main egress from the TO-44 to another spacecraft or station. The central core of this compartment, located directly under the Docking Ring, is the airlock proper, a gas-tight chamber with a hatch in the "floor" (aft bulkhead) at access tube to the docking hatch in the "ceiling" and a heavy gas-tight hatch leading to the EVA prep area, which is housed in a ring around the airlock itself.

One quarter of the EVA prep area is devoted to the storage and servicing of robots and space suits. There are two storage compartments in this section. One is designed for robots; it contains an independent nano-battery and charge plate that will fully recharge a standard maintenance/service robot in one hour. There are usually two such robots aboard; one primarily for maintenance, one to act as steward for the passengers.

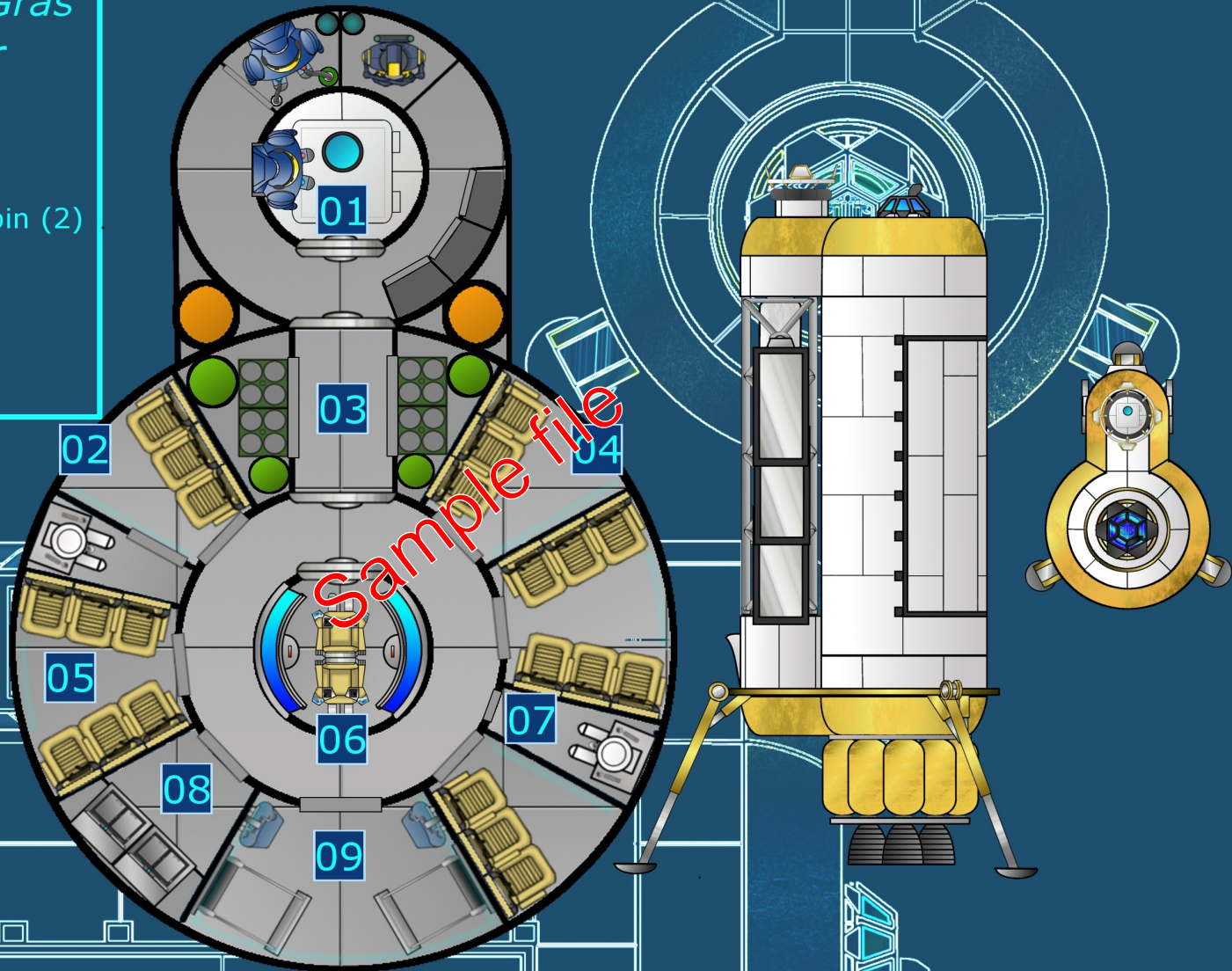
The second compartment is made for the servicing of space suits. It also contains batteries and charge plates, but is also fitted with air tanks, filters and a special hose that connects the suit to the spacecraft's own life-support system for water reclamation and air scrubbing. A suit can be fully charged with both power and life-support necessities in this compartment in one hour.

Located on the same side of the EVA prep room as the space suit servicing compartment is the suit-lock. This system allows personnel to put on a suit-lock space suit without having to cycle the airlock. It takes a person trained in the *Free-Fall Maneruvering Skill* ten minutes to put on the suit and perform all safety checks by themselves. The difficulty for putting on such a suit in the allotted time is *Moderate*; however, succeeding on this Skill Check by enough to beat a higher Difficulty Level will allow the Character to don the suit in less time. Assume a two minute time savings for each Difficulty Level beaten



Marquisa Gras Interior

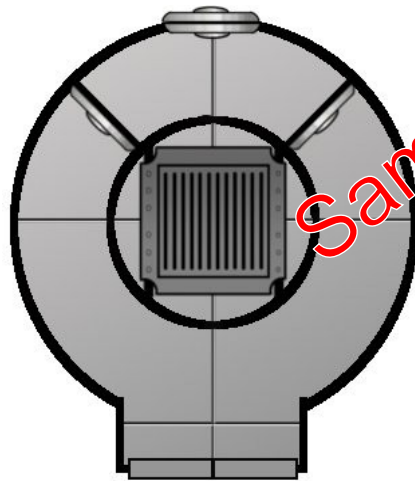
- 01. Airlock
- 02. Crew Cabin
- 03. Life Support
- 04. 1st Class Cabin (2)
- 05. Coach Cabin
- 06. Cockpit
- 07. Lavatory (2)
- 08. Galley
- 09. Gym



over *Moderate*. Like the robotic compliment, there are usually two space suits carried aboard a *Marquisa Gras*. One is kept in the service compartment, and the other in the suit lock. Prepping the stored suit for use takes ten minutes and takes a *Moderate Computer Operation Skill Check*. The same time bonuses available for donning a suit apply to prepping a suit for use.

In addition to the compartments and systems mentioned above, the Airlock also contains a set of three lockers that have tools and space parts for repairs, as well as a gas-tight hatch leading to the rest of the life system.

The EVA Airlock is only pressurized when necessary; therefore it is not considered a true part of the life system. The EVA Airlock is connected to the Primary Airlock by an inflatable tube that is only pressurized when needed. The layout of the EVA Airlock is nearly identical to that of the Primary Airlock; the exceptions being a cargo elevator in the aft bulkhead, a secondary airlock leading to the EVA hatch itself, and a pressure door leading to the cargo bay. This cargo bay door can be replaced by a docking ring that will mate with the airlock node of a *Conestoga* rover, allowing carried rovers to be connected to the primary life system.



2. Crew Cabin: This compartment is used by the organic crew of the *Marquisa Gras* during missions. It is a rather plain room, with a set of three flight seats mounted on

the clockwise bulkhead. Mounted above the flight seats are a set of free-fall bunks; these are essentially pads equipped with restraints to keep the sleeper from floating away. The arms of the flight seats have small, fold-out trays installed for use while dining. Stored under each of the flight seats is a rescue ball for use in an emergency.

The counter-clockwise bulkhead is smart. This smart-wall can display information in two or three dimensions, be windowed for multiple users, and is oftentimes set to display an outdoor scene for the crew's enjoyment.

What makes this compartment unique is that it has a private door to one of the two lavatories on board. This lavatory is for the exclusive use of the crew, unless the passenger lavatory malfunctions.

3. Life-Support: The main Life-support control room on the *Marquisa Gras* is located in the corridor linking the Primary Airlock with the rest of the life system. Behind sliding panels on either wall in this compartment are the spacecraft's air scrubbers, behind those are the main atmosphere tanks and water supply, as well as the reclamation and filtration equipment. The sliding panels themselves are smart; in the event of a life-support malfunction, these panel can display a complete schematic of the spacecraft's life-support infrastructure.

This compartment also serves as a *de facto* damage control station, as the smart-walls can be set to display the schematics of other spacecraft systems as well.

The hatch to the Life-support compartment, and therefore the Airlocks, can be locked from the either side. These electronic locks can be over-ridden by a *Difficult Computer Operation/Hacking Skill Check*.

4. First-Class Cabin: There are two such cabins aboard