MACLUKY SPACE SOLUTIONS

TAURUS AMAROK

ASSEMBLY GUIDE

TAURUS CLASS LIFTERS

The Taurus class of lifters provides a lightweight, simple set of vehicles that allows you to build a versatile fleet of that can bring a wide variety of payloads to orbit.

Credits

Based on bits and pieces from Lionhead's ESA Launchers, Socke 1.875 HGR extension, some texturing ideas from Benjee and a lot of creativity and testing.

Mod Support

Taurus is integrated with CTT and uses diameters in line with BDD, Tantares and HGR.

Mod Requirements

Taurus needs Module Manager. This come packaged with the mod.

TAURUS 1 PARTS

- Taurus 1S1 (first stage)
- Taurus 1S1D (first/second stage decoupler)
- Taurus 1S2 (second stage)
- Taurus 1S2D (second/third stage decoupler)
- Taurus 1S3 (third stage)
- Taurus 1NC (first stage nose cone)

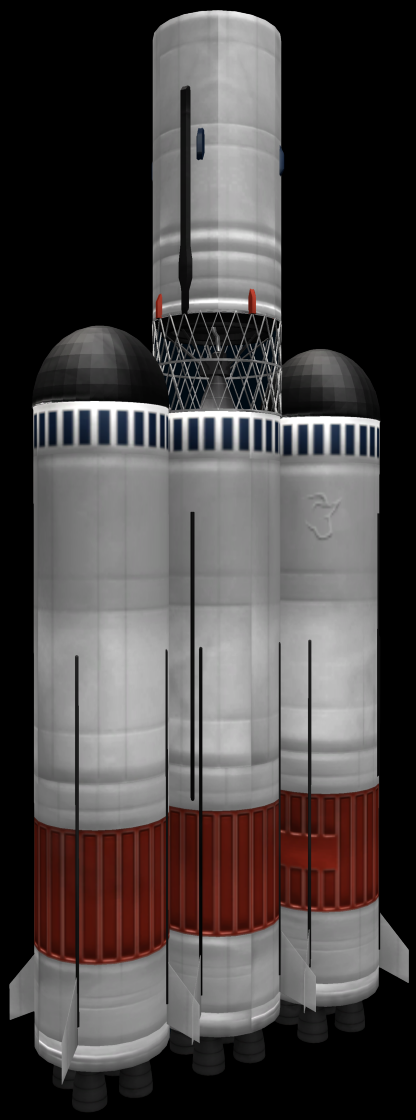
With just these 6 parts and a bit help from stock decouplers an impressive family of lifters can be created that are integrated with the tech tree. This means that more lifting power becomes available over time.

TAURUS 1A

This early low mass satellite launcher can lift roughly 1 ton to LKO. It is constructed from the T1S1, T1S1D and T1S2.

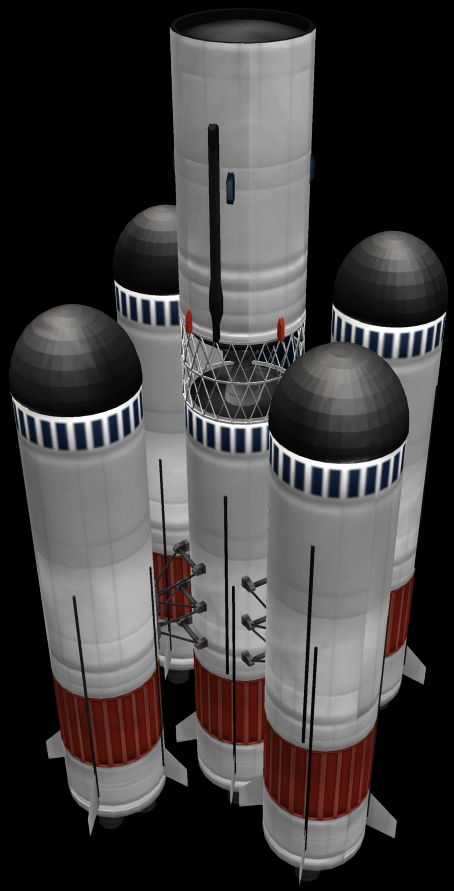
TAURUS 1B

The purpose of the Taurus 1B is to lift early space craft for testing purposes. It should be able to lift 3 ton to LKO and can be made before radial decouplers become available. Basically 3xT1S1 are strapped together, with a T1S1D and T1S2 on top.



TAURUS 1C

Once radial decouplers become available a different configuration is able to launch 4 tons to LKO. Which means early space travelers can use this vehicle. See the Amarok C1 for compatible spacecraft. The 1C consists of 4xT1S1 strapped together but with radial decouplers, T1S1D and T1S2.

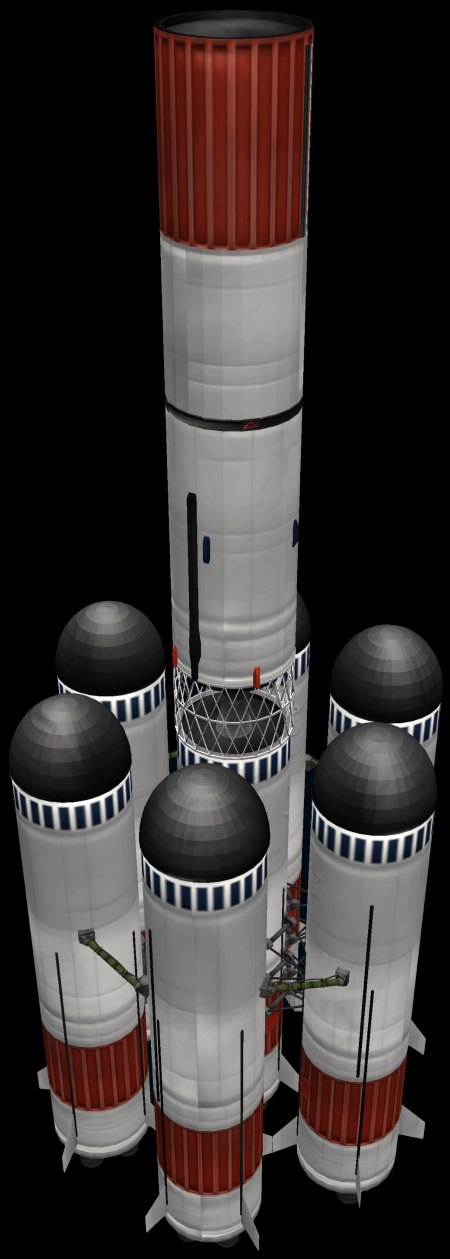


TAURUS 1D

By increasing the booster count to 6xT1S1 strapped together with radial decouplers and asparagus staging, T1S1D and T1S2 a target weight of 6 ton to LKO can be achieved. This can be a real workhorse for early career.

TAURUS 1E

The final iteration has a target 8 ton LKO or uses third stage for HKO



TAURUS 2 PARTS

- Taurus 2S1 (first stage)
- Taurus 2S1D (first/second stage decoupler)
- Taurus 2S2 (second stage)
- Taurus 2A1 (Adapter Taurus 2 to Taurus 1)
- Taurus 2F1 (1.875m fairing)
- Taurus 2A3 (Adapter Taurus 2 to 2.5m)

Taurus 2 parts become available near the end of the Taurus 1 life cycle, which allows a mix and match of the parts to gradually replace your lower performance (but lower cost) launchers with a larger diameter vehicle. Taurus 2 has a diameter of 1.875 meter putting it just before the 2.5 meter that comes with stock heavy lift vehicles.

TAURUS 2A

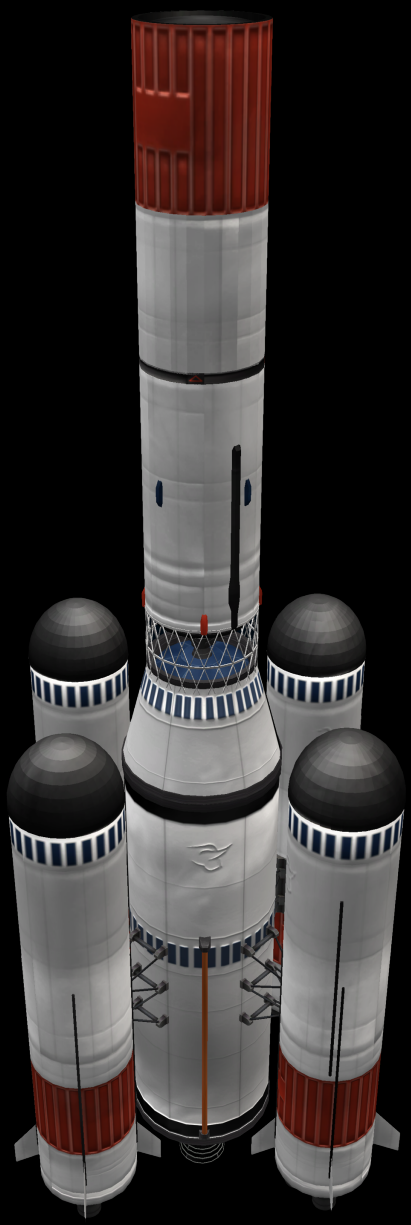
The purpose of the 2A is to replace the aging Taurus 1C. It can lift 5 ton to LKO and still employs the Taurus T1S2 upper stage. Construct by using the T2S1, T2A1, T1S1D and T1S2.

TAURUS 2B

Once regular space flights became a thing, the need for a more powerful launcher arrived. The Taurus 2B can lift 8 ton to LKO and replaces the Taurus 1E. The main purpose is to lift the Amarok C2 and C3 family which allows for early orbital laboratory missions.

TAURUS 2C

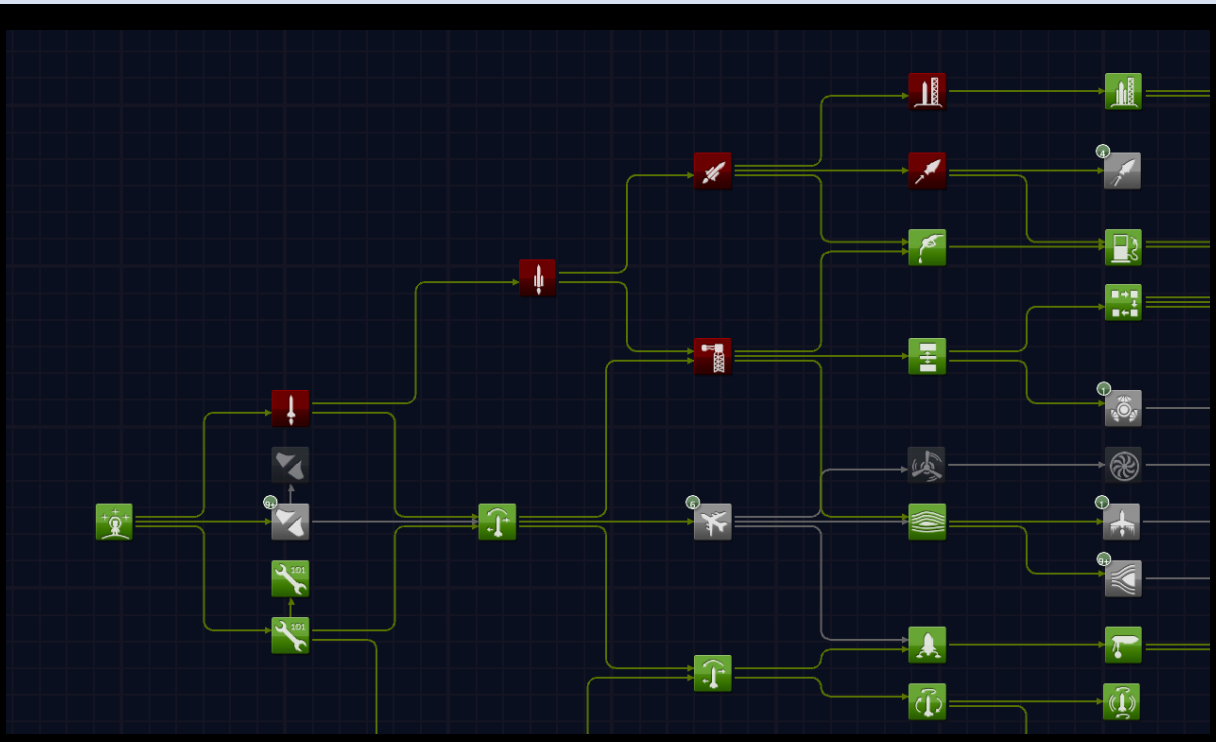
More boosters means more lift. Asparagus staging reuse of the Taurus 1 third stages allows large payloads to be flung across the solar system or 10 tons can be lifted to LKO.



TAURUS 2D

By adding a more powerful second stages wider payloads can be launched. We have seen 12 ton places in LKO using the configuration.

COMMUNITY TECHTREE INTEGRATION



AMAROK SPACECRAFT SERIES

With the Amarok Spacecraft Series, your Kerbals travel in style. The bright red colors allow the Kerbin Navy to recover the craft a lot easier than white or grey. The crafts are loosely inspired by craft from Denmark Copenhagen Suborbitales, the Russian VA, SpaceX Dragon, Orion and LEM.

Credits

Based on some texturing ideas from Martinezfg11 and modeling ideas from the Phoenix capsule from MoviesColin IVA snippets from Tokamak and Fuji parts from Beale. As well as the Circular Panels from Yogui, and FusTek doors, dockingports and some decal.

Mod Support

Amarok is integrated with CTT, TAC, Kerbalism, Kerbal Engineer and uses diameters in line with BDD, Tantares and HGR.

Mod Requirements

Amarok needs Module Manager, ASET Props and Rasterprop Monitor. These come packaged with the mod.

AMAROK C1

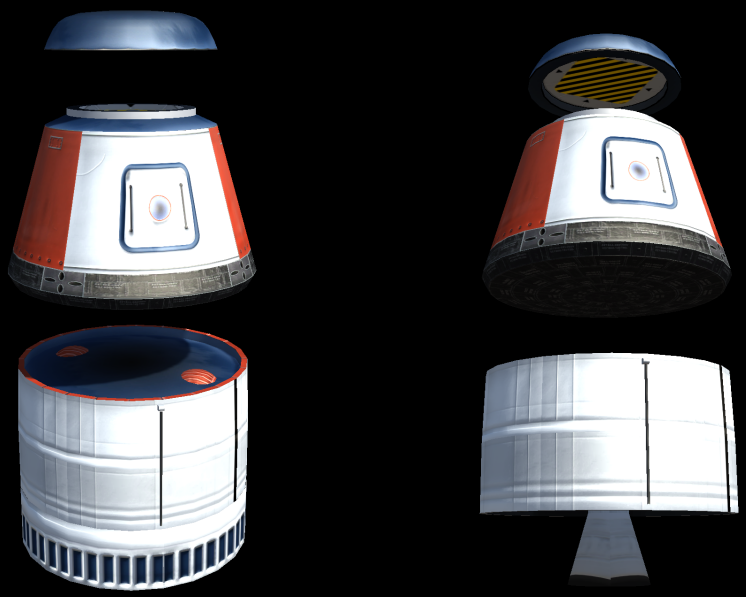
- Amarok GC (attachable guidance computer for unmanned craft)
- Amarok CM (1.25m single Kerbal command pod with integrated heatshield)
- Amarok NC (nose cone for the Amarok CM)
- Amarok DN (Docking Node for the Amarok CM with integrated parachute)
- Amarok SM (1.25m service module with deployable antenna and fuel cells)
- Amarok SP (Small non-rotating solar panel that allows for longer missions)

The Amarok Guidance Computer (AGC) is a small computer that can be attached to upper stages to facilitate de-orbit burns, or in early testing of capsules without risking the life of Kerbals.

ASSEMBLY

The Amarok SM1 comes with an integrated antenna, life support and integrated decoupler. On top of that you can mount a CM1 capsule that houses exactly a single Kerbal and has an integrated heatshield.

The docking module doubles as parachute and provides early docking capability. Though the capsule has some basic facilities' for maneuvering thrusters, it is advised to use additional RCS thrusters or exceptional docking skills. For atmospheric flight an nose cone with integrated decoupler is provided.



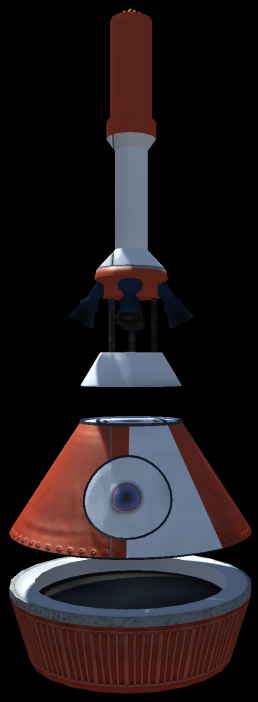
AMAROK C2

- Amarok CM2 (1.5m dual Kerbal command pod)
- Amarok HS2 (1.5m heat shield)
- Amarok DN2 (Docking Node for the Amarok CM2/OM2 with integrated parachute)
- Amarok LES (Simple Launch Escape system, works also with CM1 and CM3)
- Amarok CM2A (Adapter 1.5 to 1.25m)
- Amarok OM2 (Orbital Module)

The second generation of Amarok Space Craft is designed for longer duration missions and comes with an orbital module. The ship is to be launched as a whole but only the command module is to re-enter.

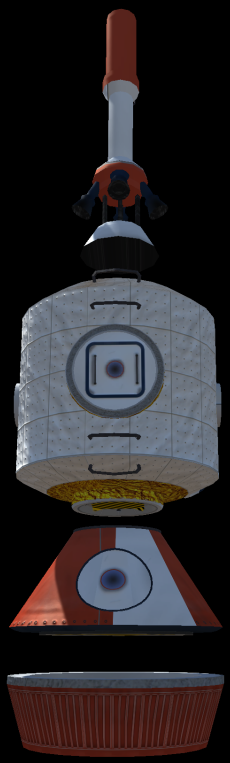
In addition to that the CM2 can be used for rescue operations or as a space taxi to early space stations.

AMAROK C2A CREW TRANSFER ASSEMBLY

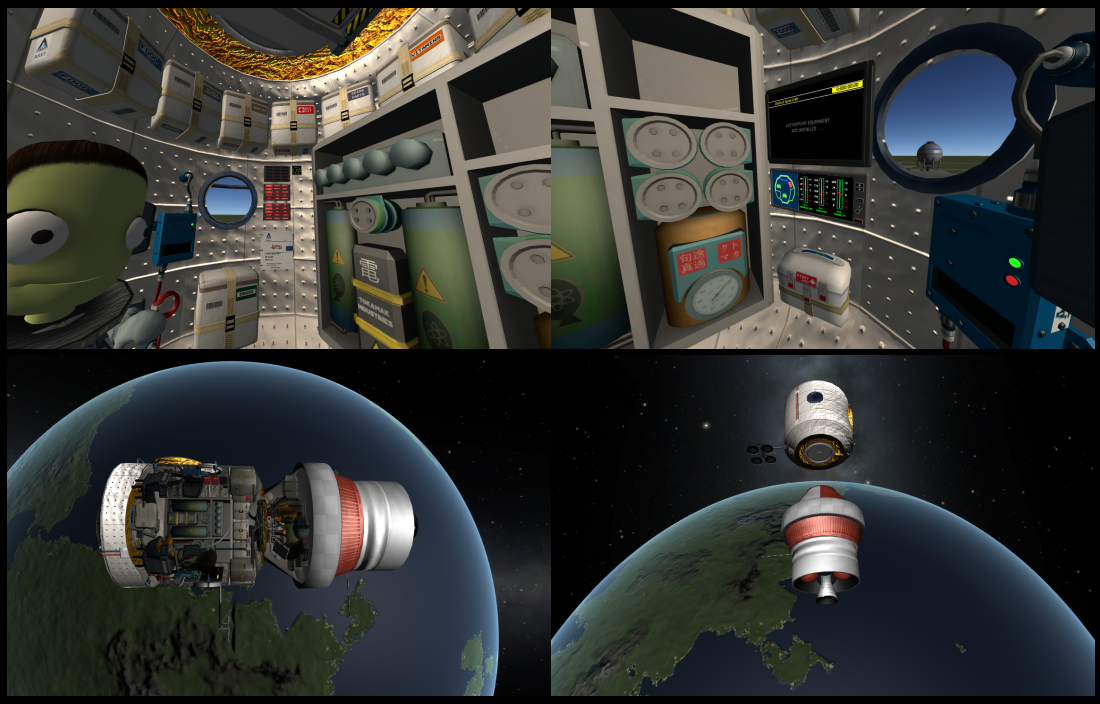


Note that between the adapter and the crew capsule a 1.5 heat shield can be mounted. This is strongly recommended. Between the launch escape system and the capsule the ADN1 can be mounted for descent parachute and docking capability. At the moment we are experiencing buoyancy problems so don't land on water. The 1.5 to 1.25 meter adapter connects to the ASM1.

AMAROK C2 ORBITAL MODULE ASSEMBLY



Both the command module and the orbital module come with a detailed IVA.

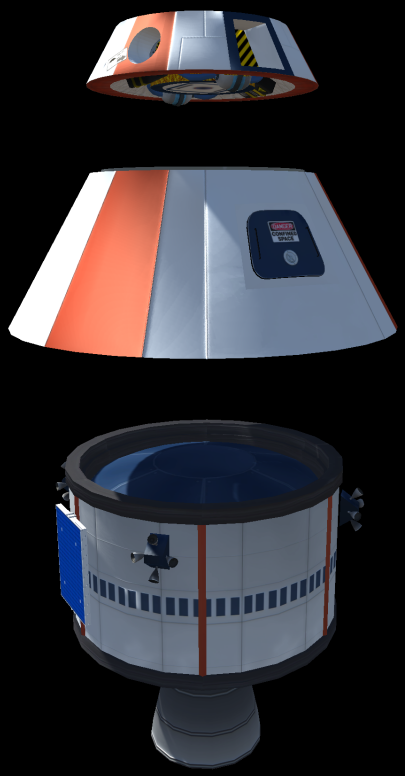


AMAROK C3

- Amarok CM3 (2.5m four Kerbal command pod)
- Amarok CM3A (Parachute adaptor)
- Amarok HS2 (2.5m heat shield)
- Amarok SM3 (2.5m service module with integrated RCS)
- Amarok SP3 (Rotating solar panels)

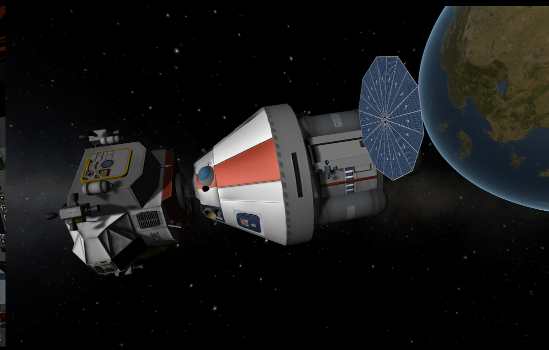
The C3 is optimized for longer duration deep-space missions. The new command module holds four seats of which two are pilot seats. Plenty of supplies allow for typical Kerbin SOI or Duna/Eve type missions. Though a full crew compliment is quite cramped.

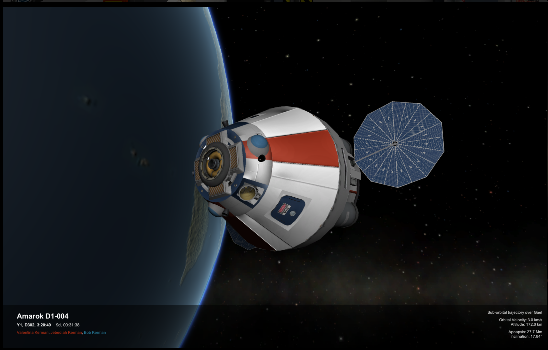
ASSEMBLY

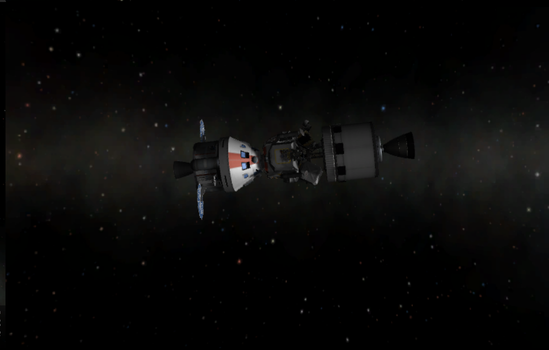


The CM3 requires a parachute adaptor, which holds a small space for science equipment but most of all offers three radial attachment points for Mk16 parachutes. It is strongly recommended to install these before launch.


Amarok D1-002
Y1, D284, 4:16:55 15d, 01:56:19
Bill Kerman, Bob Kerman, Jebediah Kerman
Flying at 5.2M over Gael's Highlands
Speed: 1.7 km/s
ASL: 34.0 km
Heading: 261.9°
Latitude: 6° 58' 42" N
Longitude: 87° 10' 24" W




Amarok D1-004
Y1, D302, 3:20:49 9d, 00:31:38
Valentina Kerman, Jebediah Kerman, Bob Kerman
Sub-orbital trajectory over Gael
Orbital Velocity: 3.0 km/s
Altitude: 172.0 km
Apoapsis: 27.7 Mm
Inclination: 17.84°



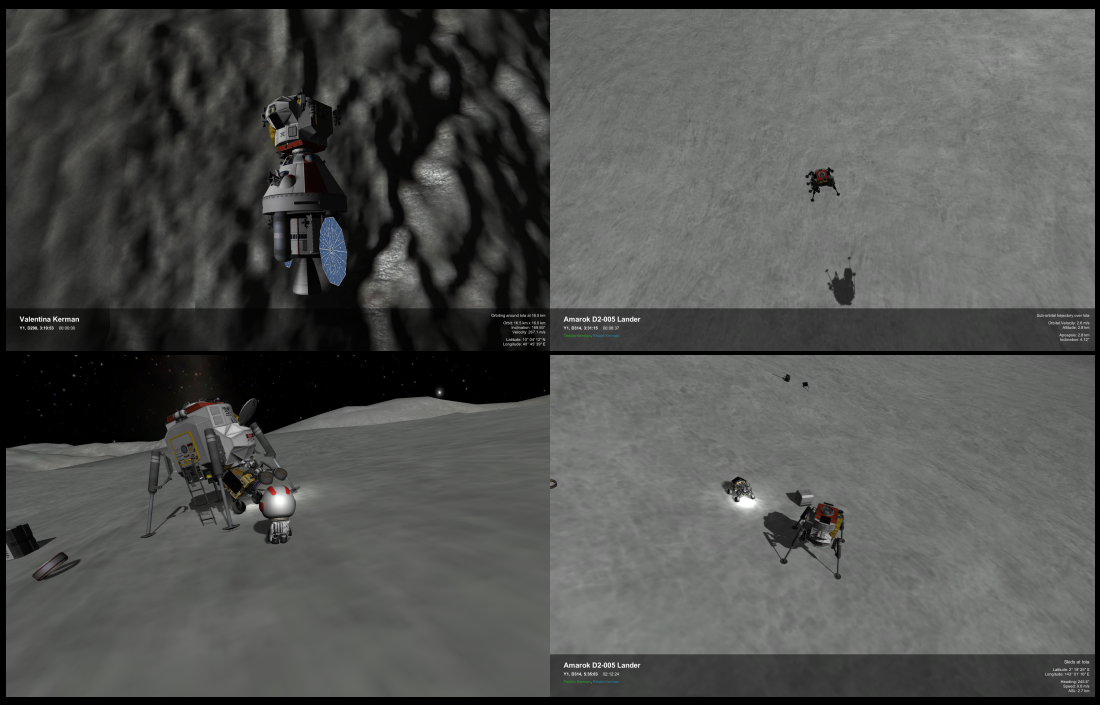
AMAROK LT

- Amarok LM2 Lunar Excursion Module
- Amarok LT2 Lunar Descent Module

landing pod has specifically been designed for operation on non-atmospheric bodies. Included radar switches between docking and landing mode and activates the transmitter. Note that the current model is a proof of concept which will need rework.

ASSEMBLY

The LT typically is expanded with stock parts like the LV909 for descent and landing legs. The capsule needs RCS thrusters if required.



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