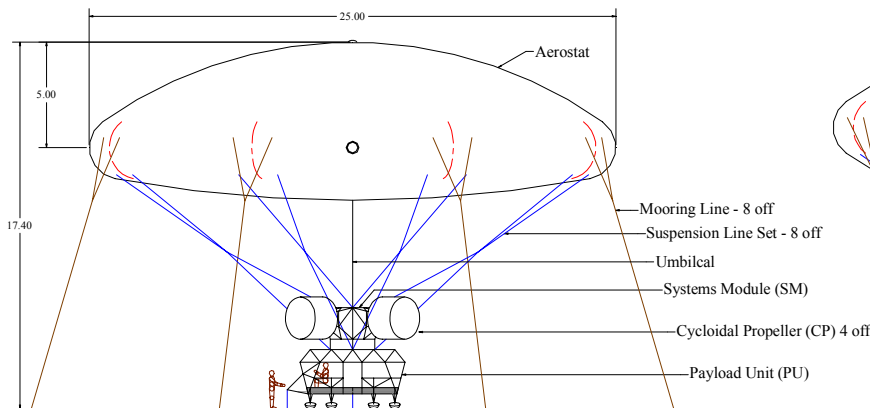
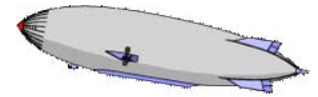


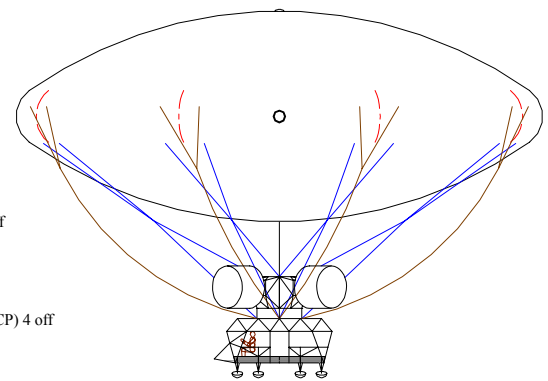
LTA Solutions

Lighter-than-air Technology

Mk 2 SkyRover (LS-L25)



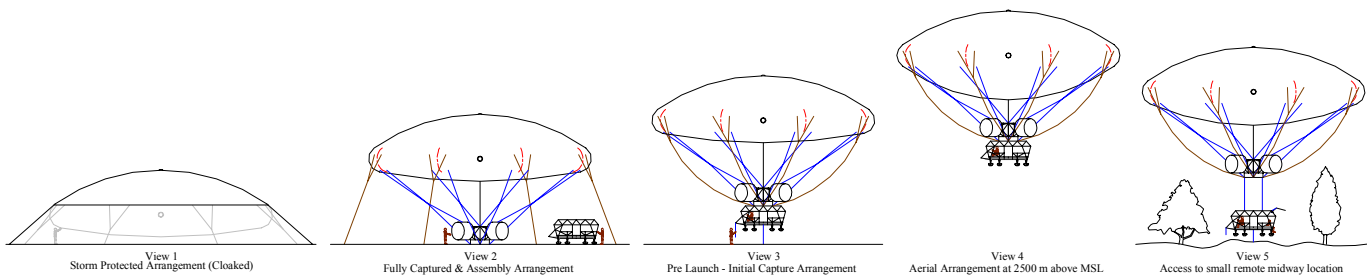
High Moored Arrangement near MSL



Aerial Arrangement at pressure height

Key Aspects:

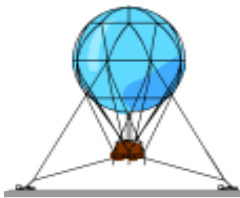
- An omni-directional motorised gas balloon for simple operation like helicopters (always upright)
- Low drag variable geometry lenticular (discus form) aerostat enabling aero-static/dynamic lift
- Quiet operation, also able to fly routinely as a silent steady un-powered free balloon
- Stable day long endurance that is environmentally friendly (low emissions)
- 6 degree of freedom control with quad cycloidal propellers
- Pseudo VTOL manned or UAV and autonomous programmed or R/C piloted operation
- Doesn't need aerodynamic stabilisers, elevators or rudders – controlled with thrust
- Fixed when moored and able to be cloaked at low level for storm protection
- Compact (smaller than unidirectional airships), able to access small sites practically anywhere
- A resilient airship, able to settle onto soft land or water as well as hard surfaces
- Assembled and maintained outdoors – doesn't need a mast or runways
- Designed for setup and operation by 2 people at small cleared level sites wherever



Duties: passenger flights, search and rescue, reconnaissance and as a platform for electronic/optical systems with 900 kg disposable load in private, business and public service operations, including:

- Rescue vehicle – able to hold station over a ground position with little downdraft
- Roving watch tower with persistent ISR presence for aerial surveillance instead of a tethered aerostat, able to cover a wider area than the Mk 1 SkyRover
- Border, coast or regional patroller – facilitates policing and customs activities
- Disaster relief – humanitarian (search, assist, medical aid and deliver/recover)
- Geostationary aerial platform as a relay station and sky beacon
- Forest fire watch, traffic monitoring and general survey
- Mineral detection, crops analysis, pipe-line monitoring, mapping and so forth
- Film, camera and broadcast activities
- Scientific and archaeological studies
- Leisure, sight-seeing and island hopping or remote region passenger flights
- Multi-rotor drone carrier enabling their in-flight launch, control, recovery and re-charge
- Traditional advertising and events attraction with guard duties

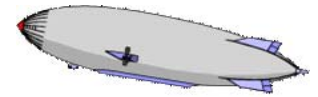
Supplied with everything needed (except disposables) in a standard ISO container.



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Mk 2 SkyRover (LS-L25)



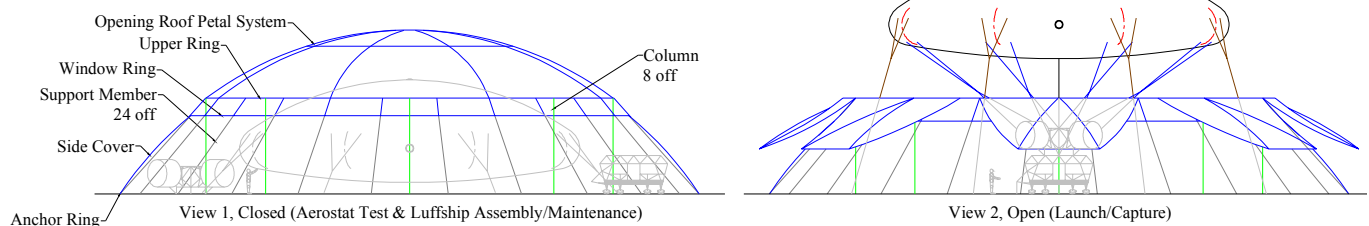
General specification:

Aerostat maximum diameter	25 m (82.0 ft)
Disposable load	900 kg (1984 lb)
Payload unit block space	4.2 m long 1.5 m wide 1.9 m tall
Max airspeed	50 kn (92.6 km/h)
Cruise airspeed	40 kn (74.1 km/h)
Max wind speed - launch/capture	15 kn (27.8 km/h) gusting to 20 kn (37 km/h)
Max wind speed - low moored	80 kn (148.2 km/h)
Max wind speed - low moored & cloaked	100 kn (185.2 km/h)
Cruise altitude	600 m (2000 ft) AMSL
Ceiling	2500 m (8200 ft) AMSL
Endurance - continuous cruise power	24 h at cruise airspeed
Endurance - unpowered	Unlimited
Range - continuous cruise power	800 km / 497 mi
Range - floating with wind	Unlimited
Power – max airspeed	142 kW (193 HP) Diesel producing electricity
Power – cruise airspeed	72.5 kW (98.6 HP)
Propulsion	Electrically driven cycloidal propellers
Certification	All primary jurisdictions

Note: Following prototype production, shake down and flight test assessment, confirmation of these estimates will be possible; where improvements are likely.

The **Mk 2 SkyRover** extends Mk 1 payload, range and endurance capabilities to fulfil further and greater range aerial duties in marine environments or remote regions with little infrastructure. It provides a stable platform to carry sensitive payloads (passengers and or systems). Operators may expect a practical, easily-maintained airship with relatively low acquisition and operating costs. It will allow them to expand their services and create new markets. Hot-swappable payload units will enable quick configuration changes; for example, from a roving search and rescue airship to an autonomous geostationary electronic systems platform. It will be quick to set up and deploy (4 hours out of the box), easy to ground handle (2 person setup, launch and moor) and be operated by a single (ground or onboard) pilot with low workload.

Associated SkyDome Housing



The LS-L25 comes with a range of options for ground protection and maintenance, including a ground skirt, handling systems and a relocatable SkyDome hangar (as above).

Current status

The concept design is complete (full technical proposal available). A Mk 1 version (illustrated right) is being pursued first, intended for lower risk technology development and subsequently as a trainer for larger variants, including the Mk 2. Project costs, timeline schedule, people and business plans have been scoped (documents available on request). Funding is now required to start development. With adequate support availability for general use could be 2019.

Contact as below.



Mk 1 SkyRover Visualisation