

Dragon Link Global License (DGL-M2) Staged Atmospheric Balloon Deployment Method – Founder's Declaration

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LICENSE VERSION: DGL-M2 v1.0.0.0

STATUS: Open Global License (Planetary Scope)

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SUMMARY

This document establishes the open-use, planetary license for the **Staged Atmospheric Balloon Deployment Method**, designed to enable affordable and accessible near-space payload delivery using a balloon-to-balloon or balloon-to-payload transition system. This system uses one or more weather balloons to carry an independent secondary payload which may itself expand, deploy, or activate at a target altitude.

LICENSED METHOD OVERVIEW

The **Staged Atmospheric Balloon Deployment Method** is defined as:

Any method or mechanism involving a high-altitude gas balloon (e.g., helium or hydrogen) that ascends to the upper atmosphere (~20–40 km), carrying one or more secondary payloads—each capable of deploying an additional balloon, mechanism, sensor, or rocket system autonomously.

Deployment may include:

- Timed, sensor-based, or AI-assisted release of a secondary structure
- Balloon-into-balloon deployment (e.g., internal vacuum or gas envelope)
- Balloon-to-rocket staging platforms for orbital boost
- Balloon-to-glider or drone descent methods
- Autonomous navigation or energy harvesting at high altitude

This method may use:

- Barometric pressure sensors, IMUs, or onboard AI systems
 - Servo-actuated latches, heat-based release mechanisms, or pneumatic triggers
 - Compact structural expansion methods (folding balloon cells, telescoping arms)
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PHYSICAL PRINCIPLES

This method is governed by the principles of buoyant ascent and barometric pressure variation:

Atmospheric Pressure Drop with Altitude:

$$P(h) = P_0 \cdot e^{-Mgh/R} = P_0 \cdot e^{-\frac{Mgh}{RT}}$$

Where:

- $P(h)$: pressure at altitude h
- P_0 : sea level pressure (~ 101325 Pa)
- M : molar mass of Earth's air (0.029 kg/mol)
- g : gravitational acceleration (~ 9.81 m/s 2)
- R : ideal gas constant (8.314 J/mol·K)
- T : temperature in Kelvin

This drop in pressure triggers expansion or controlled release mechanisms depending on the payload design.

Buoyant Lift Force:

$$F_{lift} = (\rho_{air} - \rho_{gas}) \cdot V \cdot g$$

Where:

- ρ_{air} : density of ambient air
- ρ_{gas} : density of lifting gas (e.g., helium, hydrogen)
- V : balloon volume
- g : gravitational constant

This formula governs the initial lift capacity and determines how payload staging may need to account for changing density at altitude.

PERMISSIONS GRANTED

This license grants all persons, entities, and nations the right to:

- Build, deploy, or modify staged balloon platforms for peaceful and non-commercial testing, education, science, or humanitarian purposes
 - Share enhancements or derivative methods under the same ethical terms
 - Use this method as part of hybrid missions that comply with Dragon Link global ethics
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RESTRICTIONS IMPOSED

This license explicitly forbids:

- Weaponization of high-altitude payloads, either kinetic or electromagnetic
- Use of staged systems to invade sovereign airspace without coordination or consent
- Closed or proprietary locking of derivative deployments using this method
- Commercial IP ownership claims without attribution to the original license

All payloads must be designed with passive safety, parachute fallback, and public tracking systems unless explicitly exempted for valid scientific reasons.

LEGAL & MORAL CONTEXT

This license functions as:

- A **defensive publication**, blocking future proprietary patents of this method
- A **foundational planetary license** to keep atmospheric access fair, ethical, and open

- A collaborative framework for universities, scientists, makers, and engineers

It is legally recognized as a timestamped open-source document, and morally intended to prevent exploitation of an emergent planetary infrastructure.

SUPPORTING IMAGE & TECHNICAL CONTEXT

Refer to illustration titled:

“DGL-M2: Staged Atmospheric Balloon Deployment Method – System Overview”

Which visually outlines:

- Primary launch balloon
- Secondary balloon enclosure
- Trigger and sensor logic
- Deployment stage sequence

This license shall evolve alongside community feedback and expanded planetary needs.

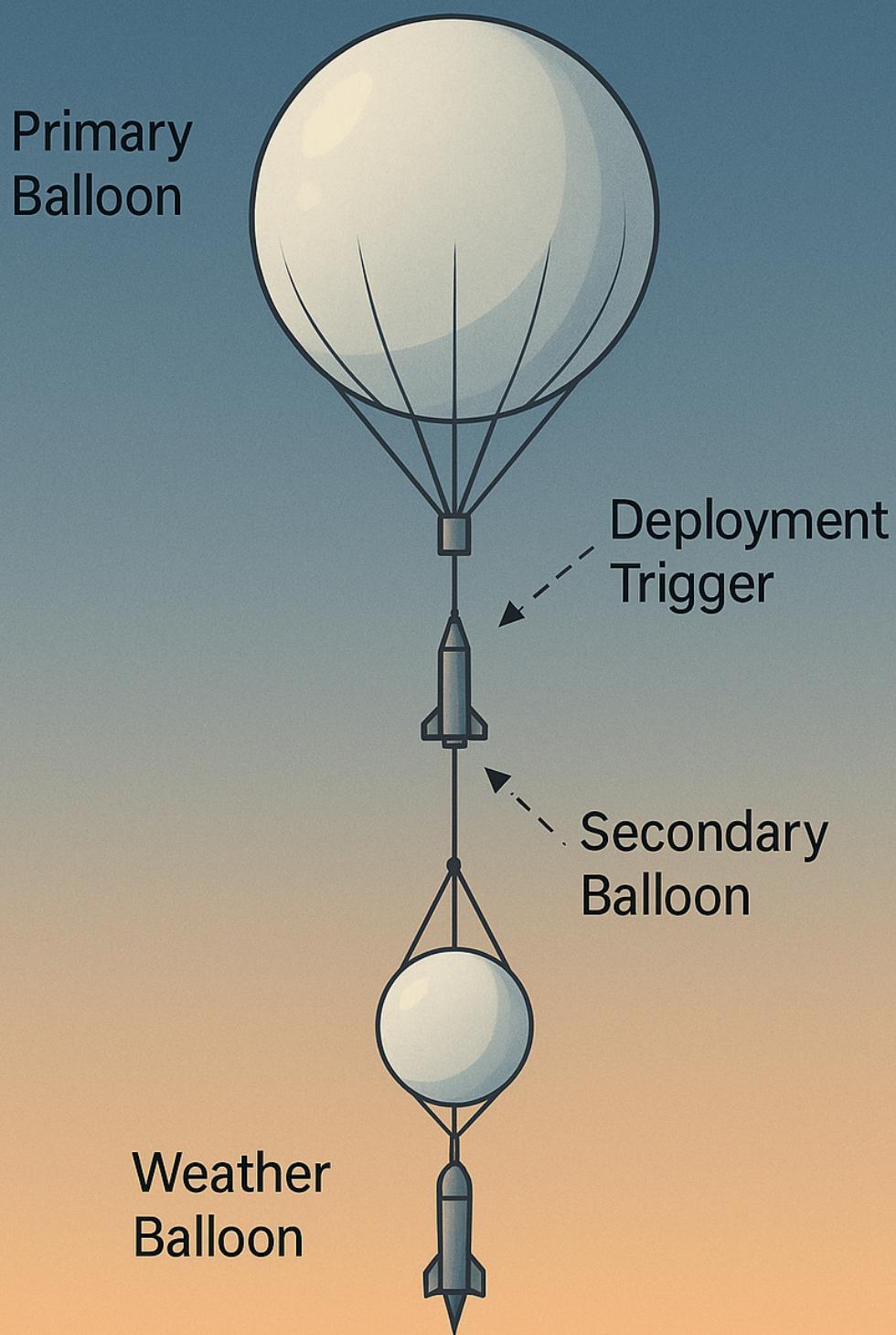
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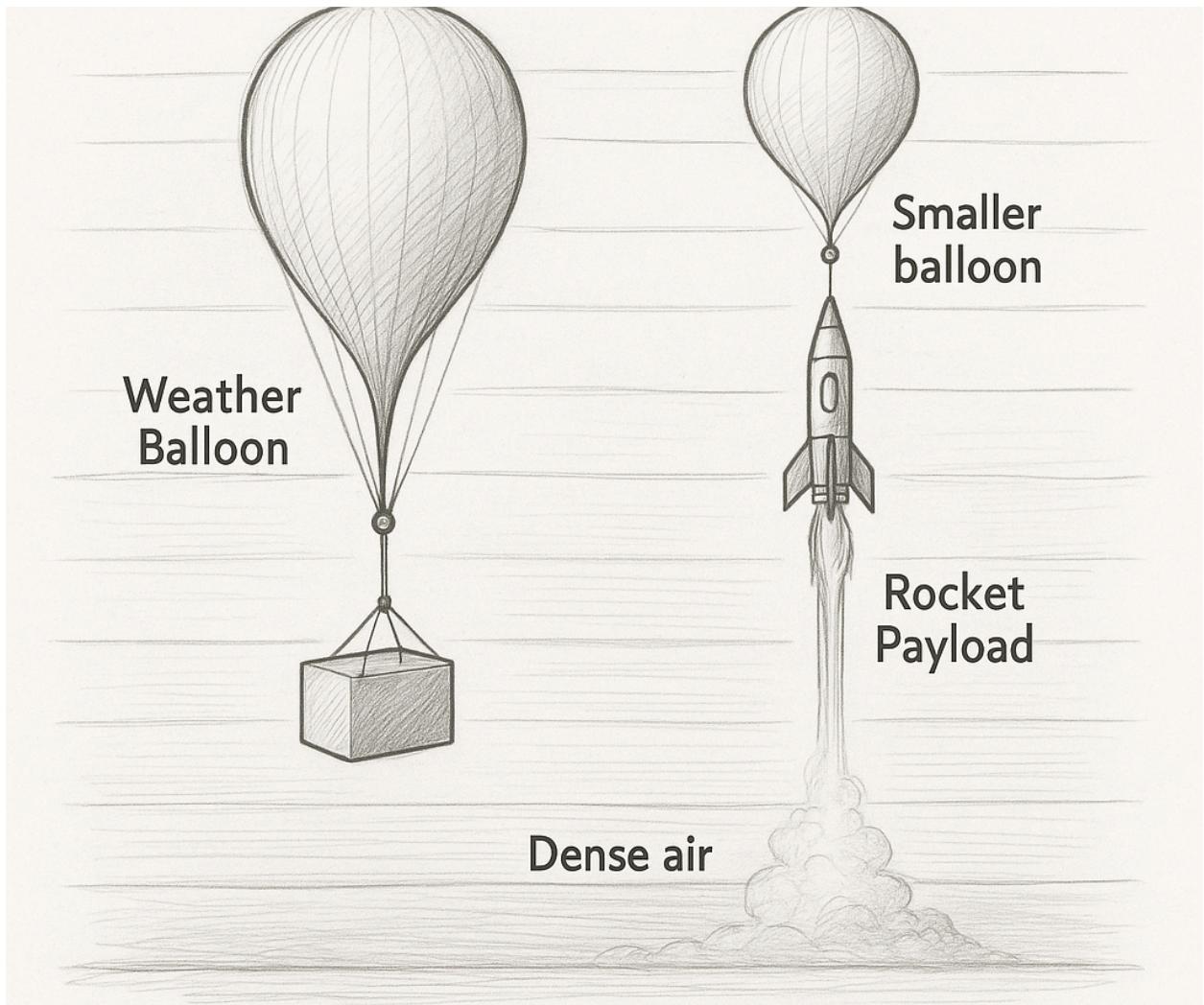
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DATE: June 7, 2025



DGL-M2: Staged Atmospheric Balloon Deployment





Staged Atmospheric Balloon Deployment

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