HAB-02: Returning to Space on a Budget

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WHAT IS A HAB?

The Binar Space Program uses High-Altitude Balloons, or HABs, as an affordable platform for hardware testing in near-space conditions. A latex sounding balloon takes a payload up to ~30 km (100,000 ft). Once popped, the payload drifts to Earth via parachute. HAB-02 is Binar's second HAB launch.

OBJECTIVES & PAYLOAD DETAILS

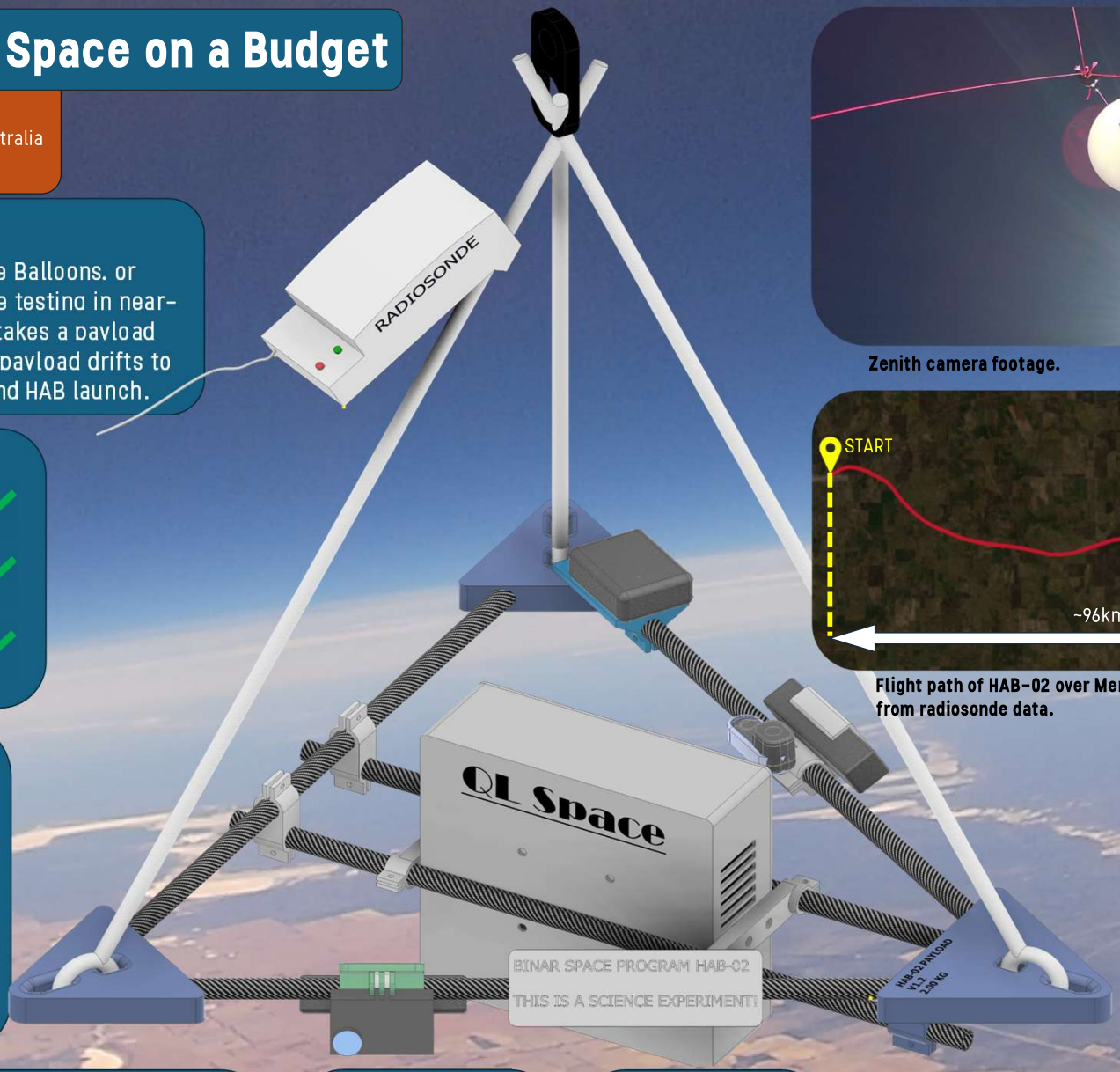
- Use radiosonde for GPS tracking and environmental monitoring ✓
- Fly Australian startup QL Space's prototype optics ✓
- Engage community with photos of Earth's curvature ✓

MISSION OUTCOMES

- Built relations with space industry partners
- Refined launch process and documented it for replication
- Proved HABs to be a reliable low cost ($600) testing tool for the Binar Space Program

FUTURE OF HABS WITH THE BINAR SPACE PROGRAM

- Use the platform to test CubeSat hardware (comms, solar panels)
- Engage with high schools to fly student-developed payloads
- Use the program to train leadership skills amongst young engineers



HAB-02 payload CAD model.

Zenith camera footage.

Flight path of HAB-02 over Merredin, Western Australia. Reconstructed from radiosonde data.

HAB-02 found in one piece by Binar and QL Space.

FLIGHT STATS

- 29.2 km
- 6.4 m/s
- 3 hrs 1 min
- -40° C (peak)

BACKGROUND TAKEN AT

16 km ABOVE WA

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