

# T H E R M A L   A I R S H I P S



# T h e r m

## *A unique promotional tool*

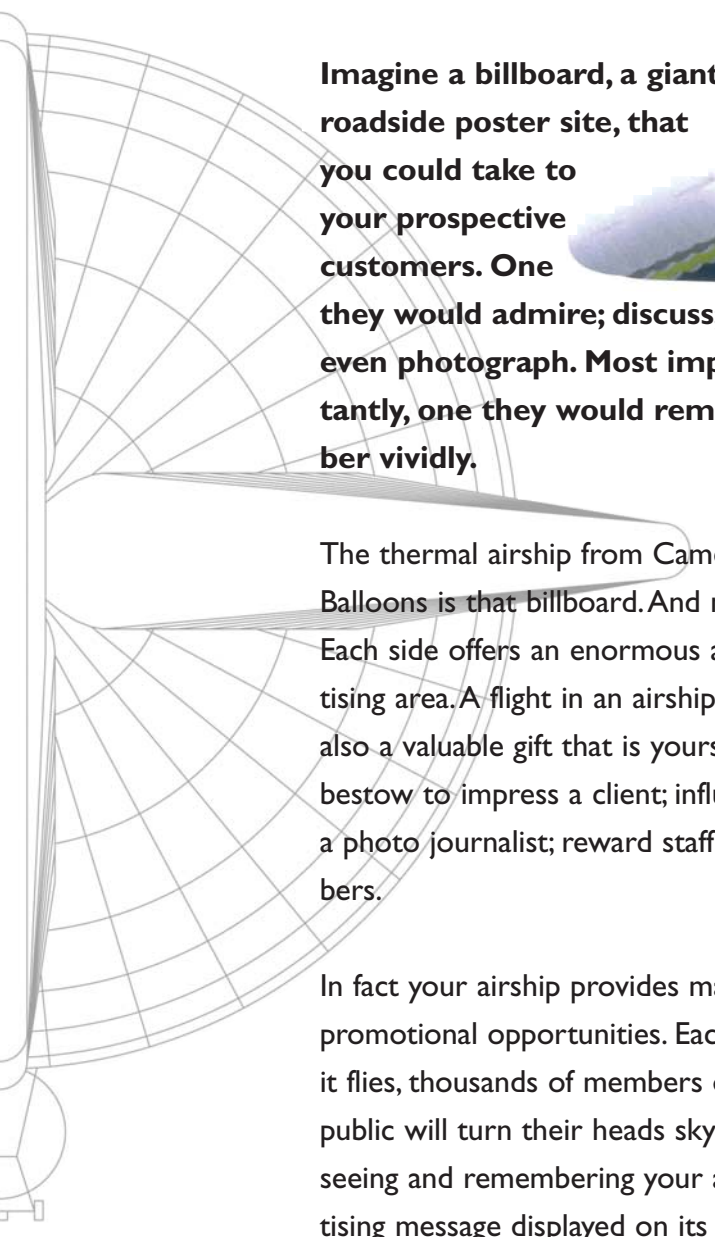
Imagine a billboard, a giant roadside poster site, that you could take to your prospective customers. One they would admire; discuss; even photograph. Most importantly, one they would remember vividly.

The thermal airship from Cameron Balloons is that billboard. And more. Each side offers an enormous advertising area. A flight in an airship is also a valuable gift that is yours to bestow to impress a client; influence a photo journalist; reward staff members.

In fact your airship provides many promotional opportunities. Each time it flies, thousands of members of the public will turn their heads skywards, seeing and remembering your advertising message displayed on its hull. Fly it before a specialist audience at a private event or exhibition, around out-of-town shopping centres to promote fast-

moving consumer goods, along major roads to influence motorists, guide house buyers to new real estate developments..... The possibilities are endless.

Of course, there are also many non-promotional uses for thermal airships. They make stable and highly manoeuvrable camera platforms, excellent mobile observation posts, cost-effective flying laboratories for atmospheric sampling. We have even built airships to ferry scientists up to the canopy of the rain forests in Brazil to collect samples.





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### ***So what is a thermal airship?***

In simple terms, a thermal airship is a hot-air balloon that is shaped to resemble a slightly fatter version of the Goodyear airship. The primary differences is that it is inflated with low cost hot-air rather than expensive helium.

Beneath the envelope - the bag that holds the hot-air - is a streamlined tubular spaceframe gondola that carries (depending on the model) up to four people, has propane powered burners to warm the air, and a propulsion engine which drives a

propeller to move the craft forward.

A thermal airship costs less than five percent of the price of a large helium airship to buy and incurs less than a tenth of one percent of the operating costs, yet will conservatively return a high proportion of the advertising value. A crew of three - pilot plus two ground staff - can operate these thermal airships, which pack away into a trailer when not in use. No expensive hangar or mooring mast are required.

### ***How does a thermal airship work?***

It's a well known fact that hot air rises. The propane burners contained in the airship's envelope heat the air. The powerful burners that are used are propane burners. As the air warms, the airship will rise; allow the airship to descend until the desired altitude is reached. Altitude control is quite precise.

The propeller mounted beneath the gondola is driven by a small but powerful engine. As the pilot opens the throttle the airship



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## mal airship work?

warm air rises. The air envelope is heated by fuelled by liquid petroleum. When the air is warmed gentle cooling and the burner is used again. recise.

behind the gondola is driven engine. When the pilot ship moves forward;

operate the rudder control and the craft will turn almost within its own length.

With a top speed of up to 32 km/20 miles per hour (depending on model) and a preference for the lighter wind conditions that are found in the early mornings and evenings, the thermal airship is not designed for long cross country journeys. In any case, it's easier and faster to pack it away and take it by road to a new location. Where the craft offers unbeatable cost effectiveness is in local promotions.

Watch it fly alongside the rush hour traffic or over an important sporting event. Cruise it around the car parks at major shopping malls.

Subject to national regulations you can even make spectacular cross town sorties at night, the envelope being illuminated like a giant sign every time the burner is turned-on.



## Some technical information

**Different versions of our thermal airships are designed to carry either a pilot plus one or a pilot plus up to three additional people. Their exact lifting ability can be affected by the temperature of the air and the operating location.**



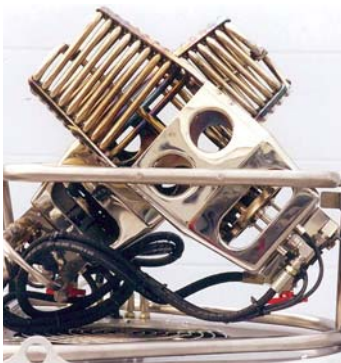
Envelopes are constructed from Hyperlast, a high strength polyamide material that is coated with a special heat resistant polymer. Our skilled artists can reproduce company logos and lettering styles perfectly on each side of the airship hull and gondola.

Two slightly different envelope shapes are available: the AS-MkII series is the basic design, available in two sizes (105,000 cu ft and 120,000 cu ft), with the AS105 GD being a more streamlined variant with a slightly improved top speed and higher operating temperature.



In flight stability is enhanced by large horizontal and vertical fins. These are complemented by a full height rudder which provides excellent manoeuvrability.

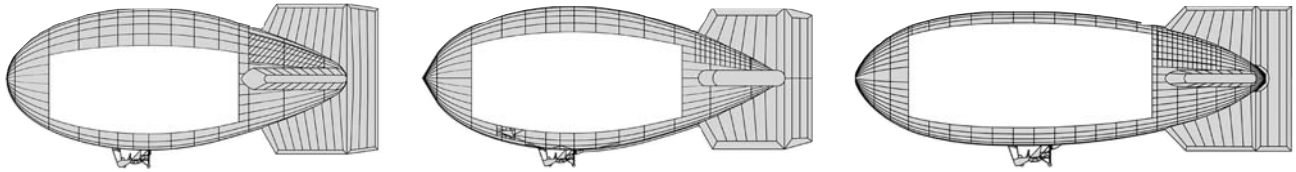
The gondola has comfortable seating and excellent all round visibility. Full aircraft style instrumentation is provided. It can also be supplied with a full range of avionics packages including VHF radio and transponder, allowing the airship to fly in congested airspace, and an onboard intercom system. The gondola is constructed on a steel tubular space frame clad with hand-fashioned aluminium and polycarbonate panelling to minimise weight and reduce aerodynamic drag. Propulsion is provided by a water cooled Rotax engine linked to a high-thrust, low-noise carbon fibre propeller.



The enhanced burner system has dual ignition and remote hand / foot operation. This powerful system provides the airship with effective heating under all conditions while keeping burn times to a minimum.



## Detailed technical data Envelope



TYPE	ASI05MKII	ASI20MKII	AS-105GD.
Volume m3 (ft3)	3000 (105,000)	3400 (120,000)	3000 (105,000)
Overall length m (ft)	36 (118)	39 (128)	44 (144)
Maximum dia. m (ft)	12.4 (41)	13 (43)	12.5 (41)
Weight kg (lb)	250 (550)	300 (660)	205 (451)
Banner Size m (ft)	19 (62) x 9.5 (31)	20 (66) x 9.9 (32)	20 (66) x 8 (26)
Materials	Hyperlast	Hyperlast	Hyperlast

## Gondola



TYPE	2 SEAT	4 SEAT
Width m (ft)	1 to 1.75 (3.3 / 5.8)	1 to 1.75 (3.3 / 5.8)
Length m (ft)	3.85 (13)	3.85 (13)
Height m (ft)	1.8 (6)	1.8 (6)
Weight kg (lb)	250 (550)	250 (550)
Materials	Steel tubular spaceframe, aluminium / polycarbonate panels.	

