

AIRSHIP-GP



WHAT WAS AIRPLANE #500?



ONLY 500 DIRIGIBLES BUILT!

INTRODUCING AIRSHIP-GP

Vladimir Ivanov
Kostantin Kolpakov
Alex Ermolaev



for BUREAU OF AIR MAIL

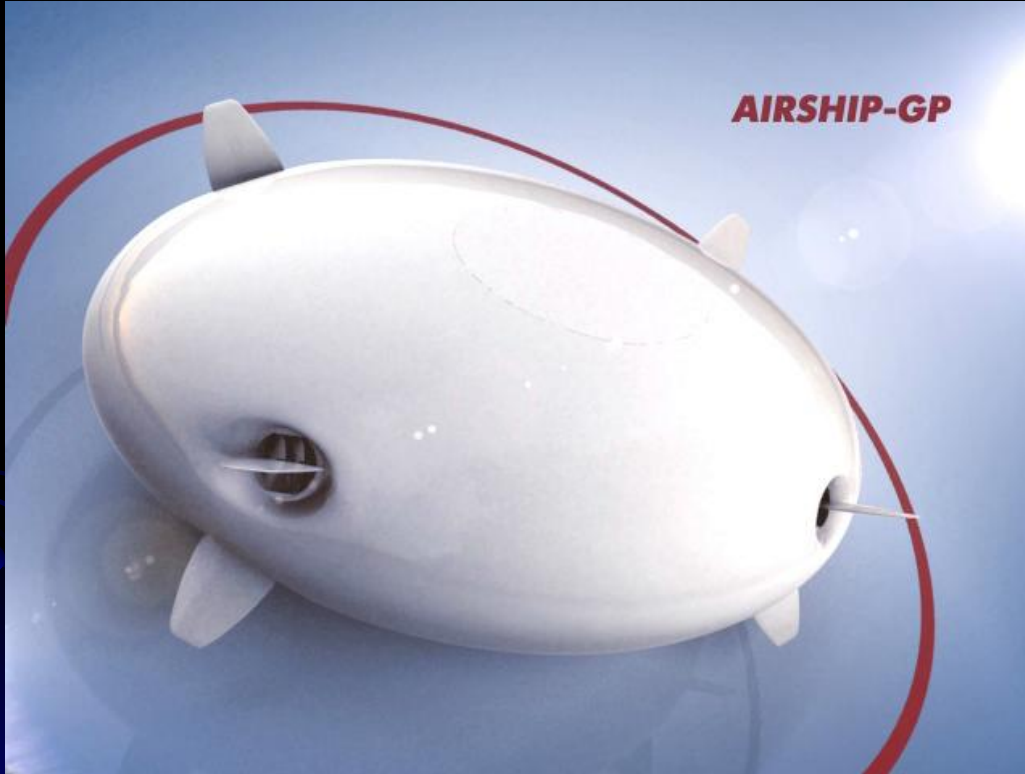


AIRSHIP-GP
GENERAL-PURPOSE

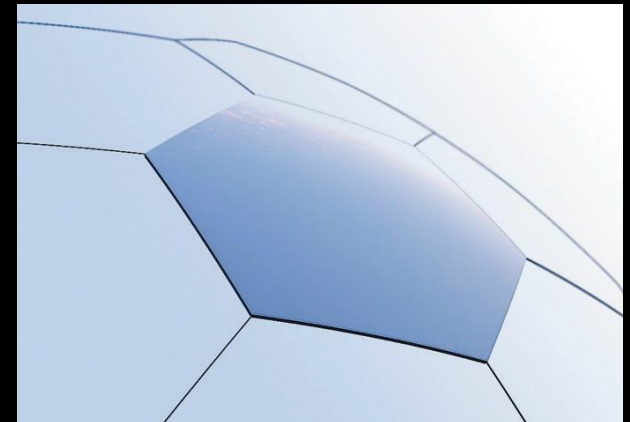
ALL WEATHER AIRSHIP-GP



AIRSHIP-GP BODY



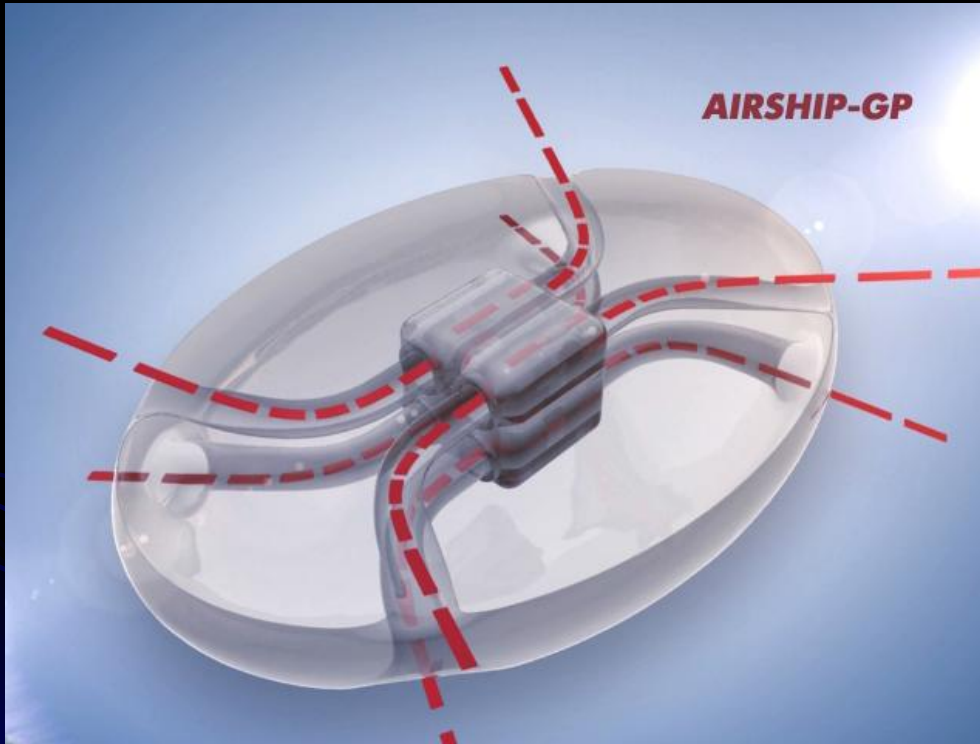
- rigid, tri-axel ellipsoid
- aerodynamic, fuel and wind efficient
- Internal propulsion
- ultra-light composite sandwich-panels



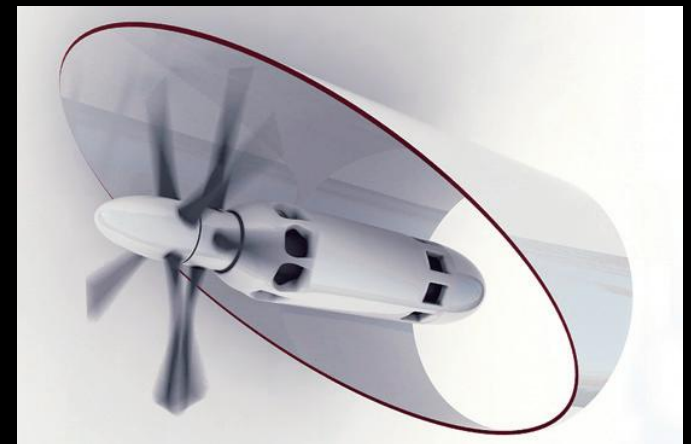
NEW PROPULSION SYSTEM



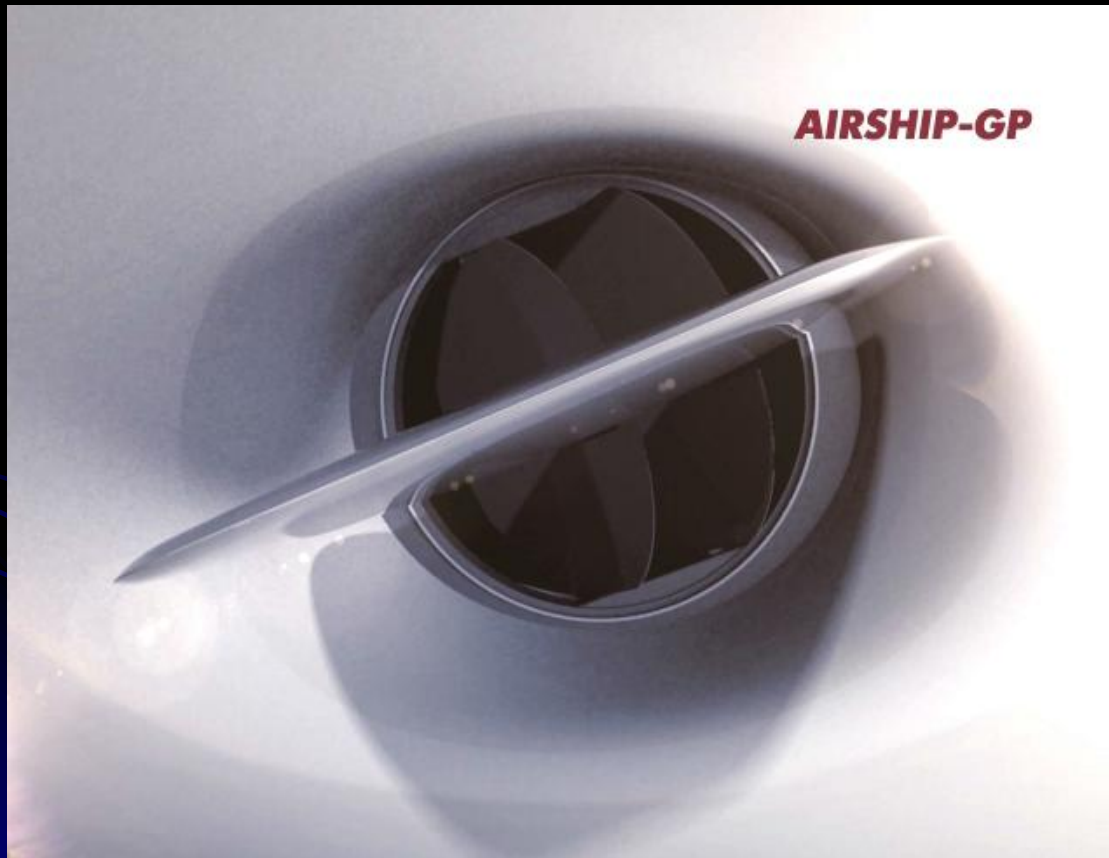
AIRSHIP-GP PROPULSOR



- eight air channels
- bidirectional
- one central chamber
- eight propellers
- Turbo shaft, gas turbine, piston or rotary engine



CONTROLLABLE JET-NOZZLES



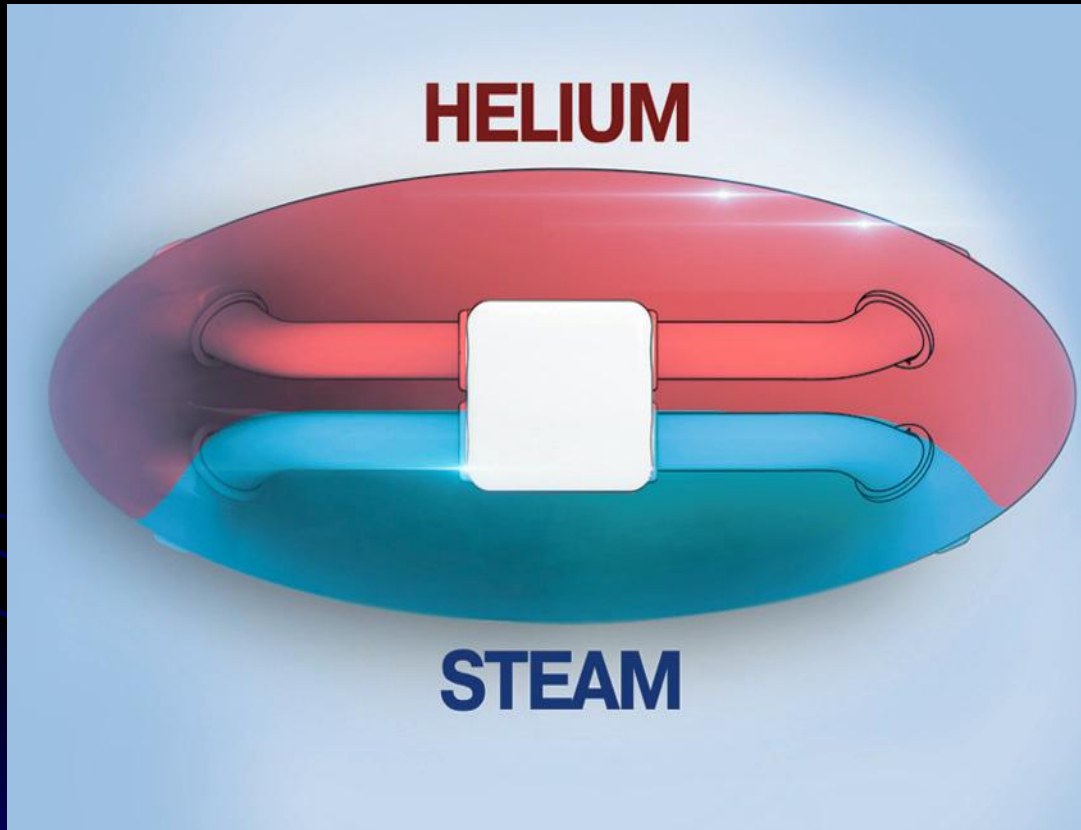
- Active element of navigation
- Use two-plane deflectors
- Outer diameter is 9 meters for Airship GP-100
- Seamlessly built into the airship body

AERODINAMIC RUDDERS



- Located in front in front of the jet nozzles
- Can turn to any angle
- Exceptional maneuverability under any wind direction

BOUYANCY



Air displacement elements located inside the body:

- soft ballonets with helium
- elastic ballonets with steam

Extra lift from propulsion system

NAVIGATION CONTROL

- Inertia-based and/or optical-based navigation system
- Manual or autopilot
- Autopilot is recommended for strong wind
- Precision of maneuverability is 0.1 meters in stormy wind



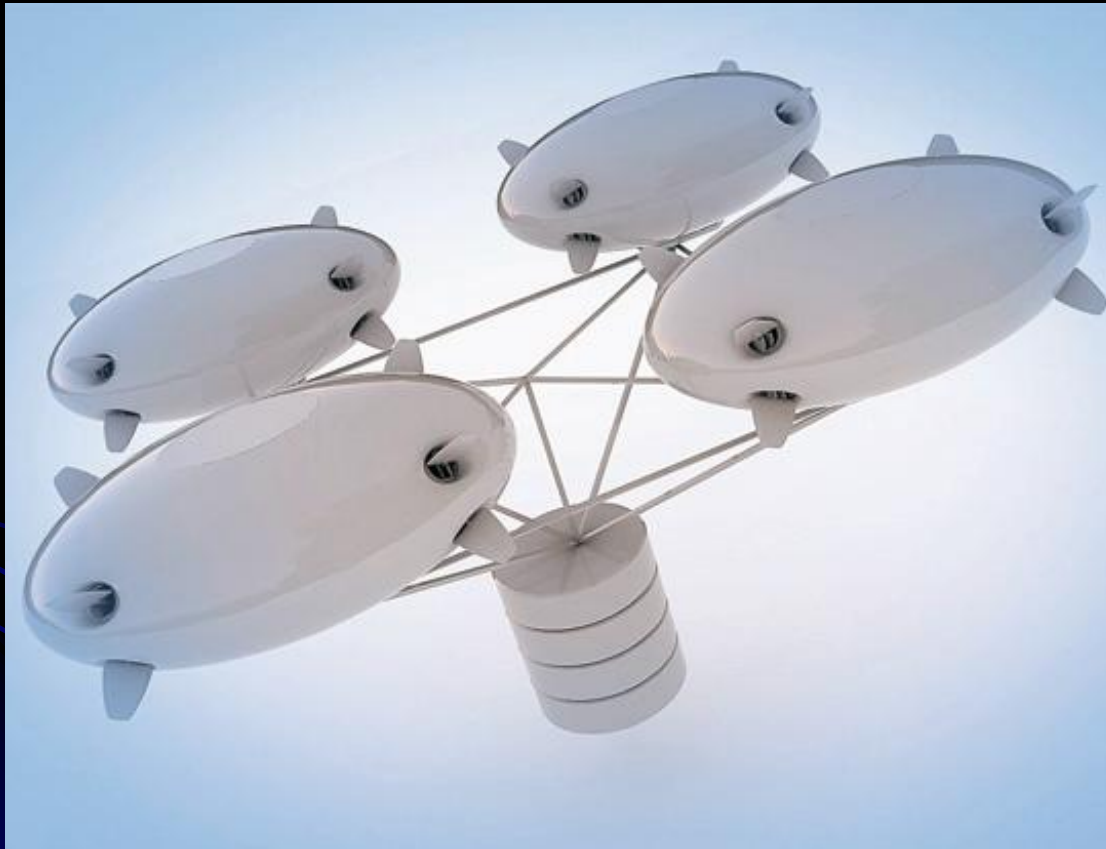
THE COCKPITS OF THE AIRSHIP- GP-100-CARGO

Compartments placed in the lower part of the body and under the body of the airship:

- Control room
- Staff cabins
- Machine and service compartments
- Cargo hold
- Passenger cabins



WORKING IN GROUPS



- Precise midair control enables group delivery
- Immensely increased load capacity
- No reduction in safety
- One airship can tow several other airships

NEW FEATURES OF THE AIRSHIP

- Accurately move up/down, maneuver, landings/ takeoffs under any wind conditions and any ground obstacles
- Hover in same place for many hours
- As flying crane, does not produce strong stream of air
- No landing pads required – land anywhere
- Very quiet. Almost noiseless at low speeds



POSSIBILITIES OF THE AIRSHIP GP

- Operations under any weather/visibility conditions
- Refueling without landing means practically unlimited range
- Group delivery of many loads
- Safe and reliable in all weather conditions



VERSIONS OF AIRSHIP-GP

- Different versions profitable for different loads/tasks.
- Initially:

Load
75-150
tons

AIRSHIP-GP-150



25-50
tons

AIRSHIP-GP-100



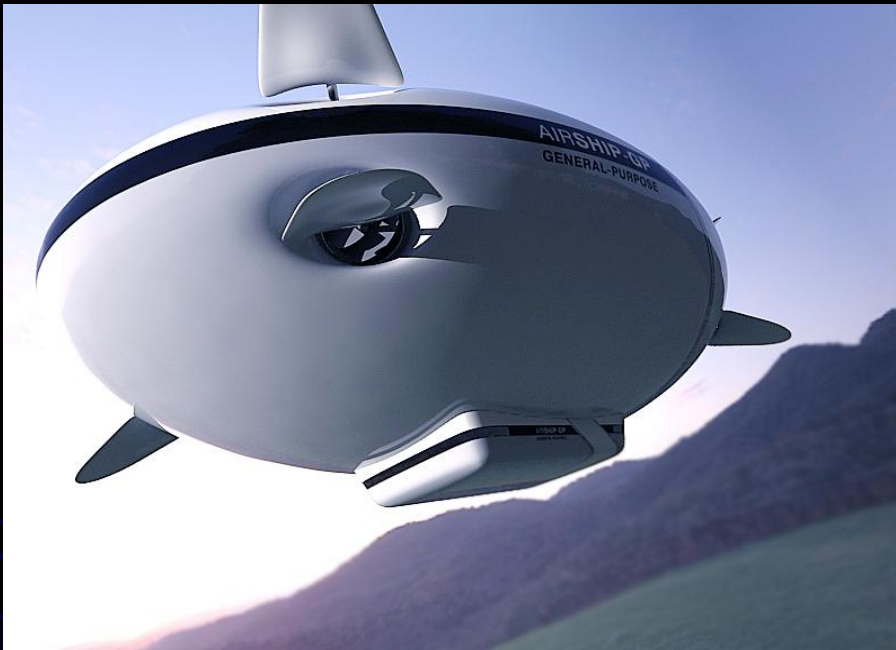
2-5 tons

AIRSHIP-GP-50



GENERAL PURPOSE AIRSHIP-GP-50

Load capacity 2-5 ton



Widens the niche of general purpose helicopters and can serve about half of the niche.

- Delivering rescue teams and machinery to area of catastrophe
- Evacuation from catastrophe
- Search and rescue 365 X 24
- Put out fires in the city as well as evacuate civilians from top floors/roofs of buildings.

PASSENGER AIRSHIP-GP-100



- Smaller market: flying yachts, air hotels, replace sea ferries.
- High level of comfort and safety.
- No air pads means extreme flexibility of transport routes

CARGO AIRSHIP GP-100



- Two markets: flying crane, cargo airship
 - 25 tons; 50 tons (with ballast dump); 180 tons in groups
 - Deliver large heavy equipment directly from factory directly to destination
- Power line towers
 - Chemical reactors
 - Broken airplanes or parts
 - Drilling equipment
 - Exploration and mining
 - Extinguish forest fires
 - Evacuation hospital
 - Wind turbines/parts

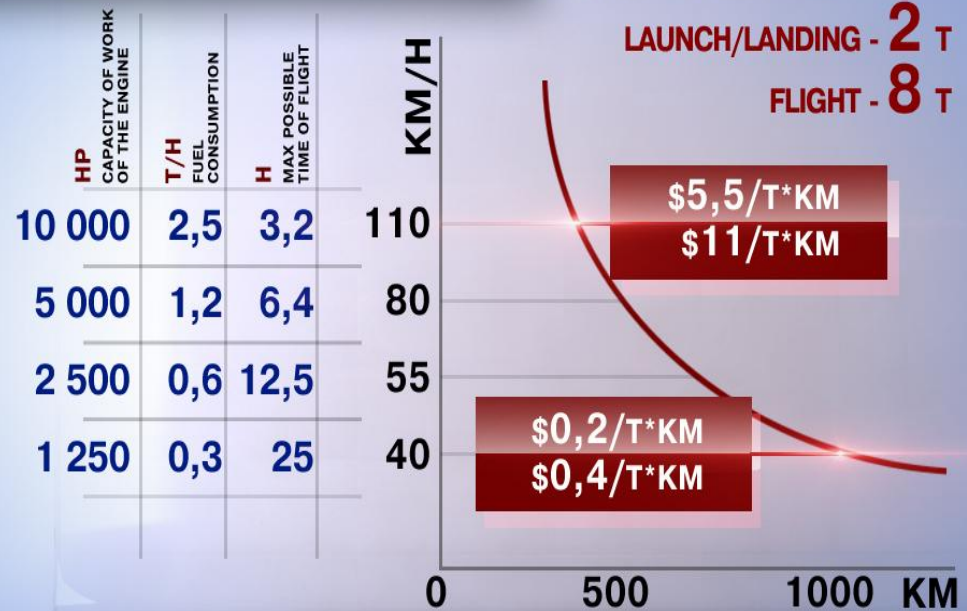
FUEL EFFICIENCY

- Similar to heavy helicopters at max speed, lower at low speed and while hovering
- Suitable for both short and long distances

FUEL EFFICIENCY

10 TONS OF FUEL
STANDARD REFUELING

LAUNCH/LANDING - **2 T**
FLIGHT - **8 T**



SETTLEMENT FUEL EFFICIENCY FOR CARGO **50/25 T**

AIRSHIP-GP-100-CARGO MARKET POTENTIAL

MARKET VOLUME

AIRSHIP-GP-50

**GENERAL PURPOSE
HELICOPTERS**

AIRSHIP-GP-50

A Venn diagram with two overlapping circles. The left circle is outlined in red and labeled 'AIRSHIP-GP-50'. The right circle is outlined in blue and labeled 'GENERAL PURPOSE HELICOPTERS'. The overlapping area is shaded in a light blue color.

- Overlaps cargo helicopter market
- Creates new niche for transcontinental transports of heavy/nonstandard loads.
- Usable in cases where large loads would not be able to pass over regular roads/highways.
- Does not overlap airplane cargo delivery

CHASSIS ?



AIRSHIP-GP

