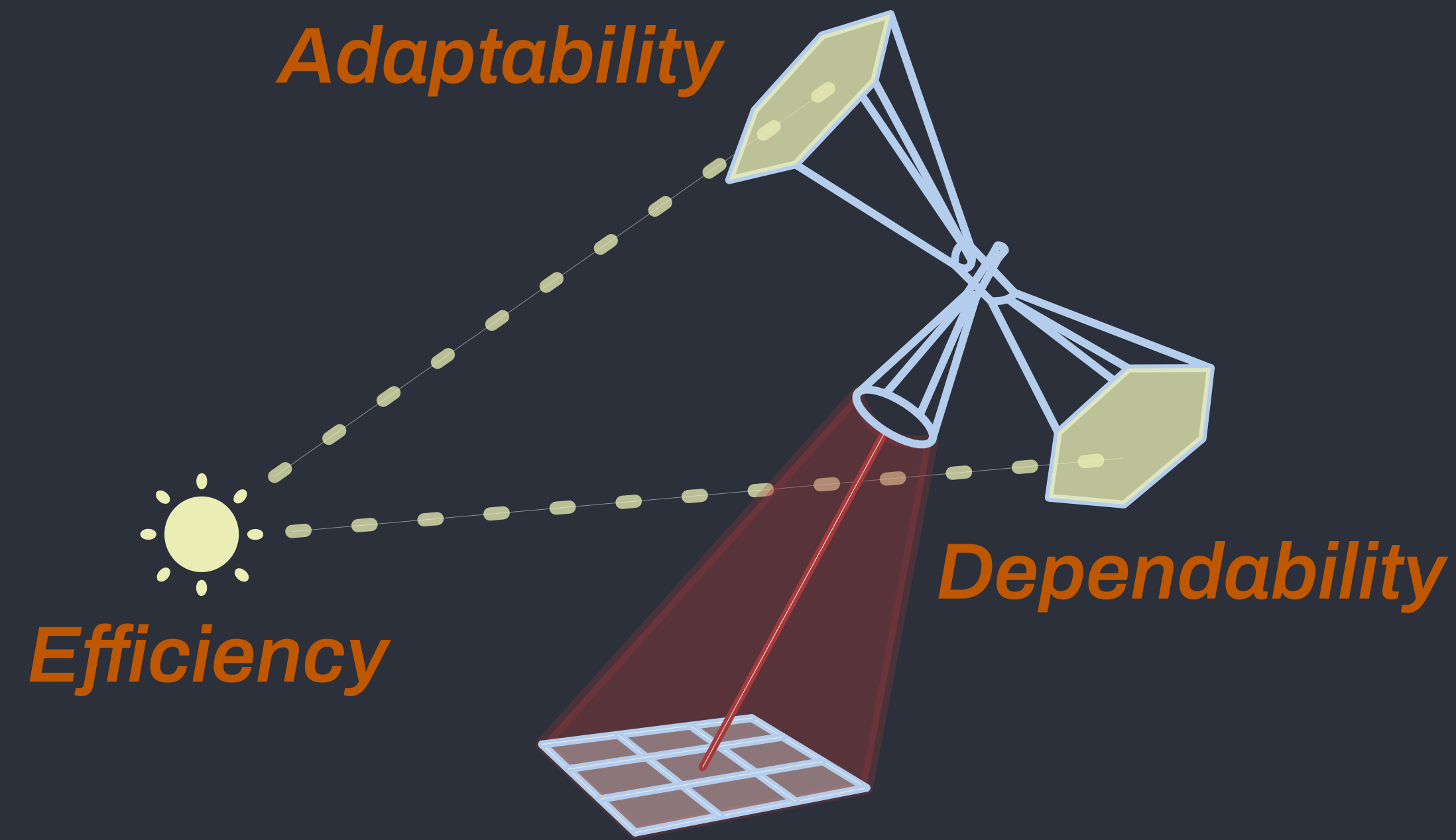


# Space-Based Solar Power: Reaching New Heights in Green Aviation

3 areas of focus:



A global solution designed to withstand cybersecurity & environmental safety challenges alike

### Cybersecurity Mechanisms



Internal locking software prevents the usage of lasers if the target is not moving at the minimum speed of an aircraft.

### Thermal-Friendly Strategy



Satellites would block 0.00001% of the total solar influx, rendering its thermal impact negligible.

### Gradual Transitioning



Reusing older lithium-ion batteries for taxiing & takeoff to reduce mining efforts.

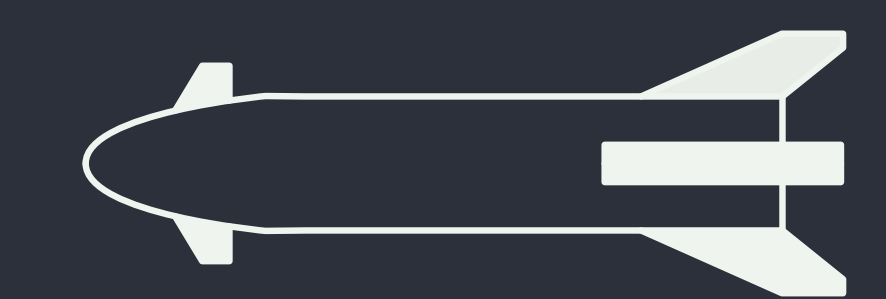
### Atmospherically Beneficial



10:1 CO<sub>2</sub> reduction compared to the emissions created across the Boeing 737-Max-8's lifetime.

**Adapting current tech for a flexible future.**

- Our lasers emit six times less than the maximum permissible exposure to cause injury
- Utilizing smaller satellites in a larger quantity ensure lasers remain safe yet operable worldwide
- Internal software and mechanical precautions strengthen the satellites against tampering
- A modular approach allows airports to be fully equipped to serve SBSP planes in 10 years



Efficient charging system can be adapted across current & future aircraft types

**Power a future you can depend on.**

**Purposeful & Powerful**

## Carbon Comparison

99%

reduction of carbon emissions

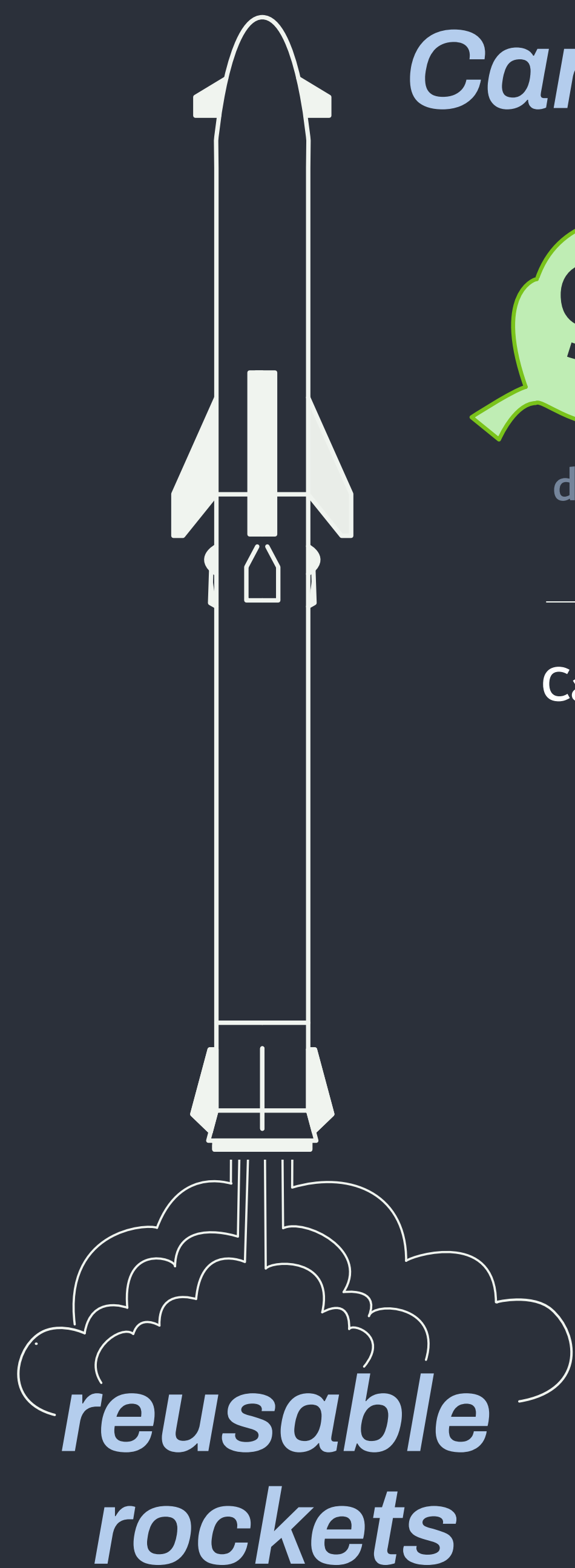
derived from the rate of kg of CO<sub>2</sub> released per hour from SBSP with respect to traditional jet fuel

Calculated from the emission rates from launching three reusable satellite rockets everyday:



(measured in kg/h of CO<sub>2</sub> released per person)

will only occupy ~3% of total anticipated trash generated by satellite debris by 2050.



15 satellites concentrated per plane can supply enough energy for 20 years

Beams only operate when aircrafts reach cruising altitude

SBSP lasers are ineffective at impairing eyesight due to the careful use of infrared waves

Lasers will operate with

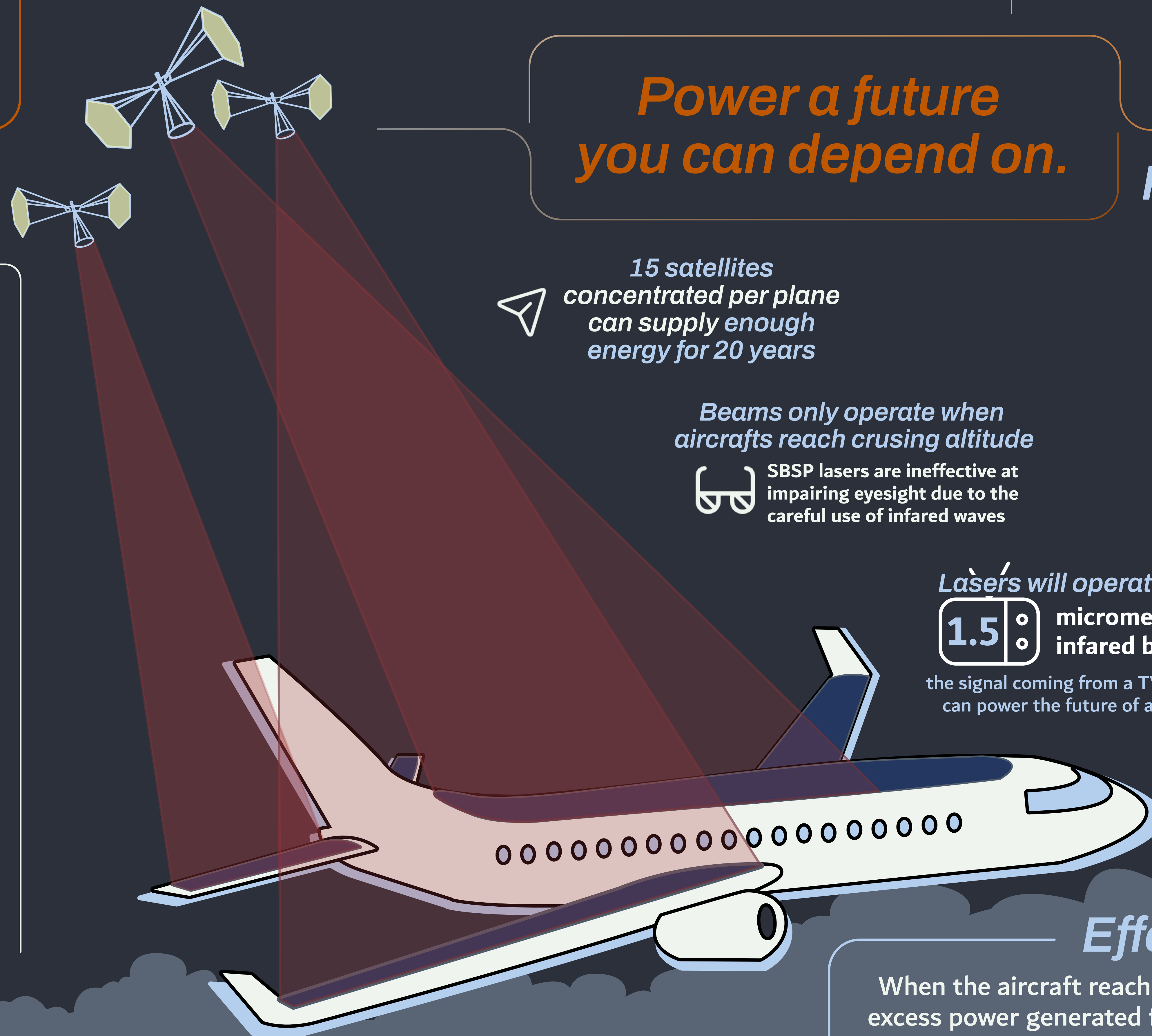
1.5 micrometer infrared beams

the signal coming from a TV remote can power the future of aviation

Self-healing solar panels



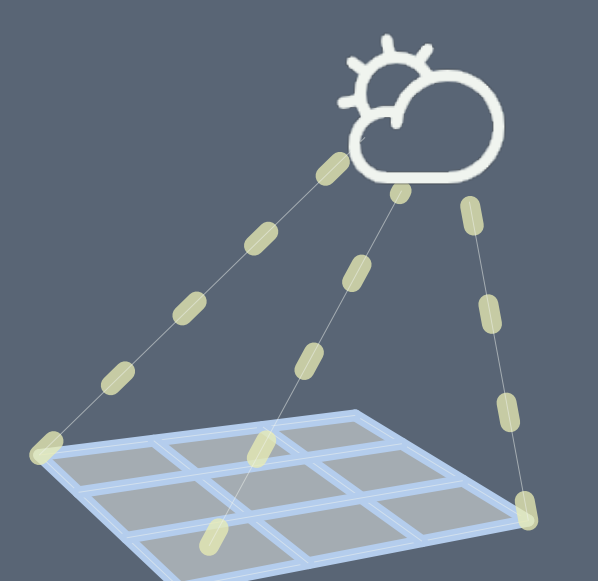
Double halide perovskite material that can self-repair holes will optimize maintenance of satellites.



**Effortless Charging**

When the aircraft reaches cruising altitudes, excess power generated from the photovoltaic receivers will recharge backup batteries, used mainly for taxiing and for as an energy buffer.

SBSP anticipates the development of more favorable battery technology to integrate.



Solar panels have increased in use by 23% from 2020 - 2021, expected to streamline our application usage for standardization by 2050.