

Group 9: Do It Yourself Suborbital Sounding Rockets

Working Group Discussion

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Now Possible for Suborbital

DIY Sounding Rockets

- Depending on country specific regulations
- In the United States
 - Typical solid fuel motors largely unregulated
 - Up to about 40,000 newton-seconds
 - Collaboration with Federal Aviation Administration for air space rules
 - Insured launches organized by AeroPac (Tripoli Rocketry Association, National Association of Rocketry)
 - Mentored rocket building skill
 - Well established safety rules
- Sweet spot for 30–80 km altitude, CanSat sized payloads for < \$2k/flight

State

Australia

- ▶ amateur rocket club

Turkey

- ▶ buy rocket motor
- ▶ place for launching rockets

Japan

- ▶ amateur rocket club
(but small rocket)
- ▶ can't buy
over J class rocket motor
- ▶ no place to launch

Comparison

Japan	sounding rocket	\$80k
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U.S.A	sounding rocket	\$ 2k
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U.S.A' s sounding rockets is affordable.

Conclusion

We can make low cost sounding rocket.
(put place and safety rules aside)

→ keep discussing
the capability of sounding rockets.

(Ex. Microgravity, science, education,···)