

DM16 in a Satellite Launch Campaign



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University of California, Berkeley

Space Sciences Lab



- Established 1958
- Supports science by UCB faculty
- Balloons, rockets, and satellites
- SETI@Home
- Stardust@Home



- B.S. Computer Science-
UNH
- M.S. Space Studies-
www.space.edu



Courtesy of Orbital Sciences Corporation

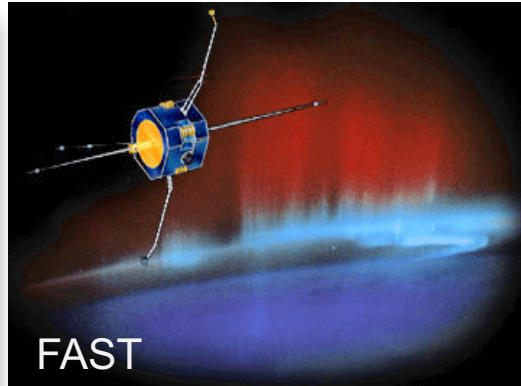


- NuSTAR
- ICON
- EOA/MOAB
- TRACERS

Operations History at UCB/SSL



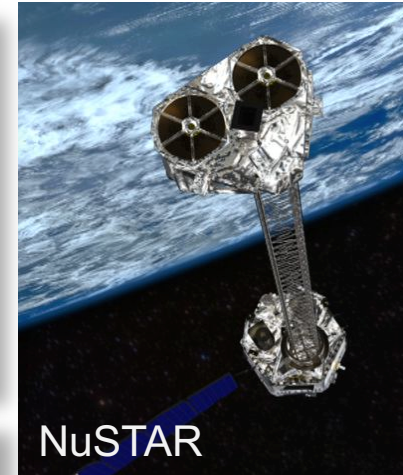
EUVE



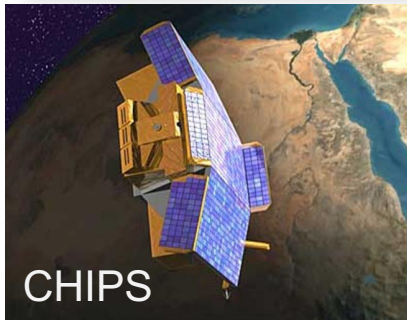
FAST



RHESSI



NuSTAR

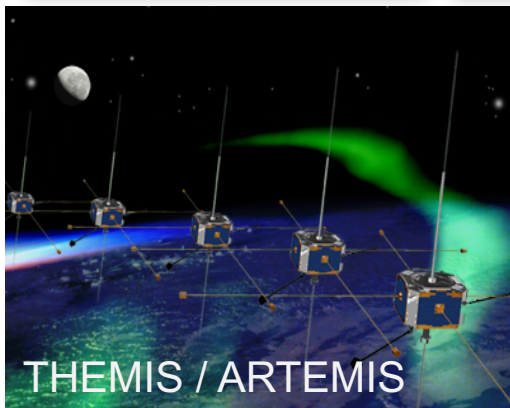


CHIPS

UCB/SSL operated 10 NASA Explorer spacecraft over a period of more than 20 years (7 are currently operational).



ICON



THEMIS / ARTEMIS



Mission Operations Center



BGS 11-m

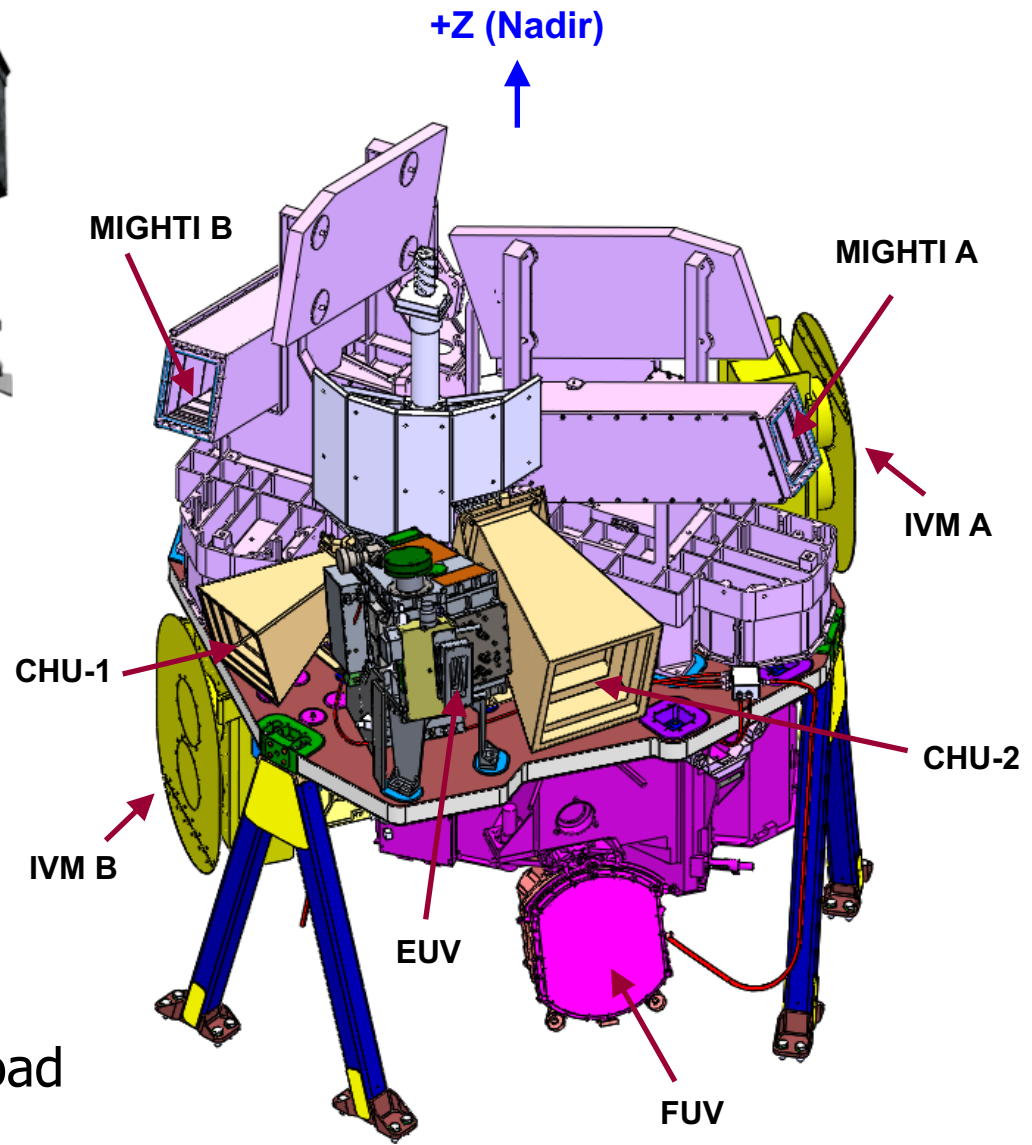
ICON, the 11th spacecraft, launched in 2019.





Deployed Observatory
in LVLH Attitude

+Z (Nadir)

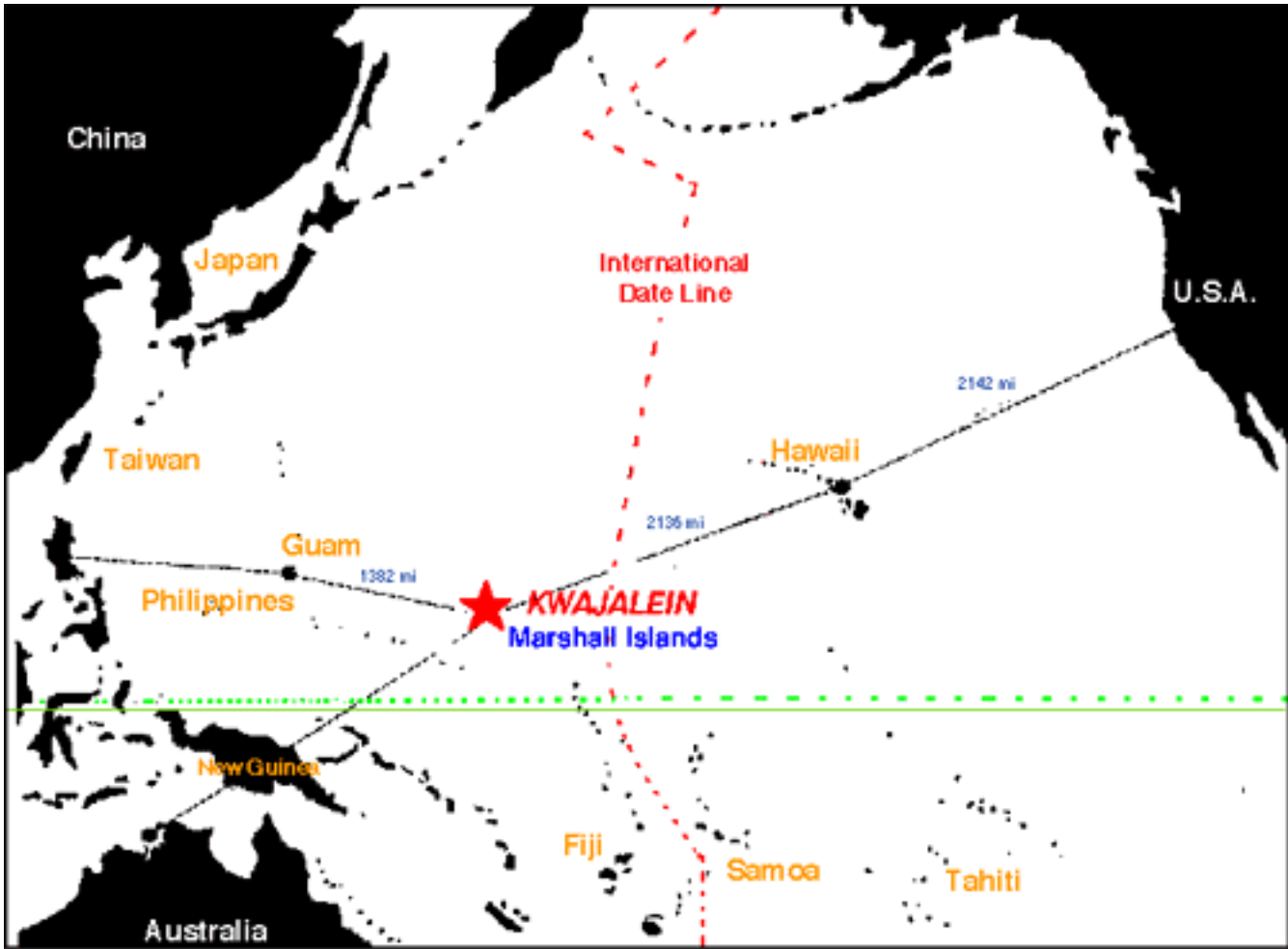


Integrated Payload

The Ionospheric Connection Explorer – For understanding the connection between our atmosphere and space



The overall goal of ICON is to resolve **how conditions in our space environment are controlled by terrestrial weather**





PETROPAVLOVSK - 2645

WAKE - 637

ANCHORAGE - 3360

HONOLULU - 2100

WASHINGTON, D.C. - 7156

KODIAK - 3325

PRAGUE - 8077

BALI - 3211

TOKYO - 2240

GUAM - 1374

HONEY - 2210

HONG KONG - 2160

WELLINGTON

MANILA - 2775



CAUTION

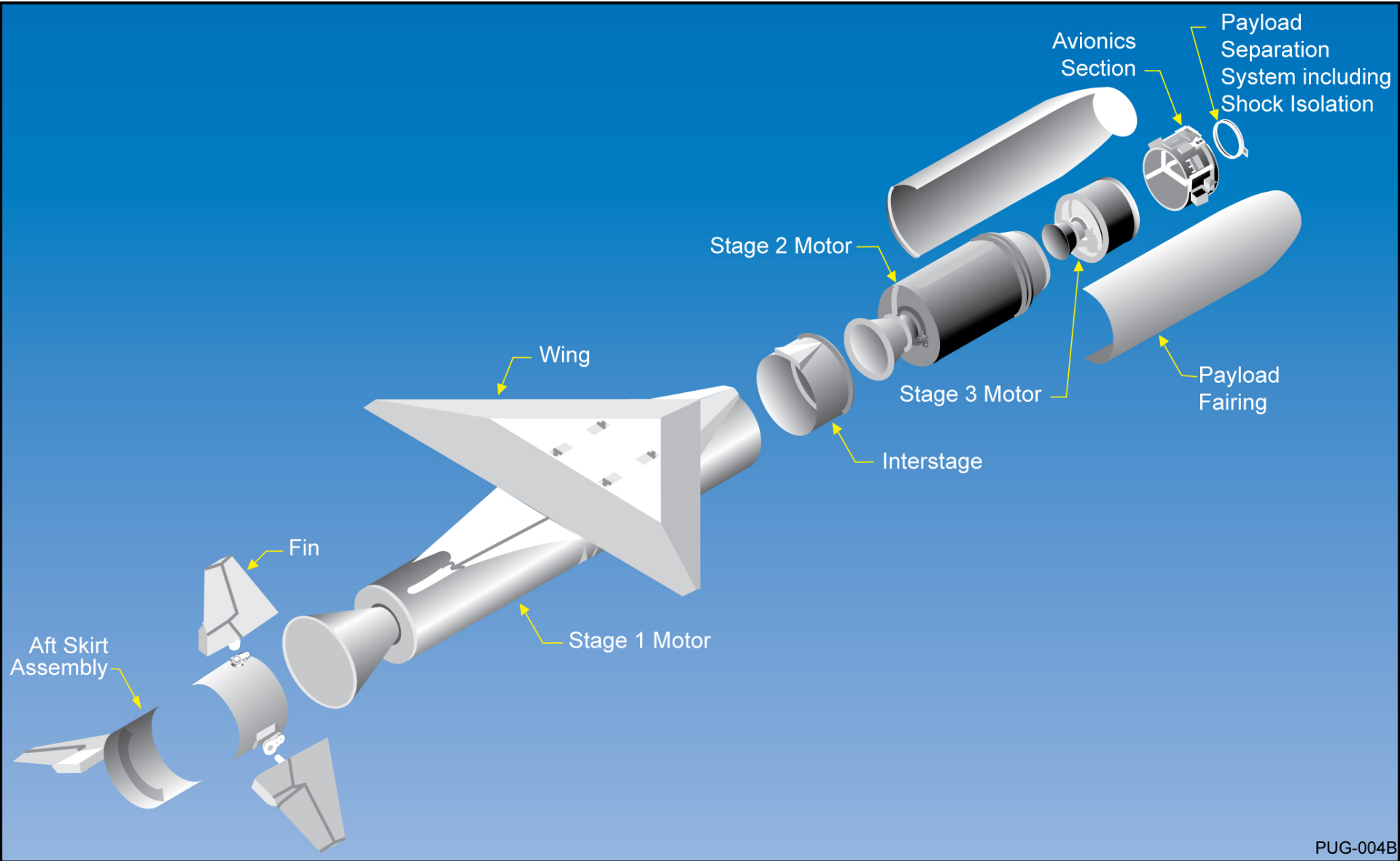
**Natural
Vegetation**

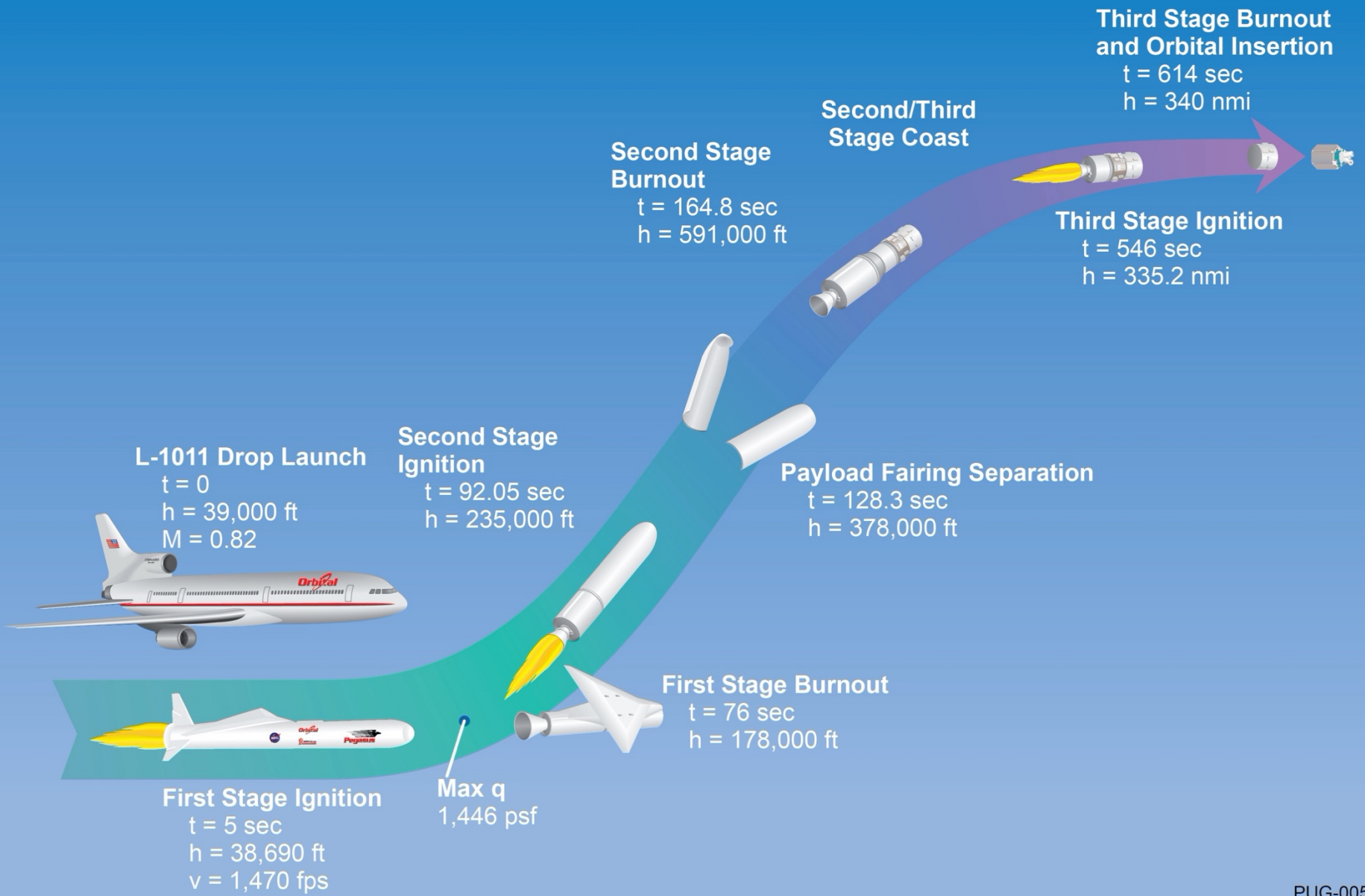
**Beware of
falling coconuts
and vegetation**











PUG-005r1

Pegasus XL NuStar Mission Profile



E

Orbita

NASA

AIK



PORT

UC Berkeley BSL

SAFETY FIRST



Pegasus

Pegasus

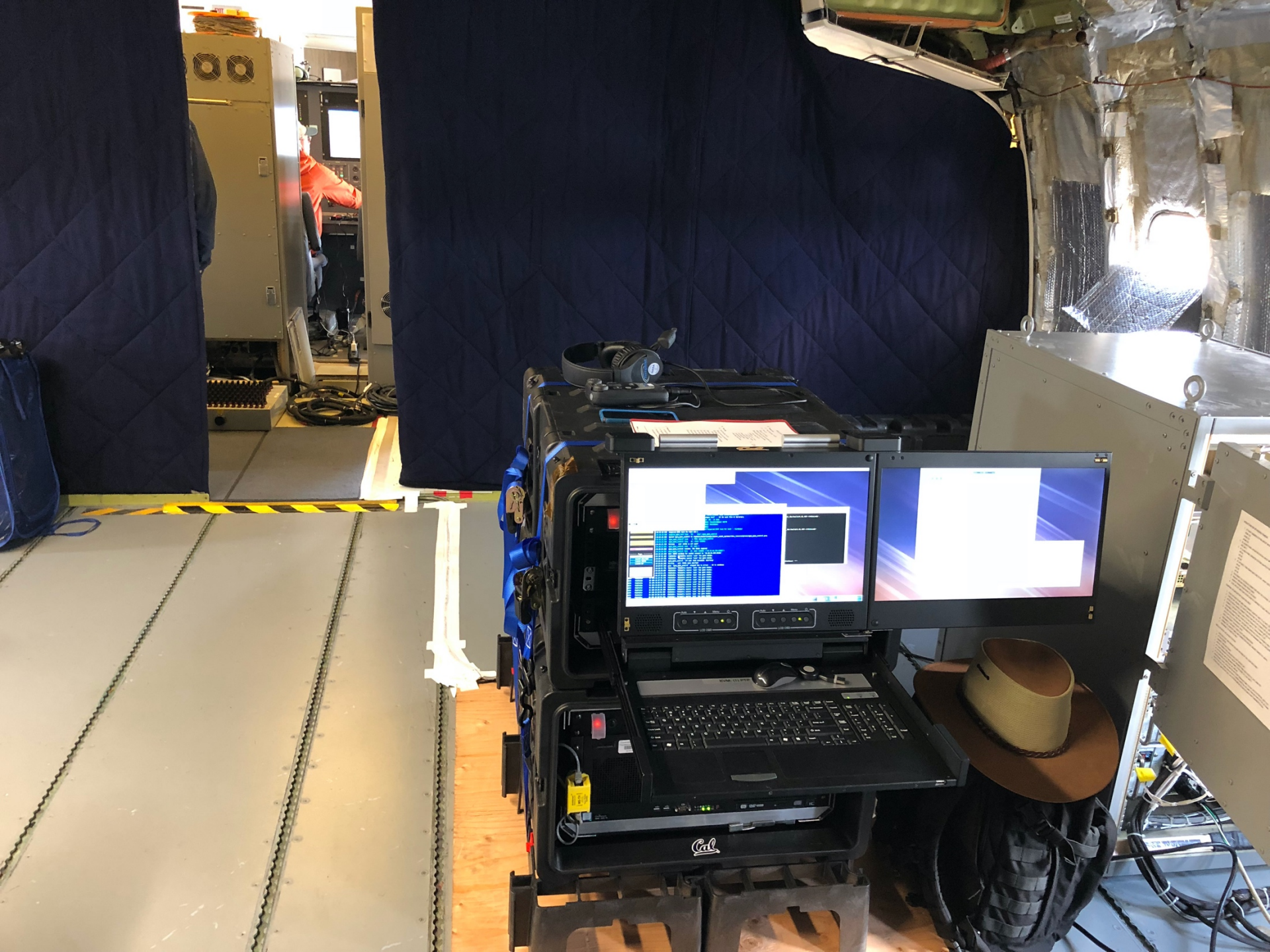
CAUTION

SAFETY

SAFETY

SAFETY

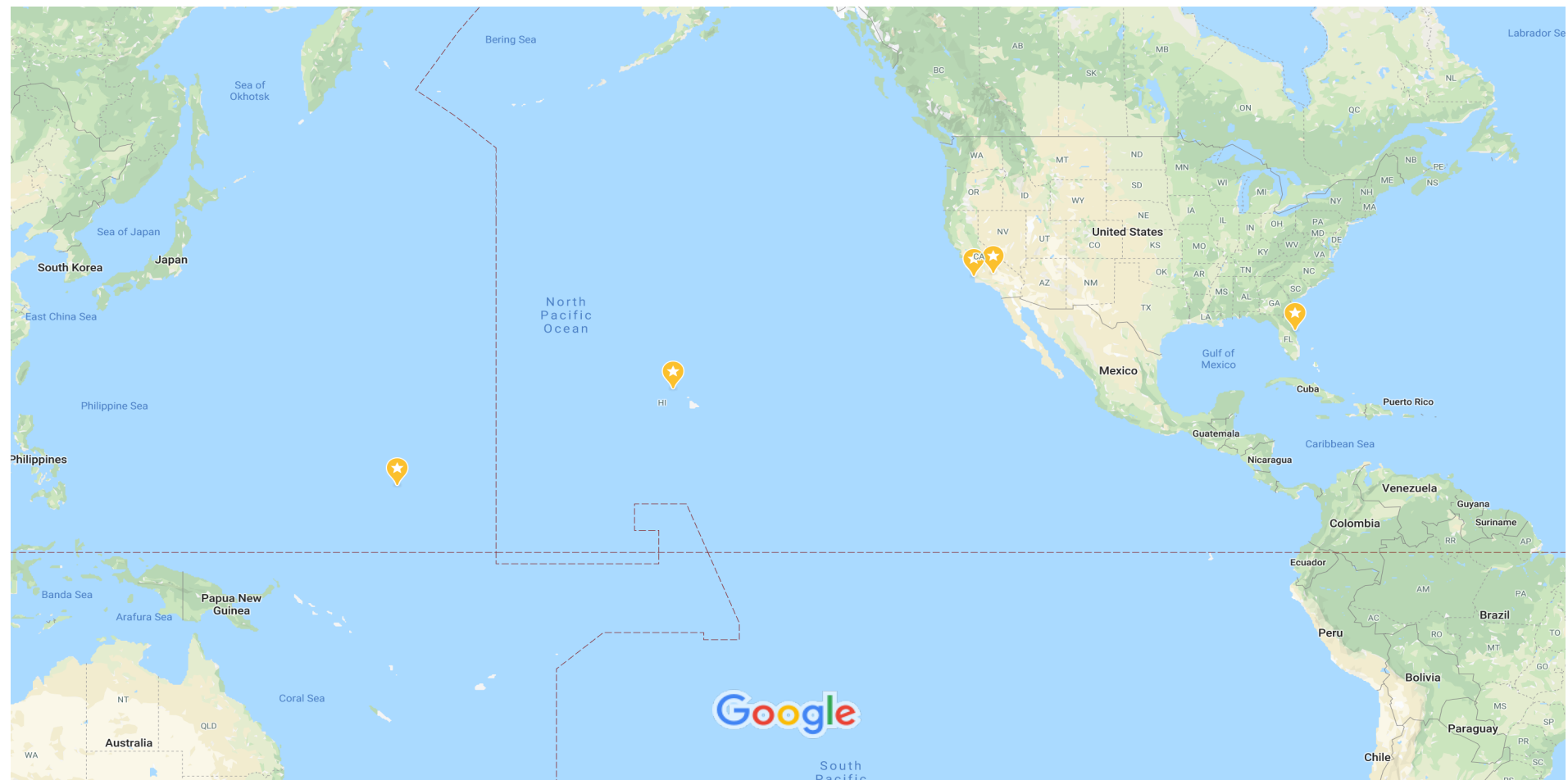
SAFETY FIRST




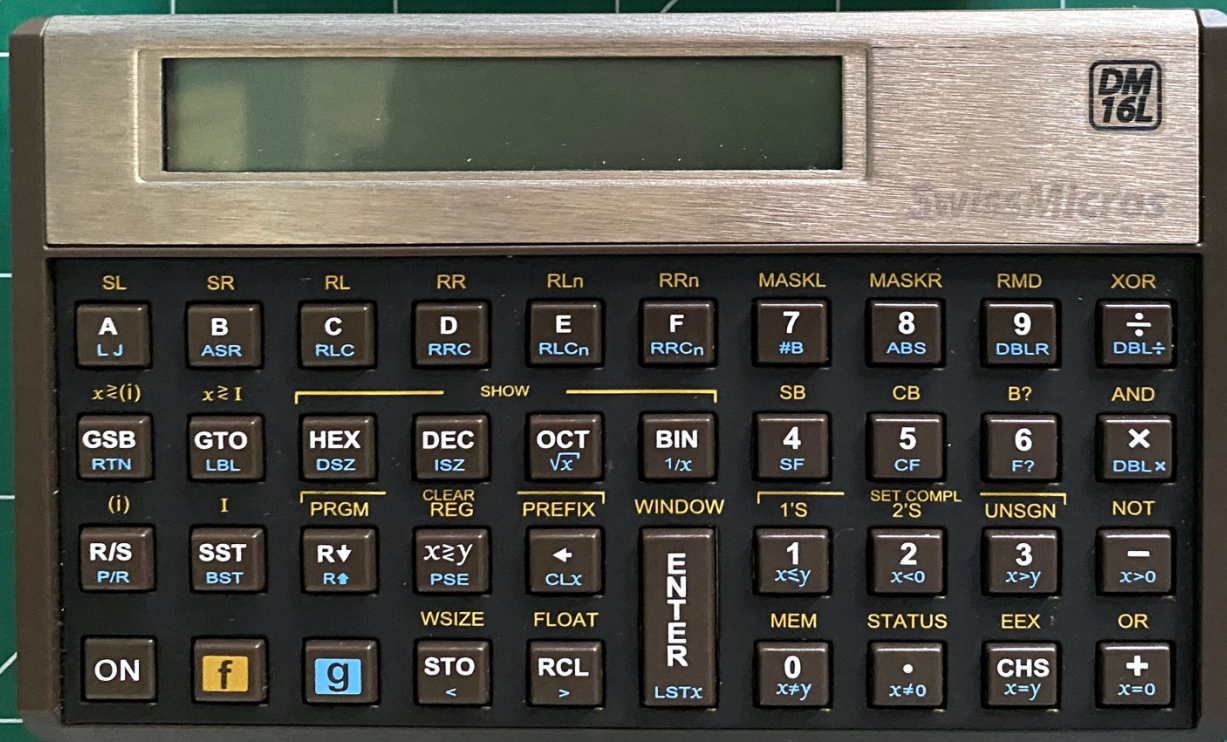
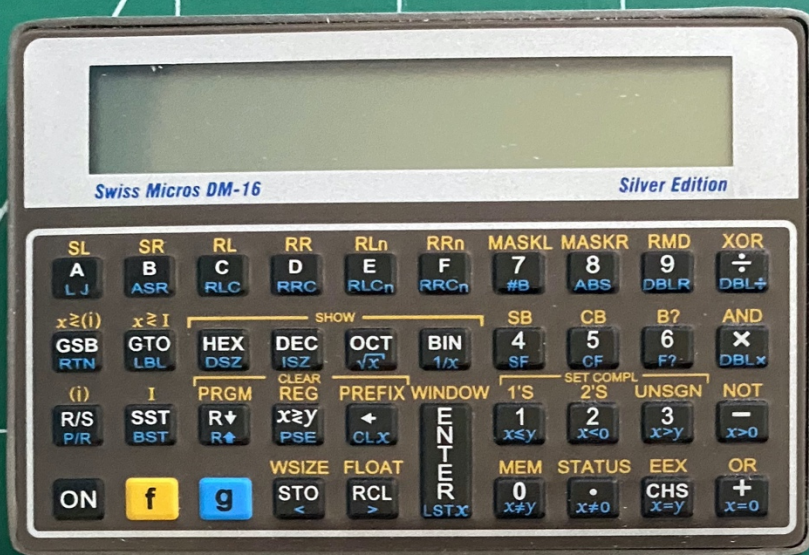


60°

30°



Map data ©2020 Google, INEGI 1000 mi 



- 1/2



Fuselage Length: Multiply inches by
Example: 55.5 in

Engine Sizes: Multiply cu Inches
Example: .46 cu in















References

- <https://www.ssl.berkeley.edu/~marchant>
- <https://www.nasa.gov/icon>
- <https://icon.ssl.berkeley.edu>
- https://en.wikipedia.org/wiki/Air_launch_to_orbit