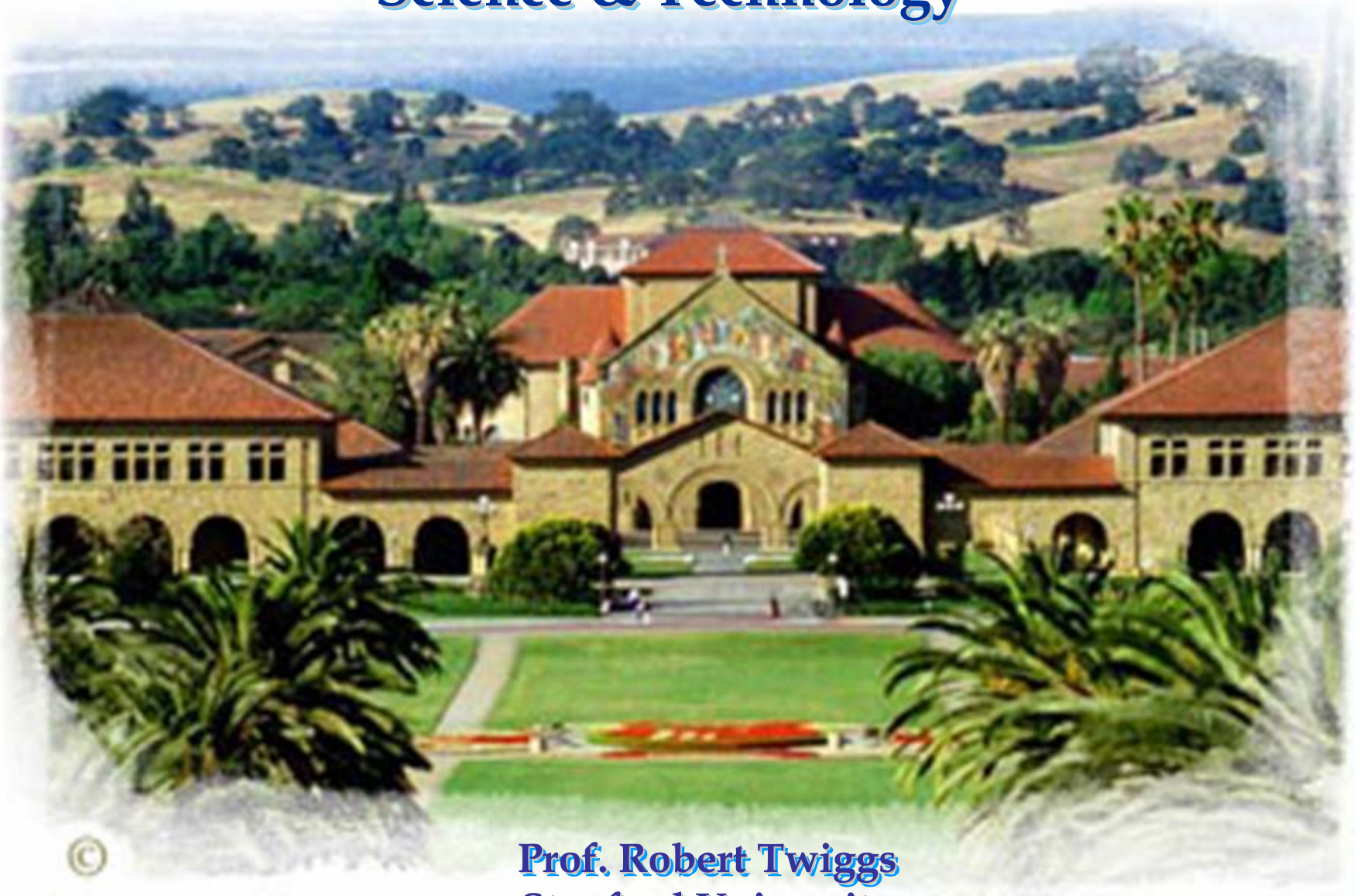


Education in Science & Technology



©

Prof. Robert Twigg
Stanford University

Add a Real Space Element

to

the Education Infrastructure with a

Desktop KatySat

Desktop KatySat

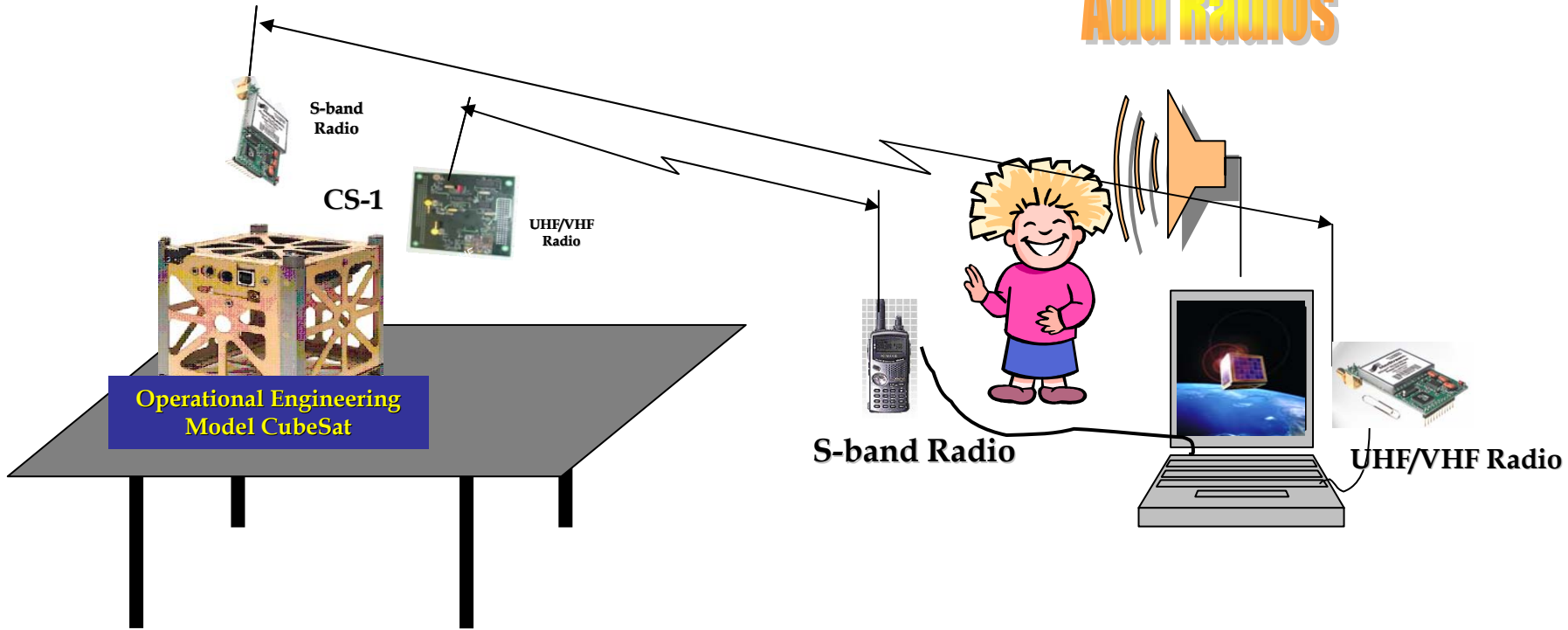
Kids Aren't Too Young for Satellites



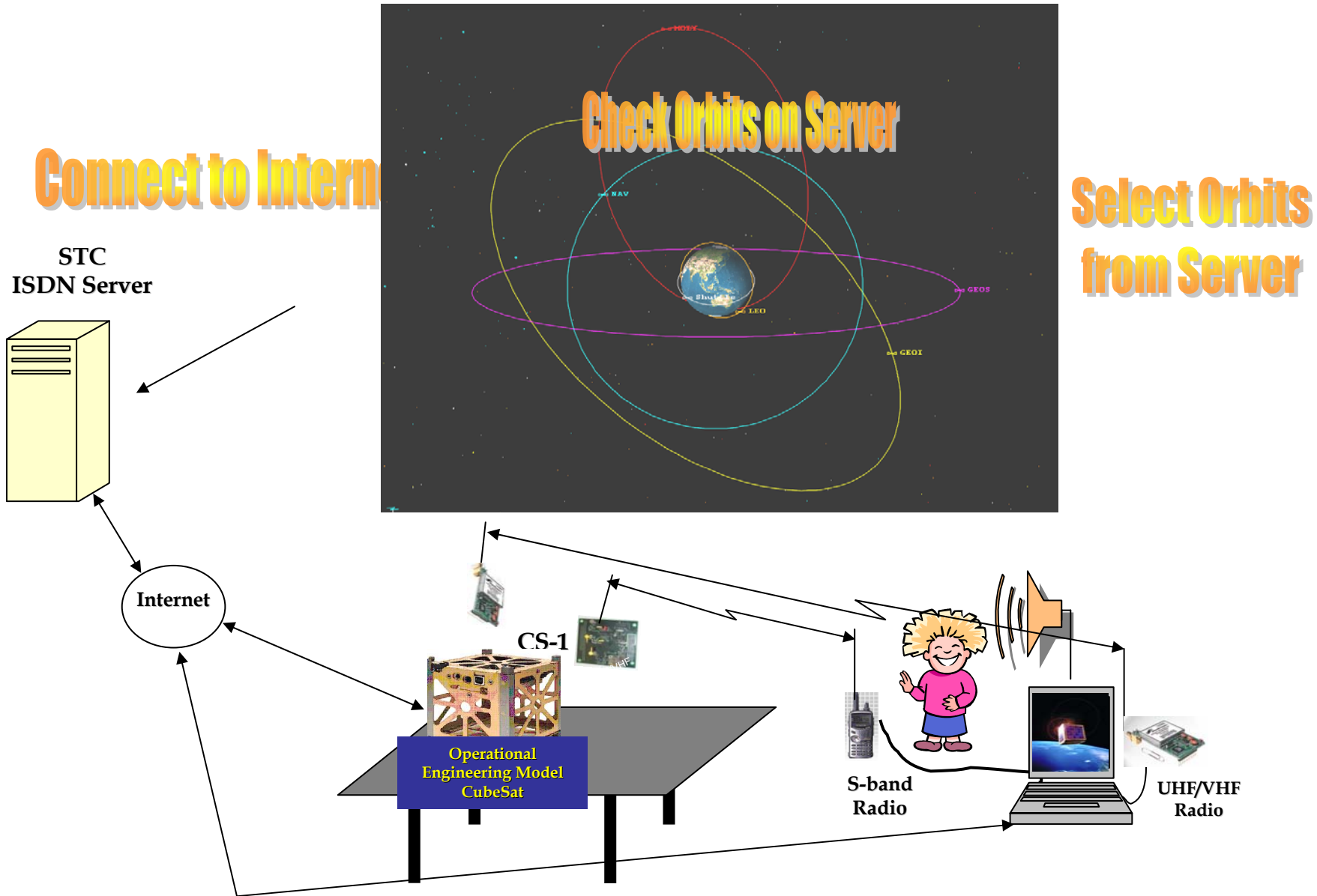
Communicate

Add Radios

Add Radios



Add Desktop Cubesat



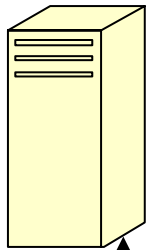
KatySat

Class Tech Room



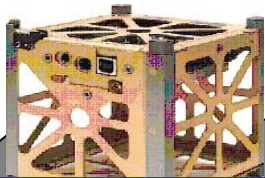
Communicating when in orbit
is in view of class room earth station

STC
ISDN Server



Internet

Operational Engineering
Model CubeSat



S-band
Radio

CS-1

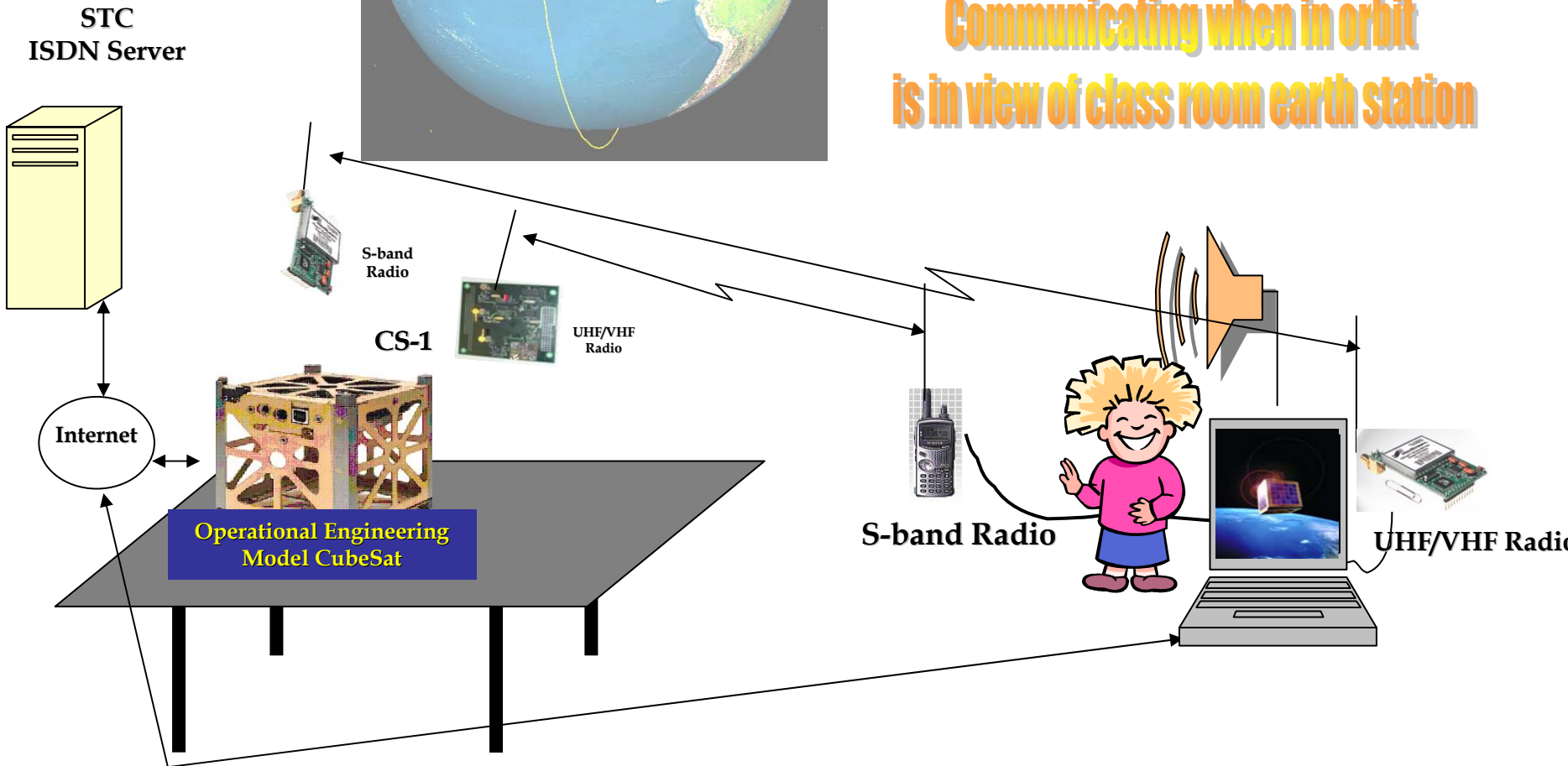
UHF/VHF
Radio



S-band Radio



UHF/VHF Radi

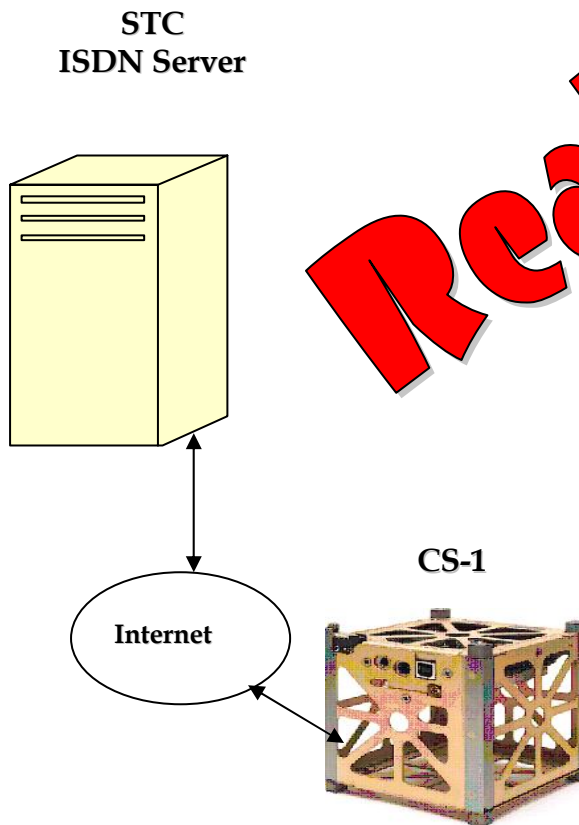


What else can be learned from the simulator?

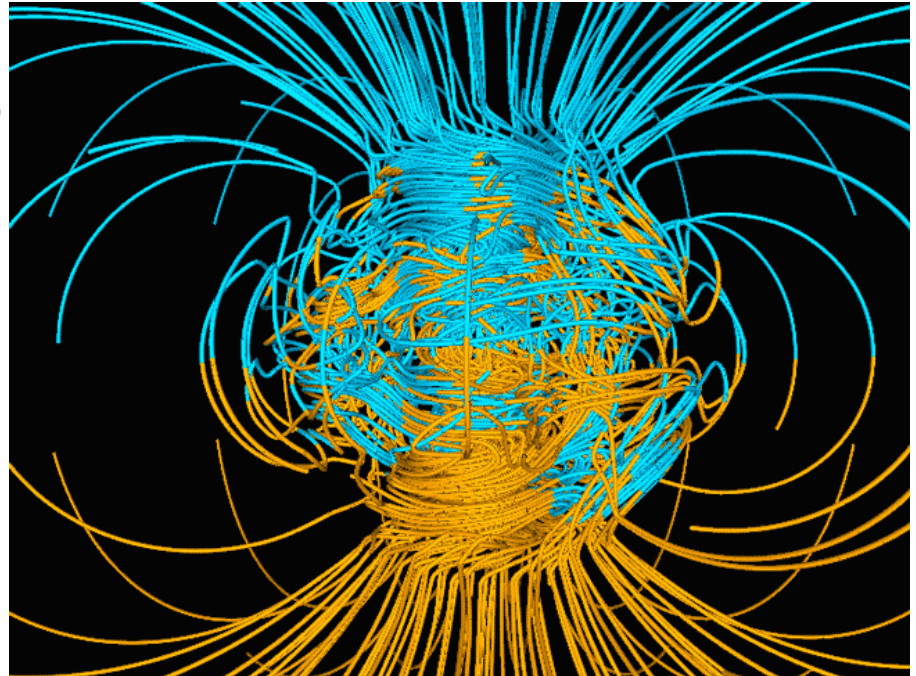
Using the Server

CS-1 simulated environment

Earth magnetic field model



Real?

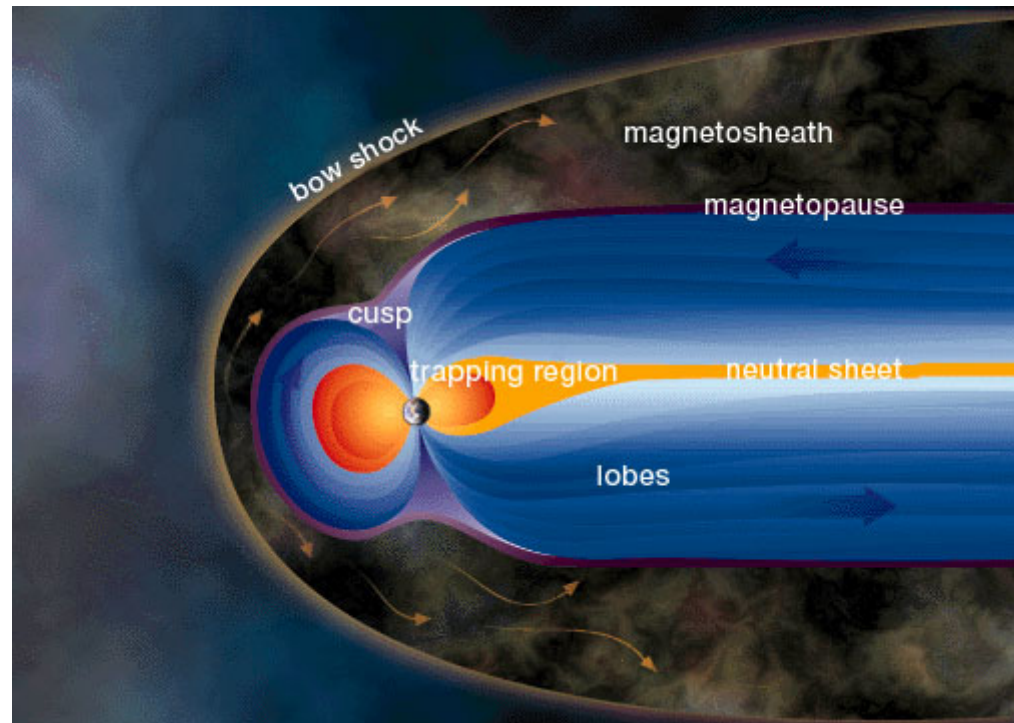
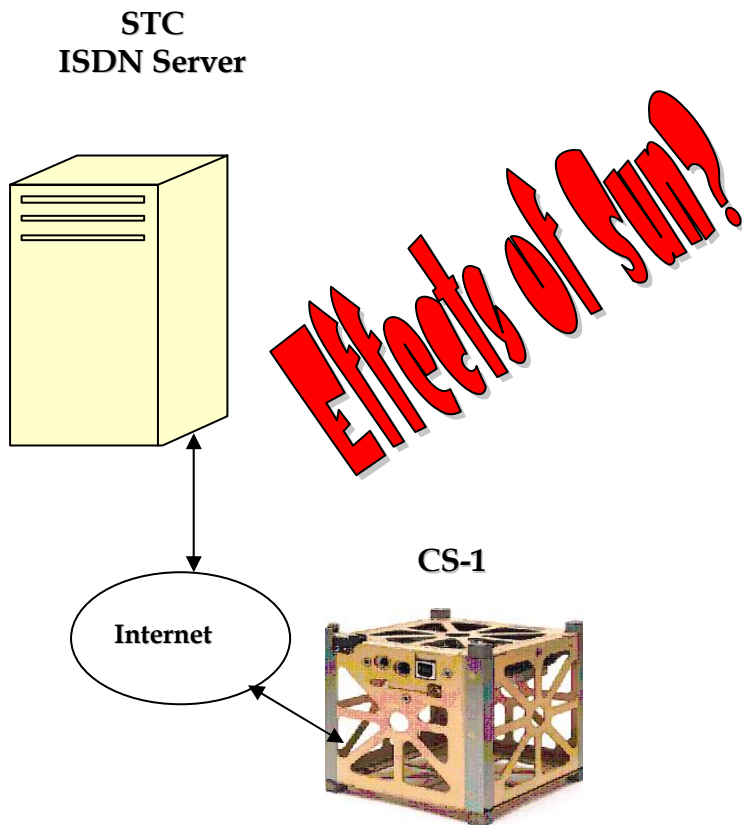


What else can be learned from the simulator?

Using the Server

CS-1 simulated environment

Radiation model

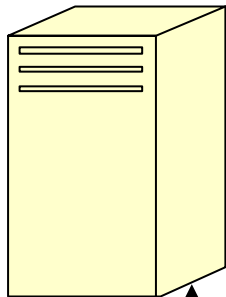


What else can be learned from the simulator?

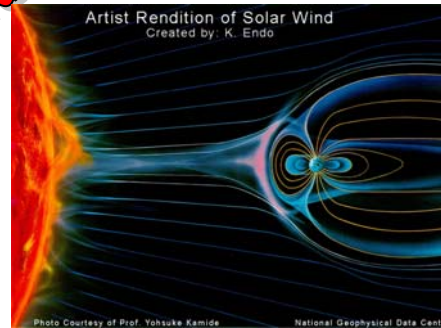
Using the Server

Combine Radiation & Magnetic Field

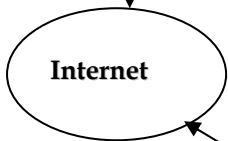
STC
ISDN Server



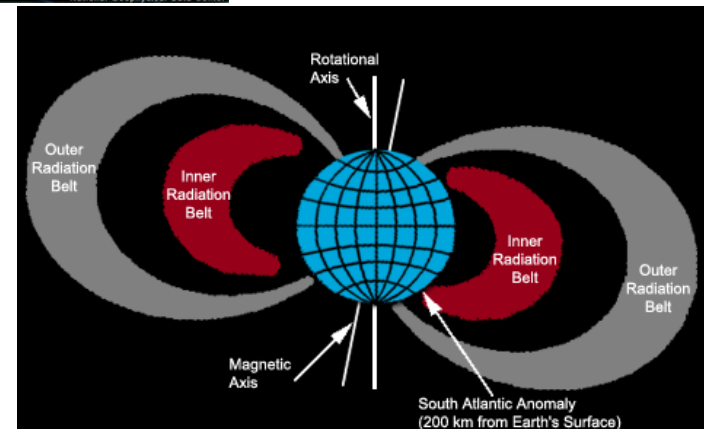
Effects of Sun
and Magnetic Field?



Aurora



CS-1

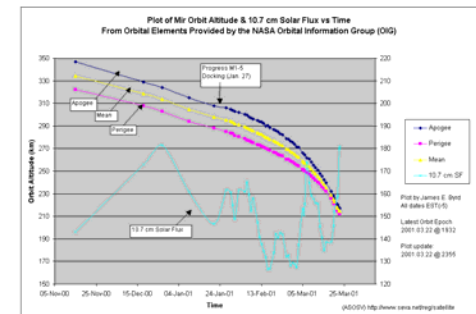
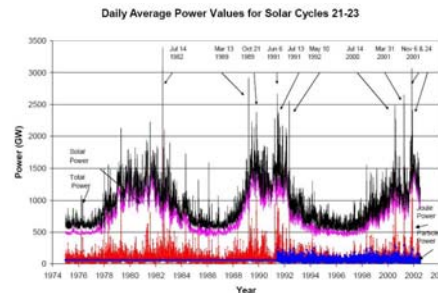
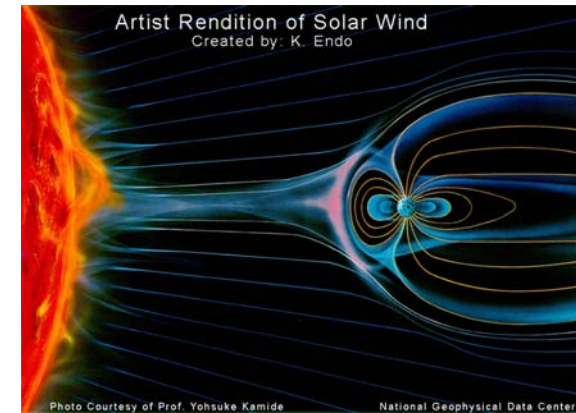
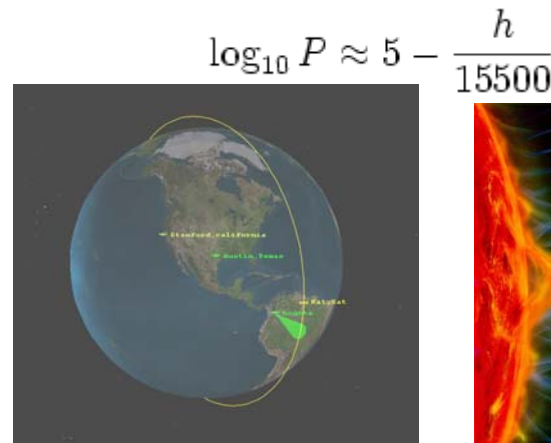
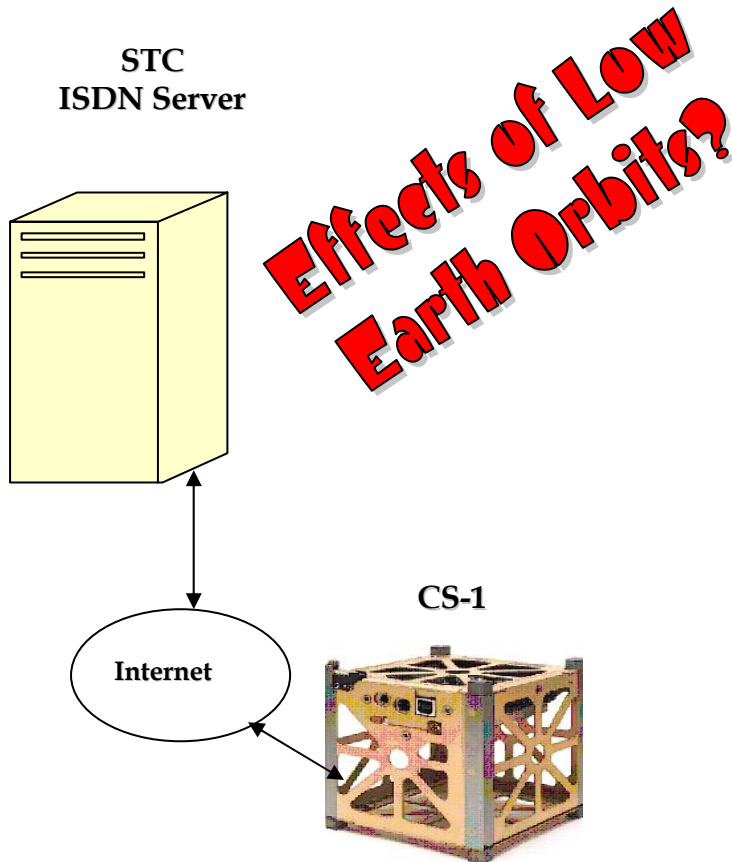


SOA

What else can be learned from the simulator?

Using the Server

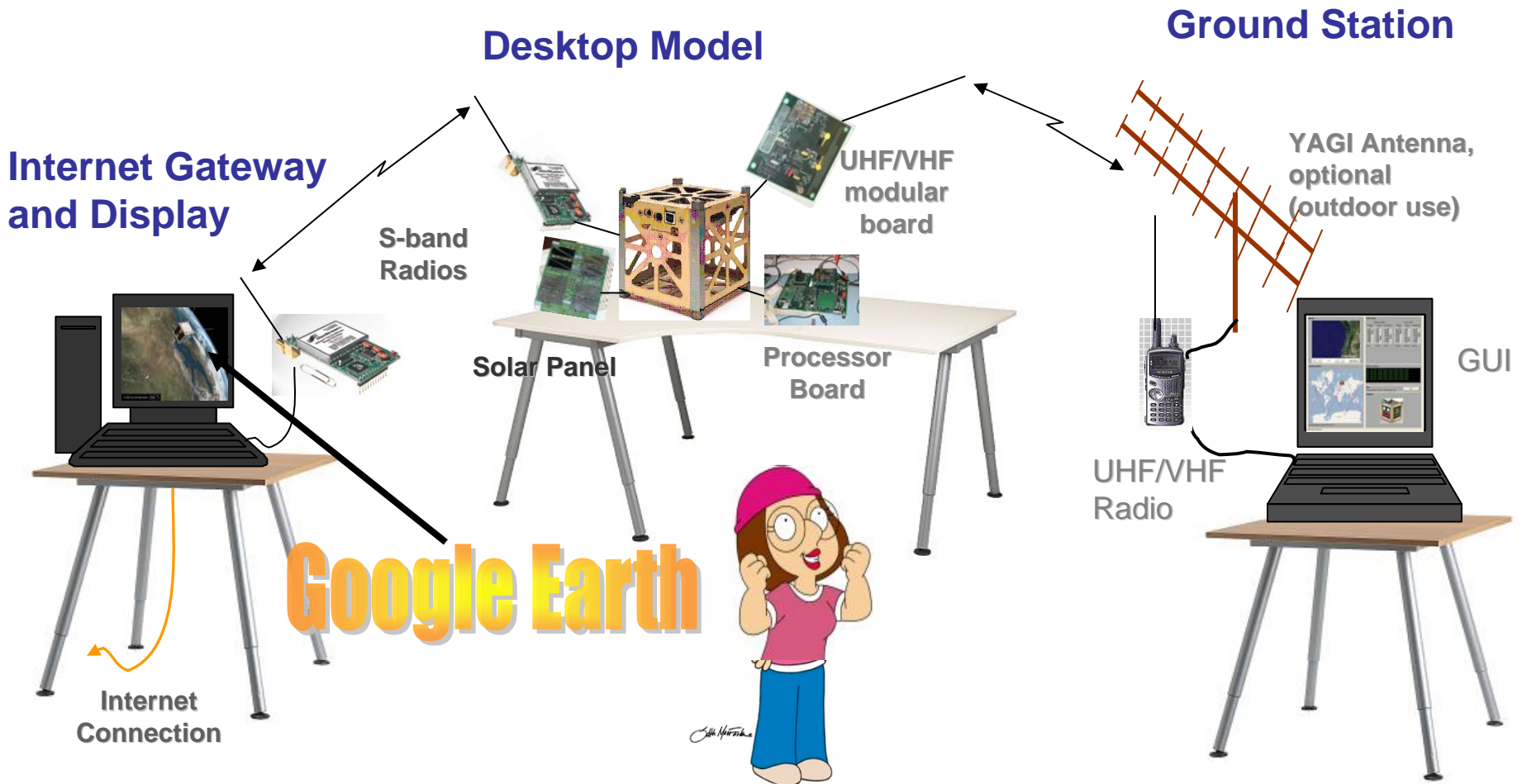
Earth's Atmospheric model



Another Class Room

Mission Control...

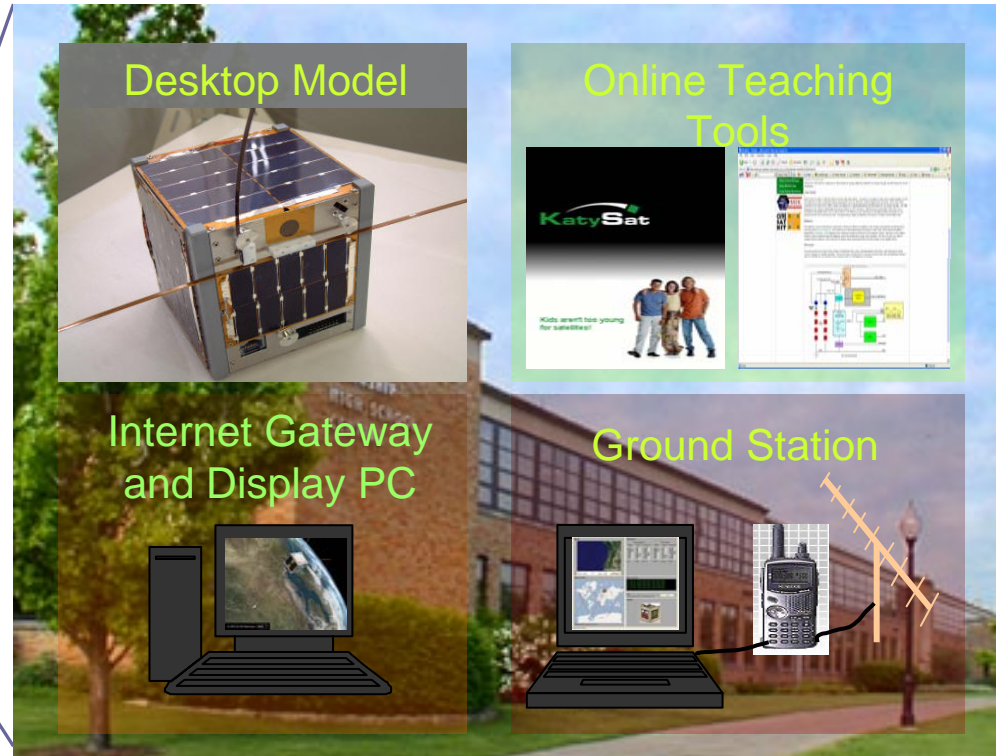
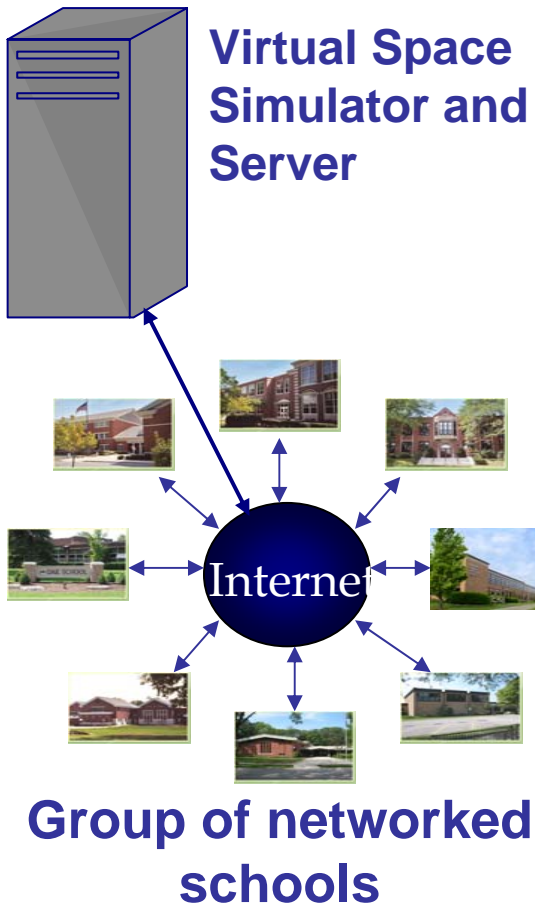
...in the classroom!



Form Schools in Groups for Collaborative Missions

Locally
Nationally
Internationally

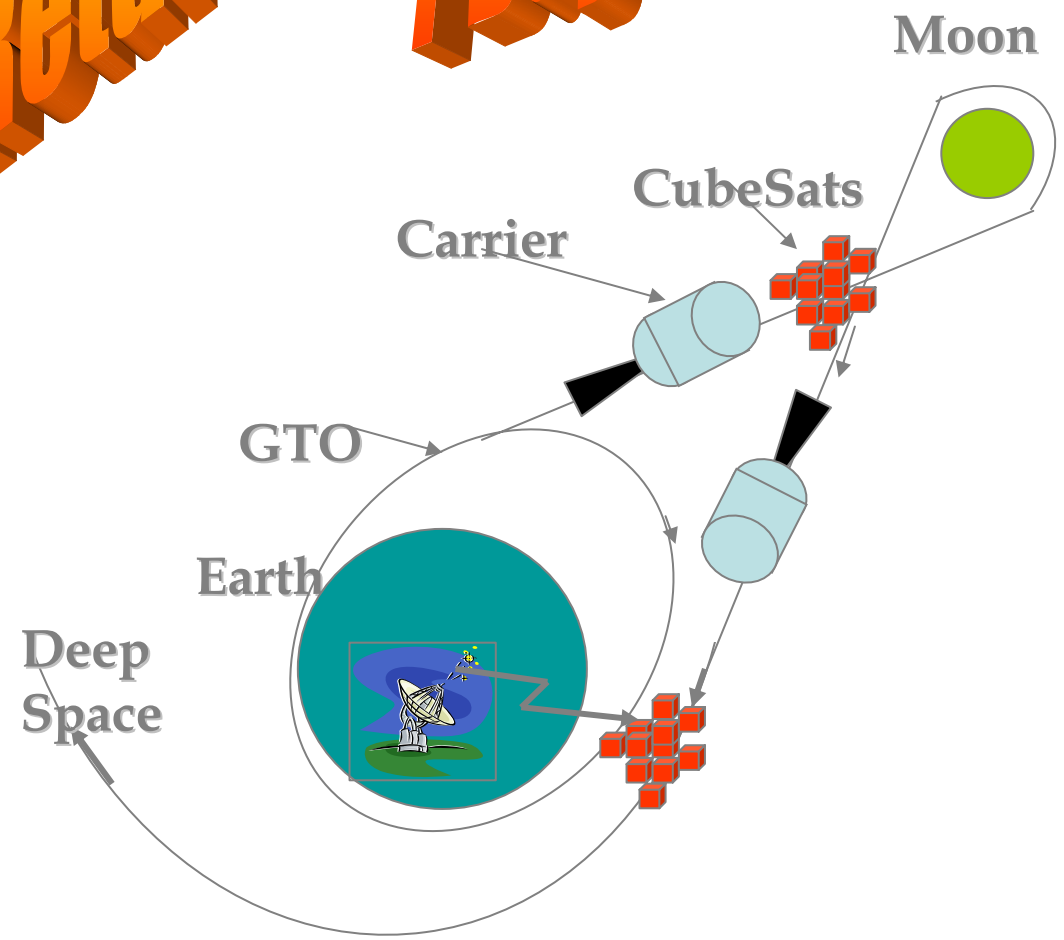
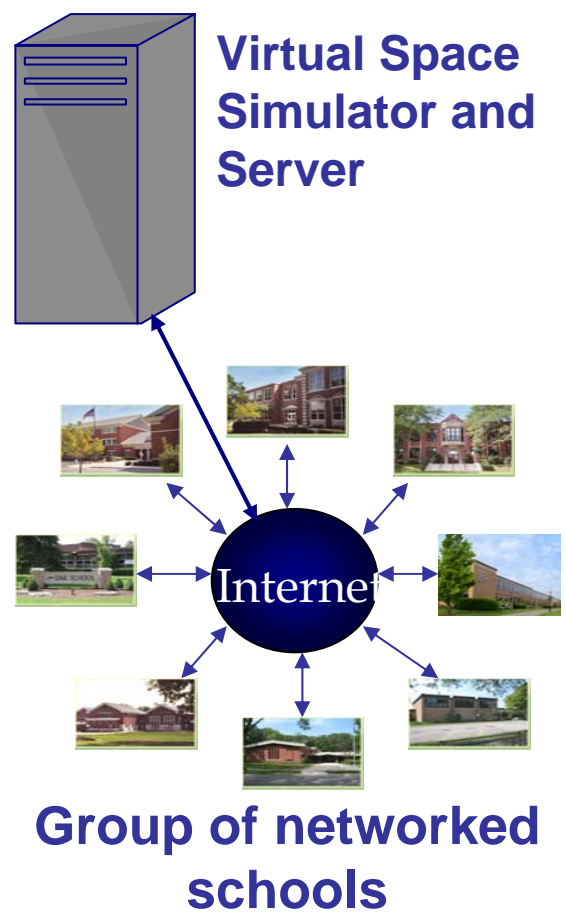
in each school...



KatySat

Moon Flyby & Return

7 Day Mission



What Have We Got?

Hands On Education

International Interactions

Collaborative Missions with Gov. & Ind. Engineers

Phase into the Real Space World

KatySat

What Have We Done?

**Provided a Real
Educational Window into Space
For Students**

KatySat

Thanks