How to Grow A Space Program in Canada

University of Victoria Presentation,
UNISEC First Global Meeting,
University of Tokyo,
November 24, 2013
Presentation Overview

- CSDC Introduction
- UVic ECOSat Overview
- Collaboration with Academic Community
- Collaboration with Business Community
CSDC Overview

- CSDC Created in 2011 by Larry Reeves of Geocentrix Technology Inc.
- Created to provide educational opportunities for students in Canada
- Competition to conceptualize/ design/ build a 3U Cubesat
- Currently has 10 teams participating across Canada
ECOSat Overview

- ECOSat was started at University of Victoria in 2011
- Is on second 3U Design
- Currently has 1 faculty advisor, 15 students
- Building a 3U CubeSat with a research payload
- Collaborating with local business for payload design
- Collaborating with local college for aspects of manufacturing
Collaboration – Academic Community

- Partnering with Camosun College in Victoria, Canada for manufacturing support.
- Using 3D printing to reduce design constraints. Camosun has a low off gassing material – Ultem @0.4%
- Opened new area of opportunity for Camosun, opens up new design frontier for ECOSat
Collaboration – Academic Community

- Partnering with UVic English department.
- ECOSat will put stories and books onboard satellite that can be downloaded from satellite
- English students able to take part in a unique and interesting project
- ECOSat able to provide opportunities and adds dimension to ECOSat project
Collaboration – Business Community

- Through community awareness, ECOSat now receives support from AGO business owner.
- Jim Harrington, owner, has background in space technology and design (Ulysses Satellite Contributor)
- Payload is Based on research from the University of Tokyo on diamagnetic material
- New ADCS capability that, if proven successful, could be perfect for small satellite systems in the future
Conclusion

- By creating opportunities, hundreds of students in Canada get the first opportunity to learn satellite design.
- By creating community awareness of the project, new areas of research and support opened up for Camosun College 3D printing technology.
- By creating community awareness of the project, new partnerships created between local business and University that strengthens research capability and novelty of missions for business and ECOSat.
ANY QUESTIONS???

Thank You to UNISEC

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