Group Discussion #4
at the 1st UNISEC-Global Meeting

Successfully Launching University Satellites: From Design to Orbit

Manfred Quarshie/Roland Coelho

Ghana/USA

UNISEC
University Space Engineering Consortium

Technical Hurdles

- **Understanding Launch Requirements**
  - Very important and need to define early
- **Simple vs Complex Payloads**
  - Buying vs developing
  - Understand University capabilities
- **Analysis vs Testing**
  - Testing gives faster results
  - Simple analysis is key

UNISEC
University Space Engineering Consortium

Programmatic Hurdles

- Funding
  - Traditional vs Non-Traditional Sources
  - Alumni, HR companies, engage all students K-12
- Satellite Lifecycle
  - Build, test, launch, operate a satellite in a student's academic career is the Goal
- Documentation and Procedures
  - Required by the launch vehicle
  - Few students like documentation, however it is necessary for a sustainable program
  - Necessary for next satellite program!!!

UNISEC
University Space Engineering Consortium

Regulatory Hurdles

- Country Ownership Declaration
  - What happens when your country does not have an official Space Agency
  - Who owns the satellite
- Orbital Debris
- Radio Frequency Licensing
  - Can be very confusing

UNISEC
University Space Engineering Consortium

Continuation

- Working Group
  - Regular emails
  - FaceBook
  - Conference Calls
- Concept for Group Discussions is very good and brings the community closer together and increase collaboration
- CubeSat Workshop at Cal Poly April 2014

UNISEC
University Space Engineering Consortium

Vision of UNISEC-Global - 2020-100

- *"By the end of 2020, let's create a world where university students can participate in practical space projects in more than 100 countries"*

When several UNISEC-xxx have been established, let's establish a new organization "UNISEC-Global" to support UNISEC-local chapters

UNISEC
University Space Engineering Consortium