

# COE CST Fourth Annual Technical Meeting

## Definition and Delimitation of Outer Space

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# Agenda

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- Schedule
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- Results
- Conclusions and Future Work

# Team Members



Dr. Ram Jakhu



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# Task Description

- What are the frontiers of outer space?
- Given that said frontiers are not yet established, is there a dilemma in their absence?
- What is the impact of the lack of a line of demarcation on near-space activities?
- Is a functional or spatial approach (which spatial approach?) more favorable to the CST industry?
- How can the growth of the commercial space transportation industry be encouraged in the existing regulatory environment?

# Schedule

- Initial paper for the purpose of raising awareness of the timeliness of the issue was prepared earlier this year, particularly in response to new high altitude ballooning activities
- A presentation was offered at UN COPUOS in March 2014 about the issue by the McGill IASL (Dr. Yaw Nyampong)
- Continue to update paper/research as industry and regulations evolve

# Goals

- Raising awareness to the new arising challenges regarding near-space activities
- Promoting the development of an international standard for the limits of airspace and outer space
- Offering legal expertise surrounding the issue of a lack of demarcation, and the various options with regard to particular limits

# Results

- Near space activities, such as suborbital transportation enterprises and high altitude ballooning endeavors have raised the urgency of the question. The FAA response to one such company (WVE) is potentially problematic in the uncertain legal and regulatory environment.
- *The Definition and Delimitation of Outer Space: The Present Need to Determine Where “Space Activities” Begin* (presented at UN COPUOS March 2014)

# Conclusions and Future Work

- Science will not solve this problem.
- Practically and politically, the beginning of outer space could be set at 100/110km.
- The uncertainty created for commercial enterprises, and “forum shopping” for favorable decisions on air/space activities will be problematic for the burgeoning industry.
- Maintain research as the situation evolves
- Seek new areas to provide research (ITARs?)