 UNIVERSITY OF CENTRAL FLORIDA

**The Politics of Pure Space Science, the Essential Tension, Human Spaceflight's Impact on Scientific Exploration**


Date  
**Roger Handberg**

UNIVERSITY OF CENTRAL FLORIDA

 UNIVERSITY OF CENTRAL FLORIDA


**The Essential Tension**

**NASA's Creation - 1958**  
**US Public Response to Sputnik**  
**Military Space Disappears**  
**Eisenhower – Control over Space Policy & Budget**  
**Congress - Political Pork/Political Advantage**

 UNIVERSITY OF CENTRAL FLORIDA

**The Essential Tension**

**Space Science Peripheral**  
**National Academy of Sciences vs. NSF**  
**NASA Asserts Control – Space Science**  
**Internal: Engineering vs. Science**  
**Relative Share**

 UNIVERSITY OF CENTRAL FLORIDA

**Apollo and Beyond**

**Conflicting Priorities**  
**Science in Apollo Missions**  
**Apollo Applications Program**  
**The Golden Age –Why?**  
**Space Shuttle Development**  
**“Slaughter of the Innocents”**  
**“Shuttle Compatible”**

**UNIVERSITY OF CENTRAL FLORIDA**

**Shuttle as Space Science Driver**

**Cheap Flights – Schedule Issues**  
**“Christmas Trees”**

**Challenger Accident – Return to Flight**

**Mars Observer’s Death**  
**Decision Time Congress**  
**ScSC vs. ISS – one vote**

**UNIVERSITY OF CENTRAL FLORIDA**

**Human Spaceflight’s Burden**

**“Faster, Better, Cheaper”**  
**Mixed Bag**

**Explorer and Discovery Programs, Mars**

**Space shuttle – International Space Station**  
**Recurring Cost Issues**  
**Columbia Accident – 2003**

**UNIVERSITY OF CENTRAL FLORIDA**

**Vision for Space Exploration**

**Shuttle shutdown 2010 (2011)**  
**ISS completion-abandonment 2015-16**  
**Constellation – Aries, Orion**  
**Space Science support VSE**

**2010 Congressional intervention**  
**Space Launch System, Orion**

**UNIVERSITY OF CENTRAL FLORIDA**

**Space Science’s Lot**

**Ancillary to NASA’s Vision of its Future**  
**This based on NASA actions, not rhetoric**  
**Decadal Surveys, Campaigns to preserve missions**

**Community put at odds with itself**  
**Times of Economic Stress – space science cut**

## **Space Science's Lot**

**Space Exploration now the Priority  
NASA needed to break with the shuttle**

**SLS – Beyond Cis-lunar space  
Opens door for space science missions**

**Organizational Change:  
Spun off – NSF or NAS**

