

THE FAA CENTER OF EXCELLENCE FOR COMMERCIAL SPACE TRANSPORTATION ANNUAL TECHNICAL MEETING | OCTOBER 11, 2016



James Vanderploeg, MD, MPH
Executive Director, COE-CST
Professor, Aerospace Medicine
University of Texas Medical Branch
Galveston, Texas

WELCOME AND LOGISTICS

- Safety Briefing
- Restrooms
- ISPCS on Wednesday & Thursday
- Tour of WSTF on Friday morning
- COE-CST Organization
 - FAA Office of Commercial Space Transportation
 - Nine Core Universities
 - Growing number of Affiliate Universities and Organizations

INTRODUCTION

COE FOR COMMERCIAL SPACE TRANSPORTATION

- Established in August 2010
- Nine Core Universities
- Main goals include
 - research
 - training and education
 - outreach
- Self-sustaining by August 2020



Map of Core Member and Affiliate Member Universities



ATM6 – Las Cruces October 11, 2016



AGENDA MORNING

Start Time	Tuesday, October 11th
7:30 AM	
7:45 AM	REGISTRATION
8:00 AM	Hotel Encanto de Las Cruces, San Rafael Ballroom (Breakfast Included in Registration)
8:15 AM	
8:30 AM	ATM6 OPENING Dr. James M. Vanderploeg, MD, COE CST Exec Director, UTMB
8:45 AM	FAA COE PROGRAM OVERVIEW, Dr. Patricia Watts, FAA COE National Director
9:00 AM	COE CST YEAR 6 STATUS, Ken Davidian, FAA AST
9:15 AM	INDUSTRY VIABILITY PANEL
9:30 AM	Moderator: Dr. Tristan Fiedler, FIT [James Vanderploeg, UTMB] Panelists:
9:45 AM	Mr. Brad Cheetham (Task 193-CU, ESIL Workshops), Bailey Reichelt, Esq (Task 305-FIT/CSF, Suborbital Industry Analysis), Aram Kerkonian (Task 304-MU/FIT Legal Issues on Cross-Border Suborbital Flights - Affiliate Task)
10:00 AM	
10:15 AM	Sponsored Break
10:30 AM	HUMAN SPACEFLIGHT RESEARCH PANEL
10:45 AM	Moderator: Dr. Jim Vanderploeg, UTMB Panelists:
11:00 AM	Dr. David Klaus (Task 320-CU, Commercial spaceflight risk assessment and communication),
11:15 AM	Dr. Guy Boy, (Task 333-FIT, Onboard Context Sensitive Info System),
11:30 AM	Dr. Rebecca Blue, (Task 308-UTMB & NASTAR Affiliate, Suborbital SFP Anxiety Assessment),
11:45 AM	Dr. Tarah Castleberry, Task 309-UTMB, Suborbital Pilot Training Assessment), Dr. Charles Mathers, (Task 310-UTMB, Increasing Cabin Survivability in Commercial Spacecraft)

AGENDA AFTERNOON

1:00 PM	SPACE TRAFFIC MANAGEMENT PANEL
1:15 PM	Moderator: Dr. Juan Alonso, Stanford, SU Panelists:
1:30 PM	Dr. Tim Fuller-Rowell (Task 186-CU, Mitigate threats through space environment modeling and prediction),
1:45 PM	Dr. Sigrid Close, (Task 186-SU, Space Environment Modeling Prediction),
2:00 PM	Dr. Dan Scheeres (Task 187-CU, Space Situational Awareness),
2:15 PM	Dr. Norman Fitz-Coy (Task 319-UF, DebrisSat), Dr. Juan Alonso (Task 331-SU, Advanced 4D Special Use Airspace Research),
2:30 PM	Dr. Chris Draper, (Affiliate Task 332-SIM Defining Class X Air Space), Dr. Zheng Tao, MITRE (Affiliate Task),
2:45 PM	Mr. Brian Barnett, (Affiliate Task 307-SSC/NMSU COTS Satellite Communications), Dr. Richard Stansbury, (Affiliate Task 306-ERAU/NMSU Advanced ADS-B Prototypes)
3:00 PM	Wayne Hale Consultant, NASA (Ret.), Special Aerospace Services
3:15 PM	Sponsored Break
3:30 PM	TECHNOLOGY PANEL
3:45 PM	Moderator: Dr. Andrei Zagrai, NMT Panelists:
4:00 PM	Dr. Billy Oates, (Task 241-FSU, High Temperature, Optical Sapphire Pressure Sensors),
4:15 PM	Dr. Rajan Kumar, (Task 325-FSU, Optical Measurements of Rocket Nozzle Thrust and
4:30 PM	Noise),
4:45 PM	Dr. Bin Lim (Task 299-NMT, Nitrous Oxide Composite Tank Testing), Dr. Andrei Zagrai, (Task 323-NMT, Structural Health Monitoring Framework), Dr. Subith Vasu, (Task 311-UCF, Robust and Low-Cost LED Absorption Sensor) Dr. Eileen Ryan, (Task 329-NMT, Tracking & Monitoring Suborbital Commercial Space Vehicles)
5:00 PM	CLOSING REMARKS
5:15 PM	Dr. Jim Vanderploeg
5:30 PM	ADJOURN

OUTPUT OVER THE FIRST FIVE YEARS

COE CST Year 5 Status

At-A-Glance Metrics	Year 1	Year 2	Year 3	Year 4	Year 5
# Active Tasks	34	24	28	28	36
# Unfunded Tasks	34	22	22	11	6
# Principal Investigators	27	28	29	25	31
# Students	31	37	55	47	61
# Reports	0	38	28	22	29
# Research Partners	-	17	20	27	27
# Industry Partners	-	29	44	55	57
# Affiliate Members	0	1	6	6	6
# Associate Members	-	-	-	3	6
Funding Profile	\$2M (FY10)	\$2.4M (FY11/12)	\$1.1M (FY13)	\$1.1M (FY14)	\$1M (FY15)

www.coe-cst.org

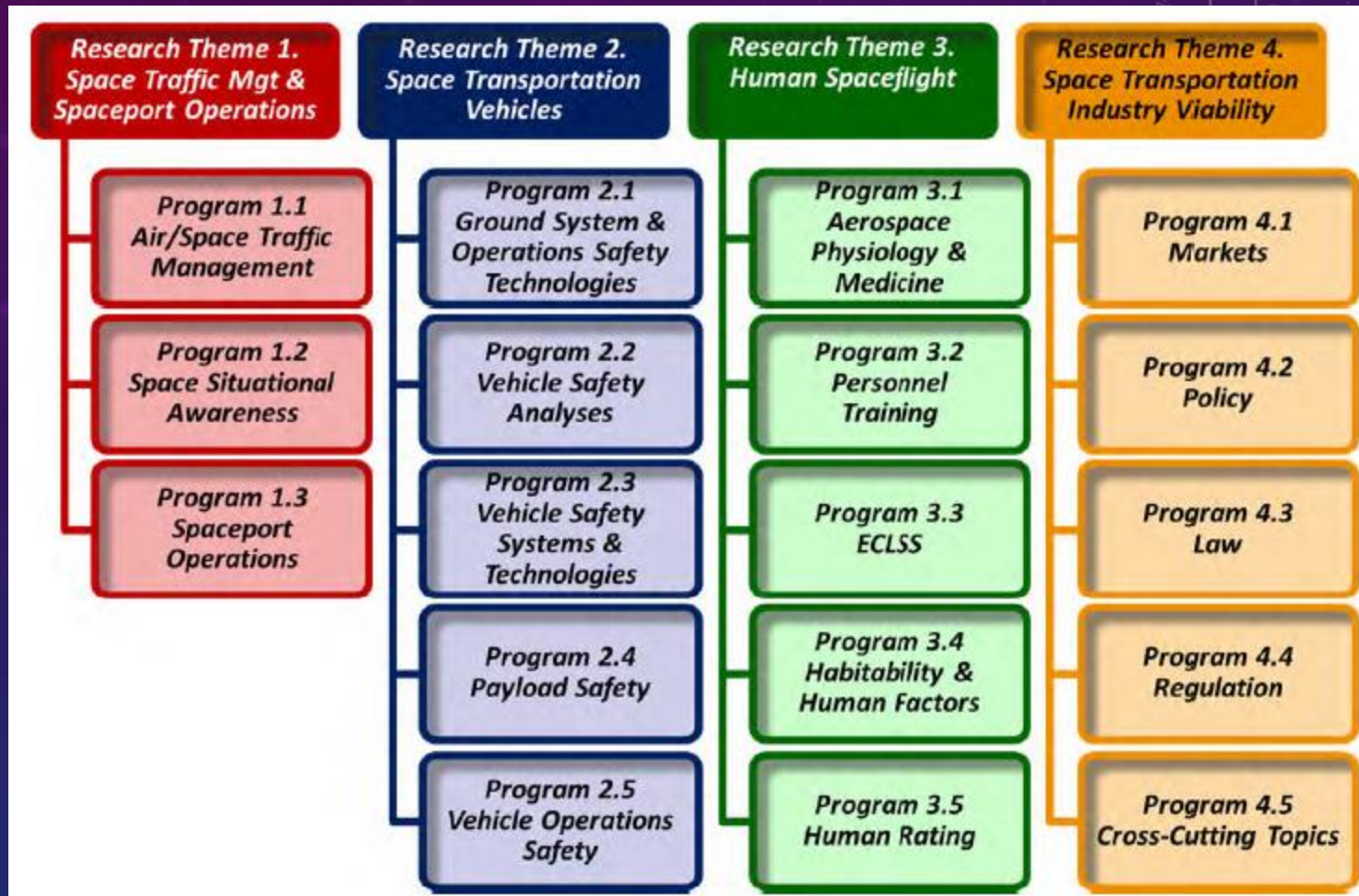
WHERE WE ARE GOING



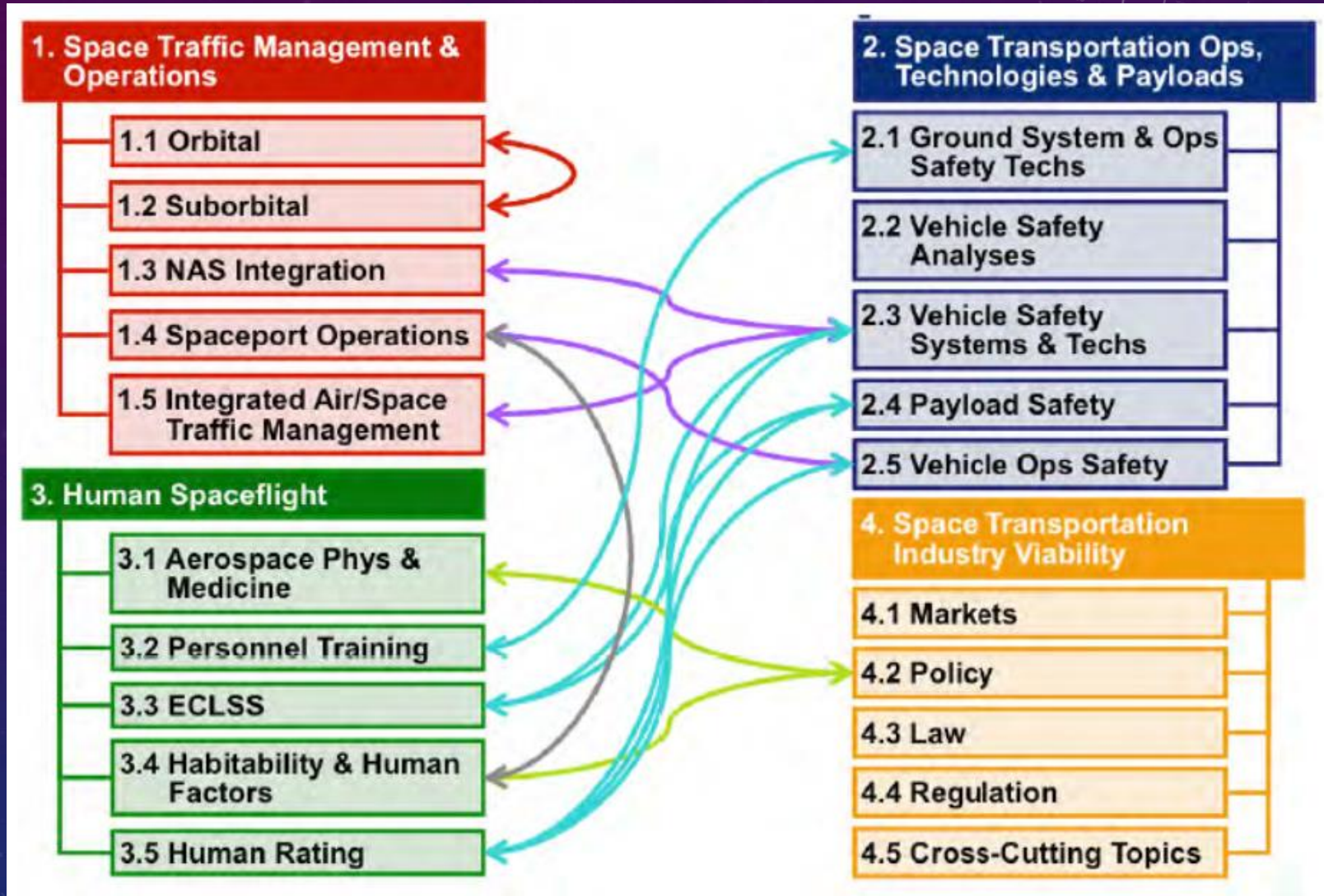
ATM6 – Las Cruces October 11, 2016



RESEARCH THEMES



RESEARCH AREA DEPENDENCIES



WEBSITE

- <http://www.coe-cst.org>
- Commercial Space Transportation Research Roadmap
- COE-CST Year-Five Annual Report