Mass Change Community Workshop

July 30 - August 1, 2019

Holiday Inn Washington Capitol, Washington DC

Revised 30 July

Day 1, Tuesday 30 July

	Start	Time	Topic	Presenter
A.1	8:30 AM	0:15	Welcome, opening remarks, intro	Lucia Tsaoussi
A.2	8:45 AM	0:15	Mass Change General Study Plan	Bernie Bienstock
A.3	9:00 AM	0:10	Meeting Plan and Goals	Bernie Bienstock
A.4	9:10 AM	0:20	The role of Mass Change in the Decadal Survey Report	Byron Tapley
A.5	9:30 AM	0:20	Architecting process	Dave Bearden
A.6	9:50 AM	0:10	Community Discussion	
	10:00 AM	0:20	Coffee Break	
A.7	10:20 AM	0:25	ESA perspective	Roger Haagmans
A.8	10:45 AM	0:20	CNES perspective	Mioara Mandea
A.9	11:05 AM	0:15	HGF perspective on a mass change mission	Frank Flechtner
A.10	11:20 AM	0:10	IUGG Study: Science and user needs for observing global mass transport	Thomas Gruber
A.11	11:30 AM	0:10	NASA/ESA IGSWG study	David Wiese
A.12	11:40 AM	0:30	SATM Overview - Current Status	Riley Duren
	12:10 PM	1:35	Lunch	
A.13	1:45 PM	0:15	SATM Hydrology	Matt Rodell
A.14	2:00 PM	0:15	SATM Solid Earth	Jeanne Sauber
A.15	2:15 PM	0:15	SATM Climate	Carmen Boening
A.16	2:30 PM	0:15	Breakout Session Goals	R&A Team
A.17	2:45 PM	2:00	Breakout Sessions	Moderator
	4:45 PM		Hydrology	Matt Rodell
	4:45 PM		Climate	Carmen Boening
	4:45 PM		Solid Earth	Jeanne Sauber
	4:45 PM	0:15	Coffee Break	
A.18	5:00 PM	1:00	Breakout Sessions Document Their Findings	
A.19	6:00 PM	0:15	Hydrology Breakout Session Summary Presentation	Matt Rodell
	6:15 PM		Adjourn	

Day 2, Wednesday, 31 July

	Start	Time	Topic	Presenter
B.1	8:00 AM	0:10	Summary of Day 1/Plan for Day 2	Bernie Bienstock
B.2	8:10 AM	0:10	Classes of Mission Architectures for Mass Change Science	David Wiese
	8:20 AM		Architecture Options	
B.3	8:20 AM	0:10	Single satellite pair heritage and limitations	Frank Flechtner
B.4	8:30 AM	0:20	European initiatives and studies on mass change mission architectures	Thomas Gruber
B.5	8:50 AM	0:15	Multi-satellite constellations in a chain formation	Tom Yunck
B.6	9:05 AM	0:15	Spire CubeSat constellation capabilities for mass change studies	Dallas Masters
B.7	9:20 AM	0:15	Current and Future capabilities of multi-satellite POD	Matthias Weigelt
B.8	9:35 AM	0:15	Single satellite cold atom gravity gradiometry	Scott Luthcke
B.9	9:50 AM	0:15	Status of quantum sensing studies at ESA	Olivier Carraz
	10:05 AM	0:15	Coffee Break	
	10:20 AM		Enabling Technologies	
B.10	10:20 AM	0:15	Flight System Needs: Lessons learned from GRACE and GRACE-FO	Albert Zaglauer and Nico Brandt
B.11	10:35 AM	0:15	Satellite system studies for NGGM at ESA	Roger Haagmans
B.12	10:50 AM	0:10	LRI as the prime instrument	Kirk McKenzie
B.13	11:00 AM	0:10	LRI improvements from LISA	Tony Yu
B.14	11:10 AM	0:10	Compact coherent laser ranging	Guangning Yang
B.15	11:20 AM	0:10	Laser frequency comb technoloy and smallsat concepts	Jennifer Lee
B.16	11:30 AM	0:10	GRACE3D: Exploiting LISA Pathfinder technology for gravity field recovery	Matthias Weigelt
B.17	11:40 AM	0:10	ONERA accelerometers: CubSTAR, MicroSTAR, and Hybrid	Bruno Christophe
B.18	11:50 AM	0:10	Compact inertial sensors for small satellite geodesy constellations	John Conklin
B.19	12:00 PM	0:10	GRICE	Mioara Mandea
B.20	12:10 PM	0:10	Opto-mechanical inertial sensors	Lee Kumanchik
B.21	12:20 PM	0:10	Atomic interferometer gravity gradiometer	Babak Saif
B.22	12:30 PM	0:10	New approach to atomic test mass for Earth gravity measurements	Nan Yu
	12:40 PM	1:00	Lunch	
B.23	1:40 PM	0:30	Applications and the Community Assessment Report	Matt Rodell
B.24	2:10 PM	0:10	Breakout Session Goals	Bernie Bienstock
B.25	2:20 PM	1:35	Breakout Sessions	Moderator
	3:55 PM		Applications	Matt Rodell
	3:55 PM		Technology: Intersatellite Ranging, Accelerometry, Positioning, Gradiometry	Scott Luthcke
	3:55 PM		Architectures: Observation Geometry, Number of Satellites, etc.	David Wiese
	3:55 PM	0:15	Coffee Break	
B.26	4:10 PM	1:00	Breakout Session Document Findings	
B.27	5:10 PM	1:00	Breakout Session Summary Presentations (20 minutes each)	
	6:10 PM		Adjourn	

Day 3, Thursday, 1 August

	Start	Time	Topic	Presenter
C.1	8:30 AM	0:30	Climate and Solid Earth Breakout Session Summary Presentations	Carmen / Jeanne
C.2	9:00 AM	0:45	Summary of SATM updates and follow-up actions	Riley Duren/R&A Team
C.3	9:45 AM	0:45	Synthesis of potential architectures	David Wiese/Bryant Loomis
	10:30 AM	0:15	Coffee Break	
C.4	10:45 AM	0:30	Mass Change Study Path Forward	Kelley Case
C.5	11:15 AM	0:15	Workshop Summary	Bernie Bienstock
C.6	11:30 AM	0:15	Future Community Engagement	Lucia Tsaoussi/ Bernie
	11:45 AM		Adjourn	