33rd SSG May 2021 Online - Action Items and Recommendation

Action (A)	What	Who	When	Status	Comments
A1	**All Panel Co-Chairs and SSG Panel Members**				
A1.1	Respond to questions in Mindmaps	All	ASAP		
A1.2	Suggestions for new SSG and panel members	All	On-going		Send your suggestions to IGPO (gewex@gewex.org)

A2	**GASS**				
A2.1	Expand panel with member with background in process understanding; geographic Asia and Africa	GASS Panel All	Dec. 2021		
A2.2	Connect with leads of South America Affinity Group (Roy Rasmussen) and U.S.RHP (Tim Schneider) i.r.t. High resolution modelling, deep convection, etc.	Daniel Klocke Sandrine Bony Peter van Oevelen	Dec. 2021		See also recommendation R2.1.3 At core of these activities are continental scale 4Km-runs
A2.3	Explore new Paradigm: cloud sourcing	GASS panel	Sept. 2021		
A2.4	Discuss position on high-resolution modeling.	GASS Co-leads SSG Co-Leads Peter van Oevelen	Sept. 2021		Should GASS take the lead in this effort and assume leadership?

A3	**GDAP**				
A3.1	Talk to Hall Manning and Jack Kaye regarding ISSCP NG 12 Months data set and additional resources	Graeme Stephens	July 2021		
A3.2	White Paper current status ISSCPNG	Graeme Stephens	Sept. 2021		
A3.3	Talk to EUMETSAT regarding Geo-Ring Data Set (production and infrastructure)	Rémy Roca and Tristan L'Ecuyer	Sept. 2021		

Action (A)	What	Who	When	Status	Comments
	GDAP *(continued)*				
A3.3	Attract new Panel Members with background in Cloud Dynamics	All	Dec. 2021		
A3.4	Connect/Representation in LHAs	Co-Chairs GDAP Co-Chairs SSG Peter van Oevelen	Dec. 2021		

A4	**GHP**				
A4.1	Discuss options for new Cross Cutting activity	GHP Panel	Dec. 2021		Floods or Floods & Droughts seem like a good successor to INTENSE
A4.2	Expand HYDROLARE to include more international input	Francina Dominquez Ali Nazemi Peter van Oevelen Valery Vuglinsky	Oct. 2021		
A4.2.1	Reach out to ESA and CNES i.r.t. HYDROLARE	Francina Dominquez Ali Nazemi Peter van Oevelen	Oct. 2021		
A4.3	Connect with ESA (Diego Fernandez) in relation to activities in Africa	Francina Dominquez Ali Nazemi Peter van Oevelen	Aug. 2021		EO Africa, coordinated by ITC
A4.4	Connect with ESA (Diego Fernandez) in relation to activities in Central Asia	Francina Dominquez Ali Nazemi Peter van Oevelen	Aug. 2021		Dedicated ESA program working with Asia Developing bank
A4.5	Connect to GloFAS and reconnect to Christel Prudhomme	Gianpaolo Balsamo Francina Dominquez Ali Nazemi Peter van Oevelen	Sept. 2021		HEPEX Workshop: Connecting global to local hydrological modelling and forecasting: scientific advances and challenges 29 June – 1 July 2021
A4.6	Look at RHP from a SPARC perspective. Connect to SPARC field campaign	Francina Dominquez Ali Nazemi Peter van Oevelen			

Action (A)	What	Who	When	Status	Comments
A5	**GLASS**				
A5.1	Update formulation GLASS rationale, strategy and links	Kirsten Findell Anne Verhoef	Oct. 2021		
A5.2	Appoint new panel members with background in urban effort; surface hydrology	Kirsten Findell Anne Verhoef All	Dec. 2021		champignon who is already well connected to a broader effort (e.g., streamflow; urban land surface-atmosphere interaction). Aude Lemonsu?
A5.3	Discuss options for signposting impact of GLASS efforts	GLASS Panel IGPO	Oct. 2021		
A5.3.1	Create dedicate GLASS webpage to showcase tools, papers, efforts, etc.	GLASS Panel IGPO	Oct. 2021		
A5.4	Closing the interactive and iterative loop between the 3 GLASS Strands	GLASS Panel	May 2022		
A5.5	Closer collaboration between all GEWEX Panels to create coherent heat fluxes over land, ocean and ice	All GEWEX Panels	May 2022		
A5.6	Publication of overview or review papers in BAMS, or other journals	GLASS Panel	On-going		Clear, coherent and timely communication with Global Land Modeling Community
A5.7	Final paper on SUBLIME and DICE	Project leads	ASAP		
A5.8	*Carbon Cycle*				
A5.8.1	White Paper Water - Energy – Carbon exchange.	Kirsten Findell Anne Verhoef	Dec. 2021		Initial foray into carbon world. What should we do to link the three together?
A5.8.2	Entrain Carbon folks to help with White paper and talk to JPL. Draw up list of names	Graeme Stephens All	July 2021		Neighbor
A5.8.3	Formulate overarching structure	Kirsten Findell Anne Verhoef	May 2022		Panel Members are already looking into this in their individual research project
A5.8.4	Collaboration between all panels Process-based understanding of interaction between water and carbon	All GEWEX panels			Find answer to "Is impact of water management much more important on the water cycle on the continent then the carbon?"
A5.9	Review current projects/initiatives and complete ending/finished ones	GLASS Panel	Oct. 2021		

Action (A)	What	Who	When	Status	Comments
A6	**CLIVAR/GEWEX Monsoon Panel**				
A6.1	Attract ECR to participate in working group	All	Dec. 2021		Re-invigorate Regional Monsoon Working Groups, especially Africa
A6.2	Discuss strengthening engagement and interaction with CLIVAR/GEWEX Monsoon Panel	Panel Co-chairs SSG members Director IPOs	Next GEWEX SSG conference call		
A6.3	Finalize plans for further engagement with GLASS	Co-Chairs MP Co-Chairs GLASS Director IPO's	Sept. 2021		
A6.4	Finalize plans for further engagement with GASS	Co-Chairs MP Co-Chairs GASS Director IPO's	Sept. 2021		
A6.5	Finalize plans for engagement with SPARC	Co-Chairs MP Co-Chairs SPARC Director IPO's	Sept. 2021		
A6.5	Revisit TOR's and include ECR's	Monsoon Panel Rupa Kumar Koli	Oct. 2021		

A7	**SSG**				
A7.1	Respond to questions and suggestions in Agencies presentations	Jan Polcher Xubin Zeng Peter van Oevelen	Aug. 2021		
A7.2	30-yrs paper and SATM Summarize – define – refine next steps	Graeme Stephens Jan Polcher Xubin Zeng Peter van Oevelen	July 2021		use Mindmap info
A7.3	Looking for host to organize SSG 34, 2022	SSG members Peter van Oevelen	Sept. 2021		

Action (A)	What	Who	When	Status	Comments
A8	**IGPO**				
A8.1	Assign rapporteurs to Monsoon panel	Peter van Oevelen	SSG 34, 2022		
A8.2	Plan next SSG conference call	Peter van Oevelen	July 2021		

A9	**OTHERS**				
A9.1	Attract younger generation scientist	LHA Explaning and Predicting Earth System Change	On-going		
A9.2	Link to Digital Earth	LHA My Climate Risk	On-going		
A9.3	Determine and make role of ESMOC explicit	ESMOC All WCRP core programs	Dec. 2021		
A9.4	Copernicus and GEWEX work on Surface runoff				
A9.5	Contribute to link observation model with process model				
A9.6	CLIVAR collaborate on Evaporation CC				
A9.7	Enhance engagement between LHA's and GEWEX community.	WCRP	On-going		GEWEX can make blueprint of how a project in LHA can be integrated and co-owned. Present at next JSC meeting.

No.	Recommendations (R) & Questions (Q)
GASS	
R2.1	*Initiate new projects/initiatives more actively, not only bottom-up*
R2.1.1	Consider stratosphere as one of the predictability elements • Connect with AsiapEX and/or TPE-WS irt enhancing capabilities on improving prediction of precipitation
R2.1.2	Consider Ocean fluxes (very welcome) as there are sizable challenges related to surface oceanic fluxes e.g., high variability zones of sea surface temperature like the Gulf stream • Expand the GHP Evaporation CC with a GASS activity • Link to EURECA with the help of GDAP co-chairs
R.2.1.3	Consider new Precipitation project: looking at processes that shape, are responsible for and ultimately predict precipitation • Connect with AsiapEX and/or TPE-WS irt enhancing capabilities on improving prediction of precipitation
R2.2	Consider expanding Evaporation CC (GHP) with a GASS activity. Embrace Climate Dynamics

GDAP	
R3.1	Connect to US Soil Moisture Network
R3.2	Engage positively and shape ESMOC so that it integrates with GDAP activities
R3.3	Take the opportunity of the new project on **regional consistency over land** to bring in global observationally-based monitoring efforts on missing budget elements, e.g., satellite soil moisture (SMAP, ESA-CCI, etc.) and surface heat fluxes (e.g., FLUXCOM from MPI-Jena, etc.), and potentially with GHP efforts that already have regional foci.
R3.4	See rapporteurs' report for the various recommendations on Earth Energy Imbalance
R3.5	IP: Use other data sets (e.g., GSWP) to fill the gap between Landflux surface sensible and latent heat flux
R3.5	Leadership of GDAP is now 5 years in place. Plans to refresh?

GHP	
R.4.1	Consider how RHPs can improve understanding of the water cycle and possibly the energy cycle. Facilitate RHP's in the direction and in terms of closing the water cycles.
R.4.1	Engage Jean-François Crétaux i.r.t. HYDROLARE
R.4.2	Contact Yaoming Ma to set up a meeting to discuss and clarify mutual expectations i.r.t. TPE-WS
R.4.3	Consider a link between TPE and PannEX
R.4.4	Consider engaging with Justin Sheffield (Uni. Southampton and part of the non-profit Princeton Climate Institute) i.r.t. CC on Floods & Droughts

No.	Recommendations (R) & Questions (Q)
R.4.5	Discuss in terms of Hillslope permitting models
Q4.1	Clarify what "in charge of or sponsoring of a surface network" means

GLASS	
R5.1	Remove DICE/GABLS from list of active projects. However, GLAFO might restart DICE?
R5.2	Remove LUMIP from list of active projects as the project is driven by CMIP6 timelines and are largely concluded
R5.3	Address model discrepancies seen in the model intercomparison projects
R5.4	Put more emphasis on runoff and streamflow, which is one of key components of the water cycle and one of best observed variables.

CLIVAR/GEWEX Monsoon Panel	
R6.1	-

SSG / GEWEX Strategy	
R7.1	Closing of water cycles should be made explicit in SATM
R7.2	Appoint focus area's within GEWEX to map into LHA
R7.3	Organize virtual meetings to maintain projects' engagement
R7.4	Participation in Panel meetings of respective SSG members to improve understanding of the working of specific panel
R7.5	Clearer signposting of impacts of GLASS (all panel) efforts on (research on and solutions to) societally important topics such as extremes (heat waves, floods, droughts) and climate change. Recognizing that soil moisture has been identified as a key factor exacerbating heatwaves and severe droughts through the land-atmosphere coupling, adding more attentions on the climate extremes to the current GLASS activities can further augment the scientific and societal benefits.
R7.6	Dedicated effort to improve understanding and predictions of interactions between urban land surfaces and the atmosphere.

IGPO	
R8.1	-