IMPACTS 2023 Cloud Probes Status and Updates David Delene, Jennifer Moore, Christian Nairy, and Marwa Majdi



IMPACTS 2023 Cloud Probes



IMPACTS Cloud Probes



2023 Deployment Science Flights

N/A – Not Available Partially Available

2022/2023	12/05	12/08	12/12	12/16	01/10	01/13	01/15	01/19	01/23	01/25	01/29	02/05	02/09	02/12	02/14	02/16	02/23
CDP																	
WCM																	
King																	
RICE-A																	
RICE-B																	
HAWKEYE	N/A				P/A												
2D-S																	
HVPS-3A																	
HVPS-3B																	

12/05 – Hawkeye data acquisition system power supply failed. 01/10 – Hawkeye failed mid-flight due to aircraft system power surge.

2022 Deployment Science Flights

	1/14	1/17	1/19	1/28	1/29	2/3	2/4	2/8	2/13	2/17	2/19	2/25
CDP	Failed	NA	NA				PA					
WCM							PA	NA				
King							PA					
RICE							PA					
Hawkeye												
2D-S	NA	NA	NA	Failed	NA	NA	NA					
HVPS-3A		NA	NA									
HVPS-3B												

Notes:

NA - Not Available

PA - Partially Available

1/14 - CDP Failed Upon Take-off

1/29 - 2D-S Failed

2/4 - M300 Data System Failed Mid-flight

2/8 - 2/25 - 2D-S Leak Issue

IMPACTS 2022: After Quality Assurance

- Total Water Content
- Liquid Water Content



IMPACTS 2022: WCM vs. King Probe Comparison



IMPACTS 2022: WCM vs. CDP (>0.005 g/m³) Comparison



IMPACTS Data Set Status

- Quality assurance is being completed for 2023.
 - Working on getting the 2023 into archive.
- •Best to use the King Probe LWC.
 - Time response issue with the WCM.