

# Observations of Clouds, Aerosols, Precipitation, and Sun Ocean: An Overview of CAPRICORN, MARCUS, MICRE,

Bulletin of the American Meteorological Society

102, E894-E928

DOI: [10.1175/bams-d-20-0132.1](https://doi.org/10.1175/bams-d-20-0132.1)

Citation Report

#	ARTICLE	IF	CITATIONS
1	How Well Do Large-Eddy Simulations and Global Climate Models Represent Observed Boundary Layer Structures and Low Clouds Over the Summertime Southern Ocean?. <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2020MS002205.	1.3	26
2	Organic composition of three different size ranges of aerosol particles over the Southern Ocean. <i>Aerosol Science and Technology</i> , 2021, 55, 268-288.	1.5	13
3	Southern Ocean Cloud Properties Derived From CAPRICORN and MARCUS Data. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033368.	1.2	25
4	Cloud-Nucleating Particles Over the Southern Ocean in a Changing Climate. <i>Earth's Future</i> , 2021, 9, e2020EF001673.	2.4	33
5	High-resolution in situ observations of atmospheric thermodynamics using dropsondes during the Organization of Tropical East Pacific Convection (OTREC) field campaign. <i>Earth System Science Data</i> , 2021, 13, 1107-1117.	3.7	11
6	Measurement report: Cloud processes and the transport of biological emissions affect southern ocean particle and cloud condensation nuclei concentrations. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 3427-3446.	1.9	35
7	Evaluation of MODIS and Himawari-8 Low Clouds Retrievals Over the Southern Ocean With In Situ Measurements From the SOCRATES Campaign. <i>Earth and Space Science</i> , 2021, 8, e2020EA001397.	1.1	11
8	Shallow Convection and Precipitation Over the Southern Ocean: A Case Study During the CAPRICORN 2016 Field Campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD034088.	1.2	14
9	Influences of Recent Particle Formation on Southern Ocean Aerosol Variability and Low Cloud Properties. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033529.	1.2	32
10	Analyzing the Thermodynamic Phase Partitioning of Mixed Phase Clouds Over the Southern Ocean Using Passive Satellite Observations. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093225.	1.5	4
11	Challenging and Improving the Simulation of Mid-Level Mixed-Phase Clouds Over the High-Latitude Southern Ocean. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2020JD033490.	1.2	20
12	Melting Layer Detection and Observation with the NCAR Airborne W-Band Radar. <i>Remote Sensing</i> , 2021, 13, 1660.	1.8	7
14	Wintertime In Situ Cloud Microphysical Properties of Mixed-Phase Clouds Over the Southern Ocean. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034832.	1.2	14
15	Sources, Occurrence and Characteristics of Fluorescent Biological Aerosol Particles Measured Over the Pristine Southern Ocean. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034811.	1.2	15
16	The NCAR Airborne 94-GHz Cloud Radar: Calibration and Data Processing. <i>Data</i> , 2021, 6, 66.	1.2	6
17	Clarifying remotely-retrieved precipitation of shallow marine clouds from the NSF/NCAR Gulfstream V. <i>Journal of Atmospheric and Oceanic Technology</i> , 2021, , .	0.5	1
18	Ice in Southern Ocean Clouds With Cloud Top Temperatures Exceeding $\sim 5^{\circ}\text{C}$ . <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034574.	1.2	5
19	Mixed-Phase Clouds Over the Southern Ocean as Observed From Satellite and Surface Based Lidar and Radar. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD034569.	1.2	19

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20	Southern Ocean latitudinal gradients of cloud condensation nuclei. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 12757-12782.	1.9	20
21	Understanding the Global Three-dimensional Distribution of Precipitation Mean Particle Size with the Global Precipitation Measurement Mission. <i>Journal of Climate</i> , 2021, , 1-62.	1.2	0
22	Phase Characterization of Cold Sector Southern Ocean Cloud Tops: Results From SOCRATES. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD033673.	1.2	12
24	Seasonal Change in Satellite-Retrieved Lower-Tropospheric Ice-Cloud Fraction Over the Southern Ocean. <i>Geophysical Research Letters</i> , 2021, 48, .	1.5	5
25	The University of Washington Ice-Liquid Discriminator (UWILD) improves single-particle phase classifications of hydrometeors within Southern Ocean clouds using machine learning. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 7079-7101.	1.2	6
26	Observations and Modeling of Rime Splintering in Southern Ocean Cumuli. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035479.	1.2	9
27	Predicting Frigid Mixed-Phase Clouds for Pristine Coastal Antarctica. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035112.	1.2	5
28	Key challenges for tropospheric chemistry in the Southern Hemisphere. <i>Elementa</i> , 2022, 10, .	1.1	7
29	Orographic Flow Influence on Precipitation During an Atmospheric River Event at Davis, Antarctica. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	13
30	Opportunistic experiments to constrain aerosol effective radiative forcing. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 641-674.	1.9	44
31	Rainfall microphysics. , 2022, , 1-26.		1
32	An extensive data set for in situ microphysical characterization of low-level clouds in a Finnish sub-Arctic site. <i>Earth System Science Data</i> , 2022, 14, 637-649.	3.7	2
33	Hemispheric contrasts in ice formation in stratiform mixed-phase clouds: disentangling the role of aerosol and dynamics with ground-based remote sensing. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 17969-17994.	1.9	18
34	A climatology of open and closed mesoscale cellular convection over the Southern Ocean derived from Himawari-8 observations. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 2135-2152.	1.9	6
35	Southern Ocean Precipitation Characteristics Observed From CloudSat and Ground Instrumentation During the Macquarie Island Cloud & Radiation Experiment (MICRE): April 2016 to March 2017. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	13
36	The COMBLE Campaign: A Study of Marine Boundary Layer Clouds in Arctic Cold-Air Outbreaks. <i>Bulletin of the American Meteorological Society</i> , 2022, 103, E1371-E1389.	1.7	17
37	Coalescence Scavenging Drives Droplet Number Concentration in Southern Ocean Low Clouds. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	12
38	Ice and Supercooled Liquid Water Distributions Over the Southern Ocean Based on In Situ Observations and Climate Model Simulations. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, .	1.2	9

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39	Biases in the thermodynamic structure over the Southern Ocean in <sc>ERA5</sc> and their radiative implications. <i>International Journal of Climatology</i> , 2022, 42, 7685-7702.	1.5	4
40	Iceâ€Nucleating Particles That Impact Clouds and Climate: Observational and Modeling Research Needs. <i>Reviews of Geophysics</i> , 2022, 60, .	9.0	29
41	How Accurately Can Warm Rain Realistically Be Retrieved with Satellite Sensors? Part I: DSD Uncertainties. <i>Journal of Applied Meteorology and Climatology</i> , 2022, 61, 1087-1105.	0.6	2
42	Cloud and Precipitation Particle Identification Using Cloud Radar and Lidar Measurements: Retrieval Technique and Validation. <i>Earth and Space Science</i> , 2022, 9, .	1.1	5
43	Earth System Model Aerosolâ€Cloud Diagnostics (ESMAC Diags) package, version 1: assessing E3SM aerosol predictions using aircraft, ship, and surface measurements. <i>Geoscientific Model Development</i> , 2022, 15, 4055-4076.	1.3	3
44	Cloud phase and macrophysical properties over the Southern Ocean during the MARCUS field campaign. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 3761-3777.	1.2	1
45	An evaluation of the liquid cloud droplet effective radius derived from MODIS, airborne remote sensing, and in situ measurements from CAMP&lt;sup&gt;2&lt;/sup&lt;sup&gt;Ex. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 8259-8285.	1.9	7
46	The impact of sampling strategy on the cloud droplet number concentration estimated from satellite data. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 3875-3892.	1.2	15
47	Impact of downward longwave radiative deficits on Antarctic sea-ice extent predictability during the sea ice growth period. <i>Environmental Research Letters</i> , 2022, 17, 084008.	2.2	3
48	Automated identification of local contamination in remote atmospheric composition time series. <i>Atmospheric Measurement Techniques</i> , 2022, 15, 4195-4224.	1.2	11
49	Circum-Antarctic abundance and properties of CCN and INPs. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 9721-9745.	1.9	13
50	Vertically Resolved Convectiveâ€Stratiform Echo-Type Identification and Convectivity Retrieval for Vertically Pointing Radars. <i>Journal of Atmospheric and Oceanic Technology</i> , 2022, 39, 1705-1716.	0.5	3
51	Exploring relations between cloud morphology, cloud phase, and cloud radiative properties in Southern Ocean's stratocumulus clouds. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 10247-10265.	1.9	5
52	Analysis of MONARC and ACTIVATE Airborne Aerosol Data for Aerosol-Cloud Interaction Investigations: Efficacy of Stairstepping Flight Legs for Airborne In Situ Sampling. <i>Atmosphere</i> , 2022, 13, 1242.	1.0	4
53	Significant continental source of ice-nucleating particles at the tip of Chile's southernmost Patagonia region. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 10505-10525.	1.9	7
54	Southern Ocean precipitation: Toward a processâ€level understanding. <i>Wiley Interdisciplinary Reviews: Climate Change</i> , 2022, 13, .	3.6	5
55	Ground-Based Measurements of Cloud Properties at the Bucharestâ€Măgurele Cloudnet Station: First Results. <i>Atmosphere</i> , 2022, 13, 1445.	1.0	4
56	Cloud Phase Simulation at High Latitudes in EAMv2: Evaluation Using CALIPSO Observations and Comparison With EAMv1. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	5

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57	Aerosol-boundary layer dynamics and its effect on aerosol radiative forcing and atmospheric heating rate in the Indian Ocean sector of Southern Ocean. <i>Science of the Total Environment</i> , 2023, 858, 159770.	3.9	3
58	Can DSD Assumptions Explain the Differences in Satellite Estimates of Warm Rain?. <i>Journal of Atmospheric and Oceanic Technology</i> , 2022, 39, 1889-1901.	0.5	0
59	Estimation of Sea Spray Aerosol Surface Area Over the Southern Ocean Using Scattering Measurements. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	1.2	1
60	Southern Ocean cloud and shortwave radiation biases in a nudged climate model simulation: does the model ever get it right?. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 14603-14630.	1.9	6
61	Southern Ocean Solar Reflection Biases in CMIP6 Models Linked to Cloud Phase and Vertical Structure Representations. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	12
62	Thermodynamic characteristics of marine atmospheric boundary layer across frontal regions of the Indian Ocean Sector of the Southern Ocean based on three field campaigns. <i>Atmospheric Research</i> , 2023, 286, 106678.	1.8	0
63	Natural marine cloud brightening in the Southern Ocean. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 1677-1685.	1.9	2
64	Important Ice Processes Are Missed by the Community Earth System Model in Southern Ocean Mixed-Phase Clouds: Bridging SOCRATES Observations to Model Developments. <i>Journal of Geophysical Research D: Atmospheres</i> , 2023, 128, .	1.2	4
65	Construction of SIoT CG virtual reality framework under ubiquitous clouds environment. <i>International Journal of Systems Assurance Engineering and Management</i> , 0, .	1.5	0
66	Climate projections over the Antarctic Peninsula region to the end of the 21st century. Part III: clouds and extreme precipitation. <i>Ukrainian Antarctic Journal</i> , 2022, 20, .	0.1	0
67	Influence of air mass origin on microphysical properties of low-level clouds in a subarctic environment. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 2483-2498.	1.9	0
68	Simulating Southern Ocean Aerosol and Ice Nucleating Particles in the Community Earth System Model Version 2. <i>Journal of Geophysical Research D: Atmospheres</i> , 2023, 128, .	1.2	2
69	Cloud Top Thermodynamic Phase from Synergistic Lidar-Radar Cloud Products from Polar Orbiting Satellites: Implications for Observations from Geostationary Satellites. <i>Remote Sensing</i> , 2023, 15, 1742.	1.8	0
70	Measurements of Aerosol Particle Size Distributions and INPs Over the Southern Ocean in the Late Austral Summer of 2017 on Board the R/V <i>Mirai</i> : Importance of the Marine Boundary Layer Structure. <i>Earth and Space Science</i> , 2023, 10, .	1.1	3
71	Measurement report: Understanding the seasonal cycle of Southern Ocean aerosols. <i>Atmospheric Chemistry and Physics</i> , 2023, 23, 3749-3777.	1.9	4
72	Nudging allows direct evaluation of coupled climate models with in situ observations: a case study from the MOSAiC expedition. <i>Geoscientific Model Development</i> , 2023, 16, 1857-1873.	1.3	0
73	Untangling the influence of Antarctic and Southern Ocean life on clouds. <i>Elementa</i> , 2023, 11, .	1.1	5
74	Marine aerosol feedback on biogeochemical cycles and the climate in the Anthropocene: lessons learned from the Pacific Ocean. <i>Environmental Science Atmospheres</i> , 2023, 3, 782-798.	0.9	2

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