The NASA Operation IceBridge Sea Ice Freeboard, Snow Depth and Thickness Product

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Over the eleven-year lifetime of NASA's Operation IceBridge, the Project Science Office has released an along-track sea ice freeboard, snow depth and thickness product in varying forms. Multiple versions of archival products are available for a number of the project's early years and more recently quicklook versions, rapid-turnaround products primarily produced for summer sea ice forecasting, have been available for Arctic campaigns. During 2020, the mission's close-out year, we are producing a final archival version of the product that will fill gaps in data availability and incorporate multiple improvements in the processing chain. These improvements include laser altimetry and snow radar pre-processing and ingestion upgrades, improved image analysis, updated tide and atmospheric models, updated gridding methodology and enhanced product outputs. The final result will constitute a state-of-the-art, internally self-consistent data product for all springtime Arctic and Antarctic Operation IceBridge campaigns.