

Curriculum vitae with track record (for researchers)

Role in the project Project manager Project partner

Personal information

First name, Surname:	Jack, Landy		
Date of birth:	30/03/1988	Sex:	Male
Nationality:	United Kingdom & United States of America		
Researcher unique identifier(s):	https://orcid.org/0000-0002-7372-1007		
URL for personal website:	https://scholar.google.co.uk/citations?user=9ii4KckAAAAJ&hl=en https://eo4society.esa.int/lpf/jack-landy/		

Education

Year	Faculty/department - University/institution - Country
2016 (dissertation defended)	Ph.D. in Geophysics and Remote Sensing, Faculty of Environment, Earth, and Resources, University of Manitoba, Canada
2011	Master of Science in Remote Sensing, Department of Geography, University of Durham, UK

Positions - current and previous

Year	Job title – Employer - Country
2020-	Forsker (Researcher) at the Centre for Integrated Remote Sensing and Forecasting for Arctic Operations (CIRFA), Department of Physics and Technology, UiT The Arctic University of Norway, Norway
2017-2020	Lecturer (Assistant Professor) of Geodesy, Bristol Glaciology Centre, School of Geographical Sciences, United Kingdom
2016-2017	Postdoctoral Research Fellow, Centre for Earth Observation Science (CEOS), University of Manitoba, Canada

Project management experience

Year	Project owner - Project - Role - Funder
2020-2022	Co-Investigator ESA Invitation to Tender AO/1-10061/19/I-EF “EXPRO+ ITT Polar+ Theme 1 Snow on Sea Ice” €500,000 FEC (full economic cost). Principal investigator Dr Michel Tsamados.
2020-2023	Co-Investigator NERC (UK) Highlight Topic Grant NE/V005855/1 “ArctiCONNECT (Consequences of Arctic Warming for European Climate and Extreme Weather)” €2,089,200 FEC. Principal Investigator Prof. James Screen.

2019-2023	Principal Investigator NERC (UK) Standard Grant NE/T000546/1 “PRE-MELT (Preconditioning rapid Arctic ice Melt)” €778,000 FEC.
2018-2020	Principal Investigator ESA Living Planet Fellowship ESA/4000125582/18/I-NS “Arctic-SummIT (Arctic Summer Ice Thickness)” €100,000 FEC.
2017-2021	Co-Investigator NERC (UK) & BMBF (Germany) Joint Changing Arctic Ocean Programme Grant NE/R012849/1 “Diatom-ARCTIC (Diatom Autecological Responses with Changes to Ice Cover)” €800,000 FEC. Principal Investigator Prof. Martyn Tranter.
2017-2018	Principal Investigator NERC-BEIS Arctic Bursaries Programme “Quantifying dynamic-thermodynamic interactions within melting first-year sea ice” €23,000 FEC.

Supervision of students

Master's students	Ph.D. students	University/institution - Country
1	3	University of Bristol, UK & University College London, UK

Other relevant professional experiences

Year	Description - Role
2018-2020	Fellow of the European Space Agency: Living Planet Program
2017-2020	School of Geographical Sciences: Teaching, Learning and Assessment committee and Student Disability Coordinator (University of Bristol)
2019-2020	Invited as Project Partner on “AWI IceBird Summer 2022” and “AWI IceBird Summer 2024”, Science Proposals to the German Research Council BMBF, Dr. Thomas Krumpfen
2019	Invited as Project Partner on “Sunlight Under Sea Ice: A Multisensor and Modeling Synthesis for Ecosystems in a Changing Arctic”, Science proposal to the NASA ICESat-2 Program, Prof. Julienne Stroeve
2019	Invited Expert onto the WMO Global Cryosphere Watch “Sea Ice Thickness and Snow on Sea Ice Intercomparison Exercise” Committee
2018-2019	Lead author of UK MCCIP (Marine Climate Change Impacts Partnership) Special Report on “Impacts of climate change on Arctic sea ice, relevant to the coastal and marine environment around the UK” http://www.mccip.org.uk/media/2013/10_sea_ice_2020.pdf
2018	15 th International Circumpolar Remote Sensing Symposium – Session Convener
2018	Expert Reviewer for the IPCC Special Report on the Oceans & Cryosphere
2017-2019	Grant proposal reviewer for U.K. Natural Environment Research Council (NERC) Standard Grants and U.S. Natural Science Foundation (NSF): Arctic Natural Sciences Programme
2015-	Member of the American Geophysical Union and IEEE Geoscience and Remote Sensing Society

2011-	Six Arctic sea ice fieldwork campaigns (totally 42 weeks) – Participant and Lead
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Track record

32 publications in international peer-reviewed journals (8 as first-author).

H-index = 15; i10-index = 22; total citations = 557 (google).

List of journals: Geophysical Research Letters; Journal of Geophysical Research: Oceans; The Cryosphere; IEEE Transactions on Geoscience and Remote Sensing; IEEE Journal of Selected Topics in Applied Earth Observation and Remote Sensing; Remote Sensing of Environment; Journal of Marine Systems; Progress in Oceanography; Biogeosciences; Frontiers in Marine Science.

Ten selected publications:

1. Dawson, G., Landy, J., Tsamados, M., Komarov, A.S., Howell, S., Heorton, H. and Krumpfen, T., (2022). A 10-year record of Arctic summer sea ice freeboard from CryoSat-2. Remote Sensing of Environment, 268, 112744, <https://doi.org/10.1016/j.rse.2021.112744>
2. Glissenaar, I.A., Landy, J.C., Petty, A.A., Kurtz, N.T. and Stroeve, J.C., 2021. Impacts of snow data and processing methods on the interpretation of long-term changes in Baffin Bay early spring sea ice thickness. The Cryosphere, 15(10), 4909-4927, <https://doi.org/10.5194/tc-15-4909-2021>
3. Landy, J.C., Petty, A., Tsamados, M., Stroeve, J. (2020) Sea ice roughness overlooked as a key source of uncertainty in Cryosat-2 ice freeboard retrievals, J. Geophys. Res. Oceans, 125(5), <https://doi.org/10.1029/2019JC015820>
4. Stroeve, J.C.; Vancoppenolle, M.; Veyssiere, G.; Lebrun, M.; Castellani, G.; Babin, M.; Landy, J.C.; Liston, G.; and Wilkinson, J. (2021). A Multi-Sensor and Modeling Approach for Mapping Light under Sea Ice, Frontiers in Marine Science: Global Change and the Future Ocean, 7, 1253, <https://doi.org/10.3389/fmars.2020.592337>
5. Mallett, R.D., Stroeve, J.C., Tsamados, M., Landy, J.C., Willatt, R., Nandan, V. and Liston, G.E., 2020. Faster decline and higher variability in the sea ice thickness of the marginal Arctic seas. Accepted in The Cryosphere Discussions, 1-31. <https://doi.org/10.5194/tc-2020-282>
6. Kirillov, S., Babb, D., Dmitrenko, I., Landy, J., Lukovich, J., Ehn, J., Sydor, K., Barber, D. and Stroeve, J., 2020. Atmospheric forcing drives the winter sea ice thickness asymmetry of Hudson Bay. Journal of Geophysical Research: Oceans, 125(2), <https://doi.org/10.1029/2019JC015756>
7. Landy, J.C., Tsamados, M., Scharien, R.K. (2019). A Facet-Based Numerical Model for Simulating SAR Altimeter Echoes from Heterogeneous Sea Ice Surfaces. IEEE Trans. Geosci. Rem. Sens., 57(7), 4164-4180, <https://doi.org/10.1109/TGRS.2018.2889763>
8. Babb, D.G., Landy, J.C., Barber, D., and Galley, R. (2019). Winter sea ice export from the Beaufort Sea as a preconditioning mechanism for enhanced summer melt: A case study of 2016, Journal of Geophysical Research: Oceans. 124(9), 6575-6600, <https://doi.org/10.1029/2019JC015053>
9. Landy, J.C., Ehn, J.K. and Barber, D.G., 2015. Albedo feedback enhanced by smoother Arctic sea ice. Geophysical Research Letters, 42(24), 10-714, <https://doi.org/10.1002/2015GL066712>
10. Landy, J., Ehn, J., Shields, M. and Barber, D., 2014. Surface and melt pond evolution on landfast first-year sea ice in the Canadian Arctic Archipelago. Journal of Geophysical Research: Oceans, 119(5), 3054-3075, <https://doi.org/10.1002/2013JC009617>

Formal published datasets and software:

Arctic sea ice and physical oceanography derived from CryoSat-2 Baseline-C Level 1b waveform observations, Oct-Apr 2010-2018, doi: 10.1029/2019JC015900. <https://data.bas.ac.uk/full-record.php?id=GB/NERC/BAS/PDC/01257>

“FBEM” Facet-based numerical model for simulating delay-Doppler SAR altimeter echoes backscattered from snow-covered sea ice <https://github.com/jclandy/FBEM>

Scientific policy reports:

Hwang, B., Aksenov, Y., Blockley, E., Tsamados, M., Brown, T., Landy, J., Stevens, D. and Wilkinson, J., (2020). Impacts of climate change on Arctic sea ice. MCCIP (Marine Climate Change Impacts Partnership) Science Review 2020, 208-227, doi: 10.14465/2020.arc10.ice.

Invited oral presentations at conferences or institutions:

Keynote talk in ArcticNet science session: Landy, J.C., Ehn, J.K., Barber, D.G., Tsamados, M. and Stroeve, J.C. (2017), Utilizing ICESat and Cryosat-2 altimeter data to predict the albedo of Arctic sea ice during summer. ArcticNet: Annual Science Meeting Quebec City, Canada.

Invited talk at the British Antarctic Survey (BAS) Seminar Series: Landy, J.C. (2017), Surface roughness: a key to understanding Arctic sea ice from micro to macro scales.

Research communication, dissemination, and outreach:

Invited oral presentation at COP25 in Madrid: Landy, J.C. (2019) Arctic sea ice past and future: A modern era of extraordinary change, Sea Ice Day at the Cryosphere Pavilion, COP25, Madrid. Invited by the United Kingdom *Changing Arctic Ocean* programme.

Interviewed for the UK Independent Newspaper: “Devastating’: Arctic sea ice shrinks to near record low” (22/09/2020)

Interviewed for the UK Daily Mail Newspaper: “Arctic sea ice falls to second lowest level on record after a 'crazy' year of heat waves and forest fires in the region” (22/09/2020)

Interviewed for Guardian Newspaper: “Arctic sea ice cover falls to 'alarming' low as temperatures rise” (11/12/19)

Member of delegation led by UK Arctic Office for Collaborative UK-Russia Arctic Science Meeting: Moscow, Russia (March 2018)

Fellowships:

ESA Living Planet Fellowship, 2018 (ESA/4000125582/18/I-NS). €100,000

University of Manitoba Graduate Research Fellowship, 2012. \$48,000 CAD

Awards and prizes:

Best oral presentation at symposium: Landy, J.C., Komarov, A., Haas, C. and Howell, S. (2018), Towards a reliable method for measuring Arctic sea ice thickness from satellite radar altimetry during summer months. International Circumpolar Remote Sensing Symposium, Potsdam, Germany. €500

Best Ph.D. in Faculty 2016: University of Manitoba Award in the Faculty of Environment Earth and Resources. \$2,000 CAD

V.E. Barber Memorial Fellowship in Arctic Research: University of Manitoba. \$6,000 CAD