#### CURRICULUM VITAE JOHN L LUICK, PhD

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**CURRENT EMPLOYMENT:** Director at Tridel Technologies Pty Ltd., Principal Scientist at Austides Consulting, Adelaide **NATIONALITY:** USA, Australia

LANGUAGES: English

**THEMATIC EXPERTISE:** Oceanographic environmental impact analysis; Marine pollutant tracking; Offshore search and rescue support; Wave, tidal, current, thermohaline, wind analysis; Hydrodynamic numerical modelling; Project management; Consulting; Technical writing; Mentoring; Hydrographic survey methodology; Pro bono support for marine environmental NGOs **GEOGRAPHICAL EXPERTISE:** USA, Australia, United Arab Emirates, Kingdom of Saudi Arabia, India, The Philippines, Papua New Guinea, Malaysia, Indonesia, and Pacific Island nations.

#### OVERVIEW

- Over 30 years research experience in a wide range of oceanographic projects: university, government, and private sectors, developed and developing countries, over fifty technical reports and scientific publications
- Extensive experience at international project level: "India Groundwater Development Initiative 2002" (UN funded), "South Pacific Sea Level and Sea Level Monitoring Project 1993 – 2003" (AIDAB/AusAID funded), "Coastal India Tsunami Risk Mitigation 2005 (India Chamber of Commerce funded)", "Sustainable Development of Pacific Island Coastal Aquifers 1998 -2000" (AusAID funded)
- Experience in coaching, mentoring, and advising: "Introductory Physical Oceanography" (three-week short course, voluntary, University of San Carlos, Cebu, The Philippines, 2007), over 40 short courses in marine environment-related topics at over 12 different Pacific Island countries, 1995 2003. Taught numerous short courses in India, Malaysia, and the Middle East on a variety of technical topics
- Broad experience in mathematical methods and computer programming: Time series analysis (time and frequency domain), Wavelets, Tidal least-squares analysis, Statistics, risk, and error analysis, Fortran (experience level 6/10), Matlab (level 8/10), and Python (level 3/10), Windows and Linux environment
- High level technical writing skills: Technical editor 2005 2009, Online English
- Business development and project management: Established and operated Austides Consulting (2008 present), Expert Advisor, Tridel Technologies LLC, 2009 present Dubai and Mumbai, Director, Tridel Technologies Pty Ltd (Established 2020 as a subsidiary of Tridel Technologies LLC),
- Substantial oceanographic field research: Over thirty research cruises since 1985, including planning, oversight, analysis
- Pro bono support for marine-related environmental causes: Expert advisor on legal challenges to offshore dumping cases in developing countries, Long track record of support and empowerment of local marine environmental groups in the Pacific Islands, PNG, The Philippines, and Indonesia

# EDUCATION AND QUALIFICATIONS

1983-1988

1979-81

**PhD Physical Oceanography**, University of Alaska, Fairbanks Thesis title "Dynamics of the Alaska Coastal Current" **BSc.**, **Physics**, University of California, Davis

### Memberships

- The Oceanography Society
- Australian Modelling and Simulation Society American Geophysical Union
- Australian Meteorological and Oceanographic Society Australian Marine Science Association
- Environmental Defenders Office Register of Experts

Ongoing				
October 2020	Director, Tridel Technologies Pty Ltd, Adelaide In conjunction with the parent company, I established an Australian branch for marine projects. See <u>www.trideltechnologies.com</u> for specifics.			
July 2019	Adjunct Senior Fellow, Flinders University of South Australia			

I co-supervise two Marine Biology post-graduate students working on pathwa					
	<ul> <li>pollution in coastal waters</li> <li>Assistance with field research, including one research cruise (Darwin to Fremantle)</li> </ul>				
July 2017	Visiting Scientist, South Australian Research and Development Institute (SARDI)				
January 1996	Owner, Austides Consulting My business, established for occasional small consulting jobs (one to four person, AUD 1,000 to 70,000). Austides has completed more than 30 such jobs.				
Previous					
2017 – 2020	Expert Advisor, Maurice Blackburn Pty Ltd. Sydney (on retainer) Provided legal team with advice on potential trajectories of spilled oil in multi-million-dollar international case.				
2014 – 2020	Expert Advisor, Tridel Engineering LLC (Dubai). Part time consultant.				
	<ul> <li>Assisted in writing tender responses; set up and ran ocean models;</li> <li>Analyzed ocean data, assisted in writing reports; provided workshops on tidal analysis.</li> </ul>				
2007 – 2017	<ul> <li>Physical Oceanographer (Head of Hydrodynamic Modelling Group) SARDI.</li> <li>Planned and implemented field program (five current profiling arrays, repeated water sampling transects).</li> <li>Established ROMS as primary numerical model at SARDI.</li> <li>Oversaw four-year project "Assessment of Oil Drilling Risk in the Great Australian Bight"</li> </ul>				
2004 – 2007	<ul> <li>Senior Research Fellow, James Cook University, Townsville, Queensland</li> <li>Lecturer for third-year course "Coastal and Environmental Engineering"</li> <li>Lead author on "Circulation in the Great Barrier Reef Lagoon using numerical tracers and in situ data".</li> </ul>				
1992 - 2004	<ul> <li>Research Fellow, Flinders University of South Australia</li> <li>Authored monthly reports on South Pacific Sea Level Climate Monitoring Project</li> <li>Ran outreach program to empower Pacific Islanders in local environmental projects</li> <li>Conducted over 40 marine environment workshops in Pacific Island countries</li> </ul>				
1988 – 1992	<ul> <li>Postdoctoral Fellow, University of Sydney</li> <li>Lead author on "On the formation and spreading of the Bass Strait cascade"</li> <li>Lecturer "Ocean Wave Theory"</li> </ul>				
1982 – 1987	<ul> <li>Research/Teaching Assistant University of Alaska</li> <li>Conducted doctoral research "The Dynamics of the Alaska Coastal Current"</li> <li>Taught graduate level physical oceanography for four years</li> </ul>				
1981 - 1982	Geophysical Engineer, Schlumberger Offshore Services Engineer in charge of oilfield well logging.				

# ADDITIONAL INFORMATION:

Lists of publications, conference papers, book authorships, and awards are available on request.

# SELECTED PROFESSIONAL PUBLICATION:

Kowalik, Z., and J. Luick. 2019. *Modern Theory and Practice of Tide Analysis and Tidal Power*. South Australia: Austides Consulting, 220 pp. <u>https://www.uaf.edu/files/cfos/Kowalik/Book2019\_tides.pdf</u>

## **REFERENCES:**

Name	Employer	Title	Phone	Email
Dr Charles James	SARDI	Physical Oceanographer	+61447728459	charles.james@sa.gov.au
Dr John Hinwood	Australian Meteorological & Oceanographic Group	Director (formerly CEO)	+61457429010	jbhinwood@gmail.com
Dr Helen Rosenbaum	Self-Employed	Environmental Advocate	+61413201793	hrose@vic.chariot.new.au
Mr Shaijan Baby	Tridel Technologies LLC	CEO	+971564408901	info@trideltechnologies.com