

PERSONAL DETAILS

Name	Dr Peter David Knight
Nationality	Canadian; UK, and New Zealand
Residency	New Zealand
Passport No.	LN746770 (New Zealand)
Offshore Certificates	UKOOA Medical obtained 6/8/2014 valid until 6/8/2016 OPTIO BOSIET attained 12/9/12 expires 12/9/2016
Languages	English; French; some Spanish

PROFESSIONAL SUMMARY

Professional Hydrographic Surveyor CPHS1—Member New Zealand Institute of Surveyors

EDUCATION—COURSES—CONFERENCES

2014	New Zealand Institute of Surveyors Conference, New Plymouth, New Zealand Oct 30 th -Nov 1 st .
2012	Canadian Hydrographic Conference, Niagara Falls, Canada
2010	Geohab Conference, Wellington, New Zealand
2008	CARIS Training, University of Otago, HIPS CUBE Processing, five-day programme. August 2008.
2008	PhD University of Otago, School of Surveying.
2005	Certified 'Level 1' Hydrographic Surveyor, Australasian Hydrographic Surveyors Certification Panel.
2005	Shallow Water Conference (High-resolution Multibeam), Plymouth, UK
2004	Ocean Mapping Group, 5 Day Course in Multibeam Sonar, Burlington, ON, Canada. May 2004.
2004	Canadian Hydrographic Conference, Toronto, Canada
2003	Australasian Hydrographic Conference, Christchurch, New Zealand.
1998	CARIS Training HIPS seven-day programme, Fredricton, NB, Canada.
1997	Ocean Mapping Group, 5-Day Course in Multibeam Sonar, Freemantle, WA.
1994	Master of Applied Science, Dept. Civil Engineering, University of Toronto, Canada.
1990	Bachelor of Science (Surveying), University of Toronto, Toronto, Canada.
1987	Bachelor of Arts, University of Guelph, Guelph, ON, Canada
1980	Humber College, Toronto, ON, Canada. Technologist Diploma in Hydrographic Surveying,

PROFESSIONAL HISTORY

2015

GeomaticsNZ

March-April 2015

Client: Aecom-URS New Zealand Ltd
Project: Survey of Hurunui and Waiau Rivers
Area: New Zealand South Island
Vessel: Jet Boat
Description: Surveyor-in-charge, Principal Consultant
River cross-sections, and survey control for aerial imagery team. HydroPro;
CHC X91 RTK GNSS; Carlson SurveCE; Trimble Business Centre;
Adobe Illustrator; Word; Excel.

This work includes determination of geoid model; recovery of survey control and positioning system calibration; dimensional control of survey vessel, land survey of cross-sections (river banks), elevation determination of irrigation control structures.

2015

GeomaticsNZ

January 2015-April 2015

Client: Paterson Pitts Group
Project: Hydrographic capability building
Area: New Zealand South Island
Vessel: Not applicable
Description: Surveyor-in-charge, Principal Consultant
Development of hydrographic capability for Port Otago.
Presentations and networking; communication with suppliers of multibeam, sub-bottom profiler, GNSS etc.; formulation of proposal.
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2015

GeomaticsNZ

January 2015-March 2015

Client: OPUS International Consultants
Project: Kawarau Falls Bridge survey and inspection
Area: New Zealand South Island
Vessel: Jet boats various
Description: Surveyor-in-charge, Principal Consultant
Full hydrographic survey and visual inspection of bridge foundation.
HydroPro; Trimble Business Centre; CHC X91 RTKGNSS; Sonarmite; GoPro
Underwater camera with WiFi accessories; AeroHawk 3-D software.
Recovery of survey control (land survey); dimensional control and position Calibration. Production of survey plan and photo/image presentation.

2014—2015

Chevron

December 2014-January 2015

Client: Allseas/Chevron
Project: Wheatstone-24 in. Flowline installation
Area: North West Shelf, Western Australia
Vessel: Audacia
Description: Online Surveyor—Operation of survey systems, pipelay operations —ROV support
Eiva Navipac; Sonardyne Ranger GUSBL; Veripos LD7, Apex, Ultra;
Octans motion and heading. Valeport, SVX.
Work includes knowledge of vessel reference system, and the accurate location of secondary acoustic positioning system on stinger at head of vessel.

2014

IPS

October 2014-December 2014

Client: CADS Survey—Saipem Leighton—Gorgon Project
Project: Hydrographic Survey of LNG Jetty and Approaches
Area: Barrow Island, Western Australia
Vessel: CTV 9
Description: Surveyor in Charge responsible for:
Field survey and reporting.
Equipment: R2 Sonic multibeam; HyPack Survey; HyPack Editor
Teledyne Odom 'Digibar S'; Hemisphere VS11; Trimble SPS855
Work included supervision of entire survey process from establishing local survey control in 3 dimensions (i.e land survey) including incorporation of geoid models; dimensional control of survey vessel; equipment calibration; survey planning; data collection; data processing, and report writing.

2014

Chevron

June 2014-September 2014

Client: Allseas/Chevron
Project: Wheatstone Project 44 in Trunkline installation
Area: Nr. Barrow Island, Western Australia
Vessel: Tog Mor

Description: Online surveyor during pipelay operations.
Equipment: Eiva Navipac; Eiva TMS; Veripos
_Work included supporting anchor-tugs and placement of sea-floor anchors for barge navigation during pipelay. System included data telemetry from four support vessels.

2014 GeomaticsNZ

January 2014-February 2014

Client: OPUS
Project: Kawarau River; Victoria Bridge Abutment
Area: Central Otago, New Zealand
Vessel: Puni Nui
Description: Surveyor in Charge responsible for system development; Field survey; reporting and all contract administration.
Equipment: Trimble S6 Total Station; Trimble R8 RTK GNSS; CHC X91 GNSS; Hydro Pro; Carlson
Work included recovery of survey control (land survey) dimensional control of survey vessel, data collection; data processing; report writing.

2013 RPS

September 3-Oct 2nd 2013

Client: Harkand Andrews
Project: Borkum II West Wind Farm, Cable installation
Area: Noth Sea, German Bight
Vessel: Normand Pioneer
Description: Online surveyor: Pre-lay survey (cameras and obstacle avoidance sonar); cable installation and trenching
Eiva Navipac; Visual Works—DVR; C-Nav GNSS
Work included dimensional control of cable trencher (i.e. location of all trencher sensors in vessel reference frame).

2013 IV Offshore

August 15-August 27th 2013

Client: Subsea Specialist Services
Project: Borwin Alpha-Beta: Cable survey and visual survey of jacket.
Area: Noth Sea, German Bight
Vessel: Ernest Shackleton

Description: Online surveyor: EIVA Navipac; VisualWorks-DVR
Reson 8125 dual head multibeam; HiPap; Edgetech side scan;
Tritech SCU3 Bathy; Veriopus GNSS.

Work included dimensional control of ROV (i.e. measurement of Reson
Multibeam transducers within ROV reference frame and relating this
To vessel reference frame and ultimately to geographic coordinates).

2013

RPS

July 31-August 15th 2013

Client: DOF
Project: Banff Reinstatement Project
Area: Noth Sea, UK
Vessel: Skandi Bergen
Description: Online surveyor: Electrical Umbilical lay; mattress
Installation; EIVA Navipac; Minisoft CTD; Fugro Multifix; HiPap.

2013

ATLAS Services

July 3-17th 2013

Client: DeepOcean
Project: Asgard Infield, pipeline inspection
Area: Noth Sea, Norway
Vessel: Volstad Surveyor
Description: Online surveyor: Full suite, Reson MB; Edgetech SSS;
EIVA Navipac; Naviscan; TSS Pipetracker; CTD; Fugro Multifix; HAIN.

2013

Geomatics NZ Ltd

April-May 2013

Client: URS New Zealand Ltd
Project: Rakaia River: Topographic and hydrographic survey
Area: New Zealand, South Island
Vessel: Jet
Description: Hydrographic surveyor-in-charge; logistics; reporting;
field survey; Data processing; client communications.
Software: HydroPro; Trimble Geomatics Office;
Carlson SurvCE

Work included recovery of survey control; establishment of
geoid/elevation model for survey area; river bank topographic survey;
dimensional control of survey vessel; instrument calibration; reporting.

2013

Geomatics NZ Ltd

March 2013

Client: URS New Zealand Ltd
Project: Kurow Bridges; Pre-construction topo/hydrographic survey
Area: New Zealand, South Island
Vessel: Jet
Description: Hydrographic surveyor-in-charge: logistics;
reporting; field survey;
data processing; client communications.
Software: HydroPro; Trimble Geomatics Office;
Carlson SurvCE

Work included recovery of survey control; establishment of geoid/elevation model for survey area; river bank topographic survey; dimensional control of survey vessel; instrument calibration; reporting.

2012

DOF Subsea

Oct-Dec 2012

Client: Neptune Minerals
Project: Tinakula—Geological and Environmental Survey
Area: Solomon Sea
Vessel: Skandi Hawk
Description: Online Surveyor—Positioning; reporting—NaviPac;
Konsberg Hi-pap; Starfix; Multifix; Valeport CTD.

2011

BTW SOUTH (Cromwell, New Zealand)

Oct-Dec 2011

Client: Solid Energy
Project: Maitava Briquetting Plant
Area: South Island, New Zealand
Description: Site Engineer. Grading; control survey; layout of piles
Software: Carlson SurvCE; 12D; MS Office

Work was all land survey GNSS based; establishing control; engineering layout of roading and grading; document control; plan production.

2010—2011

PATERSON PITTS GROUP (Dunedin, New Zealand)

May—Sept 2011

Client: GHD Engineering
Project: Christchurch Sewer Survey
Area: Offshore Christchurch, New Zealand

Description: Level survey. Post-earthquake city sewer survey network. Work was all land survey in conjunction with engineering and GNSS based involving extensive GNSS calibration and observation.

March—April 2011

Client: Christchurch City Council
Project: Hydrographic Survey Lower Avon River and Estuary
Area: Offshore Christchurch, New Zealand
Description: Post-earthquake hydrology determination.

Dec 2010—March 2011

Client: Christchurch City Council
Project: Birdlings Flat ocean beach hydrographic survey
Area: Offshore Christchurch, New Zealand
Description: Survey in support of building an engineering model.

1997—2010

UNIVERSITY OF OTAGO (Dunedin, New Zealand)

Lecturer in Hydrography

- Implementation of Category A Programme in Hydrographic Surveying
- Development of hydrographic field surveying systems (acquisition of Benthos C3D)
- Charting of small boat harbours in Otago Harbour
- Research into Legal Administration of Offshore Petroleum Interests
- Research into Common Pool Resource Systems
- Support of many graduate projects in surveying science

2004—Present

GEOMATICS N.Z. LTD (Consultancy)

March 2011—Present

Project: CHC GNSS equipment
Area: South Island, New Zealand
Description: Support

Jan—Feb 2009

Client: DLA Phillips Fox
Project: Nelson City Council v Diamond Offshore Netherlands BV
Area: South Island, New Zealand
Description: Expert witness in legal proceedings: issue concerned location of drilling rig at time of anti-fouling incident

July 2008—August 2008

Client: Mconnell Dowell Constructors
Project: Dunedin (Tahuna) Ocean Sewer Outfall
Area: Dunedin, New Zealand
Vessel: POLARIS II

	Description:	As-built survey of offshore pipeline. Sonar imagery and precise bathymetry.
Feb 2008—March 2008	Client:	Mconnell Dowell Constructors
	Project:	Dunedin (Tahuna) Ocean Sewer Outfall
	Area:	Dunedin, New Zealand
	Description:	Design, implementation, measurement and analysis of ocean beach tidal regime.
June 2006—July 2006	Client:	Mconnell Dowell Constructors
	Project:	Dunedin (Tahuna) ocean sewer outfall
	Area:	Dunedin, New Zealand
	Vessel:	POLARIS II
	Description:	Site Survey. Sub-bottom profiling; sidescan; bathymetry.
Sept 2005—Dec 2005	Client:	NZ Department of Conservation
	Project:	Nugget Point Survey
	Area:	Christchurch, New Zealand
	Vessel:	MUNIDA
	Description:	Coastal hydrographic survey. Bathymetry & side scan
June 2004—Dec 2004	Client:	Chapman Tripp
	Project:	Govt of New Zealand v. Perseverance
	Area:	North Island (Napier), New Zealand
	Description:	GIS data analysis/charting consultancy services
1997—2003	SEA IMAGE HYDDROGRAPHICS (Consultancy)	
Dec 2003	Client:	Duffil Watts and King Engineers
	Project:	Milford Sound hydrographic survey
	Area:	West Coast, New Zealand
	Description:	Post-dredge hydrographic survey.
Jan 2003	Client:	Duffill Watts and King Engineers
	Project:	Milford Sound hydrographic survey
	Area:	West Coast, New Zealand

Description: Pre-dredge hydrographic survey.

May 1998

Client: Dunedin City Council

Project: Waldronville Outfall Survey

Area: South Island, New Zealand

Vessel: MUNIDA

Description: Site Survey: Sidescan sonar, bathymetry.

PREVIOUS EXPERIENCE

1991-1997 Canadian Hydrographic Service Central and Arctic Region—Multidisciplinary Hydrographer

Duties included hydrographer aboard survey launches on many deployments both ship and shore based. Operation of hydrographic acquisition software, instrument calibration; operation of positioning systems; and depth sounders. Control surveys, survey calculations; plotting of survey data. Duties also included compilation and production of nautical charts.

1990 Government of Canada Department of Public Works—Survey Assistant

Duties included assisting in hydrographic surveys on a sweep vessel (Detroit River); and various small boat and land surveying activities. Duties included operation of surveying instruments and survey calculations.

1985—1989 Van Harten Surveys (Guelph, ON Canada)—Instrument Man; Party Chief (leveling).

Duties included operation of terrestrial surveying equipment, record keeping; survey calculations. Boundary surveys; lay out and as-built surveys; leveling; drainage certificates.

1985—Palmer Marine Surveys (Yarmouth, UK)

Duties: Site survey, North Sea. Track control (line running); reduction and plotting of survey results.

1980—1982

Public Works Canada, Fraser River Survey—Survey technologist

Swann and Wooster Engineering—Survey technologist

North West Hydrographic Surveying—Survey technologist—included cable lay survey, Georgia Strait, BC, Canada.

1979

Marinav Corp. Ottawa On. Canada—Survey Assistant. Putting up ARGO towers in Davis Strait, and DECCA towers in the Queen Elizabeth Islands.

SOFTWARE & EQUIPMENT COMPETANCY

Software

Processing: Caris Editor; HIPS; SIPS; Hypack

Hydrographic Acquisition and Positioning: Eiva NaviPac; Naviscn; APOS-HiPap; Triton ISIS; HydroPro; Hypack; Starfish (sidescan software)

Office: MS Office; Adobe Illustrator; Map Publisher

Operating Systems: Unix; Linux; Windows XP-7-Vista; Mac OSX; Windows Mobile 6

GNSS operation and processing: Trimble Geomatics Office (TGO); Fugro Starpack; Fugro Multifix

Equipment

Multibeam/Bathymetric Sonar/Bathy

R2Sonic 2024; Benthos C3D; Simrad EM3000; Reson 7145; Digiquartz; Trittech Bathy.

Side Scan Sonar

Klein 595; Starfish; Edgetech.

Single Beam Echo Sounder

Ross 801; Raytheon; Ross 825; Odom MKII; SonarMite

Sound Velocity Profiler

Valeport CTD; Odom digibar; Marimatech

Acoustic Positioning

Kongsberg HiPap 500 (APOS Controller Unit); Sonardyne Ranger 1 and Ranger 2.

Inertial Nav

HAIN

Gyro

Anschutz Standard 22 Heading Sensor; Honeywell; Seapath

Motion Sensing

Octans; Seapath; Sonardyne Radian UM-8041-000 Attitude and Heading Reference System (AHRS)

GNSS

RTK—Trimble R8; SPS855; CHC X91; DGPS Fugro Starfix HP; Clock Ephemeris—Fugro Starfix XP; Fugro Multifix.