Training Workshop Programme 2018

Boundary Demarcation & Maintenance

2-4 July 2018 Durham, UK



Develop effective strategies and techniques for making international boundaries visible and peaceful



INTRODUCTION

Delimitation of a boundary in a treaty is a crucial first step in boundary-making, but on its own delimitation is of limited value. For borderland populations, boundaries rarely have much meaning until they are identifiable on the ground – and it is arguable that it is only when a boundary has been physically demarcated that it can begin to function effectively.

Many of the world's international boundaries have never been made visible on the ground, and many of those that have been demarcated have subsequently become invisible due to inefficient maintenance regimes. Led by a hugely experienced team of tutors and combining classroom sessions and practical exercises, this unique workshop will assist policymakers and practitioners in developing strategies for the effective demarcation and maintenance of international boundaries in different physical and human landscapes.

Who should attend?

- Surveyors
- Boundary Commisioners
- Diplomats
- Legal advisers
- Border guards
- Borderland resource managers
- Cartographers
- · Remote sensing specialists

TUTORS



Mr Daniel Fortin, Land Surveyor, Quebec Land Surveyors Association, is a licensed Quebec Land Surveyor and Canada Land Surveyor. After obtaining a bachelor's degree in surveying from Laval University (Quebec City) in 1981, he began a surveying career in the province of Quebec (Canada). In 2002, he joined the Surveyor General Branch as a Liaison and Planning Officer and in 2010, he took over the Canadian Section of the International Boundary Commission. He was President of the Association of Canada Land Surveyors from 2006 to 2007; he provided continuing education courses for the Quebec Land Surveyors Association (a.k.a Ordre des arpenteurs-géomètres du Québec) on boundary dispute resolution procedures, land demarcation analysis and land laws; and he also served as deputy syndic for discipline investigations for the Quebec Land Surveyors Association. His fields of expertise are the management of international boundaries, boundary dispute resolution on private lands, land management and cadastre.



Mr Alastair Macdonald, former Director of Surveys and Production, Ordnance Survey, UK, spent his whole career as a professional surveyor in the service of the UK Government. For 15 years he worked in the field in Africa and Southeast Asia before returning to UK to work for the Ministry of Defence. His final posting before retirement in 1992 was as Director of Surveys and Production at the Ordnance Survey, the National Mapping Agency of Great Britain. Since retirement he has advised the Governments of Nigeria, Ethiopia, Sudan, Thailand and the Palestinian Authority on boundary-related matters. In 2009 Alastair was awarded an MBE for services to mapping and the resolution of boundary disputes in Africa.



Mr Peter Merrett, Director, Merrett Survey Ltd, originally trained as a mining engineer at the Camborne School of Mines in Cornwall, UK. After working in seismic oil exploration, Peter returned to UK and started his own surveying practice, Merrett Survey Ltd a land survey company which specialises in GPS and Geodesy work, and has to date worked in 60 different countries including on international boundary projects, some with the United Nations. Peter has always worked with the latest technologies including laser scanning (aerial lidar and ground based) and has presented papers for 3 years in a row at the ILMF (International Lidar Mapping Forum) in the USA. Peter has also presented papers at pipeline conferences in Europe, plus oil industry conferences in Europe and Asia.



Mr Roman Meyer, Advisor GIS & GNSS, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), started his career as a survey engineer with an engineering company in Basel, Switzerland. After assignments with GTZ, the UN and Esri in Afghanistan, Chad and Rwanda respectively, he joined the GIZ support to the African Union Border Programme in 2013. After three years in Addis Ababa at the heart of the African Union, he moved to Kigali in 2016 to work more closely with countries in the great lakes region. Roman is the expert in his team on all technical questions relating to surveying. Working on land, river and lake boundaries, Roman has recently taken on the task to support two West-African nations in preparing their continental shelf submission. Fluent in English and French, Roman has worked extensively with countries in Eastern, Southern and West Africa over the past five years.



Professor Martin Pratt, Director, Bordermap Consulting, is an internationally-respected expert in boundary-making, border management and territorial dispute resolution, with over twenty years' experience working with governments, international organisations, businesses, scholars and practitioners around the world to resolve and prevent boundary-related conflict. He has extensive practical experience in maritime boundary negotiations and third-party adjudication of boundary and sovereignty disputes. Martin worked at IBRU from 1994-2015, leading the Centre's consultancy and professional training programmes for over a decade, and he remains an Honorary Professor in Geography at Durham University.

PROGRAMME

10900-0930 Introduction Principles of boundary demarcation and maintenance The changing nature of boundary making Demarks on the importance of field research The use and abuse of maps, serial photographs and satellite imagery Maps and imagery at tools for boundary demarcation and maintenance The use and abuse of maps, serial photographs and satellite imagery Maps and imagery at tools for boundary research and recovery Working with imprecise mapping	22	0830-0900	Registration
Principles of boundary demarcation and maintenance The purpose and value of boundary demarcation The changing nature of boundary demarcation The changing nature of boundary demarcation The importance of field research The importance of field research The jumportance of field search purportance and satellite imagery The jumportance of the jumportance of the field field search purportance and state of a fair is The jumportance of field search purportance and state of a fair is The jumportance of field search purportance and state of a fair is The jumportance of field search purportance and state of a fair is The jumportance of field search purportance and field s	Monday 2 July		
The purpose and value of boundary demarcation The changing nature of boundary-making Demarcation options in different physical and human landscapes The importance of field research Rey challenges in boundary demarcation and maintenance 1030-1100 Refreshments 1100-1230 Maps and imagery in boundary demarcation and maintenance The use and abuse of maps, serial photographs and satellite imagery Maps and imagery as tools for boundary research and recovery Morking with imprecise mapping 1230-1330 Lunch Practical exercise Participants will seek to use maps and imagery in support of a range of demarcation-related tasks 1500-1530 Refreshments 1530-1700 Lessons from boundary demarcation and affirmation in Africa Historical background, genesis of the AU Border Programme and state of affairs Eet participants will seek to use maps and imagery in support of a range of demarcation-related tasks 1500-1530 Refreshments 1530-1700 Lessons from boundary demarcation and affirmation in Africa Historical background, genesis of the AU Border Programme and state of affairs Eet participants will genetic or the participants will prime examples Stumbling blocks, causes of delay and how to overcome them 1845 Dinner at Durham Castle 0930-1030 Practical considerations in boundary survey work Practical individual prime variety of the participants will underlate systems and GPS Airbourne lidar surveys for boundary work 1030-1100 Refreshments Types of commission Types of commission Types of commission Mandate and rules of proceedure Vorking in teams, participants will underlake a field-based survey of a fictional border landscape in preparation for boundary demarcation. 1900 Botanic Gardens tour and dinner 0900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary Positional accuracy requirements Boundary visibility requirements Boundary visibility requirements Boundary visibility requirements Demarcating river, swamp and lake boundaries in demarcation and maintenance Demarcating river, swamp and lake boundaries in		0930-1030	Principles of boundary demarcation and maintenance
1100-1230 Maps and imagery in boundary demarcation and maintenance			 The purpose and value of boundary demarcation The changing nature of boundary-making Demarcation options in different physical and human landscapes The importance of field research
The use and abuse of maps, aerial photographs and satellite imagery Maps and imagery as tools for boundary research and recovery Working with imprecise mapping 1230-1330 Lunch 1330-1500 Practical exercise Participants will seek to use maps and imagery in support of a range of demarcation-related tasks 1500-1530 Refreshments 1530-1700 Lessons from boundary demarcation and affirmation in Africa Historical background, genesis of the AU Border Programme and state of affairs Best practices, regional variations and prime examples Sumbling blocks, causes of delay and how to overcome them 1845 Dinner at Durham Castle Practical field work: planning, survey control stations, building monuments, access, safely and security Variational boundary survey over the survey of the survey o		1030-1100	Refreshments
The use and abuse of maps, aerial photographs and satellite imagery Maps and imagery as tools for boundary research and recovery Working with imprecise mapping 1230-1330 Lunch 1330-1500 Practical exercise Participants will seek to use maps and imagery in support of a range of demarcation-related tasks 1500-1530 Refreshments 1530-1700 Lessons from boundary demarcation and affirmation in Africa Historical background, genesis of the AU Border Programme and state of affairs Best practices, regional variations and prime examples Stumbling blocks, causes of delay and how to overcome them 1845 Dinner at Durham Castle Practical considerations in boundary survey work Practical field work: planning, survey control stations, building monuments, access, safely and security Airbourne lider surveys for boundary work 1030-1100 Refreshments 1100-1230 International boundary commissions Types of commission Mandate and rules of proceedure Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. Refreshments 1900 Botanic Gardens tour and dinner O900-1030 Case study: Demarcating river, swamp and lake boundaries Positional accuracy requirements Maximising flexibility Involving borderland communities in demarcation and maintenance Wrap Up		1100-1230	Maps and imagery in boundary demarcation and maintenance
1330-1500 Practical exercise Participants will seek to use maps and imagery in support of a range of demarcation-related tasks			Maps and imagery as tools for boundary research and recovery
Participants will seek to use maps and imagery in support of a range of demarcation-related tasks 1500-1530 Refreshments 1530-1700 Lessons from boundary demarcation and affirmation in Africa Historical background, genesis of the AU Border Programme and state of affairs Best practices, regional variations and prime examples Stumbling blocks, causes of delay and how to overcome them 1845 Dinner at Durham Castle Practical considerations in boundary survey work Practical field work: planning, survey control stations, building monuments, access, safety and security Using and understanding coordinate systems and GPS Airbourne lidar surveys for boundary work 1030-1100 Refreshments 100-1230 International boundary commissions Mandate and rules of proceedure Morking in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. 1900 Botanic Gardens tour and dinner O900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary 1030-1100 Refreshments 100-1230 Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Boundary visibility requirements Maximising flexibility Involving borderland communities in demarcation and maintenance		1230-1330	Lunch
1500-1530 Refreshments		1330-1500	Practical exercise
Lessons from boundary demarcation and affirmation in Africa • Historical background, genesis of the AU Border Programme and state of affairs • Best practices, regional variations and prime examples • Stumbling blocks, causes of delay and how to overcome them 1845 Dinner at Durham Castle O930-1030 Practical considerations in boundary survey work • Practical field work: planning, survey control stations, building monuments, access, safety and security • Using and understanding coordinate systems and GPS • Airbourne lidar surveys for boundary work 1030-1100 Refreshments 1100-1230 International boundary commissions • Types of commission • Mandate and rules of proceedure • Communicating with the public 1230-1330 Lunch 1330-1700 Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. 1900 Botanic Gardens tour and dinner 0900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary 1100-1230 Developing good practice in boundary demarcation and maintenance • Demarcating river, swamp and lake boundaries • Positional accuracy requirements • Boundary visibility requirements • Boundary visibility requirements • Maximising lightxibility • Involving borderland communities in demarcation and maintenance			
Historical background, genesis of the AU Border Programme and state of affairs		1500-1530	Refreshments
Best practices, regional variations and prime examples Stumbling blocks, causes of delay and how to overcome them 1845 Dinner at Durham Castle		1530-1700	Lessons from boundary demarcation and affirmation in Africa
Practical considerations in boundary survey work Practical field work: planning, survey control stations, building monuments, access, safety and security Using and understanding coordinate systems and GPS Airbourne lidar surveys for boundary work Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. Poemarcation and maintenance of the Canada-USA boundary Refreshments Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Maximising flexibility Involving borderland communities in demarcation and maintenance Wrap Up			Best practices, regional variations and prime examples
Practical field work: planning, survey control stations, building monuments, access, safety and security Using and understanding coordinate systems and GPS Airbourne lidar surveys for boundary work 1030-1100 Refreshments 1100-1230 International boundary commissions Types of commission Mandate and rules of proceedure Mandate and rules of proceedure Communicating with the public Lunch 1330-1700 Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. 1900 Botanic Gardens tour and dinner 0900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary 1030-1100 Refreshments 1100-1230 Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Boundary visibility requirements Maximising flexibility Involving borderland communities in demarcation and maintenance Wrap Up		1845	Dinner at Durham Castle
Practical field work: planning, survey control stations, building monuments, access, safety and security Using and understanding coordinate systems and GPS Airbourne lidar surveys for boundary work 1030-1100 Refreshments 1100-1230 International boundary commissions Types of commission Mandate and rules of proceedure Communicating with the public 1230-1330 Lunch 1330-1700 Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. 1900 Botanic Gardens tour and dinner 0900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary 1030-1100 Refreshments 1100-1230 Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Maximising flexibility Involving borderland communities in demarcation and maintenance Wrap Up	22	0930-1030	Practical considerations in boundary survey work
International boundary commissions Types of commission Mandate and rules of proceedure Tago-1330 Lunch 1330-1700 Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. 1900 Botanic Gardens tour and dinner 0900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary 1030-1100 Refreshments 1100-1230 Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Maximising flexibility Involving borderland communities in demarcation and maintenance 1230-1300 Wrap Up	Tuesda 3 Ju		safety and securityUsing and understanding coordinate systems and GPS
Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. Botanic Gardens tour and dinner O900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary Refreshments 1100-1230 Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Maximising flexibility Involving borderland communities in demarcation and maintenance Wrap Up		1030-1100	Refreshments
Mandate and rules of proceedure Communicating with the public 1230-1330 Lunch 1330-1700 Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. 1900 Botanic Gardens tour and dinner 0900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary 1030-1100 Refreshments 1100-1230 Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Boundary visibility requirements Involving borderland communities in demarcation and maintenance Wrap Up		1100-1230	International boundary commissions
1330-1700 Practical exercise Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. 1900 Botanic Gardens tour and dinner			
Working in teams, participants will undertake a field-based survey of a fictional border landscape in preparation for boundary demarcation. 1900 Botanic Gardens tour and dinner 0900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary 1030-1100 Refreshments 1100-1230 Developing good practice in boundary demarcation and maintenance • Demarcating river, swamp and lake boundaries • Positional accuracy requirements • Boundary visibility requirements • Maximising flexibility • Involving borderland communities in demarcation and maintenance 1230-1300 Wrap Up		1230-1330	Lunch
Iandscape in preparation for boundary demarcation. Botanic Gardens tour and dinner O900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary 1030-1100 Refreshments 1100-1230 Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Maximising flexibility Involving borderland communities in demarcation and maintenance 1230-1300 Wrap Up		1330-1700	Practical exercise
O900-1030 Case study: Demarcation and maintenance of the Canada-USA boundary 1030-1100 Refreshments 1100-1230 Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Maximising flexibility Involving borderland communities in demarcation and maintenance 1230-1300 Wrap Up			
1030-1100 Refreshments 1100-1230 Developing good practice in boundary demarcation and maintenance Demarcating river, swamp and lake boundaries Positional accuracy requirements Boundary visibility requirements Maximising flexibility Involving borderland communities in demarcation and maintenance Wrap Up		1900	Botanic Gardens tour and dinner
Positional accuracy requirements	Wednesday 4 July	0900-1030	Case study: Demarcation and maintenance of the Canada-USA boundary
Positional accuracy requirements		1030-1100	Refreshments
Positional accuracy requirements		1100-1230	Developing good practice in boundary demarcation and maintenance
			 Positional accuracy requirements Boundary visibility requirements Maximising flexibility
1300 Lunch		1230-1300	Wrap Up
24.76.7		1300	Lunch

IBRU reserves the right to modify the programme and tutors as necessary without prior notice to participants

Cover Image: Brazil-Venezuela boundary markers in the Pacaraima mountains. Image courtesy of Daubeson Monteiro Da Silva

What will it cost?

The cost of the workshop will be £2,520 per participant. Fees include VAT of 20% and 3 nights of accommodation at Collingwood College.

Payment can only be accepted in GBP sterling, however, we are able to accept payment by most major credit and debit cards.

Full payment MUST be received prior to the workshop to guarantee the booking. If full payment is not received before the deadline date of **14 June 2018** any provisional places booked will be removed.

Bookings made after 14 June will only be guaranteed with payment in full and if places are still available.



In addition to tuition and all course materials, the fees cover the following:

- Accommodation in a single en-suite room at Collingwood College for the nights of Sunday 1st, Monday 2nd and Tuesday 3rd July
- Evening dinner 1st, 2nd and 3rd July including a tour and gala dinner at Durham Castle
- Breakfast, lunch and refreshment breaks on 2nd, 3rd and 4th July

Accommodation for additional nights can be booked at additional cost to the participant.



How to book

Places are limited and early booking is highly recommended:

- 1 Contact the IBRU Events Team or complete the online booking form at www.durham.ac.uk/ibru/workshops/booking
- 2 Acknowledgement of the provisional booking will be sent by email with information on how to pay.
- (3) If payment is not received by the deadline specified, the reserved place will be cancelled and your booking removed to a waiting list. Your place will only be confirmed when payment is received and if a place is still available.

Additional information

Venue and Travel

Workshop accommodation will be based at Collingwood College which is part of Durham University and located approximately 25 minutes walk from the city centre. Teaching will take place in Durham Law School which is around a 10 minutes walk from the accommodation.

Full details of the venue will be sent to participants following payment and confirmation of the booking.

Language

Teaching and workshop materials will be in English. We regret that we are unable to provide translation or interpreting services.

Cancellations

Cancellations must be received in writing not later than the 31 May 2018 and will be subject to a £150 cancellation fee, unless a substitute participant is offered. After this date the full registration fee will be charged for all cancellations.

Programme changes

IBRU reserves the right to modify the programme as necessary without notice to participants.

SCOTLAND Aberdeen Birmingham Ees Walley Airport York Birmingham East Coast Main Line CARDIFF Bristol LONDON

Contact Information

If you have any questions about the workshop please contact the IBRU Events Team.

IBRU: Centre for Borders Research, Department of Geography, Durham University, DH1 3LE, United Kingdom

Tel: +44 (01)191 334 1965 Tel: +44 (01)191 334 1962 Email: ibru-events@durham.ac.uk

Web: www.durham.ac.u.k/ibruworkshops

