

Indian Ocean Maritime Security: Risk-based International Policy
Development

Lee Cordner

MA, MPA

Thesis submitted for the degree of

Doctor of Philosophy

Department of Politics & International Studies (POLIS)

School of Social Sciences

University of Adelaide

2015

Table of Contents

Title Page.....	i
Table of Contents.....	iii
List of Tables.....	viii
List of Figures.....	viii
Abstract.....	ix
Declaration.....	xi
Acknowledgements.....	xii
Acronyms and Abbreviations.....	xiii
Part One - Introduction and Conceptual Basis.....	1
Key Concepts: Security, Maritime Security, Risk and Vulnerability.....	1
Chapter 1 – Introduction.....	3
The IOR Geostrategic Context.....	4
Geopolitical Parameters.....	5
The Emerging Importance of the Sea.....	9
IOR Cooperative Security Context.....	10
Analytical Considerations.....	11
Aim and Research Questions.....	13
Research Methodology.....	14
Statement of Intent.....	18
Seminal Works.....	22
Dissertation Structure.....	27
Chapter 2 - Key Concepts: Security and Maritime Security.....	29
Traditional Strategic Concepts and Security.....	30
Wider Security Concepts.....	33
Common Security.....	34
Collective Security.....	34
Comprehensive Security.....	36
Cooperative Security.....	38
Non-Traditional Security Concepts.....	38
What ‘Qualifies’ as a Security Issue?.....	39
Securitization Theory.....	41
Critical Security Studies.....	45

Security Governance.....	47
States Practice - Maritime Security Policies.....	49
Maritime Security Revisited.....	51
Chapter 3 - Key Concepts: Risk, Vulnerability and Maritime Security	55
Risk.....	55
Risk - Decision Making and Management	57
Formal Risk Management	61
Risk in International Relations – a ‘World Risk Society’?	61
Critique of World Risk Society	66
Vulnerability.....	71
Converging Constructs: Maritime Security, Risk and Vulnerability	74
Maritime Security, Risk and Vulnerability Combined.....	76
Towards a Universal Definition of Maritime Security for the IOR	79
Empiricism: Applying Maritime Security, Risk and Vulnerability Concepts in the IOR....	81
Part Two - Empirical Evidence.....	83
Case Study 1 - IOR Maritime Security Strategic Risk Analysis	83
Case Study 2 - Offshore Oil and Gas Safety and Security in the Indo-Pacific.....	83
Chapter 4 - Case Study 1: IOR Maritime Security Strategic Risk Analysis.....	85
IOR Risk Context.....	85
The IOR as a Maritime System.....	87
IOR Risk Context Review.....	91
International Law – Law of the Sea.....	92
Globalization, Economy and Trade	99
Energy.....	102
Social Cohesion and Development.....	104
State Competition and Potential for Interstate Conflict.....	107
Regional Security Architecture	111
Chapter 5 - Case Study 1 Continued: Environment and Ocean Resources	113
IOR Risk Context: Environment and Ocean Resources.....	113
Climate Science and Policy Uncertainty	116
Maritime Security Implications of Environment and Climate Change	117
Maritime Security Risk Implications of Environment and Climate Change.....	121
Common IOR Strategic Objectives	122

IOR Maritime Security Strategic Risk Assessment	124
IOR Maritime Security Risk Analysis Summary	125
Summary Analyses.....	127
Cumulative and Aggregated Risks	129
Chapter 6 - Case Study 2: Offshore Oil and Gas Safety and Security in the Indo-Pacific....	131
The Risk Context.....	132
Indo-Pacific Offshore Oil and Gas Activity	133
Offshore Oil and Gas Safety and Security Incidents	134
Deepwater Horizon and West Atlas Incidents.....	134
Summary Analysis.....	137
Offshore Oil and Gas Strategic Objectives.....	138
Risk Assessment.....	139
Man-induced Risks, Regulatory Uncertainties, Maritime Boundary Uncertainties	139
Regional Armed Conflict.....	142
Law and Order at Sea	143
Increasing Maritime User Intensity	144
Natural Hazards	145
Decommissioned Platforms	146
International Safety and Security Regimes	146
Environmental Protection - Oil Spills	147
Summary – Indo-Pacific Offshore Oil and Gas Risk Assessment	149
Offshore Oil and Gas Safety and Security Risk Matrix	151
Risk Mitigation and Treatment Options.....	152
Conduct a Strategic Risk Assessment	152
Government and Industry Cooperation	153
International Regime Adoption	154
Regional Cooperative Arrangements.....	154
Regional Disaster Response	155
Summary - Risk Mitigation Policy Options	156
Concluding Remarks	158
Part Three - Regional Governance Considerations and Conclusions	159
Chapter 7 - IOR Maritime Security Governance	161
Security Governance Considerations	161

Regionalism Conceptualized.....	163
IOR Security Regionalism Factors.....	165
East Asia-Western Pacific Regional Security Arrangements	166
Indian Ocean Regional Security Arrangements	172
IORA	173
IONS.....	176
IOR Sub-regional Forums and Maritime Security	178
India as a Regional Maritime Security Leader.....	179
India’s National Security Policies	181
India’s Paradox - Civil-Military Relations	182
India’s Leadership in Maritime Security Operations	185
India’s Cooperative Regional Maritime Security Leadership Prospects.....	186
IOR Cooperative Maritime Security Governance Prospects.....	187
Chapter 8 – Conclusions	189
Dissertation Overview	190
Engagement with Theoretical Concepts.....	191
Risk and Vulnerability.....	191
Security.....	193
Maritime Security.....	195
IOR Maritime Security Risks and Vulnerabilities	196
A Compelling Case for IO Regionalism	199
Maritime Security – a Driver for Regionalism?.....	201
Maritime Security Governance Options for the IOR	202
Advocacy – The Need for Action	203
Further Research	206
Appendices.....	211
Appendix 1 - IOR Maritime Security Strategic Risk Assessment	213
Risk Criteria.....	213
Risks to Maritime Security in the IOR.....	215
Maritime Sovereignty	215
Freedom of Navigation.....	217
Marine Environment and Ocean Resources	218
Climate Change	220

Economic, Political and Social	221
Energy.....	222
Weapons of Mass Destruction (WMD)	222
Traditional Security	224
Safety at Sea	225
Regional Security Architecture	225
Synthesis and Analysis	226
Appendix 2 – IOR Littoral States and Significant External States – Accession and Ratification of Key Maritime Treaties	228
Appendix 3 – Chronological Summary of Significant Offshore Oil and Gas Safety and Security Incidents.....	231
Appendix 4 - Empirical Evidence – Summary of Interviews, Meetings, Seminars and Forums that Form Part of this Research.....	237
Appendix 5 - Publications Arising from this Research.....	250
Appendix 6 - Indian Ocean maritime security governance: risk-based regional security policy development - Interview Questions.....	252
Bibliography.....	253

List of Tables

Table 1: Risk, Vulnerability and Security Analytical Framework.....	78
Table 2: IOR Strategic Objectives for Maritime Security.....	123
Table 3: IOR Maritime Security Risks.....	126
Table 4: IOR Maritime Security Risk Assessment Matrix.....	127
Table 5: Offshore Oil and Gas Strategic Objectives.....	151
Table 6: Offshore Oil and Gas Safety and Security Risks.....	151
Table 7: Offshore Oil and Gas Safety and Security Risk Matrix.....	152
Table 8: Risk Criteria.....	214
Table 9: Indicative Risk Assessment Matrix.....	215
Table 10: Maritime Security Risks – Maritime Sovereignty.....	217
Table 11: Maritime Security Risks – Freedom of Navigation.....	218
Table 12: Maritime Security Risks – Marine Environment and Ocean Resources..	219
Table 13: Maritime Security Risks – Climate Change.....	220
Table 14: Maritime Security Risks – Economic, Political and Social.....	221
Table 15: Maritime Security Risks – Energy.....	222
Table 16: Maritime Security Risks – Weapons of Mass Destruction (WMD).....	223
Table 17: Maritime Security Risks – Traditional Security.....	224
Table 18: Maritime Security Risks – Safety at Sea.....	225
Table 19: Maritime Security Risks – Regional Security Architecture.....	226

List of Figures

Figure 1: Indian Ocean showing Latitude and Longitude.....	6
Figure 2: The Indian Ocean Region – Littoral and Inland States; showing Areas of National Jurisdiction and the High Seas, and Major Sea Lanes.....	7
Figure 3: Indo-Pacific Strategic Overview.....	89
Figure 4: North Western Australia Offshore Oil and Gas Areas.....	136

Abstract

The importance of the Indian Ocean Region (IOR) as a geopolitical focal area is increasingly being recognized. The strategic interests of multiple actors involved in the IOR overlap and converge at sea to a significant extent. The major maritime trade routes of the Indian Ocean are central to extra and intraregional trade that is vital to the global economy. The primary coalescing factor for the IOR is the interconnected, *systemic* nature of the regional and global maritime context. Requirements to husband the Indian Ocean environment, protect freedom of navigation, maintain maritime territorial sovereignty, and impose law and order at sea across the entire maritime expanse should support a strong case for *regionalism*. Comprehensive, collective and cooperative maritime security is a paramount requirement for the future of the IOR.

A foundational tenet of this work recognizes that the *interests* of IOR actors, mainly regional and external nation-states along with other international and non-government participants come together to a significant extent at sea. *Common risks and shared vulnerabilities* to the achievement of mutual *objectives* in the Indian Ocean maritime domain are substantial and will continue to mount. In the complex and dynamic IOR context with its diverse geography and lack of effective regionalism, known for divisions and dissonance rather than unity and coherence, formulating realistic, workable approaches to providing effective maritime security presents significant challenges.

This thesis critically analyzes IOR maritime security risks and vulnerabilities and assesses the utility of risk-based approaches, in concert with other approaches, in developing policy proposals to enhance maritime security. Regional maritime security governance options are explored. The intent of this thesis is to make a significant contribution toward filling a gap in IOR maritime security international policy research, and to advocate policy solutions. One such policy area involves investigating the nexus between maritime security, economic development and the forecast environmental implications of climate change on vast and vulnerable coastal populations, and on marine resources. Climate change impacts, particularly in the coastal zone and for low lying islands, present existential risks that are likely to require responses beyond the capabilities of individual or collective IOR states; this has the potential to generate enormous security challenges in the medium term.

There are clear requirements for security-focused cooperative dialogue entities in the IOR driven by the scale of emerging maritime security challenges. A core, initial objective for

enhancing maritime security in the IOR, advocated by this research as a constructive way forward, should be to commission a sophisticated and appropriately resourced risk analysis. Credible risk assessments can provide the bases for developing cooperative and collective regional strategies to treat risks and reduce vulnerabilities. A major outcome of the research is the presentation of insights into the utility of risk-based approaches in developing policy options that can help persuade key decision-makers to take collective and cooperative security actions in a complex international context.

Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968.

I also give permission for the digital version of my thesis to be made available on the web, via the University's digital research repository, the Library Search and also through web search engines, unless permission has been granted by the University to restrict access for a period of time.

Lee Cordner

Date: 24 August 2015

Acknowledgements

Thanks to Professor Timothy Doyle, my Principal Supervisor, for agreeing to take me on for this ambitious project; his sage advice, experienced guidance and flexible approach have been invaluable throughout. Professor Dennis Rumley's encouragement and facilitation that enabled me to embark on this course in the first place, and his very experienced advice and enthusiasm as Co-Supervisor have proven to be very beneficial. Thanks also to Professor Kanishka Jayasuriya for his encouragement and advice as Co-Supervisor.

Special thanks to several other very experienced academic and professional colleagues working in the fields of international affairs and security policy, especially maritime security and the Indian Ocean Region, who have facilitated research access, provided support, and have offered advice. Specific thanks to Admiral Arun Prakash, Indian Navy (Retired); Brigadier Rumel Dahiya, Indian Army (Retired), Deputy Director General Institute for Defence Studies and Analyses, New Delhi, India; Mr Kwa Chong Guan and Ms Jane Chan, S. Rajaratnam School of International Studies, Nanyang Technological University, Singapore; and Professor Andrew Winner and Professor Peter Dombrowski, United States Naval War College, Newport RI, USA.

Sincere and special thanks to my wife, Ann Farrell, who has travelled every inch of this journey with me. In addition to her understanding and unstinting support, her contribution as an experienced legal editor in proof reading the final drafts of the thesis has been invaluable. Thanks also to my parents, Beryle and Eric Cordner, and my daughters Nicola and Katrina, for their support.

Acronyms and Abbreviations

AADMER – ASEAN Agreement on Disaster Management and Emergency Response

ABNJ - Areas Beyond National Jurisdiction

ADF - Australian Defence Force

ADMM+ - ASEAN-Plus Defence Ministers' Meeting

AHA Centre – ASEAN Coordinating Centre for Humanitarian Assistance on disaster management

APEC – Asia-Pacific Economic Cooperation

AMF - ASEAN Maritime Forum

ANZUS - Australia, New Zealand, United States Security Treaty

ARF – ASEAN Regional Forum

ARF ISM on MS - ASEAN Regional Forum Inter-Sessional Meetings on Maritime Security

ASEAN – Association for Southeast Asian Nations

ASEANAPOL – ASEAN Chiefs of National Police

AU – African Union

BIMSTEC – Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation

BRICS – Brazil, Russia, India, China, and South Africa

CLCS - Commission on the Limits of the Continental Shelf

CCP - Chinese Communist Party

COC - Code of Conduct in the South China Sea

COMESA – Common Market of Eastern and Southern Africa

CSCAP - Council for Security Cooperation in the Asia Pacific

DCoC - Djibouti Code of Conduct concerning the Repression of Piracy and Armed Robbery against Ships in the Western Indian Ocean and the Gulf of Aden

DoC - 2002 ASEAN-China Declaration on the Conduct of Parties in the South China Sea

DPRK – Democratic People’s Republic of Korea

EAC – East African Community

EAMF – Expanded ASEAN Maritime Forum

EAS – East Asian Summit

ENSO - El Nino-Southern Oscillation

ERM – Enterprise Risk Management

EU – European Union

FAO - Food and Agriculture Organization of the United Nations

FPSO - floating production, storage and offloading vessel

FSO - floating storage and offloading unit

FSP - floating production systems

GCC - Gulf Cooperation Council - full title ‘Cooperation Council for the Arab States of the Gulf’

GFC - Global Financial Crisis

HADR – Humanitarian Assistance and Disaster Relief

IBSA – India-Brazil-South Africa Trilateral Dialogue Forum

ICZM - integrated coastal zone management

IDPs – Internally Displaced Persons

IMO - International Maritime Organization

IN – Indian Navy

IO – Indian Ocean

IOD - Indian Ocean dipole

IOGOOS - Indian Ocean Global Observing System

IOMAC - Indian Ocean Marine Affairs Cooperation

IONS – Indian Ocean Naval Symposium

IOMOU for PSC - Indian Ocean Memorandum of Understanding for Port State Control

IOR – Indian Ocean region

IORA - Indian Ocean Rim Association (formerly IOR-ARC – Indian Ocean Rim Association for Regional Cooperation)

IORAG - Indian Ocean Rim Academic Group

IORG – Indian Ocean Research Group

IOTC – Indian Ocean Tuna Commission

IPCC - Intergovernmental Panel on Climate Change

ISC – Information Sharing Centre

ISIL – Islamic State of Iraq and the Levant

ISIS – Islamic State of Iraq and the Greater Syria

ISO - International Organization for Standardization

IUU fishing - Illegal, unreported and unregulated fishing

LDCs - Least Developed Countries

LNG – liquefied natural gas

MNC – multi-national corporation

NATO – North Atlantic Treaty Organization

NGO – non-government organization

NTS – non-traditional security

OECD – Organisation for Economic Cooperation and Development

PLA-N – People’s Liberation Army - Navy

PNG – Papua New Guinea

PSI – Proliferation Security Initiative

ReCAAP - The Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia

RoK – Republic of Korea

RFMO – Regional Fisheries Management Organization

SAARC – South Asian Association for Regional Cooperation

SADC – Southern African Development Community

SAR – search and rescue

SCS - South China Sea

SEANWFZ Treaty - Treaty for the Southeast Asia Nuclear Weapon-Free Zone

SIOFA - Southern Indian Ocean Fisheries Agreement

SLOCs – Sea Lines of Communication

SST - sea surface temperature

SWIOFC - Southwest Indian Ocean Fisheries Commission

TAC - Treaty of Amity and Cooperation in Southeast Asia

UN – United Nations

UNCLOS - *The United Nations Convention on the Law of the Sea 1982*

UNCTAD - United Nations Conference on Trade and Development

UNFCCC - United Nations Framework Convention for Climate Change

UNFSA – United Nations Fish Stocks Agreement

UNGA - United Nations General Assembly

UNHCR - United Nations High Commissioner for Refugees

UNICPOLOS - United Nations Informal Consultative Process on Oceans and the Law of the Sea

UNISDR - United Nations International Strategy for Disaster Reduction

UNSC - United Nations Security Council

US – United States of America

WMD – weapons of mass destruction

WPNS – Western Pacific Naval Symposium