



Regulatory Regime for Marine Seismic Surveys in Can-NL Offshore Area

One Ocean/C-NLOPB Seismic Workshop
February 8, 2016

Outline

- Part 1 - Scheduled Land Tenure
- Part 2 - GGEG Guidelines and Authorizations
- Part 3 – Environmental Assessment

Disclaimers

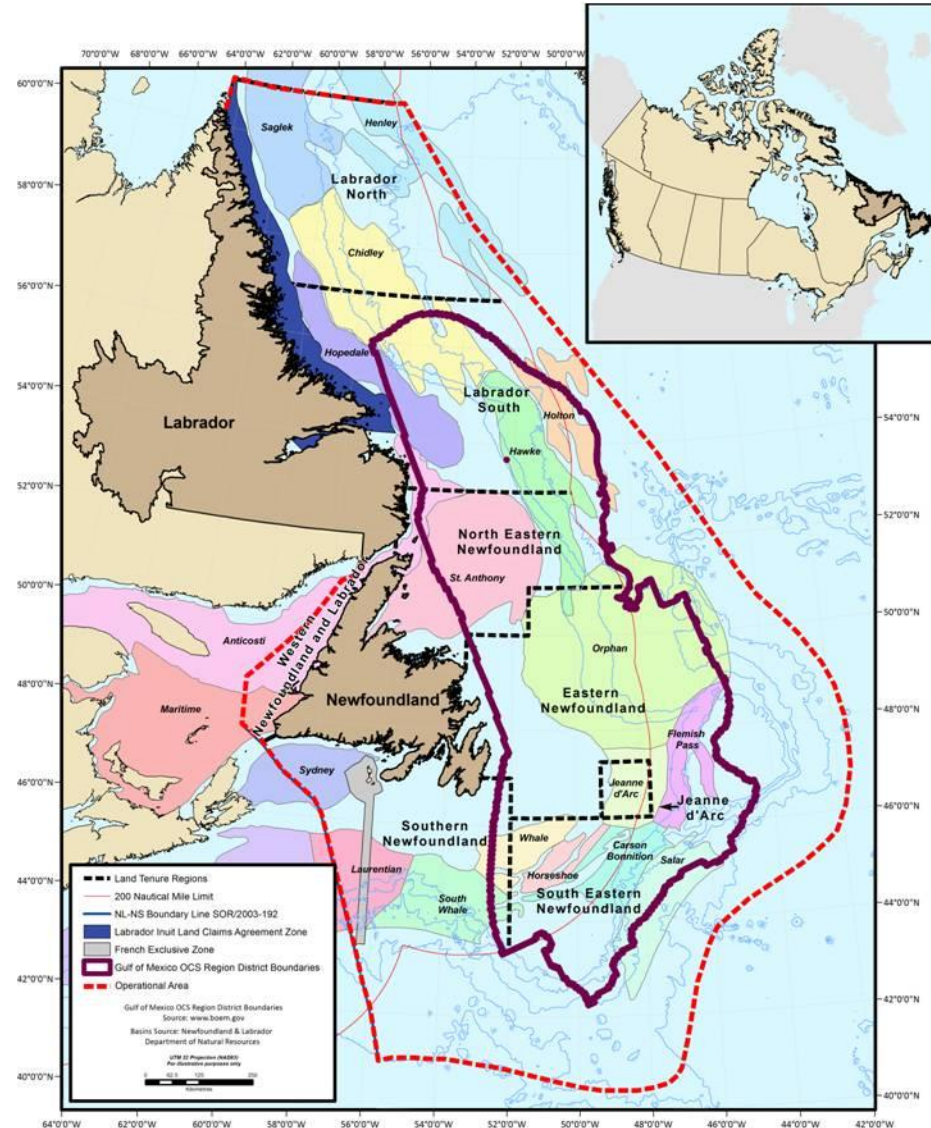
MAPS: All forward looking maps (beyond 2016) are for illustrative purposes only and used to show the process of the scheduled land tenure system. The specific locations and configurations of sectors, parcels and exploration licences will depend on subsequent Calls for Nominations and Calls for Bids.

UNCLOS: All interest holders of production licences containing areas beyond 200 nautical miles may be required, through legislation, regulation, licence terms and conditions, or otherwise, to make payments or contributions in order for Canada to satisfy obligations under Article 82 of the United Nations Convention on the Law of the Sea (UNCLOS).

Canada-Newfoundland and Labrador Offshore Area

Current Offshore Basins

- C-NLOPB offshore area of approximately 1.8 MM km² (dashed red)
- Jurisdiction extends to the limit of the Continental Margin or 200nm limit – whichever is greater.
- Over 20 offshore sedimentary basins
 - Paleozoic Basins
 - Carboniferous Basins
 - Mesozoic Basins
- Offshore area larger than
 - US Gulf of Mexico (solid purple)
 - Norwegian Continental Shelf

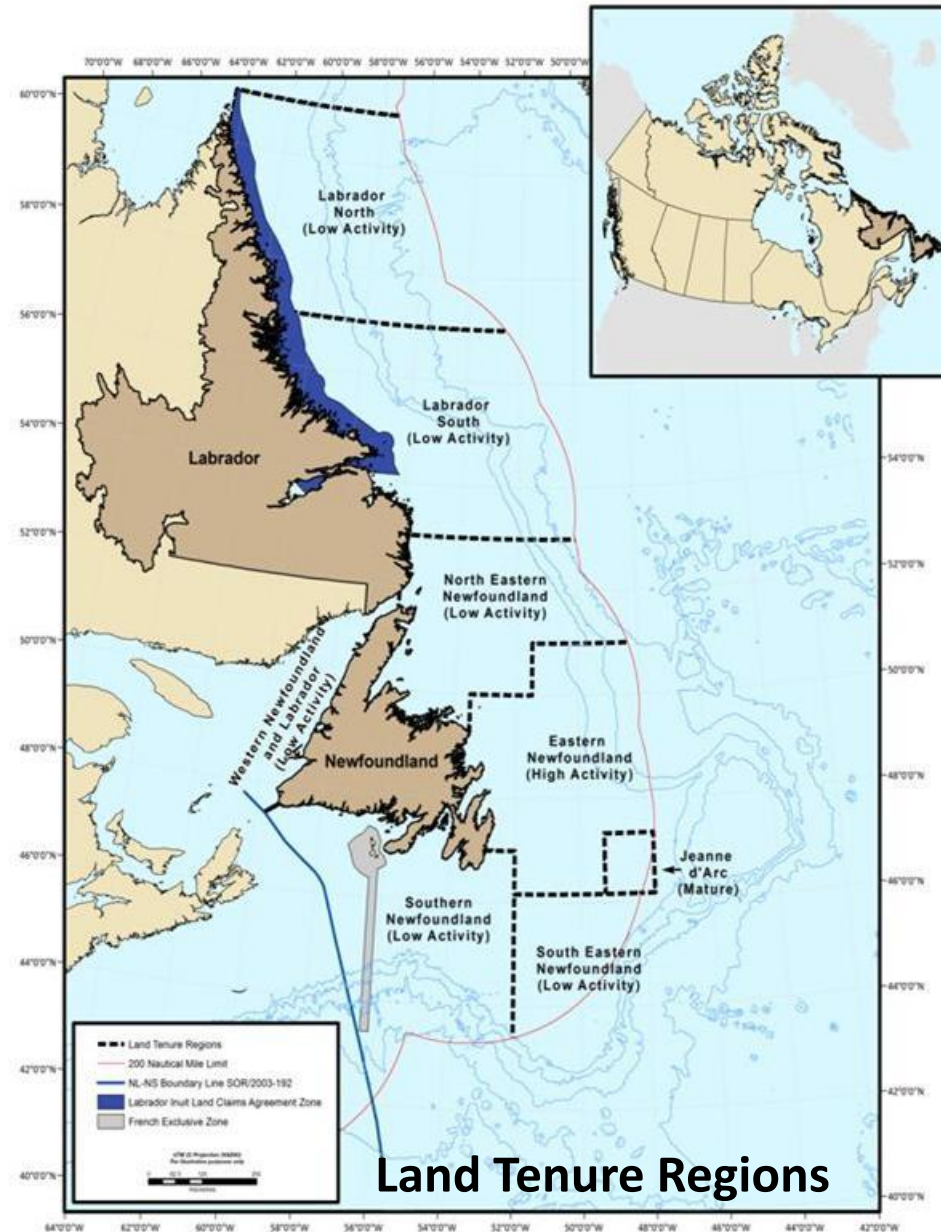


Scheduled Land Tenure System

- Mechanism for offering land via calls for Bids
- Introduced in late 2013
- Nomination driven licencing process
- Created to address limitations of old system
- Provides longer licencing rounds over “frontier” regions of the offshore
- Continued commitment to Strategic Environmental Assessments prior to close of Calls for Bids

Scheduled Land Tenure System

- Sub-division of offshore into eight regions
- Three Activity categories
 - **Low Activity** regions generally have few exploratory wells and less modern seismic data acquisition
 - **High Activity** regions typically have elevated exploration activity levels, including 2D and 3D seismic data acquisition and exploration drilling
 - **Mature** regions would have substantial 2D and 3D seismic data coverage and extensive exploration/delineation drilling and production activities
- Three licence timing cycles:
 - 4-year for Low activity regions
 - 2-year for High activity regions
 - 1-year for Mature activity regions

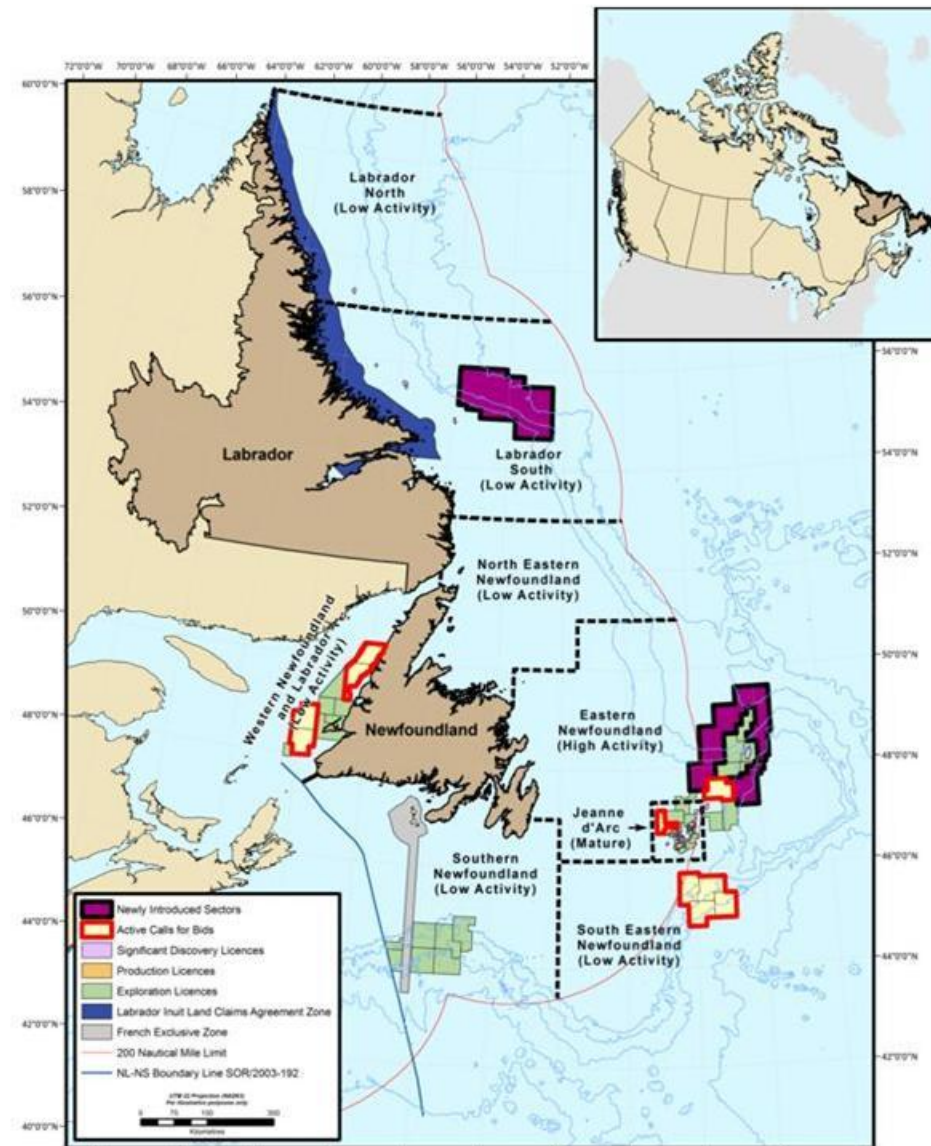


Land Tenure Regions

Scheduled Land Tenure Implementation

- **2014**

- First introduction of new Sectors (black outline):
 - ✓ One low activity – 4 year cycle – LS
 - ✓ One high activity – 2 year cycle - EN
- Call for Bids (red outline)

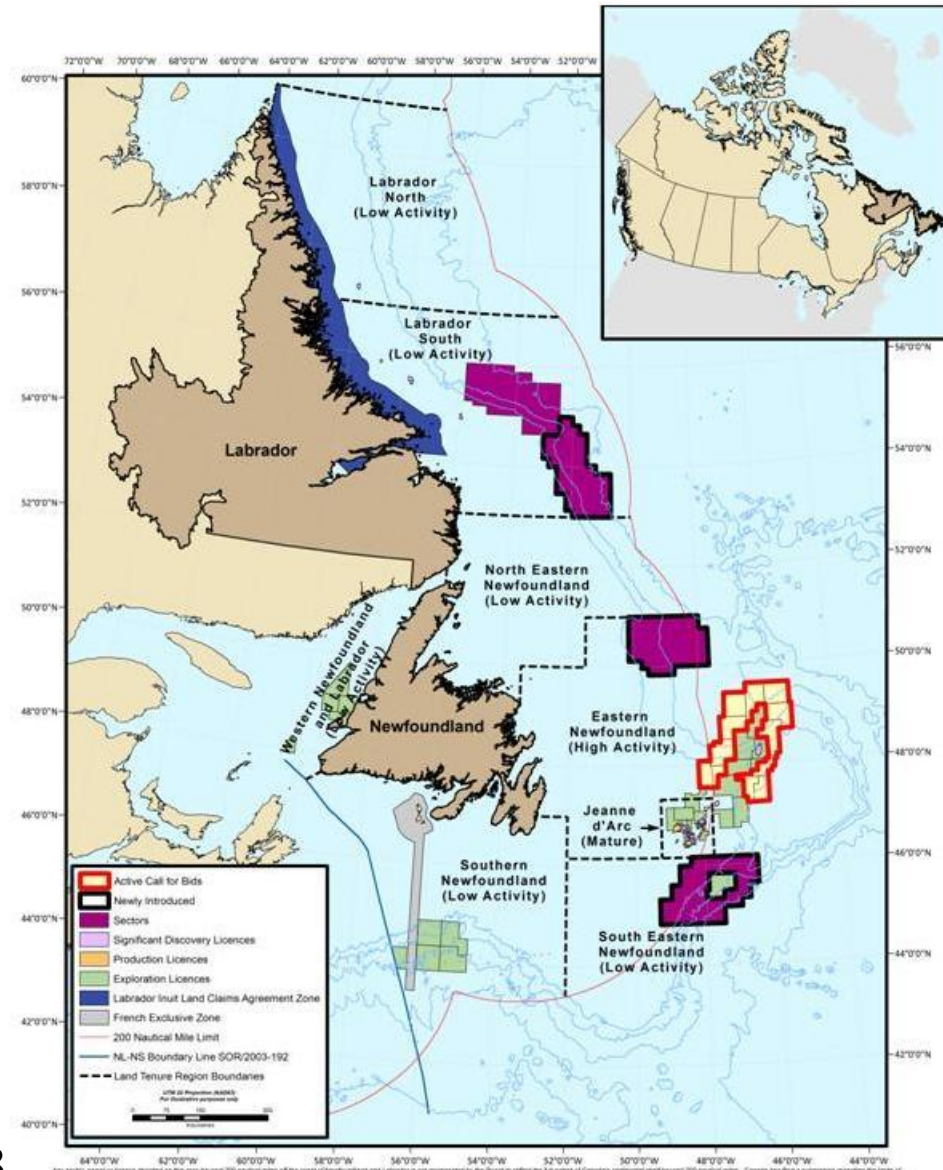


Scheduled Land Tenure Implementation

- 2014

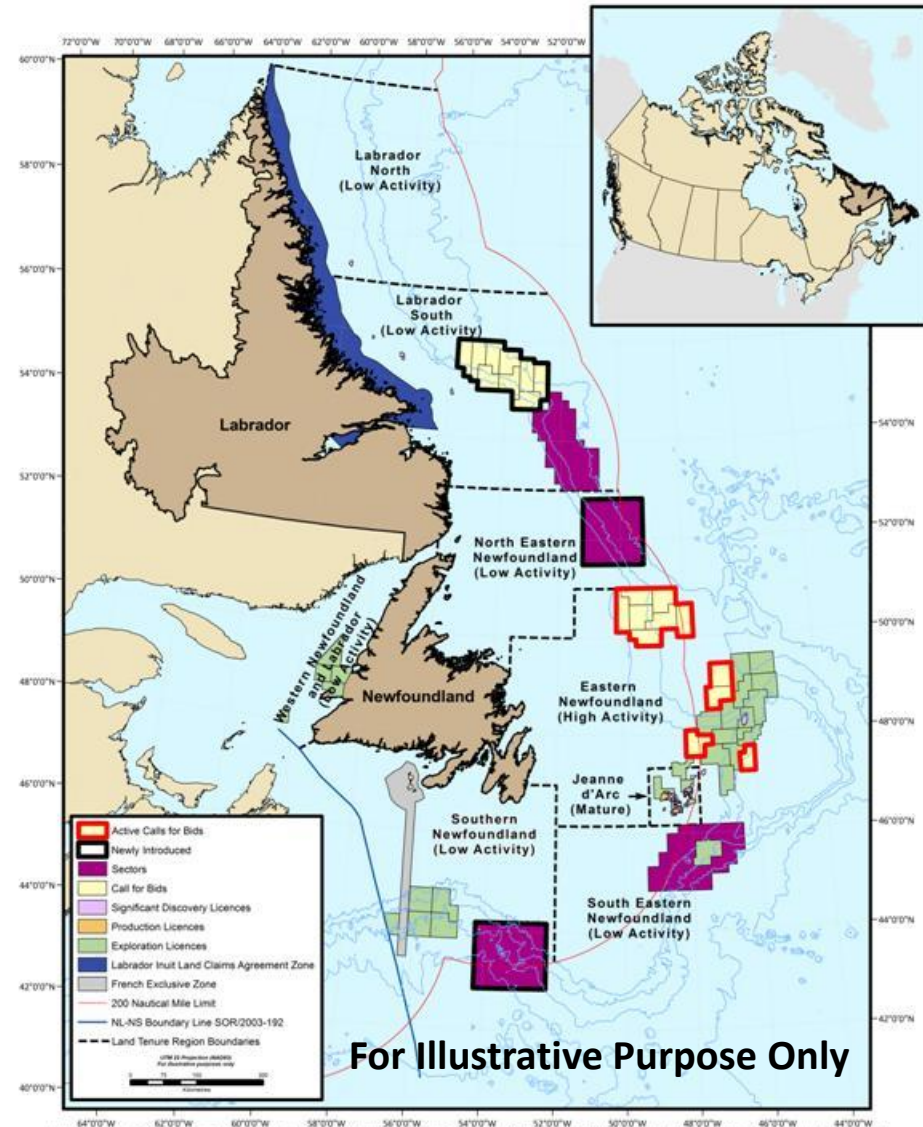
- **2015**

- Three new sectors (black outline):
 - ✓ Two low activity – 4 year cycle – LS, SEN
 - ✓ One high activity – 2 year cycle - EN
- Call for Bids (red outline) :
 - ✓ First bid round in new system closed in November 2015 – EN



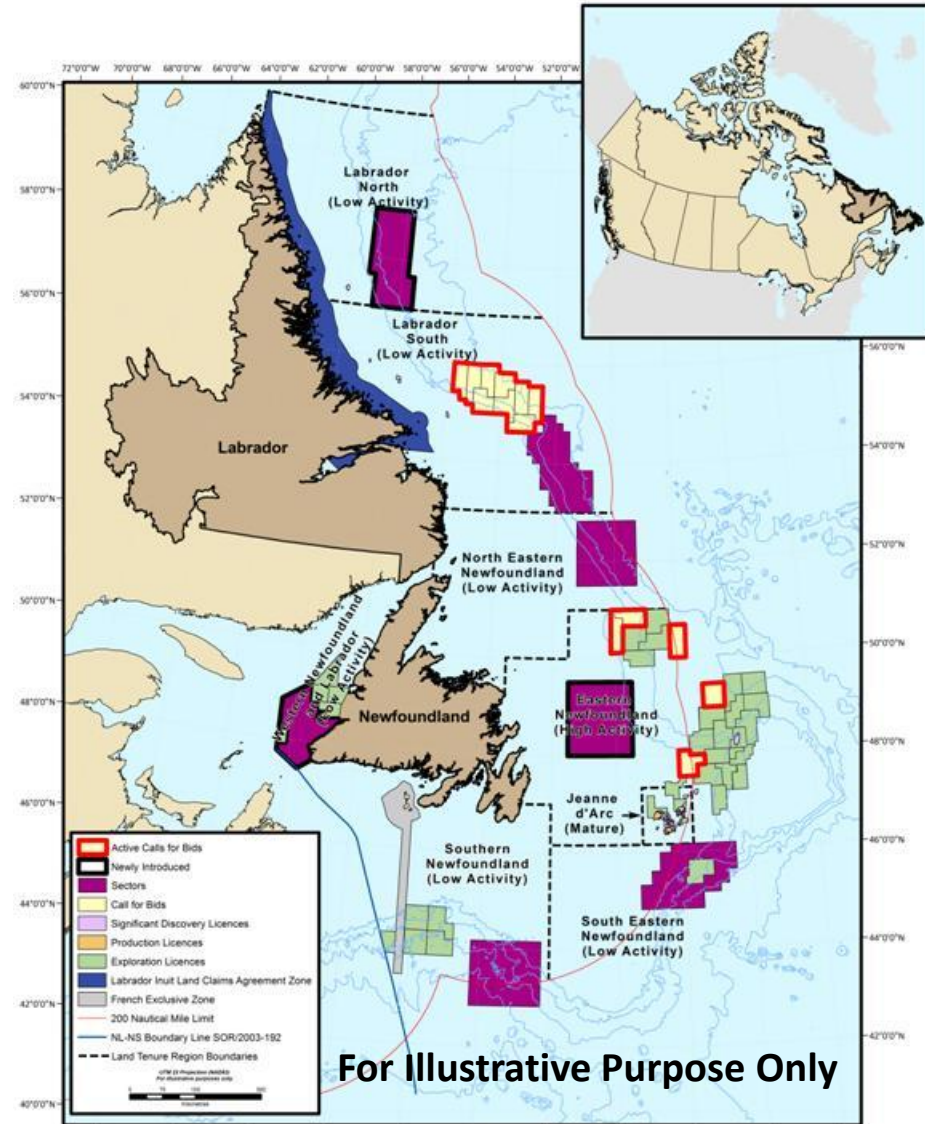
Scheduled Land Tenure Implementation

- 2014
- 2015
- **2016**
 - Two new sectors (black outline):
 - ✓ Two low activity – 4 year cycle – NEN and SN
 - Call for Bids (red outline):
 - ✓ Second bid round to close in EN



Scheduled Land Tenure Implementation

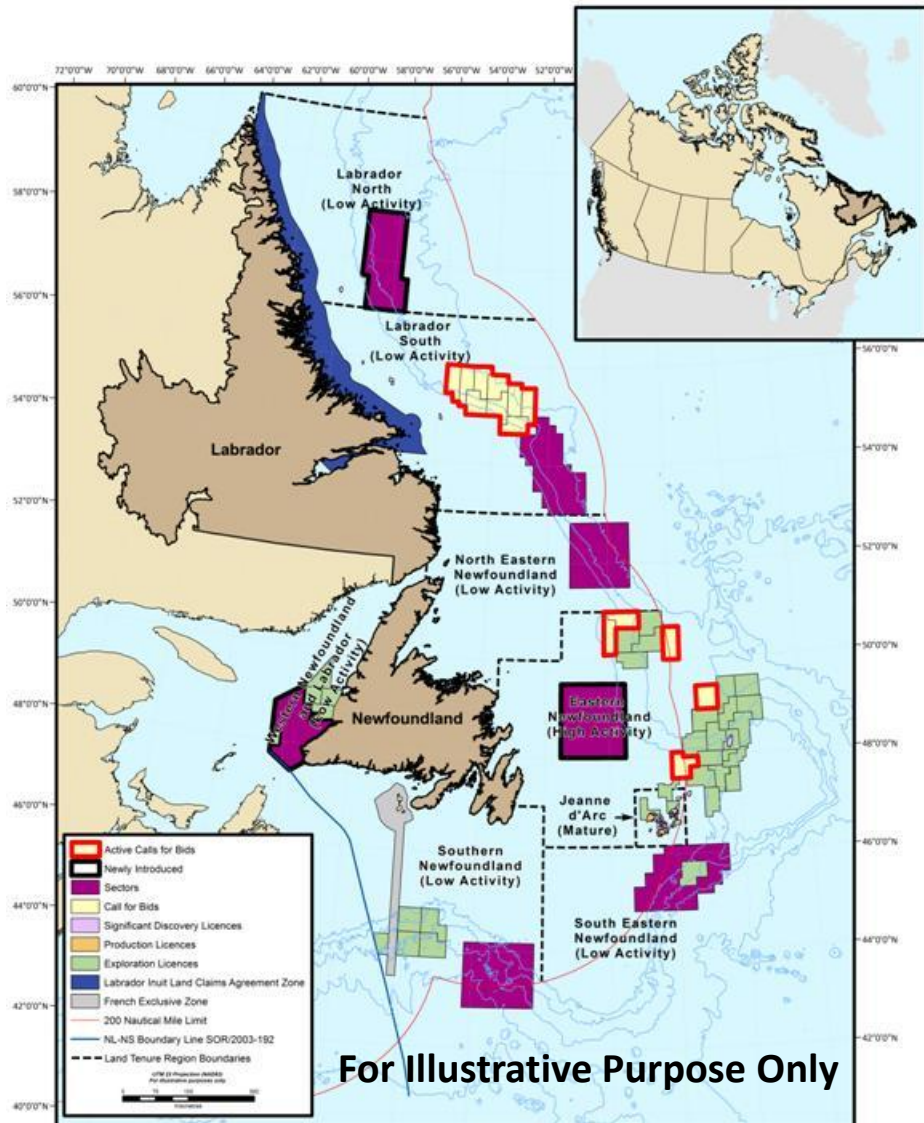
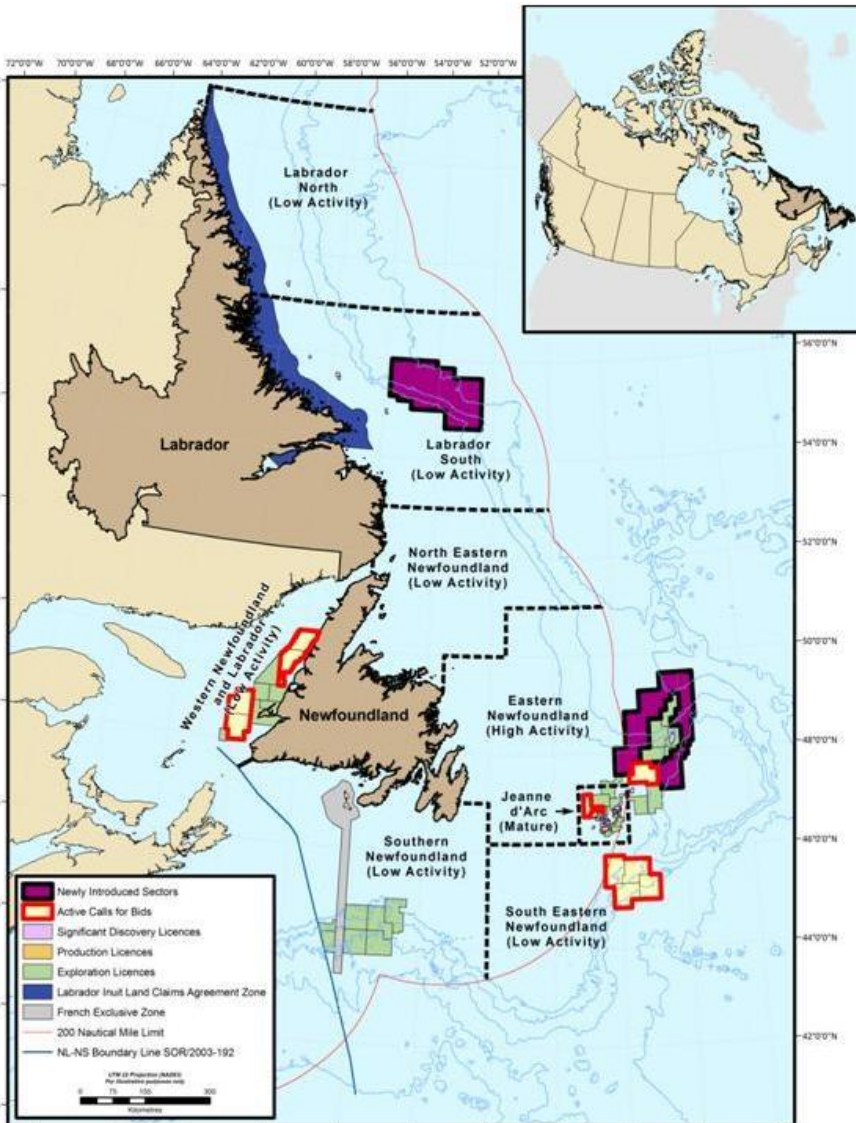
- 2014
- 2015
- 2016
- **2017**
 - Three new sectors (black outline):
 - ✓ Two low activity – 4 year cycle – WNL, LN for example
 - ✓ One high activity – 2 year cycle - EN
 - Call for Bids (red outline):
 - ✓ Third round to close in EN
 - ✓ First round to close over a low activity sector - LS



Scheduled Land Tenure Activity

2014 Actual - <8% under licence/open bid/sector

2017 Possible - >20% under licence/open bid/sector

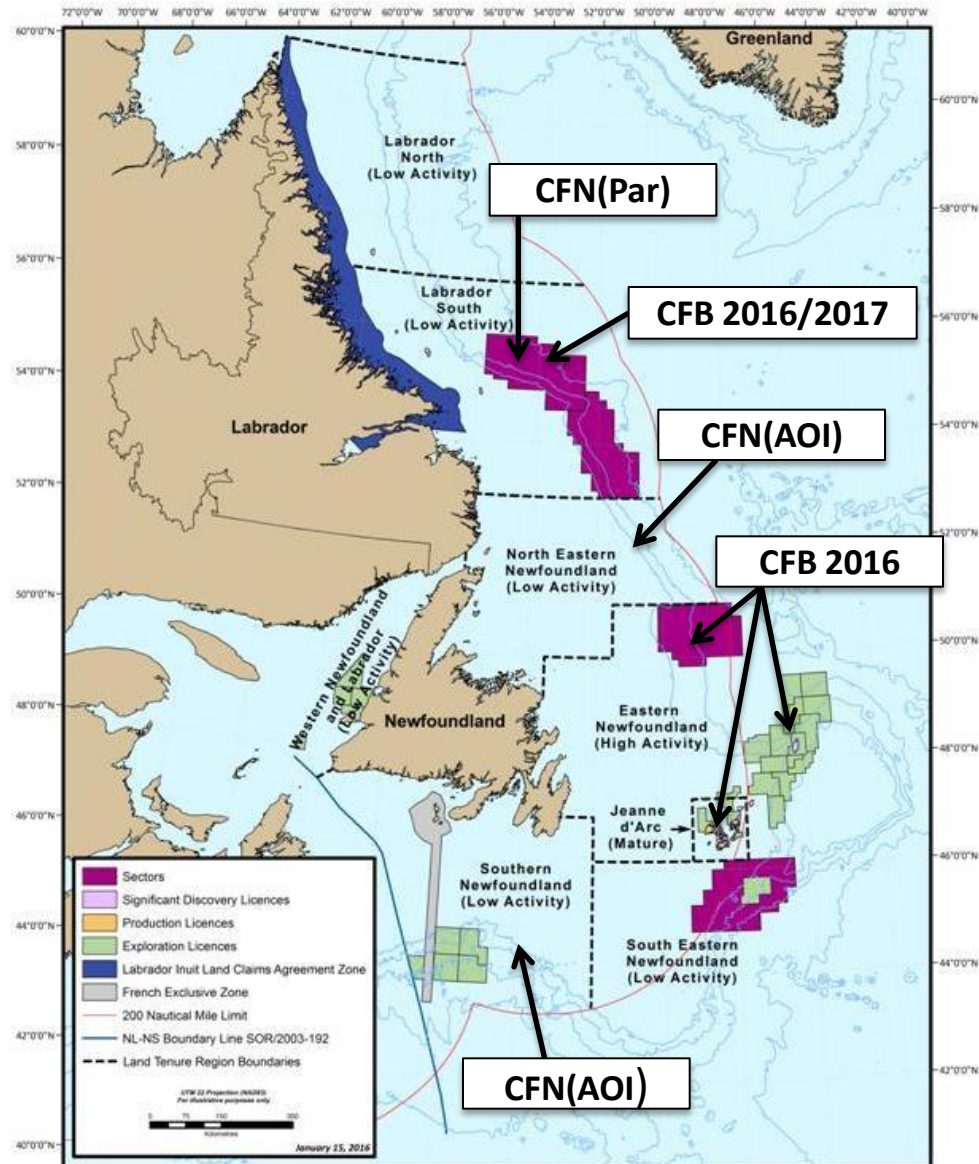


For Illustrative Purpose Only

2016 Scheduled Land Tenure Activity

- Calls for Nominations
 - North Eastern Newfoundland Region – NL16-CFN01 (AOI)
 - Southern Newfoundland Region – NL16-CFN02 (AOI)
 - Labrador South (Sector NL01-LS) – NL16-CFN03 (Parcels)

- Calls for Bids (pending Board approval and Ministerial ratification)
 - Eastern Newfoundland (Sector NL02-EN and unbid parcels from 2015 round) - Close November 2016
 - Jeanne d'Arc – Close November 2016
 - Labrador South (Sector NL01-LS) – Close November 2017



Any sector, parcel or license depicted on this map beyond 200 nautical miles off the coast of Newfoundland and Labrador is not represented by the Board to reflect the full extent of Canada's continental shelf beyond 200 nautical miles. Canada has filed a submission regarding the limits of the Outer Continental Shelf to the United States with the Commission on the Limits of the Continental Shelf. The review of which is pending. Any sector or parcel depicted in this map and any province records in these areas will be subject to approval as of Fundamental Decision under applicable legislation. The boundaries of sectors, parcels or licenses in areas beyond 200 nautical miles may be revised to reflect the limits of the Outer Continental Shelf established by Canada. All mineral leases of production licenses including those beyond 200 nautical miles may be required, through legislation, regulation, search works and conditions, or otherwise, to make payments or contributions in order for Canada to satisfy obligations under Article 82 of the United Nations Convention on the Law of the Sea.

Active Scheduled Land Tenure Rounds

Close of Call for Bids

2016 – Sector NL02-EN

Jeanne d'Arc

2017 – Sector NL01-LS

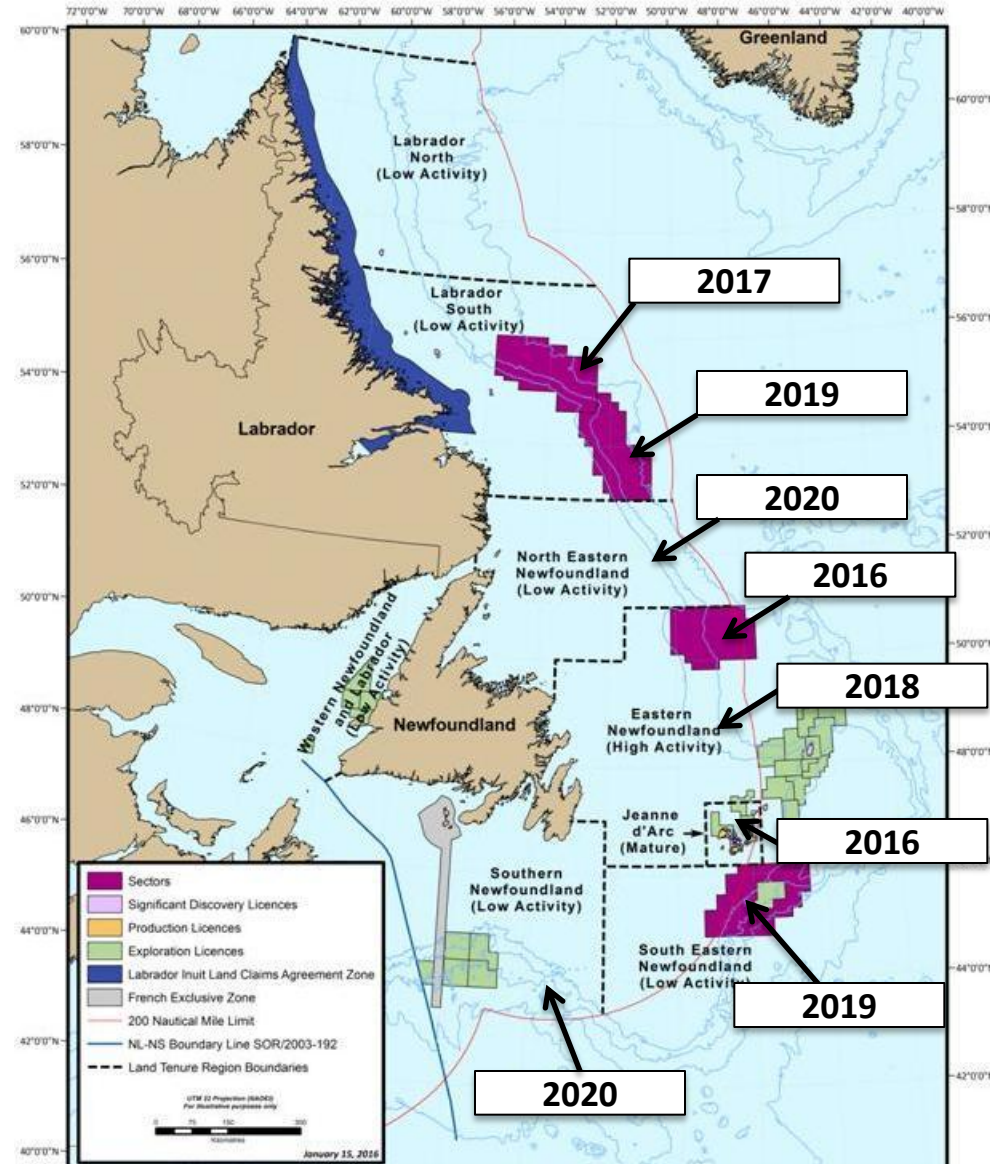
2018 – Eastern Newfoundland

2019 – Sector NL02-LS

Sector NL01-SEN

2020 – North Eastern Newfoundland

Southern Newfoundland



Geophysical, Geological, Environmental and Geotechnical Guidelines

- The **C-NLOPB** is the authority responsible for the administration of the regulations pertaining to exploration for and production of hydrocarbons in the Newfoundland and Labrador offshore area
- The following information is referenced from the C-NLOPB ***Geophysical, Geological, Environmental and Geotechnical Guidelines, January 2012 (GGEG guidelines)***. The latest guidelines will be in effect for the 2016 season.
- The *GGEG* guidelines provide guidance and interpretation for:
 - *Atlantic Accord Implementation Acts*
 - *Newfoundland Offshore Area Oil and Gas Operations Regulations*
 - *Newfoundland Offshore Area Petroleum Geophysical Operations Regulations*
 - *Petroleum Occupational Safety and Health - Newfoundland Regulations*
 - *Newfoundland and Labrador Occupational Health and Safety Act*

Program Types

- Geophysical/Geological **with** field work:

- Seismic surveys (2D, 3D, 4D)
- Wellsite (geohazard) surveys
- Electromagnetic surveys (CSEM)
- Vertical Seismic Profile (VSP)
- Gravity / Magnetics
- Coring / Sampling



- Geophysical/Geological **without** field work:

- Reprocessing
- Biostratigraphy
- Palynology

Geophysical Programs with field work

Exclusive

- An **offshore licence holder** contracts a third party to acquire a geophysical survey in the NL offshore
- In this case the licence holder files the application and is the Operator of the program

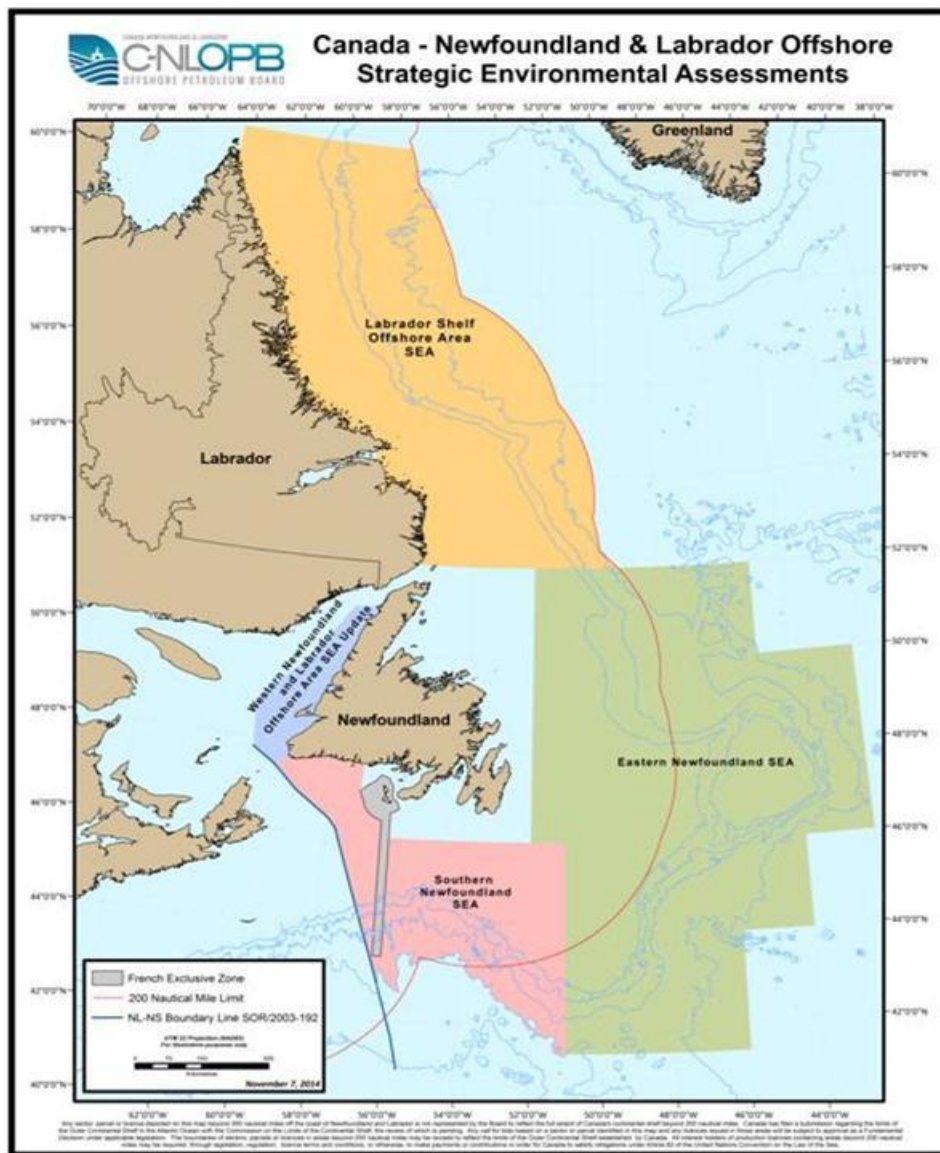
Non-exclusive

- A **geophysical acquisition company** acquires a survey in the NL offshore for the sole purpose of selling the data
- In this case the geophysical company files the application and is the Operator of the program

Authorization

- To receive an authorization to conduct a geophysical program, a proponent must provide the following:
 - A valid Operating Licence
 - Program Description (*separate from EA Project description*)
 - Safety Plan
 - **Environmental Assessment**
 - Canada-NL Benefits Plan
 - Proof of Financial Responsibility

Environmental Assessment



An Environmental Assessment (EA) must be completed prior to issuance of an authorization to conduct marine GGEG surveys

- EA documents filed with the C-NLOPB Environmental Affairs Department
- May reference one or more C-NLOPB Strategic Environmental Assessments

Environmental Assessment Process: Summary

Process Step	Responsibility
<ul style="list-style-type: none"> Submission of Project Description (PD) 	Proponent
<ul style="list-style-type: none"> Distribution of PD & Draft Scoping Document to government departments/agencies, fishing organizations for review Scoping Document Finalized 	C-NLOPB
<ul style="list-style-type: none"> Submission of EA Report - At least 90 days before planned start of activity 	Proponent
<ul style="list-style-type: none"> Review of EA report – Up to 8 weeks 	C-NLOPB staff / government / public
<ul style="list-style-type: none"> Submission of EA Addendum 	Proponent
<ul style="list-style-type: none"> Determination of Significance of Project Effects – In consideration of comments received 	C-NLOPB
<ul style="list-style-type: none"> Multi-year programs - EA Update in subsequent years 	Proponent

Environmental Assessment Process: Fisheries Consultation

- C-NLOPB GGEG Guidelines - proponents must consult with fishers/industry
 - Including DFO, One Ocean, Association of Seafood Producers, FFAW
- EA Report must report on those consultations and how issues are addressed
- C-NLOPB determines adequacy of consultation and how proponent responds to EA comments
- All EA documents are posted on C-NLOPB website

Marine Seismic Programs: Mitigation Measures - General

- C-NLOPB *Geophysical, Geological, Environmental and Geotechnical Program Guidelines*
 - Describe measures to reduce or eliminate potential impacts to fish, marine mammals, and commercial fishery operations
 - Include *Statement of Canadian Practice with Respect to the Mitigation of Seismic Sound in the Marine Environment*
- Environmental assessment report describes all mitigation measures proponent will implement
- Authorization may include additional measures via conditions

Examples of Fishery-Related Mitigation

- Temporal and spatial avoidance of heavily fished areas
- Temporal and spatial avoidance to reduce conflict with DFO research vessel surveys
- Notice to Mariners
- Fisheries Liaison Officer (FLO) aboard survey vessel
- Communication with fishing Industry
- Operator required to implement a gear compensation program
- Single Point of Contact (SPOC) when multiple GGEG programs active

Reporting Requirements

During operations

- Weekly reports to C-NLOPB
 - Include communications with fishers/vessels during the week
- Reporting of accidents, hazardous occurrences and significant events
 - C-NLOPB/CNSOPB *Incident Reporting and Investigation Guidelines*
 - Includes any incident of fishing gear contact within 24 hours of occurrence

Final reports and data submission

- Digital data, operations, processing and interpretation reports
 - Due one year after date of program completion
 - Data released 5 years and six months after program completion for exclusive program
 - Data released 10 years and six months after program completion for non-exclusive program
- Seabird and marine mammal observation data reports

Regulatory Process Summary

- The *GGEG* guidelines contain all necessary information and requirements to complete the application process. Available at www.cnlopb.ca
- The C-NLOPB encourages operators to consult early and often
- An Operating Licence and C-NLOPB authorization is required prior to any work activity
- Environmental assessment is required. Includes a project description, consultation with the public and fishers, and describes all mitigation measures proponent will implement
- EA documents available to public during review
- Issues/concerns raised by fishers incorporated into EA reports
- Issues/concerns are considered by C-NLOPB in authorizations
- Standard mitigation measures required
- Compensation is required in the event of loss or damage