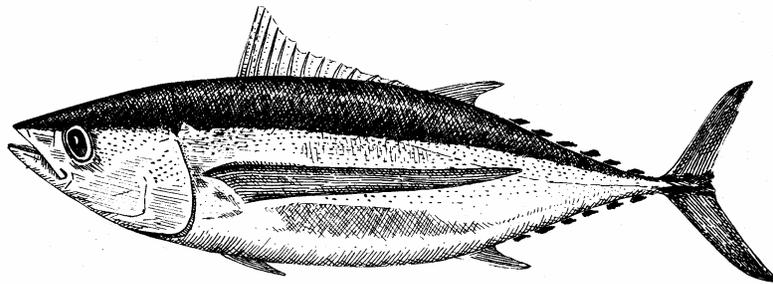


PACIFIC REGION INTEGRATED FISHERIES MANAGEMENT PLAN

TUNA

APRIL 1, 2010 TO
MARCH 31, 2011



Albacore Tuna (*Thunnus alalunga*)



Fisheries and Oceans
Canada

Pêches et Océans
Canada

Canada

This Integrated Fisheries Management Plan is intended for general purposes only. Where there is a discrepancy between the Plan and the regulations, the regulations are the final authority. A description of Areas and Subareas referenced in this Plan can be found in the Pacific Fishery Management Area Regulations.

1. FORWARD

The purpose of this Integrated Fisheries Management Plan (IFMP) is to identify the main objectives and requirements for the Albacore tuna fishery in the Pacific Region, as well as the management measures that will be used to achieve these objectives. This document also serves to communicate the basic information on the fishery and its management to DFO staff, legislated co-management boards and other stakeholders. This IFMP provides a common understanding of the basic “rules” for the sustainable management of the fisheries resource.

This IFMP is not a legally binding instrument which can form the basis of a legal challenge. The IFMP can be modified at any time and does not fetter the Minister's discretionary powers set out in the *Fisheries Act*. The Minister can, for reasons of conservation or for any other valid reasons, modify any provision of the IFMP in accordance with the powers granted pursuant to the Fisheries Act.

Where DFO is responsible for implementing obligations under land claims agreements, the IFMP will be implemented in a manner consistent with these obligations. In the event that an IFMP is inconsistent with obligations under land claims agreements, the provisions of the land claims agreements will prevail to the extent of the inconsistency.

TABLE OF CONTENTS

1.	FORWARD.....	2
2.	CONTACTS.....	5
3.	INTRODUCTION.....	10
4.	OVERVIEW OF THE FISHERY	10
4.1.	Description of Fishery.....	10
4.2.	Participants.....	11
5.	INTERNATIONAL CONSIDERATIONS.....	11
5.1.	Canada/United States of America Albacore Tuna Treaty.....	11
5.2.	Other International Agreements.....	12
5.3.	Regional Fisheries Management Organisations.....	13
6.	GENERAL	15
6.1.	Precautionary Approach.....	15
6.2.	Stock Status.....	16
6.3.	Fishing Vessel Safety.....	18
6.4.	Consultative Process	18
7.	EVALUATION OF 2009/2010 MANAGEMENT OBJECTIVES	19
7.1.	Conservation and Protection.....	19
7.2.	Consultation Process.....	19
7.3.	Provide Opportunity to Harvest Tuna.....	20
7.4.	Work Cooperatively with the United States of America	20
8.	MANAGEMENT OBJECTIVES AND PERFORMANCE MEASURES	20
8.1.	Conservation and Protection	21
8.2.	Consultation Process.....	21
8.3.	Provide Opportunity to Harvest Tuna.....	21
8.4.	Work Cooperatively with the United States of America	22
9.	CURRENT MANAGEMENT ISSUES	22
9.1.	Non-compliance with Reporting Requirements.....	22
9.2.	Tuna Advisory Board Elections.....	23
9.3.	International Requirements to Maintain Effort.....	23
9.4.	Future Requirement for Regional Observer Programs	24
9.5.	Tuna Electronic Logbooks (E-Logs)	24
9.6.	Oceans Act, and Canada’s Oceans Strategy	25
9.7.	Species at Risk Act	27
10.	FINANCIAL RESPONSIBILITIES	29
10.1.	Commercial Industry and Fisheries and Oceans Canada.....	29
11.	ENFORCEMENT MEASURES	30
11.1.	Overview.....	30
11.2.	Main Program Activities.....	30
11.3.	Aerial Surveillance.....	31
11.4.	Treaty Enforcement	31
12.	ANNUAL HARVEST PLANS	31
12.1.	2010/2011 First Nation Harvest Plan.....	31
12.2.	2009/2010 Recreational Harvest Plan.....	31

13.	COMMERCIAL FISHING PLAN.....	32
13.1.	Open Times.....	32
13.2.	Close Times.....	32
13.3.	Permanent Area Closures.....	32
13.4.	Species.....	33
13.5.	Gear.....	34
13.6.	For Harvest west of 150 degrees west longitude.....	34
13.7.	Licensing.....	35
14.	FISHING ACTIVITY AND CATCH REPORTING.....	38
14.1.	Hail Requirements.....	38
14.2.	Hail-out Report (Start Fishing or Transiting Report).....	39
14.3.	Specific to the United States of America Zone.....	39
14.4.	Hail-in Report (Stop Fishing Report).....	40
14.5.	Vessel Monitoring System Reporting Requirements.....	40
14.6.	Fishing in the United States of America Exclusive Economic Zone.....	41
14.7.	Vessel Marking Requirements.....	41
14.8.	Landing Locations.....	42
14.9.	United States of America Vessels Fishing in Canadian Waters.....	43
14.10.	Hail-in Report (Stop Fishing Report).....	44
14.11.	Catch and Fishery Data.....	44
14.12.	Long-line Gear Requirements for Seabird Mitigation.....	46
15.	REFERENCES.....	47
16.	ATTACHMENTS.....	48

2. CONTACTS

Observe, Record and Report (Enforcement Line) (800) 465-4336

Fisheries Management

A/Regional Pelagics Co-ordinator Randy Webb (250) 954-2675

Regional Pelagics Manager Cynthia Johnston (604) 666-2188
Resource Management Fax (604) 666-9136
Suite 200 - 401 Burrard Street
Vancouver, B.C. V6C 3S4

North Coast Resource Management David Einarson (250) 627-3426
Areas 1 to 10
#202 - 417 2nd Avenue West
Prince Rupert, B.C. V8J 1G8

South Coast Resource Management Greg Thomas (250) 756-7103
Areas 11 to 26
3225 Stephenson Point Road
Nanaimo, B.C. V9T 1K3

Science Branch

Lead Scientist John Holmes (250) 756-7303
Pacific Biological Station
Hammond Bay Road
Nanaimo, BC V9R 3K6

Conservation and Protection

Chief, Enforcement Operations Gary Miller (604) 607-4160

Licensing

Pacific Fishery Licence Unit (604) 666-0566
200 - 401 Burrard Street
Vancouver, B.C. V6C 3S4

Pacific Fishery Licence Unit (250) 627-3413
417 - 2nd Avenue West
Prince Rupert, B.C. V8J 1G8

Pacific Fishery Licence Unit (250) 754-0400
60 Front Street
Nanaimo, B.C. V9R 5H7

GLOSSARY

Abundance	Number of individuals in a stock or a population.
Age Composition	Proportion of individuals of different ages in a stock or in the catches.
Area and Subarea	Defined in Section 2 of the Pacific Fishery Management Area Regulations. A map of Pacific Fishery Management Areas is available on the Department's Internet site: www.pac.dfo-mpo.gc.ca/ops/fm/Areas/areamap_e.htm
Biomass	Total weight of all individuals in a stock or a population.
By-catch	The unintentional catch of one species when the target is another.
Committee on the Status of Endangered Wildlife in Canada (COSEWIC)	Committee of experts that assess and designate which wild species are in some danger of disappearing from Canada.
EBSA (Ecologically and Biologically Significant Area)	An EBSA is an area that has particularly high Ecological or Biological Significance, and should receive a greater-than-usual degree of risk aversion in management of activities in order to protect overall ecosystem structure and function within the LOMA.
Exclusive Economic Zone	The Exclusive Economic Zone (EEZ) is an area beyond and adjacent to the territorial sea that shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.
Ecosystem-Based Management	Taking into account of species interactions and the interdependencies between species and their habitats when making resource management decisions.
Fishing Effort	Quantity of effort using a given fishing gear over a given period of time.
Fishing Mortality	Death caused by fishing, often symbolized by the mathematical symbol F .
Food, Social and Ceremonial (FSC)	A fishery conducted by Aboriginal groups for food, social and ceremonial purposes.
high seas	All parts of the sea that is not included in the exclusive economic zone, in the territorial sea or in the internal waters of a state.
jig-fishery	Hook and line troll gear using jigs.
landed value	Value of the product when landed by the licensed vessel.
landing	Quantity of a species caught and landed. Harvested animals transferred from a vessel to land.
LOMA (Large Ocean	Integrated management planning in Canada is focused in five high

Management Area)	priority LOMAs, these are: Placentia Bay and the Grand Banks, the Gulf of St. Lawrence, the Scotian Shelf, the Beaufort Sea and the Pacific North Coast.
Maximum Sustainable Yield (MSY)	Largest average catch that can continuously be taken from a stock.
Natural Mortality	Mortality due to natural causes, symbolized by the mathematical symbol M.
Population	Group of individuals of the same species, forming a breeding unit, and sharing a habitat.
Precautionary Approach	Set of agreed cost-effective measures and actions, including future courses of action, which ensures prudent foresight, reduces or avoids risk to the resource, the environment, and the people, to the extent possible, taking explicitly into account existing uncertainties and the potential consequences of being wrong.
recruitment	Amount of individuals becoming part of the exploitable stock e.g. that can be caught in a fishery. The process whereby young animals are added to a fishable stock or population.
Spawner	Sexually mature individual.
Spawning Stock	Sexually mature individuals in a stock.
<i>Species at Risk Act</i> (SARA)	The Act is a federal government commitment to prevent wildlife species from becoming extinct and secure the necessary actions for their recovery. It provides the legal protection of wildlife species and the conservation of their biological diversity.
stakeholders	Individuals or groups with an interest in a particular fishery or activity.
Stock	Describes a population of individuals of one species found in a particular area, and is used as a unit for fisheries management.
stock assessments	Scientific evaluation of the status of a species belonging to a same stock within a particular area in a given time period. Results of analyses of fisheries and research data used to evaluate the effects of fishing on a stock or population and to predict the reactions of populations to alternative management choices.
Tonne	Metric tonne, which is 1000kg or 2204.6 lb.
Total Allowable Catch (TAC)	Total allowable catch: the amount of catch that may be taken from a stock, determined by analytical procedures, to achieve management objectives.
Tuna Treaty	The treaty between the Government of Canada and the Government of the United States of America on Pacific albacore tuna vessels and port privileges in force July 29, 1981.

Vessel Size

Length overall.

Year-class

Individuals of a same stock born in a particular year. Also called "cohort".

3. INTRODUCTION

The 2010/2011 Pacific Region Tuna Integrated Fisheries Management Plan (IFMP) is valid for the period of April 1, 2010 to March 31, 2011. The Regional Director-General of the Pacific Region approves this plan.

This plan applies to fisheries for tuna species in waters of the Pacific Ocean within the Canadian EEZ, the United States of America (USA) EEZ and offshore (high seas).

4. OVERVIEW OF THE FISHERY

4.1. Description of Fishery

The Pacific Canadian fishery is focused on highly migratory albacore tuna (*Thunnus alalunga*) using troll gear. This is a jig fishery. Net gear is not permitted.

Canadian fish harvesters have been fishing albacore since the mid-1930s in the north Pacific and since the 1980s in the south Pacific (Ware and Yamanaka 1991, Shaw and Argue 2000). The Canadian fishery started in the coastal waters off British Columbia (B.C.). It has now developed into a fishery with two fleet types, smaller vessels fishing coastal B.C. and USA waters, and larger vessels fishing on the high seas of the north and south Pacific Ocean. The north Pacific fishery lasts from May through October each year when albacore are abundant offshore and in coastal waters. The south Pacific fishery lasts from December through March (Argue et al. 1999).

The Canadian fleet operates all over the Pacific and roughly 350 unique Canadian vessels have participated in the albacore fishery in at least one year since 1995. Historically, one to five vessels operated in the south Pacific, 5 to 20 vessels in waters outside the Canadian and USA EEZs to as far west as 170°E in the north Pacific, up to 179 vessels in waters of the USA EEZ, and from 60 to 100 vessels in Canadian waters. The 2009 Canadian fleet size was 135 vessels.

Catches since 1996 by the Canadian fleet in the north Pacific albacore troll fishery have ranged from 2,734 tonnes in 1999 to a high of 7,856 tonnes in 2004, with an average catch of 5,378 tonnes over this period. In 2009 the total estimated catch was 5,601 tonnes, with the catch in B.C. estimated at 391 tonnes and no reported catch for the south Pacific. In recent years more than 85% of the reported Canadian catch has occurred along the North American coast while the offshore fleet has decreased effort in the Northwest Pacific. On average, between 38 and 400 tonnes of this catch are taken in the south Pacific by Canadian operators, though there was no reported catch for 2008 or 2009. Canadian caught albacore is worth up to \$28 million per year in landed value. Total Pacific-wide albacore catches since the 1950's have ranged from 70,000 to 150,000 tonnes per year, mostly taken by Asian longline as well as pole and line vessels. The USA troll fishery catches since 1996 have ranged from 8,400 to 17,000 tonnes per year.

There is an opportunity for recreational and First Nations harvest of tuna species in Canadian fisheries waters, however there are currently no First Nations fisheries taking place. There is a very small opportunistic recreational fishery that takes place off northwest Vancouver Island when fish are in the area.

4.2. Participants

The coastal fleet operates within the Canadian EEZ and the USA EEZ in accordance with fishing and port access privileges under the Tuna Treaty. Vessels in this fleet, mostly 10.67m to 18.29m in length (35 to 60 feet), concentrate their fishing effort primarily from the southern Oregon coast to the northern tip of Vancouver Island. Fishing activity is dependent on price, ocean and weather conditions, albacore availability, the strength of other fisheries, particularly the salmon fishery, and fuel costs. Effort in the coastal fishery normally peaks in August and September, after the salmon season for trollers has wound down. Catch from the coastal fleet is sold into both the canned and the blast bled frozen tuna markets.

The Canadian high seas fleet is comprised of larger troll vessels, mostly greater than 60 feet in length, with crews typically of two to four fish harvesters. These vessels remain at sea for several months each trip. Many of these vessels are equipped with larger freezers and operate primarily from west of the International Dateline to the Canadian EEZ in the north Pacific. Some offshore vessels trans-ship their catch to carrier vessels at sea in order to continue fishing operations on migrating schools of tuna. Offshore fishing in the north Pacific on the Wake Island grounds usually starts in May and, weather and tuna abundance permitting, lasts through late fall as the vessels follow albacore towards the North American coast. Offshore vessel catches are sold primarily into the blast bled frozen sashimi market.

5. INTERNATIONAL CONSIDERATIONS

Canadian fishing vessels fishing for tuna outside the Canadian EEZ may be subject to the requirements of the Canada/United States of America Tuna Treaty, the Inter-American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC), it is the responsibility of the vessel master to ensure he/she understands these requirements and adheres to them.

5.1. Canada/United States of America Albacore Tuna Treaty

Under the Tuna Treaty, Canadian and USA fish harvesters may fish northern Pacific albacore tuna in the other country's 200-mile EEZ and may land albacore tuna at designated ports in the other country for purposes of sale or transshipment. The Tuna Treaty also provides for the exchange of catch, effort and scientific information in order to inform management decisions and better understand the albacore tuna stocks that migrate off the west coasts of the USA and Canada.

On April 24, 2002 Canada and the USA agreed to amend the Tuna Treaty to establish a three year limitation regime providing for a phased reduction in access by vessels of each country to the EEZ of the other. The amendments entered into force June 1, 2004, placing limits on the fishing effort by each country in the other's EEZ. This new Annex C of the Tuna Treaty limited the fishing activity of each fleet in the other country's zone to 680 vessel fishing months or 170 vessels for a maximum of four calendar months each for year one (2004), 560 vessel fishing months or 140 vessels for year two (2005) and 500 vessel fishing months or 125 vessels for year three (2006). The Tuna Treaty also called for both countries to enter into consultations on a new limitation regime, or extension of the existing regime from 2004, to start twelve months prior to its expiration (March 31, 2007). If an agreement could not be reached, access would be limited to 75% of year three levels (94 vessels or 376 vessel fishing months) until a new agreement could be reached and implemented. These provisions were reciprocal.

In 2007, the Government of Canada and the USA did not formally meet to discuss the Tuna Treaty. As a result, the default access level was applied for the 2007 and 2008 fishery. The 2008 fishery was the fifth year that the Tuna Treaty limitations were applied. Canadian fishing effort for the 2008 season was in line with the limits. Discussions between both Governments resumed in 2008.

On December 15, 2008, Canadian and American officials met and initialled amendments to the *Canada-U.S. Pacific Albacore Tuna Treaty*.

The treaty was renewed for a period of 3 years with the possible extension of one or more years. This will provide at least 3 fishing seasons (2009 to 2011) for Canadian vessels to harvest albacore tuna in the US EEZ as well as US vessels to harvest in the Canadian EEZ. Canadian access has been increased from 94 vessels to 110 vessels and US access will be maintained at historical levels. The additional 16 vessels authorized to harvest in US waters were those vessels ranked from 95 to 110 within the existing licence eligibility list of 179. A fixed list of Canadian vessels with a current USA 68 licence, which permits fishing in the US EEZ under the terms of the treaty, are to be forwarded to American officials by June 1 of each season.

The terms of the revised treaty include a modification from the previously used vessel month system with vessel month transfers to a defined fishing season of 4.5 months with mid-season transfers prohibited except under extraordinary circumstances. Pursuant to the revised *Treaty*, the tuna fishing season for harvesting albacore in the US EEZ will now start on June 15 and end on October 31.

5.2. Other International Agreements

Widespread and growing concern over the state of the world's commercial fisheries, many of which suffer from resource over-exploitation and fleet over-capacity, has led to international agreements that will have a substantial impact on the future conduct of albacore tuna fisheries, and on the responsibilities of governments and fishing industries for their management. These agreements include the *United Nations Straddling Fish Stocks and Highly Migratory Fish Stocks Agreement* (otherwise known in Canada as the

UN Fish Stocks Agreement or UNFSA), the FAO Code of Conduct for Responsible Fisheries, the FAO Compliance Agreement, the International Plan of Action (IPOA) for the Management of Fishing Capacity, the FAO IPOA to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, the IPOA on Reducing Incidental Catch of Seabirds, and the IPOA for the Conservation and Management of Sharks, the United Nations (UN) Compliance Agreement, and UN General Assembly resolutions. These all require a precautionary approach to fisheries management and flag state control over fishing vessels, wherever they fish.

The most important agreement from Canada's perspective is the UNFSA, which Canada ratified in August 2001. This agreement entered into force on December 11, 2001. Under UNFSA, Canada has an obligation to take measures to ensure that vessels flying its flag that harvest on the high seas comply with the conservation and management measures of relevant Regional Fisheries Management Organizations (RFMOs), and that they do not undermine the effectiveness of such measures. To this end, Canada's obligations are:

- a) To enact regulations that controls its vessels through licences and Conditions of Licence.
- b) To require its vessels to report catch (and incidental catch), effort, landings and transshipments.
- c) To implement appropriate monitoring and surveillance of Canadian vessels and their fishing and related activities.
- d) To ensure Canadian vessels and their gear are marked for identification in accordance with international marking systems.
- e) To provide scientific information for stock assessments on a timely basis.

5.3. Regional Fisheries Management Organisations

The Joint Meeting of Tuna Regional Fisheries Management Organizations in Kobe, Japan, in January 2007 resulted in the Kobe Course of Actions, which sets out the steps to be taken to reform tuna Regional Fisheries Management Organizations (RFMOs). This Course of Actions was updated at the most recent Joint Meeting held in San Sebastian Spain, in June 2009. RFMOs exist as a collaborative multi-national body to aid in the effective management of fish stocks on the high seas and stocks which migrate through the waters of more than just a single State. RFMOs responsible for the conservation and management of the Pacific albacore stock are the Inter-American Tropical Tuna Commission (IATTC) and the Western and Central Pacific Fisheries Commission (WCPFC).

Inter-American Tropical Tuna Commission

The Inter-American Tropical Tuna Commission (IATTC) was established in 1950 and was the first international organization dealing with tuna fisheries. It is responsible for the conservation and management of fisheries for tuna and others species taken by tuna fishing vessels in the eastern Pacific Ocean (EPO). Canada was a member of the IATTC from 1968 to 1984 but withdrew when Canadian purse-seine vessels ceased activity in

this fishery. Canada has been an observer to the IATTC since 2001 and is granted Cooperating Non-party status on an annual basis.

After five years of negotiations, comprehensive amendments to the Convention text were adopted on June 27, 2003 with a view to bringing the Convention text in line with new fisheries realities. Canada actively participated in these negotiations as an observer. The amended Convention (also known as the Antigua Convention) covers the area between the western coastline of the Americas and 150° W longitude, from latitudes 50° N and 50° S, which includes a part of Canada's EEZ and territorial sea. Canadian fish harvesters pursue a significant fishery for northern albacore tuna, a stock covered by the IATTC. Current member countries of the IATTC are: Columbia, Costa Rica, Ecuador, El Salvador, France, Guatemala, Japan, Mexico, Nicaragua, Panama, Peru, Republic of Korea, Spain, the United States, Vanuatu and Venezuela. Canada ratified the Antigua Convention in June 2009 and will become a full Member of the IATTC when the Convention enters into force in August 2010.

In 2006, the IATTC adopted a resolution on northern albacore that required no increase of fishing effort for North Pacific albacore tuna in the Eastern Pacific Ocean; each country to take necessary measures to ensure that the level of fishing effort by their vessels fishing for North Pacific albacore tuna not increase; and that each country report all catches of North Pacific albacore tuna by gear type to the IATTC every six months.

The 80th IATTC meeting was held June, 2009 in California. While there were no new measures relating to Pacific Albacore as a result of this meeting, the Commission agreed to convene a Working Group on the margins of the 2010 annual meeting to determine an appropriate definition for "current effort".

More information on the IATTC can be found at: www.iattc.org

Western and Central Pacific Fisheries Commission

The Convention for Conservation and Management of Highly Migratory Species in the Western and Central Pacific Ocean was adopted on September 4, 2000, (i.e. west of 150° W longitude). Canada ratified the Convention on November 1, 2005, becoming the 22nd member of the Western and Central Pacific Fisheries Commission (WCPFC). The WCPFC came into force on June 19, 2004. Canada's main fisheries interests in the central and western Pacific are northern albacore tuna stocks and to a lesser degree, southern albacore and other tuna species. Canada currently holds the office of Vice-Chair of the Commission.

The sixth regular session of the WCPFC was held in Papeete, French Polynesia during December 7 – 11, 2009. The Commission successfully adopted a Regional Observer Program (ROP), a transshipment program and chartering rules.

In 2008, the Commission adopted an interim management objective for the North Pacific albacore stock which includes the objective to maintain the Spawning Stock Biomass above the average level of its 10 lowest points, through reductions in fishing mortality as

necessary. While this measure was successfully adopted, there was some discussion that it was not substantial enough and that a full management strategy should be developed for this stock for adoptions at the next annual meeting.

Despite recommended amendments by the Northern Committee (a subsidiary body of the Commission which makes recommendations on North Pacific stocks) at the 2009 WCPFC annual meeting to resolve the issue of ambiguous wording (“current effort”) in the current text, there were no changes to the interim management measure for albacore.

As per the WCPFC Conservation and Management Measure resolution approved in 2004 (CMM 2004-01), all vessels must be on a WCPFC list of authorized vessels prior to harvesting within the WCPFC convention area. Please see section 13.6 for information.

More information on the WCPFC can be found at: www.wcpfc.int.

6. GENERAL

6.1. Precautionary Approach

The Department has recently begun implementation of the Sustainable Fisheries Framework (SFF), which is a toolbox of existing and new policies for Fisheries and Oceans Canada (DFO) and other interests to sustainably manage Canadian fisheries in order to conserve fish stocks and support prosperous fisheries.

Fisheries worldwide are under increasing pressure, creating challenges for policy makers, resource managers and industry leaders to make informed decisions regarding the conservation, recovery and wise management of these precious resources. DFO held consultations throughout Canada in 2007 and 2008 to develop strategies to ease ecosystem pressures and enhance the capacity of the resource to sustain growing industry needs. New conservation policies have been developed to implement the ecosystem and precautionary approaches to fisheries management. These new policies, incorporated into development of new Integrated Fisheries Management Plan (IFMP) templates, will join existing policies in a new framework to promote sustainable fisheries. It is anticipated that the IFMP for tuna will be developed according to the new template for the 2011 season.

The new fishery decision-making framework incorporating the precautionary approach policy (www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/precaution-eng.htm) applies to key harvested fish stocks managed by Fisheries and Oceans Canada, including commercial, recreational, or subsistence fisheries.

The framework requires that a harvest strategy be incorporated into respective fisheries management plans to keep the removal rate moderate when the stock status is healthy, to promote rebuilding when stock status is low, and to ensure a low risk of serious or irreversible harm to the stock. It also requires a rebuilding plan when a stock reaches low levels.

In general, the precautionary approach in fisheries management is about being cautious when scientific knowledge is uncertain, and not using the absence of adequate scientific information as a reason to postpone or fail to take action to avoid serious harm to fish stocks or their ecosystem. This approach is widely accepted as an essential part of a sustainable fisheries management.

6.2. Stock Status

Albacore tuna are one of six abundant, widely distributed, and economically important tuna species in the Pacific Ocean. There are two stocks of albacore, one in the south Pacific and one in the north Pacific. Mature albacore spawn in subtropical waters of the Pacific between 20° N and 20° S latitude. Immature albacore from each stock are distributed across the Pacific in subtropical and temperate waters where they are the target of jig and pole and line fisheries. Albacore in the jig catch range in size from 4 kg to 15 kg and three to five years of age.

Albacore are a valuable species with a long history of exploitation in the eastern and western, North Pacific Ocean (NPO). The total catch of albacore in the NPO for all nations combined peaked at a record high of 126,538 metric tonnes (t) in 1976 and then declined to a low of 37,320 t in 1991. In the early 1990s, catches increased again, peaking in 1999 at 125,576 t, and averaging 84,900 t between 2002 and 2006. During the 5 year period (2002-2006), fisheries based in Japan accounted for 65 % of the total harvest, followed by fisheries in the USA (17 %), Chinese Taipei (7.8 %) and Canada (7.5 %). Other countries targeting the NPO stock contributed 3 % to the catch and included Korea, Mexico, Tonga, Belize, Cook Islands and Ecuador. While various fishing gears have been employed over the years to harvest albacore in the NPO, the main gears used over the period 2001-2005 were pole and line (37 %), long line (36 %) and troll (22 %). Pole and line and troll gears fish the surface waters and catch juvenile or immature albacore. Long line gear fishes deeper in the water column and typically catches sexually mature albacore. Other gears used since the mid-1990s included purse seine, gill net, and recreational fishing gears, which combined accounted for roughly 5 % of the total catch of albacore from the NPO.

The most recent stock assessment was carried out by scientists attending an ISC* Albacore Working Group (ALBWG) Stock Assessment Workshop in November-December 2006. The ALBWG is a collaborative international scientific body with membership from Canada, Japan, Taiwan, USA, Mexico, Korea, the Inter-American Tropical Tuna Commission (IATTC), and the Secretariat of the Pacific Community (SPC). The albacore stock was assessed with an age-structured VPA-2BOX model using fishery data through 2005. The results indicated that the spawning biomass in 2006 (SSB_{2006}) reached a historically high level estimated at 153,000 t. The stock is projected to decline to an equilibrium level of roughly 92,000 t by 2015 assuming the current high fishing mortality remains unchanged and average annual recruitment of 27.75 million fish. The ALBWG strongly recommended in 2006 that all countries support

* International Scientific Committee on Tuna and Tuna-like Species in the North Pacific Ocean

precautionary-based fishing practices (e.g., limits on current levels of fishing effort), given the following assessment observations:

- (1) the current level of fishing mortality (i.e., $F_{2002-2004} = 0.75 \text{ yr}^{-1}$) is high relative to commonly used reference points and often associated with over fishing thresholds in various fisheries world-wide;
- (2) a retrospective analysis indicated a noticeable trend of over-estimation of stock biomass over the last two assessment cycles; and
- (3) the considerable decline in total (North Pacific Ocean-wide) catch over the course of the last two years, particularly in 2005, when the total harvest (roughly 61,600 t) was the lowest recorded since the early 1990s.

The 9th ISC Plenary Meeting was held July 15-20, 2009 in Kaohsiung, Chinese Taipei. No formal update of the stock status has been conducted since the 2006 assessment; the next full stock assessment is planned for 2011. A qualitative analysis was undertaken using fishery catch-effort data from 2006-2008 to assess trends in recruitment and adult biomass that were projected in the 2006 assessment. These analyses were inconclusive because there were no clear and consistent signals in the fishery data concerning recent recruitment or spawning biomass and as a result, the ISC has no new stock status and conservation advice to offer the Western and Central Pacific Fisheries Commission and the Inter-American Tropical Tuna Commission for the north Pacific albacore stock beyond that provided in 2007, i.e., current F is high relative to most of the F reference points commonly used in fisheries management and hence, the recommendation of not increasing F from current level ($F = 0.75$) remains valid. The ISC, however, recognizes that not having a more recent stock assessment available increases the uncertainty about recent stock status and this advice.

The ISC noted at its July 2009 meeting that nominal effort in most albacore fisheries appears to have declined relative to 2005 and catches since 2004 have been substantially lower than in the previous decade (with the exception of 2007). These observations could mean that fishing mortality in 2008 (F_{2008}) is less than the estimate of current F (0.75 yr^{-1}) used in the 2006 stock assessment projections. Alternatively, F_{2008} may remain high as the value used in the stock assessment projections since the level of recruitment after 2005 is not known. A formal stock assessment is needed to fully understand the implications of the new data available since the last stock assessment.

The fourth meeting in September 2008 of the Western and Central Pacific Fishery Commission's Northern Committee (NC), which provides advice on management measures for north Pacific stocks of tuna and billfishes, adopted an interim management objective for the North Pacific albacore stock to maintain the spawning stock biomass (SSB) above the average level of its ten historically lowest points (ATHL) with a probability greater than 50% for a 25-year projection period. Since the associated F -based reference point (FSSB-ATHL) was not estimated in the last (2006) stock assessment, the NC requested that the ISC-Albacore Working Group conduct and express

the results of its assessments so that they include the information necessary to achieve this interim management objective. In July 2009, the ISC estimated FSSB-ATHL to be 0.75 yr^{-1} , which is the same as current level of fishing mortality (F2002-2004) estimated by the 2006 assessment. However, the ISC did not determine the proximity of F2008 to this reference point value. The ISC also requested clarification as to whether this interim reference point is considered a limit or a target reference point. If it is a limit reference point, then further consideration of the 50% probability limit chosen for this parameter is needed; if it is the target reference point, then further discussion regarding appropriateness of this objective should be held.

6.3. Fishing Vessel Safety

Owners and masters have a duty to ensure the safety of their crew and vessel. Adherence to safety regulations and good practices by owners, masters and crew of fishing vessels will help save lives, protect the vessel from damage and protect the environment. Appendix 3 outlines vessel safety measures and procedures required and/or recommended by Transport Canada.

6.4. Consultative Process

A Tuna Advisory Board (TAB), representative of tuna stakeholders and the various sectors meets two or three times per year to provide formal advice and make recommendations to the Department on policy and operational decisions related to tuna harvest in the Pacific Region. Commercial industry advisors participating on TAB were selected through an election process and met qualifications outlined in the TAB Terms of Reference. TAB members are elected for a two or four year term depending on the number of votes that they received in the election. The First Nation Organization representative on TAB is appointed by the Department, a provincial representative is appointed by the Province of B.C., and environmental and recreational sectors were appointed by the Marine Conservation Caucus and the Sport Fish Advisory Board. In 2009, a representative from the Canadian Highly Migratory Species Foundation (CHMSF) was included as a member on TAB as per a consensus recommendation from the board. The TAB Terms of Reference has been revised accordingly.

The Canadian Highly Migratory Species Foundation (CHMSF) has been formed as a federally registered not for profit society and is supported by the TAB elected representatives and the B.C. Ministry of Environment with a purpose of promoting, funding and carrying out scientific research and industry development projects that support highly migratory species in the Pacific Ocean.

For more information on the foundation please go to:

www.canadianalbacoretuna.com/about.html

Stakeholders are encouraged to participate in the advisory process by expressing their interests and views through advisors or attending meetings as observers. Please refer to the list of TAB membership in Appendix 2. Please also refer to the consultation website

for information on TAB meetings including meeting minutes, presentations and the TAB Terms of Reference at:

www-comm.pac.dfo-mpo.gc.ca/pages/consultations/default_e.htm

7. EVALUATION OF 2009/2010 MANAGEMENT OBJECTIVES

7.1. Conservation and Protection

Management Objective: To ensure conservation and protection of Pacific albacore tuna stocks through the application of scientific management principles applied in a risk averse and precautionary manner based on the best scientific advice available.

Assessment: The majority of Canadian vessels actively involved in albacore tuna fishing provided accurate and timely catch, effort, landings and transshipment information by geographic region. This information was collected and monitored through a hail out system, logbooks, and fish slips. The Department continues to work with Tuna harvesters to improve the data quality of hails and enhance the logbook program.

Canada had a high compliance rate with the conditions of licence. All catch, effort, landing and transshipment data was provided to the IATTC and WCPFC to meet reporting requirements. In 2009, the Department piloted the third year of the electronic logbook program of which there were 4 volunteers. The goal of this program is to improve data management and to provide more timely and accurate catch reporting data to the Department.

7.2. Consultation Process

Management Objective: Conduct open and transparent consultation processes for discussion of harvest management issues in this fishery, and to assist in the annual development of an IFMP.

Assessment: The TAB held two meetings for the 2009/2010 fishing season. Items addressed by TAB included a post season review of the previous fishing season, preseason planning, review and development of the annual IFMP (including new Treaty implementation details), developments and consultations with the United States on treaty requirements, and international requirements and resolutions for the Western and Central Pacific Fisheries Commission and Inter-American Tropical Tuna Fisheries Commission.

The TAB met its objectives to provide formal advice and recommendations to the Department on operational and policy issues taking into account the views of those they represent and departmental policies and international agreements.

The Department posted meeting dates, location, agendas and minutes on the tuna consultation website to ensure information on the fishery is available to all interested parties.

The TAB commercial representative elections were held from January 2008 to February 2008 for six Section 68 USA Sector representatives, two High Seas Sector representatives, and two Canadian Sector representatives. One half of the TAB members were elected for a two year term and the other half were elected for a four year term. The next election will occur in the fall of 2010 for one half of the TAB. See Appendix 2 for a list of TAB representatives. See section 9.2 for more details on the upcoming election process.

7.3. Provide Opportunity to Harvest Tuna

Management Objective: Provide opportunity for commercial fish harvesters to harvest tuna in Canadian fisheries waters, USA fisheries waters pursuant to the Tuna Treaty, and on the high seas. Also, provide an opportunity for recreational fish harvesters to retain albacore tuna.

Assessment: A 2009 Canadian north Pacific albacore tuna commercial fishery took place with similar distribution of catch as recent years. In total, 135 vessels participated and caught approximately 5,601 metric tonnes.

Recreational fish harvesters were permitted a daily limit of 20 fish using hook and line gear in Pacific Fisheries Management Areas (PFMA) 1 to 29.

7.4. Work Cooperatively with the United States of America

Management Objective: Maintain a positive working relationship with the US government to ensure both parties meet their obligations under the revised Treaty.

Assessment: The 2009 fishery was the sixth year the effort limits under the amended Treaty applied. Canadian and US authorities monitored their country's effort in each other's jurisdiction through the Canadian Coast Guard.

An annual bi-lateral meeting was held in April 2009, with US officials to discuss Treaty implementation issues on both sides and co-operatively exchange information on their respective conservation and management measures for albacore tuna to meet international obligations. Information on catch and effort, a list of Canadian vessels accessing the US EEZ, and possible fishing violations were exchanged with US fishery counterparts. The bilateral process provides an opportunity for both government and industry input into the Tuna Treaty process. The next Canada/US bilateral meeting will be held in May 2010.

Advocacy: As part of an ongoing effort to instil confidence and build relationships with US tuna harvesters and ease their misgivings regarding a continued Treaty, Canada continues to move forward with a series of tuna advocacy activities aimed at US stakeholders.

8. MANAGEMENT OBJECTIVES AND PERFORMANCE MEASURES

8.1. Conservation and Protection

To ensure conservation and protection of Pacific albacore tuna stocks through the application of scientific management principles applied in a risk averse and precautionary manner based on the best scientific advice available through the following:

- a) Require all vessels to report catch (and by-catch), effort, landings and transshipments by November 12, 2010.
- b) Collect all catch, effort, landings and transshipment information for albacore tuna by geographic location through logbooks and fish slips accurately and in time to fulfil international and regional reporting requirements.
- c) Collect biological samples by geographic location through logbooks in time to fulfil international and regional reporting requirements.
- d) Enact and enforce regulations that control Canadian fishing vessels through licences and Conditions of Licence.
- e) Conduct the third year of an electronic logbook pilot to improve data management by providing more timely and accurate catch data to the Department.

8.2. Consultation Process

Conduct open and transparent consultation processes for discussion of harvest management issues in this fishery, and to assist in the annual development of an IFMP through the following actions:

- a) Hold a minimum of two meetings per fishing season with the Tuna Advisory Board (TAB) to allow stakeholder involvement and to seek advice from TAB in the annual development of the IFMP and consensus building on issues related to the fishery.
- b) Review and co-operatively plan monitoring and reporting programs for the tuna fishery including the electronic logbook pilot, the logbook program, and hail system, to ensure accurate collection of information on catch and effort and improve compliance levels from the previous season.
- c) Post the minutes and information presented at TAB meetings on the DFO consultation website within 8 weeks of the meeting date.
- d) Evaluate the effectiveness of the TAB based on objectives identified in its Terms of Reference during the post season review process.
- e) Complete elections for ½ of TAB in the fall of 2010 as per the terms of reference

8.3. Provide Opportunity to Harvest Tuna

Provide opportunity for commercial fish harvesters to harvest tuna in Canadian fisheries waters, USA fisheries waters pursuant to the Tuna Treaty, and on the high seas. Also, provide an opportunity for recreational fish harvesters to retain albacore tuna.

8.3.1. Performance Measure

Provide a portion of Canadian commercial and recreational fish harvesters with an opportunity to harvest albacore tuna in Canadian waters, USA fisheries waters and on the high seas for the 2010/2011 fishing season.

8.4. Work Cooperatively with the United States of America

Maintain a positive working relationship with the USA government to ensure both parties meet their obligations under the revised Treaty.

8.4.1. Performance Measure

- a) Hold an annual bi-lateral meeting with US officials to discuss Treaty implementation issues on both sides and co-operatively exchange information on their respective conservation and management measures for albacore tuna to meet international obligations.
- b) Exchange of information on harvesting activity and possible fishing violations.
- c) Provide a list of Canadian vessels licensed to access the US EEZ under the terms of the Treaty by June 1, 2010.
- d) Complete advocacy activities to demonstrate the benefits of the Treaty to each country.

9. CURRENT MANAGEMENT ISSUES

9.1. Non-compliance with Reporting Requirements

As a Condition of Licence all vessel masters are required to:

- a) Notify Canadian authorities of their fishing activity by hailing out with their intention to start fishing and hailing in when fishing activity has ceased.
- b) Complete harvest logbooks at sea to be reported in hard copy and electronically to the Department by a deadline.
- c) Keep accurate catch records by way of fish slips to be submitted to the Department.

There remains some level of non-compliance with reporting requirements and in particular logbook submission. The Department is working to addressing these issues with stakeholders through the advisory process and with vessel owners on an individual basis to address any violations. At the January 2010 TAB, representatives outlined their concerns with late submission of tuna logs; in particular any associated with harvest in US waters. Due to international and domestic reporting obligations and as per the conditions of licence, harvesters are required to comply with reporting and submission deadlines for their logbooks. In 2010 the Department will be contacting harvesters who are not in compliance with their conditions of licence to determine if further enforcement action is required.

Contraventions of the *Fisheries Act*, the *Coastal Fisheries Protection Act* and the regulations may result in seizure and forfeiture of vessel and gear as well as fines up to \$100,000 or imprisonment for a term up to one year of both, for a first offence.

9.2. Tuna Advisory Board Elections

TAB representatives were elected in the fall of 2008 for a 2 or 4 year term based on the number of votes they received. As such, elections for those representatives elected for a 2 year term are due to take place in the fall of 2010.

The representatives that will be elected include:

- 3 USA 68 sector representatives;
- 1 Canadian sector representative; and
- 1 High Seas sector representative.

If you wish to nominate an individual or yourself you may do so by contacting the tuna resource manager at 604-666-2188. Nominations for representatives received prior to May 5th, 2010 will be posted on the DFO consultation website. Individuals not on the posted nomination list may also be nominated. Voter and nomination eligibility will be based on their eligibility to harvest in US waters under the current treaty and recent participation in domestic and high seas fishing areas.

- USA 68 sector eligibility: voting and nomination eligibility will be based on those listed as the licence eligibility holders from 1 – 110 as of November 5, 2010;
- Canadian sector eligibility: voting and nomination eligibility will be based on those with at least one year of reported landings in domestic waters from 2008-2010; and
- High seas sector eligibility: voting and nomination eligibility will be based on those with at least one year of reported landings in high seas waters from 2008-2010.

Election material including voter forms will be mailed to those on the voter eligibility list in November, 2010. The deadline for votes will be communicated via a fisheries notice and included in the election material. It is the intent of the Department to finalize election results as quickly as possible to ensure that newly elected representatives are able to attend and participate in the 2011 pre-season planning meeting anticipated for February 2 and 3, 2010.

For more information, please contact your TAB representative (see Appendix 2) or the tuna resource manager at 604-666-2188.

9.3. International Requirements to Maintain Effort

Due to international obligations to not increase harvesting effort for albacore tuna (see section 5.3 for more details) and domestic management needs of the Canadian tuna fishery, the Department is discussing with tuna stakeholders potential updates to the

current method for licensing and management of the domestic tuna and high seas fishery. **Any proposed changes will not affect vessels which harvest in the US EEZ (under the US/Can albacore tuna treaty) and will not affect access of US vessels into Canadian waters.**

The goals of the proposed changes are to more accurately define the domestic and international tuna fleet, to ensure continued access to existing participants and to develop a licensing process which meets international and domestic management needs while allowing for safety, efficiency, viability and operational issues of harvesters to be effectively addressed.

As per the recommendation of TAB, the Department has adopted a control date of December 1, 2009 for the Canadian Albacore tuna fishery. This control date indicates to past, existing and new participants in the fishery that any catches after the control date may not be considered should a future limited entry program be implemented. A control date is an administrative measure, consistent with domestic and international policy used to manage the fishery.

Adopting a control date facilitates the creation of a future limited entry program for the fishery. However it is not a commitment by the Department to implement such a program.

For more information please see the DFO consultation website at: <http://www.pac.dfo-mpo.gc.ca/consultation/fisheries-peche/pelag/tuna-thon/index-eng.htm> or contact your tuna advisory board member (contact details in Appendix 2) or the tuna resource manager at 604-666-2188.

9.4. Future Requirement for Regional Observer Programs

New international conservation measures require the implementation of independent and impartial regional observer programs (ROP) to collect verified data, other scientific data, and additional information related to the fishery, and to monitor the implementation of the conservation and management measures. A timeline for troll and poll-and-line vessels used for fishing skipjack or albacore tuna has not been established. However, the RFMO's will be considering the development of a regional observer program for fishing tuna in international waters.

9.5. Tuna Electronic Logbooks (E-Logs)

In 2008 Fisheries & Oceans Canada initiated a co-management arrangement with the Tuna Advisory Board to conduct an Electronic Logbook program in the Pacific Region and off of the West Coast of the United States.

The ultimate goal of this initiative is to improve the efficiency and compliance of reporting catch and other harvesting information to Fisheries and Oceans Canada in the most efficient and cost effective manner. The PC based software application has been designed following the current paper version of the logbook for the tuna fleet.

2009 was the second year for the tuna pilot program in the Pacific Region and off of the West Coast of the United States. Four tuna commercial fishing vessels tested and utilized the Pacific Region's E-Log software to transmit catch, effort and harvesting information electronically to the Department while respecting their conditions of licence. Participants in this pilot were still required to purchase a paper logbook and hail to the appropriate call centre.

It is anticipated that the 2010 season will be the final season of a DFO tuna electronic Logbook pilot program (e-log program).

At the December 3, 2009 Tuna Advisory Meeting, a Tuna E-Log Working Group, including tuna harvesters and DFO was struck. It was their recommendation to increase the e-log pilot program and try to include up to 30 fish harvesters for the 2010 pilot. The purpose of expanding the program for its final year is to ensure the tuna industry has the opportunity to gather information on in-season support costs in the event the fishery moves to electronic logbooks in the future.

Requirements to participate include the following:

- A computer that meets or surpasses the minimum requirements for the DFO E-Log software (e.g.: Pentium 4 processor, Windows Vista, XP or Windows 7 operating system, a minimum of 1 gigabyte RAM and a minimum of 10 gigabytes of free hard disk space);
- Completion of the Tuna E-Log and paper log as per the conditions of licence and to store this data on a USB memory device daily;
- To return the USB memory device or send the data files to DFO and/or the service provider at the end of the 2010 harvesting season.

DFO is also hoping to have 6 vessels participating in the pilot that have communication equipment (either Globalstar satellite telephone or satellite modem) to send their catch and other fishing information to DFO and/or the service provider.

For more information please contact Carmen McConnell at 250-756-7272 or Ron Goruk at 250-713-1522.

9.6. Oceans Act, and Canada's Oceans Strategy

In 1997, the Government of Canada enacted the *Oceans Act*. This legislation provides a foundation for an integrated and balanced national oceans policy framework supported by regional management and implementation strategies. In 2002, *Canada's Oceans Strategy* was released to provide the policy framework and strategic approach for modern oceans management in estuarine, coastal, and marine ecosystems. As set out in the *Oceans Act*, the strategy is based on the three principles of sustainable development, integrated management, and the precautionary approach.

PNCIMA: As part of *Canada's Oceans Strategy*, Fisheries and Oceans Canada is initiating an integrated management planning process for the Pacific North Coast Integrated Management Area (PNCIMA). The PNCIMA is bounded by the BC-Alaska border, the base of the shelf slope and the mainland, stretching south as far as Campbell River and the Brooks Peninsula. The PNCIMA initiative marks a shift toward a broader ecosystem approach to ocean management. This is consistent with the Government of Canada's overall direction and with Fisheries and Oceans Canada's new *Wild Salmon Policy*. The PNCIMA initiative will bring the area's stakeholders together to develop an integrated management plan for the region that achieves conservation, sustainable resource use, and economic development goals for oceans and coastal areas. The PNCIMA initiative will also function as an umbrella for various ocean management processes, complementing and linking existing processes and tools, including IFMPs.

Marine Protected Areas (MPAs): Fisheries and Oceans Canada is also responsible for designating Marine Protected Areas (MPAs) under Canada's *Oceans Act*. Under this authority, DFO has designated two MPAs in the Pacific Region. The Endeavour Hydrothermal Vents, designated in 2003, lie in waters 2,250m deep 250 km southeast of Vancouver Island. The Bowie Seamount, designated in 2008, is 180 km west of Queen Charlotte Islands (Haida Gwaii) rising from a depth of over 3,000 m to within 25 m of the sea surface.

DFO will be developing a Management Plan for the Bowie Seamount MPA in 2010, in consultation with First Nations, stakeholders, environmental groups, academia, the Province of BC and other federal government departments and agencies. This Management Plan will elaborate on the regulations to achieve and implement the conservation and management objectives for the MPA and will address matters such as monitoring, enforcement and compliance.

Commercial fishing activities within the MPA will be managed through the Integrated Fisheries Management process. Annual fishing plans will be developed in consultation with stakeholders and specific actions (openings and closures) for the Bowie Seamount Marine Protected Area will be taken under the authority of the *Fisheries Act* and its regulations.

Work is ongoing to consider MPA designations for other areas along the Pacific Coast, including the Race Rocks area off Rocky Point south of Victoria (currently designated as a Provincial Ecological Reserve) and the Hecate Strait / Queen Charlotte Sound Glass Sponge Reefs

More information on MPAs can be found at:

www.pac.dfo-mpo.gc.ca/oceans/default_e.htm

National Marine Conservation Areas (NMCAs): The *Canada National Marine Conservation Areas Act* provides for the establishment of National Marine Conservation Areas (NMCAs). Parks Canada, Fisheries and Oceans Canada and the Council of the Haida Nation are currently working together to establish the Gwaii Haanas NMCA through the exchange of information on marine resources, fisheries and cultural data and coordinated consultations. Following establishment, measures respecting the management of the Gwaii Haanas NMCA will be articulated in future IFMPs.

Fisheries and Oceans Canada is also working with other federal and provincial agencies to coordinate efforts towards establishing a national system of Marine Protected Areas to fulfil Canada's commitments to the UN Convention on Biological Diversity.

More information on integrated management planning and Pacific MPAs under Canada's *Oceans Act* can be found at:

www.pac.dfo-mpo.gc.ca/oceans/default_e.htm

Coldwater Coral and Sponge Conservation Strategy: Fisheries and Oceans Canada is working with other federal and provincial agencies, First Nations and stakeholders to develop a coldwater coral and sponge conservation strategy for the Pacific Coast. The Strategy consists of conservation, research and management objectives that guide strategies and actions to be taken by resource and fisheries managers.

9.7. Species at Risk Act

The *Species at Risk Act* (SARA) came into force in 2003. The purposes of the Act are “to prevent wildlife species from being extirpated or becoming extinct, and to provide for the recovery of a wildlife species that are extirpated, endangered or threatened as a result of human activity and to manage species of special concern to prevent them from becoming endangered or threatened”.

Endangered, threatened, and special concern marine species in Pacific region currently listed under Schedule I of SARA are:

1. Blue whale – Endangered
2. Killer whale southern resident population – Endangered
3. Killer whale northern resident population – Threatened
4. Killer whale transient population – Threatened
5. Leatherback turtle – Endangered
6. North Pacific right whale – Endangered
7. Sei whale – Endangered
8. Northern Abalone – Threatened[†]
9. Fin whale – Threatened
10. Humpback whale – Threatened

[†] In 2009, COSEWIC re-assessed Northern Abalone as an Endangered. Northern Abalone is currently in the listing process, proposed to be re-listed as Endangered replacing the current Threatened listing.

11. Sea otter – Special Concern
12. Green sturgeon – Special Concern
13. Grey whale – Special Concern
14. Harbour porpoise – Special Concern
15. Killer whale offshore population – Special Concern[‡]
16. Olympia oyster – Special Concern
17. Steller sea lion – Special Concern
18. Longspine Thornyhead – Special Concern
19. Rougheye Rockfishes Types I & II – Special Concern
20. Sixgill Shark – Special Concern
21. Soupfin Shark (Tope) – Special Concern

In addition to the existing prohibitions under the *Fisheries Act*, it is illegal to kill, harm, harass, capture, take, possess, collect, buy, sell or trade any listed endangered or threatened animal or any part or derivative of an individual. These prohibitions apply unless a person is authorized, by a permit, licence or other similar document issued in accordance with SARA, to engage in an activity affecting the listed species or the residences of its individuals. Species listed as special concern are not included in these prohibitions.

Listing: Committee on the Status of Endangered Wildlife in Canada (COSEWIC) designated species in Pacific region currently under consideration for listing under Schedule I of SARA can be found at: <http://www.pac.dfo-mpo.gc.ca/consultation/sara-lep/index-eng.htm>.

The formal SARA legal listing process begins when the Minister of Environment issues a response statement, detailing how he intends to proceed with the COSEWIC species designations. Response statements can be found on the SARA Public Registry website at: http://www.sararegistry.gc.ca/sar/listing/response_e.cfm.

COSEWIC Assessments: For a full list of the 2009 assessment results, please visit www.cosewic.gc.ca/rpts/Detailed_Species_Assessments_e.html. In April 2010, COSEWIC will be assessing the status of yellowmouth rockfish, loggerhead sea turtle and spiny dogfish. Assessments produced by COSEWIC help inform the Minister of Environment's decision on whether to list species under Schedule I of SARA. For more information, please visit the COSEWIC website at: <http://www.cosewic.gc.ca>.

Whale and Leatherback Turtle Sightings: The Department welcomes assistance in the reporting of any whale or leatherback turtle sightings or entanglement. Sightings for leatherback turtles and many whale species are infrequent in Pacific Canadian waters, and the collection of sightings data is very useful to scientists in determining population

[‡] In 2008, COSEWIC re-assessed Offshore Killer Whales as Threatened. Offshore Killer Whales are currently in the listing process, proposed to be re-listed as Threatened, replacing the current Special Concern listing.

size and distribution. Establishing this information can in turn help in the recovery planning under SARA.

To report a whale sighting, contact the BC Cetacean Sighting Network:
Toll free: 1-866-I-SAW-ONE (1-866-472-9663)
Fax: (604) 659-3599
Email: sightings@vanaqua.org

Internet: <http://wildwhales.org/sightings/>

To report a turtle sighting, contact the Sea turtle Sighting Network:
Toll free: 1-866-I-SAW-ONE (1-866-472-9663)
Fax (604) 659-3599
Email: turtles@vanaqua.org

Internet: www.bcreptiles.ca/reportsightings.htm#1

To report sick, injured, distressed or dead marine mammals and sea turtles contact the Marine Mammal Incident Reporting Hotline:
Toll free: 1800-465-4336

More information on SARA, COSEWIC, or wildlife sightings can be found at:
www.cosewic.gc.ca/index.htm
www.dfo-mpo.gc.ca/species-especies/home_e.asp
www.sararegistry.gc.ca/

10. FINANCIAL RESPONSIBILITIES

10.1. Commercial Industry and Fisheries and Oceans Canada

Through licence fees, the commercial sector currently pays approximately \$95,000 to \$100,000 for access to the albacore tuna fishery.

The Department and the CHMSF have cooperatively planned and administered the albacore tuna logbook monitoring program whereby coordination, distribution and submission of logbooks and electronic data entry has been funded by industry.

Historically, the Department has signed a Joint Project Agreement (JPA) with the CHMSF to develop a joint program for cost sharing of the incremental cost of this fishery, to a total cash contribution for each year of \$22,000.00.

In-kind costs borne in support of the tuna fishery by the Department have been and will continue to include infrastructure, enforcement, travel, licensing and administration.

11. ENFORCEMENT MEASURES

11.1. Overview

The Conservation and Protection directorate (C&P), within the Department, has as its primary mandate the development and implementation of a Strategic Enforcement Plan directed at the conservation and protection of fish and fish habitat. There are approximately 176 fishery officers stationed in the Pacific Region (which encompasses the province of B.C. and Yukon Territory). They are designated as “fishery officers” under Section 5 of the *Fisheries Act*. Their powers and responsibilities are outlined in the *Act*, the *Coastal Fisheries Protection Act*, the *Criminal Code of Canada* and the *Constitution Act*.

C&P staff monitors and enforces issues and problems related to the tuna fishery in conjunction with the monitoring and enforcement activities dedicated to the identified priority fisheries in the Pacific Region.

The legislative controls for the tuna fishery are derived from the *Fisheries Act*, *Coastal Fisheries Protection Act*, *Fishery (General) Regulations*, *Pacific Fishery Regulations, 1993*, and Conditions of licence. These controls are designed to conserve and protect tuna stocks as well as ensure Canada meeting its’ commitments to the *Canada-USA Albacore Tuna Treaty*, *United Nations Law of the Sea (UNCLOS)* requiring precautionary approaches as well as Canada’s commitment to the *United Nations Straddling Fish Stocks and Highly Migratory Fish Stocks Agreement (UNFA)*, the *Western and Central Pacific Fisheries Commission (WCPFC)* and the *Inter-American Tropical Tuna Commission (IATTC)*.

Contraventions of the *Fisheries Act*, the *Coastal Fisheries Protection Act*, the regulations made there under or the conditions of licence may result in seizure and forfeiture of vessel and gear as well as fines up to \$100,000 or imprisonment for a term up to one year of both, for a first offence.

11.2. Main Program Activities

The Department has the responsibility to enforce the *Fisheries Act*, *Coastal Fisheries Protection Act* and associated regulations, to address conservation, health and safety issues and to maintain proper management and control of the various fisheries.

Users of the resource have a responsibility to report violations. Any suspected or actual fisheries, wildlife or pollution violations can be quickly and discretely reported to the appropriate enforcement officer by using the toll free Observe, Record and Report hotline. This toll free number is available 24 hours a day. Confidentiality is assured. Fishery officers attempt to follow through on the reports as often as time and resources allow.

Observe, Record and Report: 1-800-465-4DFO (4336).

11.3. Aerial Surveillance

Air surveillance of the tuna fishery is conducted through the National Air Surveillance program with some assistance from Department of National Defence. The purpose of this program is to monitor all vessels and activities off the West Coast. Aircraft are tasked on a daily basis for specific surveillance duties.

11.4. Treaty Enforcement

Enforcement within the respective EEZ's will be the responsibility of the country of jurisdiction, however the Canada/USA Reciprocal Enforcement Agreement will be implemented as required and requested by the appropriate enforcement authority.

Fish harvesters are advised that non-compliance with the Tuna Treaty, port privilege requirements or other USA laws, may result in the USA government denying vessel authorization to fish in USA waters. USA Code of Federal Regulations (CFR) for implementing the Treaty includes 50 CFR 300.170 - 300.176 and 50 CFR 660.701 - 660.721. Electronic copies of the CFR's can be found online at:

ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=1373193506fd7e47854ab7b2d3cb074b&c=ecfr&tpl=%2Findex.tpl

For more information on the US National Marine Fisheries Service "Guide for Complying with the Vessel Fishing Requirements of the U.S. – Canada Albacore Treaty", refer to:

swr.nmfs.noaa.gov/fmd/compguide.htm

12. ANNUAL HARVEST PLANS

12.1. 20010/2011 First Nation Harvest Plan

20010/2011 First Nations access to fish for food, social or ceremonial purposes is managed through communal licences, which can permit the harvest of tuna species. For additional information on communal licences see the Internet at:

www.pac.dfo-mpo.gc.ca/tapd/default_e.htm

12.2. 2009/2010 Recreational Harvest Plan

Contact a local Fisheries and Oceans Canada office or see the current British Columbia Tidal Waters Sport Fishing Guide on the Internet at:

www.pac.dfo-mpo.gc.ca/recfish/default_e.htm

13. COMMERCIAL FISHING PLAN

13.1. Open Times

The hook and line tuna fishery for Canadian fisheries waters and waters of the Pacific Ocean high seas is open from April 1, 2010 to March 31, 2011 with the exception of those permanent closures noted below.

The tuna fishery in waters of the USA is open from June 15, 2010 to October 31, 2010.

13.2. Close Times

There are no expected close times for the 2010/2011 tuna fishing season in Canadian waters or waters of the Pacific Ocean high seas.

The tuna fishery in waters of the USA is closed for harvesting before June 15, 2010 and after October 31, 2010.

13.3. Permanent Area Closures

13.3.1. Area 2

Queen Charlottes closed year-round in Subareas 2-1, 2-63 to 2-68 and that portion of Subarea 2-69 between Hunter Point to Fame Point inside the 50-fathom contour line. (CHS Chart 3869). The intent of the closure is to reduce harvesting pressure on localized stocks of fish and to provide improved access to First Nations for food, social and ceremonial purposes.

13.3.2. Areas 12 to 20, 28 and 29

Strait of Georgia/Johnstone/Juan de Fuca and Fraser River.

13.3.3. Area 121

Portions of Subareas 121-1 and 121-2 inside a line connecting the following latitude and longitude co-ordinates: 48°34'N, 125°06'W thence to 48°34'N, 124°54.20'W thence to 48°29.62'N, 124°43.40'W thence following the International Boundary between Canada and the USA to 48°29.30'N, 124°58'W then to the beginning point.

13.3.4. Rockfish Conservation Areas

Effective February 1, 2007 a suite of Rockfish Conservation Areas (RCAs) came into effect. There are 164 RCAs in the current suite, and the majority of the new closed areas are located within the Strait of Georgia. Designation of the final closed areas is a result of over three years of consultation with many stakeholders. The descriptions associated with the RCA's can be found at: www.pac.dfo-mpo.gc.ca/recfish/Restricted_Areas/Rockfish_Maps_2004/default_e.htm.

13.3.5. Bowie Seamount Marine Protected Area

In consultation with the Tuna Advisory Board and other interested parties, the Department is developing a MPA plan for the Bowie Seamount, including a research and management program. Implementation of Bowie Seamount as a MPA began in 2008.

The Bowie Seamount MPA is closed year-round. The MPA Regulations establish the outer boundary of the MPA as the area of the Pacific Ocean, which includes the Bowie, Hodgkins and Davidson Seamounts — consisting of the seabed, the subsoil and the water column above the seabed — that is bounded by a series of rhumb lines drawn from a point 53°03'07.6" N, 135°50'25.9" W, to a point 53°16'20.9" N, 134°59'55.4" W, then to a point 53°39'49.2" N, 135°17'04.9" W, then to a point 53°39'18.0" N, 135°53'46.5" W, then to a point 53°52'16.7" N, 136°30'23.1" W, then to a point 53°49'19.6" N, 136°47'33.1" W, then to a point 53°40'02.5" N, 136°57'03.5" W, then to a point 53°13'59.2" N, 136°10'00.0" W, then back to the point of commencement. A map of the boundaries is attached in appendix 5 and can be accessed on the internet at the following address: http://laws.justice.gc.ca/en/showdoc/cr/SOR-2008-124/bo-ga:s_5::bo-ga:s_7/20080731?command=HOME&caller=SI&fragment=bowie%20seamount&search_type=all&day=31&month=7&year=2008&search_domain=cr&showall=L&statuteyear=all&lengthannual=50&length=50&page=4

13.4. Species

These five species are listed in Part II of Schedule II to the *Pacific Fishery Regulations, 1993*.

Albacore (*Thunnus alalunga*)
Northern Bluefin (*Thunnus thynnus*)
Pacific Bonito (*Sarda chiliensis*)
Skipjack (*Katsuwonus pelamis*)
Yellowfin (*Thunnus albacares*)

Additional tuna species are permitted as incidental catch under authority of a Section 68 licence for vessels fishing on the high seas and are listed in the Conditions of Licence.

Yellowtail (*Seriola lalandi*) Section 68 (High Seas)
Blackfin tuna (*Thunnus atlanticus*) Section 68 (High Seas)
Little tuna (*Euthynnus sp.*) Section 68 (High Seas)
Bigeye (*Thunnus obesus*) Section 68 (High Seas)

Section 68 licences for USA waters are only permitted to catch albacore tuna species.

13.5. Gear

Permitted in vessels authorized to harvest tuna through their Schedule II privileges or Section 68 (High Seas) licence: Hook and line, which includes trolling gear and long-line.

Permitted in vessels authorized to harvest tuna through USA 68 licences under the Treaty: Hook and line gear, excluding long-line gear or the use of live bait. As per the amended *Treaty* initialled in December, 2008, only troll fishing is permitted in US waters.

13.6. For Harvest west of 150 degrees west longitude

The Western & Central Pacific Fisheries Commission (WCPFC) is the central decision making body for management of tuna in the Western and Central Pacific Ocean (areas west of 150 degrees west longitude). Canada has been a member of the WCPFC since it entered into force in 2004 and as such, is required to implement WCPFC resolutions on conservation and management measures.

As per the WCPFC Conservation and Management Measure resolution approved in 2004 (CMM 2004-01), all vessels must be on a WCPFC list of authorized vessels prior to harvesting within the WCPFC convention area. The list of authorized vessels is submitted to the WCPFC Secretariat by Canada annually.

The information required under resolution CMM 2004-01, includes information Fisheries and Oceans does not normally collect. Therefore, to place your vessel on the list of authorized vessels, the Department is requiring that all harvesters planning to harvest within the WCPFC convention area complete and submit a short information sheet to the Department and provide consent to the release of the information within the sheet, to the WCPFC. The Department will provide confirmation of authorization to the vessel master as listed in the information and consent form. Please allow approximately 10 working days to receive confirmation of authorization by the Department, prior to entry into the WCPFC convention area.

Vessels who are not on the WCPFC list of authorized vessels will be harvesting contrary to international requirements and their conditions of licence which could result in enforcement action. Assume any harvest activity within this area is unauthorized until confirmation from the Department is received. A complete list of authorized vessels is also available by visiting the WCPFC website at www.wcpfc.int.

The WCPFC Secretariat houses all information provided by all members and uses it solely for the purposes of statistical analyses as it relates to implementing the Western and Central Pacific Convention and any resolutions or measures adopted by the Commission. This information will be posted on the WCPFC website.

Information forms are available through a Pacific Fisheries Licensing Unit at: www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/index-eng.htm or the tuna resource manager at 604-666-2188.

13.7. Licensing

13.7.1. Tuna Licence Categories

A salmon, schedule II species, geoduck, sablefish, halibut, crab, shrimp trawl, groundfish trawl, prawn and shrimp by trap commercial or communal commercial licence or a valid N licence authorizes fishing for five tuna species in Canadian fisheries waters and the high seas (except where fishing privileges for Schedule II Species have been relinquished, as may be the case for some groundfish by trawl or geoduck by dive licence eligibilities) but does not authorize fishing for albacore tuna in the waters of the USA.

Licenses issued pursuant to Section 68 of the *Fishery (General) Regulations* are available for fishing or trans-shipping tuna on the high seas.

A separate limited entry Albacore Tuna USA Section 68 licence is required for all vessels fishing in the waters of the USA.

For those planning to harvest west of 150 degrees west longitude, please see section 13.6 for international requirements.

Please see section 9.3 for information on proposed changes to the schedule II privilege and Section 68 (High Seas) licence.

13.7.2. Licence Application Fees

Licence fees are \$500.

13.7.3. Licence Issuance

13.7.3.1. For High Seas Section 68

Vessel owners must designate a registered Canadian commercial vessel that is not eligible to harvest schedule II species under any of the following vessel based commercial licences i.e. salmon, schedule II species, geoduck, sablefish, halibut, crab, shrimp trawl, groundfish trawl and prawn and shrimp by trap, valid communal commercial or salmon category N licence.

For vessels not currently registered as a Canadian commercial fishing vessel a completed Application for Commercial Vessel Registration must be submitted. The registration requirements are outlined on the reverse of that application. The registration requirement for a marine survey report does not have to be met for vessels designated solely for a high seas licence.

For those planning to harvest west of 150 degrees west longitude, please see section 13.6 for international requirements.

Please see section 9.3 for information on proposed changes to the schedule II privilege and Section 68 (high seas) licence.

13.7.3.2. For USA Section 68

A licence eligibility criterion was adopted in 2005 taking into account past participation before and after the control date of April 15, 2000, and providing priority access to the most consistently active vessels fishing in USA waters.

Vessels on the eligibility list were commercially licensed as of December 31, 2004 with a recorded albacore tuna catch in USA waters during the period 1995 to 1999 and continued participation during the period 2000 to 2002.

The 179 vessels on the eligibility list were ranked based on an objective formula that assigned 60 percent for years fishing over that period and 40 percent for catch.

Given that the *Canada – U.S Pacific Albacore Tuna Treaty (Treaty)* is subject to re-negotiation, USA Section 68 licences will be issued annually and not attached to other licences issued to the vessel.

As per the revised *Treaty*, that was renewed for three years on December 15, 2008, Canadian access increased from 94 to 110 vessels. The list and associated ranking of the 110 eligible vessels permitted to harvest in the US EEZ for the 2010 season will be available on the internet at the following address by June 15 of each year:

www.pac.dfo-mpo.gc.ca/fm-gp/licence-permis/index-eng.htm

13.7.3.2.1. Licence Renewal

As per the 2008 revised *Canada-U.S. Pacific Albacore Tuna Treaty (Treaty)*, USA 68 licenses do not currently have to be applied for annually in order to maintain their position on the eligibility list ranked from 1 – 179, which is used to determine who may harvest in US waters.

Licence renewal rules are dependent on discussions at annual bilateral meetings with US government officials, revisions to the *Treaty* in subsequent negotiations and/or domestic management needs.

Should changes to the *Treaty* occur and/or annual USA 68 licence applications be required in the future, details of new requirements will be communicated to all

USA 68 licence holders on the eligibility list ranked from 1 – 179 in a timely manner.

13.7.3.2.2. Allocation of Fishing Months – United States of America Section 68 Only

The terms of the revised treaty include a modification from the previously used vessel month system with vessel month transfers to a defined fishing season of 4.5 months with mid-season transfers prohibited except under extraordinary circumstances. Pursuant to the revised *Treaty*, the tuna fishing season for harvesters in the US EEZ will now start on June 15 and end on October 31.

13.7.3.2.3. Vessel Replacement

Permanent Replacement: Limited entry USA Section 68 licences are eligible for permanent replacement to an alternate vessel prior to a control date of May 5 for the 2010 season. Owners of vessels ranked from 1 to 110 on the eligibility list may make applications to the PFLU for vessel replacement to vessels of any overall length prior to May 5. Vessel owners are advised that this is a permanent replacement and the originating vessel will be replaced on the list of eligible vessels with the new vessel in the associated ranking order.

Fish harvesters are advised that any implementation of private arrangements pertaining to licences is the responsibility of fish harvesters.

Completed applications for a permanent vessel replacement must be received by a PFLU by 16:00 hrs on May 5, 2010 to be included on the eligibility list of USA 68 licensed vessels permitted to harvest in US waters for the 2010 season.

Temporary Replacement: An application to temporarily replace a vessel in-season may only be made under extenuating circumstances: if the vessel has been declared a total loss or the vessel is out of service due to an accident or unforeseen damage. Pursuant to the revised *Treaty*, in the case of an extenuating circumstance only, a Party may request replacement of a vessel within a season. The basis for the finding and the information regarding the replacement vessel must be sent to an ad-hoc review panel convened by the Government of Canada for review. If the finding is positive, the replacement vessel details must be transmitted to the Government of the United States for approval, prior to the vessel entering US waters. Any replacement vessel shall not exceed the length of the original vessel it is replacing more than 10 feet. Please contact a PLFU for more details and to request a vessel replacement form for USA 68 licensed vessels.

13.7.4. General

Completed applications for licences issued pursuant to Section 68, for either the waters of the USA or the high seas, must be submitted together with the required fee in person or by mail to a PFLU.

The vessel owner or authorised representative must sign the application form. Where the vessel owner is a company, the PFLU must have on record a copy of either a Confirmation of Signing Authorities or an Amendment to Confirmation of Signing Authorities form listing the signing authority.

Prior to licence issuance, applicants must:

- a) Provide a letter to confirm that arrangements have been made for logbook and related keypunching/data transmission services.
- b) Identify a registered Canadian commercial fishing vessel. For vessels not currently registered as a Canadian commercial fishing vessel a completed Application for Commercial Vessel Registration must be submitted. The registration requirements are outlined on the reverse of that application. The registration requirement for a marine survey report does not have to be met for vessels designated solely for a high seas licence.

13.7.5. Licence Documents

Licences issued pursuant to Section 68 for tuna in US waters are valid from June 15 to October 31 of each calendar year.

Replacements for lost or destroyed licence documents may be obtained by completing a Declaration Concerning Licence Documents form. Please contact a PFLU for further details. For further information on management requirements, contact the Pelagics Resource Manager at (604) 666-2188.

14. FISHING ACTIVITY AND CATCH REPORTING

14.1. Hail Requirements

Vessel masters intending to fish for albacore tuna in the three destination zones (**Canada, USA EEZ or high seas**) during the 2010/2011 season are required to notify the service provider D&D Pacific Fisheries Ltd. of their intentions before commencing fishing and advising when fishing activity has ceased. The hail system is imperative for the Department to collect in-season information for monitoring effort and for proper management of the fishery in the USA EEZ to meet Treaty provisions. Fisheries & Oceans Canada will continue to coordinate with fishery management and enforcement counterparts in the US on fishing activity in both the US and Canadian EEZ.

Vessel masters are advised to reference their Conditions of Licence for the information reports required to be made while fishing for tuna and contact details for the hail service provider. Vessel masters who do not make information reports may be subject to enforcement action.

Contraventions of the *Fisheries Act*, the *Coastal Fisheries Protection Act*, the regulations made thereunder or the conditions of licence may result in seizure and forfeiture of

vessel and gear as well as fines up to \$100,000 or imprisonment for a term up to one year of both, for a first offence.

There are two different types of reports that must be made:

- a) Hail-out report to start fishing or transiting (Canada, USA or high seas).
- b) Hail-in report to stop fishing (Canada, USA or high seas).

Upon each report, the vessel master will receive a verification number. This verification number(s) must be recorded and kept for future reference by the vessel master. It is the vessel masters responsibility to ensure that the hail/verification number provided at the time of communication with the service provider be recorded in the Pacific Albacore Tuna Logbook and/or into their ships log for future reference and as proof of communication as per their Licence Conditions.

14.2. Hail-out Report (Start Fishing or Transiting Report)

The following information must be reported for a Hail-out report:

- a) Vessel name
- b) Flag state
- c) Vessel master name
- d) Vessel registration number (VRN)
- e) Home port
- f) Destination zone
- g) Licence type and number
- h) If transiting, anticipated date of entry into and exit from USA fisheries waters and/or
- i) If fishing, anticipated start date

A Hail-out report is required at least 24 hours prior to starting to fish, making subsequent trips after a Hail-in report or transiting USA fisheries waters.

14.3. Specific to the United States of America Zone

A vessel that has filed a hail-out report to enter USA fisheries waters solely for the purpose of transit must

- (a) have all fishing gear on the vessel stored below deck or in an area where it is not normally used, and not readily available, for fishing; or
- (b) have all fishing gear stored, secured and covered so as to render it unusable for fishing.

Gear stowed in an unfishable condition means that the terminal gear has been removed and stowed away from the place where it is normally used for fishing. Terminal gear includes jigs (hoochies) and hooks.

Vessel masters may be asked to provide their method of communication (phone number/radio) so that follow up contact may be made to verify information provided in a report.

14.4. Hail-in Report (Stop Fishing Report)

The following information must be reported for a Hail-in report:

- a) Vessel name.
- b) Hail out verification number.
- c) Flag state.
- d) Vessel master name.
- e) Vessel registration number.
- f) Home port.
- g) Licence type and number
- h) Date fishing ceased.

A hail-in report is required no later than 24 hours after stopping fishing in USA fisheries waters, Canadian fisheries waters or the high seas.

A vessel that has filed a hail-out report will be presumed to be fishing until a hail-in report is filed. Vessels entering and exiting USA fisheries waters to access port are not required to file hail-in reports unless there is intent to not continue fishing.

14.5. Vessel Monitoring System Reporting Requirements

Tuna harvesters are required to install and maintain a vessel monitoring system to fish for tuna in the Pacific Ocean as required by the WCPFC and the IATTC. To minimize the impact on harvesters, the Department has developed general technological requirements that allow harvesters to obtain one system to satisfy both the WCPFC and IATTC resolutions. Vessel owners should reference Conditions of Licence for specific requirements.

14.5.1. Inter-American Tropical Tuna Commission Convention (East of 150° Longitude)

While in the IATTC convention zone (east of 150° east Longitude), vessel greater than 24 meters in length will be required to install and maintain a vessel monitoring system.

14.5.2. Western and Central Pacific Fisheries Commission (West of 150° Longitude)

While in the WCPFC convention zone (west of 150° west longitude), all vessels, regardless of vessel length are required to install and maintain a vessel monitoring system.

14.5.3. Vessel Monitoring System Requirements

Vessel monitoring system shall satisfy the below reporting requirements:

- a) Report the following data every hour:
 - i. Positional data (latitude and longitude);
 - ii. Vessel registration number (VRN) and ALC static unique identifier if fishing west of 150° west longitude; and
 - iii. Data and time (Universal Time Constant).
- b) Positional data provided shall be accurate to at least:
 - i. Less than 500 meters with a confidence level of 99 %; and
 - ii. Less than 100 meters squared with a confidence level of 98 %.
- c) Reporting data shall be provided to:
 - i. Canada only if fishing the eastern Pacific Ocean, east of 150° east longitude; and
 - ii. Canada and the Director of the Western and Central Pacific Fisheries Commission if fishing west of 150° west longitude.
- d) Vessel monitoring equipment shall be fully automatic, tamper proof, able to transmit regardless of environmental condition, and capable of manual transmission.

14.6. Fishing in the United States of America Exclusive Economic Zone

Under the Canada/USA Albacore Tuna Treaty each country is required to submit a list of its tuna vessels licensed to harvest in one another's EEZ. Canada will provide a fixed list of the 110 eligible USA 68 licensed vessels to the US by June 1; however applications for vessel replacements must be received by a PLFU by the control date of May 5, 2010. It is the responsibility of vessel owners to ensure that they are included on the eligibility list of USA 68 licensed vessels permitted to harvest in US waters. After May 5, 2010, this list can only be changed under extenuating circumstances as outlined in section 13.7.3.2.3.

The fishing effort in the USA zone of those vessels on the list will be monitored through hail and harvest reports. Vessels not on this list may be prosecuted by USA authorities. It is the Canadian fish harvester's responsibility to ensure their vessel has been issued a valid USA Section 68 licence for the 2010 season and is on the 2010 list of Canadian vessels to be submitted to USA authorities prior to entry to fish for albacore tuna in USA waters, and/or to enter the ports indicated below to offload their catch.

14.7. Vessel Marking Requirements

14.7.1. United States of America Fishing Zone

While in the USA fishing zone, Canadian vessels must display, in contrasting colours at least 12 inches high, both the vessel name and VRN so that they are clearly visible to both aircraft and surface vessels.

Vessel owners are notified that the revised Tuna Treaty requires further "vessel identification marking" of vessels licensed to fish in USA fisheries waters. A letter "C" must be painted or otherwise securely affixed to the vessel and be positioned at the end of each appearance on the vessel of its VRN numbers. Each

letter “C” should be of the same height and dimension as each of the numerals which comprise the VRN number.

14.7.2. High Seas Waters West of 150° Longitude

The WCPFC is responsible for the long-term conservation and sustainable use of high migratory fish stocks in the western and central Pacific Ocean (west of 150° longitude). As such, the WCPFC has passed a resolution that all vessels fishing within the western and central Pacific Ocean must mark their vessel with either their International Telecommunication Union Radio Call Sign (IRCS) or the International Telecommunication Union (ITU) characters (316).

Refer to the Conditions of Licence for specific marking requirements (e.g. size, location).

14.8. Landing Locations

All fish must be landed at a fish buying station licensed under the *Fisheries Act* (Province of B.C.), except:

- a) Fish sold directly to the public under authority of a fish harvester’s vending licence issued under the *Fisheries Act* (Province of B.C.).
- b) Fish landed in the USA, pursuant to the *Treaty*
- c) Fish offloaded on the High Seas to another vessel.

Canadian fishing vessels that are licensed to fish albacore tuna in waters of the USA are authorized pursuant to Article III of the Tuna Treaty to enter, land their catches, sell or tranship their catch, obtain fuel, supplies, repairs and equipment at the following ports.

Port	U.S. Customs Service Contact
Bellingham, Washington	Port of Bellingham (360) 734-5463
Westport, Washington	Serviced out of Aberdeen, Washington (360) 532-2030 - Westport (360) 580-2146 - Aberdeen
Astoria, Oregon	1402 Marine Drive Astoria, Oregon 97103 (503) 325-5541 08:00 to 16:30 Weekdays
Newport, Oregon	1430 SE Bay Blvd. Newport, Oregon 97365 (541) 265-6456 08:00 to 16:00 Weekdays

Coos Bay, Oregon	324 N. Front Street Coos Bay, Oregon 97420 (541) 267-6312 10:00 to 13:00 Monday to Thursday 08:00 to 16:00 Friday
Eureka, California	514 H Street, Room 201 Eureka, California 95502 (707) 442-4822 08:00 to 12:00 Weekdays

Vessels wishing to enter port are required to clear with USA Customs and Border Protection and are reminded of the requirement that sanitary facilities must be closed off prior to entry to any USA Port.

For USA custom requirements or for additional information reference www.customs.gov or www.us-immigration.com or phone the National Customer Service Centre (800) 375-5283.

14.9. United States of America Vessels Fishing in Canadian Waters

Pursuant to the Tuna Treaty, USA fishing vessels are authorized to enter, land their catches, sell or tranship their catch, obtain fuel, supplies, repairs and equipment at the following Canadian ports:

- a) Coal Harbour
- b) Port Hardy
- c) Prince Rupert
- d) Victoria
- e) Vancouver
- f) Ucluelet

USA vessels entering Canadian fisheries waters for the purposes of transiting or fishing for albacore tuna pursuant to the Tuna Treaty are required to report (hail-out) to the Department 24 hours prior to entry into Canadian fisheries waters and (hail-in) 72 hours prior to estimated time of departure. Vessel masters will communicate with Tofino Canadian Coast Guard Radio to provide the vessels position of entry and position of exit, their Canadian Coast Guard documentation number and if not available provide their State registration number, and all other relevant information. USA tuna fishing vessels are no longer required to file hail-in and hail-out reports with ShipCom.

Communications to Canadian authorities must be made to Tofino Coast Guard Radio via:

- a) VHF channel 26 (within a 60 mile range).
- b) MF channel 2054 (within a 200 mile range).
- c) HF channel 4125 (within a 400 mile range).
- d) Using a satellite phone or cellular phone and dialling 250-726-7716.

14.9.1. Hail-out Report (Start Fishing or Transiting Report)

The following information must be reported for a Hail-out report:

- a) Vessel name
- b) Flag state
- c) Vessel master name
- d) Vessel registration number (VRN)
- e) Home port
- f) Destination zone
- g) If transiting, anticipated date of entry into and exit from USA fisheries waters and/or
- h) If fishing, anticipated start date

A Hail-out report is required at least 72 hours prior to starting to fish, making subsequent trips after a Hail-in report or transiting Canadian fisheries waters.

14.10. Hail-in Report (Stop Fishing Report)

The following information must be reported for a Hail-in report:

- a) Vessel name
- b) Verification number
- c) Flag state
- d) Vessel master name
- e) Vessel registration number
- f) Home port
- g) Date fishing ceased

A hail-in report is required no later than 24 hours after stopping fishing in Canadian fisheries waters.

A vessel that has filed a hail-out report will be presumed to be fishing until a hail-in report is filed.

USA tuna fishing vessels entering one of the approved ports will be required to clear Canadian Customs prior to any person or cargo being allowed to disembark the vessel.

14.11. Catch and Fishery Data

14.11.1. Logbooks

The vessel master must maintain an accurate record of daily harvest operations in the Canadian Pacific Albacore Tuna Logbook when fishing for tuna. This includes harvest information on fishing for all species of tuna in Canadian fisheries waters, on the high seas and in the waters of the USA. The logbook must be made available for inspection on demand by officials of either country.

Conditions of Licence require all tuna fish harvesters to record all catch information and fishing location information, and to provide that information to the Department in hard copy or electronic copy. The tuna industry has coordinated and funded the logbook program through the CHMSF. The CHMSF has made arrangements to print an adequate number of logbooks and for Howard Stiff of Gabriola Island to verify, edit and keypunch logbook data from hard copies submitted and provide that data in the required format to the Department. Vessel owners are required to present a letter to the PFLU to show that arrangements have been made to obtain the logbook and related keypunching/data transmission services prior to license issuance.

In the event that a vessel does not fish the current fishing season, the vessel owner is required to submit a nil report. One page from the harvest log identifying the vessel, licence tab number and the year with 'nil' entered in the body of the log and signed by the licence holder constitutes a nil report.

As of the 2009 season, an additional line in the log books has been included to gather length frequency data. Harvesters are requested to sample 10 fish at the start of each successful day.

A sample of the logbook format for the 2010 season is included in Appendix 1.

It is a Condition of Licence that the hard copy of all harvest activity and fishing location information up to 23:59 October 31, 2010 must be submitted by November 12, 2010 and information on any subsequent harvest activity within seven days of the final landing. For further information on logbook requirements, reference Conditions of Licence.

Contraventions of the *Fisheries Act*, the *Coastal Fisheries Protection Act*, the regulations made thereunder or the conditions of licence may result in seizure and forfeiture of vessel and gear as well as fines up to \$100,000 or imprisonment for a term up to one year of both, for a first offence.

14.11.2. Fish Slips

The vessel master must provide records of all fish caught and retained under authority of a licence. A report must be made even if the fish caught are used for bait, personal consumption or disposed of otherwise and shall include all fish landed at both Canadian and USA ports or transhipped at sea.

Fish slips record vessel name, VRN, vessel master name and tally man, landed weight (lbs) of each species, method of dressing the catch, days fished by area, date landed, name of buying station/processor and price per pound on a fish slip for each landing. Fish slips are submitted by vessel masters and processors to the Fisheries and Oceans Canada Regional Data Unit, Suite 200 - 401 Burrard Street, Vancouver B.C., V6C 3S4.

It is a Condition of Licence completed fish slips must be submitted within seven days of the offloading.

14.11.3. National Oceanic and Atmospheric Administration Fisheries Southwest Science Center Tagging Project

The Southwest Fisheries Science Center (SWFSC) is working with The American Fishermen’s Research Foundation (AFRF) on an albacore tagging project. The objective of the project is to better understand the movements of North Pacific albacore. Tags can be identified by the presence of a green dart tag behind the dorsal fin and a plastic coated stalk protruding from the rear portion of the belly. The SWFSC is offering a \$500 (U.S. dollars) reward for the return of a tagged fish with the archival tag in place along with the date, latitude and longitude of where the tagged fish was caught and the gear used to catch the fish. The reward can be obtained by returning the tagged fish and capture information to:

National Marine Fisheries Service
Southwest Fisheries Science Center
8604 La Jolla Shores Dr.
La Jolla, CA 92037

More information on the tagging program can be found at:

<http://swfsc.noaa.gov/textblock.aspx?Division=FRD&id=1194>

14.12. Long-line Gear Requirements for Seabird Mitigation

In accordance with the International Plan of Action for reducing incidental catches of seabirds in long-line fisheries (IPOA-Seabirds) and the resolution passed by the Western and Central Pacific Fisheries Commission on seabird mitigation, all Canadian tuna long-line harvesters shall implement at least two of the mitigation measures in the below table, including at least one for Column A in areas South of 30 degrees South and North of 23 degrees North and one from Column B. Guidelines for measures described in Column A and B are provided in Appendix 4.

Column A	Column B
Side setting with a bird curtain and weighted branch lines	Tori line
Night setting with minimum deck lighting	Weighted branch lines
Tori line	Blue-dyed bait
Weighted branch lines	Deep setting line shooter
	Underwater setting chute
	Management of offal discharge

If tori line is selected from both Column A and Column B this equates to simultaneously using two (i.e. paired tori lines). If using side setting with a bird curtain and weighted branch lines from Column A is selected, this will be counted as two migration measures; however, this measure is only applicable for areas north of 23 degrees north until research establishes the utility of this measure in waters south of 30 degrees south.

15. REFERENCES

Argue, A.W., W. Shaw, and N. Willisroft. 1999 MS. An update for Canadian albacore fisheries in the north and south Pacific Ocean. 8pp. Document submitted by DFO to the twelve Meeting of the Standing Committee on Tuna and Billfish in Tahiti, French Polynesia, June 16-23, 1999.

Bailey, K, P.G. Williams and D. Itano. 1996. By-catch and discards in western Pacific tuna fisheries: A review of SPC data holdings and literature. South Pacific Commission, Oceanic Fisheries Programme, Technical Report No. 34.

Bertignac, M., J. Hampton and A.L. Coan. 1998. Estimates of exploitation rates for north Pacific albacore, *Thunnus alalunga*, from tagging data. Fish. Bull. 97: 421-433.

Childers, J and F.R. Miller. 1999. Summary of the USA north and south Pacific albacore troll fisheries. National Marine Fisheries Service, Southwest Fisheries Science Center, Administrative Report LJ-99-09.

Hampton, J., A. Lewis and P. Williams. 1999. The western and central Pacific tuna fishery: 1998 overview and status of stocks. South Pacific Commission, Oceanic Fisheries Programme, Tuna Fisheries Assessment Report No. 1.

Sakagawa, G. and C. Hsu (editors). 2000. Report of the Seventeenth North Pacific Albacore Workshop. December 6-13, 2000. National Taiwan University, Taipei, Taiwan.

Shaw, W. and A.W. Argue. 2000. The 1999 Canadian north Pacific albacore troll fishery. Document submitted by DFO to the Seventeenth Meeting of the North Pacific Albacore Workshop, Taipei, Taiwan, December 6-13, 2000.

Ware, D.M. and K.L. Yamanaka. 1991 MS. Catch statistics for the Canadian albacore tuna fishery: 1945-1990. Document submitted by DFO to the Annual Meeting of the International North Pacific Fisheries Commission, Tokyo, Japan.

Atilio L. Coan Jr., John F. Childers, Paul R. Crone and Gary T. Sakagawa. April 2003. The 2002 USA North Pacific Albacore Troll Fishery. Southwest Fisheries Science Center, National Marine Fisheries Service, La Jolla, CA, USA.

Shaw, W. and M. Stocker. 2002 MS. The 2000 and 2001 Canadian North Pacific albacore troll fishery. Document submitted by DFO to the Eighteenth Meeting of the North Pacific Albacore Workshop, La Jolla, CA, December 4-11, 2002. NPALB/02/16: 22p.

Stocker, M. and W. Shaw. 2004a MS. The 2002 Canadian north Pacific albacore troll fishery. Document submitted by DFO to the Fourth Meeting of the Interim Scientific Committee on Tuna and Tuna-like Species in the North Pacific Ocean (ISC), Honolulu, Hawaii, 26 January-4 February, 2004. ISC/04/Plenary/1: 11p.

Stocker, M. and W. Shaw. 2004b MS. The 2002 and 2003 Canadian north Pacific albacore troll fishery. Document submitted by DFO to the Nineteenth Meeting of the North Pacific Albacore Workshop, Nanaimo, BC, November 25-December 2, 2004. NPALB/04/03: 11p.

Stocker, M. and W. Shaw. 2005 MS. The 2004 Canadian north Pacific albacore troll fishery. Document submitted by DFO to the ISC Albacore Working Group Meeting, NOAA Fisheries, Southwest Fisheries Science Center, La Jolla, CA, USA, November 28- December 2, 2005. ISC-ALBWG/05/12: 10p.

Stocker, M. (Ed.). 2005. Report on the Nineteenth North Pacific Albacore Workshop. Nineteenth North Pacific Albacore Workshop, Nanaimo, B.C., Canada, November 25-December 2, 2004. Fisheries and Oceans Canada, Pacific Biological Station, Nanaimo, BC, B.C. 127 p.

16. ATTACHMENTS

Appendix 1: Sample Canadian Pacific Albacore Tuna Logbook

Appendix 2: Tuna Advisory Board Members List

Appendix 3: Fishing Vessel Safety

Appendix 4: Longline Seabird Mitigation Measures

Appendix 1

2010 CANADIAN PACIFIC ALBACORE TUNA LOG BOOK

VESSEL NAME: STARFISH XI						CAPTAIN: JACK SPARROW				Submission Deadline	
Date (mm-dd)	Time (hh:mm)		Latitude (xx yy)	Longitude (xxx yy)	Water Temp (F)	Species (see cover)	Number of Fish	Avg Wt per Fish (lbs)	# Released	12-Nov-2010	
FIN: 0000001											
06 01	START	8:00	48 31	129 05	62	ALB	72	15	2	VRN: 2222	
			N S	E W		SKJ	1	20	1		
	STOP	14:30	48 31	129 10							
Length (cm)	68	67	66	68	68	66	67	65	67	68	
06 02	START	6:00	42 25	129 10	60.8	Albacore	47		2	TRIP: 3	
			N S	E W						GEAR: TROLL	
	STOP	12:30	42 25	129 15						JIGS: 15	
Length (cm)	68	67	66	68	68	66	67	65	67	68	DAYS FISHED: 14
06 03	START	6:00	48 31	129 05	61.2	ALB	89		3	OFF LOAD	
			N S	E W						PORT: UCLUELET	
	STOP	13:30	48 31	129 10							
Length (cm)	68	67	66	68	68	66	67	65	67	68	BUYER: FRED'S FISH
06 04	START	5:30	42 25	129 10	61.1	ALB	22		1	DATE: 06-09	
			N S	E W						FISH (PCS): 228	
	STOP	14:30	42 25	129 15						WEIGHT (LBS): 3450	
Length (cm)	68	67	66	68	68	66	67	65	67	68	SALES SLIP: 31242
06 05	START	6:00	48 31	129 05	61	ALB	0		0	DOCK SALES - PERSONAL USE	
			N S	E W						(PCS): 2	
	STOP	7:00	48 31	129 10							
Length (cm)	68	67	66	68	68	66	67	65	67	68	PAGE 1 OF 1 FOR TRIP
DATE: JUNE 3			COMMENT -INTERACTIONS: LOTS OF JELLY FISH								
DATE: JUNE 21			COMMENT -INTERACTIONS: FREEZER BREAKDOWN - NO FISHING								
DATE: SEPTEMBER 6			COMMENT -INTERACTIONS: LOTS OF JELLY FISH								

Appendix 2: Tuna Advisory Board Contacts

Fisheries & Oceans Canada's
TUNA ADVISORY BOARD MEMBERSHIP CONTACT LIST

Advisor's Name	Representation	Contact number	Term (years)
Larry Teague	USA Zone	(250) 743-5002	2008-2012
Gregg Holm	USA Zone	(250) 544-2030	2008-2012
Ian Bryce	USA Zone	(250) 468-5241	2008-2012
Gord Cranton	USA Zone	(250) 642-7328	2008-2010
Peter DeGreef for David Chambers	USA Zone	(250) 655-6553	2008-2010
Bruce Wight	USA Zone	(250) 479-6213	2008-2010
Korey Sundstrum	High Seas	(250) 724-1262	2008-2012
Bob McIntosh	High Seas	(250) 721-0790	2008-2010
Tom Lindberg	Canadian Zone	(250) 213-6020	2008-2012
Bud Schuler	Canadian Zone	(250) 756-2807	2008-2010
Sandy Argue	Ministry of Environment	(250) 472-0475	
Masa Haraguchi	Processor/Buyer	(604) 254-0525	
Lorne Clayton	Canadian Highly Migratory Species Foundation	(250) 658-0179	
Gerald Kristianson	Sportfishing Advisory Board	gerrykr@telus.net	
TBD	First Nations		
Ernie Cooper	Conservation Rep.	ecooper@wwfcanada.org	
Cynthia Johnston	DFO, FAM	(604) 666-2188	
Robert Martinolich	DFO, C & P	(604) 666-0589	
John Holmes	DFO, Science	(250) 756-7303	

Appendix 3: Fishing Vessel Safety

Vessel owners and masters have a duty to ensure the safety of their crew and vessel. Adherence to safety regulations and good practices by owners, masters and crew of fishing vessels will help save lives, prevent vessel damage and protect the environment. All fishing vessels must be in a seaworthy condition and maintained as required by Transport Canada (TC), WorkSafeBC, and other applicable agencies. Vessels subject to inspection should ensure that the certificate of inspection is valid for the area of intended operation.

In the federal government, responsibility for shipping, navigation, and vessel safety regulations and inspections lies with Transport Canada (TC); emergency response with the Canadian Coast Guard (CCG) and DFO has responsibility for management of the fisheries resources. In B.C., WorkSafeBC also regulates health and safety issues in commercial fishing. This includes requirements to ensure the health and safety of the crew and safe operation of the vessel. DFO (Fisheries and Aquaculture Management (FAM) and CCG) and TC through an MOU have formalized cooperation to establish, maintain and promote a safety culture within the fishing industry.

Before leaving on a voyage the owner, master or operator must ensure that the fishing vessel is capable of safely making the passage. Critical factors for a safe voyage include the seaworthiness of the vessel, vessel stability, having the required safety equipment in good working order, crew training, and knowledge of current and forecasted weather conditions. As safety requirements and guidelines may change, the vessel owner, crew, and other workers must be aware of the latest legislation, policies and guidelines prior to each trip.

There are many useful tools available for ensuring a safe voyage. These include:

- Education and Training Programs
- Marine Emergency Duties
- Fish Safe Stability Education
- First Aid
- Radio Operators Course
- Fishing Masters Certificates
- Small Vessel Operators Certificate
- Publications:

- Transport Canada Publication TP 10038 '*Small Fishing Vessel Safety Manual*' (can be obtained at Transport Canada Offices from their website at www.tc.gc.ca/MarineSafety/TP/TP10038/tp10038e.htm),
 - Gearing Up for Safety – WorkSafeBC
 - Safe At Sea DVD Series – Fish Safe
 - Stability Handbook – Fish Safe and Measuring Stability –DVD
- For further information see: <http://www.tc.gc.ca/marine/menu.htm>

Important Priorities for Vessel Safety

There are three areas of fishing vessel safety that should be considered a priority. These are: vessel stability, emergency drills, and cold water immersion.

1.1. Fishing Vessel Stability

Vessel stability is paramount for safety. Care must be given to the stowage and securing of all cargo, skiffs, equipment, fuel containers and supplies, and also to correct ballasting. Fish

harvesters must be familiar with their vessel's centre of gravity, the effect of liquid free surfaces on stability, loose water or fish on deck, loading and unloading operations and the vessel's freeboard. Know the limitations of your vessel; if you are unsure contact a reputable naval architect, marine surveyor or the local Transport Canada Marine Safety Office.

Fishing vessel owners are required to develop detailed instructions addressing the limits of stability for each of their vessels. The instructions need to be based on a formal assessment of the vessel by a qualified naval architect and include detailed safe operation documentation kept on board the vessel. Examples of detailed documentation include engine room procedures, maintenance schedules to ensure watertight integrity, and instructions for regular practice of emergency drills.

1.2. Emergency Drill Requirements

The master must establish procedures and assign responsibilities to each crew member for emergencies such as crew member overboard, fire, flooding, abandoning ship and calling for help.

The Crewing Regulation under the Canada Shipping Act (CSA) states that as of July 30th 2002 all seafarers, including fish harvesters, must have a Basic Safety Certificate (MED A1 or A3 depending upon vessel and operating waters) within 6 months of becoming a crewmember, regardless of time at sea. The MED A1 is a three day course, and must be taken by all crew regardless of duty station.

MED provides a basic understanding of the hazards associated with the marine environment; the prevention of shipboard incidents; raising and reacting to alarms; fire and abandonment situations; and the skills necessary for survival and rescue.

1.3. Cold Water Immersion

Drowning is the number one cause of death in B.C.'s fishing industry. Cold water is defined as water below 25 degrees Celsius, but the greatest effects occur below 15 degrees. BC waters are usually below 15 degrees. The effects of cold water on the body occur in four stages: cold shock, swimming failure, hypothermia and post-rescue collapse. Know what to do to prevent you or your crew from falling into the water and what to do if that occurs. More information is available in the WorkSafe Bulletin *Cold Water Immersion* (available from the WorkSafe BC website).

1.4. Other Issues

1.4.1. Weather

Vessel owners and masters are reminded of the importance of paying close attention to current weather trends and forecasts during the voyage. Marine weather information and forecasts can be obtained on VHF channels 21B, Wx1, Wx2, Wx3, or Wx4. Weather information is also available from Environment Canada website at:

http://www.weatheroffice.gc.ca/marine/index_e.html

1.4.2. Emergency Radio Procedures

Vessel owners and masters should ensure that all crew are able to activate the Search and Rescue (SAR) system early rather than later by contacting the Canadian Coast Guard (CCG). It is strongly recommended that all fish harvesters carry a registered 406 MHz Emergency Position Indicating Radio Beacon (EPIRB). These beacons should be registered with the National Search and Rescue secretariat. When activated, an EPIRB transmits a distress call that is picked up or

relayed by satellites and transmitted via land earth stations to the Joint Rescue Co-ordination Centre (JRCC), which will task and co-ordinate rescue resources.

Fish harvesters should monitor VHF channel 16 or MF 2182 Khz and make themselves and their crews familiar with other radio frequencies. All crew should know how to make a distress call and should obtain their restricted operator certificate from Industry Canada. However, whenever possible, masters should contact the nearest Canadian Coast Guard (CCG) Marine Communications and Traffic Services (MCTS) station (on VHF channel 16 or MF 2182 kHz) prior to a distress situation developing. Correct radio procedures are important for communications in an emergency. Incorrect or misunderstood communications may hinder a rescue response.

Since August 1, 2003 all commercial vessels greater than 20 metres in length are required to carry a Class D VHF Digital Selective Calling (DSC) radio. A registered DSC VHF radio has the capability to alert other DSC equipped vessels in your immediate area and MCTS that your vessel is in distress. Masters should be aware that they should register their DSC radios with Industry Canada to obtain a Marine Mobile Services Identity (MMSI) number or the automatic distress calling feature of the radio may not work. For further information see the Industry Canada site at: http://www.ic.gc.ca/eic/site/ic1.nsf/eng/h_00014.html

A DSC radio that is connected to a GPS unit will also automatically include your vessel's current position in the distress message. More detailed information on MCTS and DSC can be obtained by contacting a local Coast Guard MCTS centre (located in Vancouver, Victoria, Prince Rupert, Comox and Tofino) or from the Coast Guard website:

www.pacific.ccg-gcc.gc.ca

1.4.3. Collision Regulations

Fish harvesters must be knowledgeable of the *Collision Regulations* and the responsibilities between vessels where risk of collision exists. Navigation lights must be kept in good working order and must be displayed from sunset to sunrise and during all times of restricted visibility. To help reduce the potential for collision or close quarters situations which may also result in the loss of fishing gear, fish harvesters are encouraged to monitor the appropriate local Vessel Traffic Services (VTS) VHF channel, when travelling or fishing near shipping lanes or other areas frequented by large commercial vessels. Vessels required to participate in VTS include:

- a) every ship twenty metres or more in length,
- b) every ship engaged in towing or pushing any vessel or object, other than fishing gear,
- c) where the combined length of the ship and any vessel or object towed or pushed by the ship is forty five metres or more in length; or
- d) where the length of the vessel or object being towed or pushed by the ship is twenty metres or more in length.

Exceptions include:

- a) a ship towing or pushing inside a log booming ground,
- b) a pleasure yacht *less than* 30 metres in length, and
- c) a fishing vessel that is *less than* 24 metres in length and not *more than* 150 tons gross.

More detailed information on VTS can be obtained by calling (604) 775-8862 or from Coast Guard website:

1.4.4. Buddy System

Fish harvesters are encouraged to use the buddy system when transiting, and fishing as this allows for the ability to provide mutual aid. An important trip consideration is the use of a sail plan which includes the particulars of the vessel, crew and voyage. The sail plan should be left with a responsible person on shore or filed with the local MCTS. After leaving port the fish harvester should contact the holder of the sail plan daily or as per another schedule. The sail plan should ensure notification to JRCC when communication is not maintained which might indicate your vessel is in distress. Be sure to cancel the sail plan upon completion of the voyage.

2. WORKSAFE BC

Commercial fishing is legislated by the requirements for diving, fishing and other marine operations found in Part 24 of the Occupational Health and Safety Regulation (OHSR). Many general hazard sections of the OHSR also apply. For example, Part 8: Personal Protective Clothing and Equipment addresses issues related to safety headgear, safety foot wear and personal floatation devices. Part 15 addresses issues on rigging, Part 5 addresses issues of exposure to chemical and biological substances, and Part 3 addresses training of young and new workers, first aid, and accident investigation issues. Part 3 of the Workers Compensation Act (WCA) defines the roles and responsibilities of owners, employers, supervisors and workers. The OHSR and the WCA are available from the Provincial Crown Printers or by visiting the WorkSafeBC website:

www.worksafebc.com

For further information, contact an Occupational Safety Officer (Shane Neifer, Terrace, (250) 615-6640), Bruce Logan (604)244-6477 (Lower Mainland), David Clarabut (250) 881-7563 (Victoria), Pat Olsen (250)334-8777 and Mark Lunny, (250) 334-8732 (Courtney) or the Focus Sector Manager for fishing Mark Peebles, (604) 279-7563.

For information on projects related to commercial fishing contact Ellen Hanson (604) 233-4008 or Toll Free 1-888 621-7233 ext. 4008 or by email: Ellen.Hanson@worksafebc.com.

3. FISH SAFE

Fish Safe is coordinated by Gina Johansen and directed by the Fish Safe Advisory Committee (membership is open to all interested in improving safety on board). The advisory committee meets quarterly to discuss safety issues and give direction to Fish Safe in the development of education and tools for fish harvesters.

Vessel masters and crew are encouraged to become more knowledgeable regarding vessel stability. FishSafe BC developed the Fish Safe Stability Education Course, which is available to all fish harvesters who want to improve their understanding of stability and find practical application to their vessel's operation.

Fish Safe also works closely with WorkSafeBC to improve the fishing claims process. For further information:

Gina Johansen, Safety Coordinator

Phone: 604-261-9700

Fish Safe
2-11771 Horseshoe Way
Richmond, BC V7A 4V4

Email : fishsafe@telus.net
Website: www.fishsafebc.com

Appendix 4: Longline Seabird Mitigation Measures

Guidelines for Column A Mitigation Measures:

1. Side Setting With Bird Curtain and Weighted Branch Lines

- Mainline deployed from port or starboard side as for from the stern as practicable (at least 1 meter), and if mainline shooter is used, must be mounted at least 1 meter forward of the stern.
- When seabirds are present the gear must ensure mainline is deployed slack so that baited hooks remain submerged.
- Bird curtain must be employed:
 - Pole aft of line shooter at least 3 meters long,
 - Minimum of 3 main streamers attached to upper 2 meter pole,
 - Main streamer diameter minimum 20 millimetres,
 - Branch streamers attached to end of each main streamer long enough to drag on water (no wind) – minimum diameter 10 millimetres.

2. Night Setting

- No setting between local sunrise and one hour after local sunset; and
- Deck lighting to be kept to a minimum, noting requirements for safety and navigation.

3. Tori Lines

- Minimum length: 100m
- Minimum aerial coverage: 90m
- Must be attached so that the aerial extent is maintained over the sinking baited hooks.
- Streamers must be less than 5 meters apart and be using swivels.
- Streamers must be long enough so that they are as close to the water as possible.
- If the tori line is less than 150 meters in length, must have a drogue attached to the end that will create enough drag to meet the 90 meter coverage requirement.

4. Weighted Branch Lines

- Weights attached to all branch lines:
 - Minimum of 45 grams weight attached to branch lines,
 - Less than 60 grams weight must be within 1 meter of the hook,
 - Greater than 60 grams and less than 98 grams must be within 3.5 meters of the hooks, and
 - Greater than 98 grams must be within 4 meters of the hook.

Guidelines for Column B Mitigation Measures:

1. Tori Line
 - See description in Guidelines for Column A.
 - If tori line is selected from both Column A and Column B this equates to simultaneously using two (i.e. paired) tori lines.

2. Weighted Branch Lines
 - See description in Guidelines for Column A.

3. Blue Dyed Bait
 - Western and Central Pacific Fisheries Commission Secretariat shall distribute a standardized colour placard which all bait must be dyed to the shade as shown.

4. Deep Setting Line Shooter
5. Underwater Setting Chute
6. Management of Offal Discharge
 - Either:
 - No offal discharge during setting or hauling, or
 - Strategic offal discharge from the opposite side of the boat to setting/hauling to actively encourage birds away from baited hooks.