

## OFCC - 20 YEAR VIEW FROM FISHERMEN AND CABLE OWNERS

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**Abstract:** The Oregon Fishermen Cable Committee (OFCC) started 20 years ago when a new proposed cable from Alaska began looking for a landing site on the Oregon coast. In the following years the state of Oregon developed into a submarine cable welcoming state as long as a cable owner agrees to join a recognized fishermen organization. This paper will examine the pro and cons of the OFCC from both sides of the committee, the fishermen and the cable owner/ operators. It will also review the changes that have been adapted with the changing cable industry and the changing fishing regulations. Through the communications and trust developed in the OFCC, these adaptations to the agreement have assisted parties on both sides of the agreement. The paper will explore some of the inherent difficulties of the organization and how these have been mitigated. The expectation is that further understanding of the successes and downfalls of the OFCC can assist others in developing more cooperative relationships between cable owners and other seafloor users to ensure long term compatible use of the marine environment.

### 1. INTRODUCTION

The OFCC was established in 1998 when the owners of a new cable between Oregon and Alaska were in the process of obtaining permits to land the cable on the Oregon coast. The relationship between previous cable owners and the Oregon fishing community had been strained. The fortunate combination of a new to the industry cable owner and a fishing community with a desire to take a different approach resulted in a new agreement between the fishermen and the cable owner, the OFCC (Oregon Fishermen's Cable Committee Inc.). The basis of the agreement was to maintain fishing grounds while allowing cables to land in Oregon and to achieve these previously opposing goals by seeking confirmed cable burial in fishing grounds. The state of Oregon DSL (Division

of State Lands) supported the fishermen's efforts and required new cables seeking easements across state submersed lands to enter into an agreement with local fishermen, and OFCC assumed that role for new cables landing in the state. As new cable owners and fishermen board members joined the organization and time passed, the agreement was modified and adjusted as both the fishing and cable installation industries advanced. The organization represents one of the best examples of a mutually beneficial agreement between the fishing industry and cable owners, and this presentation will attempt to demonstrate both the positive and challenging aspects of the agreement from the viewpoint of the fishermen and the cable owners. Lessons can be learned from studying this model and could lead to more beneficial relationships between opposing

parties, if similar concepts are applied and adverse aspects of the agreement avoided.

## 2. FISHING INDUSTRY PERSPECTIVE

The protection of fishing grounds was the paramount concern of the fishing industry, whose early experience with the cable industry included very heavy-handed tactics imposed on an industry generally made of individual operators or small family fleets. The obvious concern lay in the fact that submarine cables generally run perpendicular to the contours of the continental shelf in order to find the shortest route to the relative safety of deep ocean basins en route to trans-ocean destinations, while trawl fishermen generally fish parallel to coastlines along various contour lines. This caused cables to cut through historic trawl grounds, severely limiting safe areas for the fishermen to tow trawl gear. The only possible solution identified by the fishing industry would be to secure the right to tow gear over buried cables, thus maintaining entire drag tows and ensuring that the “herding” nature of a trawl net would continue to operate effectively. If a fisherman had to lift a net to cross over a cable, it would interrupt the herding action and they would lose a significant amount of catchable fish. In the case of shrimp trawlers, a fisherman needs to have the ability to fish where the cloud of shrimp is that day, and if that happens to be near a cable, the trawl set needs to cross the cable or else it would severely hamper the shrimp trawler production. Buried cable would allow for safe trawling over cables while also ensuring the secure passage of cables through fishing grounds. The common goal to bury as much cable as possible in offshore Oregon seafloor created the basis of the OFCC agreement.

Prior to this agreement, the cable industry approach had been to engineer cable to lay in the most direct route across the seafloor with no real regard for historical fishing activity, and then demand no fishing take place on or near the cable. This was done through certified letters asking that trawl fishing not occur within 1 nm of an installed cable. If damage to a cable was caused by a fisherman and that fisherman was identified, these letters were used as proof that the fisherman was not acting prudently, and the fisherman and their vessel could be liable for the cost of the cable repair. If a fisherman was prudent and contacted a cable owner and was requested to sacrifice the gear in lieu of damaging the cable, owners of cables were notoriously slow to reimburse for the jettisoned gear, perhaps because they had no way to verify if claims of scarified gear were legitimate or of appropriate amounts. Prior the OFCC, there was little direct communication between the cable owners and the fishing industry. When fishing grounds expanded due to new markets opening, trawl gear caused cable damage because the cable was not buried in depths fished in this new fishery. All of these conditions led to an adversarial relationship with limited or no open communication channels between the two industries. After the OFCC agreement, the cable industry understood that the burial of the cable increased its security, while fishermen understood that burial allowed fishing to be conducted over the cable. This mutual understanding reversed former defensive positions and allowed collaboration and communication between the industries.

Through the OFCC agreement, fishermen were given a seat at the table from the initial

planning stages of a cable system. The ability to provide detailed information on seafloor conditions that would enable the cable to be buried has produced a phenomenally high degree of success, obtaining 99.9% burial of installed OFCC cables in fishing grounds. This gain in burial success is attributed to the fishermen's combined knowledge of the seafloor conditions and the fishermen's diligence offered to the cable owners to plan a successful route. The amount of fishing grounds lost to the installation of 13 cables landing in Oregon under the OFCC agreement has been roughly 8.76 nm<sup>2</sup> of an estimated 7000 nm<sup>2</sup> of fishing ground off the Oregon coast or 0.125% since the start of the OFCC. In contrast, the former request to maintain a 1 nm no fishing zone around cables would have led to an estimated loss of up to 1200 nm<sup>2</sup> or approximately 17% of the Oregon fishing grounds.

The OFCC membership has provided clear guidelines on the best practices and sets minimum standards on procedures around cables to ensure the fishermen understand how to avoid hanging gear up on cables and what to do if there is a hang on or near a cable. If these basic procedures are followed, the fishermen need not fear the loss of their livelihood due to fishing near a cable as was the case in the past. If there is a hang on or near a cable, the OFCC and the relevant NOC are available to take the call from a fisherman to ensure the affected cable owner and the fisherman can work through the necessary precautions to protect the cable. Also, the fisherman is assured that if they are requested to sacrifice their gear, there is a replacement fund maintained by the OFCC to ensure they can be reimbursed immediately. This includes a liquated damages payment set at

50% of the replacement gear cost to cover the lost catch, lost fishing time, and labor to replace the gear. This allows the fishermen to recover from the possible season-destroying loss of gear. Today's trawl gear can total more than \$200K to replace as more fishermen add sophisticated net monitoring electronics to their net systems.

In early years of the OFCC agreement and prior to the fleet reduction, the requirement to employ fishing boats during a cable installation as patrol boats provided an additional opportunity for fishing boats. Today it is more a matter of additional revenue when shrimp or fish stocks are not as productive, and this opportunity helps fill financial gaps. The OFCC only permits OFCC member boats to be considered for patrol boat work as an additional incentive for fishermen to join the OFCC. The OFCC sets the vessel and equipment standards and conducts a drawing to select the patrol boat, adding a measure of fairness and transparency to the process, which builds trust within the fishing community.

The benefit of having a Board of fishermen advocates working directly with the cable owners are many: delivering detailed information to the fishing fleet on the installed condition of the cable; making certain there is minimal loss of fishing grounds; providing quick recovery if gear is sacrificed; developing clear rules of procedures around cables and offering opportunities to offer service to cable installation. Membership is available to the fishermen members free of charge. Membership also provides a release from liability for accidental cable damages if the fisherman follows OFCC procedures. By having all costs borne by the cable industry,

the recruitment and sustainability of the fishermen membership becomes much simpler.

### 3. CABLE INDUSTRY PERSPECTIVE

The ever-increasing global need for more secure bandwidth drives the need for new cables around the world. Cable owners need assurance that their ability to predictably permit and install cables will be allowed and that these cables will be secure to the greatest extent possible over a long period of time. The OFCC provides some of this assurance because it: offers a pathway to permitting, sets out rules and protocols for fishermen near cables, delivers a communications conduit to the fishing community, establishes protocol for gear replacement, runs an effective cable protection network, and apportions shared common costs between multiple cable owners.

In exchange for these benefits, OFCC fishermen required cable owners to guarantee that the new cables deployed would be buried to the greatest extent possible. This practice of burying cables on the continental shelf was already a standard for most cable owners and became a common goal on which to base the OFCC agreement. The OFCC agreement does create a few disadvantages to the cable industry, including giving some control of cable routing and planning to the fishermen, extending the state oversight of cables well beyond the state's 3 nm limit, increasing the cost of cable operations and sustaining the cost of maintaining the OFCC operations.

Still, a major benefit for the cable industry in Oregon has been that the OFCC, along with the State of Oregon DSL, has provided an established process that removes much of the risks of permitting for a cable to land on the

Oregon coast. The risk of schedule slips and exorbitant cost of permits has been mitigated from cable owners planning to land new cables on the Oregon coast due to the support and advocacy role the OFCC has played. The process dictated by the state requires a cable owner to enter into an agreement with the fishing industry, which by default has become the OFCC agreement.

One aspect of assistance cable owners receive from the OFCC occurs in the early stages of the route planning. This assistance has evolved from providing local knowledge of the seafloor to what has been described by some cable engineers as unwanted influence over route engineering. Cable owners may feel pressure to appease the fishermen by allowing them to influence route engineering at this stage, or else they risk losing the OFCC fishermen board's approval which can result in effectively stopping the state's permit process. To date this concern has been limited, due to the availability of diverse paths for multiple cables and the acknowledgment that routes developed through this process have resulted in very secure cable routes with an exceptionally high degree of achieved burial.

There is potential for conflict to arise as the competition for available seafloor increases with additional cables, the continued US Federal fishing area restrictions that are imposed to protect habitat, and the introduction of possible additional rivalry for the seafloor from outside interests such as aquaculture, wind farms and wave energy programs off the Oregon coast increase. Through the OFCC, the cable and fishing industries have successfully obtained the mixed use of the seafloor and have partnered to defend against further erosion of the

seafloor to these possible incompatible seafloor applications. The leadership on the OFCC Board has monitored developments along the Oregon coast and has promoted the importance and benefit that submarine cables provide and continues to work with cable companies to preserve the most secure routing for the cables.

The OFCC prides itself on the strong outreach and wide coverage of the Oregon Trawl fleet, which is very extensive, with multiple port meetings conducted annually and the ability to recruit highly respected members of the industry to serve on the Board. The dissemination of submarine cable information and best procedures in the area of cables to the fleet has been highly effective. An added benefit is that the fishing industry has become protective of the cables off the coast of Oregon, including the reporting of suspicious activities near cables and policing each other.

Prior to the OFCC, cable protection work was done by each cable owner, which resulted in slightly varied messaging leading to some confusion within the fishing community. The unified approach under the OFCC provides clear guidance to the fishermen and one contact for multiple cables. The additional benefit of a single entity providing this work is the added efficiency and the ability to spread the common costs between multiple cable companies through the OFCC.

The OFCC maintains a fisherman representative on standby to assist if an emergency call comes in from a trawler that may have hung up on an OFCC cable. This fisherman is trained to quickly identify which cable is affected and to contact the respective cable owner as well as receive information to

assist the cable owner to determine the course of action to be taken. The OFCC provides training for cable owners including simulating snag incidents to further train cable owner's operational centers on best practices to obtain the needed information to respond to a trawler hang on or near a cable.

The OFCC maintains a sacrificed gear fund to quickly disperse funds to a fisherman when gear has been jettisoned for the safety of a cable system. But more importantly, the OFCC has managed this fund very conservatively. To the benefit of cable owners, the OFCC fishermen have conducted very thorough investigations of every claim to ensure it has been legitimate and the fisherman followed the protocols set out within the OFCC agreement. One gear claim fraud was attempted by a fisherman in the OFCC program, but it was identified by the OFCC fishermen board members and reported to the cable owners. All distributed funds were recovered from the incident. The OFCC allows for cable owners to be part of the investigation to safeguard transparency.

The annual operations cost of OFCC has been the most direct disadvantage of the agreement to the cable industry. The cable industry has paid approximately \$4 M to sustain OFCC annual operations since 1998. The impact of the annual operational cost has been significantly reduced to each cable owner as the OFCC has done well to hold costs steady while increasing the number of cable companies in the agreement. In the past 20 years the OFCC operational costs have expanded from an initial cost of approximately \$150 K per year to a current annual budget of \$268 K, which is roughly equivalent to an annual increase in the range

of 3%. During the same period cable system membership has expanded from 1 cable to 13 cables, effectively reducing the cost to each cable by roughly 85% from the initial cost of OFCC membership. Currently a single cable contributes approximately \$23 K to support the annual operational cost of the OFCC.

The additional costs for cable operations to comply with OFCC agreement requirements is difficult to quantify. These costs are divided between cable installers, direct costs paid by cable owners and the new cable standalone fees from the OFCC that vary from \$75 K to \$250 K depending on complexities of a cable installation. The requirement for 2 OFCC representatives per vessel and patrol boat coverage in light of technical advancements and the extensive outreach the OFCC performs has been at times viewed as excessive by the cable industry.

A recent but significant adjustment to OFCC policy regarding periodic ROV inspections of the cables exemplifies the ability of the OFCC to review and adjust based on evidence-based information. The OFCC agreements required periodic ROV inspections of installed cables. After conducting 10 surveys it was determined that buried cables have remained buried and that the cost to perform additional ROV surveys simply to meet a set schedule does not provide justifiable value to the OFCC members. It is estimated that up to \$1.6 M has been spent by OFCC cable owners on periodic inspections in the OFCC agreement without significant benefit to the parties. OFCC does still require an initial ROV inspection of the installed cable to confirm initial burial, although this can be completed as part of the PLIB activity avoiding a

separate mobilization of marine assets to complete.

The OFCC has been presented as an example of an agreement that is mutually beneficial to all parties with conflicting interests of a common marine resource, the seafloor.

Cable owners do have two underlying concerns with the agreement. The first is the structure of the OFCC agreement that ensures the fishermen have one more vote than the cable owners. The OFCC has an impressive record of unanimous votes of all members (fishermen and Cable owners) through the entire history of the agreement, however the dependence on having reasonable and cooperative personnel on the OFCC Board to ensure the agreement continues to be fair and equitable has been a concern for the cable owners due to the inherit subordinate position the cable companies are given in the OFCC agreements. To their credit, thus far Fishermen Board members are selected due to their leadership positions in the fishing fleet, but most importantly, for their ability to work cooperatively and to compromise. The second concern is the inherent influence the state of Oregon gains over the cable operations past the 3 nm limit of state water's through the required agreement with the fishing industry. Neither of these concerns have caused issues in the history of the OFCC due to the apparent desire of the State to promote cable landings on its shores and the supportive and cooperative leadership of the OFCC fishermen board members. In other areas of the world or in a state that does not comprehend the importance of submarine cables and also has a strong fishing fleet that is opposed to cooperation with cable owners, these concerns would likely be unmanageable for that cable industry.

#### 4. CONCLUSION

The OFCC was created out of fear of losing fishing grounds and a need to share a common resource. As identified in the above perspectives, it has proven itself over the course of two decades to be a successful collaboration providing the needs of the cable owners and preserving fishing grounds. The OFCC success has in large part been due to the people on the OFCC Board rather than the actual mechanics of the agreement. In addition, the increased ability to thoroughly bury cable through improved cable installations and shared information and to secure cables from the threats presented by the modern trawl fleet in the Pacific NW was essential to the success of the agreement over time. This allowed the cable owners to concede the ability to fish over the cables without fishermen fearing entanglement and prosecution.

The OFCC has shown it is possible to have a beneficial agreement between cable owners and fishermen and provide a model for other agreements. However, the greatest contribution the OFCC agreement has provided the cable industry has been the confirmation that modern bottom trawl fishing has become a compatible use of the seafloor along with submarine telecommunication cables that are properly buried. The realization of this fact can in itself relieve the majority of the conflicts between trawl fishermen and cable owners, even if a formal agreement was not present.

#### 5. REFERENCES

[1] Procedures to Follow While Operating Near Submarine Fiber Optic Cables, [www.OFCC.com](http://www.OFCC.com), 2017.