

Definitions of terms related to buoys used in FAD fishing operations

Document prepared by the joint tRFMO Technical Working Group on FADs

Abandonment (deliberate loss): The situation in which the buoy cannot be located by the owner on the monitoring device, following request to buoy supplier company. The buoy satellite transmission has been remotely deactivated.

Acquired buoy: Buoy purchased and assigned to an identifiable entity (purse seiner vessel or group of purse seine vessels or registered owner of a purse seine vessel) to whom is issued the purchase invoice.

Activation: The act of enabling satellite communication services by the buoy supplier company at the request of the buoy owner. The owner then starts paying fees for communication services. The buoy can be transmitting or not, depending if it has been manually switched on.

Active buoy: A buoy with enabled satellite transmissions. It can be transmitting or not, depending if it has been manually switched on.

Buoy on stock: Any buoy that is in the inventory of a vessel or a fishing company and not deployed at sea.

Buoy owner: Any legal or natural person, entity or branch, who is paying for the communication service for the buoy associated with a FAD, and/or who is authorized to receive information from the satellite buoy, as well as to request its activation and/or deactivation. The buoy owner may have acquired the buoy or may have bought it from a previous buoy owner.

Buoy: Any floating device that can send visual, radio or satellite signals to facilitate determination of its location, and that can have additional equipment to increase fishing efficiency (e.g., echosounder)

Deactivation: The act of stopping or terminating satellite communications services by the buoy supplier company at the request of the buoy owner. The owner stops paying fees for communication services.

Echosounder buoy: Satellite buoy that includes an echo sounder that provides rough estimates of the FAD-associated fish biomass that is transmitted to the fishermen remotely.

Loss (accidental loss): The situation in which, without any intervention of the owner, the buoy cannot be located by the owner on monitoring device. The main causes of signal loss are buoy retrieved by another vessel or person (At-sea or on-shore), FAD sinking and buoy failure.

Monitored [tracked] buoys: Buoys owned by a purse seiner vessel that are in operational condition.

Operational buoy: Any instrumented buoy, previously activated, switched on and deployed at sea, which transmit position and any other available information such as eco-sounder estimates.

Reactivation: The act of re-enabling satellite communications services by the buoy supplier company at the request of the buoy owner. The owner starts paying fees for communication services again. The buoy can be transmitting or not, depending if it has been manually switched off before reactivation.

Satellite buoy: An instrumented buoy with a satellite tracking system (e.g., GPS) to monitor its position with a clearly marked reference number allowing its identification, and that can have additional equipment to increase fishing efficiency (e.g., echosounder)

Shared buoys: Buoys whose information is shared by several purse seiner vessels or/and other members of the fishing company.

Switching off: Action of applying or inserting a magnet on a pre-operational buoy to stop satellite transmissions of position and any other available information such as eco-sounder estimates.

Switching on: Action of applying or removing a magnet on a pre-operational buoy to allow satellite transmissions of position and any other available information such as eco-sounder estimates.

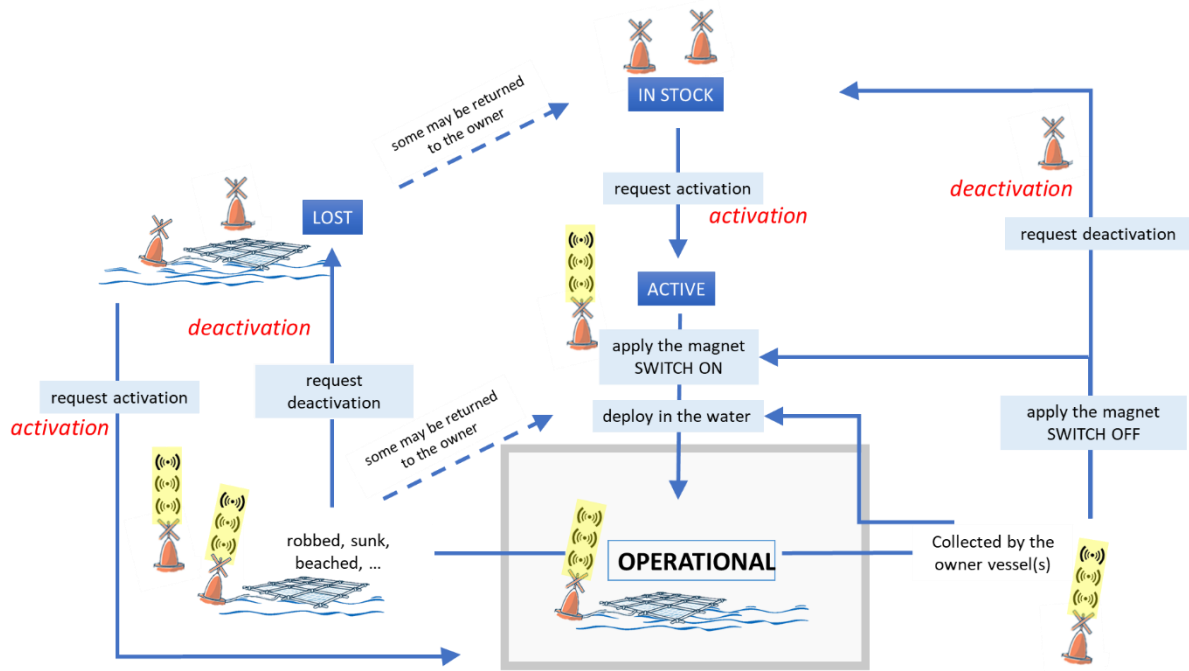


Figure 1. Life cycle of an instrumented buoy (adapted from Grande et al., 2019)

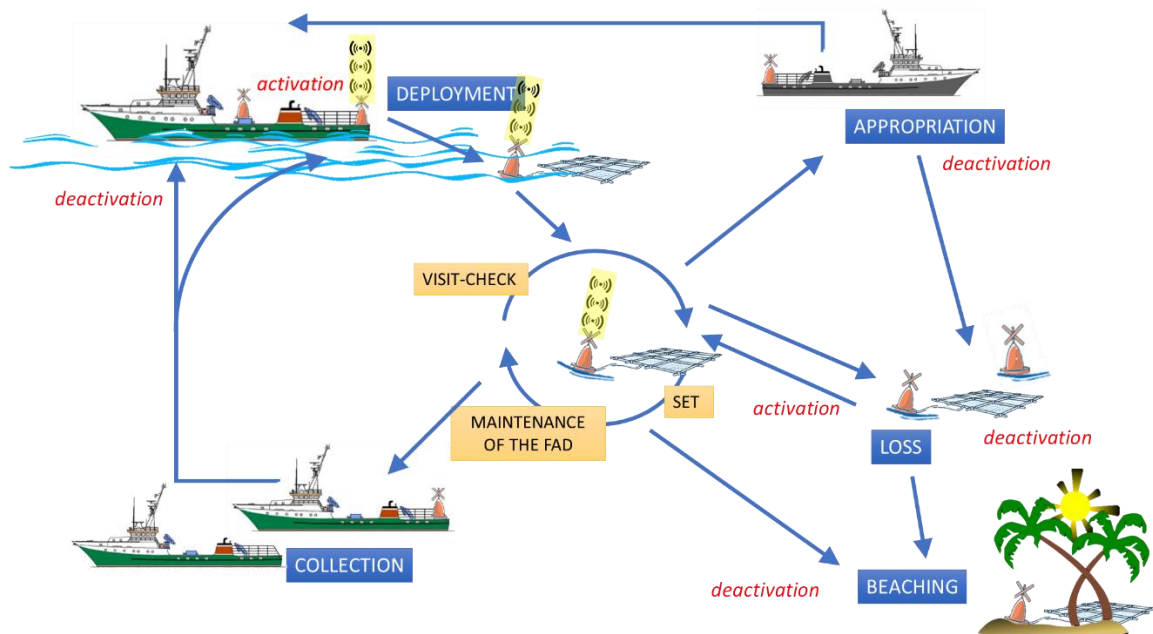


Figure 2. Life cycle of a buoy in connection with FAD activities (adapted from Grande et al., 2019)

Definitions of terms related to FAD fishing operations

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Abandoned FAD: FAD from which the communication has been intentionally stopped by remotely deactivating the buoy attached or has been left at sea without a buoy.

Active FAD: The term “active” is confusing when referring to a FAD. It is more appropriate in the context of a buoy.

Anchored FAD (AFAD): It usually consists of a FAD (see FAD definition), tethered to the bottom of the ocean with a mooring. AFADs are called ‘payaos’ in some regions

Associated set: see Floating object set

Beaching: Event consisting of a FAD that was previously drifting at sea washing ashore and becoming grounded, beached or entangled on a reef, potentially causing damage to coastal ecosystems.

Biodegradable FAD: FAD composed of renewable lignocellulosic materials (i.e. plant dry matter) and/or bio-based biodegradable plastic compounds, prioritizing those materials that comply with international relevant standards or certification labels for plastic compostability in marine, soil or industrial compost environments. In addition, the substances resulting from the degradation of these materials should not be toxic for the marine and coastal ecosystems or include heavy metals in their composition.

Deployed FAD: FAD that is physically placed or deposited in the water by a vessel engaged in or supporting the activities of fishing.

Dolphin set: Deployment of a fishing gear around a tuna-dolphin association

Drifting FAD: FAD not tethered to the bottom of the ocean. A DFAD has a floating structure (such as a bamboo or metal raft with buoyancy provided by buoys, corks, etc.) and a submerged structure (made of old netting, canvass, ropes, etc.).

Ecological FAD: see Biodegradable FAD

Encountered FAD: Any FAD (anchored, drifting, man-made or natural) which a vessel comes across and/or interacts with in the course of fishing.

FAD: see Fish-Aggregating Device

FAD owner vessel: The vessel that last deployed and/or monitored a satellite buoy on a FAD. This may change during the life-time of a FAD with FAD appropriation, and buoy leasing and selling processes

FAD set: Setting a fishing gear around a tuna school associated with a FAD

Fish-Aggregating Device [FAD]: Permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed, and/or tracked, and used to aggregate fish for subsequent capture. FADs can be either anchored (aFADs) or drifting (dFADs).

Floating object [FOB]: Any natural or artificial floating (i.e. surface or subsurface) object with no capability of moving on its own. FADs are those FOBs that are man-made and intentionally deployed. and/or tracked. Logs are those FOBs that are accidentally lost from anthropic or natural sources.

Floating object interaction: Any physical activity involving a floating object. A physical activity includes, but is not limited to deployment, maintenance, modification, monitoring, visiting, retrieving or setting.

Floating object set: Setting a fishing gear around a tuna school associated with a floating object.

Free school set: The net is set around a free-swimming school of tuna, i.e. a school that is not associated with any floating object or cetaceans.

Log: Artificial (ALOG) or natural (NLOG) floating objects resulting from contingency (from anthropic or natural sources). They can be classified as FALOG (artificial log resulting from accidental loss from human fishing activity), HALOG (artificial log resulting from human non-fishing activity), ANLOG (natural log of animal origin) and VNLOG (natural log of vegetal origin).

Lost FAD: FAD that can no longer be tracked by any vessel because the information of the buoy attached is no longer received due to several deliberate or involuntary reasons (buoy satellite transmission terminated or lost, FAD and/or buoy sinking, ...)

Monitored FAD: A FAD with a satellite buoy transmitting position at least every day.

Non-entangling FAD: FAD designed to minimize ghost fishing (entanglement of fauna, primarily sharks and turtles).

Object set: see Floating object set

Payao: see anchored FAD

Stranding: see beaching

Supply vessel: see support vessel

Support vessel: A vessel that operates in support of purse seine vessels fishing on FADs, and whose role is to deploy, repair, retrieve or maintain FADs at sea.

Tender vessel: see support vessel

Unassociated set: see free school set

Visited FAD: see encountered FAD

Whale set: Deploy a purse-seine net to catch tuna associated with one or more live whales.

Whale shark set: Deploy a purse-seine net to catch tuna associated with live whale sharks.