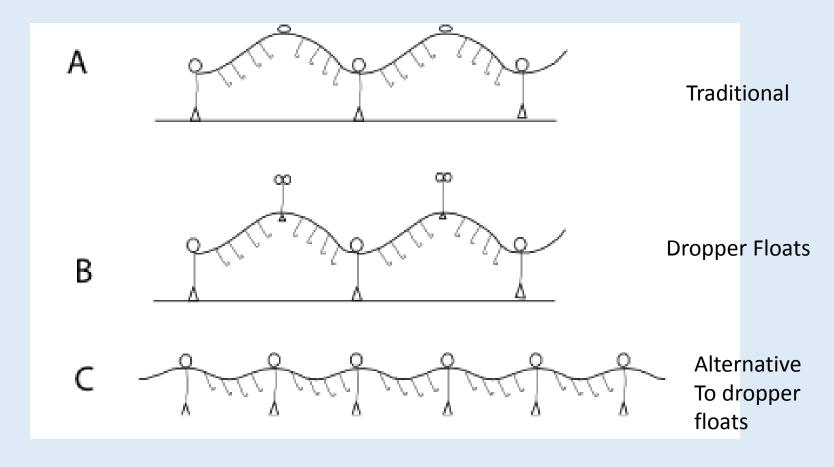


Biological Opinion: Pacific Coast Groundfish Fisheries, 2017
Terms and Conditions for Reasonable and Prudent Measures (non-discretionary)

T&C 1 for RPM 1 To ensure the effectiveness of the existing regulations (50 CFR Part 660.61; NMFS 2015a), NMFS shall:

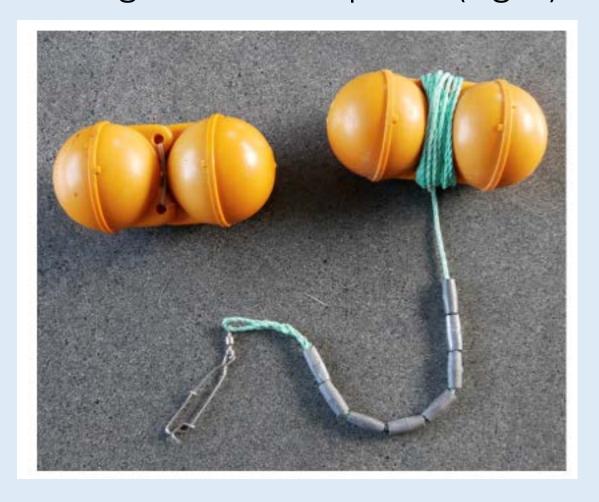
- a. Amend or refine regulations to mandate vessels that use the longline gear to:
- i) Employ streamer lines in the commercial longline fishery of the PCGF consistent with the Alaska streamer line regulations for Federal waters, including the use of single streamer lines on boats 26-55 feet in length, OR
 - ii) Set longlines after civil sunset.
- b. Conduct research that investigates:
- i) new or improved methods of reducing bycatch of short-tailed albatross that are safe and effective within the longline fishery.
- ii) the effect of floating gear on albatross bycatch and improved methods to minimize risk of bycatch.
- ii) vessel effect on seabird bycatch, and determine, if feasible, whether the use of additional minimization measures would further reduce bycatch for individual vessels.

Floated Demersal Longline Gear Modifications used in New Zealand



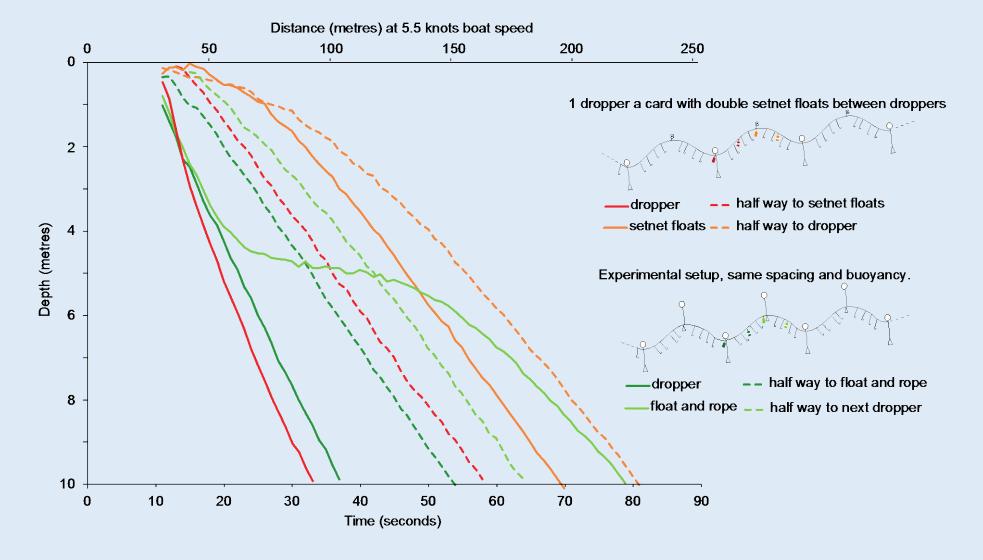
Source: Dave Goad, Vita Maris, Papamoa, NZ

Dropper Floats Set Up 2 floats tied together (left) and set up with a 5m rope and weights at the clip end (right).



Source: Dave Goad, Vita Maris, Papamoa, NZ

Sink profiles of TDRs, mean of six repeats



Source: Dave Goad, Vita Maris, Papamoa, NZ

The GMT recommends that industry, especially smaller boats, continue to work with researchers, such as those at SeaGrant, to design enforceable floated mainline configurations that can sink within the streamer line zone. This will reduce the likelihood of seabird bycatch and inform potential future re-consultations that may require stricter regulations. SeaGrant informed the GMT that some vessels were able to ensure that floated longline gear sank within the streamer zone by setting at slow speeds, but the GMT believes that it would be difficult to regulate setting speed. We therefore encourage industry to develop gear modifications that could be adopted and enforced, such as weights of X pounds between hooks.

