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FISH AGGREGATION DEVICES - NEW ZEALAND

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### Deployment

The first FADs were placed in New Zealand waters in January-February 1982. Two were set off the northwest coast of the North Island by the company Nelson Fisheries Limited, the same company which has licensed access to Fiji waters. The FADs were of the same design as those used in Fiji by the joint company, that is of fairly simple bamboo construction. These FADs were lost in bad weather soon after they were set.

A third FAD was placed in the Bay of Plenty off the northeast North Island by the fishing company Sanford Limited. This FAD is a substantial structure of catamaran design, with aluminium tubular hulls and triangular body with navigation warning light, and a substantial anchoring system constructed of chain, wire rope, polyester rope, buoys, shackles, swivels, release clips, thimbles, and a 48 kg stockless anchor. Some 18 m of netting is suspended from the FAD to attract fish (see Figure and photographs).

This FAD successfully aggregated a school of small kingfish after about a month in the water.

It broke loose shortly after due to chaffing of the mainline on the bottom. The anchoring system was modified by addition of 36 m of wire cable between the 16 m of chain attached to the stockless anchor and the mainline.

It was re-anchored but soon drifted away from the anchor site as the anchor dragged into deep water during a storm.

The FAD has since been removed from the water for the winter and plans are to set it out again early in the 1983 summer, possibly with one or two others of similar design.

**Sanfords FAD (Jan 1982)**

The diagram illustrates the Sanfords FAD system, showing its components and dimensions. The system is anchored to the seabed and floats on the surface.

**Components and Dimensions:**

- 3 m 16 mm polyester rope**: Connects the surface buoy to the mainline.
- 10 mm wire rope**: Connects the surface buoy to the mainline.
- release clip**: Connects the 10 mm wire rope to the mainline.
- chain bridle**: Connects the surface buoy to the mainline.
- 16 m 10 mm 36 kg chain**: Part of the mainline assembly.
- 140 m**: Length of the mainline assembly.
- 16 m 13mm 18 kg weight chain**: Part of the mainline assembly.
- 180 m**: Length of the mainline assembly.
- Modified after raft broke loose 1st time (caused by rope chafing on bottom) by addition of 20 fms of wire cable, bouyed at uppermost end. (to keep rope off sea bottom) This worked well.**: Note on the modification.
- 16 m 13mm 45 kg chain**: Part of the mainline assembly.
- 48 kg stockless anchor**: The anchor at the bottom of the mainline.
- raft**: The floating platform at the surface.
- 6 m**: Height of the raft.
- 18 m**: Height of the mainline assembly.

**Legend:**

- shackle
- swivel
- thimble

Netting depth to be modified to 9 m when next set out. 18 m thought to create too much resistance causing difficulties with anchoring.

shackle ☐swivel 

**thimble** 