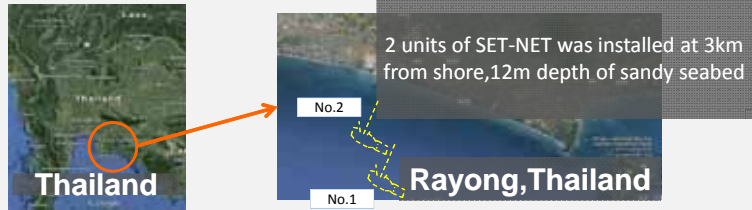


Trend analysis of slope net depth, according to flow condition in Rayong Set-Net

Yu TAKASHIMA · Takatsugu KUDOH · Takafumi ARIMOTO · Seiichi TAKEDA · Keiichi UCHIDA(TUMSAT¹) · T.Amornpiyakrit, N.Manajit, W.Yingyuad, A.Munprasit (SEAFDEC TD²) · Y.Minlee · Satoshi ISHIKAWA(RIHN³)

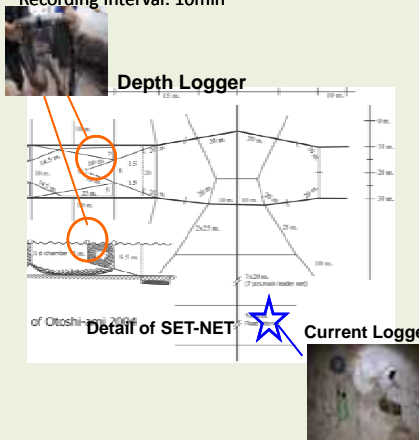
Introduction

11years have passed since the technology transfer of Japanese-type SET-NET to Rayong, Thailand. The daily catch data has been recorded by EMDEC. Before the start of acoustic survey for fish amount and distribution of around set-net, the preliminary analysis was done on the effect of flow speed and direction to the gear shape changing of SET-NET, for aiming the better understanding for catch patterns in the fishing ground.



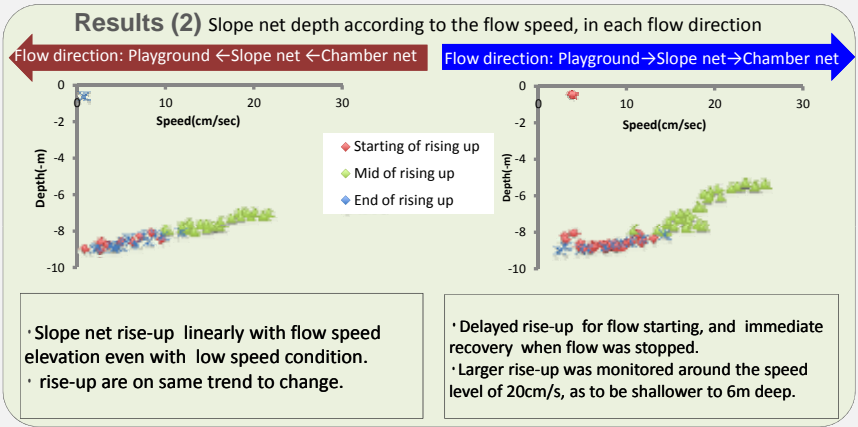
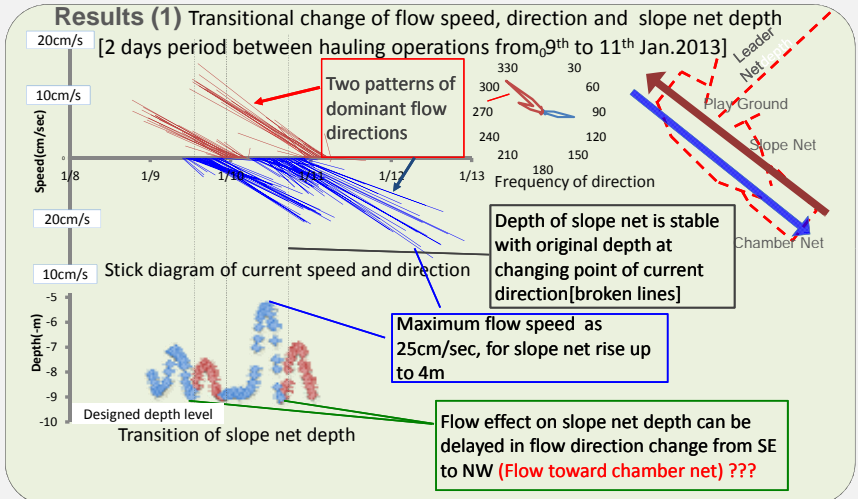
Material & Methods

Depth Meter(Compact-TD, from JFE Advantec)
-Set at **bottom tip of slope net**, for two units respectively.
Recording Interval: 10min



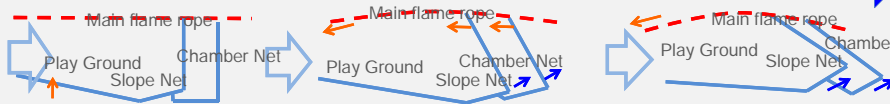
Flow Logger(Infinity-EM, from JFE Advantec)
-Set close to **leader net tip position**, for No.1 offshore side SET-NET, at 2 layers near surface and middle layer.
Recording Interval:20min
Monitoring was started from Dec.2012

Current/depth data was analyzed for the period from hauling on 9th.Jan.2013 to big catch hauling on 11th.Jan.2013



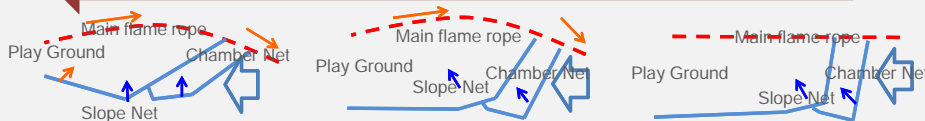
Conclusion Shape change of slope net at each direction [side view of SET-NET]

Shape change of slope net in flow direction as Playground → Slope net → Chamber net



- (1) Only the playground starts rising up near surface, without effect on frame rope and slope/chamber net.
- (2) Main flame rope is pulled down at playground side against **current** [orange color arrows]. Bottom of slope/chamber net starts to rise-up by flow [blue arrow].
- (3) Flow effect for rise-up on slope/chamber net, with higher rise following increasing of flow speed.

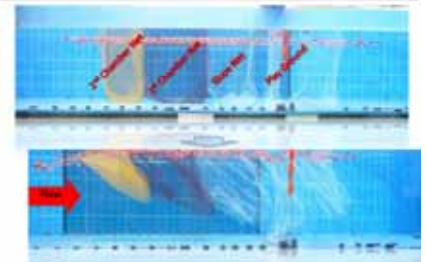
Shape change of slope net in flow direction as Playground ← Slope net ← Chamber net



- (3) With increasing of flow speed, full rise-up on slope/chamber.
- (2) Main flame rope is pulled down at chamber side. Higher rise-up of Slope/chamber net with increase of flow speed
- (1) By flow from chamber net side, bottom of slope/chamber net starts rising up to surface

Flume tank demonstration At Kanagawa Fisheries Research Center

Current Effect on Gear shape : Flume Tank



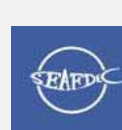
Slope net rise-up on different way with each flow direction.



1



2



3

