



E-MONITORING AND E-REPORTING WORKSHOP

Pacific Islands Forum Fisheries Agency Headquarters, 31 March – 1 April 2014
Honiara, SOLOMON ISLANDS

**Integrated Fisheries Information Management
System (iFIMS)**

31 Mar 2014

Mark Oates



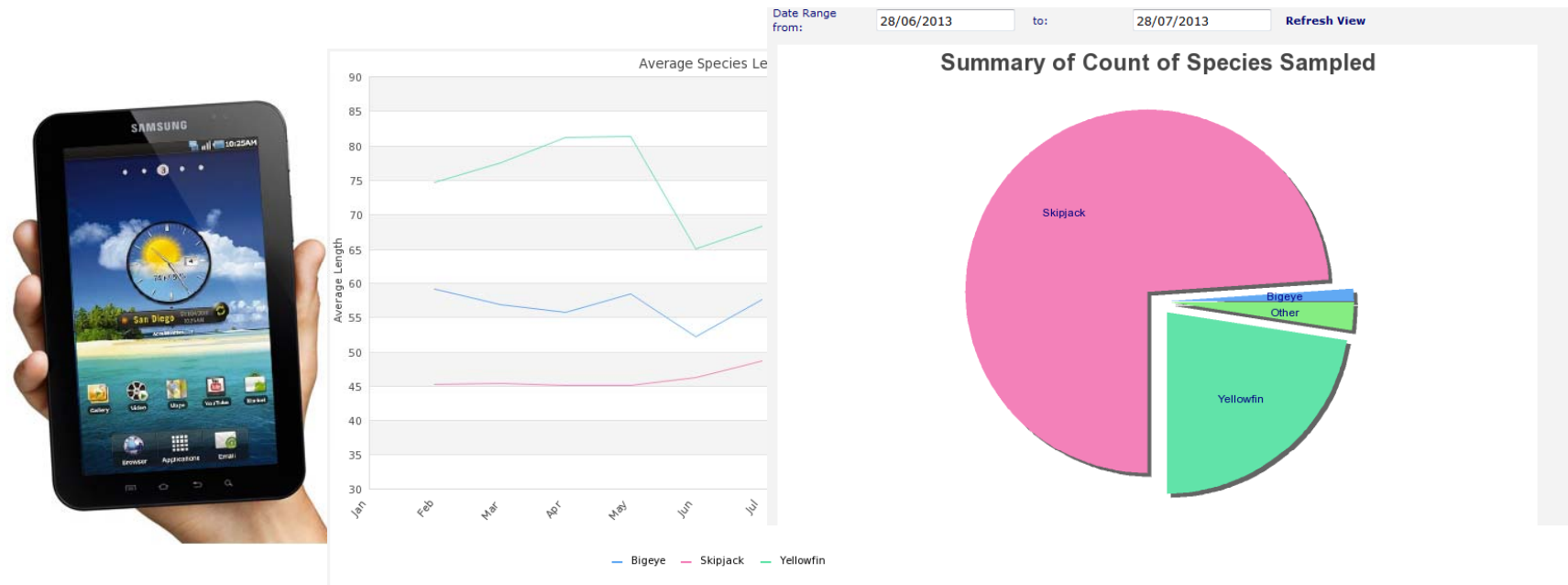
integrated Fisheries
Information Management
System (iFIMS)

E-REPORTING SUMMARY

- ◉ Mark Oates - Quick Access Computing
- ◉ QAC has been working with Papua New Guinea - National Fisheries Authority(NFA) for over 8 years
- ◉ FIMS is a large system built 'Fit for Purpose'
- ◉ Parties to the Nauru Agreement(PNA) - PNA FIMS - VDS is an important component
- ◉ There are many other Modules
- ◉ One new Module recent released and rolled out is for Electronic Catch Reporting
- ◉ This new component of FIMS can be utilised by FIMS Users for:
 - VDS validation
 - Catch Documentation Scheme(CDS) verification
 - Marine Stewardship Council(MSC) verification
 - Fisheries Management and MCS Purposes
- ◉ Electronic Reporting data can flow from FIMS to SPC in NAF format to improve quality and timeliness of data

ANDROID - E-REPORTING

- PNG NFA have very successfully implemented the use of Android Tablets for their Tuna Port Sampling Unit
- Over 1,000,000 samples taken using eForms between March and November 2013



EXISTING TECHNOLOGY

- Near Real Time Reporting
- Error checking at the point of data entry
- Does NOT need connectivity during use. Eforms stored and send when Connection becomes available.
- Connection in order of
 - Wifi
 - 3G/4G
 - inReach (Satellite)

IFIMS - Integrated Fisheries Information & Management System

Vessel: TEST VESSEL

Well: S1

You are logged in as...MARK OATES

Date: 09/07/2013

Location: Latitude: -28.6705 Longitude: 153.4251

Port: Madang

Type of Vessel: Purse Seiner

Vessel Name: TEST VESSEL

IRCS: IRCS124

Registration: REG234

FFA Id: 35124

Date Start Trip: 09.04.2013

Date End Trip: 07.05.2013

Well Location: Starboard, Port, Center, Conveyor, Upper, Lower

Well Type: Blast, Freezer, Brine

Well Capacity(MT): 50

Well Number: 2

Buttons: Add Now, Enter Com, Add School Association, Done

Landings

Obs Trip Id: OBS1212

Comments: Demo

Vessel: TEST VESSEL

Well: S1

Net: T2

Vessel Total: 3

Well Total: 3

Net Total: 3

Skipjack: 1

Yellowfin: 2

Big Eye: 0

Other: 0

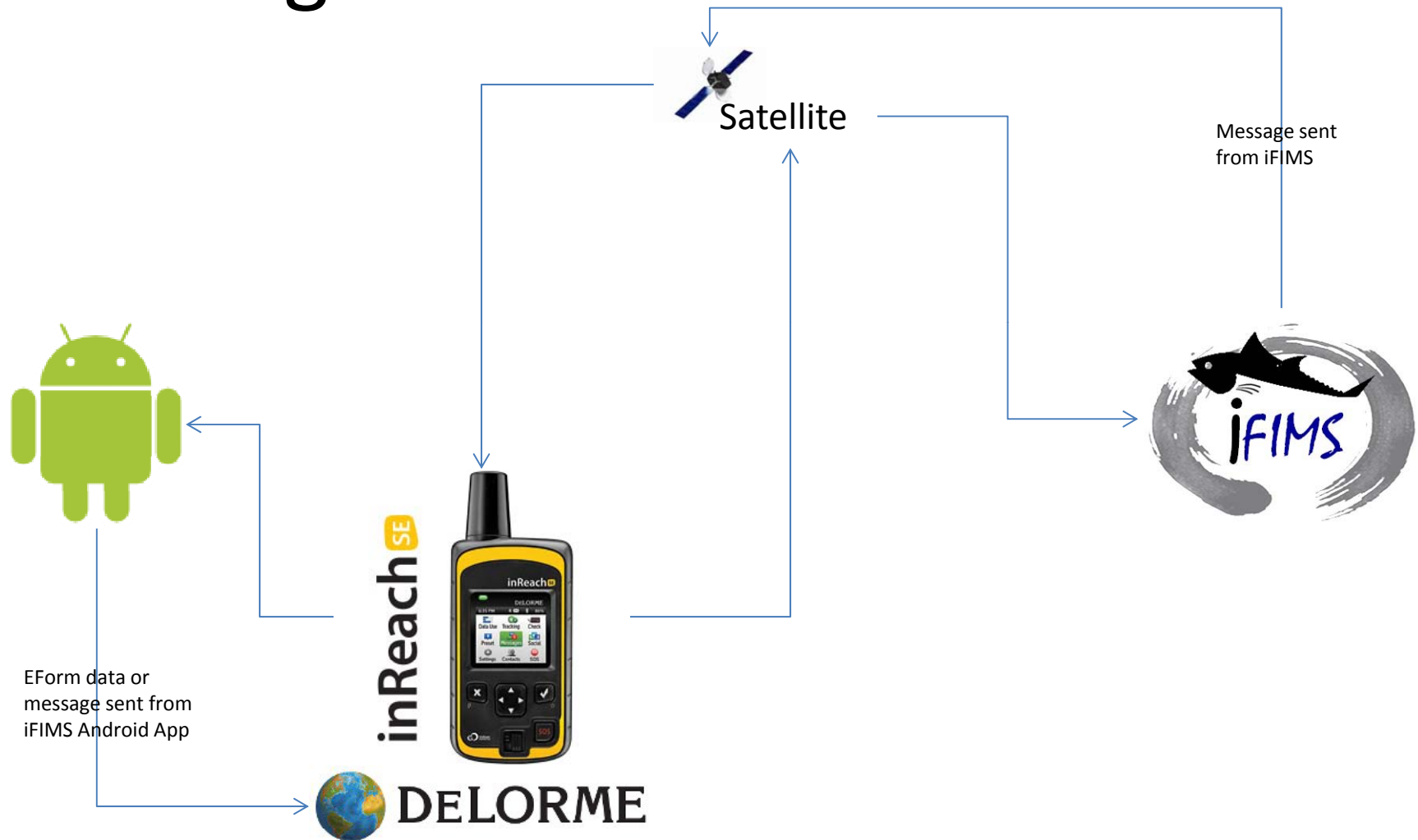
Buttons: Save Vessel Changes, Enter Sampling, Lock in Sample

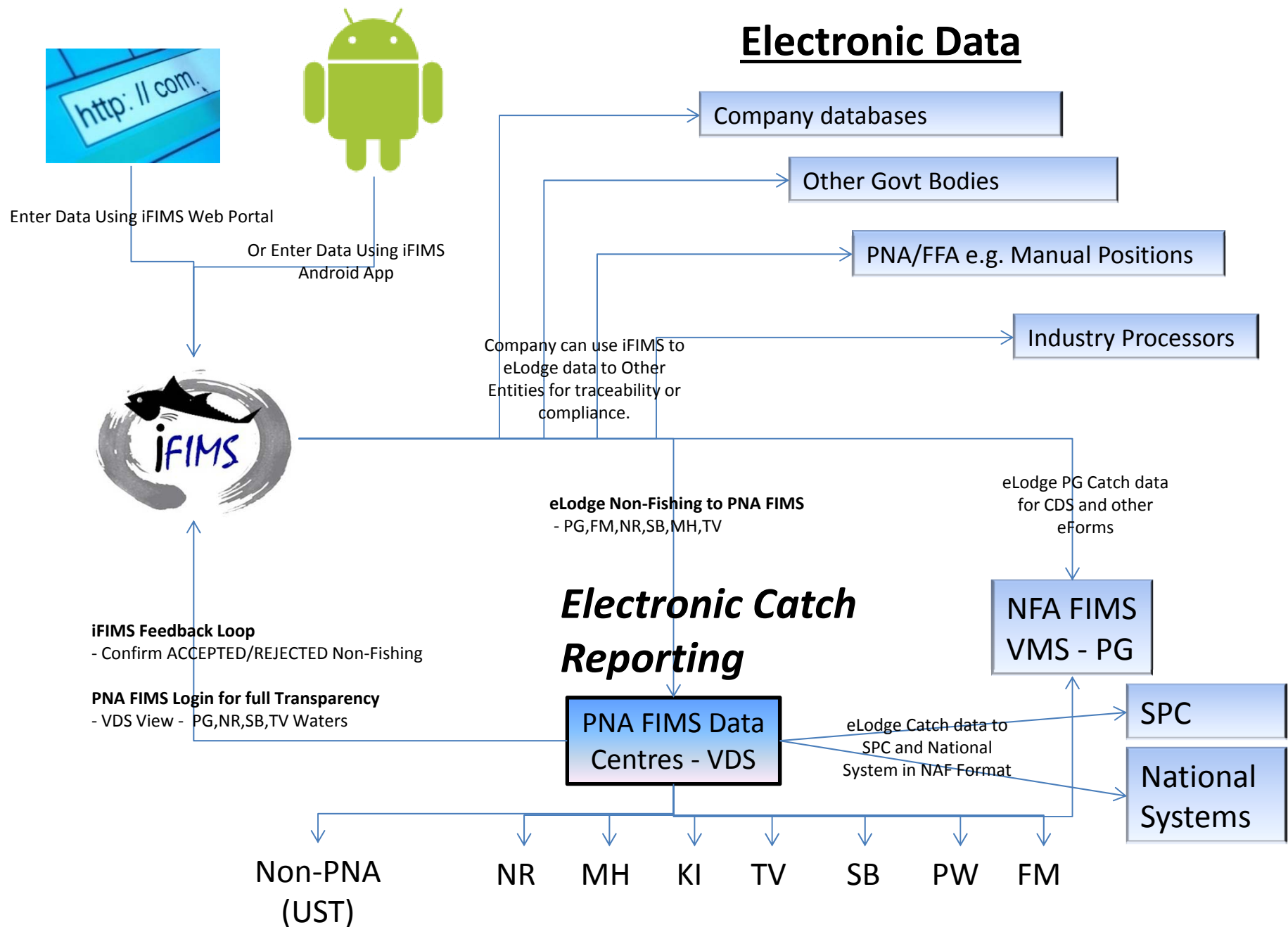
Species	1cm - 30cm	31cm - 60cm	61cm - 90cm	91cm - 120cm	121cm - 150cm	151cm - 180cm	181cm - 210cm	211cm - 240cm	241cm - 270cm	271cm - 300cm
Skipjack Tuna	61	62	63	64	65	66	67	68	69	70
Yellowfin Tuna	76	77	78	79	80	81	82	83	84	85
Big Eye Tuna										
Other Species										
Bullet Tuna										
Frigate Tuna										
Mackerel Scad										
Trigger Fishes										
Rainbow Runner										
Kawakawa										
Dolphin Fish										

Buttons: Unassociated, Feeding on Baitfish, Drifting Log, Debris or Dead Animal, Drifting Raft, FAD or Payao, Anchored Raft, FAD or Payao, Live Whale, Live Whale Shark, Other

Status bar: 18:40, 18:39

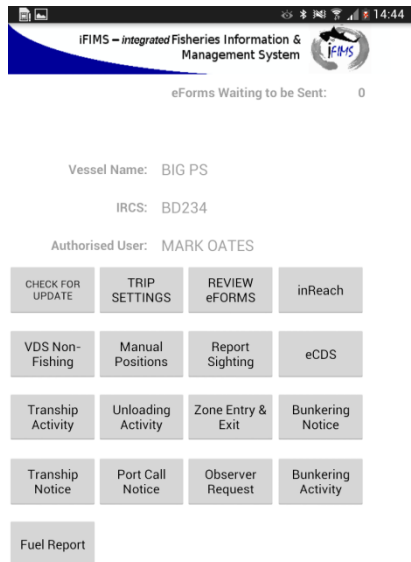
Sending eForm





IFIMS - EFORMS

- ◉ iFIMS Electronic Catch Reporting has been rolled out to all PNG Bi-lateral Partners in November 2013
- ◉ Demonstrated in the Margin of the WCPFC meeting in Cairns in December 2013
- ◉ Discussions held with SPC in Cairns regarding FIMS Electronic transfer of this data to SPC in North Atlantic Format(NAF)
- ◉ Since 1st January vessels fishing in PNG Waters have lodged catch and activity data to FIMS. Many now working through their second or third trip.



iFIMS - Integrated Fisheries Information & Management System

eForms Waiting to be Sent: 0

Vessel Name: BIG PS

IRCS: BD234

Authorised User: MARK OATES

CHECK FOR UPDATE	TRIP SETTINGS	REVIEW eFORMS	inReach
VDS Non-Fishing	Manual Positions	Report Sighting	eCDS
Tranship Activity	Unloading Activity	Zone Entry & Exit	Bunkering Notice
Tranship Notice	Port Call Notice	Observer Request	Bunkering Activity
Fuel Report			

Name: BIG PS
Type: Single Purse Seiner
IRCS: BD234

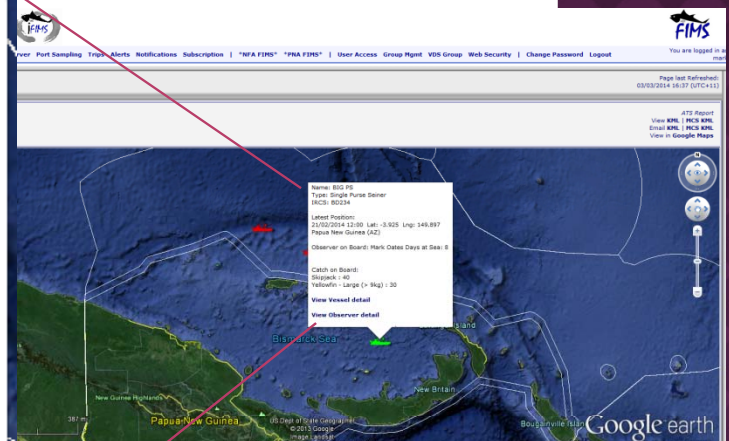
Latest Position:
21/02/2014 12:00 Lat: -3.925 Lng: 149.897
Papua New Guinea (AZ)

Observer on Board: Mark Oates Days at Sea: 8

Catch on Board:
Skipjack : 40
Yellowfin - Large (> 9kg) : 30

[View Vessel detail](#)

[View Observer detail](#)



IFIMS



- ◉ 3 FIMS – NFA, PNA, iFIMS
- ◉ Separate Databases
- ◉ iFIMS – Only for Industry
- ◉ 215 Vessels currently registered on iFIMS including many FSMA
- ◉ Customised at Industry Request
- ◉ Catch Reporting and other functions available for any country
- ◉ Outputs in North Atlantic Format(NAF)

OBSERVER AND CDS - EFORMS

- CDS Android App eForms currently in Field Trials
- Observer Android App for Electronic Reporting is in Final Stages of Development with Sea Trials expected during May.
- Discussions with SPC on Error Checking Business Rules at the point of data entry and data transmission from FIMS in North Atlantic Format(NAF) to improve quality and timeliness of data

The image displays three screenshots of the IFIMS (Integrated Fisheries Information & Management System) eForms interface, likely from an Android application.

Top Screenshot: Shows the main form header with the title "IFIMS - Integrated Fisheries Information & Management System". Below the title, there are buttons for "Send eForms Now" and "eForms Waiting to be Sent: 1". The form fields include:

- Vessel Name: BIG PS
- IRCS: IRCS123
- Observer: MARK OATES
- Ship Time: 04:33
- Latitude: 0123.40S
- Longitude: 15424.12E
- EEZ Country: Papua New Guinea
- Wind: 5 (kts) 60 (°)
- Sea: C-Calm
- Activity: Fishing Set
- School Association: Unassociated
- How Detected: 1-Seen from vessel
- CoC Code: E-Eligible

Middle Screenshot: Shows a section for trip details and vessel information:

- TRIP END DATE (SHIP'S DATE AND TIME): 10.03.2014 00:00
- VESSEL NAME: BIG PS
- VESSEL DEPARTURE PORT: [Field]
- VESSEL DEPARTURE DATE: 10.03.2014
- MSC TRIP?: [Field]

Buttons for "Save", "Save and Finish", "Enter PS-3", and "Enter PS-4" are visible.

Bottom Screenshot: Shows a checklist of items to be completed or verified:

- Fishing Permit or Licence Number(s): [Field]
- Vessel Characteristics: [Red X]
- Fishing Gear: [Red X]
- Electronics: [Red X]
- Well Contents: [Field]
- Crew: [Field]
- Waste/Safety: [Green Checkmark]

Buttons for "Save Changes" and "Send Completed PS-1 and Finish Trip" are present.

Considerations

- Develop Industry platform (multiple country availability)
- Software updates
- Work with Industry for Roll Out and Training
- Work with Fisheries Authority and PNA for
 - National/Regional Vessel Data requirements -Logbook
 - National/Regional Observer Data requirements
 - CDS requirements
 - MSC requirements
 - Other Considerations (Safety at sea)
- Data format (NAF)
- Develop Tools for Validation – VDS/CDS/MSC

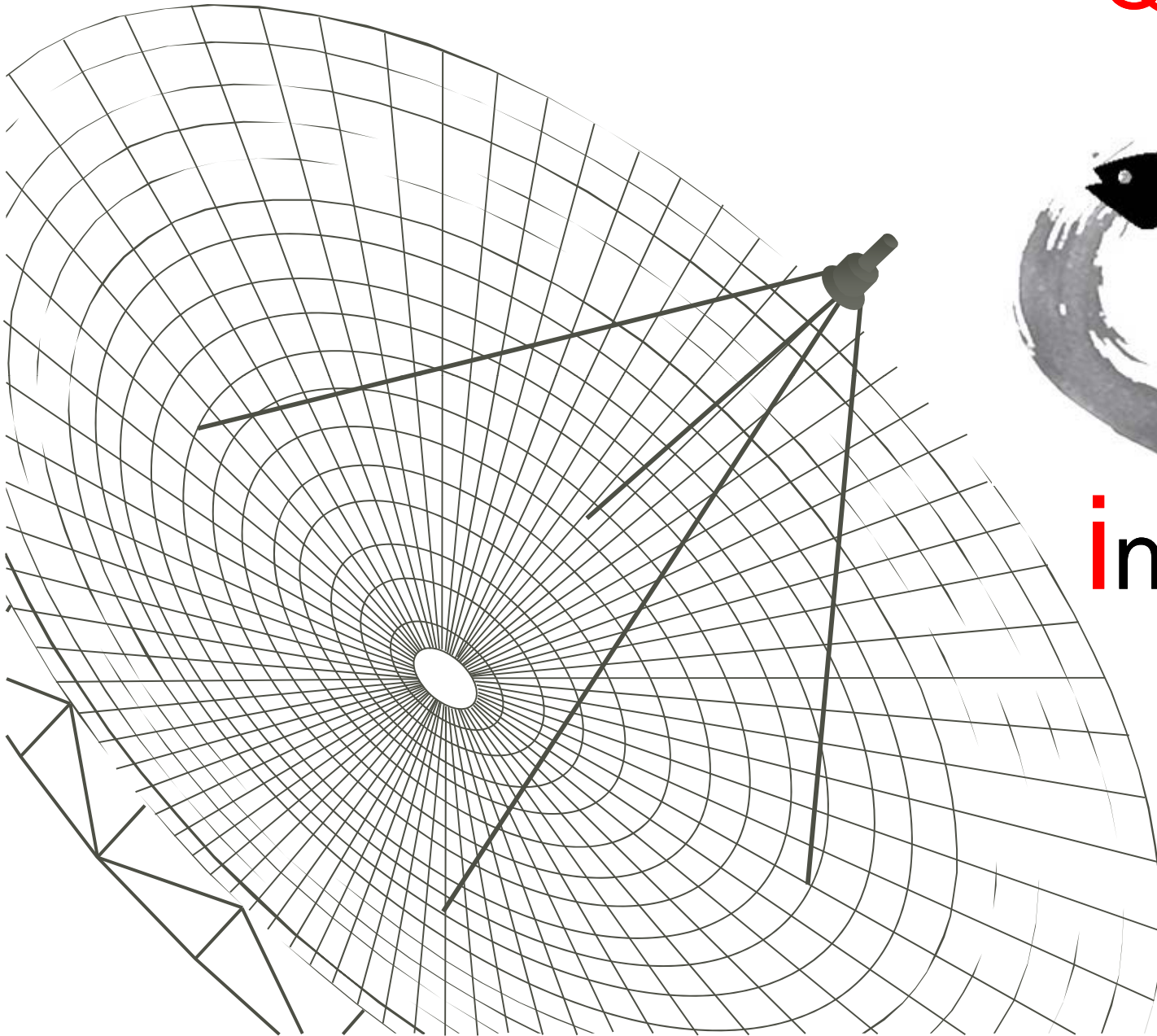
Overcoming Challenges

- Efficient use of Limited Resources in Pacific
- Security
- Hardware and Software Availability
- Data Sharing
 - Completeness of Data
 - Automated linking to VMS for missing catch reporting
 - Alerts
 - Timeliness of Data
 - MSC and CDS Rely on Timely data
 - Hardcopy Workbooks don't meet the need
 - What if there is not an Electronic Based Observer onboard?
- Industry Resistance
- Time to Deployment

Summary

- There is an Electronic Catch Reporting system already in place and being used by Purse Seine Vessels fishing in the Pacific
- This System is well adopted by Industry and is called iFIMS
- PNA FIMS is already receiving Electronic Non-Fishing from iFIMS
- PNA FIMS is system ready to receive Electronic Catch Reporting for Purse Seine Vessels from iFIMS and have this data displayed under the Trip Menu
- The Trip Menu forms an integrated part of FIMS, and there are no extra costs to PNA Office, PNA or Non-PNA parties to use this feature
- Electronic Catch Reporting data can flow from PNA FIMS to SPC and National Systems in NAF format to improve quality and timeliness of data

Questions



integrated
FIMS