

HMS Plan Development Team
Report to Pacific Fishery
Management Council

October 29, 2002

Purpose of Presentation

- HMS FMP is ready for Council action
- HMS PDT has responded to Council and NMFS direction and to public comments
- Revisions and new material added since March 2002 (see List of Revisions)
- Today, we review the most prominent alternatives within the FMP
- PDT is available to respond to comments and questions

Prominent Alternatives and Issues

- 1. FMP or no FMP?
- 2. Legal Gear
 - Small mesh gillnets
- 3. Bycatch
 - Magnuson requirements to document and reduce bycatch and bycatch mortality

Prominent Alternatives and Issues

- 4. Observer Program Authority
 - Magnuson requirement
 - On all commercial and CPFV's where practicable
- 5. Longlines Within EEZ
 - Prohibit or allow
 - Experimental Fishing Permit or research approach

Prominent Alternatives and Issues

- 6. Longlines Outside of EEZ
 - Follow all *or* selected Western Pacific Fishery Management Council regulations
 - Western Pacific Biological Opinion

Major Changes Since March Council Meeting Include:

- New material to address requirements of NEPA, RFA, PRA, protected species statutes, and Magnuson-Stevens Act.
- Revised EFH chapter per 2002 Rule
- Expanded bycatch and protected species information
- New MSY point estimates or proxies for all MUS
- New analyses of small mesh gill nets
- Northern purse seine closure change

Longline Outside of EEZ Council Preferred Option

Alternative 2

- Adopt all measures of Hawaii Biological Opinion
- Subjects west coast longliners fishing east of 150°W longitude to Hawaiian rules

Longline Outside of EEZ,

Cont'd.

Alternative 3 (PDT Preferred)

- Adopt selected measures of Hawaii Biological Opinion for west-coast based longliners to control sea turtle and sea bird interactions and to monitor fishery
- Excludes ban on swordfishing north of equator
- Area-specific analysis of protected species and bycatch risk
- Distribution of west-coast based vessels differs from HI fleet

Longline Outside of EEZ, Cont'd.

- PDT Emphasizes Importance of Alternative 3
 - Oceanographic conditions and distribution of protected species may substantially differ east of 150°W longitude
 - Need separate Biological Opinion for west-coast longliners and their fishing east of 150°W
 - Provides scientifically based conservation

RIR & RFA ANALYSES

Drift Gillnet and Offshore Pelagic
Longline Fisheries

Drift Gillnet

- Use observer and survey data
- Compare inside and outside of time/area closures:
 - Producer surplus and short-run financial profit
 - Bycatch by species – returned dead
 - Interactions with marine mammals and sea turtles

Drift Gillnet: Alternative 2

Annual Observer Coverage Cost	\$380,835.00
Annual Producer Surplus Loss	\$1,357,195.68
Annual Total Cost of Observer Coverage Plus Producer Surplus Loss	\$1,738,031
Annual Short-Run Financial Profit Loss	\$1,512,537.35
Annual Total Cost of Observer Coverage Plus Short-Run Financial Profit Loss	\$1,893,372

Drift Gillnet: Alternative 2

Producer surplus loss over 25 years @ 7%	\$15,816,192.71
Producer surplus loss and observer cost over 25 years @ 7%	\$15,816,192.71
Producer surplus loss and observer cost over 25 years @ 4%	\$27,151,654.18

Drift Gillnet: Alternative 2

Profit loss over 25 years @ 7%	\$17,626,479.83
Profit loss <u>and</u> observer cost over 25 years @ 7%	\$17,626,479.83
Profit loss <u>and</u> observer cost over 25 years @ 4%	\$29,578,414.23

Drift Gillnet: Alternative 2

Annual No. Fish Returned Dead

Species	Inside (Closed Area)	Outside (Open Area)	Difference
Swordfish	3.29	24.70	-21.40
Common Thresher	0	0	0
Bigeye Thresher	0	3.29	-3.29
Shortfin Mako	1.64	39.51	-37.87
Blue Marlin	4.93	21.40	-16.46
Striped Marlin	4.93	37.87	-32.93
Blue Shark	3786.6	1,078.36	2,708.24
Albacore	1,667.75	54.33	1,613.42
Mola	9.88	246.95	-237.07
Opah	4.93	9.88	-4.93
Louvar	26.34	18.11	8.23
Pacific Pomfret	59.27	8.23	51.04
Bluefin Tuna	59.27	27.99	31.28

Drift Gillnet: Alternative 2

Sea Turtle Takes

Species	Condition Inside	Total Inside	Condition Outside	Total Outside	Difference
Leatherback	A	17		0	17
Leatherback	D	11		0	11
Leatherback	U	1		0	1
Loggerhead		0	A	6	-6
Loggerhead		0	D	1	-1
Loggerhead		0	I	1	-1

Drift Gillnet: Alternative 5

Annual Observer Coverage Cost	\$331,695.00
Annual Producer Surplus Loss	\$223,317.54
Annual Total Cost of Observer Coverage Plus Producer Surplus Loss	\$540,012.50
Annual Short-Run Financial Profit Loss	\$247,763.52
Annual Total Cost of Observer Coverage Plus Short-Run Financial Profit Loss	\$579,458.50

Drift Gillnet: Alternative 5

Producer surplus loss over 25 years @ 7%	\$2,590,795.91
Producer surplus loss <u>and</u> observer cost over 25 years @ 7%	\$6,456,230.7
Producer surplus loss <u>and</u> observer cost over 25 years @ 4%	\$8,654,828.14

Drift Gillnet: Alternative 5

Profit loss over 25 years @ 7%	\$2,887,332.79
Profit loss <u>and</u> observer cost over 25 years @ 7%	\$6,752,767.83
Profit loss <u>and</u> observer cost over 25 years @ 4%	\$9,052,347.32

Drift Gillnet: Alternative 5 Annual

No. Fish Returned Dead

Species	Inside (Closed Area)	Outside (Open Area)	Difference
Swordfish	2.80	14.01	-11.21
Common Thresher	0	0	0
Bigeye Thresher	0	2.80	-2.80
Shortfin Mako	0	35.04	-35.04
Blue Marlin	0	25.23	-25.23
Striped Marlin	4.20	37.84	-33.63
Blue Shark	3,465.84	856.30	2609.54
Albacore	1,400.07	210.22	1189.85
Mola	53.26	74.28	-21.02
Opah	5.61	8.41	-2.80
Louvar	0	2.80	-2.80
Pacific Pomfret	5.61	5.61	0
Bluefin Tuna	43.45	25.23	18.22

Drift Gillnet: Alternative 5

Sea Turtle Takes

Species	Condition Inside	Total Inside	Condition Outside	Total Outside	Difference
Leatherback	A	6		0	6
Leatherback	D	10		0	10
Leatherback	U	1		0	1
Loggerhead		0	A	6	-6
Loggerhead		0	D	1	-1
Loggerhead		0	I	1	-1

Drift Gillnet: Alternative 6

Annual Observer Coverage Cost	\$24,570
Annual Producer Surplus Gain	\$278.48
Annual Total Cost of Observer Coverage Plus Producer Surplus Gain (Producer Benefit)	\$24,291.52
Annual Short-Run Financial Profit Gain	\$310.36
Annual Total Cost of Observer Coverage Plus Short-Run Financial Profit Gain (Producer Benefit)	\$24,259.64

Drift Gillnet: Alternative 6

Producer surplus <u>gain</u> over 25 years @ 7%	\$3,245.39
Producer surplus <u>gain</u> and observer cost over 25 years @ 7%	-\$283,083.25
Producer surplus <u>gain</u> and observer cost over 25 years @ 4%	

Drift Gillnet: Alternative 6

Profit <u>gain</u> over 25 years @ 7%	\$3,616.81
Profit <u>gain</u> <u>and</u> <u>observer</u> cost over 25 years @ 7%	-\$282,711.23
Profit <u>gain</u> <u>and</u> <u>observer</u> cost over 25 years @ 4%	

Drift Gillnet RIR & RFA:

Conclusions

- Biological Opinion
- Benefits:
 - Minimal to negative for consumers from sea turtle takes
 - Foreigners catch turtles on high seas
 - Minimal to no loss of consumer surplus due to swordfish imports

Drift Gillnet RIR & RFA:

Conclusions

- **Costs:**
 - Lost producer surplus and profits
 - Varies by alternative
- **Bycatch of Finfish (Returned Dead)**
 - Increases and decreases of domestic bycatch varies by species
- **Sea Turtle Takes**
 - Reduced domestic leatherback
 - Increased domestic loggerhead
 - Increased foreign takes of leatherbacks and loggerheads

Drift Gillnet RIR & RFA:

Conclusions

- Overall Conclusions
- Losses to nation and fleet for little or no gains in benefits from reduced sea turtle takes
- Sea turtles gain little or may even lose
- Can't conclude about bycatch of finfish because some species gain and others lose
 - Comparing apples and oranges

Drift Gillnet RIR & RFA:

Conclusions

- Complexity of Biological Opinions
 - Substantial differences by time and area even for same fleet in same ecological-oceanographic area
 - Extreme difficulty in applying Western Pacific Biological Opinion to different ecological-oceanographic areas and times
 - No one size fits all

Pelagic Longline Fleet

Annual Producer Surplus <u>Loss</u>	\$8,465,802
Annual Profit <u>Loss</u>	\$6,440,990
Producer Surplus <u>Loss</u> Over 25 Years @7%	\$98,656,923
Profit <u>Loss</u> Over 25 Years 7%	\$75,060,618

CONCLUSIONS

- Need new Biological Opinion for West Coast based pelagic longline fleet
- Oceanographic and ecological conditions may well differ west and east of 150W longitude
- Base new B.O. on new observer data currently gathering