"Why do we collect economic data?" "Because the National Marine Fisheries Services is required to conduct economic analysis."

### ECONOMIC DATA COLLECTION MANUAL

### **INTRODUCTION**

The economic data form is used to collect trip specific economic information associated with the currently observed trip. This information includes trip characteristics and the related variable trip costs. Please ask either the captain or the owner operator for expenditures information and obtain any observable data on your own when possible. Remember to explain to the vessel operator the importance of economic data collection and how collecting economic information is a service to them and to the fisheries as a whole.<sup>1</sup>

### 1. TRIP INFORMATION

**TRIP NUMBER:** Two letters (e.g. LL for longline) followed by 4 digits assigned by the Operations Coordinator.

**DATE OF DEPARTURE:** The date the vessel left port. Record two digits representing the day, three letters representing the month, and four digits for the year, in that order (day/month/year). **DATE OF RETURN:** The date the vessel returned to port. Same format as DATE OF DEPARTURE.

### 2. FUEL

**PRICE PER GALLON:** The price per gallon of fuel the vessel purchased for the observed trip. Record in dollars and cents but DO NOT include tax.

**GALLONS USED:** The quantity of fuel (in gallons) used to fill up tank for the observed trip. **TOTAL COST OF FUEL:** The price per gallon of fuel (P) multiplied by the number of gallons of fuel

used (Q). Calculate total cost (TC) in dollars and cents ( $P \times Q = TC$ ).

#### 3. ENGINE OIL

**UNIT:** Ask, then check mark, which unit of quantity measure for engine oil was purchased for the trip. **PRICE PER UNIT:** The price per unit (depends on which UNIT is check marked) of oil the vessel purchased for the observed trip.

<sup>&</sup>lt;sup>1</sup> See short essay at the end of the instructional manual for a brief explanation about the importance and relevance of economic data collection.

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**QUANTITY PER UNIT USED:** The quantity per unit **used** (not bought) of oil for the observed trip. Remember, make sure that this quantity is in the UNIT check marked first. Do not just assume that the unit is in gallons! Please make a note if oil was changed during the trip and include those costs as well. **TOTAL COST:** The price per gallon of oil multiplied by the number of gallons of oil used. Calculate in dollars and cents.

### 4. BAIT

**TYPE 1:** Check the box indicating the primary type of bait used on the observed trip: SQUID, SARDINE, SANMA (SAURY), MACKEREL (SABA), and ANCHOVY. If the bait used for the observed trip is not one of the five types listed, please record the name of the bait in the blank space.

- **PRICE PER BOX:** The price per box of bait type 1 which the vessel purchased for the observed trip.
- **BOXES USED:** The total number of boxes of bait type 1 **used** (not bought) for the observed trip.
- **TOTAL COST:** The price per box of bait type 1 multiplied by the number of boxes of bait type 1 used.

**TYPE 2:** Check the box indicating the secondary type of bait used if more than one type of bait is used on the observed trip: SQUID, SARDINE, SANMA (SAURY), MACKEREL (SABA), and ANCHOVY. If the bait used for the observed trip is not one of the five types listed, please record the name of the bait in the blank space. Leave box blank for TYPE 2 (bait) blank if only one type of bait was used. Then fill in a **ZERO** under the TOTAL COST.

### **5. ICE**

**ICE MAKER:** Check ICE MAKER if ice used on the trip was from an onboard ice maker or NO ICE MAKER if ice was purchased. If ICE MAKER is checked, either fill total cost as **\$0** or indicate the cost amount associated with maintaining their ice maker.

**UNIT:** The box indicating which unit of ice was used (LBS is pounds).

**PRICE PER UNIT:** The price per unit of ice purchased for the observed trip.

**UNITS USED:** The number of units of ice the vessel used (same as purchased) for the observed trip.

**TOTAL COST:** The price per unit of ice multiplied by the number of units of ice used will give you the total cost of ice.

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- **6. FISHING GEAR COSTS:** The amount spent on purchasing fishing gear to re-supply for the observed trip. Examples of these costs would be items such as hooks, line, floats, raingear, leaders, etc.
- **7. PROVISIONS COSTS:** The amount spent on groceries (food and water) for the observed trip.
- **8. TRIP COMMUNICATIONS COST:** The amount spent on communications for the observed trip. This may include satellite phone calls, email, weather faxes, satellite imagery, sea charts, etc. that was charged based on usage for the observed trip.
- 9. **SWORDFISH CERTIFICATE COST**: Please check the correct box.
  - Check the FIRST BOX if the certificates were given to the owners for free from the National Marine Fisheries Services.
  - Check the SECOND BOX if the certificates were given for free from other fishermen.
  - Check the THIRD BOX (the box next to PURCHASED) if certificates were purchased from other fishermen.
  - **NO. OF CERTIFICATES PURCHASED:** The number of permits purchased AND used for the observed trip.

**UNIT COST PER CERTIFICATE:** The unit cost per permit.

**TOTAL COST OF CERTIFICATE:** The total cost spent on swordfish fishing certificates for the observed trip.

### 10. COST OF LIGHTSTICKS

**PRICE PER CASE:** The price per case of lightsticks for the observed trip.

**CASES USED:** The number of cases of lightsticks used for the observed trip.

**TOTAL COST:** The price multiplied by the cases used of lightsticks will give you the total cost of lightsticks.

- 11. TOTAL ESTIMATED TRIP COSTS (Ask, don't add): The total estimated amount of variable trip costs for the observed trip. Please ask the captain rather than adding all the above costs.
- **12. OPERATOR**: Check the box indicating whether the vessel is OWNER OPERATED or operated by a HIRED CAPTAIN.

- "Why do we collect economic data?" "Because the National Marine Fisheries Services is required to conduct economic analysis."
- 13. NUMBER OF CREW: Record the total number of crew (not including captain) in this trip.
- **14. NUMBER OF FOREIGN CREW**: Record the total number of crew (not including captain) without a working visa (i.e. crew from the Philippines, Micronesia, Kiribati, and Christmas Islands)
- 15. STATUS OF ECONOMIC DATA COLLECTION: Please fill in your observer number and complete the box for PHONE NUMBER OF OWNER/CAPTAIN allowing the NMFS Economist or Fisheries Economics Specialist to personally contact the owner/captain of the vessel to retrieve or validate economic data. Upon trip return the debriefer will ask you to identify the status of economic data collection for the observed trip by either checking the box adjacent to DATA FROM CAPTAIN stating that you have collected as complete of information from the captain as possible or OBSERVED DATA AT SEA stating that the captain did not provide the data but rather information was observed during the trip or IN OFFICE if the economic form was not completed. In the REASON box please state the reason for why the job was incomplete if data was not collected from captain.

"Why do we collect economic data?" "Because the National Marine Fisheries Services is required to conduct economic analysis."

## "Why do we collect economic data?"

### Reasons for the observer and for the fishermen

Economic data collection is important because data are necessary for detailed economic analyses that are used to describe and document the economic health of the fisheries at all of its levels. The economic data collected are an important component in a suite of information that are necessary to fully understand the industry. All of the collected information are used to monitor and evaluate each fishery in order to develop the most appropriate management actions to ensure the effective uses of and to maintain fisheries sustainability for our future generations.

The role of the National Marine Fisheries Services (NMFS) is to monitor and regulate the biological, economic, and social aspects of the fisheries by using science to create parameters and guidelines to balance resource sustainability with profit maximization. The most effective way NMFS can fulfill its role requires the collection of accurate and complete data in order to present accurate analytical evaluations. The use of any public resource, specifically our ocean resources, is a privilege that can only be safeguarded through cooperation between all relevant stakeholders.

Economists use various types of economic analyses to describe the status quo of the industry and to predict the effects of various management scenarios. Sensitivity analyses (e.g. break-even points) commonly provide economic benchmarks and are used to measure regulatory impacts that occur on the margin, such as the average result of a one day reduction or increase in fishing trips. Regulatory impact analyses (as required by EO 12866) give fisheries managers the ability to assess the cost impact of regulations. Both types of analyses require accessible and relevant cost information to make informed management decisions.

Detailed and continuous economic data collection programs and economic evaluations are significant components of sound management plans. In the long run, the scarcity of economic data leaves fishermen at a disadvantage as fisheries managers cannot accurately represent or consider the economic implications of their management decisions.

Economic reports can be found at the following websites:

- http://www.soest.hawaii.edu/PFRP/pfrp1.html
- http://www.nmfs.hawaii.edu/pubs/fmsdpub.php

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### **Appendix**

### Magnuson-Stevens Act (As amended through October 11, 1996 from 1976)

### SEC. 404 FISHERIES RESEARCH<sup>7</sup> 16 U.S.C. 1881c

IN GENERAL.--The Secretary shall initiate and maintain, in cooperation with the Councils, a comprehensive program of fishery research to carry out and further the purposes, policy, and provisions of this Act. Such program shall be designed to acquire knowledge and information, including statistics, on fishery conservation and management and **on the economics** and social characteristics of the fisheries.

DISCRETIONARY PROVISIONS--Any fishery management plan which is prepared by any Council, or by the Secretary, with respect to any fishery, may

- —(6) establish a limited access system for the fishery in order to achieve optimum yield if, in developing such system, the Council and the Secretary take into account—
- (A) present participation in the fishery,
- (B) historical fishing practices in, and dependence on, the fishery,
- (C) the economics of the fishery,
- (D) the capability of fishing vessels used in the fishery to engage in other fisheries,
- (E) the cultural and social framework relevant to the fishery and any affected fishing communities, and
- (F) any other relevant considerations;

### E.O. 12866 (Economic Analysis of Federal Regulations under Executive Order 12866, 1996)

### REGULATORY IMPACT REVIEW (RIR)

The National Marine Fisheries Service (NMFS) prepares a Regulatory Impact Review (RIR), which includes *an analysis of the economic effects of the preferred and alternative actions*. One of the purposes of the RIR is to comply with the requirements of E.O. 12866

In accordance with the regulatory philosophy and principles provided in Sections 1(a) and (b) and Section 6(a)(3)(C) of Executive Order 12866, an Economic Analysis (EA) of proposed or existing regulations should inform decision makers of the consequences of alternative actions. In particular, the EA should provide information allowing decision makers to determine that:

- (A) There is adequate information indicating the need for and consequences of the proposed action;
- (B) The potential benefits to society justify the potential costs, recognizing that not all benefits and costs can be described in monetary or even in quantitative terms, unless a statute requires another regulatory approach;
- (C) The proposed action will maximize net benefits to society (including potential economic, environmental, public health and safety, and other advantages; distributional impacts; and equity), unless a statute requires another regulatory approach;
- (D) Where a statute requires a specific regulatory approach, the proposed action will be the most cost-effective, including reliance on performance objectives to the extent feasible;
- (E) Agency decisions are based on the best reasonably obtainable scientific, technical, economic, and other information.

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### NATIONAL ENVIRONMENTAL POLICY ACT (NEPA), 1999

NOAA Administrative order 216-6, "Environmental Review Procedures for Implementing the National Environmental Policy Act", May 20, 1999:

...Environmental assessments should contain factual information and analysis and include *economic* and technical consideration as well as consideration of environmental values;

### REGULATORY FLEXIBILITY ACT (RFA), 1996

The Regulatory Flexibility Act requires federal agencies to review regulations for their impact on small businesses and consider less burdensome alternatives. Regulatory Flexibility Act Analysis (RFAA) is necessary to satisfy the requirements of the RFA.

The RFAA should assess the impacts of the proposed/final rule on small entities and describe steps the agency has taken to minimize any significant economic impact on small entities while still achieving regulatory goals. The general intent of the RIR (Regulatory Impacts Analysis) and RFAA analytical and process requirements is to make the decision process open and transparent so that all can understand the what, where, and why of regulatory decision-making and can agree that the required steps of the process were followed. The economic analyses provide decision-makers and the public with the agency's best estimates of the impacts of proposed actions and of their alternatives.

## HAWAII OBSERVER PROGRAM LONGLINE TRIP EXPENDITURE FORM

page 1 of 2

(Ask information on the way home)

1.	TRIP INFORMATION					
	TRIP NUMBER		DATE OF DI	EPARTURE	D	ATE OF RETURN
	LL	DAY	MONTH	2 0 YEAR	DAY	2 0 YEAR
	VESSEL NAME:		-			TYPE (Check one):
						RDFISH TUNA
						TOWA
2.	FUEL DED CALLON		CALLONG	LICED	TOT	AL COST OF FUEL
	PRICE PER GALLON		GALLONS	9 02ED	101	AL COST OF FUEL
	\$ .		,		\$	,
3.	ENGINE OIL	DDIC		. 01141		
	UNIT (Check one) Gallon	PRIC	E PER UNIT		NTITY USED Gallons	TOTAL COST OF OIL
	Bag/Bucket (5 gal	llone)	-	Per gal Per bag	Bags	\$
	Drum (55 Gallons			Per drum	Drums	
1	•	/				
4.	BAIT TYPE 1 (Check one):			PRICE PER BOX	BOXES USED	TOTAL COST
	Squid	Mackerel			BOXES USED	
	Sardine	Anchovy		\$ .		\$ , .
	Sanma					
	TYPE 2 (Check one):			PRICE PER BOX	BOXES USED	OXES USED TOTAL COST
	Squid			\$	\$	
	Sardine	Anchovy		•	,	, .
	Sanma					
5.	ICE (Check one):	ICE MAK	ER	NO ICE MAKER		
	UNIT (Check one)	Γ (Check one)			UNITS USED	TOTAL COST OF ICE
	Blocks			\$		\$
	Tons			٠ .		, .
	Lbs					
6.	FISHING GEAR COSTS	3 (amount sper	nt to re-suppl	ly vessel for this tri	p [e.g. hooks, line,	floats, raingear])
	\$ .	, ,				, <b>3</b>
7.	PROVISIONS COSTS (a	amount spent	o re-supply	vessel for this trip [	e.g. groceries, bo	tled water, cigarettes])
	\$	1				. 3 1/
	, .		DON'T F	FORGET TO FILL (	OUT	
			Т Т	HE BACKSIDE!		

## HAWAII OBSERVER PROGRAM LONGLINE TRIP EXPENDITURE FORM page 2 of 2

(Ask information on the way home)

8. TRIP COMMUNICATIONS COST (amount spent for this trip [e.g., satellite phone and/or data calls, email])

\$						
9. COST OF LIGHTSTICKS (for swordfish trips only)						
PRICE PER CASE (500 LIGHTSTICKS)  CASES USED  TOTAL STICK COST  \$ ,						
10. TOTAL ESTIMATED TRIP COSTS (Ask, Don't Add!)						
\$						
11. CAPTAIN OF THIS TRIP (Check one)						
Owner Operated Hired Captain						
12. CREW INFORMATION						
Number of crew (DO NOT Include captain)  Number of foreign crew						
13. STATUS OF ECONOMIC DATA COLLECTION (For observer / debriefer only)						
A. Observer Section Observer number:						
Captain or trip operator phone number: ()						
B. Debriefer Section						
Check only one box: Debriefer initials:						
Data from Captain If no data from Captain, please provide REASON:						
Observed data at sea						
In office						

# HAWAIICHI PHÍ CHO CHUYẾN ĐÁNH CÁ CÂU DÀI Trang 1/2

(Hỏi trên đường về và xin lưu ý không bỏ xót câu hỏi nào)

1. THÔNG TIN VỀ CHUYẾN ĐÁNH CÁ TRIP INFORMATION							
TRIP NUMBER		NGÀY KH	ỞI HÀNH		NGÀY TR	Ζ̈́ VỀ	
LLL			2 0			2 0	
	Ngày	Tháng	Năm	Ngày	Tháng	Năm	
Tên Thuyền:					Loại cá (đánh d	dấu vào 1 hộp):	
					Cá Kiếm	Cá Tuna	
2. NHIÊN LIỆU (DẦU DIESEL	.) FUEL						
GIÁ 1 GA LÔNG		SỐ GA LÔN	NG ĐÃ DÙNG	TŐNG S	SỐ CHI PHÍ CH	HO NHIÊN LIỆU	
\$ .		,		\$	,		
3. DẦU NHỚT ENGINE OIL							
ĐƠN VỊ (Đánh dấu vào 1 hộp)	GIÁ	1 ĐƠN VỊ	Số ĐƠN Vị Đ	à SỬ DỤNG	ΤŐ	NG CHI PHÍ	
1 Gallon		-	mỗi ga	Ga Lôn	g \$		
5 Gallons (1 bag/buck	cet)		mỗ Xô	Xô			
55 Gallons (1 drum)		-	mỗi Thùng phi	Thùng r	ohi		
4. MÒI CÂU BAIT							
LOẠI THỨ NHẤT (Đánh dấ	ấu vào 1 loa	ại): G	IÁ <u>MỘT THÙ</u> NG	SỐ THÙNG Đ	à DÙNG T	ŐNG CHI PHÍ	
•	Mackerel		\$		\$		
Sardine	Anchovy		•			, .	
Sanma							
LOẠI THỨ NHẤT (Đánh dá		ại): (	SIÁ MỘT THÙNO	3 SỐ THÙNG	ĐÃ DÙNG T	ổNG CHI PHÍ	
Squid	Mackerel		\$		\$		
Sardine	Anchovy					, .	
Sanma							
5. NƯỚC ĐÁ ICE (Đánh dất	u vào 1 hộp	p) (	CÓ MÁY LÀM ĐÃ	Á KHÔN	G CÓ MÁY LÀI	M ĐÁ	
ĐƠN Vị (Đánh dấu vào 1 h	nộp)		GIÁ 1 ĐƠN VỊ	SỐ THÙNG Đ	à DÙNGT	ŐNG CHI PHÍ	
Blocks			\$		\$		
Tons			<u> </u>			, .	
Lbs							
6. CHI PHÍ PHỤ LIỆU ĐÁNH CÁ (Chi phí thay thế neo, dây câu, phao, aó mưa, v.v.) FISHING GEAR COSTS							
\$ , .							
7. CHI PHÍ ĂN UỐNG, THUỐC LÁ PROVISIONS COSTS							
(số tiền bỏ ra để tái tàu cung cấp cho chuyến đi này, ví dụ như, cửa hàng tạp hóa, đóng chai nước, thuốc lá)						ước, thuốc lá)	
\$ KHÔNG QUÊN TO FILL							
Ψ , .			HE M ăt sau!				

# HAWAII CHI PHÍ CHO CHUYẾN ĐÁNH CÁ CÂU DÀI Trang 2/2

8. CHI PHÍ CHO THÔNG TIN LIÊN LẠC (Điện thoại qua vệ tinh, thư điện tử, v.vtrong chuyến đánh cá) COMMUNICATIONS \$							
9. CHI PHÍ ĐÈN ĐÁNH CÁ LIGHTSTICKS Câu 9 chỉ hỏi riêng cho tàu đánh CÁ KIẾM							
Gía một hộp (500 cây dền)  Số hộp đã dung  Tổng chi phí  \$ , , , , , , , , , , , , , , , , , ,							
10. TỔNG DỰ TRÙ CHI PHÍ CHO CHUYẾN ĐÁNH CÁ (Hỏi trực tiếp chứ không tự cộng lấy) TOTAL ESTIMATED TRIP COSTS							
\$							
11.NGƯỜI ĐIỀU KHIỂN CHUYẾN ĐÁNH CÁ NÀY CAPTAIN OF THIS TRIP  Chủ tàu  Thuê thuyền trưởng							
12. CREW INFORMATION (Số thủy thủ trên tàu)							
TỔNG SỐ THUYỀN VIÊN (Không bao gồm thuyền trưởng) DO NOT INCLUDE CAPTAIN							
SỐ THUYỀN VIÊN NGƯỜI NƯỚC NGOÀI							
13. TÌNH TRẠNG của KINH TẾ dữ liệu sưu tập STATUS OF ECONOMIC DATA COLLECTION PHẦN NÀY chỉ CHO người tra hỏi   Observer / Debriefer only:							
A. Observer Section							
Observer số (number):							
Viết số điện thoại của người thuyền trưởng, nếu hộp đầu trên nhất không có đánh dấu (Captain's phone)							
B. Debriefer Section Debriefer tắt (initials):							
Check only one box:  Dữ liệu theo người thuyền trưởng (Data from captain)  (REASON)							
Dữ liệu quan sát trên biển (Observed data at sea)  Nếu một trong hai hộp cuối cùng có đánh dấu, xin vui lòng viết lý do dưới đây (viết trong hộp dưới đây: (In office)							

# HAWAII LONGLINE 프로그램 여행 지출양식 1 of 2

문의사항은 귀환시 물어보십시요 Ask information on the way home

1. TRIP INFORMATION	항해정보			
항해번호		출발일자		귀환일자
LL	일	월 년	일	월 년
어선 이름: 항해타입 (하나만 *				는 <b>'</b>
2. FUEL 연료 갤론당 연료가격 *	사용한 연호	문양 (단위 갤론)	\$	총 연료비용
3. ENGINE OIL 엔진 오 단위 (아래중 하나만 : 갤런 봉지/양동이 (5	<sup>체크</sup> 단위 당 가	-격사용되다단위여자당가방	된 양 갤런 수 봉지 수	총 오일 비용
통 (55 갤런)  4. BAIT 미 끼 타입 1 (하나만 체크) Squid 오징어	Mackerel 고등어	박스 당 가격	통수 사용박스수	총비용 \$
Sardine 정어리 Sanma 꽁치 타입2(하나만 체크 Squid 오징어 Sardine 정어리 Sanma 꽁치	Anchovy 멸치  )  Mackerel 고등어  Anchovy 멸치	박스 당 가격	사용박스수	李月号
5. ICE 얼음 (하나만 처 단위 (확인 1) Blocks Tons		J 조기있음 ICE MAKER 위당 가격 사용된 양 \$ .		기없음 NO ICE MAKER 총비용 ,
6. FISHING GEAR COST		aingear, etc.) 낚시 장비 명장비, 줄, 우비 등)		
7. PROVISIONS COSTS \$,	(Groceries, bottled wate (예: 식료품, 생수,			

잊지 마십시오!

Form revised 01/01/2011 OMB No. 0648-0593 exp. 12/31/2021

# HAWAII LONGLINE 옵서버 프로그램 여행을 지출 양식 2 of 2

Ask information on the way home (뒷면을 꼭 기재해 주십시요)

8. 동신비용 TRIP COMMUNICATIONS COST (선화비, 이메일 등)						
\$						
9. 야광 스틱 가격 COST OF LIGHTSTICKS (SWORDFISH TRIPS ONLY)						
캐이스당가격 500 LIGHTSTICKS       사용된 캐이스수       ** * * * * * * * * * * * * * * * * * *						
10. 총 항해비용 (총 합하기전 질문사항이 있을 경우 문의해야함) TOTAL ESTIMATED TRIP COS	STS (Ask, Don't Add!)					
11. 항해 운행자 OPERATOR OF THIS TRIP 선장 (Check One)  선주 Owner 채용된 캡틴 Hired Captain						
12. CREW INFORMATION						
선장외 모든 선원 수 Number of Crew (DO NOT include Captain)						
외국인 선원 Number of Foreign Crew						
13. 경제 데이터 수집 상태 STATUS OF ECONOMIC DATA COLLECTION (For observer / debriefer)디브	.리퍼 확인서					
A. Observer Section						
Observer # (번이 책크되지 않았을 경우, 캡틴의 전화번호를 기재하십시요) Captain or trip operator phone number:						
(면이 잭크되지 않았을 경우, 챕턴의 전화면오를 기재하십시요) Captain or trip operator phone number:						
B. Debriefer Section						
캡틴이 작성함         Debriefer initials           (Data from Captain)         이나 3번에 체크되었을경우, 아래박스에 이유를 기재하십시요						
행해중 폼 작성함 REASON (if first box not checked)						
- (orosina analana) 사무실 에서 폼작성 (In office)						