Public Testimony Sign-Up Sheet

Agenda Item C-4(d) CRAB EDR Metadata

	NAME (PLEASE PRINT)	AFFILIATION
1	Mike Sharp	self
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3	Arni Thomson/Steve Minor	PNCIAC
4	Steve Branson	Crewmens Assoc.
5	Lewis May	displaced crabber
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NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person " to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.

AGENDA C-4(d)
DECEMBER 2008

MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver
Executive Director

DATE: December 1, 2008

SUBJECT: Crab management

ESTIMATED TIME
16 HOURS
(all C-4 items)

ACTION RQUIRED

(d) Receive report on Crab EDR metadata.

BACKGROUND

At its April 2008 meeting, in response to testimony and a motion from Pacific Northwest Crab Industry Advisory Committee, the Council passed a motion approving a suggested process for review of data quality for data submitted under the crab economic data reporting (EDR). That process includes industry reviews of metadata describing the data and its quality and a report back to the Council on the output of that process. The Council also stated its intent that use of the data be postponed until this review process is completed.

Since the April meeting, agency staff have had several discussions with industry, including two formal PNCIAC meetings to review the metadata and industry comments on that metadata. Based in part on information gathered at these meetings, agency staff has prepared a draft metadata table describing each variable and data quality considerations (including relevant information gained through survey audits). These documents conclude that certain data are accurately captured through the EDR process; other data have quality issues that affect their accuracy and use. A discussion paper describing those data that suffer from quality concerns, the nature of the concerns, and degree of limitations arising from those concerns is attached hereto (**Item C-4(d)**). PNCIAC and agency staff are continuing to refine the discussion of these data quality issues in the metadata. That process is anticipated to be completed prior to the February 2009 Council meeting. In addition, PNCIAC and agency staff have begun to plan revisions to surveys to eliminate known data quality problems. Once substantial progress has been made in the development of those revisions, agency staff will present proposed revisions to the Council for its consideration.

BSAI Crab EDR Database: Data Quality Summary
Updated December 3, 2008

AFSC/Economics and Social Science Research Program

The following discussion summarizes the validation and data quality assessment process and findings to date for the BSAI Crab Economic Data Report (EDR) database. These data quality findings have been produced through ongoing validation protocols developed to identify and minimize data quality limitations and produce guidance on use and interpretation of these data.

Data Quality Assessment and Metadata Development

The data quality assessment process for EDR data has focused on submitter feedback and data quality audits. Feedback has been collected by means of detailed comment logs maintained by the data collection agent, Pacific States Marine Fisheries Commission (PSMFC), from the 1998-2004 historical data collection in 2005 to date, as well as submitter interviews and both formal and informal meetings held by NOAA Fisheries Alaska Fisheries Science Center (AFSC) and North Pacific Fishery Management Council (Council) economists. Quantitative assessment of data quality has been conducted through mandatory data quality audits of EDR submissions through the third party data validation audit process, as required by Council motion and federal statute authorizing the BSAI Crab EDR program. Audit results have been published in annual reports and are discussed further below.

Documentation and interpretation of submitter feedback and audit results and data quality findings has been carried out in collaboration with members of the crab industry, through the Pacific Northwest Crab Industry Advisory Committee (PNCIAC), under Council direction. More detailed presentation of data quality issues and constraints, including guidance for data users on use and interpretation of the data, is provided in the BSAI Crab EDR Database metadata documentation (available for download at http://www.fakr.noaa.gov/sustainablefisheries/crab/rat/edr/default.htm). Formal review of the metadata document by PNCIAC was conducted during May-June, 2008, with detailed comments submitted to AFSC, and formal replies provided by AFSC economics staff and presented in public meeting in September, 2008. Where appropriate, comments submitted to AFSC were incorporated into the metadata document. This document will continue to be revised and updated as additional annual data collections are completed, further understanding of data quality limitations and appropriate interpretation is gained, and improvements in the data collection methods are implemented. Thorough review of the metadata document should be considered a prerequisite to any authorized user of the EDR database before beginning analysis using these data.

This summary is presented as a brief review of the most important data quality issues described in the EDR metadata document, and to highlight specific data elements or components of the database. These specified data elements should be used for limited purposes and in many cases data quality limitations should be specifically addressed in any published release of analytical results.

Data Validation Audit Results

Detailed audit reviews of EDR records by the accounting firm Aldrich, Kilbride, and Tattone, LLC (AKT) of Portland, OR, have been conducted following completion of the data collection in each year since implementation of the EDR program. The methods and findings of these audits are described in annual reports issued by AKT (Pacific States Marine Fisheries Commission, 2007; Aldrich, Kilbride and Tattone, 2008; available online at http://www.psmfc.org/alaska_crab/). In addition to published reports, AKT provides a database of audit findings to PSMFC, reporting specific findings regarding the accuracy and documentary support provided by individual EDR submitters for each data element included in the audit review. These data are incorporated into the EDR database and provided to AFSC in blind format (i.e., with individual and business identifying information removed). Analysis of the audit results is included in the EDR database metadata, presenting statistical results by individual data element for the number of observations audited, percentage of observations assessed by auditors as adequately supported by documentation, and mean and standard deviation of both per cent error and absolute value of per cent error (detailed methods are included in the metadata document). Figures are also included plotting the values originally reported for each data element against the value determined as correct by the auditors (with the axis scale values omitted to protect confidential data) to provide a visual representation of data accuracy. These figures represent only those reported values for which adequate documentation and support was provided to auditors to permit assessment of the accuracy of the reported values, and do not represent observations which were assessed by auditors as unsupported. For those data elements with relatively high levels of unsupported observations in the audit sample, the reported statistics and figures may be a poor representation of the accuracy of the data element within the dataset as a whole for specific years.

Data and histogram figures are also presented in the metadata describing the categories of documentation or support supplied by submitters to auditors for each data element, and the number of instances that each category of support (including "no support") was included in materials supplied to auditors. It should be noted that multiple types of support for a particular reported value are often provided to auditors by a submitter and the counts as reported include all types of support provided. As a result, the sum over all counts of support types typically exceeds the number of observations for a given EDR value. Additional notes on interpretation are included in the metadata document.

There has been some misunderstanding among audited EDR submitters and other members of the industry regarding acceptable forms of support provided to auditors and the assessment of a "supported" finding for a particular reported value. A consistent result that auditors have described is that internal monitoring, accounting and documentation methods employed by EDR submitters varies widely in the industry. This has presented perhaps the greatest challenge to both collecting and assessing the accuracy of the data, and has required that audit personnel exercise some judgment regarding the completeness and sufficiency of evidence supplied to support a reported value. Nonetheless, standard audit methods have been employed throughout. Where clear third party documentation in the form of invoices, financial statements, payroll records or other standard accounting records are lacking, less formal evidence may be assessed to be sufficient if it is consistent with other documentation and can be justified to the auditor. That assessment, however, is not revealed to the submitter and there has not been a process yet implemented for the auditor to "reject" the supplied documentation and begin an iterative process to compel more

complete information (i.e., at this point either a "supported" or "unsupported" condition is applied). To date there has been minimal feedback provided to submitters regarding their individual performance in the audit process and minimal enforcement action taken against submitters who have been unable to provide sufficient documentation to support the accuracy and completeness of the EDRs they have submitted (except in cases of gross noncompliance). There is some danger that this lack of feedback has resulted in an impression within the crab industry that complete and credible evidence is unnecessary and virtually any response to the audit request is regarded as sufficient. To the contrary, the auditors have reported, and the metadata show, numerous instances of unsupported EDR values, based on rigorous review of evidence supplied to auditors. How to improve reporting and documentation practices is an issue we plan to address through further consultation with industry and will do so in the context of ongoing efforts to revise the EDR process to improve data quality, to be completed in 2009.

As a final note on the audit results, care should also be taken not to overstate the representativeness of these statistical results to the EDR database as a whole. While the sampling procedures used to select the audit sample for each year have focused on providing a representative sample of the EDR submitter population overall, within individual sectors and individual data elements the number of observations audited is often too small to extrapolate these results. Attempting to gain additional statistical rigor would require substantially greater reporting burden, which has been judged to be inappropriate. Further, given the nature of the phenomena being monitored in the EDR program, without a far more invasive intervention to standardize accounting methods in the industry, it is unlikely that such an attempt would be successful. Nonetheless, the audit process has been and continues to be essential to assessing the quality of EDR data, and to providing insights that will be most useful in improving the effectiveness of economic monitoring in the crab fishery and elsewhere.

PNCIAC Data Quality Review

As a general principal, the purpose of the PNCIAC data quality review has not been to proscribe use of individual variables or entire years in the EDR data series. Rather, the purpose has been to identify data quality limitations, propose interpretive guidance to data users, and identify appropriate measures for addressing data quality limitations in any published analyses using EDR data. The findings are summarized below for specific variables that were determined by consensus to exhibit substantial data quality limitations. To facilitate easier access to information included in the EDR metadata, both for data users as well as readers and reviewers of analyses using EDR data, a rating system has been incorporated into the metadata to classify data elements into three categories ranging from high to low quality, with the latter requiring data users to document methods used to address the data quality limitations (detailed in the metadata and summarized below) in any published analyses incorporating these data elements. Further detail on these categories is also provided below.

General EDR Data Quality Issues

In addition to ratings and interpretive notes specific to individual data elements, a number of data quality issues that apply to larger groups of data elements have been identified and are

important for data users to recognize and address if using the affected data elements. These include the following:

Multi-year production and sales data elements: The EDR program collects data on an annual, calendar year basis. This is consistent with other annual monitoring programs in state and federally regulated fisheries; however, this is in contrast to the management and execution of the crab fishery, which is conducted on a July-June annual schedule. In most regards, this does not raise serious data quality concerns for the harvest sector. Although there is potential for late post-season settlements to still be pending from quota lease, crab sales and/or labor contracts for the previous calendar year at the time of the EDR submission deadline in late June, there is no evidence that it has significantly affected accurate reporting in the EDR data. Of greater concern are data elements collected in the crab processing (including catcher processor) sector that, in many instances, reflect a multi-year process of receiving raw crab, processing (sometimes in multiple stages), inventory, and first wholesale disposal of finished products. The EDR process captures these activities and associated material use, costs, and revenues on a discrete, calendar year annual basis, despite the reality that the income and material flow is a highly continuous process and breaking the data into discrete annual figures is somewhat artificial. In particular, due to varying lengths of storage periods for crab product inventory, processing data and final sales data generally do not reflect the same initial raw crab inputs. That is, while some volume of crab product is sold at first wholesale in the same calendar year in which it is landed, sales data reported in the EDR can reflect sales of crab from inventory that was initially processed prior to the year for which the EDR is filed, as well as some fraction of the crab landed and processed in the reporting year. As such, processing and sales data reported in the processing sector EDRs are not expected to correspond. Additional detail on data quality and interpretation for data elements that are particularly affected by this dynamic is included in the metadata and summarized below. It is important for analysts and users of published results from these data to understand the nature of the product and income flow in the crab fishery and interpret the data appropriately.

Pro rata methods: Most data elements in the crab EDR are to be reported for the crab fishery exclusively, and in many cases are reported separately for individual crab fisheries. A set of data elements for costs that are incurred for the vessel or plant on an annual basis rather than on an incremental basis for individual fisheries are also reported. While this structure assumes that there is clear differentiation between crab-only costs and annual vessel/plant costs, submitter feedback indicates that in many cases, material usage and associated costs cannot practically be monitored at the level of detail necessary to differentiate between costs and inputs used in the crab fisheries and those associated with other fisheries without substantially increasing the reporting burden placed on EDR submitters. In general, submitters employ a variety of pro rata methods to estimate the amount of material use and cost associated with individual fisheries where internal records do not permit more direct association and reporting. The EDR forms do not effectively control for when pro rata estimation or direct reporting occur or for different pro rata methods that are employed by the submitter.

Data are collected in the EDR forms to permit the construction of indices for prorating data elements that are reported as annual values for various purposes. Each EDR record includes values for total days operating in all fishery-related activity, total

annual harvest and/or product sales volume and revenue, and total labor costs, which, combined with similar data reported for crab fisheries, identify pro rata indices based on days operating, landings and product volume and value, and labor cost. While it is not appropriate in the database documentation to prescribe a particular pro rating method for individual variables, it is recommended that analysts perform sensitivity analyses using different methods to determine the effect of different assumptions on analytical results.

Bering Sea Tanner crab fishery: The Bering Sea Tanner crab fishery was not opened in any of the pre-rationalization years for which reference data were collected in the historical crab EDR, and data from this fishery have been collected only for 2005 and subsequent years. Feedback from submitters indicates that the small number of vessels operating in this fishery have generally co-targeted the species with the Bering Sea snow crab fishery, with Tanner crab being a secondary target. This makes differentiation between these fisheries in reporting fishery-specific data in the EDR particularly difficult, and it is unclear whether harvest activity and labor- and material- input and cost data reported specific to the Tanner crab fishery is concurrent or differentiated from data reported for the snow crab fishery. As such, the Tanner crab fishery data should be used only for limited purposes, and any analysis using these data should present a description of methods for addressing these data quality limitations. Use of data reported for the snow crab fishery by vessels with large landings in the Tanner crab fishery should be carefully examined to determine whether these data can be assumed to reflect the snow crab fishery exclusively. Rules passed by the Alaska Board of Fisheries in 2008 prohibit co-targeting these species starting in the 2008/2009 fishery. This will improve the ability of submitters to distinguish values for this fishery from other crab fisheries, subject to limitations already noted above with regard to prorating in general.

Non-processing crab IPQ holders: Due to the statement of conditions requiring EDR submission by crab processing firms contained in 50 CFR 680.6(f) and (h), processors who hold IPQ and purchase crab but do not process any crab in their own plant in a given year (i.e., processors who contract for custom processing of all their IPQ) are currently exempt from EDR requirements. As such, the EDR data does not represent a full census data collection for the processing sector, and aggregating data across processors in a given fishery will not produce figures that represent the full value for such measures within the processing sector. Data analysts who present results based upon these data must make clear that the results represent only the component of the processing sector that physically processed crab in a given year.

Data elements affected by this include the following:

Crab Freight costs
Product Storage Costs
Tax Cost
Broker Cost
Proc Pack Cost
Other Crab Costs
Total FOB revenue
Processed Pounds
Supplied to Custom Processor Pounds
Crab Purchased Pounds
Finished Pounds

Location-specific data elements: Several crab-specific and annual cost elements are reported in the EDR forms by location of purchase. In many cases, location of purchase is unknown by the person completing the EDR form and available documentation is limited to invoice billing address for some costs. Reporting of location of purchase based on this and other types of source documentation likely undercounts amount of sales in Alaska locations that are billed from a separate billing office. This effect is more pronounced for processing plants with complex service and materials sourcing; location of purchase information for harvest vessels is generally accurate as reported.

Variable-Specific Data Quality Limitations

The PNCIAC review process identified a classification system to simplify the characterization of data quality limitations for specific data elements in the EDR database. Each data element identified in the EDR database is coded in the metadata according to the three-letter classification, with separate classification for the 1998-2004 historical data and the 2005 and later data. This index is intended to provide both data users and readers and users of analyses based on these data with a simplified means of navigating the complex structural and data quality information reported in the EDR metadata. The criteria for classifying each data element are the following:

Category A: These data elements have been determined to exhibit minimal known data quality limitations. Users of these data are advised to carefully review the metadata to understand the structure of these data before performing analysis; however, these data as reported in the EDR database are consistent with the variable descriptions included in the EDR forms and detailed in the metadata.

Category B: These data elements are characterized by significant data quality limitations and require careful understanding of the data quality documentation in order to ensure their appropriate use and interpretation. These elements are reliable for use in economic analysis of the crab fisheries, provided adjustments to analytical methods or interpretation are undertaken to overcome the noted data quality concerns. Where possible, the metadata specifies the nature of the adjustment that can or should be utilized.

Category C: These data elements are not reliable for analysis of the economic performance of the crab fisheries. A substantial portion of the data collected is known to contain significant error, which cannot be identified or estimated.

Category B and C data elements are listed below with summaries of the data quality descriptions and interpretive guidance extracted from the metadata document. Unless otherwise noted, those variables in the database not included below have been found to be of sufficient data quality (Category A) that data users/analysts may proceed to use these data without special precautions. In all cases, however, data analysts are advised to carefully review the data structure, year-version changes and data quality notes provided in the metadata document. A full listing of all primary variables in the EDR database and their data quality classification values is provided beginning on page 23 of this document. Of the 155 primary variables in the database (i.e. individual data elements collected in one or more EDR versions, where each variable reported by location, fishery, or other stratification

comprises a single primary variable), 45 (31%) are currently classified as Category A, 54 (37%) are classified as Category B, and 46 (32%) are classified as Category C variables in one or more years.

It should be noted that data quality information and interpretive guidance for category B and C variables will continue to undergo refinement and the data are analyzed and as AFSC, Council staff, and PNCIAC continue collaboration on methods for revising the EDR process to improve the quality of data collected in the future and to better validate existing data to the extent possible. Certain variables currently classified as Category C represent key variables (e.g. IFQ lease prices and fuel costs) and further research is planned to improve the quality of data collected to date.

The following data quality descriptions are organized following the format of the EDR forms, with data elements grouped by EDR data entry table. Individual data elements are listed with the data quality classification codes by year in brackets, followed by references to the EDR relational database table and field names identified in the metadata document.

BSAI Crab Activity
days at sea [Rating: 98-04: **C** | 2005-: **N/A**]
days fishing [Rating: 98-04: **N/A** | 2005-: **B**]
days traveling and offloading [Rating: 98-04: **N/A** | 2005-: **B**]
table/field name(s):
crab_activity/days_at_sea
crab_activity/days_fishing
crab_activity/days_travel_offload

Summary: Pre- and post-rationalization data are not directly comparable due to changes in the definition of data elements. The 1998-2004 data were poorly documented in audit results and should be regarded as approximations. Neither *days_at_sea* nor *days_fishing* + *days_travel_offload* include days on strike, days in port working on vessel/gear maintenance, or days steaming between home and departure port, during which time additional costs are incurred for operating in the crab fishery. These data should be supplemented with crab observer program and CFEC fish ticket data to ensure a consistent basis for comparison over the full data series.

Days_at_sea was collected only in the historical data collection; this changed to *days_fishing* and *days_travel_offload* for 2005 and later years. *Days_at_sea* includes travel to/from fishing grounds and excludes travel to/from out-of-state port and days offloading at processors. *Days_fishing* is defined as the number of days operating on fishing grounds. *Days_travel_offload* includes days steaming to/from fishing grounds and days offloading at processors. All years exclude days traveling to/from out-of-state port; however, this was not explicit in the directions of the 2005 EDR and some observations may be inflated.

Analysts should use caution when comparing *days_at_sea* from 1998, 2001, and 2004 EDR data to 2005 and 2006 data for *days_fishing* and *days_travel_offload*. As collected, these data are not directly comparable. It is recommended that historical data series be supplemented with estimates of days fishing by fishery from CFEC fish tickets and the state crab observer database to provide a consistent measurement of days fishing through the entire data time series. It should also be noted that short seasons (e.g., 50 hours) in the pre-

rationalization period result in the potential for greater proportional measurement error for the *days_at_sea* variable and any statistics calculated on a per day basis using this data.

The validation audit indicated that the documented basis for EDR entries for *days_fishing* is most commonly fish ticket dates. The basis for data entered for *days_travel_offload* is much less consistent and is often estimated. Analysts are advised to use *days_fishing* by fishery as a consistent prorating factor. Analysts should also note that days at sea/fishing/traveling and offloading exclude days transiting to/from out-of-state port, days on strike, and days spent on repair and maintenance related to crab fishing.

Days processing [Rating: 98-04: **B** | 2005-: **B**]
table/field name(s):
crab_activity/days_processing

Days_processing in individual fisheries are not mutually exclusive; summing across multiple fisheries will overcount the total processing days in crab fisheries. Note that *days_processing* measures days on which crab processing occurred.

Pots lost [Rating: 98-04: C | 2005-: N/A]
table/field name(s):
crab_activity/pots_lost

The *pots_lost* variable was inconsistently reported in the 1998-2004 EDRs and dropped from subsequent data collection. These data are not recommended for any use.

CFEC fish ticket numbers [Rating: 98-04: **C** | 2005-: **C**]
table/field name(s):
fish_tickets/fish_ticket_number

Summary: Fish ticket numbers are inconsistently formatted in the data as entered and are a poor source for computerized linking of EDR records to CFEC records.

The 1998 through 2005 fish tickets as entered did not consistently include the full fish ticket ID with year code. Use of these fields to link to the CFEC database would require extensive editing of data currently in the EDR database. CFEC fish ticket records have been linked to EDR records by database administrators using license numbers in the certification data section of the EDR (visible only to PSMFC). See the akfin_edr_fish_tickets_v table in the secondary data fields tab of the metadata document.

BSAI Crab Processing Activity

Generally, the sale of crab product lags behind production for several months depending on the length of time finished product is held in inventory. As such, sales reported in Annual BSAI Crab Sales tables will not correspond completely to production reported in BSAI Crab Processing Activity tables, and sales may reflect production from prior year(s). Analysis of rents will require the multi-year production and sales process to accurately reflect net revenues. Also note that due to the reporting exemption of registered crab receiver (RCR) permit holders that purchased but did not process crab, the total volume of crab in the processing sector is undercounted in Annual BSAI Crab Sales tables.

Product code [Rating: 98-04: **B** | 2005-: **B**]
Process code [Rating: 98-04: **B** | 2005-: **B**]
Crab size code [Rating: 98-04: **C** | 2005-: **C**]
Crab grade code [Rating: 98-04: **C** | 2005-: **C**]
Box Size [Rating: 98-04: **B** | 2005-: **B**]
Finished Pounds [Rating: 98-04: **B** | 2005-: **B**]

table/field name(s):
crab_production_out/product_code
crab_production_out/process_code
crab_production_out/crab_size_code
crab_production_out/crab_grade_code
crab_production_out/box_size
crab_production_out/finished_pounds

Summary: *Crab_size_code* and *crab_grade_code* do not support comparison of production quantity by size or grade across processors or time. Use of product code, process code, box size, and finished pounds data should note the lag between production and sales and the EDR–filing exemption of non-processing RCR permit holders.

Crab sizing and grading is not consistent over time for a given processor or across different processors, and varies depending on the intended market for product; the data does not support comparison of production quantity by size or grade across processors or time.

Annual BSAI Crab Sales

See the note above regarding the lag between production and sales and the exemption of non-processing RCR permit holders.

Product code [Rating: 98-04: **B** | 2005-: **B**]
Process code [Rating: 98-04: **B** | 2005-: **B**]
Crab size code [Rating: 98-04: **C** | 2005-: **C**]
Crab grade code [Rating: 98-04: **C** | 2005-: **C**]
Box Size [Rating: 98-04: **B** | 2005-: **B**]
Finished Pounds [Rating: 98-04: **B** | 2005-: **B**]
FOB Revenues [Rating: 98-04: **B** | 2005-: **B**]

table/field name(s):
crab_process_sales/product_code
crab_process_sales/process_code
crab_process_sales/crab_size_code
crab_process_sales/crab_grade_code
crab_process_sales/box_size
crab_process_sales/finished_pounds_sold
crab_process_sales/fob_revenues

Summary: *Crab_size_code* and *crab_grade_code* do not support the comparison of production quantity by size or grade across processors or time. Use of product code, process code, box size, finished pounds sold, and FOB revenue data should note the lag

between production and sales and the EDR–filing exemption of non-processing RCR permit holders.

Crab sizing and grading is not consistent over time for a given processor or across different processors, and varies depending on the intended market for product; the data does not support comparison of production quantity by size or grade across processors or time.

BSAI Crab Custom Processing Done For You

See the note above regarding the lag between production and sales and the exemption of non-processing RCR permit holders.

Product code [Rating: 98-04: **B** | 2005-: **B**]
Process code [Rating: 98-04: **B** | 2005-: **B**]
Crab size code [Rating: 98-04: **C** | 2005-: **C**]
Crab grade code [Rating: 98-04: **C** | 2005-: **C**]
Box Size [Rating: 98-04: **B** | 2005-: **B**]
Finished Pounds [Rating: 98-04: **B** | 2005-: **B**]
Processing Fee [Rating: 98-04: **B** | 2005-: **B**]

table/field name(s):
custom_process_hired/product_code
custom_process_hired/process_code
custom_process_hired/crab_size_code
custom_process_hired/crab_grade_code
custom_process_hired/box_size
custom_process_hired/cust_hired_finished_pounds
custom_process_hired/cust_hired_process_cost

Summary: A large fraction of custom processing services purchased are unreported in the EDR database due to the exemption of non-processing crab buyers. The 1998-2005 *crab_size_code* and *crab_grade_code* data do not support the comparison of production quantity by size or grade across processors or time. Use of product code, process code, box size, finished pounds, and processing fee data should note the lag between production and sales and the EDR–filing exemption of non-processing RCR permit holders.

Raw Crab Purchases from Delivering Vessels

IFQ Code [Rating: 98-04: **N/A** | 2005-: **B**]
Crab size code [Rating: 98-04: **C** | 2005-: **C**]
Crab grade code [Rating: 98-04: **C** | 2005-: **C**]
Raw Pounds Purchased [Rating: 98-04: B | 2005-: B]
Gross Payment [Rating: 98-04: B | 2005-: B]

table/field name(s):
crab_purchased/ifq_code
crab_purchased/crab_size_code
crab_purchased/crab_grade_code
crab_purchased/pounds_purchased
crab_purchased/gross_cost

Summary: *IFQ_code* was introduced for the SP/FP sector beginning in 2006; CP sector purchases are not differentiated by IFQ type. *Pounds_purchased* data do not include purchases by buyers that do not process crab in a given year and are exempt from reporting. *Crab_size_code* and *crab_grade_code* do not support the comparison of production quantity by size or grade across processors or time.

Note that crab buyers that do not process crab (e.g., those that send all crab for custom processing) are exempt from the EDR requirement and are not represented in the EDR data. Therefore, *pounds_purchased* summed over all processors may not equal the sum of pounds sold by harvesters in a given fishery, and in some cases may diverge by as much as 40%.

BSAI Crab Quota/Catcher Vessel Owner Annual IFQ Allocation

Quota harvested (pounds) – by quota type and fishery [Rating: 98-04: **N/A** | 2005-: **C**]
Quota transferred (pounds) – by quota type and fishery [Rating: 98-04: **N/A** | 2005-: **C**]
Quota transferred (revenue) – by quota type and fishery [Rating: 98-04: **N/A** | 2005-: **C**]
table/field name(s):
owner_ifq_allocation/pounds_harvested
owner_ifq_allocation/pounds_transferred
owner_ifq_allocation/revenue_from_transfer

Summary: Data for *pounds_harvested, pounds_transferred,* and *revenue_from_transfer* for all fisheries and quota types were poorly documented in the validation audit, reflected highly irregular transaction agreements, and are not regarded as reliable.

Submitter feedback indicates that these data are difficult to interpret given the large number of irregular, non-arms length transactions (i.e. transactions which differ from market rates), including trades between affiliates and in-kind transactions, and differences in the management of distinct pools of quota shares held by a given vessel owner. These data are not reliable representations of quota market transactions.

BSAI Crab Quota/BSAI Crab CDQ and IFQ Lease Costs

Quota leased (pounds) – by quota type and fishery [Rating: 98-04: **C** | 2005-: **C**]
Quota leased (cost) – by quota type and fishery [Rating: 98-04: **C** | 2005-: **C**]
Number of crew contributing C-share quota [Rating: 98-04: **C** | 2005-: **C**]
table/field name(s):
quota_lease_costs/leased_lb
quota_lease_costs/ lease_cost
quota_lease_costs/ num_crew_contribute

Summary: Data for *leased_lb, lease_cost,* and *num_crew_contribute* for all fisheries and quota types were poorly documented in validation audits, reflected highly irregular transactions agreements, and are not regarded as reliable.

Labor Information/Crab Harvesting & Processing Labor Costs

Average Crew Size [Rating: 98-04: **B**| 2005-: **N/A**]
table/field name(s):
crab_labor/avg_crew_size

Avg_crew_size was collected in the 1998-2004 catcher vessel EDR and dropped from data collection starting in 2005 due to duplication with e-landings data, which began monitoring crew size at the landing in 2005.

Number of Crew with Pay Determined by Processing Work (CP's only)
[Rating: 98-04: **B**| 2005-: **B**]
table/field name(s):
crab_labor/num_processing_crew

Harvest and processing labor are not mutually exclusive; summing *num_processing_crew* and *crew_earning_shares* will overcount total labor to an unknown degree.

Average Number of Crab Processing Positions [Rating: 98-04: C | 2005-: N/A]
table/field name(s):
crab_labor/avg_num_proc_positions

Summary: Numerous sources of variation in methods of reporting these data elements may confound variation associated with changes in processing employment in the crab fishery. These data are not reliable.

Feedback from processors indicates that "crab processing positions" is artificial; values reported by some processors are the average number of crab processing positions (*avg_num_proc_positions*) computed based on total man-hours of crab processing labor at the plant during the year, divided by the number of work-days that the plant operated, assuming a 12-hour work day. Other processors reported the average number of individuals working on the crab processing line during the crab season. Due to unknown variation in reporting, these data should not be considered as reliable.

Labor Information/Labor Payment Details
Other labor-related expense [Rating: 98-04: C | 2005-: N/A]
table/field name(s):
harv_labor_pay_dtl_other/other_lpd_desc
harv_labor_pay_dtl_other/other_lpd_code
harv_labor_pay_dtl_other/other_lpd_value

These data are reported without specific direction and are not reliably reported. Lack of a reported value for any or all "other" cost categories in an EDR record may not represent a valid zero value. Further validation is needed to determine the appropriate use of these data. Without more detailed analysis, it is not recommended that these data be used on the same basis as other cost data and cannot be compared among vessels/plants or over time as a reliable measure of vessel or plant economic performance or changes in the fishery.

Labor Information/Revenue Shares

Owner share % [Rating: 98-04: **B** | 2005-: **B**]
Crew share % (excluding captain) [Rating: 98-04: **B** | 2005-: **B**]
Captain share % [Rating: 98-04: **B** | 2005-: **B**]
Processing worker revenue shares; % of net share [Rating: 98-04: **C** | 2005-6: **C**]
Processing worker revenue shares; % of product value [Rating: 98-04: **C** | 2005-6: **C**]

table/field name(s):
revenue_shares/revshare_owner
revenue_shares/revshare_crew
revenue_shares/revshare_capt
revenue_shares/revshare_procemp_net
revenue_shares/revshare_procemp_prodval

Summary: Numerous sources of variation in methods of reporting these data elements may confound variation associated with changes in crew compensation in the crab fishery. Careful analysis of these data is required to isolate variation in reporting from explanatory effects that can be attributed to these data elements. Processing worker revenue share information is not considered reliable.

The 1998-2005 catcher vessel and catcher processor EDRs labeled the vessel owner share of revenues variable as "Boat Share," which is inconsistent with the use of the term in other fisheries; this was changed to "Owner Share" beginning in the 2006 EDR to avoid misinterpretation. This is not expected to produce significant error in the data; however, these data can be validated by summing over *revshare_owner*, *revshare_crew*, and *revshare_capt*, which should sum to one (note that *rev_share_capt* is not populated for the 1998-2004 data—see below).

The 1998-2004 CV and CP EDRs defined crew shares as including both the captain and deck crew; comparison of the 1998-2004 *revshare_crew* data to 2005 and later data requires aggregation of captain and crew shares (*rev_share_crew* + *revshare_capt*) in 2005 and later data series. Some observations in the 2005 and later data reported captain and crew share data together; these observations are flagged in the URcode and UR field in the data record and should be censored in analysis focused on the division of shares between captain and crew.

Analysts should note that deductions from crew pay (identified in *harv_labor_pay_detail*) will result in a different basis for share payments and percentages; comparisons across vessels or years cannot be made without controlling for different deductions.

In cases where an owner operates multiple vessels, payments to a particular crew may be based on the total pounds landed by that crew and the average price received by all vessels operated by the same owner. In such cases, differences in share percentages between vessels reflect vessel owners' methods for distributing earnings more equitably among multiple crews rather than differences in actual crew share percentages across vessels under common ownership.

Processing worker revenue shares were included in the EDR data collection for the CP sector from 1998-2005, and were reported as the percentage of net product value or a net share, but were not differentiated between different crab fisheries. Submitter feedback indicates that the standard basis for share payments in the CP sector is "FOB AK" revenues for crab sales, but this was not specified in the form and variation in share basis across

vessels selling on different FOB terms is not controlled for; as such, reported revenues may differ among processors according to the different transportation costs associated with different areas. The processing employee revenue share (revshare_procemp_net, revshare_procemp_prodval) data elements were dropped from the data collection in 2006. Data for CP processing worker revenue shares are not considered reliable for analysis of changes in processing crew compensation.

Labor Information/BSAI Crab Crew Residence/BSAI Crab Crew Licenses

Crew Residence (City, State) [Rating: 98-04: **B** | 2005-: **B**]
Harvest Crew Count, by residence location [Rating: 98-04: **C** | 2005-: **B**]
Processing Crew Count, by residence location [Rating: 98-04: **C** | 2005-: **B**]
C/P Crew Count, by residence location [Rating: 98-04: **C** | 2005-: **N/A**]
Crew Licenses [Rating: 98-04: **C** | 2005: **C** | 2006-: **A**]
Crew Gear Operator Permit [Rating: 98-04: **C** | 2005: **C** | 2006-: **A**]

table/field name(s):
crew_residence/location
crew_residence/locate_code
crew_residence/hcrew_res_count
crew_residence/procemp_res_count
crew_residence/labor_res_count
harv_crew_lic_permit_nums/crew_lic_num
harv_crew_lic_permit_nums/crew_gear_permit_num

Summary:

- Crew and processing employee count data are intended to measure counts of individuals that participated in the fishery during some or all of the crab seasons in the calendar year; they are not a measure of crab crew size or exclusively crab processing labor force. Prior to 2006, CV and CP harvest crew and processing employee counts, residence, and crew license data are incomplete and should not be taken to represent a full census of all crew and process employee participants in the crab fisheries. Multiple structural changes in the collection of these data in catcher processor and catcher vessel EDRs occurred over the 1998-2006 period and use of these data in analysis of crew and processing employee participation across vessel/plants, or over time, is not supported due to lack of continuity in the time series.
- For all years, aggregating data for CP harvest and processing crew will overcount fishery participation due to CP crews' labor in both harvest and processing activity.
- For all years, non-Alaska residence information is unverified.
- Participation of individual processor employees in crab processing is not systematically tracked and counts reported by shoreside and stationary floating processors (crew_residence/procemp_res_count) may represent the entire processing labor force of the plant. These data substantially overcount crab processing employees by residence and cannot be used to identify magnitude or locational impact of crab processing employment.
- 2005 harvest crew license and permit data are incomplete; 2006 and subsequent data on harvest crew license and permit numbers are considered accurate and complete.

These labor data elements are structurally complex and most of the data elements have undergone substantial changes in EDR forms from the historical data collection to current EDR forms. Reported place of residence (*location*) acts as a primary key in the relational structure. See the EDR metadata for a full description of changes and the relational structure of these data elements.

1998-2004 EDRs for CV harvest crew residence and harvest crew count (*location, hcrew_res_count*), used counts by open-ended location. The 2005 CV EDRs separated reporting for licensed and unlicensed crew, with reporting of commercial crew license number or CFEC gear operator permit and place of residence for each licensed captain or crew member on the vessel during the reporting year. Counts of "employees without crew license" by place of residence were also collected in the 2005 CV EDR; given that unlicensed crew on catcher vessels is prohibited by law, submitter feedback has indicated that these data represent crew with unknown license numbers, and have been aggregated with counts of licensed crew by residence in the database. The *hcrew_res_count* variable for 2005 is considered a complete count of crew who worked on the vessel during the calendar year. As with SP/FP data, counts by Alaska residence are considered reliable; out-of-state residence information is unverified.

The 2006 and later CV EDR form requires only crew license number and/or CFEC permit number; residence information for 2006 and later data can be identified by linking to the ADF&G crew license and CFEC gear permit registry databases. All license/permit numbers are verified and considered reliable starting in 2006.

Data for CP crew residence and crew count (*location, labor_res_count*) collected in 1998-2004 CP EDRs combined counts of harvest and process workers, by residence location. The 2005 CP EDR differentiated between licensed harvest crew and unlicensed employees (*hcrew_res_count, procemp_res_count*) and required reporting the crew license or gear permit and place of residence for licensed crew. The 2006 CP EDR distinguished between harvest crew and processing employee, requiring only license number or gear permit for harvest crew and counts by residence location for processing employees. Submitter feedback indicates that CP crew participate in both harvest and processing labor and *hcrew_res_count* includes crew who participated in processing activity. Aggregating counts by location for *hcrew_rescount* and *procemp_res_count* may overcount total participation and is not directly comparable to the 1998-2004 CP *labor_res_count* data.

The collection of processing employee counts in SP and FP EDRs by place of residence has remained consistent throughout the EDR program. Participation of individual processor employees in crab processing is not systematically tracked and counts may represent the entire processing labor force. These data substantially overcount crab processing employees by residence and cannot be used to identify the locational impact of crab processing employment. Feedback indicated that there was low confidence in residence information by submitters, particularly regarding foreign workers with nonlocal US residence addresses. Data submitted is frequently a legal address rather than a residence address. Counts of Alaska residence are likely of greater accuracy. Employee place of residence reported is that held on record by the employer and is not verified; however, Alaska residency is considered to be accurate where reported.

Vessel & Plant Costs/Costs for BSAI Crab Production Only

Insurance Premiums (Hull, Property and Indemnity, and Pollution) [Rating: 98-04: **C** | 2005-: **C]**

Insurance Deductibles [Rating: 98-04: **C** | 2005-: **C]**

table/field name(s):
co_cost_general/insurance_prem_cost
co_cost_general/insurance_deduct_cost

Summary: These data do not provide a reliable measure of variation in insurance costs across vessels/plants or over time. Numerous sources of variation in methods of reporting these data elements, terms of insurance contracts, and methods of insurance procurement are likely to confound and may overwhelm any variation associated with changes in insurance costs due to rationalization or further changes in the crab fishery.

Annual insurance premiums are reported separately for 2005 and later EDRs; see annual_costs_general table. The 2005 and later EDR directions included cost of insurance pool participation.

Submitter feedback has indicated that P&I insurance costs are determined by numerous factors unrelated to the crab fishery (e.g., the global underwriting market, delayed billing to vessel operators). As such, associating insurance costs with the effects of rationalization or other changes in the fishery cannot be determined with EDR data. Costs reported for a given year largely reflect the costs of insurance claims for previous years and are lagged to an unknown degree.

Crab-only insurance costs as reported are based on either crab fishery-specific premiums or prorating annual insurance costs based on days in fishery. The 98-04 EDRs did not specify treatment of insurance pool costs and these data undercount insurance pool costs to an unknown degree.

The 2005 audit examined crab-only costs (in Table X.X) and excluded annual insurance costs reported in Table 5.2/6.2. Thus, most reporting error found in the audit resulted from a zero insurance cost reported compared to an audit finding of positive insurance cost; however, other sources of error were not described by auditors and audit-based validation information for 2005 data is incomplete. The 2006 audit results reflect both crab-only and annual insurance cost with findings of a high degree of support and accuracy; however, this should be considered in light of the complexity and variability of insurance premium determination noted above and should not be considered consistent and reliable measures.

Deductible costs are reported by a small number of EDR submitters due to the incidental nature of costs. The validation audit indicates that reporting error is derived from a single observation in the audit sample for each year; where deductible cost is reported, it is generally accurate. It should also be noted that deductible costs are frequently not finalized by the EDR submission deadline for claims entered in the previous year; as such, deductible costs reported in a given year may reflect incidents from a previous year and are lagged similarly to premium costs. Use of this variable in analysis should reflect the probabilistic and incidental nature of this cost element, rather than as an ordinary variable operating cost.

Product Storage Costs [Rating: 98-04: **B** | 2005-: **B**]
table/field name(s):
co_cost_general/prodstorage_cost
BSAI crab-specific costs; product storage

Product storage costs may include storage of inventory from prior years' crab production; analysts should use caution in year-specific analysis of revenue and costs associated with multi-year inventories. Post-rationalization data does not include crab storage costs for custom-process only crab buyers. These data should not be used to represent total crab processing sector spending on storage costs.

Fisheries Taxes [Rating: 98-04: **C** | 2005-: **A**]
table/field name(s):
co_cost_general/tax_cost

Large outliers in the 1998 EDR audit indicate a high mean % error. The preferred source for 1998 data is direct calculation based on landing and sales revenue. There are no known data quality concerns for 2001 and subsequent data. Note that *tax_cost* includes non-tax fees. The post-rationalization data does not include crab tax and fee costs for custom-process only crab buyers. These data should not be used to represent total crab processing sector spending on fisheries taxes and fees.

Fishing Cooperative Costs [Rating: 98-04: **B** | 2005-: **B**]
table/field name(s):
co_cost_general/coop_cost

Submitter feedback indicated that some respondents may have incorrectly included arbitration-association dues and intercooperative dues in this cost element, which are not specifically collected but are widely reported as "other" cost. Analysts should aggregate this element with arbitration and ICE costs where reported in the co_other_crab_cost_detail table.

Re-packing Costs [Rating: 98-04: **B** | 2005-: **B**]
table/field name(s):
co_cost_general/repack_cost

Repacking costs are not disaggregated in EDR forms by species/fishery, but are not incurred evenly for all species or product types. As such, prorating to separate species/fisheries by relative product volume will distort analysis of fishery-specific quasi-rents to an unknown degree. Repacking costs are also incurred while product is in inventory and may not be paid in the same year that crab was landed. As with all crab processing data, analysts should be attentive to the multi-year stream of processor costs and revenues for crab landed in a given year.

Broker Fees and Promotions for BSAI Crab Sales [Rating: 98-04: **B** | 2005-: **B**]
table/field name(s):
co_cost_by_fishery/broker_cost

Brokerage costs are incurred at the time of product sale. As with final sales, analysts should be attentive to the multi-year stream of processor costs and revenues for crab landed in a given year.

Water, Sewer and Waste Disposal Costs
table/field name(s):
co_cost_general/waste_cost [Rating: 98-04: **B** | 2005-: **B**]

Audit findings and submitter feedback indicate that invoicing of these costs includes costs for plant operation and on-site housing facilities that are partially deducted from processing employee pay. Approximate pro-rata methods are used by submitters to identify crab-processing share, and there is likely substantial variation in reporting among processor EDRs. Variation in this cost element as measured may be only weakly associated with the scale of crab processing at a plant.

Crab Pots Purchased for Use in BSAI Crab Fishery, by Location [Rating: 98-04: **C** | 2005-: **C**]
Line and Other Crab Gear Purchases, by location [Rating: 98-04: **C** | 2005-: **C**]
table/field name(s):
co_cost_by_location/pots_count
co_cost_by_location/pots_cost
co_cost_by_location/hgear_cost

Summary: Pot and gear costs are incurred for both crab fishing as well as other fisheries and are not solely attributable to crab; where reported data represent pot and gear purchases for crab and non-crab fisheries, quantity and cost of these inputs for crab fisheries is biased upwards to an unknown degree. These data are not reliable for analysis of crab fishery costs.

The pre-2005 EDRs reported the pot cost and line and gear cost data elements as crab fishery aggregate; the 2005 and later forms reported these data by location. Pot and gear costs may not be attributed solely to the crab fishery and may apply to the cod fishery as well. It is unknown whether submitters prorated these costs or reported the total costs of pots and other gear. Where not prorated, cost is biased upward. Also note that new pot purchases are low after 2005 and costs of used pots may include refurbishment, or may separate refurbishment cost as repair and maintenance reported in *rnm_costs* in the annual_costs_by_location table. Similarly, respondents were unsure of the difference between *hgear_cost* and *rnm_cost*.

Processing and Packaging Materials, Equipment, and Supplies [Rating: 98-04: **B** | 2005-: **B**]
table/field name(s):
co_cost_by_location/location
co_cost_by_location/proc_pack_cost

Location of purchase information is of limited quality, particularly for FPs and SPs. In many cases, location of purchase is unknown and documentation is limited to invoice billing address. This undercounts the amount of sales in Alaska locations that are billed from separate billing office. For processors with a large number of invoices, feedback indicated that approximation methods were used to associate costs with locations. Analysts are cautioned to use location of purchase information carefully and state limitations in any reporting of results.

Submitter feedback indicated that processing and packaging materials are more closely attributed to crab fisheries than equipment. Approximate pro-rata methods are used by submitters to identify crab-processing share, and there is likely substantial variation in reporting among processor EDRs.

Bait used in BSAI crab fishery, by type and location [Rating: 98-04: **B** | 2005-: **B**]
table/field name(s):
co_cost_bait_detail/pounds
co_cost_bait_detail/cost

Summary: Internal records on bait purchasing and use do not support reporting at the level of detail required in the EDRs and these data represent estimates based on various pro rata methods. Volume and costs for bait harvested by the vessel are not included in these data, which therefore do not reflect the total quantity or cost of bait used in the crab fishery.

Bait costs were differentiated by bait type in 2005 and later EDRs. 1998-2004 bait costs are reported by fishery, but not by bait species. Prior to 2006, EDR directions did not specify how to report bait caught by the vessel or purchased in the prior year. The 2006 EDR directed submitters to report only pounds and cost of bait purchases during the reporting year.

The 1998-2004 audit results indicated that bait use and cost details were difficult to document at the level of detail required. The 2005 and later data are better supported and generally more accurate. However, for vessels operating in multiple fisheries, a variety of pro rata methods are used in some cases to allocate bait costs to different fisheries.

Audit findings and submitter feedback indicate that bait invoices often do not include quantity of bait purchased; pounds reported in EDRs were based on calculations using available bait price information. Purchased bait costs are expected to be accurate, but are not a complete representation of bait usage or costs incurred for bait caught by the vessel. Analysts should use caution in fishery-specific analysis of bait costs.

Lubrication and Fluids Cost in BSAI Crab Fishery [Rating: 98-04: **B** | 2005-: **N/A**]
Fuel Cost in BSAI Crab Fishery [Rating: 98-04: **C** | 2005-: **C**]
Fuel Quantity Used in BSAI Crab Fishery [Rating: 98-04: **C** | 2005-: **C**]
table/field name(s):
co_cost_fuel_detail/ lube_cost
co_cost_fuel_detail/fuel_lube_flag
co_cost_fuel_detail/fuel_gal
co_cost_fuel_detail/ fuel_cost

Summary: Numerous sources of variation in methods of reporting these cost elements may confound variation associated with fuel market trends and operational changes in the crab fishery. These data should not be considered reliable for use in analysis of vessel or fishery economic performance.

Several structural changes in the collection of fuel, lubrication, and fluids data have occurred over the 1998-2006 period and users are cautioned to study the structural information in the metadata carefully. Lubrication and fluids cost (*lube_cost*) and fuel cost were reported separately in the 1998-2004 CP and CV EDRs only; following submitter feedback,

lubrication and fluids were merged with the fuel cost data element in 2005 and later EDRs, with directions to indicate whether reported costs included or excluded lubrication costs.

Prior to 2006, EDR directions did not specify treatment of fuel gallons/costs incurred for steaming to/from home port before/after crab season. The 2006 EDR form directed that these costs be recorded in the annual vessel costs table, not in the crab-specific cost table; some observations in 2005 and earlier data may include these costs in reported gallons/costs.

Submitter feedback following the 1998-2004 EDRs indicated that lubrication and fluids costs were difficult to separate from fuel costs due to invoicing; *lube_cost* should be summed with *fuel_cost* to maintain consistency of treatment of these costs through time series.

Feedback comments indicate that, in general, fuel purchased is used over multiple fisheries and the amount used in a given fishery is often not monitored, and reported costs and quantity used in individual crab fisheries is approximated using various methods, including prorating by days at sea. Timing of fuel purchases for tax purposes may also influence reporting of fuel costs between successive calendar year EDRs. Vessels that do not deduct fuel costs in a crew settlement may report fuel cost in the year of purchase instead of the year fuel was used.

Audit findings are based on documentation of total fuel costs and appropriateness of approximation for by-fishery gallons/costs reporting. Invoices often did not include quantity of fuel purchased, and gallons reported were based on calculations using available fuel price information.

Other Crew Costs [Rating: 98-04: **C** | 2005-: **C**]
Other Crab-specific Costs [Rating: 98-04: **C** | 2005-: **C**]
table/field name(s):
co_cost_other_crew_detail/other_crew_cost
co_cost_other_crab_detail/other_crab_cost

Summary: These data are reported without specific direction and are not reliably reported. Lack of a reported value for any or all "other" cost categories in an EDR record may not represent a valid zero value. Further validation is needed to determine appropriate use of these data. Without more detailed analysis, it is not recommended that these data be used on the same basis as other cost data and cannot be compared among vessels/plants or over time as a reliable measure of vessel or plant economic performance or changes in the fishery.

The 1998-2004 EDRs elicited "Other Crew Costs" as a single variable; the 2005 and later EDRs elicited multiple "Other Crew Costs" with space for open-ended descriptions of crew cost elements.

Starting in 2006, the online EDR form provided a menu of other cost items, which improved consistency of the "other" cost item reporting. Isolation of online form submitters may yield improved accuracy and consistency; however, these data are still reported less systematically than specified cost elements.

Vessel & Plant Costs/Annual Vessel & Plant Costs

Data elements reported in the annual vessel/plant cost table include a check box to indicate whether the reported cost is attributable to operations in crab fisheries exclusively, or reflect operations in additional fisheries. For costs reported as crab operations only, reported data may be based on various methods of prorating annual costs or, for vessels or plants that operate exclusively in the BSAI crab fishery, these data are directly reported. Additional analysis to isolate sources of variation in these data should be employed to improve accuracy.

Location of purchase information is of limited quality. In many cases, location of purchase is unknown and documentation is limited to invoice billing address. This undercounts the amount of sales in Alaska locations that are billed from a separate billing office. For processors with a large number of invoices, feedback indicated that approximation methods were used to associate costs with locations. Analysts are cautioned to use location of purchase information carefully and state limitations in any reporting of results.

Insurance premium costs [Rating: 98-04: **N/A** | 2005-: **B**]
table/field name(s):
annual_costs_general/ins_cost

Summary: These data do not provide a reliable measure of variation in insurance costs across vessels/plants or over time. Numerous sources of variation in methods of reporting these data elements, terms of insurance contracts, and methods of insurance procurement are likely to confound and may overwhelm any variation associated with changes in insurance costs due to rationalization or further changes in the crab fishery.

Crab-only and annual insurance premium costs are reported separately for the 2005 and later EDRs only. Prior to 2005, insurance cost for vessels was collected specifically as a crab-only cost, but submitters were directed to enter annual premiums that could not be attributed solely to crab fishing in the annual "other costs" section (insurance costs are the most common entry the annual "other costs" fields). However, the descriptions of types of insurance reported in annual "other costs" are inconsistent across 1998-2004 EDRs. To improve consistency in reporting, insurance costs were added as a specified annual cost element in 2005 and subsequent CV and CP EDRs.

See the previous (p. 15-16) description of data quality limitations in reported insurance premium costs under Vessel & Plant Costs/Costs for BSAI Crab Production Only

Salary costs [Rating: 98-04: **B** | 2005-: **B**]
Number of Salaried employees [Rating: 98-04: **B** | 2005-: **B**]
annual_costs_general/salary_cost
annual_costs_general/salary_num

For costs reported as crab operations only, variation in reported data may be based on different prorating methods.

Investments in Vessel, Plant, and Equipment [Rating: 98-04: **B** | 2005-: **B**]
Repair and Maintenance for Vessel, Plant, and Equipment [Rating: 98-04: **B** | 2005-: **B**]
table/field name(s):

annual_costs_by_location/capinv_cost
annual_costs_by_location/rnm_cost

Summary: It is recommended that analysts sum pre-2006 capital investment and repair and maintenance cost data elements in data analysis and include these costs as a single cost category in any reported analytical results.

The validation audit for 1998-2005 found that substantial capital investment costs were unreported in a small number of instances in the historical (1998-2004) data; these may have been reported as repair and maintenance or "other" costs. Submitter feedback from the same period confirmed that there was confusion regarding differentiation between capital investment and repair/maintenance costs. Improved instructions in the 2006 EDR form and more consistent record keeping resulted in better differentiation, and the 2006 data audit found no significant errors in repair and maintenance costs; the audit included capital investment costs in the error calculation, but the effect on overall % error was small. It is recommended that analysts sum pre-2006 capital investment and repair and maintenance costs in data analysis and include these costs as a single cost category in any reported analytical results.

Other Vessel-specific Costs [Rating: 98-04: **C** | 2005-: **C**]
table/field name(s):
annual_costs_other_detail/other_ac_cost

Summary: These data are reported without specific direction and are not reliably reported. Lack of a reported value for any or all "other" cost categories in an EDR record may not represent a valid zero value.

Annual Totals for All Fisheries

Total Days at Sea [Rating: 98-04: **C** | 2005-: C]
table/field name(s):
annual_totals/ total_days_at_sea

Summary: The 1998-2005 data for total days at sea do not reliably measure changes over time or across vessels. Inconsistent and incomplete definition of days at sea in the 1998-2004 and 2005 EDRs likely resulted in under-reporting of this variable for these years, particularly for 1998-2004. Use of these data are not recommended for pro rata indices without further validation against other data sources.

Error in reporting of total days at sea in the 1998-2005 EDRs is indicated by both submitter feedback and audit results. Additional instructions were added to the 2005 and 2006 EDR forms to better define activities included in days at sea; the 2005 EDRs specified inclusion of chartering and tendering and the 2006 EDRs additionally specified inclusion of transiting to/from home port. Further work should be performed to validate these data against CFEC data, logbook data, and other available data sources.

The 2006 audit review found total days at sea data were well supported and accurate.

FOB Revenues [Rating: 98-04: **B** | 2005-: **B**]
Finished Pounds Processed [Rating: 98-04: **B** | 2005-: **B**]
table/field name(s):
annual_totals/total_fob_revenue
annual_totals/*total_fob_locate*
annual_totals/finished_pounds_processed

Total FOB revenue is generated from sales of inventory, while finished pounds processed reflects processing activity but not final sales. These data should not be combined to calculate figures for average revenue per pound sold and should be compared to crab and total processing activity on a multi-year basis.

The 1998-2004 data may include shipping costs to Seattle for processors using Seattle as FOB port. However, feedback indicated that most processors either specified FOB port or converted to FOB Alaska revenue; 2005 EDRs allowed submitter to specify FOB port as Seattle or Alaska (*total_fob_locate*). Comparison over time should convert FOB Seattle revenue to FOB Alaska.

These data do not include revenue for non-crab processing crab buyers—see COAR reports for total fishery figures.

References

Aldrich, Kilbride and Tattone. 2008. Alaska Crab Economic Data Report Data Validation (Prepared for Pacific States Marine Fisheries Commission); 2006 Calendar Year. January 2008.

Pacific States Marine Fisheries Commission. 2007. Alaska Crab Economic Data Report Validation; 1998, 2001, 2004, 2005. May 2007.

APPENDIX: Data elements included in EDR database, by Data Quality Classification

Table A: Data Quality Summary, Primary Variables

table	variable_id	description	data quality classification	
			98-04	05->
annual_costs_by_location	*fuel_cost*	annual costs; fuel, electricity, lubrication and fluids, cost	A	A
annual_costs_by_location	*fuel_coflag*	annual costs; fuel, electricity, lubrication and fluids, crab-only cost indicator	A	A
annual_costs_by_location	*fuel_lube_flag*	annual costs; fuel, electricity, lubrication and fluids, lubrication and fluids included indicator	A	A
annual_totals	*total_days_processing*	annual totals for all fisheries, processing days	A	A
annual_totals	*round_pounds_caught*	annual totals for all fisheries, round pounds caught and retained (excludes discards)	A	A
annual_totals	*total_gross_land_revenue*	annual totals for all fisheries, landings, gross revenue	A	A
annual_totals	*total_labor_costs*	annual totals for all fisheries, labor costs	A	A
co_cost_by_fishery	*observ_cost*	BSAI crab-specific costs; observer costs, by fishery	A	A
co_cost_fuel_detail	*citystate*	location(s) of fuel purchases	A	A
co_cost_general	*crew_food_cost*	BSAI crab-specific costs; food and provisions for crew	A	A
co_cost_general	*supply_freight_cost*	BSAI crab-specific costs; freight costs for supplies to the plant	A	A
co_cost_general	*gearstorage_cost*	BSAI crab-specific costs; storage, wharfage, and delivery costs for crab harvest gear	A	A
crab_activity	*begin_date*	dates covered from, first period	A	A
crab_activity	*end_date*	dates covered to, first period	A	A
crab_labor	*crew_earning_shares*	crab harvesting labor, no. of paid harvest crew, by fishery	A	A
crab_labor	*crew_share_payment*	crab harvesting labor, total crew labor payment, by fishery	A	A
crab_labor	*captain_share_payment*	crab harvesting labor, captain's labor payment, by fishery	A	A
crab_labor	*proc_man_hrs*	crab processing labor, total man-hours, by fishery	A	A
crab_labor	*total_proc_labor_payment*	crab processing labor, total processing labor payment, by fishery	A	A

table	variable_id	description	data quality classification	
			98-04	05->
annual_costs_by_location	*capinv_cost*	annual costs; capital investment cost	B	B
annual_costs_by_location	*capinv_coflag*	annual costs; capital investment, crab-only cost indicator	B	B
annual_costs_by_location	*rnm_cost*	annual costs; repair and maintenance cost	B	B
annual_costs_by_location	*rnm_coflag*	annual costs; repair and maintenance, crab-only cost indicator	B	B
annual_costs_general	*ins_cost*	annual costs; hull, P&I, and pollution insurance premium costs	N/A	B
annual_costs_general	*ins_coflag*	annual costs; hull, P&I, and pollution insurance premium crab-only cost indicator	N/A	B
annual_costs_general	*salary_cost*	annual costs; wages and salaries of employees not engaged in harvest or processing, including foremen and managers	B	B
annual_costs_general	*salary_num*	number of salaried employees not engaged in harvest or processing, including foremen and managers	B	B
annual_costs_general	*salary_coflag*	annual costs; wages and salaries, crab-only cost indicator	B	B
annual_totals	*total_fob_locate_code*	annual totals for all fisheries, product sales, FOB port location code	B	B
annual_totals	*finished_pounds_processed*	annual totals for all fisheries, finished pounds processed	B	B
co_cost_bait_detail	*citystate*	BSAI crab-specific costs; open-ended descriptions of location(s) of purchase	B	B
co_cost_bait_detail	*bait_species_desc*	open-ended description of bait species/type	B	B
co_cost_bait_detail	*pounds*	bait pounds, by species/type	B	B
co_cost_bait_detail	*cost*	total bait cost, by species/type	B	B
co_cost_by_fishery	*broker_cost*	BSAI crab-specific costs; brokerage and promotions costs for crab sales, by fishery	B	B
co_cost_by_location	*citystate*	BSAI crab-specific costs; open-ended descriptions of location(s) of purchase	B	B
co_cost_by_location	*proc_pack_cost*	BSAI crab-specific costs; packaging, materials, equipment and supply costs for crab processing	B	B
co_cost_fuel_detail	*lube_cost*	BSAI crab-specific costs; lubrication and fluids	B	N/A

table	variable_id	description	data quality classification	
			98-04	05->
co_cost_fuel_detail	*fuel_lube_flag*	BSAI crab-specific costs; binary code indicating inclusion of lubrication/fluids cost in total fuels cost, by fishery	N/A	B
co_cost_general	*coop_cost*	BSAI crab-specific costs; harvest cooperative membership and Inter Coop Exchange fees	B	B
co_cost_general	*repack_cost*	BSAI crab-specific costs; crab product re-packing costs	B	B
co_cost_general	*allbroker_cost*	BSAI crab-specific costs; brokerage and promotions costs for crab sales for all fisheries	B	B
co_cost_general	*waste_cost*	BSAI crab-specific costs; water, sewer, and waste disposal	B	B
crab_activity	*days_fishing*	days fishing	N/A	B
crab_activity	*days_travel_offload*	days traveling and offloading	N/A	B
crab_activity	*days_processing*	crab processing days	B	B
crab_labor	*avg_crew_size*	average number of crew members on vessel during the fishery, including captain	B	N/A
crab_labor	*num_processing_crew*	crab processing labor, no. of crew with pay determined by processing work, by fishery	B	B
crab_labor	*avg_num_proc_positions*	crab processing labor, average no. of crab processing positions, by fishery	B	B
cv_crab_landing_revenue	*pounds*	pounds sold, by fishery	B	B
cv_crab_landing_revenue	*deadloss*	deadloss pounds, by fishery	N/A	B
cv_crab_landing_revenue	*revenue*	gross revenue from ex-vessel sale, by fishery	B	B
co_cost_general	*prodstorage_cost*	BSAI crab-specific costs; product storage	B	B
annual_costs_by_location	*locate_code*		C	C
annual_costs_other_detail	*other_ac_desc*	BSAI crab-specific costs; other crab related expense, open-ended description	C	C
annual_costs_other_detail	*other_ac_code*	BSAI crab-specific costs; other crab related expense, classified description	C	C
annual_costs_other_detail	*other_ac_cost*	BSAI crab-specific costs; other crab related expense, cost	C	C
annual_costs_other_detail	*other_ac_coflag*	BSAI crab-specific costs; other crab related expense, cost	C	C

table	variable_id	description	data quality classification	
			98-04	05->
co_cost_by_location	*pots_count*	BSAI crab-specific costs; quantity of pots purchased	C	C
co_cost_by_location	*pots_cost*	BSAI crab-specific costs; cost of pots purchased	C	C
co_cost_by_location	*hgear_cost*	BSAI crab-specific costs; other crab harvest gear cost	C	C
co_cost_fuel_detail	*fuel_gal*	BSAI crab-specific costs; gallons of fuel used, by fishery	C	C
co_cost_fuel_detail	*fuel_cost*	BSAI crab-specific costs; cost of fuel used, by fishery	C	C
co_cost_general	*insurance_prem_cost*	BSAI crab-specific costs; insurance premiums	C	C
co_cost_general	*insurance_deduct_cost*	BSAI crab-specific costs; insurance deductible fees	C	C
co_cost_other_crab_detail	*other_crab_desc*	BSAI crab-specific costs; other crab related expense, open-ended description	C	C
co_cost_other_crab_detail	*other_crab_code*	BSAI crab-specific costs; other crab related expense, classified description	C	C
co_cost_other_crab_detail	*other_crab_cost*	BSAI crab-specific costs; other crab related expense, cost	C	C
co_cost_other_crew_detail	*other_crew_desc*	BSAI crab-specific costs; other crew-related expense, open-ended description	C	C
co_cost_other_crew_detail	*other_crew_code*	BSAI crab-specific costs; other crew-related expense, classified description	C	C
co_cost_other_crew_detail	*other_crew_cost*	BSAI crab-specific costs; other crew-related expense, cost	C	C
crab_activity	*days_at_sea*	days at sea	C	N/A
crab_activity	*pots_lost*	pots lost	C	N/A
fish_tickets	*fish_ticket_number*	CFEC fish ticket numbers, by fishery	C	C
owner_ifq_allocation	*pounds_harvested*	vessel owner's quota harvested on vessel, pounds harvested by fishery and quota permit type	N/A	C
owner_ifq_allocation	*pounds_transferred*	vessel owner's quota leased/transferred to another vessel, pounds leased, by fishery and quota permit type	N/A	C
owner_ifq_allocation	*revenue_from_transfer*	vessel owner's quota leased/transferred to another vessel, revenue, by fishery and quota permit type	N/A	C
quota_lease_costs	*leased_lb*	quota leased for use on vessel, pounds leased, by fishery and permit type	C	C
quota_lease_costs	*lease_cost*	quota leased for use on vessel, total cost, by fishery and permit type	C	C

table	variable_id	description	data quality classification	
			98-04	05->
quota_lease_costs	*num_crew_contribute*	number of crew (incl. captain) contributing IFQ C class shares	N/A	C
co_cost_general	*tax_cost*	BSAI crab-specific costs; total of fisheries taxes and fees	C	A
annual_totals	*total_days_at_sea*	annual totals for all fisheries, days at sea	C	B
co_cost_general	*other_labor_cost*	BSAI crab-specific costs; non-wage direct labor costs for crab processing	C	C

Table B: Data Quality Summary, Production-Related Variables

table	variable_id	description	Data Quality Classification	
			98-04	05->
crab_process_sales	*fob_port*	port of lading for FOB value; Seattle or Alaska	A	A
crab_process_sales	*affiliated_sale_flag*	identifier for sales to affiliated entities; 0=not affliated/1=affiliated	A	A
crab_production_out	*box_size*	box size	A	A
crab_production_out	*box_lb_kg*	box size units (kg or lb)	A	A
crab_production_out	*cust_proc_flag*	custom processed flag; indicating raw crab was processed for other licensed registered crab receiver	A	A
crab_raw	*processed_pounds*	pounds of raw crab processed (purchased or landed by the vessel if CP) by the vessel/plant	A	A
crab_raw	*supplied_to_custom_pounds*	pounds of raw crab sent for custom processing	A	A
custom_process_hired	*product_code*	product code; see Appendix A, Table 6 for code values	A	A
custom_process_hired	*process_code*	process code; See Appendix A, Table 7 for code values	A	A
custom_process_hired	*box_size*	box size	A	A
custom_process_hired	*box_lb_kg*	box size units (kg or lb)	A	A
custom_process_provided	*product_code*	product code; see Appendix A, Table 6 for code values	A	A
custom_process_provided	*process_code*	process code; See Appendix A, Table 7 for code values	A	A
custom_process_provided	*custom_process_pounds*	pounds processed, by fishery and product/process	A	A
custom_process_provided	*custom_process_revenue*	revenue received for custom processing the specified product	A	A
crab_process_sales	*spp_code*	crab species code; see Appendix A, Table 10 for species code values	B	B
crab_process_sales	*product_code*	product code; see Appendix A, Table 6 for code values	B	B
crab_process_sales	*process_code*	process code; See Appendix A, Table 7 for code values	B	B
crab_process_sales	*box_size*	box size	B	B
crab_process_sales	*finished_pounds_sold*	finished pounds sold for product form identified by code values	B	B
crab_process_sales	*fob_revenues*	total revenues for finished pounds of product form identified by code values	B	B
crab_production_out	*product_code*	product code; see Appendix A, Table 6 for code values	B	B

table	variable_id	description	Data Quality Classification	
			98-04	05->
crab_production_out	*process_code*	process code; See Appendix A, Table 7 for code values	B	B
crab_production_out	*finished_lbs*	finished pounds for product form identified by code values	B	B
crab_purchased	*ifq_code*	code for IFQ type used for landing of purchased crab; See Appendix A Table 5 for code values	N/A	B
crab_purchased	*pounds_purchased*	total pounds of raw crab purchased, by crab grade and size	B	B
crab_purchased	*gross_cost*	total gross cost of raw crab purchased, by crab grade and size	B	B
custom_process_hired	*cust_hired_finished_pounds*	finished pounds of specified product produced by custom processor	B	B
custom_process_hired	*cust_hired_process_cost*	total cost paid for specified product produced by custom processor	B	B
crab_process_sales	*crab_size_code*	crab size code; see Appendix A Table 8 for code values	C	C
crab_process_sales	*crab_grade_code*	crab grade code; see Appendix A, Table 9 for code values	C	C
crab_production_out	*crab_size_code*	crab size code; see Appendix A Table 8 for code values	C	C
crab_production_out	*crab_grade_code*	crab grade code; see Appendix A, Table 9 for code values	C	C
crab_purchased	*crab_size_code*	crab size code; see Appendix A Table 8 for code values	C	C
crab_purchased	*crab_grade_code*	crab grade code; see Appendix A, Table 9 for code values	C	C
custom_process_hired	*crab_size_code*	crab size code; see Appendix A Table 8 for code values	C	C
custom_process_hired	*crab_grade_code*	crab grade code; see Appendix A, Table 9 for code values	C	C

Table C: Data Quality Summary, Labor-Related Variables

table	*variable_id*	description	Data Quality Classification	
			98-04	05->
harv_labor_pay_detail	*fuel*	vessel costs treated in crew payment, fuel and lubrication costs	A	A
harv_labor_pay_detail	*food*	vessel costs treated in crew payment, food and provisions	A	A
harv_labor_pay_detail	*bait*	vessel costs treated in crew payment, bait	A	A
harv_labor_pay_detail	*tax*	vessel costs treated in crew payment, fish taxes	A	A
harv_labor_pay_detail	*observ*	vessel costs treated in crew payment, observer program costs	A	A
harv_labor_pay_detail	*cdq*	vessel costs treated in crew payment, CDQ lease costs	A	A
harv_labor_pay_detail	*ifq*	vessel costs treated in crew payment, IFQ lease costs	A	A
harv_labor_pay_detail	*ipq*	vessel costs treated in crew payment, IPQ lease costs	A	A
harv_labor_pay_detail	*travel*	vessel costs treated in crew payment, travel costs	A	A
harv_labor_pay_detail	*freight*	vessel costs treated in crew payment, freight costs	A	A
harv_labor_pay_detail	*gear*	vessel costs treated in crew payment, lost gear costs	A	A
crew_residence	*location*	identifies Alaska city of residence, state of residence if not Alaska, and country of residence if not US	B	B
harv_crew_lic_permit_nums	*crew_lic_nums*	Harvest crew license numbers	N/A	B
harv_crew_lic_permit_nums	*crew_gear_permit_num*	CFEC gear operator permit numbers for captain and crew members (comma-delimited list)	N/A	B
revenue_shares	*revshare_owner*	Vessel owner's percentage of net share, by fishery	B	B
revenue_shares	*revshare_crew*	Harvest crew percentage of net share, by fishery	B	B
revenue_shares	*revshare_capt*	Captain's percentage of net share, by fishery	B	B
crew_residence	*labor_res_count*	Combined count of processing workers and harvest crew with city, state, or country of residence as identified by location or locatecode	C	N/A
harv_labor_pay_dtl_other	*other_lpd_desc*	harvest labor pay detail description; other description; open-ended description	C	C
harv_labor_pay_dtl_other	*other_lpd_code*	harvest labor pay detail description; other, classified description	C	C
harv_labor_pay_dtl_other	*other_lpd_value*	harvest labor pay detail value. See data structure notes.	C	C

table	*variable_id*	description	Data Quality Classification	
			98-04	05->
revenue_shares	*revshare_procemp_net*	Processing worker revenue shares; percentage of net share	C	C
revenue_shares	*revshare_procemp_prodval*	Processing worker revenue shares; percentage of product value	C	C
crew_residence	*hcrew_res_count*	Count of harvest crew with city, state, or country of residence as identified by location or locatecode	C	B
crew_residence	*procemp_res_count*	Count of processing workers with city, state, or country of residence as identified by location or locatecode	C	B

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December 8, 2008

Eric A. Olson, Chairman
North Pacific Fishery Management Council
Anchorage, Alaska 99501

Re: Agenda Item C-4(d), Crab Management, Report on Crab EDR Metadata
Minutes of the PNCIAC meeting of December 1, 2008

Meeting called to order at 9:20 a.m. by the Chair, Steve Minor.

PNCIAC members in attendance: Steve Minor, Chair, Lance Farr, Kevin Kaldestad, Phil Hanson, Tom Suryan, Vic Sheibert; Gary Painter and Garry Loncon via teleconference; and Arni Thomson, Secretary.

NMFS/NOAA/ADFG/PSMFC in attendance: Ron Felthoven, Brian Garber Yonts, Mark Fina, Glenn Merrill, Stefanie Moreland, Heather Lazrus; via teleconference; Tom Meyer, Rachel Baker, Gretchen Harrington, NMFS AK/R.

Additional industry members in attendance: Jason Anderson, Best Use Cooperative, Brett Resor, UNISEA/RAS, Mark Gleason, Dale Schwarzmiller, PPSF Inc., Gretar Gudmundsson, Fishing Associates, Edward Poulsen, Sea Boats Cooperative.

Agenda: Chairman's Report and Continuation of Crab Metadata Review

Chairman's report: Steve Minor
The committee was informed that the NMFS has just published a Federal Register notice for a proposed rulemaking of Amendment 28 to the BSAI king and tanner crab FMP and the CR Program----to allow unlimited post delivery transfers of all classes of IFQs and IPQs. Glenn Merrill elaborated on the process and likely deadlines for public comment and implementation.

The Chair also reported on the nomination process and deadlines for PNCIAC appointment and/or reappointment.

Finally, the Chair also provided a short overview of the proposed Crab Handling Mortality research project being proposed as a public/private undertaking.

Metadata Review: The EDR data is expected to be used for program management analysis in the future; therefore, industry remains concerned about data quality issues. On behalf of industry, PNCIAC continues to pursue refinements to the metadata requirements in collaboration with NMFS/AFSC, the NPFMC and ADFG.

The PNCIAC has been engaged in an ongoing series of meetings since February of 2008 with NMFS AFSC, ADFG staff and Council staff regarding concerns over the nature and accuracy of the metadata that is the foundation of the mandatory Economic Data Reports (EDRs) under the BSAI Crab Rationalization Program.

Following a two day meeting (September 21-22) of a PNCIAC subcommittee with Ron Felthoven and Brian Garber Yonts (including ADFG and Council staff); this full PNCIAC Board meeting was scheduled as a follow-up to review the work of the subcommittee, including data set definitions and advice to users based on three classifications of data quality that are being used in the EDR metadata tables.

At this meeting, PNCIAC and NMFS/AFSC (with supporting comments from Fina, Moreland and Merrill) reviewed the revised data quality summary document and came to a consensus agreement on general statements of guidance for users of "A","B" and "C" classifications of data.

PNCIAC concerns have in general been addressed. Brian Garber Yonts revised statements of guidance on data quality in the data quality summary document and sent it back to the PNCIAC on December 2nd for review, prior to a mutually agreed upon statement and presentation to the NPFMC SSC.

NMFS/AFSC agreed that they would continue to work with PNCIAC on a final round of refinements to the metadata tables, metadata quality summary document and following that, revisions to the EDR forms.

Parties agreed that PNCIAC should have the opportunity to review the metadata tables to insure that the appropriate changes have been made since the September 21st meeting and that this review should be completed by January 9th. Mark Fina and Stefanie Moreland will also conduct a separate technical review of the metadata tables. Parties also agreed the target date for presentation of the final revised metadata tables and summary user guidance document is the February 2009 Council meeting.

At the conclusion of the PNCIAC meeting PNCIAC adopted a unanimous motion:

PNCIAC would like to acknowledge the collaborative efforts of the AFSC, NMFS/AKR, NPFMC, ADFG and PNCIAC members that has resulted in refinements and improvements to the EDR metadata. PNCIAC supports the continuation of this collaborative process.

The meeting was adjourned at 11:40 am.

Respectfully submitted,

Steve Minor, Chair
Pacific Northwest Crab Industry Advisory Committee

cc: John Jensen, Chair, State of Alaska Board of Fisheries