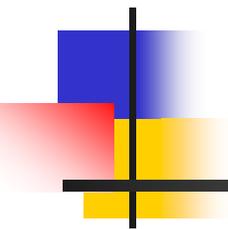


Policy Issues Affecting Fishery Statistics at NMFS*



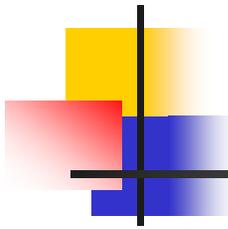
*Or, what I don't know about fishery statistics won't hurt me (will it?)

*Dr. Mark C. Holliday
Director, Office of Policy
August 22, 2007*



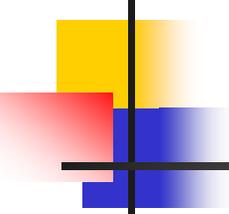
Outline of Talk

- Focus on fishery dependent
- U.S., primarily federal
- History, milestones, impacts
- Drivers, past and future
- The Agency's Agenda
- Your Personal Agenda



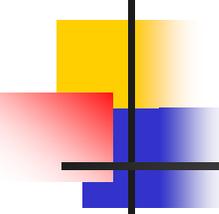
History

- 1791 Report to Congress by Sect'y of State Thomas Jefferson
- 1871 US Fish Commission creation
- 1880 – 1st general canvass of fisheries, coincident with census



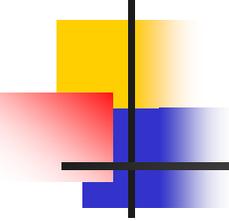
Statistics Timeline

- 1791 Secretary of State Thomas Jefferson delivers the first fisheries report to the US Congress
- 1871 US Fish Commission created by Congress
- 1887 Publication of a seven volume digest "The Fisheries and Fishery Industries of the US" based on 1880 US census
- 1898 Monthly landings reports compiled for Boston and Gloucester, MA
- 1903 US Bureau of Fisheries created from Fish Commission, new federal fishery responsibilities
- 1908 First general canvass of the fisheries covering the 48 states and Alaska
- 1917 Monthly cold storage holdings reports on frozen and cured fish initiated**
- 1923 Field offices established for WA, OR and CA general canvass agents
- 1928 Automobiles assigned to statistical agents conducting general canvass surveys**
- 1937 Fishery Market News program created by Congress
- 1938 Portable adding machines assigned to statistical agents**
- 1939 Monthly Fishery Market News Reports initiated
- 1939 US Bureau of Fisheries and Bureau of Biological Survey are moved to Department of Interior
- 1940 Field offices established for general canvass agents covering Atlantic, Gulf and interior states
- 1942 First-ever cooperative agreement for collection, tabulation and publication of state statistics, established with MD
- 1945 Seventh Market News Office established in San Pedro, CA; eighth in Hampton, VA**
- 1950 Collection and publication of monthly state-federal landings bulletins in AL, FL, MS
- 1955 First of four 5-year salt water angling surveys conducted



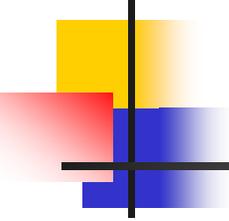
Statistics Timeline

- 1957 Baltimore, MD Market News sub office opened
- 1959 First general canvass covering the 50 states
- 1960 Collection and publication of monthly landings data in all major coastal producing states completed
- 1963 Landings of fish and shellfish in Puerto Rico published
- 1966 Commercial Fisheries Research and Development Act (PL 88-309) passed providing cost-sharing for data collection
- 1970 NOAA established by Executive Order
- 1976 FCMA passed establishing 8 mgt councils and a 200-mile fishery conservation zone**
- 1979 Printing and distribution of monthly and annual statistical bulletins discontinued**
- 1979 Initiation of Marine Recreational Fishery Statistics Survey
- 1980 First multistate-federal regional information system, PacFIN on west coast
- 1980 Paperwork Reduction Act passed regulating federal conduct of statistics and survey programs
- 1981 State-Federal Cooperative Statistics Program (CSP) initiated in SE region
- 1985 Publication of Market News Reports discontinued
- 1994 Initiation of recreational economics data collection program
- 1995 Creation of the Atlantic Coast Cooperative Statistics Program (ACCSP)
- 1996 Publication of "Our Living Oceans - the economic status of US fisheries"
- 1996 Creation of Social Science Research Plan
- 1998 Fishery Information System Report to Congress**
- 1998 Formation of Gulf of Mexico Fishery Information Network (GulfFIN)
- 2001 Initiation of commercial cost-earnings data collection programs
- 2003 Collection and publication of cold storage data discontinued**
- 2007 Magnuson Stevens Fishery Conservation and Management Reauthorization Act (PL 109-479)



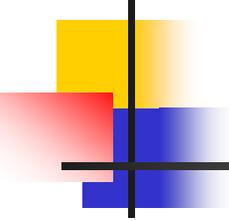
Drivers of Fisheries Data

- Different eras have own missions, responsibilities, thus create different data needs and priorities.
- One lens to look through is pre- and post-1976



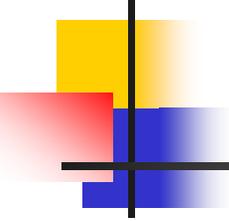
Pre-1976 era

- US Fish Commission (1870s) had three goals:
 - Exploration of US waters and its untapped resources
 - Study current fish practices & compile data
 - Initiate aquaculture
- Science focus to support development and expansion of commercial fishing industry



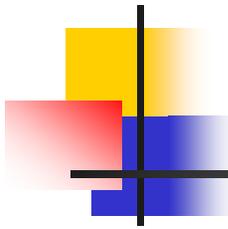
Pre-1976 era

- 20th century, Depression, WWI & WWII
 - Goals: Expanding food supplies, first time fish as part of a national economic engine, food security an issue
 - Focus on:
 - Marketing
 - Advancing Fishing Technology
 - Fishery Development
 - Fish protein/fish oil research



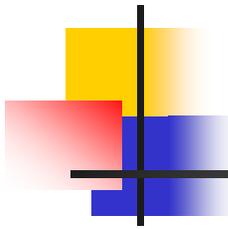
Pre-1976 era

- Post WWII – new fishery governance
 - Truman Proclamation
 - Law of the Sea
 - Conventions: ICNAF, IATTC, US Tuna Act
 - Beginning fishery globalization
 - Business and commerce focus to develop, support and expand commercial fishing industry world-wide



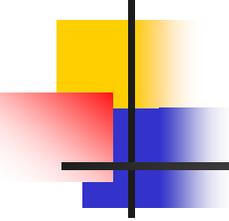
Pre-1976 era - Summary

- Data needed for business and commerce investments, construction, financing, gear development, home economics/extension, domestic & high seas exploitation
- Active management relatively unheard of; most data federal, not state; surveys/census in principal ports; daily to annual; voluntary; self-reported



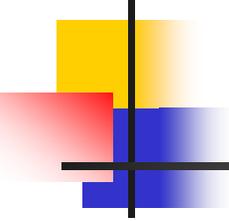
Post-1976

- The 70's, it was happening baby!
 - Creation of NOAA
 - Landmark legislation: NEPA, ESA, MMPA, and most impt. FCMA
 - New requirements, new statutory role: no longer exploratory science and research agency, but a ***science-based regulatory agency***
 - Premise: the statistics infrastructure was not prepared to deliver the goods; requirements established *ad hoc*; independent of capabilities, and we're still struggling



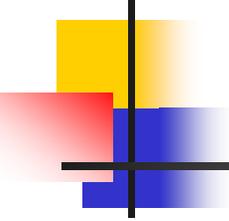
Post-1976

- Consequences of regulatory era:
 - Recreational data – a case study
 - Impacts of other applicable law (PRA, EO 12866, Data Quality Act)
 - Economic statistics - rise, fall, rising
 - Data quality under a regulated industry



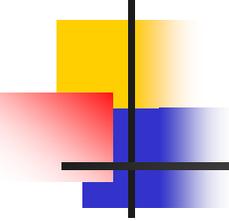
Recreational data

- A vigorous, systematic, continuous time series, scientifically-defensible, statistically sound
- A “victim” of mission creep, funding inadequacies and myopia



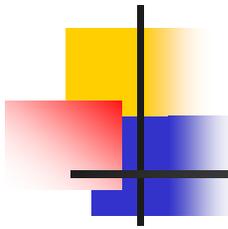
Other applicable law

- Used as impediments to collecting data
- Simultaneously, used to challenge policy based on resulting data – data as litigation bait



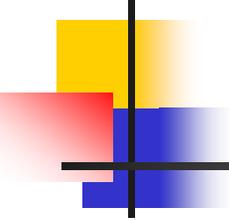
Economic statistics

- Biological data “versus” not “and”
Economic data
- More data pre-1976; do we even know who we are regulating?
- Turnaround (recent)



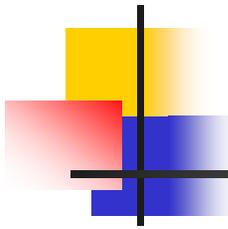
Data quality

- Misreporting
- Civil disobedience
- Spiraling effect of higher risk and uncertainty
- Validation, sample size, coverage, frequency, etc – all have cost impacts



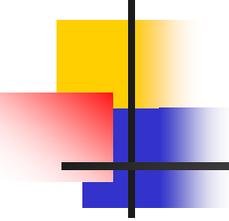
Post 1976 - Summary

- Collecting data on a regulated industry required planning, communication and money – each of which was in short supply.



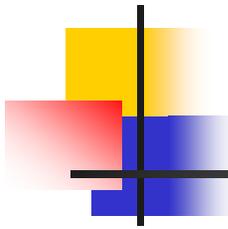
Fun Funding Facts

- Over 1978-2005, there's been a 35 percent decline in purchasing power in fisheries industry information line item, even though nominal amount has doubled
- The percent of the agency budget spent on statistics has declined from 7% in 1978 to 1.9% in 2005, even as agency total budget has increased by 600%



Fun Funding Facts

- Statistics has had an order of magnitude slower rate of growth than agency budget
- Fisheries contribute ~\$60B to GDP, but DOC spends less than 5/100ths of one percent on industry statistics

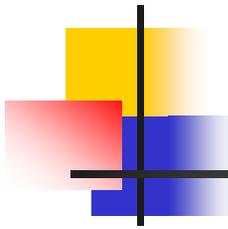


"Are we there yet?"

Table 2: Regional implementation requirements to create a U.S. Fisheries Information System (\$ million) (Adopted from NOAA, 1998)

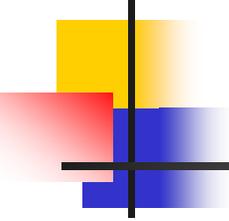
Region (1)	Data Collection & Integration	Information Technology & Architecture	Institutional Arrangements	Regional Total
NMFS	6.200	2.375	0.200	8.775
Atlantic	21.030	1.275	0.600	22.905
Gulf	6.860	0.750	0.150	7.760
Pacific	4.940	1.550	0.150	6.640
Western Pacific	4.060	1.250	0.550	5.860
Total	43.090	7.200	1.650	51.940

(1) Nationwide or inter-regional programs have been pro-rated across geographic regions.



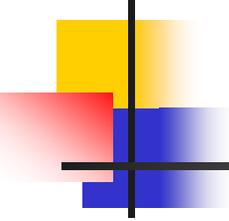
Future Drivers of Statistics

- MSRA – January 2007
 - LAPs
 - Removed economic data collection impediments
 - Redefined observer confidential data
 - Specify overcapacity
 - New recreational data regime



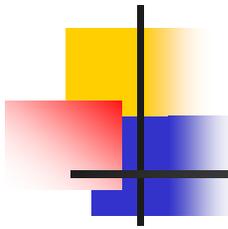
Future Drivers of Statistics

- Data collection trends
 - More observer than self-reported
 - E-reporting
 - Focus on what we don't know (errors, probabilities)
 - Data privacy, security protections



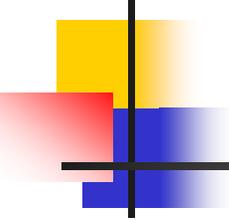
Future Drivers of Statistics

- Meta data/documentation:
Fighting junk science
- User fees – access fee to use a public resource (cost recovery, rent recovery)



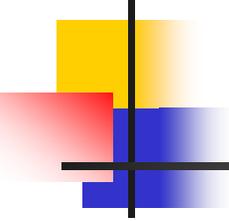
Future Drivers of Statistics

- Are we positioning ourselves to support decision making in an ecosystem context?
 - (Theory, data, analyses, models; incorporating risk, probabilities, tradeoffs)
- Post-decision - Are we developing reference points/performance measures to monitor progress and enable adaptive mgt?
 - (Of the process, of the outcome)



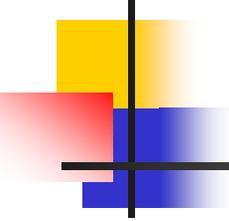
Agency Agenda

- Hogarth Legacy
 - “Integrate improved, more timely information from observation systems into management”
 - “Better recreational and commercial data, including socio economic”
 - National permit system
 - E-Reporting



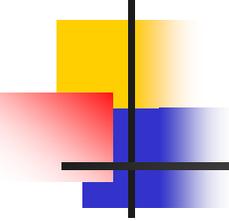
So What?

- To be successful, you need to:
 - Anticipate what the future requirements will be
 - Develop a game plan, and
 - EXECUTE IT!



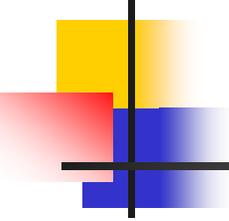
Good Questions:

- Has current game plan has served us well?
- How has it been executed?
- Let's...
 - Celebrate our successes
 - Learn from our defeats
 - Keep the pressure on...
- People in key leadership positions are sympathetic and willing to help, but
- You have to do your part, at the program level, and at the personal level



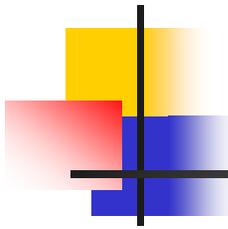
Your Personal Agenda

- Education
- Training
- Communication
- Advocacy
- Marketing



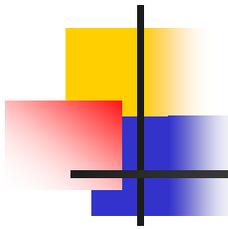
Education

- Ask where fishery statistics should be making a contribution but isn't.
- Find out how data collection & statistics funds are apportioned in your area
- Who else is doing similar work; find opportunities to collaborate, cooperate
- Capture sources of free labor, steal good ideas, don't reinvent them



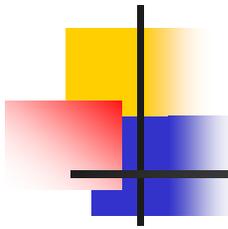
Training

- What does your boss, his/her boss need to know about fishery statistics, your program, your projects
- Raising fishery statistics literacy: When have you last given a seminar; spoken to a Council member/fishermen's group; had your work highlighted in FishNews; circulated data findings in the popular press; shared a beer with your harshest critic; staffed a booth at FishExpo?



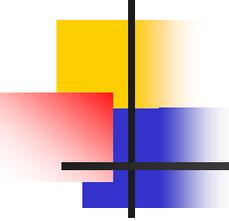
Communication

- How well do you translate into understandable formats and summaries the findings of your work?
- Do you know what level and kind of work will result in an outstanding performance rating?
- What question would you like to ask Bill Hogarth (or other senior leader) about fishery statistics – why haven't you?
- What would you like to tell Bill Hogarth (or other senior leader) about fishery statistics – why haven't you?



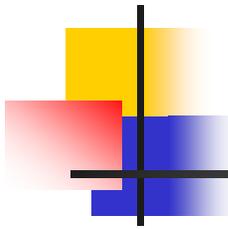
Advocacy

- Do you capitalize on every opportunity to represent your program at the decision table, to capture necessary resources, to have your input and requirements heard?
- In your area, who represents the fishery statistics perspectives in fishery policy and decision making?



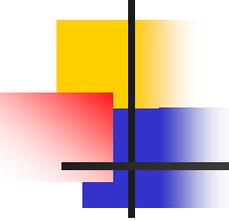
Marketing

- What products and services best highlight the accomplishments of your program?
- What measures of performance do you monitor and share?
- Are nominees from your program always submitted for recognition, awards, training and career opportunity programs?



Personal Challenge

- Before you eat lunch today, write down one (1) thing you will do (or do better) in the next 6 months to improve the state of fishery statistics in NOAA Fisheries.
- Share this with someone from outside your region.
- In the month of March 2007, contact your buddy and compare notes; write me an email and tell me about it. One person can make a difference.



**Do not go where the path may
lead, go instead where there is no
path and leave a trail.**

--Ralph Waldo Emerson