Electronic submission via DMS web site: http://dms.dot.gov.

May 8, 2006

R.T. Hewitt, Rear Admiral
Assistant Commandant for Command, Control,
Communications, Computers and Information Technology
U.S. Coast Guard
c/o Docket Management Facility
U.S. Department of Transportation (DOT)
Room PL-401
400 Seventh Street, SW.
Washington, DC 20590-0001

Subject: **USCG-2006-24068**

Department of Homeland Security, Coast Guard

Renewal of one Coast Guard Boating Accident Report Form (CG-3865), OMB Information

Collection Request (ICR) 1625–0003

Dear Rear Admiral Hewitt:

Design Research Engineering appreciates this opportunity to comment on the U.S. Coast Guard's (USCG) intention to seek Office of Management and Budget's (OMB) approval of the renewal of the Coast Guard Boating Accident Report Form (CG–3865), OMB Information Collection Request (ICR) 1625–0003. Specifically, our comments are directed at two of the four areas for which comments were solicited: (1) the practical utility of the collection, and (2) ways to enhance the quality, utility and clarity of the information that is subject to the collection. Following is a summary of our comments and recommendations.

Comments

- CG-3865 data collection, as implemented, is not in compliance 33 CFR, Part 173, Subpart C—Casualty and Accident Reporting, § 173.55(a) and (c), Report of Casualty or Accident.
- CG-3865 wording lacks clarity and definition of terms, in many parts of the form, which likely make it difficult for a vessel operator/owner to complete the form.
- CG-3865, and the related electronic database, lacks the structure and content to allow the USCG to meet some reporting objectives, including identifying possible manufacture defects in boats or equipment and developing boat manufacturing standards.

Recommendations

- Amend the reporting provisions of 33 CFR, Part 173.55(a) and (c) as soon a possible to reflect current and best reporting practices that boating accident report may be completed by a vessel operator *or* law enforcement official.
- Develop two accident report forms (1) a vessel operator report, and (2) a law enforcement report. While these documents would share common data elements, each could be designed to reflect the different reporting perspectives of a vessel operator reporting on a single vessel and a law enforcement officer reporting on the complete accident, including all vessels and persons involved.

- Test CG-3865 with a representative group of vessel operators and owners to determine how well they understand the current form and how accurately they are able to complete the form.
- Disclose the results of any 'pilot testing' of CG-3865, as described above, or some facsimile if the USCG has already performed this task. This information was not described in the 2003 Docket (USCG 2003-14928) or in this current renewal request.
- Evaluate the information collected in CG-3865, and change the form, as needed, to correct structural and content deficiencies.
- Involve all potential stakeholders in the evaluation and design of a revised boating accident report form and subsequent database that captures all necessary and important accident information.

A more detailed description of these comments and recommendations follows.

CG-3865 is an important data collection form which needs critical evaluation, not perfunctory renewal

We believe that CG-3865 should be an influential data collection instrument that deserves systematic evaluation to ensure that the quality and utility of the information supports the USCG Office of Boating Safety's mission of: "reducing loss of life, injuries, and property damage that occur on U.S. waterways by improving the knowledge, skills, and abilities of recreational boaters." (http://www.uscgboating.org). The USCG uses accident data, derived from CG-3865, to:

- establish National Recreational Boating Safety (RBSP) Program goals, objectives, strategies, and performance measures;
- report RPSB program performance to the Congress in annual reports and budgets,
- identify possible manufacture defects in boats or equipment;
- develop boat manufacturing standards;
- develop safe boating education and accident prevention programs; and
- publish accident statistics in accordance with Title 46 USC 6102.
 (see USCG-2006-24068-2, <u>Supporting Statement for OMB Form 1625-0003</u>, Lifesaving, Report of Recreational-Boating Accident, item #2)

Our comments highlight significant deficiencies in the structure and content of the CG–3865. We hope that our criticisms will be viewed constructively and not marginalized or ignored. Our review of the current Docket material and 2003 Docket informs us that our concern is not without basis.

- The brevity of supporting information for this USCG Docket invitation for comments would suggest that this renewal request is viewed as a rote exercise, merely a triannual bureaucratic requirement. For example, a copy of the current CG–3865 form is not included in the Docket material for public viewing (e.g. see Paperwork Reduction Act Submission form, OMB 83-1 and Supporting Statement, at USCG 2003-14928-2). OMB "Instructions For The Supporting Statement" indicates that a copy of the data collection form should be attached.
- The last request for renewal of this form, in 2003, solicited comments from only two interested parties (see USCG 2003-14928). The USCG response to these comments was self-congratulatory and mildly dismissive. Further, even in the three instances where the USCG concurred with comments that they would amend the existing form, no changes were made (see 46652 FR Aug 6, 2003, e.g., "The Coast Guard concurs and plans to... modify the form in the near future ... modify the revised BAR form in the near future ... will revise the BAR form in the near future."

Three years later, in 2006, these agreed-to, simple, changes have not yet been incorporated into the form. This is a reasonable conclusion given that this Docket submission lists the "Type of information collection" as an extension, not a revision, of a currently approved collection. Since CG-3865 does not

include a revision date at the bottom of the form, we were unable to confirm that these changes have not been implemented. Our phone calls to the USCG contact listed in USCG-2006-24068-2 have not been returned.

CG-3865 data collection, as implemented, is not in compliance 33 CFR, Part 173, Subpart C—Casualty and Accident Reporting, Report of Casualty or Accident, § 173.55(a) and (c)

CG-3865 data collection, as implemented, is not in compliance with 33 CFR, Part 173, Subpart C—Casualty and Accident Reporting, Report of Casualty or Accident, § 173.55(a) and (c). This implementing regulation requires that the operator of the vessel submit the casualty or accident report to the appropriate reporting authority; and, if the operator cannot submit the report, the owner shall. However, the USCG openly acknowledges that "Professionally trained law enforcement officers and accident investigators file reports for practically all fatal and many serious non-fatal injury accidents." ("Completion of the BAR Form by a Trained Law Enforcement Officer", 46652 FR, Vol. 68, No. 151, August 6, 2003)

We believe that the most accurate and unbiased boating accident reports are those completed by a law enforcement officer. However, this does not relieve the USCG's burden of complying with the federal regulation, or, in alternate, seeking an appropriate remedy to align the regulation with common and best reporting practices.

Also, there are secondary, unintended, adverse consequences to this regulatory restriction. In essence, the form is designed to the regulation (i.e. for use by a vessel operator or owner), not as it is used in the real-world. As a result:

- CG-3865 includes technical information that a lay person could not respond to in an accurate manner. (Note: This was well-illustrated in the 2003 Docket, comments from the Ohio Department of Natural Resources, USCG 2003-14928-4, June 24, 2003. See additional information on this topic in the next section)
- CG-3865 likely excludes more useful accident information that would be deemed too technical for a lay person, but would otherwise be accurately compiled by a law enforcement official.
- CG-3865 may not be user-friendly for law enforcement officials that complete reports for multivessel accidents. (Note: This was also described in the 2003 Docket, comments from the Ohio Department of Natural Resources, USCG 2003-14928-4, June 24, 2003)
- CG-3865 may not contain useful information when an owner is required to fill out a form because
 an operator cannot (e.g., the owner was not a witness to the accident). Again, the recommendations
 in the comments from USCG 2003-14928-4 are helpful in this regard, where they suggested
 distinguishing the reporting requirements for a person reporting an accident to a law enforcement
 official and for a person submitting an accident report.

Designing CG-3865 for an operator/owner while at the same time taking into consideration the use of the form by law enforcement officials means that CG-3865 has evolved into a document that does not adequately address the distinct needs and knowledge level of the operator/owner or law enforcement.

We recommend that the USCG:

- 1. Amend the reporting provisions of 33 CFR, Part 173.55(a) and (c) as soon a possible to reflect current and best reporting practices a casualty or accident report may be completed by a vessel operator *or* law enforcement official.
- 2. Develop two accident report forms (1) a vessel operator report, and (2) a law enforcement report. While these documents would share common data elements, each could be designed to reflect the different reporting perspectives of the operator/owner reporting on a single vessel and a law

enforcement officer reporting on the complete accident, including all vessels and person involved. This dual report recommendation is not without precedent, specifically related to motor vehicle accident report forms. Many states, for example Florida, New York, and Texas, have separate motor vehicle accident report forms for a driver/owner (self-reported) and law enforcement.

CG-3865 wording lacks clarity and definition of terms

In the absence of a USCG initiative to amend the implementing regulations, as described above, the current form needs to be revised because it lacks clarity to an extent that it could have an adverse impact on the accuracy and thoroughness of the reported information.

As currently designed for use by "the operator of a vessel", it is likely that some words and terminology used in CG-3865 would be unclear or unknown by the reporting individual. This comment was initially put forth by the Ohio Department of Natural Resources when commenting on the boat reporting form in the 2003 docket, (Ohio Department of Natural Resources, USCG 2003-14928-4, June 24, 2003)", see a copy of their comments in the following text box:

In general, the form is well laid out and includes greater detail. This increased detail, and some of the language used, may pose a problem for an operator to correctly complete all of the information requested. Terms such as "VSC", "BUT", "inherently buoyant", "USCG PFD Approval Number", and "tertiary" may require detailed explanations. Although the instructions require the operator or owner of the vessel to complete this report, the terminology used, the type of information to be supplied, and the perspective that the reporter must use would suggest a trained law enforcement officer should complete this form.

We concur with these comments. Various terms used in the form, such as "whitewater boating", "off-throttle steering", "runaway boat", as well as those mentioned by the Ohio Department of Natural Resources, could be confusing to vessel operators/owners. This confusion could lead to inappropriate reporting of information.

We recommend that the USCG:

- 1. Test CG-3865 with a representative group of vessel operators and owners to determine how well they understand the current form and how accurately they are able to complete the form.
- 2. Disclose the results of any 'pilot testing' of CG-3865, as described above, or some facsimile if the USCG has already performed this task. This information was not described in the 2003 Docket (USCG 2003-14928) or this current renewal request.

Note that throughout these comments, we are not providing detailed, line-by-line problem identification with wording and content from the current form, although we believe there are many. Rather, we hope our comments provide sufficient illustration to support our comments, conclusions and related recommendations.

<u>CG-3865</u>, and the related electronic database, lacks the structure and content to allow the <u>USCG</u> to meet it's reporting objective

CG-3865 and the related electronic database lacks the structure and content to allow the USCG to meet its reporting objectives and the intent of the reporting elements detailed in 33 CFR, Part 173, Subpart C—Casualty and Accident Reporting, Contents of report, § 173.57 (s) and (t).

Deficiencies prohibit the USCG from accomplishing critical reporting objectives, as described in the USCG submittal to the OMB for renewal of the boating accident report form and also specifically called out in the implementing regulations:

- "...identify possible manufacturer defects in boats or equipment; develop boat manufacturing standards; develop safe boating education and accident prevention programs..." (USCG-2006– 24068-2, Supporting Statement for OMB Form 1625-0003, Lifesaving, Report of Recreational-Boating Accident, item #2
- "Each report ... must contain, if available, at least the following information about the casualty or accident:...(s) A description of each equipment failure that caused or contributed to the cause of the casualty...[and] (t) A description of the vessel casualty or accident." 33 CFR § 173.57.

As shown in the first figure on the following page, an excerpt from CG-3865, page 2, "Accident Events and Contributing Factors" (inserted in the middle of "Vessel A" data collection), the report form includes several important topics, including:

- Operation at the time of accident
- Activity at the time of accident
- Type of accident (multiple response)
- Contributing factors (multiple response)
- Equipment failure, and
- Machinery failure.

There are no report instructions that direct the vessel operator/owner to describe this information for their vessel (i.e. Vessel A) or to describe this information as it relates to the overall accident (e.g. information that would relate to another vessel).

However, the second figure, which overlays the same CG-3865, page 2, shows how the current electronic CG-3865 database assigns, without explanation, this reported information to either the vessel or the accident overall, as follows:

Vessel

- Operation at the time of accident
- Activity at the time of accident

Accident (overall)

- Type of accident (multiple response)
- Contributing factors (multiple response)
- Equipment failure, and
- Machinery failure.

ACCIDENT EVENTS AND CONTRIBUTING FACTORS							
OPERATION AT TIME OF ACCIDENT	ACTIVITY AT TIME OF ACCIDE	ENT TYPE OF	ACCIDENT (NUMBER	DENT (NUMBER BY ORDER OF OCCURRENCE)			
☐ AT ANCHOR	☐ COMMERCIAL ACTIVITY	COMMERCIAL ACTIVITY CAPSIZING		GROUNDING			
☐ BEING TOWED	☐ FISHING	CARBON MONO	XIDE EXPOSURE	PERSON LEAVES A VESSEL			
☐ CHANGING DIRECTION	☐ FUELING	COLLISION WIT	H FIXED OBJECT	PERSON EJECTED FROM A			
☐ CHANGING SPEED	☐ HUNTING	COLLISION WIT	H FLOATING	VESSEL			
☐ CRUISING	☐ MAKING REPAIRS	OBJECT		SINKING			
□ DOCKING/UNDOCKING	RACING	COLLISION WIT		SKIER MISHAP			
☐ DRIFTING	☐ STARTING ENGINE	ELECTROCUTION		STRUCK BY VESSEL			
LAUNCHING	SWIMMING	FALL WITHIN A		STRUCK BY PROPELLER OR PROPULSION UNIT			
☐ ROWING/PADDLING	☐ SCUBA DIVING / SNORKLIN			STRUCK SUBMERGED OBJECT			
☐ SAILING	☐ FISHING TOURNAMENT	FALLS OVERBO		OTHER			
☐ TIED TO DOCK/MOORING	☐ TUBING	FIRE OR EXPLO					
☐ TOWING ANOTHER VESSEL	□ WATER SKIING	FIRE/EXPLOSIO	, , ,				
☐ OTHER (SPECIFY)	☐ WHITEWATER BOATING	FLOODING/SW/	AMPING				
BOATING CITATIONS ISSUED YES NO OPERATOR REPORT STATUS NO OPERATOR COMPLETE INCOMPLET				COMPLETE INCOMPLETE			
DID THE ACCIDENT RESULT IN A HIT AND RUN? YES NO NUMBER OF PEOPLE ON BOARD NUMBER OF PEOPLE BEING TOWED							
ESTIMATED SPEED AT TIME OF ACCIDENT NOT MOVING UNDER 10 MPH 10-2		MPH					
☐ IDLING ☐ PLOWING ☐ ACCELERATING ☐ PLANING (ON PLANE) ☐ DECELERATING							
CONTRIBUTING FACTORS (CHECK ALL THAT APPLY)			SPECIFY "EQUIPMENT FAILURE"				
☐ ALCOHOL USE ☐ LACK OF / IMPROPER BOAT I		R BOAT LIGHTS	☐ AUXILIARY EQUIPMENT FAILUIRE				
☐ CARELESS/RECKLESS OPERATION	□ OPERATOR INEXPE	RIENCE	COMMUNICATION EQUIPMENT FAILURE				
CONGESTED WATERS			☐ FIRE EXTINGUIS	HER NOT SERVICEABLE			
□ DAM/LOCK	☐ PASSENGER / SKIER	R BEHAVIOR	☐ SAIL DISMASTIN	IG			
☐ DRUG USE	☐ RESTRICTED VISION		☐ SEAT BROKE LOOSE				
☐ RULES OF THE ROAL		D VIOLATION	SOUND PRODUCING EQUIPMENT FAILURE				
☐ EXCESSIVE SPEED	☐ SHARP TURN		☐ VISUAL DISTRES	SS SIGNALS FAILED			
☐ FAILURE TO VENT	STANDING / SITTING GUNWHALE, BOW	S ON VS. AND TRANSOM	SPEC	IFY "MACHINERY FAILURE"			
☐ HAZARDOUS WATERS	☐ STARTING IN GEAR			☐ ELECTRIC SYSTEM FAILURE			
□ VESSEL HULL FAILURE □ WAKE			☐ ENGINE FAILURE				
☐ IGNITION OF SPILLED FUEL OR VAPOR ☐ WEATHER (HEAVY)			☐ FUEL SYSTEM FAILURE				
	FAILURE NO PROPER LOOKOUT		☐ SHIFT FAILURE				
☐ OPERATOR INATTENTION	☐ OFF-THROTTLE STEERING		☐ STEERING SYSTEM FAILURE				
☐ IMPROPER ANCHORING	IMPROPER ANCHORING NAVIGATION AID MISSING		☐ THROTTLE FAILURE				
☐ IMPROPER LOADING ☐ NAVIGATION AID NOT PERFORMING PROPERLY		☐ VENTILATION SYSTEM FAILURE					
				11			

ACCIDENT EVENTS AND CONTRIBUTING FACTORS							
OPERATION AT TIME OF ACCIDENT	ACTIVITY AT TIME OF ACCIDENT	TYPE OF ACCIDENT (NUMBER BY ORDER OF OCCURRENCE)					
□ AT ANG Vessel Level	□ COMM Vessel Level	Primary = Accident Level					
BEING	FISHIN	CARBON MONO		LEAVES A VESSEL			
☐ CHANGING DIRECTION	FUELING	COLLISION WITH FIXED OBJECT		PERSON EJECTED FROM A VESSEL			
☐ CHANGING SPEED	HUNTING	COLLISION WIT	H FLOATING	SINKING			
CRUISING	☐ MAKING REPAIRS	COLLISION WIT	'H VESSEL	SKIER MISHAP			
□ DOCKING/UNDOCKING	RACING	ELECTROCUTIO		STRUCK BY VESSEL			
☐ DRIFTING	☐ STARTING ENGINE	FALL WITHIN A		STRUCK BY PROPELLER OR			
LAUNCHING	SWIMMING	FALL ON A VES		PROPULSION UNIT			
☐ ROWING/PADDLING	SCUBA DIVING / SNORKLING	FALLS OVERBOARD		STRUCK SUBMERGED OBJECT			
SAILING	☐ FISHING TOURNAMENT	FALLS OVERBOARD FIRE OR EXPLOSION (OTHER)		OTHER			
☐ TIED TO DOCK/MOORING	☐ TUBING	FIRE OR EXPLOSION (OTHER)					
☐ TOWING ANOTHER VESSEL	☐ WATER SKIING	FLOODING/SWAMPING					
☐ OTHER (SPECIFY)	☐ WHITEWATER BOATING	FEOODING/SH/	AMPING				
BOATING CITATIONS ISSUED YES NO OPERATOR REPORT STATUS NO OPERATOR COMPLETE NICOMPLETE							
DID THE ACCIDENT RESULT IN A HIT AND RUN? YES NO NUMBER OF PEOPLE ON BOARD				MBER OF PEOPLE BEING TOWED			
ESTIMATED SPEED AT TIME OF ACCIDENT NOT MOVING UNDER 10 MPH 10-20 MPH 21-40 MPH OVER 40 MPH							
☐ IDLING ☐ PLOWING ☐ ACCELERATING ☐ PLANING (ON PLANE) ☐ DECELERATING							
CONTRIBUTING	CONTRIBUTING FACTORS (CHECK ALL THAT APPLY)			SPECIFY "EQUIPMENT FAILURE"			
□ ALCOHOL USE Primary	☐ ALCOHOL USE Primary = Accident Level IMPROPER BOAT LIGHTS		☐ AUXILIARY EQUIPMENT FAILUIRE				
CARELESS/RECKLESS	U OFERATOR INEXPERIENCE	R INEXPERIENCE		☐ COMMUNICATION EQUIPMENT FAILURE			
OPERATION WATERS	□ OVERLOADING	☐ OVERLOADING		☐ FIRE EXTINGUISHER NOT SERVICEABLE			
CONGESTED WATERS	□ PASSENGER / SKIER BEH	AVIOR	☐ SAIL DISMASTING Primary = Accident Level				
□ DAM/LOCK	□ RESTRICTED VISION	SEAT BROKE LOOSE					
	☐ DRUG USE ☐ RULES OF THE ROAD VIOL		☐ SOUND PRODUCING EQUIPMENT FAILURE				
☐ EQUIPMENT FAILURE	☐ SHARP TURN	RN USUAL DISTR		RESS SIGNALS FAILED			
□ EXCESSIVE SPEED □ STANDING / SITTING OF			SPEC	IFY "MACHINERY FAILURE"			
☐ FAILURE TO VENT GUNWHALE, BOWS, AND		ID TRANSOM	☐ ELECTRIC SYSTEM FAILURE				
☐ HAZARDOUS WATERS	☐ STARTING IN GEAR	TARTING IN GEAR		☐ ENGINE FAILURE			
☐ VESSEL HULL FAILURE		WAKE		D FUEL SYSTEM FAILURE			
☐ IGNITION OF SPILLED FUEL OR VA		WEATHER (HEAVY)		Primary = Accident Level			
MACHINERY FAILURE	_	□ NO PROPER LOOKOUT		STEERING SYSTEM FAILURE			
☐ OPERATOR INATTENTION	_	OFF-THROTTLE STEERING		THROTTLE FAILURE			
☐ IMPROPER ANCHORING	_	☐ NAVIGATION AID MISSING		☐ THROTTLE FAILURE			
☐ IMPROPER LOADING	■ NAVIGATION AID NOT PER	□ NAVIGATION AID NOT PERFORMING PROPERLY		U VENTILATION SYSTEM FAILURE			

The resulting problem from this confusing structure is two-fold: (1) the design of CG-3865 is insufficient to assign reported information to a specific vessel, and (2) the electronic database appears to artificially assign some of the reported elements to the vessel, but others within the same section of the form to the accident (not vessel specific).

Most notably, data that is only informative at the vessel-level, such as equipment or machinery failure, is assigned only at the accident-level. This makes it difficult to perform meaningful data analysis of "equipment failure that caused or contributed to the cause of the casualty" that could be used to "identify possible manufacturer defects in boats or equipment" or "[develop] boat manufacturing standards". It also inhibits the identification of contributing factors that might be more prevalent among certain types of operators or vessels from, for example, being integrated into boating education and accident prevention programs.

We recommend a systematic evaluation and change, as needed, of the CG-3865 to correct these structural and content deficiencies.

11

In summary, to meet its critical mission and supporting objectives that rely on the collection, analysis and reporting of recreational boating accident data, the USCG should systematically evaluate the content and structure of CG-3865. Due to the importance of this data gathering effort and the broad implications for boating safety policies and programs, the USCG should involve all potential stakeholders in the evaluation and design of a revised boating accident report form and subsequent database. The move to a new form that accurately portrays the accident data at the proper levels of causality and description— environmental factors, operator factors, and vessel factors— will help the USCG meet its ultimate goal of making the waterways safer for recreational boaters.

Please feel free to call or write for additional information and discussion of these important issues.

Sincerely,

Erik Morphy, MSE Senior Project Engineer Design Research Engineering

(248) 668-5527

morphy@dreng.com

Ent Mys

Barbara Moroski-Browne Senior Data Analyst

Design Research Engineering

Gerbara amoure

(248) 668-5522

mbrowne@dreng.com