

Request for Approval to Collect Information Under an Approved Generic Collection

TITLE OF INFORMATION COLLECTION: State of Hawaii Hurricane Behavioral Survey

TITLE AND OMB CONTROL NUMBER OF APPROVED GENERIC COLLECTION:
Hurricane Evacuation Behavioral Survey, 0710-0016

PURPOSE: The State of Hawaii Emergency Management Agency (HI-EMA), Federal Emergency Management Agency (FEMA), and U.S. Army Corps of Engineers (USACE) are updating the data from research conducted in 2009 with a survey of similar content and the same universe of respondents. Much has changed since 2009; the State and Counties need updates of information as they ponder policy and program changes. *Details related to the 2009 survey are outlined below under “Additional Information.”*

The HI-EMA will be using the survey results to assess public demand for their hurricane evacuation shelters and identify areas of focus to educate the public on sheltering options. Additionally, the purpose of the current survey is, at a minimum, to gather the following:

- a. Given the reality of resource limitations, determine whether the State and Counties should continue to upgrade old and construct new shelter spaces or whether sheltering in place is an acceptable option for protecting the resident population. Identify policy changes that might make sheltering in place a realistic option (e.g. incentives, building regulation adjustments). Determine whether retro-fitting shelters to be pet friendly is still important.
- b. Determine the level of hurricane understanding and preparedness among the resident population. Improve the understanding of how residents will behave in the face of a hurricane. Identify the specific elements of a stepped-up education program that will both increase preparedness and also impact evacuation decisions. Depending upon what is learned regarding opportunities for sheltering in place, the education plan may become critical in decreasing the shelter shortage by educating the public on options. Finally, as the world of communication continues to change, understand improved ways to reach and educate residents, especially vulnerable populations.
- c. Earlier this year, a mistake by an emergency management employee regarding a North Korean ballistic missile caused evacuation and high levels of anxiety among the Hawaii population. The false alarm was the talk of national commentators and in the headlines for weeks. Employees were released, decision-making protocols were altered. Additionally, there have been landfall events and near misses since the 2009 survey. Determine whether there may be impacts on the public’s confidence in a warning from public emergency managers and if so, given the extreme importance of their role in crisis situations, identify ways in which high levels of confidence can be maintained or recaptured.

These issues have significant financial and program implications for the State and the Counties. The information from this and the previous survey will greatly assist policy makers and program managers as they make decisions on these matters. The survey is being funded by FEMA through the Hurricane Evacuation Studies (FPMS) National Program in NAB. The Corps and FEMA partner in the HES program and an agreement was made between the agencies that USACE would handle all survey implementation.

DESCRIPTION OF RESPONDENTS: The survey’s overall universe of respondents is the totality of residential households in the State of Hawaii. The research also queries households within the context of the County within which they are located and whether they are situated in a coastal or inland setting. One might call these sub-universes as the research is concerned about maintaining a certain level of accuracy within those sub-sets. The overall universe is 450,600 households. The approximate number of households in the sub-universes are as follows:

County	Island	Coastal	Inland	Total
Honolulu	Oahu	265,900	43,700	309,600
Kauai	Kauai	10,400	12,000	22,400
Hawaii	Hawaii	22,700	42,400	65,100
Maui	Maui	15,900	34,000	49,900
	Molokai	300	2,100	2,400
	Lanai	1,100	100	1,200
STATE TOTAL		316,300	134,300	450,600

HOW INFORMATION WILL BE COLLECTED: This survey’s universe includes all households in the State. Household data is the most commonly collected data and will be the base of this research. The Consultant and their mail house partners maintain lists of most residences in the State (they estimate between 90% and 100% depending on the island). They will electronically bundle all households within each sub-area and randomly draw enough addresses to satisfy the sample sizes that the research design requires. The Consultant will draw a pool of addresses assuming a 15% response rate (e.g. to achieve a 450 sample size in Coastal Oahu, 3,000 Coastal Oahu households will be randomly drawn to make up the pool for that cell).

The samples sizes that the research is designed to achieve are as follows:

County	Island	Coastal	Inland	Total
Honolulu	Oahu	450	450	900
Kauai	Kauai	200	200	400
Hawaii	Hawaii	200	200	400
Maui	Maui	200	200	400
	Molokai	25	25	50
	Lanai	10	40	50
STATE TOTAL		1,085	1,115	2,200

Administration. The Consultant will mail the survey package to all households within the mailing pool; the package includes a letter of introduction and explanation, a handout describing different levels of hurricanes, and the survey instrument itself. After two weeks a reminder postcard will be mailed to all recipients, and after two more weeks a second wave of surveys will be mailed to recipients who have not returned their survey. The volume of the second wave will depend upon the number of instruments returned at that point. If, in the off-chance, the required sample sizes are not achieved through two waves of mail, the consultant will follow up with a telephone survey from their Honolulu call center, fielding the same, exact survey till sample size requirements are met.

The survey instruments will be reviewed for completeness and quality, then scanned into the Consultants' data base. The primary software for analysis will be SPSS. As a result of disproportionate geographic sampling, the results will be weighted before any analysis takes place.

Expected response rate and level of confidence. The sample plan assumes a 15 to 20% response rate. This is consistent with surveys of this nature that the Consultant has fielded in the past. The 2009 mail survey achieved a 21% response rate using the same methodology and a survey of approximately the same length and complexity.

The sampling plan is designed to result in a minimum of 400 household surveys in each County. This will yield a maximum 5% sample error at 95% confidence Countywide. The Statewide totals will achieve a maximum 2.6% sample error at 95% confidence. The coastal/inland splits on Oahu will achieve a maximum 5% sample error at 95% confidence, but that will not be achieved on the Neighbor Islands. As such, although their results will be reported, the more accurate coastal/inland splits will be analyzed on the Statewide level, where sample error will not exceed 3% at 95% confidence.

Non-response error. Researchers are always concerned with non-response error, especially when using mail surveys. To understand whether any non-response error is evident and to protect against it, the Consultants have focused on the administration of the survey. The following steps are taken on all of the Consultant's mail-surveys of this magnitude:

1. The instrument is pre-tested extensively, especially with a sample size this large. This instrument has already gone through pre-test with both professional peers and selected households. Following their completion of the survey, these pre-tested respondents were interviewed in-person or by phone to ask about the package, principally the survey itself. Adjustments were made to ease Administration and to ensure validity and reliability. As a result of the pre-test, the Consultant found that the introduction letter and the format of the questionnaire negate the need for question by question instructions. They suggest not including it as it adds to the burden of the respondent.
2. The sampling will utilize unbiased random procedure of selection, disproportionate only due to geographic differentiation by County and by Inland/Coastal identification. As the lack of representativeness is the primary problem created by non-response, the size and the randomness of the sample is critical.
3. Demographic questions have been included to ascertain whether the responders are generally representative of the universe. These include Age, Household Size, Income, Employment Status.

4. During the response stage, the Consultant's analysts will be closely monitoring the completeness of the responses and red-flagging any indications that there is confusion that might result in a high level of non-response.
5. If the targeted response rates are not achieved, the analysts will follow up by telephone with non-responders to ascertain whether there is something amiss in the administration and whether the opinions of non-responders differs significantly from those of the responders. This can be an expensive step and will only be taken with the clients' understanding and approval.

The cure for a finding of significant bias caused by non-response depends on the magnitude of the problem. It may be as simple as weighting the sample or as serious as re-mailing another survey with more detailed instructions that address the problem.

Reporting. The results will be prepared in hard copy and electronic reports. The specific results on a question by question basis will be summarized within the body of the report and appended in detailed. The methodology used and the results achieved will also be summarized in the report and appended in detail. The Consultant will not present a report that does not meet the design guidelines. The Consultant is prepared to present the findings to the Clients and to internal working groups. There are no public presentations included in the contract.

CERTIFICATION:

A generic information collection covers collections that are voluntary, low-burdened (based on a consideration of total burden, total respondents, or burden per respondent), and uncontroversial. If this information collection falls outside the scope of the approved umbrella collection or is otherwise inconsistent with the terms of the approved umbrella collection, your proposed information collection will be returned for additional information or require that the full process be followed, including the 60-Day and 30-Day public notices and comment.

By entering your name below, you agree to the following.

I CERTIFY TO THE FOLLOWING:

1. The collection is voluntary.
2. The collection is low-burden for respondents and low-cost for the Federal Government.
3. The collection is non-controversial and does not raise issues of concern to other federal agencies.
4. Information gathered will not be used for the purpose of substantially informing influential policy decisions.
5. The collection is targeted to the solicitation of opinions from respondents who have experience with the program or may have experience with the program in the future.

Name: *Milton Yoshimoto*

BURDEN HOURS

Category of Respondent	No. of Respondents	Participation Time	Burden Hours
Individuals & Households	2200	30	1100
Total	2200	30	1100

FEDERAL COST: \$129,190

ADDITIONAL INFORMATION: In 2009-2010, the US Army Corps of Engineers (USACE) commissioned multi-phased research to better understand the behavior of Hawaii's de facto population when faced with imminent danger from either a hurricane or a tsunami. The data collected through all phases of that effort were used to help calibrate a Mass Management System (MMS) that was being developed under the USACE Hurricane Evacuation Studies Program (HES). In addition, it was used by the State of Hawaii and the four Counties to re-examine public policy concerning and supplementing their on-going emergency management planning.

Among the more important supplemental findings from the 2009 surveys were the following:

- a. In anticipation of an incoming hurricane, and upon recommendation of public officials to evacuate, 37% of the households in the State would evacuate to a public shelter. This is in excess of the capacity of the existing shelters to accommodate and in excess of the State/Counties resources to construct. Further, this number does not include the tourists who cannot be accommodated within hotel operations.
- b. Nearly half the households in the State have pets and many pet owners will not evacuate without their pets. Pet friendly shelters were in very short supply at the time of the surveys.
- c. Although well informed, the vast majority of households were unprepared for a hurricane at any level. There was no sense of urgency, nor a realistic understanding of the level of damage a hurricane can cause. Access was available, but the message was not coming through.
- d. Hurricane preparedness and evacuation rates were highly determined by recommendations from public emergency managers. They enjoyed high esteem and were followed with few exceptions.

Publication of Results:

Will the results be published? No

Personally Identifiable Information:

1. Is personally identifiable information (PII) collected? **No**

2. If PII is collected, is the information that will be collected included in records that are subject to the Privacy Act of 1974? **N/A**
3. If Applicable, has a System or Records Notice been published? **N/A**

Gifts or Payments:

Is an incentive (e.g., money or reimbursement of expenses, token of appreciation) provided to participants? **No**

Instructions:

1. Have all applicable instruments, instructions and scripts been submitted? **Yes**
2. If No, why not? **N/A**