

Supporting Statement for Paperwork Reduction Act Submission

Section A. Justification

- 1. Necessity:** The worst airplane accident in history involved two commercial jets on a runway (occurring in 1977 in Tenerife, Canary Islands). Runway collisions continue to produce fatal consequences as most recently seen in Milan, Italy. The Department of Transportation (DOT) Office of Inspector General (OIG) lists “reducing the risk of aviation accidents due to runway incursions” as one of its top management challenges. Additionally, the National Transportation Safety Board (NTSB) has consistently included the issue of runway incursions on its “Most Wanted” list of transportation safety improvements since its inception in 1990. The events of September 11, 2001, shocked the confidence of the American public in the security of the nation’s aviation infrastructure. A runway collision would only serve to further undermine the public’s confidence in the National Airspace System (NAS). FAA has been concentrating on this issue for a decade and progress has been elusive, in part, because of a lack of specific feedback on safety initiatives from the people for whom they were designed to support. The numbers of runway incursions are too low to measure the effect of any single factor or intervention strategy by analyzing the incursions. While this is fortunate from a public safety standpoint, it is a disadvantage when trying to measure the effectiveness of intervention strategies. However, several government/industry advisory groups (such as the Runway Incursion - Joint Safety Implementation Team) have recommended that educational materials aimed at reducing runway incursions be widely distributed (e.g., to all pilots). Since we cannot evaluate the effectiveness of educational materials by analyzing incidents, other means must be used to assess their usefulness. Solicitation of critical and constructive feedback from the target audiences is the only means available to identify the aspects of these materials that are judged to be effective. Such data collection supports the DOT strategic goal on safety. The FAA Office of Runway Safety, whose current procedures and responsibilities were established by FAA Order 7050.1 (signed by the FAA Administrator on July 25, 2002), will collect the data.
- 2. Use of the Information:** Information to be collected will focus on pilot, controller, or vehicle driver practices and/or feedback on specific runway safety initiatives; e.g., training programs, changes to procedures, changes to infrastructure made to enhance runway safety (such as changes to paint, signs, lights, and markings), or aspects of airport design. Feedback gathered on the perceived effectiveness of specific strategies to prevent runway incursions will be used by the FAA to refine current intervention strategies and to develop new strategies to help reduce the severity and frequency of runway incursions.
- 3. Consideration of Technology to Reduce Burden** Surveys will be conducted in three different ways: 1) through the mail, 2) over the Internet, and 3) face-to-face interviews. Respondents in face-to-face interviews will be asked to respond verbally while personnel write down their responses to a series of questions.

While the Internet would be the written survey mechanism of choice, there is some concern as to whether distribution of the surveys via Internet alone would be effective.¹ For this reason, respondents (other than in personal interviews) will be given the option to respond via mail or via the Internet. The response rate via Internet and mail will be used to help design future surveys. (Programmatic intent is to collect information on a recurring basis over the next few years.) Except for the face-to-face interviews, the rest of the surveys (e.g., a mailing that will include a URL address as an alternative response mechanism, or a survey handed out at an air show that can either be mailed back or answered over the Internet) will be available 100% electronically. Expected time to complete one survey or interview is five to ten minutes.

4. **Avoiding Duplication:** Effort will be made to sample different audiences and vary the topic with each survey. We know of no other group collecting this same information.
5. **Small Business:** A sample of individuals and/or businesses may be included as potential respondents. The surveys will be voluntary, and information collected will not be attributed to specific individuals and/or organizations.
6. **Consequences if not Collected:** The DOT OIG and NTSB have identified runway incursions as a sustained risk for the traveling public for over a decade. Better information is required to reduce this risk.
7. **Special Circumstances:** There are no special circumstances requiring the information collection to be conducted in a manner inconsistent with the guidelines in 5 CFR 1320.5(d)(2).
8. **Outside Comments:** A notice in the Federal Register was published on August 15, 2007, vol. 72, no. 157, pages 45862-45863, announcing this request for continued clearance. No comments were received. A copy of this notice is attached for your convenience.
9. **Payments to Respondents:** No payment to respondents is anticipated. Distribution of aviation and safety-related information materials (e.g., books, pamphlets, instructional tools, CDs, videos, etc.) is part of this work; however, individuals can receive the materials whether or not they receive, or respond to, a survey.
10. **Assurance of Confidentiality:** In order to collect honest and unbiased information, it is important for the responses to be able to be submitted anonymously. Respondents will be assured confidentiality. No names of individuals or organizations will be cited. Respondents may, however, be given an opportunity to supply their names and addresses to receive additional aviation

¹ There is insufficient information to predict the response rate to FAA surveys conducted over the Internet. However, respondents in a marketing research roundtable discussion cited recent return rates ranging from 1-20%. A reluctance of pilots to respond without anonymity may also result in a low response rate via the Internet.

or safety-relation information, if desired. The Confidential Information Protection and Statistical Efficiency Act of 2002 (2002 CIPSEA; Title V of Public Law 107-347) would apply.

11. **Sensitive Questions:** No sensitive questions will be asked.
12. **Estimate of Hour Burden:** Each survey is expected to take five to ten minutes to complete, either verbally or written. We estimate a 70% response rate for in-person interviews, and a 50% response rate for surveys with a mail-in or Internet response option. Assuming that 10% of the surveys will be conducted with personal interviews, a total of 1,667 hours of burden are expected from a potential 10,000 respondents. Therefore, the estimated cost of the burden hours is \$41,675 based on \$25/hour for 10 min/survey. (Out of a potential 10,000 respondents, an estimated 5200 respondents would total 867 hours of burden and the estimated cost of the burden hours would be \$21, 675.)
13. **Cost to Respondents or Record Keepers:** There are no additional costs to the respondents not already included in number 10.
14. **Cost to the Federal Government:** It is estimated that the total annual cost to the federal government will be \$150,000. This estimate has already been budgeted in personnel and administrative costs. No additional funds will be requested resulting from this submission.
15. **Changes in Program Changes or Adjustments:** Not applicable; this is a new collection.
16. **Schedule and Publication:** Not applicable; the intent is not to publish the results of the surveys.
17. **Display of OMB Expiration Date:** No exemption is requested.
18. **Exceptions to Certification Statement:** There are no exceptions to the Certification Statement identified in item 19. Respondents are informed about the information called for under 5 CFR 1320.8(b)(3) in the oral introduction to the questionnaire.

Section B. Collection of Information Employing Statistical Methods

1. **Respondent Populations and Sampling Method:** Data will be collected from varied respondents who have access to the Nation's runways; e.g., pilots, aircraft support vehicle drivers, airport/airfield maintenance staff, management, and other personnel engaged in the operations of aircraft or airports, etc. Therefore, the sample population will be stratified into four general areas: pilots, vehicle drivers, pedestrians, and management who exercise oversight of the subject populations. Within these groups, the samples may be further stratified, depending on the nature of the survey. For example, there are over 650,000 pilots in the National

Airspace System with a current medical certificate. There are educational materials that will be sent to all pilots with a current medical certificate. A sample of these pilots (to be used to obtain feedback on educational materials) would be divided into general aviation pilots, air transport pilots, and certified flight instructors. Individuals would be randomly selected within these groups with a target number of responses of 1,000 per group. In some cases, individuals would be sampled from a specified target audience, e.g., people who drive vehicles at airports with an unusually high or low number of runway incursions per year. In these cases, the sample size will vary with the size of the population.

- 2. Procedures for Data Collection:** Methods will include the use of electronic feedback, mail, and person-to-person interviews.

Electronic data collection will primarily be associated with distribution of runway safety material intended to help reduce runway collision risk on the Nation's runways. It is anticipated that this feedback will help improve the effectiveness and utility of future runway safety material. Electronic feedback surveys will be voluntary and designed to take the respondents no more than five to ten minutes to complete. It is important to note that the option to mail in feedback surveys will be available for those respondents who choose not to respond online or who do not have the technology required.

Person-to-person interviews are planned for public events, such as air shows, aviation industry conventions, and safety seminars. These interviews will be no more than five to ten minutes in length, and will be designed to gain feedback about safety material handed out at an event booth, or to advise FAA of the level of runway safety knowledge held by the people who operate in the NAS. An alternate use of interviews will be to receive feedback on specific performance analysis projects; e.g., assess the impact of changing paint markings on or near the runway edge lines to increase pilots' awareness of their location on the airport relative to the runway surfaces.

- 3. Methods for Maximizing Response Rates:** Interviewers will be trained on how to approach respondents and how to conduct the actual interview to receive standardized, non-biased data. Written and on-line surveys will be accompanied by an introductory letter from the Director of the Office of Runway Safety explaining the purpose of the survey, the importance of the respondents' input, and how the results of the survey will be used. Since it is important for the respondents to have assurances of anonymity, follow-up mailings or telephone calls are ill advised and would not be used. All written and on-line surveys will be short (no more than one page front and back), and easy to fill out with multiple-choice answers (e.g., opinion questions with a Likert-scale response).
- 4. Tests for Procedures or Methods:** Pre-screening of survey questionnaires and interview questions will be conducted to discover and correct any inconsistencies. Improvements in content, flow, and dependability will be made, if necessary. Each type of survey will be voluntary, anonymous, short, and will impose a low level of burden on the respondent. While the sample population is limited to

voluntary respondents, the results will be analyzed with respect to any demographic variables that could be expected to affect the responses; e.g., experience level, aircraft rating, geographical location, or training received, etc.

5. **Names of Individuals Involved in the Design, Data Collection and Analysis of the Survey:** Dr. Kim Cardosi, Ph.D., (617-494-2696), Dr. Dan Hannon, Ph.D., (617-494-2198), and Suzanne Chen, statistician, of The Volpe Center, will serve as consultants in the design and development of the surveys, and in the analysis of the collected results. In addition, Michael McAnulty at the FAA Technical Center in Atlantic City, New Jersey, will serve as an additional resource for this work.