

## **SUPPORTING STATEMENT A**

### **Flight and Duty Limitations and Rest Requirements - Flightcrew Members OMB #2120-0751**

**1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection.**

The FAA has implemented a data collection activity, in the form of reports, from air carriers certificated under Title 14 Code of Federal Aviation Regulations (14 CFR) part 121 as prescribed in 14 CFR part 117, §§ 117.11 and 117.19 of the Flightcrew Member Duty and Rest Requirements. This reporting requirement is required any time the certificate holder exceeded a maximum daily flight time limit or a maximum daily Flight Duty Period (FDP) limit.

The maximum daily flight time and FDP limits are established to mitigate the potential effects of flightcrew member fatigue by reducing exposure to long duty days. Maintaining realistic scheduling is a critical element to fatigue mitigation as it is the principal element to assuring that the certificate holder's actual flight times and FDPs remain within the applicable limitations.

Action is required when a certificate holder exceeds a maximum daily FDP limit or a maximum daily flight time limit. The FDP limit is defined as a period that begins when a flightcrew member is required to report for duty with the intention of conducting a flight, a series of flights, or positioning or ferrying flights, and ends when the aircraft is parked after the last flight and there is no intention for further aircraft movement by the same flightcrew member. The maximum daily flight time limit resides within the constraints of the FDP.

The maximum daily FDP limits are located in one of two FDP tables referred to as Tables B and C of 14 CFR part 117. Table B prescribes the maximum FDP limits for two pilot crews (referred to as Unaugmented) and Table C prescribes the maximum FDP limits for three and four pilot crews (referred to as augmented).

The length of the maximum FDP limits in Table B is predicated upon the report time. The limit decreases incrementally based upon the time of day the flightcrew member is scheduled for that FDP and the number of scheduled segments. Since nighttime operations present the greatest risk for fatigue exposure, reducing the length of the FDP minimizes the risk exposure during late evening and night operations. Therefore, FDPs that start during the morning hours are longer than those that start in the late evening and night hours.

In order to increase the length of a maximum daily FDP, the flightcrew must be augmented by either one or two additional pilots above the minimum required as a means to mitigate this risk exposure. Table C prescribes the length of their maximum

daily FDP based upon the FDP scheduled start time and the classification of onboard rest facility used by the flightcrew.

Each FDP limit depicted in Table B or C is constructed with a thirty-minute (30) buffer at the end of the FDP, which is not reflected as part of the maximum daily FDP limit. The purpose for the buffer is to provide limited relief should the flightcrew member's actual FDP time exceed the maximum daily FDP limit by no more than 30 minutes. With the buffer resting at the end of the maximum daily FDP limit, the certificate holder may not schedule into this buffer. If the actual FDP time exceeds the 30 minute buffer, then the certificate holder must apply FDP extensions in accordance with 14 CFR § 117.19, *Flight Duty Period Extensions*.

The Federal Aviation Administration (FAA) recognizes that certain conditions occur such as unforecast weather conditions, air traffic delays or operational irregularities that may not be known by the certificate holder and pilot prior to takeoff. The result of these occurrences may cause delays, which present the potential for the flightcrew member's maximum daily FDP to be exceeded. In response to this situation, the FAA has adopted limited relief in the form of an extension to a maximum FDP. This relief allows the certificate holder, upon consent of the pilot in command, to extend the length of the maximum daily FDP by a total of two hours beyond the daily FDP limit.

The certificate holder is required to report any time that they use an FDP extension. Each certificate holder must report to the FAA within 10 days any flight duty period that exceeded the maximum flight duty period permitted in Tables B and C by more than 30 minutes. The report must contain a description of the extended flight duty period, the circumstances surrounding the need for the extension, and if the circumstances giving rise to the extension were determined by the Administrator to be within the certificate holder's control, the corrective action(s) that the certificate holder intends to take to minimize the need for future extensions. The certificated holder must implement the required corrective action(s) within 30 days from the date of the extended flight duty period.

Table A of Part 117 depicts the maximum daily flight time limits for unaugmented flight operations and § 117.11(a) depicts the flight time limitations for augmented flight operations. In the event a certificate holder extends the maximum daily flight time limit for a flightcrew member depicted in Table A or §117.11, *Flight Time Limitations*, the certificate holder must report this extension to the FAA within 10 days. The report must contain the length of the extension a description of the circumstances surrounding the exceeded flight time.

Certificate holders conducting operations pursuant to contracts with the U.S. Government or pursuant to a deviation under § 119.57, *Obtaining Deviation Authority to Perform an Emergency Operation*, may encounter circumstances that could prevent the flightcrew members from being relieved by another crew at the end of their applicable flight duty period or may need to exceed their applicable flight duty period to move the aircraft to another location where the flightcrew members can be safely

relieved by another crew. In this event, the pilot-in-command may determine that maximum applicable flight duty periods must be exceeded to the extent necessary to allow the flightcrew to fly to the closest destination where they can safely be relieved from duty by another flightcrew or can receive the requisite amount of rest prior to commencing their next flight duty period.

Should this event occur, the certificate holder must report within 10 days any flight duty period that exceeded the maximum flight duty period permitted in Tables B or C by more than 30 minutes. The report must contain a description of the extended flight duty period, the circumstances surrounding the need for the extension, and if the circumstances requiring the extension were within the certificate holder's control, the corrective action(s) that the certificate holder intends to take to minimize the need for future extensions. The certificated holder must implement the required corrective action(s) within 30 days from the date of the extended flight duty period.

Each air carrier is allowed to develop a Fatigue Risk Management System (FRMS) if they wish. FRMS is a voluntary program. The air carrier will be required to collect data specific to the need of the operation for which they will seek an FRMS authorization. It will result in an annual recordkeeping and reporting burden if some of industry carriers eventually adopt the system so that they need to report the related activities to the FAA.

Each air carrier will be required to develop specific elements, and incorporate these elements into the training program. Once the elements have been incorporated, the air carrier must submit the revised training program for approval.

**2. *Indicate how, by whom, and for what purpose the information is to be used.***

The certificate holder is responsible for submitting this report to the FAA no later than 10 days from the date of the extension. The submission of a report is mandatory any time the certificate holder (Part 121 Certificated Air Carriers) exceeded a maximum daily flight time limit or a maximum daily Flight Duty Period (FDP) limit. The information collection is reporting and recordkeeping in nature. The reporting is on occasion and as needed whenever flight time limits were exceeded as described above. The report must contain a description of the extended flight duty period, the circumstances surrounding the need for the extension, and if the circumstances giving rise to the extension were determined by the FAA to be within the certificate holder's control, the corrective action(s) that the certificate holder intends to take to minimize the need for future extensions. The certificated holder must implement the required corrective action(s) within 30 days from the date of the extended flight duty period. The certificate holder reports the information to the FAA. The purpose for this report is to ensure realistic scheduling is taking place. The maximum daily flight time and FDP limits are established to mitigate the potential effects of flightcrew member fatigue by reducing exposure to long duty days. Maintaining realistic scheduling is a critical element to fatigue mitigation as it is the principal element to assuring that the certificate holder's actual flight times and FDPs remain within the applicable

limitations. The method for reporting must be in writing and transmitted via electronic mail or by facsimile.

- 3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.**

All reports will be written and transmitted by either electronic mail or facsimile. This method minimizes the burden for data collection while expeditiously reporting the flight time or FDP extension occurrence. Submission of the information is available 100% electronically.

There is no form utilized for this collection – there are no plans to utilize a form. The certificate holders are given the freedom to report the information to their certificate management office in the manner that they see fit to do so. While the FAA specifies what information must be provided, they do not specify a specific form to do that.

This information is not provided to the public.

- 4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purpose(s) described in Item 2 above.**

The FAA currently has a program referred to as Voluntary Disclosure Reporting Program (VDRP). The purpose of the program is to allow the certificate holder to voluntarily disclose to the FAA when they have violated a particular limitation or rule. This report must be submitted to the FAA with 24 hours after the certificate holder learns that they have violated a limitation or rule. It requires the certificate holder to investigate and determine a root-cause for the violation and develop a comprehensive fix to ensure the violation will not occur again. Then the certificate holder has 30 days from the violation to implement the comprehensive fix.

This reporting requirement is modeled after the VDRP. However, VDRP is not regulated in the sense that it is required; it is simply a voluntary program. Therefore, since this reporting requirement is regulatory, the VDRP cannot be used to report; thus, there is no duplicate reporting system.

- 5. If the collection of information has a significant impact on a substantial number of small businesses or other small entities (item 15 of the Paperwork Reduction Act submission form), describe the methods used to minimize burden.**

The FAA does not feel this reporting requirement will have a significant impact on small businesses or other small entities.

6. ***Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.***

The FAA recognizes that certain conditions occur such as unforecast weather conditions, air traffic delays or operational and mechanical irregularities that may not be known by the certificate holder and/or pilot prior to takeoff. As a result of these occurrences delays can cause the flightcrew member's actual daily flight time or FDP to exceed maximum daily limit. In order to prevent such occurrences, the certificate holder would have to build substantial buffers into the schedule, which places an unnecessary burden on the certificate holder in the form of lost utilization. Therefore, the certificate holder will be provided with limited relief; thus, reducing a burden on the certificate holder by allowing them to extend the flight crew member's FDP by a maximum of two hours or the flight time limit to reach their final destination or alternate airport.

If there were no reporting requirements, the FAA could not track certificate holders utilizing extensions of flight time and FDPs. The purpose of this information collection is to ensure that certificate holders are realistically scheduling their flights. While the FAA recognizes that certain circumstances are beyond the control of the carrier (weather, ATC delays, etc), there are many circumstances that are within a carrier's control. The FAA wants to ensure that the carrier is realistically scheduling during periods within their control. If they are not, then the certificate holder needs to take corrective action and report that corrective action to the FAA. Flight Crew fatigue can have undesirable results so this information collection is being done to ensure that certificate holders are operating at the highest level of safety. Without this data collection requirement, as a safety sensitive item, the certificate holders would face a utilization burdens as a result of buffers that must be built into schedules.

7. ***Explain any special circumstances that require the collection to be conducted in a manner inconsistent with the general information collection guidelines in 5 CFR 1320.5(d)(2).***

There are no special circumstances.

8. ***Describe efforts to consult persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.***

A Federal Register Notice published on July 31, 2018 (83 FR 37041) solicited public comment. No comments were received.

9. ***Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.***

No payments or gifts will be provided.

**10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.**

We offer no assurance of confidentiality.

**11. Provide additional justification for any questions of sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.**

There are no sensitive questions.

**12. Provide estimates of hour burden of the collection of information.**

The paperwork burden comprises of five areas, fatigue risk management system §117.7, fatigue training §117.9, flight time limitation §117.11, and flight duty period extension reporting §117.19 and Emergency and government sponsored operations §117.29. The following analyses were conducted under Paperwork Reduction Act of 1995 (44 U.S.C. 3501).

1) PRA analysis for reporting fatigue risk management system (FRMS) §117.7 provision

Each air carrier is allowed to develop a Fatigue Risk Management System (FRMS) if it wishes. FRMS is a voluntary program. It will result in an annual recordkeeping and reporting burden if some of industry carriers eventually adopt the system so that they need to report the related activities to the FAA. Total FRMS annualized paperwork burden is determined by the numbers of FRMS to be developed and FRMS reporting cost per responders. FAA estimated that FRMS will incur the paperwork burden about \$18,860 annually, \$149,500 nominal cost for 10-years or \$99,186 present value at 7 %. FAA took steps to arrive the estimate as follows.

- a. Number of respondents (air carriers): the FAA estimated approximately 20 carriers or respondents;
- b. Estimated time of paperwork: about 11.5 hours per air carries and 230 hours in total for data collection, annual FRMS record-keeping and reporting required by the FAA;
- c. Average hourly wage rate of a FRMS information respondent (manager level): \$82<sup>1</sup> per hour for reporting and analyzing FRMS data. This salary includes a multiplier for overhead and benefits<sup>2</sup>;
- d. FRMS paperwork hour estimation: total 230 hours (11.5 hours x 20 estimated carriers);
- e. Total annualized cost of FRMS paperwork is about \$18,860 (230 hours x \$82) for the estimated 20 carriers.

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<sup>1</sup> <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2018/general-schedule/>

<sup>2</sup> Bureau of Labor Statistics, Employer Costs for Employee Compensation – September 2018, USDL-18-1941, Released December 14, 2018

f. The nominal cost for 10-year is \$149,500 or \$99,186 present value at 7 %.

2) PRA analysis for fatigue training §117.9 provision

The fatigue training requirement also results in an annual recordkeeping and reporting burden. Total fatigue training annualized paperwork burden costs are determined by the numbers of responders and fatigue training reporting cost per responders. FAA estimated that the fatigue training will incur the paperwork burden approximately 2,345 hours, \$192,290 for the first year, \$1.5 million nominal cost for 10-years or \$1 million present value at 7 %. FAA took steps to arrive the estimate as follows.

- a. Number of responders (dispatchers and managers): 67 operators;
- b. Estimated time needed for each responder: 35 hours, or 2,345 hours incurred by 67 responders;
- c. Average hourly wage rate of trainee: \$82 per hour<sup>3</sup>. This salary includes a multiplier for overhead and benefits.<sup>4</sup> ;
- d. Fatigue training paperwork cost: \$192,290 per annum (\$82 hourly wage rate x 2,345 hours)

3) PRA analysis for §117.11, §117.19 and §117.29 provisions

The FAA combined the cost estimates in one PRA analysis for three provisions (§117.11, §117.19 and §117.29), since paperwork burdens for carriers to report activities that were not otherwise permitted by §117.11, §117.19 and §117.29 are the same. Reporting and recordkeeping by carriers can be done electronically by addressing the facts of events. Under the above provisions, carriers do not need to conduct complicated analyses, so that there will be no paperwork burden of analyses. In this analysis, the estimate of paperwork burden will be determined by the numbers of respondents, the frequencies of their reporting, hours required and the reporter's wage rate. The FAA estimated the final annual paperwork burden for three provisions is \$49,446, and \$0.9 million for the 10-years nominal cost, or the present value of \$0.6 million at 7 %, by taking steps to arrive the estimate as follows.

- a. Number of respondents (air carriers): there are 67 carriers or respondents;
- b. Estimated frequencies for reporting requirements under each provision:  
Although a definitive frequency is unknown and will decrease as certificate holders adapt the changes, the FAA assumes an average of 6 times per year for each provision;
- c. Estimated total frequencies of annual responses: 18 times (6 x 3) per carrier and 1,206 times (67 x 18) by 67 carriers for these three provisions;
- d. Estimated time needed for each report for each occurrence: 30 minutes, one hundred percent of these responses will be collected electronically. The time needed for each carrier to report is about 9 hours (18 x 30 minutes), and 603 hours in total by 67 carriers for these three provisions;
- e. Estimated hourly wage rate of reporting staff: \$82 per hour. This salary includes a multiplier for overhead and benefits;
- f. The estimated total annual cost of reporting is about \$49,446 (603 hours x \$82);

<sup>3</sup> <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2018/general-schedule/>

<sup>4</sup> Bureau of Labor Statistics, Employer Costs for Employee Compensation – September 2018, USDL-18-1941, Released December 14, 2018

- g. The nominal cost for 10-years is about \$0.4 million or the present value of \$0.24 million at 7%.

Summarizing the above, the annualized cost is approximately \$260,596 and the total nominal cost for 10-years about \$2.1 million (\$0.15 million + \$1.5 million + \$0.4 million) or the present value of approximately \$1.3 million at 7% (\$0.1 + \$1 million + \$0.2 million). The public reporting burden is estimated to be an average of 47 hours for each Part 121 certificate holder and 3,178 hours, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. There will be no additional annualized cost to the Federal Government, because FAA will not add additional staffs or pay additional contractors for collecting, viewing and keeping electronic report-emails.

	Number of Respondents	Time Per Response	Annual Time Burden	Hourly Wage	Annual Cost
§117.7	20	11.5 hours	230 hours	\$82	\$18,860
§117.9	67	35 hours	2,345 hours	\$82	\$192,290
§117.11, §117.19, §117.29	67	30 minutes	603 hours	\$82	\$49,446
<b>TOTALS</b>			<b>3,178 hours</b>		<b>\$260,596</b>

SUMMARY	Reporting	Recordkeeping	Annual Totals
§117.7			
# of Respondents	20		20 Respondents
# of Responses	1		20 Responses
Time per Response	5.75 Hours	5.75 Hours	<b>230 Hours</b>
§117.9			
# of Respondents	67		67 Respondents
# of Responses	1		67 Responses
Time per Response	17.5 Hours	17.5 Hours	<b>2345 Hours</b>
§117.11, §117.19, §117.29			
# of Respondents	67		67 Respondents
# of Responses	18		1206 Responses
Time per Response	0.25 Hours	0.25 Hours	<b>603 Hours</b>
<b>TOTAL BURDEN</b>	<b>3,178 Hours</b>		

**13. Provide an estimate of the total annual cost burden to respondents or recordkeepers resulting from the collection of information.**

There are no additional costs not included in item 12 above.

**14. Provide estimates of annualized cost to the Federal Government.**

The FAA estimates \$347,144 annually for FRMS applications, data analysis, procedure analysis and validation:

	Daily	Weekly	Annually @ (52 weeks) <sup>56</sup>	Total Cost
FAA scientist	4 hours	20 hours	1040 hours, rate/hr 82.00	\$85,280
Contract scientist	4 hours	20 hours	1040 hours, rate/hr 83.00	\$86,320
FAA Inspector #1	4 hours	20 hours	1040 hours, rate/hr 77.69	\$80,798
FAA Inspector #2	3 hours	15 hours	780 hours, rate/hr 77.69	\$60,598
Admin (contractor)	2 hours	10 hours	520 hours, rate/hr 65.67	\$34,148
Total	17 hours	85 hours	4420 hours	\$347,144

**15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-1.**

There are no changes reported in this submission.

**16. For collections of information whose results will be published, outline plans for tabulation and publication.**

The data collected will not be published for public consumption.

**17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

We are not seeking such approval.

**18. Explain each exception to the certification statement identified in Item 19, “Certification for Paperwork reduction Act Submissions,” of OMB Form 83-1.**

There are no exceptions.

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<sup>5</sup> <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2018/general-schedule/>

<sup>6</sup> Wages are “fully loaded” in accordance with guidance found at: Bureau of Labor Statistics, Employer Costs for Employee Compensation – September 2018, USDL-18-1941, Released December 14, 2018