U.S. Department
of Transportation

**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

November 22, 2016

The Honorable John Thune
Chairman, Committee on Commerce,
Science, and Transportation
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

As required by the FAA Modernization and Reform Act of 2012, H.R. 658 (the Act), Section 315, the Federal Aviation Administration (FAA) is pleased to provide the enclosed report.

The Act directs the FAA to provide an annual report on the Flight Standards Air Carrier Evaluation Program (ACEP), including the Administrator's findings and recommendations with respect to the program. This is the FAA's fourth annual report on the ACEP.

We have sent identical letters to Chairman Shuster, Senator Nelson, and Congressman DeFazio.

Sincerely,

Michael P. Huerta
Administrator

Enclosure

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November 22, 2016

The Honorable Bill Shuster
Chairman, Committee on Transportation
and Infrastructure
House of Representatives
Washington, DC 20515

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The Honorable Bill Nelson
Committee on Commerce,
Science, and Transportation
United States Senate
Washington, DC 20510

Dear Senator Nelson:

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800 Independence Ave., S.W.
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November 22, 2016

The Honorable Peter A. DeFazio
Committee on Transportation
and Infrastructure
House of Representatives
Washington, DC 20515

Dear Congressman DeFazio:

As required by the FAA Modernization and Reform Act of 2012, H.R. 658 (the Act), Section 315, the Federal Aviation Administration (FAA) is pleased to provide the enclosed report.

The Act directs the FAA to provide an annual report on the Flight Standards Air Carrier Evaluation Program (ACEP), including the Administrator's findings and recommendations with respect to the program. This is the FAA's fourth annual report on the ACEP.

We have sent identical letters to Chairmen Thune and Shuster and Senator Nelson.

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Michael P. Huerta
Administrator

Enclosure

FEDERAL AVIATION ADMINISTRATION

Annual Report to Congress: Flight Standards Air Carrier Evaluation Program and Certificate Holder Evaluation Program – FY 2015

FAA Modernization and Reform Act of 2012 (P.L. 112-95) – Section 315

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Introduction

On February 14, 2012, President Obama signed into law the Federal Aviation Administration (FAA) Modernization and Reform Act of 2012 (the Act). Section 315 requires the FAA to annually submit a report on the Flight Standards Evaluation Program (FSEP), including the Administrator's findings and recommendations with respect to the program as follows:

> *(b) ANNUAL REPORT TO CONGRESS.—Not later than 1 year after the date of enactment of this Act, and annually thereafter, the Administrator shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives a report on the Flight Standards Evaluation Program, including the Administrator's findings and recommendations with respect to the program.*

This report has been prepared to fulfill that requirement. The FSEP program referenced in section 315 was established under FS1100.1B for the auditing of each individual FAA Flight Standards field office's processes to ensure standardization and quality assurance and not for the auditing or review of air carrier inspections or operations. A different program, the Air Carrier Evaluation Process (ACEP), established under FAA Order 8900.1, meets the intent and requirements of Section 315. Accordingly, this report provides the Administrator's findings and recommendations with respect to the ACEP rather than the FSEP. Beginning in Fiscal Year (FY) 2015 the FAA instituted the Certificate Holder Evaluation Process (CHEP). The CHEP replaced the ACEP with the introduction of the Safety Assurance System (SAS).

The ACEP program and subsequent CHEP program were developed in response to the recommendations in 2008 from the Independent Review Team (IRT)[1] and the DOT Office of Inspector General (OIG).[2] The ACEP program conducted periodic reviews of the effectiveness of 14 CFR Part 121 Air Transportation Oversight System (ATOS) design and performance. The CHEP program conducts periodic reviews of the effectiveness of 14 CFR Part 121 Safety Assurance System (SAS) element design and element performance.

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[1] Department of Transportation's (DOT) Independent Review Team (IRT) Blue Ribbon Panel report "Managing Risks In Civil Aviation: A Review of the FAA's Approach to Safety" (September 2008): Recommendation 10 – "The FAA should deploy the Internal Assistance Capability (IAC) recently established, to review the composition and conduct of any office or team identified under recommendation 6.4.2."

[2] Memorandum from Calvin L. Scovel III, DOT Inspector General, to Acting Federal Aviation Administrator, June 30, 2008, "Review of FAA's Safety Oversight of Airlines and Use of Regulatory Partnership Programs," Federal Aviation Administration Report Number AV-2008-057. Recommendation 7 – "Create a national review team to conduct periodic quality assurance reviews of FAA's oversight of air carrier to ensure that (a) appropriate processes and procedures are being applied consistently and (b) pertinent policies, laws, and regulations are being followed."

Air Carrier Evaluation Process (ACEP)

The Air Carrier Evaluation Process was conducted under the authority of Title 14 of the Code of Federal Regulations (14 CFR) part 119, §119.59 and in accordance with FAA policy.[3] Details of the ACEP were documented in accordance with AFS-900-006 of the FAA Office of Aviation Safety (AVS) Quality Management System (QMS) process. The FAA's Flight Standards National Field Office ACEP Team validated regulatory compliance using ATOS business process modules.[4] The results were recorded and are maintained in the FAA's ATOS database. Analysis and assessment results were based on the data collected. Any action(s) relative to the air carrier was initiated by the FAA Certificate Management Team (CMT) that oversaw the air carrier.

The objectives of each ACEP evaluation was to:

- Verify the air carrier complied with applicable regulations;
- Evaluated whether the air carrier was operating at the highest possible degree of safety in the public interest in accordance with Title 49 Section 44702; and
- Identified hazards and suggested mitigation strategies.

Air carriers were selected for evaluation approximately 12 months after initial certification and through a random selection process that ensured each air carrier was evaluated at least once every 5 years. An average of 5 air carriers per quarter were selected for evaluation and may have included 1 large air carrier (55 or more aircraft), 1 medium air carrier (26–54 aircraft), and 3 small air carriers (25 or fewer aircraft).

The FAA also reviewed various databases when scheduling evaluations for National ACEPs. This review may have caused the FAA to alter the ACEP scheduling priority. These databases include facts such as accidents and incidents, enforcement activities, pilot deviations, past assessments, financial condition, and other information.

We note that the FAA's ACEP process complied with the requirements of Section 315(a)(2) of the Act, as no individual may be assigned to a National ACEP if that person had responsibility for inspecting, or overseeing the inspection of, the operations of that carrier in the five-year period preceding the date of the evaluation.[5]

The National ACEP provided the FAA with the following:

- Consistent application of regulations/policy across all certificate-holding district offices;
- An independent evaluation of air carrier compliance;
- Standardization of the oversight process;
- Alerts for a system malfunction;

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[3] FAA Order 8900.1, Volume 10, Chapter 4, Section 1.

[4] Set by FAA Policy and defined in FAA Order 8900.1, Volume 10, Chapter 1, Section 1.

[5] FAA AVS Quality Management System, QPM #AFS-900-006, Revision 7, "National Air Carrier Evaluation Process (ACEP)," Effective Date: 12/05/2013, Page 8 of 13.

- Identification of inconsistencies in regulatory philosophies; and
- Data on Design Assessment and Performance Assessment results that could be trended.

Certificate Holder Evaluation Process (CHEP)

The CHEP is conducted in accordance with FAA Order 8900.1, Volume 10, Safety Assurance System Policy and Procedures, Chapter 8, Section 1, Safety Assurance System: Certificate Holder Evaluation Process. A CHEP will be scheduled on all 14 CFR Part 121 Certificate Holders. The procedures outlined in Section 1, Safety Assurance System: Certificate Holder Evaluation Process, Paragraph 10-8-1-9: Procedures, are used to conduct such evaluations.

The National CHEP Team validates regulatory compliance using Safety Assurance System (SAS) Modules 1 through 5. Results are recorded in the SAS database. Analysis and assessment results are based on the data collected and recorded in Module 5, Assessment Determination. Any action(s) relative to the Certificate Holder is initiated by the CMT in Module 5, Add Actions.

The CHEP allows for an in-depth look at one or more certificate holder systems and has three primary goals:

- Verify that the certificate holder's systems and sub-systems comply with applicable regulations,
- Evaluate whether the certificate holder is operating at the highest possible degree of safety in the public interest in accordance with Title 49 of the United States Code (49 U.S.C.) § 44702, and
- Identify hazards and mitigate associated risks.

Air carriers are selected for evaluation approximately 12 months after initial certification and through a random selection process that ensures each air carrier is evaluated at least once every 5 years. An average of 5 air carriers per quarter are selected for evaluation and may include 1 large air carrier (55 or more aircraft), 1 medium air carrier (26–54 aircraft), and 3 small air carriers (25 or fewer aircraft).

The FAA also reviews various databases when scheduling evaluations for National CHEPs. This review may cause the FAA to alter the CHEP scheduling priority. These databases include facts such as accidents and incidents, enforcement activities, pilot deviations, past assessments, financial condition, and other information.

We note that the FAA's CHEP process complies with the requirements of Section 315(a)(2) of the Act, as no individual may be assigned to a National CHEP if that person had responsibility for inspecting, or overseeing the inspection of, the operations of that carrier in the five-year period preceding the date of the evaluation.[6]

The National CHEP provides the FAA with the following:

[6] FAA Order 8900.1, Volume 10, Chapter 4, Section 1. Effective Date: 09/09/2014, Page 7 of 10.

- Consistent application of regulations/policy across all certificate-holding district offices;
- An independent evaluation of air carrier compliance;
- Standardization of the oversight process;
- Alerts for a system malfunction;
- Identification of inconsistencies in regulatory philosophies; and
- Data on Element Design Assessment and Element Performance Assessment results that can be trended.

National ACEP Accomplishments

The FAA's Flight Standards National Field Office (AFS-900) Certification and Evaluation Program Office (CEPO) ran the ACEP program. The ACEP assessments were conducted by eight teams of Aviation Safety Inspectors (ASIs).

In FY 2015, the FAA conducted four ACEP assessments. Fewer ACEP assessments were completed in the first quarters of FY 2015 due in part to the transition of the ACEP program to the CHEP program. In addition, the temporary reassignment of some CEPO staff to support the FAA's transition to a new oversight system (Safety Assurance System - SAS) led to a staffing shortfall of 15 team members within CEPO.

Table 1 shows the number of Design Assessment (DA) and Performance Assessment (PA) elements that were evaluated in each ACEP in FY 2015.

Table 1
National ACEPs by Operator in FY 2015:
Elements and Activities Completed

Fiscal Year/ Quarter	Operator	Operator Size	DA Elements	PA Elements
FY 2015 Q1	Kalitta Air LLC	M	7	16
	Mesa Airlines Inc.	L	7	25
FY 2015 Q2	Virgin America Inc.	M	6	17
	Hyannis Air Service Inc.	S	6	12
Total	**4 Operators**		**26**	**70**

Operator Size Categories: L = 55 or more aircraft, M = 26-54 aircraft, S = 25 or fewer aircraft

Table 2 shows all DA and PA elements that have been completed to date under the ACEP program. The table also indicates the "core elements" (with shading) that are recommended for inclusion in each ACEP. The FAA selects the specific DA and PA elements to be included in each ACEP based on the air carrier's operation.

Table 2
DA and PA Elements Included in All FY 2015 ACEP Assessments Combined

Element	Design Assessments Completed	Performance Assessments Completed	Total
1.2.1 Airworthiness Release / Maintenance Log Recording Requirements		2	2
1.3.1 Maintenance Program		4	4
1.3.2 Maintenance / Inspection Schedule		3	3
1.3.3 Maintenance Facility/Main Base		1	1
1.3.5 MEL / CDL / Deferred Maintenance		2	2
1.3.6 Airworthiness Directives		4	4
1.3.7 Maintenance Providers		4	4
1.3.9 Major Repairs & Alterations	1	4	5
1.3.11 Continuing Analysis and Surveillance System (CASS)	4	1	5
1.3.18 Deicing Program		1	1
1.3.25 Cargo Handling Equipment, Systems and Appliances	1	1	2
2.1.1 Manual Management		1	1
3.1.1 Passenger Handling	2	3	5
3.1.2 Crewmember Duties / Cabin Procedures	1	3	4
3.1.3 Airman Duties / Flight Deck Procedures		3	3
3.1.4 Operational Control		4	4
3.1.5 Carry-on Baggage Program	2	3	5
3.1.6 Exit Seating Program		3	3
3.1.7 De-Icing Program		2	2
3.2.1 Dispatch / Flight Release		4	4
3.2.2 Flight / Load Manifest / Weight and Balance Control		3	3
3.2.3 MEL/CDL/NEF Procedures	1	1	2
4.1.1 RII Personnel		1	1
4.2.1 Maintenance/RII Training		1	1
4.2.3 Training of Flight Crewmembers	4	1	5
4.2.4 Training of Flight Attendants	2		2
4.2.5 Training & Qualification of Dispatchers/Flight Followers	3	1	4
4.2.7 Training of Check Airmen	2		2
4.3.3 Advanced Qualification Program (AQP)	1	1	2
5.1.1 Line Stations	1	2	3

Table 2
DA and PA Elements Included in All FY 2015 ACEP Assessments Combined

5.1.5 – Line Station Operations / Ground Personnel Duties (Ops)		4	4
6.1.2 – Flight Crewmember/Duty/Rest Time		1	1
7.1.6 – Maintenance Control	1	1	2
Total	**26**	**70**	**96**

Note: PA Core elements include choices: 1.3.5 or 3.2.3; 1.3.18 or 3.1.7; 5.1.1 or 5.1.5.
ACEP core elements are shaded.

National ACEP Results - ADI Scores

Assessment Determination and Implementation (ADI) Scores – Design Analysis and Assessment (for DAs) and Performance Analysis and Assessment (for PAs) were an outcome of the ATOS business process. The analysis and assessment process modules were used to make a bottom-line assessment to determine whether the air carrier's system design met the standards for acceptance or approval (for DAs) and to determine if the air carrier's system performed as intended by regulations in such a way that it controlled environmental hazards (for PAs).

The ATOS analysis and assessment process required analysis of the Safety Attribute Inspection (SAI) data by element (for DAs) or Element Performance Inspection (EPI) data by element (for PAs). Specifically, the process required reviews of responses to SAI or EPI questions for that element, including "No" responses and explanations, "Yes" responses and comments, responses by question category and drop-down menu subjects, questions responded to as "Not Applicable," and text entered in the "Inspector Action Taken" box. The FAA assessed the data analysis package, comparing analyzed and assessed SAI/EPI data for the current DA or PA with historical data and other data for the Element. After assessing the ATOS data analysis package, the FAA determined whether the air carrier system design for that element met the requirements for either continued approval or acceptance, or initial approval or acceptance.

For a DA, once the bottom-line assessment was complete, the design was accepted or rejected and assigned a numerical ADI score from 1 to 6, as described in Table 3. The planning of corrective actions to be taken was conducted under the standards of an ATOS business module as well.

Table 3
Design Assessment ADI Scores

ADI Score	Assessment Result		Action Required
1-Green	Design Approved	No issues observed	No action required
2- Green	Design Approved	Minor issues observed	No action required
3-Yellow	Design Approved	Minor issues observed	Mitigation required
4-Yellow	Design Approved	Major issues observed	Mitigation required
5-Yellow	Design Approved	Safety and/or regulatory issues observed	Mitigation required
6-Red	Design Rejected	Systemic safety and/or regulatory issues observed	System reconfiguration by air carrier or applicant required

For a PA there is a similar process, whereby it was decided whether or not to affirm performance and assigning a numerical ADI score from 1 to 6, as described in Table 4.

Table 4
Performance Assessment ADI Scores

ADI Score	Assessment Result		Action Required
1-Green	Performance Affirmed	No issues observed	No action required
2- Green	Performance Affirmed	Minor issues observed	No action required
3-Yellow	Performance Affirmed	Minor issues observed	Action Required
4-Yellow	Performance Affirmed	Issues of concern observed	Action Required
5-Yellow	Performance Not Affirmed	Safety and/or regulatory issues observed	Action Required
6-Red	Performance Not Affirmed	Systemic safety and/or regulatory issues observed	System reconfiguration by air carrier or applicant is required

The ADI scores assigned in ACEP assessments in FY 2015 are shown in Table 5.

Table 5
ADI Scores Assigned in FY 2015 ACEP Assessments

ADI Score	Design Assessments		Performance Assessments	
	Number of Elements	Percent of DAs	Number of Elements	Percent of PAs
1-Green	6	23%	27	37%
2- Green	2	8%	3	4%
3-Yellow	7	27%	15	16%
4-Yellow	6	23%	15	25%
5-Yellow	5	19%	10	18%
6-Red	0	0%	0	0%
Total	**26**	**100%**	**70**	**100%**

There were no specific elements that were given the most serious ADI score of 6-Red during ACEPs in FY 2015.

Table 6 shows the average ADI scores for each of the core ACEP elements for FY 2015, sorted by the average score received across all the assessments of each element. The DA core elements with the highest average score was 4.2.4 Training of Flight Attendants with a score of 4.0. The PA core element with the highest average score was 1.3.5 MEL / CDL / Deferred Maintenance. PA core elements with the next highest average scores were 3.1.3 Airman Duties/Flight Deck Procedures, 1.3.1 Maintenance Program, 1.3.2 Maintenance / Inspection Schedule, and 3.1.2 Crewmember Duties / Cabin Procedures. Note that the scores at individual operators for these three elements were quite variable, ranging from 1 to 5.

Table 6
National ACEP Assessment Scores for Individual Core Elements with Totals of Scores for All Elements Combined* – FY 2015 -- *Sorted by Average Score*

Element	1-G	2-G	3-Y	4-Y	5-Y	6-R	Total Assessments	Average Score**
Design Assessments (DAs)	*Number of Times Score was Assigned*							
4.2.4 Training of Flight Attendants				2			2	***4.0***
4.2.5 Training and Qualification of Dispatchers/Flight Followers			1	2			3	***3.7***
4.2.3 Training of Flight Crewmembers	2				2		4	***3.0***

Table 6
National ACEP Assessment Scores for Individual Core Elements with Totals of Scores for All Elements Combined* – FY 2015 -- *Sorted by Average Score*

Element	1-G	2-G	3-Y	4-Y	5-Y	6-R	Total Assessments	Average Score**
4.2.7 Training of Check Airmen and Instructors	1				1		2	***3.0***
1.3.11 Continuous Analysis and Surveillance System	1		2	1			4	***2.8***
All DAs (Core & Non-Core)*	**6**	**2**	**7**	**6**	**5**	**0**	**26**	***3.0***
Performance Assessments (PAs)	*Number of Times Score was Assigned*							
1.3.5 MEL / CDL / Deferred Maintenance				1	1		2	***4.5***
3.1.3 Airman Duties/Flight Deck Procedures			1		2		3	***4.3***
1.3.1 Maintenance Programs			2	1	1		4	***3.8***
1.3.2 Maintenance / Inspection Schedule	1				2		3	***3.7***
3.1.2 Crewmember Duties / Cabin Procedures	1			1	1		3	***3.3***
5.1.5 Line Stations Operations / Ground Personnel	1		1	1	1		4	***3.3***
1.3.6 Airworthiness Directives and Maintenance Record Requirements	1		2		1		4	***3.0***
1.3.7 Maintenance Providers		1	2	1			4	***3.0***
3.1.5 Carry-On Baggage Program	1			2			3	***3.0***
3.2.3 MEL/CDL/NEF Procedures (OP)			1				1	***3.0***
1.3.9 Major Repairs and Alterations	2		1	1			4	***2.3***
3.1.4 Operational Control	2		1	1			4	***2.3***
3.1.1 Passenger Handling	2			1			3	***2.0***
3.1.6 Exit Seating Program	2			1			3	***2.0***
3.1.7 De-Icing Program	1		1				2	***2.0***
3.2.2 Flight / Load Manifest / Weight and Balance Control	1	1	1				3	***2.0***
5.1.1 Line Stations	1		1				2	***2.0***
3.2.1 Dispatch/Flight Release	3			1			4	***1.8***
1.3.18 Deicing Program	1						1	***1.0***
1.3.25 Cargo Handling Equipment, Systems and Appliances	1						1	***1.0***
All PAs (Core and Non-Core)*	**27**	**3**	**15**	**15**	**10**	**0**	**70**	***2.5***

**Scores for non-core elements are not shown individually, but are included in the totals.*
***Avg Score = the sum of (each ADI Score x number of times the score was assigned)/ by total assessments.*

Comparison of ACEP Assessment Scores to Scores from Prior Assessment of that Element by Certificate Management Team (CMT)

The ADI score from each ACEP element at each operator was compared to the ADI score from the prior assessment of that element conducted by the local CMT.

Table 7
FY 2015 ACEP Assessment Scores
Number of elements

Score	DA	PA	Total
1	6	27	33
2	2	3	5
3	7	15	22
4	6	15	21
5	5	10	15
6	0	0	0
Total	**26**	**70**	**96**

Table 8
FY 2015 ACEP Assessment Scores
Percent of elements from ACEPs

Score	DA	PA	Total
1	23%	39%	34%
2	8%	4%	5%
3	27%	21%	23%
4	23%	21%	22%
5	19%	14%	16%
6	0%	0%	0%
Total	**100%**	**100%**	**100%**

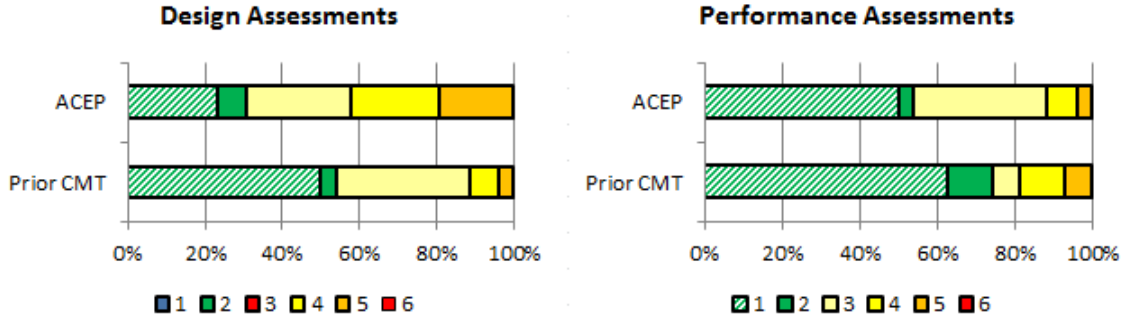
Table 9
Prior CMT Scores
Number of elements

Score	DA	PA	Total
1	13	44	57
2	1	8	9
3	9	5	14
4	2	8	10
5	1	5	6
6	0	0	0

Table 10
Prior CMT Scores
Percent of elements w/ prior CMT scores

Score	DA	PA	Total
1	50%	63%	59%
2	4%	11%	9%
3	35%	7%	15%
4	8%	11%	10%
5	4%	7%	6%
6	0%	0%	0%

Figure 1
Comparison of FY 2015 ACEP Assessment Scores to Prior CMT Assessment Scores
Percent of Elements



Actions Taken as a Result of ACEP Findings

The FAA addressed any element scored 3, 4, 5, or 6, and ensured any associated risk was mitigated to an acceptable level. The most common corrective actions taken, in general order of most serious to less serious, are as follows:

- Suspension of Certificate: If safety problems are severe the FAA can suspend the operating certificate of a carrier. For example, in 2011, one Part 121 operator voluntarily suspended operations and did not exercise the privileges of its certificate for about two weeks as a result of problems identified through an ACEP assessment. During the suspension, with FAA guidance, the operator addressed the safety issues and the FAA approved resumption of operations.
- Initiation of Enforcement Investigation Report (EIR): An EIR is initiated if an air carrier is (or has been) conducting operations contrary to applicable FAA regulations.
- System Reconfiguration: When the air carrier's system design is rejected or performance is not affirmed due to a systemic problem and/or a regulatory issue is observed, the CMO must take action. The air carrier may be required to modify its system or the FAA may modify its authorizations.
- Risk Management Process (RMP): The Risk Management Process provides a structured, systematic means for the FAA and operator to collaboratively document and track hazards and to oversee and evaluate the disposition of associated risks.
- Planning of Constructed Dynamic Observation Reports (ConDORs): A ConDOR allows data collection activities to be requested by Principal Inspectors and assigned to ASIs with instructions to inspect and collect data on specific areas of immediate concern outside of the normal assessment schedule.
- Planning of Additional PA or DA: Inspection activities not previously scheduled can be added to the CMT work plan to provide additional surveillance of particular areas of concern.
- Letter to Operator: Particular findings of the assessment process can be formally transmitted to the operator.

Table 11 summarizes the types of actions that were taken as a result of the four National ACEPs in FY 2015.

Table 11
Actions Taken as a Result of All FY 2015 National ACEP Assessments
(96 total elements assessed)

Action Taken	Number of Elements
Suspension of Certificate	0
Initiation of Enforcement Investigation Report (EIR)	5
System Reconfiguration	0
Risk Management Process (RMP)	2
Constructed Dynamic Observation Report (ConDOR)	16
Additional PA or DA	6
Letter to Operator	41

The EIRs initiated as a result of FY 2015 ACEPs involved three of the four ACEP operators, or 75 percent. One of these operators had EIRs initiated for three ATOS elements, the other two operators each had one element involved. EIRs were initiated as a result of one FY 2015 ACEP Design Assessments and four FY 2015 ACEP Performance Assessments, as shown in the following table.

Table 12
Elements Involving EIRs as a Result of FY 2015 ACEP Assessments

ATOS Element	Number of DA Elements	Number of PA Elements
1.2.1 Airworthiness Release/ Maintenance Log Recording Requirements		1
1.3.2 Maintenance / Inspection Schedule		1
3.1.2 Crewmember Duties / Cabin Procedures		1
3.1.3 Airman Duties / Flight deck Procedures		1
4.2.3 Training of Flight Crewmembers	1	
Total	**1**	**4**

There were no System Reconfigurations initiated as a result of FY 2015 ACEPs.

The RMPs initiated as a result of FY 2015 ACEPs involved two of the four ACEP operators, or 50 percent. One of these operators had an RMP initiated on one ATOS element and the other one operator had RMPs initiated on two ATOS elements. RMPs were initiated as a result of two FY 2015 ACEP Design Assessments and one FY 2015 ACEP Performance Assessments, as shown in the following table.

Table 13
Elements in which RMPs Were Initiated as a Result of FY 2015 ACEP Assessments

ATOS Element	Number of DA Elements	Number of PA Elements
3.2.3 MEL/CDL/NEF Procedures	1	
4.2.3 Training of Flight Crewmembers	1	1
Total	**2**	**1**

The ConDORs initiated as a result of FY 2015 ACEPs involved all four ACEP operators, or 100 percent. One of these operators had ConDORs initiated for eight ATOS elements; one operator had five elements involved; one operator had two elements involved; one operator had one element involved. ConDORs were initiated as a result of five FY 2015 ACEP Design Assessments and nine FY 2015 ACEP Performance Assessments, as shown in the following table.

Table 14
Elements in which ConDORs Were Initiated as a Result of FY 2015 ACEP Assessments

ATOS Element	Number of DA Elements	Number of PA Elements
1.3.1 Maintenance Program		1
1.3.7 Maintenance Providers		1
1.3.9 Major Repairs & Alterations		1
1.3.11 Continuous Analysis and Surveillance System	1	1
3.1.5 Carry-On Baggage Program	1	1
3.1.6 Exit Seating Program		1
4.2.3 Training of Flight Crewmembers	1	1
4.2.4 Training of Flight Attendants	1	
4.2.5 Training and Qualifications of Dispatchers / Flight Followers	1	
5.1.1 Line Stations		1
5.1.5 Line Station Operations / Ground Personnel Duties (Ops)		1

National CHEP Accomplishments

The FAA's Flight Standards National Field Office (AFS-900) Certification and Evaluation Program Office (CEPO) administers the CHEP program. The CHEP assessments are accomplished by eight teams of Aviation Safety Inspectors (ASIs).

In FY 2015, the FAA conducted seven CHEP assessments. Fewer CHEP assessments were completed in first and second quarters of FY 2015 due in part to the continued assessments administered under the ACEP program. The ACEP program is being phased out after FY 2015.

Table 15 shows the number of Element Design Assessment (EDA) and Element Performance Assessment (EPA) elements that were evaluated in each CHEP in FY 2015.

Table 15
National CHEPs by Certificate Holder in FY 2015:
Elements and Activities Completed

Fiscal Year/ Quarter	Certificate Holder	Certificate Holder Size	EDA Elements	EPA Elements
FY 2015 Q1	Corvus Airlines	S	4	10
FY 2015 Q3	Rhoades Aviation	S	4	13
	Aeko Kula, Inc.	S	5	14
	Lynden Air Cargo	S	5	16
FY 2015 Q4	Republic Airlines	M	4	15
	Air Wisconsin	M	5	17
	GoJet Airlines	M	5	17
Total	**7 Certificate Holders**		**32**	**102**

Certificate Holder Size Categories: L = 55 or more aircraft, M = 26-54 aircraft, S = 25 or fewer aircraft

Table 16 shows all EDA and EPA elements that have been completed to date under the CHEP program. The table also indicates the "core elements" (with shading) that are recommended for inclusion in each CHEP. The FAA selects the specific EDA and EPA elements to be included in each CHEP based on the certificate holder's operation.

Table 16
EDA and EPA Elements Included in All FY 2015 CHEP Assessments Combined

Element	Element Design Assessments Completed	Element Performance Assessments Completed	Total
1.1.3 Continuous Analysis and Surveillance System	5	2	7
1.1.4 (AW) Reliability Program	1		1
1.2.2 OP Manual Management	1		1
1.3.2 AW Manual Management	1		1
2.1.1 Training of Flight Crewmembers	6	1	7
2.1.2 Training of Check Airmen	7		7
2.1.3 OP / Simulators / Training Devices		1	1
2.1.5 OP / Appropriate Airmen / Crewmember Checks & Quals (Recurrent)		1	1
2.2.1 Airman Duties / Flight Deck Procedures		7	7
3.1.1 Training and Qualification of Dispatchers / Flight Followers	6		6
3.3.1 Operational Control		6	6
3.3.2 Dispatch / Flight Release		7	7
3.3.3 Flight/Load Manifest/Weight and Balance Control		7	7
3.3.4 MEL / CDL / NEF Procedures	1	5	6
4.2.1 Maintenance Programs		7	7
4.2.2 Maintenance / Inspection Schedule		5	5
4.2.3 AD Management		6	6
4.2.4 Recordkeeping		6	6
4.2.5 Maintenance Control		1	1
4.3.2 Required Inspection Items (RII)		2	2
4.3.3 MEL/CDL/Deferred Maintenance		3	3
4.3.4 Major Repairs and Alterations	1	5	6
4.5.2 Maintenance Providers		6	6
4.5.3 Line Stations		4	4
5.1.1 Training of Flight Attendants	2		2
5.2.1 Crewmember Duties / Cabin Procedures		4	4
5.2.2 Carry-on Baggage Program		4	4
5.2.3 Exit Seating Program		3	3
5.2.4 Passenger Handling		3	3
6.2.3 OP/ Deicing Program	1		1
6.2.4 Line Station Operations / Ground Personnel		5	5

Duties			
6.3.3 Cargo Handling Equipment, Systems and Appliances		4	4
Total	**32**	**105**	**137**

Note: CHEP core elements are shaded

National CHEP Results - Assessment Determination Options (ADO) Scores

An outcome of the SAS business process is the ADO Score. The SAS Analysis, Assessment and Action (AAA) procedures and tools are used to make a bottom-line assessment to determine whether or not the certificate holder's system design meets the standards for acceptance or approval (for EDAs) and to determine if the certificate holder's system performs as intended by regulations in such a way that it controls hazards (for EPAs).

The SAS analysis and assessment contains the processes for making a decision about whether to approve, accept, or reject the performance or design of a certificate holder's or applicant's program. Specifically, the process requires reviews of responses to Element Design Data Collection Tool (ED DCT) or Element Performance Data Collection Tool (EP DCT) questions for that element, including "No" responses and explanations, "Yes" responses and comments, responses by question category and drop-down menu subjects, questions responded to as "Not Applicable," and text entered in the "Inspector Action Taken" box. The FAA assesses the data analysis package, comparing analyzed and assessed ED DCT/EP DCT data for the current EDA or EPA with historical data and other data for the Element. After assessing the SAS analysis package, it is determined whether the certificate holder's system design for that element meets the requirements for either continued approval or acceptance, or initial approval or acceptance.

For an EDA or EPA, once the bottom-line assessment is complete, the design is accepted or rejected and assigned a numerical ADO score from 1 to 4, as described in Table 17. The planning of corrective actions to be taken is conducted under the standards of a SAS business module as well.

Table 17
Assessment Determination Option Scores

ADO Score	Assessment Result		Action Required
1-Green	Performance or Design Affirmed	No issues or findings observed	No action required
2-Yellow	Performance or Design Affirmed	Minor, nonregulatory issues observed	Action required
3-Yellow	Performance or Design Affirmed	Nonsystematic regulatory issues observed	Action required

4-Red	Performance or Design Not Affirmed with Action Required	Regulatory and/or Systemic issues observed	Action required

The ADO scores assigned in CHEP assessments in FY 2015 are shown in Table 18.

Table 18
ADO Scores Assigned in FY 2015 CHEP Assessments

ADO Score	Element Design Assessments		Element Performance Assessments	
	Number of Elements	Percent of EDAs	Number of Elements	Percent of EPAs
1-Green	7	18%	39	41%
2-Yellow	16	42%	30	31%
3-Yellow	10	26%	15	16%
4-Red	5	13%	12	13%
Total	**38**	**100%**	**96**	**100%**

The specific elements that were given the most serious ADO score of 4-Red during CHEPs in FY 2015 are listed in Table 19.

Table 19
National CHEP -- Elements in FY 2015 Assigned ADO Scores of 4-Red

Element	EDA	EPA
2.1.1 Training of Flight Crew Members		1
2.1.2 Training of Check Airmen	2	
2.1.5 Appropriate Airmen / Crewmember Checks & Qualifications (Recurrent)		1
2.2.1 Airman Duties / Flight Deck Procedures		1
3.1.1 Training and Qualification of Dispatchers / Flight Followers	3	
3.3.1 Operational Control		1
3.3.2 Dispatch / Flight Release		2
4.2.3 AD Management		1
4.3.3 MEL / CDL / Deferred Maintenance		1
5.1.1 Training of Flight Attendants	1	
5.2.1 Crewmember Duties / Cabin Procedures		2
5.2.2 Carry-on Baggage Program		1
Total	**6**	**11**

Table 20 shows the average ADO scores for each of the core CHEP elements for FY 2015, sorted by the average score received across all the assessments of each element. The EDA core element with the highest average score was 5.1.1 Training of Flight Attendants averaging a score of 3.0. The EPA core elements with the highest average score were 2.1.1 Training of Flight Crewmembers, and 2.1.5 OP / Appropriate Airmen / Crewmember Checks & Quals (Recurrent); however, this was based on just one score of "4" at one certificate holder. The EPA core element with the next highest average score was 5.2.1 Crewmember Duties / Cabin Procedures, with an average score of 3.0.

Table 20
National CHEP Assessment Scores for Individual Core Elements with Totals of Scores for All Elements Combined* – FY 2015 – *Sorted by Average Score*

Element	1-G	2-Y	3-Y	4-R	Total Assessments	Average Score**
Element Design Assessments (EDAs)	*Number of Times Score was Assigned*					
5.1.1 Training of Flight Attendants			2		2	***3.0***
3.1.1 Training and Qualification of Dispatchers / Flight Followers	1	2		3	6	***2.8***
2.1.2 Training of Check Airmen	2	1	2	2	7	***2.6***
1.1.3 Continuous Analysis and Surveillance System	1	2	2		5	***2.2***
2.1.1 Training of Flight Crewmembers	2	1	3		6	***2.2***
1.1.4 (AW) Reliability Program		1			1	***2.0***
1.2.2 OP Manual Management		1			1	***2.0***
1.3.2 AW Manual Management		1			1	***2.0***
3.3.4 MEL / CDL / NEF Procedures		1			1	***2.0***
4.3.4 Major Repairs and Alterations		1			1	***2.0***
6.2.3 OP/ De Icing Program	1				1	***1.0***
All DAs (Core & Non-Core)*	**7**	**11**	**9**	**5**	**32**	***2.4***

Element Performance Assessments (EPAs)	*Number of Times Score was Assigned*					
2.1.1 Training of Flight Crewmembers				1	1	***4.0***
2.1.5 OP / Appropriate Airmen / Crewmember Checks & Quals (Recurrent)				1	1	***4.0***
5.2.1 Crewmember Duties / Cabin Procedures	1		1	2	4	***3.0***
2.2.1 Airman Duties / Flight Deck Procedures		2	4	1	7	***2.9***
5.2.2 Carry-on Baggage Program	1		2	1	4	***2.8***
1.1.3 Continuous Analysis and Surveillance System		1	1		2	***2.5***
3.3.1 Operational Control	2	1		2	5	***2.4***
5.2.4 Passenger Handling	1		2		3	***2.3***
3.3.2 Dispatch / Flight Release	3	1		2	6	***2.2***
4.2.1 Maintenance Programs	2	3	2		7	***2.0***
4.5.2 Maintenance Providers		6			6	***2.0***
4.3.4 Major Repairs and Alterations	2	1	2		5	***2.0***
6.2.4 Line Station Operations / Ground Personnel Duties	1	3	1		5	***2.0***
6.3.3 Cargo Handling Equipment, Systems and Appliances	1	2	1		4	***2.0***
4.3.3 MEL/CDL/Deferred Maintenance	2			1	3	***2.0***
2.1.3 OP / Simulators / Training Devices		1			1	***2.0***
4.2.5 Maintenance Control		1			1	***2.0***
4.5.3 Line Stations	1	3			4	***1.8***
3.3.3 Flight/Load Manifest/Weight and Balance Control	3	3	1		7	***1.7***
4.2.3 AD Management	5			1	6	***1.5***
4.2.4 Recordkeeping	3	3			6	***1.5***
5.2.3 Exit Seating Program	2	1			3	***1.3***
3.3.4 MEL / CDL / NEF Procedures	4	1			5	***1.2***

4.2.2 Maintenance / Inspection Schedule	4	1			5	***1.2***
4.3.2 Required Inspection Items (RII)	1				1	***1.0***
All PAs (Core and Non-Core)*	**39**	**34**	**17**	**12**	**102**	***2.0***

**Scores for non-core elements are not shown individually, but are included in the totals.*
***Avg Score = the sum of (each ADI Score x number of times the score was assigned)/ by total assessments.*

Comparison of CHEP Assessment Scores to Scores from Prior Assessment of that Element by the CMT

The ADO score from each CHEP element at each certificate holder was compared to the ADI score from the prior ACEP assessment of that element conducted by the local CMT.

Table 21
FY 2015 CHEP Assessment Scores
Number of elements

Score	EDA	EPA	Total
1	7	39	46
2	16	30	46
3	10	15	25
4	5	12	17
Total	**38**	**96**	**134**

Table 22
FY 2015 CHEP Assessment Scores
Percent of elements from CHEPs

Score	EDA	EPA	Total
1	18.4%	40.6%	34.3%
2	42.1%	31.3%	34.3%
3	26.3%	15.6%	18.7%
4	13.2%	12.5%	12.7%
Total	**100%**	**100%**	**100%**

Table 23
Prior CMT Scores
Number of elements

Score	DA	PA	Total
1	16	69	85
2	3	14	17
3	5	2	7
4	4	8	12
5	4	9	13
6	0	0	0

Table 24
Prior CMT Scores
Percent of elements w/ prior CMT scores

Score	DA	PA	Total
1	50.0%	67.6%	63.4%
2	9.4%	13.7%	12.7%
3	15.6%	2.0%	5.2%
4	12.5%	7.8%	9.0%
5	12.5%	8.8%	9.7%
6	0.0%	0.0%	0.0%

Note: The six elements are prior ACEP results, due to no prior CHEP results.

Actions Taken as a Result CHEP Findings

The FAA addresses any CHEP element scored 2, 3, or 4 and ensures any associated risk is mitigated to an acceptable level. The most common corrective actions taken, in general order of most serious to less serious, are as follows:

- Suspension of Certificate: If identified safety problems are severe, the FAA can suspend the operating certificate of a carrier.
- Initiation of Enforcement Investigation Report (EIR): An EIR is initiated under FAA Order 2150.3 if an air carrier is (or has been) conducting operations contrary to applicable FAA regulations.
- Custom DCT (C DCTs): A C DCT allows data collection activities to be requested by Principal Inspectors to inspect and collect data on specific areas of immediate concern outside of the normal assessment schedule.
- Planning of Additional EPA, EDA, or SPA (System/Subsystem Performance Assessment): Inspection activities not previously scheduled can be added to the CMT work plan to provide additional surveillance of particular areas of concern.
- Notification to Certificate Holder: Particular findings of the assessment process can be formally transmitted to the certificate holder.

Table 25 summarizes the types of actions that were taken as a result of the seven National CHEPs in FY 2015.

Table 25
Actions Taken as a Result of All FY 2015 National CHEP Assessments
(134 total elements assessed)

Action Taken	Number of Elements
Initiate EIR under FAA Order 2150.3	12
Add Custom DCT	4
Add Element DA (EDA)	1
Add Element PA (EPA)	9
Adjust Priority/Resource Order of SPA	1
Notify Certificate Holder	59
Other	50

The EIRs initiated as a result of FY 2015 CHEPs involved three of the seven CHEP certificate holders, or 43 percent. One of these certificate holders had EIRs initiated for five CHEP elements with two elements each having two EIRs initiated; one certificate holder had four elements involved; while the other certificate holder had one element involved in an EIR. EIRs were initiated as a result of one FY 2015 CHEP Element Design Assessments and nine FY 2015 CHEP Element Performance Assessments, as shown in Table 26.

Table 26
Elements Involving EIRs as a Result of FY 2015 CHEP Assessments

SAS Element	Number of EDA Elements	Number of EPA Elements
3.1.1 Training and Qualification of Dispatchers / Flight Followers	1	1
3.3.1 Operational Control		2
3.3.2 Dispatch / Flight Release		2
4.2.3 AD Management		1
4.3.4 Major Repairs and Alterations		1
5.2.1 Crewmember Duties / Cabin Procedures		1
5.2.2 Carry-on Baggage Program		1
Total	**1**	**9**

The addition of Custom DCTs initiated as a result of FY 2015 CHEPs involved two of the seven CHEP certificate holders, or 28 percent. One of these certificate holders had Custom DCTs initiated on three SAS elements and the other certificate holder had a Custom DCT initiated on one element. Custom DCTs were initiated as a result of three FY 2015 CHEP Element Design Assessments and one FY 2015 CHEP Element Performance Assessment, as shown in Table 27.

Table 27
Elements Involving the Addition of a Custom DCT as a Result of FY 2015 CHEP Assessments

SAS Element	Number of EDA Elements	Number of EPA Elements
1.3.2 AW Manual Management	1	
2.2.1 Airman Duties / Flight Deck Procedures		1
3.1.1 Training and Qualification of Dispatchers / Flight Followers	2	
Total	**3**	**1**

The addition of an EDA as a result of FY 2015 CHEPs involved one of the seven CHEP certificate holders, or 14 percent. The addition of an EDA was initiated as a result of one FY 2015 CHEP EDA as shown in Table 28.

Table 28
Element Involving the Addition of an EDA as a Result of FY 2015 CHEP Assessments

SAS Element	Number of EDA Elements	Number of EPA Elements
1.1.3 Continuous Analysis and Surveillance System	1	
Total	**1**	

The addition of an EPA as a result of FY 2015 CHEPs involved two of the seven CHEP certificate holders, or 28 percent. One of these certificate holders had the addition of an EPA initiated on seven elements and the other one certificate holder had the addition of an EPA initiated on two elements. The addition of an EPA was initiated as a result of three FY 2015 CHEP EDAs and six FY 2015 CHEP EPAs, as shown in Table 29.

Table 29
Element Involving the Addition of an EPA as a Result of FY 2015 CHEP Assessments

SAS Element	Number of EDA Elements	Number of EPA Elements
1.1.3 Continuous Analysis and Surveillance System	1	1
1.2.2 OP Manual Management	1	
2.1.1 Training of Flight Crewmembers		1
2.1.2 Training of Check Airmen	1	
2.1.3 OP / Simulators / Training Devices		2
2.1.5 OP / Appropriate Airmen / Crewmember Checks & Quals (Recurrent)		2
Total	**3**	**6**

The Adjust Priority/Resource Order of SPA initiated as a result of FY 2015 CHEPs involved one of the seven CHEP certificate holders, or 14 percent. Adjust Priority/Resource Order of SPA was initiated as a result of one FY 2015 CHEP Element Design Assessment as shown in Table 30.

Table 30
Element Requiring Adjust Priority/Resource Order of SPA as a Result of FY 2015 CHEP Assessments

SAS Element	Number of EDA Elements	Number of EPA Elements
1.1.3 Continuous Analysis and Surveillance System	1	
Total	**1**	

Findings and Recommendations

The FAA finds the ACEP and CHEP assessments to be a valuable addition to the Part 121 air carrier oversight program, meeting the intent of Section 315. The ACEP and CHEP program has supported FAA field offices with additional technical expertise to identify issues that were difficult to recognize at that level and provided information and training to managers and inspectors that increased their skill sets. The program also provides senior FAA management with an additional oversight tool to identify regional and national trends. The FAA will discontinue use of ATOS at the end of FY 2015, and as a result will cease the ACEP assessments as well at the end of FY 2015. The FAA has implemented SAS to replace ATOS, and will provide CHEP assessments as the replacement for ACEP assessments. Five CHEPs are scheduled per quarter, but that number may be modified due to Agency priorities. The FAA will continue to review the CHEP program and improve it when and where warranted.