



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

Office of the Administrator

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

**MAR 15 2011**

The Honorable John D. Rockefeller, IV  
Chairman, Committee on Commerce, Science  
and Transportation  
United States Senate  
Washington, DC 20510

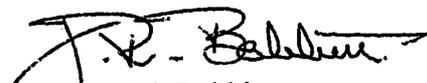
Dear Mr. Chairman:

As requested by Section 213 of the Airline Safety and Federal Aviation Administration Extension Act of 2010, I am pleased to provide you with the report to Congress on Voluntary Safety Programs.

The report provides a response to each area identified in the legislation.

We have sent identical letters to Chairman Mica, Senator Hutchison, and Congressman Rahall.

Sincerely,



J. Randolph Babbitt  
Administrator

Enclosure



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

Office of the Administrator

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

**MAR 15 2011**

The Honorable Kay Bailey Hutchison  
Committee on Commerce, Science  
and Transportation  
United States Senate  
Washington, DC 20510

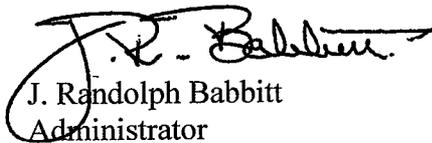
Dear Senator Hutchison:

As requested by Section 213 of the Airline Safety and Federal Aviation Administration Extension Act of 2010, I am pleased to provide you with the report to Congress on Voluntary Safety Programs.

The report provides a response to each area identified in the legislation.

We have sent identical letters to Chairmen Rockefeller and Mica and Congressman Rahall.

Sincerely,

A handwritten signature in black ink, appearing to read "J. R. Babbitt".

J. Randolph Babbitt  
Administrator

Enclosure



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

Office of the Administrator

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

**MAR 15 2011**

The Honorable John L. Mica  
Chairman, Committee on Transportation  
and Infrastructure  
House of Representatives  
Washington, DC 20515

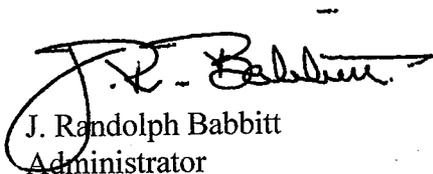
Dear Mr. Chairman:

As requested by Section 213 of the Airline Safety and Federal Aviation Administration Extension Act of 2010, I am pleased to provide you with the report to Congress on Voluntary Safety Programs.

The report provides a response to each area identified in the legislation.

We have sent identical letters to Chairman Rockefeller, Senator Hutchison, and Congressman Rahall.

Sincerely,



J. Randolph Babbitt  
Administrator

Enclosure



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

Office of the Administrator

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

**MAR 15 2011**

The Honorable Nick J. Rahall, II  
Committee on Transportation  
and Infrastructure  
House of Representatives  
Washington, DC 20515

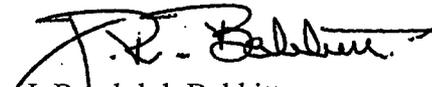
Dear Congressman Rahall:

As requested by Section 213 of the Airline Safety and Federal Aviation Administration Extension Act of 2010, I am pleased to provide you with the report to Congress on Voluntary Safety Programs.

The report provides a response to each area identified in the legislation.

We have sent identical letters to Chairmen Rockefeller and Mica and Senator Hutchison.

Sincerely,



J. Randolph Babbitt  
Administrator

Enclosure



Federal Aviation Administration  
Voluntary Safety Programs  
Response to P.L. 111-216, Sec. 213

January 28, 2011

## Summary

This report provides information requested in Sec. 213 of the Airline Safety and Federal Aviation Administration Extension Act of 2010 (P.L. 111-216), entitled Voluntary Safety Programs. That section reads as follows:

### **SEC. 213. VOLUNTARY SAFETY PROGRAMS.**

*(a) Report- Not later than 180 days after the date of enactment of this Act, the Administrator of the Federal Aviation Administration shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the aviation safety action program, the flight operational quality assurance program, the line operations safety audit, and the advanced qualification program.*

*(b) Contents- The report shall include--*

*(1) a list of--*

*(A) which air carriers are using one or more of the voluntary safety programs referred to in subsection (a); and*

*(B) the voluntary safety programs each air carrier is using;*

*(2) if an air carrier is not using one or more of the voluntary safety programs--*

*(A) a list of such programs the carrier is not using; and*

*(B) the reasons the carrier is not using each such program;*

*(3) if an air carrier is using one or more of the voluntary safety programs, an explanation of the benefits and challenges of using each such program;*

*(4) a detailed analysis of how the Administration is using data derived from each of the voluntary safety programs as safety analysis and accident or incident prevention tools and a detailed plan on how the Administration intends to expand data analysis of such programs;*

*(5) an explanation of--*

*(A) where the data derived from the voluntary safety programs is stored;*

*(B) how the data derived from such programs is protected and secured; and*

*(C) what data analysis processes air carriers are implementing to ensure the effective use of the data derived from such programs;*

*(6) a description of the extent to which aviation safety inspectors are able to review data derived from the voluntary safety programs to enhance their oversight responsibilities;*

*(7) a description of how the Administration plans to incorporate operational trends identified under the voluntary safety programs into the air transport oversight system and other surveillance databases so that such system and databases are more effectively utilized;*

*(8) other plans to strengthen the voluntary safety programs, taking into account reviews of such programs by the Inspector General of the Department of Transportation; and*

*(9) such other matters as the Administrator determines are appropriate.*

**Section 213 (1) - a list of -- (A) which air carriers are using one or more of the voluntary safety programs referred to in subsection (a); and (B) the voluntary safety programs each air carrier is using; (2) if an air carrier is not using one or more of the voluntary safety programs -- (A) a list of such programs the carrier is not using.**

**Response:** Table 1 presents the aggregate statistics on participation for the Advanced Qualification Program (AQP), the Aviation Safety Action Program (ASAP), the Flight Operational Quality Assurance (FOQA) program, and the Line Operations Safety Audit (LOSA) program.

**Table 1: Aggregate Program Participation**

Table 1 - Program Participation		
Program	Number of Air Carriers	Percent
AQP	30	31.91
ASAP	62	65.96
FOQA	33	35.11
LOSA	21	22.34

Of the 94 part 121 operators, 64 (68 percent) participate in at least one voluntary program and 42 (45 percent) participate in more than one. Thirty eight operators (40 percent) have 15 or fewer aircraft. Of those small operators, only sixteen have at least one voluntary program.

Table 2 lists for each of the 94 part 121 carriers whether they participate in the AQP, ASAP, FOQA, and LOSA programs, as well as the total number of operational aircraft for each such operator.

**Table 2  
Listing of Part 121 Operators - Voluntary Program User Status & Number of Aircraft**

Operator Name	AQP	ASAP	FOQA	LOSA	#Aircraft
ABX AIR INC	NO	YES	NO	NO	32
AEKO KULA INC	YES	YES	NO	NO	4
AERO MICRONESIA INC	NO	NO	NO	NO	3
AERODYNAMICS INC	NO	YES	NO	NO	5
AIR TRANSPORT INTERNATIONAL LLC	NO	NO	NO	NO	18
AIR WISCONSIN AIRLINES	YES	YES	YES	NO	70
AIRTRAN AIRWAYS INC	NO	YES	YES	YES	138
ALASKA AIRLINES INC	YES	YES	YES	YES	114
ALLEGiant AIR LLC	NO	YES	NO	NO	52
AMERICAN AIRLINES INC	YES	YES	YES	YES	692
AMERICAN EAGLE AIRLINES INC	YES	YES	YES	NO	286
AMERIJET INTERNATIONAL INC	NO	NO	NO	NO	9
AMERISTAR AIR CARGO INC	NO	NO	NO	NO	4
ARROW AIR INC	NO	NO	NO	NO	7
ASTAR AIR CARGO INC	YES	YES	NO	NO	34

<b>Operator Name</b>	<b>AQP</b>	<b>ASAP</b>	<b>FOQA</b>	<b>LOSA</b>	<b>#Aircraft</b>
ATLANTIC SOUTHEAST AIRLINES INC	YES	YES	YES	YES	164
ATLAS AIR INC	NO	NO	NO	NO	27
AVIATION SERVICES LTD	NO	NO	NO	NO	14
BRENDAN AIRWAYS LLC	NO	YES	NO	NO	5
CAPITAL CARGO INTERNATIONAL AIRLINES	NO	NO	NO	NO	16
CARIBBEAN SUN AIRLINES INC	NO	NO	NO	NO	1
CENTURION AIR CARGO INC	NO	NO	NO	NO	3
CHAMPLAIN ENTERPRISES INC	NO	YES	NO	NO	16
CHAUTAUQUA AIRLINES INC	YES	YES	YES	NO	78
COLGAN AIR INC	NO	YES	YES	YES	48
COMAIR INC	YES	YES	YES	NO	97
COMPASS AIRLINES INC	YES	YES	YES	NO	36
CONTINENTAL AIRLINES INC	YES	YES	YES	YES	337
CONTINENTAL MICRONESIA INC	YES	YES	YES	YES	10
CORPORATE AIR	NO	NO	NO	NO	41
DELTA AIR LINES INC	YES	YES	YES	YES	799
EMPIRE AIRLINES INC	NO	YES	NO	NO	47
ERA AVIATION INC	NO	YES	NO	NO	10
EVERGREEN INTERNATIONAL AIRLINES INC	NO	NO	NO	NO	14
EXECUTIVE AIRLINES INC	NO	YES	NO	NO	39
EXPRESSJET AIRLINES INC	YES	YES	YES	YES	269
FALCON AIR EXPRESS INC	NO	NO	NO	NO	4
FEDERAL EXPRESS CORP	YES	NO	NO	YES	376
FLORIDA WEST INTERNATIONAL AIRWAYS	NO	NO	NO	NO	1
FREEDOM AIRLINES INC	YES	YES	YES	NO	34
FRONTIER AIRLINES INC	NO	YES	YES	YES	54
FRONTIER FLYING SERVICE INC	NO	YES	NO	NO	10
GOJET AIRLINES LLC	NO	YES	NO	YES	25
GREAT LAKES AVIATION LTD	NO	YES	NO	NO	38
GULF AND CARIBBEAN CARGO INC	NO	NO	NO	NO	13
GULFSTREAM INTERNATIONAL AIRLINES INC	NO	YES	NO	NO	23
HAWAII ISLAND AIR INC	YES	YES	NO	NO	5
HAWAIIAN AIRLINES INC	YES	YES	YES	NO	35
HORIZON AIR INDUSTRIES INC	YES	YES	YES	YES	55
HYANNIS AIR SERVICE INC	NO	NO	NO	NO	62
JETBLUE AIRWAYS CORPORATION	YES	YES	YES	YES	154
KALITTA AIR LLC	NO	NO	YES	NO	26
KALITTA CHARTERS II LLC	NO	NO	NO	NO	7
LYNDEN AIR CARGO LLC	NO	YES	NO	YES	6
LYNX AVIATION INC	NO	YES	NO	NO	11
MERIDIAN ASSOCIATES	NO	NO	NO	NO	1
MESA AIRLINES INC	YES	YES	YES	NO	91

<b>Operator Name</b>	<b>AQP</b>	<b>ASAP</b>	<b>FOQA</b>	<b>LOSA</b>	<b>#Aircraft</b>
MESABA AVIATION INC	YES	YES	NO	NO	92
MIAMI AIR INTERNATIONAL INC	NO	YES	YES	NO	10
MN AIRLINES LLC	NO	YES	YES	NO	9
MOUNTAIN AIR CARGO INC	NO	YES	NO	NO	55
NATIONAL AIR CARGO GROUP INC	NO	NO	NO	NO	4
NORTH AMERICAN AIRLINES	NO	YES	NO	NO	10
NORTHERN AIR CARGO INC	NO	YES	NO	NO	13
OMNI AIR INTERNATIONAL INC	NO	YES	NO	NO	15
PENINSULA AIRWAYS INC	NO	YES	NO	NO	57
PIEDMONT AIRLINES INC	YES	YES	NO	YES	53
PINNACLE AIRLINES INC	YES	YES	YES	YES	142
POLAR AIR CARGO WORLDWIDE INC	NO	NO	NO	NO	7
PRESCOTT SUPPORT CO	NO	NO	NO	NO	3
PSA AIRLINES INC	NO	YES	YES	YES	49
REPUBLIC AIRLINES INC	YES	YES	YES	NO	90
RHOADES AVIATION INC	NO	NO	NO	NO	4
RYAN INTERNATIONAL AIRLINES INC	NO	YES	NO	NO	8
SEABORNE VIRGIN ISLAND INC	NO	NO	NO	NO	8
SHUTTLE AMERICA CORPORATION	YES	YES	YES	NO	56
SIERRA PACIFIC AIRLINES INC	NO	NO	NO	NO	2
SKY KING INC	NO	NO	NO	NO	10
SKY LEASE I INC	NO	NO	NO	NO	5
SKYWEST AIRLINES INC	YES	YES	NO	YES	295
SOUTHERN AIR INC	NO	NO	NO	NO	18
SOUTHWEST AIRLINES CO	NO	YES	YES	NO	548
SPIRIT AIRLINES INC	NO	YES	YES	NO	31
SWIFT AIR LLC	NO	YES	NO	NO	9
TATONDUK OUTFITTERS LTD	NO	NO	NO	NO	20
TEM ENTERPRISES INC	NO	NO	NO	NO	4
TRANS STATES AIRLINES LLC	NO	YES	NO	YES	28
UNITED AIR LINES INC	YES	YES	YES	NO	431
UNITED PARCEL SERVICE CO	YES	YES	YES	NO	232
US AIRWAYS INC	YES	YES	YES	YES	346
USA JET AIRLINES INC	NO	NO	NO	NO	29
VIRGIN AMERICA INC	NO	YES	YES	NO	31
VISION AIRLINES INC	NO	YES	NO	NO	13
WORLD AIRWAYS INC	NO	YES	NO	NO	20

**Section 213 (2) (B) - the reasons the carrier is not using each such program.**

**Response:** Table 3 summarizes for each such voluntary program the most frequently cited reasons provided by these operators for not participating in each of the voluntary programs. (NOTE: the original responses received from all operators are available on request to the FAA in a Microsoft Access database). For Tables 3 through 7 below, the quantities and percentages shown may not match the aggregate program participation shown in Table 1 because operators responded to these questions in narrative format and may have included more than one answer in their responses.

**Table 3  
For Each Program a Summary of Reasons for Not Participating in a Voluntary Program**

<b>Table 3 - Reasons for Not Participating</b>			
<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
AQP	Company Too Small or Resource Limitations	23	32.39
AQP	Cost Too High or Financial Pressures or Program is Not Cost Effective or Economically Feasible or Dedicated Staff Requirements	15	21.13
AQP	Program Under Development or Approval Pending	9	12.68
AQP	Not Using, No Reason	7	9.86
AQP	Program is Under Consideration	5	7.04
AQP	Company Ceasing Operations	3	4.23
AQP	Company Has Better Fitted Program, FAA Program Would Not Meet Requirements or Be a Burden	2	2.82
AQP	Company is New	2	2.82
AQP	Company Has Adequate Program or Uses Similar Program	2	2.82
AQP	Company Does Not See Any Benefit to the Program	1	1.41
AQP	Negative View of Program, Decided to Expand Training Beyond Regulatory Requirements	1	1.41
AQP	Labor Union and Company Disagreements	1	1.41
ASAP	Company Too Small or Resource Limitations	13	29.55
ASAP	Program Under Development or Approval Pending	8	18.18
ASAP	Labor Union and Company Disagreements	4	9.09
ASAP	Program is Under Consideration	3	6.82
ASAP	Company Ceasing Operations	3	6.82
ASAP	Cost Too High or Financial Pressures or Program is Not Cost Effective or Economically Feasible or Dedicated Staff Requirements	3	6.82
ASAP	Company is New	2	4.55
ASAP	Not Using, No Reason	2	4.55
ASAP	Company Has Little Faith In Program	1	2.27
ASAP	Data Amounts Too Small or Sample Size Too Small to Analyze	1	2.27
ASAP	Data Protection, Security, Verification, Confidentiality, and De-identification	1	2.27
ASAP	Labor Union or Company Disagreement With Government Policy	1	2.27
ASAP	Company Does Not See Any Benefit to the Program	1	2.27
ASAP	Planned implementation of SMS	1	2.27
FOQA	Company Too Small or Resource Limitations	17	22.37

<b>Table 3 - Reasons for Not Participating</b>			
<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
FOQA	Cost Too High or Financial Pressures or Program is Not Cost Effective or Economically Feasible or Dedicated Staff Requirements	14	18.42
FOQA	Fleet Not Equipped or Too Old to Accommodate, Expensive	14	18.42
FOQA	Program Under Development or Approval Pending	12	15.79
FOQA	Labor Union and Company Disagreements	4	5.26
FOQA	Company Ceasing Operations	3	3.95
FOQA	Not Using, No Reason	3	3.95
FOQA	Company Has Adequate Program or Uses Similar Program	2	2.63
FOQA	Data Amounts Too Small or Sample Size Too Small to Analyze	2	2.63
FOQA	Company is New	2	2.63
FOQA	Company Has Better Fitted Program, FAA Program Would Not Meet Requirements or Be a Burden	1	1.32
FOQA	Program is Under Consideration	1	1.32
FOQA	FOQA Equipment Does Not Have MEL Relief from FAA FOEB	1	1.32
LOSA	Company Too Small or Resource Limitations	25	23.36
LOSA	Cost Too High or Financial Pressures or Program is Not Cost Effective or Economically Feasible or Dedicated Staff Requirements	17	15.89
LOSA	Program is Under Consideration	17	15.89
LOSA	Company Has Adequate Program or Uses Similar Program	13	12.15
LOSA	Company Feels Other Program (ASAP, AQP, FOQA, Internal Evaluation Program-IEP, COR) Eliminates Need for LOSA	9	8.41
LOSA	Company Ceasing Operations	3	2.8
LOSA	Data Amounts Too Small or Sample Size Too Small to Analyze	3	2.8
LOSA	Program Under Development or Approval Pending	3	2.8
LOSA	Audits Too Difficult to Schedule in this Company Environment	2	1.87
LOSA	Tried Program But Was Dissatisfied	2	1.87
LOSA	Not Using, No Reason	2	1.87
LOSA	Company is New	2	1.87
LOSA	Accomplishing the Scheduling Details Required to Perform the Observations	1	0.93
LOSA	Company Has Been Developing Other Higher Priority Safety Programs	1	0.93
LOSA	Concerns that Local FAA Will not Issue 8430-6 for Observers	1	0.93
LOSA	Fleet Not Equipped or Too Old to Accommodate, Expensive	1	0.93
LOSA	Company Has Better Fitted Program, FAA Program Would Not Meet Requirements or Be a Burden	1	0.93
LOSA	Labor Union and Company Disagreements	1	0.93
LOSA	Company Does Not See Any Benefit to the Program	1	0.93
LOSA	Planned implementation of Safety Management System (SMS)	1	0.93
LOSA	Extreme Levels of Distrust of Government or Management	1	0.93

**Section 213 (3) - if an air carrier is using one or more of the voluntary safety programs, an explanation of the benefits and challenges of using each such program.**

**Response:** Table 4 summarizes responses received from operators to the benefits of using the voluntary programs.

**Table 4**  
**For Each Program the Benefits Reported by Carriers of**  
**Using a Voluntary Safety Program**

Table 4 - Benefits of Using Programs			
Program	Answer	Quantity	Percent
AQP	A Systematic Approach to Training, Data Driven to Give Measurable Outcomes and Immediate Feedback	7	20
AQP	Allows Training to be Tailored Appropriately Meeting Employee Needs	6	17.14
AQP	More Efficient, Effective and Flexible Training	4	11.43
AQP	Evaluates Crew Not Just Individual	3	8.57
AQP	Includes Human Factors Rather than just Maneuver Performance	2	5.71
AQP	Access to Innovative Ideas and Research	2	5.71
AQP	Shift from Programmed Hours to Proficiency or Results Based Training	2	5.71
AQP	Improved Standardization Across Fleets	2	5.71
AQP	Responsive to Issues that Arise During Company's Operations	2	5.71
AQP	Better Simulates Actual Flight Conditions, Scenario Based	1	2.86
AQP	Competence in Flying Skills and Systems Knowledge are Integrated with CRM Skills	1	2.86
AQP	Foundation to Building an SMS Program	1	2.86
AQP	Program Information Feeds and Enhances Training Programs, Checklists, Policy or Procedure, Other Programs	1	2.86
AQP	Helps to Provide a Robust Safety Culture, Improved Working Relationships Between Management and Workforce	1	2.86
ASAP	Allows Collection of Safety Data that Would Otherwise be Unobtainable	16	13.68
ASAP	Aids in Identifying Problem Areas Requiring Attention or Improvement Before it Leads to Accident	15	12.82
ASAP	Program Information Feeds and Enhances Training Programs, Checklists, Policy or Procedure, Other Programs	12	10.26
ASAP	Voluntary with Enforcement Protection or Non Punitive Nature Incentives	9	7.69
ASAP	Provides a Systematic, Collaborative Approach to Promptly Identify and Resolve Potential Safety Hazards	8	6.84
ASAP	Creates an Open Reporting Culture and Facilitates Flow of Information	7	5.98
ASAP	Program Provides for A Structured Process for Collecting Standardized Data for Analysis, Sharing and Decision Making	7	5.98
ASAP	Helps Provide Feedback of Safety Related Events To Management or Employees	6	5.13
ASAP	Information Provided by Program is Valuable to Help Make Safety Enhancements	5	4.27
ASAP	Identify Risks not Discovered by Management or FAA During Normal Course of Business	5	4.27
ASAP	Allows for Safety Trend Analysis	5	4.27
ASAP	Allows Insights to be Gained from a Variety of People	3	2.56
ASAP	Helps to Provide a Robust Safety Culture, Improved Working Relationships Between	3	2.56

**Table 4 - Benefits of Using Programs**

<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
	Management and Workforce		
ASAP	Foundation to Building an SMS Program	3	2.56
ASAP	Allows Tracking of Compliance of SOP's and Regulations	2	1.71
ASAP	Helps Identify Systemic Safety Issues	2	1.71
ASAP	Ongoing ERC Communications Leads to Enduring Resolutions	2	1.71
ASAP	Employee Group Awareness, i.e. Their Voices are Being Heard	2	1.71
ASAP	Higher Level Industry Trends can be Realized and Acted Upon by FAA (via ASIAs or ASRS)	1	0.85
ASAP	Helps Identify Problems External to the Company	1	0.85
ASAP	Provides Look at Operations Without Fear of Reprisal	1	0.85
ASAP	Identify Risks and Mitigate and Eliminate Them	1	0.85
ASAP	Allows Employees to Police Themselves; There's Simply Too Much for FAA or Management to Monitor	1	0.85
FOQA	Program Information Feeds and Enhances Training Programs, Checklists, Policy or Procedure, Other Programs	9	17.65
FOQA	Gives Ability to Aggregate, Identify Trends Algorithmically, and Use Info for Improvement	7	13.73
FOQA	Aids in Identifying Problem Areas Requiring Attention or Improvement Before it Leads to Accident	6	11.76
FOQA	Gives a Good Objective Overview of What is Happening in an Air Carrier's Operations Across Departments	5	9.8
FOQA	Foundation to Building an SMS Program	4	7.84
FOQA	ASAP May Trigger an Event but FOQA Allows Validation Across Large Spectrums	3	5.88
FOQA	Information Provide by Program is Valuable to Help Make Safety Enhancements	3	5.88
FOQA	Helps Provide Feedback of Safety Related Events To Management or Employees	2	3.92
FOQA	Identify Risks and Mitigate and Eliminate Them	2	3.92
FOQA	Higher Level Industry Trends can be Realized and Acted Upon by FAA (via ASIAs or ASRS)	2	3.92
FOQA	Algorithms can be Updated and Changed out to Target Specific Areas of Concern	1	1.96
FOQA	Validates Trends or Discrepancies Identified or Reported Through other Programs	1	1.96
FOQA	Allows Collection of Safety Data that Would Otherwise be Unobtainable	1	1.96
FOQA	Monetary Benefit to Monitoring Efficiencies	1	1.96
FOQA	Gives the Ability to Capture Very Large Amounts of Data on Fleets or Stations, etc.	1	1.96
FOQA	Program Provides for A Structured Process for Collecting Standardized Data for Analysis, Sharing and Decision Making	1	1.96
FOQA	Allows Tracking of Compliance of SOP's and Regulations	1	1.96
FOQA	Voluntary with Enforcement Protection or Non Punitive Nature Incentives	1	1.96
LOSA	Checks the Quality and Identifies Threats in Policy and Procedure and External Sources	12	13.04
LOSA	Good Opportunity to Study Flight Management Process and Capture Flight Crew Behavior, Improved Insight	11	11.96
LOSA	Program Information Feeds and Enhances Training Programs, Checklists, Policy or Procedure, Other Programs	10	10.87
LOSA	Provides a Baseline or Snapshot of Operations or Culture	7	7.61

**Table 4 - Benefits of Using Programs**

<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
LOSA	Assesses the Degree of Training Transference from Training Line and Feeds Back	6	6.52
LOSA	Allows Tracking of Compliance of SOP's and Regulations	5	5.43
LOSA	Validates Trends or Discrepancies Identified or Reported Through other Programs	5	5.43
LOSA	Provides Look at Operations Without Fear of Reprisal	5	5.43
LOSA	Foundation to Building an SMS Program	4	4.35
LOSA	Aids in Identifying Problem Areas Requiring Attention or Improvement Before it Leads to Accident	3	3.26
LOSA	Information Provide by Program is Valuable to Help Make Safety Enhancements	3	3.26
LOSA	Allows Collection of Safety Data that Would Otherwise be Unobtainable	2	2.17
LOSA	Provide Rationale for Allocation of Resources	2	2.17
LOSA	Understand Pilot Shortcuts, Workarounds, Behavior and Practices	2	2.17
LOSA	It can Identify Design Problems in the Human/Machine Interface	2	2.17
LOSA	Provides Unique Data About an Airline's Defenses and Vulnerabilities via a Third Party	2	2.17
LOSA	Voluntary Program Not Requiring FAA Approval, Acceptance or Monitoring	2	2.17
LOSA	Helps Provide Feedback of Safety Related Events To Management or Employees	1	1.09
LOSA	Allows for Safety Trend Analysis	1	1.09
LOSA	Company Feels Other Program (ASAP, AQP, FOQA, IEP, COR) Eliminates Need for LOSA	1	1.09
LOSA	Provides Information for Continual Process Improvement	1	1.09
LOSA	Not a Continuous Program and Takes Pulse of Organization When Done	1	1.09
LOSA	Identify Risks not Discovered by Management or FAA During Normal Course of Business	1	1.09
LOSA	Generates Indicators of Organizational Strengths and Weaknesses	1	1.09
LOSA	Proactive, Does Not Rely on Deviations from Normal Operating Procedures	1	1.09
LOSA	Monetary Benefit to Monitoring Efficiencies	1	1.09

AQP - The primary benefits cited for AQP were that it allows training to be tailored to meet company and pilot needs, it promotes more efficient and effective training and it evaluates pilots as a crew, not just as individuals. Other responses included improved standardization across fleets, shift from program hours to proficiency based training, access to innovative ideas and research, more timely responsiveness to training needs, better integration of human factors into training, program information that feeds other operational areas, and better representation of actual flight conditions in training.

ASAP –The primary benefits given for ASAP were that it allows collection of safety data that would otherwise be unobtainable, aids in identifying problem areas requiring attention before they lead to an accident, and provides program information that feeds other operational areas. Other items cited include enforcement protections for self-reporting of violations, fostering a systematic collaborative approach to safety, encouraging an open safety issue reporting and safety culture enhancement, providing a structured process for solving safety issues, providing better safety feedback to employees, enabling safety trend analysis, and providing a venue for identification of systemic safety issues.

FOQA – The primary benefits given for FOQA are that the program information feeds other operational areas, such as training, SOPs, checklists, etc., and provides an objective means to aggregate and identify trends. Other items cited include identification of problem areas, providing an objective overview of flight operations which complements the subjective information from ASAP, aids in the identification of risks, and enables follow-on tracking of the effectiveness of risk mitigation strategies.

LOSA – The primary benefits given for LOSA are that it measures the extent to which crews are adhering to published procedures, assesses the effectiveness of crew resource management during actual line operations, and provides essential information not provided by any other program on the effectiveness of crew flight management procedures.

**Section 213 (3) – if an air carrier is using one or more of the voluntary safety programs, an explanation of the benefits and challenges of using each such program.**

**Response:** For carriers using one or more of the voluntary programs, Table 5 summarizes the challenges of using such programs reported by the operators.

**Table 5  
For Each Program the Challenges of Using Voluntary Safety Programs**

Table 5 - Challenges of Using Programs			
Program	Answer	Quantity	Percent
AQP	Requires Significant Effort, Costs, Time and Labor Intensive, Dedicated Staff, As Program Grows so do Personnel Requirements	6	26.09
AQP	Appropriate Data Collection and Analysis is Very Difficult and Requires Expert Employee or Guidance, Timeliness, Determining Risk and Improvement, Getting Most from Data, Properly Understanding the Data	2	8.7
AQP	Getting Labor Groups to Support Programs	2	8.7
AQP	Obtaining and Maintaining FAA or Airline Personnel with Program Expertise	1	4.35
AQP	FAA Lacks Resources, Lack of Resources Can Bring Programs to a Halt	1	4.35
AQP	Onerous Documentation/Curriculum Change Process	1	4.35
AQP	No Challenges	1	4.35
AQP	Requires Extensive Coordination with Federal Agencies	1	4.35
AQP	Unclear as to how to Integrate into Air Transportation Oversight System (ATOS/SMS Framework (ATOS Contradictory)	1	4.35
AQP	FAA Sees it as an Addition to the FAR's, Not an Equivalent	1	4.35
AQP	If Airline does not have a Program, Perception is it's Airline's Fault (Not Airline, Labor, FAA)	1	4.35
AQP	Program Expansion to Meet New Trainee Demands	1	4.35
AQP	Ensuring Compliance with Intent of Regulations, i.e., when Guidance is Unclear	1	4.35
AQP	Reflecting Existing Risks Within a Curriculum	1	4.35
AQP	Check Airmen Calibration	1	4.35
ASAP	Getting Employees to Believe it's Better to Participate than Not - Fear of Reprisal, Lack of Trust	19	20.88
ASAP	Requires Significant Effort, Costs, Time and Labor Intensive, Dedicated Staff, As Program Grows so do Personnel Requirements	9	9.89

<b>Table 5 - Challenges of Using Programs</b>			
<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
ASAP	Achieving a Consensus or Arriving at an Agreement Satisfactory to All Participants, Eliminating Individual Agendas, Loyalties, or Predispositions	6	6.59
ASAP	Getting Labor Groups to Support Programs	5	5.49
ASAP	Misunderstanding by Users as to How the Programs Should be Utilized	4	4.4
ASAP	ASAP or FOQA Conflicts with VDRP, Duplicative, Fine Line Between Individual and Systemic, etc.	4	4.4
ASAP	Maintaining or Changing Culture that Empowers ERC and Accepts or Implements ERC Recommendations	4	4.4
ASAP	Battling Distinction Between Non-punitive Self-Disclosure Safety System and an Amnesty Get out of Jail Free Card Where Carelessness is Accepted	4	4.4
ASAP	Maintaining a Consistent Open Communications Environment with Trust and Feedback	3	3.3
ASAP	Data Amounts Are Large, Keeping Track of Mass Volumes of Data and Information	3	3.3
ASAP	Protecting and Maintaining Program Integrity and a Safety Culture through Extremely Challenging Events	3	3.3
ASAP	Appropriate Data Collection and Analysis is Very Difficult and Requires Expert Employee or Guidance, Timeliness, Determining Risk and Improvement, Getting Most from Data, Properly Understanding the Data	3	3.3
ASAP	Company Uses Program but has Minimal Involvement from Employees	2	2.2
ASAP	No Challenges	2	2.2
ASAP	Legal Issues, Protections, Release of Identified Information, etc.	2	2.2
ASAP	Obtaining and Maintaining FAA or Airline Personnel with Program Expertise	2	2.2
ASAP	Maintaining Anonymity in Small Airline	2	2.2
ASAP	Assembling ERC Personnel when Carrier is not Hub and Spoke, Personnel Must Travel, Telecom not Addressed in Guidance or Limits Discussion	2	2.2
ASAP	FAA Bias to Accept All Reports (including those with no value) out of Fear of Losing Participants	1	1.1
ASAP	Ensuring Compliance with Intent of Regulations, i.e., when Guidance is Unclear	1	1.1
ASAP	Convincing Management that there's a Problem that Needs Addressed	1	1.1
ASAP	Data Shared with FAA, Although Some Protection Afforded, Benefit Must be Weighed Against Legal Liabilities	1	1.1
ASAP	Intense Oversight by Outside Entities Creates Administrative Inefficiencies and Difficulties	1	1.1
ASAP	In Small Airline Management Learns of Report and Takes Corrective Action Before ERC Meeting which can Conflict with ERC Recommendation	1	1.1
ASAP	Getting FAA Inspectors or Personnel to Support Programs	1	1.1
ASAP	If Airline does not have a Program, Perception is it's Airline's Fault (Not Airline, Labor, FAA)	1	1.1
ASAP	Labor Union and Company Disagreements	1	1.1
ASAP	Cost Too High or Financial Pressures or Program is Not Cost Effective or Economically Feasible or Dedicated Staff Requirements	1	1.1
ASAP	Labor Union or Company Disagreement With Government Policy	1	1.1
ASAP	FAA Lacks Resources, Lack of Resources Can Bring Programs to a Halt	1	1.1
FOQA	Requires Significant Effort, Costs, Time and Labor Intensive, Dedicated Staff, As Program Grows so do Personnel Requirements	11	28.21
FOQA	Appropriate Data Collection and Analysis is Very Difficult and Requires Expert	5	12.82

<b>Table 5 - Challenges of Using Programs</b>			
<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
	Employee or Guidance, Timeliness, Determining Risk and Improvement, Getting Most from Data, Properly Understanding the Data		
FOQA	Getting Labor Groups to Support Programs	3	7.69
FOQA	Data Shared with FAA, Although Some Protection Afforded, Benefit Must be Weighed Against Legal Liabilities	3	7.69
FOQA	Not All Fleet Types or Parameters Can be Monitored, Creates a Data Gap	2	5.13
FOQA	Data Amounts Are Large, Keeping Track of Mass Volumes of Data and Information	2	5.13
FOQA	Maintaining a Consistent Open Communications Environment with Trust and Feedback	2	5.13
FOQA	Software Limitations, i.e., Problems Exist only if the Software Triggers	2	5.13
FOQA	FOQA Data Doesn't Show Involved Human Factors	1	2.56
FOQA	Determining What Percentage of Fleet Should be Monitored	1	2.56
FOQA	Cost Too High or Financial Pressures or Program is Not Cost Effective or Economically Feasible or Dedicated Staff Requirements	1	2.56
FOQA	Maintaining or Changing Culture that Empowers ERC and Accepts or Implements ERC Recommendations	1	2.56
FOQA	ASAP or FOQA Conflicts with VDRP, Duplicative, Fine Line Between Individual and Systemic, etc.	1	2.56
FOQA	Data Protection, Security, Verification, Confidentiality, and Deidentification	1	2.56
FOQA	If Airline does not have a Program, Perception is it's Airline's Fault (Not Airline, Labor, FAA)	1	2.56
FOQA	Battling Distinction Between Non-punitive Self-Disclosure Safety System and an Amnesty Get out of Jail Free Card Where Carelessness is Accepted	1	2.56
FOQA	Achieving a Consensus or Arriving at an Agreement Satisfactory to All Participants, Eliminating Individual Agendas, Loyalties, or Predispositions	1	2.56
LOSA	Requires Significant Effort, Costs, Time and Labor Intensive, Dedicated Staff, As Program Grows so do Personnel Requirements	15	21.13
LOSA	Appropriate Data Collection and Analysis is Very Difficult and Requires Expert Employee or Guidance, Timeliness, Determining Risk and Improvement, Getting Most from Data, Properly Understanding the Data	9	12.68
LOSA	Accomplishing the Scheduling Details Required to Perform the Observations	8	11.27
LOSA	Getting Employees to Believe it's Better to Participate than Not - Fear of Reprisal, Lack of Trust	7	9.86
LOSA	Selecting and Training Observers, Lack of Industry Information Related to This, Calibration	6	8.45
LOSA	Data Protection, Security, Verification, Confidentiality, and De-identification	4	5.63
LOSA	Meeting all 10 of the Operating Characteristics of a LOSA (see AC 120-90, page 13, item 10)	2	2.82
LOSA	Maintaining a Consistent Open Communications Environment with Trust and Feedback	2	2.82
LOSA	Observer Availability Typically Restricted to off-peak Seasons when Operational Systems are not Operating at Full Capacity	2	2.82
LOSA	Legal Issues, Protections, Release of Identified Information, etc.	2	2.82
LOSA	Misunderstanding by Users as to How the Programs Should be Utilized	2	2.82
LOSA	Data Amounts Too Small or Sample Size Too Small to Analyze	2	2.82
LOSA	No Challenges	1	1.41

Table 5 - Challenges of Using Programs			
Program	Answer	Quantity	Percent
LOSA	Getting Labor Groups to Support Programs	1	1.41
LOSA	Convincing Management that there's a Problem that Needs Addressed	1	1.41
LOSA	May be Viewing Best Behavior and not Typical Behavior	1	1.41
LOSA	Advisory Circular in Need of Revision or ICAO Better Reference	1	1.41
LOSA	No Jump Seat in Aircraft, Observation is on Communications, Lack of Data Leads to Inaccuracies	1	1.41
LOSA	FAA Guidance Does not Directly Speak to Company Fleet	1	1.41
LOSA	Selecting and Implementing Remedial Courses of Action	1	1.41
LOSA	Obtaining and Maintaining FAA or Airline Personnel with Program Expertise	1	1.41
LOSA	Risk of Losing Organization Momentum to the Continued Pursuit of Improvement	1	1.41

For AQP, FOQA, and LOSA, the primary challenge cited is cost. For ASAP, the primary challenge cited was overcoming employee fears that the information they provide will be used by either the company or the FAA to take adverse action against them.

**Section 213 (4) – a detailed analysis of how the Administration is using data derived from each of the voluntary safety programs as safety analysis and accident or incident prevention tools and a detailed plan on how the Administration intends to expand data analysis of such programs.**

**Response:** With a focus on the goal of establishing a collaborative information sharing and analysis system involving industry and government, the Aviation Safety Information Analysis and Sharing (ASIAS) initiative. ASIAS fuses various aviation related data sources in order to proactively identify safety trends and to assess the impact of changes in the aviation operating environment. The two primary components of ASIAS activity are the access and sharing of information and the analysis of aggregate data in support of the identification and monitoring of high risk safety events. The FAA, in collaboration with the aviation community, has established a governance process, implemented an information sharing architecture and integrated data from ASIAS participants.

ASIAS has established access, under strict control, to proprietary FOQA and ASAP data through governance agreements with participating operators and owners of these databases. ASIAS has made use of the FAA's Federally Funded Research and Development Center (FFRDC), The MITRE Corporation's Center for Advanced Aviation and System Development (MITRE/CAASD), to establish this access.

To date, the focus of ASIAS data integration has been on the domestic Part 121 operators that have an FAA approved FOQA and/or ASAP program. Therefore, initial study results and collaborative activities primarily influence the flight operations of domestic Part 121 operators. ASIAS is supported by the participation of over 31 air carrier operators as of November 1, 2010, all of whom share ASAP data and FOQA data where applicable. In the future, ASIAS will continue to integrate both types of data, and include new aviation communities and data sources. Many of the operators that currently share flight operations data (FOQA and/or ASAP) will

expand the types of data shared, including voluntary safety reports from their maintenance, cabin crew, ramp operations, and dispatch organizations.

Under the direction of the ASIAS Executive Board (AEB), which includes representatives from the FAA, National Aeronautics and Space Administration, and the aviation industry, the ASIAS community conducts various types of studies and analyses. The following is a description of the types of ASIAS study areas:

***Directed Studies:*** In-depth assessments of special topics of interest to the ASIAS participants;  
***Vulnerability Discovery:*** Identification and validated assessments of previously unknown issues or accident precursors;  
***Safety Enhancement Assessments:*** Safety metrics based on reviews of accident and incident data by a safety organization (e.g., Commercial Aviation Safety Team [CAST], International Helicopter Safety Team [IHST]);  
***Known-Risk Monitoring:*** A set of analyses that are continuously performed to monitor known safety risks of interest to the ASIAS participants; and  
***Benchmarking:*** Development of industry-wide metrics applied to aggregated, national data sets to create a point of reference for ASIAS participants to perform safety assessments of their own operations.

For example, a directed study was initiated as a result of a noted increase in Terrain Awareness and Warning System (TAWS) alerts, ASIAS analysts identified several causal factors, including different software/hardware configurations in aircraft, air traffic control procedures in place at certain locations and the methodology used for computing minimum vectoring altitudes (MVA). ASIAS provided these results to Commercial Aviation Safety Team (CAST). CAST is a collaborative effort between FAA and industry to facilitate the implementation of mitigations. CAST voluntarily implemented multiple mitigations, including:

- Use of advanced navigation procedures to reduce unnecessary terrain alerts and to provide better separation from terrain;
- Re-evaluation of MVAs in relation to terrain and traffic flows in high-terrain airports; and
- Recommendations for installing GPS and the latest versions of TAWS software in aircraft in order to reduce unwarranted warnings when the aircraft is not in imminent danger.

ASIAS results will be enhanced by the expansion of data sources to include other aviation data sources, and to include more segments of the aviation community, expanding the base of FOQA and ASAP data available. New analytical capabilities will be added to facilitate data fusion among all appropriate data sources, including FOQA and ASAP. This will enable analysis of a broader scope and increased complexity while allowing more potential for exploration of causal factors. Studies will explore and provide more complete characterization of precursors and contributing factors with the availability of additional analytical capabilities, expanded data sources, and data fusion techniques.

Processes will be developed in ASIAs to establish typical flight and system behavior using a variety of data sources, including FOQA and ASAP. As the system continues to mature, these activities will become more automated. Once the flight and system behavior is characterized, automated data analysis will be able to compare observed flight and system behavior with “typical” behaviors. Differences will be investigated and issues that can be validated will be screened with risk assessment tools. This capability is of key importance to the ability to analyze new Next Generation Air Transportation System technologies. Data sharing will allow the FAA to pool information on non-typical flight and system behavior and disseminate risk mitigation strategies to all ASIAs participants.

**Section 213 (5) (A) – where the data derived from the voluntary safety programs is stored.**

**Response:** When ASIAs was initiated, FOQA and ASAP data were stored on the participants’ facilities and not at a central location. As the program has matured, the architecture has evolved. Based on costs, maintenance, and efficiency, more recent participants have agreed to have their proprietary data stored in a central location as long as the data is adequately protected. The current ASIAs architecture is therefore a hybrid between a centralized and a distributed model. Some of the original participants have nodes at their sites (a distributed network) while those that joined ASIAs most recently store their data at a centralized repository, currently the FAA’s FFRDC, MITRE/CAASD.

**Section 213 (5) (B) – how the data derived from such programs is protected and secured.**

**Response:** Information System Security (ISS) is a critical component of ASIAs. The security for ASIAs meets all Federal standards. A secure infrastructure has been established to protect the sensitive participant data and other data as well as the ASIAs network as a whole. This includes the installation of dedicated firewalls, intrusion detection equipment, and anti-virus protection software at participants’ nodes as well as at the central site. ASIAs ISS is a continuous process that is monitored daily.

Security for ASIAs is assured by maintaining the entire production network as a separate entity, with no connection to the Internet. ARINC is contracted to maintain this network. User access to the system uses both operating-system-based user authentication and permissions functionality within the underlying database to control access to data.

The protection of the airline FOQA and ASAP data is paramount to the ASIAs program. As part of an overall risk mitigation effort, a Host-based Intrusion Detection System (HIDS) has been implemented on all FOQA/ASAP nodes to flag any attempt to change configuration of the node. An Intrusion Prevention System (IPS), along with a commercial Log Manager (LM), has also been included within the ASIAs network to correlate system events to detect various attacks, policy violations, and suspicious system behaviors. Processes have been developed around the operations of the HIDS, IPS, and LM to ensure that ASIAs configuration management, secure code development, security incident response, and quality assurance, are routinely practiced.

**Section 213 (5) (C) - what data analysis processes air carriers are implementing to ensure the effective use of the data derived from such programs.**

**Response:** Table 6 summarizes the responses received from carriers concerning the data analyses they are implementing to ensure the effective use of the data derived from their voluntary safety programs.

**Table 6  
For Each Program the Carrier analysis processes to ensure effective use of the data**

<b>Table 6 - Carrier Analysis Reported</b>			
<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
AQP	Data Reviewed/Shared in Periodic Meetings	5	11.9
AQP	Uses Data to Implement Corrective Actions	5	11.9
AQP	Data Used to Brief Leadership	5	11.9
AQP	Data Used to Track Success of Safety Strategies	4	9.52
AQP	Uses Data to Enhance Ground and Flight Training Programs	4	9.52
AQP	Data Used in Regular Reports/Publications	4	9.52
AQP	Data is De-identified	4	9.52
AQP	Reports are Manually Analyzed Individually and Compared to Past Reports, Single Events Only	2	4.76
AQP	Data Not Yet Being Analyzed	2	4.76
AQP	Data Analyzed by a Carrier Process (SMS), Separate Team/Department/Board or Subject Matter Experts (SME)	2	4.76
AQP	Data is Used to Make Sound Decisions	2	4.76
AQP	Data Tracked in an IEP	2	4.76
AQP	Uses Statistical Process Control Charts to Analyze Data	1	2.38
ASAP	Uses Data to Implement Corrective Actions	21	15.67
ASAP	Data Analyzed in the Web-based Analysis Tool (WBAT) System	18	13.43
ASAP	Data Reviewed/Shared in Periodic Meetings	15	11.19
ASAP	Data Used to Brief Leadership	14	10.45
ASAP	Data Analyzed by a Carrier Process (SMS), Separate Team/Department/Board or Subject Matter Experts (SME)	14	10.45
ASAP	Data Used in Regular Reports/Publications	13	9.7
ASAP	Data Used to Track Success of Safety Strategies	11	8.21
ASAP	Data is De-identified	8	5.97
ASAP	Uses Data to Enhance Ground and Flight Training Programs	5	3.73
ASAP	Data is Used to Make Sound Decisions	4	2.99
ASAP	Data Tracked in an IEP	4	2.99
ASAP	Reports are Manually Analyzed Individually and Compared to Past Reports, Single Events Only	3	2.24
ASAP	Data Not Yet Being Analyzed	1	0.75
ASAP	Data is Not Understood	1	0.75
ASAP	Taxonomies Have Been Created	1	0.75
ASAP	Data Provided to External Entity/Databases (ASRS, ASIAs, Lab, University, Collaborative, Data Services, etc.)	1	0.75

**Table 6 - Carrier Analysis Reported**

<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
FOQA	Uses Data to Implement Corrective Actions	13	18.84
FOQA	Data Reviewed/Shared in Periodic Meetings	12	17.39
FOQA	Data Used in Regular Reports/Publications	7	10.14
FOQA	Data Analyzed by a Carrier Process (SMS), Separate Team/Department/Board or Subject Matter Experts (SME)	7	10.14
FOQA	Data Used to Brief Leadership	6	8.7
FOQA	Data Used to Track Success of Safety Strategies	6	8.7
FOQA	Data Not Yet Being Analyzed	5	7.25
FOQA	Data is De-identified	5	7.25
FOQA	Uses Data to Enhance Ground and Flight Training Programs	2	2.9
FOQA	Data is Used to Make Sound Decisions	2	2.9
FOQA	Reports are Manually Analyzed Individually and Compared to Past Reports, Single Events Only	1	1.45
FOQA	Data Provided to External Entity/Databases (ASRS, ASIAs, Lab, University, Collaborative, Data Services, etc.)	1	1.45
FOQA	Data Tracked in an IEP	1	1.45
FOQA	Uses Statistical Process Control Charts to Analyze Data	1	1.45
LOSA	Data Analyzed by a Carrier Process (SMS), Separate Team/Department/Board or Subject Matter Experts (SME)	13	18.31
LOSA	Data Not Yet Being Analyzed	10	14.08
LOSA	Data Used to Brief Leadership	10	14.08
LOSA	Uses Data to Implement Corrective Actions	9	12.68
LOSA	Data is Used to Make Sound Decisions	5	7.04
LOSA	Data Reviewed/Shared in Periodic Meetings	4	5.63
LOSA	Data Used in Regular Reports/Publications	4	5.63
LOSA	Data is De-identified	3	4.23
LOSA	Data Used to Track Success of Safety Strategies	3	4.23
LOSA	Uses Data to Enhance Ground and Flight Training Programs	3	4.23
LOSA	Data Tracked in an IEP	2	2.82
LOSA	Each 10 Legs\Evaluations is a Dataset and Recorded	2	2.82
LOSA	Data Analyzed in the WBAT System	1	1.41
LOSA	Reports are Manually Analyzed Individually and Compared to Past Reports, Single Events Only	1	1.41
LOSA	Taxonomies Have Been Created	1	1.41

**Section 213 (6) - a description of the extent to which aviation safety inspectors are able to review data derived from the voluntary safety programs to enhance their oversight responsibilities.**

**Response:** Table 7 provides the responses. For each program a description of the extent to which aviation safety inspectors are able to review data derived from the voluntary safety programs to enhance their own oversight responsibilities.

**Table 7  
For Each Program the extent to which Inspectors are able to Review Data**

<b>Table 7 - Extent to which Inspectors are able to Review Data</b>			
<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
AQP	Data is provided periodically	7	24.14
AQP	Data is Made Available on Request	6	20.69
AQP	Inspectors Invited to Attend Meetings	4	13.79
AQP	FAA Inspectors Have Access to System Where Data is Stored for Review	3	10.34
AQP	Inspector Participates in Data Collection/Analysis	3	10.34
AQP	Data is Published by AFS-230 for Review	2	6.9
AQP	Data Not Yet Collected/Shared	1	3.45
AQP	Information allows Inspector to focus Inspections/Surveillance on areas that Wouldn't be Addressed Otherwise, to Identify and Mitigate Risks, To Enhance Oversight Responsibilities	1	3.45
AQP	AC's Dictate Level of Access Inspectors May Have	1	3.45
AQP	Data is Available Through Airline Web Site	1	3.45
ASAP	Data is provided periodically	22	32.84
ASAP	Inspector Participates in Data Collection/Analysis	15	22.39
ASAP	Data is Made Available on Request	8	11.94
ASAP	Inspectors Invited to Attend Meetings	7	10.45
ASAP	FAA Inspectors Have Access to System Where Data is Stored for Review	6	8.96
ASAP	Information allows Inspector to focus Inspections/Surveillance on areas that Wouldn't be Addressed Otherwise, to Identify and Mitigate Risks, To Enhance Oversight Responsibilities	2	2.99
ASAP	Data Not Yet Collected/Shared	2	2.99
ASAP	Data is Available Through Airline Web Site	1	1.49
ASAP	Data is Published by AFS-230 for Review	1	1.49
ASAP	AC's Dictate Level of Access Inspectors May Have	1	1.49
ASAP	Inspectors May Access WBAT or Request Reports Through (Universal Technical Research Services) UTRS	1	1.49
ASAP	Data is Not Shared Outside of Airline	1	1.49
FOQA	Data is Made Available on Request	12	32.43
FOQA	Data is provided periodically	11	29.73
FOQA	Inspectors Invited to Attend Meetings	5	13.51
FOQA	Data Not Yet Collected/Shared	4	10.81
FOQA	Inspector Participates in Data Collection/Analysis	2	5.41
FOQA	FAA Inspectors Have Access to System Where Data is Stored for Review	1	2.7

**Table 7 - Extent to which Inspectors are able to Review Data**

<b>Program</b>	<b>Answer</b>	<b>Quantity</b>	<b>Percent</b>
FOQA	Information allows Inspector to focus Inspections/Surveillance on areas that Wouldn't be Addressed Otherwise, to Identify and Mitigate Risks, To Enhance Oversight Responsibilities	1	2.7
FOQA	AC's Dictate Level of Access Inspectors May Have	1	2.7
LOSA	Data is provided periodically	9	25
LOSA	Data Not Yet Collected/Shared	8	22.22
LOSA	Data is Made Available on Request	4	11.11
LOSA	Data is Not Shared Outside of Airline	4	11.11
LOSA	Inspector Participates in Data Collection/Analysis	4	11.11
LOSA	Inspectors Invited to Attend Meetings	2	5.56
LOSA	Information allows Inspector to focus Inspections/Surveillance on areas that Wouldn't be Addressed Otherwise, to Identify and Mitigate Risks, To Enhance Oversight Responsibilities	1	2.78
LOSA	FAA Inspectors Have Access to System Where Data is Stored for Review	1	2.78
LOSA	AC's Dictate Level of Access Inspectors May Have	1	2.78
LOSA	Airline Doesn't Have Expertise to Analyze Data	1	2.78
LOSA	No Formal Records Exist to Document Audits	1	2.78

AQP data is submitted by an operator with an AQP program to FAA headquarters for analysis. The results of those analyses are provided on a quarterly basis in an electronically accessible format to the inspectors in the certificate holding district office (CHDO) responsible for overseeing the AQP. That data not only includes summary tables and graphs, it includes the individual pilot, flight attendant, dispatcher, and evaluation performance data in a format that allows the inspectors and CHDO Operations Research Analysts to conduct their own analysis of that information. In addition, FAA policy requires detailed program reviews of AQP trend data to be conducted by the operator for CHDO and FAA headquarters personnel on an annual basis.

Every ASAP entails an Event Review Committee (ERC) comprised of a company management representative, an employee group representative, and an FAA inspector from the applicable certificate holding district office. FAA inspectors participating in an ERC have access to the carrier-maintained ASAP database while processing a report submitted to the program, and can also access aggregate information from that database for annual program reviews that are required by FAA policy.

All FAA approved FOQA programs require operators to provide access to aggregate trend data to principal inspectors from the FAA office responsible for overseeing the operator, in addition to providing quarterly briefings to local FAA personnel on safety trends observed in the program, including corrective action taken for adverse trends observed, and the results thereof.

All FAA CHDOs responsible for overseeing operator ASAP and FOQA programs are required to submit quarterly Safety Enhancement Reports to FAA headquarters. The purpose of these reports is to document the safety issues identified in each program, and the corrective actions successfully implemented by the operator for each issue. This information is captured in an FAA headquarters database, and is extracted on a quarterly basis for publication in an ASAP-FOQA Newsletter that is posted on an FAA internal Web site accessible by all FAA Flight Standards

Service personnel. The Web site posts both current and all previous Newsletters, so that inspectors in given FAA field offices are informed of the corrective actions that have been effective for a particular safety issue observed in either the ASAP or FOQA programs.

Airlines are not required to provide LOSA data to the FAA. Typically, LOSA data is provided to the FAA in support of an airline's position on changes to FAA-approved manuals.

**Section 213 (7) – how the FAA plans to incorporate operational trends identified under the voluntary safety programs into ATOS and other surveillance databases.**

**Response:** FAA inspections of air carriers under the Air Transportation Oversight System (ATOS) consider both the effectiveness of the operator's system design documentation (Design Assessment, using the Safety Attribute Inspection tool) and the extent to which the operator is accomplishing what is called for in that documentation (Performance Assessment, using the Element Performance Inspection tool). The schedule of inspections is set by each FAA CHDO's assessment of the safety risk indicators for each operator. ATOS employs an automated system, known as the Air Carrier Assessment Tool (ACAT), to identify and quantify safety risk indicators. The scheduling of ATOS inspections is prioritized based on the risk scores derived from the ACAT. The ACAT specifically incorporates information obtained from the voluntary safety programs, such as AQP, ASAP, and FOQA, to generate a risk score.

Under the ACAT, risk scores based on the voluntary programs can range from low (e.g., "Data derived from the air carrier's voluntary programs indicates apparent risk is well managed by the air carrier systems") to high (e.g., "Concern exists because data from air carrier voluntary program(s) appear to indicate a rapid degradation of the air carrier's critical systems"). When inspection of a high-risk program identifies deficiencies, ATOS guidance requires inspectors to ensure that the air carrier takes corrective action which may include a root cause analysis. Inspectors follow up to determine if corrective action was effective. Inspection due dates may be accelerated until risks are reduced to a well-managed level.

The Flight Standards Systems Approach to Safety Oversight (SASO) Program Office is developing the Flight Standards Safety Assurance System (SAS) to replace ATOS. The SAS includes a National Safety Analysis module which will identify operational trends from voluntary safety program data. These trends along with other information will be used to produce National Safety Guidelines that will, in turn, be used to generate inspection protocols under the SAS.

**Section 213 (8) – other plans to strengthen the voluntary safety programs, taking into account the DOT IG reviews of such programs.**

**Response:** The FAA plans to continue its successful promotion of voluntary safety programs, building upon the Administrator's Call to Action of June 2009. In 2010, the FAA held a Shared Vision of Aviation Safety Conference focused on all these programs attended by over 600 U.S. personnel, as well as the FAA Administrator and the Director of the FAA's Flight Standards Service. The conference included introductory and advanced tutorials on all the programs, as well as presentations by industry on current state-of-the-art developments within their programs.

The FAA will hold another conference in 2012, with an interim conference on AQP to be held in 2011.

In addition, within the next 180 days the FAA will update its advisory circular guidance on the ASAP to address both industry concerns and Office of the Inspector General recommendations.