



**Asia-Pacific
Economic Cooperation**

**FINAL REPORT STUDY
Seminar on the Necessity of Cultural Change to
Promote Reporting on Air Safety Issues to
Complement ICAO Requirements**

**APEC Transportation Working Group
Aviation Safety Subgroup (TPT-WG)**

November 2010

APEC Project EWG TPT 07/2009A

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TABLE OF CONTENTS
FINAL REPORT EXECUTIVE SUMMARY

Introduction..... 3

Methodology.....3

Summary of Survey Findings.....6

Summary of Seminar Workshop Findings.....7

Conclusions and Recommendations.....8

Reports and Presentations Completed.....9

References – Primary Sources.....10

Appendixes.....12

FINAL REPORT EXECUTIVE SUMMARY

INTRODUCTION

Purpose

This report broadly summarizes the purpose, method and key findings of the APEC Culture Change Seminar Project. Appendix One shows the APEC Final Report Data Summary Sheet, which outlines the milestones and products of the project.

Scope

Details of the study purpose, background and technical approach have been previously reported. See the HFA proposal April 2010 and HFA program plan June 2010, and the Three-Economy Case Study October 2010, referenced in this report. Specific milestone events, products and publications are listed the Appendix One. This report provides a brief summary of approach and key findings of the project. The reader is directed to previous reports, referenced here, for more detailed discussion of the study background, methodology and results.

Background

The culture change study was undertaken to examine the underlying cultural framework of three economies as related to development and implementation of a State Safety Program (SSP) in accordance with ICAO direction for conducting Safety Management System (SMS) implementation.

METHODOLOGY

Document Review

Documents related to ICAO policy, SMS and SSP development and implementation were collected and reviewed in order to establish a foundation for the development of culture assessment and culture change methods. A bibliography listing documents reviewed was previously presented in the HFA (July 2010) progress report and is duplicated here for the reader's convenience. The document review was instrumental in helping to formulate questions for inclusion in the Interview Protocol and for construction of a comprehensive survey questionnaire.

Interviews

The first step in assessing the current state of the organization's culture consisted of interviews that were conducted with a cross section of supervisors and workers from each organization (Civil Aviation Authorities in the case study). The purpose of the interviews is to collect basic information regarding policies, practices, and the cultural norms of operation. The interview information was subsequently used to adapt the HROES™ survey instrument, developed by Human Factors Associates, Inc. for specific APEC study application. Interviews were conducted with three participating Economies, Singapore CAA, Peru DGAC, and USA FAA. Singapore and FAA interviews were conducted via teleconference calls and the Peru interviews were conducted live in Lima. The Interview Protocol used can be found in Appendix Two.

Questionnaire Survey

The HROES™ “culture survey” used here was derived from over 10 years of research applying the principles of High – Reliability Organizations to assessing organizational effectiveness and high reliability cultures (Ciavarelli 2007). The survey process and the core sample of survey items used in culture assessment have evolved over numerous applications in aviation (aircraft flight operations and air traffic control operations), the aerospace industry, and medical care facilities. See Appendix Three for the High –Reliability Organizational Effectiveness Survey (HROES™) used in the Three Economies Study.

In this study, we selected and tailored specific survey items based on completion of the Interviews – and with consideration to the Civil Aviation Authority mission, role and responsibilities. The Survey was distributed September 10, 2010, with a designated survey closure date of 24 September. The resulting survey is divided into several sections, including a section designed to assess the status of SSP and SMS implementation and a section containing the HROES™ culture assessment survey that includes survey items using a five point Likert Rating scale, an open - ended items section, that allows survey takers to provide comments and suggestions, and a section for collecting survey taker's professional background information. The Survey used in this study is presented in Appendix Three.

The survey rating items measure five specific areas of high reliability using the HROES™ framework established by Ciavarelli (2005).

1. Safety Process auditing (SPA) – conducts adequate audits and reviews of CAA safety management processes to ensure they are working as intended.

2. Safety Culture & Reward system (SCRS) – creates a “just culture” policy and procedures for open reporting and rewards individuals that report deficiencies.

3. Risk management (RSKM) – has risk management processes in place and continuous risk assessment by employees at all levels.

4. Quality Assurance (QA) best practices – promotes and monitors use of standard procedures and best practices

5. Leadership and Supervision (LDSHP) -- Command Control – clearly communicates safety management policies, objectives, and provides active leadership and resources to promote effective safety management operation

Seminar - Workshop

A two – day Seminar was organized and conducted in Lima Peru on 25 – 26 October 2010. Appendix four shows the basic Seminar format, and planned Agenda. This Appendix also includes various Seminar Culture Change Worksheets used during the Seminar’s workshop activities. Mr. Ramon Gamarra, General Director DGAC, Peru opened the Plenary Session. Participating local ICAO and IATA representatives made presentations related to SMS and SSP implementation. Dr. Anthony Ciavarelli, presented the findings of the Three Economy Study, and then led the remaining Plenary Sessions. Each of the three participating Economies, Singapore, Peru and USA presented their own views on SMS – SSP implementation and various lessons learned from their direct experience. Dr. Ciavarelli also made presentations related to “organizational culture and culture change” prior to providing instructions for planned participant Break Out Workshop sessions. Appendix Four contains the Seminar Description and the planned Agenda. Appendix Five describes the Seminar Workshop Process and includes the Culture Change Workshop Templates or Worksheets used in the Break Out Sessions.

All presentations and workshop culture change planning tools were given to Seminar Participants in both paper printouts and on a CD. In addition, all project products also are included on the Seminar web site intended only for use by Seminar participants, and other invited APEC members.

The Seminar web site URL is: <https://www.wikispaces.com/user/my/hfatonyc>

Participants

Representatives from eleven Economies attended the Culture Change Seminar, including Peru, Singapore, USA, Malaysia, Thailand, Indonesia, Mexico, Chile, Australia, New Zealand, and New Guinea. Participants were broken into three groups, one for English speaking and two for Spanish speaking. All participants appeared motivated and all worked productively to review the need for culture change and to formulate plans for changing their respective cultures. Each team also created an execution plan for SSP and SMS implementation in the context of proposed culture change objectives. Outputs from the Break Out team sessions are posted on the Seminar Website, referenced above – including English and Spanish language versions.

Plans are in place to continue to monitor and discuss progress among the Seminar participants by maintaining the web site access over the next year or so. The web site provides a means to upload and download documents for review and to conduct discussion forums with participants at their request. The discussion forums can take place independently by the participants, or can be led and facilitated by Dr. Ciavarelli.

SUMMARY OF SURVEY FINDINGS

Detailed analysis and discussion of the Questionnaire Survey results were previously presented in the Three Economy Case Study (HFA, October 2010). Selected results are presented below for the reader's convenience. Appendix Five presents a chart showing statistical results.

Survey Items with Highest Ratings

- 15. I would not hesitate to ask my supervisor for help when needed.
- 16. I am comfortable admitting to my supervisor that I have made a mistake.
- 17. We take great pride in the quality of our work.
- 18. My work group has an excellent reputation for high quality work.
- 20. Best practices are followed in my work group to ensure high quality work...
- 32. My supervisor can be relied on to keep his/her word.
- 34. My supervisor would not ask me to do something against our work group's policy just to complete a job on schedule.
- 53. I believe that implementation of the SSP – SMS framework will improve our regulator – service provider relationship.

Survey Items with the Lowest Ratings

- 4. We have an informal process in place... to report errors of judgment...
- 8. Employees are comfortable reporting any decision errors or mistakes...
- 9. There is a strong culture among our supervisors and workers regarding positive attitudes toward SSP – SMS implementation.
- 22. Employees at my location are held accountable for below average work performance.
- 27. Our supervisors receive adequate training to ensure high quality leadership and effective management practices.
- 41. Good communication flow exists up and down the CAA.
- 46. I believe that it might be difficult to achieve a uniform culture across various CAA functions...
- 48. I think that it might be difficult to fully implement our SSP because the ICAO guidelines are subject to many different interpretations.
- 50. Some CAA employees have not embraced the concept of SSP – SMS.
- 51. Some CAA employees do not believe that the SSP – SMS framework has added much value to safety management.
- 52. We do not have sufficient resources, in my work group, to meet the expected timelines for full SSP – SMS implementation

These and other results from the Survey were presented and discussed during the Plenary Session of the Peru Seminar, and key issues for further consideration were included in the Culture Change Workshop Sessions. The Three Economy Case Study served as a useful point of departure for discussion and consideration during the Break Out Sessions.

SUMMARY OF WORKSHOP FINDINGS

Each Break Out Session consisted of filling out Worksheets for Diagnosis, Culture Change Analysis, and “Brainstorming” Solutions. Appendix 4 shows the worksheets used in this process. Following each of three breakout sessions, team leaders from each of three groups reported their findings to the all participants in Plenary Sessions. In this manner the entire audience was exposed to a cross – section of problem solving activities and solution strategies created by participants from different Economies. Many issues arose that were related to cultural barriers as well as organizational structure and resource needs. Listed below are some of the issues raised and solutions proposed:

Selected Issues Identified

- Some employees are not comfortable reporting deficiencies
- Not all workforce trust senior management
- Not all senior managers are supportive of SSP – SMS activities
- ICAO standards – guidelines are not completely clear
- Legal framework may not support non-punitive reporting
- Management and workers do not perceive need for change
- There are no obvious incentives to reward change acceptance
- Cultural and language diversity complicates communication
- Employee training in SMS – and cultural impact is deficient
- Additional resources (budget and staffing) may be needed

Proposed Solution Strategies

- Attain visible commitment from senior management
- Communicate intentions, plans, and direction for employees
- Provide feedback on progress, delays and actions taken
- Consider adding incentives for culture change goal completion
- Provide English language proficiency classes
- Provide more Education and Training support
- Work with ICAO to clarify SSP implementation requirements
- Communicate need and means for changing legislation policies related to open reporting (removing or mitigating punitive actions)
- Create reporting system that is non – punitive and easy to use

CONCLUSIONS AND RECOMMENDATIONS

Results from Questionnaire Survey and the Lima Peru Seminar show that there are issues related to cultural resistance in response to changes brought about by SSP and SMS implementation. Each CAA has been engaged in addressing the resource requirements and operational management processes needed to ensure effective implementation. However, there are steps that could be taken to improve the management and direction of SSP and SMS implementation. Based upon the findings mentioned above, it is recommended that more attention be given to the following:

- Requesting clarification and further inputs from ICAO to more precisely define SSP requirements and expected documentation needed to comply
- Working with legislative body and policy makers to ensure that the proper legal framework is in place for service providers to operate non-punitive safety reporting systems
- Taking steps to attain visible commitment from senior management to promote and support SSP – SMS activities and resources needed for implementation.
- Educating and Training employees on changes required in policy, procedures and culture needed for successful planning and execution of SSP – SMS.
- Providing sufficient upward and downward organizational communications to manage, and direct employees engaged in SSP –SMS implementation and provide the means for employee inputs and feedback on successes and failures along the way to final implementation.

It is strongly recommended that the culture change study be continued over the next few years – as true culture change takes time and requires continuous monitoring and feedback on progress. For convenience in continuing culture change activities, as mentioned, we will maintain an active Web site for the purpose of continuing to dialogue and exchange information from Seminar Attendees at the Seminar Web site.

The Seminar web site URL is: <https://www.wikispaces.com/user/my/hfatonyc>

Furthermore, it is recommended that a follow up Questionnaire Survey be applied at an appropriate time – perhaps one year from now – to assess progress promoting culture change. In addition, we would like to provide an opportunity to expand the culture study to other APEC member organizations. This goal is best accomplished by using an online survey technology such as that provided by Human Factors Associates, Inc. An example (demonstration) of the available online web – based survey system is provided at the following URL.

<https://www.hfa-clients.com/demosite/login.html>

A pass code is not required to view the survey demonstration site. An access code is only required to submit a completed survey or to view confidential results. The demonstration is used here only to show the web format and sample content

PUBLISHED REPORTS AND PRESENTATIONS FOR THIS STUDY

Reports

HFA (2010, April). **Proposal: Seminar on the necessity of cultural change to promote reporting on Air safety issues to complement ICAO requirements.** Salinas, CA: Human Factors Associates, Inc

HFA (2010, June). **Survey Procedures and Case Study Plan.** Salinas CA: Human Factors Associates, Inc.

HFA (2010, October). **Case Study of Three Economies.** Salinas, CA: Human Factors Associates.

HFA (2010, November). **Final Report: Seminar on the Necessity of Cultural Change to Promote Reporting on Air Safety Issues to Complement ICAO Requirements.** Salinas, CA: Human Factors Associates, Inc.

Presentations

APEC Program Briefing Presentation. August 16, 2010.

APEC Three Economy Case Study. October 25, 2010

Crash Course in Organizational Culture and Culture Change. October 25, 2010.

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APPENDIX ONE

FINAL REPORT DATA SUMMARY SHEET

Seminar on the Necessity of Cultural Change to Promote
Reporting on Air Safety Issues to Complement ICAO Requirements
(TPT 07/2009A)

BACKGROUND INFORMATION

Project Name: Seminar on the Necessity of Cultural Change to Promote
Reporting on Air Safety Issues to Complement ICAO Requirements (TPT 07/2009A)

Committee/WG/Fora: Asia Pacific Economic Cooperation Transportation Working
Group

Project Overseer: Mr. Luis Gonzales -
Aviation Certification Direction Civil Aeronautic General Direction of Peru
Ministry of Transportation and Communications of Peru

Final Report Submission: 19 November 2010

REPORTS AND WEB SITE MATERIALS AVAILABLE

HFA (2010 November) Final Report – APEC Seminar on the Necessity for Culture
Change. Salinas, CA.

HFA (October 25, 2010). Seminar Web Site – All Seminar materials posted (for
participants, by invitation only) <https://www.wikispaces.com/user/my/hfatonyc>

HFA (2010, October 11) Case Study of Three Economies – APEC Seminar on the
Necessity for Culture Change. Salinas, CA

HFA (2010, July 29). Progress Report: APEC Seminar on Necessity for Culture Change.
Salinas, CA.

HFA (2010, June 7). Survey Procedures and Case Study Plan. Salinas CA: Human
Factors Associates, Inc.

HFA (2010, April). Proposal: Seminar on the necessity of cultural change to promote
reporting on Air safety issues to complement ICAO requirements. Salinas, CA: Human
Factors Associates, Inc.

HFA (October 25, 2010). Seminar Web Site (for participants, by invitation only)
<https://www.wikispaces.com/user/my/hfatonyc>

APPENDIX ONE (CONTINUED)
FINAL REPORT DATA SUMMARY SHEET

Seminar on the Necessity of Cultural Change to Promote
Reporting on Air Safety Issues to Complement ICAO Requirements
(TPT 07/2009A)

PROGRAM MILESTONES

Contract Award – 16 May 2010

Program Plan and Case Study Methods Report – 7 June 2010

Progress Report: Findings from Interviews – 21 August 2010

Questionnaire Survey Completion – 24 September

Progress Report Two: Case Study Report – 11 October 2010

Seminar Education and Training Materials – 18 October 2010

Creation of the APEC Culture Study Wiki – 18 October 2010

Conduct of Seminar -- 25 -26 October 2010

Publication of Final Report – 19 November 2010

STUDY PARTICIPANTS

Interviews (Approximately 10 -12 representatives from Singapore CAA, Peru DGAC, USA FAA representatives)

Questionnaire Survey (46 Survey respondents from Singapore CAA, Peru DGAC, USA FAA, responded to the Questionnaire Survey)

Seminar – (representatives from) Peru, Singapore, USA, Malaysia, Philippines, Thailand, Ecuador, Indonesia, Mexico, Chile, Australia, New Zealand, and New Guinea.

APPENDIX ONE (CONTINUED)

PROJECT MANAGEMENT AND BUDGET

Project Management – Program Administration, Directed by Mr. Luis Gonzales, DGAC Peru. Case Study (interviews and questionnaire survey) and Seminar conducted by Human Factors Associates, Inc., under the direction of Dr. Anthony Ciavarelli.

Budget Expended – A fixed price contract was awarded – with a \$44,000 budget allocation. This amount included all labor, travel expenses, products and materials. All tasks were completed within this budget allocation.

APPENDIX TWO: INTERVIEW PROTOCOL¹

1. Does the CAA have a systematic process in place to review and update SMS/SSP policies?
2. Are staffing and resources adequate to support policy review, revisions and updates?
3. Does CAA staff regularly monitor and review the status of SMS/SSP implementation by operators under CAA oversight.
4. Are CAA staff roles and responsibilities related to SMS/SSP oversight responsibility clearly defined for CAA staff members?
5. Are there clear goals and standards in place to evaluate CAA staff performance against CAA responsibilities (disseminating safety policy, educating operators, providing SMS/SSP oversight)?
6. Do senior CAA managers and middle managers and employees agree on the goals and standards and how these CAA goals and standards will be applied in employee performance evaluation?
7. Has CAA provided adequate resources, corporate communications, and educational materials to prepare its employees (at all levels) for changes in CAA organizational structure and practices?
8. In your opinion, what works and what does not work for your organization in providing operators with the proper policies, operating standards, implementation plans, and oversight?
9. Would you say that your organization has an open communication culture? In other words,
10. Do people routinely provide management with information regarding policies, resource adequacy, employee concerns about supervision, and suggestions, (without fear of reprisal or criticism)?
11. What do you think about the following issues?
 - Adequacy of SMS/SSP policy guidelines for operators
 - Adequacy CAA employee qualifications and experience levels now and for the future
 - Leadership commitment to SMS/SSP promotion and support
 - Success or effectiveness of SMS/SSP education and training for CAA staff.
 - Success or effectiveness of SMS/SSP CAA - led education and training for operators
 - CAA's role in ensuring operator compliance with SOP's and published safety guidelines
 - Adequacy of resources to perform the CAA mission (policy, education, oversight)
 - Adequacy of information available for employees to perform assigned tasks effectively
 - Decision making regarding in reaction to limited resources and operational constraints
 - CAA employee perception regarding pressure to meet schedule - budget expectations
 - Adequacy of oversight in general or in specific areas of SMS/SSP compliance
 - Ensuring that required training standards, and operator employee qualification programs are working among operators (for pilots, aircraft maintenance, airport services).
 - CAA employee attitudes and acceptance of changes in their own work environment
 - Assessing whether or not CAA culture and culture of operators are adapting to changes in work practices brought about through introduction of SMS/SSP.

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12. Has the CAA purposely attempted to define and assess safety culture, and/or safety culture changes resulting from introduction of SMS/SSP implementation? If so, how, when,

APPENDIX THREE
CAA CULTURE ASSESSMENT QUESTIONNAIRE²
High Reliability Organizational Effectiveness Survey – HROES[®]

RATING ITEMS (1-5 Scale – level of agreement from low = 1 to high = 5)

1.0 Process Auditing – PA

1. I believe that my *work group* conducts adequate reviews and updates of its work practices and standard operating procedures.
2. My *work group* closely monitors worker qualification training to ensure that all personnel are qualified to perform their jobs.
3. In my *work group*, we follow a specific process to review employee performance against our training standards.
4. We have an informal process in place, in my *work group*, to report errors of judgment that may not require an official reporting process.
5. I receive feedback on the resolution of any SMS implementation issues that I report to management.
6. We have an effective means in my *work group* to provide input on SSP or SMS issues.

2.0 Organizational Culture and Reward System – CRS

7. Supervisors encourage reporting any concerns about the effectiveness of our policies and procedures for SSP or SMS implementation
8. Employees are comfortable reporting any decision errors or mistakes they have made that may influence effective work performance.
9. There is a strong culture among our supervisors and workers regarding positive attitudes about SSP/SMS implementation
10. Employees that I know are well-rounded professionals that share the values of my *work group* regarding best work practices.
11. Our *work group* recognizes individual achievement through rewards and incentives.
12. I am not comfortable reporting any errors or mistakes made on the job, because people in my *work group* would react negatively toward me.
13. Our *work group* ensures that good performance on the job is recognized and rewarded.

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14. Our *work group* ensures that poor performance is identified and corrected.
15. I would not hesitate to ask my supervisor for help when needed.
16. I am comfortable admitting to my supervisor if I have made a mistake.

APPENDIX THREE

CAA CULTURE ASSESSMENT QUESTIONNAIRE³

High Reliability Organizational Effectiveness Survey – HROES[®]

3.0 Quality Control and Best Practices – QA

17. We take great pride in the quality of our work.
18. My *work group* has an excellent reputation for high-quality work.
19. My *work group* closely monitors work quality and corrects any deviations from standard practices.
20. Best practices are followed in my *work group* to ensure high quality work efforts.
21. Management clearly communicates the need to maintain high-quality standards.
22. Employees at my location are held accountable for below average work performance.

4.0 Risk Management – RSK

23. I believe that my daily workload is at a normally expected level.
24. I believe that we are adequately staffed in my *work group*.
25. I do not feel overburdened with my current job assignments.
26. Our Supervisors receive adequate training to ensure high quality leadership and effective management practices.
27. In my *work group*, new initiatives, like SSP-SMS implementation, are carefully evaluated for possible risk of failure.
28. Only the most qualified people in my *work group* make decisions about regulatory actions.

5.0 Leadership and Supervision – LDRS

29. Management has given me an opportunity to provide inputs to SSP or SMS policies and procedures.
30. Our CAA Senior Executives have clearly shown support for our ongoing SSP- SMS implementation goals and / or activities.

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31. Managers at all levels in the CAA are actively involved in the promotion and/or implementation of our SSP/SMS program.
32. My supervisor can be relied on to keep his/her word.
33. In our *work group*, the leaders and supervisors can be trusted.
34. My supervisor would not ask me to do something against our *work group's* policy just complete a job on schedule.
35. Supervisors in my *work group* have clearly communicated the CAA goals to me and to those around me.
36. My *work group* provides a positive climate that promotes effective work operations.
37. Senior Executives at the CAA have shown commitment to SSP - SMS implementation by providing the necessary resources.
38. My *work group* ensures that the appropriate people are responsible and accountable for an effective SSP/SMS implementation.
39. Managers in my *work group* willingly provide advice to workers concerning SSP – SMS issues.
40. Managers at my *work group* react well to unexpected changes.
41. Good communication flow exists up and down the CAA.
42. The CAA has good two-way communication with other regulator and operator organizations that we do business with.
43. I get all the information from my *work group* that I need to perform my job effectively.
44. Our supervisor listens carefully to employees regardless of their level or rank in the CAA or *work group*.
45. I believe that employee morale in my *work group* is high.
46. I believe that it might be difficult to achieve a uniform culture across various civil aviation authority functions or *work groups*.
47. Employees willingly provide advice to one another concerning SSP – SMS issues.
48. I think that it might be difficult to fully implement our SSP because the ICAO guidelines are subject to many different interpretations.
49. I believe that we are in compliance with ICAO SSP requirements now.
50. Some CAA employees have not embraced the concept of SSP – SMS.
51. Some CAA employees do not believe that the SSP – SMS framework has added much value to safety management.
52. We do not have sufficient resources, in my *work group*, to meet the expected timelines for full SSP and SMS implementation.
53. I believe that implementation of the SSP – SMS framework will improve our regulator – service provider relationship.
54. A culture change is underway already in our *work group* following the ICAO promotion of SSP - SMS.

SSP – SMS IMPLEMENTATION STATUS

SSP COMPLETION STATUS⁴

Place a value **1 – 3** in the appropriate cell of the table based on your understanding of the level of completion in each of the five listed SSP areas:

1) Not Accomplished, 2) Mostly Accomplished, 3) Completely Accomplished

SSP AREA	Documentation & Dissemination	Guidance & Education	Oversight & Enforcement
1. Safety Policy			
2. Risk Management			
3. Safety Assurance			
4. Safety Promotion			
5. <i>Cultural Acceptance</i> Mark column three only	XXXXXXXXXX	XXXXXXXXXX	

Comments: _____

SMS COMPLETION STATUS

Place a value **1 – 3** in the appropriate cell of the table based on your understanding of the level of completion in each of the five listed SMS areas:

1) Not Accomplished, 2) Mostly Accomplished, 3) Completely Accomplished

SMS AREA	Documentation & Dissemination	Guidance & Education	Oversight & Enforcement
1. Safety Policy			
2. Risk Management			
3. Safety Assurance			
4. Safety Promotion			
5. <i>Cultural Acceptance</i>			

⁴ Areas for SSP and SMS based on ICAO (2009). Safety Management Manual (SMM), 2nd edition.

Mark column three only	XXXXXXXXXX	XXXXXXXXXXXX	
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Comments: _____

OPEN-ENDED SURVEY ITEMS

Please PRINT answers CLEARLY:

1. Given the changes brought in both regulators and operators from SSP/SMS implementation – will - the relationship between the regulator and the operator change? If yes, how will the relationship change?

2. Is the regulator culture prepared to accept the change in relationship – or in particular ready to trust that the operator with an implemented SMS can do sufficient “self assessments” of SMS effectiveness?

3. And will such self-assessments result in a “relaxed” direct oversight and/or to reduce the number of field audits?

4. What steps have been taken to prepare the regulatory staff and service provider’s managers to establish trust and open communications?

5. Will your SSP recommend methods to be used by operators to assess progress and success in SMS implementation, including metrics for assessing safety culture? And provide feedback to regulator on results of those assessments?

BACKGROUND INFORMATION

1. Work Group: (check 1) AERODROME AIRWORTHINESS
 NAVIGATION/ATC MAINTENANCE FLIGHT STANDARDS
 OPERATIONS OTHER

Comment or briefly to clarify selection: _____

2. Do you supervise personnel? _____ 9. If yes, number supervised _____

10. Sex: Female Male (voluntary)

11. Years of service in current job: _____ 12. Total years of service in CAA _____

13. Job title: _____ (voluntary)

14. Year of birth: _____ 15. Today's date: ___/___/___
Day / Mo / year

Any Additional Comments: _____

THANK YOU VERY MUCH FOR YOUR PARTICIPATION.

SUBMIT TO: aciavarelli@hfa-oses.com

Or MAIL TO:

Human Factors Associates
18367 Corral Del Cielo

Salinas CA 9390

APPENDIX FOUR

Seminar on the Necessity of Culture Change to Promote Reporting on Air Issues to Complement ICAO Safety Requirements



SEMINAR DETAILS

The Seminar will take place in Lima, Peru on 25-26 October 2010 – at the exquisite Defines Hotel & Casino. The Seminar aims to help APEC Economies to develop initiative for Improving their own capacity to comply with International standards in aviation safety, Including a State Safety Program (SSP) and the Safety Management System (SMS).

1st day - 25 October Agenda:

Welcome – Opening Comments – DGAC Peru
Speakers from regional ICAO and IATA offices
Culture Change Case Study Report Presentation

SSP – SMS Stakeholders Panel Discussion
Definition of Overall Culture Change Objectives
Culture Change Workshop Sessions

2nd day – 26 October Agenda

Lessons learned from Day One
Culture Change Workshop Sessions
Guidelines for “culture change”
Handouts of culture change management tool kit

SUMMARY

Delivered by:

Human Factors Associates

Dr. Anthony Ciavarelli – Leader
aciavarelli@hfa-oses.com

Mr. Kent Lewis – Facilitator
Mr. Raul Castillo – Facilitator

Who is it for?

**APEC Civil Aviation Authority
Executives and employees**

Where?

Hotel Los Defines, Lima, Peru
Calle Los Eucaliptos 555 |
San Isidro, Lima, Peru (1-800-551-2409)

What time:

Each day starts promptly at 8:45 am and ends
at 5:30 pm

What is included?

Presentations & panel discussion
Culture Change Workshop Sessions
Culture change materials and management
tools

Seminar Attendance by invitation only
Contact:

lgonzales@mtc.gob.pe & pmann@mtc.gob.pe

AGENDA

Seminar on the Necessity of Culture Change to Promote Reporting on Air Issues to Complement ICAO Safety Requirements

DAY ONE

8:00 a.m. - 8:45 a.m.

Registration

8:45 a.m. - 10:30 a.m.

Morning Plenary Session

Welcome by DGAC Peru -- [Mr. Ramon Gamarra](#) (General Director)

Discussion Panel *SSP-SMS Implementation Vision/Approach*

– Panel Members

- SMS IATA Vision – [Mr. Gabriel Acosta](#) (Manager, Operations & Infrastructure, Latin America & Caribbean - IATA)
- SSP ICAO Vision – [Mr. Oscar Quesada](#) (Sub - Director ICAO Regional Office)
- Project Background – [Mr. Luis Gonzales](#) (Project Overseer – DGAC of Peru)

Break - Refreshments

10:30 a.m. - 10:45 a.m.

10:45 a.m. - 12:45 p.m.

Morning Plenary Session

Three Economy Case Study Report Presentations – [Dr. Anthony Ciavarelli](#)

- SSP – SMS Experience and Case Study Reflections Singapore – [Mr. Wong Chew Wah](#)
- SSP – SMS Experience and Case Study Reflections USA – [Mss. Jennifer Adair](#). (Safety Management System Program Office)

- SSP – SMS Experience and Case Study Reflections Peru – Mr. Luis Gonzales (Project Overseer – DGAC of Peru)

12:45 – 1:45 -- **Lunch Period**

DAY ONE AFTERNOON WORKSHOP

1:45 – 3:45

**Morning Three Economy Panel – Questions and Discussion
“Crash Course” on Organizational Culture and Change
Management**

Afternoon Plenary Session

Breakout Workshop Instructions and Room Assignments – [HFA](#)

3:45 – 4:00

Break - Refreshments

4:00 – 5:30

**Afternoon Breakout Session
Culture Change Workshop Basics**

Workshop Objectives, Process and Plans – [Human Factors Associates \(HFA\)](#)

Breakout Workshop Session: Exploring the need for Culture Change –
[Attendees](#)

Adjourn Day One

AGENDA DAY TWO

MORNING

8:30 a.m. – 9:00 a.m.

Administration Desk open

9:00 a.m. - 10:00 a.m.

Morning Plenary Session

Continue to work in Groups Worksheet #1, then --

Report back Break out Session Findings to Plenary --[Attendees](#)

10:00 a.m. – 10:15 a.m.

Break - Refreshments

10:15 a.m. – 10:45 a.m.

Work Group Session Worksheet #2, and then report back

Lessons Learned Workshop Sessions and Discussion – [Dr. Ciavarelli - HFA](#)

10:45 a.m. - 12:15 a.m.

Culture Change Workshop Issues

Removing Barriers to Culture Change – [Dr. Anthony Ciavarelli](#)

Setting Culture Change Objectives – [HFA](#)

12:30 a.m. - 1:30 p.m.

Lunch Period

DAY TWO: AFTERNOON

1:30 – 2:15

Afternoon Plenary Session 1

Breakout Group Reports - Culture Change Worksheet 2

2:15– 3:30

Plenary –Brainstorming Strategies and Actions for Culture Change

Worksheet 3 – Attendees –

Group Reports on Brainstorming Breakout Session

3:30 a.m. – 3:45 a.m.

Break - Refreshments

3:45 – 5:00

Final Plenary Session

Workshop Materials and Safety Information Resources on Wiki Web site
-- Collaboration Space– HFA

Safety Reporting – Guest Speaker Alejandra Forero Jimenez’s - Chile

Removing Barriers to Culture Change – [Dr. Anthony Ciavarelli](#)

Setting Culture Change Objectives – [HFA](#)

Seminar Review and “Take Aways” – [Dr. Anthony Ciavarelli](#)

Workshop Evaluation Sheets – Attendees

Adjourn Seminar

APPENDIX FIVE-CULTURE CHANGE WORKSHOP

Workshop Process and Analysis Templates

A five - step process is used in the culture change model. The three initial steps were accomplished during the Lima Seminar, and are as follows:

1. Assessment – Prior to attending the Seminar, both Interviews and Survey Methods were used to assess the state of the organization’s culture and to identify problem areas.
2. Diagnosis – While at the Culture Change Seminar, the participants formed teams and used the *Culture Change Seminar Template One* to diagnose their organization’s strengths, weaknesses, opportunities and threats (SWOT analysis). The results of this seminar session provided the foundation for further analysis needed identify specify areas in which there might be resistance to culture change, and to list various strategies for overcoming such resistance. The teams used *Culture Change Template Two* to list areas of resistance, methods to overcome resistance and other helpful strategies designed to promote culture change.
3. Intervention Strategies – In the final seminar workshop session the teams used *Culture Change Template Three* in order to finalize their strategies and planned interventions for changing the culture at their organizations in accordance with their final diagnosis of problem areas.

Follow up (after the Seminar Workshop)

4. Implementation -- The Seminar participants return to their respective organizations as “change agents” and begin the process of implementing their change strategies and executing the plans and procedures that they specified in the seminar.
5. Re-assessment (feedback) – The process of culture change takes place over time – and periodic re-assessments are an important part of the methodology. Therefore, one should schedule further assessments and diagnostic reviews, at least once a year as the organization engages in the process.

APPENDIX FIVE
Culture Change Seminar Workshop Template One

<p>Issues – Items to consider</p> <p>Generic reasons for change resistance:</p> <p>Lack of perceived benefits Loss of job status Loss of job security Disruption of routine – other things to do Relearning your job – change in role, responsibilities and skills needed</p> <p>Yours?</p> <p>Legislation needed to change legal framework</p>	<p>Strengths:</p> <p>Generic:</p> <p>Strong leadership in place now</p>	<p>Weaknesses:</p> <p>Workers are not on board.</p>
<p>Issues – Items to consider</p> <p>Management “buy in” Worker “buy in” Resources available</p>	<p>Opportunities:</p> <p>Budget is approved to meet ICAO requirement</p>	<p>Threats:</p> <p>Started enthusiastic but interest is declining. May face budget cuts.</p>

APPENDIX FIVE

Culture Change Seminar Workshop Template Two

CULTURE CHANGE ANALYSIS WORKSHEET TWO

Instructions: Identify and list change problem, list factors that might result in change resistance and factors that would help in acceptance.

Change strategies can include changes to organizational structure, technology improvement, or change people's job, attitude or behavior

<u>Change Problem (s)/objectives</u>	<u>Resistance Factors</u>	<u>Acceptance Factors</u>	<u>Change-</u>
<u>Strategy</u> Example: Change in Policy	new learning	Make learning easy.	Allow time - educate – train

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Comments:

APPENDIX FIVE

Culture Change Seminar Workshop Template Three

BRAINSTORMING FINAL CULTURE CHANGE ACTIONS

1. Define change objectives or change (s) needed – based on diagnostic information collected.
2. Offer and discuss options for solving problem – no bad ideas; no criticism of points of view – put all options out for discussion.
3. Assign a priority value or rank order the problems according to importance to organization.
4. List proposed solution/actions to be taken and person who will be assigned to carry action (s).
5. Put a start/end time for each action.

MOST IMPORTANT CHANGE PROBLEM AREAS AND ACTIONS TO BE TAKEN

<u>Change Objectives</u>	<u>Priority Score/Rank</u>	<u>Solution/Action</u>	<u>/ who Assigned</u>	<u>Start time</u>	<u>End</u>
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Examples:

1. Change the law.
2. Change Regulations
3. Change Management Commitment
4. Change Training program
5. Change worker attitude/behavior

Yours:

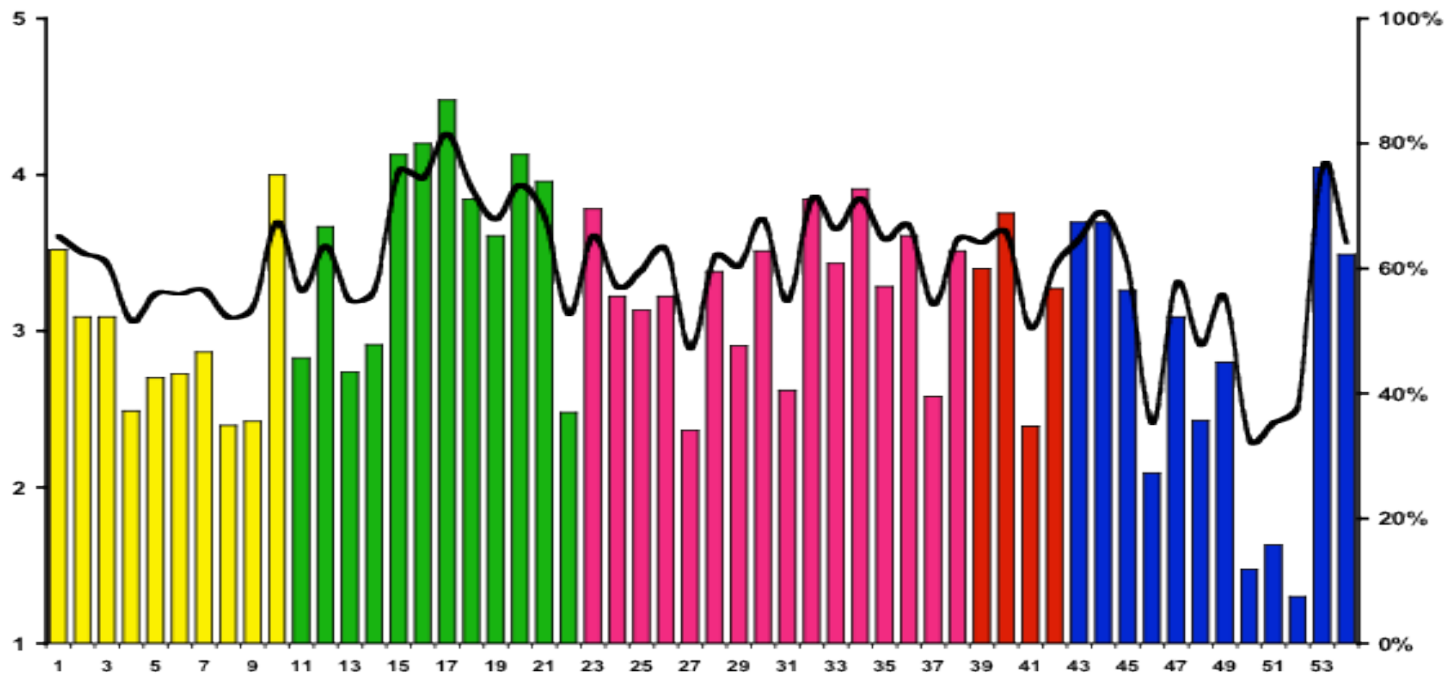
APPENDIX SIX: SELECTED RESULTS

Statistical Summary: All Economies N=46



Average 1-5 scale

% Favorability



Survey Items 1- 54 – See Appendix Three for survey Item descriptions