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JATS publishes the following categories of papers written in <u>scholarly</u> English: a) Full Research Papers, b) Conference Reports, c) Book Reviews, d) Industry Perspectives. Papers should be submitted electronically to <u>a.papatheodorou@aegean.gr</u> in MS-Word format ONLY using British spelling, single-column, 1.5 line spacing, Tahoma letters, font size 11. Section headings (and sub-headings) should be numbered and written in capital letters. Upon acceptance of a paper and before its publication, the corresponding author will be asked to sign the *Transfer of Copyright* form on behalf of all identified authors.

*Full Research Papers* should contain original research not previously published elsewhere. They should normally be between 4,000 and 7,000 words although shorter or lengthier articles could be considered for publication if they are of merit. The first page of the papers should contain the title and the authors' affiliations, contact details and brief vitae (of about 50 words). Regarding the following pages, papers should generally have the following structure: a) title, abstract (of about 150 words) and six keywords, b) introduction, c) literature review, d) theoretical and/or empirical contribution, e) summary and conclusions, f) acknowledgements, g) references and h) appendices. Tables, figures and illustrations should be included within the text (not at the end), bear a title and be numbered consecutively. Regarding the referencing style, standard academic format should be consistently followed. Examples are given below:

- Airbus (2003), Global Market Forecasts 2003-2022, Toulouse: Airbus.
- Fragoudaki, A., Keramianakis, M. and Jancovich, S. (2005) The Greek PSO Experience. 4<sup>th</sup> International Forum on Air Transport in Remoter Regions. Stockholm, May 24-26.
- Forsyth P. (2002a), 'Privatization and Regulation of Australian and New Zealand Airports', *Journal of Air Transport Management*, 8, 19-28.
- Papatheodorou, A. (2008) The Impact of Civil Aviation Regimes on Leisure Market. In Graham, A., Papatheodorou, A. and Forsyth, P. (ed) *Aviation and Tourism: Implications for Leisure Travel*, Aldershot: Ashgate, 49-57.
- Skycontrol (2007) easyJet welcomes European Commission's decision to limit PSO abuse in Italy. 23<sup>rd</sup> April. Available from: http://www.skycontrol.net/airlines/easyjetwelcomes-european-commissions-decision-to-limit-pso-abuse-in-italy/ (accessed on 22/08/2008).

*Conference Reports* should be between 1,000 and 1,500 words. They should provide factual information (e.g. conference venue, details of the conference organizers), present the various programme sessions and summarize the key research findings.

*Book Reviews* should be between 1,000 and 1,500 words. They should provide factual information (e.g. book publisher, number of pages and ISBN, price on the publisher's website) and critically discuss the contents of a book mainly in terms of its strengths and weaknesses.

*Industry Perspectives* should be up to 1,000 words and provide a practitioner's point of view on contemporary developments in the air transport industry. Contributors should explicitly specify whether their views are espoused by their organization or not.

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#### Full Research Papers

1. QANTAS FLIGHT QF32: LESSONS FROM AN INFLIGHT EMERGENCY ......1-9 Ian Douglas and David Evans

This paper summarizes the address by Captain David Evans to the 2011 Air Transport Research Society annual conference in Sydney, Australia. The paper draws on the responses of the crew of Qantas flight QF32 to an inflight emergency to identify areas of weakness in simulator training. Two significant issues that emerge are the lack of simulated training for actions to be taken after the aircraft is successfully landed by the crew and the impact of a high workload on the crew's ability to hear audible signals.

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Overrun accidents continue to occur despite the good intentions of those involved in identifying and managing risk. Our ability to predict and prevent accidents that "can't happen" must depend on our willingness to look for the possibilities in what our conventional ways of seeing assure us are failure-proof systems. In 1968 astronaut Frank Borman said it was a "failure of imagination" that led to the Apollo I fire. Today, as economic pressures work to squeeze more capability from our airplanes, pilots, and runways, the question remains not "could a runway excursion occur" but "will it be our inability to imagine risk that contributes to the next runway accident"? This paper will focus on the different ways risk can be measured as well as how the nature of randomness can influence our perceptions of safety. By examining the interrelated effects of probability modelling, safety assurance practices and current policies and regulations a new definition of safety hazards and mitigations will be defined.

This study examines the impact of airlines' cabin crew training on their flight safety performance, and evaluates the effectiveness of the cabin crew's emergency evacuation training, in order to better understand whether their training performance affects airlines flight safety in practice. Kirkpatrick's four-level training performance assessment method is used as the basis of this study, while factor analysis, t-test, ANOVA and SEM (Structural Equation Modelling) are used for data analysis. Most respondents agree that the training content can be clearly learned without language barriers if the airlines use domestic instructors. In addition, most respondents felt that airlines should improve the frequency with which they update the training material and that more practical drills and line training should be added to training syllabus, especially with regard to emergency evacuations. SEM method is used to assess the relationships among the training syllabus, skills learning, operational performance and flight safety performance. The results show that the training syllabus positively affects skills-learning, skills-learning positively affects directly affects flight safety performance.

The aim of this paper is to describe the different uses of English phraseology and plain language within pilot-controller (or air-ground) communications via a comparative study between two collections of texts (corpora): one representing the prescribed norm and made up of examples of English from two phraseology manuals; the other consisting of the orthographic transcription of recordings of real air-ground communications. The comparative study is conducted at a lexical level. It focuses on the discrepancies observed in the distribution of the corpora lexicon. Our preliminary results indicate that, in real air-ground communications, pilots and controllers tend to use more "subjectivity" markers (pronouns, courtesy expressions) than prescribed by the linguistic norm. This observation reflects their needs to use the language in its social role. A description of the different markers introducing subjectivity in air-ground communication can help understand the use of a more natural language in radiotelephony. In the long run, the results from the comparative study can be used to improve English radiotelephony teaching.

 computer systems, in which degraded operation events can reduce the service level at any controlled airspace. This paper presents a relationship between availability and allocation of human resources in these centers, where maintenance and operations personnel are occasionally asked to repair losses caused by automated functions. A simulation model for the Arena tool is presented, to access availability, and then the operational point of view is explored, focusing on the required availability scenarios. The results presented herein can help determine the size of operations and maintenance teams, considering the reliability and maintainability parameters of airspace control systems.

FAR Part 77 "Objects Affecting Navigable Airspace" is commonly only used in the US, whereas ICAO Annex14 "Obstacle Restriction and Removal" is accepted by all other countries. These two systems were constructed with a different baseline, restrictive area and height. Since government regulations or research publications usually adopt one of them exclusively, users and researchers may perceive ambiguous figures. The purpose of this paper is to compare safety airspaces and identify differences. The results indicate that the FAA imaginary surfaces system specifies a more extensive obstruction clearance than ICAO's. We also show that airports which apply the FAA regulations restrict urban development around airports more.

## Editorial Special Issue: Aviation Safety Selected Papers from the 2011 ATRS Conference

The 15<sup>th</sup> Air Transport Research Society (ATRS) Conference took place in 2011 in Sydney, Australia. In the conference 217 paper presentations took place in the presence of 256 participants from 34 countries.

For this special issue of the Journal of Air Transport Studies we present seven papers from the Sydney Conference. The first two papers highlight the experiences of two captains to lead us into the practical aspects of safety. The rest of the papers cover safety from various orientations: safety training programs, communication skills, airspace control systems, and obstacle restriction and removal.

In the first paper of this special issue I an Douglas summarizes the address given by Captain David Evans to the 2011 Air Transport Research Society World Conference in Sydney, Australia. The paper draws on the responses of the crew of Qantas flight QF32 to an inflight emergency to identify areas of weakness in simulator training. There are two significant issues that emerge from this paper. First, the lack of simulated training for actions to be taken after the aircraft is successfully landed by the crew; and second, the impact of a high workload on the crew's ability to hear audible warning signals.

Another important insight is provided by Captain John Gadzinski, who discusses overrun accidents that continue to occur despite the good intentions of those involved in identifying and managing risk. He explains how our ability to predict and prevent accidents that "can't happen" must depend on willingness to accept that no system is failure-proof. The paper focuses on the different ways risk can be measured as well as how the nature of randomness can influence perceptions of safety. He discusses the interrelated effects of probability modelling, safety assurance practices and current policies and regulations a new definition of safety hazards and mitigations.

Yu-Hern Chang, Meng-Yuan Liao, and Chien-Chen Kuo examine the impact of airlines' cabin crew training on safety performance. They use the Kirkpatrick's four-level training performance assessment method and a questionnaire survey. The responses indicate that training content can be clearly learned without language barriers if domestic instructors are used, training material needs frequent updating, more practical drills are needed, and line training should be added to training syllabus, especially with regard to emergency evacuations. The authors apply a structural equation model on the data to assess the relationships among the training syllabus, skills learning, operational performance and flight safety performance. The results show that the training syllabus positively affects skills-learning, while skills-learning positively affects operational performance and flight safety performance. While the overarching conclusion is that operational performance directly affects flight safety performance.

Stéphanie Lopez, Anne Condamines, Amélie Josselin-Leray, Mike O'Donoghue, and Rupert Salmon describe the different uses of English phraseology and plain language

within pilot-controller (or air-ground) communications. They conduct a comparative study between two collections of texts (corpora): one representing the prescribed norm and made up of examples of English from two phraseology manuals; the other consisting of the orthographic transcription of recordings of real air-ground communications. The results indicate that, in real air-ground communications, pilots and controllers tend to use more "subjectivity" markers (pronouns, courtesy expressions) than prescribed by the linguistic norm, reflects their need to use the language in its social role. The authors point out that their results can be used to improve English radiotelephony teaching.

Walter Nogueira Pizzo and Paulo Sérgio Cugnasca discuss how airspace control systems introduce automation into functions previously performed by human operators, in which degraded operation events can reduce the service level at any controlled airspace. Their paper analyses the relationship between the availability and the allocation of human resources in these cases. A simulation model for the Arena tool is presented, to access availability, and then the operational point of view is explored, focusing on the required availability scenarios. The results help dimensioning operational and maintenance teams, taking into account the reliability and maintainability parameters of airspace control systems.

Sze-Wei Chang and Ping-Wen Hwang discuss and compare the FAR Part 77 "Objects Affecting Navigable Airspace" commonly only used in the US, and the ICAO Annex14 "Obstacle Restriction and Removal" accepted by all other countries. They point out that the two systems were constructed with a different baseline, restrictive area and height. However, government regulations usually adopt one of them exclusively, causing concerns. The purpose of the paper is therefore to compare safety airspaces and identify differences. The results of their study indicate that the FAA imaginary surfaces system specifies a more extensive obstruction clearance than ICAO's and airports which apply the FAA regulations restrict urban development around airports more.

In the final paper of this Special Issue Ana Maria Vieira, Isabel Cristina dos Santos, and Paulo Renato de Morais cover training for skills needed to perform safety functions. Their objective of their papers is to show that when working in safety environments involving groups, individuals need specific training in interpersonal skills. They argue that professionals trained in communication skills are more likely to identify threats and risks caused by interpersonal situations, and more likely to take appropriate action. Their paper suggests a set of policies, procedures and practices for educating and training future professionals who will work in aviation safety.

We take this opportunity to extend our thanks to the authors and the reviewers for their contribution to air transport research and hope that the papers become a source for further inquiries into the respective topics.

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