

COMISSÃO LATINO-AMERICANA
DE AVIAÇÃO CIVIL



LATIN AMERICAN CIVIL
AVIATION COMMISSION

COMISIÓN LATINOAMERICANA DE AVIACIÓN CIVIL

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LXXXIV REUNIÓN DEL COMITÉ EJECUTIVO DE LA CLAC

(Ciudad de Panamá, Panamá, 27 y 28 de agosto de 2013)

**Cuestión 9 del
Orden del Día:**

**Participación de la CLAC en el 38 período de Sesiones de la Asamblea de
la OACI**

- *Notas de estudio y/o informativas que presentará la CEAC*

(Nota de estudio presentada por la Secretaría)

1. Sobre la base del Memorándum de Entendimiento suscrito entre la Comisión Latinoamericana de Aviación Civil (CLAC) y la Conferencia Europea de Aviación Civil (CEAC), así como de las conversaciones mantenidas entre los Presidentes de dichos Organismos, la Secretaría ha recibido del Sr. Salvatore Sciacchitano, Secretario Ejecutivo de la CEAC, trece notas de estudio e informativas (**Adjunto**) sobre diferentes puntos del orden del día que presentará dicha Conferencia en el 38 Período de Sesiones de la Asamblea de la OACI. Esto con el objeto que los Estados miembros de la CLAC analicen la posibilidad de brindar apoyo a los mencionados documentos.

Medidas propuestas al Comité Ejecutivo

2. Se invita al Comité Ejecutivo a revisar las Notas de la CEAC, que se acompañan a la presente y pronunciarse sobre el apoyo a las mismas.



International Civil Aviation Organization

WORKING PAPER

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ASSEMBLY — 38TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 13: Aviation Security - Policy

PROPOSALS FOR WORK PRIORITIES IN AVIATION SECURITY

(Presented by Lithuania on behalf of the European Union and its Member States¹
and the other Member States of the European Civil Aviation Conference²)

EXECUTIVE SUMMARY

This Working Paper presents proposals for work priorities in aviation security, based on the conclusions and recommendations of the ICAO High Level Conference on Aviation Security held in Montreal on 12-14 September 2012.

Action: The Assembly is invited to consider the recommendations for policy and work priorities described in this working paper in support of its review of Resolution A37-17: *Consolidated Statement on the Continuing ICAO Policies Related to the Safeguarding of International Civil Aviation Against Acts of Unlawful Interference* and as a contribution to ICAO work programme for the 2014-16 triennium, as it pertains to aviation security.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective B - Security
<i>Financial implications:</i>	The proposed work priorities for ICAO should be covered under the regular budget of the organisation.
<i>References:</i>	Resolution A37-17: <i>Consolidated Statement on the Continuing ICAO Policies Related to the Safeguarding of International Civil Aviation Against Acts of Unlawful Interference</i>

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

INTRODUCTION

1.1 The High Level Conference on Aviation Security (hereafter 'the Conference') provided a unique opportunity for ICAO Member States and Observers to reflect on the progress made in the design and implementation of security policy. The Conference delivered conclusions and recommendations to guide ICAO's future activities and work programme in aviation security which should be supported.

2. POLICY PRIORITIES

2.1 *Risk based security*

2.1.1 The Conference '*encouraged ICAO Member States and industry stakeholders to adopt a risk-based approach to aviation security*' and '*welcomed the initiative taken by ICAO to establish a Risk Context Statement...*'. Although ICAO is not in a position, by its nature, to produce threat assessments for the air transport sector, its Global Risk Context Statement (RCS) provides valuable general information about risk. The efficiency of any security regime relies on its ability to address threats to and prevent vulnerabilities of civil aviation from being exploited to commit an act of unlawful interference; that involves managing the risk associated with such threats and vulnerabilities. Adopting a risk-based approach to security should span a number of fields to apply to: i) the design of security measures in ICAO Annex 17, ii) the decision-making in the allocation of finite resources at the operational level, iii) the determination of where, how and when ICAO security audits should be conducted, and iv) the definition of a timely and proportionate response to terrorist attacks and attempted attacks when they occur.

2.2 *Sustainability of aviation security measures*

2.2.1 The Conference '*requested ICAO and its Member States to consider developing a more outcomes-based approach when regulating aviation security...*' and '*highlighted the importance of defining security measures which are effective, efficient, operationally viable, economically sustainable, and take into account the impact on passengers*'. As such, it should be recognised that aviation security measures implemented in Member States may differ so long as they are compliant as a minimum with Annex 17 and achieve the necessary security outcome. Furthermore, the effectiveness and sustainability of these measures require that proper account be taken of their operational and economic consequences and the need to avoid undue impacts on passenger and cargo facilitation.

2.3 *Recognition of security measures*

2.3.1 The Conference '*strongly encouraged ICAO Member States to explore with each other mutual recognition arrangements, including one-stop security, which recognize the equivalence of their aviation security measures where these achieve the same outcomes, and which are based on an agreed comprehensive and continuous validation process and effective exchange of information regarding their respective aviation security systems.*' This principle, which is already recognised in Annex 17, should be based on objective and robust criteria, such as: i) regulatory convergence; ii) an agreed comprehensive and continuous validation process, including the possibility of on-site verification; and iii) an effective and continuous exchange of information between State authorities regarding their respective aviation security systems. Such recognition would avoid the unnecessary duplication of security measures, thus optimising the use of limited resources and removing obstacles to passenger travel and trade.

2.4 *Coordination between different entities*

2.4.1 Coordination between the different entities having responsibilities for one or more aspects of aviation security is essential to ensure that there is a comprehensive, integrated approach to security – beyond specific traditional areas of competencies – and that there is no gap in the transmission of security information that may be important for preventing an act of unlawful interference and no divergence of respective requirements that could create weaknesses or confusion in the overall system. Examples of this would be: i) the efforts to harmonise the approach to air cargo and mail security with the World Customs Organisation and the Universal Postal Union in order to promote synergies between their respective requirements, to avoid duplication, and to reduce costs for the industry; ii) the cooperation between all entities involved at national/airport levels in the protection of landside areas to enhance security of these areas of airports; and iii) the cooperation on cyber security and ATM security measures.

2.5 *Assistance activities*

2.5.1 The Conference '*encouraged Member States to share USAP audit results in an appropriate and secure manner in order to target capacity-building ...*' and '*encouraged ICAO Member States and relevant stakeholders such as regional organizations to enter into partnership agreements for the organization and delivery of capacity-building activities...*'. As such, more efficient targeting of assistance activities should be achieved and based on criteria such as: i) the level and nature of the risk to and from aviation; ii) the current vulnerabilities in a given country. A thorough analysis of ICAO USAP audit findings and other sources of information (e.g. regional compliance monitoring systems) should provide the necessary information about these vulnerabilities; and iii) the commitment of the recipient Member State to ensuring the implementation of the measures.

3. WORK PRIORITIES

3.1 As a contribution to defining ICAO's work programme for the 2014-16 triennium and to prioritising activities, the policy priorities described above should be fully integrated into ICAO's work by undertaking the following tasks:

3.2 **Implementing risk based security:** For Member States wishing to use it, the RCS offers a methodology for developing their own national risk assessment. Based on information provided by Member States, ICAO should update regularly its RCS. In addition, by adopting a risk based approach to aviation security, ICAO should:

- a) review existing risk assessments in the light of recent developments;
- b) develop further risk assessments on new and emerging threats. E.g. risks of cyber attacks to air navigation and ATM systems have materialised given the technological developments in aircraft and technological and operational procedures in the ATM, as discussed at the 12th Air Navigation Conference. Cooperation between the relevant ATM Panels and advisory groups and the AVSEC Panel on one hand, and between the industry and regulators on the other hand, is essential for defining technically and operationally relevant measures in these domains.
- c) further amend Annex 17, as well as the content of the ICAO Security Manual and training documentation. In particular, an analysis of the preventive security measures described in Annex 17 should be undertaken from a risk perspective, and thereafter proposals for amendment made.

- d) encourage Member States to react in a proportionate and coordinated in case of an act of unlawful interference against civil aviation in order to avoid any overreaction which would have a negative impact on the air transport sector and send wrong messages to the public.

3.3 ***Ensuring the sustainability of security measures:*** ICAO in its work on further developing the global aviation security framework should promote the proper analysis of the potential effects of new measures as a way of ensuring that they are proportionate and practicable, they take into account the expected increase of worldwide passenger traffic, and they will not cause unnecessary impacts on the aviation industry, on economic interest more generally or on the passenger experience. This analysis should include considering the impact on:

- a) operations and use of airport infrastructure, including on cost and (re-)assignment of resources;
- b) the acceptability of the measures both to staff members and the travelling public;
- c) costs to both government and industry;
- d) technological requirements and use of technology;
- e) other areas such as safety or the environment; and
- f) the passenger experience, including passengers' rights, dignity and protection of personal data.

3.4 ***Strengthening air cargo and mail security:*** In line with the Conference's conclusions to mitigate the risk to air cargo and mail, significant progress has been achieved through the recent adoption of enhanced Standards in Annex 17. However, this represents a first step forward and further work is required in order to ensure cargo and mail are subjected to either physical screening or secure supply chains (including approval of known consignors and regulated agents by or on behalf of the appropriate authority), and afterwards, that cargo and mail is protected from unlawful interference.

3.5 ***Addressing the threat from liquid explosives:*** In line with the Conference's conclusions, ICAO and its Member States should implement security controls to including addressing threats from liquid, aerosol and gel (LAG) explosives, and where possible, do this by technological means. With respect to mitigating threats to civil aviation from explosives, a comprehensive approach should include the detection of any kind of explosives by advanced screening technology.

3.6 ***Targeting assistance activities and measuring their performance:*** ICAO should actively assist Member States in their efforts to comply with Annex 17, including the new air cargo/mail security and customs standards, by providing guidance material and training. ICAO should take an active role in the targeting, prioritisation and coordination of such assistance, working with donor States/organisations and recipients, as well as with industry stakeholders in order to ensure their sustainability. In line with the Conference's conclusions, ICAO should continue developing and then implementing efficiency indicators, encapsulating both the criteria and methodologies for assessing the effectiveness and sustainability of assistance projects.

4. CONCLUSIONS

4.1 The Assembly is invited to consider the proposals for work priorities described in this paper in support of its review of Resolution A37-17: *Consolidated Statement on the Continuing ICAO Policies Related to the Safeguarding of International Civil Aviation Against Acts of Unlawful Interference* and as a contribution to ICAO 2014-2016 work programme.



WORKING PAPER

ASSEMBLY — 38TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 17: Environmental protection

A COMPREHENSIVE APPROACH TO REDUCING THE CLIMATE IMPACTS OF INTERNATIONAL AVIATION

(Presented by Lithuania on behalf of the European Union and its Member States¹ and the other Member States of the European Civil Aviation Conference²)

EXECUTIVE SUMMARY

Europe underlines the importance of mitigating the climate impacts of international aviation and strongly supports the on-going efforts of ICAO to address this issue. In addition, Europe calls on all States and regions to adopt a comprehensive approach in order to achieve international goals for CO₂ reductions in international aviation.

Action: The Assembly is invited to:

- a) agree to establish a long term global goal for emissions reductions from international aviation, to be agreed at the 2016 Assembly;
- b) continue to prioritise work on a robust aircraft CO₂ standard;
- c) encourage ICAO, in the ASBU context, to continue to promote and provide support for the implementation of operational improvements with environmental benefits;
- d) support a continuing role for ICAO on sustainable alternative fuels as set out in paragraph 2.7;
- e) agree to the application of a global MBM by 2020;
- f) adopt a work programme and timetable for completing the design of the global MBM, including a set of tasks to deliver the key technical elements for endorsement at the 39th ICAO Assembly;
- g) work towards an enabling framework for MBMs implemented by States or groups of States, pending the entry into force of the global MBM;
- h) support ICAO's work to understand the impacts of climate change on international aviation; and
- i) support the further development of State Action Plans and the annual reporting of CO₂ emissions in order for ICAO to be able to track progress towards the agreed goals.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective C – Environmental Protection and Sustainable Development of Air Transport.
<i>Financial implications:</i>	Most of the ICAO activities referred to will be covered under the regular budget of the organisation.
<i>References:</i>	ICAO Assembly Resolution A37-19.

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, the Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

1. INTRODUCTION

1.1 The climate impacts of aviation remain a significant public policy issue for all States. The latest assessment of emissions trends by ICAO's Committee on Aviation Environmental Protection (CAEP) shows that international aviation CO₂ emissions are forecast to increase by a factor of between 4 and 6 by 2050 from the levels of 2010, even assuming further improvements in technology and flight operations. In order to limit the risk of dangerous climate change, the Intergovernmental Panel on Climate Change (IPCC) recognises that, globally, greenhouse emissions should be cut by 50% in 2050 from 1990 levels so as to prevent an average global temperature increase of more than 2°C above pre-industrial levels. The forecast growth in international aviation emissions therefore needs to be addressed if aviation is to make its fair contribution to meeting global climate change goals.

2. GOALS

2.1 Deep cuts in emissions through to 2050 are required if we are to achieve the 2°C objective. ICAO should therefore as a matter of priority establish a long-term global goal for reducing emissions from international aviation, to be agreed at the 2016 Assembly. In addition, work needs to continue on addressing the non-CO₂ climate impacts of aviation, which remain a significant scientific concern. ICAO should continue to cooperate with UNFCCC and IPCC in relation to these impacts.

3. A COMPREHENSIVE APPROACH TO MITIGATION

3.1 There is a general recognition that in order to address the climate impacts of aviation a broad range of policy measures under a "comprehensive approach" needs to be applied. The recent work of ICAO has demonstrated that in addition to aircraft technology and operational improvements, further measures will be needed to achieve ICAO's aspirational goals. The work of CAEP shows that alternative fuels could close some of the remaining gap in the long term. The use of additional measures, such as market-based measures (MBMs), will also be necessary to meet ICAO's emissions reduction goals. This assessment is shared by the aviation industry and civil society organisations.

Reduction at source

3.2 Reduction at source is a key path for the mitigation of aviation emissions. The achievements of the industry in terms of improving fuel efficiency are important, but not enough to offset the continued growth in emissions due to rising demand for air travel. Europe places a high priority on developing new technology to reduce aviation emissions as evidenced in its substantial investment in the "Clean Sky" research programme. Europe is also fully engaged with and supportive of CAEP work towards developing a robust CO₂ aircraft standard and welcomes the progress made to date in a short timeframe. This work should be maintained as a high priority.

Operational measures

3.3 On-going operational improvements are important for meeting ICAO's fuel efficiency targets. In Europe, a major programme is under way through the Single European Sky ATM Research programme (SESAR). A key objective of SESAR is the move to performance-based operations. The intention is that each aircraft will fly an optimal routing which will contribute towards a European target of a 10% reduction in CO₂ emissions per flight by supporting the implementation of more fuel-efficient technologies and air traffic management procedures.

3.4 ICAO is facilitating improvements in operational measures through the Aviation System Block Upgrades (ASBUs). Europe fully supports this work and participates actively in ICAO's assessment of the potential environmental benefits. Europe has submitted separately to the Assembly its recommendations to enable the timely delivery of the ASBU improvements³. ICAO should continue to promote and provide implementation guidance for other operational improvements with environmental benefits.

Sustainable alternative fuels

3.5 Sustainable alternative jet fuels with lower life-cycle emissions should contribute to reducing the net life cycle CO₂ emissions of aviation, but it is not yet possible to know the extent of this contribution. The price of alternative fuels is currently significantly higher than that of conventional jet fuel and the availability of sustainable biomass for aviation is limited, so there are significant uncertainties as to the long-term market potential. Moreover existing sustainability criteria and certification schemes have not yet addressed all sustainability aspects of alternative aviation fuels. In particular, indirect impacts such as potential land use change induced by the biomass production and the effect on the global food market need to be examined.

3.6 Research on biofuels for aviation in Europe is identified as a key area of the "Flightpath 2050" vision for aviation research. Among the European initiatives under way are the EC ITAKA project and the "European Advanced Biofuels Flightpath 2020" initiative. The latter is aimed at achieving an annual production of two million tonnes of sustainably produced biofuel for aviation by 2020, equivalent to around 1% of forecast kerosene consumption by global international aviation in that year.

3.7 ICAO has a role to play in relation to sustainable alternative fuels, in particular by gathering information, promoting the application of sound sustainability criteria, facilitating policy convergence on mechanisms to assure sustainability of the fuels and to account for the benefits in terms of life cycle GHG emissions, and participating in international forums on alternative fuels.

Market-based measures

3.8 Market-based measures (MBMs) are essential if international aviation is to mitigate its emissions in a cost-efficient manner. The other available measures, even taken together, are not capable of delivering the level of emissions reduction needed in a sufficiently short timeframe and cost-effective way.

3.9 Progress has been made in this area, since the recognition by the 2001 ICAO Assembly that MBMs are a cost-efficient means of mitigating aviation emissions, and the recognition by the ICAO Council (C-197) that global MBMs are technically feasible. The support for adoption of a global MBM by the global aviation industry and by civil society organisations are also very welcome developments.

3.10 The Assembly should agree to the implementation of a global MBM for application by 2020, and should therefore adopt a work programme and timetable for completing the design of the global MBM at the 38th ICAO Assembly. This work programme should consist of a set of tasks to deliver the key technical elements for endorsement at the 39th ICAO Assembly in 2016, including means to take into account the special circumstances and respective capabilities of States, in ways that are non-discriminatory between aircraft operators and minimise risks of market distortion.

³ INSERT REFERENCE TO THE 2 OTHER EUROPEAN ATM PAPERS

3.11 In the period preceding the implementation of a global MBM, national and regional MBMs can make cost-effective emissions reductions. Europe sees value in establishing an enabling framework for MBMs, as requested by the Assembly resolution A37-19.

4. ADAPTATION TO CLIMATE CHANGE

4.1 The impacts of climate change also pose an operational and financial risk to the global aviation sector itself. Europe fully supports the on-going work of the ICAO Impacts and Science Group to better understand this risk and how it can be addressed, and to disseminate information accordingly.

5. STATE ACTION PLANS

5.1 The encouragement given to States by ICAO Resolution A37-19 to submit to ICAO action plans outlining their policies and actions was a welcome development. 36 European States have submitted action plans, despite only 9 of them being above the threshold for doing so.

5.2 Creating partnerships between States for the development of action plans, such as those formed between some ECAC States, should be supported. Special efforts should be made to mobilise financial and technical support for developing countries willing to develop action plans. The submission process should be kept simple, enabling a broader range of States to develop action plans.

5.3 Improvements are needed in the reporting by States of CO₂ emissions and fuel consumption, so as to better track progress towards achieving global goals, preferably by using data and methodologies already available, including those being reported to other entities such as UNFCCC. At this stage, forecasting a measure's emissions reduction effect should remain optional.

6. CONCLUSION

6.1 Europe is fully committed to making progress on international aviation and climate change at the 38th Session of the ICAO Assembly. This issue is the key long-term strategic challenge facing the sector, and solutions are required. Operational and technical measures, and national or regional actions, on their own, will not be sufficient: a *global* approach encompassing market-based measures is required. This view is also shared by the aviation industry and ICAO should have a central role in the development of such a global approach. Europe wishes to see, and to work with its international partners to achieve, an agreement on meaningful international action at this Assembly.



WORKING PAPER

ASSEMBLY — 38TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 17: Environmental protection

European views on the local environmental impacts of aviation

(Presented by Lithuania on behalf of the European Union and its Member States¹
and the other Member States of the European Civil Aviation Conference²)

EXECUTIVE SUMMARY

Europe welcomes the progress being made at ICAO in addressing the local environmental impacts of aviation, including the decision at CAEP/9 on a new Chapter 14 noise standard and the good progress being made in CAEP on developing a standard for non-volatile particulate matter (nvPM). Such progress is especially important given the increasing constraints on air transport growth being imposed in light of its environmental impacts in the vicinity of airports. These impacts are becoming an increasing concern at and around many European airports. Europe supports effective implementation of the balanced approach, and the European Commission has submitted a legislative proposal to strengthen its implementation in the European Union. Aircraft engine manufacturers should be encouraged to contribute actively to the work on the sampling and measuring of nvPM on different engine types to allow the adoption of a high-quality nvPM standard at CAEP/10.

Action: The Assembly is invited to consider the recommendation in (a) and to adopt for inclusion in the resolution the proposed text in (b) and (c) below:

- a) note that the development of international aviation is confronted with increasing constraints as a result of strong local political opposition to the growing environmental impacts at congested airports located in areas of high population density;
- b) welcome the results achieved at CAEP/9, including in particular the agreement to apply a new Chapter 14 noise standard from 2017, and from 2020 for aircraft of less than 55 tonnes in weight, consistent with the first pillar of the balanced approach (reduction of noise at source);
- c) encourage aircraft engine manufacturers to cooperate as necessary to support the sampling and measurement effort needed to allow the adoption of a high-quality nvPM standard at CAEP/10.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective C – Environmental Protection and Sustainable Development of Air Transport.
<i>Financial implications:</i>	Most of the ICAO activities referred to will be covered under the regular budget of the organisation.
<i>References:</i>	ICAO Assembly Resolution A37-18.

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, the Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

1. INTRODUCTION

1.1 Local environmental impacts continue to impose significant constraints on the future development of air traffic. Vocal political opposition to airport expansion by local communities in the vicinity of airports is particularly strong in Europe, but is also increasingly an issue in other parts of the world where air transport is developing quickly and is fundamental to their economic progress. The health impacts of noise annoyance and of local emissions are becoming a growing concern for local communities and authorities and scientific research in these areas is progressing.

1.2 Furthermore, the forecast significant growth in air traffic between today and 2036 will considerably intensify the local environmental impacts if no ambitious action is taken to mitigate them. According to the latest assessment of the ICAO Council's Committee on Aviation Environmental Protection (CAEP), the total global population exposed to aircraft noise above 55 DNL is projected to grow significantly from 21.2 million in 2006 to between 26.6 and 34.1 million in 2036. With respect to local emissions, the ICAO assessment has also forecast that global NO_x emissions below 3000 feet are projected to grow from a baseline of 0.25 million metric tonnes in 2006 to between 0.52 Mt and 0.72 Mt in 2036. The growth of particulate matter (PM) emissions below 3000 feet follows similar trends to NO_x, i.e. more than doubling of global PM emissions from a 2006 baseline.

2. NOISE AT AIRPORTS

2.1 One of ICAO's main environmental goals is to limit or reduce the number of people affected by significant noise. Although tremendous progress in the reduction of noise exposure has been achieved, in particular in terms of maximum noise levels around airports, the situation remains a major problem for many airports and authorities. Noise exposure around airports is the dominant subject of complaints for populations living around airports and in recent years it has constrained traffic growth at many airports. This is particularly so in Europe with its high population density around current airports and few options for new airports. Airport authorities are facing a growing sensitivity on the part of local residents to increases in noise annoyance and a greater awareness of associated health impacts.

2.2 Noise annoyance at airports feeds a lively debate on the health impacts of aircraft noise, especially with respect to night flights. The opposition from local communities leads to demands for operating restrictions and limitations on airport expansion. After full consideration of the specific situation at each airport, and in compliance with the balanced approach, operating restrictions are having to be introduced at many busy European airports. When building new runways, the introduction of operating restrictions might be the only way to balance the interests of residents in the airport's vicinity with those of passengers, the airlines, and the airport itself.

CAEP/9

2.3 Europe appreciates the high-quality assessment work done by CAEP, which led to the very welcome decision at CAEP/9 to apply a new Chapter 14 noise standard from 2017, and from 2020 for aircraft less than 55 tonnes in weight. All States will soon be in a position to give evidence to the local communities of the significant achievements delivered by the ICAO/CAEP work, with this demonstrable progress made under the first pillar of the balanced approach to noise management at airports - noise reduction at source.

2.4 States are now being consulted on the new noise standard. Europe is fully supportive of the adoption of the new Chapter 14, and also supports the recommendation by CAEP/9 that the new Chapter 14 should not be used for the introduction of operating restrictions at airports.

The Balanced Approach

2.5 Europe considers that it is important that the balanced approach to noise management at airports is adhered to by States and is implemented in a transparent and consistent manner. It is of particular importance that all measures are considered and analysed for their relative cost-effectiveness before the introduction of operating restrictions is contemplated.

2.6 The Europe Union is envisaging a strengthening of the implementation of the balanced approach through a revision of the existing EU regulation. This may address the formal steps of the process and will not prejudice the appropriate level of protection from air traffic noise or the substance of the noise mitigation measures, which fall within the remit of EU Member States.

3. LOCAL AIR QUALITY

3.1 Europe welcomed the adoption by ICAO at CAEP/8 of a new NO_x standard, and has been actively engaged in the on-going work by CAEP to develop a standard for non-volatile Particulate Matter (nvPM) under both the CAEP/9 and now the CAEP/10 cycles.

3.2 Europe also welcomes the progress on nvPM that was achieved under the CAEP/9 cycle, which now means that there is a strong likelihood that it will be possible to establish a nvPM certification requirement and related standard by CAEP/10.

3.3 However, this further progress will depend heavily on the work that will be carried out by the engine manufacturers. This entails the installation of the sampling and measurement systems, their validation at the manufacturer's site, and the measurement of both new and in-production engines during test campaigns. This will build confidence in the specifications of the sampling system and will allow the building of a data bank which will provide a technology-related overview of the nvPM engine emissions. The future European test campaigns will contribute to these efforts.

4. CONCLUSION

Europe supports the continuing work of ICAO on addressing the local environmental impacts of aviation. The contribution of ICAO, notably through CAEP, to improving scientific knowledge and to the adoption of international standards, is of great importance in light of the increased sensitivity of local communities and authorities with respect to the health impacts of noise and emissions in and around airports, and the constraints this can place on the air transport sector and its future development.



ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 27: Aviation Safety - Policy

A REGIONAL PERSPECTIVE TO SAFETY MANAGEMENT

(Presented by Lithuania on behalf of the European Union and its Member States¹ and the other Member States of the European Civil Aviation Conference²; and by EUROCONTROL)

EXECUTIVE SUMMARY

The regional approach to safety oversight and management has already been acknowledged in the ICAO context as evidenced in the incorporation into ICAO's SARPS and associated activities of provisions that recognise this evolution.

The European approach to safety management seeks to address the total aviation system, recognising the reality that the components of that system – its products, organisations, operators, crews, aerodromes, ATM, ANS, on the ground or in the air – are part of a single networked whole. This 'total system approach' is one that aims to reduce the risk of safety gaps or overlaps, and seeks to avoid conflicting requirements and confused responsibilities.

Action: The Assembly is invited to reiterate and reinforce its call for the Council to ensure that the benefits afforded by regional cooperation and Regional Safety Oversight Organisations are adequately reflected in ICAO's rulemaking and safety monitoring activities, in particular in the Continuous Monitoring Approach and the (new) Annex 19 on Safety Management.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective A. 'Safety – Enhance global civil aviation safety'
<i>Financial implications:</i>	None
<i>References:</i>	Doc 9374, <i>Safety Oversight Manual</i> , Part B Annex 19, Section 3.2 2010 High Level Safety Conference Recommendation 3/3a ICAO 37 th Assembly Resolutions A37-5, A37-8 and A37-21

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

1. INTRODUCTION

1.1 The regional approach to safety oversight and management has been acknowledged in the ICAO context, notably in Part B of ICAO Doc 9734 and the elements on discharge of safety management functions by RSOOs in the ICAO Safety Management Manual³, as well as during the deliberations of the ICAO RSOO Symposium held on 26-28 October 2011. The fullest recognition of the value of the regional approach is found in three Resolutions adopted at the 37th ICAO Assembly in 2010, namely Resolutions A37-5 on 'The Universal Safety Oversight Audit Programme (USOAP) continuous monitoring approach', A37-21 on 'Co-operation with regional organizations and regional civil aviation bodies' and A37-8 on 'Regional cooperation and assistance to resolve safety-related deficiencies'.

1.2 Enhancing aviation safety through the development and evolution of effective safety oversight and management is an ongoing process. To achieve a high level of safety in aviation it is necessary to view the aviation system components – products, organisations, operators, crews, aerodromes, ATM, ANS, on the ground or in the air – as being part of a single networked whole, to varying degrees, dependent upon each other. Consequently actions taken in one domain will affect the safety performance in another.

1.3 In Europe this reality has led to the 'regionalising' of safety oversight, and the development of a 'Total System Approach' to the management of safety. This can be described as an approach that aims to reduce the risk of safety gaps or overlaps, and seeks to avoid conflicting requirements and confused responsibilities. Rules are designed to be interpreted and applied in a standardised manner, and to facilitate increased interoperability of products and services. This approach also rationalises the certification processes, reducing the burden on regulated persons and organisations.

1.4 More recent developments in ICAO have emphasised the benefits of a 'total system approach'. Thus the incorporation of provisions into ICAO SARPs and associated activities that seek to acknowledge the benefits of this evolution, in new Annex 19 and in the USOAP CMA based on CSA (Comprehensive Systems Approach). In each case, the regional element has been recognised as a significant, contributing factor as regards implementation.

2. A REGIONAL APPROACH TO SAFETY MANAGEMENT

2.1 The Standards in Annexes to the Chicago Convention require the establishment of a State Safety Programme (SSP), as a system for the management of safety at the State level. Legal competence in certain areas of aviation safety having gradually been transferred to the European Union (EU) the States of the Union reference this EU dimension when describing how they manage safety. There has also been established a 'European Aviation Safety Programme', in close collaboration with Member States, which includes a set of rules and regulations that reflect the complexity and variety of aviation safety activities, overseen at both State and EU level.

2.2 In addition to this primarily reactive approach, the development of a pro-active, evidence based system is being undertaken in order to obtain improvements in safety performance. As part of this system a Safety Plan⁴, updated annually, has been published, that identifies significant risks and details actions to be taken by stakeholders, both at a regional and national level, to mitigate the risk. There is an important role for RSOOs in encouraging the development of such safety plans an effort that needs also to be seen and recognised in the context of implementing the Global Aviation Safety Plan (GASP).

³ Section 3.2

⁴ European Aviation Safety Plan (2nd edition), 2012 - 2015

3. **A PROACTIVE APPROACH TO SAFETY DATA COLLECTION, ANALYSIS AND EXCHANGE**

3.1 The cornerstone of this safety management system approach is risk assessment conducted on the basis of information from a variety of sources, analysis of the data to identify significant risks to safety, and then the taking of specific actions to mitigate those risks. The exchange and dissemination of safety information allow key partners (e.g. regulated stakeholders and public authorities with competence for aviation safety) to share views on risk priorities and to fulfil their respective safety responsibilities, i.e. mainly controlling or mitigating risks linked to their activities for operators and service providers, and implementing a risk based oversight system for aviation authorities.

3.2 To this end a common and robust legislative and regulatory framework must be established, allowing for a harmonised approach to the systematic collection, analysis and exchange of such relevant safety information and data. An important element of securing the effectiveness of this approach is ensuring that the data being fed into the system are of a sufficient quality and completeness.

3.3 The direct benefit is the ability to use this safety information and data both individually and in an aggregated manner, so as to facilitate a data-based identification of risk, and then risk-related decision-making on mitigation, key features of the proactive approach to safety management. At a regional level, the aggregation of data also allows the identification of risks, which may not appear as significant at national level, but might underline the need for action at regional level.

4. **THE IMPORTANCE OF THE SAFETY/JUST CULTURE ELEMENT**

4.1 As highlighted above, an essential part of safety management is a proactive approach to safety data collection, analysis and exchange. It is recognised that while the sources of such safety data can be manifold, the *predominant* source of them is an effective safety reporting process.

4.2 Such a process should be considered an integral part of any organisation's and State's overall safety culture. To facilitate effective safety reporting requires the establishment of what in Europe is termed an appropriate "Just Culture" environment, in which front line operators or others are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, and which gives aviation professionals confidence in the reporting system and the guarantee of adequate protection from prejudice. However, gross negligence, wilful violations and destructive acts are not tolerated within such a culture. The successful achievement of a Just Culture development in aviation needs to be supported by both adequate legal requirements, as well as relevant guidance material.

4.3 Just Culture also includes an active and open coordination between the safety and judicial authorities, in jointly striking a proper balance between the need to ensure continued availability of safety information by protecting it and its sources adequately, and the need for a proper administration of justice. These elements, highlighted in ICAO Assembly Resolutions A37-2 and A37-3, have been addressed by the ICAO Safety and Information Protection Task force – SIPTF – which completed its work in January 2013 and whose final report and recommendations are yet to be published.

4.4 There is a role here for RSOOs (and ICAO), in encouraging States to establish such an appropriate environment and in particular joint permanent frameworks to ensure a constructive and ongoing dialogue with their judiciary. This could be secured through the provision of advice, guidance, support and expertise as regards aviation prosecution policy which would not discourage the reporting of safety information, and by establishing and maintaining a repository of training and education activities addressing the aviation authority's relationship with the judiciary and others.

5. IMPLEMENTING THE CONTINUOUS MONITORING APPROACH (CMA)

5.1 ICAO Assembly Resolution A37-5 called for the evolution of the USOAP into an approach based on CMA. It also called for continued coordination and cooperation between USOAP and other aviation safety audit programmes, in order to reduce both the burden on States caused by repetitive audits or inspections, and the duplication of monitoring activities

5.2 A RSOO plays an essential role in assisting participating States in their efforts to maintain the continuing organisational competence needed to fulfil their safety oversight and management obligations and responsibilities. In this respect, under the auspices of the EU-ICAO Memorandum of Cooperation, efforts have been undertaken to establish two working arrangements with ICAO on continuous monitoring activities. The main aim of these arrangements is to avoid to the greatest extent possible the unnecessary duplication of effort for States when they are fulfilling their respective European and ICAO CMA reporting obligations.

5.3 As repetitive 'snap-shot' compliance checking evolves under CMA into a more efficient, performance- and risk-based form of oversight, it will ensure that all parties are actively involved and will deliver maximum synergy between ICAO and European CMA-related programmes. It will certainly allow for a consistent and efficient approach to the continuous monitoring of safety oversight and management; but it will also facilitate the identification of common problems encountered by participating states, such as implementation problems associated with and resulting from the development of ICAO SARPs (see ANC/12 Recommendation 6/13), and issues encountered in the notification of "differences" by means of the new Electronic Filing of Differences (EFOD) system.

6. CONCLUSION

6.1 The Assembly is invited to adopt the following Resolution:

Recalling the deliberations and outcomes of ICAO's 2010 High Level Safety Conference (HLSC), and notably Recommendation 3/3a on 'Regional safety oversight arrangements';

Recalling the deliberations and outcomes of ICAO's 37th Assembly, notably Resolutions A37-5 on 'The Universal Safety Oversight Audit Programme (USOAP) continuous monitoring approach', A37-21 on 'Co-operation with regional organizations and regional civil aviation bodies' and A37-8 on 'Regional cooperation and assistance to resolve safety-related deficiencies';

Acknowledging the recognition given in Annex 19 to Regional Safety Oversight Organizations and their role in discharging certain State safety management responsibilities on behalf of contracting States;

Recognising the actual or potential positive impact resulting from the collaboration among Contracting States in establishing and operating a common safety oversight system within Regional Safety Oversight Organisations;

The Assembly:

Reiterates and reinforces its call for the Council to ensure that the benefits afforded by regional cooperation and Regional Safety Oversight Organisations are adequately reflected in ICAO's rulemaking and safety monitoring activities, in particular in the Continuous Monitoring Approach and Annex 19 on Safety Management.



ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 28: Aviation Safety: Standardization

ANNEX 19 – A NEW ANNEX, AND NEXT STEPS

(Presented by Lithuania on behalf of the European Union and its Member States¹ and the other Member States of the European Civil Aviation Conference²; and by EUROCONTROL)

EXECUTIVE SUMMARY

New Annex 19, which becomes effective later this year, consolidates the existing requirements under State Safety Programmes (SSP), Safety Management Systems (SMS) and for the protection of safety data. Work has already started on a second iteration of the Annex, the content of which is not yet agreed, and this paper explores a number of ideas for ways of ensuring that this second version builds successfully on the first, including through practical support for SSP implementation by States at different levels of compliance maturity.

Action: The following recommendations, relating to the development of the next iteration of new Annex 19 and on securing international support for implementation of the Annex, are proposed for consideration by the Assembly:

- a) States should be encouraged to consider implementing programmes for the sharing of experience of SMS (within and between Regions), and for the familiarisation of regulators with SMS;
- b) the Council should encourage the harmonisation and reinforcement of the quality of training in SSP and SMS implementation, including through the promotion of a ‘Safety Culture’ approach; and
- c) the Council should consider a phased approach, under Annex 19, to the implementation of safety management, as a means of ensuring that the benefits of Annex 19 are available to States at all levels of compliance maturity.

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

<i>References:</i>	Doc 9374, <i>Safety Oversight Manual</i> , Part B Annex 19, Section 3.2 2010 High Level Safety Conference Recommendation 3/3a ICAO 37 th Assembly Resolutions A37-5, A37-8 and A37-21
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1. INTRODUCTION

A New Annex

1.1 For the first time in 30 years, the Chicago Convention is to have a new Annex. Working from a draft which drew together existing material, a new Panel consisting of representatives from twenty States and seven international organisations, spanning all aviation disciplines, produced a new draft Annex in less than 90 days. The States presenting this paper recognise the exceptional effort by the ICAO Secretariat in supporting the delivery of Annex 19, which was adopted by the ICAO Council, by 33 votes to 0, in February 2013.

1.2 It is important now not to rest on the completion of this first phase of the work, but to press ahead with implementation of the new Annex and at the same time to proceed to its second iteration.

Annex 19 Content

1.3 The first edition of the Annex requires very few new actions by regulators or industry. It does however seek to elevate the importance of SSP, SMS and data protection within State's priorities; to provide a single coherent document covering these issues; and to enhance standardisation between related SARPs in different areas. This reflects the conviction that safety management is the best approach to achieving continuing safety improvements in the increasingly complex aviation environment. The Annex spans all disciplines, and therefore has to accommodate different approaches to the management of risk.

Implementation

1.4 Implementation of the Annex will involve the amendment of ICAO documents and training material, and the Panel has also begun to discuss the possibility of a phased approach to implementation, under which there would be outlined a recommended focus for States at differing stages of compliance maturity.

1.5 States may also wish to propose an international programme of support activity to improve the uptake and success of the Annex. This might take the form of SMS/SSP experts facilitating the sharing of experience of and familiarisation with SMS/SSP amongst States, within or between Regions, and actions to enhance the quality of training provided globally on SMS implementation, such as an industry accreditation scheme for commercial SMS training providers. Guidance and supporting material is already provided by ICAO, and might be supplemented by additional tools such as those produced by the Safety Management International Collaboration Group. Safety Culture too is important, especially in SMS implementation, and could be promoted using a range of methods, with account taken of cultural considerations.

2. DIRECTIONS FOR THE NEXT ITERATION OF ANNEX 19

General Aims

2.1 The content of the next iteration of Annex 19 has not yet been determined by the Panel. As with the present version, the aim should be a text which is simple, practical and usable, which avoids complex terminology, and which focuses on the key issues for aviation safety. It may include, for example, links to guidance on concepts and tools which support successful implementation of SMS, such as “Safety Culture”. Once the recommended draft of the next version of the Annex is complete, the Panel will need to become involved in generating further guidance material, such as updates to the Safety Management Manual and the Safety Oversight Manual.

Compatibility with Other ICAO Ambitions

2.2 Annex 19’s compatibility with other ICAO documents and objectives is important in achieving a coherent, joined-up suite of ICAO material for States to use. Safety Oversight, the Continuous Monitoring Approach (CMA), Acceptable Level of Safety and other concepts are clearly not ‘owned’ by the Annex 19 Panel. However, as the content of Annex 19 will interface with these areas, it will make sense for the Annex to promote, for example, data collection in a way that is compatible with the aims of CMA. The Annex will need to maintain its simple and clear structure, and thus remain user-friendly for States. It will also need to emphasise the importance of a holistic approach to managing safety at the level of the State (but without of course the State taking responsibility itself for service providers’ operations).

2.3 A phased approach to implementation might be considered (see below), similar in principle to that described in the Global Aviation Safety Plan. This would of course need to be co-ordinated with the ICAO oversight teams. As with the development of the present version of Annex 19, any such development will require extensive liaison with, and consideration of the inputs from such other ICAO groups as the Safety Information Protection Task Force.

Phased Approach to Implementation

2.4 Under a phased approach to implementation, the aim would be to produce material that allowed participation by, and benefitted, States at all levels of compliance maturity. It might for example suggest different actions by States at different levels of maturity, and allow those in the earlier stages of achieving compliance to focus on implementing the more fundamental SARPs. Such a concept would require careful development and co-ordination, before it could be implemented.

3. THE NEED FOR AN INTERNATIONAL SUPPORT PROGRAMME

Supporting Member States

3.1 The safety management approach is not free from possible misinterpretation. It might for example be supposed, mistakenly, that SMS replaces compliance, or somehow makes it less important, even though the ICAO material underlines that compliance with existing requirements is fundamental to the risk management system. If expertise in SMS is insufficient, or compliance de-prioritised, then safety could actually decline instead of improve. Working with SMS requires high levels of knowledge, and

new skills, on the part of both the industry and the regulator. SMS (and SSP too) are important enablers of a fully operational CMA.

3.2 To make an SMS work in industry requires commitment, training and expertise, but the number of aviation professionals who currently understand it well is still small. In States, Inspectors performing industry oversight will have to be well prepared, if they are to be effective in SMS evaluation. They may need to undergo specialist training in the relevant techniques in order to be able to assess SMS effectiveness during their routine oversight activities. It may therefore be beneficial to organize joint industry/authority training, in order to facilitate a common understanding of how to characterize an effective SMS. To be cost effective, such training might be organised on a regional basis. In the European region there is already some experience of SMS experts assisting State inspectors in SMS evaluation.

Industry Training

3.3 Expertise in industry is likewise important for the implementation of effective SMS. Commercial training providers and consultants are widely available but the content and quality of this training is variable. As SMS becomes increasingly important, there may be value in considering whether industry accreditation schemes could improve the consistency and adequacy of training for service providers. Uptake of industry initiatives could be encouraged, including through the pooling of the expertise, tools and data in such organisations as IATA, AEA, and the FSF.

Supporting Material

3.4 Supporting material for Annex 19 users will be increasingly important as SMS implementation evolves. This may include Panel support to the development of future versions of the Safety Management Manual, the circulation of material and tools developed internationally (such as those produced by the Safety Management International Collaboration Group), user-friendly pamphlets on specific subjects, risk assessment or SMS tools designed for use on the internet or smart-phone “apps”, as well as other material or best practice that may emerge, and may be provided by a range of sources within a co-ordinated plan. There should also be a wide ranging communications plan, covering *inter alia* the availability of a consistent set of core messages for use in local briefings, conferences and aviation press articles.

4. CONCLUSION

4.1 The following recommendations, relating to the development of the next iteration of new Annex 19 and on securing international support for implementation of the Annex, are proposed for consideration by the Assembly:

- a) States should be encouraged to consider implementing programmes for the sharing of experience of SMS (within and between Regions), and for the familiarisation of regulators with SMS;
- b) the Council should encourage the standardisation and reinforcement of the quality of training in SSP and SMS implementation, including through the promotion of a ‘Safety Culture’ approach; and
- c) the Council should consider a phased approach, under Annex 19, to the implementation of safety management, as a means of ensuring that the benefits of Annex 19 are available to States at all levels of compliance maturity.

-End -



International Civil Aviation Organization

INFORMATION PAPER

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ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 29: Aviation Safety – Monitoring and Analysis

THE EUROPEAN STRATEGIC SAFETY INITIATIVE

(Presented by Lithuania on behalf of the European Union and its Member States¹ and the other Member States of the European Civil Aviation Conference²; and by EUROCONTROL)

EXECUTIVE SUMMARY

The European Strategic Safety Initiative (ESSI) was launched in 2006 and is now a mature initiative. It is a voluntary and privately funded safety partnership aimed at further enhancing safety in Europe, and for the European citizen worldwide. Facilitated and administered, but not owned, by the European Aviation Safety Agency (EASA), ESSI brings together European aviation authorities and the industry, and international partners like ICAO and the FAA, and has since 2010 been managed in compliance with ISO 9001:2008 requirements. It contributes to the development and implementation of the European Aviation Safety Plan, and has produced several safety management and safety promotion documents.

1. INTRODUCTION

1.1 The European Strategic Safety Initiative (ESSI)³ was launched in April 2006 by EASA as the successor to the Joint Aviation Safety Initiative of the Joint Aviation Authorities. Its inception was described in WP/195 presented to the 36th Session of the ICAO Assembly, and a report on its progress was presented in WP/198 to the subsequent Session in 2010. The present information paper focuses on ESSI's activities and achievements over the past three years.

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

³ <http://www.easa.eu.int/essi/>.

1.2 ESSI has throughout its existence redefined and revitalised cooperative safety efforts in Europe with a new objective, a new regulator-industry partnership approach and a new process. It is now a mature initiative, working as a voluntary and privately funded safety partnership to further enhance safety in Europe and for the European citizen worldwide. ESSI is facilitated but not owned by EASA, and its participants are drawn from the EASA and ECAC States, bringing together European aviation authorities and the industry, and international partners such as ICAO and the US FAA. More than 150 civil and military organisations today take part in the ESSI, with participants coming mainly from the civil side.

1.3 ESSI has maintained and further developed its cooperation with the US Commercial Aviation Safety Team (CAST) and with other major safety initiatives worldwide, such as the International Helicopter Safety Team (IHST) and the US General Aviation Joint Steering Committee (GA JSC), as well as with ICAO under both the Cooperative Development of Operational Safety and Continuing Airworthiness Programme (COSCAP) and the Regional Aviation Safety Group Europe (RASG-EUR) initiatives.

1.4 Administered by EASA, ESSI has since 2010 been managed in compliance with ISO 9001:2008 requirements.

1.5 ESSI continues to have three components: the European Commercial Aviation Safety Team (ECAST), the European Helicopter Safety Team (EHEST) and the European General Aviation Safety Team (EGAST). It contributes to the development and implementation of the European Aviation Safety Plan, and has produced several safety management and safety promotion documents.

2. EUROPEAN COMMERCIAL AVIATION SAFETY TEAM

2.1 ECAST⁴ is the fixed-wing Commercial Air Transport (CAT) component of the ESSI. Co-chaired by EASA and IATA, ECAST brings together more than 75 organisations and cooperates with the US CAST and ICAO COSCAP programmes, and with the ICAO RASG-EUR initiative. Its activities mainly address safety analysis, Safety Management Systems (SMS) and safety culture, runway safety, ground safety, Flight Data Monitoring (FDM) and prospective safety.

2.2 ECAST has identified best practices regarding SMS organisation and produced guidance on safety culture assessment, hazard identification and risk management. The Airlines Risk Management Solutions Working Group, a team associated to ECAST, has published an innovative operational risk assessment method (called ARMS) for airlines and other aviation organisations. Risk assessment is one of the most challenging part of risk management.

2.3 ECAST sponsored the 2nd edition of the *European Action Plan for the Prevention of Runway Incursions*, published by EUROCONTROL. A wide array of stakeholders in Europe and worldwide are also addressing runway excursions, and the first edition of the *European Action Plan for the Prevention of Runway Excursions* was published in January 2013. This was developed by a working group led by EUROCONTROL with support from ECAST.

2.4 ECAST has also established a Ground Safety Working Group, the deliverables from which include a proposal for a Ground Safety Training Syllabus, research on Human Factors in ramp

⁴ <http://www.easa.eu.int/essi/ecast>

safety, and Ramp Resource Management training syllabus and course material. The Working Group has also contributed to the first edition of the IATA Ground Operations Manual, released in 2012, and encourages the use of the IATA ground products family: the Airport Handling Manual, the IATA Safety Audit programme for Ground Operations (ISAGO), the IATA Ground Operations Manual, and the Ground Damage Data Base.

2.5 The European Operators FDM Forum is voluntary initiative developed under the aegis of ECAST. It aims to assist operators in the implementation of an FDM programme and in drawing safety benefits from it by sharing best practices. Participation has been expanded to European and non-European aircraft operators, associations, flight crew associations, aircraft manufacturers, research and educational bodies, and aviation regulators. The forum organised two successful Conferences in Cologne in 2012 and 2013.

2.6 EASA has cooperated with the Future Aviation Safety Team, a group associated with both ECAST and US CAST, on prospective safety (dealing today with the risks of tomorrow). In 2012, a project team led by EASA published a *Methodology to Assess Future Risks*, as a deliverable of the Emerging Issues section of the European Aviation Safety Plan⁵.

3. EUROPEAN HELICOPTER SAFETY TEAM (EHST)

3.1 EHST⁶ is the helicopter team of ESSI, and the European component of the International Helicopter Safety Team. (IHST). It plays an essential role in the development of the helicopter section of the European Aviation Safety Plan.

3.2 The world accident rate for civil helicopters is still much greater than that of fixed wing aircraft. Although few exposure data are available for certain regions or certain types of operations, the accident rate for civil helicopters can be estimated at around 0.80 per 100 000 hours.

3.3 IHST was established in the US in 2006 with the objective of achieving an 80% reduction in the accident rate by 2016 for civil and military operations. EHST was established at the end of 2006 to address the specificities of the safety of helicopter operations in Europe. It brings together helicopter and component manufacturers, operators, regulators, helicopter and pilots associations, research institutes, accident investigation boards and some military operators, from across Europe. Co-chaired by EASA, the European Helicopter Operators Committee (EHOC) and Eurocopter, it brings together around 50 organisations to address a broad spectrum of helicopter operations, from Commercial Air Transport to Specialised Operations (Aerial Work) and General Aviation, and flight training activities.

3.4 EHST has an analysis team (the European Helicopter Safety Analysis Team), an implementation team (the European Helicopter Safety Implementation Team) organised in different sub-teams specialised in training, SMS and operations, technology, maintenance and regulation, and a communication team. It published in 2010 an analysis report of 311 helicopter accidents in Europe between 2000 and 2005, on the basis of which five implementation sub-teams were formed to address training, SMS and operations, technology, maintenance and regulation aspects.

3.5 EHST deliverables include a Safety Management Toolkit based on the European Ops Implementing Rules and Acceptable Means of Compliance on Management Systems published in 2012,

⁵ <http://www.easa.eu.int/sms>

⁶ <http://www.easa.eu.int/essi/ehst>

and several safety leaflets and videos on high priority safety topics. These include Loss of Control in Degraded Visual Environment, Vortex Ring State, Loss of Tail Rotor Effectiveness Static and Dynamic Rollover, pre-flight risk assessment, helicopter airmanship, off-airfield landing sites, pilot decision making, risk assessment in training, auto-rotation in training, and passenger management. The EHSIT has also published a Maintenance Toolkit in cooperation with the IHST, and is currently developing a Flight Crew Training Instructor Manual.

4. EUROPEAN GENERAL AVIATION SAFETY TEAM (EGAST)

4.1 Launched in late 2007, EGAST⁷ is the third ESSI team, and addresses fixed-wing General Aviation (GA). In Europe, as in other regions of the world, this is a dispersed community, with sporting and recreational aviation embracing a wide spectrum of activities, ranging from powered flying, ballooning and gliding to more recently invented pursuits such as sky-surfing, micro light flying and paragliding.

4.2 Building on existing initiatives taken at the national level or within GA manufacturer, organisations and associations, EGAST is co-chaired by EASA, the European Airshow Council (EAC) and the European Council for General Aviation Support (ECOGAS). It encompasses more than 50 organisations and cooperates at the international level with the General Aviation Joint Steering Committee co-chaired by the FAA and with the Aircraft Owners and Pilots Association's (AOPA) Air Safety Foundation.

4.3 EGAST's objective is to further improve GA safety through safety promotion, education and the sharing of good practices. It is organised around four activities: data analysis at European level, safety promotion, interface with research, and communication.

4.4 EGAST identifies, develops and shares safety leaflets and videos on risk awareness and decision making enhancement for the GA pilot and the GA community in Europe. Recent publications include videos on Loss of Control, human error, and the use of parachutes, and safety leaflets have been issued on collision avoidance, pilot decision making and weather anticipation, navigation in day VFR using advanced technologies, and stall/spin Loss of Control. In addition, safety promotion material (including posters) from European National Aviation Authorities and GA associations are made available to the community through the EGAST website.

5. ACTION BY THE ASSEMBLY

5.1 The Assembly is invited to take note of the development of the European Strategic Safety Initiative.

- END -

⁷ <http://www.easa.eu.int/essi/egast>



ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 31: Aviation Safety – Emerging Issues

DIFFICULTIES ENCOUNTERED DURING MAJOR SAFETY INVESTIGATIONS: A EUROPEAN PERSPECTIVE

(Presented by Lithuania on behalf of the European Union and its Member States¹ and the other Member States of the European Civil Aviation Conference²; and by EUROCONTROL)

EXECUTIVE SUMMARY

The quality of major safety investigations into accidents and serious incidents involving large aircraft is sometimes lessened by difficulties associated with the defective application of the provisions of Annex 13. As a result, safety lessons go unlearned. This paper considers a variety of such circumstances and proposes ways in which the quality of investigations and their benefits for safety may be enhanced.

Action: The following recommendations are proposed for consideration by the Assembly:

- a) Whenever the State of Occurrence decides not to investigate a potentially serious incident, it should consider delegating the investigation, partially or wholly, to another State having a particular interest in the investigation, such as the State of the Operator or the State of Manufacture, as allowed under Annex 13;
- b) States should ensure that their Investigation Authority is functionally independent of any entity whose interests could conflict with its own or impair the objectivity with which it discharges its duties;
- c) States should develop cooperation arrangements between their investigation authorities, of either a bilateral or regional network character, including to support the dissemination of investigation reports (see below);
- d) States should ensure the better dissemination of safety investigation reports, including through their electronic publication and the production of courtesy translations into English;
- e) ICAO should help ensure that States' safety investigation authorities have unrestricted access to all evidential material, by raising Annex 13 Recommendation 5.4.3 to a Standard and providing guidance on the establishment of protocols or agreements between national safety investigation authorities and judicial authorities.

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective A. 'Safety – Enhance global civil aviation safety'
<i>Financial implications:</i>	None
<i>References:</i>	Doc 9374, <i>Safety Oversight Manual</i> , Part B Annex 19, Section 3.2 2010 High Level Safety Conference Recommendation 3/3a ICAO 37 th Assembly Resolutions A37-5, A37-8 and A37-21

1. INTRODUCTION

1.1 In the course of major safety investigations into accidents or serious incidents involving large aircraft, whether conducted in Europe or elsewhere, investigation authorities are regularly confronted with difficulties arising from the defective application of the provisions of Annex 13. This impairs the quality of investigations and prevents the aviation community from benefitting from safety lessons.

1.2 This paper considers such difficulties, and proposes actions intended to improve the quality of investigations and their impact on safety. Issues around the protection of safety information, while extremely important, are excluded here as being more properly discussed in the context of the report of the work of the Safety Information Protection Task Force.

2. KEY PRINCIPLES OF ANNEX 13

2.1 Annex 13 sets down a number of principles designed to guarantee the effectiveness and quality of safety investigations, addressing such key issues as timeliness of investigation, powers of delegation, the involvement of other parties, and public reporting. The Annex underlines in particular that the sole objective of safety investigations is to allow safety lessons to be drawn.

2.2 These principles make it clear that while the sovereignty of each ICAO Contracting State is of course to be respected, an accident and the lessons its investigation may yield belong to the international aviation community. The investigation is not so to speak the "property" of the State of Occurrence: the dissemination of its final report and the lessons learned contribute greatly to preventing a recurrence, within a 'total safety system' approach.

3. DIFFICULTIES BEING ENCOUNTERED

3.1 *Delegating an investigation*

3.1.1 Annex 13 requires the State of Occurrence to investigate all accidents and serious incidents involving aircraft above 2,250kg. It can however happen that the State of Occurrence, having perhaps limited resources or simply different investigative priorities, will classify an event as an incident, requiring no investigation, whereas the State of the Operator, State of Design or State of Manufacture may judge that an investigation needs to be conducted. Although the possibility granted by Annex 13 of delegating an investigation addresses such a circumstance very well, it is not always made use of, even where there is no objective reason not to do so.

3.2 *Independence and competence*

3.2.1 Investigators must be independent in the conduct of their investigation, and may not receive instructions from any outside body. Although today the investigating authority is often linked more or less directly to the civil aviation authority, investigators are nonetheless generally able to avoid conflicts of interest.

3.2.2 But the effectiveness of the investigation authority is not of course guaranteed by its independence. Investigators must also have professional competence and be able to bring sound judgment to the data and expertise provided by their advisers. This is a potential difficulty for many investigating authorities, which are constrained in conducting major investigation by a lack of resources - whether human, financial or (commonly) both.

3.2.3 An accident always calls into question the operator's ability to conduct operations safely, and may do the same in respect of the administrative authority's capacity to provide a sound safety environment. The independence of the investigating authority is a key factor in avoiding any risk of distortion of the analysis of the accident

3.3 *Consultation and publication of final reports*

3.3.1 Although modern communication means are used increasingly to issue final reports etc, many investigation authorities are still able to publish only in paper form. This naturally leads to final reports having a much smaller readership – and smaller still, in the case of the (many) reports published only in the national language.

3.4 *Relationship between judicial and safety investigations*

3.4.1 The relationship between judicial and safety investigations raises complex issues, not least because the former will reflect legislation which differs from one country to another. Annex 13, and more recently the relevant EU legislation, has established the principle that the conduct of the judicial investigation must not impede that of the safety investigation. However, the solution proposed for cases where arbitration is needed to address a conflict between the two forms of investigation is not always practicable.

3.4.2 Difficulties may arise, for example, over access to the accident site, examination of the wreckage, or access to data captured in flight and/or voice recorders. Investigating judges sometimes keep recorders under guard for long periods, or prohibit their read-out outside the State even when there is no *national* capability to do so. Failure to read recorders promptly may pose a serious threat to safety, when a design or system defect is suspected.

3.4.3 Decisions to undertake a destructive investigative procedure, sometimes unavoidable, may be also blocked by judicial authorities, if there is no agreement in place with safety investigators. Finally, the safety investigation may be placed under the control of the judicial authorities, limiting the safety investigators' role to that of providing technical expertise.

4. PROPOSED ACTION

(a) *Ensure that all accidents and serious incidents are properly investigated*

4.1 Authorities lacking the capacity to conduct a major accident investigation should be supported by another authority (or authorities) in possession of the appropriate resources. A number of scenarios for this can be envisaged:

- Investigation delegated by the State of Occurrence: Annex 13 contemplates the delegation of investigations by the State of Occurrence, a provision of which however insufficient use is made, in particular in relation to potentially serious incidents

Whenever the State of Occurrence decides not to investigate a potentially serious incident, it should consider delegating the investigation, partially or wholly, to another State having a particular interest in the investigation, such as the State of the Operator or the State of Manufacture, as allowed under Annex 13.

- Assistance from other authorities, whether bilaterally or regionally: Where such delegation would be inappropriate, in particular for major accidents, an authority without the capacity to conduct a full investigation should request support from another authority. In the absence of advance arrangements, this will often be the State of Design or Manufacture.

4.2 Some States have signed bilateral agreements with other authorities to secure support for investigations, on request, and on a larger or smaller scale. This support is generally limited to recorder read-outs, but may also involve methodological support, technical expertise or the participation of investigators. It is usually provided for free, although some agreements provide for financial compensation.

4.3 An alternative approach involves mutual assistance on a regional basis, whereby the States within a region are able to call upon one another's resources in order to undertake investigations otherwise beyond their capability.³ This also enables States to better determine the size of their investigation authority. Another alternative is the establishment of a regional investigation authority, though very few examples exist

In order to address situations beyond their own investigative capacity, and to avoid the burden of maintaining an oversized authority, States should be encouraged to develop agreements for assistance and cooperation. Different frameworks can be considered: bilateral agreements with one or more major investigation authority; the creation of a regional network for assistance; or the establishment of a regional authority.

(b) *Strengthen the independence of the Investigation Authorities*

³ Examples within Europe are offered by the European Civil Aviation Conference's 'ACC' group, and the EU's *European Network of Civil Aviation Safety Investigation Authorities*.

4.4 Annex 13 requires the accident investigation authority to be independent in its conduct of investigations, but does *not* require the authority *itself* to be independent from other entities, such as the national civil aviation authority. It is desirable to go a little further than this, as EU legislation now does, to require a “functional independence” which avoids conflicts of interest and possible external interference in determining the cause(s) of an event.

The investigation authority should be functionally independent of any other party or entity, the interests of which could conflict with the task entrusted to it or influence its objectivity.

(c) Ensure better access to reports

4.5 The regular dissemination of safety learning to the aviation community contributes to the fight against the loss of collective memory. When safety learning is missed, forgotten or loses its former prominence, “old” accidents can re-occur. The safety investigation authority is thus an important actor in the dialogue on aviation safety matters at the national level, and in the ‘total safety system’ context.

All reports published by investigation authorities should be downloadable from an internet website, and those of international interest should preferably be accompanied by a courtesy translation into English, leaving the original language text as the work of reference. In each case this might be achieved with the support of another State.

(d) Ensure a proper balance between the prevention of future accidents and the proper administration of Justice

4.6 The Annex 13 provision regarding the timely access of safety investigators to all evidential material, unimpeded by judicial investigations or proceedings, has presently the status of a recommendation.

To ensure its better applicability, this provision should be raised to a Standard and guidelines prepared on the setting up of protocols or agreements between accident investigation authorities and judicial authorities.

5. RECOMMENDATIONS

5.1 The Assembly is invited to consider the recommendations in the Summary/Action box at the head of this working paper.

- END -



ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 31: Aviation Safety – Emerging Issues

CONSOLIDATED AVIATION SAFETY KNOWLEDGE MANAGEMENT: AN ENABLER OF IMPROVED OPERATIONAL SAFETY

(Presented by Lithuania on behalf of the European Union and its Member States¹ and the other Member States of the European Civil Aviation Conference² and by EUROCONTROL)

EXECUTIVE SUMMARY

Aircraft manufacturers predict that potentially, by 2030, there will be one commercial aviation accident every three months. In order to address this clearly unacceptable societal risk there is a need, complementary to the sharing of safety data, for a consolidated and industry-wide approach to safety knowledge management, building on the foundations of State Safety Programmes and operators' Safety Management Systems, and on the structure of new ICAO Annex 19. Such an approach would be dependent on but not restricted to safety data sharing, and would provide a more rounded explanation, rationale and context for the data, to aid understanding of how best to improve operational safety.

Such an approach should be cost-neutral for the aviation industry, simply bringing together already existing elements. States and aviation service providers would benefit greatly from a wider dissemination of information of a good quality, helping them implement efficient and cost effective safety improvement activities. Implementation of a sound, global knowledge management approach would help meet these information needs, and avoid duplication of work.

Action: The Assembly is invited to recommend to the ICAO Council that consideration be given, in particular and most immediately by the Safety Management Panel in its further work on Annex 19, to the promotion widely of a consolidated, industry-wide approach to safety knowledge management.

1. INTRODUCTION

1.1 Aircraft manufacturers predict that potentially, by 2030 there will be one commercial aviation accident every three months, based on the current accident rate and the expected recovery in air traffic growth. This is an unacceptable societal risk, which if realised would undermine the sustainable economic viability of the aviation industry.

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

1.2 ICAO has been very successful in leading aviation safety by providing States with a solid framework of systems and approaches to safety enhancement, for example State Safety Programmes, Eight Critical Elements of a State's Safety Oversight System, and implementation of Safety Management Systems. Moreover, new Annex 19 is set to give further impetus to a structured approach to safety management. However, to reduce the accident rate even further in the future, there is a need, complementary to the sharing of safety data sharing, for a fully consolidated industry-wide approach to safety knowledge management. Safety data and information, widely disseminated and of a good quality, are the 'lifblood' of the systems mentioned above, and there is a need to use them to energise future operational safety improvements.

2. OBJECTIVE AND SCOPE

2.1 The aim of this paper is to champion the concept of consolidated aviation-wide safety knowledge management as a key enabler of future aviation safety improvement.

2.2 The paper describes the limitations in the current uses of aviation safety data as such an enabler, and sets out the potential benefits of an aviation-wide safety knowledge management approach, together with the underlying principles and elements that would support such an approach.

3. CURRENT LIMITATIONS

3.1 Within the aviation safety management system framework, aviation service providers deliver operational safety improvements through the processes of hazard identification, risk assessment and mitigation. However these processes currently rely on fragmented knowledge, often restricted to the individual aviation service provider or State, complemented by somewhat ad hoc global aviation safety knowledge management.

3.2 Current safety knowledge management is largely dependent on, but is not restricted to, safety data-sharing. Simply trying to improve the collection, storage and sharing of the "lifblood" data is not enough to keep the industry safe in the longer term. There is a need to convert the facts and figures into real knowledge – safety intelligence – that provide an overall explanation, a context and a proactive, robust and systematic understanding of how exactly to improve operational flight safety.

4. BENEFITS

4.1 The essence of a globally consolidated aviation safety knowledge management approach is industry-wide learning and sharing of best practices. It is only through such an approach that the aviation community can collate and learn the lessons from the infrequent - in statistical terms – safety occurrences. The proposed approach would systematically bring together diverse elements in the aviation safety knowledge chain, providing a more cost effective and efficient way of undertaking safety improvement activities, whilst reducing duplication.

4.2 Moving from a mainly safety data-sharing oriented regime to a full aviation safety knowledge management concept is fully in line with emerging Annex 19 developments, and in Europe is fully consistent with future EU aviation safety direction and policy.

5. SAFETY KNOWLEDGE MANAGEMENT AS A PRINCIPAL ENABLER OF IMPROVED OPERATIONAL SAFETY

5.1 The application of an approach of the kind described here to the process of operational safety improvement would ensure that States and aviation service providers could implement operational safety improvements more efficiently, and thus be better prepared to respond to the safety challenges of the future.

5.2 It is suggested that a safety knowledge management approach³ should be built on the following principles and elements:

- a) **Comprehensiveness.** Complete coverage of best practices from all segments of aviation, different geographical regions, and varying operational environments.
- b) **Traceability.** The origin of the best practices, regulatory requirements, safety management practices and evidence of resilience and vulnerabilities must be traceable.
- c) **Accessibility, Quality and Credibility.** Universal access for aviation safety professionals is key. The safety knowledge itself must be credible and reliable.
- d) **Availability and ease of use.** The number of aviation safety knowledge elements is vast. An intelligent mechanism with a rapid search capability to locate the desired information is essential.
- e) **Flexibility.** The approach and the related process would need to be sufficiently flexible to allow for changes in structural elements.
- f) **Efficiency and sustainability.** The approach must not impose any additional burden on the aviation community, and should make full use of existing processes and tools.

6. CONCLUSION

6.1 The Assembly is invited to recommend to the ICAO Council that consideration be given, in particular and most immediately by the Safety Management Panel in its further work on Annex 19, to the promotion widely of a consolidated, industry-wide approach to safety knowledge management.

- End -

³ The prototype of a tool underpinned by the principles presented at paragraph 3.2 here is the SKYbrary web-based platform, a partnership project of EUROCONTROL, ICAO, the Flight Safety Foundation, the UK Flight Safety Committee, the European Strategic Safety Initiative of EASA, the FAA-led Commercial Aviation Safety Team, the International Federation of Airworthiness, and the Safety Management Systems International Collaboration Group.



ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 32 Air Navigation — Policy

WORK PROGRAMME PRIORITIES

(Presented by Lithuania on behalf of the European Union and its Member States¹ and the other Member States of the European Civil Aviation Conference², and by EUROCONTROL)

EXECUTIVE SUMMARY

The recommendations of the AN-Conf/12 Conference have resulted in a long list of tasks for ICAO, which have since been prioritised by the Secretariat and the ANC to establish the proposed triennial work programme. This paper highlights the criticality of a consistent approach and optimized process to address standardisation needs, work programme and priorities, in order to ensure that all of the important provisions needed to support key elements of ATM development are delivered, at the times they will be required to support the implementation steps described in the Global Air Navigation Plan. The paper also presents key issues that need be addressed with priority in this context.

Action: The Assembly is invited to request ICAO to:

- a) take, in establishing its work programme for the next triennium, the necessary steps in order to:
 1. give suitable priority to the actions that are on the critical path for the timely production of provisions supporting the implementation of the GANP;
 2. better exploit the opportunities in Resolution A37-15 for sharing work with other organisations;
 3. take into account the intended regional implementation of ASBUs and the resources able to be mobilised at the regional level; and
- b) optimise the working arrangements to take the above into account.

<i>Strategic Objectives:</i>	This working paper relates to all Strategic Objectives.
<i>Financial implications:</i>	None directly. Discussion of the best use of available budget and resources.
<i>References:</i>	Doc 7050, 2013 Edition proposed to the Assembly Report of the 12 th Air Navigation Conference

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

1. INTRODUCTION

1.1 The recommendations of the 12th Air Navigation Conference have resulted in a long list of tasks for ICAO, which have since been prioritised by the Secretariat and the ANC within a proposed triennial work programme, due to be addressed at the Assembly in the context of ICAO's budget and resources.

1.2 This paper highlights the criticality of a consistent approach and optimized process to address standardisation needs, work programme and priorities. This is to ensure that all of the important provisions needed to support key elements of ATM development are delivered and available, at the times they will be required, including in those areas which will be the first to implement such provisions, to support the implementation steps described in the Global Air Navigation Plan. The paper also presents key issues that need be addressed with priority in this context.

2. DISCUSSION

2.1 The GANP defines what needs to be done to deliver a level of ATM performance which will meet the needs of States and the aviation community. The Plan provides for a sequence of changes which are dependent upon having first developed and validated the necessary standards, recommended practices and other guidance material. (These changes will also of course then be dependent upon the subsequent industrialisation and deployment steps having been taken). This puts an emphasis on the timely delivery and availability of all the enabling products - and in the first place and most essentially - on the production of the necessary standards and other provisions. The products for standardisation relate to ICAO's Standards and Recommended Practices, but go beyond amendments to the Annexes to the ICAO Convention and may include the PANS and other supporting guidance material, as well as industrial standards necessary to aviation equipment.

2.2 The volume of work for ICAO will be influenced by the way in these standards and other provisions are developed. Resolution A37-15 set a clear framework for standardisation by stating, *inter alia*, that:

3. SARPs and PANS shall be drafted in clear, simple and concise language. SARPs shall consist of broad, mature and stable provisions specifying functional and performance requirements that provide for the requisite levels of safety, efficiency and interoperability. Supporting technical specifications, when developed by ICAO, shall be placed in separate documents to the extent possible;

4. in the development of SARPs, procedures and guidance material, ICAO should utilize, to the maximum extent appropriate and subject to the adequacy of a verification and validation process, the work of other recognized standards making organizations. Material developed by these other standards-making organizations may be deemed appropriate by the Council as meeting ICAO requirements; in this case such material should be referenced in ICAO documentation;

2.3 The Resolution clearly indicates that not all provisions have to be developed by ICAO itself, and anticipates a distinction between SARPs at functional level and other material, either developed or referred to by ICAO. This provides a means of addressing the challenge posed by the need to address the many recommendations made by AN-Conf/12, and deriving from other ICAO tasks, at a time when the ICAO budget and resources are under severe pressure. Instead of simply delaying work, it is proposed that other ways of delivering the required products are considered, avoiding duplication and making use of material developed by others.

2.4 Two main approaches are suggested: making better use of the ICAO working arrangements and the resources available (Secretariat and other); and delegation of work to other entities.

2.5 The detailed optimisation of the working arrangements is a matter for the ICAO Secretariat. Nevertheless, general orientations are found in Recommendation 6/13 of the 12th Air Navigation Conference, bearing in particular on an increased project and delivery orientation in the work of panels, streamlined work programmes, additional coordination among groups, and the avoidance of duplication of work with other bodies. An opportunity is also identified for panels to focus on the performance requirements for GANP/ASBU, leaving the subsequent technical specifications to other bodies that can support ICAO. It was also recommended that account be taken of regional structures.

2.6 An important issue highlighted at AN-Conf/12 was the need to strike a proper balance between being able to progress the work quickly, and the need to ensure an appropriate geographical representation amongst those involved, and the exposure of new material, in order in each case to facilitate its eventual adoption. A well-judged selection by ICAO of experts from States and regions, notably of those with experience in new ATM programmes developments with an urgent need for implementation, could very much facilitate the future updating of the GANP and ASBUs. Equally important will be the formal ICAO “endorsement” of non-ICAO provisions, as a legal basis for their implementation. Many organisations outside ICAO already have a validation process in place, and this might be made an ICAO requirement for the use of material developed by others. Resolution 37-15 provides general guidance in this respect, and this could be further detailed in working arrangements.

2.7 It is therefore proposed that ICAO fully exploit Resolution A37-15 and in particular considers the following in the course of revisiting the work programme of the groups and panels:

- a) While the ASBUs are most definitely about global interoperability, not all the modules or enabling technologies imply a tight synchronisation of the underlying features all around the world. This was highlighted at AN-Conf/12 (see Recommendation 6/12). In practice, this allows progress to be made on some topics without immediately impacting all States, while nonetheless preserving interoperability conditions.
- b) On the basis of the intended deployment of the ASBU modules in the regions, the opportunity offered by the differences in implementation dates should be taken to focus on the contributions of the potential initial users of the new provisions. Typically, material developed first at a regional level could be proposed for upgrading into a global provision at a later stage. This would require ICAO to keep an open record of on-going work in order to prevent duplication, and ensure visibility of the overall picture. Where needed, a group could be formed (see also paragraph 2.6 above) with participation from regions that have developed new programmes for new technologies and concepts. This too is in the spirit of Recommended Practices, and could lessen the burden on panels and study groups, leaving them more time to address issues still to be developed.
- c) Where appropriate, ICAO could therefore, put a greater focus on formulating high level standards and work on inventories (as part of the standardisation road map), focussing on real needs in a multidisciplinary approach, rather than itself seeking to elaborate the technical specifications needed to support such standards. This would also recognise that States often have difficulty in providing panels with the expertise needed for such elaboration. ICAO could instead work in close coordination with relevant standard-making organisations, to organise the sharing of work (and alignment of plans), and to arrange for the recognition of their inputs as references made in ICAO documentation. This could take the form of a kind of standing standardisation forum. As

these bodies often have already a validation process in place, such cooperation would also ease the validation requirements for ICAO.

- d) Not all of the ATM features are so sensitive to full interoperability as to need to be developed, in all their aspects, on a global basis. This is an additional argument for a more distributed way of working. The need for global work is nevertheless probably the case in relation to the information (SWIM), flight planning (FF-ICE) and PBN issues, lying as they do at the very heart of interoperability and involving a transition from legacy systems.

2.8 Finally, it is important to ensure that work on the different blocks is scheduled and prioritised with regard to the date at which the standards in question need to be in place, and the time needed to develop them, and not simply to assume that development of the modules of Blocks 2 and 3 is automatically a lesser priority. A standardisation road map, maintained as a living document, will greatly assist in this, making clear which steps are needed in the development of new ICAO provisions, and clearly identifying the different components of new concepts and different phases as enablers for future steps.

2.9 Regarding the prioritisation of the work and its content, it is considered that there should be a priority given to those standardisation needs identified in the GANP to support the ASBUs and its modules, as well as the enabling technology roadmaps. These needs can also be associated with the timescales of the major ATM modernisation programmes that will use them.

2.10 In this respect, the standardisation needs listed in the table at Appendix 1, together with the date at which it is estimated that the new provisions as needing to be available, are considered as critical for the European developments and should be addressed with high priority by ICAO.

2.11 At AN-Conf/12 suggestions were made for more provisions about training. There is a need to develop suitable provisions (guidance principles, guidance material and other provisions, including SARPs as necessary) to harmonize ATM personnel training and licensing and the use of synthetic training devices.

2.12 The implementation of the recommendations of AN-Conf/12 and ATC/6 with regard to the financial aspects of service provision, in relation to incentives and BEBS, should receive adequate priority of ICAO, for the development of provisions for service priority policy in support of ATM system modernisation.

3. CONCLUSION

3.1 The Assembly is invited to request ICAO to:

- a) take, in establishing its work programme for the next triennium, the necessary steps in order to:
 - 1) give suitable priority to the actions for the timely production of provisions supporting the implementation of the GANP;
 - 2) better exploit the opportunities in Resolution A37-15 for sharing work with other organisations;
 - 3) take into account the intended regional implementation of ASBUs and the resources able to be mobilised at the regional level; and
- b) optimise the working arrangements to take the above into account.

APPENDIX 1: HIGH PRIORITY STANDARDISATION NEEDS IN SUPPORT OF THE GANP – EUROPEAN VIEW

Based on but not limited to the Standardisation Road Map of the European ATM Master Plan, the following activities are seen as needed by ICAO:

Activities	Block and module	Estimated date for implementation
Moving from Airspace to 4 D Trajectory management		
Check Annex 10 for the possible impact of ASAS Spacing applications as described in latest EUROCAE/RTCA standards.	B1-ASEP	2015
FF-ICE, Step 1 (FF-ICE/1) for the pre-departure phase using new XML data exchange standard model, FIXM.	B1-FICE, B2-FICE	2015
4D Trajectory	B1-FICE, B2-FICE, B1-TBO, B1-SWIM, B1-DATM	2015 (for Block 1 use)
Update of PANS-ATM to include optimised CPDLC message set including oceanic and new continental needs. For the uplink of clearances or instructions from ATC to the aircraft.	B0-TBO, B1-TBO, B0-OPFL	2019-2020
Update of the PBN Manual to include Enhanced controlled time of arrival (CTA) for applying multiple time constraint management.	B1-TBO	2019-2020
Network collaborative Management		
SBAS L1/L5 Signal specification	NAV Roadmap for B1-APTA and modules enabled by PBN	2014
Expanding of ICAO Circular 330 to cover full civil-military coordination and FUA processes	B1-NOPS, B1-FRTO	2014
Reflect GPS L5 Specifications in Annex 10 in support of multi-constellation GNSS using the existing EUROCAE/RTCA standards.	NAV Roadmap for B1-APTA, & possible impact on surveillance related modules and modules enabled by PBN	2015
RPAS Integration into non-segregated airspace, addressing regulatory and R&D aspects impacting all Annexes	RPAS roadmap and general issue and in Blocks 1-3	2016 (for Block 1 use)
ICAO Provisions (update of existing docs) to specify Service priority principles	Development of provisions for service priority policy in support of ATM system modernisation. Ref. BEBS incentivisation	2014
Airport Integration and throughput		
Initial provisions for GBAS Cat II&III precision approaches based on GPS L1	B1-APTA	2014
Ground based Doppler (X-Band and Lidar)	B1-WAKE, B2-WAKE	2014
A-SMGCS Levels 3&4	B2-SURF	2016
Update of PANS-ATM for curved approach and automatic RNP transition to XLS/LPV, single time constraint management (CTA) and enhanced A-RNP as well as LPV approach based on SBAS.	NAV Roadmap for B1-APTA, B1-CDO	2019-2020
Airborne wake vortex prediction and information exchange	B1-WAKE, B2-WAKE	2020
Full provisions for GBAS Cat II&III precision approaches based on multi constellation and multi frequency	B1-APTA	2020
SWIM		

Harmonise in Annex 15 the Aeronautical Information Services and Quality of Services taking into consideration the AIXM Structures.	B0-DATM	2015
Annex 3 needs to include how to exchange METAR, SPECI, TAF and SIGMET using the new XML data exchange standard model WXXM.	B1-DATM	2015
Inclusion in Annex 15 and Annex 14 of information, as provided by EUROCAE standards ED-99C and ED-119B on aerodrome mapping database.	B0-DATM, B1-DATM	2016
SWIM based services, including technical and operational requirements for the service (see the relation with regulatory activities in Europe about SWIM Governance)	B1-SWIM	2019
Standards to cover Information security	General issue and in particular for B1-SWIM & B2-SWIM	TBD
Conflict management and Automation		
DOC 9925 needs to include Swift Broad Band Inmarsat service.	COM Roadmap to support modules using ADS and ADS-B services	2015
Terrestrial L-Band Technology (LDACS 1or2)	COM Roadmap for B3-TBO and other B3 modules	2019
ATN over mobile IP	COM Roadmap for supporting B2/B3 modules	2022
Human performance		
Develop suitable provisions (guidance principles, guidance material and other provisions, including SARPs as necessary) to harmonize ATM personnel training and licensing and the use of synthetic training devices	B1	2017



ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 32 Air Navigation — Policy

GLOBAL AIR NAVIGATION PLAN (GANP)

(Presented by Lithuania on behalf of the European Union and its Member States¹ and the other Member States of the European Civil Aviation Conference²; and by EUROCONTROL)

EXECUTIVE SUMMARY

The ICAO Global Air Navigation Plan (GANP), taken together with the Aviation System Block Upgrades (ASBU), provides a clear framework for current and future ATM modernisation efforts, with a particular focus on performance and interoperability. The States and Organisations presenting this paper support and have already aligned their plans with the proposed GANP. However, some important descriptions are not in present the GANP itself and should be made available through an appropriate electronic means; and the updating of the GANP is essential if it is to continue to serve as a reference tool.

Action: The Assembly is invited to:

- a) Endorse the proposed 4th edition of the GANP; and
- b) Request ICAO that consideration be given to the proposals in section 3 of this paper, for ways of strengthening the GANP still further in its next iteration, including by making more explicit its reference point status, the formal process by which it is to be kept up to date, the standardisation roadmap, and the status of the GANP's electronic versions and online support documentation, and by making provision for the review of priorities and for regular exchanges of information with States and international organisations that are implementing major ATM development plans.

<i>Strategic Objectives:</i>	This working paper relates to all Strategic Objectives.
<i>Financial implications:</i>	None
<i>References:</i>	Doc 7050, 2013 Edition proposed to the Assembly Report of the 12 th Air Navigation Conference

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

1. INTRODUCTION

1.1 The Global Air Navigation Plan (GANP), together with the Aviation System Block Upgrades (ASBU), provides a clear framework for the current and future ATM modernisation efforts. Appreciated in particular are the focus given in the GANP to the ATM system's ability to deliver performance levels matching the needs of States and airspace users; and the importance it attaches to ensuring global interoperability. A revised edition of the GANP (Document 7050) has been proposed to the Assembly for endorsement. This paper supports such an endorsement, and offers some suggestions for the preparation of the subsequent updates of the GANP.

2. GANP ENDORSEMENT AS THE GLOBAL FRAMEWORK

2.1 The States and Organisations presenting this working paper strongly support the proposed GANP and its intended use. Its goals and approach are consistent with the efforts that they have themselves made, and the modules described as part of the ASBU form essential elements of the operational improvements that may be required in certain areas of their airspace. The European ATM Master Plan has already been aligned with the GANP.

3. GANP MAINTENANCE AND IMPROVEMENTS

3.1 The version of the GANP proposed to the Assembly for adoption is a very useful and usable planning document, and part of a structured planning process which involves ICAO, the Regions and the States. Like any other planning document, it needs to be maintained and to provide references to where more detailed information can be found to guide its implementation.

3.2 These considerations are reflected in the present GANP, but not yet optimally. For example, the ASBU concept is introduced in the Executive Summary and in Appendix 2, but not in the main body of the document. The proposed road map for Standardisation in Appendix 2 could also be added the main text; and in the main body of the GANP the priorities cited refer mainly to Performance Based Navigation whereas Appendix 2 addresses additional priorities, related to the blocks and modules. These too should be addressed in the main text, in the next update of the GANP.

3.3 It is proposed that ICAO triggers without delay the triennial GANP maintenance/update process described at Appendix 1 of the GANP, with a clear place in that process for inputs from PIRGs and from States and organisations with major ATM programmes. Within the framework of the GANP, the annual work programmes of ICAO should reflect reviews on the basis of such inputs, although major formal changes should remain within the remit of the triennial review.

3.4 ICAO having recognised the need to plan the work on future ICAO SARPs and guidance material to support implementation of the GANP and ASBUs, work on this Road Map should start directly, to be added to the next version of the GANP addressing ICAO's standardisation work. The need for standardisation should also be reflected in the work programmes of ICAO. Because developing new SARPs may take some time, a road map would provide an insight into the planning needs for Blocks 2 and 3, lending more transparency to the future work of ICAO and enabling States, organisations and industry to organise their support to ICAO in a more optimal way.

3.5 It is of particular importance to States and organisations to be able to anticipate any requests from ICAO, in terms of support beyond that already provided through regional planning and specialist work in panels and other arrangements. As was evident in the discussions at the recent ICAO Air Navigation Conference, the GANP is the result of the consideration and analysis of many data: fully understanding it is no small task. ICAO is invited to organise suitable expert groups at a global level, as soon as possible following the Assembly.

3.6 Appendix 3 of the GANP foresees a range of hyperlinked online documentation. This is a very valuable way of drilling down to more detailed reference material, and the intention to establish and maintain this facility, no small task in itself, is very much welcomed. There will be a need for ICAO to indicate clearly which parts of the on-line material have formal status, and how they are to be used³.

3.7 The GANP looks mainly to the PIRGs for implementation of the GANP/ASBUs. But the development of work on new technologies and concepts will continue elsewhere, and will have an impact on the road maps and the description of the modules and the Blocks. Coordination at a global level therefore remains important, with direct input if needed from States, organisations and industry. In that connection, there needs to be a known and established process for the updating of the ASBU descriptions, which were prepared ahead of the last Air Navigation Conference by an ad-hoc technical team, and of which only a short summary is provided as part of the GANP.

3.8 Finally, there will be value in priorities being reviewed annually, on the basis of advice from the Air Navigation Commission, if monitoring reports show this to be necessary or at the direct request from States, organisations and stakeholders. Any such review should of course remain within the framework of the GANP.

4. CONCLUSION

4.1 The Assembly is invited to:

- a) Endorse the proposed 4th edition of the GANP; and
- b) Request ICAO that consideration be given to the proposals in section 3 of this paper for ways of strengthening the GANP still further in its next iteration, including by making more explicit its reference point status, the formal process by which it is to be kept up to date, the standardisation roadmap and the status of the GANP's electronic versions and online support documentation, and by making provision for the review of priorities and for regular exchanges of information with States and international organisations that are implementing major ATM development plans.

— END —

³ For example, the technology roadmaps in Appendix 5 of the GANP offer a simplified presentation of their rationale and of the material which has been assembled in relation to them. Such presentations should be delivered regularly by the relevant panels, which may need to coordinate together in doing so.



International Civil Aviation Organization

WORKING PAPER

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ASSEMBLY — 38TH SESSION

ECONOMIC COMMISSION

Agenda Item 40: Economic development of air transport - Policy

EUROPEAN PRIORITIES FOR THE ECONOMIC REGULATION OF INTERNATIONAL AIR TRANSPORT

(Presented by Lithuania on behalf of the European Union and its Member States¹ and the other Member States of the European Civil Aviation Conference²)

EXECUTIVE SUMMARY

This Working Paper sets out recommendations for what should be considered as key areas and priorities for the economic regulation of international air transport, taking into account the outcome of the Sixth ICAO Air Transport Conference.

Action: The Assembly is invited to:

- a) adopt and include into Assembly Resolution A37-20 the actions set out in paragraph 4.1, and
- b) endorse that ICAO's Work Programme for 2014-2016 reflect the priorities identified in this paper.

<i>Strategic Objectives:</i>	This Working Paper relates to Strategic Objective "Environmental Protection and Sustainable Development of Air Transport"
<i>Financial implications:</i>	Most of the proposed tasks for ICAO should be covered under the regular budget of the organisation. Nevertheless, reference is made to the recommendation by ATConf/6 that a dedicated voluntary fund be established to support ICAO in carrying out its mandate and strengthening its work in the air transport field.
<i>References:</i>	ATConf/6-WP/49, ATConf/6-WP/50, ATConf/6-WP/51, ATConf/6-WP/54, ATConf/6-WP/55

1. INTRODUCTION

1.1 The Sixth ICAO Air Transport Conference (ATConf/6 - Montreal, 18-22 March 2013) was an important event which adopted a series of constructive recommendations in relation to the further

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, the Republic of Moldova, Monaco, Montenegro, Norway, San Marino, Serbia, Switzerland, The former Yugoslav Republic of Macedonia, Turkey and Ukraine.

development of the global economic regulatory framework for international air transport. There was a general consensus at ATConf/6 that the current framework should be adapted to ensure the long-term sustainability of the air transport sector, and to take account of the increasingly global and competitive environment in which air transport operates today.

It is important that ICAO as an organisation and individual States pay due regard to the outcome of ATConf/6, and that the 38th Session of the ICAO Assembly endorses the key recommendations of ATConf/6. This Working Paper sets out its presenters' views on what actions ICAO and Member States should take in following up to ATConf/6, in particular when reviewing the Consolidated statement of continuing ICAO policies in the air transport field (*Assembly Resolution A37-20*), and when deciding on ICAO's Work Programme for 2014-2016.

Consistent with the conclusions of ATConf/6, the key areas where efforts should be focused are the liberalisation of market access, fair competition, the liberalisation of air carrier ownership and control and consumer protection.

2. KEY AREAS OF ECONOMIC REGULATION

Liberalisation of market access

There was a broad consensus at ATConf/6 that the liberalisation of market access had generated significant economic benefits; was beneficial for the development of the air transport sector; and contributed to its sustainability. Support was expressed for the modernisation of the global regulatory framework for market access in order to adapt it to the rapidly evolving and now globalised business environment. It was agreed that ICAO should play a leading role in this process and provide a focus for such work by developing a long-term vision for market access liberalisation including a multilateral agreement to help facilitate this.

However, a large number of States, including the presenters of this paper, also emphasised the close link between market access and fair competition. Indeed, they strongly believe that, in the operation of international air services, further liberalisation must be accompanied by measures to ensure that competition takes place on a fair, open and non-discriminatory basis. This would, in turn, help to ensure the long-term sustainability of international air transport.

Fair and open competition

In order for liberalisation of market access and air carrier ownership and control to be successful and beneficial for all participants in international air transport, competition should be fair, open and based on a level playing field (including such issues as subsidies, taxes, user charges, royalties, social protection, consumer rights, environmental protection etc.) ICAO and its Member States are invited to recognise that safeguards to ensure fair and open competition must be a condition for breaking down market access restrictions.

2.1 ATConf/6 concluded that fair competition is an important general principle in the operation of international air services. As recommended by ATConf/6, ICAO should develop tools to facilitate cooperation, dialogue and the exchange of information between States in order to foster more compatible regulatory approaches toward international air transport. Indeed, convergence and compatibility of regulatory approaches are key general enablers for establishing and maintaining fair competition.

2.2 More specifically, ICAO should update its policy guidance on fair competition, and propose that the conditions for achieving, demonstrating and consolidating a fair and open competitive environment (see *Attachment 1*) should be taken as a starting point for work on an update of the policy guidance. This would allow ICAO to develop basic principles for fair competition and the necessary instruments to establish and maintain it.

Liberalisation of air carrier ownership and control

2.3 ATConf/6 recognised the benefits of liberalising air carrier ownership and control and called on ICAO to promote and facilitate further liberalisation in this area. ICAO should develop a multilateral agreement on the liberalisation of air carrier ownership and control, and in the meantime, Member States should be encouraged to continue to liberalise air carrier ownership and control rules through various existing measures such as waivers of such restrictions in bilateral air services agreements or through adoption of designation provisions which recognise the concept of community of interest within regional or sub regional economic groupings.

2.4 With appropriate safeguards to help ensure a level playing field, for instance relating to safety, financial fitness and working conditions, ICAO should encourage its Member States to progressively abolish remaining national restrictions on air carrier ownership and control. This would serve the interests of the air transport sector, for example, by facilitating foreign investment.

Consumer protection

2.5 ATConf/6 agreed unanimously that consumers of air transport services should be protected, and underlined that, globally, such protection would greatly benefit from increased regulatory convergence and compatibility. ICAO should therefore develop high-level, non-prescriptive core principles on consumer protection, to include non-discrimination (especially for passengers with disabilities and passengers with reduced mobility), transparency of information and compensation and assistance in case of denied boarding, short-notice cancellations and long delays under certain conditions. Proposals for developing such principles are attached to this Working Paper (see *Attachment 2*).

3. CONCLUSION

ICAO should continue to play a leading role in the economic regulation of international air transport with a view to ensuring its sustainability. ICAO should therefore review its policies in the area of economic regulation, and should establish and implement a Work Programme for 2014-2016 which will focus on the four key areas identified above and will set clear priorities.

The States presenting this paper stand ready to support ICAO's efforts to implement such a programme, and invite other States to do the same. Furthermore, States are invited to follow in their bilateral relations the ICAO policies and principles, in pursuit of the objective of sustainable air transport.

4. ACTIONS

4.1 The Assembly is invited to take the following actions:

- a) ICAO should develop and adopt a long-term vision for international air transport liberalisation including the examination of an international agreement by which States could liberalise market access;

- b) States should take into consideration that fair competition is an important general principle in the operation of international air services;
- c) ICAO should actively encourage States to seek fair and open competition in their air services agreements, and should confirm that States are entitled to require this as a basis for agreeing further market access;
- d) States, taking into account national sovereignty, should develop competition laws and policies that apply to air transport;
- e) ICAO should develop tools such as an exchange forum to enhance cooperation, dialogue and exchange of information between Member States in order to promote more compatible regulatory approaches toward international air transport including labour;
- f) ICAO should continue to monitor developments in the area of competition in international air transport and update its policies and guidance on fair competition;
- g) States should continue to liberalise air carrier ownership and control, according to needs and circumstances, through various existing measures such as waivers of ownership and control restrictions in bilateral air services agreements or designation provisions recognising the concept of community of interest within regional or sub regional economic groupings;
- h) ICAO should initiate work on the development of an international agreement to liberalise air carrier ownership and control, taking into consideration safety and security concerns, the principle of reciprocity, the need to allow a gradual and progressive adaptation with safeguards, the need to take account of regional experiences, the requirements of various States' domestic laws, and the effects on all stakeholders including labour;
- i) In parallel, States should consider abolishing progressively, with appropriate safeguards as necessary, any remaining restrictions on air carrier ownership and control in their national laws; and
- j) ICAO should develop, in the short term, a set of high-level, non-prescriptive core principles on consumer protection in air transport which should include non-discrimination, especially for passengers with disabilities and passengers with reduced mobility, transparency of information as well as compensation and assistance in case of denied boarding, short-notice cancellations and long delays under certain conditions.

4.2 The Assembly is invited to endorse that ICAO's Work Programme for 2014-2016 reflect the recommendations set out in paragraph 4.1.

4.3 The Assembly is also invited to reflect these actions in the revised *Consolidated statement of continuing ICAO policies in the air transport field* (Assembly Resolution A37-20) as proposed in *Attachment 3* to this Working Paper.

ATTACHMENT 1: Conditions to reach a fair competition environment³

In order to develop basic principles of fair competition, it is appropriate to set conditions to help determine whether there exists (or not) fair competition on a given air transport market. The following conditions are suggested:

Regulatory conditions

- a) the existence of efficient competition law at national or regional level covering the abuse of market power, merger control, anti-competitive agreements and concerted practices, which is applicable to international air transport, as well as clear, transparent and strict state aid rules applicable to undertakings under the jurisdiction of the State concerned⁴ and ensuring the achievement of the objectives associated with fair and open competition; and
- b) transparent and non-discriminatory minimum rules, based on applicable ICAO Standards and Recommended Practices if any, covering the areas of aviation safety, security, air traffic management, ground handling, slots, air passenger rights, environmental protection, social rights of aviation personnel, taxes/user charges.

Institutional conditions

- a) separation of institutions: an independent civil aviation authority (independent from airlines, air navigation services providers, airports etc.), an independent competition authority, and an independent judiciary to review decisions by authorities in air transport matters; and
- b) such independent authorities must have clear regulatory/judicial responsibilities and powers as well as the necessary administrative capacities (including resources) to effectively carry out their responsibilities.

Economic conditions

- a) when public entities provide - under specific conditions and respecting the applicable strict state aid rules - state aid, subsidies or support to their air carriers, they should act as a rational private investor would do, without distorting competition in the market. In case the market cannot provide air services serving public interest (e.g. to/from remote areas of the country), state aid may be provided subject to transparent and non-discriminatory rules enshrined in strict legal requirements;
- b) transparent structures and relations between the State and economic entities throughout the whole aviation value chain should be in place including as regards financial flows; and

³ See EU-ECAC Working Paper ATConf/6-WP/51

⁴ See EU Information Paper ATConf/6-IP/4 on competition and state aid policies and laws applied to the air transport sector

- c) Non-discriminatory and transparent treatment of foreign airlines: this would involve, for example, no royalties or mandatory commercial agreements between national and foreign airlines, but commercial freedom of foreign airlines regarding pricing, ticket selling etc., non-discriminatory taxes, refunds, charges and access to airport facilities and services.

Possible instruments to establish and maintain fair and open competition. On the basis of a global understanding of fair competition, instruments should be developed and used by ICAO Member States to establish and maintain conditions of fair competition in international air transport. These instruments may include, *inter alia*, national or regional legal and institutional frameworks, comprehensive aviation agreements, fair competition clauses in bilateral air services agreements, and a dispute resolution mechanism preferably through ICAO to resolve fair competition concerns between States, without prejudice to the application of competition law.

ATTACHMENT 2: Key principles of consumer protection⁵

The following basic principles are offered for consideration by ICAO to form the basis of an ICAO consumer protection policy in air transport in order to harmonise existing regulation and encourage States without legislation to protect passengers by adopting appropriate rules:

- a) Non-discrimination in access to air transport: this should include preventing air carriers from discriminating during ticketing by nationality, residence, disability or reduced mobility. For persons with disabilities and persons with reduced mobility, the provision of access and assistance has to be granted without any additional charges. Such persons should not be refused carriage on board an aircraft except on reasons of safety, which air carriers would have to justify;
- b) Transparency: this should include the right for the passengers to have accurate, timely and accessible information in particular to
 - 1) be able to obtain information on what is included within the price of their ticket. Passengers should have access to all relevant information (e.g. on price and charges applicable) in order to make a reasoned decision before buying an air ticket. Such information will enable them to fairly compare ticket prices and provides a level competitive playing field for industry. This approach would also ensure that air carriers detail the conditions and restrictions on any fare offered and that tickets are sold inclusive of all taxes, fees and charges, together with any "optional" charges – such as the carriage of luggage. This would prevent air carriers from advertising "tax-free" prices where charges that passengers have to pay are only added during the process of payment;
 - 2) be advised before departure on which air carrier they will be flying;
 - 3) receive appropriate information before the purchase of their flight ticket and at appropriate stages of travel, particularly when disruption occurs; and
 - 4) renounce travelling and obtain a full refund when the trip is not undertaken as planned due to the actions of the air carrier;
- c) Immediate and proportionate compensation and assistance: This includes compensation to be offered to the passengers under special circumstances, such as denial of boarding, short-notice cancellation of flights and under certain conditions long delays. It also includes the right for passengers to have assistance at departure or at connecting points in the form of, for example
 - 1) right to care, especially meals, refreshments, telephone calls, hotel accommodation and transport between the airport and place of accommodation; and
 - 2) right to rerouting or reimbursement and rebooking.

⁵ See EU-ECAC Working Paper ATConf/6-WP/55

ATTACHMENT 3: Proposals to revise the *Consolidated statement of continuing ICAO policies in the air transport field* (Assembly Resolution A37-20)

APPENDIX

DRAFT RESOLUTION FOR ADOPTION BY THE 38TH SESSION OF THE ASSEMBLY

RESOLUTION XX

Consolidated statement of continuing policies in the air transport field

Introduction

Whereas the Convention on International Civil Aviation establishes the basic principles to be followed by governments to ensure that international air transport services may be developed in an orderly, regular, efficient, economical, harmonious and sustainable manner and it is therefore one of the purposes of ICAO to support principles and arrangements in order that international air transport services may be established on the basis of equality of opportunity, sound and economic operation, mutual respect of the rights of States and taking into account the general interest;

Whereas air transport is a major factor in promoting and fostering ~~sustained~~ sustainable economic development at national as well as international levels;

Whereas it is becoming increasingly difficult, particularly for developing countries, to secure the necessary resources required to optimize the opportunities and meet the challenges inherent in the development of air transport, and to keep pace with the challenges posed by demands on air transport;

Whereas the Organization prepares guidance, studies and statistics on the development of air transport for Contracting States on a continuing basis and these should be kept current, focused and relevant and should be disseminated to Contracting States through the most effective means;

Whereas Contracting States are required to provide accurate and factual statistical data and other information in order that the Organization may prepare this guidance;

Whereas the Organization is moving toward management by objective with more focus on implementation over standard setting;

Whereas guidance developed by the Organization, and action taken by the Organization in implementing its Strategic Objectives, should assist Contracting States in developing policies and practices that facilitate the globalization, commercialization and liberalization of international air transport; and

Whereas it is important for Contracting States to participate in the work of the Organization in the air transport field;

The Assembly:

1. Resolves that the Appendices attached to this resolution and listed below constitute the consolidated statement of continuing ICAO policies in the air transport field, as these policies exist at the close of the ~~37~~38th Session of the Assembly:

Appendix A — Economic regulation of international air transport

Appendix B — Aviation data/Statistics

Appendix C — Forecasting, planning and economic analyses

Appendix D — Facilitation

Appendix E — Taxation

Appendix F — Airports and air navigation services

Appendix G — Air carrier economics

Appendix H — Air mail

Appendix I — Consumer protection

2. *Urges* Contracting States to have regard to these policies and their continuing elaboration by the Council in documents identified in this consolidated statement and by the Secretary General in manuals and circulars;
3. *Urges* Contracting States to make every effort to fulfil their obligations, arising out of the Convention and Assembly resolutions, to support the work of the Organization in the air transport field, and, in particular, to provide as completely and promptly as possible the statistical and other information asked for by the Organization for its air transport studies-work;
4. *Requests* the Council to attach particular importance to the problem of financing the development of the human and technical resources necessary to ensure the best possible contribution of air transport to the economic and social well-being of developing countries;
5. *Requests* the Council, when it considers that it would be of benefit in assisting its work on any air transport issues, to consult expert representatives from Contracting States by the most appropriate means, including the establishment of panels of such qualified experts, reporting to the Air Transport Committee or of Secretariat study groups, and working by correspondence or by meetings;
6. *Requests* the Council to convene Conferences or Divisional meetings, in which all Contracting States may participate, as the principal means of progressing the resolution of issues of worldwide importance in the air transport field, when such meetings are justified by the number and importance of the issues to be dealt with and where there is the likelihood of constructive action upon them;
7. *Requests* the Council to provide for workshops, seminars and other such meetings as may be required to disseminate ICAO's air transport policies and associated guidance to and amongst Contracting States;
8. *Requests* the Council to keep the consolidated statement of ICAO's air transport policies under review and advise the Assembly as appropriate when changes are needed to the statement; and
9. *Declares* that this resolution supersedes Resolution ~~A36-15~~ A37-20.

APPENDIX A

Economic regulation of international air transport

Section I. Agreements and arrangements

Whereas the basic principles of sovereignty, fair and equal opportunity, non-discrimination, interdependence, harmonization and cooperation set out in the Convention have served international air transport well and continue to provide the basis for its future development;

Whereas multilateralism in commercial rights to the greatest possible extent continues to be an objective of the Organization;

Whereas within the framework of the Convention, Contracting States have many differing regulatory goals and policies but share a fundamental objective of participation through reliable and sustained involvement in the international air transport system;

Whereas one of the objectives of the Convention is that international air transport services may be operated soundly and economically and in that regard the International Air Services Transit Agreement (IASTA) and the Convention for the Unification of Certain Rules for International Carriage by Air (Montréal Convention of 1999) facilitates the achievement of that objective for the Contracting States who are already parties to it;

Whereas the Assembly has repeatedly stressed the obligation of each Contracting State to comply with Article 83 of the Convention by registering with the Council as soon as possible all arrangements relating to international civil aviation, in accordance with the Rules for Registration with *ICAO* of Aeronautical Agreements and Arrangements;

Whereas undue delays and non-compliance relating to the registration of aeronautical agreements and arrangements are not desirable for the accuracy and completeness of regulatory information and for enhancing transparency;

Whereas the establishment of international air transport fares and rates should be fair, transparent and designed to promote the satisfactory development of air services;

Whereas consumer interest should be given due regard in the development of policy and regulation of international air transport;

Whereas there is a need to adapt to the changing regulatory and operating environment in the air transport field and the Organization has accordingly developed policy guidance for the regulation of international air transport, including model clauses and template air services agreements, for optional use by States in bilateral or regional agreements; and

Noting that the Organization has developed and provided to States an innovative meeting facility, the ICAO Air Services Negotiation Conference (ICAN), which facilitates and improves the efficiency of their air services negotiations and consultations;

The Assembly:

1. *Reaffirms* the primary role of ICAO in developing policy guidance on the regulation of international air transport and in assisting and facilitating liberalization as necessary;
2. Requests the Council to develop a long-term vision for international air transport liberalisation including the examination of an international agreement by which States could liberalise market access;
3. Encourages States to seek fair and open competition in their air services agreements, and confirms that States are entitled to require this as a basis for agreeing further market access;
4. *Urges* Contracting States that have not yet become parties to the ~~International Air Services Transit Agreement~~ (IASTA) and the Montréal Convention of 1999, to give urgent consideration to so doing;
5. *Urges* all Contracting States to register cooperative agreements and arrangements relating to international civil aviation with ICAO in accordance with Article 83 of the Convention and the Rules for *Registration with ICAO of Aeronautical Agreements and Arrangements*;
6. *Urges* Contracting States to keep the Council fully informed of serious problems arising from the application of air services agreements or arrangements and of any developments which tend toward the objective of multilateralism in the exchange of commercial rights;

7. *Encourages* Contracting States to make use of and benefit from the ICAO Air Services Negotiation Conference facility;
8. Requests the Council to continue to cooperate with regional and subregional bodies in their examination and development of measures of cooperation, including liberalized arrangements, and the results of these measures, in order to see whether similar or other measures should at the appropriate time be recommended to Contracting States for application on a wider basis;
9. Requests the Council to continue the comparative and analytical study of the policies and practices of Contracting States and airlines concerning commercial rights and the provisions of air services agreements and to inform all Contracting States of any new developments in international cooperation, including liberalized arrangements, with respect to commercial rights;
10. Requests the Council to keep under review the machinery for establishing the Organization's policy guidance on the regulation of international air transport, and to revise or update it as required;
11. Requests the Council to review periodically the rules for registration of aeronautical agreements and arrangements with a view to simplifying the process of registration;
- ~~12. Requests the Council to develop a set of high-level non-prescriptive core principles on consumer protection;~~
12. Requests the Secretary General to remind Contracting States of the importance of registration without undue delay, of aeronautical agreements and arrangements and to provide such assistance to Contracting States as they may require in registering their aeronautical agreements and arrangements with the Council; and
13. Requests the President of the Council and the Secretary General to promote universal adherence to and implementation of international conventions and agreements, including ~~the International Air Services Transit Agreement (IASTA)~~ and the Montréal Convention of 1999 and to urge Contracting States to inform the Secretariat of their intentions with respect to adherence ~~to the agreement~~.

Section II. Cooperation in regulatory arrangements

Whereas certain economic, financial and operational constraints unilaterally introduced at the national level affect the stability of, and tend to create unfair discriminatory trading practices in, international air transport and might be incompatible with the basic principles of the Convention and the orderly and harmonious development of international air transport;

Whereas the provision of regular and reliable air transport services is of fundamental importance to the development of the economies of States, especially the developing States, including those dependent on tourism;

Whereas the strict application of the criterion of substantial ownership and effective control for the authorization of an airline to exercise route and other air transport rights could deny many States a fair and equal opportunity to operate international air services and to optimize the benefits to be derived therefrom;

Whereas air carrier designation and authorization for market access should be liberalized at each State's pace and discretion progressively, flexibly and with effective regulatory control in particular regarding safety and security;

Whereas the broadening or the flexible application of the criteria for airline designation and authorization could help create an operating environment in which international air transport may develop and flourish in a stable, efficient and economical manner, and contribute to the participation objectives of States in the liberalization process, without prejudice to States' obligations for aviation safety and security;

Whereas the realization of developmental objectives among such States is increasingly being promoted by cooperative arrangements in the form of regional economic groupings and functional cooperation symbolic of the affinity and community of interest which are particularly shared among developing States belonging to such regional economic integration movements; and

Whereas the exercise of route and other air transport rights of a developing State having such community of interest by an airline substantially owned and effectively controlled by another developing State or States or its or their nationals sharing the same community of interests will serve to promote the foregoing interests of developing States;

The Assembly:

1. Urges Contracting States to avoid adopting unilateral measures that may affect the orderly and harmonious development of international air transport and to ensure that domestic policies and legislation are not applied to international air transport without taking due account of its special characteristics;
2. Urges Contracting States to take into consideration that fair competition is an important general principle in the operation of international air services;
3. Urges Contracting States to continue to liberalise air carrier ownership and control, according to needs and circumstances, through various existing measures such as waivers of ownership and control restrictions in bilateral air services agreements or designation provisions recognising the concept of community of interest within regional or sub regional economic groupings;
4. Requests the Council to initiate work on the development of an international agreement to liberalise air carrier ownership and control, taking into consideration safety and security concerns, the principle of reciprocity, the need to allow a gradual and progressive adaptation with safeguards, the need to take account of regional experiences, the requirements of various States' domestic laws, and the effects on all stakeholders including labour;
5. Urges Contracting States to consider progressively abolishing, with appropriate safeguards as necessary, any remaining restrictions on air carrier ownership and control in their national laws;
6. Urges Contracting States to accept such designations and allow such airlines to exercise the route rights and other air transport rights of a State or States, in particular developing States, within the same grouping, under mutually acceptable terms and conditions including air transport agreements negotiated or to be negotiated by the parties concerned;
7. Urges Contracting States to recognize the concept of community of interest within regional or subregional economic groupings as a valid basis for the designation by one developing State or States of an airline of another developing State or States within the same regional economic grouping where such airline is substantially owned and effectively controlled by such other developing State or States or its or their nationals;
8. Urges Contracting States to give consideration to the use of alternative criteria for airline designation and authorization, including those developed by ICAO, and to adopt a flexible and positive approach to accommodate other States in their efforts to liberalize air carrier ownership and control without compromising safety and security;
9. Urges Contracting States, taking into account national sovereignty, to develop competition laws and policies that apply to air transport;
10. Urges Contracting States to encourage cooperation among national and/or regional competition authorities;

11. *Invites* Contracting States with experience in various forms of joint operation of international air services to submit to the Council, on a continuing basis, full information concerning their experience, so that the Organization may have in this particular field all information that might be of assistance to Contracting States;
12. Requests the Council to develop tools such as an exchange forum to enhance cooperation, dialogue and exchange of information between States to promote more compatible regulatory approaches towards international air transport including labour;
13. Requests the Council, when approached, to render all feasible assistance to Contracting States wishing to enter regional or subregional economic groupings with respect to the operation of international air services; and
14. Requests the Council to give assistance, when approached, to Contracting States that take the initiative in developing cooperative arrangements for the joint ownership and operation of international air services, directly among themselves or whose airlines develop such arrangements, and to promptly circulate to States information concerning such cooperative arrangements.

Section III. Airline product distribution

Whereas the advancement of information and electronic technologies have had a significant impact on the way the airline industry is doing business, particularly on its product distribution; and

Whereas ICAO has developed a Code of Conduct for the Regulation and Operation of Computer Reservation Systems (CRSs) for States to follow, and two related Model Clauses for optional use by States in their air services agreements;

The Assembly:

1. *Requests* the Council to monitor developments in airline product distribution and related regulatory practices, and disseminate information to Contracting States on significant developments; and
2. Requests the Council to review whether there is a continued need for the ICAO CRS Code and Model Clauses in light of the industry and regulatory changes.

Section IV. Trade in services

Whereas on the issue of including aspects of international air transport under the General Agreement on Trade in Services (GATS), ICAO has actively promoted an understanding by all parties concerned of the provisions of the Convention on International Civil Aviation and of the particular mandate and role of ICAO in international air transport;

The Assembly:

1. *Reaffirms* the need for ICAO to continue to explore future regulatory arrangements and develop recommendations and proposals to meet the challenges facing international air transport, responding to the internal and external changes affecting it;
2. *Recognizes* that such arrangements should create an environment in which international air transport may develop and continue to flourish in an orderly, efficient and economical manner without compromising safety and security, while ensuring the interests of all Contracting States and their effective and sustained participation in international air transport;
3. *Reaffirms* the primary role of ICAO in developing policy guidance on the regulation of

international air transport;

4. *Urges* Contracting States that participate in trade negotiations, agreements and arrangements relating to international air transport to:

- a) ensure internal coordination in their national administrations and in particular the direct involvement of aeronautical authorities and the aviation industry in the negotiations;
- b) ensure that their representatives are fully aware of the provisions of the *Convention on International Civil Aviation*, the particular characteristics of international air transport and its regulatory structures, agreements and arrangements;
- c) take into account their rights and obligations vis-à-vis those of ICAO Member States which are not members of the World Trade Organization;
- d) examine carefully the implications of any proposed inclusion of an additional air transport service or activity in the GATS bearing in mind, in particular, the close linkage between economic, environmental, safety and security aspects of international air transport;
- e) promote a full understanding of the role and mandate of ICAO in developing policy guidance on economic regulation, including liberalization of international air transport, and consider using this guidance; and
- f) file with ICAO under Article 83 of the Convention copies of any exemptions and specific commitments pertaining to international air transport made under the GATS;

5. *Requests* the World Trade Organization, its Member States and Observers to accord due consideration to:

- a) the particular regulatory structures and arrangements of international air transport and the liberalization taking place at the bilateral, subregional and regional levels;
- b) ICAO's constitutional responsibility for international air transport and, in particular, for its safety and security; and
- c) ICAO's existing policy and guidance material on the economic regulation of international air transport and its continued work in the field; and

6. *Requests* the Council to:

- a) continue to exert a global leadership role in facilitating and coordinating the process of liberalization while ensuring safety, security and environmental protection in international air transport;
- b) pursue in a proactive manner developments in trade in services that might impinge on international air transport and inform Contracting States accordingly; and
- c) promote continued effective communication, cooperation and coordination between ICAO, the World Trade Organization, and other intergovernmental and non-governmental organizations dealing with trade in services.

Section V. Elaboration of policy guidance

Whereas governments have international obligations and responsibilities in the economic regulation of international air transport;

Whereas economic liberalization and the evolution of air transport industry will continue to bring about

opportunities, challenges and issues with respect to the regulation of international air transport; and

Whereas the Organization has addressed many of the regulatory issues and compiled related policies and guidance material;

The Assembly:

1. Urges Contracting States in their regulatory functions to have regard to the policies and guidance material developed by ICAO on economic regulation of international air transport, such as those contained in Doc 9587, *Policy and Guidance Material on the Economic Regulation of International Air Transport*; ~~and~~
2. Encourages Contracting States to incorporate the basic principles of fair and equal opportunity, nondiscrimination, transparency, harmonization and cooperation set out in the Convention and embodied in ICAO's policies and guidance in national legislation, rules and regulations, and in air services agreements; ~~and~~
3. Requests the Council to ensure that these policies and guidance material are current and responsive to the requirements of Contracting States, and to develop guidance on emerging issues of general interest where required; ~~and~~
4. Requests the Council to continue to monitor developments in the area of competition in international air transport and update its policies and guidance on fair competition.

APPENDIX B

Aviation data/Statistics

Whereas ICAO's Statistics Programme provides an independent and global foundation for the purpose of fostering the planning and sustainable development of international air transport;

Whereas each Contracting State has undertaken that its international airlines shall file the statistics requested by the Council in accordance with Article 67 of the Convention;

Whereas the Council has also laid down requirements for statistics on domestic airline operations, international airports, and international route facilities, pursuant to Articles 54 and 55 of the Convention;

Whereas the Council has laid down requirements for data collection on civil aircraft on register pursuant to Article 21 of the Convention;

Whereas there is a need for the Organization to collect data from States on annual aviation fuel consumption to be used to address emerging challenges of sustainable development of air transport, and to monitor and report the potential impacts of climate change and economic measures linked to environmental protection on international aviation operations and related infrastructure;

Whereas the nomination by States of focal points for aviation statistics will facilitate the timely filing of statistics and data requested by ICAO;

Whereas the Council has adopted a policy of management by objective which requires collection of pertinent data and analysis to measure the performance of the Organization as a whole and of its constituent parts in meeting the Strategic Objectives of the Organization;

Whereas the development of ICAO's integrated statistical database for validation and storage of data provides Contracting States and other users with an efficient online system for the retrieval of statistical data;

Whereas a number of Contracting States are still not filing, or have not been filing completely, the statistics requested by the Council; ~~and~~

Whereas cooperation amongst international organizations active in the area of collection and distribution of aviation statistics may enable reduction in the burden of filing statistics; and

Whereas ICAO's role in processing and disseminating aviation data allows States to use the data as a significant tool for the safe and orderly growth of international civil aviation services that are operated soundly and economically;

The Assembly:

1. *Urges* Contracting States to nominate focal points for aviation statistics, and to make every effort to provide the statistics required by ICAO on time and to submit them electronically whenever possible;
2. Requests the Council, calling on national experts in the relevant disciplines as required, to examine on a regular basis the statistical data collected by ICAO in order to meet more effectively the needs of the Organization and its Member States, and to establish the necessary metrics to monitor the performance of the Organization in meeting its Strategic Objectives, to improve the uniformity of the statistics, the completeness and timeliness of reporting by Contracting States, and the form and content of analyses; and
3. *Requests* the Council to:
 - a) continue to explore ways of closer cooperation with other international organizations active in the collection and distribution of aviation statistics; ~~and~~
 - b) make arrangements, on an appropriate basis, for assistance to be given upon request to Contracting States by personnel of the Secretariat for the improvement of their civil aviation statistics and their statistical reporting to the Organization;.
 - c) develop a process enabling the harmonization of aviation data from different sources in order to facilitate the provision of accurate, reliable and consistent data required for informed decision-making by States; and
 - d) create, host, and manage a digital space where the aviation community can share and promote its data and associated solutions in accordance with the principles and provisions as contained in the Convention and relevant decisions of the Organization.

APPENDIX C

Forecasting, planning and economic analyses

Whereas ICAO's independence in carrying out investigations into trends and in applying economic analyses provides a necessary foundation for fostering the planning and sustainable development of international air transport;

Whereas Contracting States require global and regional forecasts of future civil aviation developments for various purposes;

Whereas the Council, in carrying out its continuing functions in the economic field, must foresee future developments likely to require action by the Organization and must initiate such action in good time;

Whereas the Organization has to regularly assess its performance against its Strategic Objectives with particular focus on safety, air navigation capacity and efficiency, security and facilitation, economic development of air transport and environmental protection ~~and sustainable development of air transport;~~

and

Whereas the Organization requires specific forecasts and economic support for airports and air navigation systems planning and environmental monitoring and planning purposes;

The Assembly:

1. Requests the Council to prepare and maintain, as necessary, forecasts of future trends and developments in civil aviation of both a general and a specific kind, including, where possible, local and regional as well as global data, and to make these available to Contracting States and support data needs of safety, air navigation capacity and efficiency, security and facilitation, economic development of air transport and environmental protection ~~security, environment and efficiency~~;
2. Requests the Council to develop one single set of long-term traffic forecast, from which customized or more detailed forecasts can be produced for various purposes, such as air navigation systems planning and environmental analysis;
23. *Requests* the Council to develop methodologies and procedures for the preparation of forecasts, the assessment of economic impact of any new measure, the analyses of cost-benefit or cost-effectiveness, and the development of business cases to meet the needs of the Organization, the regional air navigation planning groups, ~~and, as required, other systems or~~ environmental planning bodies and, as required, other systems of the Organization; and
- 3-4. Requests the Council to make arrangements to collect and develop material on current forecasting methods both for the purposes described in clauses 1, 2 and 23 and for dissemination to Contracting States from time to time as guidance in their own forecasting, planning and economic analyses.

APPENDIX D

Facilitation

Section I. Development and implementation of facilitation provisions

Whereas Annex 9 — Facilitation, was developed as a means of articulating the obligations of Contracting States under Articles 22, 23 and 24 of the Convention and standardizing procedures for meeting the legal requirements referred to in Articles 10, 13, 14, 29 and 35;

Whereas implementation of the Standards and Recommended Practices in Annex 9 is essential to facilitate the clearance of aircraft, passengers and their baggage, cargo and mail and manage challenges in border controls and airport processes so as to maintain the efficiency of air transport operations;

Whereas it is essential that Contracting States continue to pursue the objective of maximizing efficiency and security in such clearance operations;

Whereas the Convention on the Rights of Persons with Disabilities and its Optional Protocol, that had been adopted in December 2006 by the United Nations General Assembly, entered into force on 3 May 2008;

Whereas the development of specifications for machine readable travel documents by the Organization has proved effective in the development of systems that expedite the movement of international passengers and crew members through clearance control at airports while enhancing immigration compliance programmes; and

Whereas the development of a set of standard signs to facilitate the efficient use of airport terminals by travellers and other users has proved effective and beneficial;

The Assembly:

1. Urges Contracting States to give special attention to increasing their efforts to implement Annex 9 Standards and Recommended Practices;
2. Urges Contracting States to give due regard to Doc 9984, Manual on Access to *Air Transport by Persons with Disabilities*, in their implementation of the relevant provisions of Annex 9;
3. Requests the Council to ensure that Annex 9 — Facilitation, is current and addresses the contemporary requirements of Contracting States with respect to administration of border controls, cargo and passengers, advances in technologies related to such administration, cargo facilitation, the handling of and responses to health-related and other disruptive events to aviation and, unaccompanied minors ~~the protection of passenger and crew health and the accessibility to air transport by persons with disabilities~~;
4. Requests the Council to ensure that relevant guidance material is current and responsive to the requirements of Contracting States;
5. Requests the Council to ensure that the provisions of Annex 9 — *Facilitation*, and Annex 17 — *Security*, are compatible with and complementary to each other; and
- ~~4. Requests the Council to ensure that its specifications and guidance material in Doc 9303, *Machine Readable Travel Documents*, remain up to date in the light of technological advances and to continue to explore technological solutions aimed at improving clearance procedures; and~~
6. Requests the Council to ~~ensure that~~ update Doc 9636, *International Signs to Provide Guidance to Persons at Airports and Marine Terminals*, to ensure that it is current and responsive to the requirements of Contracting States.

Section II. National and international action ~~cooperation~~ in ensuring ~~protecting~~ the security and integrity of ~~passports~~ traveller identification and border controls

Whereas States recognize the relevance of traveller identification and border control management to aviation security and facilitation;

Whereas States recognize that the ability to uniquely identify individuals requires a holistic and coordinated approach, which links the following five interdependent elements of traveller identification and border control management into a coherent framework:

- a) Foundational documents, tools and processes required to ensure authentic evidence of identity;
- b) The design and manufacture of standardized Machine Readable Travel Documents (MRTDs), including e-Passports, that comply with ICAO specifications;
- c) Processes and protocols for document issuance by appropriate authorities to authorized holders, and controls to combat theft, tampering and loss;
- d) Inspection systems and tools for the efficient and secure reading and verification of MRTDs at borders, including use of the ICAO PKD; and
- e) Interoperable applications that provide for timely, secure and reliable linkage of MRTDs and their holders to available and relevant data in the course of inspection operations.

Whereas States require capacity to uniquely identify individuals and require tools and mechanisms available to establish and confirm the identity of travellers;

Whereas the ICAO Traveller Identification Programme (ICAO TRIP) Strategy provides a framework for achieving the maximum benefits of travel documents and border controls by bringing together the elements of identification management, and building on the success of the ICAO MRTDs Programme;

Whereas the passport is the main ~~basic~~ official document that denotes a person's identity and citizenship and is intended to inform the State of transit or destination that the bearer can return to the State which issued the passport;

Whereas international confidence in the integrity of the passport is essential to the functioning of the international travel system;

Whereas the security of traveller identification and border controls ~~veracity and validity of machine-readable travel documents (MRTDs)~~ depends on a robust identification management system and the integrity of passport issuance process ~~the documentation used to establish identity, confirm citizenship or nationality and assess entitlement of the passport applicant (i.e. "breeder" documentation);~~

Whereas Member States of the United Nations have resolved, under the Global Counter-Terrorism Strategy adopted on 8 September 2006, to step up efforts and cooperation at every level, as appropriate, to improve the security of manufacturing and issuing identity and travel documents and to prevent and detect their alteration or fraudulent use;

Whereas Resolution 1373 adopted by the United Nations Security Council on 28 September 2001 decided that all States shall prevent the movement of terrorists or terrorist groups by effective border controls and controls on issuance of identity papers and travel documents, and through measures for preventing counterfeiting, forgery or fraudulent use of identity papers and travel documents;

Whereas enhanced and intensified ~~high-level~~ cooperation among States is required in order to combat and prevent identification and travel document ~~strengthen resistance to passport fraud; including the forgery or counterfeiting of passports, the use of forged or counterfeit passports, the use of valid passports by impostors, the use of expired or revoked passports, and the use of fraudulently obtained passports;~~

Whereas the criminal focus worldwide has been increasingly shifting from travel document fraud to identification fraud; ~~use of stolen blank passports, by those attempting to enter a country under a false identity, is increasing worldwide; and~~

Whereas ICAO ~~provides assistance to States in all matters related to MRTDs including project planning, implementation, education, training and system evaluation services, and has set up the Public Key Directory (PKD) to verify, validate and authenticate~~ ~~strengthen the security of~~ biometrically-enhanced MRPs (ePassports), thereby strengthening their security and the integrity of border controls; and

Whereas Contracting States request from ICAO Programmes technical assistance and capacity-building support in strengthening their traveller identification and border control programmes;

The Assembly:

1. Urges States, through their travel document and border control programmes, to uniquely identify individuals to maximize security and facilitation benefits, including preventing acts of unlawful interference and other threats to civil aviation;
2. Urges Contracting States to intensify their efforts in developing and implementing ~~to~~ a robust identification management system and safeguard the security and integrity of the passport issuance process ~~the breeder documentation;~~
3. Requests the Council to direct the Secretary General to implement the ICAO TRIP Strategy to assist

Contracting States to uniquely identify individuals, and to enhance the security and integrity of their travel documents and border controls;

4. ~~Requests Urges~~ Contracting States to intensify their efforts to safeguard the security and integrity of traveller identification and border controls ~~their passports, to protect their passports against passport fraud,~~ and to assist one another in these matters;

5. *Urges* those Contracting States that have not already done so, to issue machine readable passports in accordance with the specifications of Doc 9303, Part 1;

6. *Urges* Contracting States to ensure that the expiration date of non-machine readable passports ~~falls~~ before 24 November 2015;

7. *Urges* those Contracting States requiring assistance in building effective and efficient traveller identification and border control systems ~~implementing MRTD standards and specifications~~ to contact ICAO without delay;

~~6-----Requests the Council to take appropriate measures to establish guidance on breeder documentation;~~

8. Requests the Council to ensure that specifications and guidance material contained in Doc 9303, *Machine Readable Travel Documents*, remain up to date in the light of technological advances, and to continue to explore technological solutions aimed at enhancing security and facilitation of border controls;

9. Requests the Council to continue the work on further strengthening the security and integrity of traveller identification and border controls, ~~enhancing the effectiveness of controls on passport fraud by implementing the related SARPs of Annex 9~~ and developing guidance material to assist Contracting States to further those objectives; ~~in maintaining the integrity and security of their passports and other travel documents;~~

10. *Urges* the Council to explore ways of intensifying assistance and capacity-building support to Contracting States in the traveller identification and border control areas, including a proactive leadership role for ICAO in facilitating and coordinating such assistance in the international community;

11. *Urges* those States issuing or intending to issue ePassports and/or implementing at border controls automated checks on ePassports to join the ICAO PKD; and all receiving States to verify the digital signatures associated with the ePassports; and

12. *Urges* those Contracting States that are not already doing so to provide routine and timely submissions of lost and stolen passport data to the Interpol's Automated Search Facility/Stolen and Lost Travel Document Database.

Section III. National and international action and cooperation on facilitation matters

Whereas there is a need for continuing action by Contracting States to improve the effectiveness and efficiency of clearance control formalities;

Whereas the establishment and active operation of national facilitation committees is a proven means of effecting needed improvements;

Whereas cooperation on facilitation matters amongst Contracting States and with the various national and international parties interested in facilitation matters has brought benefits to all concerned; and

Whereas such cooperation has become vital in the light of the proliferation of non-uniform passenger data exchange systems that adversely affect the viability of the air transport industry;

The Assembly:

1. Urges Contracting States to establish and utilize national facilitation committees and adopt policies of cooperation on a regional basis among neighbouring States;
2. Requests the Council to develop relevant guidance material on the establishment of national facilitation programmes and/or committees, as appropriate, as supplementary to the provisions of Annex 9;
3. Urges Contracting States to participate in regional and subregional facilitation programmes of other intergovernmental aviation organizations;
4. Urges Contracting States to take all necessary steps, through national facilitation committees or other appropriate means, for:
 - a) regularly calling the attention of all interested departments of their governments to the need for:
 - 1) making the national regulations and practices conform to the provisions and intent of Annex 9; and
 - 2) working out satisfactory solutions for day-to-day problems in the facilitation field; and
 - b) taking the initiative in any follow-up action required;
5. Urges Contracting States to encourage the study of facilitation problems by their national and other facilitation committees and to coordinate the findings of their committees on facilitation problems with those of other Contracting States with which they have air links;
6. Urges neighbouring and bordering States to consult one another about common problems that they may have in the facilitation field whenever it appears that these consultations may lead to a uniform solution of such problems;
7. Urges Contracting States, ~~to encourage their~~ aircraft operators and airport operators to continue to cooperate intensively ~~with their governments~~ as regards:
 - a) identification and solution of facilitation problems; and
 - b) developing cooperative arrangements for the prevention of illicit narcotics trafficking, illegal immigration and other threats to national interests;
8. Urges Contracting States to call upon international operators and their associations to participate to the extent possible in electronic data interchange systems in order to achieve maximum efficiency levels in the processing of passenger and cargo traffic at international terminals;
9. Urges Contracting States, in their use of electronic data interchange systems, to ensure that their passenger data requirements conform to international standards adopted by relevant United Nations agencies for this purpose; and
10. Urges States and operators, in cooperation with interested international organizations, to make all possible efforts to speed up the handling and clearance of air cargo, while ensuring the security of the international supply chain.

APPENDIX E

Taxation

Whereas international air transport plays a major role in the development and expansion of international trade and travel and the imposition of taxes on aircraft, fuel, and consumable technical supplies used for international air transport, taxes on the income of international air transport enterprises and on aircraft and other movable property associated with the operation of aircraft in international air transport, and taxes on its sale or use, may have an adverse economic and competitive impact on international air transport operations;

Whereas ICAO policies in Doc 8632, ICAO's Policies on Taxation in the Field of International Air Transport, make a conceptual distinction between a charge and a tax in that "a charge is a levy that is designed and applied specifically to recover the costs of providing facilities and services for civil aviation, and a tax is a levy that is designed to raise national or local government revenues which are generally not applied to civil aviation in their entirety or on a cost-specific basis";

Whereas it is a matter of great concern that taxes are increasingly being imposed by some Contracting States in respect of certain aspects of international air transport and that charges on air traffic, several of which can be categorized as taxes on the sale or use of international air transport, are proliferating;

Whereas the matter of aircraft engine emission-related levies is addressed in Assembly Resolution A37 18 A38-XX, Consolidated statement of continuing ICAO policies and practices related to environmental protection — General provisions, noise and local air quality (Appendix H, Aviation impact on local air quality); and

Whereas the resolution in Doc 8632 supplements Article 24 of the Convention and is designed to recognize the uniqueness of international civil aviation and the need to accord tax-exempt status to certain aspects of the operations of international air transport;

The Assembly:

1. Urges Contracting States to follow the resolution of the Council as contained in Doc 8632, ICAO's Policies on *Taxation in the Field of International Air Transport* so as to avoid imposing discriminatory taxes on international aviation; and
2. Urges Contracting States to avoid double taxation in the field of air transport; and
3. Request the Council to ensure that the guidance and advice contained in Doc 8632 are current and responsive to the requirements of Contracting States and to continue to promote their application more vigorously.

APPENDIX F**Airports and air navigation services****Section I. Charging policy**

Whereas ICAO policies in Doc 9082, ICAO's Policies on Charges for Airports and Air Navigation Services make a conceptual distinction between a charge and a tax in that "a charge is a levy that is designed and applied specifically to recover the costs of providing facilities and services for civil aviation, and a tax is a levy that is designed to raise national or local government revenues which are generally not applied to civil aviation in their entirety or on a cost-specific basis";

Whereas the matter of aircraft engine emission-related levies and market-based measures is addressed separately in Assembly Resolution ~~A37-18~~ A38-XX, Consolidated statement of continuing ICAO policies and practices related to environmental protection — General provisions, noise and local air quality (Appendix H, Aviation impact on local air quality), and in Assembly Resolution ~~A37-19~~ A38-XX, Consolidated statement of continuing ICAO policies and practices related to environmental protection — Climate change;

Whereas Article 15 of the Convention establishes the basis for the application and disclosure of charges for airports and air navigation services;

Whereas the Council has been directed to formulate recommendations for the guidance of Contracting States with regard to the principles on which providers of airports and air navigation services for international civil aviation may charge to recover the costs of their provision and derive other revenue therefrom, and with regard to the methods that may be employed to that effect; ~~and~~

Whereas the development of air transport infrastructure and the global plan for aviation system block upgrades (ASBUs) requires necessary funding and financing to support their implementation; and

Whereas the Council has adopted and revised, as necessary, and published in Doc 9082, ICAO's Policies on Charges for Airports and Air Navigation Services;

The Assembly:

1. Urges Contracting States to ensure that Article 15 of the Convention is fully respected;
2. Urges Contracting States to base the recovery of the costs of the airports and air navigation services they provide or share in providing for international civil aviation on the principles set forth in Article 15 of the Convention and additionally in Doc 9082, ICAO's *Policies on Charges for Airports and Air Navigation Services*, regardless of the organizational structure under which the airports and air navigation services are operated;
3. Urges Contracting States to ensure that airport and air navigation services charges are applied towards defraying the costs of providing facilities and services for civil aviation;
4. Urges Contracting States to make every effort pursuant to Article 15 of the Convention to publish and communicate to the Organization any charges that may be imposed or permitted to be imposed by a Contracting State for the use of air navigation facilities and airports by the aircraft of any other Contracting State;
5. Encourages Contracting States to adopt the principles of non-discrimination, cost-relatedness, transparency and consultation with users, as espoused in Doc 9082, in their national legislation, regulation or

policies, as well as in air services agreements, to ensure compliance by airports and air navigation services providers; ~~and~~

6. *Requests* the Council to develop guidance on funding of air transport infrastructure and financing of the air transport system, including mechanisms to support operational improvements as described in the ASBUs modules; and

7. Requests the Council to ensure that the guidance and advice contained in Doc 9082 are current and responsive to the requirements of Contracting States.

Section II. Economics and management

Whereas in handling growing volumes of traffic the global costs of providing airports and air navigation services continue to rise;

Whereas Contracting States are placing increased emphasis on improving efficiency and cost-effectiveness in the provision of airports and air navigation services;

Whereas a balance should be maintained between the respective financial interests of providers of airports and air navigation services on the one hand and air carriers and other users on the other and which should be based on promoting cooperation between providers and users;

Whereas Contracting States have called on the Organization to provide advice and guidance aimed at promoting equitable recovery of airport and air navigation services costs;

Whereas Contracting States are increasingly assigning the operation of airports and air navigation services to commercialized and privatized entities, which may have less awareness and knowledge of States' obligations specified in the Convention and its Annexes and of ICAO's policies and guidance material in the economic field, and are using multinational facilities and services to meet the commitments they have assumed under Article 28 of the Convention; and

Whereas the Council has adopted provisional policy guidance on the allocation of Global Navigation Satellite System (GNSS) costs to ensure an equitable treatment of all users;

The Assembly:

1. *Reminds* Contracting States that with regard to airports and air navigation services they alone remain responsible for the commitments they have assumed under Article 28 of the Convention regardless of what entity or entities operate the airports or air navigation services concerned;

2. Urges Contracting States to cooperate in the recovery of costs of multinational air navigation facilities and services and to consider the use of the provisional Council policy guidance on the allocation of GNSS costs;

3. Requests the Council to continue to develop ICAO's policy and guidance material with a view to contributing to increased efficiency and improved cost-effectiveness in the provision and operation of airports and air navigation services, including the foundation for a sound cooperation between providers and users;

4. Requests the Council to continue its refinement of its policy guidance on the allocation of GNSS costs and the coordination of technical, legal and economic aspects, including cost-efficient interoperability;

5. Requests the Council to promote ICAO's policies on user charges and related guidance material, including organizational and managerial advice, in order to increase the awareness and knowledge of these among States and commercialized and privatized airports and air navigation services entities;

6. Requests the Council to keep the economic situation of airports and air navigation services under

review and make reports thereon to Contracting States at appropriate intervals; and

7. Urges Contracting States to make every effort to provide with the least possible delay the financial data relating to their airports and air navigation services to enable Council to provide such advice and prepare such reports.

APPENDIX G

Air carrier economics

Whereas there is a continuing interest among users, including international organizations with interests in tourism, aviation and trade, in the level of international air carrier costs of operation and appropriate revenue yields;

Whereas the objective studies by ICAO on international air transport costs and revenues are widely used by Contracting States and other international organizations, have promoted neutrality and have resulted in a more equitable system of revenue sharing; and

Whereas ICAO requires air carrier revenue, cost and operational data to assist the Council in assessment of the effectiveness of measures proposed for the implementation of the Strategic Objectives of the Organization, and for environmental planning, investment studies and other purposes;

The Assembly:

1. Requests the Council to instruct the Secretary General to issue periodically a study on regional differences in the level of international air transport operating costs, analysing how differences in operations and input prices may affect their levels and the impact that changes in costs may have on air transport tariffs; and
2. Urges Contracting States to make every effort to obtain from their international air carriers with the least possible delay the cost, revenue and other data requested by ICAO.

APPENDIX H

Air mail

Whereas the Assembly has given ongoing directions with regard to ICAO's work in the field of international air mail;

The Assembly:

1. Urges Contracting States to take into account the effects on international civil aviation whenever policy is being formulated in the field of international air mail, and particularly at meetings of the Universal Postal Union (UPU); and
2. *Directs* the Secretary General to furnish to the UPU, on request and as stipulated in relevant cooperation arrangements between UPU and ICAO, information of a factual character which may be readily available.'

APPENDIX I

Consumer protection

Whereas air transport consumers should be protected and such protection would benefit from increased regulatory convergence and compatibility;

The Assembly:

Requests the Council to develop, in the short term, a set of high level, non-prescriptive core principles on consumer protection in air transport which should include non-discrimination, especially for passengers with disabilities and passengers with reduced mobility, transparency of information as well as compensation and assistance in case of denied boarding, short-notice cancellations and long delays under certain conditions.