International Civil Aviation Organization

WORKING PAPER

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ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item 32: Air Navigation — Policy

PERFORMANCE BASED NAVIGATION

(Presented by the Airports Council International)

EXECUTIVE SUMMARY

Airport operators, strongly support the safety, efficiency and capacity benefits of PBN. They also believe that it is extremely important that those proposing new procedures within terminal airspace should coordinate the planning, design and implementation of these procedures with the affected airport operator(s).

Airport operators have developed an unparalleled understanding of the noise issues in their airport environs as well as unique relationships, and in many cases credibility, with their local community on the impact of aircraft noise. This expertise has proven vital in ensuring the successful implementation of new PBN procedures.

Action: The Assembly is invited to:

a) support the AN-Conf/12 recommendation in paragraph 2.6;

b) support the ACI resolution referenced in paragraph 2.7; and

c) ask that ICAO accord this work the appropriate priority within its triennial work programme.

Strategic Objectives:	This working paper relates to the Safety and the Environmental Protection and Sustainable Development of Air Transport Strategic Objectives.
Financial implications:	This activity is expected to be covered from the 2014-2016 Regular Programme budget.
References:	AN-Conf/12-WP138 and AN-Conf/12-WP162-2 Doc 10007, *Report of the Twelfth Air Navigation Conference* (AN-Conf/12) A38-WP/39 (presented by ICAO) ACI Resolution number 2-2013: "ACI urges ICAO and States to ensure that airports are consulted by air navigation service providers and aircraft operators before implementing new performance based navigation routes, so as to avoid adverse noise impact on those communities".

1. INTRODUCTION

1.1 This agenda item covers the Global Air Navigation Plan (GANP) which *"organizes efficiency-related infrastructure and procedure modernization requirements into a series of operational improvement modules with flexible implementation timelines outlined through the Aviation System Block Upgrades (ASBUs)….air navigation improvements are based largely on the ASBU framework developed collaboratively with States and the aviation community"*.

1.2 ACI submitted a paper to the Twelfth Air Navigation Conference (AN-Conf/12) in November 2012 which recommended that States, when considering performance-based navigation routes arriving at and departing from airports, should ensure that air navigation service providers and aircraft operators involve airport operators from the outset so that they may consult fully with local communities in order to avoid adverse noise impact on those communities. This recommendation was widely supported by the Conference and adopted in its Conclusions and Recommendations.

1.3 ACI would like to pursue the implementation of this recommendation working through ICAO and with other stakeholders.

2. DISCUSSION

2.1 PBN offers the ability to fly approaches and departures as well as en-route flight paths more accurately. With PBN, approaches and departures need no longer be limited by conventional navigational aids or straight-line ILS final approaches. PBN can enable increased airport capacity by reorganizing flight tracks, and increase safety on runways where there was no precision approach capability, as well as enabling Continuous Descent Operations and Continuous Climb Operations which can provide safety and efficiency benefits. Thus ACI wants its members to know about the possibilities of PBN and to get involved - to see whether it could benefit them to adopt it.

2.2 However, new approach and departure routes, and also new ATC procedures (e.g. runway alternation) need especially sensitive handling. It is a major concern for airport operators that they may create "new noise" for people who were not previously affected, and who will protest. Moreover, because PBN approaches and departure routes are very precisely flown, the noise is more concentrated on a small area.

2.3 It is critically important for proponents of new procedures, whether they be air navigation service providers, civil aviation authorities, or aircraft operators, to coordinate the planning, design and implementation of these procedures with affected airport operators, particularly when these procedures are proposed within terminal airspace. ACI recommends that airport operators be involved from the outset of a PBN project, to bring their experience to bear and to involve the local community - without this, projects are unlikely to succeed however well-designed and even if there is a global reduction in noise. Senior representatives of the ANSP and aircraft operators (e.g. aircraft operator chief pilots) need to make themselves available to explain and listen to airport neighbours - and they should add community relations to their portfolio of skills. Airport operators are typically the first parties to be held accountable by their surrounding communities for changes in noise exposure within these communities. It is for this reason that many airports worldwide manage extensive noise monitoring and abatement programs. Through these programs, airport operators have developed unparalleled understanding of the noise issues in their airport environs as well as unique relationships—and in many cases credibility—with their noise impacted community. Without such relationships of trust and credibility with the community, the airport operator will not be able to argue for needed increases in airport capacity ("permission to grow").

2.4 PBN thus can offer advantages, but potential impacts such as community noise exposure and airport infrastructure require early attention – in consultation with the affected local community. All parties need to see a benefit or at least believe that any impact has been mitigated to the maximum extent possible.

2.5 After debate of these points raised in ACI's working paper, AN-Conf/12 noted that *"airport authorities are a key stakeholder and need to be involved early in the PBN planning process in order to address/mitigate potential impacts such as community noise exposure and airport infrastructure requirements."*

2.6 AN-Conf/12 then adopted the following Recommendation (2/5 g): t*hat States, when considering performance-based navigation routes arriving at and departing from airports, should ensure that air navigation service providers and aircraft operators involve airport operators from the outset so that they may consult fully with local communities in order to avoid adverse noise impact on those communities.*

2.7 Subsequently ACI adopted a resolution at its Annual General Assembly in June 2013, the text of which is reproduced in the Appendix to this paper. This resolved to urge ICAO and other parties to:

a) acknowledge that ACI supports the potential safety, efficiency and environmental benefits of PBN;

b) acknowledge that when new PBN routes are planned, it is important for airport operators to have early involvement with the aircraft operators, air navigation service provider, the civil aviation authority and also the local community; and

c) recommend that States, when considering PBN routes arriving at and departing from airports, ensure that air navigation service providers and aircraft operators involve airport operators from the outset so that they may consult fully with local communities in order to avoid adverse noise impact on those communities.

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APPENDIX

RESOLUTION No 2

(ACI Annual General Assembly, June 2013)

ACI URGES ICAO AND STATES TO ENSURE THAT AIRPORTS ARE CONSULTED BY AIR NAVIGATION SERVICE PROVIDERS AND AIRCRAFT OPERATORS BEFORE IMPLEMENTING NEW PERFORMANCE BASED NAVIGATION ROUTES SO AS TO AVOID ADVERSE NOISE IMPACT ON THOSE COMMUNITIES

The 23rd ACI World Annual General Assembly,

Noting that ACI supports the development of Performance Based Navigation (PBN) approach and departure routes to/from airports, and has signed the joint Declaration by Industry Partners;

Noting that PBN can enable new routes that can provide benefits for aircraft operators and air navigation service providers in terms of benefits for fuel and time savings through shorter routes, safety improvements and environmental benefits, including an overall reduction in noise;

Noting that PBN can enable airports to create more capacity in the sky by reorganizing flight tracks, and increase safety on runways where there is no precision approach capability, as well as by enabling Continuous Descent Operations and Continuous Climb Operations which can provide safety and efficiency benefits;

Recognizing that airport operators need to establish and maintain "permission to operate and grow" so that future development of the airport is not compromised;

Recognizing that, consequently, noise management is very important for airport operators, who are directly accountable to the surrounding communities;

Considering that, PBN can offer advantages, but potential impacts such as community noise exposure and airport infrastructure may require early attention – in consultation with the community;

Recognizing that all parties need to see a benefit; and

Recognizing that there can be increases in noise for some, especially when new routes are introduced because PBN approaches and departure routes are very precisely flown, and the noise is more concentrated on a small area,

Resolves to urge ICAO and other parties to:

a) acknowledge that ACI supports the potential safety, efficiency and environmental benefits of PBN;

b) acknowledge that when new PBN routes are planned, it is important for airport operators to have early involvement with the aircraft operators, air navigation service provider, the civil aviation authority and also the local community; and

c) recommend that States, when considering PBN routes arriving at and departing from airports, ensure that air navigation service providers and aircraft operators involve airport operators from the outset so that they may consult fully with local communities in order to avoid adverse noise impact on those communities.

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