ICAO

Circular 351

Community Engagement for Aviation Environmental Management

Approved by and published under the authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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Published in separate English, Arabic, Chinese, French, Russian
and Spanish editions by the
INTERNATIONAL CIVIL AVIATION ORGANIZATION
999 Robert-Bourassa Boulevard, Montréal, Quebec, Canada H3C 5H7

For ordering information and for a complete listing of sales agents
and booksellers, please go to the ICAO website at www.icao.int

Cir 351, *Community Engagement for Aviation Environmental Management*
Order Number: CIR 351
ISBN 978-92-9258-264-7

FOREWORD

This circular provides an overview of current and recent practices in the work of aviation stakeholders in engaging both with communities near airports and with the wider community.

The target audience for the circular includes States and aviation stakeholders such as airport operators, air navigation service providers, aircraft operators, environmental agencies and other government bodies, and other interested parties.

The circular is not intended to be the basis for regulatory action. It describes the case studies that were submitted and summarizes some of the lessons learned and good practices.

This circular was developed by the ICAO Committee on Aviation Environmental Protection (CAEP), and was based on responses to a survey questionnaire. Most of the case studies were submitted by airport operators, although in almost every case many other aviation stakeholders were also involved. Most of the engagement directly addressed community concerns about environmental matters, especially noise near airports.

The Executive Summary that follows provides a brief summary of the contents of this circular.

Comments from States, particularly regarding the application and usefulness of the circular, would be appreciated. These comments will be taken into account in the preparation of subsequent editions and should be addressed to:

The Secretary General
International Civil Aviation Organization
999 Robert-Bourassa Boulevard
Montréal, Québec, Canada H3C 5H7

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EXECUTIVE SUMMARY

PURPOSE

This circular provides a snapshot of lessons learned and good practices drawn from recent case studies on community engagement by aviation stakeholders. It has been developed to assist States and the aviation industry, in particular airports, airlines and Air Navigation Service Providers (ANSPs), to engage local communities and to mainly address environmental matters.

STRUCTURE OF CIRCULAR

The circular begins with an outline of the background to community engagement and how an approach, using a survey questionnaire to collect case studies, was taken to develop the circular. Chapter 2 describes the different communities and aviation stakeholders, and provides some information on the responses to the questionnaire.

Chapter 3 describes the kinds of community engagement activities that took place and the main issues of concern.

Chapters 4 and 5 discuss the lessons learned and good practices as gleaned from the case studies.

Appendix 1 contains a full list of the case studies collected and a very short description of each, including a link to a website or report, when available. Appendix 2 summarizes the main statistics on the data collected. Appendix 3 contains a brief summary of a selection of 15 case studies that provides more information on the scope of submissions.

COMMUNITY ENGAGEMENT

The most common form of community engagement consists of the aviation industry providing information to community groups and individuals on aviation operations and development plans, and communicating the current and future environmental, social and economic benefits and impacts. Community members may provide feedback and express their views by means such as mail, telephone, email, websites and meetings.

Public consultation is often required as part of the process to gain consent or approval for infrastructure development including both on airport projects and airspace changes. The communities' views may be taken into consideration in the decision-making processes.

Environmental matters usually dominate community engagement and often it is the impact of aircraft noise that is the issue of most concern. However, other environmental aspects such as air quality, greenhouse gas emissions, land use and waste management also increasingly need to be addressed.

Many airport operators and other aviation stakeholders have taken their community engagement efforts beyond communications and consultations on environmental topics. Recognizing that the three pillars of sustainability are commonly considered to be environmental, social and economic, aviation stakeholders are increasingly implementing social programmes, often as a part of their corporate social responsibility or similar initiatives.

LESSONS LEARNED AND GOOD PRACTICES

Some important lessons learned and good practices contained within the circular can be summarized as follows:

- Being proactive using a well-planned strategic approach that includes continuing engagement in the long term, not just when a planning application is in process.

- Starting early and continuing the engagement into the long-term, with engagement not just restricted to a specific project and the planning application process.

- Providing an open and transparent exchange of information as the basis for building long-term trust.

- Ensuring the process is as inclusive and collaborative as possible, informing and seeking input from as many stakeholders as appropriate and practicable, taking into consideration the scale and scope of the project.

- Using new technologies provides different ways to present information and interact with community members. Even though social media are a crucial means for reaching a wide audience, traditional print and broadcast media should also be used.

- As community engagement cannot guarantee that all parties will be pleased with the outcome, it is important to manage the expectations of all the stakeholders.

ABBREVIATIONS

ACAC	Arab Civil Aviation Commission
ACI	Airports Council International
ANSP	Air navigation service provider
ATAG	Air Transport Action Group
CAA	Civil aviation authority
CAEP	Committee on Aviation Environmental Protection
CANSO	Civil Air Navigation Services Organisation
CEM	Collaborative environmental management
CSR	Corporate social responsibility
EMAT	(Heathrow) Early Morning Arrivals Trial
EUROCONTROL	European Organisation for the Safety of Air Navigation
GHG	Greenhouse gas
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ISO	International Organization for Standardization
LAQ	Local air quality
NGO	Non-governmental organization
RNAV	Area navigation
RNP	Required navigation performance
US FAA	United States Federal Aviation Administration

Chapter 1

INTRODUCTION

1.1 PURPOSE

1.1.1 While many aviation organizations have conducted successful community engagement efforts, including providing information and consulting on development projects, publicly available information to help aviation organizations engage effectively with communities is limited.

1.1.2 This circular has therefore been developed to share lessons learned and good practices to assist States and the aviation industry, in particular airports, aircraft operators and air navigation service providers (ANSPs), in engaging communities and in addressing environmental issues.

1.2 BACKGROUND

1.2.1 The aviation sector provides significant benefits for local and global economies, including social benefits such as mobility and enhanced connectivity. Enabling aviation growth is critical to meeting future demand for air transport and to ensuring that the full economic and social potential of aviation is realized.

1.2.2 The environmental aspects relating to aviation include noise, air quality and greenhouse gas emissions, water, waste, land use, habitat and wildlife. While the aviation sector strives to reduce or limit these impacts, the growth of aviation makes these mitigation efforts ever more important.

1.2.3 Communities near airports are usually principally concerned with the issues of noise and local air quality. Certain environmental aspects such as air quality, water quality, waste management, soil contamination and wildlife management can be subject to local regulations. In some regions, greenhouse gas emissions from aviation are an increasing concern.

1.2.4 Some communities submit complaints and influence policymakers and regulators against existing aviation activities and proposals for airport and airspace improvements. This pressure has the potential to constrain development and limit the benefits of aviation. However, many in the communities also acknowledge the economic and social benefits of aviation, and within environmental limits, may support the growth of aviation. Pressure on the aviation sector to be environmentally sustainable is at an all-time high.

1.2.5 For aviation to grow sustainably, the associated environmental impacts must be mitigated and aviation stakeholders must engage with the community to address these concerns. Community engagement can be conducted proactively, preferably within an aviation stakeholder’s corporate social responsibility programme, rather than as a reaction to community complaints, criticism and other pressure.

1.2.6 Community engagement, through open and transparent dialogue, can build trust and a willingness to collaborate. This can enable airports, airlines, ANSPs, other stakeholders and the surrounding communities to identify and implement collaborative ways of improving the environmental performance of the aviation industry while striving for sustainable growth.

1.2.7 Some States require public consultation or community engagement when considering changes to an airport or airspace. Often an airport operator or other aviation stakeholder (see Chapter 2, 2.2) recognizes the importance of its relation with the public and will engage local communities on a proactive and voluntary basis.

1.3 Methodology

1.3.1 At its ninth meeting, the ICAO Committee on Aviation Environmental Protection (CAEP), recognizing the importance of community engagement, agreed to investigate the issue and develop a circular with case studies. The work was to cover “best practice case studies and lessons learned to assist States and the aviation industry, in particular airports, airlines and ANSPs, to engage local communities and address their concerns regarding aircraft operational noise and emissions, and aviation operations in general”.

1.3.2 To collect this information, a survey was conducted to gather case studies on community engagement from aviation organizations worldwide, including airport operators, ANSPs, aircraft operators and other stakeholders. The main survey period was from June 2014 to March 2015, and a total of 48 completed survey responses were received.

1.3.3 This circular summarizes these case studies, including the reasons for aviation community engagement, the most common community engagement practices and what the survey respondents viewed as the most valuable lessons learned and good practice from their experiences.

Chapter 2

COMMUNITIES AND AVIATION STAKEHOLDERS

2.1 COMMUNITIES

2.1.1 Having different characteristics, resources and interests, communities will also have different concerns about the environmental impacts associated with aviation. Community characteristics may determine how and to what extent the community becomes involved. Aviation organizations, therefore, may need to use different methods of engagement according to the concerns of the particular community.

2.1.2 For the purpose of this circular, the following categories of communities have been identified. This list is not exhaustive and may vary by location. In addition, the groupings are not mutually exclusive; some individuals may belong to some or all of the groups.

a) *Local community*. Local communities are those living or working in the immediate vicinity of the airport. In many countries, these local communities have grown as cities have expanded and urban development has begun to encroach on the airport boundary. In general, the primary environmental concern of these communities is aircraft noise and overflights, and the majority are usually located within or near traditional airport noise contours maps.

b) *Broader community*. The broader community is generally located further away from the airport and can include the members of the general public who have an interest in environmental topics associated with aviation. The primary environmental concern of these communities tends tol be growth and in some areas, GHG emissions.

c) *Action groups*. This category includes organized groups such as non-governmental organizations (NGOs) that are established to reduce specific aviation environmental issues; for instance, noise. These groups may focus on a specific organization, region, or nationally, responding to where they believe the greatest priority to be. Focus groups might address issues such as wildlife, new airspace flight tracks, or airport growth in general.

2.2 AVIATION STAKEHOLDERS

2.2.1 This section describes aviation stakeholders (excluding the communities previously described) and the types of activities for which stakeholder collaboration on environmental topics may be required. While there are many different types of stakeholders, this section covers those most prominently involved in community and environmental concerns.

2.2.2 The aviation sector includes a broad spectrum of stakeholder groups. There are those related to the industry itself, such as airport operators, airspace users, ANSPs and manufacturers. In addition, the sector interacts with a wide range of other business and government entities.

a) Aviation industry:

1) *ANSPs*. These hold responsibility for managing the airspace over a given geographical area. This includes responsibility for changing and improving air traffic management services and flight procedures when necessary. These changes can have environmental effects directly relevant to communities (e.g. change the nature of noise exposure) or more general effects (e.g. increase or decrease carbon emissions).

2) *Airport operators*. Airports serve as the connection point between passengers, cargo and air transportation. Because of their proximity to communities, they are often the focal point for community concern regarding aviation operations, local transportation-related issues and resource management (noise, water, etc.).

3) *Aircraft operators*. Aircraft operators or carriers, including airlines, transport both goods and people. As a result, they interact most closely with the flying public. However, they may also be affected by local community or broader public concerns. For example, local community noise concerns may restrict the times aircraft operators can arrive or depart at an airport or they may require less fuel-efficient routes (increasing flying time and costs). Broader public concerns could include issues regarding climate or fuel efficiency.

4) *Manufacturers*. Manufacturers design and build the airframes, engines and other technologies for aircraft. They provide support to other parts of the aviation community and can explain advanced technology concepts that help reduce environmental impacts to other stakeholders, including local community groups. This helps the public better understand the reasons behind the choice of particular pathways, the challenges involved and the trade-offs that have to be made in new designs. They also have a responsibility to address the concerns of their own local communities (e.g. waste, emissions), as well as community or public concerns in countries where their suppliers operate that may have supply chain impacts (trace metals, etc).

b) Government:

1) *Regulators*. Regulators, including civil aviation authorities (CAA), are responsible for overseeing, and, in some cases, regulating the aviation industry. They must balance the concerns of all stakeholders, including communities. They may be responsible for establishing and overseeing regulatory standards for noise, emissions, etc., as well as the growth and development of the aviation sector.

2) *Other government authorities*. A range of other government organizations could have stakes in the aviation sector (e.g. international, national, regional, local). Many States have agencies responsible for regulating environmental issues such as water, clean air, endangered species, or land use. Local governments or municipalities may also have jurisdiction over certain issues and could have a role to play in community engagement efforts.

c) *Passengers*. Primarily concerned with safety and efficient transportation, passengers have become increasingly knowledgeable about and concerned with environmental topics. For example, interest in air carriers' GHG emissions has grown in prominence with several carriers and independent organizations enabling passengers to track and offset their carbon footprint.

d) *Other*. Many other groups have a stake in aviation, ranging from airport vendors to the tourism industry. Although they might not have a direct role in community-related environmental concerns, they are often interested in further growth and development of the aviation industry and can become involved in community engagement initiatives.

2.3 SURVEY RESPONDENTS

The questionnaire for collecting case studies on community engagement was sent to airport operators, aircraft operators, ANSPs, civil aviation authorities and other aviation stakeholders. There were a total of 48 responses. Of these, 63 per cent were international airports (including groupings of airports), with ANSPs representing another 8 per cent (see Table 2.1). The category “other” includes a university, industry and regional associations such as Air Transport Action Group (ATAG) and EUROCONTROL.

Table 2-1. Organization type of survey respondents

Organization	***Number of responses***	***Percentage of total respondents***
International airport(s)	30	63
Aircraft operator(s)	3	6
Airframe manufacturer	1	2
Engine manufacturer	1	2
ANSP	4	8
Civil aviation authority	1	2
Department/Ministry of Transport/Aviation	2	4
Regional or city council	1	2
Non-governmental organization	1	2
Other	4	8

Chapter 3

TOPICS AND METHODS OF ENGAGEMENT

3.1 ENVIRONMENTAL CONCERNS REPORTED BY SURVEY RESPONDENTS

Participants were asked to identify their communities' main environmental concerns. The responses showed that communities have a wide range of environmental concerns, which can vary based on many factors. These include the local conditions, proximity of residential areas, the nature of operations (e.g. the time of day, the volume of air traffic), and local resources (e.g. water availability, endangered species). Figure 3-1 describes the community concerns that were identified through the survey and indicates that the most common environmental issues were noise, air quality, greenhouse gas emissions and climate change, and land use.

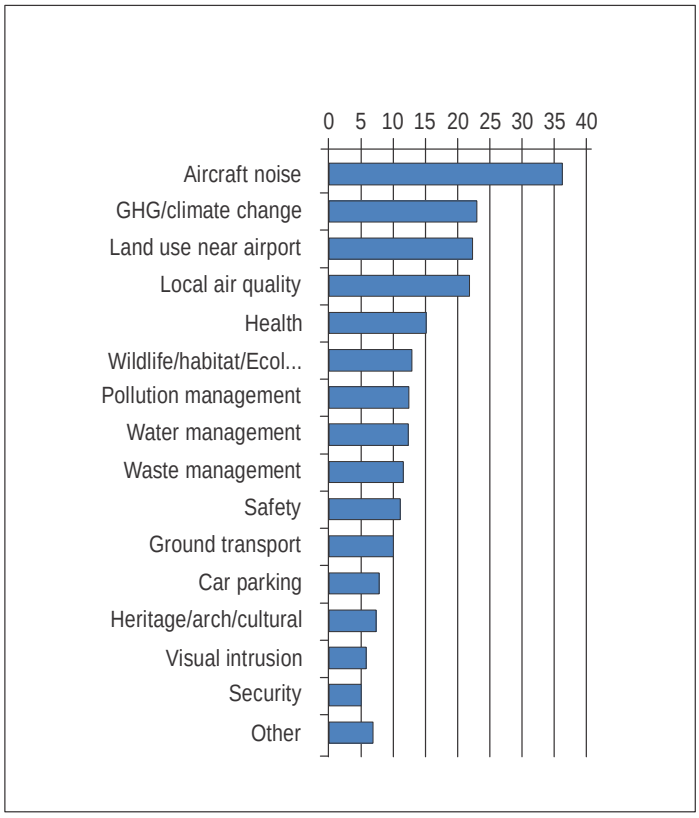

Figure 3-1. Environmental concerns

3.2 AVIATION ISSUES

Engagement can be important for many types of aviation activities or projects. One question in the survey asked about the primary aviation issues of concern. Over 70 per cent of respondents' case studies referred to current aviation

activities; projected growth and capacity expansion needs; changes to airport infrastructure; and airspace changes represented (Figure 3-2). While the survey results represent only a sample of global engagement efforts, they nevertheless illustrate the types of activities on which aviation organizations are engaging with their communities. Respondents could choose more than one category.

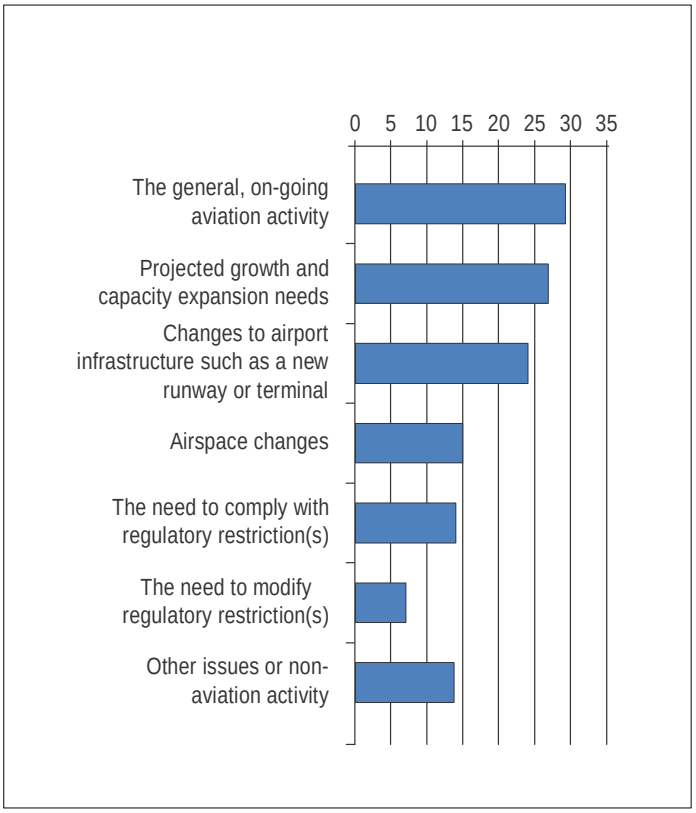

Figure 3-2. Aviation issues

3.3 ENGAGEMENT ACTIVITIES

3.3.1 The survey included a question on whether community engagement was required by law or was voluntary. Since out of the 48 responses, only 14, (29 per cent), indicated that it was a legal requirement, it would seem that many aviation stakeholders are conducting community engagement on a *voluntary* basis.

3.3.2 The term “community engagement” can encompass a wide range of activities, which mainly include exchanging information with and receiving feedback from the community. The process often involves open public meetings where the community can discuss the aviation goals, ask questions, and offer opinions or express concerns about operations or airport development. Such public meetings are an opportunity to explain airport development plans and designs, how decisions are made, and to foster understanding what trade-offs are involved in planning and operations. This type of process – providing information and consulting with communities on environmental management and development proposals – can be considered to be the traditional form of engagement.

3.3.3 The survey asked respondents to characterize the types of activities that took place based on the following methods of communication:

a) *Inform*. Information is provided by one party to another;

b) *Involve*. Information is exchanged between parties; and

c) *Collaborate*. Information is exchanged and taken into account in decision-making.

3.3.4 The specific methods of engagement can be tailored to the circumstances of the community and the proposed actions. The case studies used all of these methods to varying degrees. Some projects described processes of community engagement that employed more elaborate methods and activities. Others used a series of meetings or workshops to review specific design plans and elicit feedback. See Table 3-1.

3.3.5 The survey also uncovered examples of non-traditional engagement. Some involved working with particular groups in order to implement new environmental initiatives. Others, which were not directly related to environmental management, included community events such as open houses, cultural events, or activities such as scholarships, sponsorships, educational programmes, local sports teams, or other direct public projects.

Table 3-1. Engagement activities

Engagement activities	***Number of responses***	***Percentage of total respondents***
Document publication/public announcements	39	83
Mail-outs	18	38
Newspaper or print media advertisements	20	43
Social media	13	28
Website	32	68
Private meetings	23	49
Public meetings	36	77
Mediation	5	11
Hearings	10	21
Arbitration	2	4
Court proceedings	5	11
Open days	9	19
Public activities	15	32
Public projects	10	21
Other	14	30

Chapter 4

LESSONS LEARNED

This chapter describes some of the principal lessons learned that were identified by survey respondents It presents cases where the outcome of an engagement process might have been improved if an alternative approach had been taken. Some of these are listed in the table below and in the references to good practices outlined in Chapter 5.

Lesson learned		***Good Practices (See also Chapter 5)***
Start engaging early to avoid delays and increased community concern.	Starting engagement late resulted in processes that took longer than expected. In some cases, because of a lack of early engagement, public opinion was negative and had to be turned around.	5.2.3 Be proactive 5.5.2 Newspapers 5.5.4 Mail-outs
Proactive approaches are seen positively and can save time.	Going to the community only when something is wanted from them or required by regulation sends the wrong message. If there is no established relationship with the community, community engagement will be more difficult.	5.2.3 Be proactive 5.2.5 Build trust 5.6 Community relationship building
Good planning and preparation can decrease the time and cost of effort.	It can be difficult to handle a complex process with many intertwined and complex questions. These could require an extended time to resolve. However, good planning and careful preparation may be able to reduce the time and costs.	5.2.2 Be systematic 5.4.2 Targeted meetings and working groups
Engagement needs to be ongoing to develop and maintain a constructive relationship.	Community engagement should *not* be limited to the stage when approval is needed for a project. Communications and the development of community relations should be ongoing.	5.2.2 Be systematic 5.3.3 Technology to communicate 5.5.3 Newsletters 5.6 Community relationship building
Be inclusive. Collaborate broadly with stakeholders including community and political leaders.	Seek to involve individuals with credibility in the community as project champions. For example, broader participation and inclusion of community and political leaders can help in developing engagement approaches and establishing community trust. This will also avoid fallout that could occur if these individuals were not engaged.	5.2.4 Collaborate

If a process is transparent, communities are more likely to be trusting and more willing to accept the outcomes.	Information and processes must be transparent and understandable to foster trust and community acceptance.	5.2.5 Build trust 5.4.1 Public meetings 5.5.4 Mail-outs
The community needs to clearly understand the needs, benefits and potential impacts of any proposal.	Information provided needs to be accurate, comprehensive and clear to avoid confusion and suspicions about the need for a project or development. It should be understandable to a layperson and have enough back-up detail to satisfy someone with in-depth technical understanding.	5.3.2 Modeling and simulation visualization technology 5.4.1 Public meetings 5.5.4 Mail-outs 5.4.2 Targeted meetings and working groups 5.5.2 Newspapers
Technology, audiovisual aids, computer graphics and social media can assist communication with a broad constituency.	Modeling, simulation, and visualization techniques can be valuable to clearly and efficiently communicate project proposals. They can provide a visual illustration of the situation (i.e. show comparisons of before and after the project), as well as potential environmental impacts and mitigations. Such techniques can help describe complex topics and help avoid misunderstandings.	
Managing community expectations is an important component.	Community engagement may not be able to achieve total agreement of all parties, but can attempt to satisfy as many as possible. While the community is not the decision maker, a desirable outcome would be that the community is recognized as an important stakeholder and its views and needs were taken into consideration and addressed to whatever extent feasible.	

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Chapter 5

GOOD PRACTICES

5.1 OVERVIEW

5.1.1 This chapter describes good practices for community engagement that were identified from the survey and from the lessons learned identified in Chapter 4. The case studies show how actively aviation stakeholders, in particular airport operators, pursue community engagement and the various ways they approach the subject. Community engagement is a subjective process. Each case is unique with its own variables, stakeholders and influences. As such, engagement should be tailored to each individual circumstance.

5.1.2 The case studies nonetheless reflect some common elements that aviation stakeholders should consider for any community engagement programme. These elements were consolidated into themes: strategic approaches, technology approaches, meetings, print and other media, and community relationship building. Some good practices that were described in the case studies for each of these themes are described below.

5.2 STRATEGIC APPROACHES

5.2.1 Many respondents are using strategic approaches to address community concerns. These approaches use a good understanding of the key environmental issues, the communities, related stakeholders and long-term plans to systematically engage the community. They are clear and straightforward, and use a variety of different outreach or engagement mechanisms.

5.2.2 Be systematic:

a) *Develop a comprehensive and systematic approach.* A systematic approach to community engagement can encompass a range of activities targeting primary community concerns. It encompasses many of the good practices discussed below and links them based on the types of communities, the range of issues and the long-term plans. It assesses the critical issues at hand and establishes measurable approaches to address them, in collaboration with the stakeholders and the communities.

b) *Develop a strategy.* It is essential to have a clear plan with strategies for engagement. The plan should identify the right stakeholders before a project begins and engage them early and in an appropriate sequence (e.g. local government, then community leaders…). Such a plan can also define the engagement mechanisms to be used (e.g. website, community meetings, working groups).

c) *Clarify and distinguish between formal engagement (i.e. required by law) and informal engagement (voluntary).* In some instances, stakeholders such as ANSPs, government agencies, airports and others may be required by local, state/province or federal law to conduct some form of community engagement or consultation in a specific way. While some forms of community engagement may be required, they can be quite minimal (e.g. a simple public notification of an action). Additional voluntary engagement can be beneficial. The plan for engagement should distinguish between what is legally required and what is being done beyond the minimal statutory requirements.

d) *Use data to flag areas of concern before issues arise.* Data such as noise complaints and air quality monitoring can indicate potential concerns well before they are raised by the local community. Monitoring environmental concerns that are known to be important to communities can help the aviation organization to develop a proactive strategy rather than reacting to community action.

e) *Measure the effectiveness of engagement.* It is important to measure the effectiveness of community engagement efforts. This can be done subjectively through community feedback or by assessing whether the aviation project moved forward as planned, on schedule and on budget. Engagement efforts can also be evaluated quantitatively by looking at the number of complaints or days of project delay.

f) *Use established methodologies.* Organizations can use an established methodology based on State or regionally specific requirements or guidance or an international standard such as ISO 14001 to plan and conduct community engagement. A company's corporate social responsibility policies and procedures, as well as the airport's master planning process, may include community engagement.

5.2.3 Be proactive:

a) *Maintain general ongoing engagement.* Community outreach can be initiated without being triggered by a specific development project. Establish and maintain constructive relationships with communities and build trust and credibility.

b) *Initiate engagement early in a process.* When a specific project is being planned, early engagement is critical. Identifying stakeholders and conducting outreach long before the design process takes place enables the team to adjust the design guidelines based on public input.

c) *Make public officials aware.* It is prudent to notify public officials before initiating an activity that could raise community concerns (e.g. briefing local councils or representatives in areas that will be affected, including seeking their input into the consultation process). This ensures that they are prepared for community feedback and can respond appropriately.

5.2.4 Collaborate:

a) *Form government partnerships.* It is important to collaborate with local government. This can help develop more effective project approaches and partnerships for engagement efforts and strategies.

b) *Collaborate with communities.* A collaborative approach is critical to successful engagement. Processes, such as working groups, can incorporate community concerns throughout the project design.

5.2.5 Build trust:

a) *Maintain continuous dialogue.* Rather than holding a single community meeting or providing one touchstone opportunity for the public, it can be more effective to hold an ongoing dialogue in which members of the community are routinely sought out for their advice and topics are discussed with them throughout the project design process.

b) *Show communities that their concerns are being addressed.* It is important to demonstrate to communities that their concerns and recommendations are being considered in the project design process. A transparent process is needed to review and adjudicate community recommendations and then communicate back to them where recommendations have been incorporated into the project design.

5.3 TECHNOLOGY APPROACHES

5.3.1 New technologies are highly practical tools for local community engagement. They can be used to educate communities by clearly describing the planned actions, benefits and environmental effects. Technology also provides a variety of mechanisms to effectively engage and communicate with communities. It is important to ensure that the mechanism of communication chosen is right for the targeted community.

5.3.2 Modeling and simulation visualization technology

Use technology to educate. Technology can be extremely valuable for educating communities. For example, ANSPs can use modeling and visualization techniques to effectively describe airspace or procedure changes to communities of interest and illustrate benefits and potential environmental impacts. These tools are valuable for quickly and accurately describing the activity planned by the ANSP and the need for proposed changes, thereby reducing any community confusion.

5.3.3 Technology to communicate:

a) *Efficient internet-based communications.* Internet-based communications such as websites, emails, electronic surveys and online forums enable more efficient and effective outreach with communities. The technology can reach both a broad audience and targeted interest groups. Websites can provide a broad range of information, such as flight and noise tracking, annual reports and information on projects and initiatives.

b) *Maintain a two-way dialogue.* This same technology is also a means to maintain a two-way dialogue with community members. Approaches include developing online forums for open discussion, and email, social media accounts, or websites with feedback sections. These tools also enable information to be more easily captured and analysed.

c) *Social media.* Social media can be useful for broadcasting messages, images and videos, communicating with groups or individuals, and following trends and fast-developing issues.

d) *Enable tracking and analysis.* Technology is also useful for tracking community concerns. For example, tracking noise complaints can enable the identification of individuals and geographic locations with the greatest concerns.

5.4 FACE-TO-FACE MEETINGS

Face-to-face meetings are a major part of community engagement efforts. This type of engagement is a fundamental way to involve the community, provide them with an opportunity to communicate their concerns and work towards common solutions. Respondents used both public and private meetings to engage directly with communities and target groups, and maintain ongoing dialogues.

5.4.1 Public meetings:

a) *Provide a forum for community input.* Public meetings enable the aviation organization to describe the planned activity and allow communities to raise their concerns. These concerns can then be addressed during the meeting or through follow-up engagement efforts. Public meetings, however, are not often used to solve specific issues, as the diversity of participants' concerns makes it difficult to arrive at a consensus.

b) *Identify Individuals for future communications.* Public meetings can be used to solicit requests for participation in future stakeholder-engagement efforts (e.g. community members who may want to receive newsletters or updates).

5.4.2 Targeted meetings and working groups:

a) *Small working groups.* Small working groups can be useful for identifying and addressing specific issues ranging from environmental concerns to defining hours of operations. Such groups can develop effective solutions that are acceptable to key community members.

b) *Standing committees.* Since many critical issues require ongoing dialogue, standing committees can be used to address both specific concerns and ongoing issues.

5.5 PRINT AND OTHER MEDIA

5.5.1 Print media remain a very important and effective method to communicate with communities. Most commonly used for a one-way push of outgoing information, they can also be used in a two-way communication format through questionnaires or letters with community response options.

5.5.2 Newspapers:

a) *Broad communications.* Newspapers are an effective method to communicate widely and notify the public of proposed changes at airports or to highlight positive changes, such as greening programmes.

b) *Targeted communications.* Local or regional newspapers or magazines with high readership by a specific group or local community can be used to target communications at specific groups.

5.5.3 Newsletters:

Newsletters. Many organizations use newsletters to maintain an ongoing dialogue with communities. These newsletters provide updates on ongoing projects and highlight important updates. However, newsletters typically only provide one-way communication from the aviation organization to the community and are less effective for two-way communications.

5.5.4 Mail-outs:

a) *Notify communities:* Mail-outs can be an effective way to inform communities of important issues, to provide status updates or to make the public aware of published reports, meetings with local government, or other information. ANSPs, for example, have used mail-outs to notify communities of upcoming airspace trials and public meetings.

b) *Targeted engagement:* Mail-outs can be effective in targeting specific individuals within a community group and in reaching out to residents, stakeholders and elected officials in communities surrounding the airport who were most likely to be affected by aviation. They can also be an effective way to communicate with individuals who had registered noise complaints or had requested updates on certain issues.

c) *Obtain public approval:* Mail-outs can be effective for obtaining public approval or input on advancing certain projects.

5.5.5 Other media:

Television or radio: In areas with low levels of literacy or with limited access to the internet, other media such as television or radio might be a good means for informing the community.

5.6 COMMUNITY RELATIONSHIP BUILDING

Not all community engagement is directly related to providing information and consultation on environmental matters or infrastructure expansion. Aviation organizations also use non-traditional engagement approaches to build relationships with the community. Many of these aim to improve the relationship between the aviation industry and communities. Such approaches help establish the aviation organization, such as an airport, as part of the community rather than separate from it.

a) *Educational programmes.* Certain initiatives can target schools and education. Programmes may provide education or open days on aviation or environmental management for primary schools in surrounding communities. Some airports are developing business instruction courses for small and medium-sized enterprises, with the added benefit that such enterprises can provide goods and services to the airport.

b) *Technology programmes.* Programmes can use technology to mitigate environmental impacts, such as the sound insulation and ventilation of homes and schools, or funding the installation of voice enhancement sound systems for teachers in schools.

c) *Others.* Various other approaches and projects can be implemented – such as sponsoring community events, supporting school educational trips, funding sports teams and cultural groups, and supporting local parks or playgrounds.

Appendix 1

LIST OF CASE STUDIES

Table A-1 lists the 48 case survey responses received. The table is organized by State or region and includes information on: the applicable airport or organization, the engagement topic and the URL or applicable reference. The last column indicates whether a summary of the case study is contained in Appendix 3 to the circular.

Table A-1. Survey responses

State/ region	***Airport/ organization***	***Topic or description of engagement***	***URL/reference***	***App 3***
Australia	ADL, CBR, CNS, MEL	The ANSP needed to inform residents about the permanent implementation of Required Navigation Performance (RNP) flight paths at four airports.	www.airservicesaustralia.com/projects/smart-tracking/	X
Australia	PER	The ANSP trialled modified flight paths that avoided residential areas. Residents were informed of the changes and could provide feedback.	www.airservicesaustralia.com/projects/trial-ofnew-flight-path-roleystone-wa/	
Austria	VIE	The airport established a mediation process with local representatives to assess current operations and a new third runway. The Dialogue Forum continues.	www.dialogforum.at; www.viemediation.at	X
Belgium/ Europe	EURO-CONTROL	The intergovernmental organization published a specification on Collaborative Environmental Management (CEM) and held multi-stakeholder workshops to facilitate awareness and share information and best practices including lessons learned.	http://www.eurocontrol.int/collaborativeenvironmental-management-cem	
Brazil	GIG	The airport operator had the support of residents and community groups successfully opposing the construction of a fishing port owing to safety concerns.	www.cenipa.aer.mil.br	
Brazil	FOR	Complaints and legal action against noise from night freighter aircraft operations at Fortaleza resulted in new noise abatement procedures.	www.anac.gov.br/; www.aisweb.aer.mil.br/	

Cabo Verde	RIA	Communities in São Tomé and Achada Grande consulted on a range of environmental impacts from the proposed construction of a new terminal.	Summary of Environmental and Social Management Plan April 2013 Praia Airport Expansion and Modernization Project (PEMAP) Project Appraisal Report May 2013	
Canada	YVR	The airport conducts ongoing engagement about airport operations and expansion regarding noise, GHG, water and land-use issues.	www.yvr.ca	
Canada	YYZ	The airport reviewed its night-time flight needs and worked with Transport Canada and local communities to increase the cap on night flights.	www.torontopearson.com/en/cenacpastagendasandminutes/#	X
Canada/ global	ACI	As the airport industry association, ACI has communications programmes on its services, initiatives and events both for its members and for the general public.	www.aci.aero	
Czech Republic	PRG	Various airport programmes, including quietest airline awards, community grants, beekeeping bio-monitoring and promoting and communicating these initiatives.	www.prg.aero/en/pragueairport/relations-withsurroundings/	
Denmark	CPH	The airport implemented a local air quality programme with working groups, including unions and communities, to monitor and assess pollution and ultra-fine particles (UFP).	www.cph.dk/en/about-cph/csr/Environment-and-energy/air-quality/	X
Denmark	CPH	The new noise monitoring system uses WebTrak, a web-based tool for showing noise and flight tracks to the public.	webtrak.bksv.com/cph	X
Ecuador	UIO	Quito airport provides training courses on running small businesses to local residents some of whom now provide goods and services to the airport.	www.quiport.com	X
Egypt	Egypt Air	The airline published information on its aircraft emissions reduction initiatives.		
Egypt	Ministry of Civil Aviation	The Ministry coordinates on environmental matters with international groups such as ACAC, ICAO and ACI.		
Egypt	Egypt Air	The airline published documents on its environmental management programmes including noise, LAQ, GHG and safety.		
France	MRS	The Ministry of Transport established a standing committee to propose solutions to reduce noise impacts of Marseille airport.		X

Germany	BER	Dialogue Forum for issues regarding the new Berlin airport – noise, access, parking, health and development in the area.	www.dialogforumber.de/DE/index.html	
Germany	FRA	A mediation process led to the establishment of a regional dialogue forum. Conditions including operating restrictions were agreed for airport expansion for a fourth runway and third terminal.	www.fraport.de/de/konzern/flughafen-und-region/ausbau-fra.html	
Hong Kong, China	HKG	The airport consulted with its tenants and other agencies to develop a food-waste recycling programme.	www.hongkongairport.com/eng/csr/environmentalmanagement/environmentstories/turning_waste_into_treasure.html	X
Hong Kong, China	HKG	Public consultation was conducted on the proposed third runway system. Community groups were particularly concerned about noise, air quality and wildlife.	www.threerunwaysystem.com/ www.threerunwaysystem.com/en/Engagement/Activities.aspxen/Engagement/Activities.aspx	
Italy	BLQ	Bologna airport consulted residents on its access action plan to reduce ground transport emissions.		
Italy	BLQ	Bologna airport held a consultation to develop a territorial agreement for decarbonization of the region.		
Latvia	RIX	Riga Airport's Noise Reduction Action Plan included public consultation on noise and other environmental issues.	www.riga-airport.com/lv/main/par-lidostu/videstroksnis/troksnu-samazinasanas-ricibas-plans	
Mexico	PVR	Puerto Vallarta Airport provided financial support to form a local youth orchestra – Baby Mariachi – who also entertain passengers on weekends.		X
New Zealand	AKL	As part of a new runway agreement, Auckland International Airport established a community fund and a trust to manage projects for local schools and organizations.	www.aucklandairportcommunitytrust.org.nz/ www.aucklandairport.co.Responsibility.	
South Africa	CPT	Airports Company South Africa consulted and informed Cape Town communities on the runway realignment and the expected environmental impacts.		X
Spain	BCN	A dialogue was established with local government with elected representatives on the impacts of the new terminal and runway.		
Spain	MAD	The airport implemented a noise insulation scheme at Las Castellanas de San Fernando de Henares and additionally agreed to voluntarily treat certain houses outside the airport noise contours.	www.guardian.co.uk/world/2007/sep/11/spain.paulhamilos ; www.20minutos.es/noticia/ ; www.aena.es	

Sweden	ARN	As the only airport with a CO_2 cap, Stockholm Arlanda worked with local companies to introduce an “eco-taxi” programme.	www.swedavia.com/arlanda/	
Switzer-land	ZRH	Round table mediation was a five-year process that tried to cover many issues including noise, safety and land use.		
Switzer-land/ Global	ATAG	ATAG is a grouping of aviation industry stakeholders and the publication of Aviation Benefits Beyond Borders documented the social and economic benefits of aviation.	www.aviationbenefits.org	X
Taiwan Province of China	TSA	"103 Year" Airport advance planning process required information sharing with local communities whose concerns include pollution management, GHG emissions and land use near the airport.		
United Arab Emirates	Etihad Airways	The airline used print media and its website to promote Green Flight initiative on flights to Brazil during its Green and Environment week.	www.etihad.com/en/about-us/our-commitment-to-sustainability/together/	X
United Kingdom	BRS	After extensive local consultation, Bristol Airport introduced a concessionary fares scheme for local residents using public transport.		X
United Kingdom	Rolls Royce	The engine manufacturer provided technical information and forecasts on engine noise for the Sustainable Aviation Noise Roadmap.	www.sustainableaviation.co.uk	X
United Kingdom	Virgin Atlantic	The UK aviation industry stakeholder group published its Sustainable Aviation Noise Roadmap, providing forecasts on aviation growth and noise management.	www.sustainableaviation.co.uk	
United Kingdom	LHR/NATS	Key stakeholders for a Noise Dialogue Group identified areas of common ground and opportunities to improve management and communication on aircraft noise issues. Heathrow Early Morning Arrivals Trial (EMAT) was an initiative agreed by the group.	www.heathrowairport.com/static/Heathrow_Noise/Downloads/PDF/EMAT_trial_report_summary ; nats.aero/blog/2013/08/heathrow-trial-provided-100000-with-noise-respite	
United Kingdom	LTN	Luton Airport consulted local stakeholders on the Airspace Change Proposal: RNAV1 Procedures on the Runway 26 Brookmans Park Departure Routes.	www.london-luton.co.uk/rnav1consultation	
United Kingdom	LHR	Requested by a stakeholder group, the Heathrow Air Quality Working Group and Airwatch website publishes monitoring information with local communities.	www.heathrowairwatch.org.uk/	X

United States	MSP	RNAV Procedure Development and Implementation: An existing airport noise oversight committee was used as a forum to provide community input to the RNAV development process, which resulted in partial implementation by the ANSP in recognition of community concerns over aviation noise.	www.macnoise.com	
United States	Boeing, SEA	"Greener Skies Over Seattle" RNP implementation initiative involved a multi-stakeholder group to demonstrate and balance flight time and fuel savings with noise reductions. Resulting implementation was a compromise that achieved both emission and noise reductions in recognition of community concerns.		
United States	LAX	Northside Plan Update on the development on land acquired in the 1980s with consultation and the collection of the views of the public.	www.lawa.org/GDZ/Index.aspx	
United States	SEA	Port of Seattle consulted with local communities on the Noise and Land Use Compatibility Study update (Part 150 Study).	www.airportsites.net/SEAPart150/meetings.htm ; www.airportsites.documents/Final	
United States	OAK	The airport conducts an ongoing community outreach programme on issues ranging from consultation and sound insulation of homes to public meetings on community concerns.		X
United States	BOS	The focus of the Boston Logan Airport Noise Study (BLANS) was to determine viable means to reduce aircraft noise at the airport without diminishing safety and efficiency, working with the Community Advisory Committee.	www.bostonoverflight.com	
United States	PDX	Employing students from the Portland State University to run the waste management and recycling programme.		

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Appendix 2

SUMMARY OF DATA FROM THE CASE STUDIES

This appendix provides a summary of the data contained in the 48 case studies to show trends across the industry.

1. SURVEY QUESTIONNAIRE

In order to collect case studies on aviation and community engagement, the ICAO Committee on Aviation Environmental Protection (CAEP) developed a survey questionnaire and responses were collected both on-line and in Word format. The main survey period was from June 2014 to August 2015. A list of the respondents with a short description of each case study and website (if applicable) is contained in Appendix 1.

2. RESPONDING ORGANIZATIONS

The first part of the questionnaire asked for information about the respondent: in particular, “What is the nature of your organization?”. Table A2-1 and Figure A2-1 show the results. The largest number responses came from international airports (including airport groups). The group “Other” included an aviation industry group (ATAG), a British environmental regulator, EUROCONTROL and a university.

Table A2-1. Organization type of survey respondents

Organization	***Count***	***Percentage***
International airport(s)	30	63
Aircraft operator(s)	3	6
Airframe manufacturer	1	2
Engine manufacturer	1	2
ANSP	4	8
Civil aviation authority	1	2
Department/Ministry of Transport or Aviation	2	4
Regional or city council	1	2
Non-governmental organization	1	2
Other	4	8

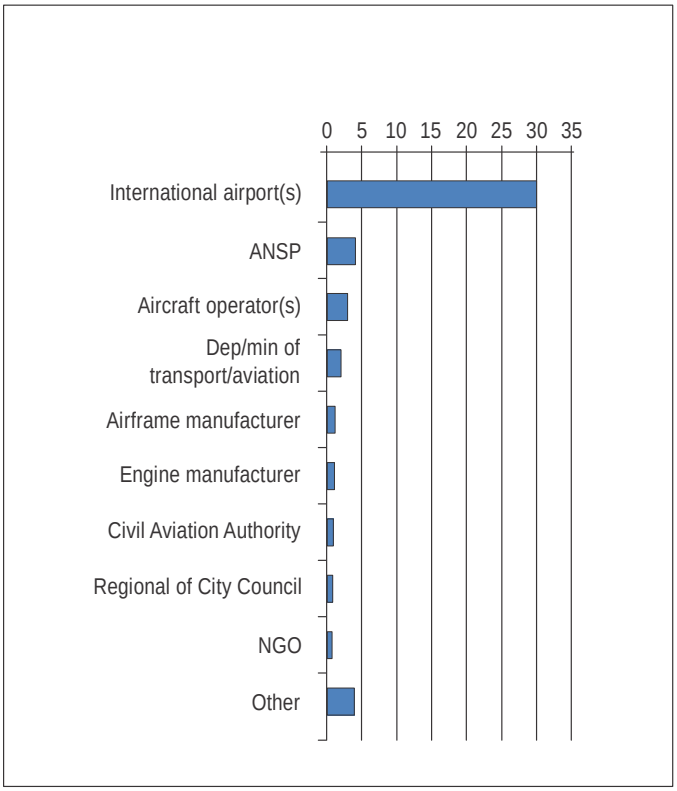

Figure A2-1. Nature of respondent's organization

3. CHART ON ICAO REGIONS

The questionnaire asked the location of the respondents, who are categorized according to the seven ICAO regions, below in Table A2-2 and Figure A2-2. The submissions did include case studies from all regions. The largest number of responses was received from the European and North Atlantic (EUR/NAT) region, followed by the North American, Central American and Caribbean (NACC) region, and the Asia and Pacific (APAC) region. As some regional and international organizations checked more than one region, the total of 61 is higher than the number of case studies, 48.

Table A2-2. Responses according to ICAO regions

ICAO region	*Count*	*Percentage*
Asia and Pacific (APAC)	8	17
Eastern and Southern Africa (ESAF)	3	6
European and North Atlantic (EUR/NAT)	23	48
Middle East (MID)	6	13
North American, Central American and Caribbean (NACC)	12	25
South American (SAM)	6	13
Western and Central Africa (WACAF)	3	6

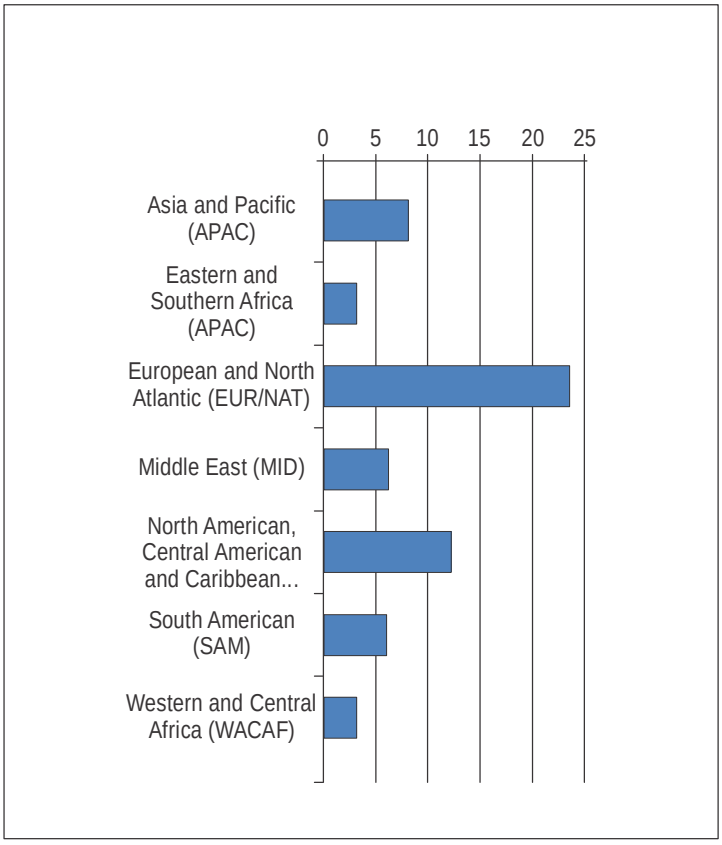

Figure A2-2. Responses according to ICAO regions

4. MOSTLY VOLUNTARY EFFORTS

The questionnaire asked for details of the community engagement process. Of the 48 responses, 14 case studies (29 per cent) indicated that community engagement was required by law or regulation. Other case studies indicate that community engagement was undertaken as a voluntary and proactive approach, or in response to community concerns. Of the 14 cases where community engagement was legally required, 8 (57 per cent) indicated that the engagement exceeded the regulated requirements.

The biggest driver of community engagement was general ongoing aviation activity at an airport (Table A2-3). This was followed closely by airport growth and capacity needs, and changes to airport infrastructure. While Table A2-3 shows the motivating issues for community engagement, the longest responses were received on the question related to the background situation and whether there was a longer history of engagement prior to the current initiative. That question prompted the most detailed answers, or where there were underlying issues that had to be described. (As respondents could select multiple answers, the sum could be greater than 100 per cent).

Table A2-3. Issues (ongoing, new infrastructure, etc.)

Issues	*Count*	*Percentage*
The general, ongoing aviation activity	29	60
Projected growth and capacity expansion needs	27	56
Changes to airport infrastructure, such as a new runway or terminal	24	50
Airspace changes	15	31
Need to comply with regulatory restriction(s)	14	29
Need to modify regulatory restriction(s)	7	15
Other issues or non-aviation activity	14	29

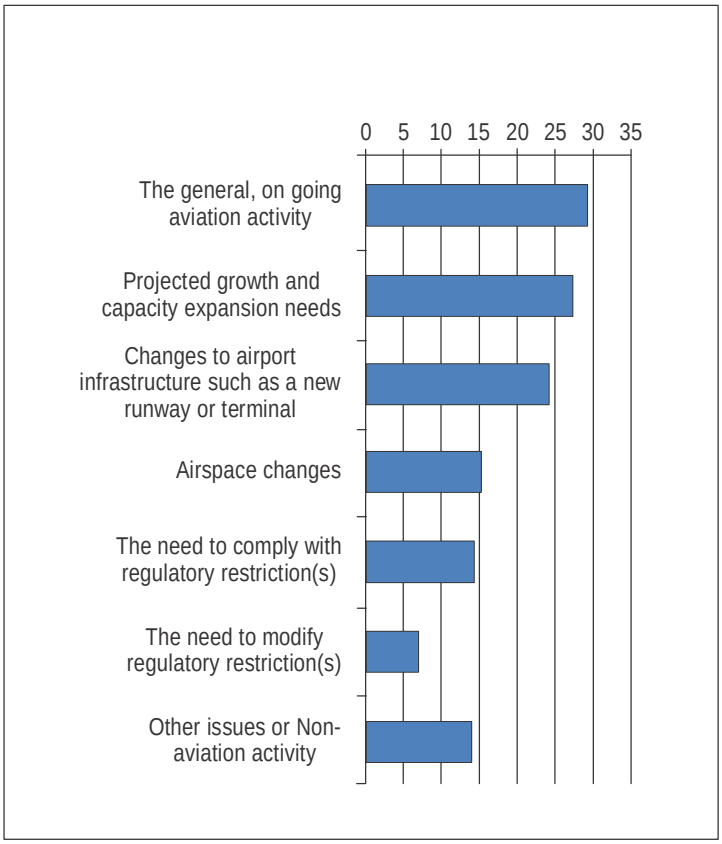

Figure A2-3. Issues (ongoing, new infrastructure, etc.)

5. ENVIRONMENTAL ASPECTS

5.1 The survey asked about environmental topics covered by community engagement. For three quarters of all respondents, aircraft noise was one of the main environmental issues, as shown in Table A2-4. Emissions that affect local air quality, and greenhouse gas emissions, were also important in just under 50 per cent of cases. The land use around airports has links to noise exposure, height restrictions, and other issues, and 39 per cent of responses indicated that land use was an aspect of community engagement. (As respondents could select multiple answers, the sum could be greater than 100 per cent).

Table A2-4. Main environmental issues

Environmental (or aviation) issue	***Count***	***Percentage***
Aircraft noise	36	75
Local air quality	22	46
GHG/climate change	23	48
Ground transport	10	21
Car parking	8	17
Water management	12	25
Waste management	11	23
Pollution management	13	27
Health	15	31
Safety	11	23
Security	5	10
Visual intrusion	6	13
Wildlife/habitat/ecology	13	27
Land use near airport	22	46
Heritage/architectural/cultural	7	15
Other	8	17

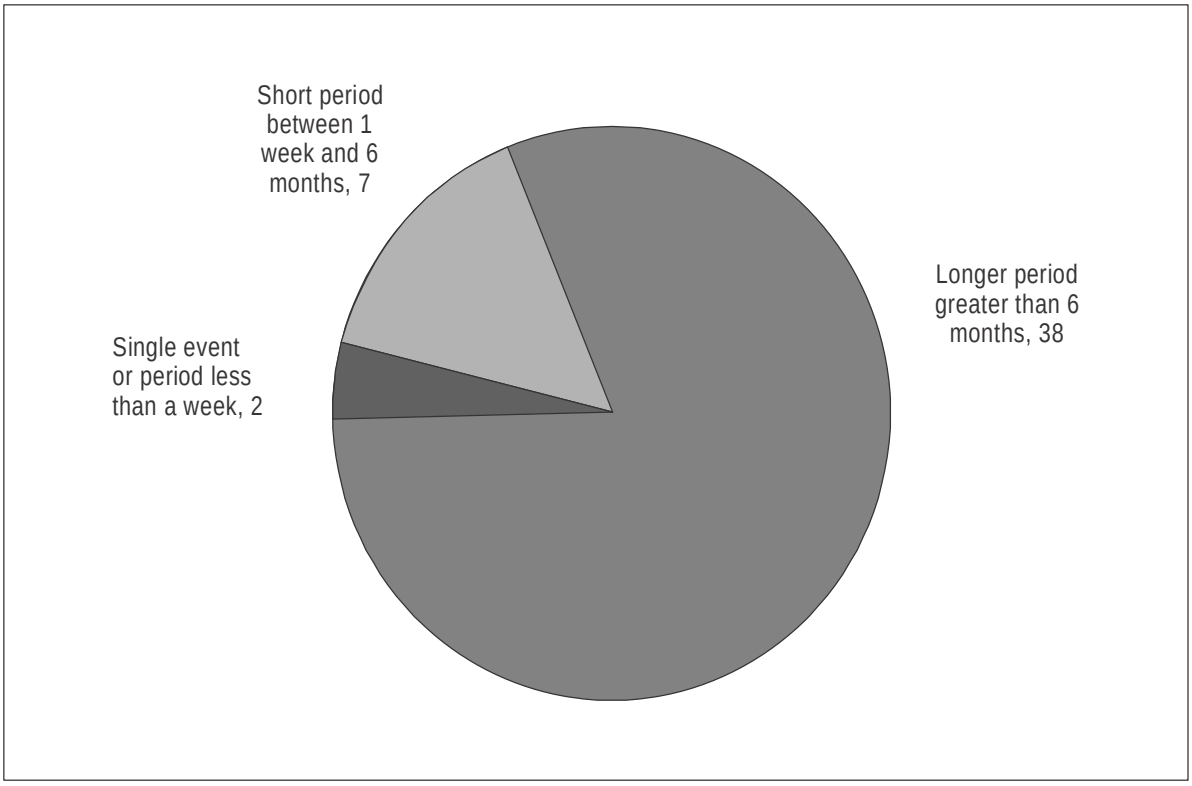

Figure A2-4. Period of engagement

5.2 The survey also had a choice of “other”. Of the responses that marked “other”, the aspects of concern included the larger theoretical question of “the role aviation plays around the world and in local communities;” as well as more locally specific issues such as “airport road access,” community concerns about overflights from arrivals and departures, and “a variety of other environmental issues that were ultimately evaluated in the Draft Environmental Impact Report, including Geology/Soil, Hazards/Hazardous Materials, Population/ Housing/Employment, Public Services, Recreation, Cumulative Impacts, and Growth Inducing Impacts”.

6. PERIOD OF ENGAGEMENT

The questionnaire asked about the schedule and duration of the community engagement. The majority of case studies (81 per cent) lasted at least 6 months, as shown in Figure A2-4 above. Only 14 case studies (29 per cent) indicated an end date for the engagement and that a majority of projects were ongoing at the time of the survey.

7. ENGAGEMENT ACTIONS AND ACTIVITIES

7.1 The survey asked about what exact community engagement activities had been undertaken.

7.2 For three quarters of the respondents, aircraft noise was one of the main environmental issues, as shown in Table A2-5 and Figure A2-5. Emissions that affect local air quality, and greenhouse gas (GHG) emissions, were also important, in just under 50 per cent of cases. Aircraft noise has a direct and immediate impact on local communities, whereas greenhouse gas emissions have a long-term impact that communities may not immediately perceive. How the land around airports is used has links to noise exposure and height restrictions, among other issues, and 39 per cent of responses indicated that land use was an aspect of community engagement. (As respondents could select multiple answers, the sum can be greater than 100 per cent).

Table A2-5. Community engagement

Engagement activities	***Count***	***Percentage***
Document publication/public announcements	39	83
Mail-outs	18	38
Newspaper or print media ads	20	43
Social media	13	28
Website	32	68
Private meetings	23	49
Public meetings	36	77
Mediation	5	11
Hearings	10	21
Arbitration	2	4
Court proceedings	5	11
Open days	9	19
Public activities	15	32
Public projects	10	21
Other	14	30

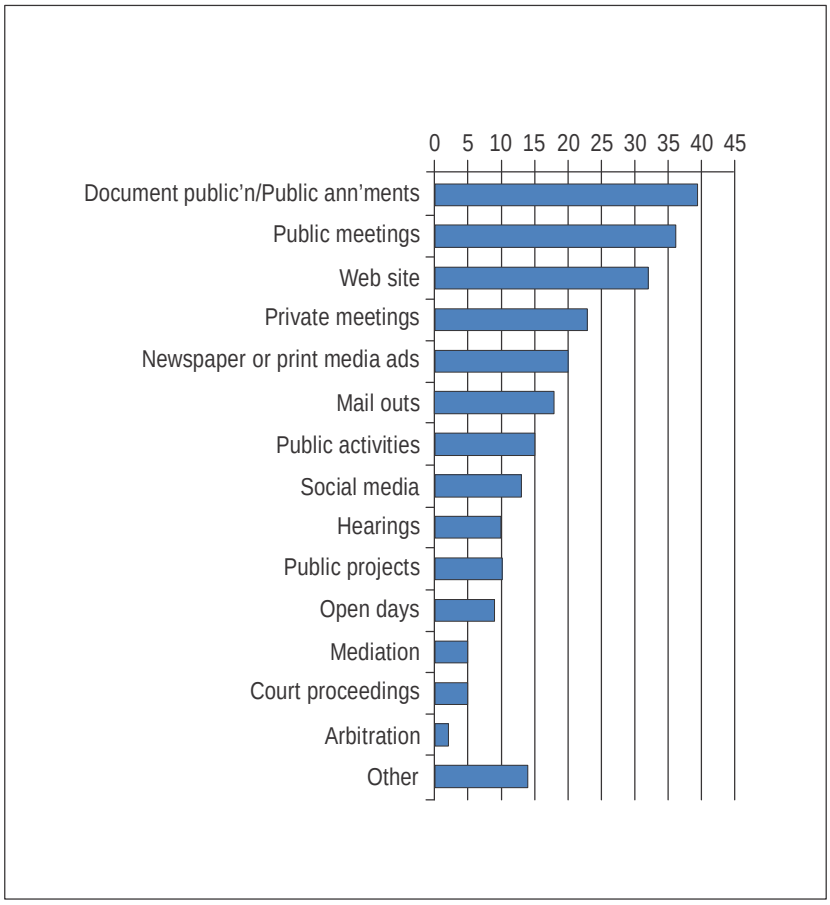

Figure A2-5. Community engagement

Appendix 3

SUMMARIES OF 15 SELECTED CASE STUDIES

Country or region	***Aviation stakeholders***	***Target communities***
Australia	*ANSP, airports, airlines, state regulators*	*General communities near airports, community associations, local governments/councils*
Title	Permanent implementation of Required Navigation Performance (RNP) at four Australian airports (Melbourne, Adelaide, Canberra and Cairns).	
Period	November 2012–June 2013	
Background and aviation issue	The purpose of the community engagement described in this case study was to inform affected residents about the new RNP flight paths. ICAO recommended that States should implement RNP (known in Australia as "Smart Tracking") at major airports by 2016. Airservices Australia (AsA), Australia's ANSP, intended making RNP permanently available to all airlines in 2013 at Melbourne, Adelaide, Canberra and Cairns airports. To implement RNP, existing flight paths had to be changed, which necessitated community engagement.	
Community concerns and environmental aspect	The changes to flight paths caused by the implementation of RNP were small. While many areas experienced improvements in aircraft noise levels (resulting from increased navigational accuracy), a number of residents living under the centre of the flight paths complained about increased noise as a result of concentration of flights.	
Activities/actions	AsA provided briefings to all Members of Parliament representing constituencies that would be overflown by the RNP flight paths. AsA also established a website about RNP to include generic technical information about RNP, as well as dedicated pages for each airport with background on why RNP was being implemented at the airport, flight path maps, noise assessments, and a dedicated phone service was provided. Information was also made available on the websites of the four airports. Between November 2012 and February 2013, AsA briefed community aviation consultation groups (CACGs) at the four airports, which included representatives of communities located underneath the RNP flight paths. AsA gave detailed presentations on the proposals and sought views on what further community engagement was necessary while carefully to presenting both the positive and negative noise impacts. The CACGs at Adelaide and Cairns recommended wider community engagement by means of a media release, requesting that website links be placed on local council websites and that information advertorials be published in local newspapers. AsA acted on this advice. AsA permanently implemented RNP at the four airports between February and May 2013, at which time the dedicated telephone information line was shut down. However, contact	

	can still be made via AsA's Noise Complaints & Information Service (NCIS).
Outcomes/assessment of success	The community engagement was successful. By working with airports and local councils, and through advertising, AsA ensured there was a high level of community awareness of the proposals within affected communities. AsA's NCIS analyses complaints from residents to establish whether they are associated with RNP flight paths. The feedback, as well as noise monitoring data, was fed into Post Implementation Reviews (PIR), which were undertaken during 2014 for each of the airports.
Reference	For further information, please visit www.airservicesaustralia.com/projects/smart-tracking/

Country or region	***Aviation stakeholders***	***Target communities***
Austria	*Vienna International Airport,* *AustroControl,* *Austrian Airlines and others*	*Vienna City Council* *Lower Austria City Council* *Local mayors*
Title	Mediated process regarding development of a new third runway.	
Period	Mediation 2000-2005 and Liaison Committee continues to present day (2014).	
Background and aviation issue	In 2000, Vienna International Airport identified the need to develop a new third runway to provide sufficient capacity for forecast air traffic. The usual planning process would have been to apply to authorities for planning approval for the preferred option, conduct public consultations, receive a decision and possibly appeal or defend the decision in court (full environmental impact procedure). The approval process could have been long and confrontational and there would have been little certainty that a court decision would be in the best interests of the airport. Furthermore, as much opposition from the communities around the airport and from politics was expected, the airport decided to try another approach.	
Community concerns and environmental aspects	The main community concern and environmental issue was aircraft noise.	
Activities/actions	VIE and other aviation stakeholders in voluntary consultation with local and national government and representatives of local communities entered into a mediation process with the purpose of examining the need and options for a new runway, the development of the region as a whole, as well as the existing environmental situation especially concerning aircraft noise. The only option not on the table was the closure of the airport at night. A website was established with all minutes of the meetings, results of investigations and other relevant data.	
Outcomes and assessment of success	As a first result, agreements on the reduction of existing aircraft noise were reached. The surprising short-term outcome was addressing the communities' complaints regarding the then-current operations, in particular the location of designated flight tracks and the scattering of flights from these tracks. Based on traffic projections, capacity needs and potential impacts on the economic and social benefits provided by local air transport services, within the first year, agreement was reached on the need for a third runway.	

	Although there was not 100 per cent approval, the overall outcome was an agreement on a new runway further south than the airport's preferred location, in conjunction with certain operational and flight track restrictions and agreements on Land Use restrictions in noise affected areas. The Community Liaison Board would continue on a permanent basis with meetings and input on airport management and planning decisions.
Lessons learned	Immediate concerns such as the then-current operations needed to be addressed before the longer-term issues could be addressed. The use of a mediated approach avoided much confrontation and court action. The parties were able to work constructively with most issues being resolved with mutual satisfaction. This also led to a good understanding with all interested parties.
References	Website: www.viennaairport.com

Country or region	***Aviation stakeholders***	***Target communities***
Canada, North America	*Toronto Pearson Airport, airlines, air service provider, national and local authorities and local communities etc.*	*General communities near airports, community associations, local governments/councils*
Title	Night Flights Outreach	
Period	October 2011 (6 months)	
Background and aviation issue	After conducting a comprehensive internal review of the night flight regime at Toronto Pearson, the Greater Toronto Airports Authority (GTAA) requested an amendment to the an annual cap, or "budget", on the number of flights permitted during the night restricted hours at Toronto Pearson to allow night activity to grow in a phased and responsible way to meet the needs of the communities it serves. In advance of submitting a proposal to Transport Canada, GTAA undertook a community outreach programme to advise various stakeholders about the night flight capacity challenges and the recommendation for meeting growing demand for night flights in a responsible manner. The intent of the outreach was to inform, not to seek support.	
Community concerns	Aircraft noise	

Activities/actions	The GTAA approached each of the various stakeholders differently: Community Environment and Noise Advisory Committee (CENAC) is a consultative and communication forum for the discussion of noise- and environment-related matters. The objective of working with CENAC was to inform and ask for input on the broader community outreach. This was a helpful meeting and directed the tone of the broader community outreach, particularly underscoring the need for a strong educational or "Airport 101" element to the outreach. Elected officials: As part of the outreach, the focus was on the neighbourhoods where the majority of noise complaints originated. The objective of working with elected officials as part of the outreach was to inform, review and advise on existing community concerns. Airline/aviation partners, boards of trade, other business groups: The objective of the outreach with this stakeholder group was to validate both the demand for flights at night and the economic opportunities, as well as seek active support. Residents and community groups: The objective of the community outreach was to inform residents of the proposal to increase night flights, and ensure that the airport's neighbours were familiar with the avenues available to voice their feedback.
Outcomes/assessment of success	The engagement was very successful. Some key lessons learned included: - Conduct briefings with key stakeholders in advance, if possible – this will help gauge the temperature and areas of potential confusion in advance; - Seek assistance for communication from local elected officials - they are the ones to help navigate and address community concerns at the local level; and - Allow time and resources to address misinformation to ensure that the message is clearly understood.
Notes and comments	Good community engagement is a long-term effort; going to the community only when you want something or are regulated to do so should not be encouraged or applauded.
References	www.torontopearson.com/en/cenacpastagendasandminutes/#

Country or region	***Aviation stakeholders***	***Target communities***
Denmark	*Copenhagen Airport, NAVIAR (ATC Copenhagen), Denmark CAA, Royal Danish Air Force, Danish Police, Danish group of plane spotters*	*Public at large in Denmark and Sweden*
Title	Copenhagen WebTrak	
Period	2013 to present day	
Background	When Copenhagen Airport (CPH) airport established and implemented a new noise monitoring system it had the opportunity to launch WebTrak – a web-portal where CPH could present all of its noise data to the public. This is in line with the CPH environmental policy – an open dialogue about the impact CPH has on the environment. CPH has a strong relationship with its neighbours. CPH is one of the airports in Europe with the lowest amount of complaints yearly, but as this could change rapidly, the airport needs to continue being proactive, transparent and innovative as a company.	
Purpose	WebTrak facilitates the ongoing dialogue between CPH and the public concerning general noise and environmental inquiries and supports the overall CPH environmental policy and proactive approach. WebTrak allows the public to access flight track data and submit questions in regards to a specific flight using the “Send inquiry” button.	
Activities/actions	The airport announced the initiative via public announcements, social media, website, fliers distributed both within the company and publicly, and a press release.	
Outcomes/assessment of success	CPH launched WebTrak in April of 2013, a web portal based on data from the airport's extensive noise monitoring system and the radar system. WebTrak shows all flights to and from Copenhagen, ground operations, overflights without relation to the airport and all noise data connected to the operations. By entering an address in WebTrak, the user can see the distance from the plane to his/her home and get accurate details about noise levels. It is also possible to read more about the type of aircraft and seek other facts about the machine. Since the WebTrak launch, the amount of complaints/noise related inquiries has increased. CPH is aware that launching a new web-portal for the public provides a forum for additional feedback good or bad, but CPH still has a very low amount of complaints compared to other airports of similar size.	
Lessons learned	The airport has learned that if the company is transparent and gives the customers and the community thorough answers with a high level of data, it gets a positive response from the public. With regards to development of the tool itself, the feedback CPH got from a meeting with invited representatives from a plane spotter organization could have been useful for the airport supplier Brüel & Kjær much earlier in the process of developing the web-portal.	

References	Websites: www.cph.dk/en/about-cph/csr/Environmentand-energy/noise/ http://webtrak.bksv.com/cph

Country or region	***Aviation stakeholders***	***Target communities***
Ecuador	*Corporación Quiport S.A.*	*Local communities*
Title	Community Enterprise Training	
Period	An ongoing project started in November 2007	
Background and aviation Issue	As part of the Quiport Company's Social Management Plan and Social Responsibility Policy, a programme was launched to train local community members in establishing and managing businesses that could provide goods and services to the airport. Quiport worked with its social team in the approach to the communities and in a two-year consultation and disclosure plan.	
Community concerns and environmental aspects	Job opportunities, noise, land use and heritage Communities were interested in the business opportunities that would be generated by the new airport and by the expansion of the city to the airport zone.	
Activities/actions	Instruction courses were provided on the operation of small and medium-sized enterprises.	
Outcomes/assessment of success	During the consultation and disclosure plan implantation, Quiport was able to show that the operation of the airport would not have a significant effect on the communities is terms of noise. For this purpose, Quiport conducted several technical studies such as noise contours and identifying land use and vulnerable infrastructure inside these contours. By 2014, three companies had been formed and were providing services to the airport as well as to the new demands of the surrounding communities. One was a company specialized in workers' catering, providing food to the workers involved in the construction of the new airport facilities. Another provided maintenance and landscaping. A third provided office cleaning services.	
Lessons learned	To include communities from the very beginning was very important for the project in order to prevent the potential of social conflict. Also, to construct two-way communication was key for this social engagement.	
Notes and comments	Although the project did not directly address community concerns about any environmental issue, the airport company was viewed as directly providing social benefits and business opportunities for the local communities.	
References	www.quiport.com	

Country or region:	***Aviation stakeholders***	***Target communities***
France	*Marseille airport operator* *Air France* *DSNA (French ANSP)* *DSAC (French NSA)* *Pilot consultant* *Local communities* *Local government* *ACNUSA (French Independent Authority)*	*Local communities living around Marseille airport*
Title	Standing Committee to propose solutions to reduce noise impacts of Marseille airport	
Period	From November 2011 to April 2012	
Background and aviation issue	Considering the large number of complaints coming from the communities around Marseille airport, the Ministry of Transport decided to establish a Standing Committee with representatives of the aviation industry and the local communities. The aim of this committee was to develop a common picture of the situation, to list the different types of complaints, to propose solutions and a calendar to implement such solutions to reduce the noise impact of Marseille airport on the local communities.	
Community concerns and environmental aspects	The main community concern and environmental issue was about general ongoing aviation activity, mainly focusing on aircraft noise.	
Activities/actions	The main local community associations with which authorities and operators already had established close collaboration were invited to participate in this local committee. Four meetings were organized between November 2011 and March 2012 in order to prepare a report for the Ministry of Transport. After the report was issued in April 2012, the committee was disbanded.	
Outcomes and assessment of success	A report with 10 proposed operational measures was published. Many of the proposed measures have already been taken.	
Lessons learned	- Involve all stakeholders in such a forum: air transport industry but also local communities (the fact that all stakeholders were part of the process was a reason for the success of this community engagement). - Keep such a forum informal to facilitate open discussion. - Start to define a common picture of the situation regarding the subject to be addressed, in order to ensure that all stakeholders share the same starting point for the discussions. - Consider each proposal and clearly explain when and why some of these measures are not practicable or feasible. - Track and document the ongoing process concerning the implementation of the measures.	

References	Final report: "Rapport du président du comité pour l'amélioration de l'aéroport de Marseille/Provence" (in French)

Country or region	***Aviation stakeholders***	***Target communities***
Hong Kong, China	*Hong Kong International Airport*	*Airport concessionaires*
Title	Food waste recycling program development	
Period	The programme began in April 2011 and was ongoing as of December 2014.	
Background and aviation issue	With landfill sites expected to be full in less than 10 years, municipal solid waste (MSW) is an imminent environmental problem for Hong Kong. Food waste contributes around one third of the MSW generated in Hong Kong.	
Community concerns and environmental aspects	In Hong Kong, food waste recycling is a local environmental concern not directly linked to aviation. The Airport Authority Hong Kong (AAHK) has set a corporate target to recycle 50 per cent of its waste by 2021. Good waste management practices are integral to the airport's reputation for environmental stewardship and sustainable business practices.	
Activities/actions	Food waste recycling started at AAHK in 2003 with the use of on-site food waste recycling machines. The programme was initially implemented on a trial scale with the participation of a number of restaurants operating in the terminal buildings. The local food waste recycling industry grew slowly until 2011, when AAHK began working with a contractor to recycle food waste to animal feed. Since then the food waste recycling programme has expanded to cover around 100 airport business partners, including restaurants and lounges operating in terminal buildings, airline catering companies, hotels and cargo terminals. AAHK set out to persuade airport business partners to join the food waste recycling programme on a voluntary basis. Initial consultations were needed to convince food service stakeholders to participate and to establish standardized separation and collection processes. The airport covered the costs and provided the equipment. The main activities that this involved were public and private meetings, as well as the use of print media and the airport website to promote the programme.	
Outcomes/assessment of success	In 2013, about 1,600 tonnes of food waste were collected and recycled from the airport through this programme. The success of the programme is highly dependent on ongoing engagement with the airport business partners and their staff.	
Lessons learned	Ongoing briefings and on-site visits to the airport business partners were necessary to maintain the momentum of food waste recycling because the programme was voluntary and the airport has a high turnover rate of frontline and low-skill labour.	
Notes and comments	This is an example of engaging stakeholders to develop an environmental programme at an airport.	
References	www.hongkongairport.com/eng/csr/environmental-management/environment-stories/turning_waste_into_treasure.html	

Country or region	***Aviation stakeholders***	***Target communities***
Mexico	*Aeropuerto de Puerto Vallarta*	*Local*
Title	Establishment and support of a local youth orchestra – Baby Mariachi	
Period	From April 2014	
Background and aviation issue	Puerto Vallarta Airport has an initiative to promote Puerto Vallarta as a touristic and friendly destination. Although located in an area with a booming tourist industry and a rich local musical heritage, there are many underprivileged students with little opportunity to access musical instruments and group rehearsal spaces.	
Community concerns and environmental aspects	While this case study was not directly about addressing environmental concerns, the issues in the area include water, waste, GHG emissions, health, safety, wildlife, land use and heritage.	
Activities/actions	The airport established a fund to support and manage local children to develop their musical talents and play and sing mariachi music. The group named “Baby Mariachi” plays in the airport departure lounge on weekends.	
Outcomes/assessment of success	The talent of the performers and the natural appeal of young players create a joyous atmosphere at the airport, giving a lasting impression to the many passengers leaving at the end of their holidays. The entertainment of the passengers serves both the airport’s and the nation’s reputation and contributes to the enhanced cultural experience of foreign visitors. Passengers have made excellent comments on the service provided and the friendly environment perceived in the airport. Since the mariachis have been performing in the airport, they have developed a bigger team and have been able to acquire more instruments. Recently they have bought uniforms and are looking to purchase musical equipment (microphone and speakers). They have a growing reputation in the region and now participate in various events for the community.	
Notes and comments	Although the project does not provide direct mitigation of environmental issues, it seems good for the airport to support local, underprivileged children with an opportunity to learn and perform local music.	
References		

Country or region	***Aviation stakeholders***	***Target communities***
South Africa	*Airports Company South Africa (ACSA), airlines, ANSP, CAA, DOT, DOE and others.*	*Various community groups and individuals.*
Title	Cape Town Runway Realignment	
Period	April 2014 to [continuing as at 2015]	
Background and aviation issue	At Cape Town, regular engagement with communities around the airport has been a part of the ACSA Corporate Social Investment Programme. With a proposal for a runway re-alignment and associated airspace changes, community engagement on the Environmental Impact Assessment was a legal requirement.	
Community concerns and environmental aspects	The main community concerns were aircraft noise and land use near the airport.	
Activities/actions	The main communications tools included advertisements in regional, local and national newspapers; radio announcements; targeting all industry and government stakeholders; public notices; libraries; website, public open day meetings and targeted focus group meetings with authorities and ward councillors. Parties who were potentially affected by the changes or interested in being kept informed were encouraged to register throughout the process.	
Outcomes/assessment of success		
Lessons learned	Although it was not a part of the original engagement plan, it was found that the use of announcements on community radio was an effective medium to engage and communicate with certain individuals and communities not reached by other means.	
Notes and comments		
References		

Country or region	***Aviation stakeholders***	***Target communities***
United Arab Emirates and Brazil	*Etihad Airways and staff* *Abu Dhabi Airport (AUH),* *São Paulo Airport (GRU),* *Relevant ATC's & ANSP's,* *AUH DOT and GCAA*	*Communities in close proximity to AUH and GRU* *Global audience*
Title	Green Flight	
Period	14-18 September 2013 (four days)	

Background and aviation issue	Strong commitments towards enhancing operational efficiency, reducing negative environmental impacts and complying with the regulatory framework were all factors that laid the groundwork for the collaborative actions of the Etihad Airways Green Flight project.
Community concerns and environmental aspects	The concerns that ultimately initiated the project were those of the airport-adjacent communities, Specifically, issues such as noise and local air quality were of concern to Etihad Airways. However, the negative externalities of a wider scope, such as the GHG emissions and associated atmospheric and climatic effects were equally decisive factors.
Activities/actions	As part of an annually recurring Green and Environmental Week, the UAE-based carrier conducted a Green Flight between its hub in Abu Dhabi and São Paulo, Brazil. By collaborating closely with AUH, GRU, relevant air navigation service providers (ANSPs), air traffic controls (ATCs) and other aviation authorities, the flight sector performances were optimized with respect to route length, fuel burn and emissions. In addition, the on-ground performance was improved, with shortened aircraft taxiing times, which, in turn, resulted in lower noise pollution for the benefit of local communities.
Outcomes and assessment of success	The fuel savings deriving from operational optimizations were estimated at 2.2 tonnes, with proportional carbon emission reductions. This also led to reduced noise pollution. The project was considered highly successful and was well received by all stakeholders. The planned flight operations were performed with no issues encountered in the process.
Lessons learned	
Notes and comments	
References	Website: www.etihad.com

Country or region	***Aviation stakeholders***	***Target communities***	
United Kingdom	*Bristol airport operator* *Local parish councils* *North Somerset Council* *Bus service operator*	*Local communities living around Bristol airport*	
Title	Bristol Airport's concessionary fare scheme for local residents using public transport.		
Period	From November 2011 to present		
Background and aviation issue	Bristol Airport is located eight miles from the city centre of Bristol in the north Somerset countryside. The area is predominantly rural, and public transport to the villages and small, scattered hamlets surrounding the Airport is poor. Over the last decade and a half, Bristol Airport has developed a highly successful express bus service between the Airport and Bristol city centre, which is now used by 14 per cent of passengers. This service, known as the Flyer, operates around the clock and runs as frequently as every eight minutes during peak periods. In 2014 over 770,000 passengers used the service.		

	However, the pricing of the Flyer service – although offering a competitive alternative to the car for passengers flying to and from the Airport – was prohibitive for local people wanting to make use of the service for commuting or social and leisure visits to Bristol.
Community concerns and environmental aspects	Projected growth and capacity expansion needs were community issues of concern.
Activities/actions	As part of a comprehensive package of measures accompanying the planning application for future development of Bristol Airport, it was agreed with the local planning authority to put in place a concessionary fare scheme for local residents, following extensive local consultation over a period of several years. The scheme was designed based on postcode areas, with the intention of benefiting as many local residents as possible while targeting households close enough to be likely to make use of the Flyer service. Anyone living in the postcode areas described can apply for a discount pass by completing an application form, which can be downloaded from the Bristol Airport web site. The pass must then be presented along with photo ID when buying a ticket.
Outcomes and assessment of success	This presented a clear opportunity to demonstrate that living near an airport has positive as well as negative impacts, and to "give something back" to local residents while demonstrating Bristol Airport's commitment to public transport as part of its surface access strategy. Positive feedback has been received from local parish council representatives.
Lessons learned	The postcode footprint used to define the scheme has been replicated when distributing the Airport's stakeholder newsletter, which is now delivered to approximately 11,500 local households. This enables other schemes offering community benefits (such as noise insulation) to be communicated to a much wider audience than was previously possible.
References	

Country or region	***Aviation stakeholders***	***Target communities***
United Kingdom	*Rolls-Royce, plc* *UK Sustainable Aviatio,* *UK Airports* *UK Civil Aviation Authority* *UK Department for Transport and Airports Commission*	*Communities bordering UK airports.*
Title	Providing technical support for evaluations of noise impact to local communities in scenarios for airport capacity growth in London airports.	
Period	April 2004 to present	
Background and aviation issue	Increasing concerns about the ability of the aviation industry to meet the UK Government's noise objective "to limit and where possible reduce the number of people significantly affected by aircraft noise," led to the desire to predict noise output by the UK airlines fleet to 2050.	

	This exercise was undertaken by Sustainable Aviation, and culminated in their Noise Road-Map, which examines the complex and subjective nature of aircraft noise, while understanding that it remains a real source of tension between airports and local communities.
Community concerns and environmental aspects	Community concerns were varied but centred on the potential expansion of the airport infrastructure (such as new runway or terminals) to meet projected growth and capacity expansion needs. Environmental aspects of noise, local air quality and climate change were all involved in the need to comply with regulatory restrictions and the need to modify those restrictions.
Activities/Actions	Rolls-Royce has provided technical advice and contributed to the neutral technical information on engine/aircraft noise capability and technology, in support of case studies on the impact of aviation on local communities by: airport, Government, Independent Airport Commission, as well as Industry bodies such as Sustainable Aviation. In this respect, Rolls-Royce contributed to the UK Sustainable Aviation's Noise Road-Map, which has been published as a report with public announcements, launch events at the Houses of Parliament and press events.
Outcomes/assessment of success	Although Rolls-Royce has not engaged directly with airport communities, it has provided technical and neutral information to support third-party community engagement. The outcomes were considered good and the continuing exercise has been very successful.
Notes and comments	Rolls-Royce is an integral part of the UK Sustainable Aviation initiative and has also engaged on local air quality panels during the Heathrow airport third runway assessment (PSDH) convened by the Department for Transport, and has contributed to the SA Continuous Descent Operations campaign, as well as other SA initiatives.
References	Website: http://www.sustainableaviation.co.uk/ Reports: Sustainable Aviation Noise Road-Map and trifold leaflet available at www.sustainableaviation.co.uk/wp-content/uploads/SA-Noise-Roadmap-Publication-version1.pdf and www.sustainableaviation.co.uk/wp-content/uploads/A4-Tri-fold-SA-Noise-Road-Map-Leaflet-Final-Version-230413.pdf

Country or region	***Aviation stakeholders***	***Target communities***
United Kingdom	*Heathrow Airport* *British Airways*	*Originally the communities bordering Heathrow Airport in the four adjacent boroughs of Slough, Spelthorne, Hillingdon and Hounslow, however, it is accessible to everyone.*
Title	Heathrow Air Quality Working Group & Heathrow Air-watch Website	
Period	April 2003 to present	
Background and aviation issue	The Heathrow Air-watch website arose out of the Heathrow Air Quality Working Group, which was set up between a number of stakeholders to monitor and address air quality (principally NOx & NO_2) concerns around Heathrow Airport. The initial driver for this group was the publicity surrounding modelling work commissioned by the Government	

	coincident with proposals for the development of an extra runway, which suggested concentrations of NO_2 at significantly higher levels than those monitored.
Community concerns and environmental aspects	There was a lack of trust between stakeholders and between the airport and airlines and the local communities at the start of the exercise, and a number of issues were exposed early on relating to ownership and production of modelling results. These were alleviated after agreeing that the group should concentrate on amassing and justifying the input data so that all groups could use this in their own modelling exercises. Pooling monitoring data without spin or bias was seen as beneficial to local communities and stakeholders alike.
Activities/actions	The Group's purpose is to continually improve the accuracy of air quality modelling around Heathrow. It was originally convened to research information from observational measurements and aircraft flight data recorders, and a series of NO_2 concentration measuring campaigns across the active airport were initiated. The idea to share measurement data from the six Working Group stakeholders arose from this exercise and later evolved into the development of the Heathrow Air-watch website.
Outcomes/assessment of success	The exercise has had a very positive effect on relationships between the six members of the stakeholder group – the Heathrow Air-watch website has proved that it is possible to work together to create something that all groups benefit from and has played a part in increasing knowledge in the local, national and international arena with regard to airport air quality modelling, monitoring and assessment.
Notes and comments	This case study is part of a much broader engagement process with local governments and communities, airport and airlines. A wide range of stakeholders were involved in the original group and discussions. However, the six stakeholders listed constitute the permanent membership of the Working Group, which still meets quarterly to review the data and trends, and provides updates to stakeholder activities. This collaborative effort led to the development of the Heathrow Air-watch website, which now publishes live air quality monitoring data from 19 different sites owned and operated by both airport and local authorities. The website has been extended to include advice on sustainable travel to the airport. It also includes a children's page to try to inform them about air quality from an early age. There is also a contact page with links to enable local communities to ask questions and make comments regarding local air quality in areas around Heathrow Airport.
References	Website: www.heathrowairwatch.org.uk/ Reports: A number of documents relating to this community engagement exercise, may be accessed from the Heathrow Air-watch website

Country or region	***Aviation stakeholders***	***Target communities***
United States	*Oakland Intl. Airport, Port of Oakland, Tenant Airlines, Chief pilots of tenant airlines, Fixed Base Operators, and General Aviation*	*City of Oakland, City of Alameda, City of San Leandro, Berkeley; Citizens League for Airport Safety & Security (CLASS), and Berkeley Keep Jets Over the Bay; OAK Airport-Community Noise Management Forum*
Title	Oakland International Airport Community Outreach Program	
Period	Issues began in 2001. The airport broadened its engagement over a sustained period of time. The OAK Airport-Community Noise Management Forum continues to the present day (2015).	
Background and aviation issue	Aircraft operations had been increasing significantly for many years. The airport wanted to develop a Master Plan for airport improvements; however, development efforts were met with opposition and a legal challenge by the community. The aviation issues included general, ongoing aviation activity, projected growth and capacity expansion needs, changes to airport infrastructure such as a new runway or terminal, and airspace changes. It was determined that greater community engagement earlier and ongoing would lead to more productive outcomes.	
Concerns and environmental aspects	The community had a suite of concerns and environmental issues including aircraft noise, local air quality, greenhouse gas emissions and climate change, pollution management, health, safety, visual intrusion, wildlife habitat and ecology, and land use near the airport.	
Activities/actions	The community groups included the parties who litigated over development, and others nearby. By establishing multiple avenues of engagement over a sustained period of time, OAK significantly improved the working relationship with the community, which led to successful approval of projects, and better working relations with local community representatives and local government. The community engagement actions included document publication including public announcements, newspaper or print media advertisements, website, and public and private meetings. The programme was designed to inform and involve the various parties in a collaborative exchange of information for airport decision-making. It was from this engagement that the Oakland International Airport-Community Noise Management Forum was eventually formed. Ongoing efforts are supported by regularly scheduled meetings between the Airport/stakeholders/local government, and community members are allowed to attend these meetings and voice concerns.	
Outcomes and assessment of success	Through the programme, several mitigation benefits to the communities were agreed to, including over $40 million in acoustical treatment of homes. Community concerns are now factored into the early planning stages of airport projects. The airport considers the programme highly successful. The development of a well-structured programme of outreach and communication with all relevant groups and stakeholders continues to provide needed information and engagement for the community in the economic and environmental impact of the airport; and has allowed the airport to proceed with development knowing they have community input and ensuring that they are addressing community concerns to the extent feasible.	
Lessons learned	Start engagement early. The entire programme emerged from the recognition that all the stakeholders needed to be engaged in productive forums earlier.	

Notes and comments	Some outlying communities were identified later and became involved.
References	*Website:* http://flyquietoak.com/pages/noise-forum/noise-forum.html

Country or region	***Aviation stakeholders***	***Target communities***
Global	*ATAG – ACI, CANSO, IATA, manufacturers and others*	*Global audience*
Title	Publication: *Aviation: Benefits Beyond Borders* (ABBB)	
Period	April 2014	
Background and aviation issue	The Air Transportation Action Group (ATAG) is the association of aviation industry stakeholders whose membership includes organization of airlines (IATA), airports (ACI), ANSP (CANSO) and aircraft engine and airframe manufacturers. It focuses on issues of sustainable development in aviation and coordinates cross-industry action. One of ATAG's key goals is to provide facts and balanced arguments regarding aviation's contribution to sustainable development (economic, societal and environmental discussions).	
Community concerns and environmental aspects	The main community concern being addressed by ABBB is general, on-going aviation activity and the forecast growth of global aviation and its global environmental impacts.	
Activities/Actions	ATAG published a second edition of ABBB in 2014 in hardcopy and electronic versions. ABBB is targeted at providing facts on the economic and social benefits of aviation, as well as a broad overview of the industry's efforts to mitigate its environmental impacts. The report contains facts and figures on global air transportation such as the global fleet, distance travelled by passengers and freight, airports and airlines, and jobs and economic activity. Case studies include examples of a global supply chain for iPhone parts, tourism in Cabo Verde, disaster response, aerospace skills development in Morocco and the environmental performance of aircraft and biofuels. Data were provided on global and regional scales, as well as for groups such as developing and developed States and small island States.	
Outcomes/assessment of success	ABBB is a valuable resource document for ATAG members and other interested groups. Its findings have been referenced and used extensively by industry, governments and the media.	
Notes and comments	The first edition of ABBB was published in 2012	
References	Website: www.atag.org and www.aviationbenefitsbeyondborders.org Reports: *Aviation: Benefits Beyond Borders* (2014)	

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ISBN 978-92-9258-264-7