Annual Performance Report
2010

IAA

Contents

Chief Executive's Introduction to the Annual Performance Report 2010

It gives me great pleasure to introduce the sixth annual performance report for the Irish Aviation Authority covering the performance of the Air Navigation Services function for the year 2010.

The primary objective of the Irish Aviation Authority is to ensure safety for air traffic management of the 451,000 square kilometres of Irish controlled airspace.

This focus is paramount in the Authority's consideration of its operational and technical requirements, capital expenditure programme and financial performance.

The Authority, throughout 2010, continued to deliver safe, efficient and cost-effective air navigational services in Irish controlled airspace and this report sets out our performance as required under the Single European Sky regulations.

The IAA's key objective is air safety (by regulation of aircraft and personnel) and airspace management and communications. The ICAO Safety Oversight Audit Programme, carried out in 2010 was very successful. The IAA, principally through the Safety Regulation Directorate, with assistance from the Department of Transport, was the primary focus for the intensive audit of the State under the relevant Annexes of the Chicago Convention. The results, which were published recently by ICAO, show that Ireland is ranked among the best in the world and third in Europe in its safety oversight of civil aviation.

The IAA continues to deliver on its commitment to remain cost-effective and its en route charges remain among the best value-for-money in the EUROCONTROL charging States (fourth lowest in 2011). We aim to continue to provide safe value-for-money en route, terminal and communications services at charges that are stable and as low as possible, consistent with appropriate service quality levels.

The IAA remains committed to ensuring that Ireland's en route and airport delays remain amongst the lowest in Europe. The IAA has achieved all EUROCONTROL environment targets to date and these have delivered significant savings to our customers. It remains committed to implementing future environmental projects as required by the EU.

The IAA participates in the ATM Cost effectiveness (ACE) benchmarking exercise, which presents factual data and analysis on cost-effectiveness and productivity for 37 Air Navigation Service Providers (ANSPs) in Europe. The latest available report will be published in July 2011 and highlights that the IAA is;

- One of the most cost-effective providers in Europe and its costs are significantly below the European average,

- It has amongst the lowest level of en-route and airport delays in Europe.

- Its air traffic controllers are amongst the most productive in Europe and provide the service at a lower cost than other most other western European air traffic controllers.

The benchmarking analysis is based on information provided by ANSPs to the PRC in compliance with Decision No. 88 of the Permanent Commission of EUROCONTROL.

The IAA will continue to consult regularly with its customers in the evaluation of the quality of service provided. In 2010 it received the highest average customer score (87.2%) since this process commenced.

The IAA will continue to build and develop strategic alliances to ensure that it has a strong future role in delivering on its mission. New initiatives include the extension of the Ireland/UK Functional Airspace Block to include Denmark and Sweden and, eventually perhaps several other Northern European States.

The IAA will continue to ensure that staff are educated and trained to the highest standard so as to ensure a safe and efficient service is delivered to its customers.

The IAA is dedicated to improving its performance and to greater consultation with our customers to ensure that our level of service continues to improve. We have made strong progress in 2010 in positioning the IAA to safely meet these service requirements and also to meet future challenges in what is a dynamic and changing industry.

I would like to thank all of the staff of the Authority for delivering another successful year. In particular, I would like to express my gratitude to my management colleagues for their hard work and support throughout another challenging year.

I would also like to thank the Chairman, Ms. Anne Nolan and my colleagues on the Board for their guidance and support.

Go raibh míle maith agaibh go léir.

Eamonn Brennan
Chief Executive

Irish Aviation Authority

1. Introduction

The Irish Aviation Authority is required under Single European Sky regulations to produce an annual report on its performance.

The Single European Sky regulations provide, inter alia, that the provision of air navigation services within the European Community shall be subject to certification by Member States that they meet the common requirements laid down in Commission Regulation (EC) no 2096/2005. This imposes an obligation on individual States to certify providers that comply with the common requirements and to subsequently designate air navigation service providers.

Responsibility for the certification process rests with the National Supervisory Authority (NSA) currently the Safety Regulation Division of the Authority. The designation process is a matter for the State but in order to be considered for designation, an entity must have prior NSA certification.

Air Navigation Service Providers (ANSPs) must submit to their NSA, a five-year Business Plan, an Annual ANS Plan, and audited accounts. In addition, ANSPs must submit an Annual Performance Report at the end of their reporting period. A brief summary of the requirements under each of these areas is as follows.

1.1 Five Year Business Plan

The IAA's Business Plan is required to cover a minimum period of five years and set out:

- the overall aims and goals of the provider, and its strategy towards achieving them, in consistency, with any overall longer term plans and with relevant Community requirements;

- Appropriate performance objectives in terms of quality and level of service, safety and cost effectiveness.

1.2 Annual Plan

The Annual Plan specifically relates to the ANSP and should specify further the features of the Business Plan and describe any changes to it. The annual plan shall cover the following provisions on the level and quality of service such as the expected level of capacity, safety and delays to flights incurred as well as on financial arrangements:

- Information on the implementation of new infrastructure or other developments and a Statement on how they will contribute to improving the level and quality of services;

- Indicators of performance against which the level and quality of service may be reasonably assessed;

- The service provider's expected short-term financial position as well as any changes to or impacts on the business plan.

1.3   Annual Report

The Annual Report shall include as a minimum:

- an assessment of the level and quality of service generated and of the level of safety provided;

- the actual performance of the service provider, compared to the performance objectives and indicators established in the Business Plan;

- developments in operations and infrastructure;

- the financial results, if they are not separately published in accordance with article 12(1) of the Service Provision Regulation;

- Information about the formal consultation process with the users of its services, and about the human resources policy.

This publication is primarily concerned with the areas outlined above, of the Annual Report, and covers the period 1 January 2010 to 31 December 2010 and is designed to meet the common requirements laid down in Commission Regulation (EC) no 2096/2005: to ''provide a description of progress achieved in relation to the business plan, reconciling actual performance for 2010 against planned performance in the IAA's five year Corporate plan 2010 -2014''.

The Authority provided forecasts in its five year corporate plan 2011-2014 in the following areas:

1. Safety

2. Efficiency

3. Cost effectiveness

4. Delays

5. Capacity.

A detailed analysis of actual performance versus planned performance under each of these areas is set out under section 2 to section 9 of this report.

2. Safety

The IAA's key objective is air safety (by regulation of aircraft and personnel) and airspace management and communications. The ICAO Safety Oversight Audit Programme, which was carried out in 2010 was very successful. The IAA, principally through the Safety Regulation Directorate, with assistance from the Department of Transport, was the primary focus for the intensive audit of the State under the relevant Annexes of the Chicago Convention. The results, which were published recently by ICAO, show that Ireland is ranked among the best in the world and third in Europe in its safety oversight of civil aviation.

2.1 Safety Culture Survey

Based upon recommendations in the EUROCONTROL Safety Culture Survey Report, in 2010, much work has been done to drive 'just culture' improvement within the ANSP organisation.

One prioritised initiative is to agree, publish and promote a document to establish what constitutes acceptable and unacceptable behaviour and to ensure that all staff understands its contents. The work commenced on this in 2010 is planned to be completed in 2011.

2.2 Corporate ATM Safety Strategy 2008–2011

The implementation of the Corporate ATM Safety Strategy 2008-2011 is continuing and the Authority is taking action on five interconnected focus areas, driven by associated strategic safety goals. The focus areas are:

1. Safety Leadership Behaviour

2. Safety Performance Indicators

3. Operational Safety Improvement

4. Managing Human Factors Issues in ATM

5. Communicate and embed the processes that will enable us to better identify and close gaps in the defences of our safety system.

2.3 Safety Achievement Metrics

Safety data produced from our mandatory Occurrence Reporting (MOR) scheme enables analysis of our safety trend. Throughout 2010 we embedded our improved safety reporting arrangements whereby Operational Units report the trend in their top five Key Risk Areas in a standard Quarterly Operations Safety Report. These reports have identified that the top five IAA Key Risk Areas are:

1. Separation minima infringement

2. Runway incursions

3. Unauthorised penetration of airspace

4. Deviation from ATC clearance

5. Level bust.

The variance between predicted and actual events for 2010 in the 5 Key Risk Areas was lower than predicted.

- Separation Minima Infringements were lower than predicted.

- The number of Unauthorised Penetrations, Deviations from ATC Clearance & Level Busts was down significantly from the anticipated number.

- Runway Incursions were higher than predicted, however corrective actions have been identified and are being implemented.

As part of the IAA Corporate ATM Safety Strategy 2008-2011, the Authority is implementing a "Plan, Do, Check, Act" Operational Safety Improvement process that will focus safety efforts on assuring that the occurrence trend in Key Risk Areas does not increase and, where possible, will decrease.

3. Efficiency

3.1 Traffic 2010

The Authority uses the EUROCONTROL STATFOR forecasts to estimate traffic growth. There are however, a number of sources of uncertainty in these forecasts, which for example include:

- Network and route changes
- Tourism trends are variable
- Oil Prices remained changeable
- Load factors
- Local effects.

This forecast estimated a reduction in total IFR traffic of -2% during 2010. However, the actual reduction was -3.1%, which was primarily due to the recession and the impact of the volcanic ash crisis in April \ May 2010.

3.2 Staffing

"The Corporate Plan provided for a staffing of 612 (excluding SRD) to meet ANSP requirements for 2010. The actual comparative staffing for 2010 was 599 staff. The overall variance equated to 2.1% variance, which was primarily due to a surge in retirements/resignations and we were not able to accelerate our recruitment/training programmes to meet this unexpected demand.

3.3 Human Resource Policy

An agreement was reached with staff representatives on measures to address the IAA's pension fund deficit. The measures, coupled with an effective investment strategy should, based on actuarial advice, return the IAA's pension fund to solvency in 2018 following which a comprehensive review of pension arrangements will be carried out.

Implementation of the 2010 Training and Development Plan, which is approved and overseen by the Training and Development Management Committee, progressed as expected.

The Authority continues to monitor and put in place measures to ensure compliance with the Safety, Health and Welfare at Work Acts, and associated regulations to ensure, in so far as is reasonably practicable, the safety, health and welfare of all employees, members of the public and others coming into contact with the IAA in the normal course of business.

4. Financial Results

The Authority does not propose to review its financial results in this report as the financial results are separately published and independently audited in accordance with article 12(1) of the Service Provision Regulation. These can be accessed on the IAA's website www.iaa.ie

5. Cost effectiveness

5.1 Estimated Commercial Rates

The IAA is responsible for the provision of safe, efficient and cost effective air navigation services in Irish-controlled airspace. The costs of providing these services and facilities are funded by charges levied on airspace users.

5.1.1 En Route

The IAA recovers the costs of en route air navigation facilities and services by means of en route charges. A charge is levied on airspace users for each flight made under Instrument Flight Rules taking into account the distance flown and the weight of the aircraft (service units).

The IAA establishes its forecast en route cost base for the year in which the charges are collected. This cost base comprises operating costs plus depreciation plus interest on capital expenditure plus the State's share of EUROCONTROL costs. Ireland is a member of EUROCONTROL, the European organisation responsible for the safety of navigation and also responsible for helping to develop a coherent and co-ordinated air traffic management system in Europe.

The unit rate of charge is determined by the IAA by dividing the estimated costs by the estimated traffic, measured in terms of service units, to give the en route service unit rate. The unit rate is applicable from 1 January.

This system operates on a cost recovery basis allowing the IAA to recover only those costs which have been incurred in providing an en route service. Towards this end, a two year adjustment mechanism is operated so that any under/ over recoveries of costs in a particular year are taken into account in determining the unit rate for the following year.

In the submission to the NSA (Corporate Plan) for 2010, the en route chargeable service unit rate was estimated at €30.68. The actual en route rate charged to the IAA's customers in 2010 was €30.68.

The submission to the NSA assumed chargeable en route costs for 2010 of €106,008,653 and chargeable service units (CSU's) of 3,394,200. The actual outturn for 2010 was as follows:

	En-route Cost (incl. MET)	Chargeable Service Units
Actual outturn	€107,880,098	3,546,781
Forecast figure (NSA Submission)	€106,008,653	3,394,200
Variance in €	€1,871,445	152,581
Variance in %	1.8%	4.5%

The en route cost base was higher than planned mainly due to the implementation of agreed pension reform proposals, whereby, both the Authority and its staff will share the costs of resolving the Authority's pension fund deficit over the next eight years.

5.1.2 Terminal

The IAA recovers the costs of terminal navigation facilities and services by means of terminal charges established within the price cap allowed by the Commission for Aviation Regulation (CAR). A charge is levied on users for approach, landing and take-off services provided at each of the State airports, Cork, Dublin and Shannon, taking into account the weight of the aircraft where this weight exceeds two tonnes.

Similar to en route, the IAA establishes its forecast terminal cost base for the year in which the charges are collected. This cost base comprises operating costs plus depreciation plus interest on capital expenditure.

Since 1 January 2010, and in accordance with EC regulations, the IAA's terminal service charge has been calculated as the maximum take-off weight divided by fifty to the power of 0.9. This rate must operate within the CAR price cap.

This system operates on a cost recovery basis, within the price cap set by CAR, allowing the IAA to recover only those costs which have been incurred in providing a terminal service. Towards this end, a two year adjustment mechanism is operated so that any under/ (over) recoveries of costs in a particular year are taken into account in determining the unit rate of a future year.

The Commission for Aviation Regulation (CAR) was established under the Aviation Regulation Act, 2001, to regulate, inter alia, certain aspects of the aviation sector in Ireland. In accordance with the Act, CAR is required to make determinations governing the maximum levels of aviation terminal services charges that can be levied at Dublin, Cork and Shannon by the IAA.

The terminal service unit for 2010, as submitted to the NSA (in the Corporate Plan), was €176.93.

Due to the financial pressure on airlines from the recession, the Authority decided to freeze the terminal service charge for the first six months of 2010 at the 2009 rate of €133.23 per terminal service unit.

However, the process of economic regulation does not give the Authority the scope or flexibility to postpone a rate increase and therefore on 1 July 2010, the Authority increased the terminal charge to €176.93 per terminal service unit.

The submission to the NSA (Corporate Plan) assumed terminal costs of €23,017,914 and terminal service units of 149,207. The actual outturn for 2010 was as follows:

	Terminal Costs (incl. MET)	Terminal Service Units
Actual outturn	€23,240,702	137,449
Forecast figure (NSA Submission)	€23,017,914	149,207
Variance in €	€222,788	11,758
Variance in %	1.0%	7.9%

The terminal cost base for 2010 was 1% higher than planned due to the implementation of agreed pension reform proposals, as noted in the en route rate section.

Terminal commercial traffic at Cork, Dublin and Shannon airports declined significantly over the last year resulting in an under-recovery of costs to be recovered in future years.

5.1.3 North Atlantic Communications

The North Atlantic communications charge reflects the cost of providing a High Frequency (HF) voice and communications charge to airspace users on the North Atlantic.

Consistent with other air navigation services, the IAA establishes its forecast cost base for North Atlantic communications for the year in which the charges are collected. This cost base comprises operating costs plus depreciation plus interest on capital expenditure.

The unit rate of charge is determined by the IAA by dividing the estimated costs by the estimated traffic, measured in terms of numbers of flights, to give the North Atlantic communications charge per flight. The actual North Atlantic communications charge in 2010 of €44.10 per flight is in line with the submission to the NSA.

5.1.4 Performance Benchmarking

The IAA participates in the ATM Cost effectiveness (ACE) benchmarking exercise, which presents factual data and analysis on cost-effectiveness and productivity for 37 Air Navigation Service Providers (ANSPs) in Europe.

The latest available report will be published in July 2011 and highlights that the IAA is;

- One of the most cost-effective providers in Europe and its costs are significantly below the European average,

- It has amongst the lowest level of en-route and airport delays in Europe.

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The benchmarking analysis is based on information provided by ANSPs to the PRC in compliance with Decision No. 88 of the Permanent Commission of EUROCONTROL

6. Capacity

6.1 Shannon ACC Capacity

The Shannon ACC is a very complex airspace block; however, the dynamic sectorisation scheme in the upper airspace ensured that Shannon ACC met its capacity plan of +5% during 2010.

6.2 Dublin ACC Capacity

During 2010, the Dublin ACC achieved its capacity plan of +5%.

7. Delays

7.1 ATFM Regulation delays

It should be noted that Ireland has one of the lowest levels of delays, as recorded by the central flow management unit (CFMU) in EUROCONTROL; they are normally less than 1% of total European delays.

It was estimated that Ireland's level of airport delays would remain at low levels and there would be zero minutes of en-route delays for 2010. Consequently, the Authority forecasted that total ATFM regulation delays during 2010 would be circa 30,000 minutes.

However, total Irish delays recorded by the Central Flow Management Unit (CFMU) for the period January 2010 to December 2010 amounted to only 16,192 minutes on 624 aircraft.

■ These delays were primarily attributable to terminal traffic arriving at Dublin airport, and

■ 91% of them were due to adverse weather conditions with 567 aircraft being delayed by 14,805 minutes, due to snow and freezing fog conditions during the year.

The variance between forecast and actual delays was primarily due to the reduction in traffic levels across Europe, from the recession.

8. Developments in Operations and Infrastructure

The aim of the Authority's Technology plan is to deliver a strategic roadmap for the IAA's Air Traffic Management (ATM) Technology Directorate up to 2016.

The methodology used in compiling the Technology Strategy is to:

■ Identify the Communications, Navigation and Surveillance (CNS) goals we wish to achieve;

■ Identify which emerging technologies the IAA must monitor and evaluate in order to position the organisation for the challenges ahead.

All identified technology projects are subject to approval by the Air Traffic Management Planning Group to ensure that the proposed technology changes meet operational requirements. Projects are also subject to internal scrutiny from the "CAPEX committee" which approves business cases and tracks budgets.

Operational requirements are the driver for technology change, and can be expressed as requirements to increase the system capacity improve safety, improve performance or remain compatible with changing SES requirements.

The most significant developments in Operations and Infrastructure during 2010 were as follows;

■ **COOPANS Development:** Significant Milestones were reached in the COOPANS software and the O-DATE software was delivered in September 2010.

   Operations training commenced in September 2010 with all the hardware installation activities and sight acceptance tests being completed at Shannon and Dublin. Additional checklists were carried out in co-operation with Thales, to assist in dataset tuning, and to identify and resolve issues in an efficient manner.

   In addition to the continuing integration, validation and training activities for Build 1, the functionality for Build 2 was also identified. The full definition and delivery schedule for build 2 was completed in 2010 and Thales commenced development work on 1 November 2010.

■ **RADAR Replacement Program:** Mount Gabriel Head 2 was upgraded and restored to operations in August 2010. The Shannon RADAR was released in October 2010 to allow for the refurbishment of the existing steel RADAR tower. It will be restored to operations in July 2011.

■ **ILS 10:** The ILS 10 at Dublin Airport reclassified as a CAT 3 Facility in November 2010, which will assist the airport operator during runway relaying operations.

■ **LIDAR:** In order to provide support for a future possible volcanic eruption the technology directorate installed a LIDAR system in Dublin Airport which can provide accurate measurements of atmospheric dusts layers.

9. Customer consultation process

9.1 Introduction

The Irish Aviation Authority is committed to customer consultation in its objective of providing, on a sound commercial basis, safe, efficient and cost-effective air navigation services which meet the needs of its customers.

On an annual basis, the Authority requests its main airline customers to complete a detailed online customer scorecard in respect of its provision of air navigation services. The feedback obtained through this process is subsequently used to identify customer needs and expectations. The report therefore has two primary objectives:

1. To present customer feedback in relation to five areas:
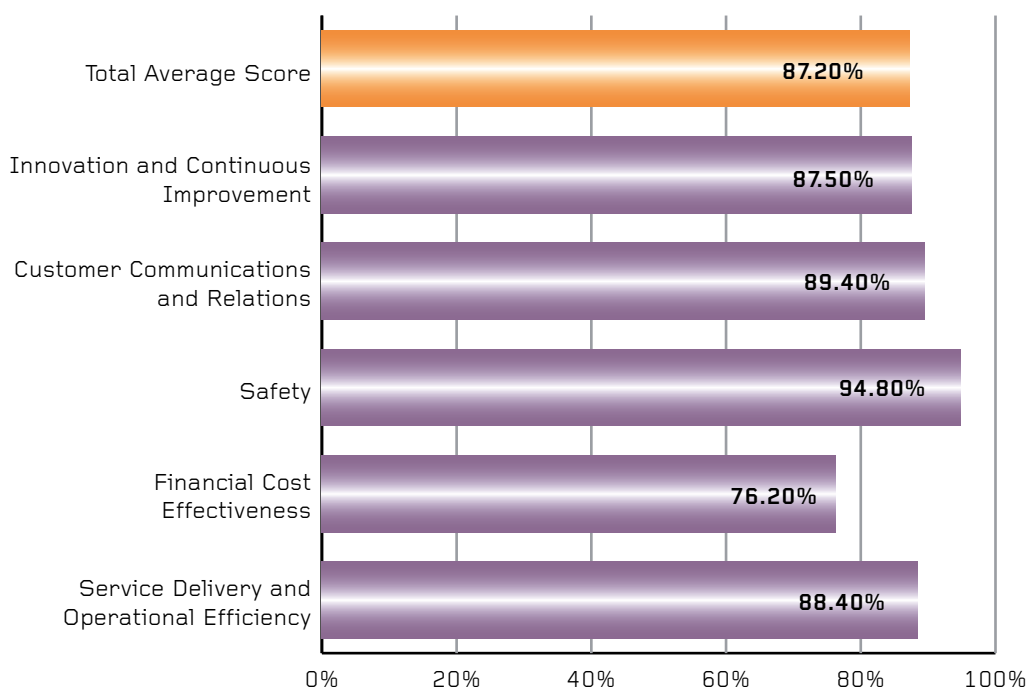
- Safety;

- Service Delivery and Operational Efficiency;

- Financial Cost-Effectiveness;

- Customer Communications and Relations; and

- Innovation and Continuous Improvement.

2. To indicate how the Authority's performance has changed over time (trend from 2007 to 2010).

9.2 Results from 2010 customer scorecard

The results from the 2010 customer scorecard were very positive for the Authority:

I. **Highest average scores:** The Authority secured its highest total average score to-date (87.2% in 2010, compared to 81.0% in 2009) and all five categories showed improvements over 2009. Safety continued to secure the highest score at 94.8%.

II. **Successful management of service outages:** The Authority had to contend with significant service interruptions during 2010, namely: the air traffic controller strike in January; and the airspace closers caused by volcanic ash in April and May. Despite this, customer feedback remained positive and our customer communications processes used during the service outages were commended by many customers.

III. **Cost containment acknowledgement by the industry:** In late 2008, the Authority instigated a series of cost containment measures to support the industry, to mitigate the impact that the downfall in traffic had on air navigation charges. Efforts continued through to 2010 to minimise increases in charges due to lower traffic volumes. Customer feedback in relation to these measures was very positive and this translated into higher scores from most customers for "Financial Cost –Effectiveness".

IV. **Positive Operational improvements:** The Authority has successfully introduced a number of operational improvements during 2009-2010, as well as enhancing the FAB partnership with NATS. Airspace changes, such as ENSURE and NTFSR, which result in significant operational cost savings for the airlines, were highly commended. Improvements coming from the introduction of dual-runway operations at Dublin were also positively acknowledged.

V. **IATA Eagle Award:** As part of the IATA Eagle Award process in 2010, the Authority secured an honourable mention "for its best practice Customer Care Campaign, and its robust and stringent cost-control measures in a difficult environment". This further demonstrated the industry's positive acknowledgement for the Authority's cost containment measures

9.3   Recommendations from Consultation Meetings

Under the NSA licence, the IAA is required to conduct a consultation process with all key en-route and terminal customers. The following chart sets out the Authority's performance against key customer relation activities during 2010.

Identified 2010 activity	2010 Status
En Route Operational Efficiency: Conduct an Annual IAA Customer Conference in 2010 dealing with specific IAA operational issues.	Rather than a stand-alone IAA customer conference, a joint IAA/NATS FAB Customer Forum was held in October 2010, hosted by the two Chief Executives.
Terminal Operational Efficiency: Enlarge the existing customer participation in the monthly "Dublin ATC/Dublin Customer Operational" meetings.	Regular meetings have taken place throughout 2010 with Dublin based air operators.
Staff Awareness of Customer Relations: Briefing session will be provided to current student controllers as part of their initial training in Qtr. 2 2010.	This was not conducted in 2010. This may be revisited in the future.

Identified 2010 activity	2010 Status
Ireland-UK FAB: ■ Support implementation of the next FAB Plan 2010-13 through the Service Provision Working Group. ■ Deliver Joint FAB Customer communications with NATS.	Full support provided and, as mentioned above, a joint IAA/NATS customer forum was held in October 2010.
Customer Communications and Consultations: ■ Increase the volume of operational and technical information uploaded to our Customer Relations Management (CRM) system. ■ Provide regular bulletins on all ATC related activities (ANSP Customer Relations Bulletin). ■ Enlarge our customer consultation programme to include relevant airline associations.	The two major service interruptions during 2010 were a primary focus for the Customer Relations team and therefore no bulletin was produced. The relationship between the IAA and trade organisations (especially the Association of European Airlines) was enhanced.

Glossary

A

ACC   Area Control Centre
ANS   Air Navigation Services
ANSP   Air Navigation Services Provider
ATM   Air Traffic Management
ATS   Air Traffic Services

C

CAIRDE   Civil Aviation Integrated Radar Display Equipment
COOPANS Cooperative Purchasing for ANS Providers
CAPEX   Capital expenditure
CAR   Commission for Aviation Regulation
CRM   Customer Relations Module

D

DAA   Dublin Airport Authority

F

FAB   Functional Airspace Block
FDPS   Flight Data Processing System

H

HF   High Frequency

I

IAA   Irish Aviation Authority
IFR   Instrument Flight Rules

K

KPI   Key Performance Indicator

L

LCIP   Local Convergence Implementation Plan
LIDAR   Light Detection And Ranging

M

MHz   Mega Hertz
MSSR   Monopulse Secondary Surveillance Radar

N

NAV AIDS Navigational aids

S

SES   Single European Sky
SRD   Safety Regulation Directorate

V

VHF   Very High Frequency

IAA