

## **CHAPTER 8**

### **AIRPORT PERFORMANCE BENCHMARKING**

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## 1. INTRODUCTION – THE IMPORTANCE OF PERFORMANCE BENCHMARKING TO AIRPORTS

Measuring airport performance is one key to successful and efficient management of airports. To help move toward a common performance benchmarking language, for air cargo, the ACI-NA Air Cargo Committee determined that airports desiring to measure performance would benefit from the creation of a listing of potential measures that are presented in this Chapter. Rather than a precise formula of ingredients, performance benchmarking for purposes of this writing, means the process of identifying best practices, understanding their meaning in relation to business and adopting these practices to help airports serving the cargo industry improve their performance. Airport managers may wish to evaluate their own performance internally over time and also look externally at other comparable airports. Such external comparisons however are extremely difficult given the substantial differences that occur in cargo operations at airports that from many business elements other than cargo may be considered comparable.

For most airports, air cargo and its underlying business and operating dynamics are less understood elements of the aviation industry particularly by airport commissions and regional municipalities that sometimes evaluate their airports and airport management's performance based on raw cargo data and statistics. It is important therefore to note that while a number of stakeholders are discussed in this chapter, it has been written for airport managers and their staff. The chapter identifies a large number of potential benchmarks to help appropriate leadership create a set of *airport-specific* criteria that will enable them to:

- Better understand and/or manage the business elements of air cargo as they relate to airports
- Anticipate potential problem areas or issues to be more responsive to the service requirements of tenants and users and
- Select performance measures that are meaningful to their airports and enable them to reflect airport performance accurately to their governing bodies

The use of performance measures to compare one airport to another has little actual utility in terms of air cargo. The variables are so extensive and the industry dynamics so volatile and subject to anomalies that any results could prove uninformative. It is particularly important that in establishing performance measures that those that are adopted are not forced or inappropriate. They should address specific airport needs and not attempt to compare (for example) cargo functions at major gateways to small domestic operations at inland airports.

Airports play a prominent role in facilitating air cargo national and regional accessibility while also driving the economies of the areas or regions served by airports. Advances in technology and improvements in supply chain and modal transportation processes coupled with forecasted growth in the air cargo business have presented airports with many challenges. These include operational efficiency, cost effectiveness, and security. Linking the business process to customer needs is an essential part of benchmarking. The concept of benchmarking has also become increasingly important to airports as stakeholders along the air cargo logistics chain continue to demand benchmarking activities of interest to their various customers. Achieving performance standards can be the deciding factor when determining to whom to award business or how to route air cargo in or out of a country or region. Internally, Airports should know their competitive position in the market place. By establishing performance benchmarks, airports can develop a better understanding of both individual performance of stakeholders as well as the overall performance of the airport versus benchmark standards and goals.

## **2. PERFORMANCE BENCHMARKING DEFINED**

Performance benchmarking is the process of identifying best practices, understanding their meaning in relation to business, and adapting these practices to help organizations improve their performance. The comparison to a defined data set provides organizations with comparative opportunities to establish performance goals with standards and measures that would be considered a performance benchmark. Over designated time frames, benchmarking can improve operating levels and lead to improved organizational efficiency and performance.

## **3. STAKEHOLDERS IN THE PROCESS**

Stakeholders can be defined as people or organizations that have some interest in airports as they pertain to air cargo. Airport stakeholders can include the airports themselves and their governing bodies, shareholders, employees, airlines, customers, the public, members of the local community, government agencies, industry organizations, ground handling agents, freight forwarders, surface transportation providers, U.S. Customs Brokers, security companies, and other related vendors and service providers.

## **4. CONDITIONS OF MEASUREMENT**

Effective benchmarking relies on the elements of focusing on what needs to be measured and the processes involved when measuring core practices and competencies. Performance relates to results and differences of various output performance. Core practices and competencies refer to how these processes are conducted and performed to achieve this output. It is essential that performance measures are consistent and identical, whether in the comparison between airports or in an airport's efforts to recognize the value of its own cargo operations. Performance measures also have the responsibility of accommodating the needs and requirements of all airports, regardless of size or volumes. Performance measures should be accessible, reliable, dependable, and accurate. Accessibility pertains to the ability of data to be obtained and gathered on a reasonable basis. This is perhaps the most challenging aspect of many potential cargo measures for which data are frequently tracked and reported very differently or not at all by many of the smaller but critical businesses that are part of the industry. Airports should evaluate the accuracy and reliability of their internal data and the data received from their stakeholders. Reliability will ensure that what is measured is truly what an airport has intended to measure. It is important to reiterate that an airport should be proficient in understanding the operations of its business partners and stakeholders. Dependability provides a consistent result throughout the continued measurement process or within designated time frames. Accuracy ensures a basis of completion and that the measurement is available for its desired uses.

## **5. THE BENCHMARKING PROCESS**

Benchmarking requires a process that airports can follow in order to provide that airport with the ability to satisfy its individual benchmarking requirements. The benchmarking process is not a one-time event and must be maintained to ensure continuous improvement and that best practices are continually benchmarked against.

## **5.1 Goals and Implementation**

The first phase in the benchmarking process consists of establishing a plan to include goals and objectives. This is the most arduous task and requires the identification of a) management and customer needs, and b) the manageable core processes at each airport that can address those needs. Some airports may decide that they only require very basic or simple benchmarking criteria where others need a more sophisticated menu. During this phase, it is necessary to obtain a full understanding of critical processes and the way they are measured. The airport must then decide what data are required and the method of collecting this data. The prioritizing of benchmarking metrics should be based on each airport's individual strategic goals and objectives. Defining the process is necessary, as this will lead to goals being determined and inputs, outputs, and measures for success being identified. Identifying the most critical issues will subsequently allow for determining any opportunities for improvement. The use of flowcharts and other graphic aids is a recommended visual aid for simplifying the process.

## **5.2 Selection of Peer Airports**

If management opts to compare its airport against others, then determining which airports to benchmark against is the critical second phase of the process. Selecting inappropriate peer airports can lead to erroneous conclusions about the performance of your airport, so the selection of truly comparable peers is essential.

As already noted, air cargo is a complex undertaking with many elements. Finding airports that are truly comparable is a challenge. Basic cargo characteristics such as volume, the mix of operations (belly, dedicated freighters, integrated carriers), airport capacity and utilization should of course be similar. But even then, airports that may seem similar with respect to cargo may not be comparable (or compared with caveats) because of something not directly related to cargo. These other factors would include the ownership and governance structure, the competitive environment, the economic regulatory structure and the mix of traffic. For example, a cargo only airport (or an airport with limited passenger activity) needs to cover all of its costs through charges for cargo, and its rates will reflect that. Airports with large passenger volumes can cover more of the common costs from passenger charges, or non-aeronautical revenues. Airports in jurisdictions where government provides infrastructure funding or covers security costs from general revenues will have different charges than airports that have to be financially self-sufficient, paying for infrastructure and security.

No group of peers is going to be perfect, but care in selecting peers that are as comparable as possible is key to giving meaningful results. Understanding the key differences in the environment in which the peer airports operate will also help in interpreting the benchmarking results.

## **5.3 Data Collection**

The third phase in the benchmarking process concerns the collection of data and methods used to achieve this function. Research must be conducted in order to identify the metrics that will be used, to select candidates for the benchmark process, and to subsequently collect the data used in the benchmarking performance process. The understanding of an airport's core competencies and processes is essential to the success of this project. When selecting organizational partners or candidates to benchmark against, it is important to consider factors such as cost, time, logistical efficiencies, and any previous relationships. An obvious selection would be to look within the same industry or an industry that is closely related to the operation of an airport or involved in the transport of air cargo. The actual collection of data can be achieved in a variety of ways. The most common are checklists, surveys, interviews, questionnaires, and published data. The collection of data should be conducted in a uniform manner to ensure that results will be continually consistent.

It is vital that an airport understands its data accuracy and sources; otherwise, performance results may be skewed. A good example of this is with facility capabilities in terms of space and tonnage which could also have financial implications. Consider that freight being processed in a warehouse is neither enplaned or deplaned at that specific airport but has either been trucked from or scheduled to be trucked to another airport. This freight is not reported and therefore not included in any statistical figures that could be measured. Ensuring that an airport is aware of relevant data and capturing it accurately and efficiently is necessary for usable results. Continuous improvement to the collection process should also be mandated. Due to the nature of the airport business, as well as that of stakeholders, it is important to also consider confidentiality as organizations may consider certain information and data to be sensitive and for internal uses only. Reciprocity should also be considered, as this will provide a level playing field for organizations involved in the process.

#### **5.4 Analysis**

Analysis of the data collected is the fourth step in the process. The results should be analyzed to determine where there are any gaps between the airport's processes and those that have been used for benchmarking purposes. This analysis can be conducted within various time frames, depending on if an airport is looking for quick view or focusing on long-term trends. From this information, strategic planning can be employed to make improvements to the processes. Understanding the reasons why and how the achievement of benchmarks can be accomplished will determine the root cause of any problem areas and allow for subsequent modification and improvement.

#### **5.5 Adaptation**

The final phase of the benchmarking process is specifically linked to the adaptation of the best practices defined and continuous improvement practices. Support of the various stakeholders involved in the process is necessary to ensure that newly acquired best practices can be applied. This can be achieved through effective communication to the relevant parties involved. Goals can then be set and an action plan implemented to address the task of closing performance gaps and instituting processes for continuous improvement.

### **6. AREAS OF PERFORMANCE MEASUREMENT**

To clearly define areas of performance management where benchmarking initiatives can be conducted, it is necessary to identify the core competencies of airports as they relate to the air cargo industry. These core areas are identified as *Security & Safety, Facilities, Airport Infrastructure, Cargo Throughput and Flight Activity, Service Levels, Financial Implications, Economical Implications, Business Development, and Marketing*

*Security & Safety* pertains to government regulations & measures, industry regulations & measures, and internal regulations & measures that will ensure that airports meet and exceed minimum standards.

*Facilities* involve all aspects of cargo facilities including size, occupancy, throughput capabilities, efficiency, aircraft parking, automation, and age.

*Airport Infrastructure* relates to AOA capabilities such as runway dimensions and capacity, ramp, and types of aircraft handled. It also includes landside transportation access capabilities.

*Cargo Throughput and Flight Activity* refers to the volume of cargo handled at an airport, the types of cargo an airport handles, and the volume of flights in and out of that airport.

*Cargo Service Levels* refer to the various landside and airside operations that relate to air cargo.

*Financial Implications* refers to the various fees and revenues that airports realize from air cargo.

*Economic Implications* refers the economic vitality of the airport and airport region as a result of jobs created, wages earned, and revenue produced.

*Business Development and Marketing* encompass a wide array of Airport functions including marketing and planning.

### 6.1 Performance Measures

Included in the following are listings of potential measures that airports could utilize. Not all of these would be meaningful to every airport. It is important to note that airports can also create derivatives of the measures listed if they better suit an airport's benchmarking needs. The key is that airport managers utilize measures that most clearly relate to their own management needs and internal and external reporting requirements.

#### Security & Safety

Activity	Benchmark	Target	Results	vs. Bmark
Availability of Police Escort for High Value Cargo				
Percentage of Cargo Operations Area as SIDA				
Does the Airport Meet TSA Requirements				
Does the Airport Meet FAA Requirements				
Dollar value of cargo lost to theft.				
Dollar value of U.S. Customs fines				
Number of incidents of theft.				

#### Facilities

Activity	Benchmark	Target	Results	vs. Bmark
<b>Facilities (Total)</b>				
Number of Facilities				
Warehouse Square Feet (Total)				
Office Space (Total)				
Ramp Space (Total)				
Aircraft Parking Positions (Total)				
Truck Bays (Total)				
Warehouse Occupancy/Vacancy Percentage				
Warehouse Condition				
Warehouse Capabilities (Automated)				

Warehouse Capabilities (Semi-Automated)				
Warehouse Capabilities (Non-Automated)				
Truck Parking Positions				
Customer Parking Spaces				
Employee Parking Spaces				
Average Age				
Warehouse Throughput per Square Foot				
Warehouse Throughput per Square Foot vs. PY				
Facilities (Individual)				
Warehouse Square Feet				

PY- Previous Year

### Airport Infrastructure

Activity	Benchmark	Target	Results	vs. Bmark
Efficiency of Cargo Area Access				
Efficiency of Airport Roadway Access				
Efficiency of Airport Cargo Area Access				
Efficiency of Aeronautical Infrastructure				
Number of Runways				
Condition of Runways				
Size of Runways				
Capabilities of Runways				
Total Aircraft Parking Spots				

### Cargo Throughput and Flight Activity

Activity	Benchmark	Target	Results	vs. Bmark
Annual Cargo Throughput				
Annual Cargo Throughput vs. PY				
Annual Cargo Throughput per Carrier				
Annual Cargo Throughput per Carrier vs. PY				
Annual Cargo Throughput per Facility				
Annual Cargo Throughput per Facility vs. PY				
Annual Cargo Throughput per Facility not Flown				
Annual Cargo Throughput per Facility not Flown vs. PY				
Annual Cargo Throughput (Freighter Aircraft)				
Annual Cargo Throughput (Freighter Aircraft) vs. PY				
Annual Cargo Throughput (Passenger Aircraft)				
Annual Cargo Throughput (Passenger Aircraft) vs. PY				
Annual Cargo Throughput Passenger vs. Freighter Aircraft %				
Annual Cargo Throughput Passenger vs. Freighter Aircraft % vs. PY				
Annual Cargo Throughput Domestic Cargo				



Annual Cargo Throughput International Cargo				
Annual Volume of Flights (Total)				
Annual Volume of Flights (Total) vs. PY				
Annual Volume of Flights (Freighter Aircraft)				
Annual Volume of Flights (Freighter Aircraft) vs. PY				
Annual Volume of Flights (Passenger Aircraft)				
Annual Volume of Flights (Passenger Aircraft) vs. PY				

PY- Previous Year

### Cargo Service Levels

Activity		Benchmark	Target (%)	Results	% vs. Bmark
Landside	Truck Waiting Time				
	Cargo Delivery				
	Document Delivery				
	Cargo Availability				
	Empty ULD Pickup & Delivery				
Warehouse (Import)	Breakdown (General Cargo)				
	Breakdown (Perishable Cargo)				
	Breakdown (Express Cargo)				
	Irreg Handling (No Locate)				
Warehouse (Export)	Build-up (General Cargo)				
	Build-up (Perishable Cargo)				
	Build-up (Express Cargo)				
	Irreg Handling (Wrongly Forwarded)				
	Irreg Handling (Short-shipped)				
	Irreg Handling (No Locate)				
Warehouse (Transfer)	Aircraft to Aircraft				
Airside	Aircraft Handling (Unloading)				
	Aircraft Handling (Unloading)				
	Aircraft Handling (Turnaround)				
Dwell Time	Transient (technical & fueling) activity				
	Cross loading pallets/containers				
	Partial breakdown/buildup				
	Full breakdown/buildup				
	Partial sortation				
	Full sortation and customs clearance traffic				

## Financial Implications

Activity	Benchmark	Target	Results	vs. Bmark
Freighter Landing Fees				
Passenger Aircraft Landing Fees (per Cargo Wgt %)				
Percentage Fees on Revenues				
Fuel (Into Freighter Aircraft) Fees				
Fuel (Into Passenger Aircraft per Cargo Wgt %) Fees				
Revenue from Facility Leases				
Aircraft Parking Fees				
Total Revenue from Cargo				
Cargo Revenue vs. Total Airport Revenue				
Total Investment in Cargo				
Revenue per Cargo Facility				
Revenue per Ton				
Revenue per Warehouse Square Foot				
Revenue from International Carriers				
Revenue from Domestic Carriers				
Vs. Previous Year				
Freighter Landing Fees				
Passenger Aircraft Landing Fees (per Cargo Wgt %)				
Percentage Fees on Revenues				
Fuel (Into Freighter Aircraft) Fees				
Fuel (Into Passenger Aircraft per Cargo Wgt %) Fees				
Revenue from Facility Leases				
Aircraft Parking Fees				
Total Revenue from Cargo				
Cargo Revenue vs. Total Airport Revenue				
Total Investment in Cargo				
Revenue per Cargo Facility				
Revenue per Ton				
Revenue per Warehouse Square Foot				
Revenue from International Carriers				
Revenue from Domestic Carriers				

## Economic Implications

Air Cargo Economics	Benchmark	Target	Results	% vs. Bmark
A. Direct Jobs Created				
Jobs per Investment Dollar				
Jobs per Cargo Short Ton				
Jobs per Average Truckload				
Total Wages				
Average Wage				

B. Indirect Jobs Created				
C. Total Economic Activity				

## Business Development

Activity	Benchmark	Target	Results	% vs. Bmark
Creation of an Air Cargo Master Plan				
New Construction Initiatives				
Volume of Innovation Initiatives				
Marketing Initiatives and Venues				
Business Development Initiatives				
Creation of and Air Cargo Marketing Plan				

## 7. MEASUREMENT AUDITING

Airport performance benchmarking is an ongoing process that allows each airport to decide on its own levels and indicators of measurement and the intervals and time frames relevant to that airport. Performance benchmarking activities can be conducted on monthly, quarterly, bi-annual, and yearly intervals depending on the resources and requirements of the individual airport. It is recommended that airports measure performance as dictated by the needs of the specific performance measurement area that is involved. For example, cargo service levels may need to be measured more frequently than economic implications. It is also necessary for airports to incorporate these activities into their annual planning and budgeting forecasts to ensure that resources are available to conduct performance benchmarking.

Scheduled auditing of performance is also important to ensure that the performance measures in use remain useful and that the related business strategy should remain unchanged. In addition, when auditing performance, it is just as important to reassess the industry context as a double check for relevancy. For example, if the airport targeted five percent annual growth in air cargo tonnage for the year, and by mid-year growth was at six percent, the tendency is to believe that the airport is doing well. If, however, industry growth is at nine percent, then the picture looks less rosy and strategy may need to be reassessed. In contrast, if targeted growth were five percent and airport growth were four in an industry that grew only two percent, then the perception of performance typically would not be negative even though targeted growth was not achieved. This is often an extremely important message to convey to stakeholders.

### 7.1 TARGETING THE MEASURES

In July 2005, the Air Cargo Committee of ACI-NA attempted to refine the large listing of measures by surveying a wide range of constituents that included airports of varying sizes, developers of air cargo facilities, consultants, and various supporting services. The effort identified what were considered to be the top ten generic measures that could be used to compare air cargo performance across airport lines. These are listed below. This information is helpful in identifying a broad industry-wide perspective, but, still, without linkage to airport goals, provides little insight into what would be the best and most informative choices for an individual airport.

These are the “Top Ten”.

1. Tons of cargo enplaned and deplaned (annual).
2. Tons of cargo enplaned and deplaned (annual) – International Belly vs. Freighter.

3. Tons of cargo enplaned and deplaned (annual) – Domestic Belly vs. Freighter.
4. On-airport warehouse square footage (total).
5. Number of direct jobs created from cargo activity.
6. Average time required for international air cargo to clear customs.
7. Warehouse throughput per square foot.
8. Efficiency of cargo area access.
9. Efficiency of aeronautical infrastructure.
10. Warehouse occupancy/vacancy percentage.

Several of these measures, particularly those dealing with gross tonnage figures are in common use throughout the industry today and serve as valid volume comparisons. However, the volume numbers do little to benchmark the efficiency or effectiveness of one airport's operation versus another's. Given the variation in cargo operations, two sets of measures should be considered. The first is for the airport to use in the day to day management of the cargo function. These are the internal measures: they reflect feedback from existing tenants measured against airport goals, and are more narrowly focused. The second set reflects broader reporting issues that are most appropriately used for external reporting and to compare the airport's performance to other *comparable* airports. These recommended measures have also been derived from the goal structure of the cargo program.

The measures and benchmarks should be structured in such a way that the airport will be able to develop data that will enable management to better understand existing cargo operations and proactively manage future cargo growth strategies. They are listed in a suggested priority order. Airports have historically tended to focus on macro-measures that are more generic—tonnage, operations, etc. All of the following measures can be implemented without major problems. The decision of who will perform the measures and exactly how they will be measured and to what standards will depend on the creation of such standards by the airport and its operating partners. Establishing such standards prior to the acceptance of critical elements of an Air Cargo Plan is premature.

### Internal management measures and benchmarking

1. **Volumetric measures:** These are the typical measures used throughout the industry dealing with tonnage and operations. They can be subset into inbound-outbound, domestic-international, and freighter-belly cargo. Reports should be structured so that data can be used to identify trends, anomalies, and planning issues, as well as providing routine reporting data. It should be noted that this number may also be looked at in conjunction with regional market share because of the presence of other nearby airports.
2. **Cargo revenue generation:** The ability of the airport to generate revenue from cargo is important. Realistic targets should be based on a methodology that considers tenant and user operating conditions, value for services provided by the airport, and coverage of airport cargo operating costs. These targets can be subset into landing fees, fuel flowage fees, leasing revenues, percentage agreements, and other cargo-related fees.
3. **Occupancy rates of cargo facilities:** Recognizing that revenue generation is an important issue for management, occupancy/vacancy rates of the facilities should be monitored on a regular basis. The rates should be linked to overall occupancy and revenue targets that would be met as a result of leasing.
4. **Utilization of cargo facilities:** Management should establish utilization ratios that reflect targeted throughput for cargo facilities. Effective management of tenant occupancies is far more cost effective than the development of new buildings. Monitoring cargo building throughput on a quarterly basis will help management to identify the need for new space or opportunities to relocate tenants on a timely basis. It will also enable management to identify underutilized facilities.

5. **Availability of cargo facilities and infrastructure to meet demand:** It is critical, particularly in growth scenarios, that new infrastructure and facilities be timed to come on line, or older facilities become available, to meet demand. This requires the establishment of development triggers and close management of the leasing portfolio.
6. **Utilization of the land envelope:** The scarcest resource available to most airports is land. The amount of unused property available for cargo development is an important aspect in measuring present and long-term capacity.
7. **Compatibility of facilities and infrastructure with tenant needs:** The mere availability of cargo facilities is not enough. Warehouses that cannot accommodate throughput, screening or storage requirements will heighten levels of tenant dissatisfaction and in some instances will cause tenants and users to seek other airports. The same is true if tenants cannot access ramp that they require, or lack sufficient truck courts or truck bays.
8. **Levels of tenant satisfaction:** The size of the regional cargo community warrants attention to the needs of this enormous contributor of revenue and jobs. Communications, responsiveness to tenant operating and maintenance needs, as well as administrative effectiveness are elements of business with which tenants and users are concerned.
9. **Efficiency of landside access and egress:** Cargo is inter-modal. An efficient operation must accommodate trucking requirements to and from the airport and to and from the cargo facilities. Many critical elements of a cargo operation are located off-airport. Time from off-airport facilities to on-airport properties is a vital criterion as is the ability to exit the airport to the highway system and proximate regional destinations.
10. **Reported incidents of theft:** While a great deal of focus is given to anti-terrorism, a major concern for the cargo industry is theft that affects insurance premiums and can result in penalties to parties involved in the movement of goods. Management can help control theft through effective building planning and design, appropriate physical separations, and assigned security personnel. One measure is the dollar value of goods lost to theft. While this is a reasonable measure it should reflect any incident as a percent of total dollar value of airport traffic. Otherwise it can be substantially skewed by a single incident and not reflect the effectiveness of a designed program.

### External management measures and benchmarks

1. **Regional Economic Impact:** The total impact of the air freight business on a region is frequently surprising and often justifies investment beyond pure financial return on investment.
2. **Job generation:** Part of the justification for investment in cargo operations is the number of jobs generated by cargo. This could be a subset of Economic Impact but can stand alone.
3. **Volumetric measures:** These are the typical measures used throughout the industry dealing with tonnage and operations. They can be subset into inbound-outbound, domestic-international, and freighter-belly cargo. Reports should be structured so that data can be used to identify trends, anomalies, and planning issues, as well as provide routine reporting data.
4. **Investment in cargo facilities and operations:** Cargo is typically a lower profile aspect of an airport's operation than the passenger business. It can however generate substantial benefits. It will be important to be able to indicate levels of investment in cargo to put generated benefits in context.

5. **Cargo Revenues:** This number can be expressed in total or as a percentage of total airport revenues. Total revenue should include landing fees, fuel flowage fees, leasing revenues, percentage agreements, and other cargo-related fees.
6. **Total developed cargo facilities and infrastructure:** Airports, particularly those considered "gateways" are frequently compared based on their overall capacity for airside and landside cargo operations.
7. **Levels of tenant/user satisfaction:** The size of the regional cargo community warrants attention to the needs of this enormous contributor of revenue and jobs. Communications, responsiveness to tenant operating and maintenance needs, as well as administrative effectiveness are elements of business with which tenants and users are concerned. Tracking must lend itself to the formulation of key issue analyses and appropriate outreach and corrective initiatives.
8. **Appearance:** The aesthetics and overall appearance of facilities and the cargo zones in general are key marketing tools and for attracting new tenants or retaining existing ones.

Performance measures should provide meaningful information about what they are intended to measure. To inform the constituency effectively, measures should be triangulated when possible. By way of example the effectiveness of a cargo leasing program is not best measured by the amount of square footage under lease. Management is usually interested in the revenues generated by the leasing program. It is therefore important to measure not just the amount of square footage but also the rate per square foot at which the property is leased. Similarly, service improvements are important in the public sector, but the cost-benefit must be considered and where appropriate, alternatives evaluated.

## 8 CONCLUSION

Performance benchmarking is an integral part in the continuous improvement of any organization's effectiveness. From an airport's perspective, it links goals to the needs of customers, stakeholders and to the airport itself. Whether an airport is looking to improve its internal operations or to become more competitive on an industry-wide basis, understanding best practices and utilizing them properly is essential to future prosperity and growth.