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# Managing the ATCO Career: Issues for Organisations, Managers and Staff

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<b>Abstract</b>		
<p>This document provides an insight into the issues for managing the Air Traffic Controller (ATCO) career as seen from the different perspectives of the organisation, managers and individual staff. These issues are more visibly coming to the fore as Air Navigation Service Providers (ANSPs) and Air Traffic Management (ATM) organisations increasingly face environmental, organisational and societal changes from outside. Such changes present a challenge to retain skilled staff in the face of changing staff attitudes towards career, job satisfaction and personal growth.</p>		
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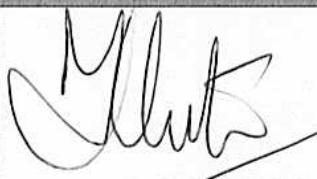
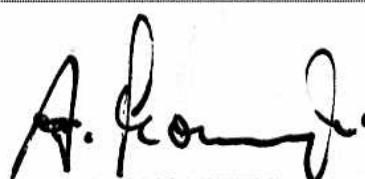
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## EXECUTIVE SUMMARY

In today's rapidly changing Air Traffic Management (ATM) environment, organisational and societal changes are causing Air Navigation Service Providers (ANSPs) to assess the contribution that Human Resources Management (HRM) makes to the organisation. ANSPs and ATM organisations now recognise that policies and practices of recruitment and selection have assumed a strategic importance for them. This document suggests that other areas of Air Traffic Controller (ATCO) HRM, namely career management, will assume greater importance in the future. Just as those organisations have faced up to the challenge of attracting and recruiting sufficient numbers of ATCO staff, so will they need to pay more attention to retaining talented staff in the face of changing staff attitudes to their career and achieving job satisfaction and valuing personal growth as importantly as remuneration.

Following on from the results of the survey described in 'A Report on Organisational Career Management and Development Practices for ATCOs' (see EATM, 2003a), a business case is made for developing policies and important plans for building career management programmes which cater for skills development and personal growth of their staff.

This document further provides an insight into the issues for managing the ATCO career as seen from the different perspectives of the organisation, managers and individual staff.

At the heart of these issues a framework for managing competencies is outlined. This may be seen as a possible basis for creating career paths and the possibility of building realistic career development programmes to meet business needs.

Section 1, 'Introduction' presents the issues addressed by the document and outlines the scope and objectives.

Section 2, 'Business Case for Career Development Programmes in ATM', outlines the strategic and operational benefits, the risk-cost scenarios and the revised components of the HRS/MSP-004 Work Package, 'Advanced Methods for Personal/Career Development', which is part of the Manpower Sub-Programme (MSP) of the EATM Human Resources Programme (HRS).

Section 3, 'Competency Frameworks', introduces at individual, team and organisational levels the concept of competency frameworks in the context of building an integrated human resources managerial system.

Section 4, 'Issues for Organisations', describes some of the issues which might influence organisations to address career management.

Section 5, 'Issues for Managers', describes some career development issues that face managers of ATCO staff.

Section 6, 'Issues for Individuals', presents an overview of issues for individual staff in the management of their own career.

Section 7, 'Managing the ATCO Career – Graphics', presents some summary graphics to illustrate managing the ATCO career.

References and Further Reading, Abbreviations and Acronyms used in this publication and a list of contributors to it complete the document.

## 1. INTRODUCTION

### 1.1 General

This document is concerned with how ATCOs, managers and ATM organisations manage the ATCO career. Research and anecdotal evidence support the premise that the world of employment has changed significantly over the past decade, and reflects that it will continue to change.

This document is intended for several different audiences:

- the ATC staff who are looking for an understanding of their own professional past, present and future beyond the completion of an annual appraisal form;
- the managers, upon whom responsibility falls for implementing, maintaining, and evaluating career development programmes for their ATCO staff;
- the ATM organisations themselves, who must overcome the challenges that face them in the 21<sup>st</sup> century.

Current and ongoing events and issues have vividly reflected the strategic importance of recruitment and selection for ATC across Europe. This document aims to widen the discussion and illustrate that some of those issues and concerns are spilling over into other areas of ATCO Human Resources Management (HRM). The area that is addressed in this paper is what might be termed 'managing the ATCO career'. Discussion is not limited to the notion of career development although this is part of the debate. Indeed, the idea of career development is often incorrectly biased towards career progression with its attendant concentration on promotion and betterment for individual staff. Although it is important for organisations to create strategies to deal with this aspect, it does not encompass all of the questions and concerns that must be addressed in today's rapidly changing ATM environment. Equally, it does not fully take into account the societal and organisational changes that beg the following two questions:

- Having taken the time and engaged considerable financial resources to recruit people with the right potential and trained them to safe and professional standards, how do organisations ensure they retain those peoples' talents into the future?
- How can ATM organisations live up to the universal mission statement avowal that people are their most valuable asset, which in ATC they most patently are?

## 1.2 Scope

The scope of this document is to:

- present a business case for the development and implementation of career management programmes within ANSPs and ATM organisations;
- explore the relevance and feasibility of ATCO career management as a concept and strategic organisational tool to utilise, expand and develop competencies within operations.

## 1.3 Objectives

The objectives of this document are to:

- identify current issues facing ATM organisations, managers and staff in managing the ATCO career;
- illustrate the potential use of competency frameworks as an integral component of integrated HRM systems;
- explore the possibility using a career management strategy as a means of maximising a valuable resource within operations to meet organisational strategic goals.

## 1.4 Outline

This document will address the following questions:

- What are some of the issues being faced by ATM organisations, managers and individuals in the management of the ATCO career?
- What is the value of developing and implementing competency frameworks?
- How would the application of competency frameworks provide an integrated system in Human Resources (HR) practice?

## 1.5 Revised HRS/MSP-004 Work Package Components

Phase 1 completed in June 2000, produced a document entitled 'Guidelines for Personal and Career Development Processes' (EATMP, 2000a), which provides guidance to managers, manpower planners and staff on the processes involved in Personal/Career Development (PCD) of ATCOs, and outlines different career paths which could be considered. It also provides a framework for understanding PCD as a strategic activity in HRM, and outlines the constraints existing in Air Traffic Services (ATS) organisations to implement and maintain a career development process.

Phase 2, covered by the 'Report on Organisational Career Management and Development Practices for Air Traffic Controllers' (EATM, 2003a), was targeted at identifying organisational career management practices and programmes for ATCOs that are currently in use and/or under development. The results of this survey made a distinction between the individual career planning tasks and those practices at organisational level – career management practices. This document included an update following a second enquiry to assess the reported consequences and effects of the events of 11 September 2001 on ATM organisational career management programmes.

Phase 3 is the subject of this document. It presents a business case for career management programmes within ATM organisations, and provides an insight into issues for managing the ATCO career from the organisational, management and staff perspectives.

## 1.6

### Summary

This section was an introduction to the issues of managing the ATCO career for ATM organisations, managers and individuals. The scope and objectives of the document were identified, and the now revised form of the PCD Work Package components were presented. Finally, a summary structure of the document is illustrated in Figure 1.

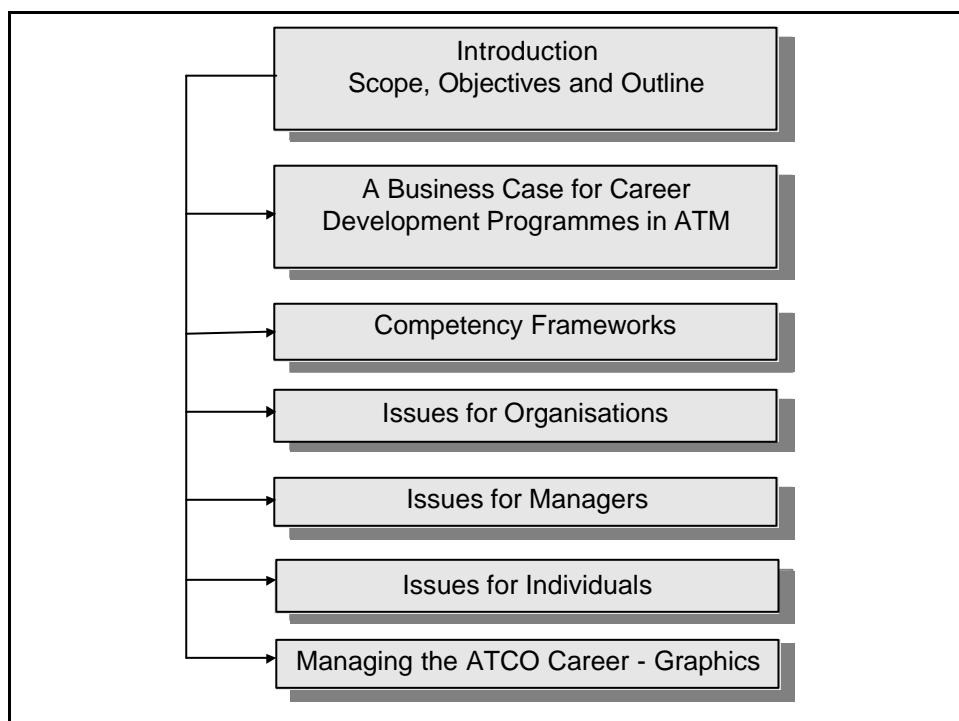


Figure 1: Summary structure of the report

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## 2. BUSINESS CASE FOR CAREER DEVELOPMENT PROGRAMMES IN ATM

### 2.1 Purpose

The purpose of the Business Case is to demonstrate that career management programmes within ATM organisations are cost effective and make best use of valuable and skilled human resources.

### 2.2 Objectives

The overall objective of the Work Package HRS/MSP-004, 'Advanced Methods for Personal and Career Development', is to develop and provide advanced Personal and Career Development (PCD) concepts, processes and methods integrated with manpower planning for proactive development and use of staff potential in current and future ATM.

### 2.3 Strategic Benefits

A strong career management programme provides a mechanism to identify and develop staff in line with changing roles, profiles and responsibilities to meet evolving organisational targets. Air Navigation Service Providers (ANSPs) and ATM organisations have recognised the benefits of this valuable practice in the ongoing attempt to attract, develop and retain employees in a competitive and changing workplace environment.

Career management programmes thus offer a number of strategic benefits to ANSPs and ATM organisations:

- **Capacity** - Enables and supports better use of staff to achieve improved capacity targets and to ensure availability of personnel as required in different outside operational functions and within operations.
- **Safety** – It supports the timely development of competencies of controllers to provide ATC expertise in the development and implementation of new technologies to achieve improved safety targets.
- **Economic** – Increasing the profile of the ATCO profession by emphasising evolving career path opportunities goes some way to enhancing the attractiveness of the job and will increase the job applications from people with potential and an interest for a broader career. This will contribute to decreasing the ATCO staff shortages currently being experienced by ANSPs and ATM Organisations within and outside of operational functions.

- **Social impacts** – ANSPs' and ATM organisations' career management programmes will contribute to improved job satisfaction, motivation, staff retention and work-life balance, and will ensure wider and long-term employability of staff in line with organisational changes.

## 2.4 New Technologies

Career management programmes will enable the ANSPs and ATM organisations to meet manpower planning requirements in terms of quantity (number) and quality (skills, qualifications) by identifying potential and developing competencies of ATC staff who will apply their expertise in different functional areas such as:

- human factors and safety management where operational expertise will be needed;
- project management to successfully implement technological solutions and new procedures;
- administrative and management positions which require ATCO expertise to meet the organisational targets for personnel outside of or on top of operations.

## 2.5 Risk-Cost Scenarios

As a way of dealing with the career management programme life cycle, three different strategies can be addressed, which are illustrated in Figure 2.

- **'Do nothing' Approach:** No initiatives are taken to counter manpower planning and development issues; only when problems/shortages arise will these issues be addressed **if at all**.

*Example:* If no initiatives are taken, the costs related with career development linked with strategic manpower planning issues and organisational strategic targets increase rapidly over the life cycle.

- **Reactive Approach:** Concern for career development and meeting organisational targets are left to the last stages when addressing a comprehensive Human Resources Management (HRM) system.

*Example:* If the concerns/issues for the career development programme and related manpower planning issues are left to the final stages of organisational strategic planning, the cost scenario will develop in a less aggressive **yet** increasing manner.

- **Proactive Approach:** The career development programme is identified early in the organisational strategic planning process and steps are taken to begin the development, implementation and maintenance of this initiative.

*Example:* If the career development programme is introduced early in the strategic planning cycle of the organisation, the cost will develop in a different manner. Although the costs at the beginning of the initiative are higher compared to the other approaches due to early investments, the illustration shows how the early anticipation of problems may reduce later and more expensive problems. A practical consideration for this approach would be anticipated retirement of **all** staff and having a well-designed succession planning programme in place.

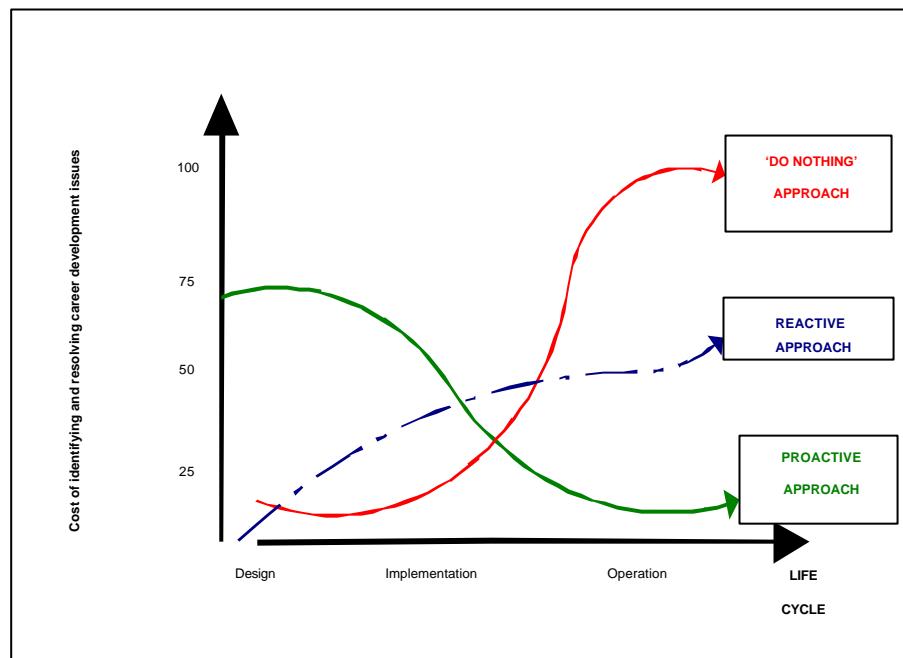


Figure 2: Risk-cost scenarios

## 2.6

### Summary

This section presented the business case to support the development, implementation and maintenance of career management programmes within ANSPs and ATM organisations. Strategic and operational benefits were presented as well as risk–cost scenarios.

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### 3. COMPETENCY FRAMEWORKS

#### 3.1 Introduction

A competency framework has been described (Whiddett & Hollyforde, 1999) as

*...similar to the foundations that underpin a house. Get it right and future activity can concentrate on general housekeeping. Get it wrong and future activity will be papering over cracks and repairing structural damage.*

The language of competencies provides a common framework and vocabulary for describing people, jobs and the systems that bring people into roles, develop them through the roles and pass them on to the next role. For the individual, team and organisation it means understanding the key objectives to be achieved and what behaviours are needed to achieve those objectives. Competency definitions can provide a framework for understanding what kind of behaviours can and should be used to satisfy key objectives most effectively (Hartle, 1997).

Competency, a newer term than 'skill' has grown in importance following the publication of 'The Competent Manager' (Boyatzis, 1982). His model of effective management action consists of three intersecting circles: the individuals' competencies, the job demands and the organisational environment.

This section clarifies the definitions of competencies at individual, team and organisational levels, presents competencies in the context of an integrated HR system, and provides generic examples of competencies at these three levels.

#### 3.2 Competency Defined

In a review of literature on this subject, there seems to be confusion about the terminology. Competence and competencies have been used interchangeably between themselves and with 'skills'. Competencies have been identified as behaviours, cognition, corporate culture and personal dispositions. According to Woodruffe (1992), *competency is the set of behaviour patterns that the incumbent needs to bring to a position in order to perform tasks and functions with competence* (p. 17). Hartle, (1997) describes a competency as a *characteristic of an individual that has been shown to drive superior job performance*.

Competencies differ from competence in that they are concerned with the behaviours needed to fulfil a task (Whiddett & Hollyforde, 1999) and as such can be assessed and measured objectively. For the purposes of this report

and to reflect a commonality of varied explanations, we make the proposal that *competency is an observable activity directed at accomplishing a task* (New, 1996). It is the way we do our work, at individual and organisational levels.

### **3.3 Types of Competencies**

Understanding the types of competencies that exist, coupled with the capability to identify and develop them in individuals and organisations, should make it possible to determine the relative success of an individual in a particular job and the success of an organisation at strategic levels. Conversely, it should be feasible to identify a set of competencies that are needed for an incumbent of a post to succeed in that role. Matching the competencies needed for a job with those possessed by the individual might result in the improvement of performance. It can therefore be suggested that as the individual with the 'right fit' for the job is successful, the overall organisational performance would improve (New, 1996).

### **3.4 Core Competencies**

Core competencies (also referred to as job-specific competencies) are job/function specific and identify those components of the task/role which are required for effective performance. Every job will require certain competencies in order for the incumbent to be successful. The range of these competencies can be infinite, are acknowledged as being impossible to imitate and specific to each organisation. Core competencies are often not transferable and may not indicate favourable performance in other functions (McClelland & Boyatzis, 1982).

### **3.5 General Universal Competencies**

These represent those 'basic' and/or generic skills that can be found in almost any job/role. New (1996) refers to these as 'general management competencies'. They are the ways in which *a person interacts with other people in an organisation, be they peers, superiors, staff or subordinates and are subsequently an essential requirement in any job* (p. 46).

For example a number of generic management competencies have been published (Woodruffe, 1992, pp. 18-24) which include in some form the following competencies:

- breadth of awareness and strategic perspective,
- oral and written communication,
- leadership, decisiveness and assertiveness,
- team working and the ability to work with others,
- analysis and judgement,
- drive and persistence,
- organisation and planning,

- sensitivity to other's viewpoints,
- self-confidence and persuasiveness,
- flexibility and adaptability.

As it can be shown from the previous list, at some level and to some degree, these competencies would be applicable to all situations – whether organisation or job/function specific.

### 3.6

## Organisational Level Competencies

In order to provide some fixed points to help deal with external impacts, strategic capabilities of organisations have been translated into underlying competencies (Grant, 1991). Organisational competencies can be identified by examining what lies beneath the more obvious competencies (e.g. technical, marketing, strategic capabilities). Taking this view, one can define organisational level competencies as a *meshing together of organisation resources such as the skills of individual people, leadership and more tangible assets (capital resources, brand reputation, etc)*. These competencies can then be seen as *strategic combinations of 1) individual (human) competencies, 2) hard organisational factors (equipment and facilities) and 3) soft organisational factors (culture and organisation design)* (Klein, Edge & Kass, 1991).

For example (adapted from Sparrow, 1996):

- superior records of innovation, learning, quality and other long-term business criteria;
- competence held by the organisation and jointly developed by individuals;
- articulation of key success factors, mission and vision statements;
- resources and capabilities of the organisation linked with strategic performance targets;
- training and development clearly defined and linked to larger organisational strategy.

### 3.7

## Team Competencies

Teams have been recognised as an extremely valuable asset in today's organisations. With the increase in technology, some organisations have shifted from an individual to a team focus to complete certain areas of work (Maxwell, 1997). As a result of the many positive outcomes associated with the use of highly functioning teams, organisations continue to search for ways to improve through training, development, and the identification of team competencies to ensure successful performance and attainment of strategic objectives.

For example (adapted from Hartle, 1997):

<b>TEAM SKILLS</b>	
<b>Definition:</b> The ability to work and co-operate willingly with others, both in own work team and other working groups.	
<b>Explanation:</b> This competency is concerned with the way in which the employee behaves in teams/groups. Factors to consider are the degree to which the employee helps and supports colleagues, the contribution the employee makes to the team, the sacrifices and compromises the employee makes on behalf of the team, and the flexibility to undertake different roles within the team.	
<b>Behavioural Indicators</b>	
<input type="checkbox"/>	Can adopt to different team roles
<input type="checkbox"/>	Puts interest of team before self
<input type="checkbox"/>	Inspires others to contribute
<input type="checkbox"/>	Reduces conflicts and build cohesion in team
<input type="checkbox"/>	Positively influences team performance
<input type="checkbox"/>	Identifies with other team members
<input type="checkbox"/>	Works toward achievement of team's objectives and goals

### 3.8

### Application

Integrated Human Resources Management (HRM) systems of organisations should reflect competency frameworks oriented towards the concept that a better fit between the requirement of working in a company and the competencies of a person would result in better employee performance and greater job satisfaction (Hartle, 1997).

Competence-based Human Resources (HR) processes are based on the belief that it is possible to identify and isolate the behaviours exhibited more consistently by excellent performing employees than average performing employees. Once identified, it should be possible through coaching and training interventions to transmit these competencies throughout the workforce (Heffernan & Ford, 2000). It is argued that competencies have the potential to align and integrate all HR systems if the behavioural standards of excellent performers become the foundation of recruitment, selection, performance management, pay, training and development and promotions (Klein, 1996).

### **3.9 Selection within Competency Frameworks**

Competency-based models have been used by many organisations to identify suitable candidates at the recruitment stage. The purpose here is to establish the 'behaviour traits' needed in a particular job and the extent to which different candidates possess these traits. Competency-based selection relies on the premise that past or current behaviour is the best predictor of future behaviour in similar situations (Goldstein & Davidson, 1998) and can be summarised as follows:

- define future personnel requirements;
- determine specifications to secure quality people;
- assess and select candidates against team and organisational requirements.

### **3.10 Professional Development within Competency Frameworks**

Fundamental changes and impacts on organisations are creating the need to develop more future-oriented sets of competencies. This can be reflected in three main approaches to identifying these competencies that require a sophisticated effort in cross-cultural validity and present a significant challenge to national models of staff development (Sparrow & Hiltrop, 1996):

- linking the development of management competencies to the life cycle of the organisation;
- identifying those competencies that are associated with high performance in uncertain environments; and
- developing competencies that are associated with high levels of flexibility and the ability to implement changes.

Many organisations use competency-based models as part of their career management programmes to develop existing staff. The aim here is to assess individual strengths and weaknesses so that future development is identified. Employees are measured against a number of competencies and individual strengths and weaknesses are identified so that future development can be identified (Heffernan & Ford, 2000).

### **3.11 Integration of Competencies with HR Systems Linked to Business Needs**

Competencies can potentially be used to integrate and link an organisation's main HR processes – selection, training and development, performance management – to the business strategy. If used systematically, competencies tie together all HR processes so that they focus on the same key expectations

and objectives and provide mutual reinforcement to each other as illustrated in the following model (adapted from Heffernan & Ford, 2000).



Figure 3: Competency framework

### 3.12 Summary

This section presented an overview of competency frameworks. It is reasonable to state that each organisation will develop their own models based on the specific competencies of the jobs, the organisational strategies and the utilisation of individuals and teams within their own organisations.

## 4. ISSUES FOR ORGANISATIONS

Career management programmes are targeted not just at selecting, training and retaining staff. Such programmes represent that component of the Human Resources Management (HRM) that tries to meet changing organisational and business needs, and the development potential of the staff. The need to encourage the accomplishment of specific organisational learning and growth during periods of change demands new forms of intervention, leadership and support systems. Career management programmes are to be seen as a fundamental element in the recruitment, development, retention and motivation of staff to meet organisational needs and strategic objectives (Applebaum & Glavas, 1998).

If ATM organisations integrate career management programmes within an integrated competency framework, the following points should be taken into consideration:

- identification of the competencies required for job performance is a function of HR, present post holders and organisational needs, and should reflect not only the current requirements of the post/function but also future requirements;
- staff should be trained and developed in competency frameworks, understanding how specific behaviours relate to performance and what is required of them to perform effectively on the job;
- development of a model linking the performance management process to define and assess both job results and competency behaviours may contribute to predicting performance on the job or in a specific function, and may contribute to increased organisational effectiveness.

### 4.1 Utilisation of Existing ATCO Competencies

The specialisation of the ATC disciplines is now common practice in many States and the continuing trend is for specialised training. This can mean that the controller is either an Aerodrome or Approach or Area controller, but seldom all three. Identifying career development opportunities to address new specialisations outside of operations is a challenge for Air Navigation Service Providers (ANSPs) and ATM organisations (see EATM, 2003a).

More and more, mention of individual career planning and organisational career management is within the context of increasing employee achievement, commitment, and motivation in line with the business goals of the organisation, such as customer orientation, higher efficiency, safety, increased capacity and achieving benefits quicker from technological investments. It is becoming increasingly important to develop initiatives to attract, retain, develop and motivate staff.

Organisations will need employees who can work within and adapt to a more fluid and ambiguous work environment (Whymark & Steve, 1999). Within ANSPs and ATM organisations this could be reflected in new roles and responsibilities of ATCOs requiring a broader skill set and profile. Ensuring employability, retention of staff expertise and organisational growth has become an issue for ANSPs and ATM organisations, which can be addressed through career management programmes that specifically address the utilisation of existing ATCO competencies.

The development of employees and retention of knowledge and expertise presents an opportunity for ATM organisations to take a proactive approach to future planning and growth of their organisations.

A summary of some of the organisational tasks is presented below (also refer to Section 7).

#### **Organisational tasks**

- Involve advisory and staff groups
- Establish PCD programme mission
- Establish success criteria for validation/evaluation
- Assess national cultures
- Publicise the PCD programme
- Identify organisational requirements and strategic targets
- Identify external impacts
- Assess resources and define competencies / skill areas
- Design interventions
- Provide training in PCD planning
- Provide competency and skills training
- Communicate career information
- Evaluate and refine the programme

## **4.2**

### **Career Management for ATCOs within Operations**

The consensus is that career management practices need to be focused on the basics: skilling/competency development for increased performance and value, thoughtful and in-depth appraisals, and communication of available jobs and movements within the organisation (Baruch & Peiperl, 2000). The key drivers for organisations to develop career management programmes have been detailed by Hirsh and Jackson (1996) and are summarised as follows:

- increased need to build a skill base within the organisation, which can respond swiftly and flexibly to changing business needs;
- the move towards more customer-oriented and quality-driven cultures demanding higher levels of performance and motivation;

- fear of losing key staff;
- concerns at senior level about succession planning to ensure the delivery of long-term business strategy.

#### 4.3

### Communication and Information Sharing

Informing staff about existing career opportunities always presents a problem within organisations, regardless of the industry. The approach taken is that “if we don’t have any career opportunities, then we (management) don’t have anything to communicate about career development”. Nevertheless, the undertaking by an organisation to develop, implement, and maintain a career development programme, is **not** just about career opportunities. It is also about addressing those factors that contribute to a more effective delivery of organisational targets through the development of the human assets of that organisation. An organisation may consider only communicating and linking career development with promotion / career opportunities as their only option. However, if those career opportunities become less frequent due to the size of the organisation, economic impacts, restructuring, etc., then the perception by the staff of such an approach would be that it is passive and may be just ‘another management idea’.

It can be said that the effective communication of and participation in a career development programme is aligned to a shift in the existing culture of **all** personnel within an organisation. Identifying and developing competencies for staff within and outside of their specific function presents an opportunity for ATM organisations to address changing strategic manpower planning targets brought about by external impacts (i.e. new technologies, etc.) and internal impacts (i.e. the ageing ATCO, retirements, etc.). ATM organisations can address and meet those targets by development of their staff as a function of their career management programme (refer to Section 7). This undertaking will help to reinforce a cultural shift, which acknowledges that by developing staff potential the organisation is validating and reinforcing the importance of the ‘human’ resource.

#### 4.4

### Changing Profiles

Some ANSPs and ATM organisations, as noted earlier, are giving a high priority to addressing an ATCO staff shortage and efforts are directed at meeting and sustaining the appropriate manpower planning targets. However, it is now becoming apparent that organisations may need to reconsider what ‘profile’ of the population should be targeted for recruitment (see document ‘Marketing and Communication of the ATCO Job – Phase 1 – Study’ [EATMP, 2000b]). It may be that by presenting possible career development opportunities within the context of a marketing campaign and expanded job profile/description could attract more applicants who would like to remain within the ATM industry.

## 4.5

**Workplace Learning in ATM**

Learning is not static. Individual and organisational workplace learning have existed for many years. It is agreed that the focus is now changing with a new emphasis on learning to learn, learning as a group and learning through reflection (Matthews, 1999). Carnevale and Carnevale (1994), in addressing the needs of the new economy, have argued this point:

*Equipped with this skill a person can achieve competency in all other basic workplace skills. Learning skills are required to respond flexibly and quickly to technical and organisational change; make continuous improvements in quality, efficiency, and speed; and develop new applications for existing technologies, products, and services. (p. 29)*

For example:

The rate of internal and external change being experienced by ANSPs and ATM organisations will require a 'knowledge pool' of employees, which can be harnessed during these periods. ATCOs possess the expertise, knowledge and experience that represent an important asset for the organisation (see Figure 4).

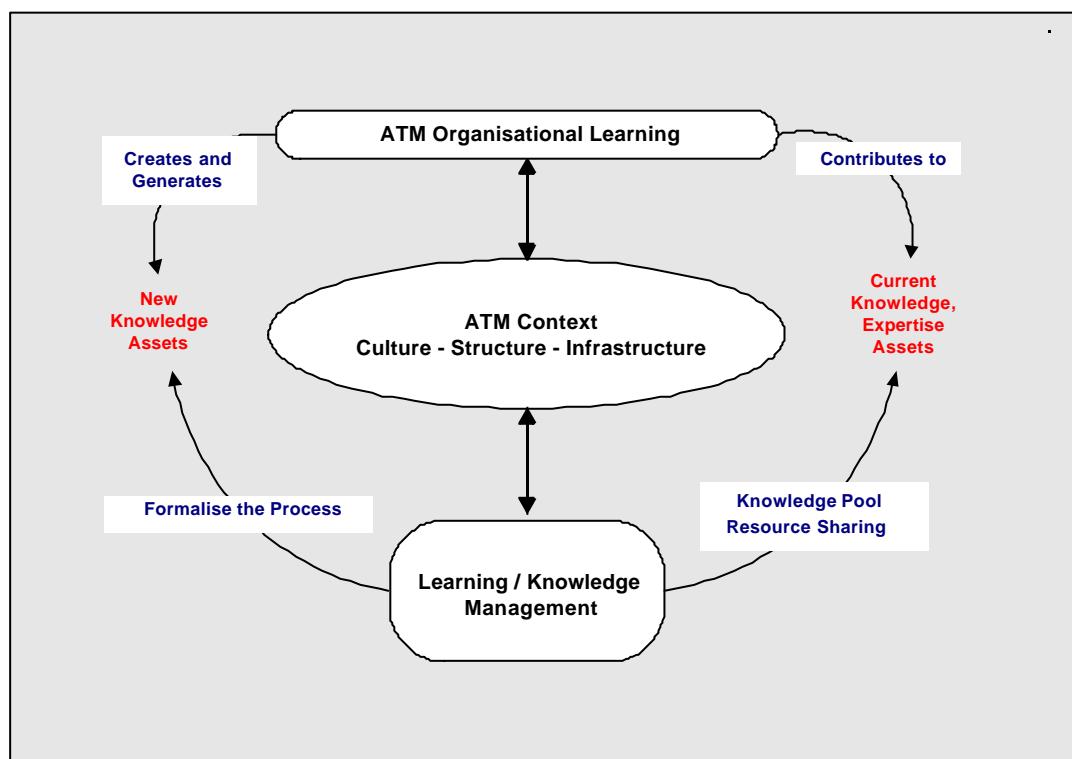


Figure 4: ATM career development learning process

As ATM organisations begin to view learning and development as a strategic competitive advantage, they are at the same time working to change their cultures and processes so that they can capitalise on what people know (O'Keefe & Harrington, 2001).

#### **4.6 Summary**

This section presented a summary of organisational tasks, which may be appropriate for ATM organisations in the development of a career management programme. Specific issues in the management of the ATCO career were highlighted from the perspective of the ATM organisation.

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## 5. ISSUES FOR MANAGERS

### 5.1 Introduction

Organisations are increasingly changing their career management programmes from *changing attitudes towards the meaning of career development, to one where employees take greater responsibility for their own development* (Yarnell, 1998). However, these human assets are increasingly being viewed as a critical competitive resource, and if developed effectively, will contribute significantly to the attainment of strategic business goals (Heraty & Morley, 2000). Organisations must therefore deliver comprehensive, targeted and realistic development programmes. In no small part, it will fall to the manager who holds line management and supervisory responsibility for staff to operationalise the career management initiatives.

Career management is undertaken by those staff with supervisory and line management responsibilities for individual staff and team members (refer to Section 7). The delivery of the management process of employees' careers will be in the context of those career development tools, practices and programmes that exist within the organisation.

### 5.2 The Strategic Factor

If we revisit the core competencies for managers described in 3.4, one of the core competencies is having the ability to operate from a strategic perspective. Whereas this used to be reserved for the 'executive suite' of an organisation, internal and external impacts (refer to Section 7) have shifted a significant amount of this practice internally to management teams.

Creating a strategic advantage within ATM organisations at this level requires a clear understanding of the organisation's strengths and weaknesses. Being aware and able to communicate the vision, mission and goals of the organisation requires that the manager remains current on the following issues:

- Industry changes.
- Challenges in the air navigation industry (safety, security, etc.).
- Is the business model of the industry changing? What assumptions underlie the business model?
- Global impacts.
- Has the global economy impacted the ATMO?
- What changes are anticipated?

- Changes in technology.
- Is the ATMO current with these changes?
- What is the impact on services, process, quality and people?
- Human capital.
- Impacts of ATCO shortages within and outside of operations.
- New government/European legislation – workforce mobility, work-life balance, etc.

### **5.3 Management of Change**

ATM organisations are being impacted by internal and external changes (see EATM, 2003a). Today's managers are confronted with not only the task of simply managing the change process: they may hold the responsibility for implementation of changes for their respective teams, units or across departments within the ATMO. The impacts referred to in [5.2](#) and [Section 7](#) illustrate that a constant stream of innovative ideas is necessary to meet these challenges. Managers will need to provide their teams with insight, motivation, and opportunities to develop and utilise competencies within operations. A successful manager will have an understanding of how their ATMO handles and responds to change, and how to manage the impact of change on their respective staff teams. The manager will also need to communicate the components of the change process in order to help prepare his staff team for changes.

The manager may also be responsible for managing change at the individual staff level. Career progression outside of operations may not be viable due to fewer opportunities being available. ATCO shortages could mean that progression to posts outside of operations might not be possible. However, the manager is faced with the task of balancing the needs of the organisation and maintaining motivation, job satisfaction and manpower planning targets for his operations staff team. It may be possible to identify operations specific opportunities (special projects) that require the expertise of ATCOs that could meet the needs of the ATCO and the organisation at the same time.

### **5.4 Development and Coaching of Staff**

Development of staff is the function of any good career management programme. It is necessary to build upon and acquire the competencies and knowledge needed to achieve the organisational goals of today and the future. The manager's role in development of staff may be as a coach – providing and equipping the staff with the tools, knowledge and opportunities to develop. Establishing partnerships, inspiring commitment, and providing environments and scenarios for staff to test new competencies are integral to building and sustaining a motivated and flexible workforce.

The manager may also need to identify:

- how he can further integrate development into business, planning and performance management practices;
- what additional resources can be deployed to enhance and support staff development;
- what processes can be established that will promote competency development and learning both within and across departments.

## 5.5

### **Delivery of Career Planning and Career Management Tools**

Research shows trends for innovative delivery of career development and training options moving away from the traditional classroom venue to increased use of electronic delivery. ATM organisations are being challenged to identify, develop and deliver career planning/management options that are applicable to different career orientations, learning styles and skill sets for their employees. Web lectures including videos, e-discussion forums, independent and on-line distance learning modules, Web-based simulators, links to university courses, CD-ROMs and virtual classrooms are a few of the electronic options available to be used as stand-alone products or in conjunction with traditional classroom delivery methodology. Less formal options allow individuals to link with on-line learning communities that are used by universities as a repository for materials, resources libraries and discussion groups.

## 5.6

### **Internet and Intranet Learning**

Given the increased availability of self-help for these resources, expanded options for communication and increasing restraints on internal resources, the Internet becomes more than another new technological innovation. The latest application of this technology is making enormous amounts of career management and career planning materials available directly to individuals. Simple search engines abound and Web site links make it relatively easy to browse numerous sources of career planning information. The Internet has the potential to change the way people learn, communicate and develop. (Sampson, 1999, p.1).

For example:

- For the ATCO, flexible schedules, shift rotations, non-traditional working hours, etc. would give those individuals the opportunity to pursue career development options that might not otherwise be available to them during traditional classroom hours.
- For the organisation, promoting and accepting the merits of new learning methods can bring positive changes to the organisational culture, and provide the added advantage of increasing staff morale and motivation.

## **5.7      Summary**

This section discussed some career development issues that could be facing managers of ATCO staff. Key tasks were suggested for the manager, and internal and external impacts were identified.

## 6. ISSUES FOR INDIVIDUALS

### 6.1 Career Planning

From the individual perspective, 'career planning' can be taken to mean the same as 'career development'. Whilst acknowledging that there is a 'personal' process involved in the planning of one's own career, we will separate 'personal development' which refers to those issues/concerns which are **not** directly work related. Individuals will also use 'career strategies' in their planning process that may include seeking guidance and mentoring, networking, personal development planning, and extended work involvement. The tools (career strategies) that they will use are not limited to those that exist within the organisational career management programme (refer to Section 7).

Therefore, career planning (Greenhaus & Callanan, 1994) is the overall process by which individuals:

- develop an awareness about individual strengths and organisational opportunities;
- set realistic career goals;
- implement career strategies that facilitate the achievement of their career goals.

### 6.2 Changing Employment Relationship

There appears to be almost universal agreement that as a result of the changes in the economic and social environments in which ATM organisations operate that the nature of the employment relationship is undergoing fundamental changes. Rousseau (1995) described this relationship as the 'psychological contract' consisting of the individual's beliefs and perceptions about the mutual expectations and obligations in the employer-employee relationship. Integral to this relationship are fairness, trust in management and the extent to which the 'deal' is delivered (Guest & Conway, 1997). This relationship has important consequences for organisational commitment, job satisfaction, organisational citizenship, intention to stay, and subsequently, employee and organisational performance (Pate, Martin, Beaumont & McGoldrick, 2000). For the ATCO, internal and external impacts may have influenced this relationship to the extent that there are fewer opportunities for career progression either within and/or on top of their primary role in operations.

Changes in the employment relationship have important implications for organisations' human resource policies and practices (Roehling, Cavanaugh, Moynihan & Boswell, 2000). While there may be less agreement regarding the

precise nature of those changes, there has been a movement away from pay/remuneration as the primary key motivator for job satisfaction and retention. The emphasis is now often on higher-level goals that can be related to job motivation and commitment:

- finding meaning in the work;
- using skills and competencies;
- the ability of top management to set and communicate a clear and consistent organisational strategic direction;
- improved work-life balance.

### 6.3 **Changing Personal and Career Needs**

It is also important to recognise that, as ATCOs move through their 'career life-cycle', personal and career development needs can change. What was important to someone in their late twenties may not necessarily remain the same as they move towards the later career stages (maintenance) and then retirement (see Human Factors report entitled 'Age, Experience and Automation in European Air Traffic Control' [EATM, 2003b]). It would be appropriate to state that at every level of an ATCO's professional life, there will be tasks to consider, listed below:

#### **Individual tasks**

- Self-assessment of abilities, interests and values
- Analyse career options
- Evaluate impact on development as related to changing personal and professional needs
- Plan development objectives and needs
- Create a development plan and communicate to management
- Keep management current with development and training achievements

### 6.4 **ATCO Career Paths**

The main career paths that exist for ATCOs within the ATM environment are detailed in EATMP (2000a). Broadly speaking, these can be identified as four major career paths:

- changes within ATC environment,
- changes to institutional training,
- changes to research and development,
- changes to managerial careers.

The following Figures 5 to 8 are presented as examples of *possible generic* career paths and do not reflect all the opportunities available.

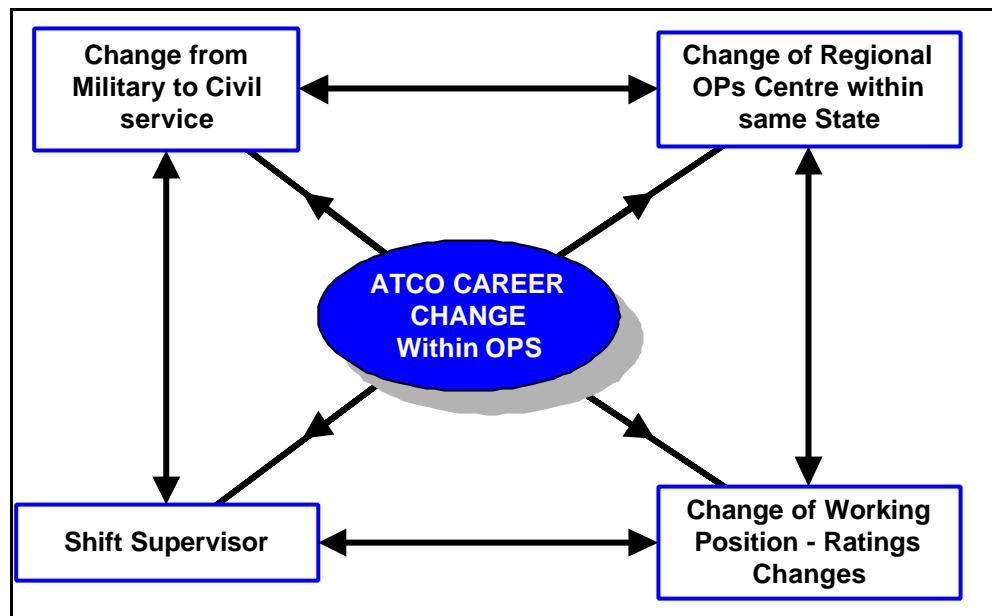


Figure 5: ATCO career change OPS

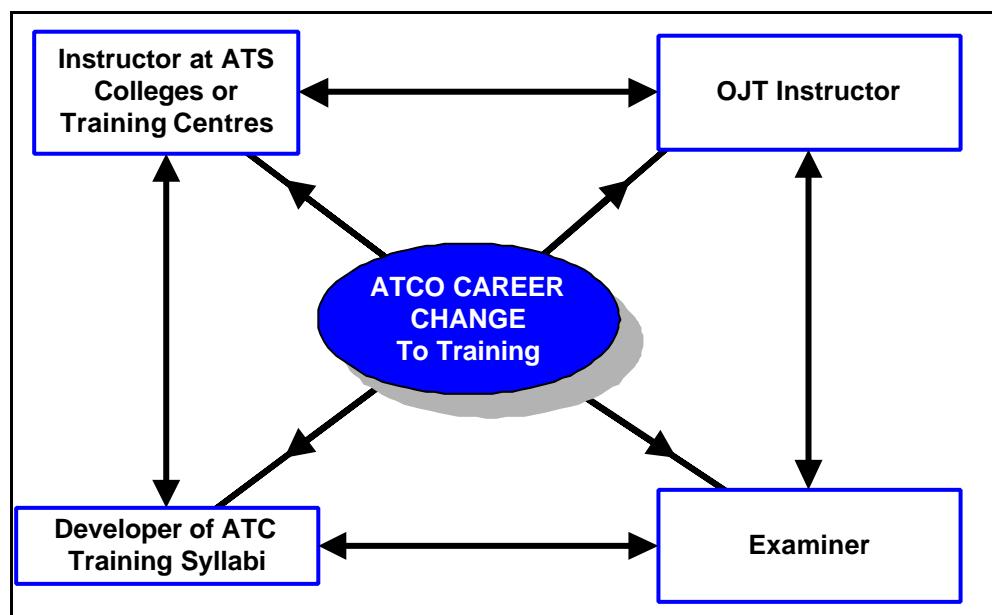


Figure 6: ATCO career change training

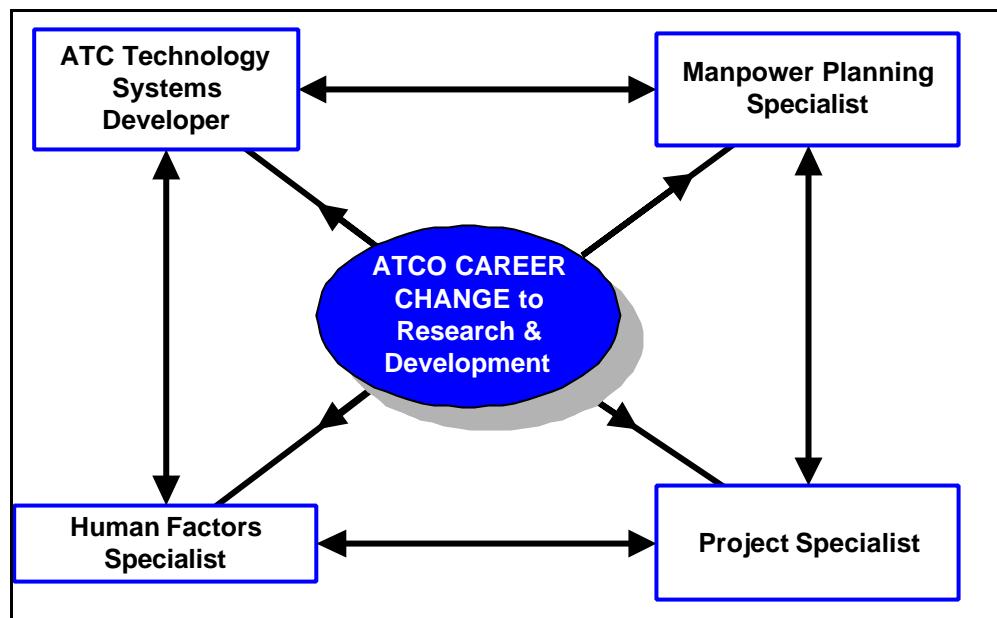


Figure 7: ATCO career change R&D

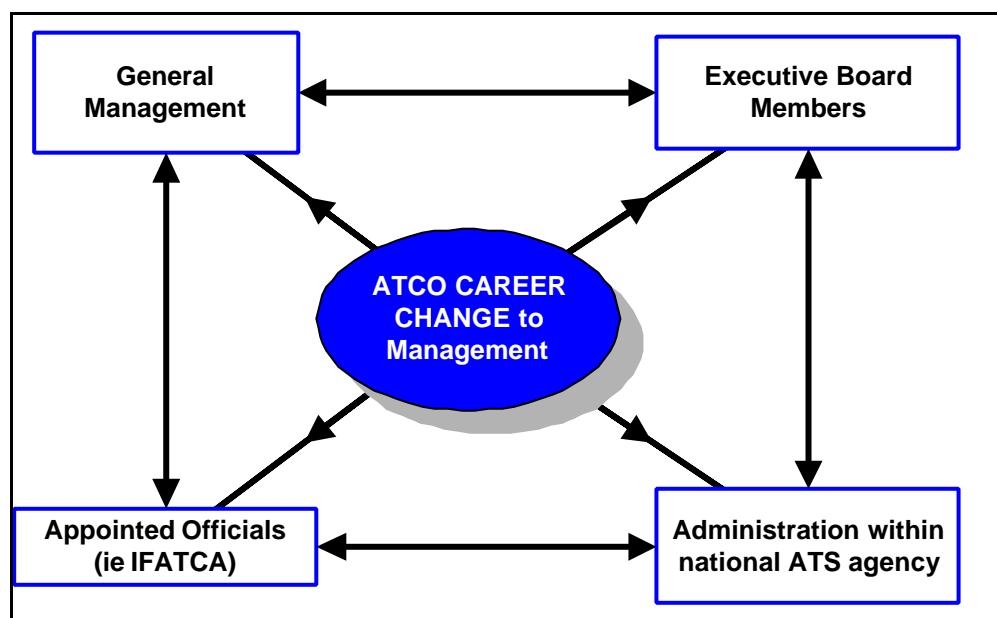


Figure 8: ATCO career change management

## 6.5

### Summary

This section presented an overview of issues for the ATCOs in the management of their own careers. Clarification of terms, changing personal/professional needs and possible career paths were identified.

## 7.

**MANAGING THE ATCO CAREER - GRAPHICS**

## 7.1

**Terminology on Career Development**

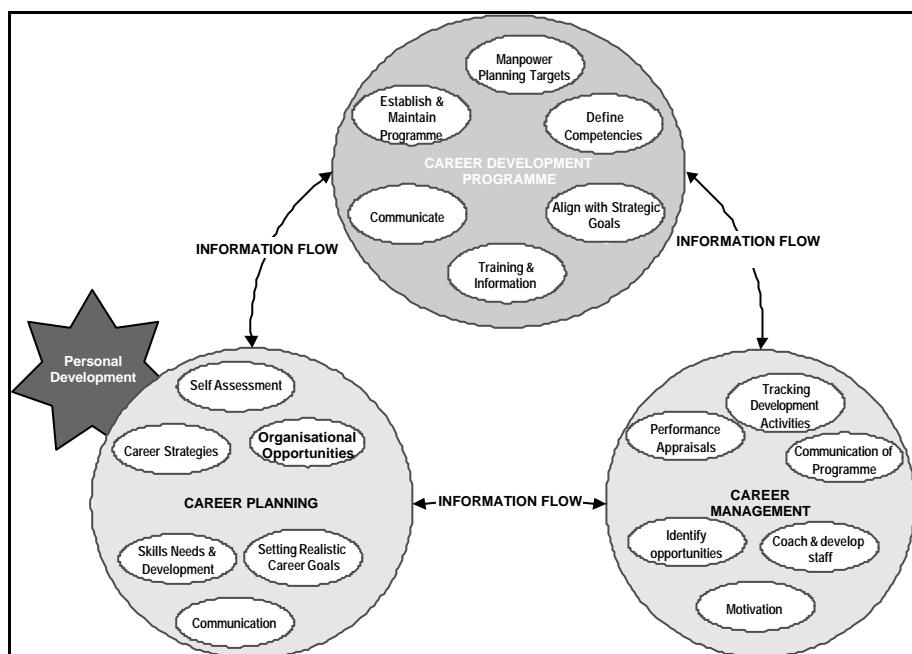
It would be beneficial to clarify the following terminology:

**Career management:** The organisational process which contributes to identification and development of staff potential to meet the strategic manpower planning targets of the organisation and is supported, in part by line management, supervisors or any one who has responsibility for direct staff reports (adapted from Hirsh & Jackson, 1996).

**Career planning:** An ongoing process within the domain of the individual of preparing, developing and implementing development plans within the context of the work environment and in concert with the organisation (adapted from Greenhaus & Callanan, 1994).

**Personal development:** The process in which the individual engages to further their own 'self-development' in non work-related areas such as the wider business environment, home and personal life and the wider community (adapted from Holden & Hamblett, 1998).

The interaction between individual career planning and career management is the basis for the organisational Career Development System (Gutteridge, 1986) and the process is detailed in [Figure 9](#). This process identifies relevant tasks and responsibilities for the individual, manager and the organisation.



[Figure 9: Interactive Career Development System](#)

## 7.2

## Impacts on ATM Organisational Career Development Programmes

As indicated earlier in this report, it is clear that a considerable number of different factors will impact ANSPs and ATM organisations PCD programme development. Seen from the three perspectives described in this report, these possible impacts are identified in Figure 10.

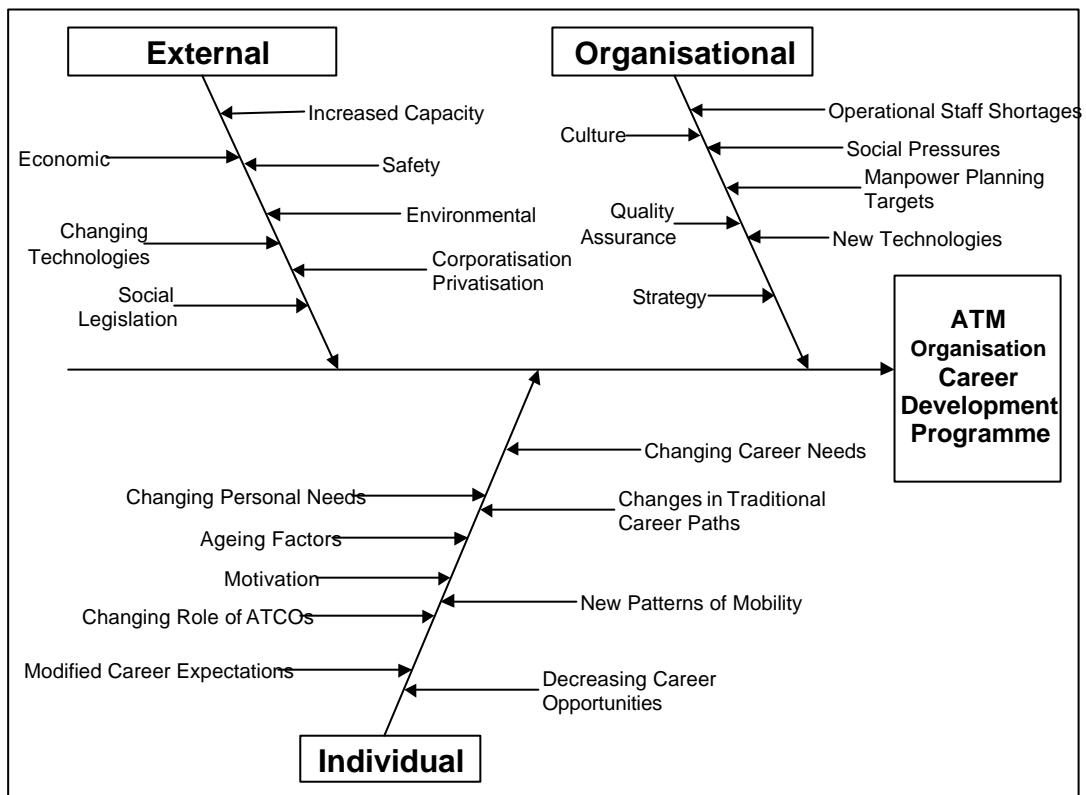


Figure 10: Impacts on ATM career development programmes

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## ABBREVIATIONS AND ACRONYMS

For the purposes of this document the following abbreviations and acronyms shall apply:

AENA	Aeropuertos españoles y Navegación aére (Spain)
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
ATC	Air Traffic Control
ATCO	Air Traffic Controller / Air Traffic Control Officer (US/UK)
ATM	Air Traffic Management
ATS	Air Traffic Services
ATSA	Air Traffic Services Authority (Bulgaria)
CEATS	Central European Air Traffic Services (EUROCONTROL)
DAS	Directorate ATM Strategies (EUROCONTROL Headquarters, SD)
DAS/HUM or just HUM	Human Factors Management Business Division (EUROCONTROL Headquarters, SD, DAS')
DFS	Deutsche Flugsicherung GmbH (Germany)
DGAC/DNA	Direction Générale de l'Aviation Civile / Direction de la Navigation Aérienne (France)
EATCHIP	European Air Traffic Control Harmonisation and Integration Programme (later renamed EATMP and today known as EATM)
EATM(P)	European Air Traffic Management (Programme) (formerly EATCHIP)
ENAV	Ente Nazionale di Assistenza al Volo (Italy)
ET	Executive Task (EATCHIP)
EUROCONTROL	European Organisation for the Safety of Air Navigation
GUI	Guidelines (EATM(P))
HF	Human Factors

HR	Human Resources
HRM	Human Resources Management
HRS	Human Resources Programme ( <i>EATM(P)</i> )
HRT	Human Resources Team ( <i>EATM(P)</i> )
HUM	Human Resources (Domain) ( <i>EATCHIP/EATMP</i> )
IANS	Institute of Air Navigation Services ( <i>EUROCONTROL, Luxembourg</i> )
IFATCA	International Federation of Air Traffic Controllers' Associations
LVNL	Luchtverkeersleiding Nederland ( <i>ATC The Netherlands</i> )
MFG	Manpower Focus Group ( <i>EATM, HRT; formerly known as 'MSG'</i> )
MP	Manpower Planning
MSG	Manpower Sub-Group ( <i>EATCHIP/EATMP, HRT; now renamed 'MFG'</i> )
MSP	Manpower Sub-Programme ( <i>EATM(P), HRS</i> )
OJT	On-the-Job Training
OPS	Operations
PCD	Personal and Career Development
PSG	Programme Steering Group ( <i>EATM(P), HRS</i> )
REP	Report ( <i>EATM(P)</i> )
ROMATSA	Romanian Air Traffic Services Administration
SD	Senior Director, EATM Service Business Unit ( <i>EUROCONTROL Headquarters</i> )
ST	Specialist Task ( <i>EATCHIP</i> )
TWR	Aerodrome Control Tower

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