



*Identifying barriers to empowerment initiatives in a fire service command structure: An international comparison of the issues of empowerment in four fire brigades.*

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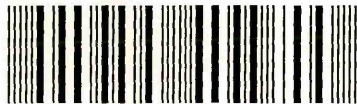
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**IDENTIFYING BARRIERS TO  
EMPOWERMENT INITIATIVES IN A FIRE  
SERVICE COMMAND STRUCTURE:**

**An international comparison of the issue of  
empowerment in four fire brigades.**

**by**

**Kevin Brian Patrick Arbuthnot**

**Submitted in Partial Fulfilment of the Requirements of the University for the  
Degree of Master of Philosophy**

**Sheffield Hallam University**

**with the co-operation of:**

**West Midlands Fire Service**

**West Yorkshire Fire Service**

**Hong Kong Fire Services Dept.**

**City of New York Fire Dept.**

**Phoenix Fire Dept.**

**1995**

## ACKNOWLEDGEMENTS

My thanks are due to Professors David Morris and Bob Haigh of Sheffield Hallam University Business School, for everything they have done to steer and encourage me during the development of this investigation. The following organisations and individuals have been of tremendous help during the preparation of this dissertation, and the research period:

West Midlands Fire Service, its Chief Fire Officer Graham Meldrum, CBE, QFSM, MIFireE, and the many officers and support staff with whom the author served until mid-1994.

West Yorkshire Fire Service, its Chief Fire Officer James Manuel, QFSM, FIFireE, and the officers and staff with whom the author currently serves.

Hong Kong Fire Services Department, its Director Jerry LAM Chek-yuen, and all officers and staff involved; especially:

Chief Fire Officer Henry TANG Siu,  
Senior Divisional Officer TSANG Kwong-kwai,  
Senior Station Officer Kenneth WONG Yan-to.

The City of New York Fire Department, its Chief of Department A. Fusco, and staff who were of assistance, in particular:

Captain Phil Laudati,  
Deputy Chief Vince Dunn,  
Deputy Chief Steve Derosa.

Phoenix Fire Department, its Chief Alan V. Brunacini, who was an inspiration to the author personally, to Division Chief David Vera and Mrs. Heidi Peacock of the Total Quality Service team, who made a much appreciated personal investment of effort and interest on the author's behalf. The following staff were helpful and hospitable:

Chief "Chuck" Kime,  
Chief Dennis Compton,  
All staff at Battalion Two,

Deputy Chief Mike Ingalina,  
Deputy Chief Harry Beck.

I would like to record my condolences to the Phoenix F.D. and to the family of Firefighter Paramedic Tim Hale, who was killed in action on the second night of the author's visit, in the early hours of Saturday 12th February 1994.

The Fire Service College, its Commandant (until April 1994 Brian Fuller, CBE, QFSM, FIFireE, from April 1994 Frank David, QFSM), and all staff and departments, particularly:

Brigade Command Course Director, CFO Robin Currie,  
Tutor/Assessor Mrs. Lena Wanford,  
Technical Assessor Dr. Tony Jeans,  
Senior Tutor Mr. Roy Jenkins.

The Home Office funding for the Brigade Command Course at the Fire Service College, attended while this investigation was in progress, permitted field research to be conducted in three overseas fire brigades which would otherwise not have been possible.

Bradford University Library for granting external reader's rights.

Probably most of all, my wife Heather, and our children, David, Karl and Fiona, for their support, and for tolerating the disruption and absences that the project demanded.

Kevin Arbuthnot  
1995

## ABSTRACT

Key words: Total Quality Management; TQM; Empowerment; Command; Command Organisation; Command Structure.

Fire brigades in the UK are currently exploring initiatives aimed at improving "Quality of Service". This has most commonly been in response to challenges presented by the "Citizens Charter", Audit Commission models for quality in service delivery, measurement of performance in service delivery, and, increasingly, budgetary pressures in brigades. Of the routes that are available towards quality improvement, "**Total Quality Management**", or **TQM** is one that is gaining in popularity.

It is the author's contention that as an organisation, the fire service, like the police, military and other **command organisations**, is subtly different to commercial, industrial, and most other public sector organisations. For this reason, not all of the models for quality improvement that are offered to the service are either useful or viable, and the resistance to them is not merely a symptom of unwillingness to change.

Of the package of concepts embraced by the label TQM, one of the most problematic for the fire service has been that of **empowerment**. Part of the reason is that empowerment is not well defined in itself. This is not to suggest that the concept is not real, or that it is impossible to apply. There are, however, distinct difficulties with both the concept and its application in the fire service. This is an organisation founded on a hierarchical and bureaucratic structure; discipline and obedience to orders on the fireground are enshrined not only in tradition but also in formal Discipline Regulations. Additional considerations of uniform, rank and a hazardous working environment, against the backdrop of a unionised workforce, central government monitored service delivery standards and local political control, all constitute barriers to the successful implementation of empowerment. The question implicit throughout this investigation is whether empowerment of a workforce, which is structured and conditioned by experience to follow identified leaders, and to operate within strict procedural and organisational constraints, can ever succeed, and whether success would be recognised. Therefore, this dissertation centres on an investigation of the issue of "Empowerment" in the context of a command organisation, against a background of TQM. For the purposes of this investigation the concept of empowerment was examined in detail, and the following

"working definition" established in the context of a disciplined command organisation:  
**"Empowerment is about giving the authority to make quality improvements to those who have the ability to make them; this must be done within a clear framework of strategy and values, by teams which have the necessary knowledge and ability, and which are managed by well trained, inspirational leaders."**

The investigation commenced while the author was an employee, at senior officer level, in the West Midlands Fire Service (WMFS). A programme of quality improvement based on TQM was launched in the WMFS in 1993. The work done by its Research and Implementation Teams was considered in detail during this investigation. Further research was undertaken during a funded linked project, which involved research visits to the fire services of Hong Kong, New York, and Phoenix, Arizona. These organisations were chosen for reasons explained in the body of the dissertation, and also because they are comparable to the WMFS in terms of size, risk and operational competence, whilst having very different cultures and managerial styles.

A literature review was conducted before the field work was undertaken. The body of literature in this general subject area is considerable. Therefore, the review concentrated on finding areas of clear comparability or contrast between, on the one hand the industrial/ commercial organisation's perspectives and, on the other hand, the command organisation's perspectives.

The investigation has revealed that not all commercial and industrial models of empowerment and decentralisation are directly transferable to a uniformed, disciplined and hierarchical public emergency service, like the fire service. To make such models useful, and acceptable to the organisational culture, some interpretation has to take place and limitations have to be identified. A significant problem is that the structure of rewards and sanctions does not relate to performance, and does not impact on the security of the individual's employment. The elements of trust and willingness, at all levels of the organisation, therefore become key. A significant degree of sensitivity to the political, economic, social and other environmental factors, is essential for a full appreciation of these issues.

Significant steps toward improved service delivery can be achieved with an empowered workforce. Despite having identified limitations, empowerment is still a realistic tool for fire service managers. However, empowerment must be well defined in its intended



context, and cultural barriers to the changes must be overcome. For empowerment to succeed, there must be strong and visible commitment from senior and middle management, particularly in the earliest days of the new initiative when problems occur. If this commitment is not seen, or is perceived to be insincere, the key element of trust will not develop, and the initiative will fail.

The dissertation is structured as follows:

Chapter One is a general introduction to the issue of TQM in the fire service, covering the background to quality initiatives in the fire service. The problem that has emerged is a potential conflict with the nature and ethos of the fire service as a command organisation. There is a consideration of the notion of command, and of what a command organisation actually is. The need for change in the fire service is discussed. This is contrasted with some detail of the nature of the service as a host to TQM, and some historical and constitutional details of the service that have a bearing on the issues under investigation. Finally, the aims and objectives, and the methodology of the investigation are explained.

Chapter Two is a review of the current literature on TQM generally, and empowerment in particular, seeking throughout to establish a definition of empowerment that would be sustainable in the context of the fire service. The works of a number of "Quality Gurus" are surveyed, in pursuit of a model of empowerment that could be used to measure the subject fire brigades against. It is concluded by the author that the clearest model was provided by Deming, principally in the form of his "Fourteen Points for Management", but supplemented by his "Seven Point Action Plan", and also the "Deadly Diseases". The chapter concludes with the basis for the analysis of the data that was collected in four fire brigades having been established.

Chapter Three provides an introduction to the West Midlands Fire Service, in which the author was employed in a senior rank at the start of this investigation. The issues under scrutiny are, therefore, considered from the position of "Participant Observation". The matters considered in particular detail are the circumstances that led up to the decision to implement TQM into the WMFS, how the implementation process proceeded, and some observations on the culture of the WMFS.

Chapters Four, Five and Six give an introduction to the fire services of Hong Kong, New

York, and Phoenix, Arizona, respectively. This is to set the scene for the later analysis that is conducted against the data collected in the form of questionnaires and semi-structured interviews.

Chapter Seven presents the main analysis of data from the subject fire brigades, against the Fourteen Points of Deming. This is done on the simple basis that compliance with Deming's point tends to suggest that empowerment is occurring, whereas failure to comply with a point tends to demonstrate failure to empower. Contexts in which Deming's ideas are not applicable to, or are unhelpful to, a local authority fire brigade are identified as they arise. The apparent failures to comply are judged against the characteristics and nature of the fire service, both as a command organisation, and as an arm of local government. An attempt is made to identify whether there are genuine factors limiting empowerment in the fire service, not only in the UK, but worldwide.

Chapter Eight offers the conclusions of the investigation. Broadly, they are that empowerment in the fire service or any command organisation is possible, but implementation must be sensitive to the real constraints that exist, both in the structure and constitution of the organisations. These are principally concerned with the culture of the fire service as a command organisation. There are elements of the culture that may need to be changed, but many of the ways of doing business have evolved to meet the needs of the task and, if discarded recklessly, could compromise the effectiveness of the organisation, as well as the safety, morale and commitment of the personnel.

Kevin Arbuthnot  
1995

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## CHAPTER ONE

### INTRODUCTION

#### **Background to the Investigation**

From the late 1980's, the fire service has been actively seeking improved managerial styles and methods. Management by Objectives was, at that time, perhaps the first structured attempt by some UK fire brigades, including Northamptonshire and Warwickshire, to derive benefits from a system designed to offer commercial or business style objectives and performance criteria to public services. Business Planning also became fashionable at the same time with several, mainly shire county brigades, following their parent council's lead, and publishing Business or Service Plans (This included Northamptonshire, Kent, Gloucestershire, Hertfordshire and several others).

Total Quality Management, either in full, or in spirit, has been adopted in many organisations worldwide, with a great deal of optimism amongst senior management. It has often been considered a potential panacea for many of the long term irritations and irregularities experienced in the service delivery of recent years. There is some disillusionment now, perhaps as much to do with the initiative moving out of fashionable focus, as with any lack of positive results. Nevertheless, several fire brigades, both in the U.K. and overseas, are actively exploring the potential benefits of TQM and believe that it may survive the rigours of fire service culture.

The term "TQM" will be used to encompass a description of the group of tenets referred to in the hypothesis under examination in this investigation. These include the elements of "flexible and open management style", the search for "improvements in output" and "process improvement" and, most importantly in the context of this dissertation, "empowerment".

## **The Problem**

The fire service is, in all respects, a command type of organisation. There is a uniform, rank, statutory Code of Discipline, and a culture that is both supported by, and consolidates these other elements. The core task of the service is one where these organisational characteristics have long been regarded as strengths; training and experience continue to underpin this set of beliefs. However, as Robert Heller states, the ideal of TQM is a "shift away from command and control (or order and obey). Many managers can't make the move" (1). This is likely to be much more difficult in an organisation that uses command and control in an explicit way, and in which there is a solid tradition of managers regarding discussion and debate as weaknesses, which would undermine the "way we do things around here"! Therefore, this prompts some justification of whether this particular initiative has any place in the fire service.

Once the well known and accepted tenets of TQM and similar "new management initiatives" have been variously carved, selected and discarded to suit a particularly problematic organisational culture, what is left may well be a managerial step-forward, and may benefit the organisation in many quantifiable and non-quantifiable ways, but may not, in fact, any longer be the originally intended product. This dissertation will consider that position and establish whether a simple set of principles, such as those embodied in TQM, can survive the adaptation and interpretation needed by the fire service. A dissertation of this limited nature cannot hope to survey the whole subject area of TQM, and place all of its tenets into a fire service context. Therefore the focus has been on a single element of TQM; empowerment.

Such a focus has been adopted because empowerment is a prominent but ill defined area of quality management. There are distinct difficulties with both the concept and its application, especially in an organisation like the Fire Service, that is founded on a hierarchical and bureaucratic structure, and which has discipline and obedience to orders enshrined in tradition. The uniform, ranks, hazardous working environment, unionised workforce, central government standards and local political control, all serve to complicate analysis of the core issue. This questions whether empowerment of a workforce, which is structured and conditioned by experience to follow identified leaders, and to operate within strict procedural and organisational constraints, can ever succeed, and whether success would be recognised.

## **Why TQM?**

Triggers for the implementation of quality initiatives in fire services can broadly be divided into two headings. These constitute the main answers to the question of why brigades should go to the effort, time and expense, let alone the cultural shock, of attempting an implementation programme:

### **Value for Money:**

At the time of writing, fire services are under the same pressure as every other section of the public services to demonstrate that the service provided offers value for money. The Citizen's Charter was one of the first elements of the drive to make local authorities visibly accountable, by publishing results of measurements taken against certain "Performance Indicators". The Audit Commission had a significant role in formulating these indicators (2).

After some consultation, this was brought directly into the fire service realm in the guise of a "Dear Chief Officer Letter", (DCOL 1/1993, of 6th January 1993) which is the standard form of communication between the Home Office and fire authorities. In that document, thirty performance indicators for the fire service were presented, four of which were identified as "generic key indicators". These were to be the ones published for the purposes of comparing the performance of each local authority fire brigade.

The matter was clearly underlined in a speech to fire chiefs by the Home Office Minister responsible for the fire service in September 1993;

"We are emerging from a period of recession. We have had to look, and must continue to look, to improve the efficiency with which we carry out the tasks for which we are responsible.....The Fire Service cannot expect to be exempted from the pressures that we are all under, whether in the public or private sector, to provide our services effectively and efficiently." (3)

### **Customer Service:**

A second major trigger for the decision to launch a TQM initiative in the West Midlands Fire Service was also attributable to the advent of the Citizen's Charter, with its emphasis on the need to demonstrate a clear focus on the needs of the service recipient,

irrespective of how the recipient is defined. The use of the term "customer" for the recipient of the fire brigade's services is an issue that has raised concern amongst firefighters. They fear that it will result in a deterioration of the level of true service that is already provided, and which goes beyond the notional boundary of a customer/ client relationship. This aspect of the culture will be examined in full detail in the following chapters, and particularly in the chapter concerned with the West Midlands Fire Service.

### **What is a Command Organisation?**

The investigation will focus on empowerment in a "command organisation". Therefore, some definition of the nature of a command organisation is called for, as exemplified by the uniformed emergency services, the military, etc.

The use of the term "command" presents a distinct difficulty in the modern fire service. In many respects, this is connected to bad experiences of the past when some officers have used the "don't do as I do, do as I say" adage.

Nevertheless, no less than the military, the fire service has demands placed upon it on a daily basis that put it into a different category from motor manufacturers, fast-food chains, or commercial service companies. However, case studies of the successful implementation of progressive management initiatives are often based on such examples. The fire service often operates in situations in which its equipment must be used quickly and efficiently to save life and property. This must frequently be done in hostile environments, and in a manner that ensures the safety of its personnel as much as those it attempts to assist. This environment demands that the directions of the incident commander, who will have an overview of the entire incident, be followed immediately and without question, in a traditional command and control style.

This particular set of considerations constitutes the basis of the use of the term "command organisation" in this dissertation. This differentiates it from the term when it is applied in the context of traditionally hierarchical organisations, not necessarily being of a uniformed or disciplined nature. The use of the term "Command" will be in the context of the following definitions offered by thinkers on the topic. Carl von Clausewitz suggested that command is:

"The authority vested in an individual for the direction, co-ordination and

control of resources" (4)

The responsibility inherent in command is explained by Admiral Rickover of the US Navy, as follows:

"Responsibility is a unique concept. It can only inhere and reside in a single individual. You may share it with others but your portion is not diminished. You may delegate it but it is still with you. You may disclaim it, but you cannot divest yourself of it". (5)

There is also a moral dimension to the issue. This is particularly relevant in the operational sphere, where parallels between civil and military command are closer; Napoleon offered the following observation to his commanders:

"The moral is to the physical as 3 is to 1". (6)

Tenacity also features, summed up by Wellington while under fire at Waterloo:

"Hard pounding this, gentlemen, let us see who will pound the longest". (7)

The essence of the point being made is that a command organisation, in this particular context, is one in which the thread of responsibility is clearer and more explicit than in a commercial or industrial concern. Put bluntly, the luxury of following Tom Peters' exhortation to "Celebrate Failure" is not an option, as that failure might cost lives and suffering. Furthermore, explanations will be demanded by judicial inquiry, at which the effectiveness of the commander will be brought into close focus.

The relationship in the command organisation between commander and subordinates is one where a commander may delegate responsibility, but must also provide sufficient authority for the completion of the task by a subordinate. The subordinate will remain accountable to the commander, in the same way that the commander remains fully accountable to his superior.

A command structure is to be differentiated from a command style. The latter can be found in any number of organisations, not traditionally or necessarily associated with the command approach. A command structure is one that reflects certain legitimate



operational considerations of an organisation. These may include the need for narrower spans of control, a dynamic and challenging operating environment, and the need to be able to adapt and change procedures quickly and without consultation with strategic managerial levels. There must also be recognition of the characteristic of accountability, which runs as a strong and unbroken thread throughout the entire organisation.

In its wartime or operational mode, the military is naturally a definitive example of the style and structure. The fire service, like the police and other emergency services, is also a clear example of an organisation that historically has discharged its statutory function by exhibiting the traits of a command organisation. Without these traits, the integrity of the operation, and the service provided to the public would be compromised, as would the health and safety of the operational crews.

The need for the maintenance of a command structure need not preclude elements of devolution and empowerment. However, in the case of the fire service this demands that certain boundaries be drawn to the process, and constraints identified before an initiative is launched. Colonel Russell Sanders, Chief of the Fire Department of Louisville, Kentucky, summarised the situation as follows:

"Discipline versus Empowerment is not a contradiction, but a contrast; not only the function, but also the symbolism, is essential to a command organisation." (8)

This observation might well be borne in mind throughout this dissertation, and judged against the conclusions reached.

Lines of communication in a command structure are crucial to its operation. This is characterised by such terms as "the chain of command". Deviation from the strict "chain" might be seen as an affront by those missed out, and as an attempt at concealment or other political machinations.

It is argued that there is a need for the streamlining of routine matters. This has been greeted with varying degrees of reluctance, depending on the particular organisation and its culture. There is a clear opportunity in routine and none urgent situations to "flatten" the structure, and broaden the span of control. Nevertheless, in a military or civil emergency service command organisation, there is always the need, at crucial times, to

revert to the traditional hierarchical structure, with narrower spans of control and communications through all tiers of the chain of command. Failure to do this would result in confusion and inefficiency at the tactical control level, which would translate into dangerous working conditions for the operational tier.

The author has attempted to illustrate these principles in the form of three modes of organisational operation, corresponding to emergency operation, administrative situations where there are no problems, and the administrative situation in which problems have emerged, respectively. The following illustration depicts the three most commonly encountered modes of management in the fire service.

A Chart showing the different levels of a typical Fire Service hierarchy that may participate in different "modes of operation"

### Emergency Incident Situation

**Levels in use:**  
**INCIDENT COMMANDER**  
 (Supporting Officers and crews)  
  
**TACTICAL/ SECTOR COMMANDERS**  
 (Supporting officers and crews)  
  
**OPERATIONS/ CREW COMMANDERS**  
 (Working crews)

### Features of situation:

**Needs**  
 Command; Real-time information; Tight control; Short lines of communication

**Structure**  
 Clearly defined tiers; more ranks in operation; narrow spans of control

### Non-Emergency Situation (no problem evident)

**Levels in use:**  
**HQ (POLICY LEVEL)**  
  
**SUPERVISORY MANAGEMENT**  
  
**FIRE STATIONS**

### Features of situation:

**Needs**  
 Efficiency ; Minimum control ; Responsive Service delivery led

**Structure**  
 Flat; wider spans of control; responsibility at lowest possible level; short vertical routes

### Non-Emergency Situation (problem evident)

**Levels in use:**  
**HQ (POLICY LEVEL)**  
**ASST. CHIEF OFFICER**  
  
**SENIOR MIDDLE MANAGEMENT**  
  
**SUPERVISORY MANAGEMENT**  
  
**STATION COMMANDER**  
  
**OPERATIONAL WATCH**

### Features of situation:

**Needs**  
 Effective use of time  
 Correct policy and procedure;  
 Equitable resolution; Value for money; Clarity of issues;  
 Consolidation

**Structure**  
 Vertical routes as short as situation permits; information channelled through all necessary tiers

First, the left hand column illustrates the structure used most commonly to manage an emergency incident of some proportion. At incidents like this, eg a fire or other operation demanding ten pumping appliances (sixty to seventy personnel) plus, all command levels are represented. Three principal tiers are evident, that can easily be read-across to the conventional policy/ operations/ task split. In this mode it is essential for safety and efficiency that strict discipline is observed, lines of command remain as short as possible, but that spans of control can remain narrow enough for supervisors at each level to exercise close and careful attention to the processes for which they are responsible. It is this real need for close supervision that determines both the degree of escalation in the structure and, ultimately, the number of tiers that are effective at any one incident. At emergency incidents of a more routine nature (house fire, car crash, minor chemical spillage etc.) the number of tiers can be very low; lower in fact than the number of different ranks present on occasion, with the senior officer acting as the only manager, and other personnel all being engaged on the task.

Secondly, there is an illustration of a normal non-emergency situation. Although all the ranks that come into play in other situations are still present, they do not (or should not) need to be active in the process. The most common failing here, however, is that officers, and on occasion whole organisations, are unable to differentiate the administrative process from that of the emergency situation, where all rank levels are not only desirable but necessary. In these cases the emergency structure is mimicked, with the result that junior ranks feel smothered, and administrative lines of communication stretched and distorted. The situation that emerges is almost the opposite of empowerment.

Finally, there is a representation of the route that might be taken when there is a problem in the administrative realm. More levels wish to become involved, depending on the urgency or seriousness of the matter. This might be to ensure consistency in the functioning of the command organisation, or it can be for administrative and sometimes political reasons. The objective here should be to resolve the issue with as few tiers as possible active in the resolution of the issue, and as low a rank as possible having executive power. Predictably, the problem that arises is that the senior rank ends up being too high, and intermediate tiers all attempt to contribute. This is usually unnecessary and the issue can become clouded. In instances of political or media sensitivity, all tiers of an organisation may be active in a single issue. Such situations are rarely elegant.

## **The Need for Change**

The need to change the way the fire service meets its operational command challenges has been recognised by some senior fire service managers. Brian Robinson, the Chief Fire Officer of London, is in the process of introducing competency based training for the London Fire Brigade. This is mainly in response to the need, identified by the Health and Safety Executive, to identify new ways to train people for hazardous occupations such as the fire service. CFO Robinson, explaining the "safe person" concept, stated:

"The safe person concept can only be operated with an approach to training operational staff based on competence, and experience of exposure to hazards by realistic training, rather than compliance with prescriptive procedures." (9)

CFO Robinson develops this by explaining that:

"The competence based approach can only be successful if the fire service moves away from its traditional hierarchical and prescriptive managerial style, to one based on personal responsibility and accountability. Staff at all levels should understand what they are expected to achieve, be given the necessary resources, and be allowed to get on with the job without close supervision; although regular assessment of their performance is essential". (10)

CFO Robinson continues to outline other thoughts that bear clear similarities to the principles of Deming and others. These include the ideals of trusting the workforce, removing tiers of supervision, encouraging the workforce to make decisions about service delivery issues, and other elements that without a doubt add up to "empowerment". However, it is likely, from the fact that he considers it essential to have "regular assessment" of performance, that he will face difficulties in convincing the workforce that anything has really changed. In the fire service, and particularly in the delivery of the emergency rescue and firefighting service elements, measurement of performance is difficult, and measurement of the process without interfering in it, almost impossible.

A clear example of this problem can be found in London. London Fire Brigade has got an "Operational and Training Performance Inspectorate". This comprises a team of uniformed middle ranking officers, who attend emergency incidents, but do not participate in the operations. The team evaluates and critiques the operation in progress, and reports its findings direct to the Chief Officer. The problems it encountered were twofold. First, an expected resistance from operational officers. They felt that their decisions, made quickly and under stress, were being "second guessed" by individuals who had not been present during the crucial initial moments of the incident, and sometimes had not been on the scene until almost the aftermath. Secondly, under the Fire Services Act of 1947, the senior officer present on the fireground is responsible for all operations (Section 30); this naturally meant that the officers of the team would be in a serious position if, whilst the senior officer present, they were to observe something unsatisfactory on the fireground, but fail to address it by direct intervention. The methods of the team have been revised, but the cultural problems that gave rise to the need for the team, and also compromised its effectiveness, still exist in the UK fire service.

Part of the solution proposed by CFO Robinson is a delayering of the present hierarchical rank structure, removing three of its present ranks (at the time of writing, London uses one more rank than the rest of the UK fire service: Deputy Assistant Chief Officer), so that the remaining ranks are clearly related to functions. Mr Robinson states that:

"If these issues are not addressed by the Service itself, they will soon be raised by those who use, and pay for, the Service". (11)

In a policy document, published to explain his strategy for the period 1994-7 and beyond, CFO Robinson makes the following statement:

"My vision is of a London Fire Brigade in which we strive for self discipline rather than impose it. There should be; clear agreement between management at each level about what is expected to be achieved; the necessary training and support given to enable individuals to meet those expectations; constructive analysis of the reasons for any failure in order to identify how performance can be improved in future; high regard given to personal responsibility and accountability coupled with sensible capability arrangements." (12)

CFO Robinson does not outline in this document how he will address the issue of dealing with members of his establishment who do not wish to take responsibility, become empowered, or reach any agreements about targets and performance, within the constraints of the currently highly protected conditions of service. CFO Robinson is not quoted as being representative of UK chief fire officers, but as being, on the one hand, the most influential serving officer in the British fire service, and on the other hand, one whose radical views will be highly visible throughout the service, both to internal and external critics. Successful implementation of policies arising from these ideas and philosophies will therefore inevitably affect the future course of the UK fire service.

The problem that CFO Robinson will face is one outlined by Robert Heller (13) He referred to the application of sanctions in organisations that are supposedly changing from the traditional "carrot and stick", or "fear culture" approach, but where, despite changes to the methods used, performance remains unsatisfactory. He said:

"...what then? Does the company lavish still more TLC on the delinquent? (TLC is the name which Texas Instruments, one of the several new growth companies, mostly in the clean, fast-moving technological industries, gave to its employee relations programme) To be fair, the same problem exists with the stick; do you whip a manager harder if he doesn't perform?" (14)

Fire services have several statutory duties, mainly enshrined in the Fire Services Act 1947, (as amended in 1956), and also a number of powers. In the context of empowerment, it is worthy of note that the 1947 Act provides that the senior fire service officer present (ie physically present at the incident) shall have "sole charge and control" of the extinguishing operation. This is quite distinct from the powers and methods of other services, which can be controlled from remote locations, and also enshrines the senior fire service officer's power at a fire vis-a-vis officers of other services, whatever their rank. (15)

This is an aspect of fire service operations that has become deeply entrenched in the culture. For many years, one of the great taboos of the service was that one should never "second-guess" the decisions of an officer at the scene, using the benefit of hindsight. This has been reversed by the effects that litigation and public inquiries have had on the service. Now it is the practice to fully debrief and analyse incidents and address any

shortcomings in an open way. The increasing complexity of large scale incidents, particularly major hazardous materials incidents, such as Flixborough in 1974, transport incidents like the Clapham train crash in 1985, or terrorist attacks such as Bishopsgate in the City of London in 1992, has demanded changes. There has consequently been a shift in the way that fire service managers plan for and command operational incidents, and it is clear that the concept of one individual incident commander being the "sole director of operations" is now in need of revision.

The attempts to address this situation have resulted in the development of procedures such as the "Incident Command System", which originated in the USA. In these systems, the tactical command is shared between "sectors", which can be both geographical and functional. The incident commander acts as a co-ordinator and facilitator. This fits in very well with the way that the other emergency services are developing their approaches. However, one aspect of their approach is that the most senior rank, at strategic level ("Gold Commander"), does not have to operate from the incident ground, but may choose to do so from a remote location ("Gold Control"). This concept rests uneasily with the fire service, whose strategic commander, at major incidents, traditionally operates alongside the tactical commander ("Silver Commander") at the incident site, albeit often from a fully equipped command unit. It is in this area of the operation of the fire service that the concept of empowerment will first be fully tested at what is considered to be the "sharp end".

### **The Fire Service as a Host Organisation for TQM.**

The author has benefited from close involvement in the implementation of TQM into the West Midlands Fire Service (WMFS). Perspectives gained overseas, and recorded in this dissertation, will be useful in the ongoing implementation. The WMFS TQM research and implementation groups were by no means blind to the best-practice experiences of a variety of manufacturing and retailing organisations world wide. However, throughout the implementation process, there was clearly a recognition that the combined characteristics of the fire service all served to render the experiences of quality of service leaders, such as McDonald's, Toyota or Nordstrom, more difficult to translate into the Fire Service context. Nevertheless, it may be argued that there is a "closing of the gap" between the status of public and private sector enterprise, and that a perceived "privileged position" is being eroded.



Jones attributed this to the influence of the Conservative government's philosophies, and wrote that "the last decade has seen major constitutional change in five areas:

- (i) Conservatives believe that parliamentary supremacy equals government supremacy;
- (ii) Functions of local authorities are now defined from the centre;
- (iii) The centre decides local spending;
- (iv) Independent revenue raising powers of the local authorities have been eroded;
- (v) The Conservative government has ridden roughshod over the mandates of local elections (when Conservatives have traditionally been supportive of local democracy)." (16)

Dunleavy et al believe that:

"..local authorities are left with a mixture of 'authorisation' and 'production' functions. It is difficult to predict how the balance between the different elements will unfold." (17)

There is no doubt that the dawning of such realities, and closer exposure to the rigours of the free market type environment, has acted as a "trigger" with many local authorities finding the need to explore the benefits of initiatives such as TQM and related methods. In some cases this has been in the hope of finding a means of surviving the effects of the spending "cap", which has been with local authorities since 1981 (18). Remarkable transformations have occurred in councils once regarded as members of the genus "loony left". Brent, the London Borough once considered to be operating at the fringes of acceptable corporate behaviour, has, since the 1980's, experienced a transformation under the Chief Executive Charles Wood. This would not have been possible except for a series of shocks and upsets to the comfortable and accepted way of doing local government business, which culminated in 1988 in Brent Council having to cut some one thousand out of seven thousand authority posts, "in an unplanned and unstructured way, that left disintegrating basic services and despairing residents in its wake." (19)

This situation undoubtedly acted as the catalyst to change and assisted in an "unfreezing of the culture". Without that, the radical transformation that followed would not have been possible. There is a significant degree of "read across" to the situation of the local

authority fire brigades from the Brent case study, particularly in respect of the metropolitan Fire and Civil Defence Authorities (FCDA's). Brent, like some of the FCDA's, enjoyed a period of free spending, during which certain initiatives achieved a profile that would have been unachievable in the financial climate that persists in the 1990's. The current financial framework has forced errant local authorities to focus on their core responsibilities, which in some cases they struggle to discharge. At the time of writing, and in the case of FCDA's, it is recognised that even authorities that have been financially astute are finding difficulty in meeting their statutory responsibilities under current formulae for the apportionment of central funds. (20)

Having considered the differences between disciplined uniformed emergency services and industry, it is necessary, in the interests of balance, to recognise that the contrast is not always stark. Some industries have extremely demanding disciplinary and health and safety frameworks; the North Sea oil industry, mining, and the chemical industry being examples. An excellent example to consider from the chemical industry is that of Zeneca (formerly part of Imperial Chemical Industries). Zeneca at Huddersfield, West Yorkshire, manufactures fine chemicals from a major site, which is classified under the CIMAH Regulations (Control of Industrial Major Accident Hazards).

Zeneca has, over recent years, embarked upon a process of empowering the workforce (21). From a position at the end of the 1980's, where the site was highly unionised, with demarcation and other restrictive practices, employees now operate in a highly flexible framework. The principal criteria covering the work that employees do, or can be asked to do, are as follows: the work must be necessary, it must be able to be done safely, and the worker must be competent to do it. There are now fewer rules to adhere to, but those that remain are enforced with a rod of iron. Quality Manager John Hardy explains that workers have full freedom and support within the rules, but if they stray over the line, "we chop their hands off" (22). This does not indicate any lack of will on the part of the employer to free workers from constraints, but rather emphasises the constraints of the environment within which the organisation operates.

This type of situation is more representative of that faced by the managers of fire services than producers of simple products, or suppliers of simple services. Zeneca has been quite successful in its drive to empower, which is encouraging for the fire service. However, the full implications of the day to day differences in the operational and political environments, between Zeneca's managers and their local authority counterparts,

must be recognised before meaningful comparisons of what has been achieved can be made.

### **Some Historical and Constitutional Background to the British Fire Service**

Traditionally, fire services have always been under local authority control. The exception was for the duration of Second World War, when a national structure was set up. When this structure was disbanded in 1947, brigades were returned to local authority control, with 157 brigades (146 in England and Wales, eleven in Scotland) (23), replacing the 1668 (1440 in England and Wales, 228 in Scotland) of pre-war times (24). It was the strategy of the then Home Secretary, Chuter Ede, to return the control of fire brigades to local authorities, but in larger and more effective units; this was determined as being at county council and county borough level (25). Local authority re-organisation in 1974 then further reduced this 157 to 63, with 47 in England, 8 in Scotland, 8 in Wales, and one covering the province of Northern Ireland.

Each brigade is led by a Chief Fire Officer (CFO); this is a statutory post under the Fire Services Act, 1947. In the metropolitan areas, the CFO is the senior paid officer. He is, to all intents and purposes, the chief executive, although the formal arrangement varies somewhat from authority to authority. In the shire counties, the CFO reports to the fire committee of the county council and, although constitutionally this is a direct reporting relationship rather than through the chief executive of the county (26), the perception of there being a "higher ranking" paid officer does result in some degree of higher status for the metropolitan chiefs.

Funding for the fire service is calculated via a Standing Spending Assessment. This is a rather crude mechanism for the determination of individual shares of the total national fire service revenue spend of approximately £1.37 billion in 1992. The WMFS share was approximately £66.37 million net revenue. (27)

The formula uses four elements to arrive at a judgement as to how the gross fire service spend will be apportioned. These elements are population, population density, number of fire and false alarm calls (but not numbers of road accidents, chemical spillages, lift rescues, and other services, at the time of writing), and area of "A" risk in the brigade (28). This method results in some severe difficulty for brigades that have large populations divided into smaller communities spread over wide areas, such as West and

South Yorkshire. However, it is favourable to brigades with relatively large clusters of population and "A" risk such as Greater Manchester and West Midlands.

The services are provided on a totally different basis, that does not include population as an element, but "risk" as calculated from a formula applied to a whole brigade area, in divisions of a quarter of a square kilometre. Areas are then classified as A, B, C or D risk. Appliances have to arrive in these areas in certain maximum times, as follows:

<b>Standards of Fire Cover: Attendance times for varying levels of risk. (Minutes)</b>				
<b>Risk Category</b>	<b>1st Pump</b>	<b>2nd Pump</b>	<b>3rd Pump</b>	<b>Aerial (where needed)</b>
<b>A (Three pumps minimum)</b>	5	5	8	10
<b>B (Two pumps minimum)</b>	5	8	N/A	13
<b>C (One pump minimum)</b>	8-10	N/A	N/A	20
<b>D (One pump minimum)</b>	20	N/A	N/A	N/A
<b>Remote Rural (One pump minimum)</b>	No time specified	N/A	N/A	N/A

(The "Remote Rural" category applies to isolated areas of the country, where there are no significant communities; in these areas no upper limit to the attendance time applies).

It can be appreciated that a system which has one formula for the calculation of level of service and another formula for the calculation of the funding which is unrelated to the required level of service, has inherent difficulties. This is particularly so at times of reduced public spending, and tight "capping" criteria.

### **Industrial Relations in the British Fire Service**

Industrial Relations within the fire service have been relatively stable since the end of the first national fire service strike, in the winter of 1977/8. At that time firemen were

not particularly well paid. The national average wage was £78.60 for a 40-hour week, whereas firefighters were earning £52.53 to £65.70, depending on length of service and qualifications, for a 48-hour week that included night and weekend working. The top rate fireman would take home £46.71, and if he had a family, would qualify at that time for free school meals. (29) The formula that resolved the strike, placing firefighters at the level of the top three quarters of manual workers' earnings, resulted in a good level of remuneration. It also removed the need for fresh confrontation, or even bargaining, at each pay round. Bain observed that the pay deal at the end of the strike "has resulted in industrial peace ever since" (30). Added to this, the harsh memories of the costs of the strike, in social, financial and professional terms, meant that both management and union knew that there was no real prospect of the workforce walking out on the job, unless in extreme circumstances. However, at the time of writing, some seventeen years after the strike, there are many members of staff who did not experience that period, and could be willing to use the sanction of withdrawal of labour again.

The general Industrial Relations position, as seen from the union's point of view, is summarised by Englander of the Open University, writing on the history of the Fire Brigades Union, as follows:

"Fire Services can be civilian or military in character.... Fire Service unionism was a child of war..... The Second World War created the conditions in which the character and scope of collective bargaining were redefined and firemen brought into closer relation with the non-uniformed working class. From this perspective, the contest between the FBU and the Fire Service Department must be seen as less a discreet series of disputes over terms and conditions and more a battle over fundamentally different conceptions of the status of a disciplined service and its place in the social order." (31)

However, Englander recognises differences between the fire service and the rest of industry:

"....post-war firemen are, by comparison with their predecessors, less inclined to think of themselves as a class apart. Since 1947 they have become more like ordinary industrial workers. The differences which remain are clearly significant, but overall the dissimilarities have

diminished. The national firemen's strike registered the long-term change in the character of fire service employment. " (32)

The differences he refers to are perhaps best summarised by a quote from the 1971 Cunningham Inquiry into the work of the fire service, which Englander chose to use to open his essay:

"It is the element of risk, and the demand for courage which set the fireman's job apart from others" (33)

Perhaps this is to some extent an overstatement given the range of hazardous jobs that exist in the mining, construction and oil industries, to name only a few. However, it is sufficient to describe the need for discipline and a degree of control that may be alien to many organisations, and which place the issues of discipline, uniform etc more properly into the health and safety arena, than into the category of "class struggle" as the FBU might hold to be the case.

### **Restrictive Practices.**

The fire service is burdened with a range of restrictive practices. Many find their origins in agreements forged at the time of the major re-organisation of 1974, when the balance of power between employers and employees in the public sector was very different to that of today. This is important in the context of this dissertation. It impacts on the way that officers manage the administrative and support functions of the service, particularly in times of tighter funding for local authorities. This is, of course, separate and distinct from the operational command function, where discipline is necessarily still of the highest order. However, when difficulties arise, it is hard to totally ignore the attitudes and divisions that have been engendered by past practices and events.

The following are examples of the type of restrictive practices referred to:

"Stand Down". Stand down time is that part of a fire station shift when the firefighters are not expected to be doing anything other than being ready to immediately respond to fire calls. It originated in the days of twenty-four hour shifts, when the working week was anything up to 100 hours long, and was still as much as eighty-four hours within the memory of currently serving personnel. Training, fire hydrant inspections, building

inspections, equipment testing and other non-emergency work were done during a normal working day, with the period between, say, teatime and the end of shift the next morning being spent waiting for calls.

Fire brigades generally responded to far fewer calls at that time, with a busy station perhaps dealing with a thousand or two per year. Hence, fire stations provided beds for the operational shift to sleep during the night, and even bars and recreational facilities, which would be shared by families and off-duty personnel.

In its 1994 study into the UK Fire Service, the Audit Commission identified that the "Stand-down" time permitted in the agreed Conditions of Service (Grey Book) amounted to seven hours per night shift, ie midnight to seven a.m., or 29% of the twenty four hour period. Whilst this may be considered generous enough, almost half of the brigades in England and Wales permitted stand down time in excess of this amount, by allowing periods during day-shift, and at the watch officer's discretion. (34)

The result is that on the busier stations and divisions, management struggles to equate the amount of non-emergency work done by crews, which are now well paid and on a 42-hour week, with the value-for-money challenges made by the Audit Commission, and the duties that must be discharged in the areas of training, equipment testing etc. Attempts are frequently made to erode elements of the protected position, but these have failed more often than not. This has sometimes been due to lack of will by the employers, but that is less common in the current economic climate.

"Detached duties", and "Zoning". The cases illustrated here use the terminology and particular circumstances of the WMFS, but virtually identical situations can be found in most brigades nationwide. Agreement was reached at the time of the amalgamation of many smaller brigades into larger units, ie 1974, that it would be unreasonable to expect firefighters to have to travel any great distances from their "home base" to provide operational cover. Such moves are termed "detachments" (35). If the detachment were to demand travel outside a given area or group of stations (a zone), then in the first place the movement cannot be made compulsory, and secondly, other restrictions prevent management from doing obvious things like making a series of moves or other expedients. The net result is that, occasionally, a fire appliance will have to come "off the run" due to insufficient crew levels, when at a neighbouring station there are more firefighters than are needed (36).

"Minimum" and "Standard" Crewing. This centres on a legitimate set of constraints on the composition of the crews of fire appliances. Minimum crewing as applied to fire service front line appliances is as follows. A pump is the basic unit of the UK fire service, and can be variously termed "water tender", "water ladder", "pump rescue ladder" or "pump ladder", depending on local variations in specification. It has an absolute minimum crew of four firefighters (including one with rank). Agreement has been reached, however, that on at least 75% of occasions the standard crew will be five on a one pump station. On a two-pump station there must be five firefighters on the first pump and four on the second on 75% of occasions. Crew strength for special appliances is two (eg turntable ladders, hydraulic platforms, foam tenders etc.).

These levels are in place for reasons of safety, effectiveness and efficiency in normal circumstances, but can be inflexibly applied and turned back on management by the workforce in certain situations. It is in this context that the matter is included in this section on restrictive practices.

The situation which has evolved in many areas, is that crews will not voluntarily reduce from five to four to send personnel to adjoining stations for the purposes of keeping appliances "on the run". With certain exceptions, and bearing in mind the earlier qualification that goodwill is demonstrated more often than not, it is a further example of where the discretion rests with the employee rather than the manager.

General Effect of Restrictive Practices It must be made clear that the restrictive practices existing in the WMFS are to be found, to a greater or lesser extent, in all of the UK full-time fire service. This is not surprising in an industry that works within a national conditions- of- service framework. Details of the actual agreements reached in each area do vary, although the net result is still a reduced quality of service to the public. Not only that, but as these practices are exposed by bodies such as the Audit Commission, and pressure falls onto management to claw back the agreements forged in the 1970's, industrial relations naturally suffer, particularly while negotiations are in progress. This tends to undermine trust and confidence and reduces the likelihood of success of any TQM style initiative.



## **STRUCTURE OF THE INVESTIGATION.**

### **Aims and Objectives of the Investigation**

The Investigation has included:

A survey and critical analysis of the literature on TQM, with a particular focus on the issue of empowerment, to reveal the extent to which it affords a prescriptive model of implementation for a command organisation.

A comparative consideration of the extent to which any orthodox prescription for the implementation of TQM and empowerment initiatives, reflects the particular circumstances arising within bureaucratic and hierarchical organisations such as the West Midlands Fire Service, the Hong Kong Fire Services Department, the City of New York Fire Department, and the Phoenix Fire Department.

A consideration of the barriers which have been encountered in implementing TQM, with a particular focus on empowerment, in the West Midlands Fire Service, using comparisons with data gained from the fire departments of Hong Kong, New York, and Phoenix, (Az. USA).

The development of guidelines for the implementation of TQM, again with a particular focus on empowerment, which take account of the special requirements of organisations which are characterised by rigidly hierarchical structures and bureaucratic managerial processes, herein referred to as "command organisations".

The development of recommendations which would eradicate the barriers to empowerment as identified from the examples of the fire departments of the West Midlands (UK), Hong Kong, New York, and Phoenix (Az. USA), and facilitate the attainment of the benefits of empowerment.

### **Methodology used in the Analysis of the Background to the TQM Implementation Programme in the West Midlands Fire Service: "Participant Observation".**

The methodology used in Chapter Three of this dissertation was "participant observation". As a serving senior officer in the West Midlands Fire Service, both in the

run-up to the implementation and as the leader of the TQM Implementation Team, the author was in a privileged position to both observe and criticise the programme. Such a method of observation naturally presents the possibility of distorted perceptions of the situations and dynamics under observation. However, the author had, at the time of the commencement of the TQM research period, only served some two years in the WMFS, having at that time served for some seventeen years in four different fire brigades. This set of circumstances permitted a degree of objectivity that would not have been available to an officer who had served exclusively in the WMFS for the equivalent period.

The method of participant observation has been criticised in several respects. Some of these have been discussed by Wilson (37). The first issue discussed is whether the participant should be "be natural", or "go through the motions". The latter is dismissed by Wilson, as an approach suggested by those who have little faith in the value of participant observation as a research tool, and who would invariably follow up the observation with questionnaires, to get "real" data (38).

The "be natural" approach has been criticised as being "an illusion" (39). Wilson suggests that this criticism arises from the belief that to be natural implies being without a strategy. However, he believes that if a strategy is not originally clear in social research, then one invariably evolves. Wilson further lists three main dangers of the "be natural approach" (40). As this is the approach that was obviously used by the author, as an employee of the WMFS before the investigation began, these three dangers will each be analysed as potential weaknesses of the method, and criticised.

1. "The researcher is apt to take personally rejections or evasions on the part of people within the system, ie, instead of seeing those rejections as evidence indicating the workings of the system" (41). Prior to the commencement of the TQM implementation phase, the author had conducted "SWOT" and "Cultural Web" analyses of the WMFS. These allowed the formation of a relatively objective assessment of the organisation. As stated above, being a relative newcomer to the organisation, although a senior member of it, the author was in a favourable position to overcome these possible weaknesses in the method.
2. "The researcher has many hidden agendas, but is not sufficiently clear about them to take them into account when assessing evidence." (42) In the preparation of this dissertation, the author was conscious of several possible "agendas" which

were not all clear. However, these contributed to the evolution and revision of the basic hypothesis of the investigation, and hence, were valuable and positive aspects of the process.

3. "The researcher can waste time, meander round, and get drawn away from central issues. He has no central plan to relate to; he becomes more like a participant, and less like a participant observer." (43) The response to this possible weakness is as above. In addition is the fact that at a crucial point within the period of the preparation of the dissertation, the author had the opportunity of studying the organisation from the outside. This was as a student on the "Brigade Command Course" at the Fire Service College. This, combined with the other aspects of the author's professional profile, resulted in the conclusion that participant observation would be a satisfactory method for this particular part of the research, and would complement the interviews and analyses.

Moore categorises observation methods into two main groups; participant, and non-participant observation. Participant observation is further sub-divided into "overt" and "covert"; which as the names suggest, indicate whether or not the subjects are aware that they are being observed. (44)

Moore lists the advantages of participant observation as being that:

1. It is a straightforward method.
2. It requires little training or familiarisation.
3. It provides the researcher with direct experience.
4. It avoids the sorts of bias that other research methods introduce.

Moore considers the disadvantages of participant observation are that;

1. It can be very time consuming.
2. It can only give a superficial impression of the problem.
3. The recording of the observed events is critical, and the way in which they are set down often determines the ways in which they can be analysed. (45)

## **The Questionnaire**

To enable a structured examination of the key issues to be conducted, it was considered necessary to gather data using a questionnaire. There were clearly many ways in which

such a questionnaire could be structured. The author considered it necessary to differentiate between two principal modes of operation, ie operational/ emergency, and routine non-emergency, and also to include some reference from the respondents to the questionnaire of their perceptions of the organisational structure they operated within. Therefore three contexts were chosen to reflect these considerations as follows, and the questionnaire structured around them:

- **Operational Command**
- **Finance and Administration**
- **Managerial Structure and Style**

Within each of these areas, questions were selected which would indicate the degree to which officers felt empowered by the systems within which they operate.

An initial draft of the questionnaire was subjected to informal trials among selected officers of the West Midlands Fire Service. This was to ensure that the questions were properly understood, and that answers given clearly indicated the subject's viewpoint to the author. Secondly, circumstances dictated that the questionnaire would have to be used at short notice overseas, and the timeframe did not offer the possibility of a trial to ensure that as far as possible it was "culture free". Therefore, it was offered for scrutiny to the author's supervisors at Sheffield Business School, who have experienced the culture of Hong Kong and the USA. Criticisms made were used to produce a final version. (See Appendix A)

The original intention of the author was to select a sample of completed questionnaires, and explore the issues raised with the respondent in person, to ensure that the contexts in which questions were answered were properly understood by the author, that the questions posed had been properly understood by the respondent, and that certain issues, such as actual (rather than stated) spans of control, could be discussed.

As will be discussed in more detail in the chapters covering Hong Kong, the questionnaire did not serve its purpose as effectively as had been envisaged. Written answers that officers gave to questions differed significantly from those offered during verbal discussion afterwards. Therefore what was intended to be a structured

questionnaire based investigation, had to be amended, in the field, to one based on semi-structured interviews, using the questionnaire as the base. As this approach had to be used in Hong Kong, it was necessary to continue on the same basis in all of the other brigades. This development was not considered by the author to be a serious setback. Confirmation interviews had been planned into the process, and having been conducted, clearly proved their worth by revealing anomalies in time to prevent them corrupting the investigation. Interviews with, and analysis of questionnaires from, West Midlands officers were conducted last of all. This enabled the experience gained in the overseas brigades to be fully utilised with a set of officers to whom there would be continued good access.

### **Dealing with Qualitative Data**

The questionnaire is structured in such a way that qualitative data is unavoidable. The author therefore researched the methodology for dealing with this type of data. Nwabueze has summarised the approach as follows: (46)

1. Analysis in some form should start as soon as the data is collected. Don't allow data to accumulate without preliminary analysis.
2. Make sure you keep tabs on what you have collected (literally- get it indexed)
3. Generate themes, categories, codes etc. as you go along. Start by including rather than excluding; you can combine and modify as you go along.
4. Dealing with the data should not be a routine or mechanical task; think, reflect! Use analytical notes (memos) to help to get from the data to a conceptual level.
5. Use some form of filing system to sort your data. Be prepared to re-sort. Play with the data.
6. There is no "right" way of analysing this kind of data- which places even more emphasis on your being systematic, organised and

persevering.

7. You are seeking to take apart your data in various ways, and then trying to put it together again to form some consolidated picture. Your main tool is comparison.

These tenets were observed as far as possible by the author during the collection and preliminary analysis of the data. The fact that the process is primarily one of comparison has been kept at the forefront of the author's mind throughout.

#### **Note**

It should be noted that this investigation was conducted, and largely concluded, before the publication of the Audit Commission's 1995 report into the British Fire Service, entitled "In the Line of Fire" (47). Several references to the document have been made. However, the full impact of what is clearly an important study of the fire service has not been able to be fully reflected in this investigation.

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35. Note: The need for detachments arises if a neighbouring station is short of firefighters to make up a crew, due to sickness or other unforeseen circumstance. In cases when it is necessary, there is a favourable package to compensate for the inconvenience. This is in the form of an overtime payment, and some appropriate

expenses.

36. Note: It must be stated that the implied inflexibility of this pattern of working is infrequently experienced. However, the agreement subtly alters the balance of power at the expense of the manager, and has been the source of an incalculable amount of wasted managerial time and unnecessary acrimony.
37. Wilson M J, "Social and Educational Research in Action: A Book of Readings", Longman in assoc. with the Open University Press, 1979, pp 169-170.
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## CHAPTER TWO

### **A REVIEW OF THE PRINCIPLES OF TOTAL QUALITY MANAGEMENT, WITH A PARTICULAR FOCUS ON EMPOWERMENT, IN THE CONTEXT OF THE FIRE SERVICE.**

#### **Introduction to the Review; What is TQM?**

The following definition of the word "quality" is offered in the "Quality Vocabulary" associated with both the British Standard and the International Standard:

"Quality: the totality of features of a product or service that bear on its ability to satisfy stated or implied needs." (1)

This is frequently phrased in similar, but subtly different forms, such as Juran's "Fitness for Purpose", or Crosby's "Conformance to Requirements". However, the essence remains as above.

A definition of Total Quality Management itself is offered in BS 7850 Pt.1:

"Management philosophy and company practices that aim to harness the human and material resources of an organisation in the most effective way, to achieve the objectives of the organisation." (2)

TQM as a term describes a set of principles that, prior to that collective identity, were quite well known and recognised in their own right. For example, principles such as those outlined by McGregor, in his well known "X-Y Theory", (3) are evident in the thoughts of Deming and Feigenbaum, and have arguably been restated as problems in the areas of "command versus empowerment".

The sliding scales of autocracy/democracy which have been illustrated in the "Tannenbaum-Schmitt Continuum" (4), are yet one more way of packaging the concepts that Douglas McGregor illustrated in his 1960 work (5) and which embraced some of the

now familiar principles of TQM. This shows how workers respond according to the attitude that employers demonstrate towards them, and how they respond by either contributing much willingly, or alternatively, contributing little grudgingly. Whereas the principles are reasonably well understood, the means of putting them to work constitute an area of concern that this dissertation will indirectly address; the implementation. The concern is heightened in an organisation with the particular constraints experienced by the fire service, which displays the attributes of a command organisation.

### **Quality in the Context of a "Service"**

Much in the area of quality management has originated in the sphere of manufacturing. Increasingly, however, examples are available of attempts to reconcile the principles of TQM with service provision and delivery. A necessary starting point is to define what constitutes a "service". Parasuraman *et al* suggest that there are three aspects of a service that must be considered defining characteristics (6):

1. Intangibility; services are "performances rather than objects", they cannot be tested, counted, measured or otherwise verified prior to delivery. They cannot be stored.
2. Heterogeneity; the consumers of the service do not all have the same needs and priorities. Just as in a school, pupils have differing interests and learning abilities, the "customer" of the fire service has different interests. The person trapped in a burning building desires rapid attendance times; the person squashed into a crashed car hopes that the rescuers are trained and equipped to deal with such non-fire emergencies as Road Traffic Accidents; the District Council hopes for a cost-effective service, so that it can keep its Council Tax demands down as far as possible.
3. Inseparability; the production of a service cannot be separated from its consumption, as it can in manufacturing. Quality is not built in as such, but occurs (or not) at the time and point of delivery. The consumer's input is critical to the process, particularly in the cases of health, education, and social services, and the provision of professional services.

## **The Concept of the "Customer" in the Context of the Fire Service.**

Having now defined the three characteristics of a service, it is necessary to consider the nature of the recipients of the services of the fire brigade, ie the customers.

One of the triggers for the decision to launch a TQM initiative in the UK fire services was the Citizen's Charter. This encourages organisations to have a clear focus on the needs of the service recipient, whichever way the recipient is defined.

After tremendous resistance in the initial stages, the word "Customer" is slowly gaining acceptance in the fire service. The term was not forced into usage in the service. However, it is being encountered regularly in the documents and policies of local authorities associated with fire brigades and in Audit Commission literature. Clear reference is made to the "Internal Customer" concept by Deming, in his Seven Point Action Plan (see p53). The term "Customer" has also been used in the West Midlands Fire Service as a tool for raising the awareness of staff about certain important concepts inherent in TQM, including consumer choice. Sentiments were expressed by serving firefighters, that this term represented a devaluation of the level of service provided. One did not, for example, think in terms of risking ones life for a customer, whereas such an act in the pursuit of a rescue of a victim was not unthinkable. Criticism that such discussion is mere semantics fails to acknowledge the true power of the organisational culture of the fire service.

Such considerations are not, however, exclusive to the fire service. Valerie Strachan, Chairman of HM Customs and Excise, gave a detailed account of her organisation's initiatives in the areas of customer service. She described how this sometimes conflicts with, and at other times complements, the organisation's enforcement and regulatory roles (7). The problem is the incompatibility of a regulatory and policing role with the public's perception of a service. There is no doubt that a service is being provided, but sometimes the people in the sharpest focus at the time of service delivery do not feel that they are being "served". The fire service's problem is subtly different, but of similar dimensions. Strachan chose to end her article with the comment, "But we have to find a better word than 'customer'" (8). The average firefighter would no doubt agree. Any resistance to the term "customer" is probably based more on a reluctance to accept the language than a rejection of the principles it describes.

Although this investigation is necessarily considering issues both internal and external to the fire service, without doubt the "internal customer" relationships are seen as principal targets for process improvement, particularly in respect of the empowerment issue.

Problems in internal customer relationships in the fire service include the attitudes of firefighters and officers towards each other, and the existence of some degree of mutual mistrust between operational front line staff and the mainly non-uniformed support staffs of HQ departments. There is often a clash of cultures between the uniformed and non-uniformed personnel. Additional considerations include the influence of the politicians (both at local and national levels), and, very importantly, industrial relations problems which have left a legacy of restrictive practices.

Cultural variations between particular brigades are as wide as the variations between other types of organisations. "Organisational Culture" will be explained following the model offered by Schein (9). Here it is described as "the deeper level of basic assumptions and beliefs that are shared by members of an organisation, that operate unconsciously and define in a basic 'taken for granted' fashion an organisation's view of itself and its environment" (10). This descriptive model incorporates a matrix of the ways in which organisation members behave towards each other, the rituals and routines of organisational life, the history, language and symbols, policies, structures, and the basic 'way things are done round here'.

This is highly relevant to the implementation of TQM, particularly where stakeholders in the organisation see their own positions of influence and power being compromised; TQM is then seen, by powerful elements within the organisation, as a threat rather than a solution or step forward, and is consequently obstructed and otherwise undermined. Problems surrounding the implementation of TQM cannot be examined without serious consideration being given to the environment within which the organisation is operating. Many models are available to assist in this process, particularly useful being a model by Johnson and Scholes that focuses on the nature of the environment. This is expressed in terms of it being static or dynamic, and either simple or complex. (11)

### **What is Empowerment?**

"Empowerment" is invariably included in texts about TQM, and other quality focused

management initiatives, whether the specific term is used or not. Empowerment is about assigning levels of authority, initiative and accountability at the proper level, and recognising that often, the "appropriate level" is the lowest tier of the organisation. The principle of empowerment suggests that employees, freed from hierarchical and organisational constraints, will perform far more effectively. They will become essentially self motivating and develop "ownership" of the processes involved.

Block expressed the situation in the following terms:

"There is a quiet revolution taking place in many organisations.... that tighter controls, greater pressure, more clearly defined jobs, and tighter supervision have, in the last fifty years, run their course in their ability to give us the productivity gains we require...". (12)

Block's opinion is essentially that the principles of empowerment are inextricably linked with the politics of an organisation, and the individual's responses to that situation. The solution he offers is that to achieve empowerment, an individual must become organisationally politically aware, or "political without being manipulative" (13).

The principles being referred to may be believed to be of Japanese origin, but this is not exclusively the case. Hannam wrote:

"If anyone takes the time to browse through old manufacturing journals.... most of what the Japanese practise will be found reported, but practised by British companies and entrepreneurs. This particularly applies to quality, use of teams, and employee involvement. (14)

Japan's position was summed up neatly, if bluntly, in the text of a speech to American businessmen, made fifteen years ago by Japanese industrialist Konoke Matsushita. He stated:

"We are going to win, and the industrialised West is going to lose out. There is nothing you can do about it because the reasons for your failure are within yourselves. With your bosses doing the thinking while the workers hold the screwdrivers, you are convinced deep down that this is the way to do business. For you the essence of management is getting the

ideas out of the heads of the bosses, and into the hands of labour....For us, the core of management is the art of mobilising and putting together the intellectual resources of all employees in the service of the firm." (15)

It is suggested, therefore, that tremendous potential is "locked-in" within the employees of an organisation. This is by mere virtue of the fact that the structures and cultures found in traditional western organisations do not permit those employees to contribute as much as they could, or would wish to. Transferability of Japanese methods and attitudes is not, however, a straightforward matter. Wickens, a senior European manager in Nissan stated:

"Many details of the practise of Japanese people management are non-transferable to the West. Lifetime employment, the salary structure, the closed nature of their labour market, and seniority progression are just a few." (16)

The difficulties in interpretation and communication are further illustrated by Bertoldo, a senior manager of the Rover Group plc:

"We have been working with Honda for ten years, and we have been talking to them all that time. For the first seven years we did not really understand what they were saying." (17)

The rigid social and cultural hierarchy of Japan could have presented Japanese managers with greater barriers to empowerment than their Western counterparts experience. However, Schonberger asserts that these influences have been harnessed:

"The system of production and quality management that the Japanese have developed has cultural roots. That is, Japanese social behavioural tendencies, which are products of the unique Japanese environment." (18)

Schonberger adds in a later work:

"We saw that Japanese manufacturers are not given to quarrelling with their unions, their suppliers and their regulators. The four seemed like parties to a partnership." (19)



Clearly, therefore, there are valuable lessons to learn from the Japanese experience, but caution must be exercised when attempting any translation to the European (and US) context.

Whereas it is easy to suggest process improvements at an operational or task level by putting the frameworks in place, (eg operational procedures, standing orders, etc.), the real improvements will not start to be felt until the workforce comes "on board". The means of achieving this state, invariably entail management stopping in its tracks and completely reviewing its attitudes and approach to the workers. It is for this reason that a superficial study of TQM, and its associated methods, can leave the reader with the impression that it is all about being the "good guy", or Blake's "country club manager" (20), (ie the manager who values personal popularity above optimum performance). This would be a case of confusing the means with the end. Few would reject the "nice-guy" approach, if it could be seen that by using it workers would feel valued, and real improvement in output could be obtained.

An obvious barrier to any change in an organisation is the resistance from employees who are unwilling, or unable to change. Some disenfranchised employees are to be expected in any organisation. Management "Guru" Robert Heller has written that:

"Established corporate armies have old lags, conscripts, and some soldiers who, for the most high minded of reasons, are conscientious objectors." (21)

Heller further quotes:

"..admired leaders from Mother Theresa to Jesus Christ, from Golda Meir to Mahatma Gandhi; all were passionate about what was right and just. To put it mildly, a huge gulf lies between religious leadership and heading up new product teams, let alone more humdrum organisational tasks. (22)

For Heller's "religious leaders", we could insert "management consultants", or any organisational leader who has been charmed by the promise of the benefits of a total quality organisation, without an appreciation of the scale of the necessary investment of commitment, and point to the gap between their thinking and that of the average member

of their workforce. There is a clear cultural divide between modern day workforces and their "newly inspired, re-packaged, consultative management".

The essence of empowerment is captured in other guises, e.g. self-directed work teams, true delegation, or perhaps Quality Circles. From the literature search conducted by the author, few management writers appear to have attempted to define empowerment. In "The Creative Manager", Evans and Russell (23) suggest that it is not so much a way of doing things, as a different way of being; of having a different attitude to oneself and others. They write;

"Empowerment is one of those oft quoted, but much misunderstood terms. Empowerment is not something that we can do to others - much as though some would like to - it is something that we create for ourselves.....When we feel empowered, we feel alive, alert, in touch with our feelings, responsible, our own authority, valued, and free to choose...". (24)

Newton, a training consultant in the catering industry, offers an interesting perspective on the issue of empowerment. She believes that a structured approach to empowerment is needed, to prevent the empowered people doing the wrong things. If they do, the tendency is for senior management to take back authority, which is soul destroying for the individuals. It would also take the level of trust back to a lower level than it had started from (25). This observation will be considered when attempting to decide where any line may have to be drawn, especially in the fire service's operational command context, between hands-on control and guidance.

Central to this investigation will be a consideration of whether a state of mind, as described by Evans and Russell, is enjoyed by members of fire services in the UK and overseas, if not, whether it could be, and whether it would be confined to particular tiers.

A good way to sum up what is meant by empowerment, is the phrase offered by Morgan and Murgatroyd:

"People who have the ability to make quality improvements should be given the authority to make them" (26)

They add an important set of riders to this definition, by stating that it represents the empowerment of individuals or teams, to work in their own way, to achieve goals set by the leadership of the organisation, within agreed time frames and resources. Personnel are being empowered to turn the vision into reality, and not to make strategy.

Morris and Haigh state that whilst "empowerment" lacks a precise definition, it

"conveys positive values, it is something which must be strived for, and its implementation is unfailingly advocated for the benefits which it can impart to any TQM initiative" (27).

Morris and Haigh continue:

"The term or concept of empowerment necessitates a consideration of the parameters of power. For example, what is the source of group power, what are the means or instruments through which it is exercised, what is the amount of power afforded to groups in an organisational context and what is the range or scope within which that power may be legitimately exercised?" (28)

Before these questions of group power are explored, the role of the group or team must be considered. Morris and Haigh reason that the role of teams is central to every TQM initiative, and every quality improvement project (29).

Berg observed that:

"It is becoming increasingly evident that the success of future quality efforts will depend to a large extent upon the ability to create cohesive teams." (30)

Shannon commented:

"Success in the 1990's will necessitate that rare combination of quality leadership... and project teams... that are involved in making company decisions". (31)

The views of Morris and Haigh regarding the importance of the team therefore seem to be well supported by those of other management thinkers in this field. It is the effect of teams that, according to Bingman, facilitates the transition within a company from "traditional work system", to "high performance work system" (32). This is represented by Bingman as follows:

<b>Traditional Work System</b>	<b>High Performance Work System</b>
Decision by Boss	Decision by those with most knowledge
Individual Performance	Team Based
Employees with specific jobs	Employees who are multi-skilled
Division by Department	Division by Business Module
Activity based	Results based
Little sharing of business information	Communication of all business results

This definition of a high performance work system is noted by Morris and Haigh (33), to be compatible with Moss-Kanter's views of empowerment. Moss-Kanter asserts that empowering people means to "hire, train and pay people" to make decisions based on three "power tools", these being (34):

<b>Organisational "Power Tools" For Empowerment:</b>	<b>Teams Need Access to:</b>
Information	Data, Technical information, Knowledge
Resources	Funds, Material, Space, Time
Support	Endorsement, Backing, Approval, Legitimacy

Shannon summarises her view of what empowerment actually is in similar terms, these being; "To authorise, to enable, having the means to meet ends" (35).

Considering the issue of power further, in the context of its relevance to the effectiveness of teams, Morris and Haigh give consideration to the "parameters of power" to be enjoyed by teams (36):

The source of a team's power; this must emanate from management, and as such is the "management external" to the team. This delegates a capacity for action to the team, which is customarily the preserve of someone or some group senior to it in the organisational hierarchy. (37)

The Means or Instruments through which a team's power is used; this refers to the capability of the team in addressing poor quality. Morris and Haigh believe that to be effective in this area, teams must have the necessary skills and abilities. They must be able to:

- Analyse symptoms,
- Establish causes,
- Generate remedies,
- Test the chosen remedy under operational conditions,
- Monitor the chosen remedy,
- Report on the quality gains made and held.

This means that the teams must be trained in the skills of quality decision making (38). According to Bothe (39), this entails a cyclical process of:

- Defining the problem (using Pareto etc.),
- Observing the process (process flow diagrams and checksheets),
- Thinking of causes (fishtail diagram, brainstorming etc.),
- Selecting most likely cause,
- Testing that this cause is valid (if not re-select),
- Once verified, Act to Implement,
- Review and Revise, and,
- return to the start.

The amount of a Team's power will be a direct product of the base of its power, and this will in turn be influenced by where a team is identified as being positioned on a continuum as follows (40):

The range or scope of a team's power: Morris and Haigh believe this reflects the extent to which a team is able to assume responsibility for activities relating to quality planning and quality control in its area of competence (41). They point out that Juran would categorise this as "range or scope" of power, in terms of the extent to which the team is empowered to follow the steps of the quality planning process (42).

Morris and Haigh contend that the consideration of the above four parameters of a team's power lead to the need to differentiate between negative and positive freedom. Expressed in another way this is the difference between "freedom from" and "freedom to". They believe that management will find it difficult to cast off its practices and beliefs, and that there will also be reluctance on the part of employees to accept the responsibility that accompanies freedom to make meaningful decisions. Management's reluctance can be attributed to several factors (43):

Insecurity; managers are responsible for the actions of subordinates, and this may make them reluctant to delegate tasks.

Lack of managerial ability; managers may not be competent to plan and decide the extent of any delegation, or to establish control systems to monitor the outcomes of subordinates' actions.

False rationalisations; eg, "I can do it better myself", or "It takes too much time to explain to others what needs doing".

With the workforce, the following factors come into play:

Insecurity; subordinates wish to avoid the responsibility and risk which comes with the power to make decisions; they fear criticism and dismissal for mistakes.

Lack of incentives; subordinates perceive greater responsibility to mean more work and greater constraints, without commensurate reward.

It is clear that both the above sets of barriers have to be removed before empowerment can be accepted. Allen believes that managers can do much to remove these barriers by (44):

- Establishing goals,
- Defining responsibility and authority,
- Motivating subordinates,
- Requiring completed work,
- Providing training, and
- Establishing adequate controls.

Morris and Haigh consider that, having surveyed the barriers to empowerment and the role of teams, that the natural development of the quest for empowerment should be in the area of the motivation of those teams (45). Heaphy and Henderson have stated that:

"To achieve continuous (quality) improvement, the employer- employee relationship must be viewed as an interdependency; a peer to peer role model in which each serves the other" (46).

This leads to the need to consider the role of motivation in empowerment and in particular to differentiate between intrinsic and extrinsic motivation.

### **The Role of Motivation in Empowerment**

A survey of literature and current thinking on an issue that is so heavily weighted towards the people of an organisation, and the cultural frameworks within which they operate, could not be considered complete without recognising the perspectives offered by the management psychologists on the issue of motivation, and how this relates to empowerment.

Herzberg's views on motivation are covered in his "Hygiene/ Motivator Factor" theory (47). Broadly, Herzberg believes that a human has certain animal needs, and a set of higher level, or human needs. The animal needs include food, shelter and sexual fulfilment. These equate in the workplace to the physical conditions, salary and security. They are not motivators, rather their absence acts as a demotivation. This is in the same way as good hygiene does not by itself make one healthy, instead it helps prevent one

becoming unhealthy. The higher level needs, or human needs, are the motivators; they include achievement, recognition, responsibility and promotion. To fit into the health analogy, these factors equate to exercise, which will take a body that is otherwise healthy, from a state of unfitness to fitness. (48) The ideals of TQM, and "empowerment" clearly fall into the "Motivator" category, and in a service like the fire service, there are many routes along which the enthusiasm of employees, once engaged, may be channelled.

Herzberg's views demonstrate a considerable degree of accord with the philosophy of Deming. Deming's view is that motivation, of an intrinsic kind, is necessary to permit continuous quality improvement to occur (49). To understand this, the concept of extrinsic and intrinsic motivation must be defined. DeCharms presents the differences as follows (50):

<b>Extrinsically Motivated Teams</b>	<b>Intrinsically Motivated Teams</b>
see themselves as having goals imposed upon them	set goals for themselves, or internalise externally set goals
rely upon good fortune to enable them to achieve team goals	support goal attainment activity through action planning
fail to anticipate barriers to team goal attainment	prevention oriented in pursuit of team goal attainment
team members seek to avoid responsibility for their singular and collective action (failure oriented)	team members take personal responsibility for their singular and collective action (success oriented)
see the work environment as threatening	see the work environment as stimulating

Morris and Haigh suggest that the important point in Deming's work is not merely the realisation that motivation is important, but that it is not sufficient on its own to carry an organisation towards continuous improvement (51). They believe that a triumvirate of Motivation, Self-Perception and Ability is the key to success. They contend that Motivation requires effective leadership, Self-Perception requires that teams both recognise their roles and are fully involved, and that Ability necessitates the teams



having the requisite knowledge and skills. The latter point is one that Deming stresses.

Tannenbaum and Schmidt believe that the quality of leadership necessary to generate and sustain the required levels of motivation, is the product of three sets of forces. In the manager there must be background, knowledge, experience and values. In subordinates there must be autonomy, responsibility for decision making, experience and values. In the work situation it will depend on there being the correct organisational climate, the nature of the work group, the nature of the task, and pressures of time (52).

The ideas discussed above stand up to examination in the context of Abraham Maslow's Hierarchy of Needs. He did not draw a clear divide between the hygiene and motivator factors, and was criticised by some for being an idealist. Amongst his conclusions were the observations that "...even the strong in society require the security of order and direction, while the weak require protection from the burden of responsibility." Anyone driving towards facilitating empowerment would do well to bear this in mind; not everyone wants to be empowered. (53) The conclusions of the management psychologists are summarised in the following table:

**General Patterns of Managerial Approaches to Motivation**

<b>Traditional Model</b>	<b>Human Relations Model</b>	<b>Human Resources Model</b>
<b>Assumptions</b>		
1. Work is inherently distasteful to most people. 2. What they do is less important than what they get paid for doing it. 3. Few want or can handle work that requires creativity, self-direction or self-control.	1. People want to feel useful and important. 2. People want to belong, and to be recognised as individuals. 3. These needs are more important than money in motivating people to work.	1. Work is not inherently distasteful. People want to contribute to meaningful goals that they have helped to establish. 2. Most people can exercise far more creative, responsible self-direction and self-control than their present job demands.

Policies		
<p>1. The manager should closely supervise and control subordinates.</p> <p>2. He or she must break down tasks into simple, repetitive, easily learned operations.</p> <p>3. He or she must establish detailed work routines and procedures, and enforce these fairly but firmly.</p>	<p>1. The manager should make each worker feel useful and important.</p> <p>2. He or she should keep subordinates informed and listen to their objections to his or her plans.</p> <p>3. The manager should allow subordinates to exercise some self-direction and self-control on routine matters.</p>	<p>1. The manager should make use of underutilised human resources.</p> <p>2. He or she must create an environment in which all members may contribute to the limits of their ability.</p> <p>3. He or she must encourage full participation in important matters, continually broadening subordinate self-direction and self-control.</p>
Expectations		
<p>1. People can tolerate work if the pay is decent and the boss is fair.</p> <p>2. If tasks are simple enough and people are closely controlled, they will produce up to the standard.</p>	<p>1. Sharing information with subordinates, and involving them in routine decisions will satisfy their basic needs to belong and to feel important.</p> <p>2. Satisfying these needs will improve morale, and reduce resistance to formal authority - subordinates will "willingly co-operate".</p>	<p>1. Expanding subordinate influence, self-direction and self-control will lead to direct improvements in operating efficiency.</p> <p>2. Work satisfaction may improve as a by-product of subordinates making full use of their resources.</p>

(54)

## A Working Definition of "Empowerment"

This brief survey of the area of empowerment has considered the thoughts of several management thinkers, psychologists and sociologists. At this point it is necessary to condense this into a working definition of the term "empowerment" which can act as a reference point for the development of this investigation.

Georg Karnsund, of SAS, the Scandinavian airline, stated that:

"Quality is not just a label that you can put on a product afterwards. Quality is a way of life that you must apply to everything within the company and all its external relations. Quality is in essence a question of leadership. Only a minor part of errors is attributable to the shop floor. Quality is created by the action and attitude of management. It is something that must be part of corporate objectives and strategies." (55)

Morris and Haigh concur with Karnsund:

"The key to empowerment is effective leadership; transformational leadership which replaces extrinsic motivation with intrinsic motivation, which emphasises team and individual training and development, and which forges unity and consensus upon team and corporate objectives. It is effective leadership which recognises that all organisational employees are part of the same collectivist enterprise, and that holistic corporate goals are only attainable through the best possible employment of all of the organisation's human and material resources, in pursuit of meeting customer requirements. Anything less is not empowerment, but a mere façade in which to clothe the imperfections." (56)

These views embrace the familiar principles espoused by Deming, Juran and other management writers, whose views will be summarised next. In fact, TQM is something that must pervade the entire organisation, all the way from the strategic leaders to the people at the sharp end of the service delivery, ie those at the customer interface. The author would therefore conclude that: **"Empowerment is about giving the authority to make quality improvements to those who have the ability to make them; this must be done within a clear framework of strategy and values, by teams which have**

**the necessary knowledge and ability, and which are managed by well trained, inspirational leaders."** There is nothing at all within that definition that should deter the fire service from establishing TQM and empowerment as goals to strive towards.

### **W. Edwards Deming.**

The thoughts of W. E. Deming are well known in TQM and quality management circles. Few individuals or organisations considering the implementation of TQM would be unfamiliar with at least a summary of his views. The major milestone in Deming's work is his "Fourteen Points for Management"; a list featured in almost every survey of the quality issue, and one which outlines the Deming philosophy in clear terms. More than that, the "Fourteen Points for Management" represent a model of the challenges that a traditionally structured and managed organisation like the fire service must face. No other "guru" has detailed the elements of a rigorous self examination in such a clear and simple, yet challenging way. Even if one does not relate to, or agree with, all of the points, they warrant serious consideration. Deming addresses the quality issue from a broad base of experience. Although he was a statistician, and his world renowned work in post-war Japan was heavily based on statistical quality control, his "Fourteen Points for Management" clearly reflect the importance he placed on good employee relations, and other aspects of the human dimension of quality.

For these reasons, Deming, and his Fourteen Points will be used as the main focus of the analysis in this dissertation, and findings from the research conducted in overseas fire services will be discussed in the context of the points, item by item. Deming is often discussed in the context of his continuous improvement cycle, otherwise known as the "Deming Cycle", or the "Plan, Do, Check, Action cycle". Using this model Deming sought to illustrate that one of the fundamental incentives of any quest for quality improvement is that improved quality costs less, not more. The commercial advantage to be derived from pursuit of a "get-it-right-first-time" operation was at the heart of the legendary rise to commercial and industrial dominance of the Japanese, a rise that Deming played a major and acknowledged role in.

Deming's teachings feature, in some guise or other, in the majority of TQM initiatives, including that of the West Midlands Fire Service. Therefore it is considered worthwhile summarising his Fourteen Points here (57).

## **Deming's Fourteen Points for Management**

1. Create constancy of purpose to improve products and services.
2. Adopt a new philosophy for the new economic age by management learning responsibilities and taking leadership for change.
3. Cease dependence on inspection to achieve quality; eliminate the need for mass inspection by building quality into the product.
4. End awarding business on price; instead minimise total cost and move towards single suppliers for items.
5. Improve constantly and forever the system of production and service, to improve quality and productivity, and to decrease costs.
6. Institute training on the job.
7. Institute leadership; supervision should be to help do a better job; overhaul supervision of management and production workers.
8. Drive out fear, so that all may work effectively for the organisation.
9. Break down barriers between departments; research, design, sales and production must work together to foresee problems in production and use.
10. Eliminate slogans, exhortations and numerical targets for the workforce, such as zero-defects, or new productivity levels. Such exhortations are diversory (sic) as the bulk of the problems belong to the system, and are beyond the power of the workforce.
11. Eliminate quotas or work standards, and management by objectives or numerical goals; substitute leadership.
12. Remove barriers that rob people of their right to pride of workmanship; hourly workers, management and engineering; eliminate annual or merit ratings

and management by objectives.

13. Institute a vigorous education and self-improvement programme.

14. Put everyone in the company to work to achieve the transformation.

These Fourteen Points represent Dr. Deming's philosophy of management. However, they are clearly principles, and examples can be found of writers who have taken these, and added interpretations and nuances of meaning which were perhaps never intended or implied by Deming himself. Many of the points have to be translated from a manufacturing or industrial context, into a service context; but this is not difficult to do. The difficulty comes later, when ways of implementing the principles are sought.

Deming's points do not go unchallenged. For example, point number eight, "Drive out fear", was vigorously rejected by Beasley of Jaguar (58), his argument being that fear is not entirely unhelpful in controlling a workforce. He believed that employees should not be entirely comfortable, and that reasonable measures of apprehension and concern serve to foster a desire to solve problems; he termed this "creative tension", and, no doubt to the chagrin of advocates of the Deming methodology, considered that Japanese companies thrive on "bucket-loads" of this fear! (59) This attitude and approach is almost a model of the clash between the "traditional pragmatist" and the "new way". One major problem for those attempting to pioneer the implementation of the new methods, is that there are relatively few examples of full and sustained success, and none at all in organisations structured on a command basis.

Point number eleven, "Eliminate Quotas or Work Standards....", and point three, "Cease Dependence on Inspection. ..(etc)" would appear to conflict directly with the widely held view in the area of quality management that "you can't improve what you don't measure". Certainly Deming appears to be in conflict with the position of the Audit Commission. Its "Occasional Paper", entitled "Putting Quality on the Map", is focused heavily on the area of measurement and quantification; indeed, it is subtitled "Measuring and Appraising Quality in the Public Service" (60). In fact, Deming is not of the opinion that measures and standards should be ignored as tools altogether, but does caution that they should be sensitively and realistically formulated, with the input and co-operation of the people who are actually doing the work. Deming pointed out the consequences of failing to take this approach, in case study form. These included the possibility of workers

falsifying quality returns to which they could not relate (61). This will be shown to be relevant to this investigation, in the context of training records on fire stations. Deming's position, therefore, appears to be consistent with that of the Audit Commission, in that measurements are necessary and intrinsic to the process of improvement. However, he adds the rider that those involved in the processes should be involved in the formulation of the measurements. Irrespective of the accuracy or popularity of the views of the Audit Commission, those views hold considerable sway with Home Office inspectors in all fields of public service, and perhaps come as close as anything to an expression of "public policy" in respect of value-for-money.

Conversely, some elements of Deming's work are recognisable as key features in the work of other "Gurus"; eg, point number nine, "Break down barriers between departments (etc)" is at the heart of Rosabeth Moss Kanter's work in the area of "segmentalist" organisations (62). In her work, Moss Kanter exposes the organisational waste incurred by the common practices of division and competition between specialist departments, operational divisions etc.

In this respect, it would be difficult to find a closer model in the public sector than the fire service, which is structured in this clearly segmentalist way, with cultural divisions and barriers between uniformed and non-uniformed staff, operational and support staff, as well as the structured segments consisting of operational divisions and stations (in those brigades that still operate that traditional structure). This is, therefore, an obvious area where the received wisdom of the traditional "right way" to structure and run this type of organisation is at odds with the theories of TQM.

Some Chief Fire Officers have started to break the mould, recognising that divisions can be divisive! Divisional structures are starting to be challenged, with several counties resorting to a functional rather than a divisional structure. This has principally been tried in the smaller counties, eg Northamptonshire, Gloucestershire, Buckinghamshire, Northumberland, and most recently, in 1994, in Warwickshire and Devon. The largest brigade to change was West Yorkshire Fire Service in 1994, where four large divisions were dissolved resulting in fifty fire stations having no intermediate level of control between themselves and the central headquarters. There would not appear to be any obvious reason for the pattern of development wherein small brigades seem keener to implement change than the larger ones. The reason may be that the smaller counties are, in terms of establishment size, population, budget and activity levels, of little more than

divisional size when compared with the metropolitan brigades. Therefore, arguably they were not really exploring new ground in the sense of the number of stations, departments etc. that can be effectively managed. The metropolitan brigades that have explored the benefits of functional command are those that have been most severely challenged in a financial sense by the SSA (Standard Spending Assessment) formula and, therefore, have a clear financial incentive to streamline their operation.

London Fire Brigade, the largest in the UK, has moved in recent years from having eleven divisions, to an "Area" structure, currently dividing the capital into five Areas. At the time of writing, this is being further revised to three Areas, each of which will rival the largest existing provincial UK metropolitan brigades in size and population.

West Yorkshire Fire Service, which implemented its functional structure in 1994, believed that lessons from the other brigades could be heeded to avoid some of the pitfalls. However, as in all the other brigades that are trying to "flatten the structure", the issue of spans of control in a command organisation, and what the correct balance should be, is undeclared (63).

Dr. Deming offers an implementation model of TQM, in the form of an "Action Plan for Change", which can be used as a basis for an implementation plan. This is as follows: (64)

**Deming's Seven Point Action Plan:**

- a) Management struggles over the Fourteen Points, Deadly Diseases (see below) and obstacles, and agrees meaning and plans direction.
- b) Management takes pride and develops courage for the new direction.
- c) Management explains to the people in the company why change is necessary.
- d) Divide every company activity into stages, identifying the customer of each stage as the next stage. Continual improvement of methods should take place at each stage, and stages should work together towards quality.
- e) Start as soon and as quickly as possible to construct an organisation to guide



continual quality improvement (65).

f) Everyone can take part in a team to improve the input and output of any stage.

g) Embark on construction of organisation for quality (66).

The views of Deming, as revealed in his Action Plan and the Fourteen Points, demonstrate considerable accord with those of Herzberg in the area of motivation. Deming indicates that one should strive for constancy of purpose, and demonstrate leadership; these are factors of the higher level, relating to responsibility, and feeling part of the team. Deming's belief that one should work to drive out fear, supports Herzberg's view that this represents insecurity, and as such could act as a demotivator, but could never function as a motivator. Finally, Deming's belief that exhortations to greater performance, targets, merit ratings, management by objectives, and similar devices intended to encourage higher output do not work, is substantiated by Herzberg's position that these factors operate at the "Hygiene", rather than the "Motivator" level.

The "**Deadly Diseases**" referred to above include the following organisational ailments:

- A lack of constancy of purpose;
- Emphasis on short term profits;
- Evaluation of performance, merit rating, or annual review;
- Mobility of management;
- Management by use only of visible figures, with little or no consideration of unknown or unknowable figures.

Professor Tony Bendell summarises Dr. Deming's position in quality management as being an advocate of "Management by Positive Co-operation" (67), and further summarises Deming's views in the expression "Joy in work, innovation, and co-operation".

The ways in which the implementation and form of TQM that appeared in the West

Midlands Fire Service, as well as the overseas brigades used as comparisons, related to Dr. Deming's "14 points", "Action Plan", and "Deadly Diseases" will be discussed in the analysis to be found in Chapter Seven.

### **Joseph Juran.**

Dr. Joseph Juran had many views in common with W. E. Deming, and shared many features of Deming's quality control background in post war Japan. Juran, whose professional background was as an inspector in the Western Electric Company, and as a professor at New York University, was the originator of the definition of quality as "fitness for purpose".

Like Deming he believed that most quality problems are the fault of poor management rather than poor workmanship on the shop floor, with management being responsible for some 80% of quality problems. This reads directly across to Deming's view that most problems are due to systems and their management, and are beyond the control of workers themselves to rectify, although Deming identified a 94% / 6% split rather than Juran's 80% / 20% split. Juran also strongly confirms the teaching of Deming in respect of planning for quality; stating that "quality does not just happen by accident, it must be planned". This underpins the philosophy of the " plan, do, check, action" cycle. (68)

Juran differs from Deming in identifying an optimum level of quality, rather than insisting on "continuous improvement". This belief was based on the law of diminishing returns, and the recognition that eventually any improvement will cost more to implement than it could ever save.

Just as Deming offered the "14 Points for Management", Juran gave his "**10 Steps to Quality Improvement**"; these are:

1. Create awareness of the need and opportunity for improvement;
2. Set goals and targets for improvement;
3. Organise to reach those goals;
4. Provide training;
5. Carry out projects to solve problems;
6. Report progress;
7. Give recognition;

8. Communicate results;
9. Keep score;
10. Maintain momentum by making annual improvement part of the regular systems and processes of the company.

### **Walter Shewhart**

Dr. Walter A. Shewhart worked in the Bell Telephone Laboratories in the field of statistical quality control in the late 1920's. He identified that all manufacturing processes display variation. These variations were able to be split into "inherent" variation and "intermittent" variation (69).

He considered inherent variation to be attributable to chance, and could only be removed by fundamentally changing the process. Intermittent variations, however, were attributable to assignable causes, which Shewhart believed could be identified and removed via a diagnostic programme. This was the origin of statistical process control (SPC), defined as "The application of statistical techniques for measuring and analysing the variation in processes" (70).

Shewhart's "3 stage cycle of activities was the forerunner of Deming's "Plan, Do, Check, Action" cycle. They share two fundamental considerations, namely that a) a process must be stable before it can be improved, and b) a stable performance requires a process feedback loop. (71)

Shewhart believed that there were three consequences of management systems that had been put into place for mass production workers. First, they reduce the worker's effectiveness by not giving them the information they need to regulate and control their own processes. Secondly, they make the work meaningless by removing the planning and other activities necessary to provide continuity, purpose and sense of accomplishment. Third, they preclude participation in planned improvement programmes, which could break through to new quality levels. Baker (72), writing on Shewhart's work, and extending his ideas from the factory floor to the realm of administration and white collar workers, opined that "White collar work is characterised by limited positive feedback to employees when performance is good, abundant negative feedback when performance is poor, and limited employee participation in planning, goal setting, and decision making" (73).

## **John Oakland**

The views of Professor John S Oakland, of the Bradford Business School were given close attention by both the research and implementation teams in the West Midlands Fire Service. This was principally due to team members' familiarity with his publication "Total Quality Management". Whereas it may be held that Oakland presents little that is new in his popular work, he does conduct a broad survey of the field of quality management. Oakland's views tend to reflect those of Deming. For example, Deming's 10th Point which is concerned with ending exhortations to the workforce, is dealt with by Oakland as follows: "Managements which rely heavily on exhortation of the workforce to 'do the job right first time', or 'accept that quality is your responsibility', will not only fail to achieve quality, but will create division and conflict". Oakland continues by observing that such calls for improvement imply that faults are only caused by the workforce, and that problems are departmental. In fact, the opposite is the case, with most problems being interdepartmental. The key to success is for all people at all levels, company wide, working towards perfection at every interface; with top management commitment being a critical element within the whole process. (74)

Oakland summarises TQM as an approach to improving the effectiveness and flexibility of a business as a whole, and as "a way of ridding peoples lives of wasted effort" (75). He concludes with a model for the implementation of TQM. This has three main points, each of which centre on the need for a Quality System, such as BS EN ISO 9000; the three points are:

- Management Commitment and Quality Policy, (Deming's 14 points);
- Teamwork, (Juran, Crosby etc.);
- Tools, (SPC).

Oakland uses this model to symbolise what he considers to be the concept of TQM, ie "Each part of an organisation has customers, whether within or without, and the need to identify what the customer requirements are, and set about meeting them, forms the core of a Total Quality approach." (76) Oakland's several references to Deming's approach to TQM indicate the regard he has for Deming's methods, which are statistically based, but heavily "people oriented" as well.

## **Kenichi Ohmae.**

Dr. Kenichi Ohmae added a fresh dimension to the quality debate by expressing the view

that successful strategy formulation is as much an intuitive process as a technical or scientific one. He compared the success of Japanese companies with that of Western competitors, and observed a significant difference in the career paths of the executives. The Japanese pattern of commencing corporate life at the bottom of the ladder, at an operational level, contrasts with the common Western practice of graduate entry to middle and senior levels of the organisation, without any experience of the operational realities (77).

Ohmae believes that this accounts for a crucial difference in understanding about "what is happening in the outside world, among customers and competitors, as well as on their own shop floor." He further considers that the West suffers from too much strategic planning, whereas Japanese managers know that improvement and innovation comes best from "where the rubber meets the road", ie at the operational end of the organisation (78). This viewpoint is encouraging to the British fire service, given that its officers are entirely drawn from the ranks. All fire officers in the UK joined their brigades as firefighters.

The process of continual challenge and selection has consistently resulted in the U.K. fire service finding sufficient people of the required calibre to fill the few most senior posts that arise each year. This practice of single tier entry is repeatedly challenged, but will be difficult to overturn as long as officers continue to be used operationally. As operational commanders, they must be intimately familiar with all tactical procedures, and their role is intrinsic to the progressive incident command structure employed in major operations.

Bodies such as the Adam Smith Institute have given cursory attention to this issue, notably in a 1989 report entitled "The Burning Question" (79). Such documents have sought to draw a comparison between the fire service in the UK, and other worldwide fire departments, notably some from the USA and Denmark.

A theme has often been a comparison between single and dual tier entry, and suggestions that this may suit the UK. It is difficult to see how this would result in savings of a significant kind. More importantly, the bond that exists between operational officers and the personnel they command is based very much on the trust that senior officers in general enjoy by virtue of their operational "hands-on" backgrounds. This would inevitably be compromised by two tier entry. There is no doubt that, in this context, the

experience of the UK fire service would bear witness to the teaching of Kenichi Ohmae.

### A Summary of the Messages From the Quality "Gurus".

	<b>Definition of Quality</b>	<b>Source of Quality problems</b>	<b>Models offered</b>	<b>General Quality Philosophy</b>
<b>Deming</b>	SPC, predict variations, low costs, try to suit the market	Management 94%, workers 6%	The 14 Points, 7 Deadly Sins and 7 point Action Plan. PDCA cycle	Management by positive co-operation (Bendell)
<b>Juran</b>	Fitness for purpose	Management 80%, workers 20%	10 Steps to Quality improvement	Human dimension important; Quality must be planned
<b>Shewhart</b>	Not defined	Suggests responsibility is joint	3 Stage cycle of activities; differentiate inherent variations from intermittent	Participation of workers in planned improvement cycles is a key issue
<b>Oakland</b>	(Appears to align with Deming's view)	Most problems are inter-departmental	Management commitment and quality policy; teamwork; tools Quality systems needed	Top management commitment; strive for improvement at each department inter-face; rid peoples lives of wasted effort
<b>Ohmae</b>	(Mainly discussed in terms of achieving competitive advantage)	Importance of working in unison stressed	Strategic management is as much intuitive as scientific	Managers need to understand processes at basic level, "where the rubber meets the road"

The above table is, of course, only representative of a sample of the leading management practitioners and academics whose views impinge on the field of quality and empowerment. Prominent figures such as Feigenbaum, Crosby and others were considered for inclusion, but were omitted because their focus was considered by the author to be principally on quality improvement in "process", rather than "people" contexts.

## Summary of Chapter Two

In this chapter, a survey of the concept of empowerment has been conducted and a working definition established. The works of prominent management thinkers have been examined in pursuit of evidence that empowerment is a necessary element of Total Quality Management and that empowerment is possible in a command organisation. The author has concluded that the importance of empowerment to any quality management initiative has been demonstrated in the works of most of the management "gurus". However, its transferability to the context of a command organisation is still in some doubt. Balancing that uncertainty, are all the characteristics displayed by the fire service that have been identified by management thinkers as being central to the issue of empowerment. These include a strong team structure, well-trained managers, and a high degree of "intrinsic" as opposed to "extrinsic" motivation at all levels.

At this stage, the author has concluded that of all the models offered by the "gurus", the Fourteen Points offered by Deming give the clearest guidance to managers seeking a model of implementation. They may also be used as a yardstick against which organisations, in this case fire brigades, may be measured in terms of their progress towards empowerment. Therefore, the investigation has been developed on the basis of an examination of the four fire brigades referred to in Chapter One against the philosophy of Deming. In general terms, findings from the questionnaire and semi-structured interviews were analysed to determine how each brigade measured up against the Fourteen Points. This was evaluated on the basis that compliance with Deming's Points would tend to suggest empowerment and conflict with Deming's Points would signal a possible barrier to empowerment, or as a factor limiting its implementation. As areas of difficulty in complying with any of the points were identified, they were considered in detail, with the aim of identifying whether the difficulty was due to the fire service being a command organisation, or to some other, possibly local, factor. A value has been attached to the compliance of each of the four brigades against the Fourteen Points in turn, to facilitate a more structured comparison.

Conclusions have been drawn, not only about each fire brigade's progress towards empowerment, but about the position of the fire service as a whole, world-wide, and whether its command style of management will constitute a barrier to success in its attempts to improve quality of service by empowering its personnel.

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## CHAPTER THREE

### THE WEST MIDLANDS FIRE SERVICE

#### **An introduction to the West Midlands Fire Service**

The West Midlands Fire Service (WMFS) is one of the largest fire brigades in the UK. An operational uniformed staff of over two and a half thousand serve the population of 2.6 million people. There are forty full-time shift-manned fire stations and one part-time station. In 1992 the brigade responded to 53,000 incidents. At the time of writing, the brigade was led by Chief Fire Officer Graham Meldrum, CBE, QFSM, MIFireE.

In its current form the brigade dates from 1974, when local government reorganisation formed the West Midlands Metropolitan County. At that time there was an amalgamation of several midlands brigades (1). These brigades each had significantly different managerial styles and resource levels. This constituted an obstacle to their smooth integration into a single organisation.

In 1986, there was further local government reorganisation which abolished the metropolitan counties. Since then the brigade has been maintained by one of the seven UK Fire and Civil Defence Authorities (FCDA's) (2). The metropolitan brigades are therefore run by "single purpose authorities", and as such are subject to more rigorous financial constraint than their shire county counterparts, having their own individual "capping levels".

The WMFS is structured into five Divisions, (designated A to E), which broadly reflect, but do not strictly adhere to, the boundaries of the constituent metropolitan district areas (3).

## **A "SWOT" Analysis of the West Midlands Fire Service**

A "SWOT" analysis, is an analysis of the Strengths, Weaknesses, Opportunities and Threats that feature in the life of an organisation; SWOT being an acronym derived from the four elements. The strengths and weaknesses are those inherent in the organisation and its resources; the opportunities and threats are those that are identified in the organisation's environment.

SWOT as a technique is applied with the intention of cross-referring the characteristics of an organisation with those of its environment. Until the analysis has been fully completed, it is not always clear how potential opportunities and threats from the environment will actually impact, and it is, therefore, difficult to formulate strategy.

In the case of the WMFS, the technique has been applied by the author as a means of providing a more objective assessment of the characteristics of the organisation and what pressures it is under.

### **Strengths**

Strengths of the WMFS include the following. There is a highly trained workforce, as in any full-time fire service. The amount of training undertaken is considerable, when compared to the standards of almost any other industry. For the basic operative of "Firefighter" rank, there is an initial residential course of some fourteen weeks (this varies slightly between UK brigades), a "Qualified Firefighter Module" which spreads over four years with exams and tests at frequent intervals, a daily training requirement of about three hours, and periodic refresher and specialist courses as necessary. The costs of this training are high, both in terms of staff required to input the training, and the opportunity costs of the time invested.

There are strong traditions in the fire service, which contribute to the team spirit that exists, and the willingness of staff to identify with the organisation, and its core purpose.

The fire service is a statutory service, which implies a degree of security for the organisation and its employees. Of course, the statutory base of this security could shift, but that is unlikely to be a sudden thing; the potential social consequences of compromising the operational integrity of the nation's premier rescue service would



probably be an over-riding consideration to politicians.

There is a high degree of staff retention which leads to both a satisfactory pay-off for training invested and also to accumulation of experience in the workforce.

The workforce, as well as being subject to statutory discipline provisions, is an intrinsically disciplined body. This is doubtless a result of the tradition of command and control and how this has influenced the culture.

The fire service has a strong positive public image. Unlike the police, which is also a service dedicated to the protection of the public, the fire service is usually perceived as being helpful and non-threatening. Whilst this is listed as a strength, it would clearly be impossible for the fire service to operate as it does without that image. On the few occasions when it has been compromised, notably on one or two instances where police and special forces have wished to take on the guise and cover of fire service uniforms and appliances during terrorist situations, it has been forcefully and successfully resisted.

### **Weaknesses**

The fire service has high fixed costs. The provision of resources is related to risk rather than activity levels and, furthermore, it is highly personnel intensive, with staff accounting for over 80% of revenue budgets.

The security of employment for fire service uniformed staff is considerable. Other than in the very early stages of a recruit's career, and increasingly throughout the two years "probation" period, it is procedurally very difficult for a firefighter to be dismissed, other than for very serious and usually blatant misconduct (4).

The fire service is rigidly hierarchical by tradition. This is partly because of the nature of the core service rendered and partly because of an unwillingness to recognise the need to change. This is now starting to change, as the service comes under increased financial pressures and, as has already been discussed, has constituted one of the "triggers" for the implementation of TQM and associated initiatives.

Restrictive practices have also already been discussed in some detail in Chapter One of this dissertation, and the details will not be repeated here. However, the fact of their

continued existence has a daily impact on the effectiveness of the service, reducing productivity and flexibility and denying opportunities for rendering the same service at less cost to the community.

The fire service has a well-deserved reputation as a "Jack of all Trades". The statutory services rendered are in the broad areas of firefighting and fire prevention. Also, several other roles are now firmly associated with the fire service in the minds of the public, and other services such as the police, ambulance, and local authorities. These include extrication of casualties from road traffic accidents and machinery, rescues from sewers, lifts, high places, rivers and lifts, and dealing with accidents involving toxic chemicals, radiation and pollution incidents. Calls to this type of incident, generally classed as "Special Services", have generally been directed to the fire service as being the only body able to respond quickly, with protective equipment, and which was sufficiently disciplined to tackle the hazards involved (5).

## **Opportunities**

The fire service continually experiences greater demand for its services. Despite increased activity in the fields of fire prevention advice and inspections, the number of calls continues to increase. To some extent this reflects the positive image that the public has of the service, and increased publicity raises this even further. This situation provides opportunities for expansion into other areas of prevention and community education to reduce the unacceptably high numbers of injuries and deaths, but also to specialise and refine the service provided in some areas. Road traffic accident extrication is one such clear area where, despite the funding problems referred to above, expertise is continually being raised.

Society is becoming less accepting of rigidity and authority and the staff that the fire service employs reflect these changing values. Despite being a disciplined organisation, where rules and procedures still have a clear role, the benefits of the independence of mind, generated by more liberal and questioning attitudes, can be harnessed by an empowering organisation. This is a clear opportunity in the area of management under consideration in this investigation.

Consumers in all spheres are becoming more demanding, and more willing to question and complain; this applies to recipients of the fire brigade's services as well. Whereas this

could have been listed as a threat, it is in fact an opportunity for the service to critically examine and re-examine its performance. Without critical appraisal of its operation, the service would be limited in its ability to "continually improve". With the criticisms of the Home Office Inspectorate, Audit Commission and local politicians added to the complaints of consumers, the fire service now has many opportunities to keep the Deming Cycle revolving.

The impact of Output Monitoring and Performance Indicators (OMPI's), is gradually being felt in the fire service. Intended as a means of comparing the effectiveness and efficiency of fire brigades, for lay persons, the figures are already a focus of attention for the representatives of the community, ie the elected members of fire authorities. Often questions from non-service members are more challenging than those from people who have evolved through the system, such as chief officers and Home Office Inspectors. Therefore, as with the previous issue of greater willingness to complain, OMPI's present an opportunity to the service to review and challenge familiar paradigms.

Changes in law that affect the fire service are becoming more frequent, as is the impact of civil judgements. Many changes in statute are a result of European laws and regulations; the most significant of these to the fire service being the Health and Safety at Work (etc.) Act 1974, and the regulations springing from that Act. This might have been listed as a threat to the service rather than an opportunity for it. However, it would be totally naïve and unrealistic to imagine that the fire service, or any other organisation, could exist in a vacuum, insulated from the environment in which it operates. In what is widely recognised as a hazardous occupation, pressure to re-examine methods and procedures associated with that occupation must in the long term result in a more effective and efficient organisation.

For many years fire brigades had avoided the direct attention of the Health and Safety Executive. However, since 1991, when two Improvement Notices were served on the London Fire Brigade following a warehouse fire (6), the HSE have paid closer attention to the fire service. A further Notice has since been served on London (7), and two on the Hereford and Worcester Fire Brigade (8). These related to incidents in which firefighters were killed in circumstances where procedures were allegedly either inadequate or not being followed.

The impact of these has properly been felt across the entire British fire service. This,

combined with the impact of the Health and Safety (General Provisions) Regulations (The "Six-Pack"), places the fire service squarely in the same position, with regards to health and safety, as any other employer involved with hazardous processes. This will, without doubt, impact not only on the processes but also on the culture of the service, which has to some extent harboured "gung-ho" attitudes to these issues.

## **Threats**

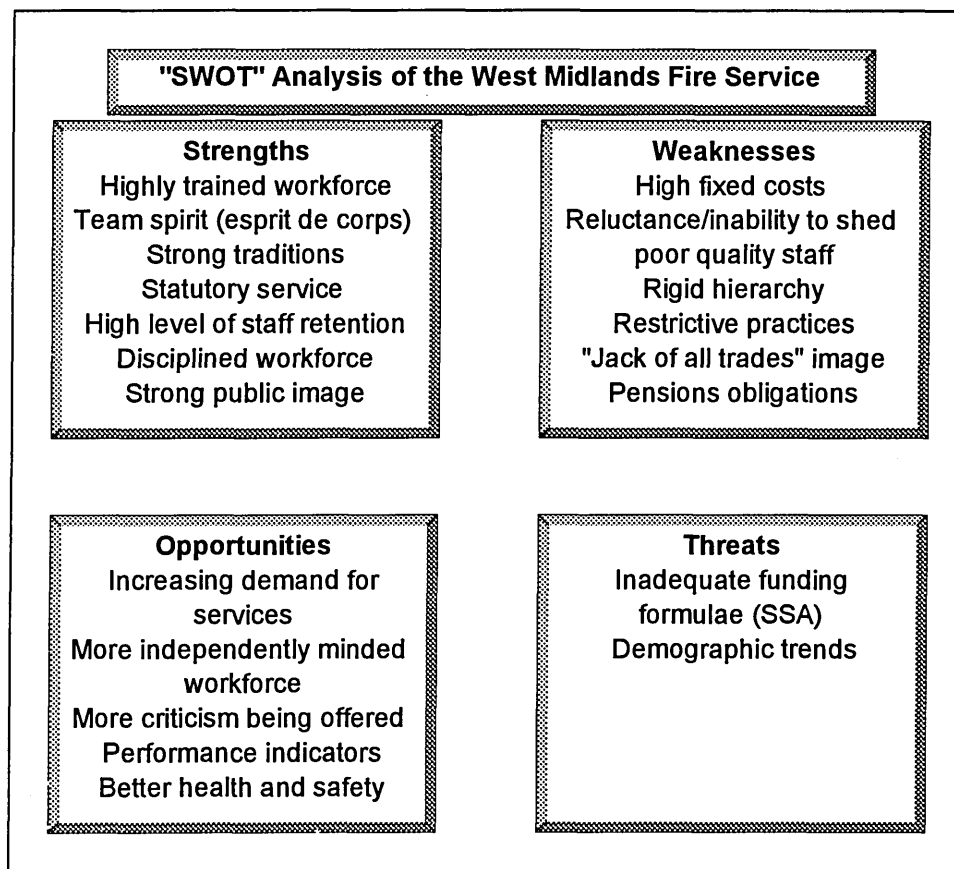
Political considerations are increasingly at the fore in fire services and particularly so in the case of the metropolitan Fire and Civil Defence Authority (FCDA) controlled fire brigades. The threat element is found in the conflict of ideologies that clearly exists between central government, which since May 1979 has been Conservative, and that of the mainly Labour controlled authorities, the councillors of which constitute the membership of the joint boards which are the FCDA's. It is possible that the unresolved difficulties in the system of "Standard Spending Assessments" (SSA's), could be rooted in this conflict. The origin of the SSA approach was, without a doubt, to be found in the perceived need of the Government to establish greater control over local spending, as described in Chapter One. For some of the metropolitan fire brigades that cover most of the major cities of England, the effect has been a period of unprecedented cuts and rationalisation. The real threat lies in the effect of the constantly lowering level of "cap" on spending, ie that the funding for certain of these brigades will be forced below that required to sustain the level of fire cover currently enjoyed by the community.

Demographic trends concern the fire service as much as any other major organisation. The changing age profile in society affects the brigades in two ways. First, there will be a greater demand for the reduced number of young people on the job market who fulfil the recruitment criteria, either present or reasonably foreseeable, of the fire service. Second, the higher life expectancy of people in general, and firefighters in particular, means that the demands on the pension scheme will be such, that many brigades in the country are forecasting that pension payments, in the present unfunded pensions structure, will constitute over 30% of their total revenue expenditure by the year 2005. Firefighters have benefitted from greater increases in life expectancy than the average citizen due to the dramatically improved personal protective equipment that is available to them, in particular positive pressure breathing apparatus and procedures that insist that this is used.

## Analysis of the SWOT

In general terms, the identified weaknesses are a negative influence within the service, just as the threats are a negative external force. However, in a few instances, the effect of the one on the other is one of neutralisation, or even reversal of the effect. For example, the identified weakness of being a "Jack of all Trades" can be an advantage when faced with swingeing financial cuts; the firefighter is able, when the cooks and cleaners on fire stations are sacked, to revert to the practices that were common two decades ago, where firefighters took turns to cater for their colleagues, or clean their own stations. Whilst this is not particularly economical in opportunity cost terms, it is an option that fire service management have that would not be easily available to those in other services, eg the police.

Equally, in the light of some of the "opportunities", certain of the identified "strengths" can be turned into negatives. Strong traditions, whilst acting as a backbone in a static environment, act as barriers to internal change; this can be destructive in times of dramatic environmental changes. An organisation that relies on a disciplined workforce can be compromised by the changes in society that cause staff to react against regimentation. High retention can pose a problem in times of tightening finances, when a greater degree of natural wastage of staff would allow establishment levels to erode rapidly to affordable levels without the need for redundancy. High retention can also work against an organisation in terms of its age profile, as it does not permit the desired rate of infusion of "new blood" at the lowest levels of the organisation.



### **Background to the Process of Implementation of TQM in the West Midlands Fire Service.**

The methodology used for this subsection of the dissertation is "participant observation". This methodology, and the reasons for its selection, were explained in Chapter One.

The West Midlands Fire Service (hereinafter WMFS), began its association with Total Quality Management in a formal way in the latter part of 1992. A memorandum from the Deputy Chief Officer and the Principal Administrative Officer, to the Chief Officer, considered the subject of the Citizen's Charter, and the impact of that initiative on the WMFS. This memo referred to the service improvement that was possible from quality improvement initiatives such as TQM, and from quality control systems such as BS 5750 (Now BS EN ISO 9000).

BS 5750 as a way forward for the whole brigade was not dismissed as a possible route at this stage. The West Midlands Ambulance Service, an organisation with which the

WMFS come into frequent and close contact, had, in fact, chosen this route. However, with its Trust status, and the somewhat more commercial orientation that had resulted, the needs of the organisation were subtly different. Another key point is that although the ambulance service is a uniformed civil emergency service, it is much less of a "command" organisation than either the fire or police services. Its role is primarily at the task or operational level, and senior management at an incident is more focused on logistical support for the operation, than on control of it.

Another model which was given close consideration, and which has resulted in some useful ongoing liaison, was with the Hertfordshire Police. This organisation was proceeding with the implementation of TQM. The method of implementation was on an incremental basis, introducing projects one by one, and doing this station by station, and division by division. Although further reference will be made to the Hertfordshire experience, the main relevance is in the fact that the police certainly are a command organisation. However, some qualification has to be introduced into the degree of read-across between the police and fire services.

Significant differences surround the way that command is exercised; these have an impact on the degree of empowerment enjoyed, and the guise it takes. To elaborate on this briefly, the police constable, ie the individual most frequently at the service delivery end of the organisation, operates in the main as an individual. He or she has original authority in law, hence the elements of discretion and initiative are pronounced. The fire service is much more orientated towards crew level operations. This simple factor is reflected in the hierarchy, and in the organisation's attitude to both command and control, and general management.

Fire crews are drilled, all activity on the training ground or at the incident is at a smart pace, and orders are certainly not to be questioned. Within this rather foreboding framework, there is naturally flexibility at the operational level. Nevertheless, the flavour of what has been described is consciously preserved, and would not be dispensed with until the alternate way forward had been clearly mapped out.

Far from diluting this approach, in an operational or "fireground" context, current tendencies in the fire service are towards consolidating and improving the structure and practice of this command methodology. The reasons are mainly due to the recent history of serious operations in the UK, and the judicial inquiries that have followed. The

Popplewell inquiry following the Bradford City Football Club fire in 1985, the Taylor inquiry following the Hillsborough Stadium disaster in 1989, and the Fennell inquiry into the King's Cross tube station fire in 1987, all had a direct influence.

Of the opinions expressed by Desmond Fennell QC, in his report on the King's Cross fire, several implied criticisms of the incident command exercised by London Fire Brigade, and the inter-service liaison at command level. This pattern of post incident inquiry, criticism and litigation is one that will ensure that command responsibilities will be, if anything, more rigorously defined, planned and exercised. (9)

### **The Cultural Dimension**

In an organisational sense, the WMFS displays centralist and hierarchical tendencies. The "Recipe" of the organisation is influenced by, what internal critics of the organisation have termed, a "fear culture". The methods of senior management in the past, and to some extent still today, reflect these characteristics.

This situation can best be illustrated by use of the device known as the "cultural web", and the concept of the "recipe" of an organisation. Johnson and Scholes describe the "culture" as:

"The deeper level of basic assumptions and beliefs that are shared by members of an organisation, that operate unconsciously, and define in a basic taken-for-granted fashion, an organisations view of itself, and its environment". (10)

The "Recipe" is the paradigm that derives from an analysis of the culture; Johnson and Scholes sum this up as the manager's and principal stakeholder's views about "how to succeed". Inherent in this fact is the danger that any attempt at an objective analysis of the culture/ recipe will be taken by the most powerful stakeholders as evidence of a "political threat or attack" on those most closely associated with the core beliefs, and as a failure to understand the subtleties of managing a complex organisation. (11)

Applied to the WMFS, the model of the "cultural web" reveals many elements which, in themselves, constitute obvious barriers to TQM in general, and empowerment in particular. A completed "web" for the WMFS is shown at Appendix B (12). It must be



stated that the elements illustrated would fit many large fire brigades, particularly ex-city brigades and metropolitans, where industrial relations have, historically, been more challenging than in the shire counties and political influences more tangible. Also, the analysis is subjective to the extent that it has been completed by the author in the role of "participant observer".

This type of situation and managerial attitude was described by Scherkenbach as a "Fear Cycle" (13), in effect the antithesis of a Deming Cycle. A Fear Cycle (or "kill the messenger cycle") develops in response to management attitudes as described above, and can be characterised as follows:

- An employee delivers bad news to management, (eg a divisional commander reports to the chief that there has been a re-ignition of a fire, with consequent loss to the authority).
- This goes down badly, and the messenger is "killed", (ie receives the backlash direct, and may even be involved in the wave of sanctions and recriminations).
- Subsequent messengers, with further bad news, note the consequences of openness and, therefore, decide to filter the information that is passed; they survive, therefore this technique persists.
- Management become conscious of a reduced flow of information, and react to this by putting in place more controls; they "micromanage".
- This increased level of probing, with the consequences of the truth emerging being known and feared, raises the tension and division in the organisation, resulting in the fear culture becoming more entrenched, and the fear cycle primed for another damaging cycle.

Set directly into the context of the WMFS, the fear cycle is in operation. One area where it is particularly evident is in the quality control methods employed by the WMFS, which rely principally on inspections. Inspections have an impact on a daily basis and at most levels. An extract from the "menu" of inspections is as follows:

- Annually, a formal inspection of the whole station, including all appliances, equipment, records, practical performance of crews, and technical knowledge of the crews. This would be conducted by divisional staff, who would probe and examine until the inevitable "failure" was identified.
- Annually, a "Principal Officer's Inspection"; this would be a visit by the Chief, his deputy, or one of the Assistant Chief Officers. This would take the form of a sampling of any aspects of performance, readiness or administration. The inspection would frequently be followed by some communication to the Divisional Commander about his failure to maintain standards, the result being that the person most worried about the inspection would be the Divisional Commander, who would behave accordingly. This state of affairs naturally accelerated the damage wrought by the fear cycle, and undermined any middle manager who may have wished to attempt a more enlightened approach.
- Annually, the inspection by Her Majesty's Territorial Inspector (HMI) of the Home Office's Fire Service Inspectorate. These inspections are a significant part of a fire brigade's year, therefore are discussed in more detail below.

HMI's are appointed by Royal Warrant and report to the Home Secretary. These officers have traditionally been ex-Chief Fire Officers although, at the time of writing, the first ever "lay inspector" is in the process of being appointed. Annually, an inspection of the efficiency of every brigade in the country is performed. Assisted by staff officers, and specialists where necessary, eg Fire Prevention inspectors, the process culminates in the publication of a report. This makes public comment on the effectiveness of the Authority's discharge of its statutory duties, but is also used by the Fire Authority to judge the performance of its Chief Officer, and it identifies areas of both under and over provision of resources, should they exist. The latter function is of crucial interest to those financially challenged authorities contemplating setting a budget above the "cap".

For many years, the Inspectors and Chief Officers regarded each other almost as colleagues; the inspection was collaborative and, until 1991, not a public process. After the late 1980's the accent of the inspection shifted; the inspectors were directed towards a more probing style, and were focused on an exploration of the "value for money" that the brigades were offering. This remains the case today. Hence, in general terms, the Chief Officers have become more wary of the inspectors, and this heightened tension is

felt at all tiers within fire brigades.

The main method that the HMI uses to assess efficiency and effectiveness is to visit fire stations and departments, observe practical exercises and drills, and question personnel. This, being known in advance, leads to a long and perhaps wasteful period leading up to the inspection, when most routine and administrative work is disrupted while set-piece drills are rehearsed, and stations and appliances "bulled". There is little doubt that the HMI has a significant place in the overall culture of the WMFS.

### **General Perceptions**

The "cultural web", as referred to earlier, is also rich in "myths and legends"; stories which are usually based on fact, but used widely to underpin the culture. Examples include torrid recollections of failures, with careers coming to a sudden end after recalls (14), and strange behavioural rites which are again clearly and firmly entrenched in the fear culture, such as headquarters' officers not leaving for home in the evening until the lights were seen to be out in the principal officers' suite, which may be after seven or eight o'clock at night. The style of management in the West Midlands Fire Service is probably best described as "sophisticated modern", with sub-group "consultors". This has evolved from the "constitutionalist" sub-group, which is characterised by codified agreements, such as the restrictive practices that fire services suffer from today. (15)

### **The Experience of the West Midlands Fire Service in the Implementation of TQM: How Empowerment became an Issue.**

#### **The "Research" Phase**

The Chief Officer and principal management, having received and considered the report of the Deputy Chief Officer and Principal Administrative Officer on the implications of the Citizen's Charter referred to earlier, decided that the issue of quality of service warranted further research. Accordingly a team was assembled at the end of 1992 to consider and report on the issues (16). The period offered was short, with about two months being available. This being the case, it was never realistically intended that original research be completed, rather that only a survey of what was possible be undertaken.

The focus at this time was very much on the profile of the brigade in the wider community. As a "single purpose" authority, precepting the metropolitan districts within its jurisdiction, such considerations were, and are, critical.

A team of three was appointed to research the issue of TQM within the WMFS. Two of the team were relatively new to the organisation, and one was sufficiently junior in the brigade not to have been too deeply indoctrinated in the culture. However, they were intelligent and politically astute enough to be aware of the impact it was clearly having. As a result of this mix of background and experience, they were able to be objective, and in some respects iconoclastic, nevertheless their approach was positive throughout.

The team contacted many organisations that were active in the area of quality management; these were mainly commercial and industrial concerns, but Hertfordshire Police, which was actively exploring TQM, and the West Midlands Ambulance Service which had just received certification to BS 5750 Pt2, were also canvassed (17). The few fire brigades that were involved in any linked project at the time were investigated more fully. It was found that most of the initiatives were either at a conceptual stage, or had developed along the lines of BS 5750 in specific functional areas, such as training or workshops.

During the research period it became clear that the issues that were doing the damage to morale in the brigade were issues that TQM, properly implemented, would address. This gave the team added impetus. Nevertheless, its report had to be palatable to the principal management of the brigade if any action was to result from it; this demanded a degree of circumspection and tact in the way that the findings were presented.

An important part of the work of this group was the completion of a survey of staff attitudes and perceptions. 11% of the brigade was targeted to be sent a questionnaire, and 6% completed and returned it, the numbers being 275 and 159 respectively (18). The responses were identified as being from employees in four "bands". These were non-uniformed staff, uniformed personnel from Firefighter to Station Officer, Assistant Divisional Officers (ADO's) and Divisional Officers (DO's). It will be appreciated that the latter two grades are middle and senior-middle management ranks respectively. Their perceptions were considered to be of great importance when assessing the likelihood of success of a TQM initiative in the brigade.

The findings of the survey were useful and revealing, therefore an extract of the responses to the twenty questions is reproduced in the following tables (19):

(Key: N/U = non-uniformed; DO = Divisional Officers; ADO = Assistant Divisional Officers; UNI = uniformed ranks below and inc. Station Officer.)

Is the general attitude of brigade management towards brigade personnel a problem?	N/U	DO	ADO	UNI
YES	4%	27%	50%	52%
NO	71%	64%	42%	28%
DON'T KNOW	25%	-	8%	20%

It is clear from this that the uniformed personnel, who operate within the command structure, express more dissatisfaction about managerial attitudes at the most senior levels than the non-uniformed staff do. It is also telling that of those surveyed, almost a half of the middle managers agreed that there was a problem in this area.

Is the general attitude of Divisional or Departmental management towards brigade staff a problem?	N/U	DO	ADO	UNI
YES	7%	9%	25%	47%
NO	79%	91%	58%	48%
DON'T KNOW	14%	-	17%	5%

In this response there is still a high proportion of the "UNI" group that feels there is a problem. Predictably, the proportion of ADO and DO reduces, no doubt because they are the ones who would be considered the problem on divisions and departments.

Is the general attitude of station/ section management towards brigade personnel a problem?	N/U	DO	ADO	UNI
YES	7%	-	33%	10%
NO	86%	100%	50%	85%
DON'T KNOW	7%	-	17%	5%

Here, again predictably, the proportion of station based managers who feel that they are part of any problem was much reduced. It was not clear why 33% of the ADO group feel that there is a problem in this respect on stations, when only 10% of the station based group, who should be the first to perceive the problem if it existed, feel that was the case. The pattern of far fewer non-uniformed than uniformed personnel perceiving a problem has emerged. Assuming that their answers were honest, and that they work in the same organisation, the problem would appear to reside in the uniformed command structure and its managers.

Is there a problem with management's handling of disciplinary matters?	N/U	DO	ADO	UNI
YES	-	27%	50%	29%
NO	57%	73%	42%	28%
DON'T KNOW	43%	-	8%	43%

The high proportion of middle managers who responded that there was a problem implied that they felt the problem resided at a level above that at which they have influence. The non-uniformed personnel have a very different disciplinary process from the uniformed staff.

In your opinion, how are industrial relations within the brigade?	N/U	DO	ADO	UNI
GOOD	43%	18%	16%	12%
FAIRLY GOOD	25%	45%	42%	26%
REASONABLE	21%	28%	42%	39%
STRAINED	11%	10%	-	17%
POOR	-	-	-	3%

In your opinion, how are industrial relations within your station or section?	N/U	DO	ADO	UNI
GOOD	61%	45%	42%	23%
FAIRLY GOOD	11%	45%	42%	28%
REASONABLE	18%	10%	16%	22%
STRAINED	7%	-	-	6%
POOR	3%	-	-	1%

Do you agree with the statement that "We are all kept well informed by management about decisions which affect our jobs"?	N/U	DO	ADO	UNI
AGREE	29%	17%	-	-
TEND TO AGREE	32%	33%	25%	17%
NEUTRAL	7%	8%	17%	16%
TEND TO DISAGREE	21%	42%	1%	19%
DISAGREE	11%	-	1%	19%

Quite a high proportion of middle managers feel ill-informed about decisions at policy level.

The views of staff were also obtained at a series of seminars, held during the research period, at which staff were given the opportunity to express views in a "threat-free" environment. Some statements made to describe the organisation and culture were (20):

- Fear management
- Secrecy, knowledge is power
- New management techniques .....(moving) the goal posts
- Distrust, suspicion of motives
- Promotion ethos, empire building
- Attitude to lower rank levels
- Fortress mentality
- Ivory towers

It is fair to say that there were equally many positive statements made about the brigade, but in terms of identifying potential barriers to empowerment, the above concerns of a wide spectrum of staff must be considered significant.

When the final report was published, reference was made to the problems of the brigade in clear terms as shown in the above extract of responses. Reference was also made to the concept of the "internal customer", and some of the problems of officer/ firefighter relationships considered in this context. Quite properly, it identified that in the WMFS, the internal customer dimension was the neglected aspect of service provision, and that once this was corrected, much progress would be possible. Other standard quality issues were fully addressed in the report, which covered the principles of TQM, in a broad sense; measuring and monitoring of the service provided, devolution of authority and responsibility, performance targets, continuous improvement, training for quality and BS 5750 for relevant areas of the fire service operation.

The next stage was a consideration of the report by principal management and by the political leadership of the authority. The basic decision to be taken was whether TQM was worth adopting as a way forward for the brigade. At that stage, the possibility existed that a short term and superficial view would be taken, that would focus on the rewards of a successful TQM programme, considering only the superficial costs, rather



than the true organisational costs of the initiative.

### **The "Implementation" Phase - A Participant Observer's Perspective.**

The decision to implement the programme was duly taken. To ensure that the rewards of this initiative would not be too long awaited, a period of three months was scheduled for the implementation. The implementation team, chosen for the spread of skills and experience, was again drawn on secondment from operational and administrative posts within the organisation.

The TQM Implementation Team, as the group was entitled, comprised a Divisional Officer Grade One, as the leader, a Divisional Officer Grade Three, an Assistant Divisional Officer, a Leading Firefighter, a non-uniformed personnel officer, and a management services specialist, the only member who had served in the first team being the latter individual.

The work of the team was scheduled within tight time frames, and the nature of the outputs was also to some extent predetermined. There would be a video which would be circulated to all personnel to explain what TQM was all about. A handbook would be produced and issued to all personnel, further explaining the principles, and remaining as a source of reference for them. A "manual" would be produced which would expand on these principles, and go further into what individuals and departments would need to do in order to achieve the organisation's strategic objectives. The date for a "launch day" was also set. It was suggested that thought would need to be given to the structure and composition of future TQ teams. There would be both a need to set policy for the TQM initiative on an ongoing basis and also to attend to the day to day matters arising from the implementation process in an organisation of over two thousand people.

To assist and complement the work of the implementation team, all Divisional Commanders and heads of sections and departments within the brigade were tasked with producing, on the basis of their having studied the report of the TQM Research Team, quality improvement projects appropriate to their particular area of command or responsibility. This would be produced following consultation with the team, which would comment and advise on the proposals, and integrate these into the whole initiative.

Brainstorming sessions were conducted within the team, in an effort to ensure that the

direction to be pursued was understood by all. It was clear that, in order to reach the project deadlines, the members of the team would have to disperse and work within other groups around the divisions and sections of the WMFS. Therefore, there was a need to establish and confirm the principles, have these approved at policy level, and devise a means of achieving their implementation quickly.

It was recognised that the fire service would be different to the majority of organisations used as models in management literature. In response, the team agreed that the way forward would be on the basis of an approach that became known within the team, and later more widely known, as "Tailoring the Principles of TQM to the WMFS". The principles would be applied in as unmodified a form as possible but, in view of the task and the culture of the organisation, some modifications were clearly going to be needed. The exact format was proposed by the implementation team, and accepted after any modification considered necessary by the Management Team.

Several principles were established during the research phase of the implementation; they were then agreed by the brigade's management team. These principles were (21):

1. The organisation should understand who its customers are, both internal and external, and know what their requirements are.
2. Everyone is responsible for providing quality.
3. Total quality starts from the top of the organisation.
4. Good communication at all levels is essential.
5. Empowerment at all levels.
6. Organise for error free work.
7. Measure for success.
8. Total quality improvement is continuous.

The process of agreeing these principles was done in the clear context of a command

organisation. For example, it was acknowledged that empowerment in a disciplined and uniformed organisation would display different characteristics to that in a less formal or structured organisation.

One of the first issues to be addressed was how to tackle failure, of any kind, within the organisation. Traditionally, and in keeping with the culture as it existed at the time, failure would be dealt with in a punitive fashion. It was clear that this was not in keeping with the 14 Points of Dr. Deming. There was no attempt to investigate whether, and to what extent, the system was responsible for, or contributed to, the failure. There was no attempt to investigate whether the individual had been clear about what the organisation expected in advance, and whether sufficient resources and training had been available.

Equally, in a life saving emergency service, the philosophical and practical priority is "Right First Time". Tom Peters' approach of "Celebrating Failure" and welcoming "ten failures a day" (22) was not an option in respect of the core functions. To balance this, and properly represent Tom Peters' viewpoint, he himself recognised that he would not like to think that his airline pilot was going to fail when he was a passenger! What he hoped to convey in terms of supporting failures was that the "good failures" deserved to be supported, ie attempts to make advances that had gone wrong due to no fault of the manager, and failures "from which one explicitly learns something quickly" (23). Peters relates how some of the toughest bosses in the world support the principle, and "reserve unlimited contempt for those who have tolerated inaction" (24), ie those who have not failed only because they have not tried to do anything. With these caveats, there is no reason why the fire service could not "support failure" just as much as an airline.

To try to reach a position where these this principle could be explored, but in which organisational constraints could also be recognised, the airline example was followed (perhaps as much by coincidence as design) and an idea was borrowed from British Airways, namely "Key Result Areas". This was to help in meeting the requirements of the organisation, which in the case of an airline is at least as demanding in safety and technical respects as the fire service. Key Result Areas (KRA's) would be performance targets agreed between the operational watch, and the divisional staff officer responsible for that station. It would cover such areas as:

- Achievement of the annual training requirement for each individual.
- Achievement of the required amount of Fire Prevention inspections.

- Completion of the routine work of the station, including Standard Tests, Administration, Community Relations work, monitoring and use of consumable resources, power etc.
- Completion of the annual hydrant inspection programme.

Given that the operational workload of each station in the brigade can vary quite considerably, as can the character of their areas in terms of type and number of buildings to be inspected, socioeconomic status of the community, and level of special risks, the KRA's would have to be as flexible as the organisation could allow if they were to be at all realistic (25).

A statement made by the CFO at the time of the launch of TQM, and repeated in an article in "Fire" magazine, was (26):

"It has often been said that TQM is a journey not a destination. The West Midlands Fire Service is now just a short way down what will be a very long road. TQM was never expected to be the easy option, but rather the best method of improving an already sound product. It is recognised that the achievement of any ideal will always be just out of reach, yet the improvements and changes that result from efforts to reach that goal, will make the work and investment worthwhile."

The observations of the WMFS officers who responded to the questionnaire indicate that whilst in the time scales associated with TQM it is still quite early to make judgements, there is some scepticism as to whether the promised momentum is being maintained.

### **Summary of Chapter Three**

The West Midlands Fire Service is justifiably proud of its reputation as one of the foremost fire brigades in the UK, and goes to great lengths to preserve that position. Its officers and staff are on the whole loyal and well motivated. However, many of the staff perceive a fear or blame culture and harbour suspicions and mistrust of management. Management itself appears divided, with middle management feeling alienated from the corporate decision making process, notwithstanding the structure of meetings and lines of communication that exist. The effectiveness of these mechanisms must therefore be questioned.

Although the most senior levels of management attracted criticism during the interviews and surveys conducted by the research team, it should not be forgotten that this process was initiated by senior management itself. The information gleaned from these processes has been put to good use. It can be argued that as long as this openness can be maintained, and senior management remain willing to listen to criticism, progress towards a total quality organisation and toward an empowered workforce will continue in the command structure of West Midlands Fire Service.

### References in Chapter 3

1. These brigades included Coventry, Wolverhampton, Solihull, Warley, Walsall, Dudley, and the Birmingham Fire and Ambulance Service, which itself was the biggest brigade outside London at the time.
2. These are the fire authorities within the meaning in the Fire Services Act 1947 for the areas of the six ex-metropolitan counties and London.
3. In fact, two divisions cover the "Black country", two divide the City of Birmingham, and one covers Solihull and Coventry.
4. Several brigades are currently exploring "capability procedures", including London, and West Yorkshire, but they are experiencing much resistance from the Fire Brigades' Union.
5. At the time of writing the fire service is not funded for Special Services, is vulnerable to litigation if it fails whilst performing them, and must equip and train more extensively to meet ever tightening health and safety standards. Brigades have developed a moral obligation in these areas, and will therefore continue to perform the services, but the situation has revealed weaknesses in the basic statutes, the funding structures, and in some cases the training provided.
6. 10th July 1991, Hay's Business Services, Gillender Street, Bow. Two firefighters lost their lives having run out of air in a large warehouse fire.
7. 10th May 1993, Access Laundry, Villiers Rd., Willesden. One firefighter killed (cause not available).
8. 6th September 1993, Sun Valley Poultry Ltd., Grandstand Rd., Hereford. Two firefighters killed in a structural collapse.
9. Fennell D, "Investigation into the King's Cross Underground Fire", Her Majesty's Stationary Office, London, 1988, pp82-3 and p166.

10. Johnson G and Scholes K, "Exploring Corporate Strategy: Text and Cases", Prentice Hall, 1989, p38.
11. *ibid*, p41.
12. To add to the information illustrated in the diagram at Appendix B, the following observations of the author, as a former senior officer of the WMFS, may be helpful. As a newcomer to the WMFS (in 1991), the author was interviewed by several of the principal postholders of the organisation, by way of introduction, and also, perhaps, indoctrination. A clearly adversarial situation was revealed between management and staff, by virtue of the language used during these interviews. For example, senior officers should "hit the stations" and "turn them over". They should not go to stations to talk to personnel; "we do not go in for the 'visiting vicar' approach here". Interestingly but disappointingly, the very senior officer offering this advice appeared totally oblivious to the impact this attitude was having on morale, or indeed that morale was a problem.
13. Scherkenbach W W, "The Deming Route to Quality and Productivity - Road Maps and Road Blocks", Mercury Business Books, 1982, p73 & Fig. 5-19
14. A "recall" is a case where a fire re-ignites after the fire service have attended and supposedly left it safe, hence being recalled to deal with it again.
15. Bain G, "Industrial Relations in Britain", Blackwell, 1984, pp 114-115
16. McGuirk S, Hyett M, Baker A, unpublished report of the West Midlands Fire Service's TQM Research Team, entitled "A Report on the Concepts of Total Quality Management and their Application to the West Midlands Fire Service- A New Initiative?", West Midlands Fire Service, 1992, p1
17. *ibid*, p83
18. *ibid*, p54
19. *ibid*, p55

20.    ibid, p51
21.    Meldrum G, Chief Officer, West Midlands Fire Service, "Using a Total Quality Management System for Innovative Change.", Fire, September 1993, p39
22.    Peters T and Austin N, "A Passion for Excellence- The Leadership Difference", Fontana/Collins, 1986, p180
23.    ibid, p181
24.    ibid, p181
25.    The concept of KRA's was greeted with much scepticism by both management and staff in the B Division of the WMFS where they were trialled, and in fact withered on the vine very early on in the post launch period, despite much optimism by the members of the implementation team at the conceptual stage.
26.    Meldrum G, Chief Officer, West Midlands Fire Service, "Using a Total Quality Management System for Innovative Change", Fire, September 1993, p40



## CHAPTER FOUR

### THE HONG KONG FIRE SERVICES DEPARTMENT

#### Introduction to the Hong Kong Fire Services Department

The fire service in Hong Kong is a department of the colony's government, and answerable through the Secretary for Security, and the Chief Secretary, to the Governor. The structure of the department is of three operational commands; Hong Kong Island and surrounding islands, Kowloon, and the New Territories. There are also three functional commands; Headquarters Command, Ambulance Command, and the Fire Protection Bureau. Each of these six commands is headed by a Chief Officer, and they in turn answer to the Director of Fire Services, and his deputy. (At the time of the author's visit, the Director was Mr.LAM Chek-yuen, OBE, QFSM, CPM, JP) The establishment of the service is 7228 uniformed members, and 728 non-uniformed support staff. There are currently sixty-three fire stations, five fire boat stations, and twenty-nine ambulance stations. In 1992 there were 27,810 fire calls, of which 14,785 were false alarms (1).

The rank structure within the department demonstrates the close historical links with the UK fire service. The complete organisational chart is shown at Appendix C. There are thirteen tiers of management in the organisation. There are between four and seven stations per division, but the establishment of a fire station is much larger on average than the normal UK station. The divisions, commanded by a Senior Divisional Officer (SDO), average 400 personnel, comparable to a UK division that would warrant an SDO. An operational Command comprises four operational divisions, and one fire protection regional office.

Appliance mobilising in Hong Kong relies on the "raise alarm" system, similar to that found in many parts of the USA and Europe. This includes a fairly rigid schedule that dictates at what stage a senior officer, of appropriate rank, should be informed of an incident. An extract of this appears in Appendix D. This order reveals aspects of the

the following information from the document: "The National Highway

Construction Act of 1956, which authorized the construction of the  
Interstate Highway System, was a landmark piece of legislation  
that provided for the construction of a national system of  
interstate highways. The act was signed into law by President  
Dwight D. Eisenhower on September 16, 1956.

The act was a response to the growing need for a national  
system of interstate highways. At the time, the United States  
had a patchwork of state roads and highways, many of which  
were in poor condition. The act provided for the construction  
of a national system of interstate highways, which would be  
built and maintained by the federal government. The act also  
provided for the construction of a national system of  
interstate highways, which would be built and maintained by the  
federal government. The act was a landmark piece of legislation  
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built and maintained by the federal government. The act also  
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interstate highways, which would be built and maintained by the  
federal government. The act was a landmark piece of legislation  
that provided for the construction of a national system of  
interstate highways.

The act was a response to the growing need for a national

current level of empowerment of officers in Hong Kong in the operational context.

The Hong Kong Fire Services Department (HKFSD) is a managerially sophisticated organisation. There is a full and deep awareness of current managerial trends worldwide. Several senior officers have been sent overseas for further development in this critical area, including attendance on the UK Brigade Command Course, at the Fire Service College, and at the University of California in Berkeley, on senior managerial courses.

HKFSD has published a Performance Pledge to the community that it protects. It covers areas of operational performance, in terms of attendance times for both fire and ambulance calls of various categories, and the speed and effectiveness of the administration of complaints (This being in the context of fire safety issues). The document goes on to outline how the pledges are monitored, where further information can be obtained, and also how the public can complain about the service received. Part of this document is reproduced in Appendix E. It is a demonstration that the service is focusing on its customers, and is taking their views seriously.

The HKFSD cooperated with this investigation on a generous scale, the programme of visits and interviews covering HQ departments (FP, Management Group, Control and Mobilising, Administration, Principal Officers), Divisional HQ, (New Territories), the Training School, and a Fire Boat. During these visits, the opportunity was taken to directly interview, on a formal semi- structured basis, one acting Deputy Chief Fire Officer, two SDO's, four DO's and two ADO's. The views of three station officer level ranks were also recorded, as well as the views following informal, non- structured discussion with the Director, Deputy Director and three Chief Fire Officers. In addition, the opportunity was presented, following some very kind invitations, to observe the officers of the service during one formal, two semi- formal and two informal functions.

Following the visit, the author's impression was of a very efficient and effective, although expensive, organisation, which the workforce at all levels was proud to be a part of, and play a full role within. Some effort was made to identify whether there was any "corner- cutting" by the workforce of any of the strict demands placed, either on the officers or other ranks, in terms of behaviour or performance. No real evidence of this was found.

Opportunities were taken to question senior officers about their views on the HKFSD

managerial style, discipline levels etc. This was done with several rank levels. Acting Deputy Chief Fire Officer, Mr Kwok Jing-keung of the Fire Prevention Bureau, an officer who had attended one of the management administration courses at the University of California, Berkeley, was quite familiar with the concepts of involving the lower tiers of the organisation more fully, and theories that only by that mechanism could the organisation ever really fully realise the potential of its workforce (2). His view was that, like it or not, the younger entrants to the service are bringing such questioning attitudes with them. They are not content to blindly accept received wisdom. This was probably due to their exposure to better education, and the "global popular culture", spreading via satellite entertainment, popular magazines, films etc. A/DCFO Kwok's view was that this was definitely causing officers of the service more difficulty, especially the older ones, but that the net result was a better management process.

Mr Kwok continued by describing the process that was being undertaken as being a sort of "management transparency", wherein nothing was concealed from the members of the organisation at all levels. However, he cautioned that this had not had an immediately beneficial effect, with elements of mistrust and scepticism being manifested about the motives for the "transformation".

A very interesting and challenging perspective that Mr. Kwok offered concerned the much more relaxed attitude, and less militaristic discipline that prevails in the UK. His opinion was that this was not something that had come about due to the desire or altruism of the officers of the service. It had occurred as part of a general slide in standards in Western society, and had been contemporaneous with drops in other standards of behaviour, eg., crime, attitudes to the elderly, discipline in schools and general moral standards. Mr Kwok's belief was, therefore, that changes in Western managerial styles had been forced on management by the environment in which it operates.

Such a process, if this was indeed the case, would have fallen clearly within the model of "logical incrementalism" offered by Quinn. Quinn postulated that there was no single source of strategy in organisations, and that it was certainly not in the mind of any one man. Strategy is the result of a stream of decisions and information fed upwards from the lower management levels of the organisation. (3)

In summarising his views, Mr. Kwok stated that a disciplined service, especially one that was recognised as being effective, was not in need of any "softening up" of its

management style. Notwithstanding the more questioning style of recruits, which he referred to earlier, they all knew what kind of organisation they were joining, and were required to adopt its culture. In general, there was no clear advantage for management in "loosening up" the organisation.

The issue of discipline was examined in some detail. The matter was of some interest in view of the prominence given to regimentation in appearance and behaviour. Formal discipline is covered under relevant provisions of the "Fire Services Ordinance". This bears close resemblance to the UK Fire Service Discipline Regulations 1985, the 1948 predecessor of which was, no doubt, used as a model for the Ordinance concerned. All officers indicated that they had informal measures for maintaining discipline at their disposal, but that they rarely had to exercise these. Few officers interviewed had to become involved in disciplinary matters more than once or twice per year. (Questions B4 and B5)

A second officer who had benefited from overseas management training, in addition to substantial service experience, was SDO Lee Chee- chung, (Recruitment, Training and Examinations). SDO Lee explained that the HKFSD operates a two-tier system of recruitment, and the training process is highly disciplined. In their early years the fledgling officers rely heavily on the operational support of their junior officers. This is similar to the way that the military works, and is possibly an important reason for the discipline in HKFSD displaying many traits of a military style.

Mr. Lee was able to discuss the aspects of management style from the perspective of not only his experience and post, but also his considerable theoretical knowledge. He shared the view of A/DCFO Kwok, that many of the new management methods, such as Total Quality Management, Management by Objectives, Business Process Re-Engineering etc., were often only collections of old ideas in new packaging. The depth and practicality of some of the new philosophies was questioned, but not in a dismissive way. His view tended to be that despite many of the principles being sound, the jargon could be distracting, and shift the focus from the "end" to the "means".

Empowerment in an operational context was probed using the yardstick of operational command levels, and with what level of resources an officer was trusted before an officer of more senior rank was either ordered on, or would arrive and take command. Due to the different systems of crewing and mobilisation in each of the countries visited as part

of the research, the measure has been one of the "number of personnel" involved on the fireground, rather than numbers of pumps or other apparatus as in the UK. In HK this would have resulted in a distorted result due to significantly different crewing levels and tactical arrangements. (Questions A1 to A3)

A curious situation arose whilst pursuing enquiries in this area. When filling in the questionnaire, almost all officers indicated that they had a significant level of command responsibility, by UK or US standards. For example, several Station Officers, who in the UK might have command of up to, perhaps twenty personnel in an operational situation, were responding that they regularly commanded up to forty personnel on the fireground, and would not be relieved of that command until levels of over forty, and in one case, over sixty was reached. All indicated that they considered this to be appropriate. Examination of standing orders in the mobilising control centre further supported these assertions. (Questions A2 and A3)

However, upon interviewing the respondents, almost invariably they conceded that they would rarely hold command at those levels and, if they did, then only fleetingly. The written procedure appeared to be that officers of more senior rank would be advised of incidents in progress, and supposedly only attend if they felt that there was the potential for escalation. Evidence suggested that they would invariably attend, and usually take command. When pressed on this matter, they indicated that whilst the procedure suggested that they would not necessarily attend all significant incidents, in fact, if such an incident occurred while they were on duty, they would certainly attend. If something went wrong and they had not attended, serious questions would be levelled at them by their seniors. It was concluded by the author that the discrepancies were not an attempt to mislead, rather a demonstration of loyalty to a procedure. Equally, the tendency of officers to attend incidents at an earlier stage than the system demanded appeared to be based on a belief that they could increase the likelihood of the incident being successfully handled by their early attendance, rather than being an indication of a lack of trust in their subordinates. Nevertheless, they appeared to fail to see that their actions would lead to the latter situation being held to be true. (Questions A1 to A4)

Further research into incident management methods was conducted. Again a significant disparity arose between the completion of the questionnaire and the findings of the face to face interviews. Question A5 explored whether there was a recognisable incident command system in place, and whether it gives clear responsibility to various rank

levels. All responded that there was, and that it did. However, discussions revealed that whereas this would suggest a degree of delegation and perhaps empowerment of the lower tiers of management involved in the operation, this was not in fact strictly the case. At any significant incident, which in the UK or USA would place a senior middle manager in the command role, he would stand back from the operation. He would give broad tactical direction, and having outlined the tactical plan, permit the officers in charge of crews and sectors (groups of crews) to get on with the task. Lines of communication would be as short as possible, but follow the structure.

In Hong Kong, the senior officer present, or incident commander, would communicate with, and direct, crews in locations remote from himself. The intermediate officers would appear to have to contribute what they can to the operation, but interviews suggested that officers who should have been operating at the tactical control level would, in fact, regularly find themselves at the operational front, or task level. This suggests once again that true empowerment, and trust in subordinates, has got a long way to go in the HKFSD.

Incident debriefs were reported to be held, and performances were evaluated during this procedure, on the basis of "incident audit", rather than "individual assessment". SDO Lee Chee-chung was of the opinion that this recognised the concept of the system being more often at fault than the individual, in line with Deming's views, although the view was not attributed to that source.

On 26.1.94 an opportunity was given to view the training of officer and firefighter recruits at the HKFSD Training School at Pat Heung in the New Territories, during an inspection by the Chief Fire Officer (HQ), CFO "Henry" Tang Siu. The Commandant, SDO "William" Loo Wing-lam, was a highly experienced and qualified individual, having post-graduate managerial qualifications as well as nearly thirty years service (4). The initial training for both levels of entrant clearly laid the ground rules for the standards and style that would be expected for the remainder of the recruit's service. The presence of the inspecting CFO caused no obvious tension, but the high level of discipline was clear. The expectations of the senior ranks for respect and deference from their juniors was so taken for granted, and clearly so easily accepted, that the whole process was comfortable. The senior ranks were able to relax, assured that the discipline would not be undermined either from below by resentment, or from members of their peer group trying to curry favour and ingratiate themselves with lower ranks.

Such behaviour was neither expected nor encountered from officers, most of whom had joined at officer level and did not, therefore, have former colleagues in the lower tiers. Mr Loo was of the view that this situation was highly desirable in a disciplined professional organisation, and was as beneficial to the lower tiers as the upper. The consistently maintained and universally understood command style was explicitly, and successfully, used as a managerial tool in HKFSD. In interview, Mr Loo stated his belief that as a training function, the organisation set out firm guidelines for their officers to follow, thereafter permitting them to use their initiative. He considered that among the principal tasks of a leader was the creation of a "harmonious working environment".

All of the officers who completed the questionnaire, and who were later interviewed, confirmed that the trappings of discipline, such as the use of the term "Sir" to address officers, and the use of saluting on a regular basis, was common practice in the HKFSD. All respondents believed that this was proper, and could see no reason why anyone should wish to change it. (Question C4, as well as non-structured questions during interview.)

In a similar way, all of the responding officers indicated that they regarded the "command" and "management" dimensions of their task to be distinct and different, and accordingly they treated their subordinates in different ways depending on the circumstances. Few could elaborate significantly during interview. Observation of the relationships between officers and more junior ranks suggested that the division was between "business" and "pleasure", in that anything connected with work would be dealt with in a formal way; otherwise the relationship would be seen to be less rigid.

An attempt was made to see whether the strict hierarchical structure was permitted to bend and adapt to circumstances in pursuit of flexibility. The majority of respondents indicated that the system of rank hierarchy was always followed, whatever the issue. However, during interview two suggested that this was not the case, and that from time to time, tiers were bypassed in the interests of achieving the desired result more easily; these were senior officers of Assistant Divisional Officer, and Divisional Officer ranks. (Question C3)

Consideration of the issues of budget management and financial procedures was covered in discussions with DO Aaron Cheung of the Planning Group. The framework within which the HKFSD operates is significantly different to that of the U.K. In Hong Kong,



all Fire Service premises are owned by the government; all matters relating to their planning, construction, maintenance, modification etc., are administered by a separate branch of the civil service. Input from the fire service, the user, is limited to the submission of bids and requisitions for the relevant service or provision. Therefore, the planning group takes a significant role in these respects. It constructs bids on the basis of data from the operational commands and fire protection bureau regarding developments, information from principal management in respect of departmental strategies, and by monitoring the political and commercial environments.

By way of an example of the extent of central government involvement in the running of the department, it should be noted that when a bid is placed for a new fire station, the bid goes in as a "package". This is to say that the estimate includes elements not only for the building, but also for the appliances, equipment, and extra staff needed to man the establishment. It is only in the recent times of a no-growth policy, that consideration has had to be given to matters such as the redeployment of existing resources; in the past, the package approach has proceeded unhindered.

The Planning Group involves itself in ten year plans for capital projects, such as new fire stations, and five year plans for requirements in terms of appliances and equipment, and for general expenditure.

The concept of Compulsory Competitive Tendering, CCT, is not yet a reality for the HKFSD, but the foundations for the implementation of a framework to be put in place are starting to appear. Government departments are developing "cost centres" for expenditure in the areas of vehicle servicing, electrical and mechanical repair work etc. This followed a review and recommendations by Coopers and Lybrand, the financial consultants.

Financial structures and procedures were explained further by Deputy Departmental Secretary Eva Tso. Bids for funds against the central allocation for the fire service, (approx. HK\$ 1.5bn.), are considered by the Treasury in liaison with the Security Policy Branch. As in the UK, a significant proportion of the total is consumed by salaries and personnel related costs, something in the region of 80%, the remainder being revenue expenditure and developments. The bids from the operational commands concerning this element are mainly concerned with aspects of staffing variations and supplies requirements. The impression was of little concrete empowerment in the context of

finance outside the central management function, bids being quite routine and foreseeable. Even the central HQ Command function was really only in a position of making and refining bids, with the decision making process being vested in central government agencies.

Survey questions probing the level of financial freedom vested in varying rank levels revealed that this was negligible. Up to Senior Station Officer level it was zero; ADO's in the post of station commander had freedom to spend petty cash up to HK\$ 500, (about fifty pounds), and this amount did not vary thereafter with ascending rank. Nevertheless, five of the officers interviewed stated that they had enough budgetary control, two did not indicate a strong opinion on the issue, one stated that he would like more, and two actually believed that they had more than they needed.

(questions B1 and B2 used as a base for these enquiries.)

Operational stations and watches are faced with a number of targets to meet each year, concerning training, hydrants, risk visits, and community based activities. Meeting these targets did not, according to the variety of officers asked, present a problem. It was also agreed that in terms of sanctions available to management to address failure in respect of targets, that these were indirect, and would at most affect reputation or the write up given during the next appraisal. The issue did not, however, appear to be contentious. Failure to meet a target would not compromise job security. It was the author's impression that the achievement of targets was facilitated by virtue of the staff resource levels, which were generous by UK standards. In pursuing enquiries about the degree of cognisance taken of other demands on a station's time when establishing targets, interestingly, of the officers interviewed, in general the lower ranking officers felt little regard was had to the other demands on their time. More senior officers of Divisional Officer and above felt that considerable regard was paid. (Questions B8 a-d, B9, B10)

An ever present concern in Hong Kong, which touched all the officers interviewed, was that of the termination of the lease of the New Territories to the United Kingdom, and the consequent future rule by China of the whole colony. The issue was particularly fraught at the time of the author's visit, with China reacting strongly to a number of constitutional and economic manoeuvres by the Governor, Mr. Patten.

Of particular relevance to this investigation was the issue of "democracy", and the intentions of the Governor to leave a democratic framework in place. The almost

universal response to this was that democracy was not, and never had been, a feature of life in Hong Kong. The belief was that if democracy was so necessary, how had they achieved the living standards and commercial success that they now enjoyed? Also, if a democratic process were to be put in place, would the colony deteriorate socially in the same way as other democratic states, such as the UK, the USA and large parts of Europe?

This same perspective was clearly carried across to the Hong Kong Chinese employee's consideration of the issue of empowerment, and of related matters such as devolution of responsibility. The feeling was that roles of responsibility were in place to carry such burdens. Several of those looking towards career progression had an almost reverential attitude towards the power that may one day be theirs, and that presently quite properly sat with those holding the positions. This attitude to freedom had no parallel in the two American departments investigated, where perspectives were similar to those in the UK. This finding can be considered a reflection of the findings of Hofstede, who collected data from 16000 managers, working for the same company in forty different countries. He concluded that "the diversity of national cultures prohibits the ability of management techniques of one country to be applicable in another" (5).

#### **Summary of Chapter Four, and Conclusions.**

1. The visit to HKFSD revealed many aspects of the culture of that organisation, and permitted what was in essence a British structure and values, to be observed when superimposed onto a very different society and culture. The organisation displayed efficiency and effectiveness, but the question of economy would have to be examined more thoroughly. An organisation was found with many tiers, all of which were used, and with no apparent desire by the incumbents to reduce or bypass the structure.
2. Empowerment initiatives would not appear to be a practical way forward in the short term in HKFSD. Any initiative would probably be hampered by superiors not being willing to hand over the reins, and the subordinates having no particular desire to take them. This being the case, the questions of cost/ benefit of an empowerment initiative, and whether it would add value to processes, would be irrelevant.
3. There was little evidence of sanctions for failure to meet targets of performance, or reward for exceeding them. This would appear to be not only because of a conscious

mirroring of the UK situation, but also because the generous resource provision did not necessitate any demand from management, or the political hierarchy, for greater output.

4. The question of proper balance between those with ultimate responsibility in HKFSD, and members of the workforce, would appear to be that those with responsibility wish to have hands-on control of the processes. There was little doubt in the mind of the author that this situation reflected most closely the national culture. It clearly indicated that initiatives such as those under consideration could not be isolated from the social, political and wider cultural environment within which the organisation operates.

5. A clear conclusion from the visit to HKFSD was that any model of implementation for Total Quality initiatives in general, and empowerment in particular, would need to consider compatibility between the initiative, the organisational culture, and the wider extra-organisational culture.

#### **References in Chapter Four**

1. Interview with Director of the Hong Kong Fire Services Department, at the HKFSD HQ, Tsim Sha Tsui East, Kowloon, Monday 24th Jan 1994.
2. Interview with Acting Deputy Chief Fire Officer "Joe" Kwok Jing-keung, Fire Prevention Command, HKFSD HQ, Tsim Sha Tsui East, Kowloon, 24th Jan 1994.
3. Quinn J B , "Strategies for Change; Logical Incrementalism", Irwin, 1980
4. An interesting reflection of the culture of the organisation was that although SDO Loo had several academic qualifications, he did not use the post-nominals in case this would cause any offence to a more senior officer who might not have them. Such levels of courtesy were not uncommon, but it was difficult to gauge whether in fact they were expected.
5. Hofstede G, "Culture's Consequences", Sage, London, 1980

## CHAPTER FIVE

### CITY OF NEW YORK FIRE DEPARTMENT

#### Introduction to the City of New York Fire Department

The City of New York Fire Department (FDNY) is the busiest fire department in the world. The 11,570 uniformed and 1,209 civilian personnel operate out of 217 fire stations. The FDNY attended 381,524 incidents in 1991, of which 100,824 were working fires, and 3,275 of which were "all hands" working fires of 1st alarm (four engines, two ladders, one battalion; a minimum of thirty-two personnel), or higher. It was observed to be a well equipped, well practised, and well-regarded department. It is, however, a "no frills" organisation, from firehouse level all the way up to the Brooklyn Headquarters. Little seemed to be spent in other than "core activity areas", a measure of tight city finances.

The department is commanded by a Chief of Department, at the time of the visit for this investigation, Chief A. Fusco, a "five star chief". HQ specialist departments are headed by "four star chiefs", and the five boroughs of Manhattan, Bronx, Queens, Brooklyn and Staten Island are commanded by "three star chiefs", termed "Borough Commanders", and ranked Assistant Chief of Department. They have deputies, "two star chiefs", or Deputy Assistant Chiefs of Department. An organisation chart can be found at appendix F.

The boroughs are subdivided, according to size, into one, two, or three divisions. These are headed by a Deputy Chief, who holds the position of Divisional Commander, and is a "one star chief". The Divisional Commander works a four-shift system to physically man the division around the clock. This, therefore, requires three other officers of the same rank (D/Chief) on his rota, but they do not wear the same insignia. All four officers receive the same pay, and the Divisional Commander is selected from his peers by seniority alone, making him as much as anything a "first among equals".

This feature of the organisation's rank system has no fire service parallel as far as the author is aware. The model is repeated at the next tier below, in the battalions. The battalion is comprised of from 3-6 engine companies, 2-4 ladders, and some specialist

units. Four Battalion Chiefs work a four-shift system, and on the same seniority basis, one is rated as the Battalion Commander, and wears distinguishing insignia, but receives no more pay or privilege. Both Divisional and Battalion Commanders do have extra responsibility and work.

At station (or "firehouse") level, the department is organised on the basis of engine and ladder companies. Each is commanded by a Captain, the head of the company, but three of the four duty shifts are headed by the Lieutenants. In this respect the model of the higher tier is departed from, in that the leader of the unit is both ranked and paid differently. Below Lieutenant is Firefighter. Ladders are manned by six firefighters, and engines by five, giving a first alarm attendance of four engines and two ladders a healthy first attack strength of thirty-two riders.

In terms of equivalence with UK ranks, the level of Captain equates to Station Officer, Battalion Chief to Assistant Divisional Officer or Divisional Officer Grade 3, and Deputy Chief to a level somewhere between Divisional Officer Grade 2, and Senior Divisional Officer. Assistant chiefs of department, ie the Borough Commanders, together with the HQ four star chiefs equate to Assistant Chief Officers in the UK. Spans of control throughout the organisation are within familiar bands, with four to eight being encountered regularly.

In the interviews with officers of rank levels from Captain to Deputy Chief inclusive, all appeared to agree that there were eight tiers in the organisation from the Chief of Department down to Firefighter. They consistently felt that the four star chiefs were not an additional tier over and above their borough commander (three star), and of course recognised, as stated above, that the battalion and divisional commanders were not additional ranks. Nevertheless, the four star chiefs would attend fires at the designated level, (4th alarm), and, in the FDNY, the attendance of a higher ranking officer means that he is in command immediately.

The operational command level of officers is predetermined and officers usually go when advised of an incident, or frequently go when they become aware of a developing situation. Officers at division and battalion, as well as the stations, appear to be constantly monitoring their radio frequencies throughout their duty periods, and sometimes respond before they have been officially advised; in the author's opinion a questionable practice from a mobilising point of view.

Battalion Chiefs are despatched on most occasions with the predetermined attendance, the exception being known small or secondary fires. When the signal for a working fire is transmitted (7-5 for an "all hands"), the Deputy Chief will attend and take command. This suggests that the operational role of the Battalion Chief is similar to a UK Station Officer. The Deputy Chief will expect to retain command of the incident until it exceeds second alarm status, at which time, with twenty appliances and almost 100 personnel attending, the borough commander will come on. Personnel at most levels who were questioned about the procedure were confident that the rank levels were correct and appropriate. Deputy Chief Steve Derosa expressed the belief that his rank level was experienced enough to routinely command incidents of third alarm level (see appendix G for the meaning of the alarm levels).

Although the FDNY uses an Incident Command System (ICS) similar to those used throughout the USA, its particular use and interpretation is quite different to the standard model. The departures from the standard perhaps betray some of the managerial atmosphere and style of the organisation. The ICS is intended to structure the management of an escalating incident, offering support and resources to the sector and crew commanders. As numbers of personnel, appliances and peripheral considerations increase, so the structure brings on other officers to perform key tasks, often reflecting their specialist role or department.

In FDNY several more senior officers do indeed come on to the incident. However, with the exception of the sector and incident commanders, there is evidence that they tend to get as close to the action as possible. By way of a clear example, on the first day of the author's visit, the borough had just attended the department's first ever 8th alarm multi-occupancy dwelling fire; involving 58 appliances and 300 personnel. (This was a tenement type building of five floors, one block in length, fully involved) Naturally, many HQ officers attended. Examples were quoted of a four star chief leading engine crews into the fire floor; other examples were given of varying ranks using their seniority in similarly cavalier fashions. Personnel questioned about this were aware that it was managerially questionable, but appeared to believe that the benefits of the chief ranks appearing next to the crews was a positive thing and no criticism was noted. This observation in no way suggests that the command competence of the FDNY is flawed, but highlights an idiosyncrasy of style that would appear to act against the principles of empowerment.

The author would observe that ICS type systems, or methods of command and control throughout the world's fire services, all emphasise the need for commanders to remain detached from the operations; their skills lie in the realm of tactical control and strategy. The most advanced command methodologies go as far as recognising that the overall commander of an organisation has no place at an incident at the tactical level. The requirement at that level of management is one of policy and inter-agency liaison, rather than at the "hands-on" level. This lesson has yet to be learned or accepted by the FDNY, in which experienced and senior officers accept happily that they will be relieved of command routinely, at levels they feel competent to handle. To this extent, and in this respect, the concept of empowerment encounters a cultural barrier.

In a similar way to Hong Kong financial responsibility was extremely limited; a sum of US\$100 was available at divisional level for petty cash purposes, everything else was via requisition. The general opinion on this was that they were basically pleased not to have to be involved in financial and administrative matters and that, in any case, their level of operational activity would not permit them to get involved at a meaningful level. This can be contrasted with Hong Kong's comparatively lavish funding, but where a similar lack of financial devolution is found.

Officers of the FDNY also have little involvement in the promotion of their subordinates. For all ranks up to Deputy Chief, the process is one of public civil service examination, with the results being published. The promotions are then taken off the list in descending order of result score, with no other adjusting factor. Surprisingly, all the officers interviewed were content that this was the best and fairest system, and that it produced far fewer anomalies than had previous, less objective systems. Lists were replenished from the results of exams held every 2-3 years per rank level.

The discipline in the FDNY is formalised in a set of rules and regulations, in addition to the informal methods used everywhere. The rules give potential for quite severe levels of fines for various misdemeanours, and the impression was gained that there was no reluctance to use the measures where necessary. Punishment up to and including dismissal, as well as fairly extended suspension without pay, was available. Officers who were interviewed reported initiating formal discipline procedures, on average, less than twice per year each; one insisted that he was proud that he had never, in thirty-seven years service, had to resort to formal procedures.



Interactions between the ranks were observed by the author to be maintained on a formal level, without being rigid. Officers were always addressed by their rank; never "Sir", but equally never by their Christian name. Officers at and above battalion chief were all on first name terms. In contrast to this, the crews appeared scruffy and dishevelled most of the time, in varying descriptions of working rig. The fire stations visited were quite untidy and appeared neglected; the appliances also looking well-used and scruffy. This would need to be balanced against the fact that on the stations visited in mid-Manhattan, the appliances rarely stood unused for more than thirty minutes and a fair proportion of the calls resulted in a working job.

The FDNY and its personnel gave a clear impression of being proud to be involved in a "working fire brigade", proud of their experience, and confident in their knowledge of firefighting.

The FDNY has many enlightened policies in terms of ethnic relations, equal opportunities, and affirmative action to rectify under-representation of elements of the community and females. There was a clear suggestion that there were deep divisions in a racial and gender context, but these views were not broadcast too loudly as there was a sensitivity to what was "politically correct".

There were few targets for operational crews to meet, including very little continuation training. The attitude appeared to be that there was no way that expectations could be met while companies were responding at the rates they did (the busiest appliances responding over five thousand times p.a. each). The reality bore out this opinion. However, it appeared that each year, in depth explanatory reports were required by central HQ to account for the failures and the same stock answers were rolled out and accepted. This appeared a rather bureaucratic and wasteful process.

Officers questioned agreed that failure to perform in measured areas of performance, even at the limited levels expected, had no impact on an individual or his progress through the service. In fact, it was admitted that in terms of competence the very worst candidate could become top of the promotion list merely by exam score and there would be no redress to this.

This approach to sanctions was repeated in the area of training. Four times per year, every individual and crew has to go off the run for a day at the central training academy,

for a reappraisal of their operational competence. Failure at this assessment would theoretically result in the individual or crew coming off the run for retraining or further measures. In practice this never happens; the division merely gets a note for case from the instructors.

### **Summary of Chapter Five, and Conclusions.**

The City of New York Fire Department is an experienced and "battle hardened" organisation. It operates in a political and social framework that would be alien to fire department managers from elsewhere in the USA, let alone the UK, or Europe. Alan V. Brunacini (Chief Officer of the Phoenix, Arizona Fire Department) was quoted as saying, after much contact with FDNY and its officers, that "New York is on a different planet as far as we (other US fire chiefs) are concerned" (1). This opinion was borne out by the experience of the visit, and was in no way derogatory. It merely accurately summed up the total effect of the environment. Officers of the FDNY naturally live, study and travel within the USA. They read the same professional journals as everyone else and, consequently, know the language of current management initiatives, including TQM and empowerment. This may account for the fact that the language is used, but the principles are not evident in practice.

The following impressions were considered by the author to be significant:

- 1      Empowerment, as an explicit initiative in the FDNY, would not immediately be a practical way forward. Experienced and successful senior management would need to be convinced that the change would lead to clear advantages.
- 2      A cost- benefit consideration in respect of initiating TQM in the FDNY would no doubt identify organisational efficiencies that could potentially be made. However, the operational activity level and scarcity of resources in the department at any level suggest from the outset that these would be marginal.
- 3      Whether empowerment would add value to the current processes in the FDNY must be considered in the same context as above; value may indeed be added, but not until a very circuitous and possibly painful implementation programme had succeeded.

- 4 In the area of correct balance between empowerment and control, FDNY officers work within what they believe is a simple and well-tested system. The FDNY is totally operationally focused, and is one of the few fire brigades in the world that would not be called upon to justify that focus. Therefore, in terms of "horses for courses", FDNY has a system and a balance that suits it well.
- 5 There was no relationship between success in achieving any of the targets that the organisation set and reward, or, alternatively, between failure to meet the few performance targets that existed and any "punishment" or demerit. Promotion is based purely on success in competitive exams and one's reputation in the organisation is based almost exclusively on performance in the operational firefighting context.

In terms of the issue of empowerment, the overall impression of the FDNY was that the matter would be dismissed as a fashionable irrelevance, unnecessary to its high profile and effective organisation.

#### **References in Chapter 5**

1. Interview with Chief A V Brunacini, at the HQ of the Phoenix Fire Department, West van Buren, Phoenix, on 14th February 1994.

## CHAPTER SIX

### **PHOENIX FIRE DEPARTMENT, ARIZONA.**

#### **Introduction to the Phoenix Fire Department**

The Phoenix Fire Department (PFD), provides the one million population of Phoenix with fire, rescue, and emergency medical services. A workforce of 1200 full-time staff work out of 42 stations (some combining fire protection offices, divisional HQ's and other facilities), divided into five districts. Each district has about 8-9 stations, and some 150 operational personnel. The department is operationally active, answering some 105,754 calls in 1991. These were heavily weighted towards the emergency medical services (EMS), these accounting for 76% of the total.

The personnel of the PFD are all trained to at least the level of "Emergency Medical Technician". The department is particularly innovative in having a significant proportion of its engine and ladder companies equipped and staffed as paramedic units. On these units, at least two of the firefighters or officers are fully trained and qualified paramedics. Therefore, it is not regarded as unusual for the PFD to respond an aerial unit to a heart attack, or an engine company to a shooting incident (a fairly common occurrence).

At the time of the author's visit, the Fire Chief was Alan V. Brunacini, a prominent figure in the US fire engineering field, known as a speaker, author and innovator. Chief Brunacini is clearly the driving force behind the changes to both the culture and structure in the PFD. During interview, he told the author that he believed that a fundamental starting point was to feature the customer in the organisation chart. Customers must be asked what they want in advance and, after the service has been delivered, they must again be questioned on their view as to how well the department performed. Alan Brunacini's goal is "complete devolution"; he trusts the capability and commitment of the people that join the department. In describing his role in the organisation, he states that it is principally one of conducting an "opportunity scan" for the department and for the community. This is definitely a strategic perspective. (1)

The organisational structure is described by Chief Brunacini as being "fairly flat". From firefighter upwards, the ranks progress as Engineer, Captain (in command of the individual companies on a watch basis), Battalion Chief (watch based "shift commander"), Deputy Chief (district commander), Assistant Fire Chief, and Fire Chief. This structure gives seven ranks only from top to bottom, without any of the confusion of extra grades, or "ranks within ranks", as encountered in both New York and Hong Kong. It should be noted that there are officers with the title "Division Chief"; these are Battalion Chiefs engaged in specialist roles. Despite the "flatter" structure, spans of control were still at recognisable levels. The widest seemed to be that of Assistant Chief of Department (Operations), who had a span of seven. (Organisation chart appears as appendix H)

Assistant Chief of Department (Operations) Dennis Compton, a progressive and dynamic manager in the PFD, has been instrumental in many of the empowerment and delayering exercises that have occurred. He cautioned the author regarding the consequences of the removal of layers of management, in terms of spans of control. In considering what would be acceptable as an upper limit, A/Ch Compton was acutely aware of the problems of widening them too far in an organisation like the fire service.

A/Ch Compton is currently implementing several "empowerment" initiatives. These include providing alternative firefighting appliances on some fire stations, without prescriptive direction as to which one should be used for any particular call; this is on the basis that "the crews are smart enough to know which truck to take for the job". This is not practised in any fire department that the author either has visited, or of which he knows.

A/Ch Compton is also responsible for the advent of the "self-directed work teams"; which will be discussed in more detail in this Chapter. (2)

Apart from being a fairly flat structure, the managerial atmosphere is quite relaxed. The uniform is a working rig of dark blue polo style shirt, for all ranks. The only distinguishing features are the individuals name on the left breast and the rank written on the right. Officers of battalion chief upwards are issued with a white shirt, with collar mounted rank markings. However, apart from the HQ principal officers, only some Deputy Chiefs were seen wearing it, and it was not worn by any of the Battalion Chiefs.

Caps are not part of PFD uniform.

Officers questioned about the uniform convention considered that having the same appearance as the crews removed a communication barrier. Battalion Chief Bob Taylor explained that officers of his rank had until recent times worn white shirts, with some gold coloured rank marking; this practice was discontinued on a day-to-day basis specifically to remove barriers between ranks. Deputy Chief Harry Beck, who was wearing the same pattern polo shirt as firefighters when interviewed, concurred that this helped to remove barriers between officers and the workforce.

The number two figure in the PFD is the Deputy Fire Chief, Assistant Chief of Department "Chuck" Kime. A/Ch Kime is the overseer of the TQ initiative. He displayed an intimate knowledge of the philosophy and principles of TQ and empowerment, all of which he readily signed up to. Nevertheless, when questioned about the likely levels of participation and cooperation from the staff, he indicated that as far as he was concerned, the upper limit would probably be about 60 to 80% of the organisation coming on board. These figures also reflected the difficulties that would be encountered with competence and ability within the present workforce.

The author suggested that the greatest test for management would come when faced with reacting to a failure, of significant rather than routine proportions. A/Ch Kime recognised that this was the case, but confirmed that the policy of the organisation was to support, and even "celebrate" a failure, provided that it was not the result of a lack of care and effort. This qualification is without doubt the differentiating feature, but one that would certainly present difficulties to several principal managers in the UK fire service.

In responding to questions about how the organisation intended to move away from a procedure-driven and prescriptive culture to one of empowerment, support and facilitation, A/Ch Kime conceded that there was a problem. The situation would continually arise of employees who would state "I buy into the principles and philosophy; but what do you want me to do?". A/Ch Kime conceded that this was a training and experience issue. (3)

The union (International Association of Firefighters) is a very powerful element in the overall consideration of the management of the PFD. Expressions by individuals that the

"chief is in the union's pocket" were made frequently, but interestingly balanced just as frequently by statements that "the union is in the chief's pocket". The general conclusion was that the close working relationship between the union and management had resulted in what all acknowledged were excellent working conditions, good pay, and the best equipment.

There are few formalities of address; normally all ranks address each other by Christian name. On the fireground, rank titles are used. As the convention is department-wide and well understood from recruit upwards, this does not appear to cause any problem. Officers questioned about it unanimously felt that it made their job easier, removing yet another potential barrier. Question C4 on the questionnaire illustrated the problem in this matter; all officers agreed that formalities of address constituted a barrier and suggested that they should be removed. However, they all observed that there were occasions, such as on the fireground, where formalities of address were used and should continue to be used. This strongly suggests that there is a definite limiting factor here, and perhaps one that must be accommodated rather than removed.

The author had the opportunity to observe interactions between ranks in a number of situations, including on the fireground. Firefighters and officers were questioned about the processes to which they contributed. There was the normal degree of cynicism about management in general, as one would find in any organisation. However, the whole tone was less adversarial. There was as much willingness to praise the achievements of the leaders as there was to suggest that they were not getting it right. This was explored, and it was revealed by more than one crew that, if they wanted to change something, they believed that they would be encouraged to express their views. This removed many potential areas of conflict that exist in less open organisations.

As in New York, the officers at middle levels have little input into the promotion of their subordinates. The process is by competitive examination, and all officers questioned were content that this was the fairest system.

The issue of discipline was discussed with all interviewees. Most individuals referred to making every effort to handle discipline in informal ways. Sanctions following implementation of the full formal procedure are potentially powerful, including dismissal, but it was clear from examining individuals about their own experiences that this is quite rare.

The department does not set many performance targets for the operational watches. The ones that exist are in the areas of continuation training and hydrant inspections. Target levels are negotiated between divisions and departmental HQ. The process operates with the divisional commanders actively rationalising the demands placed on companies, and balancing these with their ability to fulfil them. In this respect, much account is taken of the activity levels of the stations concerned. There is active encouragement by the department's management for crews to involve themselves in community relations style activities. These include open days, "urban survival" programme (a type of fire safety education programme targeting junior age children), and visits. However, these do not constitute targets as such. Inspection of buildings is more orientated to what a UK officer would recognise as 1(1) d inspections (4), and there are targets for these.

Sanctions for failure to meet targets were explored. One officer was candid enough to admit that the issue had never been raised. Other officers believed that it would, at most, affect an individual's reputation; and extremes of non-performance may result in a posting. This has clear parallels with all the other fire services visited and, indeed, with the UK. Questionnaire responses to Q's B7-B9 were answered by the majority of officers in a way that would suggest a significant degree of empowerment is enjoyed by the crews. However, further probing during interview of the same officers revealed that due to a lack of meaningful sanctions, tools such as targets were neutral in effect. Performance has got to be encouraged and monitored in a direct, high profile, traditional way. This contributes to an explanation of why, in an organisation that is actively progressing a Total Quality initiative, including flattening and layering its structure, the spans of control remain within conventional limits.

The PFD is engaged on a programme of implementing Total Quality Management (TQM). It has recently changed the title of the initiative to Total Quality Service, but the meaning is the same, and its interpretations and terminologies are in line with convention. PFD was the leader in the field of fire service acknowledgement of the "customer", both internal and external, and had gone through the phase of having a "Chief of Customer Service", developing the principles into a total initiative.

The momentum is being supported by a small team (one Division Chief, and one civilian post), operating from a central office. The implementation saw the same reactions from the workforce as most organisations initially receive, including cynicism and rejection. However, it would appear that the fewer cultural barriers experienced by PFD, in



comparison to other departments being considered, has resulted in milder cynicism and greater willingness to "give it a go". The expected processes were carried out during implementation, eg. publicity to personnel, promise of benefits to all, lectures and participation by management consultancies, and affirmation by principal management that it believed in and was intending to drive the initiative. The process perhaps received less cynicism overall than it would have in the UK, Hong Kong or New York, due to the fact that the western USA is really at the forefront of customer service and the workforce is mentally attuned to the processes. It is regularly exposed to the demands of its customers, who have been conditioned to expecting good standards in public services. The service providers themselves are also demanding as citizens and consumers.

Nevertheless, TQM is about continual improvement and seeking means and mechanisms to achieve this. One of the principal problems faced by organisations trying to implement the initiative is the selection of suitable projects through which the principles can be realised. PFD has used a number, but two stand out. These are the "District Team" self-directed work teams, and "The Big Five".

PFD has attempted to realise the principle of "top-led, bottom-driven". It has done this by encouraging the workforce to solve one of its own most irritating problems, the one of posting of none assigned riders.

PFD had a system where all operational companies had a minimum number of permanently assigned riders. The balance needed to make up numbers due to leave, sickness etc. was traditionally drawn from new or newly promoted people who constantly moved from station to station. (They were known as "Rovers"). Only by seniority would the Rovers move into a permanent position as one was vacated by retirement, promotion or resignation.

This scheme was widely disliked. The Rovers could not enjoy stability of workplace or colleagues. Operational companies could not get the continuity of performance level they knew they could achieve with a permanent team. Battalion management was constantly administering the movements. The challenge was put to the workforce to generate a workable solution.

A team of shift level personnel was formed, purely from volunteers. It would meet and try to arrive at a solution, with minimal restrictions from management, using guidance

and facilitation that would be available on demand. Initial reluctance was overcome by the union putting its people into the bulk of the positions available and a Deputy Chief sat in on the proceedings to facilitate.

The development of this project exceeded all expectations. From what was going to be more or less a project led quality circle, with union influence and management direction, the team has produced a number of surprises. First, it decided that it would like to do it without the Deputy Chief and, therefore, politely asked him to leave until they needed him as facilitator. It later invited him back to observe if he wished, but only after the point had been made and won. Secondly, interest from firefighter level expanded, and in the initial weeks that the team was running, all union places were taken over by non-union post holders. Thirdly, the team had, at the time of the author's visit, almost finalised a solution which already had gone further than management would have felt able to do unilaterally, or would have achieved with conventional union negotiations.

The details of the deal are not significant in this investigation, but what the team has been able to do in finding a solution, is cross all management-worker demarcation lines and taboos and to find a solution with which the majority of staff are happy. Interestingly, the union is more uncomfortable with the proposals than management. This is not surprising, as now the solution to one of the most difficult problem areas of the past is in the ownership of the workforce, their members. The union no longer has a stick that can be wielded against management.

The success of what is now known as the "District Team" structure has encouraged the teams themselves to look further afield for challenges; minutes examined (prepared by the team for the team only), indicate that they are looking at community education initiatives, operational procedures in high-rises, other shift manning issues and emergency medical procedures. This is all self driven and, if faced with technical or organisational hurdles, the team calls in a Deputy Chief to provide what it needs to overcome it, and proceeds. This serves to illustrate what success a team of interested and motivated workers can have in finding unconventional solutions to tricky problems, when given a free rein.

Harry Beck, the Deputy Chief involved in this project, enthusiastically communicated his vision of the future structure of the organisation if the self directed work teams prove a success. He believes that it is not excessively idealistic to aim towards a three rank

structure. This would comprise a Chief of Department, a middle rank to communicate strategies and facilitate action to fulfil objectives and a large front line tier of empowered teams of firefighters, each with organisational references, and with a good spread of trained facilitators. He viewed the fire station of the future as adopting the guise of a "strategic business unit" and spoke of the necessity for employees to develop a "franchise mentality". That means to be able to operate freely in pursuit of clear organisational objectives, within an agreed framework of rules, in the way that appeared best to those doing the work. Regardless of whether this type of discussion was realistic or not, it was indeed representative of the type of thinking of middle managers in the organisation. They had clearly managed to shed some of the constraints of tradition, and were searching for new models (5).

The scheme known as the "Big Five" has been put into place to address the major criticism that TQM attracts; "I understand the principles, but what do I do?". The Big Five breaks activities down into five areas; Firefighting/ fire protection; EMS; Human Resource Management; Physical Resource Management; Community Involvement. Under each heading, there is a list of things to do or to consider. (Extracts from the document are reproduced in Appendix I). Despite another small and predictable wave of cynicism, the Big Five has made itself felt. Many areas of the organisation are certainly using it to focus on what they do.

## **Summary of Chapter Six**

The Phoenix FD was initially focused on as an example of a brigade that had started to actively explore the benefits of TQM. It appeared determined to demonstrate this in the key areas of command, financial devolution, a style of management that would nurture empowerment, and an organisational structure that is as flat as possible. The visit to explore the relevant areas of operation produced no disappointments in any of these areas. Although clear evidence was found of the usual barriers between management and workforce, these were less obvious than elsewhere.

The author was left with the following impressions following the research in Phoenix:

1. TQM and empowerment are realistic goals in Phoenix. The workforce and socio-political setting was favourable; the principles were well understood.

2. In the opinion of the PFD's chief officer, the journey towards total quality and empowerment was certainly worth the effort to date, and any costs of implementation worth the expense. This was reflected in terms of fewer complaints, higher standing within the community, and ease of securing funding as a result. He also believed that his officers had far fewer obstacles to overcome when introducing necessary changes in an organisation where change was the norm, driven from the sharp end.
3. It was believed that apart from "adding value" in the above sense, continued progress in the area of empowerment, particularly in the area of self directed work teams, could produce tangible savings, in the form of further layering in middle management.
4. The balance between empowerment and control was tilted decidedly towards trusting the individuals and crews. This was perhaps even more encouraging in such a litigious society as the USA, than it would have been elsewhere.
5. There did not appear to be a desire on the part of management to install more control mechanisms, which would enable managers to stand further back from the processes, or to start to broaden spans of control. At the same time, the spans of control had not expanded appreciably from the general levels noted in New York or Hong Kong. This suggests that there are other deeper reasons for keeping the spans to this level in a command hierarchy, independent of the culture. Part of the reason may be a lack of sanctions available to be applied to the "buy-outs" of the organisation.

The overall impression created was one of an organisation pulling together and profitably embracing the concept of empowerment. Deming's points were widely underwritten, particularly points 2, 8, 9, 12. On the other hand, in common with the other brigades visited, there was much evidence of "exhortations" to the workforce to improve performance, eg. slogans and campaigns.

## References in Chapter 6

1. Interview with Chief of the Phoenix Fire Department Alan V Brunacini, at the PFD HQ, West van Buren, Phoenix, Monday 14th February 1994.
2. Interview with Assistant Chief of the Phoenix Fire Department, Dennis Compton, at the PFD HQ, West van Buren, Phoenix, Monday 14th February 1994.
3. Interview with the deputy fire chief of the PFD, Assistant Chief of Department Charles "Chuck" Kime, in Phoenix on 11th February 1994.
4. Note: 1(1)d is the section of the Fire Services Act 1947 which requires fire brigades in the UK to collect information about risks and buildings.
5. Interview with Deputy Chief Harry Beck, commander of District One of the PFD at District One HQ on Monday 14th February 1994.

## CHAPTER SEVEN

### COMPARATIVE ANALYSIS AND EVALUATION OF THE FINDINGS OF THE INVESTIGATION

#### Structure of the Analysis

The analysis has been conducted against the Fourteen Points of Deming. The objective was to provide evidence against each point, which might serve as an indicator of whether the brigade in focus tends to empower, or not to empower.

The questionnaire was structured with three main themes for the purpose of collecting data for the analysis; these were:

- Operational Command
- Finance and Administration
- Managerial Structure and Style

The first two areas represent the two "operating modes" of the fire service officer, ie operational firefighting and rescue, and the administrative and non-emergency work that supports the core functions. Consideration of the third area permits account to be taken of the influence of the managerial structure of the organisation, and the managerial styles used by officers in the organisation as well.

This analysis has been structured as follows; first the responses to the questionnaires submitted from officers in the four brigades have been considered against each other, and points of comparison or contrast noted. Second, the findings of the investigation have been analysed against the Fourteen Points of W E Deming, for the reasons outlined in Chapter Two. Third, these findings have been summarised, illustrating the differences and similarities, and options for a way forward are offered.

## **Comparative Analysis of the Findings of the Investigation, Using the Responses to the Questionnaire**

In the first part of this analysis, the responses to the three major groupings of questions, ie "Operational Command", "Finance /Administration", and "Managerial Structure and Style" have been used. This was done in an attempt to discern the extent to which managers felt empowered, to what degree they themselves were willing to empower subordinates, and to what extent the responses collated might have been influenced by aspects of the structure and culture of the organisations. Following this, findings from the four brigades will be analysed against Deming's Fourteen Points.

### **A. Responses to Questions in the "Operational Command" Context**

This section of the questionnaire was structured to reveal how each fire brigade worked as a straightforward command organisation in the discharge of its primary function, ie dealing with emergencies. This was considered to be the "operating mode" that would reveal most about the true nature of the organisation. For example, if a fire brigade had been shown to be able to devolve and empower, and operate with a reduced number of managerial tiers in this context, then there is a good chance that it could also adhere to the principles in less demanding administrative and non-emergency modes.

The first observation that must be made, is that not all officers of the same rank in the same organisations saw their role or responsibilities in quite the same way. Comparisons to illustrate this point were made in Hong Kong and Phoenix, where pairs of officers doing the same job, in the same locations, but on opposite shifts were questioned (ie officers on different shift patterns on the same station or division, who had exactly the same duties, numbers of calls, numbers of personnel etc.). At Battalion Two in Phoenix, whereas one of the three Battalion Chiefs believed that he responded to fires or other emergencies some 700 times per year, his colleague on the opposite shift indicated that they only responded 250 times each, whilst their mutual colleague on the third shift indicated only 100 turnouts. Statistics examined at the Division showed that the true figure was some 200 to 250 turnouts each. As each of these officers had the same access to the incident logs, there was no excuse for this failure to agree between colleagues. Therefore, the variations in the accuracy of recall of such a prominent statistic suggest that other responses could be similarly distorted; the author was alert to this.

Various divisionally based officers in Hong Kong were inconsistent in their responses as to what level of incident they would respond to. Here also it was difficult to determine why officers should give answers varying so widely from the standard answer that had been supplied by the central mobilising control. Although DO's had indicated that they would be despatched variously at the levels of 21-40, 41-60, or 61-80 personnel, according to who had answered, the expected answer was that they would be sent on to an incident at "Third Alarm" level, an incident equating to the upper level indicated in their returns; in fact, officers commonly responded at significantly lower levels than those prescribed.

On questioning the mobilising officers, it became clear that Control would advise officers earlier than orders would dictate and those officers would feel morally obliged, or perhaps professionally obliged, to attend. Once in attendance, the responsibility for the effective conclusion of the incident would automatically fall to them; hence they were immediately the *de facto* incident commander and had, as a result, taken over from the officer who would otherwise properly have retained command of the incident, depriving him of the experience and job satisfaction. These illustrations are given to indicate the power of the cultures in the areas concerned, not to undermine or question the integrity of officers who, no doubt, felt they were answering as the organisation would expect.

Officers in all the brigades investigated, irrespective of their answers about proper response levels, felt that the level they actually responded at was correct. Any managerial desire to recognise the command and control abilities of their subordinates, in a systematic way, was considered too hazardous. It was the widespread belief of officers questioned that, whilst they believed that they were willing to empower their juniors, they preferred to do it while they were present and able to immediately intervene. This was pure "command and control" style of management in action.

Discussion with individual officers invariably revealed that this was because of a "blame culture". They were not confident that if an operation were to go badly, that their senior officers would be able to refrain from trying to attach blame to them for not attending the incident early enough to prevent whatever failure occurred. The perception of these officers was that they were trusted and empowered while things were going well but that any failure would cause the organisation to revert to type. It was not surprising that this was the case in the brigades that were not purporting to have changed their management



style, or in the West Midlands where attempts to change were in their early stages. The fact that this was also found to be the case in Phoenix was unexpected, and harder to explain. The phenomenon may partly be explained by professional pride of the officers concerned, who perhaps were displaying greater "ownership" of their responsibilities, and further by the undoubted fact that none of the officers would have been happy to remain at base while "a good going job" may be in progress. However, these explanations do not fully satisfy the area of concern; the answer would no doubt need to be sought in the organisation's culture.

All officers responded that their organisation had an Incident Command System; in other words a formalised structure for the management of emergency incidents which clearly delineates lines of command and control and which separates out specialist and support functions from the "sharp end" of the operation. This must be considered in the context of comments made above.

## **B. Responses to Questions in the "Finance/Administrative" Context**

Whereas significant differences were identified between the responses to questions, and later responses in interview, in the "Command" context, in the "Finance/Administrative" context, not only were many of the answers similar between brigades, but answers that were written down closely matched responses to further verbal probing during the semi-structured interviews.

In terms of spending powers and amount of resources directly available to the officers questioned, the majority in all brigades were satisfied that they had enough budgetary control, even though they all replied that this only involved petty amounts of cash. The budgetary control responsibility in terms of non-cash resources, eg salaries, maintenance costs, fuel etc was invariably of a monitoring role only and the officers did not actually feel ultimately responsible for these elements in any case. This no doubt reflected the case that responsibility for these issues in true terms, in all the organisations, rested with a headquarters department which had not succeeded in devolving responsibility in any of the cases examined.

Two non-uniformed Finance Officers (Hong Kong and West Midlands), and a uniformed administrative support officer (Phoenix) were directly interviewed by the author. In real terms, there was little indication of any desire or will on the part of these officers to

release any of the direct control that they exercised, although there was much talk of eventually having greater amounts of control at the points of service delivery. The one individual directly challenged on this apparent conflict stated that he was aware of the stated corporate policy of the organisation regarding empowerment and decentralisation. However, he found this difficult to reconcile with his personal and professional responsibilities to the organisation in respect of integrity in financial dealings.

Promotion procedures in all of the brigades investigated, effectively excluded the candidate's immediate supervisors from direct involvement in the selection process. The processes in the US brigades excluded middle management altogether, having an objective exam based selection procedure. All officers expressed some wish for more influence during the interviews, but most indicated that they were satisfied with their situation when answering the questionnaire. This was not considered a contentious issue in any of the locations.

Disciplinary measures were available to all of the officers in the four brigades; in all cases by means of a formal code of discipline. These procedures are invariably bureaucratic and place the decision for the outcome of any disciplinary case in the domain of a very senior officer. All officers responded to the questionnaire (Q's B.4 and B.5) that they felt satisfied with the measures at their disposal. However, on further probing in the interviews, regarding how many times in a year that an officer would have to resort to these procedures, it emerged that few of the officers actually resorted to these procedures with any frequency at all.

It was revealed that all of the experienced officers had developed their own techniques for administering discipline in informal ways. They would invariably use these alternative methods rather than the bureaucratic formal procedures, except in extreme cases that could not be contained at station or divisional levels. The net effect of this was that, on the one hand, individuals that deserved some mild form of formal discipline could escape it due to the burdensome administrative processes and, on the other hand, that maintenance of discipline required much closer "hands-on" attention from middle managers than would otherwise be the case. This contributed significantly to the situation that has been identified in all of the fire brigades, wherein spans of control are much narrower than the structures of the organisations would suggest could be the case.

This is considered by the author to be a significant finding, and would appear to be a

clear example of how the bureaucratic system was not serving the needs of either the organisation, or its middle managers. The fact that the phenomenon was observed in four culturally very different settings, strongly suggests that some aspect of either the structure, fire service culture, or the fact that they are all public organisations, may be responsible.

David Englander of the Open University wrote on this topic and commented specifically on the low number of discipline cases recorded in the UK fire service during 1950, a year of industrial unrest:

" (This)..... owed much to the relative autonomy of the watch within the command structure. Station Officers, like the men they supervised, remained operational firefighters with work patterns that, structurally and substantively, were remote from senior management. Station Officers, as leaders and members of the watch, are by force of circumstance, compelled to rely upon the personal and the informal, rather than the rule book to safeguard the efficiency of the unit, and their position within it."

(1)

This observation is certainly borne out by the findings of this investigation, and has emerged as a clear conclusion from this part of the analysis.

Question B7 of the questionnaire invited respondents to indicate what degree of freedom they, as managers, had to determine the amount and content of the training received by their subordinates. This was one of the few areas in the Administrative context where answers to the questionnaire varied from what was found to be the case on deeper examination. Whereas the majority of officers suggested that they had great freedom to determine what was done, in fact all admitted or revealed during interview that they had fairly prescriptive schedules to follow, both in terms of quantity and detail. It was not apparent why this discrepancy arose.

The area of performance targets, which has been discussed in detail in the relevant brigade chapters, was, in broad terms, the same everywhere; ie, there were invariably targets and quotas to be met. However, they were rarely met, and sanctions for failing to meet them were nonexistent. In the two organisations where managers at various levels were taken to task to some extent (New York and West Midlands), albeit in an

informal and low-key way, the solution appeared to be falsification of returns to the degree needed to remove the nuisance caused. This was not considered unethical by the people concerned, as none of the middle managers who admitted to this believed that the targets involved were in any way meaningful.

Targets that they perceived to be relevant, eg ensuring that water supplies were inspected annually, were properly met. The most blatant example of falsification was generally to be found in the area of training records, which officers at middle and junior levels considered arbitrary and bureaucratic. These records were dubbed the "lie sheet", or similar, in three countries. Many of the targets found their origins in external causes, for example national standards, health and safety requirements, fire safety legislation etc. Therefore, these would be translated into operational requirements by staff departments and issued as policy by senior management.

The fact that in the busiest locations the workload already outstripped capacity was not considered an issue. Most frustrating of all to middle management was the fact that the apparent amount of available time often bore little relationship to the actual usable time, due to restrictive practices, as discussed in Chapter One. On occasions, senior managers were reported to have chosen to ignore these operational level difficulties due to political and other constraints. This demonstrates that in these hierarchical and bureaucratic organisations, communication at a meaningful level was quite lacking, and had the effect of compromising the integrity of the process.

### **C. Responses to Questions in the "Managerial Structure and Style" Context.**

The numbers of tiers in the fire brigades investigated was as follows:

Phoenix FD	7
Hong Kong FSD	14
New York FD	9
West Midlands FS	12

Officers questioned and interviewed in the semi structured interviews were all from the middle two to three tiers, with further interviews being conducted at all levels up to the top. The author believed, based on personal experience, that organisational problems and difficulties caused by top management policies would be most visible at these managerial

levels, which are "sandwiched" between the policy and those having to operate it.

Few of the officers questioned considered that their organisation was able to "flatten" itself in a functional sense, ie permit certain tiers to be by-passed for certain purposes. However, it was clear from the interviews that, with the possible exception of Hong Kong, all of the organisations did in fact "functionally flatten" to some extent. This discrepancy may have been due to some ambiguity in the way that the question was structured, more than evidence of some tendency to mislead. Formalities in the organisations investigated varied considerably as may be expected between the UK, USA and Hong Kong. Nevertheless, all of the officers felt that adherence to whatever standard of behaviour was considered the norm, was important to the maintenance of discipline and efficiency in the organisation. Adherence to a known standard was invariably agreed to be more important than any detail of that particular standard.

In Hong Kong, this was as detailed as standard of dress and formality of address, whereas in the USA it was more focused on mutual respect and courtesy. Whether differences in style of uniform between officers and other ranks made any difference to discipline and command style, or whether in fact officers considered that they had a "command style" at all, varied more between individuals than organisations, and to some degree between officers of different ages. The younger officers in all of the organisations appeared more conscious of a need for traditional styles to change.

### **A Summary of the Analysis of the Questionnaire Responses:**

#### **Operational Command Systems and Practices as an Indicator of Degree of Empowerment:**

All of the fire departments visited believed they operated a structured Incident Command System (ICS), and that within it the roles and responsibilities of all personnel attending were defined. This was not always borne out in practice.

The only fire department clearly operating the ICS as intended, ie with the emphasis for senior ranks being support for crew and sector commanders, was in fact Phoenix. The West Midlands, which had adopted its version of the Incident Command System as recently as 1991 appears to be successfully managing the transition to the new style of "support rather than direction". Concerning "empowerment" in a command context, the

West Midlands Fire Service is quite a way ahead of the other brigades; senior officers are not deployed to operational incidents until resource levels are relatively high. This does not meet with the complete approval of the officership, which, from the responses to questionnaires received, suggested that it felt marginalised by the new levels of deployment. It felt that it was not given the opportunity to contribute to emergency situations as frequently, or at the levels, it would wish to do. This view was expressed by officers from Assistant Divisional Officer all the way through to Divisional Commander. In New York, the traditional scenario of decisions and control focusing on the incident commander appeared to be persisting to a greater degree, with officers being mobilised very frequently, to incidents of relatively minor proportions; nevertheless, all of the officer ranks felt satisfied with this.

Phoenix FD operates its ICS in a manner that supports the department's pursuit of an empowered workforce. Successive command ranks arriving on the fireground have as their prime and initial purpose, the support of the standing Incident Commander, in terms of operational planning, logistics, inter- agency liaison, and the other usual peripheral concerns.

The Hong Kong Fire Service (HKFSD), did not have an ICS as such. Its approach was structured, but the development of the command was on more traditional lines, as found in some UK brigades even now.

Officers at the first tier above watch (or in the USA, company) level were compared in terms of size of the command they would expect to take over at an incident and the size it would reach before they would be relieved of command. In all three overseas departments visited, this was within the band of 21-40 personnel, and compares readily with the command level of an ADO in a UK metropolitan brigade, such as in the West Midlands. However, in all the overseas brigades, these officers respond on a pre-determined attendance basis and would usually expect a more senior officer to respond upon confirmation of a working incident. This does not reflect the UK pattern and does not reflect empowerment.

Level of operational activity was considered at various rank levels, and the first level above watch/ company command was taken as the focus (ADO or Battalion Chief). In New York, the officer personally responded c.1500 times per year; in Phoenix c.250, and in Hong Kong c.150. All considered themselves "busy", although no definition of this

term was offered.

The incident command structures were compared to the managerial hierarchies, to determine whether the organisation could "flatten" itself functionally to achieve a shorter command line. This did not happen in either of the US fire brigades, but there were initially fewer tiers in the organisation.

### **Financial and Administrative Structures and Practices as an indicator of Degree of Empowerment**

The vast majority of officers, in all four brigades, were satisfied that they had enough budgetary control, even though this usually only involved petty amounts of cash. The budgetary control responsibility they did have invariably reflected a monitoring role only. Responsibility for these issues, in all the organisations, rested with a headquarters department which had not succeeded in devolving real responsibility in any of the cases examined. There was little indication of any desire or will on the part of finance officers to release any of the direct control that they exercised.

Promotion procedures in all of the brigades investigated excluded the immediate supervisors from the selection process. The US brigades effectively exclude management altogether, having an objective exam based selection procedure. All officers expressed some wish for more influence during the interviews, but felt general satisfaction with the process.

There were invariably performance targets and quotas to be met, but sanctions for failing to meet them were, in the main, nonexistent. For example, in terms of continuation training, the majority of officers had fairly prescriptive schedules and targets to adhere to, both in terms of quantity and detail, which left them little discretion. Some targets that they perceived to be relevant, eg ensuring that water supplies were inspected annually, were properly met, but training records, which officers dubbed the "lie sheet", were not. Evidence of some routine falsification was found. Complicating factors are the fact that in the busiest locations the workload already challenges capacity, and that restrictive practices continue unchallenged by employers. These operational level difficulties were often felt by middle management to be ignored at policy level, due to political and other constraints. This suggests weak communications.

An observation that should be made before progressing beyond considerations of the Administrative and Financial structures, is that uniformed officers displayed much less enthusiasm when discussing these areas than when engaged in discussions on either operational command or their managerial structures. There were far fewer discrepancies between what they stated in written response to the questionnaires and what was confirmed during interviews. It was noted that in all the four brigades, those performing the bulk of administrative duties were non-uniformed personnel, whom uniformed officers perceived as some form of support, rather than another arm of management. This appeared to result in less "hierarchical" type conflict, and most officers reported little problem in the area of their interface with the non-uniformed sections of their brigades. This observation might be relevant when considering the culture of the organisation.

### **Managerial Structure and Style as an Indicator of Degree of Empowerment:**

Attitudes and relationships between rank levels were very different in Hong Kong and America. In Hong Kong, there was a clear willingness to fulfil the role of either superior or subordinate. Officers appeared to have almost automatic respect accorded to them and this was accompanied by a stated belief that the decisions they made would necessarily be correct. Because there were few challenges to higher ranks in terms of questioning attitudes from below, and with each level of the organisation behaving as expected, there was no need for any overt show of assertiveness or status by seniors. In America, the position was similar to that found in the UK. Officers were aware that what they could demand of their crews would have to be acceptable, and that they themselves were subject to earning or losing the respect of their subordinates on a personal basis.

The status levels of the members of all four fire services within their communities was high. This was evidenced by the content of both television and newspaper coverage of their exploits, and from brief discussion with non- service personnel. The pay and conditions of each, particularly the non-UK brigades, were also highly favourable, to the extent that the services could attract a high calibre recruit and expect to retain him/ her.

Spans of control in all four organisations were limited to levels familiar to fire service officers in the UK, ie 5-7 in general. To achieve this the West Midlands Fire Service has twelve tiers in its structure, Phoenix (PFD) has seven tiers; New York (FDNY) nine, and Hong Kong (HKFSD) fourteen. With twelve tiers the West Midlands has more levels than most UK fire brigades, where the usual number is ten to eleven. This is because it



deploys all three grades of Divisional Officer. In each organisation, the level immediately above watch level was about middle of the scale; ie, Battalion Chief in PFD 4th tier, in FDNY 6th tier, in WMFS 5th tier, and in HKFSD 7th tier. HKFSD and FDNY appeared to use all the levels on all occasions. PFD, despite having the lowest number of tiers initially, was also organised to be able to bypass an unnecessary rank if the task should demand it. Therefore, a Captain could liaise with a Deputy Chief, or a Battalion Chief with an Assistant Chief of Department without causing offence, or being thought to bypass or undermine his immediate superior.

The WMFS was middle of the road in this respect, with a number of officers responding on the questionnaire that on occasion, the organisation would "functionally flatten", or miss out a tier or more that was not needed in the context of that particular issue. (Question C.3) The author was able to confirm, as a participant observer, that this does frequently occur.

## **Analysis of Findings From the Four Brigades Investigated, Against Deming's Fourteen Points**

### **Why Deming?**

The thoughts of W. E. Deming were considered in detail in Chapter Two of this dissertation. Most organisations implementing TQM would be familiar with his views. Additionally the "Fourteen Points" represent a model of the elements of a rigorous self examination in a clear and simple, yet challenging way. Deming was a statistician, and his world renowned work in postwar Japan was heavily based on statistical quality control. Therefore, it may be to some extent unexpected that his appreciation of the human dimensions of management would be so well developed. His "Fourteen Points for Management" clearly reflect the importance he placed on good employee relations and other aspects of the human dimension of quality.

For these reasons, Deming and his Fourteen Points were considered suitable to be used as the main focus of analysis in this dissertation. Data from the research conducted in the four fire brigades investigated will be discussed in the context of each of the Fourteen Points individually. This will attempt to establish whether the brigades, which are organisations similarly structured and doing the same job, vary significantly in relation to each point, and if they do, an attempt will be made to identify why the variations

occur.

### Summary of the Results of the Analysis Against Deming's Fourteen Points:

In the analysis that was completed, certain of Deming's points had a clear relevance to the fire service, whereas others were of marginal or negligible relevance. Equally, in terms of the degree of compliance with the specific point, whether or not this was influenced in any way by the fact that the organisation was a command type structure and had a command culture, varied. To show the results more clearly, the following table has been prepared. The values scaled from one to five, shown against "Relevance to the Fire Service" and "Compliance with Deming's Point", are based on the "summary of the overall position" at the end of the detailed analysis in this chapter.

<b>Deming's Point No.</b>	<b>Relevance to Fire Service</b> (5 = highly relevant, 1 = not relevant)	<b>Degree of Compliance with Deming's point</b> (5= Complies very closely, 1= Does not comply)	<b>Was the ability to comply with the point influenced by the fact that the Fire Service is a command organisation?</b>
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<b>1</b>	<b>5</b>	<b>5</b>	<b>No</b>
<b>2</b>	<b>5</b>	<b>2</b>	<b>Yes</b>
<b>3</b>	<b>3</b>	<b>1</b>	<b>Yes</b>
<b>4</b>	<b>1</b>	<b>1</b>	<b>No</b>
<b>5</b>	<b>5</b>	<b>2</b>	<b>No</b>
<b>6</b>	<b>5</b>	<b>5</b>	<b>No</b>
<b>7</b>	<b>5</b>	<b>3</b>	<b>Yes</b>
<b>8</b>	<b>5</b>	<b>3</b>	<b>Yes</b>
<b>9</b>	<b>5</b>	<b>1</b>	<b>Yes</b>
<b>10</b>	<b>2</b>	<b>1</b>	<b>Yes</b>
<b>11</b>	<b>3</b>	<b>1</b>	<b>No</b>
<b>12</b>	<b>5</b>	<b>3</b>	<b>No</b>
<b>13</b>	<b>5</b>	<b>1</b>	<b>No</b>
<b>14</b>	<b>5</b>	<b>2</b>	<b>Possibly</b>

This data is now explored point by point:

**POINT ONE; "Create constancy of purpose to improve products and services."**

**The West Midlands Fire Service;** WMFS enjoys a clear constancy of purpose, as do all fire brigades; it is unknown for operational personnel to lose sight of their *raison d'etre*. In the West Midlands Fire Service this has even been formalised by an identification of the "external customer", which despite an uneasy reception, has served to highlight that there is also another type of customer, the internal. Firefighters in the West Midlands Fire Service have enjoyed their fair share of honours and awards for meritorious conduct and are well respected within their communities. Whether "products and services" are routinely improved because of this situation is questionable.

To a large degree in the West Midlands Fire Service, as in most other brigades, there is a degree of professional arrogance; this is manifested at fire station level by a reluctance to accept that the performance at an incident was anything other than satisfactory, or better. How this has evolved is clear and understandable; the day-to-day experience of the personnel is one of being despatched to people in distress, where a fire is often burning out of control, destroying property, and sometimes with persons trapped. By the time the process is concluded, invariably the fire is out, persons are rescued (or dead and agreed by all present to have been beyond rescue), and the property is no longer being damaged. The grateful victims (customers) are too relieved to ask whether the fact that 75% of their property has been destroyed is a satisfactory outcome, or whether, with more professionalism, this could have been 50 or 25%. They rarely ask, when surveying their flooded ground floor, whether the job could have been done using less water. As a consequence, the personnel begin to believe that their performance and processes are completely satisfactory and do not routinely challenge or modify them.

**Hong Kong Fire Services Department;** The "Constancy of Purpose" is not a problem for the HKFSD. Firefighters are very focused on their "customers", and indeed have few problems with the external customer.

**Fire Department of New York;** there was not a problem in the FDNY, in respect of focus, or awareness of purpose. In this case, the situation was the reverse; personnel were almost "tunnel visioned" in respect of their prime objective, dismissing involvement in almost any activity other than firefighting as peripheral and irrelevant.

Harsh financial constraints, and a challenging political and socioeconomic backdrop to their service delivery, serve to enshrine this position.

**Phoenix Fire Department;** again, no lack of constancy of purpose. However amongst the four brigades, Phoenix was a clear leader in having formalised mission statements and succeeded in communicating these to the operational personnel in a meaningful way. It was the belief of the author that this success was due in large measure to the managerial style of the Chief of the PFD, Alan Brunacini. Whilst being a dynamic leader, he displays a consultative and conciliatory face to the organisation, and never appears to be haranguing or condescending to his workforce. This style is difficult to categorise, but he may accurately be described as "charismatic". Equally, there is absolutely no doubt in the minds of the personnel of the PFD that their organisation's "number-one" has "bought-into" the new way, and that all initiatives are being driven from the top.

**A summary of the position overall, in relation to Deming's 1st Point:** Deming's first point did not appear to be a significant area of difficulty for any of the brigades. Nevertheless, it was clear, as identified by the experience of the West Midlands, that the success in establishing constancy of purpose, did not necessarily directly relate to improvement of products and services. This was principally due to the fact that, as with many professional services, it is difficult for the lay person to determine "how well" a job was done in relationship to the difficulties and obstacles encountered. This is very much the case with emergency fire service work, where the "customer" is invariably at a distance from the process and is often in some distress as well. Personnel in New York were fiercely proud of their operational competence, but appeared more willing to be internally critical. This was a reflection of the fact that, much more than in the UK, senior officers would arrive on-scene, take over tactical command, and be responsible for the outcomes. Moreover, the fact that the FDNY has "Standard Operating Procedures" (SOP's) means that supervisors are in a position to know much more clearly whether a particular individual or crew was performing to the correct standard, and if not, to take action to remedy the matter. This does not necessarily promote initiative, and does not empower crews or junior rankholders. It does, however, ensure a tight command process and errs on the side of safety. PFD also uses SOP's, but the system appeared less rigid, and crews were encouraged to use initiative much more. Therefore Deming's point is highly relevant to the fire service, and the brigades investigated closely complied with it.

**POINT TWO; "Adopt a new philosophy for the new economic age by management learning responsibilities and taking leadership for change."**

**The West Midlands Fire Service;** management in the West Midlands Fire Service is indeed taking the initiative and instituting change, and the changes being made reflect the "new philosophy". Nevertheless, the emphasis is clearly on the rewards that the organisation could derive from these initiatives in the short term, rather than a longer term view being taken. This is understandable, however, more front-end investment in training, and a clearer and more consistent demonstration of management's belief in the new methods would probably result in greater long term success.

**Hong Kong Fire Services Department;** in the broadest sense, it has been identified that the management of the HKFSD are taking responsibility, and offering leadership for change, albeit the change is principally being driven from the environment rather than the organisation; ie the impending change of power following return of the colony to China in 1997.

**Fire Department of New York;** the conclusion drawn from the interviews, and analysis of questionnaires from New York, was that management of the FDNY, particularly at the important middle levels, was very traditional and hierarchical and reluctant to change. Middle management did not display any tendency to devolve responsibility, or empower subordinate ranks. In turn, middle management did not appear to have been empowered by the strategic tier of management, with this level having a prominence in the day-to-day running of the Divisions and Boroughs.

**Phoenix Fire Department;** the PFD would appear to be setting an example amongst fire services worldwide in this respect. The new philosophy is alive, and the managers are striving for the changes considered necessary to bring the benefits of a Total Quality organisation to the PFD. There are some struggles and difficulties of a practical nature in the area of implementation, indeed ones upon which this dissertation is focusing. However, this does not detract from the fact that the philosophy is understood and, what is more important, that many of the difficulties of implementation have been anticipated and possible solutions built in to the programme.

**A summary of the position overall, in relation to Deming's 2nd Point:** All of the fire brigades investigated were experiencing change, and most were responding by

attempting to change their managerial style and approach as a result, but for different reasons. Greatest environmental changes were found in Hong Kong, with the impending return of the colony to China, and in New York due to funding constraints. However, the changes in managerial approach in Hong Kong, whilst recognising the uncertainty ahead, were more in response to the outlook of its newer recruits, who have a more cosmopolitan and questioning attitude since the status of the British as rulers of the colony has diminished. Change in managerial style in New York was less evident, based on discussion with middle managers. This is because there has been little turnover of staff, and the extremely strong influence that tradition has had on work methods. In short, New York is fighting the same kind of fires, in the same kind of way, with many of the same people. Being so strongly focused purely on firefighting, political and fiscal realities for the senior management have not impacted at all on the style and methods on the "shop floor".

In the West Midlands, there is an attempt to change in the way indicated by Deming. Nevertheless, it would be possible to identify short-termism, and a focus on the rewards rather than the input and investment of effort needed by management to succeed. Phoenix is at the other end of the scale with no financial or political upheavals on the horizon. However, the management is being driven by a close identification with the philosophy to achieve change that will be beneficial to all. Phoenix is being pro-active, whereas the others are being reactive, or inactive, in the context of the second point.

**POINT THREE; "Cease dependence on inspection to achieve quality; eliminate the need for mass inspection by building quality into the product."**

**The West Midlands Fire Service;** the West Midlands Fire Service, as with most other UK fire brigades, does not adhere to this point. There is close inspection of the process at all stages, and the steep hierarchy and relatively narrow spans of control are in place to ensure that this remains the case. As has been discussed already in this dissertation, the fire service cannot afford to be seen to fail, and therefore adopts the multi-tiered approach to inspection and re-inspection to try to ensure that it does not. This of course consolidates the viewpoint expressed by the author in respect of "professional arrogance"; in an organisation that does not tolerate failure, and in which the jobs of many middle managerial tiers are highly sensitive to failure, there is a vested interest in no failure being identified. This is symptomatic of a fear culture. Clearly a dramatic change is required in this area.

**Hong Kong Fire Services Department;** compliance with this principle was not clear in HKFSD. Management was still apparently focused on traditional close supervision and direct monitoring of performance. Arguably, considering Parasuraman *et al's* views on the inseparability and intangibility of services, this was building quality into the process, rather than finding that the product was defective. This approach is only possible in a generously staffed organisation such as the HKFSD, where spans of control remain narrow.

**Fire Department of New York;** a traditional fire service approach was in operation in the FDNY, with middle management tiers still exercising a high profile supervisory role, and this being performed in a "control" rather than "empower" mode. The same impression gained in all the other fire services visited was experienced in New York; the reluctance to devolve in a meaningful way appeared to arise from a dread of the consequences of a failure in the process. In the brigades visited it appeared to be beyond the comprehension of senior officers that they could relinquish tight operational supervision and control, and risk an operational failure occurring, which could involve life or property loss.

**Phoenix Fire Department;** it was clear from the visit and interviews conducted in the PFD that there was an intention to reduce the degree of supervision, inspection etc., and to move to a state wherein quality was the concern of the personnel involved in each individual process. However, as has been identified in the foregoing text, this has not yet reached fruition and would appear to be one of the areas where a uniformed and disciplined emergency service may have to accept a different model from industry or commerce.

**A summary of the position overall, in relation to Deming's 3rd Point:** The West Midlands Fire Service was considered not to comply closely with this point. As with all UK fire brigades, there is close supervision and control of the process by management. Organisational procedures ensure that this "over control" is considered a part of the process. The degree of supervision required by both procedure and culture, dictates that spans of control are maintained at relatively narrow levels; four to eight being considered the norm.

There is no evidence of the culture in the West Midlands Fire Service changing at this early stage, to vest control of the processes in the watch commanders, or watch level

personnel. Until this change of emphasis occurs, there is little chance of ownership of the processes being transferred from the divisional level to the fire station, and of responsibility for quality of service being assumed by those who deliver it. The cultural dimension is most important in any consideration of the issue of control, and the need for transfer or relinquishment of it, in any fire service. The traditions of all of the fire brigades investigated rest solidly on a base of a command and control style of management. As a result, the organisational "recipe" is inextricably interwoven with symbols and myths. Evidence suggests that those in control are going to be unwilling to hand over the reins of control, without firm direction that this should happen. This will require excellent leadership.

In the Hong Kong Fire Services Department, the spans of control, supervisory rank levels, and general methods of ensuring quality of service were virtually indistinguishable from the West Midlands Fire Service. Due to the comparatively generous resource levels, this traditional style of supervision was conducted in an unhurried and comfortable way, and was not questioned by anyone.

The Fire Department of New York also retains a clear affinity to the traditional methods; supervisors maintain the same spans of control as are encountered in the UK and Hong Kong. This appeared to be for the same reasons as expressed in the UK and HK. Officers believed that to relinquish control at the existing levels would be to invite failure, with the irredeemable consequences that would have.

The most interesting and revealing example of the ability, or otherwise, of the fire service to change its traditional methods in compliance with Deming's third point is without doubt the Phoenix Fire Department. The PFD has a stated objective to transfer responsibility to the level of service delivery; the philosophy of empowerment is well understood and the organisation wishes to implement it. Nevertheless, the methods as observed did not in fact differ in any meaningful way from methods of supervision in any of the other fire brigades visited. Although the language was different, and implied greater devolution and empowerment, in fact the spans of control for middle ranking officers were just the same as in the UK, HK and New York, with the officers at middle tiers expressing the same kinds of fear in respect of relinquishment of control.

The PFD was without a doubt striving to devolve and empower. However, tradition and the culture of the organisation were serving to consolidate conventional spans of control,



and conventional methods. This was despite having a leader such as Alan Brunacini, who "walks the talk", and would, in his own terms, underwrite the actions of any of his officers who would wish to devolve and empower. The example of Phoenix, more than any other, suggested to the author that there was perhaps a limitation in this area of management, inherent in a command organisation, that was beyond the power of even a charismatic and successful leader to change.

**POINT FOUR; "End awarding business on price; instead minimise total cost and move towards single suppliers for items."**

**The West Midlands Fire Service;** As with all local authorities, the West Midlands Fire Service is not generally in a position to award business on the basis of any other criterion than price, or, in general terms, to offer orders to any other than a satisfactorily based business. This extends to contracts above a certain amount, to being obliged to advertise invitations to tender in the European Journal. Apart from these constraints, it is not clear that Deming's fourth point offers great advantages to an organisation such as the fire service. It has limited opportunity for "upstream integration", which is in effect the logical development of Deming's point.

**Hong Kong Fire Services Department;** this was not considered relevant to the HKFSD which, as a publicly funded organisation, through the offices of the Governor of Hong Kong, is obliged to be able to demonstrate that the most competitive price has been obtained for any product or service.

**Fire Department of New York;** again not relevant to a public service environment, where business has to be awarded on price, after a justifiable specification has been approved.

**Phoenix Fire Department;** not relevant to the PFD, which again is a public service and is obliged to seek the lowest price on any item specified.

**A summary of the position overall, in relation to Deming's 4th Point:** None of the fire brigades investigated were in a position to explore the benefits of adherence to Deming's fourth point. In all of the brigades, a clear policy of tendering for the lowest price for a published specification for goods and services exists, and such constraints feature in the Standing Orders and Financial Regulations of all UK local authority

brigades. An example would be the following passage from the Financial Regulations of the West Yorkshire Fire and Civil Defence Authority:

"The Chief Officer, or other authorised officer, shall ensure that..... As far as practicable, purchases are made on a competitive basis to ensure that the best value for money is obtained and complete impartiality is exercised in selecting suppliers and contractors." (2)

In the author's opinion, this set of requirements to demonstrate impartiality and best value does not detract from the quality process. The discipline of the specification and tendering process serves to focus the minds of those involved in the spending of public funds. It is not unknown for proprietary purchases to favour a particular manufacturer, but the experience of the author has been that this is only used as a device to ensure compatibility between new and old equipment, or to secure the advantage of some technological superiority. Beyond that, it is in the clear interest of all to achieve the lowest price, despite Deming's view that this leads to compromise in the area of quality.

**POINT FIVE; "Improve constantly and forever the system of production and service, to improve quality and productivity, and to decrease costs."**

**The West Midlands Fire Service;** comment on this point is linked to observations made against Point One. There were no easy routes for comment to be made in respect of any fire service process in the West Midlands Fire Service, ( other than operational debriefs which focus on the command and control aspects of an incident in general) prior to the implementation of TQM in the brigade.

The only other trigger for an examination of how well an individual process was executed would be following the receipt of a complaint, or the threat of civil action for negligence. The former are infrequent, and the latter rare, invariably instigated by insurance companies on the advice of loss adjusters. Following the implementation of TQM, routes for expression by junior personnel in the organisation have been opened, and communication of this kind encouraged. The principal routes are either the watch/ station/ division/ brigade meeting cycles, which are held at six weekly intervals, or a "hotline" to the TQM support team (since the launch renamed "Quest", an acronym for "Quality Enhancement Support Team"). Calls to this team were infrequent in the initial months, but reports from the West Midlands Fire Service suggest they are increasing.

Finally, the launch of TQM included guidance and support for the formation of "Quality Circles", (although not called this in the WMFS Quality Manual). Despite initial scepticism, some have formed and offered their findings to the organisation which, in turn, has attempted to deal with these sensitively. It is fair to say that this is a major departure from common practice in the recent past.

**Hong Kong Fire Services Department;** a "PDCA" cycle was not evident in every area of the operation. Operational debriefs are held, but it was not clear during or following the visit whether the views that were expressed from these gatherings were fed back into a review of practice and procedure. Deming refers to increased efficiency and decreased costs being the objectives of this point. It was the author's opinion, following the process of interviews and visits, that these were not serious areas of concern in Hong Kong government departments, such as the fire service. Despite a new "no growth" policy being implemented, the lavish scale of resource provision effectively precludes the need to identify savings at this stage.

**Fire Department of New York;** a criticism of the FDNY is that in respect of constant improvement, or a "PDCA" cycle, the organisation was self-satisfied and even complacent. This without doubt springs from the heavy operational commitment, which is recognised worldwide; however, there is little evidence of critical appraisal of the performance at these incidents and much evidence of a state of self-satisfaction in this area. The objectives of increased efficiency and decreased costs in respect of Point Five were of understandably reduced relevance in the FDNY, where financial problems had resulted in the recent past in redundancies, closures and other manifestations of a budget which is barely sufficient to sustain current resource levels.

**Phoenix Fire Department;** the PFD has embarked on a conscious programme of continuous improvement in both processes and systems. The establishment of the Total Quality Services Department, and the fact that this reports directly to the Deputy Chief of the PFD, has transmitted the message to all sections of the organisation that TQM is there to stay. Associated programmes, such as the "Big Five", contribute to this in a substantial way, by overcoming the criticism often associated with the launch of TQ initiatives, as experienced in the West Midlands Fire Service, that the philosophy may be simple and well understood, but what does one do about it? The Big Five (See Appendix I) defines the concepts of both internal and external customers. It outlines the responsibilities of staff towards each group, as well as indicating five areas of operations,

eg Fire Protection, Emergency Medical Services etc. There are clear suggestions within each area that a member can use as reference points, while striving to achieve the changes needed to reach the TQ objective.

**A summary of the position overall, in relation to Deming's 5th Point:** Deming's intention in his fifth point appears to be a further emphasis on the PDCA cycle, with an objective being greater efficiency in the system, thus reducing costs. It is fair to say that few of the fire brigades investigated had grasped this nettle. The West Midlands Fire Service, despite public protestations to the contrary, is not generally considered to be financially challenged. In fairness to the WMFS it has invested in the "Quest Team", which is charged with generating improvement in service and processes, but the influence of the organisational culture is such that the benefits of having a team dedicated to quality improvement have yet to be felt, or its purpose accepted.

This situation was even more extreme in Hong Kong, where any financial difficulties referred to are invariably manifested in terms of restrictions on growth, rather than cuts. New York, although being in severe financial difficulty as a city authority, did not appear to have any obvious programme of rationalisation of costs in progress; there had clearly been a period in the recent past wherein cuts had been brutal, and actual redundancies incurred.

Phoenix Fire Department's "Big Five" programme directly encourages personnel to think in terms of quality of service delivery and, therefore, towards how this could be improved. The existence of the Total Quality Services Department is further evidence that improvement of service is on an ongoing basis and is an important issue. The organisation is clearly willing to invest resources in pursuit of that goal. A major part of the "Big Five" is the exhortation to "Critique and follow up on lessons learned to continually improve". This is clearly in close compliance with the principle of Deming's fifth point, and discussions with the staff of the Total Quality Services Department indicated that this was intended to be the case.

#### **POINT SIX; "Institute training on the job."**

**The West Midlands Fire Service;** this is the norm in the West Midlands Fire Service, as in all other UK fire brigades, and those based on the UK model, eg Hong Kong. The way that training is done in the WMFS reflects a change based on TQM, although the

change in question slightly predated the formal launch of TQM. Before 1993, the West Midlands Fire Service operated a continuation training programme which was almost identical to those in other UK brigades. The programme was based on the perceived requirements of firefighters who, at zero notice, may have to tackle unusual incidents and face unfamiliar hazards. The Training Records became known informally as the "lie sheet".

Without examining the changes in detail, the requirement changed from a "quantitative" to a "qualitative" base; ie successful completion of the annual record would no longer be based on a simplistic reckoning of the number of boxes ticked on the record alone. It recognised that satisfactory completion may take longer, or more repeated attempts by a novice than by an experienced person.

It also recognised that there is a limit to the amount of technical knowledge crews can keep at their fingertips. More emphasis was placed on the relevant frameworks, eg on knowing how to retrieve chemical data than on memorising characteristics of individual chemicals, which had been the previous approach, and which rarely worked well. Therefore, the West Midlands Fire Service has changed its approach to more closely and meaningfully reflect Deming's sixth point.

**Hong Kong Fire Services Department;** training on the job is the norm in HKFSD, as in UK fire services. It is a continuous process that is rigorously followed.

**Fire Department of New York;** although training on the job is a feature common to all fire services, the FDNY displays this trait at the lower end of the scale. Whereas UK brigades as a whole, and the HKFSD in similar fashion, train their personnel for a significant period of every shift, the FDNY does not perform on-shift continuation training. Instead it periodically removes an appliance and crew from duty, sends them to the training centre, and conducts the prescribed amount of training.

It also goes one stage further than its UK or HK counterparts, in that it uses this session as a testing and validation period for the crew. In theory the crew, or an individual within it, could fail the refresher and be removed from operational duties until the problem is rectified. Interviews suggested that this never happens and that the maximum sanction conventionally applied is a harsh report to the division from which the failure emanated, and a reliance on line management pressure to come in to play to remove the anomaly.

The "fear-factor" in FDNY amounts exclusively to the right of middle managers to deny the privilege of "shift exchanges"; this has the effect of making the individual involved attend the firehouse for a standard shift pattern, rather than the twenty-four hour shift pattern that can be achieved by combining and swapping the normal nine hour days and fifteen hour nights, with a commensurate reduction in the number of journeys into work. This is punitive in the case of most of the personnel who live "upstate", and who typically have a seventy or eighty mile journey into work.

**Phoenix Fire Department;** training on the job is certainly conducted in the PFD, as in all fire brigades, but not on the scale of the UK fire services. As with New York, PFD personnel do not have the regular on-shift training commitment that UK brigades have. However, they do have a regular commitment of refresher training and skills testing. This is particularly intensive for Emergency Medical Technicians and those with advanced Paramedic qualifications. This is an area peculiar to the PFD amongst the fire services visited, although on a worldwide scale, joint fire and emergency medical services are common.

**A Summary of the Position Overall, in relation to Deming's 6th Point:** All of the brigades visited complied with this point. However, there was a clear split in how closely the point was followed, between the UK and USA. In the UK, and the HKFSD as a brigade closely modelled on the UK, there was daily training "on the job", by way of repeat and continuation training to build on skills first taught at recruit level. In the USA, the approach is more orientated towards "refresher" training given on a periodic basis, eg a day per month or quarter at a central training facility, rather than on the home station. It was not possible during this investigation to fully assess the relative merits of the two approaches. It should be noted that the US approach goes a stage further than offering continuation training, as it also constitutes a validation of continuing competence in the operational sphere.

**POINT SEVEN; "Institute leadership; supervision should be to help do a better job; overhaul supervision of management and production workers."**

**The West Midlands Fire Service;** the issue of morale in the West Midlands Fire Service was addressed by an experienced divisional based Divisional Officer Grade 3, who stated "The atmosphere in which I am managing is one of constant flux...in a state of uncertainty....individuals are demoralised by their perception of the future and likely

change." This is contrasted with perceived morale on a watch or fire station, at a level more closely relating to core tasks, which is usually quite high. Considering the well paid and secure employment of the fire service personnel, this perceived situation is probably evidence of a deficiency in leadership at key levels. These would be watch commanders failing to represent the organisation strongly enough as managers, and senior command levels in failing to communicate effectively. Elected Members must be included, particularly in the Fire and Civil Defence Authorities, for appearing to pursue short term political interests, at the long term expense of the integrity of the service. In conclusion, the WMFS does not yet strongly relate to Deming's seventh point.

**Hong Kong Fire Services Department;** Officers of the HKFSD appeared to hold effective and strong leadership in high esteem, and believed that their leadership role was to help subordinates to do a better job. Nevertheless, managerial and supervisory styles appeared to be traditional, hierarchical and bureaucratic.

**Fire Department of New York;** in general terms, the FDNY would be described as complying closely with this point. The managers of the service at all rank levels believed themselves to be operational leaders, and displayed this style in all contexts. This would have been highly inappropriate in almost any other organisation. However, the perception of the author was that the managers of the FDNY could sustain this approach by virtue of the operational tempo. Officers of the highest tiers regularly enjoy the opportunity to flex their operational command "muscle", in a traditional and perhaps symbolic manner.

**Phoenix Fire Department;** efforts continue in this respect in all areas in the PFD. Managers are encouraged to empower and devolve in every area possible. Nevertheless, it was clearly observed that in an operational context the impact of this, in terms of moving from the traditional fire service levels of supervision and spans of control, was minimal. Officer deployment on Pre-determined Attendances is at very similar levels to those found in the UK, HK, and New York, and the scale of escalating reinforcement is equally recognisable between all these organisations. Also, in a non-emergency context, the spans of control are narrower than the ideological resolve of the senior management of the organisation would suggest. This would appear to be one more area where the freedom of a uniformed and disciplined command organisation to "let go of the reins" is limited.

**A Summary of the Position Overall, in relation to Deming's 7th Point:** There was little doubt that the concept of "managers as leaders" was active and respected in all of the organisations investigated. It would have been surprising to the author if, in an operational fire service, this had not been the case. All officers have come through the system. This is the case even in the direct entry scheme of Hong Kong, where recruit officers have to establish their operational credibility at the side of experienced junior officers. The problem arises in terms of how this leadership is exercised. Whereas in an operational context, leadership is expressed in a direct and interested way, in all other contexts, such as administration, fire safety, routine work etc., the degree of interest is considerably reduced, and many of the same officers who show pride in operational command and leadership become distinctly less motivated. There would appear to be a lack of incentive to perform in these areas of fire service work, despite the fact that it impacts closely on the effectiveness of the operational activities. For example, if standard tests have not been properly completed, or fire hydrants not properly tested and maintained, the organisation's core activity of firefighting and rescue will be compromised. Fire services, therefore, do not relate well to point number seven, which encourages managers to lead and facilitate rather than direct.

**POINT EIGHT; "Drive out fear, so that all may work effectively for the organisation."**

**The West Midlands Fire Service;** as has been discussed in the text of Chapter Three, the West Midlands Fire Service cannot claim to be successful in this area, and this is not something that is necessarily a feature of this type of organisation, or something found in all fire brigades. It is to be hoped that continued exposure to the principles of TQM will enable WMFS managers to recognise their shortcomings in this respect. A deputy divisional commander (DO Grade 1) commented that "TQM has not achieved a change of style; the fear or blame culture that has built up over the years will take a long time to get rid of....the openness of command is only evident when it is considered necessary; the mushroom syndrome still exists." Contrastingly, a divisional commander during the same survey commented that "An open system of management exists." Although from a different division, it is unlikely that the difference in comment was solely due to a different organisational perspective.

An interesting perspective on this matter was offered by a headquarters based DO Grade 3 in the West Midlands, who had served in the army for seven years before joining the



fire service. It was his view that much of the formality of address between ranks in the fire service has little to do with demonstrating respect; rather it is concerned with "maintaining distance" between the ranks. He added that the existence of an "officer's club" gave further evidence of the organisation's perceived need to achieve this distance. Such distance might assist in a command structure, but equally it is a necessary element in a fear culture.

An Assistant Divisional Officer (divisional based) commented on how the rank structure and command style of the organisation was not always a barrier, or negative influence. His quote was as follows: "I believe command is different to management, and that the two in the fire service exist quite comfortably side by side. One can use a quite autocratic style of command at an incident without any ill-effects; in fact it will often be admired by subordinates, as you 'appear' in command and this instills confidence, yet the same approach in day-to-day management would be antagonistic. Due to the nature of a fire officer's job, it is, in my opinion, essential to be fluid in ones management style, to suit the occasion". Evidently this officer considered the apparent distance and hierarchy of the management style to be of less significance than the quality of the relationship between the ranks. It was beyond the scope of this investigation to establish whether this officer's subordinates shared his views, and did in fact admire him in his autocratic style at an operational incident, and whether his operational "track record" contributed as much to his subordinates' confidence in him, as his command style. The author's experience would suggest that he was possibly quite correct in his beliefs, and that the existence of a fear culture is something quite separate from the style of management found and accepted in a command organisation.

**Hong Kong Fire Services Department;** fear was not obviously used as a tool of management in the HKFSD. However, the traditional management styles, including ideas of "carrot and stick", inevitably include a fear element. The militaristic style and hierarchical organisation consolidate this aspect.

**Fire Department of New York;** other than as described in point six above, there was little evidence of a fear culture, or the use of fear as a tool in the FDNY. Once again, this appeared to be a function of the high level of operational activity. The personnel and organisation as a whole were focused principally on the operational threats rather than internal managerial issues. In this respect, the long standing UK fire service adage that "a busy station is a happy station" certainly applies in the FDNY; it has the happy

situation wherein the vast majority of its stations are very busy indeed, and there is little time for trivial problems. A further factor that gravitates against fear in the organisation is, without a doubt, the informality referred to previously. This diffuses much of the tension that can develop in the traditional command style environment, where individuals can hide flaws in personality or competence behind rank and procedure.

**Phoenix Fire Department;** the PFD was, in the perception of the author, the organisation with the least "fear factor" amongst the organisations visited. Evidence from informal discussions with staff suggested that this was attributable to two main factors. One; the management style of the leader of the organisation, Alan Brunacini, is conducive to a relaxed atmosphere. Two; there is a solid background of union participation in management of the organisation. Lack of conflict, and consensus on the majority of issues, combined with a generous level of resource, has resulted in good conditions for the workforce, and a workforce that are content. This was evidenced by the fact that the complaints heard during the visit were all of a trivial nature.

**A Summary of the Position Overall, in relation to Deming's 8th Point:** The differences between the four main fire brigades investigated were quite significant in relation to point number eight. Judging from the questionnaires and interviews, the West Midlands was an organisation in which fear was evident in some form at most levels, including middle and senior levels. The reason for this was not clear, and it is certainly not representative of UK fire brigades in general. The author has concluded, both from data gathered in pursuit of this investigation and from three years as an employee of the WMFS, that the "WMFS fear culture" is a result of a combination of features. These are; a dynamic and high profile leader, who is considered to be results, rather than people, oriented; a high degree of organisational secrecy; narrow margins in the balance of political control, which mean officers at middle and senior levels are more politically sensitive and aware than they may otherwise need to be, and more than their counterparts in similar organisations; an organisational recipe that is rich in anecdotal evidence of how employees have suffered for a range of misdeeds, which contribute to the body of "myths and legends" of the organisation. It is noted that the WMFS management is becoming conscious of this unfortunate feature of its organisation's profile, and would appear to wish to redress it.

In Hong Kong, as has been described in the relevant Chapter, there is no overt evidence of an organisational fear culture. However the national culture, in which employer

dominance/ employee subservience appeared to be taken for granted, clearly took the place of this. It was beyond the scope of this investigation to identify the difference in the impact that this feature had on the way that the organisation performed. However, the appearance was that because all tiers of the organisation "knew their place", there was no need for overt shows of rank superiority. Evidence of the day-to-day conduct of officers and other ranks, was that the relationship was relaxed and mutually respectful, and that there were few challenges to the accepted order.

Phoenix Fire Department was, in the view of the author, free of any flavour of "fear factor". This was because of a stated managerial policy of eradicating such elements of managerial style. Also, there was a history of close and successful employer/ employee cooperation, leading to good working conditions for the workforce. There is no doubt that this desirable state of affairs has been facilitated by a generous level of resource provision by the City; in such circumstances the need for conflict is reduced. Cases of individual officers being unable or unwilling to adapt to the new way were found during the investigation. Although none felt able to state an objective case for their resistance, the prevailing view was that a disciplined organisation was certain to deteriorate in quality and integrity if the tried and tested methods were abandoned wholesale. When questioned about this *corps* of objectors, senior management had little sympathy, categorising those who would not work to achieve the changes prescribed, as lazy and disruptive. No sanctions were mentioned, but the fact that the majority of officers in this category were reasonably near to retirement was related without regret.

New York Fire Department was particularly interesting in relation to this point. Although the organisation was clearly run on traditional lines, and stated no intention to change its style or methods, there was no evidence of a fear culture. The degree of informality between middle and lower ranks probably contributed to this state of affairs, as did the high degree of operational activity. Possibly more relevant was the fact that there was little to lose or gain in the FDNY from indulging in this type of management; for the fear factor to work, there must be some sanction, either official or unofficial hanging over the miscreant. In the WMFS this commonly constituted an implied threat to junior ranks that their promotion opportunities could be compromised, in the hope that they would transmit this tension to their subordinates in the form of higher profile and more probing supervision. In New York, there was little chance of promotion and, if it did occur, it was purely through the mechanism of the competitive examination. Other sanctions were not really effective other than in extreme cases. Therefore, there was no need for any lower

or middle rank to feel fear and few avenues for middle or senior ranks to generate it.

It was noted that there were fewer reasons in the USA for senior ranks to generate tension in the organisation. Inspections of the brigades were conducted internally, therefore there were no potentially embarrassing "league tables" to be published nationally. Also, senior management was not obviously striving for national awards, which generates some competition, and features on the personal agenda of some very senior individuals. It may be considered that the national culture of the USA would generate less opportunity for a fear culture to develop, particularly in a public service, as most people are aware of their rights, and have high expectations in terms of conditions and remuneration.

**POINT NINE; "Break down barriers between departments; research, design, sales and production must work together to foresee problems in production and use."**

**The West Midlands Fire Service;** the West Midlands Fire Service suffers from "segmentalism" and, therefore, has problems in this respect. However, these are recognised and accordingly the theme of the launch of TQM was the "internal customer". This identified the barriers between Fire stations, HQ departments, Supplies, Mobilising, and indeed barriers within these areas themselves. Interestingly, the air of arrogance displayed by "front-line firefighters" in believing that, internally, they were everyone's customer and did not need to change their approach to any other section, was an almost universal feature. This constituted the main hurdle for the internal customer initiative which featured as the focal point of the launch of TQM.

**Hong Kong Fire Services Department;** the existence of departmental barriers, (or segmentalism in the expression of Rosabeth Moss Kanter) was identifiable in the HKFSD, mainly in a structural sense, with operational commands being treated as separate brigades each with their own Chief Fire Officers. Organisational barriers exist also at an even more fundamental level, given the division of administrative functions and financial processes between officers of the brigade and administrators of the civil service. It is the view of the author that this does not cause open conflict, if only because of resource levels. The same organisation faced with a period of austerity may find that the clear potential for conflict would be realised.

**Fire Department of New York;** the FDNY appeared to have barriers between

departments and would, therefore, be classed as being segmented. This appeared to be a reflection of an attitude that develops in respect of the necessary (in an organisation-wide context) demands placed upon station personnel by central HQ, and divisional HQ departments and staff. The potential for division between the interests of the Borough Commands was not an obvious or actual situation. In this respect, the operational cohesion and *esprit de corps* that exists between the operational personnel seems to prevent this happening, with all division and approbation being levelled at the Dept. HQ tiers.

**Phoenix Fire Department;** there was little evidence of serious "segmentalism" in the PFD. Although there was the usual pride in individuals' own areas of interest, station, district, etc, this did not amount to anything significant. Again it is relevant to ask whether the fact that generous, or even adequate, funding for the organisation removes the need and potential for interdepartmental tension.

**A Summary of the Position Overall, in relation to Deming's 9th Point:** "Segmentalism" was evident to some degree in all of the fire services investigated. This was usually in a structural form, ie divisions and departments, competing for resources and *kudos*. However, the culture in the various brigades also consolidated the divisions that the structure permitted. The West Midlands had this fact identified by the relevant teams during its TQM research and implementation phases, and accordingly prioritised it as the first issue to address, as the focal point of the launch process. The persistent problem has been the front line firefighters failing to understand that other departments and sections within the organisation could ever be their customers, rather than the other way round.

Hong Kong was as structurally and culturally segmented as the West Midlands but, as has been identified elsewhere in this investigation, the generous level of resources removed any need for competition. Conflict between departments was not obvious to the author, nor did it emerge as a feature of any of the interviews conducted. Furthermore, the fact that Hong Kong was the most bureaucratic organisation visited appeared to mitigate rather than exacerbate the situation; in organisational terms the problems were possibly greater than mere interdepartmental inefficiency, but the negative effects of this were hidden by the resource level.

In New York the situation was comparable to the West Midlands. There was a general

split of interests between operational units in the Boroughs, and the most senior policy making and political levels of control at departmental HQ in Brooklyn. Poor resource levels could have resulted in intense rivalry. However, once again the operational activity levels removed the focus of attention from this issue to the more pressing and constant demands of service provision.

Phoenix was little different in this respect from the WMFS or FDNY. Although competition between stations and units was encouraged, this was in a positive way, aimed at promoting professional pride amongst the personnel.

In conclusion, Deming's ninth point was poorly adhered to in all the fire brigades investigated. The structures and cultures that were encountered conspired to make a virtue out of a clearly divided and subdivided organisation. This would appear to be one of the elements observed that differentiated the command organisation, characterised by hierarchical and bureaucratic structures and procedures, from the conventional commercial concern. A tradition of well defined and narrow spans of control, linked to a clear chain of command, serves to confirm and validate the structure. A culture of disciplined response to orders under operational conditions, and of team loyalty, further consolidates this aspect of the recipe. There is some evidence from the experience of Phoenix, that managers believe that these elements constitute an indispensable part of their managerial toolbox. They feel that to dispose of them arbitrarily would compromise the integrity of their operation. Phoenix, which is actively attempting to break some of these paradigms, is meeting difficulties and resistance as a result. These concerns appear, from the interviews conducted, to be echoed by middle tiers of management in all of the brigades visited.

**POINT TEN; "Eliminate slogans, exhortations and numerical targets for the workforce, such as zero-defects, or new productivity levels. Such exhortations are diversory (sic) as the bulk of the problems belong to the system, and are beyond the power of the workforce."**

**The West Midlands Fire Service;** the West Midlands Fire Service has slogans, targets etc., but they are merely descriptive of the duties that a station or department must fulfil. They are not arbitrarily increased or decreased and, as has been pointed out elsewhere in this dissertation, sanctions for non-achievement are rarely applied. Targets that do exist include those for fire hydrant inspections, training sessions, fire safety inspections,

testing of equipment, and several other minor matters. Few of these have increased significantly in recent years. All West Midlands respondents to the questionnaire agreed that there were targets in all the areas queried. Equally, all agreed that sanctions were weak or nonexistent, particularly if the subject was no longer on the career path. (Questions B8 and B9).

**Hong Kong Fire Services Department;** whilst not completely absent, the use of slogans was not prominent or widespread.

**Fire Department of New York;** there was little evidence of the use of slogans in an organisation wide sense; however, almost all of the operational companies used their own symbols, logos etc. and displayed these with pride on their appliances, stations and sometimes uniform. (The FDNY appears to tolerate "customisation" of its uniform and equipment to an extent that would be totally unacceptable to brigades in the UK or HK, and indeed most other places.) Numerical targets are used, as described in reference to numbers of building inspections, water supply inspections, and achievement of the training targets that apply; however, they are rarely achieved. This fact does not cause great concern and their validity must be questioned.

**Phoenix Fire Department;** in this respect, the PFD does not align closely with the Deming point. In almost all areas of the operation, particularly in connection with the TQ initiative, slogans and exhortations are the norm. The "Big Five", which in the author's opinion positively differentiates the PFD's approach to the implementation of TQ, is surely in itself a set of "exhortations". Without these, the organisation would lack the focus for the application of the philosophy and ideals of TQ. It is possible, therefore, that in terms of implementation of TQ, Deming's point number ten could be held to be unhelpful.

**A Summary of the Position Overall, in relation to Deming's 10th Point:** All of the fire brigades visited used targets, slogans etc. to some degree. As the author has suggested in the Chapter concerning Phoenix, one of the steps forward that that organisation has made, has been the publication and promotion of the initiative known as "The Big Five". This offers focus and direction to the overall exhortation to pursue "Service Excellence"; many organisations attempting to pursue this goal omit to give clear guidance about how it may be achieved. Nevertheless, the "Big Five" might easily be dismissed as a collection of targets and slogans. As was revealed during the literature

review to this investigation, some management training professionals are of the opinion that it is pointless empowering people unless those people know clearly what to do. It would appear, therefore, that whilst no brigades comply with Deming's tenth point, too much significance should not be drawn from that observation. In fact compliance with the point may not be a helpful objective for brigades to pursue, as it could lead to a loss of focus for the workforce.

**POINT ELEVEN; "Eliminate quotas or work standards, and management by objectives or numerical goals; substitute leadership."**

**The West Midlands Fire Service;** comment against this point is similar to that for Point Ten, hence conflict with the point is considered to exist; however, mainly in a superficial way. The fact that it has been suggested that some records, particularly training records, were being falsified whenever the degree of enforcement or supervision was stepped up in this area was disturbing. Nevertheless, this was predicted by Deming when he discussed the attitude of workers to targets to which they could not relate and with which they did not agree.

**Hong Kong Fire Services Department;** targets and quotas do exist. However, as there are again few sanctions for failure to achieve, and as these are rarely applied, there is little real conflict with this point.

**Fire Department of New York;** targets exist; however, with few sanctions being available, and the considerable mitigating factor of the operational activity levels, the effect is largely neutralised. There was evidence that, as with the West Midlands, some routine records, such as training, were falsified on a petty basis to avoid the adverse comment of supervisors.

**Phoenix Fire Department;** the PFD is similar to all of the other fire brigades investigated, in that it had targets and quotas, but these were poorly enforced and there were few real sanctions available to managers to redress this situation. This appeared to be a direct cause of the failure to expand spans of control beyond the traditionally accepted levels.

**A Summary of the Position Overall, in relation to Deming's 11th Point:** All of the brigades had a wide range of quotas, numerical goals and other quantifiable objectives.



However, none had a meaningful approach to the enforcement of these targets, in that there were no incentives to encourage extra effort, or sanctions for failure to achieve. There is evidence in at least two brigades, that if pressure is put on to achieve targets that the personnel regard as either meaningless or unachievable, then some falsification may occur to remove the pressure. This was predicted by Deming. Job security for the individual in all of the brigades (excepting New York's unusual circumstances of the recent past, in which the redundancies had no connection with performance levels) was high. Also remuneration was steady, despite activity levels, attendance levels, or any other potential differentiating factor. In the author's opinion, it was this set of facts as much as any cultural dimension to the issue, which resulted in the need for administrative spans of control to be kept at similar levels to the operational command spans of control. Without effective sanctions, or discretion to reward, the effectiveness of the middle manager is dramatically reduced and levels of supervision have to be kept inefficiently high.

Deming was not of the view that quantifiable standards should not exist *per se*, rather that any targets should be both realistic and constructed with the input of the workforce. As the majority of fire service targets are the result of demands arising outside the service, little scope for this approach was considered by the author to exist in any fire brigade. Nevertheless, Phoenix was exploring possibilities of greater involvement of its personnel in terms of certain aspects of working practices and the West Midlands conducted a brief experiment with "Key Result Areas". This latter initiative foundered principally from lack of interest from the workforce and lack of drive by management.

In conclusion, fire services generally, and the UK fire service in particular, are unlikely to escape the imposition of targets, contrived by Home Office, Audit Commission *et al*, and be permitted to chart their own course. There was insufficient evidence to indicate whether or not Deming's 11th point would be a useful and realistic adjunct to a TQ initiative in a command organisation such as the fire service.

**POINT TWELVE; "Remove barriers that rob people of their right to pride of workmanship; hourly workers, management and engineering; eliminate annual or merit ratings and management by objectives."**

**The West Midlands Fire Service;** there are few real barriers to pride of workmanship for personnel in the West Midlands Fire Service. This must be qualified by reference to

the difficulties experienced by middle management, as discussed earlier. There is little doubt that the case of middle ranking officers in the West Midlands Fire Service is an area where empowerment could and should be developed. Many of these officers, particularly at Divisional Commander and Assistant Divisional Officer level, could work much more effectively if empowered in the fullest sense. This observation might be questioned by the casual observer of the organisation. If the organisational structure and written orders were to be consulted, the two positions referred to would appear to be quite empowered already, with much responsibility and freedom. However, the reality is that the culture largely neutralises the potential for empowerment found in the written structure. Officers at these middle ranks operate in a difficult realm where they feel they are not trusted by either station level personnel or principal management. Any failure at operational levels is attributed to these middle managers. In fact it is usually the system that is at fault, as Deming would predict. Until systems changes can be initiated and implemented by an empowered middle management level, this situation is unlikely to change.

**Hong Kong Fire Services Department;** barriers to pride of workmanship were not evident in an organisational context. Historical barriers to progression that existed during the "colonial" phase, ended as recently as 1992, with the promotion of the first HK Chinese Director of Fire Services. This meant that for the first time since the inception of the brigade, all uniformed ranks were Chinese rather than ex-patriot British. Since then, officers have seen their career paths open with progression now based on merit. This has been good for morale. The fact that there is a two-tier entry system may be considered a barrier to those who enter at the lower tier. In fact, although a route for progression from the lower ranks to officer grades is available, it is rarely exploited. This is principally due to the demand for proficiency in English language at officer ranks, which now appears to be an arbitrary requirement. It will probably disappear after 1997, if not before. However, the signs are that the demand for English will be replaced by one for Mandarin Chinese as a second language. This may result in the Cantonese speaking lower ranks remaining just as disenfranchised. The highly centralised bureaucracy of the colonial administrative system could potentially constitute a barrier to pride of workmanship for the uniformed officer ranks in the sense that officers are only able to influence the line management and technical aspects of the brigade. Many decisions that in the UK and US fire services are taken or influenced by fire service officers, are taken in HK by civil servants. This includes those involving true budgetary control, capital programmes and senior appointments. In HK these issues remain firmly in the domain

of the office of the governor. The author was not persuaded, by evidence presented, as to whether this was seen by the management of the HKFSD as a barrier to pride of workmanship or not.

**Fire Department of New York;** there were few barriers identified either during visits or interviews. On the contrary, mechanisms exist in the FDNY that encourage professional pride. These include the wide range of awards that are available for not only operational, but also distinguished administrative and command performance. Additionally, the high regard in which New York firefighters are held by the community they serve, acts as a constant incentive to perform professionally.

**Phoenix Fire Department;** in all areas other than operational command, where the PFD is similar to all other fire services investigated, there are few serious barriers to pride of workmanship. Members of the organisation who may wish to contribute to, or indeed change, the organisation, have clear routes available to them. The formation of the "self-directed work teams" is evidence of this.

**A Summary of the Position Overall, in relation to Deming's 12th Point:** Only one of the brigades investigated displayed any structural or procedural barriers to pride of workmanship, this being Hong Kong, where the highly bureaucratic structure and close ties to the colonial administration constituted at least an inhibiting factor. In New York and Phoenix there was little evidence of any actual barrier at all to those who would wish to contribute more fully.

In Hong Kong the demise of the British administration will remove the language hurdle to non-English speaking employees who wish to progress to officer ranks. This has been an arbitrary requirement in practical terms for some years, since the last ex-patriot officers from the UK retired. However, with the transition to government from Beijing a new language hurdle in the form of Mandarin Chinese will replace the present requirement for English, and will constitute another, perhaps equally arbitrary, barrier.

The West Midlands has few real organisational constraints of this kind. However, real problems of a different kind exist, as have been described in the relevant Chapter of this dissertation. It would appear that a "fear culture" impinges on the ability and desire of middle and junior ranking officers to do a great deal beyond what is required, other than at a trivial level, eg charity events and social and welfare issues. Change of any kind in

the West Midlands has usually been imposed from above in a non-participative and prescriptive way. The TQM initiative should have a positive influence in this area. There is indeed a need for uniformity of approach in many matters that a fire brigade deals with, but innovation and initiative should not be stifled.

There would appear to be little reason for any fire brigade being unable to benefit from adhering to Deming's twelfth point. The empowerment of personnel necessarily requires the removal of any identifiable barriers; the fact that the organisation must operate as a command organisation, with many sets of rigid procedures and methods, should not prevent removal of those constraints.

**POINT THIRTEEN; "Institute a vigorous education and self-improvement programme."**

**The West Midlands Fire Service;** support for extension of professional studies is as available to the personnel of the West Midlands Fire Service as anywhere else. There are few brigade-wide training initiatives underway, other than occasional procedural updates, or joint exercising. This is no different to the majority of UK brigades, most of which are holding back new training initiatives in anticipation of the introduction of National Vocational Qualifications for the fire service.

**Hong Kong Fire Services Department;** education and self improvement is evident in the HKFSD. The main avenues to development are through release to higher educational establishments for business school qualifications, with DMS's, BBA's and MBA's being reasonably common, and secondly through the Institution of Fire Engineers, a UK based organisation, the HK branch of which is well supported and the examinations of which are considered an essential requirement for promotion.

**Fire Department of New York;** education initiatives were not as evident in the FDNY as in the other fire services visited. In most UK fire brigades, as well as the HKFSD, aspiring promotion candidates are exploring all avenues of academic self development, primarily using the business school routes; this was not the case in New York. Discussions with officers of the department revealed that this is probably due to the extremely restricted promotion opportunities that have been available over recent years, as well as the fact that promotion is achieved solely by position in a league table, which is established by the results of competitive written examination. This examination is

entirely technically and procedurally based, and focused specifically on the FDNY rather than on generic fire service operations. There appears to be little incentive for candidates to invest time and effort in gaining broader managerial qualifications that have no direct impact on their career success.

**Phoenix Fire Department;** in the same way that New York personnel do not demonstrate any incentive to education and external study, the personnel of PFD are largely focused on their internal promotion and vocational training programmes. Once again, this is probably a reflection of the fact that personnel in US fire departments invariably remain in the same department until they retire, hence, the internal perspective is the relevant one. Having identified this, the internal programme in the PFD is one of the fuller programmes encountered outside the UK, particularly in terms of developing competencies, such as the procedures for incident command. The Phoenix Incident Command System (ICS) was developed for internal use, but has gained respect and is the basis of many used worldwide.

**A Summary of the Position Overall, in relation to Deming's 13th Point:** As described in detail in the relevant Chapters, none of the brigades actually fully comply with the spirit of this point although, in different ways, all thoroughly educate their personnel in procedure and technique and some positively encourage external further education. Unfortunately, almost all internal fire service training is prescriptive and by rote. Those who have gained additional skills and qualifications externally are often denied the chance to demonstrate their ability until they have achieved higher rank. By that time, many have become conditioned by the system. This position is currently being addressed in the UK, with the advent of "Competency based training", linked with the introduction of National Vocational Qualifications. This is intended to lead to a focus on quality, rather than quantity of training.

The fact that the US fire services have practically no transfer schemes to permit officers to develop by moving between organisations further inhibits ambition and the desire to enhance their professional profile. The self development that does exist is centred on progress through the department's specialist units, eg rescue or fire investigation, rather than through a managerial route as in the UK, HK and most of Europe. This has the effect of making the career development akin to the development of a craftsman in a trade rather than akin to a professional on a career path.

**POINT FOURTEEN; "Put everyone in the company to work to achieve the transformation."**

**The West Midlands Fire Service;** as the TQM initiative is in its early stages, it is not surprising that the scepticism that accompanied the launch is still evident. Clear examples of principal managers who have failed to "buy-in" to the philosophy reinforce this scepticism. Until conditions of employment change to permit managers to reward staff for better performance and personnel cease to be protected to the extent that they cannot be dismissed for incompetence, it is not clear that they will see a reason to work to achieve any transformation.

**Hong Kong Fire Services Department;** There was no clear evidence of this point being demonstrated in practice, probably because no "transformation" was considered to be underway.

**Fire Department of New York;** again, as no "transformation" is intended this point is somewhat irrelevant to the FDNY.

**Phoenix Fire Department;** the PFD is demonstrably making efforts to implement this. The level of employee involvement is high and much reliance is being placed on personnel "picking up the baton" in respect of the principles of TQ in general and empowerment of the personnel is an important element of that ideology.

Programmes such as the "Big Five" are intended to act as vehicles for the widest involvement of personnel, accepting at all times that a proportion of the workforce will refuse, or otherwise feel unable to buy-in to the philosophy.

**A Summary of the Position Overall, in relation to Deming's 14th Point:** Two of the brigades investigated had no pretence to any "transformation". Therefore, they cannot be criticised specifically for not appearing to have succeeded in putting their people to work to achieve it. However, Hong Kong and New York, whilst not overtly engaged on a quality improvement initiative, do strive to keep standards high in a more conventional way. Phoenix is apparently starting to experience some success in steering its workforce towards the achievement of its objectives. The West Midlands has yet to convince its workforce, including many of its managers, that the philosophy being promoted is genuine; until this is achieved progress will be uncertain.

## **References in Chapter Seven**

1. Englander D, "The Fire Brigades Union and its Members", a chapter contributed to "Forged in Fire, The History of the Fire Brigades Union", edited by Bailey V, Lawrence and Wishart, London, 1992, p117
2. West Yorkshire Fire and Civil Defence Authority, Standing Orders and Financial Regulations, Part B, para. 8.4 c.

## CHAPTER EIGHT

### CONCLUSIONS

This investigation was based on the hypothesis that the benefits of TQM and empowerment could extend to disciplined, hierarchical command organisations such as the fire service, but that there would appear to be factors limiting the extent to which initiatives modelled on the basis of commercial and industrial experience could be applied without any modification. This is considered to have been demonstrated by the experiences of, among others, Phoenix and the West Midlands. It is clear that whatever initiative is introduced, it must be done in a way that is sympathetic to the culture and traditions of the service.

There are relatively few examples available of successful implementation of Total Quality Management in uniformed, disciplined, public services with which the manager in the fire service can identify. The exceptions include the example of the chemical engineering industry, referred to in Chapter One, and perhaps also the Health Service, in the guise of hospitals and the ambulance service. Most organisations pursuing empowerment and decentralisation policies are following successful commercial models which are not directly reflected in any of the situations observed in the fire brigades visited.

In a disciplined command organisation, however, it is not advisable to remove all monitoring and supervision. Legal frameworks of health, safety and personnel law, as well as the "litigious society" insist that this is the case. The principle of empowerment suggests that employees, freed from hierarchical and organisational constraints, will perform far more effectively, be self motivating, and develop "ownership" of the processes. Translating the principles to the fire service context can enable the same to apply, but any initiative must be within clearer and more defined parameters. This clarity should help rather than hinder the empowerment process. To be properly accepted and consolidated at all levels, a structured approach to empowerment is needed to prevent the empowered people doing the wrong things. If they do, the tendency is for senior management to take back authority.



In Phoenix, A/Ch Kime defined the problem as being one where the employee would state "I buy into the principles and philosophy; but what do you want me to do?". A/Ch Kime believed this was a training and experience issue.

Empowerment must be defined by each organisation in the context of its own operating environment, and particular limiting factors. Organisations must be clear about how empowerment will differ from mere delegation in their particular situation.

### **Factors Limiting Empowerment in the Context of Operational Command:**

Empowerment, in the context of the fire service, hinges on successfully putting levels of authority, initiative and accountability at the properly identified level or tier within the organisation, including the times when it is operating in its primary role at a fire or rescue incident. This is something shared with all organisations that are seeking to empower and it recognises that the "appropriate level" may be a lower tier of the organisation than is conventionally accepted.

Command structures, in each of the otherwise quite different fire brigades studied, suggested that the operational command situation requires far more tiers than are generally encountered in the operations of commercial organisations. This is because, in the early stages of an operational incident, all channels of communication are invariably highly active. The result is the need for spans of control to be narrower, and for more tiers of management/command to be used to deal with the complexity. It is important, therefore, that staff at the operational level are trained to function effectively in these situations, so that the full command structure can remain effective in the instances when it is necessary and not "disempower" competent operatives at lower levels.

All brigades investigated were vulnerable to legal challenge in the event of their failing in their principal role of firefighting and rescue. They were also acutely aware of their moral responsibilities and duties in this respect. It was to the credit of all of the brigades visited, that the moral dimension took precedence in their considerations. Because of these factors, no brigade appeared to have been confident enough to "let go of the reins" in the operational command sphere, to any greater extent than they have done so far. Formal Incident Command Systems, with the principle of delegating tactical command of "sectors" to middle ranking officers, is as far down the line of empowerment in operational command as brigades have so far felt it possible or prudent to go.

The great taboo of the service, that one should never "second-guess" the decisions of an officer at the scene with the benefit of hindsight, has been reversed by the effects that litigation and public inquiries have had on the service. Now it is the practice to fully analyse and address any shortcomings in an open way, by debrief and open reporting. The increasing complexity of large scale incidents has demanded a shift in the way that fire service managers plan for and command operational incidents. The concept of one individual incident commander being the "sole director of operations", as enshrined in the Fire Services Act 1947, is now nearing obsolescence in practical terms.

Notwithstanding diverse managerial styles and operating environments, it was clear that the nature of the operational command task was very similar in each location. This gives some explanation to the fact, revealed by the investigation, that the command responsibilities and spans of control of similar ranking officers in each of the organisations were clearly comparable. Regardless of how keen managers appeared to be to facilitate and encourage empowerment, their operating and command styles on the incident ground were broadly similar.

Irrespective of their length of service, professional pride, or enthusiasm for progressive management initiatives, most officers interviewed accepted having command taken from them by more senior officers at the levels established in their particular organisations. Being prematurely relieved of command was, in some cases, considered a slight, but was never contested.

#### **Factors Limiting Empowerment in the Finance/Administrative context:**

All the brigades studied tended to reflect the hierarchical and bureaucratic approaches, developed to form a foundation for effective management of emergencies, in their non-emergency work. For example, none of the officers interviewed had the final say in the promotion of their subordinates. Only a minority had any role at all in the promotion of their direct subordinates or assistants. Such officers need to be given the greater ownership that involvement in these processes would bestow.

All brigades have highly bureaucratic and administratively burdensome disciplinary procedures that do not offer a great deal of discretion to the immediate line manager. As a result, middle managers frequently effectively bypass formal disciplinary routes in order to operate their own systems of admonishment and guidance. None of the

managers interviewed had effective sanctions available to them to address poor performance, or failure to meet targets within their areas of responsibility. None had the facility of any discretionary rewards for higher levels of achievement. Nevertheless, all had targets of varying kinds to meet. The method widely adopted to succeed, given these constraints, is close hands-on management and supervision. This prevents them from moving towards the position of being empowering, trusting managers, and no doubt frequently undermines the supervisory role, and authority, of subordinate managers. The common position of managers interviewed was that, without the basic tools of sanction and reward, they would be unable to stand back from the processes to the degree necessary to empower and trust. They would not be confident that personnel who were unwilling to "buy-in" to the initiatives would not disrupt or corrupt the progress of the others. A clear and accessible discipline procedure should not be seen as a barrier to empowerment; as Colonel Russel Sanders observed, discipline versus empowerment is not a contradiction, but a contrast (see Ch.1).

### **Factors Limiting Empowerment in the Context of Management Structure and Style:**

In the context of this dissertation, a command organisation is one in which the continuous thread of responsibility is clearer and more explicit than in a commercial or industrial concern. There are necessarily tight spans of control and the operating environment is often one in which failure may cost lives and suffering. All of the organisations studied demonstrated characteristics traditionally associated with command organisations, eg uniforms, ranks, and formalities of address (including Phoenix on the incident ground). Because they needed to be able to operate in a strict, disciplined command style at little or no notice, all officers recognised the value of these conventions and supported their continuation. The uniform, ranks, statutory Code of Discipline (or similar in the USA), tradition and culture are organisational characteristics that have long been regarded as strengths and do not detract from efforts to empower. Indeed, having identified that clearer frameworks are necessary in the fire service environment, they may be elements that have to be retained.

Variations in style, and perhaps degree of formality, were wider between individuals in each organisation than between the organisations themselves. There would appear to be no reason why levels of formality everywhere could not be as relaxed as in Phoenix and

New York when operating in the non-emergency mode, whilst retaining the ability to revert to a "tighter" style when the occasion demands. Equally, styles of uniform were incidental to the levels of discipline and performance; however, the principle of a smart, recognisable team identity, kept in good order at all times, would appear to be important.

While there were apparently great differences in the number of tiers of management in the four fire brigades visited (they ranged from seven to fourteen), it became clear that, once the size of the organisation and number of personnel had been considered, the spans of control of officers at any level were broadly comparable across the range. Availability of sanctions/incentives to middle ranking officers would no doubt facilitate a widening of the spans of control and a reduction in the number of tiers.

Parasuraman *et al* (1) suggested that there are three characteristics of a service that must be considered; Intangibility (services cannot be stored); Heterogeneity (consumers of the service do not all have the same needs and interests); Inseparability (the production of a service cannot be separated from its consumption). These identified characteristics are useful for the fire service to consider when devising operating frameworks. All apply fully to the range of services provided by fire brigades.

Block (2) demonstrated that the principles of empowerment are inextricably linked with the politics of an organisation and the individual's responses to that situation. The solution he offers is that, to achieve empowerment, an individual must become organisationally politically aware, or "political without being manipulative". This has been shown to apply equally to the manager trying to bestow or facilitate empowerment.

Some matters that impinge on the culture of the fire service were identified during the investigation, as follows. First, the fire service is burdened with a range of restrictive practices that influence the way that officers manage the service, particularly in times of tighter funding. Restrictive practices are to be found to a greater or lesser extent in all of the UK full-time fire service. The net result is a reduced quality of service to the public and sometimes strained industrial relations. This undermines trust and confidence and reduces the likelihood of success of any TQM style initiative. These practices are as great a barrier to the success of empowerment as any aspect of culture or tradition and need to be removed.

Secondly, the word "Customer" is slowly gaining acceptance in the fire service.

Particularly, the concept of the "internal customer" is very important to any consideration of TQM in the context of the fire service. Training and discussion must continue in order to improve the understanding of these problems by staff at all levels.

Thirdly, the investigation, particularly in the West Midlands, Hong Kong and Phoenix, suggested that an organisation that has traditionally relied on a disciplined workforce can be influenced by the changes in society that cause staff to react against regimentation. Equally, the environmental influences of the host society will set the agenda in terms of how far and how quickly an initiative can progress and whether it will ultimately be successful. For example, in the Hong Kong Fire Services Department empowerment initiatives would not appear to be a practical way forward in the short term. Any initiative would probably be hampered by superiors not willing to hand over the reins, and the subordinates not having any particular desire to take them. This being the case, the questions of cost/ benefit, and whether it would add value to processes are irrelevant. There was little doubt in the mind of the author that this situation reflected the national culture very closely. It clearly indicated that initiatives such as those under consideration could not be isolated from the social, political and wider cultural environment within which the organisation operates. As Maslow showed, not all staff want to be empowered.

Phoenix Fire Department is currently implementing several "empowerment" initiatives that are unique in a fire service context. These include self-directed work teams, in the guise of District Teams, which are demonstrating success. This experiment should be extended and attempted elsewhere. The managerial atmosphere is quite relaxed in Phoenix; it was concluded that the uniform, which is informal and similar for all ranks, and the stated policy of the organisation to "support a failure", contributed to this atmosphere.

It appeared realistic to consider empowerment a practical goal in Phoenix. The principles were well understood by the workforce, and the socio-political setting was favourable. In the opinion of its chief officer any costs of implementation were balanced by fewer complaints, higher standing within the community, and ease of securing funding as a result. The balance between empowerment and control was tilted decidedly towards trusting the individuals and crews, despite the USA being such a litigious society.

## **Conclusions Reached Against Deming's 14 Points**

The main analysis was conducted in relation to Deming's 14 points; therefore, the conclusions against each are now considered point by point:

### **Deming's 1st Point: "Create constancy of purpose to improve products and services."**

Although it has been concluded that Deming's first point did not appear to be a significant area of difficulty for any of the brigades, there was no clear link between this constancy of purpose and the required continual improvement. It is concluded that this has more to do with the services provided being complex than with any unwillingness to accept criticism as part of a "Deming cycle". The necessary links should be forged.

### **Deming's 2nd Point: "Adopt a new philosophy for the new economic age by management learning responsibilities and taking leadership for change."**

All of the fire brigades investigated were experiencing environmental change and most were responding by attempting to change their managerial style and approach as a result. In some brigades, it is possible to identify short-termism and a failure to appreciate the input and investment of effort needed by management for change initiatives to succeed. Experience and perseverance will be necessary before the correct approach becomes apparent and realistic timescales can be identified.

### **Deming's 3rd Point : "Cease dependence on inspection to achieve quality; eliminate the need for mass inspection by building quality into the product."**

The traditions of all of the fire brigades investigated rested solidly on a base of a command and control style of management. In the brigades studied there was close supervision and control of the process by management and spans of control were maintained at relatively narrow levels; four to eight were considered the norm. There was little evidence of the culture changing at this early stage to permit control of operational processes to be vested in the watch commanders or watch level personnel. Until this change of emphasis occurs, there is little chance of ownership of the processes being transferred from the divisional or brigade level to the fire station and of responsibility for quality of service being assumed by those who deliver it. The cultural dimension is most important in any consideration of the issue of control in a fire service, particularly if management is contemplating transferring or relinquishing part of it.

The clearest evidence of a barrier, which limited the potential for the fire service to change its traditional methods in compliance with Deming's third point, was found in the Phoenix Fire Department. Although there was a stated objective to transfer responsibility to the level of service delivery, spans of control for middle ranking officers were practically the same as in the UK, Hong Kong and New York. The conclusion reached is that there was a limiting factor influencing this area of management that was beyond the power of even a charismatic and successful leader like Brunacini to change.

**Deming's 4th Point: "End awarding business on price; instead minimise total cost and move towards single suppliers for items."**

As arms of local authorities, none of the fire brigades investigated were in a position to explore the benefits of adherence to Deming's fourth point. This is a consequence of various Financial Regulations which are in place to ensure that there is no possibility of corruption in dealings involving public resources. The conclusion reached is that it is better to have these tendering and quotation procedures in place because of the discipline and openness it gives to the process of purchasing and supply and the protection it gives to officers of the various authorities. Such a clearly defined and legitimate constraint in no way acts as a barrier to empowerment.

**Deming's 5th Point: "Improve constantly and forever the system of production and service, to improve quality and productivity, and to decrease costs."**

Phoenix Fire Department's "Big Five" programme directly encourages personnel to think in terms of quality of service delivery and how this could be improved. A major part of the "Big Five" is the exhortation to "Critique and follow up on lessons learned to continually improve". This is clearly in close compliance with the principle of Deming's fifth point, as well as part of his Seven Point Action Plan, and might be used by other brigades wishing to make progress in this area. The West Midlands Fire Service is starting to use a recognisable continuous improvement cycle, which should bring about same results.

**Deming's 6th Point: "Institute training on the job."**

All of the brigades visited complied with this point. It was noted that the US approach incorporates a continuing process of validation of the operational competence of personnel.

**Deming's 7th Point: "Institute leadership; supervision should be to help do a better job; overhaul supervision of management and production workers."**

The concept of "managers as leaders" was respected in all of the organisations investigated. However, many officers who took obvious pride in their competence in operational command leadership appeared less concerned about their leadership profile in administrative and managerial matters. There would appear to be a lack of motivation and incentive to perform well in these less high profile areas of fire service work, other than for the few striving for career progression.

**Deming's 8th Point : "Drive out fear, so that all may work effectively for the organisation."**

The four main fire brigades investigated were quite different in relation to point number eight. Phoenix Fire Department was free of any flavour of "fear factor" because of a stated managerial policy of eradicating such managerial styles, as well as close and successful employer/ employee cooperation. In New York there was no evidence of a fear culture. In the West Midlands there was some evidence of a fear culture, but this has been exposed by principal management and the stated aim is to change; this is necessary before the trust required by any empowerment initiative can build.

**Deming's 9th Point: "Break down barriers between departments; research, design, sales and production must work together to foresee problems in production and use."**

"Segmentalism" was a problem in all of the fire services investigated, usually in a structural, as well as cultural form. The problem is that front line firefighters can fail to understand that other departments and sections within the organisation can be their customers, rather than the other way round. The structures and cultures observed have produced divided, and subdivided, organisations. This is considered to be partly attributable to the nature of a command organisation, characterised by hierarchical and bureaucratic structures and procedures. Any initiative taken to reduce the degree of structure-driven segmentalism (such as Divisions being replaced by a Functional Management structure) should have a positive impact. This is an area where further research would be of value.

**Deming's 10th Point: "Eliminate slogans, exhortations and numerical targets for the workforce, such as zero-defects, or new productivity levels. Such exhortations are diversory (sic) as the bulk of the problems belong to the system, and are beyond**



**the power of the workforce."** All of the fire brigades visited used targets, slogans etc. to some degree. In Phoenix "The Big Five" offers some direction to the overall pursuit of "Service Excellence", which many organisations attempting to pursue this goal omit to give. As it is pointless empowering people unless those people know clearly what to do, compliance with the point may not be helpful for brigades and it is concluded that it is necessary to depart from Deming's guidance in this area.

**Deming's 11th Point: "Eliminate quotas or work standards, and management by objectives or numerical goals; substitute leadership."** There were quantifiable goals and objectives in each fire brigade visited, however, none had a meaningful approach to the enforcement of these targets. It was concluded that this fact resulted in the need for administrative spans of control to be kept at similar levels to the operational command spans of control. Without effective sanctions against under performance, or discretion to reward success, the effectiveness of the middle manager is reduced and levels of supervision have to be kept inefficiently high.

**Deming's 12th Point: "Remove barriers that rob people of their right to pride of workmanship; hourly workers, management and engineering; eliminate annual or merit ratings and management by objectives."** The investigation did not reveal any serious structural or procedural barriers to pride of workmanship. Some minor problems of this type could be attributed to the style of management. In turn, before this can change, managers must be confident that the organisation will continue to function effectively with a reduced level of supervision. There would appear to be little reason for any fire brigade being unable to benefit from adopting Deming's twelfth point.

**Deming's 13th Point: "Institute a vigorous education and self-improvement programme."** As described in fuller detail in the relevant Chapters, none of the brigades actually comply with the spirit of this point fully, although all, in different ways, educate their personnel thoroughly in a vocational context and in procedure and technique.

**Deming's 14th Point: "Put everyone in the company to work to achieve the transformation."** The West Midlands has yet to fully convince its workforce, and in fact many of its managers, that the philosophy being promoted is genuine; until this is achieved progress towards its quality goals will be uncertain, nevertheless progress is being made. Phoenix is well advanced in putting everyone to work; this validates the approach it has taken, and the investments it has made.

**Summary of the Conclusions reached against Deming's Fourteen Points, and Recommendations for future Management Action.**

<b>DEMING'S POINT</b>	<b>CONCLUSION</b>	<b>RECOMMENDATION</b>
<p><b>POINT ONE</b>  <b>"Create constancy of purpose to improve products and services."</b></p>	<p>No real problem for fire brigades; all displayed positive signs.</p>	<p>Effort needs to be invested to focus this constancy of purpose into a clear pursuit of continual improvement. Systems should be put in place.</p>
<p><b>POINT TWO</b>  <b>"Adopt a new philosophy for the new economic age by management learning responsibilities and taking leadership for change."</b></p>	<p>Most brigades trying to change managerial style, but there is much evidence of short-termism.</p>	<p>Experience needs to be accumulated and applied; perseverance will be necessary.</p>
<p><b>POINT THREE</b>  <b>"Cease dependence on inspection to achieve quality; eliminate the need for mass inspection by building quality into the product."</b></p>	<p>Limitation identified; a command organisation such as the fire service, or indeed others involved in complex processes, cannot cease inspection totally.</p>	<p>Any form of inspection considered necessary to maintain the organisation's integrity should be as open a process as possible, and slanted towards support rather than "inquisition".</p>
<p><b>POINT FOUR</b>  <b>"End awarding business on price; instead minimise total cost and move towards single suppliers for items."</b></p>	<p>Limitation identified; public services and authorities cannot be free to choose single suppliers due to audit rules.</p>	<p>No action necessary.</p>

DEMING'S POINT	CONCLUSION	RECOMMENDATION
<p>POINT FIVE</p> <p><b>"Improve constantly and forever the system of production and service, to improve quality and productivity, and to decrease costs."</b></p>	<p>All fire brigades should be able to benefit from this principle; Phoenix's "Big Five" was a good practical model. West Midlands is using a PDCA cycle.</p>	<p>Personnel need to be given clear guidance as to how they can apply the principles of TQM, which they may readily "buy-in to", but not be able to progress unassisted.</p> <p>Involvement in continual improvement is a good starting point.</p>
<p>POINT SIX</p> <p><b>"Institute training on the job."</b></p>	<p>All brigades comply; US brigades also validate competence.</p>	<p>Greater focus on competence based training needs to be made, to ensure the training given is appropriate to the individual and the organisation.</p>
<p>POINT SEVEN</p> <p><b>"Institute leadership; supervision should be to help do a better job; overhaul supervision of management and production workers."</b></p>	<p>Brigades tend to comply, but this needs to be fully extended to the non-emergency field as well.</p>	<p>Fire service officers need to be guided towards greater competence as general managers, as well as being competent as operational commanders.</p>
<p>POINT EIGHT</p> <p><b>"Drive out fear, so that all may work effectively for the organisation."</b></p>	<p>Varying degrees of "fear" were found in brigades; this tended to be used as a substitute for the tension generated in other organisations by fear of redundancy, loss of bonus, uncertain security etc.</p>	<p>Unlikely to be changed until the employment conditions of firefighters, and public service employees generally, change significantly, to resemble those in the private sector more closely.</p>
<p>POINT NINE</p> <p><b>"Break down barriers between departments; research, design, sales and production must work together....."</b></p>	<p>All brigades demonstrated signs of interdepartmental barriers and divisions, often formalised into the structure.</p>	<p>Any initiative to reduce the structure-driven organisational divisions should be beneficial.</p>

DEMING'S POINT	CONCLUSION	RECOMMENDATION
<p><b>POINT TEN</b>  <b>"Eliminate slogans, exhortations and numerical targets for the workforce, such as zero-defects, ..... as the bulk of the problems belong to the system, and are beyond the power of the workforce."</b></p>	<p>All brigades used some form of slogan, exhortation etc., but mainly to meet legitimate goals, rather than overcome problems inherent in the system. This was not considered to be counterproductive.</p>	<p>No action necessary, based on the findings of the investigation; however, managements may wish to ensure that the exhortations they do use are clearly reminders, prompts etc. as intended.</p>
<p><b>POINT ELEVEN</b>  <b>"Eliminate quotas or work standards, and management by objectives or numerical goals; substitute leadership."</b></p>	<p>Quotas and targets existed in all brigades and these were considered necessary to achieve effective control at the minimum identified necessary level.  Targets regarded as meaningless will be ignored or false returns given.</p>	<p>Managers need sanctions and reward mechanisms to enable them to stand further back from the processes. In the UK at least, this will require changes to national agreements. All targets must be real, achievable and agreed.</p>
<p><b>POINT TWELVE</b>  <b>"Remove barriers that rob people of their right to pride of workmanship .....etc."</b></p>	<p>No structural barriers to pride of workmanship were identified in any brigade; however, managerial attitudes and styles may be hampering the ability of subordinates to perform to the full.</p>	<p>Managerial attitudes and styles need analysing to ensure that subordinates are being given sufficient freedom and authority to perform effectively at all times.</p>
<p><b>POINT THIRTEEN</b>  <b>"Institute a vigorous education and self-improvement programme."</b></p>	<p>Degrees of compliance varied; in-house programmes of training were mainly vocational.</p>	<p>Broader managerial training for fire officers would be beneficial, especially in brigades trying to change their culture.</p>

DEMING'S POINT	CONCLUSION	RECOMMENDATION
POINT FOURTEEN "Put everyone in the company to work to achieve the transformation."	The brigades where change is being attempted appear to have been unsuccessful in convincing their workforces of their motives.	Greater managerial "transparency" required. This will not compromise any aspect that a "command" organisation would legitimately want to preserve.

### Final Conclusions of the Investigation

- Formal incident command systems were considered to afford a degree of empowerment to operational personnel. They provide clear and structured frameworks for action and decisions in the difficult operational command situation. The procedures are empowering, as they give clear guidance on what is required, without being prescriptive as to how it is achieved.
- Managerial structures and styles were shown to be effective indicators of the degree of empowerment existing in an organisation. Evidence gathered during the course of this investigation suggests that there is a relationship between the lack of powers available to management to reward or punish, and the number of managerial tiers. Arguably, where there is no sanction, there is no deterrence to poor performance, resulting in a greater and continuing need to supervise, and "inspect-in" quality. This is very wasteful of managerial time and demands the maintenance of the narrower spans of control that were invariably identified. It is concluded that the structure is not exclusively a product of the nature of the task, but of the constraints imposed on management in such organisations. Managers need to be empowered as well.
- A clear example of the above has been shown to exist in the area of discipline. Officers must be empowered to exercise their responsibilities as they see fit,

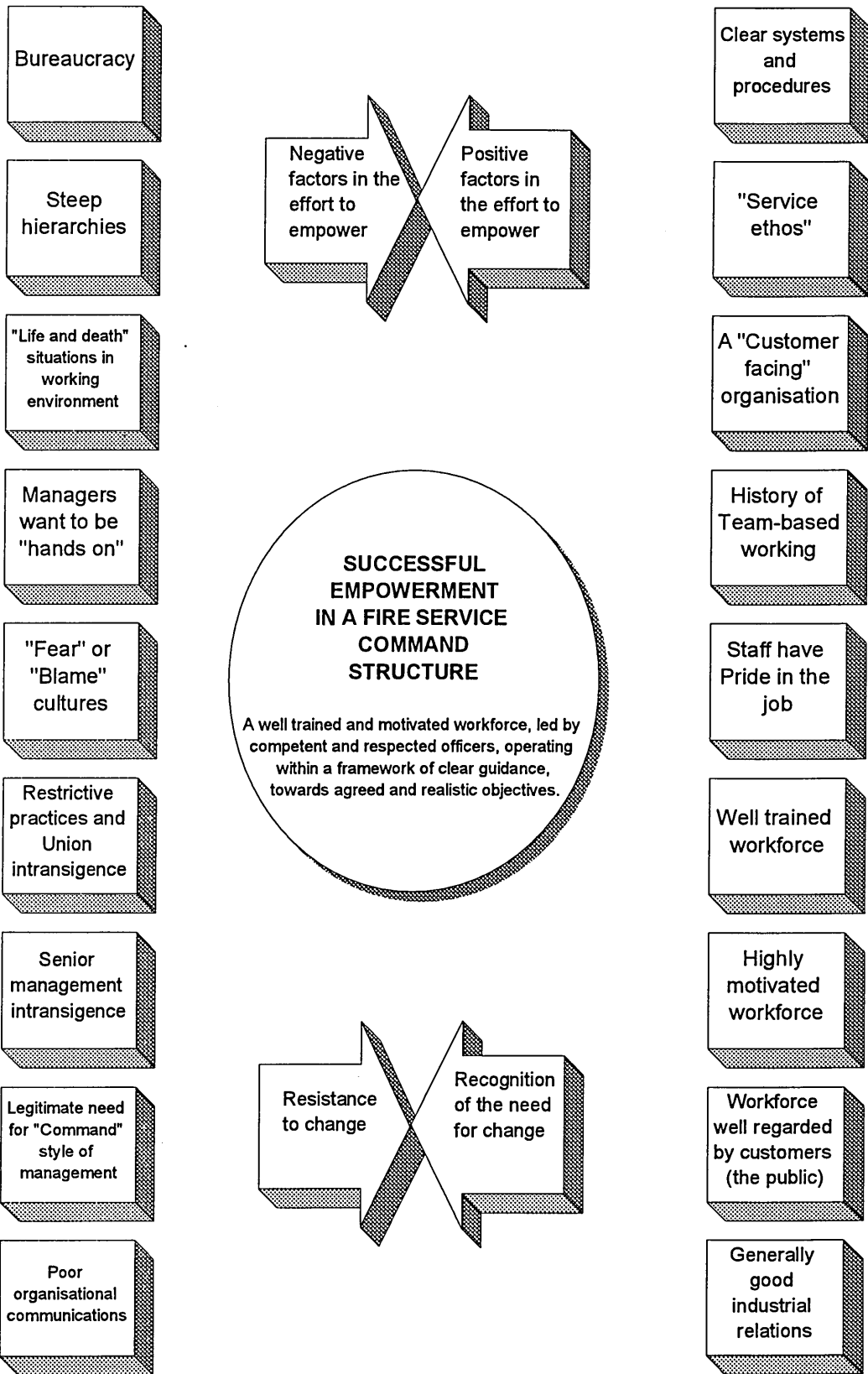
within a clear policy framework. If they are not permitted to do this formally, they will find ways around the problem to enable them to manage effectively despite the system. A danger for the organisation is that the close familiarity that develops on a fire station watch could result in less motivated managers failing to sustain the levels of discipline required by the organisation. This in turn would mean that varying standards could emerge on different watches within the same organisation, or even on the same station. Senior management may then feel the need to consider the imposition of controls, and withdraw freedoms that had been extended.

- The discourse on the nature of the fire service in the discipline context serves also to demonstrate an important facet of fire service culture, as identified by Englander. That is that the strength of, and identification with, the watch team is closer and more powerful than identification with the greater organisation. This is perhaps necessarily so given the nature of fire service work. This, combined with the clear focus on the external customer that has been shown to exist in all of the fire brigades studied, suggests to the author that the fire service is fertile ground for true empowerment initiatives. However, the way in which any initiative is introduced must be sensitive to the differences in the fire service as a type of organisation. The line must be clearly drawn to show where empowerment and freedom of initiative ends, and command and control resumes. This is successfully done already at operational incidents and can be seen in a comparable industry at Zeneca, as described in Chapter One.
- Recognising that if there were effective sanctions for failure there would probably be less need for the narrow spans of control that have been revealed in the fire service generally, would appear to be an argument in favour not only of greater availability of sanctions to the middle tier supervisor but of such devices as performance related rewards, short term contracts etc. Such measures would directly conflict with Deming's philosophy but would permit these artificially narrow spans of control to be expanded and enable managers to become less "hands-on".
- The findings from the visit to Hong Kong made it clear that any investigation into whether an organisation could benefit from empowerment must give due consideration to the political, social and cultural environment of the organisation,

in which the characteristics of the organisational culture are rooted.

- It was the opinion of the author, based on the tenor of the interviews conducted, that all the brigades visited had good morale. This could be because in all four places, the "Hygiene" factors of pay, conditions, social needs and status were satisfied. Any model for implementation in a disciplined service should recognise the importance of morale.
- It is concluded that, in several instances, organisations and individual managers felt that they were adhering to some notion of devolution or empowerment, but were in fact paying lip service to the concept. It would suggest that sometimes there is a gap between the concept and the form it takes in implementation. Training and development of managers is clearly important in this respect.
- Based on the evidence of the "Big Five" initiative, the success of the "District Teams", and the general attitude of the personnel interviewed, it is believed that Phoenix Fire Department is experiencing some success in moving towards an empowered workforce. It is not racing towards an ideological goal, but progressing in a way that it believes will result in a better service to the community. Empowerment, to the extent that it exists, has proven a successful vehicle for process improvement. Cultural considerations must weigh heavily in the decision about whether to attempt to change attitudes in this way.
- The hypothesis upon which this investigation has been based must, therefore, be widened and it must be emphasised that neither fire service cultures, nor command structures alone, determine or limit the degree of empowerment of a workforce. The national culture and socio-political forces must be added to the equation. For successful implementation, a compromise must be found that will permit the benefits of empowerment to be realised as far as these constraints will allow.
- TQM, and empowerment, are packages that can only be delivered if certain basic conditions prevail. The socio-political environment and culture must permit it; the organisational culture must offer an opening; the leader of the organisation must believe in and drive the initiative and the individual member must wish to participate.

## An Empowerment Initiative for the Fire Service





## **Summary: An Empowerment Initiative for the Fire Service**

The findings of this investigation have been condensed into a model (previous page) which represents the main issues that would invariably be faced by a fire brigade embarking on an empowerment initiative. Strengths common to all of the brigades investigated are represented on the right; the left side shows difficulties that the managers of the initiative would have to overcome. Some will remain as constants, such as the hazards of the job, and will result in other constants, such as the need for a command style of management at operational incidents. The conflict between the appreciation of the need to change and the desire for the maintenance of the "status quo" that was equally clear in the brigades that had already commenced an initiative of this type is also represented. The central element of the model, which represents the objective of the initiative, recognises that empowerment in the fire service does demand that morale and good leadership from officers are key elements and that a framework of clear guidance is essential to success.

## **Summary of Chapter Eight.**

Certain questions have been suggested throughout this investigation. For example, is empowerment within a command hierarchy a practical objective? The conclusion that has been arrived at during this investigation, is that empowerment is indeed a practical objective. However, the success or failure of any initiative revolves around how well "empowerment" has been defined and contextualised for both managers and other employees. Many apparent constraints are not due to the nature of the fire service as a command organisation, but variously, its status as an arm of local government, an enforcer of legislation, and as a mirror of the national culture that constitutes its environment.

Another question might be, what is the correct balance between empowerment and control? In the complex, political, and hazardous world of fire brigades and their operations, it is naïve to believe that empowerment can succeed merely by removing long standing controls and procedures. The fire service does not perform simple tasks, such as road sweeping, where a failure can be readily identified and corrected at relative leisure; nor does it make a simple product, which can be taken or left by the consumer. In common with other professional services such as hospitals, the justice system, and the police, the services delivered are complex and have a considerable moral dimension. This

makes the constraints very different for a manager in the fire service as opposed to a counterpart in commerce or industry. The nearest parallel to the fire service in these terms in industry is probably that of the chemical manufacturers, discussed in Chapter One, where the stakes in terms of litigation, health and safety, and political interest are high. Nevertheless, the driving ethos in that industry is profit, not service.

Finally, it must be asked, is such an initiative worth the effort? Will the organisation benefit in a measurable way from the processes involved and will the process eventually "add value" to fire brigades' service delivery? It is concluded, principally from the experiences of Phoenix, that it is worthwhile to explore such initiatives. They not only have a positive impact on the consumer of the service but also create greater care, involvement and awareness amongst staff. This will be very important in the UK fire service in the coming decade, given the political and financial challenges it will face. Many familiar practices will be focused upon in great detail and forcefully challenged; without the awareness that participation in TQ and empowerment initiatives can provide, staff will be ill equipped to participate in structuring the fire service of the twenty-first century and may become marginalised. The final consideration in this respect, as revealed during the interviews with many senior officers in the four locations, is that it would be futile for the fire service to attempt to preserve a structure of long standing practices and traditions when the values and frameworks of society are changing so rapidly around it.

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**"THE LIMITATIONS TO EMPOWERMENT  
IN A COMMAND STRUCTURE"**

**QUESTIONNAIRE**

**A. Questions in the command context :**

A.1. At what size and level of operational incident does your rank level respond?  
(Please answer in terms of number of personnel involved)

1-20..... 21-40..... 41-60..... 61-80..... 81-100..... 100+.....

Do you feel this is appropriate?

Yes..... Do not know..... No.....

A.2. At what level of operational incident would your rank level expect to assume  
command? (Number of personnel involved)

1-20..... 21-40..... 41-60..... 61-80..... 81-100..... 100+.....

Do you feel this is appropriate?

Yes..... Do not know..... No.....

A.3. At what level of operational incident would you expect a more senior officer to  
arrive, and take command from you?

1-20..... 21-40..... 41-60..... 61-80..... 81-100..... 100+.....

Do you feel this is appropriate?

Yes..... Do not know..... No.....

A.4. How many times in an average operational year will you:

(a) attend an incident, .....

(b) assume command of that incident, .....

(c) subsequently have command taken from you by a more senior officer?

.....

A.5. Does the organisation have an operational incident command system?

Yes..... No.....

Does it give clear responsibility to various rank levels, eg sector commanders, crew commanders, and specialist officers?

Yes..... Do not know..... No.....

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## **B. Questions in the finance/ administrative context:**

B.1. What budgetary control or monitoring responsibility do you have?

More than I need..... Enough..... Less than I need.....

B.2. What financial spending limits apply, before approval has to be found from a higher managerial level?

Amount .....

B.3. What influence do you have with regard to the promotion procedures of your direct subordinates?

I promote..... I assist in promotion interview.....

I make recommendations..... I have little involvement.....

Do you feel this is sufficient?

Yes..... Do not know..... No.....

B.4. What disciplinary measures do you have at your disposal, without seeking further clearance or approval?

.....

.....

.....

Are these sufficient?

Yes..... Do not know..... No.....

B.5. How often (per year) are disciplinary measures invoked by you, (or proceeded with having been referred by a subordinate rank)?

.....times (approximately)

B.6. What responsibility do you have for the welfare and personal development of your subordinates?

A major role..... A supporting role..... No role.....

B.7. What responsibility do you have for the continuation training of the personnel under your control?

I follow a set schedule without variation.....,

I interpret requirements.....,

I have complete freedom to determine what is needed and do it.....

I have no responsibility.....

B.8. Do any targets have to be met in relation to:

(a)training,

Yes..... Do not know..... No.....

(b) Fire prevention inspections (of public buildings etc),

Yes..... Do not know..... No.....

(c) Inspections of water supplies,

Yes..... Do not know..... No.....

(d) public relations activities (eg open days, community visits, fire safety education)?

Yes..... Do not know..... No.....

(Please specify.....)

B.9. If targets have to be met, what are the consequences for the post-holder, within the organisation, of failing to meet those targets?

Affect pay..... Affect career..... Affect reputation.....

No impact on above.....

B.10. If targets are set, what account is taken during the setting of those targets of the levels of operational activity at the particular location/ fire station?

Considerable account..... Little account..... No account.....

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### **C. Questions regarding managerial structure and style:**

C.1. How many tiers are there in your organisation from firefighter up to the highest rank?

.....

C.2. If the top tier is number one, at what tier number do you operate?

.....

C.3. Does the organisation "flatten itself" functionally, i.e. are levels sometimes missed out for particular functional purposes such as operational command, fire safety inspections, administration etc.?

Yes..... Do not know..... No.....

C.4. Are formal styles of address used between rank levels in the organisation?  
(E.g. "sir", "madam")?

Yes, always..... Sometimes..... Never.....

Do you agree with this?

Yes..... Do not know..... No.....

C.5. If always used, do you believe that this assists your managerial/ command task,  
or that it has no bearing on it?

Assists..... Do not know..... No bearing.....

C.6. Is full uniform, including cap, always worn when on duty?

Yes..... Usually..... No.....

C.7. Is full uniform, including cap, always worn when in public view?

Yes..... Usually ..... No.....

C.8. Is the uniform distinctly different for various rank levels within the organisation?

Yes..... No.....

C.9. If it is different, do you believe that this assists your managerial/ command task,  
or has no bearing on it?

Assists..... Do not know..... No bearing.....

C.10. Do you distinguish between the parts of your task that constitute "command", and those parts that constitute "management"?

Yes..... Do not know..... No.....

C.11. If "yes" do you consciously use different attitudes or approaches to your subordinate ranks when engaged in either command or management?

Yes..... Do not know..... No.....

C.12. Are there associations or clubs within the organisation specifically for certain ranks, that exclude other ranks (eg an officer's mess)?

Yes..... Do not know..... No.....

C.13. If "yes" does the existence of that association assist you in your managerial function, or has it got no bearing on it?

Assists..... Do not know..... Has no bearing.....

C.14. Do officers of your rank/position feel free to go to more senior officers of the organisation for support/advice without any inhibition?

Yes..... Only sometimes..... Never.....

C.15. Are officers of your rank/position regularly approached by more junior personnel for support or advice?

Regularly..... Not regularly..... Never.....

C.16. Are there social occasions where all rank levels mix freely, eg sporting events, trips, informal parties etc?

Yes, often..... Not often..... Never.....

C.17. If there are, do you believe that they assist your managerial job, or have no bearing on it?

Assist..... Do not know..... Have no bearing .....

C.18. If there are no such occasions, do you believe that such occasions would be beneficial, either personally or organisationally?

Yes..... Do not know..... No.....

C.19. Does the organisation encourage inter-station or divisional competition of any kind (eg efficiency, or sporting)?

Yes..... Do not know..... No.....

C.20. If so, do you believe that this assists your managerial function, or has no bearing on it?

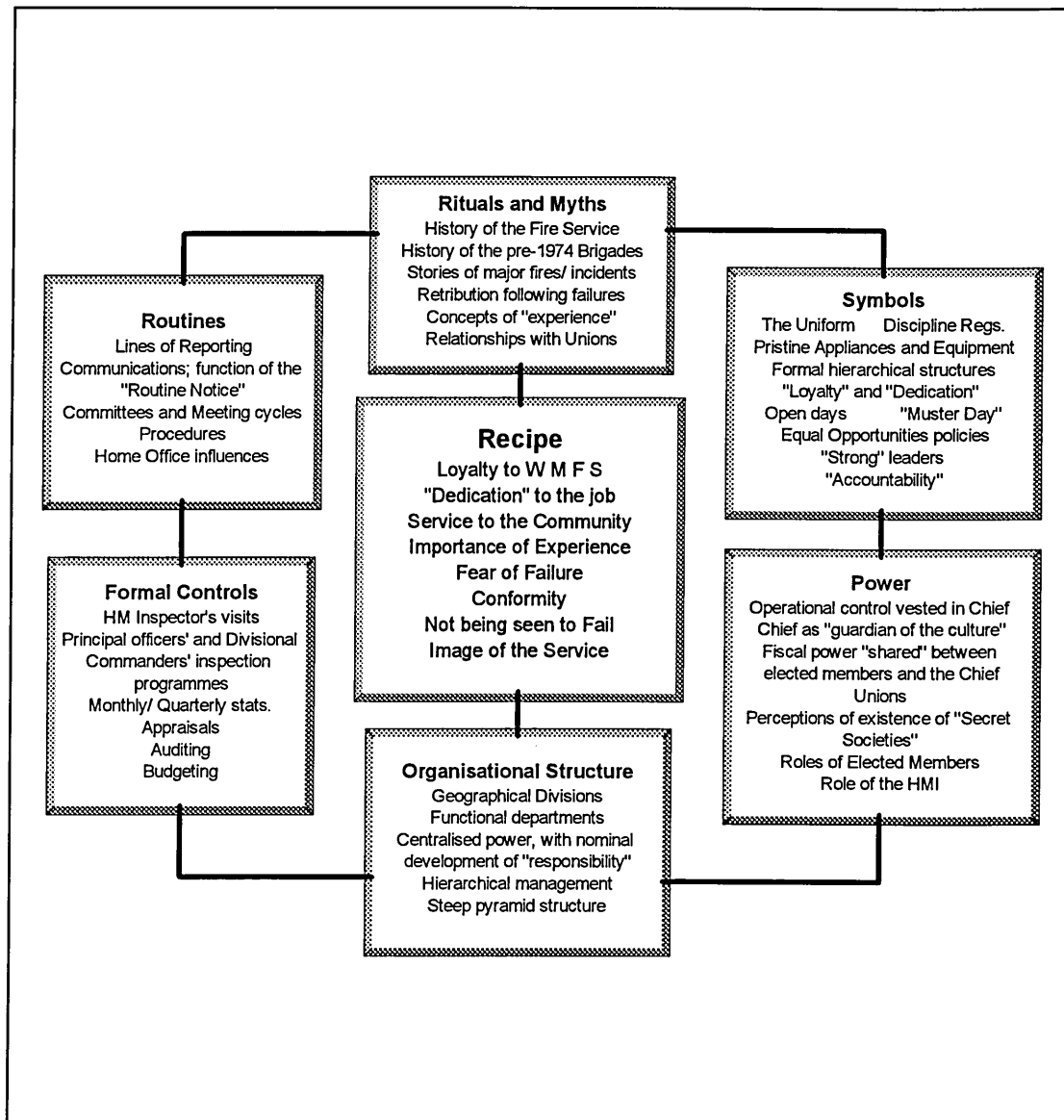
Assists..... Do not know..... No bearing.....

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D. Please make any **comments or observations** that you would wish to add to this brief questionnaire, that would assist the author in the assessment of the "managerial atmosphere and style" of your organisation.

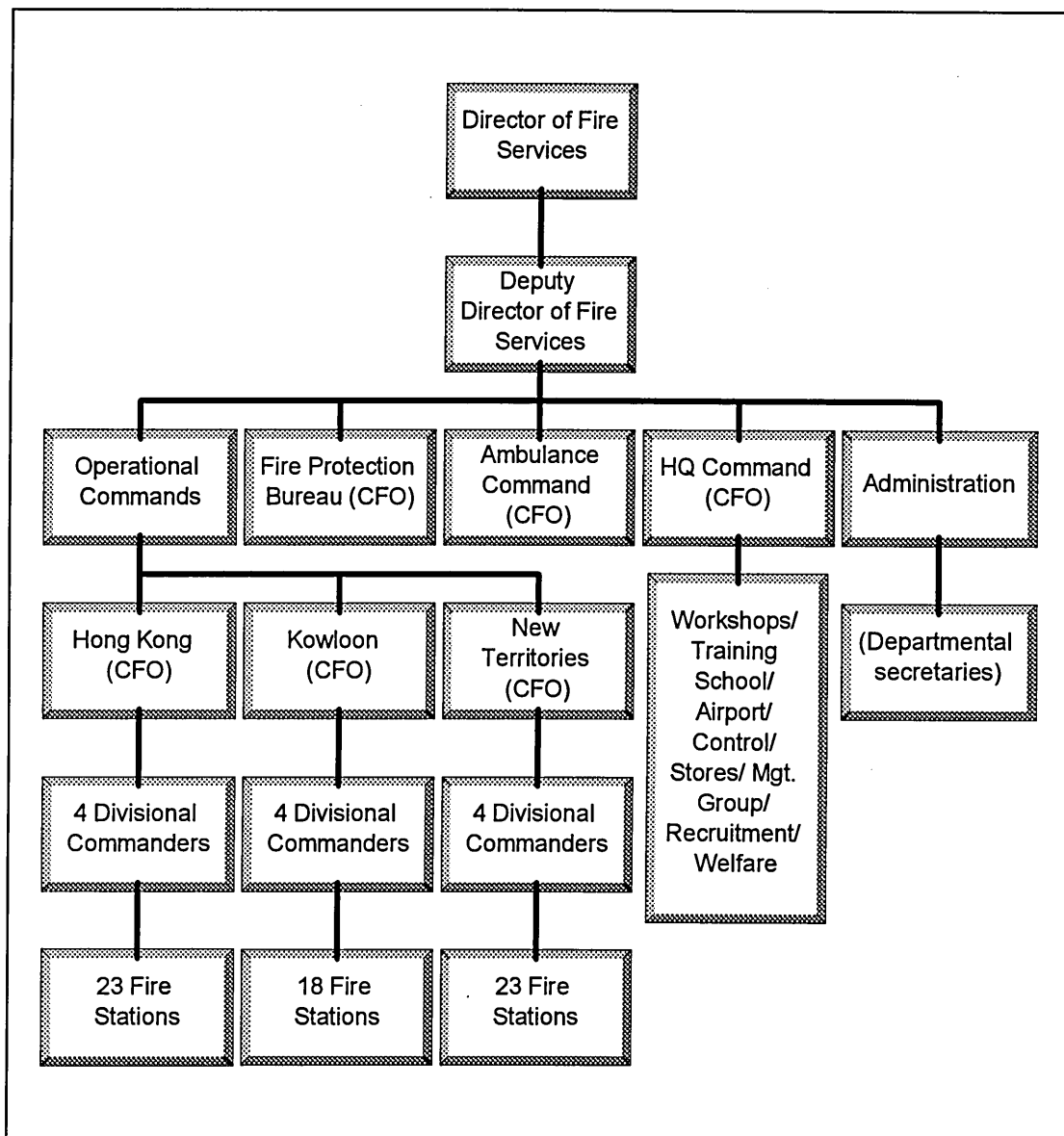


## The Cultural Web of the West Midlands Fire Service



(Source: adapted from a model by Johnson and Scholes, 1989)

# Hong Kong Fire Services Department Organisation Chart



## Notes:

1. Ambulance Command has 29 stations spread over six divisions, 2 in each of the 3 fire commands.
2. Officers in "Administration" are civil servants whose careers are not linked to

the fire service other than for their period of attachment to that particular reference.

3. Fire Protection Bureau has offices in each of the fire commands, the activities of which are overseen by the relevant Divisional Commander for line management purposes, but from the central Bureau for policy etc.
4. The ranks that exist from the top to the bottom of the HKFSD are as follows:

Director  
Deputy director  
Chief Fire Officer  
Deputy Chief Fire Officer  
Senior Divisional Officer  
Divisional Officer  
Assistant Divisional Officer  
Senior Station Officer  
Station Officer  
Probationary Station Officer  
Principal Fireman  
Senior Fireman  
Leading fireman  
Fireman

## Appendix D

An extract from **General Order 41/7** of the Hong Kong Fire Services Department as in force in January 1994, which refers to **alarm levels**.

The abbreviations used are detailed below the table.

<b>Class of incident</b>	<b>Attendance (Appliances)</b>	<b>Attendance (Officers)</b>	<b>Remarks</b>
No1 Alarm	MP, HP, TL, LRU	StnO/SStnO Inform SDO/DO	A standard first attendance, which varies slightly with the reported risk
No2 Alarm	See remarks. Special equipment as necessary added to the above.	As above	This is a special alarm category which covers the first call to special risks, such as the airport, oil terminals etc.
No3 Alarm	3MP, 2HP, 2TL/Snkl, 2LRU, MCU, BAT, FBt, ET, 4 Misc.	SDO/DO Inform CFO/DCFO	Fbt only where appropriate
No4 Alarm	4MP, 2HP, 3TL/Snkl, 3LRU, MCU, BAT, FBt, ET, 5 Misc.	SDO/DO, Inform CFO/DCFO And all command senior officers	
No5 Alarm	5MP, 3HP, 3TL/Snkl, 3LRU, MCU, BAT, FBt, ET, 5 Misc.	CFO/DCFO Inform all senior officers	
Disaster Alarm	Additional to above as requested from scene	Director's discretion	Secretary for Security to be informed (Govt.)

The following abbreviations are used in the table above:

MP	Major Pump
HP	Pump with 15m platform fitted
TL	Turntable Ladder (30m hydraulic ladder)
Snkl	Hydraulic Platform (25m +)
LRU	Light Rescue Unit
MCU	Major Control Unit
ET	Emergency Tender
BAT	Breathing Apparatus Tender
FBt	Fireboat
Misc.	(Other Miscellaneous operational support appliances)
StnO	Station Officer
SStnO	Senior Station Officer
ADO	Assistant Divisional Officer
DO	Divisional Officer
SDO	Senior Divisional Officer
DCFO	Deputy Chief Fire Officer
CFO	Chief Fire Officer

### **The Hong Kong Fire Services Department "Performance Pledge"**

The Hong Kong Fire Services Department "Performance Pledge", 1994, is a small 10 sided A5 document issued to the public in Hong Kong. It describes the standard of service that can be expected from the fire service in Hong Kong, some of the achievements of the department, and plans for the future. Some of the areas covered are:

- i) Services delivered; including fire calls for buildings, emergency ambulance calls, complaints about fire hazards or dangerous goods.
- ii) Performance targets and standards; the standard response time for a building in an urban area is 6 minutes, to various grades of rural settlement within the territory, the times can vary from 9 to 23 minutes. The target set for 1993 was to meet these stated targets on at least 85% of occasions<sup>1</sup> and the target for 1994 was to improve this to 90% of occasions.
- iii) Emergency Ambulance Standards; this states that once an ambulance is despatched to an incident, it must reach the scene within 10 minutes. The target set for 1993 was 91.8%<sup>2</sup>; the target for 1994 is to meet the standard times on 93.5% of occasions.
- iv) Complaints about Fire Hazards or Dangerous Goods; this gives advice about what to do if the public have a complaint to make about these areas of concern, and gives times within which the Department must a) inspect the premises or risk, and b) reply to the complainant.
- v) Service Improvements; the document describes where new fire and ambulance stations are planned to be built in 1993/4, and refers to the extension of the paramedic service within the territory, which in the period 1993 to 1996, plans

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<sup>1</sup> The level of success achieved in 1993 was actually that times were met on 88.8% of occasions, broken down into urban areas: 88.3% and rural areas 93.2%.

<sup>2</sup> Up to November of 1993, 92.5% of ambulances had achieved this target.

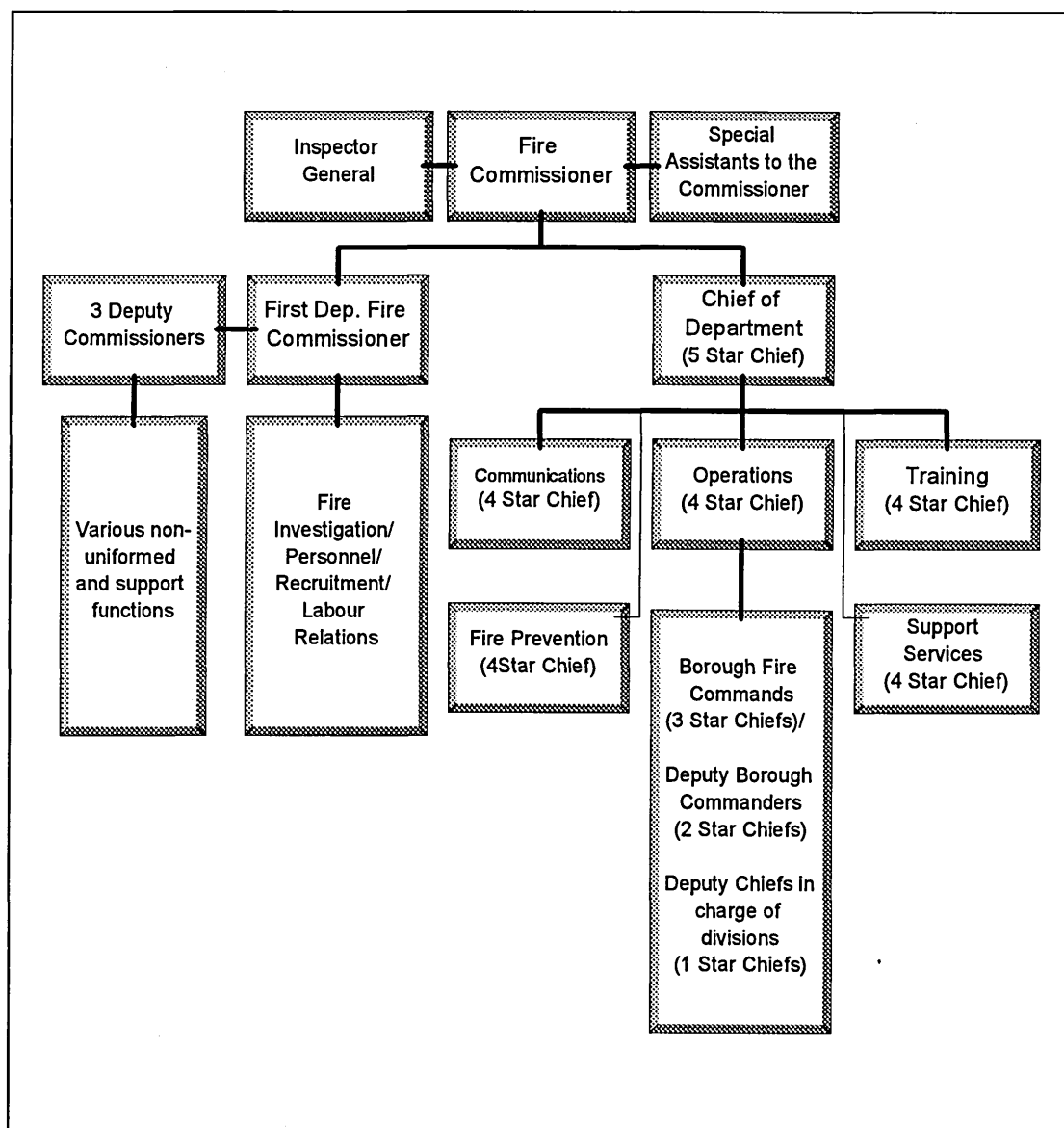
to increase paramedic crews from 15 to 33.

- vi) Effective Monitoring; this advises that the Director of Fire Services regularly publishes targets achieved by the Department, and that a public liaison group is in the process of being formed, to collect feedback, comment and suggestions direct from the service recipients.

The remainder of the document covers issues such as how to lodge a complaint, where these should best be directed, rights of appeal, and other areas of service that more information can be provided about.

Each copy of the document is printed in English and Chinese.

# City of New York Fire Department Organisation Chart





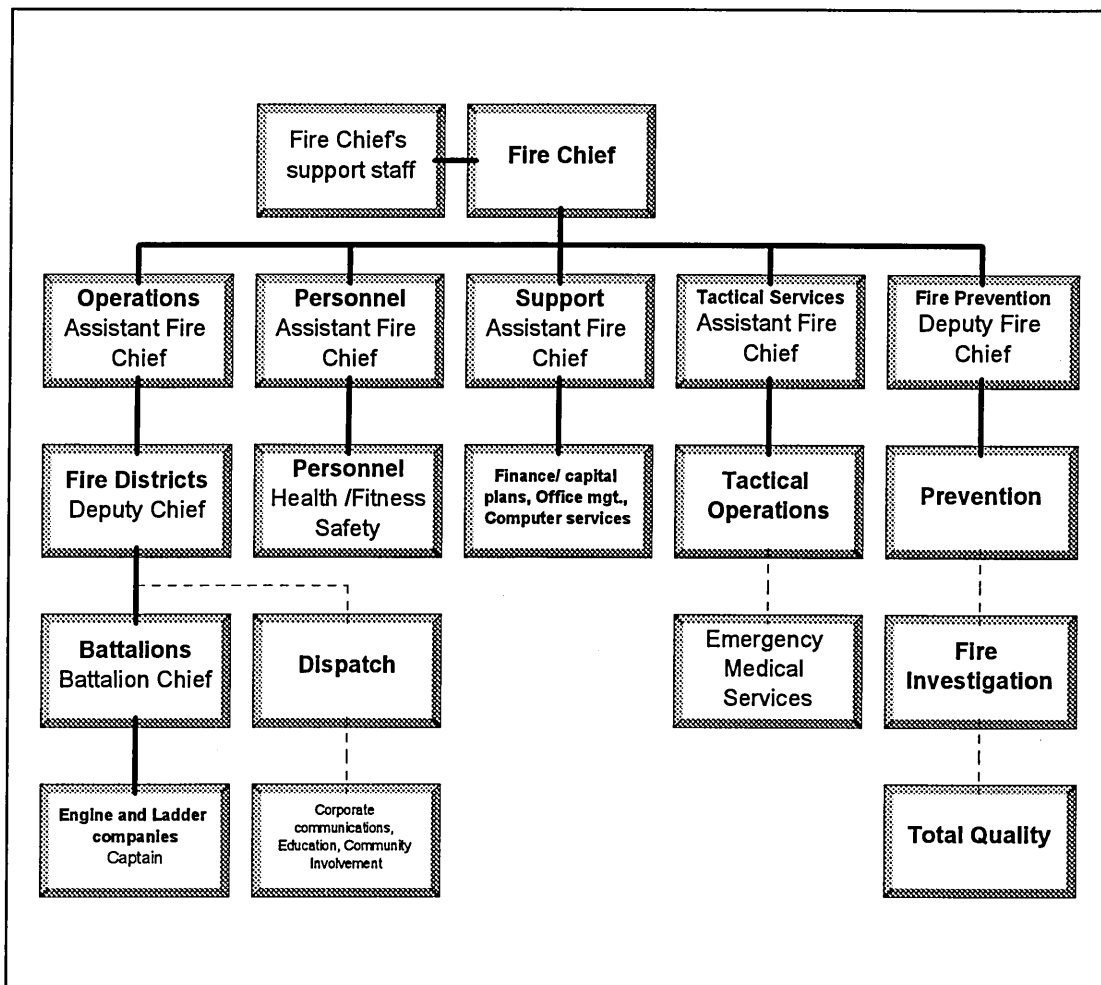
### City of New York Fire Department Alarm levels.

This chart shows the escalating scale of resource levels at serious incidents in New York, and the rank of the commanding officer.

Alarm Level	No of Units attending	No of personnel	Rank of commander
1st Alarm with code 7-5 (See note 1. below)	11	55	Deputy Chief of division, assisted by 2 Battalion Chiefs
2nd Alarm	20	99	as above
3rd Alarm	32	155	Boro' Chief (3 star), assisted by previous officers
4th Alarm	38	187	Duty "City-wide" Chief (4 star)
5th Alarm	43	217	as above, see note 2 below

1. A "first alarm" assignment is usually four engines, two ladders and a Battalion Chief, however when "Code 7-5" is transmitted, this signifies that it is an "All Hands" working job, and additional resources are sent in support, up to the level shown. After that assistance is requested by transmitting a "Code 2-2" to get 2nd Alarm support, "Code 3-3" for 3rd Alarm etc.
2. Officers of higher rank retain the discretion to attend and take command, as in all the other fire brigades studied. The Chief of Department (5 star) would invariably attend the 4th alarm fires, and probably take command of a 5th alarm fire.

# Phoenix Fire Department Organisation Chart



## Phoenix Fire Department "Big Five" Initiative

The Phoenix Fire Department's "Big Five" Initiative was introduced to members of the department in the form of, amongst other things, a small booklet that was made a personal issue to every employee. Apart from its title, sub titles were "Quality is Real and Do-able", "Our Internal Customers Are Our Own Members", and "Our External Customers Are the Citizens we Serve".<sup>1</sup>

The "Big Five" Initiative highlights five areas of responsibility which are intended to act as areas of focus for the "continued innovation and creativity required to solve customer's problems".<sup>2</sup> The introduction continues "This basic approach recognises our responsibility to the citizens of Phoenix as external customers. A critical part of this basic approach is the recognition that our members are internal customers, and this family feeling is reflected in our on-going commitment to member support problems".<sup>3</sup>

The five key areas highlighted in this initiative are as follows:

1. Fire Protection This part of the document gives guidance to operational crews on how they might improve their operational performance. It does this in clear unequivocal statements, such as the following:

We will continue to provide the peoples in our neighbourhoods the highest levels of life and property protection from fire and other related disasters through the following actions.

We will respond safely and quickly, follow standard operating procedures for safe and efficient execution.

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<sup>1</sup> Phoenix Fire Department's "Big Five" Initiative

<sup>2</sup> *ibid.*

<sup>3</sup> *ibid.*

Train for readiness and improvement.

Identify, pre-plan and train on tactical hazards in our "first-due" area.

Critique and follow up on lessons learned.

Prevent fires within (the ) company's capabilities.

Be nice to everyone you encounter.

2. Emergency Medical Services In the same way as the operational section, this gives guidance on things to do to improve. It concludes the seven points with:

Practice compassion and consideration for everyone, including patients, family, bystanders and crew members; show that you care.

3. Human Resource Management This includes:

Use open lines of communication with union representatives and department staff members to get your ideas into the system.

Practice the PFD Way<sup>1</sup> with emphasis on Consideration, Discretion, Tolerance and Unity.

4. Physical Resource Management This section gives guidance on how members should "provide and maintain the physical needs of firefighters, including fire stations, supplies, fire apparatus and equipment. This includes:

Maintain fire stations, fire apparatus and equipment in a constant state of readiness, with pride in appearance.

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<sup>1</sup> The "PFD Way" is a handbook issued to all staff members, which has the functions of a code of behaviour, dress code, gives guidance on use of drugs and alcohol etc.

Use and care for physical resources like you personally bought them.

Provide ideas to make the job easier, safer, and more enjoyable.

5. Community Involvement Includes:

Conduct community events.

Participate in Urban Survival<sup>1</sup>

Practice a positive image everywhere, all the time.

Consider every person a customer.

The "Big Five" was a joint initiative, involving the management of the Phoenix Fire Department, and the International Association of Firefighters (IAFF), which is the biggest firefighter's union in the USA.

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<sup>1</sup> Urban Survival is a community programme run jointly by the fire and police services for youngsters, which deals with issues such as escape from fire, placing emergency calls, dealing with approaches from strangers in the street, etc.