

**A Study about the Leadership Style and the Organisational Climate at the  
Swedish Civil Air Aviation Administration in Malmö-Sturup**

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## Abstract

The aim of this study is to investigate the current leadership style and the organisational climate at the LFV in Sturup. To assess the leadership style the Multifactor Leadership Questionnaire (MLQ) by Bass (1985) was used. The organisational climate was measured with the GEFA developed by Ekvall (1986). The participants of the survey were employees from all departments of the airport, but no leaders. The questionnaires of 50 subjects for the MLQ and 38 for the GEFA were evaluated.

The results point to individual differences in the leadership behaviours between different leaders. No general style could be assessed. The values for transformational and transactional leadership lie under the optimal values proposed by Bass, whereas the results for Management-by-Exception passive and Laissez-faire leadership are fairly high.

The evaluation of the climate points to a friendly and open atmosphere at Sturup where the subordinates are motivated to work and the commitment to the organisation is high. In important dimensions values of innovative organisations could be reached.

The assessment of the relation between the two concepts did not lead to significant results.

## Introduction

The purpose of our study was to observe the leadership style at the Malmö-Sturup airport administration and to relate it to the organisational climate there in order to detect relationships and influences.

The Swedish Civil Aviation Administration (LFV) is going through times of major change and development. Under these circumstances it is essential to provide a leadership style that has the potential to react to a multitude of different situations and demands, as well as supporting and motivating its followers. It is also important to observe the organisational climate, since this is one of the main foundations for an innovative progress. The climate can support or diminish an organisation's development.

The results of this survey could serve as a benchmark for further research. It becomes clear what and where changes in the leadership style have to take place in order to support the organisation's progress as well as the organisational climate. To be able to alter a situation it is necessary to identify all existing connections and processes of influence since every one of those has to be kept in mind if changes are to lead to positive outcomes.

With our research we try to draw a complete picture encompassing the current situation at the airport in Sturup, providing the essential data for additional research and developments.

Since we lay our focus on leadership style and organisational climate, these two concepts will be further explained in the following parts.

### *Leadership*

Leadership can be defined as the process where, upon contact, humans influence each other's behaviour. Successful or essential leadership takes part when one man actually changes another man in the way intended (Bass, 1960).

Fiedler, one of the most important and influential researchers in leadership investigation defines a *leader* as follows: "a person who is appointed, elected or informally chosen to direct and co-ordinate the work of others in a group" (Fiedler, 1995, p.7).

*Leadership* can be considered to be the personal qualities, behaviours, styles and decisions adopted by the leader (Arnold, 1998).

Leadership is an important concept in the study of groups since it has to occur usually in order for groups to become more effective. The leader plays an active part in development and maintenance of role structure and goal direction and influences the existence and efficiency of the group (Stogdill, 1974).

Through the years numerous theories and concepts about leadership have arisen, that differ in central aspects and conclusions.

In the beginning of the 20<sup>th</sup> century Taylor proposed the so called “scientific management” which is concerned with increasing productivity and regards workers as extensions of the machines they operate and not as human beings (Arnold, 1998).

After this work-emphasizing approach, the human side of workers came into focus, and theories were proposed describing how people should get inner satisfaction and fulfilment from their work. The role of the leader changed from an only controlling and ruling one to a motivating and supporting one. Leaders should allow workers to participate in setting and working toward personal and organisational goals. Within this revolution two important studies were independently conducted at the Universities of Ohio and Michigan, the Ohio-State-Leadership-Studies and the Michigan-Leadership-Studies, both emphasising two different leadership styles.

The Researchers at the Ohio State University tried to uncover central features of leader behaviour by asking subordinates and leaders themselves. They detected two styles *consideration* and *initiating structure* (Fleishman, 1961). In the first the leader is aware of and sensitive to the feelings of subordinates, here a leader-follower-relationship develops that is marked through camaraderie, mutual trust, liking and respect. In the latter, emphasis lies on organising, structuring and directing the work activities of subordinates, as well as providing clear-cut definitions of role responsibility (Fleishman, 1961).

In the Michigan-leadership-studies leaders were first classified as effective or ineffective, then the researchers searched for distinguishing behaviour. This investigation led also to the differentiation of leadership styles in *consideration* and *initiating structure* (Arnold, 1998). Although the Michigan researchers called them *relations-oriented* and *task-oriented*, the meanings and the contents were the same.

Further research showed that leaders are rated as being more effective when they score high in both consideration and initiating structure (Stogdill, 1974). Both concepts are also positively related to various measures of group cohesiveness and harmony, in which initiating structure

supports group unity, whereas consideration leads to low absenteeism, grievance, turnover and bureaucracy. With conducting initiating structure leaders let followers know what to expect. In consideration they are looking out for the welfare of the followers, support the followers' satisfaction and the group performance (Stogdill, 1974).

Other researchers emphasised the differentiation between *task oriented* and *person oriented* leaders. Task oriented leaders on the one hand accentuate the definitions and structures of roles toward goal achievement and they focus on performance and not on human relations. Person oriented leaders on the other hand will demonstrate their trust of subordinates, respect for their ideas and consideration of their feelings. The human aspect of the followers is central but not the task itself (Arnold, 1998).

Another important aspect in leadership research is the amount of participation provided by the leader. Participation can be described as the involvement of subordinates in a manager or leader's decision making (Yukl, 1998). The lowest degree of participation is found in *autocratic leadership* since the leader makes all decisions on his or her own and tells then followers what to do. More participation is offered in the *democratic leadership*, because here leaders and followers discuss problems and make all decisions that affect their work together. A democratic leader distributes responsibility, empowers subordinates and aids deliberation (Yukl, 1998).

It could be shown that *initiating structure* and *consideration* were adequate behavioural operationalisations for tests on theories considering leadership as task-oriented versus person-oriented or autocratic versus democratic. Because of this, the two concepts have been instrumental in leadership research for a long time (Bass & Seltzer, 1990).

In 1978 Burns developed the initial ideas of *transactional* and *transformational* leadership. He read numerous biographies of political leaders and through qualitative analysis he found out that they mainly used these two styles. Transactional leaders were described as those who attempt to satisfy the current needs of their followers by focusing attention on exchanges, whereas transformational leaders try to raise the needs of their followers and promote the changes of individuals, groups and organisations (Burns, 1978).

In 1985 Bass took up this conceptualisation and elaborated it further. He could show that these two styles accounted for more variability in different outcome measures like subordinates' effectiveness, effort and satisfaction, than only initiating structure and consideration did (Bass & Seltzer, 1990).

Since this theory serves as the background of our research of the conducted leadership style, it is presented now in detail.

### *Transactional leadership*

This is a leadership style that focuses on the social interactions or transactions between leaders and followers. Transactional leaders conduct their business by identifying the needs of their followers and bestowing rewards satisfying these needs for certain appropriate performances (Arnold, 1998).

The leader's freedom to act is constrained by the followers' perception of him or her.

Followers will only show the demanded behaviours when they experience a certain authority and ability in the leader as well as contingencies in rewards (Bass, 1985).

Leaders motivate their subordinates through observing their performances and reacting to errors and failures.

Transactional leaders lay their focus on routine and competence values.

According to Bass (1985) this leadership style contains three different theoretical components:

*Contingent reward* – the leaders clarify what is expected from followers and what they will receive if they meet expected levels of performance

*Active management-by-exceptions* – leaders focus on monitoring task execution for any problems that might arise and correcting those problems to maintain current performance levels

*Passive management-by-exceptions* – leaders tend to react only after problems have become serious to take corrective action, and often avoid making any decisions at all (Bass, 1985)

### *Transformational leadership*

Rather than believing that they must act in accordance with their followers' expectations, transformational leaders work to change or transform their followers' needs and redirect their thinking. Leaders create a vision of what the corporate culture can be and communicate it to their subordinates, stimulating them to develop their abilities while accepting feedback and suggestions. Leaders challenge and inspire followers with a sense of purpose and excitement with what can be accomplished.

Burns defines transformational leadership as follows: "a transformational leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower .... Leaders develop a relationship of mutual stimulation and elevation that converts followers into leaders." (Burns, 1978, p.4). Thus transformational leadership can be viewed as relational and reciprocal.

Maslow's (1970) theory on the hierarchy of needs inspired Burns. In his opinion transformational leaders motivate their followers to achieve the highest possible level of need satisfaction, the self-actualisation.

As mentioned before, Bass (1985) took up this conceptualisation and elaborated it further. He proposed that transformational leadership contains four different components:

*Inspirational Motivation* – leaders articulate an appealing vision of the future, challenge followers with high standards, talk optimistically with enthusiasm and provide encouragement and meaning for what needs to be done.

*Idealised Influence* – leaders display conviction, emphasise trust, take stands on difficult issues, present their most important values and emphasise the importance of purpose, commitment and the ethical consequences of decisions. Such leaders are admired as role models generating pride, loyalty, confidence and an alignment around a shared purpose. A subjective component of attributed charisma may spin off from idealised influence, an aspect that will be illustrated later.

*Intellectual Stimulation* – leaders question old assumptions, traditions and beliefs; stimulate other new perspectives and ways of doing things and encourage the expression of ideas and reasons.

*Individualised Consideration* – leaders deal with others as individuals, consider their individual needs, abilities and aspirations, listen attentively, further subordinates' development, advise, teach and coach.

(Bass, 1985)

To engage and commit the follower, the leader addresses the followers' sense of self-worth. Questioning and creativity are encouraged. The leader motivates the subordinates to extend and develop themselves and to become more innovative. Followers identify with the charismatic leader and believe in him or her, and as a consequence, commitment to the organisation rises.

The values of transformational leaders are focused on collective welfare and equality, change orientation and moral values.

Yukl gives the following statement about transformational leadership: “ The leader transforms and motivates followers by (a) making them more aware of the importance of task outcomes (b) inducing them to transcend their own self-interests for the sake of the organisation, and (c) activating their higher-order needs.” (Yukl, 1998, p.325)

As mentioned earlier, the concept of charismatic leadership shows some similarities with the transformational component of idealised influence, thus it is worth mentioning it here.

The charismatic style is characterised by a self-promoting personality, a high energy level, and willingness to take risks (Bryman, 1992). Charismatic leaders show high self-confidence, strong conviction in their own beliefs and ideals and a strong need to influence people. They articulate ideological goals and provide an appealing vision of what the future would be like (Yukl, 1998). The leaders have a dramatic, persuasive manner of speaking, which enables them to enunciate the hopes, ideals and fears of followers and inspire faith in their ability to lead them to victory, success or a better world. Charismatic leaders appear somewhat mysterious and larger than life, persons that can be trusted to succeed where most people would fail (Bryman, 1992).

#### *Influence on organisational outcomes*

The concept of transactional and transformational leadership style has a relatively strong impact on organisational outcomes like subordinates' effectiveness and satisfaction.

Numerous studies confirmed that transformational leaders achieve higher levels of their followers' performance and pleasure (Bass & Seltzer, 1990).

Bryman (1992) could show that the transformational components of idealised influence and inspirational motivation have the greatest impact on worker performance and effort. The transactional component of contingent reward is also associated with positive outcomes. Individualised consideration leads to more risk taking and higher levels of entrepreneurial activity (Bass & Seltzer, 1990).

On the whole, transformational leadership tends to be more effective and satisfying than transactional leadership (Hater & Bass, 1988). Subordinates, when asked about ideals and implicit theories of leadership, mention more components of the transformational style. Transformational leaders are viewed more positively and seem to be more successful in their own careers. They have also better relationships with their supervisors and make more of a contribution to the organisation than do those who are only transactional (Bass & Seltzer, 1990).

Supervisors rated high in transformational leadership behaviours are associated with higher perceived levels of mission, adaptability, involvement and consistency in the organisation compared to their transactional counterparts.

Through many studies it has become clear that the best leaders typically display both transactional and transformational leadership. Avolio (1999) found out that transactional leaders are able to establish a sense of trust with followers through application of contingent rewards, thereby building the foundation upon which transformational leaders are able to encourage higher levels of commitment and performance (Avolio, 1999). It is important to note that transformational leadership does not replace transactional leadership, but it is built on it and uses some of its components.

To sum it up effective leaders display both transactional leadership, especially the component contingent reward, and transformational leadership. Leaders conducting this style are flexible and can adapt and react to different situations and demands, thus showing a *balanced leadership* style that can be described as the best means to support an organisation's progress and co-workers' satisfaction. Balanced leadership can also be portrayed as being more than knowing what to do, since it is knowing when and why to do it.

*Organisational climate*

Next to leadership the climate is an important aspect in organisational contexts and has been discussed a lot since the 1960s. It plays a significant part in our survey and is described in the following part.

In meteorological terms climate indicates over a rather long period of time stable characteristics in a limited region that includes a number of different elements. It is not the same as weather, since weather is not very stable, but refers to more constant weather conditions that are typical for a certain region (Ekvall, 1986).

In the social context climate serves as a metaphor for the psychological relations and behaviours in a social region, such as nations, organisations and groups. In a social surrounding normally typical psychological conditions and relations exists that have a relative stable character and can therefore be defined as the social climate.

The popularity of the term climate in even daily conversations underscores the importance people see in it. It is therefore not surprising that numerous researches and studies about climate have been conducted, especially in the field of organisational studies, that led to a now relatively well-known and established subject (Ekvall, 1986).

A definition of organisational climate follows:

“Climate can be defined as an attribute of the organisation, composed of behaviours, attitudes and feelings, which are characteristic of the organisation” (Ekvall, 1983, p.1)

According to Ekvall, climate can be distinguished from three other concepts, namely organisational culture, social structure and labour relations:

1. *Organisational culture*: values and beliefs embraced by the majority of the members and referring to people, work, organisations and society
2. *Social structure*: informal organisation, leading actors, group formations, status hierarchy
3. *Organisational climate*: shared characteristics as regards the way members behave toward one another, how they react to the goals of the organisation, and how they express their feelings and attitudes. “Mood”, “atmosphere” and “spirit” are analogous although not entirely synonymous concepts.
4. *Labour relations*: nature of the relationship between local trade union organisations and company management

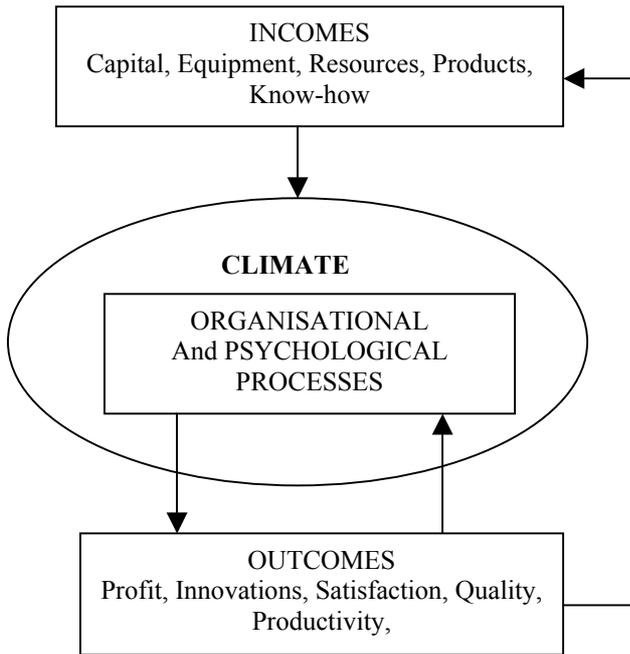
(Ekvall, 1983, p.2)

“The climate has originated, evolved and continues to develop in the ongoing interactions between individuals and organisational settings” (Ekvall, 1985, p.5). In the daily interactions and confrontations with structures and processes of the organisation, behaviours, attitudes and emotions develop that make up the climate. The shared perceptions that organisational members have about the policies, practices and procedures, which are supported and expected in the organisation, determine the specific climate.

The members of the organisation and their personalities have a central influence on climate. Each organisational member notices it and can describe it in light of his or her own perceptions. Individuals interpret their perceptions and react according to their conclusions. Interpretations are dependent on the individual abilities and motives; different motives lead to different perceptions and thus behaviours. But even if each member has his or her own unique interpretation, climate is a real existing phenomena in the organisations, independent of how it is perceived by the individual members. It must be viewed as an organisational reality, just as much as informal status hierarchies or group norms (Ekvall, 1983).

Knowing about the specific organisational climate and the way in which people with individual personalities, value systems, needs and motives respond to different climates could be a help to understand and explain behaviour in organisations (Ekvall, 1985).

Friedländer & Margulies (1969) define climate as a dynamic phenomenon, which may release, channel, facilitate or constrain the organisation’s technical and human resources. It can be viewed as a moderating variable between the organisations’ inputs like capital, resources, equipments and products and the outcomes like profit, quality, satisfaction and productivity (Ekvall, 1983). Through influencing the in-between lying organisational and psychological processes, climate affects the outputs. Organisational processes are for example communication, coordination, problem solving and decision making, whereas psychological processes are among other things teaching and motivation. Climate has an effect on them as well as they again influence the climate so that a circle develops. It is important to emphasize that climate itself does not cause any effects, but it strengthens or lessens the outcomes of the in-going variables (Ekvall, 1993).



(Ekvall, 1986, p.2-3)

Different theories about the development of organisational climate exist. Schneider and Reichers (1983) published an influential theory about how climate arises. In their opinion three sources are essential, which are (a) the common exposure of organisational members to the same objective structural characteristics, (b) attraction, selection and attrition of organisational members so that a homogenous staff develops and (c) social interaction leading to shared understanding of meanings (Schneider & Reichers, 1983). According to Schneider (1987) organisations choose those individuals as members who are compatible with the working environment and fit to the organisation's personality. Mismatches will lead to resignation and dismissal, thus in the end homogeneity in the staff exists. Since all members have similar personalities, perceptions, and assumptions and give similar meanings to organisational events, a shared climate develops. Through social interactions and specific introduction processes for newcomers this collective organisational climate is supported and held up (Schneider & Reichers, 1983).

Anderson and West (1989) support this approach and state that a shared climate arises when (a) individuals interact, (b) common goals exist and (c) tasks are interdependent (Anderson & West, 1989).

According to Ekvall (1986) different factors exist that determine the individual organisational climate. These are:

Size of the organisation: small organisations provide other patterns of communication different to those of big ones

Business and tasks: different tasks lead to different environments and situations

Physical environment: it creates conditions and limits for the daily work processes

Technology: existing of electronic post for example inside the organisation leads to specific patterns of communication and contacts

Structure: form of hierarchy, centralisation or decentralisation and levels of formalisation have strong impacts on the individual climate

Organisation of work: since it sets limits for variation has it an influence on climate, for example an assembly-line lead to a completely different climate than a working-group

People: the individual members react all differently on organisational structures and events and the gender, age or origin of them construct a unique climate

History: every organisation has its own history that is perceived through traditions and beliefs in the daily life of the enterprise

Visions, goals, strategies: Goals are the desirable to develop, while strategies are the plans to reach the goals, and visions are the means to set pictures or images of the future. The perception of and the agreement on the goals and strategies influence the climate, as well as the clarity and limitations of them

Picture of reality, beliefs: determine how members are seen and treated, which knowledge is important and which policies are used, all them have an impact on climate

Values and norms: every member knows the rules and deviations from these rules will be punished, so values and norms determine the emotional climate

Leadership: this is the most influencing factor, which was shown in numerous studies.

Changes in leadership lead directly to changes in climate

Personnel policy: since it affects the relationship between individuals and the enterprise, the attitudes of leaders on followers and the selection of people who join the organisation has an influence on climate

Image: the expectations of the organisation from the outside can alter the organisation; a negative image induces another climate rather than a positive opinion

It is important to note that all these factors are dependent on each other; they work together and affect each other. Researchers talk about “contingencies”, which are the influences of one

factor depending on the conditions of another factor. A complex picture arises since all 15 factors interact and cooperate (Ekvall, 1986).

Ekvall (1986) proposed ten different dimensions of organisational climate:

Challenge: The employees' involvement in, commitment to and engagement in the organisation. If challenge is high, then the employees are motivated and feel delight in their work.

Freedom: The degree to which members are able to act independently. A high degree of freedom supports initiative and autonomous decisions.

Support for ideas: The attitude towards new ideas. When support for ideas is high employees listen to each other and encourage others.

Trust: The emotional security and trust in the organisation. Members present all their ideas and opinions only when trust is high.

Liveliness: The dynamics within the organisation. High liveliness supports changes in thoughts and behaviours.

Playfulness / Humour: The easiness that exists in the organisation, which leads to fun and humorous ideas.

Debate: The extent to which different opinions, views and experiences are allowed to exist and meet actually.

Conflicts: The presence of personal and emotional tensions. In an atmosphere with a lot of conflicts, intrigues and hatred between people or groups exist.

Risk taking: The organisation's willingness to tolerate insecurity and to react quickly.

Idea time: The time that is spent for the development of new ideas. With a high degree of idea time, discussions about new ideas and possibilities to test them are provided.

(Ekvall, 1986)

Taken together, these dimensions compose the unique organisational climate.

Through numerous researches it became clear that they have a special relationship with the level of creativity and innovation inside an organisation. High values in all of the dimensions (except conflict) point to a fairly high innovative climate where new ideas and ways of thinking are presented and supported (Ekvall, 1994).

Climate has usually been studied with quantitative methods like questionnaires. In Ekvall's opinion members of an organisation are reliable reporters of the existing climate since they observe it in their daily work processes (Ekvall, 1986). According to Anderson & West

(1989) climate should be studied in proximal work groups, which are defined as the permanent or semi-permanent teams in which individuals interact to perform their tasks. In these groups shared climates arise that can be observed (Anderson & West, 1998).

The terms organisational climate and organisational culture are often mixed up and it is worth presenting the differences briefly.

Culture can be defined as the shared assumptions, beliefs and norms of a group, in the context of an organisation and its members. Culture has a powerful influence on the way people live and act; it defines what is “normal” and what sanctions follow behaviour that is not “normal”. It can be said that culture is felt in the implicit rules and expectations of behaviour in an organisation, even though the rules are not formally written down employees know what is expected of them. Organisational culture is unique in each enterprise and differentiate the organisation from others.

Schein (1990) defines culture as follows:

“Culture is (a) a pattern of basic assumptions (b) invented, discovered, or developed by a given group (c) as it learns to cope with its problems of external adaptation and internal integration (d) that has worked well enough to be considered valid and therefore (e) is to be taught to new members as the (f) correct way to perceive, think and feel in relation to those problems” (Schein, 1990, p. 111).

Culture is the deep structure of an organisation, which is rooted in the values, beliefs and assumptions held by organisational members and it has a long time perspective. In contrast, climate is often considered as relatively temporary, subject to direct control, and largely limited to those aspects of the social environment that are knowingly perceived by organisational members (Denison, 1996). Climate is characterised by work requirements, feelings and interpersonal relationships.

As mentioned earlier, organisational culture is concerned with the nature of beliefs and expectations about organisational life. Climate then can be described as an expression of the degree to which members see organisational characteristics as being in accordance with their expectations (Bowditch & Buono, 1989).

Climate can be viewed as a derivative of culture, since it is nearer to reality, more connected to open behaviour, events, rules and routines (Ekvall, 1993)

Since culture is the deep structure of an organisation, it has influences on the climate that work on two ways:

1. Individuals in an organisation know which behaviours and attitudes are acceptable
2. Behaviour patterns exist that help organisational members to interpret and to react to events

(Ekvall, 1993)

In short, climate is a superficial part and one of many ways to express culture. Climate reflects the culture in more or less high degrees, depending on how strong the assumptions and values are distributed and accepted inside the organisation. The stronger the culture is, the more it influences the climate. But nevertheless, the borders between culture and climate are floating, culture includes climate and climate includes culture (Ekvall, 1993).

### *Climate and Leadership*

Since the relationship between leadership and climate is the central point of our survey, it is illustrated here specifically.

“Climate can be defined as the organisational phenomena through which leadership works” (Ekvall, 1993, p.33). This definition underscores the strong influence of leadership on organisational climate that was confirmed in numerous studies ( $R^2 > .50$ ). Research also showed that different leadership styles cause different climates in working groups. Leaders have the opportunity to build up a good emotional climate as well as to spoil it. Present researchers in the field of leadership hold the opinion that a leader's primary task is to create a positive organisational climate (Ekvall, 1993).

On the other hand it should be always kept in mind that climate has also an influence on leadership, since it is not a one-way relationship but a complex system. Changing the organisational climate has a direct impact on leadership. Altering the climate in a way that was meant to be positive could have negative impacts on leadership. Thus this relationship is important to look at and to research deeper.

*Presentation of Luftfartsverket (LFV)*

The Swedish Civil Aviation Administration (in Swedish: Luftfartverket, LFV) is responsible for air navigation services in the whole of Sweden and operates 19 airports from Kiruna to Sturup. It is owned and directed by the Swedish government and is responsible for all civilian as well as military air traffic.

Main tasks are among other things the control of safety, the enforcement of rules in Swedish civil aviation, the protection of the environment, the promotion of development of civil aviation and the administration of civil defence and emergency planning that involve the civil aviation sector. The LFV's purpose is to create the conditions for safe, efficient and environmentally-friendly air travel, in order to meet the needs of the passengers in the area of personal travel and to provide transportation of cargo.

The Swedish CAA has approximately 4500 employees and reported sales of SEK 5,4 billion during the year 2002 (LFV, 2002).

This study was made at the Sturup airport, which was opened in 1972 and lays 30 km east of Malmö, Sweden's third biggest city. There, in 2002, the total number of passengers reached 1,91 million and the number of movements was 43732. The number of full-time equivalent employees in the Sturup Division was 172.

The Öresund region, to which Sturup belongs, is the largest air travel market in the Nordic countries, with more than 20 million passengers per year. This region consists of Sweden's southern province Skåne and the Danish island Sjaelland and is characterised by dynamism and movement. Therefore Sturup airport is under constant expansion to meet the demands of growing traffic in this area (LFV, 2002).

In the last few years significant developments occurred that determined the tasks the Swedish CAA has to fulfil. From a historic perspective, air traffic has shown an annual growth substantially higher than overall economic growth. But during 2001 dramatic changes arose, lower demands for air travel took place after the terrorist attacks in New York and several aviation accidents. The world economy in 2002 was characterised by uncertainty, continued stock market downturns, lower growth than forecasted and concern about new wars in the Middle East. To sum it up, the downturn in air traffic that began in 2001 continued in 2002. Traffic at the LFV's airports declined by 8 per cent, in Malmö-Sturup by 7 per cent. These radical changes directly influenced the organisation, its goals, working methods and

individual employees. Structural changes will have to take place that will concern the Swedish CAA during the coming years.

All the developments and challenges have a direct influence on the organisational climate and the performed leadership style. We want to assess the degree of the impact and use the data of this survey as a benchmark for further research aimed at the required modifications.

The purpose of this study is to assess the leadership style used at the LFV in Malmö-Sturup. The results will be evaluated and commented from a balanced leadership background approach.

Additionally the organisational climate is assessed in order to detect relations and influence processes between both concepts.

## Method

To investigate the leadership style and the organisational climate two paper-pencil questionnaires were distributed at the LFV: the MLQ (Bass, 1985) to measure the leadership style and the GEFA (Ekvall, 1986) for the measurement of the organisational climate. First the researchers handed out a detailed description of their project, and then it was personally presented at the airports management meeting. This was done in order to provide the management-group with information about the planned movements and the possibility for them to ask questions about the background, goals and the exact realization of the project.

### *Sample*

The organisational hierarchy at Malmö-Sturup consists of four levels and co-workers from all sections and departments took part in the survey. Graphic 1 in the appendix shows the current diagrams of organisational hierarchy.

It is important to mention that no employees with leading roles were included. This was done because the MLQ measures leadership behaviour in the way it is observed and perceived by subordinates. The opinions of the leaders themselves about their leading style does not lay in the focus of our research. However, since it is an interesting point to compare subordinates`

evaluations with leaders' self-rates, it could be a part of further research work at the airport in Sturup.

Additionally only employees who worked at Sturup for a rather long time were asked to fill in the questionnaires. Ekvall (1986) underscores that a reliable measurement of the organisational climate requires subordinates who have had the time and the possibilities to experience the life and thus the individual climate in the organisation. New employees should therefore be left out of the survey (Ekvall, 1986).

Departments with a very low number of co-workers were also left out in order to assure anonymity for every participant.

The final selection of participants on the basis of the mentioned conditions was made by the personnel chief at Sturup and her assistant. In the whole 100 questionnaires were distributed.

In order to guarantee anonymity for each subject no specifications about the individual division or the concrete job were required. Additionally we did not collect information about the gender and the age of the participants since the number of co-workers at Sturup is not high enough for this procedure.

### *Material*

To measure the leadership style at the LFV in Malmö-Sturup the *Multifactor Leadership Questionnaire* (MLQ) was distributed. This questionnaire was originally developed by Bass (1985) and re-examined and improved several times afterwards. It assesses the degree to which subordinates feel that their leader exhibits *transformational*, *transactional* or *laissez-faire leadership*.

To construct this questionnaire, Bass first selected executives' statements and literature reports about charisma and contingent reward. Then these statements were separated by trained judges into a transactional and a transformational part. Factor analysis suggested that transformational statements could be assigned to four interrelated components: Inspirational Motivation, Idealised Influence, Intellectual Stimulation and Individual Consideration. Transactional leadership consists of three components: Contingent Reward, active Management-by-Exceptions and passive Management-by-Exceptions.

Laissez-faire leadership can be better defined as a non-leading style since the leaders avoid accepting their responsibilities, are absent when needed and resist expressing their views on important issues. This style consists of only one component and was added to the MLQ because some leaders show this behaviour (Bass, 1985).

In the MLQ 45 questions are included, where each describes a certain behaviour. On every one of those questions the subjects have to choose between four different response alternatives: not at all; once in a while; sometimes; fairly often; frequently, if not always. With these alternatives the subordinates can assess how often their leaders show the described behaviour.

The transformational component of Idealized Influence is divided into two independent parts. The “Idealized Influence (behaviour)” regards the open behaviour of the leader. The other part considers the more indirect behaviour and is therefore named “Idealized Influence (attributed)”.

Thus nine different leadership style scales exist in the questionnaire: five transformational, three transactional and one laissez-faire.

Beside the leadership style the MLQ measures also *Extra Effort*, *Effectiveness* and *Satisfaction* of the subordinates as outcomes of leadership.

On the whole the 45 statements are composed of 36 items concerning leadership as four items assess each of the nine styles. The other nine items measure extra effort (3 items), effectiveness (4 items) and satisfaction (2 items).

The MLQ is a means to differentiate between effective and ineffective leaders; it is valid across cultures, types of organisations and levels of leadership. Numerous studies and examinations on its predictive validity and reliability have been completed. It is easy to administer and requires only 15 minutes to complete (Bass, 1985).

Because of all this advantages we chose the Swedish version of the MLQ as the questionnaire to measure the leadership style at the LFV in Sturup. The Swedish version was taken in order to avoid bias due to translating.

To measure the organisational climate, we chose to work with the *Formulär A: Arbetsklimat* (GEFA), developed by Göran Ekvall, 1986. This questionnaire has been used frequently in the past to assess the emotional climate of an enterprise.

Ekvall (1986) has the opinion that individuals in an organisation can be viewed as observers of the existing climate and are therefore able to report it. The logic behind this is the following: Individuals are influenced by three factors: (a) the actually existing climate, (b) the individual personality, intelligence and personal set of references and (c) the experiences the individual had in the organisation. Individuals vary on (b) and (c), but when these differences are aggregated, they tend to extract each other (Ekvall, 1986).

When only few variations are measured it is an indicator for a strong and open climate that is observed by every member of the organisation. This description of the organisational climate is reliable and relevant.

To provide a reliable value of the organisational climate, a representative group of organisational members has to be included, no traumatic event should have happened in the near past and no dramatic changes should take place at the moment of the measurement (Ekvall, 1986).

The GEFA measures the organisational climate on 10 different dimensions, which were presented in the introduction and are the following:

Challenge

Freedom

Support for ideas

Trust

Liveliness

Playfulness/Humour

Debate

Conflict

Risk taking

Idea time

(Ekvall, 1986)

Each dimension is measured with five questions, so in the whole the questionnaire consists of 50 items. On all of these items the subjects have to choose between four different response

alternatives: do not agree; agree to some extent; agree rather much and agree fully. With these alternatives the subjects can assess the degree to which each dimension is part of the organisational climate (Ekvall, 1986).

Here we also took the Swedish version in order to avoid bias.

### *Procedure*

After the presentation of the project at the airport by the researchers, the questionnaires were distributed by the personnel chief. The subjects were given two weeks to complete the questionnaires and to give them back. All questionnaires were filled in during the regular working day.

The subjects were not rewarded for taking part in the study.

Unfortunately a mistake happened while copying the GEFA questionnaires and two pages were left out. In the distributed questionnaires the pages with the items from number 19 to number 40 were missing and the participants could only answer to the remaining items. The missing pages were then distributed a week afterwards and the subjects were asked to complete them. This procedure was possible since we lay our focus only on the organisational mean and not on the individual opinions.

Through previous studies it was known that the standard deviation would not be very high and it could therefore be left out of the evaluation.

Although all items of the GEFA questionnaire were not answered at the same time, they still could be evaluated and their average means could be discussed.

The statistical analysis was done with the computer program SPSS. We used descriptive methods to get the means and standard deviations. For a more detailed analysis we conducted correlations to detect relations and ways of influences. Due to the relatively low number of subjects non-parametrical methods as the Spearman correlation coefficients had to be used.

## Results

### *Results of the MLQ*

The MLQ consists of 45 items and every item is scored with 0 to 4 points, zero points for the alternative “not at all” and four points for the alternative “frequently, if not always”.

The questionnaire measures 12 different scales, nine regarding leadership styles and three concerning subordinates' behaviour. The score for each scale can be obtained through summing up all corresponding items and then dividing that score through the number of items that compose the scale. The mean and the standard deviation for each scale are calculated for all subjects so as to get the average measurement of the organisation (Bass, 1985).

High scores on a leadership style scale indicate that the judged leader shows this style, respectively the corresponding behaviour, frequently. High scores on Effectiveness, Extra Effort and Satisfaction point to high motivation and pleasure of the subordinates.

In Sturup 100 questionnaires were distributed. We got 50 filled-in questionnaires back, which leads to a response-rate of 50%. From these 50 questionnaires, 47 could be used in the evaluation. The missing three ones had to be deleted as a consequence of a high number of unanswered questions in each of them. These participants had skipped more than half of the questions so their assessments could not be used.

As mentioned before, no specific information about the 47 subjects was required in order to guarantee anonymity.

Table 1 shows the results of the 47 questionnaires from Sturup:

Table 1: Results of the MLQ

Scale	Mean	Standard deviation
<i>Transformational components</i>		
Idealized Influence (attributed)	1,91	1,23
Idealized Influence (behaviour)	2,01	1,07
Inspirational Motivation	2,23	1,11
Intellectual Stimulation	1,96	0,72
Individualized Consideration	1,76	0,97
<i>Transactional components</i>		
Contingent Reward	1,72	1,02
Management-by-Exception (active)	1,47	0,79
Management-by-Exception (passive)	1,37	1,15
<i>Laissez-faire Leadership</i>	1,57	1,28
<i>Outcome measures</i>		
Extra Effort	1,88	1,21
Effectiveness	2,30	1,19
Satisfaction	2,33	1,18

As illustrated before, Bass conducted numerous studies about leadership styles and their connections to subordinates' behaviours and feelings as well as to organisational outcomes like quality and profit. The MLQ is the questionnaire that Bass used in nearly all of his research.

Through his enormous work on the subject of leadership, Bass (1998) was able to propose the components of a so-called *optimal leadership* (Bass, 1998). This kind of leadership leads to high motivation and pleasure of the subordinates and therefore to high effectiveness.

Measured with the MLQ, the optimal leadership is shown through specific values in the different components.

The means of the transformational factors should be around 3,0, the values for the transactional components of Contingent Reward and Management-by-Exception active should reach 2,5, whereas the means for Management-by-Exception passive and Laissez-faire leadership should not be higher than 1,0 (Bass, 1998).

The proposed means for optimal leadership can serve as a reference for our results. It is possible to compare the data of this survey with the recommended values to detect deviations and conformities.

In this study all means of the transformational scales lay around 2,0 and therefore below the optimal values of 3,0.

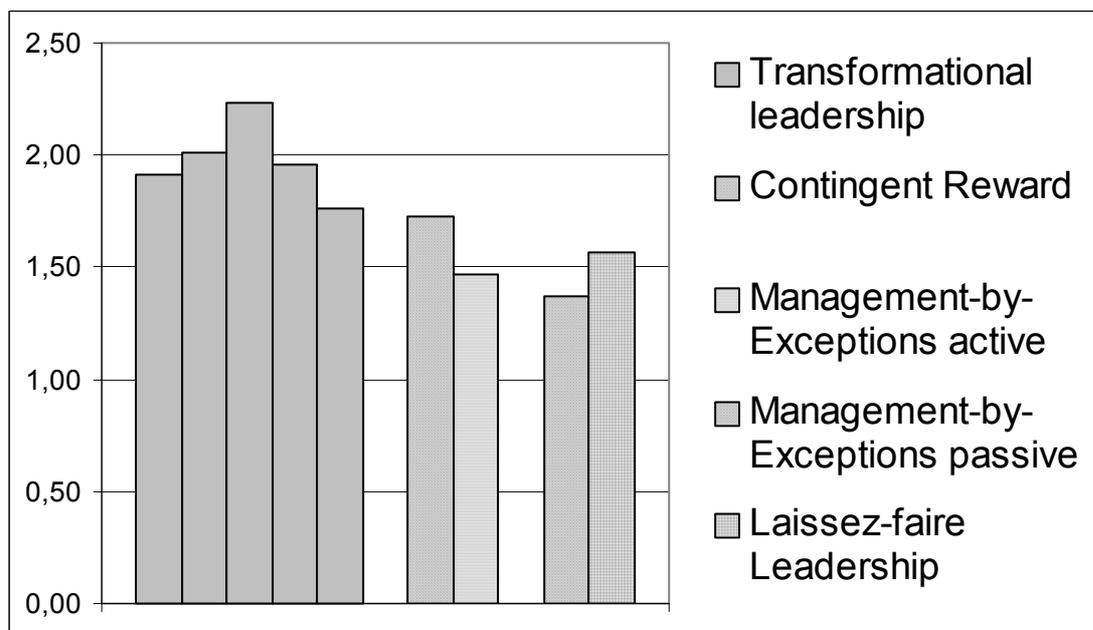
Contingent Reward and Management-by-Exceptions active do also not achieve the recommended values of 2,5.

With values above 1,0, Management-by-Exceptions passive and Laissez-faire leadership are noticeable higher than the favourable means.

Although the proposed values could not be achieved in our data, the trend towards them can be detected. As recommended by Bass (1998), all transformational scales reach the highest values and are followed by the transactional component of Contingent Reward. Management-by-Exceptions passive achieves the lowest value, as it should do.

Table 2 demonstrates this trend towards Bass' propositions.

Table 2: Comparison of styles



To simplify further evaluations we invented two new indices, one transformational and one transactional index. The transformational index is the mean of all 5 transformational components. The average means of Individualized Influence attributed and behaviour, Inspirational Motivation, Intellectual Stimulation and Individualized Consideration were taken together and then divided through five to get the general value for transformational leadership. For the transactional index the means of Contingent Reward and Management-by-Exceptions active were summed up and divided by two. We chose to take only these two components to get the transactional scale since Bass denotes that they have positive impacts on the followers, whereas Management-by-Exceptions passive is seen as a negative style. The

correlation between Contingent Reward and Management-by-Exceptions passive is significantly negative ( $r = -.718$ ,  $p = .01$ ), whereas the correlation between Management-by-Exceptions passive and Laissez-faire is significantly positive ( $r = .797$ ,  $p = .01$ ). These results underscore our decision to pair only Contingent Reward and Management-by-Exceptions active to get the transactional index.

The values of the two indices are presented in table 7.

*Table 4: Indices for transformational and transactional leadership*

Indices	Mean	Std. Deviation
Transformational leadership	1,99	0,95
Transactional leadership	1,58	0,65

Bass (1998) denotes that the leadership styles should correlate with the outcome measures Extra Effort, Effectiveness and Satisfaction. He proposed that the correlations between transformational leadership and the outcome measures should be fairly high because transformational leaders motivate their followers to work more than expected while feeling pleasure and fulfilment in their work. Table 8 illustrates that this proposed connection was found in our data.

*Table 3: Correlation between transformational leadership and the outcome measures*

Correlation	Extra Effort	Effectiveness	Satisfaction
Transformational leadership	0,86	0,85	0,87
$r^2$	0,74**	0,72**	0,76**

\*\* . Correlation is significant at the .01 level (2-tailed)

\* . Correlation is significant at the .05 level (2-tailed)

The observed correlations clearly support Bass' suggestion. High values in transformational leadership appear together with high values in subordinate' satisfaction, effectiveness and extra effort.

According to the literature the link between transactional leadership and the outcome measures should be minor, which can also be seen from our data in table 9.

*Table 4: Correlation between transactional leadership and outcome measures*

Correlation	Extra Effort	Effectiveness	Satisfaction
Transactional leadership	0,56	0,49	0,46
$r^2$	0,31**	0,24**	0,21**

\*\* . Correlation is significant at the .01 level (2-tailed)

\* . Correlation is significant at the .05 level (2-tailed)

Although the correlations are noticeably lower than the ones between transformational leadership and the outcome measures, they are still statistically significant.

The implications of these results will be taken up in the discussion.

### *Results of the GEFA*

The GEFA consists of 50 items measuring 10 different dimensions of organisational climate. Each item is scored with 0 to 3 points since the response scale includes four alternatives from three points for “agree fully” to zero points for “do not agree”. The scores of each subject in each dimension are counted and then divided through five in order to get the subject’s mean for every dimension. Then the mean and the standard deviation for each dimension are calculated for all subjects. The mean of all subjects can serve as the organisational measurement.

It is important to mention that it is not possible to compare the dimensions with each other. The same mathematical results in different dimensions contain dissimilar meanings. But the opportunity to compare different organisations of the same dimensions is given. Thus it is not possible to contrast for example the mean of Liveliness with the mean of Trust in one organisation, but the comparison of the results for Liveliness from two different organisations is achievable (Ekvall, 1986).

According to Ekvall (1986) a low mean on a dimension indicates that this dimension is not a significant part of the climate, whereas a high mean denotes that the climate is characterised by this dimension to a noteworthy amount. A value of zero on the dimension Challenge, for example, indicates that members of the organisation experience indifference and apathy in doing their job, whereas in an organisation with a value of three in Challenge subordinates are motivated to work and feel pleasure or achievement from their job. A high mean can usually

be viewed as more positive for the climate, except for the dimension “conflict”, where the opposite is true.

From the 100 distributed questionnaires a number of 38 came back, thus a response-rate of 38% exists. As mentioned in the procedure part, problems with the GEFA distribution arose due to copying errors. As the GEFA questionnaires were then distributed and had to be filled in twice, the response rate is fairly low. But because of a low standard deviation we can conclude that our data is still useable.

The results of the 38 questionnaires are the following:

*Table 5: Results of the GEFA*

<b>Dimensions</b>	<b>Mean</b>	<b>Std. Deviation</b>
Challenge	1,95	0,60
Freedom	1,95	0,58
Idea Support	1,64	0,76
Trust/Openness	1,43	0,44
Dynamism/Liveliness	1,82	0,68
Humour/Playfulness	1,94	0,65
Debate	1,61	0,55
Conflicts	1,04	0,74
Risk-taking	1,43	0,55
Idea Time	1,42	0,49

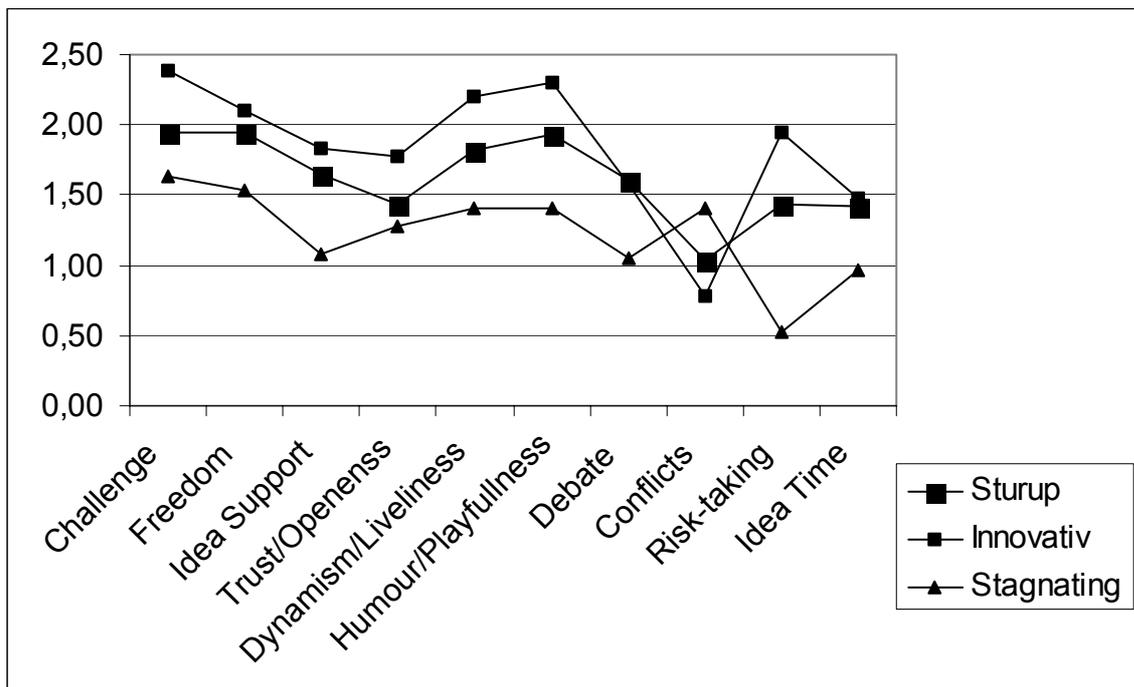
To interpret the results a comparison frame must be used. In this context the results of a study by Ekvall (1986) are presented. He distributed the GEFA in 15 organisations, 10 of them can be characterised as being creative and innovative, whereas the other 5 are rather stagnating. The results of this survey can be seen in table 8.

Table 6: Means for 10 innovative and 5 stagnating organisations and Sturup

Dimensions	Sturup	Innovative Organisations	Stagnating Organisations
Challenge	1,95	2,38	1,63
Freedom	1,95	2,1	1,53
Idea Support	1,64	1,83	1,08
Trust/Openness	1,43	1,78	1,28
Dynamism/Liveliness	1,82	2,2	1,4
Humour/Playfulness	1,94	2,3	1,4
Debate	1,61	1,58	1,05
Conflicts	1,04	0,78	1,4
Risk taking	1,43	1,95	0,53
Idea Time	1,42	1,48	0,97

To illustrate the relation of these values with them of our study more effectively, the results from the three types of organisations are shown together in table 9.

Table 7: Comparison of results



The reliability of the measurement is high when the organisational climate is observed by a representative group of subordinates who have had the time and the opportunity to get to know life in the organisation. If this is the case, then differences between organisations of .25 or more could be valued as significant (Ekvall, 1986).

Since the number of subjects was not very high in our study, the reliability of the questionnaire had to be tested. It could be shown that with a value of .80 the reliability is high enough to guarantee a secure measurement. Differences between Sturup and the innovative respectively stagnating organisations that are .25 or higher can therefore be valued as significant. (Tables 13, 14 in the appendix give a detailed view over the observed differences).

In the next part the focus lays on the relationship between the results of the two questionnaires that were used in this survey.

#### *Results of correlation between MLQ and GEFA*

At first a Spearman Correlation was conducted between the two leadership indices and all climate dimensions. No significant results could be found and no tendencies could be detected, since all correlations lay relatively close around zero (tables 15, 16 in appendix show the correlation matrix). To get a detailed view on the relationship between the two concepts, further correlations were made.

All five transformational components were correlated separately with the climate dimensions and again no significant results could be found.

The picture that arises when all three transactional components are correlated separately with the dimensions looks different. Significant results were detected that are shown in table 10.

*Table 8: Significant correlations between transactional leadership and climate dimensions*

Correlation	Idea Support	Liveliness	Playfulness	Conflicts
Management-by-Exceptions active	0,33	0,33	0,42	-0,44
$r^2$	0,11*	0,11*	0,18**	0,19**

\*\* . Correlation is significant at the .01 level (2-tailed)

\* . Correlation is significant at the .05 level (2-tailed)

The next correlation was made between Laissez-faire leadership and all dimensions, but no significant or nearly significant correlations were detected. At last all outcome measures, Extra Effort, Effectiveness and Satisfaction were correlated with the dimensions to detect possible relations. But also here significant results are absent. The reasons for these results and the implications are taken up in the discussion.

## Discussion

First the results of the MLQ are illustrated further.

In general, the standard deviations of all components are quite high, which leads to the conclusion that a common perception of the leadership style at the LFV in Sturup does not exist. One of the reasons for the variations is the evaluation of a number of different leaders. All departments have their own leaders and as mentioned in the procedure part, co-workers from all sections were asked to take part in the survey. Thus different leaders and not only one leader were evaluated.

The different leaders definitely have individually different leadership behaviours so that variations in the assessments had to be anticipated. Our results underscore the conclusion that there exists no general leadership style, but individual differences in the leadership behaviours.

Due to the guarantee of anonymity no specific information about the subjects, for example the working place or the individual task, was collected. Thus it is not possible to get explicit results for each of the departments and the individual leaders. In following studies it would be interesting to evaluate all leaders separately to detect which leadership styles they individually use.

As mentioned before, the results of this survey at Sturup do not reach the values proposed by Bass. Transformational and transactional leadership lay under the optimal levels, whereas the values for management-by-exception passive and laissez-faire leadership are fairly high. The reasons for these deviations have to be studied in depth.

The transformational component with the lowest value is Individualised Consideration (mean: 1,76). Bass (1985) defines this component as the amount of attention and support, which the leaders provide their followers. Leaders work as teachers and coaches; they listen carefully and further the developments of the subordinates to get them to develop their full potential. The focus lies on every individual's development and all subordinates are regarded as individuals with individual needs and abilities (Bass, 1985). This attitude is important to motivate followers to achieve more than expected, to go beyond borders and barriers. The lack of this leadership style could lead to lower effectiveness, routine and stagnation. Thus it is essential to perform Individualised Consideration in an organisation to support its progress.

Leaders at Sturup should focus more on the individual subordinates and further their development.

The next lowest mean can be observed in Idealised Influence (attributed 1,91 and behaviour 2,01). Leaders, who are using Idealised Influence, demonstrate conviction, emphasise trust, take stands on difficult issues and present their most important values openly (Bass, 1985). In his earlier work Bass named this component Charismatic Leadership since such leaders are admired as role models, they generate pride, loyalty and confidence. As a positive consequence, identification with the leaders and their articulated visions is built up and commitment to the organisation rises (Bass, 1985).

Bryman (1992) observed that Idealised Influence has a great impact on work performance and effort. Subordinates work more than expected and try to fulfil all organisational demands (Bryman, 1992).

Through Intellectual Stimulation, the component with the next lowest value (mean: 1,96), leaders convince followers to think differently, to question and to try new perspectives. Subordinates are encouraged to express innovative ideas and reasons (Bass, 1985). This type of behaviour is essential to prevent stagnation and frustration.

With a mean of 2,23 Inspirational Motivation reaches the highest value, but lies still noticeably under Bass's recommended value. With this style, leaders articulate an appealing vision of the future and challenge followers with high standards. Subordinates are encouraged to fulfil organisational goals and to believe in them (Bass, 1985). Work motivation and effort rise (Bryman, 1992). To be an effective organisation with high-motivated co-workers, leaders at Sturup should try to add Inspirational Motivation to their leading style.

This detailed explanation of all transformational components and the effects underscores their importance and their positive influence on followers and organisational outcomes. It is necessary to reach the values proposed by Bass to achieve higher work motivation and thus higher effectiveness.

We will now take a detailed look on the results to see reasons for the generally low values. In this context it is interesting to have a detailed look on all the scales individually. Bass (1998) stated that an item-per-item evaluation could be a possibility to detect special strengths and weaknesses.

Table 3 shows the transformational items that reached the highest agreements. The subordinates perceive these described behaviours fairly often and thus they are an essential part of the leadership style at the LFV at Sturup.

*Table 9: Transformational items with high values*

Component	Item		Mean
Inspirational Motivation	9	“talks optimistically about the future”	2,39
Intellectual Stimulation	8	“is searching for different perspectives when solving a problem”	2,36
Individualized Consideration	19	“treats you like an individual rather than only as a member of a group”	2,45

Since these behaviours are already present in the organisation, they could build the basis for the performance of other transformational behaviours. Leaders who by now perform a transformational leadership style can easily adopt other leadership techniques that also belong to transformational leadership.

It is important to support these special behaviours, to keep them existing and to create an atmosphere in which leaders feel motivated to use these ways of leading more often.

To know where changes are required immediately, the transformational behaviours that are observed only seldom have to be detected. With these behaviours a starting-point can be set in view of the fact that then leaders at Sturup get to know which specific behaviours they should use more regularly. Table 4 illustrates the transformational items that achieved the lowest values.

*Table 10: Transformational items with low values*

Component	Item		Mean
Idealized Influence (behaviour)	23	“evaluates the morale and ethical consequences of different decisions”	1,55
Individualized Consideration	15	“spends time with teaching and supervising”	1,1

The leaders should therefore start to evaluate the moral and ethical consequences of different decisions and spend time with teaching and supervising. As mentioned before, the component Individualised Consideration got on the whole a very low value. Leaders at Sturup should start to work as teachers and coaches; they should consider individual abilities and react to individual needs.

The results of Contingent Reward and Management-by-Exceptions active should also have been higher to reach Bass (1998) proposed values. Subordinates do not observe these behaviours but they are important for a positive leadership style. Especially the value for Management-by-Exceptions active lies obviously under the recommended mean, a situation that has to be inspected further.

Leaders using the style of Contingent Reward clarify what is anticipated from followers and what the subordinates will receive if they meet expected values of performances (Bass, 1985). Bryman (1992) stated that Contingent Reward could also lead to positive outcomes like higher effectiveness and motivation. It is therefore important to work with clear goal setting and rewards. These are behaviours, which are not an essential part of the leadership style at Sturup (Contingent Reward, mean: 1,76).

Active Management-by-Exceptions means that leaders focus on task execution and that they correct problems immediately to maintain current performance levels. For subordinates it is important to know that the leaders observe their performances and that they will react supportively to errors and failures. At Sturup the value for Management-by-Exception active is very low (mean: 1,47) and noticeably under Bass' proposed mean of 2,5.

Table 5 demonstrates which specific transactional leading behaviours are missing in Sturup.

*Table 11: Transactional items with low values*

<b>Component</b>	<b>Item</b>		<b>Mean</b>
Contingent Reward	16	“expresses clearly what you can expect to get if the goals are reached”	0,88
Management-by-Exceptions active	27	“points your attention to failure to fulfil the norms”	1,03
Management-by-Exceptions active	22	“concentrates all his or her attention to work on errors, complaints and failures”	1,42

It is important to concentrate on these behaviours and to try to change the current situation in order to perform a more transactional style. Especially leadership behaviours according to Management-by-Exceptions active should be carried out more frequently. It is important that leaders engage in the task execution before any possible problem might become serious.

The following part refers to Management-by-Exceptions passive and Laissez-faire leadership, two styles that should not appear regularly due to their negative impact on the leader-follower relation. “Laissez faire-Leaders” tend to react only after problems have become serious and

often they avoid making any decisions at all (Bass, 1985). Unfortunately in our data the means for these two scales lay noticeably above Bass' recommended values of 1,0. Table 6 shows the items that gained high agreement and that could be responsible for the generally high means.

*Table 12: Items measuring management-by-exceptions passive and laissez-faire leadership with high values*

<b>Component</b>	<b>Item</b>		<b>Mean</b>
Management-by-Exceptions passive	3	“does not take action until the problem has become serious”	1,94
Laissez faire Leadership	33	“waits before answering important questions “	1,87
Laissez faire Leadership	7	“is gone if you need him/her”	1,63

As was shown before, one of the problems in the leadership behaviour at the LFV in Sturup is the lack of Management-by-Exception active. This is emphasised by the high agreement on item 3. Subordinates have the feeling that their leader does not react before the problem and only when task execution has become seriously effected. Co-workers would prefer a situation in which they have the security that the leaders will correct mistakes and errors in order to prevent a serious problem.

Sometimes the subordinates also get the impression that the leaders do not want to make any decisions at all or answer important questions. It seems as if the leaders sometimes try to avoid taking responsibility and the duty to be decisive.

All leaders should be made aware of this so as to abandon these negative aspects of their behaviour in the future.

Through the detailed observation of the items a basis for changes and developments in the leadership style at Sturup is provided. Now it became clear which leadership behaviours have to be used more often and which of them ought to be abandoned. In further research it could be possible to assess if the proposed changes were implemented.

As mentioned in the results part, Bass proposed values for the so-called *optimal leadership*. All of the values in this survey lay under the recommended means. Therefore it would be interesting to have a detailed look on the outcome measures to see in which way they are influenced.

With a value of 1,88, Extra Effort lies slightly under the general mean of 2,0. Effectiveness (2,30) and Satisfaction (2,33) on the other hand reached relatively high values.

Through research it could be shown that a close relationship between transformational leadership and the outcome measures exists (Bass, 1985). Since the values of transformational leadership all lie under the recommended means, it would be reasonable to expect that the values of the outcome measures are not extremely high as well. As mentioned above, one of the problems at Sturup is a rather frequent use of Laissez-faire leadership, which could lead to frustration and discomfort of the subordinates. Simultaneously the motivation to work more than expected is quite low and therefore no extra effort is shown. The lack of rewarding behaviours at Sturup can be supposed because of the low values of Contingent Reward. Since performances are not praised and rewarded frequently, the impression of being effective itself can suffer. But still the values for Effectiveness and Satisfaction lay significantly above the general mean, which points to a situation in which co-workers feel pleasure and fulfilment from their job. This situation and its reasons are discussed later.

The low mean of Extra Effort could have other reasons than lacking transformational leadership. At the moment the economical situation at the LFV and therefore also at Sturup is not very positive. The downturn in air traffic continued in 2003 and the LFV had to react with strong structural changes that sometimes led to the reduction of the number of employees. Now co-workers miss the feeling of stability and security. For some of them it could be possible to lose their job soon and therefore there would be no need to put too much effort into work. Frustration from the feeling of instability can also lead to low work motivation and satisfaction. For the leaders it is important to take the employees' fears into account and to react to them. It is essential to try to build up as much stability and security as possible to provide a working atmosphere in which subordinates feel protected and secure.

The correlations between the leadership indices and the outcome measures are significant as the tables 8 and 9 show. Bass stated that transformational leadership and the transactional components Contingent Reward and Management-by-Exceptions active lead to higher satisfaction and effectiveness within the subordinates. This statement can be supported with our results. Subordinates, which have leaders that perform transformational leadership and Contingent Reward and Management-by-Exceptions active, are satisfied with their work situation and they perceive themselves to be effective and to do more than expected. Additionally also according to Bass, the correlation values for the relation between

transformational leadership and the outcome measures are higher than between the transactional components and the outcome measures. Leaders using transformational leadership behaviours are able to motivate and stimulate their followers to a very high degree. Our results underscore once more the importance and positive influence of transformational leadership.

The next part illustrates the results of the GEFA more specifically.

In comparison to the results of the MLQ, the standard deviations of the different climate dimension are relatively low. This points to a general organisational climate, which is observed and perceived by every co-worker in about the same way. As mentioned in the procedure part, some problems with the distribution of the GEFA existed and the subjects had to fill in the questionnaire on two different occasions. Using the data in spite of this incorrect method was possible only because of the low standard deviations. The individual perceptions of the organisational climate do not differ much from each other and for that reason our data can be used as the evaluation of the common climate at the LFV at Sturup.

Additionally as mentioned in the material part, with a value of .80 the reliability is high enough to engage in the interpretation of the results.

In the graph of table 9 it is clearly to see that Sturup lays in-between the stagnating and the innovative organisations. The dimensions Challenge and Risk-taking, which are always an essential part of an innovative climate, are significantly higher in the creative organisations.

Although the innovative values cannot be reached, the differences to the stagnating organisations in the dimensions Challenge and Risk-taking are statistically significant (see table xy in the appendix). In these dimensions Sturup lays obviously in the middle.

Through many studies Ekvall could show that the biggest difference between stagnating and innovative organisations exists in the dimension Risk-taking (Ekvall, 1993). Organisations that dare to take risks, that try to experiment with new thoughts and that support innovative ideas and ways of thinking have a greater probability to invent new and creative products and thus to be innovative. On the contrary, organisations that fear new thoughts and taking risks will not be innovative and they will always stay on the same level. This enormous difference in Risk-taking is shown in table 8 with a mean of 1,95 for innovative organisations and a mean of 0,53 for stagnating innovations. Sturup reaches, as mentioned, a position in the

middle. This observation can be interpreted in different ways. The organisation of an airport needs to pay a lot of attention to security and should not take too many risks. It is important to provide a secure and stable environment. Nevertheless, in times of economical problems it is important to make changes and developments and sometimes to dare taking risks in order to improve the current situation.

The value of Idea Time at Sturup reaches the results of creative organisations. Therefore co-workers get enough time to think about new ideas and experiments and the leaders do not need to make very fast decisions. This situation could lead to the impression of a rather low risk-taking mentality.

In the dimension Idea Support no statistic differences between Sturup and the innovative organisations can be observed, which leads to the conclusion that new ways of thinking and creative ideas are promoted at the airport. Item 3 (“ You dare to come up with your ideas because the others listen and encourage you”) and item 44 (“here exists an openness for new solutions”) and their high values (1,89 and 1,68) support this impression.

The position in the middle in the dimension Risk-taking can therefore be interpreted as quite positive. New Ideas and different ways of thinking are supported and get enough time and room to develop. Concrete changes and developments do also take place. At the same time security and stability are important aspects in an airport’s organisation and as a result not too many risks are taken. The items of the GEFA belonging to the dimension Risk-taking support this conclusion. Item 20 (“Here you are free to take risks”) achieved rather low agreements (0,97), whereas the value of item 23 (“People dare to take the initiative even if the result is uncertain”) is relatively high (1,60). This points to a situation in which risks are only taken if they do not interfere with safety and security but could lead to positive outcomes.

Ekvall denotes that a certain level of Freedom has to exist to provide innovation (Ekvall, 1993). High values in freedom point to a situation in which subordinates are able to work independently without permanent observation. Leaders at Sturup trust their followers to work correctly and effectively without pressure and surveillance. The subordinates feel and appreciate this, which can be shown through the high agreement on item 43 (“You feel quite high freedom here”). Freedom for the co-workers is important to initiate new and creative ideas and to offer the possibility to realise them. In this dimension Sturup reaches the values of innovative organisations, which again underscores the conclusions mentioned above. New ways of thinking and creative ideas are supported and realised when they do not bear numerous great risks.

This conclusion is also supported by the relatively high value in Debate. Debate is defined as the extent to which different opinions, views and experiences are allowed to exist and to meet (Ekvall, 1989). It is obvious that creative and different ideas lead to discussions and debates. Co-workers at Sturup feel free to express their thoughts and to argue about different opinions without being personal. Item 39 (“Variety in opinions is obvious here”) got high agreement, which leads to the conclusion that subordinates at Sturup are allowed to have and to express different ideas and opinions, this attitude is important for holding up an innovative and open climate where everyone is able to communicate thoughts, ideas and opinions.

Discussions about different opinions that do not get personal are often hard to lead. But nevertheless it seems to work in Sturup, which can be shown with the dimension Conflict. Conflict is, as mentioned before, the only dimension where a low value has a positive meaning. The less conflicts exist and are observed, the better the organisational climate. In this aspect Sturup shows again a position in the middle. The difference to the innovative as well to the stagnating organisations is significant. This result underscores the impression of an organisation in which different opinions are allowed and discussed on a non-personal level. The value for item 49 (“Many personal conflicts exist here”) lays under 1 (0,89), which underscores the impression that discussions are held without being personal. Co-workers feel free to articulate their thoughts since they do not have to fear being attacked or discriminated against.

As mentioned before, Sturup holds its position in the middle in the dimension Challenge. Ekvall states that Challenge has a general meaning, since in an organisation with high challenges co-workers want to do a good job and try to reach the high goals (Ekvall, 1993). When the challenge is not high enough, then subordinates are unmotivated, frustrated and the commitment to the organisation is low. A position in the middle points to a climate in which the challenge could be higher, but is not low enough to cause unhappiness. Item 32 (“Most people here try to show good performances”) has a value of 2,21, which shows that most of the subordinates try to do a good job and have the impression that all other colleagues want to do that as well. The high values of item 1 (“Most of the people here think that it is good to contribute to the organisation's progress”) and item 21 (“Most people experience the work here as meaningful and stimulating”) underscore the impression that the co-workers at Sturup are satisfied with their tasks and feel commitment to the LFV.

The situation described above is also mirrored in the dimension Dynamism/Liveliness where Sturup's value lays in-between the innovative and stagnating organisations. The daily life in the organisation is controlled by routine and not too high demands. As mentioned before,

attention must be paid to security and therefore extreme changes in the daily work processes are not possible. From this situation the liveliness suffers which could lead to unhappiness and low work-motivation. But since the difference to the stagnating organisations is significant, we can conclude that the situation at Sturup is still positive. Nevertheless it would be good to try to enhance the dynamism through changes and unexpected events in the daily life.

The value of Humour/Playfulness is usually very high in innovative organisations, due to the fact that there humour and jokes are supported since they could lead to new and creative ideas. Due to the generally rather bad and frustrated mood in stagnating organisations, the values for Humour/Playfulness are there very low. Again Sturup lies in the middle between both extremes. Item 38 (“You make a lot of jokes here”) and item 47 (“people here have a sense for humour”) have rather high values (2,24 and 2,19), which shows that humour is an essential part of the organisational climate but not in an extreme form.

An important aspect is the dimension Trust. There the value of Sturup lays significantly under the innovative values but shows no statistic difference to the stagnating organisations. This result has to be discussed further.

The low value of Trust does not fit into the picture that the relatively high values of the other climate dimensions draw. Ekvall (1986) defines Trust as follows: It is the amount of the emotional security and trust inside the organisation. Members dare to present all their opinions and ideas only when trust is high (Ekvall, 1986).

As illustrated before, the co-workers at Sturup are able to present all their ideas and opinions openly. Discussions and debates about them are frequent and non-personal. Therefore the low value of Trust must have special reasons.

After taking a detailed look on the items that are measuring Trust, an answer could be found there. Two of the five items contain a double negation: Item 4 “You do *not* have to be afraid of being “stabbed in the back” and item 15 “people here do *not* talk behind your back”. If subjects think that they do not have to be afraid of “daggers”, then they should choose either the response alternative “agree rather much” or “agree fully”. This would lead to a high value of the item.

However, items with double negation are regularly hard to understand. Subjects do often not know which response alternative to choose to express their opinion in the right way. This behaviour can be illustrated on item 15. Subordinates at Sturup think that co-workers there do not talk behind their backs. They want to express this impression and choose a response alternative with a low agreement, e.g. do not agree, because people here do *not* talk bad behind backs. Since the statement in the item contains a negation, the subjects should have

chosen a response alternative with high agreement, e.g. agree fully, because it is true that people here do *not* talk behind backs. This logic is often hard to understand and most of the subjects decide to take alternatives with low agreements. This behaviour leads to a low value of the item, although this was not the intended result.

Since these two items belonging to Trust are the only ones with a double negation in the GEFA, we could conclude that the low agreement on them is caused by their formulation. There are two additional items that measure Trust: Item 26 “We trust each other” and item 45 “Contacts and discussions between people here are open and direct”. These items got fairly high values (1,90 and 1,65), which supports the impression of an organisation in which subordinates are free and eager to express their thoughts and to discuss their opinions. Since these statements got high agreements, we can conclude that the level of Trust at Sturup is actually relatively high. The overall low value of the dimension is caused by the wrong response behaviour to the two items that contain double negations.

In general it can be seen that there exists a common perception of the organisational climate at the LFV in Sturup. This climate is relatively positive and leads to the impression of an organisation, in which new ideas and ways of thinking are allowed and supported. Discussions and debates are a part of the daily work processes and they are held on a non-personal level. Co-workers at Sturup are satisfied with their tasks and they try to support their organisation in its success and progress. Although the economical situation in air traffic is quite poor at the moment, liveliness, humour and playfulness are an essential part of the organisational climate.

### *Relationship between leadership and organisational climate*

In the main focus of our research lies the relation and interaction between leadership and organisational climate. Ekvall denoted that leadership works through climate and underscores thus the strong relation between both concepts (Ekvall, 1993). He refers to other researchers like Litwin and Stringer who stated that leadership can be seen as a significant determinant of organisational climate (Ekvall, 1993). As climate is one of the determinants of work motivation, it can be regarded as a link between leading behaviour and the subordinates' performances (Ekvall, 1993). It is therefore an essential part of leadership to create a positive and motivating climate. Researchers state that creating an “atmosphere” is one of the main

goals and demands of leaders (Ekvall, 1993). Through their behaviours, leaders have the possibility to build up or maintain a climate in which subordinates are motivated to fulfil all demands and to be committed to the organisation. Human resources are the tools leaders have to work with to support the organisations' progress and economical success. As illustrated before, especially transformational leadership encourages subordinates to work more than expected, to create new ideas, to feel commitment to the organisation and its purpose and on the whole to be motivated and effective. Leaders using transformational leadership build up a climate in which co-workers are encouraged to think differently, to try new ideas and to fulfil demands and requests.

Ekvall conducted numerous studies about the relationship between leadership and the level of innovation and creativity in an organisation, observing a multiple correlation index of  $R^2 = .66$ , which leads to the conclusion that two third of the variations between innovative and stagnating organisations can be traced back to the individual leadership styles (Ekvall, 1994). Although this number is quite high, other influences should not be dismissed. Still, the relation between leadership style and climate is significant.

In our study, we used two well-known questionnaires to assess the leadership style and the organisational climate at the LFV in Sturup. To detect the relationship and interactions between both concepts, correlations between the results were computed. Unfortunately, our results are not very clear.

Significant correlations exist only between one leadership component, Management-by-Exception active and the four climate dimensions Idea Support, Liveliness, Playfulness and Conflicts. The correlation between Management-by-Exception active and Conflicts is negative. Management-by-Exception correlates positively with high Idea Support, Liveliness, Playfulness and few conflicts.

The mean of Management-by-Exception active is very low and we could conclude that it is not an essential part of the leadership style at Sturup. Therefore the significant correlations cannot be interpreted easily.

The danger when using correlations is that only few but special answers, the so-called *outliers*, could change the whole picture and lead to significant correlations. Therefore we took a detailed look on all significant correlations and their scatter-plots. The significant correlations between Management-by-Exception active and the dimensions Idea Support and Liveliness could have appeared due to the influence of outliers. When erasing the outliers, the

correlations became non-significant. Therefore the evaluation of one specific person is responsible for the significant results.

The significant correlations between Management-by-Exception active and the dimensions Playfulness and Conflict cannot be traced back to outliers. After eliminating the outliers, the correlations still stayed significant. There must exist other reasons for the significant relation. With regard to the literature, the observed significant correlations in our data make no sense. It would be interesting to check in further investigations if this correlation will appear again. It shows a pattern that exists at the airport in Sturup, but that cannot be interpreted with the literature so far.

Other relations that were supposed to be significant did not reach statistical significance in our research. As mentioned above, transformational leadership should lead to a climate in which subordinates are encouraged to work more than expected, to try new ideas and to feel commitment to the leader and the organisation. This theoretical background led to the anticipation of significant correlations between transformational leadership and the climate dimensions Challenge, Idea Support, Trust, Freedom, Liveliness, Playfulness, Debate and Risk-taking. The correlation between transformational leadership and Conflicts should be negative, since this leadership style supports openness and trust inside an organisation. All these supposed correlations did not reach statistical significance in our survey and reasons for this must be discussed.

On the one hand, the number of subjects was relatively low and therefore no parametric correlations could be computed. We used the non-parametric Spearman coefficients. With only few subjects it is always very difficult to detect relations and ways of influences. Thus the small number of participants could be responsible for the non-significant correlations. In following research it would be good to ask more subjects to take part in the survey. More subjects could lead to the detection of relations and interactions.

The fewer the number of subjects, the higher is the possibility to get non-significant results. As mentioned above, correlations always bear the risk of getting significant or non significant because of very few subjects that answer in a complete different way. This may also be a reason for the generally low correlations between the concepts. A detailed look on all scatter-plots, the graphic representation of the correlation, gives no hint on outliers that changed the whole picture. The graphs underscore that there seems to be no significant relation between transformational leadership and the climate dimensions.

Another reasons for the non-significant correlations could be the generally low values of transformational leadership at Sturup. As illustrated before, the means do not reach Bass's recommended values. Transformational leadership is not an essential part of the general leadership style and therefore the relation between it and the organisational climate could be low. When this leadership style is not performed it cannot have an important impact on the organisational climate.

Since the dimensions that should, according to the literature, be influenced positively by transformational leadership reach relatively high, respectively low values in our study, other reasons for that must exist.

As mentioned before, also the transactional component Contingent Reward has a positive impact on the subordinates' work performance and effort (Bryman, 1992). The correlations between Contingent Reward and the climate dimensions are not significant and in the whole the values for Contingent Reward are quite low. From these results we can draw the conclusion that the transactional leadership Contingent Reward is not responsible for the positive organisational climate.

As we have illustrated before, there exists a significant correlation between the transactional component Management-by-Exceptions active and four climate dimensions. This correlation does not make sense according to the literature and since the general mean for Management-by-Exceptions active is low, this transactional component does not seem to be the reason for the high values in the climate dimensions either.

The two leadership styles Management-by-Exception passive and Laissez-faire show no significant correlations with the climate dimensions. This could be expected since these two styles can be better defined as non-leading styles and they cause frustration, unhappiness, no motivation and less effort. The climate at Sturup is very positive and the outcome measures assessed by the MLQ, Effectiveness, Extra Effort and Satisfaction reach relatively high values. Co-workers at Sturup seem to be motivated and satisfied with their job. This situation is not found when Management-by-Exception passive and Laissez-faire are the dominant leading styles in an organisation. Thus we anticipated no or negative correlations between these two styles and the climate. The reason for the non-existence of significant negative correlations could again be located in the small number of participants in this survey. As illustrated before, the lower the number of subjects, the more difficult it is to get significant correlations. In following studies with a higher number of participants it could be possible to

detect significant negative correlations between the two “non leading” styles and all climate dimensions except Conflicts.

The picture that arises from our data is not very clear. The MLQ led to the detection of low values for transformational and transactional leadership and relatively high means of Management-by-Exception passive and Laissez-faire. This pattern does not fit into the *optimal leadership* recommended by Bass. Transformational and transactional leadership are not used frequently enough, whereas the use of non-leading style should be abandoned in the future.

This picture could evoke the impression of an organisation in which co-workers are not motivated to work, are unsatisfied with the tasks and are not committed to the organisation and its goals.

Nevertheless, the assessment of the organisational climate shows a complete different picture. High values in numerous important climate dimensions, for example in Freedom, Idea Support and Idea Time, as well as a low mean of Conflicts lead to the impression of an organisation in which co-workers experience motivation, satisfaction and fulfilment from their work. The subordinates are satisfied with the general mood inside the LFV at Sturup and they have the feeling of being supported and respected. At the same time they appreciate their work and want to do a good job in order to support the organisation in its development and progress.

How could these two impressions be put together and what are the reasons for this special situation? We will try to answer these questions in the following part.

We have already referred to the high standard deviations in the results of the MLQ as a sign of the lack of a general leadership style in Sturup. The leaders from all departments perform different individual leadership behaviours. All subjects were asked to evaluate their own leader and his or her behaviour, thus no general evaluation was required. Since no specific information about the participants was collected, we cannot pair the subject to his or her department. Therefore we have no explicit assessment of the individual leadership style of every leader.

As different leaders were evaluated, it is difficult to get a general picture. Some of the leaders in Sturup might perform a transformational leadership style, whereas some of them might use transactional components and some might conduct no leadership at all. Probably most of them

perform a mixture of all different styles. In following studies it would be good to get specific data about all the leaders separately to assess the individual leadership styles.

In contrast to the high standard deviation in the MLQ and the lack of a general leadership style, the organisational climate seems to be perceived in the same way by all co-workers of the LFV in Sturup. The standard deviations are relatively low and therefore we can draw the conclusion that a general organisational climate exists that is perceived by all subordinates in the same way. Ekvall made numerous studies on the topic of organisational climate and he was able to specify different factors that determine the individual climate (Ekvall, 1986). As mentioned above, leadership is one important factor. Nevertheless it is not the only significant one. We can now take a detailed look on the different factors to detect which of them are determining the positive organisational climate in Sturup.

One important factor is the size of an organisation. In small organisations communication is easier and most of the co-workers know each other, even if they work in different departments. There is more contact and interaction between subordinates and leaders.

Therefore the possibility to react to problems, concerns as well as to new ideas and perspectives of the subordinates is large. In big organisations anonymity in the staff and no direct contact between leaders and subordinates is a daily problem. With 177 full-time equivalent employees, the Sturup division is the smallest one among all divisions of the Swedish LFV (LFV, 2002). This size does still allow a lot of contact between departments and subordinates. The ways of communication are quick and effective and the leaders can directly react to their followers' concerns. Decisions are faster since they do not have to pass many different levels. This situation is reflected in the positive evaluation of the organisational climate. Regular communication and interaction between departments and employees lead to a situation in which liveliness and humour are an essential part of the daily work.

The next factor is the tasks of the daily work processes and the overall tasks of the organisation. As can be seen in the detailed analysis of the climate dimension Challenge, the subordinates are very content with their tasks and try to make their job as effective as possible to support the organisation's success and progress. Satisfaction with the duties and demands can lead to general satisfaction with the whole organisation and its climate.

Technology has a great influence on daily work processes and is therefore an essential factor. As an airport, Sturup need a very good and modern technology process. Safety is an important aspect and technology must be used to provide and maintain it. During 2002 new, environmentally friendly and user-friendly machinery and equipment were implemented at

Sturup that should improve the working environments of all employees (LFV, 2002). This investment had a positive impact on the climate since it actually improved the working environment as well as showing the employees that leaders care for them and continuously try to advance their working conditions.

The influences from all other factors like people, structure or organisation of work are difficult to assess from our data since we did not specially evaluate them. Due to the guarantee of anonymity no specific information of the individual participants was collected. Therefore no connection between special individual aspects or individual working conditions and the climate could be assessed. It would be interesting to have a detailed look on all the factors and their impact on the organisational climate in following studies.

Yet there could be another reason for the generally relatively positive climate in Sturup. As mentioned before, the downturn in air traffic that began in 2001 continued during 2002. At the Swedish CAA the traffic declined by 8 per cent and the number of landings was 9 per cent lower than in 2001 (LFV, 2002). The largest downturn occurred in traditional charter flights, whereas domestic air travel showed declines of only 6 per cent. The Stockholm region was hit especially hard by the economic downturn. In comparison to this, Sturup performed quite well with respect to international traffic. Among several reasons are the stimulating effects of the good economic situation of the engineering industry in western Sweden and new low-price carriers that create new markets. With declines of less than 10 per cent in traditional charter traffic, Sturup could keep relatively high volumes (LFV, 2002). In the whole, the Öresund region could consolidate its position as the largest air travel market in the Nordic countries. After the opening of the Öresund Bridge between Sweden and Denmark, this region is characterised by dynamism, which is also mirrored in the air traffic trend. Now more and more Danes fly out from Sturup, thus creating a new group of customers for the future (LFV, 2002). To sum it up, although declines in air traffic are a vital problem, the situation at the LFV in Sturup is in comparison to the other airports relatively good. Employees in Sturup feel this, which is reflected in the positive evaluation of the organisational climate. Even though the economic situation in the air traffic market and thus at the airport in Sturup is problematic, co-workers in Malmö know that their division works fairly well. This positive aspect lessens the fear caused by the economical problems and it enhances a feeling of pride and satisfaction. The employees are happy to work exactly in Sturup and not in another airport. The contentment of the subordinates is reflected in the positive climate.

This factor works without the influence of the leadership style and could therefore be responsible for the overall positive evaluation of the climate, in spite of the lack of transformational and transactional leadership.

As mentioned above, the values for the outcome measures Effectiveness and Satisfaction of the MLQ are in spite of the low transformational means relatively high. At first this was seen as an irritating result, since actually low transformational leadership should lead to low work motivation and pleasure. Now the subordinates' impression of a high effectiveness and satisfaction can be explained with the organisational climate. As illustrated before, co-workers in Sturup like their tasks and they try to be as effective as possible to support their organisation. They also feel fulfilment and pleasure from their jobs and thus the general satisfaction is quite high. The positive organisational climate is therefore reflected through the high values in the MLQ-components Effectiveness and Satisfaction.

Before drawing a general conclusion to this study, the disadvantages have to be discussed briefly. One major problem was the low response frequency, 50% for the MLQ and only 38% for the GEFA. One reason for this low number could be the lack of time, since the subordinates at Sturup got only two weeks to hand in the questionnaires. In a personal meeting the leading group confirmed that not all employees had enough time to fill in the questionnaires. Thus in future studies it would be necessary to provide more time for this phase.

Another problem was that we could not gather specific information about the participants due to the guarantee of anonymity. Because of this it is not possible to pair each subject with his or her department and leader. As mentioned before the individual leadership behaviours seem to vary from leader to leader at a very high level and therefore it would be interesting to take a look at all departments separately. It would also be informative to know if characteristics of the subjects, for example their gender and their working experience, influence their evaluations of the leadership style and the organisational climate.

These aspects should be taken into account in following studies.

As a conclusion from this study we can state that the LFV at Sturup is an organisation in which the subordinates are content with their tasks and they are motivated to work.

There exists no general leadership style but individual differences between the leaders of different departments. In this context some improvements could be necessary, since it seems that Management-by- Exceptions passive and Laissez-faire leadership are styles that are used too often. In the future the focus should lie on the support of transformational and transactional leadership behaviours.

The measurement of the organisational climate on the other hand led to very positive results. In important dimensions values for innovative organisations could be reached, which evokes the impression of an open, tolerant and innovative climate. The subordinates are enjoying their work and the commitment to the organisation is high.

In a situation of economical turmoil and insecurity, it is important to try to keep this positive climate. Through the improvement of leadership practices the first step to reach this goal could be completed.

Further studies could measure if the proposed developments in the leadership style took place. Possible, future changes in the climate could be detected as well.

It would be interesting to asses the relation between both concepts, in order to see if significant and valuable results exist further down the track.

In following research it is very important to increase the number of participants in the survey to be able to draw a complete picture of the situation at Sturup. The views and opinions of all employees should be taken into account.

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## Appendix

Graphic 1: Organisational hierarchy at Sturup airport

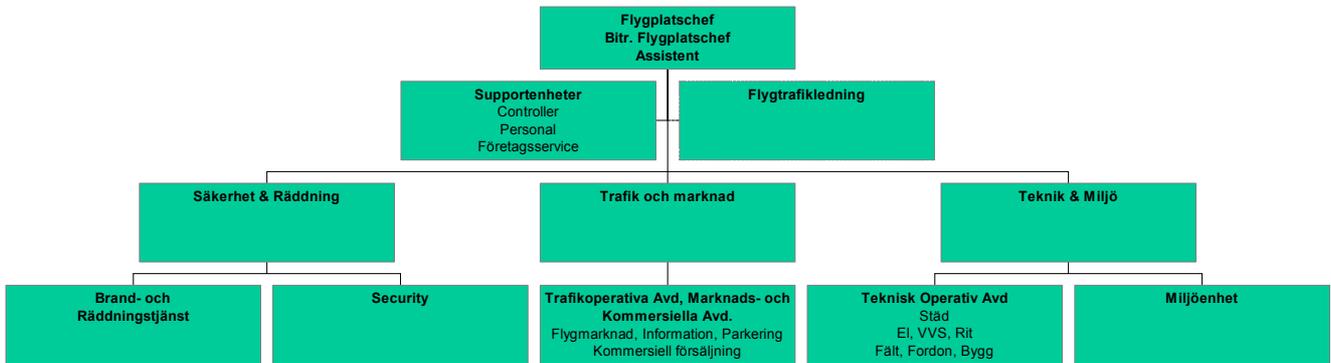


Table 13: Differences between Sturup and innovative organisations

Dimension	Sturup	Innovative Organisations	Difference
Challenge	1,95	2,38	0,43*
Freedom	1,95	2,10	0,15
Idea Support	1,64	1,83	0,19
Trust/Openness	1,43	1,78	0,35*
Dynamism/Liveliness	1,82	2,20	0,38*
Humour/Playfulness	1,94	2,30	0,36*
Debate	1,61	1,58	-0,03
Conflicts	1,04	0,78	0,26*
Risk taking	1,43	1,95	0,52*
Idea Time	1,42	1,48	0,06

\*. Difference above 0,25 is significant

Table 14: Differences between Sturup and stagnating organisations

Dimension	Sturup	Stagnating Organisations	Difference
Challenge	1,95	1,63	-0,32*
Freedom	1,95	1,53	-0,42*
Idea Support	1,64	1,08	-0,56*
Trust/Openness	1,43	1,28	-0,15
Dynamism/Liveliness	1,82	1,40	-0,42*
Humour/Playfulness	1,94	1,40	-0,54*
Debate	1,61	1,05	-0,56*
Conflicts	1,04	1,40	0,36*
Risk taking	1,43	0,53	-0,90*
Idea Time	1,42	0,97	-0,45*

\*. Difference above 0,25 is significant