

THE EXPERIENCE OF WORK CIRCUMSTANCES AND STRESS: A PROFILE OF FLIGHT ENGINEERS IN A LABOUR DISPUTE

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ABSTRACT

Items from standardized tests as well as structured and semi-structured questionnaires were used to compile a profile of flight engineers involved in a labour dispute. Pertinent views of spouses were also measured. The subjects were found to be committed to their careers and identified with the goals of the company. However, the possibility of redundancy was related to distrust in management, depression, anxiety, psychosomatic stress symptoms, lowered experience of general well-being, strained family life and impaired relations with their spouses. The findings provoke concern about the possible effects on in-flight safety and organizational effectiveness.

OPSOMMING

Items uit gestandaardiseerde toetse sowel as gestruktureerde en semi-gestruktureerde vraelyste is gebruik om 'n profiel van vluginieurs betrokke by 'n arbeidsdispuut saam te stel. Relevante sienings van eggenotes is ook gemeet. Daar is bevind dat die respondente toegewyd is aan hulle beroep en met die doelstellings van die organisasie identifiseer. Die moontlike uitfasering van hulle beroep was egter verbind aan wantroue in die bestuur, depressie, angs, psigo-somatiese stressimpotome, verlaagde ervaring van algemene weslyn, gestremde gesinslewe en verswakte verhoudings met eggenotes. Die bevindings wek besorgdheid oor die moontlike gevolge vir aanboord veiligheid en organisatoriese effektiwiteit.

It has been widely recognised that *job future ambiguity* acts as a significant source of stress in the workplace. When not adequately addressed, this source of stress has dire consequences for both individual well-being as well as organizational effectiveness. The extent to which ambiguity in one's future career is perceived (be it in terms of cutbacks, retrenchments, or reassignment), is in the long run likely to manifest in the increase of stress and coping reactions by individual workers, ineffective organizational functioning, and strained industrial relations.

Hartley and Klandermans (1986) argue that individuals who are subjected to such circumstances are apt to experience lowered levels of psychological well-being, self-esteem, mental health, and job satisfaction, as well as increased anxiety. Coping strategies may involve inertia, denial, changes in commitment to their union and changes in willingness to participate in union action. The organizational consequences of job insecurity may include low organizational commitment, effectiveness, and morale. Industrial relations are likely to be typified by a breach in mutual trust between management and employees, and by conflict which may lead to the declaration of a dispute.

These assertions have been tacitly supported by Girodo's (1988) investigation of the psychological health of pilots involved in a labour dispute which centered on their experience of career future ambiguity. One quarter of the pilots in the investigation was assessed to be 'psychologically at risk' and presented elevated symptoms of anger-hostility, paranoia, obsessive-compulsiveness, as well as enhanced accident-proneness. Other studies on career future ambiguity have reported increased depression, anxiety, poorer emotional health and family life (Greenhalgh, 1983; Greenhalgh & Rosenblatt, 1984; Jick, 1985; McClean, 1985).

The opportunity for the present investigation arose from a situation in which a labour dispute developed between management and the flight engineers association of a small sized national airline.

The advent of new technology aircraft that no longer require the services of professional flight engineers, was heralded by the withdrawal of the B727 aircraft and the introduction of the B737 aircraft in 1982. Since then the flight engineers association in question had made repeated calls for clear indications regarding the future of flight engineer officers (FEO's) within the company. Steps taken by the top management of the airline to address this issue were considered to be inadequate, and eventually a dispute was declared.

The aim of the present investigation was to gain information on the flight engineers' current assessment of their work circumstances and the extent to which psychological stress is experienced. It was expected that the psychological health, family relations and job attitudes of flight engineers would be negatively affected by their perception of factors leading to the labour dispute.

METHOD

The information was gathered by means of a questionnaire consisting of items from psychometric tests, structured and semi-structured questions. A section dealing with the views of the flight engineers' spouses was also included. The respondents received written instructions on how to complete the questionnaire. Assurances of anonymity were given and subjects were requested to return the completed questionnaires in sealed envelopes. The flight engineers association distributed the questionnaires to all its members (N = 164). Participation in the research project was voluntary.

Measures of the respondents' perception of their job circumstances, stress at work, and psychosomatic indicators of stress consisted of the following:

Job circumstances

Facet-free Job Satisfaction: This scale consists of five items measuring "a worker's general affective reaction to the job without reference to any specific job facet" (Quinn & Staines, 1979, p. 205). They reported an overall mean score of 18,3 (sd 5,1) for a national American sample (N = 1 515), with an alpha

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coefficient of 0,77. Satisfactory reliability and validity figures were also reported by a number of researchers using shorter versions of this scale (Cook, Hepworth, Wall & Warr, 1981).

Work Alienation: This scale measures occupational self-estrangement in that it deals with "the extent to which the employee experiences pride in the use of valued skills while doing his or her job" (Rousseau, 1977, p. 28). This 5-item scale was developed by Miller (1967). An internal reliability coefficient of 0,82 was reported (Hammer & Stern, 1980) and Rousseau (1977) found mean scores for production workers (N = 201) in three different technologies which ranged from 0,69 (sd 1,02) to 0,75 (sd 1,08), and 1,92 (sd 1,54). According to Cook et al (1981), mean values appear to be typically low on this scale.

Interpersonal Trust at Work: The authors (Cook & Wall, 1980, p. 39) view trust at work as "the extent to which one is willing to ascribe good intentions to and have confidence in the words and actions of other people" at work. Mean scores for this 12-item scale on two samples (N1 = 390, N2 = 260) were 60,48 (sd 12,33) and 63,04 (sd 10,23) respectively. The subjects were blue-collar British employees selected to match British demographic characteristics. The corresponding alpha coefficients were 0,85 and 0,80, whereas a test-retest correlation over six months was 0,60.

Four sub-scales entitled *Faith in Peers (FP)*, *Faith in Management (FM)*, *Confidence in Peers (CP)*, and *Confidence in Management (CM)* consisted of three items each. Sub-scale statistics for the FP scale were: means 17,28 (sd 3,27) and 17,77 (sd 2,90), alpha coefficients 0,77 and 0,71, and test-retest correlation 0,51 (N = 63). The FM sub-scale was found to have means scores of 13,68 (sd 4,62) and 14,48 (sd 4,10), alpha coefficients of 0,78 and 0,69, and a test-retest correlation coefficient of 0,51. The CP sub-scale had mean scores of 15,87 (sd 3,83) and 16,74 (sd 3,69), alpha coefficients of 0,74 and 0,77, and a test-retest correlation of 0,43. Mean scores on the CM sub-scale were reported to be 13,74 (sd 4,69) and 14,05 (sd 4,14) with alpha coefficients of 0,79 and 0,74 and a test-retest correlation coefficient of 0,43.

Organizational Commitment: The authors (Cook & Wall, 1980) describe this 9-item scale in terms of three interrelated components, namely the extent to which workers take pride in and identify with the organization and its goals, their willingness to invest personal effort for the sake of the organization, and their experience of loyalty and attachment to the organization. The respondents were male and represented national demographic characteristics. Scale statistics for two samples (N1 = 390, N2 = 260) were as follows: Mean scores of 44,64 (sd 11,45) and 45,37 (sd 9,5) were obtained with alpha coefficients of 0,87 and 0,80, and a test-retest correlation coefficient over six months of 0,50 (N = 63).

Job Attachment: Koch and Steers (1978) developed this 4-item scale described as a measure of identification with one's occupation and reluctance to seek different employment. The alpha coefficient for 77 public service employees was found to be 0,71. A mean score of 10,44 (sd 2,80) was obtained for 66 employees who remained with their organization for at least eight months after the study.

Company Identification and Career Future: These two 5-item scales form part of a more extended measure devised by Smith (1976). The Company Identification scale measures the extent to which organizational goals and structures are perceived to support the welfare of employees. A mean value of 16,90 (sd 3,25) for 398 administrative workers was obtained by Pierce, Dunham and Blackburn (1979). Cook et al. (1981) reported an internal reliability estimate of 0,82 and a test-retest reliability coefficient over six weeks of 0,71 (N = 12 971). The Career Future scale measures respondents' perception of job security and the opportunity to advance their career within the organization. Cook et al. (1981) reported a mean score of 15,45 (N = 40 340), an internal reliability estimate of 0,83, and a test-retest reliability coefficient of 0,76 (N = 12 971) for this scale.

Structured and semi-structured questions were included to obtain information about the respondents':

- views about making a career change within the organization
- uncertainty about their future in the company and the extent to which it influences job performance, work and family relations, and general well-being
- views of positive and negative aspects of job circumstances as well as suggestions for creating better work circumstances.

Psychological stress at work and psychosomatic stress symptoms

Depressed Mood at Work: The authors (Cook & Wall, 1980) devised a 10-item scale to measure the experience of depression in a job-related context. A national American sample (N = 1 496, 38% female) yielded a mean score of 33,2 (sd 4,4) with an alpha coefficient of 0,77. A numerically high score indicates a low level of depression.

Self-esteem at Work: Rosenberg's (1965) 10-item scale was contextualized by requesting the respondents to focus on their self-attitudes *at work*. A reproducibility index of 0,93 and a 2-week test-retest reliability of 0,85 were obtained on this scale (Burns, 1979). In a South African study (Visser, 1985), which employed a random sample of 1 531 eleventh grade pupils, the test was scored as a Likert scale and a mean of 31,1 (sd 4,4) was obtained. An internal consistency coefficient of 0,83 was obtained and the scoring was performed such that a high score reflects high self-esteem.

Anxiety-stress: In order to measure "the existence of tensions and pressures growing out of job requirements, including possible outcomes in terms of feelings or physical symptoms", House and Rizzo (1972, p. 481) developed a measurement scale consisting of three sub-scales, namely *Job-induced Tension* (seven items), *Somatic Tension* (Five items), and *General Fatigue and Uneasiness* (five items). Mean scores based on an initial sample of managerial, professional, and technical employees in the same organization were 8,68 (sd 1,96), 6,65 (sd 1,15) and 6,25 (sd 1,55) respectively. Internal reliability coefficients of 0,83, 0,76 and 0,72 were obtained.

Health Opinion Survey: According to the author, MacMillan, 1957, p. 337) this 20-item scale was developed "to distinguish" individuals with psychoneurotic and related behaviours from a general population. This scale is extensively used in studies to estimate the need for psychiatric services, and serves as a general measure of stress-related mental health (Girodo, 1988). Scores on this scale range between 20 and 60 and the cutting point for successfully (with 90% specificity) identifying individuals who are psychologically at risk, have been suggested to be scores of 32 or higher (Girodo, 1988).

Views of spouses

Structured and semi-structured questions were included to gain information from the spouses of the respondents on:

- how they perceive their husbands to feel about their future career as flight engineers and the extent to which uncertainty (if experienced) is affecting his mood, well-being and their family life, and
- changes in their husbands' attitudes toward their occupation.

Comparability and validity of present psychometric results

The concern about the comparability of previous findings with the results of the present sample was addressed by selecting studies which made use of large Western samples reflecting, where possible, national demographic characteristics. Also, the standard deviations obtained on the present sample for the respective psychometric tests (see Table 3) were in all cases comparable to those obtained for the comparison groups. The above-mentioned facts provide reassurance about the suitability of the comparison groups. It should also be kept in mind that the literature on psychology abounds with examples in which psychometric tests were applied in different countries and produced approximately identical results, provided that

the cultural backgrounds and socio-economic status of the different samples were not disparate.

Additional evidence on comparability was obtained by performing Pearson correlations on the present results. From the intercorrelation matrices presented in Tables 1 and 2, it is clear that the expected sizes and directions of the intercorrelations

of tests used to measure perceptions of job circumstances and tests dealing with psychological stress symptoms were confirmed, thereby providing evidence of construct validity. Inspection of Table 1 shows that two factors are possibly involved: the first factor deals with job satisfaction and attachment, whereas the second factor deals with job circumstances relating to organizational climate.

TABLE 1
INTERCORRELATION MATRIX OF THE SCORES ON THE PSYCHOMETRIC TESTS RELATING TO JOB CIRCUMSTANCES

| Test | Job Satisfaction | Work Alienation | Interpersonal Trust at Work | Organizational Commitment | Job Attachment | Company Identification | Career Future |
|-----------------------------|------------------|-----------------|-----------------------------|---------------------------|----------------|------------------------|---------------|
| Work Alienation | -0,40* | | | | | | |
| Interpersonal Trust at Work | 0,37* | -0,14 | | | | | |
| Organizational Commitment | 0,45* | -0,19 | 0,43* | | | | |
| Job Attachment | 0,73* | -0,37* | 0,24 | 0,37* | | | |
| Company Identification | 0,30* | -0,17 | 0,62* | 0,49* | 0,10 | | |
| Career Future | 0,35* | -0,10 | 0,58* | 0,42* | 0,23 | 0,66* | |

*Significant at $\alpha = 0,001$

TABLE 2
INTERCORRELATION MATRIX OF THE SCORES ON THE PSYCHOMETRIC TESTS RELATING TO PSYCHOLOGICAL AND PSYCHOSOMATIC STRESS SYMPTOMS

| Test | Depressed Mood at Work | Self-esteem at Work | Job-induced Tension | Somatic Tension | General Fatigue and Uneasiness | Health Opinion Survey |
|--------------------------------|------------------------|---------------------|---------------------|-----------------|--------------------------------|-----------------------|
| Self-esteem at Work | 0,45* | | | | | |
| Job-induced Tension | -0,65* | -0,36* | | | | |
| Somatic Tension | -0,61* | -0,26 | 0,63* | | | |
| General Fatigue and Uneasiness | -0,47* | -0,32* | 0,45* | 0,54* | | |
| Health Opinion Survey | -0,62* | -0,40* | 0,64* | 0,56* | 0,57* | |

*Significant at $\alpha = 0,001$

Sample characteristics

The sample consisted of 130 (79,3%) members of the flight engineers association in question and may be regarded as a representative sample of the population. A total of 110 (84,6%) of the respondents were married, 11 (8,5%) were divorced, and 9 (6,9%) were unmarried. The number of children per household ranged from 0 to 6. Sixty eight percent of the respondents had two or three children. The respondents had a mean age of 39,9, ranging from 29 to 54 years. On average the respondents had been employed by the company for 20,8 years (range 10-35 years) and had been employed in their current occupation as flight engineers for 13,6 years (range 1-26 years).

Instructing duties forming part of their job requirements were performed by 27 (20,8%) respondents, while 21 (16,2%) respondents earned an additional income from a part-time occupation. A total of 49 (37,7%) respondents had a private pilot's licence.

In total 77 (59,2%) of the FEO's expressed their willingness to be retrained as commercial pilots by their employer. Only 20 (15,4%) indicated that they would be willing to assume duties in other sections of the airline, namely: technical 5 (3,8%); outstation airport management 4 (3,1%); labour relations, management, human resources 3 (2,3%); training and instruction 3 (2,3%); and marketing 1 (0,8%), whilst 4 (3,1%) were unsure which section they would prefer.

RESULTS

The means and standard deviations obtained for the flight engineer officers on the measurement scales are reported in Table 3. Also reported are the means and standard deviations that were obtained in previously reported studies as explained in the method section.

TABLE 3
COMPARISON OF MEAN SCORES OF PREVIOUSLY REPORTED STUDIES WITH THE PRESENT PSYCHOMETRIC TEST DATA

| Measurement scales | Mean score (standard deviation) | | |
|--|--|---------------|--------------------------|
| | Previously reported studies | Present study | Possible range of scores |
| Job circumstances | | | |
| Facet-free Job Satisfaction | 18,30 (5,10) | 17,04 (4,77) | 5-25 |
| Work Alienation | 0,69 (1,02) | 0,83 (1,07) | 0-5 |
| | 0,75 (1,08) | | |
| | 1,92 (1,54) | | |
| Interpersonal Trust at Work* | 60,48 (12,33) | 49,01 (8,82) | 12-84 |
| | 63,04 (10,23) | | |
| - Faith in Peers | 17,28 (3,27) | 16,65 (2,69) | 3-21 |
| | 17,77 (2,90) | | |
| - Faith in Management* | 13,68 (4,62) | 7,53 (3,94) | 3-21 |
| | 14,48 (4,10) | | |
| - Confidence in Peers | 15,87 (3,83) | | |
| | 16,74 (3,69) | 17,37 (2,77) | 3-21 |
| - Confidence in Management | 13,74 (4,69) | 7,69 (3,80) | 3-21 |
| | 14,05 (4,14) | | |
| Organizational Commitment | 44,64 (11,45) | 43,35 (9,26) | 9-63 |
| | 45,37 (9,50) | | |
| Job Attachment* | 10,44 (2,80) | 14,48 (3,75) | 4-20 |
| Company Identification* | 16,90 (3,25) | 11,72 (3,56) | 5-25 |
| Career Future* | 15,45 (3,16) | 9,25 (3,46) | 5-25 |
| Psychological stress at work and psychosomatic stress symptoms: | | | |
| Depressed Mood at Work* | 33,20 (4,40) | 26,44 (5,76) | 10-40 |
| Self-esteem at Work | 33,10 (4,40) | 32,40 (4,76) | 10-40 |
| Job-induced Tension* | 8,68 (1,96) | 10,82 (2,14) | 7-14 |
| Somatic Tension* | 6,65 (1,15) | 7,43 (1,47) | 5-10 |
| General Fatigue and Uneasiness | 6,25 (1,55) | 6,18 (1,34) | 5-10 |
| Health Opinion Survey | 11% of males aged 24-40 score 32 or higher | 19% | 20-60 |

*Significant differences between previous and present mean scores ($\alpha = 0,001$)

The significance of the differences ($\alpha = 0,001$) between the means of the present and previous studies was evaluated by means of *t* tests. Whenever data from more than one previously reported study were available, the mean closest to the present observed mean was used in the comparison.

Asterisks (*) are used to indicate the variables for which significant differences were found between the means of the previous and present studies. With the exception of the Job Attachment Scale, the direction of the obtained differences was in every instance indicative of more negative results for the flight engineers than those which were found in the previously reported studies.

It is clear from the results that, although FEO's are highly attached to their occupation and are reluctant to change jobs, they experience a lack of confidence and faith in their management. They also perceive their career futures to be insecure and feel anxious about the lack of opportunity to advance their careers. With regard to the Health Opinion Survey approximately 19% ($N = 25$) of the respondents scored 32 or higher compared with the 11% found for the comparison group. The obtained percentage represents a substantially larger number of individuals who are "psychologically at risk", in the words of Girodo (1988, p. 505), than the number that was found for the comparison group. However, Girodo did find that 24% of the pilots in his study who were locked in a labour dispute scored at or above the cut-off point of 32.

Furthermore, it was found that FEO's were experiencing a significant amount of job-induced stress. The respondents reported a high degree of job-related depression, tension and psychosomatic stress symptoms. However, their experience of stress did not appear to affect their self-esteem at work.

In the structured questions which were included to obtain further information from the respondents and their spouses, it was found that 125 (96%) of the FEO's felt uncertain about their future as flight engineer officers with the airline. On average, they felt that the uncertainty was to some extent affecting their job performance, relations with non-FEO colleagues, family life, and general physical and mental well-being. Among the spouses 103 (94%) perceived their husbands to be uncertain about their future careers with the airline. On average they too believed that uncertainty was to some extent affecting their husbands' general mood at home, their family life, and their husbands' general mental well-being. They were also of the opinion that their husbands' general physical well-being was to a small extent being affected. Significant positive correlations ($\alpha = 0,001$) were obtained between the views of husbands and their spouses regarding the extent to which an uncertain career future is affecting their family life, and the physical and mental well-being of the flight engineers.

The above findings underscore the extended scope of job future ambiguity in the present study. Though it falls to reason that the flight engineers were most strongly affected by their job uncertainty, it is clear that family members were also affected by this stressor and were also subjected to the process of coping (Burke, 1988; Büssing, 1986).

A content analysis of semi-structured questions regarding the respondents' views of their job circumstances yielded additional information on how they defined their work situation without the constraints of a forced questionnaire format. Responses to open-ended questions yielded the following results:

Various characteristics of their job and of their work environment (e.g. responsibility, enjoyment of flying, working unsupervised, and in a sophisticated technological environment) were regarded by 74,6% of the respondents as the most positive aspect of their job (see Table 4). In addition, 13,1% stressed the importance of their general work identity as flight engineer officers. All in all, it appeared that the greater majority of the respondents (87,7%) placed a high premium on job specific skills, demands and circumstances which define their role as

flight engineer officers. Other issues which were mentioned by a minority of the respondents involved satisfaction with their remuneration package (8,5%) and retirement in the near future (3,8%). It should be noted that while the issue of retirement in the near future was mentioned by five subjects as the most positive feature of their job, it did not constitute a positive aspect of the job itself. Instead, it conveyed a sense of relief to be released from the job circumstances in which they function.

TABLE 4
FEO'S VIEWS OF THE MOST IMPORTANT POSITIVE ASPECT OF THEIR JOB

| Job aspects | Number of responses (rank ordered) | Percentage* (N = 130) |
|--|------------------------------------|-----------------------|
| 1. Sense of achievement/responsibility | 53 | 40,8% |
| 2. Identity as a flight engineer officer | 17 | 13,1 |
| 3. Enjoyment of flying/travelling | 17 | 13,1 |
| 4. Make own decisions/work unsupervised | 12 | 9,2 |
| 5. Adequate remuneration | 11 | 8,5 |
| 6. Cameraderie amongst FEO's and flight deck crew in general | 7 | 5,4 |
| 7. Retirement in the near future | 5 | 3,8 |
| 8. Training of FEO's | 4 | 3,1 |
| 9. Working in a sophisticated technological environment | 2 | 1,5 |
| 10. Having adequate time off work | 2 | 1,5 |
| N = 130 | | |
| Grouping of job aspects with regard to: | | |
| A. Job and work environment characteristics (Items no. 1, 3, 4, 6, 8, 9, 10) | 97 | 74,6% |
| B. Identification with career (Item no. 2) | 17 | 13,1% |
| C. Remuneration (Item no. 5) | 11 | 8,5% |
| D. Imminent retirement (Item no. 7) | 5 | 3,8% |

*Percentages may not add up to 100 due to rounding

When asked to name the most negative aspect of their job (see Table 5), the reaction of the respondents dealt primarily (82,3%) with concerns about redundancy and dissatisfaction with the approach of management in dealing with this issue. In analyzing the responses to this section of the questionnaire, it became clear that the respondents' views of management were strongly connected to the perceived threat of redundancy. Their uncertainty about their career future was invariably tied to a perceived unwillingness of management to clarify the situation. It was therefore not possible to separate the respondents' concern about managerial issues from their concern about being regarded as redundant. Dissatisfaction with other aspects of their work circumstances (e.g. time spent away from home and inadequate working conditions in general) comprised 17,7% of the responses.

TABLE 5
FEO'S VIEWS OF THE MOST IMPORTANT NEGATIVE ASPECT OF THEIR JOB

| Job aspects | Number of responses (rank ordered) | Percentage* (N = 130) |
|---|------------------------------------|-----------------------|
| 1. Uncertainty re future career/employment as FEO | 62 | 47,7% |
| 2. Management perceived as untrustworthy/insincere re redundancy | 19 | 14,6 |
| 3. Time away from home | 18 | 13,8 |
| 4. Discrimination against FEO's as least important members of flight deck crew as result of possible redundancy | 9 | 6,9 |
| 5. Perceived apathy of FEO management about the possibility of redundancy | 7 | 5,4 |
| 6. Little/no recognition for loyal service | 7 | 5,4 |
| 7. Inability of management to facilitate better working conditions re redundancy | 3 | 2,3 |
| 8. Inadequate remuneration | 3 | 2,3 |
| 9. Too frequent ratings/evaluations | 1 | 0,8 |
| 10. Role on flight deck is too passive | 1 | 0,8 |
| N = 130 | | |
| Grouping of negative job aspects with regard to: | | |
| A. Management/redundancy issues (Items no. 1, 2, 4, 5, 6, 7) | 107 | 82,3% |
| B. Work conditions (Item no. 3, 8, 9, 10) | 23 | 17,7% |

*Percentages may not add up to 100 due to roundings

Actions suggested by the respondents to be taken in redressing perceived problems have been summarized in Table 6. Following from their previously stated concerns, the overwhelming majority of the suggestions (93,1%) focussed on clarifying or resolving the redundancy issue by enhancing managerial awareness of the flight engineer officers' perceived insecurity regarding their career future. Most of the FEO's called for a change in managerial attitudes and approaches in dealing with their circumstances. A small number of suggestions (6,9%) dealt with work conditions not directly related to the question of redundancy.

TABLE 6
FEO'S SUGGESTIONS FOR THE MOST IMPORTANT ACTION TO BE TAKEN IN SOLVING THE PERCEIVED NEGATIVE ASPECTS OF THEIR JOB

| Job aspects | Number of responses (rank ordered) | Percentage* (N = 130) |
|--|------------------------------------|-----------------------|
| 1. Clarification of FEO's career future by management spelling out available options | 48 | 36,9% |
| 2. Restoring trust in management by their acting fairly/honestly/positively with regard to the issue of redundancy | 23 | 17,7 |
| 3. Signing of a suitable and fair contract | 19 | 14,6 |
| 4. Change in composition of management | 12 | 9,2 |
| 5. Management's recognition of FEO's circumstances | 7 | 5,4 |
| 6. Offering of an acceptable retrenchment package | 6 | 4,6 |
| 7. Assistance in qualifying as a pilot | 3 | 2,3 |
| 8. A more equitable distribution of flight duties | 3 | 2,3 |
| 9. Better financial remuneration | 3 | 2,3 |
| 10. Employ more FEO's to reduce workload | 3 | 2,3 |
| 11. Take up training for a new career | 2 | 1,5 |
| 12. Reduce number of managers | 1 | 0,8 |
| | N = 130 | 100% |
| <i>Grouping of suggestions with regard to:</i> | | |
| A. <u>Management/redundancy issues</u> (Items no. 1, 2, 3, 4, 5, 6, 7, 11, 12) | 121 | 93,1% |
| B. <u>Work conditions</u> (Items no. 8, 9, 10) | 9 | 6,9% |

*Percentages may not add up to 100 due to rounding

When the spouses of the flight engineer officers were questioned about their husbands' attitudes toward their occupation (see Table 7), more than two thirds (68%) reported a noticeable change in their husbands' attitudes. All the attitude changes were reported to be negative and were mostly ascribed to a perceived threat of redundancy and consequent troubled relations with management (82,2%). Negative attitude changes ascribed to work conditions comprised 17,8% of the wives' responses and, although not expressly linked to the issue of redundancy, it appeared to be at least partly related to the conditions of uncertainty and discrimination which resulted from the threat of redundancy (Table 5).

TABLE 7
SPOUSES' VIEWS OF FEO'S ATTITUDE CHANGE TOWARDS THEIR OCCUPATION

| Perceived attitude change | Number of responses (rank ordered) | Percentage (N = 129)* |
|--|------------------------------------|-----------------------|
| 1. Despondency regarding uncertainty over career future | 36 | 27,9% |
| 2. Lack of enthusiasm about job (demotivated) as a result of possible redundancy | 21 | 16,3 |
| 3. Express disappointment/distrust/no confidence in management | 19 | 14,7 |
| 4. Anger about treatment by management | 10 | 7,7 |
| 5. Resentment about lowered perks/travel facilities | 8 | 6,2 |

| Perceived attitude change | Number of responses (rank ordered) | Percentage (N = 129)* |
|---|------------------------------------|-----------------------|
| 6. More frequent outbursts/moodiness/irritability when returning from flights | 8 | 6,2 |
| 7. Constantly preoccupied with his work situation re redundancy | 7 | 5,4 |
| 8. Resentment about discrimination against FEO's | 7 | 5,4 |
| 9. Preoccupied about future financial position with regard to the possibility of redundancy | 6 | 4,7 |
| 10. Behaviour changes (e.g. smoking more, does not eat well, decreased sex life) attributed to uncertainty over career future | 5 | 3,9 |
| 11. Lost interest, began qualifying self in a different field | 2 | 1,6 |
| | N = 129 | 100% |
| <i>Grouping of perceived attitude changes related to:</i> | | |
| A. <u>Management/redundancy issues</u> (Items no. 1, 2, 3, 4, 7, 9, 10, 11) | 106 | 82,2% |
| B. <u>Work conditions</u> (Item no. 5, 6, 8) | 23 | 17,8% |

*N = Number of responses of spouses (N1 = 75; 68%) reporting a change in their husbands' attitude toward their occupation. Percentages may not add up to 100 due to rounding.

CONCLUSION

In a literature review of the stressful effects of job insecurity, Burke (1988) concluded that the effects of anticipating job loss appear to be similar to job loss itself. Cobb and Kasl (1977) found that workers who anticipated job loss experienced even greater distress than when they actually lost their jobs.

The results of the present study generally support the available research literature on career future ambiguity as a psychological stressor (Girodo, 1988; Greenhalgh, 1983; Greenhalgh & Rosenblatt, 1984; Hartley & Klandermans, 1986; McClean, 1984). The results suggests that although the flight engineer officers in this study are strongly committed to their careers, derive much satisfaction from it, take pride in, and identify with the goals of the company, they are also experiencing excessive distress. The source of their distress has been clearly delineated as being centred on the approach adopted by management in dealing with the possibility of their jobs becoming redundant. The uncertainty which they are experiencing has had a significantly negative effect on:

- the extent to which they trust their management and have confidence in the actions of management;
- their sense of security about their job future;
- the extent to which they are experiencing job-related depression, anxiety and psychosomatic stress symptoms;
- the extent to which the company is perceived to support the welfare of its employees; and
- their general well-being and family life as perceived by themselves and their spouses.

The flight engineers in this study reported high levels of work commitment and job satisfaction which appear to serve as a source of justification for enduring the job stress which they are currently experiencing. It should be noted, however, that some studies (Greenhalgh, 1982; Jick, 1985) have found that those employees who remained in their jobs after their colleagues had been retrenched, exhibited reduced work commitment and effort. These findings caution one to consider the possible effects of lowered commitment and effort on in-flight safety and the organizational effectiveness of the company, should the dispute on which the present study is based, not be satisfactorily resolved. In this regard, note should be taken of what Burke (1988, p. 87) wrote: "Thus job insecurity becomes a critical factor in organizational decline."

REFERENCES

- Burke, R.J. (1988). Sources of managerial and professional stress in large organizations. In C.L. Cooper & R. Payne (Eds.), *Causes, coping and consequences of stress at work*. Great Britain: John Wiley & Sons.
- Burns, R.B. (1979). *The self-concept: Theory, measurement, development and behavior*. London: Longman.
- Büssing, A. (1986). Worker responses to job insecurity: A quasi-experimental field investigation. In G. Debus & H.W. Schroiff (Eds.), *The psychology of work and organization* (pp. 137-144). North Holland: Elsevier Publishers.
- Cobb, S., & Kasl, S.V. (1977). *Termination: The consequences of job loss*. NIOSH Research Report, Cincinnati.
- Cook, J.D., Hepworth, S.J., Wall, T.D., & Warr, P.B. (1981). *The experience of work: A compendium and review of 249 measures and their use*. London: Academic Press.
- Cook, J., & Wall, T.D. (1980). New work attitude measures of trust, organizational commitment and personal need non-fulfilment. *Journal of Occupational Psychology*, 53, 39-52.
- Girodo, M. (1988). The psychological health and stress of pilots in a labour dispute. *Aviation, Space and Environmental Medicine*, 59 (6), 505-510.
- Greenhalgh, L. (1982). Maintaining organizational effectiveness during organizational retrenchment. *Journal of Applied Behavioral Science*, 18, 155-157.
- Greenhalgh, L. (1983). Managing the job insecurity crisis. *Human Resources Management*, 4, 431-444.
- Greenhalgh, L., & Rosenblatt, F. (1984). Job insecurity: Toward conceptual clarity. *Academy of Management Review*, 9, 438-448.
- Hammer, T.H., & Stern, R.N. (1989). Employee ownership: Implications for the organizational distribution of power. *Academy of Management Journal*, 23, 78-100.
- Hartley, J.F., & Klandermans, P.G. (1986). Individual and collective responses to job insecurity. In G. Debus & H.W. Schroiff (Eds.), *The psychology of work and organization* (pp. 129-136). North Holland: Elsevier Publishers.
- House, R.J., & Rizzo, J.R. (1972). Role conflict and ambiguity as critical variables in a model of organizational behavior. *Organizational Behaviour and Human Performance*, 7, 467-505.
- Jick, T.D. (1985). As the axe falls: Budget cuts and the experience of stress in organizations. In T.A. Beehr & R.S. Bhagat (Eds.), *Human stress and cognition in organizations: An integrated perspective* (pp. 83-114). New York: John Wiley & Sons.
- Koch, J.L., & Steers, R.M. (1978). Job attachment, satisfaction and turnover among public sector employees. *Journal of Vocational Behaviour*, 12, 119-128.
- Macmillan, A.M. (1957). The Health Opinion Survey: Technique for estimating prevalence of psychoneurotic and related types of disorder in communities. *Psychological Reports*, 3, 325-339.
- McLean, A.A. (1984). *Work stress*. New York: Addison-Wesley.
- Miller, G.A. (1967). Professionals in bureaucracy: Alienation among industrial scientists and engineers. *American Sociological Review*, 32, 755-768.
- Pierce, J.L., Dunham, R.B., & Blackburn, R.S. (1979). Social systems structure, job design and growth need strength: A test of a congruency model. *Academy of Management Journal*, 22 (2), 223-240.
- Quinn, R.P., & Shepard, L.J. (1974). *The 1972-73 quality of employment survey*. Institute for Social Research, University of Michigan, Ann Arbor, Michigan.
- Quinn, R.P., & Staines, G.L. (1979). *The 1977 quality of employment survey*. Institute for Social Research, University of Michigan, Ann Arbor, Michigan.
- Rosenberg, M. (1965). *Society and the adolescent self image*. Princeton: Princeton University Press.
- Rousseau, D.M. (1977). Technological differences in job characteristics, employee satisfaction and motivation: A synthesis of job design research and sociotechnical systems theory. *Organizational Behaviour and Human Performance*, 19, 18-42.
- Silber, E., & Tippet, J.S. (1965). Self-esteem: Clinical assessment and measurement validation. *Psychological Reports*, 16, 1017-1071.
- Singer, J.N. (1975). *Job strain as a function of job and life stresses*. Unpublished PhD dissertation, Colorado State University: Fort Collins, Colorado.
- Smith, F.J. (1976). Index of organizational reactions (IOR). *JSAS Catalog of Selected Documents in Psychology*, 6 (1), 54, No. 1265.
- Visser, D. (1985). *Vroue en wiskunde: Fokus op geslachtsverskille*. (Women and mathematics: Focus on sex differences). Report p-55, Pretoria: Human Sciences Research Council.