

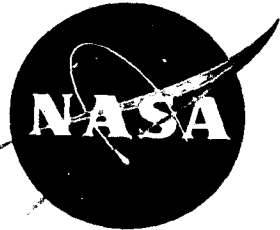
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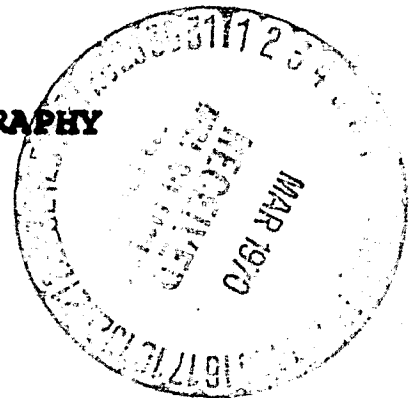
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MOTIVATION

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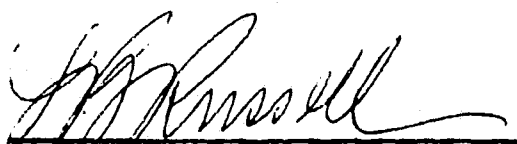
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MOTIVATION

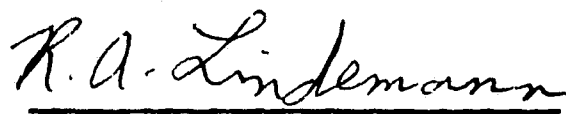
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## PREFACE

To achieve the late President John F. Kennedy's momentous goal of "landing a man on the moon and returning him safely to the earth" required not only technology of the highest order but a sense of purpose rooted in deep personal motivation. The goal has been won. Now that time for analysis has become available, the Library has had many requests for information on motivation.

This bibliography has been prepared to help meet these requests. It includes only materials available in the Kennedy Space Center Library. Books on the subject are listed regardless of publication date but only periodical articles published after 1960 are included. The bibliography is arranged by title, with a subject-author index.

The following indexes were searched for relevant materials: Scientific and Technical Aerospace Reports, Business Periodicals Index, Readers' Guide to Periodical Literature and Applied Science and Technology Index. Entries not annotated were unavailable for examination while the bibliography was in preparation.

Ruth E. Perks

Ruth E. Perks  
Assistant to the STC Librarian

Vincent A. Rapetti

Vincent A. Rapetti  
STC Librarian

## MOTIVATION

### A SELECTIVE BIBLIOGRAPHY

#### 1. BOOKS

1. THE ART OF MOTIVATING; A GUIDE TO GETTING MORE ACCOMPLISHED BETTER THROUGH OTHERS. J. Morris. Industrial Education Institute 1968 vp (HF5549/M876)

No abstract.

2. ASSESSING ORGANIZATION PERFORMANCE WITH BEHAVIORAL MEASUREMENTS. S. E. Seashore. Foundation for Research on Human Behavior 1964 92p (HF5548.8/A846)

No abstract.

3. HOW TO MOTIVATE MEN. J. H. McQuaig. F. Fell 1967 148p (HF5549/M173)

No abstract.

4. HOW TO USE THE DYNAMICS OF MOTIVATION. J. K. VanFleet. Parker Pub. Co. 1967 220p (HF5549.5/V252)

The author draws on twenty-five years of managerial experience to formulate some guidelines for motivating workers. He gives eleven exact dynamic laws of motivation and detailed methods of application to show how to put these laws into practical effect.

5. THE HUMAN ELEMENT IN MANAGEMENT. D. Willings. Batsford 1968 224p (HF5548.8/W733)

No abstract.

6. HUMAN RELATIONS AT WORK; THE DYNAMICS OF ORGANIZATIONAL BEHAVIOR. K. Davis. McGraw 3rd ed 1967 559p (HD6971/D262)

"Discussing all types of organizations including business, government, public schools, and non-profit organizations, this comprehensive text describes people at work and tells how they may be motivated to work together in greater harmony. It integrates all Social Science appropriate to this subject, especially psychology, sociology, and management. Focus is upon the manager and his operating relationships with people in the organization. Case problems are included in the last section. Charts and drawings have been taken directly from actual work situations."  
Publisher

7. THE HUMAN SIDE OF ENTERPRISE. D. McGregor. McGraw 1960 246p (HF5549/M147)

"This volume is an attempt to substantiate the thesis that the human side of enterprise is 'all of a piece'-- that the theoretical assumptions management holds about controlling its human resources determine the whole character of the enterprise. They determine also the quality of its successive generations of management." Author

8. INCENTIVE MANAGEMENT; A NEW APPROACH TO HUMAN RELATIONSHIPS IN INDUSTRY AND BUSINESS. J. F. Lincoln. Lincoln Electric Co. 1951 280p (HD31/L737)

Incentive management is a means of giving opportunities and spur to the individual so that he will develop latent abilities. The author points out the advantages of incentive management with a missionary fervor. The system of incentive management is described and methods for its execution are given.

9. INDUSTRIAL JOBS AND THE WORKER; AN INVESTIGATION OF RESPONSE TO TASK ATTRIBUTES. A. N. Turner and P. R. Lawrence. Harvard University, Graduate School of Business Administration 1965 177p (HF5549/T944)

This book reports on a study, the purpose of which was to develop and implement a method of measuring job attributes that would help predict workers' response to their jobs across a wide range of differing technologies. The book contains several suggestions for managers assigned the responsibility of designing or redesigning jobs to meet practical problems.

10. INTEGRATING THE INDIVIDUAL AND THE ORGANIZATION. C. Argyris. Wiley 1964 330p (HF5549/A6951)

No abstract.

11. MAKING MANAGEMENT HUMAN. A. J. Marrow. McGraw 1957 241p (BF56/M361)

No abstract.

12. MAKING WORK HUMAN. G. U. Cleeton. Antioch Press 1949 326p (HD4904/C624)

The thesis of this book is that work can be as satisfying as leisure-time activities. It discusses fundamental principles of human nature and their application in work situations.

13. MAN, THE MANIPULATOR. E. L. Shostrom. Abingdon Press 1967 256p (BF637.S8/S559)

No abstract.

14. **MANAGEMENT BY MOTIVATION.** S. W. Gellerman. American Management Association 1968 286p (HD38/G318)

The author feels that conventional rewards and punishments do not offer a practical motivational strategy. He attempts to identify motivational levers over which management has control and whose effects produce a favorable long-term balance of advantages over drawbacks. The book begins with an examination of how this knowledge can be applied to organizational problems and then gives a brief review of motivational theory, with emphasis on recent contributions from behavioral research.

15. **MANAGEMENT BY PARTICIPATION; CREATING A CLIMATE FOR PERSONAL AND ORGANIZATIONAL DEVELOPMENT.** A. J. Marrow, D. G. Bowers and S. E. Seashore. Harper & Row 1967 264p (HD31/M361)

"This volume reports an extraordinarily successful improvement of a failing organization through the introduction of a new management system. An unprofitable enterprise was made profitable, and a better place to work, in the short span of two years. Many managers and students of management will want to know how this was done." Rensis Likert

16. **THE MANAGEMENT OF INEFFECTIVE PERFORMANCE.** J. B. Miner. McGraw-Hill 1963 369p (HF5549/M664m)

The primary purpose of this book is to provide managers and students with a synthesis of available information on work performance and with a method for dealing with workers who do not meet established standards.

17. **MANAGEMENT OF ORGANIZATIONAL BEHAVIOR; UTILIZING HUMAN RESOURCES.** P. Hersey and K. H. Blanchard. Prentice-Hall 1969 147p (HF5548.8/H572)

No abstract.



18. **MANAGERIAL ATTITUDES AND PERFORMANCE.** L. W. Porter and E. E. Lawler. Richard D. Irwin 1968 209p (HF5549.5.J63/P846)

This book attempts to synthesize psychological theory and research to provide insights into the problem of motivation. The final chapter provides managers with some clues on how to increase the usefulness of employees' attitude assessments. The attitude data analyzed in the book represent new research findings.

19. **MANAGING THE YOUNG ADULTS.** J. S. Morgan. American Management Association 1967 207p (HF5549.5.R44/M848)

No abstract.

20. **MARKETING AND BUSINESS RESEARCH.** M. S. Heidingsfield and F. H. Eby, Jr. Holt 1963 250p refs (HF5415/H465)

This book emphasizes the utilization of company records by marketing executives. Survey methods are described and motivational research is placed in perspective as a tool for marketing and business research. The important role of decision making is discussed.

21. **THE MOTIVATION AND MEASUREMENT OF PERFORMANCE.** G. W. Torrence. Bureau of National Affairs 1967 97p (HF5549.5.I5/T691)

"The objective of this book is to give the executive a greater comprehension of the broad scope of incentives, from the machine operator to the president. Once the fundamentals are understood and the vital necessity of measuring performance is recognized, the executive is better equipped to evaluate the soundness and effectiveness of an existing incentive arrangement, as well as others contemplated or proposed." Author

22. MOTIVATION AND PRODUCTIVITY. S. W. Gellerman. American Management Association 1963 304p refs (HF5548.8/G318)

"This book has three main purposes: to draw together the most significant achievements in the study of work motivation; to present a theory that puts most of this research into a single, understandable perspective; and to show the practical implications of all this research and theory for management policy. In presenting the viewpoint of other writers, I have tried to state their ideas as authentically and sympathetically as possible, even though I may not always agree with them, and above all I have tried to express their ideas, which were often addressed in their original form to a professional audience, in terms that laymen could readily understand."  
Author

23. MOTIVATION PRODUCTIVITY AND SATISFACTION OF WORKERS; A PREDICTION STUDY. A. Zalesnik, C. R. Christensen, and F. J. Roethlisberger. 1958 442p (HF5548.8/Z22)

This book reports on a study which was designed to test several hypotheses about factors which determine the behavior of the work group and of individuals in the work group. The findings are in the form of either confirmed conclusions or restated hypotheses and are of major importance to the practice of administration. The authors were connected with the "Hawthorne Study" which is a landmark study in the field of human relations. The study took place at the Industrial Controls Corporation, Miller Hawks Division.

24. THE MOTIVATION TO WORK. F. Herzberg, B. Mausner and B. B. Snyderman. Wiley 2nd ed 1959 157p refs (HD4904/H582)

"The authors have collected experiences, judgments, and observations by using principles of sampling, directed observations, and detailed reports. The data in each case included not only the specific attitudes in the job situation but the factors associated with these attitudes and also the effects of the job attitudes on work performance... This study represents an important step toward increased objectivity, specificity, and efficient sampling of job situations." J. C. Flanagan, Director of Research, American Institute for Research

25. PEOPLE AND PRODUCTIVITY. R. A. Sutermeister, ed. 2nd ed 1969 511p (HD57/S967/1969)

This book was written for the layman, the businessman, and the student. An attempt was made to show by means of a diagram the most important factors which affect the performance of employees and the productivity of the firm. The various segments of the diagram are explained in separate chapters of the book and inter-relationships among the various segments are studied.

26. PERSONNEL AND INDUSTRIAL PSYCHOLOGY. E. E. Ghiselli and C. W. Brown. 2nd ed McGraw 1955 492p (HF5548.8/G426)

Chapter 14 p412-446 deals with the motivation of workers. A bibliography of forty-three references to articles on motivation is included.

27. THE PHYSIOLOGICAL BASES OF MOTIVATION. J. E. Hokanson. Wiley 1969 182p (BF683/H721)

"This book is an attempt to introduce the student to the physiological bases of motivated behavior. As such, the material is aimed at providing an overview of the experimental and theoretical developments in the field rather than a detailed account of the myriad studies that have been carried out. Within this framework many specific issues concerning technological and research problems have been omitted, and the reader is cautioned against easy generalizations. In addition, when dealing with the physiological aspects of behavior, we inevitably become involved in anatomical detail. The reader may therefore find it helpful to begin this book by reading the appendix on the nervous system or by using a textbook on physiological psychology, as a general reference." Author

28. **PLANNING AND ADMINISTERING EFFECTIVE INCENTIVES.**  
American Management Association 1947 34p (HF5549/  
A512p)

This is a collection of four short papers on the common theme of incentive management.

29. **PRINCIPLES OF HUMAN RELATIONS, APPLICATIONS TO MANAGEMENT.** N. R. F. Maier. Wiley 1952 474p (HF5549/  
M217)

"The scope of this book includes discussion of problems of human relations in industry, new techniques and approaches to them, and the problems involved in training persons to practice the effective techniques."  
Author

30. **PRINCIPLES OF ORGANIZATION AND MANAGEMENT.** H. H. Albers. Wiley 2nd ed 1961 676p (HD31/A332)

"The central core of this book is concerned with the basic elements of managerial action--planning, communication, and motivation--within an organized managerial structure. The knowledge and skills involved in managing are assumed to have universal properties that can be applied in different kinds of organization, in the various functional areas (production, finance, marketing and personnel), and at any level of the hierarchy (president, department head, foreman)." Author

31. **PSYCHOLOGY IN ADMINISTRATION; A RESEARCH ORIENTATION; TEXT WITH INTEGRATED READINGS.** T. W. Costello and S. S. Zalkind. Prentice 1963 500p refs (HF5548.8/  
C841)

"This book is aimed at facilitating the passage between administration and psychology for those who start at either end of the route. It is organized in terms of categories that are familiar to the psychologist: perception, motivation, emotion, learning, attitude, and thinking. Each section starts with a discussion of basic psychological laws and knowledge that apply to the mechanisms under consideration. It proceeds toward examples of how these mechanisms operate in organizational situations." H. A. Simon

32. PSYCHOLOGY IN INDUSTRY. N. R. F. Maier. 3rd ed  
Houghton Mifflin 1965 718p (HF5548.8/M217)

No abstract.

33. THE SOCIAL PSYCHOLOGY IN INDUSTRY. J. A. C. Brown.  
Penguin Books 1954 309p refs (HF5548.8/B878)

"The title of this book adequately indicates its scope. It is concerned basically with the emotional aspects of human inter-relationships in industry, and lays no claim to be a study of industrial psychology as such. Nor does it set out specifically to give practical details of what might be done to improve conditions in industry. What I have tried to do is to put forward for the consideration of the factory manager, the personnel manager, the time and motion engineer and the interested layman certain fundamental aspects of human nature and social organization which must be taken into account by anyone attempting to reorganize factory life." Author

34. SOCIAL PSYCHOLOGY OF THE WORK ORGANIZATION. A. S. Tannenbaum. Wadsworth Pub. Co. 1966 136p (HF5548.8/T166)

No abstract.

35. SOME QUESTIONNAIRE MEASURES OF EMPLOYEE MOTIVATION AND MORALE, A REPORT ON THEIR RELIABILITY AND VALIDITY. M. Patchen, D. C. Pelz and C. W. Allen. Ann Arbor Survey Research Center, University of Michigan 1965 82p (Survey Research Center, Monograph No. 41) (HF5548.8/P294)

This monograph is a report on the methods used and results obtained in developing measures of job motivation; interest in work innovation; willingness to express disagreement with supervision; attitude toward changes and identification with work organization. These measures are evaluated and suggestions are made concerning the conditions under which they may be most useful.

36. TOUGH-MINDED MANAGEMENT. J. D. Batten. American Management Association 1963 188p (HD38/B335)

The author has attempted to point out all of the main ingredients needed by a manager to generate profits and growth in a competitive world. Motivation, control and business ethics are discussed.

37. WORK AND MOTIVATION. V. H. Vroom. Wiley 1964 331p (HF5548.8/V984)

This book is restricted to problems of individual behavior in the work situation including the problems of occupational choice, job satisfaction and job performance. The book focuses on the explanation of individual behavior as being motivated or unmotivated.

38. WORK AND THE NATURE OF MAN. F. Herzberg. World Publishing Co. 1966 203p (HF5549.5.J63/H582)

No abstract.

## II. PERIODICAL ARTICLES

39. ACHIEVEMENT MOTIVATION CAN BE DEVELOPED. D. C. McClelland.  
Harvard Business Review Nov. 1965 p6-8+

The author's thesis is that it is not enough to provide opportunity for the poor or for underdeveloped nations; it is also necessary to increase their needs for achievement. In support of this argument he cites recent experiments in detail, including a study of the results of achievement training in Bombay, India.

40. ADEQUATE PERSONAL INCENTIVE; A NEW APPROACH. L. S. Morvay, Jr. Personnel Journal Dec. 1966 p688-689

The author feels that a basic formula should apply to all personnel problems. The "adequate personal incentive" is described as the basis for a forward looking personnel program.

41. ARE TECHNOLOGICAL UPHEAVALS INEVITABLE? M. W. Hunter,  
2nd Harvard Business Review Sep. 1969 p73-83

No abstract.

42. THE ASSESSMENT OF PERFORMANCE CHANGE: AN INDUCTIVE EXAMPLE. A. C. MacKinney. Organizational Behavior and Human Performance Feb. 1967 p56-72

The author reviews the empirical research on job performance and arrives at a generalization to encompass the findings. He feels that job performance should be studied as multicomponent factors which are constantly varying. He suggests several experiments which might be useful in studying motivation and job performance.

43. BEHAVIORAL SCIENCES FOR PERSONNEL MANAGERS. C. A. Myers.  
Harvard Business Review Jul. 1966 p154-156+

The author describes different approaches which could help managers interested in improving their personnel administration. The focus of these approaches is the better achievement of company objectives through integration with the goals of individuals and groups within the organization.

44. BRIDGING THE GULF IN ORGANIZATIONAL PERFORMANCE. J. B. Miner. Harvard Business Review Jul. 1968 p102-110

The author feels that the gulf between the "principles of management theory" and various management theories which emphasize motivation should be bridged by an approach which integrates the efforts of members of an organization with organizational goals of continued existence and profitability.

45. BUILDING MOTIVATION IN TRANSCRIBING JOBS. Personnel Journal Mar. 1969 p215

The article describes some specific do's and don'ts for establishing high morale in a secretarial pool or transcription department. The most important factor is physical evidence of the company's appreciation of the importance of the job.

46. BUSINESS DISCOVERS BEHAVIORAL SCIENCE; MOTIVATION AND PRODUCTIVITY. S. W. Gellerman. Hydrocarbon Processing Jul. 1968 p171-173; Aug. 1968 p157-158; Sep. 1968 p291+; Oct. 1968 p167-168; Nov. 1968 p232+

This is a five-article series which reviews the findings of Argyris, Gellerman, Herzberg, Likert and McClelland and their influence on industrial management thought.



47. CARROT AND STICK APPROACH ISN'T OBSOLETE. Iron Age Nov. 10, 1966 p21

The article states that over-analysis of employee motivation can bog down a system. "The most important question for managers is not the identification of needs; it's learning what measures they can take to identify, train and maintain relevant job behavior." Author

48. CHARTING AND CHANGING THE ORGANIZATIONAL CLIMATE. M. Sorcher and S. Danzig. Personnel Mar. 1969 p16-22

The authors describe a study of motivating professional personnel made at one of General Electric's Syracuse, N. Y., plants. This study indicates that a manager is directly influential in establishing the work climate and morale of his employees and can change the work climate by his actions.

49. COMMITMENT AND THE OCCUPATIONAL CYCLE. R. G. Graham and M. A. Valentine. Personnel Journal Jul. 1969 p530-536

Alienation which results from noncommunication or ineffective communication is at least one cause of poor motivation in employees. The authors show various means for combating this alienation.

50. CONDITIONS FOR MANAGER MOTIVATION. M. S. Myers. Harvard Business Review Jan. 1966 p58-71

The author reports on a survey of motivation made at Texas Instruments. He concludes that motivation of managers is dependent on interpersonal competence, the opportunity to work toward meaningful goals and the existence of appropriate management systems.

51. CONSTRUCTION PERSONNEL MANAGEMENT. H. J. Nave, Jr.  
ASCE Proceedings, Journal of the Construction Division  
Jan. 1968 p95-105

The author gives background material on the nature of the construction industry. A brief discussion of McGregor's X-Y theory is included. The conclusion is reached that increased employee morale and company loyalty may result in lower costs through increased production, reduced pilferage and better safety records.

52. COMMON SENSE APPROACH TO MORALE. T. G. Cain. Hydro-  
carbon Processing Jan. 1969 p173-174

No abstract.

53. CONFLICT AND AROUSAL. D. E. Berlyne. Scientific  
American Aug. 1966 p82-87

The role of novelty as a stimulus which heightens attentiveness and motivates individuals to act and learn is discussed.

54. DECADE OF MOTIVATION THEORY. D. E. Berlyne. American  
Scientist Dec. 1964 p447-451

A review of basic thought in the field of motivational research.

55. DETERIORATION OF WORK STANDARDS. C. W. Graves. Harvard  
Business Review Sep-Oct. 1966 p117-128

The author suggests that there are succeeding levels of human behavior and that the style of management should be designed to suit the behavior level of the group of workers being managed.

56. DEVELOPING A COMPREHENSIVE MODEL OF MOTIVATION AND PERFORMANCE. K. H. Chung. Academy of Management Journal Mar. 1968 p63-73. REPLY WITH REJOINDER. F. Goronzy. Academy of Management Journal Sep. 1968 p341-346

The thesis of this article is that a study of the joint interactions between needs, incentives and perceptual variables would provide a better prediction of motivation and performance than the study of each variable independently and that the interactions between motivation and ability would be a good tool for predicting performance.

57. DISSONANCE AND TASK ENHANCEMENT. A PROBLEM FOR COMPENSATION THEORY? K. E. Weick. Organizational Behavior and Human Performance May 1967 p189-208

This paper reviews the experimental literature on the relationship of low pay to job dissatisfaction.

58. DON'T OVER ANALYZE MOTIVATION'S ROLE. G. S. Odiorne. Iron Age Apr. 8, 1965 p109

This short article concludes that there should be more research directed to actual behavior and not reflect the values of the researcher.

59. DYNAMIC SYNTHESIS THEORY OF MOTIVATION. (WITH CRITIQUES by M. E. Brenner and A. Mjosund). B. Gunn. Management Science Jun. 1968 B601-B625

The author draws analogies from the physical sciences to illustrate the structure and functions of motivation in an organization. He attempts to trace the essential factors leading to efficient energy expenditure in physical systems and apply a similar strategy to energy transformation in a social system.

60. AN EMPIRICAL INVESTIGATION OF THE HERZBERG METHODOLOGY AND TWO-FACTOR THEORY. B. L. Hinton. Organizational Behavior and Human Performance Aug. 1968 p286-309

The article reports on a test of Herzberg's methodology and two-factor theory. The test used several sets of comparable data collected from the same subjects. The results failed to support either the methodology or the theory.

61. AN EMPIRICAL INVESTIGATION OF THE MOTIVATIONAL DETERMINANTS OF TASK PERFORMANCE: INTERACTIVE EFFECTS BETWEEN INSTRUMENTALITY-VALENCE AND MOTIVATION-ABILITY. J. Galbraith and L. L. Cummings. Organizational Behavior and Human Performance Aug. 1967 p237-257

Research was reported which attempted to explain productivity differences observed among operative workers. The results of the research indicated that ability plays a moderating role in influencing motivation and task performance. The importance of the influence of supervisory behavior was illustrated.

62. EMPLOYEE MOTIVATION. H. H. Morgan. American Water Works Association Journal Nov. 1967 p1387-1392

No abstract.

63. EMPLOYEES OF TECHNICAL ORGANIZATIONS CAN BE MOTIVATED. H. Bogaty. Research Management Jan. 1969 p5-24

The article reviews several studies on motivation in industry and on human relations theory. The author then presents an extension of these ideas to the technical and scientific field. He concludes that a high correlation exists between a flexibly applied participative management approach and research productivity.

64. ENGINEERING MOTIVATION. Machine Design Feb. 27, 1964 p114-116; Mar. 12, 1964 p132-134; Mar. 26, 1964 p151-152; Apr. 9, 1964 p112-114

This series of articles reports on the results of a survey of 1000 engineers and engineering managers conducted by the editors of Machine Design and Eugene Raudsepp, Vice President of Research, Princeton Creative Research Inc. Topics surveyed were; money as a motivator; recognition as a motivator; advancement opportunities as a motivator; and the performance-appraisal interview as a motivator.

65. EXECUTIVE MOTIVATION: HOW IT IS CHANGING. A. Patton. Management Review Jan. 1968 p4-20

The author points out the importance of six key factors in motivating executives: 1. The environmental factor; 2. The excitement factor; 3. The high promotion rate factor; 4. The performance appraisal factor; 5. The compensation factor; and 6. The job satisfaction factor. Methods of implementing these factors are discussed.

66. EXECUTIVE MOTIVATION; WHAT IS THE SPUR? J. F. Olesky. Dun's Review and Modern Industry Nov. 1964 p42-43

Dun's Review reports on the reactions of its Presidents' Panel on the question of executive motivation. Many diverse views were expressed. However, most agreed that a money-minded or status-minded executive does a poorer job in the long run than a man who is challenged by problems.

67. FINDING WAYS TO MOTIVATE MANAGERS. Iron Age Sep. 26, 1968 p25

The article reports on a survey by the Bureau of National Affairs on how to increase employee productivity and motivation.

68. FOCUS ON THE ATTITUDE CHANGE PROCESS. Q. W. Guerin.  
Personnel Journal Feb. 1968 p95-98

Three theories of attitude change are described. The author sums up their import in the statement "the individual who is being influenced to change an attitude must perceive some need for change in himself, must be able to change and must perceive the influence agent as one who can facilitate such change in a direction acceptable to the individual."

69. GETTING RESULTS THROUGH PEOPLE; HOW TO MANAGE THEIR MOTIVATION FACTORS. R. L. Berra. Machine Design May 12, 1966 p218, 220, 223

The article states that motivation is an internal rather than an external force. Several suggestions on how to develop an atmosphere which encourages motivation, rather than stifling it, are given.

70. HERZBERG CONTROVERSY: A CRITICAL RE-APPRAISAL. O. Behling et al. Academy of Management Journal Mar. 1968 p99-108

The Herzberg motivator-hygiene theory of motivation is discussed and compared to the conventional unisecular explanations. The author feels that many different measuring devices and techniques must be developed in order to provide reliable and consistent data on motivation.

71. HOW DO YOU MOTIVATE EMPLOYEES? (INTERVIEW WITH A. WITKIN) Dun's Review Dec. 1968 p12-13

Dr. Witkin emphasizes the fact that different motivating factors are effective for different employees. He discusses various motivating factors and suggests what type of employees they will motivate best.

72. HOW TO BREAK IN THE COLLEGE GRADUATE FOR THE MUTUAL BENEFIT OF BOTH NEW EMPLOYEE AND COMPANY. E. H. Schein. Harvard Business Review Nov. 1964 p68-76

The author argues that the problem with most induction and training programs is that the expectations and needs of college graduates and those of organizations are out of phase with each other. He analyzes the problem in detail but offers few concrete suggestions for correcting it.

73. HOW TO MOTIVATE SALESMEN. Electrical World Oct. 2, 1967 p129-132

The article briefly discusses the theories of Maslow and Herzberg and applies these theories to the problem of motivating salesmen. Some specific suggestions are given.

74. HOW TO MOTIVATE YOURSELF AND OTHERS. W. C. Stone. Nations Business Jul. 1968 p76-81

The author feels that one must program the following three ingredients into himself for continued success; inspiration to action, knowledge and "know-how".

75. INEQUITY REDUCTION OVER TIME IN AN INDUCED OVERPAYMENT SITUATION. E. E. Lawler, et al. Organization Behavior and Human Performance Aug. 1968 p253-268

A report was made on research on the relationship between productivity and overpayment. The research showed that the effects of overpayment on productivity dissipate with time -- also a correlation was shown between the worker's need for money and his productivity.

76. IMPROVING WORK PERFORMANCE. Automation Jan. 1969  
p9-11

No abstract.

77. IN BUSINESS TODAY, PERFORMANCE IS ALL. W. S. Johnson.  
Administrative Management Sep. 1966 p59-60

The author emphasizes that a productive climate is an atmosphere in which people produce because they are well motivated. He makes some specific suggestions for achieving this type of climate.

78. INFLUENCE PATTERNS AND MOTIVATION IN ORGANIZATIONAL SYSTEMS. E. A. Shaw. Personnel Journal Sep. 1969  
p707-715

The author attempts to study the relationships between individual motivation, organizational influence and system functioning. He feels that a form of democratic or participative management is the best form of organization to motivate individual performance.

79. INTERACTING EFFECTS OF MOTIVATION, ABILITY, AND NOISE ON ACTIVATION AND PERFORMANCE IN A MEMORIZING TASK. J. P. Wijting and P. C. Smith. Organizational Behavior and Human Performance Nov. 1969 p353+

The authors review earlier studies on the interaction of motivation and noise in the successful completion of tasks. They report on their study of the effect of noise on a memorizing task. They conclude that ability, motivation and favorable environment all increase performance.

80. INTRINSIC AND EXTRINSIC JOB MOTIVATIONS AMONG DIFFERENT SEGMENTS OF THE WORKING POPULATION. R. Centers and D. E. Bugental. Journal of Applied Psychology 50:1969  
p193-197

No abstract.



81. JOB ENRICHMENT PAYS OFF. W. J. Paul, Jr. et al. Harvard Business Review Mar. 1969 p61-78

Five job enrichment studies carried out in Imperial Chemical Industries Limited and other British companies are reported. The results of these studies were increased productivity and job satisfaction among the workers.

82. JOB RESHAPING MOTIVATES WORKERS--HERE'S HOW IT'S DONE (BELL SYSTEM). R. N. Ford. Modern Manufacturing Jun. 1969 p106-107

The author reports on the job enrichment program at American Telephone and Telegraph Co. The program contributed to improved employee morale, increased efficiency and productivity, and reduced labor turnover.

83. JOB SEEKERS' MOTIVATIONS; RECOGNITION, CHALLENGE, ETC. E. Raudsepp. Electronic Industries Jul. 1963 p166-167+

According to surveys, the prime motivations for engineers are job challenge and recognition. However, many minor factors such as location, salary, security and job conditions will also influence an engineer considering a job change.

84. KEEP RAISING YOUR EMPLOYEES' GOALS. P. M. Flannery. Administrative Management Feb. 1967 p57-58

The author feels that employees should be challenged to continued growth by stretching their horizons and raising their goals.

85. LIFTING STUDIES GIVE CLUE TO MOTIVATION. Product Engineering Sep. 23, 1968 p121

This is a short description of a study of load-lifting capabilities of male industrial workers. These studies help illuminate the role motivation plays in efficient job performance.

86. MAINSPRINGS OF MOTIVATION IN UNSKILLED PRODUCTION WORK GROUPS. H. D. Janes. Personnel Journal Jun. 1966 p362-370

The author makes some specific suggestions for motivating unskilled production workers. These suggestions were distilled from the results of a study of production workers in a southern industry.

87. MAKING A JOB MORE THAN A JOB. Business Week Apr. 19, 1969 p88-89

The article describes the job enrichment program of American Telegraph & Telephone Co. The results have shown that more satisfaction is expressed by workers, turnover is reduced and money was saved by applying this program.

88. MANAGEMENT INCENTIVES AND MANAGEMENT STYLE. F. H. Cassell. Personnel Administration Jul-Aug. 1968 p4-7, 22-23

Incentive pay plans were designed to attract people who were willing to take risks. However, many incentive plans fail in these objectives because they have become static, structured, and bureaucratically predictable.

89. MANAGERIAL COMPENSATION: NEEDED RESEARCH. R. L. Opstahl. Organizational Behavior and Human Performance May 1967 p208-216

Research indicates that secret pay policies may contribute to dissatisfaction with pay. The author indicates that basic research is needed to discover what variables influence money's effectiveness and how individual differences influence responses to money.

90. **MANAGERIAL SUCCESS AND TECHNICAL COMPETENCE.** M. A. Williamson. Research/Development Mar. 1967 p55-56

The author emphasizes that all motivation is self generated. He applies this concept to the failure of many good technical men to become good managers.

91. **MANAGING FOR PRODUCTIVITY: HOW TO TURN YOUR MEN ON.** Steel Jun. 16, 1969 p25-32

No abstract.

92. **MANNED FLIGHT AWARENESS--ZERO DEFECTS FOR MAN-RATED SPACE VEHICLES.** M. R. Sharpe. Industrial Quality Control Jun. 1966 p658-661

Manned Flight Awareness is Zero Defects adapted to the needs of NASA MSFC. It is oriented toward making workers aware of the possible consequences of defects in space vehicles which will be carrying APOLLO astronauts. The program approach and implementation are outlined. Typical results are given and special features of the program are described.

93. **MEASUREMENT OF MOTIVATION.** H. J. Eysenck. Scientific American May 1963 p130-134+

The author describes experimental work and theories which promise to provide a more generally accepted method of measuring motivation. One of the prime tools in these new methods of measurement is the utilization of rest periods.

94. **MODERN LOOK IN MOTIVATION.** A. S. Rogers. Personnel Journal May 1966 p290-293

"Scientists, engineers and other technical personnel may seem to possess built-in motivations. But, it's not necessarily enough in the modern work situation. When these men with the cold-fact minds enter the world of intangibles, they have problems. Their supervisor must learn to apply the proper motive force to cause his people to achieve maximum productivity, and at the same time maintain discipline."

95. **MONEY AS A MOTIVATOR: SOME RESEARCH INSIGHTS.**  
D. C. McClelland. Management Review Feb. 1968 p23-28

Money is discussed as one tool among many for managing motivation. Its popularity for use as a motivator among managers is ascribed to the fact that it is an easily manipulated element. However, other motivational factors may have much more effect on productivity.

96. **MORALE: AN ADDITIONAL APPROACH.** J. J. Wnuk, Jr.  
Personnel Journal Apr. 1966 p220-223

This is a report of a study which attempted to identify the causes of low morale among employees. The study focuses on the morale of the individual within the group.

97. **MOTIVATE -- DON'T MANIPULATE.** F. M. Sterner. Personnel Journal Aug. 1969 p623-627

The line between manipulation and motivation is a thin one. However, every supervisor should evaluate his methods to make sure he has not crossed that line in order to enjoy the positive benefits of motivation as opposed to the negative results from manipulation.

98. **MOTIVATING FOR SAFETY.** C. W. Binford. American Water Works Association Journal Feb. 1969 p57-59 (Reprint File)

The article reports on the administrative aspects of the safety program of the Fort Worth Water Department. The author feels that motivating workers' attitudes towards safety is vital in the effort to reduce accidents.

99. MOTIVATING MEN WITH MONEY. S. W. Gellerman. Fortune  
Mar. 1968 p144-146+

Money can be used to motivate exceptional accomplishments in two ways: 1. through the prospect of becoming wealthy and 2. by freeing the individual from dependency. This tactic should be used with great selectivity in order not to lessen its impact.

100. MOTIVATING ON A WORK RATHER THAN LEISURE BASIS. B. T. Jones. Administrative Management Sep. 1966 p60-61

The author uses motivational studies and her own experience to pinpoint motivational factors of which every supervisor should be aware. She emphasizes that a company should stress motivational factors which are job oriented rather than those which are more related to leisure activities.

101. MOTIVATING THE ENGINEER; NOT ONE BUT MANY WAYS. D. K. MERRIS. Product Engineering Apr. 24, 1967 p134-144

This is a popularly written article which reviews the motivational theories of McGregor and Herzberg and several attitude surveys of engineers and scientists.

102. MOTIVATION AND JOB PERFORMANCE. M. Sorcher and H. H. Meyer. Personnel Administration Jul. 1968 p8-21

The authors report on a study designed to show whether factory workers care about the quality of a product, and, if not, whether changes in the work environment will cause him to care. They conclude that jobs should be designed keeping in mind not only job content but also factors which enhance the self-esteem of the worker.

103. MOTIVATION AND MORALE: TWO KEYS TO PARTICIPATION. J. W. Darr. Personnel Journal Jun. 1968 p388-397

"Here's an effective presentation of the case for participative management. The combination of effective motivation and high morale will result in the ability of the employee to identify positively and effectively with management. The employee needs freedom in his own work situation". Personnel Journal

104. MOTIVATION AND ORGANIZATION. J. W. Lawrie. Personnel Journal Jan. 1967 p42-49

The author discusses the problem of tapping the needs and motives of people within groups so as to contribute to their own satisfaction and, thereby, the goals of the group. He feels that organizations must change in order to meet the needs of people.

105. MOTIVATION AND THE TECHNOSTRUCTURE. J. K. Galbraith. Personnel Administration Nov. 1968 p4-10

Mr. Galbraith concludes that identification and adaptation are strong motivating forces in the technostucture.

106. MOTIVATION BY OBJECTIVES -- A CASE STUDY. E. R. Frank. Research Management Nov. 1969 p391-400

This article describes a test of "management by objectives" in an R & D group. "Management by Objectives" resulted in improved communication and technical planning without hampering restrictions on creativity. The idea of self-challenging goals led to increased self motivation by the researcher.

107. MOTIVATION, INCENTIVES, AND REWARDS FOR R & D PERSONNEL.  
Research Management May 1969 p169-171

The article reports on the discussion of the IRI study group in motivation, incentives and awards for R & D personnel. The questions discussed were: 1. Can anything be done about personal qualities? 2. What external factors affect motivation? 3. What kinds of incentives produce good motivation? 4. Is a single system of incentives feasible for all R & D personnel in an organization?

108. MOTIVATION; KEY TO EMPLOYEE PERFORMANCE. P. J. Meyer.  
Automation Feb. 1966 p22-23

This article reports on an interview with Paul J. Meyer, Success Motivation Institute Inc.

109. MOTIVATION; KEY TO SUCCESSFUL PERFORMANCE COUNSELING.  
W. O. Frohlich. Personnel Journal Feb. 1966 p90-94

The author gives examples which indicate that objective performance appraisals are unmotivational. He suggests that a performance appraisal based on the "Management by Objectives" approach would be a better tool for motivating employees.

110. MOTIVATION: OLD PROBLEM NEW IDEAS. L. E. Lachter.  
Administrative Management Feb. 1969 p22-24

"Motivating personnel by increasing salaries and fringe benefits has been compared to the use of heroin -- the more you get, the less effect it has. New ideas on motivation include the assumption that man wants to do a good job but needs to be challenged." Administrative Management

111. MOTIVATION ON THE ASSEMBLY LINE. M. Sorcher. Personnel Administration May 1969 p40-48

The author shows why participative management is often unsuccessful with assembly line workers. He reports on a study which first attempted to change employees perceptions of their roles and then instituted participative management with assembly line workers. The results of this study showed a favorable response.

112. MOTIVATION STILL STARTS AT TOP. J. H. Palmer. Iron Age Jan. 7, 1965 p178-180

The author states that a motivation program which is not wholeheartedly supported by top management is doomed to failure. Some fundamental methods which are applicable to all organizations are given.

113. MOTIVATION THROUGH CHALLENGE. W. C. Johnson and P. R. Clement. Electrical Engineering Sep. 1961 p695-697

"Strong intellectual challenge is the most effective means of student motivation. Electrical engineering education during the past few years has been developing in precisely this direction. A five-year experimental curriculum that helps stimulate the student's will to learn through this kind of challenge is described." Author

114. MOTIVATION THROUGH MANAGEMENT. L. E. Munneke. Personnel Journal Feb. 1967 p96-100

The paper studies the manner in which the management process motivates individuals within an organization. The author feels that three skill areas are essential for a manager, technical skill, human skill, and conceptual skill.



115. MOTIVATION TODAY; TOUGHEST PART OF MANAGEMENT'S TASK.  
B. K. Scanlan. Factory Sep. 1966 p78-81

This popularly written article reviews motivation theories and lists some practical incentives for workers. The author stresses the fact that today most basic needs are no longer enough to motivate a worker -- his psychological and social needs must also be met.

116. MOTIVATIONAL FACTORS; THE BUILDING BLOCKS OF SAFETY.  
A. P. Osti. Safety Maintenance Dec. 1967 p11-13

The author emphasizes the importance of group influence in motivating workers toward safety. He illustrates the fact that there is no one best way to motivate workers but that a variety of methods must be used.

117. THE MOTIVES OF INDUSTRIAL MANAGERS. M. D. Dunnette.  
Organizational Behavior and Human Performance May 1967 p176-182

The author reviews several studies of motivation and comes to the conclusion that money can be used as a powerful motivator for executives.

118. MUDDLE IN MANAGEMENT MOTIVATION. Dun's Review and  
Modern Industry Dec. 1966 p28-31, 67-71

This article gives the views of several of the nation's top business leaders on how to motivate employees.

119. NEEDED -- COMMUNICATION, MOTIVATION. Iron Age Dec.  
5, 1968 p27

Dr. James J. Cribbin feels that a manager must win cooperation from his employees rather than relying on the carrot and the stick.

120. **NEURONS IN PARADOXICAL SLEEP AND MOTIVATED BEHAVIOR.**  
W. D. Mink, et al. Science Dec. 8, 1967 p1335-1337

Comparisons of neuronal activity in rats during paradoxical sleep, normal sleep, quiet wake and highly motivated awake periods were made. The results seemed to indicate that paradoxical sleep occurs after needs are filled and it functions to dissipate the excess drive.

121. **NEW LOOK IN MOTIVATION.** W. N. Dember. American Scientist  
Dec. 1965 p409-427

The article describes experiments with rats and people which lead to a theory of choice which asserts that every object and every individual can be assigned a complexity value and when an individual is free to choose he will prefer to encounter objects of a complexity level which matches his own.

122. **OBJECTIVE MOTIVATION HAS IMPACT.** P. J. Meyer. Automation  
Aug. 1967 p20-21

Paul J. Meyer, founder of Success Motivation Institute, Inc., offers some suggestions for communicating a company's objectives to its employees and thus motivating them to help achieve this objective.

123. **ONE MORE TIME: HOW DO YOU MOTIVATE EMPLOYEES?** F.  
Herzberg. Harvard Business Review Jan. 1968 p53-62

Herzberg explains his theory of hygiene factors and motivating factors in very readable language. His main thesis is that jobs should be made challenging for workers if they are to be well motivated.

124. PARTICIPATING IN PROGRESS. Automation Feb. 1969  
p9-10

It is easier to institute changes if the people affected by the change are allowed to participate in planning these changes.

125. PARTICIPATIVE MANAGEMENT: AN OVERVIEW. J. M. Rosenfield and M. J. Smith. Personnel Journal Feb. 1967 p101-104

This article is very much in favor of participative management as a means for motivating workers. When implementing a participative management system the organization must be committed to a fair test in order to realize its benefits.

126. PEOPLE AND SYSTEMS -- THE CREATIVE TENSION. H. M. Boettinger. SAM Advanced Management Journal Jan. 1969 p35-44

"The interaction of developments and applications in the two fields of advanced computer technology and the psychology of worker motivation offer a fertile opportunity for each to reinforce the other, rather than cancel out each other's progress". SAM Advanced Management Journal

127. PERSONAL MOTIVATION; THE SECRET OF SUCCESS. P. J. Meyer. Personnel Journal Sep. 1966 p499-500

This is a popularly written article which offers suggestions for motivating oneself. The author suggests that one set a goal, analyze the methods for achieving this goal, develop a desire to attain the goal and develop a sense of confidence in one's own abilities.

128. PORTRAITS OF MAN AS A MOTIVATED WORKER. W. A. M. Birt.  
Financial Executive Aug. 1967 p40+

The author attempts to show how behavioral science casts light on why people act in certain ways as individuals or groups, and from them he isolates some principles of motivation which are applicable to management.

129. PRESSURE REMAINS STRONG MOTIVATOR. L. A. Townsend  
Iron Age May 27, 1965 p111

The president of Chrysler Corp. reports on the benefits of using pressure as a motivator.

130. THE PRINCIPLE OF CONSISTENCY. J. K. Galbraith.  
Personnel Administration Jan. 1969 p4-8

The goals of organizations, society and individuals are all interrelated. An individual serves society and organizations because he perceives the possibility of achieving his goals through them.

131. PRODUCTIVITY MANAGEMENT. D. Sirota. Harvard Business Review Sep.-Oct. 1966 p111-116

The author feels that artificially imposed standards often depress productivity because they fail to take into account the worker's motivating factors.

132. PSYCHOLOGICAL APPROACH TO PRODUCTIVITY. R. L. Meineker.  
Administrative Management Apr. 1965 p56-57

"Motivation is generally accomplished through education, example, reward, and discipline in the business situation".  
Author

133. PSYCHOLOGY OF EXECUTIVE MOTIVATION. M. G. Wolf. Personnel Journal Oct. 1968 p700-704

The author feels that management by objective is one of the best ways to create a motivating climate for executives. Management by objectives reinforces at least four motivation factors -- a sense of achievement, recognition of achievement, personal growth and advancement, and the work itself.

134. QUALITY PROBLEMS, REMEDIES AND NOSTRUMS. J. M. Juran. Industrial Quality Control Jun. 1966 p647-653

The author contends that the effectiveness of zero defects programs is exaggerated and that motivational programs have a narrow, not a broad range of application. He lists the prerequisites for conducting a motivational program and proposes modifications for using the zero defects program.

135. RARE BLENDING OF CARROT AND STICK. Business Week Mar. 4, 1967 p132+

The annual meeting of Noland Co. combines a critical review of past performance with a distribution of bonus checks based on profits, that spurs incentive among its employees.

136. RECOGNIZING WORKER ATTITUDES IN JOB ASSIGNMENTS. P. L. Mellenbruch. Personnel Journal Dec. 1964 p607-609

"Professor Mellenbruch has devised an instrument for job attitude analysis consisting of a Job Attitude Analysis Blank and a Job Key check list, which, used together, help establish an inventory of worker's attitudes toward the types of jobs in which he could be expected to achieve success." Personnel Journal

137. REGULATING AND MOTIVATING THE DRIVER. N. Key. Archives of Environmental Health Oct. 1966 p516-518 (Reprint File)

The author feels that motivation is more important than law enforcement in driver safety programs.

138. REWARDS, RECOGNITION AND JOB SATISFACTION. R. G. Reed, 3d. Advanced Management Journal Jul. 1968 p20-25

Status is one of the most important factors in keeping and motivating salesmen. The author feels that a company should show through its attitude and actions that it respects the salesman as a member of an elite profession.

139. SECRECY ABOUT MANAGEMENT COMPENSATION: ARE THERE HIDDEN COSTS? E. E. Lawler. Organizational Behavior and Human Performance May 1967 p182-189

A study is discussed, which indicated that when secret pay policies are in effect managers tend to overestimate the pay of subordinates and equals and underestimate superiors' salaries, therefore tending to feel dissatisfaction with their own salaries.

140. SELF MOTIVATION; TEN WAYS TO HIGHER PRODUCTIVITY. P. J. Meyer. Chemical Engineering Oct. 11, 1965 p222,224,226

The author summarizes ten powerful ways for bringing about a self-motivated attitude in an employee.

141. STEERING MARGINAL PERFORMERS TO SOLID GROUND. H. Y. Weatherbee. Personnel Jul.-Aug. 1969 p34-43

"For the supervisor and the personnel manager, handling the case of a marginal performer is a balancing act -- weighing the reasons for sub-standard work, what he can do and what he does do, the how-to's of capitalizing on strengths and bolstering weaknesses, and various ways to find him a more suitable job." Personnel

142. SUCCESSFUL MOTIVATION PROGRAMS. R. J. Pierce and S. C. Streep. Industrial Quality Control Jun. 1966 p654-658

"Current successful motivational programs, especially those of the Zero Defects type favored by the U. S. Department of Defense, have similar formats and derive success from emphasis on certain key elements. This article describes these key elements in detail and discusses how they have been utilized in a wide variety of successful motivational programs." Industrial Quality Control

143. THE SUPERIOR CRAFTSMANSHIP PROGRAM. A. R. Haas. Industrial Quality Control Jun. 1966 p665-669

This article describes the program by which Stromberg-Carlson stimulates in each employee the pride of being a craftsman. Through this program the employee regains his identification in job and company and the quality of his work is optimized.

144. THAT PERENNIAL PROBLEM -- MOTIVATION. J. Weingarten. Dun's Review May 1968 p41-42

Industries are discovering that many of the old rules for motivating executives no longer apply and as a result they are coming up with some new ones. One important factor is to make the pay commensurate with ability.

145. TO MOTIVATE -- COMMUNICATE. J. G. Happel, Jr. Personnel Journal Dec. 1969 p984-987

The author begins with the definition of motivation as the "will to work". He reviews some of the early concepts of motivation. He then points out the importance of internal communication in any motivational system. He includes several examples.

146. TOWARD A THEORY OF TASK MOTIVATION AND INCENTIVES.  
E. A. Locke. Organizational Behavior and Human  
Performance May 1968 p157-189

The basic premise of this research paper is that an individual's conscious ideas regulate his actions. The author feels that goal setting is a major determinant of task performance. He mentions Zero Defects Program for blue collar workers and management by objectives for white collar workers as means of implementing these findings.

147. TRADITIONAL PERSONALITY THEORY IN THE LIGHT OF RECENT EVIDENCE. J. M. Hunt. American Scientist Mar. 1965 p80-96

The author reports on basic psychological studies of motivation which have tended to surprise people who held some older beliefs of traditional personality theory.

148. 12 GUIDES TO EMPLOYEE MOTIVATION. J. L. Aitken.  
Hydrocarbon Processing Jan. 1969 p111-114

The author develops guidelines for motivating employees from three popular theories of motivation and his personal experience. The three theories are also presented in readable fashion.

149. TUNE IN TO TURN YOUR MEN ON. Steel Sep. 15, 1969  
p78

No abstract.

150. VALUE, EXPECTANCY AND MYTHOLOGY. R. L. Kahn. Monthly  
Labor Review Apr. 1968 p25-27

The author feels that the strength of a person's tendency to undertake a particular activity will depend on his expectation that performing the activity will produce certain consequences, and on the value of those consequences for him.



151. WAYS TO AVOID MOTIVATIONAL OVERKILL. Iron Age Nov. 2, 1967 p21

The author concludes that the worst way is to introduce fear of failure into the situation - this will actually decrease motivation. The biggest motivating factor is pride and accomplishment.

152. WHAT JOB ATTITUDES TELL ABOUT MOTIVATION. L. W. Porter and E. E. Lawler, 3d. Harvard Business Review Jan. 1968 p118-126.

"An employee's satisfaction or dissatisfaction with a job may not directly affect his performance, but it does reflect whether or not the company is rewarding him properly for the kind of work he is doing. The authors discuss different kinds of management policies that affect this problem, and outline a program of action for companies to follow in dealing with it." Harvard Business Review

153. WHAT MOTIVATES ENGINEERS? R. R. Latham. Chemical Engineering Apr. 10, 1967 p228+

The article gives examples of well motivated and poorly motivated groups of engineers. The factors which the author considers most important for motivating engineers are: challenging work, responsibility, enlightened supervision and status.

154. WHAT MOTIVATES THE HIGH ACHIEVER? W. Wilson. Administrative Management Jul. 1967 p41-42

The author states that top achievers are better motivated by recognition of their accomplishment rather than by financial rewards. Four guidelines for motivation are: establish realistic goals, see that they are well planned, avoid negative criticism, and, most important, reward achievements.

155. WHICH MOTIVATION THEORY IS RIGHT? J. L. Dougherty.  
Hydrocarbon Processing Apr. 1969 p169-173

The author reviews various motivational theories and schools of thought. He concludes that Herzberg's theory of motivators and dissatisfiers is the most useful in practical application.

156. WHO ARE YOUR MOTIVATED WORKERS? (RESULTS OF SIX-YEAR STUDY AT TEXAS INSTRUMENTS, INC.) M. S. Myers.  
Harvard Business Review Jan. 1964 p73-78

This article reports on the results of a six-year study at Texas Instruments. This study helped show how workers who are motivatable can be differentiated from those who are not.

157. WHY MERGERS DON'T JELL: THE CRITICAL HUMAN ELEMENTS.  
A. N. Schoonmaker. Personnel Sep.-Oct. 1969 p39-48

One of the overlooked problems in a merger is often the morale and motivation of employees. Participation is suggested as the best way to overcome personnel opposition.

158. ZERO DEFECTS PLAN DECLARES WAR ON ERROR; LOCKHEED GEORGIA CO. P. J. Cathey. Iron Age Oct. 29, 1964  
p116-118

"An all-out drive to show mistakes are not a way of life has begun at Lockheed-Georgia Co. Top management support use of supervisors to guide the effort, and employee pledges to improve are its main factors." Author

### III. DOCUMENTS

159. ADDRESS BY JAMES E. WEBB, ADMINISTRATOR, NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, UNIVERSITY OF DELAWARE COMMENCEMENT, NEWARK, DELAWARE, JUNE 9, 1963 NEWS RELEASE. J. E. Webb. National Aeronautics and Space Administration Jun. 9, 1963 14 p (N63-17809)

"Two of the more intangible motivations which have prompted a bold and aggressive effort to conquer space are discussed; these are (1) the need to maintain U. S. international position of leadership and (2) the compelling urge of man to learn and discover. The first motive encompasses far more than the propaganda factor and extends to the realization that the only two countries in a financial position to conquer space represent, in the eyes of men everywhere, two competing systems of economic organization--capitalism vs. communism. The conquest of space has become a symbol of the challenge to each system to demonstrate its superiority; further, it is undoubtedly better to compete by shooting dollars into space than by shooting them at each other. The second less tangible motive for space exploration, the urge to explore the unknown, has been the wellspring of civilization throughout the centuries, the deep driving force that has caused man to rise to unparalleled accomplishments. Another aspect is the vitality a nation obtains from being engaged in a great adventure, and the interstellar fun of putting a man on the Moon or Mars. The accomplishments of the brief ten-year span of space exploration are reviewed, and the opportunity for graduates of today to carry forward the banner of civilization is stressed."  
(STAR)

160. AN ANALYSIS OF CONTRACTUAL INCENTIVES. M. H. Berhold. (Ph.D. Thesis) California Univ., Los Angeles, Western Management Science Inst. Sep. 1967 191 p (AD-665 276; N68-20298#)

"In the model two persons are considered, a principal and an agent. The principal wants to motivate the agent to make an appropriate decision because the results depend on the agents decision. The Principal will motivate the appropriate decision by relating monetary payments to a characteristic of the agents performance. This relationship between the monetary reward and the characteristic of the agents performance is called the incentive function. Government contracts as used in the weapons acquisition process provide an example of contractual incentives. The government is the principal and the contractor is the agent. The model concerns itself with the contractors problem of selecting an optimal production method subsequent to the time when the contract is specified. In addition the method concerns itself with the government's problem of specifying a contract which will motivate the contractor to accept the contract and subsequently to choose the production method which will minimize the net cost of the contract. Government contracts are characterized by the sharing ratio which indicates the proportion of the cost reduction which the contractor will receive. The model shows that under certainty the optimal sharing ratio is 1." Author (TAB)

161. BIOLOGY OF DRIVES: A REPORT OF AN NRP WORK SESSION. E. S. Valenstein. Neurosciences Research Program May 1, 1968 114 p (NASA-CR-103225; N69-31694#)

"In a definitive presentation, the diversity of motivational mechanisms and the nature of drive are discussed. Drive concepts and related behavioral phenomena are considered within the context of ethology, of the physiology, anatomy and biochemistry of the brain, and of behavioral evolution. The neuroendocrine setting of behavioral propensities and the fractionation and differentiation of arousal processes are discussed on the basis of experimental data. An examination of drive and brain mechanisms deals with motivational and species-typical behavior elicited from the hypothalamus and preoptic region; the neurophysiological basis of feeding behavior, learning and reinforcement; and the

role of feeding and drinking centers outside the hypothalamus. The relationships between drive, motivation, reinforcement, and learning are discussed as well as animal tests in reinforcement and motivation. The pharmacological aspects of the adrenergic and cholinergic systems are emphasized in a study of the biological mechanisms of reinforcement. An extensive bibliography on these subjects is included." (STAR)

162. THE CHALLENGES OF SPACE. H. Odishaw. In: USIA Voice of America Forum Series on Space Science. National Academy of Sciences Jan. 8 - May 21, 1962 p 1-18 (N63-23437)

"The basic motivation for efforts in space is discussed. The first, and perhaps basic, reasons are adventure and exploration, as exemplified by the man-in-space programs of the U. S. and the U.S.S.R. The second reason is the utilitarian and economic application of science and engineering in near space, as exemplified by meteorological, communications, and navigation satellites. The third reason is the pursuit of intellectual knowledge about the universe. Some accomplishments of space sciences are reviewed, and the broad spectrum of as yet unanswered questions about the universe is sketched. The challenging opportunities of space offer an unparalleled opportunity for cooperation among men and nations. Preliminary steps in this direction include IGY and COSPAR accomplishments." (STAR)

163. DEVELOPMENT OF A SELECTION TEST FOR MOTIVATIONAL APTITUDE. A. F. Ax, et al. Lafayette Clinic Jan. 1965 49 p (NASA-CR-156; N65-15546#)

"Described is the development of a test for motivational aptitude. It is based on the hypothesis that the aptitude for acquiring the social motives ranges widely, from the lowest in the schizophrenia and the hobo types, to the highest in the most productive people.

The procedure used was the acquisition of a conditioned (learned) response of the automatic nervous system, namely, the classical conditioning of the palmar sweating response (GSR). It was concluded that Physiologic Learning Aptitude (PLA), which is believed to be a measure of the ability to acquire the secondary or social motives, can be measured by this conditioning procedure. With further documentation and streamlining, this procedure should have a valuable application for the selection of highly adaptable persons who can be readily trained or conditioned for high-stress tasks, such as space flight." Author (STAR)

164. EFFECT OF AROUSED TESTING CONDITIONS ON THE MEASUREMENT OF FEAR OF FAILURE. R. C. Teevan and R. A. Dapra. Bucknell University 1968. 21 p (TR-25; AD-666 963; N68-23239#)

"The Thematic Apperception Test (TAT) was administered to 38 male, high school Ss under both neutral and aroused conditions. That TAT's were scored for fear of failure (FF) motivation and measured by the Hostile Press (HP) system developed by Birney, Burdick, and Teevan (1964). An exploratory investigation was conducted to determine the effect of aroused and neutral testing conditions of the amount of HP imagery and its intensity within the same group of Ss. The results indicated that HP scores increased significantly between the neutral and aroused conditions. Nevertheless, a dichotomy of the HP scores at the median indicated that the scores of Ss categorized Low HP under the neutral condition, increased significantly under the aroused condition. HP scores of Ss categorized Hi HP under the neutral condition had significantly lower HP scores under the aroused condition. The results were discussed in terms of the FF Ss interpretation of the situation and his defensive posture." Author (TAB)

165. THE EFFECT OF INTRINSIC AND EXTRINSIC REINFORCEMENT CONTINGENCIES ON LEARNER PERFORMANCE FINAL REPORT FEB. 1964-FEB. 1966. H. J. Sullivan, R. L. Baker, and R. E. Schutz. Arizona State University Sep. 1966 14 p (AMRL-TR-66-138; AD-647 273; N67-26227#)

"Seventy-six AFROTC Cadets studied a revised version of the text, The Military Justice System, for four 50-minute class periods distributed over 2 weeks. Unit-mastery tests of about 12 multiple-choice items each were administered at 11 points throughout the text. Half of the subjects (Cadets) received no knowledge of the correctness of their responses on the unit-mastery test. The other half of the subjects used chemically treated answer sheets which immediately indicated whether or not the subjects answer was correct. A 100-item multiple-choice test over the text was administered to all subjects 2 days after the final instruction period. All subjects had been informed of the final test. Half of the subjects in each of the above groups had been assured payment of \$2.50 for participation in the study. Each student in the other half had been told that he would receive \$4.00 if he scored 80% or higher on the final test, \$2.00 if he scored 50 to 79% and nothing if he scored below 50%. Compared with other subjects, subjects using the chemically treated answer sheets completed the study of the text in less time and appeared to depend on the mastery test for additional instruction. They performed significantly poorer on the Unit-Mastery tests. On the final criterion test, however, none of the groups differed significantly. Rather complex factors must be considered in specifying the optimal conditions of reinforcement and incentives." Author (TAB)

166. THE EFFECTS OF DAILY GOAL-SETTING ON CODE RECEIVING PERFORMANCE AND ATTITUDES: A PILOT STUDY. E. A. Locke and J. F. Bryan. American Institute for Research Oct. 1966 21 p (AD-642 784; N67-19790#)

"One class at Radioman A School at Bainbridge, Maryland (the Experimental group) set daily goals in terms of the score they would try for in code receiving. A second class (the Control group), run concurrently, did not set daily goals. It was found that the Experimental group improved their code receiving speed at a significantly faster rate than the Control group and made significantly fewer errors at speeds of 10 and 12 wpm than the group without daily goals. In addition, the Experimental group had significantly more favorable attitudes in code class than did the Control group on three of four attitude measures. The results, while promising, are not completely unequivocal, since there were a number of uncontrolled variables that might have affected the groups differently."  
Author (TAB)

167. THE EFFECTS OF FEAR OF FAILURE ON RISK-TAKING AND PERFORMANCE. R. C. Teevan, J. E. Rolf and R. C. Birney. Bucknell University Mar. 1967 10 p (AD650 302; N67-29127#)

"Three measures of risk-taking and four measures of performance were employed to investigate the effects of fear of failure (FF) on these two variables. All Ss were required to participate in all tests and seven hypotheses were formulated and examined within the general areas stated above. In the area of risk-taking, it was found that as the subjective failure became more intense, the high FF Ss tended to take fewer and fewer risks. Likewise, FF was found to have a debilitating effect on three of the performance tasks employed. The previous finding that high FF Ss set wider confirming intervals (CIs) than low FF Ss was also substantiated. Two questionnaires (Risk-Taking and Performance) were administered in attempts to obtain more direct indices of the effects of FF motivation in these two areas. Neither questionnaire proved to be as successful as the behavioral measures."  
Author (TAB)



168. THE EFFECTS OF STRESS PRODUCED BY CONFINEMENT IN SMALL GROUPS. J. A. Aagard. Naval Air Engineering Center In: A REPORT OF THE PHYSIOLOGICAL, PSYCHOLOGICAL, AND BACTERIOLOGICAL ASPECTS OF 20 DAYS IN FULL PRESSURE SUITS, 20 DAYS AT 27,000 FEET ON 100% OXYGEN, AND 34 DAYS OF CONFINEMENT, PARTS I, II, III. Feb. 1967 p139-210 (N67-17612#)

"Effects of one-month confinement on verbal learning group cohesiveness, motivation and time estimation were investigated. To study verbal learning and affective change, paired associates of nonsense syllables were presented to subjects, who were later required to recall the words associated with each syllable. While it was expected that affective words would be recalled better than neutral words and that there would be a decrease in tissue resistance when they were spoken; none of these results were confirmed although certain potentially affective words did acquire some effect as a result of confinement stresses. Group cohesiveness did not change significantly; the subjects did over-estimate their group cohesiveness, but they were accurate in their perception of changes in inter-personal relationships. Hand Dynamometer results revealed an overall increase in peak force emission level; daily questionnaires indicated that the subjects had some insight into the symptoms produced during the study; and there was not significant correlation between manifest anxiety and underestimation of time intervals." STAR

169. AN EVALUATION OF BRANCHING AND MOTIVATIONAL PHRASES IN A SCRAMBLED BOOK. R. J. Senter, et al. Cincinnati University Nov. 1963 19 p (AMRL-TDR-63-122; AD-429 459; N64-15518)

"This study evaluated three experimental versions of the scrambled text "The Arithmetic of Computers" by Norman A. Crowder. The three versions were: (1) unmodified, (2) modified by deletion of motivational phrases, and (3) straight line having neither motivational phrases nor branching. Results showed no significant differences in amount learned or in study time." Author (STAR)

170. AN EXPLORATORY STUDY OF FACTORS AFFECTING AIRCREW MORALE. B. O. Hartman, G. K. Cantrell, and L. S. Sims. School of Aerospace Medicine Jul. 1966 13 p (SAM-TR-66-62; AD-639 141; N67-11042#)

"Aircrew morale was studied in 176 MAC aircrewmembers. In interviews and questionnaires, nine problem areas were identified. The primary problem reported by the aircrewmembers was lack of planned free time. This factor had a negative effect both on duty and off duty. The remaining eight factors were more specific to the working environment. Several were a function of the mission of the command but some were accessible to local modification. In the face of these problems, aircrewmembers maintained good motivation, probably because of the satisfactions obtained from flying and from other aspects of their Air Force careers."  
Author (TAB)

171. FEAR OF FAILURE AND COGNITIVE CONTROLS. L. K. Lundwall and R. C. Teevan. Bucknell University 1966 31 p (TR-17; AD-641 891; N67-19855#)

"A review is given on studies and experiments on fear of failure and cognitive controls." (TAB)

172. A GENERAL MODEL FOR MOTIVATIONAL ANALYSES OF EXCHANGE RELATIONSHIPS. R. G. Hunt. State University of New York 1967 21 p (NASA-CR-93189; N68-17341#)

"A conceptually simple abstract model of motivational phenomena applicable across a wide variety of concrete events is developed. The rewards and incentives, motives and personality, and the exchange relations and power are discussed. The application is made to the buyer-seller, consumer-supplier relations, and particular attention is given to the NASA-contractor dyad." (STAR)

173. GOALS AND INTENTIONS AS DETERMINANTS OF PERFORMANCE LEVEL, TASK CHOICE AND ATTITUDES FINAL REPORT, FEB. 1, 1965-JAN. 31, 1967. E. A. Locke and J. P. Bryan. American Institute for Research Jan. 1967 100 p (AIR-E-51-1/67-FR; AD-646 392; N67-24714#)

"Twenty laboratory experiments and 2 field studies were carried out to explore the relationship of goals and intentions to level of performance on tasks, task choice, and liking for, and interest in the task." Author (TAB)

174. HOW PRIDE SUSTAINS MOTIVATION. B. M. Wayne. 1966 17 p (IDEP Report 347.25.00.00-CI-06; C3867)

This report deals with the problem of sustaining the effectiveness of a motivation program. It describes Autonetics' PRIDE program and gives some of the results. Ten guidelines for sustaining motivation are listed.

175. HUMRRO WORK PROGRAM, FISCAL YEAR 1965: RESEARCH AND DEVELOPMENT IN TRAINING, MOTIVATION, AND LEADERSHIP. George Washington University, Human Resources Research Office Jun. 30, 1964 146 p (AD-446 448; N64-29918)

"This report is divided as follows: (1) Individual Training for Equipment Operation and Maintenance; (2) Orientation and Training in Army Training Centers; (3) Small Unit Training; (4) Training for Leadership, Command, and Control; (5) Language and Area Training; (6) Training Technology; and (7) Basic Research." (STAR)

176. INDIVIDUAL AND CORPORATE SOURCES OF MOTIVATION: A PRELIMINARY INVESTIGATION. R. G. Hunt and I. S. Rubin. State University of New York Mar. 1969 30 p (NASA-CR-100556; TR-3; N69-22196#)

"Two separate sets of rating scales were administered to a sample of expert judges. The rating scales paired nine individual component motivations and nine corporate motivations with statements reflecting possible conditions for the fulfillment of the tendencies.... The results indicated that the dominant sources of motivation for both individuals and industrial organizations were located along four dimensions; external and internal, control, interpersonal concern, security and self-actualization." Author

177. MANAGEMENT BY OBJECTIVE: IT'S FOR EDITORS TOO. G. J. Howick. National Aeronautics and Space Administration Oct. 13, 1967 50 p (NASA TM-X-60598; N68-80441)

"Management by objective is defined as a system to specify the something, assign the someone, motivate him, and integrate his efforts with those of others to provide a worthwhile result that can be viewed with pride by all who contributed to it... Advantages of Management by objective are cited; (1) It helps you set priorities. (2) It gives you a better basis for measuring the true contribution of an employee. (3) It permits a coordinated effort. (4) It pinpoints responsibilities. (5) It forces you to plan and to chart your course in advance. (6) It offers a decision-making framework. (7) It aids in deriving the optimum span of control (8) It encourages risk-taking." M. G. J.

178. MECHANISMS OF ATTITUDE CHANGE PRODUCED BY FORCED COMPLIANCE FINAL REPORT. B. E. Collins. California University, Los Angeles, Dept. of Psychology Aug. 1968 5 p (AD-676 288; AFOSR-68-1916; N69-13517#)

"When an individual is induced to play a role inconsistent with his private opinion, he often modifies that private opinion to make it consistent with his public role. This suggests that educators or propagandists with control over overt behavior can also gain control over thoughts or private opinions... The experiments indicate that a fear of social retaliation from the audience is not an important factor and that public commitment to the overt behavior is an important factor in producing attitude change. Author (TAB)

179. MOTIVATION OF R & D ENTREPRENEURS: DETERMINANTS OF COMPANY SUCCESS. H. A. Wainer and I. M. Rubin. MIT - Sloan School of Management Jan. 1967 17 p (NASA CR-87442; N67-34202)

"The relationships between the entrepreneurs' need for achievement, need for power, and need for affiliation were related to the performance of the eighteen small companies they founded and operated."...  
Author

180. MOTIVATION OF TECHNICAL PERSONNEL. M. J. Vaccaro. National Aeronautics and Space Administration, Goddard Space Flight Center. 1964 7 p (N64-23327\*)

"This paper is concerned with a human-relations investigation of a group of aerospace research and development general-management and project-management personnel to ascertain the following; (1) which motivational elements served as stimulators and which served as dissatisfiers; and (2) to what extent did the provision by Government of an incentive contract serve to assist these organizations in establishing the climate for attracting and retaining technical personnel." N.E.A.

181. MOTIVATIONAL CORRELATES OF INDIVIDUAL DIFFERENCES IN PERFORMANCE TECHNICAL REPORT, MAY 1961-JAN. 1965. M. W. Stephens and K. M. Michels. Purdue University May 1965 151 p (AMRL-TR-39; AD-618 895; N65-32928#)

"A three-year program of research was directed at the development of "paper and pencil" measurement techniques that would permit the assessment of the potential "motivatability" of subjects in experiments concerning the effects of environmental stress on human performance."  
Author (STAR)

182. ON UNDERSTANDING AND PROMOTING HUMAN EFFECTIVENESS.  
C. E. Izard. Vanderbilt University Oct. 1966 38 p  
(Vanderbilt Univ. TR #29; AD-645 203)

The author has presented some theoretical formulations regarding the role of affect in personality and interpersonal functioning and its part in the process of change toward greater effectiveness. He describes the three affective processes and tentatively defines their optimal levels. The relationship of the three processes to adjustment and effective functioning were considered.

183. PURSUIT ROTOR PERFORMANCE. I: EFFECTS OF REINFORCING THE LONGER INTERVALS OF CONTINUOUS TRACKING WITHIN EACH TRIAL. R. W. Sheldon and J. F. Bjorklund.  
George Washington University, Human Resources Research Office Jun. 1966 30 p (HumRRO-TR-66-11; AD-638 015; N67-10410#)

"To determine whether selective reinforcement of pursuit rotor performance facilitates acquisition of skill and promotes its retention, five groups of subjects were individually trained for ten sessions of 15 trials each." (TAB)

184. SOME CHARACTERISTICS OF TECHNICAL ENTREPRENEURS.  
E. B. Roberts and H. A. Wainer. Massachusetts Institute of Technology, Alfred P. Sloan School of Management May 1966 32 p (NASA-CR-77278; Rept.-195-66; N67-11965#)

"Sixty-nine technical entrepreneurs were studied emphasizing description of several of their characteristics such as family background, education, and motivation. The results indicate that entrepreneurial fathers are more likely to produce entrepreneurial sons." Author (STAR)

185. SOME EFFECTS OF DIFFERENTIAL PRETASK INSTRUCTIONS ON AUDITORY VIGILANCE PERFORMANCE. G. L. Neal. George Washington University, Human Resources Research Office Jul. 1967 10 p (AD-656 942; N67-38244#)

"In this study of the evaluation of pretask instruction effects on vigilance performance, the researchers made an assessment of demand characteristics...

It was demonstrated that subject motivation level via pretask instructions can influence the course of the monitors performance, at least in the short run."

Author (TAB)

186. SOME INVARIANCES OF THE ISO-SENSITIVITY FUNCTION AND THEIR IMPLICATIONS FOR THE UTILITY FUNCTION OF MONEY. E. Galanter and G. L. Holman. Washington University, Psychophysics Laboratory Dec. 1, 1965 21 p (PLR-18NA, AD-637 554; N66-39456#)

"Four experiments were performed in which human observers reported whether or not they could detect the difference in amplitude between a pair of acoustic stimuli presented on each of several thousands of trials." Author (TAB)

187. STUDIES IN FORCED COMPLIANCE. I: THE EFFECT OF PRESSURE FOR COMPLIANCE ON ATTITUDE CHANGE PRODUCED BY FACE-TO-FACE ROLE PLAYING AND ANONYMOUS ESSAY WRITING. J. M. Carlsmith, B. E. Collins, and R. L. Heimreich. Yale University Jul. 1965 36 p (TR-1; AD-617 418; N65-31969#)

"One half of the experimental subjects (Male high school students) were enticed to tell the next subject (a female accomplice) that the experimental task was interesting, exciting, fun, and enjoyable (when, in fact, it was quite dull). The other half of the experimental subjects wrote an anonymous essay to the same effect. Experimental subjects were paid an additional \$0.50, \$1.50 or \$5.00 for this counter-attitudinal response. Control subjects merely worked on the experimental task and completed the post test. The data from the face-to-face condition replicates the original Festinger and Carlsmith experiment; small amounts of money were most effective in convincing subjects that the task was really fun and interesting. Data from the essay condition, however, indicated just the opposite. Large amounts of money produce the most attitude change." Author (STAR)

188. A STUDY OF VOCATIONAL INTERESTS OF AIRLINE PILOT CANDIDATES. S. Fichbauer and H. Kirsch. Deutsche Versuchsanstalt für Luft- und Raumfahrt, Inst. für Flugmedizin In its: Lectures from the Inst. for Flight-Med. delivered at the XI European Aeron. and Cosmonautical Med. Congr. Sep. 1963 p11-15 (N64-12752)

"The selection procedure for becoming a pilot of the Deutsche Lufthansa requires that all young candidates answer a personality questionnaire. Among others, the questionnaire includes some questions regarding the motives for choosing this profession, favorite extracurricular activities, and previous failures. The answers of 100 pilot candidates were correlated with the pilot achievement and motivational professional adjustment which the candidates showed during their subsequent airline pilot training. A low positive correlation was found between the motivational adjustment criterion and the statement that being a pilot is attractive because of the high, versatile requirements of the profession. Furthermore, there was a low positive correlation between the statement that no previous failures were worth mentioning, and the pilot qualification. Finally, and surprisingly, a low negative correlation was seen between technical and mechanical interests and pilot achievement." Author (STAR)

189. TRENDS IN AIRCREW ATTITUDES AND JOB-SATISFACTION: WIVES' REPORT. G. K. Cantrell. School of Aerospace Medicine Jun. 1968 31 p (AD-677 188; SAM-TR-68-67; N69-14340#)

"Part of the aircrew management survey is a short questionnaire to be completed by wives on a voluntary basis. Data from four groups were compared to reveal potential trends in the problem areas covered in the survey." Author (TAB)



190. UNCERTAINTY AS A MOTIVATING VARIABLE. J. T. Lanzetta.  
Dartmouth College 1967 27 p (AD-652 412; N67-33499#)

"An individual is uncertain when a situation elicits response alternatives no one of which is overwhelmingly dominant and his degree of uncertainty is a function both of the number of competing responses elicited by the situation and the relative response strength of the competing alternatives." Author (TAB)

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