

UNIVERSITY OF SOUTHERN CALIFORNIA

BIBLIOGRAPHY ON DIGITAL IMAGE PROCESSING AND RELATED TOPICS

Prepared by the staff of the

Image Processing Laboratory'
Department of Electrical Engineering

February 1972

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Department of Electrical Engineering

University of Southern California

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February 1972

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TABLE OF CONTENTS

The state of the s

		PAGE
Introduction and Sources Participants		i
		iii
SEC	CTIONS	
A.	Classification by subject	1
В.	Classification by author	100
в.	Classification by year of publication	179

BIBLIOGRAPHY ON DIGITAL IMAGE PROCESSING AND RELATED TOPICS

INTRODUCTION:

The bibliography is an attempt to gather together the vast amount of pertinent literature in the field of digital image processing. It is arranged into three sections: classification by subject; classification by last name of the first author; classification by year of publication. The bibliography has been stored on punched cards and magnetic tape for ease of editing and updating. Plans are to issue periodic editions of the bibliography so that new and previously overlooked works may be included. Contributions, suggestions as to the format of the bibliography, and notification of errors are solicited from the reader. All correspondence regarding the bibliography should be directed to:

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Sources for the bibliography were:

- A. Private collections of papers and reports by the staff of the U.S.C. Image Processing Laboratory.
- B. Previously published bibliographies by:
 - J. J. O. Palgen, "International Bibliography on Pictorial Pattern Recognition," Applied Research Associates, Inc., Concord, Massachusetts, April 1970.
 - W. K. Pratt, "A Bibliography on Television Bandwidth Reduction Studies,"

 IEEE Transactions on Information Theory, Vol. IT-13, No. 1, pp. 114-115,

 January 1967.
 - A. Rosenfeld, "Bandwidth Reduction Bibliography," IEEE Transactions on Information Theory, Vol. IT-14, pp. 601-602, July 1968.
 - L. C. Wilkins, P. A. Wintz. "Bibliography on Data Compression, Picture Properties, and Picture Coding," IEEE Transactions on Information Theory, Vol. IT-17, No. 2, pp. 180-198, March 1971.

- C. A literature search for image detection, analysis, enhancement, and coding (January 1962-August 1971) prepared by the staff of the Western Research Application Center.
- D. A manual search of the following periodicals:
 - 1. IEEE Transactions on Systems Sciences and Cybernetics, (November 1965-November 1968).
 - 2. Proceedings of the IRE, (January 1960-October 1971).
 - 3. Proceedings of the IEE, (February 1960-August 1971).
 - 4. IEEE Spectrum, (January 1964-August 1971).
 - 5. Transactions of the IRE, (March 1954-October 1963).
 - 6. IEEE Transactions on Information Theory, (January 1964-September 1971).
 - 7. IRE Transactions on Electronic Computers, (March 1960-October 1971).
 - 8. IRE Transactions on Communications Systems, (December 1959-August 1971).
 - 9. Applied Optics, (January 1962-September 1971).
 - 10. Journal of the Optical Society of America, (January 1960-October 1971).

PARTICIPANTS IN THE COMPILATION OF THE BIBLIOGRAPHY

- H. Andrews
- L. Davisson
- R. Glantz
- A. Habibi
- A. Jain
- R. Kruger
- D. Levy
- N. Nahi
- J. Pepin
- K. Pratt
- W. Pratt
- C. Reader
- S. Robinson
- M. Sanders
- A. Sawchuk
- E. Sutton
- E. Swartzlander
- A. Tescher
- L. Webster
- L. Welch

SECTION A

CLASSIFICATION BY SUBJECT

TMACE ANALYSIS	PAGI
Psychological property and the second	2
Psychological properties of images Image structure	2
Image quality measures	6
Statistical and information theoretic properties of images	9
Source and channel noise effects on images	13
Unclassified image analysis	18
	21
IMAGE CODING AND TRANSMISSION	
One dimensional data compression techniques with potential application to image coding	22
Basic pulse code modulation, quantization reduction coding, run length coding, and related image coding techniques	22
Differential pulse code modulation, predictive and interest and	34
""V" ""V" "" UILL I GIGIPO IMANO NOMBA LASKAI	
rightstoth coding of images	38
Television frame-to-frame coding	41
Color image coding	44
Image coding reviews	46
Unclassified image coding	47
73./3.6M manusa	48
IMAGE ENHANCEMENT AND RESTORATION	50
Image restoration	59 59
Image enhancement	62
Pseudocolor and false color	66
Unclassified image enhancement and restoration	67
IMAGE DETECTION	07
Image detection techniques	69
Pattern recognition applied to image processing	69
Unclassified image detection	71
amage detection	76
MIGCELIANEOUS	
Image processing computer languages	78
Image processing equipment	78
mage processing computational techniques	78
ulage processing linguistice	83
Holographic, optical, and electro-optical techniques and the	84
Siomedical image processing	84
mage processing books and bibliographics	89
seneral image processing techniques	92
Inclassified image processing	93 96
	uk

** PSYCHOLOGICAL PROPERTIES OF IMAGES **

BALDWIN, M.W., "DEMONSTRATION OF SOME VISUAL EFFECTS OF USING FRAME STORAGE IN TELEVISION FRANSMISSION." THE CONVENTION RECORD, 1958, P. 107.

BALDWIN, M.W., "SUBJECTIVE SHARPNESS OF ADDITIVE COLOR PICTURES," PRUCFEDINGS OF THE IRE, OCTUBER 1951, PP. 1173-1176, VOL. 39.

BALDWIN, M.W., "THE SUBJECTIVE SHARPNESS OF SIMULATED TELEVISION IMAGES," BELL SYSTEM TECHNICAL JOURNAL, VOL. 19, PP. 563-587, OCTUBER 1940.

BALDWIN, M.W., NIELSEN, G., "SUBJECTIVE SHARPNESS OF SIMULATED CULTR FELT-VISION PICTURES," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 46, NO. 9, SEPTEMBER 1950, PP. 481-685.

BEDDCES, M.P., METER, D., "FLICKER EFFECT AND TELEVISION COMPRESSION," TEFF TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 2, PP. 214-219, MARCH 1970

BERNHARD, R., "ON VISUAL PERCEPTION AND RELINAL MOTIONS," PROCEEDINGS OF THE IRE, VOL. 50, OCTOBER 1962, P. 2133.

BIERNSON, G., "A FEEDBACK-CONTROL MUDEL OF HUMAN VISION," PROCEEDINGS OF THE IEEE, VOL. 54, PP. 858-872, JUNE 1966.

BIERNSON, G., "SPECTRAL SCANNING AS A MECHANISM OF COLOR VISION." IEEE TRANSACTIONS ON MILITARY ELECTRONICS, APRIL-JULY 1963, PP. 103-108.

BIERNSON, G., SNYUER, A.W., "A MODEL OF VISION EMPLOYING OPTICAL MODE PATTERNS FOR CULOR DISCRIMINATION," IEEE TRANSACTIONS ON SYSTEMS SCIENCES AND CYBERNE-TICS, VOL. SSC-4, NO. 2, P. 173, JULY 1968.

BILLARD, P., BOUTRY, G.A., "VISIBILITY OF RECURPENT STRUCTURES IN INTERLACED TELEVISION," ACTA ELECTRONICA, VOL. 2, PARTS 1 AND 2, 1957-1958, PP. 62-70.

BRYNGDAHL, C., "CHARACTERISTICS OF THE VISUAL SYSTEM: PSYCHOPHYSICAL MEASUREMENTS OF THE RESPONSE TO SPATIAL SINE-WAVE STIMULI IN THE MESUPIC REG-TON," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, PP. 1152-1160, SEPT-EMBER 1964.

BRYNGDAHL, D., MEFFECT OF RETINAL IMAGE MOTION ON VISUAL ACUITY, MOTICAL ACTA, Vol. 8, PP. 1-16, 1961.

BUCK, G.J., GUSTINGIC, J.J., "RESOLUTION LIMITATIONS OF A FINITE APERTURE," IEEE TRANSACTIONS ON ANTENNAS PROPOGATIONS, VOL. AP-15, PP. 376-381, MAY 1967.

BUDRIKIS, Z.L., "A DESCRIBING THEORY OF THRESHOLD VISION," CUMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, REPORT NO. 5280, AUGUST 1960.

BUCRIKIS, Z.L., SEYLER, A.J., "DELAYED DETAIL PRECEPTION AFTER SCENE CHANGES IN TV PRESENTATION OF MOVING FILM," COMMONWEALTH OF AUSTRALIA, POST MASTER GET RAL'S DEPARTMENT, REPORT NO.5262, JUNE 1960.

BUDRIKIS, Z.L., SEYLER, A.J., "MEASUREMENT OF HUMAN OBSERVER RESPUNSE TO CHANGES IN THE CONTENT OF VISUAL DISPLAYS," COMMONNEALTH OF AUSTRALIA, PUST MASTER GENERALS DEPARTMENT, REPORT NO. 5248, MAY 1980.

BURKHARDT, D.A., "BRIGHTNESS AND THE INCREMENT THRESHOLD," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, Pp. 979-981, JULY 1966.

BYRAM, G.M., "VISUAL ACUITY AND THE PROTOCHEMISTRY OF THE RETINA," JOURNAL OF THE EPTICAL SOCIETY OF AMERICA, VOL. 34: NO. 12, DECEMBER 1944, PP. 718-768.

CAMPBELL, F.W., "THE HUMAN EYE AS AN OPTICAL FILTER," PROCEEDINGS OF THE IEEE, VOL. 56, PP. 1009-1014, JUNE 1968.

CAMPBELL, F.W., ROBSON, J.G., "APPLICATION OF FOURIER ANALYSIS TO THE MODULATION RESPONSE OF THE EYE," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 54, 1964, P. 581.

EVANS, R.M., "SHARPNESS AND CONTRAST IN PROJECTED PICTURES," SUCJETY OF MOTION PICTURE AND TELEVISION ENGINEERS CONVENTION, LOS ANGELES, OCTOBER 1956.

GRAHAM, R.E., "SUBJECTIVE EXPERIMENTS IN VISUAL COMMUNICATION," IRE CONVENTION RECORD, 1958, PP. 100-106.

HUANG, T.S., MSOME NOTES ON FILM GRAIN NOISE, MINSF SUMMER STUDY, REPORT, WOODS HOLE, MASSACHUSETTS, 1966.

HUFNAGEL, R.E., STANLEY, N.R., "MODULATION TRANSFER FUNCTION ASSOCIATED WITH IMAGE TRANSMISSION THROUGH TURBULENT MEDIA," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VUL. 54, NU. 1, JANUARY, 1964, PP. 52-61.

JESTY, L.C., WINCH, G.T., "TELEVISION IMAGES: AN ANALYSIS OF THEIR ESSENTIAL QUALITIES," TRANSACTIONS OF THE ILLUMINATING ENGINEERING SQCIETY, NO. 2, 1937, PP. 216-334.

JULESZ, B., "VISUAL PATTERN DISCRIMINATION," IRE TRANSACTIONS UN INFORMATION THEORY, VOL. IT-8, NO. 2, PP. 84-92, FEBRUARY 1962.

KABRISKY, M., "A PROPOSED MODEL FOR VISUAL INFORMATION PRUCESSING IN THE HUMAN BRAIN," UNIVERSITY OF ILLINDIS PRESS, URBANA, 1966.

KELLY, D.H., "EFFECTS OF SHARP EDGES IN A FLICKERING FIELD," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 49, NO. 7, JULY 1959, PP. 730-732.

KELLY, D.H., "IMAGE PROCESSING EXPERIMENTS," JUURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 51, PP. 1095-1101, OCTOBER 1961.

KELLY, D.H., "SPATIAL FREQUENCY BANDWIDTH, AND RESOLUTION," APPLIED OPTICS, VOL. 4, NO. 4, PP. 435-439, APRIL 1965.

KELLY, D.H., "VISUAL RESPONSES TO TIME DEPENDENT STIMULI," JOURNAL OF THE UP-TICAL SOCIETY OF AMERICA, PART I, VOL. 51, NO. 4, APRIL 1961, PART II, VOL. 51, NO. 7, JULY 1961. KULERS, P.A., "READING PICTURES: SOME COGNITIVE ASPECTS OF VISUAL PERCEPTION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 1, DECEMBER 1971.

LEVINSON, J.Z., "PSYCHOPHYSICAL STUDIES OF HUMAN VISION," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

LEVINSON, J.Z., "PSYCHOPHYSICS AND TV," PROCEEDINGS OF THE PICTURE BANDWICTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 1, DECEMBER 1971.

LINFCOT, E.H., "IMAGE QUALITY AND OPTICAL RESGLUTION," OPTICA ACTA, VOL. 4, NO. 1, PP. 12-17, MARCH 1957.

LOUGHREN, A.V., "PSYCHOPHYSICAL AND ELECTRICAL FOUNDATIONS OF COLOR TELEVISION," PRUCEEDINGS OF THE IRE, VOL. 42, PP. 9-11, JANUARY 1954.

LCWRY, E.M., DEPALMA, J.J., "SINE WAVE RESPONSE OF THE VISUAL SYSTEM, 2. THE MACH PHENOMENON," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 51, Pp. 740-746, JULY 1961.

NEWELL, G.F., GEDDES, W.K.E., "VISIBILITY OF SMALL LUMINANCE PERTURBATIONS IN TELEVISION DISPLAYS," PROCEEDINGS OF THE IEEF, VOL. 113, NO. 11, PP. 1979-1985, NCVEPBER 1963.

NYUBERG, N.D., MCODING INFORMATION ABOUT COLOR IN THE RETINA," BIULOGICAL ASPECTS OF CYBERNETICS, JOINT PUBLICATIONS RESFARCH SERVICE, WASHINGTON, D.C., PP. 208-213, JUNE 1963.

O'CONNOR, D.C., "VISUAL FACTORS AFFECTING THE PRECISION OF COURDINATE MEASUREMENT IN AEROTRIANGULATION," UNITED STATES ARMY GEODESY, INTELLIGENCE AND MAPPING, RESEARCH AND DEVELOPMENT AGENCY, RESEARCH NOTE #21, JANUARY 1967.

PEARSON, D.E., "FIDELITY CRITERIA FOR VISUAL IMAGE TRANSMISSION OVER NUISY CUM-MUNICATION," PH.D. THESIS, UNIVERSITY OF LONDON, ENGLAND, 1965.

PEARSON, D.E., "A REALISTIC MODEL FOR VISUAL COMMUNICATIONS SYSTEMS," PROCEED-INGS OF THE IEEE, VOL. 55, PP. 380-389, MARCH 1967.

PETERSON, D.P., "PITFALLS IN VISUAL DATA PROCESSING," 6TH SEMINAR OF PATTERN RECCGNITION SOCIETY, WASHINGTON, D.C., 1967.

PICKETT, R.M., *PERCEIVING VISUAL TEXTURE-A LITERATURE SURVEY, * HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS, FINAL REPORT, AUGUST 1964-AUGUST 1966, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, AMRL-TR-68-12, MARCH 1968.

PUTYATIN, Y.P., SHABANOV, Y., KUSHNARENKO, Y.P., "A BIONIC MODEL OF COLOR VISION OF MAN AND SOME PROBLEMS IN THE THEORY OF COLOR TELEVISION," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., REPORT ON SOVIET RESEARCH IN THE FIELD OF BIONICS, PP. 87-92; NOVEMBER 21, 1966.

RUBINSTEIN; C.B., PEARSON, D.E.; "COLOR PERCEPTION IN COLORED DISPLAYS," TAGUNGSBERICHT INTERNATIONALE FARBTAGUNG COLOR, BELL TELEPHONE LABORATORIES, HOLMCEL, NEW JERSEY, APRIL 8, 1969, Pp. 157-184.

RUSHFORTH, C.K., HARRIS, R.W., "RESTURATION, RESULUTION, AND NOISE," JOURNAL OF THE CPTICAL SUCIETY OF AMERICA, VOL. 58, NO. 4, PP. 539-545, APRIL 1968.

SACHS, M.B., NACHMIAS, J., RUBSON, J.G., "SPATIAL-FREQUENCY CHANNELS IN HUMAN

VISICN, M JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 9, P. 1176, SEPTEMBER 1971.

The second secon

SCHADE, U.H., "IMAGE GRADATION, GRAININESS, AND SHARPNESS IN TELEVISION AND MOTION PICTURE SYSTEMS," JOURNAL OF THE SOCIETY LF MOTION PICTURE AND TELEVISION ENGINEERS, PART I, VOL. 56, 1951, PP. 131-171; PART II, VOL. 58, 1952, PP. 181-222; PART III, VOL. 61, 1953, PP. 97-164; PART IV, VOL. 64, 1955, PP. 593-617.

SCHADE, O.H., "UPTICAL AND PHOTDELECTRIC ANALOG OF THE EYE," JOURNAL OF THE UPTICAL SUCIETY OF AMERICA, VOL. 46, SEPTEMBER 1956, PP. 721-739.

SEYLER, A.J., "VISUAL COMMUNICATION AND PSYCHO-PHYSICS OF VISION," PROCEEDINGS OF THE IRE AUSTRALIA, VOL. 23, MAY 1962, PP. 291-304.

SEYLER, A.J., BUDRIKIS, Z.L., "DETAIL PERCEPTION AFTER SCENE CHANGES IN TELEVI-SICN IMAGE PRESENTATIONS," IEEE TRANSACTIONS ON INFURMATION THEORY, VOL. IT-11, NO. 1, JANUARY 1965, Pp. 31-43.

SEYLER, A.J., BUDRIKIS, Z.L., "MEASUREMENTS OF TEMPURAL ADAPTION TO SPATIAL DETAIL VISION," NATURE, VOL. 184, PP. 1215-1217, UCTOBER 1959.

SIMUNDS, J.L., KELCH, J.R., HIGGINS, G.C., "ANALYSIS OF FINE-DETAIL REPRODUCTION IN PHOTOGRAPHIC SYSTEMS," APPLIED OPTICS, Vol. 3, No. 1, Pp. 23-29, JANUARY 1964.

SMITH, S.L., THUMAS, D.W., "COLOR VERSUS SHAPE CUDING IN INFORMATION DISPLAYS," JOURNAL OF APPLIED PSYCHOLOGY, VOL. 48, PP. 137-146, JUNE 1964.

SDM, S.C., "ANALYSIS OF THE EFFECT OF LINEAR SMEAK UN PHOTOGRAPHIC IMAGES,"
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 7, JULY 1971, PP. 859864.

STOKLS, R.R., "HUMAN FACTORS AND APPEARANCE OF THE MOD II PICTUREPHUNE STATION SET," IEEE TRANSACTIONS ON CUMMUNICATION TECHNOLOGY, VOL. COM-17, NO. 2, P. 318, APRIL 1969.

STRUCKA, D., "COLOR DIFFERENCE FORMULAS AND VISUAL ACCEPTABILITY," APPLIED OPTICS, VOL. 10, NO. 6, P. 1308, JUNE 1971.

THCMAS, J.P., "BRIGHTNESS VARIATIONS IN STIMULI WITH RAMP-LIKE CUNTOURS," JUUR-NAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, FEBRUARY 1966, PP. 238-241.

VAN MEETEREN, A., "SPATIAL SINE-WAVE RESPONSE OF THE VISUAL SYSTEM: A CRITICAL SURVEY," AD 488 234- 1968.

HESTHEIMER, G., "IMAGE QUALITY IN THE HUMAN EYE," UPTICA ACTA, VOL. 17, 1970, PP. 641-658.

WHEELER, H.A., LONGBREN, A.V., "THE FINE STRUCTURE OF TELEVISION IMAGES," PROCEEDINGS OF THE IRE, VOL. 26, NO. 5, PP. 540-575, MAY 1938.

ARGUELLO, R.J., "TECHNICAL DISCUSSION SESSIONS ON SAMPLED IMAGERY," SESSION NO. 7, ER-181, THE PERKIN-ELMER CURPORATION, NEW HAVEN, CCNN., JUNE 1971.

BIERNSON, G., "ANALYSIS OF COLOR DISCRIMINATION PROPERTIES OF A HIGH DIMENSIONAL COLOR VISION MODEL," APPLIED RESEARCH LABORATORY, SYLVANNIA ELECTRONIC SYSTEMS, WALTHAM, MASSACHUSETTS, PP. 104-138, 1967.

BRAINARD, R.C., MOUNTS, F.W., PRASADA, B., "LOW-RESOLUTION TV: SUBJECTIVE EFFECTS OF FRAME REPETITION AND PICTURE REPLENISHMENT," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, NO. 1, Pp. 261-271, 301-311, JANUARY 1967.

BURCKHARDT, C.B., MOPTIMUM PARAMETERS AND RESOLUTION LIMITATION OF INTEGRAL PHOTOGRAPHY, JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 1, PP. 71-76, JANUARY 1968.

DELUCR, G.P., JURRIENS, A.A., LEVELT, W.J.M., VANDEGEE, J.P., "LINE-SCAN IMAGERY INTERPRETATION," PHOTOGRAMMETRY ENGINEER, NO. 5, 1968.

CIAMANTIDES, N.D., "CORRELATION MEASURE OF CONTRAST FOR MAP MATCHING," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 7, PP. 996-998, JULY 1968.

DIAMANTIDES, N.D., "GAUSSIAN PICTURIAL FIELDS AND THEIR DEFINITION BY MEANS OF A CCRRELATOR," APPLIED OPTICS, VOL. 8, NO. 4, P. 818, APRIL 1969.

ESTGURNET, D., SCHWARTZ, P.Y., "STATISTICAL ANALYSIS OF PHOTOGRAPHIC IMAGES," CENTRE NATIONALE D'ETUDES DES TELECOMMUNICATIONS, ISSY-LES-MONLINEAUX, FRANCE, AGARC ADVANCED TECHNOLOGY FOR AEROSPACE SURVEILLANCE, PP. 329-352, 1968.

FRICPAN, Y.S., "MATHEMATICAL TREATMENT OF TELEVISION PICTURES OF THE EARTH'S COVER," GLAVNAIA GEOFIZICHESLCAIA OBSERVATORIIA IMENI A.I. VOEIKOVA, TRUDY, NO. 203, 1967, Pp. 35-48.

GUREVICH, S.G., MON THE ANALOGY OF CHARACTERISTICS OF REPRODUCTION IN TELEVISION AND PHOTOGRAPHY, QUALITY OF THE PHOTOGRAPHIC IMAGE, PP. 176-210, MARCH 1965.

HARRIS, J.L., "DIFFRACTION AND RESULVING POHER," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 54, Pp. 931-936, JULY 1964.

JET PROPULSION LABORATORY, "IMAGE ANALYSIS OF AREA-SCAN TELEVISION," CALIFOR INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA, LIBRASCOPE GROUP, 99 P., MARCH 1964.

JONES, R.A., YEACON, E.C., "DETERMINATION OF THE SPREAD FORMATIONS FROM NGISY EUGE SCANS," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 13, PP. 200-204, JULY-AUGUST 1968.

KAPANY, N.S., BURKE, J.J., "VARIOUS IMAGE ASSESSMENT PARAMETERS," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 52, NO. 12, PP. 1351-1361, DECEMBER 1962.

KAPANY, N.S., PEPPERS, N.A., "IMAGE SYNTHESIS, "JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, NO. 11, PP. 1321-1325, NOVEMBER 1964.

KELLY, D.H., "SPATIAL FREQUENCY BANDWIDTH, AND RESOLUTION." APPLIED OPTICS,

VOL. 4, NO. 4, PP. 435-439, APRIL 1965.

KGYLCVSKIY, S.M., "STUDY OF THE SUBJECTIVE ESTIMATION OF IMAGE QUALITY," USSR ACADEMY OF SCIENCE, VOL. 40, NO. 6, PP. 146-148, AUGUST 1970.

KRUGER, R.P., MAHEN, E.C., CARLSON, A.J., DWYER, S.J., LODWICK, G.S., MIMAGE ANALYSIS OF RADIOGRAPHS, 22ND ANNUAL SOUTHWESTERN CONFERENCE AND EXHIBITION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, DALLAS, TEXAS, TFCH-NICAL PAPERS, PP. 147-151, APRIL 1970.

KRUGER, R.P., MAHEN, E.C., DWYER, S.J., MUIGITAL TECHNIQUES FOR IMAGE ANALYSIS OF RADIOGRAPHS, EIGHTH ANNUAL SYMPOSIUM ON BIOMATHEMATICS AND COMPUTER SCIENCE IN THE LIFE SCIENCES PROCEEDINGS, HOUSTON, TEXAS, MARCH 23-24, 1970.

LEWIS, N.W., "TELEVISION BANDWIDTH AND KELL FACTOR," ELECTRUNIC TECHNOLOGY, VGL. 39, NO. 2, FEBRUARY, 1962, PP. 44-47.

MCCUTCHEN, C.W., "SUPER-RESOLUTION IN MICROSCOPY AND THE ABEE RESOLUTION LIMIT," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, Vol. 57, NO. 10, Pp. 1190-1193, OCTOBER 1967.

MERTZ, P., "TELEVISION, THE SCANNING PROCESS," PROCEEDINGS OF THE IRE, VOL. 29, NO. 10, OCTOBER 1941, PP. 529-537.

NEUBERGER, A., "A CHARACTERIZATION OF PICTURES BY ESSENTIAL CONTOURS," S.M. THESIS, DEPARTMENT OF ELECTRICAL ENGINEERING, MIT, CAMBRIDGE, MASSACHUSETTS. JANUARY 1966.

NLZCHONKOV, G.A., **CALCULATION OF THE NUMBER OF DEGREES OF BRIGHTNESS REPRODUCT-BLE BY THE SYSTEM FOR TRANSMISSION OF AN IMAGE WITH A GIVEN VALIDITY CRITERION,** JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., PP. 53-59, SEPTEMBER 1966.

UNDE, M., TAKAGI, M., YAMADA, H., "APPLICATION OF FACSIMILE FOR OBLIQUE ANGLE ULTRASONIC FLAW INSPECTION," THE JOURNAL OF THE JAPANESE SOCIETY FOR NON-DESTRUCTIVE INSPECTION, VOL. 20, NO. 2, P. 101, FEBRUARY 1971.

PARIS, D.P., "INFLUENCE OF IMAGE MOTION ON THE RESOLUTION OF A PHOTOGRAPHIC SYSTEM-I," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 6, PP. 55-59, 1962.

RAPSAY, J.V., "ECONOMICAL METHOD OF ANALYZING PERCEIVED COLOR DIFFERENCES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 1, PP. 13-19, JANUARY 1968.

RUSELL, F.A., "LIMITING RESOLUTION OF LOW-LIGHT-LEVEL IMAGING SENSORS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 5, PP. 539-547, NAY 1969.

RUBINSTEIN, C.B., PEARSON, D.E., "COLOR PERCEPTION IN COLORED DISPLAYS," TAGUNGSBERICHT INTERNATIONALE FARBTAGUNG COLOR, BELL TELEPHONE LABORATORIES, HULPDEL, NEW JERSEY, APRIL 8, 1969, Pp. 157-184.

RUTCVITZ, D., "DATA STRUCTURES FOR OPERATIONS ON DIGITAL IMAGES," PICTORIAL PATTERN RECOGNITION, THOMPSON, WASHINGTON, D.C., Pp. 105-133, 1968.

SCHACE, U.H., "THE RESOLVING-POWER FUNCTIONS AND QUANTUM PROCESSES OF TELEVISION CAMERA," RCA REVIEW, VOL. 28, PP. 460-535, 1967.

SCOTT, R.M., "SAMPLED IMAGES-AN INTRODUCTION," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPURATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971,

PP. 1-1 TO 1-2.

SUM, S.C., "ANALYSIS OF THE EFFECT OF LINEAR SMEAR ON PHOTOGRAPHIC IMAGES,"
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 7, JULY 1971, PP. 859864.

TORALDO DI FRANCIA, G., "DEGREES OF FREEDOM OF AN IMAGE," JOURNAL OF THE UPTICAL SUCIETY OF AMERICA, VOL. 59, NO. 7, PP. 799-804, JULY 1969.

TURALDO DI FRANCIA, G., "SUPER-GAIN ANTENNAS AND OPTICAL RESULVING POWER," MATHEMATICAL THEORY OF OPTICS, NO. 3, 1944, PP. 391-438.

TROTT, T., "THE EFFECT OF MOTION ON RESOLUTION," PHOTOGRAMMETRIC ENGINEER, VOL. 26, PP. 819-827, 1960.

VANDER LUGT, A., MITCHEL, R.H., "TECHNIQUE FOR MEASURING MODULATION TRANSFER FUNCTIONS OF RECORDING MEDIA," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 3, MARCH 1967, PP. 372-380.

VANDER LUGT, A. ROTZ, F.B., "THE USE OF FILM NONLINEARITIES IN OPTICAL SPATIAL FILTERING," APPLIED OPTICS, VOL. 9, NO. 1, P. 215, JANUARY 1970.

VOURGOURAKIS, E.J., "PHOTOGKAPHIC EMULSION AS A TIME INTEGRATOR," UNIVERSITY SF CALIFORNIA, DEPARTMENT OF ENGINEERING, NASA-GSFC, GRANT NO. 5-10167, LOS ANGELES CALIFORNIA.

WEAVER, L.E., "SUBJECTIVE IMPAIRMENT OF TELEVISION PICTURES," ELECTRICAL AND RADIC ENGINEERING, VOL. 36, PP. 170-179, MAY 1959.

WHEELER, H.A., LONGBREN, A.V., "THE FINE STRUCTURE OF TELEVISION IMAGES," PROCEEDINGS OF THE IRE, VOL. 26, NO. 5, PP. 540-575, MAY 1938.

WONG, E., "TWU-DIMENSIONAL RANDOM FIELDS AND REPRESENTATION OF IMAGES," SIAM JOURNAL OF APPLIED MATHEMATICS, VOL 16, NO. 4, Pp. 756-770, JULY 1968.

ABRAMSON, N., "PICTURE QUALITY: FILM VS. TELEVISION," JOURNAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 77, 1968, PP. 613-621.

THE OPERATOR WITH THE PROPERTY OF THE PROPERTY

ALTMAN, N.G., "IMAGE-QUALITY CRITERIA FOR DATA RECORDING AND STORAGE," JOURNAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 76, 1967, Pp. 629-634.

ATTAYA, W.L., ET AL., "STUDY OF IMAGE-EVALUATION TECHNIQUES," AD 803459, NOV-EMBER 1966.

BARNARD, T.W., "A LITERARY SURVEY ON IMAGE QUALITY EVALUATION," ENGINFERING REPORT ER-177, THE PERKIN-ELMER CORPORATION, NORWALK, CONN., OPTICAL TECHNOLOGY DIVISION, JUNE 11, 1971.

BARNARD, T.W., MAN IMAGE EVALUATION METHOD, A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, Pp. 5-1 TO 5-8.

BENNET, H.F., "ROOT-MEAN-SQUARE RAY DEVIATION AS A MEASURE OF IMAGE QUALITY," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 76, NG. 3, MARCH 1967, PP. 203-204.

BERKCWITZ, M.A., "EUGE GRADIENT ANALYSIS OTF ACCURACY STUDY," PROCEEDINGS OF THE SPIE SEMINAR ON MODULATION TRANSFER FUNCTION," BOSTON, MASSACHUSETTS, MARCH 1968.

BLACKMAN, E.S., MEFFECTS OF NOISE ON THE DETERMINATION OF PHOTOGRAPHIC SYSTEM MUDULATION TRANSFER FUNCTION, PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 12, PP. 244-250, SEPTEMBER-OCTOBER 1968.

PRAINARD, R.C., CAUM, K.B., "EVALUATION OF AN IMAGE QUALITY ENHANCEMENT TECHNIQUE," WRIGHT-PATTERSON AIR FORCE BASE, OHIO, 3 MRL, SEPTEMBER 1965.

BROCK, G.C., "IMAGE EVALUATION FOR RECONNAISSANCE, "APPLIED OPTICS, VOL. 3, NO. 1, PP. 11-13, JANJARY 1964.

BRCCK, G.C., "PHYSICAL ASPECTS OF AERIAL PHUTCGRAPHY," NEW YORK, DOVER, 1967.

BRCCK, C.C., MREFLECTIONS ON THIRTY YEARS OF IMAGE EVALUATION, PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. 11, Pp. 356-362, 1967.

BRCWN, E.B., "PARAMETERS OF THE SAMPLED IMAGE SYSTEM," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELHER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 2-1 TO 2-8.

CATHEY, W.T., DOIDGE, J.G., "IMAGE COMPARISON BY INTERFERENCE," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, PP. 1139-1140, AUGUST 1966.

CHIUNG-PAN, C.º "LIMITING INFORMATION CONTENT OF TELEVISION SIGNAL," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AIR FORCE BASE, DHIG, FUREIGN TECHNOLOGY DIVISION, JANUARY 1967.

CLARK, L.D., "MATHEMATICAL PREDICTION OF PHOTOGRAPHIC PICTURE QUALITY FROM TUNE-

REPRODUCTION DATA, PHOTOGRAPHIC SCIENCE AND ENGINEERING, Vol. II, Pp. 306-315, 1967.

COLTMAN, J.H., "THE SPECIFICATION OF IMAGE PROPERTIES BY RESPONSE TO A SINE WAVE INPUT," JUURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 44, JUNE 1954, Pp. 468-471.

CRCNE, E.M., "AN OBJECTIVE METHOD FOR RATING PICTURE SHARPNESS: SMT ACUTANCE," JOURNAL OF THE SUCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 73, 1964, PP. 643-647.

DALKE, G.W., "AUTOMATIC MEASUREMENTS OF TEXTURE AND DETECTION OF LINES IN A FLYING-SPOT SCANNER SYSTEM," UNIVERSITY OF KANSAS, ENGINEERING SCIENCE DIVISION, LAWRENCE, CONTRACT NO. NSR 17-004-003, AUGUST 1966.

DUDD, P.D., WOOD, F.B., "IMAGE INFORMATION, CLASSIFICATION AND CODING," IEEE INTERNATIONAL CUNVENTION RECURD, PP. 60-71, VOL. 14, PART 7, 1966.

FELLGETT, P., "CUNCERNING PHOTOGRAPHIC GRAIN SIGNAL-TO-NOISE RATIO AND INFOR-MATICN," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 43, NO. 4, APRIL 1953, PP. 271-282.

FRANKS, L.E., "A MODEL FOR THE RANDOM VIDEO PROCESS," BELL SYSTEMS TECHNICAL JOURNAL, PP. 609-630, APRIL 1966.

FRANKS, L.E., "POWER SPECTRAL DENSITY OF RANDOM FACSIMILE SIGNAL," PROCEECINGS OF THE IEEE, VOL. 52, NO. 4, PP. 431-432, APRIL 1964.

FRIEDEN, B.R., "IMAGE EVALUATION BY USE OF THE SAMPLING THEOREM," JOURNAL OF THE UPTICAL SUCIETY OF AMERICA, VOL. 56, NO. 10, Pp. 1355-1362, OCTOBER 1966.

FRIEDEN, B.R., "INFORMATION, AND THE RESTURABILITY OF IMAGES," JOURNAL OF THE UPTICAL SUCIETY OF AMERICA, VOL. 60, NO. 4, PP. 575-577, APRIL 1970.

FROLUSHKIN, V.G., "THE STUDY OF THE STATISTICAL STRUCTURE OF IMAGES BY BREAKING UP THE FIELD OF EVENTS," TELECOMMUNICATIONS, VOL. 12, PP. 1278-1286, 1958.

HAMMILL, H.B., HULLADAY, C., "THE EFFECTS OF CERTAIN APPROXIMATIONS IN IMAGE QUALITY EVALUATION FROM EDGE TRACES," JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VOL. 8, PP. 223-228, AUGUST-SEPTEMBER 1970.

HAYES, J.F., HABIBI, A., WINTZ, P.A., "RATE DISTORATION FUNCTION FOR A GAUSSIAN SOURCE MODEL OF IMAGES," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-16, NO. 4, PP. 507-509, JULY 1970.

HERLSTREIF, J.W., POULIQUEN, H., "INTERNATIONAL STANDARDS FOR COLOR TELEVISION," ISEE SPECTRUM, VOLUME 4, NO. 3, PP. 104-112, MARCH 1967.

HIRSCH, C.J., "COLUR TELEVISION STANDARDS FOR REGION 2," IEEE SPECTRUM, VCL. 5, NO. 2, P. 62, FEBRUARY 1968.

HUETELLING, H., "ANALYSIS OF A COMPLEX OF STATISTICAL VARIABLES INTO PRINCIPAL CUMPCHENTS," JOURNAL OF EDUCATIONAL PSYCHOLOGY, VOL. 24, 1933, Pp. 417-441, 498-52C.

HOPKINS, H.H., "THE USE OF DIFFRACTION-BASED CRITERIA OF IMAGE QUALITY IN AUTOMATIC OPTICAL DESIGN," OPTICA ACTA, VOL. 13, NO. 4, PP. 343-377, OCTUBER 1966.

JESTY, L.C., PHELP, N.R., "THE EVALUATION OF PICTURE QUALITY WITH SPECIAL REFERENCE TO TELEVISION SYSTEMS," MARCONI REVIEW, VUL. 14, 1951, PP. 113-156.

JET PROPULSIUN LABORATORY, "IMAGE ANALYSIS OF AREA-SCAN TELEVISION," CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA, LIBRASCOPE GROUP, MARCH 1964.

KAPANY, N.S., BURKE, J.J., "VARIOUS IMAGE ASSESSMENT PARAMETERS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 52, NO. 12, PP. 1351-1361, DECEMBER 1962.

KELLY, D.H., "INFORMATION CAPACITY OF SINGLE RETINAL CHANNEL," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 3, APRIL 1962, PP. 221-226.

KOMAR, V.G., "CRITERIA OF IMAGE DISTORTIONS IN THE CINEMATOGRAPHIC PROCESS."
JUURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 75,
NO. 4, APRIL 1966, Pp. 327-333.

KORPEL, A., "MEASUREMENTS IN THE POWER SPECTRUM OF TV SIGNALS," COMMONWEALTH OF AUSTRALIA. POST MASTER GENERALS DEPARTMENT, REPORT NO. 5064. SEPTEMBER 1959.

KRETZMER, E.R., "STATISTICS OF TELEVISION SIGNALS," BELL SYSTEM TECHNICAL JOUR-NAL, VOL. 31, NO. 4, JULY 1952, PP. 751-763.

LEBECEV, D.S., YARSLAVSKIY, L.P., "IMAGE TRANSMISSION SYSTEM EFFECTIVENESS," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VCL. 3, 1968.

LEVI, L., "ON IMAGE EVALUATION AND ENHANCEMENT," OPTICA ACTA: VOL. 17, NO. 1, 1970, PP. 59-76.

LEVI, L., "TOWARD FURMULATION OF CRITERIA FOR IMAGE ENHANCEMENT, PART 2," CITY COLLEGE OF THE CITY OF NEW YORK, DEPARTMENT OF PHYSICS, FINAL REPORT, MARCH 1969-FEBRUARY 1970.

LINFCOT, E.H., "CONTRAST TRANSMISSION FUNCTIONS AT LOW SPATIAL FREQUENCIES,"
OPTICA ACTA, VOL. 6, NO. 4, PP. 387-404, OCTOBER 1959.

LINFORT, E.H., "CONVOLUTED SPOT DIAGRAMS AND THE QUALITY EVALUATION OF PHOTOGRAPHIC IMAGES," OPTICA ACTA, VOL. 9, NO. 1, PP. 81-110, JANUARY 1962.

LINFCOT, E.H., "FOURIER METHODS IN UPTICAL IMAGE EVALUATION," FOCAL PRESS, NEW YORK, 1964.

NEVSKAYA, A.A., "INVESTIGATION OF THE TRANSMISSION CAPACITY OF THE HUMAN VISUAL SYSTEM," PROBABILITY OF SPACE BIOLOGICAL, VOL. 4, PP. 82-95, MARCH 1966.

PEARSON, D.E., "TECHNIQUES FOR SCALING TELEVISION PICTURE QUALITY: A SURVEY," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

PIERCE: J.R., KARLIN, J.E., MREADING RATES AND THE INFORMATION RATE OF HUMAN CHANNEL, BELL SYSTEM TECHNICAL JOURNAL, VOL. 36, NO. 2, PP. 497-516, MARCH 1957

QUASTLER, H., "STUDIES OF HUMAN CHANNEL CAPACITY." INFORMATION THEORY: THIRD LUNDON SYMPOSIUM, E.C. CHERRY, ED. LONDON: BUTTERWORTH SCIENTIFIC PUBLICATIONS, Pp. 361-371, 1956.

QUASTLER, H., ET AL., "HUMAN PERFORMANCE IN INFORMATION TRANSMISSION," UNIVER-SITY OF ILLINOIS, CONTROL SYSTEMS LABORATORY, REPORT NO. 62, MARCH 1955.

ROETLING, P.G., TRABKA, E.A., KINZLY, R.L., "THECRETICAL PREDICTION OF IMAGE

QUALITY, JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 3, 1968, Pp. 342-346.

SCHACE, 0.H., "AN EVALUATION OF PHOTOGRAPHIC IMAGE QUALITY AND RESOLVING POWER," JOURNAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 73, 1964, PP. 81-119.

SCHACE, O.H., "MODERN IMAGE EVALUATION AND TELEVISION," APPLIED OPTICS, VCL. 3, NO. 1, PP. 17-23, JANUARY 1964.

SCOTT, F., **THE SEARCH FOR A SUMMARY MEASURE OF IMAGE QUALITY: A PROGRESS REPORT, ** PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. 12, 1968, PP. 154-164.

SCOTT, F., HUFNAGEL, R.E., "SEARCH FOR A SUMMARY MEASURE OF IMAGE QUALITY," PART 1, II, THE PERKIN-ELMER CORPORATION, RESEARCH DEPARTMENT, NORWALK, CONNECTICUT, PRESENTED AT THE ANNUAL MEETING OF THE OPTICAL SOCIETY OF AMERICA, PHILADELPHIA, 1965.

SHAW, R., "THE APPLICATION OF FOURIER TECHNIQUES AND INFORMATION THEORY TO THE ASSESSMENT OF PHOTOGRAPHIC IMAGE QUALITY," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 6, SEPTEMBER-OCTOBER 1962, PP. 281-286.

SINGER, J.R., "INFORMATION THEORY AND THE HUMAN VISUAL SYSTEM," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 49, NO. 6, JUNE 1959, PP. 639-640.

SMITH, F.D., "OPTICAL IMAGE EVALUATION AND THE TRANSFER FUNCTION," JOURNAL OF APPLIED OPTICS, VOL. 2, APRIL 1953, Pp. 335-350.

STULT2, K.F., ZWEIG, H.J., "ROLES OF SHARPNESS AND GRAININESS IN PHOTOGRAPHIC QUALITY AND DEFINITION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 52, PP. 45-50, 1962.

WEAVER, L.E., "THE QUALITY RATING OF COLOR TELEVISION PICTURES," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, Vol. 77, NO. 6, PP. 610-612, 1960.

WILMER, M.E., MCDUFFIE, G.E., "THE INFORMATION CONTENT OF TWO DIMENSIONAL IMAGES," INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1969.

WONG, E., "TWO-DIMENSIONAL RANDOM FIELDS AND REPRESENTATION OF IMAGES," SIAM JUURNAL OF APPLIED MATHEMATICS, VOL 16, NO. 4, PP. 756-770, JULY 1968.

YOUNGBLOOD, W.M., "ESTIMATION OF THE CHANNEL CAPACITY REQUIRED FOR PICTURE TRANSMISSION," MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASSACHUSETTS, SC.D. THESIS, 1958.

YU, F.T.S., "INFORMATION CHANNEL CAPACITY OF A PHOTOGRAPHIC FILM," IEFE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 4, PP. 477-480, JULY 1970.

THE RESIDENCE OF THE PROPERTY OF THE PROPERTY

ANDREWS, H.C., MENTROPY CONSIDERATIONS IN THE FREQUENCY DEMAIN, MERRINT FRUM THE PROCEEDINGS OF THE IEEE, VOL. 56, NO. 1, JANUARY 1968, PP. 113-114.

ATTNEAVE, F., "SOME INFORMATIONAL ASPECTS OF VISUAL PERCEPTION," PSYCHOLOGY REVIEW, NO. 61, 1954, PP. 183-193.

BEALL, W.H., "STATISTICAL ANALYSIS OF DEGRADATION IN SCANNED IMAGE SYSTEMS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, NO. 8, PP. 992-997, AUGUST 1964.

BELL, D.A., "DISCUSSION ON THE IMPACT OF INFORMATION THEORY ON TELEVISION," JOURNAL OF THE BRITISH IRE, VOL. 13, NO. 12, Pp. 590-591, DECEMBER 1953.

BELL, D.A., SWANN, G.E.D., "SPECTRUM OF TELEVISION SIGNALS," WIRELESS ENGINFER, VOL. 33, NO. 11, NOVEMBER 1956, Pp. 253-256.

BENTCH, S.A.: KRONAUER, R.E., *PROPERTIES OF GRANULARITY-WEINER SPECTRA,*
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NG. 4, PP. 524-529, APRIL
1971.

BERSHAD, N.J., "RESOLUTION, OPTICAL-CHANNEL CAPACITY AND INFORMATION THEORY," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 2, PP. 157-163, FEBRUARY 1969.

BOYCE, G.D., "INFORMATION CONTENT OF SPACE VEHICLE DATA SOURCES," INTERNATIONAL SPACE ELECTRONICS SYMPOSIUM, LAS VEGAS, NEVADA, OCTOBER 1964.

BUTT, E., KOSAKOFF, E., LEE, Y., ROSENFELD, A., "STUDIES IN VISUAL TEXTURE MANIPULATION AND SYNTHESIS," COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, TECHNICAL REPORT 68-64, XG-2054*62-2271*67R, APRIL 1968.

BYLANSKI, P., "SECOND-ORDER REDUNDANCY OF COARSELY QUANTIZED VIDEO SIGNALS," PROCEEDINGS OF THE IEE: LONDON, VOL. 114, NO. 12, PP. 1831-1833, 1967.

CAPCH, J., "BUUNDS TO THE ENTRUPY OF TELEVISION SIGNALS," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 296, MAY 1955.

UEBART, H., "STUDY OF DELTA MODULATION FROM THE INFORMATION THEORY VIEWPOINT," (IN FRENCH), CABLES ET TRANS, PARIS, VOL. 15, 1961, PP. 198-204.

DERYUGIN, N.G., "THEORETICAL POSSIBILITIES OF COMPRESSING BANDWIDTH OF TV CHANNEL," TELECOMMUNICATIONS, NO. 8, 1958, PP. 805-81C.

DEUTSCH, S., "A NOTE ON SOME STATISTICS CONCERNING TYPEWRITTEN OR PRINTED MATERIAL," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. 11-3, PP. 147-148, JUNE 1957.

DODD, P.D., WOOD, F.B., MIMAGE INFORMATION, CLASSIFICATION AND CODING, MIEEE INTERNATIONAL CONVENTION RECORD, Pp. 60-71, VGL. 1A, PART 7, 1966.

DUDA, R.O.; TOBEY, A.R., "A MATHEMATICAL STUDY OF IMAGE ANALYSIS," STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, FINAL REPORT, MARCH 1964.

ELIAS, P., "INFORMATION THEORY AND THE ECONOMICAL ENCODING OF PICTURES," PRO-CEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 2, DECEMBER 1971.

EMSLIE, A.G., KING, G.W., "SPECTROSCOPY FROM THE POINT OF VIEW OF COMMUNICATION THEORY," JOURNAL OPTICAL SUCIETY OF AMERICA, PART I, "RESOLUTION," VOL. 41, NO. 6, (JUNE, 1951), PP. 405-412, PART II, "LINE WIDTHS," VOL. 43, NO. 8 (AUGUST 1953), PP. 658-663, PART III, "THE AMOUNT OF INFURMATION IN A SPECTRUM," VOL. 43, NO. 8 (AUGUST, 1953), PP. 664-668.

ESTGURNET, D., SCHWARTZ, P.Y., "STATISTICAL ANALYSIS OF PHOTOGRAPHIC IMAGES," CENTRE NATIONALE D'ETUDES DES TELECOMMUNICATIONS, ISSY-LES-MONLINEAUX, FRANCE, AGARC ADVANCED TECHNOLOGY FOR AEROSPACE SURVEILLANCE, PP. 329-352, 1768.

FOY, W.H., "ENTROPY OF SIMPLE LINE DRAWINGS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-10, NO. 2, PP. 165-167, APRIL 1964.

FRIECEN, B.R., MHOW WELL CAN A LENS SYSTEM TRANSMIT ENTROPY?," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NU. 8, PP. 1105-1112, AUGUST 1968.

GOURIET, G.G., "DISCUSSION ON THE IMPACT OF INFORMATION THEORY ON TELEVISION," JOURNAL OF THE BRITISH IRE, VOL. 13, NO. 12, PP. 590-591, DECEMBER 1953.

HAYES, J.F., HABIBI, A., WINTZ, P.A., "RATE DISTORTION FUNCTION FOR A GAUSSIAN SOURCE MODEL OF IMAGES," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-16, NO. 4, PP. 507-509, JULY 1970.

HELSTROM, C.W., "INFORMATION TRANSFER FROM INCOHERENTLY RADIATING OBJECTS,"
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 60, NO. 12, PP. 1608-1616,
DECEMBER 1970.

HELSTRCM, C.W., "RESOLVABILITY OF OBJECTS FROM THE STANDPOINT OF STATISTICAL PARAMETER ESTIMATION," JOURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. 60, NU. 5, PP. 659-667, MAY 1970.

HUANG, T.S., "SUME NOTES ON FILM GRAIN NOISE," NSF SUMMER STUDY, REPORT, WOUDS HOLE, MASSACHUSETTS, 1966.

HUANG, T.S., "TWO-DIMENSIONAL POWER DENSITY SPECTRUM OF TELEVISION RANDOM NOISE," MIT RESEARCH LABORATURY OF ELECTRONICS, REPORT NO. 69, CAMBRIDGE, MASSACHUSETTS, APRIL 1963, PP. 143-149.

JERMANN, W.H., "REDUNDANCY IN BINARY PATTERNS," AD-661228; NAVY UNDERWATER SOUND REFERENCE LABORATORY, ORLANDO, FLURIDA, USL-854, N68-12015, OCTOBER 1967.

JESTY, L.C., PHELP, N.R., "THE EVALUATION OF PICTURE QUALITY WITH SPECIAL REFERENCE TO TELEVISION SYSTEMS," MARCONI REVIEW, VOL. 14, 1951, PP. 113-156.

JESTY, L.C., WINCH, G.T., "TELEVISION IMAGES: AN ANALYSIS OF THEIR ESSENTIAL QUALITIES," TRANSACTIONS OF THE ILLUMINATING ENGINEERING SOCIETY, NO. 2, 1937, Pp. 216-334.

JUCOIN, R., MANUEL, L., "INFORMATION RATE IN AN OPTICAL COMMUNICATION CHANNEL." JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NJ. 2, PP. 191-198, FEBRUARY 1971.

KORPEL, A., "RELATIONSHIP BETWEEN AUTO-CORRELATION FUNCTIONS AND ENTROPY BOUNDS IN IV PICTURE SIGNALS," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, REPURT NO. 4503, MARCH 1957.

KCYLCVSKIY, S.M., "STUDY OF THE SUBJECTIVE ESTIMATION OF IMAGE QUALITY," USSR ACADEMY OF SCIENCE, VOL, 40, NO. 6, PP. 146-148, AUGUST 1970.

LEBECEV, D.S., "THE APPLICATION OF INFORMATION THEORY TO PHCTCGRAPHIC SYSTEMS," AMERICAN METEUROLIGICAL SOCIETY, BOSTUN, MASSACHUSETTS, AFCRL, AUGUST 1965.

LEVIT, A.B., "THE ENTROPY OF SOURCES OF VISUAL MESSAGES," CYBERNETICS IN THE SERVICE OF COMMUNISM, COMPUTER TECHNOLOGY, SEMIOTICS, ED. BY A.I. BERG, VOL. 3, MOSCOW-LENINGRAD, ENERGIYA PUBLISHING HOUSE, JUNE 1967.

LIMB, J.O., "ENTROPY OF QUANTIZED TELEVISION SIGNALS," PROCEEDINGS OF THE IEEE (LCNCON), VOL. 115, NO. 1, PP. 16-20, 1968.

LGEB. J.; "COMMUNICATION THEORY OF TRANSMISSION OF SIMPLE DRAWINGS," COMMUNICATION THEORY, BUTTERWORTHS SCIENTIFIC PUBLISHER, LONDON, PP. 317-327, 1953.

MACKAY, D.M., "THE STRUCTURAL INFORMATION-CAPACITY OF OPTICAL INSTRUMENTS," INFORMATION AND CONTROL, VOL. 1, PP. 148-153, 1957.

MARTIN, A.V.J., "NOTE SUR LA REDUCTION DE LA QUANTITE D'INFORMATIGN CONTENUE DANS UNE IMAGE DE TELEVISION," ONDE ELECTRONIQUE, VOL. 39, NO. 388-389, JULY-AUGUST, 1959, PP. 686-689.

MC CAMY, C.S., MON THE INFORMATION IN A MICROPHOTOGRAPHY, M APPLIED OPTICS, VOL. 4, NO. 4, Pp. 405-413, APRIL 1965.

MERTZ, P., FOWLER, A.D., CHRISTOPHER, H.N., "QUALITY RATING OF TELEVISION IMAGES," PROCEEDINGS OF THE IRE, VOL. 38, PP. 1269-1283, NOVEMBER 1950.

MERTZ, P., GRAY, F., MA THEORY OF SCANNING AND ITS RELATION TO THE CHARACTERISTICS OF THE TRANSMITTED SIGNAL IN TELEPHOTOGRAPHY AND TELEVISION, MBELL SYSTEMS TECHNICAL JOURNAL, NO. 13, PP. 464-514, 1934.

MORDZ, V.M., "DESCRIPTION OF IMAGES)F VISUAL OBJECTS THROUGH CURRELATION FUNC-TIONS." AVTOMATIKA, VOL. 14. PP. 80-82, SEPTEMBER-OCTOBER, 1969.

NAGEL, M., "EVALUATION OF MOTION-DEGRADED IMAGES," PROCEEDINGS OF THE NASA/ERC SEMINARS, CAMBRIDGE, MASSACHUSETTS, DECEMBER, 1968.

NARAYANAN, S., FRANKS, L.E., "THE SPECTRA OF DIGITALLY ENCODED VIDEO SIGNALS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-19, NO. 4, PP. 459-467, AUGUST 1971.

NGFFSINGER, E.B., "IMAGE EVALUATION: CRITERIA AND APPLICATIONS," JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VOL. 9, PP. 32-37, NOVEMBER 1970.

PAN; J.W., "REDUCTION OF INFORMATION REDUNDANCY IN PICTURES,"
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, SC.D. THESIS, SEPTEMBER, 1962.

PAWULA, R.F., "COMMENTS ON STATISTICAL PROPERTIES OF THE CONTOURS OF RANDCM SURFACES," IRE TRANSACTIONS ON INFURMATION THEORY, VOL. IT-9, NO. 3, PP. 208-209, JULY, 1963.

PEARL, J., "APPLICATION OF WALSH TRANSFORM TO STATISTICAL ANALYSIS," UNIVERSITY OF CALIFORNIA AT LOS ANGELES, UCLA-ENGINEER-7072, AUGUST 1970.

POWERS, K.H., STARAS, H., FREDENALL, G.L., "SOME RELATIONS BETWEEN TELEVISION PICTURE REDUNDANCY AND BANDWIDTH REQUIREMENTS," PROCEEDINGS OF THE CONFERENCE ON THE PHYSICAL PROBLEMS OF COLUR TELEVISION, ACTA ELECTRONICA, VOL. 2, NC. 1-2, PP. 378-383, 1957-1958.

REUTSKII, V.I., VASILEY, V.I., VOLOKHOV, V.S., "DESCRIPTION OF VISUAL TMAGES BY SPECTRAL REDISTRIBUTION FUNCTIONS," AVTOMATIKA, VOL. 12, PP. 48-56, JULY-AUGUST, 1967.

RINDFLEISCH, T.C., WILLINGHAM, D., "A FIGURE OF MERIT MEASURING PICTURE RESULUTION," ADVANCES IN ELECTRONICS, ELECTRON PHYSICS, EDITED BY L. MARTON, ACADEMIC PRESS, 1966, PP. 341-354.

RINK, R.E., "ENTROPY OF AN INCREMENT PROCESS IN TWO-DIMENSIONS," IFEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 5, PP. 610-612, SEPTEMBER 1971.

RITTERMAN, M.B., MAN APPLICATION OF AUTO-CORRELATION THEORY TO THE VIDEO SIGNAL OF TELEVISION, SYLVA-11A TECHNOLOGIST, VOL. 5, 1952, P. 7C.

ROETLING, P.G., TRABKA, E.A., KINZLY, R.E., "THECRETICAL PREDICTION OF IMAGE QUALITY," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 3, 1968, PP. 342-346.

RUSENFELD, A., PFALTZ, J.L., "DISTANCE FUNCTIONS ON DIGITAL PICTURES," PATTERN RECOGNITION, VOL. 1, PP. 33-61, 1968.

RUSENFELF, J., MRELATIONSHIPS BETWEEN INFORMATION CAPACITY AND RESOLVING POWER, PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. 11, PP. 415-418, 1967.

SAKRISON, D.J., "FACTORS INVOLVED IN APPLYING RATE DISTORTION THEORY TO IMAGE TRANSMISSION." VISITING NATU FELLOW, CAMBRIDGE UNIVERSITY, ENGLAND, PP. 17-3-1 TC 17-3-7.

SAKRISCN, D.J., ALGAZI, V.R., "COMPARISON OF THE POTENTIAL PERFORMANCE OF LINE-BY-LINE PROCESSING AND TWO-DIMENSIONAL PROCESSING IN IMAGE TRANSMISSION," PROCEEDINGS OF THE 4TH COLLOQUIM ON MICROWAVE COMMUNICATION, VOL. 1, COMMUNICATION SYSTEM THEORY, APRIL 1970.

SARAGA, W., "DISCUSSION ON THE IMPACT OF INFORMATION THEORY ON TELEVISION," JOURNAL OF THE BRITISH IRE, VOL. 13, NO. 12, Pp. 590-591, DECEMBER 1953.

SCHACE, O.H., MELECTRO-UPTICAL CHARACTERISTICS OF TELEVISION, MRCA REVIEW, VOL. 9, PARTS I-IV, PP. 5, 245, 490, AND 653, MARCH, JUNE, SEPTEMBER, AND DECEMBER 1948.

SCHREIBER, W.F., "THE MEASUREMENT OF THIRD ORDER PROBABLILTY DISTRIBUTION OF TELEVISION SIGNALS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, NG. 3, SEPTEMBER 1956, PP. 94-105.

SCHREIBER, W.F., "PRCBABILITY DISTRIBUTIONS OF TELEVISION SIGNALS," HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS, PH.D. THESIS, 1953.

SCCTT, R.M., "SAMPLED IMAGES-AN INTRODUCTION," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 1-1 TO 1-2.

SEYLER, A.J., "CHANNEL CAPACITY UTILIZATION OF TELEVISION RELAY LINKS," FURT-SCHRITTE DER HOCHFREQUENTZTECHMIK, VOL. 5, 1960, P. 263.

SHAW, R., "THE APPLICATION OF FOURIER TECHNIQUES AND INFORMATION THEORY TO THE ASSESSMENT OF PHOTOGRAPHIC IMAGE QUALITY," PHOTOGRAPHIC SCIENCE ENGINFER, VOL. 6, SEPTEMBER-OCTOBER 1962, PP. 281-286.

SINGER, J.R., "INFORMATION THEORY AND THE HUMAN VISUAL SYSTEM," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 49, NO. 6, JUNE 1959, PP. 639-640.

STEGDARD, J.D., "MEASUREMENT OF SECOND-ORDER PROBABILITY DISTRIBUTIONS BY DIGI-TAL MEANS;" MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NG. 302, JULY, 1955.

STRUKE, G.W., GROH, G., "INFORMATION RETRIEVAL FROM CODED IMAGES FORMED BY GENERALIZED IMAGING SYSTEMS," OPTICS COMMUNICATION, VOL. 1, NO. 7, PP. 339-40, FEBRUARY, 1970.

SWERLING, P.: "STATISTICAL PROPERTIES OF THE CONTOURS OF RANDOM SURFACES," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 3, PP. 315-321, JULY, 1962.

WALLACE, P.R., MREAL-TIME MEASUREMENTS OF ELEMENT DIFFERENCES IN TELEVISION PROGRAMS, PROCEEDINGS OF THE IEEE, VOL. 54, NO. 11, PP. 1576-1577, NOVEMBER, 1966.

WALLACE, P.R., SEYLER, A.J., "ACQUISITION AND RECORDING OF EXPERIMENTAL DATA FOR COMPUTER EVALUATION OF TELEVISION SIGNAL STATISTICS," IRE, AUSTRALIA, RADIO AND ELECTRONICS FNGINEERING CONVENTION, MARCH 22-26, 1965.

WALLACE, P.R., SEYLER, A.J., MACQUISITION OF STATISTICAL DATA OF TELEVISICN SIGNALS, PROCEEDINGS OF THE IRE, AUSTRALIA, NOVEMBER 1965, PP. 343-354.

WILMER, M.E., MCDUFFIE, G.E., "THE INFORMATION CONTENT OF TWO DIMENSIONAL IMAGES," IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1959.

YOUNGBLOOD, W.M., MESTIMATION OF THE CHANNEL CAPACITY REQUIRED FOR PICTURE TRANSMISSION, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASSACHUSETTS, SC.C. THESIS, 1958.

YU, F.T.S., "IMAGE RESTORATION, UNCERTAINTY, AND INFORMATION," APPLIED OPTICS, VOL. 8, NO. 1, P. 53, JANUARY 1969.

ZWEIG, H.J., "AUTOCORRELATION AND GRANULARITY," JOURNAL OPTICAL SOCIETY OF AMERICA, VOL. 46, NO. 10, OCTOBER 1956, PP. 805-820.

ALLNATT, J.W., "SUBJECTIVE QUALITY OF COLOR TELEVISION PICTURES IMPAIRED BY GAIN AND DELAY INEQUALITIES BETHEEN THE LUMINANCE AND CHROMINANCE CHANNELS," PROCEECINGS OF THE IEEE, VOL. 112, NO. 1C, PP. 1819-1825, OCTOBER 1965.

ALLNATT, J.W., BRAGG, E.J.W., "SUBJECTIVE QUALITY OF TELEVISION PICTURES IM-PAIRED BY SINEWAVE NOISE AND LOW-FREQUENCY RANDOM NOISE," PRCCEEDINGS OF THE IEEE, VOL. 115, 1968, Pp. 371-375.

ALLNATT, J.M., PROSSER, R.D., "SUBJECTIVE QUALITY OF COLOUR-TELEVISION PICTURES IMPAIRED BY RANDOM NOISE," PROCEEDINGS OF THE IEEE, VOL. 113, NO. 4, Pp. 551-557, 1966.

ALLNATT, J.W., PROSSER, R.D., "SUBJECTIVE QUALITY OF TELEVISION PICTURES IM-PAIRED BY LUNG-DELAYED ECHOES," PROCEEDINGS OF THE IEE, VOL. 112, NO. 3, 1965, P. 487.

BAKSTON, J.M., CHRISTOPHER, H.N., "THE MEASUREMENT OF RANDOM MONOCHROME VIDEO INTERFERENCE," TRANSACTIONS OF THE AIEE, VOL. 72, PART 1, JANUARY 1964, PP. 735-741.

BARSTON, J.M., CHRISTOPHER, H.N., "THE MEASUREMENT OF RANDOM VIDEO INTERFFR-ENCE TO MONOCHROME AND COLOR TELEVISION PICTURES," ALEE TRANSACTIONS, NO. 63, NCVEMBER 1962, Pp. 313-320.

BLACKMAN, E.S., "EFFECTS OF NOISE ON THE DETERMINATION OF PHOTOGRAPHIC SYSTEM MODULATION TRANSFER FUNCTION," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 12, Pp. 244-250, SEPTEMBER-OCTOBER 1968.

BRAIMARD, R.C., "LOW-RESOLUTION TV: SUBJECTIVE EFFECTS OF NOISE ADDED TO A SIGNAL," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. XLVI, NO. 1, JANUARY 1967, PP. 233-259.

BRAINARD, R.C., "SUBJECTIVE EFFECTS OF NOISE IN TELEVISIONS;" PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 1. DECEMBER 1971.

BRAINARD, R.C., KAMMERER, F.W., KIMME, E.G., "ESTIMATION OF THE SUBJECTIVE EFFECTS UF NOISE IN LOW-RESOLUTION TELEVISION SYSTEMS," IRF TRANSACTIONS ON "INFORMATION THEORY, VOL. IT-8, NO. 2, FEBRUARY 1962, PP. 99-106.

BRCWN, E.F., "TELEVISION: THE SJBJECTIVE EFFECTS OF FILTER RINGING TRANSIENTS," JOURNAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 78, NC. 4, APRIL 1969.

BUDRIKIS, Z.L., "VISUAL THRESHOLDS AND THE VISIBILITY OF RANDOM NOISE IN TV," PROCEECINGS ON THE IRE AUSTRALIA, VOL. 22, PP. 751-759, DECEMBER 1961.

BURGETT, M.I., "A SUBJECTIVE STUDY OF COLOR SYNCHRONIZATION PERFORMANCE," PROCEEDINGS OF THE IRE, VOL. 41, PP. 979-983, AUGUST 1953.

CULTMAN, J.W., ANDERSON, A.E., "NOISE LIMITATIONS TO RESOLVING POWER IN ELEC-TRONIC IMAGING," PROCEEDINGS OF THE IRE, VOL. 48, MAY 1960, PP. 858-865. CORBETT, J.M., TAYLOR, J.R., ALLNATT, J.W., "SUBJECTIVE QUALITY OF COLOUR-TELEVISION PICTURES BY VIDEO CROSSTALK," PROCEEDINGS OF THE IEE, VOL. 116, NO. 2 PP. 181-185, FEBRUARY 1969.

DAVISSON, L.D., "THE EFFECT OF CHANNEL ERRORS ON DATA COMPRESSION," WESCON CONFERENCE, SESSION 6, DATA COMPRESSION, 1967, SAN FRANCISCO, CALIFORNIA.

DEAN, C.E., "MEASUREMENTS OF THE SUBJECTIVE EFFECTS OF INTERFERENCE IN TELE-VISION RECEPTION," PROCEEDINGS OF THE IRE, VOL. 48, PP. 1035-1049, JUNE 1960.

FOWLER, A.D., "LOW FREQUENCY INTERFERENCE IN TELEVISION PICTURES," PROCEEDINGS OF THE IRE, VOL. 39, OCTOBER 1951, PP. 1332-1336.

FOWLER, A.D., "CBSERVER REACTION TO VIDEO CROSSTALK," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 57, 1951, 3P. 416-424.

FREDENALL, G.L., BEHREND, W.L., "PICTURE QUALITY: PROCEDURES FOR EVALUATING SUBJECTIVE EFFECTS OF INTERFERENCE," PROCEEDINGS OF THE IRE, JUNE 1960, Pp. 1030-1034.

HUANG, T.S., "THE POWER DENSITY SPECTRUM OF TELEVISION RANDOM NOISE," APPLIED OPTICS, VOL. 4, No. 5, Pp. 597-603, MAY 1965.

HUANG, T.S., "THE SUBJECTIVE EFFECT OF TWO-DIMENSIONAL PICTORIAL NOISE," ILEE TRANSACTIONS ON IMPORMATION THEORY, VOL. IT-11, NUMBER 1, JANUARY 1965, PP. 43-53.

HUANG, T.S., "THE SUBJECTIVE EFFECTS OF PICTORIAL NOISE," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 72, CAMBRIDGE, MASSACHUSETTS, JANUARY 1964, PP. 194-195.

HUANG, T.S., CHIKHACUI, M.T., MTHE EFFECT OF BSC ON PCM PICTURE QUALITY. IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, NO. 2, APRIL 1967, PP. 270-273.

HULLETT, J.L., MIMPAIRMENT BY TRANSMISSION FRRORS OF DIFFERENTIALLY-QUANTIZED TELEVISION SIGNALS, PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, DECEMBER 1971.

JACKSON, R.N., "SUBJECTIVE ASSESSMENTS OF NOISE IN TELEVISION PICTURES," REPORT NUMBER 308, MULLARD RESEARCH LABORATORIES, RECHILL, ENGLAND, JULY 1959.

KILVINGTON, T., MEFFECTS OF NOISE IN TELEVISION TRANSMISSION, M JOURNAL OF THE TV. SOCIETY, VOL. 9, JANUARY 1959, PP. 26-31.

KNIGHT, J.M., "MAXIMUM ACCEPTABLE BIT ERROR RATES FOR PCM ANALOG AND DIGITAL TV SYSTEMS," PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, PAPER 10-3, 1962, PP. 1-9.

KUTZ, R.L., SCIULLI, J.A., "THE PERFORMANCE OF AN ADAPTIVE IMAGE DATA COMPRESSION SYSTEM IN THE PRESENCE OF NOISE," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-14, NO. 2, MARCH 1968, PP. 273-279.

LEBELEY, D.S., YAROSLAVSKIY, L.P., "USE OF RECUNCANCY FOR NOISE REJECTION IMPROVEMENT IN PICTURE-TRANSMITTING SYSTEMS," HUNGARIAN ACADEMY OF SCIENCES AND SCIENTIFIC SOCIETY FOR TELECOMMUNICATIONS, 4TH COLLOQUIM ON MICROWAVE CUMMUNICATION, BUDAPEST, HUNGARY, VOL. 1, COMMUNICATION SYSTEM THEORY, APRIL 1970.

LEWIS, N.W., ALLNATT, J.W., "SUBJECTIVE QUALITY OF TELEVISION PICTURES WITH

MULTIPLE IMPAIRMENTS," ELECTRONIC LETTERS VOL. 1, NO. 7, P. 187, 1965.

MAURICE, R.D.A., GILBERT, M., NEWELL, F.G., SPENCER. J.G., "THE VISIBILITY OF NOISE IN TELEVISION," BRITISH BROADCASTING CORPORATION, LONDON, ENGLAND, MOND. 3. OCTOBER 1955.

MERTZ, P., "PERCEPTION OF TELEVISION RANDOM NOISE," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 54, PP. 8-34, JANUARY 1950.

O'NEAL, J.B., "NOISE CONSIDERATIONS IN BIT RATE COMPRESSION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDEN AND BREACH, NEW YORK, PART 3, DECMEBER 1971.

PEARSON, D.E., RUBENSTEIN, C.B., "THE INFLUENCE OF TRANSMISSION ERRORS ON THE CHOICE OF CULOR RECEIVER PRIMARIES," PROCEEDINGS OF THE PICTURE BANDWICTH COMPRESSION SYMPOSIUM, ABSTRACT ONLY, GORDON AND BREACH, NEW YORK, PART 7, DECEMBER 1971.

PROSSER, R.D., ALLNATT, J.W., LEWIS, N.W., "QUALITY GRADING OF INPAIRED TELEVI-SICN SIGNALS," PROCEEDINGS OF THE IEE, LONDON, VOL. 111, PP. 491-502, MARCH 1964.

RAGA, G.L., "CHANNEL NOISE: A LIMITING FACTOR ON THE PERFORMANCE OF A CLASS JF ADAPTIVE TELEMETRY TECHNIQUES," ADAPTIVE TELEMETRY CONFERENCE, GODDARD, SAN FRANCISCO, CALIFORNIA, FEBRUARY 1966.

SCHMID, H., "MEASUREMENT OF TELEVISION PICTURE IMPAIRMENTS CAUSED BY LINEAR DISTORTIONS," JOURNAL OF THE SUCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VCL. 77, NO. 3, PP. 215-220, 1960.

SORIN, V.Y., "COMPARATIVE EVALUATION OF THE NOISE RESISTANCE OF AN AMPLITUDE MUDULATION AND PCM PULSE CODE MODULATION IN THE CASE OF IMAGE TRANSMISSION," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., SEPTEMBER 1966.

WEAVER, L.E., "SUBJECTIVE IMPAIRMENT OF TELEVISION PICTURES," ELECTRICAL AND RADIC ENGINEERING, VOL. 36, PP. 170-179, MAY 1959.

WEISS, H., "SIGNIFICANCE OF SUME RECEIVER ERRCRS TO CCLOR REPRODUCTION," PROCEEDINGS OF THE I.R.E., PP. 1380-1388, SEPTEMBER 1954.

WINTZ, P.A., PROCTOR, C.W., "PICTURE BANDWIDTH REDUCTION FOR NOISY CHANNELS," TR-EE 71-30, SCHOOL OF ELECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, AUGUST 1971.

The state of the s

AUSHERMAN, D.A., HALL, E.L., DWYER, S.J., LODWICK, G.S., KRUGER, R.P., MMEASURE-MENT SELECTION TECHNIQUES APPLIED TO DIGITAL IMAGES, UNIVERSITY OF MISSOURI, COLUMBIA, 1969.

BILLINGSLEY, F.C., LINDSLEY, J.N., GOÉTZ, A.F., "COLOR DIFFERENTIATION BY CUMPLIER IMAGE PROCESSING," PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. 14. NO. 1, Pp. 28-35, JANUARY 1970.

BINGLEY, F.J., "COLORIMETRY IN COLOR TELEVISION," PROCEEDINGS OF THE I.R.E., JULY, 1953, PP. 838-851.

BREWER, W.L., LADD, J.H., PINNEY, J.E., MBRIGHTNESS MODIFICATION PROPOSALS FOR TELEVISING COLOR FILM, PROCEEDINGS OF THE IRE, JANUARY 1954, PP. 174-191.

FENTON, C.A., "APPLICATION OF THE LAND COLOR-VISION EFFECT TO TELEVISION SYSTEMS -A FEASIBILITY STUDY," ARMY ELECTRONICS LABS, FORT MUNMOUTH, NEW JERSEY, DECEMBER 1966.

HARSHBARGER, J.H., "COLOR SIGNAL SOURCE FOR VISUAL SIMULATION," SYSTEMS RESEARCH LABS, INC., DAYTON, OHIO, FINAL REPORT, APRIL 1965-MARCH 1966, AMRL-TR-66-116.

IWAMURA, S., "VIDEO SIGNAL PROCESSING AND ANALYSIS FOR NEGATIVE COLOR FILM TRANSMISSION," JAPAN BROADCASTING CORPORATION, TOKYO, TECHNICAL RESEARCH LABS, MARCH 1968.

JONES, A.H., TUSE OF A LINEAR MATRIX TO MODIFY THE COLDUR ANALYSIS CHARACTERISTICS OF A COLOUR CAMERA, BRITISH BROADCASTING CORPORATION, KINGSWOOD, ENGLAND, ENGINEERING DIVISION, 1965.

KURMAN, N.I., "COLCR SEPARATION BY SCANNER AND DIGITAL COMPUTATION," THE GRAVURE TECHNICAL ASSOCIATION FALL FORUM, LOUISVILLE, KENTUCKY, OCTOBER 25, 1970.

OHTA, N., "FAST COMPUTING OF COLOR MATCHING BY MEANS OF MATRIX REPRESENTATION. PART I: TRANSMISSION-TYPE COHERENT," APPLIED OPIICS, VOL. 10, NO. 9, P. 2183, SEPTEMBER 1971.

RICHARDS, N., PARKS, E.A., "MODEL FOR COLUR CONVERSION," OPTICAL SOCIETY OF AMERICA, VOL. 61, PPc 972-976, JULY 1971.

RIZY, E.F., "COLOR SPECIFICATION FOR ADDITIVE COLOR GROUP DISPLAYS," RCME AIR DEVELOPMENT CENTER, GRIFFISS AIR FURCE BASE, NEW YORK, DISPLAY TECHNIQUES BRANCH, AUGUST 1965.

SAKATA, H., MA STUDY OF FILM CAMERA THREE-COLOR SEPARATION SYSTEM, M JAPAN BROAD-CASTING CORPORATION, TOKYO, TECHNICAL RESEARCH LABORATORIES, SEPTEMBER 1965.

** ONE DIMENSIONAL DATA COMPRESSION TECHNIQUES WITH POTENTIAL APPLICATION TO **

** IMAGE CODING

AARON, M.R., FLEISCHMAN, J.S., MCDONALD, R.A., PROTONCTARIOS, E.N., MRESPUNSE OF DELTA MODULATION TO GUASSIAN SIGNALS, BELL SYSTEM TECHNICAL JOURNAL, YOL. 48, FP. 1167-1195, MAY-JUNE 1969.

ABLE, J.E., "TECHNIQUES FOR NARROW-BAND TELEMETRY OF NORREDUNDANT DATA," PROCEEDINGS OF THE 1963 NATIONAL TELEMETRY CONFERENCE, WASHINGTON, D.C., PAPER 9-5, PP. 1-10.

ARTER, F.W., "SIMPLE DELTA MODULATION SYSTEM," PROCEEDINGS OF THE IRE(AUSTRALIA) VCL. 23, PP. 517-523, SEPTEMBER 1962.

BALAKRISHNAN, A.V., "COMMUNICATION THEORY," NEW YORK: MCGRAW-HILL, 1968, PP. 335-342.

BALDER, J.C., KRAMER, C., MANALOG-TO-DIGITAL CONVERSION BY MEANS OF DELTA MODU-LATION, MIEEE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SET-10, PP. 87-9C, SEPTEMBER 1964.

BAYEVSKIY, R.M., "TRANSMISSION OF MEDICAL INFORMATION OVER LIMITED-CAPACITY TELEMETRY CHANNELS," AVIATION AND SPACE MEDICINE, FDITED BY V.V. PARIN, NASA TY F-228, PP. 41-43, DECEMBER 1964.

BECHTOLD, W.R., BJORN, T., MEDLIN, J.E., "PCM TELEMETRY DATA COMPRESSION STUDY, PHASE II." SECOND QUARTERLY REPORT, NOVEMBER 1965-FEBRUARY 1966. NASA CR-8693, LUCKHEED MISSILES AND SPACE COMPANY, M-62-66-2, P. 90, SUNNYVALE, CALIFORNIA, APRIL 1966.

BECHTULD, W.R., MEDLIN, J.E., WEBER, D.R., "PCM TELEMETRY DATA CUMPRESSION STUDY, PHASE I," FINAL REPORT SEPTEMBER 1964-AUGUST 1965, NASA CR-71528, LUCK-HEED MISSILES AND SPACE COMPANY, SUNNYVALE, CALIFORNIA, M-62-65-2, P. 420, OCTGBER 1965.

BELLC, P.A., LINCOLN, R.N., GISH, H., "STATISTICAL DELTA MODULATION," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, PP. 308-320, MARCH 1967.

BERKGWITZ, M., MADAPTIVE DATA SAMPLING SYSTEM. IEEE PROFESSIONAL GROUP TRANS-ACTIONS ON SPACE ELECTRONICS AND TELEMETRY RECORD, 1963.

BJORN, T., FRICORRO, H.J., MEDLIN, J.E., MPCM TELEMETRY DATA COMPRESSION STUDY, PHASE 2.M FINAL REPORT, AUGUST 1965-DECEMBER 1966, NASA CR-85894, LOCKHEED MISSILES AND SPACE CO., M-62-66-8, P. 310, SUNNYVALE, CALIFORNIA, JANUARY 1967.

PLASPALG, H., VAN BLERKCH, R., "MESSAGE COMPRESSION," IRE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SET-8, NC. 3, SEPTEMBER, 1962, PP. 228-238.

BLOKE, E.L., "THE TRANSMISSION OF BINARY SEQUENCES USING A UNIFORM CCDE," PROB-

LEMS OF INFORMATION TRANSMISSION, NO. 3, PP. 12-22,1960.

BLOKH, E.L., "THE TRANSMISSION OF NON-UNIFORM BINARY SEQUENCES BY MEANS OF A UNIFORM CODE," ELEKTROSVYAZ' 13, 1959; NC. 1, PP. 76-77, IN RUSSIAN, ENGLISH TRANSLATION, 1959, PP. 98-101.

BUCYCOPB, J.V., HADDAD, A.H., "SOME PROPERTIES OF A PREDICTIVE QUANTIZING SYSTEM," THIRD ANNUAL PRINCETON CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, PRINCETON UNIVERSITY, MARCH 1969.

BOWERS, F.K., "WHAT USE IS DELTA MODULATION TO THE TRANSMISSION ENGINEER?" PROCEEDINGS OF THE AIEE, VOL. 76, PART 1, PP. 142-147, MAY 1957.

BRACLEY, D., MUPTIMIZING A SCHEME FOR RUN LENGTH ENCODING, PROCEEDINGS OF THE IEEE, VOL. 57, NO. 1, PP. 108-111, JANUARY 1969.

BRUCE, M.M., MAN ANALYSIS OF A FIRST-URDER PULYNUMIAL PREDICTOR FOR DATA CUMPRESSION, MASA TECHNICAL NOTE, NASA TN D-3866, WASHINGTON, D.C., P. 29, MARCH 1967.

BRYAN, J.A., STUMPE, J.M., "THE DATA MANAGEMENT ANALYZER, A LABURATORY TOCL FOR DATA COMPRESSION ANALYSIS," INTERNATIONAL SPACE ELECTRONICS AND TELEMETRY SYMPCSIUM, MIAMI BEACH, FLORIDA, P. 11, NOVEMBER 1965.

CREMLEIGH, R.G., POSTHILL, B.N., "DATA COMPRESSION THROUGH SELECTIVE MONITOR-ING," AMERICAN ROCKET SOCIETY, SPACE FLIGHT REPRESENTATIVE TO THE NATION, NEW YORK, OCTOBER 1961.

CRUMTHER, W.R., RADER, C.M., "EFFICIENT CODING OF VOCODER CHANNEL SIGNALS USING LINEAR TRANSFORMATION," PROCEEDINGS OF THE IEEE, VOL. 54, NO. 11, PP. 1594-1595, NOVEMBER 1966.

CULHANE, J.L., NETTLESHIP, R., "SOME METHODS FOR THE COMPRESSION OF BINARY DATA IN SPACECRAFT EXPERIMENTS," IEEE TRANSACTIONS ON NUCLEAR SCIENCE, VOL. NS-15, NO. 2, PP. 3-13, 1968.

CURRY, R.E., "NONLINEAR ESTIMATION WITH QUANTIZED MEASUREMENTS: PCM PREDICTIVE QUANTIZATION AND DATA COMPRESSION," NASA CR-97197, RE-45, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASSACHUSETTS, EXPERIMENTAL ASTRONOMY LABORATORY, AUGUST 1968.

CURRY, R.E., VANDER VELDE, W.E., POTTER, J.E., MODILINEAR ESTIMATION WITH QUANTIZED MEASUREMENTS-PCM, PREDICTIVE QUANTIZATION AND DATA COMPRESSION, FIEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 2, PP. 152-161, MARCH 1970

DAVISSON, L.U., MAN APPLICATION OF DATA COMPRESSION CONCEPTS, PROCEEDINGS OF THE PURDUE CENTENNIAL SYSMPOSIUM ON INFORMATION PROCESSING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, APRIL 1969.

DAVISSON, L.D., MAN APPROXIMATE THEORY OF PREDICTION FOR DATA COMPRESSION, TIEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, PP. 274-276, APRIL 1967.

DAVISSON, L.D., "COMMENTS ON SEQUENCE CODING FOR DATA COMPRESSION," PROCEEDINGS OF THE IEEE(CORRESPONDENCE), VOL. 54, P. 2010, DECEMBER 1966.

DAVISSON: L.D., "THE CONCEPT OF ENERGY COMPRESSION RATIO AND ITS APPLICATION TO RUN-LENGTH CODING." FINAL REPORT 1966 SESSION OF THE GODGARD SUMMER WORK-SHUP, NASA, GUDDARD SPACEFLIGHT CENTER, REPORT X-700-67-94.

DAVISSON, L.D., MOATA COMPRESSION AND ITS APPLICATION TO VICEO SIGNALS, M GODDARD SUMMER WORKSHOP PRUGRAM IN ANALYSIS OF SPACE DATA AND MEASUREMENT OF SPACE ENVIRONMENTS, FINAL REPORT, NASA/GODDARD SPACE FLIGHT CENTER, PP. A-35-A-56, 1965.

THE SCHOOL STREET, STR

DAVISSON, L.D., "DATA COMPRESSION: THEORY AND APPLICATION," PROCEEDINGS KELLY COMMUNICATIONS CONFERENCE, UNIVERSITY OF MISSCURI, ROLLA, OCTOBER 1970.

DAVISSON, L.D., "DATA CUMPRESSION USING STRAIGHT LINE INTERPOLATION," IFEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-14, NO. 3, MAY 1968, PP. 390-394-

DAVISSON, L.D., "THE FAN METHOD OF DATA COMPRESSION," 1966 SESSION GCDDARD SUPMER WORKSHOP, NASA TM X-55742; X-700-67-94; NASA/GSFC, GREENBELT, MARYLAND, FINAL REPORT, PP. 23-30, 1967.

DAVISSON, L.D., "INFORMATION RATES FOR CATA COMPRESSION," PRESENTED AT THE WESTERN ELECTRONIC SHOW AND CONVENTION, LOS ANGELES, CALIFORNIA, AUGUST 1968.

DAVISSON, L.D., "ON THE THEORETICAL ANALYSIS OF DATA COMPRESSION TECHNIQUES," PROCEEDINGS OF THE HAWAII INTERNATIONAL CONFERENCE OF SYSTEM SCIENCES, 1968.

DAVISSON, L.D., "THE THEORETICAL ANALYSIS OF DATA COMPRESSION SYSTEMS," PRO-CEECINGS OF THE IEEE, VOL. 56, NO. 2, PP. 176-186, FEBRUARY 1968.

DAVISSON, L.D., "THEORY OF ADAPTIVE DATA COMPRESSION," ADVANCES IN COMM-UNICATION SYSTEMS. VOL. 2. NEW YORK. ACADEMIC PRESS. 1966.

DAVISSON: L.D., "A THEORY OF ADAPTIVE DATA COMPRESSION," PROCEEDINGS OF THE NATIONAL ELECTRONICS CONFERENCE, CHICAGO, OCTOBER 1964.

DAVISSUN, L.D., "A THEORY OF ADAPTIVE FILTERING," IEEE TRANSACTIONS ON INFOR-MATICN THEORY, VOL. IT-12, NO. 2, APRIL 1966, PP. 97-102.

DEJAGER; F., "DELTA MODULATION-A METHOD UF PCM TRANSMISSION USING A 1-UNIT CODE," PHILIPS RESEARCH REPORT, VOL. 7, PP. 442-466, 1952.

DEJAGER, F., GREEFKES, J.A., "CONTINUOUS DELTA MODULATION," GLOBECOM VI, 1964.

DOWNING, J.J., SMITH, W.E., STABBLES, J.E., "GENERAL PURPOSE TELEMETRY DATA COMPRESSION," WESCON 67 TECHNICAL PAPERS, DATA COMPRESSION, SESSION 6, AUGUST 1967, SAN FRANCISCO, CALIFORNIA.

DROGIN, E.M., RUVIN, A.E., "DELAY TIME BANDWIDTH REDUCTION TECHNIQUES," EASCON CONVENTION RECORD, SEPTEMBER 1968, INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, NEW YORK, PP. 581-584.

EHRMAN, L., "ANALYSIS OF SOME REDUNDANCY REMOVAL BANDLIDTH COMPRESSIGN TECHNIQUES," PROCEEDINGS OF THE IEEE, VOL. 55, PP. 278-287, MARCH 1967.

EHRMAN, L., MANALYTIC COMPARISON OF ADAPTIVE REDUNDANCY REMCYAL BANDWIDTH COMPRESSION, MORTHEAST ELECTRONICS RESEARCH AND ENGINEERING MEETING, (BOSTON INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS), PP. 238-239, BOSTON, 1966.

EHRMAN, L., "A STUDY OF ADAPTIVE BANDWIDTH COMPRESSION," PH.D. CISSERTATION, NORTHEASTERN UNIVERSITY, BUSTON, MASSACHUSETTS, 1967.

ELIAS, P. *PREDICTIVE CODING,* IRE TRANSACTIONS UN INFORMATION THEORY, V')L. IT-1 NO. 1, MARCH, 1955, PP. 16-33.

FADLEY, J.K., "NOISE: THE LIMITING FACTOR IN DIGITAL REDUNDANCY REMOVAL COMPRES-SION TECHNIQUES," IEEE INTERNATIONAL COMMUNICATIONS CONFERENCE, JUNE 1966,

GARDENHIRE, L.H., "DATA COMPRESSION WITH DIGITAL FILTERING," TELEMETRY JOURNAL, VOL. 1, NO. 4, OCTCBER-NOVEMBER 1966, PP. 15-20.

GARDENHIRE, L.W., "REDUNDANCY REDUCTION THE KEY TO ADAPTIVE TELEMETRY," PROCEEDINGS OF THE 1964 NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1964.

GARDENHIRE, L.W., "THE USE OF DIGITAL DATA SYSTEMS," PROCEEDINGS OF THE NATIONAL SPACE AERONAUTICS, VOL. 38, DECEMBER 1962, Pp. 73-78.

GERMOND, H.H., "COMPRESSION OF BIDASTRONAUTICAL DATA," PRCCEECINGS OF THE 1965 NATIONAL TELEMETRY CONFERENCE, Pp. 17-24.

GISH, H., MAN INVESTIGATION OF QUANTIZATION TECHNIQUES, FINAL REPORT, 1968, AD-669097, SIGNATRON, INC., LEXINGTON, MASSACHUSETTS, SIG-CR-337, AFCRL-68-0150, FEBRUARY 1968, N 68-26473.

GLASS, J.M., "SMOOTH-CURVE INTERPOLATION: A GENERALIZED SPLINE-FIT PROCEDURE," NEW YORK UNIVERSITY, COLLEGE OF ENGINEERING, PP. 277-293, 1966.

GOLDING, L.S., MA STUDY OF ADAPTIVE QUANTIZATION TECHNIQUES, DCCTORATE ENGINEERING DISSERTATION, YALE UNIVERSITY, NEW HAVEN, CONNETICUIT, 1966.

GOLDING, L.S., SCHULTHEISS, P.M., "STUDY OF AN ADAPTIVE QUANTIZER," PROCEEDINGS OF THE IEEE, VOL. 55, PP. 293-297, MARCH 1967.

GOLOMB, S.W., "RUN-LENGTH ENCODINGS," IEFE TRANSACTIONS ON INFORMATION THEORY, JULY 1966, PP. 399-401.

GUDDMAN, L.M., MA BIMARY LINEAR TRANSFORMATION FOR REDUNDANCY REDUCTION, PROCEEDINGS OF THE IEEE, MARCH 1967, PP. 467-468.

GOCDMAN, L.M., "CHANNEL ENCODERS," PROCEEDINGS OF THE 1EEE, CORRESPONDENCE, VOL. 55, PP. 127-128, JANUARY 1967.

GUCDMAN, L.M., MOPTIMUM RATE ALLOCATION FOR ENCODING SETS OF ANALOG MESSAGES, PROCEEDINGS OF THE IEEE, CORRESPONDENCE, VOL. 53, PP. 1776-1777, NOVEMBER 1965.

GOODMAN, L.M., "OPTIMUM SAMPLING AND QUANTIZING KATES," PROCEEDINGS OF THE IEEE, VOL. 54, NO. 1, JANUARY 1966.

HALIJAK, C.A., TRIPP, J.S., MA DETERMINISTIC STUDY OF DELTA MCCOLLATION, TRE INTERNATIONAL CONVENTION RECORD, PART 8, PP. 247-259, 1963.

HAPP, W.W., "CODING SCHEMES FOR RUN-LENGTH INFORMATION BASEC ON PGISSON-DISTRIBUTION." NASA TECHNICAL NOTE, NASA TN D-4572, WASHINGTON, D.C., JUNE 1968

HOCHMAN, D., MUIGITAL DATA COMPRESSURS CONTROL SPACE-GROUND TRANSMISSIONS, SPACE/AERONAUTICS, VOL. 37, Pp. 64-68, June 1962.

HOCHMAN, D., MDIGITAL SYSTEMS IN SPACE COMMUNICATIONS, THIRD INTERNATIONAL CONGRESS IN THE AERONAUTICAL SCIENCES, STOCKHOLM, AUGUST 1962.

HOCHMAN, D., "SPACE-BORNE DIGITAL SYSTEM FOR CATA BANDWIDTH COMPRESSION," IN SWITCHING THEORY IN SPACE TECHNOLOGY, ED. BY A. AIKEN AND W.F. MAIN, STANFORD UNIVERSITY PRESS, PP. 333-334, 1963.

HUCHMAN, D., KATZMAN, H., WEBER, D.R., MAPPLICATION OF RECUNDANCY REDUCTION IN TELEVISION BANDWIDTH CUMPRESSION, PROCEEDINGS OF THE IEEE, VOL. 55, PP. 253-267, MARCH 1967, NO. 3.

HUCHMAN, D., WEBER, R., MAN ADAPTIVE TELEMETRY--DATA COMPRESSION, CHAPTER 4
OF AEROSPACE TELEMETRY VOLUME II, H.L. STILTZ, EDITOR, PRENTICE-HALL, INC., 1966

HOETELLING, H., "ANALYSIS OF A COMPLEX OF STATISTICAL VARIABLES INTO PRINCIPAL COMPENENTS," JOURNAL OF EDUCATIONAL PSYCHOLOGY, VOL. 24, 1933, PP. 417-441, 498-520.

HOGG, G., "A DATA COMPRESSION PRIMER," NASA TV-X-55323, X-521-65-320, GSFC, GREENBELT, MARYLAND, P. 24, AUGUST 1965.

HOPKINS, M., "TELEMETRY DATA COMPRESSION STUDY," FINAL REPCRT, PHILCO-FORD CO., PHILCO HOUSTON OPERATIONS, HOUSTON, TEXAS, PHO-TR 266, CONTRACT NAS 9-1261*67-15334, 1966.

HUANG, J.J.Y., SCHULTHEISS, P.M., "BLOCK QUANTIZATION OF CORRELATED GAUSSIAN RANDCM VARIABLES," IEEE TRANSACTIONS ON COMMUNICATIONS SYSTEMS, VOL. CS-11, PP. 289-296. SEPTEMBER 1963.

HUFFMAN, D.A., "A METHOD FOR THE CONSTRUCTION OF MINIMUM-REDUNDANCY CODES," PROCEEDINGS OF THE IRE, SEPTEMBER 1952, PP. 1098-1101, VOL. 40.

HUGHES, G.F., "SPACECRAFT DATA COMPACTION BY GRTHONORMAL POLYNOMIAL SERIES," AUTONETICS, NO. 65/31-575-51/SS67, NOVEMBER, 1965.

HULME, J.R., SCHUMBURG, R.A., MA DATA BANDWIDTH COMPRESSION FOR SPACE VEHICLE TELEMETRY, PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, 1962, VOL. 1, PAPER 3-2.

HYMAN, M.A., "A SPACE DATA HANDLING (WITH EMPHASIS ON DATA COMPACTION),"
ANNUAL EAST CUAST CONFERENCE UN AEROSPACE AND NAVIGATIONAL ELECTRONICS, 12TH,
BALTIMORE, MARYLAND, PP. 3.3.3-1 - 3.3.3-6, OCTOBER 1965.

IBM CURPORATION, "ADAPTIVE COMPRESSIVE TELEMETRY TECHNIQUES," FINAL REPORT, NASA CR-65498, FEDERAL SYSTEMS DIVISION, IBM CORPORATION, GAITHERSBURG, MARY-LAND, 1966, P. 239.

INCSE, H., YASUCA, Y., "A UNITY BIT CODING METHOD BY NEGATIVE FEEDBACK," PROCEECINGS OF THE IEEE, VOL. 51, NOVEMBER 1963, PP. 1524-1535.

INDSE, H., YASUDA, Y., MURAKAMI, J., "A TELEMETERING SYSTEM BY CODE MODULATION: DELTA-SIGMA MUDULATION," IRE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SET-8, SEPTEMBER 1963, PP. 204-209.

IWERSUN, J.E., MCALCULATED QUANTIZING NOISE OF SINGLE-INTEGRATION DELTA-MODULA-TICN CODERS, THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NG. 7, SEPTEMBER 1969, PP. 2359-2389.

JAYANT, N.S., "ADAPTIVE DELTA MODULATION WITH A ONE-BIT MEMCRY," BELL SYSTEM TECHNICAL JOURNAL, MARCH 1970, Pp. 321-343.

KELLEY, R.B., "THE EFFECT OF CHANNEL SRRCRS ON A SAMPLING COMPRESSION SYSTEM EMPLCYING BINARY SEQUENCE TIME ENCODING," 1966 SESSION OF THE GOUDARD SUMMER WORKSHOP, NASA TV X-55742; X-700-67-94; NASA/GSFC, GREENBELT, MARYLAND, 1967, PP. 45-64.

KELLEY, R.B., "SAMPLE COMPRESSION SYSTEM EVALUATION," PH.D. THESIS, UNIVERSITY OF CALIFORNIA AT LOS ANGELES, LOS ANGELES, ORDER NO. 68-222, 1967.

PASSESSEE OF THE PROPERTY OF THE PASSES OF T

KORTMAN, C.M., "DATA COMPRESSION AND ADAPTIVE TELEMETRY," WESTERN ELECTRONIC SHOW AND CUNVENTION, SAN FRANCISCO, CALIFORNIA, TECHNICAL PAPERS, PART 5, NO. 14-4, P. 8, AUGUST 1965.

KORTMAN, C.M., "DATA COMPRESSION BY REDUNDANCY REDUCTION," IEEE SPECTRUM, VOL. 4, MARCH 1967, PP. 133-139.

KOHTPAN, C.M., MREDUNDANCY REDUCTION: A PRACTICAL METHOD OF DATA COMPRESSION, PRUCEEDINGS OF THE IEEE, VOL. 55, MARCH 1967, Pp. 253-263.

KRAMER, H.P., MATHEWS, M.V., MA LINEAR CODING FOR TRANSMITTING A SET OF CCRRELATED VARIABLES, IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, SEPTEMBER 1956, PP. 41-46.

KURTENBACH, A.J., WINTZ, P.A., *DATA COMPRESSION FOR SECOND ORDER PROCESSES,* PROCEEDINGS OF THE 1968 NATIONAL TELEMETRY CONFERENCE, APRIL 1968, P. 76.

KUTZ, R.L., "RESULTS OF ADAPTIVE PREDICTOR STUDIES, PART 1," NASA/GSFC (GCDDARD SPACE FLIGHT CENTER) CONFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREENBELT, MARYLAND; NASA TM X-55747; X-731-67-7; JANUARY 1967, PP. 41-53.

LABMEIER, C.D., MSATURN TELEMETRY DATA COMPRESSOR TEST PROGRAM, FINAL REPORT, NASA CR-61938, G-108, ADCOM, INC., PALO ALTO, CALIFORNIA, P. 164, APRIL 1968.

LAUGHLIN, C.R., "DATA COMPACTION STUDIES," NASA/GSFC, GODDARD SPACE FLIGHT CENTER, CONFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREENBELT, MARYLAND, NASA TH X-55747, X-731-67-7, JANUARY 1967, PP. 41-53.

LAULER, L.J., "A SYSTEM ORIENTED PCM GRGUND STATION INCORPORATING DATA COMPRESSION," NATIONAL SPACE ELECTRONICS SYMPOSIUM, MIAMI BEACH, FLORIDA, PIGSET RECORD, OCTOBER 1963, PROFESSIONAL TECHNICAL GROUP ON SPACE ELECTRONICS AND TELEMETRY (PIGSET) OF THE IEEE, NEW YORK.

LEADER, A., KOZUCH, M., "EXPERIMENTAL DELTA MODULATOR," NATIONAL SYMPOSIUM ON GLOBAL CUMMUNICATIONS, PP. 95-98, 1961.

LENDER, A., KUZUCH, M., "SINGLE BIT DELTA MODULATING SYSTEMS," ELECTRONICS, VOL. 34, NOVEMBER 1961.

LIBOIS, L.J., "A NOVEL METHOD OF CODE MODULATION-DELTA MODULATION," UNDE ELECTRONICS, VCL. 32, PP. 26-31, JANUARY 1952.

LOCKFEED COMPANY, "DATA COMPRESSION," INFORMATIONSSCHRIFT, LOCKHEED MISSILES AND SPACE COMPANY, SUNNYVALE, CALIFORNIA, LMSC-895385, P. 47, AUGUST 1967.

LOHSE, R., NELSON, N.L., "TELEMETRY DATA REDUCTION FOR SPACE VEHICLES," IEEE TRANSACTIONS ON AEROSPACE AS-2, NO. 2, Pp. 187-192, AUGUST 1964.

LUCKY, R.W., "ADAPTIVE REDUNDANCY REMOVAL IN CATA TRANSMISSION." REPRINT FROM THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 47, NG. 4, APRIL, 1968, PP. 549-573.

LYNCH, T.J., "DATA COMPRESSION WITH ERROR-CONTROL CUDING FOR SPACE TELEMETRY," NASA TECHNICAL REPORT, NASA TR R-261, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, JUNE 1967.

LYNCH, T.J., "PERFORMANCE MEASURES FOR COMPRESSED AND CODED SPACE TELEMETRY SYSTEMS," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, VOL. AES-3, PP. 784-795. SEPTEMBER 1967.

مقيعيني فالماء فأهشش مما شهميني فالمتاب

LYNCH, T.J., "SEQUENCE TIME CODING FOR DATA COMPRESSION," PROCEEDINGS OF THE IEEE(CORRESPONDENCE), VOL. 54, PP. 1490-1491, OCTOBER 1966.

MAESTRE, N.E., "A REPORT ON THE APPLICATION OF DATA ABBREVIATION ON ACTUAL RANGE TELEMETRY DATA," INTERNATIONAL TELEMETERING CONFERENCE PROCEEDINGS, VOL. II, Pp. 395-413, OCTOBER 1966.

MARCCVITZ, A.B., "AN APPLICATION OF NOISELESS CODING THEORY TO DATA COMPRESSION." PROCEEDINGS OF THE 1968 HAWAII CONFERENCE ON SYSTEM SCIENCES, HAWAII.

MASCHHOFF, H.R., "DELTA MODULATION," ELECTRO-TECHNOLOGY, VOL. 73, PP. 91-97, JANUARY 1964.

MAX, J., "QUANTIZING FOR MINIMUM DISTORTION," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. 1-6, NO. 1, MARCH 1960.

MAXWELL, M.S., SILVERMAN, J.R., CZAROINSKI, E.A., MAN ADAPTIVE SPACECKAFT TELEPETRY SYSTEM, INTERNATIONAL TELEMETERING CONFERENCE, VOL. I, Pp. 695-712, WASHINGTON, D.C., MAY 1965.

MCCALGHERN, R., RUSIE, A.M., MONDS, F.C., "ASYNCHRONOUS DATA COMPRESSION TECHNIQUES," PROCEEDINGS OF THE PURDUE CENTENNIAL YEAR SYMPOSIUM ON INFORMATION PROCESSING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, APRIL 1969.

MCCAUGHERN, R., ROSIE, A.M., MONDS, F.C., "TWO METHODS OF ASYNCHRONOUS DATA COMPRESSION," ELECTRONICS LETTERS, VOL. 4, PP. 363-364, 1968.

MCFARLAND, M.S., MAUTO-DRAPE - A REAL TIME TELEMETRY REDUCTION SYSTEM, MINATIONAL SYMPUSIUM ON SPACE ELECTRONICS AND TELEMETRY, MIAMI BEACH, FLORIDA, OCTOBER 1962.

MECLIN, J.E., "BUFFER LENGTH REQUIREMENTS FOR A TELEMETRY DATA COMPRESSOR," NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., VCL. 1, MAY 1962.

MEDLIN, J.E., "THE COMPARATIVE EFFECTIVENESS OF GENERAL TELEMETRY DATA COMPRESSION TECHNIQUES," PROCEEDINGS OF THE INTERNATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1963.

MEDLIN, J.E., "THE PREVENTION OF TRANSMISSION BUFFER OVERFLOW IN TELFMETRY DATA COMPRESSORS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM.-16, NO. 1, FEBRUARY 1968, Pp. 94-107.

MEDLIN, J.E., "SAMPLED-DATA PREDICTION FOR TELEMETRY BANDWICTH CUMPRESSION," IEEE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SET-11, NO. 1, MARCH 1965.

MURRISON, W.L., HOGAN, W.P., PENTZ, R.M., "APPLICATION OF DATA COMPRESSION TO FLIGHT DATA PROCESSING," 1964 PROCEEDINGS WESCON.

MURTHY, B.R.N., WINTZ, P.A., "OPTIMIZATION IN PCM, ADAPTIVE PCM, AND DPCM SYSTEMS," TR-EE69-13, SCHOOL OF ELECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, JULY 1969.

MUSMANN, H.G., "REDUNDANCY REDUCTION OF PCM SIGNALS," MRI SYMPOSIUM ON COMPUTER PROCESSING IN COMMUNICATIONS, POLYTECHNIC INSTITUTE OF BREOKLYN, NEW YORK,

APRIL 1969.

Section of the second

NAJJAR, H., D'ANTONIO, R., BLASBALG, H., "ADAPTIVE DIGITAL TERMINAL FOR SPACE TELEMETRY," TELEMETRY JOURNAL, NO. 2, 1967, NC. 5, AUGUST-SEPTEMBER, PP. 25-27, 29-31.

NASA/GGDDARD SPACE FLIGHT CENTER, "SPACE EXPLORATIONS' CHALLENGE TO ADAPTIVE TELEMETRY," CONFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREENBELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, PP. 3-6.

NITACORI, K., "STATISTICAL ANALYSIS OF DELTA PCM," JOURNAL OF THE IECE (JAPAN), VOL. 48, FEBRUARY 1965.

NOVIK, D.A., "UN PCSSIBLE METHODS OF EFFICIENT CODING FOR BINARY SEQUENCES," ELEKTROSVYAZ 16, 1962, NO. 4, PP. 64-69, ENGLISH TRANSLATION, 1962, PART 1, PP. 66-73.

OLIVER, B.M., "EFFICIENT CODING," BELL SYSTEM TECHNICAL JOURNAL, VOL. 31, NO. 4 1952, PP. 724-750.

OLIVER, B.M., PIERCE, J.R., SHANNON, C.E., "THE PHILOSOPHY OF PCM," PROCEEDINGS OF THE IRE, VOL. 36, PP. 1324-1331, NOVEMBER 1948.

OTT, G., "CCMPACT ENCUDING UF STATIONARY MARKEV SOURCES," IEEE TRANSACTIONS ON INFORMATION THEORY, IT-13, NO. 1, Pp. 82-89, 1967.

PACKARD BELL COMPUTER CORPORATION, "DATA COMPRESSION STUDY FOR APOLLO PCM TELEMETRY," PBC-10762, SEPTEMBER 1962.

PEARL, J., "BASIS-RESTRICTED TRANSFORMATIONS AND PERFORMANCE MEASURES FOR SPECTRAL REPRESENTATIONS," PROCEEDINGS OF THE 1971 HAWAIIAN CONFERENCE, HONOLULU.

PEARL, J., "ON THE DISTANCE BETWEEN REPRESENTATIONS," UNIVERSITY OF CALIFORNIA LOS ANGELES, COMPUTER SCIENCE DEPARTMENT.

PINKSTON, J.T., "ENCODING INDEPENDENT SAMPLE INFORMATION SOURCES," NASA CR-93764, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASSACHUSETTS RESEARCH INSTITUTE OF ELECTRONICS, TECHNICAL REPORT 462, OCTOBER 1967, NO. 89, N 68-20115.

PCSNER, E.C., RODENICH, E.R., "DATA COMPRESSION WITH BOUNCED ERRORS," 1969 IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, BOULDER, COLCRADO, JUNE 9-11, 1969.

POWNALL, L.A., "A STORED PROGRAM DATA COMPRESSION DEVELOPMENTAL SYSTEM," ELECTRONICS AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C., SEPTEMBER 1968, EASCEN '68, IEEE RECORD, PP. 333-338.

RAHE, G.A., "A COMPARISON OF SEVERAL TYPES OF DATA COMPRESSION," CANADIAN SYM-POSIUM ON COMMUNICATIONS, MONTREAL, CANADA, NOVEMBER 1968.

RATZ, A.G., "TELEMETRY BANDWIDTH COMPRESSION USING AIRBORNE SPECTRUM ANALYZERS," PROCEECINGS OF THE IRE, VOL. 48, NO. 4, 1960.

RATZ, A.G., SALBERTA, R.A., "THE DEVELOPMENT OF AIRBORNE SPECTRUM ANALYZERS FOR TELEMETRY BANDWIDTH COMPRESSION," NATIONAL TELEMETERING CONFERENCE, ALBUQUERQUE, NEW PEXICO, MAY 1963.

RENWICK, E.C., "NONLINEAR ESTIMATION WITH QUANTIZED MEASUREMENTS: PCM PRECICTIVE

QUANTIZATION AND DATA COMPRESSION. NASA CR-97197; RE-45; MIT, CAMBRIDGE, MASSA-CHUSETTS, EXPERIMENTAL ASTRONOMY LABORATORY, AUGUST 1966, P. 44.

SCHAEFER, D.H., MLDGARITHMIC COMPRESSION OF BINARY NUMBERS, PROCEEDINGS OF THE IRE, VOL. 49, JULY 1961, P. 1219.

SCHINDLER, H.R., "DELTA MODULATION," IEEE SPECTRUM, VOL. 7, NO. 10, P. 69, OCTOBER 1970.

SCHCMBURG, R.A., MCOMPUTER SIMULATION OF A DATA COMPRESSOR FOR AEROSPACE FELE-METRY SYSTEMS, MRECORD OF THE 1962 NATIONAL SYSPOSIUM ON SPACE ELECTRUNICS AND TELEMETRY.

SCHOUTEN, J.F., ET.AL., "DELTA MODULATION, A NEW MODULATION SYSTEM FOR TELECOM-MUNICATION," PHILLIPS TECHNICAL REPORT, VOL. 13, NO. 9, MARCH 1952.

SCHWAB, H., "DATA COMPRESSION," WESTERN ELECTRONIC SHOW AND CONVENTION, 1960, PP. 207-210, LOS ANGELES, CALIFORNIA, 1960.

SCHWARZ, G.R., "ADAPTIVE BUFFER DESIGN FOR DATA COMPRESSION SYSTEMS," WESTERN ELECTRONIC SHOW AND CONVENTION, SAN FRANCISCO, CALIFORNIA, AUGUST 1967, PP. 6/3-1 TO 6/3-12.

SCHWARZ, G.R., "BUFFER DESIGN FOR DATA COMPRESSION SYSTEMS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-16, NO. 4, 1968, PP. 605-615.

SCIULLI, J.A., MA LOGARITHMIC ENCODER FOR BINARY WORD COMPRESSION, MASA TECHNICAL NOTE; NASA TN D-4290, WASHINGTON, D.C., MARCH 1968.

SCIULLI, J.A., MRESULTS OF ADAPTIVE PREDICTOR STUDIES, II, MASA/GSFC GODDARD SPACE FLIGHT CENTER CONFERENCE ON ADAPTIVE TELEMETRY, GRESNBELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, PP. 81-108.

SCLATER, N., "THE FUTURE FOR DATA COMPRESSION EXPANDS," ELECTRONIC DESIGN, VOL. 16, NO. 11, 1968, PP. 25-26 AND 29-31.

SHELCAHL, S.A., ""CHANNEL IDENTIFICATION CODING FOR DATA COMPRESSORS," ELECTRCNICS AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C., SEPTEMBER 1968, EASCEN '68, IEEE, PP. 319-324.

SHELCABL, S.A., "COMPARISON OF HARDWARE REQUIREMENTS FOR POLYNOMIAL DATA COMPRESSIONS," PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1968.

SIMPSON, R.S., "BUFFER CONTROL IN DATA COMPRESSION SYSTEMS FOR NON-STATIONARY DATA," NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., JUNE 1964.

SIMPSON, R.S., "EVALUATION OF REDUNDANCY REDUCTION ALGORITHMS," INTERNATIONAL TELEMETER 14G 10AFERENCE PROCEEDINGS, VOL. II, OCTOBER 1966, PP. 338-352, LOS ANGELES, CALIFORNIA.

SIPPSON, R.S., BLACKWELL, C.A., FROST, W.D., "COMPENDIUM OF REDUNDANCY REMOVAL PRUCESSES," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, VOL. AES-2, ND. 4, 1966, PP. 471-474.

SIPPSON, R.S., BURNETT, J.R., "A THEORETICAL STUDY TO IMPROVE UTILIZATION OF MISSILE TELEMETRY SYSTEMS," FINAL REPORT APRIL 1962 - JANLARY 1963, AD-468427, ALABAMA UNIVERSITY, BUREAU OF ENGINEERING, FEBRUARY 1963.

SIMPSON, R.S., GRIFFIN, M.A., JAMES, S.N., "COMPRESSIBILITY OF SATURN S-1 PCM DATA," TECHNICAL REPORT NO. 1, SYSTEMS ENGINEERING GROUP, UNIVERSITY OF ALABAMA, JUNE 1963.

SIMPSON, R.S., GRIFFIN, M.A., JAMES, S.N., BJOKN, T., "A STUDY OF REDUNDANCY REMOVAL FOR SATURN TELEMETRY DATA," COMMUNICATION SYSTEMS GROUP, BURFAU OF ENGINEERING RESEARCH, UNIVERSITY OF ALABAMA, NOVEMBER 1964.

SIMPSON, R.S., HASKEW, J.R., "A STUDY OF REDUNDANCY IN SATURN FLIGHT DATA," TECHNICAL REPORT NO. 9, CUMMUNICATIONS SYSTEMS GROUP, BUREAU CF ENGINEERING RESEARCH, UNIVERSITY OF ALABAMA, AUGUST 1966.

SMITH, B., MIMSTANTANEOUS CUMPANDING OF QUANTIZED SIGNALS, BELL SYSTEMS TECHNICAL JOURNAL, VOL. 36, PP. 44-48, JANUARY 1951.

SMITH, W.E., DOWNING, J.J., STUBBLES, J.E., "GENERAL PURPOSE TELEMETRY DATA COM-PRESSION," WESCON 67 TECHNICAL PAPERS, DATA COMPRESSION, SESSION 6, SAN FRANCIS-CO, CALIFORNIA, AUGUST 1967.

SNIVELY, J.W., "A BIT-SAVING ENCODING SCHEME FOR A SET OF MCNOTONIC NUMBERS," PROCEEDINGS OF THE IEEE, VOL. 53, NG. 5, Pp. 544-545, MAY 1965.

SNIVELY, J.W., "OPTIMAL ALGORITHMIC ENCODING SCHEMES FOR INFORMATION SOURCES," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. [T-14, NO. 2, 1968, PP. 340-348.

SNIVELY, J.W., MA STATISTICAL DATA COMPRESSION TECHNIQUE, MASA TECHNICAL NOTE, NASA TN D-3616, P. 31, WASHINGTON, D.C., OCTOBER 1966.

SOMMER, R.C., HARRIS, B., "SOME RECENT ADVANCES IN ADAPTIVE DIGITAL SPACE TELE-METRY SYSTEMS," PROCEEDINGS OF THE 1962 NATIONAL TELEMETRY CONFERENCE, PAPER 10-5, 1962.

SPECHT, D.F., DRAPKIN, P.E., "BIOMEDICAL DATA COMPRESSION," PROCEEDINGS OF THE 1965 NATIONAL TELEMETRY CUNFERENCE, PP. 68-74, 1965.

STAMFFL, R.A., LAUGHLIN, C.R., "SYNOPSIS OF THE ADAPTIVE TELEMETRY CONFERENCE AT GOCDARC SPACE FLIGHT CENTER, FEBRUARY, 1966," GSFC, GREENBELT, MARYLAND, REPORT NC. X-713-55-208, P. 15, MAY 1966.

STANLEY, T.P., "COMPRESSION OF MARKOV DATA," PH.D. THESIS, PRINCETON UNIVERSITY, NEW JERSEY, 1967, ORDER NO. 68-2519.

STANLEY, T.P., LIU, B., "DATA COMPRESSION FOR DISCRETE MARKOV SIGNALS," PRO-CLECINGS OF THE 1967 NATIONAL ELECTRONICS CONFERENCE, VOL. 23, PP. 534-539.

STEVENS, W.A., "MULTICHANNEL DATA COMPRESSION SIMULATION: SPACE PROJECTIONS FROM THE RUCKY MOUNTAIN REGION," PROCEEDINGS OF THE SYMPOSIUM, CENVER, COLCRACO, JULY, 1968, VOL. 1, TARZANA, CALIFORNIA, AMERICAN ASTRONAUTICAL SOCIETY, NO. 19, A 69-12814.

STOVER, W.R., "TIME-DOMAIN BANDWIDTH COMPRESSION SYSTEM," THE JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA, VOL. 42, NO. 2, PP. 348-359, AUGUST: 1907.

STUMPE. J.W., "REDUNDANCY REDUCTION TECHNIQUES AND APPLICATIONS," TELECOMMUNICATIONS, VOL. 1, NO. 2, PP. T39-T43, OCTOBER 1967, ALSO, NATIONAL TELEMETERING CONFERENCE PROCEEDINGS, PP. 50-56, SAN FRANCISCO, CALIFORNIA, MAY 1967.

TUNSTALL, B., "SYNTHESIS OF DIGITAL COMPRESSION CODES," PROCEEDINGS OF THE HAMAII INTERNATIONAL CONFERENCE, HONOLULU, 1968.

TZANNES, N.S., SARANTAKIS, A.J., FARR, E.H., "ENTRUPY AND DATA COMPRESSION," IEEE TRANSACTIONS ON INFURMATION THEORY, VOL. IT-16, NO. 1, PP. 74-75, JANUARY 1970.

VAN BLERKOM, R., SCHWARZ, G.R., WARD, R.J., "AN ADAPTIVE COMPOSITE DATA COMPRESSION ALGORITHM WITH REDUCED COMPUTATION REQUIREMENTS," NATIONAL TELEMETERING CONFERENCE PROCEEDINGS, HOUSTON, TEXAS, PP. 90-95, APRIL 1968.

VAN CE WEG, H., "QUANTIZATION NOISE AT A SINGLE INTERGRATION CELTA MODULATION SYSTEM WITH AN N-DIGIT CODE." PHILIPS RESEARCH REPORT. VOL. 8, 1953.

VARSCS, S.G., NORVELL, B., "DATEC-DIGITAL ADAPTIVE TECHNIQUE FOR EFFICIENT COMMUNICATIONS," IEEE INTERNATIONAL CO"""NTION RECORD 1964, PART 6, SECTION 435-445.

VOELCKER, H.B., "NOTES ON A CLASS OF COMPRESSION SCHEMES," IMPERIAL COLLEGE OF LONDON, DEPARTMENT OF ELECTRICAL ENGINEERING, REPORT, MARCH 1959.

WALLACE, P.R., "REDUNDANCY REMOVAL TECHNIQUES FOR COMPRESSION OF TELEMETRY DATA," AIRBORNE INSTRUMENTATION AND DATA TRANSMISSION RESEARCH AT MARSHALL SPACE FLIGHT CENTER, RESEARCH ACHIEVEMENTS REVIEW, VOL. III, REPORT NO. 1, NASA TECHNICAL MEMURANDUM, NASA TMS-53760, PP. 27-47, 1968.

WALLINGFORD, E.E., ALLESLEY, I., WILSON, J.H., HENRY, W.G., "SIMPLE DATA COMPRESSION BY REDUNDANCY REPLACEMENT," IEEE TRANSACTIONS ON INFORMATION THORRY, VOLUME IT-17, NO. 4, PP. 500-503, JULY 1971.

WATANABE, S., "THE LOEVE-KARHUNEN EXPANSION AS A MEANS OF INFORMATION COMPRESSION FOR CLASSIFICATION OF CONTINUOUS SIGNALS," AMRL-TR-65-114, FORT KNOX, KENTUCKY, OCTOBER 1965.

WEBER, D.R., "DATA COMPRESSION FOR DEEP SPACE COMMUNICATIONS," INTERNATIONAL CUNFERENCE ON COMMUNICATIONS, PHILADELPHIA, PENNSYLVANIA, VCL. 4, PP. 604-608, JUNE 1968.

WEBER, D.R., "SOME ECONOMIC FACTORS IN THE APPLICATION OF DATA COMPRESSION,"
NATIONAL TELEMETERING CONFERENCE, SAN FRANCISCO, CALIFORNIA, PP. 65-69, MAY 1967
PROCEEDINGS.

WEBER, D.R., "A SYNOPSIS ON DATA COMPRESSION," LOCKHEED MISSILES AND SPACE CCPPANY, PP. 9-15, APRIL 13, 1965, NATIONAL TELEMETERING CONFERENCE, HOUSTON, TEXAS.

WEBER, D.R., WYNHOFF, F.J., "THE CONCEPT OF SELF-ADAPTIVE DATA COMPRESSION," PROCEEDINGS NATIONAL SYMPOSIUM ON SPACE ELECTRONICS AND TELEMETRY: 1962.

WEBER, D.R., WYNHOFF, F.J., HIGUCHI, P.K., MREDUNDANCY DATA ANALYSIS STUDY. PACKARD BELL COMPUTER CORPORATION, LOS ANGELES, CALIFORNIA, PBC-4121, MARCH 1962.

WEISS, E., "COMPRESSION AND CODING," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, APRIL 1962.

WILKINS, L.C., WINTZ, P.A., "NTH ORDER OF REDUNDANCY REDUCTION," PROCEEDINGS OF THE 1968 NATIONAL ELECTRONICS CONFERENCE, DECEMBER 1968.

WINKLER, M.R., "HIGH INFORMATION DELTA MCDULATION," IEEE INTERNATIONAL CONVEN-FICH RECORD, PART 8, PP. 260-265, 1963. WINTZ, P.A., APPLE, G.G., "EXPERIMENTAL PCM SYSTEM EMPLOYING KARHUNEN-LOEVE SAMPLING," PRESENTED AT THE 1969 INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1969.

YOUNG, I.T., MOTT-SMITH, J., MON WEIGHTED PCM, FIEEE TRANSACTIONS ON INFORMATION THEORY, PP. 596-597, OCTOBER 1965.

ZETTERBERG, L.A., MA COMPARISON BETWEEN DELTA AND PULSE CCDE MODULATION, MERICSSCN TECHNOLOGY, VOL. 2, NO. 1, Pp. 95-154, 1955.

ZUKERMAN, L.G., "SOME CODING CONCEPTS TO CONSERVE BANDWIDTH," NATIONAL TELEMETRY CONFERENCE, DENVER, COLORADO, PP. 138-142, MAY 1959.

ARGUELLO, R.J., SELLNER, H.R., "SAMPLING AND QUANTIZATION STUCY OF PCM SAMPLED IMAGERY," ENGINEERING REPORT ER-180, THE PERKIN-ELMER CORPORATION, NORWALK, CGNN., JUNE 1971.

BALAR, J.C., EPSTEIN, M.A., FEIT, L., MPCM TELEVISION VIA SATELLITE RELAY, FIEEF INTERNATIONAL CONFERENCE ON COMMUNICATIONS, BOULDER, COLORADO, JUNE 1969.

BISIGNANI, W.T., RICHARDS, G.P., WHELAN, J.W., "THE IMPROVED GRAY SCALE AND THE COARSE-FINE PCM SYSTEMS: THO NEW DIGITAL TV BANDWIDTH REDUCTION TECHNIQUES," PROCEECINGS IEEE, VOL. 54, NO. 3, MARCH, 1966, PP. 376-390.

BRITISH BROADCASTING CORPORATION, "PULSE CODE MODULATION OF VIDEO SIGNALS: 8-BIT CODER AND DECODER," BBC KINGSWOOD, ENGLAND, RESEARCH DEPARTMENT, 1970.

BRUCE, R.A., "OPTIMUM FRE-EMPHASIS AND DE-EMPHASIS NETWORKS FOR TRANSMISSION OF TELEVISION BY PCM," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, SEPTEMBER 1964, PP. 91-96.

BUDRIKIS, Z.L., "AN ESTIMATE OF CHANNEL REQUIREMENTS FOR RUN-LENGTH CODED TV PICTURE SIGNALS," COMMONWEALTH OF AUSTRALIA, POSTMASTER GENERAL'S DEPARTMENT, REPORT NO. 5057, JULY 1959.

BUDRIKIS, Z.L., "THECRETICAL FINITE SAMPLE STATISTICS OF RUN-LENGTH CODED TV PICTURE SIGNALS," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, REPORT NO. 5352, FEBRUARY 1961.

CABREY, R.L., "VIDEO TRANSMISSION OVER TELEPHONE CABLE PAIRS BY PULSE CODE MODULATION," PROCEEDINGS IRE, VOL. 48, NO. 9, SEPTEMBER 1960, PP. 1546-1561.

CAPUN, J., "A PROBABILISTIC MODEL FOR RUN-LENGTH CODING OF PICTURES," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. 11-5, NG. 4, DECEMBER 1959, PP. 157-163.

CHENG, G.C., LEDLEY, R.S., "A THEORY OF PICTURE DIGITIZATION AND APPLICATIONS."
PICTCRIAL PATTERN RECUGNITION, THOMPSON, WASHINGTON, D.C., PP. 329-352, 1968.

CHERRY, E.C., BARTON, M.P., KUBBA, M.H., "AN EXPERIMENTAL STUCY OF THE POSSIBLE BANDWICTH COMPRESSION OF VISUAL IMAGE SIGNALS," PROCFEDINGS OF THE IEEF, VOL. 51, NO. 11, NOVEMBER 1963, PP. 1507-1517.

CHAIN, C.C., JUHANNSEN, K.G., "EXPERIMENTAL PROCESSING OF TV PICTURES BY SYNTHETIC HIGHS SYSTEM," HUGHES AIRCRAFT COMPANY, REPORT TIC 223C.5/96, DEC-EMBER 1962.

CUTLER, C.C., "QUANTIZEU TRANSMISSION WITH VARIABLE QUANTA," U.S. PATENT 2 724 742. NOVEMBER 22. 1955.

CUTLER, C.C., "TRANSMISSION SYSTEMS EMPLCYING QUANTIZATION," PATENT 2 927 962, MARCH 8, 1960.

GICCA, F.A., "DIGITAL SPACECRAFT TY CAN BEAT BIT-RATE AND WEIGHT PROBLEMS," SPACE AERONAUTICS, VOL. 38, DECEMBER 1962, PP. 73-78.

GLASS, J.M., "ANALYSIS OF QUANTIZED TWO-DIMENSIONAL PATTERNS," NEW YORK UNIVERSITY COLLEGE OF ENGINEERING, TECHNICAL NOTE 400-7, SEPTEMBER 1961.

Project Control of the Control of th

GLASS, J.M., MA CRITERION FOR THE QUANTIZATION OF LINE-DRAWING DATA, M NEW YORK UNIVERSITY COLLEGE OF ENGINEERING, TECHNICAL REPORT 400-112. MAY 1965.

GLASS, J.M., "A CRITERION FOR THE QUANTIZATION OF PLANAR CONTOURS," NEW YORK UNIVERSITY COLLEGE OF ENGINEERING TECHNICAL REPORT 400-91, FEBRUARY 1964.

GUODALL, W.M., "TELEVISION BY PULSE CODE MODULATION," BELL SYSTEM TECHNICAL JOURNAL, JANUARY 1951, VOL. 30, PP. 33-49, HOLMDEL, NEW JERSEY.

GRAHAM, D.N., "IMAGE TRANSMISSION BY THO-DIMENSINAL CONTOUR CODING," PROCEEDINGS OF THE IEEE, VGL. 55, PP. 336-346, MARCH 1967, NO. 3.

GRAHAM, D.N., "THU DIMENSIONAL FILTERING TO REDUCE THE EFFECT OF QUARTIZING NOISE IN TV," MASSACHUSETTS INSTITUTE OF TECHNOLOGY, M.S. THESIS, JANUARY, 1962.

GRAHAM, D.N., "TWO-DIMENSIONAL SYNTHESIS OF HIGH SPATIAL FREQUENCIES IN PICTURE PROCESSING," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 75, OCTOBER, 1964, Pp. 131-134.

HARPER, L.H., "PCM PICTURE TRANSMISSION," IEEE SPECTRUM, VOL. 3, P. 146, JUNE 1966.

HAYNES, H.E., HOGERS, D.T., "STOP-GO SCANNING SAVES SPECTRUM SPACE," ELECTRONICS, SEPTEMBER, 1958.

HUANG, T.S., "RUN-LENGTH CODING AND ITS EXTENSIONS," PRESENTED AT THE SYMPCSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

HUANG, T.S., TRUN-LENGTH CODING OF CONTINUOUS-TONE PICTURES. PROCEEDINGS OF THE 2ND PRINCETON CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, IEEE-68-CT-1, MARCH 25-26, 1968.

HUANG, T.S., TRETIAK, O.J., PRASADA, B., YAMAGUCHI, Y., "CESIGN CONSIDERATIONS IN PCM TRANSMISSION OF LOW-RESOLUTION MONOCHROME STILL PICTURES," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, Pp. 331-335, MARCH 1967.

JOHANNSEN, K.G., MSYNTHETIC HIGHS-STOP SCANNING CODING SYSTEM, M HUGHES ATRCRAFT COMPANY, REPORT TIC 2230.5/94, NOVEMBER 1962.

JULESZ, 8., "A METHOD OF CODING TV SIGNALS BASED UN EUGE DETECTION," BELL SYSTEM TECHNICAL JOURNAL, VOL. 38, NO. 4. JULY, 1959, PP. 1001-1020.

LEBELEY, D.S., LEBEDEY, D.G., "A NEW METHOD OF IMAGE QUANTIZATION." (IN RUSSIAN) AKAD, NAUK VESTNIK, PP. 44-46, NOVEMBER 1964.

LIMB, J.O., SUTHERLAND, I.G., "RUN-LENGTH CODING OF TELEVISION SIGNALS," PROCEECINGS OF THE IEEE, VOL. 53, NO. 2, PP. 169-170, FEBRUARY 1965.

LIPPEL, B., "ENCODING OF PICTORIAL INFORMATION," EXPERIMENTS FOR A NEW MESSAGF FORMAT FUR DIGITAL COMPUTERS, ARMY ELECTRONICS COMMAND, FORT MONMOUTH, NEW JERSEY, JANUARY 1969.

LIPPEL, B., "IMPROVEMENT OF A COARSE PICTURE QUANTIZER BY MEANS OF ORDERED DITHER," RESEARCH AND DEVELOPMENT TRANSMISSION, ECON-3436, JUNE 1971.

LIPPEL, B., KURLAND, M., "THE EFFECT OF DITHER ON LUMINANCE QUANTIZATION OF PICTURES." IEEE TRANSACTIONS OF COMMUNICATIONS TECHNOLOGY, DECEMBER 1971.

Value of the Control of the Control

LIPPEL, B., KURLAND, M., MARSH, A.H., "ORDERED DITHER PATTERNS FOR COARSE QUANTIZATION OF PICTURES," PROCEEDINGS OF THE IEEE, VOL. 59, NO. 3, Pp. 429-431, MARCH 1971.

PEASE, R.F., LIMB, J.O., "EXCHANGE OF SPATIAL AND TEMPORAL RESOLUTION IN TELE-VISION CODING," THE BELL TELEPHONE SYSTEM TECHNICAL JOURNAL, JANUARY 1971, PP. 191-200.

PRATT, W.K., "CODING COMPRESSION OF A TELEVISION BANDHIDTH RECUCTION SYSTEM," PROCEEDINGS OF THE IEEE CORRESPONDENCE, VOL. 54, NO. 6; PP. 914-916, JUNE 1966.

PRAIT, W.K., "INTERPLANETARY PICTURE TRANSMISSION USING THE EDGE DETECTION SYSTEM," HUGHES AIRCRAFT COMPANY, CULVER CITY, CALIFORNIA, REPORT SSD 2161; JAN-UARY 1962.

PRATT, W.K., "STOP-SCAN EDGE DETECTION SYSTEM FOR INTERPLANETARY TELEVISION TRANSMISSION," NATIONAL SYMPOSIUM ON SPACE ELECTRUNICS AND TELEMETRY, SECTION 4.3, OCTOBER, 1962.

PRATT. W.K.. "TELEVISION SYSTEM." PATENT APPLICATION. PD-5253. UCTOBER 1963.

RICE, R.F., "TY DATA COMPRESSION FOR A GRAND TOUR OF THE CUTER PLANETS," PRO-CEEDINGS OF THE 4TH HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, UNIVERSITY OF HAWAII, HONOLULU, JANUARY 12-14, 1971.

RICHARDS, G.P., BISIGNANI, W.T., "REDUNDANCY REDUCTION APPLIED TO COARSE-FINE ENCOCED VIDEO," PROCEEDINGS OF THE IEEE, VOL. 55, OCTOBER 1967, PP. 1707-1717.

ROBERTS, L.G., "PCM TELEVISION BANDWIDTH REDUCTION USING PSEUDU-RANDOM NOISE," MIT, S.M. THESIS, CAMBRIDGE, MASSACHUSETTS, FEBRUARY 1961.

RUBERTS, L.G., "PICTURE CODING USING PSEUDO-RANDOM NOISE," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 2, FEBRUARY 1962, PP. 145-154.

SANCHUK, A.A.2 "QUANTIZATION CONTOUR ELIMINATION IN PCM TELEVISION USING EDGE DETECTION," B.S. THESIS, DEPARTMENT OF ELECTRICAL ENGINEERING, MIT, CAMBRIDGE, MASSACHUSETTS, JUNE 1966.

SCPREIBER, N.F., "THE MATHEMATICAL FOUNDATION OF THE SYNTHETIC HIGHS SYSTEM," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 68, JANUARY 1963, PP. 140-146.

SCHREIBER, W.F., KNAPP, C.F., "TV BANDWICTH REDUCTION BY DIGITAL CODING," IRE NATIONAL CONVENTION RECORD, VOL. 6, PART 4, 1558, PP. 88-89.

SCHGELBER, W.F., KNAPP, C.F., KAY, N.D., "SYNTHETIC HIGHS: AN EXPERIMENTAL TV BANDWIDTH REDUCTION SYSTEM," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TV ENGINEERS, VOL. 68, AUGUST 1959, PP. 525-537.

SIVERTSON, W.E., "VARIABLE WORD LENGTH ENCODER REDUCES TV BANDWIDTH REQUIRE-MENTS," LANGLEY RESEARCH CENTER, LANGLEY STATION, VIRGINIA, NOVEMBER 1965.

SPENCER, D.R., HUANG, T., "BIT-PLANE ENCODING OF CONTINUOUS-IGNE PICTURES," MRI SYMPOSIUM ON COMPUTER PROCESSING IN COMMUNICATIONS, POLYTECHNIC INSTITUTE OF BROCKLYN, NEW YORK, APRIL 1969. THOMPSON, J.E., SPARKES, J.J., "A PSEUDO-RANDOM QUANTIZER FOR TELEVISION SIGNALS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, PP. 353-355, MARCH 1967.

ANCO, H., FUKUSHIMA, K., "TV BAND COMPRESSION BY MULTI-MODE INTERPOLATION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-10, NO. 2, APRIL 1964.

ARGUELLU, R.J., MENCODING, TRANSMISSION AND DECODING CF SAMPLED IMAGES, A SYMPCSIUM ON SAMPLED IMAGES, THE PERKIN-FLMER CORPORATION, OPTICAL GROUP, NURWALK, CONNECTICUT, 1971, PP. 3-1 TO 3-22.

ARGUELLO, R.J., SELLNER, H.R., "ADAPTIVE DELTA MODULATION OF AERIAL IMAGERY," ENGINEERING REPORT ER-179, THE PERKIN-ELMER CORPORATION, NORWALK, CONN., JUNE 1971.

ARGUELLO, R.J.; STULLER, J.A., SELLNER, H.R., "DIFFERENTIAL PULSE CODE MODULATION TRANSMISSION OF SAMPLED IMAGERY." ENGINEERING REPORT ER-154, THE PERKIN-ELMER CORPORATION, NORWALK, CONN., JUNE 1971

BALAKRISHNAN, A.V., "ADAPTIVE METHODS IN COMMUNICATION SYSTEMS," NASA/GSFC GCCDARD SPACE FLIGHT CENTER CONFERENCE ON ADAPTIVE TELEMETRY, GREENBELT, MARYLAND, NASA TM-X-55747, X-731-67-7, PP. 9-25, JANUARY 1967.

BALDER, J.C., KRAMER, C., MVIDEO TRANSMISSION BY DELTA MODULATION USING TUNNEL DICDES, PRUCEEDINGS OF THE IRE, VOL. 50, NO. 4, APRIL 1962, PP. 428-431.

BEDDCES, M.P., MEXPERIMENTS WITH SLOPE FEEDBACK CODER FOR TV COMPRESSION, FIRE TRANSACTIONS ON BROADCASTING, VOL. BC-7, NU. 2, MARCH 1961, PP. 12-28.

BOSHCRTH, R.H., CANDY, J.C., "A COMPANDED ONE-BIT CODER FOR TELEVISION TRANSMISSION," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 5, MAY-JUNE 1969.

BRAINARD, R.C., "SUBJECTIVE EVALUATION OF PCM NOISE-FEEDBACK CODER FOR TELEVISION," PROCEEDINGS OF THE ILEE, VOL. 55, PP. 346-353, MARCH 1967.

BRAINARD, R.C., CANDY, J.C., "DIRECT-FEEBACK CODERS: DESIGN AND PERFORMANCE WITH TELEVISIUN SIGNALS," PROCEEDINGS OF THE IEEE, VOL. 57, PP. 776-786, MAY 1969.

BROWN, E.F., "EXPANDED DPCM CODING TECHNIQUES FOR TELEVISION," PRESENTED AT THE SYMPCSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

BROWN, E.F., "A SLIDING-SCALE DIRECT-FEEDBACK PCM CODER FOR TELEVISION," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 5, MAY-JUNE 1969.

BRCWN, E.F., "SLIDING-SCALE OPERATION OF DIFFERENTIAL TYPE PCM CODES FOR TELEVISION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GGROON AND BREACH, NEW YORK, PART 5, 1971.

CANDY, J.C., "REFINEMENT OF A DELTA MODULATOR," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

CCNNCR, D.J., PEASE, R.F.W., SCHOLES, W.G., "TELEVISION CODING USING TWO-DIMENSIONAL SPATIAL PREDICTION," BELL SYSTEM TECHNICAL JOURNAL, VOL. 5C, NO. 3,

FP. 1049-1061, MARCH 1971.

COOMBS, W.C., SALAMAN, R.A., COTTRELL, D.E., "A RESEARCH STUDY AND ENGINEERING INVESTIGATION OF A DIGITAL TELEVISION SYSTEM," COLORADO RESERACH CORPORATION, PROJECT 23-20, BROOMFIELD HEIGHTS, COLORADO, DECEMBER 1957-JUNE 1959.

COTTCN, R.V., RENN, R.L., STRAHMEYER, G.R., "ANALYSIS AND IMPLEMENTATION OF A DELTA MUDULATION PICTORIAL ENCODING SYSTEM," PROCEEDINGS OF THE 1966 NATIONAL TELEMETERING CONFERENCE, BOSTON, MASSACHUSETTS, MAY 10-12, 1966.

COTTCN, R.V., STRAHMEYER, G.R., TILLMAN, A.F., "DEMONSTRATION OF THE FEASIBILITY OF USING DELTA MODULATION FOR PICTURE TRANSMISSION," PHILCO CORPORATION, REPORT NO. 9040-TN, AD-294689, NOVEMBER 1962.

COTTRELL, D.E., DAVIS, I.F., STURM, R.E., "A RESEARCH STUDY AND ENGINEERING INVESTIGATION OF A DIGITAL TELEVISION SYSTEM," COLORADO RESEARCH CORPORATION, REPORT AD-228208, JUNE 1959.

CUTLER, C.C., "DIFFERENTIAL QUANTIZATION OF COMMUNICATION SIGNALS," PATENT 2 605 361, JULY 1952.

CUTLER, C.C., GRAHAM, R.E., "PREDICTIVE QUANTIZING OF TV IMAGES," IRE WESCON CONVENTION RECORD, PART 4, 1958, PP. 147-157.

GODWIN, J., "DIGITAL LINEAR INTERPOLATION FOR IMAGE DATA COMPRESSION," RESEARCH 900, UNIVERSITY OF MICHIGAN, ANN ARBOR, JUNE 26, 1969. TELEVISION BANDWIDTH COMPRESSION," PROCEEDINGS OF THE IEEE, VCL. 55, NO. 3, Pp. 253-267, MARCH 1967.

GRAHAM, R.L., *PREDICTIVE QUANTIZING OF TELEVISION SIGNALS,* IRE WESCON CONVENTION RECORD, PART 4, 1958, PP. 142-157.

HABIBI, A., "COMPARISON OF NTH ORDER DPCM ENCODER WITH LINEAR TRANSFORMATIONS AND BLCCK QUANTIZATION TECHNIQUES," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VUL. COM-19, NO. 6, DECEMBER 1971.

HARRISON, C.W., "EXPERIMENTS WITH LINEAR PREDICTION IN TELEVISION," BELL SYSTEM TECHNICAL JOURNAL, VOL. 31, NO. 4, JULY, 1952, PP. 746-783.

HOCHMAN, D., KATZHAN, H., WEBER, D.R., MAPPLICATION OF RECURDANCY REDUCTION TO TELEVISION BANDWIDTH COMPRESSION, PROCEEDINGS OF THE IEEE, VOL. 55, PP. 253-267, MARCH 1967.

HUANG, T.S., "PICTURE TRANSMISSION BY DELTA-MODULATION," HIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 74, CAMBRIDGE, MASSACHUSETTS, JULY 1964, PP. 208-210.

HULLETT, J.L., LIMB, J.O., "DIFFERENTIAL QUANTIZATION OF TELEVISION SIGNALS-OPEN-LOOP OPERATION," PROCEEDINGS OF THE IEEE, VOL. 56, PP. 364, MARCH 1968.

INCSE, H., YASUDA, Y., TAKANO, H., MVIDEO TRANSMISSION BY DELTA-SIGMA MODULA-TION. PROCEEDINGS OF THE IEEE, VOL. I, PP. 307-312, 1963.

KLEINROCK, L., "TV DATA COMPRESSION BY A DECAYING SLOPE THRESHOLD METHOD," PRO-CEEDINGS OF THE SECOND HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, JANUARY 1969.

KUTZ, R.L., SCIULLI, J.A., STAMPFL, R.A., "ADAPTIVE DATA COMPRESSION FOR VIDEO SIGNALS," ADVANCES IN COMMUNICATION SYSTEMS: THEORY AND APPLICATIONS, VOL. 3

ED. BY A.V. BALAKRISHNAN, NEW YORK: ACADEMIC PRESS, PP. 29-66, 1968.

LIMB, J.C., MOUNTS, F.W., "DIGITAL DIFFERENTIAL QUANTIZER FOR TELEVISION." THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 7, PP. 2583-2599, SEPTEMBER 1969.

MARTIN, A.V.J., "TWO-DIMENSIONAL PREDICTIVE REDUNDANCY IN A TELEVISION DISPLAY," PROCEECINGS OF THE IRE, MAY 1959, PP. 57-61.

O'NEAL, J.B., "A BOUND ON SIGNAL-TO-QUANTIZING NOISE RATIOS FOR DIGITAL ENCODING SYSTEMS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, PP. 287-292, MARCH 1967.

<code>G^NEAL</code>, <code>J.B., "BOUNDS</code> ON SUBJECTIVE PERFORMANCE MEASURES FOR SOURCE FNCODING SYSTEMS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 3, Pp. 274-232, MAY 1971.

O'NEAL, J.B., "DELTA MODULATION QUANTIZING NOISE ANALYTICAL AND COMPUTER SIMULATION RESULTS FOR GAUSSIAN AND TV INPUT SIGNALS," BELL SYSTEM TECHNICAL JOURNAL, VOL. 45, PP. 117-142, JANUARY 1966.

O'NEAL, J.B., "PREDICTIVE QUANTIZING SYSTEMS (DIFFERENTIAL PULSE CODE MODULATION) FOR THE TRANSMISSION OF TELEVISION SIGNALS," BELL SYSTEM TECHNICAL JOURNAL, VOL. 45, MAY-JUNE 1966, NO. 5, PP. 689-721.

O'NEAL, J.B., AGRAWAL, J.P., "QUANTIZING NOISE-BAND-WIDTH TRADEOFFS FOR DIFFLRENTIAL PCM OF TELEVISION SIGNALS," DEPARTMENT OF ELECTRICAL ENGINEERING, NORTH CAROLINA STATE UNIVERSITY.

RENN, R.L. ET AL., "ANALYSIS AND IMPLEMENTATION OF A CELTA MODULATION PICTORIAL ENCODING SYSTEM," PROCEEDINGS OF THE 1966 NATIONAL TELEMETRY CONFERENCE, HOSTON, MASSACHUSETTS, MAY 1966, PP. 27-34.

SCIULLI, J.A., "COMPRESSION OF VIDES DATA BY ADAPTIVE NONLINEAR PREDICTION," NASA TECHNICAL NOTE, NASA TN D-3475, WASHINGTON, D.C., AUGUST 1966, P. 33.

** TRANSFORM CODING OF IMAGES **

STATE OF THE PROPERTY OF

ALEXANDRIDIS, N.A., "THE HADAMARD TRANSFORM IN IMAGE PROCESSING AND PATTERN RECOGNITION," UNIVERSITY OF CALIFORNIA AT LOS ANGELES, REPORT NO. 70-22M, MARCH 1970.

ALEXANDRIDIS, N.A., "WALSH-HADAMARD TRANSFORMATIONS IN IMAGE PROCESSING," UCLA-ENG-7108, UNIVERSITY OF CALIFORNIA, LOS ANGELES, SCHOOL OF ENGINEERING AND APPLIED SCIENCES, MARCH 1971.

ANDERSON, G.B., HUANG, T.S., "PIECEWISE FOURIER TRANSFORMATION FOR PICTURE BANDWIDTH COMPRESSION," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-19, NO. 2, APRIL 1971, PP. 133-140.

ANDREWS, H.C., "FOURIER CODING OF IMAGES," UNIVERSITY OF SUUTHERN CALIFORNIA, LOS ANGELES, CALIFORNIA, USCEE REPORT NO. 271, JUNE 1968.

ANDREWS, H.C., PRATT, W.K., "FOURIER TRANSFORM CCDING OF IMAGES," 1968 HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, HONGLULU, PP. 677-68C. 677-680.

ANDREWS, H.C., PRATT, W.K., "TELEVISION BANDWIDTH REDUCTION BY ENCODING SPATIAL FREQUENCIES," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 77, PP. 1279-1281, NAY 1968.

ANDREWS, H.C., PRATT, W.K., "TRANSFORMATION CODING FOR NOISE IMMUNITY AND BAND-WIDTH REDUCTION," PROCEEDINGS OF THE SECOND HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, JANUARY 1969.

BERLEKAMP, E.R., "SOME MATHEMATICAL PROPERTIES OF A SCHEME FOR REDUCING THE BANDWIDTH OF MOTION PICTURES BY HADAMARD SMEARING," THE BELL SYSTEM TECTIVAL JOURNAL, JULY-AUGUST, 1970, PP. 969-968.

BOWYER, D.E., MRATE CALCULATIONS FOR COMPRESSED HADAMARD-TRANSFORMED DATA, MSUMMARY REPORT MSD-INT-1338, TELEDYNE BROWN ENGINEERING, HUNTSVILLE, ALABAMA, JUNE 1971.

BOWYER, D.E., "WALSH FUNCTIONS, HADAMARD MATRICES AND DATA COMPRESSION," 1971 WALSH FUNCTION SYMPOSIUM, RECORD, WASHINGTON, D.C.

DECKER, J.A., "HADAMARD-TRANSFORM IMAGE SCANNING," APPLIED CPTICS, VOL. 9, NO. 6, P. 681, JUNE 1970.

ENCHOTO, H., SHIBATA, K., "FEATURES OF HADAMARD TRANSFORMED TELEVISION SIGNALS,"
1965 NATIONAL CONFERENCE OF THE I.E.C.E. OF JAPAN. P. 881.

ENCHOTO, H., SHIBATA, K., "URTHOGONAL TRANSFORM CODING SYSTEM FOR TELFVISION SIGNALS," THE JOURNAL OF THE INSTITUTE OF TV ENGINEERS OF JAPAN, VOL. 24, NO. 2, PP. 99-108, FEBRUARY 1970.

ENCMOTO, H., SHIBATA, K., "TELEVISION SIGNAL CODING METHOD BY URTHOGONAL TRANS-FURMATION," 6TH RESEARCH GROUP ON TELEVISION SIGNAL TRANSMISSION. THE INSTITUTE OF TELEVISION ENGINEERS OF JAPAN, MAY 1968.

ENCHOTO, H., SHIBATA, K., ET AL., "EXPERIMENTS ON TELEVISION PCM SYSTEM BY

ORTHCGUNAL TRANSFORMATION, 1969 JOINT CONVENTION OF THE INTERNATIONAL ENGINEERING CONFERENCE ON ELECTRONICS , JAPAN, P. 2219.

HABIEI, A., "COMPARISON OF NTH ORDER DPCM ENCODER WITH LINEAR TRANSFORMATIONS AND BLOCK QUANTIZATION TECHNIQUES," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. CCM-19, NO. 6; CECEMBER 1971.

HABIBI; A., WINTZ, P.A., "IMAGE CODING BY LINEAR TRANSFORMATION AND BLOCK QUANTIZATION," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-19, NO. 1, PP. 50-63, FEBRUARY 1971.

HABIEL, A., WINTZ, P.A., "LINEAR TRANSFORMATIONS FOR ENCODING 2-DIMENSIONAL SOURCES," PURDUE UNIVERSITY, LAFAYETTE, INDIANA, TR-EE 70-2, MARCH 1970.

HABIBI, A., WINTZ, P.A., "OPTIL"4 LINEAR TRANSFORMATION FOR ENCODING TWO-DIMENSIONAL DATA," TR-E69-15, SCHOOL OF ELECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, MAY 1969.

HUANG, T.S., WOODS, J.W., "PICTURE BANDWIDTH COMPRESSION BY BLOCK QUANTIZATION," INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1969.

INCSE, H., SHIBATA, K., "QUANTIZING NOISE OF ORTHOGONAL TRANSFORM T.V. PCM SYSTEM," 1968 NATIONAL CONFERENCE OF THE INTERNATIONAL ENGINEERING CONVENTION OF ELECTRONICS, JAPAN, P. 1310.

LEBECEV, D.S., "LINEAR TWO-DIMENSIONAL TRANSFORMATION OF IMAGES FOR INCREASING NOISE IMMUNITY IN TRANSMISSION," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VOL 4, 1968.

PRATT, W.K., "A COMPARISON OF DIGITAL IMAGE TRANSFORMS," PROCEEDINGS OF THE MERVIN J. KELLY COMMUNICATIONS CONFERENCE, UNIVERSITY OF MISSOURI, ROLLA, 1970.

PRATT, W.K., "KARHUNEN-LOEVE TRANSFORM CODING OF IMAGES," PROCEEDINGS OF THE 1970 LEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, 1970.

PRATT, W.K., ANDREWS, H.C., "APPLICATION OF FOURIER-HADAMARD-TRANSFORMATION TO BANDWIDTH COMPRESSION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPCSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

PRATT, W.K., ANDREWS, H.C., "TRANSFORM IMAGE CUDING," UNIVERSITY OF SOUTHERN CALIFORNIA, USCEE REPORT NO. 387, MARCH 1970.

PRATT, W.K., ANDREWS, H.C., "TRANSFORM PROCESSING AND CODING OF IMAGES," UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, USCEE REPORT NO. 341, MARCH 1969

PRATT, W.K., ANDREWS, H.C., "TWO DIMENSIONAL TRANSFORM CODING OF IMAGES," PRO-CEEDINGS OF THE 1969 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, 1970.

PRATT, H.K., ANDREWS, H.C., KANE, J., "HADAMARD TRANSFORM TMAGE CODING," PROCEEDINGS OF THE IEEE, VOL. 57, PP. 58-68, JANUARY 1969.

SCHWARTZ, P., "ANALYSIS OF FOURIER COMPRESSION ON IMAGES." SYMPOSIUM ON PICTURE CUD; AG. RALEIGH, NORTH CAROLINA, SEPTEMBER 1970.

TASTO, M., WINTZ, P., "PICTURE BANDWIDTH COMPRESSION BY ACAPTIVE BLOCK QUANTI-ZATION." PURDUE UNIVERSITY, TR-EE-70-14; LAFAYETTE, INDIANA, JULY 1970.

WINTZ, P.A., HABIBI. A., "PICTURE CODING BY LINEAR TRANSFORMATION," PROCEEDINGS

1970 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, NOORCHIJK, NETHERLANDS, JUNE 1970.

The state of the s

WINTZ, P.A., HABIBI, A., TASTO, M., "ADAPTIVE AND NONADAPTIVE IMAGE CODING BY LINEAR TRANSFORMATION AND BLOCK QUANTIZATION," PRESENTED AT THE SYMPOSIUM ON PICTURE CODING, NORTH CAROLINA STATE UNIVERSITY, RALEIGH, NORTH CAROLINA, SEPT-EMBER 10, 1970.

WINTZ, P.A., TASTO, M., "AN ADAPTIVE PICTURE BANDWIDTH COMPRESSION SYSTEM USING PATTERN RECOGNITION TECHNIQUES," PROCEEDINGS OF THE THIRD HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, PP. 513-515, JANUARY 1970.

WOUDS, J.W., HUANG, T.S., "PICTURE BANDWIDTH COMPRESSION BY LINEAR TRANSFCRMATICN AND BLOCK QUANTIZATION," PROCEEDINGS OF THE MIT PICYURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

TELEVISION FRAME-TO-FRAME CODING

BEDDGES, M.P., MEIER, O., "CORRECTION TO FLICKER EFFECT AND TELEVISION COMPRESSION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 1, P. 119. JANUARY 1971.

BROFFERIO, S., ROCCA, F., SOARDO, P., "DIGITAL FRAME-TO-FRAME AND LINE-TO-LINE ENCODER," SYMPOSIUM ON PICTURE CODING, NORTH CAROLINA UNIVERSITY, SEPTEMBER 10-11, 1970.

BROWN, E.F., "LOW RESOLUTION TV: SUBJECTIVE COMPARISON OF INTERLACED AND NONINTERLACED PICTURES," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, NO. 1, Pp. 199-232, 1967.

CLCSS, F., "VIDEO BANDHIDTH COMPRESSION BY MULTIPLEXING: EXPERIMENTAL RESULTS." IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. CCM-19, NO. 3, P. 371, JUNE 1971.

CUNNINGHAM, J.E., "FRAME-CORRECTION CODING," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 6, DECEMBER 1971.

DEUTSCH. S., "A 210 KC/SEC PHONEVISION SYSTEM," 1966 PROCEECINGS OF THE 7TH NATIONAL SYMPOSIUM ON INFORMATION DISPLAY, PP. 203-209.

DEUTSCH, S., "PSEUDO-RANDOM DOT SCAN TELEVISION SYSTEMS," IEEE TRANSACTIONS ON BROADCASTING, VOL. BC-11, NO. 1, JULY 1965, PP. 11-21.

DEUTSCH, S., BALABAN, P., ATZMON, A., "EXPERIMENTAL RESULTS OF PSEUDO-RANDOM DOT SCAN," POLYTECHNIC INSTITUTE OF BROOKLYN, AFCAR REPORT, MICROWAVE RESEARCH INSTITUTE, REPORT PIBMRI-1256-66, AFCRL-65-29, JANUARY 1966.

FUKUI, H., MEXPERIMENTAL STUDY OF SLOW-SCAN, HIGH-RESOLUTION VIDEO TRANS-MISSION AT ONE-MEGAHERTZ BANDWIDTH, MPREPRINT NO. 103-49, PRESENTED AT THE 103RC TECHNICAL CONFERENCE, SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, NEW YORK, MAY 5-10, 1968.

GOURIET, G.G., "DOT INTERLACED TELEVISION," ELECTRONIC ENGINEERING, VOL. 24, NO. 290, APRIL, 1952, PP. 166-171.

HAANTJES, J., DE VRIJER, J.W., "FLICKER IN TELEVISION PICTURES," WIRELESS ENGINEER, VOL. 28, NO. 329, PP. 40-42, FEBRUARY 1951.

HAANTJES, J., TEER, K., "MULTIPLEX TELEVISION TRANSMISSION: SUBCARRIER AND DOT INTERLACE SYSTEMS," WIRELESS ENGINEER, PART I, VOL. 31, SEPTEMBER 1954, PP. 225-233, PART II, VOL. 31, OCTOBER, 1954, PP. 266-273.

HUANG, T.S., "CORRECTION TO "PSEUDORANDOM SCANNING," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOLUME COM-12, NO. 4, PP. 231-232, DECEMBER 1964.

HUANG, T.S., "PICTURE TRANSMISSION BY PSEUDORANDOM SCANNING," PIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 74, CAMBRIDGE, MASSACHUSETTS, JULY 1964, PP. 205-208.

HUANG, T.S., "PSEUDORANDOM SCANNING," IEEE TRANSACTIONS ON COMMUNICATION

TECHNOLUGY, VOLUME COM-12, NO. 3, PP. 105-107, SEPTEMBER 1964.

HUANG, T.S., TRETIAK, O.J., "AN EFFICIENT FACSIMILE TRANSMISSION SYSTEM,"
PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., MAY 1966.

HUANG, T.S., TRETIAK, U.J., "A PSEUDORANDOM MULTIPLEX SYSTEM FOR FACSIMILE TRANSMISSION," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-16, NU. 3, JUNE, 1969, PP. 436-438.

HUGHES AIRCRAFT COMPANY, "ADVANCED ANALOG TELEVISIUN STUDY, FINAL REPORT," REPORT NO. P63-90, DECEMBER 1963.

HUGHES AIRCRAFT COMPANY, "VARIABLE STORAGE TV GROUND PRUCESSING SYSTEM," REPORT NO. TP-417, NOVEMBER 1963.

KAUFFAN, L., LINCOLN, A.J., PITBLADO, C.B., "EVALUATION OF PSEUDO-RANCOM DOT-SCANNING TELEVISION SYSTEMS," SPERRY RAND RESEARCH CENTER, SUCBURY, MASSACHU-SETTS, FINAL REPORT, JANUARY 1967.

MOUNTS, F.W., "FRAME-TO-FRAME DIGITAL PROCESSING OF TV PICTURES TO REMOVE REDUN-DANCY," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND EREACH, NEW YORK, PART 6, DECEMBER 1971.

MOUNTS, F.W., PEARSON, D.E., "APPARENT INCREASE IN NUISC LEVEL WHEN TELEVISION PICTURES ARE FRAME-REPEATED," BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 3 PP. 527-539, 1969.

RUCCA, F., "TELEVISION BANDWIDTH COMPRESSION UTILIZING FRAME-TO-FRAME CORRELATION AND MOVEMENT COMPENSATION," PROCEEDINGS OF THE PICTURE BANDWIDTH SYMPUSIUM, GORDON AND BREACH, NEW YORK, PART 6, DECEMBER 1971.

SEYLER, A.J., "AN EXPERIMENTAL FRAME DIFFERENCE SIGNAL GENERATOR FOR THE ANALY-SIS OF TELEVISION SIGNALS," THE RADIO AND ELECTRONIC ENGINEER, VOL. 29, NO. 2, FEBRUARY 1965, Pp. 71-83.

SLYLER, A.J., "FRAME RUN CODING OF TELEVISION SIGNALS: A NEW METHOD OF BAND-WIDTH REDUCTION," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, PEPORT NO. 5064, SEPTEMBER 1959.

SEYLER, A.J., "PROBABILITY DISTRIBUTION OF TELEVISION FRAME DIFFERENCES," PRO-CEECINGS OF THE IREE, AUSTRALIA, NOVEMBER 1965, RADIO AND ELECTRONIC ENGINEERING CONVENTION, MARCH 22-26, 1965.

SEYLER, A.J., "REAL-TIME RECORDING OF TELEVISION FRAME DIFFERENCE AREAS," PRO-CEEDINGS OF THE IEEE, VOL. 51, NO. 3, MARCH 1963, PP. 478-480.

SEYLER, A.J., "STATISTICS OF TELEVISION FRAME DIFFERENCES," PROCEECINGS OF THE IEEE, VOL. 53, NO. 12, PP. 2127-2128, DECEMBER 1965.

SOROKA, E.Z., "MEASUREMENT OF THE INTERFRAME CORRELATION OF A TELEVISION PICTURE," TELECOMMUNICATIONS AND RADIO ENGINEERING, VOL. 19, NC. 9, PART 1, PP. 63-65, SEPTEMBER, 1965.

TSYBAKOV, G.S., **PROBLEMS OF LINEAR ENCOCING OF A MOVING IMAGE,** JOINT PUBLICATIONS SERVICE, WASHINGTON, D.C., VOL. 3, JUNE 1967; PP. 163-180.

BEDFCRD, A.V., "MIXED HIGHS IN COLOR TELEVISION." PROCEEDINGS OF THE IRE, SEPTEMBER 1950, PP. 1003-1009.

BHUSHAN, A.K., "EXPERIMENTS IN CODING COLOR PICTURES," PROCEEDINGS OF THE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 7, DECEMBER 1971.

CASSAGNE, P., PLUTTIN, G., "COLOR TELEVISION AND SPACE," SCIENCES AND INDUSTRIES SPATIALS, VUL. 1, NO. 9, 10, PP. 17-26, 1965.

DCME, P.8., "FREQUENCY INTERLACE COLOR TV," ELECTRONICS, VOL. 23, SEPTEMBER 1950, P. 70.

DUME, R.B., "SPECTRUM UTILIZATION IN COLOR TELEVISION," PROCEEDINGS IRE, VOL. 39, NO. 10, OCTGBER 1951, PP. 1323-1331.

GOLDING, L., "A 15 TO 25 MHZ DIGITAL TELEVISION SYSTEM FOR TRANSMISSION OF COMMERCIAL COLOR," COMMUNICATION SATELLITE CORPORATION, WASHINGTON, D.C., DECEMBER 1967.

HECKEL, D.T., QUANDT, R.L., ALLEN, L.H., *OBTAINING COLOR TELEVISION PICTURES FROM SPACE, *PREPRINT NO. 103-97, 103RD TECHNICAL CONFERENCE, SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, NEW YORK, MAY 5-10, 1968.

INATSU, M., "LINE-SEQUENTIAL CHROMINANCE COMPCNENTS: TRANSMISSION SYSTEM IN COLOR TELEVISION AND ITS APPLICATION," JAPAN BROADCASTING CORPURATION, JAPAN, TECHNICAL RESEARCH LABORATORIES, JANUARY 1965.

LIMB, J.O., RUBENSTEIN, C.B., WALSH, K.A., "DIGITAL CODING OF COLO? PICTURE-PHONE SIGNALS BY ELEMENT DIFFERENTIAL QUANTIZATION," IEEE TRANSACTIONS ON COMMUNICATIONS TECHNOLOGY, COM-13, DECEMBER 1971.

MCILWAIN, K., "REQUISITE COLOR BANDWIDTH FOR SIMULTANEOUS CGLCR TELEVISION SYSTEMS," PRCCEEDINGS OF THE IRE, AUGUST 1952, PP. 909-912.

RUIZEN, J., "UNIVERSAL COLOR TELEVISION: AN ELECTRONIC FANTASIA," IEEE SPECTRUM, VCLUFE 4, NO. 3, PP. 112-115, MARCH 1967.

SCHAPHORST, R., MFRAME-TC-FRAME CODING OF NTSC COLOR TV,M PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, ABSTRACT ONLY, GURDON AND BREACH, NEW YORK, PART 7, DECEMBER 1971.

THEILE, R., "COMPATIBLE COLOR TRANSMISSION AND EUROPEAN MCDULATION METHODS," IEEE SPECTRUM, VOLUME 3, NO. 6, PP. 60-69, JUNE 1966.

WINTHINGHAM, W.T., "COLCR TELEVISION AND COLORIMETRY," PROCEECINGS OF THE I.R.E., PP. 1135-1172, OCTOBER, 1951.

CHERKY, E.C., "THE BANDWIDTH COMPRESSION OF TELEVISION AND FACSIMILE," TELEVISION SOCIETY JOURNAL, VOL. 10, NO. 2, FEBRUARY 1962, Pp. 40-49.

CHERRY, E.C., GOURIET, G.G., "SOME POSSIBILITIES FOR THE CUMPRESSION OF TELEVISION SIGNALS BY RECURDING," PROCEEDINGS OF THE IEE, VOL. 100, PART 3, JANUARY 1953, PP. 9-18.

COCHBS, W.C.: "COMMUNICATION THEORY ASPECTS OF TELEVISION BANDWIDTH CONSERVATION," NATIONAL BUREAU OF STANDARDS, TECHNICAL NOTE NO. 25, PB 151384,

DAVISSON, L.D., "THEORETICAL CONSIDERATIONS IN DATA COMPRESSION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 3, DECEMBER 1971.

HORSTEIN, M., "SPACE COMMUNICATION OF PICTORIAL INFORPATION." HUGHES AIRCRAFT COMPANY, CULVER CITY, CALIFORNIA, REPORT AED 1122R, OCTOBER 1961.

HUANG, T.S., "PCM PICTURE TRANSMISSIGN," IEEE SPECTRUM, VOL. 2, NO. 12, DECEMBER, 1965, PP. 57-63.

HUANG, T.S., TRETIAK, O.J., "PICTURE BANDWIDTH COMPRESSION," M.I.T. PRESS, CAMBRIDGE, MASSACHUSETTS, 1970.

LORD, A.V., "SOME PROBLEMS IN A BAND-SHARING COLGUR TELEVISION SYSTEM,"
JOURNAL OF THE TELEVISION SOCIETY, VOL. 8, 1956, P. 131.

PRAIT, W.K., "A BIBLINGRPHY ON TELEVISION BANDWIDTH REDUCTION STUDIES," IEFE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, NO. 1, PP. 114-115, JANUARY 1967.

ROSENFELD, A., "BANDWIDTH REDUCTION BIBLIOGRAPHY," IEEE TRANSACTIONS ON INFOR-MATICN THEORY, VOL. IT-14, NO. 4, Pp. 601-602, JULY 1968.

SCHREIBER, W.F., *PICTURE CODING,* PROCEEDINGS OF THE IEE, VOL. 55, MARCH 1967, PP. 32C-33O.

SCHREIBER, W.F., HUANG, T.S., "CONTOUR CODING OF IMAGES," WESTERN ELECTRONIC SHOW AND CONVENTION, LOS ANGELES, CALIFORNIA, SESSION 8, AUGUST 1968.

SHIERS, G., "EARLY SCHEMES FOR TELEVISION." IEFE SPECTRUM, VOL. 7, NO. 5, P. 24, MAY 1970.

WILKINS, L.C., WINTZ, P.A., "BIBLIDGRAPHY ON DATA COMPRESSIGN, PICTURE PROPERTIES, AND PICTURE CODING." IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 2, Pp. 180-198, MARCH 1971.

WILKINS, L.C., WINTZ, P.A., "A CONTOUR TRACING ALGORITHM FOR DATA COMPRESSION FOR TWO DIMENSIONAL DATA," TECHNICAL REPORT NO. TR-EE69-3, PURDUE UNIVERSITY SCHOOL OF ELECTRICAL ENGINEERING, LAFAYETTF, INDIANA, JANUARY 1969.

WILKINS, L.C., WINTZ, P.A., "IMAGE CODING BY CODING CONTOURS," PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, SAN FRANCISCO, CALIF., VOL. 1, PP. 2-22 TO 2-10, 1970.

AMARI, S., "THEORY OF INFORMATION SPACES-QUANTIZATION AND BANDWIDTH COMPRESSION OF SIGNAL SPACES," ELECTRONICS AND COMMUNICATIONS IN JAPAN 48, OCTOBER 1965, PP. 96-107.

ANDU, H., "QUANTIZING SYSTEM OF HIGHER COMPONENTS OF TV SIGNALS," JOINT INTER-NATIONAL ENGINEERING CONFERENCE ON ELECTRONICS, JAPAN, P. 5, 1969.

ANDREWS, C.A., DAVIES, J.M., SCHWARZ, G.R., "ADAPTIVE DATA COMPRESSION," PRO-CEEDINGS OF THE IEEE, VOL. 55, NO. 3, MARCH 1967, PP. 267-277.

ANDREWS, C.A., DAVIES, J.M., SCHWARZ, G.R., "AUAPTIVE DATA COMPRESSIVE TELEMETRY TECHNIQUES," FEDERAL SYSTEMS DIVISION, IBM CERPERATION, GAITHERSBURG, MARY-LAND, FINAL REPORT FOR NASA MANNED SPACECRAFT CENTER, HOUSTON, TEXAS, UNDER CONTRACT NAS 9-4618, AUGUST 31, 1966.

ANDREWS, C.A., SCHWARZ, G.R., "ANALYSIS AND SIMULATION OF DATA COMPRESSION TECHNIQUES," NATIONAL TELEMETERING CONFERENCE PROCEEDINGS, SAN FRANCISCO, CALIFORNIA, MAY 1967, Pp. 57-64.

ANTHONY, A.L., "INVESTIGATION OF PHOTOGRAPHIC MAPPING DETAIL AND DATA ENCODING," AD 286715, JULY 1962.

BAER, T., "APPLICATION OF MEDIAL-AXIS TRANSFORM TO PICTURE BANDWIDTH COMPRESSION," M.S. THESIS, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, DEPARTMENT OF ELECTRICAL ENGINEERING, SEPTEMBER 1968.

BAER, T., "PICTURE CODING USING THE MEDIAL AXIS TRANSFORMS," S.M. THESIS, DEPARTMENT-OF ELECTRICAL ENGINEERING: M.I.T., CAMBRIDGE, MASSACHUSETTS, MAY 1969

BALABAN, P., "RECORDING AND DISPLAY OF REDUCED BANDWIDTH TELEVISION SIGNALS," POLYTECHNIC INSTITUTE OF BROOKLYN, NEW YORK, MICHOWAVE RESEARCH INSTITUTE, NO-VEMBER 1966.

BARRACK, C.M., ZAHALKA, L.B., "MODULATION TECHNIQUES FOR HIGH RESOLUTION VISUAL DATA," 1962 CONFERENCE PROCEEDINGS OF THE 6TH NATIONAL CONVENTION ON MILITARY ELECTRONICS, PP. 206-212.

BARTON, M.P., "DATA REDUCTION IN TELEVISION SIGNALS FOR BANDWIDTH COMPRESSION," UNIVERSITY OF LONDON, PH.D. THESIS, NOVEMBER 1963.

BAUPUNK, J.F., ROTH, S.H., "PICTORIAL DATA TRANSMISSION FROM SPACE VEHICLE," ELECTRICAL ENGINEERING, VOL. 79, NO. 2, FEBRUARY 1960, Pp. 134-138.

BEAUCETTE: C.G., "AN EFFICIENT FACSIMILE SYSTEM FOR WEATHER GRAPHICS," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 4, DECEMBER 1971.

BEDDCES, M.P., "INVESTIGATIONS INTO TRANSHISSION SYSTEMS USING VARIABLE VELO-CITY SCANNING FOR BANDWIDTH REDUCTION OF FACSIMILE AND TELEVISION SIGNALS," LCACCN UNIVERSITY, PH.D. THESIS, 1958.

BEUDCES, M.P., "TWO CHANNEL METHOD FOR COMPRESSING BANDWIDTH OF TELEVISION SIGNALS," PROCEEDINGS OF THE IEE, VOL. 119, NO. 2, FEBRUARY 1963, PP. 369-374.

BEDDCES, M.P., MA VARIABLE-VELOCITY MAGNETIC SCANNING PROCESS, MIEE MONOGRAPH, NO. 241R. PART C. JUNE 1957.

Market Commence

BEDFCRD, L.H., PUCKLE, O.S., MA VELOCITY MODULATION TELEVISION SYSTEM, M JCURNAL CF THE IEE, VOL. 75, 1934, p. 63.

BELL. D.A., "DISCUSSION ON THE IMPACT OF INFORMATION THEORY ON TELEVISION," JOURNAL OF THE BRITISH IRE, VOL. 13, NO. 12, PP. 590-591, DECEMBER 1953.

BELL, D.A., "ECONOMY OF BANDWIDTH IN TELEVISION," BRITISH JOURNAL OF THE IRE, VOL. 13, NO. 9, SEPTEMBER 1953, PP. 447-470.

BELTRAMI, A., MOSCA, V., "HIGH-SPEED VISUAL COMMUNICATION OVER EXISTING TELEPHONE NETWORKS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-17, NO. 3, JUNE 1969, Pp. 395-403.

BIALLY, T., "A CLASS DIMENSION CHANGING MAPPINGS AND ITS APPLICATION TO BAND-WILTH COMPRESSION," PH.D. THESIS, POLYTECHNIC INSTITUTE OF BROOKLYN, NEW YORK, 1967.

BIALLY, T.: "SPACE-FILLING CURVES AND THEIR APPLICATIONS TO BANDWIDTH REDUCTION," PH.D. THESIS, DEPARTMENT OF ELECTRICAL ENGINEERING, POLYTECHNIC INSTITUTE OF BROOKLYN, JULY 1968.

BILLINGS, A.R., "A CODER FOR HALVING THE BANDWIDTH OF SIGNALS," PROCEECINGS 1EE, VCL. 105, PART 8, NO. 20, MARCH 1958, PP. 182-184.

BISIGNANI, W.T., RICHARDS, G.P., WHELAN, J.W., "CATA COMPRESSION FOR DIGITAL TV FROM SPACE," SPACE/AERONAUTICS, VOL. 45. PP. 108-121, JUNE 1966.

BLYUPBERG, I.B., ZYAZINA, T.M., "TRANSMISSION OF SMALL-SIZE DETAILS IN SEQUENTIAL IMAGES," LENINGRAD INSTITUTE OF MOTION PICTURE ENGINEERS, 1969.

BOURKE, D.G.» JEWELL, P., "SOME CONSIDERATIONS IN ESTABLISHING THE FEASIBILITY OF DATA COMPRESSION IN UNMANNED SPACECRAFT," SYMPOSIUM ON UNMANNED EXPLORATION OF THE SOLAR SYSTEM, DENVER, COLORADO, FEBRUARY 1965.

BRCWN, D., "CONVERSION OF TELEVISION SIGNALS TO DIGITAL FORM," UNIVERSITY OF LONDON, M. SC. THESIS, 1962.

BYLANSKI, P., "EFFIGIENT ENCODING OF FACSIMILE USING AN ACAPTIVE TECHNIQUE," ELECTRONICS LETTERS, VOL. 1, PP. 72-73, MAY 1965.

CHERRY, E.C., "CODING FOR PSYCHOLOGICAL AND STATISTICAL REDUNCANCY," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

CHERRY, E.C., "PICTURE BANDWIDTH COMPRESSION RESEARCH AT IMPERIAL COLLEGE, UNIVERSITY OF LCNDON," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPCSIUM, GORDON AND BREACH, NEW YURK, PART 5, DECEMBER 1971.

CHCM; M., MVARIABLE LENGTH REDUNDANCY REMOVAL CODERS, M SYMPOSIUM ON PICTURE CODING. RALEIGH, NORTH CAROLINA, SEPTEMBER 10-11, 1970.

CUNNINGHAM, J.E., "A STUDY OF SOME METHODS OF PICTURE CODING." MASSACHUSETTS INSTITUTE OF TECHNOLOGY, M.S., THESIS, 1959.

DERYLGIN, N.G., "THEORETICAL POSSIBILITIES OF COMPRESSING BANDWIDTH OF TV CHANNEL." TELECOMMUNICATIONS, NO. 8, 1958, PP. 805-810.

DEUTSCH, S., STIE POSSIBILITIES OF REDUCED TELEVISION BANDWIDTH." IRE TRANS-ACTIONS ON BROADCAST AND TELEVISION RECEIVERS, VOL. BTR-2, NO. 3, OCTOBER 1956, Pp. 69-82.

DEUTSCH, S., *A REDUCED-BANDWIDTH TELEVISION SYSTEM, *POLYTECHNIC INSTITUTE OF BROOKLYN, MICROWAVE RESEARCH INSTITUTE, REPORT R-425-55, JUNE 1955.

DEUTSCH, S., LAEMMEL, A.E., "A TECHNIQUE FOR INCREASING TRANSMISSION SPEED," POLYTECHNIC INSTITUTE OF BROOKLYN, MICROWAVE RESEARCH INSTITUTE, REPORT R-443-55. SEPTEMBER 1955.

DRAPKIN, P.E., "VIUEO DATA COMPRESSION," SUPPLEMENT TO IEEE TRANSACTIONS ON AERCSPACE AND ELECTRONIC SYSTEMS, VOL. AES-2, NO. 4, 1966, Pp. 392-4CO.

ELECTRO-MECHANICAL RESEARCH, INC., MMANNED SPACECRAFT ADVANCEC DIGITAL TELEVISION COMPRESSION STUDY, FINAL REPORT, VOL. 1, TEST NASA CR-65508, ELECTRO-MECHANICAL RESEARCH, INC., SARASOTA, FLORIDA, APRIL 1965.

ELECTRO-MECHANICAL RESEARCH, INC., **MANNED SPACECRAFT ADVANCEC DIGITAL TELEVISION CCMPRESSION STUDY, ** FINAL REPORT, VOL. 2, PHOTOGRAPHS, NASA CR-65507, ELECTRO-MECHANICAL RESEARCH, INC., SAR ASOTA, FLORICA, APRIL 1965.

ELECTRO-MECHANICAL RESEARCH, INC., "VIDEO DATA MODULATION STUDY," VOL. II, PHCTUGRAPHIC PLATES, FINAL REPORT, NASA CR-93472, ELECTRO-MECHANICAL RESFARCH, INC., SARASUTA, FLORIDA, JULY 1964.

ELIAS, P., "INFORMATION THEORY AND THE ECONOMICAL ENCODING OF PICTURES," PROCEECINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 2, DECEMBER 1971.

ELLERSICK, F.W., "DATA COMPACTORS FOR SPACE VEHICLES," 1961 PROCEEDINGS OF THE BIH ANNUAL EAST COAST CONFERENCE ON AEROSPACE AND NAVIGATIONAL ELECTRONICS.

ELSEY, J.C., "DATA COMPRESSION FOR SPACE MISSIONS," 5TH SPACE CENGRESS PRECEED-INGS, VOL. 1, PP. 9/3-1--9/3-15, CUCDA BEACH, FLERIDA, MARCH 1968.

ETCHEVERRY, F., "METHOD FOR TRANSMITTING 3-D IMAGES WITH PRATICAL BANDWIDTHS," 103RD TECHNICAL CONFERENCE, SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, NEW YURK, PREPRINT NO. 103-66, MAY 5-10, 1968.

FADLEY, J.K., "VIDEO DATA MODULATION STUCY," VOL. 1, FINAL REPORT, NASA CR-93568, ELECTRO-MECHANICAL RESEARCH, INC., SARASOTA, FLORICA, JULY 1964.

FACLEY, J.K., KING, B.C., KNIGHT, J.M., PIFPER, A.E., RAGA, G.L., MVIDED CATA MUDULATION STUDY, VOLUME 1.M JET PROPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA, NAS 950705, JULY 1964.

FREEMAN, H., "BOUNDARY ENCODING AND PROCESSING," NEW YORK UNIVERSITY, DEPARTMENT OF ELECTRICAL ENGINEERING, NEW YORK, FFBRUARY 1970.

FREEMAN, H., "ON THE ENCODING OF ARBITRARY GEOMETRIC CONFIGURATIONS," IRE TRANSACTIONS ON ELECTRONIC COMPUTERS, VOL. EC-16, PP. 260-268, JUNE 1961.

FREEMAN, H., TA REVIEW OF RELEVANT PROBLEMS IN THE PROCESSING OF LINE URAWING DATA, T SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISA-TIRRENIA, AUGUST 1968.

FREEMAN, H., GLASS, J., "ON THE QUANTIZATION OF LINE-CRAWING DATA." ICEE

TRANSACTIONS UN SYSTEM SCIENCE AND CYBERNETICS, VOL. SSC-5, NC. 1, PP. 70-79, JANUARY 1969.

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の時間のはは世界はそれである。

FRIDMAN, Y.S., GOLDEN, V.Y., "PARAMETRIZATION OF TELEVISION I MAGES OF CLOUDINESS ON DIGITAL COMPUTERS," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., USE CF METEROLOGICAL SATELLITES IN CLOUD RESEARCH, PP. 24-32, JUNE 1967.

FUKUSHIMA, K., MRECUNDANCY OF TWO-DIMENSIONAL PATTERN-THEORETICAL LIMIT OF TELEVISION BANDWIDTH COMPRESSION, M JAPANESE INSTITUTE OF ELECTRICAL COMMUNICATION ENGINEERS, JAPAN, VOL. 44, OCTOBER 1961.

FUKUSHIMA, K., "TELEVISION BANDWIDTH COMPRESSION BY MULTI-MODE INTERPOLATION," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

GABOR, D., HILL, P.C.J., "TELEVISION BANDWIDTH COMPRESSION BY CONTOUR INTERPOLATION," PRUCEEDINGS OF THE IEEE, VOL. 108, PART B, NO. 39, MAY 1961, PP. 634, 303-315.

GARDENHIRE, L.W., "APPLICATION OF NUNLINEAR ENCODING TO PICTURE TRANSMISSION," INTERNATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., SEPTEMBER 15-17, 1969.

GARDENHIRE, L.W., "ELIMINATING REDUNDANCY IN FIXED FRAME TELEVISION," NASA/GSFC GODDARC SPACE FLIGHT CENTER, CONFERENCE ON ADAPTIVE TFLEMETRY, GREENBELT, MARYLAND, NASA TM-X-55747, X-731-67-7, JANUARY 1967, Pp. 171-187.

GARDENFIRE, L.W., "REDUNDANCY IN DIGITIZED TIROS PICTURES," A REPORT PREPARED BY RADIATION, INCORPORATED, FOR THE GODDARD FLIGHT CENTER, GREENBELT, MARYLAND, OCTOBER 1966.

GEDDES, W.K.E., *PICTURE PROCESSING BY QUANTIZATION OF THE TIME DERIVATIVE, *BRITISH BROADCASTING CORPORATION, ENGINEERING DIVISION, REPORT T-114: 1963.

GICCA, F.A., "UPTIMIZING SPACE TELEVISION TRANSMISSION," PROCEEDINGS OF THE 1963 INTERNATIONAL TELEMETRY CONFERENCE, Pp. 313-321.

GIFFORD, R.C., "TRANSMISSION OF FULL PAGE NEWSPAPER CCPY OVER DIGITAL TRANSMISSION FACILITIES," IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, BOULDER, COLCRADO, JUNE 1969.

GORDEN, R., HERMAN, G.T., "RECONSTRUCTION OF PICTURES FROM THEIR PROJECTIONS," ASSOCIATION FOR COMPUTING MACHINERY, VOL. 14, NO. 12, PP. 759-768, DECEMBER 1971.

GUURIET, G.G., "BANDWIDTH COMPRESSION OF A TELEVISION SIGNAL," PROCEEDINGS OF THE IEEE, VOL. 104, PART B, NO. 15, MAY 1957, PP. 265-272.

GOURIET, G.G., "BANDWIDTH REDUCTION IN RELATION TO TELEVISION," BRITISH COMMUNICATIONS AND ELECTRONICS, VOL. 3, 1956, PP. 424-429.

GOURIET, G.G., "BANDWIDTH REDUCTION IN TELEVISION," E.B.U. BULLETIN, NC. 7, 1956; P. 15.

GOURIET, G.G., "DISCUSSION ON THE IMPACT OF INFORMATION THEORY ON TELEVISION," JOURNAL OF THE BRITISH IRE, VOL. 13, NO. 12, PP. 590-591, DECEMBER 1953.

GRAHAM, R.E., "COMMUNICATION THEORY APPLIED TO TV CUDING," ACTA ELECTRONICA, VOL. 2, 1957-1958, Pp. 334-243.

HAAGEN, W.F., "VIDEO BANDWIDTH COMPRESSICN," OHIO STATE UNIVERSITY, ANTENNA LABORATORY, REPORT NO. 1222-7, AD 273 671, FEBRUARY 1962.

HAYES, J.F., "EXPERIMENTAL RESULTS ON PICTURE BANDWIDTH COMPRESSION," PROCEED-INGS OF THE UMR-MERVIN J. KELLY COMMUNICATIONS CONFERENCE, UNIVERSITY OF MISSOU-RI, ROLLA, MISSCURI, UCTOBER 1970.

HEUER, D.A., "SURVEY OF VIDEO AND TELEMETRY DATA COMPRESSION TECHNIQUES," THE-BORING COMPANY, SEATTLE, WASHINGTON, CODE IDENTIFICATION 81205, NO. D2-97783-1, OCTOBER 1965.

HOCHMAN, D., "DIGITAL SYSTEMS IN SPACE COMMUNICATIONS," THIRD INTERNATIONAL CONGRESS IN THE AERONAUTICAL SCIENCES, STOCKHOLM, AUGUST 1962.

HCLLENBAUGH, R., "A STUDY OF DATA COMPRESSION BUFFERING," NASA/GSFC (GCUCARD SPACE FLIGHT CENTER) CONFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREENBELT, MARYLAND, NASA TH X-55747, X-731-67-7, JANUARY 1967, PP. 77-79.

HUNNEL, M.A., PRINCE, M.D., MTV IMAGE REPRODUCTION BY USE OF VELOCITY-MODULATION PRINCIPLES. PROCEEDINGS OF THE IRE, VOL. 39, NO. 3, MARCH 1951, PP. 265-268.

HOWSEN, E.A., BELL, D.A., "KEDUCTION OF TELEVISION BANDWIDTH BY FREQUENCY INTERLACE," JOURNAL BRITISH IRE, VOL. 20, NO. 2, PP. 127-136, FEBRUARY 1960.

HUANG, T.S., "CODING OF GRAPHICS," PROCEEDINGS OF THE PICTURE BANDWIDTH CCM-PRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 4, DECEMBER 1971.

HUANG, T.S., "DIGITAL PICTURE CODING," PROCEEDINGS OF THE 22NC NATIONAL ELECTRCNICS CONFERENCE, CHICAGO, ILLINDIS, OCTOBER 3-5, 1966, PP. 793-797.

HUANG, T.S., "DIGITAL TRANSMISSION OF HALFTONE PICTURES." THIRD ANNUAL PRINCETON CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, MARCH 1969.

HUANG, T.S., MA METHOD OF PICTURE CODING, MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 57, CAMBRIDGE, MASSACHUSETTS, APRIL 1960, PP. 109-115.

HUANG, T.S., "OPTIMUM SCANNING DIRECTION IN TELEVISION TRANSMISSION," JOINT MEETING OF U.S. NATIONAL COMMITTEE, URSI AND IEEE, OCTOBER, 4-6, 1965.

HUANG, T.S., MPICTURE BANDWIDTH CUMPRESSION, SYMPOSIUM ON PICTURE BANDWIDTH CUMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

JESTY, L.C., "TELEVISION AS A COMMUNICATION PROBLEM," PROCEEDINGS OF THE IEE, VOL. 99, PART 3A, NO. 20, 1952, PP. 761-770.

JONES, E.D., "BANDWIDTH CUMPRESSION TECHNIQUES FOR METECROLOGICAL SATELLITE PICTURES," FINAL REPORT MARCH 1964-MAY 1965, NASA CR-70918; STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, MAY 1965, P. 170.

KANEFSKY, M., "CN THE COMPRESSION AND RECOGNITION OF TWO DIMENSIONAL PATTERNS FROM THEIR BIT PLANES," PROCEEDINGS OF THE SECOND HAWALL INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, JANUARY 1969.

KENNEDY, J.D., CLARK, S.J., PARKYN, W.A., "DIGITAL IMAGERY DATA COMPRESSION TECHNIQUES," REPORT NO. MDC 60402, MCDONNELL-DOUGLAS CORPORATION, HUNTINGTON BEACH, CALIFORNIA, JANUARY 1970.

KHARKEVICH, A.A., "COMPARISON OF FEW POSSIBLE METHODS OF TRANSMITTING SIMPLE DRAWINGS." TELECOMMUNICATIONS, VUL. 5, 1958, PP. 527-530.

KITSCPUULOS, S.C., KRETZMER, E.R., "COMPUTER SIMULATION OF A TELEVISION CODING SCHEME," PROCEEDINGS OF THE IRE. VOL. 49. NO. 6. JUNE 1961. PP. 1076-1077.

A. sale as a second

KLINGER, A.H., ZIEMER, D.R., "REDUCING CHANNEL CAPACITY REQUIREMENTS IN DIGITAL IMAGERY TRANSMISSION: A STUDY REPORT," SEVENTH NATIONAL COMMUNICATION SYMPOSIUM RECORD, 1961, Pp. 75-85.

KNIGHT, J.M., FADLEY, J.K., RAGA, G.L., KING, B.C., "DIGITAL TELEVISION: SHRINK-ING BULKY BANDWIDTHS," ELECTRONICS, VOL. 37, NO. 31, DECEMBER 1964, PP. 77-84.

KONEFSKY, M., "DATA COMPRESSION USING BIT-PLANE ENCODING," GOCDARD SUMMER WORK-SHCP, GREENBELT, MARYLAND, 1966.

KORPEL, A., LUTSUFF, S.N., WHITMAN, R.L., "THE INTERCHANGE OF TIME AND FREQUENCY IN TELEVISIUN DISPLAYS," PROCEEDINGS OF THE IEEE, VOL. 57, FEBRUARY 1969, PP. 16C-17O.

KORTMAN, C.M., "DATA COMPRESSION BY REDUNDANCY REDUCTION," IEEE SPECTRUM, VOL. 4, MARCH 1967, Pp. 133-139.

KORTMAN, C.M., MREDUNDANCY REDUCTION: A PRACTICAL METHOD OF DATA COMPRESSION, PROCEEDINGS OF THE IEEE, VOL. 55, MARCH 1967, PP. 153-263.

KUVALEVSKY, V.A., "OPTIMAL METHOD OF DISCRETIZING GRAPHICAL IMAGES," IMAGE RECOGNITION, PP. 178-193, IN RUSSIAN, 1969.

KRETZMER, E.R., "REDUCED ALPHASET REPRESENTATION OF TV SIGNALS," IRE CONVENTION RECORD, PART 4, 1956, PP. 140-147.

KRETZMER. E.R., "TELEVISION SYSTEM HAVING REDUCED BANDWIDTH," U.S. PATENT NO. 2946 851; JULY 1960.

KUTZ, R.L. SCIULLI, J.A., "SYNCHRUNIZATION FOR COMPRESSED I MAGE DATA TRANS-MISSION." PROCEEDINGS OF THE 1968 HAWAII CONFERENCE ON SYSTEM SCIENCES, HONDLULU, HAWAII.

LAEMMEL, A.E., "CODING PROCESSES FOR BANDWIDTH REDUCTION IN PICTURE TRANSMISSION," POLYTECHNIC INSTITUTE OF BROOKLYN, MICROWAVE RESEARCH INSTITUTE, REPORT R-246-51, AUGUST 1951.

LEBECEV, D.G., LEBEDEV, D.S., "DISCREETING OF IMAGES BY SEPARATION AND QUANTI-FICATION OF CONTOURS," JOINT PUBLICATIONS RESEARCH SERVICE, WASNINGTON, D.C., ITS TECHNICAL CYBERNETICS, NO. 1, PP. 125-130, JUNE 1965.

LIMB, J.O., "ADAPTIVE ENCODING OF PICTURE SIGNALS," PROCEEDINGS OF THE PICTURE BANDWICTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

LIMB, J.O., "SDURCE-RECEIVER ENCODING OF TELEVISION SIGNALS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, Pp. 364-379, MARCH 1967.

LIMB, J.O., "VISION ORIENTED CODING OF VISUAL SIGNALS," PH.D. DISSERTATION, UNIVERSITY OF WESTERN AUSTRALIA, PERTH, 1966.

LIPPEL, B., "EXPERIMENTS WITH A NEW MESSAGE FORMAT FOR DIGITAL REPRESENTATION OF PHOTOGRAPHS." SYMPOSIUM ON COMPUTER PROCESSING IN COMMUNICATIONS, POLYTECHNIC INSTITLTE OF BROOKLYN, NEW YORK, Pp. 121-139, APRIL 8-10, 1969.

LIPPMANN, R., "DATA COMPRESSION-LITERATURE REPORT ON SELECTED PRACTICAL METHODS" DEUTSCHE FORSCHUNGSANSTALT FUR LUFT-UND RAUMFAHRT E.V.(DFL), INSTITUTE FUR FLUGFUHRUNG, DECEMBER 1968.

MALLING, L.R., "REDUCED BANDWIDTH VIDEO COMMUNICATION SYSTEM UTILIZING SAMPLING TECHNIQUES," JET PROPULSION LAB, CALIFORNIA INSTITUTE OF TECHNOLOGY, PASACENA, CALIFORNIA, US PATENT 3.383.461, ISSUED 14 MAY 1968.

MANASSE, F.K., "DIRECTIONAL CORRELATION"—A TECHNIQUE TO REDUCE BANDWIDTH IN PCM TELEVISION TRANSMISSIONS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. CCM-15, NO. 2, APRIL, 1967, PP. 204-208.

MASSA, R.J., "VISUAL DATA TRANSMISSION," AIR FORCE CAMBRIDGE RESEARCH LABCRATURY, BEDFORD, MASSACHUSETTS, PHYSICAL SCIENCES RESEARCH PAPERS, NO. 13, APRIL 1964.

MASSEY, H.N., SMITH, W.E., MIMPLEMENTATION INVESTIGATIONS OF ZVA/FVA CEMPRESSION ALGORITHMS, SUMMARY REPORT JULY 1965-FEBRUARY 1966, NASA CR-76389, LMSC-669224 LOCKHEED MISSILES AND SPACE COMPANY, SUNNYVALE, CALIFCRNIA, FEBRUARY 1966, P. 156.

MC LEAN, F.C., MADRIDWIDE COLOR TELEVISION STANDARDS, MIEEE SPECTRUM, VOLUME 3, NO. 6, PP. 59-5C, JUNE 1966.

MICHAELS, E.L., "REAL-TIME DEEP SPACE TELEVISION," HOUSTON UNIVERSITY, TEXAS, 1967, N 68-23195.

MICHEL, W.S., "A CUDED FACSIMILE SYSTEM," IRE WESCON CONVENTION RECORD, PART 2, 1957, PP. 84-93.

MCHARIR, P.S., PRASADA, B., "TWO-DIMENSIONAL PICTURE PROCESSING," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

MJTT-SMITH, J., "PICTURE BANDWIDTH COMPRESSION RESEARCH AT AFCRL," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

MOTT-SMITH, J., BAER, T., MAREA AND VOLUME CODING OF PICTURES, PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

MOUNTS, F.W., "LOW-RESOLUTION TV: AN EXPERIMENTAL DIGITAL SYSTEM FOR EVALUATING BANDWICTH-REDUCTION TECHNIQUES," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. XLVI, NU. 1, JANUARY 1967.

NEWELL, G.F., GEDDES, W.K.E., "TESTS OF THREE SYSTEMS OF BANDWIDTH COMPRESSION UF TELEVISION SIGNALS," PROCEEDINGS OF THE IRE (LONDON), VOL. 109, PART B, PP. 311-323, 1962.

NOVIK, D.A., "INCREASING THE EFFICIENCY OF TRANSMISSION OF TELEVISION SIGNAL," RACICTEKHNIKA I ELEKTRONIKA, SEPTEMBER 1956.

NOVIK, D.A., MA METHOD FOR NARROWING THE FREQUENCY BAND OF A TELEVISION SIGNAL," ZH. TEKH, FIZ, IN RUSSIAN, APRIL 1956.

PALERAC, C.J., PALERMO, R.V., HORWITZ, H., "THE USE OF DATA OMISSION FOR RECUNDANCY REMOVAL," INTERNATIONAL SPACE ELECTRONICS SYMPOSIUM RECORD, 1965.

PINE. C.S.F., "STUDIES IN CODING FOR BANDWIDTH REDUCTION OF TELEVISION SIGNALS,"

UNIVERSITY OF LONDON, ENGLAND, PH.D. THESIS, 1960.

PITTEWAY, M.L.V., "A SIMPLE DATA COMPRESSION TECHNIQUE FOR GRAPHIC DISPLAYS OR INCREMENTAL PLOTTERS," MRI SYMPOSIUM ON COMPUTER PROJESSING IN COMMUNICATIONS, POLYTECHNIC INSTITUTE OF BROOKLYN, APRIL 1969.

PUPP, H.J., "BUFFER CONSIDERATIONS FOR DATA COMPRESSION OF NONSTATIONARY VIDED DATA," L'EEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VULUME COM-18, NG. 2, APRIL 1970.

PRASADA, B., MAN ADAPTIVE DUAL-MODE CODING SYSTEM FOR TELEVISION SIGNALS, M SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

PRASADA, 8., *SCME POSSIBILITIES OF PICTURE SIGNAL BANDWIDTH COMPRESSION, *IEEE TRANSACTIONS ON COMMUNICATION SYSTEMS, VOL. CS-11, SEPTEMBER 1963, Pp. 315-328.

PRASADA, B., "STUDIES OF PICTURE SIGNAL COMPRESSION," UNIVERSITY OF LONDON, ENGLAND, PH.D. THESIS, 1960.

PRECTOR, C.W., WINTZ, P.A., "PICTURE BANCHIDTH REDUCTION FOR NOISY CHANNELS," PURDUE UNIVERSITY, NGR-15-005-106, TR-EE 71-30, SCHOOL OF ELECTRICAL ENGINEER-ING, 58 P., LAFAYETTE, INDIANA, AUGUST 1971.

PRCICNCTARIOS, E.N., "SLOPE OVERLOAD NOISE IN DIFFERENTIAL PULSE CODE MODULATION SYSTEMS," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, Pp. 2119-2161, NOVEMBER 1967.

RADIATION, INCORPORATED, "TV DATA COMPACTION STUDY," FINAL REPORT FEBRUARY 1966, AD 637094; RADIATION, INCORPORATED, MELBOURNE, FLORIDA, 1966, P. 84.

RADIC CORPORATION OF AMERICA, "FINAL REPURT ON APOLLO ANALOG TV SYSTEM AND STUDY PROGRAM," REPORT AED 337, SEPTEMBER 1962.

RAGA, G.L., "DIGITAL TELEVISION COMPRESSION: FACT OR MYTH," 1965 NATIONAL TELE-METERING CONFERENCE PROCEEDINGS, WASHINGTON, C.C., 1965.

RAGA, G.L., "A UNIFIED VIEWPOINT ON DIGITAL TELEVISION COMPRESSION," PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1965.

RAGA, G.L., WIDEBAND VIDEO DATA FRANSMISSION TEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. CCM-15, FEBRUARY 1967, Pp. 124-129.

RAGA, G.L., "WIDEBAND VIDEO DATA TRANSMISSION CONSTRAINTS." IEEE INTERNATIONAL COMMUNICATIONS CONFERENCE, JUNE 1966.

RAISBECK, G., GGLDHAMMER, J., "TRANSMISSION OF PHOTOGRAPHIC DATA BY ELECTRICAL TRANSMISSION," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-6, NO. 4, PP. 533-504, SEPTEMBER 1960.

RENN, R.L., SCHAPHORST, R.A., MAN IMAGE CODING SYSTEM WHICH REDUCES REDUNDANCY IN THU DIMENSIONS, PPROCEEDINGS OF THE NEC, DAYTON, DHIO, 1962.

PIDINGS, G.H., "FACSIMILE COMMUNICATION PAST, PRESENT, FUTURE," SIGNAL, NOVEMBER 1962, PP. 34-40.

RUBERTS, H.L., "INVESTIGATION OF TECHNIQUES FOR IMPROVING RADIO FREQUENCY SPECTRUM CONVERSION AND UTILIZATION IN MILITARY TELEVISION APPLICATIONS," US SIGNAL CORPS., REPORT, CONTRACT NO. DA-36-039-SC63183, APRIL 1958.

ROBINSON, A.H., "AUTOMATIC DIGITAL ENCODING FOR BANDWIDTH REDUCTION IN VISUAL IMAGE TRANSMISSION SYSTEMS," PH.D. THESIS, UNIVERSITY OF LONDON, LONDON, ENGLAND.

RUBINSON, A.H., CHERRY, C., MRESULTS OF A PROTOTYPE TELEVISION BANDWIDTH COM-PRESSION SCHEME, PROCEEDINGS OF THE IEEE, VOL. 55, MARCH 1967, PP. 356-564.

RCLLENHAGEN, D.C., "THE VISTA SYSTEM FOR COMPRESSION OF TELEVISION SIGNAL BAND-WIDTHS," ILLINOIS UNIVERSITY, URBANA, PH.D. THESIS, 1969, UNIVERSITY MICRCFILMS ORDER NO. 70-13462.

ROSENBRECK, B.M., "FASTFAX, A SECUND GENERATION FACSIMILE SYSYEM EMPLOYING REDUNDANCY REDUCTION TECHNIQUES," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VGL. CCM-18, NO. 6, PP. 772-779, DECEMBER 1970.

ROSS, I., ZUCKERMAN, L.G., "SOME CODING CONCEPTS TO CONSERVE BANDWIDTH," IRE TELEMETERING CONFERENCE, MAY 1959.

SALAMAN, R.G., "DIGITAL TELEVISION ENCODING," SEVENTH NATIONAL COMMUNICATION SYMPCSIUM RECORD, 1961, Pp. 274-279.

SCHAPHORST, R.H., "COMPUTER SIMULATION OF PICTURIAL DATA ENCODING TECHNIQLE," IEEE INTERNATIONAL COMMUNICATION CONFERENCE, JUNE 1966.

SCHAFFICEST, R.H., RENN, R.L., "AN IMAGE CODING SYSTEM WHICH REDUCES REDUNDANCY IN TWO DIMENSIONS," PROCEEDINGS OF THE NATIONAL AEROSPACE ELECTRONICS CONFFRENCE, PP. 116-125, 1962.

SCHOEN, E., "COMPUTER-CONTRULLED DATA COMPRESSION AT 100 KC," PROCEEDINGS OF THE INTERNATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., VOL. 111, OCTOBER 1967, PP. 382-396.

SCHREIBER, W.F., KNAPP, C.F., MTV BANDWIDTH REDUCTION BY CIGITAL CUDING, MIRE NATIONAL CUNVENTION RECORD, VOL. 6, PART 4, 1958, PP. 88-89.

SCHWARTZ, J.W., BARKER, R.C., "BIT-PLANF ENCODING: A TECHNIQUE FOR SOURCE ENCODING," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, VOL. AES-2, JULY 1966, Pp. 385-392.

SCOVILLE, F.W., HUANG, T.S., "THE SUBJECTIVE EFFECT OF SPATIAL AND BRIGHTNESS QUANTIZATION IN PCM PICTURE TRANSMISSION," NEREM RECORD, 1965, PP. 234-235.

SEITZER, D., "INSTANTANEOUS PRIORITY MULTIPLEXING CF GRAY PICTURES," IEEE TRANS-ACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-18, NO. 5, PP. 690-693, CCTCBER 1970.

SEITZER, D., CLOSS, F., STUCKI, P., "AN EXPERIMENTAL APPROACH TO VIDEO BANDWIDTH COMPRESSION BY MULTIPLEXING," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOLUME COM-17, NO. 5, PP. 564-569, OCTOBER 1969.

SEYLER: A.J., "BANDWIDTH REDUCTION IN TELFVISION RELAYING," PROCEEDINGS OF THE IRE AUSTRALIA, PART 1, JULY 1955, PP. 218-225; PART 2, AUGUST 1955, PP. 261-276.

SEYLER, A.J., "CODING OF VISUAL SIGNALS TO REDUCE CHANNEL CAPACITY REQUIRE-MENTS," PROCEEDINGS OF THE IEE, VOL. 109, PART C, NO. 16, SEPTEMBER 1962, PP. 676-684.

SNIVELY, J.W., "OPTIMAL ALGORITHMIC ENCODING SCHEMES FOR INFORMATION SCURCES,"

IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-14, NO. 2, 1968, PP. 340-348.

SPENCER, D.R., HUANG, T., MBIT-PLANE ENCODING UF CONTINUOUS-TONE PICTURES," MRI SYMPCSIUM ON COMPUTER PROCESSING IN COMMUNICATIONS, POLYTECHNIC INSTITUTE OF BROOKLYN, NEW YORK, APRIL 1969.

STOCKHAM, T.G., "INTRAFRAME ENCODING FOR MONOCHROME IMAGES BY NON-LINEAR FILTER-ING," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPCSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

TEACHER, C.F., "DIGITAL TELEVISION TECHNIQUES," NATIONAL COMMUNICATIONS SYMPOSIUM. OCTOBER 1964.

TEER, K., "INVESTIGATIONS INTO REDUNDANCY AND PUSSIBLE BANDWICTH COMPRESSION IN TELEVISION TRANSMISSION," PHILLIPS RESEARCH REPORTS, VOL. 15, PP. 30-96, FEBRUARY 1960.

TRETIAK, D.J., "THE PICTURE SAMPLING PROCESS," MIT, SC.D THESIS, CAMBRIDGE, MASSACHUSEFTS, JUNE 1963.

TREUHAFT, M.A., "DESCRIPTION OF A SYSTEM FOR TRANSMISSION OF LINE DRAWINGS WITH BANDWIDTH-TIME COMPRESSION," POLYTECHNIC INSTITUTE OF BROOKLYN, MICROWAVE RESEARCH INSTITUTE, NEW YORK, REPORT NO. R 339-53, SEPTEMBER 1953.

TSLKKERMAN, I.I., "THE TRANSMISSION OF THE COCRDINATES OF A TELEVISED IMAGE," RACIC ENGINEERING, VOL. 13, NO. 4, JULY 1958, PP. 93-105.

VAN BLERKOM, R., FREEMAN, D.G., LAND, W.H., RCEHH, K.M., "A RESEARCH STUDY OF IMPROVED CODING FOR MILITARY DIGITAL TELEVISION," INTERNATIONAL BUSINESS MACHINES CORPORATION, REPORT NO. 2, AD 277 02C, JUNE 1962.

VIERI, B.J., "EXPERIMENTS WITH A SCHEME OF DATA REDUCTION FOR TELEVISION SIGNALS," PH.D. THESIS, UNIVERSITY OF LONDON, LONDON, ENGLANC, JANUARY 1966.

WHELAN, J.W., "DIGITAL TV BANDWIDTH REDUCTION TECHNIQUES AS APPLIED TO SPACE-CRAFT TELEVISION," JOURNAL OF SPACECRAFTS AND RUCKETS, AIAA, VOL. 111, NC. 5, PP. 667-673, MAY 1966.

WHELAN, J.W., "DIGITAL VERSUS ANALOG TELEVISION TRANSMISSION FROM SPACECRAFT," IN SPACECRAFT AND SPACE SYSTEMS, CAMDEN, NEW JERSEY, MADIC CURPORATION OF AMERICA, Pp. 18-23, 1966.

WHITE, H.E., LIPPMAN, M.D., POWERS, K.H., "DICTICNARY LODK-UP ENCOCING OF GRAPH-ICAL DATA," PROCEEDINGS OF THE PICTURE BANDWICTH COMPRESSION SYMPOSIUM GURDON AND BREACH, NEW YORK, PART 4, DECEMBER 1971.

WHOLEY, J.S., "THE CODING OF PICTORIAL DATA," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-7, NO. 2, Pp. 99-104, APRIL, 1961.

WICHPAN: T., "OPTIMUM CODING OF PICTURIAL DATA;" NINTH NATIONAL COMMUNICATIONS SYMPCSIUM RECORD, PF. 18-27, OCTOBER, 1963.

WILKINS, L.C., WINTZ, P.A., MA CONTOUR TRACING ALGORITHM FOR DATA COMPRESSION FOR THO DIMENSIONAL DATA, TECHNICAL REPORT NO. TR-FE69-3, PURDUE UNIVERSITY SCHOOL OF ELECTRICAL ENGINEERING, LAFAYETTE, INDIANA, JANUARY 1969.

WILKINS, L.C., WINTZ, P.A., "IMAGE CODING BY CODING CONTUURS," PROCEDINGS OF THE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, SAN FRANCISCO, CALIF., VOL. 1, PP. 2-22 TO 2-10, 1970. WINKLER, M.R., "PICTORIAL ENCODING," SYMPOSIUM ON PHOTO-ELECTRONIC IMAGING, WASHINGTON, D.C., DCTOBER-NOVEMBER 1968, PREPRINTS OF PAPER SUMMARIES, SOCIETY OF PHOTOGRAPHIC SCIENTISTS AND ENGINEERS, INCERPCRATEC, PP. 3-11.

WINKLER, M.R., "PICTORIAL FRANSMISSION WITH HIDM," 1965 IFEE INTERNATIONAL CON-VENTION RECORD, PART 1, 1965, Pp. 285-291.

WINTZ, P.A., APPLE, G.G., "EXPERIMENTAL PCM SYSTEM EMPLOYING KARHUMEN-LOEVE SAMPLING," PRESENTED AT THE 1969 INTERNATIONAL SYMPOSIUM ON INFURMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1969.

WINTZ, P.A., ESSMAN, J.E., MREDUNDANCY REDUCTION OF PICTORIAL INFORMATION, PRESENTED AT THE MIDWESTERN SIMULATION COUNCIL MEETING ON ADVANCED MATHEMATICAL METHODS IN SIMULATION, DAKLAND UNIVERSITY, NOVEMBER 1968.

WINTZ, P.A., GATTIS, J.L., "AUTOMATED TECHNIQUES FOR DATA ANALYSIS AND TRANS-MISSION," TR-EE 71-37, SCHOOL OF ELECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, AUGUST 1971.

WINTZ, P.A., PRECTOR, C.W., "PICTURE BANDWIDTH REDUCTION FOR NOISY CHANNELS," TR-EE 71-30, SCHOOL OF ELECTRICAL ENGINEERING, PURCUE UNIVERSITY, LAFAYETTE, INCIANA, AUGUST 1971.

WINTZ, P.A., TASTO, M., "AN ADAPTIVE PICTURE BANDWIDTH CUMPRESSION SYSTEM USING PATTERN RECOGNITION TECHNIQUES," PROCFEDINGS OF THE THIRD HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, PP. 513-515, JANUARY 1970.

WINTZ, P.A., WILKINS, L.C., "STUDIES ON DATA COMPRESSION, PART I: PICTURE CODING BY CONTOURS, PART II: ERROR ANALYSIS OF RUN-LENGTH CODES," TR-EE 70-17, SCHOOL OF ELECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INCIANA, SEPTEMBER 1970.

WRIGHT, E.E., "VELOCITY MODULATION IN TELEVISION," PROCEEDINGS PHYSICAL SUCIFTY (LONDON), VOL. 46, PP. 512-514, JULY, 1934.

WYLE, F., ERB, T., BANDW, R., "REDUCED-TIME FACSIMILE TRANSMISSION BY DIGITAL CODING," IRE TRANSACTIONS ON COMMUNICATIONS SYSTEMS, VOL. C5-9, NG. 3, PP. 215-222, SEPTEMBER 1961.

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ANCREWS, H.C., "COMPUTER IMAGE MANIPULATION FOR RESTORATION AND ENHANCEMENT," PROCEEDINGS OF THE INTERNATIONAL TELEMETRY CONFERENCE, WASHINGTON, D.C., SEPTEMBER 1971.

BILLINGSLEY, F.C., "APPLICATIONS OF DIGITAL IMAGE PROCESSING," APPLIED OPTICS, VOL. 9, NO. 2, PP. 289-299, FEBRUARY 1970.

BILLINGSLEY, F.C., "DIGITAL IMAGE PROCESSING AT JPL," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

BILLINGSLEY, F.C., "DIGITAL IMAGE PROCESSING RATIONALE," SUPPLEMENT D. FROM CHAPTER IN PROGRESS IN BIOLOGICAL ELECTRON MICROSCOPE TECHNIQUES, HARPER AND RCW, 1969.

BILLINGSLEY, F.C., *PROCESSING RANGER AND MARINER PHUTOGRAPHY, *SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS JOURNAL, VOL. 4, PP. 147-155, APRIL-MAY 1966.

BIRAUD, Y., "A NEW APPROACH FOR INCREASING THE RESOLVING POWER BY DATA PROCESSING," ASTRONOMY AND ASTROPHYSICS, VOL. 1, PP. 124-127, JANUARY 1969.

BIRZUKOV, YU. L., ET AL., "APPLICATION OF PHOTOGRAPHIC MASKING TO REDUCE THE EFFECT OF MUTION ON THE SHARPNESS OF THE PHOTOGRAPHIC IMAGE," AIR FORCE SYSTEMS CUMMAND, WRIGHT-PATTERSON AFB, OHIO, FOREIGN TECHNOLOGY DIVISION, DECEMBER 1969.

BRCWN, E.B., "PREDICTION AND COMPENSATION OF LINEAR IMAGE MCTIONS IN AERIAL CAMERAS," PROCEEDINGS OF THE NASA/ERC SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

CUTRONA, L.J., HALL, W.D., "SOME CONSIDERATIONS IN POST-FACTO BLUR REMOVAL," NASA SEMINAR SP-193, EVALUATION OF MOTION DEGRADED IMAGES REPORT, PP. 149-159, 1968.

DUNNE, J.A., "MAKINER 1969 TELEVISION IMAGE PROCESSING," PATTERN RECCGNITION, VOL. 2, NO. 4, PP. 261-268, DECEMBER 1970.

FRIECEN, B.R., "BANDLIMITED RECONSTRUCTION OF OPTICAL OBJECTS AND SPECTRA,"
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, Pp. 1013-1019, AUGUST 1967.

FRIEGEN, B.R., MINFURMATION, AND THE RESTORABILITY OF IMAGES, M JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 60, NO. 4, PP. 575-577, APRIL 1970.

FRIECEN, B.R., MOPTIMUM, NUNLINEAR PROCESSING OF NOISY IMAGES, JURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 9, PP. 1272-1276, SEPTEMBER 1968.

HARRIS, J.L., "IMAGE EVALUATION AND RESTORATION," JOURNAL OF THE CPTICAL SOCIETY

OF AMERICA, VOL. 56, NO. 5, MAY 1966, PP. 569-574.

HARRIS, J.L., "POTENTIAL AND LIMITATIONS OF TECHNIQUES FOR PRCCESSING LINFAR MOTION-DEGRADED IMAGERY," EVALUATION OF MOTION DEGRADED IMAGES, NASA SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968, Pp. 131-138.

HARRIS, J.L., "RESOLVING POWER AND DECISION THEORY," JOURNAL OF THE CPTICAL SOCIETY OF AMERICA, VOL. 54, 1964, PP. 606-611.

HARRIS, J., "RESTORATION OF ATMOSPHERICALLY DISTORTED IMAGES," SCRIPPS INSTITUTE OF OCEANOGRAPHY, UNIVERSITY OF CALIFORNIA, SAN DIEGO, SIO NG. 63-10, MARCH 1963.

HARRIS, R.W., RUSHFORTH, C.K., "THE EFFECTS OF DIFFRACTION EN OPTICAL DISCRIMI-NATION," UTAH STATE UNIVERSITY, LOGAN, ELECTRO-DYNAMICS LABORATORIES, SCIENTIFIC REPORT NO. 4, JANUARY 1966.

HARRIS, R.W., RUSHFORTH, C.K., "NUMERICAL RESTORATION OF CPTICAL UBJECTS CB-SCURRED BY DIFFRACTION AND NUISE," UTAH STATE UNIVERSITY, LCGAN, ELECTRO-DYNAMICS LAB, DECEMBER 1966.

HELSTROM, C.W., "IMAGE RESTORATION BY THE METHOD OF LEAST SQUARES," JOURNAL OF THE CPTICAL SOCIETY OF AMERICA, VOL. 57, PP. 297-303, 1967.

HELSTRCM, C.W., "RESOLVABILITY OF OBJECTS FROM THE STANDPCINT OF STATISTICAL PARAMETER ESTIMATION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 60, NU. 5, PP. 659-667, MAY 1970.

HCRNER, J.L., "CPTICAL RESTURATION OF IMAGES BLURRED BY ATMOSPHERIC TURBULENCE USING CPTIMUM FILTER THEORY," APPLIED OPTICS, VOL. 9, NO. 1, P. 167, JANUARY 1970.

HUANG, T.S., "SOME CONSIDERATIONS ON TWO-DIMENSIONAL DIGITAL FILTERING," NEREW 70, SECTION 19-SIGNAL PROCESSING, CAMBRIDGE, MASSACHUSETTS, NOVEMBER 6, 1970.

HUFNAGEL, R.E., STANLEY, N.R., "MUDULATION TRANSFER FUNCTION ASSOCIATED WITH IMAGE TRANSMISSION THROUGH TURBULENT MEDIA," JOURNAL OF THE CPTICAL SCCIETY OF AMERICA, VOL. 54, NO. 1, JANUARY 1964, PP. 52-61.

HUNT, B.R., JANNEY, D.H., ZFIGLER, R.K., "INTRODUCTION TO RESTORATION AND ENHANCEMENT OF RADIOGRAPHIC IMAGES," LOS ALAMOS SCIENTIFIC LAB REPORT.

HUNT, B.R., ZEIGLER, R.K., "ENHANCEMENT OF RADIOGRAPHIC IMAGES USING A LAPGE-SCALE, MULTI-PROGRAMMING COMPUTER," CONFERENCE ON COMPUTER APPLICATIONS IN RACICLOGY, UNIVERSITY OF MISSOURI, COLUMBIA, SEPTEMBER 1970.

LEVI, L., "MCTION BLURRING WITH DECAYING DETECTOR RESPONSE," APPLIED OPTICS, VCL. 10, NO. 1, PP. 38-41, 1971.

MAC ADAM, D.P., "DIGITAL IMAGE RESTORATION BY CONSTRAINED DECONVOLUTION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 60, NO. 12, DECEMBER 1972, PP. 1617-1627.

MC GLAMERY, B.L., "RESTORATION OF TURBULANCE-CEGRADED IMAGES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 3, PP. 278-299, MARCH 1966.

MULDON, J.C., "HIGH RESCLUTION IMAGE ESTIMATION IN A TURBULENT ENVIRONMENT," PATTERN RECOGNITION, VOL. 2, 1970, Pp. 79-90.

MUNAHAN, M.A., "COHERENT OPTICAL PROCESSING OF MCTION-DEGRACEC IMAGES," RESEARCH AND DEVELOPMENT REPORT, NAVAL ELECTRUNICS LAB, CENTER FOR COMMAND CONTROL AND COMMUNICATIONS, SAN DIEGO, CALIFORNIA, AUGUST 1970.

MORGAN, S., "RESTORATION OF ATMOSPHERICALLY-DEGRADED IMAGES," NSF SUMMER STUDY, REPORT, WOODS HOLE, MASSACHUSETTS, 1966.

MUELLER, P.F., REYNOLDS, G.O., "IMAGE RESTORATION BY REMOVAL OF RANDOM-MECIA DEGRADATIONS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, Vol. 57, No. 11, PP. 1338-1345, NOVEMBER 1967.

į,

RINDFLEISH, T.C., "DIGITAL IMAGE PROCESSING FOR THE RECT! FICATION OF TELEVISION CAMERA DISTORTIONS," PRINCETON UNIVERSITY, ASTRON, P. 145, 1971.

RINCFLEISCH, T.C., DUNNE, J.A., FRIEDEN, H.J., STROMBERG, W.D., RUIZ: R.M., "DIGITAL PROCESSING OF THE MARINER 6 AND 7 PICTURES," JOURNAL OF GEUPHYSICAL RESEARCH, VOL. 76, Pp. 394-417, JANUARY 1971.

RINC, C.L., "BANDLIMITED IMAGE RESTORATION BY LINEAR MEAN-SQUARE-ERRCR FILTER." JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NC. 5, PP. 547-553, MAY 1969.

ROBBINS, G.M., "IMAGE RESTORATION FOR A CLASS OF LINEAR SPATIALLY-VARIANT DEGRA-DATIONS," PATTERN RECOGNITION, VOL. 2, 1970, FP. 91-103.

ROBBINS, G.M., HUANG, T.S., "INVERSE FILTERING FOR LINEAR SHIFT-VARIANT IMAGING SYSTEMS," PROCEEDINGS OF THE IEEE, DECEMBER 1971.

RUETLING, P.G., HAAS, R.C., KINZLY, R.E., "SOME PRACTICAL ASPECTS OF MEASUREMENT AND RESTORATION OF MOTION-DEGRADED IMAGES," NASA/ERC SEMINAR, CAMBRIDGE, MASSA-CHUSETTS, DECEMBER 1968.

RUSHFORTH, C.K., HARRIS, R.W., "RESTURATION, RESCLUTION, AND NOISE," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 4, PP. 539-545, APRIL 1968.

SELLMER, H.R., "TRANSFER FUNCTION COMPENSATION OF SAMPLED IMAGERY," A SYMPCSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPGRATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 4-1 TO 4-14.

SLEPIAN, D., "RESTORATION OF PHOTOGRAPHS BLURRED BY IMAGE MCTION," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, PP. 2353-2362, 1967.

STULLER, J.A., "AN ALGEBRAIC APPROACH TO IMAGE RESTURATION FILTER DESIGN." UNIVERSITY OF NEW BRUNSWICK, CANADA, OCTOBER 1971.

SWCNGER, C.W., CHAO, F.J., "COMPUTING TECHNIQUES FOR CORRECTION OF BLURRED OBJECTS IN PHOTOGRAPHS," EVALUATION OF MCTION-DEGRADED IMAGES, NASA SEMINAP, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968, PP. 149-159.

VOYNAHTEYN, G.G., LEBEDEV, D.S., YAROSLAVSKY, L.P., "IMPROVEMENT OF IMAGE QUALITY BY COMPUTER," JOURNAL OF THE ACADEMY OF SCIENCE USSR, VOL. 39, NO. 3, MARCH 1969.

ANDREA, R.F., "IMAGE ENHANCEMENT AS AN AID TO RECUNNAISSANCE INTERPRETATION," PRESENTED BEFORE THE ARMED FORCES-NRC COMMISSION ON VISION, WASHINGTON, D.C., PP. 53-104, MARCH 1961.

ANDREWS, H.C., "COMPUTER IMAGE MANIPULATION FOR RESTORATION AND ENHANCEMENT," PROCEEDINGS OF THE INTERNATIONAL TELEMETRY CONFERENCE, WASHINGTON, D.C., SEPTEMBER 1971.

BACHL, A., LUKOSZ, W., MEXPERIMENTS ON SUPERRESOLUTION IMAGING OF A RECUCED OBJECT FIELD, M JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 57, NC. 2, PP. 163-169, FEBRUARY 1967.

BIRKNER, W., DAVIS, J., HANNUM, J., TAYLOR, N., "CUNTHAST MODULATION TECHNIQUES FOR IMAGE ENHANCEMENT," WRIGHT-PATTERSON AIR FORCE BASE, CHIO, AFSC-TDR-64-45, MARCH 1964.

BLUSS, W.H., BAUER, K., METZ, S., SAACKEL, L., MAN ÉLECTRONIC METHOD FOR IMPROVING STAILSTICALLY PERTURBED IMAGES, MACHRICHTENTECHNISCHE ZEITSCHRIFT, VCL. 24, PP. 77-8C, FEBRUARY 1971.

BRAINARD, R.C., CAUM, K.B., "EVALUATION OF AN IMAGE QUALITY ENHANCEMENT TECH-NIQUE," WRIGHT-PATTERSON AIR FORCE BASE, OHIO, AMRL, SEPTEMBER 1965.

BRAINARD, K.C., ORNSTEIN, G.N., "IMAGE QUALITY ENHANCEMENT," NORTH AMERICAN AVIATION, INC., COLUMBUS, OHIO, FINAL REPORT, APRIL 1965.

BRODY, R.H., ERMLICH, J.K., "FOURTER ANALYSIS OF AERIAL PHOTOGRAPHS."
PROCEEDINGS OF THE FOURTH SYMPOSIUM ON REMOTE SENSING OF ENVIRONMENT, ANN ARBOR,
MICHIGAN, PP. 375-392, JUNE 1966.

BROWN, H.A., "EFFECT OF TRUNCATION ON IMAGE ENHANCEMENT BY PROLATE SPHERO IDAL FUNCTIONS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 2, PP. 229-229, FEBRUARY 1969.

BROWN, H.A., "IMAGE ENHANCEMENT WITH PROLATE SPHEROTOAL WAVE FUNCTIONS," NAVAL RESEARCH LABS, REPORT #6798, WASHINGTON, D.C., NOVEMBER 1968.

BRCKN, H.A., "LIMITATIONS ON AN IMAGE ENHANCEMENT PROCESS," NRL MEMORANDUM REPORT, #1934, WASHINGTON, D.C., OCTOBER 1968.

CHESLER, D.A., "RESOLUTION ENHANCEMENT BY VARIABLE FILTERING," PHYSICS RESEARCH LABORATURY, MASSACHUSETTS GENERAL HUSPITAL, BOSTUN, JANUARY 1969.

CULUCCIU, T.L., WASIELEWSKI, J.E., MELECTRO-OPTICAL IMAGE ENHANCEMENT EVALUA-TICN, MROME AIR DEVELOPMENT CENTER, GRIFFIS AFR, NEW YORK, TECHNICAL REPORT, JANUARY-SEPTEMBER 1969.

CUNSIDINE, P., DUMAIS, R.H., PROFIO, R.A., "INTERACTIVE OPTICAL ENHANCEMENT DEVICES," PRESENTED AT THE SPIE SEMINAR ON RECENT ADVANCES IN THE EVALUATION OF THE PHOTOGRAPHIC IMAGE, BOSTON, MASSACHUSPITS, JULY 1971.

CYKOWSKI, C.B., ET. AL., "IMAGE ENHANCEMENT OF RADIONUCLICE SCANS BY OPTICAL SPATIAL FILTERING," JOURNAL OF NUCLEAR MEDICINE, VOL. 12, NO. 12, PP. 85-87.

1967.

DEW, G.D., "THE APPLICATION OF SPATIAL FILTERING TECHNIQUES TO PROFILE INSPECTION, AND AN ASSOCIATED INTERFACE PHENOMENON," CPTICA ACTA, VOL. 17, NO. 4 PP. 237-258, APRIL 1970.

EKSTROM, M.P., RATER, O.L., "COMPUTER PROCESSING OF RADIOGRAPHIC IMAGES WITH THE FINITE FOURIER TRANSFORM," UCRL-73484, LAWRENCE RADIATION LABORATORY, UNIVERSITY OF CALIFORNIA, LIVERMORE, CALIFORNIA, OCTOBER 14, 1971.

EMSLIE, A.G., KING, G.W., "SPECTRUSCOPY FORM THE POINT OF VIEW CF COMMUNICATION THECRY," JOURNAL OPTICAL SOCIETY OF AMERICA, PART I, "RESCLUTION," VOL. 41, NO. 6, (JUNE, 1951), PP. 405-412, PART II, "LINE WIDTHS," VOL. 43, NO. 8 (AUGUST 1953), PP. 658-663, PART III, "THE AMOUNT OF INFORMATION IN A SPECTRUM," VOL. 43, NO. 8 (AUGUST, 1953), PP. 664-668.

FALCCNER, D.G., "IMAGE ENHANCEMENT AND FILM-GRAIN NOTSE," OPTICA ACTA, VOL. 17, PP. 693-705, SEPTEMBER 1970.

FRIECEN, B.R., "OPTIMUM, NUNLINEAR PROCESSING OF NGISY IMAGES," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 58, NO. 9, PP. 1272-1276, SEPTEMBER 1968.

GOLDMARK, P.C., HOLLYWOOD, J.M., "A NEW TECHNIQUE FOR IMPROVING THE SHARPNESS OF TV PICTURES," PROCEEDINGS OF THE IRE, VOL. 39, NO. 10, OCTOBER 1951, PP. 1314-1322.

HARRIS, J.L., "COMPUTER PROCESSING OF ATMOSPHERICALLY DEGRADED IMAGES," PROCEEDING OF THE SUCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, COMPUTERIZED IMAGING TECHNIQUES SEMINAR, WASHINGTON, D.C., JUNE 26-27, 1967.

HILBERN, E.H., STEVENSON, L.E., "MEANS FER IMPROVING APPARENT TELEVISION RESULUTION," INFURMATION DISPLAY, VOL. 4, Pp. 40-43, SEPTEMBER-OCTOBER 1967.

HOLEMAN, J.M., "SPATIAL FILTERING-A REPORT ON THE STATE -CF-THE-ART," GENERAL ELECTRIC COMPANY, NEW YORK, PP. 155-172, 1967.

HORNER, J.L., "OPTICAL SPATIAL FILTERING WITH THE LEAST MEAN-SQUARE-ERROR FILTER," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 5, PP. 553-559, MAY 1969.

HUANG, T.S., "IMAGE ENHANCEMENT-A REVIEW," OPTO-ELECTRONICS, VOL. 1, FEBRUARY 1969.

HUANG, T.S., "INTRODUCTION TO SPECIAL ISSUE ON IMAGE ENHANCEMENT," PATTERN RECCENTION, VOL. 2, 1970, PP. 67-68.

HUNT, B.R., JANNEY, D.H., ZEIGLER, R.K., "INTRODUCTION TO RESTORATION AND ENHANCEMENT OF RADIOGRAPHIC IMAGES," LOS ALAMOS SCIENTIFIC LAB REPORT, LOS ALAMOS, NEW MEXICO, 1970.

HUNT, B.R., ZEIGLER, R.K., MENHANCEMENT OF RADIOGRAPHIC IMAGES USING A LARGE-SCALE, MULTI-PROGRAMMING COMPUTER, M CONFERENCE ON COMPUTER APPLICATIONS IN RADICLOGY, UNIVERSITY OF MISSOURI, COLUMBIA, SEPTEMBER 1970.

JANSSENS, T.J., KOZŁOWSKI, G.C., LUTHER, A.J., MREAL-TIME DIGITAL SUBTRACTION AND ENHANCEMENT OF VIDEO PICTURES, JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENŢATION ENGINEERS, VOL. 6, PP. 120-124, APRIL-MAY 1968.

JANSSON, P.A., HUNT, R.H., PLYLER, E.K., MRESPONSE FUNCTION FOR SPECTRAL RESO-

LUTION ENHANCEMENT, # JOURNAL OF THE OPTICAL SCCIETY OF AMERICA, VOL. 58, PP. 1065-1666, DECEMBER 1968.

KUHLER, R.J., HCWELL, H.K., "PHOTOGRAPHIC IMAGE ENHANCEMENT BY SUPERIMPOSITION OF PLLTIPLE IMAGES," SOCIETY OF PHOTOGRAPHIC SCIENTISTS AND ENGINEERS, ANNUAL CONFERENCE, BOSTON, MASSACHUSETTS, MAY 8, 1962, PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. 7, PP. 241-245, JULY-AUGUST 1963.

KRUGER, R.P., DWYER, S.J., LUDWICK, G.S., "IMAGE ENHANCEMENT AND FEATURE EXTRACTION OF RADICGRAPHIC IMAGES," COMPUTERS IN RADIOLOGY CONFERENCE PROCEEDINGS, UNIVERSITY OF MISSOURI MEDICAL CENTER, COLUMBIA, MISSCURI, SEPTEMBER 21-23, 1970.

KRUGER, R.P., HALL, E.L., DAYER, S.J., LODWICK, G.S., "DIGITAL TECHNIQUES FOR IMAGE ENHANCEMENT OF RADIOGRAPHS," INTERNATIONAL JOURNAL OF BIO-MEDICAL COMPUTING, VOL. 2, 1971.

KSIENSKI, A., MC GHEE, R.B., "RADAR SIGNAL PROCESSING FOR ANGULAR RESOLUTION BEYOND THE RAYLEIGH LIMIT," THE RADIO AND ELECTRONIC ENGINEER, PP. 161-174, SEPTEMBER 1967.

LERMAN, S.H., SHA NNCN, R.R., "TWO-DIMENSIONAL IMAGE REDUCTION AND ENHANCEMENT," PROCEEDINGS OF THE SUCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, COMPUTER-IZED IMAGING TECHNIQUES SEMINAR, WASHINGTON, D.C., JUNE 26-27, 1967.

LEVI, L., "ON IMAGE EVALUATION AND ENHANCEMENT," OPTICA ACTA, VCL. 17, N'). 1, 1970, PP. 59-76.

LITTLE, R.E., "THE SUPPRESSION OF HARMONIC DISTORTION IN PHCTOGRAPHIC IMAGES," OPTICA ACTA, VOL. 13, NO. 1, PP. 31-40, JANUARY 1966.

LUWE, C.S., BRAITHWAITE, J.G.; "A SPECTRUM MATCHING TECHNIQLE FOR ENHANCING IMAGE CONTRAST," APPLIED OPTICS, VOL. 5, NO. 6, PP. 893-899, JUNE 1966.

MAKHENIN, V.A., "TELEVISION METHODS OF INCREASING VISUAL DEFINITION OF PHETO-GRAPHIC IMAGES," PATTERN RECOGNITION, QUALITY OF THE PHOTOGRAPHIC IMAGE, PP. 211-215, MARCH 1965.

MALILA, W.A., "MULTISPECTRAL TECHNIQUES FOR IMAGE ENHANCEMENT AND DISCRIMINATIONS," PHOTOGRAPHIC ENGINEERING, NC. 6, P. 566, 1968.

NAHI, N.E., "ROLE OF RECURSIVE ESTIMATION IN STATISTICAL IMAGE ENHANCEMENT," DEPARTMENT OF ELECTRICAL ENGINEERING, UNIVERSITY OF SCUTHERN CALIFORNIA, LOS ANGELES, ARPA CUNTRACT NU. F08606-72-C-0008, SEPTEMBER 1971.

NAHI, N.E., ASSEFI, T., "BAYSIAN RECURSIVE IMAGE ESTIMATION," PROCEEDINGS OF TWO DIMENSIONAL DIGITAL SIGNAL PROCESSING CONFERENCE, UNIVERSITY OF MISSCURI, CCTCBER 1971.

NATHAN, R., "PICTURE ENHANCEMENT FOR THE MOUN, MARS, AND MAN," PICTORIAL PATTERN RECOGNITION, THOMPSON, WASHINGTON, D.C., PP. 239-266, 1968.

UNCE, M., TAKAGI, M., MASUMOTO, T., "IMAGE ENFANCEMENT USING CONVOLUTION TECHNIQUE," THE PROCEEDINGS OF THE NATIONAL CONVENTION OF THE INSTITUTE OF ELECTRONICS AND COMMUNICATION ENGINEERS, S1-6, APRIL 1971.

PREWITT, J.M.S., "OBJECT ENHANCEMENT AND EXTRACTION," PICTURE PROCESSING AND PSYCHUPICTORICS, PP. 75-149, EDITED BY B. S. LIPKIN AND A. ROSENFELD, ACACEMIC PRESS, 1970.

PROKCP, E.J., "APULLO SLOW SCAN TV SIGNAL ENHANCEMENT," SCIENCE AND TECHNOLUGY, NASA, GODDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, PP. 344-349, 1970.

Vine Commence of the Commence

ROSENFELD, A., PARK, C.M., STRONG, J.P., "NOISE CLEANING IN DIGITAL PICTURES," PROCEEDINGS OF THE EASCON, OCTOBER 1969.

ROSS, D.S., "ENHANCED OCEANOGRAPHIC IMAGERY," PROCEEDINGS OF THE 6TH INTERNATIONAL SYMPOSIUM ON REMOTE SENSING OF ENVIRONMENT, ANN ARBUR, MICHIGAN, VOL. 2, OCTOBER 13-16, 1969, PP. 1029-1044.

ROSS, D.S., "IMAGE-TONE ENHANCEMENT," AHERICAN SOCIETY OF PHOTOGRAMMETRY, 35TH ANNUAL MEETING, WASHINGTON, D.C., TECHNICAL PAPERS, MARCH 9-14, 1969, PP. 301-319.

SCHLESINGER, K., "DOT ARRESTING IMPROVES TV PICTURE QUALITY," ELECTRUNICS, VOL. 24, 1951, P. 96.

SCHREIBER, W.F., "WIREPHOTO QUALITY IMPROVEMENT BY UNSHARP MASKING," PATTERN RECOGNITION, VOL. 2, NO. 2, PP. 117-121, MAY 1970.

SITTCH, G.A., TOBIAS, P.R., "APPLICATIONS OF THE LAPLACIAN TO IMAGE PROCESSING," IBM PUBLICATION NO. 320.2413, FEBRUARY 1, 1971.

SLEPIAN, D., "LINEAR LEAST-SQUARES FILTERING OF DISTORTED IMAGES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, Pp. 918-922, JULY 1967.

SOM, S.C., "SIMULTANEOUS MULTIPLE REPRODUCTION OF SPACE-LIMITED FUNCTIONS BY SAMPLING UF SPATIAL FREQUENCIES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 60, NU. 12, DECEMBER 1970, Pp. 1628-1634.

STARK, M.C., "PICTORIAL DATA PROCESSING," NATIONAL BUREAU OF STANDARCS, NBS-1203 -12-12434, WASHINGTON, D.C., FEBRAURY 1964.

GAZLEY, C., RIEBER, J.E., STRATTON, R.H., "COPPUTER WORKS A NEW TRICK IN SEEING-PSEUDU COLOR PRUCESSING," AERUNAUTICS AND ASTRONAUTICS, VOL. 4, P. 56, APRIL 1967.

KNUCKEY, R.L., "MULTICOLOR PRESENTATION OF IMAGES WITH EDGE ENHANCEMENT,"
TECHNICAL MEMURANDUM 61-42, UNIVERSITY OF KANSAS, ENGINEERING SCIENCE DIVISION,
LAWRENCE, CONTRACT NO. NSR 17-004-003, OCTOBER 1966.

KREINS, E.R., ALLISON, L.J., "COLOR ENHANCEMENT OF NIMBUS HIGH RESOLUTION INFRA-RED RACIOMETER DATA," APPLIED OPTICS, VOL. 9, NO. 3, P. 681, MARCH 1970.

LAMAR, J.V., "COMPUTER TECHNIQUES FOR PSFUDOCOLOR IMAGE ENHANCEMENT," R-787-NIH, RAND CCRPORATION, SANTA MONICA, CALIFORNIA, JUNE 1971.

LAMAR, J.V., MUSE OF SC4060-PRODUCED MICROFILM OUTPUT IN PSEUDOCOLOR TRANSFORMATIONS, P-4465, RAND CORPORATION, SANTA MONICA, CALIFORNIA, SEPTEMBER 1970.

LARSON, D.A., KUYPER, W.H., LATHAM, J.P., "INTERPRETATION OF COLURS BY A TELE-VISION SCANNING AND WAVEFORM SYSTEM APPLIED TO GEOGRAPHIC ANALYSIS OF MULTI-SENSOR IMAGERY," FLORIDA ATLANTIC UNIVERSITY, BOCA RATON, DEPARTMENT OF GEOGRAPHY, SEPTEMBER 1969, NO. AD-694364.

MUELLER, P.F., "COLOR IMAGE RETRIEVAL FROM MONOCHROME TRANSPARENCIES," APPLIED CPTICS, VOL. 8, NO. 10, P. 2051, OCTOBER 1969.

NICHOLS, L.W., LAMAR, J., "CUNVERSION OF INFRARED IMAGES TO VISIBLE IN COLOR," APPLIED OPTICS, VOL. 7, NO. 9, P. 1757, SEPTEMBER 1968.

REY, D., "DISCUSSION OF SUPER RESOLUTION OPTICAL SYSTEMS," UNIVERSITY OF SOUTHERN CALIFORNIA, ELECTRICAL ENGINEERING DEPARTMENT, LCS ANGELES, CALIFORNIA, JULY 14, 1969.

ROTH, N., "FULL-GOLOR AND THREE-DIMENSIONAL EFFECT IN RADIOGRAPHIC DISPLAYS," INVESTIGATIVE RADIOLOGY, VOL. 3, PP. 56-67, JANUARY-FEBRUARY 1968.

SMITH, S.L., "CULUR CODING AND VISUAL SEPARABILITY IN INFORMATION DISPLAYS," JOURNAL OF APPLIED PSYCHOLOGY, WIL. 47, PP. 358-264, DECEMBER 1963.

STRATTON, R.H., GAZLEY, C., "A PHOTOGRAPHIC TECHNIQUE FOR IMAGE ENHANCEMENT: PSEUCOCOLUR THU-SEPARATION PRUCESS," REPORT NO. R-597-PR, RAND CORPORATION, SANTA MONICA, CALIFORNIA, JULY 1971.

STRATIUN, R.H., GAZLEY, C., "PSEUDUCOLOR IMAGE ENHANCEMENT BY A TWC-SEPARATION PHOTOGRAPHIC PROCESS," RAND CORPORATION, SANTA MONICA, CALIF., 15TH ANNUAL TECHNICAL SYMPOSIUM OF THE SOCIETY OF PHOTO-UPTICAL INSTURMENTATION ENGINEERS, SEPTEMBER 14-17, 1970.

STRATTON, K.H., SHEPPARD, J.J., MA PHOTOGRAPHIC TECHNIQUE FOR IMAGE FNANCEMENT: PSEUDUCOLUR THREE-SEPARATION PROCESS, R-596-PR, RAND CORPURATION, SANTA MUNICA, CALIFORNIA, OCTOBER 1970.

BOGERT, B.P., HEALY, M.J.R., TUKEY, J.W., "THE QUEFERENCY ALANYSIS OF TIME SERIES FOR ECHOES: CEPSTRUM AND SAPHE CRACKING," BELL TELEPHONE TECHNICAL JOURNAL, HOLMDEL, NEW JERSEY, PP. 209-243.

BURK, R.P., "THE USE OF ELECTRONIC MASKING IN COLOR TELEVISION," PROCEEDINGS OF THE IRE, JANUARY 1954, PP. 192-200.

CHUTJIAN, A., COLLIER, R.J., "RECORDING AND RECONSTRUCTING THREE- TIMENSIONAL IMAGES OF COMPUTER-GENERATED SUBJECTS BY LIPPMANN INTEGRAL PHOTOGRAPHY: APPLIED OPTICS, VOL. 7, NO. 1, P. 99, JANUARY 1968.

CUNNINGHAM, J.E., MIMAGE CORRECTION-TRANSMISSION EXPERIMENTS, MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 70, JULY 1963, Pp. 244-247.

CUNNINGHAM, J.E., "TEMPORAL FILTERING OF MOTION PICTURES," SCIENCE DEPARTMENT THESIS, MIT, ELECTRICAL ENGINEERING DEPARTMENT, CAMBRIDGE, MASSACHUSETTS, 1963.

DE CCSTER, P., TAYLOR: N., MCOLOR IMAGE-ENHANCEMENT PROGRAM. HOUSTON FEARLESS CORPCRATION, LOS ANGELES, CALIFORNIA, WESTWOOD DIVISION, JULY 1964.

FILIP, A.E., "ESTIMATION OF THE IMPULSE RESPONSE OF IMAGE-DEGRACING SYSTEMS," MASSACHUSETTS INSTITUTE OF TECHNOLOGY RESEARCH LABORATORY OF ELECTRONICS, QUARTERLY PROGRESS REPORT 99, PP. 135-140, OCTOBER 1970.

GRAHAM, R.E., "SNOW-REMOVAL: A NOISE STRIPPING FOR PICTURE SIGNALS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 1, FEBRUARY 1962, PP. 125-144.

HARGER, R.U., "CN PROCESSING OPTICAL IMAGES PROPOGATED THROUGH THE ATMOSPHERE," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, VOL. AFS-3, NO. 5, Pp. 819-828, SEPIEMBER 1967.

HOLEMAN, J.M., "SPATIAL FILTERING-A REPORT ON THE STATE-OF-THE ART," GENERAL ELECTRIC COMPANY, NEW YORK, PP. 155-172, 1967.

HUANG, T.S., "SUME CONSIDERATIONS ON TWO-DIMENSICNAL DIGITAL FILTERING," MIT, NEREM 70, SECTION 19-SIGNAL PROCESSING, CAMBRIDGE, MASSACHUSETTS, NOVEMBER 6, 1970.

HUNT, B.R., "BLCCK-MODE DIGITAL FILTERING OF PICTURES," LOS ALAMOS SCIENTIFIC LABORATORY, LOS ALAMOS, NEW MEXICO, 1971.

HUNT, 8.R., "MINIMIZING THE COMPUTATION TIME FOR USING THE TECHNIQUE OF SECTIONING FOR DIGITAL FILTERING OF PICTURES," LOS ALAMOS SCIENTIFIC LABORATORY, LOS ALAMOS, NEW MEXICO, 1971.

JOHNSTON, E.G., RUSENFELD, A., "GEOMETRICAL OPERATIONS ON DIGITIZED PICTURES," PICTURE PROCESSING AND PSYCHOPICTORICS, NEW YORK, ACADEMIC PRESS, 1970.

KUPRESICH: N.F., "CER AIN POSSIBILITIES OF UTILIZING PHOTOELECTRIC AND TELEVI-SION METHODS FOR COMBATING NOISE FROM ATMOSPHERIC TURBULENCE CURING ASTRONOMICAL CBSERVATIONS." AIR FORCE SYSTEMS COMMAND: WRIGHT-PATTERSON AFB, OHIO, JUNE 1966. LANDAU, H.J., POLLAK, H.O., "PROLATE SPHERDIDAL WAVE FUNCTIONS, FOURIER ANALYSIS AND UNCERTAINITY II," BELL SYSTEM TECHNICAL JOURNAL, VOL. 4C, PP. 65-84, JANUARY 1961.

LEGALLT, R.R., "SPATIAL DISCRIMINATION," ADVANCED INFRAREC TECHNOLOGY, UNIVERSITY OF MICHIGAN, ENGINEERING SUMMER CONFERENCES, ANN ARBOR, MICHIGAN, JUNE 9-13, 1969, INTENSIVE SHORT COURSE.

LUKOSZ, W., MOPTICAL SYSTEMS WITH RESOLVING POWERS EXCEEDING THE CLASSICAL LIMIT 1.M JOURNAL OF THE OPTICAL SOCIETY OF AMERICA. VOL. 56. P. 1463, 1961.

LUKGSZ, W., "OPTICAL SYSTEMS WITH RESOLVING POWERS EXCEEDING THE CLASSICAL LIMIT III," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NC. 7, PP. 932-941, JULY 1967.

UPPENHEIM, A.V., "GENERALIZED SUPERPOSITION," INFORMATION AND CONTROL, VOL. II, 1967, PP. 528-536.

OPPENHEIM, A.V., SHAFER, R.W., STOCKHAM, T.G., MNONLINEAR FILTERING OF MULTIPLIED AND CONVOLVED SIGNALS, PROCEEDINGS OF THE IEEE, VOL. 56, NC. 8, AUGUST 1968, PP. 1264-1291.

PIZER, S.M., VETTER, H.G., "PROCESSING QUANTUM LIMITED IMAGES," PICTURE PROCESSING AND PSYCHOPICTORIES, PP. 165-176, EDITED BY B. S. LEPKIN AND A. ROSENFELD, ACADEMIC PRESS, NEW YORK, 1970.

SOM, S.C., "SIMULTANEOUS MULTIPLE REPRODUCTION OF SPACE-LIMITED FUNCTIONS BY SAMPLING OF SPATIAL FREQUENCIES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 60, NO. 12, DECEMBER 1970, PP. 1628-1634.

STCCKHAM, T.G., BRITTON, R.L., "APPLICATIONS OF DIGITAL FILTERING TO IMAGE PROCESSING," NEREM RECORD, PP. 116-117, NOVEMBER 1969.

STOKER, W.F., WEBBER, D.S., "PRECISION PROCESSING FOR EARTH RESCURCE SATELLITE IMAGERY," AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS, 1970.

THIRY, H., "SOME QUALITATIVE AND QUANTITATIVE RESULTS ON SPATIAL FILTERING OF GRANLLARITY," APPLIED OPTICS, VOL 3, NO. 1, PP. 39-45, JANUARY 1964.

VOYNAHTEYN, G.G., LEBEDEV, D.S., YAROSLAVSKY, L.P., "IMPROVEMENT OF IMAGE QUALITY BY COMPUTER," JOURNAL OF THE ACADEMY OF SCIENCE USSR, VGL. 39, NO. 3, MARCH 1969.

WEINSTEIN, G.G., "SPATIAL FILTERING OF IMAGES: PHOTOGRAPHIC SYSTEMS," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VGL. 2, 1970.

ANUTA, P.E., "DIGITAL REGISTRATION OF MULTISPECTRAL VIDEO IMAGERY," SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS JOURNAL, VCL. 7, PP. 168-175, SEPTEMBER 1969.

ARCESE, A., MENGERT, P.H., TROMBINI, E.W., "IMAGE DETECTION THROUGH BIPULAR CORRELATION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 5, PP. 534-541, SEPTEMBER 1970.

ARGYLE, E., "TECHNIQUES FOR EDGE DETECTION," PROCEEDINGS OF THE IEEE, VOL. 59, NO. 2, PP. 285-287, FEBRUARY 1971.

BAHER, C.A., NICHOLSON, R.M., "RASTER SCAN PARAMETERS AND TARGET IDENTIFICATION," PROCEEDINGS OF THE 19TH ANNUAL NATIONAL AEROSPACE ELECTRONICS CONFERENCE, DAYTON, OHIO, PP. 285-290, MAY 15-17, 1967.

BARTELS, P.H., WILSON, C.F., "AUTOMATIC TRACKING FROM VIDEO SIGNALS," PROCEED-INGS OF THE THIRD ANNUAL SEMINAR-IN-DEPTH, LOS ANGELES, CALIFCRNIA, APRIL 26-27, 1965.

CARMAN, P.D., CHARMAN, W.N., "DETECTION, RECOGNITION, AND RESCLUTION IN PHOTO-GRAPHIC SYSTEMS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, NO. 9, PP. 1121-1130, SEPTEMBER 1964.

CCLUCCIO, T.L., MACLEOD, S., MAIER, J.J., "EFFECT OF IMAGE CONTRAST AND RESOLUTION ON PHOTOINTERPRETER TARGET DETECTION AND IDENTIFICATION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 11, PP. 1478-1482, NOVEMBER 1969.

DELUCR, G.P., JURRIENS, A.A., LEVELT, W.J.M., VANDEGEE, J.P., "LINE-SCAN IMAGERY INTERPRETATION," PHOTOGRAMMETRY ENGINEER, NO. 5,1968.

HARRIS, R.W., RUSHFORTH, C.K., "THE EFFECTS OF DIFFRACTION CN OPTICAL DISCRIMI-NATION," UTAH STATE UNIVERSITY, LOGAN, ELECTRO-DYNAMICS LABORATURIES, SCIENTIFIC REPORT NO. 4, JANUARY 1966.

KANEFSKY, M., "ON THE COMPRESSION AND RECOGNITION OF TWO CIMENSIONAL PATTERNS FROM THEIR BIT PLANES," PROCEEDINGS OF THE SECOND HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, JANUARY 1969.

KHALFIN, A.M., "TELEVISION ARRANGEMENT FOR AUTOMATIC RECOGNITION OF OBJECTS," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AFB, OHIO, FOREIGN TECHNOLOGY DIVISION. RUSSIAN PATENT NO. 164627, MARCH 1963.

KIRSCH, R.A., "COMPUTER INTERPRETATION OF ENGLISH TEXT AND PICTURE PATTERNS,"
1EEE TRANSACTIONS ON ELECTRONIC COMPUTERS, VOL. EC-13, PP. 363-376, AUGUST 1964.

KOZNA, A., KELLY, D.L., "SPATIAL FILTERING FOR DETECTION CF SIGNALS SUBMERGED IN NOISE," APPLIED OPTICS, VOL. 4, NO. 4, PP. 387-393, APRIL 1965.

KRAKAUER, L.J., "COMPUTER ANALYSIS OF VISUAL PROPERTIES OF CURVED OBJECTS," MACTR-82, MIT, CAMBRIDGE, MASSACHUSETTS, MAY 1971.

KRUGER, R.P., DWYER, S.J., "COMPUTER-AIDED DIAGNOSIS OF RADIOGRAPHIC CARDIAC SIZE AND SHAPE CESCRIPTORS," PROCEEDINGS OF THE THIRD ANNUAL HOUSTON CONFERENCE ON COMPUTER AND SYSTEM SCIENCE, UNIVERSITY OF HOUSTON, TEXAS, APRIL 26-27, 1971.

KRUGER, R.P., HARLOW, C.A., DWYER, S.J., "AUTOMATED DIAG. 951" UTILIZING CARDIAC SIZE AND SHAPE DESCRIPTORS," PROCEEDINGS OF THE FIFTH ANNUAL PRINCETON CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, PRINCETON, NEW JERSEY, MARCH 25-26, 1971.

KRUGER, R.P., TCWNES, J.R., HALL, D.L., DWYER, S.J., "COMPUTER AIDED DIAGNOSIS VIA FEATURE EXTRACTION AND CLASSIFICATION OF RADIOGRAPHIC CARDIAC SIZE AND SHAPE DESCRIPTORS," NINTH ANNUAL SYMPOSIUM ON BIOMATHEMATICS AND COMPUTER SCIENCE IN THE LIFE SCIENCES PROCEEDINGS, HOUSTON, TEXAS, MARCH 22-24, 1971.

KUBBA, M.H., "AUTUMATIC PICTURE DETAIL DETECTION IN THE PRESENCE OF RANDOM NUISE," PROCEEDINGS OF THE IEEE, VOL. 51, NO. 11, NOVEMBER 1963, PP. 1518-1523.

KUBBA, M.H., "METHODS OF MEASURING PICTURE DETAIL IN RELATION TO TELEVISION SIGNAL BANDWIDTH COMPRESSION," UNIVERSITY OF LONDON, PH.D. THESIS, 1962.

LCHMANN, A.W., CE, M., "SIGNAL DETECTION BY CCRRELATION OF FRESNEL DIFFRACTION PATTERNS," APPLIED OPTICS, VOL. 6, NO. 12, P. 217, DECEMBER 1967.

PALAZZC, F.L., "AIRBORNE SCHEENING OF RECONNAISSANCE IMAGERY," PROCEEDINGS OF THE 19TH ANNUAL NATIONAL AERUSPACE ELECTRONICS CONFERENCE, DAYTON, DEIC, PP. 293-299, MAY 15-17, 1967.

RUSENFELD, A., "A NCNLINEAR EDGE DETECTION TECHNIQUE," PROCEECINGS OF THE IEEE, VOL. 58, NU. 5, MAY 1970, PP. 814-816.

RUSENFELD, A., THRUSTON, M., "EDGE AND CURVE DETECTION FOR VISUAL SCENE ANALYSIS," AFCRL-70-3488, COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, GSFC TECHNICAL REPORT NO. 70-128, AUGUST 1970.

SCCTT, R.M., "THE PRESENT STATE OF THE ART WITH REGARD TO DEFECTION RECOGNITION," APPLIED OPTICS, VOL. 3, NO. 1, PP. 13-15, JANUARY 1964.

SEKEY, A., "DETAIL DETECTION IN TELEVISION SIGNALS," PROCEEDINGS OF THE 1EEE, VOL. 53, NO. 1, PP. 75-76, JANUARY 1965.

SHLEZINGER, M.I., SVIATOGI, L.A., "SOLUTION OF THE PROBLEM OF RECOGNIZING STANDARD IMAGES WITH ALLOWANCE FOR SPATIAL DISCRETION," IMAGE RECOGNITION, NO. 3, Pp. 145-157, 1969, IN RUSSIAN.

VAN MEETEREN, A., WAGENAAR, W.A., "DISCRIMINATION AND IDENTIFICATION IN NCISY LINE-SCAN PICTURES," INSTITUTE FOR PERCEPTION TVC-TNO, SOESTERBERG, NETHERLANDS, 1967.

ABENC, K., HARLEY, T.J., KANAL, L.N., "CLASSIFICATION OF BINARY RANDOM PATTERNS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-11, NO. 4, OCTOBER 1965.

AEROJET-GENERAL CORPCRATION, *WEATHER SATELLITE PICTURE PATTERN RECOGNITION COMPRESSION STUDY, *FINAL REPORT DECEMBER 1966-JUNE 1967, NASA CR-89780, REPORT 1091 R-2, EL MONTE, CALIFORNÍA, JUNE 1967.

ALEXANDRIDIS, N.A., "THE HADAMARD TRANSFORM IN IMAGE PROCESSING AND PATTERN RECOGNITION," UNIVERSITY OF CALIFORNIA AT LOS ANGELES, REPORT NO. 70-22M, MARCH 1970.

ALEXANDRIDIS, N.A., "WALSH-HADAMARD TRANSFORMATIONS IN IMAGE PROCESSING," UCLA-ENG-7108, UNIVERSITY OF CALIFORNIA, LOS ANGELFS, SCHOOL OF ENGINEERING AND APPLIED SCIENCES, MARCH 1971.

ANDREWS, H.C., MAUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES BY USE OF THE FOURIER DOMAIN," ACADEMIC PRESS, INC., NEW YORK, 1969.

ANDREWS, H.C., "MULTIDIMENSIONAL ROTATIONS IN FEATURE SELECTION," IEEE TRANS-ACTIONS ON COMPUTERS, VOL. C-20, NO. 9, P. 1045, SEPTEMBER 1971.

ARCELLI, C., LEVIALDI, S., "PICTURE PROCESSING AND OVERLAPPING BLOBS," IEEE TRANSACTIONS UN COMPUTERS, VOL. C-20, NO. 9, P. 1111, SEPTEMBER 1971.

BABCCCK, T.R., RICHMOND, G.E., "APPLICATION OF PERCEPTIONS IN PHOTOINTERPRETATION," CORNELL AERONAUTICAL LABORATORY, INCORPORATED, BUFFALO, NEW YORK, FINAL REPORT, JULY 1964.

BARTELS, P.H., BELLAMY, J., "SELF-OPTIMIZING, SELF-LEARNING SYSTEM IN PICTORIAL PATTERN RECOGNITION," APPLIED OPTICS, VOL. 9, NO. 11, P. 2453, NOVEMBER 1970.

BRUWN, R.M., "ON-LINE COMPUTER RECOGNITION OF HANDPRINTED CHARACTERS," IEEE TRANSACTIONS ON ELECTRONIC COMPUTERS, VOL. EC-13, NO. 6, PP. 750-752, DECEMBER 1964.

CARL, J.W., "GENERALIZED HARMONIC ANALYSIS FOR PATTERN RECOGNITION: A BIOLOGICALLY DERIVED MODEL," THESIS FOR AIR FORCE INSTITUTE OF TECHNOLOGY, SCHOOL OF ENGINEERING, GE/BE/TOS-1, WRIGHT-PATTERSON AIR FORCE BASE, UHIO, 59 P., SEPTEMBER 1969.

DEUTSCH, S., "A TECHNIQUE FOR FEATURE EXTRACTION IN VISUAL PATTERN RECOGNITION," ABSTRACT, PRESENTED AT SYMPOSIUM ON PERTINENT CONCEPTS IN COMPUTER GRAPHICS, URBANA, ILLINOIS, MARCH 31, 1969.

DOLYATCVSKII, U.A., ET AL., "AN ALGORITHM OF SUCCESSIVE RECOGNITION OF IMAGES," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AFB, DHIO, FOREIGN TECHNOLOGY DIVISION, DECEMBER 1969.

DONALDSON: R.W., TOUSSOINT, G.T., MUSE OF CONTEXTUAL CONSTRAINTS IN RECOGNITION OF CCNTOUR-TRACED HANDPRINTED CHARACTERS, IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 8, P. 1096, AUGUST 1971.

FAYN, V.S., "IDENTIFICATION OF IMAGES," AIR FCRCE SYSTEMS CCMMAND, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, FOREIGN TECHNOLOGY DIVISION, SEPTEMBER 1967.

FAYN, V.S., "IMAGE RECUGNITION," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., MAY 1967.

FISHER, G.L., ET.AL., "OPTICAL CHARACTER RECUGNITION," WASHINGTON, D.C., SPAR-TAN, 1962.

FUKUNAGA, K., KUDNTY, W.L.G., "APPLICATION OF THE KARHUNEN-LOFVE EXP'NSICN TO FEATURE SELECTION AND ORDERING," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-19, NO. 4, P. 311, APRIL 1970.

GLEZER, V.O., NEVSKAYA, A.A., SEREDINSKTY, A.V., TSICKKERMAN, I.I., "UN THE IDENTIFICATION OF OBJECTS IN THE VISUAL SYSTEM," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., BIOLOGICAL ASPECTS OF CYBERNETICS, PP. 225-241, JUNE 1963.

GLCVAZKY, A., "DETERMINATION OF REDUNDANCIES IN A SET OF PATTERNS," IFEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, NO. 4, DECEMBER 1956, PP. 151-153

HALL, E.L., KRUGER, R.P., DWYER, S.J., LUDWICK, G.S., AUSHERMAN, D.A., "MEASUREMENT SELECTION TECHNIQUES APPLIED TO DIGITAL IMAGES," ARGONNE NATIONAL LABS, IEEE SYMPOSIUM ON FEATURE EXTRACTION RECORD, OCTOBER 5-7, 1970.

HALL, E.L., KRUGER, R.P., DWYER, S.J., ET. AL., "A SURVEY OF PREPROCESSING AND FEATURE EXTRACTION TECHNIQUES FOR RADIOGRAPHIC IMAGES," IEEE TRANSMISSION ON COMPUTERS, VOL. C-20, NO. 9, SEPTEMBER 1971, PP. 1032-1045.

HARLEY, T.J., KANAL, L.V., "RECOGNIZING PATTERNS IN PHOTOGRAPHS," APPLIED OPTICS, VOL. 4, NO. 10, P. 1350, OCTOBER 1965.

HARRIS, J.L., "INFORMATION EXTRACTION FROM DIFFRACTION LIMITED IMAGERY," PATTERN RECOGNITION, VOL. 2, 1970, Pp. 69-77.

HAWKINS, J.K., "PARALLEL ELECTRO-UPTICAL PICTURE PROCESSING," PICTORIAL PATTERN RECCGNITION, WASHINGTON, D.C., THOMPSON, 1968.

HEMANI, H., "QUALITATIVE PATTERN RECOGNITION VIA OPTICAL SYSTEMS," WESTERN ELECTRONIC SHOW AND CONVENTION, LOS ANGELES, CALIFORNIA, 1968.

HERBST, N.B., WILL, P.M., "DESIGN OF AN EXPERIMENTAL LABORATURY FOR PATTERN RECOGNITION AND SIGNAL PROCESSING," IBM RESEARCH REPURT, NO. RC2619, SEPTEMBER 1969.

HORWITZ, L.P., SHELTON: G.L., "PATTERN RECOGNITION USING AUTUCORRELATION," PRO-CEEDINGS OF THE IRE, VOL. 49, NO. 1, PP. 175-195, JANUARY 1961.

HU, P.K., "VISUAL PATTERN RECOGNITION BY MOMENT VARIANTS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 2, P. 174, FEBRUARY 1962.

HU, Y.C., AGRAWALA, A.K., "ON PATTERN CLASSIFICATION ALGORITHMS: INTRODUCTION AND SURVEY," PROCEEDINGS OF THE IEEE, VOL. 56, PP. 2101-2114, DECEMBER 1968,

IVAKHNENKO, O.G., LEMISHEVSKY, G.O., RENTSKY, V.I., MALGURITHM FOR PERCEPTION-TYPE RECOGNITION SYSTEMS WITH AN INPUT CORRELATOR, MALGURITHM FOR PERCEPTION-PP. 7-21, 1966, IN UKRANIAN.

JONES, C.M., "FOURIER-TRANSFORM METHODS FOR PATTERN RECOGNITION," AIR FORCE CAM-

BRIDGE RESEARCH LABORATORY. REPORT AFORL-62-512, JULY 1962.

And the second

JUNES, C.M., KELLAHER, J.P., DILLARD, J.M., BERNSTEIN, S.L., "FCURIER-TRANSFORM METHODS FOR PATTERN RECOGNITION," AIR FORCE, CAMBRIDGE RESEARCH LABORATORY, REPORT AFCRL-62-512, JULY 1962, ELECTRONICS RESEARCH CIRECTCRATE, BEDFORD, MASSACHUSETTS.

JULESZ, B., "VISUAL PATTERN DISCRIMINATION," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 2, PP. 84-92, FEBRUARY 1962.

KANAL, L., MOBJECT RECOGNITION IN AERIAL PHOTOGRAPHY-EXPERIMENTAL COMPARISON OF SOME STATISTICAL TECHNIQUES, MINTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, IEEE TRANSACTIONS ON INFORMATION THEORY, SAN REMO, ITALY, SEPTEMBER 1967.

KANAL, L.N., "PATTERN RECOGNITION," WASHINGTON, D.C., THUMPSON, 1968.

KIRSCH, R.A., "COMPUTER INTERPRETATION OF ENGLISH TEXT AND PICTURE PATTERNS,"
IEEE TRANSACTIONS ON ELECTRONIC COMPUTERS, VOL. EC-13, PP. 363-376, AUGUST 1964.

KISHNER, S.J., "FEATURE EXTRACTION USING GOLAY LOGIC," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CURPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 7-1 TO 7-8.

KLINGER, A., KUCHMAN, A., ALEXANDRIDIS, N.A., "COMPUTER ANALYSIS OF CHROMOSOME PATTERNS: FEATURE-ENCODING FOR FLEXIBLE MASKING," IEEE TRANSACTIONS ON COMPUTERS SPECIAL ISSUE ON FEATURE EXTRACTION AND SELECTION, SEPTEMBER 1971.

KULEM, P.A., EDEN, M., "RECOGNIZING PATTERNS," CAMBRIDGE, MASSACHUSETTS, MASSACHUSETTS INSTITUTE OF TECHNOLOGY PRESS, 1968.

KOVALEVSKY, V.A., "PATTERN RECOGNITION: HEURISTICS OR SCIENCE?," ADVANCES IN INFORMATION SYSTEMS SCIENCE, VUL. 3, NEW YORK, PLENIUM, 1970.

KUZLAY, D., "FEATURE EXTRACTION IN AN OPTICAL CHARACTER RECCGNITION MACHINE," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 9, P. 1063, SEPTEMBER 1971.

KKAKAUER, L.J., "COMPUTER ANALYSIS OF VISUAL PROPERTIES OF CURVED OBJECTS," MACTR-82, MIT, CAMBRIDGE, MASSACHUSETTS, MAY 1971.

KRASILNIKOV, N.N., "CALCULATION OF THE PROBABILITY OF RECOGNITION OF A HALF-TONE IMAGE WHEN TRANSMITTED OVER A CHANNEL WITH NOISE," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., 1966.

KULAKCVSKAIA, N.S., "IMAGE RECOGNITION," KIBERNETIKA I VYCHISLITENAIA TEKHNIKA, NO. 2, IN RUSSIAN, 1969.

LEESE, J.A., "QUANTITATIVE INTERPRETATION OF LUM-LEVEL CUMULIFORM CLOUC PATTERNS AS SEEN ON METEOROLOGICAL SATELLITE VIDEOGRAPHS," AD 464606, JULY 1964.

LENDARIS, G.G., STANLEY, G.L., "DIFFRACTION-PATTERN SAMPLING FOR AUTCMATIC PATTERN RECOGNITION," SCCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, SEMINAR IN DEPTH, VCL. 18, PP. 127-153, 1969.

LEVINE, M.D., "FEATURE EXTRACTION: A SURVEY," PROCEEDINGS OF THE IEFE, Vol. 57, PP. 1391-1407, AUGUST 1969.

LOWITZ, G.E., "DYNAMIC SHAPE RECOGNITION." PROCEEDINGS OF THE FIRST ROCK ISLAND ARSENAL BIUMECHANICS SYMPOSIUM, AUGUSTANA COLLEGE, RUCK ISLAND, ILLINOIS, PP. 95-104, APRIL 1967.

NAGY, G., "STATE OF THE ART IN PATTERN RECOGNITION," PROCEEDINGS OF THE IEEE, VOL. 56, PP. 836-862, MAY 1968.

PALGEN, J.J.O., "INTERNATIONAL BIBLIOGRAPHY OF PICTORIAL PATTERN RECOGNITION," ALLIED RESEARCH ASSOCIATES, INC., CONCORD, MASSACHUSETTS, APRIL 1970.

RADCY, C.H., "PATTERN RECOGNITION BY FOURIER SERIES TRANSFORMATIONS," THESIS FOR AIR FURCE INSTITUTE OF TECHNOLOGY, SCHOOL OF ENGINEERING, GE/EE/67A-11, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, MARCH 1967.

RUMANOV, V.P., "A RECOGNITION SYSTEM BASED ON ANALYSIS OF THE ORIENTATION OF LUCAL SEGMENTS OF AN IMAGE," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., TECHNICAL CYBERNETICS, NO. 6, PP. 178-186, 1966.

RUSENFELD, A., HUANG, H.K., SCHNEIDER, V.B., "AN APPLICATION OF CLUSTER DETECTION TO TEXT AND PICTURE PROCESSING," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-15, NO. 6, P. 665, NOVEMBER 1969.

ROSENFELD, A., JOHNSTON, E., "SHAPE SYNTHESIS, I," AFCRL-70-0502, AIR FORCE CAMBRIDGE RESEARCH LABORATORY, COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, SEPTEMBER 1970.

RUSHFORTH, C.K., "RECOGNIZING "ATTERNS IN PHOTOGRAPHS," APPLIED UPTICS, VCL. 4, NO. 4, PP. 379-383, APRIL 1965.

BUTDVITZ, D., "DATA STRUCTURES FUR OPERATIONS ON DIGITAL IMAGES," PICTORIAL PATTERN RECOGNITION, THOMPSON, WASHINGTON, D.C., PP. 105-132, 1968.

SCHREIBER, W.F.; HUANG, T.S., TRETIAK, D.J., "CONTOUR CODING OF IMAGES," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GURDON AND BREACH, NEW YORK, PART 3, DECEMBER 1971.

SHERMAN, H., "A QUASI-TOPOLOGICAL METHOD FOR THE RECOGNITION OF LINE PATTERNS," PRICEECINGS OF THE INTERNATIONAL CONFERENCE ON INFORMATION PROCESSING, PARIS, UNESCO, PP. 2.2-238, JUNE 1959.

SHIND, C., KLINE, R.M., "A COMPUTER-DIRECTED SYSTEM FOR MEASURING DISTANCE BETWEEN EDGES IN OPTICAL IMAGES," TECHNICAL REPORT NO. 10, COMPUTER SYS EM LAB, WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI, OCTOBER 1568.

SKLANSKY, J., "RECUGNITION OF CONVEX BLOBS," TECHNICAL REPORT TP-69-3, UNIVER-SITY OF CALIFORNIA, IRVINE, CALIFORNIA, JULY 1969.

SKLANSKY, J., "THE UCI PATTERN RECOGNITION PROJECT," INTERIM REPORT IP-71-3, SCHOOL OF ENGINEERING, UNIVERSITY OF CALIFORNIA, IRVINE, SEPTEMBER 1971. 1971.

SKLANSKY, J. MERRYMAN, P., MA CONTINUOUS TWO CIMENSIUNAL MODEL OF CISCRETE ONE CIMENSIONAL THRESHOLD LEARNING, TECHNICAL REPORT TP-70-4, UNIVERSITY OF CALIFORNIA AT IRVINE, SEPTEMBER 1970.

SKLANSKY, J., NAHIN, P.J., MA PARALLEL MECHANISM FOR PECOGNIZING SILHOUETTES,"
TECHNICAL REPORT TP-70-6, UNIVERSITY OF CALIFCRMIA, IRVINE, CALIFORNIA, NOVEMBER 1970.

SMITH, F.W., WRIGHT, M.H., "AUTOMATIC SHIP PHOTO INTERPRETATION BY THE METHOD OF MOMENTS," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 9, P. 1099, SEPTEMBER 1971.

SNIVELY, J.W., "A PARAMETER EXTRACTION TECHNIQUE." NASA, GOCDARD SPACE FLIGHT CENTER, CONFERENCE ON ADAPTIVE TELEMETRY, GREENBELT, MARYLAND, NASA TM X-55747; X-731-67-7; JANUARY 1967, Pp. 117-127.

TALLMAN, O.H., "THE CLASSIFICATION OF VISUAL IMAGES BY SPATIAL FILTERING," AIR FORCE INSTITUTE OF TECHNOLOGY, SCHOOL OF ENGINEERING, WRIGHT-PATTERSON AFB, OHIO, JUNE 1969.

TOU, J.T., MENGINEERING PRINCIPLES OF PATTERN RECOGNITION, ADVANCES IN INFOR-MATICN SYSTEMS SCIENCE, VOL. 1, NEW YORK, PLENIUM, 1969.

TRABKA, E.A., ROETLING, P.G., "IMAGE TRANSFORMATIONS FOR PATTERN RECOGNITION USING INCUMERENT ILLUMINATION AND BIPOLAR APERTURE MASKS," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 54, NO. 10, PP. 1242-1252, OCTOBER 1964.

TURNER, L.E., "A SYSTEM FOR THE AUTOMATIC RECOGNITION OF MOVING PATTERNS,"
IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-12, PP. 195-205, APRIL 1956.

VAGIN, YU., V., MON ALGORITHMIZATION OF THE IMAGE RECCGNITION PROCESS." (RANSLATED INTO ENGLISH OF RUSSIAN PUBLICATION, AUTOMATICHESKOE, MOSCOW, PP. 81-85, 1967.

VASNIK, V.V., "TEACHING IMAGE RECUGNITION TO MACHINES BY THE METHOD OF GENERALIZED PORTRAITS," SELF-ADAPTIVE SYSTEMS, IMAGE RECOGNITION, RELAY SYSTEMS AND FINITE AUTOMATONS, ALL-UNION CONFERENCE ON AUTOMATIC CONTROL. ENGINEERING CYBERNETICS, SEPTEMBER 20-26, 1965.

VIGILIONE, S.S., "APPLICATIONS OF PATTERN RECOGNITION TECHNOLOGY," MATHEMATICS IN SCIENCE AND ENGINEERING, VOL. 66, Pp. 115-162, 1970.

VIGLIONE, S.S., "PATTERN RECOGNITION SYSTEMS," SECIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, SEMIANNUAL TECHNICAL CONFERENCE AND EQUIPMENT EXHIBIT, LOS ANGELES, CALIFORNIA, UCTOBER 2-7, 1966.

WALUKIEWICZ, S., "EFFECTIVE ALGORITHMS OF IMAGE RECOGNITION," INSTYTUT AUTO-MATYKI, PRACE, IN POLISH, NO. 78, Pp. 27-46, 1969.

WATARABE, S., "FEATURE COMPRESSION," IN ADVANCES IN INFORMATION SYSTEMS SCIENCE, Vol. 3, NEW YORK, PLENIUM, 1970.

DI PENTIMA: 4.F., "AUTOMATION IN PHOTO INTERPRETATION," PHOTOGRAMMETRIA, VOL. 26, PP. 3m/-182, DECEMBER 1970.

GOLDSTEIN, A.J., HARMON, L.U., LESK, A.B., "IDENTIFICATION OF HUMAN FACES," PRO-CEEDINGS OF THE IEEE, VOL. 59, NO. 5, P. 748, MAY 1971.

GOTTLIEB, P., "A TELFVISION SCANNING SCHEME FOR A DETECTOR-NOISE-LIMITED SYSTEM," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-14, NO. 3, MAY, 1968, PP. 428-433.

GOURIET, G.G., MA METHOD OF MEASURING TELEVISION PICTURE CETAIL, " ELECTRONIC ENGINEERING, VOL. 24, JULY, 1952, Pp. 308-311.

GUZMAN, A., "ANALYSIS OF SCENES BY COMPUTER-RECOGNITION AND INDENTIFICATION OF OBJECTS," SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES PISA-TIRRENIA, AUGUST 1968.

GUZMAN, A., "SCENE ANALYSIS USING THE CONCEPT OF MODEL," AD 652017, JANUARY 1967.

HELSTRCM, C.W., "DETECTION OF INCOHERENT OBJECTS BY A QUANTUM-LIMITED OPTICAL SYSTEM," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 59, NO. 8, Pp. 924-936. AUGUST 1969.

HELSTROM, C.W., "DETECTION AND RESOLUTION OF INCCHERENT DEJECTS BY A BACKCROUNG-LIMITED OPTICAL SYSTEM," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 2, Pp. 164-176, FEBRUARY 1969.

JOSEPH. R.D., KELLY, P.M., VIGLIONE, S.S., "AN OPTICAL DECISION FILTER," PRO-CEEDINGS OF THE IEEE, VOL. 51, NO. 8, AUGUST 1963, PP. 1058-1118.

KOVALEVSKY, V.A., "SEQUENTIAL OPTIMIZATION IN IMAGE RECOGNITION PROBLEMS," IMAGE RECOGNITION, NO. 3, PP. 6-13, IN RUSSIAN, 1969.

'IRTON, J.N., RUSENFELD, A., "TWO PROGRAMS FOR DELINEATING 'SOLID' AND 'BRCKEN' REGIONS IN AN IMAGE," CUMPUTER SCIENCE CENTER, MARYLAND UNIVERSITY, COLLEGE PARK, JANUARY 1965.

PFALTZ, J.L., ROSENFELD, A., "COMPUTER REPRESENTATION OF PLANAR REGIONS BY THEIR SKELETUNS," ASSOCIATION OF COMPUTING MACHINERY, VOL. 10, Pp. 118-125, FEBRUARY 1967.

PFALTZ, J.L., SNIVELY, J.W., ROSENFELD, A., "LOCAL AND GLOBAL PICTURE PROCESSING BY COMPUTER," PICTURIAL PATTERN RECOGNITION, THUMPSON, WASHINGTON, D.C., PP. 353-3/1, 1968.

RABINOWITZ, A.D., "ON THE MATCHING OF POINTS IN DIFFERENT PERSPECTIVE PROJECTIONS OF THE SAME SUCHECT," NEW YORK UNIVERSITY, DEPARTMENT OF ELECTRICAL ENGINEERING, NEW YORK, DECEMBER 1969.

ROSENFELD. A., JUHNSTON, E., "SHAPF SYNTHESIS, I." AFORL-70-2502, AIR FORCE CAMBRIDGE RESEARCH LABORATURY, COMPUNCT SCIENCE CENTER, UNIVERSITY OF MAPYLANC, SEPTEMBER 1970.

RUSSELL, F.D., GODDMAN, J.W., "NONREDUNDANT ARPAYS AND POSTDETECTION PROCESSING FOR ABERRATION COMPENSATION IN INCOHERENT IMAGING," JCURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 61, NO. 2, FEBRUARY 1971, PP. 182-191.

VAIUSHTEIN, V.S., "ALGORITHM FOR ISULATING IMAGE CHARACTERISTICS," AIR FORCE SYSTEMS CUMMANDS, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, NOVEMBER 1968.

DINEEN, G.P., "PROGRAMMING PATTERN RECOGNITION," PROCEEDINGS WESTERN JUINT CUMPUTER CONFERENCE, 1955.

GRANGER, E.M., "RESTORATION OF IMAGES DEGRADED BY SPATIALLY VARYING SMFAR," IN EVALUATION OF MCTICN-DEGRADED IMAGES, NASA SEMINAR, PP. 161-165, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

IISAKA, J., WATANABE, F., KAIHARA, S., TAKAGI, M., NAKATANI, Y., "INTERACTIVE BIGHEDICAL IMAGE PROCESSING SYSTEM," THE PROCEEDINGS OF THE 10TH CONVENTION OF THE JAPANESE SUCIETY UF MEDICAL AND BIOLOGICAL ENGINEERING, 1-5-7, APRIL 1971.

LEDLEY, R.S., JACOBSEN, J., BELSON, M., "BUGSYS-A PROGRAMMING SYSTEM FOR PICTURE PROCESSING-NOT FOR DEBUGGING," AMERICAN COMPUTING MACHINERY, VCL. 9, PP. 79-84, FEBRUARY 1966.

WILSON, G.D., "MUDULAR COMPUTER PROGRAMS FOR IMAGE PROCESSING AND MANIPULATION," AIR FORCE CAMBRIDGE RESEARCH LABS, BEDFORD: MASSACHUSETTS, DATA SCIENCES LAB, MAY 1969.

ALTEMUS, W.C., SCHAPHORST, R.A., "DATA CLNVERSION EQUIPMENT," PHILCO CORPORATION REPORT NO. ASD TOR 62-392, AD-275 514, MAY 1962.

BASINGER, J.D., HARSHBARGER, J.H., "TEST FVALUATION OF ELECTRONIC IMAGE GENERATION AND PROJECTION DEVICES," SYSTEMS RESEARCH LABORATORIES, INCORPORATED, DAYTON, OHIO, FINAL REPORT AMRL-TR-65-116, VOL. III, JULY 1965.

BECHTOLD, W.R., HOCHMAN, D., "GENERAL-FURPOSE VERSUS SPECIAL-PURPOSE COMPUTERS FOR CATA COMPRESSION," WESTERN ELECTRONIC SHOW AND CONVENTION, SAN FRANCISCO, CALIFORNIA, PP. 6/4-1 TO 6/4-11, AUGUST 1967.

BUTI, E., "THE PAX II PICTURE PROCESSING SYSTEM," COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, TECHNICAL REPORT 68-67, NSG-398, PH-43-67 1099, MAY 1968

CASASONI, D.P., MAN ON-LINE ELECTRO-OPTICAL VIDEO PROCESSING SYSTEM, M PH.E. THESIS, UNIVERSITY OF ILLINOIS, URBANA, 1969.

CONSIDINE, P., PROFIU, R.A., MIMAGE PROCESSING WITH IN-LINE OPTICAL SYSTEMS, SPIE IMAGE INFORMATION RECOVERY SEMINAR PROCEEDINGS, VOL. 16, PP. 113-119, UCTCBER 1968.

CUNNIFF, J.F., "GENERATION AND RECORDING OF SAMPLED IMAGES," A SYMPOSIUM CN SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 9-), TO 9-14.

Management of the second

CUNNINGHAM, J.E., FT AL., "COMPUTER PROCESSING CHAIN," MIT RESEARCH LABORATORY UF ELECTRONICS, REPORT NO. 62, JULY 1961, Pp. 155-156.

DINN, C.F., WINTER, D.A., TRENHOLM, B.G., "CINTEL-COMPUTER INTERFACE FOR TELE-VISION," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NC. 8, P. 1091, AUGUST 1971.

DISHLER, J.J., "VISUAL SENSUR SYSTEMS IN SPACE," IEEE TRANSACTIONS ON COMM-UNICATION TECHNOLOGY, VOL. COM-15, NO. 6, DECEMBER 1967, PP. 824-834.

ESCHELBACH, R.E., "A UNIQUE TECHNIQUE FOR THE REAL-TIME DOTICA" PROCESSING OF SCANNED IMAGES, " MAGNAVOX RESEARCH LABS, TORRANCE, CALIFORNIA, DECEMBER 1968.

GRAHAM, R.E., KELLY, J.L., "A COMPUTER SIMULATION CHAIN FOR RESEARCH ON PICTURE CODING," IRE WESCON CONVENTION RECORD, PART 4, 1958, PP. 41-46.

GRUNEMANN, U.F., "PICTURE RECORDING AND REPRODUCING EQUIPMENT," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 70, JULY 1963, P. 244, CAMBRIDGE, MASSA-CHUSETIS.

GUIGNON, J.E., KLINE, R.M., "DEVELOPMENT OF AN ON-LINE IMAGE PROCESSING SYSTEM FOR THE LINE," WASHINGTON UNIVERSITY, ST. LOUIS, MISSCURI, COMPUTER SYSTEMS LAB, FEBLARY 1968.

HAWKINS, J.K., MUNSEY, C.J., MIMAGE PROCESSING BY ELECTRON-CPTICAL TECHNIQUES, MIDURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, PP. 914-918, JULY 1967.

HAWKINS, J.K., MUNSEY, C.J., "A NATURAL IMAGE COMPUTER," OPTICAL PROCESSING OF INFORMATION, SPARTAN, PP. 233-245, 1963.

HEINZ, R.A., ARTMAN, J.O., LEE, S.H., "MATRIX MULTIPLICATION BY OPTICAL METHODS," APPLIED OPTICS, VOL. 9, NO. 9, P. 2161, SEPTEMBER 1970.

HOLDERMAN, F., "IMAGE PROCESSING-STATE OF THE ART, AND A SPECIAL MACHINE SYSTEM FOR IMAGE PROCESSING," SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISA-TIRRENIA, AUGUST 1968.

HUANG, T.S., MTHE COMBINED USE OF DIGITAL COMPUTERS AND COHERENT OPTICS IN IMAGE PROCESSING, SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

ICHIOKA, Y., 12UMI, M., SUZUKI, T., "DIGITAL OPTICAL INFORMATION PROCESSING BY A MICDLE CLASS COMPUTER," DEPARTMENT OF APPLIED PHYSICS, FACULTY OF ENGINEERING, OSAKA UNIVERSITY, SUITA, OSAKA, JAPAN, 1967.

ICHIOKA, Y., IZUMI, M., SUZUKI, T., "HALFTONE PLOTTER AND ITS APPLICATIONS TO DIGITAL OPTICAL INFORMATION PROCESSING," APPLIED OPTICS, VOL. 8, NO. 12, DECEMBER 1968, Pp. 2461-2471.

ICHIOKA, Y., IZUMI, M., SUZUKI, T., "SCANNING HALFTONE PLCTTER AND COMPUTER-GENERATED CONTINUOUS-TONE HOLOGRAM," APPLIED OPTICS, VOL. 10, NO. 2, P. 403, FEBRUARY 1971.

IISAKA, J., WATANABE, F., KAIHARA, S., TAKAGI, M., NAKATANI, Y., "INTERACTIVE BIGHEDICAL IMAGE PROCESSING SYSTEM," THE PROCEEDINGS OF THE 1CTH CONVENTION OF THE JAPANESE SUCIETY OF MEDICAL AND BIOLOGICAL ENGINEERING, 1-5-7, APRIL 1971.

KARNEFF, S., "PICTURE LANGUAGE MACHINE." NEW YORK, ACADEMIC PRESS, 1970.

KOVASZNAY, L.S.G., ARMAN, A., *OPTICAL AUTOCORRELATION MEASUREMENT OF TWO-DI-MENSIONAL RANDOM PATTERNS, ** RESEARCH SCIENCE INSTRUMENT, VOL. 28, OCTUBER 1957, AD 144525, PP. 793-797.

LUH, G.M., "SCADS-A REAL-TIME SIMULATION CONTROL AND CATA SYSTEM FOR BICASTRONAUTICS TESTING AND SIMULATION," AIAA/AFLC/ASD SUPPORT FOR MANNEC FLIGHT CONFERENCE, DAYTON, UHIO, APRIL 1965.

MACKAY, N.A.M., "AN ELECTRU UPTICAL CORRELATOR FOR A TWO-CIMENSIONAL ARRAY USING INCUHERENT LIGHT," PROCEEDINGS OF THE IEEE, VOL. 58, NO. 6, PP. 952-953, JUNE 1970.

MACLEDD, 1.D.G., "PICTORIAL UUTPUT WITH A LINE PRINTER," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-19, NO. 2, P. 160, FEBRUARY 1970.

MARTIN, F.F., SHELTON, C.T., "MUDIFYING VIDICON CAMERA CHAIN FOR SLOW-SCAN TELEVISION SYSTEMS," UPTUELECTRONIC DEVICES AND CIRCUITS, NEW YORK, MCGRAW-HILL PP. 123-125, 1964.

MOCRE, R.T., STARK, M.C., CAHN, L., "DIGITIZING PICTORIAL INFORMATION WITH A PRECISION OPTICAL SCANNER," JUINT ANNUAL MEETING, AMERICAN SOCIETY OF PHOTOGRAMMETRY AND THE AMERICAN CONGRESS ON SURVEYING AND MAPPING, WASHINGTON, D.C., 1964.

MUNRCE: R.C., DWYER, S.J., "APPLICATION OF A FAST LOGARITHM CONVERSION TO IMAGE ANALYSIS," 22ND ANNUAL SOUTHWESTERN CONFERENCE AND EXHIBITION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, DALLAS, TEXAS, TECHNICAL PAPERS: PP. 135-138, APRIL 1970.

ONDE, M., TAKAGI, M., MASUMOTO, T., MA SIMPLE INPUT EQUIPMENT FOR IMAGE PROCESSING, INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY OF TOKYO, JAPAN, 1971.

ONCE, M., TAKAGI, M.: YAMADA, H., MASUMGTO, T., "A SIMPLE INPUT EQUIPMENT FOR IMAGE PROCESSING," THE PROCEEDINGS OF THE NATIONAL CONVENTION OF THE INSTITUTE OF TELEVISION ENGINEERS OF JAPAN, 10-5, JUNE 1971.

POPPLEBAUM, W.J., "ADAPTIVE UN-LINE FOURIER TRANSFORM," PICTORIAL PATTERN RECOGNITION, WASHINGTON, D.C., THUMPSON, 1968.

POTTER, J.B., "ON THE USE OF THE VIDICON CAMERA TUBE AS A VIDEU STORAGE DEVICE." PROCEECINGS OF THE IRE AUSTRALIA, VOL. 24, NO. 12, DECEMBER 1963, PP. 855-865.

RADIATION, INCORPORATED, "REDUNDANCY REDUCTION DEVICE," AU 602765; DCCLMENTARY REPORT NO. AL-TCR-64-10, RADIATION, INCORPORATED, MELBOURNE, FLCRIDA, MAY 1964, P. 42.

RAWSCN, E.G., $^{\rm H}3-D$ COMPUTER-GENERATED MOVIES USING A VARIFOCAL MIRROR, $^{\rm H}$ APPLIED OPTICS, VOL. 7, NO. 8, P. 1505, AUGUST 1968.

ROSSCL. L., "GENERATION OF HALFTONES BY COMPUTER-CONTROLLED MICROFILM RECORDER," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 6, JUNE 1971, Pp. 662-664.

ROUGELCT, R.S., "DIGITALLY COMPUTED IMAGES FOR VISUAL SIGULATION," GENERAL ELFC-TRIC ELECTRONICS LABORATURY, SYRACUSE, NEW YORK, AUGUST 1969. RUSSELL, J.K., "A VISUAL IMAGE PROCESSOR," IEEF TRANSACTIONS ON COMPUTERS, VOL. C-17, NO. 7, P. 635, JULY 1968.

SAUNCERS, B.G., "STEREOSCOPIC DRAWING BY COMPUTER - IS IT URTHUSCOPIC?" APPLIED OPTICS, VOL. 7, NO. 8, P. 1499, AUGUST 1968.

SCHAEFER, D.H., "THE IMP STATISTICS COMPUTER: AN EXAMPLE CF ON BOARD DATA PRO-CESSING," PROCEEDINGS OF THE 7TH INTERNATIONAL SYMPOSIUM ON SPACE TECHNOLOGY AND SCIENCE, TUKYO, 1967, PP. 433-436.

SCHAEFER, D.H., SNIVELY, J.W., "ON-BOARD PLASPA DATA PROCESSOF," REVIEW OF SCIENTIFIC INSTRUMENTS, VOL. 39, NO. 4, 1968, PP. 452-458.

SCHREIBER, W.F., "THE EFFECT OF SCANNING SPEED ON THE SIGNAL/NUISE RATIO OF CAMERA TUBES," PROCEEDINGS OF THE IEEE, VOL. 52, NO. 2, FEBRUARY 1964, P. 21%.

SCHRCEDER, M.R., "IMAGES FROM COMPUTERS," IEEE SPECTRUM, MARCH 1969, PP. 66-78.

SCCTT, F., MA LINE SCAN IMAGE GENERATOR, M PHOTOGRAPHIC SCIENCE AND ENGINFERING, VGL. 2, NO. 5, SEPTEMBER-OCTOBER 1967.

SHACK, R.V., "IMAGE PROCESSING BY AN OPTICAL ANALOG DEVICE," PATTERN RECOCNITION, VOL. 2, 1970, PP. 123-126.

SHELDAHL, S.A., "CCPPARISON OF HARDWARE REQUIREMENTS FOR PULYNUMIAL DATA COMPRESSIONS," PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1968.

SHIBATA, K., OHIRA, T., ET AL., "PCM TERMINAL EQUIPMENT FOR BANDWICTH COMPRESSION OF TELEVISION SIGNAL," 1969 JUINT CONVENTION OF THE I.E.C.E. OF JAPAN,

SHCLLO, T.R., TEITELMAN, W., "A GENERAL PURPOST VIDEO INPLT DEVICE FOR A CIGITAL COMPUTER," BOLT, BERANEK, AND NEWMAN, INCORPORATED, CAMBRIDGE, MASSACHUSETTS, FINAL TECHNICAL REPORT, JULY 1967.

SINNAMON, L.D., OWENS, R.F., VAN DUINEN, R.W., "SOCRATES-ADAPTIVE IMAGE PROCESSOR," SUCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

SITTCN, G.A., "AN EXPERIMENTAL VIDEO IMAGE PROCESSING LABGRATCRY," IBM PUBLICATION NO. 320.2415, JULY 1971.

SMITH, H.A., "IMPROVEMENT OF THE RESOLUTION OF A LINEAR SCANNING DEVICE," JOUR-NAL CF APPLIED MATH, VOL. 14, PP. 23-40, JANUARY 1966.

STAMPS, G.M., RESSLER, H.C., "A VERY HIGH-SPEED FACSIMILE RECERDER," IRE TRANSACTIONS ON COMMUNICATIONS SYSTEMS, VOLUME CS-7, NO. 4, PP. 257-262, DECEMBER 1959.

STANHUGD, R.K., "PRELIMINARY STUDY OF A DIGITAL TELEVISION SYSTEM FOR USE ON THE APOLLO SPACECRAFT," NASA LANGLEY FIELD, REPORT NO. NASA WP-1012, MARCH, 1961.

STUCKI, P., "GENERATION OF GREY TONES BY COMPUTER FOR SIMULATION OF VISUAL IN-FURMATION SYSTEMS, " IEEE TRANSACTIONS UN COMPUTERS, VOL. C-18, NO. 7, P. 642, JULY 1969.

SWINCELL, W., "A NONCUHERENT OPTICAL ANALUG IMAGE PROCESSOR," APPLIED OPTICS, VOL. 9, NO. 11, P. 2459, NOVEMBER 1970.

TAKAGI, M., MINPUT AND DUTPUT EQUIPMENTS FOR IMAGE PROCESSING, FIFTH IBM COMPUTER SCIENCE SYMPOSIUM, SECTION A-3, OCTOBER 9, 1971.

TAKAGI, M., TAKAHASHI, M., MEQUIPMENTS FOR IMAGE PRUCESSING, IMAGE PROCESSING FOR MEDICINE (2), THE JOURNAL OF CLINICAL SCIENCE, 6. 8, PP. 1064-1069, AUGUST 1970.

TRCXEL, D.E., SCHREIBER, W.E., SERTZ, C.L., "WIREPHOTO STANDARDS CONVERTER," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VCLUME COM-17, NO. 5, PP. 544-554, OCTOBER 1969.

VESPER, R.M., RCSENZWEIG, D.N., "SAMPLED IMAGE LABORATORIES AND FACILITIES," A SYMPOSIUM UN SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 10-1 TO 10-8.

VIDAL, J.J., KOLUDJIAN, G.H., "EVALUATION OF FLYING SPOT SCANNERS AS IMAGE PRO-CESSING DEVICES," SUCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, SEPINAR-IN-DEPTH, SOUTH FALLSBURG, NEW YORK, PP. 117-124, APRIL 28-29, 1969.

WAY, J.L., "ANALOG TO DIGITAL CONVERSION OF TV DATA FOR A MARS MISSICN," INTER-NATIONAL SPACE ELECTRONICS SYMPOSIUM, LAS VEGAS, NEVADA, OCTOBER 6-9, 1964.

YARGSLAVSKIY, L.P., "PICTURE INPUT-OUTPUT DEVICES FOR DIGITAL COMPUTER," LIBRARY ON AUTCMATION, ISSUE NO. 313, CHAPTER 3, P. 65.

The state of the s

CATHEY, W.T., "PROBABILITY WEIGHTING OF SPATIAL FILTERS," JCURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 4, PP. 478-482, APRIL 1971.

FRYER, N.D., RICHMOND, G.E., "TWO DIMENSIONAL SPATIAL FILTERING AND COMPUTERS," PROCEEDINGS OF THE NATIONAL ELECTRONICS CONFERENCE, VCL. 18, PP. 529-535, 1962.

HALL, E.L., DWYER, S.J., "FREQUENCY DOMAIN DESIGN OF SPATIAL DIGITAL FILTERS," IMAGE ANALYSIS LABORATORY, TR-101, DEPARTMENT OF ELECTRICAL ENGINEERING, UNIVERSITY OF MISSOURI, COLUMBUA, MISSOURI, 1970.

HALL, E.L., DWYER, S.J., LODWICK, G.S., MAHEN, E.C., "SPATIAL DIGITAL FILTER DESIGN TECHNIQUES," UNIVERSITY OF MISSOURI, UMR-MERVIN AND KELLY COMMUNICATIONS CONFERENCE, ROLLA, MISSOURI, OCTUBER 1, 1970, PP. 20-6-1 TO 20-6-6.

HALL, E.L., KRUGER, R.P., DWYER, S.J., "SPATIAL DIGITAL FILTER DESIGN USING THE TWO-DIMENSIGNAL Z-TRANSFORM," KYOTO INTERNATIONAL CONFERENCE UN CIRCUIT AND SYSTEM THEORY PROSEEDINGS, KYOTO, JAPAN, SEPTEMBER 1-3, 1970.

HUNT, B.R., "BLOCK-MODE DIGITAL FILTERING OF PICTURES," LCS ALAMOS SCIENTIFIC LABORATORY, LOS ALAMOS, NEW MEXICO, 1971.

HUNT, B.R., "MINIMIZING THE COMPUTATION TIME FOR USING THE TECHNIQUE OF SECTIONING FOR DIGITAL FILTERING OF PICTURES," LOS ALAMOS SCIENTIFIC LABORATORY, LOS ALAMOS, NEW MEXICO, 1971.

HUNT, B.R., JANNEY, D.H., ZEIGLER, R.K., "INTRODUCTION TO RESTORA ON AND ENHANCEMENT OF RADIOGRAPHIC IMAGES," LOS ALAMCS SCIENTIFIC LAB REPORT, LOS ALAMCS, NEW MEXICO, 1970.

HUNT, B.R., ZEIGLER, R.K., "ENHANCEMENT OF RACIOGRAPHIC IMAGES USING A LARGE-SCALE, MULTI-PROGRAMMING COMPUTER," CONFERENCE UN CUMPUTER APPLICATIONS IN RACICLOGY, UNIVERSITY OF MISSOURI, COLUMBIA, SEPTEMBER 1970.

PRATT, W.K., "FAST COMPUTATIONAL TECHNIQUES FOR GENERALIZED TWO DIMENSIONAL WIENER FILTERING," PROCEEDINGS OF TWO DIMENSIONAL DIGITAL SIGNAL PROCESSING, UNIVERSITY OF MISSOURI, OCTOBER 1971.

PRATT, W.K., "LINEAR AND NON-LINEAR FILTERING IN THE WALSH DOMAIN." PROCEEDINGS OF APPLICATIONS OF WALSH FUNCTIONS, WASHINGTON, D.C., APRIL 1971, Pp. 38-42.

RUSENFELD, A., PFALTZ, J.L., "SEQUENTIAL OPERATIONS IN DIGITAL PICTURE PROCESSING," JOURNAL OF THE AMERICAN ASSOCIATION FOR COMPUTING MACHINERY, VOL. 13, PP. 471-494, OCTOBER 1966.

SHANKS, J.L., "THE DESIGN OF STABLE TWO-DIMENSIONAL RECURSIVE FILTERS," PROCEEDINGS UMR-MERVIN J. KELLY COMMUNICATIONS CONFFRENCE, RCLLA, MISSOURI, 1970, PP. 15-2-1 TO 15-2-6.

CLCMES, M.B., "PICTORIAL RELATIONSHIPS-A SYNTACTIC APPROACH," MACHINF INTELLIGENCE, VCL. 4, 1969.

CLOWES, M.B., "TRANSFORMATIONAL GRAMMARS AND THE ORGANIZATION OF PICTURES," AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, NEW YORK, ACADEMIC PRESS, 1969.

FREIBERGER, W., GRENANDER, U., "COMPUTER-GENERATED IMAGE ALGEBRAS," PRICEEDINGS OF THE IFIP CONGRESS, H4-H9, AUGUST 1968.

MILLER, W.F., SHAW, A.C., "LINGUISTIC METHODS IN PICTURE PROCESSING, A SURVEY," PROCEEDINGS OF THE AMERICAN FEDERATION OF INFORMATION PROCESSING SOCIETIES, FALL JOINT COMPUTER CONFERENCE, THOMOSON BOOK COPPANY, WASHINGTON, D.C., 1968.

MONTANARI, U.G., "SEPARABLE GRAPHS, PLANAR GRAPHS, AND WEB GRAMMARS," MARYLAND UNIVERSITY, CULLEGE PARK, COMPUTER SCIENCE CENTER, AUGUST 1969.

NARASIMHAN, R., "LABELLING SCHEMATA AND SYNTHETIC DESCRIPTION OF PICTURES," IN-FORMATION CONTROLLER, VOL. 7, 1964.

ABRAM, J.M., CATCHPOLE, C.E., GOODRICH, G.W., "IMAGE PRUCESSING WITH A MULTI-APERTURE IMAGE DISSECTOR, "JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VOL. 6, PP. 93-96, 1968.

ALTMAN, N.G., "USE OF ELECTRO-OPTICAL IMAGE CORRELATION FOR MEASURING AND PROVIDING COMPENSATION FOR IMAGE MOTION," PROCFEDINGS OF THE NASA/ERC SEMINAR, CAFBRIDGE, MASSACHUSETTS, DECEMBER 1968.

AUKI, Y., "COMPUTER SIMULATION OF SYNTHESIZING IMACTS BY DIGITAL PHASED ARRAYS," PROCEEDINGS OF THE IEEE, VOL. 58, NO. 11, PP. 1856-1858, NOVEMBER 1970.

AOKI, Y., BOIVIN, A., "CCMPUTER RECONSTRUCTION OF IMAGES FROM A MICROWAVE HOLOGRAMS," PROCEEDINGS OF THE IEEE, VOL. 58, NO. 5, PP. 821-822, MAY 1970.

ARMITAGE, J.D., LOHMANN, A.W., "CHARACTER RECOGNITION BY INCOHERENT SPATIAL FILTERING," APPLIED OPTICS, VOL. 4, NO. 4, PP. 461-467, APRIL 1965.

ARMITAGE, J.D., LUHMANN, A.W., HERRICK, R.B., "ABSCLUTE CONTRAST ENHANCEMENT," APPLIEC OPTICS, VOL. 4, NO. 4, PP. 445-453, APRIL 1965.

ARCZAN, G.F., "THE TECHNIQUE OF SPATIAL FILTERING," PROCEEDINGS OF THE IRE, VCL. 47, PP. 1501-1568, SEPTEMBER 1959.

ARSENAULT, H., BOLVIN, A., "OPTICAL FILTER SYNTHESIS BY HOLOGRAPHIC METHOPS,"

JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NC. 11, PP. 1490-1494, NOVEMBER 1968.

The state of the s

BAKNES, C.W., "OBJECT RESTORATION IN A DIFFRACTION LIMITED IMAGING SYSTEM," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, PP. 575~576, 1966.

BARNES, C.W., "SPATIAL SIGNALS AND IMAGING SYSTEMS," UNIVERSITY OF CALIFORNIA AT IRVINE, SCHOOL OF ENGINEERING, GRANT NSF-CK-1461, FINAL REPORT, 1969.

BECKER, J., "OPTICAL SYSTEMS FOR USE AT LOW LIGHT LEVELS," CPTICA ACTA, VCL. 17, NO. 7, PP. 481-496, JULY 1970.

BIRCH, K.G., "AN ANALYSIS OF THE GENERALIZED BINARY FILTER," CPTICA ACTA, VCL. 17, NO. 1, PP. 43-58, JANUARY 1970.

BIRCH, K.G., "A SPATIAL FREQUENCY FILTER TO REMOVE ZERO FREQUENCY," CPTICA ACTA, VOL. 15, NO. 2, PP. 113-128, MARCH-APRIL 1968.

BROWN, B.R., LOHMANN, A.W., "COMPLEX SPATIAL FILTERING WITH BINARY MASKS," APPLIED OPTICS, VOL. 5, NO. 6; PP. 893-899, JUNE 1966.

BROWN, B.R., LOHMANN, A.W., "COMPUTER-GENERATED BINARY HOLOGRAMS," IBM JOURNAL OF RESEARCH AND DEVELOPMENT, VOL. 13, PP. 160-168, MARCH 1969.

BRYNGDAHL: O.: LUHMANN, A., "HOLOGRAPHIC PENETRATION OF TURBULENCE, "PRUCEEDINGS OF THE NASA/ERC SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

BURCKHARDT, C.B., "INFORMATION REDUCTION IN HCLOGRAMS FOR VISUAL DISPLAYS." JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NC. 2, PP. 241-246, FEBRUARY 1968.

CAULFIELD, H.J., "WAVEFRONT SAMPLING IN HOLOGRAPHY," PROCECCINGS OF THE IEEE, VOL. 57, NO. 11, PP. 2082-2083, NOVEMBER 1969.

CHERNYKH, D.F., GAVRILOV, G.A., GUREVICH, S.B., KONSTANTINOV, A.B., KONSTANTINOV, V.B., CSTROVSKII, Y.I., MHCLOGRAPHIC IMAGE TRANSMISSION BY TELEVISION, SOVIET PHYSICS-TECHNICAL PHYSICS, VOL. 13, Pp. 378-383, SEPTEMBER 1968.

CUTRUNA, L.J., LEITH, E.N., PALERMO, C.J., PORCELLO, L.J., MOPTICAL DATA FROCESSING AND FILTERING SYSTEMS, FIRE TRANSACTIONS ON INFORMATION THEORY, VCL. IT-6, PP. 386-400, JUNE 1960.

EIRNS, D.J., MOHR, S.H., SAFFIR, A.J., MENHANCEMENT OF ELECTRON MICROGRAPHS BY HOLOGRAPHIC IMAGE DEBLURRING, MPHYSICS LETTERS, VOL. 33A, NC. 6, PP. 377-378, NOVEMBER 30, 1970.

ENLUE, L.H., MURPHY, J.A., RUBINSTEIN, C.B., "HOLOGRAM TRANSMISSICN VIA TELEVISION," BELL SYSTEMS TECHNICAL JOURNAL, PP. 335-339, FEBRUARY 1966.

ERPOLVEV, M.M., MUSE OF HOLOGRAPHY FOR IMAGE RECOGNITION, M PROCEEDINGS OF THE 2ND ALL-UNION CONFERENCE ON MACHINE ANALYSIS OF BIOLOGICAL STRUCTURES AND PROCESSES, PUSHCHIND, RUSSIA, MAY 1968.

FRITZLER, D., MARDH, E., *REDUCTION OF BANDWIDTH REQUIRED FOR HIGH RESCLUTION HOLOGRAM TRANSMISSION.* APPLIED OPTICS, VOL. 8, PP. 1241-1243, JUNE 1969.

GCCGPAN, J.W., MDIGITAL IMAGE FORMATION FROM DETECTED HOLOGRAPHIC DATA; RACOUSTICAL HOLOGRAPHY, VOL. 1, PP. 173-185, DECEMBER 1967.

GUODMAN, J.W., "DIGITAL IMAGE FORMATION FROM ELECTRONICALLY DETECTED HOLOGRAMS." SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, COMPUTERIZED IMAGING TECHNIQUES SEMINAR, WASHINGTON, D.C., JUNE 26, 27, 1967.

GUCDMAN, J.W., JACKSON, D.W., LEHMANN, M., KNCTTS, J.W., "HCLOGRAPHIC IMAGERY THROUGH ATMOSPHERIC INHOMOGENECTIES," PROCEEDINGS OF THE NASA/ERC SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

GUDDMAN, J.W., RHODES: W.T., "AN OPTICAL SYSTEM DESIGNED FOR IMAGE PROCESSING," PATTERN RECOGNITION, VOL. 2, 1970, PP. 105-116.

HAINES, K.A., "BANDWIDTH REDUCTION IN HOLOGRAPHY, USING PERIODIC DISPERSION STRUCTURES," APPLIED OPTICS, VOL. 9, PP. 1946, AUGUST 1970.

HAINES, K.A., BRUMM, D.B., "HOLOGRAPHIC DATA REDUCTION," APPLIED CPTICS, VOL. 7, NG. 6, P. 1185, JUNE 1968.

HAINES, K.A., BRUMM, D.B., "A TECHNIQUE, FOR BANCWIDTH REDUCTION IN HOLUGRAPHIC SYSTEMS," PROCEEDINGS OF THE IEEE, VOL. 55, NC. 8, AUGUSY 1967.

HLRNER, J.L., "GPTICAL SPATIAL FILTERING WITH THE LEAST MEAN-SQUARE-ERROR FILTER," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 5, PP. 553-559, MAY 1969.

HUANG, T.S., "THE COMBINED USE OF DIGITAL COMPUTERS AND COHERENT OPTICS IN IMAGE PROCESSING," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEFINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

HUANG, T.S., "DIGITAL HOLOGRAPHY," PROCEEDINGS OF THE IEEE, VCL. 59, NG. 9, P. 1335. SEPTEMBER 1971.

KING, M.C., NOLL, A.M., BERRY, D.H., "A MCIRE APPROACH TO COMPUTER-GENERATED HOLOGRAPHY," APPLIED OPTICS, VOL. 9, FEBRUARY 1970.

KOSCLROV, G.I., KACHALOV, G.V., "HOLOGRAPHIC IDENTIFICATION OF SIMILAR IMAGES," PRIBORY I TEKHNIKA EKSPERIMENTA, IN RUSSIAN, PP. 197-199, JANUAKY-FEBRUARY, 197-

KUVASZNAY, L.S.G., ARMAN, A., "OPTICAL AUTOCORRELATION MEASUREMENT OF TWO-DI-MENSIONAL RANDOM PATTERNS," RESEARCH SCIENCE INSTRUMENT, VOL. 28, OCTUBER 1957, AU 144525, Pp. 793-797.

LEE, S.H., "SAMPLED FUURIER TRANSFURM HOLOGRAM BY COMPUTER," APPLIED OPTICS, VOL. 9, NO. 3, P. 639, MARCH 1970.

LEE, W.H., "COMPUTER GENERATION OF HOLOGRAMS AND SPATIAL FILTERS," SC.O. DISSEPTATION, DEPARTMENT OF ELECTRICAL ENGINEERING, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, SEPTEMBER 1969.

LESEM, L.B., "HOLOGRAPHIC DISPLAY OF DIGITAL IMAGES," AMERICAN FEDERATION OF INFOPMATION PROCESSING SOCIETIES, FALL JOINT COMPUTER CONFERENCE, NOVEMBER 14-16, 1967.

LIN, L.H., "A METHOD OF HOLOGRAM INFORMATION REDUCTION BY SPATIAL FREQUENCY SAMPLING," APPLIED OPTICS, VOL. 7, NO. 3, PP. 545-548, MARCH 1968.

LUHMANN, A.W., "COMPUTER GENERATED HOLOGRAMS," PROCEECINGS OF THE SYMPOSIUM ON THE ENGINEERING USES OF HOLOGRAPHY, UNIVERSITY OF STRATHCLYCE, GLASGOW, SCOT-LAND, PP. 77-93, SEPTEMBER 1968.

LCHMANN, A.W., PARIS, D.P., "BINARY FRAUNHOFER HULUGRAMS, GENERATED BY COMPUTER" APPLIED UPTICS, VOL. 6, NU. 10, OCTOBER 1967.

LOHMANN, A.W., PARIS, D.P., "COMPUTER GENERATED SPATIAL FILTERS FCR COHERENT OPTICAL DATA PROCESSING," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 7, PP. 651-655, APRIL 1968.

Commence and the second second

The state of the s

LUHMANN, A.W., PARIS, D.P., "THEORY OF BINARY HOLOGRAMS," IBM SYSTEMS DEVELOPMENT DIVISION, BOULDER LABORATORY, TECHNICAL REPORT, TR.44.0019, JUNE 5, 1967.

LOHMANN, A.W., PARIS, D.P., WERLICH, H.W., "COMPUTER GENERATED SPATIAL FILTER APPLIED TO CUDE TRANSLATION," APPLIED OPTICS, VOL. 6, PP. 1139-1140, JUNE 1967.

LOHMANN, A.W., WERLICH, H.W., "HOLOGRAPHIC PRODUCTION OF SPATIAL FILTERS FOR CODE TRANSLATION AND IMAGE RESTORATION," PHYSICS LETTERS, VCL. 25A, PP. 570-571, GCTCBER 23, 1967.

MAC GOVERN, A.J., WYANT, J.C., "COMPUTER-GENERATED HOLOGRAMS FOR TESTING CPTICAL ELEMENTS," APPLIED OPTICS, VOL. 10, NG. 3, P. 619, MARCH 1971.

MEYER, A.J., HICKLING, R., "HOLOGRAMS SYNTHESIZED ON A COMPUTER-OPERATED CATHODE-RAY TUBE," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 11, PP. 1388-1389, NOVEMBER 1967.

PARIS, D.P., "I MAGE PROCESSING BY COMPUTER GENERATED BINARY FILTERS," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

PRESTON, K., "CUMPUTERIZED ACOUSTIC HOLOGRAPHIC IMAGING," A SYMPOSIUM ON SAPPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 8-1 TO 8-8.

RASO, C.J., "SIMPLIFIED METHOD TO MAKE HOLOGRAM FILTERS FOR TARGET RECCGNITION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NC. 3, MARCH 1968, Pp. 432-433.

ROSEN, L., "MUIRE SFFECTS IN COMPUTER-GENERATED HOLOGRAMS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 10, OCTOBER 1967.

SIEMENS-WAPNIARSKI, W.J., GIVENS, M.P., "THE EXPERIMENTAL PRODUCTION OF SYNTHETIC HULOGRAMS," APPLIED OPTICS, VOL. 7, NO. 3, MARCH 1968, PP. 535-538.

STROKE, G.W., "IMAGE DEBLURRING," HOLOGRAPHY AT THE CROSSRCADS, OPTICAL SPECTRA, PP. 31-2, NOVEMBER, 1970.

STROKE, G.H., "IMAGE DEBLURRING AND APERTURE SYNTHESIS USING A POSTERIORI PROCESSING BY FOURIER-TRANSFORM HOLOGRAPHY," OPTICA ACTA, VGL. 16, NO. 4, 1969, Pp. 401-422.

STROKE, G.W., "A NEW HOLOGRAPHIC METHOD FOR A POSTERIORI IMAGE-DEBLURRING RESTORATION OF ORDINARY PHOTOGRAPHS USING "EXTENDED-SOURCE" LENSLESS FOURIER-TRANSFORM HOLOGRAPHY COMPENSATION," PHYSICS LETTERS, VOL. 27A, NO. 7, AUGUST 26, 1968, Pp. 405-406.

STRCKE, G.W., FURRER, F., LAMBERTY, D.R., "DEBLURRING OF MOTION-BLURRED PHOTCGRAPHS USING EXTENDED-RANGE HOLOGRAPHIC FOURIER-TRANSFORM DIVISION," OPTICS COMMUNICATIONS: VOL. 1, NO. 3, JULY-AUGUST 1969, PP. 141-145.

STRCKE, G.W., HALIUUA, M., MA NEW HOLOGRAPHIC IMAGE DEBLURRING PETHOD, PHYSICS LETTERS, VOL. 33A, NO. 1, SEPTEMBER 21, 1967, PP. 3-4.

STROKE, G.W., HALIOUA, M., INDEBETOUW, G., *LASER-LIGHT SPATIAL - COMAIN SCANNING DECONVOLUTION OF BLURRED PHOTOGRAPHS USING THE GENERAL HOLOGRAPHIC DEBLURRING FILTER,** PHYSICS LETTERS, VOL. 31A, NO. 6, PP. 341-2, MARCH 23, 1970.

STRCKE, G.W., HALIOUA, M., SAFFIR, A.J., EVINS, D.J., "HIGH-RESOLUTION ENHANCEMENT IN SCANNING ELECTRON MICRUSCOPY BY A POSTERIORI HOLOGRAPHIC IMAGE PROCESSING," PRUCEEDINGS OF THE FOURTH ANNUAL SCANNING ELECTRON MICROSCOPE SYMPOSIUM, IIT RESEARCH INSTITUTE, CHICAGO, ILLINDIS, APRIL 1971, PP. 57-64.

STROKE, G.W., PUECH, C.P., "SINGLE-FOCUS IMAGES RESTORED FROM CONVENTIONALLY RECORDED SUPERPOSED CODED MULTI-FOCUS PHOTOGRAPHS," GPTICS COMMUNICATION, VOL. 1 NO. 5, NOVEMBER-DECEMBER 1969, Pp. 223-226.

TOBIAS, P.K., SITTON, G.A., "PRELIMINARY INVESTIGATION OF THE COMPUTER SYNTHE-SIS OF SPECTRAL FILTER MASKS," IBM PUBLICATION NO. 32 \.24 \\1, FEBRUARY 1, 1971.

TSUJINCHI, J., "CORRECTIONS OF OPTICAL IMAGES BY COMPENSATION OF ABERRATIONS AND BY SPATIAL FREQUENCY FILTERING," IN PROGRESS IN OPTICS, VOL. 2, AMSTERDAM, NETHERLANDS, NORTH-HOLLAND, 1963.

VANDER LUGT, A.B., "SIGNAL DETECTION BY COMPLEX SPATIAL FILTERING," TRANSACTIONS OF THE IEEE, VOL. IT-10, PP. 139-145, APRIL 1964.

VANDER LUGT, A., ROTZ, F.B., KLODSTER, A., "CHARACTER-REACING BY OPTICAL SPATIAL FILTERING," OPTICAL AND ELECTRU-OPTICAL INFORMATION PROCESSING, MASSACHUSETTS INSTITUTE OF TECHNOLOGY PRESS, CAMBRIDGE, MASSACHUSETTS, 1965.

WEAVER, G.S., RAMSY, S.D., GUUDMAN, J.W., RUSIF, A.M., "THE OPTICAL CONVOLUTION OF TIME FUNCTIONS," APPLIED OPTICS, VUL. 9, PP. 1672-1682, JULY 1970.

GARDENHIRE, L.W., "DATA REDUNDANCY REDUCTION FOR BIOHEDICAL TELEMETRY," BIOMEDICAL TELEMETRY, ACADEMIC PRESS, NEW YORK, PP. 255-298, 1965.

HALL, D.L., KRUGER, R.P., DWYER, S.J., LODWICK, G.S., MCOMPUTER DIAGNOSIS OF HEART CISEASE, CLINICS OF NORTH AMERICA, DECEMBER 1971.

THE PARTY OF THE P

HALL, E.L., "DIGITAL FILTERING TECHNIQUES FOR X-RAY IMAGE ENHANCEMENT," PROCEEDINGS OF THE INTERNATIONAL TELEMETRY CONFERENCE, WASHINGTON, D.C., SEPTEMBER 1971.

HALL, E.L., KRUGER, R.P., DWYER, S.J., HALL, D.D., MCLAREN, R.W., LCCWICK, G.S., "PREPRICESSING AND FEATURE EXTRACTION FOR RADIOGRAPHIC IMAGES," UNIVERSITY OF MISSCURI, COLUMBIA, MISSOURI, NOVEMBER 1973.

HEATH, M.A., PECK, J.C., "CULUR-TELEVISED MEDICAL MICROSCUPY," NATIONAL AFRICAUTICS AND SPACE ADMINISTRATION, MANNED SPACECRAFT CENTER, HOUSTON, TEXAS, NO. MSC-13086, AUGUST 1968.

HUNT, B.R., "THE INVERSE PROBLEM OF RADIOLOGY," MATHEMATICAL BIGSCIENCES, VOL. 8 PP. 161-179, 1970.

KIRSCH, R.A., "BIOMEDICAL IMAGE AND LANGUAGE PATTERN PROCESSING," RESEARCH PROJECT, NATIONAL BUREAU OF STANDARDS, WASHINGTON, D.C., 1967.

KLINCER, A., KOCHMAN, A., ALEXANDRIDIS, N.A., "COMPUTER ANALYSIS OF CHRONCSUME PATTERNS: FEATURE-ENCODING FOR FLEXIBLE FASKING," IEEE TRANSACTIONS ON COMPUTERS SPECIAL ISSUE ON FEATURE EXTRACTION AND SELECTION, SEPTEMBER 1971.

KRIGER, R.P., "COMPUTER PROCESSING OF RADIOGRAPHIC IMAGES," PED DISSERTATION, UNIVERSITY OF MISSOURI, COLUMBIA, JUNE 1971.

KRUGER, R.P., CARLSON, A.J., DWYER, S.J., MPOSITION INVARIANT LINEAR AND NON-INCE ON COMMUNICATION THEORY RECORD, MOLLA, MISSEURI, PP. 3-4-1 TO 3-4-6, OCICBER 5-7, 1970.

KRUGER, R.P., DWYER, S.J., "COMPUTER-AIDED DIAGNOSIS OF RADIOGRAPHIC CARDIAC SIZE AND SHAPE DESCRIPTORS," PROCEEDINGS OF THE THIRD ANNUAL HOUSTON CONFERENCE ON COMPUTER AND SYSTEM SCIENCE? UNIVERSITY OF HOUSTON, TEXAS, APRIL 26-27, 1971.

KRUGER, R.P., DWYER, S.J., LODWICK: G.S., "IMAGE ENHANCEMENT AND FEATURE EXTRACTION OF RADIOGRAPHIC IMAGES," COMPUTERS IN RADIOLOGY CONFERENCE PROCEFCINGS, UNIVERSITY OF MISSOURI MEDICAL CENTER, C(LUMBIA, MISSOURI, SEPTEMBER 21-23, 1970.

KRUGER, R.P., HALL, D.L., DHYER, S.J., LUDWICK, G.S., MDIRECT CUMPUTER DIAGNOSTS OF REGUMETIC HEART CISEASE, RADIOLOGY, DEGEMBER 1971.

KRUGER - R.P., MALL, F.L., DWYER, S.J., LCOWICK, G.S., MDIGITAL TECHNIQUES FUR IMAGE ENHANCEMENT OF HADIOGRAPHS, M. INTERNATIONAL JOURNAL OF BIC-MEDICAL COMPIL-TING, VCL. 2, 1971.

KRUGER, R.P., HARLOW, C.A., DWYER, S.J., MATTCMATED DIAGNESIS UTILIZING CARDIAC

SIZE AND SHAPE DESCRIPTORS," PROCEEDINGS OF THE FIFTH ANNUAL PRINCETON CUNFERENCE ON INFORMATION SCIENCES AND SYSTEMS, PRINCETON, NEW JERSEY, MARCH 25-26, 1971.

KRUGER, R.P., MAHEN, E.C., CARLSON, A.J., DWYER, S.J., LOCWICK, G.S., MIMAGE ANALYSIS OF RADIOGRAPHS, M 22ND ANNUAL SOUTHWESTERN CONFERENCE AND FXHIBITION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, DALLAS, TEXAS, PP. 147-151, APRIL 1970.

KRUGER, R.P., MAHEN, E.C., DWYER, S.J., "DIGITAL TECHNIQUES FOR IMAGE ANALYSIS UF RADIOGRAPHS," EIGHTH ANNUAL SYMPOSIUM ON BIOMATHEMATICS AND COMPUTER SCIENCE IN THE LIFE SCIENCES PROCEEDINGS, HOUSTON, TEXAS, MARCH 23-24, 1970.

KRUGER, R.P., TLWNES, J.R., HALL, D.L., DWYER, S.J., "COMPUTER AIDED DIAGNOSIS VIA FEATURE EXTRACTION AND CLASSIFICATION OF RADIOGRAPHIC CARCIAC SIZE AND SHAPF DESCRIPTORS," NINTH ANNUAL SYMPOSIUM ON BIOMATHEMATICS AND COMPUTER SCIENCE IN THE LIFE SCIENCES PROCEEDINGS, HOUSTON, TEXAS, MARCH 22-24, 1971.

LEDLEY, R.S., RCTOLO, L.S., WILSON, J.B., BELSON, M., GGLAB, T.J., JACCBSEN, J., "PATTERN RECUGNITION STUDIES IN THE BIUMEDICAL SCIENCES," PROCEEDINGS OF THE AFIPS JOINT COMPUTER CONFERENCE, BUSTON, MASSACHUSETTS, 1966.

NARASIMHAN, R., FURNANGU, J.P., "SOME FURTHER EXPERIMENTS IN THE PARALLEL PROCESSING OF PICTURES," IEEE TRANSACTIONS ON FLECTRONIC COMPUTERS, DECEMBER 1964, VGL. EC-13, NO. 6, PP. 748-750.

NEW YORK ACADEMY OF SCIENCE, "DATA EXTRACTION AND PROCESSING OF OPTICAL IMAGES IN THE MEDICAL AND BIOLOGICAL SCIENCES," PROCEEDINGS OF THE CONFERENCE, NEW YORK JUNE 1967.

ONGE, M., TAKAGI, M., KAIHARA, S., MASUMOTO, T., MAUTCMATED CLASSIFICATION OF WHITE BLOUD CELLS," SECOND IMAGE TECHNOLOGY CONFERENCE, NOVEMBER 20, 1971.

UNDE, M., TAKAGI, M., MASUMOTO, T., "COMPUTER PRECESSING OF X-RAY IMAGES," INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY OF TUKYO, 1971.

ONLE, M., TAKAGI, M., MASUMUTO, T., "PROCESSING OF X-RAY IMAGES BY COMPUTER," THE JOURNAL OF THE JAPANESE SOCIETY FOR NON-DESTRUCTIVE INSPECTION, VOL. 20, NO. 8, PP. 422-423, AUGUST 1971.

UNCE, M., TAKAGI, M., MASUMUTO, T., KAIHARA, S., "IMAGE PROCESSING OF LIVEK-SCITIGRAMS," INSTITUTE OF INDUSTRIAL SCIENCE & DEPARTMENT OF MEDICINE, UNIVER-SITY OF TOKYC.

PFEILER, M., "IMAGE TRANSMISSION SYSTEMS AND IMAGE PROCESSING IN RADIOLOGY," SUMMER SCHOOL UN AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISATIRENIA, AUGUST 1968.

PREWIFT, J.M.S., MAYALL, B.H., MENDELSOHN, M.L., "PICTORIAL DATA PROCESSING METHODS IN MICROSCOPY," SUCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR IN DEPTH, FILMED DATA AND COMPUTERS, BOSTON, MASSACHUSETTS, 1966.

SELYER, R.H., "THE USE OF COMPUTERS TO IMPROVE BIOMEDICAL IMAGE QUALITY," THE AMERICAN FEJERATION OF INFORMATION PROCESSING SOCIETIES, FALL JOINT COMPUTER CONFERENCE, VOL. 33, PART I. PP. 817-834, 1968.

SPECHT: D.F., DRAPKIN, P.E., "BIUMEDICAL DATA COMPRESSION," PROCEEDINGS OF THE 1965 MATIONAL TELEMETRY CONFERENCE, PP. 68-74, 1965.

TAKAGI, M., "CELL DIAGNUSIS-PROBLEMS IN IMAGE PROCESSING FOR MEDICINE," THE JUURNAL OF THE JAPAN MEDICAL ASSOCIATION, VOL. 66, NO. 6, Pp. 645-648, SEPTEMBER 15, 1971.

WAR AND WAR AND WAR

TAKAGI, M., KAIHARA, S., IISAKA, J., "A BASIC RESEARCH ON BIOMEDICAL IMAGE PROCESSING," THE PROCEEDINGS OF THE 9TH CONVENTION OF THE JAPANESE SOCIETY OF MEDICAL AND BIOLOGICAL ENGINEERING, SECTION D-22, APRIL 1970.

TAKAGI, M., KAIHARA, S., IISAKA, J., "PRINCIPLE OF IMAGE PROCESSING." IMAGE PROCESSING FOR MEDICINE (1), THE JOURNAL OF CLINICAL SCIENCE, SECTION 6.8, Pp. 924-929, JULY 1970.

TAKAGI, M., KAIHARA, S., MASUMOTO, T., "A RESEARCH ON THE CLASSIFICATION OF WHITE BLUOD CELLS BY COMPUTER," THE PROCEEDINGS OF THE 10TH CONVENTION OF THE JAPANESE SOCIETY OF MEDICAL AND BIOLOGICAL ENGINEERING, SECTION 1-3-1, APRIL 1971.

TAKAGI, M., KAIHARA, S., MASUMOTO, T., MA STUDY ON BICMEDICAL IMAGE PRCCESSING, THE RECCRD OF THE PROFESSIONAL GROUPS OF THE INSTITUTE OF ELECTRONICS AND CUMPLNICATION ENGINEER, VOL. IT 70-10, MAY 1970.

TAKAGI, M., MASUMOTO, T., MAUTOMATIC MEASUREMENT OF CHROMOSCMES, THE PROCEEDINGS OF THE NATIONAL CONVENTION OF THE INSTITUTE OF ELECTRONICS AND COMMUNICATIONS ENGINEERS, VOL. 149, AUGUST 1970.

TAKAGI, M., TAKAHASHI, M., "EQUIPMENTS FOR IMAGE PROCESSING," IMAGE PROCESSING FOR MEDICINE (2), THE JOURNAL OF CLINICAL SCIENCE, 6. 8, PP. 1064-1069, AUGUST 1970.

YOUNG, T.Y., HUGGINS, W.H., "ON THE REPRESENTATION OF ELECTROCARDIGGRAMS." IEEE TRANSACTIONS ON BIO-MEDICAL ENGINEERING, JULY 1963, PP. 86-95.

ANDREWS, H.C., MBIBLIOGRAPHY ON RATE DISTORTION THEORY, MIEEE TRANSACTIONS ON INFGRMATION THEORY, VOLUME IT-17, NO. 2, PP. 198-200, MARCH 1971.

ANDREWS, H.C., MCOMPUTER TECHNIQUES IN IMAGE PROCESSING, ACADEMIC PRESS, 1977, NEW YORK, NEW YORK.

BARNARC, T.W., "A LITERARY SURVEY ON IMAGE QUALITY EVALUATION," ENGINEERING REPORT ER-177, THE PERKIN-ELMER CORPORATION, NORWALK, CONN., CPTICAL TECHNOLOGY DIVISION, JUNE 11, 1971.

BERGER, T., "RATE DISTORTION THEORY," NEW JERSEY, PRENTICE-FALL, INC., 1971.

FIAK, D.G., "TELEVISION ENGINEERING HANDBOOK," MCGRAW-HILL, NEW YORK, .957.

GUODMAN, J.W., "INTRODUCTION TO FOURIER CPTICS," MC GRAW-HILL, NEW YORK, PP. 133-136, 1968.

GRASSELI, A., "AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES," ACADEMIC PRESS, INC., NEW YORK, 1969.

GRAZIANO, E.E., "SPACE TELEVISION: AN ANNOTATED BIBLICGRAPHY," LOCKHEED AIRCRAFT CORPURATION, REPORT NO. 3-79-61-1, AD-296 805, MARCH, 1962.

JENSEN, N., "OPTICAL AND PHOTOGRAPHIC RECONNAISSANCE SYSTEMS," WILEY, NEW YORK, 1968.

LIPKIN, B., RUSENFELD, A., "PICTURE PROCESSING AND PSYCHOPICTCRICS," NEW YORK, ACADEMIC PRESS, 1970.

PRATT, W.K., "A BIBLIOGRAPHY ON TELEVISION BANDWIDTH REDUCTION STUDIES," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, PP. 114-115, JANUARY 1967.

ROSENFELD, A., "BANDWIDTH REDUCTION BIBLIOGRAPHY," IEFE TRANSACTIONS ON INFOR-MATICN THEORY, VOL. 17-14, JULY 1968, PP. 601-602.

ROSENFELD. A. "PICTURE PROCESSING BY COMPUTER." NEW YORK, ACADEMIC PRESS. 1969.

TIPPETT, J.T., ET. AL., "OPTICAL AND ELECTRU-CPTICAL INFORMATION PROCESSING," CAMBRIDGE, MASSACHUSETTS, M.I.T. PRESS, 1965.

BILLINGSLEY, F.C., "APPLICATIONS OF DIGITAL IMAGE PROCESSING," APPLIED OPTICS, VOL. 9, NO. 2, PP. 289-299, FEBRUARY 197G.

かんだける さんかん かいかけんのいます かっちゅうこうちょう

BILLINGSLEY, F.C., "DIGITAL IMAGE PROCESSING AT JPL," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

BILLINGSLEY, F.C., "DIGITAL IMAGE PROCESSING RATIONALE," SUPPLEMENT C, FRCM CHAPTER IN PROGRESS IN BIOLOGICAL FLECTRON MICROSCOPE TECHNIQUES, HARPER AND ROW, 1969.

CAHN, L., ET AL., "EXPERIMENTS IN PROCESSING PICTORIAL INFORMATION WITH A DIGITAL COMPUTER," PROCEEDINGS EASTERN JOINT COMPUTER CONFERENCE, 1957, Pp. 221-229.

CALLAHAN, L.G., BROWN, W.M., "ONE-AND TWO-DIMENSIONAL PROCESSING IN LINE SCANNING SYSTEMS," APPLIED OPTICS, VOL. 2, PP. 4C1-4C7, APRIL 1963.

CLOWES, M.B., "PERCEPTION, PICTURE PROCESSING AND COMPUTERS," MACHINE INTELLIGENCE, VOL. 1, OLIVER AND BOYD, PP. 181-197, 1967.

CUNNINGHAM, J.E., FT AL., "PICTURE PROCESSING RESEARCH," MIT RESEARCH LAU-DRATCRY OF ELECTRONICS, REPORT NO. 61, APRIL 1961, PP. 133-135.

CUNNINGHAM, J.E., ET AL., "PICTURE PROCESSING RESEARCH," MIT RESEARCH LAB-CRATCRY OF ELECTRONICS, REPORT NO. 63, OCTOBER 1961, P. 119.

DALKE, G.W., MAUTOMATIC PROCESSING OF MULTI-SPECTRAL IMAGES, UNIVERSITY CF KANSAS, ENGINEERING SCIENCE DIVISION, LAWRENCE, KANSAS, REPERT NO. 61-16, CUNIFACT NO. NSR-17-004-003, AUGUST 1966.

CUNNE, J.A., "MARINER 1969 TELEVISION IMAGE PROCESSING." PATTERN RECOGNITION, VOL. 2, NO. 4, PP. 261-268, DECEMBER 1970.

FRIEC, C., PREVEL, J., ROSENFELD, A., "STUDY OF PICTORIAL DATA ANALYSIS CONCEPTS AND TECHNIQUES," INFORMATION SCIENCE CENTER, MCLEAN, VIRGINIA, FINAL REPORT, JULY 1962-SEPTEMBER 1963.

HAWKINS, J.K., "IMAGE PROCESSING-A REVIEW AND PROJECTION," SUPMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISA-TIRRENIA, AUGUST

HUANG, T.S., SCHRIEBER, W.F., TRETIAK, O.J., "IMAGE PROCESSING," PROCEEDINGS OF THE IEEE, VOL. 59, NO. 11, NOVEMBER 1971.

HUANG, T.S., TRETIAK, O.J., MPICTURE PROCESSING, MREPRINTED FROM QUARTERLY PROGRESS REPORT, NO. 79, OCTOBER 15, 1965, PP. 211-214.

HUANG, T.S., TRETIAK, O.J., TIPPET, J., "RESEARCH IN PICTURE PROCESSING," OPTICAL AND ELECTRO-OPTICAL INFORMATION PROCESSING TECHNOLOGY,, MIT PRESS, CAMBRIDGE, MASSACHUSETTS, CHAPTER 3, 1965.

HUANG, T.S., ET AL., "METEOROLOGICAL SATELLITE SYSTEM ANALYSES," AD 411398,

JUNE 1962.

CONTRACTOR SETTING

KIRSCH, R.A., CAHN, L., KAY, L.C., URBAN, G.H., "EXPERIMENTS IN PROCESSING PICTORIAL INFORMATION WITH A DIGITAL CUMPUTER," PROCEFDINGS OF THE ENGINEERING JUINT COMPUTER CONFERENCE, VOL. 10, PP. 221-229, DECEMBER 1957.

KOVASZNAY, L.S.G., JUSEPH, H.M., "IMAGE PROCESSING," PROCEECINGS OF THE 1RF, VOL. 43, PP. 560-57C, 1955.

LEBECEV, D.S., YAROSLAVSKIY, L.P., "SPATIAL FILTERING OF IMAGES: PHOTOGRAPHIC SYSTEMS," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VOL. 1, 1970.

LECLEY, R.S., "SOME PRACTICAL PICTURE PROCESSING PROBLEMS," 5TH SEMINAR OF PATTERN RECOGNITION SOCIETY, WASHINGTON, D.C., JANUARY 1967.

LERMAN, S.H., DUMAIS, R., "PRACTICAL CONSIDERATIONS IN DIGITAL IMAGE PROCESSING" SPIE IMAGE INFORMATION RECOVERY SEMINAR PROCEEDINGS, VOL. 16, OCTOBER 1968, Pp. 113-119.

LCRENS, C.S., BGEHNER, A., GALLAGHER, J., "THEORETICAL AND EXPERIMENTAL PROCESSING OF LUNAR TELEVISION PICTURES," SPACE GENERAL CORPORATION, REPORTS NO. 186C 203R-1, MAY 1962, NO. 28GC 203R-2, JULY 1962, NO. 38GC 203R-3, SEPTEMBER 1962.

MONTGOMERY, W.D., BROOME, P.W., "SPATIAL FILTERING," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 52, PP. 1259-1275, NGVEMBER 1962.

MUCRE, G.A., "DIRECT QUANTITATIVE ANALYSIS OF PHOTOMICROGRAPHS BY A DIGITAL COMPUTER," PHOTOGRAPHY SCIENCE ENGINEER, VOL. 8, NO. 3, 1964.

NATHAN, R., "UIGITAL VIDED-DATA HANDLING," JPL TECHNICAL REPORT NO. 32-877, JANUARY 5, 1960, JET PRUPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNCLOGY, PASACENA, CALIFORNIA.

NATHAN, R., "SPATIAL FREQUENCY FILTERING," PICTURE PROCESSING AND PSYCHOPICTURICS, PP. 151-163, EDITED BY B. S. LEPKIN AND A. RCSENFELD, ACADEMIC PRESS, 1970.

NATHAN, R., SELZER, R.H., "DIGITAL VIDEO DATA HANDLING: MARS, THE MOON AND MEN," IMAGE PROCESSING IN BIOLOGICAL SCIENCE, PP. 177-210, EDITED BY D. M. RAMSEY, UNIVERSITY UF CALIFORNIA PRESS, BERKELEY AND LOS ANGELES, CALIFORNIA, 1968.

OGAWA, H., ISOMICHI, Y., "OPTIMUM SPATIAL FILTER AND UNCERTAINTY," INFORMATION AND CONTROL, VOL. 14, PP. 180-216, 1969.

O'NEILL, E.L., "SPATIAL FILTERING IN OPTICS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, NO. 2, JUNE 1956, PP. 56-65.

ONLE, M., TAKAGI, M., "MULTIDIMENSIONAL IMAGE PROCESSING BY COMPUTER," SEISANKENYU(JOURNAL OF THE INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY CF TOKYC, VCL. 23, NO. 1, Pp. 2-18, JANUARY 1971.

PARKYN, W.A., "DIGITAL IMAGE PROCESSING ASPECTS OF THE WALSH TRANSFORM," MATHEMATICAL SCIENCE, MCDONNELL-DOUGLAS ASTRONAUTICS, HUNTINGTON BEACH, CALIF.

RUSENFELD, A., "IMAGE PRUCESSING," SPACE/AEPONAUTICS, VOL. 52, PP. 48-55, DEC-EMBER 1969.

ROSENFELD, A., PFALTZ, J.L., "SEQUENTIAL OPERATIONS IN DIGITAL PICTURE PROCESSING," JOURNAL OF THE AMERICAN ASSOCIATION FOR COMPUTING MACHINERY, VOL. 13, PP.

471-494, UCTOBER 1966.

White Day of the second

SHIBAHARA, T., "COMPUTER BASED FOURIER PLANE TECHNIQUES FOR IMAGE PROCESSING," COCRCINATED SCIENCE LABORATORY, UNIVERSITY OF ILLINOIS, URBANA, REPORT R-522, AUGUST 1971.

SINNAMON, L.D., OWENS, R.F., VAN DUINEN, R.W., "SUCRATES-ADAPTIVE IMAGE PROCESSUR," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

SITTCN, G.A., TOBIAS, P.R., "APPLICATIONS OF THE LAPLACIAN TO IMAGE PROCESSING," IBM PUBLICATION NO. 32'0.2410, FEBRUARY 1, 1971.

STCCKHAM, T.G., BRITTON, R.L., "APPLICATIONS OF DIGITAL FILTERING TO IMAGE PRUCESSING," NEREM RECORD, PP. 116-117, NOVEMBER 1969.

WEINSTEIN, G.G., "SPATIAL FILTERING OF IMAGES: PHOTOGRAPHIC SYSTEMS," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VOL. 2, 1970.

WOOLSON, J.L., HEIDER, C.H., "STUDIES IN IMAGE PROCESSING: A SYSTEMS VIEWPOINT," UNIVERSITY OF ILLINOIS: URBANA, DEPARTMENT OF COMPUTER SCIENCE, FEBRUARY 1970.

BABITS, V.A., "RESULTS WITH AN EXPERIMENTAL COLOUR TELEVISION SYSTEM USING CUNTRULLED COLOUR FILTERS," RENSSELAER POLYTECHNIC INSTITUTE, TROY, NEW YORK, P. 15, JANUARY 1959.

ŕ

BELL, D.A., "COMPUTER AIDED DESIGN OF IMAGE PROCESSING TECHNIQUES," CONFERENCE ON PATTERN RECOGNITION, LONDON, ENGLAND, IEE, PP. 282-289, 1968.

BRAIN, A.E., DUCA, R.O., FUSSUN, G.E., MUNSON, J.H., "GRAPHICAL-DATA-PROCESSING RESEARCH STUDY AND EXPERIMENTAL INVESTIGATION," STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, QUARTERLY PROGRESS REPORT, NO. 9, 35 NOVEMBER 1970.

BROWN, D.W., ET AL., "COMPUTER PROCESSING OF SCANS USING FOURIER AND OTHER TRANSFORMATIONS," JOURNAL OF NUCLEAR MEDICINE, Vol. 12, Pp. 287-291, JUNE 1971.

BURNHAM, D.C., "ELECTRONIC AVERAGING OF CNE-DIMENSIONAL TELEVISION PICTURES," APPLIED OPTICS, VOL. 9, NO. 11, P. 2565, NOVEMBER 1970.

CASEY, W.I., "THE IMPORTANCE OF ELEMENTAL REGISTRATION AND CALIBRATION IN ORBITAL EARTH RESOURCES MULTI-SPECTRAL IMAGING," AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS, 1968.

COLWELL, R.N., "THE EXTRACTION OF DATA FROM AERIAL PHOTOGRAPHY BY HUMAN AND MECHANICAL MEANS," PHOTOGRAMMETRIA, PP. 211-228, 1965.

CCLWELL, R.N., LENT, J.D., "THE INVENTURY OF EARTH RESOURCES ON ENHANCED MULTI-BAND SPACE PHOTOGRAPHY," PROCEEDINGS OF THE 6TH INTERNATIONAL SYMPOSIUM ON REMOTE SENSING OF ENVIRONMENT, ANN ARBOR, MICHIGAN, VOL. 1, PP. 133-143, CCTOBER 13-16, 1969.

DARCY, J.A., ENFIEJIAN, E.A., "COLOR PICTURE REPRODUCTION USING A HIGH-RESCLUTION TELEVISION SYSTEM," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, 1969.

DE RCSIER, D.J., KLUG, A., "RECONSTRUCTION OF THREE-DIMENSIONAL STRUCTURES FROM ELECTRON MICROGRAPHS," NATURE, VOL. 217, PP. 130-134, JANUARY 1968.

DIAMANTIDES, N.D., "CORRELATION MEASURE CF CONTRAST FOR MAP MATCHING," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NC. 7, PP. 996-998, JULY 1968.

EFRON, E., "IMAGE PROCESSING BY DIGITAL SYSTEMS," AMERICAN SOCIETY OF PHOTO-GRAMMETRY, ANNUAL CONVENTION, WASHINGTON, D.C., PHOTOGRAMMETRIC ENGINEERING, VOL. 34, PP. 1058-1062, OCTUBER 1968.

FEDER, J., "LANGUAGE OF ENCODED LINE PATTERNS," INFORMATION AND CONTROL, VOL. 13, NO. 3, PP. 230-244, SEPTEMBER 1968.

FREDKIN, E., "NEW DEVELOPMENTS AND APPLICATIONS IN AUTOMATIC IMAGE PROCESSING," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAF IN DEPTH, FILMED DATA AND COMPUTERS, BOSTON, MASSACHUSETTS, 1966.

GATTIS, J.L., WINTZ, P.A., "AUTOMATED TECHNIQUES FUR DATA ANALYSIS AND TRANS-MISSION," PURDUE UNIVERSITY, SCHOOL OF ELECTRICAL ENGINEERING, NGR-15-305-106, TR-EE 71-37, LAFAYETTE, INDIANA, AUGUST 1971.

GERRITSEN, H.J., HORWITZ, B., "EXPERIMENTAL DEMONSTRATION OF CPTICAL SECTIONING BY SPATIAL FILTERING AND ITS POSSIBLE USE IN TRANSMISSION OF THREE-DIMENSIONAL PICTURES," APPLIED CPTICS, VOL. 10, NO. 4, P. 862, APRIL 1971.

Participation of the Control of the

GILDEA, J., "LOW LIGHT LEVEL T.V. TECHNIQUES," APPLIED OPTICS, VOL. 9, NO. 10, P. 2230, OCTOBER 1970.

GIRAYTYS, J., ET AL., "INVESTIGATIONS INTO THE VARIATION AND DISTRIBUTION OF RELATIVE BRIGHTNESS ON TIROS-1 PHOTOGRAPHS," COLLEGE OF MINERAL INDUSTRIES, UNIVERSITY OF PENNSYLVANIA, FINAL REPORT ON CONTRACT CWB-10C37, APRIL 1962.

GOURAUC, H., "COMPUTER DISPLAY OF CURVED SURFACES," UTEC-CSC-71-113, COMPUTER SCIENCE DIVISION, UNIVERSITY OF UTAH, SALT LAKE CITY, JUNE 1971.

GRAK, G., STROKE, G.W., MINFORMATION RETRIEVAL FROM CODED IMAGES FORMED BY GENERALIZED IMAGING SYSTEMS, POPTICS COMMUNICATIONS, VOL. 1, NO. 7, PP. 339-358, FEBRUARY 1970.

GRASSELI, A., "ACTIVITIES IN IMAGE PROCESSING AT 161," COLLEQUE INTERNATIONAL SUR LA RECONNAISSANCE DE FORME, COMMISAARIAT ENERGIE ATOMIQUE, GRENOBLE, SEPTEMBER 1968.

GRAY, S.B., "LOCAL PROPERTIES OF BINARY IMAGES IN THO DIMENSIONS," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 5, PP. 551-561, MAY 1971.

GRCH, G., "INFORMATION RETRIEVAL FROM CODED IMAGES FORMED BY GENERALIZED IMAGING SYSTEMS", OPTICS COMMUNICATION, VOL. 1, NO. 7, FEBRUARY 1970, PP. 339-340.

GUTTMAN, A., GOLDEN, J., GALBRAITH, H.J., "COMPUTER PROCESSING OF SPECTUGRAMS FOR ABSOLUTE INTENSITIES," APPLIED OPTICS, VOL. 6, NO. 9, PP. 1507-1513, SEPTEMBER 1967.

HALLCHS, R.L., KLENSCH, R.J., "ELECTRONIC HALFTUNES," IEEE SPECTRUM, VCL. 5, NU. 10, P. 64, GCTOBER 1968.

HARMON, L.D., KNOWLTON, K.C., "PICTURE PROCESSING BY COMPUTER," SCIENCE, VOL. 163, PP. 19-29, APRIL 1969.

HORAN, J.J., "SPACECRAFT INFRARED IMAGING," IEEE SPECTRUM, VOL. 5, NC. 6, P. 71, JUNE 1968.

ICHICKA, Y., IZUNI, M., SUZUKI, T., "DIGITAL EPTICAL INFORMATION PROCESSING BY A MICDLE CLASS COMPUTER," DEPARTMENT OF APPLIEC PHYSICS, FACULTY OF ENGINEFRING, OSAKA UNIVERSITY, SUITA, OSAKA, JAPAN, 1967.

KAZMIRCZAK, H., HOLDERMANN, F., "THE KARLSRUHE SYSTEM FOR AUTOMATIC IMAGH PRO-CESSING," AGARD PRINCIPLES AND PRACTICE OF BICNICS, PP. 293-308, 1968.

KNCWLTCN, K.C., NOLL, A.M., SINCEN, F.W., "MOVIES FROM THE COMPUTER," SYMPOSIUM, THE FUMAN USE OF COMPUTING MACHINES, MURRAY HILL, NEW JERSEY, JUNE 1966.

LEE, K., "CUMPUTER REDUCTION AND ANALYSIS OF AN INFRARED IMAGE," STANFORD UNIVERSITY, CALIFORNIA, REMUTE SENSING LAB, WASHINGTON, D.C., 92 P., JANUARY 1908.

LOWE, D.S., "MULTISPECTRAL IMAGING SYSTEM," CONFERENCE ON FUNDAMENTALS OF REMOTE SEASING, UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN, JULY 14-25, 1969, INTERSIVE SHORT COURSE.

LUMENTHAL, S., BELVAUX, Y., "RECONNAISSANCE DES FORMES PAR FILTRAGE DES FORMES PAR FILTRAGE DES FREQUENCES SPATIALES," OPTICA ACTA, VOL. 14, NO. 3, PP. 245-258, 1967.

LUCKY, R.W., MPKACTICAL CHARACELS AND MODELS, MPROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 2, DECEMBER 1971.

MADOZZI, A., "APPLICATION OF TELEVISION TECHNIQUE FOR THE PLANIMETRY MEASURE-MENT OF COLOR PATTERNS," EUGENDSSISCHE TECHNISHCHE HOCHSCHULE, ZURICH, SWITZER-LAND, 1964.

MANASSE. F.K., "OPTICAL FILTERING OF TELEVISION WITH LENTICULAR FILM," PROCEECINGS OF THE IEEE, VOL. 53, NO. 4, PP. 408-409, APRIL 1965.

MATSON, M.T.., MC KIBSTRY, H.A., JOHNSON, G.G., HOUMPUTER PROCESSING OF SEM IMAGES OF CONTUUP ANALYSIS, M SYMPOSIUM ON COMPUTATIONAL PHOTOGRAMMETRY, AMERICA - CIETY OF PHOTOGRAMMETRY, ALLXANDRIA, VIRGINIA, PP. 7-9, 1970.

MAYNARD;)., PEMBERIMS, F.F., SWOMBER, C.W., "FILMED-DATA PROCESSING APPLICATIONS ENGUNTERED OF IMAGE PROCESSING RESEARCH," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEER., PROCEEDINGS, SEMINAR IN DEPTH, FILMED DATA AND COMPUTERS, LOSTON, 1880

MONIGOMERY, W.D., "PRESENTATION OF PICTURES FROM SCANNED RECORDS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-11, NO. 2, PP. 204-207, FEBRUARY 1965.

MORTON, G., "LOW CONTRAST THRESHOLD IMAGING," RADIO CORPORATION OF AMERICA ELECTRON TUBE DIVISION, HARRISON, NEW JERSEY, PROCEEDINGS OF THE SECOND IMAGE INTERSIFIER SYMPUSIUM, FORT BELVOIR, VIRGINIA, PP. 79-83,)CTOBER 24-26, 1961.

ONDE, M., TAKAGI, M., YAMADA, H., MASUMOTO, 1., HAMANO, N., TAMAI, S., "APPLICATION OF GRAPHIC DISPLAY TO ULTRASONIC FLAW INSPECTION," THE JOURNAL OF THE JAPANESE SOCIETY FOR NON-DESTRUCTIVE INSPECTION, VOL. 2C, NG. 8, PP. 434-435, AUGUST 1971.

ORHANG, T., "REPORT ON A CONFERENCE ON PICTURE PROCESSING," REPORT, HELD AT MUNICH, GERMANY, IN SWEDISH, NOVEMBER 1969.

PAN, J.W., "PICTURE PROCESSING," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 66, JULY 1962, Pp. 229-231.

PAN, J. H., "PICTURE PROCESSING-PROGRAMMING," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 65, APRIL, 1962, P. 146.

REINFOLD, A., WOLFF, G., "METHODS OF REPRESENTING THE RESULTS OF PHOTO INTER-PRETATION," PHOTOGRAMMETRIA, VOL. 25, PP. 201-207, APRIL 1970.

REISS, R.A., MPSEUDO-RANDOM SCAN APPLICATIONS TO DATA PROCESSORS, M PROCEEDINGS OF THE NEREM CONVENTION RECORD, NOVEMBER 1965.

TAKAGI, M., TAMAI, S., "FACSIMILE FOR ULTRASUNIC FLAW INSPECTION," THE JOURNAL OF THE JAPANESE SOCIETY FOR NONDESTRUCTIVE INSPECTION, VOL. 2C, NO. 2, P. 100, FEBRUARY 1971.

THIRY, H., "SUME QUALITATIVE AND QUANTITATIVE RESULTS ON SPATIAL FILTERING OF GRANLLARITY," APPLIED OPTICS, VOL 3, NO. 1, PP. 39-45, JANUARY 1964.

TREITEL, S., SHANKS, J.L., "THE DESIGN OF MULTISTAGE SEPARABLE PLANAR FILTERS. "
IEEE TRANSACTIOS ON GEOSCIENCE AND ELECTRONICS, VOL. GE-9, PP. 10-27, JANUARY
1971.

SECTION B

CLASSIFICATION BY AUTHOR

AARCN, M.R., FLEISCHMAN, J.S., MCDUNALD, R.A., PRUTUNOTARICS, E.N., "RESPONSE OF DELTA MUDULATION TO GUASSIAN SIGNALS," BELL SYSTEM TECHNICAL JOUFNAL, VOL. 48, PP. 1167-1195, MAY-JUNE 1969.

ABEND, K., HARLEY, T.J., KANAL, L.N., "CLASSIFICATION OF BINARY RANDOM PATTERNS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-11, NO. 4, OCTOBER 1965.

The state of the s

ABLE, J.E., "TECHNIQUES FOR NARROW-BAND TELEMETRY OF NONRECUNDANT DATA," PROCEEDINGS OF THE 1963 NATIONAL TELEMETRY CONFERENCE, WASHINGTON, D.C., PAPER 9-5, PP. 1-10.

ABRAM, J.M., CATCHPOLE, C.E., GOODRICH, G.W., "IMAGE PROCESSING WITH A MULTI-APERTURE IMAGE DISSECTOR, "JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VOL. 6, Pp. 93-96, 1968.

ABRAMSON, N., "PICTURE QUALITY: FILM VS. TELEVISION," JOURNAL OF THE SUCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 77, 1968, PP. 613-621.

AERCJET-GENERAL CORPORATION, "WEATHER SATELLITE PICTURE PATTERN RECOGNITION COMPRESSION STUDY," FINAL REPORT DECEMBER 1966-JUNF 1967, NASA CR-8978G, REPORT 1091 R-2, EL MONTE, CALIFORNIA, JUNE 1967.

ALEXANDRIDIS, N.A., "THE HADAMARD TRANSFORM IN IMAGE PROCESSING AND PATTERN RECCGNITION," UNIVERSITY OF CALIFORNIA AT LOS ANGELES, REPORT NO. 70-22M, MARCH 1970.

ALEXANDRIDIS, N.A., "WALSH-HADAMARD TRANSFORMATIONS IN IMAGE PROCESSING," UCLA-ENG-7108, UNIVERSITY OF CALIFORNIA, LOS ANGELES, SCHOOL OF ENGINEFRING AND APPLIED SCIENCES, MARCH 1971.

ALEXANDRIDIS, N.A., KLINGER, A., "WALSH ORTHOGONAL FUNCTIONS IN GEOMETRICAL FEATURE EXTRACTION," PROCEEDINGS OF THE 1971 SYMPOSIUM ON THE APPLICATION OF WALSH FUNCTIONS, NAVAL RESEARCH LABS, WASHINGTON, D.C., APRIL 1971.

ALLNATT, J.W., "SUBJECTIVE QUALITY OF COLOR TELEVISION PICTURES IMPAIRED BY GAIN AND DELAY INEQUALITIES BETWEEN THE LUMINANCE AND CHROMINANCE CHANNELS," PROCEEDINGS OF THE IEEE, VOL. 112, NO. 10, Pp. 1819-1825, GCTGBER 1965.

ALLNATT, J.W., BRAGG, E.J.W., "SUBJECTIVE QUALITY OF TELEVISION PICTURES IM-PAIRED BY SINEWAVE NOISE AND LOW-FREQUENCY RANDOM NOISE," PROCEEDINGS OF THE IEEE, VOL. 115, 1968, PP. 371-375.

ALLNATT, J.W., PROTSER, R.D., MSUBJECTIVE QUALITY OF COLOUR-TELEVISION PICTURES IMPAIRED BY RANDOM NOISE, M PROCEEDINGS OF THE IFEE, VOL. 113, NO. 4, Pp. 551-557, 1966.

ALLNATT, J.W., PROSSER, R.D., MSUBJECTIVE QUALITY OF TELEVISION PICTURES IM-PAIRED BY LUNG-DELAYED ECHUES, PROCEEDINGS OF THE IEE, VOL. 112, NO. 3, 1965, P. 487.

ALTEMUS, W.C., SCHAPHORST, R.A., "DATA CONVERSION EQUIPMENT," PHILCC CORPORATION REPORT NO. ASD TOR 62-392, AD-275 514, MAY 1962.

ALTMAN, N.G., "IMAGE-QUALITY CRITERIA FOR DATA RECORDING AND STORAGE," JOURNAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VUL. 76, 1967, Pp. 629-634.

ALTMAN, N.G., "USE OF ELECTRO-UPTICAL IMAGE CHRELATION FOR MEASURING AND PROVIDING COMPENSATION FOR IMAGE MOTION," PROCEEDINGS OF THE NASAZERO SEMINAR, CAMBRIDGE, MASSACHUSETIS, DECEMBER 1968.

APAR:, S., "THEURY OF INFORMATION SPACES-QUANTIZATION AND BANDWIDTH COMPRESSION OF SIGNAL SPACES," ELECTRONICS AND COMMUNICATIONS IN JAPAN 48, DICTOBER 1965, Pp. 96-107.

ANDERSON, G.B., HUANG, T.S., "PIFCEWISE FOURIER TRANSFORMATION FOR PICTURE BANCHIDTH CUMPRESSION," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VCL. CCM-19, NC. 2, APRIL 1971, PP. 133-140.

ARDC, H., "QUANTIZING SYSTEM OF HIGHER COMPONENTS OF TV SIGNALS," JOINT INTER-NATIONAL ENGINEERING CONFERENCE ON ELECTRONICS, JAPAN, P. 5, 1969.

ANDC, H., FUKUSHIMA, K., "TV BAND COMPRESSION BY MULTI-MCDE INTERPOLATION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. [T-10, NO. 2, APRIL 1964.

ANLHEA, R.E., "IMAGE ENHANCEMENT AS AN AID TO RECONNAISSANCE INTERPRETATION," PRESENTED BEFORE THE ARMED FURCES-NRC COMMISSION ON VISION, WASHINGTON, D.C., PP. 93-104, MARCH, 1961.

ANDREWS, C.A., DAVIES, J.M., SCHWARZ, G.R., "ADAPTIVE DATA COMPRESSION," PRO-CEECINGS OF THE IEEE, VOL. 55, NO. 3, MARCH 1967, PP. 267-277.

ANCREWS, C.A., DAVIES, J.M., SCHWARZ, G.R., "ADAPTIVE DATA COMPRESSIVE TELEMETRY TECHNIQUES," FEDERAL SYSTEMS DIVISION, IBM CORPORATION, GAITHERSBURG, MARY-LAND, FINAL REPORT FOR NASA MANNED SPACECRAFT CENTER, HOUSTON, TEXAS, UNDER CONTRACT NAS 9-4618, AUGUST 31, 1966.

ANDHEWS, C.A., SCHWARZ, G.R., "ANALYSIS AND SIMULATION OF DATA COMPRESSION TECHNIQUES," NATIONAL TELEMETERING CONFERENCE PROCEEDINGS, SAN FRANCISCO, CALIFORNIA, MAY 1967, PP. 57-64.

ANDREWS, H.C., "AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES BY USE OF THE FOURIER DOMAIN," ACADEMIC PRESS, INC., NEW YORK, CHAPTER 9, PP. 187-198, 1969.

ANDREWS, H.C., MBIBLIOGRAPHY ON RATE DISTORTION THEORY, MIEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 2, PP. 198-200, MARCH 1971.

ANDREWS. H.C., "COMPUTER IMAGE MANIPULATION FOR RESTORATION AND ENHANCEMENT," PROCEEDINGS OF THE INTERNATIONAL TELEMETRY CONFFRENCE, WASHINGTON, C.C., SEPTEMBER 1971.

ANDREWS, H.C., MCOMPUTER TECHNIQUES IN IMAGE PROCESSING, M ACADEMIC PRESS, 1979, NEW YORK.

ANDREWS, H.C., "ENTROPY CONSIDERATIONS IN THE FREQUENCY DOMAIN," REPRINT FROM THE PROCEEDINGS OF THE IEEE, VOL. 56, NO. 1, JANUARY 1968, PP. 113-114.

ANDREWS, H.C., "FOURIER CODING OF IMAGES," UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CAL FORNIA, IMAGE PROCESSING LAB, 157 P., JUNE 1968.

ANCHEMS, H.C., "MULTIDIMENSIONAL KOTATIONS IN FEATURE SELECTION," IFEE TRANS-ACTIONS ON COMPUTERS, VOL. C-20, NO. 9, P. 1045, SEPTEMBER 1971.

ANDREWS, H.C., PRATT, W.K., "FOURIER TRANSFORM CODING OF IMAGES." 1968 HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, HONDLULU, PP. 677-683.

ANDREWS, H.C., PRATT, W.K., "TELEVISION BANDWIDTH REDUCTION BY ENCODING SPATIAL FREQUENCIES," JUDANAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VCL. 77, PP. 1279-1281, MAY 1968.

A CONTRACTOR OF THE PROPERTY O

ANDREWS, H.C., PRATT, W.K., "TRANSFORMATION CUDING FOR NCISE IMMUNITY AND HAND-WIDTH REDUCTION," PROCEEDINGS OF THE SECOND HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, JANUARY 1969.

ANTHONY, A.L., "INVESTIGATION OF PHOTOGRAPHIC MAPPING DETAIL AND DATA ENCODING," AC 286715. JULY 1962.

ANUTA, P.E., "DIGITAL REGISTRATION OF MULTISPECTRAL VIDEO IMAGERY," SOCIETY OF PHCTO-OPTICAL INSTRUMENTATION ENGINEERS JOURNAL, VOL. 7, PP. 168-175, SEPTEMBER 1969.

AGKI, Y., "COMPUTER SIMULATION OF SYNTHESIZING IMAGES BY DIGITAL PHASED AKRAYS," PROCEEDINGS OF THE IEEE, VOL. 58, NO. 11, PP. 1856-1858, NOVEMBER 1970.

ACKI, Y., BOIVIN, A., "COMPUTER RECONSTRUCTION OF IMAGES FROM A MICROWAVE HOLOGRAMS," PROCEEDINGS OF THE IEEE, VOL. 58, NO. 5, PP. 821-822, MAY 1970.

ARCELLI, C., LEVIALDI, S., "PICTURE PROCESSING AND OVERLAPPING BLUBS," IEEE TRANSACTIONS UN COMPUTERS, VOL. C-20, NC. 9, P. 1111, SEPTEMBER 1971.

ARCESE, A., MENGERT, P.H., TROMBINI, E.W., "IMAGE DETECTION THROUGH BIPOLAR CORRELATION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 5, PP. 534-541, SEPTEMBER 1970.

ARGUELLO, R.J., "ENCODING, TRANSMISSION AND CECUDING OF SAMPLED IMAGES," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NCREALK, CONNECTICUT, 1971, PP. 3-1 TO 3-22.

ARGLELLO, R.J., "TECHNICAL DISCUSSION SESSIONS ON SAMPLED IMAGERY," SESSION NO. 7, ER-181, THE PERKIN-ELMER CORPORATION, NEW HAVEN, CONN., JUNE 1971.

ARGUELLO, R.J., SELLNER, H.R., "ADAPTIVE DELTA MODULATION OF AERIAL IMAGERY," ENGINEERING REPORT ER-179, THE PERKIN-ELMER CORPORATION, NORWALK, CONN., JUNE 1971.

ARGUELLO, R.J., SELLNER, H.R., "SAMPLING AND QUANTIZATION STUDY OF PCM SAMPLED IMAGERY," ENGINEERING REPORT ER-180, THE PERKIN-ELMER CORPORATION, NORWALK, CCAN., JUNE 1971.

ARGUELLO, K.J., STULLER, J.A., SELLNER, H.R., "DIFFERENTIAL PULSE CODE MCDULATION TRANSMISSION OF SAMPLED IMAGERY," ENGINEERING REPORT ER-154, THE PERKIN-ELPER CORPORATION, NORWALK, CONN., JUNE 1971

ARGYLE, E., "TECHNIQUES FOR EDGE DETECTION," PRUCEEDINGS OF THE IEEE, VOL. 59. NC. 2, PP. 285-287, FEBRUARY 1971.

ARMITAGE, J.D., LOHMANN, A.W., "CHARACTER RECOGNITION BY INCOHERENT SPATIAL FILTERING," APPLIED OPTICS, VOL. 4, NO. 4, PP. 461-467, APRIL 1965.

ARMITAGE, J.D., LOHMANN, A.W., HERRICK, R.B., "ABSOLUTE CONTRAST ENHANCEMENT," APPLIED OPTICS, VOL. 4, NO. 4, Pp. 445-453; APRIL 1965.

AROZAN, G.F., "THE TECHNIQUE OF SPATIAL FILTERING," PROCEECINGS OF THE IRE, VCL. 47, PP. 1561-1568, SEPTEMBER 1959.

ARSENAULT, H., BOIVIN, A., "OPTICAL FILTER SYNTHESIS BY HOLOGRAPHIC METHCOS,"

JLUFNAL UF THE OPTICAL SUCIETY OF AMERICA, VOL. 58, NO. 11, PP. 1490-1494, NOVEMBER 1968.

ARTER, F.W., "SIMPLE DELTA MODULATION SYSTEM," PROCEEDINGS OF THE IRE(AUSTRALIA) VCL. 23, PP. 517-523, SEPTEMBER 1962.

ATTAYA, W.L., ET AL., "STUDY OF IMAGE-EVALUATION TECHNIQUES," AD 803457, NOV-EMBER 1966.

ATTNEAVE, F., "SUME INFORMATIONAL ASPECTS OF VISUAL PERCEPTION," PSYCHOLOGY REVIEW, NO. 61, 1954, PP. 183-193.

AUSHERMAN, D.A., HALL, E.L., DWYER, S.J., LODWICK, G.S., KRUGER, R.P., "MFASURF-MENT SELECTION TECHNIQUES APPLIED TO DIGITAL IMAGES," UNIVERSITY OF MISSCURI, CCLLMBIA, 1969.

BABCOCK, T.R., RICHMONE, G.E., "APPLICATION OF PERCEPTIONS IN PHOTOINTERPRETATION," CORNELL AERONAUTICAL LABORATURY, INCORPORATED, BUFFALO, NEW YORK, FINAL REPERT, 76 P., JULY 1964.

BABITS, V.A., "RESULTS WITH AN EXPERIMENTAL COLOUR TELEVISION SYSTEM USING CONTROLLED COLOUR FILTERS," RENSSELAER POLYTECHNIC INSTITUTE, TROY, NEW YORK, P. 15, JANUARY 1959.

BACHL, A., LUKOSZ, W., MEXPERIMENTS ON SUPERRESOLUTION IMAGING OF A REDUCED OBJECT FIELD, M JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 2, Pp. 163-169, FEBRUARY 1967.

BAER, T., "APPLICATION OF MEDIAL-AXIS TRANSFORM TO PICTURE BANDWIDTH COMPRESSION," M.S. THESIS, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, DEPARTMENT OF ELECTRICAL ENGINEERING, SEPTEMBER 1968.

BAER, T., "PICTURE CODING USING THE MEDIAL AXIS TRANSFORMS." S.M. THESIS, DEPARTMENT OF ELECTRICAL ENGINEERING, M.I.T., CAMBRIDGE, MASSACHUSETTS, MAY 1969.

BAHER, C.A., NICHOLSON, R.M., "RASTER SCAN PARAMETERS AND TAKGET IDENTIFICA-TICN," PROCEEDINGS OF THE 19TH ANNUAL NATIONAL AEROSPACE ELECTRONICS CONFERENCE, DAYTON, OHIO, PP. 285-290, MAY 15-17, 1967.

BALABAN, P., MRECORDING AND DISPLAY OF REDUCED BANDWIDTH TELEVISION SIGNALS, POLYTECHNIC INSTITUTE OF BROOKLYN, NEW YORK, MICROWAVE RESEARCH INSTITUTE, NO-VEMBER 1966.

BALAKRISHNAN, A.V., "ADAPTIVE METHODS IN COMMUNICATION SYSTEMS," NASA/GSFC GCDCARD SPACE FLIGHT CENTER CONFERENCE ON ADAPTIVE TELEMETRY, GREENBELT, MARYLAND, NASA TM-X-55747, X-731-67-7, PP. 9-25, JANUARY 1967.

BALAKRISHNAN, A.V., "COMMUNICATION THEORY," NEW YORK: MCGRAW-HILL, 1968, PP. 335-342.

BALAN, J.C., EPSTEIN, M.A., FEIT, L., MPCM TELEVISION VIA SATELLITE RELAY, FEIT INTERNATIONAL CONFERENCE ON COMMUNICATIONS, BOULDER, CULORADO, JUNE 1969.

BALDER, J.C., KRAMER, C., "ANALOG-TU-DIGITAL CONVERSION BY MEANS OF DELTA MUDULATION," IEEE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SET-1), PP. 87-50, SEPTEMBER 1964.

BALDER, J.C., KRAMER, C., "VIDEO TRANSMISSION BY DELTA MODULATION USING TUNNEL DICCES," PROCEEDINGS OF THE IRE, "/OL. 50, NO. 4, APRIL 1962, PP. 428-431.

Bearing the Control of the Control o

BALCWIN, M.W., "DEMONSTRATION OF SOME VISUAL EFFECTS OF USING FRAME STORAGE IN TELEVISION TRANSMISSION," IRE CONVENTION RECORD, 1958, P. 107.

BALCWIN, M.W., "SUBJECTIVE SHARPNESS OF ADDITIVE COLOR PICTURES," PROCEFCINGS OF THE IRE, OCTOBER 1951, PP. 1173-1176, Vol. 39.

BALDWIN, M.W., "THE SUBJECTIVE SHARPNESS OF SIMULATED TELEVISION IMAGES," BELL SYSTEM TECHNICAL JOURNAL, VOL. 19, PP. 563-587, OCTOBER 1940.

BALDWIN, M.W., NIELSEN, G., "SUBJECTIVE SHARPNESS OF SIMULATED COLOR TELE-VISION PICTURES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 46, NO. 9, SEPTEMBER 1956, PP. 681-685.

BARNARD, T.W., MAN IMAGE EVALUATION METHOD, A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CCRPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 5-1 TO 5-2.

BARNARC, T.W., "A LITERARY SURVEY ON IMAGE QUALITY EVALUATION," ENGINEERING REPORT ER-177, THE PERKIN-ELMER CORPORATION, NORWALK, CONN., UPTICAL TECHNOLOGY DIVISION, JUNE 11, 1971.

BARNES, C.W., "UBJECT RESTORATION IN A DIFFRACTION LIMITED IMAGING SYSTEM," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VCL. 56, Pp. 575-576, 1966.

BARKES, C.W., "SPATIAL SIGNALS AND IMAGING SYSTEMS," UNIVERSITY OF CALIFCRNIA AT IRVINE, SCHOOL OF ENGINEERING, GRANT NSF-GK-1461, FINAL REPORT, 1969

BARRACK, C.M., ZAHALKA, L.B., "MODULATION TECHNIQUES FOR HIGH RESOLUTION VISUAL DATA," 1962 CONFERENCE PROCEEDINGS OF THE 6TH NATIONAL CONVENTION ON MILITARY ELECTRONICS, PP. 206-212.

BARSTON, J.M., CHRISTOPHER, H.N., "THE MEASUREMENT OF RANDOM MONOCHROPE VIDEO INTERFERENCE," TRANSACTIONS OF THE ALEE, VOL. 72, PART 1, JANUARY 1964, PP. 735-741.

BARSTCH, J.M., CHRISTCPHER, H.N., "THE MEASUREMENT OF RANDOM VIDEO INTERFER-ENCE TO MONOCHRUME AND CULOR TELEVISION PICTURES," AIRE TRANSACTIONS, NO. 63, NOVEMBER 1962, Pp. 313-320.

BARTELS, P.H., BELLAMY, J., "SELF-OPTIMIZING, SELF-LEARNING SYSTEM IN PICTORIAL PATTERN RECOGNITION," APPLIED OPTICS, VOL. 9, NC. +1, P. 2453, NOVEMBER 1970.

BARTELS, P.H., WILSUN, C.F., "AUTUMATIC TRACKING FROM VICEC SIGNALS," PRICEED-INGS OF THE THIRD ANNUAL SEMINAR-IN-DEPTH, LGS ANGELES, CALIFORNIA, APPIL 26-27, 1965.

BARTON, M.P., "DATA REDUCTION IN TELEVISION SIGNALS FOR BANDWICTH COMPRESSION," UNIVERSITY OF LUNDON, PH.D. THESIS, NOVEMBER 1963.

BASINGER, J.D., HARSHBARGER, J.H., "TEST EVALUATION OF ELECTRONIC IMAGE GENERATION AND PROJECTION DEVICES," SYSTEMS RESEARCH LABORATORIES, INCORPURATED, DAYTON, CHIO, FINAL REPORT AMRL-TR-65-116, VOL. 111, JULY 1965.

BAUPUNK, J.F., RUTH, S.H., "PICTORIAL DATA TRANSMISSION FROM SPACE VEHICLE," LLECTRICAL ENGINEERING, VUL. 79, NO. 2, FEBRUARY 1962, PP. 134-138.

BAYEVSKIY, R.M., "TRANSMISSION OF MEDICAL INFLRMATION OVER LIMITEC-CAPACITY

TELEMETRY CHANNELS," AVIATION AND SPACE MEDICINE, EDITED BY V.V. PARIN, NASA TT F-228, PP. 41-43, DECEMBER 1964.

BEALL, W.H., "STATISTICAL ANALYSIS OF DEGRADATION IN SCANNED IMAGE SYSTEMS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, NO. 8, Pp. 992-997, AUGUST 1964.

BEAUDETTE, C.G., "AN EFFICIENT FACSIMILE SYSTEM FOR WEATHER GRAPHICS," PROCEEDINGS OF THE PIGTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 4, DECEMBER 1971.

BECHTCLU, W.R., BJCRN, T., MEDLIN, J.E., "PCM TELEMETRY CATA COMPRESSION STUCY, PHASE II," SECOND QUARTERLY REPORT, NOVEMBER 1965-FEBRUARY 1966, NASA CR-86993, LUCKHEFD MISSILES AND SPACE COMPANY, M-62-66-2, P. 90, SUNNYVALE, CALIFCKNIA, APRIL 1966.

BECHTCLD, W.K., HOCHMAN, D., MGENERAL-PURPOSE VERSUS SPECIAL-PURPOSE COMPUTERS FOR DATA COMPRESSION, MESTERN ELECTRONIC SHOW AND CONVENTION, SAN FRANCISCO, CALIFORNIA, PP. 6/4-1 TO 6/4-11, AUGUST 1967.

BECHTCLD, Ward, MEDLIN, J.E., WEBER, D.R., "PCM TELEMETRY CATA COMPRESSION STUDY, PHASE I," FINAL REPORT SEPTEMBER 1964-AUGUSY 1965, NASA CR-71528, LOCK-HEE MISSILES AND SPACE COMPANY, SUNNYVALE, CALIFORNIA, M-62-65-2, P. 43°, OCTOBER 1965.

BECKER, J., MOPTICAL SYSTEMS FOR USE AT LOW LIGHT LEVELS," OPTICA ACTA, VOL. 17, NC. 7, PP. 481-496, JULY 1970.

BEDDDES, M.P., "EXPERIMENTS WITH SLOPE FEEDBACK CODER FOR TV COMPRESSION," IRE TRANSACTIONS ON BROADCASTING, VOL. BC-7, NO. 2, MARCH 1961, PP. 12-28.

BEDCOES, M.P., "INVESTIGATIONS INTO TRANSMISSION SYSTEMS USING VARIABLE VELO-CITY SCANNING FOR BANDWIDTH REDUCTION OF FACSIMILE AND TELEVISION SIGNALS," LCNCCN UNIVERSITY, PH.D. THESIS, 1958.

BEDCUES, M.P., "TWO CHANNEL METHOD FOR COMPRESSING BANDWIDTH OF TELEVISION SIGNALS," PROCEEDINGS OF THE IEE, VOL. 110, NO. 2, FEBRUARY 1963, PP. 369-374.

BEDDOFS, M.P., MA VARIABLE-VELOCITY MAGNETIC SCANNING PROCESSUM IEE MONOGRAPH, NC. 241R, PART C. JUNE 1957.

BECCOES, M.P., MEIER, O., "CORRECTION TO "FILTER EFFECT AND TELEVISION CUMPRESSION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 1, P. 119, JANUARY 1971.

BECCOES, M.P., MEIER, O., "FLICKER EFFECT AND TELEVISION COMPRESSION," IEFE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 2, PP. 214-219, MARCH 1970

BECFORD, A.V., "MIXED HIGHS IN COLOR TELEVISION," PROCEEDINGS OF THE IRE, SEPTEMBER 1950, PP. 1003-1009.

BELFORD, L.H., PUCKLE, O.S., "A VELOCITY MODULATION TELEVISION SYSTEM," JOURNAL OF THE IEE, VOL. 75, 1934, P. 63.

BELL, C.A., "COMPUTER AIDED DESIGN OF IMAGE PROCESSING TECHNIQUES," CONFERENCE ON PATTERN RECOGNITION, LONDON, ENGLAND, 1FF, PP. 282-289, 1968.

BELL, D.A., "DISCUSSION ON THE IMPACT OF IMPORMATION THEORY ON TELEVISION," JOURNAL OF THE BRITISH IRE, VOL. 13, NO. 14, PP. 590-591, DECEMBER 1953.

BELL, D.A., "ECUNOMY OF BANDWIDTH IN TELEVISION," BRITISH JOURNAL OF THE IRF, VCL. 13, NO. 9, SEPTEMBER 1953, PP. 447-470.

BELL, D.A., SWANN, G.E.D., "SPECTRUM OF TELEVISION SIGNALS," WIRELESS ENGINEER, VCL. 33, NO. 11, NOVEMBER 1956, PP. 253-256.

BELLO, P.A., LINCOLN, R.N., GISH, H., "STATISTICAL DELTA MCDULATION," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, PP. 308-320, MARCH 1967.

The state of the s

Maria Carlo de la lacalidad de la constante de

BELTRAMI, A., MUSCA, V., "HIGH-SPEED VISUAL COMMUNICATION OVER EXISTING TELEPHONE NETWORKS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-17, NC. 3, JUNE 1969, Pp. 395-403.

BENNET, H.F., "ROOT-MEAN-SQUARE RAY DEVIATION AS A MEASURE OF IMAGE QUALITY," JUURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 76, NC. 3, MARCH 1967, PP. 203-204.

BEATON, S.A., KRCNAUER, R.E., *PROPERTIES OF GRANULARITY-WEINER SPECTRA,* JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 4, PP. 524-529, APRIL 1971.

BERGER. T.. "RATE DISTORTION THEORY." NEW JERSEY. PRENTICE-HALL. INC., 1971.

BERKUWITZ, M., MADAPTIVE DATA SAMPLING SYSTEM, FIFE PROFESSIONAL GROUP TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY RECORD, 1963.

BERKOWITZ, M.A., "EDGE GRADIENT ANALYSIS OTF ACCURACY STUDY," PRUCEEDINGS UF THE SPIE SEMINAR ON MODULATION TRANSFER FUNCTION," BCSTON, MASSACHUSETTS, MARCH 1968.

BERLEKAMP, E.R., "SOME MATHEMATICAL PROPERTIES OF A SCHEME FOR REDUCING THE BANCWIDTH OF MOTION PICTURES BY HADAMARC SMEARING," THE BELL SYSTEM TECHNICAL JULY-AUGUST, 1970, Pp. 969-968.

BERNHARD, R., "ON VISUAL PERCEPTION AND RETINAL MOTIONS," PROCEEDINGS OF THE IRE, VOL. 50, OCTOBER 1962, P. 2133.

BERSHAD, N.J., "RESOLUTION, UPTICAL-CHANNEL CAPACITY AND INFORMATION THEORY."
JCURNAL OF THE OPTICAL SUCIETY OF AMERICA, VUL. 59, NO. 2, PP. 157-163, FEBRUARY
1965.

BHUSHAN, A.K., "EXPERIMENTS IN CODING CULOR PICTURES," PROCEEDINGS OF THE BANCHIUTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 7, DECEMBER: 1571.

BIALLY, T., "A CLASS DIMENSION CHANGING MAPPINGS AND ITS APPLICATION TO BAND-WICTH COMPRESSION," PH.D. THESIS, POLYTECHNIC INSTITUTE OF BROOKLYN, NEW YORK, 1967.

BIALLY, T., "SPACE-FILLING CURVES AND THEIR APPLICATIONS TO BANDWIDTH RF-GUCTION," PH.D. THESIS, DEPARTMENT OF ELECTRICAL ENGINEEPING, POLYTECHNIC INSTITUTE OF BROOKLYN, JULY 1968.

BIERNSON, G., "ANALYSIS OF CULOR DISCRIMINATION PROPERTIES OF A HIGH DIMENSIONAL COLOR VISION MODEL," APPLIED RESEARCH LABORATORY, SYLVANNIA ELECTRONIC SYSTEMS, WALTHAM, MASSACHUSFITS, PP. 104-108, 1967.

BIERNSON, G., "A FEEDBACK-CONTROL MODEL OF HUMAN VISION," PROCEEDINGS OF THE IEEE, VOL. 54, PP. 858-872, JUNE 1966.

BIERNSON, G., "SPECTRAL SCANNING AS A MECHANISM OF COLOR VISION," IEFE TRANSACTIONS ON MILITARY ELECTRONICS, APRIL-JULY 1963, PP. 103-108.

BIERNSON, G., SNYDER, A.W., "A MUDEL OF VISION EMPLOYING UPTICAL MODE PATTERNS FOR COLOR DISCRIMINATION," IEEE TRANSACTIONS ON SYSTEMS SCIENCES AND CYBERNETICS, VOL. SSC-4, NO. 2, P. 173, JULY 1968.

BILLARD, P., BCUTRY, G.A., "VISIBILITY OF RECURRENT STRUCTURES IN INTERLACED TELEVISION," ACTA ELECTRUNICA, VOL. 2, PARTS 1 AND 2, 1957-1958, PP. 62-70.

BILLINGS, A.R., "A CUDER FOR HALVING THE BANDWIDTH OF SIGNALS," PROCFEDINGS IEE, VCL. 105, PART B, NO. 20, MARCH 1958, PP. 182-184.

BILLINGSLEY, F.C., "APPLICATIONS OF DIGITAL IMAGE PROCESSING," APPLIED OPTICS, VCL. 9, NO. 2, PP. 289-299, FEBRUARY 1970.

BILLINGSLEY, F.C., "DIGITAL IMAGE PROCESSING AT JPL," SUCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

BILLINGSLEY, F.C., "DIGITAL IMAGE PROCESSING RATIONALE," SUPPLEMENT D, FROM CHAPTER IN PROGRESS IN BIOLOGICAL ELECTRON MICROSCOPE TECHNIQUES, HARPER AND RCW, 1969.

BILLINGSLEY, F.C., "PROCESSING RANGER AND MARINER PHOTOGRAPHY," SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS JOURNAL, VOL. 4, PP. 147-155, APRIL-MAY 1966.

BILLINGSLEY, F.C., LINDSLEY, J.N., GOETZ, A.F., "CULCR DIFFERENTIATION BY COMPUTER IMAGE PROCESSING," PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. 14, NC. 1, PP. 28-35, JANUARY 1970.

BINGLEY, F.J., "COLORIMETRY IN COLOR TELEVISION," PROCEEDINGS OF THE I.R.F., JULY, 1953, PP. 838-851.

BIRAUC, Y., "A NEW APPROACH FOR INCREASING THE RESOLVING POWER BY DATA PROCESSING," ASTRONOMY AND ASTROPHYSICS, VOL. 1, PP. 124-127, JANUARY 1969.

BIRCH, K.G., "AN ANALYSIS UF THE GENERALIZED BINARY FILTER," OPTICA ACTA, VCL. 17, NC. 1, PP. 43-58, JANUARY 1970.

BIRCH, K.G., "A SPATIAL FREQUENCY FILTER TO REMOVE ZERO FREQUENCY," OPTICA ACTA, VUL. 15, NO. 2, PP. 113-128, MARCH-APRIL 1968.

BIRKNER, W., DAVIS, J., HANNUM, J., TAYLOR, N., "CONTRAST MODULATION TECHNIQUES FCR IMAGE ENHANCEMENT," WRIGHT-PATTERSON AIR FORCE BASE, 13-10, AFSC-TCR-64-45, MARCH 1964.

BIRZUKOV, YU. L., ET AL., "APPLICATION OF PHOTOGRAPHIC MASKING TO REDUCE THE EFFECT OF MUTION ON THE SHARPNESS OF THE PHOTOGRAPHIC IMAGE," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AFB, UHIO, FOREIGN TECHNOLOGY DIVISION, DECEMBER 1969.

BISIGNANI, W.T., RICHARDS, G.P., WHELAN, J.W., "DATA COMPRESSION FOR CIGITAL TV FROM SPACE," SPACE/AERONAUTICS, VOL. 45. PP. 108-121, JUNE 1966.

BISIGNANI, W.T., RICHARDS, G.P., WHELAN, J.W., "THE IMPROVED GRAY SCALE AND THE CUARSE-FINE PCM SYSTEMS: TWO NEW DIGITAL TV BANDWIDTH RECUCTION TECHNIQUES," PROCEEDINGS IEEE, VOL. 54, NO. 3, MARCH, 1966, PP. 376-390.

BJORN, T., FRICUERO, W.J., MEDLIN, J.E., "PCM TELEMETRY CATA COMPRESSION STUDY.

PHASE 2," FINAL REPORT, AUGUST 1965-DECEMBER 1966, NASA CR-85894, LUCKHEED MISSILES AND SPACE CO., M-62-66-8, P. 319, SUNNYVALE, CALIFORNIA, JANUARY 1967.

BLACKMAN, E.S., "EFFECTS OF NOISE ON THE DETERMINATION OF PHOTOGRAPHIC SYSTEM MUDULATION TRANSFER FUNCTION," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 12, PP. 244-25C, SEPTEMBER-OCTOBER 1968.

HLASHALG, H., VAN BLERKCM, R., "MESSAGE COMPRESSION," IRE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SET-8, NO. 3, SEPTEMBER, 1962, PP. 228-238.

BLCKH, E.L., "THE TRANSMISSION OF BINARY SEQUENCES USING A UNIFORM CUDE," PROBLEMS OF INFORMATION TRANSMISSION, 1960, NO. 3, PP. 12-22.

BLCKH, E.L., "THE TRANSMISSIUN OF NON-UNIFORM BINARY SEQUENCES BY MEANS OF A UNIFORM CODE," ELEKTROSVYAZ 13, 1959, NO. 1, PP. 76-77, IN RUSSIAN, ENGLISH TRANSLATION, 1959, PP. 98-101.

BLCSS, W.H., BAUER, K., METZ, S., SAACKEL, L., MAN ELECTRUNIC METHOD FOR IMPROVING STATISTICALLY PERTURBED IMAGES, NACHRICHTENTECHNISCHE ZEITSCHRIFT, VCL. 24, Pp. 77-80, FEBRUARY 1971.

BLYLMBERG, 1.B., ZYAZINA, 1.M., "TRANSMISSION OF SMALL-SIZE DETAILS IN SEQUEN-TIAL IMAGES." LENINGRAD INSTITUTE OF MOTION PICTURE ENGINEERS, 1969.

BODYCOMB, J.V., HADDAD, A.H., "SUME PROPERTIES OF A PREDICTIVE QUANTIZING SYSTEM," THIRD ANNUAL PRINCETON CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, PRINCETON UNIVERSITY, MARCH 1969.

BCGERT, B.P., HEALY, M.J.R., TUKEY, J.W., "THE QUEFERENCY ALANYSIS OF TIME SERIES FOR ECHOES: CEPSTRUM AND SAPHE CRACKING," BELL TELEPHONE TECHNICAL JCLRNAL, HOLMDEL, NEW JERSEY, PP. 209-243, 1967.

BCSWORTH, R.H., CANDY, J.C., MA CUMPANDED ONE-BIT COCER FOR TELEVISION TRANSMISSION, THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NG. 5, MAY-JUNE 1969.

BOURKE, D.G., JEWELL, P., "SOME CONSIDERATIONS IN ESTABLISHING THE FEASIBILITY OF CATA COMPRESSION IN UNMANNED SPACECRAFT," SYMPOSIUM ON UNMANNED EXPLORATION OF THE SOLAR SYSTEM, DERVER, COLURADO, FEBRUARY 1965.

BUWERS, F.K., "WHAT USE IS DELTA MODULATIONS TO THE TRANSMISSICN ENGINEER?" PROCEEDINGS OF THE AIRE, VOL. 76, Pt. 1, Pp. 142-147, MAY 1957.

BCWYER, D.E., "RATE CALCULATIONS FOR COMPRESSED HADAMARD-TRANSFORMED DATA," SUMMARY REPORT MSD-INT-1338, TELEDYNE BROWN ENGINEERING, HUNTSVILLE, ALABAMA, JUNE 1971.

BCWYER, D.E., "WALSH FUNCTIONS, HADAMARD MATRICES AND DATA COMPRESSION," 1971 WALSH FUNCTION SYMPOSIUM. RECORD. WASHINGTON. D.C.

BCYCE: G.D., "INFORMATION CONTENT OF SPACE VEHICLE DATA SOURCES," INTERNATIONAL SPACE ELECTRONICS SYMPOSIUM, LAS VEGAS, NEVADA, OCTOBER 1964.

BRACLEY, D., "OPTIMIZING A SCHEME FOR RUN LENGTH ENCUDING," PRUCEEDINGS OF THE IEEE, JANUARY 1969.

BRAIN, A.E., DUDA, R.O., FOSSUN, G.E., MUNSON, J.H., "GRAPHICAL-UATA-PROCESSING RESEARCH STUDY AND EXPERIMENTAL INVESTIGATION," STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, QUARTERLY PROGRESS REPORT, NO. 9, NOVEMBER 1965.

BRAINARD, R.C., "LOW-RESULUTION TV: SUBJECTIVE EFFECTS OF NOISE ADDED TO A

SIGNAL," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. XLVI, NC. 1, JANUARY 1967, PP. 233-259.

BRAINARD, R.C., "SUBJECTIVE EFFECTS OF NOISF IN TELEVISIONS," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORCON AND BREACH, NEW YORK, PART 1, DECEMBER 1971.

BRAINARD, R.C., "SUBJECTIVE EVALUATION OF PCM NUISE-FEEDRACK CODER FOR TELEVISION," PROCEEDINGS OF THE IEEE, VOL. 55, PP. 346-353, MARCH 1967.

BRAINARU, R.C., CANDY, J.C., "DIRECT-FEEDBACK CODERS: DESIGN AND PERFORMANCE WITH TELEVISION SIGNALS," PROCEEDINGS OF THE IREE, VCL. 57, PP. 776-786, MAY 1969.

BRAINARD, R.C., CAUM, K.B., "EVALUATION OF AN IMAGE QUALITY ENHANCEMENT TECHNIQUE," WRIGHT-PATTERSON AIR FURCE BASE, UHIC, AMRL, SEPTEMBER 1965.

BRAINARD, R.C., KAMMERER, F.W., KIMME, E.G., "ESTIMATION OF THE SUBJECTIVE EFFECTS OF NOISE IN LOW-RESOLUTION TELEVISION SYSTEMS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 2, FEBRUARY 1962, PP. 99-106.

BRAINARD, R.C., MOUNTS, F.W., PRASADA, B., "LOW-RESOLUTION TV: SUBJECTIVE EFFECTS OF FRAME REPETITION AND PICTURE REPLENISHMENT," BELL SYSTEM TECHNICAL JCLHVAL, VOL. 46, NO. 1, PP. 261-271, 301-311, JANUARY 1967.

BRAINARU, R.C., ORNSTEIN, G.N., "IMAGE QUALITY FNHANCEMENT," NCRTH AMERICAN AVIATION, INC., CCLUMBUS, UHID, FINAL REPORT, 63 P., APRIL 1965.

BREWER, W.L., LADD, J.H., PINNEY, J.E., "BRIGHTNESS MCDIFICATION PROPOSALS FOR TELEVISING COLOR FILM," PROCEEDINGS OF THE IRE, JANUARY 1954, PP. 174-191.

BRITISH BROADCASTING CURPORATION, "PULSE CUDE MODULATION OF VIDEO SIGNALS: 8-BIT CCCER AND DECUDER," BBC, KINGSWOOD, ENGLAND, RESEARCH DEPARTMENT, 1970.

BRCCK, G.C., "IMAGE EVALUATION FOR RECONNAISSANCE, "APPLIED OPTICS, VOL. 3, NO. 1, PP. 11-13, JANUARY 1964.

BRCCK, G.C., "PHYSICAL ASPECTS OF AERIAL PHOTOGRAPHY," NEW YORK, DOVER, 1967.

BROCK, G.C., "REFLECTIONS ON THIRTY YEARS OF IMAGE EVALUATION," PHOTOGRAPHIC SCIENCE AND ENCINEERING, VOL. 11, Pp. 356-362, 1967.

BROCY, R.H., ERMLICH, J.R., "FOURIER ANALYSIS OF AERIAL PHOTOGRAPHS," PROCEEDINGS OF THE FOURTH SYMPOSIUM ON REMOTE SENSING OF ENVIRONMENT, ANN ARBCR, MICHIGAN, PP. 375-392, JUNE 1966.

Ì

BRCFFERIO, S., KOCCA, F., SUARDO, P., MDIGITAL FRAME-TO-FRAME AND LINE-TC-LINE ENCODER", SYMPOSIUM ON PICTURE CODING, SEPTEMBER 13-11, 1970, NURTH CAROLINA UNIVERSITY.

BRCHN, B.R., LOHMANN, A.W., "COMPLEX SPATIAL FILTERING WITH BINARY MASKS," APPLIED OPTICS: VGL. 5, NO. 6, PP. 893-899, JUNE 1966.

BRCWN, B.R., LOHMANN, A.W., "COMPUTER-GENERATED BINARY HOLOGRAMS," IBM JOURNAL OF RESEARCH AND DEVELOPMENT, VOL. 13, PP. 160-168, MARCH 1969.

BRCWN, U., "CONVERSION OF TELEVISION SIGNALS TO DIGITAL FORM," UNIVERSITY OF LONDON, M. SC. THESIS, 1962.

BRCWN, D.W., ET AL., "COMPUTER PROCESSING OF SCANS USING FOURIER AND OTHER

TRANSFORMATIONS," JOURNAL OF NUCLEAR MECICINE, VOL. 12, PP. 287-291, JUNF 1971.

A SANTAGE PROPERTY OF THE PROP

BRChN, E.B., "PARAMETERS OF THE SAMPLED IMAGE SYSTEM." A SYMPUSIUM ON SAMPLED IMACES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 2-1 TC 2-8.

BRCWN, E.B., "PREDICTION AND COMPENSATION OF LINEAR IMAGE MUTICNS IN AERIAL CAMERAS," PROCEEDINGS OF THE NASAZERC SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

BRCWN, E.F., "EXPANDED DPCM CODING TECHNIQUES FOR TELEVISION," PRESENTED AT THE SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

BRCFN, E.F., "LOW RESOLUTION TV: SUBJECTIVE COMPARISON OF INTERLACED AND NONINTERLACED PICTURES," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, NO. 1, PP. 199-232, 1967.

BRCWN, E.F., "A SLIDING-SCALE CIRECT-FEEDBACK PCM CODER FOR TELEVISION," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 5, MAY-JUNE 1969.

BRCWN, E.F., "SLIDING-SCALE OPERATION OF DIFFERENTIAL TYPE PCM CODES FOR TELEVI-SIGN," PRUCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPCSIUM, GORDON AND BREACH, NEW YORK, PART 5, 1971.

BROWN, E.F., "TELEVISION: THE SUBJECTIVE EFFECTS OF FILTER RINGING TRANSIENTS," JOURNAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 78, NC. 4, APRIL 1969.

BRCMN, H.A., "EFFECT OF TRUNCATION ON IMAGE ENHANCEMENT BY PROLATE SPHEROIDAL FUNCTIONS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 2, Pp. 228-229, FEBRUARY 1969.

BRCHN, H.A., "IMAGE ENHANCEMENT WITH PROLATE SPHEROIDAL HAVE FUNCTIONS," NAVAL RESEARCH LABS, REPORT #6798, WASHINGTON, D.C., NOVEMBER 1968.

BRChn, H.A., "LIMITATIONS ON AN IMAGE ENHANCEMENT PROCESS," NRL MEMORANDUM REPCRT, #1934, WASHINGTON, D.C., OCTOBER 1968.

BRCWN, K.N., "ON-LINE COMPUTER RECOGNITION OF HANDPRINTED CHARACTERS," IEEE THANSACTIONS ON ELECTRONIC COMPUTERS, VUL. EC-13, NO. 6, PP. 750-752, DECEMBER 1964.

BRUCE, M.M., MAN ANALYSIS OF A FIRST-ORDER PCLYNOMIAL PREDICTOR FOR DATA CCPPRESSION, MASA TECHNICAL NOTE, NASA TN D-3866, WASHINGTON, D.C., P. 29, MARCH 1967.

BRUCE, R.A., *CPTIMUM PRE-EMPHASIS AND DE-EMPHASIS NETWORKS FOR TRANSMISSION OF TELEVISION BY PCM.* THEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, SEPTEMBER 1964, PP. 91-96.

BRYAN, J.A., STUMPE, J.W., "THE DATA MANAGEMENT ANALYZER, A LABURATORY TOOL FOR DATA COMPRESSION ANALYSIS," INTERNATIONAL SPACE ELECTRONICS AND TELEMETRY SYMPOSIUM, MIAMI BEACH, FLORIDA, P. 11, NOVEMBER 1965.

BRYNGDAHL, C., "CHARACTERISTICS OF THE VISUAL SYSTEM: PSYCHOPHYSICAL MEASUREMENTS OF THE RESPONSE TO SPATIAL SINE-WAVE STIMULI IN THE MESOPIC REGION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, PP. 1152-1160, SEPT-EMBER 1964.

BRYNGDAHL, D., MEFFECT OF RETINAL IMAGE MOTION ON VISUAL ACUITY, MOPTICAL ACTA, VCL. 8, PP. 1-16, 1961.

The state of the second second second second

BRYNGCAHL, U., LUHMANN, A., "HCLOGRAPHIC PENETRATION OF TURBULENCE, "PROCEEDINGS OF THE NASA/ERC SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

BUCK, G.J., GUSTINCIC, J.J., "RESOLUTION LIMITATIONS OF A FINITE APERTURE,"
IEEE TRANSACTIONS ON ANTENNAS PROPOGATIONS, VOL. AP-15, PP. 376-381, MAY 1967.

BUDRIKIS, 2.L., "A DESCRIBING THEORY OF THRESHOLD VISION," CCMMONWEALTH CF AUSTRALIA, POST MASTER GENERAL'S DEPARTMENT, REPORT NO. 5280, AUGUST 1960.

BUDRIKIS, Z.L., "AN ESTIMATE OF CHANNEL REQUIREMENTS FOR RUN-LENGTH CODED TV PICTURE SIGNALS," COMMONWEALTH OF AUSRALIA, POST MASTER GENERAL'S DEPARTMENT, REPORT NO. 5057, JULY 1959

BUURIKIS, Z.L., "SHEURETICAL FINITE SAMPLE STATISTICS OF RUN-LENGTH CCDED TV PICTURE SIGNALS," COMMONHEALTH OF AUSRALIA, POST MASTER GENERAL'S DEPARTMENT, REPORT NO. 5352, FEBRUARY, 1961.

BUCRIKIS, Z.L., "VISUAL THRESHOLDS AND THE VISIBILITY OF RANDOM NOISE IN TV," PROCEEDINGS ON THE IRE AUSTRALIA, VOL. 22, PP. 751-759, DECEMBER 1961.

BUCRIKIS, Z.L., SEYLER, A.J., "DELAYED DETAIL PRECEPTION AFTER SCENE CHANGES IN TV REPRESENTATION OF MOVING FILM," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERAL'S DEPARTMENT, REPORT NO. 5262, JUNE 1960.

BUCKIKIS, Z.L., SEYLER, A.J., "MEASUREMENT OF HUMAN CBSERVER RESPONSE TO CHANGES IN THE CONTENT OF VISUAL DISPLAYS, "COMMONWEALTH OF AUSTRALIA, PGST MASTER GENERAL'S DEPARTMENT, REPORT NO. 5248, MAY 1960.

BURCKHARDT, C.B., "INFORMATION REDUCTION IN FOLCGRAMS FOR VISUAL DISPLAYS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, Vol. 58, No. 2, Pp. 241-246, FEBRUARY 1968.

BURCKHARDT, C.B., "CPTIMUM PARAMETERS AND RESOLUTION LIMITATION OF INTEGRAL PHOTOGRAPHY," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VGL. 58, NC. 1, PP. 71-76, JANUARY 1968.

BURGETT, M.I., "A SUBJECTIVE STUDY OF COLUR SYNCHRONIZATION PERFORMANCE," PROCEEDINGS OF THE IRE, VOL. 41, PP. 979-983, AUGUST 1953.

BURKHARDT, D.A., "BRIGHTNESS AND THE INCREMENT THRESHOLD," JCURNAL OF THE CPTICAL SOCIETY OF AMERICA, VOL. 56, PP. 979-981, JULY 1566.

BURNHAM, D.C., "ELECTRONIC AVERAGING OF ONE-DIMENSIONAL TELEVISION PICTURES," APPLIED OPTICS, VOL. 9, NO. 11, P. 2565, NOVEMBER 1970.

BURR, R.P., "THE USE OF ELECTRONIC MASKING IN COLOR TELEVISION." PROCEEDINGS OF THE IRE, JANUARY 1954, PP. 192-200.

BLTT, E., "THE PAX II PICTURE PROCESSING SYSTEM," COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, TECHNICAL REPORT 68-67, NSG-398, PH-43-67 1099, MAY 1968.

BLTT, E., KOSAKOFF, E., LEE, Y., RUSENFELD, A., "STUCIES IN VISUAL TEXTURE MANIPULATION AND SYNTHESIS," COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, TECHNICAL REPORT 68-64, XG-2054*62-2271*67R, APRIL 1968.

BYLANSKI, P., "EFFICIENT ENCODING OF FACSIMILE USING AN ADAPTIVE TECHNIQUE,"

ELECTRONICS LETTERS, VOL. 1, PP. 72-73, MAY 1965.

A Company of the Comp

BYLANSKI, P., "SECOND-ORDER REDUNDANCY OF COARSELY QUANTIZED VIDEO SIGNALS," PROCEEDINGS OF THE IEE, LONDON, VOL. 114, NO. 12, PP. 1831-1833, 1967.

BYRAM, G.M., "VISUAL ACUITY AND THE PHOTOCHEMISTRY OF THE RETINA," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 34, NO. 12, DECEMBER 1944, Pp. 718-768.

^

CABREY, R.L., "VIDEO TRANSMISSION OVER TELEPHONE CABLE PAIRS BY PULSE CODE MODULATION," PROCEEDINGS IRE, VOL. 48, NO. 9; SEPTEMBER 1960, PP. 1546-1561.

CAHN, L., ET AL., "EXPERIMENTS IN PROCESSING PICTORIAL INFORMATION WITH A DIGITAL COMPUTER," PROCEEDINGS EASTERN JOINT COMPUTER CONFERENCE, 1957, Pp. 221-229.

CALLAHAN, L.G., BROWN, W.M., "ONE-AND TWO-DIMENSIONAL PROCESSING IN LINE SCANNING SYSTEMS," APPLIED OPTICS, VOL. 2, PP. 401-407, APRIL 1963.

CAMPBELL, F.W., "THE PUMAN EYE AS AN OPTICAL FILTER," PROCEEDINGS OF THE IEEE, VCL. 56, PP. 1009-1014, JUNE 1968.

CAMPBELL, F.W., ROSSON, J.G., MAPPLICATION OF FOURIER ANALYSIS TO THE MUCULATION RESFONSE OF THE EYE, JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, 1964, P. 581.

CANCY, J.C., "REFINEMENT OF A DELTA MODULATUR," PROCEEDINGS OF THE PICTURE BANCWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1571.

CAFCN, J., "BOUNDS TO THE ENTROPY OF TELEVISION SIGNALS," MIT RESEARCH LAB-DRATORY OF ELECTRONICS, REPORT NO. 296, MAY 1955.

CAPCN, J., "A PROBABILISTIC MODEL FOR RUN-LENGTH CODING CF PICTURES," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-5, NO. 4, DECEMBER 1959, PP. 157-163.

CARL, J.W., "GENERALIZED HARMONIC ANALYSIS FUR PATTERN RECOGNITION: A BIGLOGICALLY DERIVED MODEL," THESIS FOR AIR FORCE INSTITUTE OF TECHNOLOGY, SCHOOL OF ENGINEERING, GE/BE/TOS-1, WRIGHT-PATTERSON AIR FORCE BASE, LHIC, 59 F., SEPTEMBER 1969.

CARMAN, P.D., CHARMAN, W.N., MOETECTION, RECCGNITION, AND RESOLUTION IN PHOTO-GRAPHIC SYSTEMS, JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, NO. 9, PP. 1121-1130, SEPTEMBER 1964.

CASASGNI, D.P., "AN ON-LINE ELECTRO-OPTICAL VIDEO PRCCESSING SYSTEM," PH.D. THESIS, UNIVERSITY OF ILLINUIS, URBANA, 1969.

CASEY, W.I., "THE IMPORTANCE OF ELEMENTAL REGISTRATION AND CALIBRATION IN GRBITAL EARTH RESOURCES MULTI-SPECTRAL IMAGING," AMERICAN INSTITUTE OF AER(NAUTICS AND ASTRONAUTICS, 1968.

CASSAGNE, P., PLOTTIN, G., "COLOR TELEVISION AND SPACE," SCIENCES AND INCUSTRIES SPATIALS, VOL. 1, NO. 9, 10, PP. 17-26, 1965.

CATFEY. W.T., "PROBABILITY WEIGHTING OF SPATIAL FILTERS," JOURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 4, PP. 478-482; APRIL 1971.

CATFEY, W.T., DOIDGE, J.G., "IMAGE COMPARISON BY INTERFERENCE," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, PP. 1139-1140, AUGUST 1966.

CAULFIELD, H.J., "WAVEFRONT SAMPLING IN HOLOGRAPHY," PROCEEDINGS OF THE IEEE, VCL. 57, NO. 11, PP. 2082-2083, NOVEMBER 1969.

CHENG, G.C., LEDLEY, R.S., MA THEORY OF PICTURE DIGITIZATION AND APPLICATIONS, PICTORIAL PATTERN RECOGNITION, THUMPSON, WASHINGTON, D.C., PP. 329-352, 1968.

CHERNYKH, D.F., GAVRILOV, G.A., GUREVICH, S.B., KONSTANTINGV, A.B., KONSTANTINOV, V.B., OSTROVSKII, Y.I., "HOLOGRAPHIC IMAGE TRANSMISSION BY TELEVISION," SOVIET PHYSICS-TECHNICAL PHYSICS, VOL. 13, PP. 378-383, SEPTEMBER 1968.

CHERRY, E.C., "THE BANDWIDTH COMPRESSION OF TELEVISION AND FACSIMILE," TELEVISION SOCIETY JOURNAL, VOL. 10, NO. 2, FEBRUARY 1962, Pp. 4C-49.

CHERRY, E.C., "CODING FOR PSYCHOLOGICAL AND STATISTICAL REDUNDANCY," SYMPOSIUM ON FICTURE BANDWIDTH CCMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

CHERRY, E.C., "PICTURE BANDWIDTH COMPRESSION RESEARCH AT IMPERIAL COLLEGE, UNIVERSITY OF LONDON," PROCEEDINGS OF THE PICTURE BANDWICTH COMPRESSION SYMPOSIUM, GORDUN AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

CHERRY, E.C., BARTON, M.P., KUBBA, M.H., MAN EXPERIMENTAL STUDY OF THE POSSIBLE BANCWIDTH COMPRESSION OF VISUAL IMAGE SIGNALS, PROCEEDINGS OF THE IEEE, VOL. 51, NO. 11, NOVEMBER 1963, PP. 1507-1517.

CHERRY, E.C., GOURIET, G.G., "SOME POSSIBILITIES FOR THE COMPRESSION OF TELEVISION SIGNALS BY RECURDING," PROCEEDINGS OF THE IFE, VOL. 100, PART 3, JANUARY 1953, PP. 9-18.

CHESLER, D.A., "RESULUTION ENHANCEMENT BY VARIABLE FILTERING," PHYSICS RESEARCH LABORATORY, MASSACHUSETTS GENERAL HOSPITAL, BOSTON, JANUARY 1969.

CHILNG-PAN, C., "LIMITING INFORMATION CONTENT OF TELEVISION SIGNAL," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AIR FORCE BASE, UHIU, FOREIGN TECHNOLOGY DIVISION, JANUARY 1967.

CHCh, M., "VARIABLE LENGTH REDUNDANCY REMOVAL CUDERS," SYMPOSIUM ON PICTURE CCCING, RALEIGH, NORTH CAROLINA, SEPTEMBER 10-11, 1970.

CHUTJIAN, A., COLLIER, R.J., "RECURDING AND RECENSTRUCTING THREE-DIMENSICHAL IMAGES OF COMPUTER-GENERATED SUBJECTS BY LIPPMANN INTEGRAL PHOTOGRAPHY," APPLIED UPTICS, VOL. 7, NO. 1, P. 99, JANUARY 1968.

CLARK, L.D., "MATHEMATICAL PREDICTION OF PHOTOGRAPHIC PICTURE QUALITY FROM TONE-REPRODUCTION DATA," PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. II, PP. 306-315, 1567.

CLOSS, F., "VIDEO BANDWIDTH COMPRESSION BY MULTIPLEXING: EXPERIMENTAL RESULTS,"
IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-19, NO. 3, P. 371, JUNE

CLChes, M.B., "PERCEPTION, PICTURE PROCESSING AND COMPUTERS," MACHINE INTELLIGENCE, VOL. 1, ULIVER AND BOYD, PP. 181-197, 1967.

CLCHES, M.B., "PICTURIAL RELATIONSHIPS-A SYNTACTIC APPROACH ," MACHINE INTELLIGENCE, VUL. 4, 1969.

CLChes, M.B., "Transformational grammars and the organization of pictures," Automatic interpretation and classification of images, New York, Academic Press 1965.

White the second second

CCLTMAN, J.W., "THE SPECIFICATION OF IMAGE PROPERTIES BY RESPONSE TO A SINE WAY INPLT." JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 44, JUNE 1954, PP. 468 471.

CCLTMAN, J.W., ANDERSON, A.E., "NOISE LIMITATIONS TO RESOLVING POWER IN ELEC-TRONIC IMAGING," PROCEEDINGS OF THE IRE, VOL. 48, MAY 1960, PP. 858-865.

CCLUCCIO, T.L., MACLEOD, S., MAIER, J.J., "EFFECT OF IMAGE CONTRAST AND RESOLUTION ON PHOTOINTERPRETER TARGET DETECTION AND IDENTIFICATION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 11, PP. 1478-1462, NOVEMBER 1969.

CCLUCCIO, T.L., WASIELEWSKI, J.E., "ELECTRO-OPTICAL IMAGE ENHANCEMENT EVALUATION," RUME AIR DEVELOPMENT CENTER, GRIFFIS AFB, NEW YORK, TECHNICAL REPORT, JANUARY-SEPTEMBER 1969.

CCLWELL, R.N., "THE EXTRACTION OF DATA FROM AERIAL PHOTOGRAPHY BY HUMAN AND MECHANICAL MEANS," PHOTOGRAMMETRIA, PP. 211-228, 1965.

CCLNELL, R.A., LENT, J.D., "THE INVENTORY OF EARTH RESOURCES ON ENHANCED MULTI-BANC SPACE PHOTOGRAPHY," PROCEEDINGS OF THE 6TH INTERNATIONAL SYMPCSIUM CN REMCTE SENSING OF ENVIRONMENT, ANN ARBOR, MICHIGAN, VOL. 1, PP. 133-143, OCTOBER 13-16, 1969.

CCNNOR, D.J., PEASE, R.F.W., SCHOLES, W.G., "TELFVISION COCING USING THO-DIMENSIONAL SPATIAL PREDICTION," BELL SYSTEM TECHNICAL JOURNAL, VOL. 50, NO. 3, PP. 1C49~1061, MARCH 1971.

CCNSIDINE, P., DUPAIS, R.H., PROFIO, R.A., "INTERACTIVE OPTICAL FNHANCEMENT DEVICES," PRESENTED AT THE SPIE SEMINAR ON RECENT ADVANCES IN THE EVALUATION OF THE PHOTOGRAPHIC IMAGE, BOSTON, MASSACHUSETTS, JULY 1971.

CCNSICINE, P., PROFIO, R.A., "IMAGE PROCESSING WITH IN-LINE CPTICAL SYSTEMS," SPIE IMAGE INFORMATION RECOVERY SEMINAR PROCEEDINGS, Vol. 16, PP. 113-119, CCTCHER 1968.

COUPBS, W.C., "CUMMUNICATION THEORY ASPECTS OF TELEVISION BANDWIDTH CONSERVATION," NATIONAL BUREAU OF STANDARDS, TECHNICAL NOTE NO. 25, PB 151384, 1960.

CCUMBS, W.C., SALAMAN, R.A., COTTRELL, C.E., "A RESEARCH STUCY AND ENGINEFRING INVESTIGATION OF A DIGITAL TELEVISION SYSTEM," COLORADO RESERACH CCRPCRATION, PROJECT 23-20. BROCMFIELD HEIGHTS, COLORADO, DECEMBER 1957-JUNE 1959.

CCREETT, J.M., TAYLOR, J.R., ALLNATT, J.W., "SUBJECTIVE QUALITY OF COLOUR-TELEVISION PICTURES BY VIDEO CROSSTALK," PROCEEDINGS OF THE IEE, VOL. 116, NO. 2 Pp. 181-185, FEBRUARY 1969.

CCTTON, R.V., RENN, R.L., STRAHMEYER, G.R., "ANALYSIS OF DELTA MODULATION ENCEDING USING COMPUTER SIMULATION," SUPPLEMENT TO LEEF TRANSACTIONS ON AERU-SPACE AND ELECTRONIC SYSTEMS, VOL. AES-2, NO. 4. PP. 382-387, JULY 1966.

COTION, R.V., RENN, R.L., STRAHMEYER, G.R., "ANALYSIS AND IMPLEMENTATION OF A DELTA MUDULATION PICTORIAL ENCODING SYSTEM," PROCEEDINGS OF THE 1966 NATIONAL TELEMETERING CONFERENCE, BUSTON, MASSACHUSETIS, MAY 10-12, 1966.

CCTTUN, R.V., STRAHMEYER, G.R., TILLMAN, A.F., MDEMONSTRATION OF THE FEASIBILITY OF USING DELTA MODULATION FOR PICTURE TRANSMISSION, MPHILCC CORPORATION,

REPCRT NO. 9040-TN, AD-294689, NOVEMBER 1962.

COTTRELL, D.E., DAVIS, 1.F., STURM, R.E., "A RESEARCH STUDY AND ENGINEERING INVESTIGATION OF A DIGITAL TELEVISION SYSTEM," COLURADO RESEARCH CORPORATION, REPORT AD-228208, JUNE 1959.

after the market of the contract of the contra

CRAIN, C.C., JGHANNSEN, K.G., MEXPERIMENTAL PROCESSING OF TV PICTURES BY SYNTHETIC HIGHS SYSTEM, MUGHES AIRCRAFT COMPANY, REPORT TIC 2230.5/96, CEC-EMBER 1962.

CRCPLEIGH, R.G., POSTHILL, B.N., MDATA COMPRESSION THROUGH SELECTIVE MUNITURING, MARRICAN ROCKET SOCIETY, SPACE FLIGHT REPRESENTATIVE IC THE NATION, NEW YORK, OCTOBER 1961.

CRORE, E.M., MAN OBJECTIVE METHOD FOR RATING PICTURE SHARPNESS: SMT ACUTANCE, M JOURNAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VCL. 73, 1964, PP. 643-647.

CHOWTHER, W.R., RADER, C.M., "EFFICIENT CODING OF VOCODER CHANNEL SIGNALS USING LINEAR TRANSFORMATION," PROCEEDINGS OF THE IEEE, VOL. 54, NO. 11, PP. 1594-1595, NGVENBER 1966.

CULFANE, J.L., NETTLESHIP, R., "SOME METHODS FOR THE COMPRESSION OF BINARY DATA IN SPACECRAFT EXPERIMENTS," IEEE TRANSACTIONS ON NUCLEAR SCIENCE, VUL. NS-15, NG. 2, Pp. 3-13, 1968.

CUNNIFF, J.F., "GENERATION AND RECORDING OF SAMPLED IMAGES," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NURWALK, CONNECTICUT, 1971, PP. 9-1 TO 9-14.

CUNNINGHAM, J.E., "FRAME CURRECTION CODING," PROCEEDINGS OF THE PICTURE BANCHIOTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 6, DECEMBER 1971.

CUMMINGHAM, J.E., "IMAGE CORRECTION-TRANSMISJION EXPERIMENTS," MIT RESEARCH LABCRATORY OF ELECTRONICS, REPORT NO. 7C, JULY 1963, PP. 244-247.

CUNAINGHAM, J.E., "A STUDY OF SOME METHODS OF PICTURE CUCING," MASSACHUSETTS INSTITUTE OF TECHNOLOGY, M.S., THESIS, 1959.

CUNNINGHAM, J.E., "TEMPURAL FILTERING OF MOTION PICTURES," SCIENCE DEPARTMENT THESIS, MIT, ELECTRICAL ENGINEERING DEPARTMENT, CAMBRIDGE, MASSACHUSETTS, 1963.

CUMAINGHAM, J.E., ET AL., "COMPUTER PROCESSING CHAIN," MIT RESEARCH LABORATURY OF ELECTRONICS, REPORT NO. 62, JULY 1961, PP. 155-156.

CUNAINGHAM, J.L., ET AL., "PICTURE PROCESSING RESEARCH," MIT RESEARCH LAUGRATORY OF ELECTRONICS, REPORT NO. 61 , APRIL 1961, PP. 133-135.

CUNNINGHAM, J.E., ET AL., "PICTURE PROCESSING RESEARCH," MIT RESEARCH LAB-ORATORY OF ELECTRONICS, REPORT NO. 63, OCTOBER 1961.

CURRY, R.E., MNONLINEAR ESTIMATION WITH QUANTIZED MEASUREMENTS: PCM PREDICTIVE QUANTIZATION AND DATA COMPRESSION, NASA CR-97197, RE-45, MASSACHUSETTS INSTITUTE CF TECHNOLUGY, CAMBRIDGE, MASSACHUSETTS, EXPERIMENTAL ASTRUNGMY LABORATORY, AUGUST 1968, 44 P.

CLRRY, R.E., VANDER VELDE, W.E., POTTER, J.E., "NONLINEAR FSTIMATION WITH QUARTIZED MEASUREMENTS-PCM, PREDICTIVE QUANTIZATION AND CATA CCMPRESSION," ISSE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 2, PP. 152-161, MARCH 1970

CUTLER, C.C., "DIFFERENTIAL QUANTIZATION OF COMMUNICATION SIGNALS," PATENT 2 6C5 361, JULY 1952.

্লাল প্ৰাক্তৰকা

CUTLER, C.C., "QUANTIZED TRANSMISSION WITH VARIABLE QUANTA," U.S. PATENT 2 724 742, NOVEMBER 22, 1955.

CUTLER, C.C., "TRANSMISSION SYSTEMS EMPLOYING QUANTIZATION," PATENT 2 927 962, MARCH 8. 1960.

CUTLER, C.C., GRAHAM, R.E., "PREDICTIVE QUANTIZING OF TV IMAGES," TRE WESCON CONVENTION RECORD, PART 4, 1958, PP. 147-157.

CUTRONA, L.J., HALL, W.C., "SOME CONSIDERATIONS IN POST-FACTO BLUR REPOVAL." NASA SEMINAR SP-193, EVALUATION OF MOTION DEGRADED IMAGES REPORT, PP. 149-159, 1968.

CUTRONA, L.J., LEITH, E.N., PALERMO, C.J., PCRCELLO, L.J., MOPTICAL DATA PROCESSING AND FILTERING SYSTEMS, IRE TRANSACTIONS ON INFORMATION THEORY, VUL. IT-6, FP. 386-400, JUNE 1960.

CYKCWSKI, C.B., ET. AL., "IMAGE ENHANCEMENT OF RADIONUCLIDE SCANS BY OPTICAL SPATIAL FILTERING," JOURNAL OF NUCLEAR MEDICINE, VOL. 12, NO. 12, PP. 85-87, 1967.

DALKE, G.W., "AUTOMATIC MEASUREMENTS OF TEXTURE AND CETECTION OF LINES IN A FLYING-SPOT SCANNER SYSTEM," UNIVERSITY OF KANSAS, ENGINEERING SCIENCE DIVISION, LAWRENCE, CONTRACT NO. NSR 17-004-003, AUGUST 1966.

DALKE, G.W., "AUTOMATIC PROCESSING OF MULTI-SPECTRAL IMAGES," UNIVERSITY OF KANSAS, ENGINEERING SCIENCE DIVISION, LAWRENCE, KANSAS, REPORT NO. 61-16, CONTRACT NO. NSR-17-004-003, AUGUST 1966.

DARCY, J.A., ENFIEJIAN, E.A., "COLOR PICTURE REPRODUCTION USING A HIGH-RESCLUTION TELEVISION SYSTEM," JOURNAL OF THE SOCIETY OF MCTICN PICTURE AND TELEVISION ENGINEERS, 1969.

CAVISSON, L.O., "AN APPLICATION OF DATA COMPRESSION CONCEPTS," PRECEFEINGS UF THE PURDUE CENTENNIAL SYSMPOSIUM ON INFORMATION PROCESSING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, APRIL 1969.

DAVISSON, L.D., "AN APPROXIMATE THEORY OF PREDICTION FOR DATA COMPRESSION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, PP. 274-278, APRIL 1967.

UAVISSON, L.D., "CCMMENTS ON SEQUENCE CODING FOR DATA COMPRESSION," PROCEEDINGS OF THE IEEE(CORRESPONDENCE). VOL. 54, P. 2010, DECEMBER 1966.

CAVISSON, L.D., "THE CONCEPT OF ENERGY CUMPRESSION RATIO AND ITS APPLICATION TO RUN-LENGTH CODING," FINAL REPORT 1966 SESSION OF THE GODDARD SUMMER WCRK-SHOP, NASA, GODDARD SPACEFLIGHT CENTER, REPORT X-700-67-94.

DAVISSON, L.D., "DATA COMPRESSION AND ITS APPLICATION TO VIDEU SIGNALS," GUCCARD SUMMER WORKSHOP PROGRAM IN ANALYSIS OF SPACE DATA AND MEASUREMENT OF SPACE ENVIRONMENTS, FINAL REPORT, NASA/GODDARD SPACE FLIGHT CENTER, PP. A-35-A-56, 1965.

DAVISSON, L.O., "DATA COMPRESSION: THEORY AND APPLICATION," PRCCEEDINGS KELLY CCPPUNICATIONS CONFERENCE, UNIVERSITY OF MISSOURI, RCLLA, CCTOBER 1970.

DAVISSON, L.D., "DATA COMPRESSION USING STRAIGHT LINE INTERPCLATION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-14, NO. 3, MAY 1968, PP. 390-394.

DAVISSON, L.D., "THE EFFECT OF CHANNEL ERRORS ON DATA COMPRESSION," WESCON CONFERENCE, SESSION 6: DATA COMPRESSION, 1967, SAN FRANCISCO, CALIFCRNIA.

Commence of the commence of th

DAVISSON, L.D., "THE FAN METHOD OF DATA COMPRESSION," 1966 SESSION GODDARD SLMMER WURKSHOP, NASA TM X-55742; X-700-67-94; NASA/GSFC, GREENBELT, MARYLAND, FINAL REPORT, PP. 23-30, 1967.

DAVISSUN, L.D., "INFURMATION RATES FUR DATA COMPRESSION," PRESENTED AT THE WESTERN ELECTRONIC SHOW AND CONVENTION, LOS ANGELES, CALIFORNIA, AUGUST 1968.

DAVISSON, L.D., "THE THEORETICAL ANALYSIS OF DATA COPPRESSION SYSTEMS," PROCECINGS OF THE IEEE, VOL. 56, NO. 2, Pp. 176-186, FEBRUARY 1968.

DAVISSON, L.U., "ON THE THEURETICAL ANALYSIS OF DATA COMPRESSION TECHNIQUES," PROCEEDINGS OF THE HAWAII INTERNATIONAL CONFERENCE OF SYSTEM SCIENCES, 1968.

DAVISSON, L.O., "THEORETICAL CONSIDERATIONS IN DATA COMPRESSION," PRUCEEDINGS OF THE MIT PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 3. DECEMBER 1971.

DAVISSON, L.D., "THEORY OF ADAPTIVE DATA COMPRESSION." ADVANCES IN COMM-UNICATION SYSTEMS, VOL. 2, NEW YORK, ACADEMIC PRESS, 1966.

DAVISSON, L.D., "A THEORY OF ADAPTIVE DATA COMPRESSION," PROCEEDINGS OF THE NATIONAL ELECTRONICS CONFERENCE, CHICAGO, OCTOBER 1964.

DAVISSON, L.D., "A THEORY OF ADAPTIVE FILTERING," IEFE TRANSACTIONS ON INFOR-MATION THEORY, VOL. IT-12, NO. 2, APRIL 1966, PP. 97-102.

DEAN, C.E., "MEASUREMENTS OF THE SUBJECTIVE EFFECTS OF INTERFERENCE IN TELE-VISION RECEPTION," PROCEEDINGS OF THE IRE, VCL. 48, PP. 1035-1049, JUNE 1960.

DEBART, H., "STUDY OF DELTA MUDULATION FROM THE INFORMATION THECRY VIEWPOINT," (IN FRENCH), CABLES ET TRANS, PARIS, VOL. 15, 1961, PP. 198-204.

DECKER, J.A., "HADAMARD-TRANSFORM IMAGE SCANNING," APPLIED OPTICS, VOL. 9, NO. 6, F. 681, JUNE 1970.

DE COSTER, P., TAYLOR, N., "COLOR IMAGE-ENHANCEMENT PROGRAM," HOUSTON FEARLESS CCRFURATION, LOS ANGELES, CALIFORNIA, WESTWOOD DIVISION, JULY 1964.

DEJAGER, F., "DELTA MODULATION-A METHOD OF PCM TRANSMISSION USING A 1-UNIT CCCE," PHILIPS RESEARCH REPORT, VOL. 7, PP. 442-466, 1952.

DEJAGER, F., GREEFKES, J.A., "CONTINUOUS DELTA MODULATION," GLCBECOM VI, 1964.

CELCOR, G.P., JURRIENS, A.A., LEVELT, W.J.M., VANDEGEE, J.P., "LINE-SCAN IMAGERY INTERPRETATION," PHOTOGRAMMETRY ENGINEER, NO. 5, 1968.

DE ROSIER, D.J., KLUG, A., "RECONSTRUCTION OF THREE-CIMENSIONAL STRUCTURES FROM ELECTRON MICROGRAPHS," NATURE, VOL. 217, PP. 13C-134, JANUARY 1968.

DERYUGIN, N.G., "THEORETICAL POSSIBILITIES OF COMPRESSING BANDWIDTH OF TV CHANNEL," TELECOMMUNICATIONS, NO. 8, 1958, PP. 805-810.

DEUTSCH, S., "NARROW-BAND TV USES PSEUDC-RANDOM SCAN," ELECTRONICS, VOL. 35,

NC. 17, APRIL 1962, PP. 49-51.

DEUTSCH, S., "A NOTE ON SOME STATISTICS CONCERNING TYPEWRITTEN UR PRINTED MATERIAL," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-3, PP. 147-148; JUNE 1957.

DEUTSCH, S., "A 210 KC/SEC PHONEVISION SYSTEM," 1966 PROCEEDINGS OF THE 7TH NATIONAL SYMPOSIUM ON INFORMATION DISPLAY, Pp. 203-209.

DEUTSCH, S., "THE POSSIBILITIES OF REDUCED TELEVISION BANDWICTH," IRE TRANS-ACTIONS ON BROADCAST AND TELEVISION RECEIVERS, VOL. BTR-2, NC. 3, OCTCBER 1956, PP. 69-82.

DEUTSCH, S., "PSEUDO-RANDOM DOT SCAN TELEVISION SYSTEMS," IEEE TRANSACTIONS CN ERCADCASTING, VOL. BC-11, NO. 1, JULY 1965, PP. 11-21.

DELTSCH, S., "A REDUCED-BANDWIDTH TELEVISION SYSTEM," POLYTECHNIC INSTITUTE CF BRCOKLYN, MICROWAVE RESEARCH INSTITUTE, REPORT R-425-55, JUNE 1955.

DEUTSCH, S., MA TECHNIQUE FOR FEATURE EXTRACTION IN VISUAL PATTERN RECOGNITION, MAESTRACT, PRESENTED AT SYMPOSIUM ON PERTINENT CONCEPTS IN COMPUTER GRAPHICS, URBANA, ILLINUIS, MARCH 31, 1969.

DEUTSCH, S., BALABAN, P., ATZMON, A., "EXPERIMENTAL RESULTS OF PSEUDO-RANDOM DCT SCAN," PULYTECHNIC INSTITUTE OF BROOKLYN, AFOAR REPORT, MICROWAVE RESEARCH INSTITUTE, JANUARY 1966.

DEUTSCH, S., LAEMMEL, A.E., "A TECHNIQUE FOR INCREASING TRANSMISSION SPEED." PCLYTECHNIC INSTITUTE CF BROOKLYN, MICROWAVE RESEARCH INSTITUTE, REPORT R-443-55, SEPTEMBER 1955.

DEM, G.D., "THE APPLICATION OF SPATIAL FILTERING TECHNIQUES TO PROFILE INSPECTION, AND AN ASSOCIATED INTERFACE PHENCMENUN," OPTICA ACTA, VOL. 17, NO. 4 PP. 237-258, APRIL 1970.

DIAMANTIDES, N.D., "CORRELATION MEASURE OF CONTRAST FOR MAP MATCHING," JCURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 7, PP. 996-998, JULY 1968.

CIAMANTIDES, N.D., "GAUSSIAN PICTORIAL FIELDS AND THEIR DEFINITION BY MEANS OF A CCRRELATOR," APPLIED OPTICS, VOL. 8, NO. 4, P. 818, APRIL 1969.

DINEEN, G.P., "PROGRAMMING PATTERN RECOGNITION," PROCEEDINGS WESTERN JOINT COMPUTER CONFERENCE, 1955.

DINN, D.F., WINTER, D.A., TRENHOLM, B.G., "CINTEL-COMPUTER INTERFACE FOR TELE-VISION," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 8, P. 1091, AUGUST 1971.

DI PENTIMA, A.F., "AUTOMATION IN PHOTO INTERPRETATION," PHCTCGRAPMETRIA, VOL. 26, PP. 167-182, DECEMBER 1970.

DISHLER, J.J., "VISUAL SENSOR SYSTEMS IN SPACE," IEEE TRANSACTIONS ON COMM-UNICATION TECHNULOGY, VOL. COM-15, NO. 6, DECEMBER 1957, PP. 824-834.

DCCC; P.D., WOOD, F.B., "IMAGE INFORMATION, CLASSIFICATION AND CODING," IEEE INTERNATIONAL CONVENTION RECORD, PP. 60-71, VOL. 1A, PART 7, 1966.

DOLYATOVSKII, U.A., ET AL., MAN ALGORITHM OF SUCCESSIVE RECOGNITION OF IMAGES, MAIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AFB, OHIO, FOREIGN TECHNOLOGY DIVISION, 8 P., DECEMBER 1969.

DCME, R.B.; "FREQUENCY INTERLACE COLOR TV." ELECTRONICS, VCL. 23, SEPTEMBER 1950, P. 70.

DUME, R.B., "SPECTRUM UTILIZATION IN COLOR TELEVISION," PRCCEEDINGS TRE, VOL. 39, NO. 10, OCTOBER 1951, PP. 1323-1331. .

DENALUSON, R.W., TCUSSCINT, G.T., "USE OF CONTEXTUAL CONSTRAINTS IN RECUGNITION OF CONTOUR-TRACED HANDPRINTED CHARACTERS," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-2C, NO. 8, P. 1096, AUGUST 1971.

DChNING, J.J., SMITH, W.E., STABBLES, J.E., "GENERAL PURPUSE TELEMETRY DATA COMPRESSION," WESCON 67 TECHNICAL PAPERS, DATA COMPRESSION, SESSION 6, ALGUST 1967. SAN FRANCISCO, CALIFURNIA.

DRAPKIN, P.E., "VIDEO DATA COMPRESSION," SUPPLEMENT TO IEEE TRANSACTIONS ON AERCSPACE AND ELECTRONIC SYSTEMS, VOL. AES-2, No. 4, 1966, Pp. 392-40C.

DRGGIN, E.M., RUVIN, A.E., *DELAY TIME BANDWIDTH REDUCTION TECHNIQUES,* FASCON CCAVENTION RECORD, SEPTEMBER 1968, INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, NEW YORK, PP. 581-584.

DUCA, R.O., TOBEY, A.R., MA MATHEMATICAL STUDY OF IMAGE ANALYSIS, M STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, FINAL REPORT, MARCH 1964.

DUNNE, J.A., "MARINER 1969 TELEVISION IMAGE PROCESSING," PATTERN RECOGNITION, VCL. 2, NO. 4, PP. 261-268, DECEMBER 1970.

EFRCN, E., "IMAGE PROCESSING BY DIGITAL SYSTEMS," AMERICAN SCCIETY OF PHOTOGRAPMETRY, ANNUAL CONVENTION, WASHINGTON, D.C., PHOTOGRAPMETRIC ENGINEERING, VCL. 34, PP. 1058-1062, OCTUBER 1968.

EFRMAN, L., "ANALYSIS OF SOME REDUNDANCY KEMOVAL BANDWIDTH COMPRESSION TECHNIQUES," PRUCEEDINGS OF THE IEEE, VOL. 55, PP. 278-287, MARCH 1967.

EHRMAN, L., MANALYTIC COMPARISON OF ADAPTIVE RECUNDANCY REMOVAL BANDWIDTH COMPRESSION, MORTHEAST ELECTRONICS RESEARCH AND ENGINEERING MEETING, (ACSTUN INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS), PP. 238-239, BOSTON, 1966.

EFRMAN, L., "A STUDY OF ADAPTIVE BANDWIDTH COMPRESSION," PF.D. DISSERTATION, NORTHEASTERN UNIVERSITY, BOSTON, MASSACHUSETTS, 1967.

EKSTRCM, M.P., RATER, C.L., "COMPUTER PRUCESSING OF RADIOGRAPHIC IMAGES WITH THE FINITE FOURIER TRANSFORM," UCRL-73484, LAWRENCE RADIATION LABORATORY, UNIVERSITY OF CALIFORNIA, LIVERMORE, CALIFORNIA, OCTOBER 14, 1971.

ELECTRO-MECHANICAL RESEARCH, INC., "MANNED SPACECRAFT ADVANCED DIGITAL TELEVISION COMPRESSION STUDY," FINAL REPORT, VOL. 1, TEST NASA CR-65508, ELECTRO-MECHANICAL RESEARCH, INC., SARASOTA, FLORIDA, 250 P., APRIL 1965.

ELECTRO-MECHANICAL RESEARCH, INC., MMANNED SPACECRAFT ADVANCED DIGITAL TELEVISION COMPRESSION STUDY, FINAL REPURT, VOL. 2, PHOTOGRAPHS, NASA CR-65507, ELECTRO-MECHANICAL RESEARCH, INC., SARASCTA, FLORIDA, APRIL 1965.

ELECTRO-MECHANICAL RESEARCH, INC., "VIDEO DATA MODULATION SIUDY," VCL. II, PHCTGGRAPHIC PLATES: FINAL REPORT, NASA CR-93472, ELECTRO-MECHANICAL RESEARCH, INC., SARASCTA, FLORIDA, JULY 1964.

ELIAS, P., "INFORMATION THEORY AND THE ECONOMICAL ENCODING OF PICTURES," PRU-

CEECINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GCROCK AND BREACH, NEW YORK, PART 2, DECEMBER 1971.

.

ELIAS, P. *PREDICTIVE CODING,* IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-1 NC. 1, MARCH, 1955, PP. 16-33.

ELLERSICK, F.W., "DATA COMPACTORS FOR SPACE VEHICLES," 1961 PROCEEDINGS OF THE 8TH ANNUAL EAST COAST CONFERENCE ON AEROSPACE AND NAVIGATIONAL ELECTRONICS.

ELSEY, J.C., "DATA COMPRESSION FOR SPACE MISSIONS," 5TH SPACE CONGRESS PROCEFO-INGS, VOL. 1, PP. 9/3-1--9/3-15, COCDA BEACH, FLURIDA, MARCH 1968.

EPSLIE, A.G., KING, G.W., "SPECTROSCOPY FROM THE POINT OF VIEW OF COMMUNICATION THEORY," JOURNAL OPTICAL SUCIETY OF AMERICA, PART I, "RESOLUTION," VOL. 41, NO. 6, (JUNE, 1951), PP. 405-412, PART II, "LINE WIDTHS," VOL. 43, NO. 8 (AUGUST 1953), PP. 658-663, PART III, "THE AMOUNT OF INFORMATION IN A SPECTRUP," VCL. 43, NO. 8 (AUGUST, 1953), PP. 664-668.

ENLCE, L.H., MURPHY, J.A., RUBINSTEIN, C.B., "HCLCGRAM TRANSMISSICN VIA TELEVISION," BELL SYSTEMS TECHNICAL JOURNAL, PP. 335-339, FEBRUARY 1966.

ENCHOTO, H., SHIBATA, K., "FEATURES OF HADAMARD TRANSFORMED TELEVISION SIGNALS," 1965 NATIONAL CONFERENCE OF THE I.E.C.E. OF JAPAN, P. 881.

ENCMOTO, H., SHIBATA, K., MURTHOGUNAL TRANSFORM COUING SYSTEM FOR TELEVISION SIGNALS, THE JOURNAL OF THE INSTITUTE OF TV ENGINEERS OF JAPAN, VOL. 24, NC. 2, Pp. 99-108, FEBRUARY 1970.

ENGMOTO: H., SHIBATA, K., "TELEVISION SIGNAL CODING METHOD BY CRTHOGONAL THANS-FCRMATION," 6TH RESEARCH GROUP ON TELEVISION SIGNAL TRANSMISSION. THE INSTITUTE CF TELEVISION ENGINEERS OF JAPAN, MAY 1968.

ENCHUTO, H., SHIBATA, K., ET AL., "EXPERIMENTS ON TELEVISION POM SYSTEM BY URTHOGONAL TRANSFORMATION," 1969 JOINT CONVENTION OF THE INTERNATIONAL ENGINEERING CONFERENCE ON ELECTRONICS , JAPAN, P. 2219.

ERMCLVEV, M.M., MUSE OF HOLOGRAPHY FOR IMAGE RECOGNITION, PROCEEDINGS OF THE 2ND ALL-UNION CONFERE.LE ON MACHINE ANALYSIS OF BIGLOGICAL STRUCTURES AND PROCESSES, PUSHCHIND, RUSSIA, HAY 1968.

ESCHELBACH, R.E., MA UNIQUE TECHNIQUE FOR THE REAL-TIME CPTICAL PROCESSING UF SCANNED IMAGES, MAGNAVOX RESEARCH LABS, TORRANCE, CALIFCRNIA, DECEMBER 1968.

ESTCURNET, D., SCHWARTZ, P.Y., "STATISTICAL ANALYSIS OF PHCTCGRAPHIC IMAGES," CENTRE NATIONALE D'ETUDES DES TELECOMMUNICATIONS, ISSY-LES-MCNLINEAUX, FRANCE, AGARD ADVANCED TECHNOLOGY FOR AEROSPACE SURVEILLANCE, PP. 329-352, 1968.

ETCHEVERRY, F., "METHOD FOR TRANSMITTING 3-D IMAGES WITH PRACTICAL BANDWIDTHS," 103PD TECHNICAL CONFERENCE, SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, NEW YORK, PAY 5-10, PREPRINT NG. 103-66, 1968.

EVANS, R.M., "SHARPNESS AND CONTRAST IN PROJECTED PICTURES," SCCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS CONVENTION, LOS ANGELES, CCTUBER 1956.

HADLEY, J.K., MNDISE: THE LIMITING FACTOR IN DIGITAL REDUNCANCY REMOVAL COMPRESSION TECHNIQUES, IEEE INTERNATIONAL COMMUNICATIONS CONFERENCE, JUNE 1966.

FACLEY, J.K., "VIDEO DATA MOCULATION STUDY," VOL. 1, FINAL REPORT, NASA CR-

93568, ELECTRO-MECHANICAL RESEARCH, INC., SARASOTA, FLORIDA, JULY 1964.

FACLEY, J.K., KING, B.C., KNIGHT, J.M., PIEPER, A.E., RAGA, G.L., "VIDEO DATA MUDCLATION STUDY, VOLUME 1," JET PROPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA, NAS 950705, JULY 1964.

FALCINER, D.G., "IMAGE ENHANCEMENT AND FILM-GRAIN NOISE," OPTICA ACTA, VOL. 17, PP. 693-705, SEPTEMBER 1970.

FAYN, V.S., "IDENTIFICATION OF IMAGES," AIR FURCE SYSTEMS COMMAND, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, FOREIGN TECHNOLOGY DIVISION, 24 P., SEPTEMBER 1967.

FAYN, V.S., "IMAGE RECCGNITION," JOINT PUBLICATIONS RESEARCH SERVICE, WASHING-TCN, D.C., 16 P., MAY 1967.

FECER, J., "LANGUAGE OF ENCODED LINE PATTERNS," INFORMATION AND CONTRCL, VCL. 13, NO. 3, PP. 23C-244, SEPTEMBER 1968.

FELLGETT, P., "CONCERNING PHOTOGRAPHIC GRAIN SIGNAL-TO-NOISE RATIO AND INFOR-MATION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 43, NO. 4, APRIL 1953, PP. 271-282.

FENTON, C.A., "APPLICATION OF THE LAND COLOR-VISION EFFECT TO TELEVISION SYSTEMS -A FEASIBILITY STUDY," ARMY ELECTRONICS LABS, FORT MONMOUTH, NEW JERSEY, DECEMBER 1966.

FILIP, A.E., "ESTIMATION OF THE IMPULSE RESPONSE OF IMAGE-DEGRADING SYSTEMS," MASSACHUSETTS INSTITUTE OF TECHNOLOGY RESEARCH LABORATORY OF ELECTRONICS, QUARTERLY PROGRESS REPORT 99, PP. 135-140, CCTOBER 1970.

FINK, D.G., "TELEVISION ENGINEERING HANDBOOK," FCGRAW-HILL, NEW YORK, 1957.

FISHER, G.L., ET.AL., "UPTICAL CHARACTER RECOGNITION," WASHINGTON, D.C., SPAR-TAN, 1962.

FCWLER, A.D., "LCW FREQUENCY INTERFERENCE IN TELEVISION PICTURES," PROCEEDINGS OF THE IRE, VOL. 39, OCTOBER 1951, PP. 1332-1336.

FCWLER, A.C., "OBSERVER REACTION TO LOW-FREQUENCY INTERFERENCE IN TELEVISION PICTURES," PROCEEDINGS OF THE IRE, VOL. 39, OCTOBER 1951, PP. 1332-2336.

FOY, W.H., "ENTRUPY OF SIMPLE LINE DEAWINGS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-10, NO. 2, Pp. 165-167, APRIL 1964.

FRANKS, L.E., "A MODEL FOR THE RANDOM VIDEO PROCESS," BELL SYSTEMS TECHNICAL JEURNAL, PP. 609-633, APRIL 1966.

FRANKS, L.E., "POWER SPECTRAL DENSITY OF RANDUM FACSIMILE SIGNAL," PROCEEDINGS OF THE IEEE, VOL. 52, NO. 4, PP. 431-432, APRIL 1964.

FRECENALL, G.L., BEHREND, W.L., *PICTURE QUALITY: PROCEDURES FOR EVALUATING SUBJECTIVE FFFECTS OF INTERFERENCE, *PROCEEDINGS OF THE IRE, JUNE 1960, PP. 1030-1034.

FRECKIN, E., "NEW DEVELOPMENTS AND APPLICATIONS IN AUTOMATIC IMAGE PROCESSING," SUCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR IN DEPTH, FILPED DATA AND COMPUTERS, BOSTON, MASSACHUSETTS, 1966.

FREEMAN, H., "BUUNDARY ENCODING AND PROCESSING," NEW YORK UNIVERSITY,

DEPARTMENT OF ELECTRICAL ENGINEERING, NEW YORK, FEBRUARY 1970.

W. 1985

FREEMAN, H., "ON THE ENCODING OF ARBITRARY GEOMETRIC CONFIGURATIONS," IRE TRANSACTIONS ON ELECTRONIC COMPUTERS, VCL. EC-1C, PP. 26C-268, JUNE 1961.

FREEMAN, H., MA REVIEW OF RELEVANT PROBLEMS IN THE PROCESSING OF LINE DRAWING DATA, M SUMMER SCHUOL ON AUTUMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISA-TIRRENIA. AUGUST 1968.

FREEMAN, H., GLASS, J., "ON THE QUANTIZATION OF LINE-DRAWING DATA," IEEE TRANSACTIONS ON SYSTEM SCIENCE AND CYBERNETICS, VOL. SSC-5, NO. 1, PP. 70-79, JANLARY 1969.

FREIBLEGER, W., GRENANDER, U., "COMPUTER-GENERATED IMAGE ALGEBRAS," PROCEEDINGS OF THE IFIP CONGRESS, H4-H9; AUGUST 1968.

FRICMAN, Y.S., "MATHEMATICAL TREATMENT OF TELEVISION PICTURES OF THE EARTH'S COVER," GLAVNAIA GEOFIZICHESLCAIA OBSERVATORIIA IMENI A.I. VCEIKOVA, TRUCY, NO. 203, 1967, PP. 35-48.

FRICMAN, Y.S., GOLDEN, V.Y., "PARAMETRIZATION OF TELEVISION IMAGES OF CLCUDINESS ON CIGITAL COMPUTERS," JUINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, C.C., USE OF METEROLOGICAL SATELLITES IN CLOUD RESEARCH, PP. 24-32, JUNE 1967.

FRIED, C., PREVEL, J., RUSENFELD, A., "STUDY OF PICTORIAL CATA ANALYSIS CUNCEPTS AND TECHNIQUES," INFORMATION SCIENCE CENTER, MCLEAN, VIRGINIA, FINAL REPORT, JULY 1962-SEPTEMBER 1963.

FRIEDEN, B.R., "BANDLIMITED RECONSTRUCTION OF OPTICAL OBJECTS AND SPECTRA,"
JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 57, PP. 1013-1019, AUGUST 1967.

FRIEDEN, B.R., "HOW WELL CAN A LENS SYSTEM TRANSMIT ENTRCPY?," JOURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 8, PP. 1105-1112, AUGUST 1968.

FRIEDEN; B.R., "IMAGE EVALUATION BY USE OF THE SAMPLING THEOREM," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, NO. 10, PP. 1355-1362, CCTGBER 1966.

FRIEDEN, B.R., "INFORMATION, AND THE RESTORABILITY OF IMAGES," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 60, NO. 4, PP. 575-577, APRIL 1970.

FRIEDEN, B.R., "OPTIMUM, NONLINEAR PROCESSING OF NOISY IMAGES." JOURNAL OF THE UPTICAL SUCIETY OF AMERICA, VOL. 58, NO. 9, PP. 1272-1276, SEPTEMBER 1968.

FRITZLER, D., MARON, E., "REDUCTION OF BANDWIDTH REQUIREC FOR HIGH RESCLUTION HOLOGRAM TRANSMISSION," APPLIED OPTICS, VOL. 8, PP. 1241-1243, JUNE 1969.

FROLUSHKIN, V.G., "THE STUDY OF THE STATISTICAL STRUCTURE CF 1PAGES BY BREAKING UP THE FIELD OF EVENTS," TELECOMMUNICATIONS, VOL. 12, PP. 1278-1286, 1958.

FRYER, W.D., RICHMOND, G.E., "TWO DIMENSIONAL SPATIAL FILTERING AND COMPUTERS," PROCEEDINGS OF THE NATIONAL ELECTRONICS CONFERENCE, VUL. 18, PP. 529-535, 1962.

FLKLI, H., "EXPERIMENTAL STUDY OF SLOW-SCAN, HIGH-RESOLUTION VIDEO TRANS-MISSION AT CNE-MEGAHERTZ BANDWIDTH," PREPRINT NO. 163-49, PRESENTED AT THE 103RD TECHNICAL CONFERENCE, SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, NEW YORK, MAY 5-10, 1968.

FUKUNAGA, K., KOUNTY, W.L.G., MAPPLICATION OF THE KARHUNEN-LOEVE EXPANSION TO FEATURE SELECTION AND CROEKING, MIEEE TRANSACTIONS ON COMPUTERS, VOL. C-19, NC. 4, P. 311, APRIL 1970.

FUKUSHIMA, K., "REDUNDANCY OF TWO-DIMENSIONAL PATTERN-THEORETICAL LIMIT CF TELEVISION BANDWIDTH COMPRESSION," JAPANESE INSTITUTE OF ELECTRICAL COMPUNICATION ENGINEERS, JAPAN, VOL. 44, OCTOBER 1961.

医乳腺病 医生活性抗性性 计自由 医阴道性神经性神经性炎 经出价 化血液化学学

FUKUSHIMA, K., "TELEVISION BANDWIDTH COMPRESSION BY MULTI-MOLE INTERPLIATION," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMERIDGE, MASSACHUSETTS, APRIL 1969.

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GABLE, D., HILL, P.C.J., "TELEVISION BANDWIDTH COMPRESSION BY CONTOUR INTERPOLATION," PROCEEDINGS OF THE IEEE, VOL. 108, PART B, NO. 39, MAY 1961, PP. 634, 303-315.

GARDENHIRE, L.W., "APPLICATION OF NONLINEAR ENCODING TO PICTURE TRANSMISSION," INTERNATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., SEPTEMBER 15-17, 1969.

GARCENHIRE, L.W., "DATA COMPRESSION WITH DIGITAL FILTERING," TELEMETRY JOURNAL, VCL. 1, NO. 4, OCTOBER-NOVEMBER 1966, Pp. 15-20.

GARCENHIRE, L.W., "DATA REDUNDANCY REDUCTION FOR BIOMEDICAL TELEMETRY," BIOMECICAL TELEMETRY, ACADEMIC PRESS, NEW YORK, Pp. 255-298, 1965.

GARDENHIRE, L.W., "ELIMINATING REDUNDANCY IN FIXED FRAME TELEVISION," NASA/GSFC GCDCARD SPACE FLIGHT CENTER, CONFERENCE ON ADAPTIVE TELEPETRY, GREENBELT, MARYLAND, NASA TM-X-55747, X-731-67-7, JANUARY 1967, Pp. 171-187.

GARCENHIRE, L.W., "REDUNDANCY IN DIGITIZED TIRGS PICTURES," A REPORT PREPARED BY RACIATION, INCURPORATED, FOR THE GODDARD FLIGHT CENTER, GREENBELT, MARYLAND, CCTCBER 1966.

GARCENHIRE, L.W., "REDUNDANCY REDUCTION THE KEY TO ADAPTIVE TELEMETRY," PROCEEDINGS OF THE 1964 NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1964.

GARCENHIRE, L.W., "THE USE UF DIGITAL DATA SYSTEMS," PROCEEDINGS OF THE NATIONAL SPACE AERONAUTICS, VOL. 38, DECEMBER 1962, Pp. 73-78.

GATTIS, J.L., WINTZ, P.A., "AUTUMATED TECHNIQUES FOR DATA ANALYSIS AND TRANSMISSICN," PURDUE UNIVERSITY, SCHOOL OF ELECTRICAL ENGINFERING, AGR-15-705-106, TR-EE 71-37, LAFAYETTE, INDIANA, AUGUST 1971.

GAZLEY, C., RIEBER, J.E., STRATTUN, R.H., "CCMPUTER WORKS A NEW TRICK IN SEEING-PSELDC COLOR PROCESSING," AERONAUTICS AND ASTRONAUTICS, VOL. 4, P. 56, APRIL 1967.

GEDCES, W.K.E., "PICTURE PROCESSING BY QUANTIZATION OF THE TIME DERIVATIVE," BRITISH BROADCASTING CURPURATION, ENGINEERING DIVISION, REPORT T-114, 1963.

GERPOND, H.H., "COMPRESSION OF BIOASTRONAUTICAL DATA," PROCEEDINGS OF THE 1965 NATIONAL TELEMETRY CONFERENCE, Pp. 17-24.

GERRITSEN, H.J., HORWITZ, B., MEXPERIMENTAL DEMONSTRATION OF OPTICAL SECTIONING BY SPATIAL FILTERING AND ITS POSSIBLE USE IN TRANSMISSION OF THREE-DIMENSIONAL PICTURES, MAPPLIED OPTICS, VOL. 10, NO. 4, APRIL 1971.

GICCA, F.A., "DIGITAL SPACECRAFT IV CAN BEAT BIT-RATE AND WEIGHT PROBLEMS," SPACE AERONAUTICS, VOL. 38, DECEMBER 1962, Pp. 73-78.

GICCA, F.A., "OPTIMIZING SPACE TELEVISION TRANSMISSION," PROCEEDINGS OF THE 1963 INTERNATIONAL RELEMETRY CONFERENCE, Pp. 313-321.

GIFFORD, R.C., MIRANSMISSION OF FULL PAGE NEWSPAPER COPY OVER DIGITAL TRANSMISSION FACILITIES, IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, BOULDER, COLORADO, JUNE 1969.

GILCEA, J., "LOW LIGHT LEVEL T.V. TECHNIQUES," APPLIED OPTICS, VOL. 9, NC. 1', P. 2230, OCTOBER 1970.

GIRAYTYS, J., ET AL., "INVESTIGATIONS INTO THE VARIATION AND DISTRIBUTION OF RELATIVE BRIGHTNESS ON TIRUS-1 PHOTOGRAPHS," COLLEGE OF MINERAL INDUSTRIES, UNIVERSITY OF PENNSYLVANIA, FINAL REPORT ON CONTRACT CW8-10037, APRIL 1962.

GISH, H., MAN INVESTIGATION OF QUANTIZATION TECHNIQUES, FINAL REPORT, 1968, AD-669097, SIGNATRON, INC., LEXINGTON, MASSACHUSETTS, SIG-CR-337, AFCRL-68-C150, N 68-26473, FEBRUARY 1968.

GLASS, J.M., "ANALYSIS OF QUANTIZED TWO-DIMENSIONAL PATTERNS," NEW YORK UNIVERSITY COLLEGE OF ENGINEERING, TECHNICAL NOTE 400-7, SEPTEMBER 1961.

GLASS, J.M., "A CRITERICN FOR THE QUANTIZATION OF LINE-DRAWING DATA," NFW YORK UNIVERSITY COLLEGE OF ENGINEERING, TECHNICAL REPORT 400-112, MAY 1965.

GLASS, J.M., MA CRITERICN FOR THE QUANTIZATION OF PLANAR CONTOURS, MNEW YORK UNIVERSITY COLLEGE OF ENGINEERING TECHNICAL REPORT 400-91, FEBRUARY 1964.

GLASS, J.M., "SMOOTH-CURVE INTERPOLATION: A GENERALIZED SPLINE-FIT PROCEDURE," NEW YORK UNIVERSITY, COLLEGE OF ENGINEERING, PP. 277-293, 1966.

GLEZER, V.O., NEVSKAYA, A.A., SEREDINSKTY, A.V., TSICKKERMAN, I.I., "CN THE IDENTIFICATION OF CBJECTS IN THE VISUAL SYSTEM," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., BIOLOGICAL ASPECTS OF CYBERNETICS, PP. 225-241, JUNF 1963.

GLCVAZKY, A., MDETERMINATION OF REDUNDANCIES IN A SET OF PATTERNS, IEEF TRANSACTIONS ON INFORMATION THEORY, VUL. IT-2, NO. 4, DECEMBER 1956, PP. 151-153

GCDWIN, J., "DIGITAL LINEAR INTERPOLATION FOR IMAGE CATA COMPRESSION." RESEARCH 9CC, UNIVERSITY OF MICHIGAN, ANN ARBOR, JUNE 26, 1965.

GELCING, L., "A 15 TO 25 MHZ DIGITAL TELEVISION SYSTEM FOR TRANSMISSION OF COMMERCIAL COLOR," COMMUNICATION SATELLITE CORPORATION, WASHINGTON, D.C., DECEMBER 1967.

GCLCING, L.S., MA STUDY OF ADAPTIVE QUANTIZATION TECHNIQUES, DCCTORATE ENGINEERING DISSERTATION, YALE UNIVERSITY, NEW HAVEN, CONNETICUIT, 1966.

GGLCING, L.S., SCHULTHEISS, P.M., "STUDY OF AN ADAPTIVE CUANTIZER," PROCFEDINGS OF THE IEEE, VUL. 55, PP. 293-297, MARCH 1967.

GCLEMARK, P.C., HOLLYWOOD, J.M., "A NEW TECHNIQUE FOR IMPROVING THE SHARPNESS OF TV PICTURES," PROCEEDINGS OF THE IRE, VOL. 39, NO. 10, OCTOBER 1951, PP. 1314-1322.

GCLCSTEIN, A.J., HARMON, L.D., LESK, A.B., "IDENTIFICATION OF HUMAN FACES," PRU-CEEDINGS OF THE IEEE, VOL. 59, NO. 5, P. 748, MAY 1971.

GCLCMB, S.W., "RUN-LENGTH ENCODINGS," IEEE TRANSACTIONS ON INFORMATION THEORY, JULY 1966, PP. 399-401.

GCOCALL, W.M., "TELEVISION BY PULSE CODE MODULATION," BELL SYSTEM TECHNICAL JCURNAL, JANUARY 1951, VOL. 30, Pp. 33-49, HCLMDEL, NEW JERSEY.

GCCCMAR, J.A., "DIGITAL IMAGE FORMATION FROM CETFCTED HOLUGRAPHIC DATA," ACCUSTICAL HULGGRAPHY, VOL. 1, PP. 173-185, CECEMBER 1967.

GCCLMAN, J.W., "DIGITAL IMAGE FORMATION FRUM ELECTRONICALLY DETECTED HOLCGRAMS," SCCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, COMPUTERIZED IMAGING TECHNIQUES SEMINAR, WASHINGTON, D.C., JUNE 26, 27, 1967.

GCCCMAN, J.W., "INTRODUCTION TO FOURIER OPTICS," MC GRAW-HILL, NEW YORK, PP. 133-136, 1968.

GCCCMAN, J.W., JACKSUN, D.W., LEHMANN, M., KNUTTS, J.W., "HOLOGRAPHIC IMAGERY THROUGH ATMOSPHERIC INHOMOGENECTIES," PROCEECINGS OF THE NASA/ERC SEMINAR, CAMBRICGE, MASSACHUSETTS, DECEMBER 1968.

GOUCHAN, J.W., RHUDES, W.T., "AN OPTICAL SYSTEM DESIGNED FOR IMAGE PROCESSING," PATTERN RECOGNITION, VOL. 2, 1970, PP. 105-116.

GCCCMAN, L.M., "A BINARY LINEAR TRANSFORMATION FOR REDUNCANCY REDUCTION," PROCEEDINGS OF THE IEEE, MARCH 1967, Pp. 467-468.

GCCCMAN, L.M., "CHANNEL ENCODERS," PROCEEDINGS OF THE IEEE, CORRESPONDENCE, V(L. 55, PP. 127-128, JANUARY 1967.

GUOCYAN, L.M., "OPTIMUM RATE ALLUCATION FOR ENCOVING SETS OF ANALOG MESSAGES," PROCEEDINGS OF THE IEEE, CURRESPONDENCE, VOL. 53, PP. 1776-1777, NOVEMBER 1965.

GCCLYAN, L.M., "OPTIMUM SAMPLING AND QUANTIZING RATES," PROCEEDINGS OF THE IEEE, VCL. 54, NO. 1, JANUARY 1966.

GCRCON, R., HERMAN, G.T., MRECONSTRUCTION OF PICTURES FROM THEIR PROJECTIONS, MASSCCIATION FOR COMPUTING MACHINERY, VOL. 14, NO. 12, PP. 759-768, DECEMBER 1971.

GOTTLIEB, P., "A TELEVISION SCANNING SCHEME FOR A DETECTOR-NOISE-LIMITED SYSTEM," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-14, NO. 3, MAY, 1968, PP. 428-433.

GCUPAUD, H., "COMPUTER DISPLAY OF CURVED SURFACES." LTEC-CSC-71-113, COMPUTER SCIENCE DIVISION, BNIVERSITY OF UTAH, SALT LAKE CITY, JUNE 1971.

GUURIET, G.G., "BARDWIDTH CUMPRESSION OF A TELEVISIUN SIGNAL," PRUCEEDINGS OF THE IEEE, VOL. 104, PART B, NO. 15, MAY 1957, PP. 265-272.

GCURIET, G.G., "BANDWIDTH REDUCTION IN RELATION TO TELEVISION," BRITISH CCMPUNICATIONS AND ELECTRONICS, Vol. 3, 1956, Pp. 424-429.

GCURIET, G.G., "BANDWIDTH REDUCTION IN TELEVISICN," E.B.C. BULLETIN, NO. 7, 1956, P. .5.

GCURIET, G.G., "DISCUSSION ON THE IMPACT OF INFORMATION THEORY ON TELEVISION," JOURNAL OF THE BRITISH IRE, VOL. 13, NO. 12, PP. 590-591, DECEMBER 1953.

GCURIET, G.G., "DOT INTERLACED TELEVISION," ELECTRONIC FNGINEERING, VCL. 24, NC. 290, APRIL, 1952, PP. 166-171.

GCUPIET, 6.6., MA METHOD OF MEASURING TELEVISION PICTURE DETAIL, MELECTRONIC

ENGINEERING, VCL. 24, JULY, 1952, PP. 308-311.

September 1981

GRAFAP, D.N., "IMAGE TRANSMISSION BY TWO-DIMENSINAL CONTUUR CODING," PROCEEDINGS OF THE IEEE, VCL. 55, Pp. 336-346, MARCH 1967, NO. 3.

GRAFAM, D.N.. "TWO DIMENSIONAL FILTERING TO REDUCE THE EFFECT OF QUANTIZING NOISE IN TV," MASSACHUSETTS INSTITUTE OF TECHNOLOGY, M.S. THESIS, JANUARY, 1962.

GRAHAM, D.N., "TWO-DIMENSIONAL SYNTHESIS OF HIGH SPATIAL FREQUENCIES IN PICTURE PHOCESSING," MIT RESEARCH LABORATORY OF ELECTRUNICS, REPORT NO. 75, UCTCBER, 1964, PP. 131-134.

GRAFAM, R.E., "COMMUNICATION THEORY APPLIED TO TV CODING," ACTA ELECTRONICA, VOL. 2, 1957-1958, Pp. 334-343.

GRAFAM, R.E., "PREDICTIVE QUANTIZING OF TELEVISION SIGNALS," IRE WESCON CONVENTION RECORD, PART 4, 1958, Pp. 142-157.

GRAHAM, R.E., "SNOW-REMOVAL: A NOISE STRIPPING FOR PICTURE SIGNALS," IEEE TRANS-ACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 1, FEBRUARY 1962, PP. 129-144.

GRAFAM, R.E., "SUBJECTIVE EXPERIMENTS IN VISUAL COMMUNICATION," IRE CONVENTION RECORD, 1958, PP. 100-106.

GRAFAM, R.E., KELLY, J.L., MA COMPUTER SIMULATION CHAIN FOR RESEARCH ON PICTURE CODING. IRE WESCON CONVENTION RECORD, PART 4, 1958, PP. 41-46.

GRAK, G., STROKE, G.W., "INFURMATION RETRIEVAL FROM CODED IMAGES FORMED BY GENERALIZED IMAGING SYSTEMS," OPTICS COMMUNICATIONS, VOL. 1, NO. 7, PP. 339-358, FEBRUARY 1970.

GRANGER, E.M., "RESTORATION OF IMAGES DEGRADED BY SPATIALLY VARYING SMEAR," IN EVALUATION OF MUTION-DEGRADED IMAGES, NASA SEMINAR, PP. 161-165, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

GRASSELI, A., "ACTIVITIES IN IMAGE PROCESSING AT IFI," CCLLOQUE INTERNATIONAL SUR LA RECCNNAISSANCE DE FORME, COMMISAARIAT ENERGIE ATOMIQUE, GRENUBLE, SEPTEMBER 1968.

GRASSELI, A., MAUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, MACADEMIC PRESS, INC., NEW YORK, 1969.

GRAY, S.B., "LCCAL PROPERTIES OF BINARY IMAGES IN TWO DIMENSIONS," IFEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 5, Pp. 551-561. MAY 1971.

GRAZIAND, E.E., "SPACE TELEVISION: AN ANNOTATED BIBLIOGRAPHY," LOCKHEED AIRCRAFT CGRPORATICN, REPORT NO. 3-79-61-1, AD-296 8C5, MARCH, 1962.

GROH, G., MINFORMATION RETRIEVAL FROM GODED IMAGES FORMED BY GENERALIZED IMAGING SYSTEMS, OPTICS COMMUNICATION, VOL. 1, NO. 7, FEBRUARY 1970, PP. 339-34C.

GRCNEMANN, U.F., "PICTURE RECORDING AND REPRODUCING EQUIPMENT," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 70, JULY 1963, CAMERIDGE, MASSACHUSETTS. CPLSETTS.

GUIGNON, J.E., KLINE, R.M., "DEVELOPMENT OF AN CN-LINE IMAGE PROCESSING SYSTEM FOR THE LINE," WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI, COMPUTER SYSTEMS LAB, FEBRUARY 1968.

GLREVICH, S.G., "ON THE ANALOGY OF CHARACTERISTICS OF REPRODUCTION IN TELEVISION

AND PHOTUGRAPHY," QUALITY OF THE PHOTUGRAPHIC IMAGE, PP. 196-210, MARCH 1965.

GUTTMAN, A., GOLDEN, J., GALBRAITH, H.J., "COMPUTER PROCESSING OF SPECTUGRAMS FOR ABSOLUTE INTENSITIES," APPLIED OPTICS, VOL. 6, NC. 9, FP. 1507-1513, SEPTEMBER 1967.

GUZMAN, A., "ANALYSIS OF SCENES BY COMPUTER-RECOGNITION AND INDENTIFICATION OF CBJECIS," SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES PISA-TIRRENIA, AUGUST 1968.

GUZMAN, A., "SCENE ANALYSIS USING THE CONCEPT OF MODEL," AC 652017, JANUARY 1967.

HAAGEN, W.F., "VIDEG BANDWIDTH COMPRESSION," OFIC STATE UNIVERSITY, ANTENNA LABCRATORY, REPURT NO. 1222-7, AD 273 671, FERUARY 1962.

HAANTJES, J., DE VRIJER, J.W., "FLICKER IN TELEVISION PICTURES," WIRELESS ENGINEER, VOL. 28, NO. 329, PP. 40-42, FEBRUARY 1951.

HAANTJES, J., TEER, K., "MULTIPLEX TELEVISION TRANSMISSION: SUBCARRIER AND DOT INTERLACE SYSTEMS." WIRELESS ENGINEER, PART I, VOL. 31, SEPTEMBER 1954, PP. 225-233, PART II, VOL. 31, OCTOBER, 1954, PP. 266-273.

HABIBI, A., "CCMPARISON OF NTH ORDER DPCM ENCODER WITH LINEAR TRANSFORMATIONS AND BLOCK QUANTIZATION TECHNIQUES," IEEE TRANSACTIONS ON CCMMUNICATION TECHNOLO-GY, VOL. CCM-19, NG. 6, DECEMBER 1971.

HABIBI, A., KINTZ, P.A., "IMAGE CODING BY LINEAR TRANSFORMATION AND BLOCK QUANTIZATION," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. CCM-15, NO. 1, PP. 50-63, FEBRUARY 1971.

HABIBI, A., WINTZ, P.A., "LINEAR TRANSFORMATIONS FOR ENCODING 2-DIMENSIONAL SCURCES," PURDUE UNIVERSITY, LAFAYETTE, INDIANA, TR-EE 70-2, MARCH 1970.

HABIBI, A., WINTZ, P.A., "OPTIMUM LINEAR TRANSFORMATION FOR ENCODING TWO-DIMENSIONAL DATA," TR-EE69-15, SCHOOL OF ELECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, MAY 1969.

HAINES, K.A., "BANDWIDTH REDUCTION IN HOLOGRAPHY, USING PERIODIC DISPERSION STRUCTURES," APPLIED OPTICS, VOL. 9, PP. 1946; AUGUST 1970.

HAINES, K.A., BRUMM, D.B., "HOLOGRAPHIC DATA REGUCTION," APPLIED OPTICS, VOL. 7, NC. 6, P. 1185, JUNE 1968.

HAINES, K.A., BRUMM, D.B., "A TECHNIQUE, FOR BANDWIDTH REDUCTION IN HCLCGRAPHIC SYSTEMS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. E, AUGUST 1967.

HALIJAK, C.A., TRIPP, J.S., "A DETERMINISTIC STUDY OF DELTA MUCULATION," IRE INTERNATIONAL CONVENTION RECORD, PART 8, PP. 247-259, 1963.

HALL, D.'.., KRUGER, R.P., DWYER, S.J., LUDWICK, G.S., MCCMPUTER CIAGNESIS UF HEART DISEASE, M CLINICS OF NORTH AMERICA, DECEMBER 1971.

HALL, E.L., "DIGITAL FILTERING TECHNIQUES FOR X-RAY IMAGE ENHANCEMENT," PROCEEDINGS OF THE INTERNATIONAL TELEMETRY CONFERENCE, WASHINGTON, C.C., SEPTEMBER 1971.

HALL, E.L., DWYER, S.J., "FREQUENCY DOMAIN DESIGN OF SPATIAL DIGITAL FILTERS,"

IMAGE ANALYSIS LABORATORY, TR-101, DEPARTMENT OF FLECTRICAL ENGINEERING, UNIVERSITY OF MISSOURI, COLUMBIA, MISSOURI, 1970.

HALL, E.L., DWYER, S.J., LUDWICK, G.S., MAHEN, E.C., "SPATIAL DIGITAL FILTER DESIGN TECHNIQUES," UNIVERSITY OF MISSOURI, UNR-MERVIN AND KELLY COMMUNICATIONS CONFERENCE, ROLLA, MISSOURI, OCTOBER 1, 1976, PP. 2C-6-1 TC 20-6-6.

HALL, E.L., KRUGER, R.P., DWYER, S.J., "SPATIAL DIGITAL FILTER DESIGN USING THE THO-DIMENSIONAL Z-TRANSFURM," KYOTO INTERNATIONAL CONFERENCE ON CIRCUIT AND SYSTEM THEORY PROCEEDINGS, KYOTO, JAPAN, SEPTEMBER 1-3, 1973.

HALL, E.L., KRUGER, R.P., DWYER, S.J., HALL, D.D., MCLAREN, R.W., LOUWICK, G.S., "PREPROCESSING AND FEATURE EXTRACTION FOR RADIOGRAPHIC IMAGES," UNIVERSITY UF PISSOURI, COLUMBIA, MISSOURI, NOVEMBER 1970.

HALL, E.L., KRUGER, R.P., DWYER, S.J., LODWICK, G.S., AUSHERMAN, C.A., "MEASUREMENT SELECTION TECHNIQUES APPLIED TO DIGITAL IMAGES," ARGONN NATIONAL LABS, IEEE SYMPOSIUM ON FEATURE EXTRACTION RECORD, OCTOBER 5-7, 1970.

HALL, E.L., KRUGER, R.P., DWYER, S.J., ET. AL., "A SURVEY OF PHEPROCESSING AND FEATURE EXTRACTION TECHNIQUES FOR HADIOGRAPHIC IMAGES," IEEE TRANSMISSION ON COMPUTERS, VOL. C-2C, NO. 9, SEPTEMBER 1971, PP. 1032-1045.

HALLOWS, R.L., KLENSCH, R.J., "ELECTRONIC HALFTONES," IEEE SPECTRUM, VOL. 5, NC. 10, P. 64, OCTOBER 1968.

HAPPILL, H.B., HULLADAY, C., "THE EFFECTS OF CEPTAIN APPROXIMATIONS IN IMAGE QUALITY EVALUATION FROM EDGE TRACES," JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VOL. 8, PP. 223-228, AUGUST-SEPTEMBER 197.

HAPP, W.W., MCGDING SCHEMES FOR RUN-LENGTH INFORMATION BASED ON POISSON-DISTRIBUTION, MASA TECHNICAL NOTE, NASA TO 6-4572, WASHINGTON, D.C., JUNE 1968.

HARLEY, T.J., KANAL, L.V., "RECOGNIZING PATTERNS IN PHOTOGRAPHS," APPLIED UPTICS, VUL. 4, NO. 10, P. 1350, UCTOBER 1965.

HARMUN, L.D., KNOWLTON, K.C., MPICTURE PROCESSING BY COMPUTER, SCIENCE, VOL. 163, PP. 19-29, APRIL 1969.

HARPER, L.H., "PCM PICTURE TRANSMISSION," IFEE SPECTRUM, VOL. 3, P. 146, JUNE 1966.

HARRIS, J.L., MCOMPUTER PROCESSING OF ATMOSPHERICALLY DEGRADED IMAGES, PROCEEDING UF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, COMPUTERIZED 1MAGING TECHNIQUES SEMINAR, WASHINGTON, D.C., JUNE 26-27, 1967.

HARRIS, J.L., "DIFFRACTION AND RESULVING POWER," JOURNAL OF THE CPTICAL SOCIETY OF AMERICA, VOL. 54, PP. 931-936, JULY 1964.

HARRIS, J.L., "IMAGE EVALUATION AND RESTURATION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, NO. 5, MAY 1966, PP. 569-574.

HARRIS, J.L., "INFORMATION EXTRACTION FROM DIFFRACTION LIMITED IMAGERY," PATTERN RECOGNITION, VOL. 2, 1970, Pp. 69-77.

HARRIS, J.L., "POTENTIAL AND LIMITATIONS OF TECHNIQUES FOR PROCESSING LINEAR MOTION-DEGRADED IMAGERY," EVALUATION OF MOTION DEGRADED IMAGES, NASA SEMINAR, CAMERIDGE, MASSACHUSETIS, DECEMBER 1968, PP. 131-138.

HARRIS, J.L., "RESULVING POWER AND DECISION THEORY," JOURNAL OF THE OPTICAL

SCCIETY OF AMERICA, VOL. 54, 1964, PP. 606-611.

HARRIS, J., "RESTORATION OF ATMOSPHERICALLY DISTORTED IMAGES," SCRIPPS INSTITUTE CF CCEANOGRAPHY, UNIVERSITY OF CALIFORNIA, SAN DIEGO, SIC NO. 63-10, MARCH 1963.

HARRIS, R.W., RUSHFORTH, C.K., "THE EFFECTS OF DIFFRACTION ON CPTICAL DISCRIMINATION," UTAH STATE UNIVERSITY, LOGAN, ELECTRO-DYNAMICS LABORATORIES, SCIENTIFIC REPORT NO. 4, JANUARY 1966.

HARRIS, R.W., KUSHFORTH, C.K., "NUMERICAL RESTURATION OF OPTICAL GBJECTS OB-SCURRED BY DIFFRACTION AND NUISE," UTAH STATE UNIVERSITY, LUGAN, ELECTRO-DYNAMICS LAB, DECEMBER 1966.

HARRISON, C.W., "EXPERIMENTS WITH LINEAR PREDICTION IN TELEVISION," BELL SYSTEP TECHNICAL JOURNAL, VOL. 31, NO. 4, JULY, 1952, PP. 746-783.

HARSHBARGER, J.H., "COLOR SIGNAL STURCE FOR VISUAL SIMULATION," SYSTEMS RESEARCH LABS, INC., DAYTON, THIO, FINAL REPORT, APRIL 1965-MARCH 1966, AMRL-TR-66-116,

FAMKINS: J.K., "IMAGE PROCESSING-A REVIEW AND PROJECTION," SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISA-TIRRENIA, AUGUST 1566.

HABKINS, J.K., MPARALLEL ELECTRO-OPTICAL PICTURE PROCESSING, PICTORIAL PATTERN RECEGNITION, WASHINGTON, D.C., THOMPSON, 1968.

HAWKINS, J.K., MUNSEY, C.J., "IMAGE PROCESSING BY ELFCTRON-OPTICAL TECHNIQUES,"
JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 57, PP. 914-918, JULY 1967.

HANKINS, J.K., MUNSEY, C.J., "A NATURAL IMAGE COMPUTER." OPTICAL PROCESSING OF INFCRMATION, SPARTAN, PP. 233-245, 1963.

HAYES, J.F., "EXPERIMENTAL RESULTS ON PICTURE BANDWICTH COMPRESSION," PROCEED-INGS OF THE UMR-MERVIN J. KELLY COMMUNICATIONS CONFERENCE, UNIVERSITY OF MISSOU-RI, ROLLA, MISSOURI, OCTOBER 1970.

HAVES, J.F., HABIBI, A., WINTZ, P.A., "RATE DISTOPTION FUNCTION FOR A GAUSSIAN SOURCE MODEL OF IMAGES," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. 11-16, No. 4, Pp. 507-509, JULY 1970.

MAYNES, H.E., HUGERS, D.T., "STOP-GO SCANNING SAVES SPECTRUM SPACE," ELECTRONICS, SEPTEMBER, 1958.

HEATH, M.A., PECK, J.C., "COLOR-TELEVISED MEDICAL MICROSCOPY," NATIONAL ARCU-NAUTICS AND SPACE ADMINISTRATION, MANNED SPACECRAFT CENTER, HOUSTON, TEXAS, NC. MSC-13080, AUGUST 1968.

HECKEL, D.I., CUANDT, R.L., ALLEN, L.H., "USTAINING COLOR TELEVISION PICTURES FROM SPACE." PREPRIAT NO. 103-97, PRESENTED AT THE 103RD TECHNICAL CONFERENCE, SOCIETY OF MUTION PICTURE AND TELEVISION ENGINEERS, NEW YORK, MAY 5-10, 1968, 18 2

HEIRZ, R.A., ARTMAN, J.U., LEE, S.H., "MATRIX MULTIPLICATION BY OPTICAL METPODS." APPLIED OPTICS, VOL. 9, NO. 9, P. 2161, SEPTEMBER 1970.

HELSTHOM, C.W., MUETECTION OF INCOHERENT OBJECTS BY A QUANTUM-LIMITED OPTICAL SYSTEM, M JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NC. 8, PP. 924-936, AUGUST 1969.

HELSTROM, C.W., "DETECTION AND RESULUTION OF INCOHERENT CHIECES BY A BACKGROUND-

LIMITED OPTICAL SYSTEM, JUURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 2, PP. 164-176, FEBRUARY 1969.

HELSTROM, C.W., "IMAGE RESTORATION BY THE METHOD OF LEAST SQLARES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, Pp. 297-303, 1967.

HELSTRUM, C.W., "INFORMATION TRANSFER FROM INCOHERENTLY RACIATING OBJECTS,"
JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 60, NO. 12, PP. 1608-1614,
DECEMBER 1970.

Service of the servic

FELSTREM, C.W., "RESULVABILITY OF OBJECTS FROM THE STANDPOINT OF STATISTICAL PARAMETER ESTIMATION," JOURNAL OF THE OPTICAL SCCIETY OF AMERICA, VUL. 6C, NO. 5, Pp. 659-667, MAY 1970.

HEMANI, H., "QUALITATIVE PATTERN RECOGNITION VIA OPTICAL SYSTEMS," WESTERN ELECTRONIC SHOW AND CONVENTION, LOS ANGELES, CALIFORNIA, 1968.

HEREST, N.B., WILL, P.M., "DESIGN OF AN EXPERIMENTAL LABORATORY FOR PATTERN RECOGNITION AND SIGNAL PROCESSING," IBM RESEARCH REPORT, NO. RC2619, SEPTEMBER 1969.

HERLSTREIT, J.W., POULICUEN, H., "INTERNATIONAL STANDARDS FOR COLOR TELEVISION,"
1EEE SPECTRUM, VOLUME 4, NO. 3, PP. 104-112, MARCH 1967.

HEUER, D.A., "SURVEY OF VIDEO AND TELEMETRY DATA COMPRESSION TECHNIQUES," THE BOEING CUMPANY, SEATTLE, WASHINGTON, CODE IDENTIFICATION 81205, NO. D2-90783-1, UCTOBER 1965.

HILBORN, E.H., STEVENSON, L.E., "MEANS FOR IMPROVING APPARENT TELEVISION RESOLU-TION," INFORMATION DISPLAY, VOL. 4, PP. 42-43, SEPTEMBER-OCTOBER 1967.

HIRSCH, C.J., "COLOR TELEVISION STANDARDS FOR REGION 2," IEEE SPECTRUM, VOL. 5, NC. 2, P. 62, "EBRUARY 1968.

HCCHMAN, D., "DIGITAL DATA COMPRESSORS CONTROL SPACE-GROUND TRANSMISSIONS," SPACE/AERONAUTICS, VOL. 37, PP. 64-68, JUNE 1962.

HOCHMAN, D., "DIGITAL SYSTEMS IN SPACE COMMUNICATIONS," THIRD INTERNATIONAL CONGRESS IN THE AERONAUTICAL SCIENCES, STOCKHOLM, AUGUST 1962.

HOCHMAN, D., "SPACE-BURNE DIGITAL SYSTEM FOR DATA BANDWICTH COMPRESSION," IN UNIVERSITY PRESS, PP. 333-334, 1963.

HUCHMAN, D., KATZMAN, H., WEBER, D.R., MAPPLICATION OF REGUNCANCY REDUCTION TO TELEVISION BANCWICTH COMPRESSION, PROCEEDINGS OF THE IEEE, VOL. 55, PP. 253-267, MARCH 1967.

HCC+MAN, D., WEBER, X., MAN ADAPTIVE TELEMETRY-DATA COMPRESSION, CHAPTER 4 OF AEROSPACE TELEMETRY, VOLUME II, H.L. STILTZ, EDITOR, PRENTICE-HALL, INC., SWITCHING THEURY IN SPACE TECHNOLOGY, EC. BY A. AIKEN AND W.F. MAIN, STANFORD 1966.

HCETELLING, H., "ANALYSIS OF A COMPLEX OF STATISTICAL VARIABLES INTO PRINCIPAL COMPONENTS," JOURNAL OF EDUCATIONAL PSYCHOLOGY, VOL. 24, 1533, PP. 417-441, 498-520.

HGGG, G., "A DATA COMPRESSION PRIMER," NASA TV-X-55323, X-521-65-320, GSFC, GREENBELT, MARYLAND, P. 24, AUGUST 1965.

HCLCERMAN, F., "IMAGE PROCESSING-STATE OF THE ART, AND A SPETIAL MACHINE SYSTEM

FOR IMAGE PROCESSING, SUMMER SCHOOL ON AUTOPATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISA-TIRRENIA, AUGUST 1968.

HOLEMAN, J.M., "SPATIAL FILTERING-A REPORT ON THE STATE-CF-THE ART," GENERAL ELECTRIC COMPANY. NEW YORK. Pp. 155-172. 1967.

HCLLENBAUGH, R., "A STUDY OF DATA COMPRESSION BUFFERING," NASA/GSFC (GODDARO SPACE FLIGHT CENTER) CONFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREFNBELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, PP. 77-79.

and the state of t

HONNEL, M.A., PRINCE, M.D., "TV IMAGE REPRODUCTION BY USE CF VELOCITY-MODULATION PRINCIPLES," PROCEEDINGS OF THE IRE, VOL. 39, NC. 3, MARCH 1951, PP. 265-268-

HOPKINS, H.H., "THE USE OF DIFFRACTION-BASED CRITERIA OF IMAGE QUALITY IN AUTCMATIC OPTICAL DESIGN," UPTICA ACTA, VOL. 13, NO. 4, PP. 343-370, OCTOBER 1966.

HOPKINS, M., "TELEMETRY DATA COMPRESSION STUCY," FINAL REPORT, PHILCC-FCRD CO., PHILCO HOUSTON OPERATIONS, HOUSTON, TEXAS, PPO-TR 266, CONTRACT NAS 9-1261*67-15234, 1966.

HERAN, J.J., "SPACECRAFT INFRARED IMAGING," IEEE SPECTRUM, VOL. 5, NO. 6, P. 71, JUNE 1968.

HCRNER, J.L., "OPTICAL RESTORATION OF IMAGES BLURRED BY ATMOSPHERIC TURBULENCE USING OPTIMUM FILTER THEORY," APPLIED OPTICS, VOL. 9, NO. 1, P. 167, JANUARY 197C.

HERNER, J.L., "UPTICAL SPATIAL FILTERING WITH THE LEAST MEAN-SQUARE-ERROR FILTER," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 5, PP. 553-559, MAY 1969.

HCRSTEIN, M., "SPACE COMMUNICATION OF PICTORIAL INFORMATION," HUGHES AIRCRAFT COMPANY, CULVER CITY, CALIFORNIA, REPORT AED 1122R, CCTUBER 1961.

HCRWITZ, L.P., SHELTON, G.L., "PATTERN RECUGNITION USING ALTCCURRELATION," PROCEEDINGS OF THE IRE, VOL. 49, NO. 1, PP. 175-185, JANUARY 1961.

HCWSON, E.A., BELL, D.A., MREDUCTION OF TELEVISION BANDWIDTH BY FREQUENCY INTERLACE, JOURNAL BRITISH IRE, VOL. 20, NO. 2, PP. 127-136, FEBRUARY 1960.

HU, M.K., "VISUAL PATTERN RECOGNITION BY MOMENT VAR: ANTS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. 17-8, No. 2, P. 174, FEBRUARY 1962.

HU, Y.C., AGRAWALA, A.K., "ON PATTERN CLASSIFICATION ALGCRITHMS: INTRODUCTION AND SURVEY," PROCEEDINGS OF THE IEEE, VOL. 56, PP. 2101-2114, DECEMBER 1568.

HUANG, J.J.Y., SCHULTHEISS, P.M., "BLOCK QUANTIZATION OF CCRRELATED GAUSSIAN RANCOM VARIABLES," IEEE TRANSACTIONS ON COMMUNICATIONS SYSTEMS, VOL. CS-11, PP. 289-296, SEPTEMBER 1963.

PLANG. T.S., "CODING OF GRAPHICS," PROCEEDINGS OF THE PICTURE BANDWIDTH COM-PRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 4: DECEMBER 1971.

HUANG, T.S., "THE COMBINED USE OF DIGITAL COMPUTERS AND COHERENT OPTICS IN IMAGE PROCESSING," SUCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, CCMP. TERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

HUANG, T.S., "CURRECTION TO "PSEUDORANDUM SCANNING," I LEE TRANSACTIONS ON COMPUNICATION TECHNOLOGY, VOLUME CUM-12, NO. 4, PP. 231-232, DECEMBER 1964.

FUANG, T.S., "DIGITAL HOLOGRAPHY," PROCEEDINGS OF THE IEEE, VOL. 59, NO. 9, P. 1335, SEPTEMBER 1971.

HUANG, T.S., "DIGITAL PICTURE CODING," PROCEEDINGS OF THE 22ND NATIONAL ELECTRONICS CONFERENCE, CHICAGO, ILLINOIS, CCTOBER 3-5, 1966, PP. 793-797.

HUANG, T.S., "DIGITAL TRANSMISSION OF HALFTONE PICTURES," THIRD ANNUAL PRINCETON CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, MARCH 1969.

HUANG, T.S., "IMAGE ENHANCEMENT-A REVIEW," OPTO-ELECTRONICS, VOL. 1, FEBRUARY

HLANG, T.S., "INTRODUCTION TO SPECIAL ISSUE ON IMAGE ENHANCEMENT," PATTERN RECOGNITION, VOL. 2, 1970, PP. 67-68.

HUANG, T.S., "A METHOD OF PICTURE CODING," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 57, CAMBRIDGE, MASSACHUSETTS, APRIL 1960, PP. 109-115.

HUANG, T.S., "UPTIMUM SCANNING DIRECTION IN TELEVISION TRANSMISSION," JCINT MEETING OF U.S. NATIONAL COMMITTEE, URSI AND IEEE, CCTOBER, 4-6, 1965.

FUANG, T.S., MPCM PICTURE TRANSMISSION, M IFEE SPECTRUM, VCL. 2, NO. 12, DECEMBER, 1965, PP. 57-63.

HUANG, T.S., "PICTURE BANDWIDTH COMPRESSION," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

HUANG, T.S., "PICTURE TRANSMISSION BY DELTA-MUDULATION," MIT RESEARCH LABORA-TCRY CF ELECTRONICS, REPORT NO. 74, CAMBRIDGE, MASSACHUSETTS, JULY 1964, PP. 208-210.

HUANG, T.S., MPICTURE TRANSMISSION BY PSEUDORANDOM SCANNING, MMIT RESEARCH LABCRATORY OF ELECTRONICS, REPORT NO. 74, CAMBRIDGE, MASSACHUSETTS, JULY 1964, PP. 205-208.

HUANG, T.S., "THE POWER DENSITY SPECTRUM OF TELEVISION RANGUM NOISE," APPLIED OPTICS, VUL. 4, NO. 5, PP. 597-603, MAY 1965.

HUANG, T.S., "PSEUDORANDOM SCANNING," LEEE TRANSACTIONS ON COMPUNICATION TECHNOLOGY, VOLUME COM-12, NO. 3, PP. 105-107, SEPTEMBER 1964.

HUANG, T.S., MRUN-LENGTH CODING OF CONTINUOUS-TONE PICTURES, PROCEEDINGS OF THE 2ND PRINCETON CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, TEFE-68-CT-1, MARCH 25-26, 1968.

FUANG, T.S., *RUN-LENGTH CODING AND ITS EXTENSIONS," PRESENTED AT THE SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, PIT, CAMERIDGE, MASSACHUSETTS, APRIL 1969.

HUANG, T.S., "SOME CONSIDERATIONS ON TWO-DIMENSIONAL DIGITAL FILTERING," NEREM 70, SECTION 19-SIGNAL PROCESSING, CAMBRIDGE, MASSACHUSETTS, NGVEMBER 6, 1970.

HLANG, T.S., "SUME NOTES ON FILM GRAIN NOISE," NSF SUMMER STUDY, REPORT, WOODS HOLE, MASSACHUSETTS, 1966.

FUANG, T.S., "THE SUBJECTIVE EFFECTS OF PICTORIAL NOISE," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 72, CAMBRIDGE, MASSACHUSETIS, JANUARY 1964, PP. 194-195.

HLANG, T.S., "THE SUBJECTIVE EFFECT OF TWO-DIMENSIONAL PICTORIAL NOISE,"
LEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-11, NUMBER 1, JANUARY 1965,
PP. 43-53-

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FUANCE T.S., "TWO-DIMENSIONAL POWER DENSITY SPECTRUM OF TELEVISION RANDUM NCISE," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NG. 69, CAMBRIDGE, MASSACHUSETTS, APRIL 1963, PP. 143-149.

HUANG, T.S., CHIKHACUI, M.T., "THE EFFECT OF BSC ON PCM PICTURE QUALITY," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, NO. 2, APRIL 1967, PP. 270-273.

HUANG, T.S., SCHRIEBER, W.F., TRETIAK, D.J., "IMAGE PROCESSING," PRECEEDINGS CF THE IEEE, VOL. 59, NO. 11, NOVEMBER 1971.

HUANG, T.S., TRETIAK, U.J., MAN EFFICIENT FACSIMILE TRANSMISSION SYSTEM, M PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., MAY 1966.

HUANG, T.S., TRETIAK, C.J., MPICTURE BANDWIDTH COMPRESSION, M. M.I.T. PRESS, CAMBRIDGE, MASSACHUSETTS, 1970.

HUANG, T.S., TRETIAK, C.J., MPICTURE PROCESSING, REPRINTED FROM QUARTERLY PROGRESS REPORT, NO. 79, UCTUBER 15, 1965, PP. 211-214.

HUANG, T.S., FRETIAK, O.J., TA PSEUDORANDOM MULTIPLEX SYSTEM FUR FACSIMILE TRANSMISSION, TIEBE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. CCM-16, NC. 3, JUNE, 1969, Pp. 436-438.

HLANG, T.S., TRETIAK, U.J., PRASADA, B., YAMAGUCHI, Y., "DESIGN CONSIDERATIONS IN PCM TRANSMISSION OF LUW-RESULUTION MONOCHROME STILL PICTURES," PROCEEDINGS OF THE IEEE, VCL. 55, NG. 3, PP. 331-335, MARCH 1967.

HUANG, T.S., TRETIAK, O.J., TIPPET, J., "RESEARCH IN PICTURE PROCESSING." LPTICAL AND ELECTRO-OPTICAL INFURMATION PROCESSING TECHNOLOGY,, MIT PRESS, CAMBRICGE, MASSACHUSETTS, CHAPTER 3, 1965.

HUANG, T.S., WOODS, J.W., "PICTURE BANDWIDTH COMPRESSION BY BLOCK QUANTIZATION," INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1965.

HUANG, T.S., ET AL., "METEORULOGICAL SATELLITE SYSTEM ANALYSES," AD 411398, JUNE 1962.

HUFFMAN, D.A., "A METHOD FOR THE CONSTRUCTION OF MINIMUM-REDUNDANCY CEDES," PRECEEDINGS OF THE IRE, SEPTEMBER 1952, PP. 1098-1101, VCL. 40.

HUFNAGEL, R.E., STANLSY, Nor., MMODULATION TRANSFER FUNCTION ASSOCIATED WITH IMAGE TRANSMISSION THROUGH TURBULENT MEDIA, JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, NO. 1, JANUARY, 1964, PP. 52-61.

HUGHES, G.F., "SPACECRAFT DATA COMPACTION BY GRTHCHURMAL PCLYNCMIAL SERIES," AUTCNETICS, NO. 65/31-575-51/SS67, NOVEMBER, 1965.

HUGHES AIRCRAFT COMPANY, "ADVANCED ANALUG TELEVISION STUCY, FINAL REPORT," REFORT NU. P63-90, CECEMBER 1963.

HUGHES AIRCRAFT CUMPANY, "VARIABLE STORAGE TV GROUND PROCESSING SYSTEM," REPORT NC. TP-417, NOVEMBER 1963.

HULLETT, J.L., "IPPAIRMENT BY TRANSMISSION CRRORS OF DIFFERENTIALLY-QUANTIZED

TELEVISION SIGNALS." PRUCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPCSIUM, GORDON AND BREACH, NEW YORK, DECEMBER 1971.

HULLETT, J.L., LIMB, J.O., "DIFFERENTIAL QUANTIZATION OF TELEVISION SIGNALS--OPEN-LCCP OPERATION," PRUCEEDINGS OF THE IEEF, VOL. 56, PP. 364, MARCH 1968.

HULME, J.R., SCHOMBURG, R.A., "A DATA BANDWIDTH COMPRESSION FOR SPACE VEHICLE TELEMETRY," PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, 1962, VCL. 1, PAPER 3-2.

HUNT, B.R., "BLOCK-MUDE DIGITAL FILTERING OF PICTURES," LOS ALAMOS SCIENTIFIC LABCRATURY, LOS ALAMOS, NEW MEXICO, 1971.

HUNT, B.R., "THE INVERSE PROBLEM OF RADIOLOGY," MATHEMATICAL BIOSCIENCES, VOL. 8 PP. 161-175, 1970.

HUNT, B.R., "MINIMIZING THE COMPUTATION TIME FOR USING THE TECHNIQUE OF SECTIONING FOR DIGITAL FILTERING OF PICTURES," LOS ALAMOS SCIENTIFIC LABORATORY LCS ALAMOS, NEW MEXICO, 1971.

HUNT, B.R., JANNEY, D.H., ZEIGLER, R.K., "INTRODUCTION TO RESTORATION AND ENHANCEMENT OF RADIOGRAPHIC IMAGES," LOS ALAMOS SCIENTIFIC LAB REPORT, LOS ALAMOS, NEW MEXICO, 1970.

HUNT, B.R., ZEIGLER, R.K., MENHANCEMENT OF RADIOGRAPHIC IMAGES USING A LARGE-SCALE, MULTI-PRUGRAMMING COMPUTER, CONFERENCE ON COMPUTER APPLICATIONS IN RADIOLOGY, UNIVERSITY OF MISSOURI, COLUMBIA, SEPTEMBER 1970.

HYMAN, M.A., MA SPACE DATA HANDLING (WITH EMPHASIS ON DATA COMPACTION), MANNUAL EAST COAST CONFERENCE ON AEROSPACE AND NAVIGATIONAL ELECTRONICS, 12TH, BALTIMORE, MARYLAND, Pp. 3.3.3-1 - 3.3.3-6, OCTOBER 1965.

IBM CCRPORATION, "ADAPTIVE COMPRESSIVE TELEMETRY TECHNIQUES," FINAL REPORT, NASA CR-65498, FEDERAL SYSTEMS DIVISION, IBM CORPORATION, GAITHERSBURG, MARY-LANC, 1966, P. 239.

ICHIDKA, Y., IZUMI, M., SUZUKI, T., "DIGITAL OPTICAL INFORMATION PROCESSING BY A MIDDLE CLASS COMPUTER," DEPARTMENT OF APPLIED PHYSICS, FACULTY OF ENGINEERING, CSAKA UNIVERSITY, SUITA, OSAKA, JAPAN, 1967.

ICHIOKA, Y., IZUMI, M., SUZUKI, T., "HALFTONE PLOTTER AND ITS APPLICATIONS TO DIGITAL OPTICAL INFORMATION PROCESSING," APPLIED OPTICS, VOL. 8, NO. 12, DECEMBER 1968, PP. 2461-2471.

ICHIOKA, Y., IZUMI, M., SUZUKI, T., "SCANNING HALFTONE PLOTTER AND COMPUTER-GENERATED CONTINUOUS-TONE HULOGRAM," APPLIED OPTICS, VOL. 10, NO. 2, P. 403, FEBRUARY 1971.

IISAKA, J., WATANABE, F., KAIHARA, S., TAKAGI, M., NAKATANI, Y., MINTERACTIVE BICMEDICAL IMAGE PROCESSING SYSTEM, MITTHE PROCEEDINGS OF THE 10TH CONVENTION OF THE JAPANESE SOCIETY OF MEDICAL AND BIOLOGICAL ENGINFERING, 1-5-7, APRIL 1971.

INATSU, M., "LINE-SEQUENTIAL CHROMINANCE COMPONENTS: TRANSMISSION SYSTEM IN COLCR TELEVISION AND ITS APPLICATION," JAPAN BRUADCASTING CORPORATION, JAPAN, TECHNICAL RESEARCH LABORATORIES, JANUARY 1965.

INOSE, H., SHIBATA, K., "QUANTIZING NOISE OF URTHOGONAL TRANSFORM T.V. PCM SYSTEM," 1968 NATIONAL CONFERENCE OF THE INTERNATIONAL ENGINEERING CONVENTION OF

ELECTRONICS, JAPAN, P. 1310.

INUSE, H., YASUDA, Y., "A UNITY BIT CODING METHOD BY NEGATIVE FEEDBACK," PRO-CEECINGS OF THE IEEE, VOL. 51, NOVEMBER 1963, PP. 1524-1535.

INUSE, H., YASUDA, Y., MURAKAMI, J., "A TELEMETERING SYSTEM BY CODE MCDULATION: DELTA-SIGMA MODULATION," IRE TRANSACTIONS ON SPACE FLECTRONICS AND TELEMETRY, VUL. SET-8, SEPTEMBER 1963, PP. 204-209.

INOSE, H., YASUDA, Y., TAKANO, H., "VIDEO TRANSMISSION BY CELTA-SIGMA MUCULA-TION," PROCEEDINGS OF THE IEEE, VOL. 1, PP. 307-312, 1963.

IVAKHNENKO, U.G., LEMISHEVSKY, G.O., RENTSKY, V.I., "ALGORITHM FOR PERCEPTION-TYPE RECOGNITION SYSTEMS WITH AN INPUT CORRELATOR," AUTOMATIKA, VOL. II, NO. 1, PP. 7-21, 1966, IN UKRANIAN.

IMAPURA, S., "VIDEO SIGNAL PROCESSING AND ANALYSIS FOR NEGATIVE COLOR FILM TRANSPISSION," JAPAN BROADCASTING CORPURATION, TOKYO, TECHNICAL RESEARCH LABS, MARCH 1968.

IMERSON, J.E., "CALCULATED QUANTIZING NOISE OF SINGLE-INTEGRATION DELTA-MODULA-TICN CODERS," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 7, SEPTEMBER 1969, PP. 7359-2389.

JACKSCN, R.N., "SUBJECTIVE ASSESSMENTS OF NOISE IN TELEVISION PICTURES," REPORT NUMBER 308, MULLARD RESEARCH LABORATORIES, REDHILL, ENGLAND, JULY 1959.

JANSSENS, T.J., KOZLOWSKI, G.C., LUTHER, A.J., "REAL-TIME CIGITAL SUBTRACTION AND ENHANCEMENT OF VIDEO PICTURES," JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VOL. 6, Pp. 120-124, APRIL-MAY 1968.

JANSSEN, P.A., HUNT, R.H., PLYLER, E.K., "RESPUNSE FUNCTION FOR SPECTRAL RESOLUTION ENHANCEMENT," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, PP. 1665-1666, DECEMBER 1968.

JAYANT, N.S., "ADAPTIVE DELTA MODULATION WITH A ONE-BIT MEMORY," BELL SYSTEM TECHNICAL JOURNAL, MARCH 1970, PP. 321-343.

JENSEN, N., "OPTICAL AND PHUTOGRAPHIC RECONNAISSANCE SYSTEMS," WILEY, NEW YORK, 1968.

JERMANN, W.H., *REDUNDANCY IN BINARY PATTERNS," AD-661228; NAVY UNDERWATER SOUND REFERENCE LABORATORY, ORLANDO, FLORIDA, USL-854, N68-12015, OCTOBER 1967.

JESTY, L.C., "TELEVISION AS A COMMUNICATION PROBLEM," PROCEECINGS OF THE IEE, VGL. 99, PART 3A, NO. 20, 1952, Pp. 761-770.

JESTY, L.C., PHELP, N.R., "THE EVALUATION OF PICTURE QUALITY WITH SPECIAL REFER-ENCE TO TELEVISION SYSTEMS," MARCONI REVIEW, VOL. 14, 1951, PP. 113-156.

JESTY, L.C., WINCH, G.T., "TELEVISION IMAGES: AN ANALYSIS OF THEIR ESSENTIAL QUALITIES," TRANSACTIONS OF THE ILLUMINATING ENGINEERING SCCIETY, NC. 2, 1937, PP. 316-334.

JET PROPULSION LABORATURY, "IMAGE ANALYSIS OF AREA-SCAN TELEVISION," CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA, LIBRASCOPE GROUP, MAPCH 1964.

JODCIA: R., MANDEL, L.: "INFORMATION RATE IN AN OPTICAL COMMUNICATION CHANNEL,"

JCUFNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 2, PP. 191-198, FEBRUARY 1971.

Secretary of the

JCHANNSEN, K.G., "SYNTHETIC HIGHS-STOP SCANNING CCDING SYSTEM," HUGHES AIRCRAFT CCMPANY, REPURT TIC 2230.5/94, NOVEMBER 1962.

JOHNSTON, E.G., ROSENFELD, A., "GEOMETRICAL UPERATIONS ON DIGITIZED PICTURES," PICTURE PROCESSING AND PSYCHOPICTORICS, NEW YORK, ACADEMIC PRESS, 1970.

JGNES, A.H., MUSE OF A LINEAR MATRIX TO MUDIFY THE CCLCUR ANALYSIS CHARACTERISTICS OF A CCLOUR CAMERA, BRITISH BROADCASTING CURPORATION, KINGSWOOD, ENGLAND, ENGINEERING DIVISION, 1965.

JUNES, C.M., "FOURIER-TRANSFORM METHODS FOR PATTERN RECOGNITION," AIR FORCE CAMBRICGE RESEARCH LABORATORY, REPORT AFORL-62-512, JULY 1962.

JONES, C.M., KELLAHER, J.P., DILLARD, J.M., BERNSTEIN, S.L., MFCURIER-TKANSFORM METHUDS FOR PATTERN RECOGNITION, MAIR FORCE, CAMBRIDGE RESEARCH LABORATORY, REPORT AFCRL-62-512, JULY 1962, ELECTRONICS RESEARCH DIRECTORATE, BEDFORE, MASSACHUSETTS, 69 P.

JONES, E.D., MBANDWIDTH COMPRESSION TECHNIQUES FOR METEORIQUECUAL SATELLITE PICTURES, FINAL REPORT MARCH 1964-MAY 1965, NASA CK-70918; STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, MAY 1965, P. 170.

JCNES, R.A., YEADON, E.C., "DETERMINATION OF THE SPREAD FURMATIONS FROM NOISY EDGE SCANS," PHOTOGRAPHIC SCIENCE ENGINFER, VOL. 13, PP. 200-204, JULY-AUGUST 1966.

JUSEPH, R.D., KELLY, P.M., VIGLIONE, S.S., "AN CPTICAL DECISION FILTER," PRO-CEECINGS OF THE IEEE: VOL. 51, NO. 8, AUGUST 1963, PP. 1298-1118.

JULESZ, B., "A METHOD OF CODING TV SIGNALS BASED ON FDGE DETECTION," BELL SYSTEM TECHNICAL JOURNAL, VOL. 38, NO. 4, JULY, 1959, PP. 1001-1020.

JLLESZ, B., "VISUAL PATTERN DISCRIMINATION," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 2, Pp. 84-92, FEBRUARY 1962.

KABRISKY, M., "A PROPOSED MODEL FOR VISUAL INFORMATION PROCESSING IN THE HUMAN BRAIN," UNIVERSITY OF ILLINUIS PRESS, URBANA, 1566.

KANAL, L., "UBJECT RECOGNITION IN AERIAL PHCTCGRAPHY-EXPERIMENTAL COMPARISON OF SCME STATISTICAL TECHNIQUES," INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, IEEE TRANSACTIONS ON INFORMATION THEORY, SAN REMO, ITALY, SEPTEMBER 1967.

KANAL, L.N., "PATTERN RECUGNITION," WASHINGTON, D.C., THOMPSON, 1968.

KANEFSKY, M., "UN THE COMPRESSION AND RECUGNITION OF TWO DIMENSIONAL PATTERNS FROM THEIR BIT PLANES," PROCEEDINGS OF THE SECUND HAWAII INTERNATIONAL CENFERENCE ON SYSTEM SCIENCES, JANUARY 1969.

KAPANY, N.S., BURKE, J.J., "VARIOUS IMAGE ASSESSMENT PARAMETERS," JOURNAL OF THE CPTICAL SOCIETY OF AMERICA, VOL. 52, NO. 12, Pp. 1351-1361, DECEMBER 1962.

KAPANY, N.S., PEPPERS, N.A., "IMAGE SYNTHESIS, "JOURNAL OF THE OPTICAL SCCIETY OF AMERICA, VUL. 54, NU. 11, PP. 1321-1325, NOVEMBER 1964.

KARNEFF, S., "PICTURE LANGUAGE MACHINE," NEW YORK, ACADEMIC PRESS, 1970.

KAUFMAN, L., LINCOLN, A.J., PITBLADD, C.B., "EVALUATION OF PSEUDO-RANDOM DOT-SCANNING TELEVISION SYSTEMS," SPERRY RAND RESEARCH CENTER, SUBBURY, MASSACHU-SETTS, FINAL REPORT, JANUARY 1967.

1677 SYSTEM

KAZPIRCZAK, H., HCLDERMANN, F., THE KARLSRUFE SYSTEM FOR AUTOMATIC IMAGE PRO-CESSING, AGARD PRINCIPLES AND PRACTICE OF BICNICS, PP. 293-308, 1968.

KELLY, D.H., "EFFECTS OF SHARP EDGES IN A FLICKERING FIELD." JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, YOL. 49, NO. 7, JULY 1959, PP. 730-732.

KELLY, D.H., "IMAGE PROCESSING EXPERIMENTS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 51, PP. 1095-1101, UCTUBER 1961.

KELLY, D.H., "INFORMATION CAPACITY OF SINGLE RETINAL CHANNEL," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 3, APRIL 1962, PP. 221-226.

KELLY, D.H., "SPATIAL FREQUENCY "ANDWIDTH, AND RESOLUTION," APPLIED OPTICS; VCL. 4, NO. 4, PP. 435-439, APRIL 1965.

KELLY, D.H., "VISUAL RESPONSES TO TIME DEPENDENT STIMULI," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, PART I, VOL. 51, NO. 4, APRIL 1961, PART II, VOL. 51, NO. 7, JULY 1961.

KELLEY, K.B., "THE EFFECT OF CHANNEL ERKORS ON A SAMPLING COMPRESSION SYSTEM EMPLOYING BINARY SEQUENCE TIME ENCODING," 1966 SESSION OF THE GODDARD SUMMER WORKSHOP, NASA TV X-55742; X-700-67-94; NASA/GSFC, GREENBELT, MARYLAND, 1967, PP. 45-64.

KELLEY, R.B., "SAMPLE COMPRESSION SYSTEM EVALUATION," PH.D. THESIS, UNIVERSITY UF CALIFURNIA AT LOS ANGELES, LOS ANGELES, ORDER NO. 68-222, 1967.

KENNEDY, J.D., CLARK, S.J., PARKYN, W.A., "DIGITAL IMAGERY DATA COMPRESSION TECHNIQUES," REPORT NO. MDC 60402, MCDONNELL-DOUGLAS CORPORATION, HUNTINGTON BEACH, CALIFORNIA, JANUARY 1970.

KHALFIN, A.M., MIELEVISIUM ARRANGEMENT FOR AUTOMATIC RECEGNITION OF OBJECTS, MAIR FORCE SYSTEMS CUMMAND, WRIGHT-PATTERSON AFB, OHIC, FEREIGN TECHNOLOGY DIVISION, RUSSIAN PATENT NO. 164627, MARCH 1963.

KHAPKEVICH, A.A., "CCMPARISON OF FEW POSSIBLE METHODS OF TRANSMITTING SIMPLE DRAWINGS," TELECOMMUNICATIONS, VOL. 5, 1958, PP. 527-530.

KILVINGTON, T., "EFFECTS OF NOISE IN TELFVISION TRANSMISSION," JOURNAL OF THE TV SCCIETY, VOL. 9, JANUARY 1959, PP. 26-31.

KING, M.C., NULL, A.M., BERRY, D.H., MA MOIRE APPRUACH TO COMPUTER-GENERATED HOLLGRAPHY: APPLIED OPTICS, VOL. 9. FEBRUARY 1970.

KIRSCH, R.A., "BIOMEDICAL IMAGE AND LANGUAGE PATTERN PROCESSING," RESEARCH PROJECT, NATIONAL BUREAU OF STANDARDS, WASHINGTON, D.C., 1967.

KIRSCH, K.A., "CUMPUTER INTERPRETATION OF ENGLISH TEXT AND PICTURE PATTERNS,"
IEEE TRANSACTIONS ON ELECTRONIC COMPUTERS, VCL. EC-13, PP. 363-376, AUGUST 1964.

KIRSCH, R.A., CAHN, L., RAY, L.C., UKBAN, G.H., MEXPERIMENTS IN PROCESSING PICTURIAL INFURMATION WITH A DIGITAL COMPUTER, PROCEEDINGS OF THE ENGINEERING JCINT COMPUTER CONFERENCE, VOL. 10, Pp. 221-229, DECEMBER 1957.

KISHNER: S.J., "FEATURE EXTRACTION USING GOLAY LOGIC," A SYMPOSIUM ON SAMPLED

IMACES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, Pp. 7-1 TO 7-8.

KITSOPCULUS, S.C., KRETZMER, E.R., "COMPUTER SIMULATION OF A TELEVISION CODING SCHEME," PROCEEDINGS OF THE IRE, VOL. 49, NO. 6, JUNE 1961, PP. 1076-1077.

KLEINROCK, L., "TV DATA COMPRESSION BY A DECAYING SLCPE THRESHOLD METHOD," PRO-CEECINGS OF THE SECOND HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, JANJARY 1969.

KLINGER, A., KUCHMAN, A., ALEXANDRIDIS, N.A., "COMPUTER ANALYSIS OF CHROMOSOME PATTERNS: FEATURE-ENCODING FOR FLEXIBLE MASKING," IEEE TRANSACTIONS UN CCM-PLTERS, SPECIAL ISSUE UN FEATURE EXTRACTION AND SELECTION, SEPTEMBER 1971.

KLINGER, A.H., ZIEMER, D.K., "REDUCING CHANNEL CAPACITY REQUIREMENTS IN DIGITAL IMAGERY TRANSMISSION: A STUDY REPORT," SEVENTH NATIONAL COMMUNICATION SYMFOSIUM RECORD, 1961, PP. 75-85.

KNIGHT, J.M., MMAXIMUM ACCEPTABLE BIT ERROR RATES FOR PCM ANALOG AND DIGITAL TV SYSTEMS, PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, PAPER 10-3, 1962, PP. 1-9.

KNIGHT, J.M., FADLEY, J.K., RAGA, G.L., KING, B.C., MDIGITAL TELEVISION: SHRINK-ING BULKY BANDWIDTHS, BELECTRONICS, VOL. 37, NO. 31, DECEMBER 1964, PP. 77-84.

KNCWLTON, K.C., NCLL: A.M., SINDEN, F.W., MMCVIES FROM THE COMPUTER, SYMPOSIUM, THE HUMAN USE OF COMPUTING MACHINES, MURRAY HILL, NEW JERSEY, JUNE 1966.

KNUCKEY, R.L., "MULTICCLOR PRESENTATION OF IMAGES WITH EDGE ENHANCEPENT,"
TECHNICAL MEMORANDUM 61-42, UNIVERSITY OF KANSAS, ENGINEERING SCIENCE DIVISION,
LAWRENCE, CUNTRACT NO. NSR 17-004-003, UCTUBER 1966.

KCHLER, R.J., HOWELL, H.K., "PHOTOGRAPHIC IMAGE ENHANCEMENT BY SUPERIMPOSITION OF MULTIPLE IMAGES," SOCIETY OF PHOTOGRAPHIC SCIENTISTS AND ENGINEERS, ANNUAL CONFERENCE, BUSTON, MASSACHUSETTS, MAY 8, 1962, PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. 7, PP. 241-245, JULY-AUGUST 1963.

KCLERS, P.A., "READING PICTURES: SOME CUGNITIVE ASPECTS OF VISUAL PERCEPTION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 1, DECEMBER 1971.

KCLEW, P.A., EDEN, M., "RECUGNIZING PATTERNS," CAMBRIDGE, MASSACHUSETTS, MASSACHUSETTS INSTITUTE OF TECHNOLOGY PRESS, 1968.

KCMAR, V.G., "CRITERIA OF IMAGE DISTORTIONS IN THE CINEMATOGRAPHIC PROCESS," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 75, NC. 4, APRIL 1966, PP. 327-333.

KCNEFSKY, M., *DATA COMPRESSION USING BIT-PLANE ENCUCING, *GODDARD SUMMER WORK-SHCF, GREENBELT, MARYLAND, 1966.

KCKMAN, N.I., MCOLOR SEPARATION BY SCANNER AND DIGITAL COMPUTATION, MITHE GRAVURE TECHNICAL ASSOCIATION FALL FORUM, LOUISVILLE, KENTUCKY, CCTOBER 29, 1970.

KCRFEL, A., "MEASURMENTS IN THE POWER SPTECTUM OF TV SIGNALS," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, REPORT No. 5064, SEPTEMBER 1959.

KCRFEL, A., "RELATIONSHIP BETWEEN AUTO-CORRELATION FUNCTIONS AND ENTROPY BOUNDS IN TV PICTURE SIGNALS," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERAL, S OF PART-MENT, REPORT NO. 4503, MARCH 1957.

KCRPEL, A., LOTSOFF, S.N., WHITMAN, R.L., "THE INTERCHANGE OF TIME AND FREQUENCY IN TELEVISION DISPLAYS," PROCEEDINGS OF THE IEEE, VOL. 57, FEBRUARY 1969, PP. 16C-17O.

KCRTMAN, C.P., "DATA COMPRESSION AND ADAPTIVE TFLEMETRY," WESTERN ELECTRONIC SHOW AND CONVENTION, SAN FRANCISCO, CALIFORNIA, TECHNICAL PAPERS, PART 5, NG. 14-4, P. 8, AUGUST 1965.

KCRTMAN, C.M., "DATA COMPRESSION BY REGUNDANCY REDUCTION," IEEE SPECTRUM, VOL. 4. MARCH 1967, PP. 133-139.

KCRTMAN, C.M., "REDUNDANCY REDUCTION: A PRACTICAL METHOD OF DATA COMPRESSION," PROCEEDINGS OF THE IEEE, VOL. 55, MARCH 1967, Pp. 253-263.

KCSCUROV, G.I., KACHALGV, O.V., "HOLOGRAPHIC IDENTIFICATION OF SIMILAR IMAGES," PRIBURY I TEKHNIKA EKSPERIMENTA, IN RUSSIAN, PP. 197-199, JANUARY-FEBRUARY, 1970

KOVALEVSKY, V.A., "OPTIMAL METHOD OF DISCRETIZING GRAPHICAL IMAGES," IMAGE RECEGNITION, PP. 178-193, IN RUSSIAN, 1969.

KCVALEVSKY, V.A., "PATTERN RECOGNITION: HEURISTICS OR SCIENCE?," ADVANCES IN IN-FORMATION SYSTEMS SCIENCE, VOL. 3, NEW YORK, PLENIUM, 1970.

KOVALEVSKY, V.A., "SEQUENTIAL OPTIMIZATION IN IMAGE RECOGNITION PROBLEMS," IMAGE RECOGNITION, NO. 3, Pp. 6-13, IN RUSSIAN, 1969.

KOVAS ZNAY, L.S.G., ARMAN, A., "OPTICAL AUTOCORRELATION MEASURE FENT OF THO-DI-MENSIONAL RANDOM PATTERNS," RESEARCH SCIENCE INSTRUMENT, VOL. 28, OCTOBER 1957, AC 144525, PP. 793-797.

KCVASZNAY, L.S.G., JUSEPH, H.M., "IMAGE PROCESSING," PROCEEDINGS OF THE IRE, VCL. 43, PP. 560-570, 1955.

KCYLOVSKIY, S.M., "STUDY UF THE SUBJECTIVE ESTIMATION OF IMAGE QUALITY," USSR ACACEMY OF SCIENCE, VOL. 40, NO. 6, Pp. 146-148, AUGUST 1970.

KCZLAY, D., "FEATURE EXTRACTION IN AN OPTICAL CHARACTER RECOGNITION MACHINE," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NC. 5, P. 1063, SEPTEMBER 1971.

KCZMA, A., KELLY, D.L., "SPATIAL FILTERING FOR DETECTION OF SIGNALS SUBMERGED IN NCISE," APPLIED OPTICS, VOL. 4, NO. 4, PP. 387-393, APRIL 1965.

KRAKAUER, L.J., "COMPUTER ANALYSIS OF VISUAL PROPERTIES OF CURVED OBJECTS," MAC TR-82, MIT, CAMBRIDGE, MASSACHUSETTS, MAY 1971.

KRAPER, H.P.: MATHEMS, M.V., MA LINEAR CUDING FCR TRANSMITTING A SET OF CORRELATED VARIABLES, MIRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, SEPTEMBER 1956, PP. 41-46.

KRASILNIKOV, N.N., "CALCULATION OF THE PROBABILITY OF RECOGNITION OF A HALF-TONE IMAGE WHEN TRANSMITTED OVER A CHANNEL WITH NCISE," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., 1966.

KREINS, E.R., ALLISON, L.J., "COLOR ENHANCEMENT OF NIMBUS FIGH RESOLUTION INFRA-REC RADIOMETER DATA," APPLIED OPTICS, VGL. 9, NG. 3, P. 681, MARCH 1970.

KRETZMER. E.R., MREDUCED ALPHABLET REPRESENTATION OF TV SIGNALS, MIRE CONVENTION RECERC, PART 4, 1956, PP. 140-147.

KRETZMER, E.R., "STATISTICS OF TELEVISION SIGNALS," BELL SYSTEM TECHNICAL JOUR-NAL, VCL. 31, NO. 4, JULY 1952, Pp. 751-763.

KRETZMER, E.R., "TELEVISION SYSTEM HAVING RECUCED BANDWICTF," U.S. PATENT NO. 2946 851, JULY 1960.

KRUGER, R.P., MCOMPUTER PROCESSING OF RADIOGRAPHIC IMAGES, M PHD DISSERTATION, UNIVERSITY OF MISSOURI, COLUMBIA, JUNE 1971.

KRUGER, R.P., CARLSON, A.J., DWYER, S.J., "PCSITION INVARIANT LINEAR AND NUN-LINEAR TECHNIQUES IN DIGITAL PICTURE PROCESSING," M.J. KELLY MEMURIAL CUNTER-ENCE ON COMMUNICATION THEORY RECORD, ROLLA, MISSOURI, PP. 3-4-1 TG 3-4-6, CCTCBER 5-7, 1970.

KRUGER, R.P., OWYER, S.J., "COMPUTER-AIDED DIAGNOSIS OF RACICGRAPHIC CARCIAC SIZE AND SHAPE DESCRIPTORS," PROCFEDINGS OF THE THIRE ANNUAL HOUSTON CONFERENCE ON COMPUTER AND SYSTEM SCIENCE, UNIVERSITY OF HOUSTON, TEXAS, APRIL 26-27, 1971.

KRUGER, R.P., DWYER, S.J., LODWICK, G.S., "IMAGE ENHANCEMENT AND FEATURE EXTRACTION OF RADIOGRAPHIC IMAGES," COMPUTERS IN RADIOCUCY CONFERENCE PROCEEDINGS, UNIVERSITY OF MISSCURI MEDICAL CENTER, COLUMBIA, MISSOURI, SEPTEMBER 21-23, 197C.

KRUGER, R.P., HALL, D.L., DWYER, S.J., LODWICK, G.S., MUTRECT COMPUTER DIAGNOSIS OF RHFUMATIC HEART DISEASE, MRADIOLOGY, DECEMBER 1971.

KRUGER, R.P., HALL, E.L., DWYER, S.J., LODWICK, G.S., "DIGITAL TECHNIQUES FOR IMAGE ENHANCEMENT OF RADIOGRAPHS," INTERNATIONAL JOURNAL OF BIO-MEDICAL CUMPUTING, VOL. 2, 1971.

KRUGER, R.P., HARLOW, C.A., DWYER, S.J., "AUTGMATED DIAGNOSIS UTILIZING CARDIAC SIZE AND SHAPE DESCRIPTORS," PROCEEDINGS OF THE FIFTH ANNUAL PRINCETON CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, PRINCETON, NEW JERSEY, MARCH 25-26, 1971.

KRUGER, R.P., PAHEN, E.C., CARLSON, A.J., DWYFR, S.J., LCDWICK, G.S., "IMAGE ANALYSIS OF RADIOGRAPHS," 22ND ANNUAL SOUTHWESTERN CONFERENCE AND EXHIBITION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, DALLAS, TEXAS, PP. 147-151, APRIL 197C.

KRUGER, R.P., MAHEN, E.C., DWYER, S.J., "DIGITAL TECHNIQUES FOR IMAGE ANALYSIS OF RADIOGRAPHS," EIGHTH ANNUAL SYMPOSIUM ON BIOMATHEMATICS AND COMPUTER SCIENCE IN THE LIFE SCIENCES PROCEEDINGS, HOUSTON, TEXAS, MARCH 23-24, 1970.

KRUGER, R.P., TOWNES, J.R., HALL, D.L., DWYER, S.J., "CUMPUTER AIDEC CIAGNOSIS VIA FEATURE EXTRACTION AND GLASSIFICATION OF RADIOGRAPHIC CARDIAC SIZE AND SHAPE DESCRIPTURS." NINTH ANNUAL SYMPOSIUM ON BIOMATHEMATICS AND COMPUTER SCIENCE IN THE LIFE SCIENCES PROCEEDINGS, HOUSTON, TEXAS, MARCH 22-24, 1971.

KSIENSKI, A., MC GHEE, R.B., MRADAR SIGNAL PROCESSING FOR ANGULAR RESCLUTION BEYOND THE RAYLEIGH LIMIT, M THE RADIO AND ELECTRONIC ENGINEER, PP. 161-174, SEPTEMBER 1967.

KLBPA, MaH., MAUTCMATIC PICTURE DETAIL DETECTION IN THE PRESENCE OF RANDOM NCISE. PROCEEDINGS OF THE IEEE, VOL. 51, NO. 11, NOVEMBER 1963, PP. 1518-1523.

KUBBA, M.F., MMETHODS OF MEASURING PICTURE DETAIL IN RELATION TO TELEVISION SIGNAL BANDWIDTH COMPRESSION, MUNIVERSITY OF LUNDON, PH.C. THESIS, 1962.

KULAKCYSKAIA, N.S., "IMAGE RECOGNITION," KIBERNETIKA I VYCHISLITFNAIA TEKHNIKA, NC. 3, (IN RUSSIAN), 1969.

KUPRESICH, N.F., "CERTAIN POSSIBILITIES OF UTILIZING PHOTOELECTRIC AND TELFVI-SION METHODS FOR COMBATING NOISE FROM ATMOSPHERIC TURBULENCE DURING ASTRONOMICAL OBSERVATIONS," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AFB, OHIO, JUNE 1966.

KLRTENBACH, A.J., WINTZ, P.A., "DATA CUMPRESSION FOR SECOND CRDER PROCESSES," PROCEEDINGS OF THE 1968 NATIONAL TELEMETRY CONFERENCE, APRIL 1968, P. 76.

KUTZ, R.L., "RESULTS OF ADAPTIVE PRELICTUR STUDIES, PART 1," NASA/GSFC (GODDARD SPACE FLIGHT CENTER) CONFERENCE ON ADAPTIVE TELEMETRY, GREENHELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, PP. 41-53.

KLT2, R.L., SCIULLI, J.A., "THE PERFORMANCE LF AN ADAPTIVE IMAGE DATA COMPRESSION SYSTEM IN THE PRESENCE OF NOISE," IEEE TRANSACTIONS OR INFORMATION THEORY, VCL. IT-14, NO. 2, MARCH 1968, PP. 273-279.

KUTZ, R.L. SCIULLI, J.A., "SYNCHRUNIZATION FOR COMPRESSED IMAGE LATA TRANS-MISSIGN," PROCEEDINGS OF THE 1968 HAWAII CONFERENCE ON SYSTEM SCIENCES, HONCLULU, HAWAII.

KUTZ, R.L., SCIULLI, J.A., STAMPFL, R.A., MACAPTIVE DATA COMPRESSION FOR VIDEO SIGNALS, ACVANCES IN COMMUNICATION SYSTEMS: THEORY AND APPLICATIONS, VOL. 3 EC. BY A.V. BALAKRISHNAN, NEW YORK: ACACEMIC PRESS, PP. 29-66, 1968.

LABMETER, C.D., "SATURN TELEMETRY DATA CUMPRESSCR TEST PROGRAM," FINAL PEPURT, NASA CR-61938, G-108, AUCUM, INT., PALO ALTO, CALIFORNIA, P. 164, APRIL 1968.

LAEMMEL, A.E., "CCDING PROCESSES FOR BANDWIDTH REDUCTION IN PICTURE TRANSMISSION," POLYTECHNIC INSTITUTE OF BROCKLYN, MICROWAVE RESEARCH INSTITUTE, REPORT R-246-51, AUGUST 1951.

LAMAR, J.V., "COMPUTER TECHNIQUES FOR PSEUDOCOLOR IMAGE ENFANCEMENT," R-787-NIH, RAND CORPORATION, SANTA MONICA, CALIFORNÍA, JUNE 1971.

LAMAR, J.V., "USE UF SC4060-PRODUCED MICROFILM CUTPUT IN PSEUDOCOLOR TRANSFORMATIONS," P-4465, RAND CORPORATION, SANTA MONICA, CALIFORNIA, SEPTEMBER 1970.

LANCAU, H.J., POLLAK, H.O., "PROLATE SPHEROIDAL WAVE FUNCTIONS, FOURIER ANALYSIS AND UNCERTAINITY II," BELL SYSTEM TECHNICAL JOURNAL, VOL. 40, PP. 65-84, JANLARY 1961.

LANCAU, H.J., POLLAK, H.O., "PROLATE SPHEROICAL WAVE FUNCTIONS, FOURIER ANALYSTS AND UNCERTAINTY III: THE DIMENSION OF THE SPACE OF ESSENTIALLY TIME-AND BANDLIMITED SIGNALS," BELL SYSTEM TECHNICAL JOUPNAL, PP. 1295-1336, JULY 1962.

LAKSON, D.A., KUYPER, W.H., LATHAM, J.P., "INTERPRETATION OF COLORS BY A TELE-VISIUN SCANNING AND WAVEFORM SYSTEM APPLIED TO GEOGRAPHIC ANALYSIS OF MULTI-SENSOR IMAGERY," FLORIDA ATLANTIC UNIVERSITY, BCCA RATON, CEPARTMENT OF GEOGRAPHY, SEPTEMBER 1969, NO. AD 694 064.

LAUGHLIN, C.R., "DATA COMPACTION STUDIES," NASA/GSFC, GODDARD SPACE FLIGHT CENTER, CONFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREENBELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, PP. 41-53.

LAULER, L.J., "A SYSTEM ORIENTED PCM GROUND STATION INCORPORATING DATA

CCMPRESSIUN," NATIONAL SPACE ELECTRONICS SYMPOSIUM, MIAMI BEACH, FLORIDA, PTGSET RECURD, OCTOBER 1963, PROFESSIONAL TECHNICAL GROUP ON SPACE ELECTRONICS AND TELEMETRY (PTGSET) OF THE JEEF, NEW YORK.

LEBEDEV, D.G., LEBEDEV, D.S., "DISCREETING OF IMAGES BY SEPARATION AND QUANTI-FICATION OF CONTOURS," JUINT PUBLICATIONS RESEARCH SERVICE, WASNINGTON, C.C., ITS TECHNICAL CYBERNETICS, NO. 1, PP. 125-137, JUNE 1965.

LEBEDEV, D.S., "THE APPLICATION OF INFORMATION THEORY TO PHOTOGRAPHIC SYSTEMS," AMERICAN METEOROLOGICAL SOCIETY, BOSTON, MASSACHUSETIS, AFCRL, AUGUST 1965.

LEBEDEV, D.S., "LINEAR TWO-DIMENSIONAL TRANSFORMATION OF IMAGES FOR INCREASING NCISE IMMUNITY IN TRANSMISSION," PROBLEPS OF INFORMATION TRANSMISSION, JCURNAL, VCL. 4, 1968.

LEBEDEV, D.S., LEBEDEV, D.G., "A NEW METHOD CF IMAGE QUANTIZATION," (IN RUSSIAN) AKAC, NAUK VESTNIK, PP. 44-46, NOVEMBER 1964.

LEBEDEV, D.S., YARSLAVSKIY, L.P., "IMAGE TRANSMISSION SYSTEM EFFECTIVENESS," PROBLEMS OF INFURMATION TRANSMISSION, JOURNAL, VOL. 3, 1968.

LEBEDEV, D.S., YAROSLAVSKIY, L.P., "SPATIAL FILTERING OF IMAGES: PHCTCGRAPHIC SYSTEMS," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VCL. 1, 1970.

LEBEDEV, D.S., YARDSLAVSKIY, L.P., "USE OF REDUNDANCY FOR NOISE REJECTION IMPROVEMENT IN PICTURE-TRANSMITTING SYSTEMS," HUNGARIAN ACADEMY OF SCIENCES AND SCIENTIFIC SOCIETY FOR TELECOMMUNICATIONS, 4TH CCLLOQUIM ON MICROWAVE COMMUNICATION, BUDAPEST, HUNGARY, VOL. 1, COMMUNICATION SYSTEM THEORY, APRIL 1970.

LEDLEY, R.S., "SUME PRACTICAL PICTURE PROCESSING PROBLEMS," 5TH SEMINAR CF PATTERN RECOGNITION SOCIETY, WASHINGTON, D.C., JANUARY 1967.

LEGLEY, R.S., JACOBSEN, J., BELSON, M., "BUGSYS-A PROGRAMMING SYSTEM FOR PICTURE PROCESSING-NOT FOR DEBUGGING," AMERICAN COMPUTING MACHINERY, VOL. 9, PP. 75-84, FEBRUARY 1966.

LEGLEY, R.S., ROTULO, L.S., WILSON, J.B., BELSUN, M., GOLAB, T.J., JACOBSEN, J., "PATTERN RECUGNITION STUDIES IN THE BIOMEDICAL SCIENCES," PROCEEDINGS OF THE AFIPS JOINT COMPUTER CONFERENCE, BUSTON, MASSACHUSETTS, 1966.

LEE, K., "COMPUTER REDUCTION AND ANALYSIS OF AN INFRARED IMAGE," STANFORD UNIVERSITY, CALIFORNIA, REMUTE SENSING LAB, JANUARY 1968.

LEE, S.H., "SAMPLED FOURIEK TRANSFORM HOLOGRAM BY COMPUTER," APPLIED OPTICS, VOL. 9, NO. 3, P. 639, MARCH 1970.

LEE, W.H., "COMPUTER GENERATION OF HOLOGRAMS AND SPATIAL FILTERS," SC.D. DISSERTATION, DEPARTMENT OF ELECTRICAL ENGINEERING, MASSACHUSETTS INSTITUTE OF TECH-NCLCGY, CAMBRIDGE, SEPTEMBER 1969.

LEESE, J.A., "QUANTITATIVE INTERPRETATION OF LOW-LEVEL CUMULIFORM CLOUD PATTERNS AS SEEN ON METEOROLOGICAL SATELLITE VIDEOGRAPHS." AC 464606, JULY 1964.

LEGAULT, R.R., "SPATIAL DISCRIMINATION," ADVANCED INFRARED TECHNOLOGY, UNIVERSITY OF MICHIGAN, ENGINEERING SUMMER CONFERENCES, ANN ARBOR, MICHIGAN, JUNE 9-13. 1969. INTENSIVE SHORT COURSE.

LEITH, E.N., UPATNICKS, J., "WAVEFRONT RECONSTRUCTION WITH CONTINUOUS-TONE

OBJECTS, JUURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. 53, NO. 12, DECEMBER 1963.

LENCARIS, G.G., STANLEY, G.L., "DIFFRACTION-PATTERN SAMPLING FOR AUTUMATIC PATTERN RECOGNITION," SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, SEMINAR IN DEPTH, VCL. 18, PP. 127-153, 1969.

Marine Commence of the commence of the commence of

LENGER, A., KUZUCH, M., "EXPERIMENTAL DELTA MOCULATOK," NATIONAL SYMPHISIUM ON GLOBAL COMMUNICATIONS, PP. 95-98, 1961.

LENCER, A., KUZUCH, M., "SINGLE BIT DELTA MUCULATING SYSTEMS," FLFCTRONICS, VCL. 34, NCVEMBER 1961.

LERMAN, S.H., DUMAIS, R., "PRACTICAL CONSIDERATIONS IN DIGITAL IMAGE PROCESSING" SPIE IMAGE INFORMATION RECOVERY SEMINAR PROCEEDINGS, VOL. 16, CCTCBER 1968, Pp. 113-119.

LERMAN, S.H., SHANNON, R.R., "TWO-DIMENSIUNAL IMAGE REDUCTION AND ENHANCEMENT,"
PROCEEDINGS OF THE SUCIETY OF PHOTU-UPTICAL INSTRUMENTATION ENGINEERS, COMPUTERIZED IMAGING TECHNIQUES SEMILAR, WASHINGTON, D.C., JUNE 26-27, 1967.

LESEM, L.B., "HULOGRAPHIC DISPLAY OF DIGITAL IMAGES," AMERICAN FEDERATION OF INFCRPATION PROCESSING SUCIETIES, FALL JOINT COMPUTER CONFERENCE, NOVEMBER 14-16, 1967.

LEVI, L., "ON IMAGE EVALUATION AND ENHANCEMENT," OPTICA ACTA, VOL. 17, NC. 1, 1970, PP. 59-76.

LEVI, L., "MOTION BLURRING WITH DECAYING DETECTOR RESPONSE," APPLIED OPTICS, VLL. 10, NU. 1, PP. 38-41, 1971.

LEVI, L., "TOWARL FURMULATION OF CRITERIA FOR IMAGE ENHANCEMENT, PART 2," CITY CCLLEGE OF THE CITY OF NEW YORK, DEPARTMENT OF PHYSICS, FINAL REPORT, MARCH 1965-FEBRUARY 1970.

LEVINE, M.D., "FEATURE EXTRACTION: A SURVEY," PROCFEDINGS OF THE IEEF, VCL. 57, PP. 1391-1407, AUGUST 1969.

LEVINSON, J.Z., "PSYCHOPHYSICAL STUDIES OF HUMAN VISION," SYMPOSIUM EN PICTURE BANGWIOTH CUMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

LEVINSUN, J.Z., "PSYCHOPHYSICS AND TV, "PROCEEDINGS OF THE PICTURE BANCWICTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 1, DECEMBER 1971.

LEVIT, A.B., "THE ENTROPY OF SOURCES OF VISUAL MESSAGES," CYBERNETICS IN THE SERVICE OF COMMUNISM, COMPUTER TECHNOLOGY, SEMIOTICS, ED. BY A.I. BERG, VIL. 3, MOSCOW-LENINGRAD, ENERGIYA PUBLISHING HOUSE, JUNE 1967.

LEWIS, N.H., "TELEVISION BANDWIDTH AND KELL FACTUR," ELECTRONIC TECHNOLOGY, VCL. 39, NO. 2, FEBRUARY, 1962, PP. 44-47.

LEWIS, N.W., ALLNATT, J.W., "SUBJECTIVE QUALITY OF TELEVISION PICTURES WITH PULTIPLE IMPAIRMENTS," ELECTRONIC LETTERS VGL. 1, NO. 7, P. 187, 1965.

LIBCIS, L.J., MA NOVEL METHOD OF CODE MUCULATION-DELTA MCDULATION," ONCE ELECTRONICS, VOL. 32, PP. 26-31, JANUARY 1952.

LIMB: J.O., "ADAPTIVE ENCODING OF PICTURE SIGNALS," PROCEECINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK; PART 5, DECEMBER 1971.

LIME, J.O., "ENTROPY OF QUANTIZED TELFVISION SIGNALS," PROCEEDINGS CF THE IEEF (LCADCA), VOL. 115, NO. 1, PP. 16-20, 1968.

LIME, J.O., "SOURCE-RECEIVER ENCODING OF TELEVISION SIGNALS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, PP. 364-379, MARCH 1967.

LIPB, J.O., "VISION ORIENTED CODING OF VISUAL SIGNALS," PH.E. DISSERTATION, UNIVERSITY OF WESTERN AUSTRALIA, PERTH, 1966.

LIMB, J.O., MOUNTS, F.W., "DIGITAL DIFFERENTIAL QUANTIZER FOR TELEVISION," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 7, PP. 2583-2599, SEPTEMBER 1969.

LIME, J.O., RUBENSTEIN, C.B., WALSH, K.A., "CIGITAL CODING OF COLOR PICTURE-PHONE SIGNALS BY ELEMENT DIFFERENTIAL QUANTIZATION," IEEE TRANSACTIONS ON COMPUNICATIONS TECHNOLOGY: COM-13, DECEMBER 1971.

LIMB, J.U., SUTHERLAND, I.G., "RUN-LENGTH COCING OF TELEVISION SIGNALS," PROCEEDINGS OF THE IEEE, VOL. 53, NO. 2, Pp. 169-170, FEBRUARY 1965.

LIN, L.H., "A METHOD OF HOLOGRAM INFORMATION REDUCTION BY SPATIAL FREQUENCY SAMPLING," APPLIED OPTICS, VOL. 7, NO. 3, PP. 545-548, MARCH 1968.

LINFOCT, E.H., "CONTRAST TRANSMISSION AND THE IMAGE EVALUATION PROBLEMS," OPTICA ACTA, VGL. 7, NO. 1, PP. 65-81, JANUARY 1960.

LINFOCT, E.H., "CONVOLUTED SPOT DIAGRAMS AND THE QUALITY EVALUATION OF PHCTOGRAPHIC IMAGES," OPTICA ACTA, VOL. 9, NC. 1, PP. 81-110, JANUARY 1962.

LINFOOT, E.H., "FOURIER METHODS IN OPTICAL IMAGE EVALUATION," FUCAL PRESS, NEW YORK, 1964.

LINFOOT, E.H., MIMAGE QUALITY AND OPTICAL RESOLUTION, MUFTICA ACTA, VCL. 4, NC. 1, PP. 12-17, MARCH 1957.

LIPKIN, B., ROSENFELD, A., "PICTURE PROCESSING AND PSYCHOPICTURICS," NEW YORK, ACACEMIC PRESS, 1970.

LIPPEL, B., "ENCODING OF PICTORIAL INFORMATION," EXPERIMENTS FOR A NEW MESSAGE FORMAT FOR DIGITAL COMPUTERS, ARMY ELECTRONICS COMMAND, FORT MCNMCUTH, NEW JERSEY, JANUARY 1969.

LIPPEL, B., "EXPERIMENTS WITH A NEW MESSAGE FCRMAT FOR DIGITAL REPRESENTATION OF PHCTUGRAPHS." SYMPUSIUM ON COMPUTER PROCESSING IN COMMUNICATIONS, PCLYTECHNIC INSTITUTE OF BROOKLYN, NEW YORK, PP. 121-139, APRIL 8-10, 1969.

LIPPEL. B., "IMPROVEMENT OF A COARSE PICTURE QUANTIZER BY MEANS OF CECRED DITHER," RESEARCH AND DEVELOPMENT TRANSMISSION, ECON-3436, JUNE 1971.

LIPPEL, B., KURLAND, M., "THE EFFECT OF DITHER ON LUMINANCE QUANTIZATION OF PICTURES." IEEE TRANSACTIONS OF COMMUNICATIONS TECHNOLOGY. DECEMBER 1971.

LIPPEL, B., KURLAND, M., MARSH, A.H., "CRDERED CITHEP PATTERNS FOR CHARSE QUANTIZATION OF PICTURES," PROCEEDINGS OF THE LEFF, VOL. 55, NC. 3, PP. 429-431, MARCH 1971.

LIFPMANN, R., "DATA COMPRESSION-LITERATURE REPORT ON SELECTED PRACTICAL METHODS" DEUTSCHE FORSCHUNGSANSTALT FUR LUFT-UND RAUMFAHRT E.V. (OFL), INSTITUTE FUR FLUGFEHRUNG, DECEMBER 1968.

LITTLE, R.E., "THE SUPPRESSIGN OF HARMONIC DISTORTION IN PHOTOGRAPHIC IMAGES," OPTICA ACTA, VCL. 13, NO. 1, PF. 31-40, JANUARY 1966.

LOCKHEED CUMPANY, "U.A" CUMPRESSICE: INFORMATIONS SCHRIFT, LOCKHEED MISSILES AND SPACE COMPANY, SUNNYVALE CALIFORNIA, LMSC-895385, P. 47, AUGUST 1967.

LCEE, J., "COMPONICATION THEORY OF TRANSMISSIUM OF SIMPLE DRAWINGS," CCMMUNICATION THEORY, BUTTERWORTHS SCIENTIFIC PUBLISHER, LCNDON, Pp. 317-327, 1953.

LCH, G.M., "3CADS-A REAL-TIME SIMULATION CUNTROL AND DATA SYSTEM FOR BICASTRONAUTICS TESTING AND SIMULATION," AIAA/AFLC/ASD SUPPORT FOR MANNED FLIGHT CUNFERENCE, DAYTON, OHIO, APRIL 1965.

LCHMANN, A.W., "COMPUTER GENERATED HOLOGRAMS," PROCEEDINGS OF THE SYMPOSIUM ON THE ENGINEERING USES OF HULOGRAPHY, UNIVERSITY OF STRATHCLYDE, GLASGOW, SCOTLAND, PP. 77-93, SEPTEMBER 1968.

LUHMANN, A.W., DE, M., "SIGNAL DETECTION BY CURRELATION OF FRESNEL DIFFRACTION PATTERNS, "APPLIED OPTICS, VOL. 6 NO. 12,P. 217, DECEMBER 1967.

LCHMANN, A.W., PARIS, D.P., "BINARY FRAUNHOFER HOLDGRAMS, GENERATED BY CCMPUTER" APPLIED OPTICS, VOL. 6, NO. 10, CCTOBER 1967.

LCHMANN, A.W., PARIS, D.P., "COMPUTER GENERATED SPATIAL FILTERS FOR COHERENT UPTICAL DATA PROCESSING," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 7, PP. 651-655, APRIL 1968.

LCHMANN, A.W., PARIS, D.P., "THEORY OF BINARY HCLCGRAMS," 1BM SYSTEMS DEVELOPMENT DIVISION, BOULDER LABORATORY, TECHNICAL REPORT, TR.44.0019, JUNE 5, 1567.

LCHMANN, A.W., PARIS, D.P., WERLICH, H.W., "COMPUTER GENERATED SPATIAL FILTER APPLIED TO CODE TRANSLATION," APPLIED OPTICS, VOL. 6, PP. 1139-1140, JUNE 1967.

LCHMANN, A.W., WERLICH, H.W., "HULOGRAPHIC PRODUCTION OF SPATIAL FILTERS FOR CLDE TRANSLATION AND IMAGE RESTORATION," PHYSICS LETTERS, VOL. 25A, PP. 570-571, CCTCBER 23, 1367.

LCHSE, R., NELSON, N.L., "TELEMETRY DATA REDUCTION FOR SPACE VEHICLES," IEEE IRANSACTIONS ON AEROSPACE AS-2, NO. 2, PP. 187-192, AUGUST 1964.

LCRC, A.V., "SOME PROBLEMS IN A BAND-SHARING COLOUR TELEVISION SYSTEM," JUURNAL OF THE TELEVISION SOCIETY, VOL. 8, 1956, P. 131.

LORENS, C.S., BUEHNER, A., GALLAGHER, J., "THEORETICAL AND EXPERIMENTAL PROCESSING OF LUNAR TELEVISION PICTURES," SPACE GENERAL CORPORATION, REPORTS NO. 1560 203R-1, MAY 1962, NO. 25GC 203R-2, JULY 1962, NO. 35GC 203R-3, SEPTEMBER 1962.

LCUGHREN, A.V., "PSYCHUPHYSICAL AND ELECTRICAL FOUNDATIONS OF COLOR TELEVISION," PROCEEDINGS OF THE IRE, VOL. 42, PP. 9-11, JANUARY 1954.

LLWE, D.S., "MULTISPECTRAL IMAGING SYSTEM," CONFERENCE ON FUNDAMENTALS OF REMOTE SENSING, UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN, JULY 14-25, 1969, INTENSIVE SHURT COURSE.

LCME, D.S., BRAITHWAITE, J.G., "A SPECTRUM MAICHING TECHNIQUE FOR ENHANCING IMAGE CONTRAST," APPLIED UPTICS, VOL. 5, NO. 6, PP. 893-899, JUNE 1966.

LUWENTHAL, S., BELVAUX, Y., "RECONNAISSANCE DES FLRMES PAR FILTRAGE DES FORMES

PAR FILTRAGE DES FREQUENCES SPATIALES, P OPTICA ACTA, VOL. 14, NO. 3, PP. 245-25E, 1967.

The state of the s

The second secon

LCWITZ, G.E., "DYNAMIC SHAPE RECOGNITION," PROCEEDINGS OF THE FIRST RCCK ISLAND ARSENAL BIOMECHANICS SYMPOSIUM, AUGUSTANA COLLEGE, RCCK ISLAND, ILLINCIS, PP. 95-104. APRIL 1967.

LChry, E.M., DEPALMA, J.J., "SINE WAVE RESPONSE OF THE VISUAL SYSTEM, 2. THE MACH PHENGMENUN," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 51, Pp. 740-746, JULY 1961.

LUCKY, R.W., "ADAPTIVE REDUNDANCY REMOVAL IN DATA TRANSMISSION," REPRINT FROM THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 47, NO. 4, APRIL, 1968, PP. 549-573.

LUCKY, R.W., PRACTICAL CHANNELS AND MODELS, PROCEEDINGS OF THE PICTURE BANCWIDTH CUMPRESSIJN SYMPOSIUM, GORDON AND BREACH, NEW YURK, PART 2, DECEMBER 1971.

LUKCSZ, W., "UPTICAL SYSTEMS WITH RESOLVING POWERS EXCEFCING THE CLASSICAL LIMIT 1," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, P. 1463, 1961.

LUKCS2, W., "UPTICAL SYSTEMS WITH RESOLVING POWERS EXCECTING THE CLASSICAL LIMIT III," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 7, PP. 932-941, JULY 1967.

LYNCH, T.J., "DATA COMPRESSIUN WITH ERRUR-CONTROL CODING FOR SPACE TELEMETRY." NASA TECHNICAL REPURT, NASA TR R-261, GCDDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, JUNE 1967.

LYNCH, T.J., "PERFORMANCE MEASURES FOR COMPRESSED AND CUDED SPACE TELEMETRY SYSTEMS." IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, VOL. AES-3, Pp. 784-795, SEPTEMBER 1967.

LYNCH, T.J., "SEQUENCE TIME CODING FOR DATA CUMPRESSION," PROCEEDINGS OF THE LEE(CORRESPUNDENCE), VOL. 54, PP. 1490-1491, OCTUBER 1966.

MAC ACAM, D.P., "DIGITAL IMAGE RESTORATION BY CONSTRAINED DECONVOLUTION," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 60, NO. 12, DECEMBER 1970, PP. 1617-1627.

MAC GOVERN, A.J., WYANT, J.C., "COMPUTER-GENERATED HOLUGRAMS FOR TESTING OPTICAL ELEMENTS," APPLIED OPTICS, VOL. 10, NO. 3, P. 619, MARCH 1971.

MACKAY, D.M., "THE STRUCTURAL INFORMATION-CAPACITY OF OPTICAL INSTRUMENTS," INFORMATION AND CONTROL, VOL. 1, PP. 148-153, 1957.

MACKAY, N.A.M., "AN ELECTRU UPTICAL CORRELATOR FOR A TWO-DIMENSIONAL ARRAY USING INCUHERENT LIGHT," PROCEEDINGS OF THE 1EEE, VOL. 58, NC. 6, PP. 952-953, JUNE 1970.

MACLECO, I.D.G., "PICTORIAL OUTPUT WITH A LINE PRINTER," IEEE TRANSACTIONS ON CCMPUTERS, VOL. C-19, NC. 2, P. 160, FEBRUARY 197C.

MADCZZI, A., "APPLICATION OF TELEVISION TECHNIQUE FOR THE PLANIMETRY MEASURF-MENT OF COLOR PATTERNS," EDGENUSSISCHE TECHNISHCHE HOCHSCHULE, ZURICH, SWITZER-LAND, 1964.

MAESTRE, N.E., "A REPORT ON THE APPLICATION OF DATA ABBREVIATION ON ACTUAL RANGE

TELEMETRY DATA, " INTERNATIONAL TELEMETERING CONFERENCE PROCEEDINGS, VCL. II, PP. 395-413, OCTOBER 1966.

MAKECNIN, V.A., "TELEVISION METHODS OF INCREASING VISUAL DEFINITION OF PHOTO-GRAPHIC IMAGES," PATTERN RECOGNITION, QUALITY OF THE PHOTOGRAPHIC IMAGE, PP. 211-215, MARCH 1965.

- this while the same this same and the tile of he have in mindelle

MALILA, W.A., "MULTISPECTRAL TECHNIQUES FOR IMAGE ENHANCEMENT AND DISCRIMINATIONS," PHOTOGRAPHIC ENGINEERING, NO. 6, P. 566, 1968.

MALLING, L.R., MREDUCED BANDWIDTH VIDFO COMMUNICATION SYSTEM UTILIZING SAMPLING TECHNIQUES, JET PROPULSION LAB, CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA, US PATENT 3.383.461, ISSUED 14 MAY 1968.

MANASSE, F.K., "DIRECTIONAL CORRELATION---A TECHNIQUE TO PEDLCE BANDWIDTH IN PCM TELEVISION TRANSMISSIONS," IEEE TRANSACTIONS ON COMPUNICATION TECHNOLOGY, VCL. CCM-15, NC. 2, APRIL, 1967, PP. 204-208.

MANASSE, F.K., MOPTICAL FILTERING OF TELEVISION WITH LENTICULAR FILM, MPRICEEDINGS OF THE IEEE, VOL. 53, NO. 4, PP. 478-409, APRIL 1965.

MARCOVITZ, A.B., "AN APPLICATION OF NUISELESS CODING THECKY TO DATA COMPRESSION," PRUCEEDINGS OF THE 1968 HAWAII CONFERENCE ON SYSTEM SCIENCES, FAWAII.

MARTIN, A.V.J., "NOTE SUR LA REDUCTION DE LA QUANTITE D'INFORMATION CONTENUE DANS UNE IMAGE DE TELEVISION," ONDE ELECTRONIQUE, VCL. 39, NO. 388-389, JULY-AUGUST, 1959, PP. 686-689.

MARTIN, A.V.J., "THO-DIMENSIONAL PREDICTIVE REDUNDANCY IN A TELEVISION DISPLAY," PROCEEDINGS OF THE IRE, MAY 1959, PP. 57-61.

MARTIN, F.F., SHELTON, C.T., "MODIFYING VIDICUN CAMERA CHAIN FOR SLGW-SCAN TELEVISION SYSTEMS," UPTOELECTRONIC DEVICES AND CIRCUITS, NEW YORK, MCGRAW-HILL PP. 123-125, 1964.

MASCHHUFF, H.R., "DELTA MODULATION," ELECTRO-TECHNOLOGY, VCL. 73, PP. 91-97, JANUARY 1964.

MASSA, R.J., "VISUAL DATA TRANSMISSION," AIR FORCE CAMBRIDGE RESEARCH LABORATURY, BEDFORD, MASSACHUSETTS, PHYSICAL SCIENCES RESEARCH PAPERS, NO. 13, APRIL 1964.

MASSEY, H.N., SMITH, W.E., "IMPLEMENTATION INVESTIGATIONS OF ZVA/FVA CUMPRESSION ALGCRITHMS," SUMMARY REPORT JULY 1965-FEBRUARY 1966, NASA CK-76389, LMSC-669224 LCCKHEED MISSILES AND SPACE CUMPANY, SUNNYVALE, CALIFORNIA, FEBRUARY 1966, P. 156.

MATSON, W.L., MC KINSTRY, H.A., JOHNSON, G.G., MCOMPUTER PROCESSING OF SEM IMAGES BY CONTOUR ANALYSIS, SYMPOSIUM ON COMPUTATIONAL PHOTOGRAMMETRY, AMERICAN SUCIETY OF PHOTOGRAMMETRY, ALEXANDRIA, VIRGINIA, PP. 7-9, 1970.

MAURICE: R.D.A., GILBERT, M., NEWELL, F.G., SPENCER, J.G., "THE VISIBILITY OF NGISE IN TELEVISION," BRITISH BRUADGASTING CORPORATION, LCNCCA, ENGLAND, PLNC. 3, OCTUBER 1955.

MAX, J., "QUANTIZING FUR MINIMUM DISTORTION." IRE TRANSACTIONS ON INFORMATION THEORY, VOL. 1-6, NO. 1, MARCH 1960.

MAXWELL, M.S., SILVERMAN, J.R., CZARCINSKI, E.A., "AN ADAPTIVE SPACEGRAFT TELEMETRY SYSTEM," INTERNATIONAL TELEMETERING CONFERENCE, VCL. I, PP. 695-712,

WASFINGTON, D.C., MAY 1965.

MAYNARD, H.M., PEMBERION, L.F., SWUNGER, C.W., MFILMED-DATA PROCESSING APPLICATIONS ENCOUNTERED IN IMAGE PROCESSING RESEARCH, SUCIFTY OF PHOTUGRAPHIC INSTRUMENTATION ENGINEERS, PROCEEDINGS, SEMINAR IN DEPTH, FILMED DATA AND COMPUTERS, BOSTON, 1966.

MC CAMY, C.S., MUN THE INFURMATION IN A MICRCPHCTCGRAPHY, M APPLIED OPTICS, VOL. 4, NO. 4, PP. 405-413, APRIL 1965.

MCCAUGHERN, R., KCSIE, A.M., MONDS, F.C., MASYNCHRONOUS CATA COMPRESSION TECHNIQUES, PROCEEDINGS OF THE PURDUE CENTENNIAL YEAR SYMPOSIUM ON INFORMATION PROCESSING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, APRIL 1969.

MCCAUGHERN, R., ROSIE, A.M., MONDS, F.C., "TWO METHODS OF ASYNCHRONOUS DATA COMPRESSION," ELECTRONICS LETTERS, VOL. 4, 1968, Pp. 363-364.

MCCUTCHEN, C.W., MSUPER-RESULUTION IN MICORSCUPY AND THE ABBE RESOLUTION LIMIT. M JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 57, NO. 10, PP. 1196-1193, GCTCBER 1967.

MCFARLAND, M.S., "AUTO-DRAPE - A REAL TIME TELEMETRY REDUCTION SYSTEM," NATIONAL SYMPOSIUM ON SPACE ELECTRONICS AND TELEMETRY, MIAMI BEACH, FLORIDA, GCTCBER 1962.

MC CLAMERY, B.L., "RESTORATION OF TURBULANCE-DEGRADED IMAGES," JOURNAL OF THE UPTICAL SOCIETY UF AMERICA, VOL. 57, NO. 3, PP. 278-299, MARCH 1966.

MCILWAIN, K., "REQUISITE COLOR BANDWIDTH FOR SIMULTANEOUS COLOR TELEVISION SYSTEMS," PROCEEDINGS OF THE IRE, AUGUST 1952, PP. 909-912.

MC LEAN, F.C., "WURLDWIDE COLOR TELEVISION STANDARDS," IEEE SPECTRUM, VOLUME 3, NC. 6, PP. 59-60, JUNE 1966.

MEDLIN, J.E., "BUFFER LENGTH REQUIREMENTS FOR A TELEMETRY CATA COMPRESSOR," NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., VOL. 1, MAY 1962.

MEDLIN, J.E., "THE COMPARATIVE EFFECTIVENESS OF GENERAL TELEMETRY DATA COMPRESSION TECHNIQUES," PROCEEDINGS OF THE INTERNATIONAL TELEMETERING CONFEHENCE, WASHINGTON, D.C., 1963.

MEDLIN, J.E., "THE PREVENTION OF TRANSMISSION BUFFER OVERFLOW IN TELEMETRY DATA COMPRESSORS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM.-16, NC. 1, FEBRUARY 1968, PP. 94-107.

MEDLIN, J.L., "SAMPLED-DATA PREDICTION FOR TELEPETRY BANDWIDTH COMPRESSION," IEEE TRANSACTIONS ON SPACE ELECTRONICS AND TELEPETRY, VOL. SET-11, NO. 1, MARCH 1965.

MERTZ, P., "PERCEPTION OF TELEVISION RANDOM NOISE," JOURNAL LF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 54, PP. 8-24, JANUARY 1950.

MERTZ, P., MTELEVISION, THE SCANNING PROCESS, PROCEEDINGS OF THE IRE, VOL. 29, NC. 10, OCTOBER 1941, PP. 529-537.

MERTZ, P., FOWLER, A.D., CHRISTOPHER, H.N., "QUALITY RATING CF TELEVISION IMAGES." PRUCEEDINGS OF THE IRE, VOL. 38, PP. 1269-1283, NOVEMBER 1950.

MERTZ, P., GRAY, F., "A THEORY OF SCANNING AND ITS RELATION TO THE CHARACTERISTICS OF THE TRANSMITTED SIGNAL IN TELEPHOTOGRAPHY AND TELEVISION:"

BELL SYSTEMS TECHNICAL JOURNAL, NO. 13, PP. 464-514, 1934.

A CONTRACTOR OF ASSET SERVICE ASSESSMENT OF MANY CONTRACTOR OF THE PROPERTY OF

MEYER, A.J., HICKLING, R., "HOLOGRAMS SYNTHESIZED ON A COMPUTER-OPERATED CATHUDE-RAY TUBE," JOURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. 57, NC. 11, PP. 1288-1389, NUVEMBER 1967.

a the interference was and a training of the character and a single process, it is the sign of the

MICHAELS, E.L., "REAL-TIME DEEP SPACE TELFVISION," HOUSTON UNIVERSITY, 16XAS, 1967. N 68-23195.

MICHEL, W.S., MA COUED FACSIMILE SYSTEM, METERS WESCON CONVENTION RECORD, PART 2, 1957, PP. 84-93.

MILLER, W.F., SHAW, A.C., "LINGUISTIC METHODS IN PICTURE PROCESSING, A SURVEY," PROCEEDINGS OF THE AMERICAN FEDERATION OF INFORMATION PROCESSING SOCIETIES, FALL JOINT COMPUTER CONFERENCE, THOMPSON BOOK COMPANY, WASHINGTON, D.C., 1968.

MCHARIR, P.S., PRASADA, B., "TWO-DIMENSIONAL PICTURE PROCESSING," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

MCLEON, J.C., "HIGH RESCLUTION IMAGE ESTIMATION IN A TURBULENT ENVIRONMENT," PATTERN RECUGNITION, VOL. 2, 1970, PP. 79-90.

MCNAHAN, M.A., "COHERENT OPTICAL PROCESSING OF MOTION-DEGRADED IMAGES," RESEARCH AND DEVELOPMENT REPORT, NAVAL ELECTRONICS LAB, CENTER FOR COMMAND CONTROL AND COMPUNICATIONS, SAN DIEGO, CALIFORNIA, AUGUST 1970.

MCNTANARI, U.G., "SEPARABLE GRAPHS, PLANAR GRAPHS, AND WEB GRAMMARS," MARYLAND UNIVERSITY, COLLEGE PARK, CUMPUTER SCIENCE CENTER, AUGUST 1969.

MENTGEMERY, M.D., "PRESENTATION OF PICTURES FROM SCANNED RECERDS," IFEE TRANSACTIONS ON INFORMATION THEORY, VOL. 11-11, NO. 2, PP. 2C4-207, FEBRUARY 1965.

MCNIGCMERY, W.D., DROOME, P.W., "SPATIAL FILTERING," JOURNAL OF THE OPTICAL SCCIETY OF AMERICA, VOL. 52, PP. 1259-1275; NOVEMBER 1962.

MCCRE, G.A., "CIRECT QUANTITATIVE ANALYSIS OF PHOTOMICROGRAPHS BY A DIGITAL COMPUTER," PHOTOGRAPHY SCIENCE ENGINEER, VOL. 8, NO. 3, 1964.

MCCRE, R.T., STARK, M.C., CAHN, L., "DIGITITING PICTORIAL INFORMATION WITH A PRECISION OFFICAL SCANNER," JOINT ANNUAL MEETING, AMERICAN SCCIETY OF PHCTUGRAMMETRY AND THE AMERICAN CONGRESS ON SURVEYING AND MAPPING. WASHINGTON. D.C., 1964.

MCRGAM, S., "RESTORATION OF ATMOSPHERICALLY-COGRADED IMAGES," NSF SUMMER STUDY, REPORT, WOODS FOLE, MASSACHUSETTS, 1966.

MLROZ, V.M., "DESCRIPTION OF IMAGES OF VISUAL OBJECTS THROUGH CORRELATION FUNCTIONS," AVTOMATIKA, VOL. 14, PP. 80-82, SEPTEMBER-OCTOBER, 1969.

MCKRISCH, W.L., HOGAN, W.P., PENTZ, R.M., MAPPLICATION OF DATA COMPRESSION TO FLIGHT DATA PROCESSING, M 1964 PROCEEDINGS WESCON CONVENTION RECURD, SAN FRANCISCU, CALIFORNIA.

MUNTON, G., "LOW CONTRAST THRESHOLD IMAGING," RADIO CORPORATION OF AMERICA FLECTRON TUBE CIVISION, HARRISON, NEW JERSEY, PROCEECINGS OF THE SECOND IMAGE INTENSIFIER SYMPOSIUM, FORT BELVOIR, VIRGINIA, PP. 79-83, CCTOBER 24-26, 1961.

MLII-SMITH. J.: "PICTURE BANDWIDTH CUMPRESSION RESEARCH AT AFCRL." SYMPESIUM

UN PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

THE RESERVE NAME OF THE PARTY OF

MOTT-SMITH, J., BAER, T., MAREA AND VULUME CCDING OF PICTURES, PROCEEDINGS OF THE PICTURE BANDWIGTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

MOUNTS, F.W., "FRAME-TC-FRAME DIGITAL PROCESSING OF TV PICTURES TO REMOVE REDUN-DANCY," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GCROCN AND BREACH, NEW YORK, PART 6, DECEMBER 1971.

MOUNTS, F.W., "LOW-RESCLUTION TV: AN EXPERIMENTAL DIGITAL SYSTEM FOR EVALUATING BANCWIDTH-REDUCTION TECHNIQUES," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. XLVI, NC. 1, JANUARY 1967.

MCUNTS, F.W., PEARSON, D.E., MAPPARENT INCREASE IN NCISE LEVEL WHEN TELEVISION PICTURES ARE FRAME-REPEATED, M BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NC. 3 PP. 527-535, 1969.

MUELLER, P.F., "COLOR IMAGE RETRIEVAL FROM MUNOCHROME TRANSPARENCIES," APPLIED OFFICS, VOL. 8: NO. 10, P. 2051, UCTOBER 1969.

MUELLER, P.F., REYNOLDS, G.O., "IMAGE RESTORATION BY REMOVAL OF RANDOM-MEDIA DEGRADATIONS," JOURNAL OF THE OPTICAL SCCIETY OF AMERICA, VOL. 57, NO. 11, PP. 1338-134>, NOVEMBER 1967.

MUNROE, R.C., OWYER, S.J., "APPLICATION OF A FAST LOGARITHM CONVERSION TO IMAGE ANALYSIS," 22ND ANNUAL SOUTHWESTERN CONFERENCE AND EXHIBITION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, DALLAS, TEXAS, TECHNICAL PAPERS, Pp. 135-138, APRIL 1970.

HURTHY, H.R.N., WINTZ, P.A., "OPTIMIZATION IN PCM, ACAPTIVE PCM, AND CPCM SYSTEMS," TR-EE69-13, SCHOOL OF ELECTRICAL ENGINEERING, PURCUE UNIVERSITY, LAFAYETTE, INDIANA, JULY 1969.

MUSMANN, H.G., "REDUNDANCY REDUCTION OF PCM SIGNALS," MRI SYMPOSIUM CN COMPUTER PROCESSING IN COMMUNICATIONS, POLYTECHNIC INSTITUTE OF BROCKLYN, NEW YORK, APRIL 1969.

NAGEL, N., "EVALUATION OF MUTION-DEGRADED IMAGES," PROCEEDINGS OF THE NASA/ERC SEMINARS, CAMBRIDGE, MASSACHUSETTS, DECEMBER, 1968.

NAGY, G., "STATE OF THE AR. IN PATTERN RECOGNITION," PROCEEDINGS OF THE IEEE, VCL. 56, PP. 836-862, MAY 1968,

NAHI, N.L., ASSEFI, T., "BAYSIAN RECURSIVE IMAGE ESTIMATION," PROCEEDINGS OF TWO DIMENSIONAL DIGITAL SIGNAL PROCESSING CONFERENCE, UNIVERSITY OF MISSOURI, OCTOBER 1971.

NAJJAR, H., D'ANTONIO, R., BLASBALG, H., MADAPTIVE DIGITAL TERMINAL FOR SPACE IELEMETRY, MITTELEMETRY JOURNAL, NO. 2, 1967, NO. 5, AUGUST-SEPTEMBER, PP. 25-27, 29-31.

NARASIMHAN, R., "LABELLING SCHEMATA AND SYNTHETIC DESCRIPTION OF PICTURES," IN-FCRPATION CONTRULLER, VOL. 7, 1964.

NARASIMHAN, R., FORNANGO, J.P., "SOME FURTHER EXPERIMENTS IN THE PARALLE! PROCESSING OF PICTURES," IEEE TRANSACTIONS ON ELECTRONIC COMPUTERS, DECEMBER 1964, VOL. EC-13, NO. 6, PP. 748-750.

NARAYANAN, S., FRANKS, L.E., "THE SPECTRA OF DIGITALLY ENCODED VIDEC SIGNALS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-19, NO. 4, PP. 459-467, AUGUST 1971.

NASA/GCDDARD SPACE FLIGHT CENTER, PSPACE EXPLORATIONS CHALLENGE TO ADAPTIVE TELEMETRY, CONFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREENBELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, PP. 3-6.

NATHAN, R., "DIGITAL VICEU-DATA HANDLING," JPL TECHNICAL REPORT NO. 32-877, JANUARY 5, 1906, JET PROPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.

NATHAN, R., "PICTURE ENHANCEMENT FOR THE MOON, MARS, AND MAN," PICTORIAL PATTERN RECLINITION, THOMPSON, WASHINGTON, D.C., PP. 235-266, 1968.

NATHAN, R., "SPATIAL FREQUENCY FILTERING," PICTURE PROCESSING AND PSYCHOPICTORICS, PP. 151-163, EDITED BY B. S. LEPKIN AND A. ROSENFELD, ACADEMIC PRESS, 1970.

NATHAN, R., SELZER, R.H., "DIGITAL VIDEC DATA HANGLING: MARS, THE MGON AND MEN," IMAGE PROCESSING IN BIOLOGICAL SCIENCE, PP. 177-210, EDITEC BY D. M. RAMSEY, UNIVERSITY OF CALIFORNIA PRESS, BERKELEY AND LOS ANGELES, CALIFORNIA, 1968.

NEUBERGER, A., "A CHARACTERIZATION OF PICTURES BY ESSENTIAL CONTOURS," S.M. THESIS, DEPARTMENT OF ELECTRICAL ENGINEERING, MIT, CAMBRIDGE, MASSACHUSEITS, JANLARY 1966.

NEVSKAYA, A.A., "INVESTIGATION OF THE TRANSMISSION CAPACITY OF THE HUMAN VISUAL SYSTEM," PROBABILITY OF SPACE BIOLOGICAL, VOL. 4, PP. 82-95, MARCH 1966.

NEWELL, G.F., GEDDES, W.K.E., "TESTS OF THREF SYSTEMS OF BANDWIDTH COMPRESSION OF TELEVISION SIGNALS," PRUCEEDINGS OF THE IKE (LONDON), VOL. 109, PART B, PP. 311-323, 1962.

NEWELL, G.F., GEDDES, W.K.E., "VISIBILITY OF SMALL LUMINANCE PERTURBATIONS IN TELEVISION DISPLAYS," PROCFEDINGS OF THE IEFE, VOL. 110, NL. 11, PP. 1979-1985, NGVEMBER 1963.

NEW YORK ACADEMY OF SCIENCE, "DATA EXTRACTION AND PROCESSING OF OPTICAL IMAGES IN THE MEDICAL AND BIOLOGICAL SCIENCES," PROCEECINGS OF THE CONFERENCE, NEW YORK JUNE 1967.

NICHOLS, L.M., LAMAR, J., "CONVERSION OF INFRARED IMAGES TO VISIBLE IN COLOR," APPLIED OPTICS, VOL. 7, NO. 9, P. 1757, SEPTEMBER 1968.

NITADERI, K.º "STATISTICAL ANALYSIS OF CELTA PEN," JEURNAL OF THE IEGE (JAPAN), VCL. 48, FEBRUARY 1965.

NOFFSINGER, E.B., "IMAGE EVALUATION: CRITERIA AND APPLICATIONS," JOURNAL OF THE SCCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VCL. 9, PP. 32-37, NOVEMBER 1970.

NCVIK, D.A., "INCREASING THE EFFICIENCY OF TRANSMISSION OF TELEVISION SIGNAL," RADIOTEKHNIKA I ELEKTRUNIKA, SEPTEMBER 1956.

NOVIK, D.A., "A METHOD FUR NARRUWING THE FREQUENCY BAND OF A TELEVISION SIGNAL," ZF. TEKH, FIZ, IN RUSSIAN, APRIL 1956.

NOVIK, D.A., "ON POSSIBLE METHODS OF EFFICIENT CODING FOR BINARY SEQUENCES."

ELEKTROSYYAZ 16, 1962, NU. 4, PP. 64-69, ENGLISH TRANSLATION, 1962, PART 1, PP. 66-73.

NCZCRONKOV, G.A., "CALCULATION OF THE NUMBER OF DEGREES OF BRIGHTNESS REPRODUCI-BLE BY THE SYSTEM FOR TRANSMISSION OF AN IMAGE WITH A GIVEN VALIDITY CRITERION," JCINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., PP. 53-59, SEPTEMBER 1966.

NYUBERG, N.C., "CODING INFORMATION ABOUT CULCK IN THE RETINA," BICLCGICAL ASPECTS OF CYBERNETICS, JUINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., PP. 208-213, June 1963.

O'CCNNOR, D.C., "VISUAL FACTORS AFFECTING THE PRECISION OF COORDINATE MEASUREMENT IN AEROTRIANGULATION," UNITED STATES ARMY GEODESY, INTELLIGENCE AND MAPPING, RESEARCH AND DEVELOPMENT AGENCY, RESEARCH NOTE #21, JANUARY 1967.

OGAWA, H., ISOMICHI, Y., "OPTIMUM SPATIAL FILTER AND UNCERTAINTY," INFORMATION AND CONTROL, VCL. 14, PP. 180-216, 1969.

UHTA, N., "FAST COMPUTING OF COLOR MATCHING BY MEANS OF MATRIX REPRESENTATION. PART I: TRANSMISSION-TYPE COHERENT," APPLIED OPTICS, VOL. 10, NO. 9, P. 2183, SEPTEMBER 1971.

CLIVER, B.M., "EFFICIENT CUDING," BELL SYSTEM TECHNICAL JCURNAL, VCL. 31, NO. 4 1952, PP. 724-750.

OLIVER, B.M., PIERCE, J.R., SHANNON, C.E., "THE PHILOSOPHY OF PCM," PROCEEDINGS OF THE IRE, VOL. 36, PP. 1324-1331, NOVEMBER 1948.

G*NEAL, J.B., MA BOUND ON SIGNAL-TO-QUANTIZING NOISE RATIOS FOR DIGITAL ENCODING SYSTEMS, PROCEEDINGS OF THE IEEE, VOL. 55, NC. 3, PP. 287-252, MARCH 1967.

O'NEAL, J.B., "BOUNDS ON SUBJECTIVE PERFORMANCE MEASURES FOR SCURCE ENCOCING SYSTEMS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 3, PP. 274-232, MAY 1971.

O'NEAL, J.B., "DELTA MODULATION QUANTIZING NCISE ANALYTICAL AND COMPUTER SIPULATION RESULTS FOR GAUSSIAN AND TV INPUT SIGNALS," BELL SYSTEM TECHNICAL JCURNAL, VEL. 45, Pp. 117-142, JANUARY 1966.

G'NEAL, J.B., "NOISE CONSIDERATIONS IN BIT RATE COMPRESSIONS" PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SUMPOSIUM, GORDON AND BREACH, NEW YORK, PART 3. DECEMBER 1971.

G'NEAL, J.B., "PREDICTIVE QUANTIZING SYSTEMS (DIFFERENTIAL PULSE CODE MUDILATION) FUR THE TRANSMISSION OF TELEVISION SIGNALS," BELL SYSTEM TECHNICAL JCURNAL, VCL. 45, MAY-JUNE 1966, NO. 5, PP. 689-721.

O'NEAL, J.B., AGRAWAL, J.P., "QUANTIZING NOISE-BAND-WIDTH TRADEOFFS FCR CIFFERENTIAL PCM OF TELEVISION SIGNLAS," DEPARTMENT OF ELECTRICAL ENGINEERING, NCRIH CAROLINA STATE UNIVERSITY, 1969.

C'NEILL, E.L., "SPATIAL FILTERING IN OPTICS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, NO. 2, JUNE 1956, PP. 56-65.

UNUE, M., TAKAGI, M., "MULTIDIMENSIONAL IMAGE PROCESSING BY COMPUTER," SEISANKENYU, JEURNAL OF THE INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY OF TEKYU, VOL. 23, NC. 1, PP. 2-18, JANUARY 1971.

CNDE, M., JAKAGI, M., KAIHARA, S., MASUMUTO, T., MAUTOMATED CLASSIFICATION OF WHITE BLOOD CELLS, SECOND IMAGE TECHNOLOGY CONFERENCE, NOVEMBER 20, 1971.

UNDE, M., TAKAGI, M., MASUMOTO, T., "COMPUTER PROCESSING OF X-RAY IMAGES," INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY OF TOKYO, JAPAN, 1971.

UNCE, M., TAKAGI, M., MASUMOTO, T., "IMAGE ENHANCEMENT BY A CONVOLUTION TECHNIQUE," INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY OF TOKYO, JAPAN, 8 P., 1971.

UNUE, M., TAKAGI, M., MASUMOTO, T., "PRECESSING OF X-RAY IMAGES BY COMPUTER." THE JOURNAL OF THE JAPANESE SOCIETY FUR NON-DESTRUCTIVE INSPECTION, VCL. 23, NC. 8, Pp. 422-423, AUGUST 1971.

UNDE, M., TAKAGI, M., MASUMUTO, T., "A SIMPLE INPUT EQUIPMENT FOR IMAGE PROCES-SING," INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY OF TOKYC, JAPAN, 13 P., 1971.

ONGE, M., TAKAGI, M., PASUMUTO, T., KAIHARA, S., MIMAGE PROCESSING OF LIVER-SCITIGRAMS, INSTITUTE OF INDUSTRIAL SCIENCE AND DEPARTMENT OF MEDICINE, UNIVER-SITY OF TUKYO, JAPAN, 1971.

UNUE, M., TAKAGI, M., YAMADA, H., "APPLICATION OF FACSIMILE FOR OBLIQUE ANGLE ULTRASONIC FLAW INSPECTION," THE JOURNAL OF THE JAPANESE SOCIETY FOR NCN-DESTRUCTIVE INSPECTION, VOL. 20, NC. 2, P. 101, FEBRUARY 1971.

CACE, M., TAKAGI, M., YAMADA, H., MASUMOTO, T., "A SIMPLE INPUT EQUIPMENT FOR IMAGE PRUCESSING," THE PROCEEDINGS OF THE NATIONAL CONVENTION OF THE INSTITUTE OF TELEVISION ENGINEERS OF JAPAN, 10-5, JUNE 1971.

ONCE, M., TAKAGI, M., YAMADA, H., MASUMOTO, T., HAMANO, N., TAMAI, S., "APPLICATION OF GRAPHIC DISPLAY TO ULTRASONIC FLAW INSPECTION," THE JOURNAL OF THE JAPANESE SOCIETY FOR NON-DESTRUCTIVE INSPECTION, VOL. 20, NO. 8, Pp. 434-435, AUGUST 1971.

OPPENHEIM, A.V., "GENERALIZED SUPERPOSITION," INFCRMATION AND CONTROL, VOL. II, 1967, PP. 528-536.

UPPENFEIM, A.V., SHAFER, R.W., STOCKHAM, T.G., "NCNLINEAR FILTERING OF MULTIPLIED AND CUNVOLVEC SIGNALS," PROCEEDINGS OF THE IEEE, VOL. 56, NO. 8, AUGUST 1968, PP. 1264-1291.

ORHANC, T., "REPORT ON A CONFERENCE ON PICTURE PROCESSING," REPORT, HELD AT MUNICH, GERMANY, IN SWEDISH, NOVEMBER 1969.

URTON, J.N., KOSENFELD, A., "TWO PROGRAMS FOR DELINEATING *SCLID* AND *BROKEN* REGIONS IN AN IMAGE," COMPUTER SCIENCE CENTER, MARYLAND UNIVERSITY, COLLEGE PARK, 67 P., JANUARY 1965.

OTT, G., "LOMPACT ENCODING OF STATIONARY MARKOV SOURCES," IFEF TRANSACTIONS ON INFORMATION THEORY, IT-13, NO. 1, PP. 82-89, 1967.

PACKARU BELL COMPUTER CORPORATION, "DATA COMPRESSION STUDY FOR APOLLO POM TELEMETRY." PHG-10762, SEPTEMBER 1962.

PALAZZO, F.L., "AIRBORNE SCREENING OF RECONNAISSANCE IMAGERY," PROCEEDINGS OF THE 19TH ANNUAL NATIONAL AEROSPACE ELECTRONICS CONFERENCE, DAYTON, CHIO, PP. 293-299, MAY 15-17, 1967.

PALERMO, C.J., PALERMO, R.V., HORWITZ, H., "THE USE OF DATA CHISSION FOR REDUNDANCY REMOVAL," INTERNATIONAL SPACE ELECTRONICS SYMPOSIUM RECORD, 1965.

Mary Contract Contract

PALGEN, J.J.O., "INTERNATIONAL BIBLIOGRAPHY CF PICTORIAL PATTERN RECOGNITION," ALLIED RESEARCH ASSOCIATES, INC., CONCORD, MASSACHUSETTS, APRIL 1970.

PAN, J.W., "PICTURE PROCESSING," MIT RESEARCH LABORATORY CF ELECTRONICS, KEPCRT NO. 66, JULY 1962, Pp. 229-231.

PAN, J.W., "PICTURE PROCESSING-PROGRAMMING," MIT RESEARCH LABORATORY OF ELECTRUNICS, REPORT NO. 65, APRIL, 1962, P. 146.

PAN, J.W., "REDUCTION OF INFORMATION REDUNDANCY IN PICTURES,"
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, SC.D. THESIS, SEPTEMBER, 1962.

PARIS, D.P., "IMAGE PROCESSING BY COMPUTER GENERATED BINARY FILTERS," SOCIETY OF FHCTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

PARIS, D.P., "INFLUENCE OF IMAGE MOTION ON THE RESULUTION OF A PHOTOGRAPHIC SYSTEM-I." PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 6, PP. 55-59, 1962.

PARKYN: W.A., "DIGITAL IMAGE PROCESSING ASPECTS OF THE WALSH TRANSFORM" MATHEMATICAL SCIENCE, MCDONNELL-DOUGLAS ASTRONAUTICS, HUNTINGTON BEACH, CALIF., 1969.

PANULA, R.F., "COPMENTS ON STATISTICAL PROPERTIES OF THE CONTOURS OF RANDOM SURFACES," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-9, NO. 3, PP. 208-209, JULY, 1963.

PEARL, J., "APPLICATION OF WALSH TRANSFORM TO STATISTICAL ANALYSIS," UNIVERSITY OF CALIFORNIA AT LOS ANGELES, UCLA-ENGINEER-7072, ALGUST 1970.

PEARL, J., "HASIS-RESTRICTED FRANSFORMATIONS AND PERFORMANCE MEASURES FOR SPECTRAL REPRESENTATIONS," PROCEEDINGS OF THE 1971 HAWAIIAN CONFERENCE, HONOLULU.

PEARL, J., "UN THE DISTANCE BETWEEN REPRESENTATIONS," UNIVERSITY OF CALIFORNIA LCS ANGELES, COMPUTER SCIENCE DEPARTMENT, 1971.

PEARSON, D.E., "FIDELITY CRITERIA FOR VISUAL IMAGE TRANSMISSION OVER NOISY COM-MUNICATION," PH.D. THESIS, UNIVERSITY OF LONDON, ENGLAND, 1965.

PEARSON, U.E., "A REALISTIC MUDEL FOR VISUAL CUMMUNICATIONS SYSTEMS," PROCEEDINGS OF THE IFEE, VOL. 55, PP. 380-389, MARCH 1967.

PEARSON, D.E., "TECHNIQUES FOR SCALING TELEVISION PICTURE QUALITY: A SURVEY," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

PEARSON, D.E., 'RUBENSTEIN, C.B., "THE INFLUENCE OF TRANSPISSION ERRORS ON THE CHCIGE OF COLOR RECEIVER PRIMARIES, "PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, ABSTRACT ONLY, GORDON AND BREACH, NEW YORK, PART 7, DEC-EMBER 1971.

PEASE, R.F., LIMB, J.O., "EXCHANGE OF SPATIAL AND TEMPORAL RESOLUTION IN TELE-VISION CODING," THE BELL TELEPHONE SYSTEM TECHNICAL JOURNAL, JANUARY 1971, PP. 191-200.

PETERSON, C.P., "PITHALLS IN VISUAL DATA PROCESSING," 6TH SEMINAR OF PATTERN RECCGNITION SUCCETY, WASHINGTON, D.C., 1967.

PFALTZ, J.L., ROSENFELD, A., "COMPUTER REPRESENTATION OF PLANAR REGIONS BY THEIR SKELETONS," ASSOCIATION OF COMPUTING MACHINERY, VOL. 10, PP. 118-125, FEBRUARY 1967.

PFALTZ, J.L., SNIVELY, J.W., ROSENFELD, A., "LOCAL AND GLOBAL PICTURE PROCESSING BY CUMPUTER," PICTORIAL PATTERN RECOGNITION, THOMPSON, WASHINGTON, C.C., PP. 353-371, 1968.

PFEILER, M., "IMAGE TRANSMISSION SYSTEMS AND IMAGE PROCESSING IN RADICLOGY," SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISATIRRENIA, AUGUST 1968.

PICKETT, R.M., "PERCEIVING VISUAL TEXTURE-A LITERATURE SURVEY," HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS, FINAL REPORT, AUGUST 1964-AUGUST 1966, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, AMRL-TR-68-12, MARCH 1968.

PIERCE, J.R., KARLIN, J.E., MREADING RATES AND THE INFORMATION RATE OF HUMAN CHANNEL, BELL SYSTEM TECHNICAL JOURNAL, VOL. 36, NO. 2, PP. 497-516, MARCH 1957.

PINE, C.S.F., "STUDIES IN CODING FOR BANDWIDTH REDUCTION OF TELEVISION SIGNALS," UNIVERSITY OF LONDON, ENGLAND, PH.D. THESIS, 1960.

PINKSTON, J.T., MENCODING INDEPENDENT SAMPLE INFORMATION SCURCES, MASSA CR-93764, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASSACHUSETTS RESEARCH INSTITUTE OF ELECTRONICS, TECHNICAL REPORT 462, OCTOBER 1967, NG. 89, N 68-20115.

PITIEWAY, M.L.V., "A SIMPLE DATA COMPRESSION TECHNIQUE FCK GRAPHIC DISPLAYS OR INCREMENTAL PLCTTERS," MRI SYMPOSIUM ON COMPUTER PRECESSING IN COMMUNICATIONS, PCLYTECHNIC INSTITUTE OF BROOKLYN, APRIL 1969.

PIZER, S.M., VETTER, H.G., "PROCESSING CUANTUM LIMITED IMAGES," PICTURE PROCESSING AND PSYCHOPICTORIES, PP. 165-176, EDITED BY B. S. LEPKIN AND A. HOSENFELD, ACADEMIC PRESS, NEW YORK, 1970.

POPP, H.J., "BUFFER CUNSIDERATIONS FOR DATA COMPRESSION OF NONSTATIONARY VIDEO DATA," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOLUME COM-18, NO. 2, APRIL 1970.

POPPLEBAUM, W.J., "ADAPTIVE UN-LINE FOURIER TRANSFORM," FICTORIAL PATTERN RECCG-NITION, WASHINGTON, D.C., THOMPSON, 1968.

PUSNER, E.C., ADDEMICH, E.R., "DATA COMPRESSION WITH BOUNDED ERKORS," 1969 IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, BOULDER, COLGRADO, JUNE 9-11, 1969.

PETTER, J.B., "ON THE USE OF THE VIDECON CAMERA TUBE AS A VICED STURAGE DEVICE," PROCEEDINGS OF THE IRE AUSTRALIA, VOL. 24, NO. 12, DECEMBER 1963, PP. 855-865.

PUWERS, K.H., STARAS, H., FREDENALL, G.L., "SOME RELATIONS BETWEEN TELEVISION PICTURE REDUNDANCY AND BANDWIDTH REQUIREMENTS," PROCEEDINGS OF THE CONFERENCE ON THE PHYSICAL PROBLEMS OF COLOR TELEVISION, ACTA ELECTRONICA, Vol. 2, No. 1-2, Pp. 378-383, 1957-1958.

PCWNALL, L.A., "A STURED PROGRAM DATA COMPRESSION DEVELOPMENTAL SYSTEM," ELECTRONICS AND ARRUSPACE SYSTEMS CONVENTION, WASHINGTON, D.C., SEPTEMBER 1968, EASON '68, IEEE, RECURD, PP. 333-338.

PRASACA, B., "AN ADAPTIVE DUAL-MUDE CUDING SYSTEM FUR TELEVISION SIGNALS," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

PRASACA, B., "SUME POSSIBILITIES OF PICTURE SIGNAL BANDWIDTH COMPRESSION," IEEE TRANSACTIONS ON COMMUNICATION SYSTEMS, VOL. CS-11, SEPTEMBER 1963, PP. 315-328.

PRASACA, B., "STUDIES OF PICTURE SIGNAL COMPRESSION," UNIVERSITY OF LUNCON, ENGLANC, PH.D. THESIS, 1960.

PRATT, W.K., "A BIBLIOGRAPHY ON TELEVISION BANDWIDTH REDUCTION STUDIES," IEFE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, PP. 114-115, JANUARY 1967.

PRATT, W.K., "CODING COMPRESSION OF A TELEVISION BANDWIDTH REDUCTION SYSTEM," PROCEEDINGS OF THE ILEE CURRESPONDENCE, VOL. 54, NO. 6, JUNE 1966, PP. 914-916.

PRATT, W.K., "A COMPARISON OF DIGITAL IMAGE TRANSFORMS," PROCEECINGS OF THE MERVIN J. KELLY COMMUNICATIONS CONFERENCE, UNIVERSITY OF MISSOURI, ROLLA, 1970.

PRATT, N.K., "FAST COMPUTATIONAL TECHNIQUES FOR GENERALIZED THE DIMENSIONAL HIENER FILTERING," PROCESSING, UNIVERSITY OF MISSOURI, OCTUBER 1971.

PRATT, N.K., "INTERPLANETARY PICTURE TRANSMISSION USING THE EDGE CETFCTION ...
SYSTEM," HUGHES AIRCRAFT COMPANY, CULVER CITY, CALIFORNIA, REPORT SSU 2161, JANUARY 1962.

PRATT, W.K., MKARHUNEN-LOEVE TRANSFORM CODING OF IMAGES, PRECEECINGS OF THE 1970 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, 1970.

PRATT, W.K., "LINEAR AND NON-LINEAK FILTERING IN THE WALSH DOMAIN," PROCFEDINGS OF APPLICATIONS OF WALSH FUNCTIONS, WASHINGTON, D.C., APRIL 1971, Pp. 38-42.

PRATT, W.K., MSTOP-SCAN EDGE DETECTION SYSTEM FOR INTERPLANETARY TELEVISION TRANSMISSION, M NATIONAL SYMPOSIUM ON SPACE ELECTRONICS AND TELEMFTRY, SECTION 4.3, OCTUBER, 1962.

PRATT, W.K., "STOP-SCAN EDGE DETECTION SYSTEMS OF TELEVISION BANDWIDTH REDUCTION," UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CALIFORNIA, 185 P., JUNE 1965.

PRATT, W.K., "TELEVISION SYSTEM," UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CALIF., PATENT APPLICATION, PU-5253, OCTOBER 1963.

PHATT, W.K., ANDREWS, H.C., "APPLICATION OF FOURIER-HADAMARD-TRANSFCRMATION IC BANDWIDTH COMPRESSION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

PRATT, W.K., ANDREWS, H.C., "TRANSFORM IMAGE CODING," UNIVERSITY OF SCUTHERN CALIFORNIA, LOS ANGELES, IMAGE PROCESSING LABORATORY, FINAL REPORT, CONTRACT NAS7-100, 154 P., PARCH 1970.

PRATT, W.K., ANDREWS, H.C., "TRANSFORM PROCESSING AND CUCING CF IMAGES,"
UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, USCEE REPORT NO. 341, MARCH 1969

PRATT, W.K., ANDREWS, H.C., "TWO DIMENSIONAL TRANSFORM CODING OF IMAGES," PRO-CEECINGS OF THE 1969 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, 1970.

PRATT, W.K., ANDREWS, H.C., KANE, J., "FADAMARD TRANSFORM IMAGE CODING,"

PRECEPTINGS OF THE IEEE, YUL. 57, PP. 58-68, JANUARY 1965.

PRESTON, K., "COMPUTERIZED ACOUSTIC HOLOGRAPFIC IMAGING," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, Pp. 8-1 TO 8-8.

PPFNITT, J.M.S., MOBJECT ENHANCEMENT AND EXTRACTION, MPICTURE PROCESSING AND PSYCHOPICTURES, PP. 75-149, EDITED BY B. S. LIPKIN AND A. RUSENFELD, ACADEMIC PRESS, 1970.

PREWITT, J.M.S., MAYALL, B.H., MENDELSOHN, M.L., MPICTORIAL CATA PROCESSING METHODS IN MICHUSCOPY, M SUCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR IN DEPTH, FILMED DATA AND COMPUTERS, MOSTON, MASSACHUSETTS, 1966.

PRECTER, C.M., dINTZ, P.A., "PICTURE BANDWIDTH REDUCTION FOR NOISY CHANNELS," PURCUE UNIVERSITY, NGR-15-005-106, TR-EE 71-30, SCHOOL OF ELECTRICAL ENGINEER-ING, 58 P., LAFAYETTE, INDIANA, AUGUST 1971.

PRUKUP, E.J., MAPULU SLUW SCAN TV SIGNAL ENHANCEMENT, SCIENCE AND TECHNOLOGY, NASA, GCUDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, PP. 344-349, 1970.

PKCSSER, R.C., ALLNATT, J.W., LEWIS, N.W., "QUALITY GRADING OF IMPAIRED TELEVI-SION SIGNALS," PROCEEDINGS OF THE ISE, LONDON, VOL. 111, PP. 491-502, MARCH 1964.

PRCIUNOTARIOS: E.N., MSLUPE OVERLUAD NOISE IN DIFFERENTIAL PULSE CODE MUDULATION SYSTEMS, M BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, PP. 2119-2161, NOVEMBER 1967.

PUTYATIN, Y.P., SHABANCY, Y., KUSHNARENKO, Y.P., "A BIONIC MCDEL OF COLOR VISION OF MAN AND SUME PROBLEMS IN THE THEORY OF COLOR TELEVISION," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., REPORT ON SCVIET RESEARCH IN THE FIELD OF BIONICS, PP. 87-92, NOVEMBER 21, 1966.

QLASTLER, H., "STUDIES OF HUMAN CHANNEL CAPACITY," INFORMATION THEORY: THIRD LLNDGN SYMPOSIUM, E.C. CHERRY, ED. LONDON: BUTTERWORTH SCIENTIFIC PUBLICATIONS, PF. 361-371, 1950.

QUASTLER, H., ET AL., "HUMAN PERFORMANCE IN INFORMATION TRANSMISSION," UNIVER-SITY OF ILLINUIS. CONTROL SYSTEMS LABORATORY, REPORT NO. 62, MARCH 1955.

RABINCHIZ, A.C., MUN THE MATCHING OF POINTS IN DIFFERENT FERSPECTIVE PROJECTIONS OF THE SAME SUBJECT, MINER YORK UNIVERSITY, DEPARTMENT OF ELECTRICAL ENGINEERING, NEW YORK, DECEMBER 1969.

RACIATION, INCCRPCRATED, "REDUNDANCY REDUCTION DEVICE," AD 600766; DOCLMENTARY REPORT NO. AL-TDR-64-10, RADIATION, INCCRPDRATED, MCLBCURNE, FLORIDA, MAY 1964.

KACIATION, INCORPURATED, MTV DATA COMPACTION STUDY, FINAL REPORT FEBRUARY 1966, AC 637694; RADIATION, INCORPORATED, MELBGURNE, FLORICA, 1966, P. 84.

RACIJ CORPURATION OF AMERICA, "FINAL REPORT ON APOLLO ANALOG TV SYSTEM AND STUDY PROGRAM," REPORT AND 337, SEPTEMBER 1962.

RADCY, C.H., "PATTERN RECOGNITION BY FOURIER SERIES TRANSFORMATIONS," THESIS FCK AIR FORCE INSTITUTE OF TECHNOLOGY, SCHOOL OF ENGINEERING, GE/EE/674-11, WRIGHT- "TERSON AIR FURCE BASE, OHIO, MARCH 1967.

RAGA, G.L., "CHANNEL NOISE: A LIMITING FACTUR ON THE PERFURMANCE OF A CLASS OF ACAPTIVE TELEMETRY TECHNIQUES," ADAPTIVE TELEMETRY CONFERENCE, GODDARD, SAN FRANCISCO, CALIFORNIA, FEBRUARY 1966.

RAGA, G.L., "DIGITAL TELEVISION COMPRESSION: FACT OR MYTH," 1965 NATIONAL TELE-METERING CONFERENCE PROCEEDINGS, WASHINGTON, D.C., 1965.

RAGA, G.L., "A UNIFIED VIEWPOINT ON DIGITAL TELEVISION COMPRESSION," PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1965.

RAGA, G.L., "WIDEBAND VIDEO DATA TRANSMISSION" IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. CCM-15, FEBRUARY 1967, PP. 124-129.

RAGA, G.L., "WIDEBAND VIDED DATA TRANSMISSION CONSTRAINTS," IEEE INTERNATIONAL COMMUNICATIONS CONFERENCE, JUNE 1966.

RAHE, G.A., MA COMPARISON OF SEVERAL TYPES OF DATA CCMPRESSICN. CANADIAN SYMPESSIUM ON COMMUNICATIONS, MONTREAL, CANADA, NOVEMBER 1968.

RAISBECK, G., GOLDHAMMER, J., "TRANSMISSION OF PHOTOGRAPHIC DATA BY ELECTRICAL TRANSMISSION," IRE TRANSACTIONS ON INFORMATION THEORY, VCL. IT-6, NO. 4, PP. 5C3-504, SEPTEMBER 1960.

RAMSAY, J.V., "ECONOMICAL METHOD OF ANALYZING PERCEIVED COLOR DIFFERENCES,"
JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 58, NO. 1, PP. 13-19, JANUARY
1965.

RASC, D.J., "SIMPLIFIED METHOD TO MAKE HOLOGRAM FILTERS FOR TARGET RECOGNITION," JCURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 58, NO. 3, MARCH 1968, PP. 432-433.

RATZ, A.G., "TELEMETRY BANDWIDTH COMPRESSION USING AIRBORNE SPECTRUM ANALYZERS," PROCEEDINGS OF THE IRE, VOL. 48, NO. 4, 1960.

RATZ, A.G., SALBERTA, R.A., "THE DEVELOPMENT OF AIRBORNE SPECTRUM ANALYZERS FOR TELEMETRY BANDWIDTH CUMPRESSION," NATIONAL TELEMETERING CONFERENCE, ALBUQUERQUE, NEW MEXICO, MAY 1963.

RAWSON, E.G., M3-D COMPUTER-GENERATED MOVIES USING A VARIFCCAL MIRROR, MAPPLIED OPTICS, VOL. 7, NO. 8, P. 1505, AUGUST 1968.

REINHOLD, A.: WOLFF, G., "METHODS OF REPRESENTING THE RESULTS OF PHOTO INTER-PRETATION," PHOTOGRAMMETRIA, VOL. 25, Pp. 201-207, APRIL 1970.

REISS, R.A., "PSEUDO-RANDOM SCAN APPLICATIONS TO DATA PROCESSORS," PROCEEDINGS OF THE NEREM CONVENTION RECORD, NOVEMBER 1965.

RENA, R.L., SCHAPHCRST, R.A., MAN IMAGE CODING SYSTEM WHICH REDUCES REDUNDANCY IN THE DIMENSIONS, PROCEEDINGS OF THE NFC, DAYTON, OHIO, 1962.

REND, R.L. ET AL., "ANALYSIS AND IMPLEMENTATION OF A DELTA MCCULATION PICTORIAL ENCODING SYSTEM," PROCEEDINGS OF THE 1966 NATIONAL TELEMETRY CONFERENCE, BOSTON, MASSACHUSETTS, MAY 1966, PP. 27-34.

RENWICK, E.C., "NONLINEAR ESTIMATION WITH QUANTIZED MEASUREMENTS: PCM PREDICTIVE QUANTIZATION AND DATA COMPRESSION," NASA CR-97197; RE-45; MIT, CAMBRIDGE, MASSA-CHUSETTS, EXPERIMENTAL ASTRUNUMY LABORATORY, AUGUST 1966, P. 44.

REUTSKII, V.I., VASILEY, V.I., VOLOKHOY, V.S., *DESCRIPTION OF VISUAL IMAGES BY

SPECTRAL REDISTRIBUTION FUNCTIONS: AVTCMATIKA, VCL. 12, PP. 48-56, JULY-AUGUST, 1967.

REY, D., "DISCUSSION OF SUPER RESULUTION OPTICAL SYSTEMS," UNIVERSITY OF SCUTHERN CALIFORNIA, ELECTRICAL ENGINEERING DEPARTMENT, LOS ANGELES, CALIFORNIA, JULY 14, 1969.

KICE, R.F., "TV DATA COMPRESSION FOR A GRAND TOUR OF THE OUTER PLANETS," PRO-CEECINGS OF THE 4TH HAWALL INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, UNIVERSITY OF HAWALL, HONCLULU, JANUARY 12-14, 1971.

RICHARDS, G.P., BISIGNANI, W.T., "REDUNDANCY REDUCTION APPLIED TO COARSE-FINE ENCODED VIDED," PROCEEDINGS OF THE IEEE, VOL. 55, DOIDGER 1967, PP. 1707-1717.

RICHARDS, W., PARKS, E.A., "MODEL FOR CGLUR CONVERSION," OPTICAL SOCIETY OF AMERICA, VGL. 51, PP. 971-976, JULY 1971.

RIDINGS, G.H., "FACSIMILE COMMUNICATION PAST, PRESENT, FLICRE," SIGNAL, NOVEMBER 1962, PP. 34-40.

RINDFLEISH, T.C., "DIGITAL IMAGE PROCESSING FOR THE RECTIFICATION OF TELEVISION CAMERA DISTORTIONS," PRINCETON UNIVERSITY, ASTRON, P. 145, 1971.

RINDFLEISCH, T.C., DUNNE, J.A., FRIEDEN, H.J., STROMBERG, W.C., RUIZ, R.M., "DIGITAL PROCESSING OF THE MARINER 6 AND 7 PICTURES," JOURNAL OF GFCPHYSICAL RESEARCH, VUL. 76, 'P. 394-417, JANUARY 1971.

RINCFLEISCH, T.G., WILLINGHAM, D., "A FIGURE OF MERIT MEASURING PICTURE RESULUTION," ADVANCES IN ELECTRONICS, ELECTRON PHYSICS, EDITED BY L. MARTON, ACADEMIC PRESS, 1966, PP. 341-354.

RINK, R.E., "ENTROPY OF AN INCREMENT PROCESS IN TWO-DIMENSIONS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 5, PP. 610-612, SEPTEMBER 1971.

RINC, C.L., "BANDLIMITED IMAGE RESTORATION BY LINEAR MEAN-SQUARE-ERROR FILTER,"
JOURNAL OF THE UPTICAL SOCIETY OF AMERICA, VCL. 59, NO. 5, PP. 547-553, MAY
1965.

RITTERMAN, M.B., "AN APPLICATION OF AUTC-CORRELATION THEORY TO THE VICEO SIGNAL OF TELEVISION," SYLVANIA TECHNOLOGIST, VGL. 5, 1952, P. 72.

RIZY, E.F., "COLOR SPECIFICATION FOR ADDITIVE COLOR GROUP DISPLAYS," RUMF AIR DEVELOPMENT CENTER, GRIFFISS AIR FORCE BASE, NEW YORK, DISPLAY TECHNIQUES BRANCH, AUGUST 1965.

RCBBINS, G.M., "IMAGE RESTORATION FOR A CLASS OF LINEAR SPATIALLY-VAKIANT DEGRA-CATIONS," PATTERN RECOGNITION, VOL. 2, 1970, PP. 91-103.

ROBBINS, G.M., HUANG, T.S., PINVERSE FILTERING FOR LINEAR SHIFT-VARIANT IMAGING SYSTEMS. PROCEEDINGS OF THE IEEE, DECEMBER 1971.

RCBERTS, H.L., "INVESTIGATION OF TECHNIQUES FUR IMPROVING RADIC FREQUENCY SPECTRUM CONVERSION AND UTILIZATION IN MILITARY TELEVISION APPLICATIONS," US SIGNAL CURFS., REPORT, CONTRACT NO. 04-36-039-SC63183, APRIL 1958.

RCBERTS, L.G., "PCM TELEVISION BANDWIDTH REDUCTION USING PSEUDO-RANDOM NCISE," MIT, S.M. THESIS, CAMBRIDGE, MASSACHUSETTS, FEBRUARY 1961.

RCBERTS, L.G., "PICTURE CODING USING PSEUDO-RANDOM NUISE," IRE TRANSACTIONS ON

INFCRMATION THEORY, VOL. IT-8, NO. 2, FEBRUARY 1962, PP. 145-154.

CONTRACTOR OF THE STATE OF

ROBINSON, A.H., "AUTOMATIC DIGITAL ENCODING FOR BANDWIDTH RECUCTION IN VISUAL IMAGE TRANSMISSION SYSTEMS," PH.D. THESIS, UNIVERSITY OF LCNCCN, LONDON, ENGLANC, 1967.

RCBINSON, A.H., CHERRY, C., MRESULTS OF A PROTOTYPE TELEVISION BANDWICTH COM-PRESSION SCHEME, PROCEEDINGS OF THE IEEE, VCL. 55, MARCH 1967, PP. 356-564.

RCCCA, F., "TELEVISION BANDWIDTH COMPRESSION UTILIZING FRAFE-TC-FRAME CORRELA-TICN AND MOVEMENT COMPENSATION," PROCEEDINGS OF THE MIT PICTURE BANDWIDTH SYM-PLSIUM, GORDON AND BREACH, NEW YORK, PART 6, DECEMBER 1971.

ROETLING, P.G., HAAS, R.C., KINZLY, R.E., "SCME PRACTICAL ASPECTS OF MEASUREMENT AND RESTORATION OF MOTION-DEGRADED IMAGES," NASA/ERC SEMINAR, CAMBRIDGE, MASSA-CHUSETTS, DECEMBER 1968.

ROETLING, P.G., TRABKA, E.A., KINZLY, R.E., "THEGRETICAL PRECICTION OF IMAGE QUALITY," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 3, 1968, PP. 342-346.

RCIZEN, J., "UNIVERSAL COLOR TELEVISION: AN FLECTRONIC FANTASIA," IEFE SPECTRUM, VCLLME 4. NO. 3, PP. 112-115, MARCH 1967.

ROLLENHAGEN, D.C., "THE VISTA SYSTEM FOR COMPRESSION OF TELEVISION SIGNAL BAND-WIDTHS," ILLINGIS UNIVERSITY, URBANA, PF.D. THESIS, 1969, UNIVERSITY MICROFILMS CROER NO. 70-13462.

RUMANDY, V.P., MA RECOGNITION SYSTEM BASED ON ANALYSIS OF THE CRIENTATION OF LOCAL SEGMENTS OF AN IMAGE, JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., TECHNICAL CYBERNETICS, NO. 6, PP. 178-186, 1966.

ROSELL, F.A., "LIMITING RESOLUTION OF LOW-LIGHT-LEVEL IMAGING SENSORS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 5, PP. 539-547, MAY 1969.

ROSEN, L., "MOIRE EFFECTS IN COMPUTER-GENERATED HOLOGRAMS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 10, OCTUBER 1967.

ROSENBRECK, B.M., "FASTFAX, A SECOND GENERATION FACSIMILE SYSYEM EMPLOYING RECUNDANCY REDUCTION TECHNIQUES," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VCL. GGM-18, NC. 6, PP. /72-779, DECEMBER 1970.

RCSENFELD, A., "BANDWIDTH REDUCTION BIBLIOGRAPHY," IEEE TRANSACTIONS ON INFOR-MATION THEORY, VUL. IT-14, JULY 1968, PP. 601-602.

RCSENFELD, A., "IMAGE PROCESSING," SPACE/AERGNAUTICS, VOL. 52, PP. 48-55, DEC-EMBER 1969.

RGSENFELD, A., "A NONLINEAR EDGE DETECTION TECHNIQUE," PROCEEDINGS OF THE 1ECF, VCL. 58, NO. 5, MAY 1970, PP. 814-816.

RCSENFELD, A., "PICTURE PROCESSING BY COMPUTER," NEW YORK, ACADEMIC PRESS, 1969.

RUSENFELD, A., HUANG, F.K., SCHNEIDER, V.B., "AN APPLICATION OF CLUSTER DETECTION TO TEXT AND PICTURE PROCESSING," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. 17-15, NO. 6, P. 665, NOVEMBER 1969.

RCSENFELD, A., JUHNSTON, E., "SHAPE SYNTHESIS, I," AFCRL-70-0502, AIR FURCE CAMERIDGE RESEARCH LABORATORY, CUMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, SEPTEMBER 1970.

ROSENFELD, A., PARK, C.M., STRONG, J.P., "NOISE CLEANING IN CIGITAL PICTURES," PROCEEDINGS OF THE EASCON, OCTOBER 1969.

ROSENFELD, A., PFALTZ, J.L., "DISTANCE FUNCTIONS ON DIGITAL PICTURES," PATTERN RECOGNITION, Vol. 1, Pp. 33-61, 1968.

RCSENFELD, A., PFALTZ, J.L., "SEQUENTIAL OPERATIONS IN DIGITAL PICTURE PROCESSING," JUURNAL OF THE AMERICAN ASSOCIATION FOR COMPUTING MACHINERY, VCL. 13, PP. 471-454, OCTOBER 1966.

ROSENFELD, A., THRUSTON, M., MEDGE AND CURVE DETECTION FOR VISUAL SCENE ANALY-SIS, MAFCRL-70-0488, COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, GSFC TECHNICAL REPORT NO. 70-128, AUGUST 1970.

RUSENFELF, J., "RELATIONSHIPS BETWEEN INFORMATION CAPACITY AND RESOLVING POWER," PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. 11, PP. 415-418, 1967.

ROSS, D.S., "ENHANCED CCEANUGRAPHIC IMAGERY," PROCEECINGS OF THE 6TH INTER-NATIONAL SYMPOSIUM ON REMOTE SENSING OF ENVIRONMENT, ANN ARBOR, MICHIGAN, VCL. 2, OCTOBER 13-16, 1969, PP. 1029-1044.

ROSS, D.S., "IMAGE-TONE ENHANCEMENT," AMERICAN SOCIETY OF PHOTOGRAMMETRY, 35TH ANNUAL MEETING, WASHINGTON, D.C., TECHNICAL PAPERS, MARCH 9-14, 1969, Pp. 3C1-319.

KOSS, I., ZUCKERMAN, L.G., "SOME CODING CONCEPTS TO CONSERVE BANDWIDTH," IRE TELEMETERING CONFERENCE, MAY 1959.

RESSOL, L., "GENERATION OF HALFTONES BY COMPUTER-CONTROLLED MICROFILM RECORDER," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 6, JUNE 1971, PP. 662-664.

RUTH, W.: "FULL-COLUR AND THREE-DIMENSIONAL EFFECT IN RADICGRAPHIC DISPLAYS," INVESTIGATIVE RADICLUGY, VOL. 3, PP. 56-60, JANUARY-FEBRUARY 1968.

RCUGELOT, R.S., "DIGITALLY COMPUTED IMAGES FOR VISUAL SIMULATION," GENERAL ELECTRIC ELECTRONICS LABORATURY, SYRACUSE, NEW YORK, AUGUST 1969.

RLHINSTEIN, C.B., PEARSON, D.E., "COLOR PERCEPTION IN COLOREC DISPLAYS," TA-GUNGS BERICHT INTERNATIONALE FARBTAGUNG COLUR, BELL TELEPHONE LABORATORIES, HCLMDEL, New JERSEY, APRIL 8, 1969, PP. 157-184.

RUSHFORTH, C.K., "RECOGNIZING PATTERNS IN PHOTOGRAPHS," APPLIED UPTICS, Vol. 4, NC. 4, PP. 379-383, APRIL 1965.

RUSHFORTH, C.K., HARRIS, R.W., "RESTORATION, RESOLUTION, AND NOISE," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, Vol. 58, NO. 4, PP. 539-545, APRIL 1968.

RUSSELL, F.D., GOODMAN, J.W., "NUNREDUNDANT ARRAYS AND POSTDETECTION PROCESSING FOR AGERRATION COMPENSATION IN INCOHERENT IMAGING," JOURNAL OF THE OPTICAL SCCIETY OF AMERICA, VOL. 61, NO. 2, FEBRUARY 1971, PP. 182-191.

RUSSELL, J.K., "A VISUAL IMAGE PROCESSOR," IEEF TRANSACTICAS ON COMPUTERS, VOL. C-17, NO. 7, P. 635, JULY 1968.

RUTCVITZ, D., "DATA STRUCTURES FOR OPERATIONS ON DIGITAL IMAGES," PICTURIAL PATTERN RECOGNITION, THOMPSON, WASHINGTON, D.C., PP. 105-133, 1968.

* *********************************

SACHS, M.B., NACHMIAS, J., ROBSON, J.G., "SPATIAL-FREQUENCY CHANNELS IN HUMAN VISION." JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 9, P. 1176, SEPTEMBER 1971.

SAKATA, H., "A STUDY OF FILM CAMERA THREE-COLOR SEPARATION SYSTEM," JAPAN BROAD-CASTING CORPORATION, TOKYO, TECHNICAL RESEARCH LABORATORIES, SEPTEMBER 1965.

SAKKISON, D.J., ALGAZI, V.R., "COMPARISON OF THE POTENTIAL PERFORMANCE OF LINE-BY-LINE PROCESSING AND TWO-DIMENSIONAL PROCESSING IN IMAGE TRANSMISSION," PROCEEDINGS OF THE 4TH COLLOQUIM ON MICROWAVE COMMUNICATION, VOL. 1, COMPUNICATION SYSTEM THEORY, APRIL 1970.

SALAMAN, R.G.: "DIGITAL TELEVISION ENCODING," SEVENTH NATIONAL COMMUNICATION SYMPOSIUM RECORD: 1961, PP. 274-279.

SARAGA, W., "DISCUSSION ON THE IMPACT OF INFORMATION THEORY ON TELEVISION," JCURNAL OF THE BRITISH IRE, VOL. 13, NO. 12, PP. 590-591, DECEMBER 1953.

SAUNDERS, B.G., "STERECSCOPIC DRAWING BY COMPUTER - IS IT CRTHOSCOPI. ?" APPLIED OPTICS, VOL. 7, NO. 8, P. 1499, AUGUST 1968.

SANCHUK, A.A., "QUANTIZATION CONTOUR ELIMINATION IN PCM TELEVISION USING FDGE DETECTION," B.S. THESIS, DEPARTMENT OF ELECTRICAL ENGINEERING, MIT, CAMBRIDGE, MASSACHUSETTS, JUNE 1966.

SCHADE, O.H., MELECTRO-OPTICAL CHARACTERISTICS OF TELEVISION, RCA REVIEW, VOL. 9, PARTS I-IV, PP. 5, 245, 490, AND 653, MARCH, JUNE, SEPTEMBER, AND DECEMBER 1946.

SCHADE, D.H., MAN EVALUATION OF PHOTOGRAPHIC IMAGE QUALITY AND RESOLVING POWER, MULLINAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 73, 1964, Pp. 81-119.

SCHADE, O.H., "IMAGE GRADATION, GRAININESS, AND SHARPNESS IN TELEVISION AND MOTION PICTURE SYSTEMS," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, PART I, VOL. 56, 1951, PP. 131-171; PART II, VCL. 58, 1952, PP. 181-222; PART III, VOL. 61, 1953, PP. 97-164; PART IV, VCL. 64, 1955, PP. 593-617.

SCHADE, U.H., "MUDERN IMAGE EVALUATION AND TELEVISION," APPLIED OPTICS, VOL. 3, NC. 1, PP. 17-23, JANUARY 1964.

SCHADE, O.H., MUPTICAL AND PHOTOELECTRIC ANALOG OF THE EYE, JURNAL CF THE OPTICAL SUCIETY OF AMERICA, VOL. 46, SEPTEMBER 1956, PP. 721-739.

SCHADE, O.H., "THE RESCLVING-POWER FUNCTIONS AND QUANTUM PROCESSES OF TELEVISION CAMERA," RCA REVIEW, VCL. 28, PP. 460-535, 1967.

SCHAEFER, D.H., "THE IMP STATISTICS COMPUTER: AN EXAMPLE OF CN BOARD CATA PRO-CESSING," PROCEEDINGS OF THE 7TH INTERNATIONAL SYMPOSIUM ON SPACE TECHNULOGY AND SCIENCE, TOKYC, 1967, Pp. 433-436.

SCHALFER, D.H., "LCGARITHMIC COMPRESSION OF BINARY NUMBERS," PROCFECINGS OF THE IRE, VCL. 49, JULY 1961, P. 1219.

SCHAEFER, D.H., SNIVELY, J.W., "ON-BOARD PLASMA DATA PROCESSOR," REVIEW CF SCIENTIFIC INSTRUMENTS, VOL. 39, NO. 4, 1968, PP. 452-458.

SCHAPHURST, R.H., "COMPUTER SIMULATION OF PICTURIAL DATA ENCODING TECHNIQUE," IEEE INTERNATIONAL COMMUNICATION CONFERENCE, JUNE 1966.

SCHAPFORST, R., "FRAME-TO-FRAME CODING OF NTSC COLOR TV," PROCEEDINGS OF THE MIT PICTURE BANDWICTH COMPRESSION SYMPOSIUM, ABSTRACT ONLY, GORDON AND BREACH, NEW YORK, PART 7, DECEMBER 1971.

SCHAPFORST, R.H., RENN, R.L., "AN IMAGE CODING SYSTEM WHICH REDUCES REDUNDANCY IN TWO DIMENSIONS," PROCEEDINGS OF THE NATIONAL AEROSPACE ELECTRONICS CONFERENCE, PP. 116-125, 1962.

SCHINDLER, H.R., "DELTA MUDULATION," IEEE SPECTRU- JOL. 7, NO. 10, P. 69, OCTOBER 1970.

SCHLESINGER, K., "DCT ARRESTING IMPROVES TV PICTURE QUALITY," ELECTRONICS, VOL. 24, 1951, P. 96.

SCHMID, H., "MEASUREMENT OF TELEVISION PICTURE IMPAIRMENTS CAUSED BY LINEAR DISTURTIONS," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VGL. 77, No. 3, Pp. 215-220, 1960.

SCHOOR: E., "COMPUTER-CONTROLLED DATA COMPRESSION AT 100 KC," PROCEEDINGS OF THE INTERNATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., VCL. III, OCTUBER 1967, PP. 382-396.

SCHLMBURG, R.A., "COMPUTER SIMULATION OF A DATA COMPRESSOR FOR AEROSPACE THEE-METRY SYSTEMS," RECORD OF THE 1962 NATIONAL SYSPOSIUM ON SPACE ELECTRONICS AND TELEMETRY.

SCHOUTEN, J.F., ET.AL., "DELTA MUDULATION, A NEW MODULATION SYSTEM FOR TELECOM-MUNICATION," PHILLIPS TECHNICAL REPORT, VOL. 13, NO. 9, MARCH 1952.

SCHREIBER, W.F., "THE EFFECT OF SCANNING SPEED ON THE SIGNAL/NOISE RATIO OF CAMERA TUBES," PROCEEDINGS OF THE IFEE, VOL. 52, NO. 2, FEBRUARY 1964, P. 217.

SCHREIBER, W.F., "THE MATHEMATICAL FOUNDATION OF THE SYNTHETIC HIGHS SYSTEM," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 68, JANUARY 1963, PP. 140-146.

SCHREIBER, W.F., "THE MEASUREMENT OF THIRD ONDER PROBABLILTY DISTRIBUTION OF TELEVISION SIGNALS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, N/J. 3, SEPTEMBER 1956, PP. 94-105.

SCHREIBER, W.F., "PICTURE CUDING," PROCEEDINGS OF THE IEE, VCL. 55, MARCH 1967, PP. 320-330.

SCHREIBER, W.F., "PROBABILITY DISTRIBUTIONS OF TELEVISION SIGNALS," HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS, PH.D. THESIS, 1953.

SCHREIBER, W.F., "WIREPHUTO QUALITY IMPROVEMENT BY UNSHARP MASKING," PATTERN RECOGNITION, VCL. 2, NO. 2, PP. 117-121, MAY 1970.

SCHREIBER, W.F., HUANG, T.S., "CUNTOUR CODING OF IMAGES," WESTERN ELECTRUNIC SHEW AND CONVENTION: LOS ANGELES, CALIFCRNIA, SESSION 8, ALGUST 1968.

SCHREIBER, W.F., HUANG, T.S., TRETIAK, O.J., "CONTOUR CODING OF IMAGES," PRO-CEECINGS OF THE PICTURE BANDWICTH COMPRESSION SYMPOSIUM, GCROON AND BREACH, NEW YORK, PART 3, DECEMBER 1971.

SCHREIBER, W.F., KNAPP, C.F., "TV BANDWIDTH REDUCTION BY DIGITAL CODING," IRE NATIONAL CONVENTION RECORD, VOL. 6, PART 4, 1958, PP. 88-89.

SCHHEIBER, W.F., KNAPP, C.F., KAY, N.D., "SYNTHETIC FIGHS: AN EXPERIMENTAL TV HANCWIDTH REDUCTION SYSTEM," JOURNAL OF THE SCCIETY OF MOTION PICTURE AND TV ENGINEERS, VUL. 68, AUGUST 1959, PP. 525-537.

Distance of the second

SCHROEDER, M.R., "IMAGES FROM COMPUTERS," IEFE SPECTRUM, MARCH 1969, PP. 66-79.

SCHWAR, H., "DATA COMPRESSION," WESTERN ELECTRONIC SHOW AND CUNVENTION, PP. 207-210, LOS ANGELES, CALIFORNIA, 1960.

SCHWARTZ, J.W., BARKER, R.C., "BIT-PLANE ENCODING: A TECHNIQUE FOR SOURCE EN-CLDING," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, VOL. AFS-2, JULY 1966, Pp. 385-392.

SCHWARTZ, P., "ANALYSIS OF FOURIER COMPRESSION ON IMAGES," SYMPOSIUM ON PICTURE CODING, RALEIGH, NORTH CAROLINA, SEPTEMBER 1970.

SCHWARZ, G.R., "ADAPTIVE BUFFER DESIGN FOR DATA COMPRESSION SYSTEMS," WESTERN ELECTRONIC SHUW AND CONVENTION, SAN FRANCISCO, CALIFORNIA, AUGUST 1967, PP. 6/3-1 TO 6/3-12.

SCHARZ, G.R., MBUFFER DESIGN FOR DATA COMPRESSION SYSTEMS, MIEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-16, NO. 4, 1968, PP. 605-615.

SCILLLI, J.A., "COMPRESSION OF VIDEO DATA BY ADAPTIVE NONLINEAR PREDICTION," NASA TECHNICAL NOTE, NASA IN D-3475, WASHINGTON, D.C., AUGUST 1966, P. 33.

SCIULLI, J.A., "A LOGARITHMIC ENCODER FOR BINARY WORD COMPRESSION," NASA TECHNI-CAL NOTE, NASA TN C-4290, WASHINGTON, D.C., MARCH 1968.

SCILLLI, J.A., "RESULTS OF ADAPTIVE PREDICTOR STUDIES, II," NASA/GSFC GOCDARD SPACE FLIGHT CENTER CONFERENCE ON ADAPTIVE TELEMETRY, GREENBELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, PP. 81-108.

SCLATER, N., "THE FUTURE FUR DATA COMPRESSION EXPANDS," ELECTRONIC CESIGN, VOL. 16, NC. 11, 1968, PP. 25-26 AND 29-31.

SCOTT, F., "A LINE SCAN IMAGE GENERATOR," PHCTOGRAPHIC SCIENCE AND ENGINEERING, VCL. 2, NO. 5, SEPTEMBER-UCTOBER 1967.

SCOTT, F., "THE SEARCH FOR A SUMMARY MEASURE OF IMAGE QUALITY: A PROGRESS REPORT," PHOTUGRAPHIC SCIENCE AND ENGINEERING, VOL. 12, 1968, Pp. 154-164.

SCOTT, F., HUFNAGEL, R.E., "SEARCH FUR A SUMPARY MEASURE UF IMAGE QUALITY," PART I, II, THE PERKIN-ELMER CCRPORATION, RESEARCH DEPARTMENT, NORWALK, CLNNECTICUT, PRESENTED AT THE ANNUAL MEETING OF THE CPTICAL SOCIETY OF AMERICA, PHILACELPHIA, 1965.

SCOTT, R.M., "THE PRESENT STATE OF THE ART WITH REGARD TO DETECTION RECCONT-TION," APPLIED OPTICS, VOL. 3, NO. 1, Pp. 13-15, JANUARY 1964.

SCOTT, R.M., "SAMPLED IMAGES-AN INTRODUCTION," A SYMPUSIUM UN SAMPLED IMAGES, THE PERKIN-ELMER CCRPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, Pp. 1-1 TO 1-2.

SCCVILLE, F.W., HUANG, T.S., "THE SUBJECTIVE EFFECT OF SPATIAL AND BRIGHTNESS QUANTIZATION IN PCM PICTURE TRANSMISSION," NEREW RECCRD, 1965, PP. 234-235.

SEITZER, D., "INSTANTANEOUS PRIORITY MULTIPLEXING OF GRAY PICTURES," IEEE TRANS-ACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-18, NO. 5, PP. 690-693, OCTOBER 197C.

SEITZER, D., CLOSS, F., STUCKI, P., "AN EXPERIMENTAL APPRUACH TO VICEO BANDWIDTH CUMPRESSION BY MULTIPLEXING," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VCL. COM-17, NC. 5, PP. 564-565, OCTOBER 1965.

SEKEY, A., "DETAIL DETECTION IN TELEVISION SIGNALS," PRUCEEDINGS OF THE IEFF, VOL. 53, NO. 1, PP. 75-76, JANUARY 1965.

SELLMER, H.R., "TRANSFER FUNCTION COMPENSATION OF SAMPLED IMAGERY," A SYMPUSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORMALK, CONNECTICUT, 1971, Pp. 4-1 TO 4-14.

SELYER, R.H., "THE USE OF COMPUTERS TO IMPROVE BIOMEDICAL IMPOSE QUALITY," THE AMERICAN FEDERATION OF INFORMATION PROCESSING SOCIETIES, FALL JOINT COMPUTER CONFERENCE, VOL. 33, PART I, Pp. 817-834, 1968.

SEYLER, A.J., "BANDWIDTH REDUCTION IN TELEVISION RELAYING," PROCEEDINGS OF THE IRE AUSTRALIA, PART 1, JULY 1955, PP. 218-225; PART 2, AUGUST 1955, PP. 261-276.

SEYLER, A.J., "CHANNEL CAPACITY UTILIZATION OF TELEVISION RELAY LINKS," FORT-SCHRITTE DER HCCHFREQUENTZTECHNIK, VOL. 5, 1960, P. 263.

SEYLER, A.J., "CUDING OF VISUAL SIGNALS TO REDUCE CHANNEL CAPACITY REQUIRE-MENTS," PROCEECINGS OF THE IEE, VOL. 109, PART C, NO. 16, SEPTEMBER 1962, PP. 676-684.

SEYLER, A.J., "AN EXPERIMENTAL FRAME DIFFERENCE SIGNAL GENERATOR FOR THE ANALY-SIS OF TELEVISION SIGNALS," REPRINT FROM THE RADIO AND ELECTRONIC ENGINEER, VOL. 29, NC. 2, FEBRUARY 1965, PP. 71-83.

SEYLER, A.J., "FRAME RUN CUDING UF TELEVISION SIGNALS: A NEW METHOD OF BAND-WIDTH REDUCTION," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, REPORT NO. 5064, SEPTEMBER 1959.

SEYLER, A.J., "PROBABILITY DISTRIBUTION OF TELEVISION FRAME CIFFERENCES," PRO-CEECINGS OF THE IREE, AUSTRALIA, NOVEMBER 1965, RADIO AND ELECTRONIC ENGINEERING CONVENTION, MARCH 22-26, 1965.

SEYLER, A.J., "REAL-TIME RECORDING OF TELEVISION FRAME DIFFERENCE AREAS," PRO-CEECINGS OF THE IEEE, VOL. 51, No. 3, MARCH 1963, Pp. 478-480.

SEYLER, A.J., "STATISTICS OF TELEVISION FRAME DIFFERENCES," PROCEEDINGS OF THE IEEE, VOL. 53, No. 12, Pp. 2127-2128, DECEMBER 1965.

SEYLER, A.J., "VISUAL COMMUNICATION AND PSYCHU-PHYSICS OF VISION," PROCEEDINGS OF THE IRE AUSTRALIA, VGL. 23, MAY 1962, Pp. 291-334.

SEYLER, A.J., BUDRIKIS, Z.L., "DETAIL PERCEPTION AFTER SCENE CHANGES IN TELEVI-SICH IMAGE PRESENTATIONS," IEEE TRANSACTIONS ON INFURMATION THEORY, VOL. IT-11, NC. 1, JANUARY 1965, PP. 31-43.

SEYLER, A.J., BUDRIKIS, Z.L., "MEASUREMENTS OF TEMPORAL ADAPTION TO SPATIAL DETAIL VISION," NATURE, VOL. 184, PP. 1215-1217, CCTCBER 1959.

SHACK, R.V., "IMAGE PROCESSING BY AN UPTICAL ANALOG DEVICE." PATTERN RECOGNITION, VOL. 2, 1970, PP. 123-126.

SHANKS, J.L., "THE DESIGN OF STABLE TWO-DIMENSIONAL PECURSIVE FILTERS," PROCEEDINGS UMR-MERVIN J. KELLY COMMUNICATIONS CONFERENCE, ROLLA, MISSOURI, 1970, PP. 15-2-1 TO 15-2-0.

SHAW, R., "THE APPLICATION OF FOURIER TECHNIQUES AND INFCREATION THEORY TO THE ASSESSMENT OF PHOTOGRAPHIC IMAGE QUALITY," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 6, SEPTEMBER-OCTOBER 1962, Pp. 2P1-286.

SHELDAHL, S.A., "CHANNEL IDENTIFICATION CODING FOR DATA COMPRESSORS," ELFCTRCNICS AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C., SEPTEMBER 1968, EASCON '68, IEEE, PP. 319-324.

Account to the second

SHELDAHL, S.A., "CCMPARISUN OF HARDWARE REQUIREMENTS FOR POLYNOMIAL DATA COMPRESSIONS," PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1968.

SHERMAN, H., "A QUASI-TOPOLOGICAL METHOD FOR THE RECCGNITION OF LINE PATTERNS," PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON INFORMATION PROCESSING, PARIS, UNESCO, PP. 232-238, JUNE 1959.

SHIBAHARA, T., "COMPUTER BASED FOURIER PLANE TECHNIQUES FOR IMAGE PROCESSING," COGRDINATED SCIENCE LABORATORY, UNIVERSITY OF ILLINOIS, URBANA, REPORT R-522, AUGUST 1971.

SHIBATA, K., OHIRA, T., ET AL., "PCM TERMINAL EQUIPMENT FOR BANDWIDTH COMPRESSION OF TELEVISION SIGNAL," 1969 JOINT CONVENTION OF THE 1.E.C.E. OF JAPAN, P. 2619.

SHIERS, G., "EARLY SCHEMES FOR TELEVISION," IFEE SPECTRUM, VCL. 7, NO. 5, P. 24, MAY 1970.

SHINN, C., KLINE, R.M., "A COMPUTER-DIRECTED SYSTEM FOR MEASURING DISTANCE BETWEEN EDGES IN OPTICAL IMAGES," TECHNICAL REPORT NO. 10, COMPUTER SYSTEM LAB, WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI, OCTOBER 1968.

SHLEZINGER, M.I., SVIATOGI, L.A., "SOLUTION OF THE PROBLEM OF RECOGNIZING STANDARD IMAGES WITH ALLOWANCE FOR SPATIAL DISCRETION," IMAGE RECOGNITION, NO. 3, Pp. 145-157, 1969, IN RUSSIAN.

SHOULD, T.R., TEITELMAN, W., "A GENERAL PURPOSE VIDEO INPUT DEVICE FOR A DIGITAL COMPUTER," BOLT, BERANEK, AND NEWMAN, INCORPORATED, CAMBRIDGE, MASSACHUSETTS, FINAL TECHNICAL REPORT, JULY 1967.

SIEPENS-WAPNIARSKI, W.J., GIVENS, M.P., "THE EXPERIMENTAL PRODUCTION OF SYNTHETIC HOLOGRAMS," APPLIED OPTICS, VCL. 7, NC. 3, MARCH 1968, PP. 535-538.

SIMCNES, J.L., KELCH, J.R., HIGGINS, G.C., MANALYSIS OF FINE-DETAIL REPREDUCTION IN PHOTOGRAPHIC SYSTEMS, PAPPLIED CPTICS, VUL. 3, NO. 1, PP. 23-29, JANUARY 1964.

SIMPSON, R.S., "BUFFER CONTROL IN DATA COMPRESSION SYSTEMS FOR NON-STATILNARY DATA," NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., JUNE 1964.

SIMPSON, R.S., "EVALUATION OF REDUNDANCY REDUCTION ALGORITHMS," INTERNATIONAL TELEMETERING CONFERENCE PROCEEDINGS, VOL. II, OCTOBER 1966, Pp. 338-352, LOS ANGELES, CALIFORNIA.

SIMPSON, R.S., BLACKWELL, C.A., FROST, W.O., "COMPENDIUM OF REDUNDANCY REMOVAL PROCESSES," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, VOL. AES-2, NG. 4, 1966, Pp. 471-474.

SIPPSCN, R.S., BURNETT, J.R., "A THEORETICAL STUDY TO IMPROVE UTILIZATION OF MISSILE TELEMETRY SYSTEMS," FINAL REPORT APRIL 1962 - JANUARY 1963, AC-468427,

ALABAMA UNIVERSITY, BUREAU OF ENGINEERING, FEBRUARY 1963.

g yeer -suugaria

SIMPSON, R.S., HASKEW, J.R., MA STUDY OF REDUNDANCY IN SATURN FLIGHT CATA, TECHNICAL REPORT NO. 9, COMMUNICATIONS SYSTEMS GROUP, BUREAU OF ENGINFERING RESEARCH, UNIVERSITY OF ALABAMA, AUGUST 1966.

SIMPSON, R.S., GRIFFIN, M.A., JAMES, S.N., "COMPRESSIBILITY OF SATURN S-1 PCM DATA," TECHNICAL REPORT NO. 1, SYSTEMS ENGINEERING GROUP, UNIVERSITY OF ALABAMA, JUNE 1963.

SIMPSON, R.S., GRIFFIN, M.A., JAMES, S.N., BJORN, T., MA STUDY OF REDUNDANCY REMOVAL FOR SATURN TELEMETRY DATA, COMMUNICATIONS SYSTEMS GROUP, BUREAU OF ENGINEERING RESEARCH, UNIVERSITY OF ALABAMA, NOVEMBER 1964.

SINGER, J.R., "INFORMATION THEORY AND THE HUMAN VISUAL SYSTEM," JOURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. +9, NO. 6, JUNE 1959; PP. 639-640.

SINNAMON, L.D., UWENS, R.F., VAN DUINEN, R.W., "SOCRATES-ACAPTIVE IMAGE PROCESSOR," SUCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, CCMFUTERIZEC IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

SITTON, G.A., "AN EXPERIMENTAL VIDEO IMAGE PROCESSING LABORATORY," IBM PUBLICATION NO. 320.2415, JULY 1971.

SITTON, G.A., TOBIAS, P.R., "APPLICATIONS OF THE LAPLACIAN TO IMAGE PROCESSING," IBM PUBLICATION NO. 320.2410, FEBRUARY 1, 1971.

SIVERISON, W.E., "VARIABLE WORD LENGTH FNCODER REDUCES TV BANDWIDTH REQUIRE-MENTS," LANGLEY RESEARCH CENTER, LANGLEY STATION, VIRGINIA, NCVEMBER 1965.

SKLANSKY, J., "RECCGNITION OF CONVEX BLOBS," TECHNICAL REPORT TP-69-3, UNIVERSITY OF CALIFORNIA, IRVINE, CALIFORNIA, JULY 1969.

SKLANSKY, J., "THE UCI PATTERN RECUGNITION PROJECT," INTERIM REPORT IF-71-3, SCHOOL OF ENGINEERING, UNIVERSITY OF CALIFORNIA, INVINE, SEPTEMBER 1971. 1971.

SKLANSKY, J. MERRYMAN, P., "A CONTINUOUS TWO DIMENSIONAL MCDEL OF DISCRETE ONE DIMENSIONAL THRESHOLD LEARNING," TECHNICAL REPORT TP-70-4, UNIVERSITY OF CALIFICANIA AT IRVINE, SEPTEMBER 1970.

SKLANSKY, J., NAHIN, P.J., "A PARALLEL MECHANISM FOR RECOGNIZING SILHOUFITES," TECHNICAL REPORT TP-70-6, UNIVERSITY OF CALIFORNIA, IRVINE, CALIFORNIA, NOVEMBER 1970.

SLEPIAN, D., "LINEAR LEAST-SQUARES FILTERING OF DISTCRTED IMAGES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, PP. 918-922, JULY 1967.

SLEFIAN: D., "RESTGRATION OF PHOTOGRAPHS BLURRED BY IMAGE MOTION," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, PP. 2353-2362, 1967.

SMITH, B., "INSTANTANEOUS CUMPANDING UF QUANTIZED SIGNALS," BELL SYSTEMS TECHNICAL JOURNAL, VOL. 36, PP. 44-48, JANUARY 1951.

SMITH, F.D., "CPTICAL IMAGE EVALUATION AND THE TRANSFER FUNCTION," JOURNAL OF APPLIED OPTICS, VOL. 2, APRIL 1963, PP. 335-350.

SMITH, F.W., WRIGHT, M.H., "AUTOMATIC SHIP PHOTE INTERPRETATION BY THE METHOD OF MCMENTS," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 7, P. 1089, SEPTEMBER 1971.

SMITH, H.A., "IMPROVEMENT OF THE RESOLUTION OF A LINEAR SCANNING DEVICE," JOURNAL OF APPLIED MATH, VOL. 14, PP. 23-40, JANUARY 1966.

SKITH, S.L., "COLCR CODING AND VISUAL SEPARABILITY IN INFURMATION DISPLAYS,"
JOURNAL OF APPLIED PSYCHOLOGY, VOL. 47, PP. 358-364, DECEMBER 1963.

Strong Control of the Strong Control of the

SMITH, S.L., THOMAS, D.W., "COLOR VERSUS SHAPE CODING IN INFERMATION DISPLAYS," JOURNAL OF APPLIED PSYCHOLOGY, VOL. 48, PP. 137-146, JUNE 1964.

SMITH, W.E., DOWNING, J.J., STUBBLES, J.E., "GENERAL PURPOSE TELEMETRY DATA COM-PRESSION," WESCUN 67 TECHNICAL PAPERS, CATA COMPRESSION, SESSION 6, SAN FRANCIS-CO, CALIFORNIA, AUGUST 1967.

SNIVELY, J.W., MA BIT-SAVING ENCODING SCHEME FOR A SET OF MONOTONIC NUMBERS," PROCEEDINGS OF THE IEEE, VOL. 53; NO. 5, PP. 544-545, MAY 1965.

SNIVELY, J.W., "OPTIMAL ALGORITHMIC ENCODING SCHEMES FOR INFORMATION SOURCES," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-14, NO. 2, 1968, PP. 340-348.

SNIVELY, J.W., "A PARAMETER EXTRACTION TECHNIQUE," NASA, GEDEARD SPACE FLIGHT CENTER, CENFERENCE ON ADAPTIVE TELEMETRY, GREENBELT, MARYLAND, NASA TM x-55747; x-731-67-7; JANUARY 1967, PP. 117-127.

SNIVELY, J.W., "A STATISTICAL CATA COMPRESSION TECHNIQUE," NASA TECHNICAL NOTE, NASA TN D-3616 P. 31, WASHINGTON, D.C., OCTCBER 1966.

SCM, S.C., MANALYSIS OF THE EFFECT OF LINEAR SMEAR ON PHOTEGRAPHIC IMAGES, UJURNAL OF THE OPTICAL SOCIETY OF AMERICA, Vol. 61, No. 7, July 1971, Pp. 859-864.

SCM, S.C., "SIMULTANEOUS MULTIPLE REPRODUCTION OF SPACE-LIMITED FUNCTIONS BY SAMPLING OF SPATIAL FREQUENCIES," JOURNAL OF THE OPTICAL SCCIETY OF AMERICA, VOL. 60, NO. 12, DECEMBER 1970, Pp. 1628-1634.

SCMMER, R.C., HARRIS, B., "SCME RECENT ADVANCES IN ADAPTIVE DIGITAL SPACE TELF-METRY SYSTEMS," PROCEEDINGS OF THE 1962 NATIONAL TELEMETRY CONFERENCE, PAPER 10-5, 1962.

SURIN, V.Y., "COMPARATIVE EVALUATION OF THE NOISE RESISTANCE OF AN AMPLITUDE MCCULATION AND PCM PULSE CODE MODULATION IN THE CASE OF IMAGE TRANSMISSION," JCINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., SEPTEMBER 1966.

SORCKA, E.Z., "MEASUREMENT OF THE INTERFRAME CORRELATION OF A TELEVISION PICTURE," TELECOMMUNICATIONS AND RADIO ENGINEERING, VOL. 19, NO. 9, PART 1, PP. 63-65, SEPTEMBER, 1965.

SPECHT, D.F., DRAPKIN, P.E., "BIUMEDICAL DATA COMPRESSION," PROCEEDINGS OF THE 1965 NATIONAL TELEMETRY CONFERENCE, PP. 68-74, 1965.

SPENCER, D.R., HUANG, T., "BIT-PLANE ENCODING OF CONTINUCUS-TONE PICTURES," MRI SYMPOSIUM ON COMPUTER PROCESSING IN COMMUNICATIONS, POLYTECHNIC INSTITUTE OF BRCCKLYN, NEW YORK, APRIL 1969.

STAMPFL, R.A., LAUGHLIN, C.R., "SYNOPSIS OF THE ADAPTIVE TELEMETRY CONFERENCE AT GCDCARD SPACE FLIGHT CENTER, FEBRUARY 1966," GSFC, GREFNEELT, MARYLANC, REPURT NL. X-713-55-208, P. 15, MAY 1966.

STAMPS, G.M., RESSLER, H.C., MA VERY HIGH-SPEED FACSIMILE RECORDER, IRF TRANSACTIONS ON COMMUNICATIONS SYSTEMS, VOLUME CS-7, NC. 4, PP. 257-263, DECEMBER 1959.

STANLEY, T.P., "COMPRESSION OF MARKOV DATA," PH.D. THESIS, PRINCETCH UNIVERSITY, NEW JERSEY, 1967, ORDER NO. 68-2519.

STANLEY, I.P., LIU, B., "DATA CUMPRESSION FOR DISCRETE MARKOV SIGNALS," PRO-CEECINGS OF THE 1967 NATIONAL ELECTRONICS CONFERENCE, VOL. 23, PP. 534-539.

STANWOOD, R.K., "PRELIMINARY STUDY OF A DIGITAL TELEVISION SYSTEM FOR USE ON THE APOLLO SPACECRAFT," NASA LANGLEY FIFLD, REPORT NO. NASA WP-1012, MARCH, 1961.

STARK, M.C., "PICTCRIAL DATA PROCESSING," NATIONAL BUREAU CF STANDARDS, NBS-1203 -12-12434, WASHINGTON, D.C., FEBRAURY 1964.

STEVENS, W.A., "MULYICHANNEL DATA COMPRESSION SIMULATION: SPACE PROJECTIONS FROM THE ROCKY MOUNTAIN REGION," PROCFEDINGS OF THE SYMPOSIUM, DENVER, CULORADO, JULY, 1968, VOL. 1, TARZANA, CALIFORNIA, AMERICAN ASTRONAUTICAL SOCIETY, NO. 19, A 69-12814.

STUCKHAM, T.G., "INTRAFRAME ENCODING FOR MONCCHROME IMAGES BY NON-LINEAR FILTER-ING, "FROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

STOCKHAM, T.G., BRITTON, R.L., "APPLICATIONS OF DIGITAL FILTERING TO IMAGE PROCESSING," NEREM RECORD, PP. 116-117, NOVEMBER 1969.

STOCDARD, J.D., "MEASUREMENT OF SECOND-CROER PROBABILITY DISTRIBUTIONS BY DIGITAL MEANS," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 302, JULY, 1955.

STERLS, R.R., "HUMAN FACTORS AND APPEARANCE OF THE MOD II PICTUREPHONE STATION SET," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-17, NO. 2, P. 318, APRIL 1969.

STUKER, W.F., WEBBER, D.S., "PRECISION PROCESSING FOR EARTH RESOURCE SATELLITE IMAGERY," AMERICAN INSTITUTE OF AERONAUTICS AND ASTRCNAUTICS, 1970.

STOVER, W.R., "TIME-DOMAIN PANUWIDTH COMPRESSION SYSTEM," THE JOURNAL OF THE ACCUSTICAL SOCIETY OF AMERICA, VUL. 42, No. 2, Pp. 348-359, AUGUST, 1967.

STRATTON, R.H., GAZLEY, C., "A PHOTOGRAPHIC TECHNIQUE FOR IMAGE ENHANCEME": PSEUDCCOLOR TWO-SEPARATION PROCESS," REPORT NO. R-597-PR, RAND CORPORATION SANIA MONICA, CALIFORNIA, JULY 1971.

STRATION, R.H., GAZLEY, C., "PSEUDOCULOR IMAGE ENHANCEMENT BY A TWO-SEPARATION PHLTOGRAPHIC PRUCESS," RAND CCRPGRATION, SANTA MONICA, CALIF., 15TH ANNUAL TECHNICAL SYMPOSIUM OF THE SOCIETY OF PHUTO-CPTICAL INSTURMENTATION ENGINEERS, SEPTEMBER 14-17, 1970

STRATTON, R.H., SHEPPARD, J.J., "A PHOTOGRAPHIC TECHNIQUE FOR IMAGE ENHANCEMENT: PSELDCCOLOR THREE-SEPARATION PROCESS," REPURT NO. R-596-PR, RAND CORPORATION, SANIA MONICA, CALIFORNIA, OCTUBER 197).

STRCCKA, D., "COLCR DIFFERENCE FORMULAS AND VISUAL ACCEPTABILITY," APPLIED OPTICS, VOL. 10, NO. 6, P. 1328, JUNE 1971.

STRCKE, G.W., "IMAGE DEBLURRING," HOLOGRAPHY AT THE CROSSROADS, OPTICAL SPECTRA, PP. 31-32, NOVEMBER 1970.

STRCKE, G.W., "IMAGE DEBLURRING AND APERTUPE SYNTHESIS USING A POSTERIORI PROCESSING BY FOURIER-TRANSFORM HOLOGRAPHY," OPTICA ACTA, VOL. 16, NO. 4, 1969,

PP. 401-422.

STROKE, G.W., MA NEW HCLOGRAPHIC METHOD FOR A POSTERIORI IMAGE-DEBLURRING RESTORATION OF ORDINARY PHOTOGRAPHS USING 'EXTENDED-SOURCE' LENSLESS FOURIER-TRANSFORM HGLOGRAPHY COMPENSATION, PHYSICS LETTERS, VOL. 27A, NO. 7, AUGUST 26, 196E, PP. 405-406.

STRCKE, G.W., FURRER, F., LAMBERTY, D.R., "DEBLURRING OF MCTION-BLURRED PHCTOGRAPHS USING EXTENDED-RANGE HOLOGRAPHIC FOURIER-TRANSFORM DIVISION, CPTICS COMMUNICATIONS, VOL. 1, NO. 3, JULY-AUGUST 1969, PP. 141-145.

STRCKE, G.W., GROH, G., "INFORMATION RETRIEVAL FROM CODEC IMAGES FORMED BY GEN-ERALIZED IMAGING SYSTEMS," OPTICS COMMUNICATION, VUL. 1, NO. 7, PP. 339-40, FEBRUARY. 1970.

STRCKE, G.W., HALIOUA, M., "A NEW HOLOGRAPHIC IMAGE DEBLURRING METHOD," PHYSICS LETTERS, VOL. 33A, NO. 1, SEPTEMBER 21, 1967, PP. 3-4.

STRCKE, G.W., HALIOUA, M., INDEBETOUN, G., MLASER-LIGHT SPATIAL - CCMAIN SCAN-NING DECONVOLUTION OF BLURRED PHOTOGRAPHS USING THE GENERAL HOLOGRAPHIC DEBLUR-RING FILTER,* PHYSICS LETTERS, VOL. 31A, NU. 6, PP. 341-2, MARCH 23, 1970.

STRCKE, G.W., HALICUA, M., SAFFIR, A.J., EVINS, D.J., "HIGH-RESOLUTION ENHANCEMENT IN SCANNING ELECTRON MICROSCOPY BY A POSTERIURI HOLOGRAPHIC IMAGE PROCESSING, " PROCEEDINGS OF THE FOURTH ANNUAL SCANNING ELECTRON MICROSCOPE SYMPOSIUM, 11T RESEARCH INSTITUTE, CHICAGO, ILLINGIS, APRIL 1971, PP. 57-64.

STRCKE, G.W., PUECH, C.P., "SINGLE-FOCUS IMAGES RESTORED FROM CONVENTIONALLY RECORDED SUPERPOSED CODED MULTI-FOCUS PHOTOGRAPHS," CPTICS COMMUNICATION, VOL. 1 NC. 5. NOVEMBER-DECEMBER 1969. PP. 223-226.

STUCKI, P., "GENERATION OF GREY TONES BY COMPUTER FOR SIMULATION OF VISUAL IN-FORMATION SYSTEMS." IEEE TRANSACTIONS ON COMPUTERS, VOL. C-18, NO. 7, P. 642. JULY 1969.

STULLER, J.A., "AN ALGEBRAIC APPROACH TO IMAGE RESTURATION FILTER DESIGNE" UNIVERSITY OF NEW BRUNSWICK, CANADA, UCTOBER 1971.

STULTZ, K.F., ZWEIG, H.J., "ROLES OF SHARPNESS AND GRAININESS IN PHOTOGRAPHIC QUALITY AND DEFINITION," JOURNAL OF THE UPTICAL SOCIETY OF AMERICA, VOL. 52, PP. 45-50, 1962.

STUPPE. J.W., "RECUNDANCY REDUCTION TECHNIQUES AND APPLICATIONS," TELECOMMUNI-CATIONS, VOL. 1, NG. 2, PP. T39-T43, OCTOBER 1967, ALSO, NATIONAL TELEMETERING CONFERENCE PROCEEDINGS, PP. 53-56, SAN FRANCISCO, CALIFORNIA, MAY 1967.

SWERLING, P., "STATISTICAL PROPERTIES OF THE CONTCURS OF RANCOM SURFACES," IRE TRANSACTIONS UN INFORMATION THEORY, VOL. IT-8, NO. 3, PP. 315-321; JULY, 1962.

SWINDELL, W., "A NONCCHERENT OPTICAL ANALOG IMAGE PROCESSOR." APPLIED OPTICS. VOL. 9, NO. 11, P. 2459, NOVEMBER 1970.

SWENGER, C.W., CHAO, F.J., "COMPUTING TECHNIQUES FOR CORRECTION OF BLURRED OBJECTS IN PHOTOGRAPHS." EVALUATION UF MOTION-DEGRADED IMAGES. NASA SEMINAR, CAMERIDGE, MASSACHUSETTS, DECEMBER 1968, PP. 149-159.

TAKAGI, M., "CELL DIAGNOSIS-PROBLEMS IN IMAGE PROCESSING FOR MEDICINE," THE

JCURNAL OF THE JAPAN MEDICAL ASSOCIATION, VOL. 66, NC. 6, FP. 645-648, SEPTEMBER

15. 1971.

Sec. 3

TAKAGI, M., "INPUT AND OUTPUT EQUIPMENTS FOR IMAGE PROCESSING," FIFTH IBM COMPUTER SCIENCE SYMPOSIUM, SECTION A-3, UCTOBER 9, 1971.

TAKAGI, N., KAIHARA, S., IISAKA, J., "A BASIC RESEARCH ON EIGMEDICAL IMAGE PROCESSING," THE PROCEEDINGS OF THE 9TH CUNVENTION OF THE JAPANESE SOCIETY OF MEDICAL AND BIOLOGICAL ENGINEERING, SECTION D-22, APRIL 1970.

TAKAGI, M., KAIHARA, S., IISAKA, J., "PRINCIPLE OF IMAGE PROCESSING," IMAGE PROCESSING FOR MEDICINE ()), THE JOURNAL OF CLINICAL SCIENCE, SECTION 6.8, Pp. 924-929, JULY 1970.

TAKAGI, M., MARHARA, S., MASUMOTO, T., "A RESEARCH ON THE CLASSIFICATION OF WHITE BLOOD OFFLES BY COMPUTER," THE PROCEEDINGS OF THE 1CTH CONVENTION OF THE JAPANESE SOCIETY OF MEDICAL AND BIOLOGICAL ENGINEERING, SECTION 1-3-1, APRIL 1971.

TAXAGI, M., KAIHARA, S., MASUMOTO, T., MA STUDY ON BIOMECICAL IMAGE PROCESSING, THE RECORD OF THE PROFESSIONAL GROUPS OF THE INSTITUTE OF ELECTRONICS AND COMPUNICATION ENGINEERS, VOL. IT 70-10, MAY 1970.

TAKAGI, M., MASUMOTO, T., MAUTOMATIC MEASUREMENT OF CHROMOSOMES," THE PROCEEDINGS OF THE NATIONAL CONVENTION OF THE INSTITUTE OF ELECTRONICS AND COMPUNICATIONS ENGINEERS, VOL. 149, AUGUST 1970.

TAKAGI, M., TAKAHASHI, M., "EQUIPMENTS FOR IMAGE PROCESSING," IMAGE PROCESSING FOR MEDICINE (2), THE JOURNAL OF CLINICAL SCIENCE, SECTION 6.8, PP. 1064-1069, AUGUST 1970.

TAKAGI, M., TAMAI, S., "FACSIMILE FOR ULTRASCRIC FLAW INSPECTION," THE JOURNAL OF THE JAPANESE SOCIETY FOR NUMBER TRUCTIVE INSPECTION, VOL. 20, NO. 2, P. 100, FEBRUARY 1971.

TALLMAN, O.H., "THE CLASSIFICATION OF VISUAL IMAGES BY SPATIAL FILTERING," AIR FURCE INSTITUTE OF TECHNOLOGY, SCHOOL OF ENGINEERING, WRIGHT-PATTERSON AFB. CHIC. 93 P., JUNE 1969.

TASTO, M., WINTZ, P., "PICTURE BANDWIDTH COMPRESSION BY ADAPTIVE BLCCK GUANTIZATION," PURDUE UNIVERSITY, TR-EE-70-14, LAFAYETIE, INDIANA, JULY 1970.

TEACHER, C.F., "DIGITAL TELEVISION TECHNIQUES," NATIONAL COMMUNICATIONS SYMPOSIUM, OCTOBER 1964.

TEER, K., MINVESTIGATIONS INTO REDUNDANCY AND POSSIBLE BANCHIDTH COMPRESSION IN TELEVISION TRANSMISSION, PHILLIPS RESEARCH REPORTS, VOL. 15, PP. 30-96, FEBRUARY 1960.

THEILE, R., MCCMPATIBLE COLOR TRANSMISSION AND EUROPEAN MUDULATION METHODS, MITTER SPECTRUM, VOLUME 3, NO. 6, PP. 60-69, JUNE 1966.

THIRY, H., "SOME QUALITATIVE AND QUARTITATIVE RESULTS ON SPATIAL FILTERING OF GRANULARITY," APPLIED CPTICS, VOL 3, NO. 1, PP. 39-45, JANUARY 1964.

THEMAS, J.P., MBRIGHTNESS VARIATIONS IN STIMULI WITH RAMP-LIKE CONTIURS, M JUNE-CIAL UF THE OPTICAL SUCIETY OF AMERICA, VOL. 56, FEBRUARY 1966, PP. 238-241.

THOMPSON: J.E., SPARKES: J.J., MA PSEUDC-RAMDOM QUANTIZER FOR TELEVISION SIGNALS, PRICEDINGS OF THE IEEE, VOL. 55, NC. 3, PP. 353-355, MARCH 1967.

TIPPETT, J.T., ET. AL., "UPTICAL AND ELECTRU-OPTICAL INFORMATION PROCESSING," CAMERIDGE, MASSACHUSETTS, M.I.T. PRESS, 1965.

The state of the state of

TOBIAS, P.R., SITTON, G.A., "PRELIMINARY INVESTIGATION OF THE COMPUTER SYNTHE-SIS OF SPECTRAL FILTER MASKS," IBM PUBLICATION NO. 320.2411, FEBRUARY 1, 1971.

TCRALCO DI FRANCIA, G., "DEGREES UF FREEDOM CF AN IMAGE," JULRNAL OF THE OPTICAL SOCIETY UF AMERICA, VOL. 59, NO. 7, PP. 799-804, JULY 1969.

TORALDO DI FRANCIA, G., "SUPER-GAIN ANTENNAS AND OPTICAL RESCLVING PUWER," MATHEMATICAL THEORY OF OPTICS, NO. 3, 1944, PP. 391-438,

TCU, J.T., "ENGINEERING PRINCIPLES OF PATERN RECOGNITION," ADVANCES IN INFORMATION SYSTEMS SCIENCE, VOL. 1, NEW YORK, PLENIUM, 1969.

TRANKA, E.A., ROETLING, P.G., "IMAGE TRANSFURMATIONS FOR PATTERN RECUGNITION USING INCOHERENT ILLUMINATION AND BIPOLAR APERTURE MASKS," JCURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 54, NO. 10, PP. 1242-1252, CCTOBER 1964.

TREITEL, S., SHANKS, J.L., "THE DESIGN OF MULTISTAGE SEPARABLE PLANAR FILTERS, "
IEEE TRANSACTICS CN GEOSCIENCE AND ELECTRONICS, VOL. GE-9, PP. 10-27, JANUARY
1971.

TRETIAK, O.J., "THE PICTURE SAMPLING PROCESS," MIT, SC.D THESIS, CAMBRIDGE, MASSACHUSETTS, JUNE 1963.

TREUMAFT, M.A., "DESCRIPTION OF A SYSTEM FOR TRANSMISSION OF LINE DRAWINGS WITH BANCWIDTH-TIME COMPRESSION," POLYTECHNIC INSTITUTE OF BROOKLYN, MICROWAVE RESEARCH INSTITUTE, NEW YORK, REPORT NO. R 339-53, SEPTEMBER 1953.

TRCTT, T., "THE EFFECT OF MOTION ON RESOLUTION," PHOTOGRAMMETRIC ENGINEER, VOL. 26, PP. 819-827, 1960.

TROXEL, D.E., SCHREIBER, W.E., SERTZ, C.L., "WIREPHUTO STANDARDS CONVERTER," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOLUME COM-17, NO. 5, PP. 544-554 GCTCBER 1969.

TSUJINCHI, J., "CORRECTIONS OF OPTICAL IMAGES BY COMPENSATION OF ABERRATIONS AND BY SPATIAL FREQUENCY FILTERING," IN PROGRESS IN UPTICS, VOL. 2, AMSTERDAM, NE-THERLANDS, NORTH-HOLLAND, 1963.

TSUKKERMAN, I.I., "THE TRANSMISSION OF THE CCORDINATES OF A TELEVISED IMAGE," RACID ENGINEERING, VOL. 13, NO. 4, JULY 1958, PP. 93-105.

TSYBAKOV, G.S., "PROBLEMS OF LINEAR ENCCOING OF A MOVING IMAGE," JUINT PUBLICATIONS SERVICE, WASHINGTON, D.C., VOL. 3, JUNE 1967, Pp. 163-18C.

TUNSTALL, B., "SYNTHESIS OF DIGITAL COMPRESSION CODES," PROCEEDINGS OF THE HAWAII INTERNATIONAL CONFERENCE, HONOLULU, 1968.

TURNER, L.E., "A SYSTEM FOR THE AUTOMATIC RECOGNITION OF MCVING FATTERNS,"
IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-12, PP. 155-205, APRIL 1966.

TZANNES, N.S., SARANTAKIS, A.J., FARK, E.H., MENTROPY AND CATA CCMPRESSION, MIEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-16, NO. 1, PP. 74-75, JANUARY 1970.

VAGIN, YU., V., MON ALGORITHMIZATION OF THE IMP & RECOGNITION PROCESS, TRANS-

LATED INTO ENGLISH OF RUSSIAN PUBLICATION, AUTOMATICHESKOE, MOSCOW, PP. 81-85, 1967.

VAIUSTTEIN, V.S., "ALGCRITHM FOR ISULATING IMAGE CHARACTERISTICS," AIR FCRCE SYSTEMS COMMANDS, WRIGHT-PATTERSUN AIR FURCE BASE, OHIO, 12 P., NOVEMBER 1968.

VAN BLERKCM, R., FREEMAN, D.G., LAND, W.H., ROEHR, K.M., "A RESEARCH STUCY OF IMPROVED COUING FOR MILITARY DIGITAL TELEVISION," INTERNATIONAL BUSINESS MACHINES CORPURATION, REPORT NO. 2, AD 277 020, JUNE 1962.

VAN BLERKOM, R., SCHWARZ, G.R., WARD, R.J., "AN ADAPTIVE COMPOSITE DATA COMPRESSION ALGORITHM WITH RECUCED COMPUTATION REQUIREMENTS," NATIONAL TELEMETERING CLAFERENCE PROCEEDINGS, HOUSTON, TEXAS, PP. 90-55, APRIL 1968.

VAN DE WEG, H., "QUAN) IZATION NOISE AT A SINGLE INTERGRATION CELTA MUCULATION SYSTEM WITH AN N-DIGIT CODE," PHILIPS RESEARCH REPORT, VCL. 8, 1953.

VANCER LUGT, A.B., "SIGNAL DETECTION BY COMPLEX SPATIAL FILTERING," TRANSACTIONS OF THE IEEE, VOL. IT-10, PP. 139-145, APRIL 1764.

VANCER LUGT, A., MITCHEL, K.H., "TECHNIQUE FOR MEASURING MCDULATION TRANSFER FUNCTIONS OF RECURDING MEDIA," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 3, MARCH 1967, PP. 372-380.

VANDER LUGT, A. RCTZ, F.B., "THE USE OF FILM NONLINEARITIES IN OPTICAL SPATIAL FILTERING," APPLIED OPTICS, VOL. 9, NO. 1, P. 215, JANUARY 1970.

VANDER LUGT, A., RCTZ, F.B., KLOUSTER, A., "CHARACTER-READING BY OPTICAL SPATIAL FILTERING," OFTICAL AND ELECTRO-CPTICAL INFURMATION PROCESSING, MASSACHUSETTS INSTITUTE OF TECHNOLOGY PRESS, CAMBRIDGE, MASSACHUSETTS, 1965.

VAN MEETEREN, A., "SPATIAL SINE-WAVE RESPONSE OF THE VISUAL SYSTEM: A CRITICAL SURVEY," AU 488234, 1968.

VAN MEETEREN, A., WAGENAAR, W.A., "DISCRIMINATION AND IDENTIFICATION IN NOISY LINE-SCAN PICTURES," INSTITUTE FOR PERCEPTION TVO-INC, SCESTERBERG, NEIHERLANDS, 1967, 26 P.

VARSOS, S.G., NURVELL, B., "DATEC-DIGITAL ALAPTIVE TECHNIQUE FCR EFFICIENT CUMMUNICATIONS," IEEE INTERNATIONAL CONVENTION RECURD 1964, PART 6, SECTION 435-445.

VASNIK, V.V., "TEACHING IMAGE RECOGNITION TO MACHINES BY THE METHOD OF GENERALIZED PURTRAITS," SELF-ADAPTIVE SYSTEMS, IMAGE RECOGNITION, RELAY SYSTEMS AND FINITE AUTOMATURS, ALL-UNION CONFERENCE ON AUTOMATIC CONTROL, ENGINFERING CYBERNETICS, SEPTEMBER 20-26, 1965.

VESPER, R.M., HOSENZWEIG, D.N., "SAMPLEC IMAGE LABORATORIES AND FACILITIES," A SYMPISIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CCRPURATION, OPTICAL GROUP, NCRWALK, CONNECTICUT, 1971, PP. 10-1 TG 10-8.

VIDAL, J.J., KCLUDJIAN, G.H., MEVALUATION OF FLYING SPOT SCANNERS AS IMAGE PRO-CESSING DEVICES, SOCIETY OF PHUTO-OPTICAL INSTRUMENTATION ENGINEERS, SEMINAR-IN-CEPTH, SOUTH FALLSBURG, NEW YORK, PP. 117-124, APRIL 28-29, 1969.

VIERI, B.J., MEXPERIMENTS WITH A SCHEME OF DATA REDUCTION FOR TELEVISION SIGNALS, MPH.D. THESIS, UNIVERSITY OF LONDON, LONDON, ENGLAND, JANUARY 1966.

VIGILIONE, S.S., "APPLICATIONS OF PATTERN RECOGNITION TECHNOLOGY," MATHEMATICS IN SCIENCE AND ENGINEERING, VOL. 66, Pp. 115-162, 1977.

VIGLIONE, S.S., "PATTERN RECOGNITION SYSTEMS," SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, SEMIANNUAL TECHNICAL COMPERENCE AND EQUIPMENT EXHIBIT, LCS ANGELES, CALIFORNIA, 12 P., OCTOBER 2-7, 1966.

The state of the s

VCELCKER, H.B., "NOTES ON A CLASS OF COMPRESSION SCHEMES," IMPERIAL COLLEGE OF LONDON, DEPARTMENT OF ELECTRICAL ENGINEERING, REPORT, MARCH 1959.

VCURGOURAKIS, E.J., "PHOTOGRAPHIC EMULSION AS A TIME INTEGRATOR," UNIVERSITY OF CALIFCRNIA, DEPARTMENT OF ENGINEERING, NASA-GSFC, GRANT NO. 5-10167, LOS ANGELES CALIFCRNIA, 1970.

VCYNAHTEYN, G.G., LEBEDEV, D.S., YAROSLAVSKY, L.P., "IMPROVEMENT OF IMAGE QUALITY BY COMPUTER," JOURNAL OF THE ACADEMY OF SCIENCE USSR, VOL. 39, NO. 3, MARCH 1969.

PROGRAMS," PROCEEDINGS OF THE IEEE, VOL. 54, NO. 11, PP. 1576-1577, NOVEMBER, 1564.

WALLACE, P.R., *REDUNDANCY REMOVAL TECHNIQUES FOR COMPRESSION OF TELEMETRY DATA, ** AIRBORNE INSTRUMENTATION AND DATA TRANSMISSION RESEARCH AT MARSHALL SPACE FLIGHT CENTER, RESEARCH ACHIEVEMENTS REVIEW, VCL. III, REPORT NO. 1, NASA TECHNICAL MEMORANDUM, NASA TMS-53760, PP. 27-47, 1968.

WALLACE: PORO, SEYLER, A.J., "ACQUISITION AND RECORDING OF EXPERIMENTAL DATA FOR COMPUTER EVALUATION OF TELEVISION SIGNAL STATISTICS," IRE, AUSTRALIA, RADIO AND ELECTRONICS ENGINEERING CONVENTION, MARCH 22-26, 1965.

WALLACE, P.R., SEYLER, A.J., MACQUISITION OF STATISTICAL DATA OF TELEVISION SIGNALS, PROCEEDINGS OF THE IRE, AUSTRALIA, NOVEMBER 1965, Pp. 343-354.

WALLINGFORD, E.E., ALLESLEY, I., WILSON, J.H., HENRY, W.G., "SIMPLE DATA COMPRESSION BY REDUNDANCY REPLACEMENT," IEEE TRANSACTIONS ON INFORMATION THOERY, VOLUME IT-17, NO. 4, PP. 500-503, JULY 1971.

WALLKIEWICZ, S.. FEFFECTIVE ALGORITHMS OF IMAGE RECOGNITION, INSTYTUT AUTO-MATYKI, PRACE, IN POLISH, NO. 78, Pp. 27-46, 1969.

WATANABE, S., *FEATURE COMPRESSION,* IN ADVANCES IN INFORMATION SYSTEMS SCIENCE, VCL. 3, NEW YORK, PLENIUM, 1970.

WATANABE, S., "THE LOEVE-KARHUNEN EXPANSION AS A MEAS OF INFORMATION COMPRESSION FOR CLASSIFICATION OF CONTINUOUS SIGNALS," AMRL-TR-65-114, FORT KNCX, KENTUCKY, OCTOBER 1965.

WAY, J.L., "ANALOG TO DIGITAL CONVERSION OF TV DATA FOR A MARS MISSION," INTER-NATIONAL SPACE ELECTRONICS SYMPOSIUM, LAS VEGAS, NEVADA, OCTOBER 6-9, 1964.

WEAVER, C.S.; RAMSY, S.D., GOODMAN, J.W., ROSIE, A.H., "THE OPTICAL CONVOLUTION OF TIME FUNCTIONS," APPLIED OPTICS, VOL. 9, Pp. 1672-1682, JULY 1970.

WEAVER, L.E., "THE QUALITY RATING OF COLOR TELEVISION PICTURES," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 77, NO. 6, PP. 610-612, 1960.

WEAVER, L.E., "SUBJECTIVE IMPAIRMENT OF TELEVISION PICTURES," ELECTRICAL AND RADIO ENGINEERING, VOL. 36, PP. 170-179, MAY 1959.

WEBER, D.R., "DATA COMPRESSION FOR DEEP SPACE COMMUNICATIONS," INTERNATIONAL CONFERENCE ON COMMUNICATIONS, PHILADELPHIA, PENNSYLVANIA, VOL. 4, PP. 604-608, June 1968.

The second section of the second seco

- And the market of the same o

WEBER, D.R., "SUME ECUNOMIC FACTORS IN THE APPLICATION OF DATA COMPRESSION," NATIONAL TELEMETERING CONFERENCE, SAN FRANCISCO, CALIFORNIA, PP. 65-69, MAY 1967 PROCEEDINGS.

WEBER, D.R., "A SYNOPSIS ON DATA COMPRESSION," LOCKHEED MISSILES AND SPACE CCMPANY, PP. 9-15, APRIL 13, 1965, NATIONAL TELEMETERING CONFERENCE, HOUSTON, TEXAS.

WEBER, D.R., WYNHOFF, F.J., "THE CONCEPT OF SELF-ADAPTIVE DATA COMPRESSION," PROCEEDINGS NATIONAL SYMPUSIUM ON SPACE ELECTRONICS AND TELEMETRY, 1962.

WEBER, D.R., WYNHOFF, F.J., HIGUCHI, P.K., "REDUNDANCY DATA ANALYSIS STUDY?" PACKARD BELL CCMPUTER CORPORATION, LOS ANGELES, CALIFORNIA, PBC-4121, MARCH 1962.

WEINSTEIN, G.G., "SPATIAL FILTERING OF IMAGES: PHOTOGRAPHIC SYSTEMS," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, Vol. 2, 1970.

WEISS, E., "COMPRESSION AND CODING," IRE TRANSACTIONS ON INFORMATION THEORY, VCL. IT-8, APRIL 1962.

WEISS, H., "SIGNIFICANCE OF SOME RECEIVER ERRORS TO COLOR REPRODUCTION," PRO-CEECINGS OF THE I.R.E., PP. 1389-1388, SEPTEMBER 1954.

WESTHEIMER, G., "IMAGE QUALITY IN THE HUMAN EYE," UPTICA ACTA, VOL. 17, 1977, PP. 641-658.

WHEELER, H.A., LUNGBREN, A.V., "THE FINE STRUCTURE OF TELFVISION IMAGES," PROCEEDINGS OF THE IRE, VOL. 26, NO. 5, PP. 540-575, MAY 1938.

WHELAN, J.W., "DIGITAL TV BANDWIDTH REDUCTION TECHNIQUES AS APPLIED TO SPACE-CRAFT TELEVISION," JOURNAL OF SPACECRAFTS AND ROCKETS, ALAA, VOL. III, NO. 5, PP. 667-673, MAY 1966.

WHELAN, J.W., "DIGITAL VERSUS ANALOG TELEVISION TRANSMISSION FROM SPACECRAFT," IN SPACECRAFT AND SPACE SYSTEMS, CAMBEN, NEW JERSEY, RADIO CORPORATION OF AMERICA, PP. 18-23, 1966.

WHITE, H.E., LIPPMAN, M.D., POWERS, K.H., "DICTIONARY LOCK-UP ENCODING OF GRAPH-ICAL DATA," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GURCON AND BREACH, NEW YORK, PART 4, DECEMBER 1971.

WHOLEY, J.S., "THE CODING OF PICTORIAL CATA," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-7, NO. 2, PP. 99-104, APRIL, 1961.

WICHMAN, T., "CPTIMUM CODING OF PICTURIAL DATA," NINTH NATIONAL COMMUNICATIONS SYMPOSIUM RECORD, PP. 18-27, OCTOBER, 1963.

WILKINS, L.C., WINTZ, P.A., MBIBLIUGRAPHY ON DATA COMPRESSION, PICTURE PROFERTIES, AND PICTURE CODING. FIEEE TRANSACTIONS ON INFORMATION THEORY, VCLUME IT-17, NU. 2, Pp. 180-198, MARCH 1971.

WILKINS. L.C., WINTZ, P.A., "A CONTOUR TRACING ALGORITHM FOR DATA COMPRESSION FOR THO DIMENSIONAL DATA," TECHNICAL REPORT NO. TR-FE69-3, PURGUE UNIVERSITY SCHOOL OF ELECTRICAL ENGINEERING, LAFAYETTE, INDIANA, JANUARY 1969.

WILKINS, L.C., HINTZ, P.A., "IMAGE CODING BY CODING CONTCURS," PROCEECINGS OF THE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, SAN FRANCISCO, CALIF., VCL. 1, PF. 2-22 TC 2-10, 1970.

WILKINS, L.C., WINTZ, P.A., "NTH ORDER OF REDUNDANCY REDUCTION," PROCEFTINGS OF THE 1968 NATIONAL ELECTRONICS CONFERENCE, DECEMBER 1968.

WILMER, M.E., MCDUFFIE, G.E., "THE INFORMATION CONTENT OF THE DIMENSICNAL IMACES," IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1969.

The state of the s

WILSON, G.D., MMODULAR CUMPUTER PROGRAMS FOR IMAGE PROCESSING AND MANIPULATION, MAIR FCRCE CAMBRIDGE RESEARCH LABS, BEDFORD, MASSACHUSETTS, DATA SCIENCES LAB, MAY 1969.

WINKLER, M.R., "HIGH INFURMATION DELTA MODULATION," IEEE INTERNATIONAL CONVEN-TICN RECORD, PART 8, PP. 260-265, 1963.

WINKLER, M.R., "PICTORIAL ENCODING," SYMPOSIUM ON PHOTO-ELECTRONIC IMAGING, WASHINGTON, D.C., OCTOBER-NOVEMBER 1968, PREPRINTS OF PAPER SUMMARIES, SCCIETY OF PHOTOGRAPHIC SCIENTISTS AND ENGINEERS, INCCRPORATED, PP. 3-11.

WINKLER, M.R., MPICTORIAL TRANSMISSION WITH FIDM, M 1965 IEEE INTERNATIONAL CON-VENTION RECORD, PART 1, 1965, PP. 285-291.

WINTRINGHAM, W.T., "COLOR TELEVISION AND COLORIMETRY," PROCEEDINGS OF THE 1.R.E., PP. 1135-1172, OCTOBER, 1951.

WINTZ, P.A., APPLE, G.G., MEXPERIMENTAL PCM SYSTEM EMPLOYING KARHUNEN-LUEVE SAMPLING, M PRESENTED AT THE 1969 INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1969.

WINTZ, P.A., ESSMAN, J.E., "REDUNDANCY REDUCTION OF PICTORIAL INFORMATION," PRESENTED AT THE MIDWESTERN SIMULATION COUNCIL MEETING IN ACVANCED MATHEMATICAL METHODS IN SIMULATION, OAKLAND UNIVERSITY, NOVEMBER 1968.

WINTZ, P.A., GATTIS, J.L., "AUTOMATED TECHNIQUES FOR DATA ANALYSIS AND TRANS-MISSIGN," TR-EE 71-37, SCHOOL OF ELECTRICAL ENGINEERING, PLRCUE UNIVERSITY, LAFAYETTE, INDIANA, AUGUST 1971.

WINTZ, P.A., HABIBI, A., "PICTURE CODING BY LINEAR TRANSFORMATION," PRESENTED AT THE 1970 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, NGORDWIJK, NETHER-LANDS, JUNE 1970.

WINTZ, P.A., HABIBI, A., TASTO, M., "ADAPTIVE AND NONADAPTIVE IMAGE CEDING BY LINEAR TRANSFURMATION AND BLOCK QUANTIZATION," PRESENTED AT THE SYMPOSIUM UN PICTURE CUDING, NORTH CAROLINA STATE UNIVERSITY, RALEIGH, NORTH CAROLINA, SEPT-EMBER 10, 1970.

WINTZ, P.A., PROCTOR, C.W., "PICTURE BANDWIDTH RECUCTION FOR NUISY CHANNELS," TR-EE 71-30, SCHOOL OF ELECTRICAL ENGINEFRING, PURDUE UNIVERSITY, LAFAYETTE, INCIANA, AUGUST 1971.

WINTE, P.A., TASTO, M., "AN ADAPTIVE PICTURE BANDWIDTH COMPRESSION SYSTEM USING PATTERN RECOGNITION TECHNIQUES," PROCEEDINGS OF THE THIRD FAMALL INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, PP. 513-515, JANUARY 1970.

WINTZ, P.A., WILKINS, L.C., MSTUDIES ON DAYA COMPRESSION, PART I: PICTURE CODING BY CONTOURS, PART II: ERROR ANALYSIS OF RUN-LENGTH CCDES, TR-FF 70-17, SCHOOL CF ELECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, SEPTEMBER 1970.

WLNG, E., "TWU-DIMENSICHAL RANCOM FIELDS AND REPRESENTATION OF IMAGES." SIAM JUURNAL OF APPLIED MATHEMATICS, VOL. 16, NO. 4, PP. 756-77C, JULY 1968.

WCOCS, J.W., HUANG, T.S., MPICTURE BANDWIDTH COMPRESSION BY LINEAR TRANSFORMATICK AND BLOCK QUANTIZATION, MPROCEEDINGS OF THE MIT PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

WCOLSON, J.L., HEIDER, C.H., "STUDIES IN IMAGE PROCESSING: A SYSTEMS VIEWPOINT," UNIVERSITY OF ILLINOIS, URBANA, DEPARTMENT OF COMPUTER SCIENCE, FEBRUARY 197).

WRIGHT, E.E., "VELCCITY MODULATION IN TELEVISION," PROCEEDINGS PHYSICAL SOCIETY (LCADON), VOL. 46, PP. 512-514, JULY, 1934.

WYLE, H., ERB, T., BANCW, R., "REDUCED-TIME FACSIMILE TRANSMISSIGN BY DIGITAL CCCING," IRE TRANSACTIONS ON COMMUNICATIONS SYSTEMS, VOL. C5-9, NO. 3, PP. 215-222, SEPTEMBE: 961.

YARCSLAVSKIY, L.P., "PICTURE INPUT-DUTPUT DEVICES FOR DIGITAL COMPUTER," LIBRARY UN AUTOMATICN, ISSUE NC. 313, CHAPTER 3, P. 65, 1970.

YOUNG, 1.T., MOTT-SMITH, J., "ON WEIGHTED POM," LEEF TRANSACTIONS ON INFORMATION THEORY, PP. 596-597, OCTOBER 1965.

YULNG, T.Y., HUGGINS, W.H., MON THE REPRESENTATION OF ELECTROCARDIOGRAMS, I IEEE TRANSACTIONS ON BIC-MEDICAL ENGINEERING, JULY 1963, Pp. 86-95.

YOUNGBLOOD, w.M., "ESTIMATION OF THE CHANNEL CAPACITY REQUIRED FOR PICTURE TRANSMISSION," MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRILGE, MASSACHUSETTS, SC.C. THESIS, 1958.

YL, F.T.S., "IMAGE RESTORATION, UNCERTAINTY, AND INFORMATION," APPLIED OPTICS, VCL. 8, NO. 1, P. 53, JANUARY 1969.

YU, F.T.S., "INFORMATION CHANNEL CAPACITY OF A PHCTOGRAPHIC FILM," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 4, PP. 477-48C, JULY 1977.

ZETTERBERG, L.A., "A CCMPARISON BETWEEN DELTA AND PULSE COCE MODULATION," ERICSSON TECHNOLOGY, VCL. 2, NO. 1, PP. 95-154, 1955.

ZUKERMAN, L.G., "SOME CODING CONCEPTS TO CONSERVE BANDHICIF," NATIONAL TELEMETRY CONFERENCE, LENVER, COLURADO, PP. 138-142, MAY 1959.

ZWEIG, H.J., "AUTUCORRELATION AND GRANULARITY," JOURNAL CPTICAL SOCIETY CF AMERICA, VOL. 46, NO. 10, OCTOBER 1956, PP. 805-820.

SECTION C
CLASSIFICATION BY YEAR OF PUBLICATION

******** ** 1933 ** ******

ा <u>प्रकारणा</u> ज्यानका हो। 🖫

HCETELLING, H., "ANALYSIS OF A CUMPLEX OF STATISTICAL VARIABLES INTO PRINCIPAL COMPONENTS," JOURNAL OF EDUCATIONAL PSYCHOLOGY, VOL. 24, 1533, PP. 417-441, 498-520.

्राच्याः प्राप्तः । , वर्षातः भारतस्त्रस्तु । अस्त्रस्य स्त्रास्त्रः । अस्त्रास्त्रः सम्बद्धाः ।

********* ** 1934 ** *****

BECFORD, L.H., PUCKLE, U.S., "A VELOCITY MIDULATION TELEVISION SYSTEM," JOURNAL UF THE IEE, VCL. 75, 1934, P. 63.

MERTZ, P., GRAY, F., "A THEORY OF SCANNING AND ITS RELATION TO THE CHARACTERISTICS OF THE TRANSMITTED SIGNAL IN TELEPHOTOGRAPHY AND TELEVISIUN." BELL SYSTEMS TECHNICAL JOURNAL, NO. 13, PP. 464-514, 1934.

WRIGHT, E.E., "VELCCITY MUDULATION IN TELFVISION," PROCEEDINGS PHYSICAL SOCIETY (LCADLA), VOL. 46, PP. 512-514, JULY, 1934.

******** ** 1937 ** ******

JESTY, L.C., WINCH, G.T., "TELEVISION IMAGES: AN ANALYSIS OF THEIR ESSENTIAL QUALITIES," TRANSACTIONS OF THE ILLUMINATING ENGINEERING SCCIETY, NC. 2, 1937, Pp. 316-334.

******* ** 1938 ** ******

WHEELER, H.A., LONGBREN, A.V., "THE FINE STRUCTURE OF TELEVISION IMAGES," PROCEEDINGS OF THE IRE, VOL. 26, NO. 5, PP. 547-575, MAY 1938.

********* ** 1940 ** *****

BALCWIN, M.W., "THE SUBJECTIVE SHARPNEST OF SIMULATED TELEVISION IMAGES," HELL SYSTEM TECHNICAL JOURNAL, VOL. 19, PP. 503-587, OCTOBER 1940.

******** ** 1941 ** *****

The second secon

MERTZ, P., "TELEVISION, THE SCANNING PROCESS," PROCEEDINGS OF THE IRE, VCL. 29, NC. 10, OCTUBER 1941, PP. 529-537.

********* ** 1944 ** ******

BYRAM, G.M., "VISUAL ACUITY AND THE PHOTUCHEMISTRY OF THE RETINA," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 34, NO. 12, DECEMBER 1944, Pp. 718-768.

TCRALCO DI FRANCIA, G., "SUPER-GAIN ANTENNAS AND OPTICAL RESOLVING POWER," MATHEMATICAL THEORY OF OPTICS, NO. 3, 1944, PP. 391-438.

******** ** 1948 ** ******

CLIVER, B.M., PIERCE, J.R., SHANNON, C.E., "THE PHILOSOPHY OF PCM," PROCEEDINGS OF THE IRE, VOL. 36, PP. 1324-1331, NOVEMBER 1948.

SCHADE, O.H., "ELECTRO-UPTICAL CHARACTERISTICS OF TELEVISION," RCA REVIEW, VOL. 9, PARTS 1-IV, PP. 5, 245, 490, AND 653, MARCH, JUNE, SEPTEMBER, AND CECEMBER 1946.

******** ** 1950 ** *****

BECFORD, A.V., "MIXED HIGHS IN CULUR TELEVISION," PRUCEECINGS OF THE IRE, SEP-TEMBER 1950, PP. 1003-1009,

DCME, R.B., "FREQUENCY INTERLACE COLOR TV," ELECTRONICS, VOL. 23, SEPTEMBER 1950, P. 70.

MERTZ, P., "PERCEPTION OF TELEVISION RANDOM NOISE," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 54, PP. 8-34, JANUARY 1950.

MERTZ, P., FOWLER, A.D., CHRISTOPHER, H.N., "QUALITY RATING OF TELEVISION IMAGES," PROCEEDINGS OF THE 1RE, VOL. 38, PP. 1269-1283, NOVEMBER 1950.

********* ** 1751 ** ******

The state of the s

BALCWIN, M.W., "SUBJECTIVE SHARPNESS OF ADDITIVE COLOR PICTURES," PROCEFOINGS OF THE IRE, OCTOBER 1951, PP. 1173-1176, VOL. 39.

and the same of th

DCME, R.B., "SPECTRUM UTILIZATION IN COLUR TELEVISIUN," PRCCFEDINGS IRE, VOL. 39, NC. 10, OCTOBER 1951, PP. 1323-1331.

FCWLER, A.D., "LOW FREQUENCY INTERFERENCE IN TELEVISION PICTURES," PROCEEDINGS OF THE IRE, VUL. 39, UCTOBER 1951, PP. 1332-1336.

FCWLER, A.D., "UBSERVER REACTION TO VIDEO CROSSTALK," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 57, 1951, PP. 416-424.

GELCHARK, P.C., HELLYWOOD, J.M., "A NEW TECHNIQUE FOR IMPREVING THE SHARPNESS OF TV PICTURES," PROCEEDINGS OF THE IRE, VOL. 39, NO. 10, OCTOBER 1951, PP. 1314-1322.

GCCCALL, W.M., "TELEVISION BY PULSE CODE MODULATION," BELL SYSTEM TECHNICAL JOURNAL, JANUARY 1951, VOL. 30, PP. 33-49, HCLMDEL, NEW JERSEY.

HAANTJES, J., CE VRIJER, J.W., "FLICKEK IN TELEVISION PICTURES," WIRELESS ENGINEER, VUL. 28, NO. 329, PP. 40-42, FEBRUARY 1951.

HCNNEL, M.A., PRINCE, M.D., "TV IMAGE REPRODUCTION BY USE OF VELOCITY-MODULATION PRINCIPLES," PROCEEDINGS OF THE IRE, VOL. 39, NO. 3, MARCH 1951, PP. 265-268.

JESTY, L.C., PHELP, N.R., "THE EVALUATION OF PICTURE QUALITY WITH SPECIAL REFFRENCE TO TELEVISION SYSTEMS," MARCONI REVIEW, VOL. 14, 1951, PP. 113-156.

LAEMMEL, A.E., "CODING PRUCESSES FOR BANDWIDTH REDUCTION IN PICTURE TRANSMISSION," PREVENDIC INSTITUTE OF BROCKLYN, MICROWAVE RESFARCH INSTITUTE, REPORT R-246-51, AUGUST 1951.

SCHLESINGER, K., "DOT ARRESTING IMPROVES TV PICTURE GUALITY," ELFCTRONICS, VUL. 24, 1951, P. 96.

SMITH, H., "INSTANTANEOUS COMPANDING OF QUANTIZED SICNALS," BELL SYSTEMS TECHNICAL JOURNAL, VOL. 36, PP. 44-48, JANUARY 1951.

WINTRINGHAM, W.T., "COLOR TELEVISION AND COLORIMETRY." PROCEEDINGS OF THE I.R.E., PP. 1135-1172, OCTOBER, 1951.

********* ** 1952 **

CUTLER, C.C., "DIFFERENTIAL QUANTIZATION OF COMMUNICATION SIGNALS," PATENT 2 6C5 361, JULY 1952.

DEJAGER, F., "DELTA MODULATION-A METHOD OF PCM TRANSMISSION USING A 1-UNIT CCCE," PHILIPS RESEARCH REPORT, VOL. 7, PP. 442-466, 1952.

GOURIET, G.G., "DOT INTERLACED TELEVISION," ELECTRONIC ENGINEERING, VOL. 24,

NC. 290, APRIL, 1952, PP. 166-171.

GCURIET, G.G., "A METHOD OF MEASURING TELEVISION PICTURE DETAIL," ELECTRONIC ENGINEERING, VCL. 24, JULY, 1952, Pp. 308-311.

HARRISON, C.W., "EXPERIMENTS WITH LINEAR PREDICTION IN TELEVISION," BFLL SYSTEM TECHNICAL JOURNAL, VOL. 31, NO. 4, JULY, 1952, PP. 746-783.

HUFFMAN, D.A., "A METHOD FOR THE CONSTRUCTION OF MINIMUM-REDUNDANCY CODES," PROCEELINGS OF THE IRE, SEPTEMBER 1952, PP. 1098-1101, VOL. 40.

JESIY, L.C., "TELEVISION AS A COMMUNICATION PROBLEM," PROCEEDINGS OF THE IEE, VOL. 99, PART 3A, NO. 20, 1952, Pp. 761-770.

KRETZMER, E.R., "STATISTICS OF FELEVISION SIGNALS," BELL SYSTEM TECHNICAL JOURNAL, VOL. 31, NO. 4, JULY 1952, PP. 751-763.

LIBCIS, L.J., "A NOVEL METHOD OF CODE MODULATION-DELTA MCDULATION," DADE ELECTRUNICS, VOL. 32, PP. 26-31, JANUARY 1952.

MCILWAIN, K., "REQUISITE COLOR BANDWIDTH FOR SIMULTANEOUS COLOR TELEVISION SYSTEMS," PROCEEDINGS OF THE IRE, AUGUST 1952, Pp. 909-912.

OLIVER, B.M., "EFFICIENT CODING," BELL SYSTEM TECHNICAL JOURNAL, VOL. 31, NO. 4 1952, PP. 724-750.

RITTERMAN, M.B., "AN APPLICATION OF AUTC-CORRELATION THEORY TO THE VIDEO SIGNAL OF TELEVISION," SYLVANIA TECHNOLOGIST, VOL. 5, 1952, P. 70.

SCHOUTEN, J.F., ET.AL., "DELTA MODULATION, A NEW MODULATION SYSTEM FOR TELECOM-MUNICATION," PHILLIPS TECHNICAL REPORT, VOL. 13, NO. 9, MARCH 1952.

********* ** 1953 ** ******

BELL, D.A., "DISCUSSION ON THE IMPACT OF INFORMATION THEORY ON TELEVISION," JCURNAL OF THE BRITISH IRF, VOL. 13, NO. 12, PP. 590-591, DECEMBER 1953.

BELL, D.A., "ECONOMY OF BANDWIDTH IN TELEVISION," BRITISH JOURNAL OF THE IRE, VCL. 13, NO. 9, SEPTEMBER 1953, PP. 447-470.

BINGLEY, F.J., "COLURIMETRY IN COLOR TELEVISION," PROCEEDINGS OF THE 1.R.E., JULY, 1953, PP. 838-851.

BURGETT, M.I., MA SUBJECTIVE STUDY OF COLOR SYNCHRONIZATION PERFORMANCE, PPROCEEDINGS OF THE IRE, VOL. 41, PP. 979-983, AUGUST 1953.

CHERRY, E.C., GUURIET, G.G., "SOME PUSSIBILITIES FOR THE COMPRESSION OF TELEVISION SIGNALS BY RECORDING," PROCEEDINGS OF THE IEE, VOL. 100, PART 3, JANUARY 1953, PP. 9-18.

EMSLIE, A.G., KING, G.W., "SPECTROSCOPY FROM THE POINT OF VIEW OF COMMUNICATION THECRY," JOURNAL OPTICAL SOCIETY OF AMERICA, PART I, "RESOLUTION," VOL. 41, NO. 6, (JUNE, 1951), PP. 405-412, PART II, "LINE WIDTHS," VOL. 43, NO. 8 (AUGUST 1952), PP. 658-663, PART III; "THE AMOUNT OF INFORMATION IN A SPECTRUM," VOL. 43, NO. 8 (AUGUST, 1953), PP. 664-668.

FELLGETT, P., "CONCERNING PHOTOGRAPHIC GRAIN SIGNAL-TO-NOISE RATIO AND INFOR-MATION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 43, NO. 4, APRIL 1953, PP. 271-282.

GOURIET. G.G., "DISCUSSION ON THE IMPACT OF INFORMATION THEORY ON TELEVISION," JEURNAL OF THE BRITISH IRE, VOL. 13, NO. 12, PP. 590-591, DECEMBER 1953.

LCEB, J., "COMMUNICATION THEORY OF TRANSMISSION OF SIMPLE CRAWINGS," CCMMUNICATION THEORY, BUTTERWORTHS SCIENTIFIC PUBLISHER, LCNDGN, PP. 317-327, 1952.

SARAGA, W., "DISCUSSION ON THE IMPACT OF INFORMATION THECKY ON TELEVISION,"
JCURNAL OF THE BRITISH IRE, VOL. 13, NO. 12, PP. 590-591, DECEMBER 1953.

SCHREIBER, W.F., "PROBABILITY DISTRIBUTIONS OF TELEVISION SIGNALS," HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS, PH.D. THESIS, 1953.

TRELHAFT, M.A., "DESCRIPTION OF A SYSTEM FOR TRANSMISSION OF LINE DRAWINGS WITH BANCWIOTH-TIME COMPRESSION," POLY ECHNIC INSTITUTE OF BROOKLYN, MICROWAVE RESEARCH INSTITUTE, NEW YORK, REPORT NO. R 339-53, SEPTEMBER 1953.

VAN DE WEG, H., "QUANTIZATION NOISE AT A SINGLE INTERGRATION DELTA MOCULATION SYSTEM WITH AN N-DIGIT CODE," PHILIPS RESEARCH REPORT, VCL. 8, 1953.

******** ** 1954 **

ATTNEAVE: F., "SOME INFORMATIONAL ASPECTS OF VISUAL PERCEPTION," PSYCHOLOGY REVIEW. NO. 61, 1954, Pr. 183-193.

BREWER, W.L., LADD, J.H., PINNEY, J.E., "GRIGHTNESS MODIFICATION PROPOSALS FOR TELEVISING CULOR FILM," PROCEEDINGS OF THE IRE, JANUARY 1954, PP. 174-191.

BURR, R.P., "THE USE OF ELECTRONIC MASKING IN COLOR TELEVISION," PROCEEDINGS OF THE IRE, JANUARY 1954, PP. 192-200.

COLIMAN, J.W., "THE SPECIFICATION OF IMAGE PROPERTIES BY RESPONSE TO A SINE WAVE INPUT," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 44, JUNE 1954, PP. 468-471.

HAANTJES, J., TEER, K., "MULTIPLEX TELEVISION TRANSMISSION: SUBCARRIER AND DOT INTERLACE SYSTEMS," WIRELESS ENGINEER, PART I, VOL. 31, SEPTEMBER 1954, PP. 225-233, PART II, VOL. 31, OCTOBER, 1954, PP. 266-273.

LCUGHREN, A.V., "PSYCHOPHYSICAL AND ELECTRICAL FOUNDATIONS OF COLOR TELEVISION," PROCEEDINGS OF THE IRE, VOL. 42, PP. 9-11, JANUARY 1954.

WEISS, H., MSIGNIFICANCE OF SOME RECEIVER ERRORS TO COLOR REPRODUCTION, PRO-CEECINGS OF THE I.R.E., PP. 1387-1388, SEPTEMBER 1954. ******** ** 1955 ** ******

CAPEN, J., "BOUNDS TO THE ENTROPY OF TELEVISION SIGNALS," MIT RESEARCH LAB-ORATORY OF ELECTRONICS, REPORT NO. 296, MAY 1955.

CUTLER, C.C., "QUANTIZED TRANSMISSION WITH VARIABLE QUANTA," U.S. PATENT 2 724 742, NOVEMBER 22, 1955.

DEUTSCH, S., "A REQUCEC-BANDWIDTH TELEVISION SYSTEM," POLYTECHNIC INSTITUTE OF BROOKLYN, MICROWAVE RESEARCH INSTITUTE, REPORT R-425-55, JUNE 1955.

DEUTSCH, S., LAEMMEL, A.E., "A TECHNIQUE FOR INCREASING TRANSMISSION SPFFO," PCLYTECHNIC INSTITUTE OF BROOKLYN, MICROMANE RESEARCH INSTITUTE, REPORT R-443-55, SEPTEMBER 1955.

DINEEN, G.P., "PROGRAMMING PATTERN RECOGNITION," PROCEEDINGS WESTERN JOINT COMPUTER CONFERENCE, 1955.

ELIAS, P. "PRECICTIVE CODING," IRF TRANSACTIONS UN INFORMATION THEORY, VOL. 17-1 NC. 1, MARCH, 1955, PP. 16-33.

KOVASZNAY, L.S.G., JOSEPH, H.M., "IMAGE PROCESSING," PROCEEDINGS OF THE IRF, VCL. 43, PP. 560-57C, 1955.

MAURICE, R.D.A., GILBERT, M., NEWELL, F.G., SPENCER, J.G., "THE VISIBILITY OF NCISE IN TELEVISION," BRITISH BRUADCASTING CURPORATION, LONGUN, ENGLAND, MONC. 3, UCTOBER 1955.

QUASTLER, H., ET AL., "HUMAN PERFORMANCE IN INFORMATION TRANSMISSION," UNIVER-SITY OF ILLINOIS, CONTROL SYSTEMS LABORATORY, REPORT NO. 62, MARCH 1953.

SCHADE, U.H., "IMAGE GRADATION, GRAININESS, AND SHARPNESS IN TELEVISION AND MOTION PICTURE SYSTEMS," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, PART I, VUL. 56, 1951, PP. 131-171; PAPT II, VOL. 58, 1952, PP. 181-222; PART III, VOL. 61, 1953, PP. 97-164; PART IV, VOL. 64, 1955, PP. 593-61?"

SEYLER- 4.J.: "BANDWIDTH REDUCTION IN TELEVISION RELAYING," PROCEEDINGS OF THE IRE AUSTRALIA, PART 1, JULY 1955, PP. 218-225; PART 2, AUGUST 1955, PP. 261-276.

STOCUARD, J.D., "MEASUREMENT OF SECOND-CRUER PROBABILITY DISTRIBUTIONS BY DIGITAL MEANS," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 302, JULY, 1955.

ZETTERBERG, L.A., "A COMPARISON BETWEEN OFLTA AND PULSE CUCE MODULATION," ERICSSON TECHNOLOGY, VOL. 2, NO. 1, PP. 95-154, 1955.

********* ** 1956 ** *****

BALLWIN, M. 70, NIELSEN, G., "SUBJECTIVE SHARPNESS OF SIMULATED COLOR TELE-VISION PICTURES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 46, NO. 9, SEPTEMBER 1956, PP. 681-685. BELL, D.A., SWANN, G.E.D., "SPECTRUM OF TELEVISION SIGNALS," WIRELESS ENGINEER, VCL. 33, NO. 11, NOVEMBER 1956, PP. 253-256.

DEUTSCH, S., "THE POSSIBILITIES OF REDUCED TELEVISION BANDWIDTH," IRE TRANS-ACTIONS ON BRUADCAST AND TELEVISION RECEIVERS, VUL. BTR-2, NC. 3, OCTOBER 1956, PP. 65-82.

EVANS, R.M., "SHARPNESS AND CONTRAST IN PROJECTED PICTURES," SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS CONVENTION. LOS ANGELES, OCTOBER 1956.

GLCVAZKY, A., "DETERMINATION OF RECUNDANCIES IN A SET OF PATTERNS," I LEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, NO. 4, DECEMBER 1956, PP. 151-153

GOURIET, G.G., "BANDWIDTH REDUCTION IN RELATION TO TELEVISION," BRITISH COMPUNICATIONS AND ELECTRONICS, VOL. 3, 1956, PP. 424-429.

GCURIET, G.G., "BANDWIDTH REDUCTION IN TELEVISION," E.B.U. BULLEVIN, NO. 7, 1956, P. 15.

KRAMER, H.P., MATHEWS, M.V.; "A LINEAR CUCING FCR TRANSMITTING A SET OF CURRELATED VARIABLES," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, SEPTEMBER 1956, PP. 41-46.

KRETZMER, E.R., "REDUCED ALPHABET REPRESENTATION OF TV SIGNALS," IRE CONVENTION RECERC. PART 4. 1956, PP. 149-147.

LCRC, A.V., "SOME PROBLEMS IN A BAND-SHARING COLOUR TELEVISION SYSTEM," JOURNAL OF THE TELEVISION SOCIETY, VOL. 8, 1956, P. 131.

NOVIK, D.A., "A METHOD FOR NARROWING THE FREQUENCY BAND OF A TELEVISION SIGNAL," ZH. TEKH, FIZ, IN RUSSIAN, APRIL 1956.

NCVIK, D.A., "INCREASING THE EFFICIENCY OF TRANSMISSION OF TELEVISION SIGNAL," RADIOTEKHNIKA I ELEKTRONIKA, SEPTEMBER 1956.

G'NEILL, E.L., "SPATIAL FILTERING IN OPTICS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-2, NO. 2, JUNE 1956, Pp. 56-65.

QUASTLER, H., "STUDIES OF HUMAN CHANNEL CAPACITY," INFORMATION THEORY: THIRD LUNDON SYMPOSIUM, E.C. CHERRY, ED. LONDON: BUTTERWORTH SCIENTIFIC PUBLICATIONS, PP. 361-371, 1950.

SCHAUE, O.H., "OPTICAL AND PHOTOELECTRIC ANALOG OF THE FYE," JOURNAL OF THE UPTICAL SUCIETY OF AMERICA, VOL. 46, SEPTEMBER 1956, PP. 721-739.

SCHECIBER, W.F., "THE MEASUREMENT OF THISO URDER PROBABLILTY DISTRIBUTION OF TELEVISION SIGNALS," IRE TRANSACTIONS ON INFORMATION THEORY, VUL. IT-2, NO. 3, SEPTEMBER 1956, PP. 94-105.

ZWEIG, H.J., "AUTCCURRELATION AND CRANULARITY," JUURNAL OPTICAL SOCIETY OF AMERICA, VOL. 46, NO. 10, OCTOBER 1956, PP. 805-820.

******** ** 1957 ** ******

THE PERSON OF TH

BEDCOES, M.P., "A VARIABLE-VELOCITY MAGNETIC SCANNING PROCESS," IEE MONOGRAPH, NC. 241R, PART C, JUNE 1957.

BILLARD, P., BOUTRY, G.A., "VISIBILITY OF RECURRENT STRUCTURES IN INTERLACED TELEVISION," ACTA ELECTRONICA, VOL. 2, PARTS 1 AND 2, 1957-1958, PP. 62-70.

BCWERS, F.K., "WHAT USE IS DELTA MODULATIONS TO THE TRANSMISSION ENGINEER?" PROCEEDINGS OF THE AIEE, VGL. 76, PT. 1, PP. 142-147, MAY 1957.

CAHN, L., ET AL., "EXPERIMENTS IN PROCESSING PICTORIAL INFORMATION WITH A DIGITAL CUMPUTER," PROCEEDINGS EASTERN JOINT COMPUTER CONFERENCE, 1957, PP. 221-229.

DEUTSCH, S., "A NCTE CN SOME STATISTICS CONCERNING TYPEHRITTEN OR PRINTED MATERIAL," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-3, PP. 147-148, JUNE 1957.

FINK, D.G., "TELEVISION ENGINEERING HANDBOOK," MCGRAW-HILL, NEW YORK, 1957.

GCURIET, G.G., "HANDWIDTH CUMPRESSION OF A TELEVISION SIGNAL," PROCEEDINGS OF THE IEEE, VUL. 104, PART B, NO. 15, MAY 1957, PP. 265-272.

KIRSCH, R.A., CAHN, L., RAY, L.C., URBAN, G.H., "EXPERIMENTS IN PROCESSING PICTURIAL INFORMATION WITH A DIGITAL CUMPUTER," PROCEEDINGS OF THE ENGINEERING JOINT COMPUTER CONFERENCE, VCL. 10, PP. 221-229, DECEMBER 1957.

KCRFEL, A., "RELATIONSHIP BETWEEN AUTO-CORRELATION FUNCTIONS AND ENTROPY BOUNDS IN IV PICTURE SIGNALS," COMMONWEALTH OF AUSTRALIA, PGST MASTER GENERAL, S DEPART-MENT, REPURT NO. 4503, MARCH 1957.

KOVASZNAY, L.S.G., ARMAN, A., "OPTICAL AUTOCURRELATION MEASUREMENT OF TWO-DI-MENSIONAL RANDOM PATTERNS," RESEARCH SCIENCE INSTRUMENT, VOL. 28, OCTOBER 1957, AC 144525, PP. 793-797.

LINFOCT, E.H., "IMAGE QUALITY AND OPTICAL RESOLUTION," OPTICA ACTA, VOL. 4, NG. 1, PP. 12-17, MARCH 1957.

MACKAY, D.M., "THE STRUCTURAL INFORMATION-CAPACITY OF OPIICAL INSTRUMENTS," INFORMATION AND CONTROL, VOL. 1, Pp. 148-153, 1957.

MICHEL, W.S., "A CUDED FACSIMILE SYSTEM," IRE WESCUN CONVENTION RECORD, PART 2, 1957, PP. 84-93.

PIERCE, J.R., KARLIN, J.E., "READING RATES AND THE INFURMATION RATE OF HUMAN CHANNEL," BELL SYSTEM TECHNICAL JOURNAL, VOL. 36, NO. 2, PP. 497-516, MARCH

POWERS, K.H., STARAS, H., FREDENALL, G.L., "SOME RELATIONS BETWEEN TELEVISION PICTURE REDUNDANCY AND BANDWIDTH KEQUIRFMENTS," PROCEEDINGS OF THE CONFERENCE ON THE PHYSICAL PROBLEMS OF COLOR TELEVISION, ACTA ELECTRONICA, VOL. 2, NO. 1-2, PP. 378-383, 1957-1958.

******** ** 1958 **

BALCHIN: M.W., "DEMONSTRATION OF SOME VISUAL EFFECTS OF USING FRAME STORAGE IN TELEVISION TRANSMISSION," IRE CONVENTION RECORD, 1958, P. 107.

BEDCOES, M.P., "INVESTIGATIONS INTO TRANSMISSION SYSTEMS USING VARIABLE VLLU-CITY SCANNING FUR BANDWIDTH REDUCTION OF FACSIMILE AND TELEVISION SIGNALS," LONCON UNIVERSITY, PH.D. THESIS, 1958.

BILLINGS, A.R., "A CODER FOR HALVING THE BANDWIDTH OF SIGNALS," PROCEEDINGS IEF, VCL. 105, PART B, NO. 20, MARCH 1958, PP. 182-184.

CUNNINGHAM, J.E., **RECORDING PICTURES BY GENERATION OF LOWPASS AND CORRECTION SIGNAL, ** MIT RESEARCH LABORATORY OF ELECTRONICS, QUARTERLY PROGRESS REPORT, JULY 1958, PP. 136-137.

CUTLER, C.C., GRAHAM, R.E., "PREDICTIVE QUANTIZING OF TV IMAGES," IRF WESCON CONVENTION RECORD, PART 4, 1958, PP. 147-157.

DERYUGIN, N.G., "THEORETICAL POSSIBILITIES OF COMPRESSING BANDWIDTH OF TV CHANNEL," TELECUMMUNICATIONS, NO. 8, 1958, PP. 805-810.

FRCLUSHKIN, V.G., "THE STUDY OF THE STATISTICAL STRUCTURE OF IMAGES BY BREAKING UP THE FIELD OF EVENTS." TELECOMMUNICATIONS, VOL. 12, PP. 1278-1286, 1958.

GRAFAM, R.E., "COMPUNICATION THEORY APPLIED TO TV CODING," ACTA ELECTRONICA, VCL. 2, 1957-1958, PP. 334-343.

GRAFAM, R.E., "PREDICTIVE QUANTIZING OF TELEVISION SIGNALS," IRE WESCUN CONVENTION RECORD, PART 4, 1958, PP. 142-157.

GRAFAM, R.E., "SUBJECTIVE EXPERIMENTS IN VISUAL COMMUNICATION," IRE CONVENTION RECCRC, 1958, PP. 100-106.

GRAHAM, R.E., KELLY, J.L., "A COMPUTER SIMULATION CHAIN FOR RESEARCH ON PICTURE CODING." IRE WESCON CONVENTION RECORD, PART 4, 1958, PP. 41-46.

HAYNES, H.E., HOGERS, D.T., "STJP-GO SCANNING SAVES SPECTRUM SPACE," ELECTRONICS, SEPTEMBER, 1958.

KHARKEVICH, A.A., "COMPARISON OF FEW POSSIBLE METHODS OF TRANSMITTING SIMPLE DRAWINGS," TELECOMMUNICATIONS: VOL. 5, 1958, PP. 527-530.

RCBERTS, H.L., "INVESTIGATION OF TECHNIQUES FOR IMPROVING RADIO FREQUENCY SPECTRLY CONVERSION AND UTILIZATION IN MILITARY TELEVISION APPLICATIONS," US SIGNAL CCRPS., REPORT, CONTRACT NO. DA-36-039-SC63183, APRIL 1958.

SCHREIBER, W.F., KNAPP, C.F., "TV BANDWIDTH REDUCTION BY DIGITAL CODING," IRF NATIONAL CUNVENTION RECORD, VOL. 6, PART 4, 1958, PP. 88-89.

TSUKKERMAN, I.I., "THE TRANSMISSION OF THE COURDINATES OF A TELEVISED IMAGE," RADID ENGINEERING, VOL. 13, NO. 4, JULY 1958, PP. 93-105.

YOUNGBLOOD, W.M., "ESTIMATION OF THE CHANNEL CAPACITY REQUIRED FOR PICTURE TRANSMISSION," MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASSACHUSETTS, SC.C. THESIS, 1958.

********* ** 1959 ** ******

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変をなること

ARGZAN: G.F.: "THE TECHNIQUE OF SPATIAL FILTERING." PROCEECINGS OF THE IPH. VCL. 47, PP. 1561-1568, SEPTEMBER 1959.

BABITS, V.A., "RESULTS WITH AN EXPERIMENTAL CCLOUR TELEVISION SYSTEM USING CONTROLLED CULGUR FILTERS," RENSSELAER POLYTECHNIC INSTITUTE, TROY, NEW YORK, P. 15, JANUARY 1959.

BLOKH, E.L., "THE TRANSMISSION OF NON-UNIFORP BINARY SEQUENCES BY MEANS OF A UNIFORM CODE," ELEKTROSVYAZ 13, 1959, NO. 1, Pp. 76-77, IN RUSSIAN, FNGLISH TRANSLATION, 1959, Pp. 98-101.

BUDRIKIS, Z.L., "AN ESTIMATE OF CHANNEL REQUIREMENTS FOR RUN-LENGTH CODEC TV PICTURE SIGNALS," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, REPORT NO. 5057, JULY 1959.

CAPCN, J., "A PROBABILISTIC MODEL FOR RUN-LENGTH CODING OF PICTURES," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-5, NO. 4, DECEMBER 1959, PP. 157-163.

CCCMBS, W.C., SALAMAN, R.A., COTTRELL, D.E., "A RESEARCH STUDY AND ENGINEERING INVESTIGATION OF A DIGITAL TELEVISION SYSTEM," COLORADO RESERACH CORPORATION, PROJECT 23-20, BROOMFIELD HEIGHTS, COLORADO, DECEMBER 1957- JUNE 1959.

COTTRELL, D.E., DAVIS, I.F., STURM, R.E., "A RESEARCH STUDY AND ENGINEFRING INVESTIGATION OF A DIGITAL TELEVISION SYSTEM," COLURADO RESEARCH CORPCRATION, REPORT AD-228238, JUNE 1959.

CUNNINGHAM. J.E., "A STUDY OF SOME METHODS OF PICTURE COCING." MASSACHUSETTS INSTITUTE OF TECHNOLOGY, M.S., THESIS, 1959.

JACKSON, R.N., "SUBJECTIVE ASSESSMENTS OF NOISE IN TELEVISION PICTURES," REPORT NUMBER 308, MULLARD RESEARCH LABORATORIES, REDHILL, ENGLAND, JULY 1959.

JULESZ, B., "A METHOD OF CUDING TV SIGNALS BASED ON EDGE DETECTION," BELL SYSTEM TECHNICAL JOURNAL, VOL. 38, NO. 4, JULY, 1959, PP. 1001-1020.

KELLY, D.H., "EFFECTS OF SHARP EDGES IN A FLICKERING FIELD," JOURNAL OF THE OP-TICAL SOCIETY OF AMERICA, VOL. 49, NO. 7, JULY 1959, PP. 730-732.

KILVINGTON, T., "EFFECTS OF NOISE IN TELEVISION TRANSMISSION," JOURNAL OF THE TV SCCIETY, VOL. 9, JANUARY 1959, PP. 26-31.

KCRPEL, A., "MEASUREMENTS IN THE POWER SPECTRUM OF TV SIGNALS," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERAL, S DEPARTMENT, REPORT NO. 5064, SEPTEMBER 1959.

MARTIN, A.V.J., "TWO-DIMENSIONAL PREDICTIVE REDUNDANCY IN A TELEVISION DISPLAY," PROCEEDINGS OF THE IRE, MAY 1959, PP. 57-61.

MARTIN, A.V.J., "NOTE SUR LA REDUCTION DE LA QUANTITE D'INFORMATION CONTENUE DANS UNE IMAGE DE TELEVISION," UNDE ELECTRONIQUE, VOL. 39, NO. 388-389, JULY-AUGUST, 1959, PP. 686-689.

KCSS, I., ZUCKERMAN, L.G., "SOME CODING CONCEPTS TO CONSERVE BANDWIDTH," IRE

TELEMETERING CONFERENCE, MAY 1959.

SCHREIBER, W.F., KNAPP, C.F., KAY, N.D., "SYNTHETIC HIGHS: AN EXPERIMENTAL TV BANCWIDTH REDUCTION SYSTEM," JOURNAL OF THE SCCIETY OF MOTION PICTURE AND TV ENGINEERS, VOL. 68, AUGUST 1959, PP. 525-537.

SEYLER, A.J., "FRAME RUN CUDING OF TELEVISION SIGNALS: A NEW METHOD OF BAND-WIDTH REDUCTION," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, REPORT NO. 5064, SEPTEMBER 1959.

SEYLER, A.J., BUDRIKIS, Z.L., "MEASUREMENTS OF TEMPORAL ADAPTION TO SPATIAL DETAIL VISION," NATURE, VOL. 184, PP. 1215-1217, OCTOBER 1959.

SHERMAN, H., "A QUASI-TOPOLOGICAL METHOD FOR THE RECOGNITION OF LINE PATTERNS," PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON INFORMATION PROCESSING, PARIS, UNESCC, PP. 232-238, JUNE 1959.

SINGER, J.R., "INFORMATION THEORY AND THE HUMAN VISUAL SYSTEM," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 49, NO. 6, JUNE 1959, PP. 639-649.

STAMPS, G.M., RESSLER, H.C., "A VERY HIGH-SPEED FACSIMILE RECORDER," IRE TRANSACTIONS ON COMMUNICATIONS SYSTEMS, VOLUME CS-7, NG. 4, PP. 257-263, DECEMBER 1959.

VLELCKER, H.B., "NOTES ON A CLASS OF COMPRESSION SCHEMES," IMPERIAL COLLEGE OF LONDON, DEPARTMENT OF ELECTRICAL ENGINEERING, REPORT, MARCH 1959.

WEAVER, L.E., "SUBJECTIVE IMPAIRMENT OF TELEVISION PICTURES," ELECTRICAL AND KACIO ENGINEERING, VOL. 36, PP. 170-179, MAY 1959.

ZUKERMAN, L.G., "SCME CCDING CONCEPTS TO CONSERVE BANDWIDTH," NATIONAL TELEMETRY CONFERENCE, DENVER, COLORADO, PP. 138-142, MAY 1959.

HAUMUNK, J.F., ROTH, S.H., "PICTORIAL DATA TRANSMISSION FRCM SPACE VFHICLE," ELECTRICAL ENGINEERING, VOL. 79, NO. 2, FEBRUARY 1960, PP. 134-138.

BLCKH, E.L., "THE TRANSMISSION OF BINARY SEQUENCES USING A UNIFORM CODE," PROBLEMS ON INFORMATION, TRANSMISSION, 1960, NO. 3, PP. 12-22. PER. INFORM., 1960, NO. 3, PP. 12-22.

BUDRIKIS, Z.L., "A DESCRIBING THEORY OF THRESHOLD VISION," CCMMONWEALTH CF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, REPURT NG. 5280, AUGUST 1960.

BUDRIKIS, Z.L., SEYLER, A.J., "DELAYED DETAIL PRECEPTION AFTER SCENE CHANGES IN TV PRESENTATION OF MOVING FILM," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARIMENT, REPORT NO. 5262, JUNE 1960.

BUDRIKIS, Z.L., SEYLER, A.J., "MEASUREMENT OF HUMAN CBSERVER RESPONSE TO CHANGES IN THE CONTENT OF VISUAL DISPLAYS," COMMONWEALTH OF AUSTRALIA, POST MASTER GENERALS DEPARTMENT, REPORT NO. 5248, MAY 1960

CABREY, R.L., "VIDEO TRANSMISSION OVER TELEPHONE CABLE PAIRS BY PULSE CODE MCCLLATION," PROCEEDINGS IRE, VOL. 48, NO. 9, SEPTEMBER 1960, PP. 1546-1561.

CCLTMAN, J.W., ANDERSON, A.E., "NOISE LIMITATIONS TO RESCLVING POWER IN ELECTRONIC IMAGING," PROCEEDINGS OF THE IRE, VOL. 48, MAY 1960, PP. 858-865.

The state of the s

COOMS, H.C., "COMMUNICATION THEORY ASPECTS OF TELEVISION BANDWIDTH CONSERVATION." NATIONAL BUREAU OF STANDARDS. TECHNICAL NOTE NO. 25. PB 151384. 1960.

CUTLER, C.C., "TRANSMISSION SYSTEMS EMPLOYING QUANTIZATION," PATENT 2 927 962, MARCH 8, 1960.

CUTRONA, L.J., LEITH, E.N., PALERMO, C.J., PORCELLO, L.J., "GPTICAL DATA PRO-CESSING AND FILTERING SYSTEMS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-6, PP. 386-400, JUNE 1960.

DEAN, C.E., "MEASUREMENTS OF THE SUBJECTIVE EFFECTS OF INTERFERENCE IN TELE-VISION RECEPTION," PROCEEDINGS OF THE IRE, VOL. 48, PP. 1035-1049, JUNE 1960.

FRECENALL, G.L., BEHREND, W.L., "PICTURE QUALITY: PROCEDURES FOR EVALUATING SUBJECTIVE EFFECTS OF INTERFERENCE," PROCEEDINGS OF THE IRE, JUNE 1960, PP. 103C-1034.

HOWSUN, E.A., BELL, D.A., "REDUCTION OF TELEVISION BANDWIDTH BY FREQUENCY INTERLACE," JUURNAL BRITISH IRE, VOL. 20, NO. 2, PP. 127-136, FEBRUARY 1960.

HLANG, T.S., "A METHOD OF PICTURE CODING," PIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 57, CAMBRIDGE, MASSACHUSETTS, APRIL 1960, PP. 109-115.

KRETZMER, E.R., "TELEVISION SYSTEM HAVING REDUCED BANDWICTH," U.S. PATENT NG. 2 946 851, JULY 1960.

LINFUCT, E.H., MCONTRAST TRANSMISSION AND THE IMAGE EVALUATION PROBLEMS, MOPTICA ACTA, VOL. 7, NO. 1, Pp. 65-81, JANUARY 1'60.

MAX, J., "QUANTIZING FOR MINIMUM DISTORTION," IRE TRANSACTIONS UN INFORMATION THECKY, VOL. 1-6, NO. 1, MARCH 1960.

PINE, C.S.F., "STUDIES IN CUDING FOR BANDWIDTH REDUCTION OF TELEVISION SIGNALS," UNIVERSITY OF LUNDON, ENGLAND, PH.D. THESIS, 1960.

PRASACA, 8., "STUDIES OF PICTURE SIGNAL CUMPRESSION," UNIVERSITY OF LONDON, ENGLAND, PH.D. THESIS, 1960.

RAISBECK, G., GOLDHAMMER, J., "TRANSMISSION OF PHOTOGRAPHIC DATA BY ELECTRICAL TRANSMISSION." IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-6, NO. 4, PP. 503-504, SEPTEMBER 1960.

RATZ, A.G., "TELEMETRY BANDWIDTH COMPRESSION USING AIRBURNE SPECTRUM ANALYZERS," PROCEEDINGS OF THE IRE, VOL. 48, NO. 4, 1960.

SCHMIC, H., "MEASUREMENT OF TELEVISION PICTURE IMPAIRMENTS CAUSED BY LINEAR DISTORTICNS," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VCL. 77, NO. 3, PP. 215-220, 1960.

SCHWAB, H., "DATA COMPRESSIUN," WESTERN ELECTRONIC SHOW AND CONVENTION, PP. 207-210, LCS ANGELES, CALIFORNIA, 1960.

SEYLER, A.J., "CHANNEL CAPACITY UTILIZATION OF TELEVISION RELAY LINKS," FORT-SCHRITTE DER HECHFREQUENTZTECHNIK, VOL. 5, 1960, P. 263.

TEER, K., "INVESTIGATIONS INTO REDUNDANCY AND POSSIBLE BANDWIDTH COMPRESSION IN

TELEVISION TRANSMISSION," PHILLIPS RESEARCH REPORTS, VOL. 15, PP. 30-96, FEBRUARY 1960.

TROIT, T., "THE EFFECT OF MOTION ON RESULUTION," PHOTOGRAMMETRIC ENGINEER, VOL. 26, Pp. 819-827, 1960.

WEAVER, L.E., "THE QUALITY RATING OF COLOR TELEVISION PICTURES," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 77, NO. 6, Pp. 610-612, 1960.

********* ** 1961 ** ******

ANDREA, R.E., "IMAGE ENHANCEMENT AS AN AID TO RECONNAISSANCE INTERPRETATION," PRESENTED BEFORE THE ARMED FURCES-NRC COMMISSION ON VISION, WASHINGTON, C.C., PP. 93-104. MARCH 1961.

BECCUES, M.P., "EXPERIMENTS WITH SLOPE FEEDBACK CODER FOR TV COMPRESSION," IRE TRANSACTIONS ON BROADCASTING, VOL. BC-7, NO. 2, MARCH 1961, PP. 12-28.

BRYNGDAHL, C., "EFFECT OF RETINAL IMAGE MOTION ON VISUAL ACUITY," OPTICAL ACTA, VCL. 8, PP. 1-16, 1961.

BUDRIKIS, Z.L., "THEORETICAL FINITE SAMPLE STATISTICS OF RUN-LENGTH CODED TV PICTURE SIGNALS, "COMMONWEALTH OF AUSTRALIA, PCST MASTER GENERALS DEPARTMENT, REPORT NO. 5352, FEBRUARY 1961.

BUCRIKIS, Z.L., "VISUAL THRESHOLDS AND THE VISIBILITY OF RANCOM NOISE IN TV," PROCEEDINGS ON THE IRE AUSTRALIA, VOL. 22, Pp. 751-759, DECEMBER 1961.

CROPLEIGH, R.G., POSTHILL, B.N., "DATA CUMPRESSION THROUGH SELECTIVE MONITURING," AMERICAN ROCKET SOCIETY, SPACE FLIGHT REPRESENTATIVE TO THE NATION, NEW YORK, OCTOBER 1961.

CUNNINGHAM, J.E., ET AL., "COMPUTER PRUCESSING CHAIN," FIT RESEARCH LABERATORY OF ELECTRONICS, REPORT NO. 62, JULY 1961, PP. 155-156.

CUNNINGHAM, J.E., ET AL., "PICTURE PROCESSING RESEARCH:" MIT RESEARCH LAB-DRATORY OF ELECTRONICS, REPURY NO. 61, APRIL 1961, PP. 133-135.

CUNNINGHAM, J.E., ET AL., "PICTURE PROCESSING RESEARCH." MIT RESEARCH LAB-DRATURY OF ELECTRONICS, REPURT NO. 63, ECTOBER 1961, P. 119.

DEBART, H., "STUDY OF DELTA MODULATION FROM THE INFORMATION THEORY VIEWPOINT," (IN FRENCH), CABLES ET TRANS, PARIS, VOL. 15, 1961, Pp. 198-204.

ELLERSICK, F.W., "CATA COMPACTORS FOR SPACE VEHICLES," 1961 PROCEEDINGS OF THE 8TH ANNUAL EAST COAST CONFERENCE ON AEROSPACE AND NAVIGATIONAL ELECTRONICS.

FREEMAN, H., "CN THE ENCODING OF ARBITRARY GEOMETRIC CONFIGURATIONS," IRF TRANSACTIONS ON ELECTRONIC COMPUTERS, VOL. EC-10, PP. 260-268, JUNE 1961.

FUKUSHIMA, K., "REDUNDANCY OF TWO-DIMENSIONAL PATTERN-THEORETICAL LIMIT CF TELEVISION BANDWIDTH COMPRESSION," JAPANESE INSTITUTE OF ELECTRICAL COMMUNICATION ENGINEERS, JAPAN, VOL. 44, OCTOBER 1961. GA3CR, D., HILL, P.C.J., *TELEVISION BANDWIDTH COMPRESSION BY CUNTOUR INTERPOLATION, *PROCEEDINGS OF THE LEFE, VOL. 108, PART 8, NC. 39, MAY 1961, PF. 634, 303-315.

MONTH PROPERTY OF THE PARTY OF

GLASS, J.M., "ANALYSIS OF QUANTIZED TWO-DIMENSIONAL PATTERNS," NEW YORK UNIVERSITY COLLEGE OF ENGINEERING, TECHNICAL NOTE 400-7, SEPTEMBER 1961.

HCRSTEIN, M., "SPACE COMMUNICATION OF PICTORIAL INFORMATION," HUGHES AIRCRAFT COMPANY, CULVER CITY, CALIFORNIA, REPORT AFO 1122R, OCTOBER 1961.

HORWITZ, L.P., SHELTON, G.L., "PATTERN RECOGNITION USING ALTCCURRELATION," PROCEECINGS OF THE IRE, VOL. 49, NO. 1, PP. 175-185, JANUARY 1961.

KELLY, D.H., "IMAGE PROCESSING EXPERIMENTS," JOURNAL OF THE OPTICAL SCCIFTY OF AMERICA, VOL. 51, PP. 1095-1101, OCTUBER 1961.

KELLY, D.H., "VISUAL RESPONSES TO TIME DEPENDENT STIMULI," JCURNAL OF THE UPTICAL SOCIETY OF AMERICA, PART 1, VOL. 51, NC. 4, APRIL 1961, PART 11, VOL. 51, NC. 7, JULY 1961.

KITSDPOULUS, S.C., KRETZMER, E.R., "COMPUTER SIMULATION OF A TELEVISION CODING SCHEME," PROCEEDINGS OF THE IRE, VOL. 49, NO. 6, JUNE 1961, PP. 1076-1077.

KLINGER, A.H., ZIEMER, D.R., "REDUCING CHANNEL CAPACITY REQUIREMENTS IN DIGITAL IMAGERY TRANSMISSION: A STUDY REPORT," SEVENTH NATIONAL COMMUNICATION SYMPOSIUM RECORD, 1961, Pp. 75-85.

LANDAU, H.J., POLLAK, H.O., "PROLATE SPHEROIDAL WAVE FUNCTIONS, FOURIER ANALYSIS AND UNCERTAINITY II," BELL SYSTEM TECHNICAL JOURNAL, VOL. 40, PP. 65-84, JANUARY 1961.

LENDER, A., KOZUCH, M., "SINGLE BIT DELTA MODULATING SYSTEMS," ELECTRONICS, VCL. 34, NOVEMBER 1961.

LENCER, A., KUZUCH, M., MEXPERIMENTAL DELTA MODULATOR, M. NATIONAL SYMPOSIUM ON GLOBAL COMMUNICATIONS, PP. 95-98, 1961.

LCWRY, E.M., DEPALMA, J.J., "SINE WAVE RESPONSE OF THE VISUAL SYSTEM, 2. THE MACH PHENGMENON," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 51, Pp. 740-746, JULY 1961.

LUKCSZ, W., "UPTICAL SYSTEMS WITH RESOLVING POWERS EXCEEDING THE CLASSICAL LIMIT 1," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, P. 1463, 1961.

MCRTON, G., "LOW CENTRAST THRESHOLD IMAGING," RADIO CORPURATION OF AMFRICA ELECTRON TUBE CIVISION, HARRISCN, NEW JERSEY, PROCEETINGS OF THE SECOND IMAGE INTENSIFIER SYMPOSIUM, FORT BELVOIR, VIRGINIA, PP. 79-83, CCTUBER 24-26, 1961.

RCBERTS, L.G., "PCM TELEVISION BANDWIDTH REDUCTION USING PSEUCC-RANDOM NOISE," MIT, S.M. THESIS, CAMBRIDGE, MASSACHUSETTS, FEBRUARY 1961.

SALAMAN, K.G., "DIGITAL TELEVISION ENCODING," SEVENTH NATIONAL COMMUNICATION SYMFOSIUM RECORD, 1961, Pp. 274-279.

SCHAEFER, D.H., "LCGAPITHMIC COMPRESSION OF BINARY NUMBERS," PROCEEDINGS OF THE IRE, VOL. 49, JULY 1961, P. 1219.

STANWCCD, R.K., "PRELIMINARY STUDY OF A DIGITAL TELEVISION SYSTEM FOR USE ON THE APCLLC SPACECRAFT," NASA LANGLEY FIELD, REPLRT NC. NASA WP-1012, MARCH, 1961.

WHELEY, J.S., "THE CODING OF PICTURIAL DATA," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-7, NO. 2, PP. 99-104; APRIL, 1961.

WYLE, H., ERB, T., BANDW: R., "REDUCED-TIME FACSIMILE TRANSMISSION BY DIGITAL CCDING," IRE TRANSACTIONS ON COMMUNICATIONS SYSTEMS, VOL. C5-9, No. 3, PP. 215-222, SEPTEMBER 1961.

********* ** 1962 *** ******

ALTEMOS, W.C., SCHAPHORST, R.A., "DATA CONVERSION EQUIPMENT," PHILCE CORPORATION REPC. .O. ACD FOR 62-392, ED-275 514, MAY 1962.

ANTHOUGH ALL, "INVESTIGATION OF PHOTOGRAPHIC MAPPING DETAIL AND DATA ENCODING," AC 28c $^{\circ}$. JULY 197..

ARTER, ".w., "51" at 1. TA MODULATION SYSTEM," PROCEEDINGS OF THE IRE(AUSTRALIA) VCL. 23, "P. 517" (234 DEPTEMBER 1962.

BALDER, J.C., KRAMER, C., "VIDEO TRANSMISSION BY DELTA MCDULATION USING TUNNEL CIGCES," PRUCEEDINGS OF THE IRE, VOL. 50, NO. 4, APRIL 1962, Pp. 428-431.

BARRACK, C. ZAHALKA, L.B., "MODULATION TECHNIQUES FOR HIGH RESOLUTION VISUAL DATA," 1962 CONFERENCE PROCEEDINGS OF THE 6TH NATIONAL CONVENTION ON MILITARY ELECTRONICS, PP. 206-212.

BARSTCW, J.M., CHRISTOPHER, H.N., "THE MEASUREMENT OF PANDOM VIDEO INTERFER-ENCE TO MONOCHROME AND COLOR TELEVISION PICTURES," ALEE TRANSACTIONS, NO. 63, NOVEMBER 1962, PP. 313-320.

BERNHARD, K., "ON VISUAL PERCEPTION AND RETINAL MOTICNS," PRUCEEDINGS OF THE IRE, VOL. 50, CCTCBER 1962, P. 2133.

BLASHALG, H., VAN BLERKOM, R., "MESSAGE COMPRESSION," IRE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SET-8, NO. 3, SEPTEMBER, 1962, PP. 228-238.

BRAINARD, R.C., KAMMERER, F.W., KIMME, E.G., "ESTIMATION OF THE SUBJECTIVE EFFECTS OF NOISE IN LOW-RESULUTION TELEVISION SYSTEMS," IKE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 2, FEBRUARY 1962, PP. 99-106.

BRGWN, D., "CONVERSION OF TELEVISION SIGNALS TO DIGITAL FORM," UNIVERSITY OF LCNEUN, M. SC. THESIS, 1962.

CHERRY, E.C., "THE BANDWIDTH COMPRESSION OF TELEVISION AND FACSIMILE," TELE-VISION SUCIETY JOURNAL, VOL. 10, NO. 2, FEBRUARY 1962, Pp. 40-49.

CLITON, R.V., STRAHMEYER, G.R., TILLMAN, A.F., "DEMONSTRATION OF THE FEASIBILITY OF USING DELTA MODULATION FOR PICTURE TRANSMISSION." PHILOC CORPORATION, REPORT NO. 9040-TN, AD-294689, NOVEMBER 1962.

CRAIN, C.C., JUHANNSEN, K.G., "EXPERIMENTAL PROCESSING OF IV PICTURES BY SYNTHETIC HIGHS SYSTEM," HUGHES AIRCRAFT COMPANY, REPORT TIC 2230.5/96, DEC-EMBER 1962.

FISHER, G.L., ET.AL., "OPTICAL CHARACTER RECOGNITION," WASHINGTON, D.C., SPARTAN, 1962.

FRYER, W.D., RICHMOND, G.E., "TWO DIMENSICHAL SPATIAL FILTERING AND COMPUTERS," PROCEEDINGS OF THE NATIONAL ELECTRONICS CONFERENCE, VOL. 18, PP. 529-535, 1962.

GARCENHIRE, L.W., "THE USE OF DIGITAL DATA SYSTEMS," PROCEEDINGS OF THE NATIONAL SPACE AFRONAUTICS, VOL. 38, DECEMBER 1962, PP. 73-78.

GICCA, F.A., "DIGITAL SPACECRAFT TV CAN BEAT BIT-RATE AND WEIGHT PROBLEMS," SPACE AERONAUTICS, VOL. 38, DECEMBER 1962, Pp. 73-78.

GIRAYTYS, J., ET AL., "INVESTIGATIONS INTO THE VARIATION AND DISTRIBUTION OF RELATIVE BRIGHTNESS ON TIROS-1 PHOTOGRAPHS," COLLEGE OF MINERAL INDUSTRIES, UNIVERSITY OF PENNSYLVANIA, FINAL REPORT ON CONTRACT CW8-10037, APRIL 1962.

GRAFAM, D.N., "TWO DIMENSIONAL FILTERING TO REDUCE THE EFFECT OF QUANTIZING NCISE IN TV," MASSACHUSETTS INSTITUTE OF TECHNOLOGY, M.S. THESIS, JANUARY, 1962.

GRAHAM, R.E., "SNOW-REMOVAL: A NOISE STRIPPING FOR PICTURE SIGNALS," IEFE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 1, FEBRUARY 1962, PP. 125-144.

GRAZIANO, E.E., "SPACE TELEVISION: AN ANNOTATED BIBLIOGRAPHY," LOCKHEED AIRCRAFT CORPURATION, REPORT NO. 3-79-61-1, AD-296 805, MARCH, 1962.

HAAGEN, W.F., "VIDEO BANDWIDTH COMPRESSION," OHIO STATE UNIVERSITY, ANTENNA LABORATORY, REPORT NO. 1222-7, AD 273 671, FEBRUARY 1962.

HCCHMAN, D., "DIGITAL DATA COMPRESSORS CONTRCL SPACE-GROUNC TRANSMISSIONS," SPACE/AERONAUTICS, VOL. 37, PP. 64-68, JUNE 1962.

HECHMAN. D., "DIGITAL SYSTEMS IN SPACE COMMUNICATIONS," THIRD INTERNATIONAL CONGRESS IN THE AERONAUTICAL SCIENCES, STOCKHOLF, AUGUST 1962.

HU, M.K., "VISUAL PATTERN RECOGNITION BY MOMENT VARIANTS," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 2, P. 174, FEBRUARY 1962.

HUANG, T.S., ET AL., "METEOROLOGICAL SATELLITE SYSTEM ANALYSES." AD 411398, JUNE 1962.

HULME, J.R., SCHUMBURG, R.A., "A DATA BANDWIDTH COMPRESSION FOR SPACE VEHICLE TELEMETRY," PROCEECINGS OF THE NATIONAL TELEMETERING CONFERENCE, 1962, VOL. 1, PAPER 3-2.

JUHANNSEN, K.G., "SYNTHETIC HIGHS-STOP SCANNING CODING SYSTEM," HUGHES AIRCRAFT CCMPANY, REPORT TIC 2230.5/94, NOVEMBER 1962.

JCAES, C.M., "FOURIER-TRANSFORM METHODS FOR PATTERN RECOGNITION," AIR FORCE CAMBRIDGE RESEARCH LABORATORY, REPORT AFORL-62-512, JULY 1962.

JONES, C.M., KELLAHER, J.P., DILLARD, J.M., BERNSTEIN, S.L., "FOURIER-TRANSFORM METHODS FUR PATTERN RECCGNITION," AIR FERCE, CAMBRIDGE RESEARCH LABORAYORY, REPORT AFCRL-02-512, JULY 1962, ELECTRONICS RESEARCH DIRECTORATE, BEDFORC, MASSACHUSETTS.

JULESZ, B., "VISUAL PATTERN DISCRIMINATION," IRE TRANSACTIONS ON INFORMATION THELRY, VOL. IT-8, NO. 2, PP. 84-92, FEBRUARY 1962.

KAPANY, N.S., BURKE, J.J., "VARIOUS IMAGE ASSESSMENT PARAMETERS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 52, NO. 12, PP. 1351-1361, DECEMBER 1962.

KELLY, D.H., "INFORMATION CAPACITY OF SINGLE RETINAL CHANNEL," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 3, APRIL 1962, PP. 221-226.

KNIGHT, J.M., "MAXIMUM ACCEPTABLE BIT ERROR RATES FOR PCM ANALOG AND DIGITAL TV SYSTEMS," PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, PAPER 10-3, 1962, PP. 1-9.

KUBBA, M.H., "METHODS OF MEASURING PICTURE DETAIL IN RELATION TO TELEVISION SIGNAL BANDWIDTH COMPRESSION," UNIVERSITY OF LONDON, PH.D. THESIS, 1962.

LANCAU, H.J., POLLAK, H.D., *PROLATE SPHEROIDAL WAVE FUNCTIONS, FOURIER ANALYSIS AND UNCERTAINTY III: THE DIMENSION OF THE SPACE OF ESSENTIALLY TIME-AND BANCLIMITED SIGNALS, BELL SYSTEM TECHNICAL JOURNAL, PP. 1295-1336, JULY 1962.

LEWIS, N.W., "TELEVISION BANDWIDTH AND KELL FACTOR," ELECTRONIC TECHNOLOGY, VGL. 39, NO. 2, FEBRUARY, 1962, PP. 44-47.

LINFOCT, E.H., "CUNVOLUTED SPOT DIAGRAMS AND THE QUALITY EVALUATION OF PHOTOGRAPHIC IMAGES," OPTICA ACTA, VOL. 9, NO. 1, PP. 81-110, JANUARY 1962.

LORENS, C.S., BOFHNER, A., GALLAGHER, J., "THEORETICAL AND EXPERIMENTAL PROCESSING OF LUNAR TELEVISION PICTURES," SPACE GENERAL CORPORATION, REPORTS No. 156C 203R-1, MAY 1962, NO. 2SGC 203R-2, JULY 1962, NO. 3SGC 2C3R-3, SEPTEMBER 1962.

MCFARLAND, M.S., "AUTO-DRAPE - A REAL TIME TELEMETRY REDUCTION SYSTEM," NATIONAL SYMPOSIUM ON SPACE ELECTRONICS AND TFLEMETRY, MIAMI BEACH, FLORIDA, OCTOBER 1962.

MECLIN, J.E., "BUFFER LENGTH REQUIREMENTS FOR A TELEMETRY DATA COMPRESSOR," NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., VOL. 1, MAY 1962.

MONTGOMERY, W.D., BROOME, P.W., "SPATIAL FILTERING," JCURNAL OF THE OPTICAL SCCIETY OF AMERICA, VOL. 52, PP. 1259-1275, NOVEMBER 1962.

NEWELL, G.F., GEDDES, W.K.E., "TESTS OF THREE SYSTEMS OF BANDWIDTH COMPRESSION OF TELEVISION SIGNALS," PROCEEDINGS OF THE IRE (LONDON), VOL. 109, PART B, Pp. 311-323, 1962.

NUVIK, D.A., "CN PUSSIBLE METHODS OF EFFICIENT CODING FOR BINARY SEQUENCES," ELEKTROSVYAZ' 16, 1962, NO. 4, PP. 64-69, ENGLISH TRANSLATION, 1962, PART 1, PP. 66-73.

PACKARD BELL COMPUTER CORPORATION, "DATA COMPRESSION STUDY FOR APOLLO POM TELEMETRY," PBC-10762, SEPTEMBER 1962.

PAN, J.W., "PICTURE PROCESSING," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 60, JULY 1962, PP. 229-231.

PAN, J.W., "PICTURE PROCESSING-PROGRAMMING," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 65, APPIL, 1962, P. 146.

PAN, J.W., "REDUCTION OF INFURMATION REDUNDANCY IN PICTURES,"
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, SC.D. THESIS, SEPTEMBER, 1962.

PARIS, D.P., "INFLUENCE OF IMAGE MOTION ON THE RESULUTION OF A PHOTOGRAPHIC SYSTEM-I," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 6, PP. 55-59, 1962.

PRATT, W.K., "STOP-SCAN EDGE DETECTION SYSTEM FOR INTERPLANETARY TELEVISION TRANSMISSION," NATIONAL SYMPOSIUM ON SPACE ELECTRONICS AND TELEMETRY, SECTION 4.3, CCTOBER, 1962.

PRATT, W.K., "INTERPLANETARY PICTURE TRANSMISSION USING THE EDGE CETECTION SYSTEM," HUGHES AIRCRAFT COMPANY, CULVER CITY, CALIFORNIA, REPURT SSD 2161; JAN-UARY 1962.

A LANGE TO THE PARTY OF THE PAR

RACIU CORPORATION OF AMERICA, "FINAL REPURT UN APOLLO ANALOG TV SYSTEM AND STUDY PROGRAM," REPORT AED 337, SEPTEMBER 1962.

RENN, R.L., SCHAPHORST, R.A., "AN IMAGE CODING SYSTEM WHICH REDUCES PEDUNDANCY IN THE DIMENSIONS," PROCEEDINGS OF THE NEC, DAYTON, GHIO, 1962.

RIDINGS, G.H., "FACSIMILE COMMUNICATION PAST, PRESENT, FUTURE," SIGNAL, NUVEMBER 1962, PP. 34-40.

ROBERTS, L.G., "PICTURE CODING USING PSEUDO-RANDOM NCISE." IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-8, NO. 2, FEBRUARY 1962, PP. 145-154.

SCHAPHORST, R.H., RENN, R.L., "AN IMAGE CODING SYSTEM WHICH REDUCES REDUNDANCY IN TWO DIMENSIONS," PROCEEDINGS OF THE NATIONAL AEROSPACE ELECTRONICS CONFERENCE, PP. 116-125, 1962.

SCHCMBURG, R.A., "COMPUTER SIMULATION OF A DATA COMPRESSOR FOR AERUSPACE TELE-METRY SYSTEMS," RECORD OF THE 1962 NATIONAL SYSPOSIUM ON SPACE ELECTRONICS AND TELEMETRY.

SEYLER, A.J., "CODING OF VISUAL SIGNALS TO REDUCE CHANNEL CAPACITY REQUIRE-MENTS," PROCEECINGS OF THE IEE, VUL. 109, PART C, NO. 16, SEPTEMBER 1962, PP.

SEYLER, A.J., "VISUAL COMMUNICATION AND PSYCHO-PHYSICS OF VISION," PRECEDENCES OF THE IRE AUSTRALIA, VOL. 23, MAY 1962, PP. 291-304.

SHAW, R., "THE APPLICATION OF FOURIER TECHNIQUES AND INFORMATION THEORY TO THE ASSESSMENT OF PHOTOGRAPHIC IMAGE QUALITY," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 6, SEPTEMBER-UCTOBER 1962, PP. 281-286.

SCMMER, R.C., HARRIS, B., "SOME RECENT ADVANCES IN ADAPTIVE DIGITAL SPACE TELF-PAPER 10-5, 1962.

STULTZ, K.F., ZWEIG, H.J., "ROLES OF SHARPNESS AND GRAININESS IN PHOTOGRAPHIC QUALITY AND DEFINITION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 52, PP. 45-50, 1962.

SWERLING, P., "STATISTICAL PROPERTIES OF THE CONTOURS OF RANCOM SURFACES." 1RF TRANSACTIONS ON INFORMATION THEORY, VOL. 1T-8, No. 3, Pp. 315-321, JULY, 1962.

VAN BLERKOM, R.. FREEMAN, D.G., LAND, W.H., ROEHR, K.M., "A RESEARCH STUCY OF IMPROVED CODING FUR MILITARY DIGITAL TELEVISION," INTERNATIONAL BUSINESS MACHINES CORPORATION, REPORT NO. 2, AD 277 020, JUNE 1962.

WEBER, D.R., WYNHOFF, F.J., HIGUCHI, P.K., "REDUNDANCY DATA ANALYSIS STUDY," PACKARD BELL CCMPUTER CORPORATION, LOS ANGELES, CALIFORNIA, PBC-4121, MARCH 1962.

WEBER, D.R., WYNHOFF, F.J., "THE CONCEPT OF SELF-ADAPTIVE CATA COMPRESSION," PROCEEDINGS NATIONAL SYMPOSIUM ON SPACE ELECTRONICS AND TELEMETRY, 1962.

WEISS, E., "COMPRESSION AND CODING," IRF TRANSACTIONS ON INFORMATION THEORY, VCL. IT-8, APRIL 1962.

******** ** 1963 ** ******

ABLE, J.E., "TECHNIQUES FUR NARROW-BAND TELEMETRY OF NONRECUNDANT DATA," PROCEEDINGS OF THE 1963 NATIONAL TELEMETRY CONFERENCE, WASHINGTON, D.C., PAPER 9-5, PP. 1-10.

BARTON, M.P., "DATA REDUCTION IN TELEVISION SIGNALS FOR BANDWICTH COMPRESSION," UNIVERSITY OF LONDON, PH.D. THESIS, NOVEMBER 1963.

BEDDUES, M.P., "TWO CHANNEL METHOD FOR COMPRESSING BANDWIDTH OF TELEVISION SIGNALS," PROCEEDINGS OF THE IEE, VOL. 110, NO. 2, FEBRUARY 1963, Pp. 369-374.

BERKDWITZ, M., "ADAPTIVE DATA SAMPLING SYSTEM," IFEE PROFESSIONAL GROUP TRANS-ACTIONS ON SPACE ELECTRONICS AND TELEMETRY RECORD, 1963.

HIERNSCN, G., "SPECTRAL SCANNING AS A MECHANISM OF COLOR VISION," THEE TRANSACTIONS ON MILITARY ELECTRONICS, APRIL-JULY 1963, PP. 103-108.

CALLAHAN, L.G., BRCWN, W.M., "ONE-AND TWO-DIMENSIONAL PROCESSING IN LINE SCANNING SYSTEMS," APPLIED OPTICS, VOL. 2, PP. 401-407, APRIL 1963.

GHERRY, E.C., BARTON, M.P., KUBBA, M.H., "AN EXPERIMENTAL STUDY OF THE POSSIBLE BANCWIDTH COMPRESSION OF VISUAL IMAGE SIGNALS," PROCEEDINGS OF THE IEEE, VOL. 51, NO. 11, NOVEMBER 1963, Pp. 1507-1517.

CUNNINGHAM, J.E., MIMAGE CURRECTION-TRANSMISSION EXPERIMENTS, MIT RESEARCH LABERATORY OF ELECTRONICS, REPORT NO. 70, JULY 1963, PP. 244-247.

CLANINGHAM, J.E., "TEMPORAL FILTERING OF MOTION PICTURES," SCIENCE DEPARTMENT THESIS, MIT, ELECTRICAL ENGINEERING DEPARTMENT, CAMBRIDGE, MASSACHUSETTS, 1963.

FRIED, C., PREVEL, J., RUSENFELD, A., "STUDY OF PICTORIAL DATA ANALYSIS CONCEPTS AND FECHNIQUES," INFURMATION SCIENCE CENTER, MCLEAN, VIRGINIA, FINAL REPORT, JULY 1962-SEPTEMBER 1963.

GECLES, W.K.E., "PICTURE PROCESSING BY QUANTIZATION OF THE TIME DERIVATIVE," BRITISH BP ADCASTING CORPORATION, ENGINEERING DIVISION, REPORT T-114, 1963.

GICCA, F.D., "OPTIMIZING SPACE TELEVISION TRANSMISSION," PROCEEDINGS OF THE 1963 INTERNATIONAL TELEMETRY CONFERENCE, PP. 313-321.

GLEZER, V.O., NEVSKAYA, A.A., SEREDINSKTY, A.V., TSICKKERMAN, I.I., "CN THE IDENTIFICATION OF COJECTS IN THE VISUAL SYSTEM," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., BIOLOGICAL ASPECTS OF CYBERNETICS, PP. 275-241, JUNE 1962.

GRUNEMANN, U.F., "PICTURE RECORDING AND REPRODUCING EQUIPMENT," MIT RESFARCH LABORATORY OF ELECTRONICS, REPORT NO. 70, JULY 1963, CAMBRIDGE, MASSACHUSETTS.

HALIJAK, C.A., TRIPP, J.S., "A DETERMINISTIC STUDY OF DELTA PUDULATION," IRE INTERNATIONAL CONVENTION RECORD, PART 8, PP. 247-259, 1963.

HARRIS, J., "RESIGNATION OF ATMOSPHERICALLY DISTORTED IMAGES," SCRIPPS INSTITUTE OF CCEANUGRAPHY, UNIVERSITY OF CALIFORNIA, SAN DIEGO, SIC NO. 63-10, MARCH 1963.

HAWKINS, J.K., MUNSEY, C.J., "A NATURAL IMAGE CUMPUTER," UPTICAL PROCESSING OF INFLRMATION, SPARTAN, PP. 233-245, 1963.

AND THE CONTRACTOR OF THE PROPERTY OF THE PROP

HOCEMAN, D., "SPACE-BORNE DIGITAL SYSTEM FOR DATA EANDWICTH COMPRESSION," IN SKITCHING THEORY IN SPACE TECHNOLOGY, ED. BY A. AIKEN AND W.F. MAIN, STANFORD UNIVERSITY PRESS, PP. 333-334, 1963.

HUANG, J.J.Y., SCHULTHEISS, P.M., "BLUCK QUANTIZATION OF CORRELATED GAUSSIAN RANDUM VARIABLES," IEEE TRANSACTIONS ON COMMUNICATIONS SYSTEMS, VOL. CS-11, PP. 289-296, SEPTEMBER 1963.

HUANG, T.S., "TWO-DIMENSIONAL POWER DENSITY SPECTRUM OF TELEVISION RANDOM NOISE," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NC. 69, CAMBRICGE, MASSACHUSETTS, APRIL 1963, PP. 143-149.

HUGHES AIRCRAFY COMPANY, "ADVANCED ANALOG TELEVISION STUCY, FINAL REPORT," REFORT NO. P63-90, DECEMBER 1963.

HUGHES AIRCRAFT COMPANY, "VARIABLE STURACE IV GROUND PROCESSING SYSTEM," REPORT NC. TP-417, NUVEMBER 1963.

INCSE, H., YASUDA, Y., "A UNITY BIT CODING METHOD BY NEGATIVE FEEDBACK," PRO-CELCINGS OF THE IEEE, VOL. 51, NOVEMBER 1963, PP. 1524-1535.

INOSE, H., YASUDA, Y., MURAKAMI, J., "A TELEMETERING SYSTEM BY CCDE MCDULATION: DELTA-SIGMA MODULATION," IRE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SET-8, SEPTEMBER 1963, PP. 204-209.

INOSE, H., YASUDA, Y., TAKANO, H., "VIDEO TRANSMISSION BY CELTA-SIGMA MODULA-TIUN," PRUCEEDINGS OF THE IEEE, VOL. 1, Pp. 3C7-312, 1963.

JCSEPH, R.D., KELLY, P.M., VIGLIONE, S.S., "AN OPTICAL DECISION FILTER," PROCEECINGS OF THE IEEE, VOL. 51, NO. 8, AUGUST 1963, PP. 1098-1118.

KHALFIN, A.M., "TELEVISION ARRANGEMENT FOR AUTUMATIC RECOGNITION OF OBJECTS," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AFB, OHIC, FCREIGN TECHNOLOGY DIVISION, RUSSIAN PATENT NO. 164627, MARCH 1963.

KCHLER, R.J., HUMELL, H.K., "PHOTOGRAPHIC IMAGE ENHANCEMENT BY SUPERIMPOSITION OF MULTIPLE IMAGES," SOCIETY OF PHOTOGRAPHIC SCIENTISTS AND ENGINEERS, ANNUAL CONFERENCE, BUSTUN, MASSACHUSETTS, MAY 8, 1962, PHOTOGRAPHIC SCIENCE AND ENGINEERING, VUL. 7, PP. 241-245, JULY-AUGUST 1963.

KUBBA, M.H., "AUTCMATIC PICTURE DETAIL DETECTION IN THE PRESENCE OF RANDOM NCISE," PROCEEDINGS OF THE IEEE, VOL. 51, NO. 11, NOVEMBER 1963, PP. 1518-1523.

LAULER, L.J., "A SYSTEM ORIENTED PCM GROUND STATION INCORPCRATING DATA COMPRESSION," NATIONAL SPACE ELECTRUNICS SYMPOSIUM, MIAMI BEACH, FLORIDA, PTGSET RECURD, OCTOBER 1963, PROFESSIONAL TECHNICAL GROUP ON SPACE ELECTRONICS AND TELEMETRY (PTGSET) OF THE IEEE, NEW YORK.

MEDLIN, J.E., "THE COMPARATIVE EFFECTIVENESS OF GENERAL TELEMETRY DATA COMPRESSION TECHNIQUES," PROCEEDINGS OF THE INTERNATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1963.

NEWELL, G.F., GEDDES, W.K.E., "VISIBILITY OF SMALL LUMINANCE PERTURBATIONS IN TELEVISION DISPLAYS," PROCEEDINGS OF THE IEEE, VOL. 110, NC. 11, PP. 1979-1985, NCVEMBER 1963.

NYUCERG, N.C., MCODING INFORMATION ABOUT COLOR IN THE RETINA, M BIOLOGICAL

ASPECTS OF CYBERNETICS, JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., PP. 208-213, JUNE 1963.

PAWLLA, R.F., "COMMENTS ON STATISTICAL PROPERTIES OF THE CONTOURS OF RANDOM SURFACES," IRE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-9, NO. 3, PP. 208-209, JULY, 1963.

PCTTER, J.B., "ON THE USE OF THE VIDICON CAMERA TUBE AS A VICEC STORAGE CFVICE," PROCEEDINGS OF THE IRE AUSTRALIA, VOL. 24, NO. 12, DECEMBER 1963, PP. 855-865.

PRASACA, 8., "SUME PUSSIBILITIES OF PICTURE SIGNAL BANDWIDTH COMPRESSION," LEEF TRANSACTIONS ON COMMUNICATION SYSTEMS, VOL. CS-11, SEPTEMBER 1963, Pp. 315-328.

PRATT, W.K., "TELEVISION SYSTEM," UNIVERSITY OF SOUTHERN CALIFORNIA, LUS ANGELES, CALIF., PATENT APPLICATION, PD-5253, OCTOBER 1963.

RATZ, A.G., SALBERTA, R.A., "THE DEVELOPMENT OF AIRBORNE SPECTRUM ANALYZERS FOR TELEMETRY BANDWIDTH COMPRESSION," NATIONAL TELEMETERING CONFERENCE, ALBUQUERQUE, NEW MEXICO, MAY 1963.

SCHREIBER, W.F., "THE MATHEMATICAL FOUNDATION OF THE SYNTHETIC HIGHS SYSTEM," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 68, JANUARY 1963, PP. 140-146.

SEYLER, A.J., MREAL-TIME RECORDING OF TELEVISION FRAME DIFFERENCE AREAS, PRU-CFECINGS OF THE IEEE, VOL. 51, NO. 3, MARCH 1963, PP. 478-48C.

SIMPSON, R.S., BURNETT, J.R., "A THEORETICAL STUDY TO IMPROVE UTILIZATION OF MISSILE TELEMETRY SYSTEMS," FINAL REPORT APRIL 1962 - JANUARY 1963, AD-469427, ALABAMA UNIVERSITY, BUREAU OF ENGINEERING, FEBRUARY 1963.

SIMPSON, R.S., GRIFFIN, M.A., JAMES, S.N., "CUMPRESSIBILITY OF SATURN S-1 PCM DATA," TECHNICAL REPORT NO. 1, SYSTEMS ENGINEERING GROUP, UNIVERSITY OF ALABAMA, JUNE 1963.

SMITH, F.D., "CPTICAL IMAGE EVALUATION AND THE TRANSFER FUNCTION," JOURNAL OF APPLIED OPTICS, VCL. 2, APRIL 1963, PP. 335-350.

SMITH, S.L., "COLCR CODING AND VISUAL SEPARABILITY IN INFORMATION DISPLAYS," JOURNAL OF APPLIED PSYCHOLOGY, VUL. 47, PP. 358-364, DECEMBER 1963.

TRETIAK, O.J., "THE PICTURE SAMPLING PROCESS," MIT, SC.D THESIS, CAMBRIDGE, MASSACHUSETTS, JUNE 1963.

TSUJINCHI, J., "CORRECTIONS OF OPTICAL IMAGES BY COMPENSATION OF ABERRATIONS AND BY SPATIAL FREQUENCY FILTERING," IN PROGRESS IN OPTICS, VOL. 2, AMSTERDAM, NE-THERLANDS, NORTH-HCLLAND, 1963.

WICHMAN, T., "CPTIMUM CODING OF PICTORIAL DATA," NIATH NATIONAL COMMUNICATIONS SYMPOSIUM RECURD, PP. 18-27, OCTOBER, 1963.

WINKLER, M.R., "HIGH INFURMATION DELTA MUDULATION," IEEE INTERNATIONAL CONVEN-TILN RECORD, PART 8, PP. 260-265, 1963.

YCUNG, T.Y., HUGGINS, W.H., "ON THE REPRESENTATION OF ELECTROCARDIOGRAMS," IEEE TRANSACTIONS ON BIO-MEDICAL ENGINEERING, JULY 1963, PP. 66-95.

********* ** 1964 **

AND THE PROPERTY OF THE PROPER

ANCC, H., FUKUSHIMA, K., "TV BAND COMPRESSION BY MULTI-MCDE INTERPOLATION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-10, NO. 2, APRIL 1964.

BABCOCK, T.R., RICHMOND, G.E., "APPLICATION OF PERCEPTIONS IN PHOTOINTERPRETATION," CURNELL AERONAUTICAL LABORATORY, INCORPORATED, BUFFALG, NEW YORK, FINAL REPORT, JULY 1964.

THE PROPERTY OF THE PARTY OF TH

BALDER, J.C., KRAMER, C., "ANALOG-TD-DIGITAL CONVERSION BY MEANS OF DELTA MODULATION," IEEE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SFT-10, PP. 87-90, SEPTEMBER 1964.

BARSTOW, J.M., CHRISTOPHER, H.N., "THE MFASUREMENT OF RANDOM MUNOCHROME VIDEO INTERFERENCE," TRANSACTIONS OF THE AILE, VOL. 72, PART 1, JANUARY 1964, PP. 735-741.

BAYEVSKIY, R.M., "TRANSMISSION OF MEDICAL INFORMATION CVFR LIMITED-CAPACITY TELEMETRY CHANNELS," AVIATION AND SPACE MEDICINE, EDITED BY V.V. PARIN, NASA IT F-228, PP. 41-43, DECEMBER 1964.

BEALL, W.H., "STATISTICAL ANALYSIS OF DEGRAVATION IN SCANNED IMAGE SYSTEMS," JURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, NO. 8, Pp. 952-997, AUGUST 1964.

BIRKNER, W., DAVIS, J., HANNUM, J., TAYLUR, N., "CONTRAST MODULATION TECHNIQUES FOR IMAGE ENHANCEMENT," WRIGHT-PATTERSON AIR FORCE BASE, UHIG, AFSC-TER-64-45, MARCH 1964.

BCYCE, G.D., "INFORMATION CONTENT OF SPACE VEHICLE DATA SOURCES," INTERNATIONAL SPACE ELECTRONICS SYMPOSIUM, LAS VEGAS, NEVADA, OCTOBER 1964.

BRCCK, G.C., "IMAGE EVALUATION FOR RECONNAIS_ANCE, "APPLIEC OPTICS, VOL. 3, NO. 1, FP. 11-13, JANUARY 1964.

BRCWN, R.M., "GN-LINE COMPUTER RECUGNITION OF HANDPRINTED CHARACTERS," IFFE TRANSACTIONS ON ELECTRONIC COMPUTERS, VGL. EC-13, NO. 6, PP. 757-752, DECEMBER 1964.

BRUCE, R.A., "LPTIMUM PRE-EMPHASIS AND CE-EMPHASIS NETWORKS FOR TRANSMISSION OF TELEVISION BY PCM," IEEE TRANSACTIONS ON CLMMUNICATION TECHNOLOGY, SEPTEMBER 1964, PP. 91-96.

BRYNGDAHL, C., "CHARACTERISTICS OF THE VISUAL SYSTEM: PSYCHOPHYSICAL MEASUREMENTS OF THE RESPUNSE TO SPATIAL SINE-WAVE STIMULI IN THE MESCRIC REGION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, PP. 1152-1167, SEPT-EMBER 1964.

CAMEBELL, F.W., RUBSON, J.G., "APPLICATION (F FOURIER ANALYSIS TO THE MODULATION RESPONSE OF THE EYE," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, 1964, P. 581.

CARMAN, P.D., CHARMAN, W.N., "DETECTION, RECOGNITION, AND RESOLUTION IN PHOTO-GRAPHIC SYSTEMS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, NO. 9, PF. 1121-1130, SEPTEMBER 1964.

CRONE, E.M., "AN OBJECTIVE METHOD FOR RATING PICTURE SHARPNESS: SMT ACUTANCE,"

JCURNAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 73, 1564, PP. 643-647.

DAVISSON, L.D., "A THEORY OF ADAPTIVE DATA COMPRESSION," PROCEEDINGS OF THE NATIONAL ELECTRONICS CONFERENCE, CHICAGO, OCTOBER 1964.

DE COSTER, P., TAYLOR, N., "COLOR IMAGE-ENHANCEMENT PROGRAM," HOUSTON FEARLESS CCRPORATION, LCS ANGELES, CALIFORNIA, WESTWOOD DIVISION, JULY 1964.

DEJAGER. F., GREEFKES, J.A., "CONTINUOUS DELTA MODULATION," GLCBECOM VI, 1964.

DUCA, R.O., TUBEY, A.R., "A MATHEMATICAL STUDY OF IMAGE ANALYSIS," STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, FINAL REPORT, MARCH 1964.

ELECTRO-MECHANICAL RESEARCH, INC., "VIDEO DATA MODULATION STUDY," VOL. II, PHCTOGRAPHIC PLATES, FINAL REPORT, NASA CR-93472, ELECTRC-MECHANICAL RESEARCH, INC., SARASCTA, FLORIDA, JULY 1964.

FACLEY, J.K., "VIDEO LATA MODULATION STUDY," VOL. 1, FINAL REPORT, NASA CR-93568, ELECTRO-MECHANICAL RESEARCH, INC., SARASCTA, FLORIDA, JULY 1964.

FACLEY, J.K., KING, B.C., KNIGHT, J.M., PIEPER, A.E., RAGA, G.L., "VIDEO DATA MODULATION STUDY, VOLUME 1," JET PROPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA, NAS 950705, JULY 1964.

FOY, N.H., "ENTROPY OF SIMPLE LINE DRAWINGS," IEEE TRANSACTIONS ON INFURMATION THEORY, VOL. IT-10, NO. 2, PP. 165-167, APRIL 1964.

FRANKS, L.E., "POWER SPECTRAL DENSITY OF RANDOM FACSIMILE SIGNAL," PRCCEEDINGS OF THE IEEE, VOL. 52, NO. 4, PP. 431-432, APRIL 1964.

GARCENHIRE, L.W., "REDUNDANCY REDUCTION THE KEY TO ADAPTIVE TELEMFTRY," PRICEEDINGS OF THE 1964 NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1964.

GLASS, J.M., "A CRITERICN FOR THE QUANTIZATION OF PLANAR CONTOURS," NEW YORK UNIVERSITY COLLEGE OF ENGINEERING TECHNICAL REPORT 400-91, FEBRUARY 1964.

GRAHAM, D.N., "TWO-DIMENSIONAL SYNTHESIS OF HIGH SPATIAL FREQUENCIES IN PICTURE PROCESSING," MIT RESEARCH LABORATURY OF ELECTRONICS, REPORT NO. 75, UCTCBFR, 1964, PP. 131-134.

HARRIS, J.L., "DIFFRACTION AND RESOLVING POWER," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 54, PP. 931-936, JULY 1964.

FARRIS, J.L., "RESOLVING POWER AND DECISION THEORY," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 54, 1964, PP. 606-611.

HUANG, T.S., "CURRECTION TO *PSEUDORANDOM SCANNING, " IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOLUME COM-12, NO. 4, PP. 231-232, DECEMBER 1964.

HUANG, T.S., "PICTURE TRANSMISSION BY DELTA-MODULATION," MIT RESEARCH LABORA-ICRY OF ELECTRONICS, REPORT NO. 74, CAMBRIDGE, MASSACHUSETTS, JULY 1964, PP. 238-210.

HUANG, T.S., "PICTURE TRANSMISSION BY PSEUDDRANDOM SCANNING," MIT RESEARCH LABORATORY OF ELECTRONICS, REPORT NO. 74, CAMBRIDGE, MASSACHUSETTS, JULY 1964, PP. 205-208.

HUANJ, T.S., "PSEUDCRANDOM SCANNING," IFEF TRANSACTIONS ON COMMUNICATION

TECHNOLOGY, VOLUME COM-12, NO. 3, PP. 105-107, SEPTEMBER 1964.

MODERN DESIGNATION OF THE PROPERTY OF THE PROP

HUANG, T.S., "THE SUBJECTIVE EFFECTS OF PICTORIAL NOISE," MIT RESEARCH LABERATORY OF ELECTRONICS, REPORT NO. 72, CAMBRIDGE, MASSACHUSETTS, JANUARY 1964, PP. 194-195.

HUFNAGEL, R.F., STANLEY, N.R., "MODULATION TRANSFER FUNCTION ASSOCIATED WITH IMAGE TRANSMISSION THROUGH TURBULENT MEDIA," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VGL. 54, NO. 1, JANUARY, 1964, Pp. 52-61.

JET PROPULSION LABORATORY, "IMAGE ANALYSIS OF AREA SCAN TELEVISION," CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA, LIBRASCOPE GROUP, MARCH 1964.

KAPANY, N.S., PEPPERS, N.A., "IMAGE SYNTHESIS, "JOURNAL OF THE OPTICAL SCCIETY OF AMERICA. VOL. 54, NU. 11, PP. 1321-1325, NOVEMBER 1964.

KIRSCH, R.A., "COMPUTER INTERPRETATION OF ENGLISH TEXT AND PICTURE PATTERNS," IEEE TRANSACTIONS ON ELECTRONIC COMPUTERS, Vol. EC-13, PP. 363-376, AUGUST 1264.

KNIGHT, J.M., FADLEY, J.K., RAGA, G.L., KING, B.C., "DIGITAL TELEVISION: SHRINK-ING BULKY BANDWIDTHS," ELECTRONICS, VUL. 37, NO. 31, DECEMBER 1964, Pp. 77-84.

LEBEDEV, D.S., LEBEDEV, D.G., "A NEW METHOD CF IMAGE QUANTIZATION," (IN RUSSIAN) AKAC, NAUK VESTNIK, PP. 44-46, NOVEMBER 1964.

LEESE, J.A., "QUANTITATIVE INTERPRETATION OF LOW-LEVEL COMULIFORM CLOUD PATTERNS AS SEEN ON METEOROLOGICAL SATELLITE VIDEOGRAPHS." AC 464606, JULY 1964.

LINFOCT, E.H., "FOURIER METHODS IN OPTICAL IMAGE EVALUATION," FOCAL PRESS, NEW YORK, 1964.

LOHSE, R., NELSON, N.L., "TELEMETRY DATA REDUCTION FOR SPACE VEHICLES," IEEE TRANSACTIONS ON AEROSPACE AS-2, NO. 2, Pp. 187-192, AUGUST 1964.

MADCZZI, A., "APPLICATION OF TELEVISION TECHNIQUE FOR THE PLANIMETRY MEASURE-MENT OF COLOR PATTERNS," EDGENOSSISCHE TECHNISHCHE HOCHSCHULE, ZURICH, SWITZFR-LANC, 1964.

MARTIN, F.F., SHELTON, C.T., "MODIFYING VIDICON CAMERA CHAIN FOR SLCW-SCAN TELEVISION SYSTEMS," OPTOELECTRONIC DEVICES AND CIRCUITS, NEW YORK, MCGRAW-HILL PP. 123-125, 1964.

MASCHFOFF, H.R., "DELTA MODULATION," FLECTRU-TECHNOLOGY, VCL. 73, PP. 91-97, JANLARY 1964.

MASSA, R.J., "VISUAL DATA TRANSMISSION," AIR FORCE CAMBRICGE RESEARCH LABORATORY, BEDFURD, MASSACHUSETTS, PHYSICAL SCIENCES RESEARCH PAPERS, NO. 13, APRIL 1964.

MCGRE, G.A., "CIRECT QUANTITATIVE ANALYSIS OF PHOTOMICROGRAPHS BY A DIGITAL COMPUTER," PHOTOGRAPHY SCIENCE ENGINEER, VOL. 8, NO. 3, 1964.

MCCRE: R.T., STARK, M.C., CAHN, L., "DIGITIZING PICTORIAL INFORMATION WITH A PRECISION UPTICAL SCANNER," JOINT ANNUAL MEETING, AMERICAN SOCIETY OF PHOTOGRAMMETRY AND THE AMERICAN CONGRESS ON SURVEYING AME MAPPING, WASHINGTON, C.C., 1964.

MORRISON, W.L., HOGAN, W.P., PENTZ, R.M., "APPLICATION OF CATA COMPRESSION TO FLIGHT DATA PROCESSING," 1964 PROCEEDINGS OF THE WESCON CONVENTION RECORD, SAN FRANCISCO, CALIFORNIA.

NARASIMHAN, R., "LABELLING SCHEMATA AND SYNTHETIC DESCRIPTION OF PICTURES," IN-FORMATION CONTROLLER, VOL. 7, 1964.

NARASIMHAN, R., FORNANGO, J.P., "SOME FURTHER EXPERIMENTS IN THE PARALLEL PROCESSING OF PICTURES," IEEE TRANSACTIONS ON ELECTRONIC COMPUTERS, DECEMBER 1964, VOL. EC-13, NO. 6, PP. 748-750.

PRCSSER, R.D., ALLNATT, J.H., LEWIS, N.W., "QUALITY GRADING OF IMPAIRED TELEVI-SIGN SIGNALS," PROCEEDINGS OF THE IEE, LONDON, VGL. 111, Pp. 491-502, MARCH 1964.

RADIATION, INCGRPCRATED, "REDUNDANCY REDUCTION DEVICE," AD 600766; DOCUMENTARY REPORT NO. AL-TUR-64-10; RADIATION, INCCRPORATED, MELBOURNE, FLORIDA, MAY 1964.

SCHADE, U.H., "MODERN IMAGE EVALUATION AND TELEVISION," APPLIED OPTICS, VOL. 3, NC. 1, Pp. 17-23, JANUARY 1964.

SCHADE, 0.H., "AN EVALUATION OF PHOTOGRAPHIC IMAGE QUALITY AND RESOLVING POWER," JOURNAL OF THE SOCIETY OF MUTION PICTURES AND FELEVISION ENGINEERS, VOL. 73, 1964, PP. 81-119.

SCHREIBER, W.F., "THE EFFECT OF SCANNING SPEED UN THE SIGNAL/NOISE RAYIU OF CAMERA TUBES," PROCEEDINGS OF THE IEEE, VOL. 52, NO. 2, FEBRUARY 1964, P. 217.

SCCIT, R.M., "THE PRESENT STATE OF THE ART WITH REGARD TO DETECTION RECUGNITION," APPLIED OPTICS, VOL. 3, NO. 1, PP. 13-15, JANUARY 1964.

SIMCNDS, J.L., KELCH, J.R., HIGGINS, G.C., "ANALYSIS OF FINE-DETAIL REPRCUIC-TICN IN PHOTOGRAPHIC SYSTEMS," APPLIED OPTICS, VOL. 3, NC. 1, PP. 23-29, JANUARY 1964.

SIMPSON, R.S., "BUFFER CONTROL IN DATA COMPRESSION SYSTEMS FOR NON-STATIONARY DATA," NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., JUNE 1964.

SIMPSON, R.S., GRIFFIN, M.A., JAMES, S.N., BJORN, T., MA STUCY OF REDUNDANCY REMOVAL FOR SATURN TELEMETRY DATA, M CUMMUNICATIONS SYSTEMS GROUP, BUREAU OF ENGINEERING RESEARCH, UNIVERSITY OF ALABAMA, NOVEMBER 1964.

SMITH, S.L., THOMAS, D.W., "COLOR VERSUS SHAPE CODING IN INFURPATION CISPLAYS," JCURNAL OF APPLIED PSYCHOLOGY, VOL. 48, PP. 137-146, JUNE 1964.

STARK, M.C., "PICTORIAL DATA PROCESSING," NATIONAL BUREAU OF STANDARDS, NBS-1203 -12-12434, WASHINGTON, D.C., FEBRAURY 1964.

TEACHER, C.F., "DIGITAL TELEVISION TECHNIQUES," NATIONAL COMMUNICATIONS SYMPESSION, OCTOBER 1964.

THIRY, H., "SOME QUALITATIVE AND QUANTITATIVE RESULTS ON SPATIAL FILTERING OF GRANULARITY," APPLIED OPTICS, VOL 3, NO. 1, PP. 39-45, JANUARY 1964.

TRABKA, E.A., KUETLING, P.G., "IMAGE TRANSFURMATIONS FOR PATTERN RECOGNITION USING INCUMERENT ILLUMINATION AND BIPOLAR APERTURE MASKS," JOURNAL OF THE OPTICAL SECIETY OF AMERICA, VOL. 54, NO. 10, PP. 1242-1252, UCTOPER 1964.

VANCER LUGT, A.B., "SIGNAL DETECTION BY COMPLEX SPATIAL FILTERING," TRANSACTIONS OF THE IEEE, VGL. IT-10, PP. 139-145, APRIL 1964.

VARSOS, S.G., NORVELL, B., "DATEC-DIGITAL ADAPTIVE TECHNIQUE FOR EFFICIENT COMPUNICATIONS," IEEE INTERNATIONAL CONVENTION RECORD 1964, PART 6, SECTION 435-

445.

WAY, J.L., "ANALUG TO DIGITAL CONVERSION OF TV DATA FOR A MARS MISSION," INTER-NATIONAL SPACE ELECTRONICS SYMPOSIUM, LAS VEGAS, NEVADA, OCTOBER 6-9, 1964. THE PASSESS OF THE PA

********* ** 1965 **

Control of the second s

ABEND, K., HARLEY, T.J., KANAL, L.N., "CLASSIFICATION OF BINARY RANDUM PATTERNS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-11, NO. 4, OCTOBER 1965.

ALLNATT, J.W., "SUBJECTIVE QUALITY OF CCLUR TELEVISION PICTURES IMPAIPED BY GAIN AND DELAY INEQUALITIES BETWEEN THE LUMINANCE AND CHROMINANCE CHANNELS," PROCEEDINGS OF THE IEEE, VOL. 112, NO. 10, PP. 1819-1825, UCTOBER 1965.

ALLNATT, J.W., PROSSER, R.D., "SUBJECTIVE QUALITY OF TELEVISION PICTURES IM-PAIRED BY LONG-DELAYED ECHOES," PROCEEDINGS OF THE IEE, VCL. 112, NO. 3, 1965, P. 487.

AMARI, S., "THEORY OF INFORMATION SPACES-QUANTIZATION AND BANDWIDTH COMPRESSION OF SIGNAL SPACES," ELECTRONICS AND COMMUNICATIONS IN JAPAN 48, OCTOBER 1965, PP. 96-107.

ARMITAGE, J.D., LOHMANN, A.W., "CHARACTER RECOGNITION BY INCCHERENT SPATIAL FILTERING," APPLIED OPTICS, VOL. 4, NO. 4, PP. 461-467, APRIL 1965.

ARMITAGE, J.D., LOHMANN, A.W., HERRICK, R.B., "ABSOLUTE CONTRAST ENHANCEMENT," APPLIED OPTICS, VOL. 4, NO. 4, PP. 445-453, APRIL 1965.

BARTELS, P.H., WILSON, C.F., "AUTOMATIC TRACKING FROM VIDEC SIGNALS," PROCEED-INGS OF THE THIRD ANNUAL SEMINAR-IN-DEPTH, LOS ANGELES, CALIFORNIA, APRIL 26-27, 1965.

BASINGER, J.D., HARSHBARGER, J.H., "TEST EVALUATION OF ELECTRONIC IMAGE GENERATION AND PROJECTION DEVICES," SYSTEMS RESEARCH LABORATORIES, INCORPORATED, DAYTON, CHIO, FINAL REPORT AMRL-TR-65-116, VOL. III, JULY 1965.

BECHTCLD, W.R., MEDLIN, J.E., WEBER, D.R., "PCM TELEMETRY DATA COMPRESSION STUDY, PHASE I," FINAL REPORT SEPTEMBER 1964-AUGUST 1965, NASA CR-71528, LOCK-HEED MISSILES AND SPACE COMPANY, SUNNYVALE, CALIFORNIA, M-62-65-2, P. 43C, UCTOBER 1965.

BCURKE, D.G., JEWELL, P., "SOME CONSIDERATIONS IN ESTABLISHING THE FEASIBILITY OF CATA COMPRESSION IN UNMANNED SPACECRAFT," SYMPOSIUM ON UNMANNED EXPLORATION OF THE SOLAR SYSTEM, DENVER, COLORADO, FEBRUARY 1965.

BRAIN, A.E., DUDA, R.O., FOSSUN, G.E., MUNSON, J.H., "GRAPHICAL-DATA-PROCESSING KESEARCH STUDY AND EXPERIMENTAL INVESTIGATION," STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, QUARTERLY PROGRESS REPORT, NC. 9, NOVEMBER 1965.

BRAINARD, R.C., CAUM, K.B., "EVALUATION OF AN IMAGE QUALITY ENHANCEMENT TECHNICLE." WRIGHT-PATTERSON AIR FORCE BASE, OHIC, AMRL, SEPTEMBER 1965.

BRAINARD, R.C., ORNSTEIN, G.N., "IMAGE QUALITY ENHANCEMENT," NORTH AMERICAN AVIATION, INC., COLUMBUS, OHIO, FINAL REPORT, APRIL 1965.

BRCWN, E.B., "V/U IMAGE MOTION IN AERIAL CAMERAS," PHOTOGRAMMETRIC ENGINEER, VCL. 31, P. 308, 1965.

BRYAN, J.A., STUMPE, J.W., "THE DATA MANAGEMENT ANALYZER, A LABORATORY TOOL FOR DATA CUMPRESSION ANALYSIS," INTERNATIONAL SPACE ELECTRONICS AND TELEMETRY SYMPOSIUM, MIAMI BEACH, FLORIDA, P. 11, NOVEMBER 1965.

BYLANSKI, P., "EFFICIENT ENCODING OF FACSIMILE USING AN ADAPTIVE TECHNIQLE," ELECTRONICS LETTERS, VOL. 1, PP. 72-73, MAY 1965.

CASSAGNE, P., PLOTTIN, G., "COLOR TELEVISION AND SPACE," SCIENCES AND INCUSTRIFS SPATIALS, VCL. 1, NO. 9, 10, PP. 17-26, 1965.

COLWELL, R.N., "THE EXTRACTION OF DATA FROM AFRIAL PICTOGRAPHY BY HUMAN AND MECHANICAL MEANS," PHOTOGRAMMETRIA, PP. 211-228, 1965.

DAVISSON, L.D., "DATA COMPRESSION AND ITS APPLICATION TO VIDEO SIGNALS," GCCCARD SUMMER WORKSHOP PROGRAM IN ANALYSIS OF SPACE DATA AND MEASUREMENT OF SPACE ENVIRONMENTS, FINAL REPORT, NASA/GODDARD SPACE FLIGHT CENTER, PP. A-35-A-56, 1965.

DEUTSCH, S., "PSEUDO-RANDOM DOT SCAN TELEVISION SYSTEMS," IEEE TRANSACTIONS ON BROADCASTING, VOL. BC-11, NO. 1, JULY 1965, PP. 11-21.

ELECTRO-MECHANICAL RESEARCH, INC., "MANNED SPACECRAFT ADVANCED DIGITAL TELEVISION COMPRESSION STUDY," FINAL REPORT, VOL. 1, TEST NASA CR-65508, ELECTRO-MECHANICAL RESEARCH, INC., SARASOTA, FLORIDA, APRIL 1965.

ELECTRU-MECHANICAL RESEARCH, INC., "MANNED SPACECRAFT ADVANCES DIGITAL TELEVISION COMPRESSION STUDY," FINAL REPURT, VOL. 2, PHOTOGRAPHS, NASA CR-655C7, ELECTRO-MECHANICAL RESEARCH, INC., SARASOTA, FLORIDA, APRIL 1965.

ENCHOTU, H., SHIBATA, K., "FEATURES OF HADAMARD TRANSFORMED TELEVISION SIGNALS," 1965 NATIONAL CONFERENCE OF THE I.E.C.E. OF JAPAN, P. 881.

GARCENHIRE, L.W., "DATA REDUNDANCY REDUCTION FOR BIDMEDICAL TELEMETRY," BIDMEDICAL TELEMETRY, ACADEMIC PRESS, NEW YURK, PP. 255-298, 1965.

GERMIND, H.H., "COMPRESSION OF BIDASTRONAUTICAL DATA," PROCEEDINGS OF THE 1965 NATIONAL TELEMETRY CONFERENCE, PP. 17-24.

GLASS, J.M., "A CRITERION FUR THE QUANTIZATION OF LINE-DRAWING DATA," NEW YURK UNIVERSITY CULLEGE OF ENGINEERING, TECHNICAL REPORT 400-112, MAY 1965.

GCCCMAN, L.M., "OPTIMUM RATE ALLOCATION FOR ENCODING SETS OF ANALOG MESSAGES," PROCEEDINGS OF THE LEEE, CURRESPONDENCE, VOL. 53, PP. 1776-1777, NOVEMBER 1965.

GUREVICH, S.G., "ON THE ANALOGY OF CHARACTERISTICS OF REPRODUCTION IN TELEVISION AND PHOTOGRAPHY," QUALITY OF THE PHOTOGRAPHIC IMAGE, PP. 196-219, MARCH 1965.

HAREEY, T.J., KANAL, L.V., "RECOGNIZING PATTERNS IN PHOTOGRAPHS," APPLIED UPTICS, VOL. 4, NO. 10, P. 1350, OCTOBER 1965.

HEUER, D.A., "SURVEY OF VIDEO AND TELEMETRY DATA COMPRESSION TECHNIQUES," THE BCEING CUMPANY, SEATILE, WASHINGTON, CODE IDENTIFICATION 81205, NO. D2-90783-1, CCTCHER 1965.

HCCC, G., "A DATA COMPRESSION PRIMER," NASA TV-X-55323, X-521-65-320, GSFC, GREENBELT, MARYLAND, P. 24, AUGUST 1965.

HUANG, T.S., "OPTIMUM SCANNING DIRECTION IN TELEVISION TRANSMISSION," JCINT MEETING OF U.S. NATIONAL CUMMITTEE, URSI AND IEEE, UCTOBER, 4-6, 1965.

THE PROPERTY OF THE PROPERTY O

HUANG, T.S., "PCM PICTURE TKANSMISSION," IEFE SPECTRUM, VCL. 2, NO. 12, BECEMBER, 1965, PP. 57-63.

THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW

HUANG, T.S., "THE POWER DENSITY SPECTRUM OF TELEVISION RANGOM NOISE," APPLIED OPTICS, VOL. 4, NO. 5, PP. 597-603, MAY 1965.

HUANG, T.S., "THE SUBJECTIVE EFFECT OF TWO-DIMENSIONAL PICTORIAL NOISE," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. (T-11; NUMBER 1, JANUARY 1965, PP. 43-53.

HUANG, T.S.: TRETIAK, O.J., "PICTURE PRUCESSING," REPRINTED FROM QUARTERLY PREGRESS REPORT, NO. 79, OCTOBER 15, 1965, PP. 211-214.

HUANG, T.S., IRETIAK, D.J., "RESEARCH ON PICTURE PROCESSING," UPTICAL AND ELECTRO-OPTICAL INFORMATION PROCESSING, PP. 45-57, M.I.T., CAMBRIDGE. MASSACHUSETTS, 1965.

HUGHES, G.F., "SPACECRAFT DATA COMPACTION BY ORTHCNORMAL PCLYNCMIAL SERIES," AUTCNETICS, NO. 65/31-575-51/SS67, NOVEMBER, 1965.

HYMAN, M.A., "A SPACE DATA HANDLING (WITH EMPHASTS ON DATA COMPACTION),"
ANNUAL EAST COAST CONFERENCE ON AEROSPACE AND NAVIGATIONAL ELECTRONICS, 12TH,
BALTIMORE, MARYLAND, PP. 3.3.3-1 - 3.3.3-6, CCTOBER 1965.

INATSU, M., "LINE-SEQUENTIAL CHRUMINANCE COMPONENTS: TRANSPISSION SYSTEM IN CCLCR TELEVISION AND ITS APPLICATION," JAPAN BROADCASTING CORPORATION, JAPAN, TECHNICAL RESEARCH LABORATORIES, JANUARY 1965.

JCNES, A.H., "USE OF A LINEAR MATRIX TO MODIFY THE CCLOUR ANALYSIS CHARACTERISTICS OF A COLOUR CAMERA," BRITISH BROADCASTING CORPORATION, KINGSWOOD, ENGLAND, ENGINEERING DIVISION, 1965.

JCNES, E.D., "BANDWIDTH COMPRESSION TECHNIQUES FOR METEOROLOGICAL SATELLITE PICTURES," FINAL REPORT MARCH 1964-MAY 1965, NASA CR-70918; STANFORD RESEARCH INSTITUTE, MENLO PARK, CALIFORNIA, MAY 1965, P. 170.

KELLY, D.H., "SPATIAL FREQUENCY BANDWIDTH: AND RESOLUTION," APPLIED OPTICS, VOL. 4, NO. 4, PP. 435-439, APRIL 1965.

KCRIMAN, C.F., "DATA COMPRESSION AND ADAPTIVE TELEMETRY," WESTERN ELECTRONIC SHCW AND CONVENTION, SAN FRANCISCO, CALIFORNIA, TECHNICAL PAPERS, PART 5, NC. 14-4, P. 8, AUGUST 1965.

KCZMA, A., KELLY, D.L., "SPATIAL FILTERING FOR CETECTION OF SIGNALS SUBMERGED IN NOISE," APPLIED OPTICS, VOL. 4, NO. 4, PP. 387-393, APRIL 1965.

LEBEDEV, D.G., LEBEDEV, D.S., "DISCREETING OF IMAGES BY SEPARATION AND QUANTI-FICATION OF CUNTOURS," JOINT PUBLICATIONS RESEARCH SERVICE, WASNINGTON, C.C., ITS TECHNICAL CYBERNETICS, NO. 1, PP. 125-13C, JUNE 1965.

LEBEDEV, D.S., "THE APPLICATION OF INFORMATION THEORY TO PHOTOGRAPHIC SYSTEMS," AMERICAN METEURLOGICAL SOCIETY, BOSTON, MASSACHUSETTS, AFCRL, AUGUST 1965.

LEWIS, N.W., ALLNATT, J.W., "SUBJECTIVE QUALITY OF TELEVISION PICTURES WITH MULTIPLE IMPAIRMENTS," ELECTRONIC LETTERS VOL. 1, NO. 7, P. 187, 1965.

LIMB, J.J., SUTHERLAND, I.G., "RUN-LENGTH CODING OF TELEVISION SIGNALS," PRUCEEDINGS OF THE IEEE, VOL. 53, NO. 2, PP. 169-170, FEBRUARY 1965.

LLH, G.M., "SCAUS-A REAL-TIME SIMULATION CONTROL AND DATA SYSTEM FOR BICASTRONAUTICS TESTING AND SIMULATION," ATAA/AFLC/ASD SUPPORT FOR MANNED FLIGHT CONFERENCE, DAYTON, DHIO, APRIL 1965.

MAKHONIN, V.A., "TELEVISION METHODS OF INCREASING VISUAL DEFINITION OF PHOTOGRAPHIC IMAGES," PATTERN RECOGNITION, QUALITY OF THE PHOTOGRAPHIC IMAGE, PP. 4C8-409, APRIL 1965.

MANASSE, F.K., "OPTICAL FILTERING OF TELEVISION WITH LENTICULAR FILM," PROCEEDINGS OF THE IEEE, VOL. 53, NO. 4, PP. 408-409, APRIL 1965.

MAXHELL, H.S., SILVERMAN, J.R., CZAROINSKI, E.A., "AN ADAPTIVE SPACECRAFT TELEMETRY SYSTEM," INTERNATIONAL TELEMETERING CONFERENCE, VOL. 1, PP. 695-712, has-ington, U.G., May 1965.

MC CAMY, C.S., "UN THE INFURMATION IN A MICROPHOTOGRAPHY," APPLIED OPTICS, VCL. 4, NO. 4, PP. 405-413, APRIL 1965.

MEDLIN, J.E., "SAMPLED-DATA PREDICTION FOR TELEMETRY BANDWIDTH COMPRESSION," IEEE TRANSACTIONS ON SPACE ELECTRONICS AND TELEMETRY, VOL. SET-11, NO. 1, MARCH 1965.

MONTGCMERY, W.C., "PRESENTATION OF PICTURES FROM SCANNED RECCRDS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-11, NO. 2, PP. 204-207, FEBRUARY 1965.

NITADORI, K., "STATISTICAL ANALYSIS OF DELTA PCM," JCURNAL OF THE IECE (JAPAN), VCL. 48, FEBRUARY 1965.

URTON, J.N., ROSENFELD, A., "TWO PROGRAMS FOR DELINEATING "SCLID" AND "BRUKEN" REGIONS IN AN IMAGE," COMPUTER SCIENCE CENTER, MARYLAND UNIVERSITY, COLLEGE PARK, JANUARY 1965.

PALERMO, C.J., PALERMO, R.V., HORWITZ, b., "THE USE OF DATA CMISSION FOR REDUNDANCY REMOVAL," INTERNATIONAL SPACE ELECTIONICS SYMPOSIUM RECORD, 1965.

PEARSON, D.E., "FIDELITY CRITERIA FUR VISUAL IMAGE TRANSMISSION OVER NOISY COM-MUNICATION." PH.D. THESIS, UNIVERSITY OF LONDON, ENGLAND, 1965.

PRATT, W.K., "STOP-SCAN EUGE DETECTION SYSTEMS UF TELFVISION BANDWIDTH KEDUC-TICA," UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CALIFORNIA, 185 P., JUNE 1965.

RAGA, G.L., "DIGITAL TELEVISION COMPRESSION: FACT OR MYTH," 1965 NATIONAL TELE-METERING CONFERENCE PROCEEDINGS, WASHINGTON, D.C., 1965.

RAGA, G.L., "A UNIFIED VIEWPOINT ON DIGITAL TELEVISION COMPRESSION," PROCFEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1965.

REISS, R.A., "PSEUDG-RANDOM SCAN APPLICATIONS TO DATA PROCESSORS," PROCEEDINGS OF THE NEREM CONVENTION RECORD, NOVEMBER 1965.

RIZY, E.F., "COLOR SPECIFICATION FOR ADDITIVE COLOR GROUP CISPLAYS," ROME AIR DEVELOPMENT CENTER, GRIFFISS AIR FORCE BASE, NEW YORK, DISPLAY TECHNIQUES BRANCH, AUGUST 1965.

RUSHFORTH, C.K., "RECOGNIZING PATTERNS IN PHOTOGRAPHS," APPLIED OPTICS, VOL. 4,

NC. 4, PP. 379-383, APRIL 1965.

A STATE OF THE STA

SAKATA: H., "A STUDY OF FILM CAMERA THREE-COLOR SEPARATION SYSTEM," JAPAN BROAD-CASTING CORPORATION, TOKYO, TECHNICAL RESEARCH LABORATORIES, SEPTEMBER 1965.

The second second second second

THE PROPERTY OF THE PARTY OF TH

SCOTT, F., HUFNAGEL, R.E., "SEARCH FOR A SUMMARY MEASURE OF IMAGE QUALITY," PART IO II, THE PERKIN-ELMER CORPORATION, RESEARCH DEPARTMENT, NORWALK, CONNECTICUT, PRESENTED AT THE ANNUAL MEETING OF THE OPTICAL SOCIETY OF AMERICA, PHILADELPHIA. 1965.

SCCVILLE, F.W., HUANG, T.S., "THE SUBJECTIVE EFFECT OF SPATIAL AND BRIGHTNESS QUANTIZATION IN PCM PICTURE TRANSMISSION," NEREW RECCRD, 1965, PP. 234-235.

SEKEY, A., "DETAIL CETECTION IN TELEVISION SIGNALS," PROCEEDINGS OF THE IEEE, VCL. 53, NO. 1, PP. 75-76, JANUARY 1965.

SEYLER, A.J., "AN EXPERIMENTAL FRAME DIFFERENCE SIGNAL GENERATOR FOR THE ANALY-SIS OF TELEVISION SIGNALS," REPRINT FROM THE RACIG AND ELECTRONIC ENGINEER, VOL. 29, NC. 2, FEBRUARY 1965, PP. 71-83.

SEYLER, A.J., "STATISTICS OF TELEVISION FRAME DIFFERENCES," PROCEEDINGS OF THE IEEE, VOL. 53, NO. 12, PP. 2127-2128, DECEMBER 1965.

SEYLER, A.J., "PROBABILITY DISTRIBUTION OF TELEVISION FRAME DIFFERENCES," PRO-CEECINGS OF THE IREE, AUSTRALIA, NOVEMBER 1965, RADIC AND ELECTRONIC ENGINEERING CONVENTION, MARCH 22-26, 1965.

SEYLER, A.J., BUDRIKIS, Z.L., *DETAIL PERCEPTION AFTER SCENE CHANGES IN TELEVI-SIGN IMAGE FRESENTATIONS, * IEEF TRANSACTIONS ON INFORMATION THEORY, VOL. IT-11, NC. 1, JANUARY 1965, Pp. 31-43.

SIVERTSON, N.E., "VARIABLE WORD LENGTH ENCODER REDUCES TV BANDWIDTH REQUIRE-MENTS," LANCLEY RESEARCH CENTER, LANGLEY STATION, VIRGINIA, NOVEMBER 1965.

SNIVELY, J.W., "A BIT-SAVING ENCODING SCHEME FOR A SET OF MONOTONIC NUMBERS," PROCEEDINGS OF THE IEEE, VOL. 53, NO. 5, PP. 544-545, MAY 1965.

SORCKA, E.Z., "MEASUREMENT OF THE INTERFRAME CORRELATION OF A TELEVISION PICTURE," TELECOMMUNICATIONS AND RADIO ENGINEERING, VOL. 19, NO. 9, PART 1, PP. 63-65, SEPTEMBER, 1965.

SPECHT, D.F., DRAPKIN, P.E., "BIOMEDICAL DATA COMPRESSION," PRUCEEDINGS OF THE 1965 NATIONAL TELEMETRY CONFERENCE, PP. 68-74, 1965.

TIPPETT, J.T., ET. AL., "OPTICAL AND ELECTRO-OPTICAL INFCRMATION PROCESSING," CAMERIDGE, MASSACHUSETTS, M.I.T. PRESS, 1965.

VANDER LUGT, A., RCTZ, F.B., KLOUSTER, A., "CHARACTER-READING BY OPTICAL SPATIAL FILTERING," OPTICAL AND ELECTRO-OPTICAL INFORMATION PROCESSING, MASSACHUSETTS INSTITUTE OF TECHNOLOGY PRESS, CAMBRIDGE, MASSACHUSETTS, 1965.

'ASNIK, V.V., "TEACHING IMAGE RECOGNITION TO MACHINES BY THE METHOD OF GENERALIZED PORTRAITS," SELF-ADAPTIVE SYSTEMS, IMAGE RECOGNITION, RELAY SYSTEMS AND FINITE AUTOMATURS, ALL-UNION CONFERENCE ON AUTOMATIC CONTROL, ENGINEERING CYBERNETICS, SEPTEMBER 20-26, 1965.

WALLACE, P.R., SEYLER, A.J., "ACQUISITION AND RECORDING OF EXPERIMENTAL DATA FOR COMPUTER EVALUATION OF TELEVISION SIGNAL STATISTICS," IRE, AUSTRALIS, RADIO AND ELECTRONICS ENGINEERING CONVENTION, MAPCH 22-26, 1965.

WALLACE, P.R., SEYLER, A.J., "ACQUISITION OF STATISTICAL DATA OF TELEVISION SIGNALS," PROCEEDINGS OF THE IRE, AUSTRALIA, NOVEMBER 1965, PP. 343-354.

WATANABE, S., "THE LOEVE-KARHUNEN EXPANSION AS A MEANS OF INFORMATION COMPRESSION FOR CLASSIFICATION OF CONTINUOUS SIGNALS," AMRL-TR-65-114, FORT KNCX, KENTUCKY. OCTOBER 1965.

WEBER, D.R., "A SYNDPSIS ON DATA COMPRESSION," LCCKHEED MISSILES AND SPACE CCPPANY, PP. 9-15, APRIL 13, 1965, NATIONAL TELEMETERING CONFERENCE, HOUSTON, TEXAS.

WINKLER, M.R., "PICTURIAL TRANSMISSION WITH HIDM," 1965 IEEE INTERNATIONAL CON-VENTION RECORD, PART 1, 1965, PP. 285-291.

YOUNG, I.T., MOTT-SMITH, J., MON WEIGHTED PCM," IEEE TRANSACTIONS ON INFORMATION THEORY, PP. 596-597, OCTOBER 1965.

********* ** 1966 **

ALLNATT, J.W., PROSSER, R.D., "SUBJECTIVE QUALITY OF COLOUR-TELEVISION PICTURES IMPAIRED BY RANDOM NOISE," PROCEEDINGS OF THE IEEE, VOL. 113, NO. 4. PP. 551-557, 1966.

ANDREWS, C.A., DAVIES, J.M., SCHWARZ, G.R., "ADAPTIVE DAYA COMPRESSIVE TELEMETRY TECHNIQUES," FEDERAL SYSTEMS DIVISION, IBM CORPORATION, GAITHERSBURG, MARYLANC, FINAL REPORT FOR NASA MANNED SPACECRAFT CENTER, HOUSTON, TEXAS, UNDER CCNTRACT NAS 9-4618, AUGUST 31, 1966.

ATTAYA, W.L., ET AL., "STUDY OF IMAGE-EVALUATION TECHNIQUES," AD 803459, NOV-EMBER 1966.

BALABAN, P., "RECCRDING AND DISPLAY OF REDUCED BANDWIDTH TELEVISION SIGNALS," PCLYTECHNIC INSTITUTE OF BROOKLYN, NEW YORK, MICROWAVE RESEARCH INSTITUTE, NO-VEMBER 1966.

BARNES, C.W., "UBJECT RESTURATION IN A DIFFRACTION LIMITED IMAGING SYSTEM," JCURNAL OF THE UPTICAL SOCIETY OF AMERICA, VCL. 56, PP. 575-576, 1966.

BECHTCLD, W.R., BJORN, T., MEDLIN, J.E., "PCM TELEMETRY DATA COMPRESSION STUCY, PHASE II," SECOND QUARTERLY REPORT, NOVEMBER 1965-FEBRUARY 1966, NASA CR-86993, LOCKHEED MISSILES AND SPACE COMPANY, M-62-66-2, P. 90, SUNNYVALE, CALIFORNIA, APRIL 1966.

BIERNSON, G., "A FEEDBACK-CONTROL MODEL OF HUMAN VISION," PROCEECINGS OF THE IEEE, VOL. 54, PP. 858-872, JUNE 1966.

BILLINGSLEY, F.C., "PROCESSING RANGER AND MARINER PHOTOGRAPHY," SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS JOURNAL, VOL. 4, PP. 147-155, APRIL-MAY 1566.

BISIGNANI, W.T., KICHARDS, G.P., WHELAN, J.W., "DATA COMPRESSION FOR DIGITAL TV FROM SPACE," SPACE/AERUNAUTICS, VOL. 45. Pp. 108-121, JUNE 1966.

BISIGNANI, W.T., RICHARDS, G.P., WHELAN, J.W., "THE IMPRGYED GRAY SCALE AND THE CLARSE-FINE PCM SYSTEMS: THU NEW DIGITAL IV BANDWIDTH RECUCTION TECHNIQUES,"

PRCCEEDINGS 1EEE, VOL. 54, NO. 3, MARCH, 1966, PP. 376-390.

BRCZY, R.H., ERMLICH, J.R., "FOURIER ANALYSIS OF AERIAL PHCTCGRAPHS," PRCCEEDINGS OF THE FOURTH SYMPOSIUM ON REMOTE SENSING OF ENVIRONMENT, ANN ARBCR, MICHIGAN, PP. 375-392, JUNE 1966.

NOTE THE PROPERTY OF THE PROPE

BROWN, B.R., LUHMANN, A.W., "COMPLEX SPATIAL FILTERING WITH BINARY MASKS," APPLIED UPTICS, VOL. 5, NO. 6, PP. 893-899, JUNE 1966.

BURKHARDT, D.A., "BRIGHTNESS AND THE INCREMENT THRESHOLD," JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, PP. 979-981, JULY 1966.

CATHEY, W.T., DOIDGE, J.G., "IMAGE COMPARISON BY INTERFERENCE," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, Pp. 1139-1140, AUGUST 1966.

COTTON, R.V., RENN, R.L., STRAHMEYER, G.R., "ANALYSIS AND IMPLEMENTATION OF A DELTA MODULATION PICTORIAL ENCODING SYSTEM," PROCEEDINGS OF THE 1966 NATIONAL TELEMETERING CONFERENCE, BOSTON, MASSACHUSETTS, MAY 10-12, 1966.

CROWTHER, W.R., RADER, C.M., "EFFICIENT CODING OF VOCODER CHANNEL SIGNALS USING LINEAR TRANSFORMATION," PROCEEDINGS OF THE IEEE, VOL. 54, NO. 11, Pp. 1594-1595, NCVEMBER 1966.

CALKE, G.W., "AUTOMATIC MEASUREMENTS OF TEXTURE AND CETECTION OF LINES IN A FLYING-SPOT SCANNER SYSTEM," UNIVERSITY OF KANSAS, ENGINEERING SCIENCE DIVISION, LAWRENCE, CONTRACT NO. NSR 17-004-003, AUGUST 1966.

LALKE, G.W., "AUTOMATIC PROCESSING OF MULTI-SPECTRAL IMAGES," UNIVERSITY OF KANSAS, ENGINEERING SCIENCE DIVISION, LAWRENCE, KANSAS, REPORT NO. 61-16, CONTRACT NO. NSR-17-004-003, AUGUST 1966.

DAVISSON, L.D., "CCMMENTS ON SEQUENCE CODING FOR DATA COMPRESSION," PROCEFD-INGS OF THE IEEE(CORRESPONDENCE), VOL. 54, P. 2010, DECEMBER 1966.

DAVISSON, L.D., "THE CONCEPT OF ENERGY COMPRESSION RATIO AND ITS APPLICATION TO RUN-LENGTH CODING," FINAL REPORT 1966 SESSION OF THE GODDARD SUMMER WORK-SHUP, NASA, GUDDARD SPACEFLIGHT CENTER, REPORT X-700-67-94.

DAVISSON, L.D., "THEORY OF ADAPTIVE DATA COMPRESSION." ADVANCES IN COMM-UNICATION SYSTEMS, VOL. 2, NEW YORK, ACADEMIC PRESS, 1966.

DAVISSON, L.D., "A THECRY OF ACAPTIVE FILTERING," IFEE TRANSACTIONS ON INFUR-MATION THEORY, VOL. IT-12, NO. 2, APRIL 1966, PP. 97-102.

DEUTSCH, S., MA 210 KC/SEC PHONEVISION SYSTEM, 1966 PROCEEDINGS OF THE 7TH NATIONAL SYMPOSIUM ON INFORMATION DISPLAY, PP. 203-209.

DEUTSCH, S., BALABAN, P., ATZMON, A., "EXPERIMENTAL RESULTS OF PSEUDO-RANDOM DCT SCAN," POLYTECHNIC INSTITUTE OF BROCKLYN, AFOAR REPORT, MICROWAVE RESEARCH INSTITUTE, REPORT PIBMRI-1256, AFCRL-65-29, JANUARY 1966.

DCCC, P.D., WUCD, F.B., "IMAGE INFORMATION, CLASSIFICATION AND CODING," IEEE INTERNATIONAL CUNVENTION RECORD, PP. 60-71, VOL. 1A, PART 7, 1966.

DRAPKIN, P.E., "VIDEO DATA COMPRESSION," SUPPLEMENT TO IEEE TRANSACTIONS ON AERCSPACE AND ELECTRONIC SYSTEMS, VOL. AES-2, NO. 4, 1966, PP. 392-400.

EFRMAN, L., "ANALYTIC COMPAKISON OF ADAPTIVE REDUNDANCY REMOVAL BANDWIDTH COMPRESSION," NORTHEAST ELECTRONICS RESEARCH AND ENGINEERING MEETING, (BUSTUN INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS), PP. 238-239, BOSTON, 1966.

ENLCE, L.H., MURPHY, J.A., RUBINSTEIN, C.B., "HOLOGRAM TRANSMISSION VIA TELEVISION," BELL SYSTEMS TECHNICAL JOURNAL, PP. 335-339, FEBRUARY 1966.

FADLEY, J.K., "NOISE: THE LIMITING FACTOR IN DIGITAL REDUNDANCY REMOVAL COMPRESSION TECHNIQUES," IEEE INTERNATIONAL COMMUNICATIONS CONFERENCE, JUNE 1966.

FERTUR, C.A., "APPLICATION OF THE LAND COLOR-VISION EFFECT TO TELEVISION SYSTEMS -A FEASIBILITY STUDY," ARMY ELECTRONICS LABS, FORT MONMOUTH, NEW JERSEY, CECEMBER 1966.

FRANKS, L.E., "A MCDEL FOR THE RANDOM VIDED PROCESS," BELL SYSTEMS TECHNICAL JCURNAL, PP. 609-630, APRIL 1966.

FRECKIN, E., MNEW DEVELOPMENTS AND APPLICATIONS IN AUTOMATIC IMAGE PROCESSING, SCCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR IN DEPTH, FILMED DATA AND COMPUTERS, BOSTON, MASSACHUSETTS, 1966.

FRIEDEN, B.R., MIMAGE EVALUATION BY USE OF THE SAMPLING THEOREM, JOURNAL OF THE UPTICAL SUCIETY OF AMERICA, VOL. 56, NO. 10, PP. 1355-1362, OCTOBER 1966.

GARCENHIRE, L.W., "DATA COMPRESSION WITH DIGITAL FILTERING," TELEMETRY JCURNAL, VOL. 1, NO. 4, UCTOBER-NOVEMBER 1966, PP. 15-20.

GARCENHIRE, L.W., "REDUNDANCY IN DIGITIZED TIROS PICTURES," A REPORT PREPARED BY RADIATION, INCORPORATED, FOR THE GODCARD FLIGHT CENTER, GREENBELT, MARYLAND, OCTOBER 1966.

GLASS, J.M., "SMOOTH-CURVE INTERPOLATION: A GENERALIZED SPLINE-FIT PROCEDURE," NEW YORK UNIVERSITY, COLLEGE OF ENGINEERING, PP. 277-293, 1966.

GCLCING, L.S., "A STUDY OF ADAPTIVE QUANTIZATION TECHNIQUES," DOCTORATE ENGINEERING DISSERTATION, YALE UNIVERSITY, NEW HAVEN, CONNETICUIT, 1966.

GCLCMB, S.W., "RUN-LENGTH ENCODINGS," IEEE TRANSACTIONS ON INFORMATION THEORY, JULY 1966, PP. 399-401.

GODEMAN, L.M., "OPTIMUM SAMPLING AND QUANTIZING RATES," PROCEEDINGS OF THE IEEF, VCL. 54, NO. 1, JANUARY 1966.

HARPER, L.H., "PCM PICTURE TRANSMISSION," I EEE SPECTRUM, VOL. 3, P. 146, JUNE 1966.

HARRIS, J.L., "IMAGE EVALUATION AND RESTORATION," JOURNAL OF THE OPTICAL SOCIFTY OF AMERICA, VOL. 56, NO. 5, MAY 1966, PP. 569-574.

HARRIS, R.W., RUSHFURTH, C.K., "THE EFFECTS OF DIFFRACTION ON OPTICAL DISCRIMINATION," UTAH STAYE UNIVERSITY, LOGAN, ELECTRO-DYNAMICS LABORATORIES, SCIENTIFIC REPORT NO. 4, JANUARY 1966.

HARRIS, R.W., RUSHFORTH, C.K., "NUMERICAL RESTORATION OF OPTICAL OBJECTS OB-SCURRED BY DIFFRACTION AND NOISE," UTAH STATE UNIVERSITY, LOGAN, ELECTRO-DYNAMICS LAB, DECEMBER 1966.

HARSHEARGER, J.H., "COLOR SIGNAL SOURCE FOR VISUAL SIMULATION," SYSTEMS RESEARCH LABS, INC., DAYTON, OHIC, FINAL REPORT, APRIL 1965-MARCH 1966, AMRL-TR-66-116.

HUCHMAN, D., WEBER, R., "AN ADAPTIVE TELEMETRY--DATA COMPRESSION," CHAPTER 4 OF AEROSPACE TELEMETRY VOLUME II, H.L. STILTZ, EDITUR, PRENTICE-HALL, INC., 1966.

HCPKINS, M., "TELEMETRY DATA COMPRESSION STUDY," FINAL REPURT, PHILCO-FORD CC., PHILCC HOUSTON OPERATIONS, HOUSTON, TEXAS, PHO-TR 266, CONTRACT NAS 9-1261, *67-15334, 1966.

HADDING TO THE PARTY OF THE PAR

HLANG, T.S., "DIGITAL PICTURE CODING," PROCEECINGS OF THE 22ND NATIONAL FLECTRONICS CONFERENCE, CHICAGO, ILLINOIS, OCTOBER 3-5, 1966, Pp. 793-797.

SALES CONTRACTOR OF THE PROPERTY OF THE PROPER

HUANG, T.S., "SOME NOTES ON FILM GRAIN NOISE," NSF SUMMER STUDY, REPORT, WOODS HOLE, MASSACHUSETTS, 1966.

HUANG, T.S., TRETIAK, U.J., "AN EFFICIENT FACSIMILE TRANSMISSION SYSTEM,"
PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., MAY 1966.

IBM CCRPORATION, "ADAPTIVE COMPRESSIVE TELEMETRY TECHNIQLES," FINAL REPORT, NASA CR-65498, FEDERAL SYSTEMS DIVISION, IBM CORPORATION, GAITHERSBURG, MARY-LANC, 1966, P. 239.

IVAKHNENKU, O.G., LEMISHEVSKY, G.O., RENTSKY, V.I., "ALGORITHM FOR PERCEPTION-TYPE RECOGNITION SYSTEMS WITH AN INPUT CORRELATOR," AUTOMATIKA, VOL. 11, NO. 1, PP. 7-21, 1966, IN UKRANIAN.

KABRISKY, M., "A PROPOSED MODEL FOR VISUAL INFORMATION PROCESSING IN THE HUMAN BRAIN," UNIVERSITY OF ILLINOIS PRESS, URBANA, 1966.

KACHLTON, K.C., NOLL, A.M., SINDEN, F.W., "MOVIES FROM THE COMPUTER," SYMPOSIUM. THE HUMAN USE OF COMPUTING MACHINES, MURRAY HILL, NEW JERSEY, JUNE 1966.

KNUCKEY, R.L., "MULTICOLOR PRESENTATION OF IMAGES WITH EDGE ENHANCEMENT," TECHNICAL MEMORANDUM 61-42, UNIVERSITY OF KANSAS, ENGINEERING SCIENCE DIVISION, LAWRENCE, CONTRACT NO. NSR 17-004-003, CCTOBER 1966.

KOMAR, V.G., "CRITERIA CF IMAGE DISTORTIONS IN THE CINEMATCGRAPHIC PROCESS,"
JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 75,
NC. 4, APRIL 1966, Pp. 327-333.

KCNEFSKY, M., "DATA COMPRESSION USING BIT-PLANE FNCODING," GCDDARD SUMMER WORK-SHOP, GREENBELT, MARYLAND, 1966.

KRASILNIKUV, N.N., "CALCULATION OF THE PROBABILISY OF RECOGNITION OF A HALF-TCNF IMAGE WHEN TRANSMITTED OVER A CHANNEL WITH NGISE," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., 1966.

KUPRESICH, N.F., "CERTAIN POSSIBILITIES UF UTILIZING PHUTOELECTRIC AND TELEVI-SION METHODS FOR COMBATING NOISE FROM ATMOSPHERIC TURBULENCE DURING ASTRONOMICAL OBSERVATIONS," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AFB, OHIC, JUNE 1966.

LEDLEY, R.S.; JACOBSEN, J., BELSON, M., "BUGSYS-A PROGRAMMING SYSTEM FOR PICTURE PROCESSING-NOT FOR DEBUGGING," AMERICAN COMPUTING MACHINERY, VOL. 9, PP. 79-84, FEBRUARY 1966.

LECLEY, R.S., ROTULO, L.S., WILSON, J.B., BELSON, M., GOLAB, T.J., JACOBSEN, J., "PATTERN RECOGNITION STUDIES IN THE BIOMEDICAL SCIENCES," PROCEEDINGS OF THE AFIPS JOINT COMPUTER CONFERENCE, BOSTON, MASSACHUSETTS, 1966.

LIP'S, J.O., "VISION ORIENTED CODING OF VISUAL SIGNALS," PH.C. DISSERTATION, UNIVERSITY OF WESTERN AUSTRALIA, PERTH, 1966.

LITTLE, R.E., "THE SUPPRESSION OF HARMONIC DISTORTION IN PHOTOGRAPHIC IMAGES," OPTICA ACTA, VGL. 13, NO. 1, PP. 31-40, JANUARY 1966.

LCWE, D.S., BRAITHWAITE, J.G., "A SPECTRUM MATCHING TECHNIQUE FOR ENHANCING IMAGE CONTRAST," APPLIED UPTICS, VOL. 5, NO. 6, Pp. 893-899, JUNE 1966.

LYNCH, T.J., "SEQUENCE TIME CODING FOR DATA COMPRESSION," PROCEEDINGS OF THE IEEE(CORRESPONDENCE), VOL. 54, PP. 1490-1491, OCTOBER 1966.

MAESTRE, N.E., "A REPURT ON THE APPLICATION OF DATA ABBREVIATION ON ACTUAL RANGE TELEMETRY DATA," INTERNATIONAL TELEMETERING CONFERENCE PROCEEDINGS, VCL. II, PP. 395-413, OCTUBER 1966.

MASSEY, H.A., SMITH, W.E., "IMPLEMENTATION INVESTIGATIONS OF ZVA/FVA COMPRESSION ALGCRITHMS," SUMMARY REPORT JULY 1965-FFBRUARY 1966, NASA CR-76389, LMSC-669224 LCCKHEED MISSILES AND SPACE COMPANY, SUNNYVALE, CALIFORNIA, FEBRUARY 1966, P. 156.

MAYNARD: H.F., PEMBERTON, L.F., SWONGER, C.W., "FILMED-DATA PROCESSING APPLICATIONS ENCOUNTERED IN IMAGE PROCESSING RESEARCH," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, PROCEEDINGS, SEMINAR IN DEPTH, FILMED DATA AND COMPUTERS, BUSTON, 1966.

MC GLAMERY, B.L., "RESTORATION OF TURBULANCE-DEGRADED IMAGES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 3, PP. 278-299, MARCH 1966.

MC LEAN, F.C., "WORLDWIDE COLOR TFLEVISION STANDARDS," IEEE SPECTRUM, VOLUME 3, NC. 6, PP. 59-60, JUNE 1966.

MCRGAN, S.: "RESTORATION OF ATMOSPHERICALLY-DEGRADED IMAGES," NSF SUMMER STUDY, REPORT, HOODS HOLE, MASSACHUSETTS, 1966.

NATHAN, R., "DIGITAL VIDEO-DATA HANDLING," JPL TECHNICAL REPORT NO. 32-877, JANUARY 5, 1966, JET PROPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA.

NEUEERGER, A., "A CHARACTERIZATION OF PICTURES BY ESSENTIAL CONTOURS," S.M. THESIS, DEPARTMENT OF ELECTRICAL ENGINEERING, MIT, CAMBRIDGE, MASSACHUSFITS, JANUARY 1966.

NEVSKAYA, A.A., "INVESTIGATION OF THE TRANSMISSION CAPACITY OF THE HUMAN VISU'L SYSTEM," PROBABILITY OF SPACE BIGLOGICAL, VOL. 4, PP. 82-95, MARCH 1966.

NCZCRCNKUV, G.A., "CALCULATION OF THE NUMBER OF DEGREES OF BRIGHTNESS REPRODUCT-BLE BY THE SYSTEM FOR TRANSMISSION OF AN IMAGE WITH A GIVEN VALIDITY CRITERION," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., PP. 53-59, SEPTEMBER

U'NEAL, J.B., "DELTA MCDULATION QUANTIZING NOISE ANALYTICAL AND COMPUTER SIMULATION RESULTS FOR GAUSSIAN AND TV INPUT SIGNALS," BELL SYSTEM TECHNICAL JCURNAL, VCL. 45, PP. 117-142, JANUARY 1966.

O'NEAL, J.B., "PREDICTIVE QUANTIZING SYSTEMS (DIFFERENTIAL PULSE CODE MODULATION) FOR THE TRANSMISSION OF TELEVISION SIGNALS," SELL SYSTEM TECHNICAL JCURNAL, VOL. 45, MAY-JUNE 1966, NO. 5, PP. 689-721.

PRATT, W.K., "CODING COMPRESSION OF A TELEVISION BANDWIDTH REQUCTION SYSTEM," PROCEEDINGS OF THE IEEE CORRESPONDENCE, VOL. 54, NO. 66, JUNE 1966, PP.914-916.

PREWITT, J.M.S., MAYALL, B.H., MENDFLSUHN, M.L., MPICTORIAL DATA PROCESSING METRY SYSTEMS," PROCEEDINGS OF THE 1962 NATIONAL TELEMETRY CONFERENCE, METHODS IN MICKOSCOPY, SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS,

SEMINAR IN DEPTH, FILMED DATA AND COMPUTERS, BOSTON, MASSACHLSETTS, 1966.

PUTYATIN, Y.P., SHABANOV, Y., KUSHNARENKO, Y.P., "A BIONIC MCDEL OF COLOR VISION OF MAN AND SOME PROBLEMS IN THE THEORY OF COLOR TELEVISION," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., REPORT ON SCVIET RESEARCH IN THE FIELD OF BICNICS, PP. 87-92, NOVEMBER 21, 1966.

and the state of t

RADIATION, INCORPORATED, "TV DATA COMPACTION STUDY," FINAL REPORT FEBRUARY 1966, AU 637694; RADIATION, INCORPORATED, MELBCURNE, FLCRICA, 1966, P. 84.

RAGA, G.L., "WIDEBAND VIDED DATA TRANSMISSION CONSTRAINTS," IEEE INTERNATIONAL COMPUNICATIONS CONFERENCE, JUNE 1966.

RAGA, G.L., "CHANNEL NOISE: A LIMITING FACTOR ON THE PERFORMANCE OF A CLASS OF ADAPTIVE TELEMETRY TECHNIQUES," ADAPTIVE TELEMETRY CONFERENCE, GODDARD, SAN FRANCISCU, CALIFORNIA, FEBRUARY 1966.

RENN, R.L. ET AL., "ANALYSIS AND IMPLEMENTATION OF A DELTA MCDULATION PICTORIAL ENCODING SYSTEM," PROCEEDINGS OF THE 1966 NATIONAL TELEMETRY CONFERENCE, BOSTON, MASSACHUSETTS, MAY 1966, PP. 27-34.

RENWICK, E.C., "MCNLINEAR ESTIMATION WITH QUANTIZED MEASUREMENTS: PCM PREDICTIVE QUANTIZATION AND DATA COMPRESSION," NASA CR-97197; RE-45; MIT, CAMBRIDGE, MASSA-CHUSETTS, EXPERIMENTAL ASTRONOMY LABORATORY, AUGUST 1966, P. 44.

RINDFLEISCH, T.C., WILLINGHAM, D., MA FIGURE OF MERIT MEASURING PICTURE RESOLUTION, ADVANCES IN ELECTRONICS, ELECTRON PHYSICS, EDITED BY L. MARTON, ACADEMIC PRESS, 1966, PP. 341-354.

RUMANCY, V.P., "A RECOGNITION SYSTEM BASED ON ANALYSIS OF THE ORIENTATION OF LCCAL SEGMENTS OF AN IMAGE," JCINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., TECHNICAL CYBERNETICS, NO. 6, PP. 178-186, 1966.

RCSENFELD, A., PFALTZ, J.L., "SEQUENTIAL OPERATIONS IN DIGITAL PICTURE PROCESSING," JOURNAL OF THE AMERICAN ASSOCIATION FOR COMPUTING MACHINERY, VCL. 13, PP. 471-494, OCTOBER 1966.

SANCHUK, A.A., "QUANTIZATION CONTOUR ELIMINATION IN PCM TELEVISION USING EDGE DETECTION," B.S. THESIS, DEPARTMENT OF ELECTRICAL ENGINEERING, MIT, CAMBRIDGE, MASSACHUSETTS, JUNE 1966.

SCHAPHORST, R.H., "COMPUTER SIMULATION OF PICTURIAL DATA ENCODING TECHNIQUE," IEEE INTERNATIONAL COMMUNICATION CONFERENCE, JUNE 1966.

SCHWARTZ, J.W., BARKER, R.C., "BIT-PLANE ENCODING: A TECHNIQUE FOR SOURCE ENCODING," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, VOL. AES-2, JULY 1966, Pp. 385-392.

SCIULLI, J.A., "COMPRESSION OF VIDEO DATA BY ADAPTIVE NONLINEAR PREDICTION," NASA TECHNICAL NOTE, NASA IN D-3475, WASHINGTON, D.C., AUGUST 1966, P. 33.

SIMPSCN, R.S., MEVALUATION OF REDUNDANCY REDUCTION ALGORITHMS, MINTERNATIONAL TELEMETERING CUNFERENCE PROCEEDINGS, VOL. II, OCTOBER 1966, Pp. 338-352, LOS ANGELES, CALIFORNIA.

SIMPSON, R.S., BLACKWELL, C.A., FROST, W.O., "COMPENCIUM OF REDUNDANCY REMOVAL PRCCESSES," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS; VOL. AES-2, NC. 4, 1966, PP. 471-474.

SIMPSCN, R.S., HASKEW, J.R., MA STUDY OF REDUNDANCY IN SATURN FLIGHT CATA, M

TECHNICAL REPORT NO. 9, CUMMUNICATIONS SYSTEMS GROUP, BUREAU OF ENGINEERING RESEARCH, UNIVERSITY OF ALABAMA, AUGUST 1966.

SMITH, H.A., "IMPROVEMENT OF THE RESOLUTION OF A LINEAR SCANNING DEVICE," JOURNAL OF APPLIED MATH, VOL. 14, Pp. 23-40, JANUARY 1966.

SNIVELY, J.W., "A STATISTICAL DATA COMPRESSION TECHNIQUE," NASA TECHNICAL NOTE, NASA TN D-3616, P. 31, WASHINGTON, D.C., OCTCBER 1966.

SCRIN, V.Y., "COMPARATIVE EVALUATION OF THE NOISE RESISTANCE OF AN AMPLITUDE MCDULATION AND PCM PULSE CODE MODULATION IN THE CASE OF IMAGE TRANSMISSION," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., SEPTEMBER 1966.

STAPPFL, R.A., LAUGHLIN, C.R., "SYNOPSIS OF THE ADAPTIVE TELEMETRY CONFERENCE AT GODCARD SPACE FLIGHT CENTER, FEBRUARY, 1966, "GSFC, GREENBELT, MARYLAND, REPORT NC. X-713-55-2C8, P. 15, MAY 1966.

THEILE, R., "COMPATIBLE COLUR TRANSMISSION AND EUROPEAN MUCULATION METHODS," IEEE SPECTRUM, VOLUME 3, NO. 6, PP. 60-69, JUNE 1966.

THEMAS, J.P., "BRIGHTNESS VARIATIONS IN STIMULI WITH RAMP-LIKE CONTOURS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 56, FEBRUARY 1966, PP. 238-241.

TURNER, L.E., "A SYSTEM FOR THE AUTOMATIC RECOGNITION OF MCVING PATTERNS,"
IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-12, PP. 195-205, APRIL 1966.

VIERI, B.J., "EXPERIMENTS WITH A SCHEME OF DATA REDUCTION FOR TELEVISION SIGNALS," PH.D. THESIS, UNIVERSITY OF LONDON, LONDON, ENGLAND, JANUARY 1966.

VIGLICNE, S.S., "PATTERN RECOGNITION SYSTEMS," SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, SEMIANNUAL TECHNICAL CONFERENCE AND EQUIPMENT EXHIBIT, LOS ANGELES, CALIFORNIA, OCTOBER 2-7, 1966.

WALLACE, P.K., *REAL-TIME MEASUREMENTS OF ELEMENT DIFFERENCES IN TELEVISION PROGRAMS,* PROCEEDINGS OF THE IEEE, VOL. 54, NO. 11, PP. 1576-1577, NOVEMBER, 1966.

WHELAN, J.W., "DIGITAL VERSUS ANALOG TELEVISION TRANSMISSION FRUM SPACECRAFT," IN SPACECRAFT AND SPACE SYSTEMS, CAMDEN, NEW JERSEY, RADIO CORPORATION OF AMERICA, PP. 18-23, 1966.

WHELAN, J.W., "DIGITAL TV BANDWIDTH REDUCTION TECHNIQUES AS APPLIED TO SPACE-CRAFT TELEVISION," JOURNAL OF SPACECRAFTS AND RUCKETS, ALAA, VOL. III, NO. 5, PP. 667-673, MAY 1966.

******** ** 1967 ** ******

AERCJET-GENERAL CORPORATION, "WEATHER SATELLITE PICTURE PATTERN RECOGNITION CUMPRESSION STUDY," FINAL REPORT DECEMBER 1966-JUNE 1967, NASA CR-89780, REPORT 1091 R-2, EL MCNTE, CALIFORNIA, JUNE 1967.

ALTMAN, N.G., "IMAGE-QUALITY CRITERIA FOR DATA RECORDING AND STOKAGE," JOURNAL OF THE SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS, VOL. 76, 1967, Pp. 629-634.

ANCHEMS, C.A., DAVIES, J.M., SCHWARZ, G.R., "ADAPTIVE DATA COMPRESSION," PRO-CEECINGS OF THE IEEE, VOL. 55, NO. 3, MARCH 1967, PP. 267-277.

Name of the State of the State

ANDREWS, C.A., SCHWARZ, G.R., MANALYSIS AND SIMULATION OF CATA COMPRESSION TECHNIQUES, NATIONAL TELEMETERING CONFFRENCE PROCEEDINGS, SAN FRANCISCO, CALIFORNIA, MAY 1967, PP. 57-64.

SALAM SECTION OF THE PARTY OF T

BACHL, A., LUKOSZ, W., "EXPERIMENTS ON SUPERRESULUTION IMAGING OF A REDUCED UBJECT FIELD," JOURNAL OF THE OPTICAL SCCIETY OF AMERICA, VOL. 57, NO. 2, PP. 163-169, FEBRUARY 1967.

BAHER, C.A., NICHOLSON, R.M., "RASTER SCAN PARAMETERS AND TARGET IDENTIFICA-TICA," PROCEEDINGS OF THE 19TH ANNUAL NATIONAL AEROSPACE ELECTRONICS CONFERENCE, DAYTUN, OHIO, PP. 285-290, MAY 15-17, 1567.

BALAKRISHNAN, A.V., "ADAPTIVE METHODS IN COMMUNICATION SYSTEMS," NASA/GSFC (GCCDARD SPACE FLIGHT CENTER) CONFERENCE ON ADAPTIVE TELEMETRY, GREENBELT, MARYLAND, FEBRUARY 1966, NASA TM-X-55747; X-731-67-7; PP. 5-25, JANUARY 1967.

BECHTCLD, W.R., HOCHMAN, D., "GENERAL-PURPOSE VERSUS SPECIAL-PURPOSE COMPUTERS FOR DATA COMPRESSION," WESTERN ELECTRONIC SHOW AND CONVENTION, SAN FRANCISCO, CALIFORNIA, PP. 6/4-1 TO 6/4-11, AUGUST 1967.

BELLO, P.A., LINCCLN, R.N., GISH, H., "STATISTICAL DELTA MCDULATION," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, PP. 308-320, MARCH 1967.

BERNET, H.F., MROOT-MEAN-SQUARE RAY DEVIATION AS A MEASURE OF IMAGE DUALITY,"
JCURNAL OF THE SUCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VOL. 76,
NC. 3, MARCH 1967, PP. 203-204.

BIALLY, T., "A CLASS DIMENSION CHANGING MAPPINGS AND ITS APPLICATION IT BAND-WICTH COMPRESSION," PH.D. THESIS, POLYTECHNIC INSTITUTE OF BROOKLYN, NEW YORK, 1967.

BIERNSON, G., "ANALYSIS OF COLOR DISCRIMINATION PROPERTIES OF A HIGH DIMENSIONAL COLOR VISION MODEL," APPLIED RESEARCH LABORATORY, SYLVANDIA ELECTRONIC SYSTEMS, WALTHAM, MASSACHUSETTS, PP. 104-108, 1967.

BILLINGSLEY, F.C., "DIGITAL IMAGE PROCESSING AT JPL," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, C.C., 1967.

BJCRN, T., FRICOERD, W.J., MEDLIN, J.E., "PCM TELEMETRY DATA COMPRESSION STUDY, PHASE 2." FINAL REPORT, AUGUST 1965-DECEMBER 1966, NASA CR-85894, LCCKHEFD MISSILES AND SPACE CU., M-62-66-8, P. 319, SUNNYVALE, CALIFORNIA, JANUARY 1967.

BRAINARD, R.C., "LOW-RESOLUTION IV: SUBJECTIVE EFFECTS OF NOISE ADDED TO A SIGNAL," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. XLVI, NC. 1, JANUARY 1967, PP. 233-259.

BRAINARD, R.C., "SUBJECTIVE EVALUATION OF POM NOISE-FEEDRACK CODER FOR TELEVISION," PROCEEDINGS OF THE ICEE, VOL. 55, PP. 346-353, MARCH 1967.

BRAINARD, R.C., MOUNTS, F.W., PRASADA, B., "LCW-RESULUTION TV: SUBJECTIVE EFFECTS OF FRAME REPETITION AND PICTURE REPLENISHMENT," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, NO. 1, PP. 261-271, 301-311, JANUARY 1567.

BROCK, G.C., "PHYSICAL ASPECTS OF AERIAL PHOTOGRAPHY," NEW YORK, DOVER, 1967.

BRCCK, G.C., "HEFLECTIONS ON THIRTY YEARS OF IMAGE EVALUATION," PHOTOGRAPHIC

SCIENCE AND ENGINEERING, VOL. 11, PP. 356-362, 1967.

BROWN, E.F., "LOW RESOLUTION TV: SUBJECTIVE COMPARISON OF INTERLACED AND NONINTERLACED PICTURES," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, NO. 1, Pp. 199-232, 1967.

BRUCE, M.M., "AN ANALYSIS OF A FIRST-ORDER PCLYNOMIAL PREDICTOR FOR DATA CCMPRESSION," NASA TECHNICAL NOTE, NASA TN D-3866, WASHINGTON, D.C., P. 29, MARCH 1967.

BUCK, G.J., GUSTINCIC, J.J., "RESOLUTION LIMITATIONS OF A FINITE APERTURE," IEEE TRANSACTIONS ON ANTENNAS PROPOGATIONS, VOL. AP-15, Pp. 376-381, MAY 1967.

BYLANSKI, P., "SECOND-ORDER REDUNDANCY OF COARSELY QUANTIZED VIDEO SIGNALS," PROCEEDINGS OF THE IEE, LONDON, VOL. 114, NO. 12, PP. 1831-1833, 1967.

CHILNG-PAN, C., "LIMITING INFORMATION CONTENT OF FELEVISION SIGNAL," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, FOREIGN TECHNOLOGY DIVISION, JANUARY 1967.

CLARK, L.D., "MATHEMATICAL PREDICTION OF PHOTOGRAPHIC PICTURE QUALITY FROM TONE-REPRODUCTION DATA," PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. II, PP. 306-315, 1967.

CLOWES, M.B., "PERCEPTION, PICTURE PROCESSING AND COMPUTERS," MACHINE INTELLIGENCE, VOL. 1, OLIVER AND BOYD, PP. 181-197, 1967.

CYKCWSKI, C.B., ET. AL., "IMAGE ENHANCEMENT OF RADIONUCLIDE SCANS BY CPTICAL SPATIAL FILTERING," JOURNAL OF NUCLEAR MEDICINE, VOL. 12, NO. 12, Pp. 85-87, 1967.

DAVISSON, L.D., "AN APPROXIMATE THEORY OF PREDICTION FOR DATA COMPRESSION,"
LEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, PP. 274-278, APRIL 1967.

DAVISSON, L.D., "THE EFFECT OF CHANNEL ERRORS ON DATA COMPRESSION," WESCEN CLAFERENCE, SESSION 6, DATA COMPRESSION, SAN FRANCISCO, CALIFORNIA, 1967.

DAVISSON, L.D., "THE FAN METHOD OF DATA COMPRESSION," 1966 SESSICH GODDARD SUMMER WORKSHOP, NASA TM X-55742; X-700-67-94; NASA/GSFC, GREENBELT, MARYLAND, FINAL REPORT, PP. 23-30, 1967.

DISPLER, J.J., "VISUAL SENSUR SYSTEMS IN SPACE," IEEE TRANSACTIONS ON COMM-UNICATION TECHNOLOGY, VOL. COM-15, NO. 6, DECEMBER 1967, Pp. 824-834.

DCWNING, J.J., SMITH, W.E., STABBLES, J.E., "GENERAL PURPOSE TELEMETRY DATA COMPRESSION," WESCON 67 TECHNICAL PAPERS, DATA COMPRESSION, SESSION 6, AUGUST 1967, SAN FRANCISCO, CALIFORNIA.

EFRMAN, L., "ANALYSIS OF SUME REDUNDANCY REMCVAL BANDHIDTH COMPRESSION TECHNIQUES," PROCEEDINGS OF THE IEEE, VOL. 55, Pp. 278-287, MARCH 1967.

EHRMAN, L., "A STUCY OF ADAPTIVE BANDWIDTH COMPRESSION," PH.C. DISSERTATION, NCRIHEASTERN UNIVERSITY, BOSTON, MASSACHUSETTS, 1967.

FAYN, V.S., "IDENTIFICATION OF IMAGES," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, FORFIGN TECHNOLOGY DIVISION, SEPTEMBER 1967.

FAYN, V.S., "IMAGE RECOGNITION," JOINT PUBLICATIONS RESEARCH SERVICE, WASHING-TCN, C.C., MAY 1967.

FRICMAN, Y.S., "MATHEMATICAL TREATMENT OF TELEVISION PICTURES OF THE EARTH'S CCVER," GLAVNAIA GEOFIZICHESLCAIA OBSERVATORIIA IMENI A.I. VCEIKOVA, TRUCY, NO. 203, 1967, PP. 35-48.

WHICH STREET

FRICMAN, Y.S., GOLDEN, Y.Y., "PARAMETRIZATION OF TELEVISION IMAGES OF CLOUDINESS ON DIGITAL COMPUTERS," JOINT PUBLICATIONS RESEARCH SERVICE, WASHINGTON, D.C., USE OF METEROLOGICAL SATELLITES IN CLOUD RESEARCH, PP. 24-32, June 1967.

FRIEDEN, B.R., "BANDLIMITED RECONSTRUCTION OF OPTICAL OBJECTS AND SPECTRA,"
JOURNAL OF THE UPTICAL SUCIETY OF AMERICA, VCL. 57, PP. 1913-1019, AUGUST 1967.

GARCENHIRE, L.W., "ELIMINATING REDUNDANCY IN FIXED FRAME TELEVISION," NASA/GSFC GCDCARD SPACE FLIGHT CENTER CONFERENCE UN ADAPTIVE TELEMETRY, GREENBELT, MARY-LAND, NASA TM-X-55747, X-731-67-7, JANUARY 1967, PP. 171-187.

GAZLEY, C., RIEBER, J.E., STRATTON, R.H., "CCMPUTER WORKS A NEW TRICK IN SERING-PSEUDU COLOR PROCESSING," AERONAUTICS AND ASTRONAUTICS, VOL. 4, P. 56, APRIL 1967.

GULDING, L., "A 15 TO 25 MHZ DIGITAL TELEVISION SYSTEM FOR TRANSMISSION CH COMMERCIAL COLOR," COMMUNICATION SATELLITE CORPORATION, WASHINGTON, D.C., DECEMBER 1967.

GOLCING, L.S., SCHULTHEISS, P.M., "STUDY OF AN ADAPTIVE CUANTIZER," PROCEEDINGS OF THE IEEE, VCL. 55, PP. 293-297, MARCH 1967.

GCCDMAN, J.W., "DIGITAL IMAGE FORMATION FROM DETECTED HOLOGRAPHIC DATA," ACCUSTICAL HOLOGRAPHY, VOL. 1, PP. 173-185, DECEMBER 1967.

GCOCMAN, J.W., *DIGITAL IMAGE FORMATION FROM ELECTRUNICALLY DETECTED HOLCGRAMS, *SUCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, COMPUTERIZED IMAGING TECHNIQUES SEMINAR, WASHINGTON, D.C., JUNE 26, 27, 1967.

GCCCMAN, L.M., "A BINARY LINEAR TRANSFORMATION FOR REDUNCANCY REDUCTION," PROCEEDINGS OF THE IEEE, MARCH 1967, PP. 467-468.

GCOCMAN, L.M., "CHANNEL ENCODERS," PROCEEDINGS OF THE IFEE, CORRESPONDENCE, VCL. 55, PP. 127-128, JANUARY 1967.

GRAHAM, D.N., "IMAGE TRANSMISSION BY TWC-DIMENSINAL CONTOUR COCING," PROCEEDINGS OF THE IEEE, VOL. 55, PP. 336-346, MARCH 1967, NO. 3.

GUTTMAN, A., GOLDEN, J., GALBRAITH, H.J., "CEMPUTER PROCESSING OF SPECTOGRAMS FOR ABSOLUTE INTENSITIES," APPLIED OPTICS, VCL. 6, NC. 9, FP. 1507-1513, SEPTEMBER 1967.

GUZMAN, A., "SCENE ANALYSIS USING THE CONCEPT OF MUDEL," AC 652017, JANUARY 1567.

HAIRES, K.A., BRUMM, D.B., "A TECHNIQUE, FOR BANDWIDTH REDUCTION IN HCLCGRAPHIC SYSTEMS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 8, AUGUST 1967.

HARGER, R.U., "ON PROCESSING OPTICAL IMAGES PROPOGATED THROUGH THE ATMOSPHERE," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, VCL. AES-3, NO. 5, PP. 819-828, SEPTEMBER 1967.

HARRIS, J.L., "COMPUTER PROCESSING OF ATMOSPHERICALLY DECRADED IMAGES," PROCEEDING OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, COMPUTERIZED IMAGING TECHNIQUES SEMINAR, WASHINGTON, D.C., JUNE 26-27, 1967.

HAWKINS, J.K., MUNSEY, C.J., "IMAGE PROCESSING BY ELECTRON-OPTICAL TECHNIQUES,"
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 57, PP. 914-918, JULY 1967.

HELSTROM, C.W., "IMAGE RESTORATION BY THE METHOD OF LEAST SQUARES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, PP. 297-303, 1967.

HERLSTREIT, J.W., POULIQUEN, H., MINTERNATIONAL STANDARDS FOR COLOR TELEVISION, MIEFE SPECTRUM, VOLUME 4, NO. 3, PP. 104-112, MARCH 1967.

HILBORN, E.H., STEVENSON, L.E., *MEANS FOR IMPROVING APPARENT TELEVISION RESOLUTION, ** INFORMATION DISPLAY, VOL. 4, PP. 40-43, SEPTEMBER-UCTOBER 1967.

HOCHMAN, D., KATZMAN, H., WEBER, D.R., MAPPLICATION OF REDUNCANCY REDUCTION TO TELEVISION BANDWIDTH COMPRESSION, M PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, PP. 253-267, MARCH 1967.

HOLEMAN, J.M., "SPATIAL FILTERING-A REPCRT ON THE STATE-CF-THE ART," GENERAL ELECTRIC CUMPANY, NEW YORK, PP. 155-172, 1967.

HCLLENBAUGH, R., "A STUDY OF DATA COMPRESSION BUFFERING," NASA/GSFC (GOCDARD SPACE FLIGHT CENTER) CONFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREENBELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, PP. 77-79.

HUANG, T.S., THE COMBINED USE OF DIGITAL COMPUTERS AND COHERENT OPTICS IN IMAGE PROCESSING, SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

HUANG, T.S., CHIKHADUI, M.T., "THE EFFECT OF BSC ON PEM PICTURE QUALITY," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, NO. 2, APRIL 1967, PP. 270-273.

HUANG, T.S., TRETIAK, O.J., PRASADA, B., YAMAGUCHI, Y., "DESIGN CONSIDERATIONS IN PCM TRANSMISSION OF LOW-RESOLUTION MONOCHROME STILL PICTURES," PROCEEDINGS OF THE IEEE, VCL. 55, NC. 3, PP. 331-335, MARCH 1967.

ICHIOKA, Y., IZUMI, M., SUZUKI, T., "DIGITAL OPTICAL INFCRMATION PROCESSING BY A MIDDLE CLASS COMPUTER," DEPARTMENT OF APPLIED PHYSICS, FACULTY OF ENGINFERING, OSAKA UNIVERSITY, SUITA, OSAKA, JAPAN, 1967.

JERMANN, W.H., "REDUNDANCY IN BINARY PATTERNS," AD-661228; NAVY UNDERWATER SOUND REFERENCE LABORATORY, ORLANDO, FLORIDA, USL-854, N68-12015, CCTUBER 1967.

KANAL, L., "UBJECT RECOGNITION IN AERIAL PHOTOGRAPHY-EXPERIMENTAL COMPARISON OF SCHE STATISTICAL TECHNIQUES," INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, IEEE TRANSACTIONS ON INFORMATION THEORY, SAN REMO, ITALY, SEPTEMBER 1967.

KAUFMAN, L., LINCOLN, A.J., PITBLADO, C.B., "EVALUATION OF PSEUDO-RANDOM DOT-SCANNING TELEVISION SYSTEMS." SPERRY KAND RESEARCH CENTER, SUDBURY, MASSACHU-SETTS, FINAL REPORT, JANUARY 1967.

KELLEY, R.B., "THE EFFECT OF CHANNEL ERRORS ON A SAMPLING COMPRESSION SYSTEM EMPLOYING BINARY SEQUENCE TIME ENCODING," 1966 SESSION OF THE GODDARD SUMMER WORKSHOP, NASA TV X-55742; X-700-67-94; NASA/GSFC, GREENBELT, MARYLAND, 1967, PP. 45-64.

KELLEY, R.B., "SAMPLE COMPRESSION SYSTEM EVALUATION," PH.O. THESIS, UNIVERSITY OF CALIFORNIA AT LCS ANGELES, LOS ANGELES, ORDER NO. 68-222, 1967.

KIRSCH, R.A., "BIOMEDICAL IMAGE AND LANGUAGE PATTERN PROCESSING," RESEARCH PROJECT, NATIONAL BUREAU OF STANDARDS, WASHINGTON, D.C., 1967.

KCRTMAN, C.M., "DATA COMPRESSION BY REDUNDANCY REDUCTION," IFEE SPECTRUM, VOL. 4, MARCH 1967, PP. 133-139.

William Company of the Company of th

KORTMAN, C.M., "REDUNDANCY REDUCTION: A PRACTICAL METHOD OF CATA COMPRESSION," PROCEEDINGS OF THE IEEE, VOL. 55, MARCH 1967, Pp. 253-263.

KSIENSKI, A., MC GHEE, R.B., "RADAR SIGNAL PROCESSING FOR ANCULAR RESCLUTION BEYOND THE RAYLEIGH LIMIT," THE RADIO AND ELECTRONIC ENGINEER, PP. 161-174, SEPTEMBER 1967.

KUTZ, R.L., TRESULTS OF ADAPTIVE PREDICTOR STUDIES, PART 1, NASA/GSFC CCN-HERENCE ON ADAPTIVE TELEMETRY, GREENBELT, MARYLAND, NASA TM X-55747, X-731-67-7, PP. 41-53, JANUARY 1967.

LAUGHLIN, C.R., "DATA COMPACTION STUDIES," NASA/GSFC, GODDARD SPACE FLIGHT CENTER, CONFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREENBELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, PP. 41-53.

LEDLEY, R.S., "SOME PRACTICAL PICTURE PROCESSING PROBLEMS," 5TH SEMINAR GF PATTERN RECOGNITION SOCIETY, WASHINGTON, D.C., JANUARY 1967.

LERMAN, S.H., SHANNON, R.K., "TWO-DIMENSIONAL IMAGE REDUCTION AND ENHANCEMENT," PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, COMPUTER-IZEC IMAGING TECHNIQUES SEMINAR, WASHINGTON, D.C., JLNE 26-27, 1967.

LESEM, L.B., "HOLOGRAPHIC DISPLAY OF DIGITAL IMAGES," AMERICAN FECERATION OF INFCRMATION PROCESSING SOCIETIES, FALL JOINT COMPUTER CONFERENCE, NGVEMBER 14-16, 1967.

LEVIT, A.B., "THE ENTRCPY OF SOURCES OF VISUAL MESSAGES," CYBERNETICS IN THE SERVICE OF COMMUNISM, COMPUTER TECHNOLOGY, SEMICTICS, ED. BY A.I. BERG, VOL. 3, MGSCON-LENINGRAD, ENERGIYA PUBLISHING HOUSE, JUNE 1967.

LIMB, J.O., MSOURCE-RECEIVER ENCODING OF TELEVISION SIGNALS, M PROCEEDINGS OF THE IFEE, VOL. 55, NU. 3, PP. 364-379, MARCH 1967.

LCCKHEED COMPANY, "DATA COMPRESSION," INFORMATIONSSCHRIFT, LOCKHEED MISSILES AND SPACE COMPANY, SUNNYVALE, CALIFORNIA, LMSC-895385, P. 47, AUGUST 1967.

LUHMANN, A.W., DE, M., "SIGNAL DETECTION BY CORRELATION OF FRESNEL DIFFRACTION PATTERNS," APPLIED OPTICS, VOL. 6, NO. 12, P.217, DECEMBER 1967.

LCHMANN, A.W., PARIS, D.P., "THEORY OF BINARY HOLOGRAMS," IBM SYSTEMS DEVELOPMENT DIVISION, BOULDER LABORATORY, TECHNICAL REPORT, TR.44.0019, JUNE 5, 1967.

LUHMANN, A.W., PARIS, D.P., WERLICH, H.W., "COMPUTER GENERATED SPATIAL FILTER APPLIED TO CUDE TRANSLATION," APPLIED OPTICS, VOL. 6, PP. 1139-1140, JUNE 1967.

LOHMANN, A.W., PARIS, D.P., "BINARY FRAUNHOFER HOLOGRAMS, GENERATED BY CCMPUTER" APPLIED OPTICS, VOL. 6, NO. 10, OCTUBER 1967.

LOHMANN, A.W., WERLICH, H.W., "HOLOGRAPHIC PRODUCTION OF SPATIAL FILTERS FOR CODE TRANSLATION AND IMAGE RESTORATION," PHYSICS LETTERS, VOL. 25A, PP. 570-571, GCTCBER 23, 1967.

LUMENTHAL, S., BELVAUX, Y., "RECCNNAISSANCE DES FORMES PAR FILTRAGE DES FORMES PAR FILTRAGE DES FREQUENCES SPATIALES," OPTICA ACTA, VOL. 14, NO. 3, PP. 245-258, 1967.

LCWITZ, G.E., "DYNAMIC SHAPE RECOGNITION," PROCEEDINGS OF THE FIRST RCCK ISLAND ARSENAL BICMECHANICS SYMPOSIUM, AUGUSTANA COLLEGE, RCCK ISLAND, ILLINOIS, PP. 95-104, APRIL 1967.

LUKCS 2, W., "OPTICAL SYSTEMS WITH RESULVING POWERS EXCECTING THE CLASSICAL LIMIT III," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 7, PP. 932-941, JULY 1967.

LYNCH, T.J., "DATA COMPRESSION WITH ERRCR-CONTROL CODING FOR SPACE TELEMETRY," NASA TECHNICAL REPORT, NASA TR R-261, GCDDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, JUNE 1967.

LYNCH, T.J., "PERFORMANCE MEASURES FOR COMPRESSED AND CODEC SPACE TELEMETRY SYSTEMS," IEEE TRANSACTIONS ON AEROSPACE AND ELECTRENIC SYSTEMS, VOL. AES-3, PP. 784-795, SEPTEMBER 1967.

MANASSE, F.K., "DIRECTIONAL CORRELATION---A TECHNIQUE TO REDUCE BANCWIDTH IN PCM TELEVISION TRANSMISSIONS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-15, NG. 2, APRIL, 1967, PP. 204-208.

MCCUTCHEN, C.W., "SUPER-RESOLUTION IN MICRUSCOPY AND THE ABBE RESCLUTION LIMIT," JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 10, PP. 119C-1193, UCTCBER 1967.

MEYER, A.J., HICKLING, R., "HOLOGRAMS SYNTHESIZED ON A COMPUTER-OPERATED CATHODE-RAY TUBE," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NC. 11, PP. 1388-1389, NOVEMBER 1967.

MICHAELS, E.L., "REAL-TIME DEEP SPACE TELEVISION," HOUSTON UNIVERSITY, TEXAS, 1967, N 68-23195.

MOUNTS, F.w., "LUW-RESCLUTION TV: AN EXPERIMENTAL DIGITAL SYSTEM FOR EVALUATING BANCHIDTH-REDUCTION TECHNIQUES," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. XLVI, NC. 1, JANUARY 1967.

MUELLER, P.F., REYNCLDS, G.O., "IMAGE RESTORATION BY REMCVAL OF RANCOM-MEDIA DEGRADATIONS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, NO. 11, PP. 1338-1345. NOVEMBER 1967.

NAJJAR, H., O'ANTONIO, R., BLASBALG, H., "ADAPTIVE DIGITAL TERMINAL FOR SPACE TELEMETRY," TELEMETRY JOURNAL, NO. 2, 1967, NO. 5, AUGUST-SEPTEMBER, PP. 25-27, 29-21.

NASA/GCCDARU SPACE FLIGHT CENTER, "SPACE EXPLORATIONS" CHALLENGE TO ADAPTIVE TELEMETRY," CCNFERENCE ON ADAPTIVE TELEMETRY, FEBRUARY 1966, GREENBELT, MARYLAND, NASA TM X-55747, X-731-67-7, JANUARY 1967, Pp. 3-6.

NEW YORK ACADEMY OF SCIENCE, "DATA EXTRACTION AND PROCESSING OF OPTICAL IMAGES IN THE MEDICAL AND BIOLOGICAL SCIENCES," PROCEEDINGS OF THE CONFERENCE, NEW YORK JUNE 1967.

O'CCNAOR, D.C., "VISUAL FACTORS AFFECTING THE PRECISION OF COORDINATE MEASUREMENT IN AEROTRIANGULATION," UNITED STATES ARMY GEODESY, INTELLIGENCE AND PAPFING, RESEARCH AND DEVELOPMENT AGENCY, RESEARCH NOTE #21, JANUARY 1967.

O'NEAL, J.B., "A BOUND ON SIGNAL-TO-QUANTIZING NOISE RATIOS FOR DIGITAL ENCODING SYSTEMS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, PP. 287-292, MARCH 1967.

OPPENHEIM, A.V., MGENERALIZED SUPERPOSITION, MINFCRMATION AND CONTROL, VCL. II, 1967, PP. 528-536.

UTT, G., "COMPACT ENCODING OF STATIONARY MARKOV SOURCES," IEEE TRANSACTIONS ON INFCKMATION THEORY, IT-13, NO. 1, PP. 82-89, 1967.

THE PROPERTY OF THE PROPERTY OF THE PARTY OF

PALAZZO, F.L., "AIRBORNE SCREENING OF RECONNAISSANCE IMAGERY," PROCEEDINGS OF THE 19TH ANNUAL NATIONAL AEROSPACE ELECTRONICS CONFERENCE, DAYTON, CHIO, PP. 293-299, MAY 15-17, 1967.

PARIS, D.P., "IMAGE PROCESSING BY COMPUTER GENERATED BINARY FILTERS," SUCIETY OF FHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

PEARSON, D.E., "A REALISTIC MODEL FOR VISUAL COMMUNICATIONS SYSTEMS," PROCEEDINGS OF THE IEEE, VOL. 55, PP. 380-389, MARCH 1967.

PETERSON, D.P., "PITFALLS IN VISUAL DATA PROCESSING," 6TH SEMINAR OF PATTERN RECOGNITION SOCIETY, WASHINGTON, D.C., 1967.

PFALTZ, J.L., RUSENFELD, A., "COMPUTER REPRESENTATION OF PLANAR REGIONS BY THEIR SKELETONS," ASSOCIATION OF COMPUTING MACHINERY, VOL. 10, PP. 118-125 FEBRUARY 1967.

PINKSTON, J.T., MENCODING INDEPENDENT SAMPLE INFORMATION SCURCES, NASA CR-93764, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASSACHUSETTS RESEARCH INSTITUTE OF ELECTRONICS, TECHNICAL REPORT 462, OCTOBER 1967, NO. 89, N 68-20115.

PRAIL, W.K., "A BIBLIOGRAPHY ON TELEVISION BANDWIDTH REDUCTION STUDIES," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-13, PP. 114-115, JANUARY 1967.

PRCIONOTARIOS, E.N., "SLOPE OVERLOAD NOISE IN DIFFERENTIAL PULSE CODE MODULATION SYSTEMS," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, PP. 2119-2161, NOVEMBER 1967.

RADCY, C.H., "PATTERN RECUGNITION BY FOURIER SERIES TRANSFORMATIONS," THESIS FOR AIR FURCE INSTITUTE OF TECHNOLOGY, SCHOOL OF ENGINEERING, GE/EE/67A-11, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, MARCH 1967.

RAGA, G.L., "WIDEBAND VIDEO DATA TRANSMISSION" IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-15, FEBRUARY 1967, Pp. 124-129.

REUTSKII, V.I., VASILEV, V.I., VOLOKHOV, V.S., "DESCRIPTION OF VISUAL IMAGES BY SPECTRAL REDISTRIBUTION FUNCTIONS," AVTOMATIKA, VOL. 12, PP. 48-56, JULY-AUGUST, 1967.

RICHARDS, G.P., BISIGNANI, W.T., "REDUNDANCY REDUCTION APPLIED TO COARSE-FINE ENCODED VIDED," PROCEEDINGS OF THE IEEE, VOL. 55, OCTOBER 1967, PP. 1707-1717.

ROBINSON, A.H., CHERRY, C., "RESULTS OF A PROTOTYPE TELEVISION BANDWIDTH COM-PRESSION SCHEME," PROCEEDINGS OF THE LEEE, VCL. 55, MARCH 1967, PP. 356-564.

RCBINSON, A.H., "AUTOMATIC DIGITAL ENCODING FOR BANDWIDTH REDUCTION IN VISUAL IMAGE TRANSMISSION SYSTEMS," PH.D. THESIS, UNIVERSITY OF LCNCON, LONDON, ENGLANC, 1967.

ROIZEN, J., "UNIVERSAL COLUR TELEVISION: AN ELECTRONIC FANTASIA," IEEE SPECTRUM, VCLLME 4, NO. 3, PP. 112-115, MARCH 1967.

RCSEN, L., "MOIRE EFFECTS IN COMPUTER-GENERATED HOLDGRAMS," PRUCEEDINGS OF THE LEEE, VOL. 55, NO. 10, OCTOBER 1967.

RCSENFELF, J., "RELATIONSHIPS BETWEEN INFORMATION CAPACITY AND RESOLVING POWER," . PHOTOGRAPHIC SCIENCE AND ENGINEERING, VCL. 11, Pp. 415-418, 1967.

SCHADE, O.H., "THE RESOLVING-POWER FUNCTIONS AND QUANTUM PROCESSES OF TELEVISION CAMERA," RCA REVIEW, VOL. 28, Pp. 460-535, 1967.

SCHAEFER, D.H., "THE IMP STATISTICS COMPUTER: AN EXAMPLE OF CN BOARD CATA PROCESSING," PROCEEDINGS OF THE 7TH INTERNATIONAL SYMPOSIUM ON SPACE TECHNOLOGY AND SCIENCE, TCKYC, 1967, PP. 433-436.

SCHOEN, E., "COMPUTER-CONTROLLED DATA COMPRESSION AT 100 KC," PROCEEDINGS OF THE INTERNATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., VCL. III, CCTOBER 1967, PP. 382-396.

SCHREIBER, W.F., "PICTURE CUDING," PROCEEDINGS OF THE IEE, VOL. 55, MARCH 1967, Pp. 320-330.

SCHWARZ, G.R., "ADAPTIVE BUFFER DESIGN FUR DATA COMPRESSION SYSTEMS," WESTERN ELECTRUNIC SHOW AND CONVENTION, SAN FRANCISCO, CALIFORNIA, AUGUST 1967, PP. 6/3-1 TO 6/3-12.

SCIULLI, J.A., MRESULTS OF ADAPTIVE PREDICTOR STUDIES, II, MASA/GSFC, GCODARD SPACE FLIGHT CENTER, CONFERENCE ON ADAPTIVE TELEMETRY, GREENBELT, MARYLAND, NASA TM X-55747, X-731-67-7, PP. 81-108, JANUARY 1967.

SCUTT, F., "A LINE SCAN IMAGE GENERATOR," PHCTOGRAPHIC SCIENCE AND ENGINEERING, VCL. 2, NO. 5, SEPTEMBER-OCTOBER 1967.

SHULLO, T.R., TEITELMAN, W., "A GENERAL PURPOSE VIDEO INPUT DEVICE FOR A DIGITAL COMPUTER," BULT, BERANEK, AND NEWMAN, INCORPORATED, CAMBRIDGE, MASSACHUSETTS, FINAL TECHNICAL REPORT, JULY 1967.

SINNAMON, L.D., OWENS, R.F., VAN DUINEN, R.W., "SOCRATES-ACAPTIVE IMAGE PROCESSUR," SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, SEMINAR, COMPUTERIZED IMAGING TECHNIQUES, WASHINGTON, D.C., 1967.

SLEFIAN, D., "RESTORATION OF PHOTOGRAPHS BLURRED BY IMAGE MOTICN," BELL SYSTEM TECHNICAL JOURNAL, VOL. 46, PP. 2353-2362, 1967.

SLEPIAN, D., "LINEAR LEAST-SQUARES FILTERING OF DISTCRTED IMAGES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 57, Pp. 918-922, JULY 1967.

SMITH, W.E., DOWNING, J.J., STUBBLES, J.E., "GENERAL PURPOSE TELEMETRY DATA COM-PRESSION," WESCON 67 TECHNICAL PAPERS, DATA COMPRESSION, SESSION 6, SAN FRANCIS-CC, CALIFORNIA, AUGUST 1967.

SNIVELY, J.W., "A PARAMETER EXTRACTION TECHNIQUE," NASA, GCDDARD SPACE FLIGHT CENTER, CONFERENCE ON ADAPTIVE TELEMETRY, GREENBELT, MARYLAND, NASA TM X-55747; X-731-67-7; JANUARY 1967, PP. 117-127.

STANLEY, T.P., "COMPRESSION OF MARKOV DATA," PH.D. THESIS, PRINCETCN UNIVERSITY, NEW JERSEY, 1967, ORDER NO. 68-2519.

STANLEY, T.P., LIU, B., "DATA COMPRESSION FOR DISCRETE MARKOV SIGNALS." PRO-CEECINGS OF THE 1967 NATIONAL ELECTRONICS CONFERENCE, VOL. 23, PP. 534-539.

STOVER, A.R., "TIME-DOMAIN BANDWIDTH COMPRESSION SYSTEM," THE JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA, VOL. 42, NO. 2, PP. 348-359, AUGUST, 1967.

STRCKE, G.W., HALIOUA, M., MA NEW HOLOGRAPHIC IMAGE CEBLURRING METHOD, PHYSICS

LETTERS, VOL. 33A, NO. 1, SEPTEMBER 21, 1967, PP. 3-4.

STUMPE. J.W., "REDUNDANCY REDUCTION TECHNIQUES AND APPLICATIONS," TELECOMMUNICATIONS, VOL. 1, NO. 2, PP. T39-T43, OCTOBER 1967, ALSO, NATIONAL TELEMETERING CONFERENCE PROCEEDINGS, PP. 50-56, SAN FRANCISCO, CALIFORNIA, MAY 1967.

.... Mediand Han, 27 a Select product and a sold stiff stiff to the second the sold of the selection of the second second

THOMPSON: J.E., SPARKES, J.J., "A PSOUDC-RANDOM QUANTIZER FOR TELEVISION SIGNALS," PROCEEDINGS OF THE IEEE, VOL. 55, NO. 3, PP. 353-355, MARCH 1967.

TSYBAKOV, G.S., "PROBLEMS OF LINEAR ENCODING OF A MUVING IMAGE," JOINT PUBLICATIONS SERVICE, WASHINGTON, D.C., VOL. 3, PP. 163-180, JUNE 1967.

VAGIN, YU., V., "ON ALGORITHMIZATION OF THE IMAGE RECOGNITION PROCESS," TRANS-LATED INTO ENGLISH OF RUSSIAN PUBLICATION, AUTOMATICHESKOE, MOSCOW, PP. 81-85, 1567.

VANCER LUGT, A.: MITCHEL, R.H., "TECHNIQUE FOR MEASURING MCDULATION TRANSFER FUNCTIONS OF RECORDING MEDIA," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 57, NO. 3, MARCH 1967, Pp. 372-380.

VAN MEETEREN, A., WAGENAAR, W.A., "DISCRIMINATION AND IDENTIFICATION IN ADISY LINE-SCAN PICTURES," INSTITUTE FOR PERCEPTION TVO-TNL, SCESTERBERG, NETHERLANDS, 1967.

WEBER, D.R., "SOME ECCNOMIC FACTORS IN THE APPLICATION OF CATA COMPRESSION," NATIONAL TELEMETERING CONFERENCE, SAN FRANCISCO, CALIFORNIA, PP. 65-69, MAY 1967 PROCEEDINGS.

********* ** 1968 ** ******

ABRAM, J.M., CATCHPOLE, C.E., GOODRICH, G.W., "IMAGE PROCESSING WITH A MULTI-APERTURE IMAGE DISSECTOR, "JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VOL. 6, PP. 93-96, 1968.

ABRAMSON, N., "PICTURE QUALITY: FILM VS. TFLEVISION," JOURNAL OF THE SCCIETY OF MCTION PICTURES AND TELEVISION ENGINEERS, VOL. 77, 1968, PP. 613-621.

ALLNATT, J.W., BRAGG, E.J.W., "SUBJECTIVE QUALITY OF TELEVISION PICTURES IM-PAIRED BY SINEWAVE NUISE AND LOW-FREQUENCY RANDOM NOISE," PROCEEDINGS OF THE IEEE, VOL. 115, 1968, PP. 371-375.

ALTMAN, N.G., "USE OF ELECTRO-OPTICAL IMAGE CORRELATION FOR MEASURING AND PROVICING COMPENSATION FOR IMAGE MOTION," PROCEEDINGS OF THE NASA/ERC SEMINAR, CAMERIDGE, MASSACHUSETTS, DECEMBER 1968.

ANDREWS, H.C., "ENTROPY CONSIDERATIONS IN THE FREQUENCY COMMIN." REPRINT FROM THE PRUCEEDINGS OF THE IEEE, VOL. 56, NC. 1, JANUARY 1968, PP. 113-114.

ANDREWS, H.C., "FOURIER CODING OF IMAGES," UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CALIFORNIA, IMAGE PROCESSING LAB, 157 P., JUNE 1968.

ANDREWS, H.C., PRATT: W.K., "FOURIER TRANSFORM CUDING OF IMAGES," 1968 FAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, HUNDLULU, PP. 677-68C. 677-66C.

ANDREWS, H.C., PRATT, W.K., "TELEVISION BANDWIDTH REDUCTION BY ENCODING SPATIAL FREQUENCIES," JOURNAL OF THE SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, VCL. 77, PP. 1279-1281, MAY 1968.

ARSENAULT, H., BOIVIN, A., MOPTICAL FILTER SYNTHESIS BY HULOGRAPHIC METHODS, MICHAEL OF THE UPTICAL SOCIETY OF AMERICA, VCL. 58, NO. 11, Pp. 1490-1494, NCVLMBER 1968.

BAER, T., "APPLICATION OF MEDIAL-AXIS TRANSFORM TO PICTURE BANDWIDTH COMPRESSICA," M.S. THESIS, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, DEPARTMENT OF ELECTRICAL ENGINEERING, SEPTEMBER 1968.

BALAKRISHNAN, A.V., "COMMUNICATION THEORY," NEW YORK: MCGRAW-HILL, 1968, PP. 335-342.

BELL, D.A., "COMPUTER AIDED DESIGN OF IMAGE PROCESSING TECHNIQUES," CONFERENCE ON PATTERN RECOGNITION, LONDON, ENGLAND, IEE, PP. 282-289, 1968.

BERKOWITZ, M.A., "EDGE GRADIENT ANALYSIS OF ACCURACY STUDY," PROCEEDINGS OF THE SPIE SEMINAR ON MODULATION TRANSFER FUNCTION," BCSTUN, MASSACHUSETTS, MARCH 1966.

BIALLY, T., "SPACE-FILLING CURVES AND THEIR APPLICATIONS TO BANDWIDTH REDUCTION," PH.D. THESIS, DEPARTMENT OF ELECTRICAL ENGINEERING, POLYTECHNIC INSTITUTE OF BROOKLYN, JULY 1968.

BIERNSCN, G., SNYDER, A.W., "A MODEL OF VISION EMPLOYING OPTICAL MODE PATTERNS FOR COLOR DISCRIMINATION," IEEE FRANSACTIONS ON SYSTEMS SCIENCES AND CYBERNE-TICS, VOL. SSC-4, NO. 2, P. 173, JULY 1968.

BIRCH, K.G., "A SPATIAL FREQUENCY FILTER TO REMOVE ZERO FREQUENCY," OPTICA ACTA, VOL. 15, Nu. 2, Pp. 113-128, MARCH-APRIL 1968.

BLACKMAN, E.S., "EFFECTS OF NOISE ON THE DETERMINATION OF PHOTOGRAPHIC SYSTEM MODULATION TRANSFER FUNCTION," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 12, PP. 244-250, SEPTEMBER-OCTOBER 1968.

BRCWN. E.B., "PREDICTION AND COMPENSATION OF LINEAR IMAGE MOTIONS IN AERIAL DER 1968.

BROWN, H.A., "IMAGE ENHANCEMENT WITH PROLATE SPEROIDAL WAVE FUNCTIONS," NAVAL RESEARCH LABS, REPORT #6798, WASHINGTON, D.C., NOVEMBER 1968.

BRCWN, H.A., "LIMITATIONS ON AN IMAGE ENHANCEMENT PROCESS," NRL MEMORANDUM REPORT, #1934, WASHINGTON, D.C., OCTOBER 1968.

BRYNGDAHL, C., LUHMANN, A., "HOLOGRAPHIC PENETRATION OF TURBLLENCE, "FRCCEEDINGS OF THE NASA/ERC SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

BURCKHARDT, C.B., "INFORMATION REDUCTION IN HOLOGRAMS FOR VISUAL DISPLAYS," JCUHNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 58, NO. 2, PP. 241-246, FEBRUARY 1968.

HURCKHARDT, C.B., "OPTIMUM PARAMETERS AND RESOLUTION LIMITATION OF INTEGRAL PHCTUGRAPHY." JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 1, PP. 71-76, JANUARY 1968.

BUTT, E., "THE PAX II PICTURE PROCESSING SYSTEM," CUMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, TECHNICAL REPORT 68-67, NSG-398, PH-43-67-1099, MAY 1968.

BUT1, E., KCSAKOFF, E., LEE, Y., ROSENFELD, A., "STUDIES IN VISUAL TEXTURE MANIPULATION AND SYNTHESIS," COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, TECHNICAL REPORT 68-64, XG-2054*62-2271*67R, APRIL 1968.

CHARLES CONTRACTOR

ACCOUNT OF THE PARTY OF THE PAR

CAMPHELL, F.W., "THE HUMAN EYE AS AN OPTICAL FILTER," PROCEEDINGS OF THE IFFE, VCL. 56, PP. 1009-1014, JUNE 1968.

CASEY, W.I., "THE IMPORTANCE OF ELEMENTAL REGISTRATION AND CALIBRATION IN URBITAL EARTH RESOURCES MULTI-SPECTRAL IMAGING," AMERICAN INSTITUTE OF AERCNAUTICS AND ASTRONAUTICS, 1968.

CHENG, G.C., LEDLEY, R.S., MA THEORY OF PICTURE DIGITIZATION AND APPLICATIONS, PICTORIAL PATTERN RECOGNITION, THOMPSON, WASHINGTON, D.C., Pp. 329-352, 1968.

CHERNYKH, D.F., GAVRILOV, G.A., GUREVICH, S.B., KONSTANTINCV, A.B., KENSTANTINCV, V.B., OSTROVSKII, Y.I., "HCLOGRAPHIC IMAGE TRANSMISSION BY TELEVISION," SCVIET PHYSICS-TECHNICAL PHYSICS, VOL. 13, PP. 378-383, SEPTEMBER 1968.

CHLTJIAN, A., CULLIER, R.J., "RECORDING AND RECONSTRUCTING THREE-DIMENSICHAL IMAGE" OF COMPUTER-GENERATED SUBJECTS BY LIPPMANN INTEGRAL PECTOGRAPHY, "APPLIED CPII(5, VOL. 7, NO. 1, P. 99, JANUARY 1968.

CCNSIDINE, P., PROFID, R.A., "IMAGE PROCESSING WITH IN-LINE CPTICAL SYSTEMS," SPIE IMAGE INFORMATION RECOVERY SEMINAR PROCEEDINGS, VOL. 16, PP. 113-119, OCTOBER 1968.

CULFANE, J.L., NETTLESHIP, R., "SOME METHODS FOR THE COMPRESSION OF BINARY DATA IN SPACECRAFT EXPERIMENTS," IEEE TRANSACTIONS ON NUCLEAR SCIENCE, VOL. NS-15, NC. 2, Pp. 3-13, 1968.

CURRY, R.E., "NONLINEAR ESTIMATION WITH QUANTIZED MEASUREMENTS: PCM PREDICTIVE QUANTIZATION AND DATA COMPRESSION," NASA CR-97197, RE-45, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASSACHUSETTS, EXPERIMENTAL ASTRONOMY LABORATORY, AUGUST 1968, 44 P.

CUTRONA, L.J., HALL, W.D., "SOME CONSIDERATIONS IN POST-FACTO BLUR REMOVAL," NASA SEMINAR SP-193, EVALUATION OF MOTION DEGRADED IMAGES REPORT, PP. 149-159, 1968.

DAVISSON, L.U., "DATA CUMPRESSION USING STRAIGHT LINF INTERPCLATION," IEEE TRANSACTIONS UN INFORMATION THEORY, VOL. IT-14, NO. 3, MAY 1968, PP. 392-394.

DAVISSON, L.D., "INFORMATION RATES FOR DATA COMPRESSION," PRESENTED AT THE WESTERN ELECTRONIC SHOW AND CONVENTION, LOS ANGELES, CALIFORNIA, AUGUST 1968.

DAVISSON, L.D., "THE THEORETICAL ANALYSIS OF DATA COMPRESSION SYSTEMS," PRO-CEEDINGS OF THE IEEE, VOL. 56, NO. 2, PP. 176-186, FEBRUARY 1968.

DAVISSON, L.D., "ON THE THEORETICAL ANALYSIS OF DATA COMPRESSION TECHNIQUES," PROCEEDINGS OF THE HAWAII INTERNATIONAL CONFERENCE OF SYSTEM SCIENCES, 1968.

DELCOR, G.P., JURRIENS, A.A., LEVELT, W.J.M., VANDEGEF, J.P., "LINE-SCAN IMAGERY INTERPRETATION," PHOTOGRAMMETRY ENGINEER, NO. 5, 1968.

DE ROSIER, C.J., KLUG, A., "RECONSTRUCTION OF THREF-DIMENSIONAL STRUCTURES FROM ELECTRON MICROGRAPHS," NATURE, VOL. 217, PP. 136-134, JANUARY 1968.

CIAMANTIDES, N.D., "CORRELATION MFASURE OF CONTRAST FOR MAP MATCHING," JCURNAL

OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NC. 7, PP. 996-998, JULY 1968.

MANUFACTURE AND ADDRESS OF THE PARTY OF THE

DRCGIN, E.M., RUVIN, A.E., "DELAY TIME BANDWIDTH REDUCTION TECHNIQUES," EASCON CONVENTION RECORD, SEPTEMBER 1968, INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, NEW YORK, PP. 581-584.

EFRCN, E., "IMAGE PRUCESSING BY DIGITAL SYSTEMS," AMERICAN SOCIETY OF PHOTO-GRAPMETRY, ANNUAL CONVENTION, WASHINGTON, D.C., PHOTOGRAMMETRIC ENGINEERING, VCL. 34, PP. 1058-1062, OCTOBER 1968.

ELSEY, J.C., "DATA COMPRESSION FOR SPACE MISSIONS," 5TH SPACE CONGRESS PROCEEDINGS, VOL. 1, PP. 9/3-1-9/3-15, COCDA BEACH, FLORIDA, MARCH 1968.

ENGMUTO, H., SHIBATA, K., "TELEVISION SIGNAL COOLING METHOD BY ORTHOGONAL TRANS-FORMATION," 6TH RESEARCH GROUP ON TELEVISION SIGNAL TRANSMISSION. THE INSTITUTE OF TELEVISION ENGINEERS OF JAPAN, MAY 1968.

ERMOLVEV, M.M., "USE OF HOLOGRAPHY FOR IMAGE RECOGNITION," PROCEEDINGS OF THE 2ND ALL-UNION CONFERENCE ON MACHINE ANALYSIS OF BIOLOGICAL STRUCTURES AND PROCESSES, PUSHCHINO, RUSSIA, MAY 1968.

ESCHELBACH, R.E., "A UNIQUE TECHNIQUE FOR THE REAL-TIME OPTICAL PROCESSING OF SCANNED IMAGES," MAGNAVOX RESEARCH LABS, TORRANCE, CALIFORNIA, DECEMBER 1968.

ESTCURNET, D., SCHWARTZ, P.Y., "STATISTICAL ANALYSIS OF PHCTCGRAPHIC IMAGES," CENTRE NATIONALE D'ETUDES DES TELECOMMUNICATIONS, ISSY-LES-MCNLINEAUX, FRANCE, AGARD ADVANCED TECHNOLOGY FOR AEROSPACE SURVEILLANCE, PP. 329-352, 1968.

ETCHEVERRY, F., "METHOD FOR TRANSMITTING 3-D IMAGES WITH PRACTICAL BANDWIDTHS," 103RD TECHNICAL CONFERENCE, SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, NEW YORK, NEW YORK, MAY 5-10, 1968, PREPRINT NO. 103-66.

FEDER, J., "LANGUAGE OF ENCODED LINE PATTERNS:" INFURMATION AND CONTROL, VOL. 13, NO. 3, PP. 230-244, SEPTEMBER 1968.

FREEMAN, H., "A REVIEW OF RELEVANT PROBLEMS IN THE PROCESSING OF LINE DRAWING DATA," SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISA-TIRRENIA, AUGUST 1968.

FREIBERGER, W., GRENANDER, U., "COMPUTER-GENERATED IMAGE ALGEBRAS," PROCEEDINGS OF THE IFIP CUNGRESS, H4-H9, AUGUST 1968.

FRIEDEN, B.R., "HOW WELL CAN A LENS SYSTEM TRANSMIT ENTRCPY?," JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 8, PP. 1105-1112, AUGUST 1968.

FRIEDEN, B.R., "OPTIMUM, NONLINEAR PROCESSING OF NOISY IMAGES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 9, PP. 1272-1276, SEPTEMBER 1968.

FUKUI, H., MEXPERIMENTAL STUDY OF SLOW-SCAN, HIGH-RESOLUTION VIDEO TRANS-MISSION AT ONE-MEGAHERTZ BANDWIDTH, PREPRINT NO. 103-49, PRESENTED AT THE 103RD TECHNICAL CONFERENCE, SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, NEW YORK, MAY 5-10, 1968.

GISH, H., MAN INVESTIGATION OF QUANTIZATION TECHNIQUES, FINAL REPORT, 1968, AD-669097, SIGNATRON, INC., LEXINGTON, MASSACHUSETIS, SIG-CR-337, AFCRL-68-C150, FEBRUARY 1968, N 68-26473.

GUDDMAN, J.W., "INTRODUCTION TO FOURIER OPTICS," MC GRAW-HILL, NEW YORK, PP. 133-136, 1968.

GOUDMAN, J.W., JACKSON, D.W., LEHMANN, M., KNOTTS, J.W., MIDLOGRAPHIC IMAGERY THROUGH ATMOSPHERIC INHOMOGENECTIES, M PROCEEDINGS OF THE NASA/ERC SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

GUTTLIEB, P., "A TELEVISION SCANNING SCHEME FOR A DETECTOR-NOISE-LIMITED SYSTEM," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-14, NO. 3, MAY, 1968, PP. 428-433.

GRANGER, E.M., "RESTORATION OF IMAGES DEGRADED BY SPATIALLY VARYING SMEAR," IN EVALUATION OF MOTION-DEGRADED IMAGES, NASA SEMINAR, PP. 161-165, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968.

GRASSELI: A., MACTIVITIES IN IMAGE PROCESSING AT IEI, COLLUCUE INTERNATIONAL SUR LA RECONNAISSANCE DE FORME, COMMISAARIAT ENFRGIF ATOMIQUE, GRENOBLE, SEFTEMBER 1968.

GUIGNUM, J.E., KLINE, R.M., "DEVELOPMENT OF AN CN-LINE IMAGE PROCESSING SYSTEM FOR THE LINE," WASHINGTON UNIVERSITY, ST. LOUIS, MISSOURI, COMPUTER SYSTEMS LAB, FEBRUARY 1968.

GUZPAN, A., "ANALYSIS OF SCENES BY COMPUTER-RECOGNITION AND INDENTIFICATION OF CBJECTS," SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES PISA-TIRRENIA, AUGUST 1968.

HAINES, K.A., BRUMM, D.B., "HOLOGRAPHIC DATA REDUCTION," APPLIED OPTICS, VUL. 7, NO. 6, P. 1185, JUNE 1968.

HALLUWS, R.L., KLENSCH, R.J., MELECTRONIC HALFTCNES, MIEEE SPECTRUM, VOL. 5, NC. 19, P. 64, OCTOBER 1968.

HAPP, W.W., "CODING SCHEMES FOR RUN-LENGTH INFURMATION BASED ON POISSON-DIST. IBUTION," NASA TECHNICAL NOTE, NASA TN D-4572, WASHINGTON, D.C., JUNE 1968.

HARRIS, J.L., "POTENTIAL AND LIMITATIONS OF TECHNIQUES FOR PRUCESSING LINFAR MOTION-DEGRADED IMAGERY," EVALUATION OF MOTION DEGRACED IMAGES, NASA SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968, PP. 131-138.

HAWKINS, J.K., "IMAGE PROCESSING-A REVIEW AND PROJECTION," SUMMER SCHOOL ON AUTCMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISA-TIRRENIA, AUGUST 1966.

HAWKINS, J.K., "PARALLEL ELECTRO-OPTICAL PICTURE PROCESSING," PICTORIAL PATTERN RECCGNITION, WASHINGTON, D.C., THOMPSON, 1968.

HEATH: M.A., PECK, J.C., "COLOR-TELEVISED MEDICAL MICROSCOPY," NATIGNAL AERO-NAUTICS AND SPACE ADMINISTRATION, MANNED SPACECRAFT CFNTER, PGUSTON, 1EXAS, NC. MSC-13086, AUGUST 1968.

HECKEL, D.T., CUANDT, R.L., ALLEN, L.H., WOBTAINING COLOR TELEVISION PICTURES FROM SPACE, PREPRINT NO. 103-97, PRESENTED AT THE 103RD TECHNICAL CONFERENCE, SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS, NEW YORK, MAY 5-10, 1968, 18 E.

HEMANI, H., "QUALITATIVE PATTERN RECOGNITION VIA OPTICAL SYSTEMS," WESTERN ELECTRONIC SHOW AND CONVENTION, LOS ANGELES, CALIFORNIA, 1968.

HIRSCH, C.J., "COLOR TELEVISION STANDARCS FOR REGION 2," IEEE SPECTRUP, VOL. 5, NC. 2, P. 62, FEBRUARY 1968.

HCLCERMAN, F., "IMAGE PROCESSING-STATE OF THE ART, AND A SPECIAL MACHINE SYSTEM

FCR IMAGE PROCESSING," SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISA-TIRRENIA, AUGUST 1968.

HGRAN, J.J., "SPACECRAFT INFRARED IMAGING," IFEE SPECTRUM, VCL. 5, NO. 6, P. 71, JUNE 1968.

HUANG, T.S., "RUN-LENGTH CODING OF CONTINUOS-TUNE PICTURES," PROCEEDINGS OF THE 2ND PRINCETON CONFERENCE OM INFORMATION SCIENCES AND SYSTEMS, ILEE-68-CT-1, MARCH 25-26, 1968.

HULLETT, J.L., LIMB, J.O., "DIFFERENTIAL QUANTIZATION OF TELEVISION SIGNALS--- OPEN-LOCP OPERATION," PROCEEDINGS OF THE IFEE, VOL. 56, PP. 364, MARCH 1968.

ICHIOKA, Y., IZUMI, M., SUZUKI, T., "HALFTONE PLOTTER AND ITS APPLICATIONS TO DIGITAL OPTICAL INFORMATION PROCESSING," APPLIED OPTICS, VOL. 8, NO. 12, DECEMBER 1968, PP. 2461-2471.

INDSE, H., SHIBATA, K., "QUANTIZING NOISE OF CRTHCGONAL TRANSFORM T.V. PCM SYSTEM," 1968 NATIONAL CONFERENCE OF THE INTERNATIONAL ENGINEERING CONVENTION OF ELECTRONICS, JAPAN, P. 1310.

IWAMURA, S., "VIDEC SIGNAL PROCESSING AND ANALYSIS FOR NEGATIVE COLOR FILM TRANSMISSION," JAPAN BRUADCASTING CURPORATION, TUKYO, TECHNICAL RESEARCH LABS, MARCH 1968.

JANSSENS, T.J., KCZLOWSKI, G.C., LUTHER, A.J., "REAL-TIME DIGITAL SUBTRACTION AND ENHANCEMENT OF VIDEO PICTURES," JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VOL. 6, PP. 120-124, APRIL-MAY 1968.

JANSSON, P.A., HUNT, R.H., PLYLER, E.K., "RESPONSE FUNCTION FOR SPECTRAL RESULUTION ENHANCEMENT," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, PP. 1665-1666, DECEMBER 1968.

JENSEN, N., "UPTICAL AND PHOTOGRAPHIC RECONNAISSANCE SYSTEMS," WILEY, NEW YORK, 1968.

JCNES, R.A., YEADON, E.C., "DETERMINATION OF THE SPREAD FORMATIONS FROM NOISY ELGE SCANS," PHOTOGRAPHIC SCIENCE ENGINEER, VOL. 13, PP. 2CO-204, JULY-AUGUST 156E.

KANAL, L.N., "PATTERN RECUGNITION," WASHINGTON, D.C., THOMPSON, 1968.

KAZMIRCZAK, H., HOLDERMANN, F., MIHE KARLSRUHE SYSTEM FUR AUTOMATIC IMAGE PRO-CESSING, MAGARD PRINCIPLES AND PRACTICE OF BICNICS, PP. 293-308, 1968.

KOLEH, P.A., EDEN, M., "RECOGNIZING PATTERNS," CAMBRIDGE, MASSACHUSETTS, MASSA-CHUSETTS INSTITUTE OF TECHNOLOGY PRESS, 1968.

KURTENBACH, A.J., WINTZ, P.A., "DATA COMPRESSION FOR SECUNC CRUER PROCESSES," PROCEEDINGS OF THE 1968 NATIONAL TELEMETRY CONFERENCE, APRIL 1968, P. 76.

KUT2, R.L., SCIULLI, J.A., "THE PERFORMANCE OF AN ADAPTIVE IMAGE CATA COMPRESSION SYSTEM IN THE PRESENCE OF NUISE," IEEF TRANSACTIONS ON INFORMATION THEORY, Vol. IT-14, No. 2, MARCH 1968, Pp. 273-279.

KLTZ, R.L. SCIULLI: J.A., "SYNCHRONIZATION FCR COMPRESSED IMAGE DATA TRANS-MISSION," PRUCEEDINGS OF THE 1968 HAWAII CONFERENCE ON SYSTEM SCIENCES, HONCLULU, HAWAII.

KUTZ, R.L., SCIULLI: J.A., STAMPFL, R.A., MADAPTIVE DATA COMPRESSION FOR VIDEO

SIGNALS," AUVANCES IN COMMUNICATION SYSTEMS: THEORY AND APPLICATIONS, VOL. 3 ED. BY A.V. BALAKRISHNAN, NEW YORK: ACADEMIC PRESS, Pp. 29-66, 1968.

THE RESIDENCE OF THE PARTY OF T

LABMETER, C.D., "SATURN TELEMETRY DATA COMPRESSOR TEST PROGRAM," FINAL REPORT, NASA CR-61938, G-108, ADCOM, INC., PALO ALTO, CALIFURNIA, P. 164, APRIL 1968,

Control of the Contro

LEBEDEV, D.S., "LINEAR TWO-DIMENSIONAL TRANSFORMATION OF IMAGES FOR INCREASING NCISE IMMUNITY IN TRANSMISSION," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VCL. 4, 1968.

LEBEDEV, D.S., YARSLAVSKIY, L.P., "IMAGE TRANSMISSION SYSTEM EFFECTIVENESS," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VOL. 3, 1968.

LEE, K., "CCMPUTER REDUCTION AND ANALYSIS OF AN INFRARED IMAGE," STANFORD UNIVERSITY, CALIFORNIA, REMOTE SENSING LAB, JANUARY 1968.

LERMAN, S.H., DUMAIS, R., "PRACTICAL CONSIDERATIONS IN DIGITAL IMAGE PROCESSING" SPIE IMAGE INFORMATION RECOVERY SEMINAR PROCEEDINGS, VOL. 16, CCTOBER 1968, PP. 113-119.

LIMB, J.J., "ENTROPY OF QUANTIZED TELEVISION SIGNALS," PROCEEDINGS CF THE IEEE (LONDON), VOL. 115, NO. 1, PP. 16-29, 1968.

LIN, L.H., "A METHOD OF HOLOGRAM INFORMATION REDUCTION BY SPATIAL FREQUENCY SAMPLING," APPLIED OPTICS, VOL. 7, NO. 3, PP. 545-548, MARCH 1968.

LIPPMANN, R., "DATA COMPRESSION-LITERATURE REPORT ON SELECTED PRACTICAL METHODS" DEUTSCHE FORSCHUNGSANSTALT FUR LUFT-UND RAUMFAHRT E.V.(DFL), INSTITUTE FUR FLUCFUHRUNG, DECEMBER 1968.

LCHMANN, A.W., "COMPUTER GENERATED HOLOGRAMS," PROCEEDINGS OF THE SYMPOSIUM ON THE ENGINEERING USES OF HOLOGRAPHY, UNIVERSITY OF STRATHCLYDE, GLASGOW, SCOT-LANC, PP. 77-93, SEPTEMBER 1968.

LOHMANN, A.W., PARIS, D.P., "COMPUTER GENERATED SPATIAL FILTERS FOR COHERENT OPTICAL DATA PROCESSING," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 7, PP. 651-655, APRIL 1968.

LUCKY, R.W., "ADAPTIVE REDUNDANCY REMOVAL IN DATA TRANSMISSION," REPRINT FROM THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 47, NC. 4, APRIL, 1968, PP. 549-573.

MALILA, W.A., "MULTISPECTRAL TECHNIQUES FOR IMAGE ENFANCEMENT AND DISCRIMINATIONS," PHOTOGRAPHIC ENGINEERING, NO. 6, P. 566, 1968.

MALLING, L.R., MRECUCED BANDWIDTH VIDEO COMMUNICATION SYSTEM UTILIZING SAMPLING TECHNIQUES, JET PROPULSION LAB, CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, CALIFORNIA, US PATENT 3.383.461. ISSUED 14 MAY 1968.

MARCOVITZ, A.B., "AN APPLICATION OF NOISELESS CODING THEORY TO DATA COMPRESSION," PROCEEDINGS OF THE 1968 HAWAII CONFERENCE ON SYSTEM SCIENCES, HAWAII.

MCCAUGHERN, R., ROSIE, A.M., MONDS, F.C., "TWO METHODS OF ASYNCHRONOUS DATA CCMFRESSION," ELECTRONICS LETTERS, VOL. 4, 1968, PP. 363-364.

MEDLIN, J.E., "THE PREVENTION OF TRANSMISSION BUFFER OVERFLOW IN TELEMETRY DATA CUMPRESSURS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM.-16, NC. 1, FEBRUARY 1968, PP. 94-107.

MILLER, W.F., SHAW, A.C., "LINGUISTIC METHODS IN PICTURE PROCESSING, A SURVEY," PROCEEDINGS OF THE AMERICAN FEDERATION OF INFORMATION PROCESSING SOCIETIES.

FALL JOINT COMPUTER CONFERENCE, THOMPSON BOCK CCMPANY, WASHINGTON, C.C., 1968.

NAGEL, M., "EVALUATION OF MOTION-DEGRADED IMAGES," PROCEEDINGS OF THE NASA/ERC SEMINARS, CAMBRIDGE, MASSACHUSETTS, DECEMBER, 1968.

NACY, G., "STATE OF THE ART IN PATTERN RECOGNITION," PROCEEDINGS OF THE IEEE, VOL. 56, PP. 236-862, MAY 1968.

NATHAN, R., "PICTURE ENHANCEMENT FOR THE MOON, MARS, AND MAN," PICTCRIAL PATTERN RECCGNITION, THOMPSON, WASHINGTON, D.C., PP. 239-266, 1968.

NATHAN, R., SELZER, K.H., "DIGITAL VIDEC DATA HANDLING: MARS, THE MGON AND MEN," IMAGE PROCESSING IN BIOLOGICAL SCIENCE, PP. 177-210, EDITED BY D. M. RAMSEY, UNIVERSITY UF CALIFORNIA PRESS, BERKELEY AND LOS ANGELES, CALIFORNIA, 1968.

AICHOLS, L.W., LAMAR, J., "CONVERSION OF INFRARED IMAGES TO VISIBLE IN CCLOR," APPLIED OPTICS, VOL. 7, NO. 9, P. 1757, SEPTEMBER 1968.

UPPENHEIM, A.V., SHAFER, R.W., STOCKHAM, T.G., "NONLINEAR FILTERING OF MULTIPLIED AND CONVOLVED SIGNALS," PROCEEDINGS OF THE IEEE, VOL. 56, NO. 8, AUGUST 1968, PP. 1264-1291.

PFALTZ, J.L., SNIVELY, J.W., ROSENFELD, A., "LOCAL AND GLOBAL PICTURE PROCESSING BY COMPUTER," PICTORIAL PATTERN RECOGNITION, THOMPSON, WASHINGTON, D.C., PP. 353-371, 1968.

PFEILER, M., "IMAGE TRANSMISSION SYSTEMS AND IMAGE PROCESSING IN RACIOLOGY," SUMMER SCHOOL ON AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, PISATIRRENIA, AUGUST 1968.

PICKETT, R.M., "PERCEIVING VISUAL TEXTURE-A LITERATURE SURVEY," HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS, FINAL REPORT, AUGUST 1964-AUGUST 1966, WRIGHT-PATTERSON AIR FORCE BASE, OHIO, AMRE-TR-68-12, MARCH 1968.

POPPLEBAUM, W.J., "ADAPTIVE ON-LINE FOURIER TRANSFORM," PICTCRIAL PATTERN RECOGNITION, WASHINGTON, D.C., THOMPSON, 1968.

PCWNALL, L.A., "A STORED PROGRAM DATA COMPRESSION DEVELOPMENTAL SYSTEM," ELECTRONICS AND AEROSPACE SYSTEMS CONVENTION, WASHINGTON, C.C., SEPTEMBER 1968, IEEE RECORD, PP. 333-338.

HAHE, G.A., "A COMPARISON OF SEVERAL TYPES OF DATA COMPRESSION," CANADIAN SYMPESSION ON COMMUNICATIONS, MONTREAL, CANADA, NOVEMBER 1969.

RAMSAY, J.V., "ECONOMICAL METHOD OF ANALYZING PERCEIVED COLOR CIFFERENCES," JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 1, PP. 13-19, JANUARY 1968.

KASC, D.J., "SIMPLIFIED METHOD TO MAKE HOLOGRAM FILTERS FOR TARGET RECUGNITION,"
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 58, NO. 3, MARCH 1968, PP. 432423.

RAWSON, E.G., "3-D COMPUTER-GENERATED MOVIES USING A VARIFCCAL MIRROR," APPLIED OPTICS, VOL. 7, NO. 8, P. 1505, AUGUST 1968.

RCETLING, P.G., HAAS, R.C., KINZLY, R.E., "SCME PRACTICAL ASPECTS OF MEASUREMENT AND RESTURATION OF MOTION-DEGRADED IMAGES," NASA/ERC SEMINAR, CAMBRIDGE, MASSA-CHUSETTS, DECEMBER 1968.

RCETLING, P.G., TRABKA, E.A., KINZLY, R.E., "THEORETICAL PREDICTION OF IMAGE

QUALITY." JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, AL. 3, 1968, PP. 342-346.

RCSENFELD, A., "BANDWIDTH REDUCTION BIBLIOGRAPHY," IFEE TRANSACTIONS ON INFOR-MATICA THEORY, VOL. IT-14, JULY 1968, PP. 601-602.

RESENTELD, A., PEALTZ, J.L., "DISTANCE FUNCTIONS ON DIGITAL PICTURES," PATTERN RECOGNITION, VOL. 1, Pp. 33-61, 1968.

ROTH, W., "FULL-COLOR AND THREE-DIMENSIONAL EFFECT IN RADICGRAPHIC DISPLAYS," INVESTIGATIVE RADIOLOGY, VOL. 3, Pp. 56-60, JANUARY-FEBRUARY 1968.

RUSHFORTH, C.K., HARRIS, R.W., "RESTORATION, RESOLUTION, AND NOISE," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 58, NO. 4, PP. 539-545, APRIL 1968.

RUSSELL, J.K., "A VISUAL IMAGE PROCESSOR," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-17, NO. 7, P. 635, JULY 1968.

RUTCVITZ, D., "DATA STRUCTURES FOR OPERATIONS ON DIGITAL IMAGES," PICTURIAL PATTERN RECOGNITION, THOMPSON, WASHINGTON, D.C., PP. 105-133, 1968.

SAUNDERS, B.G., "STEREOSCOPIC DRAWING BY COMPUTER - IS IT CKTHOSCOPIC?" APPLIED CPTICS, VOL. 7, NO. 8, P. 1499, AUGUST 1968.

SCHAEFER, D.H., SNIVELY, J.W., "ON-BOARD PLASMA DATA PROCESSOR," REVIEW OF SCIENTIFIC INSTRUMENTS, VOL. 39, NO. 4, 1968, PP. 452-458.

SCHREIBER, W.F., HUANG, T.S., "CONTOUR CODING OF IMAGES," WESTERN ELECTRONIC SHOW AND CONVENTION, LOS ANGELES, CALIFORNIA, SESSION 8, ALGUST 1968.

SCHWARZ, G.R., "BUFFER DESIGN FOR DATA COMPRESSION SYSTEMS," IREE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-16, NO. 4, 1968, PP. 675-615.

SCILLLI, J.A., "A LCGARITHMIC ENCODER FOR BINARY WORD COMPRESSIO" " NASA TECHNI-CAL NCTE: NASA TN D-4290, WASHINGTON, D.C., MARCH 1968.

SCLATER, N., "THE FUTURE FOR DATA COMPRESSION EXPANDS," ELECTRONIC OFSICA, VOL. 16, NC. 11, 1968, PP. 25-26 AND 29-31.

SCUTT, F., "THE SEARCH FOR A SUMMARY MEASURE OF IMAGE QUALITY: A PREGRESS REPORT." PHOTOGRAPHIC SCIENCE AND ENGINEERING, VOL. 12, 1968, PP. 154-164.

SELYER, R.H., "THE USE OF COMPUTERS TO IMPROVE BICMEDICAL IMAGE QUALITY," THE AMERICAN FEDERATION OF INFORMATION PROCESSING SOCIETIES, FALL JOINT COMPUTER CONFERENCE, VUL. 33, PART 1, PP. 817-834, 1968.

SFELDALL, S.A., "COMPARISON OF HARDWARE KEOUIREMENTS FOR PCLYNOMIAL DATA COMPRESSIONS," PROCEEDINGS OF THE NATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., 1968.

SHELDAHL, S.A., ""CHANNEL IDENTIFICATION CUDING FOR DATA COMPRESSORS," FLECTRONICS AND ACROSPACE SYSTEMS CONVENTION, WASHINGTON, D.C., SEPTEMBER 1968, EASON '68, IEEE RECORD, PP. 319-324.

SHIAN, C., KLINE, R.M., "A COMPUTER-DIRECTED SYSTEM FOR MEASURING DISTANCE BETWEEN EDGES IN OPTICAL IMAGES," TECHNICAL REPORT NO. 10, COMPUTER SYSTEM LAB, ASPINGTON UNIVERSITY, ST. LOUIS. MISSOURI, COTOBER 1968.

SILMENS-WAPNIARSKI, W.J., GIVENS, M.P., "THE EXPERIMENTAL PRODUCTION OF SYNTHETIC HOLDGRAMS," APPLIED OPTICS, VOL. 7, NO. 3, MARCH 1968, PP. 535-538.

SNIVELY, J.W., MOPTIMAL ALGORITHMIC ENCODING SCHEMES FOR INFORMATION SOURCES, MIEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-14, NO. 2, 1968, PP. 340-348.

Established and the second second second second

STEVENS, w.A., "MULTICHANNEL DATA COMPRESSION SIMULATION: SPACE PROJECTIONS FROM THE RUCKY MUUNTAIN REGION," PROCEEDINGS OF THE SYMPOSIUM, DENVER, COLORADO, JULY, 1968, VOL. 1, TARZANA, CALIFORNIA, AMERICAN ASTRONAUTICAL SOCIETY, NO. 19, A 65-12814.

STRUKE, G.W., "A NEW HOLOGRAPHIC METHOD FOR A POSTERIORI IMAGE-DEBLURRING RESIDRATION OF ORDINARY PHOTOGRAPHS USING "FXTENDED-SOURCE" LENSLESS FOURIER-TRANSFORM HOLOGRAPHY COMPENSATION," PHYSICS LETTERS, VOL. 274, NO. 7, AUGUST 26, 1968, PP. 405-406.

SWENGER, C.W., CHAO, F.J., "COMPUTING TECHNIQUES FOR CORRECTION OF BLURRED CRIECTS IN PHOTOGRAPHS," EVALUATION OF MOTION-DEGRADED IMAGES, NASA SEMINAR, CAMBRIDGE, MASSACHUSETTS, DECEMBER 1968, PP. 149-159.

TUNSTALL, B., "SYNTHESIS OF DIGITAL CUMPRESSION CODES," PROCEEDINGS OF THE HAWAII INTERNATIONAL CONFERENCE, HONOLULU, 1968.

VAIUSTTEIN, V.S., "ALGORITHM FOR ISULATING IMAGE CHAPACTERISTICS," AIR FORCE SYSTEMS CUMMANUS, WRIGHT-PATTERSUN AIR FORCE HASE, UPIO, NOVEMBER 1968.

VAN BLERKOM, R., SCHWARZ, G.R., WARD, R.J., "AN ADAPTIVE COMPOSITE DATA COMPRESSION ALGORITHM WITH REDUCED COMPUTATION REQUIREMENTS," NATIONAL TELEMETERING CONFERENCE PROCEEDINGS, HOUSTON, TEXAS, PP. 50-95, APRIL 1568.

VAN MEETEREN, A., "SPATIAL SINE-WAVE RESPUNSE OF THE VISUAL SYSTEM: A CRITICAL SURVEY," AD 488234, 1968.

WALLACE, P.R., "REDUNDANCY REMOVAL TECHNIQUES FOR COMPRESSION OF TELEMETRY DATA," AIRBORNE INSTRUMENTATION AND DATA TRANSMISSION RESEARCH AT MARSHALL SPACE FLIGHT CENTER, RESEARCH ACHIEVEMENTS REVIEW, VOL. III, REPORT NO. 1, NASA TECHNICAL MEMURANDUM, NASA TMS-53760, PP. 27-47, 1968.

MEBER, D.R., "DATA CUMPRESSION FUR DFFP SPACE COMMUNICATIONS," INTERNATIONAL CONFERENCE ON COMMUNICATIONS, PHILADELPHIA, PENNSYLVANIA, VOL. 4, PP. 604-608, JUNE 1968.

WILKINS, L.C., WINTZ, P.A., "NTH ORDER OF RECUNCANCY REDUCTION," PROCEEDINGS OF THE 1968 NATIONAL ELECTRONICS CONFERENCE, DECEMBER 1968.

WINKLER, M.R., "PICTURIAL ENCODING," SYMPOSIUM ON PHOTO-ELECTRONIC IMAGING, WASHINGTON, D.C., OCTOBER-NOVEMBER 1968, PREPRINTS OF PAPER SUMMARIES, SOCIETY OF PHOTOGRAPHIC SCIENTISTS AND ENGINEERS, INCORPORATED, PP. 3-11.

WINTZ, P.A., ESSMAN, J.E., "RECUNDANCY REDUCTION OF PICTORIAL INFORMATION," PRE-SENTED AT THE MIDWESTERN SIMULATION COUNCIL METTING ON ADVANCED MATHEMATICAL METHODS IN SIMULATION, CAKLAND UNIVERSITY, NOVEMBER 1968.

WUNC, F., "THU-DIMENSIONAL RANDOM FIELDS AND REPRESENTATION OF IMAGES," SIAM JOURNAL OF APPLIED MATHEMATICS, VOL. 16, NO. 4, PP. 756-77C, JULY 1968.

******** ** 1969 ** ******

AARCN, M.R., FLEISCHMAN, J.S., MCDONALD, R.A., PROTUNGTARICS, E.N., MRESPONSE OF CELTA MODULATION TO GUASSIAN SIGNALS," BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, PP. 1167-1195, MAY-JUNE 1969.

renting a supplemental three comments the recoverage of the contract of the co

ANCC, H., "QUANTIZING SYSTEM OF HIGHER COMPUNENTS OF TV SIGNALS," JCINT INTER-NATIONAL ENGINEERING CONFERENCE ON ELECTRONICS, JAPAN, P. 5, 1969.

ANDREWS, H.C., "AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES BY USE OF THE FOURIER DOMAIN," ACADEMIC PRESS, INC., NEW YORK, CHAPTER 9, PP. 187-198, 1965.

ANDREWS, H.C., PRATT, W.K., "TRANSFORMATION CCDING FCR NCISE IMMUNITY AND BAND-WIDTH REDUCTION," PROCEEDINGS OF THE SECOND HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, JANUARY 1969.

ANUTA, P.E., "DIGITAL REGISTRATION OF MULTISPECTRAL VIDEC IMAGERY," SCCIETY OF PHCTO-OPTICAL INSTRUMENTATION ENGINEERS JOURNAL, VOL. 7, PP. 168-175, SEPTEMBER 1965.

AUSHERMAN, D.A., HALL, E.L., DWYER, S.J., LODWICK, G.S., KRUGER, R.P., MMEASURE-MENT SELECTION TECHNIQUES APPLIED TO DIGITAL IMAGES, UNIVERSITY OF MISSCURI, CCLUMBIA, 1969.

BAER, T., "PICTURE CODING USING THE MEDIAL AXIS TRANSFORMS." S.M. THESIS. DEPARTMENT OF ELECTRICAL ENGINEERING, M.I.T., CAMBRIDGE, MASSACHUSETTS, MAY 1969.

BALAN, J.C., EPSTEIN, M.A., FEIT, L., "PCM TELEVISION VIA SATELLITE RELAY," IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, BOULDER, COLCRADO, JUNE 1969.

HARNES, C.W., "SPATIAL SIGNALS AND IMAGING SYSTEMS," UNIVERSITY OF CALIFCRNIA AT IRVINE, SCHOOL OF ENGINEERING, GRANT NSF-GK-1461, FINAL REPORT, 1969.

BELTRAMI, A., MOSCA, V., "HIGH-SPEED VISUAL COMMUNICATION OVER EXISTING TELEPHONE NETWORKS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VCL. COM-17, NC. 3, JUNE 1969, PP. 395-403.

BERSHAD, N.J., "RESOLUTION, OPTICAL-CHANNEL CAPACITY AND INFCRMATION THEORY," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 2, PP. 157-163, FEBRUARY 1965.

BILLINGSLEY, F.C., "DIGITAL IMAGE PROCESSING RATIONALE," SUPPLEMENT D, FRUM CHAPTER IN PRUGRESS IN BIOLOGICAL ELECTRON MICROSCOPE TECHNIQUES, HARPER AND RCh. 1969.

BIRAUD, Y., "A NEW APPROACH FOR INCREASING THE RESOLVING POWER BY DATA PROCESSING," ASTRONOMY AND ASTROPHYSICS, VOL. 1, PP. 124-127, JANUARY 1969.

BIRZUKOV, YU. L., ET AL., "APPLICATION OF PHOTOGRAPHIC MASKING TO REDUCE THE EFFECT OF MCTICN ON THE SHARPNESS OF THE PHOTOGRAPHIC IMAGE," AIR FORCE SYSTEMS CCMMAND, WRIGHT-PATTERSON AFB, OHIO, FOREIGN TECHNOLOGY CIVISION, DECEMBER 1969.

BLYLMBERG, I.B., ZYAZINA, T.M., "TRANSMISSION OF SMALL-SIZE DETAILS IN SEQUENTIAL IMAGES, "LENINGRAD INSTITUTE OF MOTION PICTURE ENGINEERS, 1969.

BODYCCMB, J.V., HADDAD, A.H., MSOME PROPERTIES OF A PREDICTIVE QUANTIZING SYSTEM, M THIRD ANNUAL PRINCETON CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, PRINCETON UNIVERSITY, MARCH 1969.

BCShurth, R.H., CANDY, J.C., MA COMPANDED UNE-BIT CODER FOR TELEVISION TRANSMISSION, THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 5, MAY-JUNE 1969.

BRAULEY, D., "OPTIMIZING A SCHEME FOR RUN LENGTH ENCUDING," PRUCFEDINGS CF THE IEEE, VOL. 57, NO. 11, PP. 108-111, JANUARY 1969.

AND THE RESIDENCE AND THE PARTY OF THE PARTY

BRAINARD, R.C., CANDY, J.C., "DIRECT-FEEDBACK CODERS: DESIGN AND PERFORMANCE WITH TELEVISION SIGNALS," PROCEEDINGS OF THE 1EEE, VCL. 57, PP. 776-786, MAY 1969.

BRCWN, B.R., LOHMANN, A.W., "COMPUTER-GENERATED BINARY HCLOGRAMS," IBM JCURNAL OF RESEARCH AND DEVELOPMENT, VOL. 13, PP. 16C-168, MARCH 1969.

BRCWN, E.F., "EXPANDED DPCM COOING TECHNIQUES FOR TELEVISION," PRESENTED AT THE SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMPRIDGE, MASSACHUSETTS, APRIL 1969.

BROWN, E.F., "A SLIDING-SCALE DIRECT-FEEDBACK PCM CODER FOR TELEVISION," T'E BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 5, MAY-JUNE 1969.

BRCWN, E.F., MTELEVISION: THE SUBJECTIVE EFFECTS OF FILTER RINGING TRANS (MTS om Journal of the Society of Motion Pictures and Television Engineers, vol. 382 NC. 4, April 1969.

BROWN, H.A., "EFFECT OF TRUNCATION ON IMAGE ENHANCEMENT BY PROLATE SHPFROIDAL FUNCTIONS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 59, NO. 2, PP. 228-229. FEBRUARY 1969.

CARL, J.W., "GENERALIZED HARMONIC ANALYSIS FOR PATTERN RECOGNITION: A BICLOGICALLY DERIVED MODEL," THESIS FOR AIR FORCE INSTITUTE OF TECHNOLOGY, SCHOOL OF ENGINEERING, GE/BE/70S-1, WRIGHT-PATTERSON AIR FORCE BASE, OHIG, 59 F., SEPTEMBER 1969.

CASASONI, D.P., "AN UN-LINE ELECTRO-OPTICAL VIDEC PROCESSING SYSTEM," PH.D. THESIS, UNIVERSITY OF ILLINUIS, URBANA, 1969.

CAULFIELD, H.J., "WAVEFRONF SAMPLING IN HOLOGRAPHY," PROCEEDINGS OF THE IEEE, VCL. 57, NO. 11, PP. 2082-2083, NOVEMBER 1969.

CHERRY, E.C., "CODING FOR PSYCHOLOGICAL AND STATISTICAL REDUNDANCY," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

CHESLER, D.A., "RESCLUTION ENHANCEMENT BY VARIABLE FILTERING," PHYSICS RESEARCH LABORATORY, MASSACHUSETTS GENERAL HOSPITAL, BOSTON, JANUARY 1969.

CLCWES, M.B., "PICTORIAL RELATIONSHIPS-A SYNTACTIC APPROACH ," MACHINE INTELLIGENCE, VOL. 4, 1969.

CLOWES, M.B., "TRANSFORMATIONAL GRAMMARS AND THE CREANIZATION OF PICTURES," AUICHATIC INTERPRETATION AND CLASSIFICATION OF IMAGES, NEW YORK, ACADEMIC PRESS, 1965.

CLLUCCIO, F.L., MACLEOD, S., MAIER, J.J., "EFFECT OF IMAGE CONTRAST AND RESOLUTION ON PHOTUINTERPRETER TARGET DETECTION AND IDENTIFICATION." JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 11, PP. 1478-1482, NOVEMBER 1969.

CCLUCCIO, T.L., WASIELEWSKI, J.E., "FLECTRO-CPTICAL IMAGE ENHANGEMENT FVALUATION," ROME AIR DEVELOPMENT CENTER, GRIFFIS AFB, NEW YORK, TECHNICAL REPORT, JANLARY-SEPTEMBER 1969.

CCLWELL, R.N., LENT, J.D., "THE INVENTORY OF FARTH RESOURCES ON ENHANCED MULTI-BANC SPACE PHOTOGRAPHY." PROCEEDINGS OF THE 6TH INTERNATIONAL SYMPOSIUM ON REMOTE SENSING OF ENVIRONMENT, ANN ARBOR, MICHIGAN, VOL. 1, PP. 133-143, OCTOBER 13-16, 1969.

CORBETT, J.M., TAYLOR, J.R., ALLNATT, J.W., "SUBJECTIVE QUALITY OF COLGURTELEVISIUN PICTURES BY VIDEO CROSSTALK," PRUCEEDINGS OF THE IEE, VOL. 116, NU. 2 PP. 181-185, FEBRUARY 1969.

DARCY, J.A., ENFIEJIAN, E.A., "COLOK PICTUPE REPRODUCTION USING A HIGH-RESOLUTION TELEVISION SYSTEM," JOURNAL OF THE SOCIETY OF MCTICN PICTURE AND TELEVISION ENGINEERS, 1969.

DAVISSON, L.D., "AN APPLICATION OF DATA COMPRESSION CONCEPTS," PROCFECINGS OF THE PURDUE CENTENNIAL SYSMPOSIUM ON INFORMATION PROCESSING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, APRIL 1969.

CEUTSCH, S., "A TECHNIQUE FOR FEATURE EXTRACTION IN VISUAL PATTERN RECOGNITION," ABSTRACT, PRESENTED AT SYMPOSIUM ON PERTINENT CONCEPTS IN COMPUTER GRAPHICS, URBANA, ILLINUIS, MARCH 31, 1969.

DIAPANTIDES, N.D., "GAUSSIAN PICTORIAL FIELDS AND THEIR CEFINITION BY MEANS OF A CLRRELATOR," APPLIED OPTICS, VOL. 8, NO. 4, P. 818, APRIL 1969.

DULYATOVSKII, U.A., ET AL., "AN ALGORITHM OF SUCCESSIVE RECOGNITION OF IMAGES," AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AFB, CHIC, FOREIGN TECHNULOGY DIVISION, DECEMBER 1969.

ENCMOTO, H., SHIBATA, K., ET AL., "EXPERIMENTS ON TELEVISION POM SYSTEM BY URTHOGONAL TRANSFORMATION," 1969 JOINT CONVENTION OF THE INTERNATIONAL ENGINEERING CONFERENCE ON ELECTRONICS , JAPAN, P. 2219.

FREEMAN, H., GLASS, J., "UN THE QUANTIZATION OF LINE-DRAWING DATA," IFEE TRANSACTIONS UN SYSTEM SCIENCE AND CYBERNETICS, VOL. SSC-5, NO. 1, PP. 79-79, JANLARY 1969.

FRITZLER: D., MARGM, E., MREDUCTION OF BANDWIDTH REQUIREL FOR HIGH RESOLUTION HOLOGRAM TRANSMISSION, APPLIED OPTICS, VOL. 8, PP. 1241-1243, JUNF 1969.

FUKLSHIMA, K., "TELEVISION BANDWIDTH COMPRESSION BY MULTI-MOCE INTERPCLATION," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

GARCENHIRE, L.W., "APPLICATION OF NUNLINEAR ENCODING TO PICTURE TRANSMISSION," INTERNATIONAL TELEMETERING CONFERENCE, WASHINGTON, D.C., SEPTEMBER 1969.

GIFFORD, R.C., *TRANSMISSION OF FULL PAGE NEWSPAPER COPY OVER DIGITAL TRANSMISSION FACILITIES,* I LEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, BCULDER, CCLORADO, JUNE 1969.

GUDMIN, J., "DIGITAL LINEAR INTERPOLATION FOR IMAGE CATA CCMPRESSION," RESEARCH 9CC, UNIVERSITY OF MICHIGAN, ANN ARBUR, JUNE 26, 1969.

GRASSELI, A., "AUTOMATIC INTERPRETATION AND CLASSIFICATION OF IMAGES," ACADEMIC PRESS, INC., NEW YORK, 1969.

HABIJI, A., WINTZ, P.A., "OPTIMUN LINEAK TRANSFORMATION FOR ENCODING TWO-DIMENSIONAL DATA," TR-EE69-15, SCHOOL OF ELECTRICAL ENGINEERING, PURDUF UNIVERSITY, LAFAYFITE, INDIANA, MAY 1969.

HARMON, L.D., KNOWLTUN, K.C., "PICTURE PROCESSING BY COMPUTER," SCIENCE, VOL. 163, PP. 19-29, APRIL 1969.

HELSTROM, C.W., "DETECTION OF INCCHERENT OBJECTS BY A QUANTUM-LIMITED OPTICAL SYSIEM," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 59, NO. 8, PP. 924-936, AUGUST 1969.

HELSTROM, C.W., "DETECTION AND RESOLUTION OF INCUHERENT CBJECTS BY A BACKGROUND-LIMITED OPTICAL SYSTEM," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 2, PP. 164-176, FEBRUARY 1969.

HERBST, N.B., WILL, P.M., "DESIGN OF AN EXPERIMENTAL LABORATORY FOR PATTERN RECEGNITION AND SIGNAL PROCESSING," IBM RESEARCH REPORT, NC. RC2619, SEPTEMBER 1969.

HCRNER, J.L., "OPTICAL SPATIAL FILTERING WITH THE LEAST MEAN-SQUARE-ERROR FILTER," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 5, PP. 553-559, PAY 1969.

HLANG, T.S., "DIGITAL TRANSMISSION OF HALFTONE PICTURES," THIRD ANNUAL PRINCETON CUNHERENCE UN INFORMATION SCIENCES AND SYSTEMS, MARCH 1969.

HUANG, T.S., "IMAGE ENHANCEMENT-A REVIEW," OPTO-ELECTRONICS, VOL. 1, FFBRUARY 1969.

HUANG, T.S., "PICTURE BANDWIDTH COMPRESSION," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

HUANG, T.S., "RUN-LENGTH CODING AND ITS EXTENSIONS," PRESENTED AT THE SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

HUANG, T.S., TRETIAK, G.J., "A PSEUDCRANDOM MULTIPLEY SYSTEM FOR FACSIMILE TRANSMISSION," I LEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. CCM-16, NC. 3, JUNE, 1969, Pp. 436-438.

HUANG, T.S., WCODS, J.W., "PICTURF BANDWIDTH COMPRESSION BY BLOCK QUANTIZATION," INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1965.

IWERSUN, J.E., "CALCULATED QUANTIZING NCISE OF SINGLE-INTEGRATION DELTA-MODULA-TICN CODERS," THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 7, SEPTEMBER 1969, PP. 2359-2389.

KANEFSKY, M., "ON THE COMPRESSION AND RECOGNITION OF THU DIMENSIONAL PATTERNS FROM THEIR BIT PLANES," PROCEEDINGS OF THE SECUND HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, JANUARY 1969.

KLEINGOCK, L., "TV DATA COMPRESSION BY A DECAYING SLOPE THRESHOLD METHOD," PRC-CEECINGS OF THE SECOND HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, JANUARY 1969.

KCRFEL, A., LUTSOFF, S.N., WHITMAN, R.L., "THE INTEPCHANGE OF TIME AND FREQUENCY IN TELEVISION DISPLAYS," PROCEEDINGS OF THE IFEE, VOL. 57, FEBRUARY 1969, PP. 161-170.

KOVALEVSKY, V.A., "OPTIMAL METHOD OF DISCRETIZING GRAPHICAL IMAGES," IMAGE RECCGNITION, PP. 178-193, IN RUSSIAN, 1969.

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The second secon

KOVALEVSKY, V.A., "SEQUENTIAL OPTIMIZATION IN IMAGE RECOGNITION PROBLEMS," IMAGE RECOGNITION, NO. 3, PP. 6-13, IN RUSSIAN, 1969.

KULAKCVSKAIA, N.S., "IMAGE RECOGNITION," KIBERNETIKA I VYCHISLITFNAIA TEKHNIKA, NG. 3.(IN KUSSIAN). 1969.

LARSON, D.A., KUYPER, W.H., LATHAM, J.P., "INTERPRETATION OF COLORS BY A TELE-VISION SCANNING AND WAVEFORM SYSTEM APPLIED TO GEOGRAPHIC ANALYSIS OF MULTI-SENSOR IMAGERY," FLORIDA ATLANTIC UNIVERSITY, BOCA RATON, DEPARTMENT OF GEOGRAPHY, SEPTEMBER 1969, NC. AD-694 064.

LEE, W.H., "COMPUTER GENERATION OF HOLOGRAMS AND SPATIAL FILTERS," SC.D. DISSERTATION, DEPARTMENT OF ELECTRICAL ENGINEERING, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, SEPTEMBER 1969.

LEGAULT, R.R., "SPATIAL DISCRIMINATION," ADVANCED INFRARED TECHNOLOGY, UNIVERSITY OF MICHIGAN, ENGINEERING SUMMER CONFERENCES, ANN ARBOR, MICHIGAN, JUNE 9-13, 1969, INTENSIVE SHORT COURSE.

LENCARIS, G.G., STANLEY, G.L., "DIFFRACTION-PATTERN SAMPLING FOR AUTOMATIC PATTERN RECOGNITION," SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, SEMINAR IN DEPTH, VOL. 18, Pp. 127-153, 1969.

LEVINE, M.D., "FEATURE EXTRACTION: A SURVEY," PROCEEDINGS OF THE IEEE, VOL. 57, PP. 1391-1407, AUGUST 1969.

LEVINSON, J.Z., "PSYCHOPHYSICAL STUDIES OF HUMAN VISION," SYMPOSIUM ON PICTURE BANCWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

LIMB, J.O., MOUNIS, F.W., MDIGITAL DIFFERENTIAL QUANTIZER FOR TELEVISION, THE BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NO. 7, PP. 2583-2599, SEPTEMBER 1969.

LIFFEL, B., "ENCOCING OF PICTORIAL INFORMATION," EXPERIMENTS FOR A NEW MESSAGE FORMAT FOR DIGITAL COMPUTERS, ARMY ELECTRONICS COMMAND, FORT MONMOUTH, NEW JERSEY, JANUARY 1969.

LIPPEL, B., "EXPERIMENTS WITH A NEW MESSAGE FORMAT FOR DIGITAL REPRESENTATION OF PHCTOGRAPHS," SYMPOSIUM ON COMPUTER PROCESSING IN COMMUNICATIONS, PCLYTECHNIC INSTITUTE OF BROOKLYN, NEW YORK, PP. 121-139, APRIL 8-10, 1969.

LCWE, D.S., "MULTISPECTRAL IMAGING SYSTEM," CUNFERENCE ON FUNDAMENTALS OF REMCTE SENSING, UNIVERSITY OF MICHIGAN, ANN ARBOR, MICHIGAN, JULY 14-25, 1969; INTENSIVE SHORT COURSE.

MCCAUGHERN, R., ROSIE, A.M., MONDS, F.C., "ASYNCHRONCUS DATA COMPRESSION TECHNIQUES," PROCEEDINGS OF THE PURDUE CENTENNIAL YEAR SYMPOSIUM ON INFORMATION PROCESSING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, APRIL 1969.

MCNTANARI, U.G., "SEPARABLE GRAPHS, PLANAR GRAPHS, AND WEB GRAMMARS," MARYLAND UNIVERSITY, CULLEGE PARK, COMPUTER SCIENCE CENTER, AUGUST 1969.

MCRCZ, V.M., MUESCRIPTION OF IMAGES OF VISUAL OBJECTS THROUGH CORRELATION FUNC-TIGNS, MAYTOMATIKA, VOL. 14, PP. 80-82, SEPTEMBER-OCTUBER, 1969.

MCTT-SMITH, J., "PICTURE BANDWIDTH COMPRESSION RESEARCH AT AFCRL," SYMPCSIUM UN PICTURE BANDWIDTH CCMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

MCLNIS, F.W., PEARSON, D.E., "APPARENT INCREASE IN NCISE LEVEL WHEN IFLEVISION PICTURES ARE FRAME-REPEATED," BELL SYSTEM TECHNICAL JOURNAL, VOL. 48, NL. 3 PP. 527-539, 1969.

MUELLER, P.F., "COLUR IMAGE RETKIFVAL FROM MUNGCHROMF TRANSPARENCIES," APPLIED UPTICS, VUL. 8, NO. 10, P. 2051, UCTUBER 1969.

MURTHY, B.R.N., WINIZ, P.A., "OPTIMIZATION IN PCM, ADAPTIVE PCM, AND DPCM SYSTEMS," TR-EE63-13, SCHOOL OF FLECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, JULY 1969.

MUSPANN, H.G., "RECUNDANCY REDUCTION OF PCM SIGNALS," MRI SYMPOSIUM CN COMPUTER PROCESSING IN COMMUNICATIONS, POLYTECHNIC INSTITUTE OF BROCKLYN, NEW YORK, APRIL 1969.

OGAMA, H., ISUPICHI, Y., "OPTIMUM SPATIAL FILTER AND UNCERTAINTY," INFORMATION AND CENTROL, VOL. 14, PP. 180-216, 1969.

C'NEAL, J.B., AGRAWAL, J.P., "QUANTIZING NOISE-HAND-WIDTH TRADEOFFS FOR DIFFERENTIAL PCM OF TELEVISION SIGNALS." DEPARTMENT OF ELECTRICAL ENGINEFRING, NURTH CAROLINA STATE UNIVERSITY, 1969.

ORHANG, T., "REPORT ON A CONFERENCE ON PICTURE PROCESSING," REPORT, HELD AT MUNICH, GERMANY, INSWEDISH, NOVEMBER 1969.

PARKYN, W.A., "DIGITAL IMAGE PROCESSING ASPECTS OF THE WALSH TRANSFORM."
MATHEMATICAL SCIENCE, MCDONNELL-DOUGLAS ASTRONAUTICS, HUNTINGTON BEACH, CALIF.,
1969.

PEARSON, D.E., "TECHNIQUES FOR SCALING TELEVISION PICTURE QUALITY: A SURVEY," SYMPOSIUM ON PICTURE BANDWIDTH COMPRESSION, MIT, CAMERIDCE, MASSACHUSETTS, APRIL 1969.

PITTEWAY, M.L.V., "A SIMPLE DATA COMPRESSION TECHNIQUE FOR GRAPHIC DISPLAYS OR INCREMENTAL PLOTTERS," MRI SYMPOSIUM ON COMPUTER PROCESSING IN COMPUTATIONS, POLYTECHNIC INSTITUTE OF BRUOKLYN, APRIL 1969.

PCSNER, E.C., RUDEMICH, E.R., "DATA COMPRESSION WITH BOUNCED ERRORS," 1969 TEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS, BOULDER, COLORADO, JUNE 9-11, 1965.

PRASACA, B., "AN ACAPTIVE DUAL-NUDE CODING SYSTEM FOR TELEVISION SIGNALS," SYMPOSIUM UN PICTURE BANDWIDTH COMPRESSION, MIT, CAMBRIDGE, MASSACHUSETTS, APRIL 1969.

PRATT, Wake, ANDREWS, H.C., KAME, J., "HADAMARD TRANSFORM IMAGE CODING," PROCEEDINGS OF THE IFEE, VUL. 57, PP. 58-68, JANUARY 1969.

RABINCWITZ, A.C., "ON THE MATCHING OF PUINTS IN DIFFERENT PERSPECTIVE PROJECTIONS OF THE SAME SUBJECT," NEW YORK UNIVERSITY, DEPARTMENT OF ELECTRICAL ENGINEERING, NEW YORK, DECEMBER 1969.

REY, D., "DISCUSSION OF SUPER RESOLUTION OPTICAL SYSTEMS," UNIVERSITY OF SCUTHERN CALIFORNIA, ELECTRICAL ENGINEERING DEPARTMENT, LOS ANGELES, CALIFORNIA, JULY 14, 1969.

RINC, C.L., "BANDLIMITED IMAGE RESTORATION BY LINEAR MEAN-SQUARE-ERRUR FILTER," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VCL. 59, NG. 5, PP. 547-553, MAY 1965.

RCLLENHAGEN, D.C., "THE VISTA SYSTEM FOR COMPRESSION OF TELEVISION SIGNAL BAND-WIDTHS," ILLINCIS UNIVERSITY, URBANA, Ph.D. THESIŞ, 1969, UNIVERSITY MICROFILMS CROER NO. 70-13462.

RCSELL, F.A., "LIMITING RESOLUTION OF LOW-LIGHT-LEVEL IMAGING SENSORS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 59, NO. 5, PP. 539-547, MAY 1969.

RCSENFELD, A., "PICTURE PROCESSING BY COMPUTER," NEW YURK, ACADEMIC PRESS, 1969.

RCSENFELD, A., "IMAGE PROCESSING," SPACE/AERCNAUTICS, VOL. 52, PP. 48-55, DEC-EMBER 1969.

ROSENFELD, A., PARK, C.M., STRONG, J.P., "NCISE CLEANING IN CIGITAL PICTURES," PROCEEDINGS OF THE EASCON, OCTOBER 1969.

RCSENFELD, A., HUANG, H.K., SCHNEIDER, V.B., "AN APPLICATION OF CLUSTER DETECTION TO TEXT AND PICTURE PROCESSING," ILEE TRANSACTIONS ON INFORMATION THEORY, VOL. 17-15, NO. 6, P. 665, NUVEMBER 1969.

RCSS, D.S., "ENHANCED CCEANOGRAPHIC IMAGERY," PROCEFCINGS OF THE 6TH INTERNATIONAL SYMPOSIUM ON REMOTE SENSING OF ENVIRONMENT, ANN ARBCR, MICHIGAN, VCL. 2, UCTORER 13-16, 1969, PP. 1029-1044.

ROSS, D.S., "IMAGE-TONE ENHANCEMENT," AMERICAN SOCIETY OF PHOTOGRAMMETRY, 35TH ANNUAL MEETING, WASHINGTON, D.C., TECHNICAL PAPERS, MARCH 5-14, 1965, Pp. 3C1-319.

ROUGELOT, R.S., "DIGITALLY COMPUTED IMAGES FOR VISUAL SIMULATION," CENTRAL ELFCTRIC ELECTRONICS LABORATORY, SYRACUSE, NEW YORK, AUGUST 1969.

RUBINSTEIN, C.B., PEARSON, D.E., "COLOR PERCEPTION IN COLOREC DISPLAYS," TA-GUNGS BERICHT INTERNATIONALE FARBTAGUNG COLOR, BELL TELEPHONE LABORATORIES, HCLPDEL, NEW JERSEY, APRIL 8, 1969, PP. 157-184.

SCHRUEDER, M.R., "IMAGES FROM COMPUTERS," IEEE SPECTRUM, MARCH 1969, PP. 66-78.

SHEZINGER, M.I., SVIATOGI, L.A., "SOLUTION OF THE PROBLEM OF RECOGNIZING STANDARD IMAGES WITH ALLOWANCE FOR SPATIAL DISCRETION," IMAGE RECOGNITION, NO. 3, PP. 145-157, 1969, IN RUSSIAN.

SEITZER, D., CLUSS, F., STUCKI, P., "AN EXPERIMENTAL APPROACH TO VICEU BANDWICTH COMPRESSION BY MULTIPLEXING," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOLUME COM-17. NO. 5. PP. 564-569. DCTORER 1969.

SHIBATA, K., OHIRA, T., ET AL., "PCM TERMINAL EQUIPMENT FOR PANDWIDTH COMPRESSION OF TELEVISIUM SIGNAL," 1969 JOINT CONVENTION OF THE I.E.C.F. OF JAPAN, P. 2019.

SKLANSKY, J., "RECOGNITION OF CONVEX PLOBS," TECHNICAL REPORT IP-69-3, UNIVERSITY OF CALIFORNIA, IRVINE, CALIFORNIA, JULY 1969.

SPENCER, D.K., HUANG: T., "BIT-PLANE FNCODING OF CONTINUOUS-TONE PICTURES," MRI SYMPOSIUM ON COMPUTER PROCESSING IN COMMUNICATIONS, POLYTECHNIC INSTITUTE OF BRUCKLYN, NEW YORK, APRIL 1969.

STACKHAM, T.G., BRITTON, R.L., "APPLICATIONS OF DIGITAL FILTERING TO IMAGE PROCESSING," NEREM RECORD, PP. 116-117, MOVEMBER 1969.

STICKLS, K.R., "HUMAN FACTORS AND APPEARANCE OF THE MOD II PICTUREPHONE STATION SET," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-17, NO. 2, P. 318,

APRIL 1969.

STRCKE, G.W., "IMAGE DEBLURRING AND APERTURE SYNTHESIS USING A POSTERIORI PROCESSING BY FOURIER-TRANSFORM HDLOGRAPHY," OPTICA ACTA, VOL. 16, NO. 4, 1969, PP. 401-422.

SIRCKE, G.W., FURRER, F., LAMBERTY, D.R., "DEBLURRING OF MCTION-BLURRED PHOTOGRAPHS USING EXTENDED-RANGE HOLOGRAPHIC FOURIER-TRANSFORM DIVISION," OPTICS COMMUNICATIONS, VOL. 1, NO. 3, JULY-AUGUST 1969, PP. 141-145.

STRCKE, G.W., PUECH, C.P., "SINGLE-FOCUS IMAGES RESTCRED FROM CONVENTIONALLY RECORDED SUPERPOSED CODED MULTI-FOCUS PHOTOGRAPHS," OPTICS COMMUNICATION, VOL. 1 NO. 5, NOVEMBER-DECEMBER 1969, PP. 223-226.

STUCKI, P., "GENERATION OF GREY TONES BY COMPUTER FOR SIMULATION OF VISUAL IN-FORMATION SYSTEMS," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-18, NO. 7, P. 642, JULY 1969.

TALLMAN, O.H., "THE CLASSIFICATION OF VISUAL IMAGES BY SPATIAL FILTERING," AIR FORCE INSTITUTE OF TECHNOLOGY, SCHOOL OF ENGINEERING, WRIGHT-PATTERSON AFR, CHIC, JUNE 1969.

TURALDO DI FRANCIA, G., "DEGREES OF FREEDOM CF AN IMAGE," JOURNAL OF THE OPTICAL SUCIETY OF AMERICA, VOL. 59, NO. 7, PP. 799-804, JULY 1969.

TOU, J.T., "ENGINEERING PRINCIPLES OF PATTERN RECOGNITION," ADVANCES IN IN-FORMATION SYSTEMS SCIENCE. VOL. 1, NEW YORK, PLENIUM, 1969.

TRCXEL, D.E., SCHREIBER, W.E., SERTZ, C.L., "WIREPHUTO STANDARDS CONVERTER," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-17, NO. 5, PP. 544-554, OCTCBER 1969.

VIDAL, J.J., KOLUDJIAN, G.H., "EVALUATION OF FLYING SPOT SCANNERS AS IMAGE PRO-CESSING DEVICES," SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, SEMINAR-IN-CEPTH, SCUTH FALLSBURG, NEW YORK, PP. 117-124, APRIL 28-29, 1969.

VCYNAHTEYN, G.G., LEBEDEY, D.S., YARUSLAVSKY, L.P., "IMPROVEMENT OF IMAGE QUALITY BY COMPUTER," JOURNAL OF THE ACADEMY OF SCIENCE USSR, VOL. 39, NC. 3, MARCH 1969.

WALLKIEWICZ, S., "EFFECTIVE ALGORITHMS OF IMAGE RECOGNITION," INSTYTUT AUTO-MATYKI, PRACE, IN POLISH, NO. 78, PP. 27-46, 1969.

WILKINS, L.C., WINTZ, P.A., "A CONTOUR TRACING ALGORITHM FOR DATA COMPRESSION FOR TWO DIMENSIONAL DATA," TECHNICAL REPORT NO. TR-EE69-3, PURDUE UNIVERSITY SCHOOL OF ELECTRICAL ENGINEERING, LAFAYFTTE, INCIANA, JANUARY 1969.

WILMER, M.E., MCDUFFIE, G.E., "THE INFORMATION CONTENT OF TWO DIMENSIONAL IMAGES, "IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1969.

WILSON, G.J., "MODULAR COMPUTER PROGRAMS FOR IMAGE PROCESSING AND MANIPULATION," AIR FORCE CAMBRIDGE RESEARCH LABS, BEDFORD, MASSACHUSETTS, DATA SCIENCES LAB, MAY 1969.

WINTZ, P.A., APPLE, G.G., "EXPERIMENTAL PCM SYSTEM EMPLOYING KARHUNEN-LOEVE SAMPLING." PRESENTED AT THE 1969 INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, ELLENVILLE, NEW YORK, JANUARY 1969.

YU, F.T.S., "IMAGE RESTORATION, UNCERTAINTY, AND INFORMATION," APPLIED OPTICS,

VCL. 8, NG. 1, P. 53, JANUARY 1969.

******** ** 1970 ** ******

ALEXANDRIDIS, N.A., "THE HADAMARD TRANSFORM IN IMAGE PROCESSING AND PATTERN RECCGNITION," UNIVERSITY OF CALIFORNIA AT LOS ANGELES, REPORT NO. 70-22M, MARCH 1970.

ANDREWS, H.C., "COMPUTER TECHNIQUES IN IMAGE PROCESSING," ACADEMIC PRESS, 1977, NEW YORK, NEW YORK.

ACKI, Y., "COMPUTER SIMULATION OF SYNTHESIZING IMAGES BY DIGITAL PHASED ARRAYS," PHCCEEDINGS OF THE IEEE, VOL. 58, NO. 11, PP. 1856-1858, NCVEMBER 1970.

ACKI, Y., BOIVIN, A., "COMPUTER RECONSTRUCTION OF IMAGES FROM A MICROWAVE HOLOGRAMS," PROCEEDINGS OF THE IEEE, VOL. 58, NO. 5, PP. 821-822, MAY 1970.

ARCESE, A., MENGERT, P.H., TROMBINI, E.H., "IMAGE DETECTION THROUGH BIPOLAR CCRRELATION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 5, PP. 524-541, SEPTEMBER 1970.

BARTELS, P.H., BELLAMY, J., "SELF-OPTIMIZING, SELF-LEARNING SYSTEM IN PICTORIAL PATTERN RECOGNITION," APPLIED OPTICS, VCL. 9, NO. 11, P. 2453, NOVEMBER 1970.

BECKER, J., MOPTICAL SYSTEMS FOR USE AT LOW LIGHT LEVELS, MOPTICA ACTA, VOL. 17, NC. 1, PP. 481-496, JULY 1970.

BEDDOES, M.P., MEIER, ()., "FLICKER EFFECT AND TELEVISION COMPRESSION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 2, PP. 214-219, MARCH 1970

BERLEKAMP, E.R., "SOME MATHEMATICAL PROPERTIES OF A SCHEME FOR REDUCING THE BANCHIDTH OF MOTION PICTURES BY HADAMARD SMEARING," THE BELL SYSTEM TECHNICAL JOURNAL, JULY-AUGUST, 1970, PP. 969-968.

BILLINGSLEY, F.C., "APPLICATIONS OF DIGITAL IMAGE PROCESSING." APPLIED OPTICS, Vol. 9, No. 2, Pp. 289-299, FEBRUARY 1970.

BILLINGSLEY, F.C., LINDSLEY, J.N., GUETZ, A.F., "CULCR DIFFERENTIATION BY COMFUTER IMAGE PROCESSING," PHOTOGRAPHIC SCIENCE AND ENGINEERING, VCL. 14, PP. 28-35, JANUARY 1970.

BIRCH, K.G., "AN ANALYSIS OF THE GENFRALIZED BINARY FILTER," OPTICA ACTA, VCL. 17, NO. 1, PP. 43-58, JANUARY 1970.

ERITISH BROADCASTING CORPORATION, "PULSE CODE MODULATION OF VICEO SIGNALS: 8-BIT CODER AND DECODER," BBC KINGSWOOD, ENGLAND RESEARCH DEPARTMENT, 1970.

BRGFFERIU, S., RUCCA, F., SUARDO, P., "DIGITAL FRAME-TO-FRAME AND LINE-TC-LINE ENCODER", SYMPOSIUM ON PICTURE CODING, SEPTEMBER 10-11, 1973, NORTH CARULINA UNIVERSITY.

BURNHAM, D.C., "ELECTRONIC AVERAGING OF ONE-DIMENSIONAL TELEVISION PICTURES," APPLIED UPTICS, VOL. 9, NO. 11, P. 2565, NOVEMBER 1970.

BURHUS, C.S., PARKS, T.W., "TIME DOMAIN DESIGN OF RECURSIVE CIGITAL FILTERS,"

IEEE TRANSACTIONS ON AUDIO ELECTROACOUSTICS, VOL. AV-18, PP. 137-141, JUNE 1970.

CHOW, M., "VARIABLE LENGTH REDUNDANCY REMOVAL CODERS," SYMPOSIUM ON PICTURE CCDING, RALEIGH, NORTH CAROLINA, SEPTEMBER 10-11, 1970.

CURRY, R.E., VANDER VELDE, W.E., POTTER, J.E., "NCNLINEAR ESTIMATION WITH QUANTIZED MEASUREMENTS-PCM, PREDICTIVE QUANTIZATION AND DATA COMPRESSION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 2, PP. 152-161, MARCH 1970

DAVISSON, L.D., "DATA COMPRESSION: THEORY AND APPLICATION," PROCEEDINGS KELLY COMPUNICATIONS CONFERENCE, UNIVERSITY OF MISSOURI, ROLLA, CCTOBER 1970.

DECKER, J.A., "HADAMARD-TRANSFORM IMAGE SCANNING," APPLIED GPTICS, VOL. 9, NO. 6, F. 681, JUNE 1970.

DEW, G.D., "THE APPLICATION OF SPATIAL FILTERING TECHNIQUES TO PROFILE INSPECTION, AND AN ASSOCIATED INTERFACE PHENOMENON," OPTICA ACTA, VCL. 17, NO. 4 Pp. 237-258, APRIL 1970.

DI PENTIMA, A.F., "AUTOMATION IN PHOTO INTERPRETATION," PHOTOGRAMMETRIA, VOL. 26, PP. 167-182, DECEMBER 1970.

DUNNE, J.A., "MARINER 1969 TELEVISION IMAGE PROCESSING," PATTERN RECOGNITION, VCL. 2, NO. 4, PP. 261-268, DECEMBER 1970.

ENCPOTO, H., SHIBATA, K., MORTHUGONAL TRANSFORM CODING SYSTEM FOR TELEVISION SIGNALS, MTHE JOURNAL OF THE INSTITUTE OF TV ENGINEERS OF JAPAN, VCL. 24, NC. 2, PP. 99-108, FEBRUARY 1970.

FALCUNER, D.G., "IMAGE ENHANCEMENT AND FILM-GRAIN NOISE," CPTICA ACTA, VOL. 17, Pp. 693-705, SEPTEMBER 1970.

FILIP, A.E., "ESTIMATION OF THE IMPULSE RESPONSE OF IMAGE-CEGRACING SYSTEMS," MASSACHUSETTS INSTITUTE OF TECHNOLOGY RESEARCH LABORATORY OF ELECTRONICS, QUARTERLY PROGRESS REPORT 99, PP. 135-140, OCTOBER 1970.

FREEMAN, H., "BOUNDARY ENCUDING AND PROCESSING," NEW YORK UNIVERSITY, DEPARTMENT OF ELECTRICAL ENGINEERING, NEW YORK, FEBRUARY 1970.

FRIEDEN, B.R., "INFORMATION, AND THE RESTORABILITY OF IMAGES," JCURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 60, NO. 4, PP. 575-577, APRIL 1970.

FUKUNAGA, K., KOONTY, W.L.G., "APPLICATION OF THE KARHUNEN-LOEVE EXPANSION TO FEATURE SELECTION AND ORDERING," IEEE TRANSACTIONS ON COPPUTERS, VOL. C-19, NC. 4, P. 311, APRIL 1970.

GILDEA, J., "LOW LIGHT LEVEL T.V. TECHNIQUES," APPLIED OPTICS, VOL. 9, NC. 19, P. 2230, OCTOBER 1970.

GCUDMAN, J.W., RHUDES, W.T., "AN OPTICAL SYSTEM DESIGNED FCR IMAGE PRUCESSING," PATTERN RECOGNITION, VOL. 2, 1970, PP. 105-116.

GRAK, G., STROKE, G.W., "INFORMATION RETRIEVAL FROM CODED IMAGES FURMED BY GENERALIZED IMAGING SYSTEMS," OPTICS COMMUNICATIONS, VOL. 1, NO. 7, PP. 339-358, FEBRUARY 1970.

GROH, G., "INFORMATION RETRIEVAL FROM CODED IMAGES FORMED BY GENERALIZED IMAGING SYSTEMS", OPTICS COMMUNICATION, VOL. 1, NO. 7, FFBRUARY 1970, PP. 339-340.

HABIBL, A., WINTZ, P.A., "LINEAR TRANSFORMATIONS FOR ENCODING 2-DIMENSIONAL

SCURCES," PURDUE UNIVERSITY, LAFAYETTE, INDIANA, TR-EE 7C-2, MARCH 1970.

Victoria de la companione de la companione

HAINES, K.A., "BANDWIDTH REDUCTION IN HOLOGRAPHY, USING PERIODIC DISPERSION STRUCTURES," APPLIED OPTICS, VOL. 9, PP. 1946, AUGUST 1970.

HALL, E.L., DWYER, S.J., "FREQUENCY DOMAIN DESIGN OF SPATIAL DIGITAL FILTERS," IMAGE ANALYSIS LABORATORY, TR-101, DEPARTMENT OF FLECTRICAL ENGINEERING, UNIVERSITY OF MISSCURI, COLUMBIA, MISSOURI, 1970.

HALL, E.L., DWYER, S.J., LODWICK, G.S., MAHEN, F.C., "SPATIAL DIGITAL FILTER DESIGN TECHNIQUES," UNIVERSITY OF MISSCURI, UMR-MERVIN AND KELLY COMMUNICATIONS CONFERENCE, ROLLA, MISSCURI, OCTOBER 1, 1976, PP. 20-6-1 TC 20-6-6.

HALL, E.L., KKUGER, R.P., DWYER, S.J., "SPATIAL DIGITAL FILTER DESIGN USING THE TWO-DIMENSIGNAL Z-TRANSFORM," KYOTO INTERNATIONAL CONFERENCE ON CIRCUIT AND SYSTEM THEORY PROCEEDINGS, KYUTO, JAPAN, SEPTEMBER 1-3, 1970.

HALL, E.L., KRUGER, R.P., DWYER, S.J., HALL, D.D., MCLAREN, R.W., LCDWICK, G.S., "PREPROCESSING AND FEATURE EXTRACTION FOR RACIDGRAPHIC IMAGES," UNIVERSITY OF MISSOURI, COLUMBIA, MISSOURI, NOVEMBER 1970.

HALL, E.L., KRUGER, R.P., DWYER, S.J., LODWICK, G.S., AUSHERMAN, D.A., "MEASUREMENT SELECTION TECHNIQUES APPLIED TO DIGITAL IMAGES," ARGONNE NATIONAL LABS, IEEE SYMPOSIUM ON FEATURE EXTRACTION RECORD, OCTOBER 5-7, 1970.

HAMMILL, H.B., HOLLADAY, C., "THE EFFECTS OF CERTAIN APPROXIMATIONS IN IMAGE QUALITY EVALUATION FROM EDGE TRACES," JOURNAL OF THE SOCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VOL. 8, PP. 223-228, AUGUST-SEPTEMBER 1970.

HARRIS, J.L., "INFORMATION EXTRACTION FROM DIFFRACTICA LIMITED IMAGERY," PATTERN RECOGNITION, VOL. 2, 1970, PP. 69-77.

HAYES, J.F., "EXPERIMENTAL RESULTS ON PICTURE BANDWIDTH CUMPRESSION," PRCCEED-INGS OF THE UMR-MERVIN J. KELLY COMMUNICATIONS CONFERENCE, UNIVERSITY OF MISSCURI, ROLLA, MISSOURI, OCTOBER 1970.

HAYES, J.F., HABIBI, A., WINTZ, P.A., "RATE DISTORTION FUNCTION FOR A GAUSSIAN SOURCE MODEL OF IMAGES," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. 17-16, NO. 4, PP. 507-509, JULY 1970.

HEINZ, R.A., ARTMAN, J.O., LEE, S.H., "MATRIX MULTIPLICATION BY OPTICAL METHODS," APPLIED OPTICS, VOL. 9, NO. 9, P. 2161, SEPTEMBER 1970.

FELSTROM, C.W., "INFORMATION TRANSFER FROM INCUHERENTLY RADIATING OBJECTS,"
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 60, NO. 12, PP. 1698-1616,
DELEMBER 1970.

HELSTROM, C.W., "RESOLVABILITY OF OBJECTS FROM THE STANDPUINT OF STATISTICAL PARAMETER ESTIMATION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 6C, NO. 5, PP. 659-667, MAY 1970.

HCRNER, J.L., "UPTICAL RESTURATION OF IMAGES BLURRED BY ATMOSPHERIC TURBULENCE USING OPTIMUM FILTER THEORY," APPLIED OPTICS, VCL. 9, NO. 1, P. 167, JANUARY 1970.

HUANG: T.S., "INTRODUCTION TO SPECIAL ISSUE ON IMAGE ENHANCEMENT," PATTERN KECCGNITION, VOL. 2, 1970, PP. 67-68.

HIANG, T.S., "SOME CONSIDERATIONS ON TWO-DIMENSIONAL DIGITAL FILTERING," NEREM 70, SECTION 19-SIGNAL PROCESSING, CAMBRIDGE, MASSACHUSETTS, NOVEMBER 6,

197€.

A Commence of the Commence of

HUANG, T.S., TRETIAK, O.J., "PICTURE BANDWIDTH COMPRESSION," M.I.T. PRESS, CAMBRIDGE, MASSACHUSETTS, 1970.

HUNT, B.R., "THE INVERSE PROBLEM OF RADIOLOGY," MATHEMATICAL BIOSCIENCES, VOL. 8 PP. 161-179, 1970.

HLNT, B.R., JANNEY, D.H., ZEIGLER, R.K., "INTRODUCTION TO RESTURATION AND ENHANCEMENT OF RADIOGRAPHIC IMAGES," REPORT, LOS ALAMOS RESEARCH LABORATORIES, LCS ALAMOS, NEW MEXICO, 1970.

HUNT, B.R., ZEIGLER, R.K., "ENHANCEMENT OF RADICGRAPHIC IMAGES USING A LARGE-SCALE, MULTI-PROGRAMMING COMPUTER," CONFERENCE ON COMPUTER APPLICATIONS IN RADIOLOGY, UNIVERSITY OF MISSOURI, COLUMBIA, SEPTEMBER 1970.

JAYANT, N.S., "ADAPTIVE DELTA MUDULATION WITH A UNE-BIT MEMORY," BELL SYSTEM TECHNICAL JOURNAL, MARCH 1970, PP. 321-343.

JOHNSTON, E.G., ROSENFELD, A., MGEOMETRICAL CPERATIONS ON CIGITIZED PICTURES, PICTURE PROCESSING AND PSYCHOPICTURICS, NEW YORK, ACADEMIC PRESS, 1970.

KARNEFF, S., "PICTURE LANGUAGE MACHINE," NEW YORK, ACADEMIC PRESS, 1970.

KENNEDY, J.D., CLARK, S.J., PARKYN, W.A., "DIGITAL IMAGERY DATA COMPRESSION TECHNIQUES," REPORT NO. MDC 60402, MCDONNFLL-DOUGLAS CORPURATION, HUNTINGTON BEACH, CALIFORNIA, JANUARY 1970.

KING, M.C., NULL, A.M., BERRY, D.H., "A MOIRE APPROACH TO COMPUTER-GENERATED HCLCGRAPHY," APPLIED UPTICS, VOL. 9, FEBRUARY 1970.

KCRMAN, N.I., "COLCR SEPARATION BY SCANNER AND DIGITAL COMPUTATION," THE GRAVURE TECHNICAL ASSOCIATION FALL FORUM, LOUISVILLE, KENTUCKY, OCTOBER 29, 1970.

KCSCUROV, G.I., KACHALCV, O.V., "HOLOGRAPHIC IDENTIFICATION OF SIMILAR IMAGES." PRIBURY I TEKHNIKA EKSPERIMENTA, IN RUSSIAN, PP. 197-199, JANUARY-FEBRUARY, 1970

KOVALEVSKY, V.A., "PATTERN RECOGNITION: HEURISTICS OR SCIENCE?" ADVANCES IN INFORMATION SYSTEMS SCIENCE, VOL. 3, NEW YORK, PLENIUM, 1970.

KLYLDVSKIY, S.M., "STUDY OF THE SUBJECTIVE ESTIMATION OF IMAGE QUALITY," USSR ACADEMY OF SCIENCE, VOL. 40, NO. 6, Pp. 146-148, AUGUST 1970.

KREINS, E.R., ALLISCN, L.J., "COLOR ENHANCEMENT OF NIMBUS FIGH RESOLUTION INFRA-REL RADIOMETER DATA," APPLIED OPTICS, VOL. 9, NO. 3, P. 681, MARCH 1970.

KRUGER, R.P., CARLSON, A.J., DWYER, S.J., "PCSITIGN INVARIANT LINEAR AND NON-LINEAR TECHNIQUES IN DIGITAL PICTURE PROCESSING," M.J. KELLY MEMORIAL CONFERENCE ON COMMUNICATION THEORY RECORD, ROLLA, MISSOURI, PP. 3-4-1 TO 3-4-6, OCTOBER 5-7, 1970.

KRUGER, R.P., DWYER, S.J., LUDWICK, G.S., "IMAGE ENHANCEMENT AND FEATURE EXTRACTION OF RADIOGRAPHIC IMAGES," COMPUTERS IN RADIOLOGY CONFERENCE PROCEEDINGS, UNIVERSITY OF MISSOURI MEDICAL CENTER, COLUMBIA, MISSOURI, SEPTEMBER 21-23, 1970.

KRUGER, R.P., MAHEN, E.C., CARLSON, A.J., DWYER, S.J., LCDWICK, G.S., MIMAGE ANALYSIS OF RADIOGRAPHS, 22ND ANNUAL SOUTHWESTERN CENFERENCE AND EXHIBITION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, DALLAS, TEXAS, PP. 147-151, APRIL 1970.

KRUGER, R.P., MAHEN, E.C., DWYER, S.J., "DIGITAL TECHNIQUES FOR IMAGE ANALYSIS OF RADIOGRAPHS," EIGHTH ANNUAL SYMPOSIUM ON BIOMATHEMATICS AND COMPUTER SCIENCE IN THE LIFE SCIENCES PROCEEDINGS, HOUSTON, TEXAS, MARCH 23-24, 1970.

Med Section Williams in court

LAMAK, J.V., "USE OF SC4060-PRODUCED MICROFILM CUTPUT IN PSEUDOCOLOR TRANSFORMATIONS," P-4465, RAND CORPORATION, SANTA MONICA, CALIFORNIA, SEPTEMBER 1570.

LEBEDEV, D.S., YAROSLAVSKIY, L.P., "SPATIAL FILTERING OF IMAGES: PHOTOGRAPHIC SYSTEMS," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VCL. 1, 1970.

LEBEDEV, D.S., YAROSLAVSKIY, L.P., "USE OF REDUNDANCY FOR NOISE REJECTION IMPROVEMENT IN PICTURE-TRANSMITTING SYSTEMS," HUNGARIAN ACADEMY OF SCIENCES AND SCIENTIFIC SOCIETY FOR TELECOMMUNICATIONS, 4TH CCLLOQUIM UN MICROWAVE COMMUNICATION, BUDAPEST, HUNGARY, VOL. 1, COMMUNICATION SYSTEM THEORY, APRIL 1970.

LEE, S.H., "SAMPLED FOURIER TRANSFORM HOLOGRAM BY COMPUTER," APPLIED OPTICS, Vol. 9. No. 3. P. 639. MARCH 1970.

LEVI, L., "ON IMAGE EVALUATION AND ENHANCEMENT," OPTICA ACTA, VOL. 17, NC. 1, 1970, PP. 59-76.

LEVI, L., "TOWARD FORMULATION OF CRITERIA FOR IMAGE ENHANCEMENT, PART 2," CITY CULLEGE OF THE CITY OF NEW YORK, DEPARTMENT OF PHYSICS, FINAL REPORT, MARCH 1969-FEBRUARY 1970.

LIPKIN, B., RUSENFELD, A., "PICTURE PROCESSING AND PSYCHOPICTORICS," NEW YORK, ACACEMIC PRESS, 1970.

MAC ACAM, D.P., "DIGITAL IMAGE RESTORATION BY CONSTRAINED DECONVOLUTION," JOURNAL OF THE OPPICAL SOCIETY OF AMERICA, Vol. 60, NO. 12, DECEMBER 1970, PP. 1617-1627.

MACKAY, N.A.M., "AN ELECTRO OPTICAL CORRELATOR FOR A TWO-DIMENSIONAL ARRAY USING INCOMERENT LIGHT," PROCEEDINGS OF THE IEEE, VOL. 50, NC. 6, PP. 952-953, JUNE 1970.

MACLEOD, I.D.G., "PICTURIAL OUTPUT WITH A LINE PRINTER," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-19, NC. 2, P. 160, FEBRUARY 1970.

MATSON, W.L., MC KINSTRY, H.A., JOHNSON, G.G., MCOMPUTER PROCESSING OF SEM IMAGES BY CONTOUR ANALMSIS, SYMPOSIUM ON COMPUTATIONAL PHOTOGRAMMETRY, AMERICAN SCCIETY OF PHOTOGRAMMETRY, ALEXANDRIA, VIRGINIA, PP. 7-5, 1970.

MCLEON, J.C., "HIGH RESOLUTION IMAGE ESTIMATION IN A TURBULENT ENVIRONMENT," PATTERN RECOGNITION, Vol. 2, 1970, Pp. 79-90.

MUNAHAN, M.A., MCDHERENT OPTICAL PROCESSING CF MOTION-DEGRADED IMAGES, MRESEARCH AND DEVELOPMENT REPORT, NAVAL ELECTRONICS LAB, CENTER FOR COMMAND CONTROL AND COMPUNICATIONS, SAN DIEGO, CALIFORNIA, AUGUST 1970.

MUNROE, R.C., CWYER, S.J., "APPLICATION OF A FAST LOGARITHM CONVERSION TO IMAGE ANALYSIS," 22ND ANNUAL SOUTHWESTERN CONFERENCE AND EXHIBITION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, DALLAS, TEXAS, TECHNICAL PAPERS, PP. 135-138, APRIL 1970.

NATHAN, K., "SPATIAL FREQUENCY FILTERING," PICTURE PROCESSING AND PSYCHOPICTORICS, PP. 151-163, EDITED BY B. S. LEPKIN AND A. ROSENFELD, ACADEMIC

PRESS, 1970.

NCFFS INGER, E.B., "IMAGE EVALUATION: CRITERIA AND APPLICATIONS." JOURNAL OF THE SCCIETY OF PHOTOGRAPHIC INSTRUMENTATION ENGINEERS, VCL. 9, PP. 32-37, NOVEMBER 1970.

PALGER, J.J.U., "INTERNATIONAL BIBLIOGRAPHY OF PICTURIAL PATTERN RECOGNITION," ALLIED RESEARCH ASSOCIATES, INC., CUNCORD, MASSACHUSETTS, APRIL 1976.

PEARL, J., "APPLICATION OF WALSH TRANSFURM TO STATISTICAL ANALYSIS," UNIVER-SITY OF CALIFORNIA AT LOS ANGELES, UCLA-ENGINEER-7072, ALGUST 1970.

PIZER, S.M., VETTER, H.G., "PROCESSING QUANTUM LIMITED IMAGES," PICTURE PROCESSING AND PSYCHOPICTORIES, PP. 165-176, EDITED BY B. S. LEPKIN AND A. RUSENFELD, ACADEMIC PRESS, NEW YORK, 1970.

PCPP, H.J., "BUFFER CUNSIDERATIONS FOR DATA COMPRESSION OF NONSTATIONARY VIDEO DATA," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOLUME CUM-18, NO. 2, APRIL 1970.

PRAIT, W.K., "A COMPARISON OF DIGITAL IMAGE TRANSFORMS," PROCEEDINGS OF THE MERVIN J. KELLY COMMUNICATIONS CONFERENCE, UNIVERSITY OF MISSOURI, ROLLA, 1970.

PRATT, W.K., "KARHUNEN-LUEVE TRANSFORM CODING OF IMAGES," PROCEEDINGS OF THE 197C IEEE INTERNATIONAL SYMPUSIUM ON INFORMATION THEORY, 197G.

PRATT, W.K., ANDREWS, H.C., MTRANSFORM IMAGE CODING, UNIVERSITY OF SCUTTERN CALIFORNIA, LOS ANGELES, IMAGE PROCESSING LABORATORY, FINAL REPURT, CONTRACT NAS7-100, 154 P., MARCH 1970.

PRATT, W.K., ANDREWS, H.C., "TRANSFORM PROCESSING AND COUING OF IMAGES," UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, USCEF REPORT NO. 341, MARCH 1969

PRATT, W.K., ANDREWS, H.C., "TWO DIMENSIONAL TRANSFORM CODING OF IMAGES," PRO-CEECINGS OF THE 1969 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, 1970.

PREWITT, J.M.S., "OBJECT ENHANCEMENT AND EXTRACTION," PICTURE PROCESSING AND PSYCHOPICTORICS, PP. 75-149, EDITED BY P. S. LIPKIN AND A. ROSENFELD, ACACEMIC PRESS, 1970.

PRCKOP, E.J., "APCLLO SLOW SCAN TV SIGNAL FNHANCEMENT," SCIENCE AND TECHNOLOGY, NASA, GUDDARD SPACE FLIGHT CENTER, GREENBELT, MARYLAND, PP. 344-349, 1970.

REINHOLD, A., WOLFF, G., "METHODS OF REPRESENTING THE RESULTS OF PHOTO INTER-PRETATION," PHOTOGRAMMETRIA, VOL. 25, PP. 201-207, APRIL 1970.

RCBEINS, G.M., "IMAGE RESTURATION FOR A CLASS OF LINEAR SPATIALLY-VARIANT DEGRA-DATIONS," PATTERN RECOGNITION, VOL. 2, 1970, PP. 91-103.

RCSENBRECK, B.M., "FASTFAX, A SECOND GENERATION FACSIMILE SYSYEM EMPLOYING REDUNCANCY REDUCTION TECHNIQUES," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VCL. COM-18, NC. 6, PP. 772-779, DECEMBER 1970.

RUSENFELD, A., "A NONLINEAR EDGE DETECTION TECHNIQUE." PROCEEDINGS OF THE IFEE, VOL. 58, NO. 5, MAY 1970, PP. 814-816.

RCSENFELD, A.: JOHNSTON, E., "SHAPE SYNTHESIS, I," AFCRL-7C-0502, AIR FORCE CAMERIDGE RESEARCH LABCRATURY, COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLANC, SEPTEMBER 1970.

RCSENFELD, A., THRUSTUN, M., "EDGE AND CURVE DETECTION FOR VISUAL SCENE ANALY-SIS," AFCRL-70-0488, COMPUTER SCIENCE CENTER, UNIVERSITY OF MARYLAND, GSFC TECFNICAL REPORT NO. 7C-128, AUGUST 197C.

SAKRISON, D.J., ALGAZI, V.R., "COMPARISON OF THE POTENTIAL PERFURMANCE OF LINE-BY-LINE PROCESSING AND TWO-DIMENSIONAL PROCESSING IN IMAGE TRANSMISSION," PROCEEDINGS OF THE 4TH COLLOQUIM ON MICROWAVE COMMUNICATION, VOL. 1, COMPUNICATION SYSTEM THEORY, APRIL 1970.

SCHINGLER, H.R., MODULATION, IEEE SPECTRUM, VOL. 7, NO. 10, P. 65, GCTCBER 1970.

SCHREIBER, W.F., "WIREPHOTU QUALITY IMPROVEMENT BY UNSHARP MASKING," PATTERN RECEGNITION, VCL. 2, NO. 2, PP. 117-121, MAY 1970.

SCHWARTZ, P., "ANALYSIS OF FOURIER COMPRESSION ON IMAGES," SYMPOSIUM ON PICTURE CODING, RALEIGH, NORTH CAROLINA, SEPTEMBER 1970.

SEITZER, D., "INSTANTANEOUS PRIORITY MULTIPLEXING OF GRAY PICTURES," ILEE TRANS-ACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-18, NO. 5, PP. 690-693, OCTOBER 1970.

SHACK, R.V., "IMAGE PROCESSING BY AN OPTICAL ANALOG GEVICE," PATTERN RECCGNITION, VOL. 2, 1970, PP. 123-126.

SHANKS, J.L., "THE DESIGN OF STABLE TWO-DIMFNSIONAL RECURSIVE FILTERS," PROCEED-INGS OF THE UMR, MERVIN J. KELLY COMMUNICATION CONFERENCE, ROLLA, MISSOURI, PP. 15-2-1 TO 15-2-6, 1970.

SHIERS, G., "EARLY SCHEMES FOR TELEVISION," IEEE SPECTRUM, VCL. 7, NO. 5, P. 24, MAY 1970.

SKLANSKY, J. MERRYMAN, P., "A CONTINUOUS TWO DIMENSIONAL MODEL OF DISCRETE ONE CIMENSIONAL THRESHOLD LEARNING," TECHNICAL REPORT TP-70-4, UNIVERSITY OF CALIFICALIA AT IRVINE, SEPTEMBER 1970.

SCM, S.C., "SIMULTANEOUS MULTIPLE REPRODUCTION OF SPACE-LIMITED FUNCTIONS BY SAMPLING OF SPATIAL FREQUENCIES," JOURNAL OF THE UPTICAL SCCIETY OF AMERICA, VCL. 60, NG. 12, DECEMBER 1970, PP. 1628-1634.

STORER, W.F., WEBBER, D.S., "PRECISION PROCESSING FOR EARTH RESOURCE SATELLITE IMAGERY," AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS, 1970.

STRATTON, R.H., GAZLEY, C., "PSEUDOCOLUR IMAGE ENHANCEMENT BY A THO-SEPARATION PHOTOGRAPHIC PROCESS," RAND CORPORATION, SANTA MONICA, CALIF., 15TH ANNUAL TECHNICAL SYMPOSIUM OF THE SOCIETY OF PHOTO-CPTICAL INSTURMENTATION ENGINEERS, SEPTEMBER 14-17, 1970.

STRATTON, R.H., SHEPPARD, J.J., "A PHOTOGRAPHIC TECHNIQUE FOR IMAGE ENHANCEMENT: PSEUDCOLOR THREE-SEPARATION PROCESS," R-596-PR, RANG CORPORATION, SANTA MUNICA, CALIFORNIA, OCTUBER 1970.

STRCKE, G.W., "IMAGE DEBLURRING," HOLOGRAPHY AT THE CROSSROADS, OPTICAL SPECTRA, PP. 31-32, NOVEMBER, 1970.

STRCKE, G.W., GROH, G., "INFORMATION RETRIEVAL FROM CODEC IMAGES FORMED BY GENERALIZED IMAGING SYSTEMS," OPTICS COMMUNICATION, VOL. 1, NO. 7, PP. 339-40, FEBRUARY, 1970.

STRCKE, G.W., HALIOUA, M., INDEBETOUW, G., "LASER-LIGHT SPATIAL - CCMAIN SCAN-

NING DECUNVOLUTION OF BLURRED PHOTOGRAPHS USING THE GENERAL HOLOGRAPHIC DEBLURRING FILTER," PHYSICS LETTERS, VOL. 31A, NO. 6, PP. 341-2, MARCH 23, 1970.

SWINDELL, W., "A NUNCHERENT OPTICAL ANALOG IMAGE PROCESSOR," APPLIED OPTICS, VOL. 9, NU. 11, P. 2459, NOVEMBER 1970.

TAKAGI, M., KAIHARA, S., IISAKA, J., "PRINCIPLE OF IMAGE PROCESSING," IMAGE PROCESSING FOR MEDECINE (1), THE JOURNAL OF CLINICAL SCIENCE, SECTION 6.8, Pp. 924-929, JULY 1970.

TAKAGI, M., KAIHARA, S., IISAKA, J., "A HASIC RESEARCH ON BICMEDICAL IMAGE PROCESSING," THE PROCEEDINGS OF THE 9TH CONVENTION OF THE JAPANESE SOCIETY OF MEDICAL AND BICLOGICAL ENGINEERING, SECTION D-22, APRIL 1970.

TAKAGI, M., KAIHARA, S., MASUMOTO, T., MA STUDY ON BICMECICAL IMAGE PROCESSING, MITTER RECORD OF THE PROFESSIONAL GROUPS OF THE INSTITUTE OF ELECTRONICS AND COMMUNICATION ENGINEERS, VOL. IT 70-10, MAY 1970.

TAKAGI, M., TAKAHASHI, M., "EQUIPMENTS FUR IMAGE PROCESSING," IMAGE PROCESSING FOR MEDECINE (2), THE JOURNAL OF CLINICAL SCIENCE, SECTION 6.8, PP. 1064-1369, AUGUST 1970.

TAKAGI, M., MASUMOTO, T., "AUTOMATIC MEASUREMENT OF CHROMOSOMES," THE PROCEEDINGS OF THE NATIONAL CONVENTION OF THE INSTITUTE OF ELECTPONICS AND COMMUNICATIONS ENGINEERS, VOL. 140, AUGUST 1970.

TASTO, M., WINTZ, P., "PICTURE BANDWIDTH COMPRESSION BY ADAPTIVE BLOCK QUANTI-ZATION," PURDUE UNIVERSITY, TR-EE-70-14, LAFAYETTE, INDIANA, JULY 1970.

TZANNES, N.S., SARANTAKIS, A.J., FARR, E.H., "ENTRUPY AND DATA COMPRESSION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOL. IT-16, NO. 1, PP. 74-75, JANUARY 1970.

VANDER LUGT, A. ROTZ, F.S., "THE USE OF FILM NONLINEARITIES IN OPTICAL SPATIAL FILTERING," APPLIED OPTICS, VOL. 9, NO. 1, P. 215, JANUARY 1970.

VIGILIONE, S.S., "APPLICATIONS OF PATTERN RECOGNITION TECHNOLOGY," MATHEMATICS IN SCIENCE AND ENGINEERING, VOL. 66, Pp. 115-162, 1970.

VCURGCURAKIS, E.J., "PHOTOGRAPHIC EMULSION AS A TIME INTEGRATOR," UNIVERSITY OF CALIFCRNIA, DEPARTMENT OF ENGINEERING, NASA-GSFC, GRANT NO. 5-10167, LOS ANGELES CALIFCRNIA, 1970.

WATANABE, S., MFEATURE COMPRESSION, IN ADVANCES IN INFORMATION SYSTEMS SCIENCE, VCL. 3, NEW YURK, PLENIUM, 1970.

WEAVER, C.S., RAMSY, S.C., GODEMAN, J.W., RUSIE, A.M., "THE OPTICAL CONVOLUTION OF TIME FUNCTIONS," APPLIED OPTICS, VOL. 9, PP. 1672-1682, JULY 1970.

WEINSTEIN, G.G., "SPATIAL FILTERING OF IMAGES: PHCTOGRAPHIC SYSTEMS," PROBLEMS OF INFORMATION TRANSMISSION, JOURNAL, VCL. 2, 1970.

WESTHEIMER, G., "IMAGE QUALITY IN THE HUMAN EYE," OPTICA ACTA, VOL. 17, 1970, PP. 641-658.

WILKINS, L.C., WINTZ, P.A., "IMAGE CODING BY CODING CONTCURS," PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON CUMMUNICATIONS, SAN FRANCISCO, CALIF., VCL. 1, PP. 2-22 TO 2-10, 1970.

WINTZ, P.A., HABIBI, A., "PICTURE CODING BY LINFAR TRANSFORMATION," PRESENTED AT

THE 1970 IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY, NOORDWIJK, NETHER-LANDS, JUNE 1970.

WINTZ, P.A., HABIBI, A., TASTO, M., "ADAPTIVE AND NONADAPTIVE IMAGE CODING BY LINEAR TRANSFORMATION AND BLOCK QUANTIZATION," PRESENTED AT THE SYMPOSIUM ON PICTURE CGDING, NORTH CAROLINA STATE UNIVERSITY, RALEIGH, NORTH CAROLINA, SEPT-EMBER 10, 1970.

WINTZ, P.A., TASTO, M., "AN ADAPTIVE PICTURE BANDWIDTH COMPRESSION SYSTEM USING PATTERN RECOGNITION TECHNIQUES," PROCEEDINGS OF THE THIRD FAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, PP. 513-515, JANUARY 1970.

WINTZ, P.A., WILKINS, L.C., "STUDIES ON DATA COMPRESSION, PART I: PICTURE CODING BY CONTOURS, PART II: ERROR ANALYSIS OF RUN-LENGTH CODES," TR-EE 70-17, SCHOOL OF ELECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INDIANA, SEPTEMBER 197C.

YARCSLAVSKIY, L.P., "PICTURE INPUT-OUTPUT DEVICES FOR DIGITAL COMPUTER," LIBRARY ON AUTOMATION, ISSUE NO. 313, CHAPTER 3, P. 65, 1970.

YU, F.T.S., "INFORMATION CHANNEL CAPACITY OF A PHOTOGRAPHIC FILM," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-16, NO. 4, PP. 477-48C, JULY 1970.

******** ** 1971 ** ******

The state of the s

ALEXANDRIDIS, N.A., "WALSH-HADAMARD TRANSFORMATIONS IN IMAGE PROCESSING," UCLA-ENG-7108, UNIVERSITY OF CALIFORNIA, LOS ANGELES, SCHOOL OF ENGINEERING AND APPLIED SCIENCES, MARCH 1971.

ANCERSON, G.B., HUANG, T.S., "PIECEWISE FOURIER TRANSFORMATION FOR PICTURE BANCHIOTH COMPRESSION," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VCL. CCM-19, NC. 2, APRIL 1971, PP. 133-140.

ANDREWS, H.C., "BIBLIOGRAPHY ON RATE DISTURTION THEORY," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 2, PP. 198-200, MARCH 1971.

ANDREWS, H.C., "COMPUTER IMAGE MANIPULATION FOR RESTCRATION AND ENHANCEMENT," PROCEEDINGS OF THE INTERNATIONAL TELEMETRY CONFERENCE, WASHINGTON, D.C., SEPTEMBER 1971.

ANDREWS, H.C., "MULTIDIMENSIONAL RUTATIONS IN FFATURE SELECTION," IEEE TRANS-ACTIONS UN COMPUTERS, VOL. C-20, NO. 9, P. 1045, SEPTEMBER 1971.

ARCELLI, C., LEVIALDI, S., "PICTURE PROCESSING AND OVERLAPPING BLOBS," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NC. 9, P. 1111, SEPTEMBER 1971.

ARGUELLO, R.J., "ENCODING, TRANSMISSION AND DECODING OF SAMPLED IMAGES," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CURPURATION, OPTICAL GROUP, NORMALK, CONNECTICUT, 1971, PP. 3-1 TO 3-22.

ARGUELLO, R.J., "TECHNICAL DISCUSSION SESSIONS ON SAMPLED IMAGERY," SESSION NO. 7, ER-181, THE PERKIN-ELMER CORPORATION, NEW HAVEN, CONN., JUNE 1971.

ARGUELLO, R.J., SELLNER, H.R., "ADAPTIVE DELTA MODULATION OF AFRIAL IMAGERY," ENGINEERING REPORT ER-179. THE PERKIN-ELMER CCRPORATION, NCRWALK, CONN.,

JUNE 1971.

7

ARGUELLO: R.J., SELLNER: H.R., "SAMPLING AND QUANTIZATION STUDY OF PCM SAMPLED IMAGERY," ENGINEERING REPORT ER-180, THE PERKIN-ELMER CORPCRATION, NORWALK, CCNN., JUNE 1971.

many the many of the following the state of the second of

ARGUELLO, R.J., STULLER, J.A., SELLNER, H.R., "DIFFERENTIAL PULSE CODE MCDULATION TRANSMISSION OF SAMPLED IMAGERY," ENGINEERING REPORT ER-154, THE PERKIN-ELMER CORPORATION, NORWALK, CONN., JUNE 1971

ARGYLE, E., "TECHNIQUES FOR EDGE DETECTION," PROCEEDINGS OF THE IEFE, VOL. 59, NC. 2, PP. 285-287, FEBRUARY 1971.

BARNARD, T.W., "AN IMAGE EVALUATION METHOD," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CCRPORATION, UPTICAL GROUP, NÜRWALK, CONNECTICUT, 1971, PP. 5-1 TO 5-8.

BARNARD, T.W., "A LITERARY SURVEY ON IMAGE QUALITY EVALUATION," ENGINEERING REPORT ER-177, THE PERKIN-ELMER CORPORATION, NORWALK, CONN., OPTICAL TECHNOLOGY DIVISION, JUNE 11, 1971.

BEAUDETTE: C.G., "AN EFFICIENT FACSIMILE SYSTEM FOR WEATHER GRAPHICS," PROCEEC-INGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORGON AND BREACH, NEW YCRK, PART 4, DECEMBER 1971.

BECCOES, M.P., MEIER, O., "CORRECTION TO "FILTER EFFECT AND TELEVISION COMPRESSION," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 1, P. 119, JANUARY 1971.

BENTON, S.A., KRONAUER, R.E., "PROPERTIES OF GRANULARITY-WEINER SPECTRA," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VGL. 61, NO. 4, PP. 524-529, APRIL 1971.

BERGER, T., "RATE DISTORTION THEORY," NEW JERSEY, PKENTICE-HALL, INC., 1971.

BHUSHAN, A.K., "EXPERIMENTS IN CODING CCLOR PICTURES, "PROCEECINGS OF THE BANCWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 7, DECEMBER 1971.

BLOSS, W.H., BAUER, K., METZ, S., SAACKEL, L., MAN FLECTRONIC METHOD FOR IMPROVING STATISTICALLY PERTURBED IMAGES, NACHRICHTENTECHNISCHE ZEITSCHRIFT, VCL. 24, PP. 77-80, FEBRUARY 1971.

BOWYER, D.E., "RATE CALCULATIONS FOR COMPRESSED HADAMARD-TRANSFORMED DATA," SUMPARY REPORT MSD-INT-1338, TELEDYNE BROWN ENGINEERING, HUNTSVILLE, ALABAMA, JUNE 1971.

BCWYER, D.E., "WALSH FUNCTIONS, HADAMARD MATRICES AND DATA COMPRESSION," 1971 WALSH FUNCTION SYMPOSIUM, RECORD, WASHINGTON, D.C.

BRAINARD, R.C., "SUBJECTIVE EFFECTS OF NOISE IN TELEVISIONS," PROCEEDINGS OF THE MIT PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 1. CECEMBER 1971.

BRCWN, D.W., ET AL., "COMPUTER PROCESSING OF SCANS USING FOURIER AND OTHER TRANSFORMATIONS," JOURNAL OF NUCLEAR MEDICINE, VOL. 12, PP. 287-291, JUNE 1971.

BROWN, E.B.; "PAKAMETERS OF THE SAMPLED IMAGE SYSTEM." A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION; OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 2-1 TO 2-8.

BRCWN, E.F., "SLIDING-SCALE OPERATION OF DIFFERENTIAL TYPE PCM CODES FOR TELEVI-SION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPCSIUM, GORDON AND BREACH, NEW YORK, PART 5, 1971.

all approved the Section

CANCY, J.C., "REFINEMENT OF A DELTA MODULATOR," PROCEEDINGS OF THE PICTURE BANCWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

CAFFEY, W.T., "PROBABILITY WEIGHTING OF SPATIAL FILTERS," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 4, PP. 478-482, APRIL 1971.

CHERRY, E.C., "PICTURE BANDWIDTH COMPRESSION RESEARCH AT IMPERIAL COLLEGE, UNIVERSITY OF LONDON," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPUSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

CLCSS, F., "VIDEO BANDWIDTH COMPRESSION BY MULTIPLEXING: EXPERIMENTAL RESULTS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-19, NO. 3, P. 371, JUNE 1971.

CCNNOR, D.J., PEASE, R.F.W., SCHOLES, W.G., "TELFVISION CODING USING TWO-DIMENSIONAL SPATIAL PREDICTION," BELL SYSTEM TECHNICAL JOURNAL, VOL. 50, NO. 3, PP. 1C49-1061, MARCH 1971.

CCNSIDINE, P., DUMAIS, R.H., PROFIG, R.A., "INTERACTIVE OPTICAL ENHANCEMENT DEVICES," PRESENTED AT THE SPIE SEMINAR ON RECENT ADVANCES IN THE EVALUATION OF THE PHOTOGRAPHIC IMAGE, BOSTON, MASSACHUSETTS, JULY 1971.

CUNNIFF, J.F., "GENERATION AND RECORDING OF SAMPLED IMAGES," A SYMPCSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NURWALK, CONNECTICUT, 1971, PP. 9-1 TO 9-14.

CUNNINGHAM, J.E., "FRAME-CORRECTION CODING," PROCEEDINGS OF THE PICTURE BANCHIOTH CUMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 6, DECEMBER 1971.

DAVISSON, L.D., "THEORETICAL CONSIDERATIONS IN DATA COMPRESSION," PROCEFCINGS OF THE MIT PICTURE BANDWIDTH CUMPRESSION SYMPOSIUM, GURDON AND BREACH, NEW YORK, PART 3, DECEMBER 1971.

DINA, D.F., WINTER, D.A., TRENHOLM, B.G., "CINTEL-COMPUTER INTERFACE FOR TELE-VISION," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, No. 8, P. 1091, AUGUST 1971.

DUNALDSON, R.W., TOUSSOINT, G.T., "USE OF CONTEXTUAL CONSTRAINTS IN RECUGNITION OF CONTUUR-TRACED HANDPRINTED CHARACTERS," IEEE TRANSACTIONS ON COMPUTERS, VOL. G-2C, NO. 8, P. 1096, AUGUST 1971.

EKSIKOM, M.P., RATER, O.L., MCOMPUTER PROCESSING OF RADICGRAPHIC IMAGES WITH THE FINITE FOURIER TRANSFORM, MUCRL-73484, LAWRENCE RADIATION LABORATORY, UNIVERSITY OF CALIFORNIA, LIVERMORE, CALIFORNIA, OCTOBER 14, 1971.

ELIAS, P., "INFORMATION THEORY AND THE ECONOMICAL ENCODING OF PICTURES," PRO-CEECINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GCRCON AND BREACH, NEW YORK, PART 2, DECEMBER 1971.

GATTIS, J.L., WINTZ, P.A., "AUTOMATED TECHNIQUES FOR DATA ANALYSIS AND TRANS-MISSICN," PURDUE UNIVERSITY, SCHOOL OF ELECTRICAL ENGINEERING, NGR-15-0C5-106. TR-EE-71-37, LAFAYETTE, INDIANA, AUGUST 1971.

GERRITSEN, H.J., HORWITZ, B., "EXPERIMENTAL DEMONSTRATION OF OPTICAL SECTIONING

BY SPATIAL FILTERING AND ITS POSSIBLE USE IN TRANSMISSION OF THREE-DIMENSIONAL PICTURES, # APPLIED OPTICS, VOL. 10, NO. 4, APRIL 1971.

GCLCSTFIN, A.J., HARMON, L.D., LESK, A.B., "IDENTIFICATION OF HUMAN FACES," PRO-CEECINGS OF THE IEEE, VOL. 59, NO. 5: P. 748, MAY 1971.

GCKCON, R., HERMAN, G.T., "RECONSTRUCTION OF PICTURES FROM TH'IR PROJECTIONS," ASSLCIA'ION FOR COMPUTING MACHINERY, VOL. 14, NC. 12, PP. 759-768, LECEMBER 1971.

GOURAUD, H., "COMPUTER DISPLAY OF CURVEC SURFACES," UTEC-CSC-71-113, COMPUTER SCIENCE DIVISION, UNIVERSITY OF UTAH, SALT LAKE CITY, JUNE 1971.

GRAY, S.B., "LOCAL PROPERTIES OF BINARY IMAGES IN TWO DIMENSIONS," IEEE FRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 5, PP. 551-561, MAY 1971.

HABIBL, A., "CCMPARISON OF NTH ORDER DPCM ENCODER WITH LINEAR TRANSFURMATIONS AND BLOCK QUANTIZATION TECHNIQUES," IEEE TRANSACTIONS ON CCMMUNICATION TECHNOLOGY, Vol. COM-19, NO. 6, DECEMBER 1971.

HABIBI, A., WINTZ, P.A., "IMAGE CODING BY LINEAR TRANSFORMATION AND BLOCK QUANTIZATION," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-19, NG. 1, PP. 50-63, FEBRUARY 1971.

HALL, D.L., KRUGER, R.P., DWYER, S.J., LODWICK, G.S., "CCMPUTER CIAGNOSIS OF HEART DISEASE," CLINICS OF NORTH AMERICA, DECEMBER 1971.

HALL, E.L., "DIGITAL FILTERING TECHNIQUES FOR X-RAY IMAGE ENHANCEMENT," PROCEEDINGS OF THE INTERNATIONAL TELEMETRY CONFERENCE, WASHINGTON, D.C., SEFTEMBER 1971.

HALL, E.L., KRUGER, R.P., DWYER, S.J., ET. AL., "A SURVEY OF PREPROCESSING AND FEATURE EXTRACTION TECHNIQUES FOR RADIOGRAPHIC IMAGES," IEEE TRANSMISSION ON COMPUTERS, VOL. C-20, NG. 9, SEPTEMBER 1971, PP. 1032-1045.

HLANG, T.S., "CODING OF GRAPHICS," PROCEEDINGS OF THE PICTURE BANDWIDTH COM-PRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 4, DECEMBER 1971.

HUANG, T.S., "DIGITAL HOLOGRAPHY," PROCEEDINGS OF THE IEEE, VOL. 59, NO. 9, P. 1335, SEPTEMBER 1971.

HUANG, T.S., SCHRIEBER, W.F., TRETIAX, G.J., "IMAGE PROCESSING," PROCEEDINGS OF THE IEEE, VOL. 59, NO. 11, NOVEMBER 1971.

HULLETT, J.L., "IMPAIRMENT BY TRANSMISSION ERRORS OF DIFFERENTIALLY-QUANTIZED TELEVISION SIGNALS," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPCSIUM, GORDON AND BREACH, NEW YORK, DECEMBER 1971.

HUNT, B.R., "BLOCK-MODE DIGITAL FILTERING OF PICTURES," LOS ALAMOS SCIENTÍFIC LABORATURY, LOS ALAMOS, NEW MEXICO, 1971.

HUN?. B.R., "MINIMIZING THE COMPUTATION TIME FOR USING THE TECHNIQUE OF VECTIONING FOR DIGITAL FILTERING OF PICTURES," LOS ALAMOS SCIENTIFIC LABORATORY, LOS ALAMOS, NEW MEXICO, 1971.

ICHIDKA, Y., IZUMI, M., SUZUKI, T., "SCANNING HALFTONE PLOTTER AND COMPUTER-GENERATED CONTINUOUS-TONE HOLOGRAM," APPLIED UPTICS, VOL. 10, NO. 2, P. 403, FEBRUARY 1971.

IISAKA, J., WATANABE, F., KAIHAPA, S., TAKACI, M., NAKATANI, Y., "INIERACTIVE

BIOMEDICAL IMAGE PROCESSING SYSTEM," THE PROCEEDINGS OF THE 10TH CONVENTION OF THE JAPANESE SOCIETY OF MEDICAL AND BIOLOGICAL ENGINEERING, 1-5-7, APRIL 1971.

JODCIN, R., MANDEL, L., "INFORMATION RATE IN AN OPTICAL COMMUNICATION CHANNEL," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VGL. 61. NO. 2, PP. 191-198, FEBRUARY 1971.

KISHNER, S.J., "FEATURE EXTRACTION USING GOLAY LOGIC," A SYMPOSIUM ON SAMPLED IMALES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, Pp. 7-1 TO 7-8.

KLINGER, A., KOCHMAN, A., ALEXANDRIDIS, N.A., "COMPUTER ANALYSIS OF CHROMOSUME PATTERNS: FEATURE-ENCODING FOR FLEXIBLE MASKING," LEFE TRANSACTIONS ON COMPUTERS, SPECIAL ISSUE ON FEATURE EXTRACTION AND SELECTION, SEPTEMBER 1971.

KCLERS, P.A., "REACING PICTURES. SOME COGNITIVE ASPECTS OF VISUAL PERCEPTION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 1, DECEMBER 1971.

KCZLAY, D., "FEATURE EXTRACTION IN AN OPTICAL CHARACTER RECOGNITION MACHINE,"
IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NC. 9, P. 1063, SEPTEMBER 1971.

KRAKAUER, L.J., "COMPUTER ANALYSIS OF VISUAL PROPERTIES OF CURVED OBJECTS," MACTR-82, MIT, CAMBRIDGE, MASSACHUSETTS, MAY 1971.

KRUGER, R.P., "COMPUTER PRUCESSING OF RADIOGRAPHIC IMAGES," PHD DISSERTATION, UNIVERSITY OF MISSCURI, COLUMBIA, JUNE 1971.

KRUGER, R.P., DWYER, S.J., "COMPUTER-AIDED DIAGNOSIS OF RACIOGRAPHIC CARDIAC SIZE AND SHAPE DESCRIPTORS," PROCEEDINGS OF THE THIRD ANNUAL HOUSTON CONFERENCE ON COMPUTER AND SYSTEM SCIENCE, UNIVERSITY OF HOUSTON, TEXAS, APRIL 26-27, 1971.

KRUGER, R.P., HALL, D.L., DWYER, S.J., LODWICK, G.S., "DIRECT COMPUTER DIAGNOSIS OF RHEUMATIC HEART DISEASE," RADIOLOGY, DECEMBER 1971.

KRUGER, R.P., HALL, E.L., DWYER, S.J., LODWICK, G.S., "DIGITAL TECHNIQUES FOR IMAGE ENHANCEMENT OF RADIOGRAPHS," INTERNATIONAL JOURNAL OF BIO-MEDICAL COMPUTING, VOL. 2, 1971.

KRUGER, R.P., HARLOW, C.A., DWYER, S.J., "AUTOMATED LIAGNOSIS UTILIZING CARDIAC SIZE AND SHAPE DESCRIPTORS," PROCEEDINGS OF THE FIFTH ANNUAL PRINCETGN CONFERENCE ON INFORMATION SCIENCES AND SYSTEMS, PRINCETON, NEW JERSEY, MARCH 25-26, 1971.

KRUGER, R.P., TOWNES, J.R., HALL, D.L., DWYER, S.J., "COMPUTER AIDEC DIAGNOSIS VIA FEATURE EXTRACTION AND CLASSIFICATION OF RADIOGRAPHIC CARDIAC SIZE AND SHAPE DESCRIPTURS," NINTH ANNUAL SYMPOSIUM ON BIOMATHEMATICS AND COMPUTER SCIENCE IN THE LIFE SCIENCES PROCEEDINGS, HOUSTON, TEXAS, MARCH 22-24, 1971.

LAMAR, J.V., "COMPUTER TECHNIQUES FOR PSEUDOCULOR IMAGE ENHANCEMENT," R-787-N1H, RAND CORPORATION, SANTA MONICA, CALIFORNIA, JUNE 1971.

LEVI, L., "MOTION BLURRING WITH DECAYING DETECTOR RESPONSE," APPLIEC OPTICS. VOL. 10, NO. 1, PP. 38-41, 1971.

LEVINSON, J.Z., "PSYCHOPHYSICS AND TV," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 1, DECEMBER 1971.

LIMB. J.U.. "ADAPTIVE ENCODING OF PICTURE SIGNALS." PROCEFCINGS OF THE PIC-

TURE HANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

LIMB, J.O., RUBENSTEIN, C.B., WALSH, K.A., "DIGITAL CODING OF COLOR PICTURE-PHONE SIGNALS BY ELEMENT DIFFERENTIAL QUANTIZATION," IEEE TRANSACTIONS ON COMPUNICATIONS TECHNOLOGY, CUM-13, DECEMBER 1971.

LIPPEL, B., "IMPROVEMENT OF A COARSE PICTURE QUANTIZER BY MEANS OF CROERED DITHER," RESEARCH AND DEVELOPMENT TRANSMISSION, ECON-3436, JUNE 1971.

LIPFEL, B., KURLAND, M., "THE EFFECT OF DITHER ON LUMINANCE QUANTIZATION OF PICTURES," IEEE TRANSACTIONS OF COMMUNICATIONS TECHNOLOGY, DECEMBER 1971.

LIPPEL, B., KURLAND, M., MARSH, A.H., **CRDERED CITHER PATTERNS FOR CDARSE QUANTIZATION OF PICTURES, ** PROCEEDINGS OF THE IEFE, VOL. 59, NO. 3, PP. 429-431, MARCH 1971.

LUCKY, R.W., "PRACTICAL CHANNELS AND MODELS," PROCECTINGS OF THE PICTURE BANCWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 2, DECEMBER 1971.

MAC GOVERN, A.J., WYANT, J.C., "COMPUTER-GENERATED HOLOGRAMS FOR TESTING OPTICAL ELEMENTS," APPLIED OPTICS, VOL. 10, NO. 3, P. 619, MARCH 1971.

MOHARIR, P.S., PRASADA, B., "TWO-DIMENSIONAL PICTURE PROCESSING," PROCEEDINGS OF THE MIT PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

MCTI-SMITH, J., BAER, T., "AREA AND VOLUME CODING OF PICTURES," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

MCUNTS, F.W., "FRAME-TO-FRAME DIGITAL PROCESSING OF TV PICTURES TO REMOVE REDUN-DANCY," PROCEECINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 6, DECEMBER 1971.

NAH1, N.E., ASSEFI, T., "BAYSIAN RECURSIVE IMAGE ESTIMATION," PROCEEDINGS OF TWO DIMENSIONAL DIGITAL SIGNAL PROCESSING CONFERENCE, UNIVERSITY OF MISSOURI, CCICBER 1971.

NARAYANAN, S., FRANKS, L.E., "THE SPECTRA OF DIGITALLY ENCODED VIDEO SIGNALS," IEEE TRANSACTIONS ON COMMUNICATION TECHNOLOGY, VOL. COM-19, NO. 4, Pp. 459-467, AUGUST 1971.

OHTA, N., "FAST COMPUTING OF COLOR MATCHING BY MEANS OF MATRIX REPRESENTATION. PART I: TRANSMISSION-TYPE COHERENT," APPLIED OPTICS, VOL. 10, NO. 9, P. 2183, SEPTEMBER 1971.

O'NEAL, J.B., "BOUNDS ON SUBJECTIVE PERFORMANCE MEASURES FOR SOURCE ENCOCING SYSTEMS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 3, PP. 224-232, MAY 1971.

O*NEAL, J.B., "NOISE CONSIDERATIONS IN BIT RATE COMPRESSION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 3, DECEMBER 1971.

ONCE, M., TAKAGI, M., MASUMUTO, T., KAIHARA, S., "IMAGE PROCESSING OF LIVER-SCITIGRAMS," INSTITUTE OF INDUSTRIAL SCIENCE AND DEPARTMENT OF MEDICINE, UNIVERSITY OF TOKYO, 3 P., 1971.

ONGE, M., TAKAGI, M., MASUMUTO, T., "COMPUTER PROCESSING OF X-RAY IMAGES," INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY OF TOKYO, 8 P., 1971.

The second second second

UNDE, M., TAKAGI, M., MASUMOTO, T., MA SIMPLE INPUT EQUIPMENT FOR IMAGE PROCESSING, INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY OF TOKYC, JAPAN, 13 P., 1971.

ONDE, M., TAKAGI, M., YAMADA, H., "APPLICATION OF FACSIMILE FOR CHLIQUE ANGLE ULTRASONIC FLAW INSPECTION," THE JOURNAL OF THE JAPANESE SOCIETY FOR NON-DESTRUCTIVE INSPECTION, VOL. 20, NO. 2, P. 101, FEBRUARY 1971.

CNDE, M., TAKAGI, M., "MULTIDIMENSIONAL IMAGE PROCESSING BY COMPUTER," SEISANKENYU, JOURNAL OF THE INSTITUTE OF INDUSTRIAL SCIENCE, UNIVERSITY OF TOKYO, VOL. 23, NO. 1, PP. 2-18, JANUARY 1971.

GNGE, M., TAKAGI, M., KAIHARA, S., MASUMOTO, T., MAUTOMATED CLASSIFICATION OF WHITE BLOOD CELLS, SECOND IMAGE TECHNOLOGY CONFERENCE, NOVEMBER 20, 1971.

NOVEMBER 20, 1971.

CNCE, M., TAKAGI, M., YAMADA, H., MASUMCTO, T., MA SIMPLE INPUT EQUIPMENT FUR IMAGE PROCESSING, THE PROCEEDINGS OF THE NAYIONAL CONVENTION OF THE INSTITUTE OF TELEVISION ENGINEERS OF JAPAN, 10-5, JUNE 1971.

UNDE, M., TAKAGI, M., MASUMOTO, T., "PRCCESSING OF X-RAY IMAGES BY COMPUTER;" THE JOURNAL OF THE JAPANESE SOCIETY FOR NON-DESTRUCTIVE INSPECTION, VCL. 20, NC. 8, PP. 422-423, AUGUST 1971.

UNCE, M., TAKAGI, M., YAMADA, H., MASUMOTO, T., HAMANO, N., TAMAI, S., MA FLICATION OF GRAPHIC DISPLAY TO ULTRASONIC FLAW INSPECTION, THE JCURNAL OF THE JAPANESE SOCIETY FOR NON-DESTRUCTIVE INSPECTION, VOL. 20, NC. 8, PP. 434-435, AUGUST 1971.

PEARL, J., "BASIS-RESTRICTED TRANSFORMATIONS AND PERFORMANCE MEASURES FOR SPECTRAL REPRESENTATIONS," PROCEEDINGS OF THE 1971 HAWAIIAN CONFERENCE, HONCLULU.

PEARL, J., "ON THE DISTANCE BETWEEN REPRESENTATIONS," UNIVERSITY OF CALIFORNIA LCS ANGELES, COMPUTER SCIENCE DEPARTMENT, 1971.

PEARSON, D.E., RUBENSTEIN, C.B., "THE INFLUENCE OF TRANSMISSION ERRORS ON THE CHUICE OF COLOR RECEIVER PRIMARIES," PROCEEDINGS OF THE PICTURE HANDWIDTH COMPRESSION SYMPOSIUM, ABSTRACT ONLY, GORDON AND BREACH, NEW YORK, PART 7, DEC-EMBER 1971.

PEASE, R.F., LIMB, J.O., "EXCHANGE OF SPATIAL AND TEMPORAL RESCLUTION IN TELF-VISION CJDING," THE BELL TELEPHONE SYSTEM TECHNICAL JOURNAL, JANUARY 1971, PP. 191-200.

PRATT, W.K., "LINEAR AND NUN-LINEAR FILTERING IN THE WALSH DCMAIN," PROCEEDINGS OF APPLICATIONS OF WALSH FUNCTIONS, WASHINGTON, D.C., APRIL 1971, PP. 38-42.

PRATT, W.K., "FAST COMPUTATIONAL TECHNIQUES FOR GENERALIZED TWO DIMENSIONAL WIENER FILTERING," PROCEEDINGS OF TWO DIMENSIONAL DIGITAL SIGNAL PROCESSING, UNIVERSITY OF MISSOURI, OCTOBER 1971.

PRATE, W.K., ANDREWS, H.C., "APPLICATION OF FOURIER-HADAMARD-TRANSFERMATION TO BANCHIDTH COMPRESSION," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

PRESTON: K., "COMPUTERIZED ACOUSTIC HOLOGRAPHIC IMAGING," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 8-1 TO 8-8.

PRECIER, C.W., WINTZ, P.A., "PICTURE BANDWIDTH REDUCTION FOR NOISY CHANNELS," PURCUE UNIVERSITY, NGR-15-005-106, TR-EE 71-30, SCHOOL OF ELECTRICAL ENGINEER-ING, 58 P., LAFAYETTE, INDIANA, AUGUST 1971.

RICE, R.F., "TV DATA CUMPRESSION FOR A GRAND TOUR OF THE DUTER PLANETS," PROCEEDINGS OF THE 4TH HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES, UNIVERSITY OF HAWAII, HONDLULU, JANUARY 12-14, 1971.

RICHARDS, W., PARKS, E.A., "MODEL FOR COLOR CONVERSION," UPTICAL SOCIETY OF AMERICA, VGL. 61, PP. 971-976, JULY 1971.

RINCFLEISH, T.C., "DIGITAL IMAGE PROCESSING FOR THE RECTIFICATION OF TELEVISION CAMERA DISTORTIONS," PRINCETON UNIVERSITY, ASTRON, P. 145, 1971.

RINCFLEISCH, T.C., DUNNE, J.A., FRIEDEN, H.J., STROMBERG, W.C., RUIZ, R.M., "CIGITAL PROCESSING OF THE MARINER 6 AND 7 PICTURES," JOURNAL OF GEOPHYSICAL RESEARCH, VOL. 76, PP. 394-417, JANUARY 1971.

RINK, R.E., "ENTROPY OF AN INCREMENT PROCESS IN TWO-DIMENSIONS," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME IT-17, NO. 5, PP. 610-612, SEPTEMBER 1971.

ROBBINS, G.M., HUANG, T.S., "INVERSE FILTERING FOR LINEAR SHIFT-VARIANT IMAGING SYSTEMS," PROCEEDINGS OF THE IEEE, DECEMBER 1971.

RCCCA, F., "TELEVISION BANDWIDTH COMPRESSION UTILIZING FRAME-TO-FRAME CORRELATION AND MOVEMENT COMPENSATION," PROCEECINGS OF THE MIT PICTURE BANDWIDTH SYMPCSIUM, GORDON AND BREACH, NEW YORK, PART 6, DECEMBER 1971.

RUSSOL, L., "GENERATION OF HALFTONES BY COMPUTER-CONTROLLED MICROFILM RECORDER," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. 6, JUNE 1971, PP. 662-664.

RUSSELL, F.C., GUODMAN, J.W., "NUNREDUNDANT ARRAYS AND POSTDETECTION PROCESSING FOR ABERKATION COMPENSATION IN INCOHERENT IMAGING," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 2, FEBRUARY 1971, PP. 182-191.

SACES, M.B., NACHMIAS, J., RUBSON, J.G., "SPATIAL-FREQUENCY CHANNELS IN HUMAN VISION," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 9, P. 1176, SEPTEMBER 1971.

SCHAPFURST, R., "FRAME-TO-FRAME CODING OF NTSC COLOR TV," PROCEEDINGS OF THE MIT PICTURE BANDWICTH COMPRESSION SYMPOSIUM; ABSTRACT ONLY, GORDON AND BREACH, NEW YORK, PART 7, DECEMBER 1971.

SCHREIBER, W.F., HUANG, T.S., TRETIAK, O.J., "CONTOUR CODING OF IMAGES," PRO-CEELINGS OF THE PICTURE BANDWICTH COMPRESSION SYMPOSIUM, GCROON AND BREACH, NEW YORK, PART 3, DECEMBER 1971.

SCCTT, R.M., "SAMPLED IMAGES-AN INTRODUCTION," A SYMPOSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTICUT, 1971, PP. 1-1 TC 1-2.

SELLMER, H.K., "TRANSFER FUNCTION COMPENSATION OF SAMPLED IMAGERY," A SYMPUSIUM ON SAMPLED IMAGES, THE PERKIN-ELMER CORPORATION, OPTICAL GROUP, NORWALK, CONNECTIOUT, 1971, PP. 4-1 TO 4-14.

SHIBAHARA, T., "COMPUTER BASED FOURIER PLANE TECHNIQUES FOR IMAGE PROCESSING," CCCRDINATED SCIENCE LABORATORY, UNIVERSITY OF ILLINOIS, URBANA, REPCRT R-522, AUGUST 1971.

SITTON, G.A., "AN EXPERIMENTAL VIDEO IMAGE PROCESSING LABORATORY," IBM PUBLICATION NO. 320.2415, JULY 1971.

The state of the s

SITTUN, G.A., TUBIAS, P.R., "APPLICATIONS OF THE LAPLACIAN TO IMAGE PROCESSING," IBM PUBLICATION NG. 320.2410, FEBRUARY 1, 1971.

end resident management

SKLANSKY, J., "THE UCI PATTERN RECOGNITION PROJECT," INTERIM REPORT IP-71-3, SCHOOL OF ENGINEERING, UNIVERSITY OF CALIFORNIA, IRVINE, SEPTEMBER 1971.

SMITH, F.W., WRIGHT, M.H., "AUTOMATIC SHIP PHOTE INTERPRETATION BY THE METHOD OF MUMENTS," IEEE TRANSACTIONS ON COMPUTERS, VOL. C-20, NO. P. 1089, SEPTEMBER 1971.

SCM, S.C., "ANALYSIS OF THE EFFECT OF LINEAR SMEAR ON PHOTOGRAPHIC IMAGES," JOURNAL OF THE OPTICAL SOCIETY OF AMERICA, VOL. 61, NO. 7, JULY 1971, PP. 859-864.

STOCKHAM, T.G., "INTRAFRAME ENCODING FOR MUNOCHROME IMAGES BY NON-LINEAR FILTER-ING," PROCEEDINGS OF THE PICTURE BANDWICTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.

STRATTON, R.H., GAZLEY, C., "A PHOTOGRAPHIC TECHNIQUE FOR INAGE ENHANCEMENT: PSELDCCOLOR TWO-SEPARATION PROCESS," REPORT R-597-PH, RAND CCRPORATION, SANTA MONICA, CALIFORNIA, JULY 1971.

SIRCCKA, D., "COLGR DIFFERENCE FORMULAS AND VISUAL ACCEPTABILITY," APPLIED OPTICS, VOL. 10, NO. 6, P. 1308, JUNE 1971.

STRCKE, G.W., HALICUA, M., SAFFIR, A.J., EVINS, D.J., "HIGH-RESOLUTION ENHANCEMENT IN SCANNING ELECTRON MICROSCOPY BY A POSTERICRI HOLOGRAPHIC IMAGE PROCESSING," PROCEEDINGS OF THE FOURTH ANNUAL SCANNING ELECTRON MICROSCOFF SYMPOSIUM, IIT RESEARCH INSTITUTE, CHICAGO, ILLINOIS, APRIL 1971, PP. 57-64.

STULLER, J.A., "AN ALGEBRAIC APPROACH TO IMAGE RESTORATION FILTER DESIGN," UNIVERSITY OF NEW BRUNSWICK, CANADA, OCTOBER 1971.

TAKAGI, M., "GELL DIAGNOSIS-PROBLEMS IN IMAGE PROCESSING FOR MEDICINE," THE JUURNAL OF THE JAPAN MEDICAL ASSOCIATION, VOL. 66, NG. 6, PP. 645-648, SEPTLMBER 1971.

TAKAGI, M., "INPUT AND DUTPUT EQUIPMENTS FOR IMAGE PROCESSING," FIFTH IBM CCMPUTER SCIENCE SYMPOSIUM, SECTION A-3, OCTOBER 9, 1971.

TAKAGI, M., KAIHARA, S., MASUMOTO, T., "A RESEARCH ON THE CLASSIFICATION OF WHITE BLOOD CELLS BY COMPUTER," THE PROCEFTINGS OF THE 17TH CONVENTION OF THE JAPANESE SOCIETY OF MEDICAL AND BIOLOGICAL ENCINEERING, SECTION 1-3-1, APRIL 1971.

TAKAGI, M., TAMAI, S., "FACSIMILE FOR ULTRASCNIC FLAW INSPECTION," THE JCURNAL OF THE JAPANESE SOCIETY FUR NONDESTRUCTIVE INSPECTION, VCL. 20, NO. 2, P. 100, FEBRUARY 1971.

TOBIAS, P.R., SITTON, G.A., "PRELIMINARY INVESTIGATION OF THE COMPUTER SYNTHE-SIS OF SPECTRAL FILTER MASKS," IBM PUBLICATION NO. 320.2411, FEBRUARY 1, 1971.

TREITEL, S., SHANKS, J.L., "THE DESIGN OF MULTISTAGE SEPARABLE PLANAR FILTERS, "
IEEE TRANSACTIOS ON GEOSCIENCE AND ELECTRONICS, VOL. GE-9, PP. 10-27, JANUARY
1971.

VESPER, R.M., ROSENZWEIG, D.N., "SAMPLED IMAGE LABORATORIES AND FACILITIES," A SYMPUSIUM CN SAMPLED IMAGES, THE PERKY "LMER CORPORATION, OPTICAL GROUP, NORMALK, CONNECTICUT, 1971, PP. 10-1 " .0-8.

Same of the same of the same

WALLINGFORD, E.E., ALLESLEY, I., WILSON, J.H., HENRY, W.G., "SIMPLE DATA COMPRESSION BY REDUNDANCY REPLACEMENT." IEEE TRANSACTIONS ON INFORMATION THORRY, VOLUME IT-17, NO. 4, PP. 500-503, JULY 1971.

WHITE, H.E., LIPPMAN, M.D., POWERS, K.H., "DICTIONARY LOCK-UP ENCODING OF GRAPH-ICAL DATA," PROCEEDINGS OF THE PICTURE BANDWIDTH COMPRESSION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 4, DECEMBER 1971.

WILKINS, L.C., WINTZ, P.A., "BIBLIOGRAPHY ON DATA COMPRESSION, PICTURE PROPERTIES, AND PICTURE CODING," IEEE TRANSACTIONS ON INFORMATION THEORY, VOLUME 1T-17, NO. 2, PP. 180-198, MARCH 1971.

WINTZ, P.A., PROCTOR, C.W., "PICTURE BANDWIDTH REDUCTION FOR NUISY CHANNELS," TR-EE 71-30, SCHOOL OF ELECTRICAL ENGINEERING, PURDUE UNIVERSITY, LAFAYETTE, INCIANA, AUGUST 1971.

WINTZ, P.A., GATTIS, J.L., "AUTOMATED TECHNIQUES FOR DATA ANALYSIS AND TRANS-MISSICN," TR-LE 71-37, SCHOOL OF ELECTRICAL ENGINEERING, PURCUE UNIVERSITY, LAFAYETTE, INDIANA, AUGUST 1971.

WCCES, J.W., HUANG, T.S., "PICTURE BANDWIDTH COMPRESSION BY LINEAR TRANSFORMA-TICN AND BLOCK QUANTIZATION," PROCEEDINGS OF THE MIT PICTURE BANDWIDTH COMPRES-SION SYMPOSIUM, GORDON AND BREACH, NEW YORK, PART 5, DECEMBER 1971.