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EYE MOVEMENTS AND VISUAL SEARCH: A BIBLIOGRAPHY(U)  
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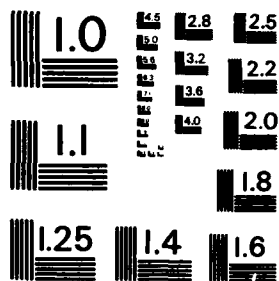
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MEMORANDUM No. 3543

**ROYAL SIGNALS & RADAR  
ESTABLISHMENT**

**EYE MOVEMENTS AND VISUAL SEARCH: A BIBLIOGRAPHY**

Authors: K T Carr, E D Megaw  
P J Gillies

**PROCUREMENT EXECUTIVE,  
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ROYAL SIGNALS AND RADAR ESTABLISHMENT

Memorandum 3543

TITLE: EYE MOVEMENTS AND VISUAL SEARCH: A BIBLIOGRAPHY

AUTHORS: K T Carr, E D Megaw, P J Goillau

DATE: January 1983

SUMMARY

Over 700 references describing past work related to eye movements and visual search are listed and qualified using a keyword system. The bibliography is intended as the starting point for a research programme on visual search for military targets viewed through electro-optical imaging systems.

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EYE MOVEMENTS AND VISUAL SEARCH : A BIBLIOGRAPHY

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INTRODUCTION

This memorandum comprises the first output from an RSRE Research Agreement with Birmingham University, Department of Engineering Production. The resources of the Ergonomics Information Analysis Centre (EIAC) at Birmingham, together with INSPEC, US Government Reports Abstracts, and the Defence Research Information Centre (DRIC) have been used to abstract past work on Eye Movements, Strategies, and Visual Search.

Each reference listed is qualified by one or more Keywords, forming a comprehensive cross-reference system. It is intended that this bibliography will form the starting point for a co-ordinated research programme on visual search for military targets, specifically through electro-optical imaging systems.

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2. KEY WORD DEFINITIONS

ABN: 'Abnormal'. Includes effects on eye movements and vision of physiological and psychological disorders, of drug induced states and voluntarily self-imposed abnormal eye movements.

AID: 'Aids for visual tasks'. Equipment and technique.

AIR: 'Air-to-ground visual search'.

ATT: 'Attention'. Physiological and psychological definitions; visual attention.  
See also VIG, PSY

BOK: 'Book', wholly or partially concerned with vision, unless otherwise specified.

CAM: 'Camouflage'. Includes embedded figures and targets, military camouflage.

CTL: 'Control of eye movements in mathematical or engineering terms'. Includes biocybernetics, bioengineering, artificial intelligence and control system concepts.  
See also PSY, PHY

CXT: 'Context', verbal and pictorial.

DEV: 'Developmental studies'. Babies, children, age comparisons and ontogenetic development.

EOD: 'Electro-optic display'. Visual tasks using an electro-optic display; ergonomic design.

EYM: 'Eye movements'. A global term covering all literature concerned with eye movements of any kind. Includes topics described by SAC and INV.

FAT: 'Fatigue'. Physiological and psychological definitions.  
See also VIG.

FIX: 'Fixation'.

FOR: 'Form, pattern and shape perception'.

FOV: 'Foveal vision'. Includes foveal acuity, visual resolution.

FRE: 'free search'.

HDM: 'Head movements'.

IMQ: 'Image quality'. Objective measures.

IND: 'Individual differences'. Inter-subject variance in vision  
and visual task performance.

INS: 'Instrumentation'.

INT: 'Interaction of stimuli in perceptual processes'. Includes  
backward and forward masking, lateral inhibition, interference  
and illusions.

INV: 'Involuntary eye movements'. Includes fixation eye movements,  
drifts, microsaccades, tremor, convergent and fusional eye  
eye movements.

MEM: 'Memory'. Iconic, short and long term memory.  
See also PSY.

MET: 'Method'. Experimental design, rationale and procedure.

MOD: 'Model'. Empirical, theoretical, applied, and general models  
of visual performance.

PER: 'Peripheral vision'. Includes peripheral acuity, target  
location, visual orienting reflex, functional visual field,  
visual lobe.

PHY: 'Physiology'. Including neurophysiology.

PIC: 'Picture viewing'. Perception of realistic, meaningful scenes.

See also REA, RED.

PSP: 'Psychophysics'.

PSY: 'Psychology'. Wholistic cognitive approaches to visual perception.

See also CTL, MEM, ATT, DEV.

REA: 'Real world images and visual tasks'.

REC: 'Recognition'. Includes identification.

RED: 'Reading'. Includes single letter, or word targets.

REV: 'Review'.

SAC: 'Saccades'.

See also INV, EYM.

STR: 'Strategies for eye movements in visual search'.

TAC: 'Tachistoscope'. Brief or limited exposure of the image.

TAQ: 'Target acquisition'. Non-search visual tasks involving a target.

TCH: 'Target characteristic'. Includes colour, movement, shape, size, orientation, etc.

THR: 'Threshold performance of visual perception'.

See also PSP.

TRA: 'Training in visual perception'. Includes practice.

VIG: 'Vigilance tasks'.

VIS: 'Visual search'.



3. KEY WORD INDEXES

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Abstract Over 700 references describing past work related to eye movements and visual search are listed and qualified using a keyword system. The bibliography is intended as the starting point for a research programme on visual search for military targets viewed through electro-optical imaging systems.				

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