

CONTENTS

Summary.							
Conclusions.							
Recommendations.							
Purpose of this report.							
Introduction.							
Method of study.							
Opinions about lie detection.							
Application of the polygraph.							
Legal status.							
Lie detection equipment.							
Theory of lie detection.							
Effectiveness of lie detection methods.							
Validity.							
Reliability.							
Evidence available in the Government.							
Evidence reported in the literature.							
Criminal investigations.							
Experimental investigations.							
Methodological studies.							
The patterning of physiological responses.							
Current research on lie detection.							
Government-supported research.							
Miniaturized polygraph.							
Rapid computer processing of involuntary responses.							
* * * * * * *							
Lie detection methodology.							
Instrumentation and transducers.							
* * * * * * *							
Staff studies.							
Proposed research.							
* * * * * * *							
New sensing devices.							
Research in related fields.							
Contraindications and countermeasures.							
Contraindications to use of the polygraph.							
Can one beat the polygraph?							
Russian capability in lie detection.							
Knowledge detection for arms control and political purposes.							
The interview technique in lie detection.							
Selection and training of polygraph examiners.							
General discussion.							
Bibliography.							

SUMMARY

This report evaluates the effectiveness of the polygraph method of lie detection. In this technique, the physiological responses of a person being interrogated are observed to provide a basis for inferring whether or not an attempt has been made to deceive the interrogator. The major finding is that, although the method of lie detection has been used extensively and is regarded favorably by its practitioners, the degree of its validity is still not known. This situation is the result of a failure to collect objective data necessary to assess the effectiveness of this method of interrogation. The report describes the methodological problems which must be faced in order to collect meaningful data, recommends research which should be undertaken to increase our understanding of this technology and makes suggestions for improving professional standards in this area.

CONCLUSIONS

1. Objective data to demonstrate the degree of effectiveness of the polygraph as an instrument for the detection of deception has not been compiled by the agencies that use it in the Department of Defense. This is true despite the fact that about 200,000 such examinations have been performed over the last 10 years. Up to the present time it has proved impossible to uncover statistically accept-