

Polygraph Operation Guide for Border Guard Officers

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Chapter 1. 1. Purpose of the Polygraph

Device: Standard Polygraph System

Audience: Certified Border Guard Personnel

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Purpose: Investigative screening and interview support

1. Purpose of the Polygraph

The polygraph—commonly known as a lie detector—records involuntary physiological responses to structured questions. It is used as an investigative aid to:

- Support interview procedures
- Screen candidates or suspects
- Corroborate or challenge statements
- Identify deceptive behavior patterns

In the Border Guard **recruitment process**, the polygraph test is used to assess the credibility of applicants regarding personal history, integrity, and potential security risks. The procedure includes a standardized pre-test interview, structured questioning, and physiological monitoring.

2. Physiological Signals Measured

Table 1. Sensors and their role

Sensor type	Measures	Indicator of Deception
Pneumograph Tubes	Chest and abdominal respiration	Breath-holding or slowed breathing
Blood Pressure Cuff	Cardiovascular activity	Spikes in heart rate or pressure
Galvanic Skin Response	Skin conductivity (electrodermal activity)	Increased conductivity due to fear



Note:

- Male subjects typically breathe abdominally; females more often use chest respiration. Both are monitored for accuracy.

3. Setup Procedure

Setup Procedure

1. Prepare the Subject:

- Explain the test purpose and procedure.
- Obtain informed consent.
- Instruct subject to sit still, feet flat, fingers spread.

2. Attach Sensors:

- Place pneumograph tubes around chest and abdomen.
- Wrap blood pressure cuff on upper arm.
- Attach galvanic skin sensors to fingers.

3. Launch Software & Calibrate:

- Start the polygraph software.
- Calibrate sensors to baseline readings.
- Confirm signal quality before proceeding.

4. Conducting the Test: Border Guard Application Screening

• Conducting the Test: Border Guard Application Screening

A. Pre-Test Interview

Conducted by a certified examiner to:

- Explain the purpose and voluntary nature of the test
- Establish rapport and reduce anxiety
- Review the applicant's background and clarify any inconsistencies
- Obtain written consent

The examiner must ensure the applicant understands that the polygraph is part of the vetting process and not a punitive measure.

B. Questioning Protocol

Table 2. Questions are divided into three categories:

Type	Purpose	Example Questions
Relevant	Directly related to application integrity	"Have you ever provided false information on your application?"
Control (Comparison)	Establish physiological baseline	"Have you ever lied to avoid getting into trouble?"
Irrelevant	Used to stabilize response patterns	"Is today Wednesday?"

Note:

All questions must be phrased clearly, neutrally, and without accusation.

C. Sample Sequence for Border Guard Screening

1. "Is your name [Full Name]?" (*Irrelevant*)
2. "Have you ever used illegal drugs?" (*Relevant*)
3. "Have you ever lied to a supervisor?" (*Control*)
4. "Is your age 34?" (*Irrelevant or Control, depending on context*)
5. "Have you ever committed a criminal offense not disclosed in your application?" (*Relevant*)
6. "Have you ever stolen anything of value?" (*Control*)
7. "Are you currently employed?" (*Irrelevant*)

Each question is asked with consistent tone and timing. The subject must remain still, with feet flat and hands relaxed.

D. Monitoring & Interpretation

During questioning, the examiner monitors:

- **Respiration patterns** (slowed or held breath)
- **Cardiovascular activity** (heart rate and blood pressure spikes)
- **Galvanic skin response** (electrical conductivity changes due to stress)

Strong physiological reactions to relevant questions may indicate deception. Control questions help differentiate between nervousness and dishonesty.

5. Understanding the Science

The polygraph detects involuntary reactions triggered by fear of detection. These are governed by the autonomic nervous system:

- **Sympathetic system:** Activates during stress (e.g., adrenaline rush).
- **Parasympathetic system:** Restores body to baseline (homeostasis).

Analogy: Watching a scary movie—your body reacts before your mind can control it. The polygraph captures this moment of involuntary response.

6. Post-Test Procedure

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Post-Test Procedure

- Review chart recordings for anomalies.
- Identify the question that triggered the strongest physiological response.
- Document findings and store test data securely.