



**I-27: LONG-RANGE ACOUSTICAL DEVICE (LRAD)**

Effective Date:

Coordinator: Hostage Negotiating Team, Special Operations Division

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**I. VALUE STATEMENT**

It shall be the policy by the Oakland Police Department to deploy the LRAD to maximize the safety of all individuals involved in an incident. LRAD is not utilized as an “area of denial” device, but rather as a tool to assist in communication from safe distances, which ultimately provides more time for interaction and de-escalation. Regardless of deployment, the LRAD will be utilized in accordance with OPD Core Values and our Mission.

**II. DESCRIPTION OF THE TECHNOLOGY**

**A. LRAD Components**

A Long-Range Acoustical Device (LRAD) is an acoustic hailing device used for emitting amplified public announcements or establishing communication.

Generally, an LRAD consists of:

- An LRAD speaker with warning tone capability and volume control;
- Wireless transmitter and receiver;
- Operator-utilized wireless headset or microphone MP3 player to transmit live or recorded voice announcements;
- Weather resistant microphone to transmit live messages; and
- Magnetic roof mount

**B. Purpose**

An LRAD is an acoustic hailing device used for emitting amplified public announcements and establishing communication during search warrant services, barricaded suspect incidents, and other tactical operations.

An LRAD shall not be used as an “area of denial” device<sup>1</sup>. It should only be

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<sup>1</sup> A device designed to prevent a person or group of people from occupying or traversing an area of land, sea, or air.

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used as an effective broadcasting system for instructions, messaging, and warning tones. The speaker effectively broadcasts messages through inclement weather and other external noise and can be clearly heard indoors. The loud audible technology ensures broadcasted announcements are loud and clear while offering advantages over less amplified patrol car public address (PA) systems.

An LRAD is beneficial for broadcasting public announcements or safety advisements during natural disasters and evacuations, and to establish communication with subjects. The speaker can be utilized to convey water locations, bathrooms, or best evacuation routes during First Amendment demonstrations and other events.

An LRAD is portable and can be used during events involving criminal unrest and rioting, and illegal sideshow activities, to provide clear dispersal orders for unlawful assemblies.

An LRAD may not always be ideal for deployment and alternatives should always be considered prior to deployment.

### **III. GENERAL GUIDELINES**

#### **A. Authorized Use**

1. Any use of an LRAD shall be in strict accordance with constitutional law and department policy.
2. Only authorized operators who have completed the required training shall be permitted to operate an LRAD.
3. Operators should be aware of and shall adhere to LRAD operational guidelines and identified “zones,” or danger zones, for each LRAD. Proper measures should be taken to ensure officer and public safety, to include the usage of hearing protection for operators in required areas.
4. LRAD may only be used to establish communications for the following specified situations:
  - a. Disaster or city-wide emergency management;
  - b. Rescue operations to include missing or lost persons;
  - c. Sideshow events where many vehicles and reckless driving is present;
  - d. Crowd management operations (see TB III-G Crowd Control);
  - e. Search warrants;

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- f. Barricaded<sup>2</sup> suspects;
- g. Yard searches of suspected armed subjects;
- h. Training; and
- i. Exigent circumstances<sup>3</sup>.

**5. Deployment Authorization**

- a. Deployment of an LRAD shall require the authorization of the incident commander, who shall be of the rank of Lieutenant of Police or above.
- b. Pre-planned operations, and or events, should include the prior approval of an LRAD and its permitted usage in accordance with this policy.
- c. Incident commanders of a lower rank may authorize the use of an LRAD during exigent circumstances, as defined in this policy. In these cases, authorization from a command-level officer shall be sought as soon as is reasonably practical.
- d. If deployment will consist of attaching an LRAD to a vehicle, operators should take the necessary safety precautions to ensure the LRAD is safely secured. Furthermore, operators should be cognizant of safe operating speeds. Operators should also consider securing the LRAD in their vehicle if traveling at high speeds, such as on an interstate highway (freeway).

**6. Warning Tone**

- a. When deployed properly, an LRAD warning tone is a tool for gaining an individual's attention to voice messages.
- b. The warning tone shall only be used when authorized by an Incident Commander at the rank of Lieutenant or above.
- c. When authorized for use in the field, the warning tone shall only be used for the following situations:
  - i. To alert a person or group of an impending message;
  - ii. To gain the immediate attention of persons, whether they are in public or the occupants of a vehicle, vessel, or building;

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<sup>2</sup> A barricaded subject incident is an incident in which a person armed with a weapon, explosive, or other dangerous device seizes control of a location and refuses to surrender to police custody.

<sup>3</sup> DGO K-03 defines "exigent circumstances" as "those circumstances that would cause a reasonable person to believe that a particular action is necessary to prevent physical harm to an individual, the destruction of relevant evidence, or the escape of a suspect."

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- iii. For other reasons consistent with Section III.A.4. above and as determined by the incident commander.
- d. The use of warnings tone should be minimized.
- e. Warning tones shall only be used in short durations and shall not exceed more than five (5) seconds per use.
- f. The warning tone shall not be used more than three times in a row without an accompanying message or communication.
- g. The warning tone shall not be used more than three times per minute.
- h. When utilizing the warning tone, operators of the LRAD shall ensure that no person in front of the LRAD is within the minimum distance noted below in Tables A and B.

| TABLE A - LRAD 100x details and minimum distances required |            |             |          |
|--|------------|-------------|----------|
|  | Green zone | Yellow zone | Red zone |
| Decibel ranges (dB)  | 0-105      | 105-131     | 131-137  |
| Minimum distance required                                  | 50 feet    | 100 feet    | 200 feet |

| TABLE B - LRAD 450x details and minimum distances required |            |             |          |
|--|------------|-------------|----------|
|  | Green zone | Yellow zone | Red zone |
| Decibel ranges   | 0-114      | 114-140     | 140-146  |
| Minimum distance required                                  | 100 feet   | 350 feet    | 650 feet |

**7. Deployment Considerations**

- a. Advance notification should be provided to perimeter officers prior to activating the LRAD device.
- b. LRAD operators should wear hearing protection during equipment operation.
- c. LRAD shall not be used or deployed when any person not wearing hearing protection is within fifty (50) feet of the area in front of the device.
- d. Announcements and warning tones shall be made from the lowest volume setting necessary to complete the authorized use.
- e. Any recorded communication or warning tone shall be followed by an equivalent period of silence to allow for effective communications while reducing bystander exposure.
- f. When deploying the LRAD, operators must ensure that use of the LRAD would avoid affecting unintentional or uninvolved bystanders.

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- g. When considering whether to use the LRAD, operators should consider avoiding or restricting use if any of the following factors are present:
  - i. The suspected presence of captive or trapped recipients who may be affected by the LRAD;
  - ii. The suspected presence of any person who may have physical or psychological vulnerabilities to the LRAD, including, but not limited to:
    - 1. People with hearing sensitivities;
    - 2. Young children;
    - 3. Elderly persons;
    - 4. Persons experiencing a mental health crisis;
    - 5. Persons with post-traumatic stress disorder.

**8. Volume Level**

- a. Green volume zone: lowest volume setting for use in making general notifications and may be adjusted from this level as appropriate by the trained LRAD operator.
- b. Yellow volume zone: intermediate volume setting that may be used for all purposes by the trained LRAD operator.
- c. Red volume zone: upper setting for volume that may only be used by the LRAD operator with the prior approval of the trained on-scene LRAD supervisor.

**9. Deployment Logs**

- a. A commander authorizing deployment of an LRAD shall send notification of the deployment via the military equipment deployment notification process.
- b. Deployment logs will provide all mission deployment details for each deployment.

**B. Prohibited Use**

- 1. An LRAD shall not be used except as provided in Section III.A. above.
- 2. An LRAD shall not be used as a weapon or as an “area of denial” device.
- 3. The warning tone shall not be used as a weapon, as an “area of denial” device, or to disperse a group of people.

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4. An LRAD shall not be used when any person, without hearing protection, is within or may enter distances less than fifty (50) feet of the area immediately in front of the device.
5. The warning tone shall not be used for more than five (5) seconds at a time.

**C. Communications**

Notifications will be made to the Communications Section for notifying patrol personnel when an LRAD is authorized by a Commander.

**V. LRAD ADMINISTRATION**

**A. System Coordinator / Administrator**

1. The System Coordinator / Administrator will be the Special Operations Section Commander, and a member(s) from Hostage Negotiating Team and will act as LRAD Administrators and will be responsible for the management of an LRAD. The LRAD Administrators will ensure that policies and procedures conform to current laws, regulations, and best practices.
2. LRAD Administrators shall provide the Chief of Police and City Council with an annual report that covers all use of the LRAD technology during the previous year.

**B. Maintenance and Storage**

LRAD Administrators shall develop LRAD inspection, maintenance, and record-keeping protocol to ensure LRAD equipment is functioning appropriately. Maintenance and record-keeping should also include expenditures such as purchase of new equipment and mechanical repairs. All LRAD equipment shall be stored within an OPD secured facility/vehicle with limited access.

**C. Training**

LRAD Administrators shall ensure that all authorized operators have completed all required department-approved training in the operation, applicable laws, policies, and procedures regarding use of an LRAD.

**D. Auditing and Oversight**

LRAD Administrators shall document all LRAD uses in accordance with this policy. SOS has developed an electronic record of time, location,

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equipment, purpose of deployment, in regard to LRAD deployment. Whenever a deployment occurs, the authorizing commander, or operator, will send an electronic notification/submission to the SOS Commander to include the topics listed above. This protocol will allow the SOS Commander to have a running log of all deployments and assist in the annual report.

**E. Reporting**

The LRAD Administrator shall monitor the adherence of personnel to the established procedures and shall provide annual reports on the deployments to the Chief of Police.

The LRAD Administrator shall provide the Chief of Police, Privacy Advisory Commission, and City Council with an annual report that contains a summary of authorized access and use.

**F. Inquiry and Complaint Process**

*(Government Code 7070 d (7)) For a law enforcement agency, the procedures by which members of the public may register complaints or concerns or submit questions about the use of each specific type of military equipment, and how the law enforcement agency will ensure that each complaint, concern, or question receives a response in a timely manner.*

The Oakland Police Department DGO M-3: **Complaints Against Departmental Personnel or Procedures** will inform all employees and the public of procedures for accepting, processing and investigating complaints concerning allegations of member employee misconduct.<sup>[1]</sup> Refer to DGO K-7 for additional information.

By Order of

LeRonne L. Armstrong

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<sup>[1]</sup> DGO M-3 states, "IAD investigations shall be completed, reviewed, and approved within 180 days unless approved by the IAD commander."

DEPARTMENTAL GENERAL ORDER

Effective Date \_\_\_\_\_

OAKLAND POLICE DEPARTMENT

Chief of Police

Date Signed: