

# Charter for Hydroacoustics Work Group of the Office of Surface Water

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## Introduction

Rapid advances in hydroacoustic technologies and their applications for surface water measurements require the development of standardized techniques and practices. Since the early 1990s, the USGS Office of Surface Water (OSW) has recognized the need for guidance, method development, and training for hydroacoustic instruments. In 1994, the Hydroacoustic Workgroup (HaWG) was established by the OSW to assist it developing technical guidance and training for acoustic Doppler current profiler (ADCP) field users in water resources programs. This document describes the purpose, membership, and duties of the HaWG.

## Purpose

The purpose of the HaWG is to assist the OSW in its mission to provide guidance, method development, and training in the application of hydroacoustic instrumentation for streamflow, velocity, depth, and other hydraulic and hydrologic measurements. Hydroacoustic instrumentation includes ADCPs, acoustic Doppler velocimeters (ADV), acoustic Doppler velocity meters (ADVMS), and other acoustic instruments.

## Composition

The composition of the HaWG is intended to represent a cross-section of USGS Water Mission Area (WMA) program needs and interests. When selecting candidates for the HaWG, OSW will consider the following factors: (1) capability and commitment of the candidate to consistently participate on the HaWG; (2) the needs of WMA data programs, WMA interpretive programs, and other USGS program areas; (3) expertise in one or more of hydroacoustics application areas, and (4) regional representation. Hydroacoustics application areas include discharge measurement methods (both mid-section and moving boat, ADVs and ADCPs), index velocity measurements and records computation, velocity mapping, bathymetry, measurement of tidally-affected flows, and acoustic-based sediment transport measurements. The HaWG will strive to have adequate representation from each of the USGS regions in order to facilitate communication with the field. However, this will not be the primary factor in selecting members of the HaWG.

The OSW is responsible for identifying and selecting candidates for the HaWG in consultation with Water Science Field Team Surface-water Specialists, HaWG members (both present and former members), and other OSW staff. OSW staff members funded to support hydroacoustics will also serve on the work group. The total number of USGS members should not exceed twelve, including members supported part or full time by the OSW. Participation on the HaWG is voluntary.

Members may be added to the HaWG, if the OSW believes their participation is beneficial, regardless of their location or affiliation. These members may serve on an ad hoc or ongoing basis as needed. Representatives from other USGS Mission Areas and cooperating agencies may also serve on the HaWG at the discretion of the Chief, OSW. The core members of the HaWG are those members from the USGS WMA serving a 5-year term and those funded by the OSW. Ad hoc members will serve as long as is needed but will not serve continuously.

## Length of Service

Membership terms for all USGS HaWG members, except those funded by the OSW, shall be for a period of five years. A member may terminate their service early as a result of changes in duties, transfers, or other, unforeseen circumstances. OSW hydroacoustics staff shall serve at the discretion of the Chief, OSW without term limit. The length of service for representatives from cooperating agencies will be at the discretion of their respective agencies, however periodic rotation of assignments is encouraged.

## Membership Rotation

Approximately 4-6 months prior to the expiration of a member's term, the OSW will recruit a replacement member to serve on the HaWG. Some overlap in the service of the outgoing and incoming member is encouraged. Every attempt will be made to have only one of the WMA (non-OSW) members rotate off the HaWG per year.

## Responsibilities

The HaWG assists the OSW by:

- Facilitating the exchange of information between the OSW and users of hydroacoustic instruments and methods in Water Mission Area (WMA) and other programs;
- Reviewing and advising OSW on work priorities for OSW staff;
- Reviewing and developing proposed OSW policies, reports, and similar documents;
- Identifying emerging issues requiring action by OSW;
- Providing advice and direction regarding technical issues, instrument development needs, ancillary tool needs, testing, and training; and
- Assisting in the evaluation, development, and application of new hydroacoustic methods.

The HaWG annually conducts a review of OSW hydroacoustics accomplishments and an evaluation of tasks planned for the next year. HaWG members serving on a rotating basis will periodically communicate with Water Science Center (WSC) hydroacoustic specialists and other interested parties. This communication may consist of announcements about new procedures, new instruments, training opportunities and needs, solicitation of information about issues of concern to WSC, and other related topics. The HaWG will conduct conference calls on a regular basis. Typically conference calls will be held on a monthly basis. If at all possible, a face-to-face meeting of the HaWG will be held annually. It is

especially important that the core HaWG members participate in both conference calls and face-to-face meetings, if at all possible.

## **Leadership**

The members select the Chairperson with approval from the Office of Surface Water. HaWG members will select a chairperson and a vice-chairperson to serve two-year terms. At least one non-OSW person should be chair/co-chair, if at all possible. The chairpersons may be re-elected as long as they are members of the HaWG but may not serve 2 consecutive terms. Ad Hoc members will not serve in leadership positions.

Prior to meetings, the Chairperson or his/her designee will solicit input and feedback from the HaWG regarding topics of interest and will prepare an agenda. The Chairperson or his/her designee will facilitate meetings and lead the HAWG through each of the agenda items. In the event that the chairpersons cannot attend a scheduled meeting or conference call, the chairpersons shall appoint another HaWG member to serve as facilitator for that meeting. These duties (establishing agendas, scheduling meetings, and facilitating meetings) may also be rotated among members.

The vice-chair shall record, or arrange for the recording of, conference call minutes with special emphasis on recording decisions and action items. The minutes, including decisions and action items, should be sent to the HaWG members for approval and may be shared with the Chief, OSW after approval of the minutes.

## **Authority and Funding**

The HaWG is sponsored by, and reports to, the OSW. HaWG participation is voluntary and salary for HaWG service is not provided by the OSW. However, when a specific and significant task has been assigned and agreed to by a HaWG member, funding may be provided. For example, HaWG members have received funding for specific tasks such as discharge validation measurements, preparation of manuals, and the development of training classes and materials. As needed and when possible, OSW will fund travel to face-to-face meetings.