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OPERATION MANUALS FOR LTR'S HYDRODYNAMIC INSTRUMENTS

by

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(ed.)

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PREFACE

The Research for the Management of the Fisheries on Lake Tanganyika project (Lake Tanganyika Research) became fully operational in January 1992. It is executed by the Food and Agriculture Organization of the United Nations (FAO) and funded by the Finnish International Development Agency (FINNIDA) and the Arab Gulf Programme for United Nations Development Organizations (AGFUND).

This project aims at the determination of the biological basis for fish production on Lake Tanganyika, in order to permit the formulation of a coherent lake-wide fisheries management policy for the four riparian States (Burundi, Tanzania, Zaïre and Zambia).

Particular attention will be also given to the reinforcement of the skills and physical facilities of the fisheries research units in all four beneficiary countries as well as to the buildup of effective coordination mechanisms to ensure full collaboration between the Governments concerned.

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1. INTRODUCTION

In the Project 'Research for the Management of the Fisheries on Lake Tanganyika' (LTR), the hydrodynamics is one of the most sophisticated sub-components because of its high technology recording instruments. In the 'Field manual for hydrodynamic measurements on Lake Tanganyika' (Huttula, Peltonen and Nieminen, 1993), these recording devices, already installed in the Lake, are shortly described. The present manual provides more detailed information on some of the instruments, their calibration and data processing.

The first two parts of this manual describe the structure of under water thermistor sensors and provide their calibration values. The third, fourth and fifth parts give the system introduction of CTD (Model STD-12), describe its sensors, their calibration and maintenance. The detailed instructions on how to use CTD's software (SOFT-12.STD), when one is activating or calibrating the CTD or unloading and handling the data are also provided.

This manual will be provided to all LTR field stations, in order to ensure that the data is collected and processed properly and that the instruments are maintained correctly.

1. INTRODUCTION

Dans le Projet 'Recherche pour l'Aménagement des Pêches au lac Tanganyika' (RLT), l'hydrodynamique est l'une des sous-composantes les plus sophistiquées à cause de la haute technologie de ses instruments d'enregistrement. Dans le 'Manuel de Terrain pour les mensurations hydrodynamiques sur le lac Tanganyika' (Huttula, Peltonen and Nieminen, 1993), ces systèmes d'enregistrement, déjà installés dans le lac, sont brièvement décrits. Le présent manuel fournit une information plus détaillée sur quelques uns de ces instruments, leur calibrage et traitement de données.

Les deux premières parties de ce manuel décrivent la structure des senseurs thermistors sous-marins et fournissent leurs valeurs de calibrage. Les troisième, quatrième et cinquième parties donnent l'introduction sur le système CTD (Modèle STD-12), décrit ses senseurs, leur calibrage et entretien. Elles donnent également des instructions détaillées sur l'utilisation du logiciel CTD (SOFT-12.STD), lorsqu'on est en train d'activer ou de calibrer la CTD ou décharger et manipuler les données.

Ce manuel sera distribué à toutes les stations de RLT afin de s'assurer que la collecte et le traitement des données sont faits comme il faut et que les instruments sont entretenus correctement.

**Specific Information on
Aanderaa Instruments
Thermistor String 2862**

can be obtained from

**Aanderaa Instruments
Fanaveien 13 B
P. O. Box 160
5051 Bergen, NORWAY
Tel: (05) 13 25 00
Telex: 40049**

en Français

**Aanderaa Instruments
via Nereides
66 Boulevard de Mondetour
9140 Orsay
FRANCE
Tél: (Paris) 907 20 48
Telex: 691518**

Specific information on
Applied Microsystems Ltd.
Model STD-12
Salinity, Temperature & Depth Profiler

can be obtained directly from

STD-12 Customer Service Dept.
Applied Microsystems Limited
2035 Mills Road
Sidney, BC CANADA
V8L 3S1

Specific information on
Applied Microsystems Ltd.
Total System Software for use with
STD-12
Salinity, Temperature & Depth Profiler

can be obtained directly from

STD-12 Customer Service Dept.
Applied Microsystems Limited
2035 Mills Road
Sidney, BC CANADA
V8L 3S1

**Specific information for the
Rexnord Instrument Products**

**Model 64
Dissolved Oxygen Sensor**

Can be obtained directly from

**Rexnord Instrument Products
4301 Pouch Court West
New Orleans, LA, USA
70129
Tel: 00.1.800.824.0365**