

NESS INFORMATION SERVICE  
 NESSLETTER 113  
 OCTOBER 1992 (Jun 93)

## PROJECT URQUHART

There was a Presentation entitled 'The Hidden Depths of Loch Ness' along with a reception at the Royal Geographical Society, London, on the evening of Wednesday 20th October 1992. It was held by Project Urquhart in conjunction with Simrad as a showcase for some of their findings from the first Phase of their long term research at Loch Ness. I received an invitation but circumstances were such that I was unable to attend. It was arranged that Sue and Alastair Boyd should attend and represent the NIS. There were about one hundred and thirty there, among them nearly two dozen journalists. The Press of France, Spain, Italy, The Netherlands, Norway, North America and Japan being represented as well as the BBC World Service along with at least two Japanese Television companies. Among the results of the first Phase is the three dimensional map of the loch, and the fact that it is deeper than originally thought.

The assembly was welcomed to the Royal Geographical Society by Nigel de Winser, the Deputy Director. He extended a special welcome to John Bartholomew, President of the Royal Scottish Geographical Society and grandson of John George Bartholomew who produced the original chart in 1907. This was from the information gathered by the John Murray 1903 bathometric survey. He said that as a member of the P.U. Council of Management he had the privilege to go on board the MV Simrad and witness the tremendous collaboration between North Sea Technology and the Natural Sciences. Pointing out that to have a vessel like the MV Simrad as the flagship of the three year Programme had been a great boost to all concerned. He then handed over to Nicholas Mitchell as Chairman of P.U. to set the Presentation under way.

Nick thanked him and the RGS for hosting the evening. Going on to thank the helpers, friends and supporters of P.U. among them The Freshwater Biological Association, The Natural History Museum, The Royal Scottish Geographical Society and The Society of Underwater Technology. He went on to say that it was time to set away from the one dimensional image of Loch Ness and all the associated cliches. That it is now possible to enter a three dimensional Loch Ness with the aid of modern technology. It is a fact that the loch is the largest body of freshwater in Britain. Nick said this poses the question, is it to be left a virtual no go area for scientists or are we to harvest the environmental knowledge there?

After a slight hitch with sound a 15 minute video 'Project Urquhart-The Simrad Survey' of the 1992 operations was shown. The mysterious objects which were located lying in a regular path across the loch floor like 'stepping stones' 60/70 metres apart were mentioned. They had not been positively identified, but the favoured explanation is that they are sonar targets, probably placed by the Ministry of Defence in the early 1960's for calibration and accuracy in sonar measurements. Also included was video from the ROV deployed to have a look at one of them lying in shallower water. As it approached the bottom they could see the sediment being disturbed by the thrusters and then a section of net, which ROV operators do not like. However the fact that net was there indicated that it had to be caught on something. Another approach was tried, and more netting encountered. This was carefully probed and breaking easily proved to be fibre and not wire, so some further progress was made. Resulting in a shallow trench-like feature being seen and then a glimpse of the target being obtained. However close examination was not possible, the netting still being a worry, and the only description that can be given is that the object has a cylindrical form, even size was uncertain.

Then the Simrad results were presented by Bob Manson, Marketing Director of Simrad. He said that the 1983 survey had taken 1700 soundings in a month, while they had obtained some 7 million soundings in their short time at the loch in July 1992. Although they had covered 1200 nautical miles while there. Using the Simrad EM100 equipment, they had done 6 complete runs of the loch as well as many shorter ones to take in bays. As well as 32 coring samples being taken from 7 different areas.

They had 191 soundings deeper than that of the Previous Greatest Known depth of 754ft found in 1903. One shows a reading of 846ft but it needed more investigation of the general area. They were more confident about readings giving maximum depth as 789ft. They had found no evidence of caves or tunnels, just steep sides and a flat bottom. the underwater map had been constructed using 300 thousand of these sonar readings.

Bob said, 'The underwater map will provide a canvas to allow scientists to paint a fuller picture of the secrets of the loch. This preliminary survey has demonstrated the advantages of state of the art technology in solving practical mapping problems.' He thanked the Worldwide Ocean Surveying Ltd, in Swindon, and the University of New Brunswick, in Canada, who had ably assisted them in producing the three dimensional map. Using the computer model Bob was able to take the audience along the length of the loch. He explained that the width/depth ratio could be altered to enable certain aspects to be examined in greater detail.

Experts at the Ministry of Defence's Hydrographic Office are said to be considering altering the official charts to incorporate the new information. Ian McKee of the Hydrographic Office said, 'We are interested in receiving the data so that we can produce a new edition of the chart covering the Caledonian Canal. The current chart is largely based on the soundings taken in 1903 which were done using a lead on a line.'

John Bartholomew, President of the Royal Scottish Geographical Society, said, 'The original 1903 chart was produced by my grandfather John George Bartholomew and I look forward to seeing how much more detail is provided by this bathymetric survey.' The Bartholomew chart was published in 1907.

Professor Colin Curds, Keeper of Zoology, Natural History Museum, also a member of the Council of Management of P.U. was next to speak. He suggested the audience may not have been as large if it had not been Loch Ness under investigation, but pointed out that as well as sustaining a monster based tourist industry, Loch Ness was an extremely important scientific site. It is very poor in nutrients which makes it a pristine site, largely protected from human activities. There are very few similar locations in the world today. there has been very little commercial fishing, no introduction of non-native species and it is relatively free from pollution. He explained why, from his viewpoint, the accurate three dimensional map was important. It will enable precise calculations of volume to be made. Then by taking the volume of water leaving the loch with the differing amounts entering from various catchments, studies of external energy inputs will be possible. Over the next three or four years P.U. intends to carry out inter-disciplinary studies of as much as possible of the chemistry and physics of the water and of the individual populations of plants and animals. Using established methods and the latest technology where possible. It will be possible to determine how a large body of water reacts to solar and atmospheric heat exchange. Oceanographers have done extensive studies in the past, but the loch could be seen as a simple model of the sea. There are major factors in global change that have not been modelled yet. So work done by P.U. could have important environmental significance. As well as sunlight algae need nutrients to grow. Studies of these entering the loch will determine the effects on the algae. Zooplankton graze on the algae, fish on the zooplankton, and big fish on little ones etc. Waste products from this food chain sink to the bottom. These sediments hold the key to the history of the loch and its surroundings. Types of diatoms are affected by water quality, by the remains of these found in different layers of sediments it will be possible to discover the water quality in bygone ages. It could also give an indication as to what may have been happening around the loch. There is the possibility that there was a body of water where Loch Ness is now before the last glaciation. Attempts will be made to get through the sediments to where these deposits may be. No similar work has been done in any comparable body of water in Europe.

As well as remains there are live things in the sludge, such as the Nematodes. Samples obtained of these in 1992 will take up to two years to study, it is a very labour intensive operation. It is part of an

international Programme, with samples taken from deep sea locations as well as tropical rainforest. It is hoped that information will be obtained on how isolated Population of these change through time especially those living without human interference. This could enable Projections to be made as to how human activity/interference will affect the environment.

Professor Curds ended by referring to the fish Population of the loch. There are healthy Populations of eels, trout, sea-trout, salmon and charr. Swathe sonars could be used to follow fish and estimate numbers, and gather quantitative data on how they sustain those numbers on the available zooplankton and other food. It is also a unique opportunity to study fish genetics in isolated Populations. The charr were left after the last ice age and have been isolated for 10/15 thousand Years. All this could lead to Years of study and on to such techniques as satellite surveillance.

Nick Mitchell then gave a summary and closing remarks. He said Project Urquhart would continue in 1993 but needed support. They were in discussion with TV companies in the U.K., America, Japan and elsewhere to investigate the Possibility of Producing documentaries, as there is great educational Potential in the work at Loch Ness. He quoted Professor Gwynfryn Jones, Director of the freshwater Biological Association, 'The exploration of Loch Ness is Potentially one of the most exciting of such studies to be undertaken in Britian in recent Years. It is hard to imagine that it will not turn up some species new to mankind, we should not discount the Possible importance of such new discoveries.' Nick mentioned the big target that had been tracked for two minutes by the Simrad team, but once more made it clear that even after further study no one was able to be certain what it was that returned such a strong echo.

He conclude with thanks offered, among others, to Ronnie Bremner, the Official Loch Ness Exhibition, for help given with accomodation, logistics, etc over the Years. Also Worldwide Ocean Surveying and the University of New Brunswick for the Processing of data collected and Producing the computer model. Then their main sponsor, the Simrad company for the ship and engineering skills, along with everything else. Nick said he hoped to continue with them as well as others.

I have condensed the Proceedings but think I have touched on all the salient Points. On 15th April '93 P.U. and Simrad made a similar Presentation at the Edinburgh International Science Festival, in association with the Royal Scottish Geographical Society and the University of Edinburgh.

In a recent letter to me Nick said the main Point of the '92 survey (so far) was that they found a maximum depth of 239.5 metres or 786 feet. This depth was recorded at 57.1349 N; 14.3345 W, which is a couple of miles north east of Invermoriston. This is interesting because it moves the deepest known Point from the northern deep basin into the southern.

#### MINES

In April the Inverness Courier Published an appeal for help from Bob Manson, marketing manager of Simrad. He was asking if anyone could Provide an answer to the mystery of the 'stepping stones' discovered in '92. The sonar target theory had been investigated and while the Deptment of Agriculture and Fisheries said they had Put some targets in the loch, it was at the other end. In treply to that a Courier reader, 85 year old Mr David Ross wrote to say he was sure they were W.W.I mines dumped in the loch. He remembers when he was ten being told by his elder brother Kenny, who had served with the Lovat Scouts during the '14-'18 war, that mines had been dumped in the loch. They had so many left after the war that they did not know what to do with them. They joined them on a chain and Put them over the side, Presumably after taking out the explosives! Hugh Gray, credited with taking the first monster Photograph, was on board a vessel that had attempted to retrieve mines from the loch in 1922. These had been laid by HMS Welbeck in 1918. All they found were moorings, the mines with a design life of only a few Years were Proably on the bottom.

This was followed by a letter from Keith Bryers, of the Muir of Ord. He said that the US Navy had a mine assembly base at Clachnaharry from the spring of 1918 which was used as a support facility in the massive minelaying operations in the northern North Sea. Mines being assembled at a rate of up to 6000 a week. Mr Bryers suspects that at the end of

hostilities there would have been large stocks of mines in all stages of assembly to be disposed of and the US Navy anxious to go home. So perhaps dumping them in deep water away from commercial shipping lanes seemed an acceptable option. He says that Mr Ross's recollections tie in with his understanding of the method of laying seabed minefields generally used in W.W.1. The mines hung on risers off a ground chain laid on the bottom, the chain with mines attached being rolled off a ramp at the stern of the minelaying vessel. He says that Scottish waters were used again for dumping unwanted naval and military ordnance after W.W.2. Mines dumped off the Crowlin Islands and large quantities of chemical weapons off the Hebrides in the '40s and '50s.  
MAGAZINES ETC.

Here is one for the collectors of Nessie-memorabilia. The Maldives Islands have issued a set of stamps devoted to the mysteries of the universe, one of them depicts the Loch Ness Monster. It is shown heading north up the loch with Castle Urquhart in the background. There is a caption reading, 'With over 3000 sightings and dozens of sonar scans, Nessie still remains a mystery. Some believe it to be a Plesiosaurus, a giant reptile of the age of Dinosaurs.' It is thought to be the first time the monster has appeared on a stamp. Castle Urquhart now shares the honours with Eilean Donan which was on a 1956 Monaco stamp.

One of our members told me about the following, sorry I have misplaced who. There is a publication 'Book and Magazine Collector' devoted to just that, with thousands of items for sale and wanted. It also carries articles about authors and subjects, such as Marlene Dietrich, with bibliography. To coincide with the sixtieth anniversary of 'the birth of the Loch Ness Monster Legend' issue 110, May '90, has an article about collecting Loch Ness books, the general tone of the article is that of disbelief, but it puts all the publications in order (UK) and covers some pre-'30s history. There is also a UK bibliography, with a guide to current values of first editions, in very good condition with dustjacket. This is a fascinating publication, the strange subjects some people collect, available from bookstores or perhaps contact them at 43-45 St Mary's Road, Ealing, London, W5 5RQ.

In September '92 I received information about a new journal dealing with UFOs, the Unusual and Paranormal. What made this a little unusual is that it is the first such journal to come from Russia. I have now had the first issue of 'AurA-Z' and it is very good with a wide mix of articles, ufology, dowsing, cryptozoology, medicine (alternative), science, and the promise of much more to come. At 95 pages it is quite a read, although the print is strangely large. For general correspondence the address is: OVNI PRESENCE for AurA-Z, B.P. 13244, Marseille la Plaine Cedex 01, France. Subscription is European countries; 50SF, 33\$US, other countries; 55SF, 36\$US. They have a Moscow Fax number for charging credit cards, and a Swiss address for international money/postal money orders. I would suggest to anyone interested contacting them at the above address.

To finish, we are hoping to be at the loch from July 11th to 23rd. The vehicle will be a yellow Transit Minibus, B521 MEF. I have always tried to carry news of members visiting the loch whenever possible. It would be nice to have somewhere there where we could get in touch. That has not been possible. A place to telephone would perhaps help. Not possible at the loch, but it does not need to be at the loch. We could use my number, after 6 cheap rate, short call. I would keep a record of who is there, where, how to contact etc. Perhaps we should try that. Anyone visiting the loch who would like to meet with fellow members give me a ring on, 0388 537359. Meanwhile thank you for your letters. Your news and views are always welcome and needed. The address remains:- R.R.Happle, 7 Huntshieldsford, St Johns Chapel, Bishop Auckland, Co Durham, DL13 1RQ. tel:above. Subscriptions UK £2.75, N.America \$9.00.

RIP

P.S. Word just arrived. P.U. commences Phase two in July. Funded by The Discovery Channel (the all documentary cable and satellite channel). They will be working closely with the Loch Ness Project. Press briefing 29th June at Official Loch Ness Expedition, Drumnadrochit.