

**New SAR Initiatives Fund (NIF)**  
**Post-Project Evaluation**  
**PART 1**

**Project Title:** SAR response to a tsunami in Pacific Region

**Project No.** DFO 3/01 | **NIFID:** 2001010 | **Date:** 2 September 2004

**Evaluator Information:**

Comments provided by the Project Manager (F. Stephenson) to assist the Post-Project Evaluation

**Please answer the following questions**

1. Was the project successful?  YES  NO

**2. What were the project's strengths and weaknesses?**

The detailed models provide estimates of maximum tsunami heights and currents. The animations produced from these models demonstrate how quickly the water levels will change (4-5 metres in 15 minutes or less), and the strength and complexity of the resultant currents. They also demonstrate that the destructive effects will be long lasting (6 hours or more) with the highest risks possibly occurring several hours after the arrival of the first wave.

**3. Are the project results having an impact on the SAR community? Explain.**

The use of a state of the art model and high quality (high resolution) bathymetric data has resulted in extremely detailed and valuable model results. The main benefits to the SAR community are not yet available (model summaries for use in developing SAR policies and procedures), but these will be available shortly. The animations and model results benefit SAR personnel, mariners, emergency response managers, scientists and the general public.

**4. Is the project having any effects that were not intended?**

The animations (IOS web site) are valuable tools for educating the general public. Education is an integral part of any emergency response program.

**5. Were the results worth the project costs?**

**Yes.**

**Model development is an interative process which requires great attention to detail. Four models were completed and the results from these four models have exceeded expectations. This project also benefited from the fact that other funding (DND) was available to digitize CHS field sheets. Some of this digital data was used in the construction of the bathymetric grids for the models. Project funding was also used to carry out a small topographic lidar survey in Ucluelet Inlet (March 2004). Although this data has not yet been integrated into the model, it will help produce an enhanced Ucluelet model.**

**6. Was the project's communication plan successful?**

**The greatest challenge in this regard has been moving from a research environment to one of planning and policy. This transition is still taking place. The results of the four completed models will provide valuable information for SAR applications, and as additional models are developed and tested this knowledge base will continue to expand and be refined.**

**Other comments:**

**This NIF funding has allowed extremely valuable work to be carried out. Without the funding this modelling would not have been done. Unfortunately, most federal government research now relies to some degree on B-base funding. Further tsunami modelling efforts (including the completion of the three models still in progress) are likely an example of this.**

**New SAR Initiatives Fund (NIF)  
Post-Project Evaluation  
PART 2 - ACHIEVEMENT OF OBJECTIVES**

**Rating Numbers:**

- 1 Very Good**
- 2 Good**
- 3 Adequate**
- 4 Poor**
- 5 Very Poor**

ORIGINAL MANAGEMENT PLAN	ACHIEVEMENT	SATISFACTION	COMMENTS:
<b>Objective #1:</b> (a) Select appropriate harbours for numerical simulations and (b) prepare bathymetric data and grids for models and acquire incoming tsunami wave.	2	2	<b>(a) Selection was guided to a large degree by the scale(s) of the survey data and the availability of digital data. (b) Project benefited from other external (DND) funding. Three models (grids) not yet complete.</b>
<b>Project Activities</b>			
A)			
B)			
C)			
<b>Objective #2:</b> Apply relevant numerical models to problem and determine currents and estimated heights.	1	1	<b>Selection and use of Titov model provided a state-of-the-art model with excellent results and seamless integration with similar efforts on US coast.</b>
<b>Project Activities</b>			
A)			
B)			
C)			
<b>Objective #3:</b> Develop SAR guidelines and information for public distribution	3	3	<b>Focus to date has been on distribution of scientific results to emergency response planners and general public; work on SAR guidelines is not yet complete, but when available will be extremely valuable and worthwhile.</b>

<b>Project Activities</b>				
<b>A)</b>				
<b>B)</b>				
<b>C)</b>				