

# **U.S. Minerals Management Service Geologic Resource Assessment Program (GRASP II)**

## **Summary of Program and Training**

### Introduction to GRASP II Program:

GRASP II is a newer, more complete, and easier to use than the original Geologic Resource Assessment Program (GRASP) which was built around a set of programs collectively called PETRIMES that originated from the Geological Survey of Canada. Refinements were made to the original program that included modifications to the modules, and a new Windows front-end. The new GRASP II model is far more user friendly due to these alterations.

The Geologic Economic Resource model, like GRASP and PETRIMES, implements two separate approaches to resource estimation: the subjective approach, and the discovery process approach. The new GRASP II program synthesizes this entire analysis into one program.

The GRASP II program allows a user to:

- Estimate the number of yet to be discovered hydrocarbon pools
- Estimate the sizes of undiscovered hydrocarbon pools
- Predict reservoir characteristics of undiscovered hydrocarbon pools
- Provide adequate information for economic analysis
- Validate exploration concepts against known information
- Estimate hydrocarbon pool size distributions and relate these distributions to geologic models

### Training Concept and Objectives:

The objectives of the 3-4 day training are two-fold; first, to introduce a trainee to the challenge of assessing undiscovered oil and gas resources ahead of the drill bit; and second, an introduction to a computer program through hands-on training to conduct a probabilistic resource assessment. The training is broken down into the following six segments, of which five have demonstrations of hypothetical undiscovered resources in a hypothetical country:

- Model Concepts
- Defining the Play and Pool
- Inputting Data for Play Analysis
- Play Analysis
- Report Generation and Graphics
- Merging Databases