PROGRAM OVERVIEW

As part of the ION BrasilSPAN™ programs, the Greater BrasilSPAN™ survey is a potential field study of the northern and northeastern margin of Brazil. The program ties to the BrasilSPAN Pre-Salt Study over Santos, Campos and Espirito Santo basins in the south. Greater BrasilSPAN provides an excellent pre-stack depth-imaged overview of the basins in the Equatorial Atlantic and the northeastern basins. Lines are placed to traverse Foz do Amazonas, Barreirinhas, Para-Maranhao, Potiguar, Pernambuco, Sergipe Alagoas, Camumu, and Cumuruxatiba basins in a dip and strike framework. The survey consists of more than 30,000 km of data processed by ION, and the series of offshore BrasilSPAN programs total over 50,000 km.

Heavy water bottom relief in this margin, together with the complexity of the fault structural types, make this area difficult to image. The program provides the first deepwater images to establish the framework of potential hydrocarbon generation. Numerous exciting hydrocarbon indicators and tectonic features are clearly present along the margin from Camamu to Foz do Amazonas.

The Greater BrasilSPAN program ties to the conjugate transform margin of West Africa, where significant new discoveries have recently been made in Cretaceous fans. Conjugate ties in the transform margin between Africa and Brazil will establish a new basis for introducing similar plays in Brazil’s Equatorial Margin. Data from the Brazilian Equatorial Margin clearly reveals the relationship of the Cretaceous fans and basin geometry with the transform faults.
PROGRAM OBJECTIVES

→ Provide a regional, depth-imaged framework to promote better understanding of the area’s tectonic architecture and basement structure
→ Develop plays based on proven and conceptual petroleum systems
→ Provide comprehensive interpretation including maps of the active petroleum systems in the area, the limits of existing plays, and the location of new plays
→ Build paleo-tectonic ties with corresponding regions in Africa through the unique ION AfricaSPAN datasets covering Angola to Nigeria
→ Create a comprehensive, deep-basin framework and model for the hydrocarbon potential of Brazil’s frontier basins in the north and northeast using contiguous PSDM data coverage

KEY COMPONENTS

→ 10 km offsets, 18 second record length and a unique source designed for optimal, deep imaging
→ More than 30,000 km of data acquired along the Margin from Foz do Amazonas to Espirito Santo
→ Data reveals excellent crustal architecture and basin geometry
→ Numerous hydrocarbon indicators are present throughout the northern and equatorial basins