

Log M-256

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: November 21, 1984

Forwarded to:

Mr. Leland E. Wilson
Vice President and General Manager
ARCO China, Inc.
c/o Atlantic Richfield Company
Room 3639
444 South Flower Street
Los Angeles, California 90017

SAFETY RECOMMENDATION(S)
M-84-67 through -69

About 2355 on October 25, 1983, the 400-foot-long United States drillship GLOMAR JAVA SEA capsized and sank during Typhoon LEX in the South China Sea about 65 nautical miles south-southwest of Hainan Island, People's Republic of China (PRC). Of the 81 persons who were aboard, 35 bodies have been located, and the remaining 46 persons are missing and presumed dead. The GLOMAR JAVA SEA currently is resting on the bottom of the sea in an inverted position in about 315 feet of water; its estimated value was \$35 million. ^{1/}

Although the Atlantic Richfield Company (ARCO) participated in the development of the GLOMAR JAVA SEA's typhoon plan, ARCO itself did not have any contingency plan in case the GLOMAR JAVA SEA or any of the Chinese supply vessels or helicopters encountered difficulties. Since ARCO controlled the drillship, the supply vessels, the helicopters, and the radio communications, it was ARCO's responsibility to develop a contingency plan for an emergency. ARCO personnel knew that Typhoon LEX was predicted to pass near the drillship during the night of October 25 yet no one, except the Chinese radio operators, remained on duty to monitor for communications from the GLOMAR JAVA SEA or the NANHAI 205, a supply vessel. No radio operator was on duty from 2300 to midnight and from 0600 to 0700, and no plan was in place for the radio operators to alert the ARCO operations manager or superintendent at their hotel had a distress message been received. Fortunately, the Nanhai West Oil Company (NHWOC) office was manned as usual that night and received the message that the crew of the drillship had donned lifejackets and requesting that the ARCO operations manager be alerted. If the drillship had been able to make contact with ARCO headquarters in Zhanjiang, PRC, at 2300, ARCO might have learned specific details of any problems aboard the vessel. Instead, the drillship was able to leave only a "call back" message with the Chinese radio operator in Sanya, PRC. Since ARCO is continuing its drilling operations in the South China Sea, there is a need for ARCO to develop a detailed contingency plan for its contracted mobile offshore drilling units and offshore supply vessels in case of an emergency.

^{1/} For more detailed information, read Marine Accident Report—"Capsizing and Sinking of the United States Drillship GLOMAR JAVA SEA in the South China Sea, 65 Nautical Miles South-Southwest of Hainan Island, People's Republic of China, October 25, 1983" (NTSB/MAR-84/08).

ARCO's Zhanjiang office was the hub of control and communications in the operations network of ARCO China, Inc., an ARCO subsidiary. ARCO Zhanjiang could communicate via single sideband (SSB) radio with the drillship, the supply vessels, the helicopters, and Tian Du Base at Sanya; by telephone to the local office of the NHWOC; and directly to ARCO's office in Hong Kong. The availability of communications for emergency situations is an essential element of a shoreside contingency plan. Inadequate communications procedures, such as the absence of a continuous radio watch in Zhanjiang and the lack of a shoreside contingency plan, resulted in confusion as to whether the drillship had moved off location, had experienced a casualty, had sunk, or simply had lost radio contact for about 42 hours until the wreck of the GLOMAR JAVA SEA was located and identified by fathometer survey. Since radio contact had not been established between ARCO and the drillship at 2300, the assumption the next morning by ARCO was that the GLOMAR JAVA SEA had dropped its anchors and moved off location when the NANHAI 205 found the drillship's anchor buoys. To insure timely notification of shoreside ARCO management personnel in case of an emergency offshore, it is essential that ARCO maintain a 24-hour radio watch in its Zhanjiang office.

ARCO's SSB radio working frequency of 6521.8 kHz was assigned by the PRC. ARCO, in its everyday radio communications, did not monitor the high-frequency international calling and distress radio frequencies of either 2182 kHz or 8364 kHz of which their SSB units were capable. Even though the GLOMAR JAVA SEA and other vessels on the PRC's outer continental shelf carried equipment which would broadcast signals on the international calling and distress frequencies in the event of an emergency, neither ARCO nor the NHWOC maintained any radio listening watch on these frequencies. Therefore, had the GLOMAR JAVA SEA or one of its lifeboats sent out a distress radio signal on these frequencies, neither the ARCO radios nor the NHWOC radios would have received the transmissions. ARCO China should consult with the PRC on maintaining a 24-hour listening watch on 2182 kHz and 8364 kHz.

Therefore, the National Transportation Safety Board recommends that ARCO China, Inc.:

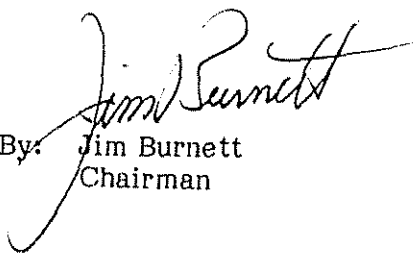
Develop a detailed contingency plan for operations off the coast of the People's Republic of China which includes communications procedures; an inventory of air and sea rescue resources and shoreside facilities available for various emergencies, including severe storms; and a requirement to contact the cognizant rescue coordination center to establish procedures for an emergency. (Class II, Priority Action) (M-84-67)

Maintain a continuous 24-hour radio watch in the Zhanjiang, People's Republic of China, headquarters to listen for emergency radio transmissions. (Class II, Priority Action) (M-84-68)

Consult with the People's Republic of China on maintaining a listening watch in the Zhanjiang headquarters on the international distress frequencies 2182 kHz and 8364 kHz for emergency communications to improve the safety of continuing operations off the coast of the People's Republic of China. (Class II, Priority Action) (M-84-69)

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility ". . .to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendations in this letter.

BURNETT, Chairman, GOLDMAN, Vice Chairman, and BURSLEY, Member, concurred in these recommendations.


By: Jim Burnett
Chairman