Figure 1: Robonaut Remote Telepresence Clasping

AquaRobonaut^{SM} to Maintain Deep Water Sea-Floor Facilities

TMI-17 is a engineering application of TMI-16. Robonaut was built for providing telepresence in space. The cameras on Robonaut's head are connected to miniature televisions on the operators head. The sensors on his arms and hands are controlled by the movement of the operator's arms and hands. Space is a harsh environment. However, subsea operations also are a harsh environment. In space you do not have to worry about gravity and torque and the corrosive effects of sea water. Subsea operations require extra torque because of rust accompanying the corrosion of sea water. However, these are engineering problems which can be solved. It is logical to use AquaRobonaut^{SM} for working in harsh subsea environments to build and maintain deep water sea-floor facilities.

The license agreement with NASA was negotiated over a year before the BP Macondo blowout, also known as the Deepwater Horizon oil spill. DRC believes funding this TMI would have resulted in a tool which could have helped significantly in recovery. It seems like now would be the time to prepare for the next major subsea blowout, and AquaRobonaut^{SM} remains a viable tool to solve similar future problems.

As a less expensive alternative to mining gas hydrates, as introduced in Section **??**, DRC a proposes $20 million investment to form a company around AquaRobonaut^{SM}, to execute the exclusive license agreement with NASA, to model the requirements for subsea engineering and the economics, to expand and detail the existing plan, to build and prototype robot, and to put the system into sea trials. Former NASA engineer Lac Nguyen and others to be recruited from Johnson Space Center would lead technical development of AquaRobonaut^{SM}.

