



SCUBA WEIGHTS

Introduced in 1995, the Attitude Adjuster® pictured is a system for weight repositioning to adjust to a SCUBA diver's changing attitudes. A substitute for the conventional weight belt, the Attitude Adjuster is manufactured by Think Tank Technologies, Inc. (TTT), Stafford, Texas. The system was developed by TTT with the assistance of

NASA's Mid-Continent Technology Transfer Center (see page 140) and Marshall Space Flight Center.

The Attitude Adjuster borrows a principle of submarine design technology — repositioning ballast/weight. Instead of the weight belt, compact tubes on each side of the diver's air tank permit controlled movement of lead balls within the Adjuster, automatically repositioning whenever the diver changes position. Micro adjustments for attitude stabilization are obtained by momentarily

holding a desired position. The Adjuster has an emergency jettison system.

The advantages, according to TTT, are optimal weighting and ideal trim, thus reducing drag and energy requirements, and a new level of diver comfort made possible by elimination of heavy weights around the waist. Additionally, TTT says, the product contributes to lower air consumption, resulting in more bottom time.

The Mid-Continent Technology Transfer Center (MCTTC), located in College Station, Texas, is one of six NASA regional user assistance centers whose job is to provide information retrieval services and technical help to industrial and government clients. MCTTC's Texas Engineering Extension Service assisted entrepreneur Joseph J. Nicklo by performing market analysis; contributing technical help in the product design phase; helping to locate sources of capital; assisting in the development of a business plan; and arranging for testing of the Attitude Adjuster at Marshall Space Flight Center. NASA divers conducted the tests at Marshall's Weightlessness Environmental Training Facility for astronauts.



*Attitude Adjuster is a registered trademark of Think Tank Technologies, Inc.