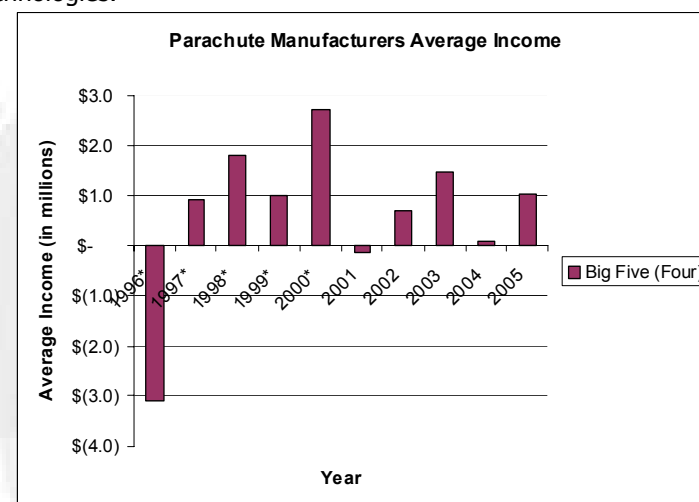


Remaining in the Parachute Business is a Question for Some Suppliers

All parachute manufacturers have seen major fluctuations in income in the last decade. Several have reported negative net income in at least one of each of the last five years. Some have reported declines of up to 148% in year over year net income. Total net income as a percent of sales for the parachute industry has never exceeded the highest level (3.4%) earned in 2000. Given these fluctuations for the largest four parachute manufacturers, one would expect similar or even more challenging problems for other smaller firms and for their suppliers.

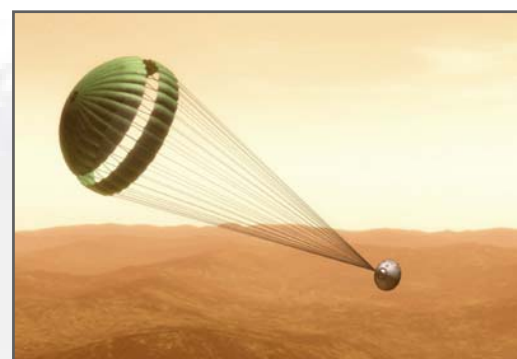
As depicted in the chart below, the average income for parachute manufacturers is highly erratic. This unpredictability results in decreased technological investment which negatively impacts efforts to improve current aerial delivery systems. Manufacturers are also forced to keep small workforces, reducing the industry's ability to react to sudden increases in defense requirements. An additional by-product of the instability inherent in the parachute industry is the reduced attractiveness of the industry as a potential career, reducing available labor and shrinking the talent pool needed to develop future technologies.



Prepared by Clemson University for a U.S. Department of Commerce Funded

What Can Congress Do?

- Congress can change these trends and ensure the parachute suppliers remain healthy. We exist to support our troops with the aerial delivery equipment, which is vital to our National defense. Our health is inherent to their protection.
- Uphold the Berry Amendment, which will ensure that the manufacturing and technology base remains intact in the United States
- Spur Government investment in the technology of parachutes and airdrop related areas.
- Recommend to the DoD to be cognizant of the importance of geographical and functional continuity of the current airdrop technology, management and acquisition organizations in order to provide this critical industrial base with a stable governmental compliment"



Mars 2003 Exploration Rover

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PIA Washington Visit Day May 4, 2006



The GPS Guided Joint Precision Aerial Delivery System (JPADS) is critical to reducing casualties to military support units in combat theaters as well as providing humanitarian relief.



The Marine Corps Special Application Parachute (SAP) provides much needed improvements in military infiltration capabilities. This system was designed, tested, and qualified by private industry without government funding or support.

The Parachute Industry is of Vital Importance to the United States Department of Defense and NASA Space Programs



Parachute Industry Association
www.pia.com

The Parachute Industry is of Vital Importance to the United States Department of Defense and NASA Space Programs

Department of Defense

- Personnel parachutes for Special Operations and Rapid Deployment units.
- Re-supply parachute systems for rapid support of combat units.
- Emergency aircrew ejection seat parachutes.
- Maintain capability for the success of high-performance weapon decelerators.
- Theater Missile Defense air-launched targets.

Departments of Defense and State

- Humanitarian airdrop missions for large quantities of food, medicine and clothing.
- Advancements in parachute/decelerator technology critical to strategic defense initiatives.

NASA

- Space Shuttle Orbiter landing drag parachutes.
- Space Shuttle Astronaut emergency rescue systems.
- International Space Station crew emergency rescue systems development.
- Manned and robotic space vehicle decelerator systems.

Department of Energy

- Nuclear weapons deceleration systems for high-speed aircraft delivery.

Bureau of Land Management and Forestry Service

- Parachute Systems for Smoke Jumpers

PIA Concerns

Primary Areas of Concern

- Cyclic nature of procurement for the parachute industry and its long term effects on the stability of the primary parachute manufacturers
- Lack of investment in parachute technology and research by the US government
- Enforcement of the Berry Amendment to ensure it remains in place to protect defense industry suppliers
- Challenges and issues associated with export licenses for ITAR (International Trafficking in Arms Regulation) technology

Production

- Maintaining a balanced production schedule for parachutes and supplies in order to maintain a viable manufacturing base.
- U.S. Commerce Department survey indicates current capacity is inadequate to respond in time of national crisis.
- Industry is unable to meet contingency production rates without advance knowledge of total future requirements.

Research & Development

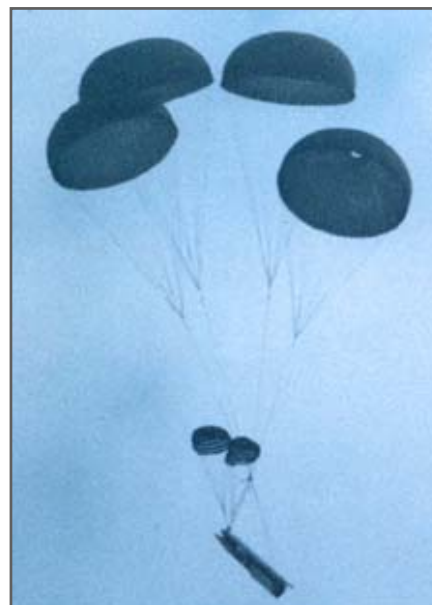
- Future Defense and State Department requirements dictate advancements in parachute and parachute-based system technologies, such as, low-cost, precision airdrop systems required to re-supply fast moving combat ground forces and to fully support humanitarian missions.
- Decreased investment in new parachute technology has contributed to the loss of U.S. expertise to other technical areas. Note that the U.S. at one time maintained a dedicated national Parachute Test Center and parachute R & D was conducted on a continual basis.
- Termination of NASA RLV and CRV contracts pose the risk of loss of critical U.S. technology capability.
- Advancements in parachute/decelerator technology are critical to strategic defense initiatives.



The Advanced Tactical Parachute System needed 94 prototypes and almost a decade to develop, mostly funded by private companies.



Low-Cost Cargo Parachutes are capable of providing supplies and humanitarian relief quickly and cost effectively.



Theater Missile Defense Air-Launched Target



Preparing for Mass Troop Deployment

Cyclical Nature of the Parachute Industry

• Importance of Parachutes to the U.S. Military and Homeland Security

Current US doctrine emphasizes air supremacy, rapid troop deployments, and smaller logistical signatures. Aerial delivery systems are inherent in all these imperatives. Deceleration systems stabilize smart munitions, allowing greater target accuracy and increasing the safety of aircrews. Personnel and cargo parachutes safely deliver Airborne and Special Operations soldiers and equipment. Precision cargo delivery systems reduce the required number of support troops needed to supply warfighters while improving supply cycle time and efficiency. The parachute industry is intimately involved with the success of the US military.

• The Need is Increasing and the Supply is Diminishing

As low cost foreign competitors have driven textile suppliers and manufacturers out of commercial markets, there are fewer sources of supply for the materials that go into parachute systems, and the textile industry has grown more dependent on the US Military. Intermittent textile production runs and supply availability affects the whole supply chain. Build to print parachute designs often now require materials that are no longer manufactured in the United States. These factors and the difficult to predict requirements of the various US government agencies are causing significant distress for a number of the parachute suppliers

• The Cyclical Nature of Military Procurement

Because of the inability to predict future product demand, some firms are unable or unwilling to invest in modern equipment and technology. In addition, they cannot maintain the necessary skilled labor with repeated patterns of layoff and rehiring. These factors have increased production costs and led to excessive order-to-delivery time. The instability in the industry is a hindrance to business planning, capital investment, and maintaining an experienced workforce.

The chart below (Average Sales Dollars by Category) was prepared by Clemson University for a US Department of Commerce funded study, which demonstrates the cyclic nature of parachute procurement.

