



Figure 8-16. Ground launch towline break.

Self-Launch Takeoff Emergency Procedures

Emergency Procedures

The pilot of a self-launching glider should formulate emergency plans for any type of failure that might occur. Thorough knowledge of aircraft performance data, normal takeoff/landing procedures, and emergency procedures as outlined in the GFM/POH are essential to the successful management of any emergency situation.

Mismanagement of the aircraft systems through lack of knowledge may cause serious difficulty. For instance, if the spoilers/dive brakes are allowed to open during takeoff and climb, the self-launching glider may be incapable of generating sufficient power to continue climbing. Other emergency situations may include inflight fire, structural failure, encounters with severe turbulence/wind shear, canopy failure, and inadvertent encounter with instrument meteorological conditions (IMC).

Possible options for handling emergencies are influenced by the altitude above the terrain, wind, and weather conditions. As a part of preflight planning, pilots should review the effects of density altitude on glider performance. The takeoff runway length and landing areas near the gliderport and existing air traffic affect the pilot's approach and landing decision. Emergency options may include landing ahead on

the remaining runway, landing off field, or returning to the gliderport to land on an available runway. The appropriate emergency procedures may be found in the GFM/POH for the specific self-launching glider.

Spiral Dives

Allowing the nose of the glider to get excessively low during a steep turn may result in a significant increase in airspeed and loss in altitude, creating a spiral dive. If the pilot attempts to recover from this situation by applying only back elevator pressure, the limiting load factor may be exceeded, causing structural failure. To recover from a spiral dive properly, the pilot should first reduce the angle of bank with coordinated use of the rudder and aileron, then smoothly increase pitch to the proper attitude.

Common errors during spiral dives include:

- Failure to recognize when a spiral dive is developing.
- Rough, abrupt, and/or uncoordinated control application during recovery.
- Improper sequence of control applications.

Spins

All flight instructor applicants must be proficient in spins. A spin may be defined as an aggravated stall that results