Figure 2-13. *This is an example of a transport vehicle which carries a small balloon, three adults, a 20-inch inflation fan, and all other necessary equipment.*

can attack the composition of the balloon's fabric and render it unairworthy).

- Vehicle suitability—terrain, vehicle road clearance, and number of chase crew members are factors that determine the suitability of a transport/chase vehicle.

Quick/Safety Release

Safety restraints, referred to as "quick releases" or "safety tie downs," are used in balloon inflations. They are designed to restrain the balloon from movement in breezy or windy conditions.

There are several different types of safety restraints available, but none are part of the aircraft certification process. This lack of aircraft certification has led to controversy over the use of safety restraints among ballooning enthusiasts. Since event participation often requires their use for safety reasons, the use of safety restraints is now recommended for balloon launches. Each type of restraint has its own advantages and disadvantages which a pilot can learn via observation and discussion with an instructor and/or other balloon pilots. When a pilot decides to utilize a safety restraint, it is important to follow the balloon manufacturer's recommendations on how to attach it to the balloon superstructure. Many balloons have been seriously damaged by using an improperly attached restraint in excessive winds.

It is also important to insure that all personnel involved with the inflation, whether pilot, crew or spectator, be aware of the dangers of a safety restraint. The quick release rates with the inflation fans as one of the most hazardous pieces of equipment on the launch field. Early release under load, or breaking of the safety restraint may cause serious injury. All personnel involved should be briefed and made aware of the potential hazards.

Miscellaneous Items

- Radios—most pilots use some kind of two-way radio for air to ground communication. There are many choices available, ranging from Family Radio Service (FRS) and General Mobile Radio Service (GMRS) radios, which are relatively low cost, to the more sophisticated FM business band systems, which can be expensive.

  The GMRS and FM radios require licensing by the Federal Communications Commission (FCC). FRS radios do not. Using cell phones for air-ground communications is a violation of FCC rules.

- Igniters—most manufacturers provide at least two sources of ignition on board. The best igniter is the simple welding striker. Nearly all balloons have built-in piezo ignition systems.

- Fueling adapter—adapters are required to connect the balloon fuel tanks to the propane source. Pilots should carry their own adapters to ensure the adapters are clean and not worn. Dirty and worn adapters may damage a fuel system.

- Compass—compasses are used to track pibals, check map orientations, and navigate the balloon. While almost any good quality compass will do, the best kind to use is probably the sighting compass.

- Fire extinguisher—most balloons now come equipped with small fire extinguishers affixed to the basket. If one is present, it will be inspected during the annual inspection. These fire extinguishers are often too small to extinguish grass fires or serious basket fires caused by a propane leak. In the case of a propane-leak fire, turning off a valve usually extinguishes the fire. This is a better use of pilot time than fumbling for a fire extinguisher that might not extinguish the fire.

- First aid kit—the location and contents of first aid kits vary. Some pilots keep a small first aid kit in their balloon; some keep one in the chase vehicle. A frequent topic at Safety Seminars, the contents of the kit often depend on the area of the country in which the balloon is flown.