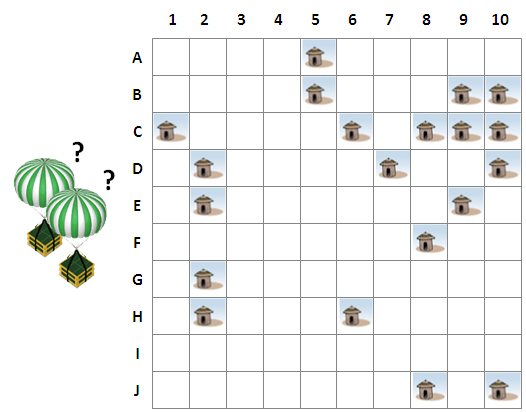
**August 2010 - Relief Mission**



Coordinating relief efforts after catastrophes such as civil unrest and natural disasters can be a logistically complex challenge.  Delivering relief to people in need is the immediate focus of any disaster management plan.

The map in Figure 1 shows the locations of 20 villagers, each represented by a ‘hut’ icon.  The villagers are in need of relief supplies contained in the crates attached to parachutes.  There are two identical relief packages available.  The only delivery option is by air drop.  Each package can be dropped on any cell.

After the crates are dropped, each villager will walk to the nearest drop location to pick up relief supplies.  Use a direct line between cells to calculate travel distance.  For example, the distance between A1 and A2 is 1km and the distance between A1 to B2 is 1.41 km.  Assume that each crate contains an unlimited amount of relief supplies.

**Question:  Which two drop locations will minimize the total distance that all villagers must travel?**