Survival!

It is mid-October, and you and your team find yourselves stranded in the vast Canadian wilderness of northern Quebec. The unfortunate turn of events occurred when your small single-engine airplane, enroute from Montreal to a remote airstrip near Chapais, encountered an unexpected ice storm. In an attempt to evade the worst of the storm, the pilot deviated widely from the flight path and tried to find a clear route, but to no avail. A thick layer of ice built up on the wings and the plane rapidly lost altitude, crashing through a stand of pine trees before eventually coming to rest in the middle of a small frozen lake. Tragically, the pilot did not survive the crash, but you and your team members emerged unscathed and managed to traverse the weakening ice to reach the southern shore.

The ice wasn't very thick and you could hear it starting to crack, so everyone grabbed whatever they could salvage from the plane and moved quickly to dry land. Soon after, the ice opened and the plane sank deep below the surface with the pilot still on board. As you take stock of the situation, here is what you know:

The pilot was unable to make any contact prior to the crash, but based on ground sightings, you estimate being approximately 25 miles east of your intended flight path and roughly 30 miles south of the village of Chapais, which is near your original destination and the closest inhabited area. Your party was scheduled to operate from the airstrip (out of communication range) for two weeks before returning to Montreal. Consequently, no alarm will be raised until you fail to arrive in Montreal two weeks from now.

The immediate surroundings consist of small evergreen trees (2 to 4 inches in diameter). Scattered across the area are numerous hills with rocky and barren peaks, while the valleys between them are tundra-like, featuring only small shrubs and wetlands. About a third of the region is covered by long, narrow lakes that run in a northeast to southwest direction. Various streams and rivers flow into these lakes, creating a network of waterways.

Temperatures during October typically vary between 25°F and 36°F in this area, although they will occasionally go as high as 50°F and as low as 0°F. Heavy clouds cover the sky most of the time, with only one day in ten being fairly clear. Seven to ten inches of snow are on the ground, however, the actual depth varies greatly with the wind, with drifts as deep as 3 to 5 feet in some areas.

You are all dressed in thermal underwear, socks, heavy wool shirts, pants, thick gloves, down jackets, knitted wool caps, and sturdy leather boots. Your collective personal possessions include: $214 in bills, a toony and two loonies, four quarters, two dimes, one nickel, three new pennies, one pocketknife with two blades and an awl resembling an ice pick, and one #2 lead pencil. You have all agreed that the team will not split up.

The team was able to recover 14 items from the wrecked aircraft before it sank (list below). Your task is to review the list of available items and, without discussing with your teammates, rank the items in the order of their importance to your team's survival (1 = most important, 14 = least important). Record your rankings in Column A.

		A. Your Ranking				
A.	One bottle (750 ml) of Polmos Spirytus 150-proof vodka					
B.	Sectional air map made of plastic (shown on next page)					
C.	Magnetic compass					
D.	One-gallon can of maple syrup					
E.	1 sleeping bag per person (rated for arctic conditions)					
F.	20' x 20' heavy-duty tarp					
G.	Family-sized Hershey bar (one per person)					
H.	250 ft. of 1⁄4-inch braided nylon rope, rated for 50 lbs.					
I.	1 fully-charged 4-battery flashlight					
J.	Book entitled *Star Navigation in Northern Canada*					
K.	12 wooden “strike anywhere” matches (in a waterproof container)					
L.	Camp ax					
M.	1 inner tube for a 14-inch aircraft tire (punctured)					
N.	3 pairs of snowshoes					

Sectional Air Map, vicinity Chapais, QC, Canada

Average wind speed in October: 13-15 mph
Winds mostly out of the west-northwest
Magnetic declination varies from 29° to 50°, depending on location