Survival in the Desert

Introduction

This is a problem to be solved by small groups of people. The situation is based on over 2,000 actual cases in which men or women have died depending on the survival decisions they make. Your own ‘life’ or ‘death’ will depend on how well your group can share its knowledge to reach decisions.

It is now almost midday in mid- August and you have just crash landed in the Sonara Desert in the South Western United States. The plane, containing the bodies of the pilot and the co-pilot, is burning. None of the rest of you have been injured.

The pilot was unable to notify anyone of your position before the crash. However, he said before the plane crashed that you were about 110 km south-west from a mining camp (the nearest known habitation), and that you were approximately 100 km off the course that was filed on your flight plan (Hope – Dead Man’s Peak).

The immediate area is quite flat and, except for the occasional cactus, appears to be empty. The last weather report said the temperature would reach 45 degrees C (which means that the temperature at ground level will be 55 degrees C). You are in light weight clothing. Everyone has a handkerchief. Collectively your pockets contain $2.83 in change, $85 in notes, a pack of cigarettes and a ball-point pen.

Your task

Before the plane catches fire your group will have time to save some items from inside the plane. Select those items from the list of equipment on the following pages:

YOU DO NOT KNOW HOW MANY ITEMS YOU WILL BE ABLE TO SAVE BEFORE THE PLANE EXPLODES!

Facts

- The number of survivors is the same number as in your team.
- You are the actual people in the situation.
- The team must stay together.
- None of the items have been damaged in the crash.

Process

- Select which items you want (1 is the most important, 15 the least important).
- As a team make a team decision.
- Present your results.
- You will then receive the official ranking.

Compare the ranking which you as an individual gave each item and subtract the lower figure from the higher one. Write the difference in the column headed Individual Difference Score.

When you have finished, add up all figures in that column and make a note of the total. Do the same for the ranking which your group decided, noting the difference in the column headed Group Difference Score and write down the total.

Compare the two results

A lower figure represents a greater chance of survival.

ITEMS	**Individual Ranking**	**Group Consensus Ranking**	**'Official' Ranking**	**Individual Difference Score**	**Group Difference Score**
Torch (4 battery size)					
Penknife					
Sectional air map of crash area					
Plastic raincoat (large)					
Magnetic Compass					
First Aid Kit					
Parachute (silk red & white)					
Bottle of salt tablets (1,000)					
1 liter of water per person					
Book entitled *Edible Animals Of The Desert*					
2 pairs of sunglasses per person					
2 large bottles of 90% proof vodka					
One overcoat per person					
Pistol (loaded)					
Cosmetic Mirror					
TOTAL					

The Solution

The Expert

Alonzo W. Pond is the desert survival expert who has contributed the basis for item ranking. He is the former Chief of the Desert Branch of the Tropic Information Center of the US Air Force University, at Maxwell Air Force Base. During World War II, Mr Pond spent much of his time working with the Allied Forces in the Sahara on desert survival problems. While there, he encountered the countless survival cases which serve as a basis for the rationale of these rankings.

The Strategy

The strategy is heavily influenced by two factors. Firstly you are in the USA – a country which records all flights and has a rescue infrastructure. Secondly you are in the desert. Surviving after a plane crashes in mountains, jungles etc have a very different solution.

As it becomes clear you are late, air traffic control will try to establish radio contact. If this fails they will then instigate a search. They will first search along the planned flight route. They will then expand the search step by step moving away from the planned flight route. They will not search at night. Under these circumstances the best solution is to stay where you are and wait to be rescued (inactivity is much harder than you would expect under such circumstances!)

All decisions should be based around 2 priorities

- Being found as soon as possible
- Surviving during this period. The biggest threat to your survival is dehydration (and not hunger, rattlesnakes or sunstroke!)

Any decision to move from the crash site is very dangerous (especially when you don’t know if you are walking to or from the flight path).

The Answers

1. Cosmetic mirror – the most powerful tool available for communicating your presence.

2. One overcoat per person – to reduce the moisture lost through perspiration. It helps to prevent dehydration. As stupid as it may sound you should wear the coat (and not just in the night time). Think about typical clothing of Bedouins etc.

3. One liter of water per person – holds off the effects of dehydration (although this amount of water would not significantly extend survival time). This is best drunk in the first hour when you need to make rational decisions.

4. Torch – the only quick reliable night signaling device. Other uses, digging during the day etc.

5. Parachute – can serve as both a shelter (reduce temperature by 20%) and a signaling device.

6. Penknife – for rigging the shelter and cutting up the cactus for moisture.

7. Plastic raincoat – by digging a hole and placing the raincoat over it, a solar 'still' can be constructed and water can be obtained. This will give you very little water however and will not significantly improve your chances

8. Pistol – for use as a sound signaling device primarily, but also to start a fire and for digging. However, this carries risks with it – especially when you are not the one holding the pistol!

9. A pair of sunglasses per person – to prevent the harmful effects of intense sunlight on the eyes.

10. First Aide kit – use as rope or for protecting the exposed parts of the body against dehydration and sunlight.

11. Magnetic compass – use as an auxiliary signaling device.

12. Sectional air map – for starting a fire, perhaps, or for one person to use as a head cover or eye shade. Essentially useless, or even dangerous.

13. Book 'Edible Animals Of The Desert' – of little use since the main problem confronting the group is dehydration, not starvation. In addition, the energy used in hunting would result in water loss.

14. Bottles of vodka – for starting a fire or use as a temporary coolant for the body. All in all represents more of a danger than a help.

15. Bottle of salt tablets – will require body water to get rid of increased salinity in the blood.