

## **IST 614 – Management Principles for Information Professionals (Fall 2017)**

### **Problem # 4**

#### **Case Study: Avoiding Groupthink at NASA**

##### **1. What kind of information do you need to make a good decision? How will you get that information?**

Good decision making encompasses a variety of aspects that need to be considered and evaluated, most important of all being the finding of knowledge from information that came from previous data. Knowledge in this context refers to the know-hows of current activities and what can be done in critical situations. At NASA, there exists a precedence of events that has led the organization to realize the mistakes that they have made and could have avoided. Carefully evaluating past experiences and figuring out a solution is the first piece of information that will help the team solve the problem of Hydrogen gas leak.

It is known that NASA's culture breeds groupthink on its teams, which is a barrier to good decision making caused by pressure within the group for members to agree with each other. In other words, no member of the team will be able to come up with an appropriate solution due to the fear of it not being accepted by other team members and superiors. In order to obtain the information required to tackle this situation, this practice needs to be eliminated. One solution for this is to involve a member of the team responsible for one of the relatable precedent events, like the launch of Columbia in 2003. This member, who would initially be reluctant to divulge any information, will now be responsible to devise a solution with the knowledge that s/he possesses from past experience.

An alarming fact is that the project is a mission to deliver pieces of the International Space Station to the crew restructuring it. Restructuring means enhancing the site with new equipment, but that also means that there still are means to do the same job with older machinery, at least till new equipment can reach the site without any risks.

##### **2. What resources does your team need in order to achieve your goal of a safe and timely mission and do it quickly? Think about the things a team needs to achieve a stretch goal and how they would apply to this situation.**

In time critical projects like the one mentioned in the case study, rapid, calculated actions are of utmost importance. There is no room for error. In order to enable the team to be quick on their feet, they must be provided with support in whichever form required. Any constraints on the budget, manpower, and resources in terms of raw material and machinery, will prove to be a roadblock to the project. The executives at NASA must be fully supportive of the project team's potential and sign off on all their requirements.

Moreover, since the disaster needs to be averted and the project still needs to be kept on schedule, the team must be given access to information regarding situations from the past where such rapid actions had to be taken, and technical knowledge regarding various aspects such as gas leaks, space station reconstruction and any kind of alternatives that can be devised using expert advice.

Since the gas leak has been discovered, and was not intended to be a part of the original project of delivering large pieces of the new International Space Station, it has to be considered as a stretch goal, which calls for additional finances.

### **3. How would you apply strategies to manage team conflict?**

Team conflict may occur due to differences between team members, hence affecting the result of team work and disabling the team from working at an optimum level. In this case, since the time available to finish the project is very little, team conflict is the last thing the project can afford to have.

That said, team conflict is inevitable, and it must be resolved as quickly as possible. The first strategy that could be applied is to exercise caution in all the activities performed by the team. In a fast-paced project like the one at NASA, it is highly probable for people to lose their tempers in a discussion and act hostile. Therefore, the manager and the team members should all be careful.

Another aspect that should be kept in mind is that if a conflict occurs, it is always better to resolve it than to avoid it. Ignoring the conflict for the time being will result in hindering the team's performance.

Speaking from a managerial perspective, since the project will be short-lived, the organizational structure must be treated as more mechanistic, that is, characterized by specialized jobs and responsibilities, precisely defined roles, and a rigid chain of command. Currently, the project team needs to devise a solution to take care of the gas leak. Every job that will have to be done to accomplish the goal must be considered as a focused task and assigned to an individual or a group, responsible for doing their part in the project.