



**FROM HORSELESS CARRIAGES TO CARS -  
DISRUPTIVE INFLUENCERS AND THE IMPORTANCE OF MINDSET SHIFT TO  
IMPLEMENT A MAINTENANCE MANAGEMENT STRATEGY:  
A CASE STUDY WITH JEFFBOAT**

**Abstract**

When implementing a maintenance management strategy, a critical component is the resistance to change. Whether it is the introduction of new software or a complete overhaul of the maintenance function, the process of change usually represents the involvement of disruptive technology. A path of least resistance dictates that most changes are really improvements on something old and, thus, the old paradigms can be used as a starting point. However, there are changes that organizations need to make that disrupts the dominant paradigm, rather than sustaining it. These types of shift usually involve disruptive technologies and make the old things less important or obsolete. The problem with these disruptive changes is that people are still applying the old paradigms to the new realities. They are trying, in a sense, to understand the car as nothing more than a carriage without horses.

**DISRUPTIVE CHANGE IN MAINTENANCE AT JEFFBOAT**

**History of Jeffboat**

Jeffboat is a company with a long history. Originally named the Howard Steamboat Company, Jeffboat is America's largest inland ship builder and has been manufacturing ships for over 100 years. Jeffboat has built such famous ships as the *Mississippi Queen*, the *General Jackson* showboat and the *Casino Aztar* riverboat casino.

Like many old line manufacturers, Jeffboat has undergone a number of corporate/ownership changes. Most recently, in 2010 the company was bought by Platinum Equity, which is a global acquisition firm.

Like most manufacturing firms, Jeffboat has an enormous amount of equipment stretched out over a shipyard that is over a mile in length that is needed to make its boats. Also like many old-line manufacturing firms, Jeffboat has both equipment and employees who have been there for several decades.

Overall, because of the size of the shipyard and age of the equipment, Jeffboat's maintenance was used to working in reactive mode. There was no CMMS software in place and equipment was put into numerous Excel spreadsheets. In

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addition, it was often hit or miss whether the right parts were in the stores room and finding the right equipment often took maintenance technicians a significant amount of time. There was no Scheduler/Planner and maintenance procedures were done informally and based on need at that particular moment.

### Disruptive Change

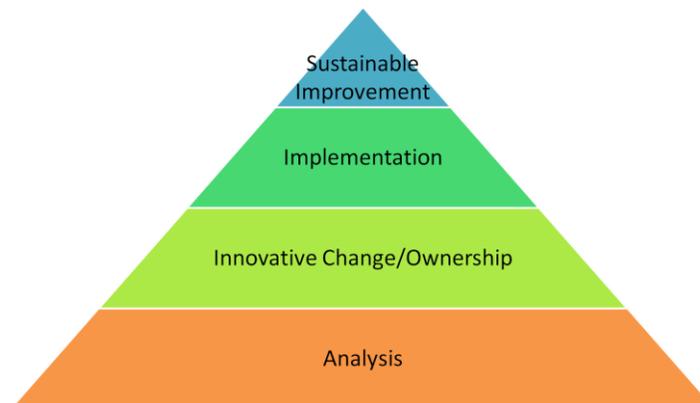
Because of a number of issues within Jeffboat that related to maintenance over the past few years, a decision was made by senior management to transform Jeffboat from a reactive-based maintenance department to a more preventative one. That would entail the following changes:

- Formalizing all maintenance procedures through work orders;
- Instituting a computerized CMMS program to issue and track work orders and measure inventory levels;
- Working together with Production in a new way as a partner instead of an annoyance;
- Moving one of the technicians into the role of Scheduler/Planner;
- Institute procedures and technology for stores that allow for continuous tracking of equipment and release of parts in an efficient, time-sensitive manner;
- Clearly defining the roles and responsibilities for all maintenance and production personnel with regards to equipment.

All of these meant that disruptive change would have to take place both in the way people worked together but in many people's jobs and in how things would be done. Without shifting the mindset of the individual's affected and creating ownership of the changes, the technology and all of the procedural changes would be for naught.

### How to change mindset – moving from the horseless carriage to the car

#### *Model for Sustainable Improvement*





TRO applied this model of sustainable improvement to help implement changes to Jeffboat maintenance. As the model indicates, the base is analysis. Jeffboat originally brought in TRO Maintenance Solutions to conduct an assessment of their current maintenance program. This assessment served as the baseline analysis that would support any future initiative. TRO identified in the assessment stages the main obstacles noted above in revamping the Jeffboat maintenance program. They also recognized that, in order to be successful, the second part of this model was essential – the people most affected by the changes had to move from the ‘horses less carriage’ mindset to the ‘car’ paradigm and take ownership of the changes. It was from this analysis that TRO created the strategy to implement change within the Jeffboat culture:

1. Give stakeholders the tools for change and have them develop ideas for implementing change through a 1 day workshop;
2. Review the ideas with management and then take the team’s ideas and management input and work with all of the stakeholders to turn the ideas into key performance indicators (KPIs) for review by management;
3. Take the KPIs and work with the stakeholders to turn them into internal service level agreements (SLAs) that clearly define the roles and deliverables that each person/group is responsible for in order to implement the ideas.
4. Take the SLAs and create a series of standard operating procedures (SOPs) which would form the basis of the new maintenance handbook and create the infrastructure needed to implement the procedure and technology changes.

### ***Using the Flexible Thinker®***

In order to accomplish the goal of paradigm shift, TRO used the Flexible Thinker® learning program to help institute the change. The purpose of Flexible Thinker® is to:

- Create a paradigm shift about how people view both the issues they are facing and their jobs;
- Use language to create a culture where ideas flow and people are held accountable for helping to create solutions instead of act as an obstacle to them;
- Push people out of their comfort zone and expand their thinking;
- Create the ‘ahas’ that are necessary for sustainable change; and
- Turn ideas into action by creating ‘quick hits’ or successes for people to buy-in to the changes and incorporate the learning into their daily work lives.

The ultimate goal of both the Flexible Thinker® program and the sustainable change model is to create the ownership and paradigm shift that is necessary to uphold implementation of new initiatives. This was measured by:

- Usage of the Flexible Thinker® tools in the workplace  
During the course of the consulting, the consultants asked stakeholders if they had applied the Flexible Thinker® tools in their work environment. One stakeholder indicated that he was using the ‘clap focus’ game as a way to get his team engaged at the beginning of the shift and then was utilizing it to get them to ‘move faster’ during the day. Another stakeholder indicated that he had taught his kids to ‘orange’ it and was using it with his guys when they came to him with a problem to engage them to help create solutions. It was through this anecdotal evidence that we were able to see that the training was having the desired effect.



- Agreement and execution of the SLAs.  
Once the SLAs were completed, was their going to be resistance to signing the agreements and/or execution of the agreements.
- Change in work performance  
Were people able to perform in their new positions or change the way they were working in their current positions to help execute the SLAs and achieve the KPIs.
- KPIs. The KPIs were the ultimate goal of the entire program. Was the maintenance department moving toward hitting the KPIs?

### Implementing the learning strategy

An important element of creating sustainable change is to allow stakeholders to both learn and apply new knowledge and practices into the workplace. Using a blended learning approach that utilized both formal (classroom) and informal (coaching and mentoring) learning modalities. The role of the consultants was both to facilitate creation of the infrastructure that would allow for change, including creation of documentation and providing onsite support for coaching and mentoring as well as helping implement the changes. Instead of executing the changes themselves, TRO acted more as a facilitator and allowed the stakeholders opportunities to implement the changes themselves. By providing the coaching and follow up necessary, the structural changes needed to be made were implemented by the people who would have to “live” with them.

### Lessons learned

In implementing the model, there were a number of lessons learned.

**a. The Innovative Change/Ownership stage is critical to support implementation of any change**

Most organizations try to skip this part of the model and move directly from analysis to implementation. Usually this is done either totally by external consultants or through directives of senior management. The problem with this approach is that the people actually responsible for implementation often times either do not understand the reason for the change, buy-in to the change or feel that the change is a direct threat to them and their job. What happens in these conditions is that the implementation is either undermined or people simply wait until the next ‘flavor of the month’ is over so they can return to doing things the way they used to do them. This means that the changes that are necessary to become more productive are undermined at the lower levels of the organization and the implementation eventually fails.

**b. Senior management must buy-in on the changes and the model**

Senior management must buy into both the changes that are taking place and the process of allowing the stakeholders to drive the process of change. Jeffboat provided excellent senior management support and leadership. Because of that leadership, the stakeholders felt that they owned the changes and supported the execution of the ideas. At every step, senior management was part of the process and reviewed the ideas created. If they did not approve of them, a reason was given and brought back to the stakeholders with the necessary justification about why the idea could not be implemented. This allowed for continuous communication between front-line staff and senior management and a sense of collaboration. If senior management had undermined the process by imposing their ideas arbitrarily without explanation over the ideas generated by the stakeholders, the entire process would have been subverted because

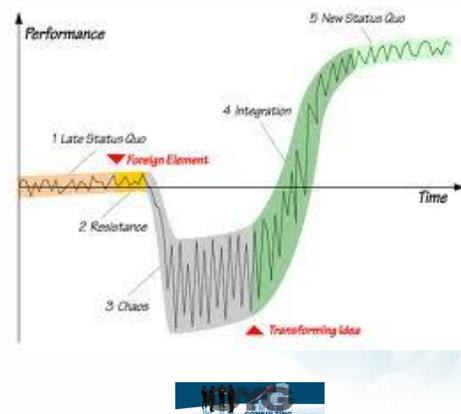
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lower-level staff would feel that it was all a waste of their time and morale and productivity would have suffered significantly.

In addition, it is important for senior management to understand that there is always lower productivity in change. This is best demonstrated by the Satir model for change:

### Satir Change Model



With any change, there is resistance and then chaos which creates lower productivity. It is only as people start to work through the changes that performance rises above the status quo before plateauing. All change takes time and there is no shortcut. It is essential that during that time of lower productivity, senior management does not undermine the process to go back to the old status quo. They must provide stakeholders with support to work through the changes, learn them and incorporate them into their daily routine in order to achieve a higher level of performance in the long-term. It needs to be understood by senior management that people will want to revert to 'what they know' as growth is created by confusion. There will be times when people revert to old habits and they need to be coached and rewarded for implementing new changes that lead to long-term gain for the organization.

#### c. Coaching is essential

As discussed earlier, with change come resistance and chaos which can easily lead to frustration. The fact is the very essence of change is to take people out of their comfort zones. Coaching sessions are essential in helping people to work through the changes and shorten the learning curve which in turn saves the organization money. By providing coaching, people can work through their issues until they are comfortable enough to take over the new roles and responsibilities that come with implementation of the change.

#### d. Clarity and specifics on expectations and measurement create empowerment

It is important to take the ideas and measurements and create very specific SMART plans and SLAs that detail what are the expectations and measurements of each area/person. By having a say in the creation of the document (see *Lessons Learned a*), people need to know what they are expected to do and the signposts that outline how they will know if they are moving toward success. By having input in the SLAs/SMART plan process, all stakeholders now



have a clear idea what is expected of them and an objective measurement of how they are doing so that they can execute the plans. This allows each stakeholder to become empowered to help meet the goals and measurements laid out in the agreements.

**e. Nothing is written in stone – set up review dates**

Change is now the norm. The idea of any agreement is that it will be reviewed and updated based on a number of factors – new technology, kinks that develop on the way and change in corporate direction. It should be emphasized that nothing that is created within the new initiative is written in stone and that changes will be made to deal with new situations that arise. This also gives people the opportunity feel more at ease about the agreements as they will be periodically reviewed. As part of this, it should be put directly into the SLA/SMART plan a review date where the documents and processes will be reviewed to determine what changes (if any) need to be made.

### **Conclusion**

A number of changes have started happening at Jeffboat. Maintenance is being scheduled more regularly and there has started to be a shift from a 'reactive' maintenance culture to a more preventative one. There is a clearer understanding of roles and responsibilities for both maintenance and production which has led to a more collaborative relationship with regards to maintenance. Everything now has a work order attached and there has been a significant mindset shift in stores as people can no longer just try to 'find' the parts they need and all materials have work orders attached so that proper inventory levels are maintained and there is a significantly shorter lead time required to get the rights parts.

There is a now a more comprehensive maintenance strategy in place with ownership of the process by both maintenance and production supervisors and managers who created the change themselves.

The collaboration between maintenance and production has led to a comprehensive maintenance handbook and SOPs which means that overall the maintenance at Jeffboat has made significant and measurable strides forward and has become significantly more productive and preventative instead of reactive which means greater profitability for the company as equipment downtime decreases.

All change is ongoing and Jeffboat has begun to lay the foundation to move it towards the elusive goal of excellence as it introduces new software and continues to refine it process and procedures. This quote from Terry Wireman best sums up the new attitude that is developing at Jeffboat:

*Yesterday's excellence is today's standard and tomorrow's mediocrity.*