

# *Managing a Team Without Enough Projects*

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**Abstract** — *This project was focused on a problem that occurred to the military engine performance team at Infotech Aerospace Services (IAS) in Isabela Puerto Rico. The problem assessed consisted on what actions management could take when a team was cut off almost half of its funding, without getting rid of any team members. To gain additional funding from the customers, management had to consider the customer needs and prepare the team accordingly. The team was re-structured to achieve optimum efficiency and several initiatives were put into place to help develop the team and increase their capability. By doing this, customer satisfaction increased and negotiations for further funding proved fruitful.*

**Key Terms** — *Additional Funding, Customer Relations, Team Development, Team Performance.*

## **INTRODUCTION**

The company the problem is focused on is called Infotech Aerospace Services (IAS), which is in Isabela, PR. It is an outsourcing company that provides multiple types of engineering services and support to aircraft engine manufacturers. In this case, the team involved in the problem performs engine performance analyses for a specific military engine model. These analyses are performed at different phases of the engine; for example, production, development and field testing.

## **PROBLEM STATEMENT**

Early this year the team's technical contacts on the development and production phases resigned. This triggered a series of events that affected the military performance team at IAS. One of the first events was the need of restructuring the programs on the customer's side. By the time the restructuring was finished so was the development

phase and the team was left with only field testing and production phases to work on. These new changes left the military performance team with only enough budgets for 59% of the team to work full time.

## **OBJECTIVES**

If trading up team members to other disciplines is not an option due to added training costs and firing people is out of the question, management will need to set a few objectives that will help the team not only to obtain more work, but also to grow as individuals and even more as a team. The first of these objectives would be to increase the team's capabilities to allow more complicated work to be requested by the customer. The second of these objectives would be to obtain more work by exploring areas of opportunity within the customer's different groups on the military engine performance discipline. Completing these objectives will in turn result in an increase in customer satisfaction, therefore ensuring even more work.

## **LITERATURE REVIEW ON TEAM MANAGEMENT**

To manage a team, it is important to know how to lead your team, and assuming the position of a leader is not an easy task, especially when that team is new or inexperienced. One of the first things a team leader must do when working through a new team is to get to know them. A team leader must figure out if the team members are correctly allocated in the appropriate positions, or in this case, performing the correct work in the correct manner [1]. Part of making sure that everyone is in the right place is to see what motivates the team. It is important to identify the individual ambition for

each team member to figure out a way to get them to perform the best [2].

After figuring out where each team member belongs and what drives them, it's time to look at how they're performing and what they're missing. Studies show that giving an employee the tools they need to perform outstanding work is bound to help the employee the team, and even the company to move forward [3]. It is no surprise that most companies use different training programs to develop their employee, but are they doing it right? Many of these programs make the employees feel like they're back at school, and sometimes that sends the wrong message and provokes on employees an unwanted reaction towards learning. It has been found that a way to solve this issue is to gather a workforce like the subject matter expert, mentors, experienced peers, and build a work environment that basically breathes learning daily through workshops and collaboration [4].

Assuming the leader has succeeded in getting to know the team, assigned them to the appropriate tasks, provided them with the tools they need, then it's time to get them the work they deserve. In the outsourcing engineering service community, it is important to maintain the "brand" or in this case the company name in a good and high standing; after all what the company sells is service. If a team wants to add value to their service to get more complicated work, then one of the best ways they can do it is by having direct contact with the customers [5].

In this type of industry, the customer is who gives you the work but the customer doesn't just hand it over, a team must earn the customer's trust before the customer decides to request a job from them. It is the job of the team leader and the supervisor to make sure the team is being developed properly so they can produce the results that will push the company forward.

## METHODOLOGY

To be able to develop the team into a top performing team, a series of steps were taken.

These included allocating resources, assigning project owners, and scheduling integration meetings.

Before allocating any resources, an analysis was made in which each team member was evaluated in different categories, these included experience, behavior and capability. Based on the analysis, it was determined which team member would be working in each project. By allocating the resources or team members correctly on the projects that were currently available, it was made sure that the team covered the needs of the customer in a most efficient manner. This also helped management to calculate how much budget was required to keep the team busy until the end of the year, as shown in Table 1.

**Table 1**  
**Team Budget Analysis**

| Team Budget Analysis                      |                         |
|---|-------------------------|
| Project                                   | Current Hours Available |
| Project 1: Production Engine 1            | 734.6                   |
| Project 2: Field Support Eng 1            | 294.8                   |
| Project 3: Flight Testing Eng 1           | 924.6                   |
| Project 4: Health Report Code Tracking Er | 127.6                   |
| Project 4: Advanced Studies Eng 1         | 14.7                    |
| Project 5: Advanced Studies 2 Eng 1       | 102.4                   |
| Project 2: Production Engine 2            | 40.5                    |
| <b>Total</b>                              | <b>2239.2</b>           |
| Hrs per FTE                               | 407.1                   |
| Daily Hrs per FTE                         | 5.7                     |
| Minimum Hours Needed                      | 676.8                   |
| Actual Hours Needed                       | 1197.2                  |

The same analysis used to allocate resources was used to select which team members had the capability to lead a project. Each of these individuals were appointed project owners. Project owners are assigned with the tasks of tracking the project's budget, assigning and tracking ongoing tasks, and schedule status meetings with the customer.

Due to the differences in capability of the team members, a series of systems integration meetings were scheduled. These meetings were held to help team members to learn from each other about the different work that was being performed through all the different projects. These meetings would in turn help develop the team and increase their capability.

During these meetings, possible trainings for the whole team could be identified if no team member was experienced enough in a specific topic.

Once the team was working towards their development, negotiations with the customers started. The first action that was taken, was re-evaluating the customer’s needs. Their needs have always been tied to the productivity and capability of the team, if the team could prove themselves more productive and capable, the customer would make more complicated requests.

Different possibilities of new work were explored and proposals were discussed with the customer. Each proposal included an increase in budget for the work to be performed, if these proposals were accepted it would mean that the team would be able to eventually have the amount of budget required to end the year.

Additional to the new work proposals, travel proposals for off-site work experience program (OSWEP) were discussed. This program would allow the project owners to travel to the customer’s site and learn first-hand the skills they need to perform high capability work that they would not be able to learn at IAS.

## RESULTS

During the first few weeks of the team members being allocated to specific projects, progress on the team’s performance was observed. Tasks were being delivered efficiently to the customer due to better team organization.

When the time came to assign project owners, three out of six team members were selected for these roles. These project owners were selected due to their capability and experience in a certain phase of the engine. This allowed the customers to have a face to go to when they needed to ask questions about a certain task, instead of having to ask the manager to point them towards whoever was working each task.

After the team implemented the new structure, the systems integration meetings were scheduled. During these meetings, the team discussed the work

being performed and difficulties they had while performing it as well as lessons learned from each task. In one of the meetings it was identified that the team needed training in a specific programming language. Two team members took the training and are preparing themselves to give it to the rest. Although it was a good initiative and was bearing fruit, discussions with management led to putting these meetings on hold, at least until the team gathers enough experience in each field and they can appropriately teach the rest of the team about the work.

Since the team was showing to be more productive and capable, the customers accepted two of the proposals for new work, granting a total of 950 hours. Table 2 shows an increase in available hours, marked in yellow and a decrease in the hours required marked in green and orange. Although the customer granted more budget for these two projects and it is enough to keep the team busy, the team is still shy of 248 hours to meet the department sales goal for the end of the year. Additional proposals will be made for December to try and get those remaining hours to meet the goal.

**Table 2  
Team Budget with Added Funding**

| Team Budget Analysis Updated              |                         |
|---|-------------------------|
| Project                                   | Current Hours Available |
| Project 1: Production Engine 1            | 734.6                   |
| Project 2: Field Support Eng 1            | 1014.8                  |
| Project 3: Flight Testing Eng 1           | 924.6                   |
| Project 4: Health Report Code Tracking En | 127.6                   |
| Project 4: Advanced Studies Eng 1         | 14.7                    |
| Project 5: Advanced Studies 2 Eng 1       | 102.4                   |
| Project 2: Production Engine 2            | 270.5                   |
| <b>Total</b>                              | <b>3189.2</b>           |
| Hrs per FTE                               | 579.9                   |
| Daily Hrs per FTE                         | 8.2                     |
| <b>Minimum Hours Needed</b>               | <b>-273.2</b>           |
| <b>Actual Hours Needed</b>                | <b>247.2</b>            |

With this new budget increases, the customers agreed that it would be helpful if the project owners traveled to the customer’s site in Connecticut. Schedules for travel are being made for each project owner, the first one will be travelling as soon as the first week of November 2016.

## **CONCLUSIONS**

During the past three months, management could organize the team in a way that achieved higher work efficiency. With the actions taken, the team will be able to reach higher capability in less time than was thought possible so, it can be said that the objective of team growth and development will be achieved.

In terms of budget, management could get about 80% of the budget required to finish the year. This increase in budget will be enough to cover the team's work for the end of year at a rate of 8.2 hours daily, unfortunately this still doesn't meet with the department's goal for end of year sales. Management will keep looking for opportunities for further funding.

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