19. Introduction

ATCO is committed to an <u>aggressive</u> deployment program once CCPS has been used successfully in the Beta test. The MSDS proposal includes both deployment support and maintenance during deployment. The Deployment section of this plan describes how those activities will be accomplished.

Support beyond the deployment interval is ***excluded*** from this plan, and the bulk of this section is therefore not completed.

19.1 Deployment/Maintenance Transition Policy

Any site running a system, which has been ordered and delivered, via standard MSDS procedures are covered in this section of this document, unless agreed to by both parties in writing.

In the case of CCPS, deployment is deemed to have terminated upon acceptance of the 50th complete system. All systems are covered only by the Deployment section of this document.

In order to carry out the whole idea of maintenance, we will require some sort of mechanism in order to accept feedback for our product. We will respond to this feedback by either creating patches that fix the issues, or simply by releasing separate versions of the product. But to reduce costs we will limit new versions to hardware limitations of the product.

19.6 Maintenance Strategy

There was not a great deal of information that was specified regarding precisely who will be in charge of maintenance. Our company will be mostly responsible, however; the individuals responsible for each aspect have yet to be determined.

We will attempt to carry out most of the maintenance of the CCPS, along with the maintenance required for the CCPS board simultaneously. BoardTech will be responsible for most of the maintenance regarding the CCPS board, but we will be in charge of integrating the two and then performing maintenance after the product has been released.

In order to interface with the customer we will need four separate systems to be built. A delivery clerk will interface with the delivery unit by entering data into the system. A credits clerk will be responsible for interfacing with the credits unit simply by entering specified data into this system. An audits clerk will be responsible for interfacing with the audits unit by entering data into the system and receiving data from the delivery unit. A billing clerk will interface with the billing office by entering data into the billing system.

Several software project meetings will be held regularly partly to ensure that the parties responsible for given pieces of the project incur the price that they inquired. For example, we will be responsible for the cost to create the CCPS board.

Possible changes to the systems will also be brought up during this software project meeting so that they can be resolved. We shall follow the organization's standard procedure for making any changes to any documentation that has already been base-lined.

The testing policy for the changes made to documentation will be specified by the organization. Different companies have different ways of going about these changes and we will leave it up to the organization to specify.

19.7 Maintenance Support

19.7.1 Staffing

All members of the group will be in charge of attending the regular software projects meetings to discuss any changes that need to be made over time. Once the product is released, some of the staff working on this project will shift to a different project, but some group members will be needed for maintenance support over time. There is much to be done in regards to maintenance, some of which will be responding to feedback from the customers and fixing any issues that have been caught since the release. As of right now, the specified roles for maintenance have yet to be determined. Most likely one core team member will stay on to oversee maintenance.

19.7.2 Maintenance Hot-Line

ATCO along with our organization will be in charge of developing a hot line in order to receive calls regarding our product and possible changes that need to be made. Due to the small size of the client base and uniqueness of the product this is a better way to offer help with the product and would not require development time to build a help guide integrated into the boards.

19.7.3 Maintenance Support from Development

The key role from development that will take place during maintenance is responding to any issues found with the product over time, up to the 50th cycle. So, this means that maintenance and development is needed to be maintained for a relatively substantial amount of time in order to ensure that the product meets the user's requirements. Issues that arise need to be fixed quickly, whether it requires a patch or an entirely new version of the system. For hardware issues extra boards have been specially ordered based on the failure rate and shipping issues. This calculation for determining the amount of extra boards needed will hold for new hardware versions of the boards that are made.

19.7.4 Trouble Handling

The rules for handling the various troubles that arise will be specified by the group prior to the development phase. It would be best to determine the manner in which to handle such negative situations as a group, so that all members understand what needs to be done in the event that any specified issue should arise.

19.7.4.1 Severity Definition/Handling

When performing risk analysis, we will have to identify possible risks involved in partaking in this project, and rank the issues in order of severity. We will assign a small severity to any risk that would cost the organization less than $25,000 and one week time. We will assign a medium severity to any issue that will cause the organization to incur a loss of between $25,000 and $50,000 or two weeks time. A high severity will be assigned to any issue that results in the company losing more than $50,000 or more than two weeks time.

19.7.4.2 Response Time

Obviously we would like to respond to the issues that arise as quickly as possible, however; since some issues are bound to be caught at substantially busy times in this project, we will need a method for prioritizing the issues that arise, not only according to severity, but also according to how crucial it is for the issues to be resolved in order to complete the project on time. Likely Hardware issues will be addressed first and software issues following in suite based on severity

and urgency.

19.7.4.3 Resolution Time

This section is very similar to the previous one. We would like to resolve the issues in the shortest time possible. The organization will have to determine a method for deciphering which issues are of a higher priority than others and will respond accordingly.

19.7.4.4 Installation of Fixes

Installation of fixes will come sometime after the first release. Then any issues that are found will be fixed and there will either be a completely new version sent out, or a patch will be created that fixes all of the issues to date.

19.7.5 Emergency Procedures

In case of an emergency, such as an issue of high severity being found extremely late in the process, the organization will have to specify a method for going about resolving such problems. The method for dealing with these problems will have a lot to do the ranks of severity, as well as the ranks of priority corresponding to each of the errors. Emergency situations will have to be coordinated by the project leader and will have to be dealt with only if they arise.

19.8 Budget and Resources Summary

A relatively substantial amount of money will be required in order to properly carry out the maintenance phase. Several staff members will be needed to answer the hot line to receive feedback and also to respond and fix the issues that are found by the customers. Also, there will be a large amount of travel during this phase, meeting with customers, installing software, and also installing any new versions are patches that are created later on in the process.

19.9 Issues

Most of the issues regarding bug issues regarding software will be attempted to be fixed over the hotline but then if necessary we will do on sight maintenance for the product.