



Project Management Innovations



A Quarterly Publication of the Project Management Institute's®

New Product Development Specific Interest Group

March 2007, Volume 12, Issue 1

IN THIS ISSUE

- 🔗 Article: *Front-Loading Problem-Solving in New Product Development*
- 🔗 Letter from the Chair
- 🔗 Election Results
- 🔗 Book Review:
Managing Agile Projects
- 🔗 Book Review:
Passing the PMP® Exam How to Take It and Pass It
- 🔗 Overcoming Obstacles in Planning the Product Launch
- 🔗 Officers

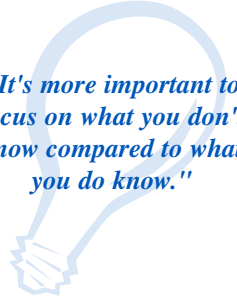
“It’s more important to focus on what you don’t know compared to what you do know.”

Front-Loading Problem-Solving in New Product Development

by Greg Githens, PMP, NPDP; Catalyst Management Consulting, LLC

In this article on front-loading problem-solving, NPD SIG Co-Founder and Past Chair Greg Githens describes why NPD teams should ask and answer questions that reveal information about the major areas of uncertainty. One example is finding and working on interfaces early.

Front-loading problem-solving is the tactic of identifying and solving problems in the earliest possible phases of the NPD process by shifting emphasis toward discovery and resolution of *important* problems. Front-loading can reduce the time and cost of product development, increase agility, and increase the potential for innovation.



"It's more important to focus on what you don't know compared to what you do know."

This short article focuses on organizing resources and tasks for front-loading problem solving. For a somewhat different perspective that includes the role of information technology, prototyping, and iteration, review Thomke and Fujimoto's excellent paper that highlights front-loading in Toyota and other companies (1).

Fast learning = speed and remarkable results

When a student waits until the last minute to do homework, he or she is taking a risk. We seldom expect work that is rushed to be remarkable. NPD is similar in that it has requirements and due dates. Last-minute design work is seldom creative and of high quality; however, it is different in that it is a collaborative endeavor. The “group” has to become a “team” to break down many of the communication barriers. It has to master complex material and generate creative, elegant solutions. It has to constructively manage conflicts between functions.

Continued on page 4

A Letter from the Chair

by Eric Morfin, PMP,
NPD SIG Chair

It is a privilege to be the NPD SIG Chair for 2007/2008. Over the next 24 months, I look forward to sustaining and growing the services we have in place for you. As you probably know, our series of webinars has been highly successful. So successful that they have become a significant part of the SIG budget. Our budget is composed of your annual fees put altogether. For the next few months in 2007, the board of directors has made the decision to reduce the number of webinars in order to maintain a balanced budget.

We will likely send you a survey in the coming months to obtain your feedback on which services you value the most from your NPD SIG. Providing more services will require additional revenue streams. The entire board is currently investigating whether we can establish some

selective sponsorship relationships with key NPD companies. Sponsorship relationships which would provide the additional revenue necessary to offer more services to you, while keeping these benefits free for all SIG members. Should you be aware of anyone willing to advertise in our newsletter or sponsor our SIG, feel free to send me that information directly at pmpharma@gmail.com

There are many new services this SIG could start to provide you with, from discounts at NPD conferences, more frequent webinars, roundtables on NPD subjects of interest, an international presence, a growing number of NPD LIGs (Local Interest groups), a PM NPD best practices book, etc.

Feedback is always appreciated. As your NPD SIG Chair, I am here to serve you. Thanks for being a member of the PMI NPD SIG.

Eric Morfin, PMP
pmpharma@gmail.com

2007 Election Results

New NPD SIG Board of Directors

Vice Chair Communications
Blake Denison, PMP

Vice Chair Finance & Administration
Brian Piper, PMP

Vice Chair Membership
Curt Raschke, Ph.D.

Vice Chair Special Projects
Eric Cahill, PMP

Please join me in congratulating our new board.

Eric Morfin, PMP
NPD SIG 2007 Chair



14-16 May 2007
Budapest, Hungary

The PMI Global Congress 2007—EMEA is the leading project management educational and networking event in Europe, the Middle East and Africa. This three-day event is the chance to gather the know-how and inspiration needed for project management success. The congress is also a meeting point for experts to discuss the most challenging project management trends.

Early registration ends 27 April 2007.

Call For Articles - A Great Way To Get Involved in 2007!

I am putting together the newsletter schedule for remainder of 2007 and I am looking for articles. These can be any length and on any topic that you feel would be of interest to the NPD SIG members. Please let me know if you are interested and I will be happy to help. Contact Blake Denison, PMP, Vice-Chair Communications at blakedenison23@yahoo.com.



Greg Githens
+419.424.1164
Paul Shaltry
+614.841.0867
CatalystPM.com

Catalyst Management Consulting, LLC

Book Review: Managing Agile Projects

by Sanjiv Augustine,
Upper Saddle River,
NJ: Prentice Hall,
2005. 229 + xxiv
pages. US \$44.99



Reviewed by Greg Githens, PMP,
NPDP; Catalyst Management
Consulting, LLC

For those not familiar with **agile software** development, it is a collection of methods and philosophies for developing information technology and software products by employing methods that encourage speed, flexibility, and an emphasis on customer value. Like most agile books and articles, this

book's audience is software developers, even though the principles and practices apply to product development in other industries.

In the preface, author Sanjiv Augustine writes, "When first placed into position of leading an agile team nearly five years ago, I had precious little guidance to assist me in my job. This is the book that I wish I had then." (p. xxiii) Given the author's intended audience and objectives, there is much to like about this book. The inside cover provides a table of the "Agile Manager's Roles and Responsibilities" which include three guiding principles, under which he lists six practices, each of which provides more detail (52 bullet-point concepts). The reader can obtain a quick overview from this summary, which loosely matches the chapters. Augustine supplements the book's ten

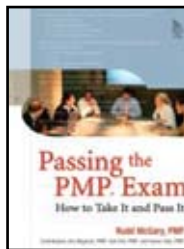
chapters with useful information in the preface, introduction, precludes, afterword, and index.

The book's prelude provides a narrative of a disguised project called Phoenix that was in trouble, but miraculously "rises from the ashes and soars into the sky" (p. 18) due to a skillful agile project manager. The principles and practices include fostering alignment and cooperation through the practices of organic teams and a guiding vision; encouraging emergence and self organization through simple rules, open information, and light touch; and facilitating learning and adaptation through adaptive leadership.

Continued on page 7

Book Review: Passing the PMP® Exam How to Take It & Pass It

by Rudd McGary,
PMP



Contributors Jim
Blaylock, PMP;
Karl Kill, PMP;
and Karen Tate,
PMP, R.R. Donnelley, Crawfordsville,
Indiana. 2005, ISBN 0-13-186007-0

Reviewed by Stacey Warnke, PMP;
Taylor Corporation

Don't just take the PMP exam; Pass it,
the first time!

Less than 50% of PMP exam
candidates actually pass the exam on
their first attempt. But one group
passes at an amazing 80%+ rate; the
students of Dr. Rudd McGary, PMP.
McGary has spent years teaching the

PMP certification exam and helping
professional project managers prepare
for it. Now, he's integrated all of
these techniques and knowledge to
assist you in one book: Passing the
PMP Exam.

Dr. McGary shows you exactly what
the Project Management Institute
expects from you and exactly how to
be prepared for the certification
examination. Whatever your
experience, he'll help you rapidly
achieve deep mastery of PMI's Project
Management Body of Knowledge
(PMBOK). Other books cover
PMBOK, but this book is relentlessly
focused on helping you ace your exam
the first time.

This book offered practice tests at the
end of each chapter along with
answers and explanations. The
practice tests emphasized key points
from the chapters and tested the
reader's knowledge of the material
that was read. One disadvantage to
the end of the chapter tests I found

was that they were not written in the
same format as what you would
expect to see on the exam. Many of
the chapter tests simply presented
definitions where the reader would
select the best term to fit the
definition. This makes it more
difficult to get a true sense for what
the PMP exam will be like because
the exam questions are more
situational type questions.

I found the book especially quick and
easy to read compared to other books
that I have read in preparation for the
exam. Many of the concepts presented
were straight forward and easily
understood.

I would recommend this book to be
used as supplemental material in
preparation for the exam but not the
exclusive source due to its simplistic
approach.

*A portion of this book review was
missing from the December 2006
issue. We are including the article in
its entirety.*

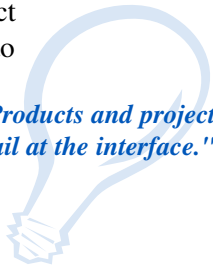
Front-Loading Problem-Solving *continued*

Front-loading encourages people to apply the principle of “fast to learn leads to fast to market.” The following discussion on decision framing, experimentation, and interfaces will help you accelerate learning in new product development.

Decision Framing

A goal of product development is to produce an ideal solution for all the constraints and requirements.

"Products and projects fail at the interface."



Decision framing is the activity of defining the boundaries of the problem space: defining what questions the team should be asking. Most of us are familiar with the adage, “A problem well-defined is a problem half solved.” Recognizing that a goal of problem solving is picking among alternatives, decision framing also includes determining what criteria and weights it will use to evaluate its preferences about one option or another. Examples of criteria could include product life cycle cost, design flexibility, and opportunity to enter new markets.

It is more common than not, in my experience, for NPD teams and organizations to frame their NPD goals narrowly and unimaginatively. As I described in an article for PMDA's *Visions* magazine, many product developers are better characterized as “order takers” rather than “innovators” (2). Product developers are generally among the best educated and most talented people in the organization. Yet, their talents provide no assurance that they possess superior problem-solving abilities. In fact, most experts tend to

fall into the trap of overconfidence in their data and in their decisions. I find myself agreeing with the observation of former CIA analyst Morgan D. Jones about the hubris found by many experts: “Most of us are quite comfortable with, if not proud of, our ability to analyze and solve problems; and we generally do moderately well at it - at least we like to think we do. The fact is, however, that *we mess up in our efforts to analyze problems much more than we recognize or are willing to admit.*” (3)

The best way to improve decision framing is to invite people into the problem solving process who have different perspectives on markets, customers, and technologies. I find that it is more important to focus on what you don't know compared to what you do know. I suggest that you make a list of answers to these three questions: “What do we know? What don't we know? and How do we find out?”

Experimentation Mindset

Learning-by-experimentation needs to become a part of your conceptual vocabulary. Your goal is to compose thoughtful experiments, get data quickly, and move to the next priority. Here are some questions to guide the front-loaded problem solving approach:

- Where are our biggest areas of uncertainty? There are four kinds of things that the product team wants to learn about: market uncertainty, technical uncertainty, resource uncertainty, and organizational uncertainty.
- What questions, if answered, would help us learn the most?
- How much work is it going to be to get answers to our questions, and is it going to be worth it?

Prototyping is also a helpful way to get answers to these questions. It is important to note that a prototype does not have to have high realism if

it can provide a rough answer quickly and at low cost.

The importance of interfaces
Make sure your front-loading activity includes identifying and defining interfaces. Interfaces are the place where two or more subsystems meet and/or interact with each other. The interface is typically not part of the subsystem but is a design constraint for the subsystem. The interface is the “glue” of the product. Interfaces are significant for several reasons. First, products and projects fail at the interface. Visit the USA Consumer Product Safety Commission (CPSC) web site, key word search for product recalls related to “fit,” and you will find several dozen recalls attributable to interface design. Here is one example. In February 23, 2006, CPSC issued a press release describing the voluntary recall of a children's party game called Chicken Limbo (4). Exhibit 1 is a picture obtained from the CPSC Web site. Unfortunately, the game's two side poles do not fit in their base properly. This interface misfit causes the game to fall apart, and tumble upon children and bystanders. CPSC reported that Chicken Limbo caused 23 injuries, including a fractured foot. (See the footnotes for additional examples of CPSC recalls that originate from poor design of interfaces.)



Chicken Limbo New Product: This product fell apart causing injuries and a product recall. Where do most products fail? At the interface!

Continued on page 5

Front-Loading Problem-Solving *continued*

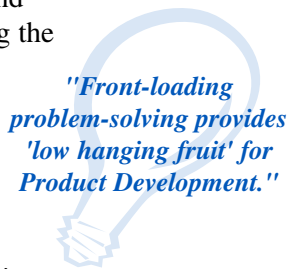
Here are five important questions that Ivy Hooks and Kristin Farry recommend in their book *Customer Centered Products* (5):

1. What does this element do to the larger system?
2. What does the world do to this element?
3. What is the worst thing that could happen across this interface?
4. Is this interface likely to change during development?
5. Is this interface likely to change after the product is in use?

Another reason for including interfaces in the front-loading has to do with the trend toward increased use of product platform management and lifecycle management. Product architectures that stress modularity are increasingly significant to product innovation success. As modularity increases, the number of interfaces also increases, which increases complexity and the risk of failure. To some extent, the “coupling” of the interface determines whether a failure can bring the entire system down. Nevertheless, these are all design issues that good product developers would rather resolve as early as possible.

The final reason for the significance of interfaces is ironic: members of project teams often overlook the task of defining and understanding interfaces. Often, in the rush for speed and because interfaces are abstract, project managers are not fully aware of the internal and external interfaces. Interface issues become apparent later in the project during design reviews or testing. Making changes adds cost, complexity, and stress; but, what if they were managed earlier?

One project leadership remedy for identifying and understanding the implications of interfaces is to schedule a risk analysis and response planning session early in the project. Chapter 8 of the *PDMA ToolBook 1* describes a process for performing a risk clinic (6).



Leadership

I included the word *important* in this article's introductory paragraph that defined front-loading. While your criteria for recognizing what is important may be different than mine, we can probably agree that individuals on the development team probably do not perceive important problems - like interfaces - as tasks for which they want to volunteer. When there is float in the project schedule - and often where there isn't - I observe many individuals apply effort to 1) what is easiest to work on and 2) what is “fun” (that is, what is personally interesting and challenging to the individual). Furthermore, people tend to avoid work that puts them into confrontation with other people. Consequently, the norm for most organizations is “back loaded” problem solving where individuals wait until their “late start date” to tackle their most challenging problems. The “low hanging fruit” for improving product development is simple: develop individual and collective capacity for leadership. While some view the project manager as the “schedule mechanic,” the emerging view is that this individual is also the “chief learning officer” and the “chief integration officer.” Project-level leadership, whether it is individual or collective, continues to be fundamental to fast innovation.

About the Author

Greg Githens is a principal with Catalyst Management Consulting LLC. Greg is the co-founder of the NPD SIG and past Chair

References

1. Thomke, Stephan and Takahiro Fujimoto. The Effect of “Front-Loading” Problem-Solving on Product Development Performance Journal of Product Innovation Management Vol 17, Number 2, March 2000.
2. Githens, Greg. “From order taker to innovator - why asking good questions enhances innovation and leadership.” Visions April 2006.
3. Jones, Morgan D., The Thinker's Toolkit, New York: Random House, (1995).
4. <http://www.cpsc.gov/CPSCPUB/PREREL/prhtml06/06096.html>. Many other product recall press releases also can be found at <http://www.cpsc.gov/>. For example, see <http://www.cpsc.gov/cpscpub/prerel/prhtml06/06130.html> for how a fuel line on engines can become loose or disconnected, resulting in a fuel leak; and <http://www.cpsc.gov/cpscpub/prerel/prhtml06/06129.html> for a description of portable projectors and projector lamps posing shock and fire hazards.
5. Hooks, Ivy F. and Kristin A. Farry. *Customer Centered Products, Creating Successful Projects Through Smart Requirements Management*. New York: AMACOM (2001).
6. Belliveau, Paul, Abbie Griffin, and Somermeyer, Stephen. *The PDMA Toolbook for New Product Development*. New York: John Wiley & Sons (2002).

Overcoming Obstacles in Planning the Product Launch

by Steven Haines, *Sequent Learning Networks, Inc.*

ABOUT THE AUTHOR

Steven Haines is the founder and president of Sequent Learning Networks, a training and advisory services firm with cross-industry, international clientele. Sequent focuses on product management and marketing professional development.

The product launch is one of the most visible activities in product management because it represents the pivotal handoff between the structured new product development process and the less structured activities of post-launch product management. Because the launch is so visible and often accompanied by much fanfare, its success or failure quickly becomes apparent. Recent interactions with clients in industries as diverse as financial services, life sciences, technology, and the communications industry reveal that launches are less successful than desired for a variety of reasons. We would like to see our clients launch the right products at the right time to the right customers by consistently using a best in class framework. Furthermore, the improved chances of launch success can be realized when stakeholders learn to ask, and answer, the most important questions about the product, the organization, and the supporting activities for the product launch.

This article isn't the be-all and end-all for orchestrating the launch. Rather, its purpose is to bring to the surface the most recently cited issues related to launch failure, our general comments about these reasons for launch failure, and some simple things you can do to overcome some of these issues.

Continued on page 7

Reason for launch failure	Comments
The product is launched without a solid understanding of the right time to launch	<p>Many organizations do not have a real sense of when to launch. The most common reasons for the timing of a launch include:</p> <ul style="list-style-type: none"> • The product is completed and tested so is ready to go to market • Products are released on a time table like once a quarter because • It's efficient for the organization • The product is to be released at a trade show • The product must be launched as soon as possible because a competitor launched a similar product
The right stakeholders are not available or committed to the launch process	<p>Having a committed team is critical to a successful launch. The most common reasons we have heard for the lack of stakeholder involvement is as follows:</p> <ul style="list-style-type: none"> • Roles and responsibilities are not clearly understood • People make commitments but are not able to actually deliver • Because they don't fully understand what they have to deliver, or, they don't have enough support from their managers to deliver on their commitments
Sales isn't trained and does not understand how to position the product	<p>One of the most frequently cited complaints from product teams is the lack of interest from the Sales organization. One of most frequently cited complaints from the Sales organization is the lack of outreach by product management and marketing. This is related to the point above about stakeholder involvement. The Sales organization should be a major stakeholder group and should be involved in launch planning from the very beginning. Furthermore, the value of Sales in delivering the message cannot be emphasized enough.</p>
Sales compensation programs are not designed to motivate Sales to sell the product	<p>It is not uncommon for Sales management to work within their functional silos. More often than not, our clients reveal that there is a breakdown between the product team and the Sales group because of misaligned compensation programs. In order to produce sales, there must be alignment between the market goals for the product, the strategy of the organization, and the ability and willingness of Sales to carry the message and sell the product.</p>
The value proposition is incorrect	<p>The value proposition, especially in business-to-business marketing is the ultimate manifestation of segmentation. The value proposition represents the qualitative or quantitative benefit as perceived by the customer, in the language of that customer. Remember too, that there is a distinction between a market segment and a customer segment. Corporate customers have purchasing managers, financial officers, and users or internal consumers. Each of those may influence the purchase, but knowing whose problem you're solving is the most important variable in presenting the value proposition.</p>
The product's attributes do not reflect true customer needs	<p>Many product teams seem to think that loading the product up with features is the best thing. Engineers think so because it represents their technical prowess. Marketers think so because they think the product will be competitive. Everyone has an idea about the products' attributes. The thing to think about is whether or not the product attributes actually solve the customer's problem.</p>
Operational support systems are not set up to do order taking, complaint handling, billing, fulfillment, logistics, procurement, and other essential support activities	<p>Recently, we were delivering a Product Strategy Workshop and one of the product managers said that one of the most important lessons she learned about preparing for the launch was that she forgot to enter the product codes and prices into the ordering and billing systems. The other thing she forgot to do was to make sure that the Customer Service department had enough staff to talk intelligently to customers who called in asking questions. She learned by her mistakes. Need we say more?</p> <p>Product managers may sometimes overlook some of the more intricate areas in preparing for the launch. For example, making sure there is enough inventory (if required) or whether the product can actually be ordered and shipped.</p>

Overcoming Obstacles

Continued

As we said, we cited seven reasons that product launches tend to fail, representing what we have heard from our clients and from what we have gathered in our benchmarking. Of course, there are many more. Launching products is part of the new product development (NPD) process and is one of the most visible ways in which we can understand whether or not a product will be successful.

Therefore, it is critical that product managers and cross-functional stakeholders adhere to the following guidelines:

1. Get stakeholder buy-in early in the process. That means when the Business Case is being prepared, not after development begins.
2. Manage the launch like a major project. Use project management techniques to make sure that roles are clearly defined, tasks detailed, agreed-upon dependencies, and
3. communication about risks.
3. Ensure that the marketing plan and the strategies driving that plan are linked to any launch activities.
4. A management oversight group should be in place to provide support, remove obstacles, and provide an escalation path if needed.
5. Establish the most appropriate metrics to manage and control the launch.
6. Check to make sure that the value proposition (which should have been agreed upon at the time the Business Case was developed) is still valid at the time of the launch.
7. Establish a meaningful market window for the product. Some industries have trade shows where they want to roll out their new products, but sometimes the market isn't ready for the product. Avoid pushing the product out the door just because it's done.
8. Make sure that all supporting systems are in place and ready to do things like process orders, handle complaints, deliver products, handle returns and replacements.

9. If you're working in a company with multiple products, make sure there is a launch oversight group looking across all the products to make sure that there isn't competition for internal resources and to make sure that marketing messages are aligned.
10. If industry analysts are to be involved, make sure that the public relations group is engaged and that all messages are consistently driven around the core benefits of the product.

As stated earlier, this article isn't meant to represent a panacea for orchestrating the launch. It should be used as another tool in the product management and marketing tool kit to remind you about the importance of launch planning and oversight in improving the probability that your product launches will be more successful.

Managing Agile Projects

Continued

A novice leader of an agile software project could pick up this book and find numerous useful tools and ideas. Regrettably, there are some teases that deserve more explanation. For example, the book describes a "release planning game (so named for its use of game theory in balancing rights and responsibilities among the different roles)" (p. 21), but doesn't explain why it is a game, what are the rules, and how one plays the game.

Augustine's agile software development specialization is Extreme Programming (XP), and he also mentions other agile approaches such as Scrum, Crystal, and Feature Driven Development. Their common philosophies include small teams, high interaction, iteration, and emphasis on customer responsiveness.

Because Augustine favors XP in his examples, this book would be of most relevance to the XP practitioner.

The greatest weakness of the book is its shaky linkages to project management theory. Augustine establishes a strawman description of "predictive, plan-driven project management techniques such as those based on PMI's *Guide to the Project Management Body of Knowledge* (p. 23), and implies that it is inadequate. To be sure, there are individual practitioners and experts who champion rigid, cumbersome, authoritarian, control-oriented practices, but the perceived problems are probably more with the application than with the theory. Augustine serves up his own wordy and ambiguous definition of agile project management: "the work of energizing, empowering, and enabling project teams to rapidly and reliably deliver business value by engaging

customers and continuously learning and adapting to their changing needs and environments" (p. 23) without showing that the existing definitions are inadequate. Agilists are using a revolutionary rhetoric, including a manifesto (p. 22), that suggests that they have "found a better way" (p. 22) of managing projects and creating products. This book champions a new paradigm; it would be much convincing if it could show a grounded understanding the strengths and weaknesses of the current state of the art of project management theory and practice.

Overall, this book addresses its intended audience and target topic in a very serviceable way. It is a step forward in framing the distinctions of agile practices from traditional control-oriented ideas, although it is not the seminal text on agile project management that the field needs.

How are We Doing?

Does *Project Management Innovations* provide value to you? What do you like or dislike? How can we better serve your needs? Would you like to submit an article? Send an email to the Vice-Chair Communications, blakedenison23@yahoo.com.

Advertising Space Available

The NPD SIG offers advertising to help cover the growing expenses of publishing *Project Management Innovations*, and to serve membership by letting them know of products and services available. If you are interested, please contact the Vice-Chair Communications.

2007 Rate List (per issue):

Business Card: \$50
Quarter Page: \$100
Half Page: \$200
Full Page: \$400

Project Management Innovations
Copyright 2007, All Rights Reserved
Project Management Institute
New Product Development Specific Interest Group

Project Management Innovations is published as a membership benefit by, and for, the members of PMI's NPDSIG. The purpose of this publication is to facilitate networking and information exchange.

Visit the NPD SIG Web Site
www.pminpdsig.org



New Product Development
Specific Interest Group

Paula Anderson
NPD SIG Administrator
4848 Tri Oak Circle
Wyoming, MN 55092

NPD SIG 2007 Board of Directors

Here are your NPD SIG officers for 2007 and their email addresses. As your representatives, they need and welcome your insight. They are a great way to start networking in the NPD SIG.

Past Chair

Kimberly Johnson, PMP, NPDP, kimgregleigh@earthlink.net

Chair

Eric Morfin, PMP, pmpharma@gmail.com

Vice-Chair Communications

Blake Denison, PMP, blakedenison23@yahoo.com

Vice-Chair Finance & Administration

Brian Piper, PMP, brian.piper@andrx.com

Vice-Chair Membership

Curt Raschke, PhD, craschke2000@yahoo.com

Vice-Chair Special Projects

Eric Cahill, PMP, eric.c.cahill@boeing.com

Web Master

Olaf Diegel, olaf@cds.co.nz

Newsgroup Manager

Alex Walton, PMP, pmguru@yahoo.com

Survey Manager

Fred Abrams, PMP, CPL, fredabrams@aol.com

Teleconferences Manager

Philip Schmitt, PMP, philip.schmitt@mksinst.com

NPD SIG Administrator

Paula Anderson, paulaanderson5@msn.com

PRESORT STANDARD
U.S. POSTAGE
PAID
WYOMING, MN
PERMIT NO. 40