

Construction of Facilities

April 1999

TABLE OF CONTENTS

FOREWORDi

1. INTR	ODUCTION
	BACKGROUND
	DEFINITION 2-
	PARTNERING AND OTHER "BEST PRACTICES"
	LITIGATION → ALTERNATE DISPUTE RESOLUTION → PARTNERING
	BENEFITS OF PARTNERING
	SUMMARY
2. <i>PRE-</i>	WORKSHOP PHASE
2.A.	PARTNERING STRATEGY
2.B.	ENROLLING THE PARTNERS 6-
2.C.	FACILITATORS
2.D.	COSTS OF PARTNERING SERVICES
3. WOR	KSHOP PHASE
3.A.	WORKSHOP PLANNING 9-1
3.B.	PURPOSE
3.C.	CONTENT/AGENDA 11-1
3.D.	WORKSHOP EVOLUTION
3.E.	DELIVERABLES
4. PROJ	TECT PHASE
4.A.	USING THE WORKSHOP REPORT
4.B.	DEVELOPING THE PROJECT TEAM
4.C.	FOLLOW-UP WORKSHOP
4.D.	INTEGRATING NEW PLAYERS
4.E.	DEALING WITH CONFLICT
5. CLOS	SEOUT PHASE
5.A.	THE TRADITIONAL FINISH
5.B.	THE CLOSEOUT WORKSHOP

FOREWORD

The NASA Headquarters Facilities Engineering Division provides leadership and insight toward the goal of facilities readiness at minimum cost in support of NASA programs. We pursue opportunities for optimal plant performance by maintaining a global perspective and fostering continual and breakthrough improvements in planning, construction, operations, and maintenance processes. The Partnering concept is one of these improvements.

Efficiently building, renovating, repairing, and maintaining quality government facilities becomes an increasing challenge in times of limited resources. In the past half decade, Partnering has had a profoundly beneficial impact on the delivery of both large and relatively small projects in the U.S. Although benefits have been gained in both the private and public sectors, public agencies have seen the most dramatic improvements.

NASA facilities personnel have already achieved significant improvements by partnering with NASA internal organizations, clients, Architect-Engineering firms, construction managers, general contractors, subcontractors, operators, and maintainers. The bottom line is to establish a personal relationship with your counterparts to achieve a common goal or goals. It takes effort, trust, understanding, and forbearance. The Partnering relationship is based on personal and professional integrity. Effective Partnering does not mean lowering standards or cutting corners nor does it take the place of any contract requirements. It does mean more listening, understanding, and trusting—believing that we can all be winners by working together.

Partnering can benefit all parties involved in a project. It creates a team environment and attitude between team members or stakeholders. If the Partnering involves a contract, the terms of the contract are generally the same as in non-partnered construction contracts. While Partnering's initial focus was on reducing or eliminating litigation on construction contracts, its use has been expanded to the entire project delivery cycle and many other positive benefits are being realized. These benefits include decreasing delivery schedule and project costs; reducing accidents; and improving project quality, operability, and maintainability as well as the morale of the project team.

This Partnering Desk Reference contains resources helpful to the Partnering novice or veteran; to procurement specialists, project managers, and contractors. The preparation of this Desk Reference fulfills a recommendation of the Center-led Partnering tiger team that developed the Agency Facilities Partnering strategy in August of 1997. Use it. Expand upon it. Use your initiative in applying the "working together" process. It will help you.

W.W. Brubaker

Bill Bulala

Director, Facilities Engineering Division

PURPOSE AND USE OF THIS DESK REFERENCE

PURPOSE

PROVIDE GUIDANCE ON WHEN AND ON WHAT LEVEL TO APPLY PARTNERING.

PROVIDE APPLICATION GUIDANCE TO NASA CoF PROJECT MANAGERS, PROJECT TEAMS AND THEIR PARTNERS TO ACHIEVE MORE EFFECTIVE AND EFFICIENT PARTNERING RESULTS.

PROMOTE A MORE COHESIVE, CONSISTENT NASA CoF PARTNERING PROGRAM.

NATURE OF CONTENTS

This Desk Reference contains background and introductory information for the person who is unfamiliar with Partnering as well as suggestions, checklists, samples, and case studies which can be used, tailored, and adapted by the person who is experienced in Partnering. Although the examples are generally construction phase Partnering, the Desk Reference can be used at any stage of the project: from pre-project planning, through concept and design to construction and closeout. It can also assist those interested in long-term Partnering within or between organizations.

Partnering must be a voluntary process if it is to influence the personal relationships which bind together the project team; it cannot simply be mandated by top management. The Desk Reference is, therefore, focused on the project manager. It provides suggestions and examples, consolidating experience and expertise to save effort by the implementers in the field.

USE OF THE DESK REFERENCE

Procedures contained in this document should not restrict action or limit initiative. Excellence in Partnering will require project managers and other frontline professionals to innovate, modify, and go beyond the information provided here.

Finally, share improvements and ideas by recommending changes and additions to this Desk Reference. Contact HQ/JX 202-358-1133. The author/editor also welcomes any questions, suggestions, or discussions; please call/fax Chip Wanner at 480-837-0455/4811.

INTRODUCTION

1.A. BACKGROUND

The construction industry has been experiencing increasingly significant problems for two or three decades. Increasing amounts of resources have not ended up in concrete and steel, but rather in claim preparation, litigation, conflicts, the exchange of escalating stacks of correspondence, and inefficiencies caused by lack of cooperation and communication.

The decreasing trend of construction productivity has been especially true in the public sector. This is partly due to the added pressure of competition flowing from low bid, fixed-price contracts. With risk having been increasingly shifted to the contractor, communication between owner and contractor suffered.

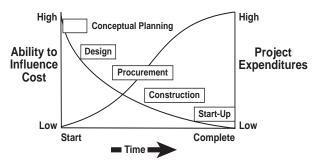
When you combine these factors with the naturally self-sufficient, independent nature of engineers and contractors, it is not surprising that a project would begin with project team members expecting problems and mistrusting each other. At the beginning of a project, the project team members would see each other as opposing sides that must protect their own interests, thus causing communication to be stilted and guarded. As a result, the teamwork prevalent two or three decades ago was occurring on fewer and fewer projects; litigation costs to all parties was escalating; and all parties began to realize something had to change. It was into this climate, in the late 1980s, that construction project Partnering was introduced to the public sector.

By the mid 90's, the major design and construction associations and most federal and many state/local agencies had endorsed construction project Partnering. Results, although generally favorable, were mixed. NASA also experienced mixed results. The major difference between the more successful and the less successful Partnering projects appears to be how Partnering was applied. Applications of the principles and techniques described in this Desk Reference have increased the chances of success. Partnering can be applied poorly or well. The Desk Reference is developed to help you apply Partnering effectively.

How does Partnering differ when applied at different phases of a project, on a long-term relationship involving many projects, or internally? The basic philosophy, premise and approach is unchanged. The basic approach of a workshop is also similar. However, there are some differences. Partnering is used on both firm, fixed price, and negotiated projects. Partnering at concept and design stages generally starts with a more comfortable, open working environment, requiring a different emphasis. Internal Partnering is tougher because of the ingrained relationships and paradigms—and the threat to job change/security. Strategic alliances are also challenging because you must deal with programmatic processes generic enough to deal with many different circumstances, people and projects. Fundamental to all Partnering is that each partnered project (or program) is unique, so the Partnering process and resulting workshop(s) must, therefore, be tailored to the project (or program) circumstances and to the needs of both participating organizations and individuals.

The construction industry has long felt the impacts from reacting to problems rather than preparing for them ahead of time. The cost-influence curve below perhaps best captures this issue, demonstrating the low cost and high impact of proactive decisions and high cost and low impact of reactive decisions. However, the construction industry is finally getting serious about addressing the situation. Partnering, front-end loading, interactive planning and preproject planning are producing better projects at lower costs by investing more time earlier in the project cycle. At the beginning of the project, when the rate of expenditure is low, the project may not attract management attention. The ability to best influence the success of the project is in these early stages. The key point is that the early phases are critical to making important, long-lasting decisions. Therefore, bring the team together earlier!

Cost Influence Curve



Source: Construction Industry Institute

These same factors have caused Partnering to be started earlier in the project cycle. Originally used only at the construction stage, more Partnering workshops are being held during design and project development and even before the scope of work is defined. This trend will continue—to the benefit of the end product and all parties.

1.B. DEFINITION

THE NASA DEFINITION OF PARTNERING

Partnering is a philosophy which encourages voluntary, organized processes by which two or more organizations, with shared interests, perform as a team to achieve mutually beneficial goals by maximizing the effectiveness of each participant's contribution.

There are three Partnering applications:

Strategic Alliance (NASA + others)

Interagency

Agency with contractor (e.g., center support services)

Enterprises

Long term

Internal Teambuilding (within NASA)

Intra-center

Long term

Project Partnering (NASA + contractors + third parties impacting project)

For the life of the project

PARTNERING IS:

An attitude change (paradigm shift)

Teamwork

The growth from simple teams to a joint team

Cooperation

Timely issue resolution—problem prevention

Mutual respect

Trusting teammates

Employees empowered and accountable

Financial gain for all

Maximizing resources

Win-win negotiations

No litigation

Dealing with project issues together

Doing it right the first time

A planned issue resolution process

A strategy for excellence

A commitment to common goals & processes

A project-long process

A focus on project, not organization

Continual improvement of the project team

Synergy—blending thoughts & sharing expertise

PARTNERING IS NOT:

A cure-all for all problems

A substitute for good project management

Accomplished during a workshop

A phenomena which changes organizational

cultural or individual workstyles overnight

Easy or free

A process that is mastered without a lot of

practice and experience

For all situations

Appropriate when common goals do not exist

Contained within a contract

Easily adopted once a difficult project has

escalated adversarial relationships

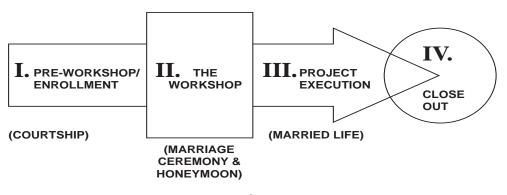
Fully effective if employed by only part

of the project team

Merely a charter

THE FOUR PHASE PARTNERING PROCESS

The process of Partnering a project starts very early in the project and continues throughout the life of the project. Before getting into the details, let's look at the big picture—a framework in which to put the pieces. The four chapters of this reference correspond to the four phases depicted below.



A small investment by senior champions prior to the workshop can set the tone of the relationship and make the workshop much more fruitful. The real effort at developing and improving the team occurs day by day throughout the project after the workshop.

Initially, Partnering participants see the workshop (II) as all the efforts and rewards of Partnering. As they gain experience, they realize the execution phase (III) is the real heart of Partnering. The next level of sophistication generally occurs when they spend time enrolling the partners prior to the workshop (I). Only the most progressive Partnering practitioners recognize the importance of the close out phase (IV).

1.C. PARTNERING AND OTHER "BEST PRACTICES"

Value Engineering (VE), Constructability and Pre-Project Planning (P³)* are, with Partnering, the first "best practices" being applied by NASA; others will follow. To be effective, every "best practices" requires a team effort applied early in the project. Use of this reference will assist you in obtaining outstanding results in all these areas. Some examples follow.

In the **VE** (or, more broadly, value management) area, Partnering can open doors for creative technical and construction solutions. As the contractor and owner develop mutual trust and open communications, the receptiveness on both sides expands, and ideas for savings can be fruitfully developed through a formal VE program or informal agreements between NASA elements and contractors. Effective **constructability** requires open interaction between all team members—planners and designers with procurement, construction, operations and maintenance. **Pre-Project Planning** brings the project team together early—developing shared goals and making joint decisions.

* Definitions:

Pre-Project Planning: "Process for developing sufficient strategic information with which owners can address risk and decide to commit resources to maximize the chance for a successful project."

Constructability: "The optimum use of construction knowledge and experience in planning, design, procurement, and field operations to achieve overall project objectives."

Value Management: "A service which maximizes the functional value of a project by managing its development from concept to completion and commissioning

through the examination of decisions against a value system determined by the client. *Value Management* includes the <u>proactive</u> *Value Engineering* as well as *Value Analysis* which is a <u>review</u> process."

1.D. LITIGATION → ALTERNATIVE DISPUTE RESOLUTION → PARTNERING

One response to the tremendous outlay of time and money involved in litigation is to seek alternative forms of dispute resolution. Alternate Dispute Resolution (ADR) formats such as mediation, arbitration, dispute review boards, and mini-trials have become more popular since they are far cheaper, quicker and, generally, fairer than litigation. Partnering takes this litigation to *alternative* dispute resolution continuum a step further: to *preventing* disputes; from reactive to proactive. If all parties embrace Partnering, disputes may be avoided. Litigation *and* ADR should then be unnecessary.

Partnering reduces the potential for litigation in several ways. The parties to a contract talk more openly, they acknowledge that disputes *do* occur and develop methods to resolve disputes. Project teams should commit to an issue resolution process that encourages decisions to be made at the field level. Issues not resolved are mutually escalated in a "friendly environment" within Partnering organizations. The goal is to *prevent* unresolved issues from leaving the chain of command and becoming disputes. Deal with the *issue*, motivated by the benefit to the project, and do not seek "fault" or parochial interests. Therefore, if ADR must be used, many would claim that the Partnering efforts have failed or, at least, have not achieved their full potential.

Two philosophies regarding ADR exist in the Partnering community. More aggressive Partnering organizations may have such faith that problems will be resolved by their issue resolution process that even to address ADR would signal a lack of faith or negative attitude toward Partnering. The more cautious organizations establish an ADR process as a contingency, in the event issues cannot be resolved within the chain of command of Partnering organizations.

Arizona Department of Transportation, formerly averaging \$5 million annually in litigation costs, did not have a litigated claim on any of the over 400 projects partnered from 1991 to 1997. The Texas Department of Transportation and the U.S. Army Corps of Engineers have both experienced decreases in litigation that are almost as dramatic. For those agencies that have "mature" Partnering programs <u>litigation</u> is no longer an issue. They focus instead on positive issues: better cost effectiveness, higher quality, no accidents, and faster completion.

1.E. BENEFITS OF PARTNERING

Measuring the benefits of Partnering presents an interesting challenge. Since each project is unique, it cannot be directly compared with another project. Therefore, who can say how a partnered project would have turned out if it was not partnered or a non-partnered project if it was partnered? However, several agencies and institutions have attempted to assess the impact of project Partnering over the last few years. In general, their approach is to compare a number of partnered projects with similar projects not partnered. TABS B-F provide a sampling of these conclusions.

The results unanimously demonstrate the benefit side of Partnering. Most agree that project performance is improved in the following areas:

Litigation

Schedule

Cost

Safety

Reduction of paperwork

Communication

Client satisfaction

Team and individual morale

Rework

Surveys by the Construction Industry Institute and others indicate an overwhelming majority of those experiencing Partnering want to do it again. On the other hand, virtually no one has seen Partnering realize its full potential. Partnering veterans have generally agreed that: (1) Partnering improves with experience—the fifth partnered project is likely to have more benefits than the first; and (2) Partnering cannot solve all problems and does nothing by magic—but it may salvage a disastrous job and make a good one excellent.

1.F. SUMMARY

Most construction industry professionals, whether they happen to work for an owner, design firm, or constructor, realize teamwork will produce a better, more efficient, safer, and cost effective project (with a little reflection, they will also realize that most construction problems are caused by *lack* of teamwork.) They would also *rather* work **with** than **against** the other players. Partnering provides them the opportunity, the framework, and the process to do what they should do and want to do—<u>work together</u>.

A project team is the sum of many *individuals* on that team establishing and improving personal relationships with one another. These relationships are built on evolving trust in and dependence upon one another. Attendance at a single Partnering workshop does not establish this kind of relationship. It must be built over a period of time and shared challenges. This takes time and dedicated effort. **Partnering is not a two-day event, it is a project-long effort.** Likewise, Partnering benefits continue to grow as individuals and organizations gain experience in Partnering.

PREPARATION PHASE

(How to Get Partnering Started on a NASA Project)

2.A. PARTNERING STRATEGY

THE CENTER CHAMPION

Partnering can have a profound impact on every stage of the project delivery cycle. Although the concept of Partnering is quite simple, effective implementation involves many choices, pitfalls, and opportunities. It takes experience along with study and insights to individual behavior and team dynamics to implement Partnering well. Organizations using Partnering generally identify a Partnering coordinator, or Champion, to support their Partnering efforts. The Champion will accelerate the project manager's learning curve as well as help avoid mistakes and capitalize on opportunities, saving resources and increasing Partnering benefits. Many involved in NASA partnered projects have stated "We should have done such and so." The Champion should be a repository for these lessons learned, gathered from within and outside his/her organization, as well metrics measuring Partnering's impact.

Within NASA, it would appear most effective to have a (part-time) champion at each center, maintaining the flexibility, access, and local responsiveness important to a decentralized agency. A Partnering Advocate at head-quarters supported by a network of center champions could promulgate policy that assists efforts and maintains a data bank on Partnering resources such as facilitators. A suggested list of functions and characteristics for these positions is at TAB G. A sample start-up process is at TAB H, suggesting some steps the Champion may wish to manage, perform, or influence.

THE EXECUTIVE'S ROLE

Perhaps more so than other activities, Partnering benefits are a function of senior management's support and commitment. Empowerment makes Partnering effective. Project personnel from the project executive to the junior inspector must not only have the authority to make decisions appropriate to his/her position and responsibilities, but be encouraged to use the full potential of his/her capabilities. Managers should encourage risk taking and forgive mistakes due to inexperience.

Management's commitment to Partnering may be shown by signing an initial letter to potential partners (TAB I) initiating the Partnering process. Personally

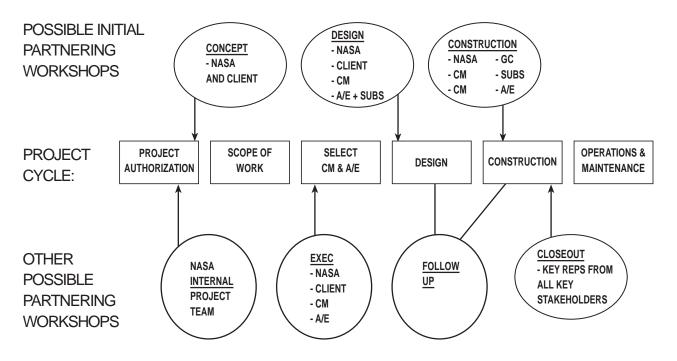
participating at workshops is critical. A method executives can use to maximize impact while conserving resources is to make a short (15-60 minutes) appearance at the beginning of the workshop to verbalize support and expectations. Another high-impact opportunity is to be present for the action plan presentations during the last hour or two of the workshop. The executive can quickly get a real sense of what will be needed to make the Partnering effort improve the project. More importantly, however, is the opportunity to validate, approve, and even increase delegated authority as well as congratulate the workshop participants for their efforts. In short, this is an ideal opportunity to effectively empower subordinates. A third occasion for a brief visit to the workshop is during a social hour. Of course, full time attendance provides the fullest opportunity to positively influence the success of Partnering.

One responsibility of the senior person present at a workshop is to encourage subordinates to contribute as much as possible and avoid dictating details him/herself. It is important for all senior management to support the Partnering process so participants will enter into the relationship in a more positive frame of mind. This encouragement significantly increases the degree of success. The challenge is to walk the talk. All too often, the folks in the trenches become disenchanted when they see actions they perceive to be inconsistent with words.

THE SYSTEM—PROGRAMMING PARTNERING

The first key decision is whether to formally partner the project. The worksheets at TAB J may prove helpful in deciding whether or not to partner and to what degree. If the project is to be partnered, the second decision is when in the project delivery cycle to hold the workshops. Consideration must be given to the challenge of molding individuals into a functional (e.g., owner, designer, builder) team as well as blending the functional teams into a joint, project team. The chart below and the matrix at TAB K should provide some assistance in determining when in the project cycle to hold a Partnering workshop. Once the decision is made that the project is to be partnered and what project phases will be involved, an announcement of intent should be incorporated into the solicitation. (See TAB L.)

Possible Partnering Workshops for a Project



2.B. ENROLLING THE PARTNERS

Almost everyone who has participated in a Partnering workshop can cite instances of key players who were reluctant, negative, or absent. The attitude with which one leaves a workshop is related to the attitude upon entrance. In order to start off with a positive attitude and ensure attendance, care must be taken in "enrolling" (getting "buy-in" or ownership of the process) the potential partners. These partners are often referred to as stakeholders.

For a designer or contractor, the first introduction to Partnering is likely by a Partnering specification in the solicitation. This should state Partnering is voluntary, not mandatory (see TAB L). If care is taken in the enrollment process, most potential partners will sign on. Once a contractor is identified, start as early as possible to inform stakeholders of the Partnering process and the importance of their participation. This does several things: it makes them feel more a part of the planning process (ownership); it increases the probability that they become team members before they have had a chance to develop adversarial relationships; and it increases the chances that their calendar can accommodate the workshop schedule.

Secondly, senior NASA management should communicate with senior managers from potential partners. This helps get the all-important top management commitment as well as communicating the importance of Partnering.

A typical scenario might be a telephone call from the Chief of Facilities following a congratulatory letter (TAB I). A checklist with suggested discussion topics for the telephone call follows.

INITIAL CONTRACTOR ORIENTATION CHECKLIST

- ◆ Congratulations on award.
- ◆ Looking forward to working with you for a very successful project.
- ◆ As mentioned in contract, we have adopted a Partnering approach.
- Would you like to work with us in fostering a Partnering attitude on this contract?
- ◆ (Explain Partnering or answer questions)
- ◆ We are available to meet with you to explain our Partnering approach. Would you like to meet? (Unless contractor prefers to meet at NASA, going to contractor's office makes a huge statement and will help immensely in establishing a good relationship.)
- ◆ To help us work together in leading this effort by example, we suggest you attend with us a

Partnering workshop as soon as participants are identified.

Finally, give the partners opportunity to understand your excitement regarding Partnering by allowing them to become educated. The Center Partnering Champion and this Partnering Desk Reference are valuable resources in this regard. Arrange for the first meeting to take place at the contractor's office or place and time of his convenience. This expression of being a real partner will make a very strong impression, opening the door to further education. Avoid coercion or intimidation. Remember, contractors likely have the paradigm that NASA gets what it wants by shifting all risk to contractors. Finally, include your partners in as much of the Partnering planning as possible: site location, selection of facilitator, date of workshop, etc.

The Partnering start-up process at TAB H includes several suggestions for enrolling potential partners.

2.C. FACILITATORS

ROLE

There is a general consensus on the value of a neutral facilitator to the Partnering process, particularly for the conduct of workshops. Those public agencies most mature and experienced in Partnering (U.S. Army Corps of Engineers, U.S. Navy, Arizona Department of Transportation) insist on the use of third party facilitators except for very simple/small projects, until such time that there is complete trust and confidence among team members. However, in-house facilitators have the advantage of low cost and greater familiarity with the organization, giving up, in some cases, only the participants' perception of objectivity. A low/no cost alternative to an inhouse facilitator is to develop an arrangement with another agency to exchange facilitators. The worksheet at TAB J may help decide which workshops are most suitable for external facilitators.

A good facilitator can help defuse issues, establish an environment conducive to building trust, help participants shift paradigms and help the team accomplish much more than would be possible without a facilitator. A few tips on using and selecting facilitators follow. Once again, start early. The best Partnering facilitators also act as consultants who can assist you in setting up the workshop, selecting attendees, choosing venues, etc.

How about a co-facilitator? A general rule of thumb is to strongly consider a second facilitator for groups over 25-30. Assuming they work well together, a second facilitator can and should add value to the workshop. A co-facilitator will add another pair of eyes and ears, handle

details behind the scenes, relate to those participants who might not "fit" with the primary facilitator, invariably think of just the right phrase and double the coverage of break-out groups. The average size (20-30 participants) workshop might achieve 10-30 percent better results with a second facilitator. A large workshop, when you are forced to have over 30 persons, has special requirements. Some agencies mandate a second facilitator for these large workshops. In these size groups, the extra eyes and ears, the "pulse taking" of the developing attitudes and the general attention to "other details" are remarkable additions. The issue, then, is cost for value received. Remember, workshop returns or benefits are generally several times the investment.

SELECTION

What should one look for in selecting a facilitator? Most will agree that the facilitator must be neutral and engender trust and credibility. Expertise in the following areas is appropriate: team dynamics, problem solving/process improvement, consulting/counseling, listening, organizational skills, and knowledge of construction. The facilitator should not criticize and should instill enthusiasm. Look for someone who will tailor his/her approach to the project requirements, existing environment, and needs and attitudes of the participants. Does the facilitator program time prior to the workshop to interview individuals from the primary organizations on the project team? Does the facilitator have knowledge of the industry and nature of the project? The facilitator should design the workshop based on these interviews and knowledge then have the experience and confidence to adjust the workshop agenda in reaction to the dynamics of individual interactions. TAB M contains a more detailed list of facilitator characteristics and duties.

Involve the two or three principal stakeholders in the selection of the facilitator, especially if they are paying part of the cost. The Center Partnering Champion or project manager may wish to develop a checklist similar to the one below to increase the facilitator's effectiveness. A good facilitator will be certified in the use of workstyle or personality assessment instruments. Finally, when choosing a facilitator, your judgment and that of past clients are important in matching the style of the facilitator to your situation.

FACILITATOR ARRANGEMENTS CHECKLIST

- ◆ Make contractual arrangements (dates, location, fee, and expenses, etc.)
- ◆ Contract should reflect that report would be required within one week of workshop

- Provide facilitator with tentative roster of attendees and short description of project.
- Encourage/require pre-interviews and also send a copy of the invitation and map to facilitator
- Copy of NASA Partnering Desk Reference (or extracts)

FACILITATOR PROCUREMENT METHODOLOGIES

Facilitation services can be procured by either NASA or a contractor/consultant partner. In either case it is helpful to obtain concurrence from all key parties regarding facilitator selection. Most organizations, public or private, that have periodic Partnering facilitation requirements have developed a short list of facilitators with whom they are comfortable and satisfied. This pre-qualification process is often formalized by public agency "owners." Having a few tried and tested facilitators familiar with your requirements and style has several advantages. It generates loyalty and makes informal follow up and internal nurturing more convenient. It allows for the flexibility needed to select the facilitator most available or compatible with all partners' needs. Continually using different facilitators perpetuates the adjustment period for every project and will generate inconsistencies. Using just one facilitator, on the other hand, may prevent you from discovering new opportunities, ideas, and techniques and may severely reduce flexibility in scheduling and satisfying the desires of your partners.

NASA Centers will be using Partnering services and will likely be part of a Partnering network consisting of the Center Partnering Champions and NASA Partnering Advocate. This network, using standardized workshop and project evaluations, is ideally situated to monitor facilitator effectiveness and costs. As this information is developed and fed back to the Center Partnering Champions, Centers will have a basis to develop a short list and/or evaluate recommendations from their partners. One selection protocol could consist of Centers developing a short list of facilitators from which their partners could make a selection. Either NASA or the contractor can do the procurement. Regardless of the cost sharing proportion or the organization procuring the facilitator, the facilitator should treat all players as equal clients—with a successful project as his/her focus.

2.D. COSTS OF PARTNERING SERVICES

COSTS

The costs of facilitators can vary greatly. Facilitators with little construction Partnering experience may be quite inex-

pensive. Rates vary from one geographic area to another. Some facilitators charge a fixed price per workshop day; others charge by the hour. A big variable is in pre-workshop costs and the extent of interviewing required to understand the individuals involved and their attitudes toward Partnering. Those facilitators who do little tailoring or customizing need little or no preparation time. The cost of the workshop report is handled in various manners. Most will add expenses to their fee. Some will charge more for the first day than the second day. A half day is treated the same as a full day by some; others charge less. Some will charge extra to administer personality or workstyle instruments. Total facilitator costs can range from under \$2,000 to \$5,000 per workshop day. The bottom line should be value, not cost. Involvement in workshop preparation and a successful track record are good indicators of value.

The facility costs, to include breaks and lunch, can run from \$20-\$40 per day per person, depending on location. Normally budgeted as an internal expense, they can also be added to the facilitator's contract. It may be more efficient for a Center Partnering Champion to handle facility arrangements. However, the project manager should retain responsibility for the workshops. Some workshops will also incur travel and per diem costs.

COST SHARING

Philosophically, since Partnering benefits all parties and it seeks to achieve mutual goals and a win-win attitude, all parties should share the costs. Psychologically, ownership and value are increased if everyone has invested something. One values more that for which he/she has paid. The dollar value of workshops is very small considering the stakes. In terms of a subcontractor with a small part of the work and uncertain slow cash flow, the contribution is probably his time at the workshop. The Prime Contractor will normally pay the subcontractors' share. The contractors, with a lump sum, high-risk mentality, generally see their cost as a good investment. Designers, on the other hand, who tend to cost and bill "by the clock," are disciplined to charge every work hour to an account. Therefore, with this tradition of charging by the hour, designers often expect payment for workshop attendance. There is not a simple formula for fair distribution. For example, an equitable split in one circumstance may be NASA and the contractor splitting the workshop cost and the designer "donating" his/her time spent at the workshop. In sum, all organizational parties should contribute in some way.

INITIAL WORKSHOP

This section is titled "initial workshop" to differentiate it from the more specialized follow-up and closeout workshops covered in sections four and five, respectively. The initial workshop, held at the beginning of the concept, design, and/or construction phases, brings together all key stakeholders, perhaps for the first time. Several generic principles, applicable to all workshops, will be covered here and not repeated in sections four and five.

3.A. WORKSHOP PLANNING

WHO SHOULD ATTEND?

This is a critical question: Who should attend the workshop? The quick answer is: "Those having a stake in the project (stakeholders)." A more effective response could be: "Those individuals who can impact the project—positively or negatively—at both policy and working levels." Policy-level representation can change standard organizational operating policy to enhance team efficiency (e.g., commit to changing response time). Working or field-level representation will make or break the Partnering environment by daily and hourly actions and attitudes.

Organizations normally represented include NASA (CoF, procurement, safety, operations/ maintenance and end user), designer (A/E), construction manager (CM), prime/general contractor (GC) and key subcontractors or suppliers. Another category is often called "third parties," those generally not contractually involved but definitely positioned to help or hurt the project. Examples are regulatory agencies, utilities, and transportation agencies.

It is important that attendance from participating organizations be balanced in terms of both organizations and level of authority. For example, if NASA has 12 individuals at a workshop and the contractor has four, the contractor may feel overwhelmed and outvoted as well as develop the perception of dealing with a ponderous bureaucracy. The differential becomes exacerbated in smaller breakout groups. Coordination is also necessary in order that counterparts attend the meeting. If one organization has field personnel and another executives, both are frustrated and disappointed. The solution to achieving this balance is early coordination. This coordination should address concurrently the dates and location of the workshop as well as choice of facilitator and cost sharing. All of these decisions should have input from all the key organizations.

Balancing the desire to involve all team members in the workshop is the practical consideration of workshop size. As the number grows above 20, there is a discernible decrease of participation, ownership, and team building. When it grows, it becomes very difficult to mold everyone into a team and prevent the workshop from becoming a seminar. A good rule of thumb is to keep the workshop as small as possible (without excluding key players), establishing a 'soft' ceiling of 25. If the number cannot be brought under 30 without leaving out an important member, consider the following actions:

- require a co-facilitator (See Section 2.C.)
- split into two or more workshops, by
 - executive and working levels, starting with the executives (demonstrating a team commitment at the top level)

- or -

project phase (e.g., procurement/planning phase and field phase)

WHERE—FACILITIES

Choose a location convenient and comfortable for all players. Avoid reinforcing the psychological position of the organization that traditionally has wielded the power (generally NASA). For example, some contractors may feel more like a subordinate than a peer when meeting in a NASA conference room. Likewise, a NASA manager may act more like a boss than a fellow team member/leader and is more inclined to talk than listen when in the comfort of his/her conference room. Consider how the physical environment can stimulate innovation—doing things differently and better. An attractive, pleasant, and different setting can do wonders in helping individuals "break out of their box" and shift their paradigms.

Coordinate facility selection with the main players and the facilitator. The stakeholders should feel comfortable and the facilitator may have special requirements. In general, participants should have ample space, a table, and be able to easily see and hear each other. The most common arrangements are an open "U" (with seating only on the outside) or a semi-circle of round tables with "crescent" seating oriented toward the center of the circle. Name tags and name tents help participants establish personal relationships. The above arrangements, normally handled by a stakeholder, may also be arranged and paid for by the facilitator. A sample checklist, which Partnering Champions may wish to adapt to their needs, is at TAB N.

Arranging lunch and coffee/soda breaks as part of a single package simplifies matters and makes the workshop more efficient. Use initiative and imagination in arranging a period of social interaction among the stakeholders, outside of the workshop room and not under control of the facilitator. This provides a great balance to the intensive atmosphere of the workshop and is often the most valuable single aspect as participants develop personal relationships without the pressure of the contract and project. Most hotels and restaurants do not charge for meeting rooms if meals are purchased.

WORKSHOP DURATION

For a moderate-sized project with 20-30 workshop participants who have some Partnering experience, two days may be the right length for an initial workshop. An experienced, no-nonsense facilitator can accomplish a lot in a day and a half. When you have a group that has successfully worked together previously on a similar, straightforward project, a day can probably do the job. [One day is plenty for follow-up, closeout, and most executive workshops.] Large, tough, complex jobs may justify three days, especially if the players have not worked together well.

See TAB K for a matrix to help with this decision. The dollar amount of a project is only one criteria of workshop duration. The factors of project criticality, visibility, and complexity as well as the Partnering experience of the players are often more important criteria. Ask for input from the facilitator. A pivotal decision is "overnight or not?" The advantages of keeping the team together overnight is so valuable that some use this format even for one-day workshops (e.g., noon to noon)! The principle advantage is the opportunity to build interpersonal relationships. This issue is covered in more detail on the last page of section 4.C.

INVITATIONS

Section 2.B. discussed the importance of psychologically "enrolling" individual stakeholders. The invitation can be very influential in establishing the frame of mind and expectation of individual participants, especially those who have not been interviewed or have not attended a Partnering workshop. Besides the obligatory when and where, include who else will be attending, why it is being

held and, briefly, what will be accomplished. Check with the facilitator regarding the inclusion of how the workshop will be conducted. Invitees may wonder what to wear; it is helpful to tell them. Casual dress is generally preferred since it is more conducive to "rolling your sleeves up and getting to work" and establishing relationships without the class barriers sometimes associated with more formal business wear. Finally, consider having a representative from more than one organization sign the invitation to symbolize the joint effort ahead. TAB O contains a sample invitation format.

3.B. PURPOSE

After some Partnering experience, some stakeholders are inclined to stipulate a workshop agenda, often neglecting a prerequisite step—that of establishing the workshop objective or purpose.

The content of a workshop is a sensitive subject; if it is defined too tightly, it restricts the facilitator. Presenting a rigid agenda to a facilitator is telling an expert how to do his/her job. Facilitators have different styles and approaches. He/she will be less effective using someone else's structure. It is far better to agree on workshop objectives and/or results. Therefore, this section will provide some sample workshop objectives and broadly cover the basic elements of a workshop.

SAMPLE WORKSHOP GOAL & OBJECTIVES

Workshop Goal: Improved teamwork in a climate of trust among project participants toward satisfying the project user's needs.

Workshop Objectives:

- ◆ Create a win-win, team attitude among all participants. ("We" instead of "us v. them.")
- Produce a Project Charter that clearly identifies specific project objectives supported by all project partners.
- Clarify the roles of each stakeholder, organization, and individual.
- Identify project-specific issues that may help or hinder accomplishment of project objectives.

- Produce project Action Plans that specify mutually supported procedures to achieve project objectives.
- Develop an Issue Resolution Process that will result in fair, rapid decisions throughout the project by making the lowest level accountable to respond when appropriate and to escalate any unresolved issues mutually.
- Agreement on and establishment of a process to develop the project team throughout the project. This should include a follow-up joint team assessment and continuous improvement process.
- Participant feedback regarding the workshop by end-of-workshop evaluations. (These may include standard questions developed by Headquarters or each Center for benchmarking purposes.)

3.C. CONTENT/AGENDA

This discussion does not present an approved solution, for facilitators will have different means to meet workshop objectives. However, an effective initial Partnering workshop should contain the first six elements listed below—in the order presented. The final element in this section, building relationships, should be a consideration throughout every workshop. The sample agenda at TAB P can serve as a frame of reference for this section.

INTRODUCTION

The senior official in each organization should have an opportunity to voice his/her commitment to Partnering. This is an important influence on the degree of commitment to the Partnering process and willingness to take risk by every subordinate person in the organization. Following this brief kick-off, every player should get to know every attendee personally. The purpose of this phase is to begin the relation-building process—based on a knowledge and understanding of each other as individuals—a person rather than as a preconceived stereotype such as a "wily contractor" or a "stingy

owner." There is also an opportunity to share workshop expectations and Partnering experience during introductions. The advantages in participants introducing one another generally outweigh the extra time required. Breaking participants into small groups with individuals from different organizations is helpful during this phase as well as any other time during the workshop. Consider assigning each individual to an integrated group even as they walk in the door, thus helping to break down the traditional parochial paradigm of their current organization. The facilitator may assist in breaking down these barriers by feeding back to the participants selective, but anonymous, results of the pre-workshop interviews.

TEAM-BUILDING

The project team does not become effective until mutual understanding and trust are developed. A good workshop should help attendees understand each other's styles, perceptions, priorities, and roles. This mutual understanding will increase as they work together. Mutual trust, on the other hand, is difficult to develop in a workshop setting. Trust must be earned in the real world by delivering results and meeting expectations. The workshop can, however, establish an environment enhancing the willingness to trust, provide processes that facilitate trust building, and guide individuals through the initial stages. In short, the workshop can provide a good *start* to the team building process, accelerating greatly the growth of an effective team.

The facilitator must help participants break down barriers to teamwork and become committed to forming themselves into a strong and effective team. This is approached in various ways. Most facilitators are comfortable in using time-tested, generic team building exercises or "games." Others (the author included) use the project itself as the team-building vehicle. This can be done by having participants to look at project goals and issues from the perspective of another player on the team (thus helping to develop the mutual understanding that is essential to the development of trust and communication). There are also differing opinions on teaching and orienting participants on Partnering principles. Some facilitators feel this is a requisite, while others steer away from the subject and focus on letting the team decide how to go about jointly delivering the "best project they ever worked on."

The latter approach derives not from a skepticism of Partnering, rather a method of sidestepping various misconceptions of Partnering held by many participants. The only caution here is to avoid emphasizing generic *team-building* to the extent that it overshadows the *purpose* of the team—the project. As Katzenback and Smith state in their book, *The Wisdom of Teams*, "...focusing

primarily on the goal of becoming a team seldom works." They go on to state that the purpose for which the team is formed (i.e., the project) must be the focus.

When we speak here of team-building, appreciate that Partnering does not primarily deal with assembling individuals (level A), but rather developing a joint team (level C) from smaller, more homogeneous teams (level B). Prior to the initial Partnering workshop, NASA will put together a NASA team for the project. The designer will assemble a design team, perhaps consisting of individuals from different organizations. Likewise the CM and Contractor have their teams. The basic Partnering challenge is to integrate these organizational or functional teams (level B) into a joint, or project, team (level C). Although the principles are the same as building a smaller, more homogeneous team, the challenge is more complex. Further complicating the issue is the fact that functional or organizational teams (level B) may not be effective. If this is the case, some preliminary, internal Partnering may be appropriate. This has been done very successfully to bring a large owner organization together and to align owner and client prior to dealing with the CM and designer.

COMMON GOALS

Most facilitators feel project goals should be addressed early on. Although they may be modified by subsequent activities, the goals provide the first and most critical focus to transform the group of individuals into a team. They also define the broad parameters for the rest of the workshop. In the decades-old words of AVIS's CEO Robert Townsend, "Is what I'm doing or about to do getting us closer to our objective?" Project goals are most effective when project team members have a part in their formation and they benefit all parties. Far better than artificial or financial incentives, appropriate goals internalize incentives, providing the strongest and most direct motivation for successful project completion. An effective way of deriving project goals is to synthesize the parochial goals of the various team members. This process also helps increase mutual understanding by clarifying and discussing the perspectives of all the major players.

This synthesis, grass-roots approach can be threatening to the owner (NASA) and/or user (tenant), who may feel they have the right to dictate the project goals. This attitude strikes to the heart of our natural resistance to turn over our *personal* control to a *team* of individuals (many of whom may be seeking to make a profit at our expense!). This necessary process is less threatening than may be anticipated and is, for many, a watershed event of the workshop. Facilitators will use

two general approaches: (1) letting individuals state their own organizational goals and (2) forcing them to present the goals of other players. The resulting synthesis of goals eventually becomes the "Charter" or "Partnering Team Agreement" or whatever other name the team wishes to use. An example Charter is at TAB Q.

Some facilitators will have the entire group develop the Charter immediately after parochial goals are established. Others lead the entire group in developing just the general sense of how congruent and complimentary the parochial goals are, leaving the final polishing of the Charter to a small, integrated workgroup during the Action Plan phase.

ISSUES

Once the workshop participants have a general sense of what mutual goals must be reached for an outstanding project, how do they decide to get there? One approach is to have everyone in the workshop list those issues which must be addressed and/or solved to achieve their mutual goals. This brainstorming process can be quickly accomplished in many ways, as long as the facilitator prevents the participants from simultaneously trying to resolve the issues. Leave resolution to the Action Plan, or solution, phase. Although often surfacing during the pre-workshop interview phase and early portions of the workshop, issues should be collected once the goals have been listed in preliminary form. This order, goals then issues, allows participants to identify issues (both obstacles and opportunities) relevant to goal accomplishment.

The list of issues, in its initial form, may be long (15-60 issues) and confusing. One of the facilitator's biggest challenges is to help the participants transform the initial list into a more orderly, useful form that can be easily understood and used by the workgroups who will develop Action Plans. This is most commonly done by grouping issues into categories and, perhaps, prioritizing the groups and/or issues within the groups.

ACTION PLANS

Once the issues list is developed, the workshop participants know where they want to end up and the challenges they must face to get there. This final phase of the workshop, developing responses to the challenges, is generally the most satisfying to action-oriented engineers and constructors. Likewise, most participants are more comfortable dealing with the tangible aspects of getting the job done rather than the more theoretical realm of relationships and goals. Finally, specific Action Plans requiring accountability for individuals to take

actions by certain dates provide a more powerful mechanism to make Partnering work outside of the workshop—on the project. For these reasons, and others, a few facilitators devote half of the workshop to this Action Plan phase.

After the initial list of issues has been broken down into several groups of issues, the most important issue groups will be assigned to workgroups. Breaking participants into small, organizationally-integrated workgroups has the advantages of working on many issues simultaneously, increases individual participation, mutual understanding, and allows individuals to focus on areas of their concern and interest.

These groups, generally numbering from three to six, have the responsibility of developing Action Plans that address the most critical issues. Depending upon their experience in group problem solving, some initial instruction and ongoing tutoring by the facilitator is important. The facilitator should provide some problem solving process guidance and perhaps share successful Action Plan formats, but should not provide content answers. Even critique of the content by the facilitator is dangerous. If necessary, it should be handled in the form of questions, not statements. It is important that all the members of each work group influence and take ownership of their Action Plans. This principle is expanded to all participants of the workshop. This can be done when workgroups present draft or "strawmodel" Action Plans to the entire body for comment. This "presentation for comment" is generally done on large, easel-mounted flip charts or butcher paper. Opportunity should be given for all participants to influence (and take ownership in) every Action Plan.

Action Plans can be in many formats. The more specific and accountable they are, however, the more likely they are to be acted upon. An example of an effective format follows.

If the solution has more than one action or steps, repeat the What, How, Who, and When.

Action Plans address many subjects, ranging from technical to interpersonal to inter-organizational in nature. The type of project, the environment in which it is being built and the needs of the project team and its members will dictate. Some typical Action Plan subjects follow.

Issue Resolution Process

The term "issue resolution" is a more proactive form of the more common "conflict resolution." An open dialogue between team members and an active issue resolution process will *prevent* issues from becoming conflicts. Avoiding conflicts is more efficient, less time consuming, and less disruptive than having to solve conflicts. It is, however, unrealistic to believe that no conflicts will arise. Therefore, the issue resolution process should be sensitive and accessible enough to deal with routine issues as well as robust enough to handle serious conflicts when they occur.

ACTION PLAN FORMAT

ISSUE: (a short, descriptive title)

OBJECTIVE: (What should our action accomplish regarding the issue or what is the criteria for success? Do we want the issue resolved faster, cheaper, or easier?)

SOLUTION:

WHAT? (action will be taken)

HOW? (will action be accomplished)

WHO? (will accomplish action—if more than one, who is responsible

—use names)

WHEN? (is action started/completed; use dates, "ASAP" is not appropriate)

TYPICAL ACTION PLAN SUBJECTS

*ISSUE RESOLUTION PROCESS

*TEAM ASSESSMENT & CONTINUOUS IMPROVEMENT PROCESS

(or some type of continuous team improvement process)

COMMUNICATION PROCESS

RESPONSIVE PROCESSING OF RFIs/SUBMITTALS/PAY REQUESTS/ETC.

SAFETY

TRAFFIC CONTROL

PROACTIVE PUBLIC RELATIONS

CHANGE ORDER PROCESS

TENANT (operations) COORDINATION DURING RENOVATION

TURNOVER PLANNING

PERMIT PROCESSING

HANDLING OF HAZARDOUS MATERIAL

ENVIRONMENTAL/CULTURAL WORK STOPPAGES

SECURITY

LAYDOWN AREAS

COORDINATION OF SUBCONTRACTORS

*Strong consideration should be given to making at least two Actions Plans mandatory: defining an issue resolution process and a process to continually improve team effectiveness.

An issue resolution process is fundamental to Partnering, for all problems will not be solved at the workshop. Just the recognition that conflict will arise is important. The next step is to appreciate that conflict handled in a positive manner can be beneficial. An effective issue resolution process can save enormous amounts of time, enhance open and effective communication, foster empowerment and individual development, develop more effective solutions, and eliminate the need for ADR and litigation. A sample is at TAB R. Common ingredients of an effective issue resolution process are:

 show, pictorially, the relationships of individuals in participating organizations or functions, so it is clear who should be involved in decisions at every level (the resulting chart is also very useful in fostering communication and an understanding of team members' roles);

- resolve the issue at the level closest to work being performed;
- resolve the issue as quickly as possible, generally within maximum time limits for each level;
- mutually escalate the issue to the next level as soon as it is recognized it cannot be resolved and also prior to the maximum time limit provided;

- resolve the issue using facts and impact on the project or project team, rather than on an individual;
- resolution is the objective, not fault or blame.

A Process to Improve the Team Continually

The most common reason cited for Partnering failing to achieve its potential or expectations is that the team approach stops once the workshop is over and parties go back to "business as usual." The first step in preventing this from occurring is to recognize the team is not built at the workshop but must be developed throughout the project. The second step is to develop jointly at the workshop a process to develop your team throughout the project. The final step is the joint commitment required to implement this team-improvement process throughout the project. A process to improve team performance continually can include many aspects: the identification of team leader(s), scheduled team meeting times and procedures, social activities, formal follow-up workshops and a joint team assessment instrument.

A joint team assessment is a form or forms developed at the workshop by the team members to provide periodic feedback on how the team is progressing. It functions much like the gas gauge in a car and, if integrated into the team development plan, not only indicates that the gas level is low, but will also give direction to the nearest gas station. In order to mitigate divisiveness, have each team member rate the entire team. Collection of the input instruments and simple tabulation on a common feedback form allows all team members to see the perception of each rated category by each major team player. Sample input and feedback forms are at TAB S. "Scorecarding" is a more powerful interactive tool. The categories to be rated are best chosen by the team at the workshops. Two philosophies prevail in selecting categories. Some focus on bottom-line results, generally taken from the Charter, e.g., safety, on schedule, within budget. Others focus on team attributes or characteristics, e.g., trust, leadership, open communication. A mixture of team attributes and measures of project results may be optimum.

WORKSHOP EVALUATION

An evaluation of the workshop, completed at the end of the workshop, serves many purposes. A summary of all the evaluations will help the team understand how other team members feel about the team and workshop. It will aid the facilitator to improve his/her performance continually, which will benefit the team in future relationships with the facilitator. Finally, if designed and collected by centers, it forms a valuable database to help Center Partnering Champions and managers make judgments about future workshops and facilitators. A sample workshop evaluation summary is at TAB T.

BUILDING RELATIONSHIPS

Partnering hinges upon relationships. Partnering is conducted between organization or divisions within organizations. Yet organizations do not have relationships. Relationships exist between people. Therefore, successful Partnering results from good relationships between individuals on the team. Most effective at building these individual relationships is time spent communicating in small groups. It is much easier for everyone to contribute in a group of three to seven, than being one of two dozen. Likewise, the members in a small group will understand the members of their group much better than they will understand the other participants of the workshop. Two points derive from these assumptions. First, spend as much time as possible in small groups at the workshop. Second, select the group make up with care. Both of these points are under the control of the facilitator. Therefore, encourage facilitators to maximize time spent in small groups—half of the workshop is a good target. Wise selection of small group members requires pre-workshop interviewing and is assisted greatly by knowledge of construction. Consider this when selecting and instructing your facilitator.

The opportunity to build relationships during the workshop exists outside of the formal agenda. Consider the following informal social opportunities. Most workshops which begin in the morning serve coffee, juice and, often, pastries. Have this continental breakfast placed in a manner conducive to mixing and conversation. Include 15-20 minutes for this activity on the schedule sent to the attendees. Lunch is a great opportunity to build relationships. Maximize this opportunity by making lunch part of the workshop: keep the participants together and separate from others not in the workshop; encourage intermingling of organizations; consider a simple topic to stimulate conversation. A formal social hour at the end of the first day is an ideal setting for relationship building. Some participants have stated this was the most valuable hour of the workshop! For the most progressive, consider a physical, team activity outside of the workshop room, such as volleyball.

3.D. WORKSHOP EVOLUTION

As members of Partnering teams gain the experience of several partnered projects, they will find they can produce more Action Plans in more detail at the workshops. Succeeding workshops are generally more productive and the projects more effective. This will be especially true if they are teaming with previous partners. After participating in several partnered projects, experienced partners may wish to reduce the workshop duration by shortening the introduction and team-building segments and being more efficient in the other areas. Another step in the evolution of Partnering may be switching to an internal facilitator. Public agencies with a few years experience have begun to use internal facilitators on some projects.

3.E. DELIVERABLES

Although every workshop is unique, given the variables of facilitator, existing environment/culture, type of project and team members, a few deliverables should be mandatory. They are:

- a written statement of mutual project goals, often called a Charter or Partnering Team Agreement; optimally, all participants should sign this document (see Tab Q);
- a written issue resolution process (see section 3.C.);
- a team-development process (see section 3. C.);
 and
- a summary, tabulation, or copies of the workshop evaluation results.

All four of these deliverables need to be addressed at the workshop. The written deliverables should be included in the workshop report. The workshop report is discussed below. The biggest challenge of Partnering is maintaining the spirit and environment created at the workshops throughout the project. Capturing an accurate and complete record of workshop proceedings aids significantly in the transition from workshop to project. The responsibility of preparing this report generally falls to the facilitator, although an interesting alternative exists. Having an administrative person involved with the project (e.g., administrative assistant to NASA project manager or receptionist/secretary at contractor's field office or trailer) present at the workshop provides a couple of opportunities. First of all, an administrative person is often vital to the verbal and written communication of the team, especially impacting on response times for submittals, RFIs, pay requests, etc. The workshop helps this person understand the team attitudes being generated as well as being able to match faces and personalities with names. Additionally, if this person generates the report, it would come from the team, not an external consultant. Ownership and follow-up would be enhanced. Most facilitators will assist this person in formatting the report. This may also reduce workshop costs.

What should the report contain? A sample Table of Contents for a workshop report is at TAB U. An updated project roster, convenient for day-to-day use by team members throughout the project is useful. The project goals are captured by the resulting Charter. Very important to the participants are the Action Plans they developed at the workshop. Finally, a summary of all the workshop evaluations is helpful to give everyone a sense of where the team thinks they are at the end of the workshop.

The report should get into the hands of the participants as soon as possible after the workshop. A common procedure is for one or two representatives to get a copy from the facilitator within a few working days of the workshop for review. After reviewing and making corrections, or having the facilitator make corrections, the report is copied and delivered to each participant. This latter task is usually accomplished by one of the team members.

The signed Charter is frequently combined with a photo of the team at the workshop, framed, and given to each participant as a visible reminder of their joint commitment (TAB Q).

PROJECT PHASE

4.A. USING THE WORKSHOP REPORT

Project personnel have many technical references (CPM networks, plans and specs, textbooks, software programs, tables, etc.) to assist them in their role of building the project. Another valuable reference is something to help make the team more effective. An effective team applies the resources of each team member to solve many problems and to discover innovations. A comprehensive workshop report from a good Partnering workshop can be this reference.

The workshop report is only effective if it is used. The report should be in the hands of every workshop participant within two weeks of the workshop. Individual review can be greatly stimulated by reviewing a section at every project team meeting, and then asking: How are we doing? Where are we falling short of our expectations? Did we meet the objectives we set for this Action Plan? Are we on schedule to complete this Action Plan on time?

The Charter is in the report, but will gain more visibility if framed, perhaps with a team photograph and signatures (TAB Q). Some project teams have put the charter on a 4'x 8' sign at the project site to serve as a daily reminder for those building the facility.

4.B. DEVELOPING THE PROJECT TEAM

The key to Partnering success is to continue team building after the Partnering workshop. There are big payoffs from a strong and growing team, but it also takes a continual effort and an investment of time to achieve results. Being part of a team will make project personnel feel the responsibility of being depended upon rather than just working on a project. That attitude is priceless. Let's review some of the basics:

◆ Leadership—Who is going to take the responsibility for team development? Few jobs are busier than those on a construction project, but a certain percentage of time (5-10 percent?) must be allocated for team-building. The team leader or, better, co-leaders from primary organizations on the job must make this happen. It may be beneficial to have two teams of co-leaders: one at an executive level and one at the field level. It is difficult for a field manager to dedicate significant resources without strong support from the "front office." See TAB V for some specific suggestions for team leaders or champions.

- ◆ Periodic meetings—Schedule these meetings during the workshop to establish commitment and minimize inconvenience. The team meetings can be entirely dedicated to team development or simply dedicate a portion of the project meeting (e.g., the first half-hour). Rotate facilitator duties among participating organizations. Consider also using an attendee as a recorder. (See TAB W.)
- ◆ Social Activities—Just as a social hour may be the most valuable hour of a workshop, so a social atmosphere may provide the best glue to bond the team together. The social activities need not be frequent or extravagant—just something the team members would enjoy. Ideal occasions would be to celebrate completion of project milestones.
- ◆ Team Logo or Name—No one talks or thinks much about the "project team." Most team members feel they are working for a company or working on XYZ project. It is hard to feel part of a big, amorphous group. A small thing like a group logo, name, or motto can give visibility to the team, which in turn can benefit the team. If there is time during the workshop, and the environment is conducive, develop one or two of these identifying team symbols. Alternatively, run a contest among all project personnel to create a team logo or name.
- ◆ Useful references—Four books (available in paperback) give basic insights to team-building and could be read and reported on by team members. They are Stephen Covey, The 7 Habits of Highly Effective People, Simon and Schuster, 1989 (this is virtually a handbook on Partnering, especially habits four through seven); Jon Katzenback and Douglas Smith, The Wisdom of Teams, Harper Business, 1993; Collective Excellence: Building Effective Teams, written by Mel Hensey (a design engineer and manager) and published by ASCE (American Society of Civil Engineers) in 1992; and the 44-page booklet by Pritchett and Pound, High Velocity Culture Change: A Handbook for Managers, published in 1993 and available at 1-800-992-5922. Partnering Champions should have these four books in a "lending library," and read each one themselves.

4.C. FOLLOWUP WORKSHOPS

An area of some debate in the Partnering community over the past few years has been the need for and timing of facilitated followup workshops for complex, lengthy, or troubled projects. The inevitable benefits of followup workshops need to be balanced against the resources expended and tendency of team leaders to abrogate team problems to an external facilitator. It is becoming more apparent that at least one facilitated followup workshop, two to five months after the initial workshop (during either the design or construction phase), significantly increases team development. CALTRANS refers to this as a midcourse correction workshop. It helps the project team refocus on their mutual goals, revitalize their spirit, and review their progress.

The followup workshop is about half the length of the initial workshop. The team can quickly realize where they are falling short when they evaluate their progress against the charter and/or joint team assessment and/or ideal team characteristics and/or Action Plans. Opportunity should be given to identify any other issues. It is often appropriate for members to report on the status of the project or have new team members introduced. From these activities and the very critical pre-workshop interviews conducted by the facilitator, a list of issues is developed. The second half of the workshop should be devoted to work groups addressing these issues with new or revised Action Plans.

When should a follow up workshop be scheduled? The ideal time is a day before the first big crisis (where is our crystal ball?). Project managers experienced in Partnering often schedule a followup from two to five months after the initial workshop, generally during the first third of the project duration. This tentative date should be established before or during the initial workshop. A good time might be at the onset of a new phase, just after new players come on board or when the team gathers for the concept review.

Who should attend? The key players for each organization should be present. They can both assess and correct the team development progress. The group is generally somewhat smaller than in the initial workshop, as roles are clarified and trust is established.

4.D. INTEGRATING NEW PLAYERS

Many Partnering teams have been severely impacted by turnover of key personnel or the influx of new team members. As team members join the team after the Partnering workshop or if they missed the workshop, they should be quickly integrated into the team. A peer, supervisor, or team leader should spend time with the new members providing him or her with a Charter and a copy of the workshop report and reviewing the team development activities that took place at or after the workshop. Another approach to use with a steady addition of new members is a periodic orientation given by a team leader or the Center Partnering Champion. Finally, if a large number of critical newcomers are changing the character of the team, consider bringing the facilitator back for a formal followup workshop.

4.E. DEALING WITH CONFLICT

A Partnering workshop will not eliminate all future conflicts. In fact, most will argue that some conflict, when handled properly, is a positive aspect that is vital to high performance teams. The project team must be prepared to deal constructively with different opinions and to avoid and quickly resolve negative conflicts. A good Partnering workshop sets the stage for conflict avoidance and resolution by motivating participants to work together; helping them understand the perspective, personalities and/or workstyles of team members; establishing an issue resolution process; and, perhaps, by learning a few techniques of conflict resolution.

The Partnering workshop plus the efforts and experience of the partners have virtually eliminated the worst product of conflict: litigation. How can one enjoy this kind of success?

- Plan a comprehensive initial Partnering workshop with an experienced facilitator and ensure the participants develop and commit to an issue resolution process (TAB R).
- ◆ The issue resolution process should encourage rapid resolution at a low level; but encourage mutual escalation when necessary—without penalty to those escalating the issue.
- ◆ Team leaders, at every team meeting, check on how the issue resolution process is working.
- ◆ Include the resolution of conflict as a rated item on the joint team assessment.
- ◆ Try the following simple but very effective technique on tough issues. Assume a CM inspector (Bill) cannot agree with a contractor foreman (Joe). Have Bill and Joe meet together with their respective supervisors. Have Bill present Joe's position and Joe present Bill's position to the other three. What will result?

Half of the time after Joe and Bill rehearse with one another they will cancel the meeting with their supervisors. Why? Because to present the other's position, they really had to understand where the other was coming from, perhaps for the first time. When the meeting and presentation do take place, it is between teammates, not adversaries—the meeting will be cohesive, not divisive. The matter is objectively understood and usually decided upon in minutes. TAB X is a modification of a form developed by the Central Artery/Tunnel project to aid in this process.

◆ The most proactive way to deal with conflict is to keep strengthening the team. The mark of a strong team is when, during a conflict discussion, one is unable to identify the project organization from which each individual comes. They are considering the problem and the project as team members with joint ownership, instead of focus ing on their organizational position; not hunting for a culprit; not the "us & them" attitude, but the "we" perspective. The win-win of Partnering.

CLOSEOUT

5.A. THE TRADITIONAL FINISH

After spending years on programming, designing, and constructing a project, there is a tendency to look at the end of construction as the end of all effort, forgetting that it is, in a real sense, the birth of the facility. It is now ready to begin its useful life. In the rush for construction completion, final payment, and getting on to other jobs, the building manager and tenant are often left with long punch lists, missing manuals, and spare parts as well as piles of paperwork.

Additionally, the once proud and effective project team quickly disintegrates as new projects take priority.

Most disappointing of all, the valuable lessons learned at the expense of mistakes and trial and error are fragmented by the team break-up, then repeated on future projects. Likewise, the brilliant innovations and processes which were so helpful in making this project a success will only help future projects if the right person happens to be on the right project at the right time in the right position.

There is a very efficient way to capitalize on these three missed opportunities—a closeout workshop.

5.B. THE CLOSEOUT WORKSHOP

Include the building manager and tenant as project team members. At the early stages of the project this will help shift the focus from design and construction to a life-cycle approach geared toward effective operation and maintenance. By bringing the team together a final time for a facilitated session of *less than a day*, just before the key individuals disperse (95-99 percent complete?)—all of these issues can be dealt with. Team members can: (1) plan for an orderly, efficient transition; (2) celebrate their successes; and (3) identify processes (both "technical" and "team") that can be improved or continued on many future projects.

First deal with transition to full, steady state operation. Let us recognize that most project teams focus on construction and seldom look beyond completion. In an hour or so, the team is able to identify important wrap-up and transition issues. These include punch lists, administrative close out, final payments, training of maintenance personnel, warranty issues, etc. A couple of more hours dedicated to joint development of Action Plans addressing these issues will save weeks of problems and frustration.

How important is it to celebrate success? A quarter of an hour recognizing contributions to the team, perhaps in conjunction with sharing a celebration meal is the best motivator for team members to make the next project even better.

The biggest potential payoff will result from two or three hours identifying and addressing lessons learned with ones' teammates. Team members are the best ones to point out how both fruitful innovations and costly errors made by their teammates impacted them and, therefore, the project. For example, a contractor might point out how a slight change in the specifications would have saved everyone money and cut a week off the completion time. By this stage of the project, the teammates are willing to listen to and trust each other. Most experienced project managers recognize the value of collecting lessons learned in the areas of constructability, operability, and accountability; improving plans and specs; cost accounting efficiencies; and developing a better project schedule. They will find the closeout workshop to be an ideal environment to quickly and effectively address these and other "technical" issues. A less obvious, but equally important, area to be addressed is project team effectiveness. What can we learn about the Partnering process of the project—how can we improve the project team development, cohesiveness and synergy for future projects?

A few suggestions for addressing Partnering lessons learned follow.

Pre-workshop phase

Were all team members introduced to the Partnering concept early and effectively? Was the center "culture" supportive of team-building? Were the contractors introduced to the process efficiently and effectively?

Workshop phase

Was the scheduling, notification, length, location, payment, and facilitator appropriate for all parties? What were the pros and cons of the facilitator and his/her interface with the team members? Were the contractual and fiscal arrangements of the workshop simple and smooth?

Post-workshop phase

Did the team continue to strengthen throughout the project? Why or why not? [The team assessment (sample at TAB S) results should prove illuminating. If used earlier in the project, have team members complete an

assessment prior to the closeout workshop and use the summary during this workshop.]

Therefore, in less than a day (if well facilitated), a closeout workshop could eventually benefit participating organizations more than all of the previous Partnering workshops. More information can be found at TAB Y, written for the Arizona Department of Transportation (ADOT) shortly after the author facilitated their first externally facilitated closeout workshops in 1994.

The lessons learned at the closeout workshop will not reap many benefits unless each organization makes a committed effort to institute the necessary changes. This needs executive emphasis and dedicated staff resources. This is very similar to the follow up required of Quality Improvement Team recommendations. A NASA Partnering Steering Committee may be able to help initiate the proper institutionalizing process. As a minimum, provide concrete recommendations to the Facilities management chain and the Center Best Practices and/or Partnering Champion.

POST SCRIPT

There is no doubt that Partnering improves project delivery. There are many ways to build and maintain a project team, many of which are included in this Desk Reference. You can influence how much Partnering will help. Your degree of success will depend primarily on how much attention is given to the "health of the team" and relationships between team members—and how early you begin.

LIST OF APPENDICES

PARTNERING PRIMER Tab A
COST OF PARTNERING
CII PROJECT PERCENT SAVINGS
CII SAFETY RESULTS
ADOT PARTNERING RESULTS
EVERYONE BENEFITS (AGC AND U.S. POSTAL SERVICE EXTRACT)
CHAMPION CHARACTERISTICS AND FUNCTIONS
PARTNERING START-UP PROCESS (A CHRONOLOGICAL CHECKLIST)
INTRODUCTORY LETTER TO CONTRACTOR
DEGREE OF PARTNERING INVESTMENT (ROI)
POSSIBLE PARTNERING WORKSHOP - MATRIX
NASA SOLICITATION SPECIFICATION
NASA FACILITATOR CHECKLIST
WORKSHOP CHECKLIST
SAMPLE WORKSHOP INVITATION
SAMPLE AGENDA
CHARTER WITH PICTURE
SAMPLE ISSUE RESOLUTION PROCESS
SAMPLE JOINT-TEAM ASSESSMENT
SAMPLE WORKSHOP EVALUATION
SAMPLE REPORT TABLE OF CONTENTS
CHEERLEADERS GUIDE
TWO KEY ROLES FOR PRODUCTIVE MEETINGS
SAMPLE ISSUE RESOLUTION FORM
CLOSEOUT ARTICLE Tab Y
MACHIAVELLI OLIOTE Tab 7

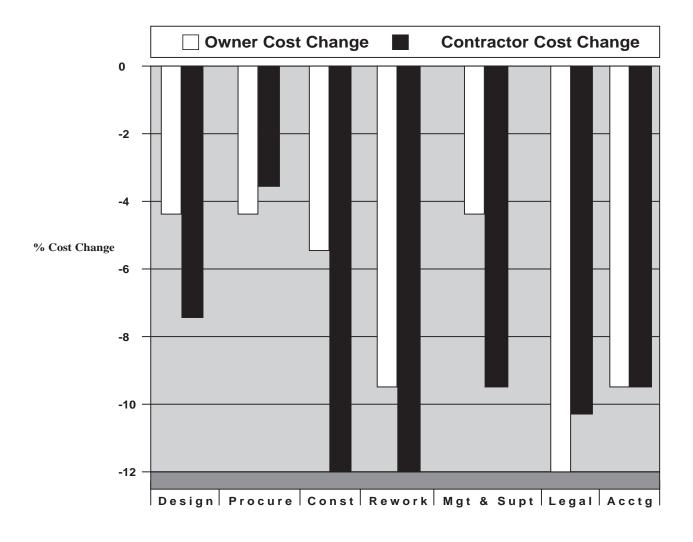
A. PARTNERING PRIMER

There are two general connotations of Partnering; a long-term relationship (for many projects) and a one-time project relationship between owner/designer/constructor. The basic philosophy and advantages are very similar. This chart outlines attributes of Partnering unique to each connotation and common to both. Besides construction, Partnering can aid any joint venture.

	Unique to Long-Term	Common to Both Relationships	Unique to Project
DEFINITION	long-term commitment business objectives by maximizing the effectiveness of each participant's resources	A <u>commitment</u> between two or more organizations (generally owner, designer, and contractor; often also user and supplier) for the purpose of achieving specific <u>objectives</u> . The relationship is based on trust, dedication to common goals, and an understanding of each other's individual expectations and values.	 project commitment project objectives
BENEFITS EXPECTED	 shared expertise reduces number of experts required complementary marketing technical innovations reduced selection costs 	 reduced litigation, project duration and decision-making time; total and administration costs increased quality, communication, and use of innovation on site 	eventually produces healthy robust industry
APPLICABLE TO:	Private Sector and internal operations in Public Sector	Private Sector	Public Sector; construction
ADVOCATED BY:	Construc. Indus. Inst. (CII)TQM & Tom Peters	- many associations	 AGC, CII's Team-Building Task Force, Corps of Engrs, Navy Fac. Eng. Com. & ADOT
RELATIONSHIPS	 formal, generally contractual partners carefully, mutually chosen 	- short of merger or "legal partnership"	 informal, generally jointly signed Project Charter and integrated Action Plans with owner-selected partners
INVESTMENT	- significant tangible investment	- significant psychological investment	- minimal tangible investment
IMPLEMENTING METHODOLOGY	 long-term, complex interfaces periodic workshop or meeting to establish & improve processes 	team-buildingCEO's must actively supportperiodic communication process	 1 to 4 day initial workshop for key players followed by periodic reviews; generally with neutral facilitator
DURATION	- indefinite		- life of the project
RISK	- moderate to low		- very low
PAYOFFS	- long-term		- short to mid-term

B. Cost of Partnering

(% change for Partnered projects)

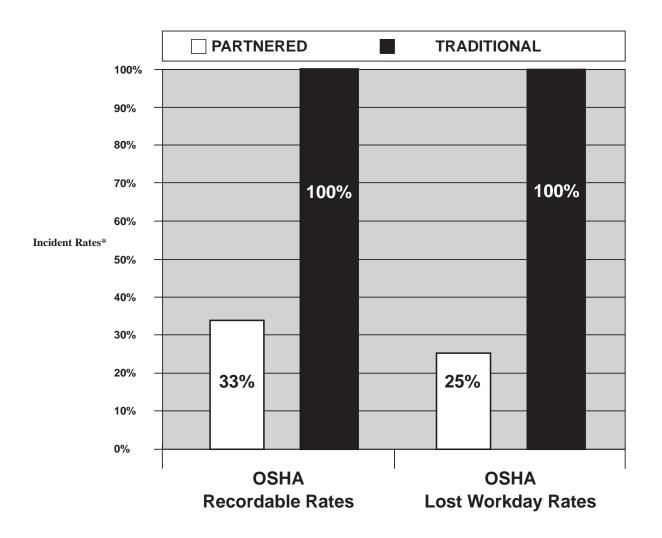


Source: Mobile District, U.S. Army Corps of Engineers

C. Example of Improvements in Public Sector Projects From Partnering

	<u>PARTNERING</u>	TRADITIONAL
Number of Projects	16	36
Contract Amount	\$160mm	\$400mm
Average Project Size	\$10mm	\$11.1mm
Cost of Changes	2.5%	16.5%
Duration of Changes	8.1%	18.2%
Change Order Costs	3.9%	15.2%
Claim Costs	0.01%	7.7%
Value Engineering	4.2%	0.4%
CII DATA, 1995		

D. Safety Results
1994 Team-Building/Partnering Survey



Incident rates are given as a percentage of firm's typical rates.

Source: Construction Industry Institute

E. ARIZONA DEPARTMENT OF TRANSPORTATION

PARTNERING SECTION

STATISTICS **December 1997**

- **◆** 496 Completed Projects
- **♦ 13.2% Average Time Saved**
- **◆ 15.6 Million CE Savings**
- **♦** 5.5 Million VE Savings
- **♦ 21.1 Million Total Savings**
- **♦ 2.2% Over Project Budget**
- **♦ 1.4 Billion Total Construction Dollars**
- **◆ 738 Partnered Projects to Date**
- ♦ 9,534 Contract Days Saved

No Litigated Construction Claims Since June 1994





F. PARTNERING BENEFITS

BENEFITS TO THE PROJECT SUBCONTRACTORS AND SUPPLIERS

- Reduced exposure to litigation through communication and issue resolution strategies
- ◆ Equity involvement in project increases opportunity for innovation and implementation of Value Engineering in work
- ◆ Potential to improve cash flow due to fewer disputes and withheld payments
- Improved decision-making avoids costly claims and saves time and money
- Enhanced role in decision-making process as an active team member
- ♦ Increased opportunity for a financially successful project because of non-adversarial win/win attitude

BENEFITS TO THE PROJECT OWNER

- Reduced exposure to litigation through open communication and issue resolution strategies
- ◆ Lower risk of cost overruns and delays because of better time and cost control over project
- Better quality product because energies are focused on the ultimate goal and not misdirected to adversarial concerns
- ◆ Potential to expedite project through efficient implementation of the contract
- Open communication and unfiltered information allow for more efficient resolution of problems
- Lower administrative costs because of elimination of defensive case building
- ◆ Increased opportunity for innovation through open communication and trust, especially in the development of value engineering changes and constructability improvements
- Increased opportunity for a financially successful project because of non-adversarial win/win attitude

BENEFITS TO THE PROJECT CONTRACTOR

- Reduced exposure to litigation through communication and issue resolution strategies
- ◆ Increased productivity because of elimination of defensive case buildings
- Expedited decision-making with issue resolution strategies
- ◆ Better time and cost control over project
- Lower risk of cost overruns and delays because of better time and cost control over project
- ◆ Increased opportunity for a financially successful project because of non-adversarial win/win attitude

BENEFITS TO THE PROJECT ARCHITECT / ENGINEER AND CONSULTANTS (WHERE APPLICABLE)

- Reduced exposure to litigation through communication and issue resolution strategies
- Minimized exposure to liability for document deficiencies through early identification of problems, continuous evaluation, and cooperative, prompt resolution which can minimize cost impact
- Enhanced role in decision-making process, as an active team member in providing interpretation of design intent and solutions to problems
- Reduced administrative costs because of elimination of defensive case building and avoidance of claim administration and defense costs
- Increased opportunity for a financially successful project because of non-adversarial win/win attitude

Source: PARTNERING Concepts for Success (Associated General Contractors of America), used with permission.

G. CHAMPION CHARACTERISTICS AND FUNCTIONS

CHARACTERISTICS OF A PARTNERING CHAMPION

- Believe in and be committed to the Partnering concept.
- Understand and have influence on the entire project delivery cycle.
- ◆ Have insights to individual needs, differences, and relationships.
- Encourage, advise, and assist project Partnering champions without assuming their responsibility.
- ♦ Be a motivator and mentor.

CENTER PARTNERING CHAMPION FUNCTIONS

- ◆ Maintain file of Partnering material (to include NASA policy and this Desk Reference).
- ◆ Develop, maintain, and implement appropriate Partnering documents (e.g., Tabs for sections sample form in Appendix) tailored to Center procedures and style.
- Advise project executives as early as possible in the project cycle on optimum use of Partnering for that project.
- Mentor and support the project manager and other project personnel regarding Partnering through out the project life.
- ◆ Assist project managers in enrolling partners (e.g., contractors).
- Maintain a list of meeting facilities and facilitators and assist the project managers in contracting for appropriate services. Maintain benchmarking data relating to Partnering costs, results, etc.
- ◆ Manage the "Start-Up" Process (TAB H).

NASA-WIDE ADVOCATE FUNCTIONS

- ◆ Establish baseline criteria for regions to evaluate Partnering effectiveness. (This can be done via standard questions on evaluations, costs/savings formats, etc.) Attempt to minimize effort by Centers by asking for only what will eventually be useful to Centers.
- ◆ Establish and maintain a facilitator database, including costs and effectiveness. Consider measuring both the effectiveness of the facilitator and workshop as well as the impact of Partnering on project success.
- ◆ Facilitate exchange of information between Center Partnering Champions (at conferences, cc mail, newsletters, teleconferences, etc.)

DRAFT H. PARTNERING THE START-UP PROCESS

- ◆ Plan to use Partnering? /When?/ Offer Partnering for the contract? (see Section 2.A.)
- ◆ Partnering spec included in solicitation (TAB L).
- ◆ Pre-Bid (-Proposal) meeting—Partnering pitch by Partnering Champion (on Agenda). Procurement will notify Partnering Champion in advance.
- ◆ Partnering invitation letter to contractor, concurrent with award notification letter. (TAB I)
- ◆ Director of facilities calls contractor to follow-up on Partnering invitation and discuss concept. (Section 2.B.)
- Partnering Champion provides Partnering Desk Reference and briefing to the project manager, as needed.
- ◆ Project Manager calls contractor counterpart to discuss Partnering program. (Section 2.B.)
- [Partnering Champion calls contractor only if advised that it would be beneficial.]
- Project Manager arranges Partnering info meeting and provides contractor with a copy of the Partnering Desk Reference. Partnering Champion or Project Manager leads Partnering discussion (philosophically, who attends sessions, need for an executive or internal session, etc.) (Section 2)
- ◆ Jointly schedule Partnering Workshop as soon as participants identified and available (Section 2.A. and TABS J & N)
 - Facilities and Facilitator (see Section 2.C. & TAB M),
 - Letter inviting workshop participants signed by NASA and contractor sponsor, (TAB O)
 - Workshop invitations to 3rd parties.
- ◆ Coordination with Facilitator before workshop.
- ◆ Hold executive/internal/initial Partnering workshop. (Section 3.F.)
- ♦ Finalize and distribute Report.

NOTES:

- 1. This process is for Partnering during the design, construction, or closeout phases. Although several steps are not necessary for internal Partnering, the same approach is recommended.
- 2. Centers are encouraged to customize this checklist.

I. INTRODUCTORY SAMPLE LETTER TO CONTRACTOR AFTER AWARD

December 11, 1998
Hans Jorgansen President Jorgansen and Sons
SUBJECT: Partnering
Dear Mr. Jorgansen:
Congratulations! I am delighted Jorgansen and Sons have been awarded our contract. Your Company has a reputation for excellence and we look forward to a mutually rewarding relationship.
We will have all the administrative formalities completed soon. In the meantime, we would like to propose a meeting with you within the next few weeks to discuss the "Partnering" approach to managing the Contract.
Our concept of Partnering is sharing common objectives, promoting cooperation, minimizing confrontation, and eliminating litigation. Success will be each stakeholder finishing the job a winner. We want an up-front agreement on expectations, helpful systems, and, most importantly, the complete commitment of senior leadership.
I am pleased to have you as a member of the team and part of the challenging endeavor. Our Director,
Again, congratulations and best wishes!
Sincerely,

Director of Facilities

NASA PARTNERING

J. ROI WHAT IS THE RETURN (BENEFITS) ON PARTNERING INVESTMENT (COSTS)?

Are the costs of Partnering a good investment? How much should be invested in Partnering to get an effective return of benefits? Since each project is unique, exactly how many savings can be realized on a project is impossible to forecast. However, all historical analyses (some included in this reference) show significant benefits for groups of projects. Benefits range from 2 to 30 percent of project cost. The Benefits Worksheet, below, is merely a form allowing you to estimate savings. The worksheet is followed by approximate Partnering costs to allow you to estimate the "investment" of Partnering. Finally, there is a guide to estimate an appropriate level of effort for a Partnering workshop.

The worksheets on this page and the following page have been developed to assist in planning and justifying expenses. Even though Partnering should generate a positive ROI, dollars are not primarily justification for Partnering. Product quality, improved safety, and a positive, enthusiastic working environment are more important reasons to use Partnering.

BENEFITS WORKSHEET

EST. SAVINGS

REDUCED PROJECT COSTS

"SOFT" Costs

◆ Paperwork (ility/innovation non-productive documentation) of effort (inspections, etc.)	
INCREASED VE BE	ENEFITS	
REDUCED LITIGAT	TION	
TOTAL		
"HARD" Costs	APPROXIMATE PART Consider only payments above norm Facilitator—\$1500 to \$300 Facility, lunch, and breaks- Participant Travel & Per Day	nal operating expenses including: 0/day + expenses \$_\$30/\day/\person approximately

Opportunities lost or encumbered employee expenses

NASA PARTNERING DESK REFERENCE

LEVEL OF EFFORT GUIDELINES

I. Size of Contract		
(A) Less than \$1M	(B) \$1M-\$10M	(C) Over \$10M
II. Duration of Project:		
(A) Less than 6 months	(R) Retween 6 & 12 mos	(C) Over 1 Vear
(A) Less than 0 months	(B) Between 0 & 12 mos	(C) Over 1 Teal
III. Complexity of Project:		
Consider the nature and number of issues a	nd the number of stakeholder	·S.
(A) Simple/Straight Forward	(B) Moderately Complex	(C) Highly Complex
IV. Previous Partnering Experience of Cont	ractor:	
(A) 3+	(B) 1-2 times	(C) None
V. Previous Partnering Experience of NASA	A Project Team	
(A) 3+	(B) 1-2 times	(C) None
VI. Quality of Experience of Key Partners:		
(A) Great	(B) Good	(C) Needs Improvement
All "A's" = 1/2 day workshop with internal	facilitator	
All "C's" = 2 day workshop with external f	acilitator	
Use 1 day or 1 1/2 day for other combination	ons.	
Any "C's" on item III-VI suggest use of ex	ternal facilitator.	

K. Possible Partnering Workshop-Matrix

NATURE	EXECUTIVE	INTERNAL	INITIAL	FOLLOW-UP	CLOSEOUT
wно	CEO'S / DIR, FD	OWNER - OR CONTRACTOR - OR CLIENT	STAKEHOLDERS	STAKEHOLDERS	STAKEHOLDERS
PURPOSE	- GO-NO GO - TOP LEVEL COMMITMENT - RESPONSIBILITY - POLICY GUIDANCE - BROAD, COMMON PROJECT GOALS	- BRING ORGN'L TEAM TOGETHER - "SINGLE VOICE"	- ESTABLISH RELATIONSHIPS - COMMIT TO WORK TOGETHER - BEGIN TO BUILD JOINT (PROJECT) TEAM - SIGN CHARTER - ESTABLISH ACTION PLANS	- REFOCUS ON JOINT TEAM - CHECK PROGRESS	- CELEBRATE - PLAN FOR PROJECT WRAP-UP - IDENTIFY PROCESS IMPROVEMENTS FOR FUTURE PROJECTS
METHOD	- LETTER - TELEPHONE - MEETING - FACILITATED WORKSHOP	- MEETING(S) - FACILITATED WORKSHOP	- FACILITATED WORKSHOP WITH SOCIAL PERIOD, IF POSSIBLE	A. JOINT TEAM MEETINGS B. FACILITATED WORKSHOP	- FACILITATED WORKSHOP AND LUNCH OR DINNER (6 HRS)
WHEN	- AS SOON AS PLAYERS IDENTIFIED	- AS SOON AS PLAYERS IDENTIFIED	- AS SOON AS PLAYERS IDENTIFIED	A. EVERY MONTH (OR WEEK) B. BETWEEN 20-30% COMPLETE AND/OR NEW PERSONNEL AND/OR NEW PHASE	JUST PRIOR TO KEY PERSONNEL LEAVING JOB (95-98% COMPLETE)

L. PROPOSED NASA FAR SUPPLEMENT SUBPART 1836.70 PARTNERING

1836.7001 Definition.

Partnering means a relationship of open communication and close cooperation involving both the Government and the contractor for the purpose of establishing a mutually beneficial, proactive, cooperative environment within which to achieve contract objectives, resolve issues, and implement actions as required.

1836.7002 General.

- (a) The establishment of a partnering environment usually leads to higher quality products, completed quicker, at lower overall costs, and with fewer accidents and litigation.
- (b) The use of partnering is encouraged as it has been shown to reduce the average contract cost and schedule growth and to reduce contract claims and litigation.
- (c) Partnering is a voluntary contract relationship within the management process that is not to be used to alter terms of the contract unofficially.

1836.7003 Policy.

- (a) Partnering should be used on a contract when the Contracting Officer, in coordination with the Project Manager, determines that the benefits to be achieved from its use are expected to be greater than the costs.
- (b) In determining whether the benefits of partnering are greater than the costs, the following factors should be considered:
 - (i) The estimated dollar value of the contract;
 - (ii) The complexity of the work to be performed;
 - (iii) The contemplated length of the contract;
 - (iv) The estimated costs to be incurred in contracting the partnership development and team-building initial and follow-up workshops.

1836.7004 NASA solicitation provision and contract clause.

The contracting officer may insert a provision substantially the same as stated at 1852.236-75, Partnering, in solicitations for construction and architect-engineering services, when it has been determined in accordance with 1836.7003 that the benefits to be derived from Partnering exceed the costs.

1852.236-75 Partnering.

As prescribed in 1836.7004, insert the following provision.

PARTNERING (XXX 19XX)

- (a) The terms "Partnering" and "partnership" used herein shall mean a relationship of open communication and close cooperation that involves both Government and Contractor personnel working together for the purpose of establishing a mutually beneficial, proactive, cooperative environment with which to achieve contract objectives, resolve issues, and implement actions as required.
- (b) Partnering will be a voluntary commitment mutually agreed upon by all parties. Sustained commitment to the process is essential to assure success of the relationship.
- (c) NASA intends to facilitate contract management by encouraging the foundation of a cohesive partnership with the Contractor, its subcontractors, and NASA's contract management staff. This partnership will be structured to draw on the strengths of each organization to identify and achieve mutual objectives. The objectives are intended to complete the contract requirements within the budget, on schedule, and in accordance with the plans and specifications.
- (d) To implement the partnership, it is anticipated that within 30 days of the Notice to Proceed the prime Contractor's key personnel, its subcontractors, ACE design contractor, and NASA will attend a partnership development and teambuilding workshop. Follow-up team-building workshops will be held periodically throughout the duration of the contract as agreed to by the Government and the Contractor.
- (e) Any cost with effectuating the partnership will be agreed to in advance by both parties and will be shared equally with no change in the contract price. The contractor's share of the costs is not recoverable under any other Government award.

NASA PARTNERING DESK REFERENCE

M. FACILITATOR CHECKLIST

QUALIFICATIONS

A good facilitator should possess:
communication and listening skills,
a basic understanding of construction,
organizational skills,
team-building skills,
flexibility,
problem-solving/conflict management skills,
willingness to become familiar with the project and people, and ar
understanding of the groups needs.
A good facilitator:
assists the group in focusing on common problems and goals,
creates an environment of openness and trust,
strives to build consensus and commitment on all topics,
establishes credibility and trust, and
matches the "personality and style" of the project stakeholders.
A facilitator does not:
offer personal opinions,
attack or criticize any participants or their ideas, or
get personally involved in any problems.
WHAT TO EXPECT AT THE WODISHOD
WHAT TO EXPECT AT THE WORKSHOP
The facilitator should establish credibility and trust by:
briefly stating qualifications, work experience, and training;
explaining roles, responsibilities, and objectives;
helping stakeholders set ground rules; and
remaining objective and positive.
A good facilitator will:
serve as a positive role model,
organize the workshop,

__ determine what participants want from the workshop,

The facilitator's role need not end with the conclusion of the first Partnering meeting. Successful Partnering projects have ongoing evaluation, and keeping the facilitator involved throughout the project can help smooth out rocks in the road or bring newcomers up to speed on the Partnering process. Followup meetings reinforce commitment to Partnering, fine-tune Partnering procedures or objectives, and evaluate progress to date. A Partnering session near the conclusion of the project will highlight the value of Partnering, provide closure, and assess overall effectiveness of the Partnering process on the project.

NASA PARTNERING DESK REFERENCE

N. PARTNERING WORKSHOP CHECKLIST

INITIAL COORDINATION
Level of Effort (Duration)
Dates, Times
Project Description & Scope of Work
Attendees roster with telephone numbers (to facilitator for interviews)
Dress (casual?)
Roles
FACILITY
Size
Breakout rooms
"U" or Rounds
Meals/Beverages
Name Tents
Name Tags
Pads or Note Cards
Easels with Pads & Markers
White/Black Board
Pins or Tape
Plans & Specs
Camera
HANDOUTS
Roster
Draft Agenda
Problem Solving Format
Workshop Evaluation
Signature Card (5x8) for Charter or ability to produce Charter at workshop
POST-WORKSHOP REPORT
Cover
Agenda
Roster
Charter
Issues
Action Plans
-Issue Resolution Process
-Team Follow-up Evaluation and Maintenance Plan
-Others
Workshop Evaluation Summary
When & to whom required

SAMPLE FORMAT

O. ATTENDEE INVITATION TO PARTNERING WORKSHOP

from 8:00 AM to 4:30 PM at the	rtnering process on NASA's Contract # in The purpose of the workshop team attitude, establishing contract goals, deve to the plan.	is to form a cohesive,
You are a key member of this project team a	and your participation at this stage is important	
opportunity to socialize with the rest of the t	the show up early and lunch is provided both determ at the hotel at the end of the first day's seed in the lobby. Free parking is available at the hard and have fun.	ssion. Notice of the meet-
The NASA Partnering Desk Reference provi	ides read/look ahead information if you are int	erested. See
at for a copy. Also include	ded are directions to the facility. If you have o	uestions or want to talk
about Partnering, please call	at	
Project Manager	Project Manager	
Jorgansen and Sons	NASA	

DRAFT AGENDA

2 DAY WORKSHOP BREAKS @ MID AM & PM — LUNCH @ 11:30

HOURS	DAY 1 8:00 - 5:00
.5	REGISTRATION and CONTINENTAL BREAKFAST
2.0	INTRODUCTION Welcoming Statements, Team Member Introductions, Interview Feedback (anonymous) & "set stage"
2.0	PROJECT GOALS List by Role Workgroup & Post Compare & Consolidate into Draft Charter
1.0	ISSUES: OBSTACLES & OPPORTUNITIES List & Consolidate
.5	PROBLEM SOLVING PREPARATION Match Issues to Functional Groups and Provide Techniques
2.0	PROBLEM SOLVING / ACTION PLANS—CYCLE 1 Workgroup Solutions
	5:30 - 6:30 SOCIAL HOUR 6:30 - 7:30 DINNER
	DAY 2 8:00 - 2:30
.5	CONTINENTAL BREAKFAST
1.0	PROBLEM SOLVING / ACTION PLANS—CYCLE 1(cont.) (4 x 15) Workgroup Presentations & Discussion
2.0	PROBLEM SOLVING / ACTION PLANS—CYCLE 2
1.5	PROBLEM SOLVING / ACTION PLANS—CYCLE 3
.5	CLOSURE Consolidate & Finalize Action Plans Validate & Sign Charter Evaluation & Closing Comments

END OF WORKSHOP

Q. PARTNERING AGREEMENT

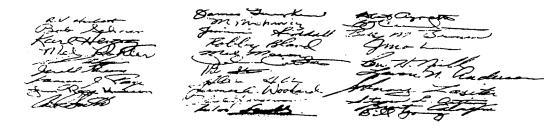


As a partnership on our FPO project, we agree to emphasize safety and all other regulatory compliance <u>first</u>, then work together, as a team, to accomplish the balance expected among product quality, operability, schedule & project cost to achieve mutual profitability and friendship.

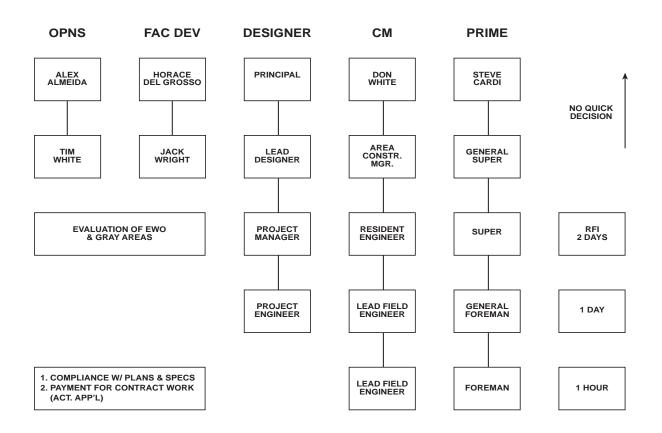
SAFETY - OPERABILITY- SCHEDULE - PROJECT COST \leftrightarrow PROFITABILITY, FRIENDSHIP \leftrightarrow

TEAM GOALS

- ◆ Accident free project.
- ◆ The safest and most environmentally compliant Rexene facility.
- Design for product quality, operability, maintainability, reliability consistent with other Rexene facilities.
- ◆ Rexene secrecy requirements will be met.
- ◆ Schedule for mechanical completion on November 29, 1996 or earlier.
- ◆ Project cost will be minimized subject to the above goals.
- Engineering, design and construction quality will be maximized consistent with other goals.
- Best documented Rexene facility.
- Everybody makes a fair profit.
- All 3 companies and their employees achieve gratification, recognition, and a basis is established for long term relationships.



R. Decision on Field Issues Escalate Issues with Both/All Parties Present



S. PARTNERING TEAM ASSESSMENT INPUT

MAINTENANCE BUILDING

ITEM	*LOW (1)	*BELOW AVERAGE (2)	AVERAGE (3)	ABOVE AVERAGE (4)	EXCELLENT (5)
LEADERSHIP					
QUALITY/ ON TIME					
SAFETY					
COMMUNICATION					
MUTUAL TRUST					
TEAMWORK					
TIMELY ISSUE RESOLUTION					
RESPONSIVE PROCESSING					
COMMUNITY RELATIONS					
HAVE FUN					
INTERORGAN RELATIONS					
WIN/WIN ATTITUDE					
VALUE ENGR					

OBSERVATIONS & SUGGESTIONS FOR IMPROVEMENT
(*COMMENT IS REQUIRED FOR LOW AND BELOW AVERAGE RATINGS)

DATE: ______ SIGNATURE (OPTIONAL): ______

_____ NASA _____ DESIGNER ____ CM ____ PRIME CONTR ____ SUB

PARTNERING TEAM ASSESSMENT <u>SUMMARY</u>

MAINTENANCE BUILDING PERIOD <u>25 SEPT. 94</u> TO <u>7 JAN. 95</u>

ITEM	NASA	DESIGNER	СМ	CONTR	SUBS	AVERAGE
LEADERSHIP	3	4	4.5	3	3	3.4
QUALITY/ ON TIME	3.5	3.5	3.5	3	4	3.5
SAFETY	3	3.5	3.5	3	3	3.2
COMMUNICATION	3.8	2.5	4	4	3.5	4
MUTUAL TRUST	4.3	4	4.5	4	4	4.2
TEAMWORK	4	4	4.5	4	4.1	4.2
TIMELY ISSUE RESOLUTION	3	3	3.5	2	2	2.7
RESPONSIVE PROCESSING	2.7	3	3.5	4	4.5	3.6
COMMUNITY RELATIONS	3.7	3	3.5	4	4.5	3.6
HAVE FUN	3.5	3.5	4.5	2	3	3.2
INTERORGAN RELATIONS	3.5	3.5	4.5	4	3	3.6
WIN/WIN ATTITUDE	4	3.5	4.5	3	3	3.7
VALUE ENGR	2.5	2	2	2	2	2.1
AVERAGES	3.44	3.41	3.76	3.07	2.84	3.3

OBSERVATIONS & SUGGESTIONS FOR IMPROVEMENT:

Contractor should request V.E. suggestions by letter to subs to initiate program

Contractor's onsite team needs engineering & scheduling support from home office

A/E - CM - NASA need to simplify RFP's for changes especially drawings

NASA needs to expedite change requests and, when necessary, issue notice to proceed before price is negotiated

Low and below average ratings are items that were worked on extensively at follow-up Partnering sessions. This will help.

T. (SAMPLE) FDA CONSTRUCTION PHASE PARTNERING WORKSHOP EVALUATION SUMMARY

DECEMBER 18 & 19, 1997 (#s in () indicate # of replies)

I. WORKSHOP

A. What was the most valuable thing you learned?

Other sides' viewpoint (2); Everyone would like to cooperate (3); Get to know players, names with faces and build friendships, relationships (4); Expectations of others concerning my role and their understanding of my expectations of them; The importance of teamwork as viewed by everyone present; Contractors & the government can come together for everyone's benefit; Moving from organization perspective to project perspective; Cooperation/communication is essential; Importance of leadership being in agreement; People can compromise for the good of the project (2)

B. What was the strongest aspect of the Workshop?

Cooperation of all parties; Getting to know players on a more personal level opens the communication lines to concerns & perspectives (7); Buy-in to teamwork; group participation; Cooperation & communication importance; Development of problem solving/action plans; Identifying roles of all parties; Participation; Team building; The speaker Chip was very motivating

C. What should be omitted/changed?

Shorter breaks would give time for social interaction at meeting room; Day 2 very hard to draft; Regarding attitude/teamwork issues, it would be helpful to review motivational psychology to identify problems/solutions; Real life experiences from G.C. & subs; More time to connect/build relations with people directly working together; Present team goal outline at beginning; A few additional hours; Nothing (10)

D. Did this Workshop have value to the Project?

Yes (8); Definitely; Most definitely (2); Yes, break the ice & brainstorm ideas; Yes, momentum has been started & now we need to keep going; Yes, providing all parties live up to party decisions; Yes, it showed we were all thinking about the best way to complete the project and forced us to put it to paper and commit.

E. Using a scale of 1 (ineffective) to 5 (very effective), rank the effectiveness of the Workshop 4.7; Facilitator 4.7.

F. What can the Facilitator do to be more effective?

Nothing (12); No room for improvement; Do follow-up workshops; Keep group focused / try to contain stray conversation

G. Do you see the value of a followup workshop? Yes (10); Yes, midway thru project; Yes, especially to measure actual vs. expectations; No; Perhaps at the end, to learn from our experience - how did workshop concepts help our planning implementation.

II. RELATIONSHIPS Rate the Team in the following areas.

1- Poor; 2- Fair; 3- OK; 4- Very Good; 5- Excellent

·	WOR	SHOP	
	<u>PRE</u>	<u>POST</u>	
Efficiency in recognizing & resolving problems quickly	2.7	4.3	
Effectiveness in resolving problems fairly	2.7	4.2	
Communication	2.7	4.5	
Cooperation	3.2	4.6	
Teamwork	2.0	4.6	
The <u>concept</u> of all stakeholders working together as "Partners"	$-\frac{3.1}{2.7}$	3.8 4.3	
Average	4.1	4.3	

U. SAMPLE REPORT TABLE OF CONTENTS

ROSTER	
WORKSHOP EXPECTATIONS	
CHARACTERISTICS OF PROJECT TEAM	
TEAM STRENGTHS	
DESIGNER'S ROLE	
CONTRACTOR'S ROLE	
CM'S ROLE	
PARTNERING AGREEMENT5	
GROUP A ISSUES	6
ACTION PLANS	
A1 - POLITICS	
A2 - CONCRETE FINISH	
A3 - VALUE ENGINEERING	9
GROUP B ISSUES	
ACTION PLANS	
B1 - PERSONNEL	
B2 - SAFETY/SECURITY	
B3 - WEATHER	
B4 - EQUIPMENT BREAKDOWN	
B5 - HIDDEN CONDITIONS	
B6 - MATERIAL DELIVERY	
B7 - BUY AMERICA	
B8 - COMMUNICATION/ACCOUNTABLE	
CHART	19
GROUP C ISSUES	20
C1 - QUALITY CONTROL	
C2 - PROJECT PROCESS	
C3 - SCHEDULE	
C4 - CHART- PAYMENT PROCEDURES	
C5 - CHART - SUBMITTAL & RFI FLOW	
GROUP D ISSUES	26
ACTION PLANS	
D1 - ATTITUDE	
ASSESSMENT	28
ASSESSMENT SUMMARY	29
D2 - CHART - INFORMAL RELATIONSHIPS	30
D3 - CHART - DISPUTE RESOLUTION	
EVALUATION SUMMARY	

V. THE CHEERLEADER'S GUIDE

The Partnering process is initiated, for most stakeholders, with an initial workshop. Here the stakeholder group is converted to a team with common goals and mutually developed processes and guidelines ("Action Plans") to achieve these goals. The initial workshop virtually always is successful for the project (or long term association) which generated the workshop. In order for the workshop participants to fully realize the benefits of Partnering, the commitment to and enthusiasm for the goals and Action Plans must be maintained and increased throughout the duration of the project/association. The most common reason Partnering does not achieve its potential is the failure to maintain the momentum generated at the initial workshop.

- Three keys to maintaining this team momentum are: 1. a process of meetings, assessment and continuous improvement - appropriately established at the workshop by the team; 2. leadership; and 3. encouragement. The leadership is often shared by two or three individuals from different organizations that play key roles (e.g., owner, designer, constructor). The leaders are most frequently found at (or on level above or below) the Project Manager/Resident Engineer level. These positions have an appropriate balance of authority and project involvement to facilitate effective leadership. When the leader(s) has the temperment, time, and motivation to encourage the team, he might be called a "champion." When the leader(s) lacks one or more of these attributes, from where will the encouragement come? We suggest a "cheerleader" be identified to fulfill this critical role of focusing on an encouraging the teamwork/bonding/interpersonal relationships so often neglected by technically trained engineers and constructors.

CHEERLEADER'S PURPOSE:

To encourage all members to work together selflessly as a team, helping each other achieve their common goal(s).

CHEERLEADER'S RESOURCES:

ENCOURAGEMENT, CELEBRATION, PRAISE, COMMUNICATION, ACTIVE, EMPATHETIC LISTENING

CHEERLEADER'S DUTIES: ESTABLISH IDENTITY:

- At initial workshop, the Facilitator and organizational leadership should ascertain the need and identity of the cheerleader.
- Before the workshop ends, the Facilitator should ensure the cheerleader is known and accepted by the team, especially the team leader(s).

PLAN AND FACILITATE TEAM MEETINGS:

- Three types of meetings are project meetings, followup, and closeout.

- Assist the leaders in planning the meetings focusing on teamwork. This is perhaps best addressed as a regular agenda item on the periodic meetings held on most projects. There may also be a need to have less frequent team meetings devoted specifically to teamwork issues. These are often called followup or in-process meetings/workshops and last from an hour to a day. A followup workshop may occur just once, perhaps 2 or 3 months (or 25-30% complete) into the project, or on a regular basis every month or quarter. An independent facilitator is often used for followup workshops large or important projects. A third type of team meeting is a closeout workshop that is held when work is substantially complete and just before the team starts disbanding. The purposes of this workshop are (a) celebration, (2) facilitating closure and (3) process improvement for participating organizations from lessons learned.

CHEERLEADER'S MEETING CHECKLIST:

- Location and time: convenient for all; psychologically comfortable
- Configuration of seating: see and hear each other; avoid grouping by organizations
- Agenda: establish beforehand; distribute to participants prior to the meeting; assign lead responsibility
- ◆ Facilitator: identify a facilitator; rotate this responsibility; be prepared to facilitate initial meeting(s)
- Process: encourage openness and praise ("what went right")
- Keep in mind: periodically revisit the goals & action plans; focus on the issue or process; protect the "messenger for being shot;" capture and disseminate meeting results.

OTHER DUTIES:

- Have team identify a "partner" or team player of month/week
- Encourage the team to develop a logo to use on caps, shirt, mugs, project signs, etc.
- Integrate on to the team the guys in the trenches, the team, new team members and others who did not attend the initial workshop
 - ◆ Use the workshop report
 - ◆ Post meeting minutes on job
 - ◆ Establish "mentor" program

W. TWO KEY ROLES FOR PRODUCTIVE TEAM MEETINGS

FACILITATOR

Each meeting should have a facilitator who is responsible for keeping the meeting focused and moving. The facilitator role is often assumed by the group leader, especially in informal meetings. However, a separate facilitator should result in more effective meetings. Three levels of (real and perceived) objectivity and professionalism are common: a paid, external facilitator (see 2. C.); a trained facilitator from one of the participatory organizations, but not a regular individual project team member; and an individual project team member who adopts the role. Cost and availability generally dictate the third level as the most practical and common for most team meetings. The sacrifice of foregoing one's personal input for one meeting will pay long-range dividends. This separation of roles can add much to meetings, including better participation, decision making and use of time. The facilitator's chief responsibilities are:

- See that the group clearly understands the purpose of the meeting;
- Keep the discussion focused on the topic and moving along;
- ◆ Intervene if the discussion fragments into multiple conversations;
- ◆ Tactfully prevent anyone from dominating or being overlooked.

The facilitator is responsible for process, not content. He or she is a neutral servant of the group, suggesting ways of addressing the issues and neither contributing nor evaluating ideas. It is generally the most difficult and often the most active role. As a team progresses, the facilitator works less and talks less, both desirable ends, for they take time and energy away from getting the job done.

If this role is rotated among participants, everyone will become more appreciative of the facilitator's role plus gravitate toward a "we" rather than "me" mode of thinking.

RECORDER

The recorder records the what, who, when (and often the why, where and how much) of a meeting in the form of minutes or captures the ideas of members on 'newsprint' or large 'flipcharts'. (Occasionally an electronic whiteboard may be available which will print out the felt tip notes on an 8 1/2" x 11" sheet.) Record, in the view of all, relevant points in the words of the speaker. If you get behind or do not understand—ask.

- ◆ Listen for key words
- Capture the essence of an ideas
- ◆ Do not write down every word
- ◆ Do not be afraid to misspell
- ◆ Do abbreviate words
- ◆ Circle key ideas, statements or decisions
- Vary colors; use colors to highlight and divide ideas
- Underline
- ◆ Use stars, arrows, numbers, etc.
- Number all the sheets

NASA PARTNERING

ISSUE RESOLUTION NUMBER — ISSUE# STATEMENT OF ISSUE / PROBLEM / OPPORTUNITY: ISSUE / PROBLEM / OPPORTUNITY TO BE RESOLVED **NASA VIEWPOINT** CONTRACTOR VIEWPOINT (TO BE COMPLETED BY CONTRACTOR (TO BE COMPLETED BY NASA **AUTHORIZED REPRESENTATIVE AUTHORIZED REPRESENTATIVE** 2. 2. 3. NASA GOAL(S) / OBJECTIVE(S) FOR ISSUE: CONTRACTOR GOAL(S) / OBJECTIVE(S) FOR ISSUE: 2. 2. REFERENCE REFERENCE

CONTR. INIT.

DATE:

NASA INIT.

DATE:

Y. CLOSEOUT WORKSHOPS A TYPICAL CLOSEOUT WORKSHOP

<u>WHEN:</u> The workshop is held when the work is substantially complete, just before the workforce starts to dis band. The paperwork will not be complete.

<u>WHO</u>: Most of the initial workshop attendees should participate. The number will likely be a bit less, due to some turnover or schedule conflicts and parties more interested in future projects.

<u>DURATION:</u> Four to five hours should be sufficient. Recommend the workshop conclude with a "celebration"—lunch or dinner.

RECOMMENDED WORKSHOP CONTENT

<u>EXPECTATIONS</u>: As in most other participatory workshops, it is a good idea to ask participants (at the beginning of workshop) what they would like to get from the workshop. Common responses follow, with the predominate two listed first: identify future improvements; tie up loose ends; better understanding of other players; celebrate successes; end job on positive note; evaluate/validate Partnering; how did we do?

<u>CHARTER EVALUATION</u>: The most obvious and accurate method of assessing project success is to solicit opinions of how well the team achieved their original goals. These goals are generally called the Charter or Partnering Agreement. Separately evaluate each goal, objective or category. Focus on high and low evaluations; note which partner rates high or low.

REVIEW TEAM ASSESSMENTS: Effective Partnering teams generally will develop, during the initial workshop, a process to have all Partners jointly evaluate the effectiveness of the Partnering effort. Results from ADOT project joint team assessments are complied by the ADOT Partnering office. A review of these periodic evaluations is helpful for a number of reasons. The trend of results, plotted over the life of the project, reveal a team "biography". The results of one closeout were almost a textbook example of "forming, storming, norming and per forming". Low ratings can be examined for root causes. Also investigate why high ratings were given - a good idea or practice may be applied in other areas or other projects.

<u>ISSUES:</u> Refine your list of issues by consolidating and adding to the results of the Charter Evaluation and Team Assessment review. Have the team select the issues for which they want to develop Action Plans.

ACTION PLANS: These Action Plans are very similar to those developed for the initial workshop, with two differences. First, the action will generally not apply to the project, but to a number of projects or the internal operation of one or more of the Partnering organizations. Second, the existing team will likely not implement the plan, but it will be implemented by the Partnering organizations.

WORKSHOP RESULTS

<u>PROCESS IMPROVEMENT</u>: Most of the Action Plans deal with doing things better in the future or applying good ideas to a broader area. In both cases, a process or procedure is recommended for broad application—not just for a specific project. For instance, during one ADOT workshop, of the 23 issues developed into Action Plans, 19 had broad application potential that would make positive contributions to many, many projects.

[As helpful as initial Partnering workshops are, the actions they develop are almost always project specific and short term—more like "Band-Aids" in so far as the organization is concerned. That is fine and meets the purpose of most initial project workshops ("long-term" Partnering or strategic alliances are different in this respect). The proclivity of most constructors is to address the immediate and specific.]

<u>TIE UP LOOSE ENDS</u>: Some Action Plans address streamlining, expediting, simplifying, or curtailing the end-of-workshop administration process, so seldom discussed at the initial workshop.

<u>CELEBRATION</u>: There will be something to celebrate about your project. The celebration can range from a lunch, hors d'oeuvres and drinks, to a banquet. Team members can receive awards, compliments, certificates, or simply the satisfaction of sharing the recognition of a job well done.

BENEFITS OF CLOSEOUT WORKSHOPS

- Long-term improvements of organizational programming, procurement, design, construction, and maintenance processes—resulting in organizational efficiencies, higher morale, and better facilities in the future
- Quicker, smoother project closures
- Improved relationships—between people and organizations
- Refinement of the Partnering process
- More satisfied, fulfilled individuals with their win-win attitude reinforced

CONCLUSIONS

Initial Partnering workshops have virtually always helped make <u>projects</u> better. Closeout workshops have the potential of making the <u>system</u> better. This potential can be realized only with a disciplined commitment by organizational leadership to institutionalize the Action Plans! Easier said than done. Much is involved in verifying and extrapolating an action plan for generic use. Similarly, the payoffs may not appear as tangible or quickly secured as those for project Action Plans. For example, how many of the 19 generic Action Plans from the ADOT workshop above have been implemented?

Process improvement, the goal of the quality movement, has no more fertile field than Action Plans from a Partnering closeout workshop.

"...it must be considered that there is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things. For the reformer has enemies in all those who profit by the old order, and only lukewarm defenders in all those who profit by the new..."

Nicolo Machiavelli—The Prince