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## TOTAL QUALITY MANAGEMENT: STRENGTHS AND BARRIERS TO IMPLEMENTATION AND CULTURAL ADAPTATION

by

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NASA/Langley Research Center (LaRC) is in the process of implementing Total Quality Management (TQM) throughout the organization in order to improve productivity and make the Center an even better place to work. The purpose of this project was to determine strengths and barriers to TQM being implemented and becoming a part of the organizational culture of the Human Resources Management Division (HRMD) at Langley. Although there are many definitions of TQM, one that is most comprehensive is contained in the *Draft Department of Defense Total Quality Management Guide* (cited in Saylor, 1992):

Total Quality Management (TQM) is both a philosophy and a set of guiding principles that are the foundation of a continuously improving organization. TQM is the application of quantitative methods and human resources to improve the material services supplied to an organization, all the processes within the organization, and the degree to which the needs of the customer are met, now and in the future. TQM integrates fundamental management techniques, existing improvement efforts, and technical tools under a disciplined approach focused on continuous improvement (p.6).

"Corporate culture is the set of formal and informal beliefs, norms, and values that underlie how people in an organization behave and react to change" (Carr & Littman, 1990. p. 181). Carr and Littman (1990) stated that the cultures of traditional organizations generally are not completely supportive of TQM; in fact, some aspects "of the older cultures" can impede quality improvement efforts. On a more positive note, the authors asserted that "executives can learn to treat corporate culture as a manageable variable in the quality equation" (p. 181). However, factors which are causing resistance to TQM must be confronted and conquered in order for a total quality culture to exist (Atkinson, 1991).

Berry (1991) indicated that in order for TQM to succeed, four critical success factors need to exist: (1) top management involvement; (2) a corporate culture that supports the TQM effort; (3) training in TQM tools and techniques; and, (4) customer communications. Dumas described research on TQM efforts which was conducted by Zenger-Miller, management development consultants, based on over 800 organizations. The findings "showed that the majority of ineffective implementations revolved around leadership, skills, strategy, and people issues" (as cited in Clemmer, 1991, p. 40).

The target population for this project was both the supervisory and nonsupervisory staff of the HRMD. In order to generate data on strengths and barriers to TQM implementation and cultural adaptation, a modified nominal group technique was used. Four sessions were held; one

with supervisory staff, and three with nonsupervisory staff. A definition of corporate culture was presented to each group before gathering data, to ensure that everyone was operating from a common frame of reference. Two questions were posed to each group, as indicated below:

1. What strengths currently exist to help total quality management be implemented and become a part of the culture of the Human Resources Management Division?
2. What are the barriers to total quality management being implemented and becoming a part of the culture of the Human Resources Management Division?

Supervisors generated 28 strengths and categorized them, in order of importance, beneath the following themes: attitude, HRMD staff, work environment, resources, and interaction. Similarly, 49 barriers were generated and the supervisors categorized them beneath the themes of attitude, work environment, staff, interaction, and resources.

The 30 strengths and 41 barriers produced by nonsupervisors largely paralleled those generated by supervisors. The strengths and barriers were not categorized in order of importance for nonsupervisors, because with three separate sessions, there was not necessarily agreement between the groups. Nonsupervisors categorized the strengths beneath the themes of leadership, employees, communication, center culture, attitude and skills of staff in the Employee Development Branch, and technical support. Barriers were categorized beneath the themes of communication, leadership, training, attitudes, perceptions of center employees, resources, and center culture.

Supervisors and nonsupervisors who participated in the nominal group sessions will review the compiled data for their respective groups. The data will then be fed back to the participants through a series of meetings. Both supervisors and nonsupervisors will be present when data feedback takes place. Participants will be strongly encouraged to own up to, comment on, clarify, or discuss individual items that need to be addressed or debated. With the assistance of this consultant, the data feedback sessions will enable the employees to diagnose the barriers to TQM implementation and cultural adaptation in the HRMD, and to determine organizational development interventions and other strategies that are needed to eliminate these barriers (where feasible). Action plans will be developed and implemented.

Approximately one year from now, an evaluation will be conducted to determine the extent to which the barriers to TQM have been removed and strengths have increased. The evaluation may reveal new barriers that have emerged and need to be addressed. Should the project prove beneficial, it is recommended that the process be continued throughout LaRC.

### References

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