

Peace Engineering

*When Personal Values and
Engineering Careers Converge*

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Table of Contents

Preface

Chapter 1

The Evolution of Peace Engineering

P. Aarne Vesilind

1

Chapter 2

Building a Proactive, Pro-Peace Culture in Engineering

Robert B. Textor

13

Chapter 3

The Morality of Weapons Research

John Forge

21

Chapter 4

Just Engineering: Peace, Justice, and Sustainability

Daniel A. Vallero

41

Chapter 5*Engineering and the Threat of Terrorism**P. Arne Vesilind*

57

Chapter 6*Working for Peace in International Emergencies:
The Varied Roles of Engineers and Engineering**Dennis B. Warner*

75

Chapter 7*Military Engineering Education:
To Promote Peace, Not War**Joe D. Manous, Jr.*

93

Chapter 8*Working for Peace in the Peace Corps**Theresa Good*

107

Chapter 9*Engineers Working for Peace through
International Development**Regina Clewlow*

121

Chapter 10*University Life and Peace Engineering**P. Arne Vesilind*

135

Preface

Engineering has historically provided tools necessary for defending our country and for promoting freedom throughout the world. But do engineers also have a central role in the promotion of peace—a peace that might make such war unnecessary? That is, can engineers use their education and skills to proactively encourage peace in our world—to practice *peace engineering*?

Is the accumulation of technical skill enough for engineers to be effective in practicing peace engineering, or do they need social, political, communication, ethical, and legal skills as well? How can engineering educators respond to the challenges of preparing engineers to practice peace engineering? Finally, what opportunities are there for engineers wanting to work proactively in the promotion of peace?

Informal discussions about these questions among the faculty of the College of Engineering at Bucknell University evolved into a symposium held in November 2003 entitled **Engineers Working for Peace**. The day-long event brought together faculty and students from Bucknell University, Lehigh University, and Lafayette College, as well as practicing engineers and other interested individuals from the community.

This volume is a collection of some papers presented at the symposium. The first paper on peace engineering was not presented in its entirety, and the paper by John Forge on engineers working on armaments was added after the symposium, as were

the papers by P. Aarne Vesilind on engineering's response to the threat of terrorism and on the opportunities for practicing peace engineering in academia.

Although each chapter in this volume approaches the topic of peace engineering from a different direction, they all address the central issue of engineering and the pursuit of peace. We hope that our experiences during the symposium, and the conclusions we reached, will influence and help other engineers, particularly young people just entering the profession. The authors demonstrate through their own experiences that it is possible to simultaneously work for peace and have meaningful engineering careers.

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“We know more about war than about peace; more about killing than about living”

General Omar Bradley
Found at the German Cemetery, Normandy