

Engineering Combat: The Battlefield As Showcase For New Technology

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Review

ENGINEERING COMBAT

The battlefield as showcase for new technology

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Ross, Charles *Trial by Fire: Science, Technology, and the Civil War*. White Mane, ISBN 157249185X

In **Trial by Fire**, Charles Ross presents an interesting book covering the applications of science and technology in the Civil War. Ross addresses the applications of existing technology to support combat forces and the applications of new technology to combat. While the book is not an exhaustive examination of the effect of technology in the War, it is a credible look at man and his application of science and technology in the art of war.

The book is divided into two sections. The first section is "The Right Man for the Job" and covers men who knew technology of the day and used it to influence the outcome of battles. Ross selects three individuals who applied contemporary technology to battlefield tactics: "Henry Pleasants and the Mine at Petersburg"; "Joseph Bailey and the Red Rivers Dams"; and "George Washington Rains and Confederate Powder." Of particular interest is the discussion of production of gunpowder for the Confederacy. This subject alone is worthy of extensive study, and Ross's work is a good place to start.

The second section is "Technology Meets the Civil War." It deals with newer technologies and their applications to warfare. Specifically Ross addresses submarine warfare, observation balloons, and the telegraph. The distinctions between this section and the previous section are at times not clear. For example: submarines were not new when the Civil War started and the men who applied the technology are as important in this section as in the previous. I find this a point to quibble over only for those who seek such points.

Trial by Fire as a whole looks at technology as it was developed during this period and how it was applied to warfare. The work also covers the relations

between men who knew the technology and the leaders who had to apply it. Ross does a credible job of pointing out the conflicts that arise between combat leaders and proponents of new technology. The latter are likely to be crusaders for their new method; the former must balance the need for success on the battlefield against the sometimes unfounded enthusiasm of "technologists."

The style of the work may be annoying to some readers. Ross gives hints of topics worthy of investigation, then drops them. At times he presents a scholarly style; at others, a more conversational tone. These are minor annoyances that in no way detract from the overall value of the book. Good footnotes, a bibliography, and appendices addressing some of the period's advanced technology provide a better understanding of the science involved. **Trial by Fire** is not the definitive work on this subject, but it is a fine place to begin.

William S. Gross, a colonel in the Army Reserves with experience at all levels from company command to staff work at corps level, currently commands the 493rd Engineer Group (Combat). He considers the study of military history a critical part of military professional development.