Comparison of Heat Exchanger Designs for Aircraft Thermal Management

William Cody Reed

Thesis submitted to the Faculty of the
Virginia Polytechnic Institute and State University
in partial fulfillment of the requirements for the degree of

Master of Science
In
Aerospace Engineering

Pradeep Raj, Co-Chair
Michael R. von Spakovsky, Co-Chair
Seongim Choi

May 5, 2015
Blacksburg, Virginia

Keywords: Thermal Management System, Optimization, Aerospace, Heat Exchangers, Thermal Storage
Permission to Reprint Figures

2 messages

Cody Reed <reedwc@vt.edu> Tue, May 12, 2015 at 3:43 PM
To: Peter Weise <peter.c.weise@gmail.com>

Peter,


The requested material would be republished in Virginia Tech's Digital Library and Archives for educational purposes. I appreciate your help.

Sincerely,

Cody

--
W. Cody Reed
BS/MS Aerospace Engineering
Virginia Tech 14/15'
Phone: (804) 761-5685
Email: reedwc@vt.edu

Peter Weise <peter.c.weise@gmail.com> Tue, May 12, 2015 at 4:46 PM
To: Cody Reed <reedwc@vt.edu>

Cody,
You have my permission to reprint those figures. Good luck with your work. Please send me a copy of your paper or thesis when you are done. I'd love to read it.
Thanks,
Peter

[Quoted text hidden]
Permission to Reprint Figures
2 messages

Cody Reed <reedwc@vt.edu>  
To: grant.gvozdich@gmail.com  

Grant,

I am writing to ask permission to reprint figures and tables [Specifically figures 1.1, 2.12, 3.25, 3.27, 5.14, 5.15, and 5.17 as well as tables 2.1, 5.11 and 5.13] from your thesis “Modeling the Effects of Transient High Energy Weapon Subsystems on High-performance Aerospace Systems.” as part of my graduate work with Dr. Michael von Spakovsky at Virginia Tech.

The requested material would be republished in Virginia Tech's Digital Library and Archives for educational purposes.

Sincerely,

Cody

--
W. Cody Reed  
BS/MS Aerospace Engineering  
Virginia Tech 14/15'  
Phone: (804) 761-5685  
Email: reedwc@vt.edu

Grant Gvozdich <grant.gvozdich@gmail.com>  
To: Cody Reed <reedwc@vt.edu>  

Cody - You have permission to reprint any figures from my thesis that I created, I reviewed some of the figures that you identified; not all of them are mine.

Grant
Virginia Tech ETD Fair Use Analysis Results

This is not a replacement for professional legal advice but an effort to assist you in making a sound decision.

Name: William Cody Reed

Description of item under review for fair use: Figure 5.4. Hesselgreaves, J.E., Compact heat exchangers: selection, design and operation. 2001: Gulf Professional Publishing. p. 175

Report generated on: 05-12-2015 at : 15:46:53

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyrighted work weighs: in favor of fair use

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: in favor of fair use

Factor 3

Your consideration of the amount and substantiality of your use of the copyrighted work weighs: in favor of fair use

Factor 4

Your consideration of the effect or potential effect on the market after your use of the copyrighted work weighs: in favor of fair use

Based on the information you provided, your use of the copyrighted work weighs: in favor of fair use
Virginia Tech ETD Fair Use Analysis Results

This is not a replacement for professional legal advice but an effort to assist you in making a sound decision.

Name: William Cody Reed


Report generated on: 05-14-2015 at : 10:26:55

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: in favor of fair use

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: in favor of fair use

Factor 3

Your consideration of the amount and substantiality of your use of the copyrighted work weighs: in favor of fair use

Factor 4

Your consideration of the effect or potential effect on the market after your use of the copyrighted work weighs: in favor of fair use

Based on the information you provided, your use of the copyrighted work weighs: in favor of fair use
Virginia Tech ETD Fair Use Analysis Results

This is not a replacement for professional legal advice but an effort to assist you in making a sound decision.

Name: William Cody Reed

Description of item under review for fair use: Figure 2. Williams, M., et al., "Advanced heat exchanger technology for aerospace applications". 2008, SAE Technical Paper

Report generated on: 05-12-2015 at : 15:54:31

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: in favor of fair use

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: in favor of fair use

Factor 3

Your consideration of the amount and substantiality of your use of the copyrighted work weighs: in favor of fair use

Factor 4

Your consideration of the effect or potential effect on the market after your use of the copyrighted work weighs: in favor of fair use

Based on the information you provided, your use of the copyrighted work weighs: in favor of fair use
Virginia Tech ETD Fair Use Analysis Results

This is not a replacement for professional legal advice but an effort to assist you in making a sound decision.

Name: William Cody Reed


Report generated on: 05-14-2015 at 10:33:08

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: in favor of fair use

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: in favor of fair use

Factor 3

Your consideration of the amount and substantiality of your use of the copyrighted work weighs: in favor of fair use

Factor 4

Your consideration of the effect or potential effect on the market after your use of the copyrighted work weighs: in favor of fair use

Based on the information you provided, your use of the copyrighted work weighs: in favor of fair use