

CE30460: Fluid Mechanics

Exam Question (following many technical questions).

I believe that fluid mechanics is an amazing discipline and there is a reason I have dedicated my life to teaching and studying it in relation to the environment in the hope of making people's lives better. Understanding it has contributed to so many of the advancements that make human life better than it ever has been – by now all of you have seen many ways in which this is true. But, it is also at the root of some of the most destructive things that people have designed and developed, making it possible to inflict destruction and deliver weapons that were unimaginable a century ago. This is true of many branches of science and engineering, but fluid mechanics is often called out as being up there. How do we reconcile this in our pursuit of knowledge? While I know you can't possibly do this in a complete way as part of a single homework in fluid mechanics, I would like you all to write a half to full page on your thoughts in this regard and hopefully seed the ground for personal growth to full thought in everything that you learn. There is no right or wrong answer here. I am not looking for you to agree with my personal view on anything – in fact, I do not want you to write anything thinking about 'what would Diogo think or what is he looking for?'. I want your view, no matter what it is, and I want you to defend it. I want you to develop and defend it in a manner that you can personally be proud of. So here's the question: 'How do you reconcile the potential for devastation and destruction that comes hand in hand with the societal benefits that come with advanced knowledge in fluid mechanics?'