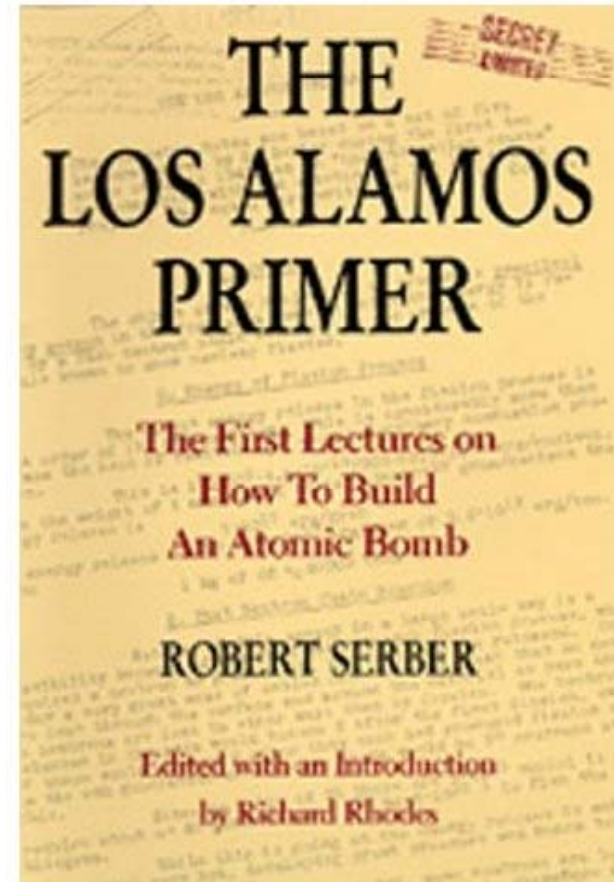


The NEO Primer: A Tool for Collaboration, Communication and Outreach

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- The function of a primer
- Why the NEO community needs one
- Collaboration and Communication
- Methodology
- Complementary Initiatives

- Collection of 5 essays given by Robert Serber in 1943
- Summed up the world's knowledge on nuclear fission
- Became entry level reading for all new scientists to the Manhattan Project



WHY THE NEO COMMUNITY NEEDS A PRIMER

- The topic of NEOs and mitigation is not an easy one and requires some level of understanding of difficult topics
 - Physics
 - Geology
 - Orbital mechanics
 - International law
 - Psychology/Sociology
 - International institutional and policy mechanisms
- NEOs are not part of everyday life (for normal people) and thus many are not familiar with them (except from Science Fiction)


- Originally the field of NEOs was limited to people with strong math/science background
 - Astronomy
 - Celestial Mechanics
 - Geology
- The Planetary Defense Conferences in 2004 and 2007 have changed that makeup
 - Psychology and Sociology
 - Public Policy
 - Disaster Management
- Growth continues with Lincoln Legal/Policy Workshop and this event

- Originally, the world's top NEO experts were limited to a select group of astronomers and scientists
 - Easy to collaborate when you know everyone on a first-name basis
- Now there are many more people from different disciplines involved
- Number of eyeballs on the problem and amount of data is increasing
 - Will grow further as additional dedicated sensors come on line
 - NEOsat
 - PAN-STAARS

- What's needed is a tool that the NEO community can leverage to tackle three major elements
- Collaboration
- Communication
- Outreach

METHODOLOGY

- Initially focus on established disciplines in the NEO field
 - Celestial mechanics and astrodynamics
 - Detection and characterization
 - Categories of mitigation techniques
- Add others as they become more fleshed out
 - Disaster management
 - Public policy
 - International law



The screenshot shows the Wikipedia interface for the page 'Talk:Rocket propellant'. At the top, there are navigation tabs: 'article', 'discussion', 'edit this page', 'new section', and 'history'. The main heading is 'Revision history of Talk:Rocket propellant'. Below this, it says 'From Wikipedia, the free encyclopedia' and provides a link to 'View logs for this page'. There is a 'Browse history' section with a search box and a 'Go' button. Below that, there are links for '(latest | earliest) View (newer 50) (older 50) (20 | 50 | 100 | 250 | 500)'. A note explains that '(cur) = difference from current version, (prev) = difference from preceding version, m = minor edit,' and there is a 'Compare selected versions' button. The revision history list includes:

- {cur} {prev} 15:35, 24 March 2009 Evand (talk | contribs) (3,630 bytes) (undo)
- {cur} {prev} 15:34, 24 March 2009 Evand (talk | contribs) (3,492 bytes) (→Liquid oxidizer)
- {cur} {prev} 17:33, 23 March 2009 Ertysedel (talk | contribs) (2,841 bytes) (undo)
- {cur} {prev} 05:40, 19 July 2008 DonPMitchell (talk | contribs) (2,639 bytes) (undo)
- {cur} {prev} 03:45, 11 July 2008 Sdsds (talk | contribs) (2,448 bytes) (→Liquid oxidizer)
- {cur} {prev} 18:59, 10 July 2008 Wolfkeeper (talk | contribs) (2,056 bytes) (→Liquid oxidizer)
- {cur} {prev} 18:45, 10 July 2008 Sdsds (talk | contribs) (1,573 bytes) (→Liquid oxidizer)
- {cur} {prev} 13:25, 16 February 2008 SignBot (talk | contribs) (m) (2,117 bytes) (Signin/

- Collaborative tool
 - Allows many people to view and make changes to a document while maintaining a complete history of the document and all changes
- Control who can make changes
 - Changes can be made by anyone or only those with registered accounts
 - Wikipedia logs the IP address of those who edit anonymously, has considered requiring (free) accounts
- Control who can see the pages
 - Wiki can be done on an internal website only viewable by those with accounts or completely public
 - Editing and Viewing privileges can be set independently

- Traditional copyright has automatic reservation of all republication, reuse and redistribution rights by the author
 - Limits “rip, mix, mash and burn” desires inherent to modern culture and communication
 - Can be legally and financially exhausting to try and track down permission from authors
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 - Modification
 - Commercial



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COMPLEMENTARY INITIATIVES

- Expand Primer out into full-fledged NEO wiki
 - Contains all public research data on the subject
 - Would allow for global collaboration between different areas of NEO research at virtually no cost
- Get the public involved!
 - Proven fact that public is very interested in NEOs
 - SWF Press releases on NEO topics produce **10 times** more hits than others
 - Having the research data open and accessible will allow students and people with interest to search and use as source material
 - Would allow amateur observers and researchers to contribute (never know what they will find)

- Primer could be turned into NEO educational tools for different levels
 - Primary, Secondary, and University education
- Could serve as an interesting hands-on application for high school and college science courses
 - Astronomy
 - Math
 - Physics
 - Geology

- SWF volunteers to help make this a reality
- Will work with this conference's organizing committee to identify volunteer experts in different topic areas
- SWF will host the wiki until a suitable home can be found
- Development stages
 - Initial NEO Primer (for NEO community)
 - High school level Primer (for education)
 - NEO Wiki
 - Originally used mainly for collaboration within the NEO community
 - Later open to public to add outreach benefits

**Thanks for your time.
Questions?**

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