

## Prof. Ringwald's Short but Absolutely Essential Summer Space Reading List

Wonderful books you should read, or own, if you're serious about space:

- The Feynman Lectures on Physics, Volumes I-III, by Richard P. Feynman, Robert B. Leighton, & Matthew Sands
- The Flying Circus of Physics WITH ANSWERS, by Jearl Walker
- Understanding Physics, by Isaac Asimov

Physics is essential for every step, from now on. None of these books are new, but understanding the basics is essential. Too many people don't, and this gives physics its undeserved reputation of being "hard."

Fine books on space itself, which you might get from your local library.

If they don't have them, ask the librarian about interlibrary loan:

- If the Sun Dies, by Oriana Fallaci. READ IT, if you are interested in space!
- A Man on the Moon, by Andrew Chaikin.  
Anyone wanting to go to Mars should know what happened the last time someone went to a strange world—and not just the technical details, useful though they are. More important is why they went, and why they were given the money to do it.
- Genesis: The Story of Apollo 8: The First Manned Flight to Another World, by Robert Zimmerman. This is a history dedicated to my favorite space mission, ever. If you can top this, you're good!
- The Right Stuff, by Tom Wolfe. DON'T watch the movie, Hollywood made it historically inaccurate (e.g. everyone I've ever met who knew him complains that the character of Gus Grissom is all wrong). I recently re-read the book, and it seemed juvenile and politically incorrect: but then, they were like that. History must be honest, if we are to learn from it, even when it isn't nice. Give them credit, too: they were very brave men, in an exciting time.
- The New Solar System, 4th ed., by J. Kelly Beatty et al. Wonderful science!

A novel that depicts what really happened better than many histories:

- Space, by James Michener

Great science fiction, which inspired the Apollo generation and beyond:

- The Past Through Tomorrow, by Robert Heinlein
- The Martian Chronicles, by Ray Bradbury
- From the Earth to the Moon & 2000 Leagues Under the Sea, by Jules Verne
- Anything by H. G. Wells, especially The War of the Worlds
- Any of the John Carter of Mars series, by Edgar Rice Burroughs
- A Canticle for Leibowitz, by Walter M. Miller, Jr.
- The Hitchhiker's Guide to the Galaxy (and sequels), by Douglas Adams
- Red Mars/Green Mars/Blue Mars by Kim Stanley Robinson

Two books by Robert Zubrin that all Mars explorers must read are:

- The Case For Mars (1996) and Entering Space (1999).

If your generation does go to Mars (and it's by no means certain it will), these two will go down in history with Tsiolkovsky's and Goddard's works.

Remember also: Sky & Telescope and Astronomy magazines.

## **Movies that all space enthusiasts should see**

Never put movies ahead of books. Nevertheless, movies were the dominant art form of the 20th Century, and you can learn a lot from them, mainly about people's attitudes. This list is roughly in order of priority:

- 2001: A Space Odyssey (1968) (Rent it TONIGHT, if you've not seen it.)
- Contact (1997)
- Apollo 13 (1995)
- October Sky (1999)
- Forbidden Planet (1956)
- The Day the Earth Stood Still (1951)
- When Worlds Collide (1951)
- Things to Come (1936)
- Destination Moon (1950) (They got everything so right, so early!)
- Men in Black (1997) (A great teacher-student movie.)
- Gattaca (1997) (Careful, some material is unsuitable for children.)
- The Time Machine (1960)
- Dr. Strangelove (1964) (A parody of the Cold War)
- Failsafe (1964) (More serious, about the Cold War)
- Invasion of the Body Snatchers (1956) (Scary and interesting, a parody of McCarthyism and Communism both.)
- Them! (1954) (B grade, but scary and interesting.)
- Any of the 1930s Flash Gordon or Buck Rogers films (but not the 1970s-1980s remakes or TV shows)
- Island of Lost Souls (1933) (Careful, this is a VERY scary movie.)
- Blade Runner (1982) (Thoughtful and interesting, but horribly violent.)
- THX 1138 (1971) (Careful, some material is unsuitable for children.)
- The Andromeda Strain (1971)
- Colossus: The Forbin Project (1970)
- CHARLY (1968)
- The Man in the White Suit (1951) is my all-time favorite film. It isn't about space, but it definitely is science fiction.

Some silent films, if you can find them:

- Le Voyage Dans La Lune (1902) (The original science fiction movie.  
Only 14 minutes long, it is primitive but AMAZING.)
- Metropolis (1926) (Slow moving by today's standards, but historically important and visually stunning.)
- Woman in the Moon [Original title: Frau im Mond] (1929) (Inspired by Hermann Oberth himself)

I selected the above list mainly to call attention to films I think are thoughtful or interesting, and that I think aren't seen often enough. Star Trek, Star Wars, ET, Close Encounters of the Third Kind, and many other enormously popular films are therefore not included. I have also not included many films I think are too unwholesome (e.g. The Man Who Fell to Earth [1976]), or are no more than adventure stories with no other value (e.g., 2010: the Year We Make Contact). I picked this list from memory, helped by referring to: <http://www.filmsite.org/sci-fifilms.html>

Here are some TV series you should watch. However, watching TV should be the lowest priority of any activity, since it's too easy and you don't get to use your own imagination, as with a book:

- HBO TV series, by Tom Hanks: From the Earth to the Moon (1998)  
Inspired by A Man on the Moon by Andrew Chaikin, and stunningly true to the historical record.
- PBS TV series: Spaceflight (1985)
- PBS TV series: Cosmos, by Carl Sagan (1980)
- BBC TV series: Dr. Who. Imaginative, silly, low-budget science fiction, sort of a Star Trek produced by Monty Python. So bad it's great.
- Likewise for two other BBC TV series: Blake's Seven and Red Dwarf.