

Unknown words

- a rocket engineer – načrtovalec raket
- a pioneer of astronautics – pionir astronautike; kdor se je med prvimi ukvarjal s poletji v vesolje
- a geostationary orbit – geostacionarna orbita je krožnica, ki teče 35.900 km nad ekvatorjem
- a gravity force – težnost
- to release – izdati

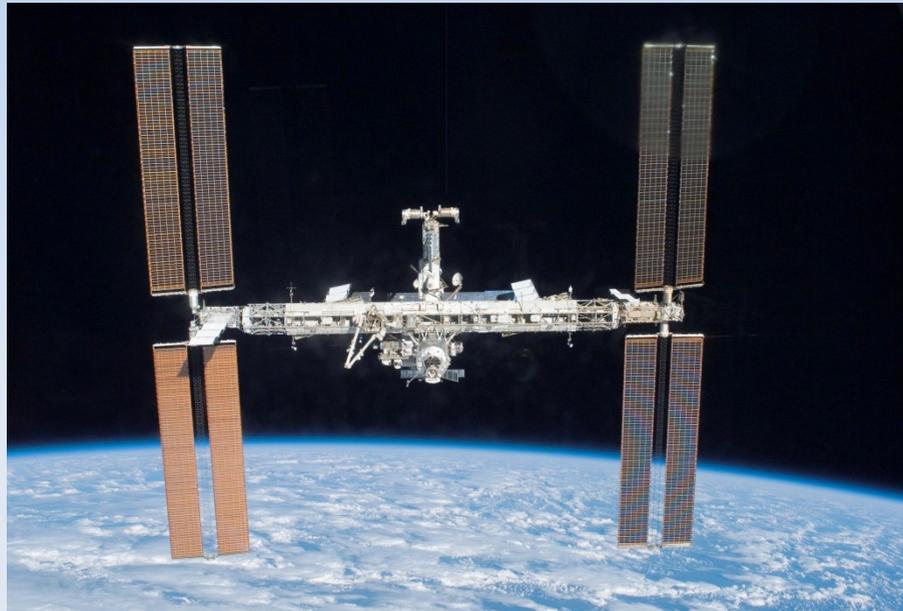
[2001: A Space Odyssey](#)

Clip from film at Google Video

Some pictures of space station shown in Kubrick film

<http://www.imdb.com/title/tt0062622/>

I will talk about the first man, who made plans for USING SATELITES, and invented many other things.



Herman Potočnik Noordung



Potočnik was a Slovene rocket engineer and pioneer of astronautics, born in Pula in December 1892 and died in Vienna in August 1929.

Chapter 1: BIOGRAPHY

FAMILY

- father from Slovenj Gradec, doctor in army
- mother from Vitanje, daughter of winer and Vitanje mayor Jožef Kokošinek
- 2 brothers, both army officers and sister

SCHOOL

- primary school in Maribor
- military secondary school in Moravia
- uncle Henrich enabled his study on technical military academy near Vienna
- specialization: building of railways and bridges

WAR YEARS

- Potočnik served in several countries
- important for Soča battlefields
- he got tuberculosis during war, so he retired from the army in year 1919
- after war he got high army rank compared to small pension

ENGINEERING

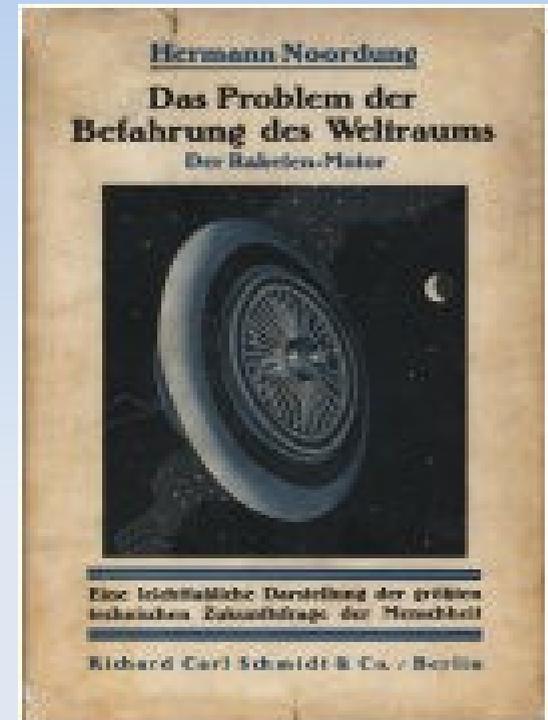
- study of electrical engineering on the University of Technology in Vienna
- during study he became very interested in rocketry
- after study he started writing book about space traveling
- he didn't find a job or marry, but lived with his brother
- because of illness he died at only 36 years of age

Chapter 2: POTOČNIK'S FAMOUS BOOK

German: Das Problem der Befahrung
des Weltraums

English: The Problem of Space Travel

Slovene: Problem vožnje po vesolju



FACTS ABOUT THE BOOK

- published in the end of 1928 in Berlin, Germany
- plan for space station and traveling to it
- calculated geostationary orbit for all satellites
~ 35 900 000 m above sea level
- with many ideas in book Potočnik became pioneer of astronautics

FACTS ABOUT THE BOOK II

- Book introduced the full concept of geostationary satellites.
- Potočnik visions of satellites were made in a reality in 1962 with the launch of *Telstar*.
- Encyclopedia Larousse says »*Potočnik's book was like a textbook for making earlier space vehicles.*«
(von Braun about making V1 [fau eins] and V2 rocket)

SPACE STATION

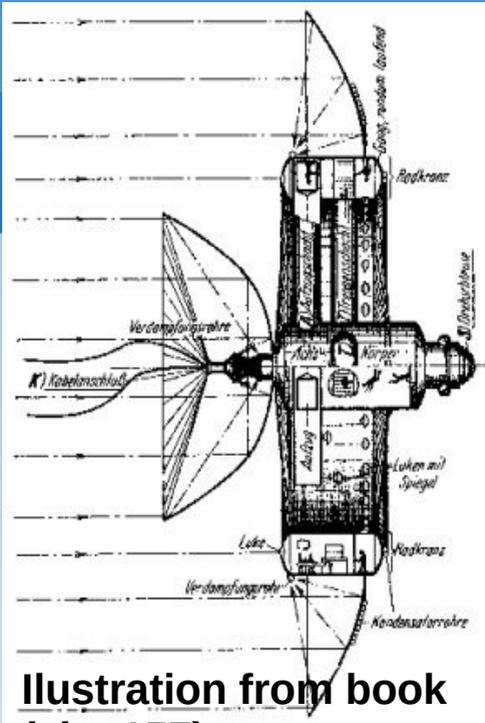
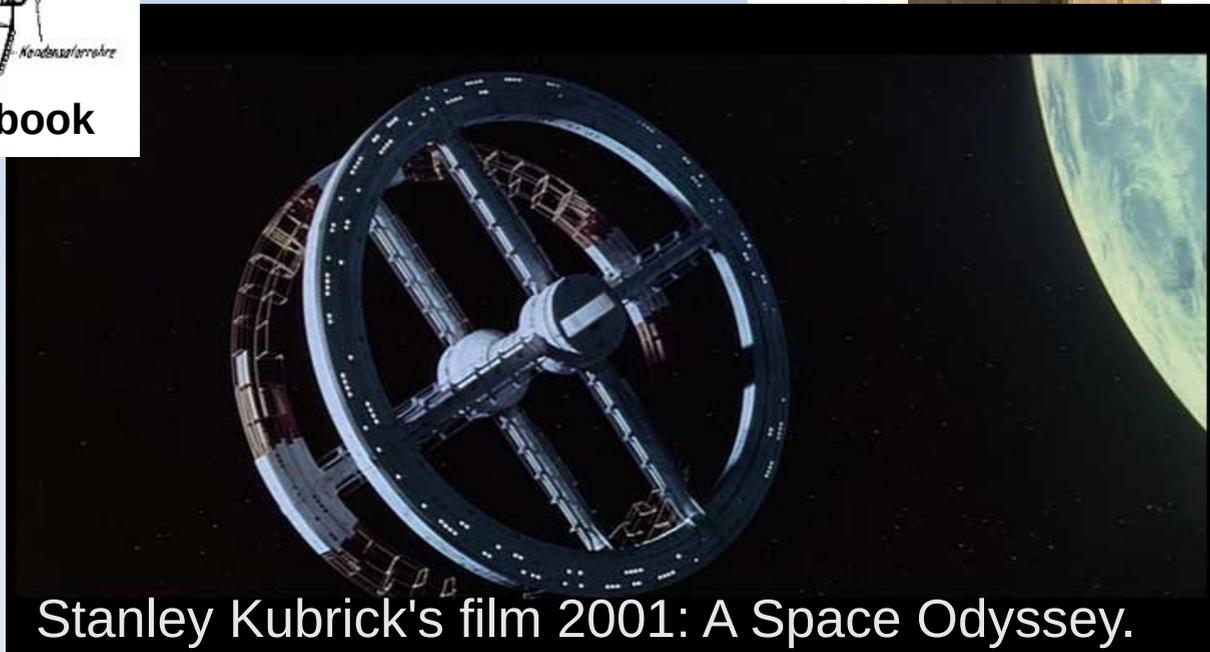


Illustration from book
(site 157)



Stanley Kubrick's film 2001: A Space Odyssey.

SPACE STATION in details

- From 3 parts:
 - Rotating living wheel with diameter of 50 meters, which creates centrifugal force, similar to gravity. It will include private cabins, laboratories, workrooms, a kitchen and a bathroom.
 - 2 large mirrors, which reflect sun's radiation, and this boils water in heat pipes.
 - Turbines on water vapour will drive 3 generators, which will produce electricity
 - Good for the time, but now we have solar cells

Interesting:

- The meaning of his pseudonym Noordung is still a mystery, but some people suggest that he used it to show the problems of chaos (German: keine ordnung; Slovene: nered). If the initial "N" really means negation, the name would mean "without order".
- A proposal was made in the late 1990s to name the International Space Station after him, but was not taken up.
- There is a Herman Potočnik memorial centre in Vitanje.
- There is Potočnik street in Ljubljana and Graz.



Answer questions:

- Who was Herman Potočnik and where was born?
- Why is he so important?
- What is title of Potočnik's book and what is it about?
- Where is Potočnik memorial centre?
- Did idea for naming ISS after Potočnik succeed?

- Questions?

- ...

- ...

Sources

- <http://noordung.vesolje.net/>
- http://en.wikipedia.org/wiki/Herman_Potočnik
- Herman Potočnik: *Problem vožnje po vesolju*

THANKS FOR VIEWING!

smihael, author of
the text and presentation

