Dmitry Payson

דמיטרי פייסון

- D. of Sci in Economics (Central Economics and Mathematics Institute, Russian Academy of Science, 2011, thesis topic "Institutions and Institutional Design in Space Activities");
- PhD (Moscow Aviation Institute, 2003, spacecraft design issues with consideration of economic factors);
- Spacecraft engineer (Moscow Aviation Institute, 1994)

dbpayson@gmail.com
www.payson.ru
+972 53 540 7904

Experience

2020-2022: Managing Director, Sber Research and Innovation Center

2014-2018: Director, Roscosmos/United Rocket and Space Co. Research and Analysis Center

2011-2014: Deputy Director, Skolkovo Foundation Space Cluster

2005-2011: Research positions in TsNIIMash, Roscosmos lead research institute

Teaching / Lecturing

Moscow State University

Skoltech University

International Space University

RUDN University

Moscow Aviation Institute

Moscow Institute for Physics and Technology

Major Publications

1. Payson, D. New Space and Newest Space // Outer Space Future for Humankind: Issues of Law and Policy. Vol.26 in Essential Ail and Space Law series / The Hague: Eleven, 2021. - 460 p. - pp.31-50. URL: https://www.boomdenhaag.nl/en/webshop/outer-space-future-for-humankind
2. Payson D., Frolov I. Multi-Level Structure of The International Space Market and Analysis of Labor Productivity in the Rocket and Space Industry //Cosmic Research. 2020. vol. 58. No 3. pp. 218-226. URL: https://www.researchgate.net/publication/341908299_Multi-Level_Structure_of_the_International_Space_Market_and_Analysis_of_Labor_Productivity_in_the_Rocket_and_Space_Industry
3. Payson D. et al. The Mishin Diaries, A New Significant Primary Source of Space History Information // Acta Astronautica.2016. v.123. pp.192-199. https://www.sciencedirect.com/science/article/abs/pii/S0094576515302551
4. Payson, D., Davidian, K. Transition of the Russian rocket and space industry // New Space. 2015. vol. 3, No.1, pp. 59-67. URL: https://www.liebertpub.com/doi/10.1089/space.2014.0028
5. Payson, D., Makarov, Yu. Russian Space Programs and Industry: Defining the New Institutions for New Conditions //Space Policy. 2009. Т. 25. № 2. С. 90-98. URL: https://www.sciencedirect.com/science/article/abs/pii/S026596460900023X
6. Payson D.B. Peculiarities of the application of the category of public good to the analysis of performance and institutional design of space activity // Theoretical and Applied Economics. - 2018. - № 4. - С. 1-20. URL: https://e-notabene.ru/etc/article_27646.html (in Russian)
7. Payson D.B. Space Activity: Evolution, Organization, Institutions - M. : Book House LIBROCOM, 2010, 2nd ed. 2013. - 312 p. (in Russian).
8. Payson D.B. Technical policy of creation of space segment of satellite communication systems. - Moscow, MAI, 2005 - 100 p. (in Russian)

Research Sphere

- Institutions and institutional design of space activities.
- Space program management
- Public-private partnership.
- Structure of space markets and value chains.
- Public good theory as applied to fundamental science and space activity.
- Structural reforms of industries.
- Economics of innovation.
- Space history.

RSCI - 84, Hirsch 11 | WoS - 9, Hirsch 2 | Scopus - 18, Hirsch 3

Questions for the Space Economics

1. Space products and services market structure, **borders and double counting**
2. Nature and specifics of the **complex productive functions with the heterogenous products including the public goods**.
3. **Public good measurability / quantification** (megascience and space exploration economical measurement).
4. Efficiency criteria for the **complex industry/government architecture solutions**.
5. **Incentives and drivers** in the public/private environment

My Courses

Space Exploration Primer
(Introduction history-based course)

1. The Beginning. First rockets and satellites
2. Humans in space. Space Race starts
3. Golden Age of 1960's
4. Moon Race
5. Space settlements: first orbital stations
6. Big crossroad. Salyuts and Space Shuttle
7. Golden Fall. Buran and Mir
8. Big space science. Robotic Solar System exploration
9. Science and applications in the Earth orbit
10. International space station
11. Future of the space exploration
12. Where is the entrance? Starting the space career

http://press.cosmos.ru/istoriya-i-praktika-kosm-deyat-kurs-payson

https://www.youtube.com/playlist?list=PLHCBGdx6NxTuZEjAnQMUR6o2XMwZKXuWI

Basics of the Space Activities (13 Master level lectures)

1. Course intro, definitions and principles.
2. Space activities' goals and products, private and public goods.
3. Space actors. Industry/Academia/Government. Public and private involvement. PPP and New Space.
4. Space industry. International status, dynamics and prospects.
5. Space law and regulations.
6. Space programs, planning and strategies.
7. Space economics. Industry structure. Value chains. Research challenges.
8. Space history overview.
9. Space activities of the major global actors: US, ESA/EU, China, India
10. Russian space activities
11. International space market structure, figures and trends.
12. New Space phenomenon and private enterprises.
13. Space activities in the Century XXI: issues, problems, prospects

http://www.payson.ru/msu2020-2021/index2021.html

Космонавтика

- Для чего нужна
- Как развивалась
- Где вход?

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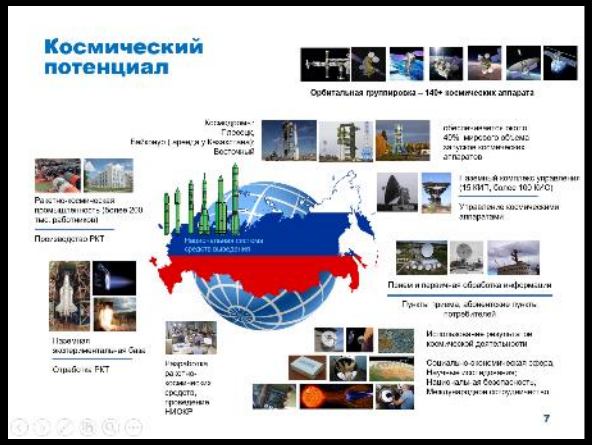
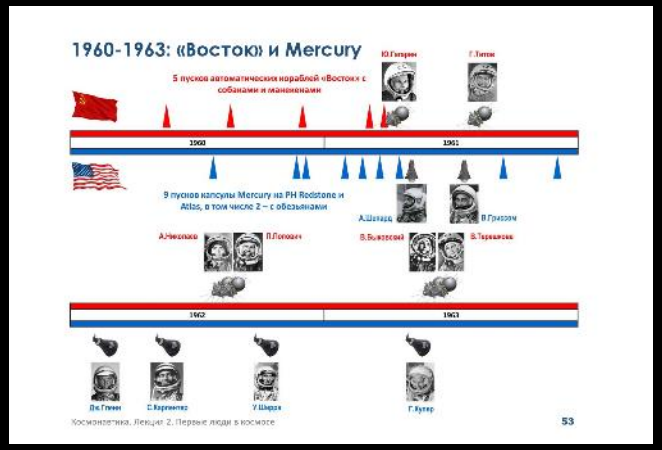
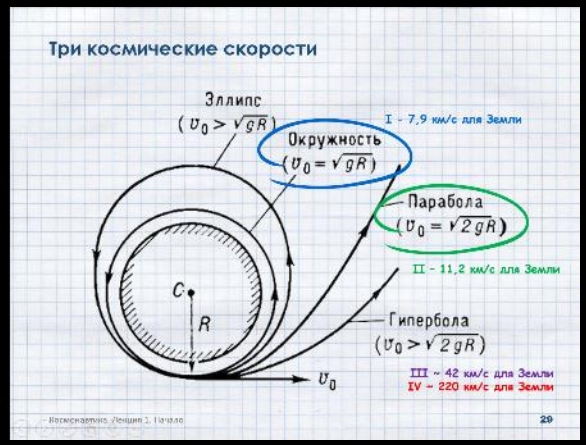
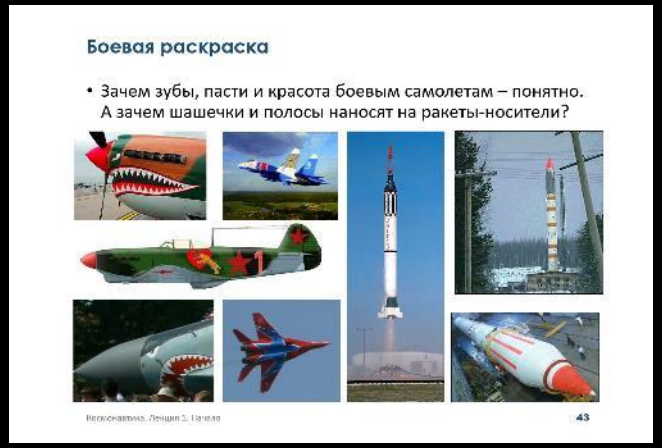
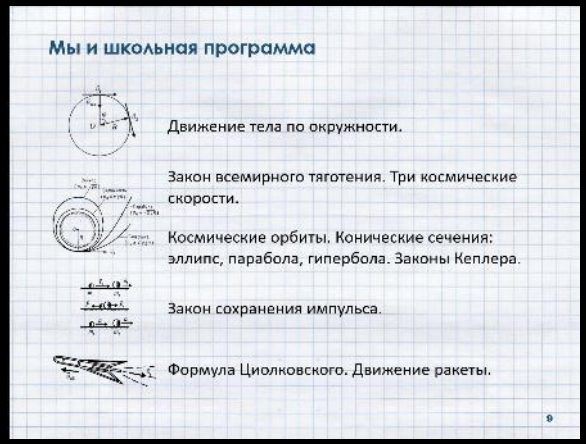
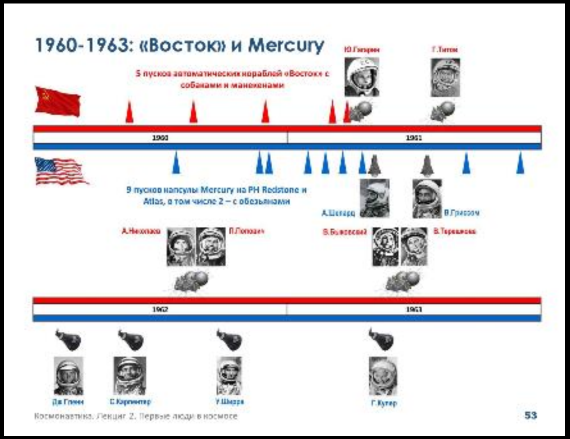






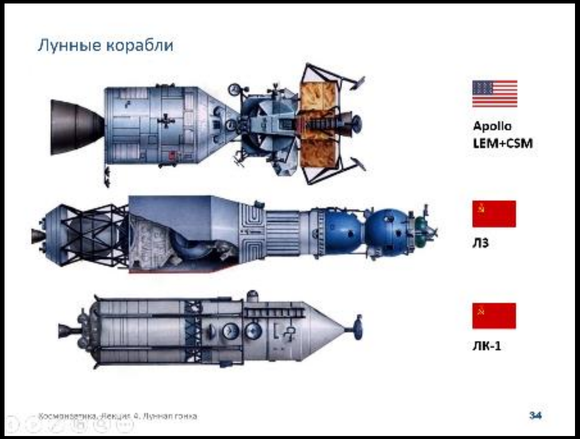






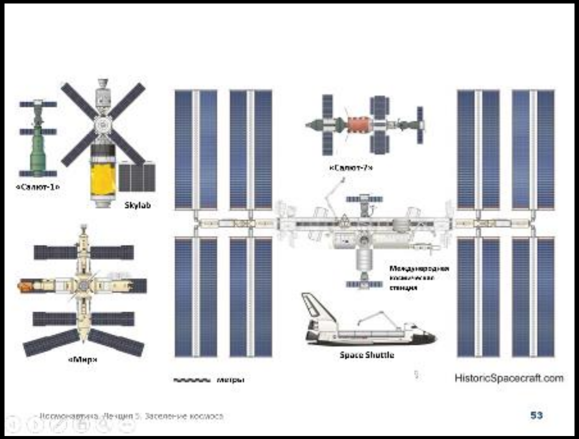
1960-1963: «Восток» и Mercury
5 пусков автоматических кораблей «Восток» с собаками и манекенами
9 пусков капсулы Mercury на РН Redstone и Atlas, в том числе 2 – с обезьянами
1960
1961
1962
1963
Космонавтика. Лекция 2. Первые люди в космосе
53

ПЕРВЫЙ В ОТКРЫТОМ КОСМОСЕ
КОРАБЛЬ «ВОСХОД-2»
ОБЩИЕ ДАННЫЕ
ШЛЮЗ «ВОЛГА»
INFOSURFING.RU



Лунные корабли
Apollo
LEM+CSM
Л3
ЛК-1
Космонавтика. Лекция 4. Лунная гонка
34

Реанимация
Лазерный дальномер ЛПР-1
Космонавтика. Лекция 6. Большая развилка
60



«Салют-1»
Skylab
«Салют-7»
«Мир»
Международная космическая станция
Space Shuttle
HistoricSpacecraft.com
Космонавтика. Лекция 5. Заселение космоса
53

Curiosity, Opportunity и Spirit
Космонавтика. Лекция 8. Большая космическая наука
55

Испытания
Космонавтика. Лекция 7. Золотая осень
26

esa
Rosetta:
Свидание с кометой

Космическая экономика: Золотая лихорадка наших дней
Добыча астероидов создаст рынок в 1 триллион долларов
PLANETARY
38

Grand Crossroads: Drivers and Springs of the Major Space Program Decisions

Космическая гонка: взгляд на опыт великого технологического противостояния 50 лет спустя

SPACE RACE: A LOOK AT THE GREAT TECHNOLOGY CONFRONTATION

2 hour lecture about key issues and decisions that led to the Soviet Union's lost in the Moon Race

Конец космической гонки: предотвращая стратегическую внезапность

THE END OF THE SPACE RACE: PREVENTING THE STRATEGIC SUDENNESS

2 hour lecture about Energia-Buran program roots and destiny