



## Blog Gorana Hudeca

### Predstojeća lansiranja u Svemir (18.12.2017.)

2017.

This list is compilation of reliable and others sources, chosen by my own criteria. Last week changes are in red. Last change 18.Dec.2017.

Dec23.	0126UTC	H-2A (F37)	GCOM-C
Launch site: Tanegashima, Japan			
Dec23.	0132UTC	Falcon 9	Iridium Next Flight 4 (x10)
Launch site: Vandenberg, USA			
Dec23.	0403UTC	CZ-2D	LKW-2 Ludikancha Weixing - 2
Launch site: Jiuquan, China			
Dec26.		Zenit 3-SLB / DM-SLB	AngoSat
Launch site: ???????? (Baikonur) Cosmodrome, Kazakhstan			
Dec28.	0330UTC	SS-520-4	Tricom-1R
Launch site: Tanegashima, Japan			
Dec28.		CZ-2D	GJ-1 GaoJing-1 03/04
Launch site: Taiyuan, China			
Dec??		CZ-3B/YZ-1	Beidou 3 MEO M3, Beidou 3 MEO M4
Launch site: Xichang, China			
??		Simorgh	Dosti
Launch site: Semnan, Iran			
??		Unha-3	Kwangmyongsong-5
17 + (1)			
85 + (9)			

2018.

Jan05.		Falcon 9	Mission 1390 - Zuma (no info about!!)
Launch site: Cape Canaveral, USA			
Jan10.		Delta IV-M+(5,2)	NROL-47 (Topaz 5)
Launch site: Vandenberg, USA			
Jan16.	2100UTC	Epsilon (3)	ASNARO 2
Launch site: Tanegashima, Japan			
Jan17.		CZ-11	TY-2, 3, 4, 5 Tianyi Jilin-1-04 (Lingqiao 1-04), Jilin-1-05 (Lingqiao 1-05), Jilin-1-06 (Lingqiao 1-06), Jilin-1-07 (Deqing-1), Jilin-1-08, Quantutong-1 (QTT-1), Kepler (CubeSat-3U)
Launch site: Jiuquan, China			
Jan19.	0040UTC	Atlas 5 401 (AV076)	SBIRS-GEO 4
Launch site: Cape Canaveral, USA			



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<b>Jan21.</b>	<b>CZ-2C</b>	<b>CX-5 Chuangxin-5 (Yaogan 30-03 (3 sats))</b>	
<b>Launch site: Xichang, China</b>			
<b>Jan25.</b>	<b>Ariane 5 ECA (VA241)</b>	<b>Al Yah 3 / SES 14 GOLD</b>	<b>180</b>
<b>Jan30.</b>	<b>Falcon 9 FT</b>	<b>PAZ</b>	
<b>Jan30. 2123UTC</b>	<b>Falcon 9</b>	<b>SES-16</b>	
<b>Launch site: Cape Canaveral, USA</b>			
<b>Jan??</b>	<b>Falcon H</b>	<b>Demo Flight</b>	
<b>Launch site: Cape Canaveral, USA</b>			
<b>Jan??</b>	<b>Soyuz-2-1V</b>	<b>Kosmos EMKA</b>	
<b>Launch site: ??????? (Plesetsk) Cosmodrome, Russia</b>			
<b>Jan??</b>	<b>PSLV XL (C40)</b>	<b>CartoSat 2E</b>	
<b>Launch site: Satish Dhawan Space Centre, Sriharikota, India</b>			
<b>Jan??</b>	<b>Electron</b>	<b>Still Testing</b>	
<b>Launch site: Kaitorete Spit, New Zeland</b>			
<b>??</b>	<b>CZ-3B/YZ-1</b>	<b>ZX-6C Zhongxing-6C</b>	
<b>??</b>	<b>CZ-3A</b>	<b>FY-2H Fengyun-2H</b>	
<b>??</b>	<b>CZ-2D</b>	<b>GF-6 Gaofen-6</b>	
<b>??</b>	<b>CZ-2D</b>	<b>SaudiSAT 5B</b>	
<b>??</b>	<b>CZ</b>	<b>YG-32 Yaogan Weixing 32</b>	
<b>Feb01.</b>	<b>CZ-2D</b>	<b>ZH-1 Zengheng 1 (ESEM experimental satellite on Electromagnetism Monitoring), Ministar-1, Fengmaniu-1, GomX-4B, GomX-4A</b>	
<b>Feb11.</b>	<b>Soyuz-2 1A</b>	<b>Progress MS 8</b>	
<b>Feb20.</b>	<b>CZ</b>	<b>Taurus-1</b>	
<b>Feb??</b>	<b>Soyuz-2 1A / Fregat Kanopus V 3, Kanopus V 4</b>		
<b>Launch site: ????????? (Vostochniy) Cosmodrome, Russia</b>			
<b>Feb??</b>	<b>Falcon 9 FT</b>	<b>SES-12</b>	
<b>Feb??</b>	<b>GSLV Mk II F8</b>	<b>GSAT 6A</b>	
<b>??</b>	<b>Falcon 9 FT</b>	<b>Iridium Next Flight 5 (x10)</b>	
<b>Launch site: Vandenberg, USA</b>			
<b>??</b>	<b>Soyuz-2-1B</b>	<b>Pion</b>	
<b>??</b>	<b>CZ-3B/YZ-1</b>	<b>Beidou 3 MEO M5, Beidou 3 MEO M6</b>	<b>160</b>
<b>??</b>	<b>H-2A</b>	<b>IGS Optical-6</b>	
<b>??</b>	<b>PSLV XL (C41)</b>	<b>IRNSS I</b>	
<b>??</b>	<b>Soyuz-2-1B/Fregat-M</b>	<b>Glonass-M/ 59</b>	
<b>??</b>	<b>Falcon 9 FT</b>	<b>Es'hail 2</b>	
<b>??</b>	<b>Falcon 9</b>	<b>Hispasat 30W-6 (1F)</b>	
<b>Mar01. 2202UTC</b>	<b>Atlas 5 (541)</b>	<b>GOES-S</b>	
<b>Mar01.</b>	<b>Soyuz ST B/Fregat-MT (VS18)</b>	<b>O3b</b>	



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**Mar06.PSLV C42 Team Indus Lunar Lander/ Rover, Team Hakuto Rover**

**Mar13. Falcon 9 FT Dragon SpX-14**

**Mar15. Soyuz-2 1A Soyuz MS 8 (S55/56)**

**CDR: ???? ?????????? ?????????? (Oleg G. Artemyev), Andrew J. Feustel, Ricky R. Arnold**

**Mar15.CZ-3B/GII APStar-6C**

**Mar20.Falcon 9 TESS**

**Mar22.Proton-M/Briz-M Blagovest 12**

**Launch site: ????????? (Baikonur) Cosmodrome, Kazakhstan**

**Mar22. 0146UTC Falcon 9 Iridium Next Flight 6 (x10)**

**Mar?? GSLV Mk II D9 Chandrayaan 2**

**Mar?? Rokot / Briz KM Sentinel 3B**

**Mar?? CZ-2C Pakistani Remote Sensing Satellite (PRSS) 1**

**Mar?? Falcon 9 FT Bangabandhu-1**

**Mar?? Ariane 5 ECA (VA242) Hylas 4, Azerspace 2 (Intelsat 38)**

**?? Rokot / Briz KM Geo IK 2**

**Launch site: ????????? (Plesetsk) Cosmodrome, Russia 140**

**?? Pegasus-XL ICON (Helio EX-1)**

**Launch site: Kwajalein Atoll, USA**

**?? KZ-1A ??**

**?? KZ-1A ??**

**?? KZ-1A ??**

**?? KZ-1A ??**

**?? Proton-M/ DM 3 Kosmos**

**Apr01. Falcon 9 (SPx-DM1) Dragon v2 unmanned test**

**Apr18. Atlas 5 551 (AV81) AFSPC-11**

**Apr30. Falcon Heavy STP-02**

**Apr?? H-2A GOSAT-2**

**Apr?? Epsilon OrigamiSat-1**

**Apr?? Ariane 5 ECA DSN 1 (Superbird-8)**

**?? Rokot / Briz KM Gonets x 3 (No 24,25,26), Blits-M**

**Launch site: ????????? (Plesetsk) Cosmodrome, Russia**

**?? Falcon 9 Telstar 18**

**?? Falcon 9 Telstar 19**

**May01. Antares 230 Cygnus Orb-9E**

**May01. Vega (VV12) Aeolus / ADM**

**May05. Atlas 5 401 InSight**

**Launch site: Vandenberg, USA**



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May??	Falcon 9	GPS III-1	
??	Falcon 9 FT	Iridium Next Flight 7 (x10)	120
??	CZ-3B/YZ-1	Beidou 3 MEO M7, Beidou 3 MEO M8	
June06.	Falcon 9 FT	Dragon SpX-15	
June06.	Soyuz-2 1A	Soyuz MS 9 (S56/57)	
CDR: ?????? ?????????? ??????????		(Sergei Valerevich Prokopyev), Jeanette J. Epps, Alexander Gerst	
June??	CZ	L2 Chang'e 4 communications relay satellite	
June??	Falcon 9	Iridium Next Flight 8 (x5), GRACE FO_1, FO_2	
June??	Falcon 9	SAOCAM 1A	
??	Proton-M	PTK NP	
??	Vega	TARANIS	
??	Soyuz ST	CSO 1	
??	Vega	Prisma	
??	Proton-M/Briz-M	Kosmos	
??	Angara A5/ Briz-M	Kosmos	
??	Ariane 5 ECA	GSAT-11	
??	Falcon 9	Spaceflight SSO-A	
??	GSLV MK III D2	GSAT-29	
July10.	Soyuz-2 1A	Progress MS 9	
July31.	Delta 4-H	Parker Solar Probe	
July??	PSLV	Cartosat-3	
July??	Atlas 5 (531) (AV073)	AEHF-4	
July??	Ariane 5 ES	Galileo-FOC FM19 (Tara), Galileo-FOC FM20 (Samuel), Galileo-FOC FM21 (Anna), Galileo-FOC FM22 (Ellen)	100
??	Falcon H	Arabsat 6A	
??	Falcon 9	PSN VI	
??	CZ-3B/YZ-1	Beidou 3 MEO M9, Beidou 3 MEO M10	
??	Soyuz ST B/Fregat-MT	OneWeb smalsat (x10)	
??	Ariane 5 ECA	GEO-KOMPSAT-2A	
Aug??	Falcon 9 (SPx-DM2)	Dragon v2	
CDR: Eric Boe, Sunita Williams			
Aug??	Atlas 5 N22 (AV80)	CST-100 Starliner (unmanned test)	
Aug??	CZ-3C	Beidou 2 I7	
Aug??	Falcon 9 FT	Telkom 4	
Aug??	Falcon 9 FT	Dragon SpX-16	
Aug??	H-2B (F7)	HTV7	
??	Soyuz ST B/Fregat-MT	OneWeb smalsat (x32)	
??	Soyuz-2-1B/Fregat-M	Meteor M-2-2, Ionosfera 3, Ionosfera 4	
Sep12.	Delta II 7320-10C	ICESat-II	
Sep14.	Soyuz-2 1A	Soyuz MS 10 (S57/58)	



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CDR: ??????? ?????????? ??????? (Aleksei Nikolaevich Ovchinin), ??????? ?????????????? ??????? (Nikolai Vladimirovich Tikhonov), Tyler Hague

Sep15. Delta 4-H NROL-71

Sep17. Soyuz ST B/Fregat-M MetOp-C

Sep?? CZ-3B/YZ-1 Beidou 3 MEO M15, Beidou 3 MEO M16

?? Zenit 3 SL /Fregat-SB Lybid'  
Launch site: ???????? (Baikonur) Cosmodrome, Kazakhstan

??	Ariane 5 ECA	EDRS-C (Hylas 3)	80
??	Ariane 5 ECA	Intelsat 7C	
??	Falcon 9	Radarsat C-1, -2, C-3	
??	Falcon 9	OHB SARah satellite (x2)	
??	CZ-5 Y3	SJ-18 02	
??	Ariane 5 ECA	Hellas-Sat-4	

Oct05. Ariane 5 BepiColombo ESA and ISAS Mercury Orbiters

Oct11. Soyuz-2 Progress MS 10

Oct?? Proton-M rocket to launch Spektr-Rentgen-Gamma X-Ray observatory from Baikonur. 1900 kg Spectr-RG is a joint Russian-German X-ray observatory carrying two telescopes developed and produced by German and Russian partners. The primary instrument is German eRosita, complemented by Russian ART-XC. Main tasks of the project are studies of the sky in X-ray energy range, which can provide clues for the mystery of dark energy.

Oct??	CZ-3C	Beidou 3 G1Q
Oct??	Proton-M/Briz-M	Elektro L - 3
Oct??	Antares 230	Cygnus Orb-10E
Oct??	Falcon 9	Dragon SpX-17

??	Ariane 5 ECA	Intelsat 39
??	Ariane 5	Horizon 3e
??	Soyuz-2-1B/ Fregat-M	Glonass M 60

Nov15. Soyuz-2 1A Soyuz MS 11 (S58/59)

CDR: ???´? ???´???????? ???????´??? (Oleg Dmitrievich Kononenko), Serena Aunón-Chancellor, David Saint-Jaques

Nov?? Atlas 5 422 (AV082) CST-100 Starliner  
CDR: Douglas Hurley, Robert Behnken

?? Epsilon (4) Inovative Technology Demonstration Satellite - 1  
Launch site: Tanegashima, Japan

??	Minotaur 1	NROL 111	
??	Soyuz ST B/Fregat-MT	OneWeb smalsat (x32)	60
??	Falcon 9	Spaceflight GTO.C	
??	Soyuz-2 1A / Fregat	Kanopus V 5, Kanopus V 6	
??	Soyuz-2-1B/ Fregat-M	Glonass M 61	
??	Proton-M/Briz-M	Blagovest 13	

Dec20. Proton-M MLM



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Dec??	<b>CZ-3B/GIII</b>	<b>Chang'e-4 (Moon far side Aitken Basin lander/rover)</b>	
Dec??	<b>CZ-3B/YZ-1</b>	<b>Beidou 3 MEO M17, Beidou 3 MEO M18</b>	
Dec??	<b>Soyuz-2 1B /Fregat-M</b>	<b>Resurs ?4</b>	
Dec??	<b>??</b>	<b>Korean Pathfinder Lunar Orbiter</b>	
Dec??	<b>Falcon 9 FT</b>	<b>Dragon SpX-18</b>	
??	<b>Ariane 5</b>	<b>Heinrich Hertz</b>	
??	<b>Minotaur-4</b>	<b>FORMOSAT-7 (6 sat)</b>	
??	<b>Delta IV-M (5,4)</b>	<b>WGS 10</b>	
??	<b>Atlas 5</b>	<b>AEHF 5</b>	
??	<b>Proton-M/Briz-M</b>	<b>EutelSat 5 West B / MEV</b>	
??	<b>Proton-M/Briz-M</b>	<b>Kosmos</b>	
??	<b>Proton-M/Briz-M</b>	<b>????-601</b>	
??	<b>Proton-M/Briz-M</b>	<b>????-GK-1</b>	
??	<b>Proton-M/Briz-M</b>	<b>EgyptSat 3</b>	
??	<b>Proton-M/Briz-M</b>	<b>Anik G2V</b>	<b>40</b>
??	<b>Soyuz-2-1B/Fregat M</b>	<b>Meridian 18L</b>	
??	<b>Soyuz-2 1A</b>	<b>Bars-M 3</b>	
??	<b>Soyuz-2 1A</b>	<b>Energiya-100</b>	
??	<b>Soyuz-2-1B</b>	<b>Obzor R -1</b>	
??	<b>Soyuz-2 1B /Fregat-M</b>	<b>Glonass K1 / 15</b>	
??	<b>Angara 1.2</b>	<b>Kosmos</b>	
??	<b>Vega</b>	<b>MN35-13 B Morocco EO Sat 1 2</b>	
??	<b>CZ-3B/YZ-1</b>	<b>Beidou 3 MEO M11, Beidou 3 MEO M12</b>	
??	<b>CZ-3B/YZ-1</b>	<b>Beidou 3 MEO M13, Beidou 3 MEO M14</b>	
??	<b>CZ-2D</b>	<b>SJ-12 Shijian-12 (2)</b>	
??	<b>CZ-2D</b>	<b>TH-2 Tianhui-2</b>	
??	<b>CZ-2C</b>	<b>CSES-1 Earthquake electromagnetism monitor satellite</b>	
??	<b>??</b>	<b>VeneSat-2</b>	
??	<b>CZ-3B/E</b>	<b>CC-1 Changcheng-1</b>	
??	<b>CZ-2D</b>	<b>GF-7 Gaofen-7</b>	
??	<b>CZ</b>	<b>CBERS-SAR 1</b>	
??	<b>CZ</b>	<b>Deep Space Solar Observatory</b>	
??	<b>CZ</b>	<b>CBERS-4B</b>	
??	<b>CZ-2</b>	<b>CAS-2A1, CAS-2A2</b>	
??	<b>CZ-3B/E</b>	<b>SupremeSAT-II</b>	<b>20</b>
??	<b>CZ-3B/E</b>	<b>CongoSat 1</b>	
??	<b>CZ-3B/E</b>	<b>Apstar-6D</b>	
??	<b>??</b>	<b>Small Military Meteorological Satellite (x6)</b>	
??	<b>CZ</b>	<b>FY-3E Fengyun-3E</b>	
??	<b>CZ</b>	<b>FY-4B Fengyun-4B</b>	
??	<b>CZ-4B</b>	<b>Haiyang-1C HY-1C</b>	
<b>Launch site: Taiyuan, China</b>			



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?? CZ-?? CAS-4A, CAS-4B  
Launch site: Taiyuan, China

?? CZ-4B HY-1D Haiyang-1D  
?? CZ-4B HY-2B Haiyang-2B

?? CZ-3C Beidou 3 G8

?? CZ Orbita-1 1  
?? ?? LJ-1 Luojia-1  
?? CZ Huaizong-1  
?? LS-1 LandSpace-1

?? GSLV MK II F12 GSAT-7A  
?? GSLV MK II F10 GISAT

?? PSLV EnMap

?? Safir 1 B Tadbir  
?? Safir 3A Pars sepher

?? Tronador II/VEX5 TBD (suborbital)  
Launch site: Puerto Belgrano, Argentina

30  
186

2019.

?? Falcon 9 GiSat-1

Jan?? ?Atlas 5 531 Cygnus OA-11  
Jan?? Falcon 9 Dragon v2 (USCV-1) with 2 astronauts

Feb06. Soyuz-2 Progress MS 11

Feb?? CZ-3C Beidou 3 I1Q  
Feb?? H-2B (F9) HTV8  
Feb?? Atlas 5 Solar Orbiter (Solo) (ESA)  
Feb?? Atlas 5 551 (AV-086) AEHF-6  
Feb?? Falcon 9 GPS IIIA-2

?? Soyuz-2-1B Arktika M 1  
Launch site: ????????? (Vostochniy), Cosmodrome, Russia 80

Mar07.Soyuz-2 1A Soyuz MS 12 (S59/60)  
CDR: ???' ????'????? ?????'?????, (Oleg Ivanovich Skripotscka), ?????' ??????'???? ??'???? (Andrei Nikolaevich Babkin), Shannon Walker

Mar?? Vega Seosat (Ingenio)  
Mar?? Ariane 5 ECA GEO-KOMPSAT-2B , Cheollian 2B

?? Soyuz ST B/Fregat-MT OneWeb smalsat (x32)  
?? Soyuz-2-1B/Fregat Glonass K2 / 13



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Apr??	??	GOES-T	
Apr??	CZ-3B/E	Nicasat 1	
Apr??	CZ-3C	Beidou 3 I2Q	
??	CZ7	TZ 2 Tianzhou 2 (Logistic Cargo Vehicle)	
May??	Falcon 9 FT	Dragon SpX-19	
May??	Atlas 5 402	CST 100 Starliner (USCV-2) with 2 astronauts	
May??	Soyuz-2	Progress MS 12	
June??	Atlas 5 551	STP-03	
June??	Ariane 5 ES	JWST (James Webb Space Telescope)	
??	PSLV	RISAT 1A	
??	CZ-3B/G2	TECSTAR 1	
??	Vega	Cosmo-SkyMed Secon Gen 1	CSG-1
July??	CZ-3C	Beidou 3 I3Q	
??	Ariane 5	Inmarsat-5 F5	
??	Falcon 9	GPS IIIA-3	60
Aug??	Soyuz ST B/Fregat-MT	EarthCare	
Aug??	CZ-2C	CFOSAT (China-France Oceanography SATellite)	
Sep30.	Soyuz-2 1A	Soyuz MS 13 (S60/61)	
CDR: ?????????? ?????????????? ?????????? (Aleksandr Aleksandrovich Skvortsov), Luca Parmitano (ESA), Anne McClain (NASA)			
Oct??	CZ-3B/YZ-1	Beidou 3 MEO M19, Beidou 3 MEO M20	
Oct??	Soyuz-2 1B /Fregat-M	Gonets x 3 (No 27,28,29)	
Oct??	Soyuz-2 1B /Fregat-M	Resurs ?5	
Oct??	Falcon 9 FT	Dragon SpX-20	
Oct??	Atlas 5 552	Dream Chaser Cargo System SNC-1	
Oct??	Soyuz-2	Progress MS 13	
Nov14.	Soyuz-2 1B	Progress M-UM	
Nov29.	Soyuz-2 1a / Fregat	Luna 25 (Luna-Glob-1)	
??	Soyuz-2-1B/Fregat-M	Glonass K2 / 14	
??	Proton-M/Briz-M	Blagovest 14	
??	Falcon 9	GPS IIIA-4	
Dec??	CZ-3B/YZ-1	Beidou 3 MEO M21, Beidou 3 MEO M22	
Dec??	Proton-M/Briz-M	Ekspress 80, Ekspress 103	
Dec??	Proton-M/Briz-M	Elektro L - 4	
??	Falcon H	Circumlunar Dragon V2	
??	Atlas 5 551	AFSPC-7 (X-37B OTV 6)	
??	Falcon 9 v1.1	Astrium active SARah satellite	
??	Atlas 5 551	Asteroid Retrieval Spacecraft (ARS)	40
??	??	EX-3	





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??	<b>Vega</b>	<b>Jason-CS A</b>	
??	<b>Vega</b>	<b>OpSis</b>	
??	<b>Vega</b>	<b>VNREDSat</b>	
??	<b>Vega</b>	<b>LOTUSat</b>	
??	<b>Ariane 5 ECA</b>	<b>Eutelsat Quantum</b>	
??	<b>Ariane 5 ECA</b>	<b>African Broadband Satellite</b>	
??	<b>Soyuz ST / Vega</b>	<b>MicroCarb</b>	
??	<b>Soyuz ST B/Fregat-MT</b>	<b>Sentinel-1C</b>	
??	<b>Ariane 5</b>	<b>ViaSat-3</b>	
??	<b>Ariane 5</b>	<b>JCSat 17</b>	
??	<b>Soyuz-2-1A/Fregat-M</b>	<b>Kondor-FKA n.o 1</b>	
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Arktika M 2</b>	
??	<b>Proton-M/Briz-M</b>	<b>SkyTerra 2</b>	
??	<b>Proton-M/Briz-M</b>	<b>Ekspress AMU 3 / Ekspress AMU 7</b>	
??	<b>Proton-M/Briz-M</b>	<b>Luch 5M</b>	
??	<b>Proton-M/Briz-M</b>	<b>Yenisey A1</b>	
??	<b>Proton-M/ DM-03</b>	<b>Glonass-M/ 56,57,58</b>	
??	<b>Soyuz-2 1B /Fregat-M</b>	<b>Glonass K1 / 16</b>	
??	<b>Soyuz-2 1B /Fregat-M</b>	<b>Glonass K1 / 17</b>	20
??	<b>Proton-M/ DM-03</b>	<b>Glonass-M/K18,K19,K20</b>	
??	<b>Proton-M/ DM-03</b>	<b>Glonass-M/K21,K22,K23</b>	
??	<b>Proton-M/Briz-M</b>	<b>????-501</b>	
??	<b>Proton-M/Briz-M</b>	<b>EutelSat</b>	
??	<b>Proton-M/Briz-M</b>	<b>IntelSat</b>	
??	<b>Soyuz-2-1B/Fregat M</b>	<b>Meridian 19L</b>	
??	<b>Soyuz-2-</b>	<b>Razdan 1</b>	
??	<b>CZ-5</b>	<b>Chang'e-5 (Sample return)</b>	
??	<b>CZ</b>	<b>FY-3F Fengyun-3F (Batch 2)</b>	
??	<b>CZ</b>	<b>FY-3 Fengyun-3 RM-2</b>	
??	<b>CZ-4B</b>	<b>HY-2D Haiyang-2D</b>	
??	<b>CZ</b>	<b>Sun Fixed-Point Observation</b>	
??	<b>CZ-4B</b>	<b>HY-2C Haiyang-2C</b>	
??	??	<b>Hainan-1 (1)</b>	
??	??	<b>Hainan-1 (2)</b>	
??	??	<b>Hainan-1 (3)</b>	
??	<b>GSLV MK II F11</b>	<b>GSAT-10A</b>	
<b>Launch site: Satish Dhawan Space Centre, Sriharikota, India</b>			
??	<b>PSLV XL</b>	<b>Aditya'</b>	
??	<b>PSLV</b>	<b>ScatSat, NovaSAR</b>	

2020.

Jan?? **Falcon 9 v1.1** **USCV-3 (US Commercial Vehicles)**



# Blog Gorana Hudeca

<b>Mar30.</b>	<b>Soyuz 2-1A</b>	<b>Soyuz MS 14 (S61/62)</b>
	<b>Soichi Noguchi</b>	
<b>Mar??</b>	<b>Delta IV-M</b>	<b>DMSP-5D3 F20</b>
<b>Mar??</b>	<b>Soyuz-2-1B/Fregat-M</b>	<b>Glonass K1 / 22</b>
<b>??</b>	<b>CZ-5</b>	<b>Tian He Space Station Core Module</b>
<b>Apr??</b>	<b>CZ-3B/YZ-1</b>	<b>Beidou 3 MEO M23, Beidou 3 MEO M24</b>
<b>Apr??</b>	<b>Angara-1.2/AM</b>	<b>Gonets x 3 (No 30,31,32)</b>
<b>??</b>	<b>CZ-5B</b>	<b>Wentian Lab module Space station module</b>
<b>??</b>	<b>CZ-2F/G</b>	<b>SZ-12 Shenzhou-12</b>
<b>??</b>	<b>CZ-3B/G2</b>	<b>ZX-18 Zhongxing-18</b>
<b>June??</b>	<b>SLS-1</b>	<b>Orion (unmanned trip around the Moon) Exploration Mission 1 (Distant Retrograde Orbit (DRO) Tactical DRM)</b>
<b>June??</b>	<b>Ariane</b>	<b>MTG-S1/Sentinel-4A</b>
<b>June??</b>	<b>CZ-3C</b>	<b>Beidou 3 G3Q</b>
<b>June??</b>	<b>Vega_C</b>	<b>Space Rider flight 1</b>
<b>July16</b>	<b>Ariane 62</b>	<b>Galileo-FOC FM23, Galileo-FOC FM24</b>
<b>July24.</b>	<b>Proton-M/Briz-M</b>	<b>ExoMars (CM+DM) An ESA exobiology rover equipped with a deep drill developed by Astrium Satellites in the United Kingdom will launch in 2018. A Russian-built entry, descent and landing package will shepherd the rover to the red planet's surface.</b>
<b>July??</b>	<b>Atlas 5 (541)</b>	<b>Mars 2020 rover NASA's exit from a joint sample-collection campaign with Europe aims to send a \$700 million mission to the red planet in 2018 or 2020. The replanned Mars mission, referred to in budget documents as Mars Next Generation, will carry a price tag that falls somewhere between that of the 2013 Maven Scout mission and the 2005 Mars Reconnaissance Orbiter, which cost \$485 million, and more than \$720 million, respectively.</b>
<b>July??</b>	<b>CZ-3C</b>	<b>Beidou 3 G2Q</b>
<b>??</b>	<b>CZ 5</b>	<b>Mars probe (orbiter + lander + rover)</b>
<b>??</b>	<b>Vega-C</b>	<b>Pleiades Neo 1, Pleiades Neo 2</b>
<b>Sep30.</b>	<b>Soyuz 2-1A</b>	<b>Soyuz MS 15 (S62/63)</b>
<b>Sep??</b>	<b>CZ</b>	<b>CBERS-6</b>
<b>Sep??</b>	<b>Soyuz-2-1B/Fregat-M</b>	<b>Glonass K2 / 15</b>
<b>??</b>	<b>CZ-2F/G</b>	<b>SZ-13 Shenzhou-13</b>
<b>??</b>	<b>Falcon 9</b>	<b>GPS IIIA-5</b>
<b>Oct??</b>	<b>Vega</b>	<b>Proba 3</b>
<b>Dec15.</b>	<b>Atlas 5</b>	<b>Landsat 9</b>
<b>??</b>	<b>GSLV-Mk III.</b>	<b>Dr B N Suresh and Mr Madan Lal, Vikram Sarabhai Space Centre (VSSC) presented the concept for the manned space mission including the development of an autonomous Orbital Vehicle (4,000kg manned capsule).</b>



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??	??	<b>SWOT</b>
??	??	<b>PACE</b>
??	??	<b>EX-4</b>
??	??	<b>ACE</b>
??	??	<b>HyspIRI</b>
??	<b>Antares</b>	<b>IMAP/STP-05</b>
??	<b>Atlas 5 402</b>	<b>USCV-4 (US Commercial Vehicles)</b>
??	<b>Falcon 9 FT</b>	<b>Dragon SpX-19</b>
??	<b>Falcon 9 FT</b>	<b>Dragon SpX-21</b>
??	<b>Falcon 9 FT</b>	<b>Dragon SpX-22</b>
??	<b>Antares 230</b>	<b>Cygnus OA-12</b>
??	<b>Falcon H</b>	<b>ViaSat 3</b>
??	<b>Proton-M</b>	<b>??-1</b>
??	<b>Soyuz-2</b>	<b>Progress MS 14</b>
??	<b>Soyuz-2</b>	<b>Progress MS 15</b>
??	<b>Soyuz-2</b>	<b>Progress MS 16</b>
??	<b>Soyuz-2-1B/ Fregat-M</b>	<b>Glonass M 55</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Glonass-M/ 53</b>
??	<b>Soyuz-2-1B/Fregat</b>	<b>Glonass M/ 58</b>
??	<b>Soyuz-2-1B/Fregat</b>	<b>Glonass M / 59</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Arktika M 3</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Resurs PM - 1</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Meteor M No2-3</b>
??	<b>Angara 1.2</b>	<b>Kompsat-6</b>
??	<b>Soyuz-2-1A/Fregat-M</b>	<b>Gonets x 6</b>
??	<b>Proton-M/Briz-M</b>	<b>AOneSat-1</b>
??	<b>Proton-M/Briz-M</b>	<b>Terrestar-2</b>
??	<b>Proton-M/Briz-M</b>	<b>SkyTerra 2</b>
??	<b>Soyuz-2-1A/Fregat</b>	<b>Resonance 1A, Resonance 1B</b>
<b>RESONANCE is a project to study Earth's magnetosphere consisting of four similar satellites.</b>		
??	<b>Soyuz-2-1B</b>	<b>Lotos S1</b>
??	<b>Soyuz-2-1B</b>	<b>Persona</b>
??	<b>Soyuz-2-1A</b>	<b>Kobalt M</b>
??	<b>Soyuz-2-1A</b>	<b>Foton M</b>
??	??	<b>Zond</b>
??	??	<b>MKA PN6 (Monika)</b>
??	??	<b>????????-?? ?1</b>
??	<b>Vega</b>	<b>Sentinel-2C</b>
??	<b>Vega</b>	<b>Sentinel-3C</b>
??	??	<b>Seosat-Ingenio-2</b>
??	??	<b>EPS-SG-b</b>
??	<b>Ariane 5</b>	<b>Arsat 3</b>



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??	<b>CZ5</b>	<b>Chang'e-6</b>
??	<b>CZ</b>	<b>Two Meter Space Telescope</b>
??	<b>CZ</b>	<b>FY-4C Fengyun-4C</b>
??	<b>CZ</b>	<b>HY-3B Haiyang-3B</b>
??	<b>CZ-3B/</b>	<b>Palapa 1N</b>
??	??	<b>Hainan-1 (4)</b>
??	??	<b>Hainan-1 (5)</b>
??	??	<b>Hainan-1 (6)</b>
??	??	<b>Sanya-1 (1)</b>
??	??	<b>Sanya-1 (2)</b>
??	<b>GSLV MK III</b>	<b>MOM-2 Follow on Mars Mission</b>
??	<b>H-IIA</b>	<b>Hope (UAE mission to Mars)</b>
??	<b>H-IIA</b>	<b>Astro H2 (Hitomi-2), SLIM (Smart Lander for Investigating Moon)</b>
??	<b>H-IIA</b>	<b>Inmarsat-6 F1</b>

## 2021.

Jan ??	<b>Ariane 62</b>	<b>Galileo-FOC FM25, Galileo-FOC FM26</b>
??	<b>Soyuz-2</b>	<b>Progress MS 17</b>
Mar30.	<b>Soyuz-2-1A</b>	<b>Soyuz MS 16</b>
Apr??	<b>Soyuz ST B/Fregat M</b>	<b>MarcoPolo-R</b>
June??	<b>Atlas 5 402 / Falcon 9</b>	<b>USCV-5 (US Commercial Vehicles)</b>
June??	<b>Soyuz ST B/Fregat MT</b>	<b>Euclid</b>
Euclid will depart Earth on a Soyuz rocket launched from French Guiana and head for the L2 Lagrange point.		
??	<b>CZ7</b>	<b>TZ 3 Tianzhou 3 (Logistic Cargo Vehicle)</b>
??	<b>Soyuz-2</b>	<b>Progress MS 18</b>
??	<b>CZ-2F/G</b>	<b>SZ-14 Shenzhou-14</b>
July??	<b>Vulcan/Minotaur 6/Falcon 9 v1.1</b>	<b>JPSS-2</b>
July??	<b>Vega</b>	<b>Biomass</b>
Sep30.	<b>Soyuz-2-1A</b>	<b>Soyuz MS 17</b>
Sep??	<b>Soyuz ST B/Fregat-MT</b>	<b>MetOp-SG A1/EPS-SG-a/Sentinel-5A</b>
Oct??	<b>Atlas 5 401/Falcon 9 v1.1</b>	<b>JPSS Free Flyer 2 (TSIS-2)</b>
??	<b>Ariane 5</b>	<b>MTG-I1</b>
Dec??	<b>Atlas 5 402 / Falcon 9</b>	<b>USCV-6 (US Commercial Vehicles)</b>
??	<b>Atlas 5 552</b>	<b>Dream Chaser Cargo System SNC-2</b>
??	<b>SLS Block I</b>	<b>Europa Clipper</b>



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??	<b>Falcon 9</b>	<b>GPS IIIA-6</b>	
??	<b>Falcon 9</b>	<b>GPS IIIA-7</b>	
??	<b>Falcon 9</b>	<b>GPS IIIA-8</b>	
??	<b>Soyuz-2</b>	<b>Progress MS 19</b>	
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Transformable Modul</b>	<b>TM</b>
??	<b>Soyuz-2 1a / Fregat</b>	<b>Luna 26 (Luna-Resurs OA)</b>	
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Resurs PM - 2</b>	
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Meteor M No2-4</b>	
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Meteor M No3</b>	
??	<b>Angara 1.2</b>	<b>Gonets x 3</b>	
??	<b>Proton-M/Briz-M</b>	<b>Elektro L - 5</b>	
??	<b>Proton-M/Briz-M</b>	<b>Ekspress-RV1, Ekspress-RV2</b>	
??	<b>Proton-M/Briz-M</b>	<b>Ekspress AMU 4</b>	
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Smotr R ?1</b>	
??	<b>Proton-M/Briz-M</b>	<b>IntelSat</b>	
??	<b>Vega</b>	<b>Sentinel-1A 2nd Gen</b>	
??	<b>Vega</b>	<b>Space Rider</b>	
??	<b>Soyuz ST / Vega</b>	<b>Merlin</b>	
??	<b>CZ</b>	<b>Venus Global Sensing Probe</b>	
??	<b>CZ</b>	<b>FY-3G Fengyun-3G (Batch 2)</b>	
??	??	<b>Sansha-1 (1)</b>	
??	??	<b>Sansha-1 (2)</b>	
<b>2022.</b>			
Jan??	??	<b>Solar Sentinels</b>	
??	<b>Soyuz-2</b>	<b>Progress MS 20</b>	
Mar17.	<b>CZ3</b>	<b>Asteroid rendezvous and touchdown Rendezvous with the asteroid Apophis on 18 March 2023, entering its orbit. After 220 days, the probe will depart and then proceed toward asteroid 2002EX11. Flyby is expected on 6 October 2025 at a 9.8 km/s speed. Third and final leg of its journey, the probe will make a rendezvous with asteroid 1996FG3 on 1 January 2027 and enter its orbit. After 180 days, the probe will eventually make landing on its surface on 30 June 2027.</b>	
Mar30.	<b>Soyuz-2-1A</b>	<b>Soyuz MS 18</b>	
Apr??	<b>Angara A5/ DM 03</b>	<b>Elektro M - 1-2</b>	
??	<b>CZ7</b>	<b>TZ 4 Tianzhou 4 (Logistic Cargo Vehicle)</b>	
??	<b>CZ-5B</b>	<b>Xuntian Lab module</b>	<b>Space station module</b>
??	<b>CZ-2F/G</b>	<b>SZ-15 Shenzhou-15</b>	
June04.	<b>SLS Block I</b>	<b>Orion: Exploration Mission 2 (Crew to Cislunar) Mission)</b>	
June??	<b>Ariane 5ECA</b>	<b>JUICE (JUperiter ICy moon Explorer)</b>	
June??	<b>Ariane 5</b>	<b>MTG-I2</b>	
June??	<b>Atlas 5 402 / Falcon 9</b>	<b>USCV-7 (US Commercial Vehicles)</b>	
??	<b>Sunkar</b>	??	
??	<b>Soyuz-2</b>	<b>Progress MS 21</b>	



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<b>Aug??</b>	<b>H2B</b>	<b>Phobos sample return</b>
<b>Sep30.</b>	<b>Soyuz-2-1A</b>	<b>Soyuz MS 19</b>
<b>Sep??</b>	<b>Soyuz ST B/Fregat-MT</b>	<b>MetOp-SG B1</b>
<b>??</b>	<b>Sunkar</b>	<b>Federatsia (unmaned)</b>
<b>Dec??</b>	<b>Atlas 5 402 / Falcon 9</b>	<b>USCV-8 (US Commercial Vehicles)</b>
<b>??</b>	<b>Soyuz-2</b>	<b>Progress MS 22</b>
<b>??</b>	<b>Soyuz-2 1b</b>	<b>Luna 27 (Luna-Resurs PA) Testing an adaptive landing mode with a radio-beacon; delivering a rover</b>
<b>??</b>	<b>Falcon 9</b>	<b>GPS IIIA-9/GPS IIIB-1</b>
<b>??</b>	<b>Falcon 9</b>	<b>GPS IIIA-10/GPS IIIB-2</b>
<b>??</b>	<b>Proton-M/Briz-M</b>	<b>Ekspress – AMU 5</b>
<b>??</b>	<b>Proton-M/Briz-M</b>	<b>Ekspress – AMU 6</b>
<b>??</b>	<b>Proton-M/Briz-M</b>	<b>Ekspress – RV 3, Ekspress – RV 4</b>
<b>??</b>	<b>Angara 1.2</b>	<b>Gonets x 3</b>
<b>??</b>	<b>Soyuz-2-1B/Fregat-M</b>	<b>Meteor M No2-5</b>
<b>??</b>	<b>Proton-M/Briz-M</b>	<b>Eutelsat</b>
<b>??</b>	<b>Proton-M/Briz-M</b>	<b>Intelsat</b>
<b>??</b>	<b>Soyuz-2-1B/Fregat-M</b>	<b>Smotr R ??</b>
<b>??</b>	<b>Soyuz-2-</b>	<b>Razdan 2</b>
<b>??</b>	<b>Ariane 5</b>	<b>Moon's south pole samples return mission</b>
<b>??</b>	<b>Vega</b>	<b>Jason-CS B</b>
<b>??</b>	<b>Ariane 5</b>	<b>ATHENA</b>
<b>??</b>	<b>CZ</b>	<b>HY-3C Haiyang-3C</b>
<b>2023.</b>		
<b>??</b>	<b>Soyuz-2</b>	<b>Progress MS 23</b>
<b>Mar30.</b>	<b>Soyuz-2-1A</b>	<b>Soyuz MS 20</b>
<b>??</b>	<b>CZ7</b>	<b>TZ 5 Tianzhou 5 (Logistic Cargo Vechile)</b>
<b>??</b>	<b>CZ-2F/G</b>	<b>SZ-16 Shenzhou-16</b>
<b>June??</b>	<b>Atlas 5 402 / Falcon 9</b>	<b>USCV-9 (US Commercial Vehicles)</b>
<b>??</b>	<b>Soyuz-2</b>	<b>Progress MS 24</b>
<b>Sep30.</b>	<b>Soyuz-2-1A</b>	<b>Soyuz MS 21</b>
<b>??</b>	<b>Soyuz-2</b>	<b>Progress MS 25</b>
<b>Dec??</b>	<b>Atlas 5 402 / Falcon 9</b>	<b>USCV-10 (US Commercial Vehicles)</b>
<b>??</b>	<b>SLS Block IA II</b>	<b>Orion: Exploration Mission 3 (Crew to Cislunar)</b>



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??	<b>Sunkar</b>	<b>Federatsia (unmanned flight to ISS)</b>
??	<b>A Russian Proton/Briz-M (or Angara) rocket to launch the Laplas-P mission to orbit the moon of Jupiter Ganymede.</b>	
??	<b>Proton-M/Briz-M</b>	<b>Ekspress – AT3, AT4</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Resurs PM - 3</b>
??	<b>Angara 1.2</b>	<b>Gonets x 3</b>
??	<b>Soyuz-2-1B</b>	<b>Obzor R -2</b>
??	<b>Soyuz-2-1B</b>	<b>Obzor O -1</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Ellips - 1</b>
??	<b>Angara A5P/DM03</b>	<b>Dopler 1, 2</b>
??	<b>Vega</b>	<b>Sentinel-2A 2nd Gen</b>
??	<b>CZ</b>	<b>SPORT (Solar Polar Orbit Radio Telescope)</b>
??	<b>CZ</b>	<b>FY-4D Fengyun-4D</b>
??	<b>GSLV MK III</b>	<b>Mission to Venus</b>
??	<b>Angara A5P/DM03</b>	<b>Lutch 5 – 2</b>
??	<b>Soyuz-2-1b</b>	<b>Bion-M No. 2</b>
??	<b>Angara A5P/DM03</b>	<b>Lutch 5 – 3</b>
??	<b>??</b>	<b>???? GK 2</b>
<b>2024</b>		
<b>Mar30.</b>	<b>Soyuz-2-1A</b>	<b>Soyuz MS 22</b>
??	<b>CZ7</b>	<b>TZ 6 Tianzhou 6 (Logistic Cargo Vehicle)</b>
<b>June??</b>	<b>Atlas 5 402 / Falcon 9</b>	<b>USCV-11 (US Commercial Vehicles)</b>
<b>Sep30.</b>	<b>Soyuz-2-1A</b>	<b>Soyuz MS 23</b>
<b>Oct??</b>	<b>EELV</b>	<b>GOES-U</b>
??	<b>SLS Block IA II</b>	<b>Orion: Exploration Mission 4 (Crew to Cislunar)</b>
??	<b>Sunkar</b>	<b>Federatsia (Light 14t – 2 man to ISS)</b>
??	<b>Soyuz-2</b>	<b>Progress MS 26</b>
??	<b>Soyuz-2</b>	<b>Progress MS 27</b>
??	<b>Soyuz-2</b>	<b>Progress MS 28</b>
??	<b>Soyuz-2 1b</b>	<b>Luna28 (Luna-Grunt-1)</b>
??	<b>delivering a new-generation rover for gathering, analysis and uploading of samples</b>	
??	<b>Proton-M / DM-03</b>	<b>Spektr - UF</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Resurs PM - 4</b>
??	<b>Angara 1.2</b>	<b>Gonets x 2, Gonets M</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Arktika M 4</b>
??	<b>??</b>	<b>???? GK VEO 1</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Meteor MP No1</b>
??	<b>Soyuz-2-1A</b>	<b>Obzor P -1</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Razdan - 3</b>



## Blog Gorana Hudeca

??	??	<b>DYNAMIC/STP-06</b>
??	<b>CZ</b>	<b>Asteroid (Ceres) Sample Return Mission</b>
??	<b>Lapan</b>	<b>Pengorbitan-1 (RPS-01) (Indonesia)</b>

### 2025

??	<b>SLS Block IA II</b>	<b>Orion: Exploration Mission 5 (Crew to Cislunar)</b>
??	<b>Soyuz-2-1A</b>	<b>Soyuz MS 24</b>
??	<b>Soyuz-2</b>	<b>Progress MS 29</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Resonans 2A, 2B, MKA-PN5</b>
??	??	???? GK VEO 2
??	??	???? GK VEO 3
??	<b>Angara 1.2</b>	<b>Gonets x 3</b>
??	<b>Soyuz-2-1B/Fregat-M</b>	<b>Arktika M 5</b>
??	<b>Soyuz-2-1B</b>	<b>Obzor O -2</b>
??	<b>Soyuz-2-1b</b>	<b>Bion-M No. 3</b>
??	<b>Angara A%/DM-03</b>	<b>Elektro M -1</b>
??	<b>CZ</b>	<b>Chang'e-7 (Moon south pole landing)</b>

### 2026.

June??	<b>Angara A5P/KVTK</b>	<b>A mission to Venus (Venera D) would be launched</b>
??	<b>CZ</b>	<b>Jupiter Orbiter</b>
??	<b>CZ</b>	<b>Mars Sample Return</b>
??	<b>CZ</b>	<b>Chang'e-8 (Moon north pole landing)</b>
??	<b>Angara A5P/DM03</b>	<b>Bumerang (FobosGrunt 2)</b>