#### For the 9-1-17 release:

This version of the Database includes launches through August 31, 2017. There are currently 1,738 active satellites in the database.

The changes to this version of the database include:

- The addition of 321 satellites
- The deletion of 35 satellites
- The addition of and corrections to some satellite data.

#### **Satellites Removed**

Intelsat 701 -- 1993-066A

Intelsat 702 -- 1994-034A

Gonets D1-14 – 1996-009B

Apstar 1A -- 1996-039A

Meteosat-7 - 1997-049B

Iridium-30 – 1997-051F

Echostar-3 – 1997-059A

SpinSat - 1998-067FL

Tancredo-1 - 1998-067KT

Globalstar MO26 – 1999-041A

Telkom-1 - 1999-042A

Hispasat-1C - 2000-007A

Garuda-1 - 2000-011A

Echostar-8 -- 2002-039A

AMC-9 - 2003-024A

Amos 2 -- 2003-059A

Amazonas-1 -2004-031A

Kiku-8 -- 2006-059A

Prism - 2009-002B

TISat-1 -- 2010-035E

MKFKI-1 – 2012-039E

Cubebug-1 - 2013-018D

Phonesat 2.4 - 2013-064B

Firefly – 2013-064R

NPS-SCAT – 2013-064K

PUCP-SAT -- 2013-066AC

Humsat-D - 2013-066T

Wren -- 2013-066V

Firebird-A - 2013-072B

Firebird-B – 2013-072C

Popsat-HIP - 2014-033U

QB50P2 -- 2014-033Y

Tianwang-1B -- 2015-051C

Horyu-4 -- 2016-012D

Samsat-218D - 2016-026C

## **Satellites Added: Launched from Ground Station**

Lemur-2F14 - 2016-062D

Lemur-2F15 - 2016-062C

Lemur-2F16 - 2016-062E

Lemur-2F17 - 2016-062F

TJS-2 - 2017-001A

YY-S1 - 2017-002A

Jilin 1-3 - 2017-002B

Kaidun-1 - 2017-002C

Iridium Next SV 106 – 2017-003A

Iridium Next SV 103 – 2017-003B

Iridium Next SV 109 – 2017-003C

Iridium Next SV 102 – 2017-003D

Iridium Next SV 105 – 2017-003E

Iridium Next SV 104 – 2017-003F

Iridium Next SV 114 – 2017-003G

Iridium Next SV 108 - 2017-003H

Iridium Next SV 112 – 2017-003J

Iridium Next SV 111 – 2017-003K

SBIRS Geo-3 - 2017-004A

Kirameki-2 – 2017-005A

Hispasat 36W-1 - 2017-006A

Telkom-3S - 2017-007A

SkyBrasil-1 - 2017-007B

Cartosat-2D - 2017-008A

INS-1A - 2017-008B

Dove 3p-20 - 2017-008C

Dove 3p-8 - 2017-008D

Dove 3p-51 - 2017-008E

Dove 3p-37 - 2017-008F

INS-1B - 2017-008G

Dove 3p-19 - 2017-008H

Dove 3p-24 -2017-008J

Dove 3p-18 - 2017-008K

Dove 3p-22 - 2017-008L

Dove 3p-21 - 2017-008M

Dove 3p-28 – 2017-008N

Dove 3p-26 – 2017-008P

Dove 3p-17 – 2017-008Q

Dove 3p-17 2017-000Q

Dove 3p-27 – 2017-008R Dove 3p-25 – 2017-008S

Dove 3p-4 - 2017-008T

Dove 3p-2 – 2017-008U

Dove 3p-1 - 2017-008V

Dove 3p-3 - 2017-008VDove 3p-3 - 2017-008W

- Dove 3p-6 2017-008X
- Dove 3p-7 2017-008Y
- Dove 3p-5 2017-008Z
- Dove 3p-12 2017-008AA
- Dove 3p-9 2017-008AB
- Dove 3p-10 2017-008AC
- Dove 3p-11 2017-008AD
- Dove 3p-60 2017-008AE
- Dove 3p-58 2017-008AF
- Dove 3p-57 2017-008AG
- Dove 3p-75 2017-008AH
- Dove 3p-70 2017-008AJ
- Dove 3p-73 2017-008AK
- Dove 3p-88 2017-008AL
- Dove 3p-85 2017-008AM
- Dove 3p-79 2017-008AN
- Dove 3p-86 2017-008AP
- Dove 3p-36 2017-008AQ
- Dove 3p-30 2017-008AR
- Dove 3p-34 2017-008AS
- Dove 3p-35 2017-008AT
- Dove 3p-33 2017-008AU
- Lemur 2F22 2017-008BB
- Lemur 2F23 2017-008AY
- Lemur 2F24 2017-008AV
- Lemur 2F25 2017-008AZ
- LCIIIII 21 23 2017-006AZ
- Lemur 2F26 2017-008AX Lemur 2F27 – 2017-008AW
- Lemur 2F28 2017-008BA
- Lemur 2F29 2017-008BC
- BGUSat 2017-008BD
- Dido-2 2017-008BE
- Dove 3p-49 2017-008BF
- Dove 3p-67 2017-008BG
- Dove 3p-68 2017-008BH
- Dove 3p-41 2017-008BJ
- Dove 3p-45 2017-008BK
- Dove 3p-48 2017-008BL
- Dove 3p-43 2017-008BM
- Dove 3p-42 2017-008BN
- Dove 3p-61 2017-008BP
- Dove 3p-40 2017-008BQ
- Dove 3p-16 2017-008BR
- Dove 3p-14 2017-008BS
- Dove 3p-53 2017-008BT
- Dove 3p-54 2017-008BU
- PEASSS 2017-008BV
- Al-Farabi-1 2017-008BW

- Nayif-1 -2017-008BX
- Dove 3p-23 2017-008BY
- Dove 3p-76 2017-008BZ
- Dove 3p-69 2017-008CA
- Dove 3p-84 2017-008CB
- Dove 3p-59 2017-008CC
- Dove 3p-32 2017-008CD
- Dove 3p-71 2017-008CE
- Dove 3p-77 2017-008CF
- Dove 3p-80 2017-008CG
- Dove 3p-66 2017-008CH
- Dove 3p-65 2107-008CJ
- Dove 3p-50 2017-008CK
- Dove 3p-52 2017-008CL
- Dove 3p-46 2017-008CM
- Dove 3p-47 2017-008CN
- Dove 3p-44 2017-008CP
- Dove 3p-64 2017-008CQ
- Dove 3p-63 2017-008CR
- Dove 3p-62 2017-008CS
- Dove 3p-38 2017-008CT
- Dove 3p-39 2017-008CU
- Dove 3p-15 2017-008CV
- Dove 3p-13 2017-008CW
- Dove 3p-55 2017-008CX
- Dove 3p-56 2017-008CY
- Dove 3p-81 2017-008CZ
- Dove 3p-87 2017-008DA
- Dove 3p-29 2017-008DB
- Dove 3p-82 2017-008DC
- Dove 3p-78 2017-008DD
- Dove 3p-74 2017-008DE
- Dove 3p-31 2017-008DF
- Dove 3p-83 2017-008DG
- Dove 3p-72 2017-008DH
- USA 274 -- 2017-011A
- USA 274 -- 2017-011B
- Tiankun-1 2017-012A
- Sentinel 2B 2017-013A
- Echostar-23 2017-014A
- IGS Radar 5 2017-015A
- WGS-9 (USA 275) 2017-016A
- SES 10 2017-017A
- Shijian 13 2017-018A
- Lemur 2F30 2017-019B
- Lemur 2F31 2017-019C
- Lemur 2F32 2017-019D
- Lemur 2F33 2017-019E

NROL-76 (USA 276) - 2017-022A

Koreasat-7 – 2017-023A

SGDC - 2017-023B

South Asia Satellite – 2017-024A

INMARSAT 5 F4 – 2017-025A

SES-15 - 2017-026A

EKS-2 (Cosmos 2518) – 2017-027A

Michibiki-2 – 2017-028A

ViaSat-2 - 2017-029A

Eutelsat-172B - 2017-029B

GSAT-19E - 2017-031A

Echostar-21 - 2017-032A

Hard X-ray Modulation Telescope – 2017-034A

Zhuhai-1-02 - 2017-034B

NUSat-3 - 2017-034C

Zhuhai-1-01 – 2017-034D

Chinasat-9A – 2017-035A

UCLSat – 2017-036A

NIUSAT-Keralshree – 2017-036B

Cartosat-2E – 2017-036C

LituanicaSAT 2 – 2017-036D

CESat-1 - 2017-036E

Lemur 2F34 -- 2017-036G

Lemur 2F35 – 2017-036H

Lemur 2F36 – 2017-036J

Lemur 2F37 – 2017-036K

Aalto-1 - 2017-036L

Ursa Maior – 2017-036M

Compass-2 - 2017-036N

Max Valier - 2017-036P

Lemur 2F38 – 2017-036T

Lemur 2F39 - 2017-036S

Lemur 2F40 – 2017-036R

Lemur 2F41 – 2017-036Q

 $Diamond\ Red-2017-036U$ 

Diamond Green – 2017-036W

Diamond Blue – 2017-036X

NUDTSat – 2017-036Y

Suchai – 2017-036Z

skCUBE - 2017-036AA

VZLUSat – 2017-036AB

Venta-1 - 2017-036AC

Robusta-1B - 2017-036AD

Cicero-6 - 2017-036AE

D-Sat - 2017-036AF

Tyvak-53b - 2017-036AG

Cosmos 2519 - 2017-037A

Cosmos 2519 (subsatellite) – 2017-037D

BulgariaSat-1 -2017-038A

Iridium Next 113 – 2017-039A

Iridium Next 123 – 2017-039B

Iridium Next 120 – 2017-039C

Iridium Next 115 – 2017-039D

Iridium Next 118 – 2017-039E

Iridium Next 117 – 2017-039F

Iridium Next 126 – 2017-039G

Iridium Next 124 – 2017-039H

Iridium Next 128 – 2017-039J

Iridium Next 121 – 2017-039K

HellasSat-3/INMARSAT S EAN - 2017-040A

GSAT-17 - 2017-040B

Intelsat-35E - 2017-041A

Kanopus V-IK-2 – 2017-042A

Norsat-1 - 2017-042B

Cicero-1 - 2017-042C

Norsat-2 - 2017-042D

Technosat – 2017-042E

FLP - 2017-042G

MKA-N 1 - 2017-042J

MKA-N 2 - 2017-042K

WNISat-1R - 2017-042L

Cicero-2 - 2017-042M

Lemur-2-42 - 2017-042N

Lemur-2-44 - 2017-042Q

Lemur-2-45 - 2017-042R

Lemur-2-46 - 2017-042W

Lemur-2-47 - 2017-042P

Lemur-2-48 - 2017-042S

Lemur-2-49 - 2017-042T

Nanoace - 2017-042V

Corvus-BC-1 - 2017-042Y

Corvus-BC-2 - 2017-042X

Cicero-3 – 2017-042AA

Dove 2k-3 – 2017-042AB

Dove 2k-4 – 2017-042AC

Dove 2k-1 – 2017-042AD

Dove 2k-2 – 2017-042AE

Dove2k-47 - 2017-042AF

Dove 2k-48 – 2017-042AG

Dove 2k-45 – 2017-042AH

Dove 2k-24 – 2017-042AJ

Dove 2k-46 – 2017-042AK

Dove 2k-23 – 2017-042AL

Dove 2k-21 – 2017-042AM

Dove 2k-22 - 2017-042AN

Dove 2k-7 – 2017-042AP

Dove 2k-8 – 2017-042AQ

Dove 2k-5 - 2017-042AR

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Dove 2k-40 - 2017-042AS
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Dove 2k-39 - 2017-042AT

Dove 2k-37 - 2017-042AU

Dove 2k-38 – 2017-042AV

Dove 2k-31 - 2017-042AW

Dove 2k-32 - 2017-042AX

Dove 2k-29 - 2017-042AY

Dove 2k-30 - 2017-042AZ

Dove 2k-44 - 2017-042BA

Dove 2k-43 - 2017-042BB

Dove 2k-41 - 2017-042BC

Dove 2k-36 - 2017-042BD

Dove 2k-35 – 2017-042BE

Dove 2k-34 – 2017-042BF

Dove 2k-33 - 2017-042BG

Dove 2k-28 - 2017-042BH

Lemur 2-43 - 2017-042BJ

Dove 2k-27 - 2017-042BK

Dove 2k-26 – 2017-042BL

Dove 2k-25 - 2017-042BM

Dove 2k-20 - 2017-042BN

Dove 2k-19 - 2017-042BP

Dove 2k-18 - 2017-042BQ

Dove 2k-17 - 2017-042BR

Dove 2k-16 - 2017-042BS

Dove 2k-15 – 2017-042BT

Dove 2k-13 - 2017-042BU

Dove 2k-14 – 2017-042BV

Dove 2k-12 – 2017-042BW

Dove 2k-11 - 2017-042BX

Dove 2k-10 - 2017-042BY

Dove 2k-9 - 2017-042BZ

Dove 2k-6 – 2017-042CA

Optsat-3000 – 2017-044A

Venus - 2017-044B

Blagovest-11L (Cosmos 2520) – 2017-046A

TDRS-13 - 2017-047A

Michibiki-3 – 2017-048A

FormoSat-5 - 2017-049A

ORS-5 - 2017-050A

Prometheus 2.2 - 2017-050B

Prometheus 2.4 – 2017-050C

DHFR - 2017-050D

# Satellites Added: Deployed from Cygnus or International Space Station

Tancredo-1 – 1998-067KT

ITF-2 – 1998-067KU

AOBA-Velox 3 – 1998-067KX

OSNSat - 1998-067KZ

Lemur-2F18 - 1998-067LC

Lemur-2F19 - 1998-067LE

Lemur-2F20 - 1998-067LD

Lemur-2F21 - 1998-067LA

Havelsat - 1998-067LH

ColumbiaSat – 1998-067LK

SGSat - 1998-067LL

CXBN-2 - 1998-067LM

Phoenix – 1998-067LP

XCubeSat – 1998-067LQ

QBEE50-LTU-OC - 1998-067LR

Altair-1 -- 1998-067LS

SHARC -- 1998-067LT

ZA-Aerosat – 1998-067LU

LINK - 1998-067LV

CSUNSAT-1 - 1998-067LW

Spacecube – 1998-067LY

Hoopoe – 1998-067LZ

Challenger -- 1998-067MA

NJUST-1 - 1998-067MB

UNSW-ECO - 1998-067MC

Lilacsat-1 – 1998-067ME

Nsight-1 - 1998-067MF

i-Inspire-2 – 1998-067ML

PolyITAN-2-SAU - 1998-067MM

Exalta-1 - 1998-067MP

BeEagleSat – 1998-067MR

Atlantis - 1998-067MS

Toki -- 1998-067MU

Mazaalai - 1998-067MW

BRAC ONNESHA – 1998-067MX

Nigeria EduSat-1 – 1998-067MY

Tomsk-TPU-120 - 1998-067MZ

Tanyusha YuZGU-1 – 1998-067NA

Tanyusha YuZGU-2 – 1998-067NB

TNS-0-2 Nanosputnik – 1998-067ND

#### For the 1-1-17 release:

This version of the Database includes launches through December 31, 2016. There are currently 1460 active satellites in the database.

The changes to this version of the database include:

- The addition of 91 satellites (including 3 returned to the database on new information
- The deletion of 50 satellites
- The addition of and corrections to some satellite data.

## **Satellites Removed**

GOES-3 - 1978-062A

NATO-4B - 1993-076A

Iridium 39 – 1997-069D

Iridium 42 – 1997-077A

Iridium 57 – 1998-019B

Globalstar M06 – 1998-023B

Globalstar M027 – 1999-043B

Globalstar M029 - 1999-062C

EO-1 - 2000-075A

EROS-A1 - 2000-079A

Eutelsat-33B - 2002-051A

FORMOSAT-2 - 2004-018A

Suzaku - 2005-025A

Resurs-DK1 - 2006-021A

IGS-3A - 2006-037A

Glonass 725 (Cosmos 2443) – 2008-046B

Oceansat-2 - 2009-051A

Glonass 738 (Cosmos 2466) - 2010-041A

Vesselsat-1 – 2011-058C

Glonass 746 (Cosmos 2478) - 2011-071A

Amos 5 - 2011-074A

Vesselsat-2 - 2012-001B

Prometheus 4A -- 2013-064V

Prometheus 4B - 2013-064X

CSSWE - 2012-048D

2014-064AC

ZACube-1 -- 2013-066B

ORBCOMM FM-106 - 2014-040C

ORBCOMM FM-111 – 2014-040 D

Kuaizhou-2 - 2014-073A

OUFTI-1 -- 2016-025C

Dove 1e-6 – 1998-067GM

Dove 1e-7 – 1998-067

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Dove 1e-10 – 1998-067GP
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Dove 1e-11 – 1998-067GQ

Dove 1e-12 – 1998-067GR

Dove 1e-13 – 1998-067GS

Dove 1e-14 – 1998-067GT

S-Cube – 1998-067GY

GOMX-3 - 1998-067HA

Dove 2-b1 - 1998-067HB

Dove 2-b2 – 1998-067HC

Dove 2-b3 - 1998-067HD

Dove 2-b4 – 1998-067HE

Dove 2-b5 – 1998-067HF

Dove 2-b6 - 1998-067HG

Dove 2-b7 – 1998-067HH

Dove 2-b9 – 1998-067HK

Dove 2-b10 – 1998-067HL

Dove 2-b13 – 1998-067HM

Dove 2-b14 - 1998-067HN

## **Satellites Added**

(Returned to database after removal last release: CanX-2, 4, and 5)

SDS IV-1 (USA 269) – 2016-047A

Tiantong-1 -2016-048A

Gaofen-3 - 2016-049A

JCSat 16 - 2016-050A

Quantum Science Satellite – 2016-051A

GSSAP-3 - 2016-052A

GSSAP-4 - 2016-052B

Intelsat 36 – 2016-053A

Intelsat 33E – 2016-053B

Insat-3DR - 2016-054A

Ofeq-11 - 2016-056A

Perusat-1 - 2016-058A

Skysat-4 – 2016-058D

Skysat-5 – 2016-058E

Skysat-6 – 2016-058B

Skysat-7 – 2016-058C

PISAT - 2016-059B

AlSat-1B - 2016-059C

AlSat-2B - 2016-059D

BlackSky Pathfinder 1 – 2016-059E

Can X - 7 - 2016 - 059 F

AlSat-1N - 2016-059G

ScatSat-1 - 2016-059H

GSAT-18 - 2016-060A

Sky Muster 2 -- 2016-060B

Himawari-9 - 2016-064A

Shijian-17 - 2016-065A

XPNav-1 - 2016-066A

Worldview 4 – 2016-067A

Prometheus 2.1 – 2016-067B

Prometheus 2.2 – 2016-067C

Aerocube 8C - 2016-067D

Aerocube 8D – 2016-067E

CELTEE-1 - 2016-067G

RAVAN - 2016-067H

Yunhai-1 - 2016-068A

Galileo-15 - 2016-069A

Galileo-16 - 2016-069B

Galileo-17 – 2016-069C

Galileo-18 - 2016-069D

GOES-R - 2016-071A

Tianlian-1-04 - 2016-072A

Gokturk 1 – 2016-073A

Resourcesat-2A - 2016-074A

WGS-8 - 2016-075A

CYGNSS-E - 2016-078A

CYNGSS-D - 2016-078B

CYGNSS-B - 2016-078C

CYGNSS-A - 2016-078D

CYGNSS-H - 2016-078E

CYGNSS-F - 2016-078F

CYGNSS-G - 2016-078G

CYGNSS-C - 2016-078H

Echostar-19 – 2016-079A

ERG - 2016-080A

TanSat – 2016-081A

Chao fenbianlu duoguangpu – 2016-081B

Spark 1 – 2016-081C

Spark 2 - 2016-081D

Star One-D1 – 2016-082B

JCSAT-15 - 2016-082A

Superview-1-01 -2016-083A

Superview-1-02 - 2016-083B

Dove 2e-5 – 1998-067JN

Dove 2e-6 – 1998-067JM

Dove 2e-7 – 1998-067JP

Dove 2e-8 – 1998-067JQ

Dove 2e-9 - 1998-067JV

Dove 2e-10 – 1998-067JW

Dove 2e-11 – 1998-067JY

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Dove 2e-12 - 1998-067JX
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Dove 2ep-5 – 1998-067JR

Dove 2ep-6 – 1998-067JS

Dove 2ep-7 - 1998-067JT

Dove 2ep-8 – 1998-067JU

Dove 2ep-9 – 1998-067JZ

Dove 2ep-10 - 1998-067KA

Dove 2ep-11 - 1998-067KB

Dove 2ep-12 - 1998-067KC

Dove 2ep-13 - 1998-067KH

Dove 2ep-14 – 1998-067KJ

Dove 2ep-15 - 1998-067KL

Dove 2ep-16 – 1998-067KK

Dove 2ep-17 – 1998-067KN

Dove 2ep-18 – 1998-067KM

Dove 2ep-19 - 1998-067KQ

Dove 2ep-20 – 1998-067KP

STARS-C Oyaki -- 1998-067KR

## For the 7-1-16 release:

This version of the Database includes launches through June 30, 2016. There are currently 1419 active satellites in the database.

The changes to this version of the database include:

- The addition of 75 satellites
- The deletion of 37 satellites
- The addition of and corrections to some satellite data.

## Satellites removed

Akebono – 1989-016A

Navstar GPS II-10 (USA 66) - 1990-103A

Navstar GPS II-23 (USA 96) – 1993-068A

Superbird-C - 1997-036A

Intelsat-7 - 1998-052A

Dove 1d-2 - 1998-067FV

Dove 1e-1 – 1998-067GF

Dove 1e-2 - 1998-067GE

Dove 1e-3 – 1998-067GH

Dove 1e-4 – 1998-067GG

Dove 1e-5 – 1998-067GL

Dove 1e-8 - 1998-067GK

Dove 1e-9 - 1998-067GN

SERPENS – 1998-067GX

AAUSat-5 – 1998-067GZ

Dove 2b-8 - 1998-067HJ

Eutelsat 115 West A – 1998-070A

Ørsted – 1999-008B

Keyhole 3 (USA 144) - 1999-028A

Galaxy-27 – 1999-052A

XM-1 - 2001-018A

Keyhole 4 (USA 161) -- 2001-044A

Yaogan-2 - 2007-019A

Yaogan-3 - 2007-055A

Can-X2 - 2008-021H

STUDSat - 2010-035B

Tian-Xun-1 - 2011-066A

Yubileiny-2/RS-40 - 2012-041C

Can-X3a -- 2013-009G

ORSES - 2013-064G

\$50Sat - 2013-066W

DMSP-19 - 2014-015A

Can-X4 -- 2014-034C

Can-X5 -- 2014-034D

Angels (USA 255) - 2014-043C

USS Langley – 2015-025B

BRICSat-P - 2015-025E

#### **Satellites Added**

Belintersat-1 – 2016-001A

Jason-3 - 2016-002A

IRNSS-1E - 2016-003A

Intelsat-29E – 2016-004A

Eutelsat-9B - 2016-005A

Beidou 3M-3S – 2016-006A

Navstar GPS IIF-12 (USA 266) – 2016-007A

Glonass 751 (Cosmos 2514) – 2016-008A

Topaz-4 (USA 267) – 2016-010A

Sentinel-3A - 2016-011A

ChubuSat-2 - 2016-012B

ChubuSat-3 – 2016-012C

Horyu-4 – 2016-012D

SES-9 - 2016-013A

Eutelsat 65 West-A – 2016-014A

IRNSS-1F - 2016-015A

Resurs P-3 - 2016-016A

BARS-M (Cosmos 2515) – 2016-020A

Beidou IGSO-6 – 2016-021A

Sentinel-1B - 2016-025A

MicroSCOPE - 2016-025B

OUFTI-1 - 2016-025C

e-st@r-2 - 2016-025D

AAUSat-4 – 2016-025E

Mikhailo Lomonosov – 2016-026A

AIST-2D - 2016-026B

SamSat-218D – 2016-026C

IRNSS-1G - 2016-027A

JCSat-14 - 2016-028A

Yaogan-30 – 2016-029A

Galileo-13 - 2016-030A

Galileo-14 – 2016-030B

Thaicom-8 - 2016-031A

Glonass 753 (Cosmos 2516) – 2016-032A

Ziyuan 3-2 - 2016-033A

 $\tilde{N}uSat-1 - 2016-033B$ 

 $\tilde{N}uSat-2 - 2016-033C$ 

GEO-IK2 (Cosmos 2517) – 2016-034A

Intelsat 31/DLA 2 – 2016-035A

Advanced Orion-7 (USA 268) – 2016-036A

Beidou - 2016-037A

ABS 2A - 2016-038A

Eutelsat 117 West-B - 2016-038B

BRISat - 2016-039A

Echostar 18 – 2016-039B

CartoSat-2C - 2016-040A

Sathyabamasat – 2016-040B

SkySat-3 - 2016-040C

GHGSat-D - 2016-040D

LAPAN A3 – 2016-040E

BIROS - 2016-040F

M3MSat - 2016-040G

Swayam - 2016-040J

Dove 2p-1 - 2016-040U

Dove 2p-2 - 2016-040L

Dove 2p-3 - 2016-040V

Dove 2p-4 - 2016-040N

Dove 2p-5 - 2016-040T

Dove 2p-6 - 2016-040H

Dove 2p-7 - 2016-040S

Dove 2p-8 - 2016-040Q

Dove 2p-9 - 2016-040M

Dove 2p-10 - 2016-040P

Dove 2p-11 - 2016-040K

Dove 2p-12 - 2016-040R

Dove 2e-1 – 1998-067JD

Dove 2e-2 – 1998-067JE

Dove 2e-3 – 1998- 067JG

Dove 2e-4 – 198-067JH

Dove 2ep-1 – 1998-067HZ

Dove 2ep-2 – 1998-067JB

Dove 2ep-3 – 1998-067JA

Dove 2ep-4 – 1998-067JC

MUOS-5 - 2016-041A

Shijian 16-02 – 2016-043A

## For the 1-1-16 release:

This version of the Database includes launches through December 31, 2015. There are currently 1381 active satellites in the database.

The changes to this version of the database include:

- The addition of 116 satellites
- The deletion of 40 satellites
- The addition of more information in the "Type of Orbit" column, to describe orbits more precisely, for example, "non-polar inclined," and "sun-synchronous."
- The addition of and corrections to some satellite data.

#### **Satellites removed**

Leasat 5 – 1990-002B

Apstar-1 – 1994-043A

Astra 1E – 1995-055A

ABS-1A - 1996-003A

AMC-5 - 1998-063B

Express-A2 - 2000-013A

SB-WASS 3-1 (USA 160) - 2001-040A

SB-WASS 3-1 (USA 160) – 2001-040B

Strela (Cosmos 2384) -- 2001-058A

Spot-5 - 2002-021A

SB-WASS 3-2 (USA 173) – 2003-054A

SB-WASS 3-3 (USA 173) – 2003-054B

MTSat-1R - 2005-006A

US-KS Oko 87 (Cosmos-2422) – 2006-030A

NFIRE - 2007-014A

C/NOFS – 2008-017A

US-KS Oko 89 (Cosmos 2446) – 2008-062A

Rodnik (Cosmos 2452) -- 2009-036B

Picard - 2010-028A

ORS-1 (USA 231) – 2011-029A

AAUSat-3 - 2013-009B

EstCube-1 - 2013-021C

DANDE - 2013-055C

Vermont Lunar – 2013-064AD

Prometheus 3A – 2013-064P

Prometheus 1B – 2013-064M

Prometheus 2A – 2013-064AE

Prometheus 2B – 2013-064L

Prometheus 3B – 2013-064Q

IPEX - 2013-072K

Egyptsat-2 - 2014-021A

Kobalt-M (Cosmos 2505) – 2015-027A

Dove 1b-06 – 1998-067FX

Dove 1b-11 - 1998-067GC

Dove 1b-12 - 1998-067GD

Dove 1b-21 - 1998-067FQ

Dove 1b-22 - 1998-067FR

Dove 1b-27 - 1998-067FN

Dove 1d-1 - 2015-067FU

GEARRS-1 – 1998-067FZ

## **Satellites Added**

MUOS-4 - 2015-044A

Galileo FOC-5 – 2015-045A

Galileo FOC-6 – 2015-045B

TJS-1 - 2015-046A

Gaofen 9 – 2015-046A

Express AM-8 – 2015-048A

SERPENS – 1998-067GX

S-Cube – 1998-067GY

XW-2A - 2015-049E

XW-2B - 2015-049N

XW-2C - 2015-049H

XW-2D - 2015-049J

XW-2E - 2015-049L

XW-2F - 2015-049M

DCBB - 2015-049P

LilacSat-2 – 2015-049K

NUDT-Phonesat -2015-049B

Zheda Pixing-2A – 2015-049C

Zheda Pixing 2B – 2015-049D

Tiantuo-3 – 2015-049A

Kaituo-1A – 2015-049F

Naxing-2 - 2015-049G

Xingchen 1 - 2015-049V

Xingchen 2 - 2015-049S

Xingchen 3 - 2015-049T

Xingchen 4 – 2015-049U

Zijing 1 – 2015-049W

KJSY-1 - 2015-049R

Rodnik-S (Cosmos 2507) – 2015-050A

Rodnik-S (Cosmos 2508) – 2015-050B

Rodnik-S (Cosmos 2509) – 2015-050C

Pujiang-1 -2015-051A

TW-1A - 2015-051D

TW-1B - 2015-051C

TW-1C - 2015-051B

Astrosat - 2015-052A

LAPAN A2 - 2015-052B

exactView-9 - 2015-052C

Lemur-2 Joel - 2015-052D

Lemur-2 Peter – 2015-052E

Lemur-2 Jeroen - 2015-052F

Lemur-2 Chris - 2015-052G

Beidou 3I-2S - 2015-053A

NBN-1A - 2015-054A

Arsat-2 - 2015-054B

Dove 2b-1 – 1998-067HB

Dove 2b-2 - 1998-067HC

Dove 2b-3 - 1998-067HD

Dove 2b-4 – 1998-067HE

Dove 2b-5 – 1998-067HF

Dove 2b-6 - 1998-067HG

Dove 2b-7 - 1998-067HH

Dove 2b-8 - 1998-067HJ

Dove 2b-9 – 1998-067HK

Dove 2b-10 – 1998-067HL

Dove 2b-13 – 1998-067HM

Dove 2b-14 - 1998-067HN

Mexsat-2 - 2015-056A

AAUSat-5 - 1998-067GZ

GOMX-3 – 1998-067HA

LOSat - 2015-057A

Lingqiao-A - 2015-057B

Lingqiao-B – 2015-057C

Jilin-1 - 2015-057D

SB-WASS (USA 264) – 2015-058A

SB-WASS (USA 264) – 2015-058R

Aerocube-5C – 2015-058B

Aerocube-7A – 2015-058C

Fox-1A - 2015-058D

BisonSat - 20154-058E

ARC-1 - 2015-058F

SNaP-3 Alice – 2015-058G

LMRSTSat - 2015-058H

SNaP-3 Eddie – 2015-058J

PropCube-3 – 2015-058K

SINOD D-1 - 2015-058L

SNaP-3 Jimi - 2015-058M

PropCube-1 - 2015-058N

SINOD D-3 - 2015-058P

Apstar-9 - 2015-059A

Turksat-4B - 2015-060A

Tianhui-1C-2015-061A

Navstar GPS IIF-3 - 2015-062A

Chinasat-2C - 2015-063A

Yaogan-28 - 2015-064A

GSAT-15 – 2015-065A

Badr 7 – 2015-065B

EKS-1 (Cosmos 2510) – 2015-066A

LaoSat-1 - 2015-067A

Telstar-12V-2015-068A

Yaogan-29 – 2015-069A

Chinasat-1C – 2015-073A

Electro-L2 - 2015-074A

Garpun-12L (Cosmos 2513) – 2015-075A

VELOX-C1 – 2015-077A

Kent Ridge 1 – 2015-077B

Athenoxat-1 -2015-077C

TeLEOS 1 – 2015-077D

Galassia – 2015-077E

VELOX II – 2015-077F

DAMPE - 2015-078A

Galileo 12 – 2015-079A

Galileo 11 – 2015-079B

ORBCOMM FM-114 – 2015-081A

ORBCOMM FM-119 – 2015-081B

ORBCOMM FM-105 – 2015-081C

ORBCOMM FM-110 – 2015-081D ORBCOMM FM-118 – 2015-081E

ORBCOMM FM-112 – 2015-081E

ORBCOMM FM-113 – 2015-081G

ORBCOMM FM-115 - 2015-081H

ORBCOMM FM-108 – 2015-081J

ORBCOMM FM-117 - 2015-081K

ORBCOMM FM-116 - 2015-081L

Express AMU1 – 2015-082A

Gaofen 4 - 2015-083A

## For the 9-1-15 release:

This version of the database includes satellites launched through August 31, 2015. Currently, there are 1305 actively operating satellites.

The changes to this version of the database include:

- The addition of 85 satellites
- The return to active status of 8 satellites
- The deletion of 47 satellites
- The addition of and corrections to some satellite data.

## **Satellites Removed**

DSCS III-F6 (USA 82) - 1992-037A

Navstar SVN 26 (USA 83) - 1992-039A

Navstar SVN 39 (USA 92) - 1993-042A

Navstar SVN 35 (USA 94) - 1993-054A

DSCS III-F8 (USA 97) – 1993-074A

Navstar SVN 36 (USA 100) – 1994-016A

DMSP F13 (USA 109) - 1995-015A

Intelsat 706 – 1995-023A

Gonets D1-1 - 1996-009A

Gonets D1-2 – 1996-009B

Navstar SVN 33 (USA 117) – 1996-019A

Navstar SVN 40 (USA 126) – 1996-041A

TRMM – 1997-074A

Iridium 29 – 1997-051A

Navstar SVN 38 (USA 135) -- 1997-067A

Eutelsat 16B – 1998-013A

Eutelsat 48C – 1999-018A

Iridium 63 – 1998-021B

Eutelsat 8 West D – 2007-021A

IKONOS-2 – 1999-051A

BADR-B - 2001-056C

Cute-1 (CO 55) – 2003-031E

Unisat-3 - 2004-025H

Glonass 712 (Cosmos 2411) – 2004-053B

Cubesat XI-V (CO-58) – 2005-043F

AGILE – 2007-013A

Glonass 722 (Cosmos 2435) – 2007-065B

Glonass 724 (Cosmos 2442) – 2008-046A

Glonass 726 (Cosmos 2444) – 2008-046C

Glonass 727 (Cosmos 2447) – 2008-067A

Glonass 729 (Cosmos 2449) – 2008-067B

SAC-D - 2011-024A

EduSAT - 2011-044A

Kuaizhou-1 – 2013-053A

Unisat-5 - 2013-066F

ORS-Tech 1 – 2013-064H

ORS-Tech 2 – 2013-064S

CINEMA-2 - 2013-066J

CINEMA-3 - 2013-066L

ICube - 2013-066S

Unisat-6 - 2014-033C

NanosatC-Brl -- 2014-033Q

Dove 1b-17 - 1998-067FF

Dove 1b-2 - 1998-067FB

Dove 1b-23 - 1998-067EV

Dove 1b-24 – 1998-067EU

Dove 1b-8 - 1998-067FC

## **Satellites Returned to database:**

Astra 1D -- 1994-070A

Optus B3 – 1994-055A

Iridium 46 – 1997-043C

Apstar 9A – 1998-033A

ChinaSat 11 – 2013-020A

ORBCOMM FM-21 - 1998-053A

Globalstar M028 - 1999-041B

Kukai – 2009-002G

# Satellites Added for September 1, 2015 Release

Duchifat-1 - 2014-033M

GRIFEX - 2015-003D

Exocube – 2015-003E

IGS Radar - 2015-004A

INMARSAT 5-F2 – 2015-005A

Lotos-S (Cosmos 2503) – 2015-009A

ABS-3A - 2015-010A

Eutelsat 115 West B – 2015-010B

Dove 1b-21 – 1998-067FQ

Dove 1b-22 - 1998-067FR

Dove 1d-1 - 1998-067FU

Dove 1d-2 – 1998-067FV

Dove 1b-06 - 1998-067FX

GEARRSAT - 1998-067FZ

Dove 1b-11 - 1998-067GC

Dove 1b-12 – 1998-067GD

MMS-1 - 2015-011A

MMS-2 - 2015-011B

MMS-3 - 2015-011C

MMS-4 - 2015-011D

Express AM-7 – 2015-012A

Navstar GSP SVN 71 (USA 260) - 2015-013A

Arirang-3A - 2015-014A

IGS Optical 5 – 2015-015A

Galileo FOC-3 - 2015-017A

Galileo FOC-4 – 2015-017B

IRNSS-1D - 2015-018A

Beidou 3I-1S – 2015-019A

Gonets M-11 - 2015-020A

Gonets M-12 - 2015-020B

Gonets M-13 - 2015-020C

Cosmos 2504 - 2015-020D

Thor-7 - 2015-022A

Sicral 2/Syracuse-3C – 2015-022B

Turkmen Alem 52E – 2015-023A

X37B-OTV-4 - 2015-025A

USS Langley - 2015-025B

ParkinsonSat -1 - 2015-025D

BRICSat-P - 2015-025E

GEARRSAT-2 - 2015-025G

Aerocube-8A – 2015-025J

Aerocube-8B – 2015-025K

DirecTV-15 - 2015-026A

Sky Mexico-1 - 2015-026B

Kobalt-M (Cosmos 2505) – 2015-027A

Sentinel 2A - 2015-028A

Persona-3 (Cosmos 2506) – 2015-029A

Gaofen-8 - 2015-030A

DMC 3-1 - 2015-032A

DMC 3-2 - 2015-032B

DMC 3-3 - 2015-032C

CBNT-1 - 2015-032D

Dove 1b-27 – 1998-067FN

Dove 1b-21 -1998-067FQ

Dove 1b-22 – 1998-067FR

Dove 1b-11 - 1998-067GC

Dove 1b-12 – 1998-067GD

Dove 1b-06 – 1998-067FX

Dove 1d-1 - 2015-067FU

Dove 1d-2 - 2015-067FV

Dove 1e-2 – 1998-067GE

Dove 1e-1 – 1998-067-GF

Dove 1e-4 -- 1998-067GG

Dove 1e-3 – 1998-067GH

Dove 1e-7 – 1998-067GJ

Dove 1e-8 -- 1998-067 GK

Dove 1e-5 – 1998-067GL

Dove 1e-6 - 1998-067GM

Dove 1e-9 – 1998-067GN

Dove 1e-10 – 1998-067GP

Dove 1e-11 - 1998-067GO

Dove 1e-12 – 1998-067GR

Dove 1e-13 – 1998-067GS

Dove 1e-14 - 1998-067GT

Navstar GPS IIF-10 (USA 262) – 2015-033A

Star One C-4 – 2015-034A

Meteosat-11 – 2015-034B

Wideband Global Satcom 7 (USA 263) – 2015-036A

Beidou 3M-1S – 2015-037A

Beidou 3M-2S - 2015-037B

Intelsat IS-34 – 2015-039A

Eutelsat 8 West B – 2015-039B

Yaogan 27 – 2015-040A

GSAT-6 – 2015-041A

INMARSAT 5-F3 – 2015-042A

#### For the 2-1-15 release:

This version of the database includes satellites launched through January 31, 2015. Currently, there are 1265 actively operating satellites.

The changes to this version of the database include:

- The addition of 79 satellites
- The deletion of 44 satellites
- The addition of and corrections to some satellite data.

We have also added two new columns to the database which we hope will be useful:

- Country/Organization of UN Registry. This indicates the country that is registered as responsible for the satellite in the United Nations Register of Space Objects. http://www.unoosa.org/oosa/en/osoindex.html As the ownership and operational control of commercial satellites continues to become more complicated and rapidly changing, this column indicates the "launching state" as indicated in the Convention on Objects Launched into Outer Space. http://www.unoosa.org/oosa/en/SpaceLaw/gares/html/gares\_29\_3235.html
- Detailed Purpose. This column gives a more specific description of the function of the satellite. For example, the column gives more information on satellites with "Earth Observation" as purpose, indicating "Optical Imaging," "Electronic

Intelligence," or "Meterology" etc. as the Detailed Purpose. This column is a work in progress and we will continue to add information in future database updates.

# **Satellites Removed**

Intelsat 603 – 1990-021A

Optus B3 - 1994-055A

NSS-703 - 1994-064A

Saxmex-4 - 1994-065A

Astra 1D – 1994-070A

WIND - 1994-071A

Ardusat-1 - 1998-067DA

Picodragon-1 – 1998-067DB

Bonum-1 - 1998-068A

Parus-90 (Cosmos 2361) – 1998-076A

Parus-91 (Cosmos 2366) – 1999-045A

ACRIMSat – 1999-070B

SAC-C - 2000-075B

XM Rock - 2001-012A

Parus-92 (Cosmos 2378) – 2001-023A

Quickbird 2 – 2001-047A

Parus-93 (Cosmos 2389) – 2002-026A

Ziyuan 2B – 2002-049A

IGS-1A - 2003-009A

Parus-94 (Cosmos 2398) – 2003-023A

Yamal-201 - 2003-053B

PARASOL - 2004-049G

VUSat Oscar 52 - 2005-017B

Parus-97 (Cosmos 2429) – 2007-038A

Can-X6 - 2008-021B

Cute-1.7 + APD II - 2008-021C

Yaogan-5 - 2008-064A

RazakSat – 2009-037A

Parus-98 (Cosmos 2454) – 2009-039A

Meteor-M - 2009-049A

AEHF-1 (USA 214) - 2010-039A

Sich-2 - 2011-044G

e-st@r - 2012-006C

XaTcobeo – 2012-006F

Tiantuo-1 – 2012-021B

MASAT-1 - 2012-006E

X37-B OTV-1 (USA 240) – 2012-071A

Dove 2 – 2013-015C

Dove 4 – 2013-066U

Ho'oponopono-2 - 2013-064B

CAPE-2 - 2013-064AB

CUNYSat-1 – 2013-072J ShindaiSat – 2014-009A

Kobalt M - 2014-025A

Removed three duplications.

### **Satellites Added**

RS-47 (Cosmos 2499) – 2014-028E

Dove 1C-1 - 2014-033T

Dove 1C-2 - 2014-033V

Dove 1C-3 - 2014-033AH

Dove 1C-4 - 2014-033X

Dove 1C-5 – 2014-033AE

Dove 1C-6 – 2014-033AC

Dove 1C-7 - 2014-033S

Dove 1C-8 - 2014-033AG

Dove 1C-9 – 2014-033AB

Dove 1C-10 - 2014-033N

Dove 1C-11 - 2014-033Z

AprizeSat-10 – 2014-033K

Navstar GPS IIF-07 (USA 256) – 2014-045A

AsiaSat-8 - 2014-046A

Yaogan-20A - 2014-047A

Yaogan-20B - 2014-047B

Yaogan-20C - 2014-047C

Worldview-3 - 2014-048A

Gaofen-2 – 2014-049A

BRITE-PL2 - 2014-049B

Dove 1B-2 – 1998-067FB

Dove 1B-8 – 1998-067FC

Dove 1B-17 - 1998-067FF

Dove 1B-23 – 1998-067EV

Dove 1B-24 – 1998-067EU

Galileo-5 - 2014-050A

Galileo-6 - 2014-050B

Ling Qiao – 2014-051A

Chuangxin 1-04 – 2014-051B

AsiaSat-6 - 2014-052A

Yaogan 21 – 2014-053A

Tiantuo-2 - 2014-053B

Optus 10 – 2014-054A

Measat 3B – 2014-054B

Clio (USA 257) – 2014-055A

Luch/Olympus – 2014-058A

Shijian 11-07 – 2014-059A

Himawari 8 –2014-060A

IRNSS 1C - 2014-061A

Intelsat  $30/DLA\ 1 - 2014-062A$ 

ArSat 1 - 2014-062B

Yaogan-22 – 2014-063A

Express AM-6 – 2014-064A

Shijian 11-08 – 2014-066A

Navstar GPS IIF-08 (USA 258) - 2014-068A

Meridian 7 – 2014-069A

ASNARO-1 - 2014-070A

Hodoyoshi 1 – 2014-070B

ChubuSat 1 – 2014-070C

Qsat-EOS – 2014-070D

TSUBAME - 2014-070E

Yaogan-23 - 2014-071A

Yaogan-24 - 2014-072A

Kuaizhou 2 – 2014-073A

SpinSat - 1998-067FL

Glonass-702 (Cosmos 2502) – 2014-075A

GSat-16 - 2014-078A

DirecTV-14 - 2014-078B

CBERS-4 - 2014-079A

Yaogan 25A – 2014-080A

Yaogan 25B – 2014-080B

Yaogan 25C – 2014-080C

Improved Trumpet 5 (USA 259, NROL-35) – 2014-081A

Yamal-401 - 2014-082A

O3b FM10 - 2014-083A

O3b FM11 - 2014-083B

O3bFM12 - 2014-083C

O3bFM9 -2014-083D

Condor-E 2 - 2014-084A

Lotos S1 - 2014-086A

Resurs-P2 - 2014-087A

Yaogan-26 – 2014-088A

Astra 2G - 2014-089A

Fengyun 2G – 2014-090A

MUOS 3 - 2015-002A

SMAP - 2015-003A

Firebird-C – 2015-003B

Firebird-D – 2015-003C

Returned to database:

INMARSAT 3 F-3 – 1996-070A

CSSWE - 2012-048D

#### For the 8-1-14 release:

This version of the database includes satellites launched through July 31, 2014. Currently, there are 1235 actively operating satellites.

The changes to this version of the database include:

- The addition of 89 satellites
- The deletion of 21 satellites
- The addition of and corrections to some satellite data.

#### Satellites Removed

Africasat-1 – 1996-002B

Orbcomm-FM22 – 1998-053B – on-orbit failure

Orbcomm FM25 – 1998-053E – on-orbit failure

Galaxy-26 – 1999-005A

Globalstar MO25 – 1999-031A

Globalstar MO47 – 1999-031C

NOAA-16 – 2000-055A – decommissioned

SDS III-2 (USA 155) – 2000-080A

SDS III-3 (USA 162) – 2001-046A

Technology Experiment Satellite (TES) – 2001-049A

INSAT-3E – 2003-043E – decommissioned after on-orbit failure

Topsat – 2005-043B

Haiyang-1B - 2007-010A

IMS-1 - 2008-021D

US-KS Oko 90 (Cosmos 2469) – 2010-049A – on-orbit failure

US-KMO Oko 8 (Cosmos 2479) – 2012-012A – on-orbit failure

KYSat – 2013-064AA

Triton 1 - 2013-066M – on-orbit failure

DELFI-N3XT – 2013-066N – on-orbit failure

Velox P-2 - 2013-066Y - on-orbit failure

MCubed-2 – 2013-072H – on-orbit failure

#### Satellites Added

ABS-2 - 2014-006A

Athena-Fidus (Access on THeatres for European Nations)

Allied forces - French Italian Dual Use Satellite) – 2014-006B

Turksat 4A - 2014-007A

Navstar GPS II-F5 – 2014-008A

ShindaiSat -- 2014-009A

GPM (Global Precipitation Measurement) – 2014-009C

Express-AT 1 - 2014-010A

Express-AT 2 - 2014-010B

Amazonas 4A – 2014-011A

Astra 5B - 2014-011B

Glonass 754 – 2014-012A

Shijian 11-06 – 2014-014A

DMSP 5D-3 F19 – 2014-015A

Sentinel 1A - 2014-016A

IRNSS-1B - 2014-017A

Ofeq-10 - 2014-019A

NROL-67 (USA 250) – 2014-020A

Egyptsat 2 - 2014-021A

Luch 5V - 2014-023A

Kazsat-3 - 2014-023B

KazEOSat 1 – 2014-024A

Kobalt-M (Cosmos 2495) – 2014-025A

Navstar GPS IIF-6 (USA 251) – 2014-026A

NROL-33 (USA 252) – 2014-027A

Rodnik (Cosmos 2496) – 2014-028A

Rodnik (Cosmos 2497) -2014-028B

Rodnik (Cosmos 2498) – 2014-028C

Daichi-2 - 2014-029A

UNIFORM-1 - 2014-029B

Socrates – 2014-029C

Rising 2 -- 2014-029D

SPROUT - 2014-029E

Eutelsat-3B - 2014-030A

Glonass 755 – 2014-032A

KazEOSat 2 -- 2014-033A

Hodoyoshi-4 – 2014-033B

Unisat-6 – 2014-033C

Deimos 2 - 2014-033D

Bugsat-1 -2014-033E

Hodoyoshi-3 – 2014-033F

Saudisat-4 – 2014-033G

Aurora – 2014-033H

Aprizesat-9 – 2014-033J

Aprizesat-10 – 2014-033K

BRITE-Toronto – 2014-033L

NanosatC-Br1 – 2014-033Q

QB50p1 - 2014-033R

Popsat-HIP – 2014-033U

QB50p2 - 2014-033Y

ANTELSat – 2014-033AA

Perseus-M 2 -- 2014-033AD

Perseus-M1-2014-033AF

PolyITAN-1 – 2014-033AJ

TIGRISat – 2014-033AK

Lemur-1 - 2014-033AL

Aerocube-6A - 2014-033AM

Aerocube-6B - 2014-033AN

Spot 7 - 2014-034A

AISat - 2014-034B

Can X - 4 - 2014 - 034 C

Can X - 5 - 2014 - 034 D

Velox 1 - 2014-034E

OCO-2 - 2014-035A

Gonets M18 – 2014-036A

Gonets M19 - 2014-036B

Gonets M20 - 2014-036C

Meteor M-2 - 2014-037A

Relek – 2014-037B

DX-1 - 2014-037C

SkySat 2 – 2014-037D

TechDemoSat-1 – 2014-037E

UKube 1 - 2014-037F

AISSat-2 - 2014-037G

TechDemoSat-1 - 2014-037E

O3b FM03 -- 2014-038A

O3b FM06 – 2014-038B

O3b FM07 – 2014-038C

O3b FM08 - 2014-038D

ORBCOMM OG2 FM-109 - 2014-040A

ORBCOMM OG2 FM-107 - 2014-040B

ORBCOMM OG2 FM-106 - 2014-040C

ORBCOMM OG2 FM-111 – 2014-040D

ORBCOMM OG2 FM-104 - 2014-040E

ORBCOMM OG2 FM-103 – 2014-040F

Photon M4 – 2014-041A

GSSAP -1 (USA 253) - 2014-043A

GSSAP-2 (USA 254) – 2014-043B

Angels – (USA 255) -- 2014-043C

#### For the 2-1-14 release:

This version of the database includes satellites launched through January 31, 2014. Currently, there are 1167 actively operating satellites.

The changes to this version of the database include:

- The addition of 94 satellites
- The deletion of 15 satellites
- The return of 3 satellites to active status
- The addition of and corrections to some satellite data.

## **Satellites Removed**

Navstar GPS II-13 – 1993-054A Intelsat 801 – 1997-009A ST-1 – 1998-049A

Eutelsat 4B – 1998-057A

Globalstar M045 – 1999-019A

Fengyun 1D – 2002-024B

Molniya 1-92 – 2003-011A

BSAT-2C - 2003-028A

Molniya 3-53 - 2003-029A

Express-AM1 - 2004-043A

Glonass-728 - 2008-067C

GOCE - 2009-013A

STARE-A - 2012-048H

AeroCube-4 - 2012-048M

Turksat3USAT -- 2013-018C

## **Satellites Added**

In November and December of 2013 more than 60 picosats and cubesats were carried as secondary payloads on launches from Wallops Island, Dombarovsky (Yasny) Cosmodrome, and Vandenberg Air Force Base. Those that have been identified and determined to be operational have been added to the database. The identification of these small satellites has proven to be difficult, and further correction may be necessary.

Yaogan-17A -- 2013-046A

Yaogan-17B – 2013-046B

Yaogan-17C - 2013-046C

Gonets M-14 - 2013-048A

Gonets M-16 - 2013-048B

Gonets M-17 - 2013-048C

Hisaki (Sprint-A) – 2013-049A

AEHF-3 (USA 246) - 2013-050A

Fengyun 3C – 2013-052A

Kuaizhou-1-2013-053A

Cassiope – 2013-055A

CUSat-1 - 2013-055B

DANDE – 2013-055C

Astra 2E -- 2013-056A

Shijian 16 -- 2013-057A

G:: FN 6 2012 05711

Sirius FM-6 -- 2013-058A

Yaogan 18 -- 2013-059A

Raduga-1M --2013-062A

Ardusat-1 – 1998-067DA

PicoDragon – 1998-067DB

STPSat 3 -- 2013-064A

Prometheus 1A – 2013-064H

Prometheus 1B – 2013-064E

Prometheus 2A – 2013-064K

Prometheus 2B – 2013-064L

Prometheus 3A – 2013-064M

Prometheus 3B – 2013-064F

Prometheus 4A – 2013-064P

Prometheus 4B – 2013-064Q

ORSES - 2013-064C

ORS Tech 1 – 2013-064D

ORS Tech 2 – 2013-064S

KySat-2 - 2013-064AA

Firefly – 2013-064R

NPS-SCAT - 2013-064AE

Phonesat 2.4 – 2013-064W

CAPE-2 - 2013-064AB

Vermont Lunar Cubesat – 2013-064AD

STARE-B - 2013-064G

Yaogan 19 -- 2013-065A

Aprizesat-7 - 2013-066A

ZACube-1 -- 2013-066B

SkySat-1 - 2013-066C

DubaiSat-2 - 2013-066D

OPTOS - 2013-066E

Unisat-5 – 2013-066F

STSat-3 - 2013-066G

WNISat-1 - 2013-066H

Aprizesat-8 – 2013-066K

FunCube (AO-73) – 2013-066AE

CINEMA-2 - 2013-066J

CINEMA-3 - 2013-066L

Triton-1 - 2013-066M

Delfi-n3Xt – 2013-066N

Dove-3 - 2013-066P

GATOSS - 2013-0660

BRITE-PL-1 - 2013-066R

ICube – 2013-066S

HumSat-D - 2013-066T

Dove-4 – 2013-066U

Wren – 2013-066V

Eagle 2 - 2013-066W

Velox P-2 – 2013-066Y

CubeBug-2 – 2013-066AA

PUCPSat-1 - 2013-066AC

UWE-3 – 2013-066AG

SWARM A – 2013-067A

SWARM B -2013-067B

SWARM C – 2013-067C

Shiyan-5 – 2013-068A

SES-8 – 2013-071A

FIA Radar 3 (USA 247) – 2013-072A

Firebird-A – 2013-072B

Firebird-B – 2013-072C

AeroCube 5A – 2013-072D

AeroCube 5B – 2013-072E

ALiCE - 2013-072F

SNaP-3-1 -0 2013-072G

MCubed-2 - 2013-072H

CUNYSAT-1 - 2013-072J

IPEX - 2013-072K

SMDC ONE-2.4 – 2013-072L

SMDC ONE-2.3 - 2013-072N

Tacsat-6 - 2013-072M

Inmarsat 5-F1 - 2013-073A

TKSat-1 - 2013-075A

Rodnik (Cosmos 2488) – 2013-076A

Rodnik (Cosmos 2489) – 2013-076B

Rodnik (Cosmos 2490) – 2013-076C

Ekspress AM-5 – 2013-077A

Aist-1 - 2013-078A

GSAT-14 - 2014-001A

Thaicom-6 - 2014-002A

TDRS-12 - 2013-004A

The following satellites were returned to the database. After the announcement of retirement from service, the decision was made to use them for short-term end-of-life leases:

Arabsat 7F (Nimiq 1) – 1999-027A DirecTV-1R – 1999-056A

MBSAT - 2004-007A

#### For the 9-1-13 release:

This version of the database includes satellites launched through August 31, 2013. Currently, there are 1084 actively operating satellites.

The changes to this version of the database include:

- The addition of 24 satellites
- The deletion of 11 satellites
- The addition of and corrections to some satellite data.

# **Satellites Removed**

Radarsat-1 – 1995-059A (failed on orbit 3/13)

Arabsat-2B – 1996-063A

Chinasat-5A – 1998-033A

Sinosat-1 – 1998-044A

Nimiq-1 – 1999-027A

GOES-12 (GOES-M) – 2001-031A (retired 8/13)

Jason 1 - 2001-055A (failed on orbit 7/13)

GALEX – 2003-017A (decommissioned 6/13)

CoRoT – 2006-063A (decommissioned 6/13)

Raduga-1M1 - 2007-058A (disposal orbit 6/13)

Express-MD1 - 2009-007B (failed on orbit 7/13)

## **Satellites Added**

STRaND-1 – 2013-009E (had shut down in March, 2013 and became active again in July, 2013)

SES 6 -- 2013-026A

Persona-2 - 2013-028A

Resurs-P1 – 2013-030A

O3b FM5 - 2013-031A

O3b FM4 - 2013-031B

O3b FM2 - 2013-031C

O3b PFM - 2013-031D

Kondor - 2013-032A

Iris - 2013-033A

IRNSS-1A -- 2013-034A

Shijian 11-05 – 2013-035A

MUOS-2 - 2013-036A

Shiyan 7 - 2013-037B

Chuangxin 3 – 2013-037C

Shijian-15 - 2013-037A

Alphasat I-XL (Inmarsat IV-A F4) – 2013-038A

Insat-3D - 2013-038B

Wideband Global SATCOM 6 (USA 244) – 2013-041A

Kompsat 5 -2013-042A

Keyhole 7 (USA 245) – 2013-043A

Eutelsat 25B – 2013-044A

GSAT-7 - 2013-044B

Amos-4 - 2013-045A

## For the 6-1-13 release:

This version of the database includes satellites launched through May 31, 2013. Currently, there are 1071 actively operating satellites.

The changes to this version of the database include:

- The addition of 46 satellites
- The deletion of 19 satellites
- The addition of and corrections to some satellite data.

#### **Satellites Removed**

INMARSAT 2-F1 – 1990-093A – decommissioned (22.5 years)

Intelsat 709 – 1996-035A (decommissioned 16 years)

Gonets-D1-4 – 1997-006D – failed in orbit

Gonets-D1-5 – 1997-006E – failed in orbit

Gonets-D1-6 – 1997-006F – failed in orbit

Thor-2 – 1997-025A – decommissioned (15 years)

Cakrawatra 1—1997-071B decommissioned (15 years)

Nilesat-101 – 1998-024A – decommissioned (14 years)

Beidou-1B - 2000-082A - decommissioned

GeoLite (USA 158) – 2001-020A – end of mission

Gonets-D1-7 - 2001-058D - failed in orbit

Gonets-D1-9 - 2001-058F - failed in orbit

NOAA-17 (NOAA-M) – 2002-023A -- decommissioned (11 years)

Beidou-3 – 2003-021A – decommissioned

Compass-G2 -- 2009-018A

RAX-2 - 2011-061D – failed on orbit

CXBN - 2012-048A - failed in orbit

CSSWE - 2012-048D - failed in orbit

CP-5 - 2012-048F – failed in orbit

## **Satellites Added**

Pléiades 1B - 2012-068A

Eutels at -70B-2012-069A

Yamal 402 – 2012-070A

X37-B/OTV-1 (USA 240) -- 2012-071A

On December 12, 2012 North Korea launched Kwangmyongsong-3 – 2012-072A – a 100 kg technology demonstration satellite. While it did achieve orbit, a signal has never been picked up and it is tumbling out of control. It is not believed to be operational.

Göktürk 2 -- 2012-073A

Skynet 5D - 2012-075A

MexSat 3 -- 2012-075B

Rodnik-15 (Cosmos 2482) – 2013-001A

Rodnik-17 (Cosmos 2484) – 2013-001C

IGS 8A (IGS Radar 4) – 2013-002A

IGS 8B (IGS Optical Demonstrator) -- 2013-002B

STSat-2C – 2013-003A

TDRS-K - 2013-004A

Globalstar M097 – 2013-005A

Globalstar M093 – 2013-005B

Globalstar M094 – 2013-005C

Globalstar M096 - 2013-005D

Globalstar M078 – 2013-005E

Globalstar M095 - 2013-005F

Amazonas-3 - 2013-006A

Azerspace/Africasat.1a – 2013-006B

Landsat-8 - 2013-008A

SARAL - 2013-009A

AAUSat-3 – 2013-009B

Sapphire – 2013-009C

NEOSSat - 2013-009D

TUGSat-1 - 2013-009F

CanX-3a (BRITE) – 2013-009G

SBIRS GEO 2 (USA 241) – 2013-011A

Satmex-8 -2013-012A

Anik G1 – 2013-014A

Dove-2 - 2013-015C

AIST-2 - 2013-015D

BeeSat-3 -2013-015E

BeeSat-2 - 2013-015G

Gaofen-1 - 2013-018A

Turksat-3USAT - 2013-018C

Cubebug-1 - 2013-018D

Glonass 747 (Cosmos 2485) – 2013-019A

Zhongxing-11 (Chinasat 11) – 2013-020A

Proba V - 2013-021A

VNREDSat 1A - 2013-021B

EstCube-1 2013-021C

Eutelsat-3D - 2013-022A

Navstar GPS IIF-4 (USA 242) – 2013-023A

Wideband Global Satcom 5 (USA 243) – 2013-024A

## For the 12-1-12 release:

This version of the database includes satellites launched through November 30, 2012.

The changes to this version of the database include:

- The addition of 52 satellites
- The deletion of 22 satellites
- The update of orbital information for most satellites in LEO
- The addition of and corrections to some satellite data.

The 52 added satellites include several which have been returned to the database because of updated information or a return to active status by current or new owners.

## **Satellites Removed**

Landsat 5 – 1984-021A Intelsat 602 – 1989-087A Navstar GPS II-15 – 1992-058A Helios 1A – 1995-033A

Paksat-1 – 1996-006A

Intelsat 24/Amos 1 – 1996-030B

Iridium 4 – 1997—020E

Orbview-2 – 1997-037A

Eutelsat W75 – 1997-049A

Spot-4 - 1998-017A

Orbcomm FM24 – 1998-053D

Globalstar M038 - 1999-004D

Globalstar M026 – 1999-041A

Eurobird 4A – 2000-052A

MIMOSA - 2003-031B

Glonass 718 (Cosmos 2431) – 2007-052C

Anusat - 2009-019B

Hawksat-1 - 2009-028D

RAX (Radio Aurora Explorer, USA 218) – 2010-062B

Falconsat-5 (USA 221) – 2010-062E

PW-Sat - 2012-006G

Kobalt M (Kosmos 2480) - 2012-024A

## **Satellites Added**

RAX-2 - 2011-061D

e-st@r - 2012-006C

Intelsat-20 - 2012-043A

Intelsat-21 - 2012-045A

Van Allen Probe A – 2012-046A

Van Allen Probe B – 2012-046B

Spot 6 - 2012-047A

SB-WASS 3-6 (USA 238) (2) – 2012-048A

SMDC-ONE 1.2 – 2012-048B

Aeneas - 2012-048C

CSSWE – 2012-048D

CXBN - 2012-048E

CP5 - 2012-048F

CINEMA – 2012-048G

RE - 2012-048H

SMDC-ONE 1.1 – 2012-048J

Aerocube 4.5A – 2012-048K

 $Aerocube\ 4.5B - 2012-048L$ 

Aerocube 4 – 2012-048M

MetOp B - 2012-049A

Beidou 2-14 - 2012-050A

Beidou 2-15 – 2012-050B

Astra 2F – 2012-051A

GSat-10 - 2012-051B

VRSS 1 - 2012-052A

Navstar GPS IIF-03 (USA 239) – 2012-053A

Galileo IOV-2FM 3 – 2012-055A

Galileo IOV-2 FM4 – 2012-055B

Shijian 9A – 2012-056A

Shijian 9B – 2012-056B

Intelsat 23 – 2012-057A

Beidou 2-16 – 2012-059A

Luch 5B - 2012-061A

Yamal 300K - 2012-061B

Star One C3 – 2012-062A

Eutelsat 21B – 2012-062B

Meridian 6 – 2012-063A

Huan Jing 1C – 2012-064A

Fengniao 1 & 1A – 2012-064B (joined pair)

Xinyan 1 - 2012-064C

Echostar 16 – 2012-065A

Yaogan 16A – 2012-066A

Yaogan 16B – 2012-066B

Yaogan 16C – 2012-066C

Zhongxing 12 - 2012-067A

In addition to these launches, these satellites were returned to active status:

Navstar GPS II-13 – 1993-054A – returned to constellation

Inmarsat 2-F1 – 1990-093A

Intelsat 702 – 1994-034A

Intelsat 706 –1995-023A

DirecTV-1R - 1999-056A

Eutelsat 28B – 2008-065B

Chinasat 10 – 2011-026A

## For August 1, 2012 release

This version of the database includes satellites launched through July 31, 2012.

The changes to this version of the database include:

- The addition of 36 satellites
- The deletion of 16 satellites
- The addition of and corrections to some satellite data.

# Satellites Added for August 1, 2012 Release

FIA Radar 2 (USA 234) – 2012-014A

Yahsat 1B – 2012-016A

RISat-1 - 2012-017A

Compass M3 - 2012-018A

Compass M4 - 2012-018B

AEHF-2 (USA 235) - 2012-019A

Tianhui 1-02 – 2012-020A

Yaogan 14 – 2012-021A

Tiantuo 1 – 2012-021B

JCSat 13 – 2012-023A

Vinasat 2 – 2012-023B

Kobalt-M (Cosmos 2480) – 2012-024A

GCOM-W1 - 2012-025A

Kompsat-3 - 2012-025B

SDS-4 - 2012-025C

Horyu-2-2012-025D

Nimiq 6 - 2012-026A

Zhongxing 2A – 2012-028A

Yaogan-15 - 2012-029A

Intelsat 19 – 2012-030A

NuSTAR - 2012-031A

SDS III-7 (USA 236) – 2012-033A

Advanced Orion 6 (USA 237) – 2012-034A

Echostar 17 – 2012-035A

Meteosat-10 - 2012-035B

SES-5 - 2012-036A

Canopus-B – 2012-039A

BKA - 2012-039B

exactView-1 -2012-039C

TET-1 - 2012-039D

MKA-FKI-1 - 2012-039E

Tianlian 1-03 - 2012-040A

Rodnik 14 – 2012-041A

Gonets-13 - 2012-041B

MiR - 2012-041C

Gonets-15 – 2012-041D

# Satellites Removed for August 1, 2012 Release

INMARSAT 2F2 – 1991-018A

INMARSAT 2F4 - 1992-021B

Brasilsat B2 – 1995-016A

Advanced Orion 1 (USA 110) – 1995-022A

SDS III-1 – 1998-005A

DirecTV-1R - 1999-056A

GOES-11 - 2000-022A

BSAT-2A - 2001-011B

ICO-F2 - 2001-026A

Nigeriasat-1 – 2003-042C MBSat-1 – 2004-007A Estrela do Sol 1/Telstar 14 – 2004-001A GIOVE-A – 2005-051A MiTEX (USA 188) – 2006-024B GIOVE-B – 2008-020A X37B – 2011-010A

# For April 1, 2012 release

This version of the database includes satellites launched through April 1, 2012.

The changes to this version of the database include:

- The addition of 13 satellites
- The deletion of 8 satellites
- The addition of and corrections to some satellite data.

## **Satellites Added**

Ziyuan 3 (ZY-3) – 2012-001A Vesselsat-2 – 2012-001B Fengyun 2F – 2012-002A Wideband Global Satcom 4 (USA 233) – 2012-003A MaSat 1 (Magyar Satellite/OSCAR 72) - 2012-006H Xatcobeo – 2012-006F PW-Sat – 2012-006G SES-4 – 2012-007A Beidou – 2012-008A MUOS-1 – 2012-009A Intelsat 22 – 2012-011A US-KMO Oko 8 (Cosmos 2479) – 2012-012A Apstar 7 – 2012-013A

(Note that some small satellites, including Iran's Navid satellite, that were launched during this quarter re-entered on or before April 1, and so do not appear in the database.)

#### **Satellites Removed**

TDRS-4 – 1989-021B X-Ray Timing Explorer – 1995-074A Envisat\* -- 2002-009A Fengyun 2C – 2004-042A Akari – 2006-005A Compass 1 – 2008-021E TacSat 3 – 2009-028A \*On May 9, 2012 the European Space Agency (ESA) announced the end of mission for Envisat. The Agency lost contact with the satellite on April 8, and despite rigorous attempts to re-establish contact and the investigation of failure scenarios, was unable to reestablish contact.

# For January 1, 2012 release

This version of the database includes satellites launched through December 31, 2011.

The changes to this version of the database include:

- The addition (or re-addition) of 53 satellites
- The deletion of 33 satellites
- The addition of and corrections to some satellite data.

## **Satellites Added**

Chinasat 1A – 2011-047A

Garpun-1 (Cosmos 2473) – 2011-048A

SES-2 -- 2011-049A

Arabsat-5C -- 2011-049B

IGS-Optical 4 – 2011-050A

Atlantic Bird 7 – 2011-051A

TacSat-4 - 2011-052A

Tiangong-1 - 2011-053A

QuetzSat-1 - 2011-054A

Glonass 742 (Cosmos 2474) - 2011-055A

Intelsat 18 – 2011-056A

Eutelsat W3C - 2011-057A

Megha-Tropiques – 2011-058A

Jugnu - 2011-058B

Vesselsat-1 - 2011-058C

SRMSat - 2011-058D

Viasat-1 - 2011-059A

Galileo IOV-1 PFM – 2011-060A

Galileo IOV-1 FM2 – 2011-060B

NPP - 2011-061A

Glonass-743 (Cosmos 2476) – 2011-064A

Glonass 744 (Cosmos 2477) – 2011-064B

Glonass 745 (Cosmos 2475) - 2011-064C

Tian Xun-1 – 2011-066A

Yaogan-12 – 2011-066B

Chuangxin 3 - 2011-068A

Shiyan-4 – 2011-068B

AsiaSat-7 – 2011-069A

Glonass 746 (Cosmos 2478) – 2011-071A

Yaogan-13 - 2011-072A

Compass-G10 -- 2011-073A

Amos 5 - 2011-074A

Luch-5A - 2011-074B

IGS-7A - 2011-075A

ELISA-W23 – 2011-076A

ELISA- E12 – 2011-076B

ELISA-24 – 2011-076C

ELISA-11 – 2011-076D

SSOT – 2011-076E

Pléiades HR1 – 2011-076F

NigComSat-1R – 2011-077A

Ziyuan-1-2C - 2011-079A

Globalstar 2-13 MO84 – 2011-080A

Globalstar 2-14 MO80 – 2011-080B

Globalstar 2-15 MO82 - 2011-080C

Globalstar 2-16 MO92 – 2011-080D

Globalstar 2-17 MO90 – 2011-080E

Globalstar 2-18 MO86 – 2011-080F

# **Satellites Returned to Database Based on New Information**

Measat-2 - 1996-063B

SCD-1 - 1993-009B

Iridium 51 – 1998-018A

Orbcomm FM-31

Orbcomm FM-32

#### **Notes:**

Measat-2 – 1996-063B [Kuala Lumpur, 18 September 2011 – MEASAT Satellite Systems Sdn. Bhd. ("MEASAT") announced today that MEASAT-2 had been successfully brought back into operational service at 148°E.

SCD-1 – 1993-009B: Although functioning on a very limited level, this satellite is still gathering data.

## Satellites Removed from Database for January 1, 2012 Release

FLTSATCOM-7 (USA 20) – 1986-096A

INMARSAT 2F1 – 1990-093A

GPS Navstar II-11 SVN-24 (USA 71) – 1991-047A

Intelsat 601 – 1991-075A

Asiasat-2 – 1995-064A

Iridium 26 – 1997-043A

IRS-1D – 1997-057A

Sirius 3 – 1998-056B

INSAT 3B - 2000-016B

Geizer 11 (Cosmos 2371) – 2000-036A

Ekran-M1 - 2001-014A

STSat-1 - 2003-042G

Naxing-1 -2004-012B

ChinaSat-20 – 2003-052A

DEMETER - 2004-025C

Double Star-2 – 2004-029A

GSAT-3 - 2004-036A

ESSAIM-1 - 2004-049C

ESSAIM-2 - 2004-049D

ESSAIM-3 - 2004-049E

ESSAIM-4 - 2004-049F

Gonets D1M - 2005-048A

COSMIC-C - 2006-011C

MIDstar-1 - 2007-006B

IGS-4B - 2007-005B

Egyptsat-1 -2007-012A

Koronas-Foton – 2009-003A

Sterkh-1 - 2009-039B

Sterkh-2 - 2009-049B

Tatiana - 2009 - 049D

Ugatusat – 2009-049E

SERVIS - 2010-023A

Kobalt-M (Cosmos 2472) – 2011-028A

# For September 1, 2011 release

This version of the database includes satellites launched through August 31, 2011.

The changes to this version of the database include:

- The addition of 35 satellites
- The deletion of 26 satellites
- The addition of and corrections to some satellite data.

There is unusually large number of deletions in this update. We were recently able to confirm that 19 Globalstar satellites are being moved or have been moved to disposal orbits.

#### **Satellites Added**

Meridian 4 – 2011-018A SBIRS GEO 1 (USA 230) – 2011-019A Telstar 14R – 2011-021A GSAT 8 – 2011-022A ST 2 – 2011-022B SAC-D – 2011-024A Chinasat 10 – 2011-026A

Kobalt-M (Cosmos 2472) – 2011-028A

ORS 1 (USA 231) – 2011-029A

Shijian 11-03 – 2011-030A

TianLian I-02 – 2011-032A

Globalstar M081 – 2011-033E

Globalstar M083 - 2011-033A

Globalstar M085 - 2011-033D

Globalstar M088 – 2011-033B

Globalstar M089 - 2011-033F

Globalstar M091 – 2011-033C

GSAT 12 - 2011-034A

SES 3 - 2011-035A

Kazsat 2 – 2011-035B

Navstar GPS IIF-2 (USA 232) - 2011-036A

Spektr-R/RadioAstron – 2011-037A

Compass IG4 – 2011-038A

Shijian 11-02 – 2011-039A

Astra 1N - 2011-041A

BSAT 3c/JCSat 110-R - 2011-041B

PakSat-1R - 2011-042A

HaiYang 2A – 2011-043A

EduSAT - 2011-044A

NigeriaSat 2 – 2011-044B

NigeriaSat-X - 2011-044C

RASAT - 2011-044D

AprizeSat-5 – 2011-044E

AprizeSat-6 – 2011-044F

Sich-2 – 2011-044G

#### **Satellites Removed**

Intelsat 705 – 1995-013A

ERS-2 – 1995-021A

Intelsat-3R - 1996-002A

GPS-30 (USA 128) - 1996-056A

Echostar 4 – 1998-028A

Globalstar M003 – 1998-003D

Globalstar M008 – 1998-023D

Globalstar M036 – 1999-004C

Globalstar M022 - 1999-012A

Globalstar M041 - 1999-012B

Globalstar M046 – 1999-012C

Globalstar M019 - 1999-019B

Globalstar M044 – 1999-019C

Globalstar M042 - 1999-019D

Globalstar M043 – 1999-041C

Globalstar M024 – 1999-043A

Globalstar M053 – 1999-043D

Globalstar M058 – 1999-049A

Globalstar M050 – 1999-049B

Globalstar M055 – 1999-049D

Globalstar M057 - 1999-058A

Globalstar M034 – 1999-062B

Globalstar M062 – 2000-008B

Globalstar M060 – 2000-008C

GPS-49 (USA 203) – 2009-014A

WISE - 2009-071A

# Satellites Added and Deleted for May 1, 2011 release

This version of the database includes satellites launched through April 30, 2011.

The changes to this version of the database include:

- The addition of 12 satellites
- The deletion of 5 satellites
- The addition of and corrections to some satellite data.

#### **Satellites Added**

Rapid Pathfinder Program (USA 225) – 2011-006A Glonass 701 (Cosmos 2471) – 2011-009A X-37B Orbital Test Vehicle-2 (USA 226) – 2011-010A SDS III-6 (USA 227) – 2011-011A Compass G-8 (Beidou IGSO-3) – 2011-013A SB-WASS 3-5 (USA 229) – 2011-014A SB-WASS 3-5 (USA 229) – 2011-014B Resourcesat 2 – 2011-015A YouthSat – 2011-015B X-Sat – 2011-015C Intelsat New Dawn – 2011-016A

Additionally, Galaxy 15 was returned to the database after its jaunt through space.

#### **Satellites Removed**

Yahsat 1A – 2011-016B

Satcom-C3 – 1992-060B Meteosat-6 -- 1993-073B Nahuel 1 – 1997-002B ALOS (Daichi) -- 2006-002A Insat-4CR – 2007-037A

# Satellites Added and Deleted for February 1, 2011 release

This version of the database includes satellites launched through January 31, 2011.

The changes to this version of the database include:

- The addition of 19 satellites
- The deletion of 18 satellites
- The addition of and corrections to some satellite data. We undertook a thorough look to make sure the NORAD numbers and satellite names still correctly corresponded, since some satellites get renamed after launch and some confusion can result during multiple launches and in constellations. A number of changes were made to the COSMOS/GLONASS satellites, the GLOBALSTAR satellites, the GONETS and STRELA series. More variations were added to the "Additional names" column in a number of cases.

#### **Satellites Added**

(December 2010 saw the launch of numerous nanosats/cubesats: Perseus 0-3, QBX1-2, Mayflower, SMDC ONE, Dragon C1. These satellites had all deorbited by the time of this release.)

 $Meridian \ 3-2010\text{-}058A$ 

Fengyun 3B – 2010-059A

Skymed 4 - 2010-060A

SkyTerra 1 – 2010-061A

STPSAT 2 (USA 217) – 2010-062A

RAX (USA 218) – 2010-062B

O/OREOS (USA 219) – 2010-062C

FalconSat 5 (USA 221) – 2010-062E

FAST 1 (USA 222) – 2010-062F

USA 223 – 2010-063A

Zhongxing 20A – 2010-064A

HYLAS 1 – 2010-065A

Intelsat 17 – 2010-065B

Compass Beidou IGSO 2 – 2010-068A

KA-SAT - 2010-069A

Hispasat 1E – 2010-070A

Koreasat 6 – 2010-070B

Electro-L1 - 2011-001A

USA 224 (NRO L49) – 2011-002A

## **Satellites Removed**

Intelsat-2 - 1994-040A

Oceansat-1 (IPS P4) - 1999-029C

Globalstar M49 – 1999-031B

QuikSCAT - 1999-034A

Globalstar M51 – 1999-037D

Globalstar M48 – 1999-0411D

MTI (Multispectral Thermal Imager) – 2000-014A

WMAP - 2001-027A

Alsat-1 - 2002-054A

FY-2C - 2004-042A

Kirari (OICETS) – 2005-031A

Orbcomm QL1 – 2008-031A

Orbcomm QL3 - 2008-031C

Orbcomm CDS - 2008-031F

Aerocube-3 – 2009-028E

Meridian-2 – 2009-029A

X-37B (OTV-1) - 2010-015A

SDS-1 - 2009-002C

# Satellites Added and Deleted for November 1, 2010 release

This version of the database includes satellites launched through November 1, 2010.

The changes to this version of the database include:

- The addition of 37 satellites
- The deletion of 24 satellites
- The addition of and corrections to some satellite data, in particular correcting the association of satellite ID number with the names of some of the large constellation (ORBCOMM, Iridium, Globalstar) satellites
- The addition of a link to the What's Up? tool. This database, developed by our colleague Wang Ting, combines information from the U.S. Space Track catalog and the UCS Satellite Database and presents it visually in Google Earth. http://wangting.org/whatsup/.

## **Satellites Added**

Echostar 15 - 2010-034A

Cartosat 2B – 2010-035A

STUDSat - 2010-035B

AISSat 1 - 2010-035C

Alsat 2A - 2010-035D

TISat 1 - 2010-035E

Compass IGSO-1 – 2010-036A

Nilesat 201 – 2010-037A

Rascom QAF 1 R - 2010-037B

Yaogan 10 – 2010-038A

AEHF 1 (USA 214) – 2010-039A

Tianhui 1 – 2010-040A

Glonass 736 (Cosmos 2464) – 2010-041A

Glonass 737 (Cosmos 2465) – 2010-041B

Glonass 738 (Cosmos 2466) – 2010-041C

Sinosat 6A (Chinasat 6A) – 2010-042A

Strela-3 (Cosmos 2467) – 2010-043A

Strela-3 (Cosmos 2468) – 2010-043B

Gonets-M - 2010-043C

QZS 1 (Michibiki) - 2010-045A

FIA Radar 1 (USA 215) – 2010-046A

Yaogan 11 – 2010-047A

XP-1A - 2010-047B

XP-1B - 2010-047C

SBSS (USA 216) - 2010-048A

US-KS 0ko (Cosmos 2469) – 2010-049A

Shijian 6G -- 2010-050A

Shijian 6H – 2010-050B

Sirius-XM5 – 2010-053A

Globalstar MO79 - 2010-054A

Globalstar MO74 - 2010-054B

Globalstar MO76 - 2010-054C

Globalstar MO77 - 2010-054D

Globalstar MO75 – 2010-054E

Globalstar MO73 – 2010-054F

BSAT-3B - 2010-056B

Compass-G4 (Beidou G4) – 2010-057A

#### **Satellites Removed from Database**

Trumpet-1 (USA 103) – 1994-026A

Trumpet-2 (USA 112) - 1995-034A

Keyhole 1 (USA 116) – 1995-066A

Measat-2 – 1996-063B

BSAT-1A - 1997-016B

Intelsat-802 – 1997-031A

TRACE – 1998-020A

Yamal-102 – 1999-047B

Jian Bing 3A - 2000-050A

Prognoz-13 (Cosmos 2379) – 2001-037A

CBERS-2 - 2003-049A

Genesat-1 -2006-058C

US-KS Oko-87 (Cosmos 2422) – 2006-030A

THEMIS-B -2007-004B

THEMIS-C-2007-004C

IGS-3B – 2007-005A

Zheda Pixing – 2007-019B

CBERS-2B - 2007-042A

Rascom QAF-1 – 2007-063A

Prognoz (Cosmos 2440) – 2008-033A

Pharmasat – 2009-028B

Ande-Castor - 2009-038F

Ande-Pollux -2009-038E

Kobalt-M (Cosmos 2462) – 2010-014A

# Satellites Added and Deleted for July 1, 2010 release

This version of the database includes satellites launched through July 1, 2010.

The changes to this version of the database include:

- The addition of 18 satellites
- The deletion of 4 satellites
- The addition of and corrections to some satellite data

## **Satellites Added**

Cryosat-2 – 2010-013A

Kobalt-M [Cosmos 2462] - 2010-014A

X-37B OTV-1 [USA 212) – 2010-015A

SES 1 - 2010-016A

Parus-99 [Cosmos 2463] – 2010-017A

Astra 3B - 2010-021A

ComsatBw-2 - 2010-021B

Navstar GPS 62 [USA 213] - 2010-022A

SERVIS 2 - 2010-023A

Compass G-3 - 2010-024A

Arabsat 5B – 2010-025A

Shijian-12 - 2010-027A

Picard – 2010-028A

PRISMA - 2010-028B

TanDEM-X - 2010-030A

Ofeq 9 - 2010-031A

COMS-1 - 2010-032A

Arabsat 5A – 2010-032B

#### **Satellites Removed**

LES-9 - 1976-023B

Galaxy-9 -- 1996-033A

# Satellites Added and Deleted for April 1, 2010 release

This version of the database includes satellites launched through April 1, 2010.

The changes to this version of the database include:

- The addition of 12 satellites
- The deletion of 10 satellites
- The addition of and corrections to some satellite data

#### **Satellites Added**

Beidou 3 – 2010-001A Raduga 1M – 2010-002A SDO (Solar Dynamics Observatory) – 2010-005A Intelsat 16 – 2010-006A Glonass 731 [Cosmos 2459] – 2010-007A Glonass 735 [Cosmos 2461] – 2010-007B Glonass 732 [Cosmos 2460] – 2010-007C GOES-15 [GOES-P] – 2010-008A Yaogan 9A – 2010-009A Yaogan 9B – 2010-009B Yaogan 9C – 2010-009C

## **Satellites Removed**

Echostar 14 – 2010-010A

Thaicom-1A – 1993-078B Intelsat-4 – 1995-040A Eutelsat W2 – 1998-056A Raduga 1-5 [Cosmos 2372] – 2000-049A IceSat – 2003-002A Raduga 1-7 [Cosmos 2406] – 2004-010A Glonass 713 [Cosmos 2418) – 2005-050B Yaogan-1 – 2006-015A CAPE-1 – 2007-012P Beidou-2 [Compass G2] – 2009-018A

# Satellites Added and Deleted for January 1, 2010 release

This version of the database includes satellites launched through January 1, 2010.

The changes to this version of the database include:

• The addition of 24 satellites

- The deletion of 17 satellites
- The addition of and corrections to some satellite data

#### **Satellites Added**

Amazonas 2 – 2009-054A

COMSATBW 1 - 2009-054B

Worldview 2 – 2009-055A

DMSP 5D-3 F18 [USA 210] – 2009-057A

NSS 12 – 2009-058A

Thor 6 - 2009-058B

SMOS - 2009-059A

PROBA 2 – 2009-059B

Shijian 11-01 – 2009-061A

Lotos-S [Cosmos 2455] – 2009-063A

Intelsat 14 – 2009-064A

Eutelsat W7 – 2009-065A

IGS 5A - 2009-066A

Intelsat 15 – 2009-067A

WGS F3 [USA 211] - 2009-068A

Yaogan 7 – 2009-069A

Glonass 730 [Cosmos 2456] – 2009-070A

Glonass 733 [Cosmos 2457] – 2009-070B

Glonass 734 [Cosmos 2458] – 2009-070C

WISE - 2009-071A

Yaogan 8 – 2009-072A

Xi Wang 1 – 2009-072B

Helios 2B - 2009-073A

DirecTV 12 - 2009-075A

## **Satellites Removed**

Superbird A1 – 1992-084A

Intelsat 704 – 1995-001A

Telecom 2C – 1995-067A

GOES-10 [GOES-K] – 1997-019A

Globalstar FM-32 – 1999-037A

Clémentine – 1999-064B

Express-A3 - 2000-031A

Glonass-701 [Cosmos 2404] – 2003-056C

STPSat-1 - 2007-006D

Orbcomm QL2 – 2008-031B

Orbcomm QL5 – 2008-031E

Orbcomm CDS 3-1 – 2008-031F

Kagayaki – 2009-002D

Kukai – 2009-002G

# Changes to the October 1, 2009 release of the UCS Satellite Database

This version of the database includes launches through October 1, 2009.

The changes to this version of the database include:

- The addition of 34 satellites
- The deletion of 18 satellites
- The addition of and corrections to some satellite data

## **Satellites Added:**

TerreStar 1 - 2009-035A

Rodnik-5 [Cosmos 2451] – 2009-036A

Rodnik-6 [Cosmos 2452] - 2009-036B

Rodnik-7 [Cosmos 2453] - 2009-036C

RazakSat - 2009-037A

ANDE Pollux – 2009-038E

ANDE Castor – 2009-038F

Parus-98 [Cosmos 2454] – 2009-039A

Sterkh-1 - 2009-039B

Deimos 1 - 2009-041A

DubaiSat 1 - 2009-041B

UK-DMC-2 - 2009-041C

AprizeSat-4 -- 2009-041D

Nanosat-1 - 2009-041E

AprizeSat-5 - 2009-041F

AsiaSat 5 - 2009-042A

Navstar GPS 50 [USA 206] - 2009-043A

JCSAT-12 - 2009-044A

Optus D3 – 2009-044B

Palapa D – 2009-046A

PAN-1 [USA 207] – 2009-047A

Meteor-M - 2009-049A

Sterkh-2 - 2009-049B

Tatiana 2 - 2009-049D

UGATUSAT – 2009-049E

SumbandilaSat – 2009-049F

Nimiq 5 - 2009-050A

Oceansat-2 - 2009-051A

BeeSat -2009-051B

UWE 2 - 2009-051C

SwissCube – 2009-051D

ITU-pSAT1 – 2009-051E STSS Demo 1 [USA 208] – 2009-052A STSS Demo 2 [USA 209] – 2009-052B

## **Satellites Removed:**

Spot 2 – 1990-005A Navstar GPS 25 [USA 79] – 1992-009A Wavsat-1 – 1993-061E Apstar-1 1994 -- 043A Optus-B3 --1994-055A Nimig-3 [DirecTV-3] – 1995-029A Amos-1 - 1996-030B Apstar-1A -- 1996-039A Echostar-5 -- 1999-050A Wavsat-2 – 1999-021A Bilsat-1 -2003-042EGlonass 795 [Cosmos 2403] – 2003-056B XSS-11 [USA 165] – 2005-011A Meridian-1 – 2006-061A Beidou-1D - 2007-003AOrbcomm QL4 -- 2008-031D Kobalt-M [Cosmos 2450] - 2009-022A CP-6 -- 2009-028D

# Changes to the July 1, 2009 release of the UCS Satellite Database

This version of the database includes launches through July 1, 2009.

The changes to this version of the database include:

- The addition of 19 satellites
- The deletion of 8 satellites
- The addition of and corrections to some satellite data

# **Satellites Added:**

Eutelsat W2A – 2009-016A WGS F2 (Wideband Global Satcom 2 [USA 204]) – 2009-017A Beidou 2 (Compass G2) – 2009-018A RISAT 2 (Radar Imaging Satellite 2) – 2009-019A ANUSAT (Anna University Satellite) – 2009-019B Sicral 1B – 2009-020A Yaogan 6 – 2009-021A Kobalt-M (Cosmos 2450) – 2009-022A STSS ATRR (USA 205) – 2009-023A Protostar 2 – 2009-027A

Tacsat-3 – 2009-028A

Pharmasat – 2009-028B

Hawksat 1 – 2009-028C

CP-6 - 2009-028D

Aerocube 3 – 2009-028E

Meridian 2 - 2009-029A

Measat 3A - 2009-032A

GOES 14 – 2009-033A

Sirius FM5 – 2009-034A

## **Satellites Deleted:**

DSCS III-F7 (USA 93) – 1993-046A

GFO (GEOSAT Follow-on) – 1998-007A

Galaxy 4R - 2000-020A

Gorizont-45 (Gorizont-33) – 2000-029A

Beidou-1A – 2000-069A

Monitor-E (2005-032A)

Eutelsat W2M – 2008-065B

TDRS-1 – 1983-026B

# Changes to the April 13, 2009 release of the UCS Satellite Database

This version of the database includes launches through April 1, 2009.

The changes to this version of the database include:

- The addition of 21 satellites
- The deletion of 41 satellites
- The addition of and corrections to some satellite data

The relatively large number of satellites removed in this update does not reflect a surge in satellite failures. Instead, we had suspected many of these satellites were no longer operational, but only recently found enough sources to confirm it.

Nota bene: the Iranian satellite Omid was launched after the last update and became inactive before this update, so it never appears in the UCS Satellite Database.

#### **Satellites Added:**

NROL-26 [USA 202] – 2009-001A Ibuki [GOSat) – 2009-002A Prism – 2009-002B SDS-1 – 2009-002C Kagayaki –2009-002D SOHLA 1 – 2009-002E SpriteSAT - 2009-002F

Kukai – 2009-002G

KKS-1 - 2009-002H

Koronas-Foton – 2009-003A

NOAA-19 - 2009-005A

Express-AM44 - 2009-007A

Express-MD1 - 2009-007B

NSS-9 - 2009-008A

Hot Bird 10 – 2009-008B

SPIRALE-A - 2009-008C

SPIRALE-B – 2009-008D

Telstar 11N - 2009-009A

Radula 1 [Cosmos 2450] – 2009-10A

GOCE - 2009-013A

Navstar GPS 49 [USA 203] - 2009-014A

## **Satellites Deleted:**

UoSat-2 [Oscar 11] - 1984-021B

SLDCOM-1 [USA 59] – 1990-050A

SB-WASS 2-1 [USA 60] – 1990-050B

SB-WASS 2-1 [USA 61] - 1990-050C

SB-WASS 2-1 [USA 62] - 1990-050D

LaCrosse/Onyx 2 [USA 69] - 1991-017A

Intelsat 605 – 1991-055A

Tubsat-A - 1991-050D

SLDCOM-2 [USA 72] - 1991-076A

Navstar GPS-35 [USA 94] - 1993-054A

PoSat-1 [Oscar 28] – 1993-061D

DirecTV-1 - 1993-078A

Orbcomm FM1 – 1995-017A

Orbcomm FM2 – 1995-017B

Gorizont-44 -- 1996-034A

SDS-II-3 [USA 125] – 1996-038A

Iridium 33 – 1997-051C

Iridium 28 – 1997-051E

LaCrosse/Onyx 3 [USA 133] - 1997-064A

Astra 5A - 1997-071A

Orbcomm FM3 – 1998-007B

Strela-3 [Cosmos 2352] – 1998-036A

Strela-3 [Cosmos 2353] – 1998-036B

Strela-3 [Cosmos 2354] - 1998-036C

Strela-3 [Cosmos 2355] - 1998-036D

Strela-3 [Cosmos 2356] – 1998-036E

Strela-3 [Cosmos 2357] – 1998-036F

Orbcomm FM17 – 1998-046A

Orbcomm FM26 – 1998-053F Orbcomm FM28 – 1998-053H WavSat-2 [UoSat-12] – 1999-021A Orbcomm FM32 – 1999-065C Multispectral Thermal Imager – 2000-014A Meteor-3M-N1 – 2001-056A Nadezhda 7 [COSPAS 10] – 2002-046A KazSat 1 – 2006-022A PehuenSat-1 [Oscar 63] – 2007-001D CP-4 – 2007-012Q CSTB-1 – 2007-012R Persona N1 [Cosmos 2441] – 2008-037A Kobalt-M [Cosmos 2445] – 2008-058A

# Changes to the January 21, 2009 release of the UCS Satellite Database

This version of the database includes launches through January 1, 2009.

The Database page has been newly organized for easier navigation, and it has several new features, including some analysis:

- a **Satellite Quick Facts** box, giving current satellite counts, updated quarterly, and
- a Quick Facts & Analysis page, explaining the derivation of the Satellite Quick Facts and answering some more in-depth questions, updated occasionally

Also new to the Database page are:

- a Quick Guide to Using the Database, a how-to for several basic database tasks
- a **Featured Satellite**, detailing one of the interesting active satellites in the database, updated quarterly
- a link to the new **Space Age Trivia** page, highlighting interesting facts about space, past and present, updated quarterly

The other changes to this version of the database include:

- a reorganization of the orbital information into columns with "Class of Orbit," e.g., *LEO*, and "Type of Orbit," e.g., *Sun-Synchronous*. All GEO longitude information has been moved to the column "Longitude of GEO"
- The addition of 20 satellites
- The deletion of 14 inactive satellites
- The addition of and corrections to some satellite data
- The updating of the orbital information for the GEO satellites

#### **Satellites Added:**

THEOS (Thailand Earth Observation System) – 2008-049A

Interstellar Boundary Explorer (IBEX) – 2008-051A

Shijian 6E - 2008-053A

Shijian 6F – 2008-053B

COSMO-SkyMed 3 – 2008-054A

VeneSat-1 - 2008-055A

Shiyuan 3 - 2008-056A

Chuangxin 2 - 2008-056B

Astra 1M – 2008-057A

Kobalt M [Cosmos 2445] - 2008-058A

Yaogan-4 – 2008-061A

Cosmos 2446 – 2008-062A

Ceil-2 2008-063A

Yaogan 5 - 2008-064A

Hot Bird 9 – 2008-065A

Eutelsat W2M - 2008-065B

Fengyun 2E – 2008-066A

Glonass 727 [Cosmos 2447] -- 2008-067A

Glonass 728 [Cosmos 2448] -- 2008-067B

Glonass 729 [Cosmos 2449] -- 2008-067C

## **Satellites Removed:**

Marisat-F2 – 1976-101A

TDRS-1 - 1983-026B

Orion/Magnum 3 [USA 67] - 1990-097B

DSP-16 [USA 72] - 1991-080B

Gorizont-40 – 1993-069A

DSP-17 [USA 107] - 1994-084A

KH-12-4 [USA 129] – 1996-072A

Chinasat-6 - 1997-021A

Thor-2 - 1997-025A

BSAT-1B - 1998-024B

UFO-9 [USA 140] – 1998-058A

Glonass 796 [Cosmos 2411] - 2004-053C

NigComSat-1 - 2007-018A

DSP-23 [USA 197] – 2007-054A

## Changes to the October 6, 2008 release of the UCS Satellite Database

This version of the database includes launches through October 1, 2008.

The changes to this version of the database include:

- The addition of 22 satellites
- The deletion of 15 inactive satellites

The addition of and corrections to some satellite data

## **Satellites Added:**

Protostar 1 - 2008-034A

Badr 6 - 2008-034B

Echostar 11 – 2008-035A

Sar Lupe 5 - 2008-036A

Persona-N1 [Cosmos 2441] – 2008-037A

Superbird 7 – 2008-038A

AMC 21 - 2008-038B

INMARSAT 4F3 - 2008-039A

RapidEye-A -2008-040A

RapidEye-B -2008-040B

RapidEye-C - 2008-040C

RapidEye-D - 2008-040D

RapidEye-E - 2008-040E

HJ-1A [Huan Jing 1A] – 2008-041A

HJ-1B [Huan Jing 1B] – 2008-041B

GeoEye-1 - 2008-042A

Nimiq 4 - 2008-044A

Galaxy 19 – 2008-045A

Glonass 724 [Cosmos 2442] – 2008-046A

Glonass 725 [Cosmos 2443] – 2008-046B

Glonass 726 [Cosmos 2444] - 2008-046C

Theos - 2008-049A

# **Satellites Removed:**

Telstar 11 – 1994-079A

Milstar DFS-2 - 1995-060A

NStar-B - 1996-007A

Echostar 2 – 1996-055A

Badr C - 1997-046A

BSat-1B - 1998-024B

Molniya 1-91 - 1998-054A

Intelsat 6B – 1998-075A

Yamal-102 – 1999-047B

Galaxy 11 – 1999-071A

Galaxy 10R - 2000-002A

Milstar DFS-5 – 2002-001A

Molniya 1-93 – 2004-005A

Superbird-6 – 2004-011A

Glonass 797 [Cosmos 2412] – 2004-053B

# Changes to the July 8, 2008 release of the UCS Satellite Database

This version of the database includes launches through July 1, 2008.

The changes to this version of the database include:

- The addition of 34 satellites
- The deletion of 17 inactive satellites
- The addition of and corrections to some satellite data

## **Satellites Added:**

ICO G1 - 2008-016A

C/NOFS (Communication/Navigation Outage Forecasting System) – 2008-017A

Vinasat 1 - 2008-018A

Star One C2 – 2008-018B

TianLian 1 - 2008-019A

GIOVE-B - 2008-020A

CartoSat 2A – 2008-021A

CAN-X6 - 2008-021B

Cute 1.7 + APD II - 2008-021C

IMS-1 - 2008-021D

Compass-1 - 2008-021E

AAUSat-2 - 2008-021F

Delfi-C3 - 2008-021G

CAN-X2 - 2008-021H

SEEDS 2 - 2008-021J

Amos-3 - 2008-022A

Galaxy 18 - 2008-024A

Yubileiny - 2008-025A

Cosmos 2437 - 2008-025A

Cosmos 2438 – 2008-025B

Cosmos 2439 - 2008-025C

Fengyun 3A – 2008-026A

Zhongxing 9 - 2008-028A

GLAST - 2008-029A

Skynet 5C - 2008-030A

Turksat 3A – 2008-030B

Orbcomm QL1 – 2008-031A

Orbcomm QL2 – 2008-031B

Orbcomm QL3 – 2008-031C

Orbcomm QL4 - 2008-031D

Orbcomm QL5 – 2008-031E

Orbcomm CDS 3-1 - 2008-031F

Jason 2 - 2008-032A

 $Cosmos\ 2440 - 2008-033A$ 

## **Satellites Removed:**

ATS-3 – 1967-111A

SBS-6 – 1990-091A

SB-WASS 2-2 (USA 74) - 1991-076C

SB-WASS 2-2 (USA 76) – 1991-076D

SB-WASS 2-2 (USA 77) – 1991-076E

Navstar GPS 32 – 1992-079A

Navstar GPS 29 - 1992-089A

Navstar GPS 37 – 1993-032A

Polar – 1996-013A

SB-WASS 2-3 (USA 121) - 1996-029C

SB-WASS 2-3 (USA 119) – 1996-029D

SB-WASS 2-3 (USA 120) - 1996-029E

Skynet 4D - 1998-002A

Thuraya 1 – 2000-066A

CHIPSat - 2003-002B

EORSAT (Cosmos 2421) – 2006-026A

AMC-14 - 2008-011A

# Changes to the April 7, 2008 release of the UCS Satellite Database

This version of the database includes launches through April 1, 2008

The changes to this version of the database include:

- The addition of 10 satellites
- The deletion of 9 inactive satellites
- The addition of a column denoting the longitude for GEO satellites
- The addition of and corrections to some satellite data

#### **Satellites Added:**

Thuraya 3 - 2008-001A

TecSAR - 2008-002A

Express AM-33 – 2008-003A

Thor 2R - 2008-006A

Kizuna (WINDS – 2008-007A

NROL-28 (USA 200) – 2008-010A

AMC 14 - 2008-011A

Navstar GPS 48 - 2008-012A

DirectTV-11 - 2008-013A

SAR-Lupe 4 - 2008-014A

#### **Satellites Deleted:**

Kompsat-1 – 1999-070A

CHAMP - 2000-039B

Glonass-789 – 2001-053B

Fedsat – 2002-056B

Glonass-792 – 2002-060B Quakesat – 2003-031F Glonass-798 – 2005-050C Tacsat-2 – 2006-058A CP-3 – 2007-012M

# Changes to the January 7, 2008 release of the UCS Satellite Database

This version of the database includes launches through December 31, 2007

The changes to this version of the database include:

- The addition of 28 satellites
- The deletion of 11 inactive satellites
- The addition of and corrections to some satellite data

## **Satellites Added:**

Optus D2 (2007-044A)

Intelsat 11 (2007-044B)

WGS F1 [USA 195] (2007-046A)

Navstar GPS 55 [GPS 2R-17, USA 196] (2007-047A)

Globalstar MO67 (2007-048A)

Globalstar MO70 (2007-048B)

Globalstar MO66 (2007-048C)

Globalstar MO68 (2007-048D)

US-KS Oko 88 [Cosmos 2430] (2007-049A)

Glonass 718 [Cosmos 2431] (2007-052A)

Glonass 719 [Cosmos 2432] (2007-052B)

Glonass 720 [Cosmos 2433] (2007-052C)

SAR-Lupe 3 (2007-053A)

DSP-23 [USA 197] (2007-054A)

Yaogan 3 (2007-055A)

Star One C1 (2007-056A)

Skynet 5B (2007-056B)

Sirius 4 (2007-057A)

Raduga 1-8 [Cosmos 2434] (2007-058A)

COSMO-Skymed 2 (2007-059A)

SDS III-6 [NROL-24, Scorpius, USA 198] (2007-060A)

Radarsat-2 (2007-061A)

Navstar GPS 57 [GPS 2R-18, USA 199] (2007-062A)

RASCOM-QAF 1 (2007-063A)

Horizons 2 (2007-063B)

Glonass 721 [Cosmos 2435] (2007-065A)

Glonass 722 [Cosmos 2436] (2007-065B)

Glonass 723 [Cosmos 2437] (2007-065C)

## **Satellites Deleted:**

NATO-4A (1991-001A)

DirecTV-2 [Nimiq 4i] (1994-047A)

FUSE (1999-035A)

Molniya 3-49 (1998-040A)

Molniya 3-50 (1999-036A)

Tselina-2 [Cosmos 2369] (2000-006A)

Molniya 3-51 (2001-030A)

Nadezhda-6 [COSPAS-9] (2000-033A)

HETE-2 (2000-061A)

Molniya 3-52 (2001-050A)

Double Star 1 [TC-1] (2003-061A)

## Changes to the September 27, 2007 release of the UCS Satellite Database

This version of the database includes launches through September 25, 2007

The changes to this version of the database include:

- The addition of 12 satellites
- The deletion of 14 inactive satellites
- The addition of and corrections to some satellite data

## **Satellites Added:**

SB-WASS 3-4 [USA 194, NRO L30] (2007-027A)

SB-WASS 3-4 [USA 194, NRO L30] (2007-027C)

Cosmos-2428 (2007-029A)

SAR-Lupe 2 (2007-030A)

ChinaSat 6B (2007-031A)

DirecTV 10 (2007-032A)

Spaceway-3 (2007-036A)

BSAT-3A (2007-036B)

INSAT-4CR (2007-037A)

Parus-97 [Cosmos 2429] (2007-038A)

Worldview 1 (2007-041A)

CBERS-2B (2007-042A)

#### **Satellites Deleted:**

GOES-7 [GOES-H] (1987-022A)

NOAA-12 (1991-032A)

Gorizont-37 [Gorizont 26] (1992-043A)

GOES-9 [GOES-J] (1995-025A)

JAS-2 [Fuji-Oscar 29] (1996-046B)

HALCA (1997-005A)

IMAGE (2000-017A)

Orbview-3 (2003-030A)

Gravity Probe B (2004-014A) HitSat (2006-041D) NextSat (2007-006C) Orbital Express 1A (2007-006A) Libertad-1 (2007-012N) Cosmos-2427 [Kobalt M] (2007-022A)

# Changes to the April 9, 2007 release of the UCS Satellite Database

This version of the database includes launches through April 6, 2007

The changes to this version of the database include:

- The addition of 18 satellites
- The deletion of 16 inactive satellites
- The addition of and corrections to some satellite data

#### **Satellites Added:**

LAPAN-Tubsat (2007-001A)

CartoSat 2A (2007-001B)

PehuenSat 1 (2007-001D)

THEMIS 1 (2007-004A)

THEMIS 2 (2007-004B)

THEMIS 3 (2007-004C)

THEMIS 4 (2007-004D)

THEMIS 5 (2007-004E)

IGS 3B (2007-005A)

IGS 4A (2007-005B)

ASTRO [part of Orbital Express] (2007-006A)

MIDStar 1 (2007-006B)

NextSat/CSC [part of Orbital Express] (2007-006C)

STPSat-1 (2007-006D)

FalconSat 3 (2007-006E)

CFESat (2007-006F)

INSAT-4B (2007-007A)

Skynet-5A (2007-007B)

## **Satellites Deleted:**

Navstar GPS 15 (1990-088A)

Gorizont 36 (1992-017A)

Optus B1 (1992-054A)

Satcom-C4 (1992-057A)

DMSP F12 (1994-057A)

JCSat 3 (1995-043A)

Thaicom-3 (1997-016A)

Iridium 36 (1997-056C)

Sapphire (2001-043D)

Cosmos 2388 (2002-017A)

IGS-1B (2003-009B)

Streak [STP-R1] (2005-037A)

Cute-1.7 (2006-005C)

Space Technology 5A (2006-008A)

Space Technology 5B (2006-008B)

Space Technology 5C (2006-008C)

# Changes to the January 4, 2007 release of the UCS Satellite Database

This version of the database includes launches through December 27, 2006

The changes to this version of the database include:

- The addition of 27 satellites
- The deletion of 11 inactive satellites
- The addition of and corrections to some satellite data

#### **Satellites Added:**

IGS-3A (Information Gathering Satellite 3A) – 2006-037A

Zhongxing 22A – 2006-038A

Hinode (Solar B) -2006-041A

HitSat (Oscar 59) - 2006-041B

Navstar 52 (USA 190) – 2006-042A

DirecTV-9S - 2006-043A

Optus D1 - 2006-043B

MetOp-A - 2006-044A

Shijian 6C – 2006-046A

Shijian 6D – 2006-046B

XM-4 - 2006-049A

DMSP 5D-3 F17 (USA 191) – 2006-050A

Arabsat 4B – 2006-051A

Navstar 58 (USA 192) – 2006-052A

Fengyun-2D - 2006-053A

WildBlue-1 - 2006-054A

Americom-18 - 2006-054B

Measat-3 -2006-056A

NROL-21 (USA 193) – 2006-057A

TacSat-2 - 2006-058A

GeneSat-1 -2006-058B

SAR-Lupe 1 - 2006-060A

Meridian 1 - 2006-061A

Glonass (Cosmos 2424) – 2006-062A

Glonass (Cosmos 2425) – 2006-062B

Glonass (Cosmos 2426) – 2006-062C

CoRoT (Convection, Rotation des Étoiles et Transits des Planètes Extrasolaires) – 2006-063A

#### **Satellites Deleted:**

Intelsat 604 – 1990-056A UoSat-5 (Oscar 22) – 1991-050B Hispasat 1B – 1993-048A Amrad (Oscar 27) – 1993-061C N Star A – 1995-044A DirecTV-6 (Tempo 2) – 1997-011A Techsat 1B (Oscar 32) – 1998-043D Raduga 1-6 (Globus) – 2001-045A Tiungsat-1 (Oscar 46) – 2000-057A

MicroLabSat – 2002-056D Shenzhou 6 – 2005-040A

# Changes to the September 21, 2006 release of the UCS Satellite Database

This version of the database includes launches through September 10, 2006

The changes to this version of the database include:

- The addition of 14 satellites
- The deletion of 7 inactive satellites
- The addition of and corrections to some satellite data

#### **Satellites Added:**

Resurs DK-1 – 2006-021A KazSat 1 – 2006-022A

Galaxy 16 – 2006-023A

MITEX (Micro-Satellite Technology Experiment, USA 187) – 2006-024A

MITEX (Micro-Satellite Technology Experiment, USA 188) – 2006 -024B

EORSAT (Cosmos 2421) - 2006-026A

NROL-22 (USA 184) - 2006-027A

Genesis-1 -2006-029A

Oko-87 (Cosmos 2422) - 2006-030A

Kompsat 2 - 2006-031A

Hot Bird 8 – 2006-032A

JCSat 10 - 2006-033A

Syracuse 3B – 2006-033B

KoreaSat 5 - 2006-034A

#### **Satellites Deleted:**

Astra-1B – 1991-015A

Eutelsat II-F2 - 1991-003B

Nadezhda 1 (COSPAS 4) – 1989-050a

Kobalt-M (Cosmos 2420) – 2006-017A

Galaxy 1R – 1994-013A

# Changes to the June 19, 2006 release of the UCS Satellite Database

This version of the database includes launches through June 15, 2006.

The changes to this version of the database include:

- The addition of 19 satellites
- The deletion of 14 inactive satellites
- The addition of and corrections to some satellite data

We have also added a tab-delimited text version in which the "Name" column contains only the official name of the satellite in the case of government and military satellites, and the most commonly used name in the case of commercial and civil satellites. This file is called "UCS Satellite Database officialname 6-19-06.txt".

And we have added some supporting materials which can be accessed from http://ucsusa.org/satellite\_database : 1) this document listing the changes to the database, including the names of the satellites added and deleted, and 2) a brief note addressing some of the common misconceptions about the database and its contents.

## **Satellites Added:**

Space Technology 5-A (ST5-A) - 2006-008A Space Technology 5-B (ST5-B) - 2006-008B

Space Technology 5-C (ST5-C) - 2006-008C

JCSAT 9 – 2006-010A

COSMIC-A - 2006-011A

COSMIC-B - 2006-011B

COSMIC-C - 2006-011C

COSMIC-D – 2006-011D

COSMIC-E - 2006-011E

COSMIC-F - 2006-011F

Astra 1KR – 2006-012A

EROS B-1 -2006-014A

Remote Sensing Satellite 1 (RSS 1) - 2006-015A

CloudSat – 2006-016A

Calipso – 2006-016B

Cosmos 2420 (Kobalt-M) – 2006-017A

GOES 13 - 2006-018A

SatMex 6 - 2006-020A

Thaicom 5 - 2006-020B

## **Satellites Deleted:**

Anik E-1 (Telesat 11) - 1991-067A
Anik E-2 (Telesat 10) - 1991-026A
DSCS III-F4 (DSCS III A-2, USA 44) - 1989-069B
DSCS III-FT (DSCS III B-14, USA 78) - 1992-006A
EORSAT (Cosmos 2405) - 2004-020A
Eutelsat-II F-3 - 1991-083A
Express AM11 - 2004-015A
Gonets D1-8 (Cosmos 2385) - 2001-058B
Gorizont-43 - 1996-005A
Inmarsat 2-F3 - 1991-084B
Newsat-1 (Palapa B2R) - 1990-034A
Spacenet-4 - 1991-028A
Telecom 2A - 1991-084A
UFO-3 (USA 104) - 1994-035A

# Changes to the March 17, 2006 release of the UCS Satellite Database

This version of the database includes launches through March 11, 2006.

The new file is named "UCS\_Satellite\_Database\_3-17-06.xls". In addition, we have posted a tab-delimited text version of the data, named "UCS\_Satellite\_Database\_3-17-06.txt" that can be used in other database programs.

The changes to this version of the database include:

- The addition of 19 satellites
- The deletion of 15 inactive satellites
- The addition of and corrections to some satellite data
- The addition of a column giving the eccentricity of the satellite's orbit
- The addition of our definition of "active" satellites to the User Guide