Spaceraft ID Correspondence Table for Orbit Exchange Files (SP3c)

International Association for Geodesy (IAG) Inter-Service Document

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Procedure for a request of code assignment: see note at bottom of table

MISSION NAME	SP3c Code	ILRS SI	NORAD #	Altitude [km]	Inclination °	Tracking Status
General group						
TOPEX/Poseidon	L01	9205201	22076	1350	66	Off
GPS-MET	L02	9501703	23547	740	69.9	Off
GFO-1	L03	9800701	25157	800	108	
Ørsted	L04	9900802	25635	630	96.1	Off
SUNSAT	L05	9900803	25636	400	93	Off
CHAMP	L06	0003902	26405	474	87	
SAC-C	L07	0007502	26620	682	98.2	Off
Jason-1	L08	0105501	26997	1336	66	
GRACE-A	L09	0201201	27391	485-500	89	
GRACE-B	L10	0201202	27392	485-500	89	
ICESat	L11	0300201	27642	600	94	
CryoSat	L12	--	--	--	--	--
TerraSAR-X	L13			514	97.4	
METOP-2	L14	0604401	29499	817	98.7	
GOCE	L15			250	96.5	
Beacon-C	L16	6503201	1328	927	41	
DIADEME-1C	L17	6701101	2674	545	40	Off
DIADEME-1D	L18	6701401	2680	585	40	Off
IRS-P5 (CARTOSAT-1)	L19	0501701	28649	620	97.9	
	L20					
COSMIC-1 (FM-1)	L21	0601101	29047	815	72.0	
COSMIC-2 (FM-2)	L22	0601102	29048	815	72.0	
COSMIC-3 (FM-3)	L23	0601103	29049	815	72.0	
COSMIC-4 (FM-4)	L24	0601104	29050	815	72.0	
COSMIC-5 (FM-5)	L25	0601105	29051	815	72.0	
COSMIC-6 (FM-6)	L26	0601106	29052	815	72.0	
	L27					
GEOS-3	L28	7502701	7734	841	115	Off
Seasat	L29	7806401	10967	805	108	Off
GEOSAT	L30	8502101	15595	760 x 817	108.1	Off
ERS-1	L31	9105001	21574	780	99	Off
ERS-2	L32	9502101	23560	800	99	
Envisat	L33	0200901	27386	800	98	
Meteor-3M	L34	0105601	27001	1000	99.6	Off
	L35-L49					
Ajisai	L50	8606101	16908	1485	50	
LAGEOS-1	L51	7603901	8820	5850	110	
LAGEOS-2	L52	9207002	22195	5625	53	
Etalon-1	L53	8900103	19751	19105	65	
Etalon-2	L54	8903903	20026	19135	65	
Starlette	L55	7501001	7646	815x1100	50	
Stella	L56	9306102	22824	815	99	
GFZ-1	L57	8601795	23558	385	52	Off
WESTPAC	L58	9804301	25394	835	98	Off
Larets	L59	0304206	27944	691	98.2	
	L60-L90					
SPOT-2	L91	9000501	20436	786	98.7	
SPOT-3	L92	9306101	22823	832	98.7	Off
SPOT-4	L93	9801701	25260	802	98.7	
SPOT-5	L94	0202101	27421	777	98.7	
	L95-L99					
GPS group*						
GPS-35	G05	9305401	22779	20195	54	
GPS-36	G06	9401601	23027	20030	55	
GLONASS group*						
GLONASS-87	R03	0105302	26988	19140	65	
GLONASS-86	R06	0105303	26989	19140	65	Off
GLONASS-95	R07	0405302	28509	19140	65	
GLONASS-89	R22	0206001	27617	19140	65	
GLONASS-99	R24	0505002	28916	19140	65	
GALILEO group*						
GIOVE-A	E01	0505101	28922	23916	56	

LEGEND

Codes in **RED BOLD**: Next available slots for assignment

SP3c Code: A letter and a 2-digit number assigned by the list-keeper in consultation with the IERS Services

- **L** For all s/c other than GPS, GLONASS, and GALILEO
- **G** For GPS s/c
- **R** For GLONASS s/c
- **E** For GALILEO s/c

ILRS Satellite ID†: **YYXXXAA** where:

YY: last two digits of launch-vehicle launch year,
XXX: launch vehicle number in year YY, and
AA: payload sequence number for the specific launch XXX

NORAD #: The ID number assigned to each item in orbit by NORAD

NOTES:

* This list contains **only** GPS, GLONASS and GALILEO satellites **currently (Feb. 2007) and historically tracked by ILRS**. The SP3c codes of all GNSS satellites are identical to the codes used in the RINEX data and navigation message files. For more information on all of these s/c, please visit the **IGS Antex file**, which resides on the IGSCB ftp site.

† ***COSPAR ID to ILRS Satellite Identification Algorithm***

COSPAR ID Format: (YYYY-XXXA)

YYYY is the four digit year of when the launch vehicle was put in orbit
XXX is the sequential launch vehicle number for that year
A is the alpha numeric sequence number within a launch
Example: LAGEOS-1 COSPAR ID is 1976-039A
Explanation: LAGEOS-1 launch vehicle wasplaced in orbit in 1976; was the 39th launch in that year; and LAGEOS-1 was the first object injected into orbit from this launch.

ILRS Satellite Identification Format: (YYXXXAA), based on the COSPAR ID

Where YY is the two digit year of when the launch vehicle was put in orbit
Where XXX is the sequential launch vehicle number for that year
AA is the numeric sequence number within a launch
Example: LAGEOS-1 ILRS Satellite ID is 7603901

Requesting assignment of a code for new s/c:

New missions can obtain a code assigned to them by submitting a request via email to Carey Noll (carey.noll@nasa.gov) who is responsible for the maintenance of this list. The request will then be forwarded immediately to the Analysis coordinators of the three satellite services, IGS, ILRS and IDS for approval. If there is no objection for a valid reason, the list-keeper assigns the code, posts the change on the web, notifies the requesting party and sends out an email to the three services' mailing lists announcing the new entry. The rules followed in assigning codes are very simple: "intelligent" satellites occupy the lowest entry numbers, cannonballs are above 50, and DORIS-only s/c in the 90s. GPS, GLONASS and GALILEO s/c are in all cases handled separately and solely the responsibility of IGS.