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1970 -

|          |                     |            |               |       |                     |     |               |
|----------|---------------------|------------|---------------|-------|---------------------|-----|---------------|
| 1970-23A | KOCMOC 329          | Apr 3, 36  | 70 Apr 15     | USSR  | 202 240 89,3°       | PL  | re            |
| 1970-23B | KOCMOC 329 ROCKET   | Apr 3, 36  | 70 Apr 5      | USSR  |                     | PL  | re            |
| 1970-24A | KOCMOC 830          | Apr 7, 31  |               | USSR  | 548 74,1°           | PL  | elant         |
| 1970-24B | KOCMOC 330 ROCKET   | Apr 7, 31  |               | USSR  |                     | PL  | CL            |
| 1970-25A | NIMBUS 4            | Apr 8, 35  | 1200          | USA   | 1093 1107 99,89°    |     | met           |
| 1970-25B | TOPO                | Apr 8, 35  | 1000          | USA   | 1065 1110 99,78°    |     | met           |
| 1970-25C | Nimbus 4 re.        | 1970-25D   | NH Fr. mnt    |       |                     |     |               |
| 1970-26A | KOCMOC 331          | Apr 8, 35  | 70 Apr 16     | USSR  | 213 347 65°         | TBL | re            |
| 1970-26B | KOCMOC 331 ROCKET   | Apr 8, 35  | 70 Apr 16     | USSR  |                     | TBL | re            |
| 1970-27A | VLA 11              | Apr 9, 46  |               | USA   | 11125 11165 32,41°  |     | Advanced      |
| 1970-27B | VLA 12              | Apr 9, 46  |               | USA   | 11125 111505 32,50° |     | Delas         |
| 1970-27C | TRANSACE            | Apr 9, 46  |               | USA   | 15040 11070 33,30°  |     | Titun 3C-14   |
| 1970-28A | KOCMOC 332          | Apr 11, 71 | 70 Apr 27     | USSR  | 755 786 74,5°       | PL  | nav? elant?   |
| 1970-28B | KOCMOC 332 ROCKET   | Apr 11, 71 | 2050          | USSR  |                     | PL  |               |
| 1970-29A | ODYSSEY             | Apr 11, 80 | 70 Apr 17     | USA   | 174 533000 33,3°    | KOL | see SAGS SAGS |
| 1970-29B | SATURN A6-508       | Apr 11, 80 | (SLI)         | USA   | 200 572080 33,20°   | KOL | see WMAK      |
| 1970-29C | AQUARIUS            | Apr 11, 80 | 70 Apr 17     | USA   | 174 533000 33,3°    | KOL | see SAGS SAGS |
| 1970-29D | SLA PANEL           | Apr 11, 80 |               | USA   |                     | KOL | SATURN        |
| 1970-29E | SLA PANEL           | Apr 11, 80 |               | USA   |                     | KOL | 5 adapter     |
| 1970-29F | SLA PANEL           | Apr 11, 80 |               | USA   |                     | KOL | panels        |
| 1970-29G | SLA PANEL           | Apr 11, 80 |               | USA   |                     | KOL |               |
| 1970-29H | SLA PANEL SM 109    | Apr 11, 80 | 70 Apr 17, 74 | USA   | 200 572080 33,2°    | KOL | see April 15  |
| 1970-29I | SLA PANEL SM 109    | Apr 11, 80 |               | USA   |                     | KOL |               |
| 1970-30A | KOCMOC 333          | Apr 15, 38 | 70 Apr 23     | USSR  | 612 265 81,4°       | PL  | met r?        |
| 1970-30B | KOCMOC 333 ROCKET   | Apr 15, 38 | 70 Apr 23     | USSR  |                     | PL  |               |
| 1970-30C | KOCMOC 333 CAPSULE  | Apr 15, 38 | 70 Apr 23     | USSR  | 195 218 81,34°      | PL  | re            |
| 1970-30D | Fragment            | Apr 15, 38 | 70 Apr 23     | USSR  |                     | PL  |               |
| 1970-31A | OPERATIONS 2863     | Apr 15, 66 | 70 May 6      | USA   | 130 387 110,97°     | WMA | see SAGS SAGS |
| 1970-32A | INTELSAT 3 G        | Apr 22, 03 |               | USA   | 35781 35807 0,71°   | WMA | see SAGS SAGS |
| 1970-32B | INTELSAT 3 G ROCKET | Apr 22, 03 |               | USA   |                     | WMA | see SAGS SAGS |
| 1970-33A | KOCMOC 334          | Apr 23, 56 |               | USA   | 281 508 71°         | PL  | re            |
| 1970-33B | KOCMOC 334 ROCKET   | Apr 23, 56 | 70 May 16     | USA   |                     | PL  |               |
| 1970-33C | Fragment            | Apr 23, 56 |               | USA   |                     | PL  |               |
| 1970-33D | Fragment            | Apr 23, 56 |               | USA   |                     | PL  |               |
| 1970-33E | Fragment            | Apr 23, 56 |               | USA   |                     | PL  |               |
| 1970-34A | 'CHINA 1'           | Apr 24, 55 | 2000          | CHINA | 441 2386 68,44°     | SET | China         |
| 1970-34B | CHINA 1 ROCKET      | Apr 24, 55 |               | CHINA |                     | SET | China         |
| 1970-34C | Fragment            | Apr 24, 55 |               | CHINA |                     | SET | China         |



|                |          |                   |                              |                       |     |     |
|----------------|----------|-------------------|------------------------------|-----------------------|-----|-----|
|                | 1970-35A | KOCMOC 335        | Apr 24, 93                   | USSR 254 41.5 48.7°   | 1st | sci |
|                | 1970-35B | KOCMOC 335 ROCKET | Apr 24, 93 70 May 17 USSR    | 1464 1490 74.84       | 1st | sci |
| elint          | 1970-36A | KOCMOC 336        | Apr 25, 71                   | USSR 1310 1535 71°    | 1st | sci |
|                | 1970-36B | KOCMOC 337        | Apr 25, 71                   | USSR 1420 1534 74.05° | 1st | sci |
| met            | 1970-36C | KOCMOC 338        | Apr 25, 71                   | USSR 1472 1578 74.03° | 1st | sci |
| at ELIS        | 1970-36D | KOCMOC 339        | Apr 25, 71                   | USSR 1476 1472 74.04° | 1st | sci |
| 0 Secor        | 1970-36E | KOCMOC 340        | Apr 25, 71                   | USSR 1409 1473 74.04° | 1st | sci |
| US Army        | 1970-36F | KOCMOC 341        | Apr 25, 71                   | USSR 1345 1471 74.04° | 1st | sci |
| ref F          | 1970-36G | KOCMOC 342        | Apr 25, 71                   | USSR 1343 1471 74.04° | 1st | sci |
| Advanced       | 1970-36H | KOCMOC 343        | Apr 25, 71                   | USSR 1374 1474 74.02° | 1st | sci |
| Polos          | 1970-36I | KOCMOC 343        | Apr 25, 71                   | USSR 1374 1474 74.02° | 1st | sci |
| fun 3C-14      | 1970-36J | ROCKET            | Apr 25, 71                   | USSR 1374 1474 74.02° | 1st | sci |
| with elint?    | 1970-37A | METEOP 4          | Apr 25, 44                   | USSR 625 318 81.28°   | 1st | sci |
|                | 1970-37B | METEOP 4 ROCKET   | Apr 25, 44                   | USSR 625 318 81.28°   | 1st | sci |
| SPACE SHIPS    | 1970-37C | <del>ROCKET</del> | Apr 25, 44                   | USSR 625 318 81.28°   | 1st | sci |
|                | 1970-38A | KOCMOC 344        | May 12, 43 70 May 20 USSR    | 206 347 72.9°         | 1st | sci |
| UNION          | 1970-38B | KOCMOC 344 ROCKET | May 12, 43 70 May 18 USSR    | 206 347 72.9°         | 1st | sci |
| PROBES         | 1970-38C | KOCMOC 345        | May 20, 39 70 May 28 USSR    | 193 276 57.2°         | 1st | sci |
| 50 MILES       | 1970-38D | KOCMOC 345        | May 20, 39 70 May 28 USSR    | 193 276 57.2°         | 1st | sci |
|                | 1970-38E | KOCMOC 345 ROCKET | May 20, 39 70 May 23 USSR    | 193 276 57.2°         | 1st | sci |
| 1              | 1970-39A | OPERATIONS 4720   | May 20, 90 70 Jun 17 USA     | 162 246 83.0°         | 1st | sci |
| adapter        | 1970-39B | OPERATIONS 8520   | May 20, 90 74                | USA 490 504 83.12°    | 1st | sci |
| panels         | 1970-40A | COVOS 9           | May 1, 79 70 Jun 19, 50 USSR | 176 222 57.64°        | 1st | sci |
| sep. Apr 1978  | 1970-40B | COVOS 9 ROCKET    | May 1, 79 70 Jun 3 USSR      | 176 222 57.67°        | 1st | sci |
| mech F?        | 1970-41A | KOCMOC 346        | Jun 10, 40 70 Jun 17 USSR    | 148 274 57.74°        | 1st | sci |
|                | 1970-41B | KOCMOC 346 ROCKET | Jun 10, 40 70 Jun 14 USSR    | 148 274 57.74°        | 1st | sci |
| 322 Apr 28, 72 | 1970-42A | KOCMOC 347        | Jun 12, 40 70 May 58 USSR    | 215 2048 48.41°       | 1st | sci |
| 322 Apr 28, 72 | 1970-42B | KOCMOC 347        | Jun 12, 40 70 May 58 USSR    | 215 2048 48.41°       | 1st | sci |
| 322 Apr 28, 72 | 1970-43A | KOCMOC 348        | Jun 13, 40 70 May 58 USSR    | 201 657 70.99°        | 1st | sci |
| 322 Apr 28, 72 | 1970-43B | KOCMOC 348 ROCKET | Jun 13, 40 70 May 58 USSR    | 201 657 70.99°        | 1st | sci |
| 322 Apr 28, 72 | 1970-44A | KOCMOC 349        | Jun 17, 39 70 Jun 25 USSR    | 199 330 65.39°        | 1st | sci |
| 322 Apr 28, 72 | 1970-44B | KOCMOC 349 ROCKET | Jun 17, 39 70 Jun 25 USSR    | 199 330 65.39°        | 1st | sci |
| 322 Apr 28, 72 | 1970-45A | OPERATIONS 5346   | Jun 17, 48 75?               | USA 31681 31862 99°   | 1st | sci |
| 322 Apr 28, 72 | 1970-45B | OPERATIONS 5346   | Jun 17, 48 75?               | USA 31681 31862 99°   | 1st | sci |
| 322 Apr 28, 72 | 1970-46A | METEOP 5          | Jun 23, 60 2400?             | USSR 8230 886 81.23°  | 1st | sci |
| 322 Apr 28, 72 | 1970-46B | METEOP 5 ROCKET   | Jun 23, 60 2400?             | USSR 8230 886 81.23°  | 1st | sci |

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| 1970-48A | OPERATIONS 6820                    | Jun 25, 62   | 70 Jul 9?         | USA 129 388 108,8°    | WRC 8000 70        | 1970-48A |
| 1970-49A | МОЛНИЯ 1 P ROCKET                  | Jun 26, 14   | 70 Jul 24         | USSR                  | PL                 | 1970-49A |
| 1970-49B | МОЛНИЯ 1 P LAUNCHER                | Jun 26, 14   | 70 Jul 24         | USSR                  | 225 462 68,4° PL   | 1970-49B |
| 1970-49C | МОЛНИЯ 1 P                         | Jun 26, 14   | 76 Feb 16         | USSR                  | 468 39235 65,4° PL | 1970-49C |
| 1970-49D | МОЛНИЯ 1 P AB                      | Jun 26, 14   | 75!               | USSR                  | PL                 | 1970-49D |
| 1970-50A | KOСMOC 350                         | Jun 26, 50   | 70 Jul 4          | USSR                  | 201 258 57,73° PL  | 1970-50A |
| 1970-50B | KOСMOC 350 ROCKET                  | Jun 26, 50   | 70 Jun 29         | USSR                  | PL                 | 1970-50B |
| 1970-51A | KOСMOC 351                         | Jun 27, 32   | 70 Oct 10         | USSR                  | 270 467 20,91° PL  | 1970-51A |
| 1970-51B | KOСMOC 351 ROCKET                  | Jun 27, 32   | 70 Aug            | USSR                  | PL                 | 1970-51B |
| 1970-52A | KOСMOC 352                         | Jul 7        | 70 Jul 15         | USSR                  | 208 294 57,73° PL  | 1970-52A |
| 1970-52B | KOСMOC 352 ROCKET                  | Jul 7        | 70 Jul 12         | USSR                  | PL                 | 1970-52B |
| 1970-53A | KOСMOC 353                         | Jul 9        | 70 Jul 21         | USSR                  | 205 285 65,42° PL  | 1970-53A |
| 1970-53B | KOСMOC 353 ROCKET                  | Jul 9        | 70 Jul 15         | USSR                  | PL                 | 1970-53B |
| 1970-54A | OPERATIONS 4324                    | Jul 23       | 70 Aug 19         | USA 158° 397 69,00°   | WRC 8000 70        | 1970-54A |
| 1970-55A | INTELSAT 3H                        | Jul 23       | ?                 | USA 1408 36050 13,3°  | WRC 8000 70        | 1970-55A |
| 1970-55B | INTELSAT 3H ROCKET                 | Jul 23       |                   | USA 1408 36050 13,3°  | WRC 8000 70        | 1970-55B |
| 1970-55C | INTELSAT 3H ROCKET MOTOR Fragments | Jul 23       |                   | USA 1408 36050 13,3°  | WRC 8000 70        | 1970-55C |
| 1970-56A | KOСMOC 354                         | Jul 28       | 100               | USSR 134 159 49,62°   | PL                 | 1970-56A |
| 1970-56B | KOСMOC 354 ROCKET                  | Jul 28       | 70 Jul 29         | USSR                  | PL                 | 1970-56B |
| 1970-56C | KOСMOC 354 PLATFORM                | Jul 28       | 70 Jul 29         | USSR                  | PL                 | 1970-56C |
| 1970-57A | ИНТЕРКОСMOC 3                      | Aug 7        | 70 Aug 6          | USSR 1295 45,41°      | PL                 | 1970-57A |
| 1970-57B | ИНТЕРКОСMOC 3 ROCKET               | Aug 7        | 70 Nov 18         | USSR                  | PL                 | 1970-57B |
| 1970-58A | KOСMOC 355                         | Aug 7        | 70 Aug 15         | USSR 199 322 65,4°    | PL                 | 1970-58A |
| 1970-58B | KOСMOC 355 ROCKET                  | Aug 7        | 70 Aug 14         | USSR                  | PL                 | 1970-58B |
| 1970-59A | KOСMOC 356                         | Aug 10       | 70 Oct 2          | USSR 232 573 29,90°   | PL                 | 1970-59A |
| 1970-59B | KOСMOC 356 ROCKET                  | Aug 10       | 70 Oct 1          | USSR                  | PL                 | 1970-59B |
| 1970-60A | БЕЛЛА 7                            | Aug 17 (200) | USSR              | pending visit         | PL                 | 1970-60A |
| 1970-60B | БЕЛЛА 7 ROCKET                     | Aug 17       | 70 Aug 18         | USSR                  | PL                 | 1970-60B |
| 1970-60C | БЕЛЛА 7 LAUNCHER                   | Aug 17       | 2                 | USSR 174 232 57,70°   | PL                 | 1970-60C |
| 1970-60D | БЕЛЛА 7 AB                         | Aug 17       | (100)             | USSR                  | PL                 | 1970-60D |
| 1970-60E | БЕЛЛА 7 RECENT CAPSULE             | Aug 17       | see VENUS PROJECT |                       |                    | 1970-60E |
| 1970-61A | USAF 7874                          | Aug 18       | 70 Sep 3          | USA 151 365 110,95°   | WRC 8000 70        | 1970-61A |
| 1970-62A | SKYNET 1B?                         | Aug 18       | 3000              | USSR 270 36066 28,04° | PL                 | 1970-62A |



|                                 |            |                               |                  |        |            |         |          |                  |
|---------------------------------|------------|-------------------------------|------------------|--------|------------|---------|----------|------------------|
| THREE SAMS<br>COMB 2A           | 1970-62B   | SKYNET 18 ROCKET              | Aug 19 90?       | USA    | 453C       | PTAD    | Delta 30 | Burner 2         |
|                                 | 1970-63A   | KOCONOC 357                   | Aug 19 70 Nov 24 | USSR   | 272 475    | 79,99°N | } B1     | sci              |
|                                 | 1970-63B   | KOCONOC 357 ROCKET            | Aug 19 70 Oct 15 | USSR   |            |         |          |                  |
| Are com                         | 1970-64A   | KOCONOC 358                   | Aug 20 90?       | USSR   | .5 15 539  | 79,09°N | } C1     | elint            |
| e net                           | 1970-64B   | KOCONOC 358 ROCKET            | Aug 20 90?       | USSR   |            |         |          |                  |
|                                 | 1970-64C   | Fragment                      |                  |        |            |         |          |                  |
| Hz net                          | 1970-65A   | KOCONOC 359                   | Aug 22 70 Nov 16 | USSR   | 208 889    | 57,13°N | } B1     | Failed<br>Venera |
|                                 | 1970-65B   | KOCONOC 359 PLATFORM          | Aug 22           | USSR   | 206 298    | 57,8°N  |          |                  |
| } B1 sci                        | 1970-65C   | <del>KOCONOC 359 ROCKET</del> | Aug 22 70 Aug 29 | USSR   |            |         | } A2     | AS?              |
|                                 | 1970-65D   | KOCONOC 359 HIGH ROCKET       | Aug 22 71 Mar?   | USSR   |            |         |          |                  |
| Hz net                          | 1970-65E   | Fragment                      | Aug 22           | d      | USSR       |         |          |                  |
| A2                              | 1970-65F   | <del>Fragment</del>           | Aug 22           | d      | USSR       |         |          |                  |
| 2 net                           | 1970-66A   | USAF 8329                     | Aug 26 70        | 75 USA | 483 504    | 74,99°N | } TAD    | Failed           |
|                                 | 1970-67A   | OSCAR 19 (USAF 1999)          | Aug 27 3000      | USSR   | 954 1222   | 90,02°N |          | 6000000          |
| US SAMS<br>90 7L                | 1970-67B   | OSCAR 19 ROCKET               | Aug 27 3000      | USSR   |            |         |          |                  |
| com F8<br>Failed                | 1970-67C-E | Fragment                      |                  |        |            |         |          |                  |
| 90 Delta 71                     | 1970-68A   | KOCONOC 360                   | Aug 29 70 Sep 8  | USSR   | 209 304    | 69,99°N | } B1     | sci              |
| Fragment                        | 1970-68B   | KOCONOC 360 ROCKET            | Aug 29 70 Sep 8  | USSR   |            |         |          |                  |
| Escorted                        | 1970-68C   | KOCONOC 360 CAPSULE           | Aug 29 70 Sep 8  | USSR   | 193 221    | 64,93°N | } A2     | AS?              |
| POBS 15                         | 1970-68D   | Fragment                      | Aug 29           | d      | USSR       |         |          |                  |
|                                 | 1970-68E   | Fragment                      | Aug 29           | d      | USSR       |         |          |                  |
|                                 | 1970-69A   | OPERATIONS 7329               | Sep 1            | USA    | 31417 3885 | 19,3°N  | } B1     | AS?              |
| ui                              | 1970-69B   | ROCKET                        | Sep 1 73?        | USA    |            |         |          |                  |
|                                 | 1970-70A   | OPERATIONS 0703               | Sep 3 70 30?     | USA    | 735 874    | 48,73°N | } B1     | AS?              |
| net                             | 1970-70B   | ROCKET                        | Sep 3 70 30?     | USA    |            |         |          |                  |
|                                 | 1970-71A   | KOCONOC 361                   | Sep 8 70 Sep 20  | USSR   | 209 218    | 72,87°N | } B1     | AS?              |
| ui                              | 1970-71B   | KOCONOC 361 ROCKET            | Sep 8 70 Sep 20  | USSR   |            |         |          |                  |
|                                 | 1970-71C   | KOCONOC 361 CAPSULE           | Sep 8 70 Sep 20  | USSR   | 209 313    | 72,87°N | } A2     | AS?              |
| US AIRCRAFT<br>PROJECTS         | 1970-71D   | Fragment                      | Sep 8            | d      | USSR       |         |          |                  |
|                                 | 1970-72A   | AYHA 16                       | Sep 15 70 (35C)  | USSR   |            |         | } B1     | AS?              |
| Sputnik 52<br>F.P. 8            | 1970-72B   | AYHA 16 PLATFORM              | Sep 15 70 Sep 15 | USSR   |            |         |          |                  |
|                                 | 1970-72C   | AYHA 16 ROCKET                | Sep 15 70 Sep 15 | USSR   | 185 241    | 51,50°N | } D1     | Sputnik 53       |
| 20 SAMS<br>90 75                | 1970-72D   | See to main project           | Sep 15 70        | USSR   |            |         |          |                  |
| US MODERN<br>Failed<br>SKYNET 8 | 1970-72E   |                               |                  |        |            |         |          |                  |

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| 1970-73A | Kosmos 362            | Sep 16, 50 | 71000000 USSR | 270 829 70,92°  | PL | 81 | sci          |
| 1970-73B | Kosmos 362 ROCKET     | Sep 16, 50 | 71000000 USSR |                 | PL |    |              |
| 1970-74A | Kosmos 363            | Sep 17     | 70500000 USSR | 208 295 65,01°  | PL |    | sci          |
| 1970-74B | Kosmos 363 ROCKET     | Sep 17     | 70500000 USSR |                 | PL |    |              |
| 1970-75A | LYMA 16               | Sep 21     | 70500000 USSR |                 |    |    |              |
| 1970-75B | LYMA 16 ASCENT STAGE  | Sep 21     | 70500000 USSR |                 |    |    |              |
| 1970-75A | Kosmos 364            | Sep 22     | 70000000 USSR | 201 298 65,41°  | PL |    | sci          |
| 1970-75B | Kosmos 364 ROCKET     | Sep 22     | 70500000 USSR |                 | PL |    |              |
| 1970-75C | Kosmos 364 CAPSULE    | Sep 22     | 70000000 USSR | 202 440 65,39°  | PL |    | sci Oct 1, 5 |
| 1970-76A | Kosmos 365            | Sep 25     | 70500000 USSR | 132 175 49,66°  | PL |    | FOSS 16      |
| 1970-76B | Kosmos 365 ROCKET     | Sep 25     | 70500000 USSR |                 | PL |    |              |
| 1970-76C | Kosmos 365 PLATFORM   | Sep 25     | 70500000 USSR |                 | PL |    |              |
| 1970-77A | MONIKA 1Q             | Sep 24     | 76000000 USSR | 234 469 65,93°  | PL |    | sci          |
| 1970-77B | MONIKA 1Q ROCKET      | Sep 24     | 76000000 USSR |                 | PL |    |              |
| 1970-77C | MONIKA 1Q LAUNCHER    | Sep 24     | 76000000 USSR |                 | PL |    |              |
| 1970-77D | MONIKA 1Q HIGH ROCKET | Sep 24     | 75000000 USSR |                 | PL |    | AB           |
| 1970-78A | Kosmos 366            | Oct 1      | 70000000 USSR | 203 294 64,46°  | PL |    | sci          |
| 1970-78B | Kosmos 366 ROCKET     | Oct 1      | 70000000 USSR |                 | PL |    |              |
| 1970-79A | Kosmos 367            | Oct 3      | 70000000 USSR | 922 1021 65,28° | PL |    | sci          |
| 1970-79B | Kosmos 367 ROCKET     | Oct 3      | 70000000 USSR |                 | PL |    |              |
| 1970-79C | Kosmos 367 PLATFORM   | Oct 3      | 70000000 USSR | 252 270 65,04°  | PL |    | sci          |
| 1970-79D | Fragment              | Oct 3      | 70000000 USSR |                 | PL |    |              |
| 1970-79E | Fragment              | Oct 3      | 70000000 USSR |                 | PL |    |              |
| 1970-80A | Kosmos 368            | Oct 8      | 70000000 USSR | 205 401 64,99°  | PL |    | sci          |
| 1970-80B | Kosmos 368 ROCKET     | Oct 8      | 70000000 USSR |                 | PL |    |              |
| 1970-80C | Fragment              | Oct 8      | 70000000 USSR |                 | PL |    |              |
| 1970-80D | Fragment              | Oct 8      | 70000000 USSR |                 | PL |    |              |
| 1970-80E | Kosmos 368 CAPSULE    | Oct 8      | 70000000 USSR |                 | PL |    |              |
| 1970-80F | Kosmos 369            | Oct 9      | 71500000 USSR | 208 506 70,93°  | PL |    | sci          |
| 1970-81A | Kosmos 369 ROCKET     | Oct 9      | 71500000 USSR |                 | PL |    |              |
| 1970-82A | Kosmos 370            | Oct 9      | 70000000 USSR | 201 282 64,92°  | PL |    | sci          |
| 1970-82B | Kosmos 370 ROCKET     | Oct 9      | 70000000 USSR |                 | PL |    |              |



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| 1970-82C | KOCMO 370 CAPSULE   | Oct 9 70 | Oct 27    | USSR       | 182 243 64.42°  | PL       | Exp Oct 21   |
| 1970-83A | KOCMO 371           | Oct 12   | 2070?     | USSR       | 750 758 74.00°  | PL } CI  | nan?         |
| 1970-83B | KOCMO 371 ROCKET    | Oct 12   |           | USSR       |                 | PL }     |              |
| 1970-84A | INTERKOCMO 4        | Oct 14   | 7 Jan 70  | INTERKOCMO | 254 649 48.41°  | PL }     | sci          |
| 1970-84B | INTERKOCMO 4 ROCKET | Oct 14   | 20 Dec 17 | USSR       |                 | PL }     | BI           |
| 1970-85A | METOP 6             | Oct 15   | 2030?     | USSR       | 626 649 81.21°  | PL } Air | mit          |
| 1970-85B | METOP 6 ROCKET      | Oct 15   | 2030?     | USSR       |                 | PL }     |              |
| 1970-86A | KOCMO 372           | Oct 16   | 2070?     | USSR       | 785 805 74.06°  | PL } CI  | nan?         |
| 1970-86B | KOCMO 372 ROCKET    | Oct 16   | 2050?     | USSR       |                 | PL }     |              |
| 1970-87A | KOCMO 373           | Oct 20   | 80?       | USSR       | 472 543 62.93°  | PL }     | Target. Fil  |
| 1970-87B | KOCMO 373 ROCKET    | Oct 20   |           | USSR       |                 | PL }     | for up?      |
| 1970-88A | KOCMO 374           | Oct 20   | 70 Oct 27 | USSR       | 601 22.5 57.5°  | PL }     | splashed     |
| 1970-88B | KOCMO 374 ROCKET    | Oct 20   | 70 Oct 27 | USSR       |                 | PL }     | Indra 0000   |
| 1970-89A | KOCMO 374           | Oct 23   | 2070?     | USSR       | 521 2142 63.5°  | PL }     | Interceptor  |
| 1970-89B | KOCMO 374 ROCKET    | Oct 23   | 74 Jan 30 | USSR       |                 | PL }     | Passed C 323 |
| 1970-89C | Fragment            | Oct 23   |           | USSR       |                 | PL }     | 1970-87A     |
| 1970-89D | Fragment            |          |           |            |                 | PL }     | Explosion    |
| 1970-89E | Fragment            |          |           |            |                 | PL }     | near         |
| 1970-89F | Fragment            |          |           |            |                 | PL }     | 1970-87A     |
| 1970-89G | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89H | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89I | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89J | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89K | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89L | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89M | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89N | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89P | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89Q | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89R | Fragment            |          |           |            |                 | PL }     |              |
| 1970-89S | Fragment            |          |           |            |                 | PL }     |              |
| 1970-90A | USAF 7568           | Oct 23   | 20 Nov 11 | USA        | 135 396 111.06° | PL }     | Interceptor  |
| 1970-91A | KOCMO 375           | Oct 30   |           | USSR       | 524 2100 62.82° | PL }     | Interceptor  |
| 1970-91B | KOCMO 375 ROCKET    | Oct 30   | 2070?     | USSR       |                 | PL }     | Passed C 323 |





1970

|           |                    |        |                |                |             |
|-----------|--------------------|--------|----------------|----------------|-------------|
| 1970-91C  | Fragment           | Oct 30 | - USSR         | MS             |             |
| 1970-91D  | Fragment           | Oct 30 | "              | "              |             |
| 1970-91E  | Fragment           | "      | "              | "              |             |
| 1970-91F  | Fragment           | "      | "              | "              | 1970-91A    |
| 1970-91G  | Fragment           | "      | "              | "              | exploded    |
| 1970-91H  | Fragment           | "      | "              | "              | while close |
| 1970-91J  | Fragment           | "      | "              | "              | to 1970-87A |
| 1970-91K  | Fragment           | "      | "              | "              |             |
| 1970-91L  | Fragment           | "      | "              | "              | } Film      |
| 1970-91M  | Fragment           | "      | "              | "              |             |
| 1970-91N  | Fragment           | "      | "              | "              |             |
| 1970-91P  | Fragment           | "      | "              | "              |             |
| 1970-91Q  | Fragment           | "      | "              | "              |             |
| 1970-91R  | Fragment           | "      | "              | "              |             |
| 1970-91S  | Fragment           | "      | "              | "              |             |
| 1970-91T  | Fragment           | "      | "              | "              |             |
| 1970-91U  | Fragment           | "      | "              | "              |             |
| 1970-91V  | Fragment           | "      | "              | "              |             |
| 1970-91W  | Fragment           | "      | "              | "              |             |
| 1970-91X  | Fragment           | "      | "              | "              |             |
| 1970-91Y  | Fragment           | "      | "              | "              |             |
| 1970-91Z  | Fragment           | "      | "              | "              |             |
| 1970-91AA | Fragment           | "      | "              | "              |             |
| 1970-91AB | Fragment           | "      | "              | "              |             |
| 1970-91AC | Fragment           | "      | "              | "              |             |
| 1970-91AD | Fragment           | "      | "              | "              |             |
| 1970-91AE | Fragment           | "      | "              | "              |             |
| 1970-91AF | Fragment           | "      | "              | "              |             |
| 1970-91AG | Fragment           | "      | "              | "              |             |
| 1970-92A  | KOCHOC 376         | Oct 30 | 70 Nov 12 USSR | 208 282 65.88° | MS          |
| 1970-92B  | KOCHOC 376 ROCKET  | Oct 30 | 70 Nov 5 USSR  |                | MS          |
| 1970-92C  | KOCHOC 376 CAPSULE | Oct 30 | 70 Nov 10 USSR | 192 229 65.36° | MS          |

eye Nov 10



|             |           |                       |                          |                    |      |    |                                           |
|-------------|-----------|-----------------------|--------------------------|--------------------|------|----|-------------------------------------------|
|             | 1970-93A  | OPERATIONS 5960       | Nov 6 USA                | 298 35823 26.24°   | 15.8 | PC | IMFWS USA<br>Full run out                 |
|             | 1970-93B  | STAGE                 | Nov 6 USA                | 26050 35886 26.24° | 15.8 | PC | Titan 3C-15                               |
|             | 1970-93C  | ROCKET                | Nov 9 USA                | 304 518 37.41°     | 15.1 | PC | Orbiting Fragment                         |
| 1970-94A    | 1970-94A  | OFO 1                 | Nov 9 USA                | 302 526 37.41°     | 15.1 | PC | Rad./meteoroid                            |
| exploded    | 1970-94B  | RM + rocket           | Nov 9 USA                |                    |      | PC |                                           |
| while above | 1970-94C  | Fragment              | Nov 9 USA                |                    |      | PC |                                           |
| to 1970-87A | 1970-94D  | Fragment              | Nov 9 USA                |                    |      | PC |                                           |
|             | 1970-95A  | LYHA 17               | Nov 10.61 (USC) USSR     |                    |      | PC | NOR 4641<br>See WAMC 1970-95              |
|             | 1970-95B  | LYHA 17 ROCKET        | Nov 10.61 70 Nov 13 USSR |                    |      | PC |                                           |
|             | 1970-95C  | LYHA 17 PLATFORM      | Nov 10.61 70 Nov 13 USSR | 192 237 51.55°     | 15.1 | PC | Sputnik 55                                |
|             | 1970-95D  | LYHOKOZI 1            | See WAMC 1970-95         |                    |      | PC | See WAMC 1970-95                          |
|             | 1970-96A  | KOCHUC 377            | Nov 11 70 Nov 16 USSR    | 205 287 61.94°     | 15.1 | PC | AZ                                        |
|             | 1970-96B  | KOCHUC 377 ROCKET     | Nov 11 70 Nov 16 USSR    |                    |      | PC |                                           |
|             | 1970-97A  | KOCHUC 378            | Nov 17 72 Aug 17.63 USSR | 232 1734 74.00°    | 15.1 | PC | AZ                                        |
|             | 1970-97B  | KOCHUC 378 ROCKET     | Nov 17 72 Aug 17.63 USSR |                    |      | PC |                                           |
|             | 1970-98A  | USAF 4992             | Nov 18 70 Dec 11.67 USA  | 185 232 82.99°     | 15.1 | PC | Thor Agena 13                             |
|             | 1970-98B  | OPERATIONS 6829       | Nov 18 74. USA           | 487 570 82.18°     | 15.1 | PC | See WAMC 1970-98                          |
|             | 1970-99A  | KOCHUC 379            | Nov 18 72. USSR          | 192 1734 51.62°    | 15.1 | PC | Zone propulsion test (1970-99)            |
|             | 1970-99B  | KOCHUC 379 ROCKET     | Nov 18 70 Nov 16 USSR    |                    |      | PC | AZ                                        |
|             | 1970-99C  | KOCHUC 379 PLATFORM   | Nov 18 71 Jan 19 USSR    | 191 1188 51.6°     | 15.1 | PC |                                           |
|             | 1970-100A | KOCHUC 380            | Nov 24 71 Aug 17.63 USSR | 199 1520 81.95°    | 15.1 | PC | Sci                                       |
|             | 1970-100B | KOCHUC 380 ROCKET     | Nov 24 71 Mar 7. USSR    |                    |      | PC |                                           |
|             | 1970-101A | MOHNA 1 R             | Nov 28 75 Nov 25 USSR    | 472 39348 65.48°   | 15.1 | PC | Com                                       |
|             | 1970-101B | MOHNA 1 R LAUNCHER    | Nov 28 70 Dec 2 USSR     | 216 433 65.29°     | 15.1 | PC | AZ                                        |
|             | 1970-101C | MOHNA 1 R ROCKET      | Nov 28 70 Dec 2 USSR     |                    |      | PC | AZ                                        |
|             | 1970-101D | MOHNA 1 R HIGH ROCKET | Nov 28 USSR              |                    |      | PC | AZ                                        |
|             | 1970-102A | KOCHUC 381            | Dec 2 3200? USSR         | 971 1013 74.04°    | 15.1 | PC | Nov                                       |
|             | 1970-102B | KOCHUC 381 ROCKET     | Dec 2 3200? USSR         |                    |      | PC |                                           |
|             | 1970-102C | KOCHUC 382            | Dec 2 3200? USSR         | 305 5045 51.45°    | 15.1 | PC | merged<br>Lunar Propul.                   |
|             | 1970-102D | KOCHUC 382 ROCKET     | Dec 2 3200? USSR         | 305 5045 51.45°    | 15.1 | PC | Module test<br>(Co-1 engine)<br>or object |
|             | 1970-103A | KOCHUC 383            | Dec 3 70 Dec 16 USSR     | 205 278 65.16°     | 15.1 | PC | AZ                                        |
|             | 1970-103B | KOCHUC 383 ROCKET     | Dec 3 70 Dec 9 USSR      |                    |      | PC |                                           |



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1970  
1971

|           |                          |                  |        |                      |                                                                           |
|-----------|--------------------------|------------------|--------|----------------------|---------------------------------------------------------------------------|
| 1970-105A | KOZMOC 384               | Dec 10 70 Dec 22 | USSR   | 203 242 72,88° P     | m? rel r                                                                  |
| 1970-105B | KOZMOC 384 ROCKET        | Dec 10 70 Dec 15 | USSR   |                      | rel AZ                                                                    |
| 1970-105C | <del>Frame</del>         |                  |        |                      |                                                                           |
| 1970-105E | KOZMOC 384 CAPSULE       | Dec 10 70 Dec 27 | USSR   | 205 271 72,88° P     | ejec Dec 17                                                               |
| 1970-106A | NOAA 1                   | Dec 11 1200?     | USA    | 1430 1472 101,94° W  | 1005 A met                                                                |
| 1970-106B | <del>NOAA 1 ROCKET</del> | Dec 11 7000?     | USA    | 1425 1475 101,92° W  | Wardoc Atm<br>cylindrical<br>electrostatic p<br>+ 0.2 m<br>UHURU<br>SRS-A |
| 1970-107A | EXPLORER 42              | Dec 12 90?       | USA    | 521 563 3,04° SMC    | scot Altair                                                               |
| 1970-107B | EXPLORER 42 ROCKET       | Dec 12 80?       | USA    |                      | SMC                                                                       |
| 1970-108A | KOZMOC 385               | Dec 12 3200?     | USSR   | 978 986 74,02° P     | new                                                                       |
| 1970-108B | KOZMOC 385 ROCKET        | Dec 12 2600?     | USSR   |                      | PU CI                                                                     |
| 1970-109A | PEOLE                    | Dec 12 90?       | FRANCE | 517 247 15° GOLF     | EOLE met<br>test flight                                                   |
| 1970-109B | PEOLE ROCKET             | Dec 12 2000?     | FRANCE |                      | GGG                                                                       |
| 1970-109C | Fragment                 | Dec 12           | FRANCE |                      | GGG                                                                       |
| 1970-109D | Fragment 5               | Dec 12           | FRANCE |                      | GGG                                                                       |
| 1970-110A | KOZMOC 386               | Dec 15 70 Dec 28 | USSR   | 215 276 64,99° P     | m? rel r                                                                  |
| 1970-110B | KOZMOC 386 ROCKET        | Dec 15 70 Dec 19 | USSR   |                      | TRC                                                                       |
| 1970-110C | Fragment                 | Dec 15 d         | USSR   |                      | TRC                                                                       |
| 1970-110D | Fragment                 | Dec 15 d         | USSR   |                      | TRC                                                                       |
| 1970-110E | KOZMOC 386 CAPSULE       | Dec 15 71 Jan 2  | USSR   | 212 315 64,99° P     | TRC                                                                       |
| 1970-110F | Fragment                 | Dec 15 d         | USSR   |                      | TRC                                                                       |
| 1970-111A | KOZMOC 387               | Dec 16 90?       | USSR   | 528 531 74,01° P     | clint                                                                     |
| 1970-111B | KOZMOC 387 ROCKET        | Dec 16 90?       | USSR   |                      | PL                                                                        |
| 1970-111C | Fragment                 | Dec 16           | USSR   |                      | PL                                                                        |
| 1970-111D | Fragment                 | Dec 16           | USSR   |                      | PL                                                                        |
| 1970-111E | Fragment                 | Dec 16           | USSR   |                      | PL                                                                        |
| 1970-112A | KOZMOC 388               | Dec 18 71 May 18 | USSR   | 273 505 70,75° P     | PL BI sci                                                                 |
| 1970-112B | KOZMOC 388 ROCKET        | Dec 18 71 Feb?   | USSR   |                      | PL                                                                        |
| 1970-113A | KOZMOC 389               | Dec 18 2030?     | USSR   | 643 687 81,19° P     | meteor                                                                    |
| 1970-113B | KOZMOC 389 ROCKET        | Dec 18 2030?     | USSR   |                      | PL                                                                        |
| 1970-113C | <del>fragment</del>      |                  |        |                      |                                                                           |
| 1970-114A | MORNING 1 S              | Dec 25 73 Jan?   | USSR   | 496 3955 65° P (10?) | com                                                                       |
| 1970-114B | MORNING 1 S ROCKET       | Dec 25 71 Jan?   | USSR   |                      |                                                                           |
| 1970-114C | MORNING 1 S LAUNCHER     | Dec 25 71 Jan?   | USSR   |                      | PL                                                                        |
| 1970-114D | MORNING 1 S MCH ROCKET   | Dec 25           | USSR   |                      |                                                                           |
| 1970-114E | DEG Fragment 3           |                  |        |                      |                                                                           |



1971-00A

1971-00B

1971-00C

1971-00D

1971-00E

Fragments

down.

|                    |          |                       |                           |                               |     |                      |
|--------------------|----------|-----------------------|---------------------------|-------------------------------|-----|----------------------|
| rel                | 1971-01A | KOCMOC 390            | Jan 12 71 Jan 25 USSR     | 208 296 65°                   | TOL | rec r                |
|                    | 1971-01B | KOCMOC 390 ROCKET     | Jan 12 71 Jan 17 USSR     |                               | TOL |                      |
| execite 17         | 1971-01C | KOCMOC 390 CAPSULE    | Jan 12 71 Feb 1 USSR      | 205 253 65°                   | TOL | eye Jan 23           |
| DOA met            | 1971-01D | Fragment              | Jan 12 d USSR             |                               | TOL | AL                   |
| Wax on Air in air  | 1971-01E | Fragment              | Jan 12 d USSR             |                               | TOL |                      |
| Cylindrical        | 1971-01F | Fragment              | Jan 12 d USSR             |                               | TOL |                      |
| restrostatic probe |          |                       |                           |                               |     |                      |
| OHURV              |          |                       |                           |                               |     |                      |
| SRS-A              |          |                       |                           |                               |     |                      |
| Altair             | 1971-02A | KOCMOC 391            | Jan 14 72 Feb 21, 07 USSR | 277 828 71°                   | PL  | sci                  |
| new                | 1971-02B | KOCMOC 391 ROCKET     | Jan 14 71 Jul/Aug? USSR   |                               | PL  |                      |
|                    | 1971-03A | METEOP 7              | Jan 20 2020? USSR         | 630 679 81.2°                 | PL  | met                  |
| EOLE met           | 1971-03B | METEOP 7 ROCKET       | Jan 20 2030? USSR         |                               | PL  |                      |
| 2250 Jg up         |          |                       |                           |                               |     |                      |
| ANT                | 1971-04A | KOCMOC 392            | Jan 21 71 Feb 2 USSR      | 207 300 65°                   | TOL | rec r                |
| 3                  | 1971-04B | KOCMOC 392 ROCKET     | Jan 21 71 Jan 26 USSR     |                               | TOL |                      |
|                    | 1971-05A | USAF                  | Jan 21 71 Feb 9 USA       |                               | WTR | SAMOS 75             |
| rel                | 1971-05B | Fragment              | Jan 21 d USA              |                               | WTR | TITANUS              |
|                    | 1971-05C | Fragment              | Jan 21 d USA              |                               | WTR | AGENA D              |
|                    | 1971-06A | INTELSAT 4 A          | Jan 25 -                  | INTELSAT 35800 36350 0.55 KSC |     | com Atlantic         |
| eye ke 28          | 1971-06B | INTELSAT 4 A ROCKET   | Jan 25 9000? USA          | 597 36578 28.70° KSC          |     | ATLAS CENTAUR AC-231 |
| ↓                  | 1971-07A | KOCMOC 393            | Jan 26 71 Jan 26 USSR     | 283 572 71°                   | PL  | sci                  |
|                    | 1971-07B | KOCMOC 393 ROCKET     | Jan 26 71 Mar 31 USSR     |                               | PL  |                      |
| clent              | 1971-08A | KITTY HAWK            | Jan 31, 88 (25C) USA      | 183 189 35.58° KSC            |     | see SPACESHIPS       |
|                    | 1971-08B | SATURN-AS-509         | Jan 31, 88 (25C) USA      | 200 572080 33° KSC            |     | see LUNAR PROBES     |
|                    | 1971-08C | ANTARES ASCENT STAGE  | Jan 31, 88 (25C) USA      |                               | KSC |                      |
|                    | 1971-08D | ANTARES DESCENT STAGE | Jan 31, 88 (25C) USA      |                               | KSC |                      |
|                    | 1971-08E | SLA PANEL             | Jan 31, 88 USA            |                               | KX  | SATURN 5             |
| sci                | 1971-08F | SLA PANEL             | Jan 31, 88 USA            |                               | KX  |                      |
|                    | 1971-08G | SLA PANEL             | Jan 31, 88 USA            |                               | KX  |                      |
| Meteor             | 1971-08H | SLA PANEL             | Jan 31, 88 USA            |                               | KX  |                      |
|                    | 1971-08I |                       |                           |                               |     |                      |
|                    | 1971-08J |                       |                           |                               |     |                      |
| com                | 1971-09A | NATO 2                | Feb 3 -                   | NATO 34430 35260 2.8° KSC     |     | com: NATO 6          |
|                    | 1971-09B | NATO 2 ROCKET         | Feb 3 91? USA             | 299? 35260? 27.63° KSC        |     | della 82             |
|                    | 1971-09C | ANTARES               | Feb 6, 78                 |                               |     | Boomer 2             |
|                    | 1971-09D | ANTARES               |                           |                               |     |                      |



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1971

|          |                    |                  |       |          |         |     |                           |
|----------|--------------------|------------------|-------|----------|---------|-----|---------------------------|
| 1971-10A | KOCMOC 394         | Feb 9 2010?      | USSR  | 574 619  | 65.9°   | PL  | target                    |
| 1971-10B | KOCMOC 394 ROCKET  | Feb 9 ?          | USSR  |          |         | PL  | F/m                       |
| 1971-11A | Fragment           |                  |       |          |         |     |                           |
| 1971-11B | TANSEI 1           | Feb 16 3000?     | JAPAN | 990 1190 | 30°     | KAG | Sci on 1 wk               |
| 1971-11C | ROCKET             | Feb 16           | JAPAN |          |         | KAG | MU 45                     |
| 1971-12A | USAF               |                  |       |          |         |     | MU 45                     |
| 1971-12B | ROCKET             | Feb 17 96?       | USA   | 763 832  | 100.86° | WHL | THOR                      |
| 1971-12C | CALSPHERE 3        | Feb 17 2030?     | USA   | 779 827  | 98.78°  | WHL | THOR                      |
| 1971-12D | CALSPHERE 4        | Feb 17 96?       | USA   | 763 833  | 100.86° | WHL | THOR                      |
| 1971-12E | CALSPHERE 5        | Feb 17 96?       | USA   | 765 834  | 100.86° | WHL | THOR                      |
| 1971-13A | KOCMOC 395         | Feb 17 96?       | USA   | 773 832  | 100.95° | WHL | THOR                      |
| 1971-13B | KOCMOC 395 ROCKET  | Feb 18 78?       | USSR  | 534 520  | 74°     | PL  | clint                     |
| 1971-13C | Fragment           | Feb 18 77?       | USSR  |          |         | PL  |                           |
| 1971-13D | Fragment           | Feb 18           | USSR  |          |         | PL  |                           |
| 1971-14A | KOCMOC 396         | Feb 18           | USSR  |          |         | PL  |                           |
| 1971-14B | KOCMOC 396 ROCKET  | Feb 18 71 Mar 3  | USSR  | 212 310  | 65.4°   | PL  | m recf                    |
| 1971-14C | Fragment           | Feb 18 71 Mar 25 | USSR  | 189 242  | 65.42°  | PL  |                           |
| 1971-14D | Fragment           | Feb 18 d         | USSR  |          |         | PL  |                           |
| 1971-14E | KOCMOC 396 CAPSULE | Feb 18 d         | USSR  |          |         | PL  |                           |
| 1971-14F | Fragment           | Feb 18 71 Mar 8  | USSR  | 179 272  | 65.42°  | PL  | eyes Mar 3                |
| 1971-15A | KOCMOC 397         | Feb 18 d         | USSR  |          |         | PL  |                           |
| 1971-15B | KOCMOC 397 ROCKET  | Feb 25           | USSR  | 593 2317 | 65.8°   | TBL | FU with 1971-14           |
| 1971-15C | Fragment           | Feb 25 71 Mar 4  | USSR  | 574 2701 | 65.73°  | TBL | + exploded on 28 Feb 1971 |
| 1971-15D | Fragment           | "                | "     |          |         | "   | 25.60                     |
| 1971-15E | Fragment           | "                | "     |          |         | "   |                           |
| 1971-15F | Fragment           | "                | "     |          |         | "   |                           |
| 1971-15G | Fragment           | "                | "     |          |         | "   |                           |
| 1971-15H | Fragment           | "                | "     |          |         | "   |                           |
| 1971-15J | Fragment           | "                | "     |          |         | "   |                           |
| 1971-15K | Fragment           | "                | "     |          |         | "   |                           |
| 1971-15L | Fragment           | "                | "     |          |         | "   |                           |
| 1971-15M | Fragment           | "                | "     |          |         | "   |                           |
| 1971-15N | Fragment           | "                | "     |          |         | "   |                           |



|                        |           |          |        |      |       |
|------------------------|-----------|----------|--------|------|-------|
| target                 | 1971-15P  | Fragment | Feb 25 | USSR | TVS 6 |
|                        | 1971-15Q  | Fragment | "      | "    | 4     |
| Sci<br>on 1 wh<br>M432 | 1971-15R  | Fragment | 4      | 4    | 4     |
|                        | 1971-15S  | Fragment | 4      | "    | 4     |
| TRZ                    | 1971-15T  | Fragment | 4      | 4    | 4     |
| Bumer 2                | 1971-15U  | Fragment | 4      | 4    | 4     |
|                        | 1971-15V  | Fragment | 4      | 4    | 4     |
| 2.                     | 1971-15W  | Fragment | 4      | 4    | 4     |
|                        | 1971-15X  | Fragment | 4      | 4    | 6     |
| clint                  | 1971-15Y  | Fragment | 4      | 4    | 4     |
|                        | 1971-15Z  | Fragment | 4      | 4    | 4     |
|                        | 1971-15AA | Fragment | 4      | 4    | 4     |
|                        | 1971-15AB | Fragment | 4      | 4    | 4     |
|                        | 1971-15AC | Fragment | 4      | 4    | 4     |
| 325                    | 1971-15AD | Fragment | 4      | 4    | 10    |
|                        | 1971-15AE | Fragment | 4      | 4    | 4     |
|                        | 1971-15AF | Fragment | 4      | 4    | 4     |
| 1971-15AG              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AH              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AI              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AJ              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AK              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AL              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AM              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AN              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AO              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AP              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AQ              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AR              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AS              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AT              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AU              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AV              | Fragment  | 4        | 4      | 4    | 4     |
| 1971-15AW              | Fragment  | 4        | 4      | 4    | 4     |

F<sub>m</sub>



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1971

|           |                          |        |           |        |        |        |         |     |   |
|-----------|--------------------------|--------|-----------|--------|--------|--------|---------|-----|---|
| 1971-15AX | Fragment                 | Feb 25 | USSR      |        |        |        |         |     |   |
| 1971-15AY | Fragment                 |        |           |        |        |        |         | TOL |   |
| 1971-15AZ | Fragment                 |        |           |        |        |        |         |     | u |
| 1971-15BA | Fragment                 |        |           |        |        |        |         |     | u |
| 1971-15BB | Fragment                 |        |           |        |        |        |         |     | u |
| 1971-15BC | Fragment                 |        |           |        |        |        |         |     | u |
| 1971-15BD | Fragment                 |        |           |        |        |        |         |     | u |
| 1971-15BE | Fragment                 |        |           |        |        |        |         |     | u |
| 1971-16A  | KOCONOC 398              | Feb 26 | PI?       | USSR   | 184    | 256    | 57.61°  |     |   |
| 1971-16B  | KOCONOC 398 ROCKET       | Feb 26 | 71 Mar 1  | USSR   | 196    | 276    | 57.63°  |     |   |
| 1971-16C  | KOCONOC 398 PLATFORM     | Feb 26 |           | USSR   | 203    | 10403  | 51, 54° |     |   |
| 1971-16D  | Fragment                 |        |           |        |        |        |         |     |   |
| 1971-17A  | KOCONOC 399              | Mar 3  | 71 Mar 17 | USSR   | 209    | 310    | 65°     |     |   |
| 1971-17B  | KOCONOC 399 ROCKET       | Mar 3  | 71 Mar 8  | USSR   | 196    | 439    | 64.99°  |     |   |
| 1971-17C  | KOCONOC 399 CAPSULE      | Mar 3  | 71 Mar 22 | USSR   | 195    | 423    | 65°     |     |   |
| 1971-17D  | Fragment                 | Mar 3  |           |        |        |        |         |     |   |
| 1971-17E  | Fragment                 | Mar 3  |           |        |        |        |         |     |   |
| 1971-18A  | 'CHINA 2'                | Mar 3  | 76?       | CHINA  | 268    | 1830   | 64.9°   |     |   |
| 1971-18B  | 'CHINA 2' ROCKET         | Mar 3  | 78?       | CHINA  |        |        |         |     |   |
| 1971-19A  | EXPLORER 43              | Mar 13 | 74 Oct 2  | USA    | 244    | 206700 | 28.75°  |     |   |
| 1971-19B  | EXPLORER 43 ROCKET ST. 2 | Mar 13 | 71 May 22 | USA    | 353    | 204571 | 28.10°  |     |   |
| 1971-19C  | EXPLORER 43 ROCKET ST. 3 | Mar 13 | 74?       | USA    |        |        |         |     |   |
| 1971-20A  | KOCONOC 400              | Mar 18 | 3100?     | USSR   | 903    | 1006   | 65.83°  |     |   |
| 1971-20B  | KOCONOC 400 ROCKET       | Mar 18 | 2600?     | USSR   |        |        |         |     |   |
| 1971-21A  | USAF SDS 4               | Mar 21 | 76?       | USA    | 390    | 33800  | 63.11°  |     |   |
| 1971-21B  | ROCKET                   | Mar 21 | 81?       | USA    | 31680? | 39460? | 7.40?   |     |   |
| 1971-22A  | USAF                     | Mar 24 | 71 Apr 12 | USA    | 157    | 246    | 81.52°  |     |   |
| 1971-23A  | KOCONOC 401              | Mar 27 | 71 Apr 9  | USSR   | 210    | 290    | 72.83°  |     |   |
| 1971-23B  | KOCONOC 401 ROCKET       | Mar 27 | 71 Apr 2  | USSR   | 186    | 39401  |         |     |   |
| 1971-23C  | KOCONOC 401 CAPSULE      | Mar 27 | 71 Apr 17 | USSR   | 183    | 390    | 72.90°  |     |   |
| 1971-23D  | Fragment                 | Mar 27 |           |        |        |        |         |     |   |
| 1971-23E  | Fragment                 | Mar 27 |           |        |        |        |         |     |   |
| 1971-24A  | ISIS 2                   | Mar 31 | 10000?    | CANADA | 1358   | 1429   | 88.15°  |     |   |

2nd propulsion system 3000

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optical

DATA I

DATA II

Target

ELIN

BMCHS?

THOR

Thor 400

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Thor 400



| Object ID | Description        | Date   | Time        | Location | Altitude | Speed | Direction | Notes   |    |
|-----------|--------------------|--------|-------------|----------|----------|-------|-----------|---------|----|
| 971-24B   | ISIS 2 ROCKET      | Mar 31 | 2000?       | USA      |          |       |           |         |    |
| 971-25A   | KOCMAC 402         | Apr 1  | 2600?       | USSR     | 2447     | 279   | 64.9°     | GE2     |    |
| 971-25B   | KOCMAC 402 ROCKET  | Apr 1  |             | USSR     | 948      | 1036  | 64.9°     | GE2     |    |
| 971-25D   | Fragment           | Apr 1  |             | USSR     |          |       |           | GE2     |    |
| 971-26A   | KOCMAC 403         | Apr 2  | 71 Apr 14   | USSR     | 216      | 257   | 81.4°     | PL      |    |
| 971-26B   | KOCMAC 403 ROCKET  | Apr 2  | 71 Apr 15   | USSR     |          |       |           | PL      |    |
| 971-27A   | KOCMAC 404         | Apr 4  | 60 71 Apr 4 | USSR     | 167      | 799   | 65.15°    | PL      |    |
| 971-27B   | KOCMAC 404 ROCKET  | Apr 4  | 60 ?        | USSR     | 802      | 1010  | 65.74°    | PL      |    |
| 971-27C   | Fragment           |        |             |          |          |       |           | PL      |    |
| 971-27D   | Fragment           |        |             |          |          |       |           | PL      |    |
| 971-27E   | Fragment           |        |             |          |          |       |           | PL      |    |
| 971-27F   | Fragment           |        |             |          |          |       |           | PL      |    |
| 971-28A   | KOCMAC 405         | Apr 7  | 2030?       | USSR     | 676      | 706   | 81.3°     | PL      |    |
| 971-28B   | KOCMAC 405 ROCKET  | Apr 7  | 2030?       | USSR     |          |       |           | PL      |    |
| 971-28C   | Fragment           |        |             |          |          |       |           | PL      |    |
| 971-28D   | Fragment           |        |             |          |          |       |           | PL      |    |
| 971-28E   | Fragment           |        |             |          |          |       |           | PL      |    |
| 971-28F   | Fragment           |        |             |          |          |       |           | PL      |    |
| 971-29A   | KOCMAC 406         | Apr 14 | 71 Apr 14   | USSR     | 223      | 264   | 81.3°     | PL      |    |
| 971-29B   | KOCMAC 406 ROCKET  | Apr 14 | 71 Apr 17   | USSR     |          |       |           | PL      |    |
| 971-29C   | Fragment           | Apr 14 |             | USSR     |          |       |           | PL      |    |
| 971-29D   | Fragment           | Apr 14 |             | USSR     |          |       |           | PL      |    |
| 971-29E   | Fragment           | Apr 14 |             | USSR     |          |       |           | PL      |    |
| 971-29F   | Fragment           | Apr 14 |             | USSR     |          |       |           | PL      |    |
| 971-30A   | TOURNEBOL 1        | Apr 15 | 71?         | FRANCE   | 456      | 703   | 44°       | GE2     |    |
| 971-30B   | TOURNEBOL 1 ROCKET | Apr 15 | 71 Apr 18   | FRANCE   |          |       |           | GE2     |    |
| 971-30C   | Fragment           | Apr 15 |             | FRANCE   |          |       |           | GE2     |    |
| 971-30D   | Fragment           | Apr 15 |             | FRANCE   |          |       |           | GE2     |    |
| 971-30E   | Fragment           | Apr 15 |             | FRANCE   |          |       |           | GE2     |    |
| 971-30F   | Fragment           | Apr 15 |             | FRANCE   |          |       |           | GE2     |    |
| 971-31A   | METEOR 8           | Apr 17 | 2030?       | USSR     | 620      | 646   | 81.2°     | PL      |    |
| 971-31B   | METEOR 8 ROCKET    | Apr 17 | 2030?       | USSR     |          |       |           | PL      |    |
| 971-32A   | CANNOT 1           | Apr 19 | 71 0 U 11   | USSR     | 200      | 222   | 51.6°     | PL      |    |
| 971-32B   | CANNOT 1 ROCKET    | Apr 19 | 71 Apr 21   | USSR     | 185      | 217   | 51.6°     | PL      |    |
| 971-32C   | Fragment           | Apr 19 |             | USSR     |          |       |           | PL      |    |
| 971-32D   | Fragment           | Apr 19 |             | USSR     |          |       |           | PL      |    |
| 971-32E   | Fragment           | Apr 19 |             | USSR     |          |       |           | PL      |    |
| 971-32F   | Fragment           | Apr 19 |             | USSR     |          |       |           | PL      |    |
| 971-32G   | Fragment           | Apr 19 |             | USSR     |          |       |           | PL      |    |
| 971-33A   | USAF               | Apr 22 | 7 Aug 9     | USA      | 954      | 132   | 400       | 110.94° | PL |



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|----------|--------------------|--------------|--------------|------|-------------------|-------------|-------------|------|-------------------|
| 1971-34A | COSOS 10           | Apr 23, 1971 | Apr 24, 1971 | USSR | 208° 24.6' 57.56" | 231° 57.56" | 799 844 740 | PC   | nov? elint        |
| 1971-34B | COSOS 10 ROCKET    | Apr 23, 1971 | ?            | USSR | 208° 24.6' 57.56" | 231° 57.56" |             | PC   |                   |
| 1971-35A | KOZMOC 407         | Apr 23, 1971 | 2000?        | USSR | 799 844 740       |             |             | PC   |                   |
| 1971-35B | KOZMOC 407 ROCKET  | Apr 23, 1971 | 2000?        | USSR |                   |             |             | PC   |                   |
| 1971-35C | Fragment           |              |              |      |                   |             |             |      |                   |
| 1971-36A | SAN MARCO 3        | Apr 24, 1971 | Nov 29, 1971 | USA  | 222 723 3,23°     |             |             | SMCC | Reconomy          |
| 1971-36B | SAN MARCO 3 ROCKET | Apr 24, 1971 | 71 Jun       | USA  |                   |             |             | SMCC | SCOUT B           |
| 1971-37A | KOZMOC 408         | Apr 24, 1971 | Dec 29, 1971 | USSR | 211 1542 82°      |             |             | PC   | sci               |
| 1971-37B | KOZMOC 408 ROCKET  | Apr 24, 1971 | 71 Jun       | USSR |                   |             |             | PC   |                   |
| 1971-38A | KOZMOC 409         | Apr 28, 1971 | 5000?        | USSR | 1163 1215 74.01°  |             |             | PC   | geodesy           |
| 1971-38B | KOZMOC 409 ROCKET  | Apr 28, 1971 | 5000?        | USSR |                   |             |             | PC   |                   |
| 1971-39A | IMENS 3            | May 5, 1971  |              | USA  | 210 35770 26.36°  |             |             | KSC  | Indian Ocean      |
| 1971-39B | IMENS 2 ROCKET     | May 5, 1971  |              | USA  | 35770 35773 0.3°  |             |             | KSC  |                   |
| 1971-39C | Fragment           |              |              |      |                   |             |             |      |                   |
| 1971-40A | KOZMOC 410         | May 6, 1971  | May 18, 1971 | USSR | 204 290 64.96°    |             |             | PC   | Titan 3C-16       |
| 1971-40B | KOZMOC 410 ROCKET  | May 6, 1971  | May 18, 1971 | USSR |                   |             |             | PC   | recon             |
| 1971-40C | KOZMOC 410 CAPSULE | May 6, 1971  | May 25, 1971 | USSR | 196 264 64.95°    |             |             | PC   |                   |
| 1971-40D | Fragment           |              |              |      |                   |             |             |      |                   |
| 1971-41A | KOZMOC 411         | May 7, 1971  | 7000?        | USSR | 1318 1492 74.01°  |             |             | PC   | 2nd Kosmos        |
| 1971-41B | KOZMOC 412         | May 7, 1971  | 7000?        | USSR | 1482 1537 74.01°  |             |             | PC   | capsule           |
| 1971-41C | KOZMOC 413         | May 7, 1971  | 7000?        | USSR | 1476 1509 74.01°  |             |             | PC   | launch            |
| 1971-41D | KOZMOC 414         | May 7, 1971  | 7000?        | USSR | 1478 1496 74.02°  |             |             | PC   |                   |
| 1971-41E | KOZMOC 415         | May 7, 1971  |              | USSR | 1452 1503 74.01°  |             |             | PC   |                   |
| 1971-41F | KOZMOC 416         | May 7, 1971  |              | USSR | 1373 1494 74.02°  |             |             | PC   |                   |
| 1971-41G | KOZMOC 417         | May 7, 1971  |              | USSR | 1344 1495 74.01°  |             |             | PC   |                   |
| 1971-41H | KOZMOC 418         | May 7, 1971  |              | USSR | 1407 1495 74.01°  |             |             | PC   |                   |
| 1971-41J | ROCKET             | May 7, 1971  | 20000?       | USSR |                   |             |             | PC   |                   |
| 1971-42A | KOZMOC 419         | May 10, 1971 | May 12, 1971 | USSR | 145 159 57°       |             |             | PC   | Mars failure      |
| 1971-42B | KOZMOC 420         | May 18, 1971 | May 29, 1971 | USSR | 200 257 57.26°    |             |             | PC   | Sci. exp. failure |
| 1971-42C | KOZMOC 420 ROCKET  | May 18, 1971 | May 29, 1971 | USSR |                   |             |             | PC   | recon             |
| 1971-42D | KOZMOC 420 CAPSULE | May 18, 1971 | May 31, 1971 | USSR | 188 240 57.27°    |             |             | PC   |                   |
| 1971-43A | Fragment           | May 18, 1971 |              | USSR |                   |             |             | PC   | geo. exp.         |
| 1971-43B | Fragment           | May 18, 1971 |              | USSR |                   |             |             | PC   |                   |
| 1971-44A | KOZMOC 421         | May 19, 1971 | May 18, 1971 | USSR | 224 468 70.91°    |             |             | PC   | sci               |



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| Fe SPACE SHIPS | 1971-44B | KOZMOC 421 ROCKET | May 19, 43 | 71°N 100°E? | USSR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------|----------|-------------------|------------|-------------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|



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|------------|--------------------|-----------------|-----------------|------|------|----------|----------|----------------------------------------|
| 1971-52A   | KOCMOC 426         | Jun 4           | 2000? USSR      | 359  | 1996 | 74.03° N |          | sci?                                   |
| 1971-52B   | KOCMOC 426 ROCKET  | Jun 4           | 2000? USSR      |      |      |          |          |                                        |
| 1971-52C   | COLOS II           | Jun 6, 20       | 71 Jun 21, USSR | 189  | 209  | 51.89° N |          | see SPACE SHIPS                        |
| 1971-53A   | COLOS II           | Jun 6, 20       | ?               | USSR | 234  | 263      | 51.16° N | AZ                                     |
| 1971-54A   | USAF               | Jun 8           | 81?             | USA  | 546  | 581      | 90.22° W | UTTER RECORD? blind (MONITORING? TB-2) |
| 1971-55A   | KOCMOC 427         | Jun 11          | 71 Jun 22, USSR | 204  | 314  | 72.84° N |          | rec r                                  |
| 1971-55B   | KOCMOC 427 ROCKET  | Jun 11          | 71 Jun 20 USSR  | 177  | 319  | 72.83° N |          |                                        |
| 1971-55C   | Fragment           | Jun 11          | d               | USSR |      |          |          |                                        |
| 1971-55D   | Fragment           | Jun 11          | d               | USSR |      |          |          | AZ                                     |
| 1971-55E   | KOCMOC 427 CAPSULE | Jul 1, 42       | 71 Jun 28 USSR  | 176  | 308  | 73.86° N |          | see Jun 23                             |
| 1971-55F   | Fragment           | Jun 11          | d               | USSR |      |          |          |                                        |
| 1971-56A   | BIG BIRD 1         | Jun 15          | 71 Jun 6 USA    | 183  | 299  | 96.42° W |          | rec.                                   |
| 1971-56B   | ROCKET             | Jun 15          | 71 Jun 21 USA   | 183  | 299  | 96.39° W |          | 20                                     |
| 1971-57A   | KOCMOC 428         | Jun 24          | 71 Jun 6 USSR   | 206  | 287  | 51.75° N |          | rec r                                  |
| 1971-57B   | KOCMOC 428 ROCKET  | Jun 24          | 71 Jun 28 USSR  |      |      |          |          |                                        |
| 1971-57C   | Fragment           | Jun 24          | d               | USSR |      |          |          |                                        |
| 1971-57D   | Fragment           | Jun 24          | d               | USSR |      |          |          |                                        |
| 1971-57E   | Fragment           | Jun 24          | d               | USSR |      |          |          | AZ                                     |
| 1971-57F   | Fragment           | Jun 24          | d               | USSR |      |          |          |                                        |
| 1971-57G   | KOCMOC 428 CAPSULE | Jun 24, 34      | 71 Jun 13 USSR  | 199  | 239  | 51.76° N |          | see 71 JUL 5                           |
| 1971-58A   | EXPLORER 44        | Jul 8, 96       | 74? USA         | 483  | 632  | 51.06° N |          | SCORE B SOLDADO 10                     |
| 1971-58B   | EXPLORER 44 ROCKET | Jul 8, 96       | 74? USA         |      |      |          |          |                                        |
| 1971-59A   | METEOR 9           | Jul 16          | 2030? USSR      | 615  | 642  | 81.2° N  |          | Met                                    |
| 1971-59B   | METEOR 9 ROCKET    | Jul 16          | 2030? USSR      |      |      |          |          |                                        |
| 1971-59C   | Fragment           | Jul 16          | USSR            |      |      |          |          | A1                                     |
| 1971-60A   | USAF               | Jul 16, 65? 76? | USA             | 488  | 504  | 75° W    |          | UTTER RECORD? blind                    |
| 1971-61A   | KOCMOC 429         | Jul 20, 42      | 71 Aug 2 USSR   | 204  | 260  | 51.8° N  |          | rec r                                  |
| 1971-61B   | KOCMOC 429 ROCKET  | Jul 20, 42      | 71 Jul 23 USSR  |      |      |          |          |                                        |
| 1971-61C   | Fragment           | Jul 20, 42      | d               | USSR |      |          |          | AZ                                     |
| 1971-61D   | Fragment           | Jul 20, 42      | d               | USSR |      |          |          |                                        |
| 1971-61E   | KOCMOC 429 CAPSULE | Jul 20, 42      | 71 Aug 4 USSR   | 185  | 360  | 51.81° N |          | eye Aug 1                              |
| 1971-62A   | KOCMOC 430         | Jul 23, 46      | 71 Aug 5 USSR   | 206  | 302  | 65.4° N  |          | rec r                                  |
| 1971-53A10 | COLOS II           | Jul 29          | 71 Jul 30 USSR  |      |      |          |          | SAINT 1 some see SPACE SHIPS           |



| Ref | Object                          | Date       | Time           | Lat | Long   | Alt    | Remarks                     |
|-----|---------------------------------|------------|----------------|-----|--------|--------|-----------------------------|
| 1   | 1971-62B KOSMOC 430 ROCKET      | Jul 23, 46 | 71 Aug 29 USSR |     |        |        | PL                          |
| 2   | 1971-62C Fragment               | Jul 23, 46 | d USSR         |     |        |        | PL                          |
| 3   | 1971-62D Fragment               | Jul 23, 46 | d USSR         |     |        |        | PL                          |
| 4   | 1971-62E Fragment               | Jul 23, 46 | d USSR         |     |        |        | PL                          |
| 5   | 1971-62F KOSMOC 430 CAPSULE     | Jul 23, 46 | 71 Aug 29 USSR | 181 | 23     | 65.41° | PL                          |
| 6   | 1971-62G Fragment               | Jul 23, 46 | d USSR         |     |        |        | PL                          |
| 7   | 1971-63A ENDOSECTOR             | Jul 26, 57 | (3SC) USA      | 168 | 170    | 32.57° | See SPACE SHIP              |
| 8   | 1971-63B SATURN 510             | Jul 26, 57 | (3L) USA       | 200 | 572080 | 33.2°  | KSC                         |
| 9   | 1971-63C FALCON                 | Jul 26, 57 | (3SC) USA      |     |        |        | KSC                         |
| 10  | 1971-63D APOLLO 5 UNMANNED      | Jul 26, 57 | (3SC) USA      |     |        |        | KSC                         |
| 11  | 1971-63E FALCON DESCENT STAGE   | Jul 26, 57 | (3SC) USA      |     |        |        | KSC                         |
| 12  | 1971-63F SCA PANEL              | Jul 26, 57 | USA            |     |        |        | KSC                         |
| 13  | 1971-63G SCA PANEL              | Jul 26, 57 | USA            |     |        |        | KSC                         |
| 14  | 1971-63H SCA PANEL              | Jul 26, 57 | USA            |     |        |        | KSC                         |
| 15  | 1971-63I SCA PANEL              | Jul 26, 57 | USA            |     |        |        | KSC                         |
| 16  | 1971-63J ENDOSECTOR             | Jul 26, 57 | USA            |     |        |        | KSC                         |
| 17  | 1971-63K SIMBAY PANEL           | Jul 26, 57 | USA            |     |        |        | KSC                         |
| 18  | 1971-63L LRV 1                  | Jul 26, 57 | (3SC) USA      |     |        |        | KSC                         |
| 19  | 1971-63M                        |            |                |     |        |        |                             |
| 20  | 1971-63N                        |            |                |     |        |        |                             |
| 21  | 1971-64A MOONIA 1 T             | Jul 28     | 76? USSR       | 478 | 39877  | 65.43° | PL                          |
| 22  | 1971-64B MOONIA 1 T LAUNCHER    | Jul 28     | 71 Aug 29 USSR |     |        |        | PL                          |
| 23  | 1971-64C MOONIA 1 T ROCKET      | Jul 28     | 71 Aug 24 USSR |     |        |        | PL                          |
| 24  | 1971-64D Fragment               | Jul 28     | d USSR         |     |        |        | PL                          |
| 25  | 1971-64E Fragment               | Jul 28     | d USSR         |     |        |        | PL                          |
| 26  | 1971-64F MOONIA 1 T HIGH ROCKET | Jul 28     | 76? USSR       |     |        |        | PL                          |
| 27  | 1971-65A KOSMOC 431             | Jul 30     | 71 Aug 11 USSR | 194 | 257    | 57.77° | PL                          |
| 28  | 1971-65B KOSMOC 431 ROCKET      | Jul 30     | 71 Aug 4 USSR  |     |        |        | PL                          |
| 29  | 1971-65C Fragment               | Jul 30     | d USSR         |     |        |        | PL                          |
| 30  | 1971-65D FALCON ASCENT STAGE    | Aug 2, 72  | (L) USA        |     |        |        | See LUNAR PROBE, SPACE SHIP |
| 31  | 1971-66A KOSMOC 432             | Aug 5, 72  | 71 Aug 18 USSR | 194 | 259    | 57.74° | PL                          |
| 32  | 1971-66B KOSMOC 432 ROCKET      | Aug 5, 72  | 71 Aug 9 USSR  |     |        |        | PL                          |
| 33  | 1971-66C Fragment               | Aug 5, 72  | d USSR         |     |        |        | PL                          |



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|----------|----------------------------------------|-----------|---------------|--------|-----|-------|--------|------|-------------------------|
| 1971-66D | KOCMOC 432 CAPSULE                     | Aug 5, 42 | 71 Aug 24     | USSR   | 187 | 231   | 57,74° | TBL  | eye                     |
| 1971-66E | Fragment                               | Aug 5, 42 | d             | USSR   |     |       |        | Thru |                         |
| 1971-67A | OVI-20                                 | Aug 7, 01 | 71 Aug 29, 0  | USA    | 134 | 1457  | 92,00° | WTR  | OVI                     |
| 1971-67B | OVI-21 ROCKET                          | Aug 7, 01 | 2050?         | USA    | 790 | 970   | 87,63° | WTR  | Compl<br>67B, 67C, 67D  |
| 1971-67C | CANNONBALL 2                           | Aug 7, 01 | 72 Jan 31, 72 | USA    | 134 | 1970  | 92,07° | WTR  | At dng<br>n 34          |
| 1971-67D | MUSKETBALL                             | Aug 7, 01 | 71 Sep 11, 60 | USA    | 135 | 884   | 92,04° | WTR  | " m                     |
| 1971-67E | RIGID SPHERE 2 (LCS 4)                 | Aug 7, 01 | 86?           | USA    | 795 | 918   | 87,62° | WTR  | Andrew<br>n 1, 2        |
| 1971-67F | BALLOON (mylar)                        | Aug 7, 01 | 72 Jan 11     | USA    | 797 | 915   | 87,64° | WTR  | " m                     |
| 1971-67G | BALLOON Gnd Sp. 2                      | Aug 7, 01 | 81?           | USA    | 788 | 915   | 87,64° | WTR  | " m                     |
| 1971-67H | BALLOON Gnd Sp. 1                      | Aug 7, 01 | 86?           | USA    | 778 | 919   | 87,63  | WTR  | ATLAS<br>P n m, 2       |
| 1971-67J | OVI-20 ROCKET                          | Aug 7, 01 |               | USA    |     |       |        | WTR  | Carried<br>67 C, D?     |
| 1971-67K | Fragment <del>hosee re</del>           | Aug 7, 01 |               | USA    |     |       |        | WTR  |                         |
| 1971-67L | Fragment                               | Aug 7, 01 |               | USA    |     |       |        | WTR  |                         |
| 1971-67M | Fragment                               | Aug 7, 01 |               | USA    |     |       |        | WTR  |                         |
| 1971-67N | Fragment                               | Aug 7, 01 |               | USA    |     |       |        | WTR  |                         |
| 1971-67P | RIGID SPHERE 1                         | Aug 7, 01 | 86?           | USA    | 794 | 907   | 87,62° | WTR  | At dng n 34             |
| 1971-68A | KOCMOC 433                             | Aug 8, 99 | 71 Aug 9, 05  | USSR   | 159 | 259   | 49,41° | TBL  | Foss 17                 |
| 1971-68B | KOCMOC 433 ROCKET                      | Aug 8, 99 | 71 Aug 9      | USSR   |     |       |        | TBL  | Fir                     |
| 1971-68C | KOCMOC 433 PLATFORM                    | Aug 8, 99 | 71 Aug 10     | USSR   |     |       |        | TBL  |                         |
| 1971-69A | KOCMOC 434                             | Aug 12    | 76?           | USSR   | 182 | 267   | 57,60° | TBL  | 2nd stage<br>propulsion |
| 1971-69B | KOCMOC 434 ROCKET                      | Aug 12    | 71 Aug 18     | USSR   | 189 | 1328  |        | WTR  | At dng                  |
| 1971-69C | Fragment (ES)                          | Aug 12    | 71 Aug 18     | USSR   | 186 | 11804 |        | WTR  | in<br>transfer orbit    |
| 1971-69E | KOCMOC 434 PLATFORM                    | Aug 12    | 71 Oct 28     | USSR   |     |       |        | TBL  | more<br>gamma 77        |
| 1971-70A | VSAF                                   | Aug 12    | 71 Sep 3      | USA    | 135 | 423   | 111°   | WTR  | At dng<br>n 34          |
| 1971-70B | Fragment                               | Aug 12    | d             | USA    |     |       |        | WTR  | At dng<br>n 34          |
| 1971-71A | EOLE 1                                 | Aug 16    | 2050?         | FRANCE | 742 | 904   | 50,16° | WTR  | Met resch               |
| 1971-71B | EOLE ROCKET                            | Aug 16    | 2050?         | USA    |     |       |        | WTR  | At dng                  |
| 1971-71C | Fragment                               | Aug 16    |               | USA    |     |       |        | WTR  |                         |
| 1971-72A | KOCMOC 435                             | Aug 27    | 72 Jan 20, 02 | USSR   | 271 | 482   | 70,96° | WTR  | Sci                     |
| 1971-72B | KOCMOC 435 ROCKET                      | Aug 27    | 71 Nov 20     | USSR   |     |       |        | WTR  | Sci                     |
| 1971-73A | LYMA 18                                | Sep 2, 57 | (75C)         | USSR   |     |       |        | WTR  | see LYMA<br>PROCES      |
| 1971-73B | LYMA 18 <del>EM</del> <sup>RETRO</sup> | Sep 2, 57 | (75C)         | USSR   |     |       |        | WTR  | more data               |
| 1971-73C | LYMA 18 LAUNCHER                       | Sep 2, 57 | 71 Sep 6      | USSR   |     |       |        | WTR  | Spec 116 58             |



1971-735 ~~8720~~

|                        |          |                     |                      |                |     |      |           |    |     |                |
|------------------------|----------|---------------------|----------------------|----------------|-----|------|-----------|----|-----|----------------|
| eye                    | 1971-735 | 18 ROKET            | Sep 25 71            | USA            |     |      |           |    | T3L |                |
|                        | 1971-736 | <del>18 ROKET</del> | <del>Sep 25 71</del> | <del>USA</del> |     |      |           |    | T3L |                |
| OV                     | 1971-737 | 18 AM MOWER         | Sep 25 71            | (30) USA       |     |      |           |    | T3L | see WMM PROPOS |
| Conrad 676, 87, 13, 14 | 1971-74A | KOCMOE 436          | Sep 7 78?            | USA            | 574 | 550  | 74.0° PL  |    |     | elint          |
| Adams 739              | 1971-74B | KOCMOE 436 ROKET    | Sep 7 77?            | USA            |     |      |           | PL |     |                |
| " m1                   | 1971-74C | Fragment            | Sep 7                | USA            |     |      |           | PL |     |                |
| Adams 739              | 1971-74D | Fragment            | Sep 7                | USA            |     |      |           | PL |     |                |
| " m1                   | 1971-74E | Fragment            | Sep 7                | USA            |     |      |           | PL | (1) |                |
| " m4                   | 1971-74F | Fragment            | Sep 7                | USA            |     |      |           | PL |     |                |
| " m6, 5                | 1971-74G | Fragment            | Sep 7                | USA            |     |      |           | PL |     |                |
| Carved 676, 87, 13, 14 | 1971-74H | Fragment            | Sep 7                | USA            |     |      |           | PL |     |                |
|                        | 1971-74J | Fragment            | Sep 7                | USA            |     |      |           | PL |     |                |
|                        | 1971-75A | KOCMOE 437          | Sep 10 77?           | USA            | 523 | 550  | 74.0° PL  |    |     | elint          |
|                        | 1971-75B | KOCMOE 437 ROKET    | Sep 10 77?           | USA            |     |      |           | PL |     |                |
| At 200 134             | 1971-76A | USAF                | Sep 10, 15 71        | USA            | 156 | 245  | 74.95°    |    |     |                |
| For 17                 | 1971-76B | USAF                | Sep 10, 15 71        | USA            | 492 | 507  | 75.02°    |    |     |                |
| "                      | 1971-77A | KOCMOE 438          | Sep 14, 54 71        | USA            | 212 | 321  | 65.4° PL  |    |     |                |
| "                      | 1971-77B | KOCMOE 438 ROKET    | Sep 14, 54 71        | USA            |     |      |           | PL |     |                |
| 2nd Say 134            | 1971-77C | Fragment            | Sep 14, 54 71        | USA            |     |      |           | PL |     |                |
| 134                    | 1971-77D | Fragment            | Sep 14, 54 71        | USA            |     |      |           | PL |     |                |
| "                      | 1971-77E | Fragment            | Sep 14, 54 71        | USA            |     |      |           | PL |     |                |
| "                      | 1971-77F | KOCMOE 438 CAPSULE  | Sep 14, 54 71        | USA            | 170 | 260  | 65.4° PL  |    |     |                |
| "                      | 1971-78A | KOCMOE 439          | Sep 21 71            | USA            | 219 | 308  | 65.4° PL  |    |     |                |
| "                      | 1971-78B | KOCMOE 439 ROKET    | Sep 21 71            | USA            |     |      |           | PL |     |                |
| "                      | 1971-79A | KOCMOE 440          | Sep 24 72            | USA            | 282 | 814  | 71.0° PL  |    |     |                |
| "                      | 1971-79B | KOCMOE 440 ROKET    | Sep 24 72            | USA            |     |      |           | PL |     |                |
| "                      | 1971-80A | 'SHINSEI'           | Sep 28 72            | USA            | 874 | 1870 | 32.00° PL |    |     |                |
| "                      | 1971-80B | 'SHINSEI' ROKET     | Sep 28 72            | USA            |     |      |           | PL |     |                |
| "                      | 1971-81A | KOCMOE 441          | Sep 28 72            | USA            | 204 | 288  | 65.0° PL  |    |     |                |
| "                      | 1971-81B | KOCMOE 441 ROKET    | Sep 28 72            | USA            |     |      |           | PL |     |                |
| "                      | 1971-81C | Fragment            | Sep 28 72            | USA            |     |      |           | PL |     |                |
| "                      | 1971-81D | Fragment            | Sep 28 72            | USA            |     |      |           | PL |     |                |



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|          |                                                          |            |               |           |      |        |     |                  |
|----------|----------------------------------------------------------|------------|---------------|-----------|------|--------|-----|------------------|
| 1971-81E | KOCONOC 441 CAPSULE                                      | Sep 28, 32 | 71 Oct 13, 57 | USSA 174  | 244  | 65,04° | THX | agc Oct 10       |
| 1971-81F | Fragment                                                 | Sep 28, 32 | d             | USSA      |      |        | THX |                  |
| 1971-81G | Fragment                                                 | Sep 28, 32 | d             | USSA      |      |        | THX |                  |
| 1971-82A | LYHA 19                                                  | Sep 28, 42 | (→ SC)        | USSA 172  | 260  | 57,58° | THX | see WHITE PHOTOS |
| 1971-82B | LYHA 19 LAUNCHER                                         | Sep 28, 42 | 71 Oct 1      | USSA      |      |        | THX |                  |
| 1971-82C | LYHA 19 RETRO                                            | Sep 28, 42 | (→ SC)        | USSA      |      |        | THX |                  |
| 1971-82D | <del>Fragment</del> <del>LYHA 19</del> <del>ROCKET</del> | Sep 28, 42 |               | USSA      |      |        | THX |                  |
| 1971-82E | LYHA 19 <del>ROCKET</del>                                | Sep 28, 42 | 71 Oct 1      | USSA 172  | 260  | 57,58° | THX | See White Photos |
| 1971-83A | OSO 7                                                    | Sep 29     | 75?           | USA 333   | 571  | 33,13° | THX | See White Photos |
| 1971-83B | TTTS 3                                                   | Sep 29     | 75?           | USA 398   | 571  | 33,09° | THX | See White Photos |
| 1971-83C | OSO 7 ROCKET                                             | Sep 29     |               | USA       |      |        | THX |                  |
| 1971-84A | Fragment                                                 | Sep 29, 48 | 71 Oct 12     | USSA 211  | 321  | 73,9°  | THX |                  |
| 1971-84B | KOCONOC 442 ROCKET                                       | Sep 29, 48 |               | USSA      |      |        | THX |                  |
| 1971-84C | Fragment                                                 | Sep 29, 48 |               | USSA      |      |        | THX |                  |
| 1971-84D | KOCONOC 442 CAPSULE                                      | Sep 29, 48 | 71 Oct 17, 86 | USSA 177  | 309  | 72,85° | THX |                  |
| 1971-85A | KOCONOC 443                                              | Oct 7, 52  | 71 Oct 19     | USSA 211  | 325  | 69,4°  | THX |                  |
| 1971-85B | KOCONOC 443 ROCKET                                       | Oct 7, 52  | 71 Oct 13     | USSA      |      |        | THX |                  |
| 1971-85C | Fragment                                                 | Oct 7, 52  | d             | USSA      |      |        | THX |                  |
| 1971-85D | Fragment                                                 | Oct 7, 52  | d             | USSA      |      |        | THX |                  |
| 1971-85E | Fragment                                                 | Oct 7, 52  | d             | USSA      |      |        | THX |                  |
| 1971-85F | KOCONOC 443 CAPSULE                                      | Oct 7, 52  | 71 Oct 13     | USSA 186  | 228  | 65,40° | THX |                  |
| 1971-86A | KOCONOC 444                                              | Oct 13     | 12000?        | USSA 1324 | 1509 | 74,03° | THX |                  |
| 1971-86B | KOCONOC 445                                              | Oct 13     |               | USSA 153  | 153  | 74,03° | THX |                  |
| 1971-86C | KOCONOC 446                                              | Oct 13     |               | USSA 1384 | 1513 | 74,03° | THX |                  |
| 1971-86D | KOCONOC 447                                              | Oct 13     |               | USSA 1414 | 1515 | 74,03° | THX |                  |
| 1971-86E | KOCONOC 448                                              | Oct 13     |               | USSA 1444 | 1522 | 74,03° | THX |                  |
| 1971-86F | KOCONOC 449                                              | Oct 13     |               | USSA 1484 | 1544 | 74,03° | THX |                  |
| 1971-86G | KOCONOC 450                                              | Oct 13     |               | USSA 1465 | 1530 | 74,03° | THX |                  |
| 1971-86H | KOCONOC 451                                              | Oct 13     |               | USSA 1492 | 1574 | 74,03° | THX |                  |
| 1971-86J | ROCKET                                                   | Oct 13     | 22000?        | USSA      |      |        | THX |                  |
| 1971-87A | USAF DMSP 1                                              | Oct 14, 4  | 2000?         | USSA 792  | 877  | 98,96° | THX |                  |
| 1971-87B | ROCKET                                                   | Oct 14, 4  | 2030?         | USSA      |      |        | THX |                  |



|                  |          |                          |            |                    |                    |                                         |
|------------------|----------|--------------------------|------------|--------------------|--------------------|-----------------------------------------|
| 2nd Oct 10       | 1971-88A | KOZMOG 452               | Oct 4, 38  | 71 Oct 19 USSA     | 201 220 65.0° PL?  | MTEL n                                  |
|                  | 1971-88B | KOZMOG 452 ROCKET        | Oct 4, 38  | 71 Oct 18 USSA     |                    |                                         |
|                  | 1971-88C | Fragment                 | Oct 4, 38  | d USSA             |                    | AZ                                      |
| see LUNAR PROBES | 1971-88D | Fragment                 | Oct 4, 38  | d USSA             |                    |                                         |
| see LUNAR PROBES | 1971-88E | KOZMOG 456 CAPSULE       | Oct 4, 38  | 71 Oct 30 USSA     | 196 362 64.92° PL? | see Oct 26                              |
| see LUNAR PROBES | 1971-88F | Fragment                 | Oct 4, 38  | d USSA             |                    |                                         |
| Die              | 1971-89A | ASTEX                    | Oct 17, 57 | U71?               | USA 772 803 92.72° | LTTR STP. Area (Ind. Sp. Tech. Expts.)  |
| Sputnik 9        | 1971-90A | KOZMOG 453               | Oct 19     | 71 Nov 19, 08 USSA | 271 493 71.0° R    | sci                                     |
| orb 666          | 1971-90B | KOZMOG 453 ROCKET        | Oct 19     | 71 Jan 1           | USA                | B1                                      |
| 2nd. 1000 H      | 1971-90C | Fragment                 | Oct 19     | d USSA             |                    |                                         |
| DELTA 1000 H     | 1971-91A | NOAA 2 ROCKET (DELTA 86) | Oct 2, 63  | 72 Jul 21 USA      | 278 1474 102.53°   | 2nd. 1000 H                             |
| 1000 H           | 1971-91B | Fragment                 | Oct 2, 63  | USA                |                    | FF Project 1705 (Ind. Sp. Tech. Expts.) |
| 1000 H           | 1971-91C | Fragment                 | Oct 2, 63  | USA                |                    |                                         |
| 1000 H           | 1971-91D | Fragment                 | Oct 2, 63  | USA                |                    |                                         |
| 1000 H           | 1971-91E | Fragment                 | Oct 2, 63  | d USA              |                    |                                         |
| 1000 H           | 1971-92A | USAF                     | Oct 23, 72 | 71 Nov 17 USA      | 134 416 110.94°    | Woomera RANGE SITE 5B WMA WMA           |
| 1000 H           | 1971-92B | Fragment                 | Oct 23, 72 | d USA              |                    | TIHAN 30 TITAN 30                       |
| 1000 H           | 1971-93A | PROSPERO                 | Oct 29     | 2070? UK           | 547 1582 82.06°    | Woomera RANGE SITE 5B WMA WMA           |
| 1000 H           | 1971-93B | PROSPERO ROCKET          | Oct 29     | 2070? UK           |                    | 1st UK Launch                           |
| 1000 H           | 1971-93C | Fragment                 | Oct 29     | UK                 |                    | BLACK ARROW                             |
| 1000 H           | 1971-94A | KOZMOG 454               | Nov 2, 60  | 71 Nov 16 USSA     | 210 284 65.4° PL?  | MTEL n                                  |
| 1000 H           | 1971-94B | KOZMOG 454 ROCKET        | Nov 2, 60  | 71 Nov 16 USSA     |                    |                                         |
| 1000 H           | 1971-94C | Fragment                 | Nov 2, 60  | d USSA             |                    |                                         |
| 1000 H           | 1971-94D | KOZMOG 454 CAPSULE       | Nov 2, 60  | 71 Nov 25, 05 USSA | 202 336 65.45° PL? | AZ see Nov 14                           |
| 1000 H           | 1971-94E | Fragment                 | Nov 2, 60  | d USSA             |                    |                                         |
| 1000 H           | 1971-94F | Fragment                 | Nov 2, 60  | d USSA             |                    |                                         |
| 1000 H           | 1971-95A | DSCS 1                   | Nov 3, 63  | USA                | 35265 36465 2.2°   | Woomera RANGE SITE 5B WMA WMA           |
| 1000 H           | 1971-95B | DSCS 2                   | Nov 3, 63  | USA                | 35340 36299 2.28°  | Woomera RANGE SITE 5B WMA WMA           |
| 1000 H           | 1971-95C | TRANSTAGE                | Nov 3, 63  | USA                | 36089 37240 2.63°  | Woomera RANGE SITE 5B WMA WMA           |
| 1000 H           | 1971-96A | EXPLORER 45              | Nov 15 46? | USA                | 233 26405 3.58°    | SMC                                     |
| 1000 H           | 1971-96B | EXPLORER 45 ROCKET       | Nov 15 46? | USA                |                    | SMC                                     |
| 1000 H           | 1971-97A | KOZMOG 455               | Nov 17     | 72 Apr 9, 02 USSA  | 282 491 71.0° PL?  | sci                                     |



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|-----------|------------------------|--------------------------|------|-------------------|--|--|----|----|--|
| 1971-97B  | КОСМОС 455 ROCKET      | Nov 17 72 AB?            | USSR |                   |  |  | PL | BI |  |
| 1971-98A  | КОСМОС 456             | Nov 19, 80 71 Dec 2      | USSR | 218 328 72,8°     |  |  | PL |    |  |
| 1971-98B  | КОСМОС 456 ROCKET      | Nov 19, 80 71 Nov 25     | USSR |                   |  |  | PL |    |  |
| 1971-98C  | Fragment               | Nov 19, 80 d             | USSR |                   |  |  | PL |    |  |
| 1971-98D  | Fragment               | Nov 19, 80 d             | USSR |                   |  |  | PL |    |  |
| 1971-98E  | КОСМОС 456 CAPSULE     | Nov 19, 80 71 Dec 10, 77 | USSR | 187 336 72,84°    |  |  | PL | AZ |  |
| 1971-98F  | Fragment               | Nov 19, 80 d             | USSR |                   |  |  | PL |    |  |
| 1971-98G  | Fragment               | Nov 19, 80 d             | USSR |                   |  |  | PL |    |  |
| 1971-98H  | Fragment               | Nov 19, 80 d             | USSR |                   |  |  | PL |    |  |
| 1971-99A  | КОСМОС 457             | Nov 20 5000?             | USSR | 1192 1229 79,0°   |  |  | PL |    |  |
| 1971-99B  | КОСМОС 457 ROCKET      | Nov 20 5000?             | USSR |                   |  |  | PL |    |  |
| 1971-100A | МОЛНИЯ 2 A             | Nov 24 79 AB?            | USSR | 517 39826 65,4°   |  |  | PL |    |  |
| 1971-100B | МОЛНИЯ 2 A ROCKET      | Nov 24                   | USSR | 466 39827 65,4°   |  |  | PL |    |  |
| 1971-100C | МОЛНИЯ 2 A LAUNCHER    | Nov 24 71 Dec 30         | USSR |                   |  |  | PL |    |  |
| 1971-100D | МОЛНИЯ 2 A HIGH ROCKET | Nov 24 76?               | USSR |                   |  |  | PL |    |  |
| 1971-101A | КОСМОС 458             | Nov 29 72 Apr 20, 83     | USSR | 291 523 70,96°    |  |  | PL | BI |  |
| 1971-101B | КОСМОС 458 ROCKET      | Nov 29 72 AB?            | USSR |                   |  |  | PL |    |  |
| 1971-102A | КОСМОС 459             | Nov 29 71 Dec 2, 65      | USSR | 724 260 65,81°    |  |  | PL |    |  |
| 1971-102B | КОСМОС 459 ROCKET      | Nov 29 71 Dec 11         | USSR |                   |  |  | PL |    |  |
| 1971-102C | Fragment               | Nov 30 79?               | USSR | 520 553 74,0°     |  |  | PL |    |  |
| 1971-103A | КОСМОС 460             | Nov 30 78?               | USSR |                   |  |  | PL |    |  |
| 1971-103B | КОСМОС 460 ROCKET      | Nov 30 78?               | USSR |                   |  |  | PL |    |  |
| 1971-103C | Fragment               | Nov 30                   | USSR |                   |  |  | PL |    |  |
| 1971-104A | ИНТЕРКОСМОС 5          | Dec 2 72 Apr 7, 19       | USSR | 205 1200 48,4°    |  |  | PL | BI |  |
| 1971-104B | ИНТЕРКОСМОС 5 ROCKET   | Dec 2 72 Mar?            | USSR |                   |  |  | PL |    |  |
| 1971-105A | КОСМОС 461             | Dec 2 79?                | USSR | 14903 524 369,23° |  |  | PL |    |  |
| 1971-105B | КОСМОС 461 ROCKET      | Dec 2 78?                | USSR |                   |  |  | PL |    |  |
| 1971-105C | Fragment               | Dec 2                    | USSR |                   |  |  | PL |    |  |
| 1971-105D | Fragment               | Dec 2                    | USSR |                   |  |  | PL |    |  |
| 1971-106A | КОСМОС 462             | Dec 3 75 Apr 4?          | USSR | 237 1840 65,8°    |  |  | PL |    |  |
| 1971-106B | КОСМОС 462 ROCKET      | Dec 3 72 Jan 5           | USSR |                   |  |  | PL |    |  |
| 1971-106C | Fragment               | Dec 3                    | USSR |                   |  |  | PL |    |  |
| 1971-106D | Fragment               | Dec 3                    | USSR |                   |  |  | PL |    |  |



|    |                                                |           |                    |            |                    |                |     |                       |
|----|------------------------------------------------|-----------|--------------------|------------|--------------------|----------------|-----|-----------------------|
| B1 |                                                | 1971-106E | Fragment           | Dec 3      | USSR               |                | TBU |                       |
|    | missile                                        | 1971-106F | Fragment           | "          | "                  | "              | "   |                       |
|    |                                                | 1971-106G | Fragment           | "          | "                  | "              | "   |                       |
|    |                                                | 1971-106H | Fragment           | "          | "                  | "              | "   |                       |
|    |                                                | 1971-106J | Fragment           | "          | "                  | "              | "   |                       |
|    | AZ                                             | 1971-106K | Fragment           | "          | "                  | "              | "   | F1r                   |
|    |                                                | 1971-106L | Fragment           | "          | "                  | "              | "   |                       |
|    |                                                | 1971-106M | Fragment           | "          | "                  | "              | "   |                       |
|    |                                                | 1971-106N | Fragment           | "          | "                  | "              | "   |                       |
|    | 2nd day                                        | 1971-106P | Fragment           | "          | "                  | "              | "   |                       |
|    |                                                | 1971-106Q | Fragment           | "          | "                  | "              | "   |                       |
|    | com                                            | 1971-106R | Fragment           | "          | "                  | "              | "   |                       |
|    |                                                | 1971-106S | Fragment 5         | "          | "                  | "              | "   |                       |
|    |                                                | 1971-107A | KOCMOX 463         | Dec 6, 41  | 71 Dec 11 USSR     | 215 307 65.0°  | TBU | missile Indo-Pakistan |
|    |                                                | 1971-107B | KOCMOX 463 ROCKET  | Dec 6, 41  | 71 Dec 11 USSR     |                | TBU |                       |
|    | B1                                             | 1971-107C | Fragment           | Dec 6, 41  | d USSR             |                | TBU | AZ                    |
|    | Target                                         | 1971-107D | KOCMOX 463 CAPSULE | Dec 6, 41  | 71 Dec 15, 78 USSR | 180 288 64.7°  | TBU | Spec Dec 10           |
|    | F1m                                            | 1971-108A | KOCMOX 464         | Dec 10, 46 | 71 Dec 16 USSR     | 206 405 72.9°  | PL  | missile Indo-Pakistan |
|    |                                                | 1971-108B | KOCMOX 464 ROCKET  | Dec 10, 46 | 71 Dec 24 USSR     |                | PL  |                       |
|    | clint                                          | 1971-108C | Fragment           | Dec 10, 46 | d USSR             |                | PL  | AZ                    |
|    |                                                | 1971-108D | Fragment           | Dec 10, 46 | d USSR             |                | PL  |                       |
|    |                                                | 1971-108E | KOCMOX 464 CAPSULE | Dec 10, 46 | 71 Dec 19, 79 USSR | 166 291 72.8°  | PL  | Spec Dec 15           |
|    | B1                                             | 1971-109A | ARIEL 4            | Dec 11     | 78? UK             | 476 594 52.99° | UK  | miss                  |
|    |                                                | 1971-109B | ARIEL 4 ROCKET     | Dec 11     | 76? USA            |                | USA | Scout                 |
|    | 54?                                            | 1971-109C | Fragment 5         | Dec 11     | USA                |                | USA |                       |
|    | C1                                             | 1971-110A | USAF               | Dec 14     | 2700? USA          | 985 999 70.0°  | USA | Timation              |
|    |                                                | 1971-110B | ROCKET             | Dec 14     | 2800? USA          | 985 999 70.01° | USA | LTAF Agana D          |
|    |                                                | 1971-110C | USAF               | Dec 14     | 2700? USA          | 983 999 70.0°  | USA | LTAF Agana D          |
|    |                                                | 1971-110D | USAF               | Dec 14     | 2700? USA          | 982 999 70.0°  | USA | Timation              |
|    | sat with 1971-109A at 1971 Dec 20 and expended | 1971-110E | USAF               |            |                    |                |     |                       |
|    |                                                | 1971-110A | KOCMOX 465         | Dec 15     | 2700? USSR         | 984 1023 74.0° | PL  | CI Nav.               |
|    |                                                | 1971-110B | KOCMOX 465 ROCKET  | Dec 15     | 2600? USSR         |                | PL  |                       |
|    |                                                | 1971-112A | KOCMOX 466         | Dec 16, 41 | 71 Dec 27 USSR     | 207 302 65.0°  | PL? | missile               |



1971  
1972

| Year      | Object                  | Date       | Country     | Altitude (km) | Speed (km/s) | Angle (°) | Notes |
|-----------|-------------------------|------------|-------------|---------------|--------------|-----------|-------|
| 1971-112B | Kosmos 466 ROCKET       | Dec 16, 41 | USSR        |               |              |           |       |
| 1971-112C | Kosmos 466 CAPSULE      | Dec 16, 41 | USSR        | 173           | 355          | 65, 01°   | PC?   |
| 1971-112D | Fragment                | Dec 16, 41 | USSR        |               |              |           | PC?   |
| 1971-113A | Kosmos 467              | Dec 17     | USSR        | 274           | 502          | 71, 0°    | PC?   |
| 1971-113B | Kosmos 467 ROCKET       | Dec 17     | USSR        |               |              |           | PC?   |
| 1971-114A | Kosmos 468              | Dec 17     | USSR        | 788           | 830          | 74, 0°    | PC?   |
| 1971-114B | Kosmos 468 ROCKET       | Dec 17     | USSR        |               |              |           | PC?   |
| 1971-115A | Molniya 1 U             | Dec 19     | USSR        | 499           | 39155        | 65, 42°   | PC?   |
| 1971-115B | Molniya 1 U LAUNCHER    | Dec 19     | USSR        |               |              |           | PC?   |
| 1971-115C | Molniya 1 U ROCKET      | Dec 19     | USSR        |               |              |           | PC?   |
| 1971-115D | Molniya 1 U HIGH ROCKET | Dec 19     | USSR        |               |              |           | PC?   |
| 1971-116A | Intelsat 4 B            | Dec 20, 05 | USA         | 35915         | 35940        | 0, 30°    | PC?   |
| 1971-116B | Intelsat 4 B ROCKET     | Dec 20, 05 | USA         | 550           | 35926        | 28, 23°   | PC?   |
| 1971-117A | Kosmos 469              | Dec 25     | USSR        | 259           | 276          | 65, 0°    | PC?   |
| 1971-117C | Kosmos 469 PLATFORM     | Dec 25     | USSR        | 1820          | 940          | 65, 0°    | PC?   |
| 1971-117B | Kosmos 469 ROCKET       | Dec 25     | USSR        |               |              |           | PC?   |
| 1971-118A | Kosmos 470              | Dec 29, 59 | USSR        | 195           | 259          | 65, 42°   | PC?   |
| 1971-118B | Kosmos 470 ROCKET       | Dec 29, 59 | USSR        |               |              |           | PC?   |
| 1971-118C | Kosmos 470 CAPSULE      | Dec 29, 59 | USSR        | 183           | 211          | 65, 43°   | PC?   |
| 1971-118D | Fragment                | Dec 29, 59 | USSR        |               |              |           | PC?   |
| 1971-118E | Fragment                | Dec 29, 59 | USSR        |               |              |           | PC?   |
| 1971-119A | Aurora 1                | Dec 27     | USSR/FRANCE | 410           | 2500         | 74°       | PC?   |
| 1971-119B | Aurora 1 ROCKET         | Dec 27     | USSR        |               |              |           | PC?   |
| 1971-119C | Fragment                | Dec 29     | USSR        | 877           | 887          | 81, 26°   | PC?   |
| 1971-120A | METEOR 10               | Dec 29     | USSR        |               |              |           | PC?   |
| 1971-120B | METEOR 10 ROCKET        | Dec 29     | USSR        |               |              |           | PC?   |
| 1972-01A  | Kosmos 471              | Jan 12, 42 | USSR        | 202           | 323          | 64, 19°   | PC?   |
| 1972-01B  | Kosmos 471 ROCKET       | Jan 12, 42 | USSR        |               |              |           | PC?   |
| 1972-01C  | Fragment                | Jan 12, 42 | USSR        |               |              |           | PC?   |
| 1972-01D  | Fragment                | Jan 12, 42 | USSR        |               |              |           | PC?   |
| 1972-01E  | Fragment                | Jan 12, 42 | USSR        |               |              |           | PC?   |
| 1972-01F  | Fragment                | Jan 12, 42 | USSR        |               |              |           | PC?   |
| 1972-01G  | Kosmos 471 CAPSULE      | Jan 12, 42 | USSR        | 181           | 270          | 61, 18°   | PC?   |



|                                |                              |                       |                                |                     |                   |                     |                                                        |            |
|--------------------------------|------------------------------|-----------------------|--------------------------------|---------------------|-------------------|---------------------|--------------------------------------------------------|------------|
| 2. } A2<br>1. } feeder 26<br>? | 1972-02A                     | USAF                  | Jan 20 72 Aug 29 USA           | 156 332 477 97°     | WTR<br>SCC 4E     | } TITAN 3D          | Big Bird 2<br>Nov 5769                                 |            |
|                                | 1972-02B                     | ROCKET                | Jan 20 72 Jan 23 USSR          |                     | WTR               |                     | Nov 5770                                               |            |
|                                | 1972-02C                     | Fragment              | Jan 20 1 USA                   |                     | WTR               |                     | Nov 5771                                               |            |
|                                | 1972-02D                     | USAF                  | Jan 20 75? USA                 | 472 549 96.59°      | WTR               |                     | elint? m 59<br>Nov 5772                                |            |
| 2. } B1 sci                    | 1972-03A                     | INTERSAT 4C           | Jan 23, 71 -                   | WTR 35784 35790 96° | KSC<br>CC-368     | } ATLAS<br>CENTAUR  | Com Pacific<br>Nov 5773<br>AC-28<br>Nov 5716           |            |
|                                | 1972-03B                     | INTERSAT 4C ROCKET    | Jan 23, 71 8000? USA           | 562 36614 28.02°    | KSC               |                     |                                                        |            |
| } A<br>1. } elint?             | 1972-04A                     | KOCONOC 472           | Jan 28 72 Aug 18, 95 USSR      | 195 1537 83.01°     | PC<br>SCC 4E      | } B1<br>PC          | Sci?<br>Nov 5804                                       |            |
|                                | 1972-04B                     | KOCONOC 472 ROCKET    | Jan 28 72 Aug 18 USSR          |                     |                   |                     |                                                        |            |
| } A2e<br>1. } com<br>2. } AC   | 1972-05A                     | HEOS 2                | Jan 31 75 ES 405 240164 89.91° | WTR<br>SCC 4E       | } DELTA           | HEOS A2<br>Nov 5814 |                                                        |            |
|                                | 1972-05B                     | HEOS 2 ROCKET ST. 2   | Jan 31 76 USA                  |                     |                   | WTR                 | Delta 87                                               |            |
| } A2e<br>1. } com<br>2. } AC   | 1972-05C                     | HEOS 2 ROCKET ST. 3   | Jan 31 75 USA                  |                     | WTR               | } AC                | Delta<br>Nov 5821<br>Recr                              |            |
|                                | 1972-06A                     | KOCONOC 473           | Feb 3 72 Aug 15, 26 USSR       | 209 333 65°         | TOI               |                     |                                                        |            |
|                                | 1972-06B                     | KOCONOC 473 ROCKET    | Feb 3 72 Feb 11 USSR           |                     | TOI               |                     |                                                        |            |
|                                | 1972-07A                     | LYHA 20               | Feb 14, 14 (SSC) USSR          |                     | TOI               | } AC                | see LUNAR<br>PROBES<br>Nov 5835<br>Sputnik 60<br>5832? |            |
| } A2e<br>1. } com<br>2. } AC   | 1972-07B                     | LYHA 20 ROCKET        | Feb 14, 14 72 Feb 18 USSR      |                     | TOI               |                     |                                                        |            |
|                                | 1972-07C                     | LYHA 20 LAUNCHER      | Feb 14, 14 72 Feb 18 USSR      |                     | TOI               |                     |                                                        |            |
|                                | 1972-07D                     | LYHA 20 RETRO?        | Feb 14, 14 USSR                |                     | TOI               |                     | 5832?                                                  |            |
| } A2e<br>1. } com<br>2. } AC   | 1972-07E                     | LYHA 20 ASCENT STAGE  | Feb 14, 14                     | see LUNAR PROBES    |                   | } AC                | Nov 5841                                               |            |
|                                | 1972-07F                     | LYHA 20 DESCENT SPACE | Feb 14, 14                     |                     |                   |                     |                                                        |            |
|                                | 1972-08A                     | KOCONOC 474           | Feb 16, 40 72 Feb 29 USSR      | 213 317 64.97°      | TOI               |                     | 5839 5840?                                             |            |
|                                | 1972-08B                     | KOCONOC 474 ROCKET    | Feb 16, 40 72 Feb 23 USSR      |                     | TOI               |                     |                                                        |            |
| } A2e<br>1. } com<br>2. } AC   | 1972-08C                     | Fragment              | Feb 16, 40 1 USSR              |                     | TOI               | } AC                | 5840?                                                  |            |
|                                | 1972-08D                     | Fragment              | Feb 16, 40 1 USSR              |                     | TOI               |                     | 5840?                                                  |            |
|                                | 1972-08E                     | KOCONOC 474 CAPSULE   | Feb 16, 40 72 Mar 7 USSR       | 401 64.95°          | TOI               |                     | 5840? Dec 16 28                                        |            |
|                                | 1972-07A(ii)                 | LYHA 20               | Feb 22, 96 72 Feb 25, 80 USSR  | barycentric orbit   |                   |                     | 5840? Dec 16 28                                        |            |
| } A2e<br>1. } com<br>2. } AC   | 1972-07E(ii)                 | LYHA 20 ASCENT STAGE  | Feb 22, 96 72 Feb 25, 77 USSR  | barycentric orbit   |                   | } AC                | 5840? Dec 16 28                                        |            |
|                                | 1972-09A                     | KOCONOC 475           | Feb 25 3200° USSR              | 977 1013 74°        | PC                |                     | Nov 5846                                               |            |
|                                | 1972-09B                     | KOCONOC 475 ROCKET    | Feb 25 2600° USSR              |                     | PC                |                     | 5847?                                                  |            |
|                                | } A2e<br>1. } com<br>2. } AC | 1972-10A              | IMVUS 3                        | Mar 1, 76 - USA     | 35851 35840 0.87° | KSC                 | } TITAN 3C-18                                          | 5851<br>EW |
| 1972-10B                       |                              | TRANSFORMER           | Mar 1, 76 - USA                | 35851 35840 0.87°   | KSC               | 5854                |                                                        |            |
| 1972-11A                       |                              | KOCONOC 476           | Mar 1, 47 2030? USSR           | 617 633 81.23°      | PC                | 5854                |                                                        |            |
| 1972-11B                       |                              | KOCONOC 476 ROCKET    | Mar 1, 47 2030? USSR           |                     | PC                | 5854                |                                                        |            |

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1972

|          |                           |                         |                       |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |
|----------|---------------------------|-------------------------|-----------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1972-12A | PIONEER 10                | Mar 3, 08 (DHC)         | USA 158 74789 3160°   | KSC<br>CG 36A | } AMAS<br>CENTRAL<br>SP10<br>SP11<br>SP12<br>SP13<br>SP14<br>SP15<br>SP16<br>SP17<br>SP18<br>SP19<br>SP20<br>SP21<br>SP22<br>SP23<br>SP24<br>SP25<br>SP26<br>SP27<br>SP28<br>SP29<br>SP30<br>SP31<br>SP32<br>SP33<br>SP34<br>SP35<br>SP36<br>SP37<br>SP38<br>SP39<br>SP40<br>SP41<br>SP42<br>SP43<br>SP44<br>SP45<br>SP46<br>SP47<br>SP48<br>SP49<br>SP50<br>SP51<br>SP52<br>SP53<br>SP54<br>SP55<br>SP56<br>SP57<br>SP58<br>SP59<br>SP60<br>SP61<br>SP62<br>SP63<br>SP64<br>SP65<br>SP66<br>SP67<br>SP68<br>SP69<br>SP70<br>SP71<br>SP72<br>SP73<br>SP74<br>SP75<br>SP76<br>SP77<br>SP78<br>SP79<br>SP80<br>SP81<br>SP82<br>SP83<br>SP84<br>SP85<br>SP86<br>SP87<br>SP88<br>SP89<br>SP90<br>SP91<br>SP92<br>SP93<br>SP94<br>SP95<br>SP96<br>SP97<br>SP98<br>SP99<br>SP100 | SP10 |
| 1972-12B | PIONEER 10 ROCKET STAGE 2 | Mar 3, 08 (DHC)         | USA 158 74789 3160°   | KSC           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP11 |
| 1972-12C | PIONEER 10 ROCKET STAGE 2 | Mar 3, 08 (DHC)         | USA 158 74789 3160°   | KSC           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP12 |
| 1972-13A | KOCMOC 477                | Mar 4, 42 72 Mar 16     | USSR 212 328 729°     | PL            | } AL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SP13 |
| 1972-13B | KOCMOC 477 ROCKET         | Mar 4, 42 72 Mar 16     | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP14 |
| 1972-13C | Fragment                  | Mar 4, 42 d             | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP15 |
| 1972-13D | Fragment                  | Mar 4, 42 d             | USSR                  | PL            | } AL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SP16 |
| 1972-13E | KOCMOC 477 CAPSULE        | Mar 4, 42 72 Mar 23, 49 | USSR 199 282 729°     | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP17 |
| 1972-13F | Fragment                  | Mar 4, 42 d             | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP18 |
| 1972-14A | TD-1A                     | Mar 12 92?              | ESRO 552 575 97,53°   | WTR<br>AL 25  | } WTR<br>AL 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SP19 |
| 1972-14B | TD-1A ROCKET              | Mar 12 82?              | USA                   | WTR           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP20 |
| 1972-14C | Fragment                  | Mar 12                  | USA                   | WTR           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP21 |
| 1972-14D | Fragment 5                | Mar 12                  | USA                   | WTR           | } WTR<br>AL 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SP22 |
| 1972-15A | KOCMOC 478                | Mar 15 72 Mar 28        | USSR 213 319 65,4°    | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP23 |
| 1972-15B | KOCMOC 478 ROCKET         | Mar 15 72 Mar 28        | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP24 |
| 1972-15C | Fragment                  | Mar 15 d                | USSR                  | PL            | } AL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SP25 |
| 1972-15D | Fragment                  | Mar 15 d                | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP26 |
| 1972-15E | Fragment                  | Mar 15 d                | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP27 |
| 1972-15F | KOCMOC 478 CAPSULE        | Mar 15 72 Mar 30        | USSR 189 345 65,42°   | PL            | } WTR<br>AL 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SP28 |
| 1972-16A | USAF                      | Mar 17 72 April         | USA 131 409 110, 98°  | WTR<br>AL 44  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP29 |
| 1972-17A | KOCMOC 479                | Mar 22 29?              | USSR 577 549 74°      | PL            | } CI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SP30 |
| 1972-17B | KOCMOC 479 ROCKET         | Mar 22 78?              | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP31 |
| 1972-17C | Fragment                  | Mar 22                  | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP32 |
| 1972-17D | Fragment                  | Mar 22                  | USSR                  | PL            | } CI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SP33 |
| 1972-17E | Fragment                  | Mar 22                  | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP34 |
| 1972-18A | USAF                      | Mar 24 2070?            | USA 803 885 98,8°     | WTR<br>AL 44  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP35 |
| 1972-18B | ROCKET                    | Mar 24 2030?            | USA                   | WTR<br>AL 44  | } CI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SP36 |
| 1972-19A | KOCMOC 480                | Mar 25 2000?            | USSR 1175 1203 82,97° | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP37 |
| 1972-19B | KOCMOC 480 ROCKET         | Mar 25 2000?            | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP38 |
| 1972-20A | KOCMOC 481                | Mar 25 72 202,84        | USSR 279, 540 71°     | PL            | } CI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SP39 |
| 1972-20B | KOCMOC 481 ROCKET         | Mar 25 72 202,84        | USSR                  | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP40 |
| 1972-21A | BEHERA 8                  | Mar 27 (DHC)            | USSR 141 222 51,78°   | PL            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SP41 |



|                       |          |                              |           |           |                     |        |       |        |    |       |                     |  |
|-----------------------|----------|------------------------------|-----------|-----------|---------------------|--------|-------|--------|----|-------|---------------------|--|
| SP60                  | 1972-21B | BEHEA 8 LAUNCHER             | Mar 27    | 72 Mar 29 | USA                 | 191    | 222   | 57,78° | TL | } A2e | Sputnik 61<br>5913? |  |
| ARTIFICIAL<br>PLANETS | 1972-21C | BEHEA 8 ROCKET               | Mar 27    | 72 Mar 29 | USA                 |        |       |        | TL |       | 5916?               |  |
| 5878<br>46-27         | 1972-21D | see ARTIFICIAL PLANETS       |           |           |                     |        |       |        |    |       |                     |  |
| 1972-21F              |          |                              |           |           |                     |        |       |        |    |       |                     |  |
| 5863?                 | 1972-22A | METEOP II                    | Mar 30    | 2800?     | USA                 | 860    | 890   | 81,23° | PL | } A1  | met 5917            |  |
| 5880?                 | 1972-22B | METEOP II ROCKET             | Mar 30    | 2900?     | USA                 |        |       |        | PL |       | 5918?               |  |
| 5881?                 | 1972-23A | KOZMOC 482                   | Mar 31    | 78?       | USA                 | 179    | 237   | 52°    | TL | } A2e | failed launch 5919  |  |
| 5882<br>see Mar 15    | 1972-23B | KOZMOC 482 ROCKET            | Mar 31    | 72 Apr 2  | USA                 | 179    | 237   | 52°    | TL |       | 5920?               |  |
| 5883?                 | 1972-23C | KOZMOC 482 LAUNCHER          | Mar 31    | 72 Apr 2  | USA                 | 179    | 237   | 52°    | TL |       | 5921?               |  |
| 5884                  | 1972-23D | KOZMOC 482 HIGH ROCKET       | Mar 31    | 78?       | USA                 | 210    | 283   | 52°    | TL | } A2e | 5922?               |  |
| 5885<br>+ Delta 88    | 1972-23E | Fragment                     | Apr 3, 43 | 72 Apr 15 | USA                 | 212    | 345   | 72,9°  | PL |       | 5923?               |  |
| 5886                  | 1972-24A | KOZMOC 483                   | Apr 3, 43 | 72 Apr 11 | USA                 |        |       |        | PL | } A2e | REC. 5924           |  |
| 5887                  | 1972-24B | KOZMOC 483 ROCKET            | Apr 3, 43 | 72 Apr 11 | USA                 |        |       |        | PL |       | 5925?               |  |
| 5888                  | 1972-24C | Fragment                     | Apr 3, 43 | d         | USA                 |        |       |        | PL | } A2e | 5926?               |  |
| 5889                  | 1972-24D | KOZMOC 483 CAPSULE           | Apr 3, 43 | 72 Apr 13 | USA                 | 180    | 315   | 72,9°  | PL |       | 5927?               |  |
| 5890                  | 1972-24E | Fragment                     | Apr 3, 43 | d         | USA                 |        |       |        | PL | } A2e | 5928?               |  |
| 5891                  | 1972-25A | МОЛНИЯ 1 V                   | Apr 4     | 72?       | USA                 | 480    | 39260 | 65,6°  | TL |       | com 5929            |  |
| 5892                  | 1972-25B | SRET 1                       | Apr 4     | 72?       | FRANCE              | 480    | 39260 | 65,6°  | TL | } A2e | Environmental       |  |
| 5893                  | 1972-25C | МОЛНИЯ 1 V LAUNCHER          | Apr 4     | 72 May 7  | USA                 |        |       |        | TL |       | 5930?               |  |
| 5894                  | 1972-25D | МОЛНИЯ 1 V <del>ROCKET</del> | Apr 4     | 72 Apr 28 | USA                 |        |       |        | TL | } A2e | 5931?               |  |
| 5895                  | 1972-25E | Fragment                     | Apr 4     | d         | USA                 |        |       |        | TL |       | 5932?               |  |
| 5896                  | 1972-25F | Fragment                     | Apr 4     | d         | USA                 |        |       |        | TL | } A2e | 5933?               |  |
| 5897                  | 1972-26A | KOZMOC 484                   | Apr 6, 34 | 72 Apr 18 | USA                 | 203    | 236   | 51,3°  | PL |       | 5934?               |  |
| 5898                  | 1972-26B | KOZMOC 484 ROCKET            | Apr 6, 34 | d         | USA                 |        |       |        | PL | } A2e | 5935?               |  |
| 5899                  | 1972-26C | KOZMOC 484 CAPSULE           | Apr 6, 34 | 72 Apr 18 | USA                 | 170    | 174   | 81,3°  | PL |       | 5936?               |  |
| 5900                  | 1972-27A | ИНТЕРКОСМОС 6                | Apr 7     | 72 Apr 11 | INTERKOSMOS<br>USSR | 203    | 236   | 51,8°  | TL | } A2e | 5937?               |  |
| 5901                  | 1972-27B | ИНТЕРКОСМОС 6 ROCKET         | Apr 7     | 72 Apr 10 | USA                 |        |       |        | TL |       | 5938?               |  |
| 5902                  | 1972-28A | KOZMOC 485                   | Apr 11    | 72 Aug 30 | USA                 | 280    | 506   | 71°    | PL | } B1  | 5939?               |  |
| 5903                  | 1972-28B | KOZMOC 485 ROCKET            | Apr 11    | 72 Jun 16 | USA                 |        |       |        | PL |       | 5940?               |  |
| 5904                  | 1972-29A | ПРОГНОЗ 1                    | Apr 14    | 72?       | USA                 | 194667 | 65,0° | TL     | PL | } A2e | Solved 5941         |  |
| 5905                  | 1972-29B | ПРОГНОЗ 1 LAUNCHER           | Apr 14    | 72 May 18 | USA                 |        |       |        | PL |       | 5942?               |  |
| 5906                  | 1972-29C | ПРОГНОЗ 1 <del>ROCKET</del>  | Apr 14    | 72 May 11 | USA                 |        |       |        | PL | } A2e | 5943?               |  |
| 5907                  | 1972-29D | Fragment                     | Apr 14    | d         | USA                 |        |       |        | PL |       |                     |  |

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| Item     | Notes                 | Altitude (ft) | Speed (ft/sec) | Angle (deg) | Other | Remarks |
|----------|-----------------------|---------------|----------------|-------------|-------|---------|
| 1972-29E | Fragment              | 172-29E       |                |             |       |         |
| 1972-29F | ПРОГНОЗ 1 HIGH KOKKET | 172-29F       |                |             |       |         |
| 1972-30A | KOCMOC 486            | 172-30A       |                |             |       |         |
| 1972-30B | KOCMOC 486 ROCKET     | 172-30B       |                |             |       |         |
| 1972-30C | Fragment              | 172-30C       |                |             |       |         |
| 1972-30D | Fragment              | 172-30D       |                |             |       |         |
| 1972-30E | Fragment              | 172-30E       |                |             |       |         |
| 1972-30F | KOCMOC 486 CAPSULE    | 172-30F       |                |             |       |         |
| 1972-31A | CASPER (APOLLO 16)    | 172-31A       |                |             |       |         |
| 1972-31B | SATURN AS-STI         | 172-31B       |                |             |       |         |
| 1972-31C | ORION                 | 172-31C       |                |             |       |         |
| 1972-31D | APOLLO SUBSATELLITE 2 | 172-31D       |                |             |       |         |
| 1972-31E | ORION DESCENT STAGE   | 172-31E       |                |             |       |         |
| 1972-31F | SLA PANEL 1           | 172-31F       |                |             |       |         |
| 1972-31G | SLA PANEL 2           | 172-31G       |                |             |       |         |
| 1972-31H | SLA PANEL 3           | 172-31H       |                |             |       |         |
| 1972-31J | SLA PANEL 4           | 172-31J       |                |             |       |         |
| 1972-31K | CASPER SIMBAY PANEL   | 172-31K       |                |             |       |         |
| 1972-31L | LRV 2                 | 172-31L       |                |             |       |         |
| 1972-31M |                       | 172-31M       |                |             |       |         |
| 1972-31N |                       | 172-31N       |                |             |       |         |
| 1972-32A | USAF                  | 172-32A       |                |             |       |         |
| 1972-33A | KOCMOC 487            | 172-33A       |                |             |       |         |
| 1972-33B | KOCMOC 487 ROCKET     | 172-33B       |                |             |       |         |
| 1972-33C | Fragment              | 172-33C       |                |             |       |         |
| 1972-33D | ORION                 | 172-33D       |                |             |       |         |
| 1972-34A | KOCMOC 488            | 172-34A       |                |             |       |         |
| 1972-34B | KOCMOC 488 ROCKET     | 172-34B       |                |             |       |         |
| 1972-34C | Fragment              | 172-34C       |                |             |       |         |
| 1972-34D | Fragment              | 172-34D       |                |             |       |         |
| 1972-34E | KOCMOC 488 CAPSULE    | 172-34E       |                |             |       |         |
| 1972-34F | Fragment              | 172-34F       |                |             |       |         |
| 1972-34G | Fragment              | 172-34G       |                |             |       |         |



|                           |            |                        |        |               |      |       |             |    |                     |
|---------------------------|------------|------------------------|--------|---------------|------|-------|-------------|----|---------------------|
|                           | 1972-34H   | Fragment               | May 5  | d             | USSR |       | PC          |    |                     |
| 9944?                     | 1972-35A   | KOСMOC 489             | May 6  | 2600?         | USSR | 980   | 1010 74°    | PC | 6019                |
| miss 3945                 | 1972-35B   | KOСMOC 489 ROCKET      | May 6  | 2600?         | USSR |       |             | PC | 6020?               |
|                           | 1972-36A   | KOСMOC 490             | May 17 | 72 May 29     | USSR | 202   | 310 65,4°   | PC | 6021                |
|                           | 1972-36B   | KOСMOC 490 ROCKET      | May 17 | 72 May 23     | USSR |       |             | PC | 6022?               |
|                           | 1972-36C   | Fragment               | May 17 | d             | USSR |       |             | PC | 6023?               |
|                           | 1972-36D   | KOСMOC 490 CAPSULE     | May 17 | 72 Jun 6      | USSR | 202   | 268 65,39°  | PC | 6040<br>Ejec May 27 |
| 6012                      | 1972-37A   | МОЛНИЯ 2 B             | May 19 | 77?           | USSR | 460   | 39300 65,5° | PC | 6031                |
| see SPACE SHIPS           | 1972-37B   | МОЛНИЯ 2 B LAUNCHER    | May 19 | 72 Jun 9      | USSR |       |             | PC | 6032?               |
| see SPACE SHIPS           | 1972-37C   | МОЛНИЯ 2 B ROCKET      | May 19 | 72 Jun 8      | USSR |       |             | PC | 6033?               |
| 6001                      | 1972-37D   | МОЛНИЯ 2 B HIGH ROCKET | May 19 | 77?           | USSR |       |             | PC | 6034?               |
| see SPACE SHIPS           | 1972-37D-F | Fragment               |        |               |      |       |             |    |                     |
| 6004                      | 1972-38A   | KOСMOC 491             | May 25 | 72 Jun 2      | USSR | 210   | 303 65°     | PC | 6035                |
| see SPACE SHIPS           | 1972-38B   | KOСMOC 491 ROCKET      | May 25 | 72 May 30     | USSR |       |             | PC | 6036?               |
| see Apollo 16             | 1972-38C   | Fragment               | May 25 | d             | USSR |       |             | PC | 6047                |
| see Apollo 16             | 1972-38D   | Fragment               | May 25 | d             | USSR |       |             | PC | 6048                |
|                           | 1972-38E   | KOСMOC 491 CAPSULE     | May 25 | 72 Jun 11, 53 | USSR | 173   | 327 67,97°  | PC | 6049                |
|                           | 1972-38F   | Fragment               |        |               |      |       |             |    |                     |
|                           | 1972-38A   | USAF                   | May 25 | 72 Jun 4      | USA  | 158   | 306 96,34°  | PC | 6037                |
| blown off<br>first to 601 | 1972-40A   | KOСMOC 492             | Jun 9  | 72 Jun 22     | USSR | 209   | 342 65°     | PC | 6049                |
|                           | 1972-40B   | KOСMOC 492 ROCKET      | Jun 9  | 72 Jun 15     | USSR |       |             | PC | 6050?               |
|                           | 1972-40C   | Fragment               | Jun 9  | d             | USSR |       |             | PC | 6051?               |
|                           | 1972-40D   | KOСMOC 492 CAPSULE     | Jun 9  | 72 Jun 22, 8  | USSR | 180   | 306 64,96°  | PC | 6052?               |
| Thorbena 134              | 1972-40E   | Fragment               |        |               |      |       |             |    |                     |
| 6003                      | 1972-41A   | INTERSAT 4 D           | Jun 13 |               | USA  | 35760 | 35792 0,5°  | PC | 6052                |
| see 6006                  | 1972-41B   | INTERSAT 4 D ROCKET    | Jun 13 | 9000?         | USA  | 548   | 36570 27°   | PC | 6053                |
| 60072                     | 1972-42A   | KOСMOC 493             | Jun 21 | 72 Jun 25     | USSR | 213   | 358 65°     | PC | 6054?               |
|                           | 1972-42B   | KOСMOC 493 ROCKET      | Jun 21 | 72 Jun 25     | USSR |       |             | PC | 6055?               |
| see 6016                  | 1972-42C   | Fragment               | Jun 21 | d             | USSR |       |             | PC | 6056?               |
| 6012?                     | 1972-43A   | KOСMOC 494             | Jun 23 | 2090?         | USSR | 791   | 829 74°     | PC | 6057                |
| 6018?                     | 1972-43B   | KOСMOC 494 ROCKET      | Jun 23 | 2070?         | USSR |       |             | PC | 6058?               |
|                           | 1972-43C   | Fragment               | Jun 23 |               | USSR |       |             | PC | 6059                |
| * Eject May 17            | 1972-43D   | Fragment               | Jun 23 |               | USSR |       |             | PC | 6060                |
|                           | 1972-44A   | KOСMOC 495             | Jun 23 | 72 Jun 6      | USSR | 206   | 298 65,4°   | PC | 6060                |
|                           | 1972-44B   | KOСMOC 495 ROCKET      | Jun 23 | 72 Jun 29     | USSR |       |             | PC | 6060                |



1972

|          |                         |                  |      |      |      |        |       |               |          |
|----------|-------------------------|------------------|------|------|------|--------|-------|---------------|----------|
| 1972-44C | Fragment                | Jun 23           | USSR |      |      |        |       |               | 1972-541 |
| 1972-44D | KO-MOC 495 CAPSULE      | 172 Jun 27, 8    | USSR | 165  | 283  | 65,4°  | PC    |               | 1972-541 |
| 1972-44E | Fragment                | Jun 23           |      |      |      |        |       |               | 1972-541 |
| 1972-45A | KO-MOC 496              | Jun 26 72 Jun 26 | USSR | 195  | 342  | 57,6°  | TC    | VM Soyuz test | 1972-541 |
| 1972-45B | KO-MOC 496 ROCKET       | Jun 29 72 Jul 5  | USSR |      |      |        | TC    |               | 1972-541 |
| 1972-45C | Fragment                |                  |      |      |      |        |       |               | 1972-541 |
| 1972-46A | ПРОГНОЗ 2               | Jun 29           | USSR | 577  | 201  | 804    | 65,8° | TC            | 1972-541 |
| 1972-46B | ПРОГНОЗ 2 ROCKET        | Jun 29 72 Jul    | USSR |      |      |        | TC    |               | 1972-541 |
| 1972-46C | ПРОГНОЗ 2 LAUNCHER      | Jun 29 72 Jul?   | USSR |      |      |        | TC    |               | 1972-541 |
| 1972-46D | Fragment                |                  |      |      |      |        |       |               | 1972-541 |
| 1972-46E | ПРОГНОЗ 2 HIGH LAUNCHER | Jun 29 82        | USSR |      |      |        | TC    |               | 1972-55  |
| 1972-47A | ИНТЕРКОСМОС 7           | Jun 30 72        | USSR | 267  | 568  | 44,4°  | TC    | 6075          | 1972-55  |
| 1972-47B | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47C | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47D | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47E | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47F | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47G | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47H | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47I | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47J | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47K | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47L | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47M | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47N | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47O | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47P | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47Q | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47R | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47S | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47T | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47U | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47V | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47W | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47X | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47Y | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-47Z | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48A | KO-MOC 497              | Jun 30 73        | USSR | 282  | 812  | 71°    | TC    | 6076          | 1972-55  |
| 1972-48B | KO-MOC 497 ROCKET       | Jun 30 73        | USSR |      |      |        | TC    |               | 1972-55  |
| 1972-48C | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48D | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48E | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48F | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48G | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48H | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48I | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48J | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48K | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48L | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48M | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48N | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48O | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48P | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48Q | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48R | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48S | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48T | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48U | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48V | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48W | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48X | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48Y | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-48Z | Fragment                |                  |      |      |      |        |       |               | 1972-55  |
| 1972-49A | METEOR 12               | Jun 30 2500?     | USSR | 5812 | 929  | 81,2°  | TC    | 6077          | 1972-56  |
| 1972-49B | METEOR 12 ROCKET        | Jun 30 2400?     | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-50A | KO-MOC 498              | Jul 5 72         | USSR | 282  | 571  | 71°    | TC    | 6078          | 1972-56  |
| 1972-50B | KO-MOC 498 ROCKET       | Jul 5 72         | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-51A | KO-MOC 499              | Jul 6 72         | USSR | 209  | 283  | 57,6°  | TC    | 6079          | 1972-56  |
| 1972-51B | KO-MOC 499 ROCKET       | Jul 6 72         | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-51C | Fragment                | Jul 6            | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-51D | Fragment                | Jul 6            | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-51E | KO-MOC 499 CAPSULE      | Jul 6 72         | USSR | 171  | 269  | 51,7°  | TC    | 6080          | 1972-56  |
| 1972-51F | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51G | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51H | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51I | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51J | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51K | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51L | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51M | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51N | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51O | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51P | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51Q | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51R | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51S | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51T | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51U | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51V | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51W | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51X | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51Y | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-51Z | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52A | USAF                    | Jul 7 72         | USA  | 174  | 257  | 96,88° | TC    | 6081          | 1972-56  |
| 1972-52B | ROCKET                  | Jul 7 72         | USA  |      |      |        | TC    |               | 1972-56  |
| 1972-52C | USAF                    | Jul 7 72         | USA  | 497  | 504  | 94,5°  | TC    | 6082          | 1972-56  |
| 1972-52D | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52E | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52F | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52G | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52H | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52I | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52J | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52K | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52L | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52M | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52N | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52O | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52P | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52Q | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52R | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52S | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52T | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52U | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52V | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52W | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52X | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52Y | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-52Z | Fragment                |                  |      |      |      |        |       |               | 1972-56  |
| 1972-53A | KO-MOC 500              | Jul 10 79?       | USSR | 509  | 584  | 74°    | TC    | 6083          | 1972-56  |
| 1972-53B | KO-MOC 500 ROCKET       | Jul 10 79?       | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53C | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53D | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53E | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53F | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53G | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53H | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53I | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53J | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53K | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53L | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53M | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53N | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53O | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53P | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53Q | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53R | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53S | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53T | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53U | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53V | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53W | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53X | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53Y | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-53Z | Fragment                | Jul 10           | USSR |      |      |        | TC    |               | 1972-56  |
| 1972-54A | KO-MOC 501              | Jul 12 79        | USSR | 222  | 2149 | 48,5°  | TC    | 6084          | 1972-56  |
| 1972-54B | KO-MOC 501              | Jul 12 79        | USSR |      |      |        | TC    |               | 1972-56  |



|                      |          |                    |        |           |                     |    |        |                    |
|----------------------|----------|--------------------|--------|-----------|---------------------|----|--------|--------------------|
|                      | 1972-54C | Fragment           | Jul 12 | d         | USSR                | KY |        |                    |
| see Jul 5            | 1972-54D | Fragment           | Jul 12 | d         | USSR                | KY | B1     |                    |
| 6086<br>m Soyuz test | 1972-54E | Fragment           | Jul 12 | d         | USSR                | KY |        | 66                 |
|                      | 1972-54F | Fragment           | Jul 12 | d         | USSR                | KY |        |                    |
| Soland 6089          | 1972-54G | Fragment           | Jul 12 | d         | USSR                | KY |        |                    |
|                      | 1972-54H | Fragment           | Jul 12 | d         | USSR                | KY |        |                    |
|                      | 1972-54J | Fragment           | Jul 12 | d         | USSR                | KY |        |                    |
|                      | 1972-55A | KOCMOC 502         | Jul 13 | 72 Jul 25 | USSR 208 284 65.4°  | PL |        | 6105 rec           |
| see 6075             | 1972-55B | KOCMOC 502 ROCKET  | Jul 13 | 72 Jul 18 | USSR                | PL |        |                    |
|                      | 1972-55C | Fragment           | Jul 13 | d         | USSR                | PL | A2     |                    |
| see 6076             | 1972-55D | Fragment           | Jul 13 | d         | USSR                | PL |        |                    |
|                      | 1972-55E | KOCMOC 502 CAPSULE | Jul 13 | 72 Jul 26 | USSR 171 233 65.39° | PL |        | 6129<br>see Jul 25 |
| met 6079             | 1972-56A | KOCMOC 503         | Jul 19 | 72 Aug 1  | USSR 209 304 65.4°  | PL |        | 6114<br>rec        |
|                      | 1972-56B | KOCMOC 503 ROCKET  | Jul 19 | 72 Jul 26 | USSR                | PL |        | 6115?              |
| see 6085             | 1972-56C | Fragment           | Jul 19 | d         | USSR                | PL | A2     | 6116?              |
|                      | 1972-56D | Fragment           | Jul 19 | d         | USSR                | PL |        |                    |
| 6090<br>rec          | 1972-56E | KOCMOC 503 CAPSULE | Jul 19 | 72 Aug 3  | USSR 163 295 65.48° | PL |        | 6134<br>see Jul 31 |
|                      | 1972-57A | KOCMOC 504         | Jul 20 | 7000?     | USSR 1425 1540 74°  | PL |        | 6117               |
|                      | 1972-57B | KOCMOC 505         | Jul 20 | 12000?    | USSR " " 74°        | PL |        | 6118               |
|                      | 1972-57C | KOCMOC 506         | Jul 20 |           | USSR " " 74°        | PL |        | 6119               |
| 6113<br>see Jul 16   | 1972-57D | KOCMOC 507         | Jul 20 |           | USSR " " 74°        | PL |        | 6120               |
| 6094<br>Bip Bird 3   | 1972-57E | KOCMOC 508         | Jul 20 |           | USSR " " 74°        | PL |        | 6121               |
| 6095                 | 1972-57F | KOCMOC 509         | Jul 20 |           | USSR " " 74°        | PL | C1     | 6122               |
| 6096                 | 1972-57G | KOCMOC 510         | Jul 20 |           | USSR " " 74°        | PL |        | 6123               |
| elut 6097            | 1972-57H | KOCMOC 511         | Jul 20 |           | USSR " " 74°        | PL |        | 6124               |
|                      | 1972-57J | ROCKET             | Jul 20 |           | USSR                | PL |        | 6125?              |
|                      | 1972-58A | LANDSAT 1          | Jul 23 | 2070? USA | 901 933 99.12°      | PL | ERTS A | 6126               |
|                      | 1972-58B | LANDSAT 1 ROCKET   | Jul 23 | 2070? USA |                     | PL | ERTS A | 6127?              |
|                      | 1972-58C | to fragments       |        |           |                     |    |        |                    |
|                      | 1972-59A | KOCMOC 512         | Jul 28 | 72 Aug 9  | USSR 202 294 65.4°  | PL | A2     | 6130 rec           |
|                      | 1972-59B | KOCMOC 512 ROCKET  | Jul 28 | 72 Aug 1  | USSR                | PL |        | 6131?              |
| see 6099             | 1972-60A | KOCMOC 513         | Aug 2  | 72 Aug 15 | USSR 209 340 65°    | PL |        | 6135               |
|                      | 1972-60B | KOCMOC 513 ROCKET  | Aug 2  | 72 Aug 9  | USSR                | PL | A2     | 6136?              |



1972

| 1972-60C | Fragment            | Aug 2  | 2            | USSR  | 161 | 322  | 64.95° | PC?  | 6137? | ATL-71B  |
|----------|---------------------|--------|--------------|-------|-----|------|--------|------|-------|----------|
| 1972-60E | KOCMOC 573 CAPSULE  | Aug 2  | 22 Aug 20 05 | USSR  | 161 | 322  | 64.95° | PC?  | 6143  | 1972-71C |
| 1972-60D | Fragment            | Aug 2  | d            | USSR  |     |      |        | PC?  | 6144? | 1972-71D |
| 1972-60F | Fragment            | Aug 2  | d            | USSR  |     |      |        | PC?  | 6145? | 1972-71E |
| 1972-61A | EXPLORER 46         | Aug 3  | 2000?        | USA   | 492 | 811  | 32.7°  | WI   | 6147  | 1972-71F |
| 1972-61B | EXPLORER 46         | Aug 3  |              | USA   |     |      |        | WI   | 6148  | 1972-71G |
| 1972-61C | Fragment            | Aug 3  |              | USA   |     |      |        | WI   | 6149? | 1972-71H |
| 1972-62A | KOCMOC 574          | Aug 10 | 3200?        | USSR  | 949 | 999  | 83°    | PC   | 6149? | 1972-71I |
| 1972-62B | KOCMOC 574 ROCKET   | Aug 10 | 2600?        | USSR  |     |      |        | PC   | 6149? | 1972-71J |
| 1972-62C | Fragment            | Aug 18 | 72 Aug 23    | USSR  | 205 | 300  | 72.9°  | PC   | 6150  | 1972-71K |
| 1972-63B | KOCMOC 575 ROCKET   | Aug 18 | 72 Aug 23    | USSR  |     |      |        | PC   | 6151? | 1972-71L |
| 1972-63C | Fragment            | Aug 18 | d            | USSR  |     |      |        | PC   | 6151? | 1972-71M |
| 1972-63D | KOCMOC 575 CAPSULE  | Aug 18 | 72 Sep 4, 24 | USSR  | 174 | 256  | 72.95° | PC   | 6152  | 1972-71N |
| 1972-63E | Fragment            | Aug 18 | d            | USSR  |     |      |        | PC   | 6152  | 1972-71O |
| 1972-64A | 'DENPA'             | Aug 19 | 82?          | JAPAN | 243 | 6281 | 34.03° | ICAG | 6152  | 1972-71P |
| 1972-64B | 'DENPA' ROCKET      | Aug 19 | 78?          | JAPAN |     |      |        | KAO  | 6152  | 1972-71Q |
| 1972-65A | COPERNICUS          | Aug 21 | 2500?        | USA   | 740 | 748  | 35.01° | KSC  | 6153  | 1972-71R |
| 1972-65B | COPERNICUS ROCKET   | Aug 21 | 2170?        | USA   | 645 | 780  | 35.02° | KSC  | 6153  | 1972-71S |
| 1972-65C | Fragment            | Aug 21 |              | USA   |     |      |        | KSC  | 6153  | 1972-71T |
| 1972-66A | KOCMOC 576          | Aug 21 | 2600?        | USSR  | 256 | 277  | 65°    | PC   | 6154  | 1972-71U |
| 1972-66B | KOCMOC 576 ROCKET   | Aug 21 | 72 Sep 25    | USSR  | 920 | 1030 | 64.82° | PC   | 6154  | 1972-71V |
| 1972-66C | KOCMOC 576 PLATFORM | Aug 21 |              | USSR  |     |      |        | PC   | 6154  | 1972-71W |
| 1972-67A | KOCMOC 577          | Aug 30 | 72 Sep 11    | USSR  | 207 | 305  | 65°    | PC?  | 6154  | 1972-71X |
| 1972-67B | KOCMOC 577 ROCKET   | Aug 30 | 72 Sep 3     | USSR  |     |      |        | PC?  | 6154  | 1972-71Y |
| 1972-67C | Fragment            | Aug 30 | d            | USSR  |     |      |        | PC?  | 6154  | 1972-71Z |
| 1972-68A | USAF                | Sep 1  | 72 Sep 30    | USA   | 143 | 380  | 110.5° | RAIR | 6154  | 1972-72A |
| 1972-69A | TRIAD 1             | Sep 2  | 2060?        | USA   | 716 | 863  | 90.14° | STEW | 6154  | 1972-72B |
| 1972-69B | TRIAD 1 ROCKET      | Sep 2  | 2040?        | USA   |     |      |        | WTR  | 6154  | 1972-72C |
| 1972-69C | Fragment            | Sep 2  |              | USA   |     |      |        | WTR  | 6154  | 1972-72D |
| 1972-70A | KOCMOC 578          | Sep 15 | 72 Sep 24    | USSR  | 208 | 330  | 72.9°  | PC   | 6154  | 1972-72E |
| 1972-70B | KOCMOC 578 ROCKET   | Sep 15 | 72 Sep 22    | USSR  |     |      |        | PC   | 6154  | 1972-72F |
| 1972-70C | KOCMOC 578 CAPSULE  | Sep 15 | 72 Sep 27    | USSR  | 200 | 278  | 72.85° | PC   | 6154  | 1972-72G |
| 1972-71A | KOCMOC 579          | Sep 16 | 72 Sep 26    | USSR  | 210 | 343  | 71.2°  | PC   | 6154  | 1972-72H |



|                     |          |                          |                                     |     |             |       |
|---------------------|----------|--------------------------|-------------------------------------|-----|-------------|-------|
| 6157?               | 1972-71B | KOCHOC 519 ROCKET        | Sep 16 72 Sep 24 USA                | TSC | 6189?       | 1     |
| 6143                | 1972-71C | Fragment                 | Sep 16 d USA                        | TSC |             | 65    |
| 6144?               | 1972-71D | KOCHOC 519 CAPSULE       | Sep 16 72 Oct 14 USSR 200 323 71,2° | TSC | 6200        | 266   |
| 6148?               | 1972-71E | Fragment                 | Sep 16 d USSR                       | TSC | esec Sep 25 | 267   |
| MTS<br>6142         | 1972-71A | KOCHOC 510               | Sep 20 72? USSR 652 39319 64° PL    |     | 6192        |       |
| 6146?               | 1972-71F | KOCHOC 520 LAUNCHER      | Sep 20 USSR                         |     | mil Molniya |       |
| 6147?               | 1972-71G | KOCHOC 521 PLATFORM      | Sep 20 USSR                         |     |             |       |
| 6148                | 1972-71H | Fragment E rocket.       | Sep 23 - USA 201599 205634 17,6°    |     | IMP 9       | 6197  |
| NAV                 | 1972-71A | EXPLORER 47              | Sep 23 - USA 201100 205000 17,6°    |     | IMP 4       |       |
| 6149?               | 1972-71B | EXPLORER 47 ROCKET ST. 2 | Sep 23 72 Sep 26 USA                |     | UPDATED     | 6199? |
| 6150                | 1972-71C | EXPLORER 47 ROCKET ST. 3 | Sep 23 75? USA 2607 237429 86,3°    |     | RECEIVED    | 6199? |
| 6151?               | 1972-71D | EXPLORER 47 ROCKET ST. 3 | Sep 23 75? USA 2607 237429 86,3°    |     |             |       |
|                     | 1972-71E | KOCHOC 521               | Sep 29 1900? USSR 973 1030 65,8°    |     | 6206        | 267   |
|                     | 1972-71F | KOCHOC 521 ROCKET        | Sep 29 1600? USSR                   |     |             |       |
|                     | 1972-71G | Fragment                 | Sep 30 72? USSR 4180 29200 65,3°    |     | 6208        |       |
| 6152                | 1972-71A | МОЛНИЯ 2C                | Sep 30 72? USSR 537 29792           |     |             |       |
| 6153                | 1972-71B | МОЛНИЯ 2 C ROCKET        | Sep 30 72 Oct 26 USSR               |     |             |       |
| REXS' radio<br>6154 | 1972-71C | МОЛНИЯ 2 C LAUNCHER      | Sep 30 72 Nov 1 USSR                |     |             |       |
| M-45-4              | 1972-71D | МОЛНИЯ 2 C HIGH ROCKET   | Sep 30 72? USSR                     |     |             |       |
| OAO3<br>6155        | 1972-71A | RADCAT                   | Oct 2 87? USA 731 748 98,44°        |     | Radar calib |       |
| AC 22               | 1972-71B | RADSAT                   | Oct 2 1970? USA 732 752 98,45°      |     | Tag. 6212   |       |
| 6155                | 1972-71C | ROCKET                   | Oct 2 1970? USSR                    |     | Radn. 6217  |       |
| 6156                | 1972-71D | Fragment                 | Oct 2 USSR                          |     | ADAS        | 6218? |
| 6157                | 1972-71E | Fragment                 | Oct 2 USSR                          |     | BURNER      | 2     |
| 6158                | 1972-71A | KOCHOC 522               | Oct 4 72 Oct 17 USSR 214 342 82,9°  |     | 6220        |       |
| 6159                | 1972-71B | KOCHOC 522 ROCKET        | Oct 4 72 Oct 14 USSR                |     | 6223        |       |
| 6160                | 1972-71C | KOCHOC 522 CAPSULE       | Oct 4 72 Oct 14 USSR 180 320 72,9°  |     | 6224        |       |
| 6161                | 1972-71D | Fragment                 | Oct 4 d USSR                        |     | 6225        |       |
| 6162                | 1972-71A | KOCHOC 523               | Oct 5 73 Oct 17 USSR 283 507 71°    |     | 6226        |       |
| 6163                | 1972-71B | KOCHOC 523 ROCKET        | Oct 5 72 Oct 7 USSR                 |     | 6227        |       |
| 6164                | 1972-71C | Fragment                 | Oct 5 d USSR                        |     | 6228        |       |
| 6165                | 1972-71D | Fragment                 | " " "                               |     | 6229        |       |
| 6166                | 1972-71E | Fragment                 | " " "                               |     | 6230        |       |
| 6167                | 1972-71F | Fragment                 | " " "                               |     | 6231        |       |
| 6168                | 1972-71G | Fragment                 | " " "                               |     | 6232        |       |
| 6169                | 1972-71H | Fragment                 | " " "                               |     | 6233        |       |
| 6170                | 1972-71I | Fragment                 | " " "                               |     | 6234        |       |
| 6171                | 1972-71J | Fragment                 | " " "                               |     | 6235        |       |
| 6172                | 1972-71K | Fragment                 | " " "                               |     | 6236        |       |
| 6173                | 1972-71L | Fragment                 | " " "                               |     | 6237        |       |
| 6174                | 1972-71M | Fragment                 | " " "                               |     | 6238        |       |
| 6175                | 1972-71N | Fragment                 | " " "                               |     | 6239        |       |
| 6176                | 1972-71O | Fragment                 | " " "                               |     | 6240        |       |
| 6177                | 1972-71P | Fragment                 | " " "                               |     | 6241        |       |
| 6178                | 1972-71Q | Fragment                 | " " "                               |     | 6242        |       |
| 6179                | 1972-71R | Fragment                 | " " "                               |     | 6243        |       |
| 6180                | 1972-71S | Fragment                 | " " "                               |     | 6244        |       |
| 6181                | 1972-71T | Fragment                 | " " "                               |     | 6245        |       |
| 6182                | 1972-71U | Fragment                 | " " "                               |     | 6246        |       |
| 6183                | 1972-71V | Fragment                 | " " "                               |     | 6247        |       |
| 6184                | 1972-71W | Fragment                 | " " "                               |     | 6248        |       |
| 6185                | 1972-71X | Fragment                 | " " "                               |     | 6249        |       |
| 6186                | 1972-71Y | Fragment                 | " " "                               |     | 6250        |       |
| 6187                | 1972-71Z | Fragment                 | " " "                               |     | 6251        |       |
| 6188                | 1972-71A | Fragment                 | " " "                               |     | 6252        |       |
| 6189                | 1972-71B | Fragment                 | " " "                               |     | 6253        |       |
| 6190                | 1972-71C | Fragment                 | " " "                               |     | 6254        |       |
| 6191                | 1972-71D | Fragment                 | " " "                               |     | 6255        |       |
| 6192                | 1972-71E | Fragment                 | " " "                               |     | 6256        |       |
| 6193                | 1972-71F | Fragment                 | " " "                               |     | 6257        |       |
| 6194                | 1972-71G | Fragment                 | " " "                               |     | 6258        |       |
| 6195                | 1972-71H | Fragment                 | " " "                               |     | 6259        |       |
| 6196                | 1972-71I | Fragment                 | " " "                               |     | 6260        |       |
| 6197                | 1972-71J | Fragment                 | " " "                               |     | 6261        |       |
| 6198                | 1972-71K | Fragment                 | " " "                               |     | 6262        |       |
| 6199                | 1972-71L | Fragment                 | " " "                               |     | 6263        |       |
| 6200                | 1972-71M | Fragment                 | " " "                               |     | 6264        |       |
| 6201                | 1972-71N | Fragment                 | " " "                               |     | 6265        |       |
| 6202                | 1972-71O | Fragment                 | " " "                               |     | 6266        |       |
| 6203                | 1972-71P | Fragment                 | " " "                               |     | 6267        |       |
| 6204                | 1972-71Q | Fragment                 | " " "                               |     | 6268        |       |
| 6205                | 1972-71R | Fragment                 | " " "                               |     | 6269        |       |
| 6206                | 1972-71S | Fragment                 | " " "                               |     | 6270        |       |
| 6207                | 1972-71T | Fragment                 | " " "                               |     | 6271        |       |
| 6208                | 1972-71U | Fragment                 | " " "                               |     | 6272        |       |
| 6209                | 1972-71V | Fragment                 | " " "                               |     | 6273        |       |
| 6210                | 1972-71W | Fragment                 | " " "                               |     | 6274        |       |
| 6211                | 1972-71X | Fragment                 | " " "                               |     | 6275        |       |
| 6212                | 1972-71Y | Fragment                 | " " "                               |     | 6276        |       |
| 6213                | 1972-71Z | Fragment                 | " " "                               |     | 6277        |       |
| 6214                | 1972-71A | Fragment                 | " " "                               |     | 6278        |       |
| 6215                | 1972-71B | Fragment                 | " " "                               |     | 6279        |       |
| 6216                | 1972-71C | Fragment                 | " " "                               |     | 6280        |       |
| 6217                | 1972-71D | Fragment                 | " " "                               |     | 6281        |       |
| 6218                | 1972-71E | Fragment                 | " " "                               |     | 6282        |       |
| 6219                | 1972-71F | Fragment                 | " " "                               |     | 6283        |       |
| 6220                | 1972-71G | Fragment                 | " " "                               |     | 6284        |       |
| 6221                | 1972-71H | Fragment                 | " " "                               |     | 6285        |       |
| 6222                | 1972-71I | Fragment                 | " " "                               |     | 6286        |       |
| 6223                | 1972-71J | Fragment                 | " " "                               |     | 6287        |       |
| 6224                | 1972-71K | Fragment                 | " " "                               |     | 6288        |       |
| 6225                | 1972-71L | Fragment                 | " " "                               |     | 6289        |       |
| 6226                | 1972-71M | Fragment                 | " " "                               |     | 6290        |       |
| 6227                | 1972-71N | Fragment                 | " " "                               |     | 6291        |       |
| 6228                | 1972-71O | Fragment                 | " " "                               |     | 6292        |       |
| 6229                | 1972-71P | Fragment                 | " " "                               |     | 6293        |       |
| 6230                | 1972-71Q | Fragment                 | " " "                               |     | 6294        |       |
| 6231                | 1972-71R | Fragment                 | " " "                               |     | 6295        |       |
| 6232                | 1972-71S | Fragment                 | " " "                               |     | 6296        |       |
| 6233                | 1972-71T | Fragment                 | " " "                               |     | 6297        |       |
| 6234                | 1972-71U | Fragment                 | " " "                               |     | 6298        |       |
| 6235                | 1972-71V | Fragment                 | " " "                               |     | 6299        |       |
| 6236                | 1972-71W | Fragment                 | " " "                               |     | 6300        |       |
| 6237                | 1972-71X | Fragment                 | " " "                               |     | 6301        |       |
| 6238                | 1972-71Y | Fragment                 | " " "                               |     | 6302        |       |
| 6239                | 1972-71Z | Fragment                 | " " "                               |     | 6303        |       |
| 6240                | 1972-71A | Fragment                 | " " "                               |     | 6304        |       |
| 6241                | 1972-71B | Fragment                 | " " "                               |     | 6305        |       |
| 6242                | 1972-71C | Fragment                 | " " "                               |     | 6306        |       |
| 6243                | 1972-71D | Fragment                 | " " "                               |     | 6307        |       |
| 6244                | 1972-71E | Fragment                 | " " "                               |     | 6308        |       |
| 6245                | 1972-71F | Fragment                 | " " "                               |     | 6309        |       |
| 6246                | 1972-71G | Fragment                 | " " "                               |     | 6310        |       |
| 6247                | 1972-71H | Fragment                 | " " "                               |     | 6311        |       |
| 6248                | 1972-71I | Fragment                 | " " "                               |     | 6312        |       |
| 6249                | 1972-71J | Fragment                 | " " "                               |     | 6313        |       |
| 6250                | 1972-71K | Fragment                 | " " "                               |     | 6314        |       |
| 6251                | 1972-71L | Fragment                 | " " "                               |     | 6315        |       |
| 6252                | 1972-71M | Fragment                 | " " "                               |     | 6316        |       |
| 6253                | 1972-71N | Fragment                 | " " "                               |     | 6317        |       |
| 6254                | 1972-71O | Fragment                 | " " "                               |     | 6318        |       |
| 6255                | 1972-71P | Fragment                 | " " "                               |     | 6319        |       |
| 6256                | 1972-71Q | Fragment                 | " " "                               |     | 6320        |       |
| 6257                | 1972-71R | Fragment                 | " " "                               |     | 6321        |       |
| 6258                | 1972-71S | Fragment                 | " " "                               |     | 6322        |       |
| 6259                | 1972-71T | Fragment                 | " " "                               |     | 6323        |       |
| 6260                | 1972-71U | Fragment                 | " " "                               |     | 6324        |       |
| 6261                | 1972-71V | Fragment                 | " " "                               |     | 6325        |       |
| 6262                | 1972-71W | Fragment                 | " " "                               |     | 6326        |       |
| 6263                | 1972-71X | Fragment                 | " " "                               |     | 6327        |       |
| 6264                | 1972-71Y | Fragment                 | " " "                               |     | 6328        |       |
| 6265                | 1972-71Z | Fragment                 | " " "                               |     | 6329        |       |
| 6266                | 1972-71A | Fragment                 | " " "                               |     | 6330        |       |
| 6267                | 1972-71B | Fragment                 | " " "                               |     | 6331        |       |
| 6268                | 1972-71C | Fragment                 | " " "                               |     | 6332        |       |
| 6269                | 1972-71D | Fragment                 | " " "                               |     | 6333        |       |
| 6270                | 1972-71E | Fragment                 | " " "                               |     | 6334        |       |
| 6271                | 1972-71F | Fragment                 | " " "                               |     | 6335        |       |
| 6272                | 1972-71G | Fragment                 | " " "                               |     | 6336        |       |
| 6273                | 1972-71H | Fragment                 | " " "                               |     | 6337        |       |
| 6274                | 1972-71I | Fragment                 | " " "                               |     | 6338        |       |
| 6275                | 1972-71J | Fragment                 | " " "                               |     | 6339        |       |
| 6276                | 1972-71K | Fragment                 | " " "                               |     | 6340        |       |
| 6277                | 1972-71L | Fragment                 | " " "                               |     | 6341        |       |
| 6278                | 1972-71M | Fragment                 | " " "                               |     | 6342        |       |
| 6279                | 1972-71N | Fragment                 | " " "                               |     | 6343        |       |
| 6280                | 1972-71O | Fragment                 | " " "                               |     | 6344        |       |
| 6281                | 1972-71P | Fragment                 | " " "                               |     | 6345        |       |
| 6282                | 1972-71Q | Fragment                 | " " "                               |     | 6346        |       |
| 6283                | 1972-71R | Fragment                 | " " "                               |     | 6347        |       |
| 6284                | 1972-71S | Fragment                 | " " "                               |     | 6348        |       |
| 6285                | 1972-71T | Fragment                 | " " "                               |     | 6349        |       |
| 6286                | 1972-71U | Fragment                 | " " "                               |     | 6350        |       |
| 6287                | 1972-71V | Fragment                 | " " "                               |     | 6351        |       |
| 6288                | 1972-71W | Fragment                 | " " "                               |     | 6352        |       |
| 6289                | 1972-71X | Fragment                 | " " "                               |     | 6353        |       |
| 6290                | 1972-71Y | Fragment                 | " " "                               |     | 6354        |       |
| 6291                | 1972-71Z | Fragment                 | " " "                               |     | 6355        |       |
| 6292                | 1972-71A | Fragment                 | " " "                               |     | 6356        |       |
| 6293                | 1972-71B | Fragment                 | " " "                               |     | 6357        |       |
| 6294                | 1972-71C | Fragment                 | " " "                               |     | 6358        |       |
| 6295                | 1972-71D | Fragment                 | " " "                               |     | 6359        |       |
| 6296                | 1972-71E | Fragment                 | " " "                               |     | 6360        |       |
| 6297                | 1972-71F | Fragment                 | " " "                               |     | 6361        |       |
| 6298                | 1972-71G | Fragment                 | " " "                               |     | 6362        |       |
| 6299                | 1972-71H | Fragment                 | " " "                               |     | 6363        |       |
| 6300                | 1972-71I | Fragment                 | " " "                               |     | 6364        |       |
| 6301                | 1972-71J | Fragment                 | " " "                               |     | 6365        |       |
| 6302                | 1972-71K | Fragment                 | " " "                               |     | 6366        |       |
| 6303                | 1972-71L | Fragment                 | " " "                               |     | 6367        |       |
| 6304                | 1972-71M | Fragment                 | " " "                               |     | 6368        |       |
| 6305                | 1972-71N | Fragment                 | " " "                               |     | 6369        |       |
| 6306                | 1972-71O | Fragment                 | " " "                               |     | 6370        |       |
| 6307                | 1972-71P | Fragment                 | " " "                               |     | 6371        |       |
| 6308                | 1972-71Q | Fragment                 | " " "                               |     | 6372        |       |
| 6309                | 1972-71R | Fragment                 | " " "                               |     | 6373        |       |
| 6310                | 1972-71S | Fragment                 | " " "                               |     | 6374        |       |
| 6311                | 1972-71T | Fragment                 | " " "                               |     | 6375        |       |
| 6312                | 1972-71U | Fragment                 | " " "                               |     | 6376        |       |
| 6313                | 1972-71V | Fragment                 | " " "                               |     | 6377        |       |
| 6314                | 1972-71W | Fragment                 | " " "                               |     | 6378        |       |
| 6315                | 1972-71X | Fragment                 | " " "                               |     | 6379        |       |
| 6316                | 1972-71Y | Fragment                 | " " "                               |     | 6380        |       |
| 6317                | 1972-71Z | Fragment                 | " " "                               |     | 6381        |       |
| 6318                | 1972-71A | Fragment                 | " " "                               |     | 6382        |       |
| 6319                | 1972-71B | Fragment                 | " " "                               |     | 6383        |       |
| 6320                | 1972-71C | Fragment                 | " " "                               |     | 6384        |       |
| 6321                | 1972-71D | Fragment                 | " " "                               |     | 6385        |       |
| 6322                | 1972-71E | Fragment                 | " " "                               |     | 6386        |       |
| 6323                | 1972-71F | Fragment                 | " " "                               |     | 6387        |       |
| 6324                | 1972-71G | Fragment                 | " " "                               |     | 6388        |       |
| 6325                | 1972-71H | Fragment                 | " " "                               |     | 6389        |       |
| 6326                | 1972-71I | Fragment                 | " " "                               |     | 6390        |       |
| 6327                | 1972-71J | Fragment                 | " " "                               |     | 6391        |       |
| 6328                | 1972-71K | Fragment                 | " " "                               |     | 6392        |       |
| 6329                | 1972-71L | Fragment                 | " " "                               |     | 6393        |       |
| 6330                | 1972-71M | Fragment                 | " " "                               |     | 6394        |       |
| 6331                | 1972-71N | Fragment                 | " " "                               |     | 6395        |       |
| 6332                | 1972-71O | Fragment                 | " " "                               |     | 6396        |       |
| 6333                | 1972-71P | Fragment                 | " " "                               |     | 6397        |       |
| 6334                | 1972-71Q | Fragment                 | " " "                               |     | 6398        |       |
| 6335                | 1972-71R | Fragment                 | " " "                               |     | 6399        |       |
| 6336                | 1972-71S | Fragment                 | " " "                               |     | 6400        |       |
| 6337                | 1972-71T | Fragment                 | " " "                               |     | 6401        |       |
| 6338                | 1972-71U | Fragment                 | " " "                               |     | 6402        |       |
| 6339                | 1972-71V | Fragment                 | " " "                               |     | 6403</      |       |



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|          |                        |           |                   |            |                       |                   |          |  |
|----------|------------------------|-----------|-------------------|------------|-----------------------|-------------------|----------|--|
| 1972-78H | Fragment               | Oct 5     | d                 | USSR       | PL                    |                   |          |  |
| 1972-78J | Fragment               | Oct 5     | "                 | "          | "                     |                   |          |  |
| 1972-78K | Fragment               | Oct 5     | "                 | "          | "                     |                   |          |  |
| 1972-78L | Fragment               | Oct 5     | "                 | "          | "                     |                   |          |  |
| 1972-78M | Fragment               | Oct 5     | "                 | "          | "                     |                   |          |  |
| 1972-79A | USAF                   | Oct 10    | 75 <sup>Jan</sup> | USA        | 159 282 96.47° WTR    | Big Bird 4        |          |  |
| 1972-79B | ROCKET                 | Oct 10    | 75 <sup>Jan</sup> | USA        | 159 282 96.47° WTR    | 6227              |          |  |
| 1972-79C | capsule                | Oct 10    | 75 <sup>Jan</sup> | USA        | 159 282 96.47° WTR    | 6228?             |          |  |
| 1972-80A | KOСMOC 524             | Oct 11/56 | 72                | USSR       | 777 537 71° PL        | Sci 6229          |          |  |
| 1972-80B | KOСMOC 524 ROCKET      | Oct 11/56 | 72                | USSR       | 777 537 71° PL        | 6230?             |          |  |
| 1972-81A | MOAHHЯ 1 W             | Oct 14    | 77                | USSR       | 480 39300 65.3° PL    | Com 6231          |          |  |
| 1972-81B | MOAHHЯ 1 W ROCKET      | Oct 14    | 72                | Nov 4      | USSR                  | 6232?             |          |  |
| 1972-81C | MOAHHЯ 1 W LAUNCHER    | Oct 14    | 72                | Nov 16     | USSR                  | 6233?             |          |  |
| 1972-81D | Fragment               | Oct 14    | d                 | USSR       | PL                    | 6234?             |          |  |
| 1972-81E | MOAHHЯ 1 W HIGH ROCKET | Oct 14    | 75                | USSR       | PL                    |                   |          |  |
| 1972-82A | NOAA-2                 | Oct 15    | 12000?            | USA        | 1450 1460 101.77° WTR | 1805.0 mi         |          |  |
| 1972-82B | OSCAR 6                | Oct 15    | 12000?            | RASC       | 1448 1461 101.76° WTR | 6235              |          |  |
| 1972-82C | NOAA 2 ROCKET (2)      | Oct 15    | 12000?            | USA        | WTR                   | 6236 WTR          |          |  |
| 1972-83A | KOСMOC 525             | Oct 18    | 72                | Oct 29     | USSR                  | 207 269 65.38° PL | 6237     |  |
| 1972-83B | KOСMOC 525 ROCKET      | Oct 18    | 72                | Oct 22     | USSR                  | PL                |          |  |
| 1972-83C | KOСMOC 525 CAPSULE     | Oct 18    | 72                | Nov 1, 97  | USSR                  | 192 260 65.38° PL | 6238     |  |
| 1972-83D | Fragment               | Oct 18    | d                 | USSR       | PL                    | 6239              |          |  |
| 1972-84A | KOСMOC 526             | Oct 25    | 73                | Jan 8      | USSR                  | 282 511 71° PL    | Sci 6239 |  |
| 1972-84B | KOСMOC 526 ROCKET      | Oct 25    | 73                | Jan 8      | USSR                  | PL                | 6235?    |  |
| 1972-85A | METEOP 13              | Oct 26    | 2500?             | USSR       | 893 904 81.2° PL      | AI                | 6236     |  |
| 1972-85B | METEOP 13 ROCKET       | Oct 26    | 2500?             | USSR       | PL                    |                   |          |  |
| 1972-86A | KOСMOC 527             | Oct 31    | 72                | Nov 13     | USSR                  | 214 330 65.4° PL  | 6260     |  |
| 1972-86B | KOСMOC 527 ROCKET      | Oct 31    | 72                | Nov 8      | USSR                  | PL                | 6261?    |  |
| 1972-86C | Fragment               | Oct 31    | d                 | USSR       | PL                    | 6263?             |          |  |
| 1972-86D | KOСMOC 527 CAPSULE     | Oct 31    | 72                | Nov 15, 87 | USSR                  | 181 323 65.43° PL | 6280     |  |
| 1972-86E | Fragment               | Oct 31    | d                 | USSR       | PL                    |                   |          |  |
| 1972-86F | Fragment               | Oct 31    | d                 | USSR       | PL                    |                   |          |  |
| 1972-87A | KOСMOC 528             | Nov 1     | 6000?             | USSR       | 1368 1470 74° PL      | 6262              |          |  |



|                             |          |                                                    |        |                |                |        |        |           |  |                |
|-----------------------------|----------|----------------------------------------------------|--------|----------------|----------------|--------|--------|-----------|--|----------------|
|                             | 1972-87B | KOCMOC 529                                         | Nov 1  | 11000? USSR    | 1404           | 1470   | 74°    | R         |  | 5th 6264       |
|                             | 1972-87C | KOCMOC 530                                         | Nov 1  | USSR           | 1336           | 1469   | 74°    | PL        |  | Kosmos 6265    |
|                             | 1972-87D | KOCMOC 531                                         | Nov 1  | USSR           | 1423           | 1471   | 74°    | PL        |  | Octupole 6266  |
|                             | 1972-87E | KOCMOC 532                                         | Nov 1  | USSR           | 1302           | 1470   | 74°    | A         |  | Balance 6267   |
|                             | 1972-87F | KOCMOC 533                                         | Nov 1  | USSR           | 1319           | 1470   | 74°    | PL        |  | Milkom 6268    |
| Big Bird 4<br>6227<br>6228? | 1972-87G | KOCMOC 534                                         | Nov 1  | USSR           | 1351           | 1470   | 74°    | A         |  | 6269           |
|                             | 1972-87H | KOCMOC 535                                         | Nov 1  | USSR           | 1385           | 1471   | 74°    | PL        |  | 6270           |
| Sci 6229<br>6230?           | 1972-87J | ROCKET                                             | Nov 1  | 22000? USSR    |                |        |        |           |  | 6271?          |
|                             | 1972-88A | KOCMOC 536                                         | Nov 3  | 80? USSR       | 574            | 535    | 74°    | PL        |  | 6272 elint     |
| Low 6231                    | 1972-88B | KOCMOC 536 ROCKET                                  | Nov 3  | 7? USSR        |                |        |        | PL        |  | 6273?          |
| 6232?                       | 1972-88C | Fragment 5                                         | Nov 3  | USSR           |                |        |        | PL        |  | 6274?          |
| 6233?                       | 1972-89A | DMSR 2 3                                           | Nov 9  | 2050? USA      | 813            | 872    | 98.65° | WTR       |  | met 6275       |
| 6234?                       | 1972-89B | ROCKET                                             | Nov 9  | 2030? USA      |                |        |        | WTR       |  | from Bureau    |
| 1805- met<br>6235           | 1972-90A | ANIK 1                                             | Nov 9  | 0 —            | TELESAT CANADA | 35776  | 36484  | 0.4° 130° |  | 6278 Telesat A |
| Sci 6236<br>6237<br>6238    | 1972-90B | ANIK 1 ROCKET ST.2                                 | Nov 10 | 73Mg? USA      |                |        |        | KSC       |  | DELTA Delta 92 |
|                             | 1972-90C | ANIK 1 ROCKET ST.3                                 | Nov 10 | 92? USA        | 161?           | 35700? | 0.4°   |           |  |                |
| 6239 rec                    | 1972-91A | EXPLORER 48                                        | Nov 15 | 51? USA        | 442            | 632    | 19°    | SMIC      |  | 6280 SAS B     |
| 6240                        | 1972-91B | EXPLORER 48 ROCKET                                 | Nov 15 | 25? USA        |                |        |        | SMIC      |  | 6281 KSC       |
| 6241                        | 1972-92A | ESRO IV                                            | Nov 22 | 73 Sep? ESRO   | 245            | 1118   | 9.11°  | WTR       |  | 6282 mag news  |
| 6242                        | 1972-92B | ESRO IV ROCKET                                     | Nov 22 | 73Mg? USA      |                |        |        | WTR       |  | 6283 SCOUT     |
|                             | 1972-92C | ESRO IV NEUTRAL MASS SPECTROMETER PROTECTIVE COVER | Nov 22 | ? ESRO         |                |        |        | WTR       |  | 6284           |
| Sci 6254                    | 1972-93A | KOCMOC 537                                         | Nov 25 | 72 Dec 6 USSR  | 207            | 324    | 65°    | TBL       |  | 6285 rec       |
| 6255?                       | 1972-93B | KOCMOC 537 ROCKET                                  | Nov 25 | 72 Dec 2 USSR  |                |        |        | TBL       |  |                |
| Mid 6256                    | 1972-94A | УТТЕРКОМOC 8                                       | Nov 30 | 73Mg? USSR     | 244            | 679    | 71.9°  | PL        |  | 6291 Sci       |
|                             | 1972-94B | УТТЕРКОМOC 8 ROCKET                                | Nov 30 | 73 Jan 12 USSR |                |        |        | PL        |  |                |
| 6260 MOC                    | 1972-94C | Fragment                                           |        |                |                |        |        |           |  |                |
| 6261?                       | 1972-95A | МОАНИА 1 X                                         | Dec 2  | 76 Feb 11 USSR | 500            | 39100  | 65°    | PL        |  | Com 6294       |
| 6263?                       | 1972-95B | МОАНИА 1 X ROCKET                                  | Dec 2  | 76 Jan 10 USSR |                |        |        | PL        |  |                |
| 6280 Goddard                | 1972-95C | МОАНИА 1 X LAUNCHER                                | Dec 2  | 73 Jan 10 USSR |                |        |        | PL        |  |                |
|                             | 1972-95D | Fragment                                           | Dec 2  | d USSR         |                |        |        | PL        |  | 6295           |
|                             | 1972-95E | Fragment                                           | Dec 2  | d USSR         |                |        |        | PL        |  |                |
|                             | 1972-95F | МОАНИА 1 X HIGH ROCKET                             | Dec 2  | 75 Feb 7 USSR  |                |        |        | PL        |  | 6296           |

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1973

|           |                          |                              |                                                       |                          |
|-----------|--------------------------|------------------------------|-------------------------------------------------------|--------------------------|
| 1972-96A  | AMERICA (APOLLO 17)      | Dec 7, 73                    | (64 <sup>35</sup> ) DSA 169 178 32,56° K <sub>5</sub> | 6300<br>See SPACESHIP    |
| 1972-96B  | SATURN AS-512            | Dec 7, 73                    | (→) DSA 200 572080 332°                               | 6301<br>See UNWAR PROBES |
| 1972-96C  | CHALLENGER               | Dec 7, 73                    | (→) DSA                                               | 6307<br>See SPACESHIP    |
| 1972-96D  | CHALLENGER DESCENT STAGE | See SPACESHIPS, LUNAR PROBES |                                                       |                          |
| 1972-96E  | SLA PANEL                | Dec 7, 73                    | USA 600gentric orbit                                  | Adaptor panels           |
| 1972-96F  | SLA PANEL                | Dec 7, 73                    | USA                                                   | KSC SATURN S             |
| 1972-96G  | SLA PANEL                | Dec 7, 73                    | USA                                                   | KSC                      |
| 1972-96H  | SLA PANEL                | Dec 7, 73                    | USA                                                   | KSC                      |
| 1972-96J  | AMERICA SIMBAY PANEL     | Dec 7, 73                    | USA                                                   | KSC                      |
| 1972-96K  | LRU 3                    | See UNWAR PROBES             |                                                       |                          |
| 1972-96L  | } See UNWAR PROBES       |                              |                                                       |                          |
| 1972-96?  |                          |                              |                                                       |                          |
| 1972-97A  | NIMBUS 5                 | Dec 11 2600?                 | USA 1081 1102 99,95° WTR                              | 6305 Nimbus F met op 1 a |
| 1972-97B  | NIMBUS 5 ROCKET          | Dec 11 3000?                 | USA                                                   | DELTA 6308? Repla 93     |
| 1972-97A  | МОЛНИЯ 2D                | Dec 2 75 Jan 22              | USSR 209 24780 65,31° R                               | 6308 com                 |
| 1972-97B  | МОЛНИЯ 2D ROCKET         | Dec 2 73 Jan 13              | USSR                                                  | R 6309?                  |
| 1972-97C  | МОЛНИЯ 2D LAUNCHER       | Dec 2 73 Jan                 | USSR                                                  | R 6310?                  |
| 1972-97D  | МОЛНИЯ 2D HIGH ROCKET    | Dec 2 79                     | USSR                                                  | R                        |
| 1972-97A  | КОСМОС 538               | Dec 14 72 Dec 27             | USSR 212 305 65,4° R                                  | 6311 mlec r              |
| 1972-97B  | КОСМОС 538 ROCKET        | Dec 14 72 Dec 27             | USSR                                                  | R 6312?                  |
| 1972-97C  | Fragment                 | Dec 14 d                     | USSR                                                  | R 6313?                  |
| 1972-97D  | КОСМОС 538 CAPSULE       | Dec 14 73 Jan 4, 57          | USSR 171 285 65,40° R                                 | 6315 Exch 26             |
| 1972-97E  | Fragment                 | Dec 14 d                     | USSR                                                  | R 6317?                  |
| 1972-97F  | CHALLENGER               | Dec 14 96                    | See SPACESHIPS, LUNAR PROBES                          |                          |
| 1972-100A | AEROS 1                  | Dec 16 73 Aug 27             | Germany 224 866 96,94° WTR                            | 6318 1 mcs               |
| 1972-100B | AEROS 1 ROCKET           | Dec 16 73 Mar?               | USA                                                   | 6319                     |
| 1972-100A | IMATION RMORS 5          | Dec 20 ?                     | USA 14001? 14001? 80° WTR                             | 6320? Actual             |
| 1972-100B | ROCKET?                  | Dec 20 ?                     | USA 20728? 31016? 97° WTR                             | 6321? Actual             |
| 1972-100A | КОСМОС 539               | Dec 21                       | USSR 1353 1312 74° R                                  | 6322? CI mlec            |
| 1972-100B | КОСМОС 539 ROCKET        | Dec 21 6000?                 | USSR                                                  | R 6323?                  |
| 1972-100A | USAF                     | Dec 21 73 Jan?               | USA 138 378 110,45° WTR                               | 6324? STANZO SAMOS 81    |



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|----------|-----------------------|------------------------------------------|----|----------|
| 1973-07C | МОНИЯ 1 Y LAUNCHER    | Feb 3 73 Mar 18 USSR                     | PC | AZ       |
| 1973-07D | Fragment              | Feb 3 d USSR                             | PC |          |
| 1973-07E | МОНИЯ 1 Y HIGH ROCKET | Feb 3 78? USSR                           | PC |          |
| 1973-08A | КОСМОС 548            | Feb 8 73 Feb 24 USSR 214 322 65.4°       | PC | 6364     |
| 1973-08B | КОСМОС 548 ROCKET     | Feb 8 73 Feb 16 USSR                     | PC |          |
| 1973-08C | Fragment              | Feb 8 d USSR                             | PC |          |
| 1973-08F | КОСМОС 548 CAPSULE    | Feb 8 73 Feb 24, 19° USSR 159 453 65.42° | PC | AZ 6364  |
| 1973-08E | Fragment              | Feb 8 d USSR                             | PC |          |
| 1973-08D | Fragment              | Feb 8 d USSR                             | PC |          |
| 1973-08G | Fragment              | Feb 8 d USSR                             | PC |          |
| 1973-09A | ПРОГНОЗ 3             | Feb 15 83? USSR 510 200000 65°           | PC | 6364     |
| 1973-09B | ПРОГНОЗ 3 ROCKET      | Feb 15 73 Mar 16 USSR                    | PC | AZ       |
| 1973-09C | ПРОГНОЗ 3 LAUNCHER    | Feb 15 73 Mar 24 USSR                    | PC |          |
| 1973-09D | ПРОГНОЗ 3 HIGH ROCKET | Feb 15 83? USSR                          | PC |          |
| 1973-10A | КОСМОС 549            | Feb 18 81? USSR 513 545 74.01°           | PC | 6372     |
| 1973-10B | КОСМОС 549 ROCKET     | Feb 18 80? USSR                          | PC |          |
| 1973-11A | КОСМОС 550            | Feb 18 73 Mar 11 USSR 217 325 65.4°      | PC | 6376     |
| 1973-11B | КОСМОС 550 ROCKET     | Mar 1 73 Mar 9 USSR                      | PC | 6377?    |
| 1973-11C | КОСМОС 550 CAPSULE    | Mar 1 73 Mar 12 USSR 202 432 65.44°      | PC | 6384     |
| 1973-11D | Fragment              | Mar 1 d USSR                             | PC | AZ 6385? |
| 1973-11E | Fragment              | Mar 1 d USSR                             | PC | 6386?    |
| 1973-11F | Fragment              | Mar 1 d USSR                             | PC | 6387?    |
| 1973-12A | КОСМОС 551            | Mar 6 73 Mar 20 USSR 210 316 65.4°       | PC | 6378     |
| 1973-12B | КОСМОС 551 ROCKET     | Mar 6 73 Mar 13 USSR                     | PC | 6379?    |
| 1973-12C | Fragment              | Mar 6 d USSR                             | PC | 6380?    |
| 1973-12D | КОСМОС 551 CAPSULE    | Mar 6 73 Mar 22 USSR 170 376 65.02°      | PC | 6381     |
| 1973-12E | Fragment              | Mar 6 d USSR                             | PC | 6382?    |
| 1973-13A | USAF                  | Mar 6 — USA 32100 39640 10.1°            | PC | 6383     |
| 1973-13B | ROCKET                | Mar 6 78? USA                            | PC | 6384     |
| 1973-14A | USAF                  | Mar 9 73 May 19 USA 157 220 95.7°        | PC | 6385     |
| 1973-14B | ROCKET                | Mar 9 73 Mar 11 USA                      | PC | 6386     |
| 1973-15A | METEOP 14             | Mar 20 2800? USSR 882 903 81.2°          | PC | 6387     |



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                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1973-16B  | KOCMOC 552 ROCKET                 | Mar 22 73 Apr 30 | USSR |                | PL A2 | 6395?                                          |
| rec r 6394                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1973-16C  | KOCMOC 552 CARSOLE                | Mar 22 73 Apr 9  | USSR | 199 310 728°   | PL    | 6397 - 1st MVLK Unmanned study broke up Apr 14 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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                      |
| 6367<br>Spec No 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| 6364<br>Solid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| 6377?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| 6385?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| 6379?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| 6380?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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| 6382<br>Eye No 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1973-18A  | MOAHHH 2 E                        | Apr 5 78?        | USSR | 500 39100 65°  | TBL?  | 6418 com                                       |
| met 6342                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1973-18B  | MOAHHH 2 E ROCKET                 | Apr 5 73 Apr 24  | USSR |                | TBL?  |                                                |



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|          |                            |           |        |                   |               |       |        |     |                                         |
|----------|----------------------------|-----------|--------|-------------------|---------------|-------|--------|-----|-----------------------------------------|
| 1973-18C | МОЛНИЯ 2E LAUNCHER         | Apr 5 73  | Apr 30 | USSR              | 188           | 510   | 65,39° | APR |                                         |
| 1973-18D | МОЛНИЯ 2E HIGH ROCKET      | Apr 5     | 78?    | USSR              |               |       |        |     |                                         |
| 1973-19A | PIONEER 11                 | Apr 6     | (→ HC) | USA               | parking orbit |       |        | KSC | 6421<br>see APR 11<br>PLATE             |
| 1973-19B | PIONEER 11 ROCKET ST. 2    | Apr 6     | red.   | USA               |               |       |        | KSC | ATLAS AC-<br>CENTRE use for<br>TOM 3644 |
| 1973-19B | PIONEER 11 ROCKET ST. 3    | Apr 6     | (→ HC) | USA               |               |       |        | KSC |                                         |
| 1973-20A | KOСMOC 553                 | Apr 12    | 73     | USSR              | 282           | 519   | 71°    | PC  | 6421<br>see 6421                        |
| 1973-20B | KOСMOC 553 ROCKET          | Apr 12    | 73     | USSR              |               |       |        | PC  |                                         |
| 1973-21A | KOСMOC 554                 | Apr 19    | 73     | USSR              | 212           | 318   | 72,9°  | PC  | 6432<br>mice<br>failed to               |
| 1973-21B | KOСMOC 554 ROCKET          | Apr 19    | 73     | USSR              |               |       |        | PC  | 6432<br>6436?                           |
| 1973-21C | Fragment                   | Apr 19    | d      | USSR              |               |       |        | PC  | 6436?                                   |
| 1973-21D | Fragment                   | Apr 19    | d      | USSR              |               |       |        | PC  | 6436?                                   |
| 1973-21E | KOСMOC 554 CAPSULE         | Apr 19    | 73     | USSR              | 169           | 359   | 72,85° | PC  | 6443<br>see APR 26                      |
| 1973-21F | Fragments                  | Apr 19    | d      | USSR              |               |       |        | PC  | sat - exploded<br>May 7.1               |
| 1973-21F |                            | Apr 19    | d      | USSR              |               |       |        | PC  |                                         |
| 1973-22A | ИНТЕРКОСМОС КОПЕРНИКУС-800 | Apr 19    | 73     | USSR              | 202           | 155   | 48,50° | PC  | 6443<br>see APR 26                      |
| 1973-22B | ИНТЕРКОСМОС 9 ROCKET       | Apr 19    | 73     | USSR              |               |       |        | PC  | 6443<br>6444?                           |
| 1973-23A | ANIK 2.                    | Apr 20    | —      | TELESAT<br>CANADA | 35784         | 35797 | 0,1°   | PC  | 6443<br>see APR 26                      |
| 1973-23B | ANIK 2 ROCKET ST. 2.       | Apr 20    | 74?    | USA               |               |       |        | PC  | 6443<br>see APR 26                      |
| 1973-23C | ANIK 2 ROCKET ST. 3.       | Apr 20    | 93?    | USA               |               |       |        | PC  | 6443<br>see APR 26                      |
| 1973-24A | KOСMOC 555                 | Apr 25    | 73     | USSR              | 216           | 233   | 81,33° | PC  | 6443<br>see APR 26                      |
| 1973-24B | KOСMOC 555 ROCKET          | Apr 25    | 73     | USSR              |               |       |        | PC  | 6443<br>see APR 26                      |
| 1973-24C | Fragment                   | Apr 25    | d      | USSR              |               |       |        | PC  | 6443<br>see APR 26                      |
| 1973-24D | KOСMOC 555 CAPSULE         | Apr 25    | 73     | USSR              | 209           | 222   | 81,37° | PC  | 6443<br>see APR 26                      |
| 1973-25A | KOСMOC 556                 | May 5, 29 | 73     | USSR              | 209           | 252   | 81,5°  | PC  | 6443<br>see APR 26                      |
| 1973-25B | KOСMOC 556 ROCKET          | May 5, 29 | 73     | USSR              |               |       |        | PC  | 6443<br>see APR 26                      |
| 1973-25C | KOСMOC 556 CAPSULE         | May 5, 29 | 73     | USSR              | 200           | 255   | 81,52° | PC  | 6443<br>see APR 26                      |
| 1973-25D | Fragment                   | May 5, 29 | d      | USSR              |               |       |        | PC  | 6443<br>see APR 26                      |
| 1973-25E | Fragment                   | May 5, 29 | d      | USSR              |               |       |        | PC  | 6443<br>see APR 26                      |
| 1973-26A | KOСMOC 557.                | May 11    | 73     | USSR              | 218           | 266   | 51,6°  | FBL | 6443<br>see APR 26                      |
| 1973-26B | KOСMOC 557 ROCKET          | May 11    | 73     | USSR              |               |       |        | FBL | 6443<br>see APR 26                      |
| 1973-27A | SKYLAB 1                   | May 14    | 82?    | USA               | 426           | 439   | 50,04° | KSC | 6443<br>see APR 26                      |
| 1973-27B | SKYLAB 1 ROCKET            | May 14    | 75     | USA               | 426           | 439   | 50,04° | KSC | 6443<br>see APR 26                      |







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|----------|--------------------------|----------|---------|--------|--------------|-------|--------|--------|------|---------|-----|
| 1973-36A | KOCMOC 563               | Jun 6 73 | Jun 18  | USSR   | 283          | 310   | 65.4°  | PL     | 6667 | RCR     |     |
| 1973-36B | KOCMOC 563 ROCKET        | Jun 6 73 | Jun 18  | USSR   |              |       |        | PL     |      |         |     |
| 1973-36C | <del>EXPLORER 49</del>   | Jun 6    | d       | USSR   |              |       |        | PL     | AZ   |         |     |
| 1973-36D | KOCMOC 563 CAPSULE       | Jun 6 76 | Jun 25  | USSR   | 173          | 278   | 65.41° | PL     | 6703 | RCR     |     |
| 1973-37A | KOCMOC 564               | Jun 8    | 110000? | USSR   | 1392         | 1507  | 74°    | PL     | 6675 |         |     |
| 1973-37B | KOCMOC 565               | Jun 8    |         | USSR   | "            | "     | "      | PL     | 6676 | Kosmos  |     |
| 1973-37C | KOCMOC 566               | Jun 8    |         | USSR   | "            | "     | "      | PL     | 6677 | octuple |     |
| 1973-37D | KOCMOC 567               | Jun 8    |         | USSR   | "            | "     | "      | PL     | 6678 | launch  |     |
| 1973-37E | KOCMOC 568               | Jun 8    |         | USSR   | "            | "     | "      | PL     | 6679 | mileom? |     |
| 1973-37F | KOCMOC 569               | Jun 8    |         | USSR   | "            | "     | "      | PL     | 6680 |         |     |
| 1973-37G | KOCMOC 570               | Jun 8    |         | USSR   | "            | "     | "      | PL     | 6681 |         |     |
| 1973-37H | KOCMOC 571               | Jun 8    |         | USSR   | "            | "     | "      | PL     | 6682 |         |     |
| 1973-37J | ROCKET                   | Jun 8    | 20000?  | USSR   | "            | "     | "      | PL     | 6683 |         |     |
| 1973-38A | KOCMOC 572               | Jun 10   | 73      | Jun 23 | USSR         | 211   | 294    | 51.2°  | PL   | 6684    | RCR |
| 1973-38B | KOCMOC 572 ROCKET        | Jun 10   | 73      | Jun 16 | USSR         |       |        | PL     | 6685 |         |     |
| 1973-38C | KOCMOC 572 CAPSULE       | Jun 10   | 73      | Jun 26 | USSR         | 171   | 280    | 51.65° | PL   | 6711    | RCR |
| 1973-39A | EXPLORER 49              | Jun 10   | (→SC)   | USA    | padding unit |       |        | KSC    | 6686 | RCR     |     |
| 1973-39B | EXPLORER 49 ROCKET ST. 3 | Jun 10   |         | USA    |              |       |        | KSC    | 6687 | RCR     |     |
| 1973-39C | EXPLORER 49 ROCKET ST. 2 | Jun 10   |         | USA    |              |       |        | KSC    | 6688 | RCR     |     |
| 1973-39D | <del>EXPLORER 49</del>   |          |         |        |              |       |        | RCR    | 6689 | RCR     |     |
| 1973-40A | IMEUS 4                  | Jun 12   |         | USA    | 35570        | 35890 | 9.53°  | KSC    | 6690 | RCR     |     |
| 1973-40B | TRANSAGE                 | Jun 12   |         | USA    | 35533        | 35837 | 24.33° | KSC    | 6691 | RCR     |     |
| 1973-41A | KOCMOC 573               | Jun 15   | 73      | Jun 17 | USSR         | 196   | 329    | 51.6°  | PL   | 6692    | RCR |
| 1973-41B | KOCMOC 573 ROCKET        | Jun 15   | 73      | Jun 23 | USSR         |       |        | PL     | 6693 | RCR     |     |
| 1973-41C | <del>EXPLORER 49</del>   |          |         |        |              |       |        | PL     | 6694 | RCR     |     |
| 1973-41D | KOCMOC 574               | Jun 20   | 73      | Jun 21 | USSR         | 996   | 1076   | 83.0°  | PL   | 6695    | RCR |
| 1973-42A | KOCMOC 574 ROCKET        | Jun 20   | 73      | Jun 21 | USSR         |       |        | PL     | 6696 | RCR     |     |
| 1973-43A | KOCMOC 575               | Jun 21   | 73      | Jun 23 | USSR         | 208   | 299    | 65.4°  | PL   | 6697    | RCR |
| 1973-43B | KOCMOC 575 ROCKET        | Jun 21   | 73      | Jun 27 | USSR         |       |        | PL     | 6698 | RCR     |     |
| 1973-44A | SKYLAB 2                 | Jun 22   | 73      | Jun 22 | USA          | 428   | 439    | 80.03° | SC   | 6699    | RCR |
| 1973-44B | KOCMOC 576               | Jun 23   | 73      | Jun 29 | USSR         | 212   | 386    | 72.92° | PL   | 6700    | RCR |
| 1973-44C | KOCMOC 576 ROCKET        | Jun 23   | d       | USSR   |              |       |        | PL     | 6701 | RCR     |     |
| 1973-44D | Fragment                 | Jun 23   | d       | USSR   |              |       |        | PL     | 6702 | RCR     |     |
| 1973-44E | Fragment                 | Jun 23   | d       | USSR   |              |       |        | PL     | 6703 | RCR     |     |



|                                                                        |          |                       |                      |                      |     |                           |
|------------------------------------------------------------------------|----------|-----------------------|----------------------|----------------------|-----|---------------------------|
| 6667<br>RC&F                                                           | 1973-44E | Fragment              | Jun 27 d             | USSR                 | PC  |                           |
|                                                                        | 1973-44F | Fragment              | Jun 27 d             | USSR                 | PC  |                           |
|                                                                        | 1973-44G | Fragment              | Jun 27 d             | USSR                 | PC  |                           |
| 1903 spec July 19                                                      | 1973-44H | KOCHUC 576 CAPSULE    | Jul 27 73 Jul 14     | USSR 212 478 72.9°   | PC  | 6721 spec July 9          |
| 6675<br>6th<br>676 Kosmos<br>677 octuplet<br>678 launch<br>679 missile | 1973-45A | МОЛНИЯ 2F             | Jul 11, 42 78°       | USSR 441 39285 65.4° | PC  | com                       |
|                                                                        | 1973-45B | МОЛНИЯ 2F ROCKET      | Jul 11, 42 73 Aug 3  | USSR                 | PC  |                           |
|                                                                        | 1973-45C | МОЛНИЯ 2F LAUNCHER    | Jul 11, 42 73 Aug 23 | USSR                 | PC  | A22                       |
|                                                                        | 1973-45D | МОЛНИЯ 2F HIGH ROCKET | Jul 11, 42 78°       | USSR                 | PC  |                           |
|                                                                        | 1973-46A | USAF                  | Jul 13, 85 73 Oct 12 | USA 156 269 46.2°    | PC  | BITB 100.6                |
|                                                                        | 1973-46B | ROCKET                | Jul 13, 85 73 Jul 15 | USA                  | PC  | 3.0                       |
| 81                                                                     | 1973-47A | MAPC 4                | Jul 21, 81 (→HC)     | USSR                 | TRC | SEE ARTIFICIAL<br>PLANETS |
| 82                                                                     | 1973-47B | MAPC 4 LAUNCHER       | Jul 21, 81 73 Jul 26 | USSR                 | TRC | Sputnik 65                |
| 837                                                                    | 1973-47C | MAPC 4 ROCKET         | Jul 21, 81 73 Jul 23 | USSR                 | TRC | Die                       |
| 84 rec                                                                 | 1973-47D | MAPC 4 ROCKET         | Jul 21, 81 (→HC)     | USSR                 | TRC | SEE ARTIFICIAL<br>PLANETS |
| 85?                                                                    | 1973-48A | KOCHUC 577            | Jul 25, 88 73 Aug 7  | USSR 207 289 65.0°   | PC  | 171 313 65.4°             |
| see July 22<br>see work<br>probes                                      | 1973-48B | KOCHUC 577 ROCKET     | Jul 25, 88 73 Aug 1  | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48C | Fragment              | Jul 25, 88 d         | USSR                 | PC  | A2                        |
| 84 85                                                                  | 1973-48D | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48E | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48F | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48G | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48H | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48I | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48J | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48K | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48L | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48M | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48N | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48O | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48P | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48Q | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48R | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48S | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48T | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48U | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48V | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48W | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48X | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48Y | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-48Z | Fragment              | Jul 25, 88 d         | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-49A | MAPC 5                | Jul 25, 79 (→HC)     | USSR                 | TRC | SEE ARTIFICIAL<br>PLANETS |
| 84 85                                                                  | 1973-49B | MAPC 5 LAUNCHER       | Jul 25, 79 73 Jul 27 | USSR 153 188 51.55°  | TRC | Sputnik 64                |
| 84 85                                                                  | 1973-49C | MAPC 5 ROCKET         | Jul 25, 79 73 Jul 27 | USSR                 | TRC | Die                       |
| 84 85                                                                  | 1973-49D | MAPC 5 ROCKET         | Jul 25, 79 (→HC)     | USSR                 | TRC | SEE ARTIFICIAL<br>PLANETS |
| 84 85                                                                  | 1973-50A | SKYLAB 3              | Jul 28, 47 73 Aug 8  | USSR 208 308 65.4°   | PC  | 18 548.207                |
| 84 85                                                                  | 1973-50B | SKYLAB 3 ROCKET       | Jul 28, 47 73 Aug 8  | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-51A | KOCHUC 578            | Aug 1 73 Aug 8       | USSR 208 308 65.4°   | PC  | 18 548.207                |
| 84 85                                                                  | 1973-51B | KOCHUC 578 ROCKET     | Aug 1 73 Aug 8       | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-51C | Fragment              | Aug 1 d              | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-51D | Fragment              | Aug 1 d              | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-51E | Fragment              | Aug 1 d              | USSR                 | PC  |                           |
| 84 85                                                                  | 1973-51A | MAPC 6                | Aug 5, 71 73 Aug 7   | USSR                 | TRC | SEE ARTIFICIAL<br>PLANETS |
| 84 85                                                                  | 1973-51B | MAPC 6 LAUNCHER       | Aug 5, 71 73 Aug 7   | USSR 154 193 51.54°  | TRC | Sputnik 65                |



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|----------|------------------------|-----------|------------|-------------------|------------------|------------------------|--------------------|
| 1973-52C | MAPC 6 ROCKET          | Aug 5, 74 | 73 Aug 7   | VSSR              | TBC              |                        |                    |
| 1973-52D | MAPC 6 ROCKET          | Aug 5, 74 | (74C)      | VSSR              | TBC              | see ARTIFICIAL PLANETS |                    |
| 1973-52E | MAPC 6 DESCENT CAPSULE | Aug 5, 74 |            | see MAPS PROFILES |                  |                        |                    |
| 1973-53A | MAPC 7                 | Aug 9, 71 | (74C)      | VSSR              |                  | see ARTIFICIAL PLANETS |                    |
| 1973-53B | MAPC 7 LAUNCHER        | Aug 9, 71 | 73 Aug 11  | VSSR              | 154 193 51,51°   | Sputnik 66             |                    |
| 1973-53C | MAPC 7 ROCKET          | Aug 9, 71 | 73 Aug 11  | VSSR              |                  | Die                    |                    |
| 1973-53D | MAPC 7 ROCKET          | Aug 9, 71 |            |                   |                  |                        |                    |
| 1973-53E | MAPC 7 DESCENT CAPSULE | Aug 9, 71 |            |                   |                  |                        |                    |
| 1973-54A | USAF                   | Aug 17    | 2030?      | USA               | 813 851 98,86°   | WTR                    |                    |
| 1973-54B | ROCKET                 | Aug 17    | 2030?      | USA               |                  | WTR                    | THOM met           |
| 1973-55A | KOCMOC 579             | Aug 21    | 73 Sep 2   | VSSR              | 196 315 65,4°    | PL                     | 6289 msc           |
| 1973-55B | KOCMOC 579 ROCKET      | Aug 21    | 73 Aug 28  | VSSR              | 175 314 65,42°   | PL                     |                    |
| 1973-55C | Fragment               | Aug 21    | A          | VSSR              |                  | PL                     | AZ                 |
| 1973-55D | KOCMOC 579 CAPSULE     | Aug 21    | 73 Sep 5   | VSSR              | 169 247 65,43°   | PL                     | 6813 csc 2-2       |
| 1973-55E | Fragment               | Aug 21    | d          | VSSR              |                  | PL                     |                    |
| 1973-56A | USAF (SDS B)           | Aug 21    | 78?        | USA               | 410 39296 63,29° | WTR                    | SDS 23             |
| 1973-56B | ROCKET                 | Aug 21    | 78?        | USA               |                  | WTR                    | THOM 78            |
| 1973-57A | KOCMOC 580             | Aug 22    | 74 Aug 1   | VSSR              | 283 515 71,0°    | PL                     | B1 sci             |
| 1973-57B | KOCMOC 580 ROCKET      | Aug 22    | 73 Nov 30  | VSSR              |                  | PL                     |                    |
| 1973-58A | INTELSAT 4E            | Aug 23    |            | INTELSAT          | 35784 35797 0,3° | KSL                    | F-7 Attitude 30° W |
| 1973-58B | INTELSAT 4E ROCKET     | Aug 23    | 8000?      | USA               | 597 36612 27,50° | KSL                    | ATLAS CONTRA AC-31 |
| 1973-59A | KOCMOC 581             | Aug 24    | 73 Sep 6,3 | VSSR              | 208 288 51,62°   | TEL                    | 6798 msc           |
| 1973-59B | KOCMOC 581 ROCKET      | Aug 24    | 73 Sep 3   | VSSR              | 172 284 51,61°   | TEL                    |                    |
| 1973-59C | Fragment               | Aug 24    | d          | VSSR              |                  | TEL                    | AZ                 |
| 1973-59D | Fragment               | Aug 24    | d          | VSSR              |                  | TEL                    |                    |
| 1973-59E | KOCMOC 581 CAPSULE     | Aug 24    | 73 Sep 9,2 | VSSR              | 176 266 51,62°   | TEL                    | 6817 csc 2-5       |
| 1973-60A | KOCMOC 582             | Aug 28    | 81?        | VSSR              | 521 521 74°      | PL                     | elint              |
| 1973-60B | KOCMOC 582 ROCKET      | Aug 28    | 81?        | VSSR              |                  | PL                     |                    |
| 1973-60C | Fragment               | Aug 28    |            | VSSR              |                  | PL                     | CL                 |
| 1973-60D | Fragment               | Aug 28    |            | VSSR              |                  | PL                     |                    |
| 1973-60E | Fragment               | Aug 28    |            | VSSR              |                  | PL                     |                    |
| 1973-61A | MOA HIA 12             | Aug 30    | 78?        | VSSR              | 480 3770 65,3°   | PL                     | com                |



|                         |               |                       |                                          |    |                         |
|-------------------------|---------------|-----------------------|------------------------------------------|----|-------------------------|
| see AIRFRAME<br>ROCKETS | 1973-61B      | МОАНИА 12 ROCKET      | Aug 30 730081 USSR                       | -R |                         |
|                         | 1973-61C      | МОАНИА 12 LAUNCHER    | Aug 30 730088 USSR                       | R  | AZE                     |
| see AIRFRAME<br>ROCKETS | 1973-61D      | Fragment              | Aug 30 d USSR                            | R  |                         |
|                         | 1973-61E      | Fragment              | Aug 30 d USSR                            | R  |                         |
| Sputnik 66              | 1973-61F      | МОАНИА 12 HIGH ROCKET | Aug 30 78? USSR                          | R  |                         |
| He                      | 1973-62A      | КОСМОС 583            | Aug 30 73Sep12 USSR 204 298 650          | R  | rec r                   |
|                         | 1973-62B      | КОСМОС 583 ROCKET     | Aug 30 73Sep6 USSR                       | R  | AZ                      |
|                         | 1973-62C      | Fragment              | Aug 30 d USSR                            | R  |                         |
| see met<br>note 2       | 1973-63A      | КОСМОС 584            | Sep 6 73Sep 20 USSR 213 360 71A0         | R  | 6818 miles r            |
|                         | 1973-63B      | КОСМОС 584 ROCKET     | Sep 6 73Sep16 USSR 204 314 72B0          | R  |                         |
| 6783 miles r            | 1973-63C      | Fragment              | Sep 6 d USSR                             | R  |                         |
|                         | 1973-63D      | Fragment              | Sep 6 d USSR                             | R  |                         |
|                         | 1973-63E      | КОСМОС 584 CAPSULE    | Sep 6 73Sep28 USSR 203 305 72,85°        | R  | 6830 Sep 19             |
| 6813 miles Sep 2        | 1973-63F      | Fragment              | Sep 6 d USSR                             | R  |                         |
|                         | 1973-63G      | Fragment.             | Sep 6 d USSR                             | R  |                         |
| SDS 23                  | 1973-64A      | КОСМОС 585            | Sep 8 2000? USSR 1385 1416 73,99°        | R  | mi 6825                 |
| see                     | 1973-64B      | КОСМОС 585 ROCKET     | Sep 8 6000? USSR                         | R  |                         |
| Sci                     | 1973-64C      | Fragment              |                                          | R  |                         |
|                         | 1973-65A      | КОСМОС 586            | Sep 14 3200? USSR 986 1020 83°           | R  | mi 6828                 |
| F-7 Airline<br>30W      | 1973-65B      | КОСМОС 586 ROCKET     | Sep 14 2600? USSR                        | R  |                         |
| Ac 31                   | 1973-66A      | КОСМОС 587            | Sep 21 73Oct4 USSR 215 320 65,40°        | R  | mi 6832                 |
| 6718 miles              | 1973-66B      | КОСМОС 587 ROCKET     | Sep 21 73Sep28 USSR 174 294 65,44°       | R  |                         |
|                         | 1973-66C      | Fragment              | Sep 21 d USSR                            | R  |                         |
|                         | 1973-66D      | КОСМОС 587 CAPSULE    | Sep 21 73Oct8 USSR 170 320 65,42°        | R  | mi 6834                 |
|                         | 1973-66E      | Fragment              | Sep 21 d USSR                            | R  |                         |
| 17 Dec Sep 5            | 1973-67A (ii) | SKYLAB 3              | Sep 25 73Sep25,93 USA 425 438 50,03°     | R  | SKYLAB 3 APPROX 5000 mi |
| 2int                    | 1973-67A      | COV03 12              | Sep 27,91 73Sep29,48 USSR 394 249 51,56° | R  | SPACESHIP 6836          |
|                         | 1973-67B      | COV03 12 ROCKET       | Sep 27,91 73Sep29 USSR 326 315 51,52°    | R  | SPACESHIP 6836          |
|                         | 1973-67C      | COV03 12 ROCKET       | Sep 27,91 73Sep29 USSR                   | R  |                         |
|                         | 1973-68A      | USA 1                 | Sep 27 73Oct29 USA 180 385 10,48°        | R  | SPACESHIP 6837          |
|                         | 1973-69A      | КОСМОС 588            | Oct 2 1981 1494 74,00°                   | R  | SPACESHIP 6837          |
|                         | 1973-69B      | КОСМОС 589            | Oct 2 USSR 1419 1487 74,01°              | R  | SPACESHIP 6837          |
|                         | 1973-69C      | КОСМОС 590            | Oct 2 USSR 1438 1486 74,00°              | R  | SPACESHIP 6837          |
| com                     | 1973-69D      | КОСМОС 591            | Oct 2 USSR 1349 1488 74,00°              | R  | SPACESHIP 6837          |



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|          |                    |        |                |      |      |        |    |                       |          |
|----------|--------------------|--------|----------------|------|------|--------|----|-----------------------|----------|
| 1973-69E | KOCMOE 592         | Oct 2  | 8000. USSR     | 1333 | 1486 | 74,00° | PL |                       | 1973-75E |
| 1973-69F | KOCMOE 593         | Oct 2  | USSR           | 1366 | 1487 | 74,00° | PL |                       | 1973-75F |
| 1973-69G | KOCMOE 594         | Oct 2  | USSR           | 1382 | 1488 | 74,07° | PL |                       | 1973-75G |
| 1973-69H | KOCMOE 595         | Oct 2  | USSR           | 1402 | 1486 | 74,00° | PL |                       | 1973-75H |
| 1973-69J | ROCKET             | Oct 2  | USSR           |      |      |        | PL |                       | 1973-75J |
| 1973-70A | KOCMOE 596         | Oct 3  | 73049 USSR     | 211  | 287  | 65,41° | PL | rec r                 | 1973-75K |
| 1973-70B | KOCMOE 596 ROCKET  | Oct 3  | 73049 USSR     |      |      |        | PL | AZ                    | 1973-75L |
| 1973-70C | KOCMOE 596 CAPSULE | Oct 3  | 73049 USSR     | 200  | 226  | 65,45° | PL |                       | 1973-75M |
| 1973-71A | KOCMOE 597         | Oct 6  | 73042 USSR     | 212  | 312  | 65,42° | PL | rec r Kom Y. 11/10/73 | 1973-75N |
| 1973-71B | KOCMOE 597 ROCKET  | Oct 6  | 73042 USSR     | 207  | 259  |        | PL | AZ                    | 1973-75P |
| 1973-71C | Fragment           | Oct 6  | d USSR         |      |      |        | PL |                       | 1973-76A |
| 1973-71D | Fragment           | Oct 6  | d USSR         |      |      |        | PL |                       | 1973-76B |
| 1973-71E | KOCMOE 597 CAPSULE | Oct 6  | 73042 USSR     | 200  | 226  | 65,45° | PL | rec Oct 11            | 1973-76C |
| 1973-72A | KOCMOE 598         | Oct 10 | 73046 USSR     | 213  | 310  | 72,9°  | PL | rec r                 | 1973-76D |
| 1973-72B | KOCMOE 598 ROCKET  | Oct 10 | 73046 USSR     | 204  | 247  | 72,84° | PL | AZ                    | 1973-77A |
| 1973-72C | Fragment           | Oct 10 | d USSR         |      |      |        | PL |                       | 1973-77B |
| 1973-72D | KOCMOE 598 CAPSULE | Oct 10 | 73046 USSR     | 199  | 242  | 72,85° | PL | rec Oct 15            | 1973-77C |
| 1973-72E | Fragment           | Oct 10 | d USSR         |      |      |        | PL | AZ                    | 1973-77D |
| 1973-73A | KOCMOE 599         | Oct 15 | 73048 USSR     | 206  | 280  | 65°    | PL | rec?                  | 1973-78A |
| 1973-73B | KOCMOE 599 ROCKET  | Oct 15 | 73048 USSR     |      |      |        | PL | AZ                    | 1973-78B |
| 1973-73C | Fragment           | Oct 15 | d USSR         |      |      |        | PL |                       | 1973-78C |
| 1973-73D | Fragment           | Oct 15 | d USSR         |      |      |        | PL |                       | 1973-78D |
| 1973-73E | Fragment ?         | Oct 15 | d USSR         |      |      |        | PL | AZ                    | 1973-78E |
| 1973-74A | KOCMOE 600         | Oct 16 | 73049 USSR     | 215  | 366  | 72,8°  | PL | rec Kom Y. 11/10/73   | 1973-78F |
| 1973-74B | KOCMOE 600 ROCKET  | Oct 16 | 73049 USSR     | 207  | 257  |        | PL | AZ                    | 1973-78G |
| 1973-74C | Fragment           | Oct 16 | d USSR         |      |      |        | PL |                       | 1973-78H |
| 1973-74D | Fragment           | Oct 16 | d USSR         |      |      |        | PL |                       | 1973-78I |
| 1973-74E | KOCMOE 600 CAPSULE | Oct 16 | 73049 USSR     | 208  | 354  | 72,85° | PL | rec Oct 22            | 1973-78J |
| 1973-75A | KOCMOE 601         | Oct 16 | 74 Aug 15 USSR | 210  | 1561 | 82°    | PL | rec                   | 1973-78K |
| 1973-75B | KOCMOE 601 ROCKET  | Oct 16 | 74 Aug 15 USSR |      |      |        | PL | AZ                    | 1973-78L |
| 1973-75C | Fragment           | Oct 16 | d USSR         |      |      |        | PL |                       | 1973-78M |
| 1973-75D | Fragment           | Oct 16 | d USSR         |      |      |        | PL |                       | 1973-78N |



|                  |          |                               |         |       |           |                      |                 |    |    |                  |
|------------------|----------|-------------------------------|---------|-------|-----------|----------------------|-----------------|----|----|------------------|
|                  | 1973-75E | Fragment                      | Oct 16  | 2     | USSR      |                      |                 |    | PL |                  |
|                  | 1973-75F | Fragment                      | "       | 4     | "         |                      |                 |    | "  |                  |
|                  | 1973-75G | Fragment                      | "       | 4     | "         |                      |                 |    | "  |                  |
|                  | 1973-75H | Fragment                      | "       | 4     | "         |                      |                 |    | "  | B1               |
|                  | 1973-75J | Fragment                      | "       | 4     | "         |                      |                 |    | "  |                  |
| rec              | 1973-75K | Fragment                      | "       | 4     | "         |                      |                 |    | "  |                  |
|                  | 1973-75L | Fragment                      | "       | 4     | "         |                      |                 |    | "  |                  |
| see Oct 9        | 1973-75M | Fragment                      | "       | 4     | "         |                      |                 |    | "  |                  |
| more from Yappur | 1973-75N | Fragment                      | "       | 4     | "         |                      |                 |    | "  |                  |
|                  | 1973-75P | Fragment                      | "       | 4     | "         |                      |                 |    | "  |                  |
|                  | 1973-76A | МОЛНИЯ 2G                     | Oct 78? | USSR  | 509 39830 | 62,84°               | PL              |    |    | com              |
|                  | 1973-76B | МОЛНИЯ 2G ROCKET              | Oct 73  | Dec 3 | USSR      |                      | PL              |    |    | AZ               |
| see Oct 11       | 1973-76C | МОЛНИЯ 2G LAUNCHER            | Oct 19  | 73    | Dec 19    | USSR                 | PL              |    |    |                  |
| more 1           | 1973-76D | МОЛНИЯ 2G HIGH ROCKET         | Oct 19  | 78?   | USSR      |                      | PL              |    |    |                  |
|                  | 1973-77A | КОСМОС 602                    | Oct 20  | 73    | Oct 29    | USSR                 | 213 365 72,880  | PL |    | more from Yappur |
|                  | 1973-77B | КОСМОС 602 ROCKET             | Oct 20  | 73    | Oct 31    | USSR                 | 170 309 72,860  | PL |    |                  |
| see Oct 15       | 1973-77C | Fragment                      | Oct 20  | 1     | USSR      |                      | PL              |    |    | AZ               |
|                  | 1973-77D | КОСМОС 602 CAPSULE            | Oct 20  | 73    | Nov 1     | USSR                 | 161 250 72,870  | PL |    | eject Oct 28     |
| rec?             | 1973-78A | EXPLORER 50                   | Oct 26  | "     | USA       | 197 227800 28,77°    | KSC             |    |    | IMPJ             |
|                  | 1973-78B | <del>EX</del> 50 ROCKET ST. 1 | Oct 26  | "     | USA       | 141185 289857 28,67° | KSC             |    |    | DELTA            |
|                  | 1973-78C | EXPLORER 50 ROCKET ST. 2      | Oct 26  | "     | USA       |                      | KSC             |    |    | DELTA 97         |
|                  | 1973-78D | EXPLORER 50 ROCKET ST. 3      | Oct 26  | "     | USA       | 200? 228000? 28,70°  | KSC             |    |    | Altair           |
|                  | 1973-78E | <del>Fragment</del>           |         |       |           |                      |                 |    |    |                  |
|                  | 1973-79A | КОСМОС 603                    | Oct 27  | 73    | Nov 9     | USSR                 | 204 357 72,860  | PL |    | rec              |
|                  | 1973-79B | КОСМОС 603 ROCKET             | Oct 27  | 73    | Nov 9     | USSR                 |                 | PL |    |                  |
| from Yappur      | 1973-79C | Fragment                      | Oct 27  | d     | USSR      |                      | PL              |    |    |                  |
| more             | 1973-79D | Fragment                      | Oct 27  | d     | USSR      |                      | PL              |    |    | AZ               |
|                  | 1973-79E | Fragment                      | Oct 27  | d     | USSR      |                      | PL              |    |    |                  |
|                  | 1973-79F | КОСМОС 603 CAPSULE            | Oct 27  | 73    | Nov 13    | USSR                 | 169 257 72,840  | PL |    | see Nov 8        |
| see Oct 22       | 1973-80A | КОСМОС 604                    | Oct 29  | 2020? | USSR      | 615 636 81,230       | PL              |    |    | Meteor           |
| see              | 1973-80B | КОСМОС 604 ROCKET             | Oct 29  | 2020? | USSR      |                      | PL              |    |    |                  |
|                  | 1973-81A | NNS-20                        | Oct 30  | 2400? | USA       | 893 1050 90,18°      | WTR             |    |    | Navy NavSat      |
|                  | 1973-81B | ROCKET                        | Oct 30  | 2600? | USA       |                      | WTR             |    |    | in 20? 50?       |
|                  | 1973-82A | WHITE КОСМОС 10               | Oct 30  | 75    | Apr?      | INTERCOSMOS<br>USSR  | 259 1455 74,03° | PL |    | SCI              |



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|----------|------------------------|------------------|------|-------------------|-------|--|--|----------------------------|-----------|
| 1973-82B | INTERKOMOL 10 ROCKET   | Oct 30 750k/14h? | USSR |                   |       |  |  |                            | 1973-92A  |
| 1973-83A | KOCMOC 605             | Oct 30 73 Nov 22 | USSR | 212 462 62,8°     | POL?  |  |  | BIO WHITE MTS              | 1973-92B  |
| 1973-83B | KOCMOC 605 ROCKET      | Oct 30 73 Nov 22 | USSR |                   | POL?  |  |  |                            | 1973-92C  |
| 1973-83C | KOCMOC 605 CAPSULE     | Oct 30 74 Jan 16 | USSR | 193 379 62,3°     | TOL?  |  |  | Dec Nov 21                 | 1973-92D  |
| 1973-84A | KOCMOC 606             | Nov 2 78?        | USSR | 635 39708 62,79°  | TOL?  |  |  | Molnija 2                  | 1973-93A  |
| 1973-84B | KOCMOC 606 ROCKET      | Nov 2 74 Jan 6   | USSR |                   | TOL?  |  |  |                            | 1973-93B  |
| 1973-84C | KOCMOC 606 LAUNCHER    | Nov 2 74 Jan 29  | USSR |                   | TOL?  |  |  |                            | 1973-93C  |
| 1973-84D | KOCMOC 606 HIGH ROCKET | Nov 2 78?        | USSR |                   | TOL?  |  |  |                            | 1973-94A  |
| 1973-85A | MARINER 10             | Nov 3, 24        | USA  |                   |       |  |  |                            | 1973-94B  |
| 1973-85B | MARINER 10 ROCKET      | Nov 3, 24        | USA  |                   |       |  |  |                            | 1973-95A  |
| 1973-86A | NOAA 3                 | Nov 6 12000'     | USA  | 1500 1510 102,08° | UM    |  |  | ITOS F                     | 1973-95B  |
| 1973-86B | NOAA 3 ROCKET          | Nov 6            | USA  |                   | SLEW  |  |  | (E-J6)                     | 1973-95C  |
| 1973-86C | Fragment               | Nov 6            | USA  |                   | DELTA |  |  | Delta 98 exploded in orbit | 1973-95D  |
| 1973-86E | FV                     |                  |      |                   | WTR   |  |  |                            | 1973-95E  |
| 1973-87A | KOCMOC 607             | Nov 10 73 Nov 22 | USSR | 204 341 72,83°    | RL    |  |  |                            | 1973-96A  |
| 1973-87B | KOCMOC 607 ROCKET      | Nov 10 73 Nov 23 | USSR | 173 344 72,84°    | RL    |  |  |                            | 1973-96B  |
| 1973-87C | Fragment               | Nov 10 d         | USSR |                   | RL    |  |  |                            | 1973-96C  |
| 1973-87D | KOCMOC 607 CAPSULE     | Nov 10 73 Nov 28 | USSR | 169 334 72,82°    | RL    |  |  | Jan Nov 21                 | 1973-97A  |
| 1973-87E | Fragment               | Nov 10 d         | USSR |                   | RL    |  |  |                            | 1973-97B  |
| 1973-88A | USAF                   | Nov 10 74 Mar?   | USA  | 146 275 96,93°    | WTR   |  |  | Big Bird 7                 | 1973-97C  |
| 1973-88B | ROCKET                 | Nov 10 73 Nov 12 | USA  |                   | WTR   |  |  |                            | 1973-97D  |
| 1973-88C | USAF                   | Nov 10 76?       | USA  | 486 829 96,33°    | WTR   |  |  | (E-J6) 30 mstr.            | 1973-98A  |
| 1973-88D | USAF                   | Nov 10 74 Mar 13 | USA  | 1419 1458 96,93°  | WTR   |  |  |                            | 1973-98B  |
| 1973-89A | MONKHA 1AA             | Nov 14 78?       | USSR | 566 39800 64,9°   | RL    |  |  | com                        | 1973-99A  |
| 1973-89B | MONKHA 1AA ROCKET      | Nov 14 74 Jan 2  | USSR |                   | RL    |  |  |                            | 1973-99B  |
| 1973-89C | MONKHA 1AA LAUNCHER    | Nov 14 74 Jan 26 | USSR |                   | RL    |  |  |                            | 1973-100A |
| 1973-89D | Fragment               | Nov 14 d         | USSR |                   | RL    |  |  |                            | 1973-100B |
| 1973-89E | MONKHA 1AA HIGH ROCKET | Nov 14 78?       | USSR |                   | RL    |  |  |                            | 1973-100D |
| 1973-90A | SKYLAB 4               | Nov 16 73 Nov 16 | USSR | 184 224 50,04°    | POL?  |  |  | See SPACESHIP              | 1973-100C |
| 1973-90B | SKYLAB 4 ROCKET        | Nov 16 73 Nov 16 | USSR | 172 436 50,04°    | POL?  |  |  | 1 B STUB-208               | 1973-101A |
| 1973-91A | KOCMOC 608             | Nov 20 74 Sep 10 | USSR | 281 528 71°       | RL    |  |  |                            | 1973-101B |
| 1973-91B | KOCMOC 608 ROCKET      | Nov 20 74 Mar?   | USSR |                   | RL    |  |  |                            | 1973-101A |



|                                  |           |                                              |        |           |      |       |       |        |    |                                            |
|----------------------------------|-----------|----------------------------------------------|--------|-----------|------|-------|-------|--------|----|--------------------------------------------|
|                                  | 1973-92A  | KOСMOC 609                                   | Nov 21 | 73 Dec 4  | USSR | 207   | 370   | 69,95° | PL | rec r                                      |
| BIO r<br>white mts               | 1973-92B  | KOСMOC 609 ROCKET                            | Nov 21 | 73 Dec 4  | USSR | 174   | 341   | 69,94° | PL | Kom Yipov<br>Gosstere                      |
|                                  | 1973-92C  | KOСMOC 609 CAPSULE                           | Nov 21 | 73 Dec 6  | USSR | 173   | 269   | 69,98° | PL | AC                                         |
| Dec Nov 21                       | 1973-92D  | Fragment                                     | Nov 21 | d         | USSR |       |       |        | PL | see Rec 3                                  |
| Molnija 2                        | 1973-93A  | KOСMOC 610                                   | Nov 27 | 89?       | USSR | 575   | 560   | 74°    | PL | elit                                       |
|                                  | 1973-93B  | KOСMOC 610 ROCKET                            | Nov 27 | 79?       | USSR |       |       |        | PL | (1)                                        |
|                                  | 1973-93C  | Fragment                                     | Nov 27 |           | USSR |       |       |        | PL |                                            |
|                                  | 1973-94A  | KOСMOC 611                                   | Nov 28 | 74 Jul 19 | USSR | 280   | 481   | 71°    | PL | sci                                        |
| see<br>ATTACHMENT<br>10) ANSWERS | 1973-94B  | KOСMOC 611 ROCKET                            | Nov 28 | 74 Mar?   | USSR |       |       |        | PL |                                            |
| POS 6                            | 1973-95A  | KOСMOC 612                                   | Nov 28 | 73 Dec 11 | USSR | 214   | 371   | 74,9°  | PL | rec r                                      |
| Foto)                            | 1973-95B  | KOСMOC 612 ROCKET                            | Nov 28 | 73 Dec 12 | USSR | 187   | 338   | 74,84° | PL | Kom Yipov<br>Gosstere                      |
| Delta 98<br>or Model<br>in orbit | 1973-95C  | KOСMOC 612 CAPSULE                           | Nov 28 | 73 Dec 16 | USSR | 167   | 297   | 74,84° | PL | AC see Rec 10                              |
|                                  | 1973-95D  | Fragment                                     | Nov 28 | d         | USSR |       |       |        | PL |                                            |
|                                  | 1973-95E  | Fragment                                     | Nov 28 | d         | USSR |       |       |        | PL |                                            |
| rec                              | 1973-96A  | KOСMOC 613                                   | Nov 30 | 74 Jan 23 | USSR | 188   | 295   | 51,6°  | PL | om. Soyuz? r<br>(or Soyuz?)                |
|                                  | 1973-96B  | KOСMOC 613 ROCKET                            | Nov 30 | 73 Dec 4  | USSR | 255   | 376   | 51,56° | PL | AC?                                        |
|                                  | 1973-96C  | <del>KOСMOC 613 CAPSULE</del><br>OVB. MODULE | Nov 30 | 74 Mar 9  | USSR | 239   | 363   | 51,60° | PL | (01?)                                      |
| Nov 21                           | 1973-97A  | МОЛНИЯ 1 AB                                  | Nov 30 | 79?       | USSR | 610   | 40815 | 62,89° | PL | com                                        |
|                                  | 1973-97B  | МОЛНИЯ 1 AB ROCKET                           | Nov 30 | 73 Dec 30 | USSR | 484   | 39839 | 62,7°  | PL |                                            |
| Biol 7                           | 1973-97C  | МОЛНИЯ PAR LAXXER                            | Nov 30 | 73 Dec 31 | USSR |       |       |        | PL | Are                                        |
|                                  | 1973-97D  | МОЛНИЯ 1 AB HIGH ROCKET                      | Nov 30 | 78?       | USSR |       |       |        | PL |                                            |
| MS.                              | 1973-98A  | KOСMOC 614                                   | Dec 4  | 2000?     | USSR | 770   | 830   | 74°    | PL | ci mikp                                    |
|                                  | 1973-98B  | KOСMOC 614 ROCKET                            | Dec 4  |           | USSR |       |       |        | PL |                                            |
|                                  | 1973-99A  | KOСMOC 615                                   | Dec 13 | 75 Dec 17 | USSR | 270   | 832   | 71°    | PL | sci                                        |
|                                  | 1973-99B  | KOСMOC 615 ROCKET                            | Dec 13 | 75 Dec 17 | USSR |       |       |        | PL |                                            |
|                                  | 1973-100A | DSCS 3                                       | Dec 14 | -         | USA  | 35790 | 35791 | 2,56°  | PL | DSCS phase 2                               |
|                                  | 1973-100B | DSCS 4                                       | Dec 14 | -         | USA  | 35797 | 35801 | 2,56°  | PL |                                            |
| SPACESHIP                        | 1973-100D | TRANSTAGE                                    | Dec 14 | -         | USA  |       |       |        | PL | TITAN 3C<br>Titan 3C-20<br>Titan 2nd stage |
|                                  | 1973-100C | ROCKET                                       | Dec 14 | 73 Dec 17 | USA  |       |       |        | PL |                                            |
| IB-208                           | 1973-101A | EXPLORER 51                                  | Dec 16 | 78?       | USA  | 158   | 4302  | 68,12° | PL | AEC                                        |
|                                  | 1973-101B | EXPLORER 51 ROCKET                           | Dec 16 | 74 Jun?   | USA  |       |       |        | PL | Rec 99                                     |
|                                  | 1973-102A | KOСMOC 616                                   | Dec 17 | 73 Dec 28 | USSR | 206   | 332   | 72,86° | PL | Kom Yipov<br>Gosstere                      |



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|----------------------|-----------------------------|--------------------------------------------|---------------|-------------------|
| 1973-102B            | KOСMOC 616 ROCKET           | Dec 17 73 Dec 31 USSR                      | Re            | 1973-10           |
| 1973-102C            | Fragment                    | Dec 17 d USSR                              | Re            | 1973-10           |
| 1973-102D            | Fragment                    | Dec 17 d USSR                              | Re            | 1974-0            |
| <del>1973-102E</del> | <del>Fragment CAPSULE</del> | <del>Dec 17 d USSR</del>                   | <del>Re</del> | <del>1974-0</del> |
| 1973-102F            | Fragment                    | Dec 17 d USSR                              | Re            | 1974-1            |
| 1973-102G            | KOСMOC 616 CAPSULE          | Dec 17 USSR 197 301 72,90° PL              | Re            | 1974-1            |
| 1973-103A            | COVOS 13                    | Dec 18,50 73 Dec 26 USSR 188 247 57,57° PL | Re            | 1974-1            |
| 1973-103B            | COVOS 13 ROCKET             | Dec 18,50 73 Dec 22 USSR 225 272           | Re            | 1974-1            |
| 1973-103C            | Fragment                    | Dec 18,50 d USSR                           | Re            | 1974-1            |
| 1973-104A            | KOСMOC 617                  | Dec 19 7000? USSR 1336 1486 74,03° PL      | Re            | 1974-1            |
| 1973-104B            | KOСMOC 618                  | Dec 19 7000? USSR 1446 1489 74,02° PL      | Re            | 1974-1            |
| 1973-104C            | KOСMOC 619                  | Dec 19 USSR 1423 1493 74,02° PL            | Re            | 1974-1            |
| 1973-104D            | KOСMOC 620                  | Dec 19 USSR 1461 1495 74,01° PL            | Re            | 1974-1            |
| 1973-104E            | KOСMOC 621                  | Dec 19 USSR 1410 1485 74,03° PL            | Re            | 1974-1            |
| 1973-104F            | KOСMOC 622                  | Dec 19 USSR 1371 1487 74,01° PL            | Re            | 1974-1            |
| 1973-104G            | KOСMOC 623                  | Dec 19 USSR 1389 1487 74,01° PL            | Re            | 1974-1            |
| 1973-104H            | KOСMOC 624                  | Dec 19 USSR 1366 1474 74,02° PL            | Re            | 1974-1            |
| 1973-104I            | ROCKET                      | Dec 19 22000? USSR                         | Re            | 1974-1            |
| 1973-104J            | Fragment                    | Dec 21 74 Jun 3 USSR 204 322 72,83° PL     | Re            | 1974-1            |
| 1973-105A            | KOСMOC 625                  | Dec 21 74 Jun 3 USSR 188 340 74,80° PL     | Re            | 1974-1            |
| 1973-105B            | KOСMOC 625 ROCKET           | Dec 21 74 Jun 1 USSR                       | Re            | 1974-1            |
| 1973-105C            | Fragment                    | Dec 21 d USSR                              | Re            | 1974-1            |
| 1973-105D            | Fragment                    | Dec 21 d USSR                              | Re            | 1974-1            |
| 1973-105E            | KOСMOC 625 CAPSULE          | Dec 21 74 Jun 6 USSR 166 319 72,91° PL     | Re            | 1974-1            |
| 1973-106A            | МОЛНИЯ 2 H                  | Dec 25 79? USSR 488 40780 62,89° PL        | Re            | 1974-1            |
| 1973-106B            | МОЛНИЯ 2 H ROCKET           | Dec 25 74 Jun 13 USSR 434 31934 64,9° PL   | Re            | 1974-1            |
| 1973-106C            | МОЛНИЯ 2 H LAUNCHER         | Dec 25 74 Jun 25 USSR                      | Re            | 1974-1            |
| 1973-106D            | МОЛНИЯ 2 H MISS ROCKET      | Dec 25 79? USSR                            | Re            | 1974-1            |
| 1973-107A            | AUREOLE 2                   | Dec 26 2008? USSR/France 400 1975 71,9° PL | Re            | 1974-1            |
| 1973-107B            | AUREOLE 2 ROCKET            | Dec 26 USSR/France                         | Re            | 1974-1            |
| 1973-108A            | KOСMOC 626                  | Dec 27 2400? USSR 259 259 65,02° PL        | Re            | 1974-1            |
| 1973-108B            | KOСMOC 626 ROCKET           | Dec 27 USSR 910 990 64,910° PL             | Re            | 1974-1            |
| 1973-108C            | KOСMOC 626 PLATFORM         | Dec 27 USSR                                | Re            | 1974-1            |
| 1973-108D            | KOСMOC 626                  |                                            |               | 1974-1            |



|                      |              |                       |                                               |                                         |           |
|----------------------|--------------|-----------------------|-----------------------------------------------|-----------------------------------------|-----------|
|                      | 1973-109A    | KOCMOC 627            | Dec 29 3300 <sup>0</sup> USSR 972 1017 82,95° | R <sub>1</sub> } CI                     | Nov       |
|                      | 1973-109B    | KOCMOC 627 ROCKET     | Dec 29 2600 <sup>0</sup> USSR                 | R <sub>2</sub> }                        |           |
| AZ                   | 1974-01A     | KOCMOC 628            | Jan 17 3200 <sup>0</sup> USSR 960 1046 82,96° | R <sub>1</sub> } CI                     | Nov       |
|                      | 1974-01B     | KOCMOC 628 ROCKET     | Jan 17 USSR                                   | R <sub>2</sub> }                        |           |
|                      | 1974-02A     | SKYNET 2 A            | Jan 19 74 Jan 25 USA 97 3405 37,6°            | K <sub>1</sub> } military + trans. c.o. |           |
| elec Dec 27          | 1974-02B     | SKYNET 2 A ROCKET     | Jan 19 74 Jan 20 USA                          | K <sub>2</sub> }                        | Delta 100 |
| SPACE EXPLOR         | 1974-02C     | Fragment              | Jan 14 USA                                    | K <sub>3</sub> }                        | Delta     |
|                      | 1974-02D     | Fragment              | Jan 14 USA                                    | K <sub>4</sub> }                        |           |
|                      | 1974-03A     | KOCMOC 629            | Jan 24 74 Feb 5 USSR 196 290 62,81°           | R <sub>1</sub> }                        | Delta R   |
| 804                  | 1974-03B     | KOCMOC 629 ROCKET     | Jan 24 74 Feb 1 USSR                          | R <sub>2</sub> }                        | AZ        |
| Kosmos               | 1974-03C     | Fragment              | Jan 24 USSR                                   | R <sub>3</sub> }                        |           |
| october              | 1974-03D     | KOCMOC 629 CAPSULE    | Jan 24 74 Feb 9 USSR 195 277 62,81°           | R <sub>4</sub> }                        | Delta R 4 |
| land                 | 1974-04A     | KOCMOC 630            | Jan 30 74 Feb 3 USSR 203 346 72,84°           | R <sub>1</sub> }                        | Nov       |
|                      | 1974-04B     | KOCMOC 630 ROCKET     | Jan 30 74 Feb 3 USSR                          | R <sub>2</sub> }                        |           |
|                      | 1974-04C     | Fragment              | Jan 30 74 Feb 3 USSR                          | R <sub>3</sub> }                        | AZ        |
|                      | 1974-04D     | Fragment              | Jan 30 74 Feb 3 USSR                          | R <sub>4</sub> }                        |           |
|                      | 1974-04E     | Fragment              | Jan 30 USSR                                   | R <sub>5</sub> }                        |           |
|                      | 1974-04F     | KOCMOC 630 CAPSULE    | Jan 30 74 Feb 16 USA 162 273 72,82°           | R <sub>6</sub> }                        | 74 Feb 12 |
| fuel                 | 1974-05A     | KOCMOC 631            | Feb 6 84? USA 522 545 74,04°                  | R <sub>1</sub> }                        | Delta     |
| main upper           | 1974-05B     | KOCMOC 631 ROCKET     | Feb 6 84? USSR                                | R <sub>2</sub> }                        | CI        |
| stage                | 1974-05C     | Fragment              | Feb 6 USSR                                    | R <sub>3</sub> }                        |           |
|                      | 1974-05D     | Fragment              | Feb 6 USSR                                    | R <sub>4</sub> }                        |           |
| elec Dec 30          | 1973-96A(ii) | SKYLAB 4              | Feb 8 74 Feb 9 USA 422 436 50,04°             | S <sub>1</sub> }                        | Delta 100 |
| com                  | 1974-06A     | KOCMOC 632            | Feb 12 74 Feb 16 USSR 176 303 65,00°          | R <sub>1</sub> }                        | Delta     |
|                      | 1974-06B     | KOCMOC 632 ROCKET     | Feb 12 74 Feb 17 USSR                         | R <sub>2</sub> }                        |           |
|                      | 1974-06C     | Fragment              | Feb 12 USSR                                   | R <sub>3</sub> }                        | AZ        |
|                      | 1974-06D     | Fragment              | Feb 12 USSR                                   | R <sub>4</sub> }                        |           |
| 44: Hercules         | 1974-06E     | KOCMOC 632 CAPSULE    | Feb 12 74 Feb 20 USSR 192 382 65,01°          | R <sub>5</sub> }                        | Delta 100 |
| 053                  | 1974-07A     | USAF                  | Feb 13 74 Mar 11 USA 134 393 119,44°          | R <sub>1</sub> }                        | Delta 100 |
| split from 74 Feb 11 | 1974-08A     | 'TANSEI' 2 (TANSEI 2) | Feb 16 83? JAPAN 288 3236 312,3°              | R <sub>1</sub> }                        | Delta 100 |
|                      | 1974-08B     | 'TANSEI' 2 ROCKET     | Feb 16 83? JAPAN                              | R <sub>2</sub> }                        | Delta 100 |
|                      | 1974-09A     | SAN MARCO 4           | Feb 18 76 May 4 USSR 252 910 2,92°            | R <sub>1</sub> }                        | Delta 100 |



⊕

1974

|          |                    |            |           |      |                |             |          |
|----------|--------------------|------------|-----------|------|----------------|-------------|----------|
| 1974-09B | SAN MARCO 4 ROCKET | Feb 18     | 74 Jan 9  | USA  | SMLC           | scout       | 1974-18E |
| 1974-10A | KOCMOC 633         | Feb 27     | 74 Oct 4  | USSR | 272 491 7998°  | PC } BI     | 1974-19A |
| 1974-10B | KOCMOC 633 ROCKET  | Feb 27     | 74 May    | USSR |                |             | 1974-19B |
| 1974-11A | METEOP 16          | Mar 5      | 2500?     | USSR | 832 894 81,23° | PC } BI met | 1974-19C |
| 1974-11B | METEOP 16 ROCKET   | Mar 5      | 2400?     | USSR |                |             | 1974-19D |
| 1974-12A | KOCMOC 634         | Mar 5      | 74 Mar 9  | USSR | 270 491 70,92° | PC } BI sui | 1974-19E |
| 1974-12B | KOCMOC 634 ROCKET  | Mar 5      | 74 Jun?   | USSR |                |             | 1974-19F |
| 1974-13A | MIRANDA            | Mar 9      | 2120?     | OK   | 713 906 97,81° | WTR         | 1974-20A |
| 1974-13B | MIRANDA ROCKET     | Mar 9      | 2030?     | USA  |                | WTR         | 1974-20B |
| 1974-13C | Fragment           | Mar 9      |           | USA  |                | WTR         | 1974-20C |
| 1974-13D | Fragment           | Mar 9      |           | USA  |                | WTR         | 1974-20D |
| 1974-14A | KOCMOC 635         | Mar 14     | 74 Mar 26 | USSR | 204 327 72,83° | PC          | 1974-21A |
| 1974-14B | KOCMOC 635 ROCKET  | Mar 14     | 74 Mar 25 | USSR |                | PC          | 1974-21B |
| 1974-14C | Fragment           | Mar 14     | 2         | USSR |                | PC          | 1974-21A |
| 1974-14D | Fragment           | Mar 14     | 2         | USSR |                | PC          | 1974-21B |
| 1974-14E | KOCMOC 635 CAPSULE | Mar 14     | 74 Apr 7  | USSR | 203 319 72,83° | PC          | 1974-21C |
| 1974-15A | USAF               | Mar 16     | 2030?     | USA  | 782 877 98,94° | WTR         | 1974-21A |
| 1974-15B | ROCKET             | Mar 16     | 2030?     | USA  |                | WTR         | 1974-21B |
| 1974-16A | KOCMOC 636         | Mar 20     | 74 Apr 3  | USSR | 165 388 65,02° | PC          | 1974-21C |
| 1974-16B | KOCMOC 636 ROCKET  | Mar 20     | 74 Mar 24 | USSR | 163 309 65,02° | PC          | 1974-21D |
| 1974-16C | Fragment           | Mar 20     | 2         | USSR |                | PC          | 1974-21E |
| 1974-16D | Fragment           | Mar 20     | 2         | USSR |                | PC          | 1974-21A |
| 1974-16E | Fragment           | Mar 20     | 2         | USSR |                | PC          | 1974-21B |
| 1974-16F | KOCMOC 636 CAPSULE | Mar 20     | 74 Apr 5  | USSR | 184 422 65,02° | PC          | 1974-21C |
| 1974-17A | KOCMOC 637         | Mar 26, 57 |           | USSR | 127 230 51,54° | PC          | 1974-21D |
| 1974-17B | KOCMOC 637         | Mar 26, 57 |           | USSR | 226 366 49,23° | PC          | 1974-21E |
| 1974-17C | KOCMOC 637         | Mar 26, 57 |           | USSR | 330 357 49,23° | PC          | 1974-21F |
| 1974-17D | KOCMOC 637         | Mar 26, 57 |           | USSR | 181 194 51,48° | PC          | 1974-21G |
| 1974-17E | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21H |
| 1974-17F | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21I |
| 1974-17G | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21J |
| 1974-17H | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21K |
| 1974-17I | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21L |
| 1974-17J | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21M |
| 1974-17K | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21N |
| 1974-17L | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21O |
| 1974-17M | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21P |
| 1974-17N | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21Q |
| 1974-17O | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21R |
| 1974-17P | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21S |
| 1974-17Q | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21T |
| 1974-17R | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21U |
| 1974-17S | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21V |
| 1974-17T | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21W |
| 1974-17U | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21X |
| 1974-17V | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21Y |
| 1974-17W | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-21Z |
| 1974-17X | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-22A |
| 1974-17Y | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-22B |
| 1974-17Z | KOCMOC 637         | Mar 26, 57 |           | USSR |                | PC          | 1974-22C |
| 1974-18A | KOCMOC 638         | Apr 3      | 74 Apr 9  | USSR | 187 309 81,28° | PC          | 1974-22D |
| 1974-18B | KOCMOC 638 ROCKET  | Apr 3      | 74 Apr 9  | USSR |                | PC          | 1974-22E |
| 1974-18C | Fragment           | Apr 3      | 2         | USSR |                | PC          | 1974-22F |
| 1974-18D | Fragment           | Apr 3      | 2         | USSR |                | PC          | 1974-22G |



| Object   | Designation              | Launch Date | Launch Time | Altitude (km) | Speed (km/h) | Weight (kg) | Notes  |
|----------|--------------------------|-------------|-------------|---------------|--------------|-------------|--------|
| 1974-18E | Fragment                 | Apr 3       | d           | USSR          |              |             |        |
| 1974-19A | Kosmos 639               | Apr 4       | 74          | 155           | 206          | 227         | 81,310 |
| 1974-19B | Kosmos 639 ROCKET        | Apr 4       | 74          | 155           | 206          | 227         | 81,310 |
| 1974-19C | Fragment                 | Apr 4       | d           | USSR          |              |             |        |
| 1974-19D | Kosmos 639 CAPSULE       | Apr 4       | 74          | 155           | 206          | 227         | 81,310 |
| 1974-19E | Fragment                 | Apr 4       | d           | USSR          |              |             |        |
| 1974-19F | Fragment                 | Apr 4       | d           | USSR          |              |             |        |
| 1974-20A | USAF                     | Apr 10      | 74          | 153           | 285          | 94,520      |        |
| 1974-20B | USAF                     | Apr 10      | 74          | 153           | 285          | 94,520      |        |
| 1974-20C | USAF                     | Apr 10      | 74          | 153           | 285          | 94,520      |        |
| 1974-20D | ROCKET                   | Apr 10      | 74          | 153           | 285          | 94,520      |        |
| 1974-21A | Kosmos 640               | Apr 11      | 74          | 153           | 285          | 94,520      |        |
| 1974-21B | Kosmos 640 ROCKET        | Apr 11      | 74          | 153           | 285          | 94,520      |        |
| 1974-22A | WESTAR I                 | Apr 13      | 74          | 153           | 285          | 94,520      |        |
| 1974-22B | WESTAR I ROCKET ST.3     | Apr 13      | 74          | 153           | 285          | 94,520      |        |
| 1974-22C | WESTAR I ROCKET ST.3     | Apr 13      | 74          | 153           | 285          | 94,520      |        |
| 1974-23A | MONITOR I AC             | Apr 20      | 74          | 153           | 285          | 94,520      |        |
| 1974-23B | MONITOR I AC LAUNCHER    | Apr 20      | 74          | 153           | 285          | 94,520      |        |
| 1974-23C | MONITOR I AC             | Apr 20      | 74          | 153           | 285          | 94,520      |        |
| 1974-23D | Fragment                 | Apr 20      | 74          | 153           | 285          | 94,520      |        |
| 1974-23E | MONITOR I AC HIGH ROCKET | Apr 20      | 74          | 153           | 285          | 94,520      |        |
| 1974-24A | Kosmos 641               | Apr 23      | 74          | 153           | 285          | 94,520      |        |
| 1974-24B | Kosmos 642               | Apr 23      | 74          | 153           | 285          | 94,520      |        |
| 1974-24C | Kosmos 643               | Apr 23      | 74          | 153           | 285          | 94,520      |        |
| 1974-24D | Kosmos 644               | Apr 23      | 74          | 153           | 285          | 94,520      |        |
| 1974-24E | Kosmos 645               | Apr 23      | 74          | 153           | 285          | 94,520      |        |
| 1974-24F | Kosmos 646               | Apr 23      | 74          | 153           | 285          | 94,520      |        |
| 1974-24G | Kosmos 647               | Apr 23      | 74          | 153           | 285          | 94,520      |        |
| 1974-24H | Kosmos 648               | Apr 23      | 74          | 153           | 285          | 94,520      |        |
| 1974-24J | ROCKET                   | Apr 23      | 74          | 153           | 285          | 94,520      |        |
| 1974-25A | METEOR 17                | Apr 24      | 74          | 153           | 285          | 94,520      |        |
| 1974-25B | METEOR 17 ROCKET         | Apr 24      | 74          | 153           | 285          | 94,520      |        |

1944



1974

|          |                                     |                          |                   |     |                    |
|----------|-------------------------------------|--------------------------|-------------------|-----|--------------------|
| 1974-26A | МОЛНИЯ 2 J                          | Apr 26 74? USSR          | 417 39437 63.0°   |     |                    |
| 1974-26B | МОЛНИЯ 2 J ROCKET                   | Apr 26 74 May 17 USSR    | 600 40675 62.89°  | PC  | com                |
| 1974-26C | МОЛНИЯ 2 J LAUNCHER                 | Apr 26 74 May 21 USSR    |                   | PC  |                    |
| 1974-26D | <del>Fragment</del>                 |                          |                   | PC  |                    |
| 1974-26E | МОЛНИЯ 2 J HIGH ROCKET              | Apr 26 74? USSR          |                   | PC  |                    |
| 1974-27A | КОСМОС 649                          | Apr 29 74 May 11 USSR    | 182 3050 62.81°   | PC  | rec                |
| 1974-27B | КОСМОС 649 ROCKET                   | Apr 29 74 May 3 USSR     |                   | PC  |                    |
| 1974-27C | Fragment                            | Apr 29 74 USSR           |                   | PC  |                    |
| 1974-27D | КОСМОС 649 <del>Enorm</del> CAPSULE | Apr 29 74 May 16 USSR    | 177 295 62.79°    | PC  | AZ ejection May 10 |
| 1974-27E | Fragment                            | Apr 29 74 USSR           |                   | PC  |                    |
| 1974-27F | Fragment                            | Apr 29 74 USSR           |                   | PC  |                    |
| 1974-27G | Fragment                            | Apr 29 74 USSR           |                   | PC  |                    |
| 1974-28A | КОСМОС 650                          | Apr 29 8000? USSR        | 1364 403 71.04°   | PC  | similar?           |
| 1974-28B | КОСМОС 650 ROCKET                   | Apr 29 6000? USSR        |                   | PC  |                    |
| 1974-29A | КОСМОС 651                          | May 15 30 USSR           | 185 264 64.97°    | PC  | MOSSon: OSS        |
| 1974-29B | КОСМОС 651 ROCKET                   | May 15 30 USSR           | 892 955 64.97°    | PC  | split in Jan?      |
| 1974-29C | КОСМОС 651 PLATFORM                 | May 15 36 USSR           |                   | PC  |                    |
| 1974-30A | КОСМОС 652                          | May 15 36 USSR           | 172 343 51.76°    | PC  | rec r (or say v)   |
| 1974-30B | КОСМОС 652 ROCKET                   | May 15 36 USSR           |                   | PC  |                    |
| 1974-30C | Fragment                            | May 15 36 USSR           |                   | PC  |                    |
| 1974-30D | Fragment                            | May 15 36 USSR           |                   | PC  |                    |
| 1974-30E | Fragment                            | May 15 36 USSR           |                   | PC  |                    |
| 1974-30F | Fragment                            | May 15 36 USSR           |                   | PC  |                    |
| 1974-30G | Fragment                            | May 15 36 USSR           |                   | PC  |                    |
| 1974-30H | КОСМОС 652 CAPSULE                  | May 15 36 USSR           |                   | PC  |                    |
| 1974-31A | КОСМОС 653                          | May 15 52 74 May 22 USSR | 191 288 62.81°    | PC  | rec r              |
| 1974-31B | КОСМОС 653 ROCKET                   | May 15 52 74 May 20 USSR |                   | PC  |                    |
| 1974-31C | КОСМОС 653 CAPSULE                  | May 15 52 74 May 28 USSR |                   | PC  | AZ                 |
| 1974-32A | КОСМОС 654                          | May 17 29 USSR           | 248 266 64.99°    | PC  | see                |
| 1974-32B | КОСМОС 654 ROCKET                   | May 17 29 USSR           | 913 1024 64.99°   | PC  | OSS mv             |
| 1974-32C | КОСМОС 654 PLATFORM                 | May 17 29 USSR           |                   | PC  | split in?          |
| 1974-32D | Fragment                            |                          |                   | PC  |                    |
| 1974-32E | Fragment                            |                          |                   | PC  |                    |
| 1974-32F | Fragment                            |                          |                   | PC  |                    |
| 1974-32G | Fragment                            |                          |                   | PC  |                    |
| 1974-32H | Fragment                            |                          |                   | PC  |                    |
| 1974-32I | Fragment                            |                          |                   | PC  |                    |
| 1974-32J | Fragment                            |                          |                   | PC  |                    |
| 1974-32K | Fragment                            |                          |                   | PC  |                    |
| 1974-32L | Fragment                            |                          |                   | PC  |                    |
| 1974-32M | Fragment                            |                          |                   | PC  |                    |
| 1974-32N | Fragment                            |                          |                   | PC  |                    |
| 1974-32O | Fragment                            |                          |                   | PC  |                    |
| 1974-32P | Fragment                            |                          |                   | PC  |                    |
| 1974-32Q | Fragment                            |                          |                   | PC  |                    |
| 1974-32R | Fragment                            |                          |                   | PC  |                    |
| 1974-32S | Fragment                            |                          |                   | PC  |                    |
| 1974-32T | Fragment                            |                          |                   | PC  |                    |
| 1974-32U | Fragment                            |                          |                   | PC  |                    |
| 1974-32V | Fragment                            |                          |                   | PC  |                    |
| 1974-32W | Fragment                            |                          |                   | PC  |                    |
| 1974-32X | Fragment                            |                          |                   | PC  |                    |
| 1974-32Y | Fragment                            |                          |                   | PC  |                    |
| 1974-32Z | Fragment                            |                          |                   | PC  |                    |
| 1974-33A | SMS 1                               | May 17 40 USSR           | 174 32885 24.5°   | KSC | SMS A              |
| 1974-33B | SMS 1 ROCKET                        | May 17 40 USSR           | 32360 3490 1.87°  | KSC | SMS A              |
| 1974-33C | SMS 1 ROCKET ST. 3?                 | May 17 40 USSR           | 35497 35797 1.87° | KSC | SMS A              |
| 1974-33D | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33E | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33F | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33G | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33H | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33I | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33J | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33K | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33L | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33M | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33N | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33O | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33P | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33Q | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33R | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33S | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33T | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33U | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33V | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33W | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33X | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33Y | Fragment                            |                          |                   | KSC | SMS A              |
| 1974-33Z | Fragment                            |                          |                   | KSC | SMS A              |



|          |                        |            |       |      |       |        |         |     |     |                                     |
|----------|------------------------|------------|-------|------|-------|--------|---------|-----|-----|-------------------------------------|
| 1974-34A | VIHTERKOCMOC II        | May 17, 45 | 50?   | USSR | 483   | 512    | 50,64°  | 62° | 62° | Solar UV, X                         |
| 1974-34B | VIHTERKOCMOC II ROCKET | May 17, 45 | 79?   | USSR |       |        |         |     |     | Sci                                 |
| 1974-35A | KOCMOC 655             | May 21, 26 | 79?   | USSR | 523   | 542    | 74,08°  | 62° | 62° | elint                               |
| 1974-35B | KOCMOC 655 ROCKET      | May 21, 26 | 84?   | USSR |       |        |         |     |     |                                     |
| 1974-35C | Fragment               |            |       |      |       |        |         |     |     |                                     |
| 1974-36A | KOCMOC 656             | May 27, 31 | 74    | USSR | 945   | 364    | 51,6°   | 62° | 62° | lim Sagitt                          |
| 1974-36B | KOCMOC 656 ROCKET      | May 27, 31 | 74    | USSR |       |        |         |     |     |                                     |
| 1974-37A | NYHA 22                | May 24, 37 | (75C) | USSR |       |        |         |     |     | see UNIV. PROPOS                    |
| 1974-37B | NYHA 22 ROCKET         | May 24, 37 | 74    | USSR | 187   | 227    | 57,54°  | 62° | 62° | Die Spatnik 67?                     |
| 1974-37C | NYHA 22 PLATFORM       | May 24, 37 | 74    | USSR | 227   | 1788   | 51,56°  | 62° | 62° | Spatnik 67?                         |
| 1974-37D | Fragment               |            |       |      |       |        |         |     |     |                                     |
| 1974-38A | KOCMOC 657             | May 30, 53 | 74    | USSR | 177   | 296    | 62,79°  | 62° | 62° | merit                               |
| 1974-38B | KOCMOC 657 ROCKET      | May 30, 53 | 74    | USSR |       |        |         |     |     |                                     |
| 1974-38C | Fragment               | May 30, 53 | d     | USSR |       |        |         |     |     |                                     |
| 1974-38D | KOCMOC 657 CAPSULE     | May 30, 53 | 74    | USSR | 168   | 289    | 62,79°  | 62° | 62° | see Jul 2                           |
| 1974-38E | Fragment               | May 30, 53 | d     | USSR |       |        |         |     |     |                                     |
| 1974-39A | ATS 6                  | May 30, 54 | 74    | USA  | 35760 | 35792  | 0,18°   | 62° | 62° | radion occul, Koval, 1st ch-b edsat |
| 1974-39B | ATS 6 ROCKET ST.2      | May 30, 54 | 74    | USA  |       |        |         |     |     |                                     |
| 1974-39C | TRANSSTAGE             | May 30, 54 | d     | USA  |       |        |         |     |     | Titan 3C-21                         |
| 1974-40A | EXPLORER 52            | Jun 3, 97  | 79?   | USA  | 513   | 126896 | 89,78°  | 62° | 62° | Hawkeye SA                          |
| 1974-40B | EXPLORER 52 ROCKET     | Jun 3, 97  | 76?   | USA  |       |        |         |     |     |                                     |
| 1974-40C | Fragment               |            |       |      |       |        |         |     |     |                                     |
| 1974-41A | KOCMOC 658             | Jun 6, 27  | 74    | USSR | 204   | 286    | 64,97°  | 62° | 62° | rec r                               |
| 1974-41B | KOCMOC 658 ROCKET      | Jun 6, 27  | 74    | USSR |       |        |         |     |     |                                     |
| 1974-42A | USAF                   | Jun 6, 67  | 74    | USA  | 135   | 394    | 110,44° | 62° | 62° | SAFOS 85                            |
| 1974-43A | KOCMOC 659             | Jun 13, 52 | 74    | USSR | 153   | 328    | 62,81°  | 62° | 62° | rec r                               |
| 1974-43B | KOCMOC 659 ROCKET      | Jun 13, 52 | 74    | USSR |       |        |         |     |     |                                     |
| 1974-43C | Fragment               | Jun 13, 52 | d     | USSR |       |        |         |     |     |                                     |
| 1974-43D | KOCMOC 659 CAPSULE     | Jun 13, 52 | 74    | USSR | 148   | 314    | 62,81°  | 62° | 62° | see Jun 25                          |
| 1974-44A | KOCMOC 660             | Jun 18, 54 | 74    | USSR | 397   | 1971   | 82,94°  | 62° | 62° | mdap?                               |
| 1974-44B | KOCMOC 660 ROCKET      | Jun 18, 54 | 94?   | USSR |       |        |         |     |     |                                     |
| 1974-45A | KOCMOC 661             | Jun 21, 38 | 84?   | USSR | 570   | 549    | 74,04°  | 62° | 62° | elint                               |
| 1974-45B | KOCMOC 661 ROCKET      | Jun 21, 38 | 84?   | USSR |       |        |         |     |     |                                     |
| 1974-46A | CANOT 3                | Jun 25, 95 | 75    | USSR | 214   | 282    | 51,58°  | 62° | 62° | see SPACESHIPS                      |
| 1974-46B | CANOT 3 ROCKET         | Jun 25, 95 | ?     | USSR | 268   | 283    |         | 62° | 62° |                                     |

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1974-46CD Fragments

| Object   | Date                   | Time         | Altitude  | Speed | Direction | Remarks             |
|----------|------------------------|--------------|-----------|-------|-----------|---------------------|
| 1974-46E | Jun 25, 95             | 74 Sep 23, 4 | 5500      |       |           | rec Sep 23, 1974-58 |
| 1974-47A | KOCMOZ 662             | Jun 26, 52   | 7600      | 282   | 832       | 20920°              |
| 1974-47B | KOCMOZ 662 ROCKET      | Jun 26, 52   | 75000?    | 5500  |           | rec                 |
| 1974-48A | KOCMOZ 663             | Jun 27, 65   | 3200?     | 5500  | 986       | 1020                |
| 1974-48B | KOCMOZ 663 ROCKET      | Jun 27, 65   | 2800?     | 5500  |           | rec                 |
| 1974-49A | KOCMOZ 664             | Jun 29, 54   | 74 Jul 17 | 5500  | 2094      | 356                 |
| 1974-49B | KOCMOZ 664 ROCKET      | Jun 29, 54   | 74 Jul 26 | 5500  |           | rec                 |
| 1974-49C | Fragment               | Jun 29, 54   | d         | 5500  |           | rec                 |
| 1974-49D | Fragment               | Jun 29, 54   | d         | 5500  |           | rec                 |
| 1974-49E | Fragment               | Jun 29, 54   | d         | 5500  |           | rec                 |
| 1974-49F | Fragment               | Jun 29, 54   | d         | 5500  |           | rec                 |
| 1974-49G | Fragment               | Jun 29, 54   | d         | 5500  |           | rec                 |
| 1974-49H | KOCMOZ 664 CAPSULE     | Jun 29, 54   | Jul 13    | 5500  | 190       | 277                 |
| 1974-50A | KOCMOZ 665             | Jul 29, 67   | 74 Aug 1  | 5500  | 612       | 40680               |
| 1974-50B | KOCMOZ 665 ROCKET      | Jul 29, 67   | 74 Aug 1  | 5500  | 703       | 39660               |
| 1974-50C | KOCMOZ 665 LAUNCHER    | Jul 29, 67   | 74 Aug 1  | 5500  |           |                     |
| 1974-50D | KOCMOZ 665 HIGH ROCKET | Jul 29, 67   | 74 Aug 1  | 5500  |           |                     |
| 1974-51A | COV03 14               | Jul 3, 78    | 74 Jul 4  | 5500  | 195       | 217                 |
| 1974-51B | COV03 14 ROCKET        | Jul 3, 78    | 74 Jul 5  | 5500  | 255       | 277                 |
| 1974-51C | Fragment               | Jul 9, 61    | 2500?     | 5500  | 864       | 897                 |
| 1974-51D | METEOR 18              | Jul 9, 61    | 2500?     | 5500  | 879       | 906                 |
| 1974-51E | METEOR 18 ROCKET       | Jul 9, 61    | 2500?     | 5500  | 890       | 918                 |
| 1974-52A | KOCMOZ 666             | Jul 12, 54   | 74 Jul 25 | 5500  | 181       | 328                 |
| 1974-52B | KOCMOZ 666 ROCKET      | Jul 12, 54   | 74 Jul 25 | 5500  |           |                     |
| 1974-52C | Fragment               | Jul 12, 54   | d         | 5500  |           |                     |
| 1974-52D | KOCMOZ 666 CAPSULE     | Jul 12, 54   | 74 Jul 30 | 5500  | 162       | 328                 |
| 1974-52E | NTS                    | Jul 14       | 300000?   | 5500  | 13452     | 13800               |
| 1974-52F | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52G | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52H | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52I | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52J | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52K | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52L | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52M | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52N | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52O | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52P | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52Q | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52R | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52S | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52T | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52U | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52V | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52W | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52X | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52Y | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |
| 1974-52Z | NTS                    | Jul 14       | 300000?   | 5500  |           |                     |



Spec 23,  
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1974-57B ~~MOHAWK~~ 2 K ROCKET Jul 23 74 Aug 26 USSR  
1974-57C MOHAWK 2 K LAUNCHER Jul 23 74 Aug 28 USSR  
1974-57D MOHAWK 2 K HIGH ROCKET Jul 23 74? USSR

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1974-57A KOCMOC 667 Jul 25 74 Aug 7 USSR 175 320 64,98° 730

1974-57B KOCMOC 667 ROCKET Jul 25 74 Jul 30 USSR

1974-57C Fragment Jul 25 d USSR

1974-57D KOCMOC 667 CAPSULE Jul 25 74 Aug 18 USSR 165 235 64,98° 730 sec Aug 6

1974-58A KOCMOC 668 Jul 25 74 Feb 21 USSR 176 320 70,95° PC

1974-58B KOCMOC 668 ROCKET Jul 25 74 Nov 15 USSR

1974-59A KOCMOC 669 Jul 26 74 Aug 8 USSR 209 230 81,32° PC

1974-59B KOCMOC 669 ROCKET Jul 26 74 Jul 30 USSR

1974-59C Fragment Jul 26 d USSR

1974-59D Fragment Jul 26 d USSR

1974-59E Fragment Jul 26 d USSR

1974-59F Fragment Jul 26 d USSR

1974-59G KOCMOC 669 CAPSULE Jul 26 74 Aug 11 USSR 201 225 81,33° PC sec Aug 7

1974-60A MOHAWK S I Jul 29, 50 USSR 340 35274 47,44° 730 Start 31 Aug 50 90° E

1974-60B MOHAWK S I LAUNCHER Jul 29, 50 74 Aug 11 USSR 183 195 57,49° 730

1974-60C MOHAWK S I ROCKET Jul 29, 50 74 Jul 31 USSR

1974-60D MOHAWK S I HIGH ROCKET Jul 29, 50 USSR 340? 35274? 47,44° 730

1974-60E ~~Fragment~~ Fragment FADNOT?

1974-61A KOCMOC 670 Aug 6 74 Aug 9 USSR 217 307 50,57° 730

1974-61B KOCMOC 670 ROCKET Aug 6 74? USSR

1974-62A KOCMOC 671 Aug 7 74 Aug 20 USSR 189 352 62,80° 730

1974-62B KOCMOC 671 ROCKET Aug 7 74 Aug 14 USSR

1974-62C KOCMOC 671 CAPSULE Aug 7 74 Aug 21 USSR 163 302 62,81° 730

1974-62D Fragment Aug 7 2050? USA 805 574 98,86° 730

1974-63A USAF Aug 9 2030? VSA

1974-63B ROCKET Aug 9 2030? VSA

1974-64A KOCMOC 672 Aug 12 74 Aug 18 USSR 195 221 57,26° 730

1974-64B KOCMOC 672 ROCKET Aug 12 74 Aug 14 USSR

1974-64C Fragment Aug 14 74 Sep 29 VSA 135 402 110,51° 730

1974-64D USAF Aug 14 74 Sep 29 VSA 135 402 110,51° 730

1974-65A KOCMOC 673 Aug 16 2030? USSR 607 637 81,21° 730

1974-65B KOCMOC 673 ROCKET Aug 16 2030? USSR

1974-65C Fragment



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1974

|          |                     |            |           |                           |                 |          |
|----------|---------------------|------------|-----------|---------------------------|-----------------|----------|
| 1974-67A | COV03 IS            | Aug 26, 83 | 74 Aug 28 | USA 180 230 57,60" m      | see SPACE SHIPS | 1974-70J |
| 1974-67B | COV03 IS ROCKET     | Aug 26, 83 | 74 Aug 28 | USA 257 271               | mc } A2         | 1974-70K |
| 1974-68A | KOCMOC 674          | Aug 29     | 74 Sep 7  | USA 175 324 64,98" m      | rec r           | 1974-70L |
| 1974-68B | KOCMOC 674 ROCKET   | Aug 29     | 74 Sep 4  | USA                       | mc } A2         | 1974-70M |
| 1974-68C | KOCMOC 674 CAPSULE  | Aug 29     | 74 Sep 14 | USA 174 307 64,98" m      | spec            | 1974-70N |
| 1974-68D | <del>Fragment</del> | Aug 29     | 7000?     | USA 1320 1429 74,64" m    | mc } A2         | 1974-70P |
| 1974-68E | KOCMOC 675          | Aug 29     | 7000?     | USA                       | mc } A2         | 1974-70Q |
| 1974-68B | KOCMOC 675 ROCKET   | Aug 29     | 7000?     | USA                       | mc } A2         | 1974-70R |
| 1974-70A | ANS                 | Aug 30     | 77 Aug?   | HOLLAND 258 1174 98,03" m | As for Vek      | 1974-70S |
| 1974-70B | ANS ROCKET          | Aug 30     | 75?       | USA                       | sent            | 1974-70T |
| 1974-70C | Fragment            | Aug 30     |           | USA                       | sent            | 1974-70U |
| 1974-71A | KOCMOC 676          | Sep 11     | 7000?     | USSR 795 816 74,05" m     | mc } A2         | 1974-70V |
| 1974-71B | KOCMOC 676 ROCKET   | Sep 11     | 7000?     | USSR                      | mc } A2         | 1974-70W |
| 1974-72A | KOCMOC 677          | Sep 19     | 9000?     | USSR 1399 1469 74,03" m   | 10m             | 1974-70X |
| 1974-72B | KOCMOC 678          | Sep 19     | 10000?    | USSR 1468 1535 74,03" m   | Kosmos          | 1974-70Y |
| 1974-72C | KOCMOC 679          | Sep 19     |           | USSR 1468 1573 74,02" m   | Orion           | 1974-70Z |
| 1974-72D | KOCMOC 680          | Sep 19     |           | USSR 1468 1494 74,03" m   | Laurel          | 1974-71A |
| 1974-72E | KOCMOC 681          | Sep 19     |           | USSR 1468 1474 74,03" m   |                 | 1974-71B |
| 1974-72F | KOCMOC 682          | Sep 19     |           | USSR 1455 1468 74,03" m   |                 | 1974-71C |
| 1974-72G | KOCMOC 683          | Sep 19     |           | USSR 1436 1469 74,03" m   |                 | 1974-71D |
| 1974-72H | KOCMOC 684          | Sep 19     |           | USSR 1418 1468 74,02" m   |                 | 1974-71E |
| 1974-72J | ROCKET              | Sep 19     | 20000?    | USSR                      |                 | 1974-71F |
| 1974-73A | KOCMOC 685          | Sep 20     | 74000?    | USSR 204 285 64,98" m     | rec r           | 1974-71G |
| 1974-73B | KOCMOC 685 ROCKET   | Sep 20     | 74 Sep 26 | USSR                      | mc } A2         | 1974-71H |
| 1974-73C | Fragment            | Sep 20     | d         | USSR                      | mc } A2         | 1974-71I |
| 1974-74A | KOCMOC 686          | Sep 26     | 75 May    | USSR 274 489 710          | PD              | 1974-71J |
| 1974-74B | KOCMOC 686 ROCKET   | Sep 26     | d         | "                         | "               | 1974-71K |
| 1974-74C | Fragment            | Sep 26     | d         | "                         | "               | 1974-71L |
| 1974-74D | Fragment            | Sep 26     | d         | "                         | "               | 1974-71M |
| 1974-74E | Fragment            | Sep 26     | d         | "                         | "               | 1974-71N |
| 1974-74F | Fragment            | Sep 26     | d         | "                         | "               | 1974-71O |
| 1974-74G | Fragment            | Sep 26     | d         | "                         | "               | 1974-71P |
| 1974-74H | Fragment            | Sep 26     | d         | "                         | "               | 1974-71Q |



|               |          |                      |        |           |                      |     |               |
|---------------|----------|----------------------|--------|-----------|----------------------|-----|---------------|
| see SACESSURS | 1974-74J | Fragment             | Sep 26 | d         | USSR                 | PC  |               |
|               | 1974-74K | Fragment             | Sep 26 | d         | "                    | "   |               |
| recr          | 1974-74L | Fragment             | Sep 26 | d         | "                    | "   |               |
| K2            | 1974-74M | Fragment             | Sep 26 | d         | "                    | "   |               |
| spec          | 1974-74N | Fragment             | Sep 26 | d         | "                    | "   |               |
|               | 1974-74P | Fragment             | Sep 26 | d         | "                    | "   |               |
| undep         | 1974-74Q | Fragment             | Sep 26 | "         | "                    | "   |               |
| As to Welsch  | 1974-74R | Fragment             | Sep 26 | "         | "                    | "   |               |
| Sch           | 1974-74S | Fragment             | Sep 26 | "         | "                    | "   |               |
| SWT           | 1974-74T | Fragment             | Sep 26 | "         | "                    | "   |               |
|               | 1974-74U | Fragment             | Sep 26 | "         | "                    | "   |               |
| early?        | 1974-74V | Fragment             | Sep 26 | "         | "                    | "   |               |
| new           | 1974-75A | WESTAR 2             | Oct 10 | —         | WUTC 37570 357340,4° | KSC | now downcom   |
| 1004          | 1974-75B | WESTAR 2 ROCKET ST.2 | Oct 10 | 77?       | USA                  | KSC | DETT 103      |
| Kosmos        | 1974-75C | WESTAR 2 ROCKET ST.3 | Oct 10 | 84?       | USA                  | KSC |               |
| October       | 1974-76A | KOCMOC 687           | Oct 11 | 75?       | USSR 286 698 76°     | re  | Sci?          |
| launch        | 1974-76B | KOCMOC 687 ROCKET    | Oct 11 | 74/75?    | USA                  | re  | C1            |
|               | 1974-77A | ARIEL 5              | Oct 15 | 74?       | UK 573 557 2,83°     | 6m  | X-ray astron  |
|               | 1974-77B | ARIEL 5 ROCKET       | Oct 15 | 78?       | USA                  | SMC | SWT           |
|               | 1974-78A | KOCMOC 688           | Oct 18 | 740030    | USSR 179 349 62,82°  | re  | recr          |
|               | 1974-78B | KOCMOC 688 ROCKET    | Oct 18 | 740024    | USSR                 | re  |               |
| recr          | 1974-78C | Fragment             | Oct 18 | d         | USSR                 | re  | A2            |
| 2             | 1974-78D | KOCMOC 688 CAPSULE   | Oct 18 | 740031    | USSR 145 294 62,81°  | re  | see Oct 29    |
|               | 1974-79A | KOCMOC 689           | Oct 18 | 3200?     | USSR 982 1018 82,94° | re  | re            |
| 50            | 1974-79B | KOCMOC 689 ROCKET    | Oct 18 | 2600?     | USSR                 | re  | C1            |
|               | 1974-80A | KOCMOC 690           | Oct 22 | 74 Nov 10 | USSR 220 364 63,81°  | re  | Biostat       |
|               | 1974-80B | KOCMOC 690 ROCKET    | Oct 22 | 74 Nov 10 | USSR                 |     |               |
| det           | 1974-80C | Fragment             | Oct 22 | d         | USSR                 |     | A2            |
| integrated    | 1974-80D | Fragment             | Oct 22 | d         | USSR                 |     |               |
|               | 1974-80E | KOCMOC 690 CAPSULE   | Oct 22 | 74 Dec 14 | USSR 212 341 62,80°  | re  | see Nov 9, 74 |
|               | 1974-80F | Fragment             | Oct 22 | d         | USSR                 |     |               |
|               | 1974-80G | Fragment             | Oct 22 | d         | USSR                 |     |               |

1970



| Object ID | Object Name             | Date       | Time         | Location            | Observer | Notes              |
|-----------|-------------------------|------------|--------------|---------------------|----------|--------------------|
| 1974-80A  | Fragment                | Oct 22     | d            | VSSR                | rec      |                    |
| 1974-81A  | МОЛНИЯ 1 AD             | Oct 24     | 79?          | VSSR 645 39710 629° | rec      | conv               |
| 1974-81B  | МОЛНИЯ 1 AD ROCKET      | Oct 24     | 75 Jan?      | VSSR                | rec      |                    |
| 1974-81C  | МОЛНИЯ 1 AD LAUNCHER    | Oct 24     | 75 Jan?      | VSSR                | rec      |                    |
| 1974-81D  | МОЛНИЯ 1 AD HIGH ROCKET | Oct 24     | 79?          | VSSR                | rec      |                    |
| 1974-82A  | КОСМОС 691              | Oct 25     | 74 Nov 6     | VSSR 174 308 65,04° | rec      |                    |
| 1974-82B  | КОСМОС 691 ROCKET       | Oct 25     | 74 Oct 29    | VSSR                | rec      |                    |
| 1974-82C  | КОСМОС 691 CAPSULE      | Oct 25     | 74 Nov 10    | VSSR 167 307 65,03° | rec      |                    |
| 1974-82D  | Fragment                | Oct 25     | d            | VSSR                | rec      |                    |
| 1974-83A  | МЕТЕОР 19               | Oct 28     | 2500?        | VSSR 855 917 81,18° | rec      |                    |
| 1974-83B  | МЕТЕОР 19 ROCKET        | Oct 28     | 2500?        | VSSR                | rec      |                    |
| 1974-84A  | ЛЮНА 23                 | Oct 28, 60 | 1835         | VSSR                | rec      | see launch process |
| 1974-84B  | ЛЮНА 23 ROCKET          | Oct 28, 60 | 74 Nov 1, 03 | VSSR 183 246 51,54° | rec      |                    |
| 1974-84C  | ЛЮНА 23 CAPSULE         | Oct 28, 60 | 74 Nov 1     | VSSR                | rec      | see launch process |
| 1974-84D  | Fragment                | Oct 28     | d            | VSSR                | rec      |                    |
| 1974-84E  | Fragment                | Oct 28     | d            | VSSR                | rec      |                    |
| 1974-85A  | USAF                    | Oct 29     | 75 May 19    | USA 163 272 96,69°  | rec      | Big Bird 9         |
| 1974-85B  | USAF                    | Oct 29     | 80?          | USA 520 535 96,06°  | rec      | mid 2000 notes     |
| 1974-85C  | USAF SE3P-73            | Oct 29     | 75 May 26    | USA 151 3795 96,98° | rec      | SD                 |
| 1974-85D  | ROCKET                  | Oct 29     | 74 Oct 31    | VSSR                | rec      |                    |
| 1974-86A  | ИМПЕРКОСМОС 12          | Oct 31     | 75 Jul 11    | VSSR 264 708 74,02° | rec      | loner sci          |
| 1974-86B  | ИМПЕРКОСМОС 12 ROCKET   | Oct 31     | 75 Apr       | VSSR                | rec      |                    |
| 1974-86C  | Fragment                | Nov 1      | 74 Nov 6     | VSSR 201 315 62,82° | rec      |                    |
| 1974-87A  | КОСМОС 692              | Nov 1      | 74 Nov 6     | VSSR                | rec      |                    |
| 1974-87B  | КОСМОС 692 ROCKET       | Nov 1      | 74 Nov 6     | VSSR                | rec      |                    |
| 1974-87C  | Fragment                | Nov 1      | d            | VSSR                | rec      |                    |
| 1974-87D  | Fragment                | Nov 1      | d            | VSSR                | rec      |                    |
| 1974-87E  | Fragment                | Nov 1      | d            | VSSR                | rec      |                    |
| 1974-87F  | КОСМОС 692 CAPSULE      | Nov 1      | 74 Nov 23    | VSSR 193 282 62,82° | rec      | age Nov 12         |
| 1974-87G  | Fragment                | Nov 1      | d            | VSSR                | rec      |                    |
| 1974-88A  | КОСМОС 693              | Nov 4      | 74 Nov 6     | VSSR 219 243 81,33° | rec      |                    |
| 1974-88B  | КОСМОС 693 ROCKET       | Nov 4      | 74 Nov 8     | VSSR                | rec      |                    |
| 1974-88C  | Fragment                | Nov 4      | d            | VSSR                | rec      |                    |



|                     |          |                                       |           |                |          |       |         |        |                                                |
|---------------------|----------|---------------------------------------|-----------|----------------|----------|-------|---------|--------|------------------------------------------------|
|                     | 1974-88D | Fragment                              | Nov 14    | USSR           |          |       |         |        |                                                |
| com                 | 1974-88E | KOCONOC 693 CAPSULE                   | Nov 17    | USSR           | 182      | 215   | 51,53°  | PL     | See Nov 15                                     |
|                     | 1974-89A | NOAA 4                                | Nov 15    | 2000? USA      | 1450     | 1463  | 101,75° | WR     |                                                |
|                     | 1974-89B | OSCAR 7                               | Nov 15    | 2000? RASC     | 1447     | 1463  | 101,74° | WR     | ITOS G met<br>Australia/US red<br>AmSat USSR 7 |
|                     | 1974-89C | INTASAT 1                             | Nov 15    | 2000? SPAIN    | 1446     | 1463  | 101,73° | WR     | DELTA INTA launch                              |
| rec                 | 1974-89D | NOAA 4 ROCKET                         | Nov 15    | 2000? USA      |          |       |         | WR     | Delta 104                                      |
|                     | 1974-89E | <del>OK Fragment</del>                |           |                |          |       |         |        |                                                |
|                     | 1974-90A | KOCONOC 694                           | Nov 16    | 74 Nov 29 USSR | 172      | 314   | 72,83°  | PL     | AmSat                                          |
|                     | 1974-90B | KOCONOC 694 ROCKET                    | Nov 16    | 74 Nov 25 USSR | 172      | 336   |         | PL     |                                                |
|                     | 1974-90C | Fragment                              | Nov 16    | d              |          |       |         | PL     |                                                |
|                     | 1974-90D | Fragment                              | Nov 16    | d              |          |       |         | PL     |                                                |
|                     | 1974-90E | KOCONOC 694 <sup>engine</sup> CAPSULE | Nov 16    | 74 Dec 3       | USSR     | 166   | 319     | 72,83° | PL                                             |
| LUNAR PROBES        | 1974-90F | Fragment                              | Nov 16    | d              |          |       |         | PL     | See Nov 28                                     |
|                     | 1974-90G | Fragment                              | Nov 16    | d              |          |       |         | PL     |                                                |
| SPUTNIK 68          | 1974-91A | KOCONOC 695                           | Nov 20    | 75 May? USSR   | 274      | 468   | 71°     | PL     | sci                                            |
|                     | 1974-91B | KOCONOC 695 ROCKET                    | Nov 20    | 75 Mar? USSR   |          |       |         | PL     |                                                |
|                     | 1974-92A | MOONMIA 3 A                           | Nov 24    | 79? USSR       | 650      | 40960 | 62,82°  | PL     | com: new type                                  |
| Big Bird 9          | 1974-92B | MOONMIA 3 A LAUNCHER                  | Nov 21    | 75 Feb? USSR   |          |       |         | PL     |                                                |
| mini com mols       | 1974-92C | MOONMIA 3 A ROCKET                    | Nov 21    | 75 Jan? USSR   |          |       |         | PL     |                                                |
| u sci               | 1974-92D | <del>Fragment</del>                   |           |                |          |       |         |        |                                                |
|                     | 1974-92E | MOONMIA 3 A HIGH ROCKET               | Nov 21    | 79? USSR       |          |       |         | PL     |                                                |
|                     | 1974-93A | INTERSAT 4 F                          | Nov 21    |                | INTERSAT | 35781 | 35795   | 0,4°   | WR                                             |
| 1 com's sci         | 1974-93B | INTERSAT 4 F ROCKET                   | Nov 21    | 2000? USA      |          |       |         | WR     | ATLAS<br>CELVATAC<br>ACI                       |
|                     | 1974-94A | SKYNET 2B                             | Nov 23    |                | UK       | 36250 | 36600   | 2,3°   | WR                                             |
| rec r               | 1974-94B | SKYNET 2B ROCKET ST. 2                | Nov 23    | 74 Dec 26 USA  |          |       |         | WR     | DELTA Delta 105                                |
|                     | 1974-94C | <del>Fragment</del>                   |           |                |          |       |         |        |                                                |
|                     | 1974-94D | SKYNET 2B ROCKET ST. 3                | Nov 23    | 75 Jan 7 USA   |          |       |         | WR     |                                                |
|                     | 1974-95A | KOCONOC 696                           | Nov 27    | 74 Dec 9 USSR  | 204      | 322   | 72,85°  | PL     | rec                                            |
|                     | 1974-95B | KOCONOC 696 ROCKET                    | Nov 27    | 74 Dec 4 USSR  |          |       |         | PL     |                                                |
|                     | 1974-95C | Fragment                              | Nov 27    | d              |          |       |         | PL     |                                                |
| See Nov 12          | 1974-95D | Fragment                              | Nov 27    | d              |          |       |         | PL     |                                                |
|                     | 1974-96A | COWO 3 16                             | Dec 2, 40 | 74 Dec 8 USSR  | 195      | 254   | 57,8°   | PL     | See SPACESHIPS                                 |
| rec r               | 1974-96B | COWO 3 16 ROCKET                      | Dec 2, 40 | 74 Dec 7 USSR  | 177      | 225   | 56°     | PL     |                                                |
|                     | 1974-96C | Fragment                              | Dec 2, 40 | d              |          |       |         | PL     |                                                |
| <del>1974-96D</del> | 1974-96D | Fragment                              | Dec 2, 40 | d              |          |       |         | PL     | Docking target<br>simulating Apollo            |



1974

Cont. Vol. 2



# KEY TO LAUNCH CENTRES.

|                                                | SIMBL   | NAME                               | LOCATION                                 | AGENCY/NATION               |
|------------------------------------------------|---------|------------------------------------|------------------------------------------|-----------------------------|
|                                                | TBL     | Baikonur Kosmodrome                | 45°35'N 63°45'E<br>Kazakh, Terra         | USSR (KKh.)                 |
| Amir-1000<br>1000-1000                         | KSC     | Kennedy Space Center               | 28°35'N 80°45'W<br>Cape Canaveral, Terra | NASA/USAF, USA (Fca.)       |
| Tikonov Stage<br>ETicon 35-7                   | WTR     | Western Test Range<br>(Vandenberg) | 34°45'N 120°25'W<br>Pt. Arguello, Terra  | USAF (NAS) USA (Ca.)        |
| 12                                             | WI      | Wallops Island Launch Station      | 37°51'N 75°30'W<br>W.I., Terra           | NASA, USA (Va.)             |
|                                                | KY      | Kapustin Yar Kosmodrome            | 48°45'N 45°30'E<br>SW Russia, Terra      | USSR                        |
| rel r                                          | HMR     | Hamaguir (Centre Spatial Algérien) | 36°N 3°W<br>Algier, Algeria, Terra       | CNES, FRANCE (Algeria)      |
|                                                | PL      | Plesetsk Kosmodrome                | 62°9'N 40°10'E<br>NW Russia, Terra       | USSR                        |
|                                                | SMLC    | San Marco Launch Center            | 2°5' 34°35'W<br>SMI, Kenya, Terra        | NASA, ITALY/US              |
| rel 24                                         | WMA     | Woomera Range                      | 31°S 23°W<br>Woomera, Australia, Terra   | NASA/WRE/SAC Australia      |
|                                                | TB      | Tranquility Base                   | 0°N 23°E<br>Molte, Luna                  | NASA, Moon Tranquility Base |
| t                                              | OSB     | Ocean of Storms Base               | 3°S 25°W<br>Luna                         | NASA, Oceanus Procellarum   |
|                                                | SGB     | Surveyor 6 Base                    | 41°S 11°W<br>Luna                        | NASA                        |
| elict                                          | KAB     | Kagoshima Space Centre             | 31°N 23°W<br>Oshima, Japan, Terra        | ISAS, JAPAN                 |
|                                                | CSG     | Kourou, Centre Spatial Guyanais    | 5°15'N 54°W<br>Kourou, Fr. Guiana, Terra | ESA/CNES, FRANCE            |
|                                                | SET     | Shuang-Cheng-Tze                   | 40°N 26°W<br>China, Terra                | CHINA                       |
| 11,5W<br>com                                   | LBB     | Luna 16 Base                       | 0°S 56°E<br>Luna                         | USSR                        |
| DELTA 106<br>DATA                              | FMB     | Fu Mauro Base                      | 3°S 17°W<br>Fu Mauro, Luna               | NASA                        |
|                                                | SALUT 1 | Salyut 1 Station                   | Geocentric orbit (171-32A)               | USSR                        |
| com                                            | HB      | Hadley Base                        | 26°N 4°E<br>Hadley, Luna                 | NASA                        |
|                                                | LBB     | Luna 20 Base                       | 30°N 57°E<br>Luna                        | USSR                        |
| ARE                                            | BS      | Pescadore Base                     | 9°S 15°E<br>Pescadore, Luna              | NASA                        |
|                                                | TB      | Taurus-Ultion Base                 | 20°N 30°E<br>Taurus-Ultion, Luna         | NASA                        |
| Ion Thruster<br>Test, Explored<br>by Gamma 75m | SALUT 1 | Salyut 1 Station                   | Geocentric orbit (173-27A)               | NASA                        |
| Fin?                                           | SALUT 2 | Salyut 2 Station                   | Geocentric orbit (1974-46A)              | USSR                        |
| Frags. of<br>destroyed<br>sat                  | SALUT 4 | Salyut 4 Station                   | Geocentric orbit (1974-104A)             | USSR                        |
| Se SPACE SHIP                                  | TSC     | Tanegashima Space Centre           | 30°N 22°W<br>Tanegashima I., Terra       | ISAS, JAPAN                 |
|                                                | LBB     | Luna 24 Base                       | 13°N 62°E<br>Mare Crisium, Luna          | USSR                        |
|                                                | SALUT 5 | Salyut 5 Station                   | Geocentric orbit (1976-57A)              | USSR                        |

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229  
131°E

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