

| STS-115/ISS-12A | | | | SpaceCalc Shuttle Mission Planner | | |
|-----------------|-----|----------|----|-----------------------------------|----|--|
| Eastern Time | | | DD | HH | MM | Flight Day 8 |
| 09/17/06 | Sun | 12:15 AM | 07 | 13 | 00 | STS/ISS crew wakeup |
| 09/17/06 | Sun | 02:35 AM | 07 | 15 | 20 | Transfers resume |
| 09/17/06 | Sun | 03:35 AM | 07 | 16 | 20 | Rendezvous tools checkout |
| 09/17/06 | Sun | 04:15 AM | 07 | 17 | 00 | O2 transfer hardware teardown |
| 09/17/06 | Sun | 04:35 AM | 07 | 17 | 20 | Transfer tagup |
| 09/17/06 | Sun | 05:00 AM | 07 | 17 | 45 | Joint crew meal |
| 09/17/06 | Sun | 06:00 AM | 07 | 18 | 45 | Farewell ceremony |
| 09/17/06 | Sun | 06:24 AM | 07 | 19 | 09 | Hatch closure |
| 09/17/06 | Sun | 06:45 AM | 07 | 19 | 30 | Centerline camera installation |
| 09/17/06 | Sun | 06:45 AM | 07 | 19 | 30 | ODS leak check |
| 09/17/06 | Sun | 07:30 AM | 07 | 20 | 15 | Spacesuit installation |
| 09/17/06 | Sun | 07:30 AM | 07 | 20 | 15 | Group B computer powerup |
| 09/17/06 | Sun | 07:36 AM | 07 | 20 | 21 | Sunrise |
| 09/17/06 | Sun | 07:45 AM | 07 | 20 | 30 | ISS maneuver to undocking attitude |
| 09/17/06 | Sun | 08:00 AM | 07 | 20 | 45 | Undocking timeline begins |
| 09/17/06 | Sun | 08:07 AM | 07 | 20 | 52 | Noon |
| 09/17/06 | Sun | 08:30 AM | 07 | 21 | 15 | P6 arrays feathered |
| 09/17/06 | Sun | 08:36 AM | 07 | 21 | 21 | Sunset |
| 09/17/06 | Sun | 08:37 AM | 07 | 21 | 22 | U.S. feathering complete |
| 09/17/06 | Sun | 08:50 AM | 07 | 21 | 35 | UNDOCKING |
| 09/17/06 | Sun | 08:51 AM | 07 | 21 | 36 | Initial orbiter separation (+10 seconds) |
| 09/17/06 | Sun | 08:52 AM | 07 | 21 | 37 | ISS holds current attitude |
| 09/17/06 | Sun | 08:55 AM | 07 | 21 | 40 | Range: 50 feet; reselect -X jets |
| 09/17/06 | Sun | 08:57 AM | 07 | 21 | 42 | Range: 75 feet; low-Z jets |
| 09/17/06 | Sun | 09:00 AM | 07 | 21 | 45 | Russian arrays resume tracking |
| 09/17/06 | Sun | 09:05 AM | 07 | 21 | 50 | Range: 170 feet |
| 09/17/06 | Sun | 09:08 AM | 07 | 21 | 53 | Sunrise |
| 09/17/06 | Sun | 09:19 AM | 07 | 22 | 04 | Range: 400 feet; start flyaround |

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| 09/17/06 | Sun | 09:29 AM | 07 | 22 | 14 | Range: 600 feet |
| 09/17/06 | Sun | 09:30 AM | 07 | 22 | 15 | P6 arrays resume tracking |
| 09/17/06 | Sun | 09:30 AM | 07 | 22 | 15 | ISS maneuvers (+YVV) |
| 09/17/06 | Sun | 09:31 AM | 07 | 22 | 16 | Atlantis directly above ISS |
| 09/17/06 | Sun | 09:38 AM | 07 | 22 | 23 | Noon |
| 09/17/06 | Sun | 09:42 AM | 07 | 22 | 27 | Atlantis directly behind ISS |
| 09/17/06 | Sun | 09:54 AM | 07 | 22 | 39 | Atlantis directly below ISS |
| 09/17/06 | Sun | 10:05 AM | 07 | 22 | 50 | Separation burn No. 1 |
| 09/17/06 | Sun | 10:05 AM | 07 | 22 | 50 | Atlantis directly in front of ISS |
| 09/17/06 | Sun | 10:08 AM | 07 | 22 | 53 | Sunset |
| 09/17/06 | Sun | 10:30 AM | 07 | 23 | 15 | PMA-2 depressurization |
| 09/17/06 | Sun | 10:33 AM | 07 | 23 | 18 | Separation burn No. 2 |
| 09/17/06 | Sun | 10:35 AM | 07 | 23 | 20 | Group B computer powerdown |
| 09/17/06 | Sun | 10:39 AM | 07 | 23 | 24 | Sunrise |
| 09/17/06 | Sun | 11:15 AM | 08 | 00 | 00 | Undocking videotape replay |
| 09/17/06 | Sun | 12:15 PM | 08 | 01 | 00 | NC-5 rocket firing |
| 09/17/06 | Sun | 03:15 PM | 08 | 04 | 00 | STS crew sleep begins |
| 09/17/06 | Sun | 03:45 PM | 08 | 04 | 30 | ISS crew sleep begins |
| 09/17/06 | Sun | 11:15 PM | 08 | 12 | 00 | STS crew wakeup |
| | | | | | | Compiled by William Harwood |