RS EVA-34 TIMELINE
(preliminary)

August 16, 2013 **ISS 36** **EV1 – F.Yurchikhin**
EV2 – A.Misurkin

- **Installation of gap spanners SM – MRM2 and FGB – MRM2**
- **Installation of "VINOSLIVOST" space experiment panel #2**
- **Installation of MLM – ISS USOS power cables**
- **Installation of MLM – ISS USOS ETHERNET cable**

1.1. RS EVA-34 TIMELINE

##	EV	Task description	Task execution time (min)	EVA time	RGS
Orbital night			**14:11 ÷ 14:57**		
1	EV2	Open EV hatch 1 14:34	:06	14:40	
2	EV1,EV2	Install protective ring	:03	14:43	
3	EV2	Egress DC1 and translate onto EVA ladder	:02	14:45	
4	EV1,EV2	Take EVA bundles out of DC1: Universal EVA Cable Carrier (UECC), MLM – USOS ETHERNET cable reel + "СЭС-1" and "СЭС-2" connector patch panels + gap spanners (2ea.) + VINOSLIVOST panel #2.	:15	15:00	
5	EV1	Egress DC1	:02	15:02	
6	EV1;EV2	Transfer EVA bundles to STRELA-1 EE (EVA ladder – HRs3027 – 3030 – 3031 – 3032 – STRELA-1).	:10	15:22	
7	EV1;EV2	Secure UECC to STRELA-1 EE.	:13	15:35	15:40
8	EV2 EV1	Transfer MLM – USOS ETHERNET cable reel + "СЭС-1" and "СЭС-2" connector patch panels + gap spanners (2ea.) + VINOSLIVOST panel #2 along STRELA to the temp stow location area on MRM2 HR6008. Secure on STRELA-1 EE.	:12	15:47	
Orbital night 15:44 ÷ 16:30 (crew rest till 16:10)					15:56
9	EV2	Translate to STRELA-1 Operator's Post.	:03	16:13	
10	EV2	Maneuver STRELA-1 boom upward at an angle of 45° relative to axis X of MRM2. Maneuver STRELA-1 boom so it is parallel to axis X of FGB. Extend STRELA-1 boom to FGB ГА.	:17	16:30	

11	EV1	Berth STRELA-1 to HR1050.	:03	16:33	
12	EV1	Translate to HR1076 (STRELA-1 – HRs1032 – 1033 – 1070 – 1079 – 1038 – 1037 – STRELA-2 Operator's Post – STRELA-2 boom). Remove STRELA cradle. Translate to HR1071 (STRELA-2 boom – STRELA-2 Operator's Post – HRs1037 – 1038 – 1079 – 1070 –1033 – 1032 – STRELA-1). Install STRELA cradle on HR1071. Release STRELA-1 from HR1050. Secure STRELA-1 in the STRELA cradle.	:14	16:47	
13	EV1;EV2	Release STRELA-1 from HR1050. Secure STRELA-1 in the STRELA cradle.	:06	16:53	
14	EV1 EV2	Transfer connectors J1/P1 of cable R15353 to HR1050. Translate to HR6008 (STRELA-1 Operator's Post – HRs6035 – 6026 – 6025 – 6021 – 6020 – 6019 – 6008).	:07	17:00	17:15
15	EV1 EV2	Install fairleads for power cable on HR1031. Install fairleads for power cable on HR1300. Install: VINOSLIVOST panel #2 on HR6007, "СЭС-2" connector patch panel on HR6019, "СЭС-1" connector patch panel on HR6017, and gap spanner MRM2 – FGB between HR6008 and HR1502.	:20	17:20	
Orbital night 17:16 ÷ 18:03 (crew rest till 17:30)					17:29
16	EV1 EV2	Translate to UECC (HRs1302 – 1301 – 1300 – 1033 – 1032). Translate to HR1316 (HR6008 – gap spanner – HRs1502 – 1503). Reinstall fairleads for power cables on HR1503.	:15	17:45	
17	EV2	Translate to FGB ГА (HRs1503 – 1504 – 1316 – 1315 – 1314 – 1313 – 1312 – 1311 – 1310 – 1309 – 1308 – 1307 – 1306 – 1305 – 1304 – 1303 – 1302 – 1301 – 1300 – 1070 – 1033 - 1032).	:12	17:57	
18	EV1;EV2	Route MLM – USOS power cable #1 to " СЭС-1" connector patch panel stowing it in fairleads for power cables (HRs1031, 1300, 1306, 1316) (HRs1032 – 1033 – 1070 – 1300 – 1301 – 1302 – 1303 – 1304 – 1305 – 1306 – 1307 – 1308 – 1309 – 1310 – 1311 – 1312 – 1313 – 1314 – 1315 – 1316 – 1504 – 1503 – 1502 – gap spanner – HR6008).	:25	18:22	

19	EV1 EV2	Wiretie MLM – USOS power cable #1 to HR1035. Open MLI flap on “СЭС-1” connector patch panel. Secure connectors ХФП15-1, ХФП15-2, ХФП15-3, ХФП15-4 with “СЭС-1” connector patch panel wire ties. Close MLI flap of “СЭС-1” connector patch panel. Secure coiled MLM – USOS power cable #1 to HR6017.	:07	18:29	
20	EV1 EV2	Get rid of MLM – USOS power cable #1 slack, secure MLM – USOS cable #1 in fairleads for power cables on HRs1303 and 1310, translate to MRM2 (HRs1032 – 1033 – 1070 – 1300 – 1301 – 1302 – 1303 – 1304 – 1305 – 1306 – 1307 – 1308 – 1309 – 1310 – 1311 – 1312 – 1313 – 1314 – 1315 – 1316 – 1504 – 1503 – 1502 – gap spanner – HR6008). Get rid of MLM – USOS power cable #1 slack, secure it in cable clamps installed on HRs1503 and 1501, and wiretie it to HR1500.	:25	18:54	18:51
Orbital night 18:49 ÷ 19:36 (crew rest till 19:05)					19:04
21	O1;O2	Route MLM – USOS ETHERNET cable from MRM2 to FGB ГА, securing it in cable clamps on HRs1316, 1313, 1308, 1305, 1302, 1300, 1032 (HR6008 – gap spanner – HRs1502 – 1503 – 1504 – 1316 – 1315 – 1314 – 1313 – 1312 – 1311 – 1310 – 1309 – 1308 – 1307 – 1306 – 1305 – 1304 – 1303 – 1302 – 1301 – 1300 – 1070 – 1033 - 1032).	:28	19:33	
22	EV1 EV2	Wiretie MLM – USOS ETHERNET cable to HR1050 Translate to FGB ГА (HR6008 – gap spanner – HR1500). Secure MLM – USOS ETHERNET cable in the cable clamp installed on HR1500. Wiretie MLM – USOS ETHERNET cable to HR1502. Secure MLM – USOS ETHERNET cable in cable clamps installed on HRs1316, 1313, 1308, 1305, 1302, 1300, 1032.	:20	19:53	
23	EV1;EV2	Route MLM – USOS power cable #2 to “СЭС-2” connector patch panel stowing it in fairleads for power cables (HRs1031, 1300, 1306, 1316) (HRs1032 – 1033 – 1070 – 1300 – 1301 – 1302 – 1303 – 1304 – 1305 – 1306 – 1307 – 1308 – 1309 – 1310 – 1311 – 1312 – 1313 – 1314 – 1315 – 1316 – 1504 – 1503 – 1502 – gap spanner – HR6008).	:25	20:18	
Orbital night 20:22 ÷ 21:09					

24	EV1 EV2	Open MLI flap of “СЭС-2” connector patch panel. Secure connectors ХФП16-1, ХФП16-2, ХФП16-3, ХФП16-4 with “СЭС-2” connector patch panel wire ties. Close MLI flap of “СЭС-2” connector patch panel. Secure coiled MLM – USOS power cable #2 to HR6019. Wiretie MLM – USOS power cable #2 to HR1030.	:07	20:25	
25	EV2 EV1	Get rid of MLM – USOS power cable slack, secure MLM – USOS power cable #2 in cable clamps installed on HRs1303 and 1310 (HRs1032 – 1033 – 1070 – 1300 – 1301 – 1302 – 1303 – 1304 – 1305 – 1306 – 1307 – 1308 – 1309 – 1310). Get rid of MLM – USOS power cable #2, secure MLM – USOS power cable #2 in cable clamps installed on HRs1503 and 1501, and wiretie it to HR1500.	:20	20:45	
26	EV1;EV2	Translate to DC1.	:15	21:00	
27	EV1;EV2	Perform US EVA tools and hardware inventory.	:03	21:03	
28	EV1;EV2	Ingress DC1.	:03	21:06	
29	EV1,EV2	Remove protective ring.	:02	21:08	
30	EV2	Close EV hatch 1.	:06	21:14	

Estimated RS EVA-34 duration: 6 hours 34 minutes

Notes:
1. EVA operations are scheduled for orbital nights. Some orbital night time is a reserve in case the crew is behind the timeline.
2. In case the crew is ahead of timeline, EVA tasks, presented in table 1, will be executed after Step 25 of the present timeline.

Table 1

26	EV1 EV2	Translate to UECC (HRs1310 – 1309 – 1308 – 1307 – 1306 – 1305 – 1304 – 1303 – 1302 – 1301 – 1300 – 1070 – 1033 – STRELA-1). Translate to HR6022 (HRs6008 – 6019 – 6020 – 6021 – 6022). Install gap spanner MRM2 – SM between HR6022 and HR2232. Remove adjustable tether installed between HR6022 and HR2233. Translate to STRELA-1 Operator’s Post (HRs6022 – 6024 – 6025 – 6035 – STRELA-1 Operator’s Post).	13
27	EV1	Remove STRELA cradle and secure it to UECC.	3
28	EV2	Maneuver STRELA-1 boom out of FGB ГА to MRM2.	17
29	EV2	Translate to STRELA-1 EE.	4
30	EV1;EV2	Transfer UECC with STRELA cradle to DC1 EV hatch 1 (STRELA-1 – HRs3032 – 3031 – 3030 – 3027 – EVA ladder).	8

End of R/G