

## The history information of QZS-1R operation

date	event	history							mass(kg) (※2)
			start(UT)	stop(UT)	duration	$\Delta V_x$	$\Delta V_y$	$\Delta V_z$	
2022/1/31	Service in								2366
2022/2/1	change of Yaw Steering Status	Pseudo YS	2022/2/1 03:53:12	2022/2/1 04:37:28					
			2022/2/1 14:57:20	2022/2/1 15:36:00					
2022/2/2	change of Yaw Steering Status	Pseudo YS	2022/2/2 03:54:56	2022/2/2 04:33:44					
			2022/2/2 15:00:48	2022/2/2 15:30:56					
2022/2/3	change of Yaw Steering Status	Pseudo YS	2022/2/3 03:57:12	2022/2/3 04:29:04					
			2022/2/3 15:06:24	2022/2/3 15:21:36					
2022/2/4	change of Yaw Steering Status	Pseudo YS	2022/2/4 04:00:40	2022/2/4 04:22:24					
2022/2/5	change of Yaw Steering Status	Pseudo YS	2022/2/5 04:08:00	2022/2/5 04:14:24					
2022/2/8 -2/9 (*1)	orbit maintenance maneuver	UNLD	2022/2/8 12:27:28	2022/2/8 12:30:56					2357
		YS→ON	2022/2/8 12:48:26	2022/2/8 12:49:18					
		#1	2022/2/8 12:56:36	2022/2/8 13:01:27	0:04:51	-4.666	-0.087	-0.028	
		#2	2022/2/8 20:26:52	2022/2/8 20:31:12	0:04:20	4.376	0.111	-0.030	
		#3	2022/2/9 01:25:50	2022/2/9 01:26:02	0:00:12	0.208	0.005	-0.001	
		UNLD	2022/2/9 01:29:04	2022/2/9 01:31:12					
		ON→YS	2022/2/9 01:35:11	2022/2/9 01:38:54					
		UNLD	2022/2/9 01:41:28	2022/2/9 01:43:36					
2022/7/24	change of Yaw Steering Status	Pseudo YS	2022/7/24 16:06:17	2022/7/24 16:22:25					
2022/7/25	change of Yaw Steering Status	Pseudo YS	2022/7/25 03:07:29	2022/7/25 03:19:29					
			2022/7/25 16:00:25	2022/7/25 16:29:21					
2022/7/26	change of Yaw Steering Status	Pseudo YS	2022/7/26 03:00:17	2022/7/26 03:26:41					
			2022/7/26 15:55:53	2022/7/26 16:32:09					
2022/7/27	change of Yaw Steering Status	Pseudo YS	2022/7/27 02:55:21	2022/7/27 03:30:57					
			2022/7/27 15:52:01	2022/7/27 16:34:01					
2022/7/28	change of Yaw Steering Status	Pseudo YS	2022/7/28 02:51:37	2022/7/28 03:33:45					
			2022/7/28 15:48:41	2022/7/28 16:35:21					
2022/7/29	change of Yaw Steering Status	Pseudo YS	2022/7/29 02:48:17	2022/7/29 03:35:53					
			2022/7/29 15:45:45	2022/7/29 16:36:25					
2022/7/30	change of Yaw Steering Status	Pseudo YS	2022/7/30 02:45:29	2022/7/30 03:37:29					
			2022/7/30 15:42:57	2022/7/30 16:37:13					
2022/7/31	change of Yaw Steering Status	Pseudo YS	2022/7/31 2:44:17	2022/7/31 3:37:21					
			2022/7/31 15:43:21	2022/7/31 16:34:41					
2022/8/1	change of Yaw Steering Status	Pseudo YS	2022/8/1 02:45:53	2022/8/1 03:34:33					
			2022/8/1 15:44:17	2022/8/1 16:31:45					
2022/8/2	change of Yaw Steering Status	Pseudo YS	2022/8/2 02:47:53	2022/8/2 03:31:21					
			2022/8/2 15:45:29	2022/8/2 16:28:33					
2022/8/3	change of Yaw Steering Status	Pseudo YS	2022/8/3 02:50:25	2022/8/3 03:27:37					
			2022/8/3 15:47:05	2022/8/3 16:24:49					
2022/8/4	change of Yaw Steering Status	Pseudo YS	2022/8/4 02:53:53	2022/8/4 03:22:25					
			2022/8/4 15:49:21	2022/8/4 16:20:17					
2022/8/5	change of Yaw Steering Status	Pseudo YS	2022/8/5 02:59:29	2022/8/5 03:13:37					
			2022/8/5 15:52:41	2022/8/5 16:13:29					
2022/8/6	change of Yaw Steering Status	Pseudo YS	2022/8/6 15:59:29	2022/8/6 16:06:09					

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date	event	history							mass(kg) (*2)
			start(UT)	stop(UT)	duration	$\Delta V_x$	$\Delta V_y$	$\Delta V_z$	
2022/8/12	orbit maintenance maneuver (*1)	UNLD	2022/8/12 00:38:01	2022/8/12 00:43:45					2347
		YS→ON	2022/8/12 01:02:14	2022/8/12 01:05:50					
		#1	2022/8/12 01:10:24	2022/8/12 01:15:32	0:05:08	-5.051	0.091	-0.017	
		#2	2022/8/12 08:40:38	2022/8/12 08:45:17	0:04:39	4.589	-0.101	-0.037	
		UNLD	2022/8/12 12:35:29	2022/8/12 12:37:29					
		ON→YS	2022/8/12 12:42:07	2022/8/12 12:43:58					
		UNLD	2022/8/12 12:53:37	2022/8/12 12:55:37					
2023/1/19	change of Yaw Steering Status	Pseudo YS	2023/1/19 04:14:10	2023/1/19 04:20:18					
2023/1/20	change of Yaw Steering Status	Pseudo YS	2023/1/20 04:04:50	2023/1/20 04:26:42					
			2023/1/20 15:05:38	2023/1/20 15:21:46					
2023/1/21	change of Yaw Steering Status	Pseudo YS	2023/1/21 03:59:30	2023/1/21 04:31:30					
			2023/1/21 14:59:30	2023/1/21 15:30:02					
2023/1/22	change of Yaw Steering Status	Pseudo YS	2023/1/22 03:55:14	2023/1/22 04:34:10					
			2023/1/22 14:55:14	2023/1/22 15:33:54					
2023/1/23	change of Yaw Steering Status	Pseudo YS	2023/1/23 03:51:38	2023/1/23 04:36:02					
			2023/1/23 14:51:38	2023/1/23 15:36:42					
2023/1/24	change of Yaw Steering Status	Pseudo YS	2023/1/24 03:48:34	2023/1/24 04:37:30					
			2023/1/24 14:48:42	2023/1/24 15:38:50					
2023/1/25	change of Yaw Steering Status	Pseudo YS	2023/1/25 03:45:46	2023/1/25 04:38:34					
			2023/1/25 14:46:10	2023/1/25 15:40:34					
2023/1/26	change of Yaw Steering Status	Pseudo YS	2023/1/26 03:44:50	2023/1/26 04:37:30					
			2023/1/26 14:47:38	2023/1/26 15:37:54					
2023/1/27	change of Yaw Steering Status	Pseudo YS	2023/1/27 03:45:54	2023/1/27 04:34:42					
			2023/1/27 14:49:46	2023/1/27 15:34:50					
2023/1/28	change of Yaw Steering Status	Pseudo YS	2023/1/28 03:47:14	2023/1/28 04:31:30					
			2023/1/28 14:52:26	2023/1/28 15:31:14					
2023/1/29	change of Yaw Steering Status	Pseudo YS	2023/1/29 03:49:06	2023/1/29 04:27:54					
			2023/1/29 14:56:10	2023/1/29 15:26:18					
2023/1/30	change of Yaw Steering Status	Pseudo YS	2023/1/30 03:51:22	2023/1/30 04:23:30					
			2023/1/30 15:01:46	2023/1/30 15:17:14					
2023/1/31	change of Yaw Steering Status	Pseudo YS	2023/1/31 03:54:50	2023/1/31 04:17:14					
2023/2/1	change of Yaw Steering Status	Pseudo YS	2023/2/1 04:01:23	2023/2/1 04:09:31					
2023/2/5	orbit maintenance maneuver -2/6(*1)	UNLD	2023/2/5 12:54:19	2023/2/5 12:59:15				2337	
		YS→ON	2023/2/5 13:16:23	2023/2/5 13:17:04					
		#1	2023/2/5 13:24:34	2023/2/5 13:29:54	0:05:20	-5.184	0.041		-0.049
		#2	2023/2/5 20:54:54	2023/2/5 20:59:34	0:04:40	4.779	-0.015		-0.050
		#3	2023/2/6 01:54:01	2023/2/6 01:54:15	0:00:14	0.232	-0.001		-0.002
		UNLD	2023/2/6 01:57:15	2023/2/6 01:59:15					
		ON→YS	2023/2/6 02:03:22	2023/2/6 02:07:44					
2023/7/19	change of Yaw Steering Status	Pseudo YS	2023/7/19 16:08:36	2023/7/19 16:19:16					
2023/7/20	change of Yaw Steering Status	Pseudo YS	2023/7/20 16:01:16	2023/7/20 16:25:08					
2023/7/21	change of Yaw Steering Status	Pseudo YS	2023/7/21 03:02:28	2023/7/21 03:19:40					
			2023/7/21 15:56:20	2023/7/21 16:29:00					

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date	event	history							mass(kg) (*2)
			start(UT)	stop(UT)	duration	$\Delta V_x$	$\Delta V_y$	$\Delta V_z$	
2023/7/22	change of Yaw Steering Status	Pseudo YS	2023/7/22 02:56:44	2023/7/22 03:27:40					
			2023/7/22 15:52:20	2023/7/22 16:31:16					
2023/7/23	change of Yaw Steering Status	Pseudo YS	2023/7/23 02:52:36	2023/7/23 03:31:00					
			2023/7/23 15:48:52	2023/7/23 16:32:52					
2023/7/24	change of Yaw Steering Status	Pseudo YS	2023/7/24 02:49:08	2023/7/24 03:33:32					
			2023/7/24 15:45:40	2023/7/24 16:34:04					
2023/7/25	change of Yaw Steering Status	Pseudo YS	2023/7/25 02:46:12	2023/7/25 03:35:24					
			2023/7/25 15:42:52	2023/7/25 16:34:52					
2023/7/26	change of Yaw Steering Status	Pseudo YS	2023/7/26 02:43:32	2023/7/26 03:37:00					
			2023/7/26 15:41:00	2023/7/26 16:34:36					
2023/7/27	change of Yaw Steering Status	Pseudo YS	2023/7/27 02:43:48	2023/7/27 03:35:32					
			2023/7/27 15:41:40	2023/7/27 16:31:56					
2023/7/28	change of Yaw Steering Status	Pseudo YS	2023/7/28 02:45:32	2023/7/28 03:32:36					
			2023/7/28 15:42:44	2023/7/28 16:28:52					
2023/7/29	change of Yaw Steering Status	Pseudo YS	2023/7/29 02:47:40	2023/7/29 03:29:24					
			2023/7/29 15:44:04	2023/7/29 16:25:40					
2023/7/30	change of Yaw Steering Status	Pseudo YS	2023/7/30 02:50:28	2023/7/30 03:25:24					
			2023/7/30 15:45:48	2023/7/30 16:21:48					
2023/7/31	change of Yaw Steering Status	Pseudo YS	2023/7/31 02:54:28	2023/7/31 03:19:48					
			2023/7/31 15:48:12	2023/7/31 16:17:16					
2023/8/1	change of Yaw Steering Status	Pseudo YS	2023/8/1 03:01:16	2023/8/1 03:11:32					
			2023/8/1 15:51:48	2023/8/1 16:08:36					
2023/8/8	orbit maintenance maneuver (*1)	UNLD	2023/8/8 00:31:08	2023/8/8 00:37:08					2327
		YS→ON	2023/8/8 00:56:04	2023/8/8 00:59:29					
		#1	2023/8/8 01:04:14	2023/8/8 01:09:28	0:05:14	-5.212	0.076	-0.020	
		#2	2023/8/8 08:34:28	2023/8/8 08:39:14	0:04:46	4.772	-0.083	-0.039	
		#3	2023/8/8 13:33:44	2023/8/8 13:33:46	0:00:02	0.036	-0.001	0.000	
		UNLD	2023/8/8 13:36:52	2023/8/8 13:38:52					
		ON→YS	2023/8/8 13:43:00	2023/8/8 13:43:45					
		UNLD	2023/8/8 14:49:16	2023/8/8 13:51:24					
2024/1/15	change of Yaw Steering Status	Pseudo YS	2024/1/15 04:14:53	2024/1/15 04:26:13					
2024/1/16	change of Yaw Steering Status	Pseudo YS	2024/1/16 04:07:41	2024/1/16 04:32:37					
			2024/1/16 15:09:09	2024/1/16 15:29:17					
2024/1/17	change of Yaw Steering Status	Pseudo YS	2024/1/17 04:02:53	2024/1/17 04:36:37					
			2024/1/17 15:03:41	2024/1/17 15:35:57					
2024/1/18	change of Yaw Steering Status	Pseudo YS	2024/1/18 03:58:53	2024/1/18 04:39:09					
			2024/1/18 14:59:41	2024/1/18 15:39:41					
2024/1/19	change of Yaw Steering Status	Pseudo YS	2024/1/19 03:55:33	2024/1/19 04:40:53					
			2024/1/19 14:56:21	2024/1/19 15:42:21					
2024/1/20	change of Yaw Steering Status	Pseudo YS	2024/1/20 03:52:37	2024/1/20 04:42:13					
			2024/1/20 14:53:41	2024/1/20 15:44:29					
2024/1/21	change of Yaw Steering Status	Pseudo YS	2024/1/21 03:49:49	2024/1/21 04:43:17					
			2024/1/21 14:51:41	2024/1/21 15:45:41					
2024/1/22	change of Yaw Steering Status	Pseudo YS	2024/1/22 03:49:33	2024/1/22 04:41:49					
			2024/1/22 14:53:33	2024/1/22 15:43:17					

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date	event	history							mass(kg) (*2)
			start(UT)	stop(UT)	duration	$\Delta V_x$	$\Delta V_y$	$\Delta V_z$	
2024/1/23	change of Yaw Steering Status	Pseudo YS	2024/1/23 03:50:45	2024/1/23 04:39:09					
			2024/1/23 14:55:49	2024/1/23 15:40:21					
2024/1/24	change of Yaw Steering Status	Pseudo YS	2024/1/24 03:52:13	2024/1/24 04:36:05					
			2024/1/24 14:58:37	2024/1/24 15:36:45					
2024/1/25	change of Yaw Steering Status	Pseudo YS	2024/1/25 03:53:57	2024/1/25 04:32:37					
			2024/1/25 15:02:21	2024/1/25 15:32:05					
2024/1/26	change of Yaw Steering Status	Pseudo YS	2024/1/26 03:56:29	2024/1/26 04:28:29					
			2024/1/26 15:08:05	2024/1/26 15:23:17					
2024/1/27	change of Yaw Steering Status	Pseudo YS	2024/1/27 03:59:49	2024/1/27 04:22:29					
2024/1/28	change of Yaw Steering Status	Pseudo YS	2024/1/28 04:06:05	2024/1/28 04:15:09					
2024/2/4 -2/5 (*1)	orbit maintenance maneuver (*1)	UNLD	2024/2/4 12:40:13	2024/2/4 12:45:17					2317
		YS→ON	2024/2/4 13:02:35	2024/2/4 13:03:46					
		#1	2024/2/4 13:10:45	2024/2/4 13:16:02	0:05:17	-5.222	-0.062	-0.035	
		#2	2024/2/4 20:41:06	2024/2/4 20:45:41	0:04:35	4.745	0.086	-0.034	
		#3	2024/2/5 01:40:12	2024/2/5 01:40:23	0:00:11	0.186	0.003	-0.001	
		UNLD	2024/2/5 01:43:25	2024/2/5 01:45:25					
		ON→YS	2024/2/5 01:49:32	2024/2/5 01:52:50					
		UNLD	2024/2/5 01:55:49	2024/2/5 01:57:57					

(\*1) The  $\Delta V$  information shows the planned value.

(\*2) This information includes the analysis error.