

# **Operational Performance of GPS Steered Rubidium Oscillators**

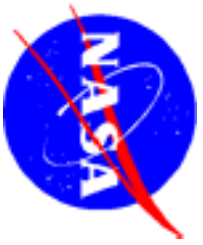
Loyal Stewart

NASA SLR/VLBI Program

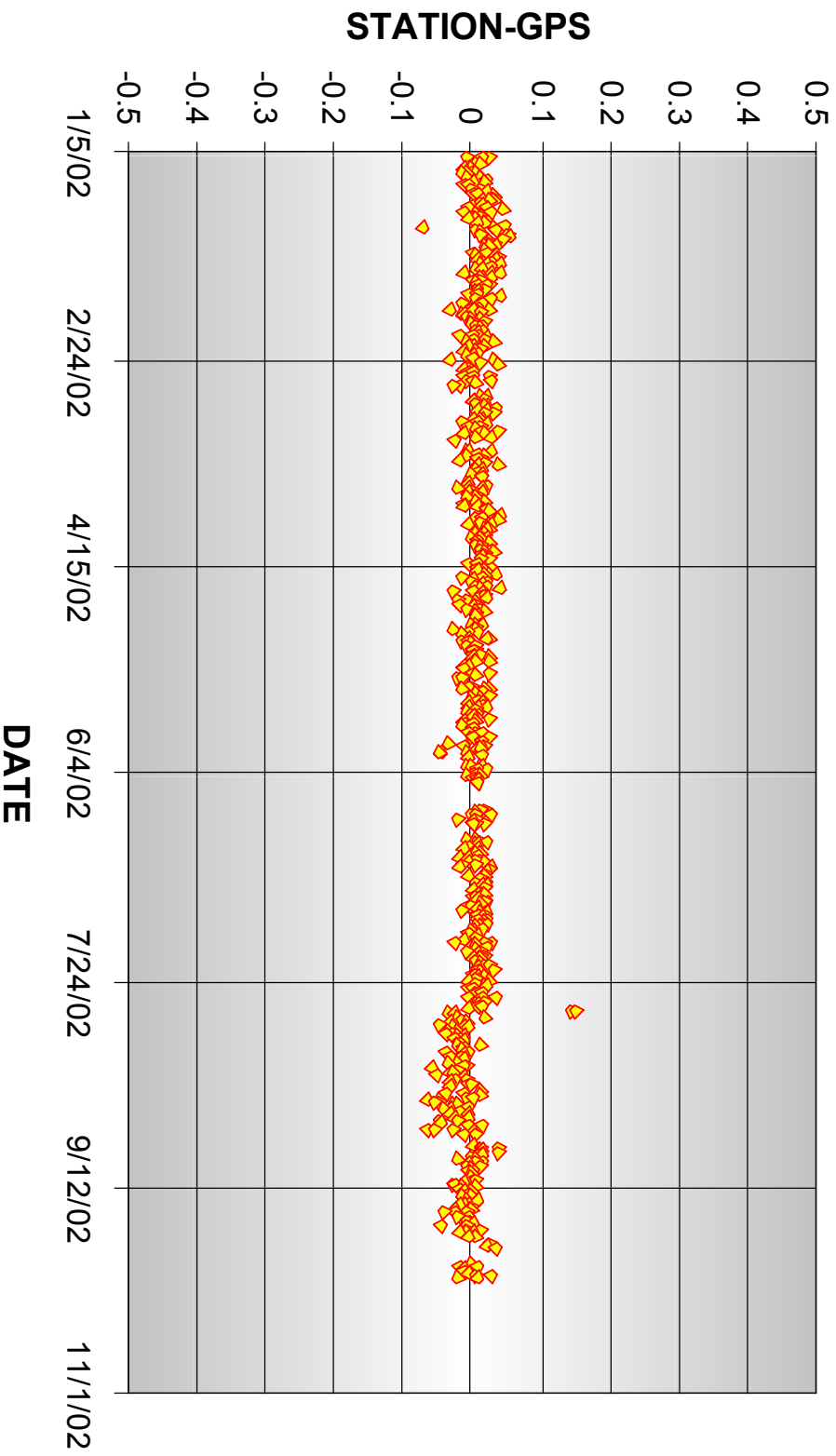
**Honeywell**

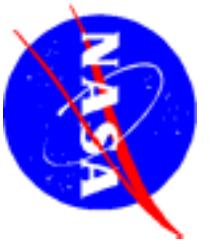
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Honeywell Technology Solutions Inc  
Laser Workshop, Washington DC, Oct 7-11, 2002

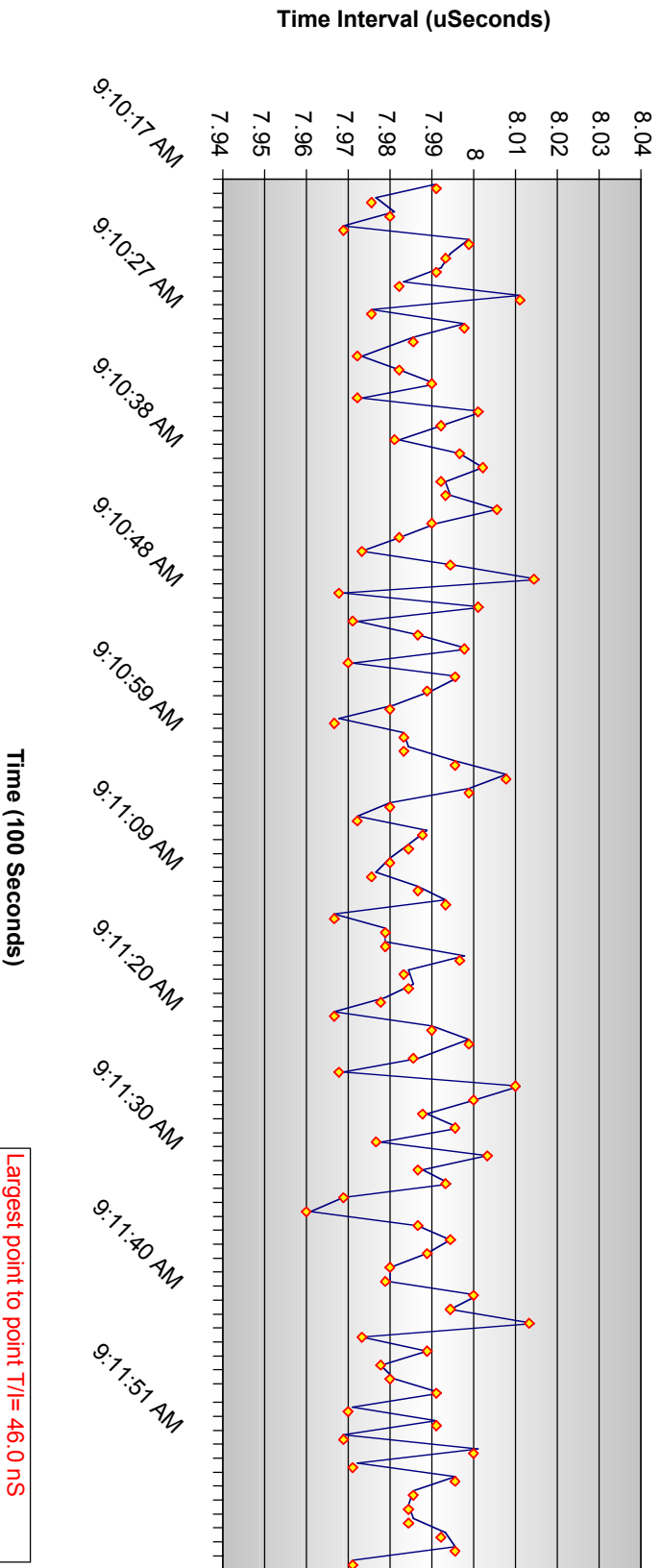


### MOBLAS 6 TIME POSITION (STA Time -6.0469)



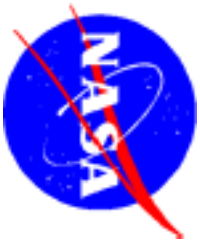


### SHORT TERM TIME PERFORMANCE TrueTime XL-DC (Rb Osc.) 1 PPS vs. Maser 1 PPS



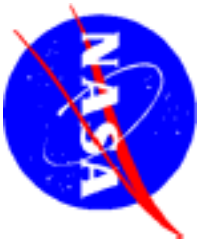
Largest point to point T/I= 46.0 nS  
Min to Max T/I= 54.04 nS  
Average point to point T/I= 1.7 nS





August of 2002									
<b>XL-DC #</b>	<b>Osc. Phase</b>	<b>Response Time</b>	<b>DAC</b>	<b>Osc. Drift / Day</b>	<b>Osc. Offset</b>	<b>Antenna</b>	<b>PLL</b>	<b>GPS</b>	
99173236	-3.712E-08	4.27E+03	-19088	6.964E-11	-5.071E-11	ok	ok	locked	
99173237	3.643E-09	5.00E+03	-20087	9.103E-13	4.246E-13	ok	ok	locked	
99173238	2.078E-09	5.00E+03	-17003	-4.623E-13	-1.608E-13	ok	ok	locked	
99173239	8.864E-09	5.00E+03	-18408	-6.935E-13	2.504E-12	ok	ok	locked	
99173240	-2.222E-08	5.00E+03	-17392	-1.10E-12	3.58E-12	ok	ok	locked	
994912244	-1.458E-09	5.00E+03	-18446	8.39E-13	9.07E-13	ok	ok	locked	
994912245	-1.236E-08	5.00E+03	-17338	1.160E-11	1.809E-12	ok	ok	locked	
994912246	5.020E-09	5.00E+03	-18871	-3.429E-13	5.854E-13	ok	ok	locked	
00214843	-1.490E-08	5.00E+03	-15318	1.95E-12	1.65E-12	ok	ok	locked	
00214844	1.761E-09	5.00E+03	-17610	5.904E-13	1.159E-12	ok	ok	locked	
0010514244	-4.30E-09	5.00E+03	-18666	8.35E-13	3.38E-13	ok	ok	locked	





# Network SRS Rubidium Oscillator DAC Tracking

