

# Survey comparison: Feb 13, 2018

	<i>Optimized</i>	<i>Closest</i>	<i>Large</i>	<i>Short</i>	<i>Degraded</i>	<i>Dark</i>	<i>220 nights</i>	<i>220/optimized</i>
Number of stars	100	50	360	100	100	100	100	1
$\langle N_{RV} \rangle$	198.1	396.0	62.0	99.5	198.1	198.1	144.8	0.73
median( $\sigma_{RV}$ )	1.33	1.21	1.88	1.33	2.52	1.33	1.34	1
Average sensitivity	44.9%	53.6%	19.5%	34.4%	34.6%	47.2%	42.6%**	0.95
Sensitivity to Earth-like* planets	33.5%	45.4%	8.1%	21.4%	20.7%	35.2%	31.8%**	0.95
Sensitivity to imagable Earth-like planets	33.7%	42.5%	11.4%	20.4%	18.1%	35.7%	32.6%**	0.97
Total planet yield	85.3	50.6	142.7	65.7	65.2	88.7	80.5	0.94
Total yield of Earth-like planets	8.1	5.4	7.6	5.2	5.0	8.6	7.5	0.92
Total yield of imagable Earth-like planets	4.9	4.0	1.5	3.0	2.5	5.3	4.9	1

\*Earth-like  $\equiv$  1-5  $M_{\oplus}$  in HZ

\*\*rough sensitivity estimate

# Survey comparison: Feb 22, 2018

	<i>Optimized</i>	<i>Closest</i>	<i>Large</i>	<i>Short</i>	<i>Degraded</i>	<i>Dark</i>	<i>New WFs</i>	<i>New WFs / optimized</i>
Number of stars	100	50	360	100	100	100	141	1.41
$\langle N_{\text{RV}} \rangle$	198.1	396.0	62.0	99.5	198.1	198.1	168.7	0.85
median( $\sigma_{\text{RV}}$ )	1.33	1.21	1.88	1.33	2.52	1.33	1.55	1.17
Total observing time**	1266 hrs						1800 hrs	1.42
Average sensitivity	44.9%	53.6%	19.5%	34.4%	34.6%	47.2%	35.6%**	0.79
Sensitivity to Earth-like* planets	33.5%	45.4%	8.1%	21.4%	20.7%	35.2%	25.1%**	0.75
Sensitivity to imagable Earth-like planets	33.7%	42.5%	11.4%	20.4%	18.1%	35.7%	26.9%**	0.80
Total planet yield	85.3	50.6	142.7	65.7	65.2	88.7	94.1	1.10
Total yield of Earth-like planets	8.1	5.4	7.6	5.2	5.0	8.6	9.0	1.11
Total yield of imagable Earth-like planets	4.9	4.0	1.5	3.0	2.5	5.3	5.0	1.02

\*Earth-like  $\equiv$  1-5  $M_{\oplus}$  in HZ

\*\*  $\sum_{i=1}^{N_*} N_{\text{RV},i} \cdot (t_{\text{exp},i} + t_{\text{overhead}})$     where  $t_{\text{overhead}} = 30 \text{ s}$

\*\*rough sensitivity estimate