

KIC 008559208

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
008559208-01	OBS	No	2.180042	132.693967	29.6	26.160	9.1	12.2	0.82	6029	0.62	791.09

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008559208-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

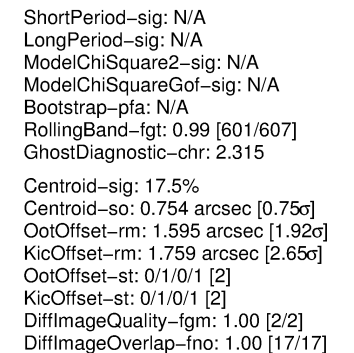
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

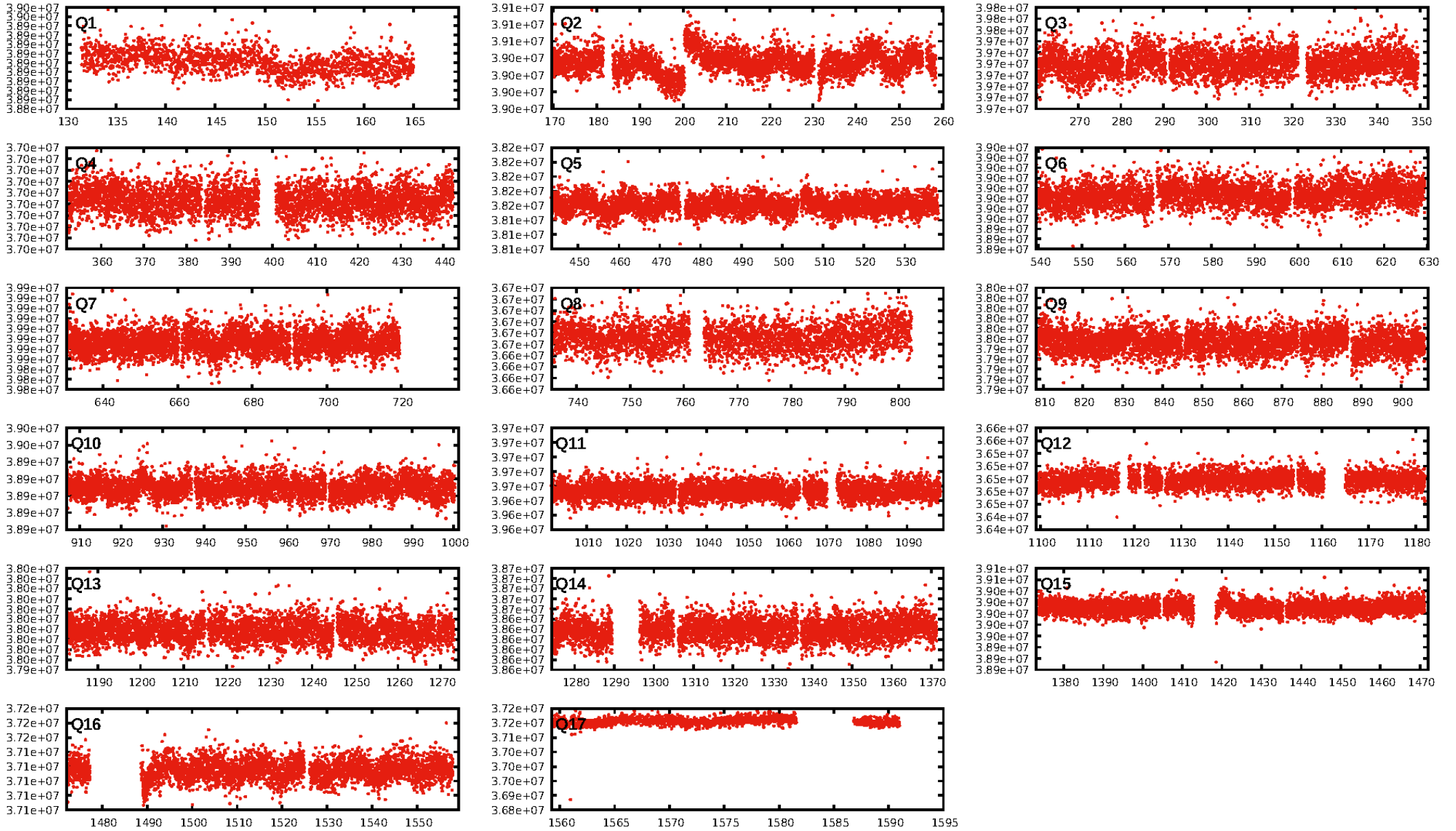
Ephemeris Match Information For 008559208-01

No Significant Match Found

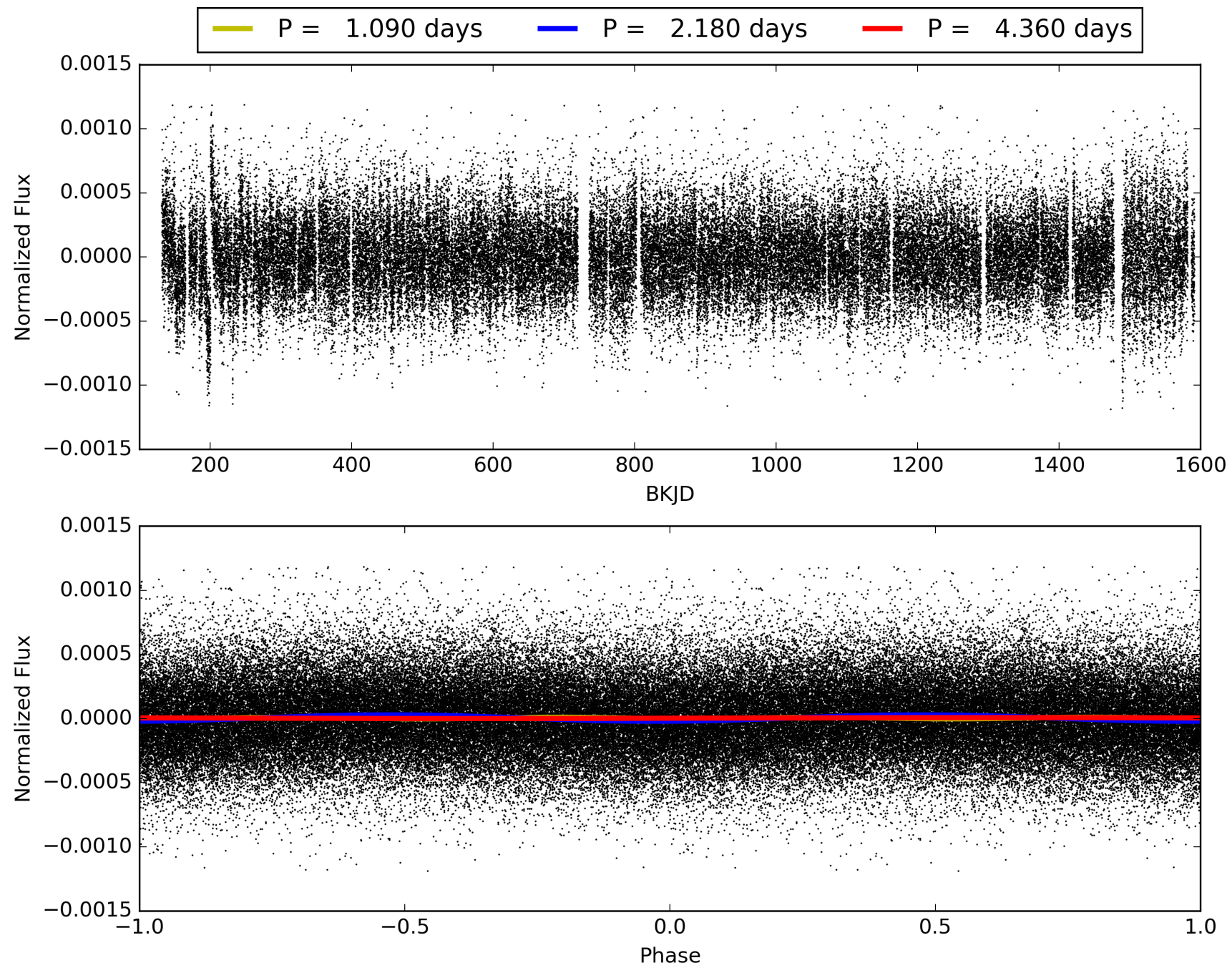
KIC: 8559208 Candidate: 1 of 1 Period: 2.180 d



TCE 008559208-01, PDC Light Curves

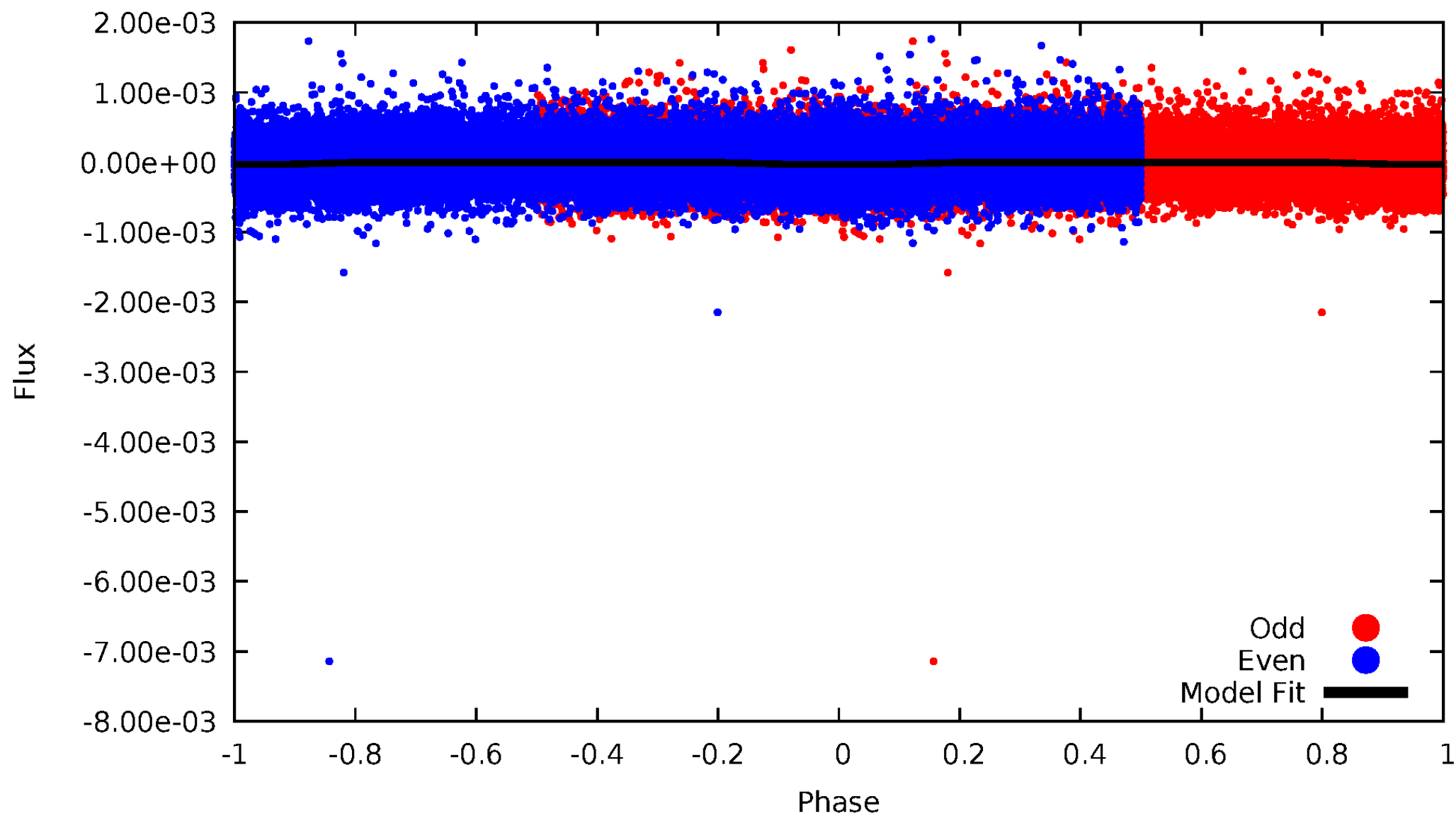


TCE 008559208-01



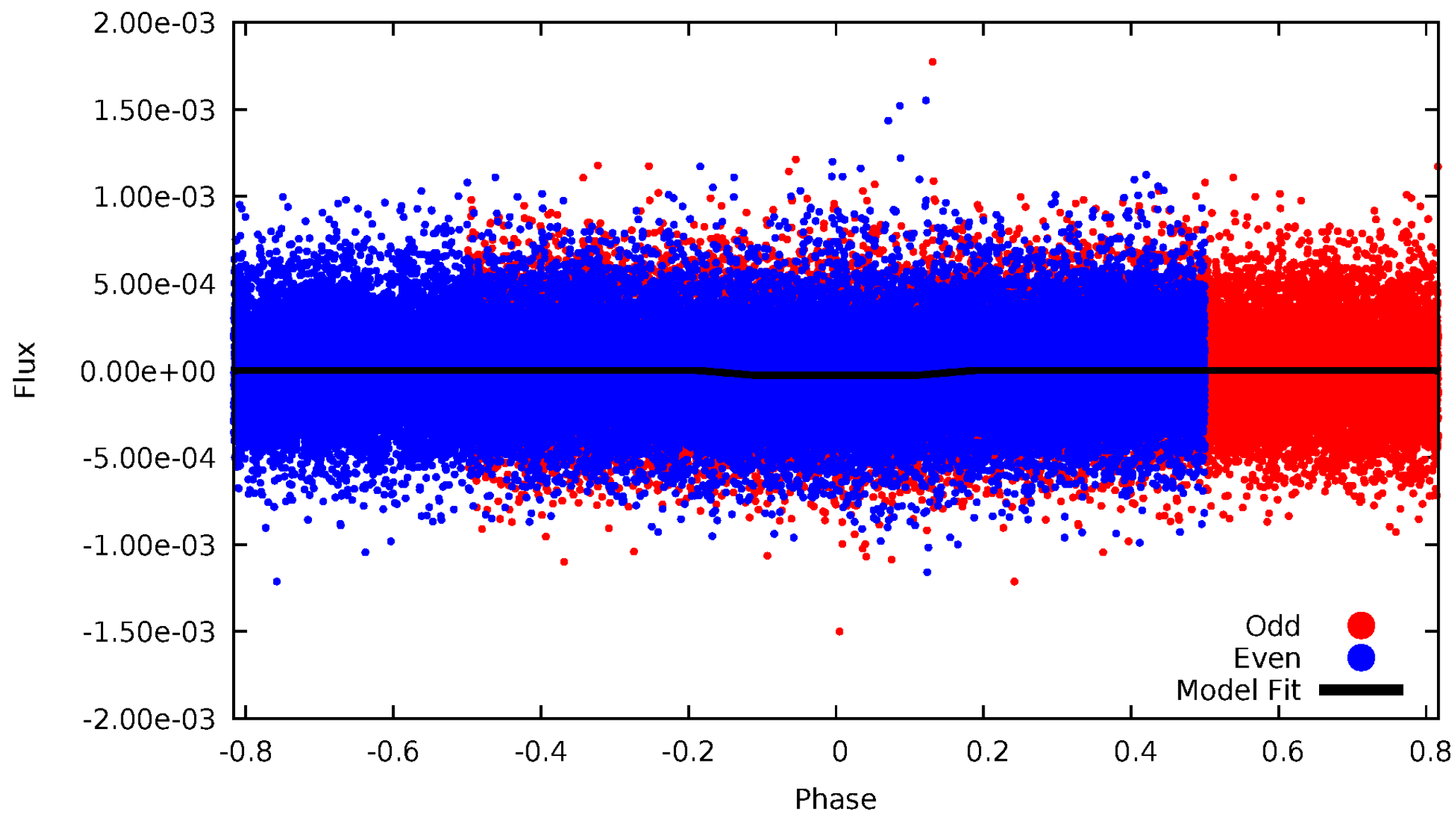
DV Odd/Even

TCE 008559208-01



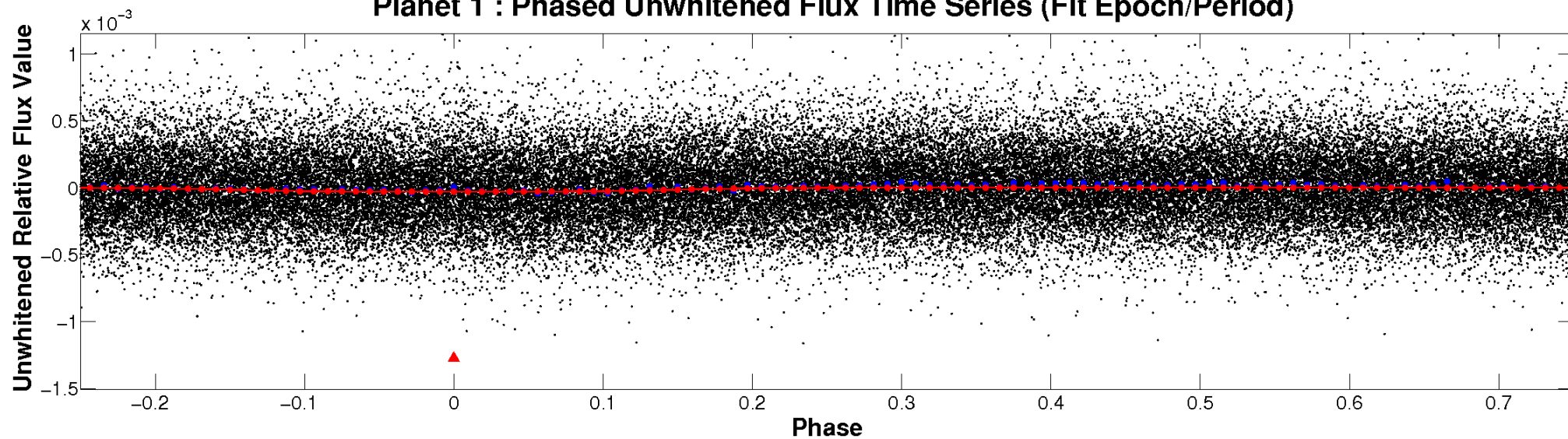
ALT Odd/Even

TCE 008559208-01

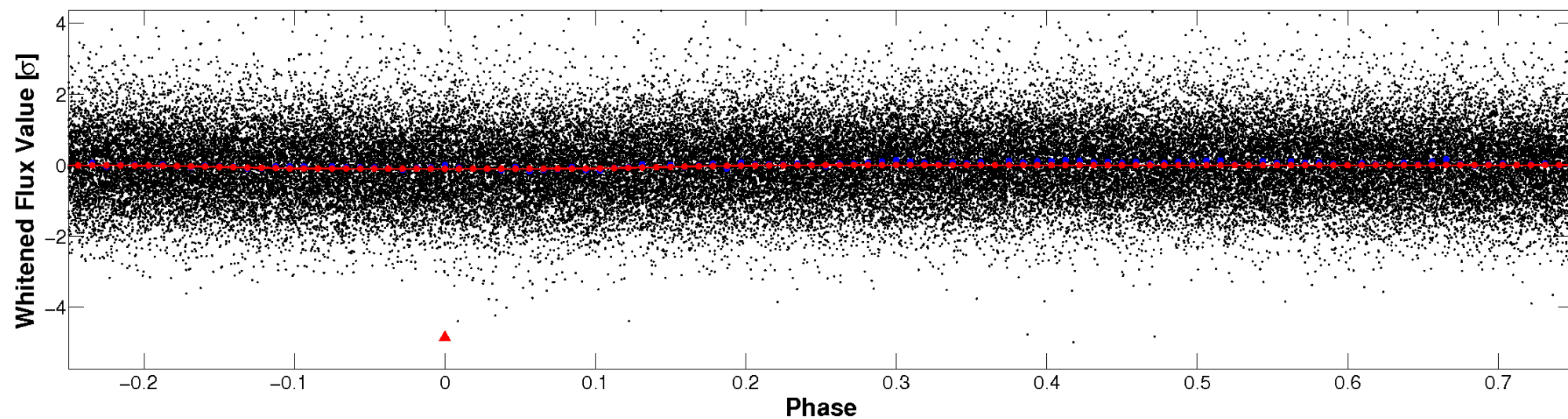


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

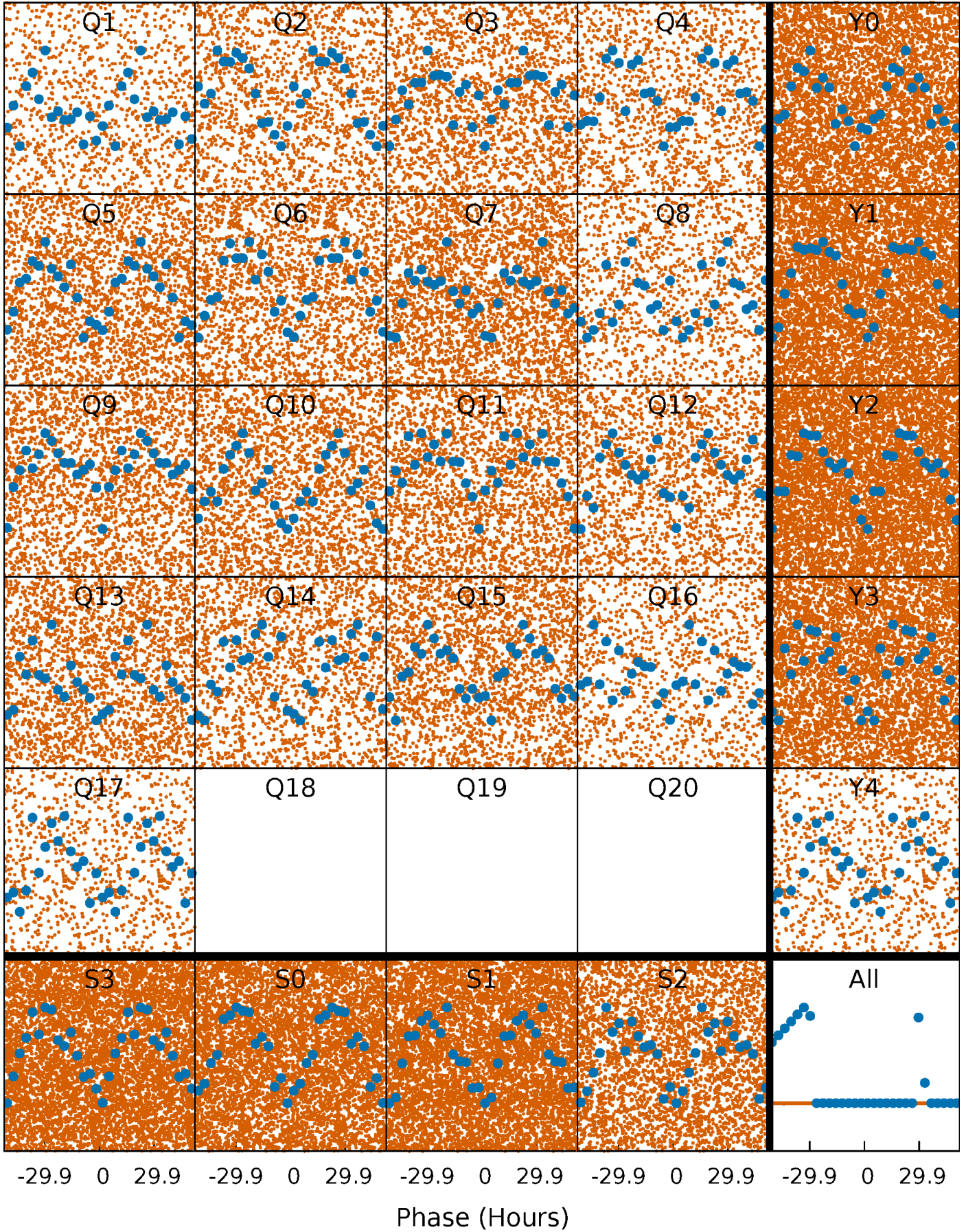


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



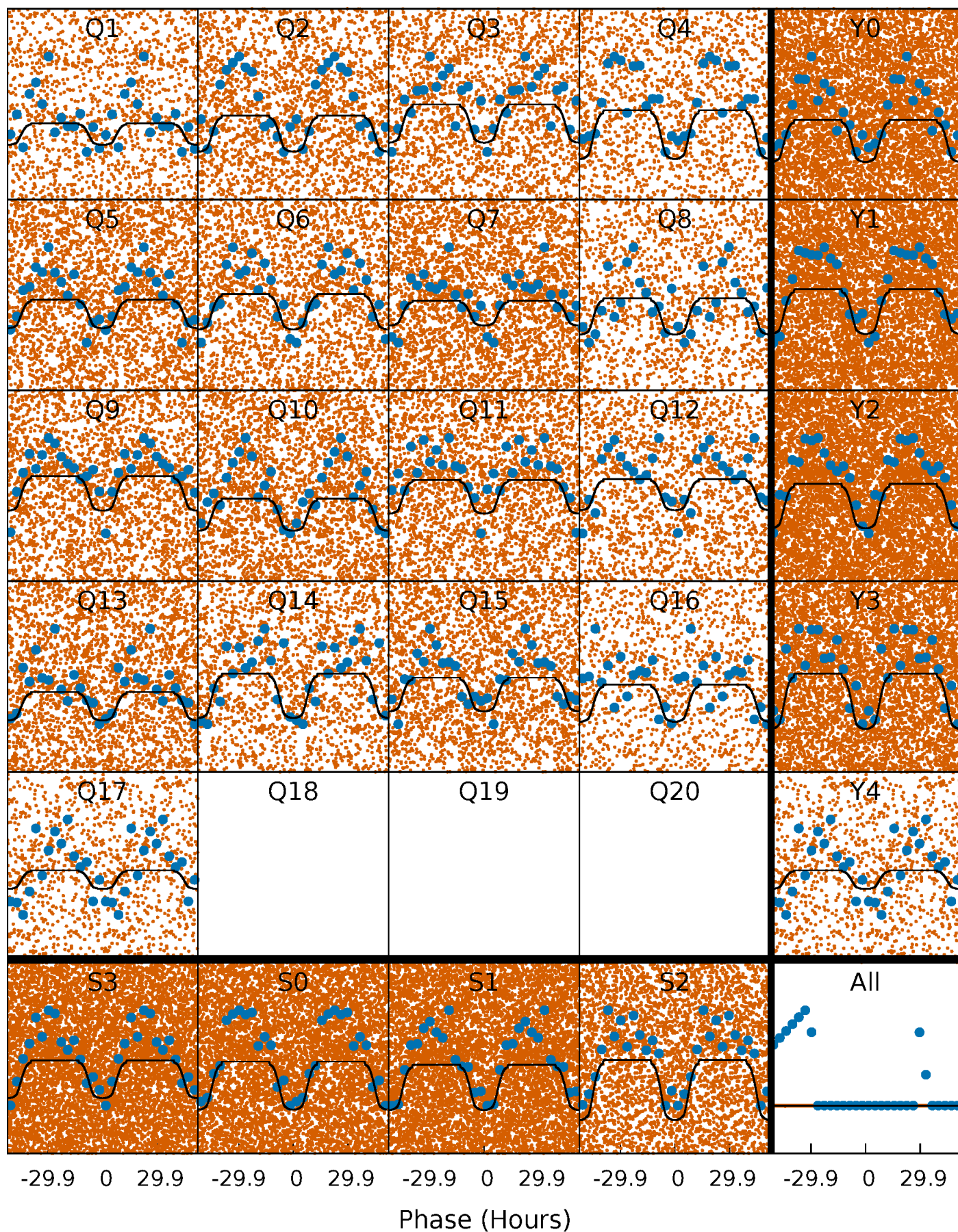
PDC Quarter-Phased Transit Curves

TCE 008559208-01 P= 2.180042 Days $T_0=132.693967$ (BKJD)



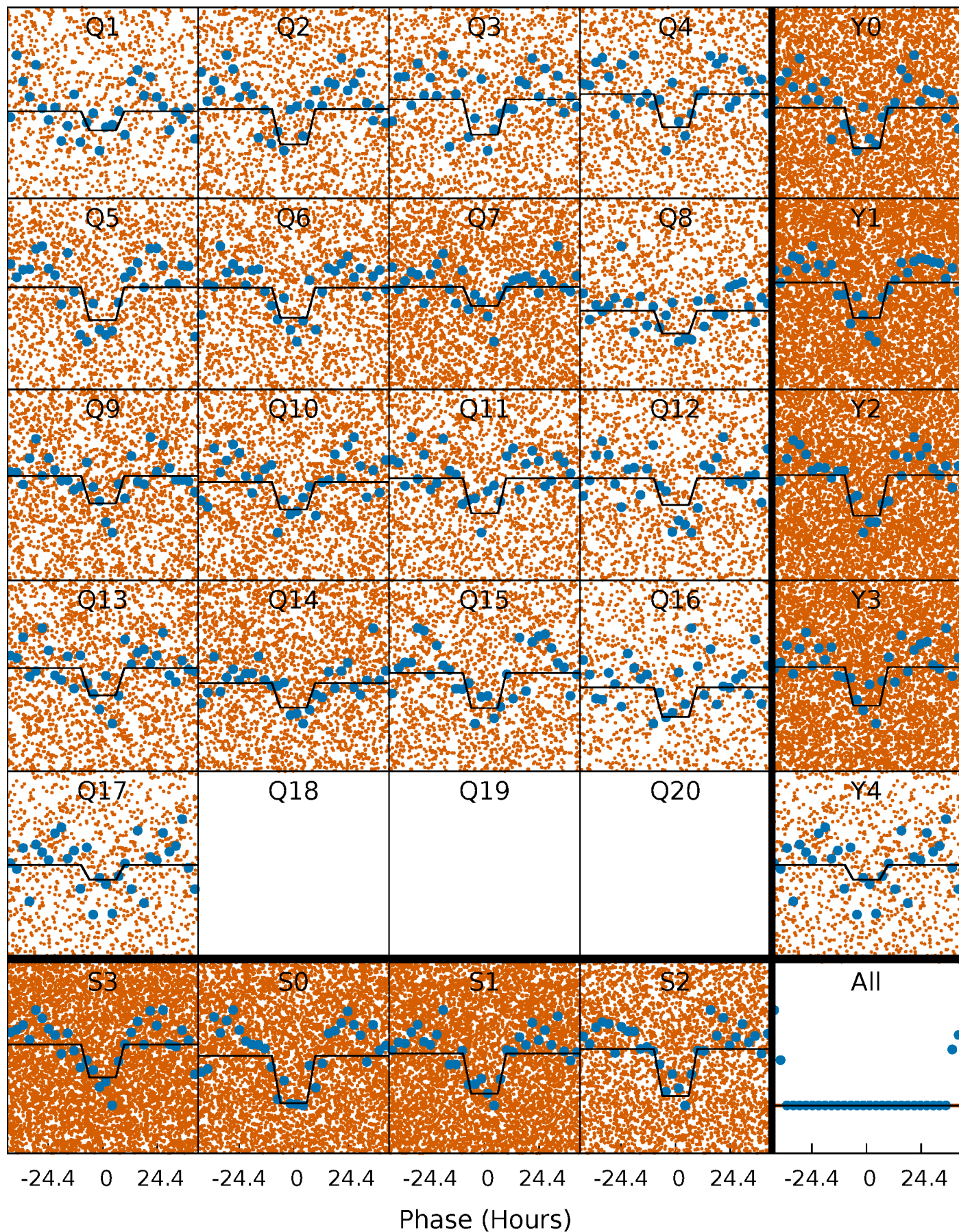
DV Quarter-Phased Transit Curves

TCE 008559208-01 P= 2.180042 Days $T_0=132.693967$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

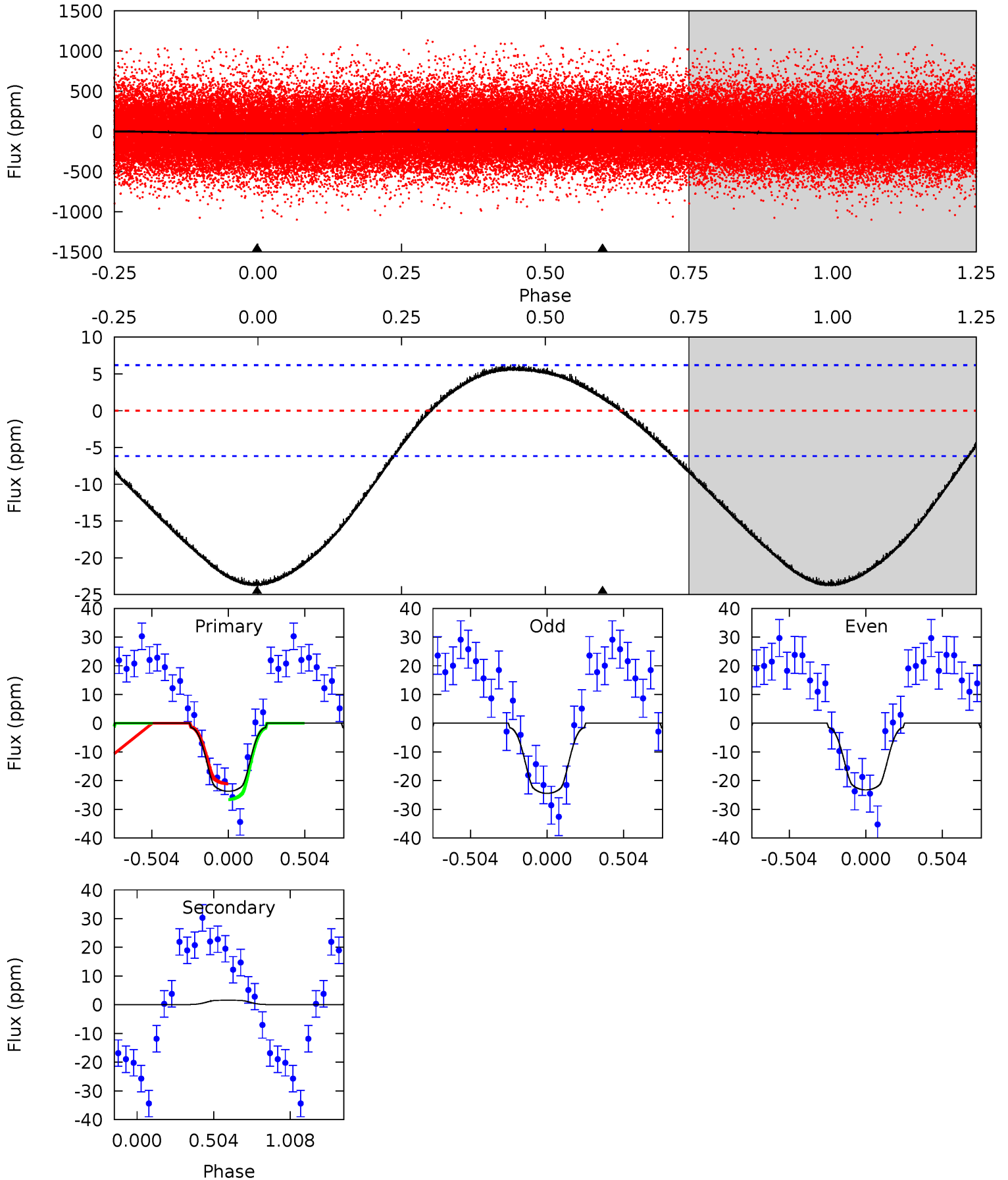
TCE 008559208-01 P= 2.179988 Days $T_0=132.710939$ (BKJD)



DV Model-Shift Uniqueness Test

008559208-01, P = 2.180042 Days, E = 130.513925 Days

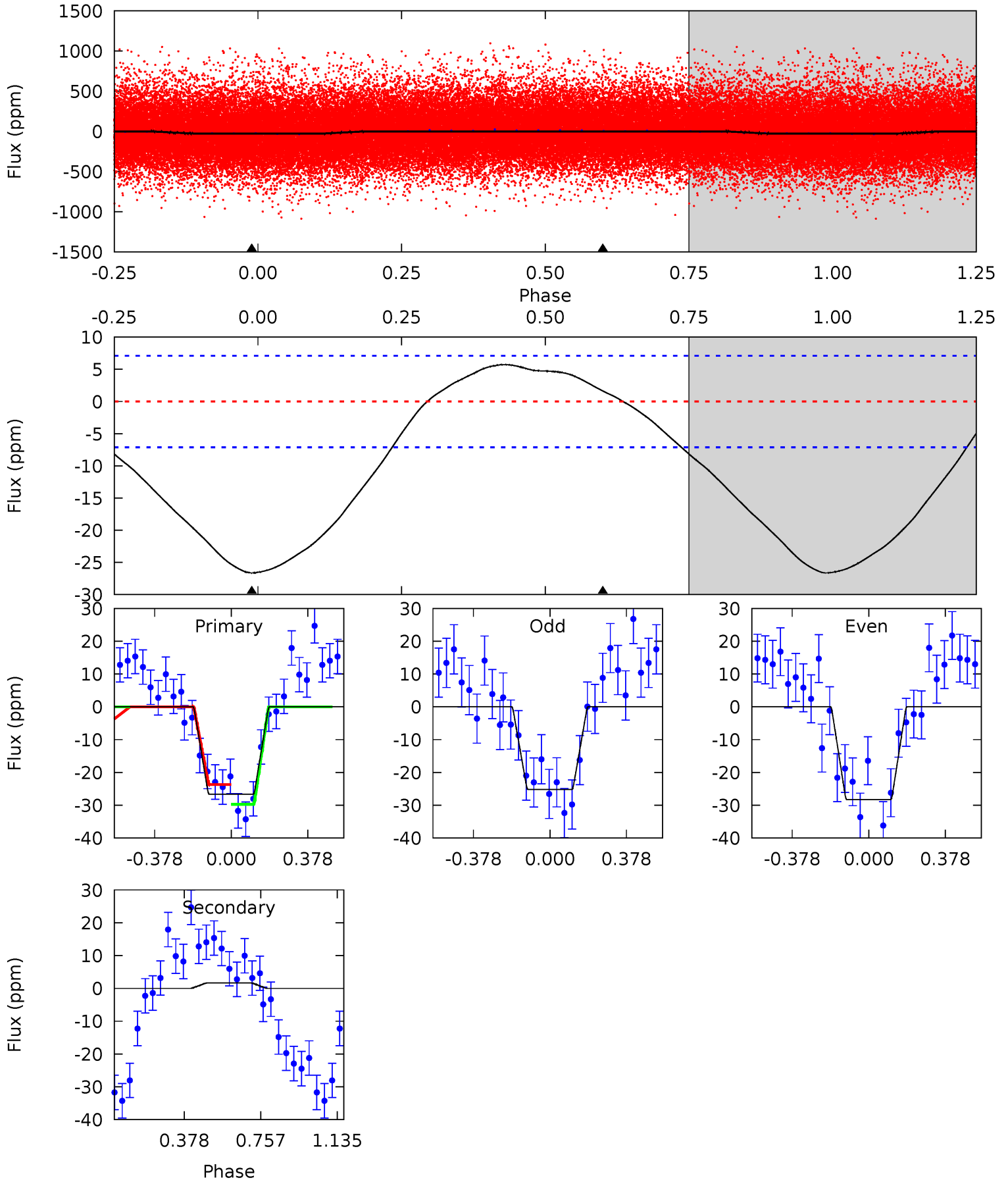
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	-1.09	0	0	4.21	0.67	1.59	16.2	16.2	-1.09	-1.09	0.41	0.78	0.21	1.91



Alt Model-Shift Uniqueness Test

008559208-01, P = 2.179988 Days, E = 130.530951 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.0	-0.99	0	0	4.28	0.88	1.56	16.0	16.0	-0.99	-0.99	0.93	1.12	0.18	1.85



Stellar Parameters For KIC 008559208

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6029^{+161}_{-179}	$4.565^{+0.036}_{-0.204}$	$-0.500^{+0.300}_{-0.300}$	$0.825^{+0.236}_{-0.059}$	$0.915^{+0.099}_{-0.108}$	$2.295^{+0.433}_{-1.141}$
	+3%/-3%	+1%/-4%	+60%/-60%	+29%/-7%	+11%/-12%	+19%/-50%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 008559208-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	2 ± 1	$0.64^{+0.10}_{-0.06}$	1933^{+122}_{-92}	-3254^{+577}_{-329}	$-2.045^{+1.718}_{-2.202}$
Alt.	2 ± 2	$0.49^{+0.08}_{-0.05}$	1930^{+143}_{-77}	-3509^{+1019}_{-441}	$-3.635^{+3.594}_{-4.160}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

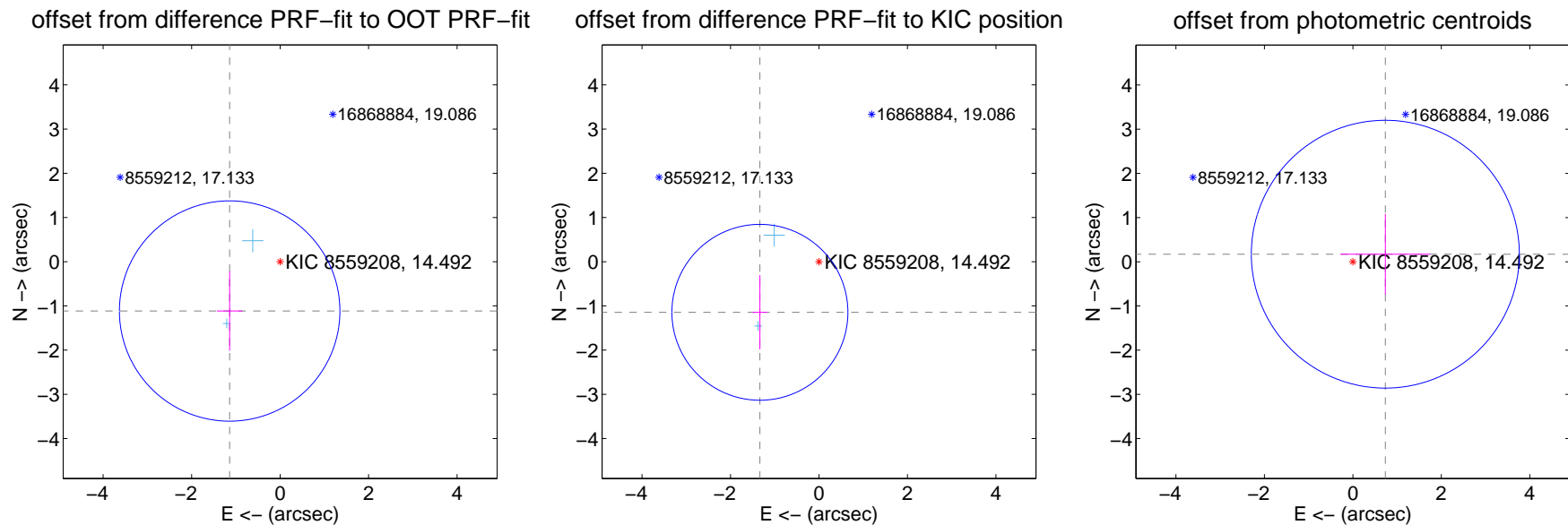
DV Centroid Data

Supplemental centroid analysis for 008559208-01. Kepler magnitude: 14.49. Transit SNR 12.17

There are 2 quarters with good PRF difference image offsets

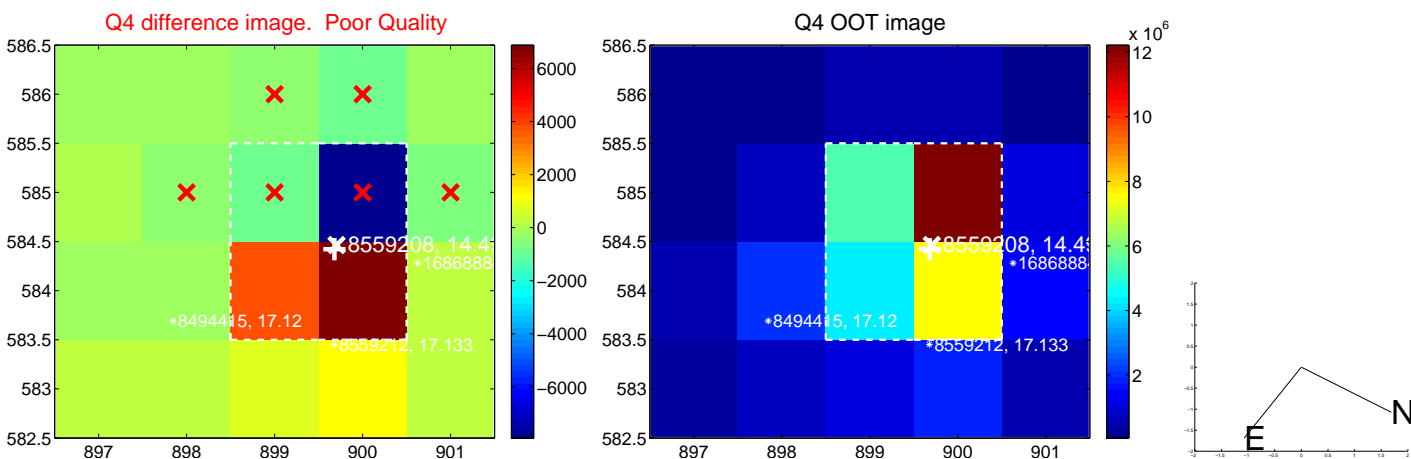
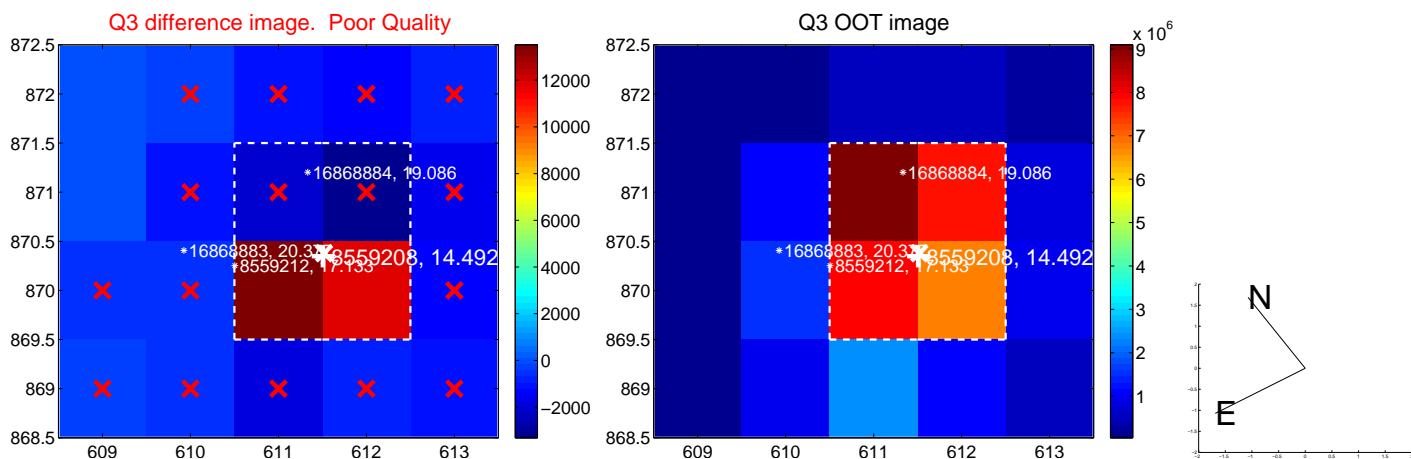
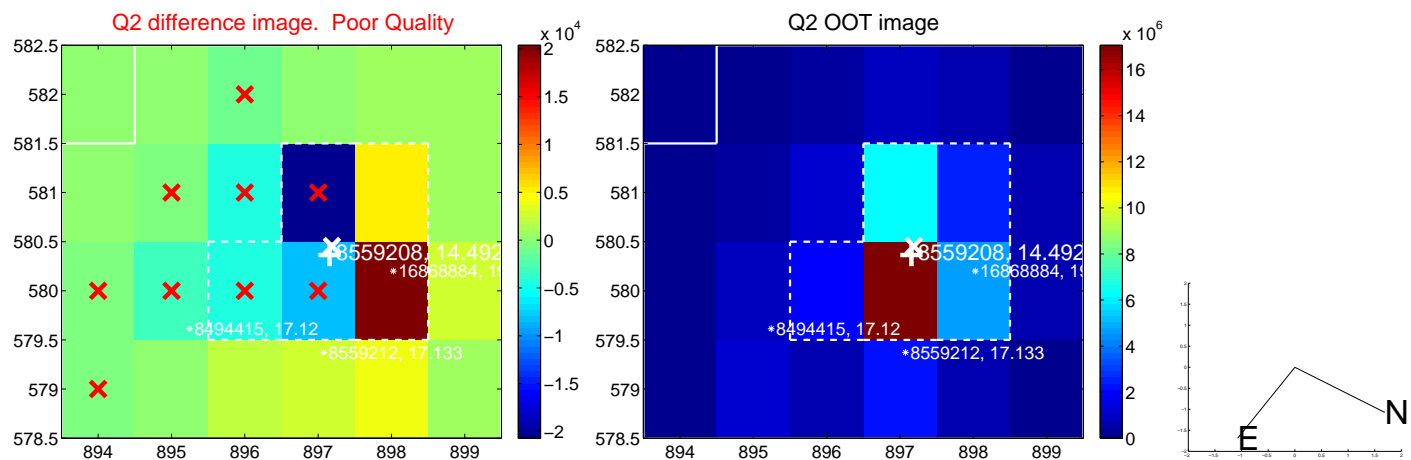
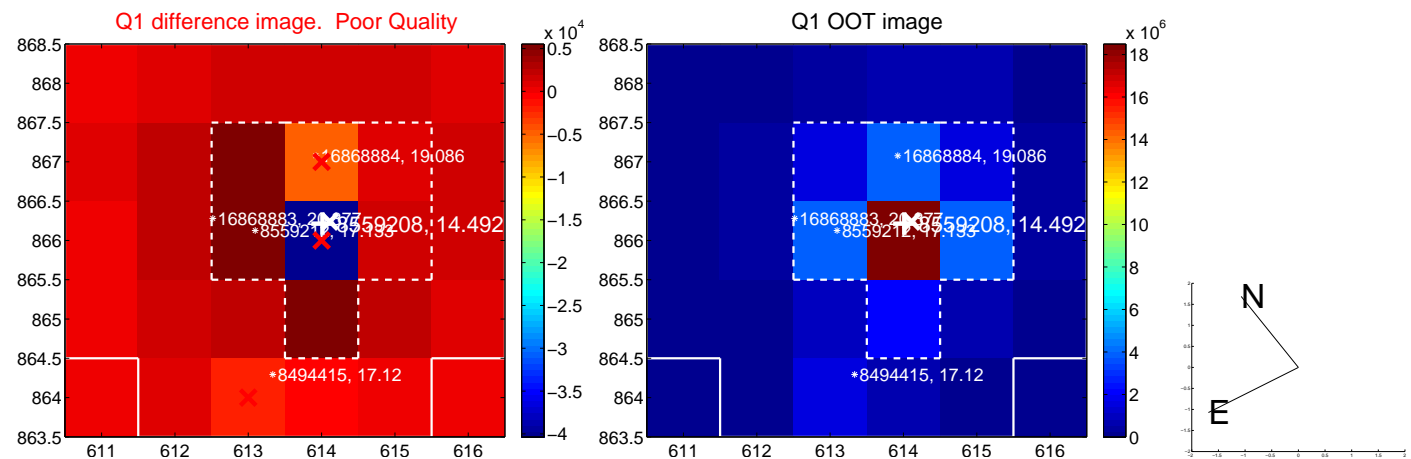
The direct PRF centroid is offset from the target star catalog position by about 0.41 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.595 ± 0.830	1.92	1.140 ± 0.290	-1.115 ± 0.898
PRF-fit source offset from KIC position	1.759 ± 0.663	2.65	1.335 ± 0.164	-1.145 ± 0.842
photometric centroid source offset	0.75 ± 1.01	0.75	-0.73 ± 1.01	0.17 ± 0.91

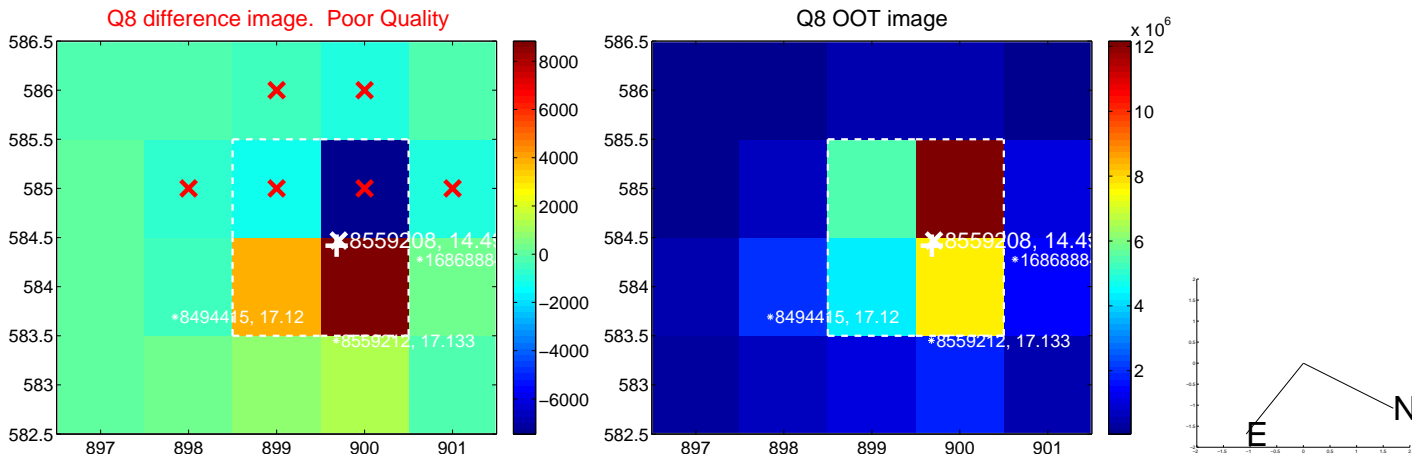
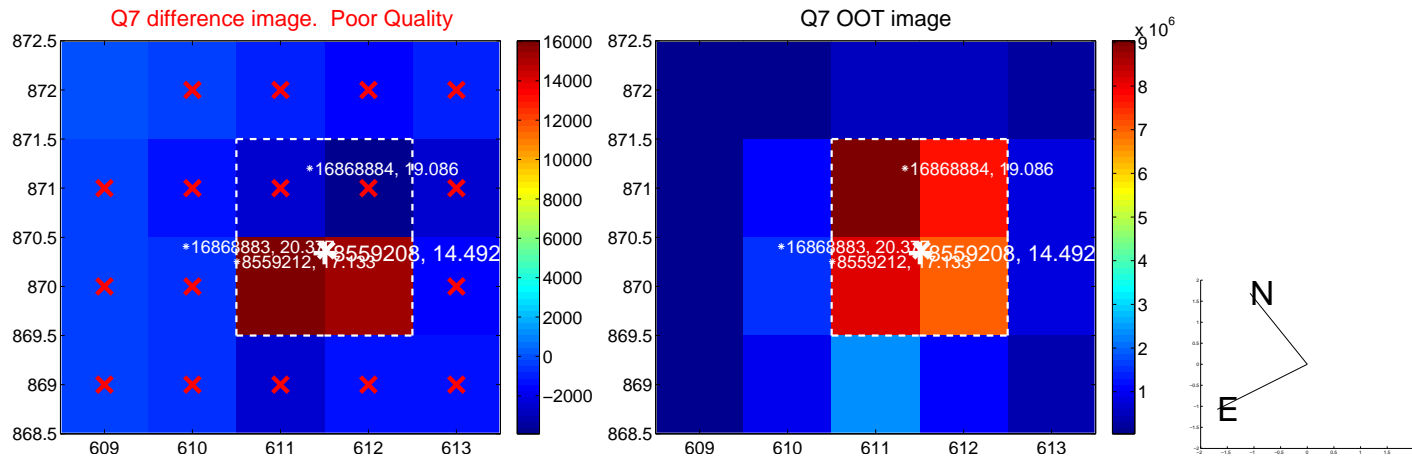
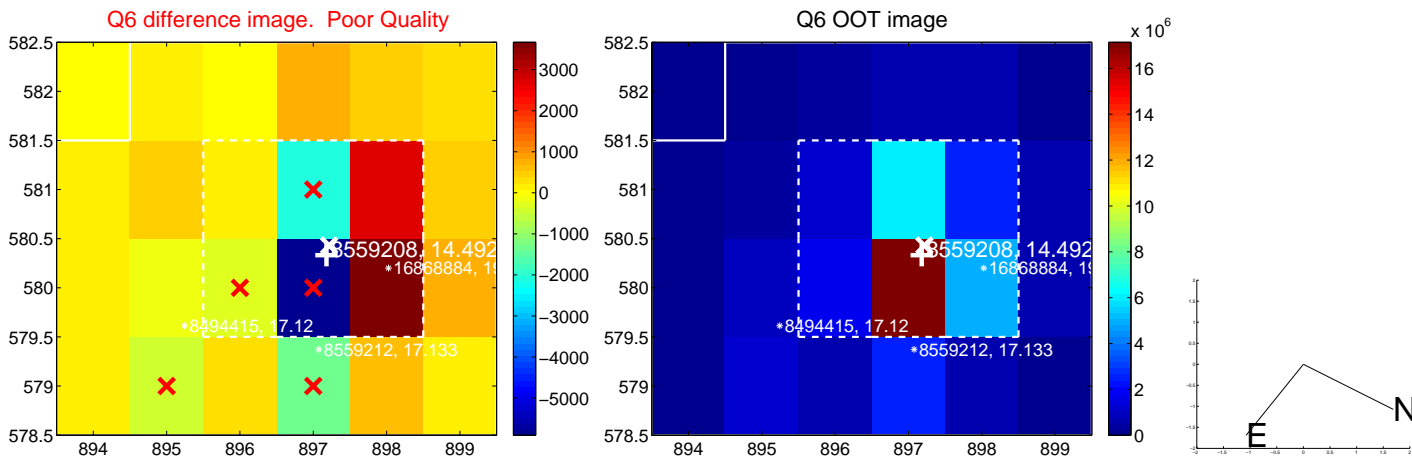
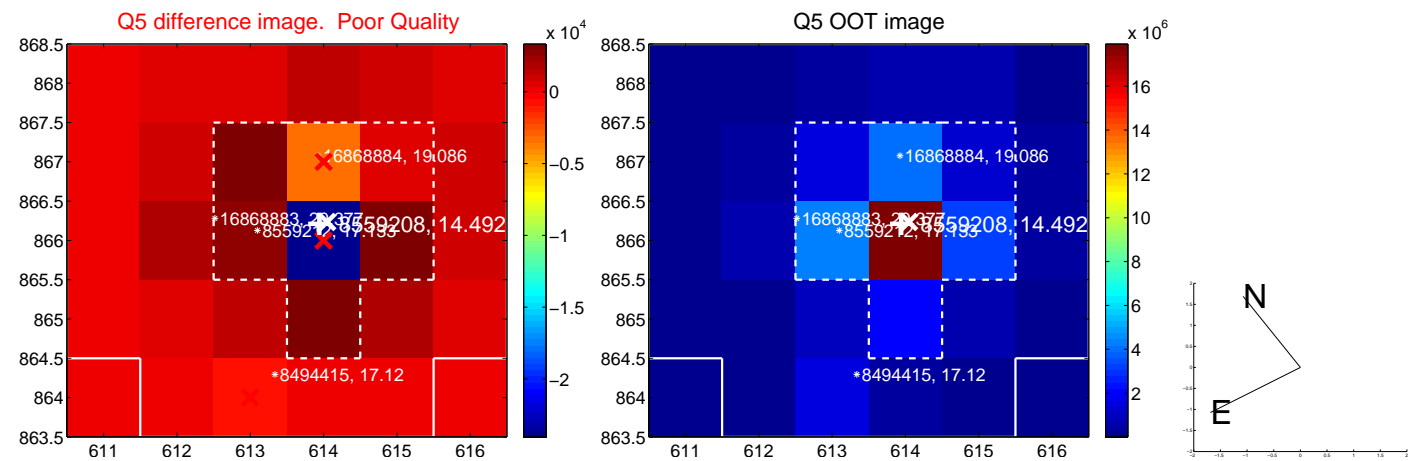


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

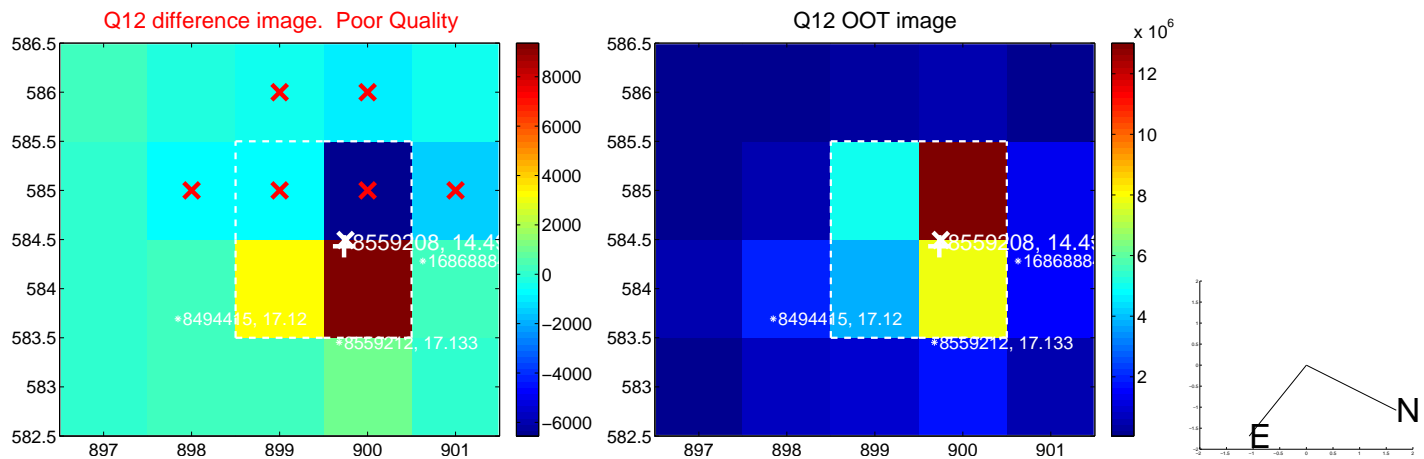
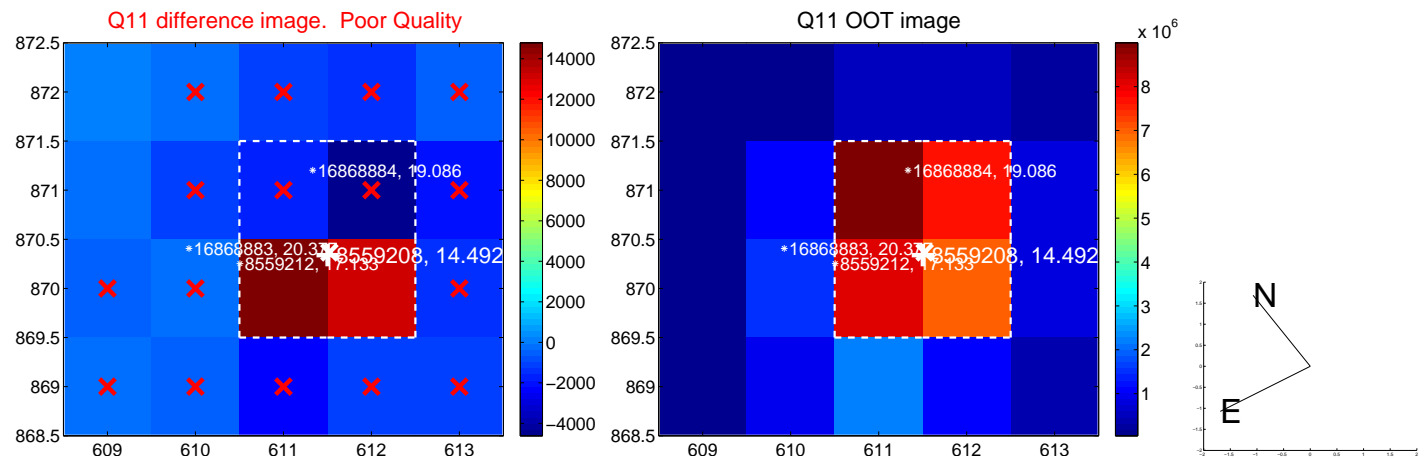
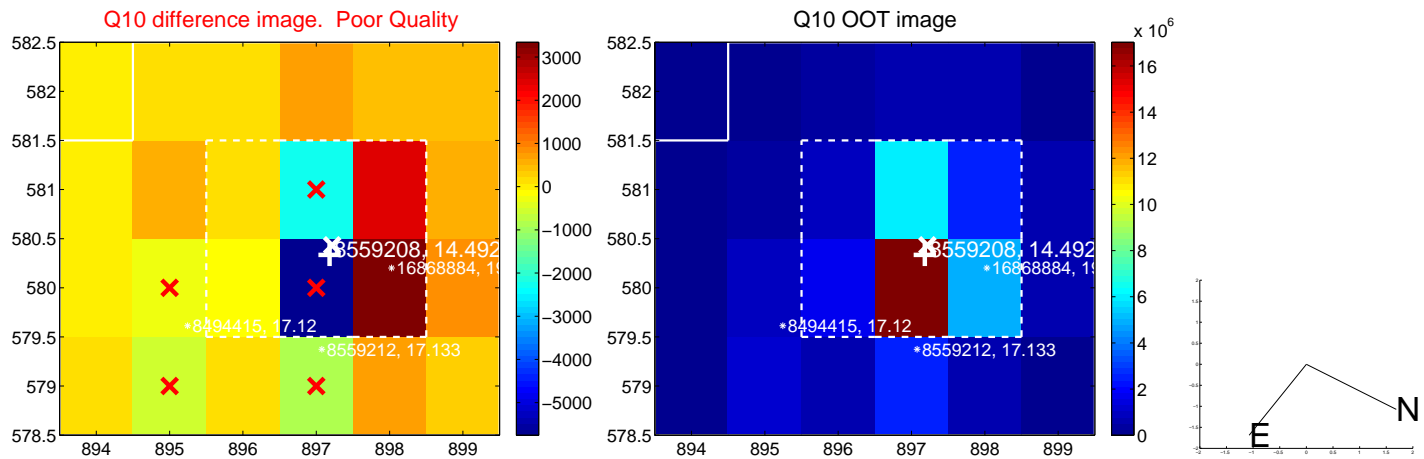
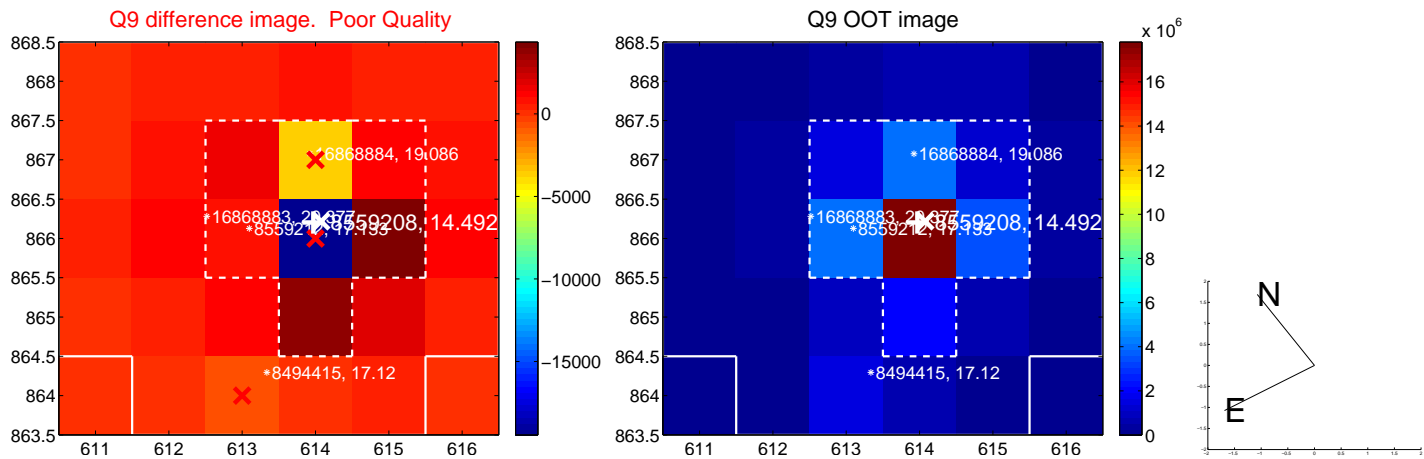
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



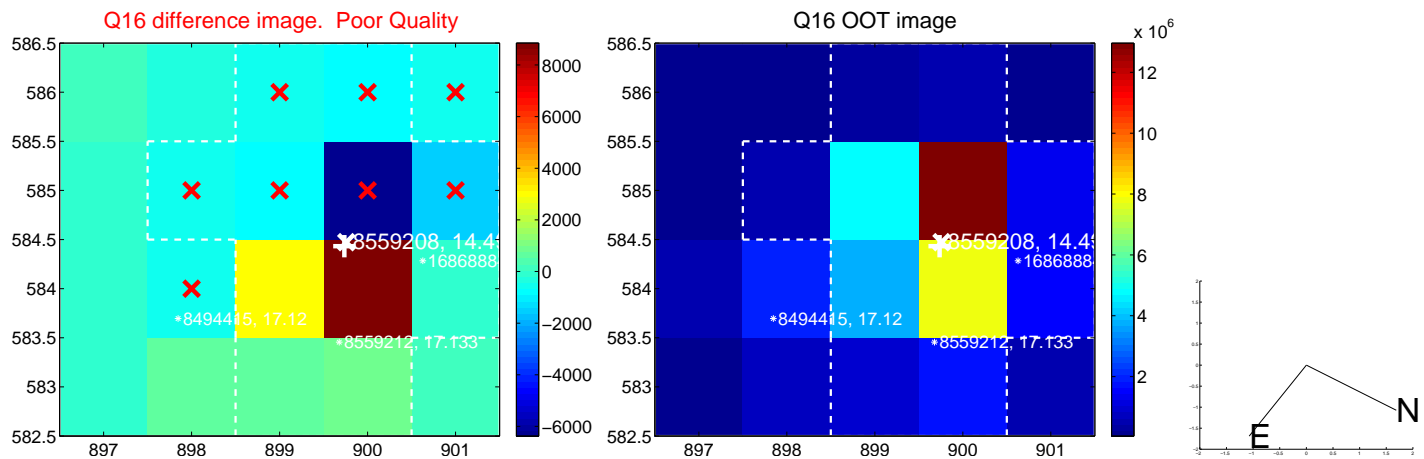
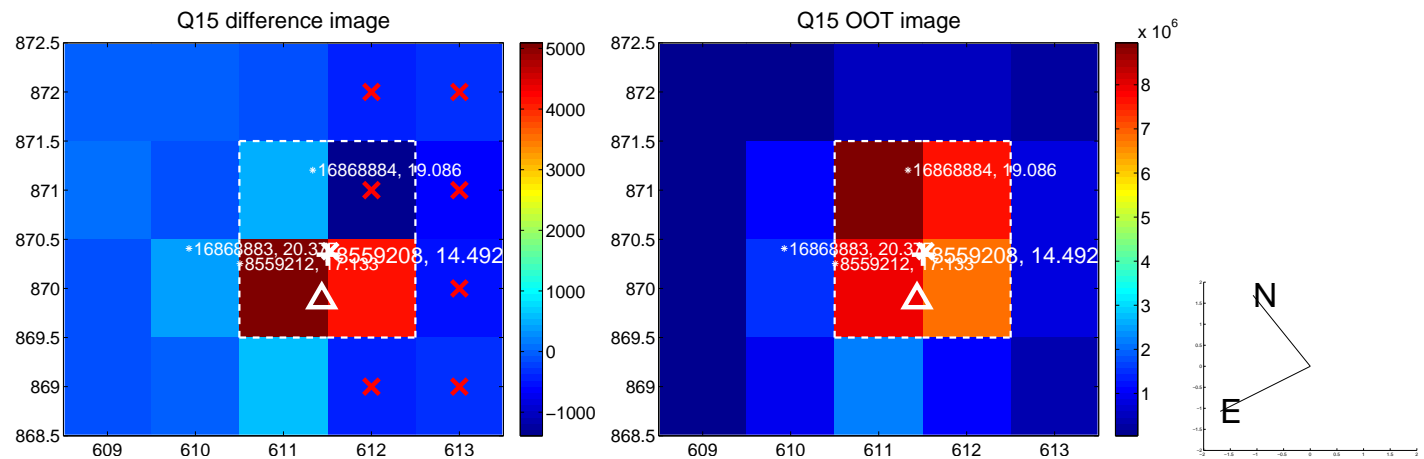
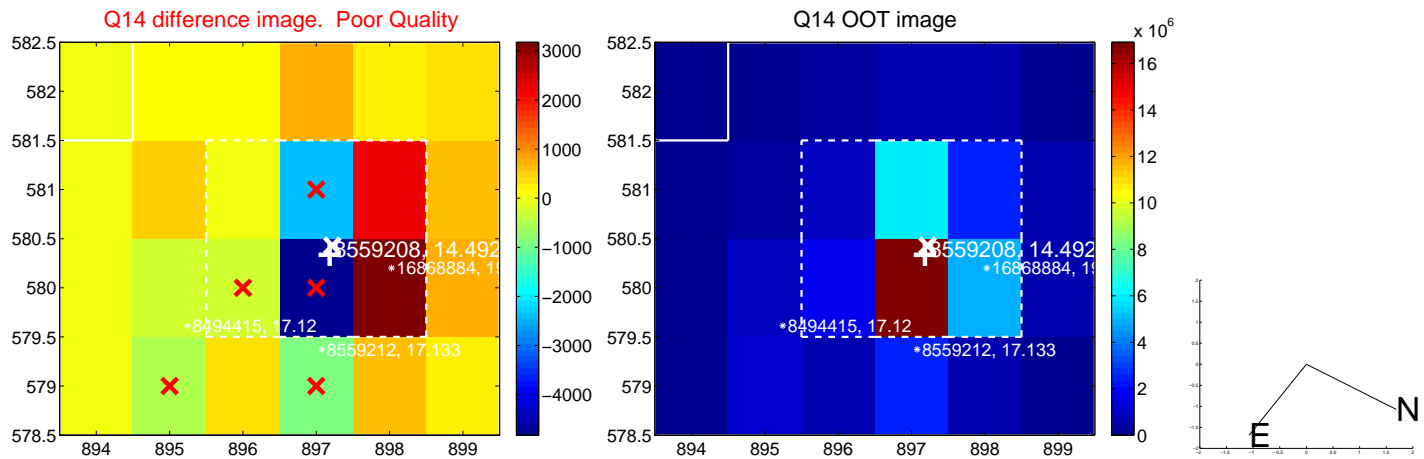
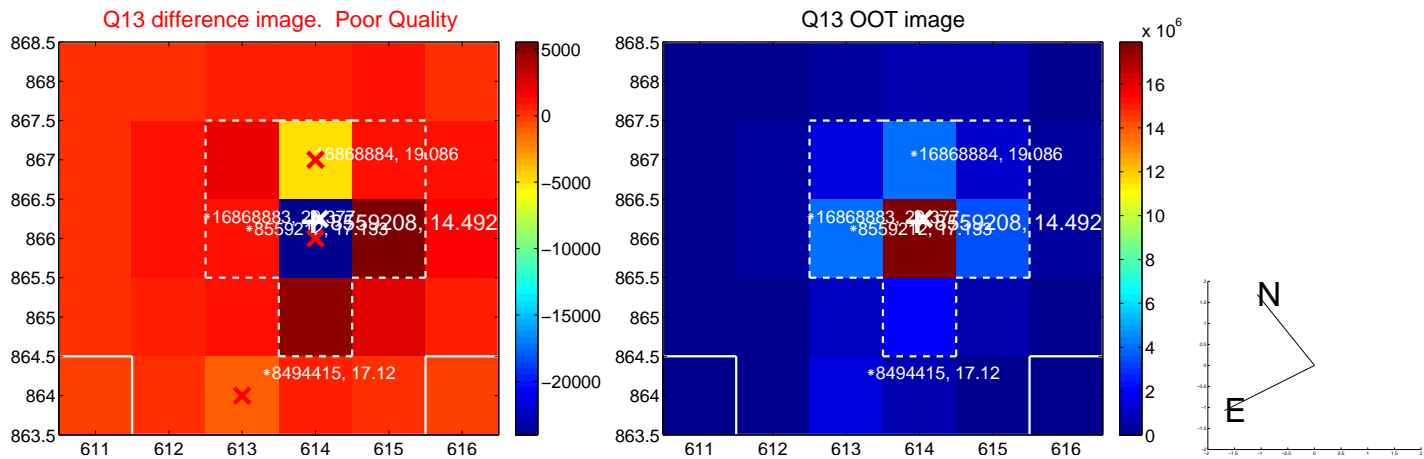
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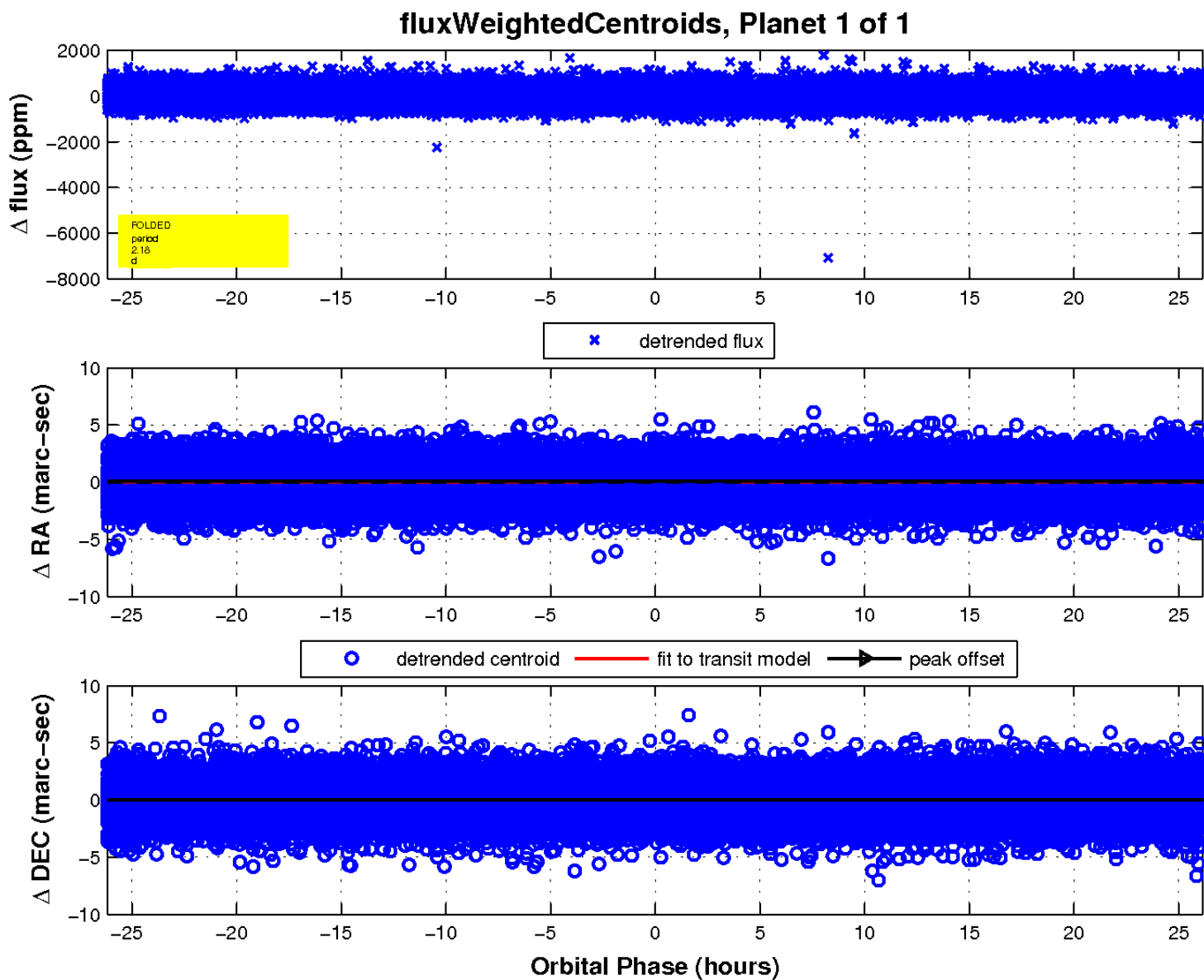
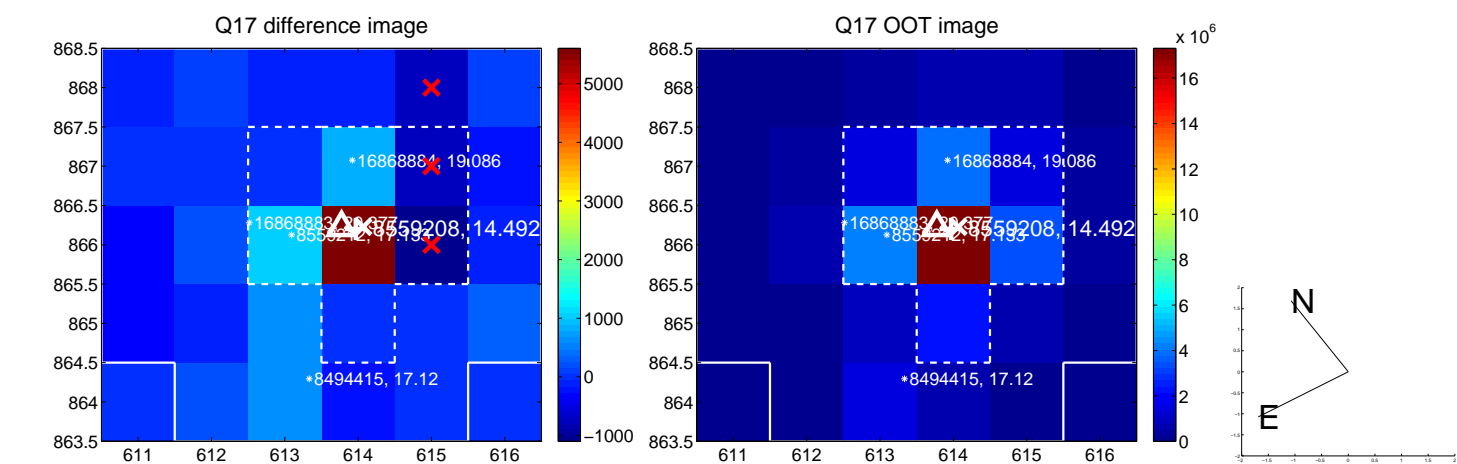
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UKIRT Image

Declination

