

KIC 001570349

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})
001570349-01	OBS	No	0.581469	131.634176	0.2	5.755	11.5	0.1	1.20	5883	0.05	8128.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001570349-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_RESOLVED_OFFSET

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

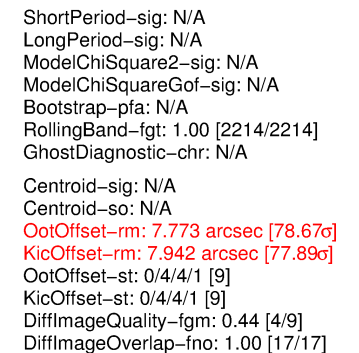
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

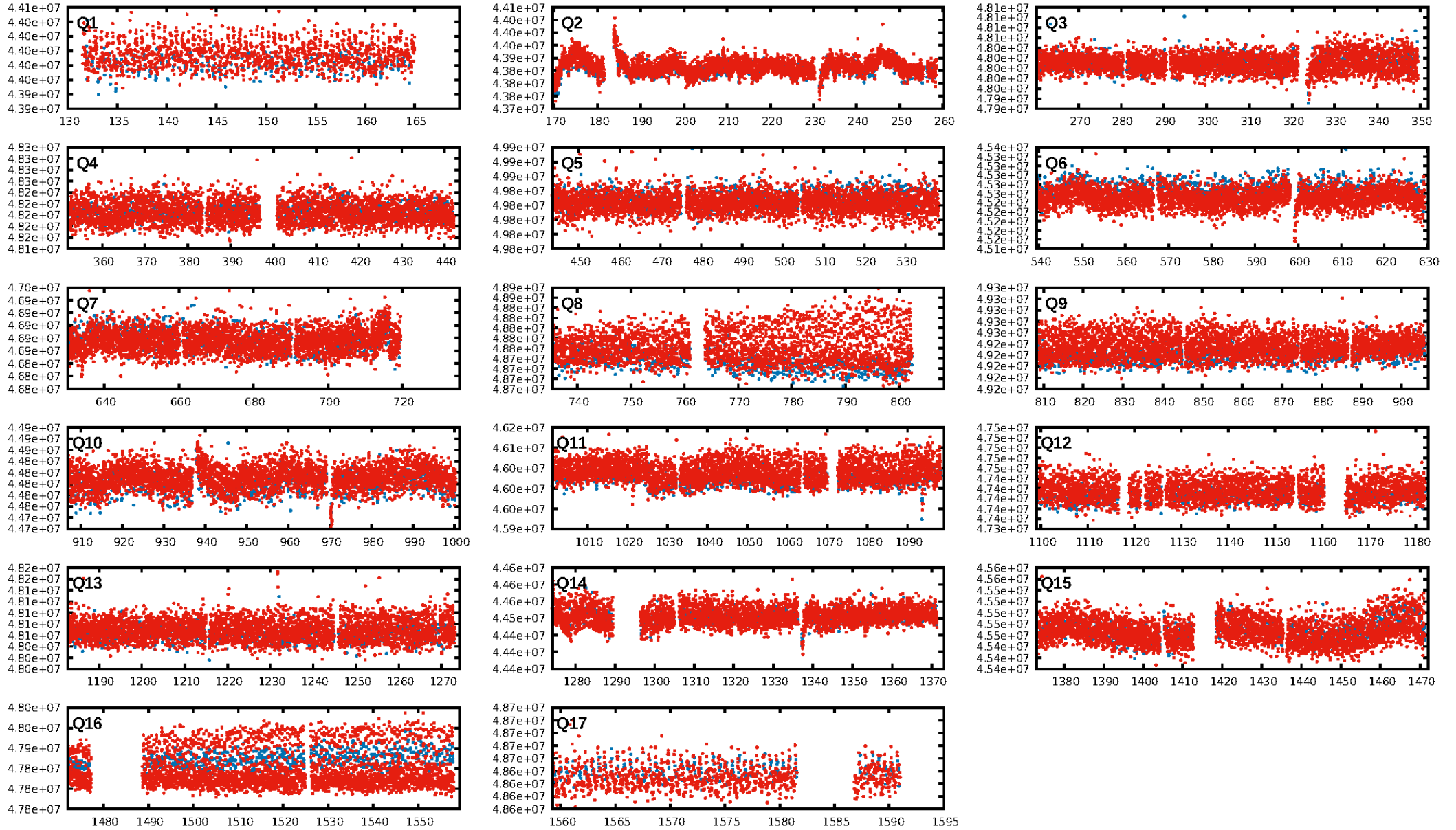
Ephemeris Match Information For 001570349-01

No Significant Match Found

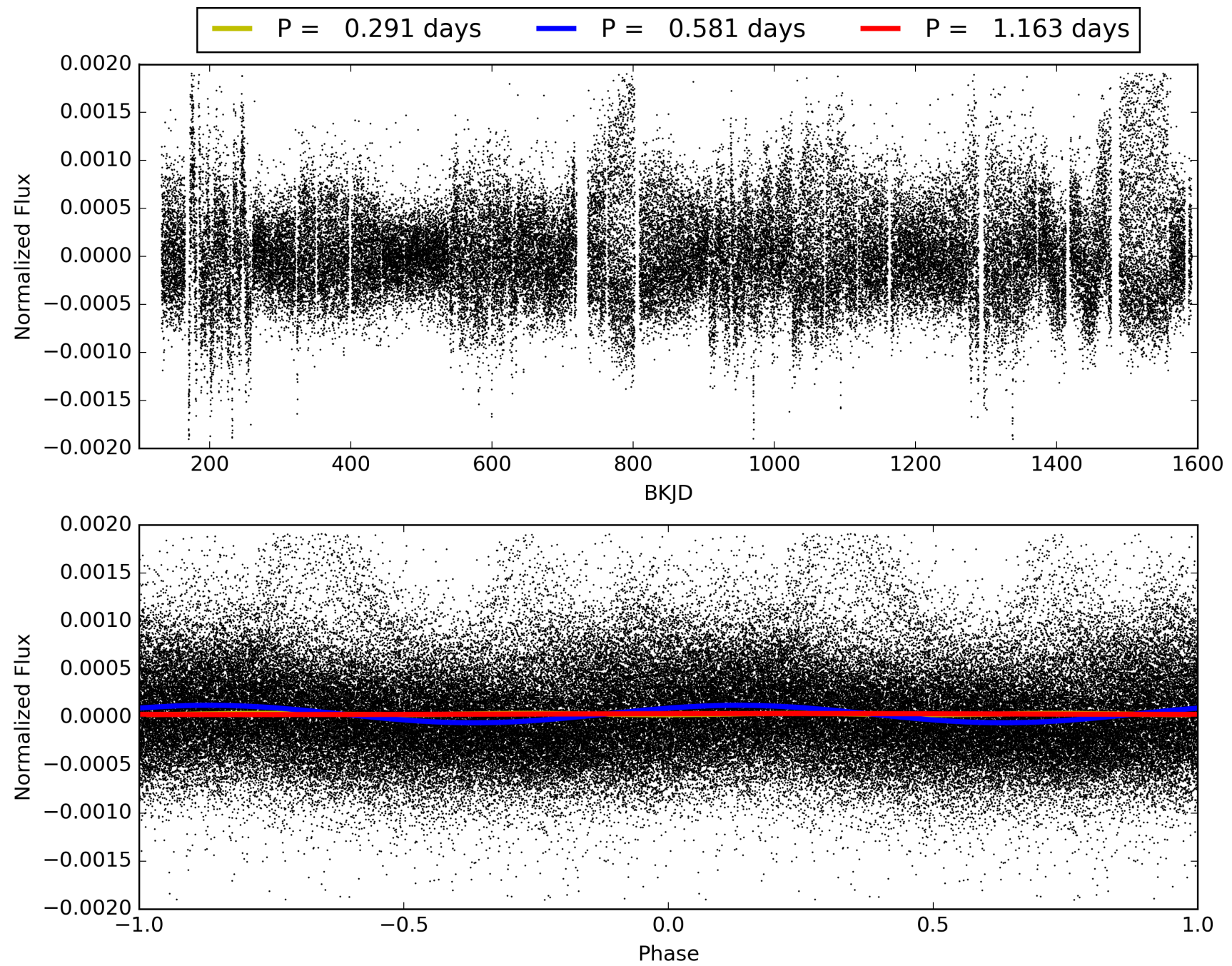
KIC: 1570349 Candidate: 1 of 1 Period: 0.581 d



TCE 001570349-01, PDC Light Curves

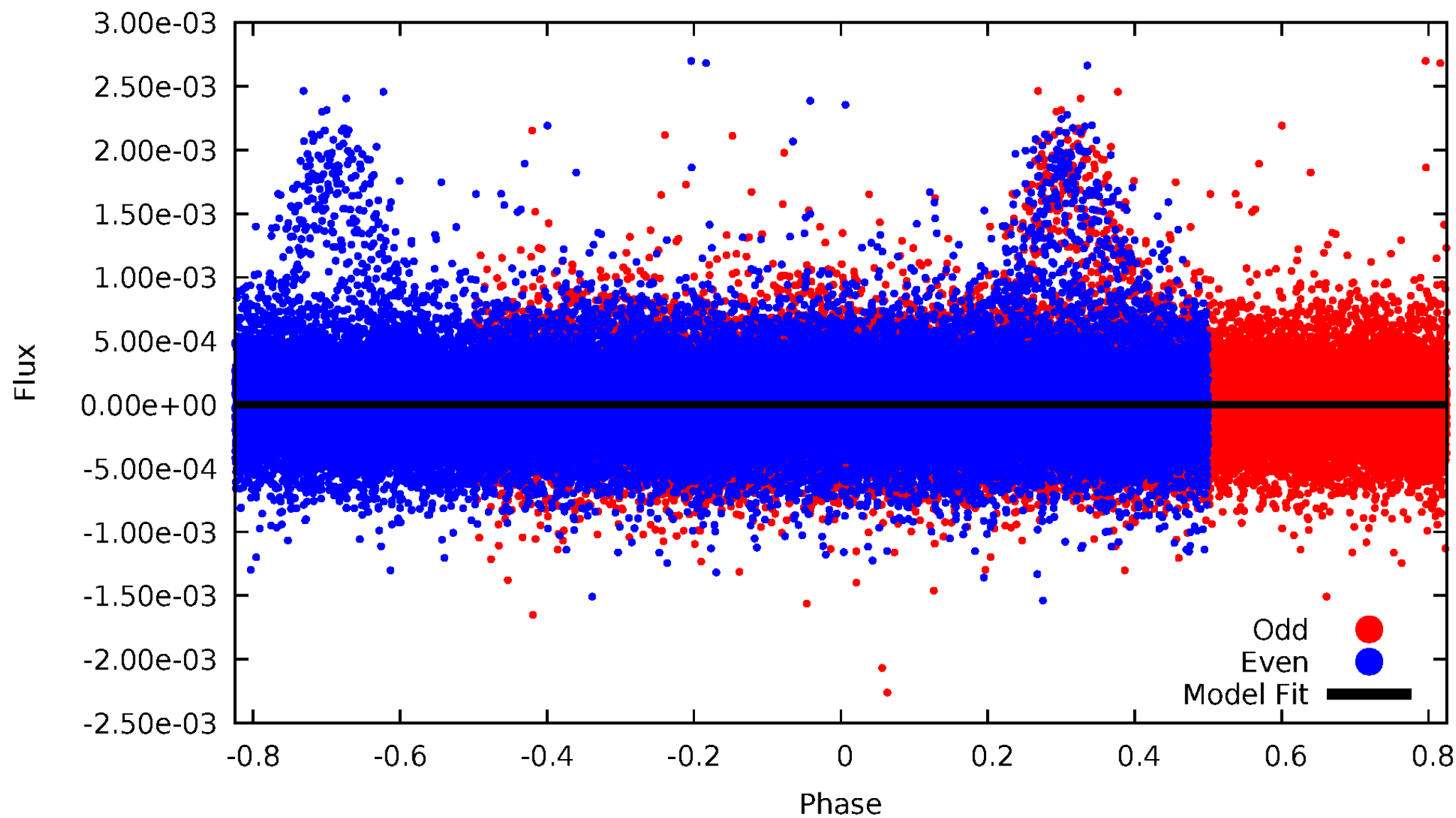


TCE 001570349-01



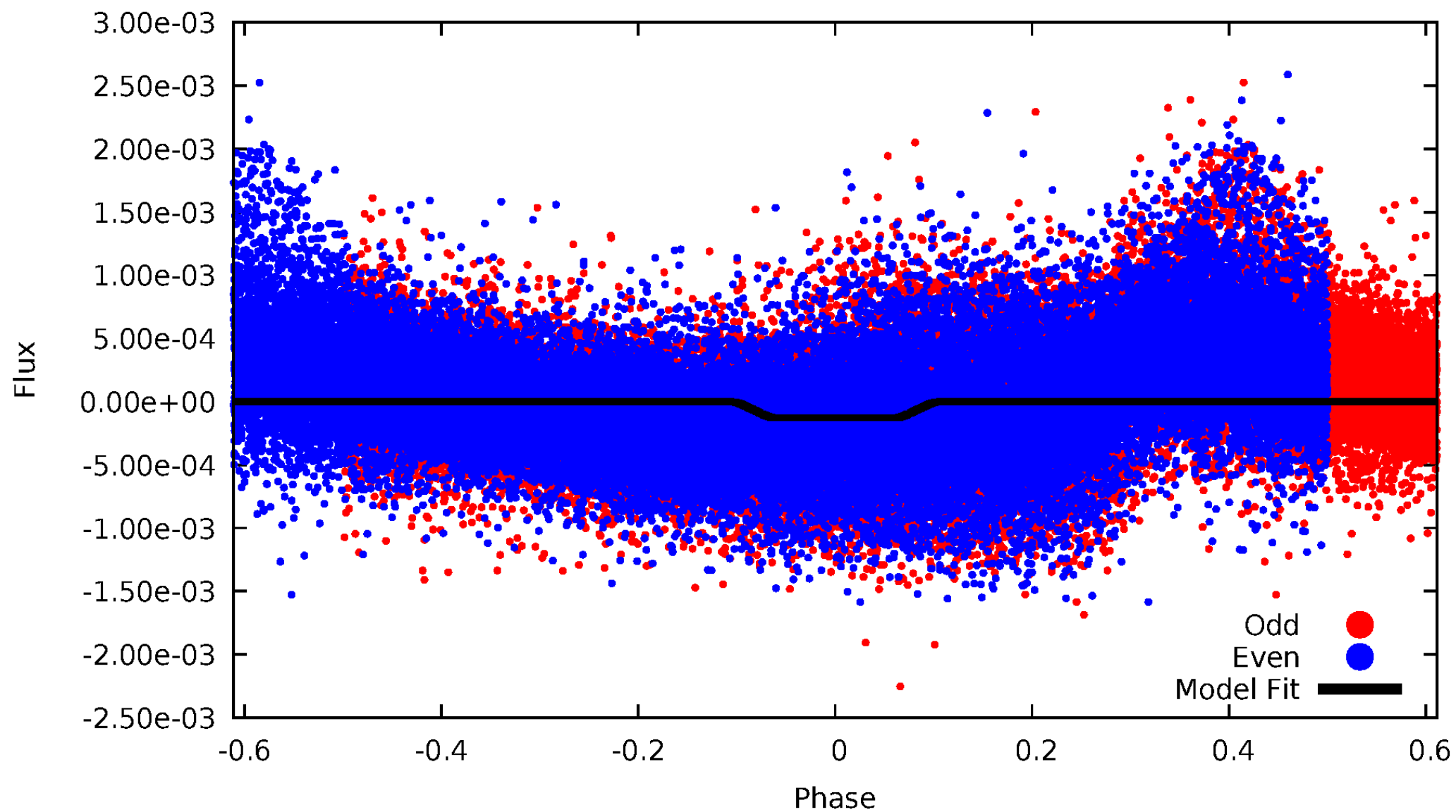
DV Odd/Even

TCE 001570349-01



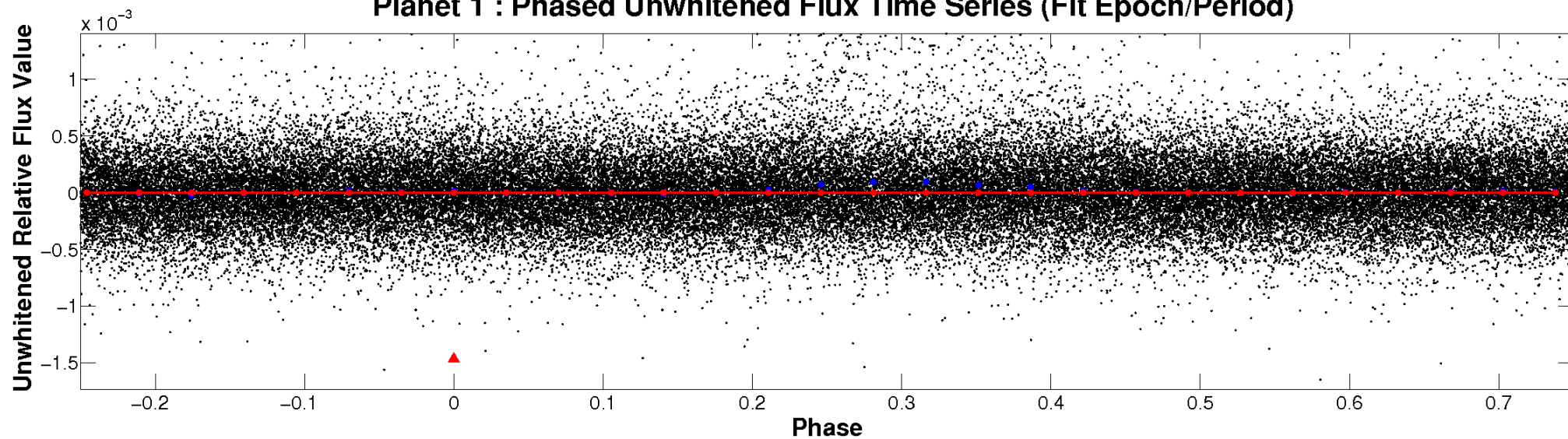
ALT Odd/Even

TCE 001570349-01

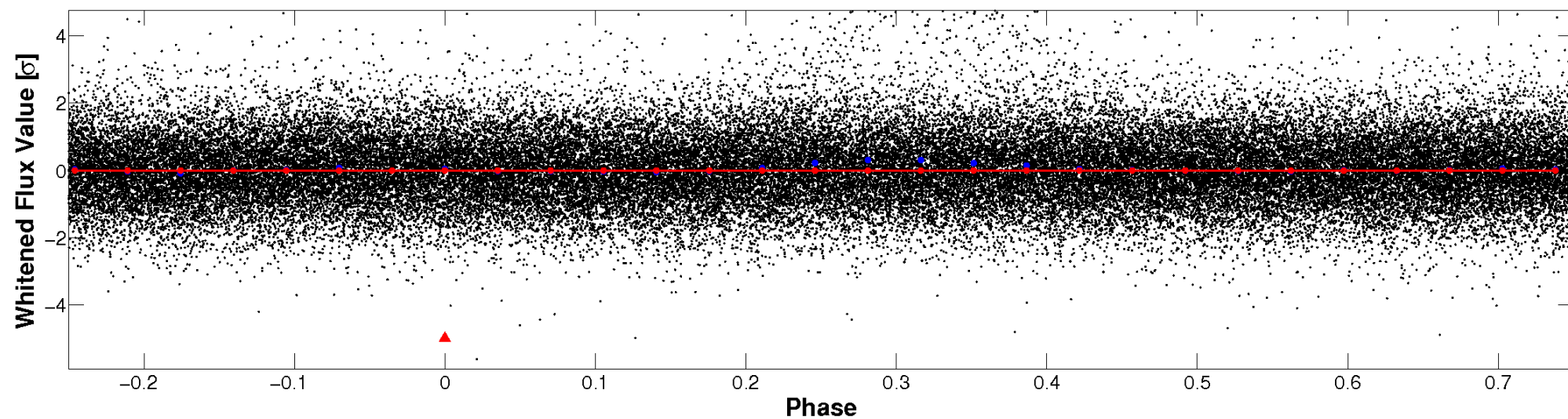


Non-Whitened Vs. Whitened Light Curve

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

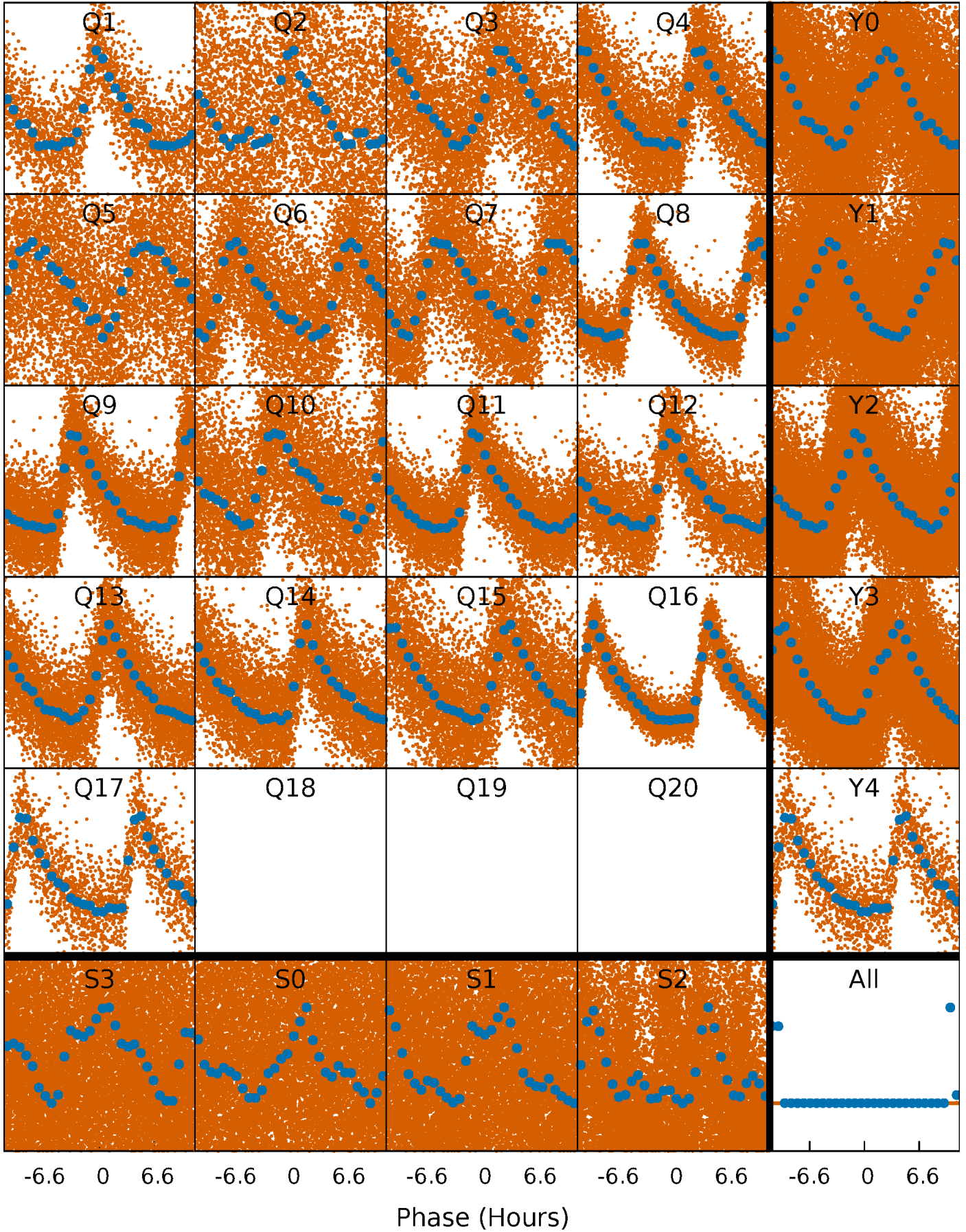


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



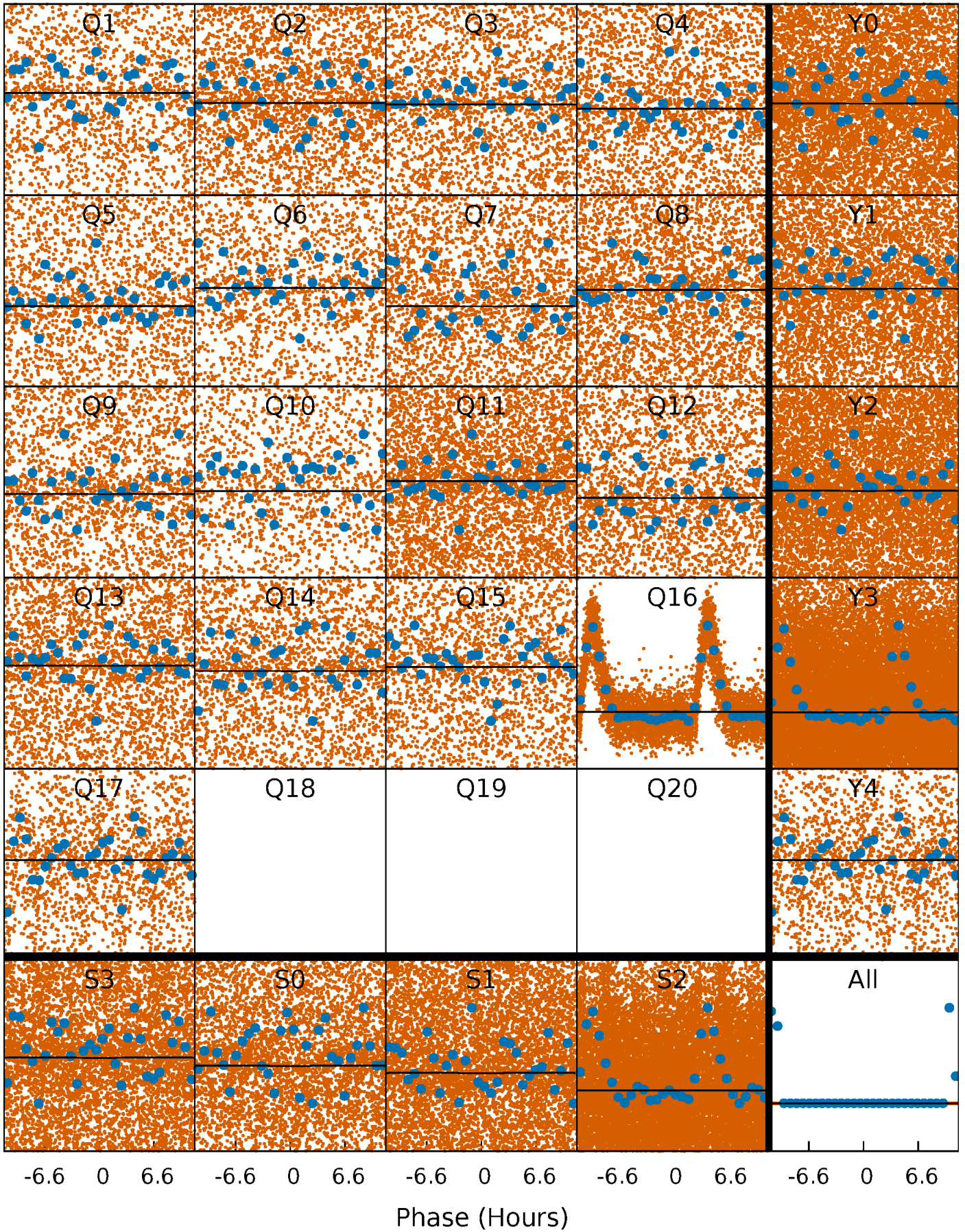
PDC Quarter-Phased Transit Curves

TCE 001570349-01 P= 0.581469 Days $T_0=131.634176$ (BKJD)



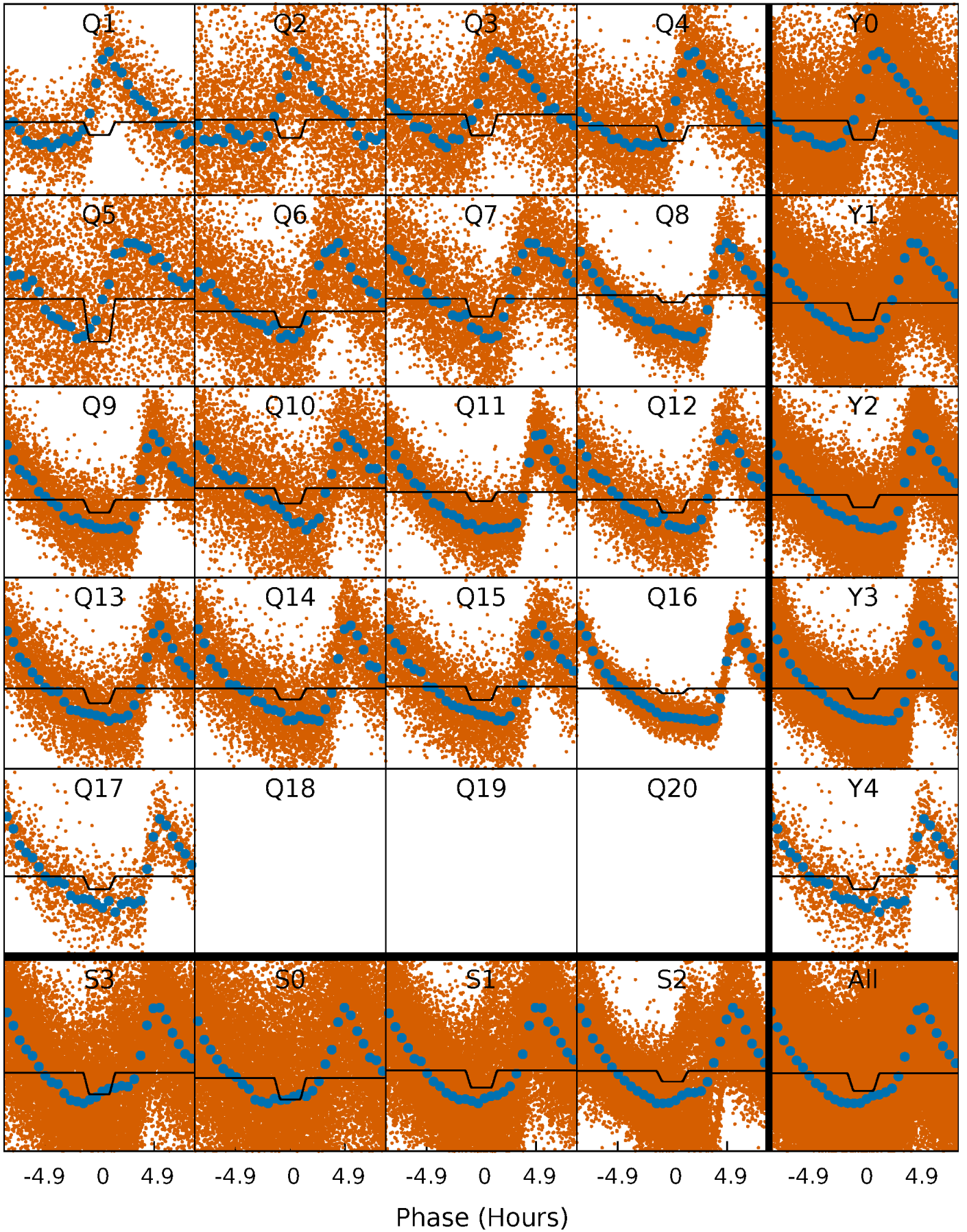
DV Quarter-Phased Transit Curves

TCE 001570349-01 P= 0.581469 Days $T_0=131.634176$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

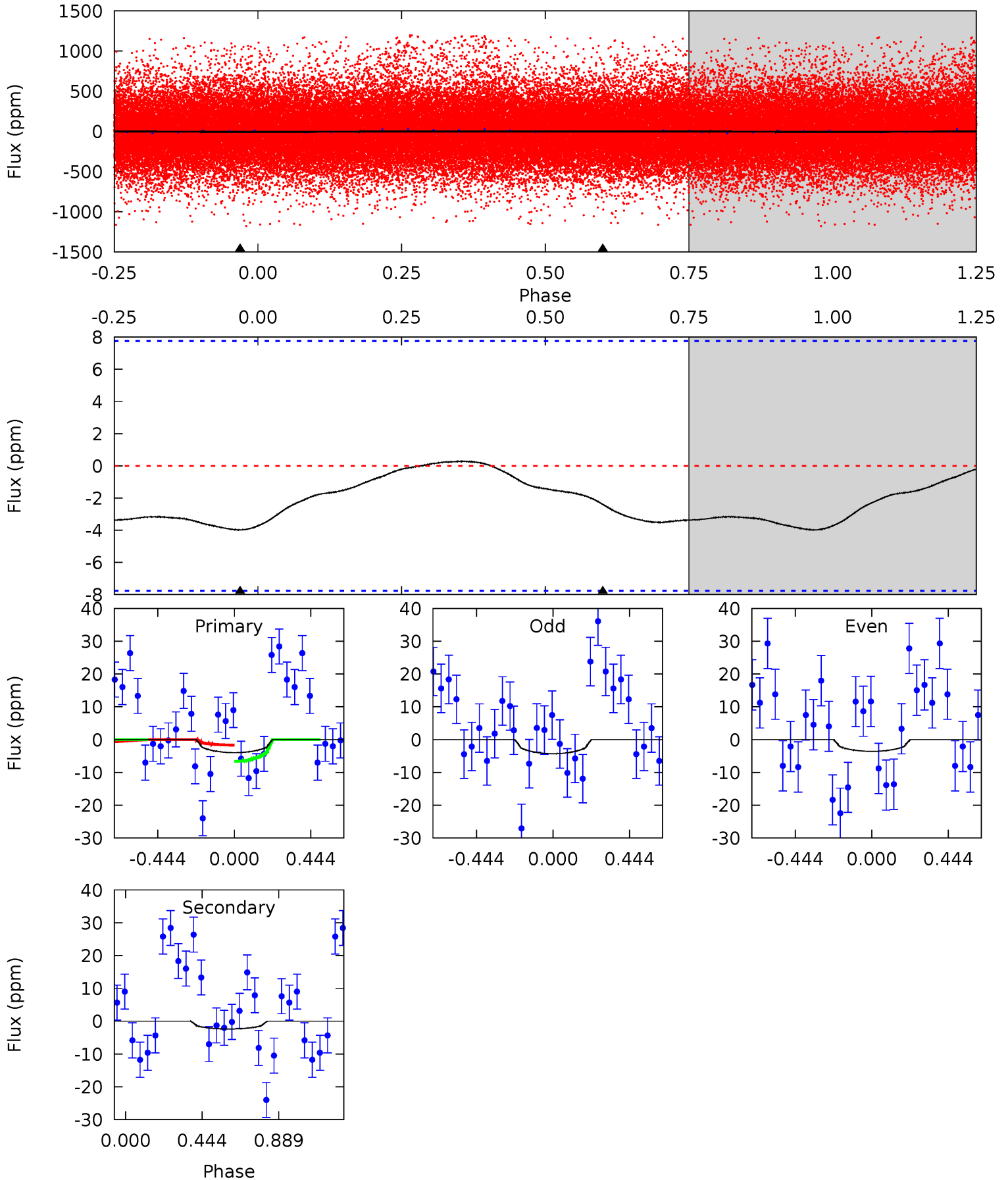
TCE 001570349-01 P= 0.581709 Days $T_0=131.582704$ (BKJD)



DV Model-Shift Uniqueness Test

001570349-01, P = 0.581469 Days, E = 131.052707 Days

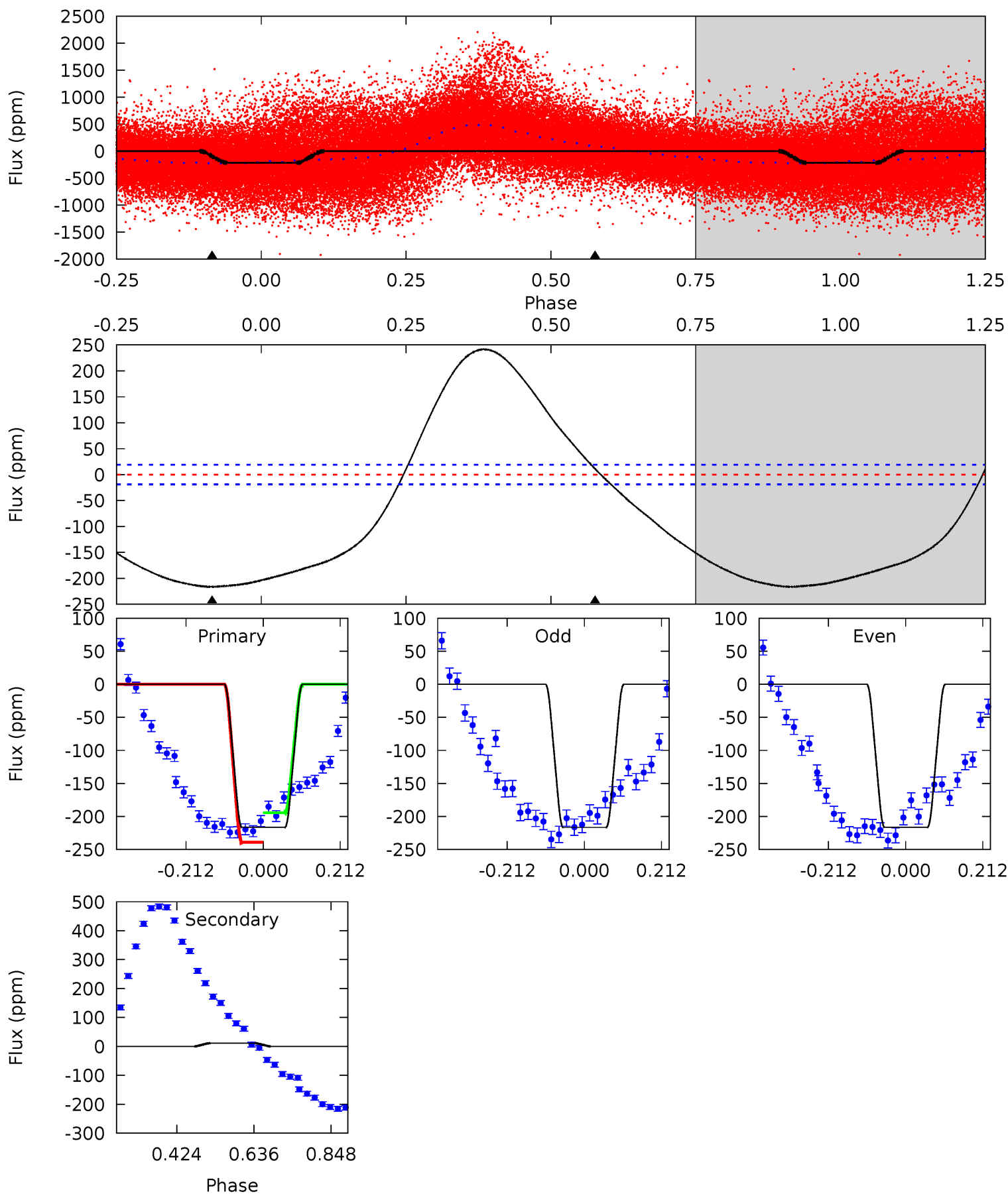
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.18	1.31	0	0	4.24	0.76	0.11	2.18	2.18	1.31	1.31	0.20	0.78	0.07	1.45



Alt Model-Shift Uniqueness Test

001570349-01, P = 0.581709 Days, E = 131.000995 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
50.1	-2.61	0	0	4.40	1.25	30.6	50.1	50.1	-2.61	-2.61	0.05	0.88	0.53	6.64



Stellar Parameters For KIC 001570349

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5883^{+79}_{-79}	$4.293^{+0.132}_{-0.108}$	$0.040^{+0.150}_{-0.150}$	$1.197^{+0.196}_{-0.178}$	$1.026^{+0.085}_{-0.062}$	$0.842^{+0.496}_{-0.265}$
	+1%/-1%	+3%/-3%	+375%/-375%	+16%/-15%	+8%/-6%	+59%/-31%
Source	SPE68	SPE68	SPE68	DSEP		

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

Secondary Eclipse Parameters for KIC 001570349-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2 ± 2	$3.17^{+3.69}_{-2.30}$	3374^{+154}_{-159}	-3247^{+1086}_{-122}	$0.019^{+0.271}_{-0.017}$
Alt.	11 ± 4	$4.06^{+3.99}_{-2.76}$	3367^{+153}_{-151}	-3452^{+136}_{-516}	$-0.062^{+0.046}_{-0.582}$

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 $A_{obs} \gg 1.0$

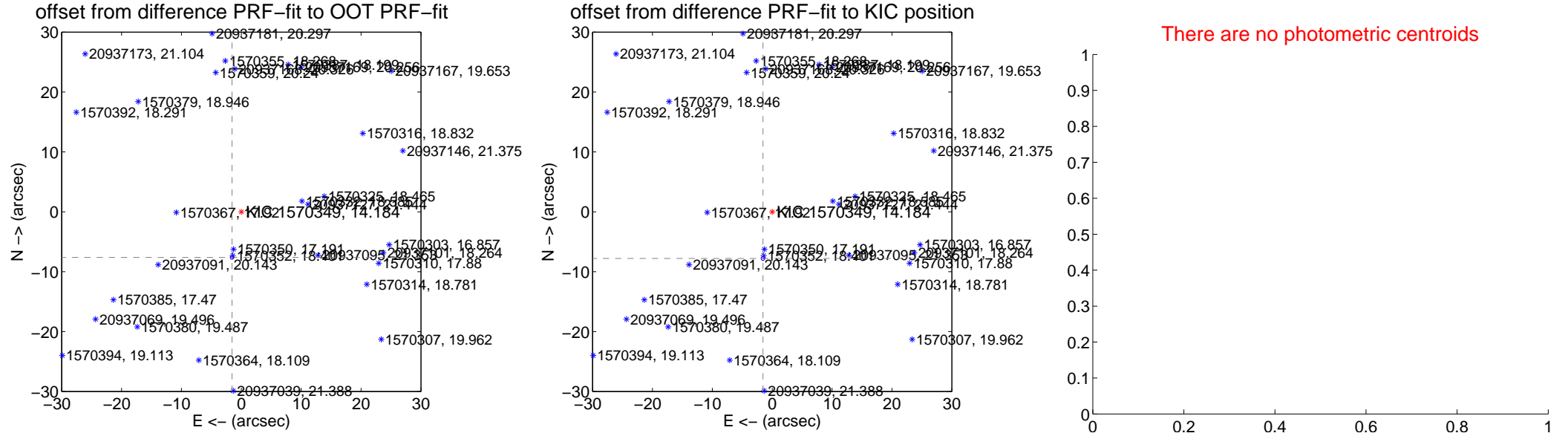
DV Centroid Data

Supplemental centroid analysis for 001570349-01. Kepler magnitude: 14.18. Transit SNR 0.07

There are 4 quarters with good PRF difference image offsets

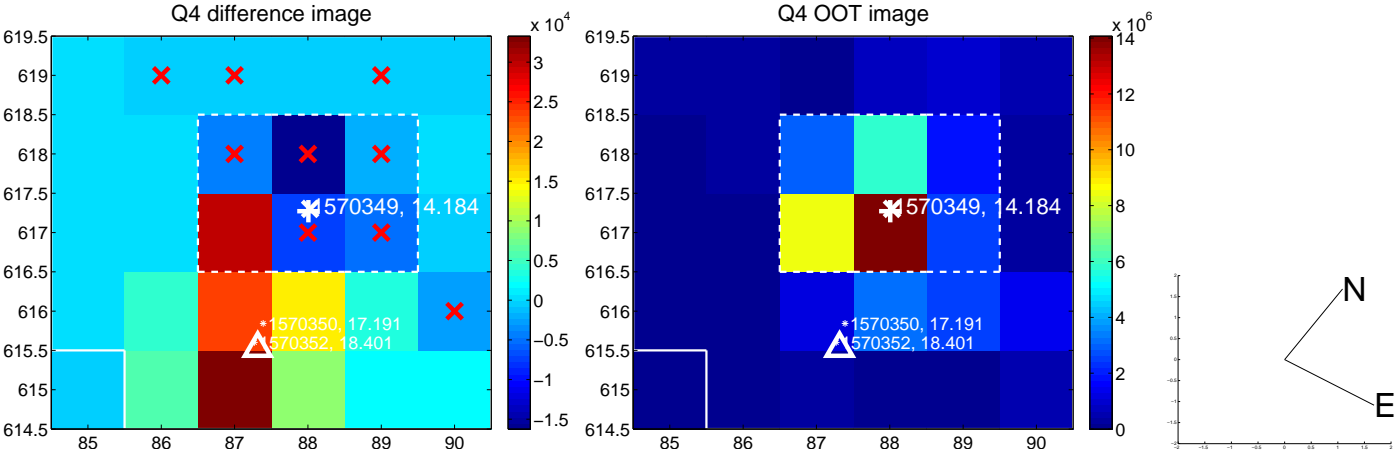
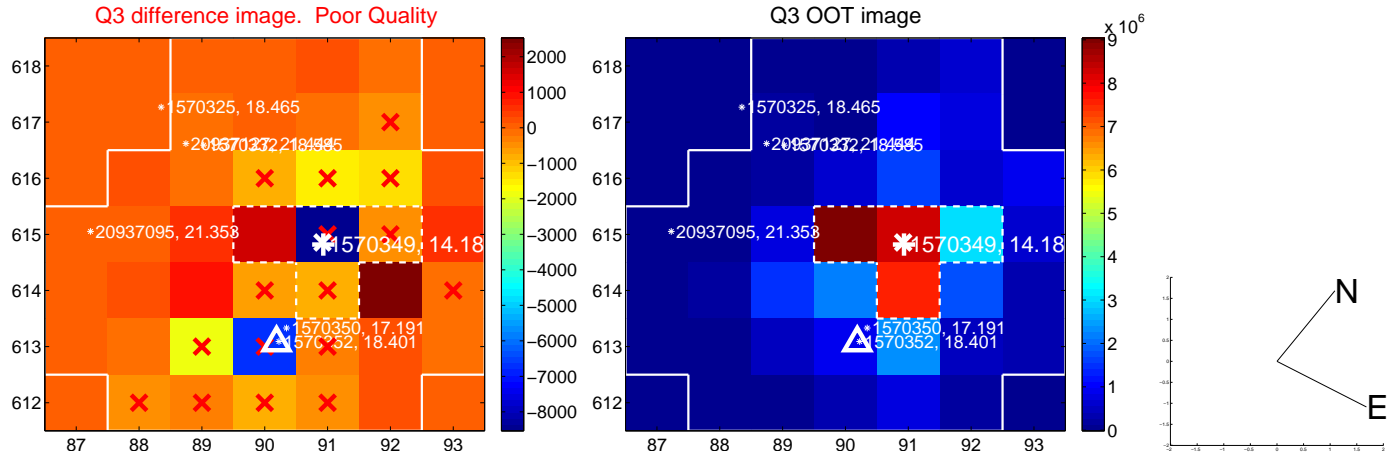
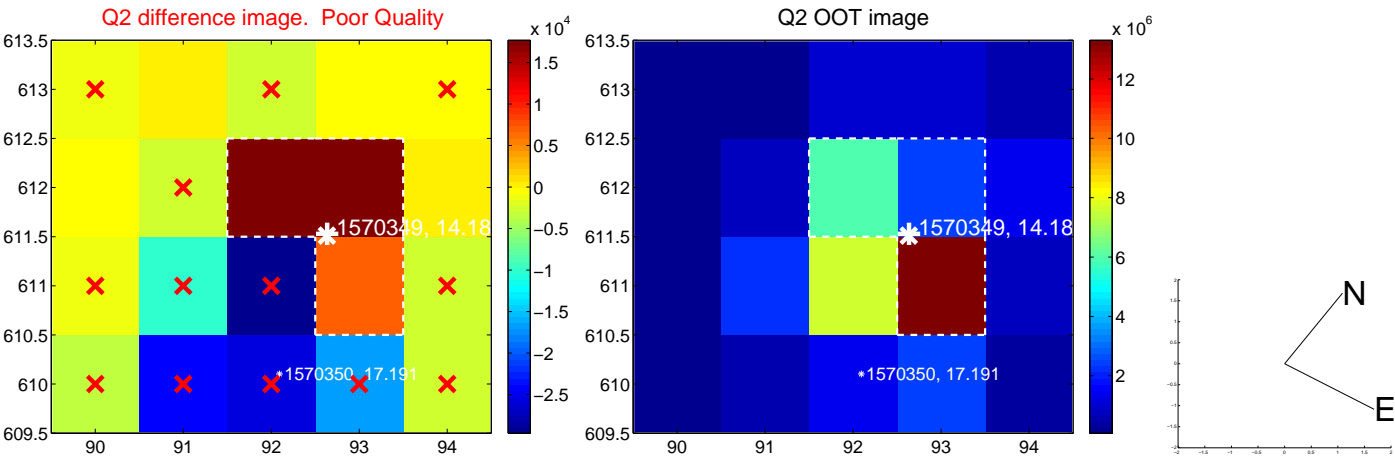
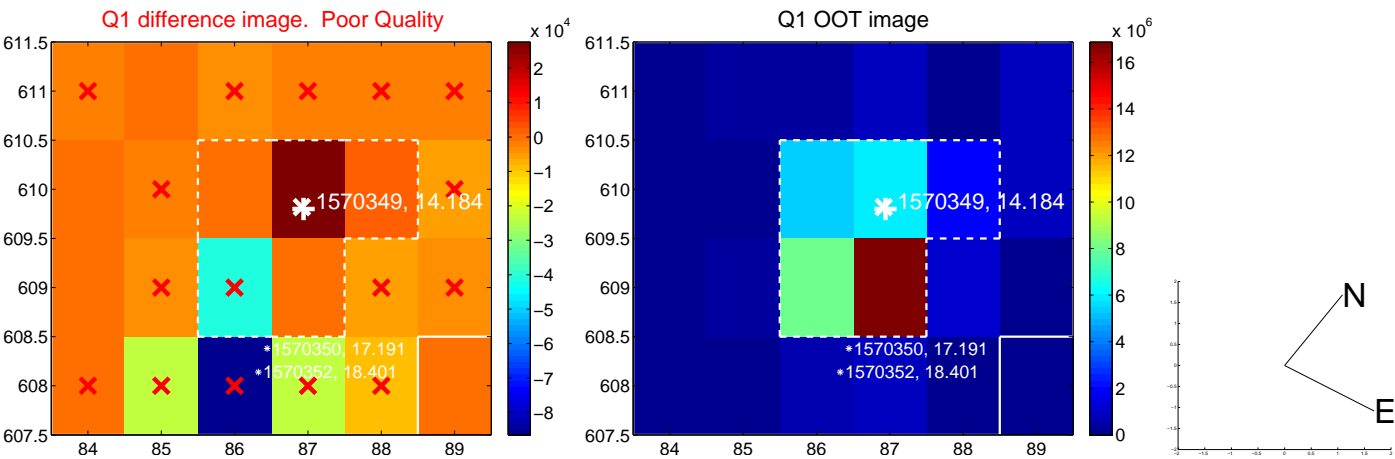
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	7.773 \pm 0.099	78.67	1.549 \pm 0.081	-7.618 \pm 0.096
PRF-fit source offset from KIC position	7.942 \pm 0.102	77.89	1.545 \pm 0.076	-7.790 \pm 0.102
photometric centroid source offset	—	—	—	—

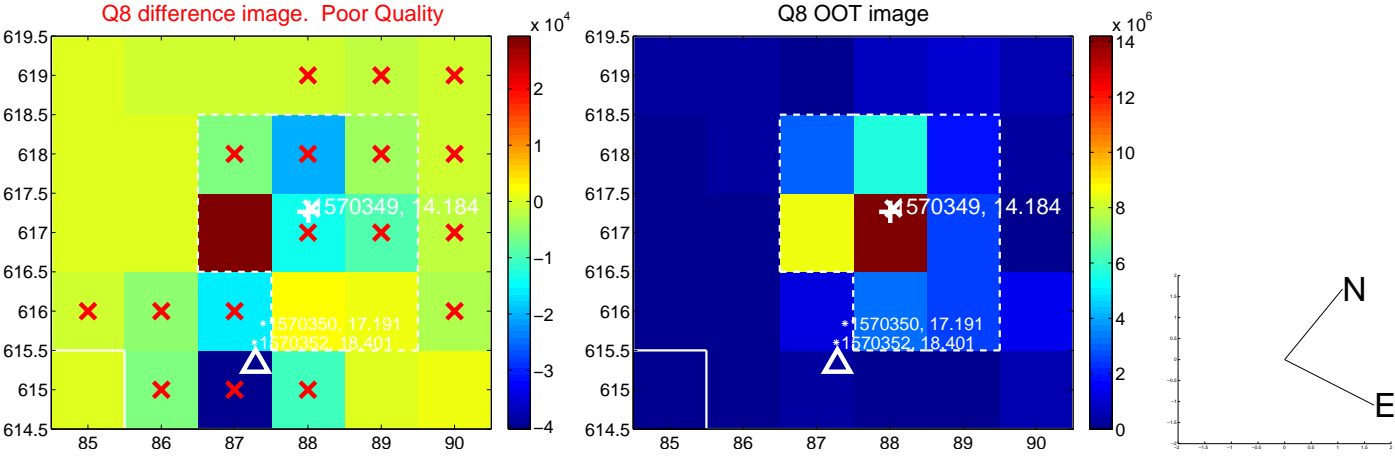
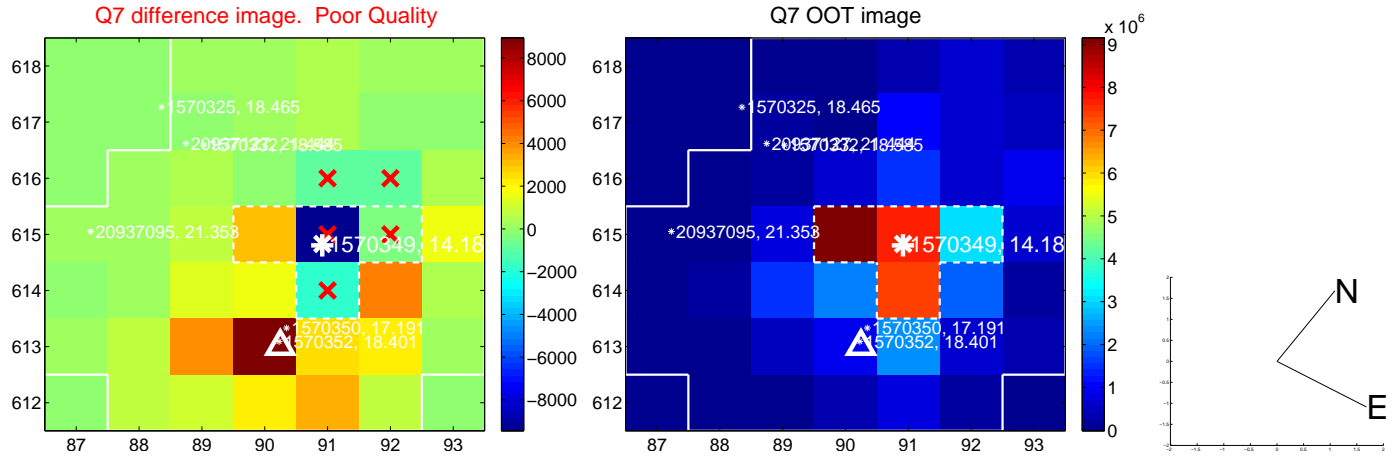
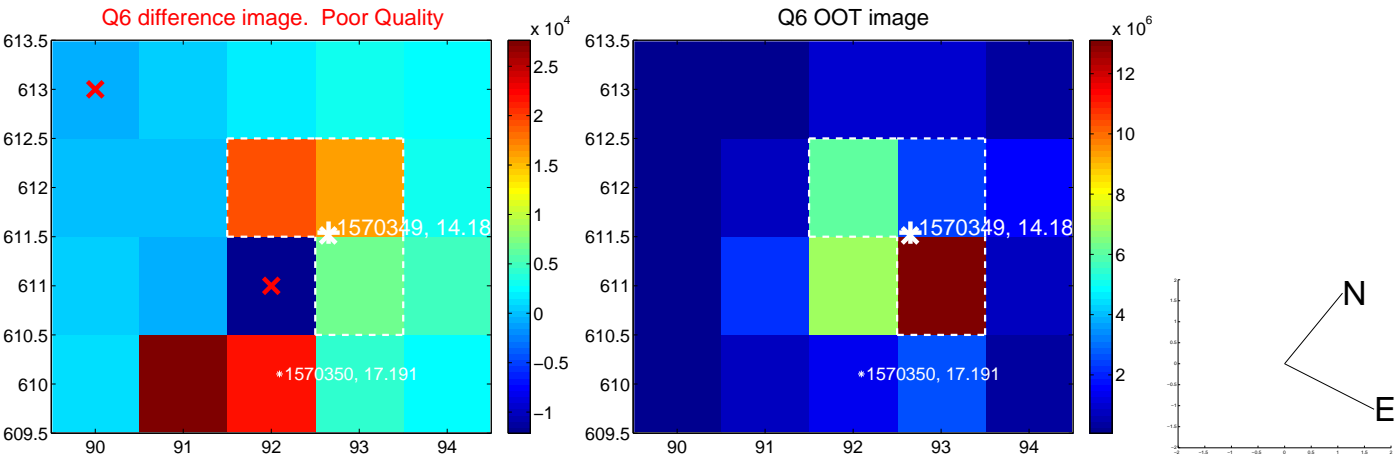
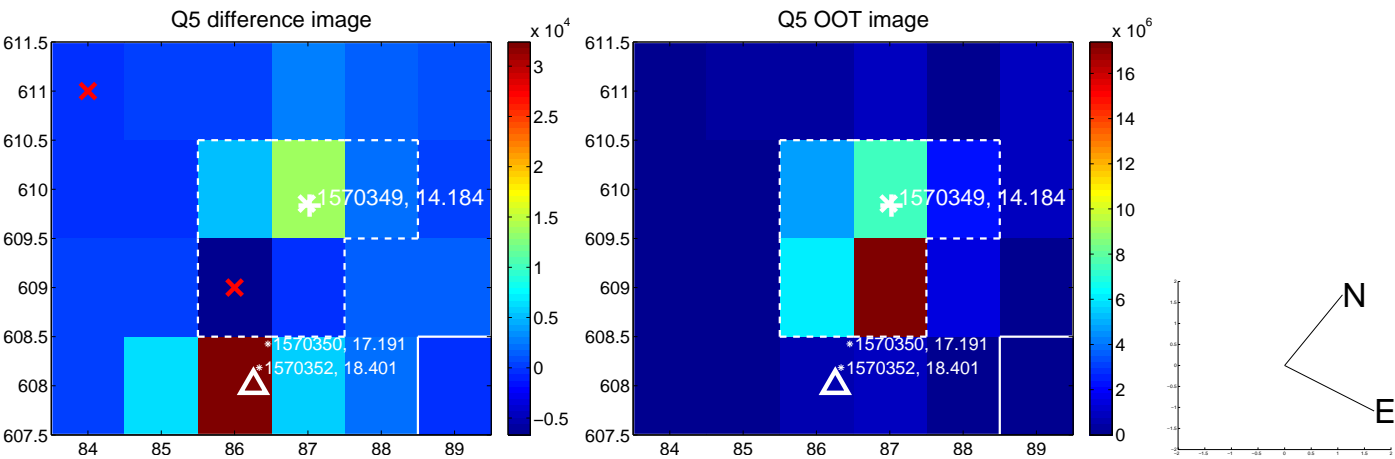


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

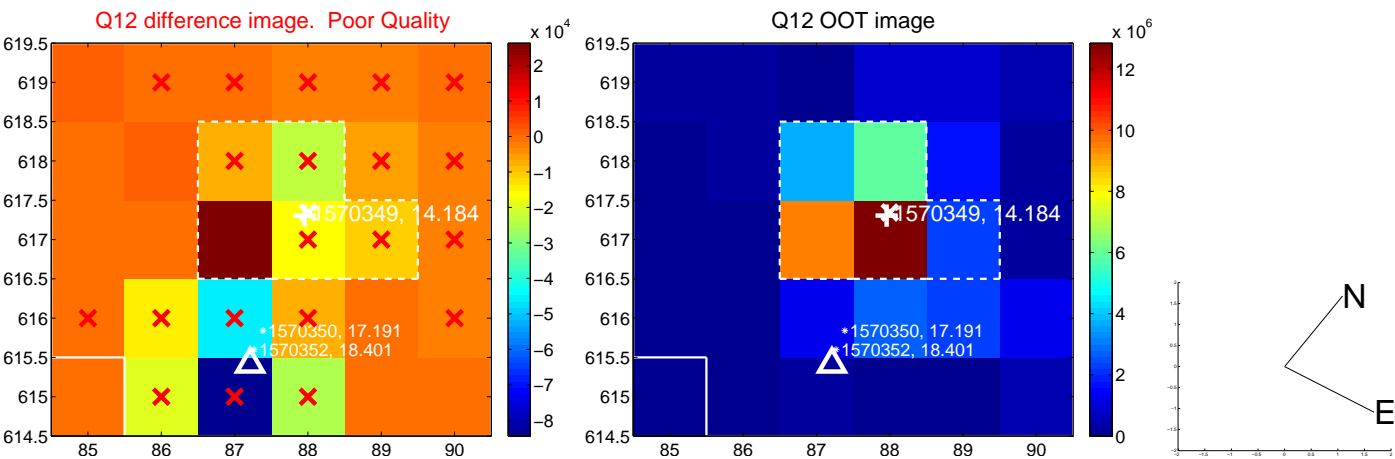
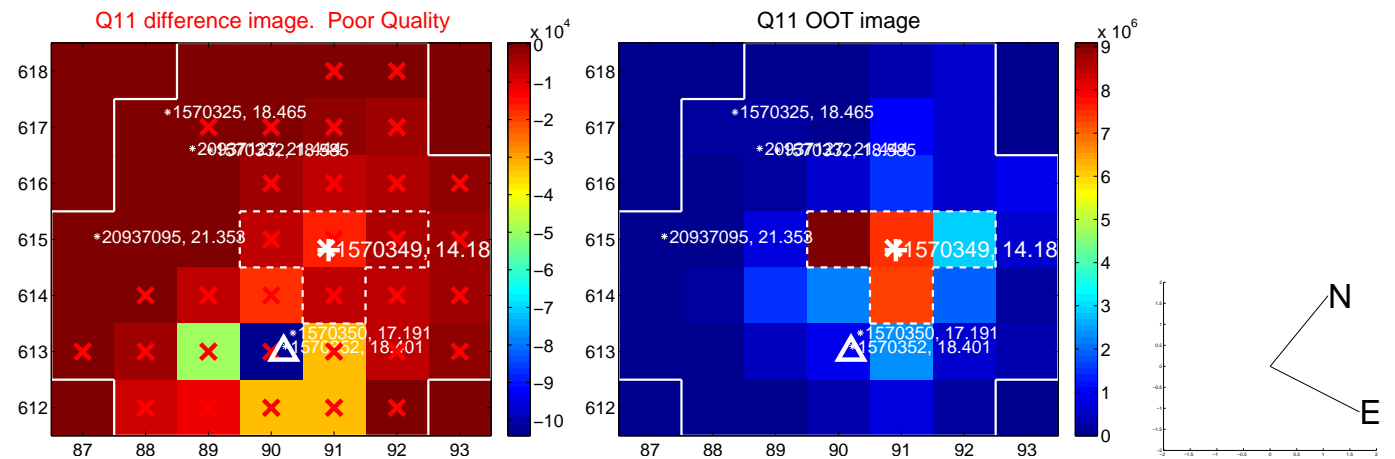
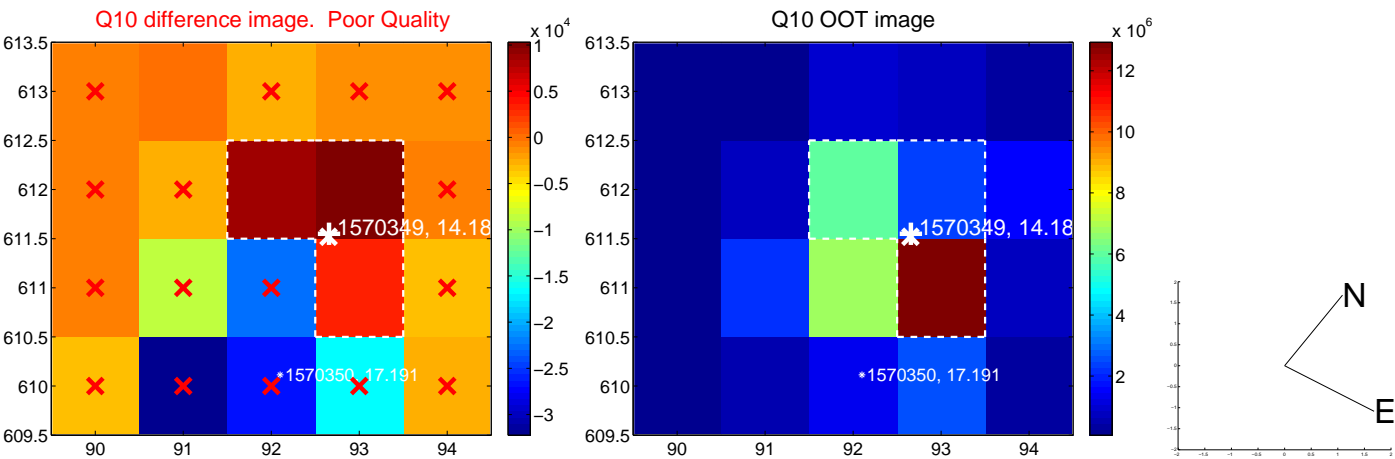
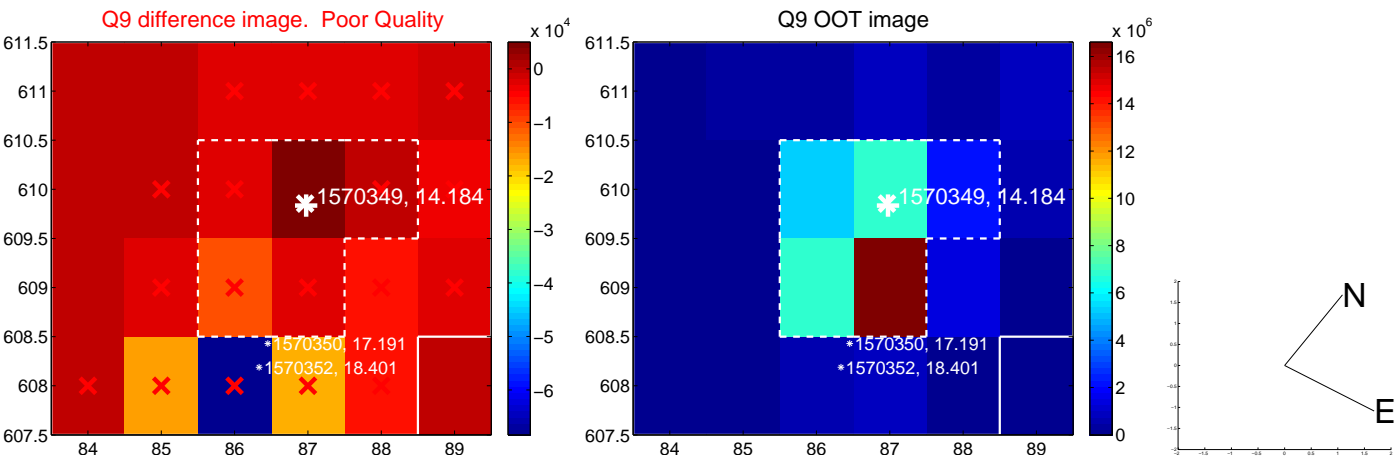
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



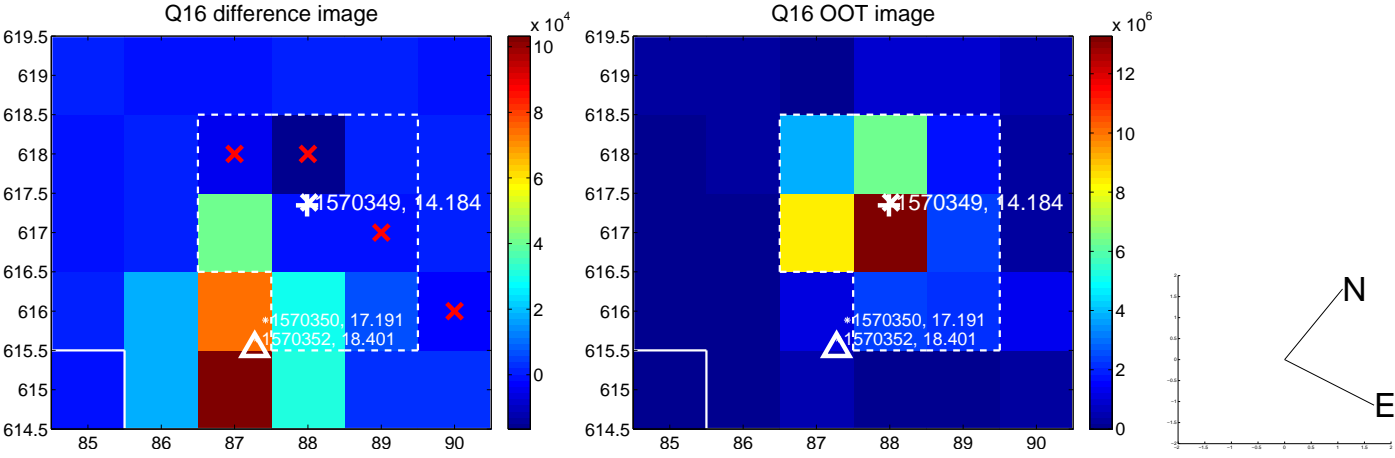
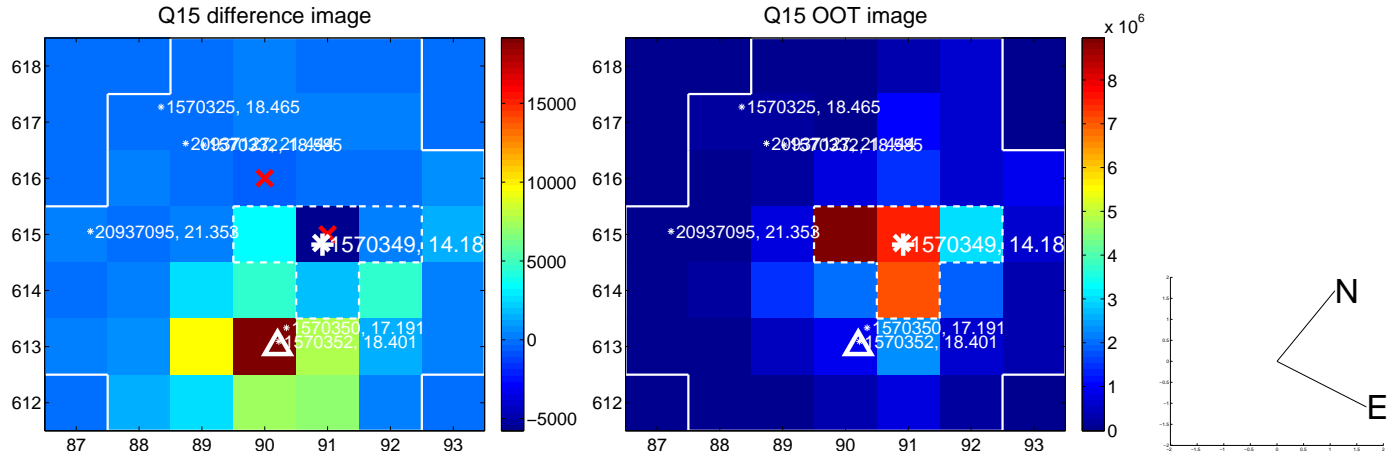
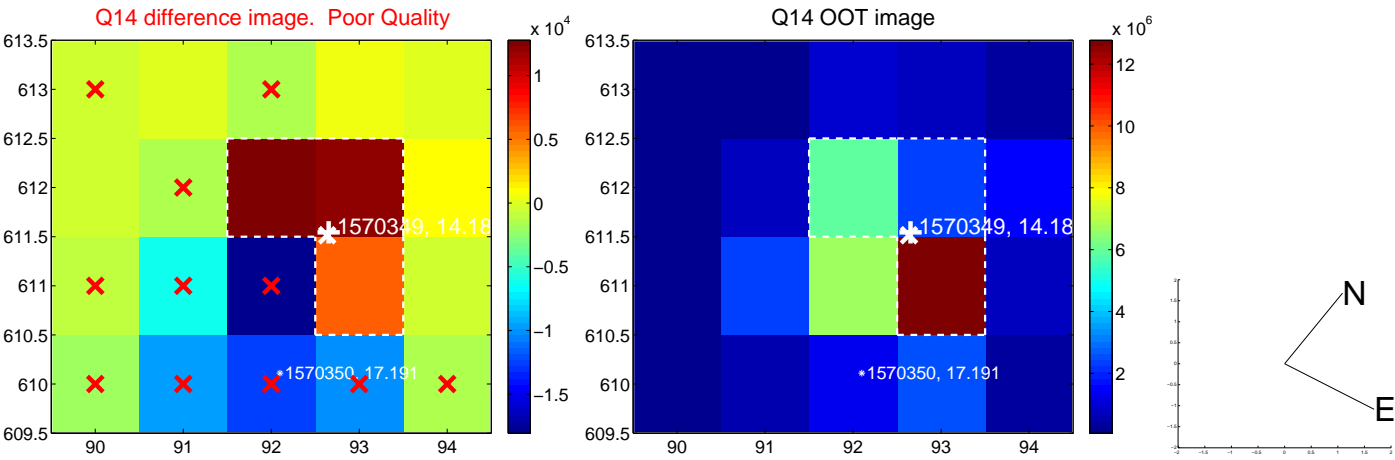
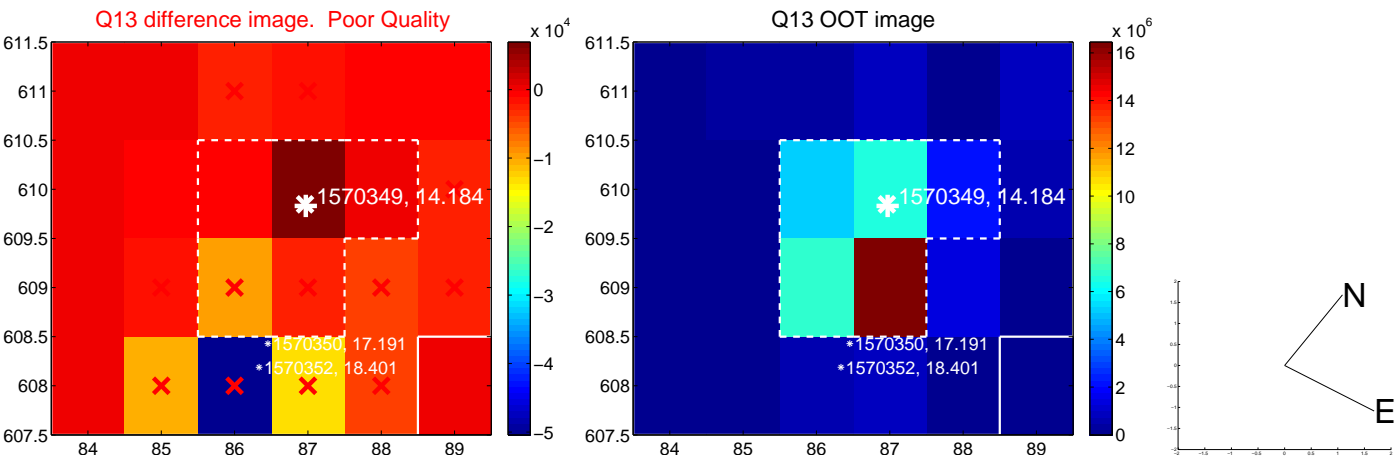
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



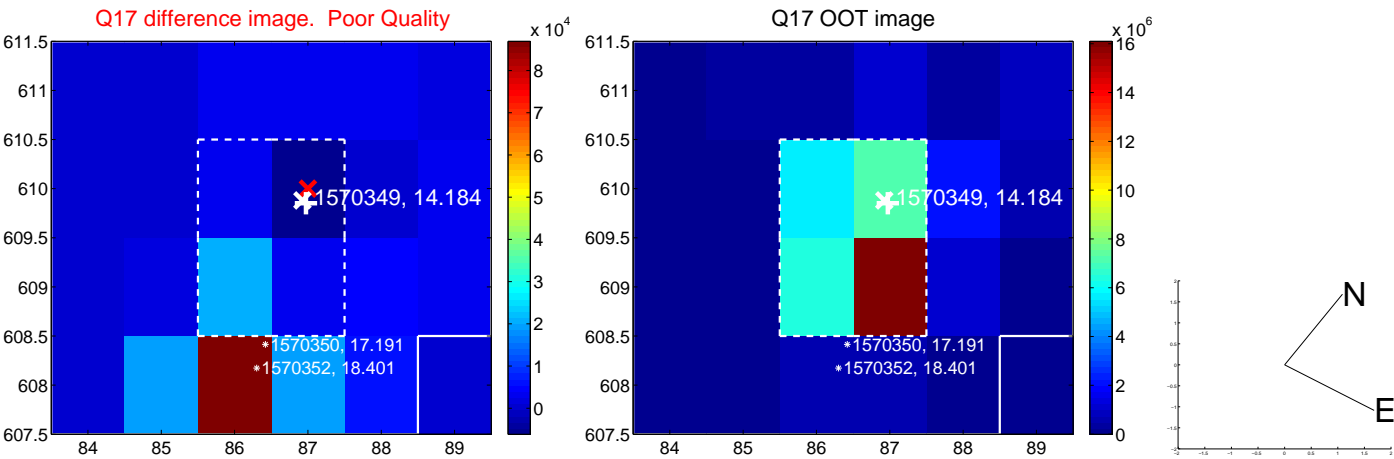
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folded centroid time series figure for this object.

UKIRT Image

Declination

