

KIC 005558379

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})
005558379-01	OBS	No	0.611253	132.036841	7.6	1.303	8.8	1.7	1.14	6703	0.36	10664.22

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005558379-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—HALO_GHOST

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

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

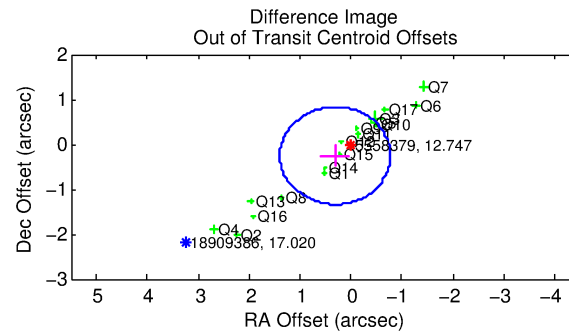
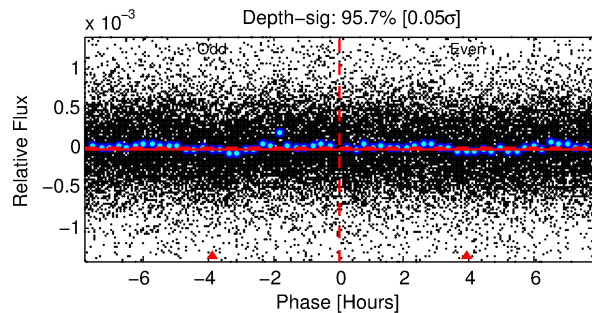
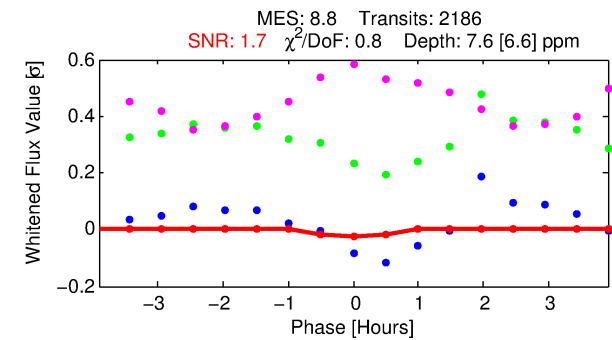
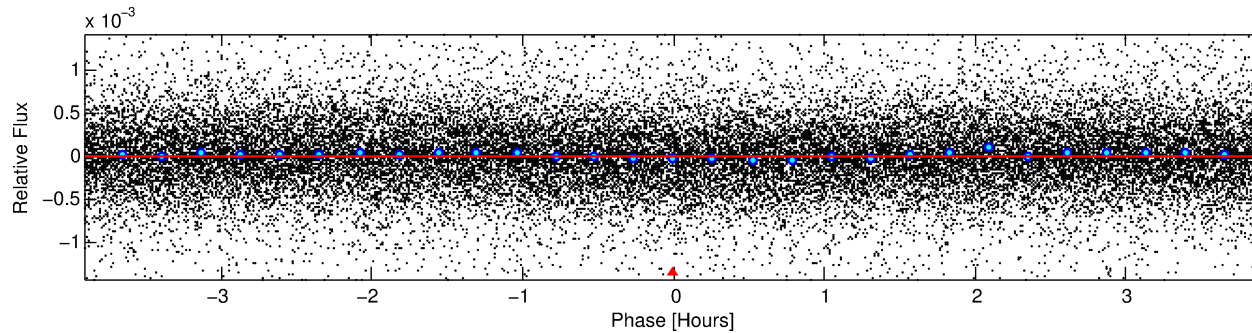
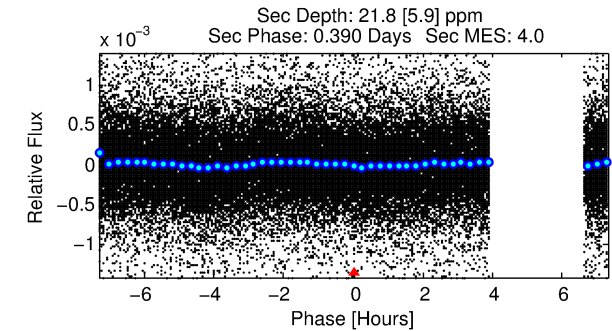
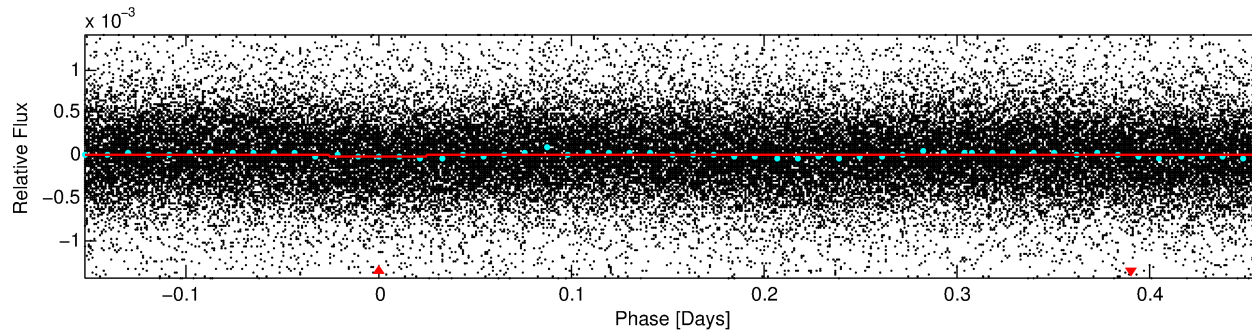
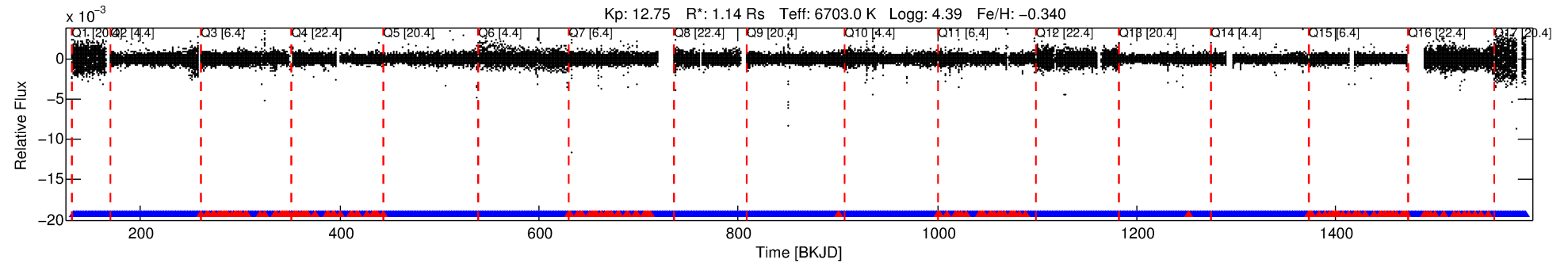
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005558379-01

No Significant Match Found

DV One-Page Summary

KIC: 5558379 Candidate: 1 of 1 Period: 0.611 d



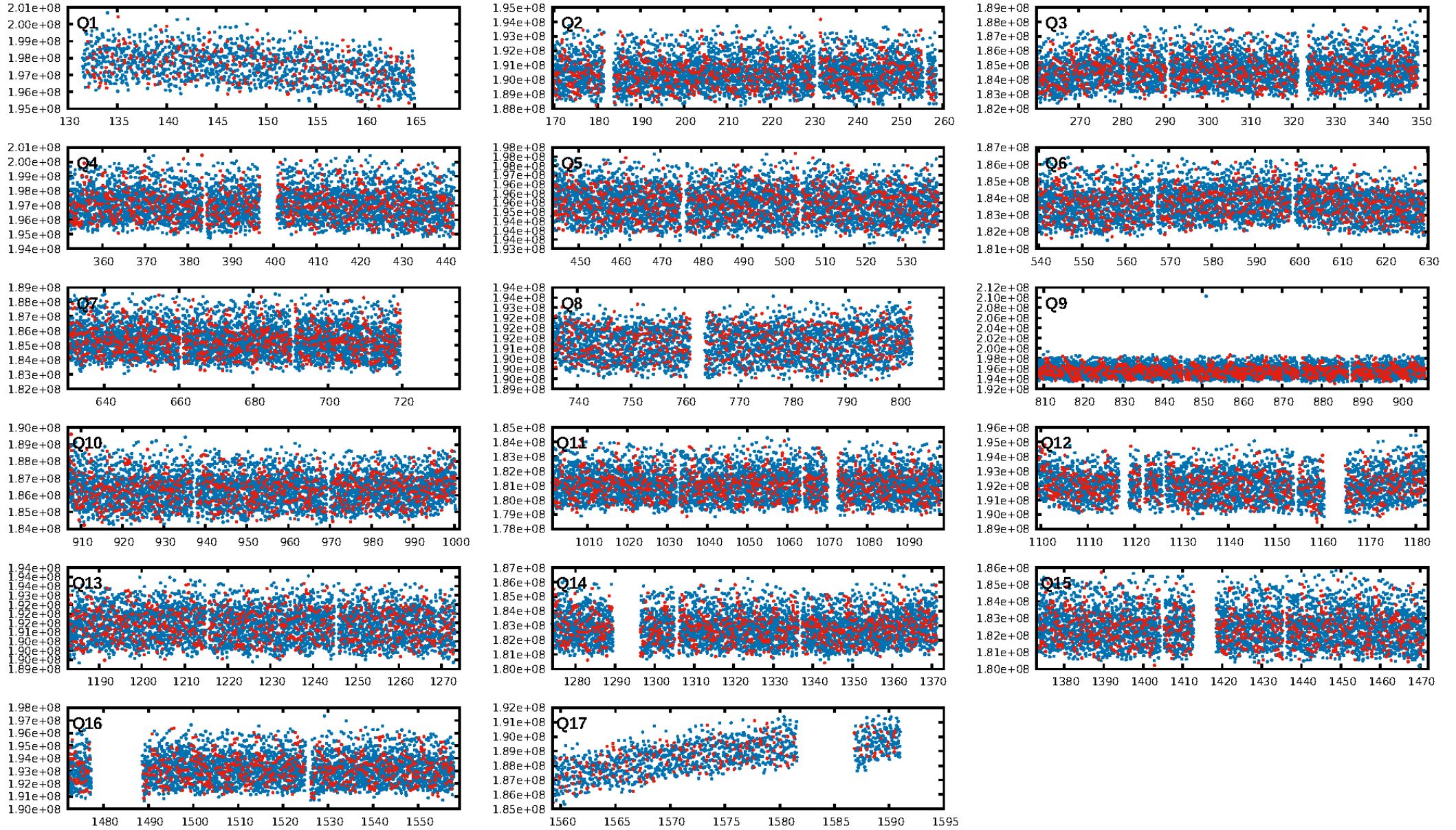
DV Fit Results:

Period = 0.61125 [0.00006] d
Epoch = 132.0368 [0.0131] BKJD
Rp/R* = 0.0029 [0.0024]
a/R* = 1.99 [6.11]
b = 0.87 [1.11]
Seff = 10664.21 [4263.95]
Teff = 2591 [259] K
Rp = 0.36 [0.31] Re
a = 0.0148 [0.0039] AU
Ag = 20.32 [34.29] [0.56σ]
Teffp = 8506 [3509] K [1.68σ]

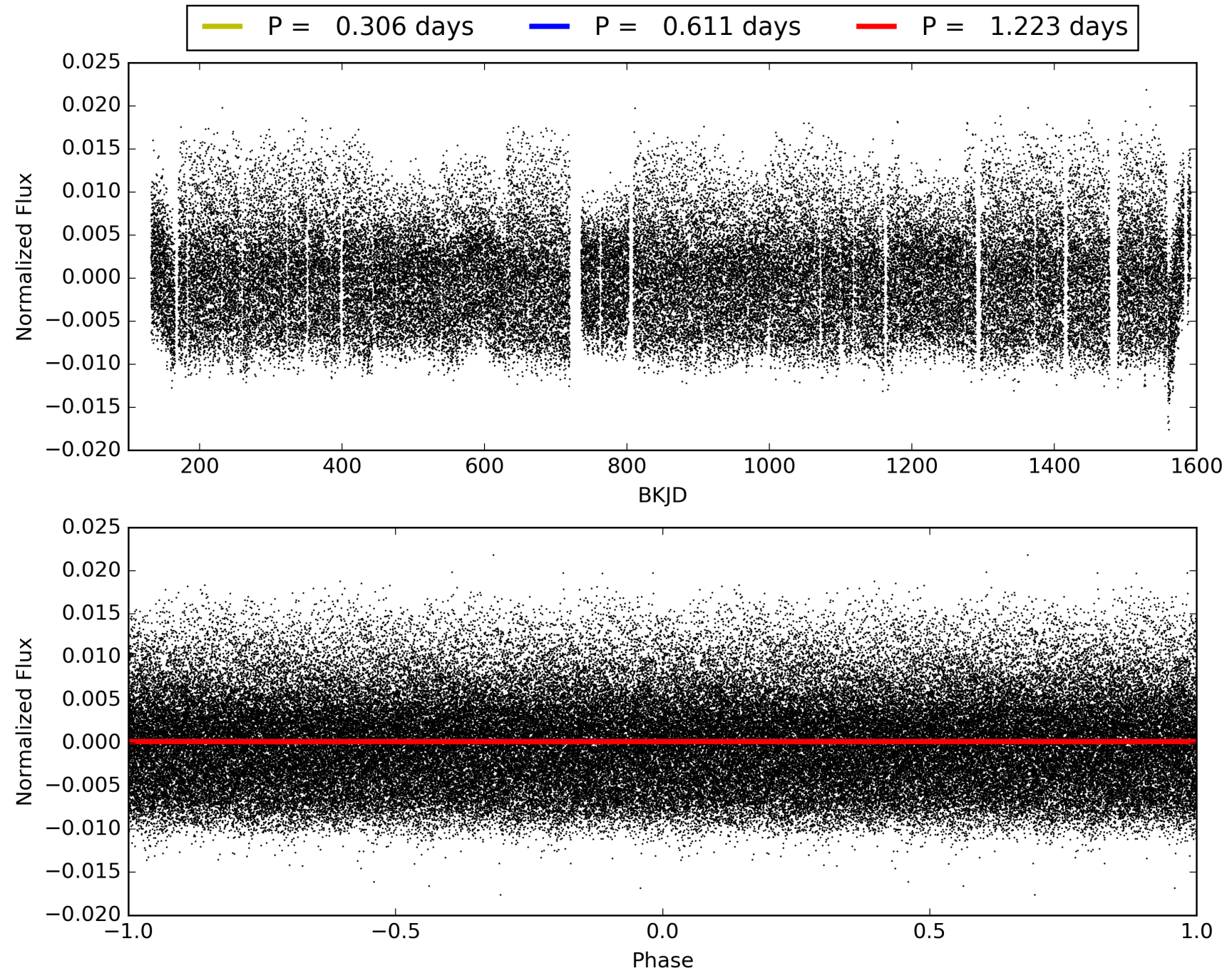
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.39e-17
RollingBand-fgt: 0.92 [1921/2088]
GhostDiagnostic-chr: 0.2108
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.401 arcsec [1.11σ]
KicOffset-rm: 0.514 arcsec [1.30σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.47 [8/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005558379-01, PDC Light Curves

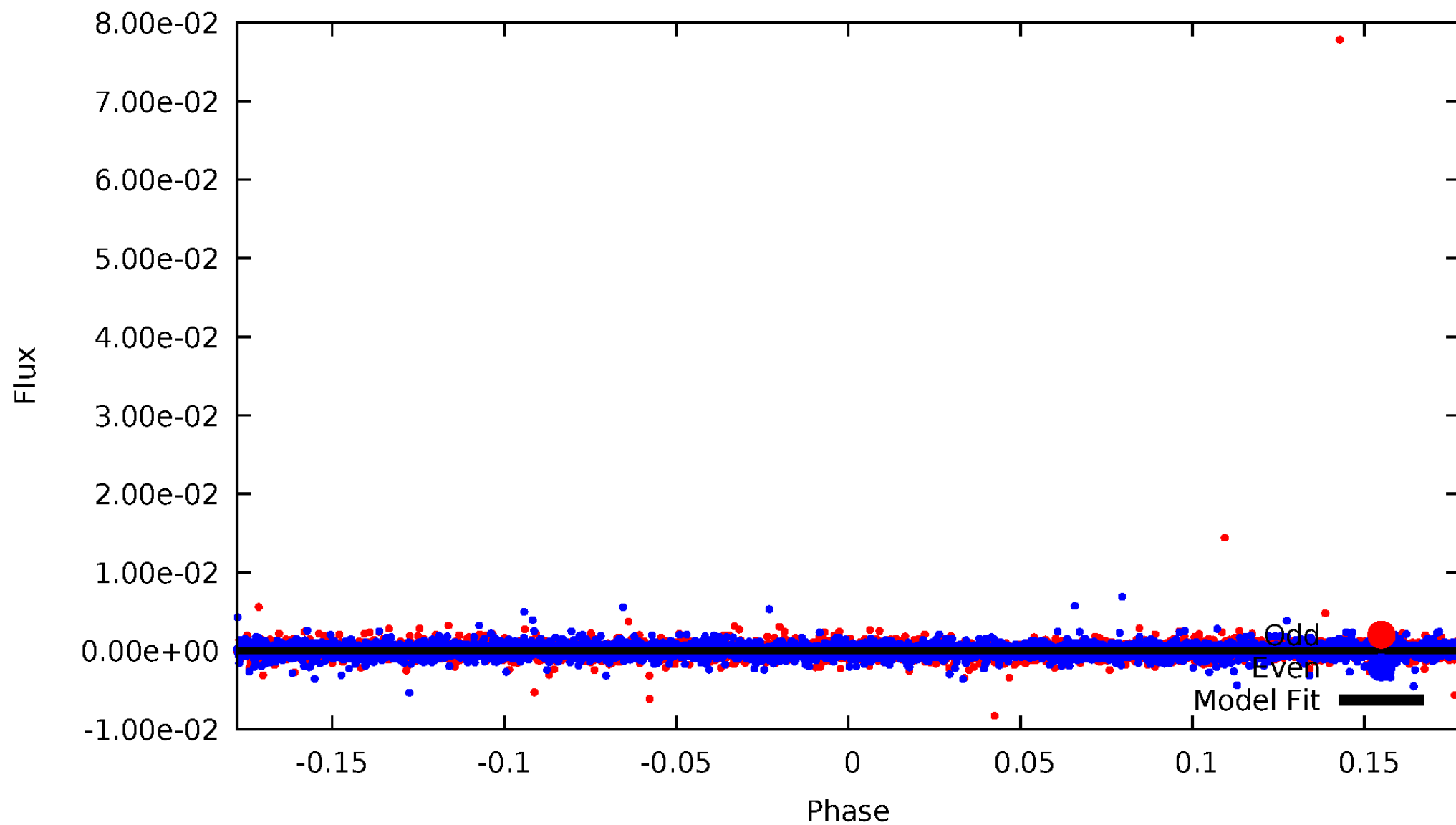


TCE 005558379-01



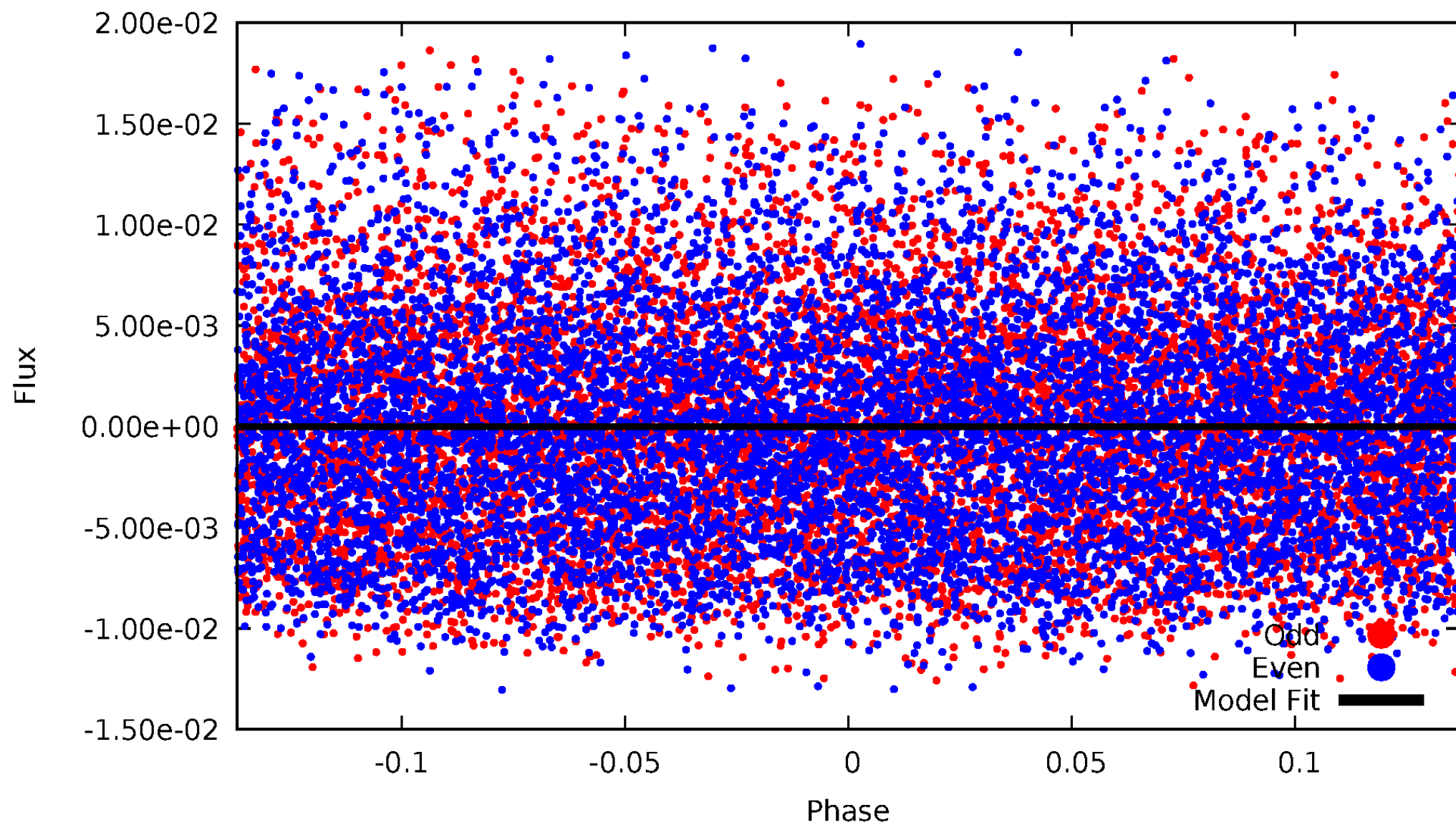
DV Odd/Even

TCE 005558379-01



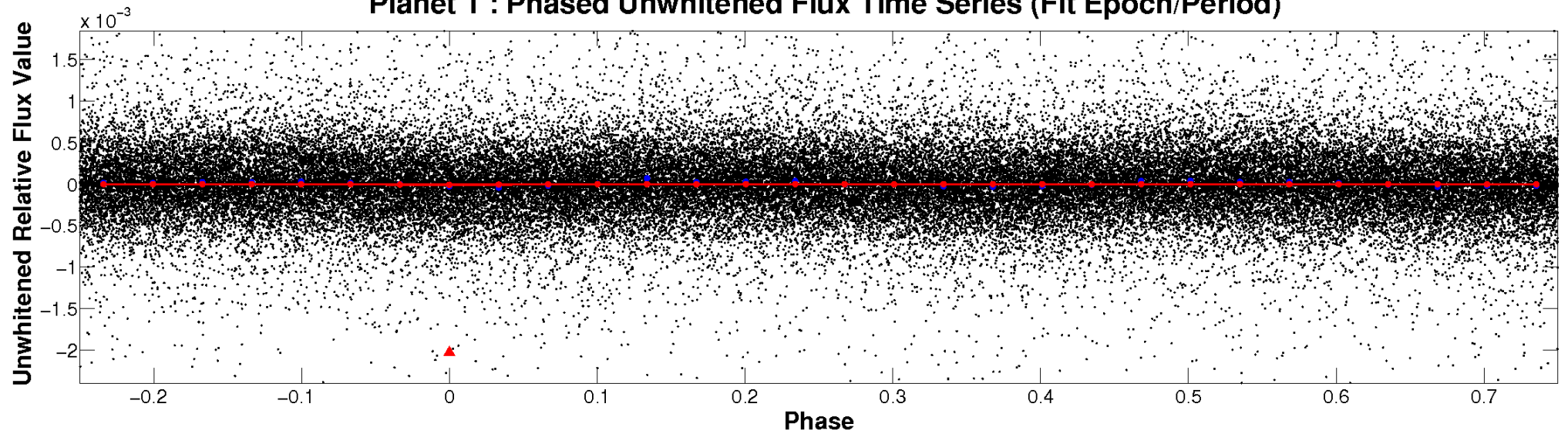
ALT Odd/Even

TCE 005558379-01

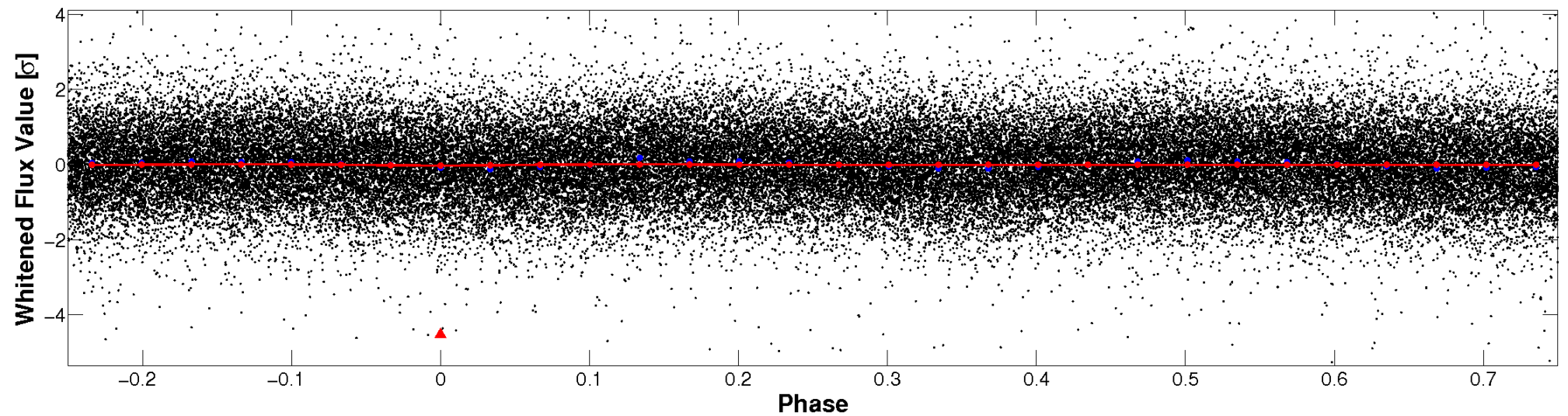


Non-Whitened Vs. Whitened Light Curve

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

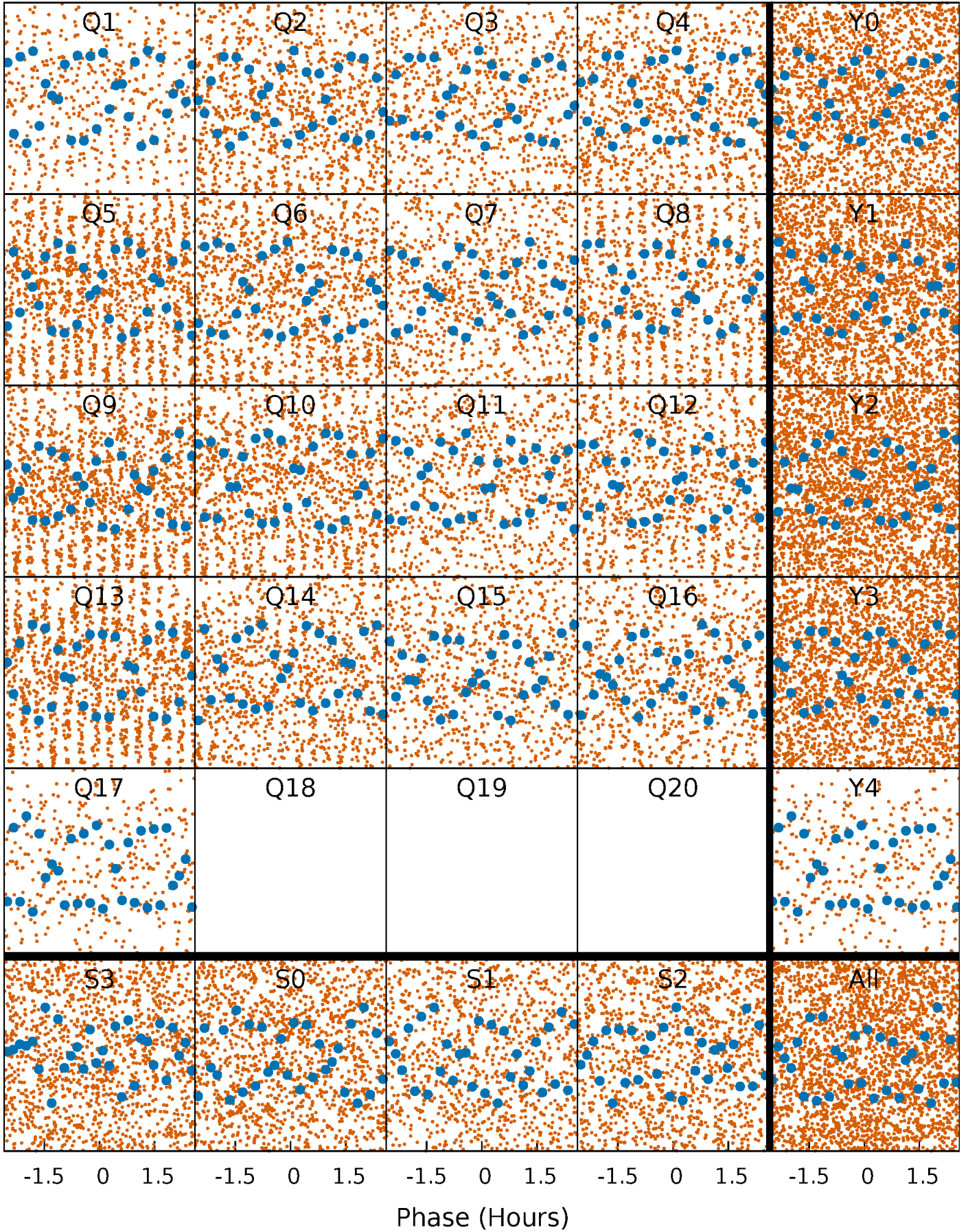


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



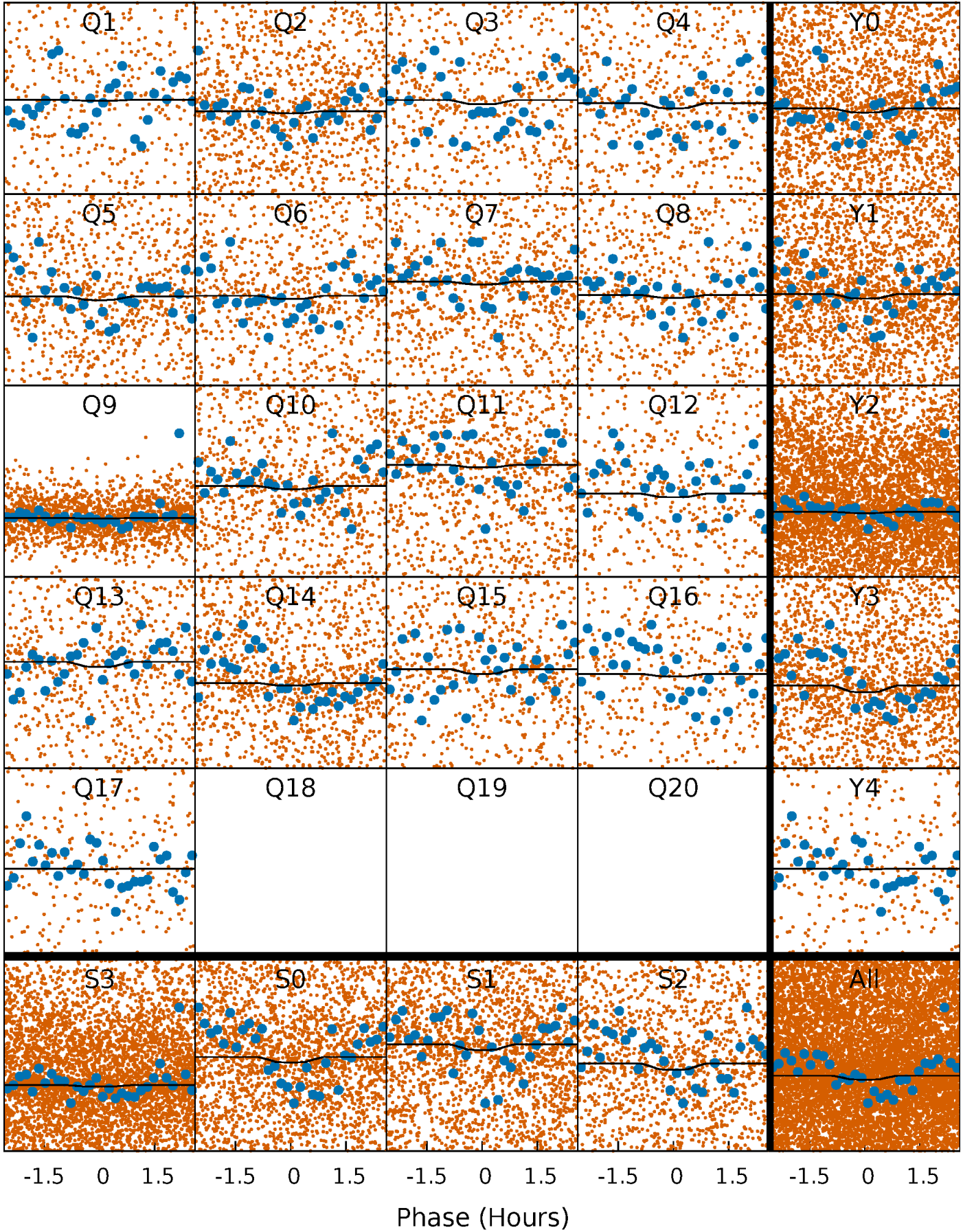
PDC Quarter-Phased Transit Curves

TCE 005558379-01 P= 0.611253 Days $T_0=132.036841$ (BKJD)



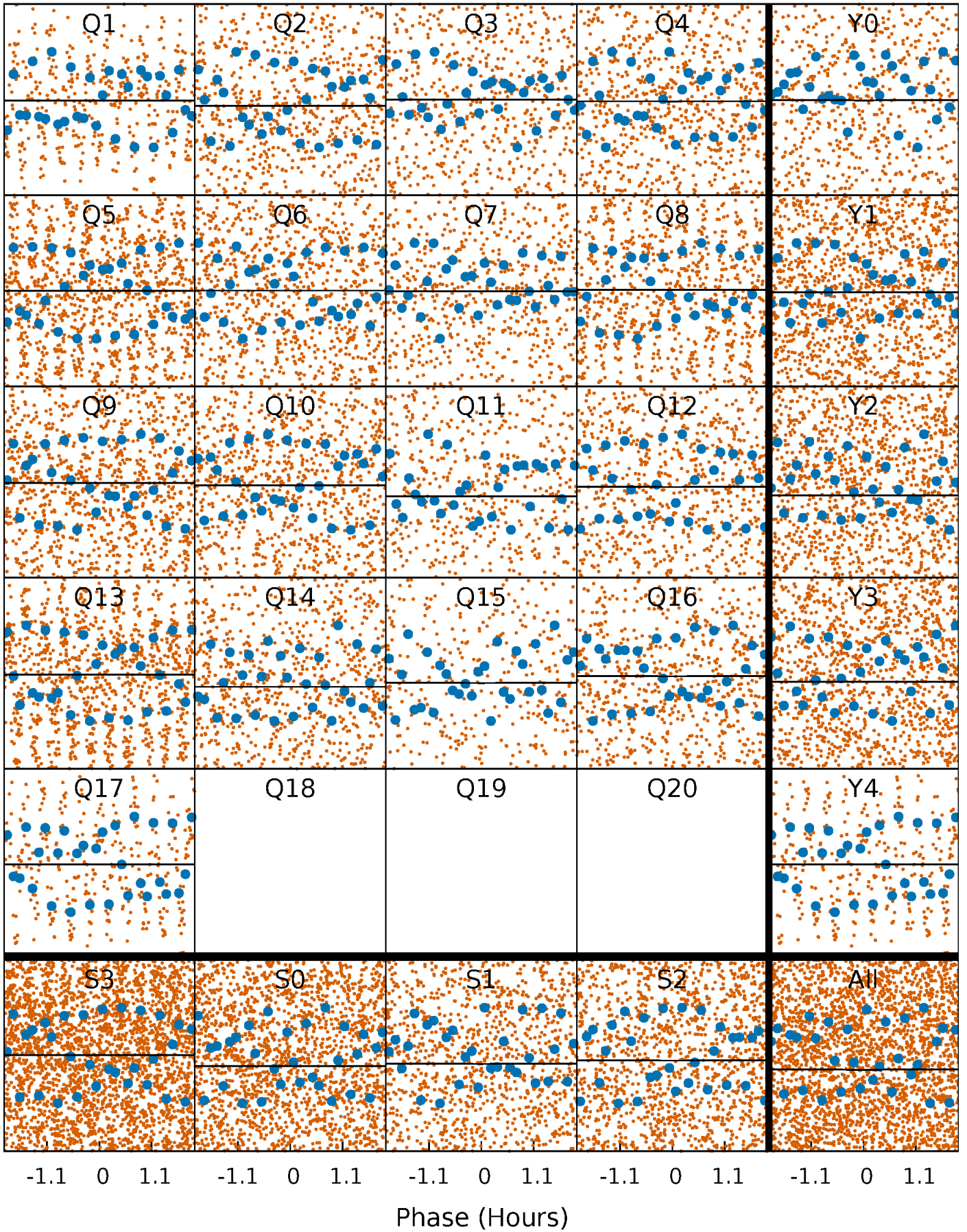
DV Quarter-Phased Transit Curves

TCE 005558379-01 P= 0.611253 Days $T_0=132.036841$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

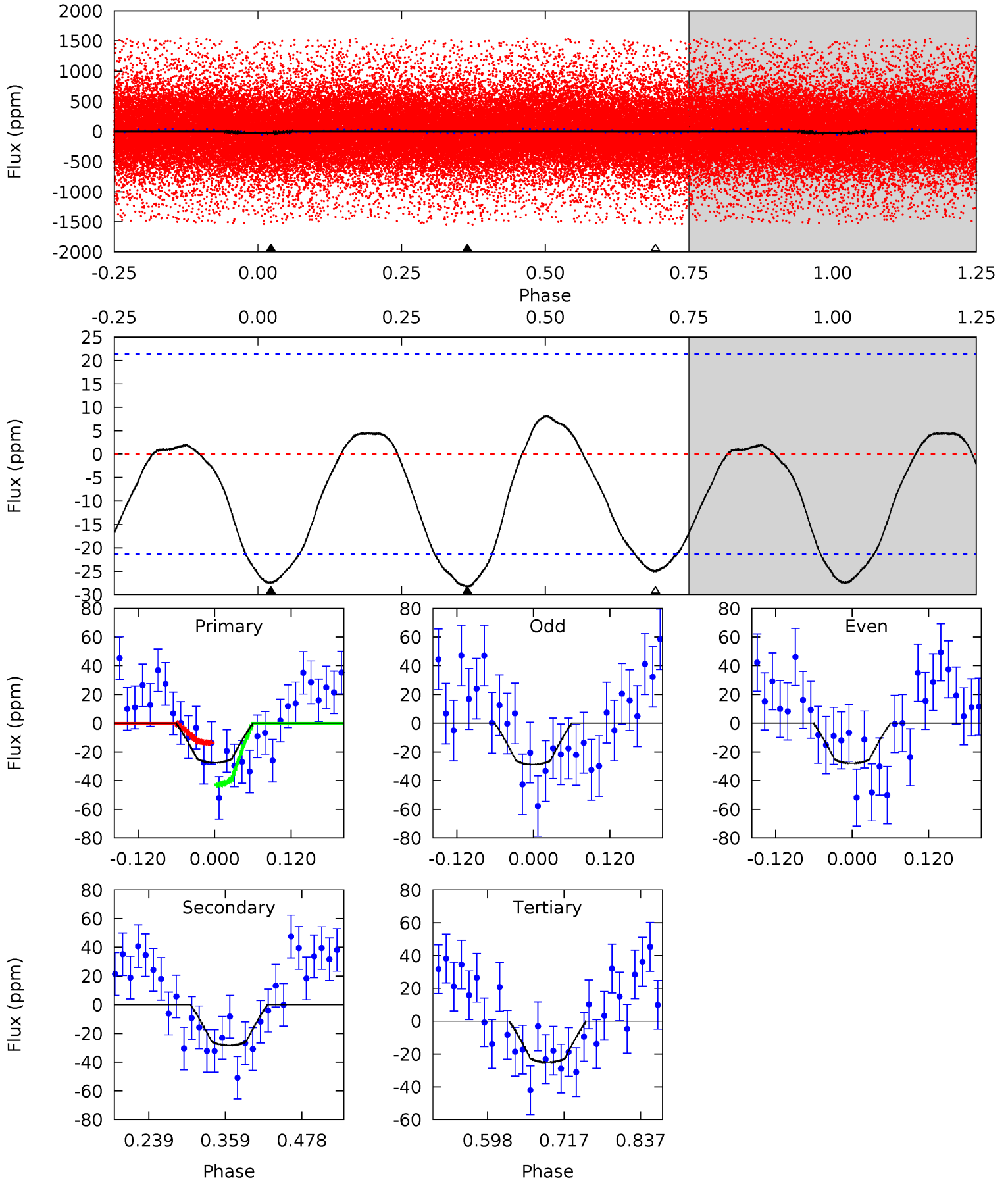
TCE 005558379-01 P= 0.611273 Days $T_0=132.036334$ (BKJD)



DV Model-Shift Uniqueness Test

005558379-01, P = 0.611253 Days, E = 131.425588 Days

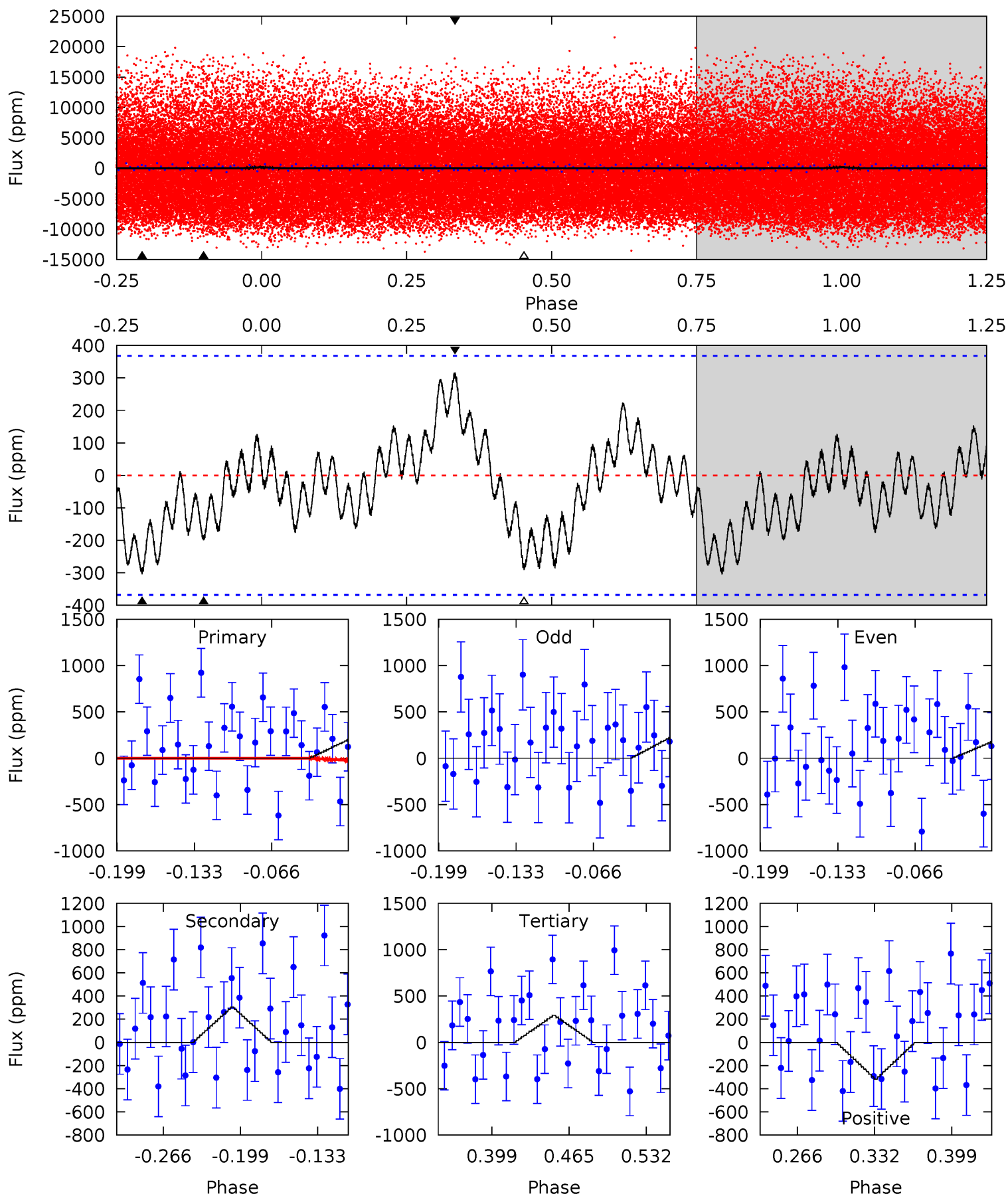
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.84	6.01	5.31	0	4.53	1.56	2.27	0.52	5.84	0.69	6.01	0.09	0.85	0.22	3.13



Alt Model-Shift Uniqueness Test

005558379-01, P = 0.611273 Days, E = 131.425061 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.53	3.85	3.68	4.00	4.65	1.84	1.56	-1.15	-1.48	0.17	-0.15	0.29	-0.26	0.51	2.51



Stellar Parameters For KIC 005558379

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6703^{+159}_{-219}	$4.390^{+0.067}_{-0.202}$	$-0.340^{+0.250}_{-0.300}$	$1.136^{+0.368}_{-0.123}$	$1.158^{+0.168}_{-0.153}$	$1.114^{+0.325}_{-0.600}$
	+2%/-3%	+2%/-5%	+74%/-88%	+32%/-11%	+15%/-13%	+29%/-54%
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 005558379-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-28 ± 5	$0.41^{+0.32}_{-0.26}$	3671^{+256}_{-168}	9020^{+13416}_{-2577}	20^{+130}_{-14}
Alt.	-305 ± 79	$0.38^{+0.30}_{-0.24}$	3681^{+274}_{-182}	$31050^{+139198}_{-15264}$	240^{+1657}_{-166}

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

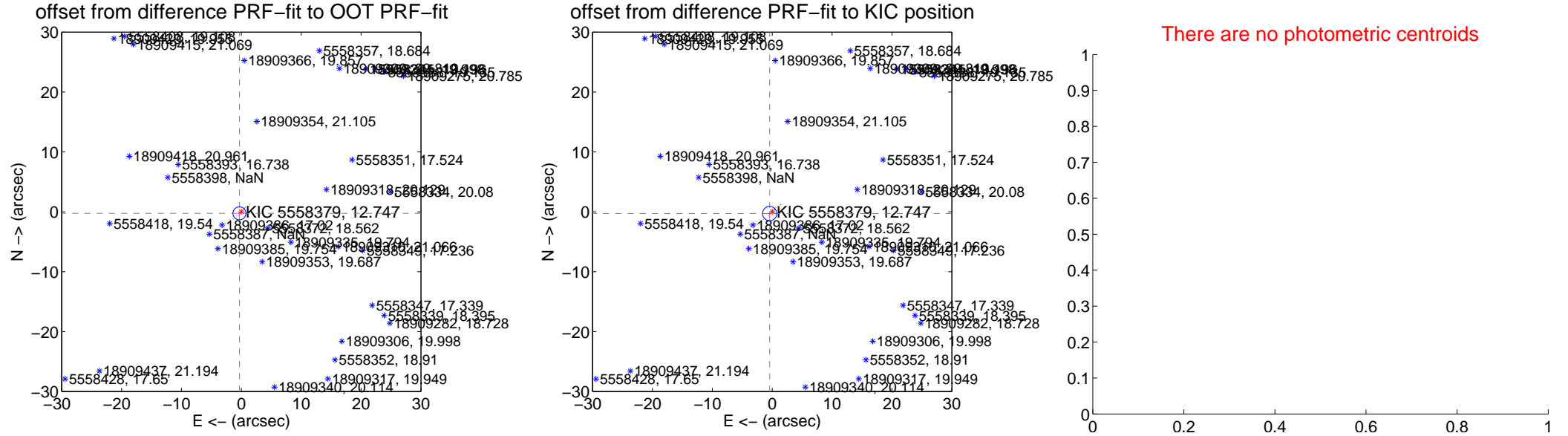
DV Centroid Data

Supplemental centroid analysis for 005558379-01. Kepler magnitude: 12.75. Transit SNR 1.65

There are 8 quarters with good PRF difference image offsets

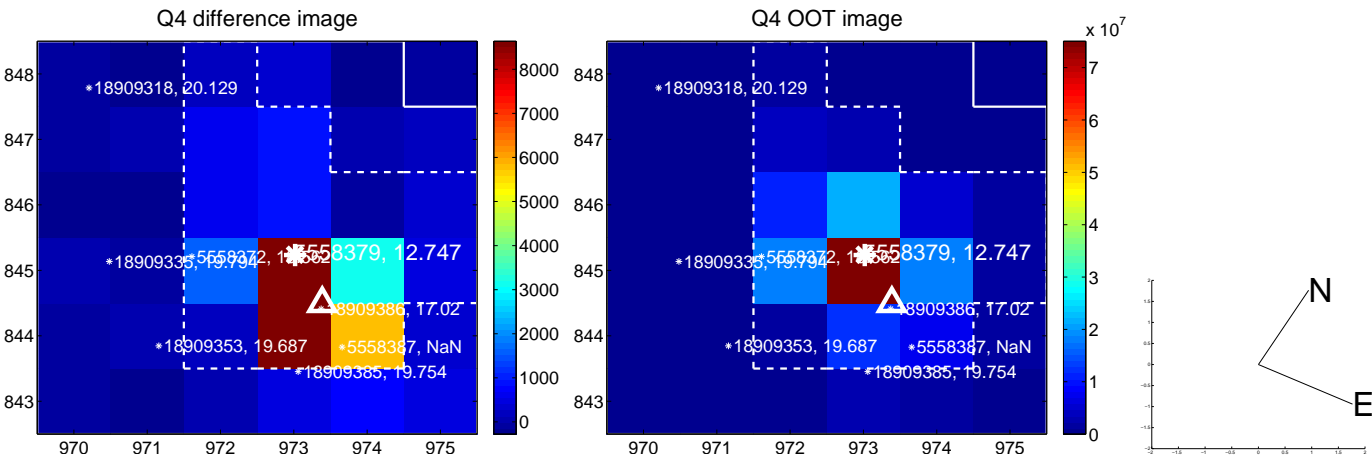
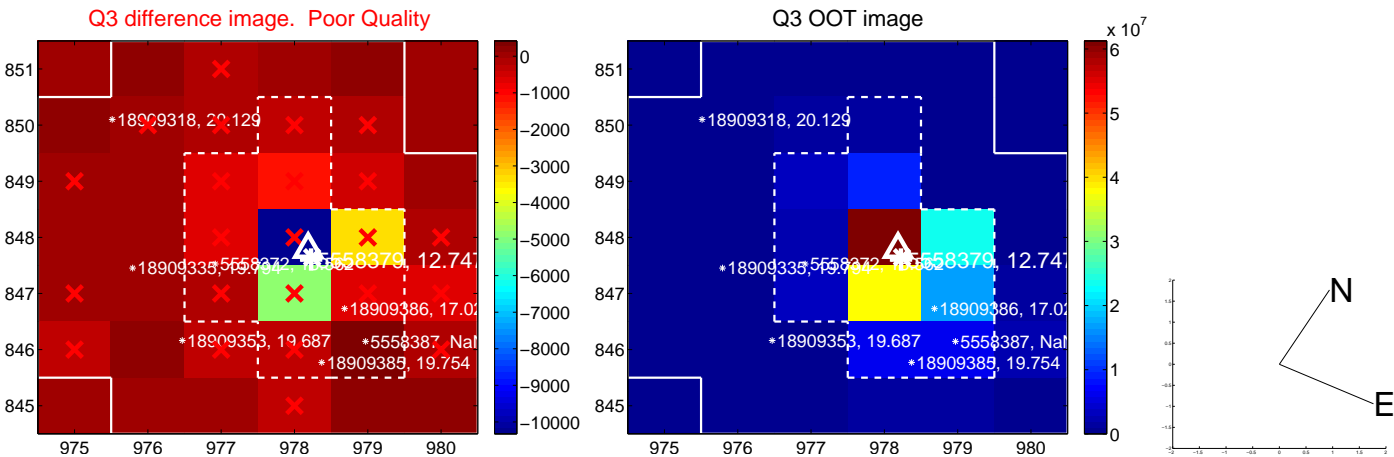
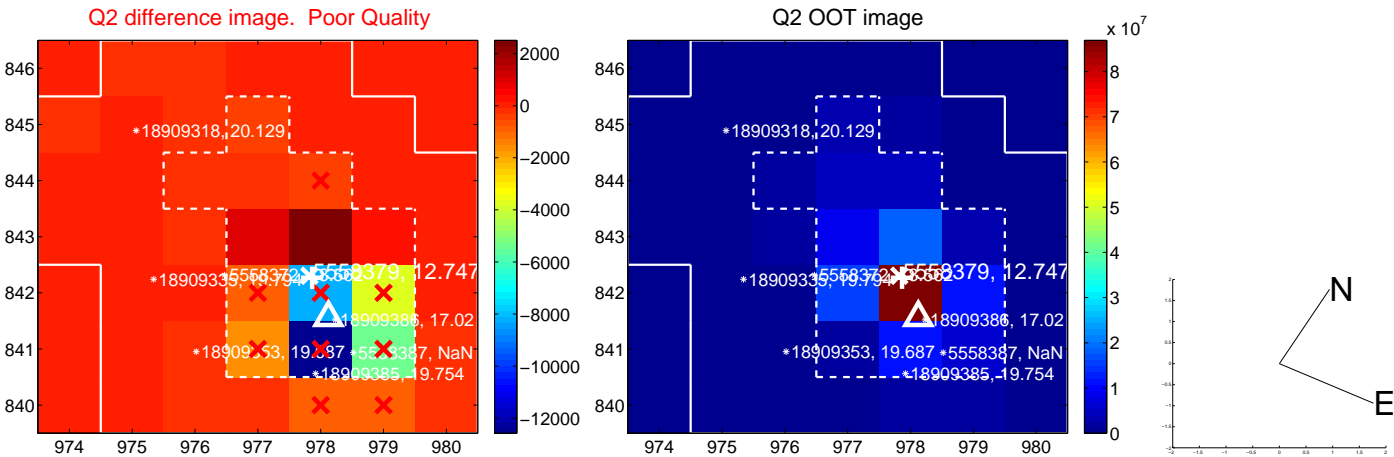
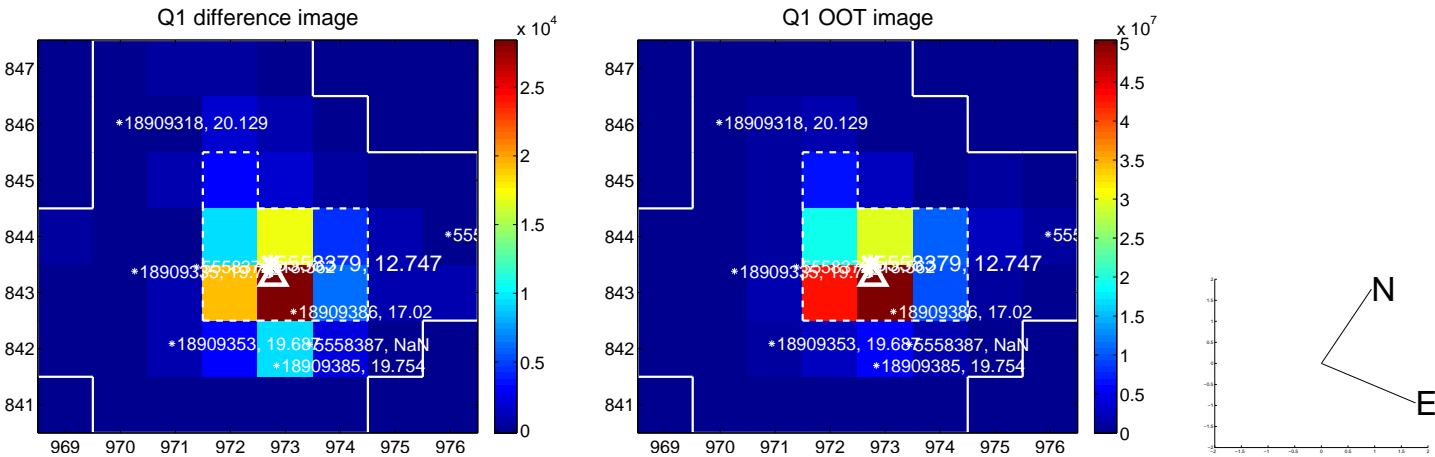
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.401 ± 0.362	1.11	0.310 ± 0.283	-0.255 ± 0.237
PRF-fit source offset from KIC position	0.514 ± 0.396	1.30	0.424 ± 0.311	-0.291 ± 0.257
photometric centroid source offset	—	—	—	—

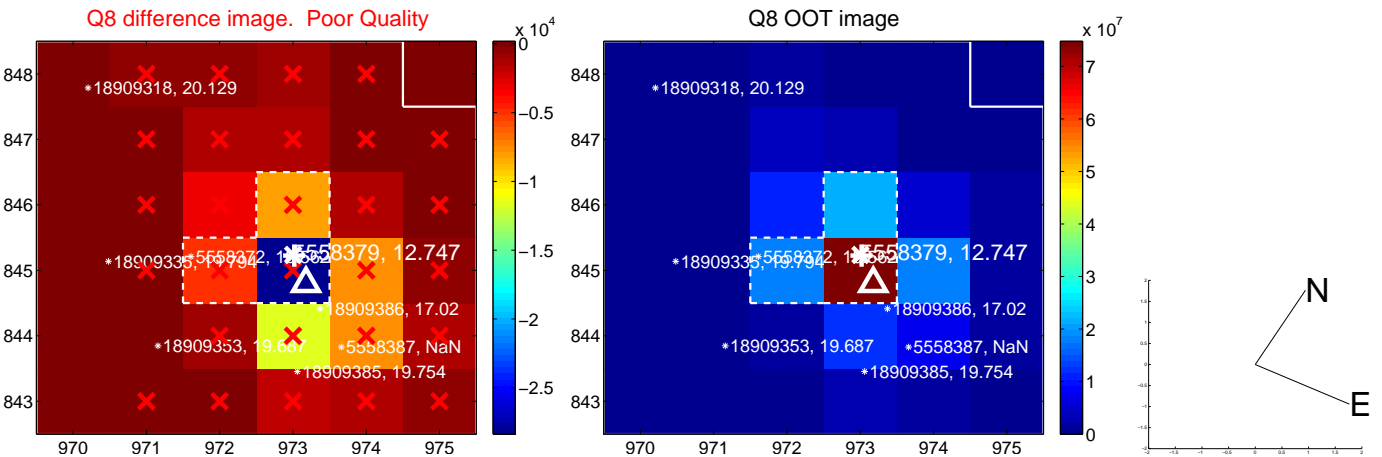
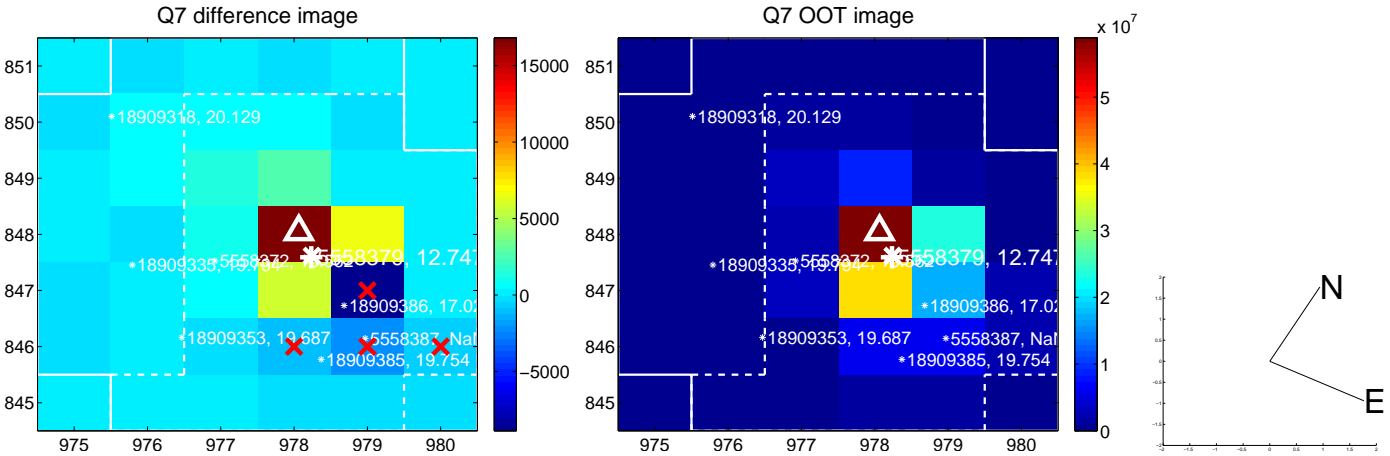
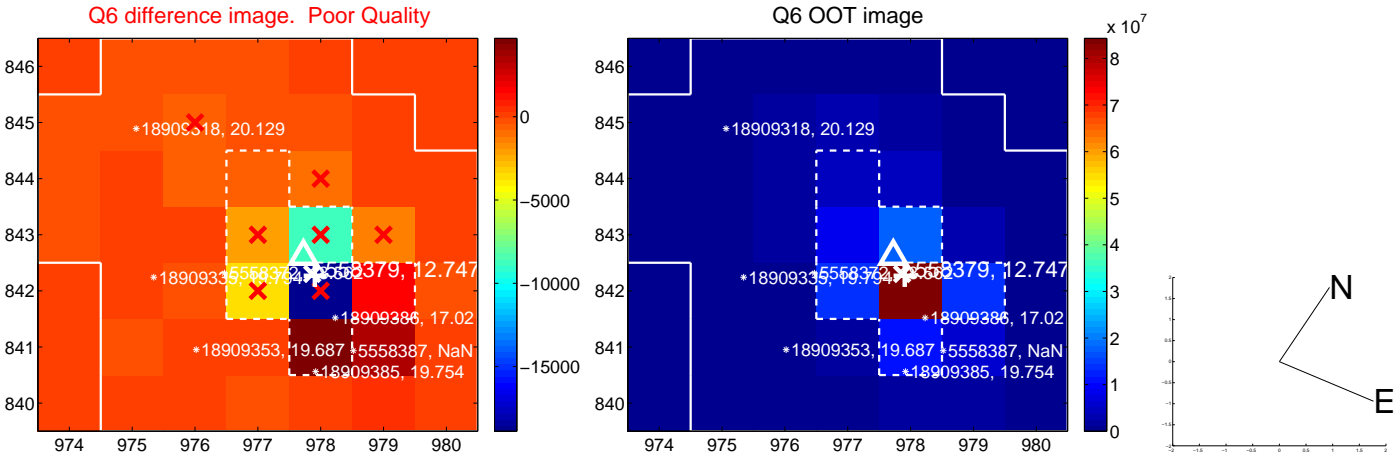
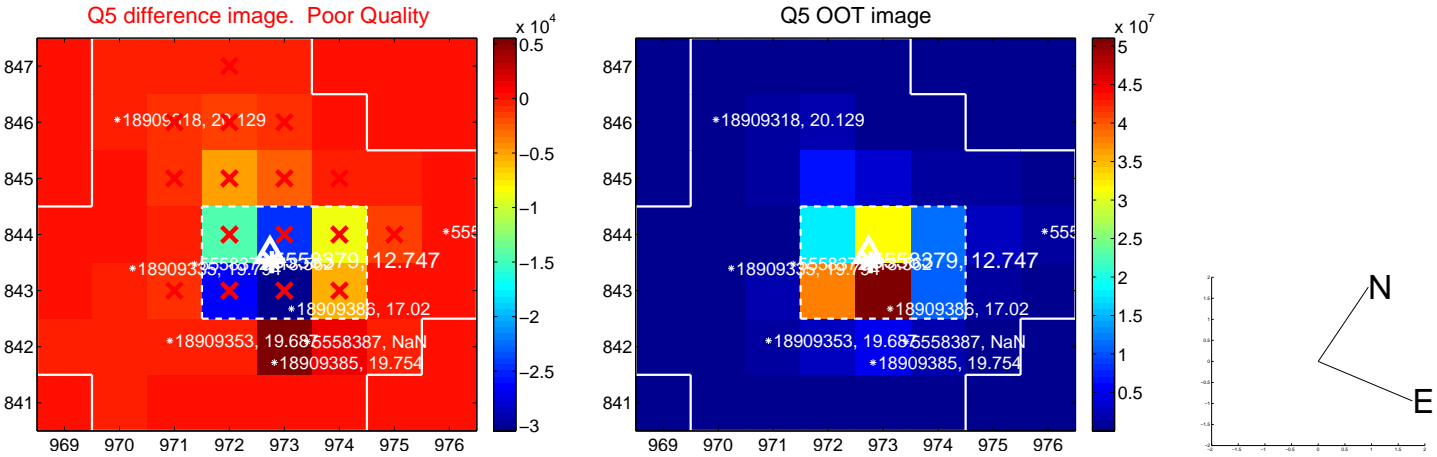


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

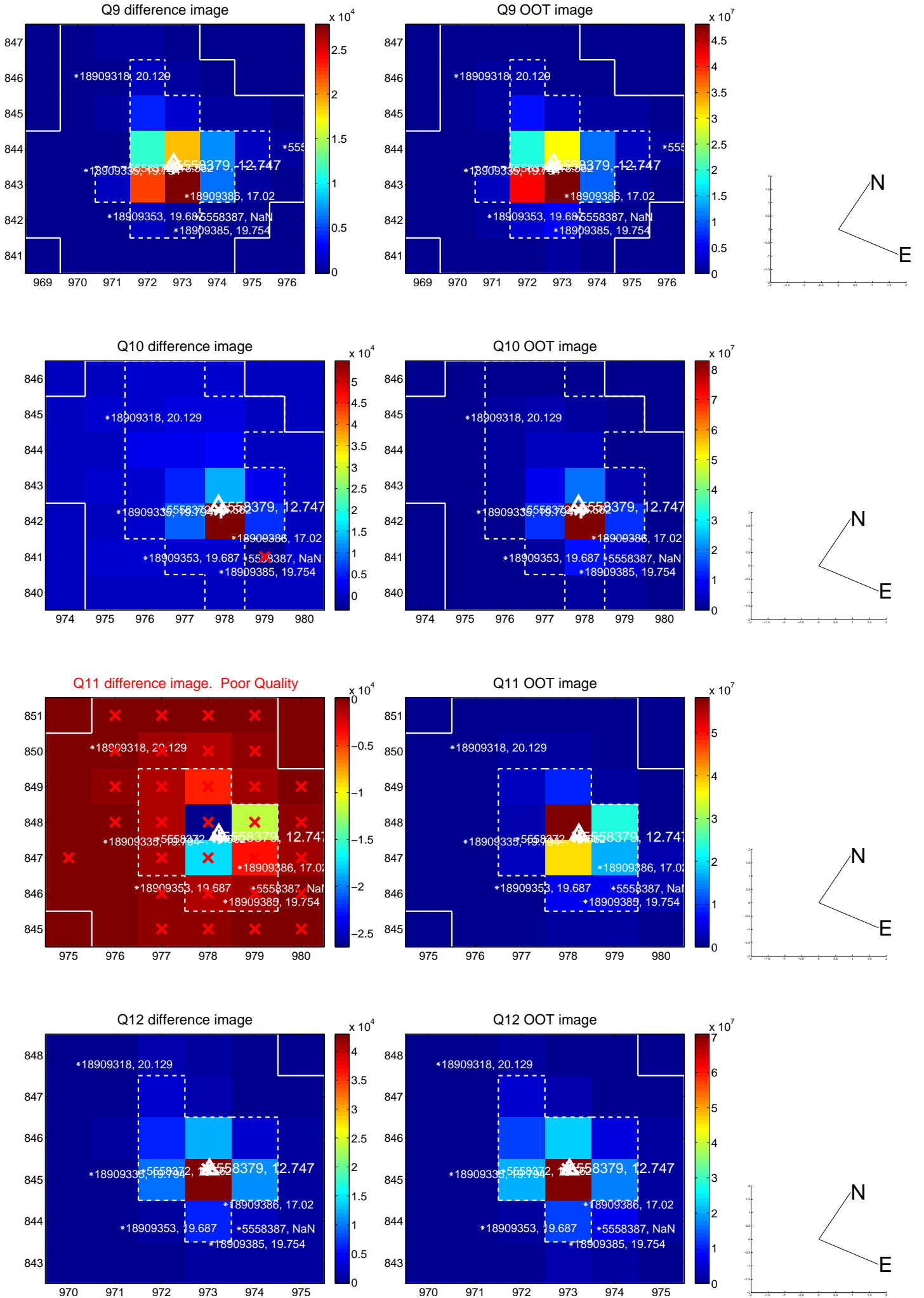
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



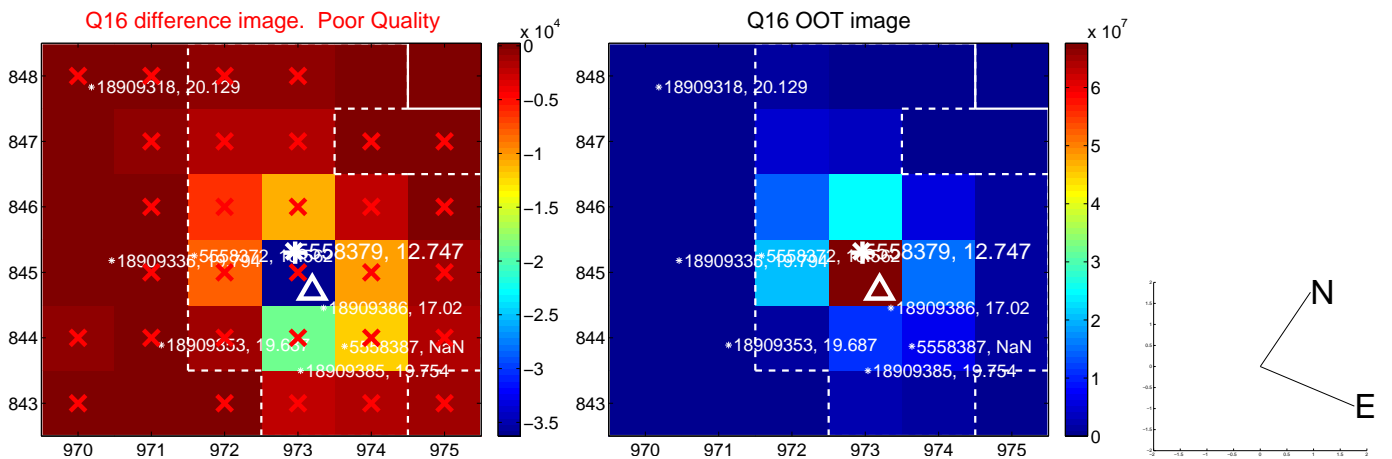
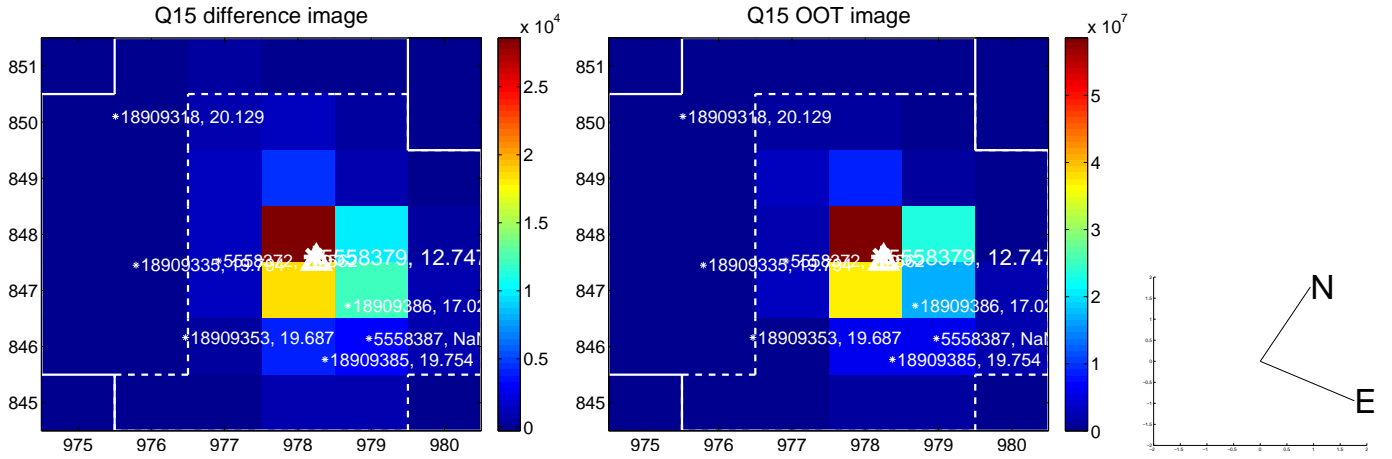
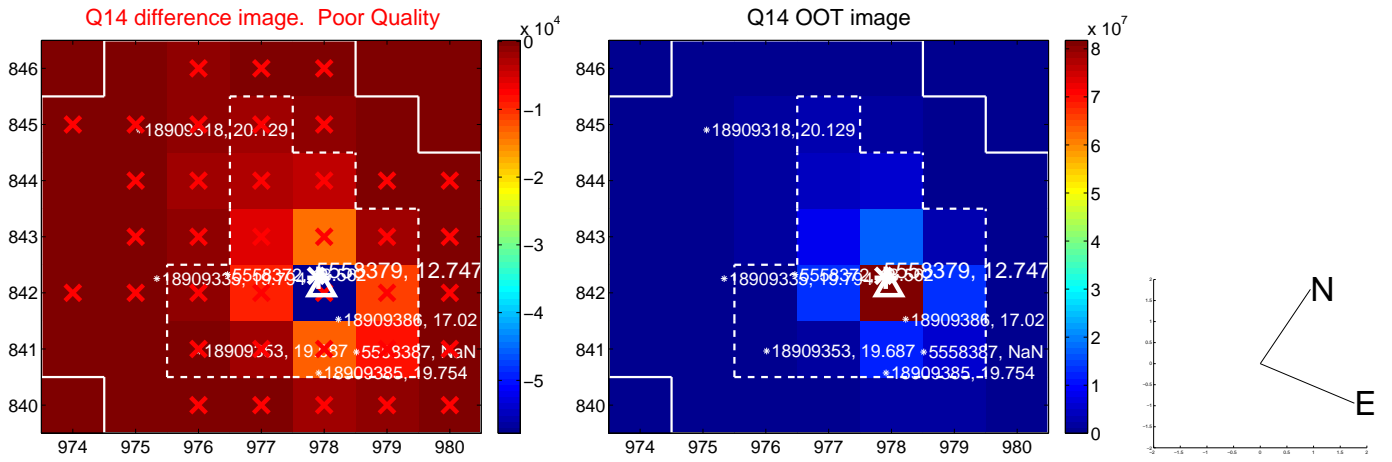
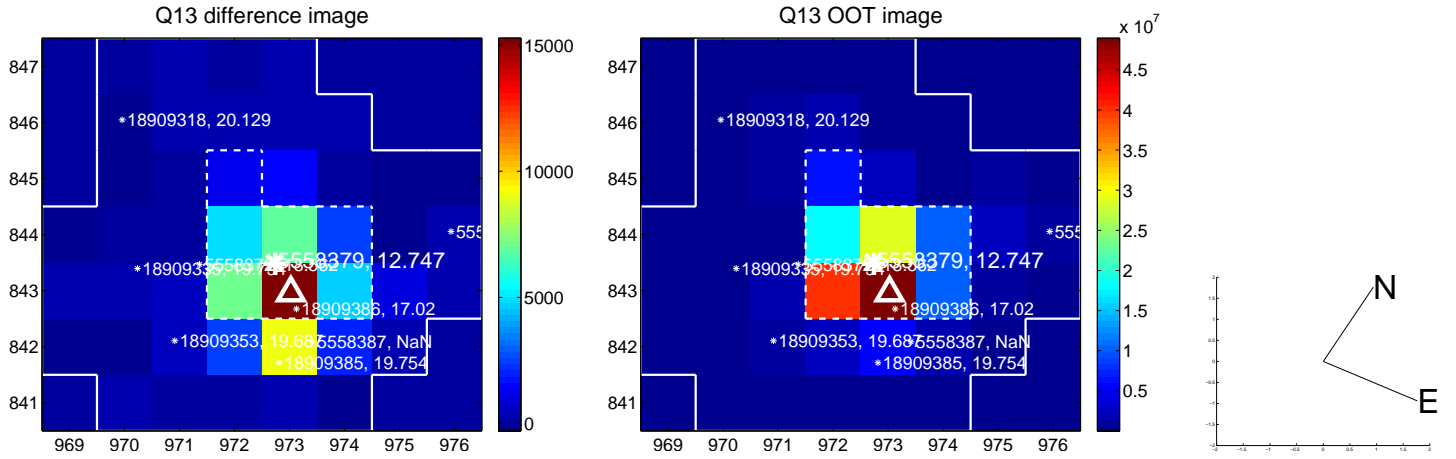
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



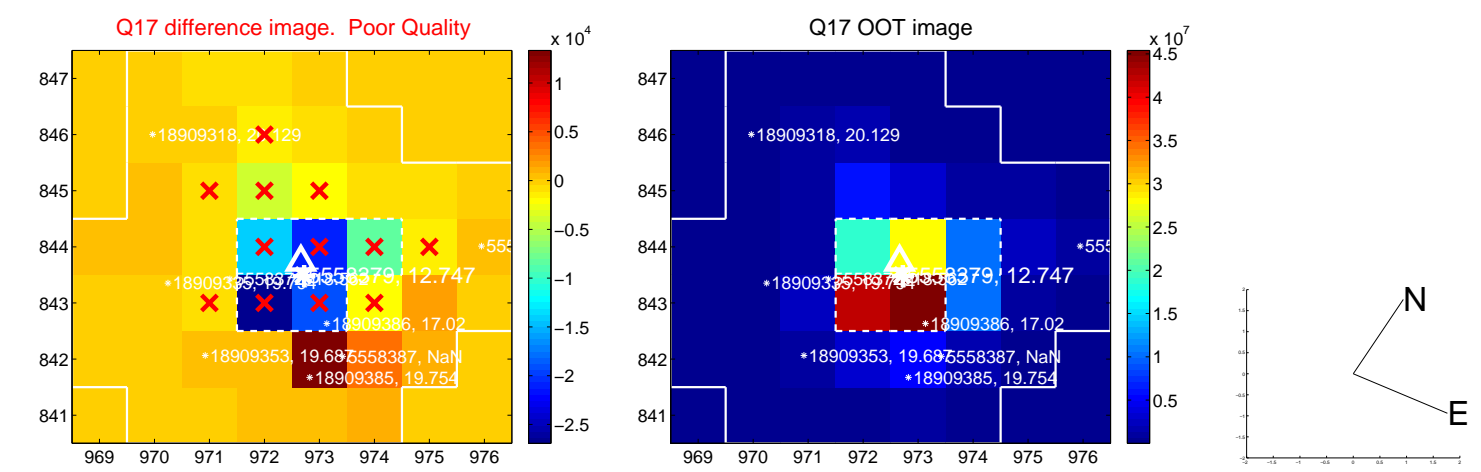
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination

