

KIC 006050154

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})
006050154-01	OBS	No	0.566788	131.647574	42.3	5.919	8.6	5.9	0.70	4722	0.49	1468.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006050154-01	OBS	FP	0.00	1	0	1	1	LPP_DV—LPP_ALT—CENT_UNRESOLVED_OFFSET—EPHEM_MATCH

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.

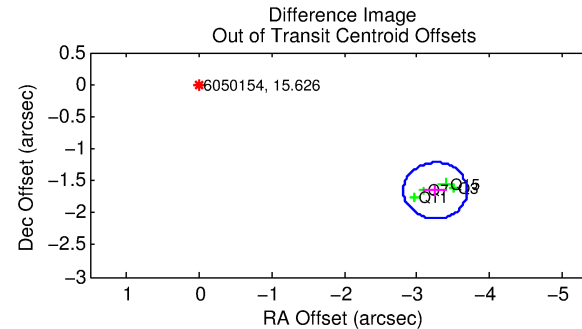
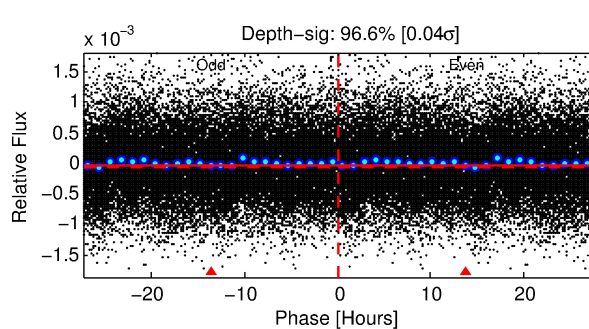
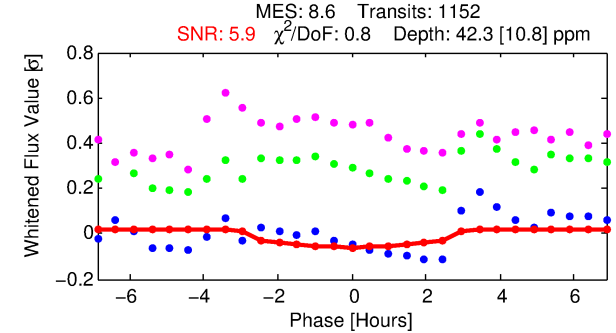
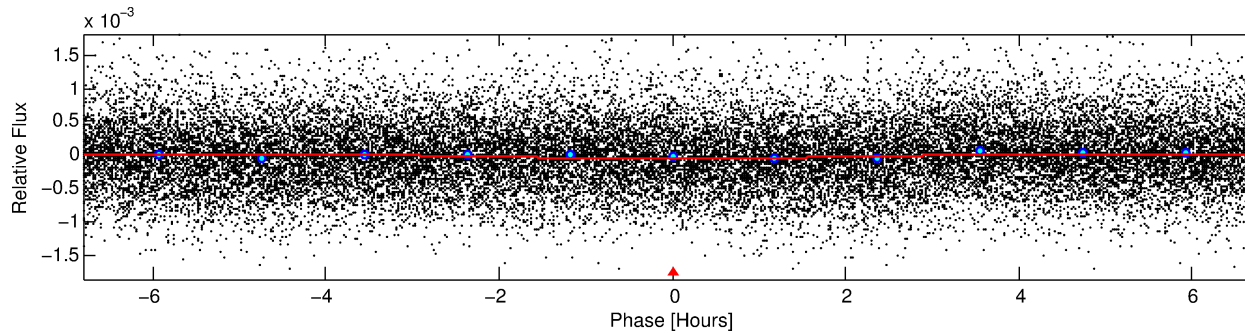
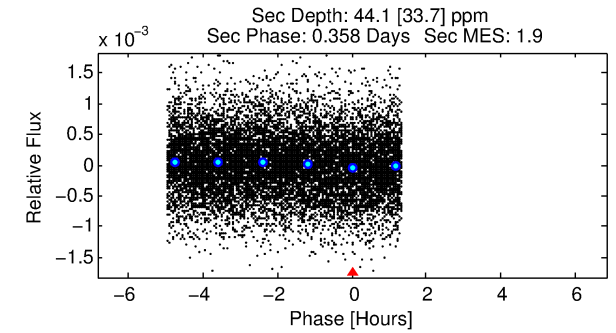
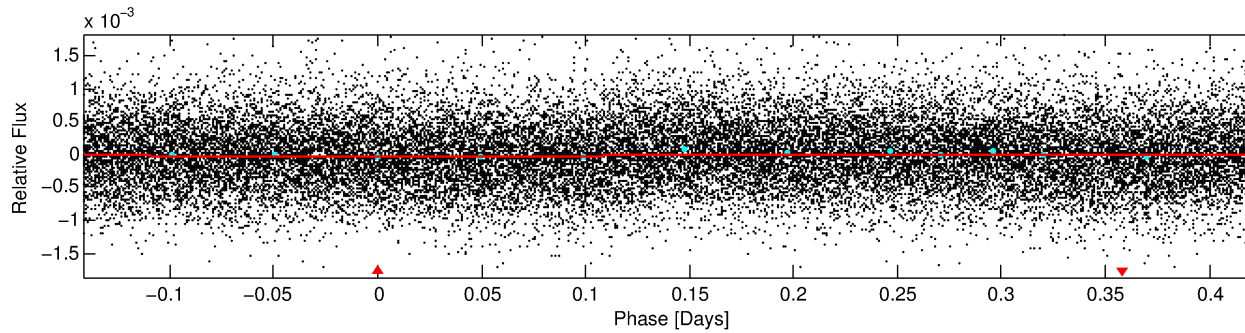
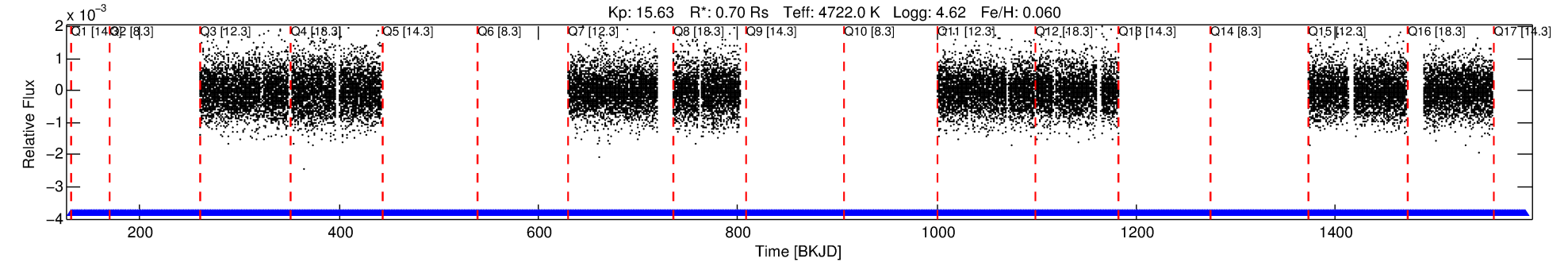
Ephemeris Match Information For 006050154-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006050154-01	6050154	RR-Lyr-pri	7198959	1:1	9077.8	-30	-2	7.86	15.62	14840.00	Col-Anomaly	0	2.00	15.85

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 6050154 Candidate: 1 of 1 Period: 0.567 d



DV Fit Results:

Period = 0.56679 [0.00002] d
Epoch = 131.6476 [0.0093] BKJD
Rp/R* = 0.0064 [0.0048]
a/R* = 1.02 [0.07]
b = 0.70 [1.86]
Seff = 1468.60 [257.33]
Teq = 1579 [69] K
Rp = 0.49 [0.37] Re
a = 0.0122 [0.0009] AU
Ag = 15.26 [25.68] [0.56σ]
Teffp = 4824 [2033] K [1.60σ]

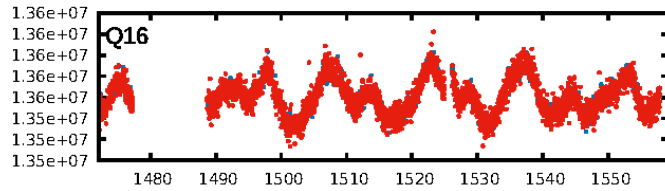
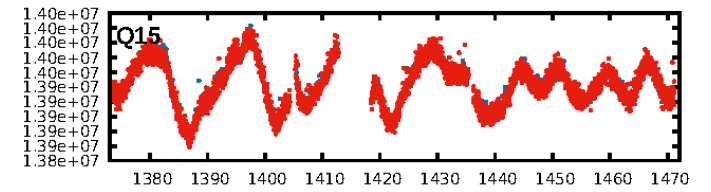
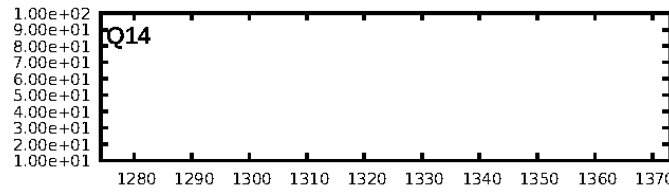
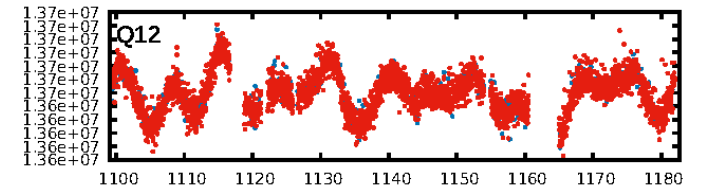
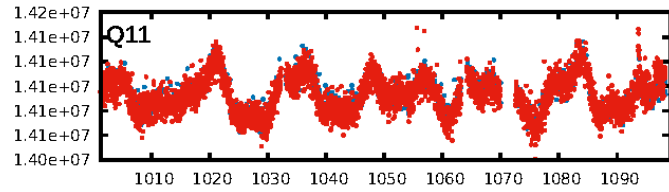
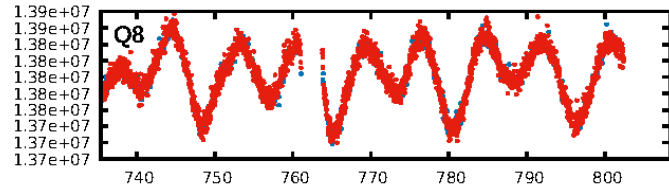
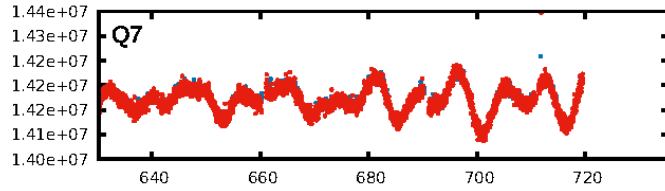
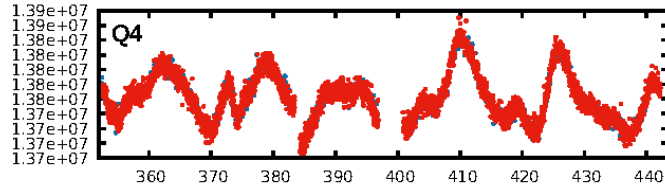
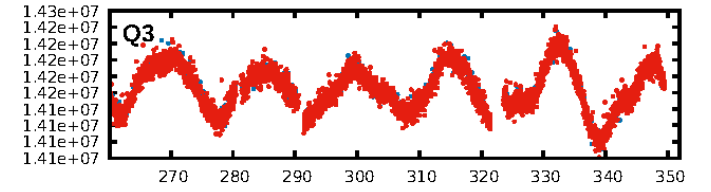
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1152/1152]
GhostDiagnostic-chr: 3.047
Centroid-sig: 0.0%
Centroid-so: 7.404 arcsec [3.48σ]
OotOffset-rm: 3.649 arcsec [24.97σ]
KicOffset-rm: 3.495 arcsec [23.80σ]
OotOffset-st: 0/4/0/0 [4]
KicOffset-st: 0/4/0/0 [4]
DiffImageQuality-fgm: 0.00 [0/4]
DiffImageOverlap-fno: 1.00 [8/8]

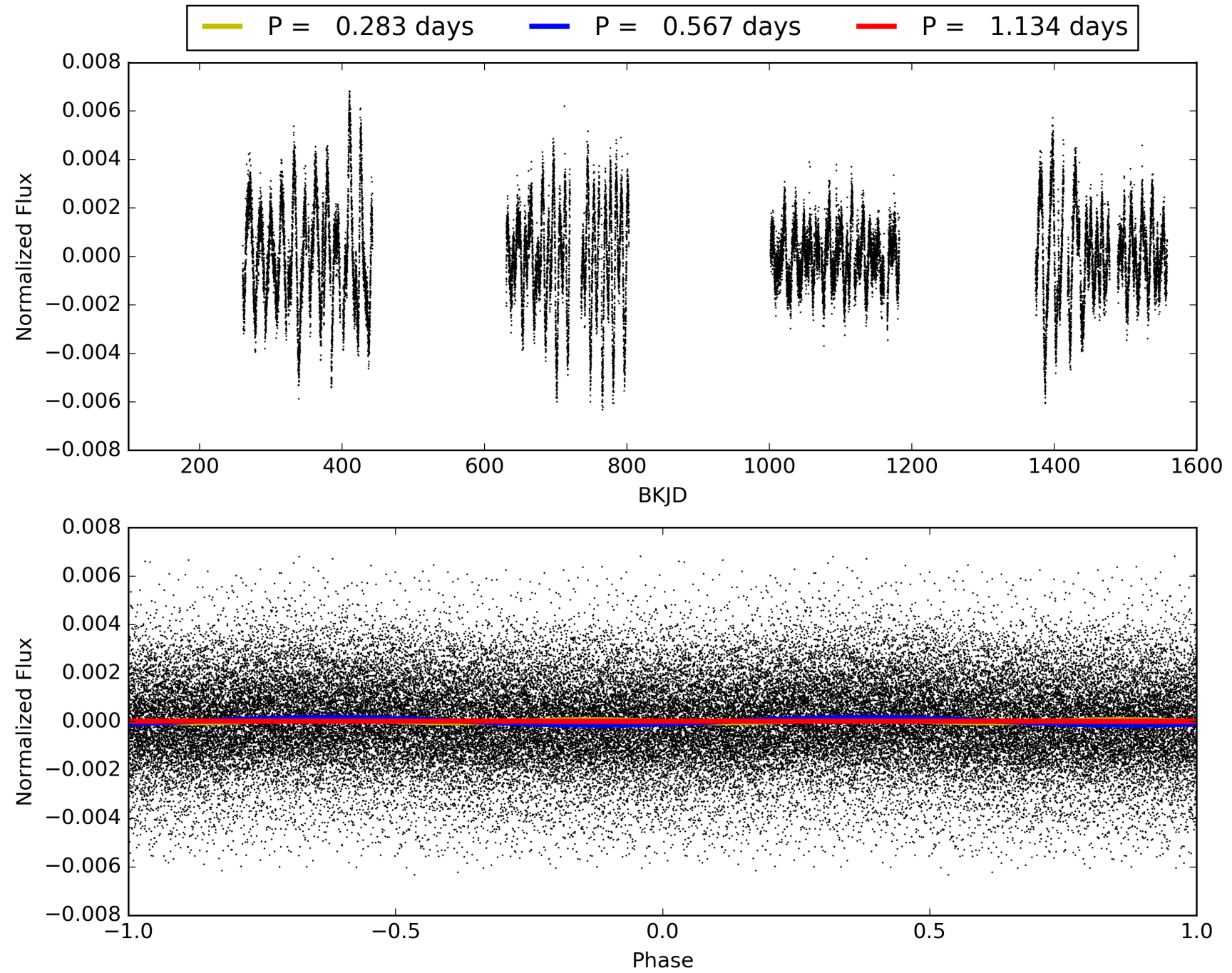
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:26:42 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006050154-01, PDC Light Curves

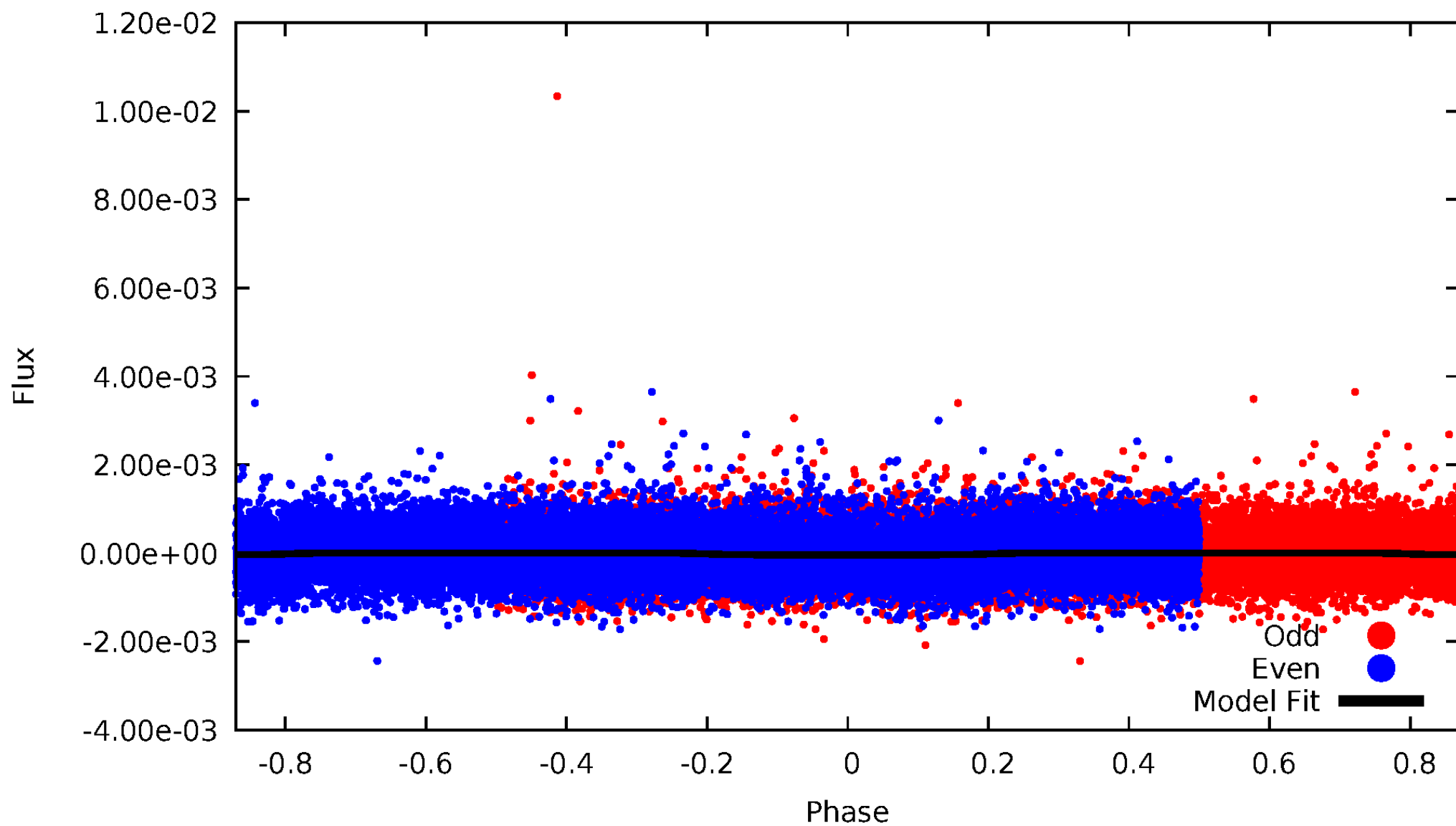


TCE 006050154-01



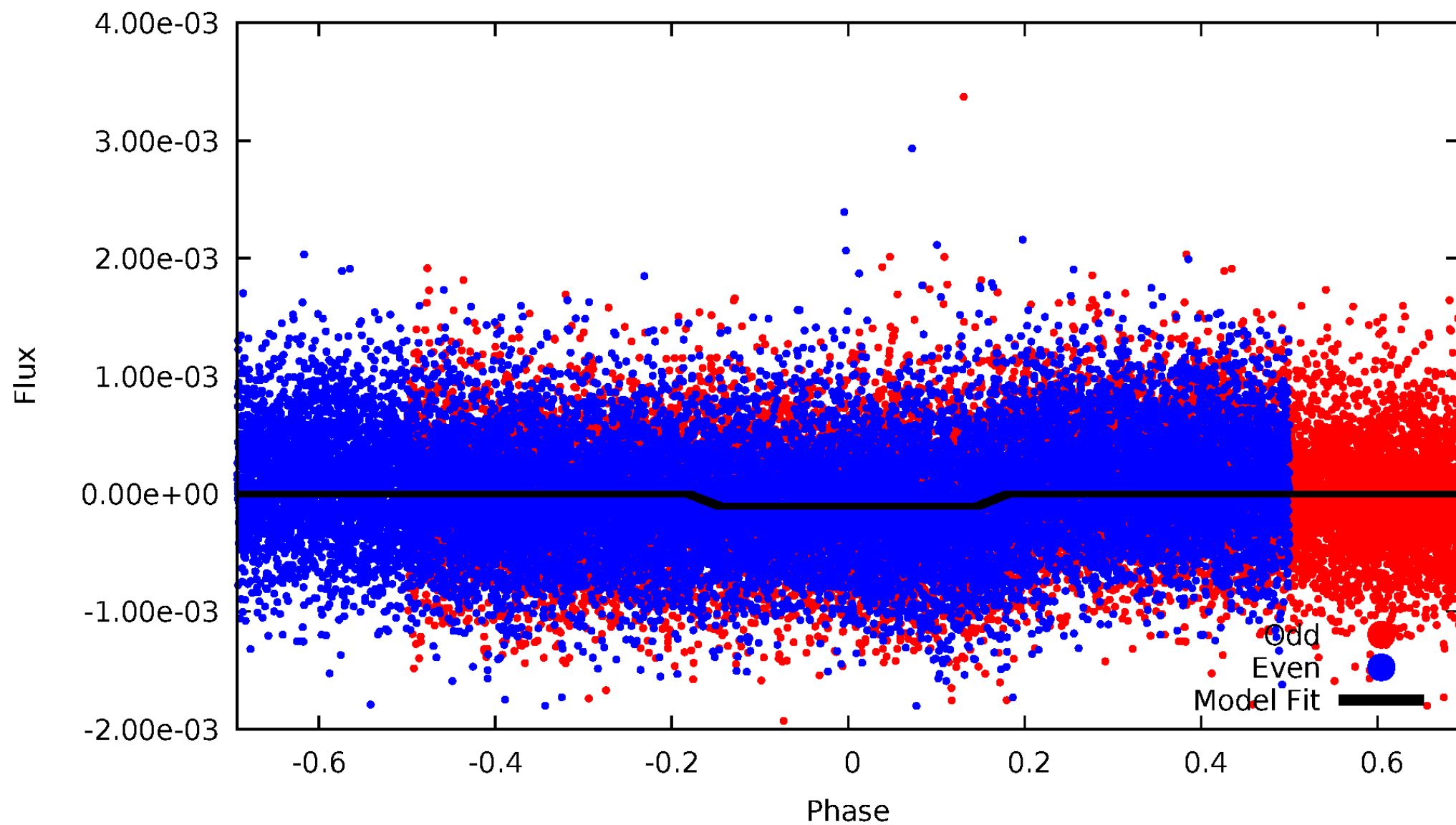
DV Odd/Even

TCE 006050154-01

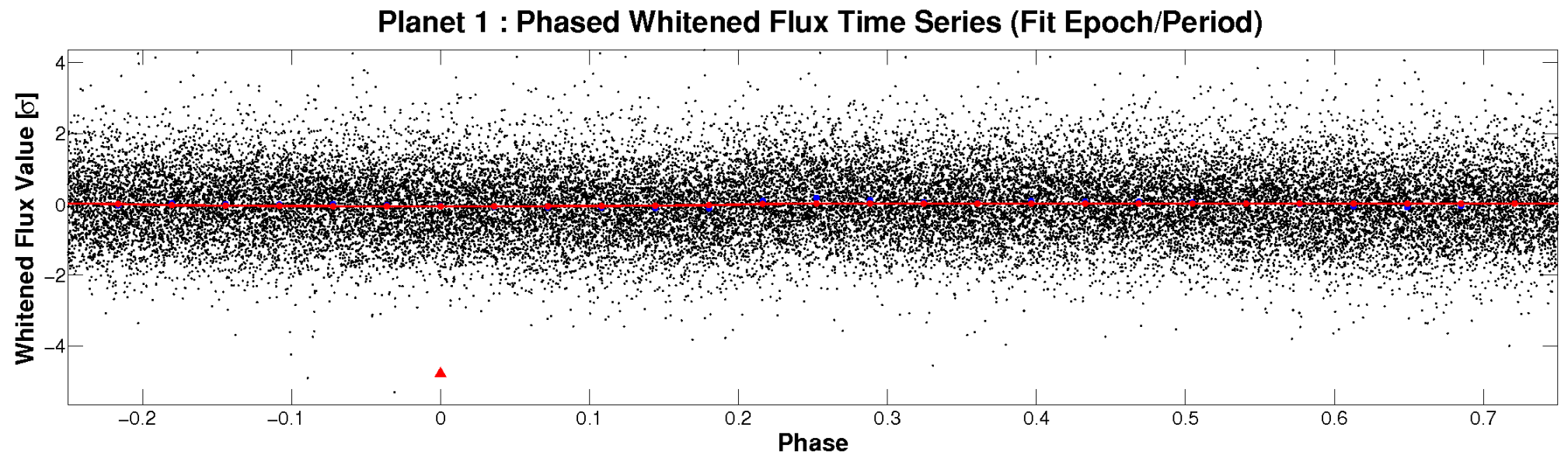
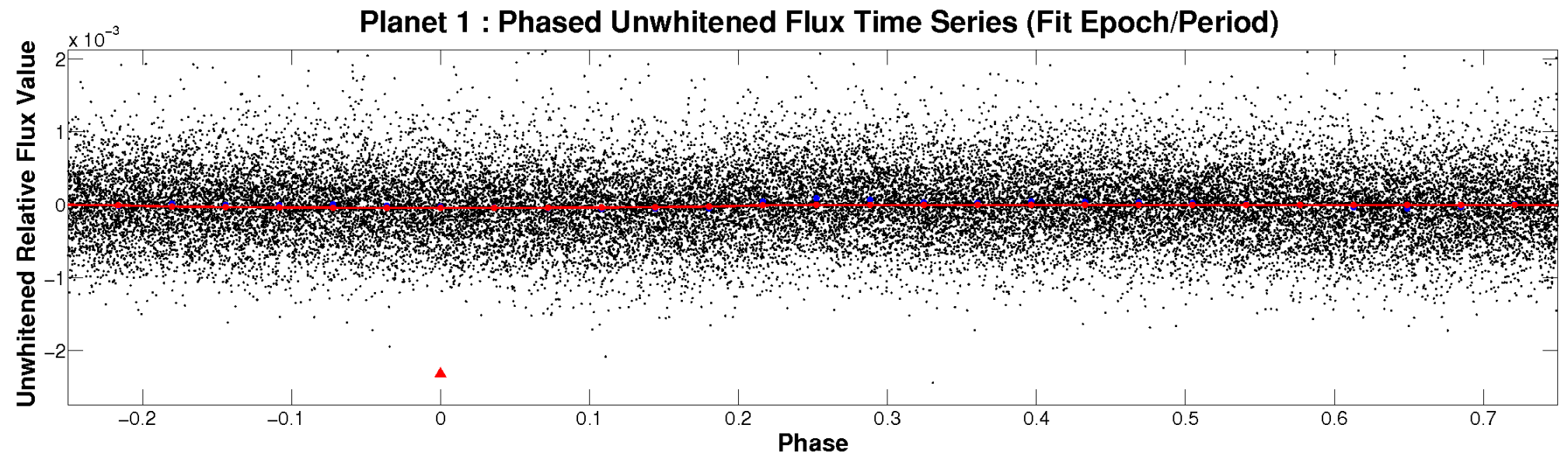


ALT Odd/Even

TCE 006050154-01

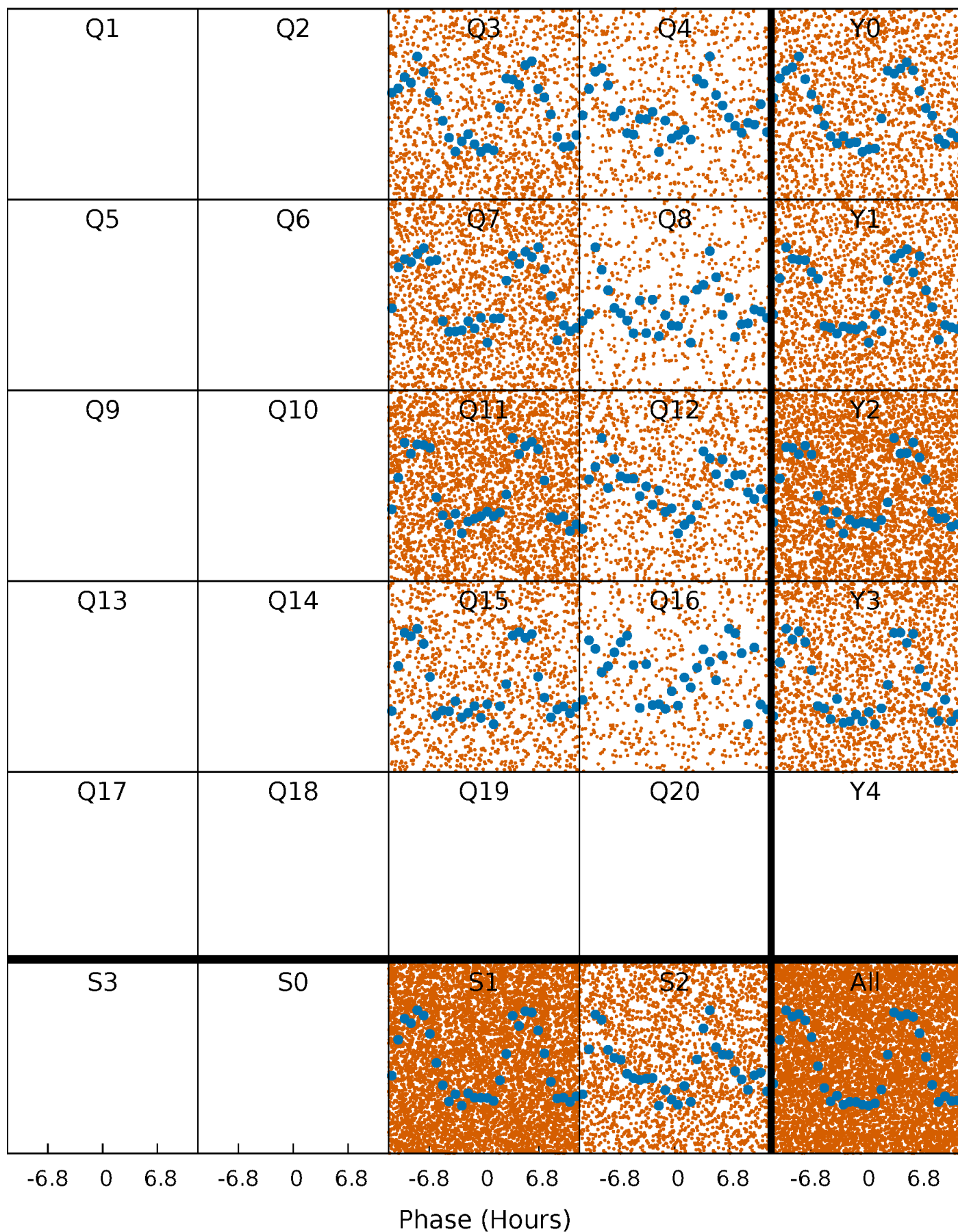


Non-Whitened Vs. Whitened Light Curve



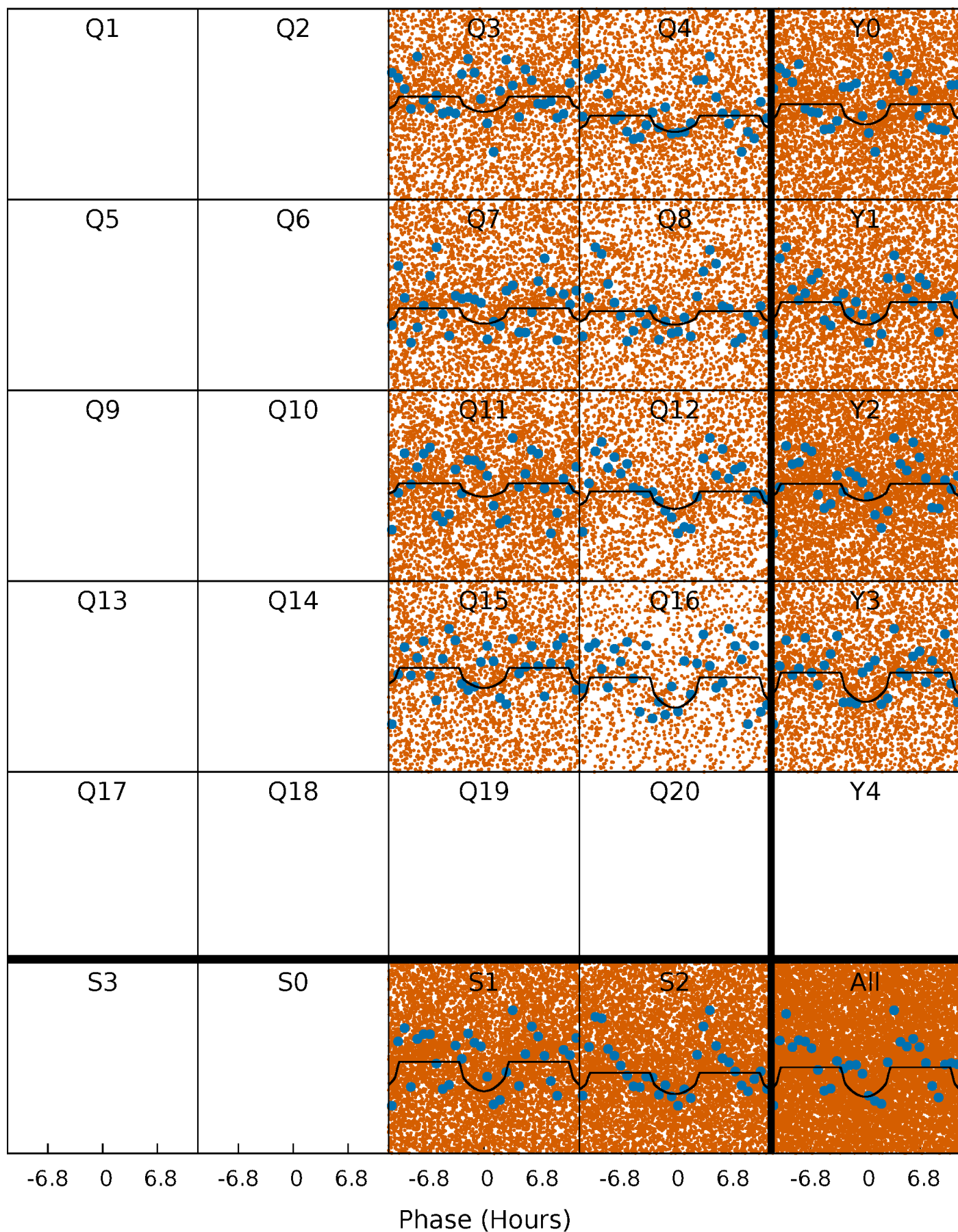
PDC Quarter-Phased Transit Curves

TCE 006050154-01 P= 0.566788 Days $T_0=131.647574$ (BKJD)



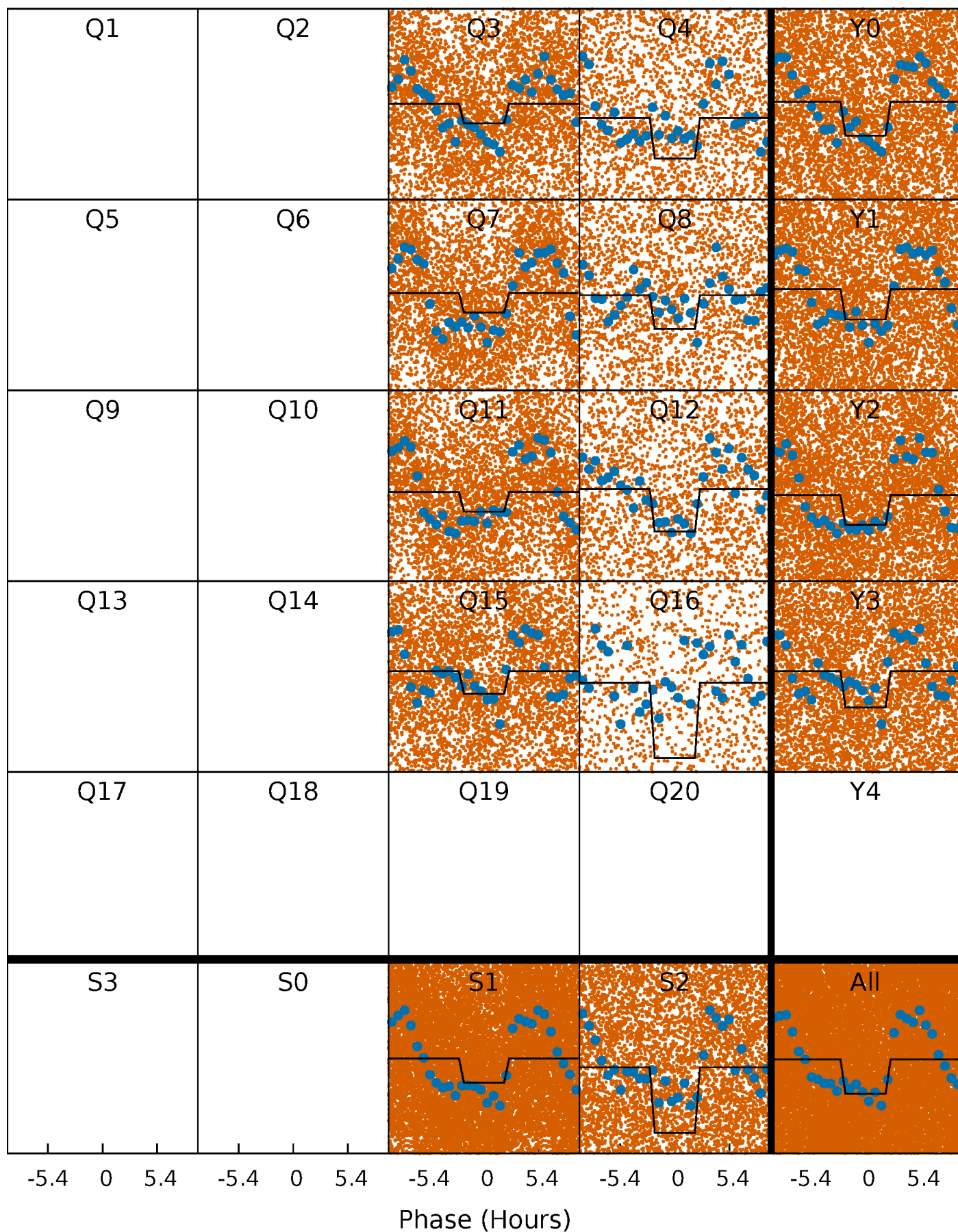
DV Quarter-Phased Transit Curves

TCE 006050154-01 P= 0.566788 Days $T_0=131.647574$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

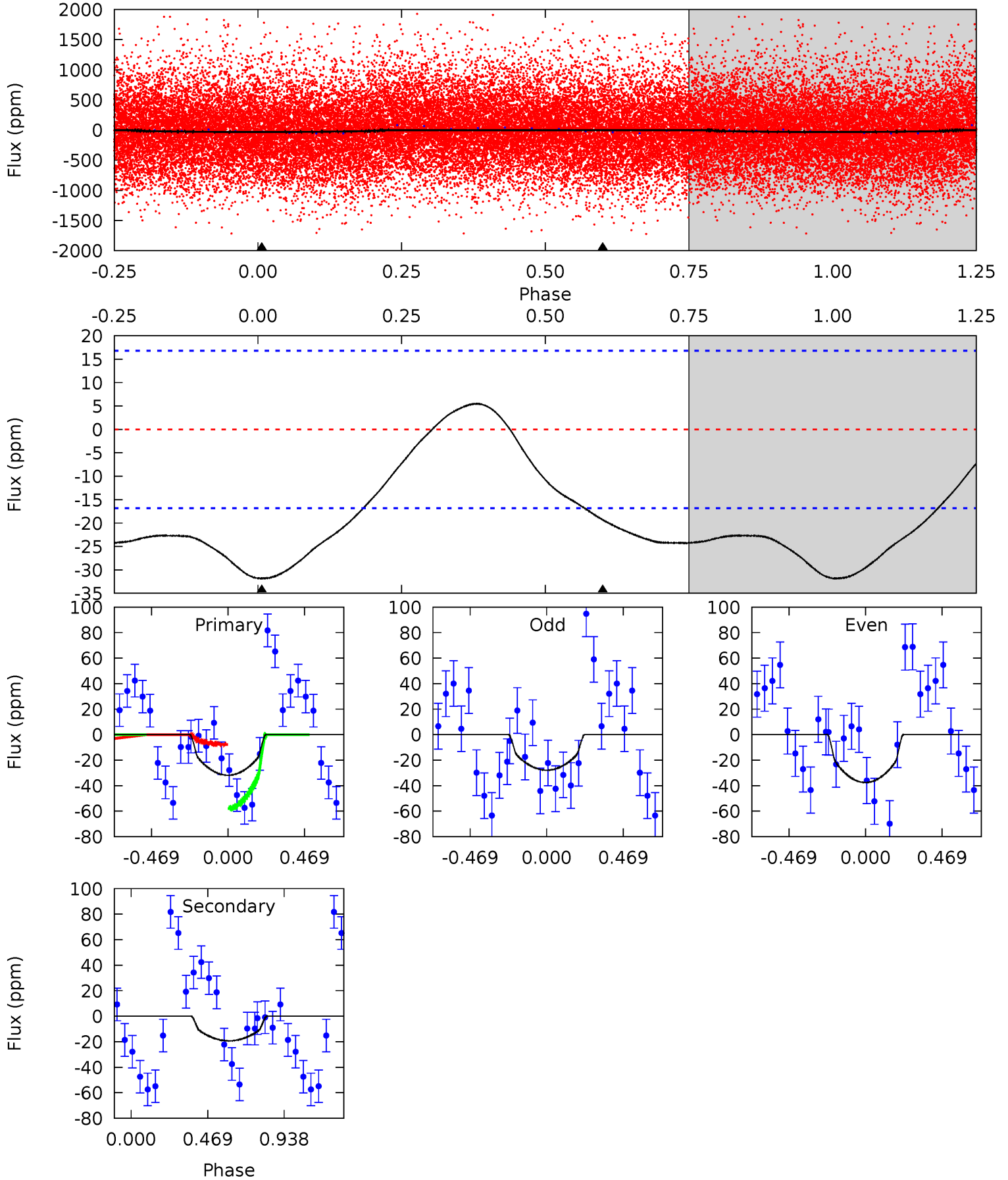
TCE 006050154-01 P= 0.566814 Days $T_0=131.619563$ (BKJD)



DV Model-Shift Uniqueness Test

006050154-01, P = 0.566788 Days, E = 131.647574 Days

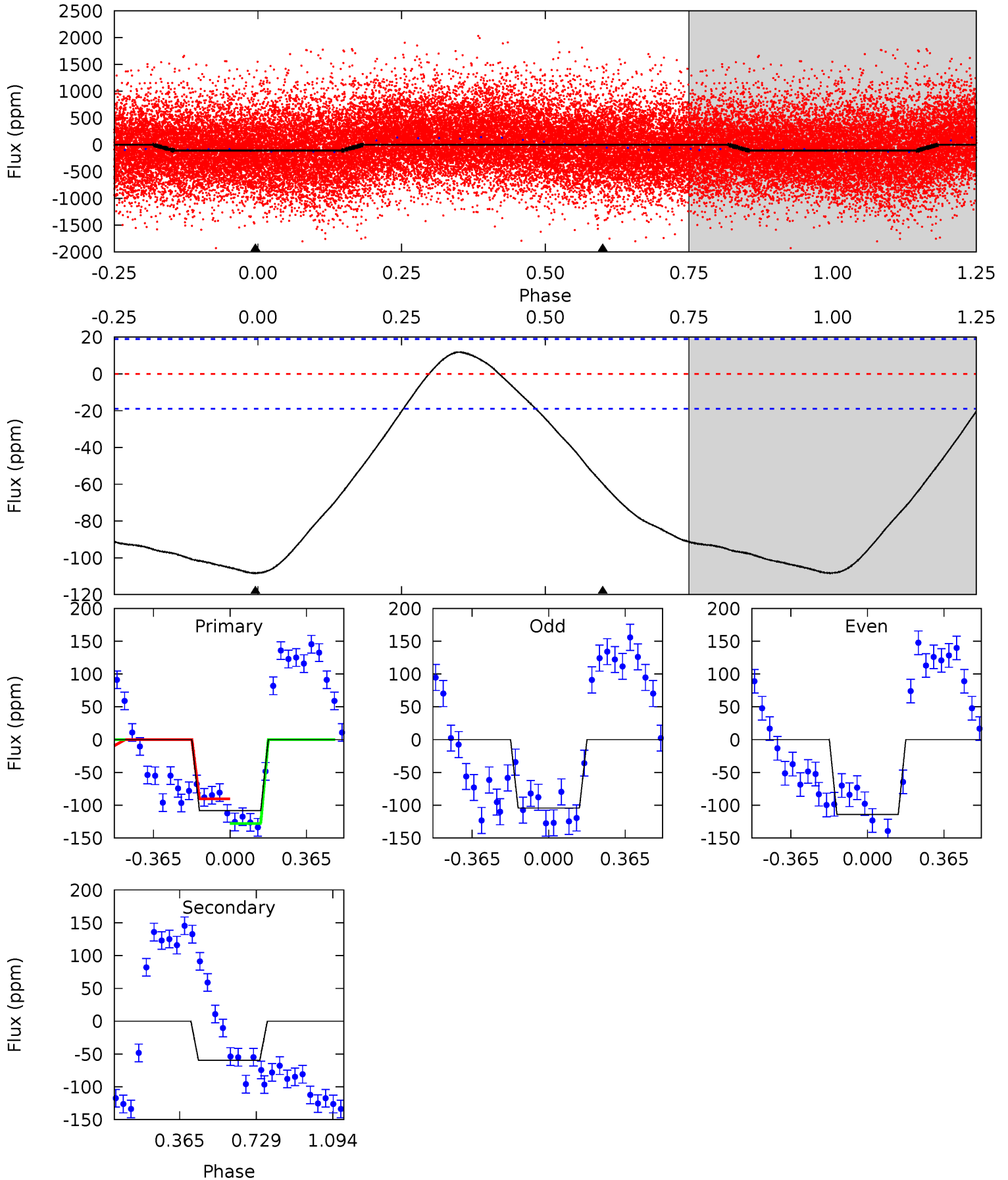
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.01	4.86	0	0	4.23	0.72	0.86	8.01	8.01	4.86	4.86	1.22	0.92	0.15	6.43



Alt Model-Shift Uniqueness Test

006050154-01, P = 0.566814 Days, E = 131.619563 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
24.5	13.5	0	0	4.29	0.91	2.32	24.5	24.5	13.5	13.5	1.12	0.97	0.10	4.14



Stellar Parameters For KIC 006050154

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4722^{+167}_{-167}	$4.624^{+0.028}_{-0.052}$	$0.060^{+0.250}_{-0.300}$	$0.700^{+0.069}_{-0.046}$	$0.770^{+0.045}_{-0.077}$	$3.159^{+0.437}_{-0.630}$
	+4%/-4%	+1%/-1%	+417%/-500%	+10%/-7%	+6%/-10%	+14%/-20%
Source	KIC0	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 006050154-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-19 ± 4	$0.56^{+0.34}_{-0.33}$	2217^{+85}_{-85}	3850^{+1679}_{-600}	$4.867^{+23.719}_{-3.043}$
Alt.	-60 ± 4	$0.79^{+0.40}_{-0.33}$	2215^{+95}_{-81}	4223^{+1103}_{-596}	$7.711^{+15.989}_{-4.184}$

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

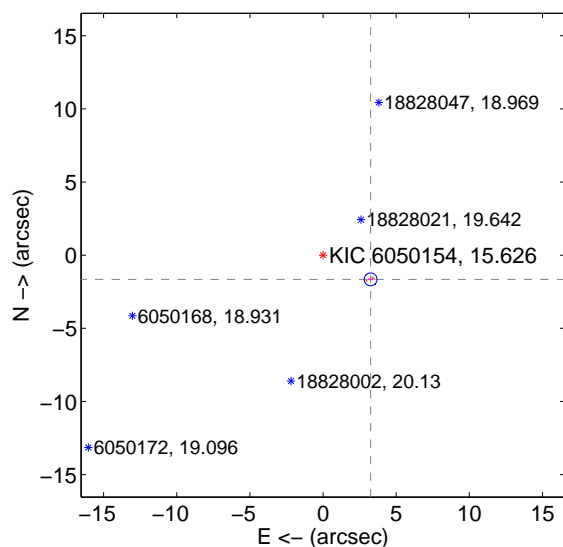
Supplemental centroid analysis for 006050154-01. Kepler magnitude: 15.63. Transit SNR 5.92

There are 0 quarters with good PRF difference image offsets

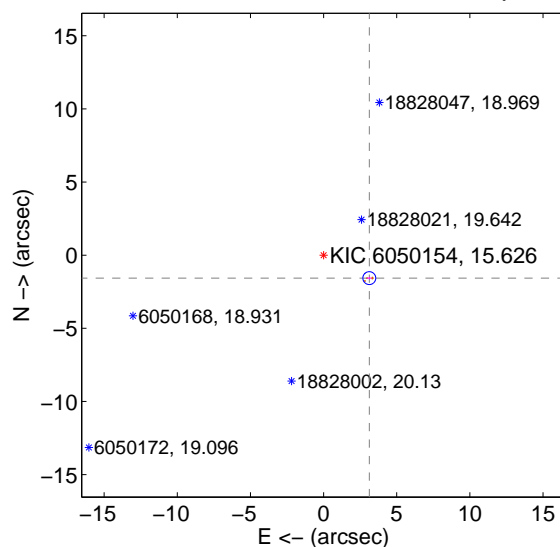
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.649 ± 0.146	24.97	-3.252 ± 0.159	-1.654 ± 0.079
PRF-fit source offset from KIC position	3.495 ± 0.147	23.80	-3.124 ± 0.160	-1.567 ± 0.070
photometric centroid source offset	7.40 ± 2.13	3.48	-5.95 ± 2.24	4.41 ± 1.89

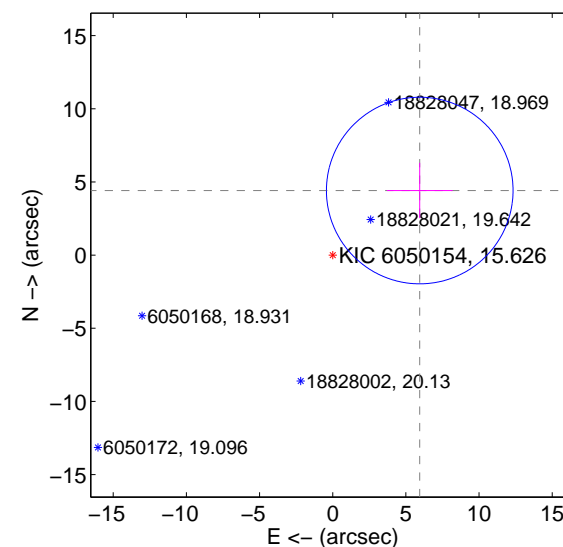
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

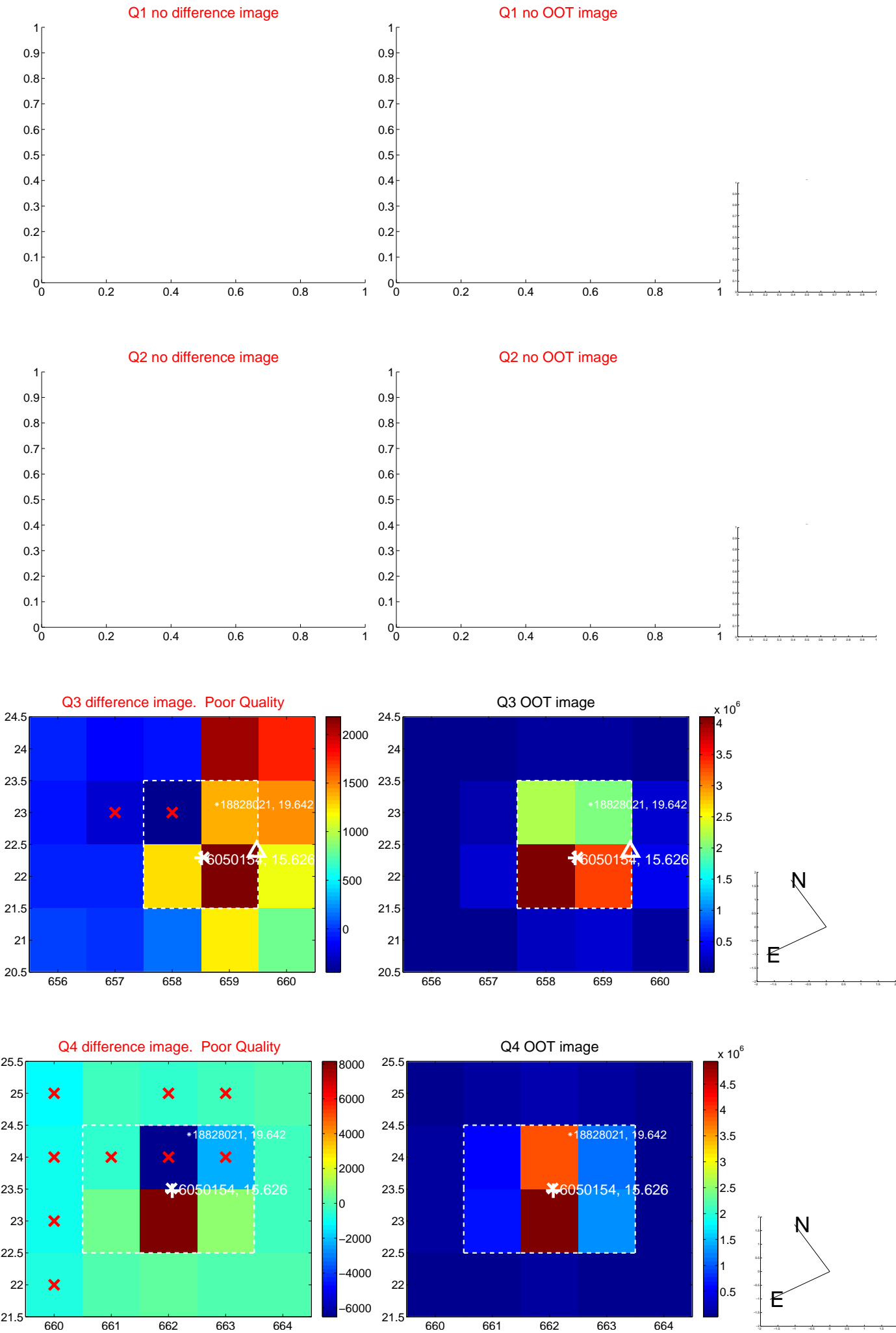


offset from photometric centroids

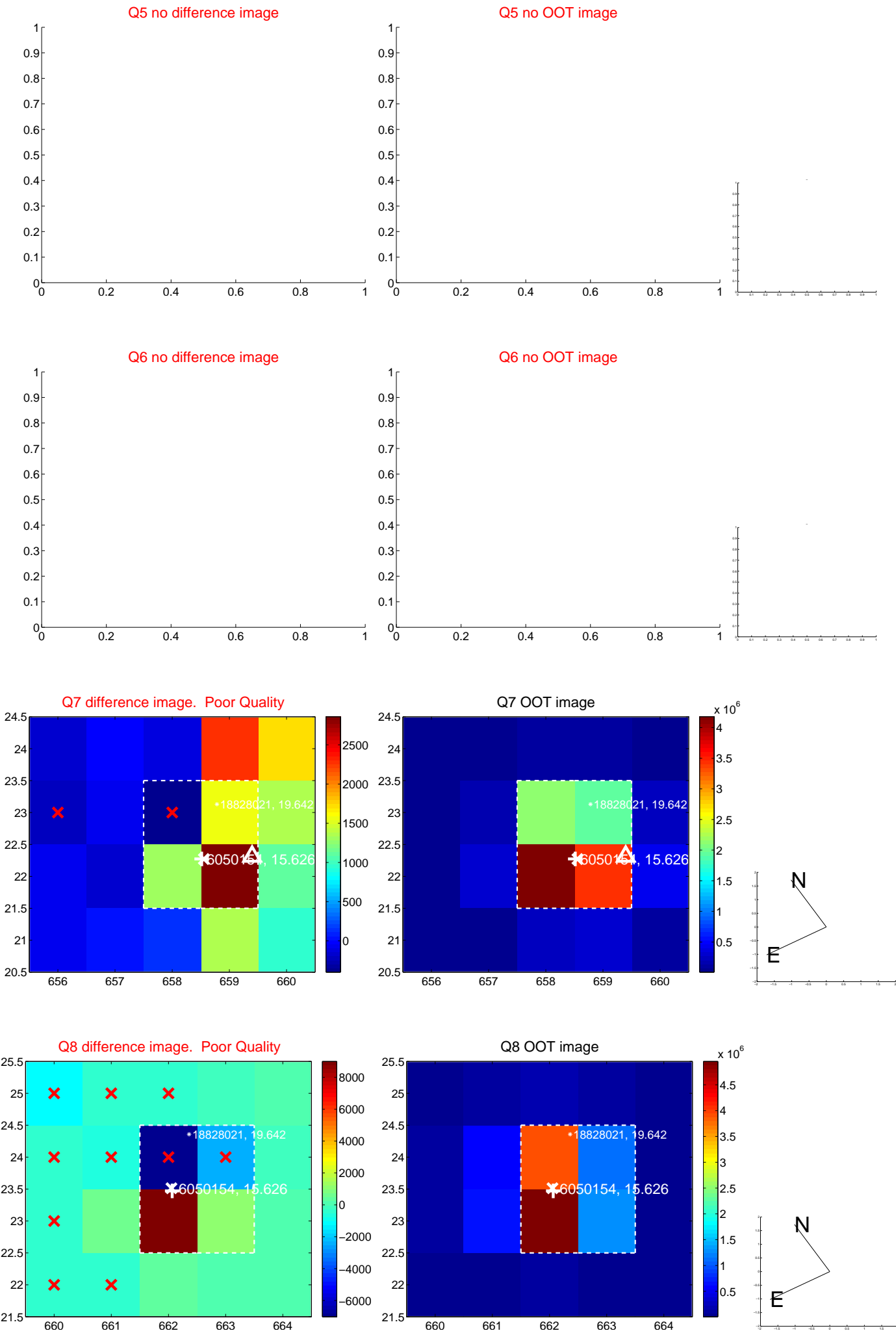


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

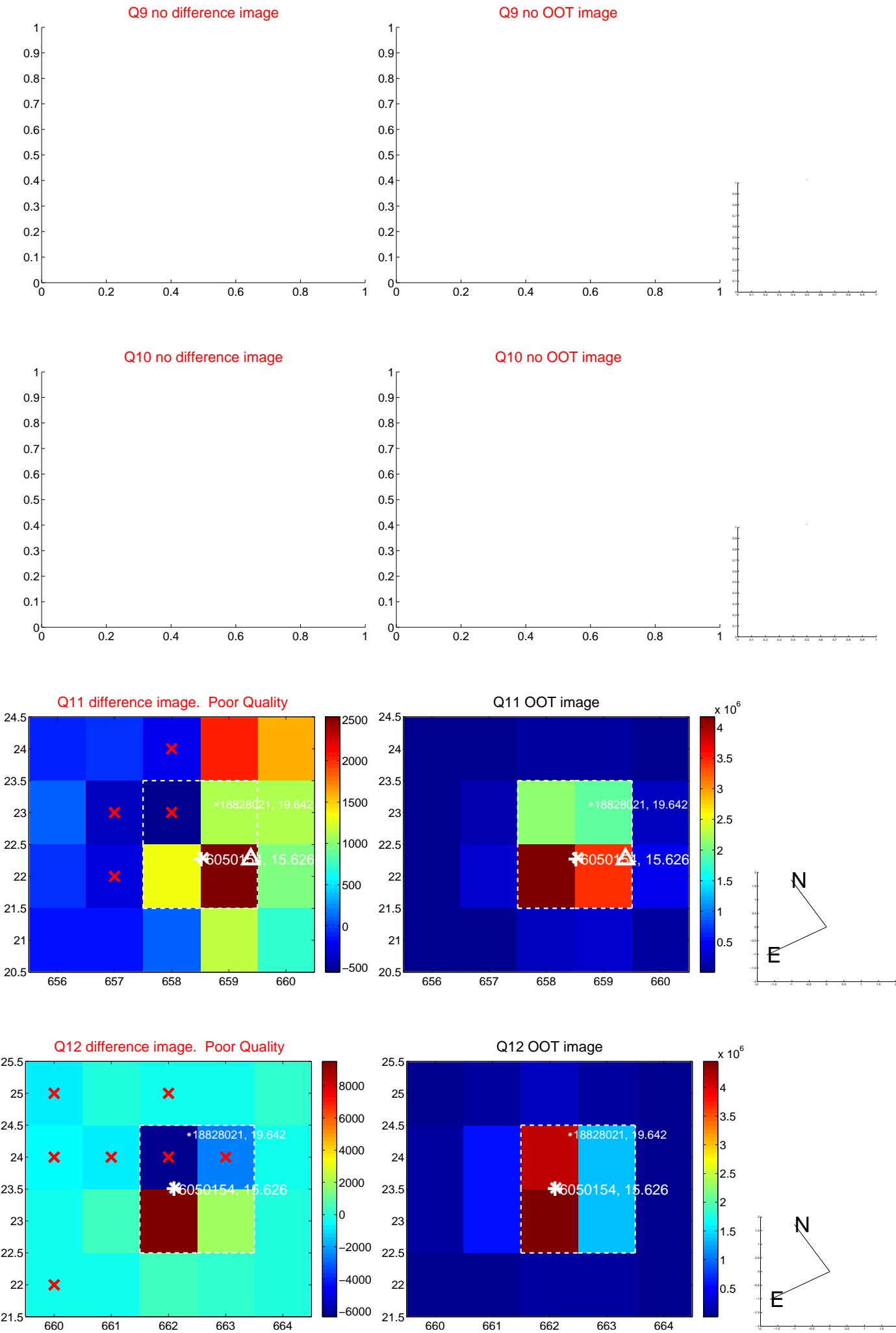
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



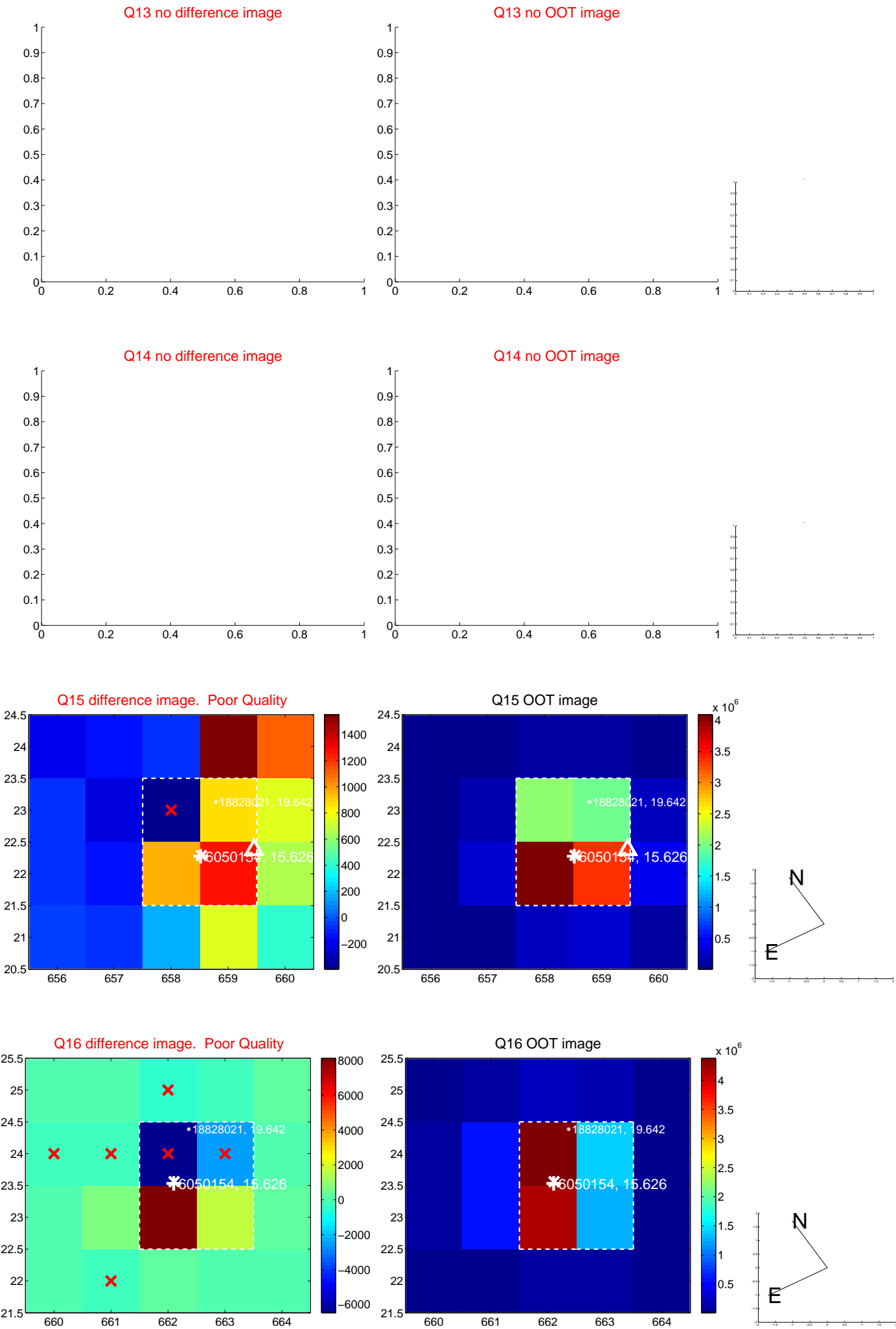
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



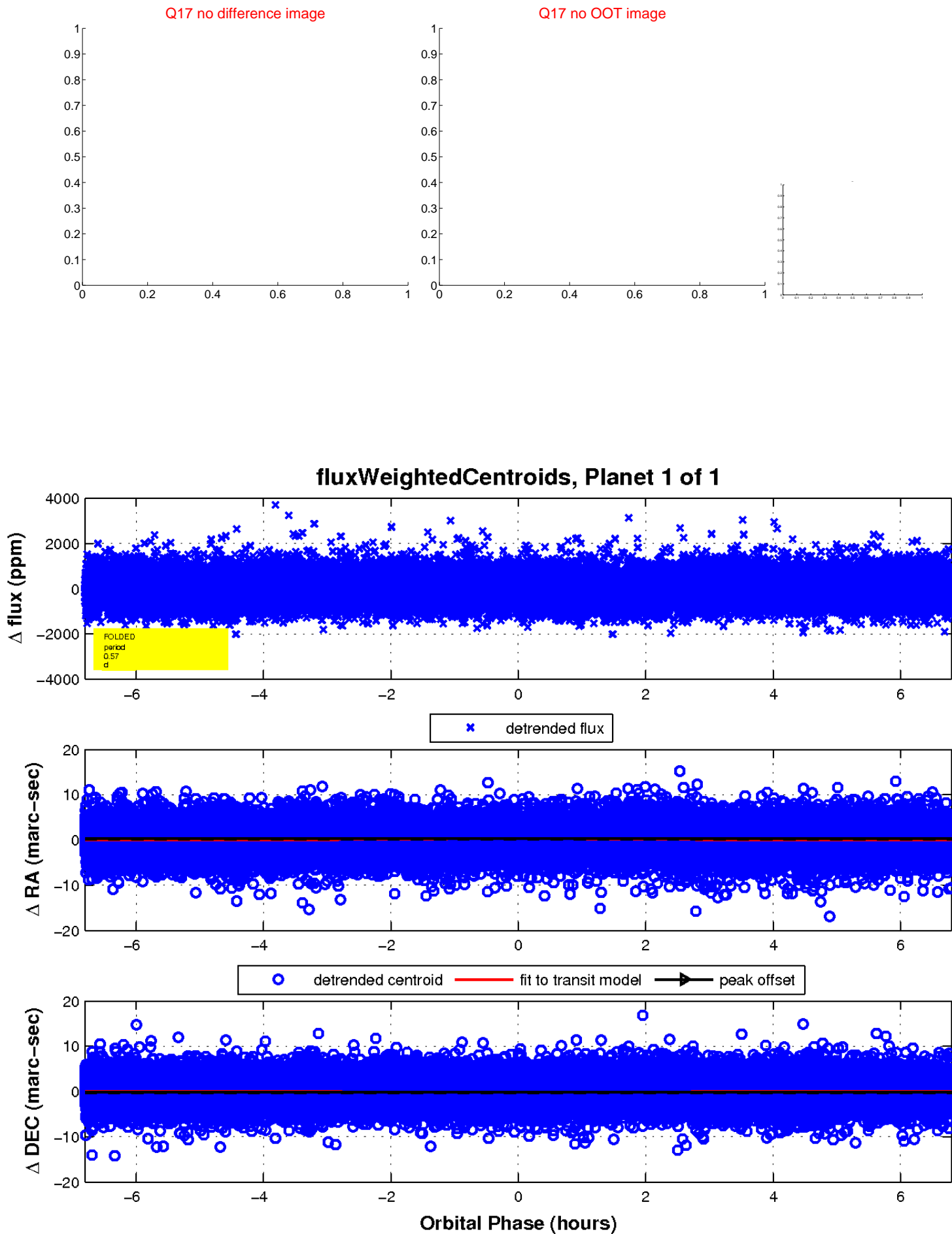
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

