

KIC 006761539

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})
006761539-01	OBS	No	1.142539	131.860706	194.0	9.809	12.0	14.9	1.94	7488	3.13	16730.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006761539-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_SATURATED

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

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

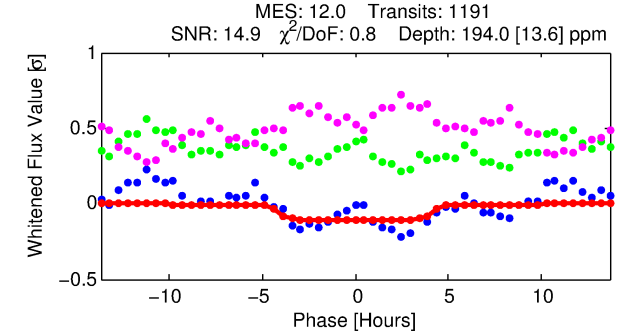
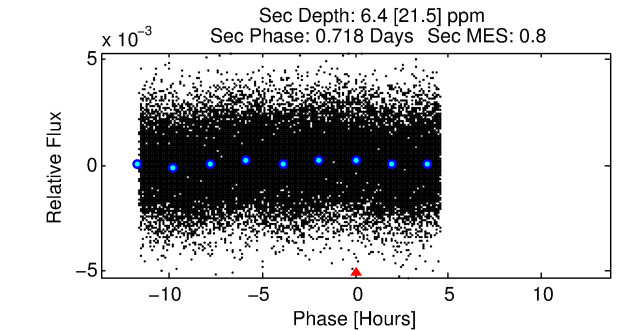
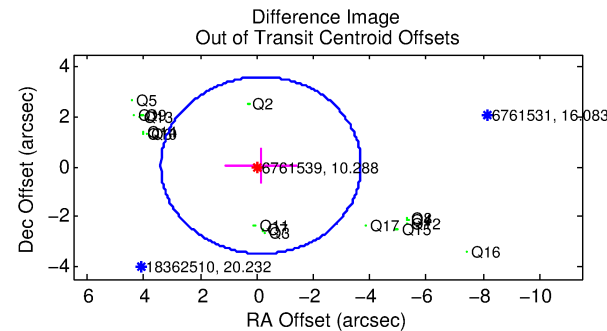
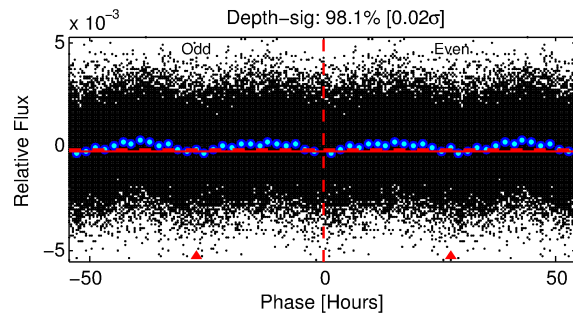
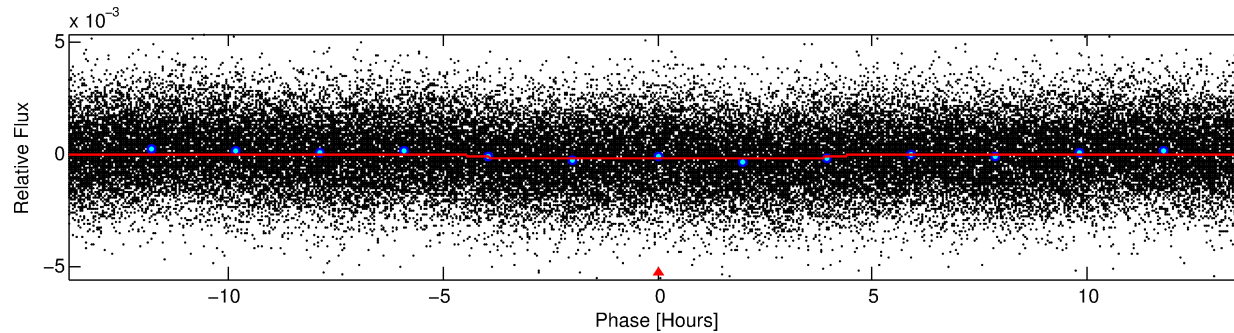
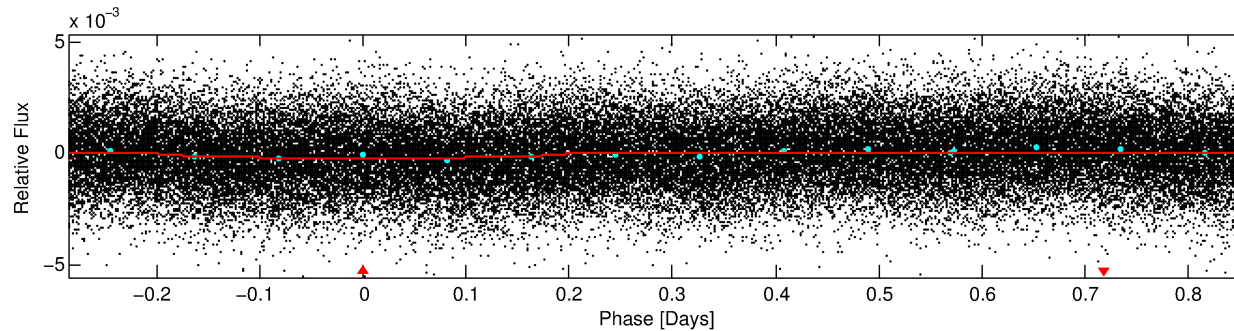
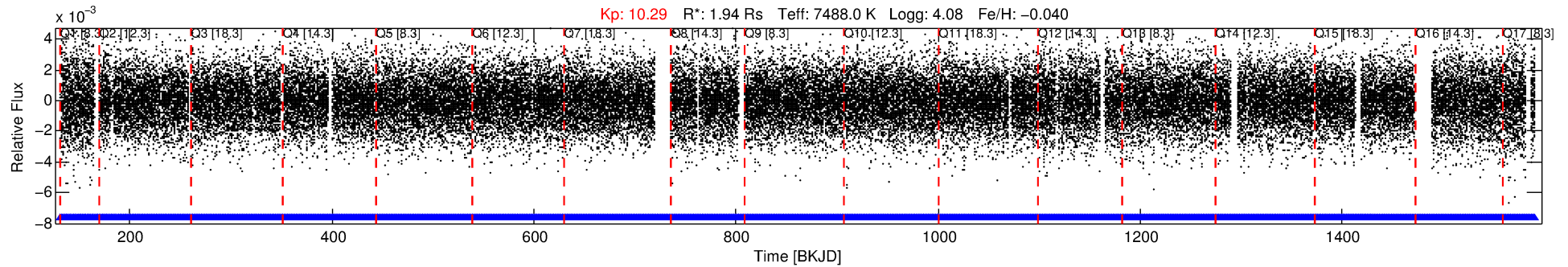
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006761539-01

No Significant Match Found

DV One-Page Summary

KIC: 6761539 Candidate: 1 of 1 Period: 1.143 d



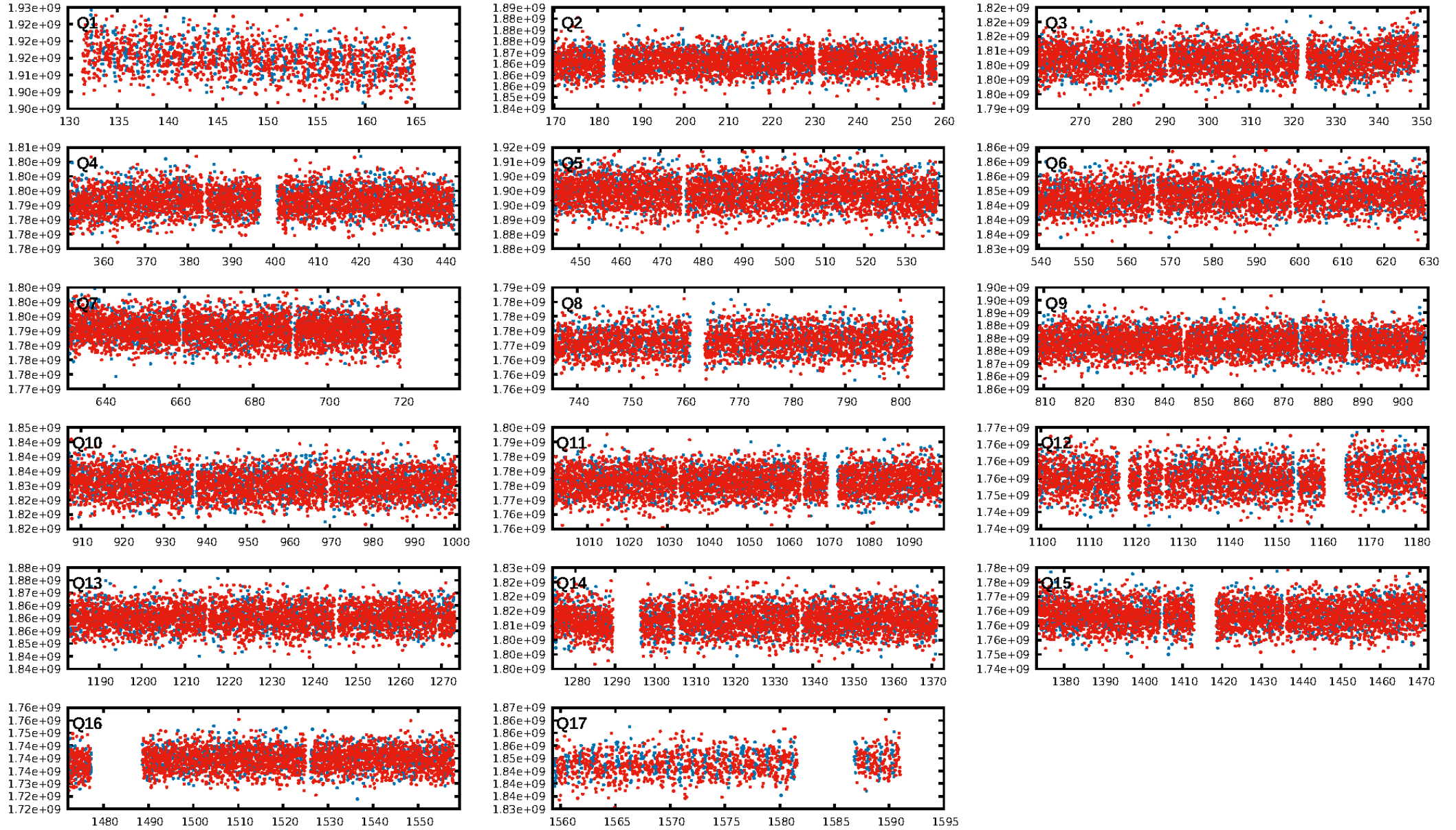
DV Fit Results:

Period = 1.14254 [0.00002] d
Epoch = 131.8607 [0.0068] BKJD
Rp/R* = 0.0148 [0.0008]
a/R* = 1.04 [0.02]
b = 0.90 [0.06]
Seff = 16730.60 [6407.03]
Teq = 2900 [278] K
Rp = 3.13 [0.90] Re
a = 0.0252 [0.0059] AU
Ag = 0.23 [0.77] [-1.00σ]
Teffp = 3098 [2614] K [0.08σ]

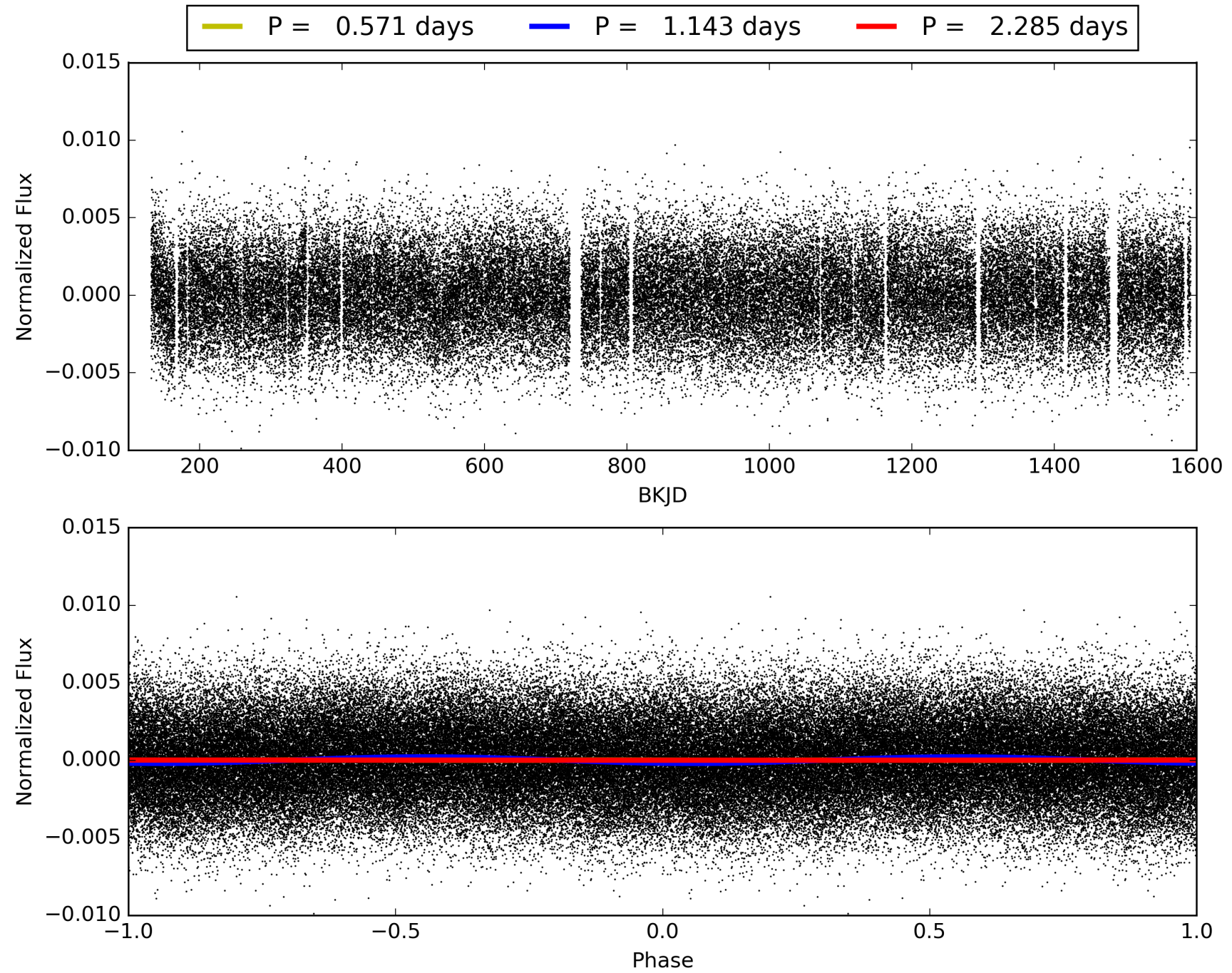
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1137/1137]
GhostDiagnostic-chr: N/A
Centroid-sig: 0.0%
Centroid-so: 1.364 arcsec [13.20σ]
OotOffset-rm: 0.156 arcsec [0.13σ]
KicOffset-rm: 0.582 arcsec [0.45σ]
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 006761539-01, PDC Light Curves

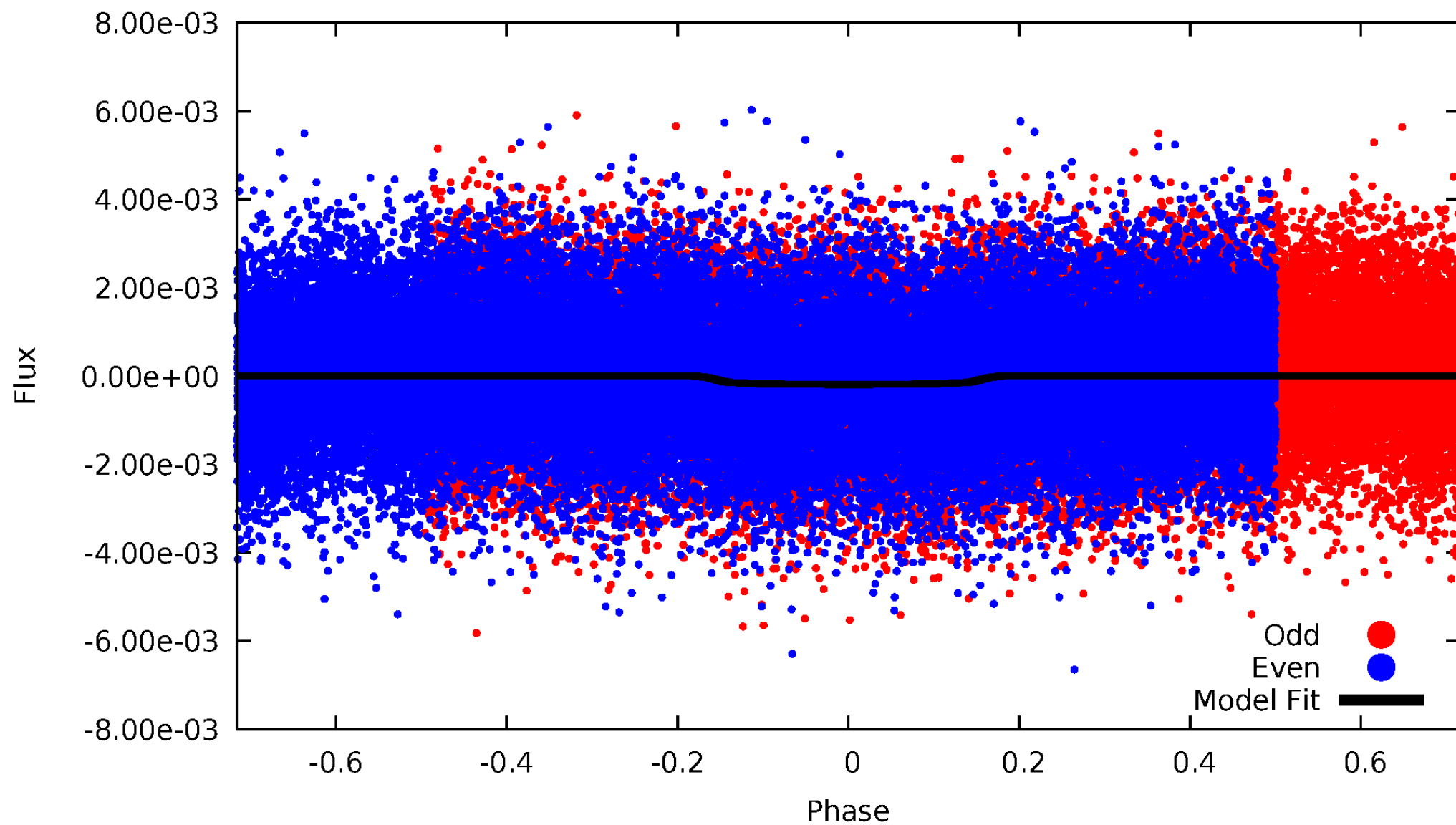


TCE 006761539-01



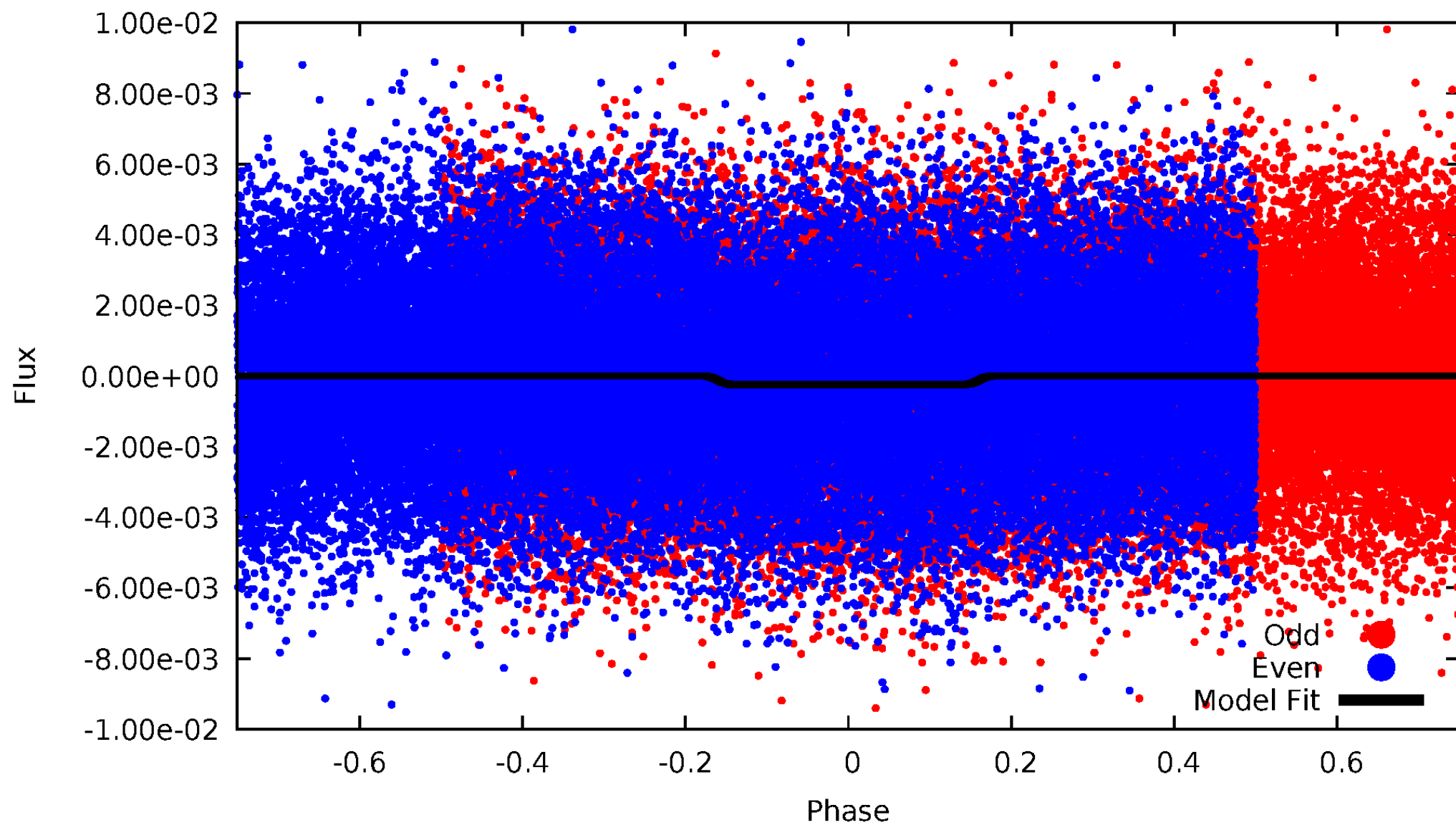
DV Odd/Even

TCE 006761539-01



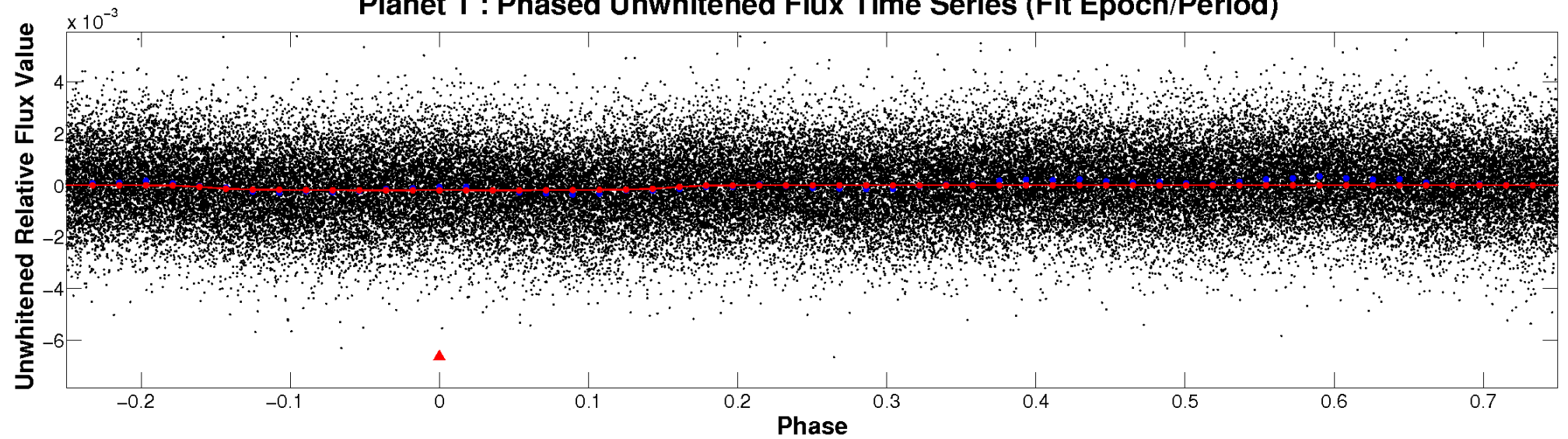
ALT Odd/Even

TCE 006761539-01

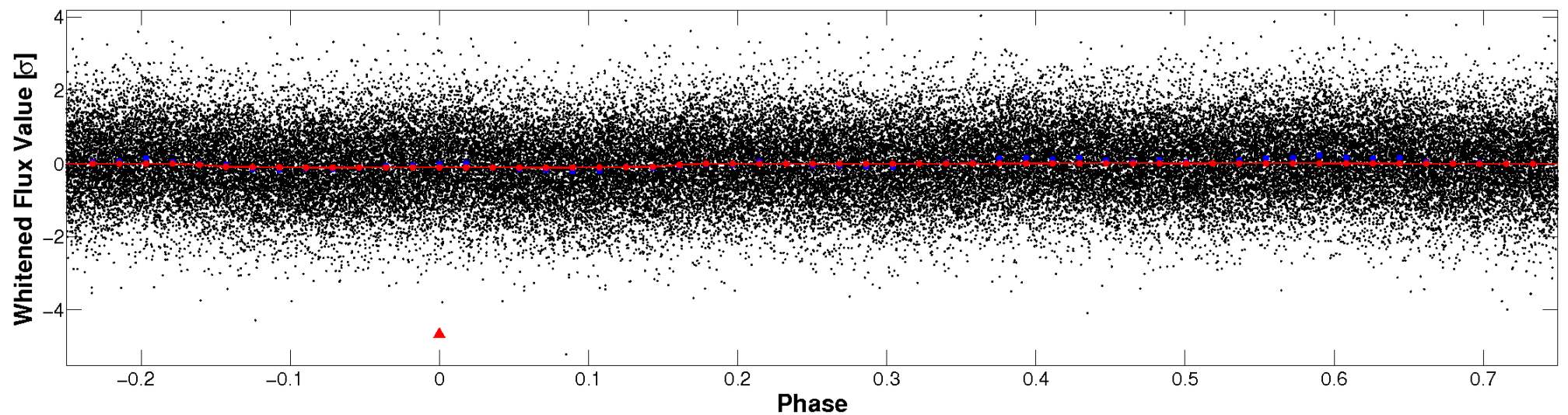


Non-Whitened Vs. Whitened Light Curve

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

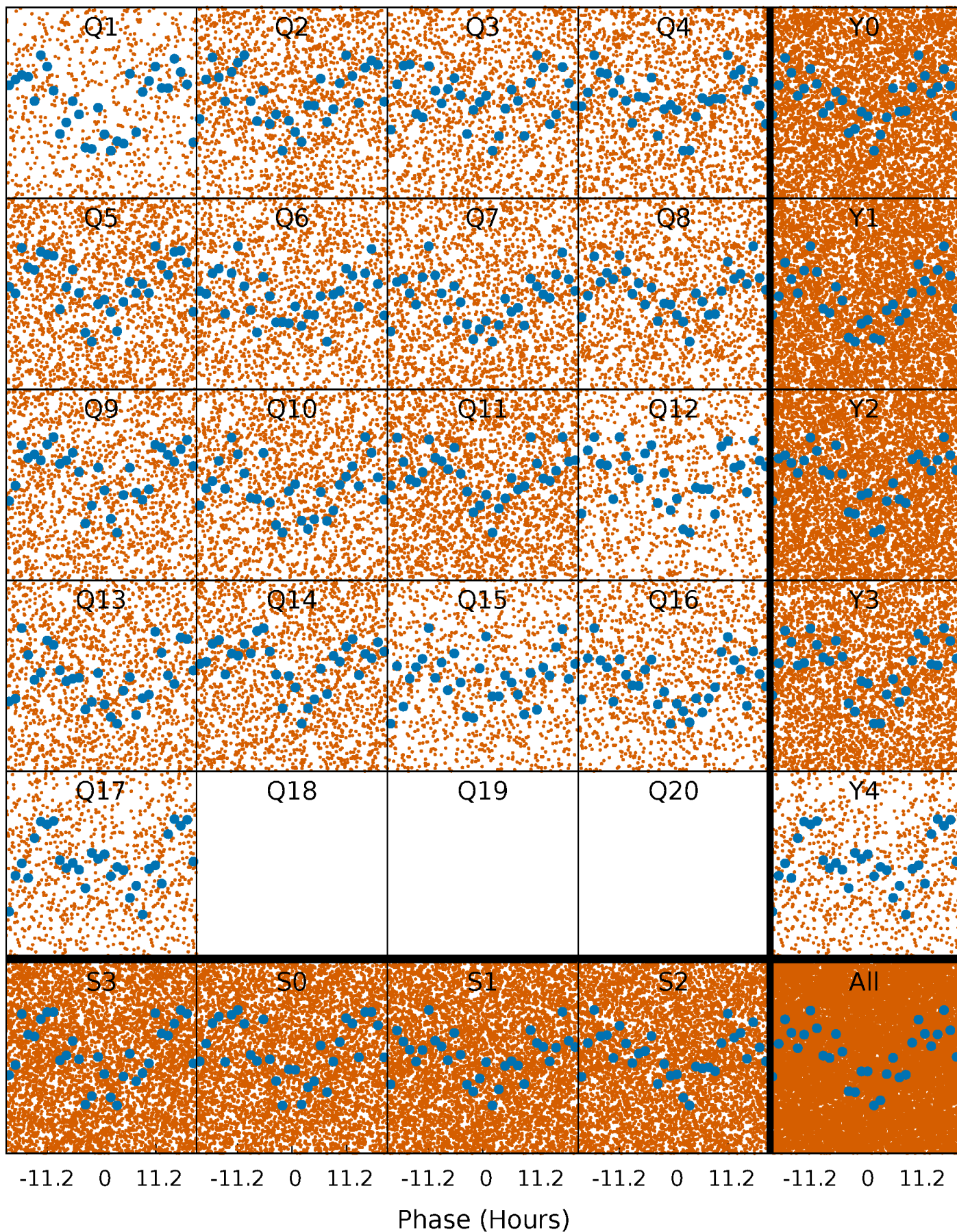


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



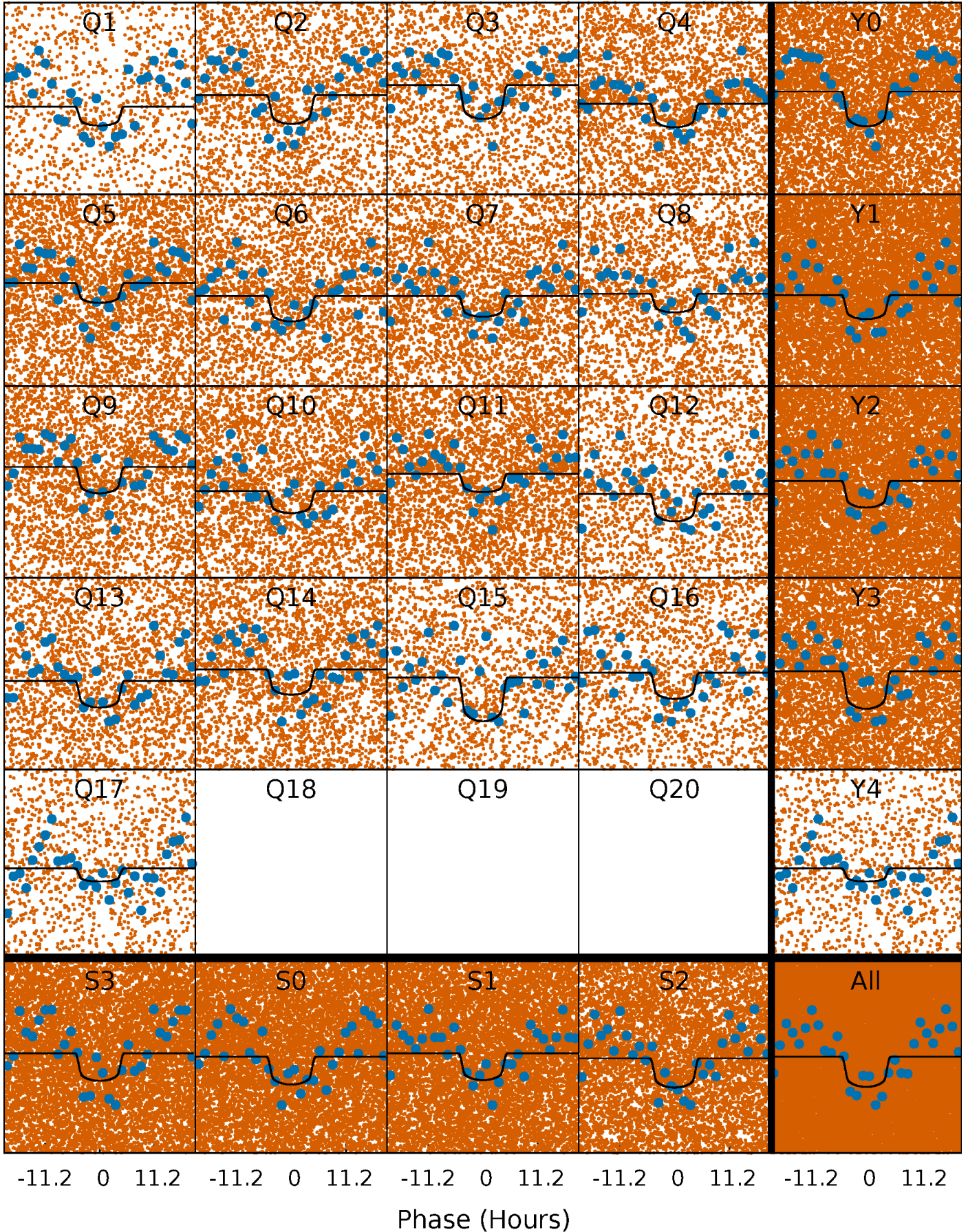
PDC Quarter-Phased Transit Curves

TCE 006761539-01 P= 1.142539 Days $T_0=131.860705$ (BKJD)



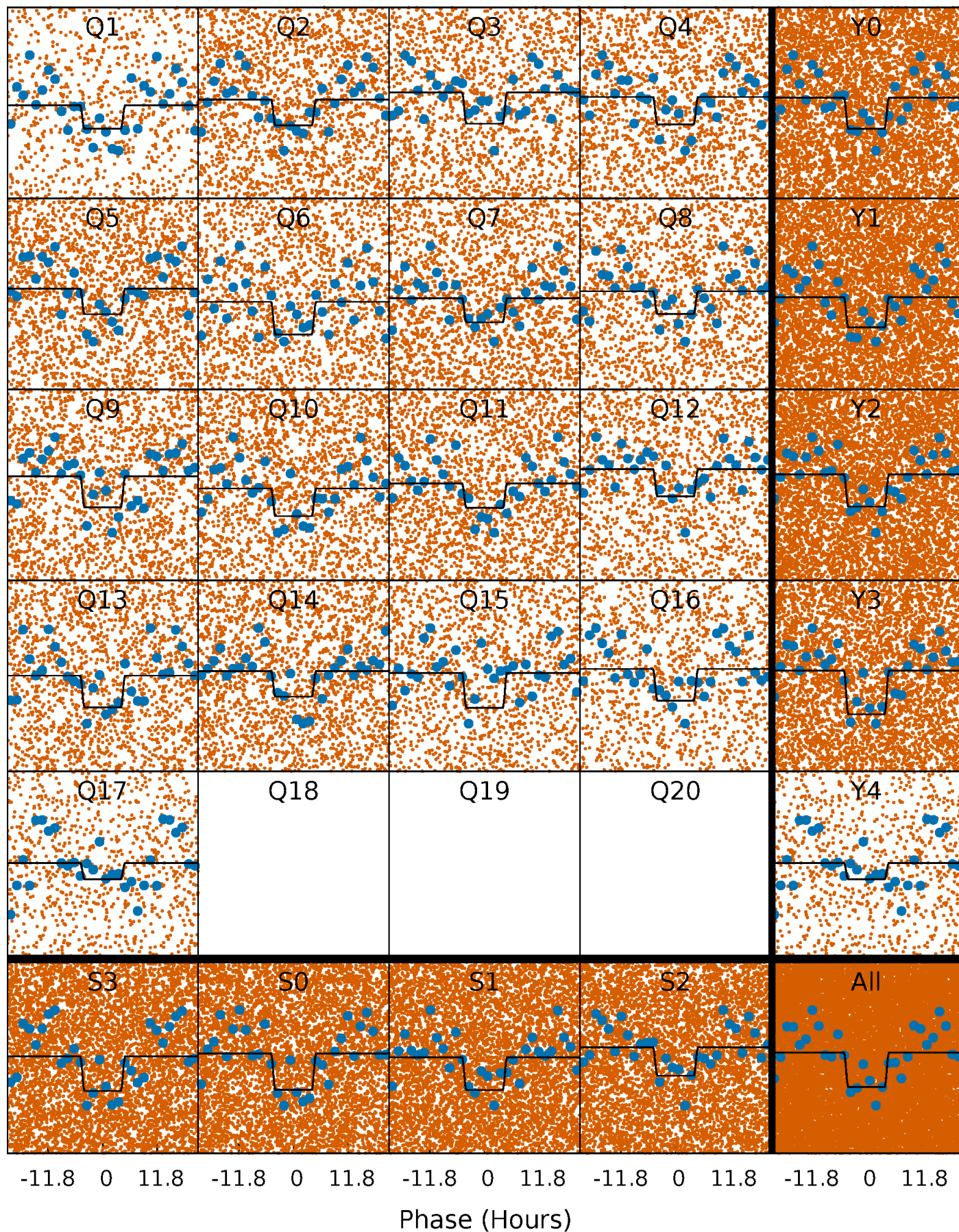
DV Quarter-Phased Transit Curves

TCE 006761539-01 P= 1.142539 Days $T_0=131.860705$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

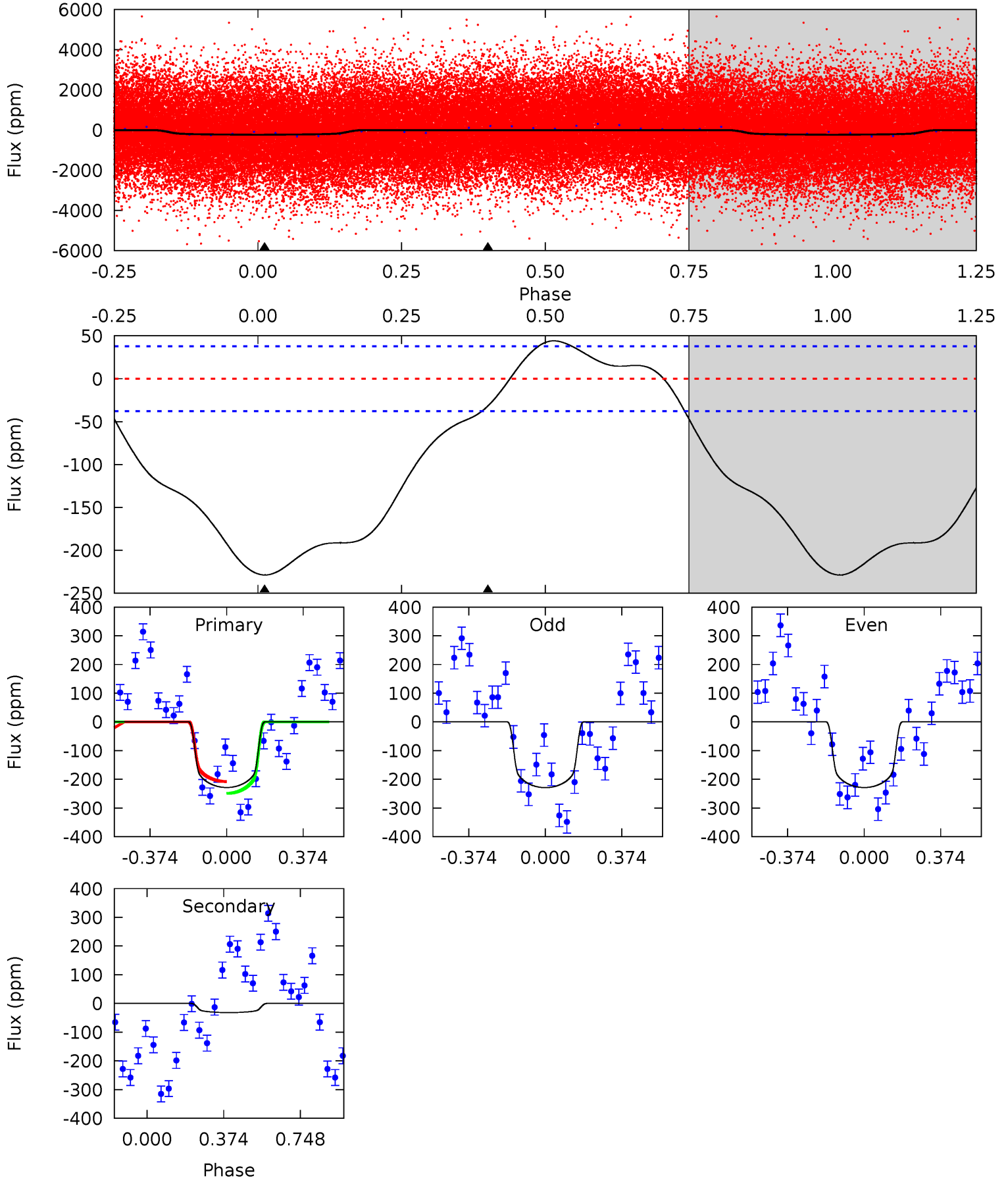
TCE 006761539-01 P= 1.142568 Days $T_0=131.858838$ (BKJD)



DV Model-Shift Uniqueness Test

006761539-01, P = 1.142539 Days, E = 130.718166 Days

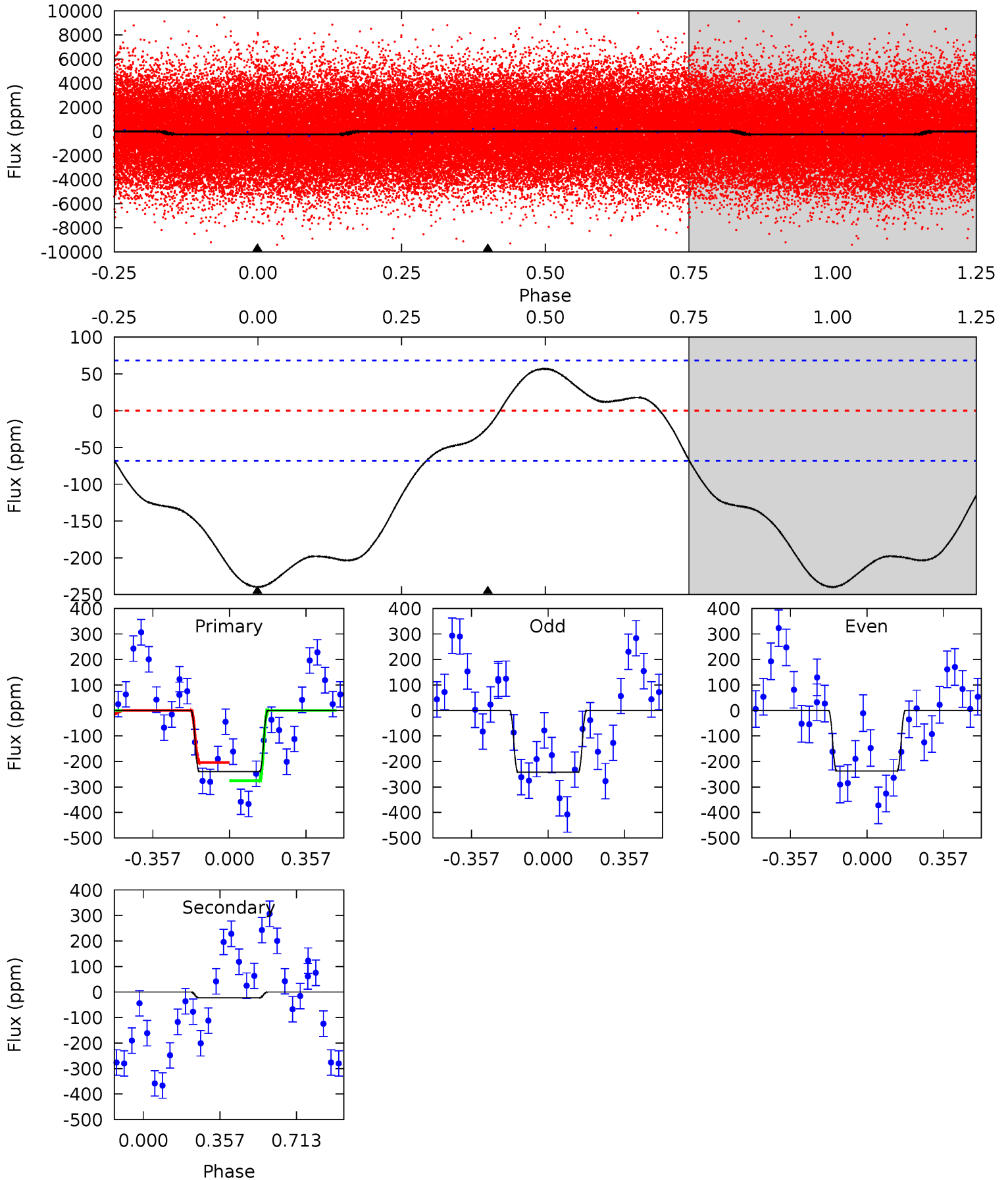
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.9	3.59	0	0	4.28	0.89	2.50	25.9	25.9	3.59	3.59	0.02	1.04	0.16	2.33



Alt Model-Shift Uniqueness Test

006761539-01, P = 1.142568 Days, E = 130.716270 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	1.42	0	0	4.29	0.92	1.70	15.1	15.1	1.42	1.42	0.15	0.98	0.19	2.23



Stellar Parameters For KIC 006761539

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7488^{+209}_{-340}	$4.075^{+0.149}_{-0.182}$	$-0.040^{+0.200}_{-0.350}$	$1.943^{+0.550}_{-0.450}$	$1.637^{+0.200}_{-0.275}$	$0.314^{+0.280}_{-0.147}$
	+3%/-5%	+4%/-4%	+500%/-875%	+28%/-23%	+12%/-17%	+89%/-47%
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 006761539-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-32 ± 9	$3.17^{+0.51}_{-0.43}$	4064^{+342}_{-278}	4377^{+383}_{-442}	$1.066^{+0.533}_{-0.379}$
Alt.	-23 ± 16	$3.36^{+0.52}_{-0.45}$	4057^{+302}_{-277}	3860^{+660}_{-7050}	$0.672^{+0.609}_{-0.478}$

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

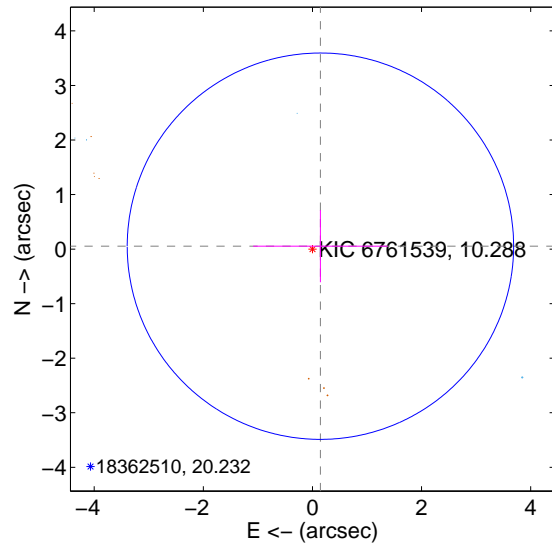
Supplemental centroid analysis for 006761539-01. **Kepler magnitude: 10.29**. Transit SNR 14.93

There are 8 quarters with good PRF difference image offsets

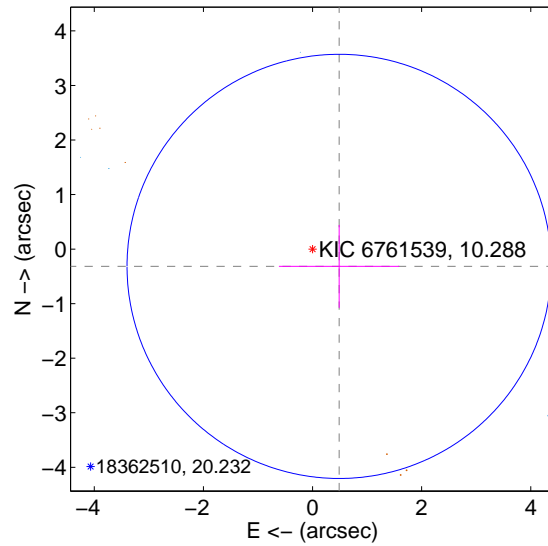
The direct PRF centroid is offset from the target star catalog position by about 0.85 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.156 ± 1.180	0.13	-0.146 ± 1.233	0.053 ± 0.661
PRF-fit source offset from KIC position	0.582 ± 1.296	0.45	-0.488 ± 1.103	-0.317 ± 0.758
photometric centroid source offset	1.36 ± 0.10	13.20	-1.11 ± 0.11	-0.79 ± 0.10

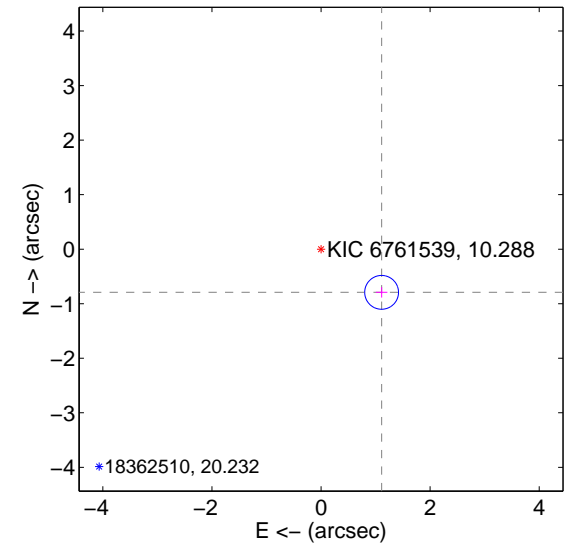
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

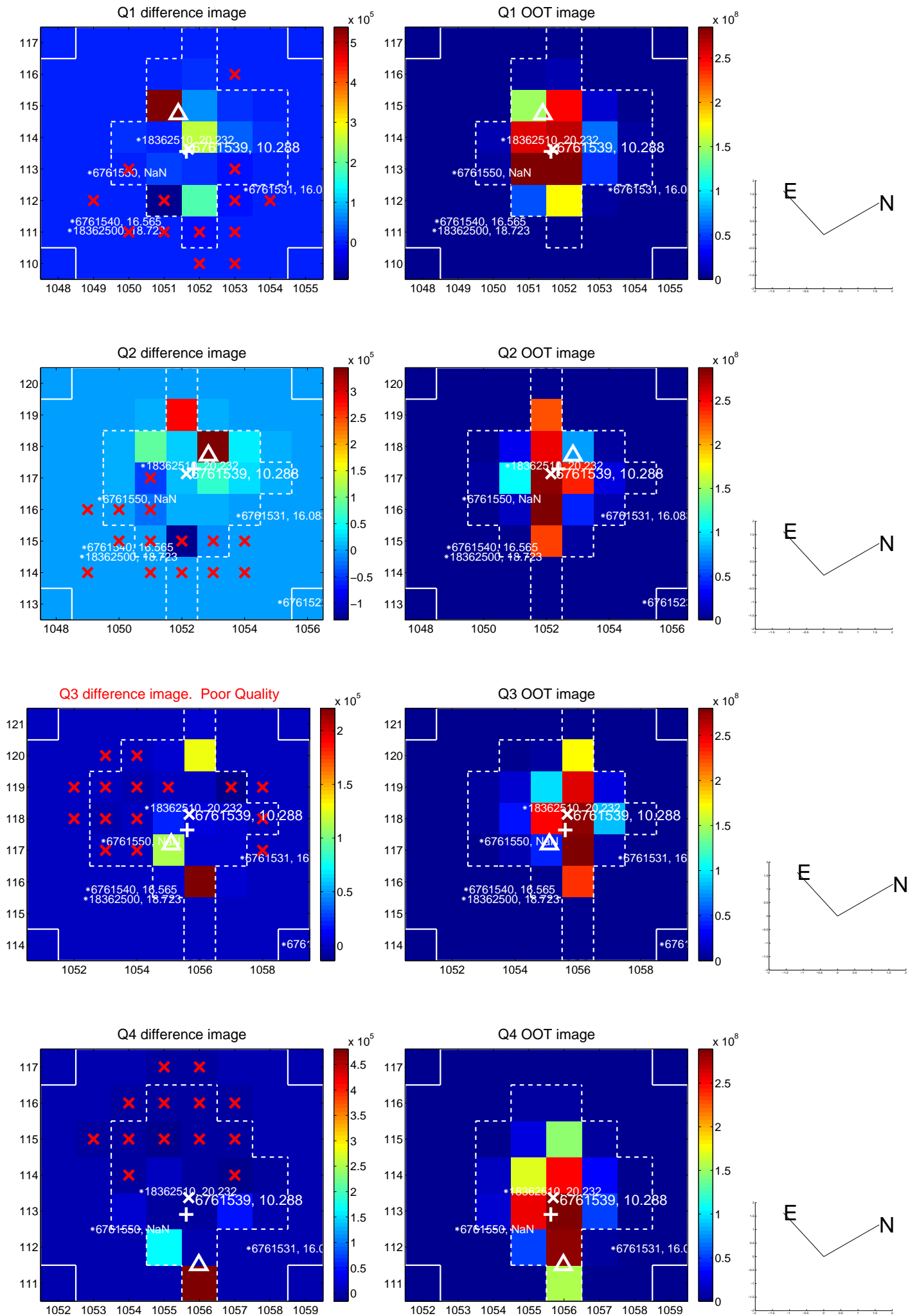


offset from photometric centroids

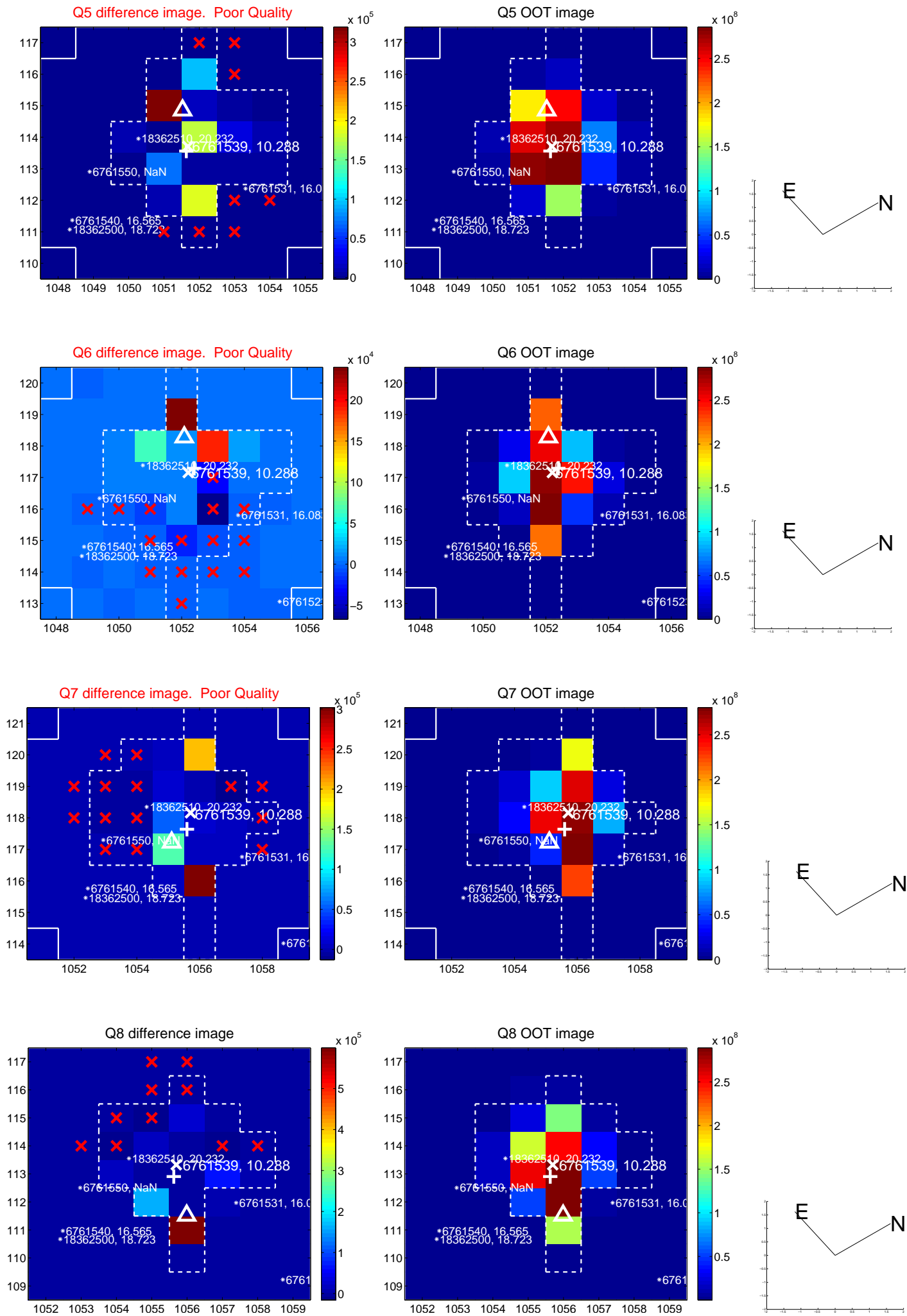


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

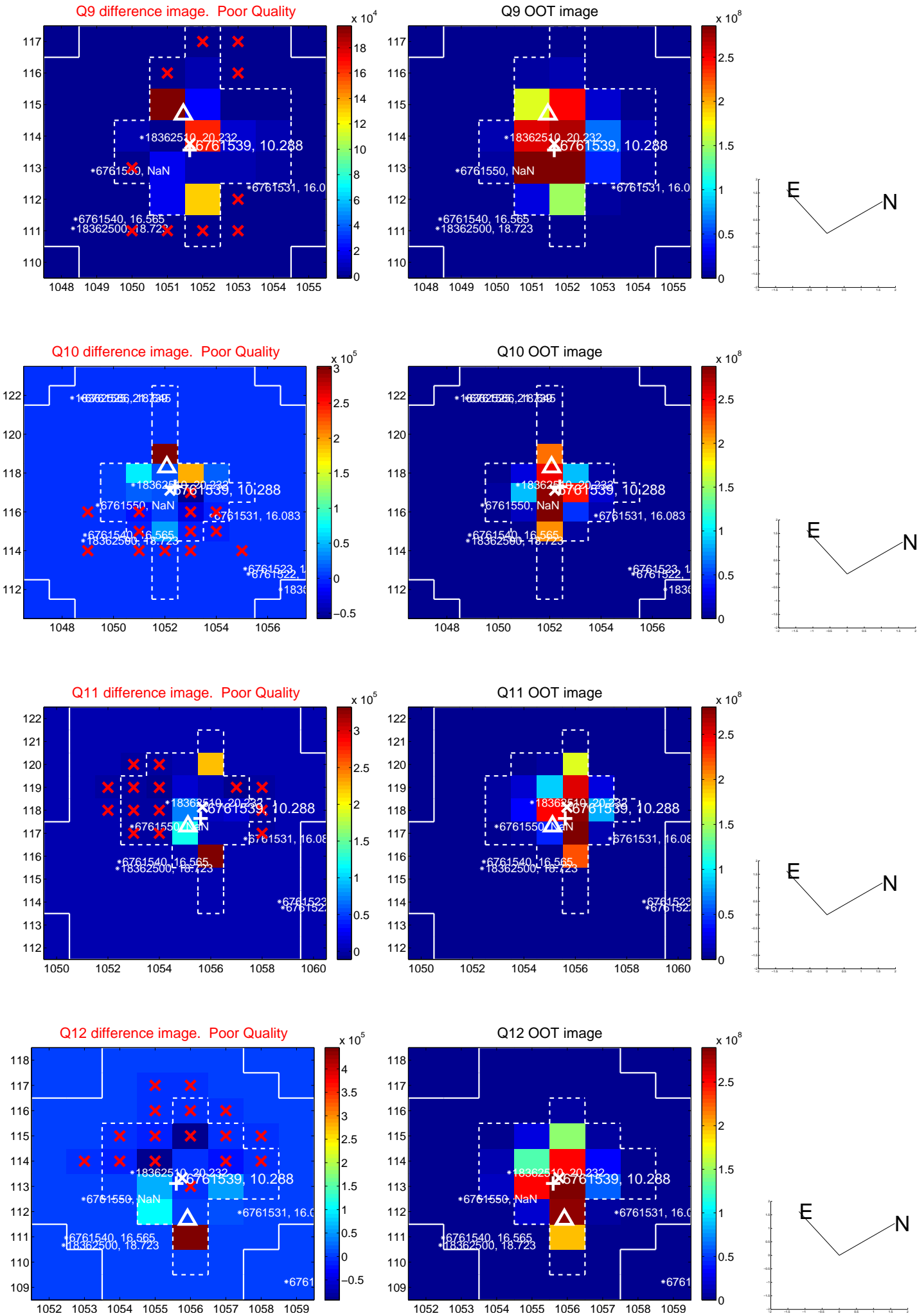
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



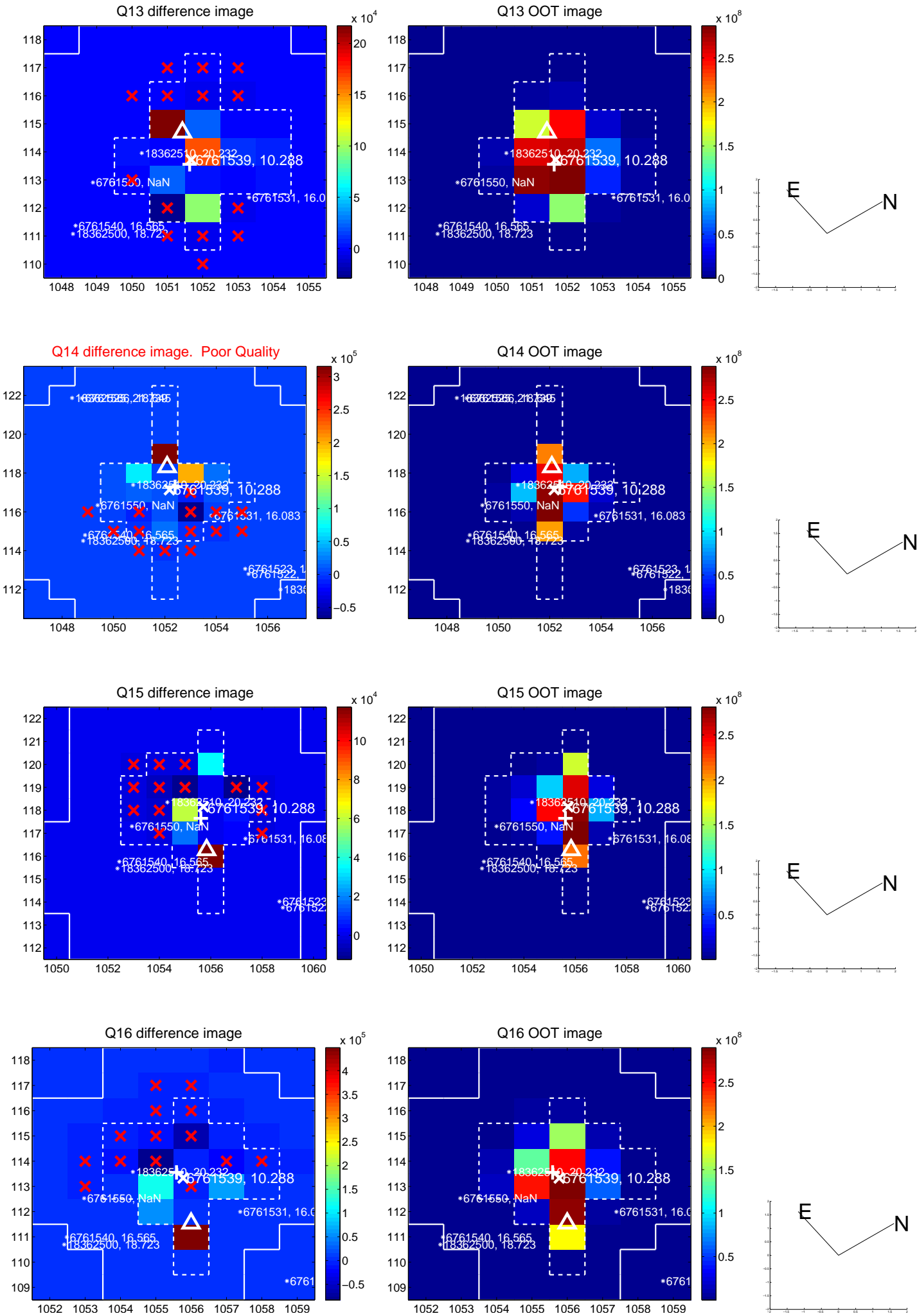
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



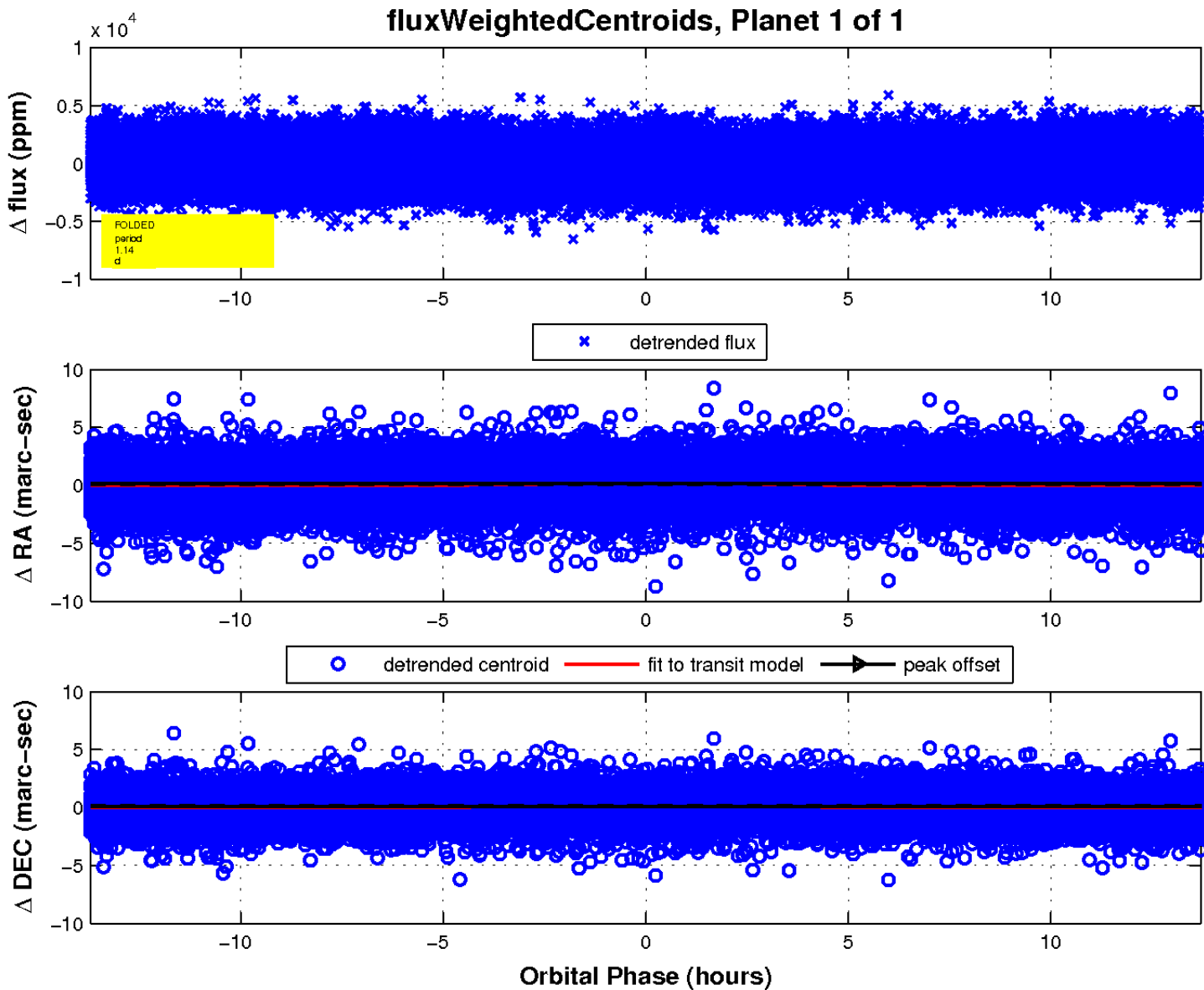
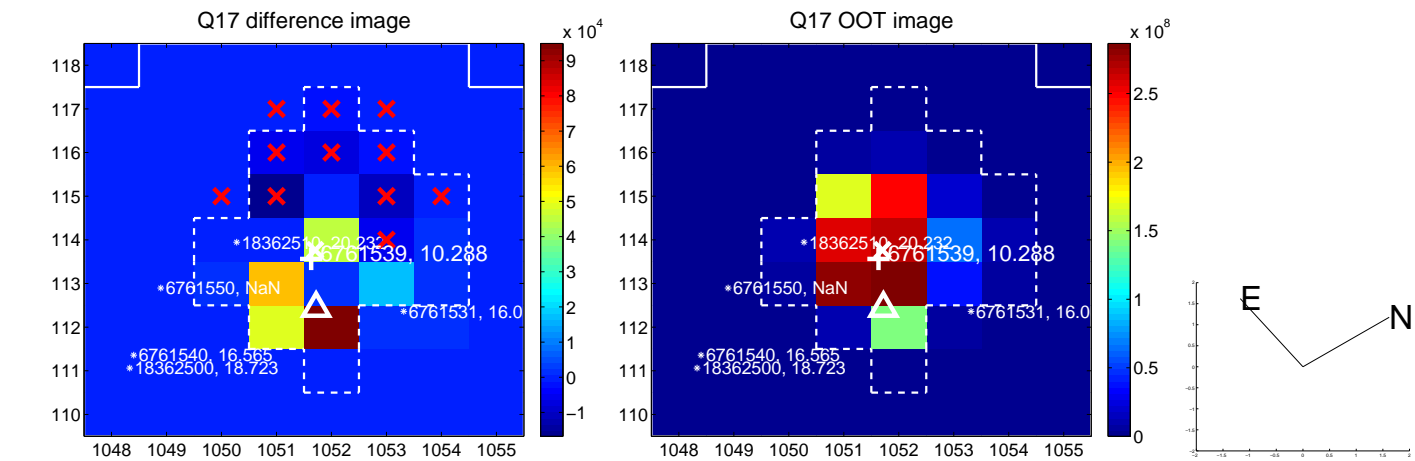
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

