

KIC 011362416

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})
011362416-01	OBS	No	7.079505	134.198565	8.2	49.448	8.5	7.3	3.14	8357	0.95	5178.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011362416-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—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.

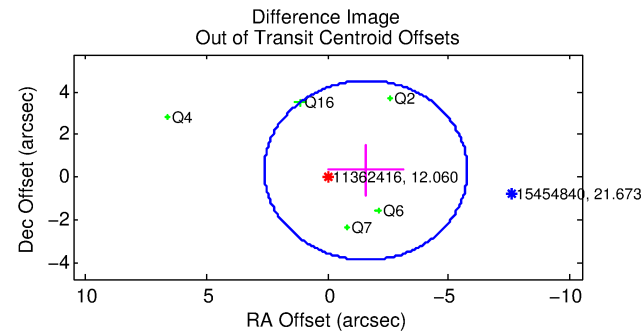
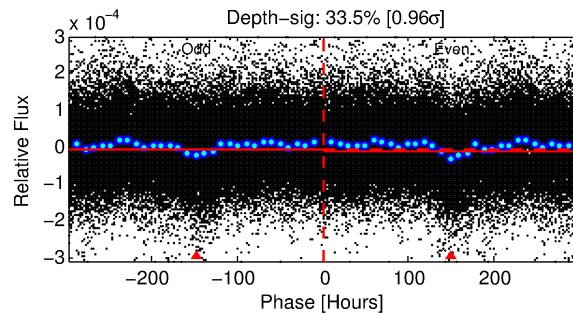
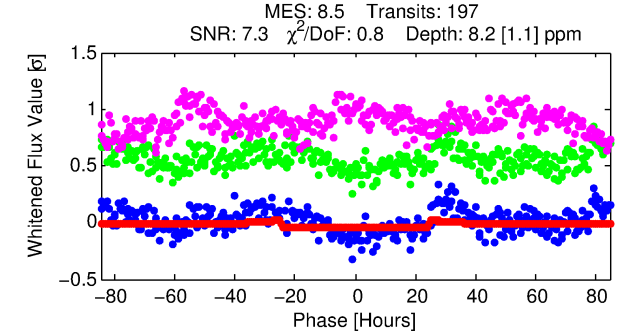
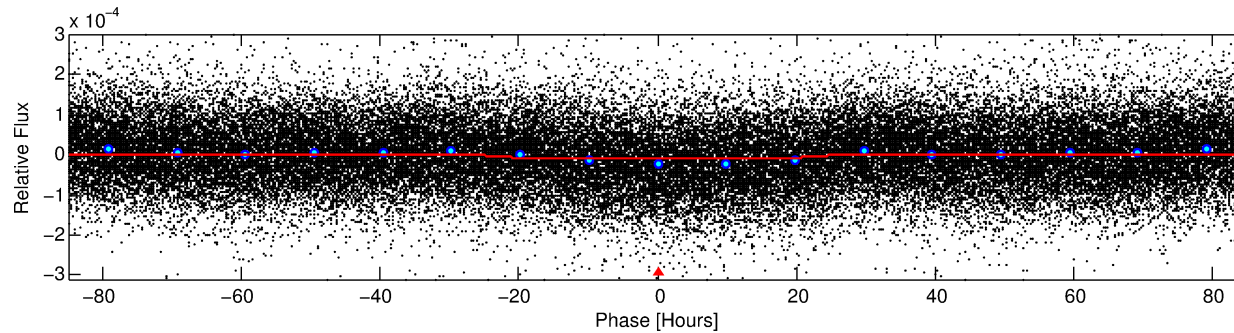
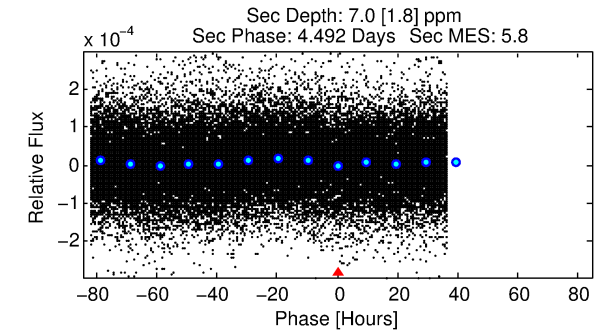
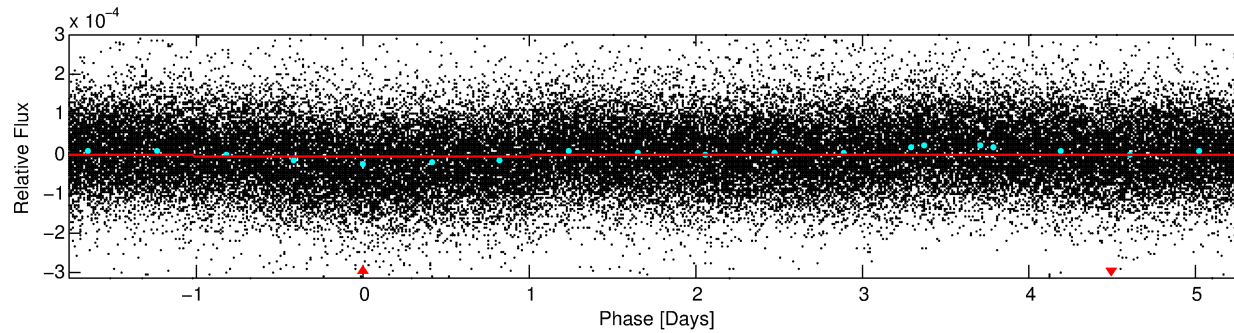
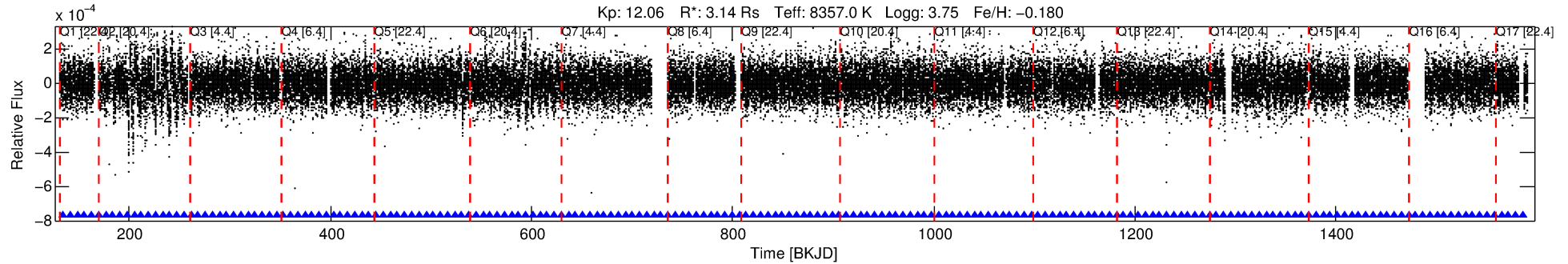
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011362416-01

No Significant Match Found

DV One-Page Summary

KIC: 11362416 Candidate: 1 of 1 Period: 7.080 d



DV Fit Results:

Period = 7.07950 [0.00029] d
Epoch = 134.1986 [0.0307] BKJD
Rp/R* = 0.0028 [0.0009]
a/R* = 1.17 [0.59]
b = 0.63 [1.80]
Seff = 5178.38 [3685.20]
Teq = 2163 [385] K
Rp = 0.95 [0.51] Re
a = 0.0912 [0.0391] AU
Ag = 35.46 [34.28] [1.01σ]
Teffp = 8161 [1434] K [4.04σ]

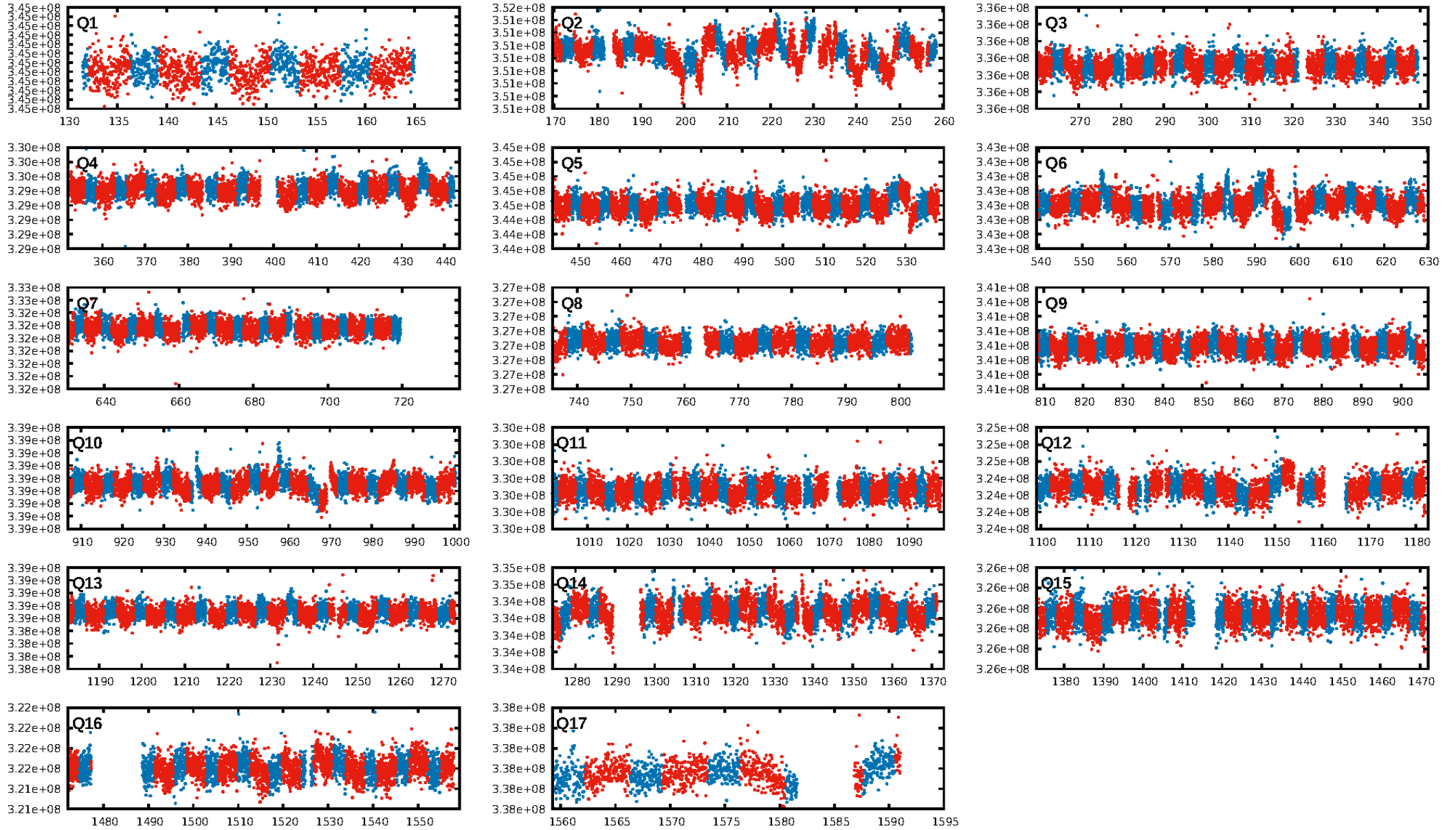
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.54e-17
RollingBand-fgt: 1.00 [189/189]
GhostDiagnostic-chr: -25.09
Centroid-sig: 0.0%
Centroid-so: 3.833 arcsec [2.19σ]
OotOffset-rm: 1.618 arcsec [1.16σ]
KicOffset-rm: 1.864 arcsec [1.37σ]
OotOffset-st: 2/1/2/0 [5]
KicOffset-st: 2/1/2/0 [5]
DiffImageQuality-fgm: 0.20 [1/5]
DiffImageOverlap-fno: 1.00 [17/17]

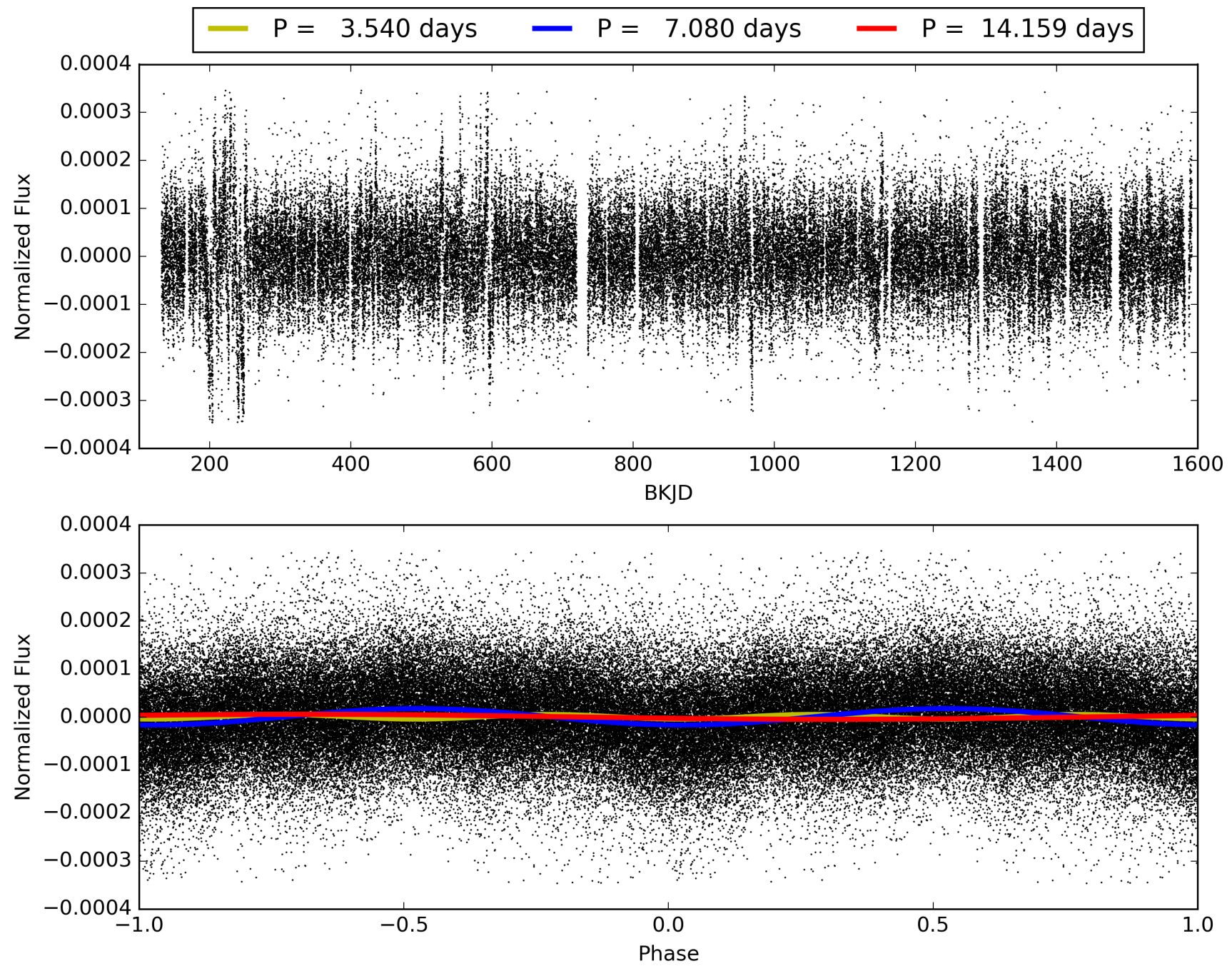
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:59:37 Z

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

TCE 011362416-01, PDC Light Curves

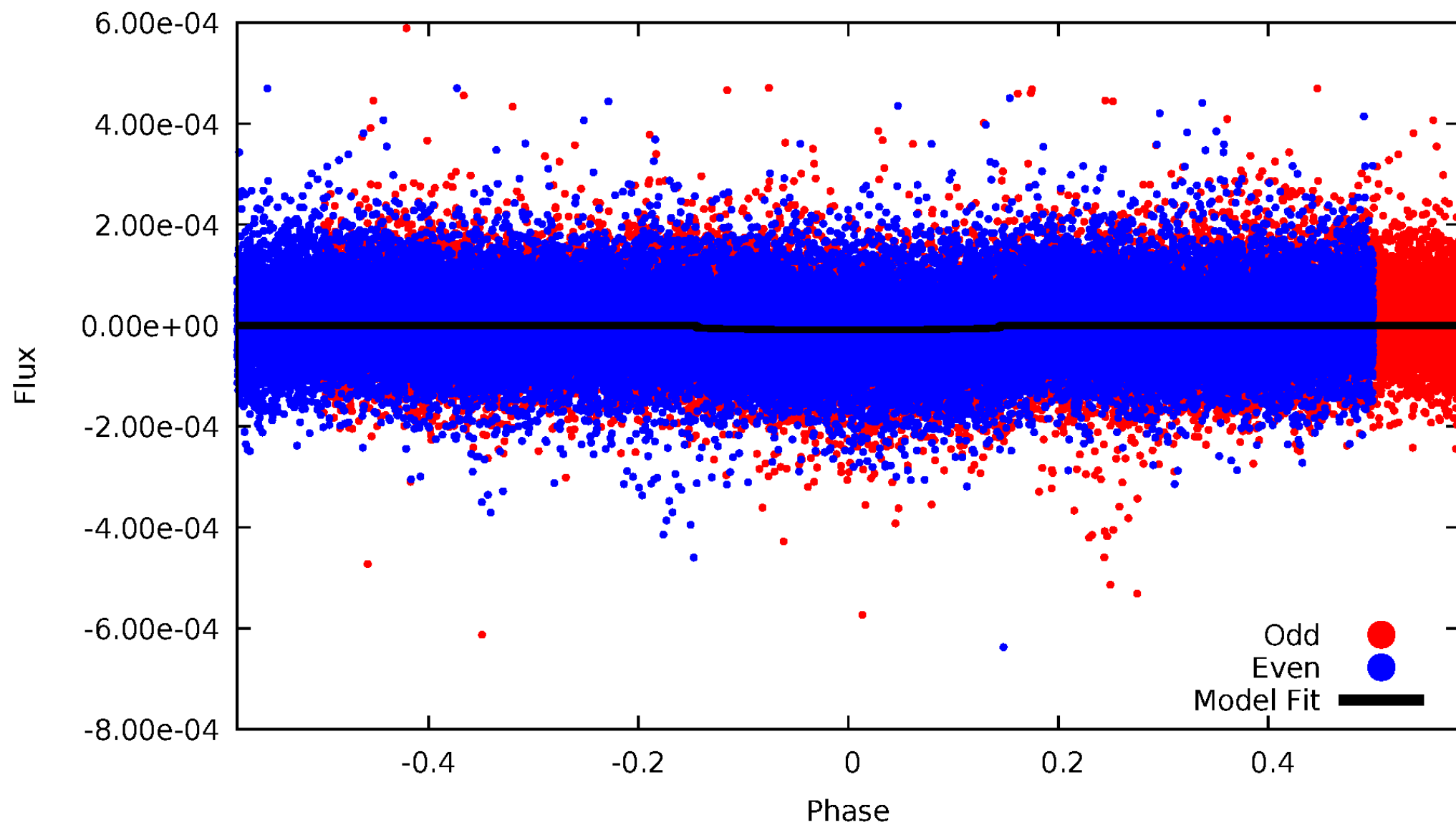


TCE 011362416-01



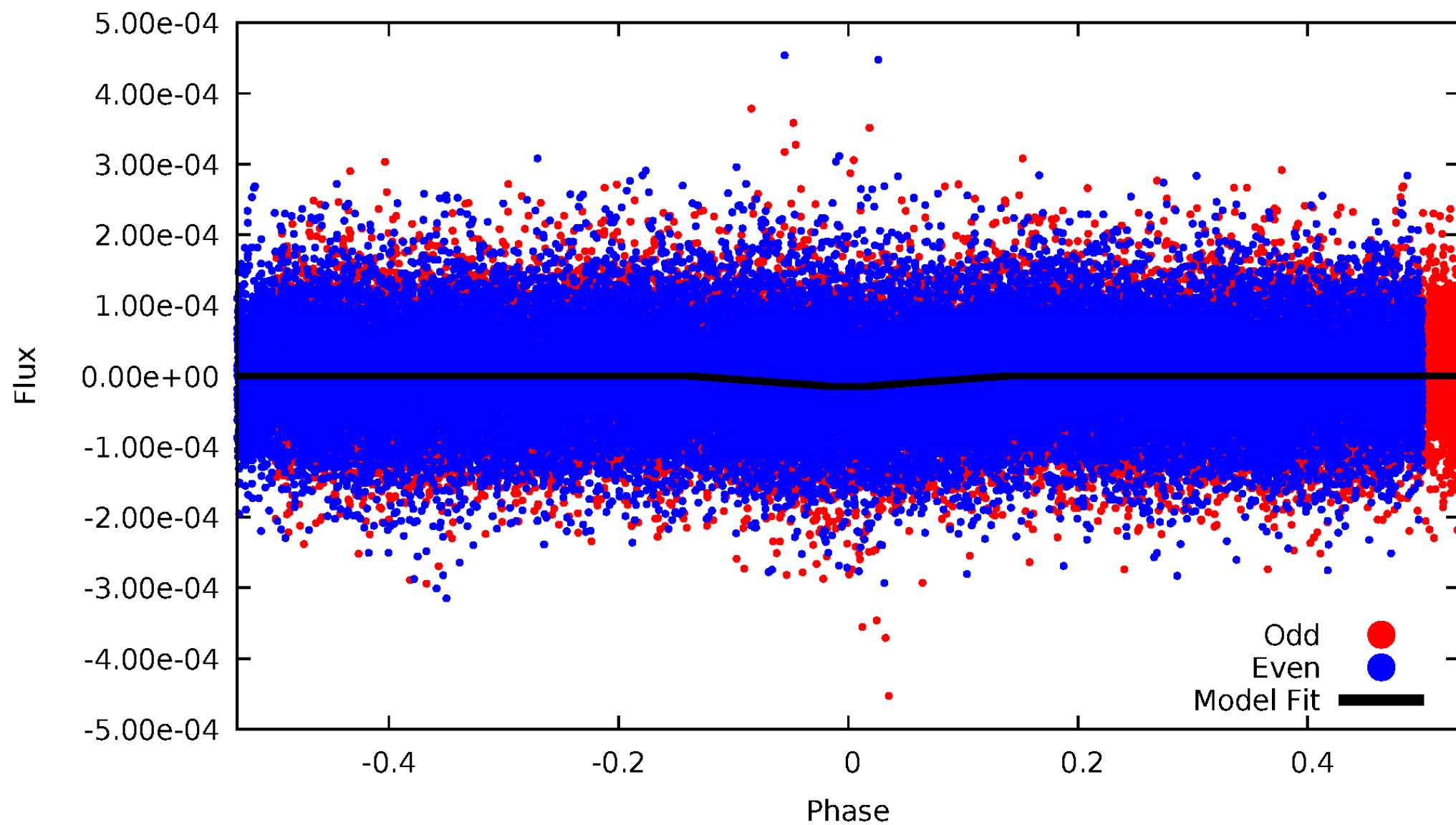
DV Odd/Even

TCE 011362416-01

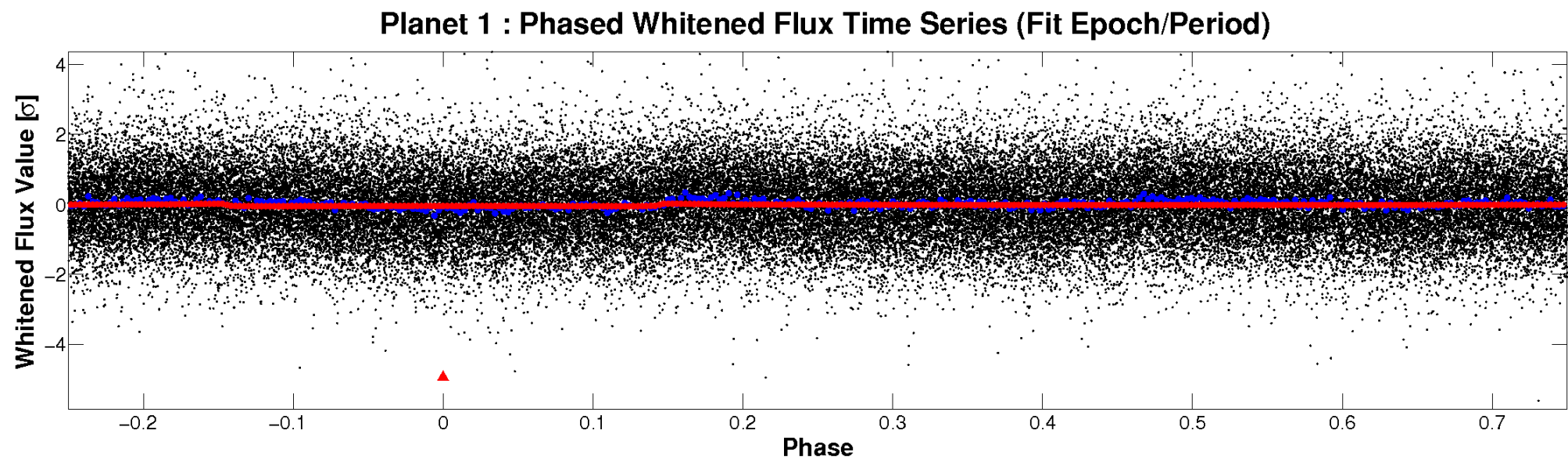
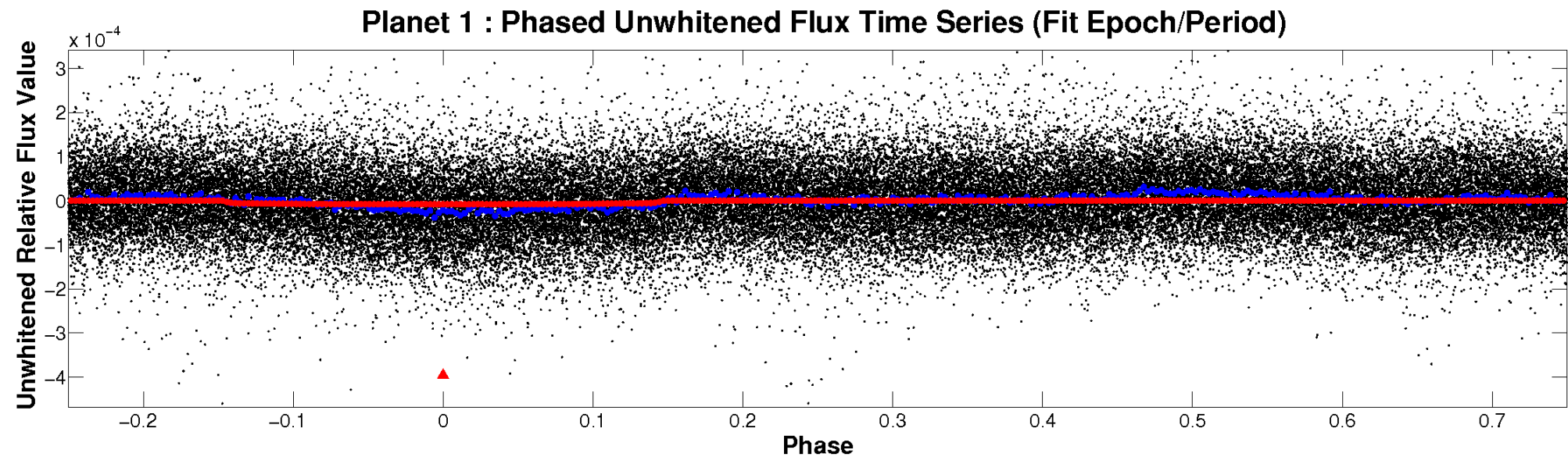


ALT Odd/Even

TCE 011362416-01

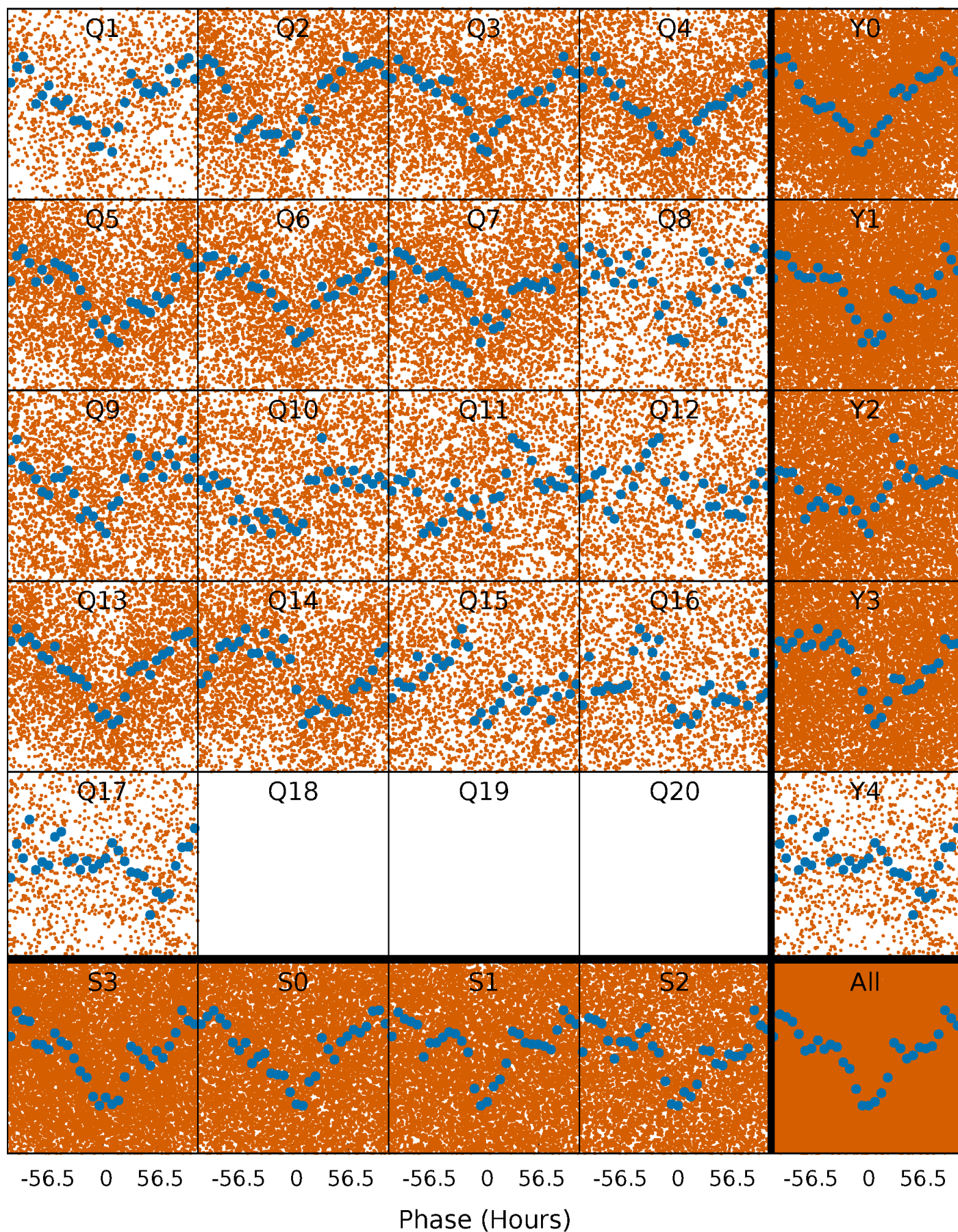


Non-Whitened Vs. Whitened Light Curve



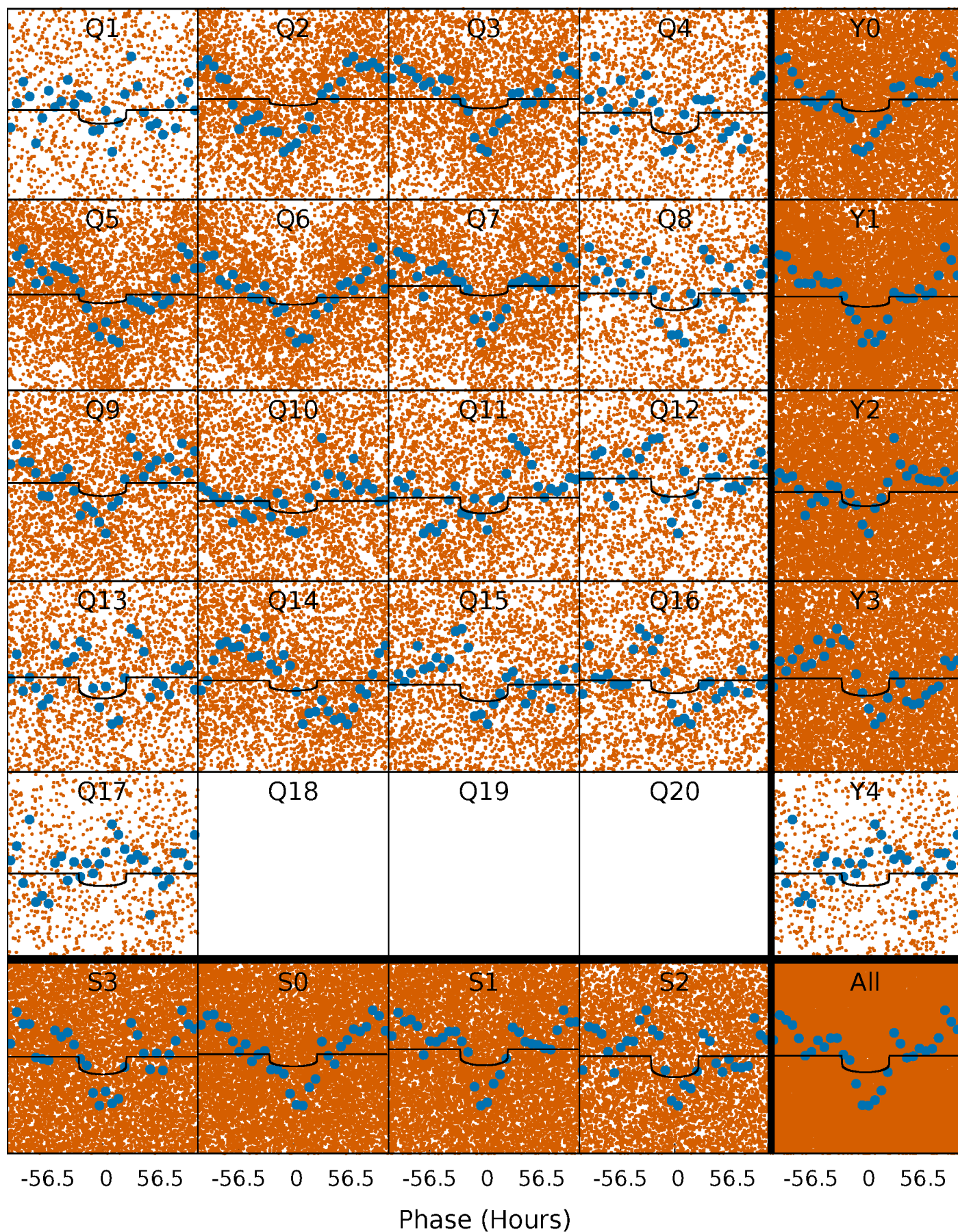
PDC Quarter-Phased Transit Curves

TCE 011362416-01 P= 7.079505 Days $T_0=134.198565$ (BKJD)



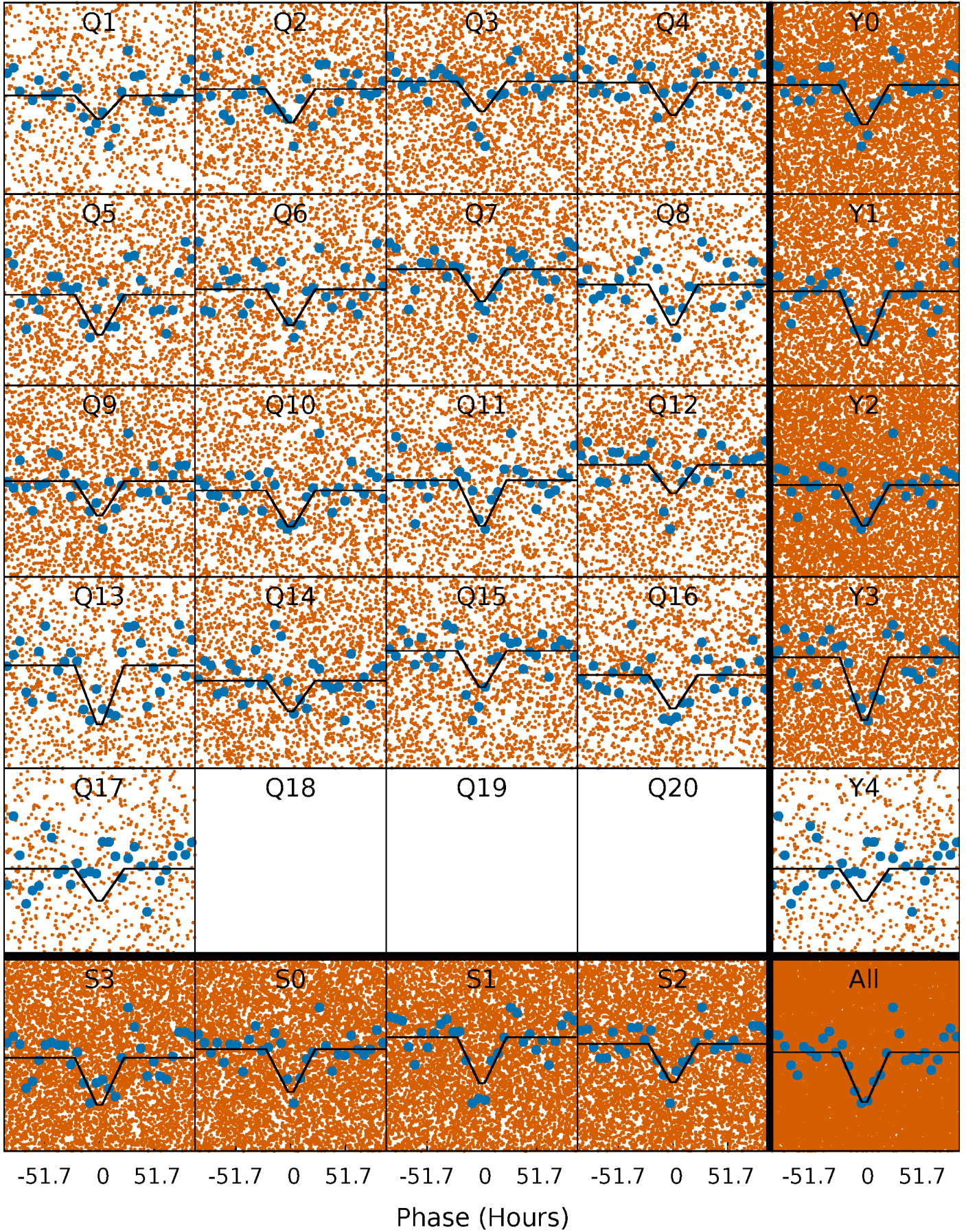
DV Quarter-Phased Transit Curves

TCE 011362416-01 P= 7.079505 Days $T_0=134.198565$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

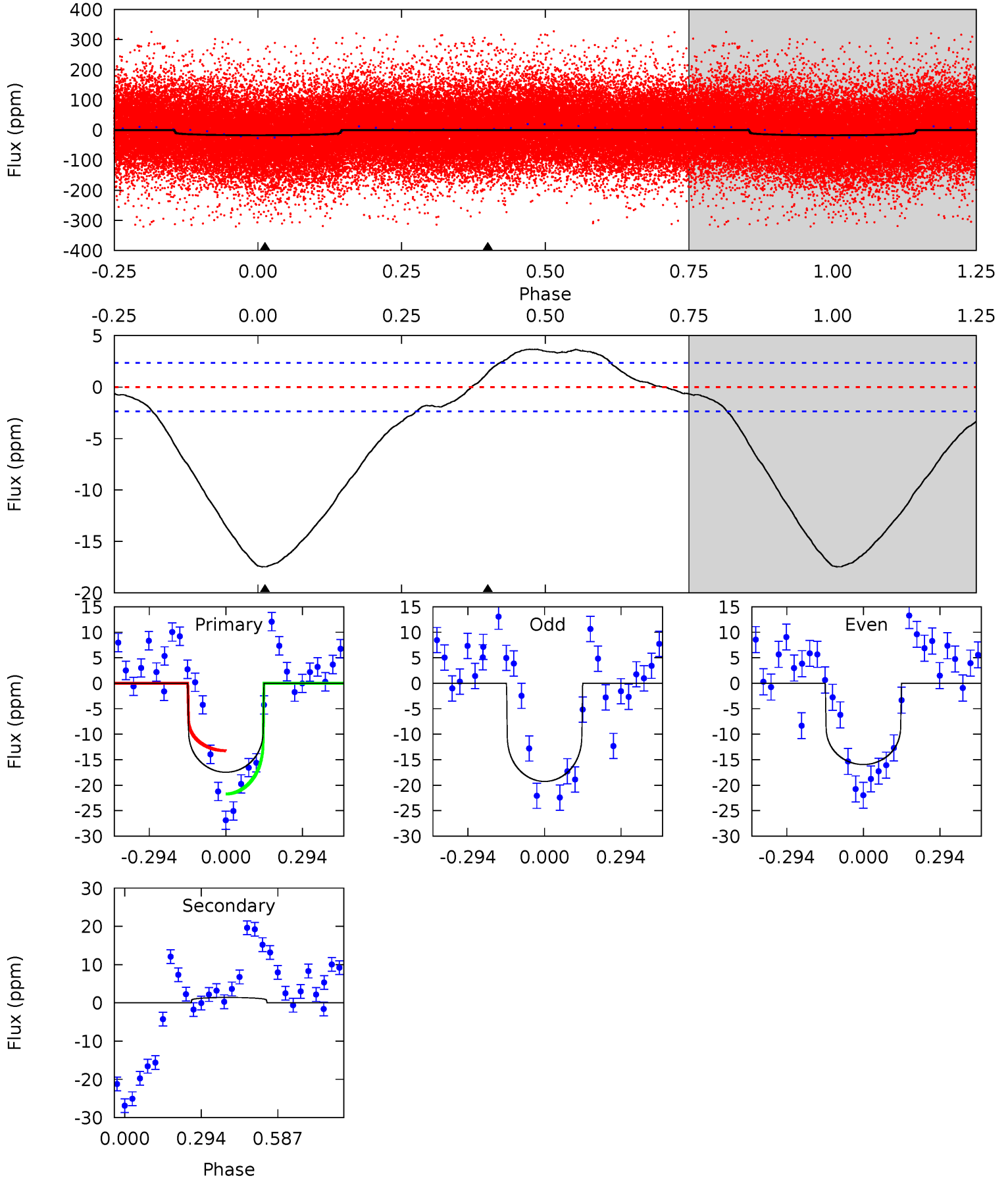
TCE 011362416-01 P= 7.080177 Days $T_0=134.257937$ (BKJD)



DV Model-Shift Uniqueness Test

011362416-01, P = 7.079505 Days, E = 127.119060 Days

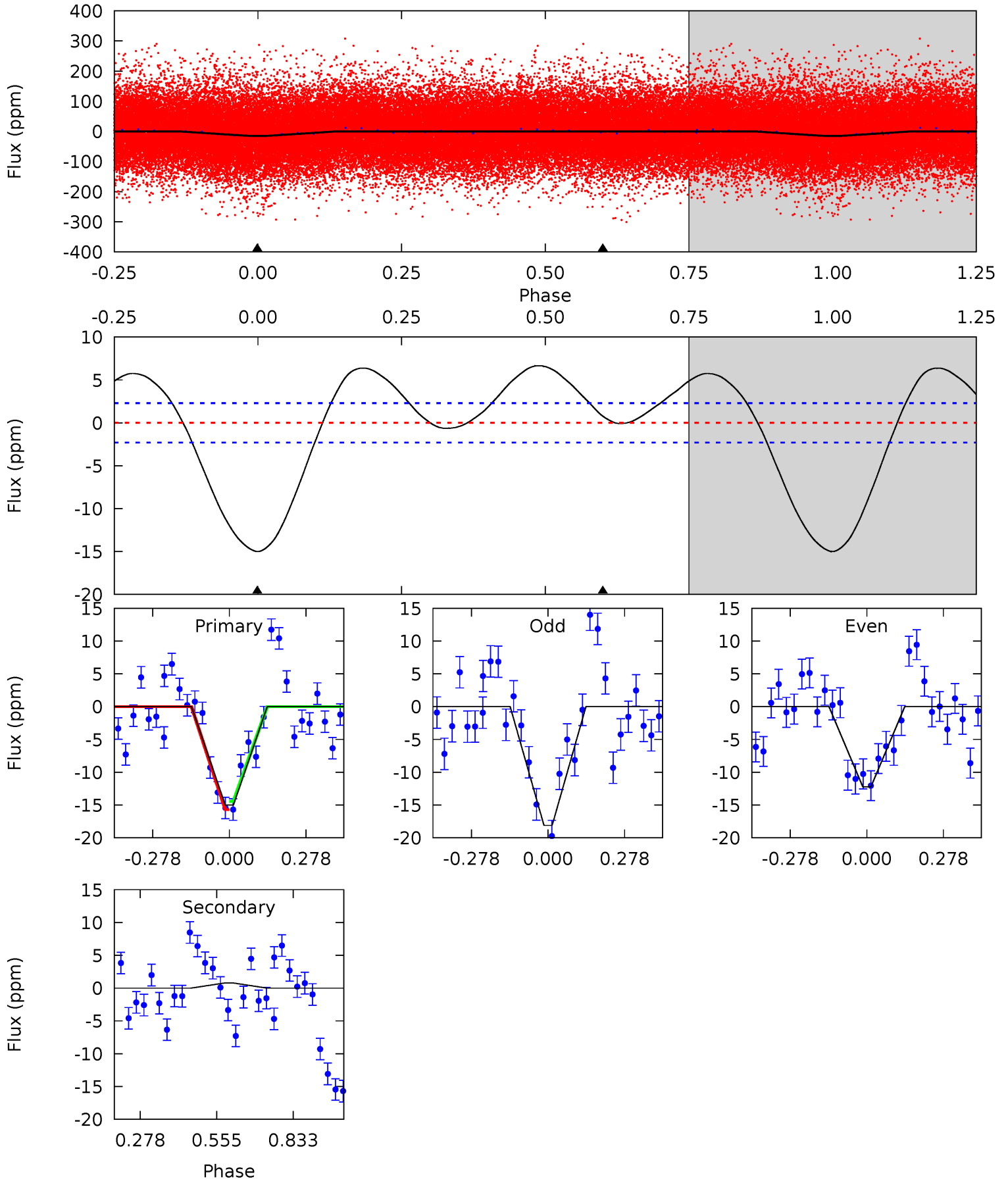
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
32.2	-2.60	0	0	4.33	1.05	0.81	32.2	32.2	-2.60	-2.60	3.06	1.05	0.17	7.69



Alt Model-Shift Uniqueness Test

011362416-01, P = 7.080177 Days, E = 127.177760 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.4	-1.49	0	0	4.35	1.09	2.31	28.4	28.4	-1.49	-1.49	5.58	0.95	0.31	1.18



Stellar Parameters For KIC 011362416

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	8357^{+203}_{-378}	$3.749^{+0.405}_{-0.135}$	$-0.180^{+0.250}_{-0.350}$	$3.138^{+0.927}_{-1.390}$	$2.016^{+0.438}_{-0.438}$	$0.092^{+0.340}_{-0.037}$
	+2%/-5%	+11%/-4%	+139%/-194%	+30%/-44%	+22%/-22%	+369%/-40%
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 011362416-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	1 ± 1	$0.88^{+0.34}_{-0.31}$	2906^{+238}_{-337}	-5319^{+764}_{-1086}	$-8.515^{+4.956}_{-12.581}$
Alt.	1 ± 1	$1.24^{+0.38}_{-0.37}$	2930^{+240}_{-317}	-4202^{+659}_{-630}	$-2.192^{+1.550}_{-3.572}$

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 $A_{\text{obs}} \gg 1.0$

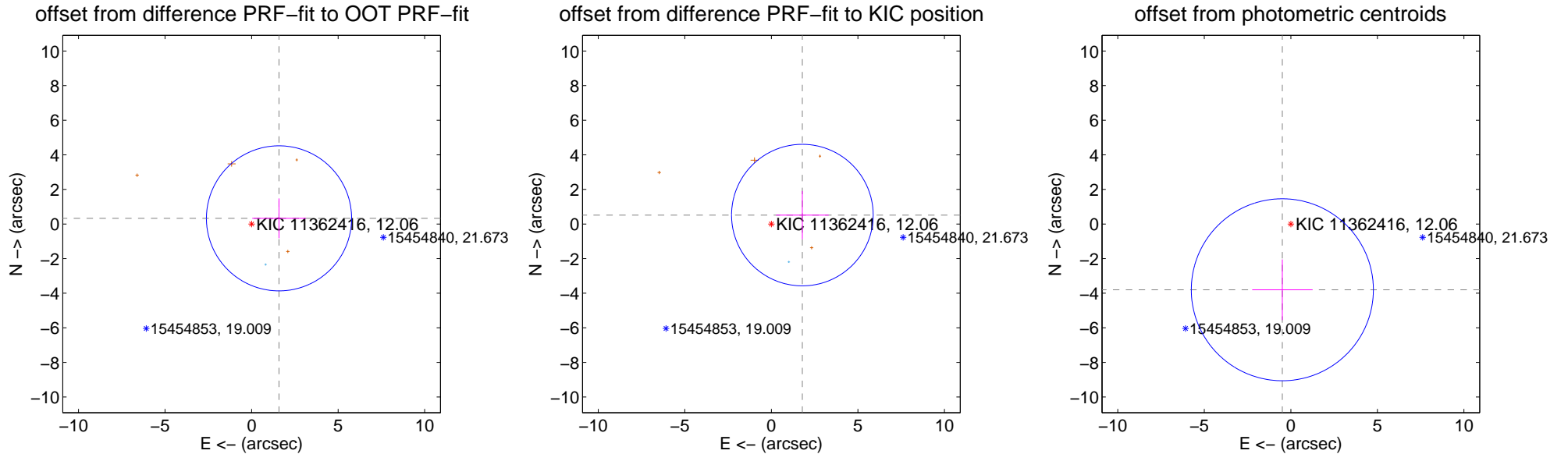
DV Centroid Data

Supplemental centroid analysis for 011362416-01. Kepler magnitude: 12.06. Transit SNR 7.35

There are 1 quarters with good PRF difference image offsets

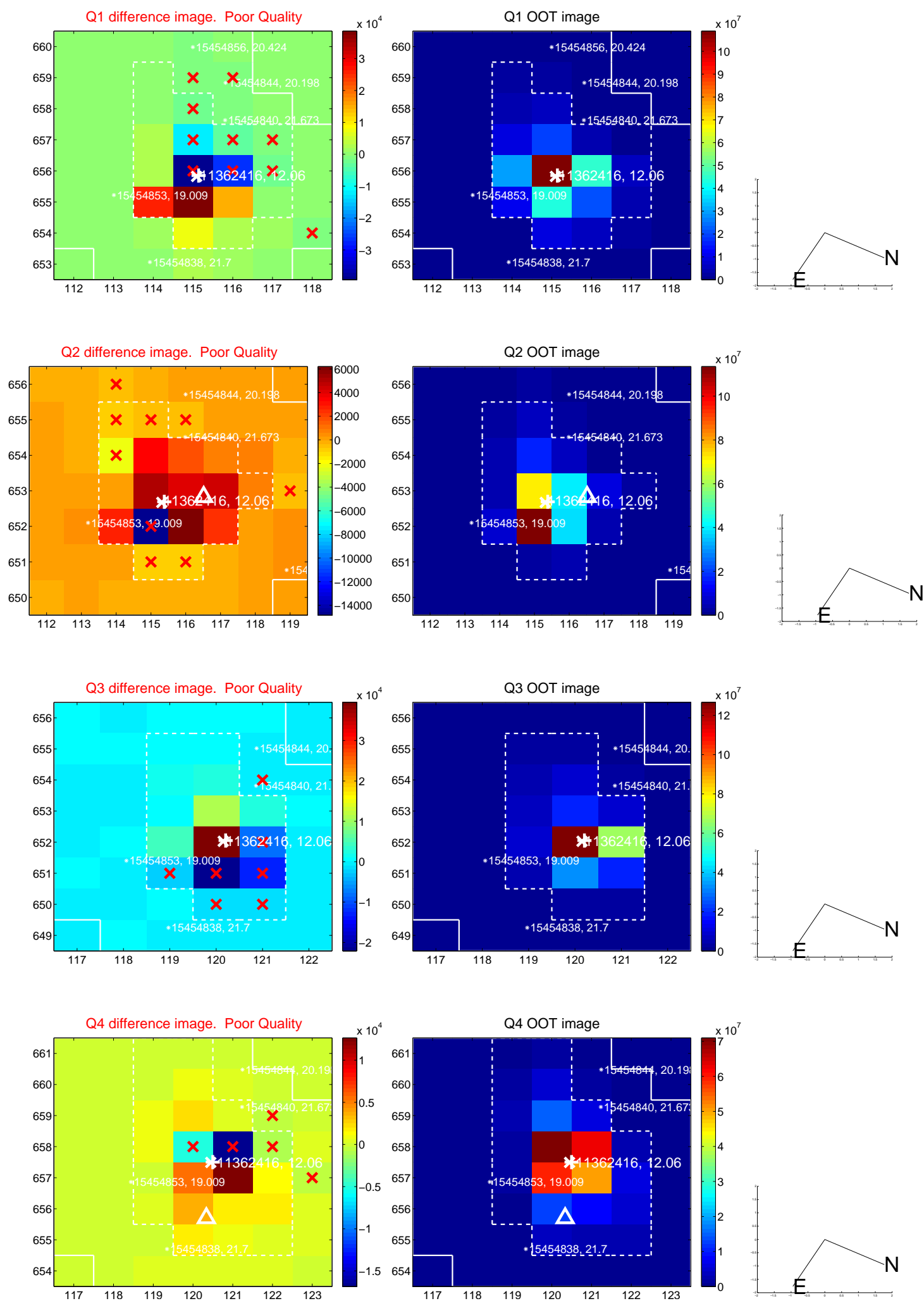
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.618 ± 1.398	1.16	-1.585 ± 1.548	0.328 ± 1.152
PRF-fit source offset from KIC position	1.864 ± 1.364	1.37	-1.791 ± 1.523	0.516 ± 1.393
photometric centroid source offset	3.83 ± 1.75	2.19	0.49 ± 1.74	-3.80 ± 1.75

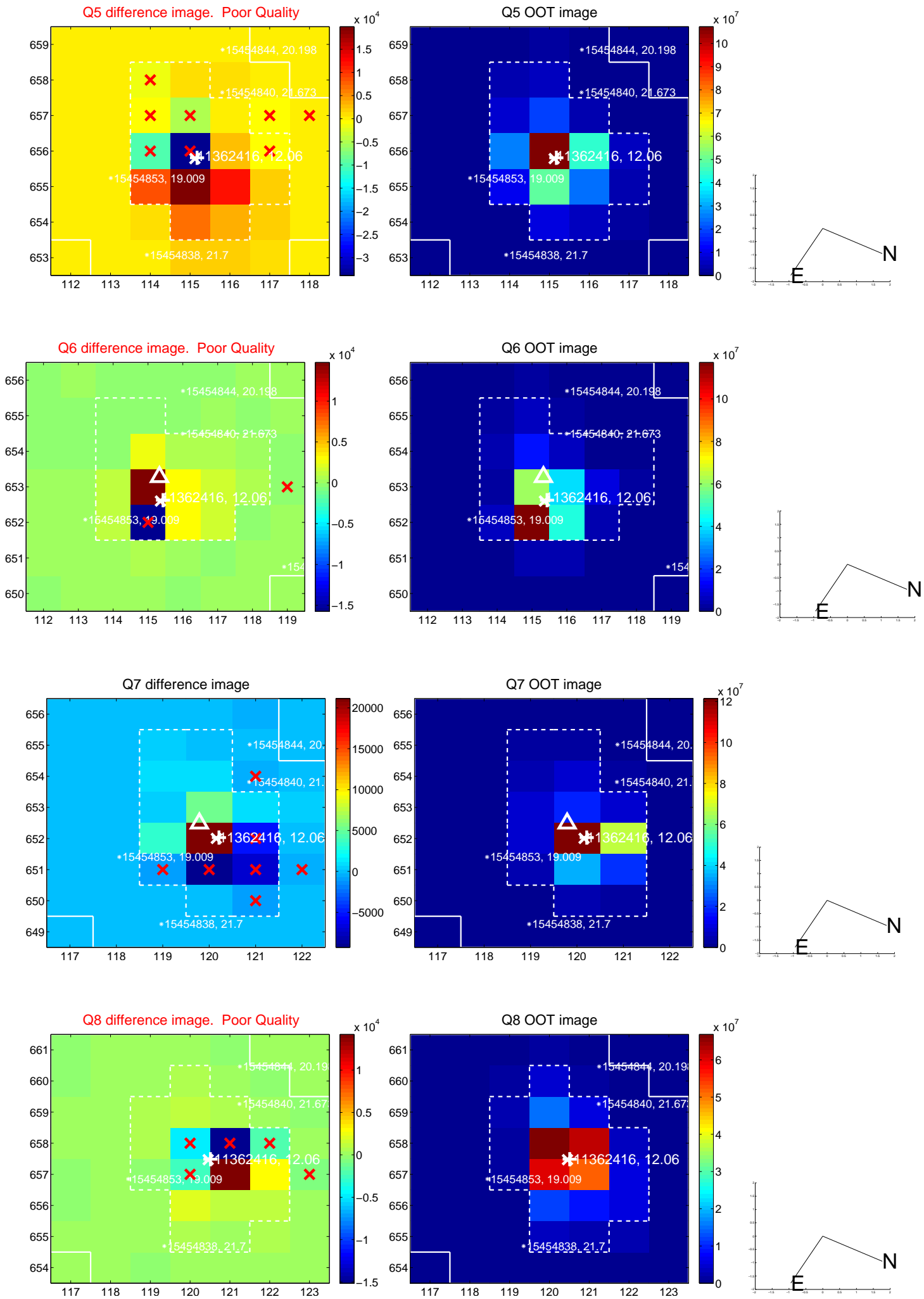


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

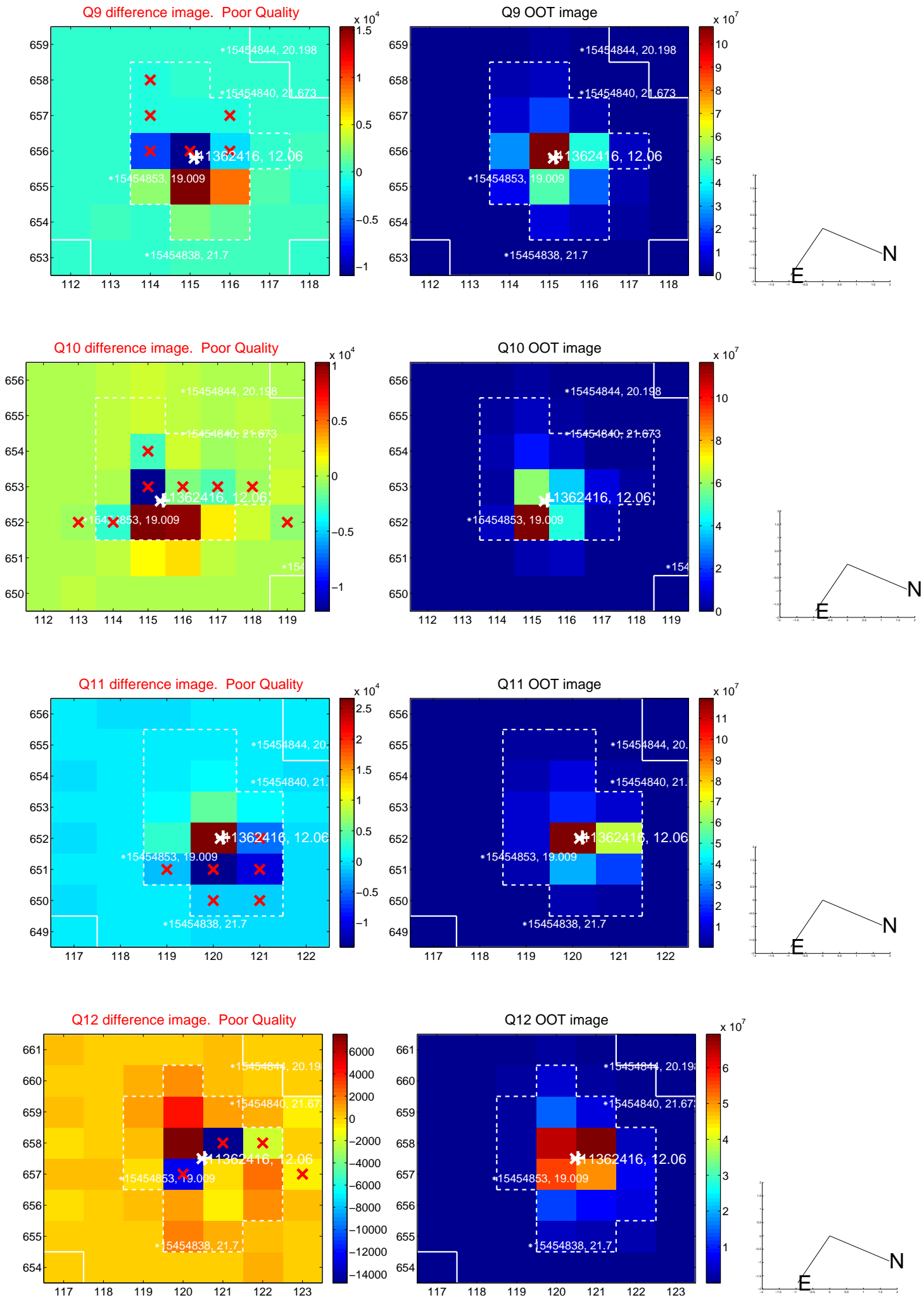
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



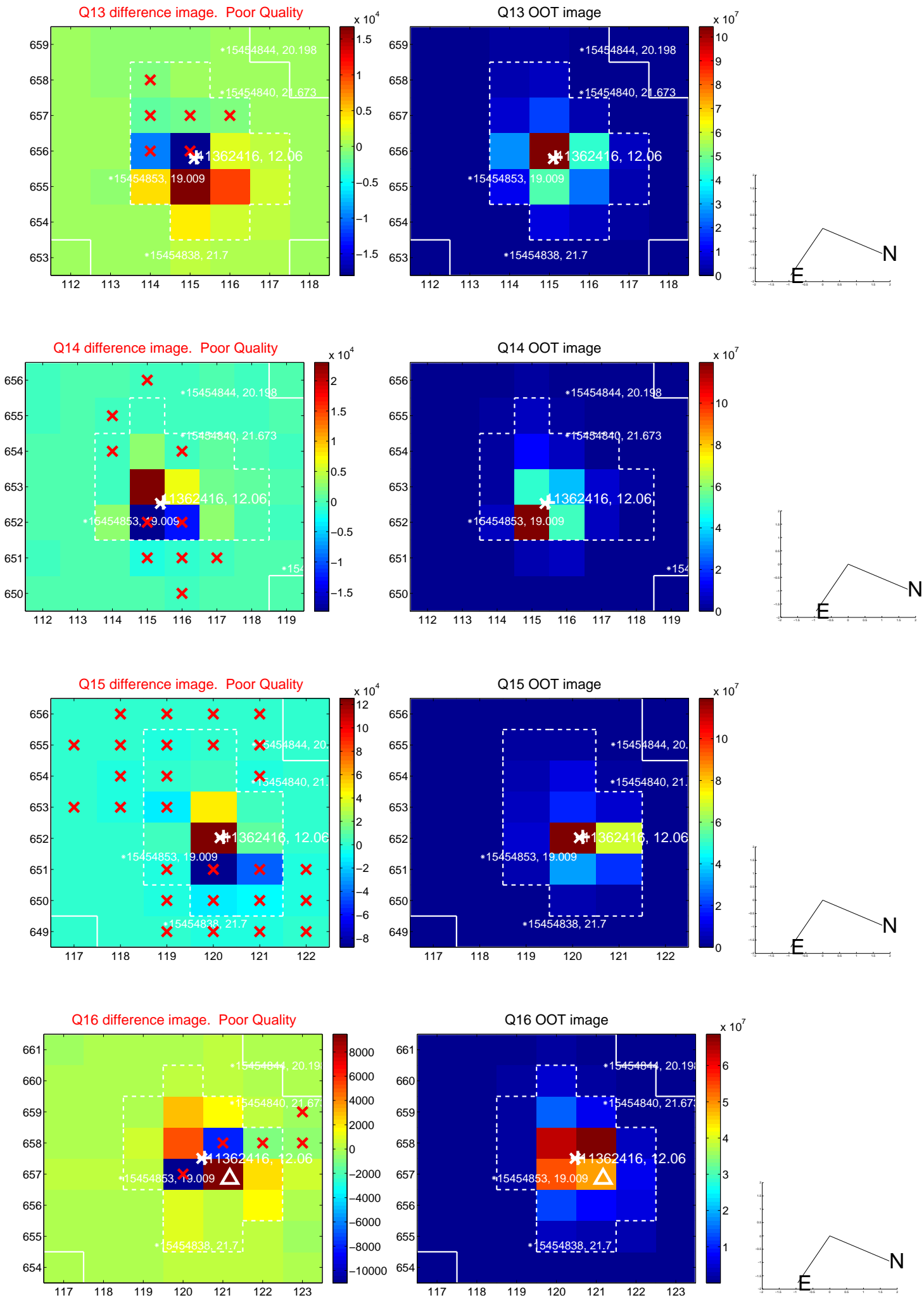
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



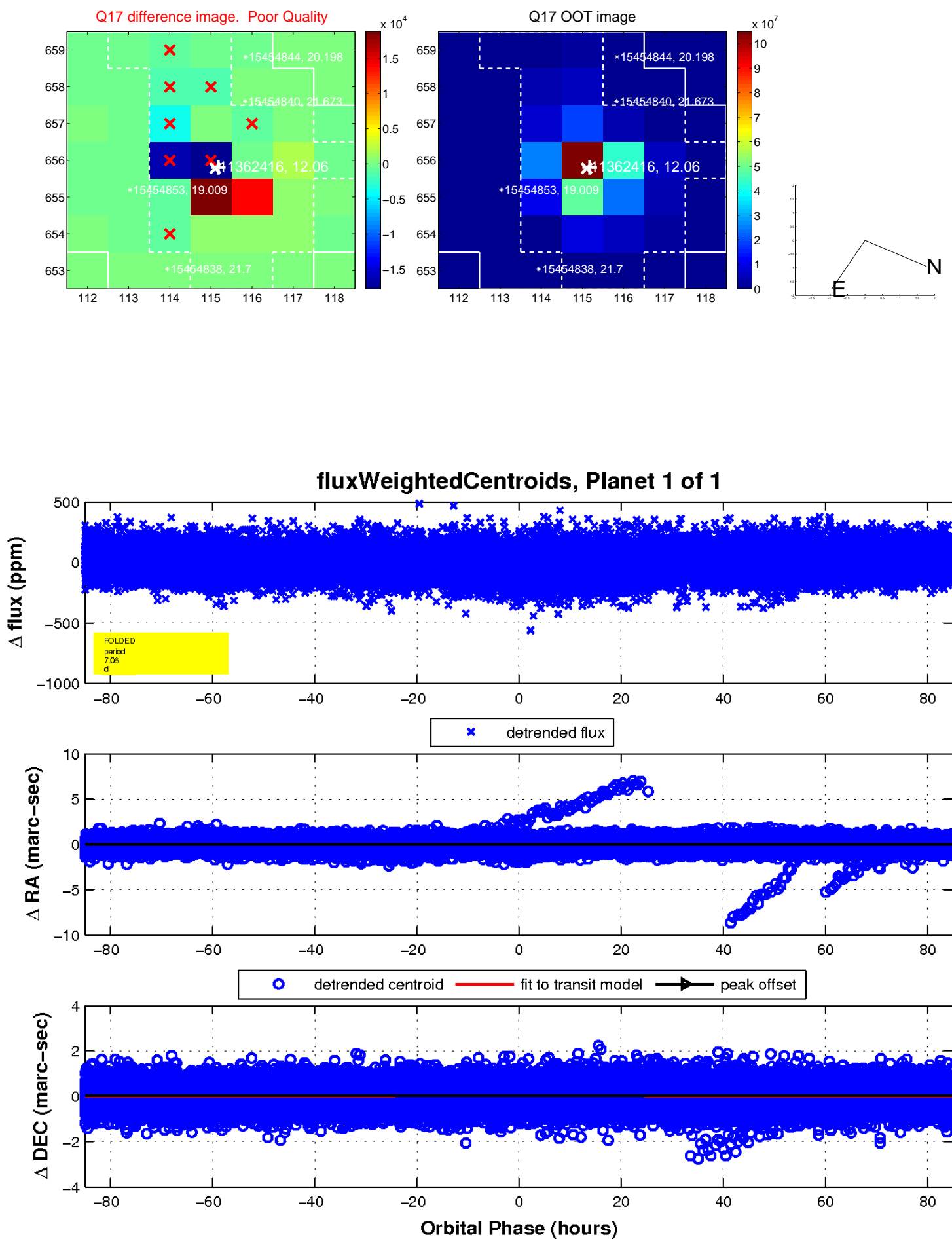
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

