

KIC 006204758

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})
006204758-01	OBS	No	0.525966	131.648077	55.8	2.020	7.8	11.1	0.81	5088	0.74	2733.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006204758-01	OBS	FP	0.00	1	0	1	1	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—HALO_GHOST—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.

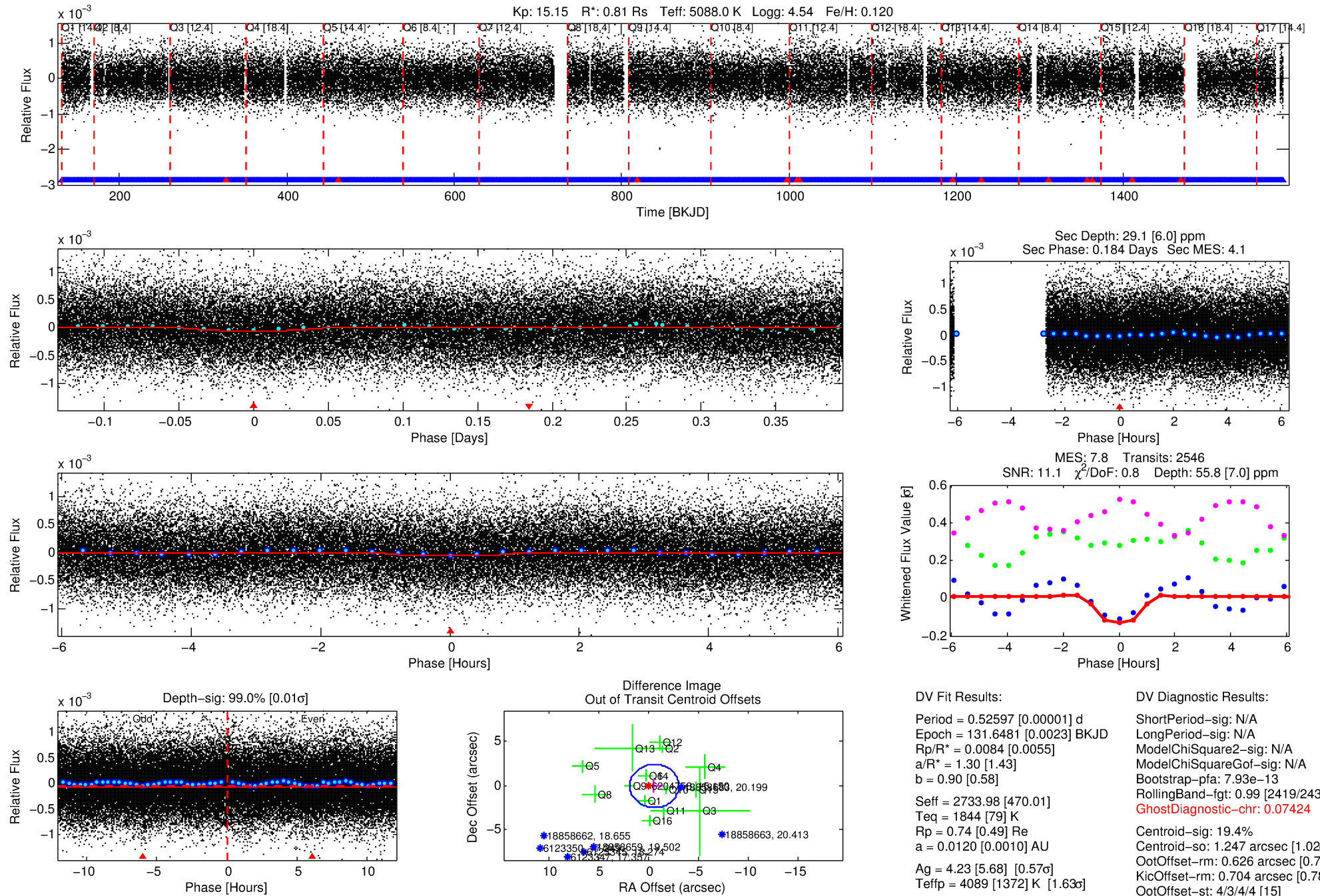
Ephemeris Match Information For 006204758-01

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
006204758-01	6204758	006123381-01	6123381	1:1	102.0	25	4	15.93	15.15	0.88	Col-Anomaly	1	0.11	1.47

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: 6204758 Candidate: 1 of 1 Period: 0.526 d



DV Fit Results:

Period = 0.52597 [0.00001] d
Epoch = 131.6481 [0.0023] BKJD
Rp/R* = 0.0084 [0.0055]
a/R* = 1.30 [1.43]
b = 0.90 [0.58]
Seff = 2733.98 [470.01]
Teff = 1844 [79] K
Rp = 0.74 [0.49] Re
a = 0.0120 [0.0010] AU
Ag = 4.23 [5.68] [0.57σ]
Teffp = 4089 [1372] K [1.63σ]

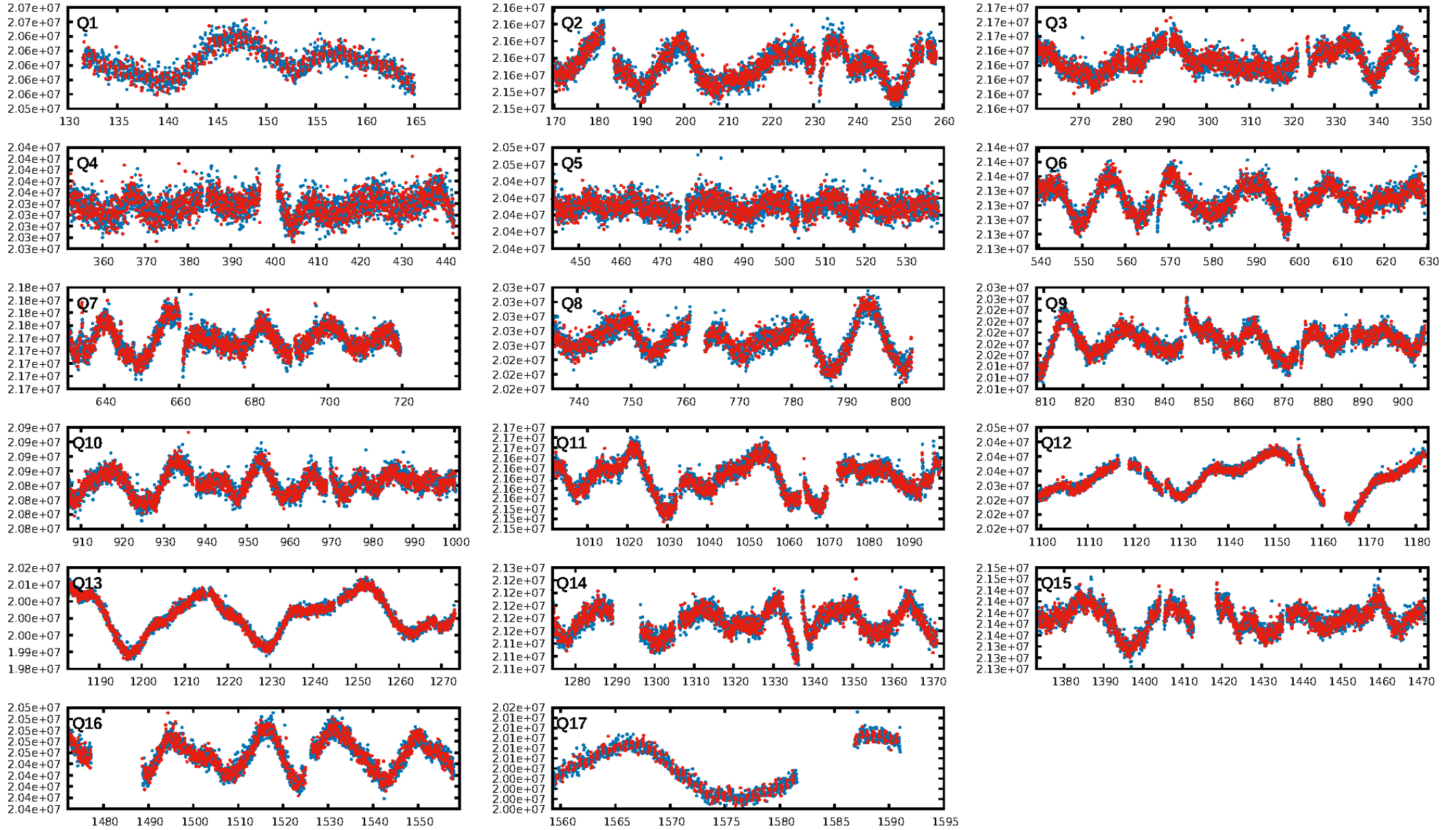
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.93e-13
RollingBand-fgt: 0.99 [2419/2432]
GhostDiagnostic-chr: 0.07424
Centroid-sig: 19.4%
Centroid-so: 1.247 arcsec [1.02σ]
OotOffset-rm: 0.626 arcsec [0.76σ]
KicOffset-rm: 0.704 arcsec [0.78σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.27 [4/15]
DiffImageOverlap-fno: 1.00 [17/17]




Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:16:27 Z

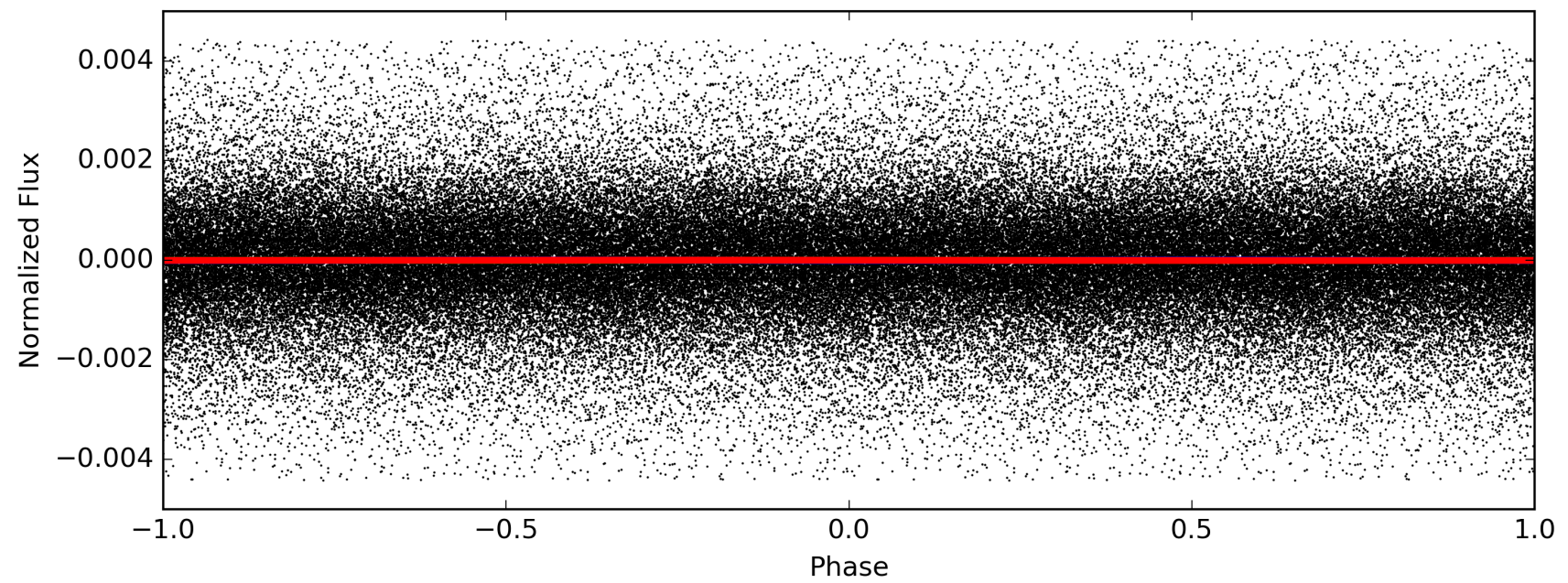
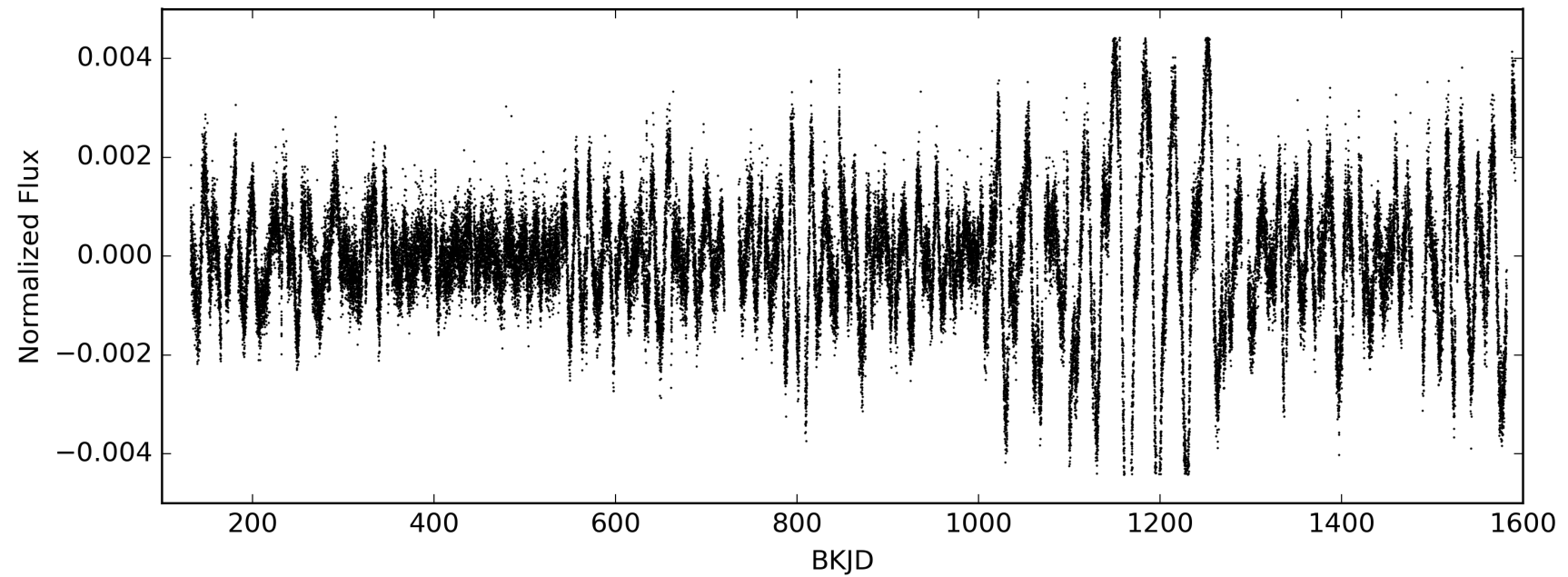
This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 006204758-01, PDC Light Curves



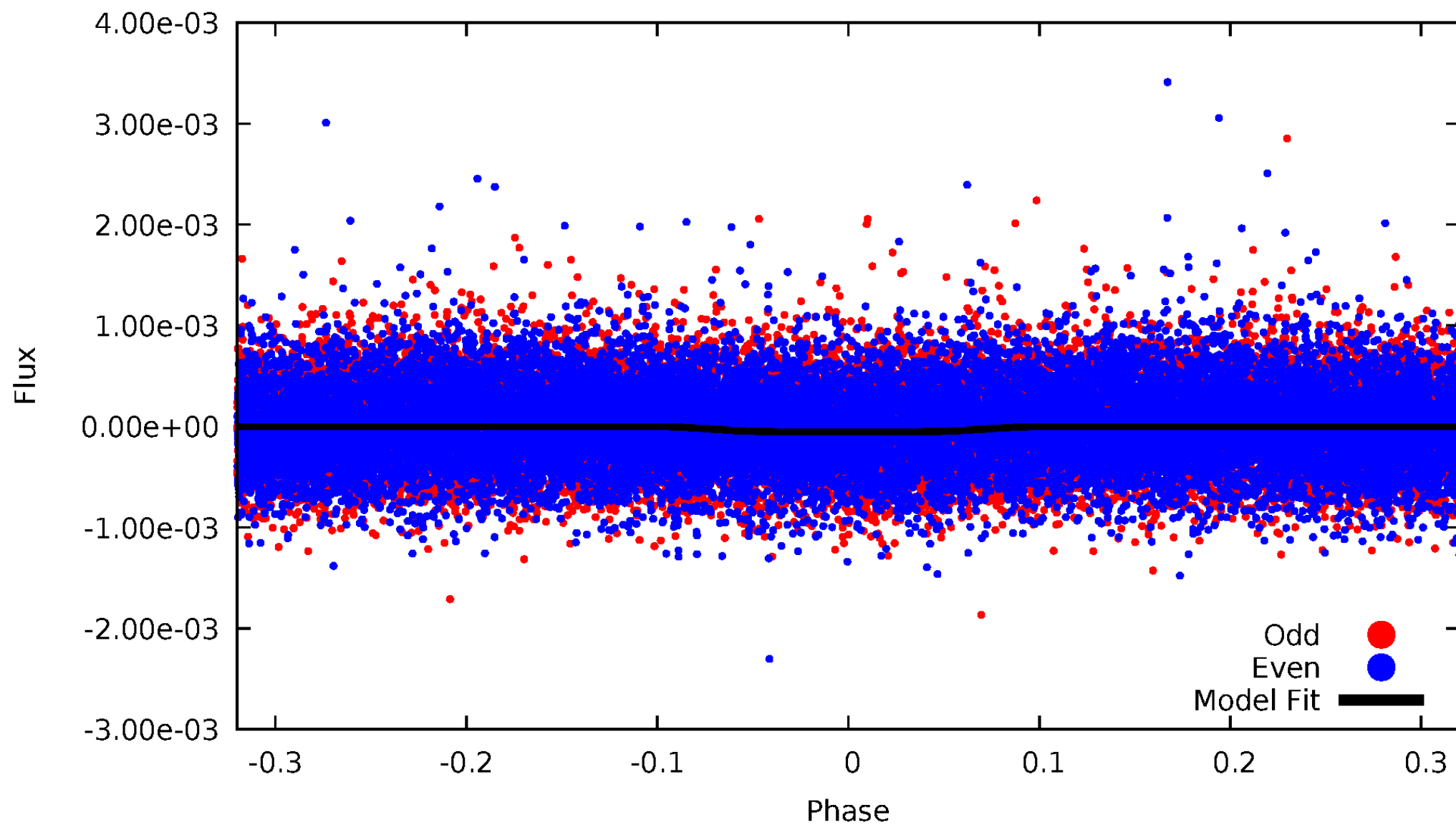
TCE 006204758-01

 P = 0.263 days  P = 0.526 days  P = 1.052 days



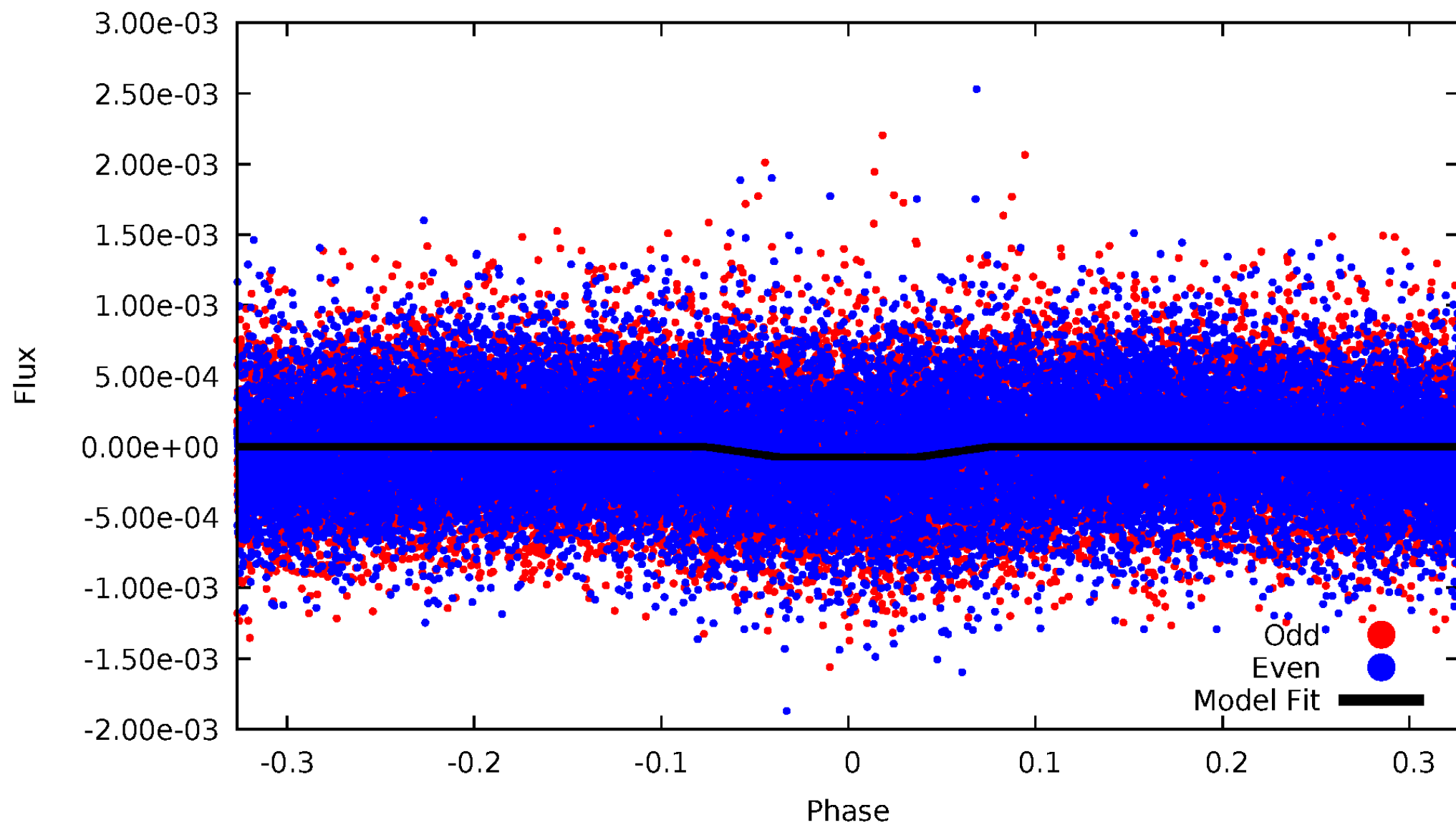
DV Odd/Even

TCE 006204758-01

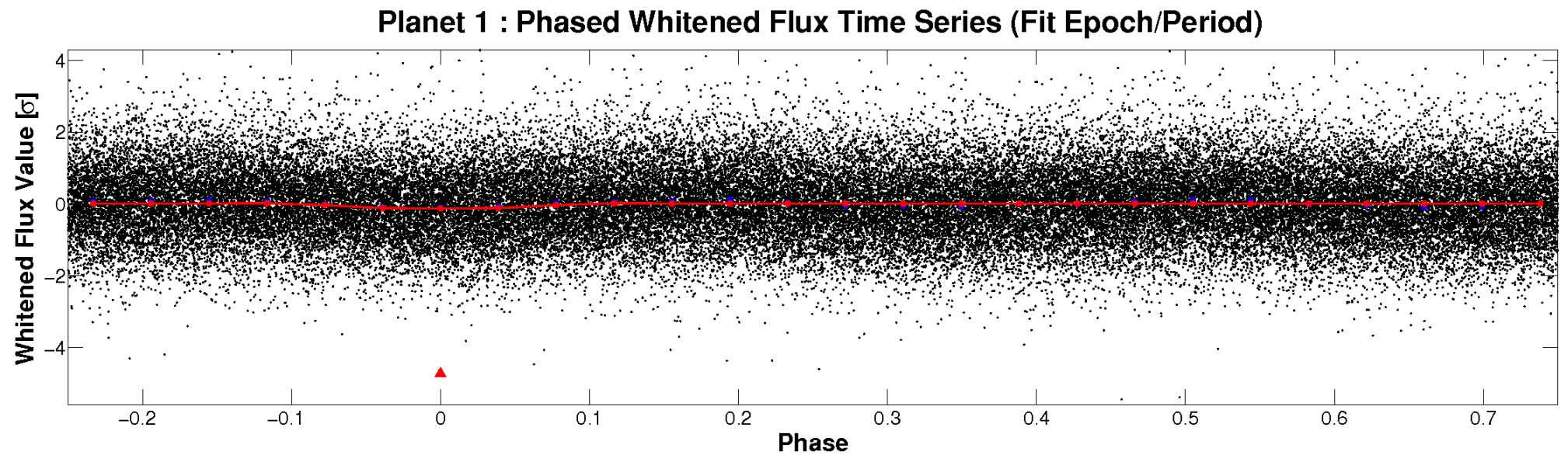
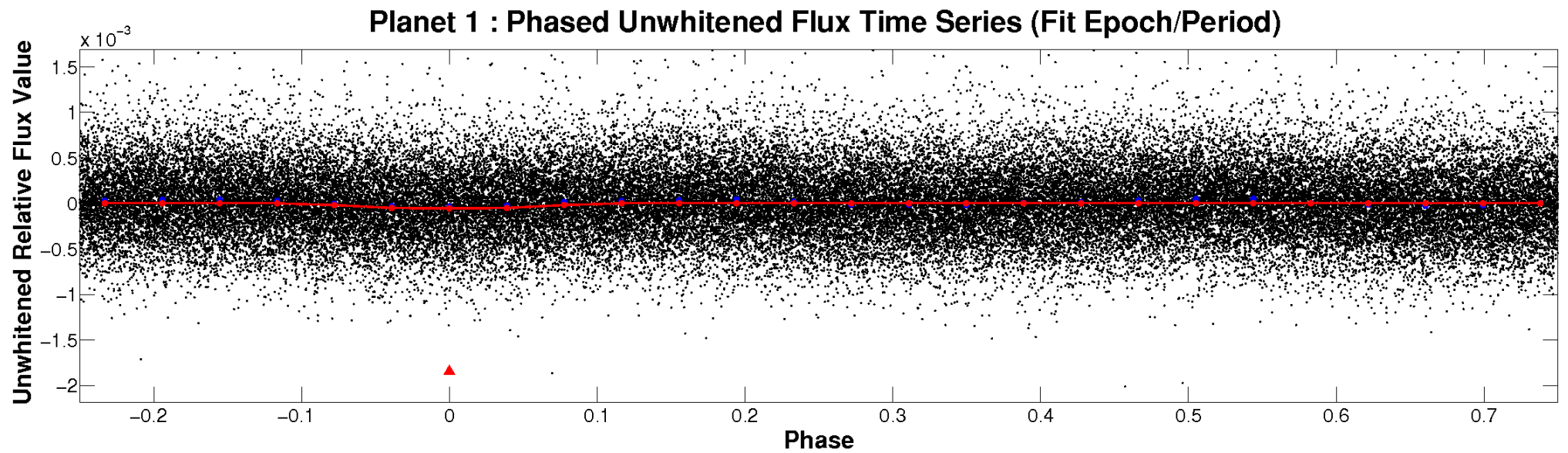


ALT Odd/Even

TCE 006204758-01

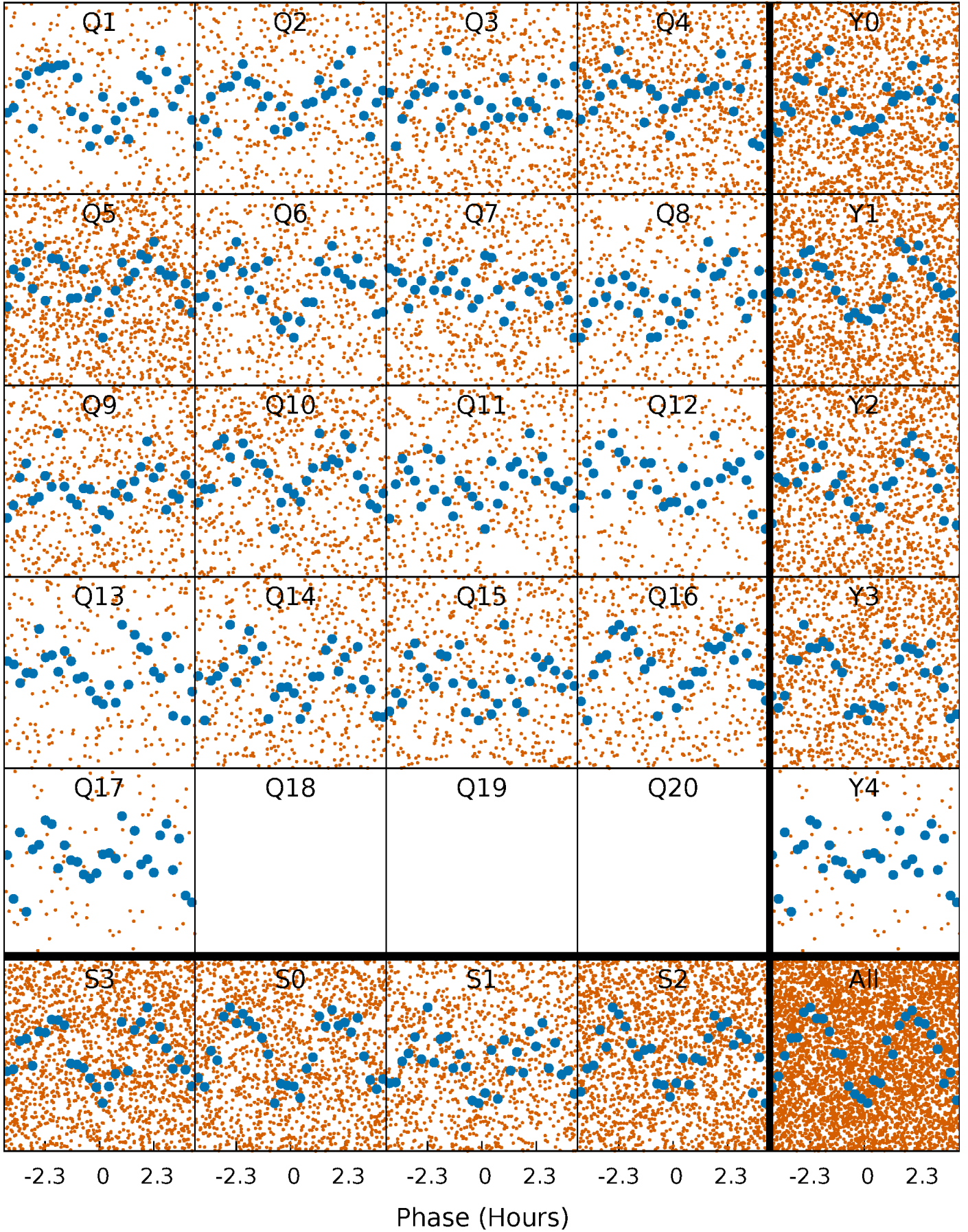


Non-Whitened Vs. Whitened Light Curve



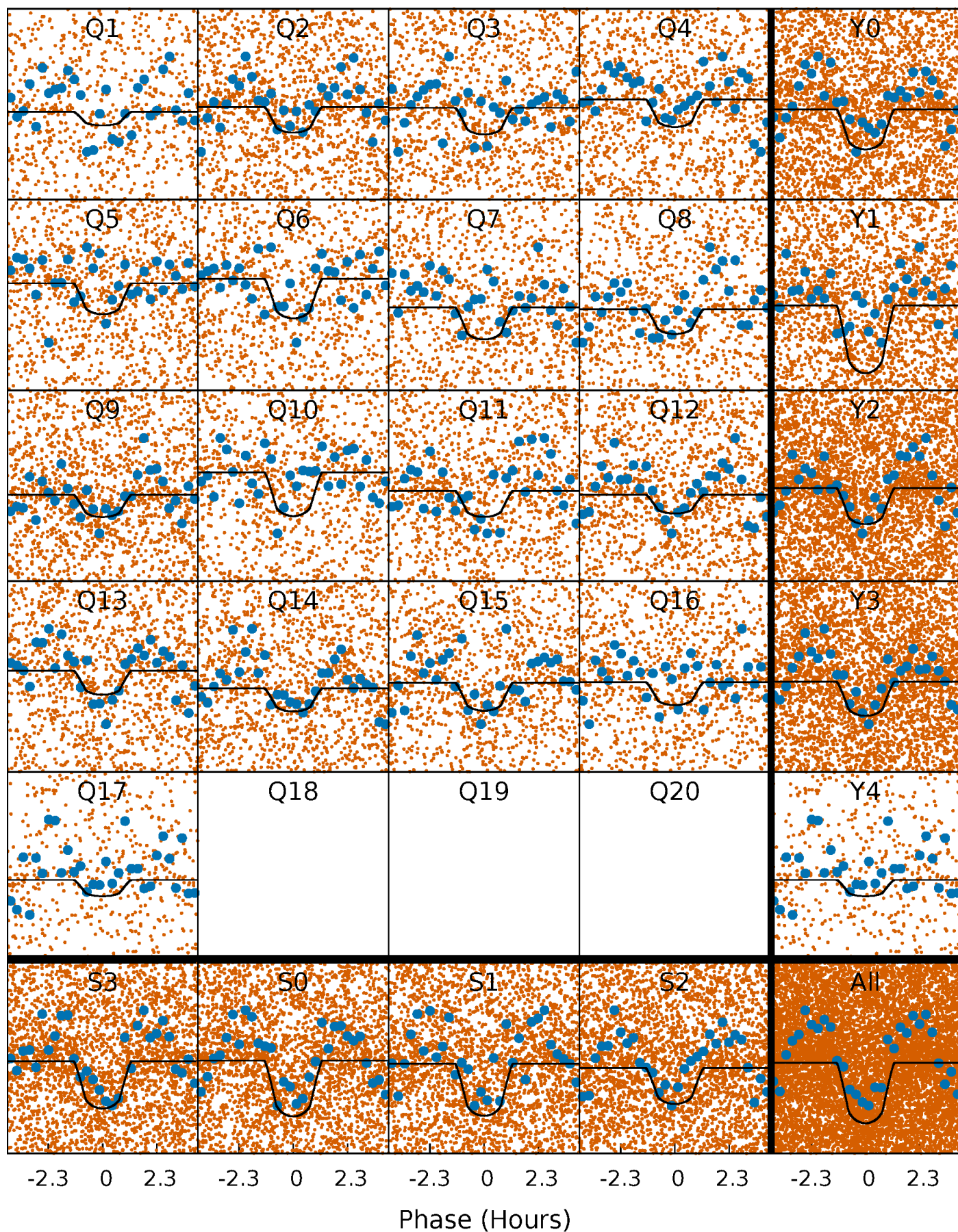
PDC Quarter-Phased Transit Curves

TCE 006204758-01 P= 0.525966 Days $T_0=131.648077$ (BKJD)



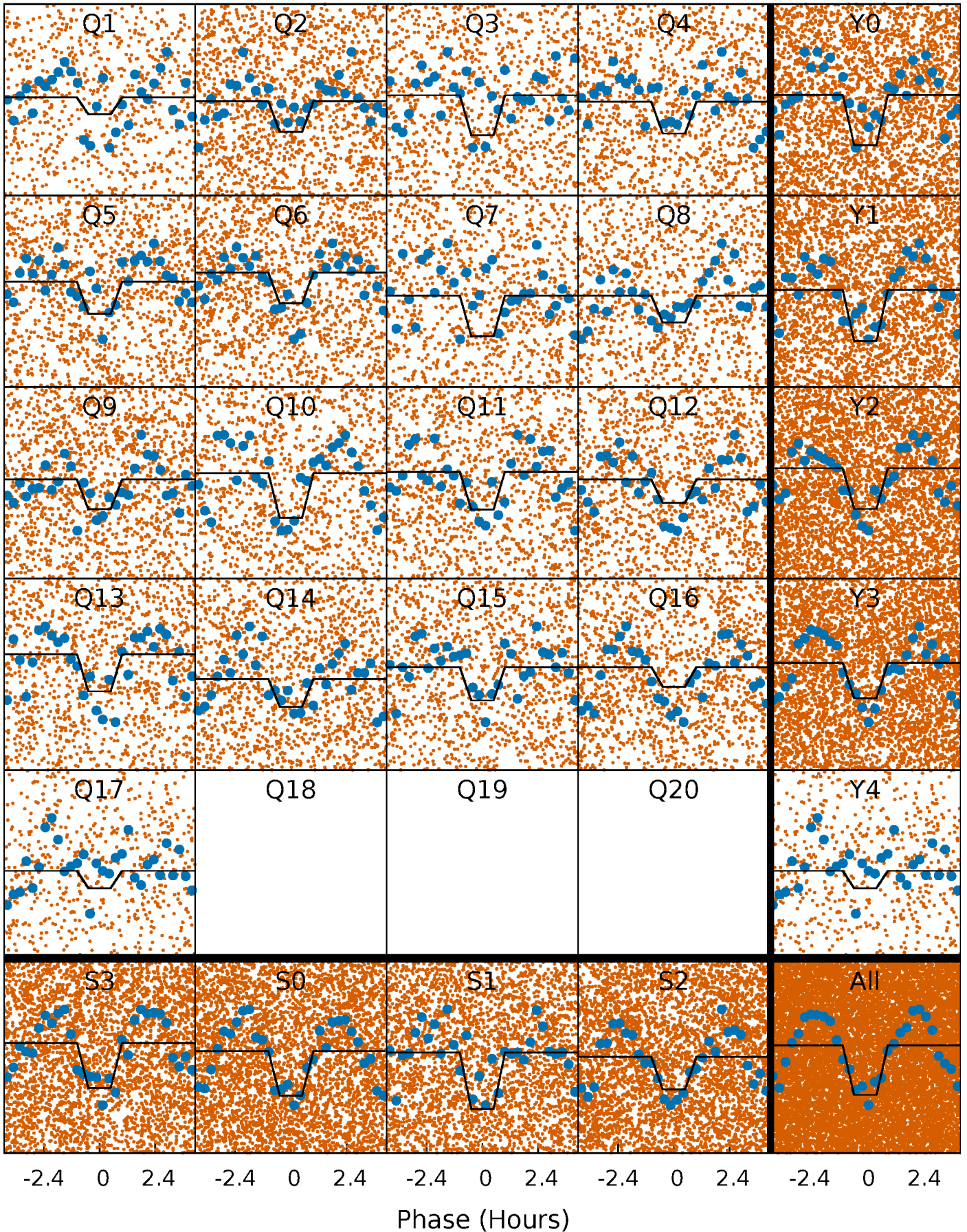
DV Quarter-Phased Transit Curves

TCE 006204758-01 P= 0.525966 Days $T_0=131.648077$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

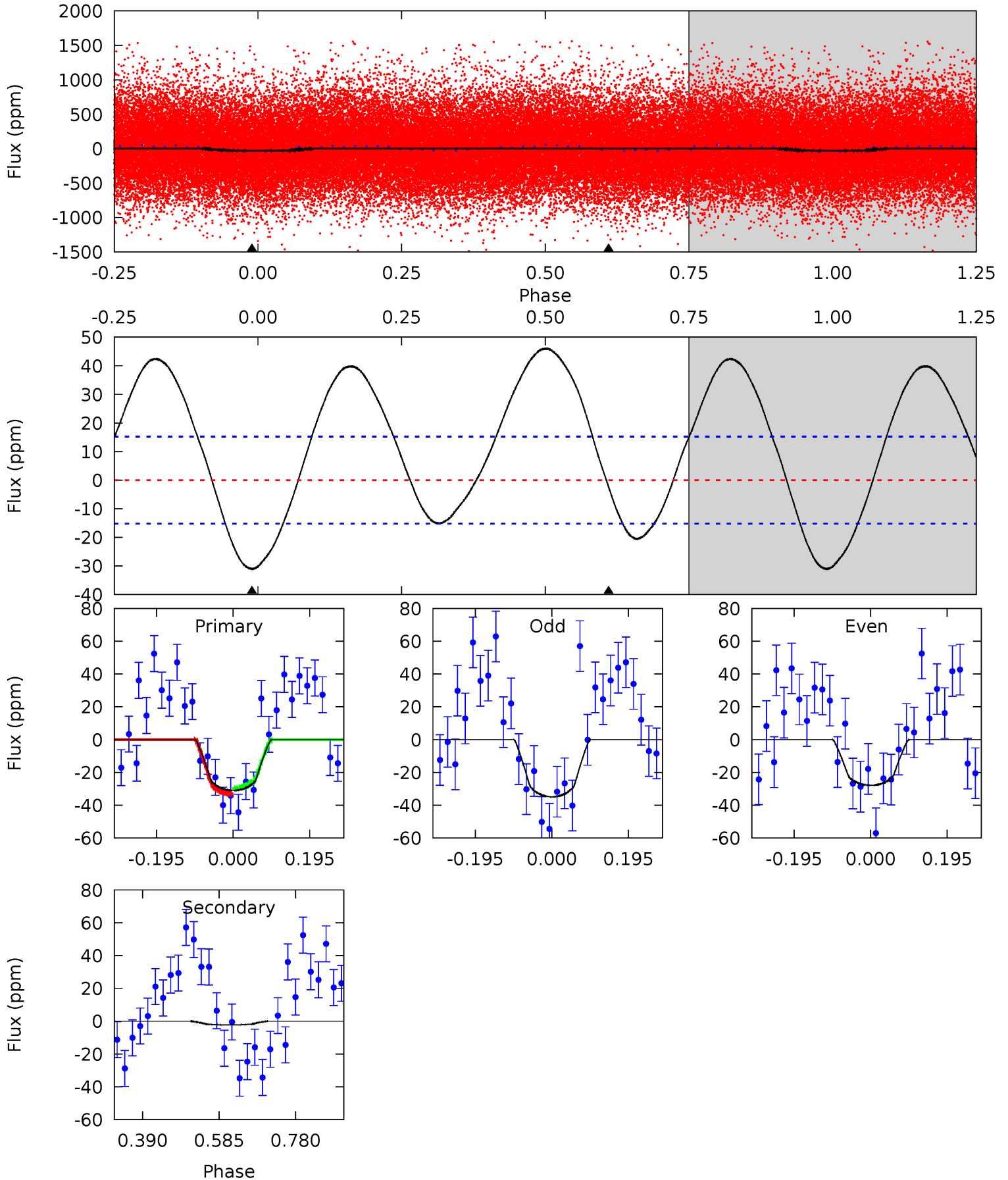
TCE 006204758-01 P= 0.525964 Days $T_0=131.648174$ (BKJD)



DV Model-Shift Uniqueness Test

006204758-01, P = 0.525966 Days, E = 131.122111 Days

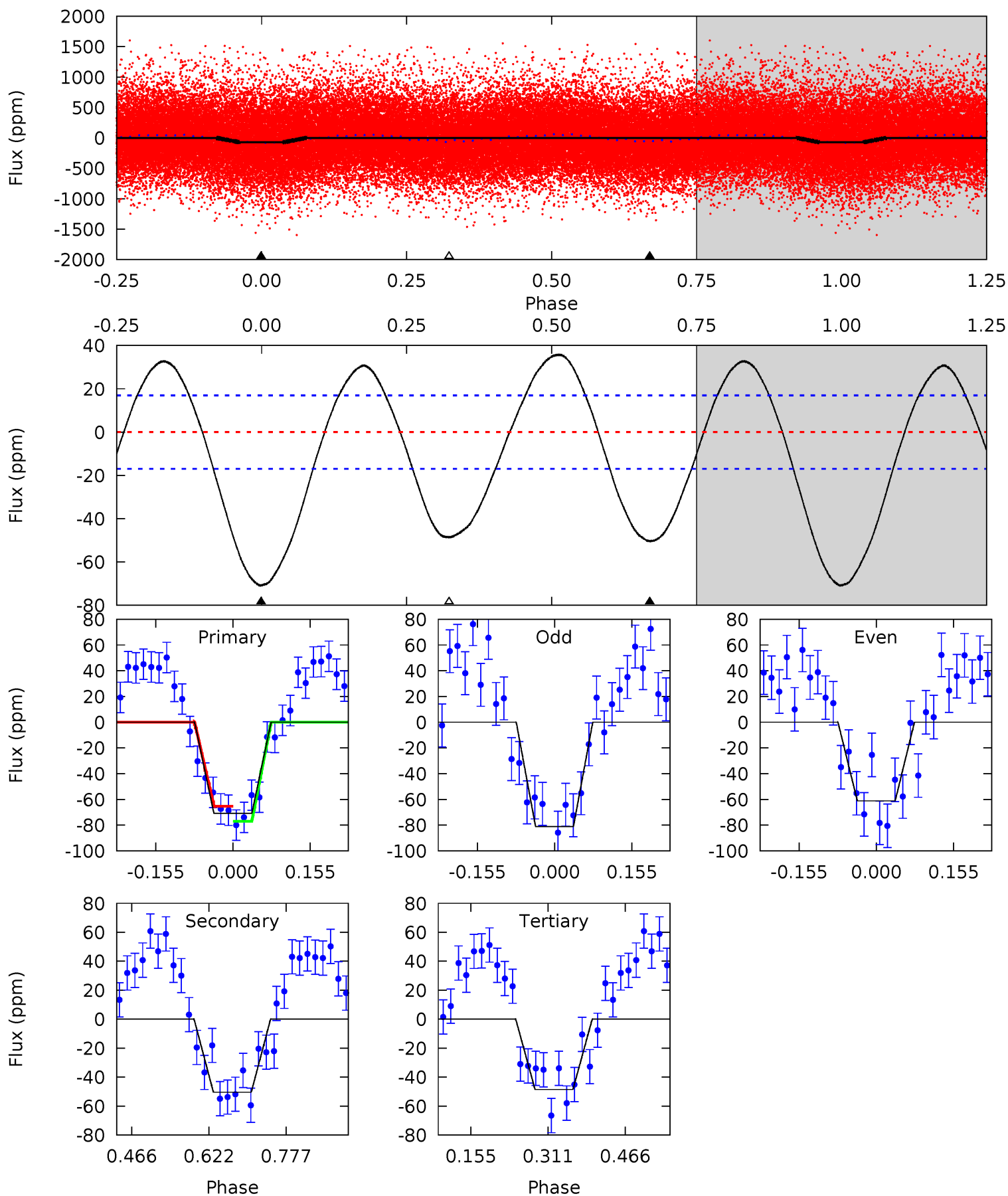
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.03	0.66	0	0	4.42	1.30	4.46	9.03	9.03	0.66	0.66	1.02	0.92	0.60	0.48



Alt Model-Shift Uniqueness Test

006204758-01, P = 0.525964 Days, E = 131.122210 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.7	13.3	12.8	0	4.47	1.42	7.89	5.88	18.7	0.49	13.3	2.65	1.05	0.34	1.55



Stellar Parameters For KIC 006204758

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5088^{+152}_{-152}	$4.542^{+0.048}_{-0.066}$	$0.120^{+0.250}_{-0.300}$	$0.810^{+0.086}_{-0.070}$	$0.832^{+0.069}_{-0.069}$	$2.207^{+0.511}_{-0.496}$
	+3%/-3%	+1%/-1%	+208%/-250%	+11%/-9%	+8%/-8%	+23%/-22%
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 006204758-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2 ± 3	$0.76^{+0.46}_{-0.41}$	2587^{+97}_{-91}	-2237^{+5720}_{-770}	$0.255^{+1.407}_{-0.432}$
Alt.	-50 ± 4	$0.80^{+0.48}_{-0.47}$	2587^{+107}_{-94}	4550^{+2503}_{-761}	$5.995^{+29.970}_{-3.543}$

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 $A_{obs} \gg 1.0$

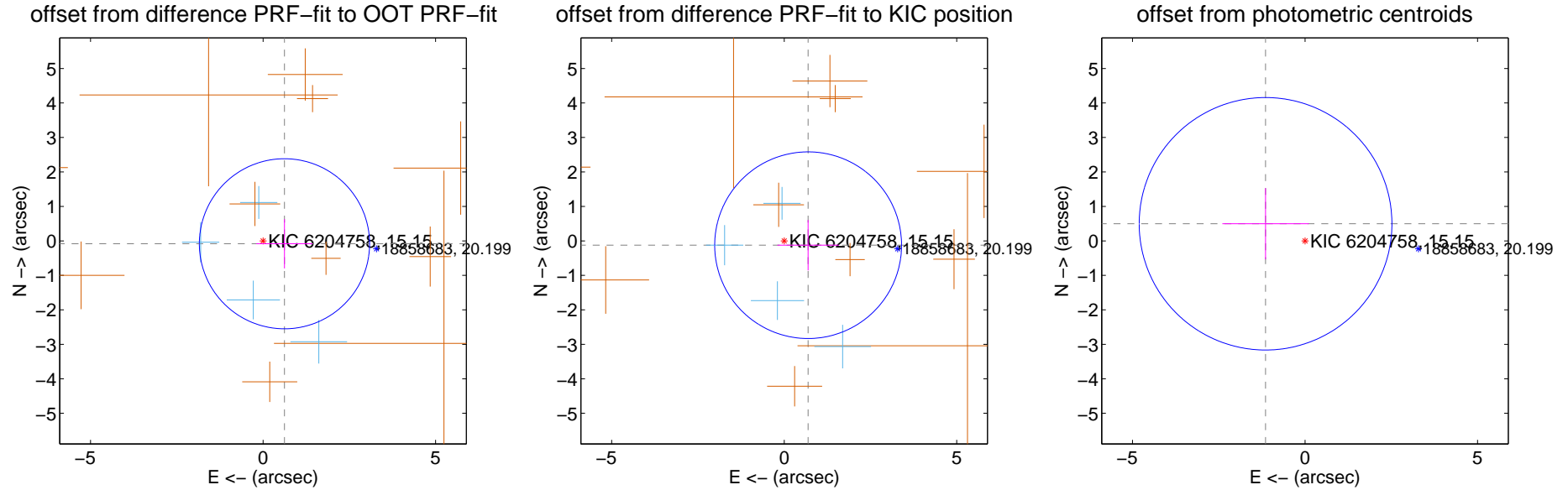
DV Centroid Data

Supplemental centroid analysis for 006204758-01. Kepler magnitude: 15.15. Transit SNR 11.12

There are 4 quarters with good PRF difference image offsets

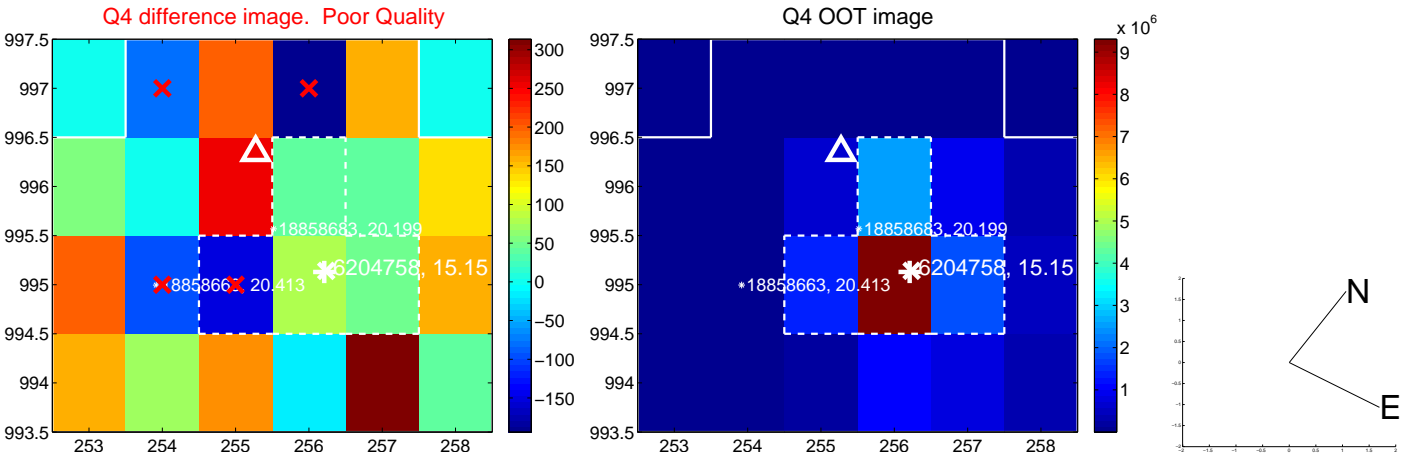
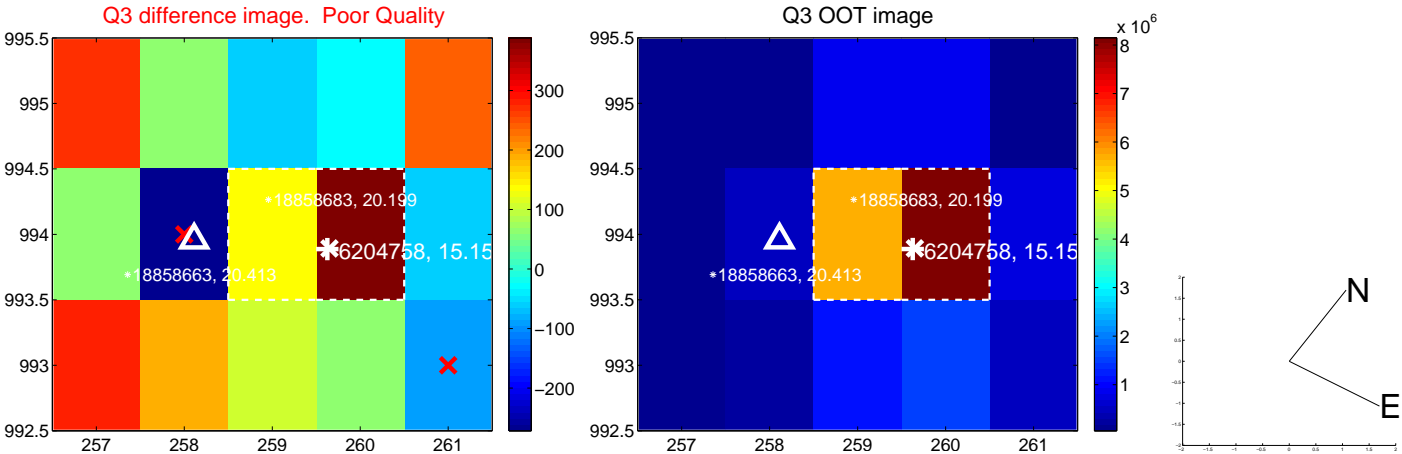
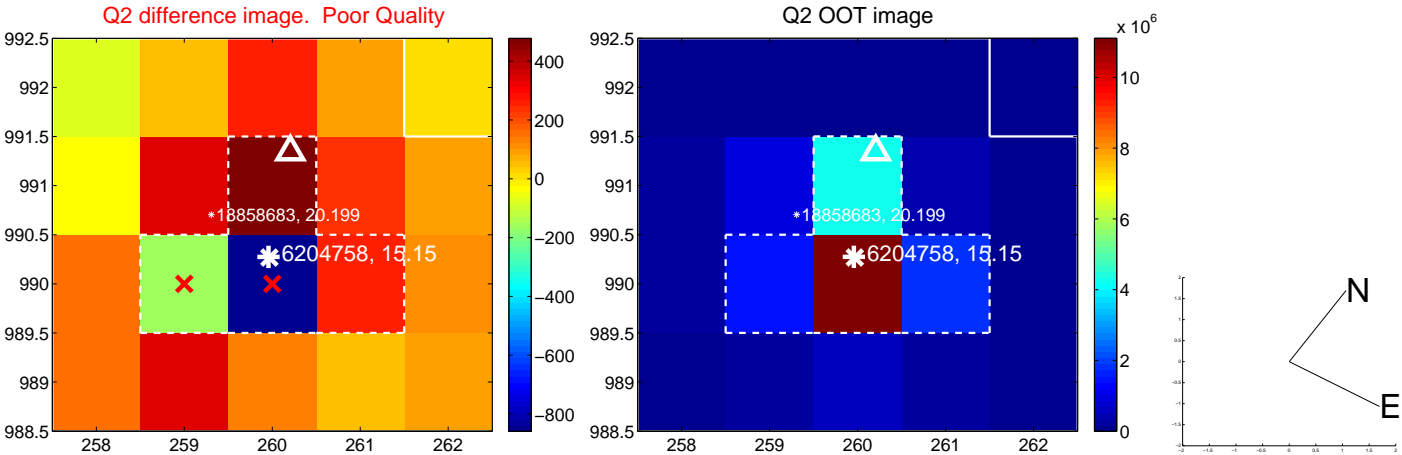
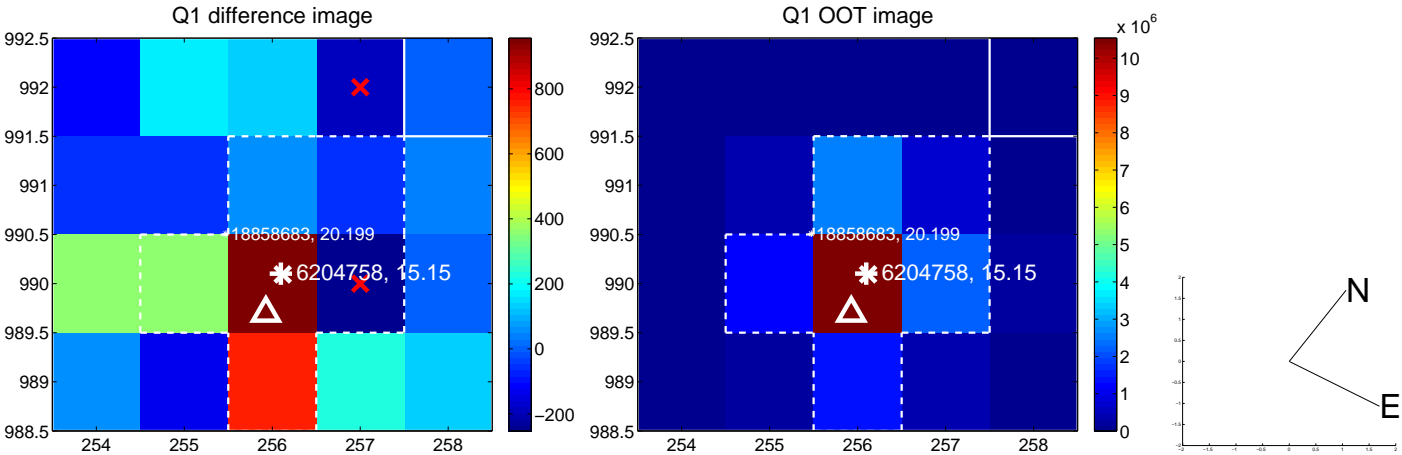
The direct PRF centroid is offset from the target star catalog position by about 0.17 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.626 ± 0.822	0.76	-0.620 ± 0.812	-0.084 ± 0.716
PRF-fit source offset from KIC position	0.704 ± 0.902	0.78	-0.693 ± 0.890	-0.125 ± 0.731
photometric centroid source offset	1.25 ± 1.22	1.02	1.14 ± 1.25	0.50 ± 1.03

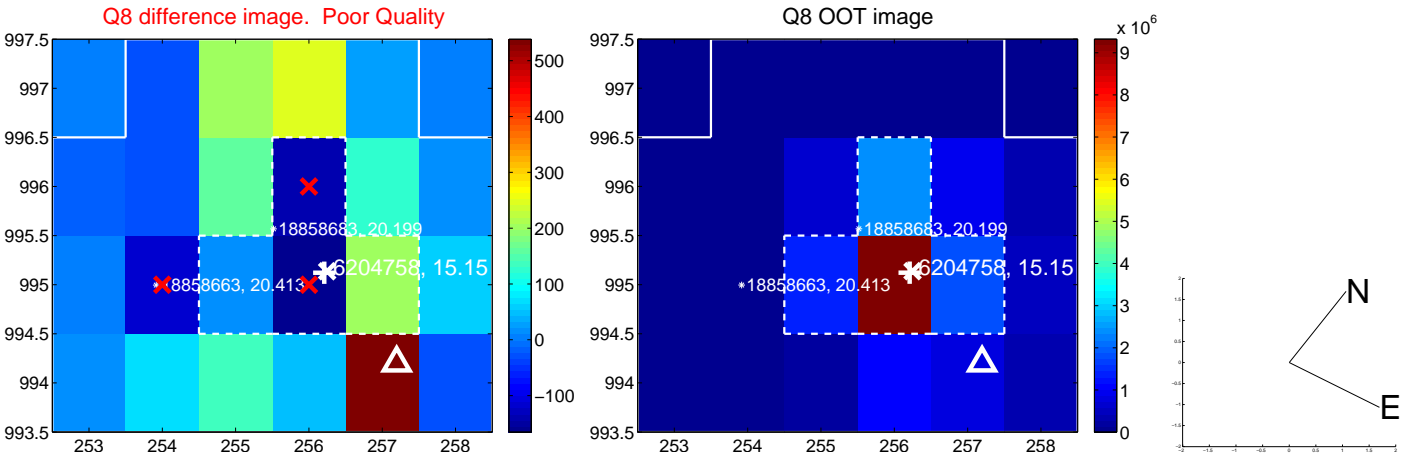
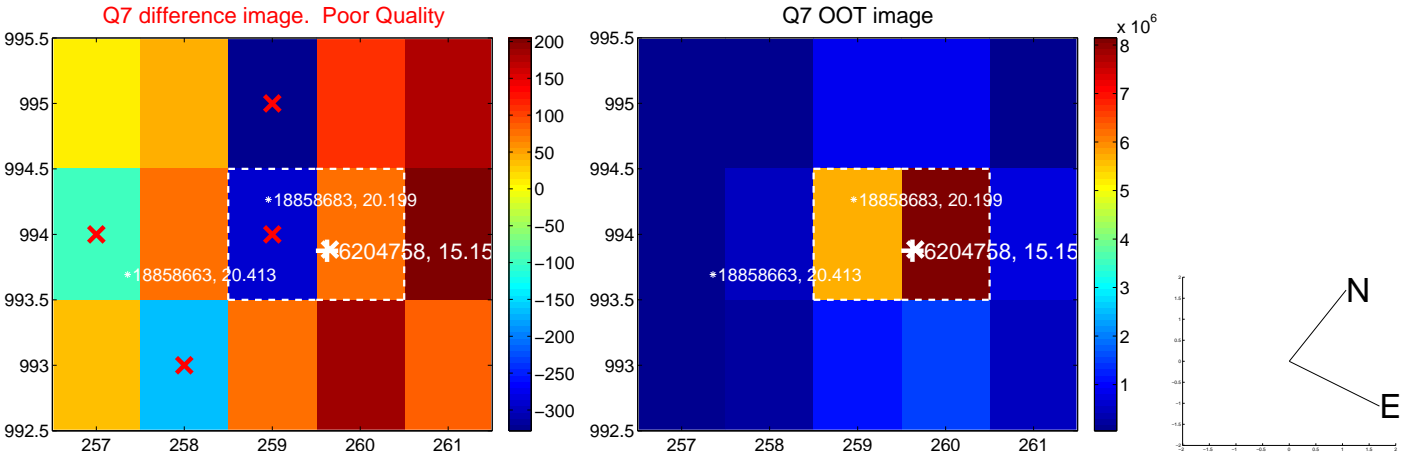
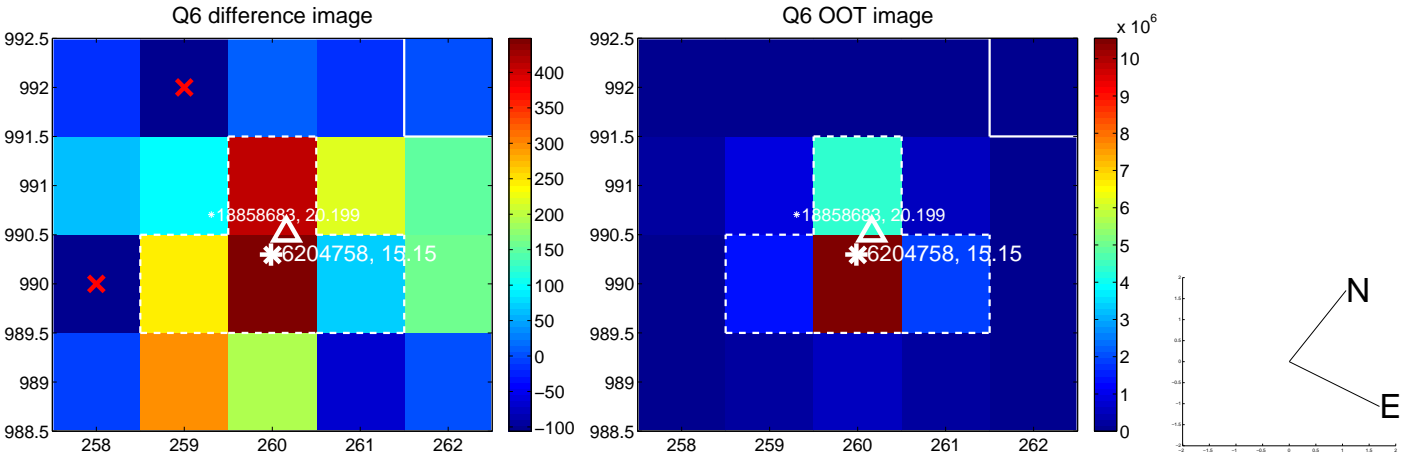
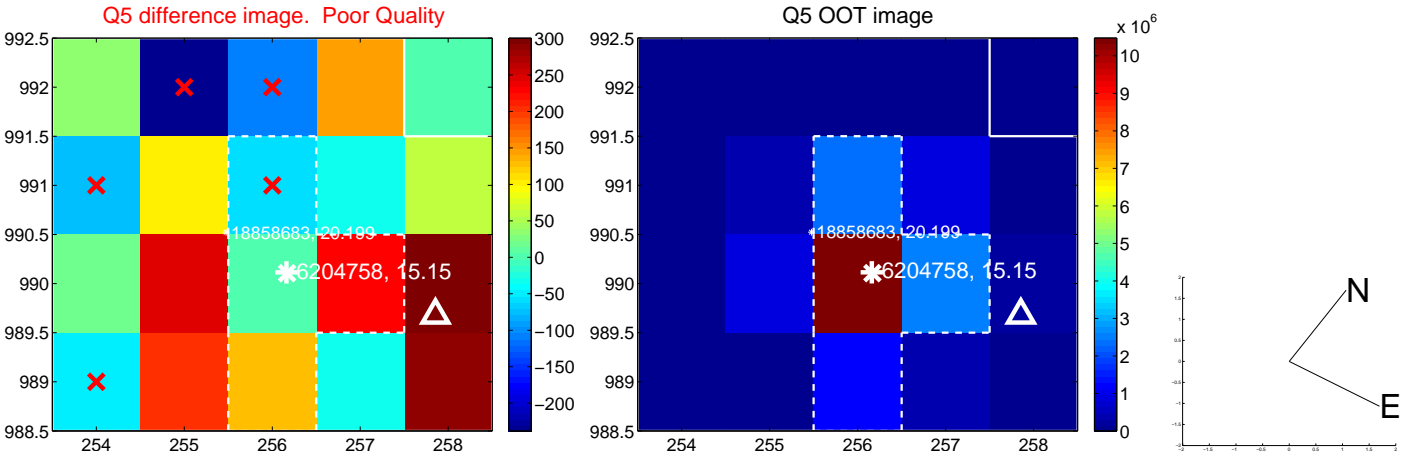


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

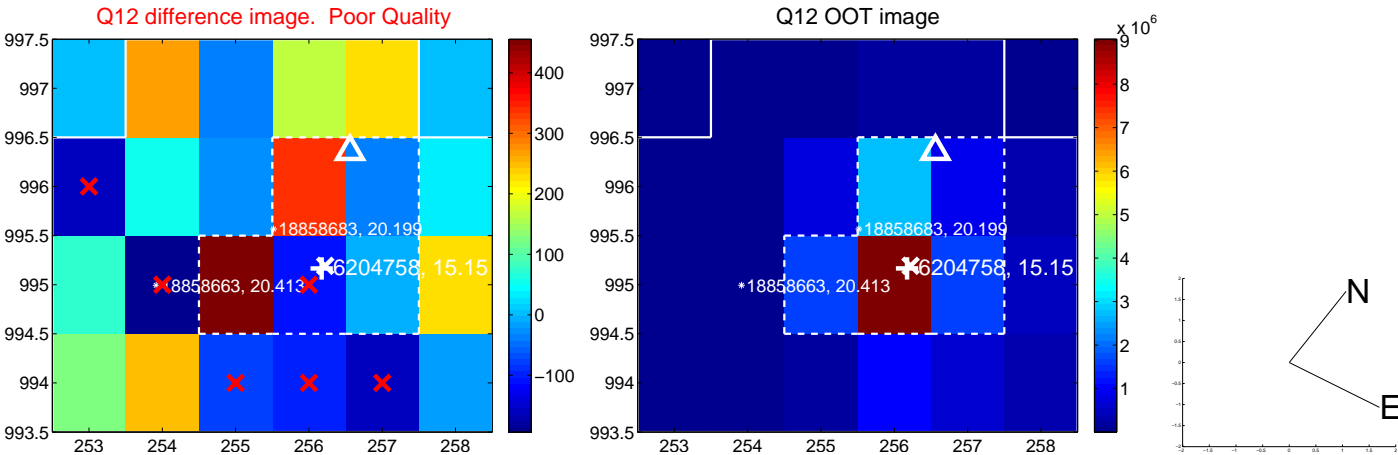
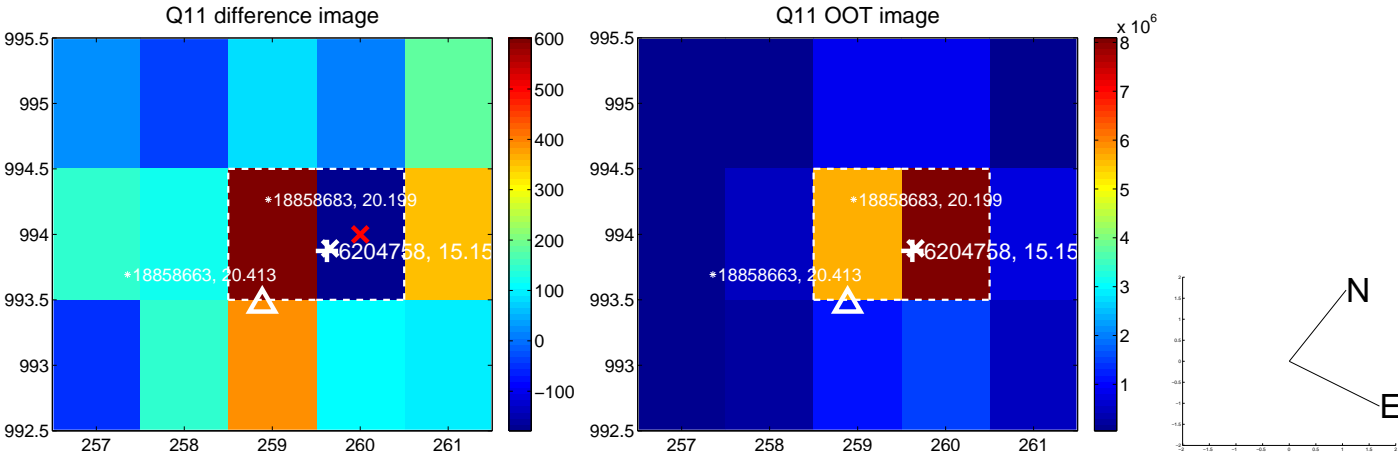
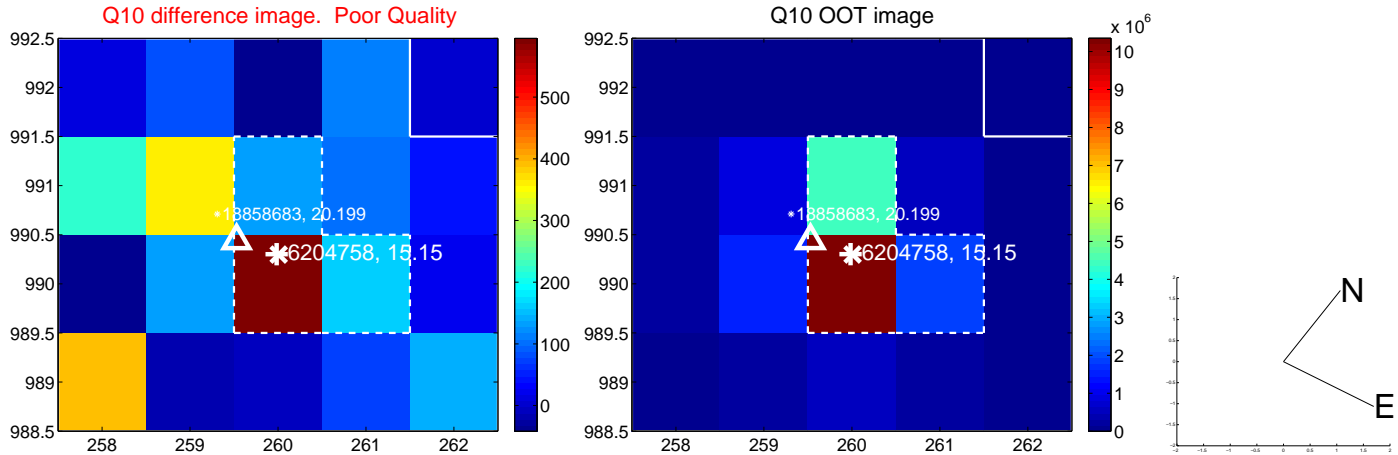
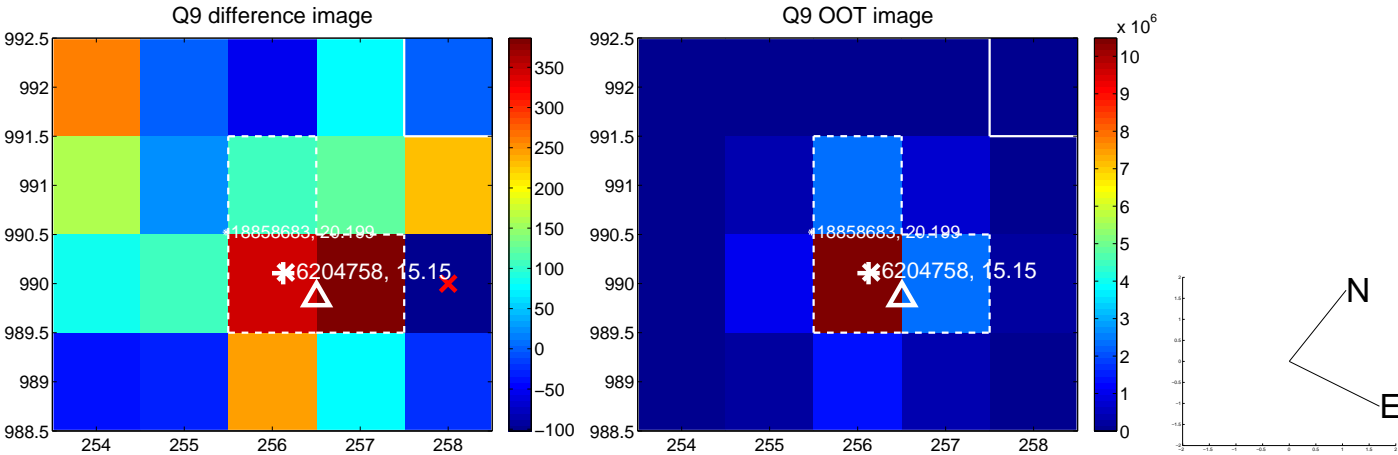
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



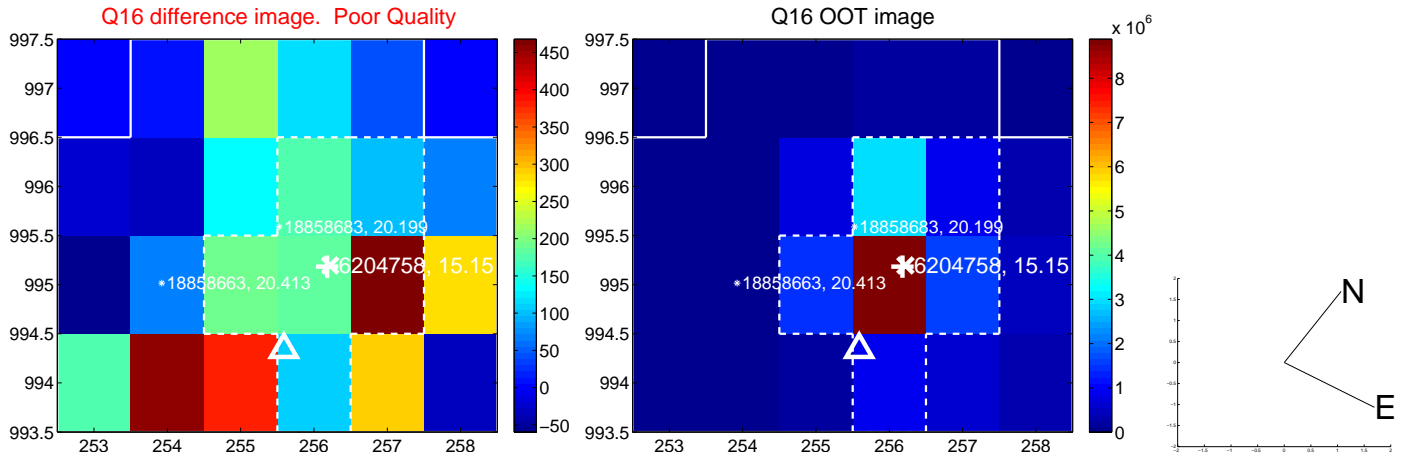
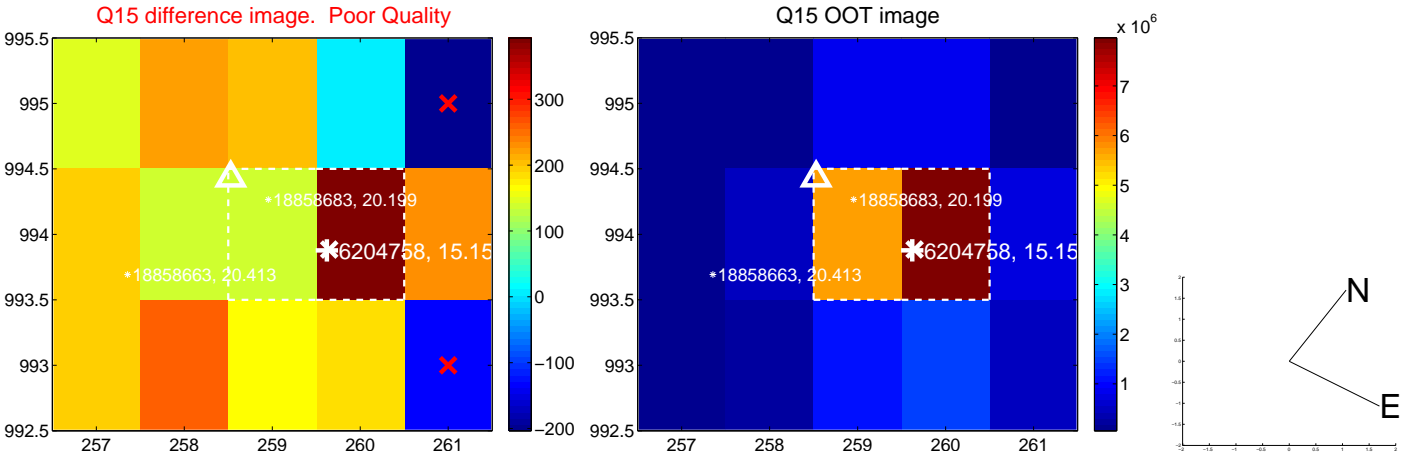
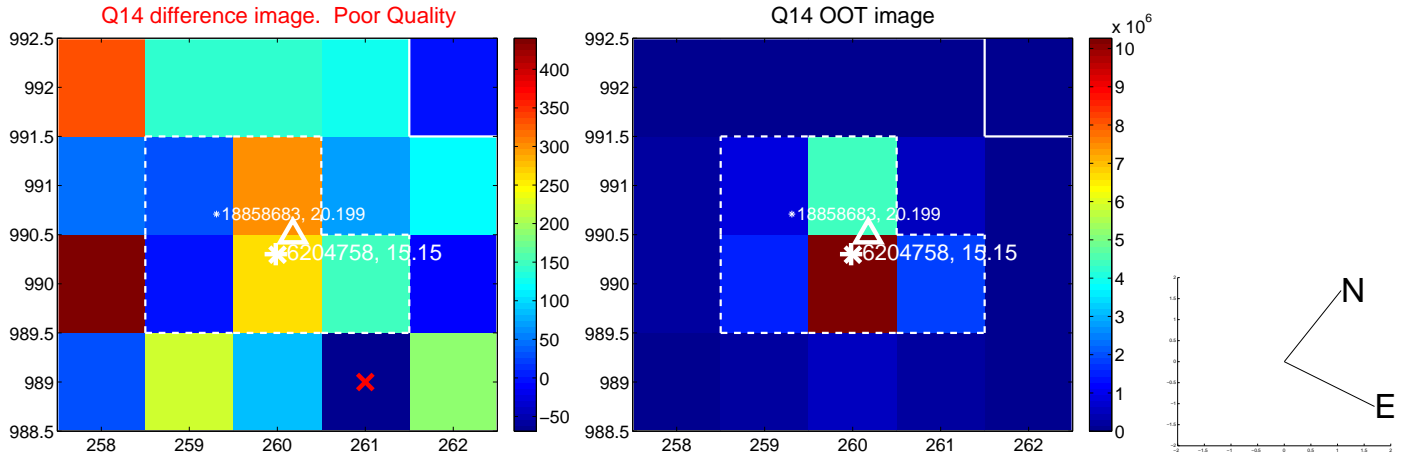
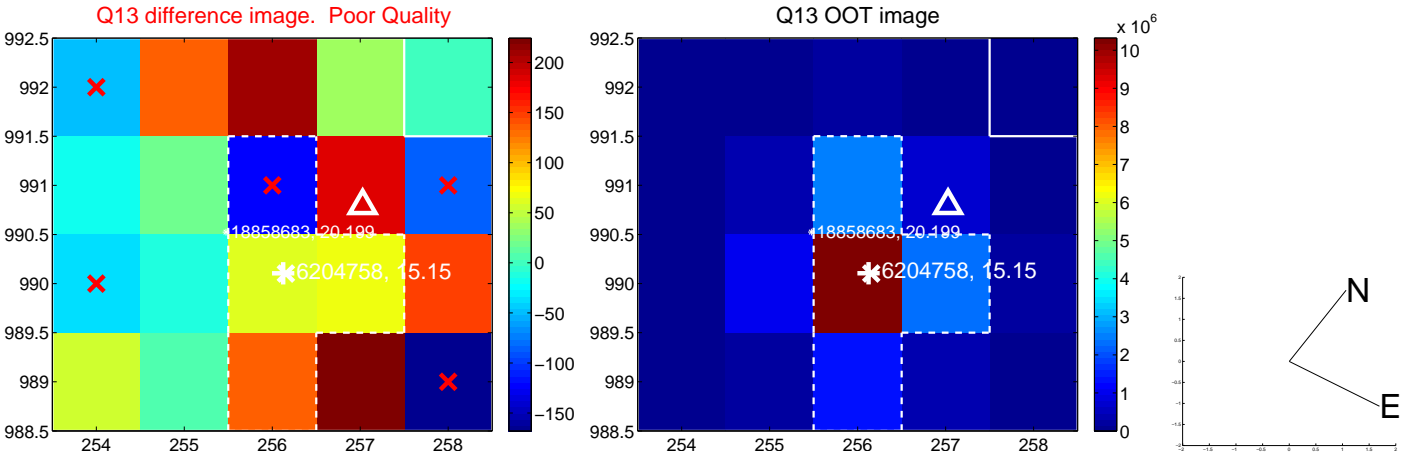
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



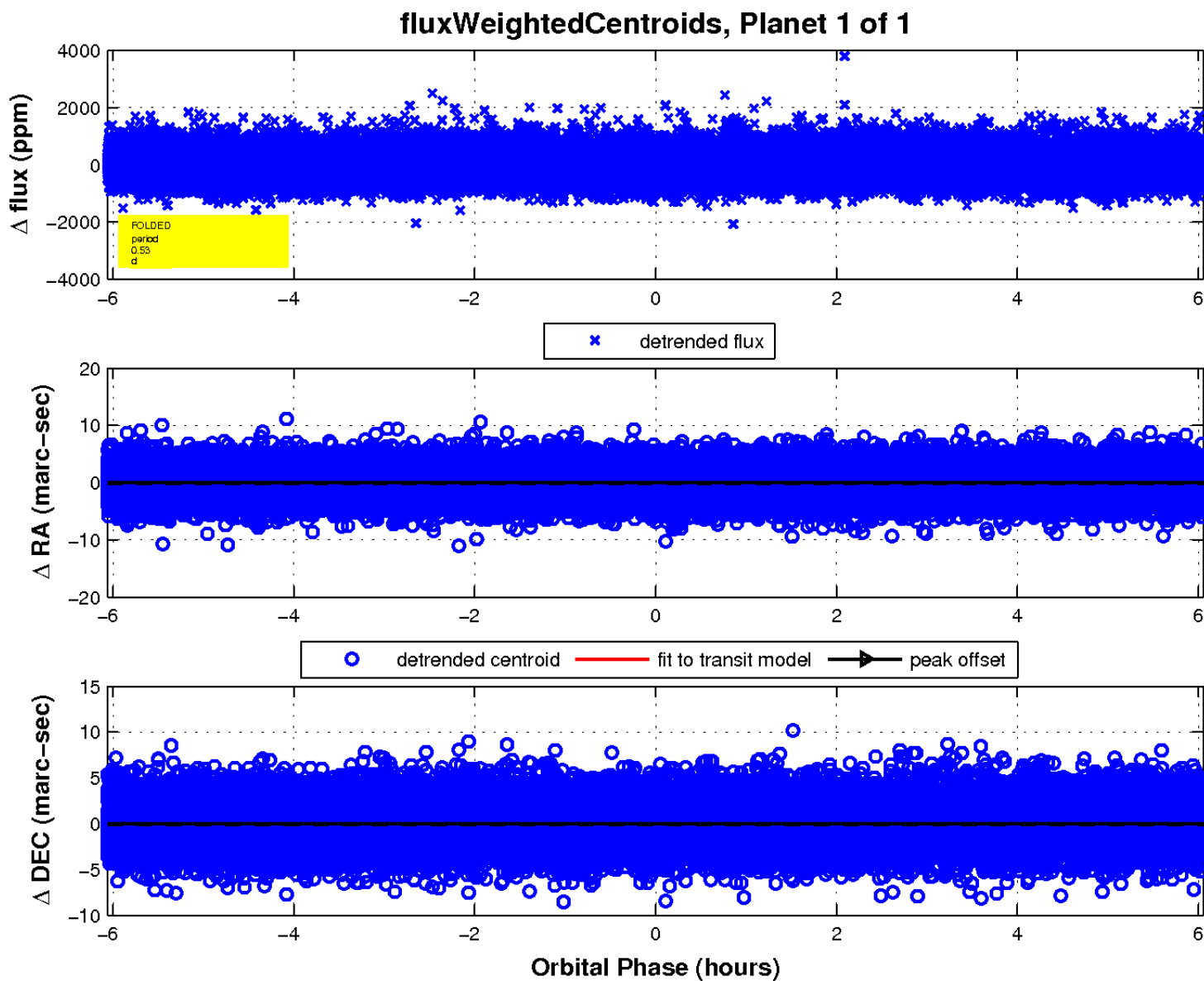
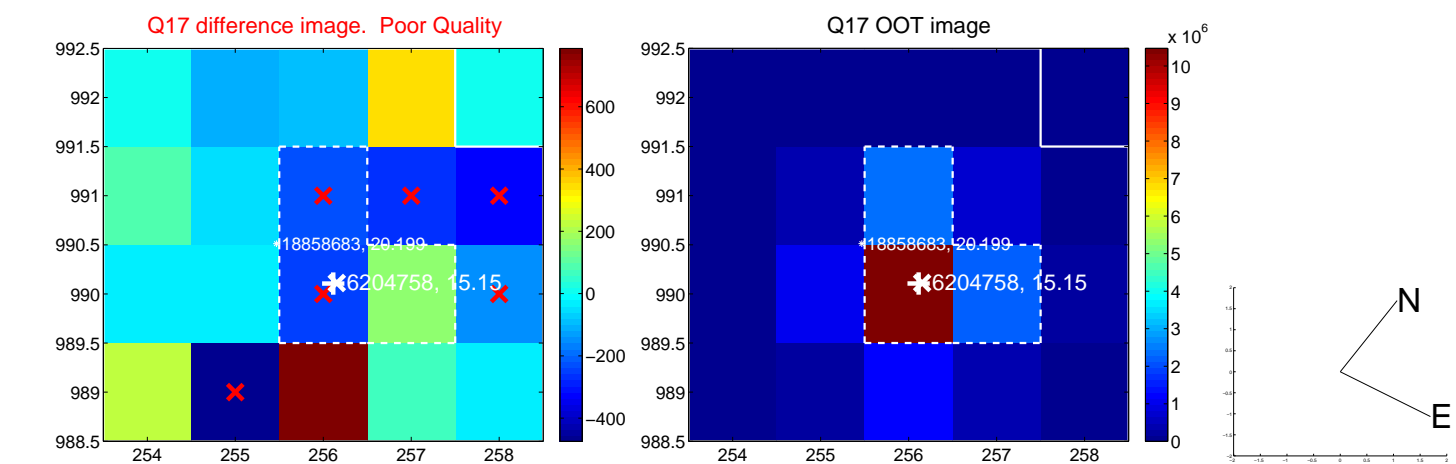
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

