

KIC 008322564

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})
008322564-01	OBS	No	22.255925	152.032111	202.0	61.968	10.3	19.2	1.97	5505	5.65	144.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008322564-01	OBS	FP	0.00	1	0	0	0	LPP_DV—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.

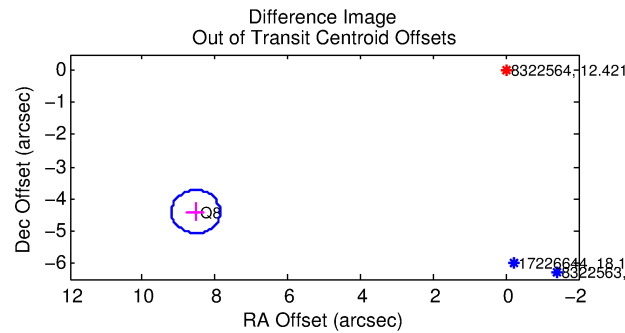
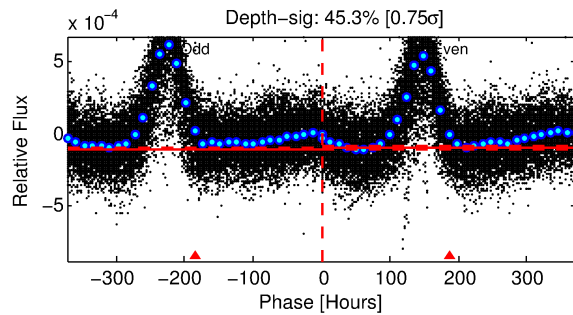
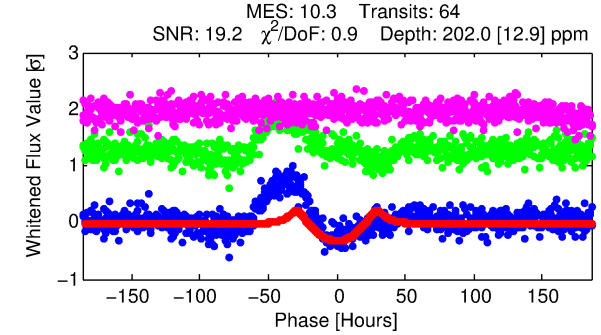
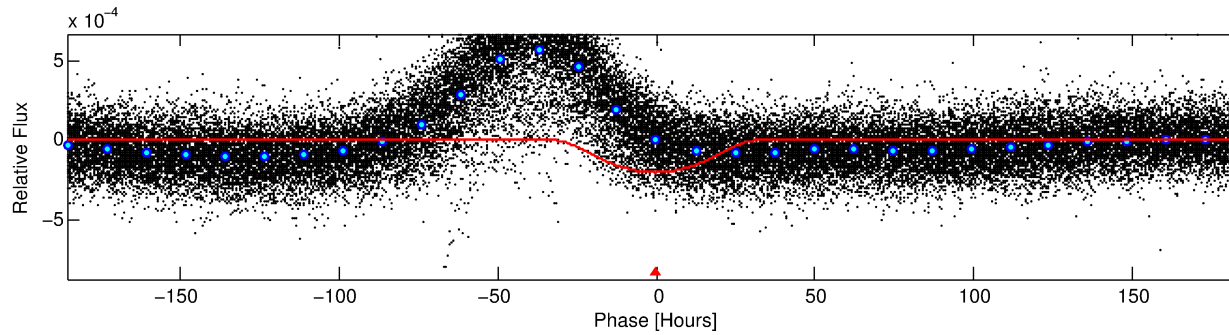
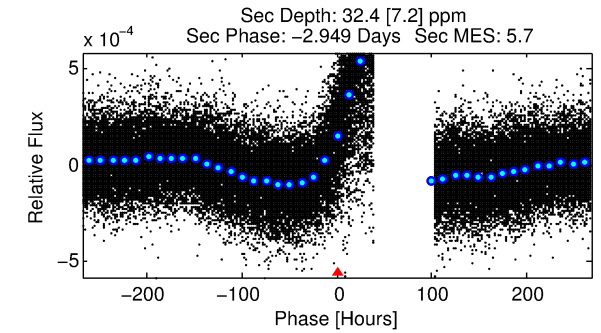
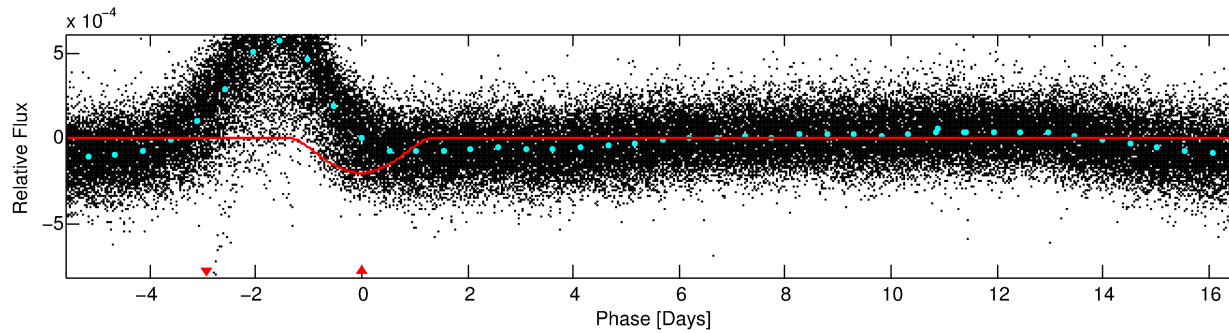
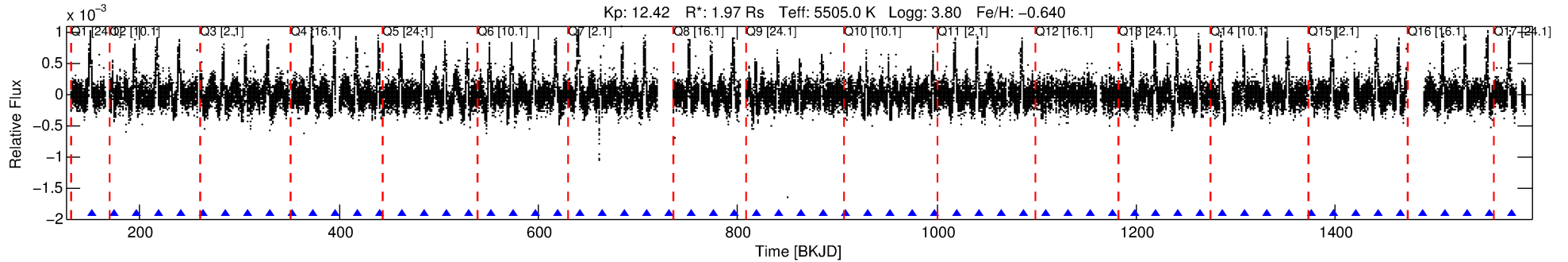
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008322564-01

No Significant Match Found

DV One-Page Summary

KIC: 8322564 Candidate: 1 of 1 Period: 22.256 d



DV Fit Results:

Period = 22.25592 [0.00120] d
Epoch = 152.0321 [0.0445] BKJD
Rp/R* = 0.0263 [0.0141]
a/R* = 1.19 [0.03]
b = 1.00 [0.02]
Seff = 144.20 [57.32]
Teq = 884 [88] K
Rp = 5.65 [3.52] Re
a = 0.1488 [0.0390] AU
Ag = 12.37 [14.36] [0.79σ]
Teffp = 2562 [707] K [2.35σ]

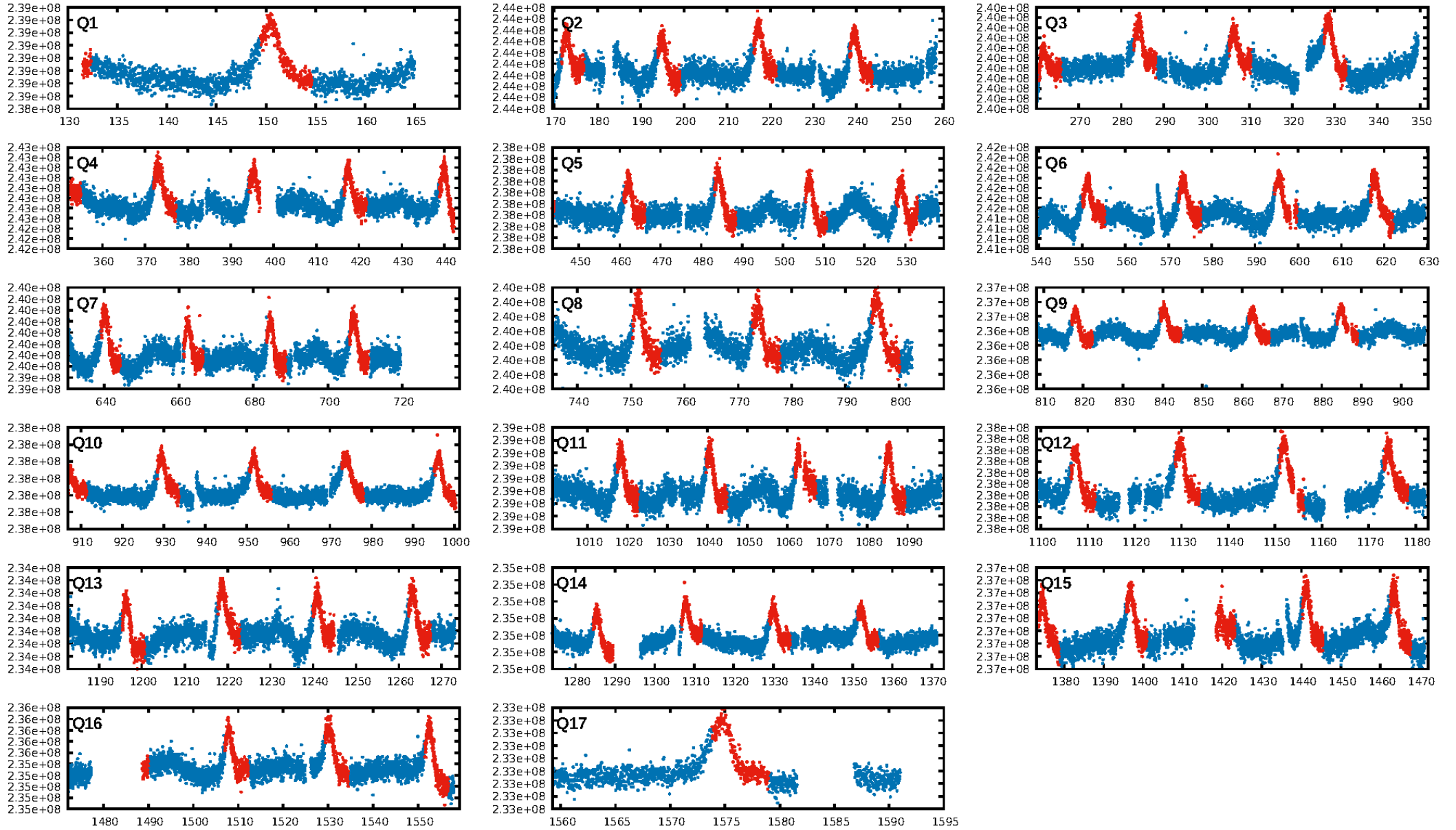
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.29e-26
RollingBand-fgt: 1.00 [62/62]
GhostDiagnostic-chr: 4.606
Centroid-sig: 0.0%
Centroid-so: 0.408 arcsec [2.66σ]
OotOffset-rm: 9.607 arcsec [42.93σ]
KicOffset-rm: 9.684 arcsec [43.29σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 0.00 [0/1]
DiffImageOverlap-fno: 1.00 [13/13]

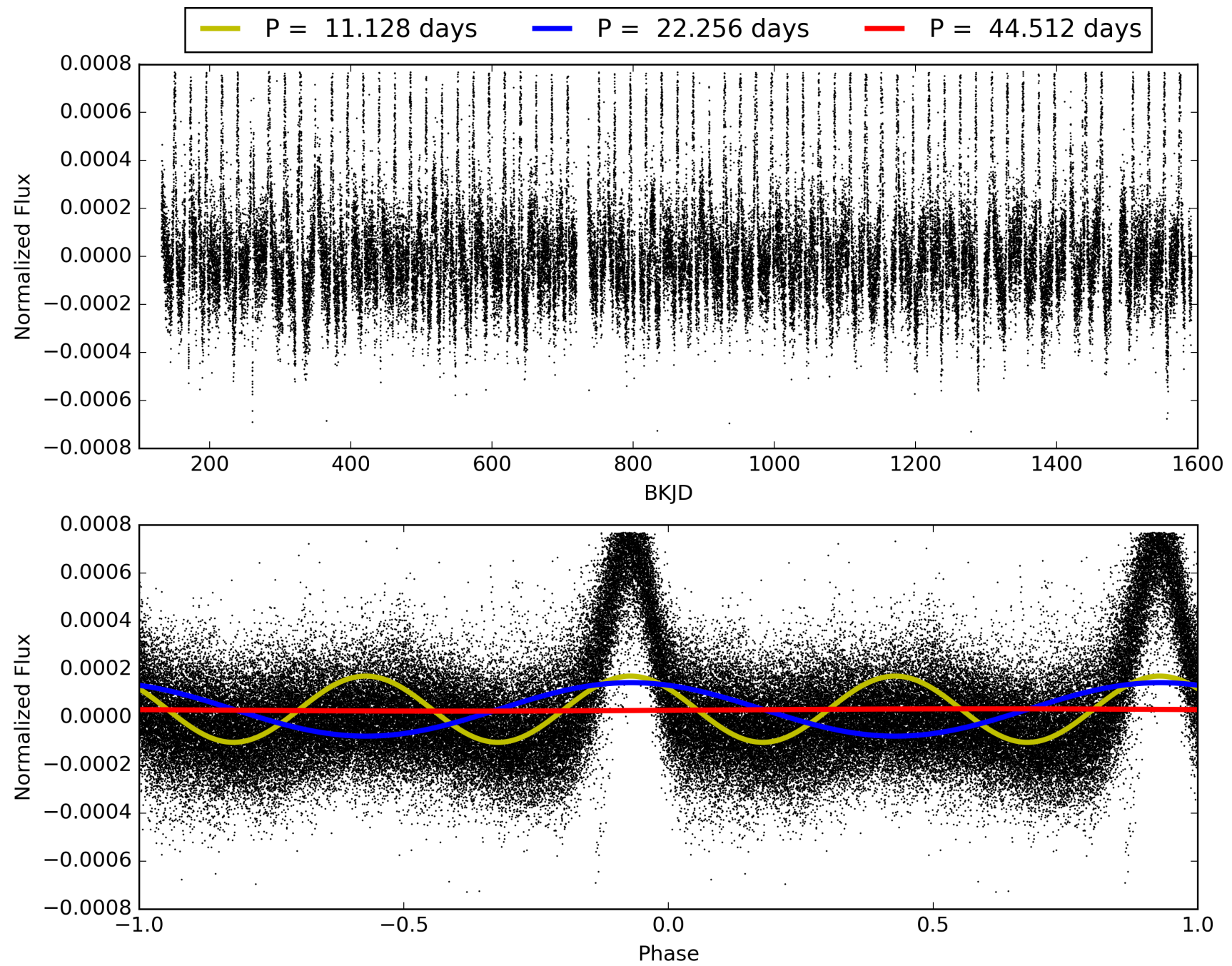
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 16:51:52 Z

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

TCE 008322564-01, PDC Light Curves

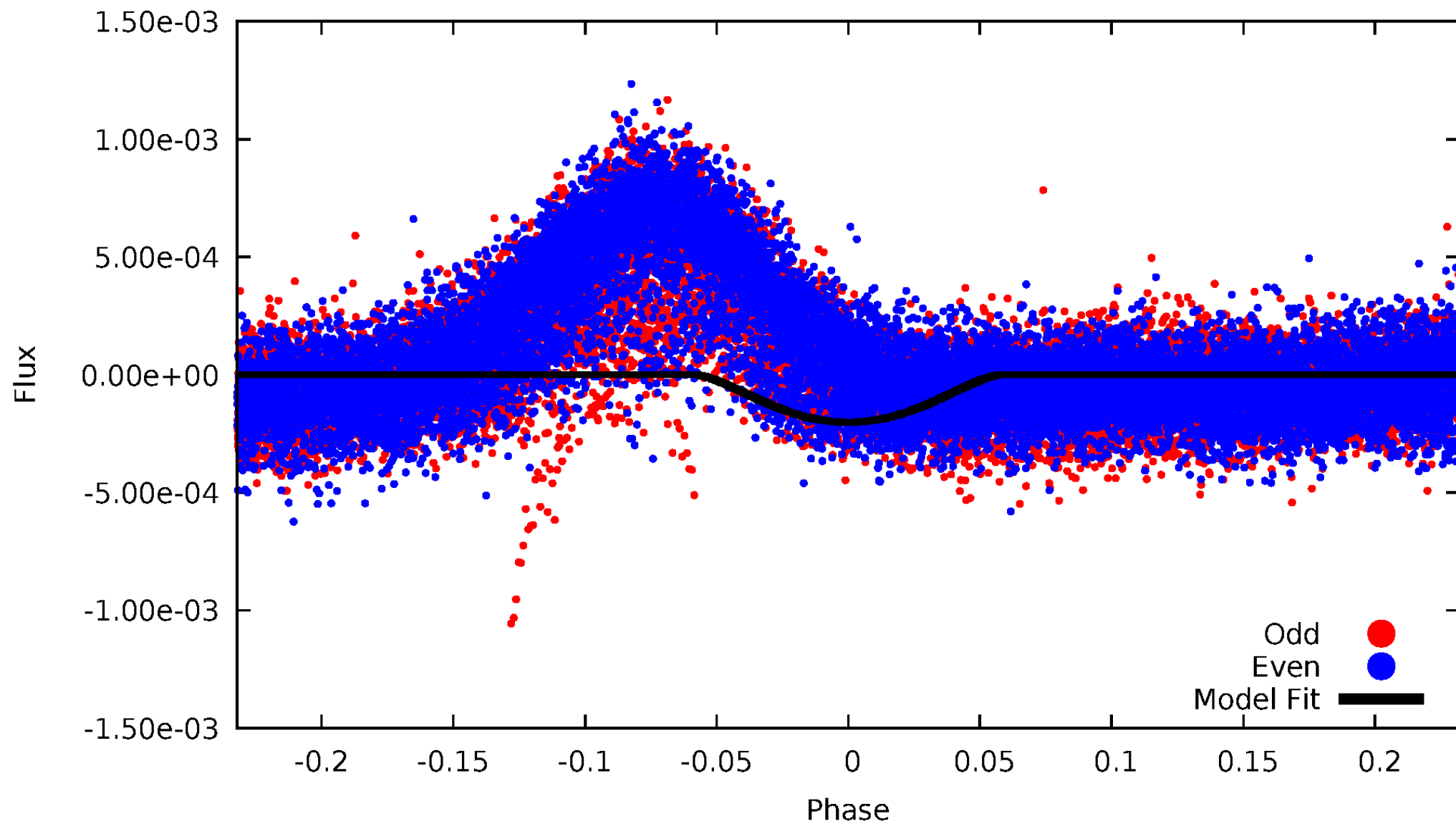


TCE 008322564-01



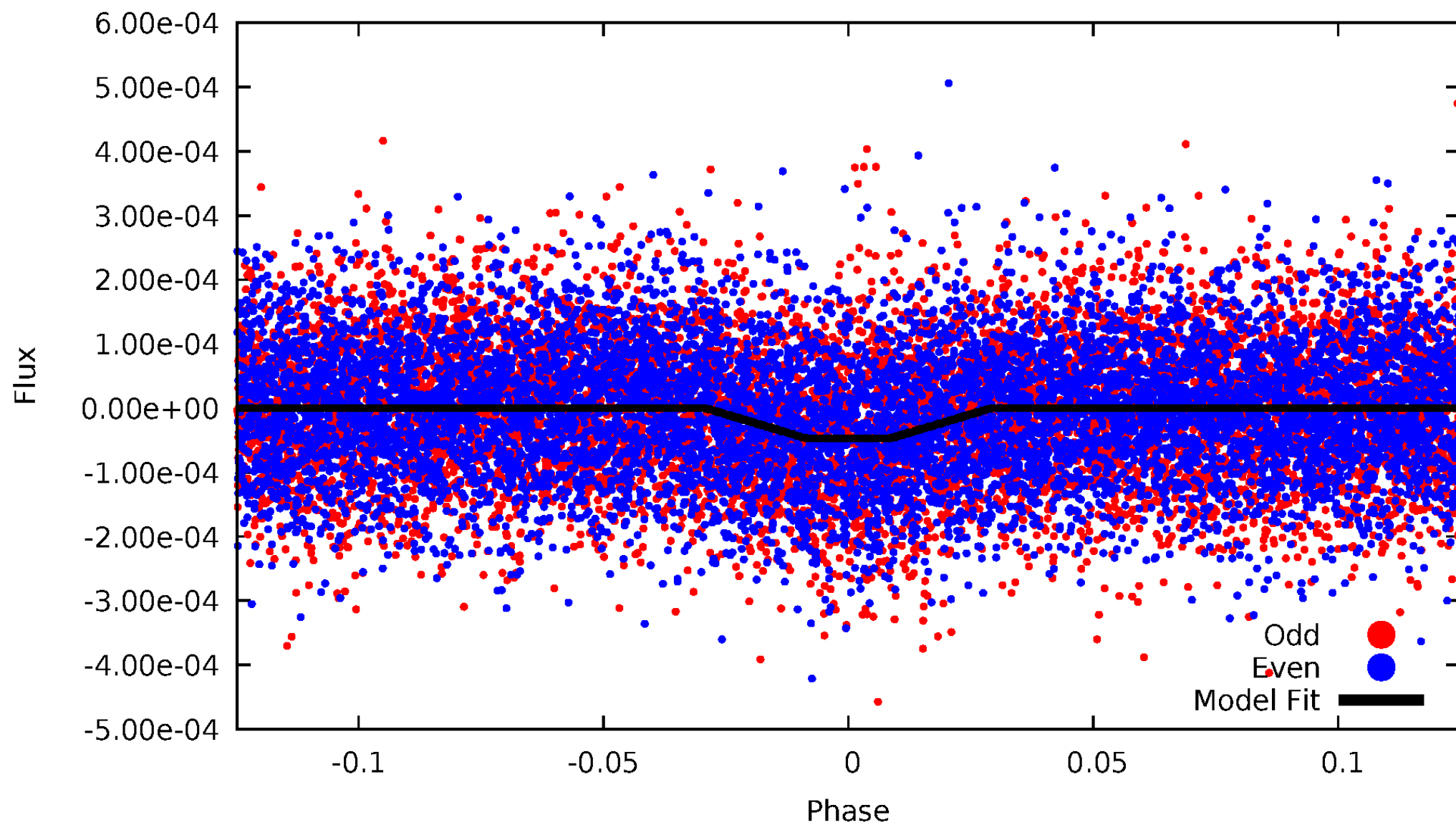
DV Odd/Even

TCE 008322564-01

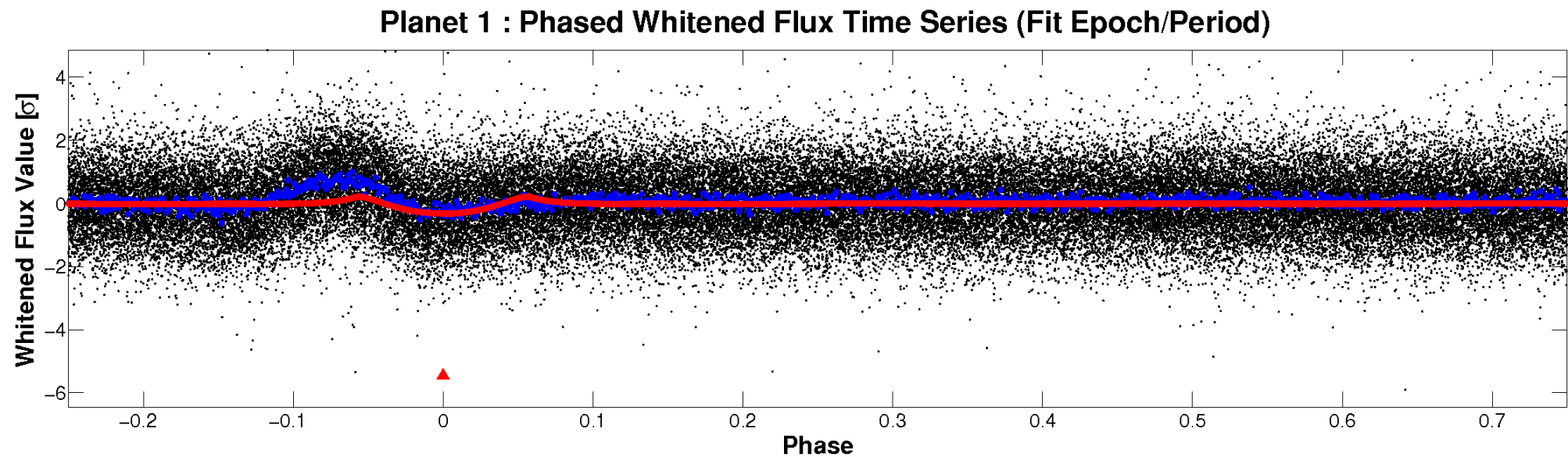
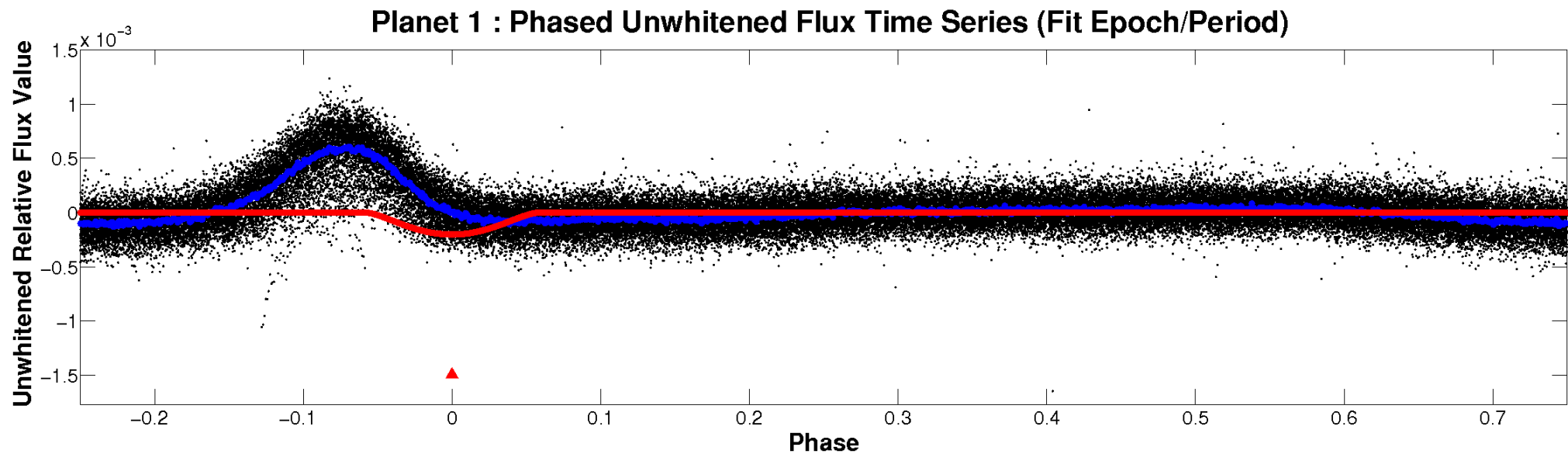


ALT Odd/Even

TCE 008322564-01

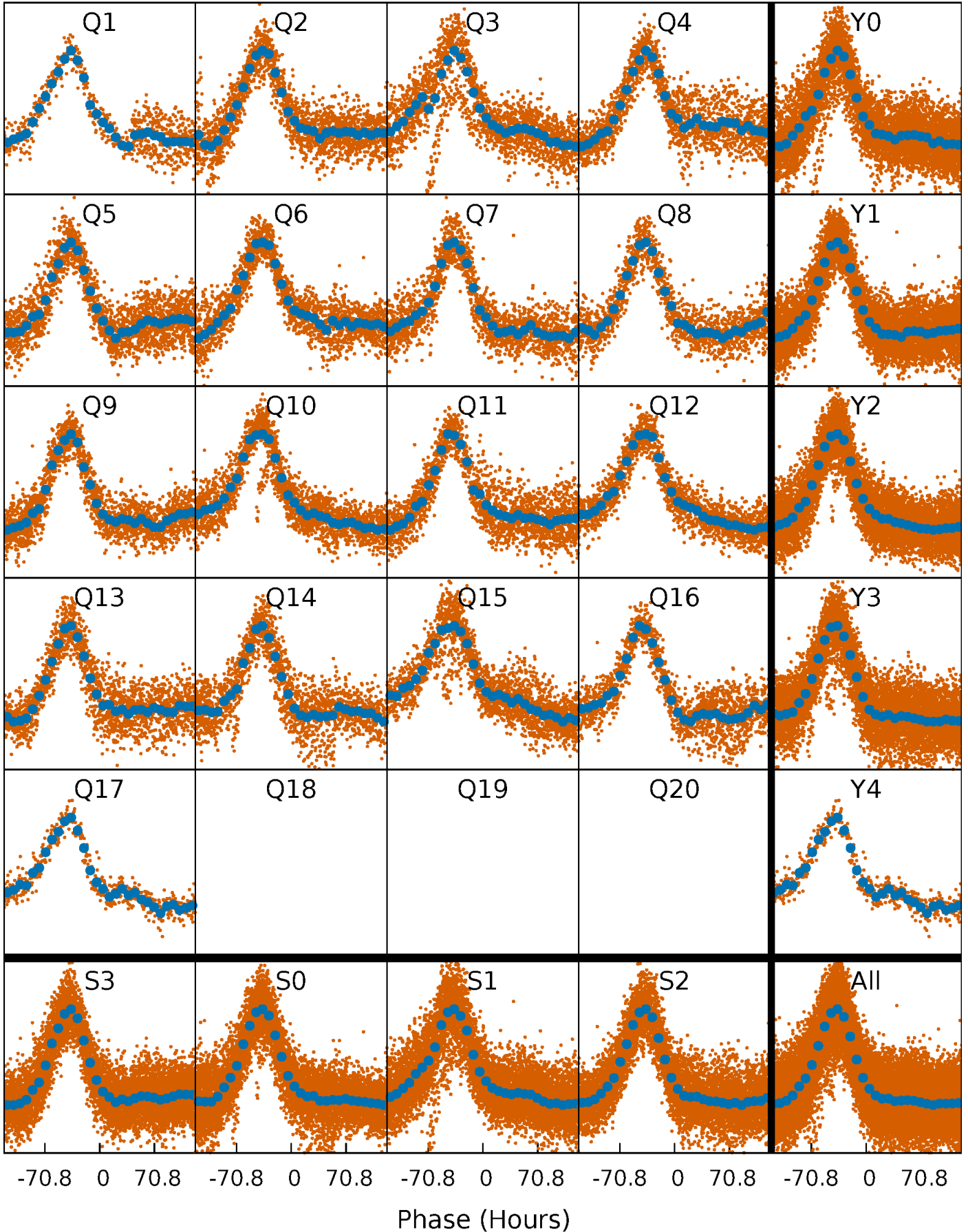


Non-Whitened Vs. Whitened Light Curve



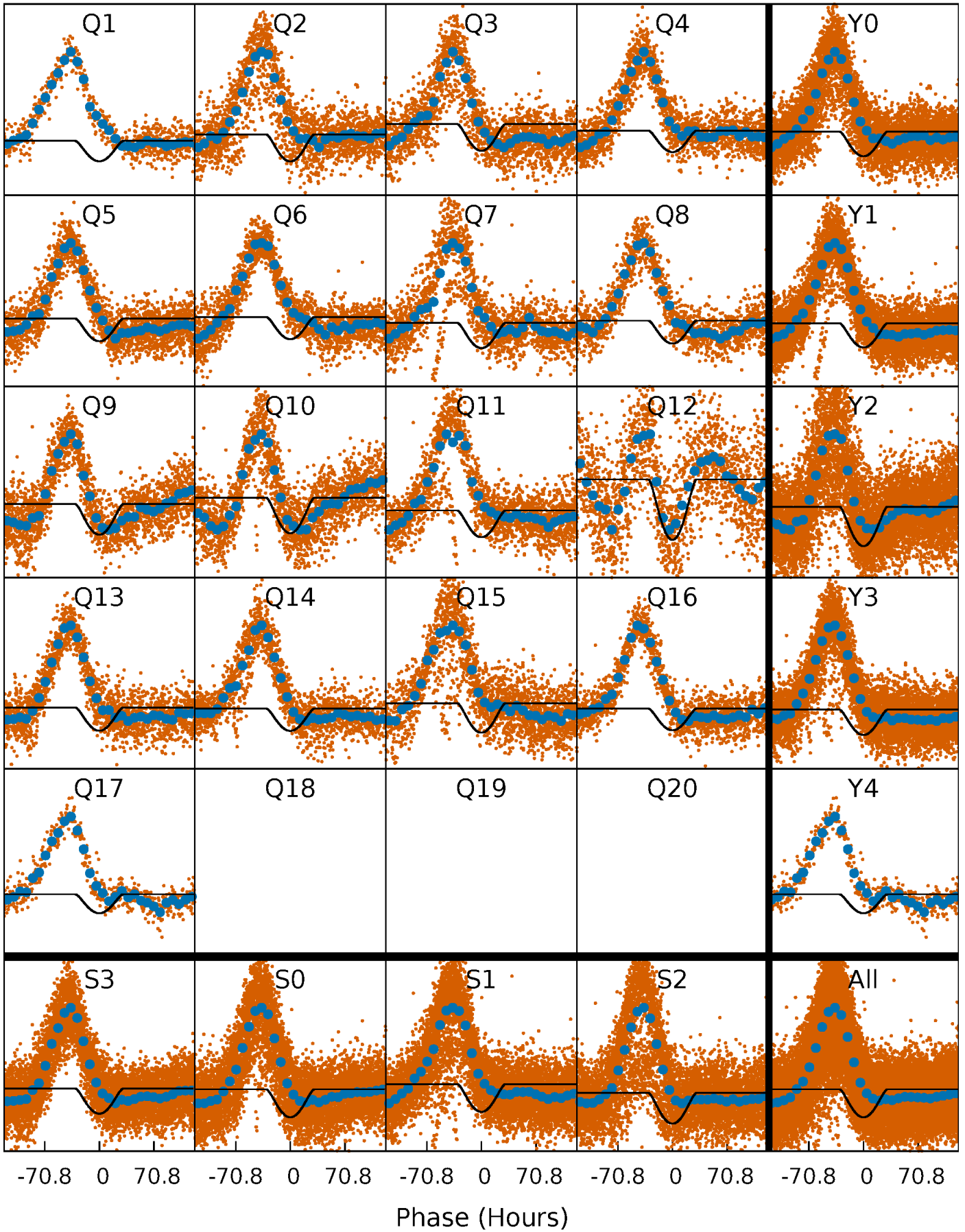
PDC Quarter-Phased Transit Curves

TCE 008322564-01 P= 22.255925 Days $T_0=152.032111$ (BKJD)



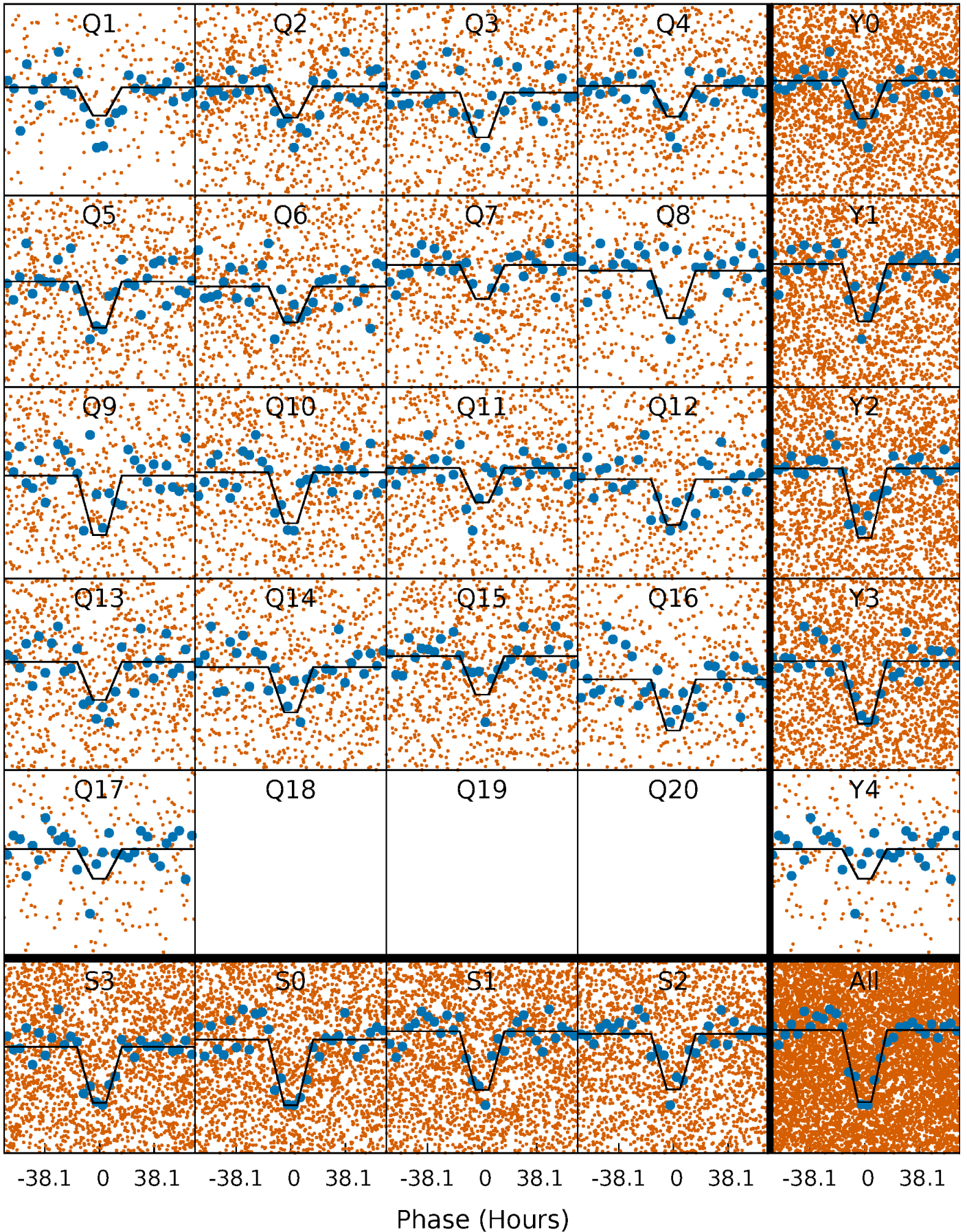
DV Quarter-Phased Transit Curves

TCE 008322564-01 P= 22.255925 Days $T_0=152.032111$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

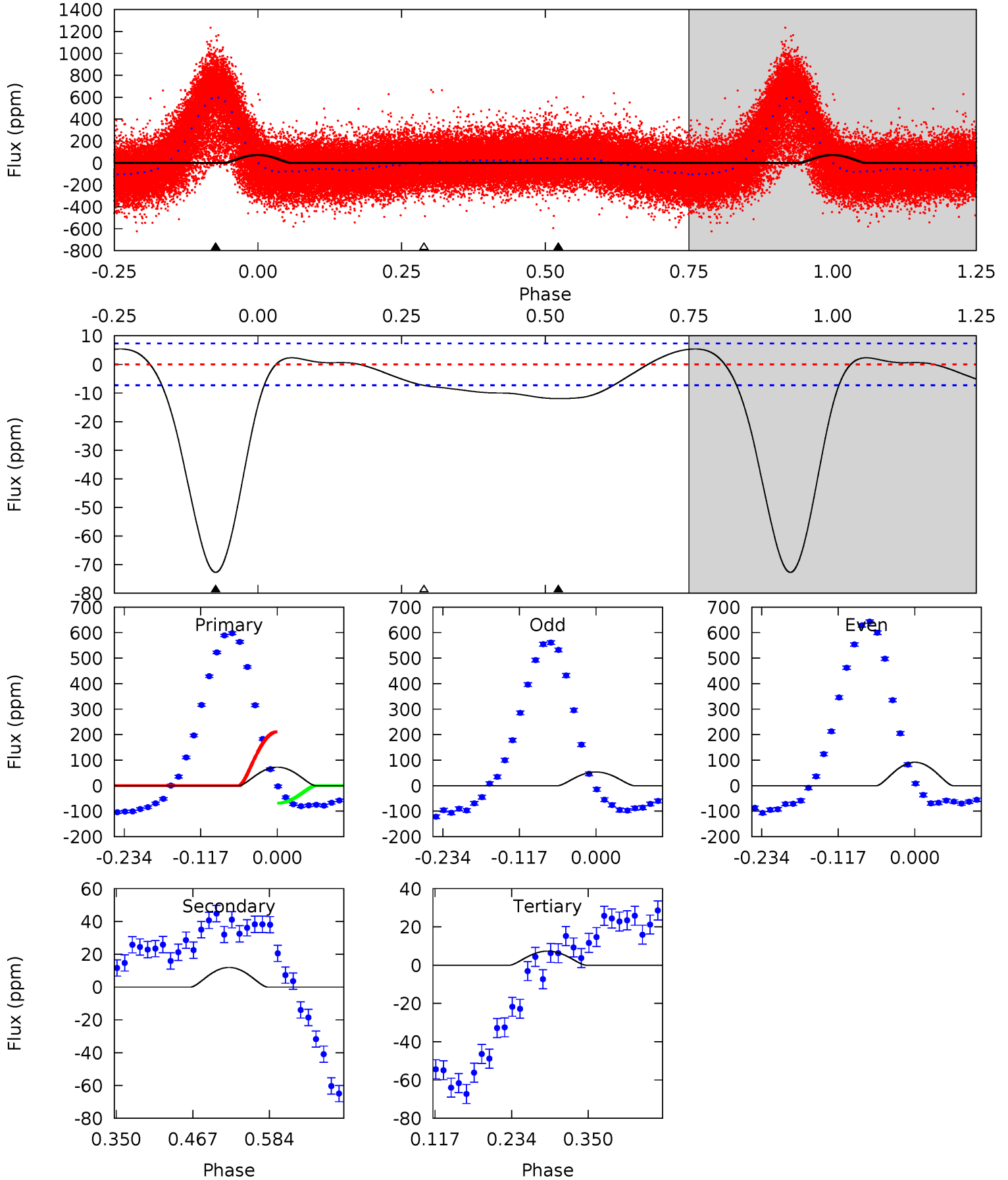
TCE 008322564-01 P= 22.260057 Days $T_0=151.639770$ (BKJD)



DV Model-Shift Uniqueness Test

008322564-01, P = 22.255925 Days, E = 129.776186 Days

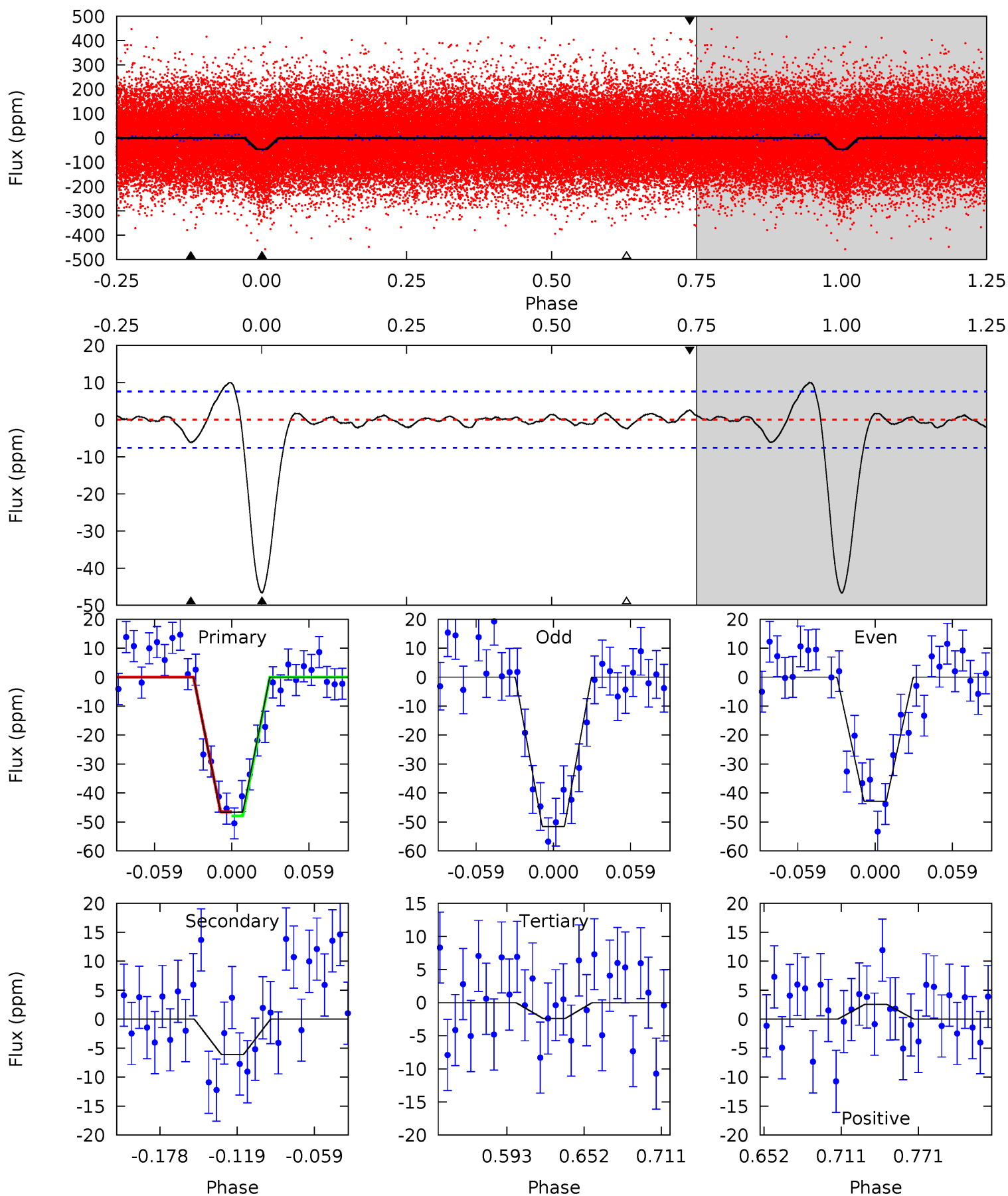
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.1	7.40	4.55	0	4.53	1.57	2.95	40.5	45.1	2.85	7.40	11.8	0.79	0.07	44.4



Alt Model-Shift Uniqueness Test

008322564-01, P = 22.260057 Days, E = 129.379713 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
28.7	3.75	1.47	1.57	4.67	1.89	0.75	27.2	27.1	2.28	2.18	2.67	1.03	0.18	0.41



Stellar Parameters For KIC 008322564

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5505^{+173}_{-154}	$3.797^{+0.204}_{-0.167}$	$-0.640^{+0.350}_{-0.200}$	$1.970^{+0.621}_{-0.414}$	$0.887^{+0.189}_{-0.059}$	$0.163^{+0.159}_{-0.081}$
	+3%/-3%	+5%/-4%	+55%/-31%	+32%/-21%	+21%/-7%	+97%/-49%
Source	PHO1	FLK73	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 008322564-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-12 ± 2	$5.90^{+2.93}_{-3.01}$	1224^{+93}_{-83}	2680^{+589}_{-273}	$4.292^{+12.741}_{-2.374}$
Alt.	-6 ± 2	$2.59^{+2.65}_{-1.86}$	1228^{+93}_{-87}	3082^{+1715}_{-558}	11^{+131}_{-9}

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 $A_{obs} \gg 1.0$

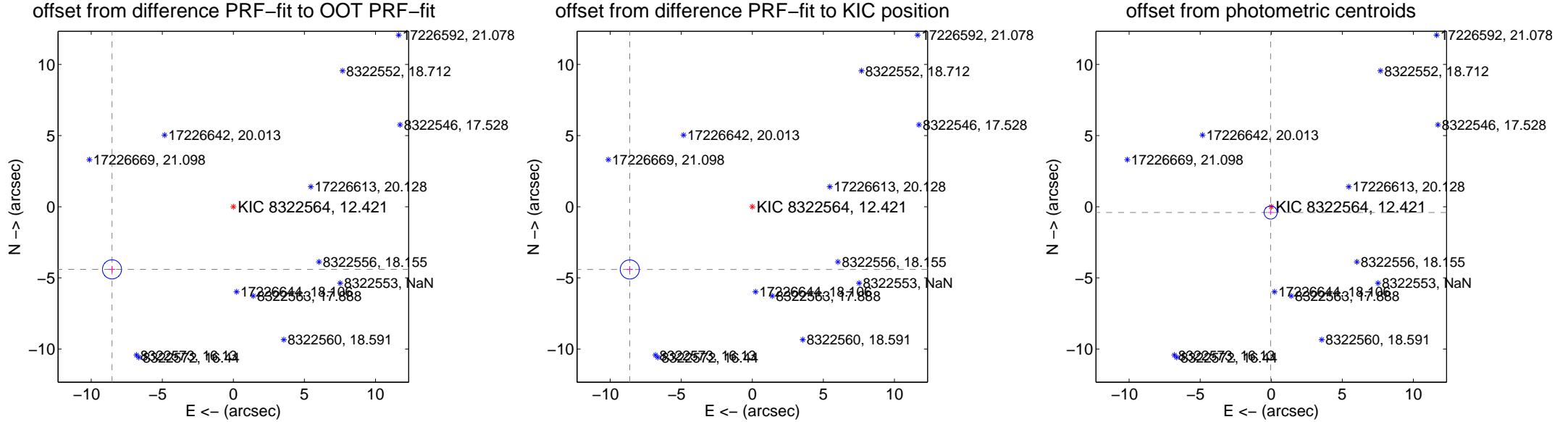
DV Centroid Data

Supplemental centroid analysis for 008322564-01. Kepler magnitude: 12.42. Transit SNR 19.24

There are 0 quarters with good PRF difference image offsets

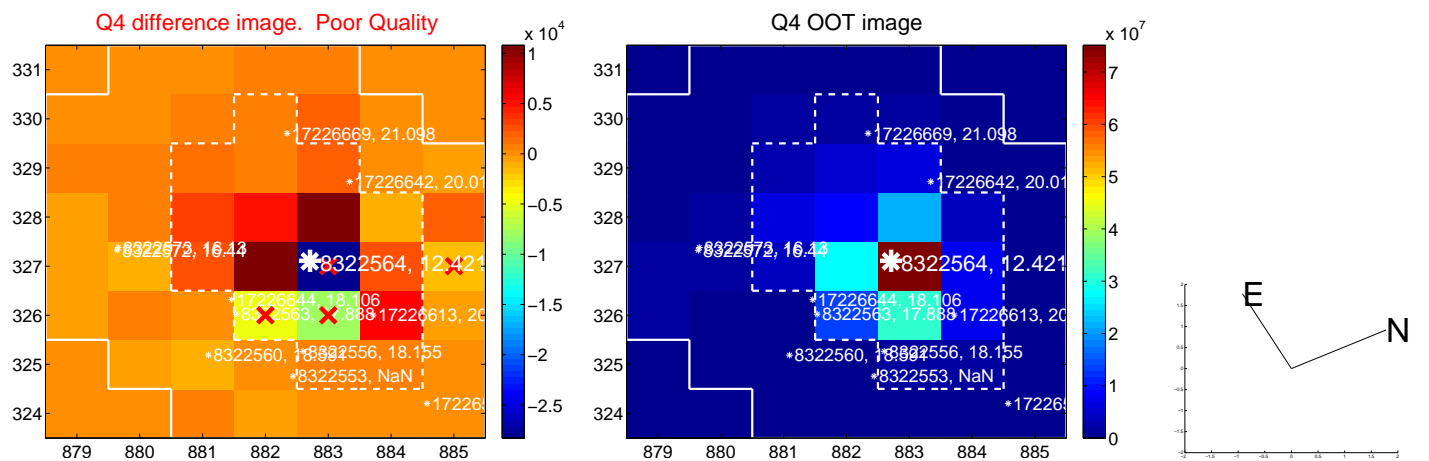
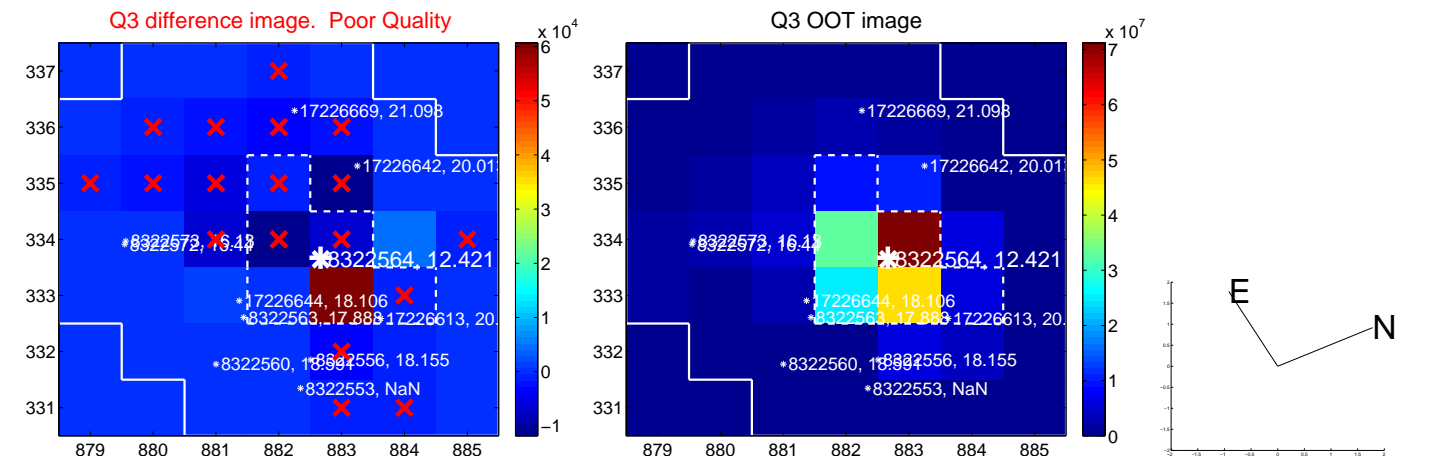
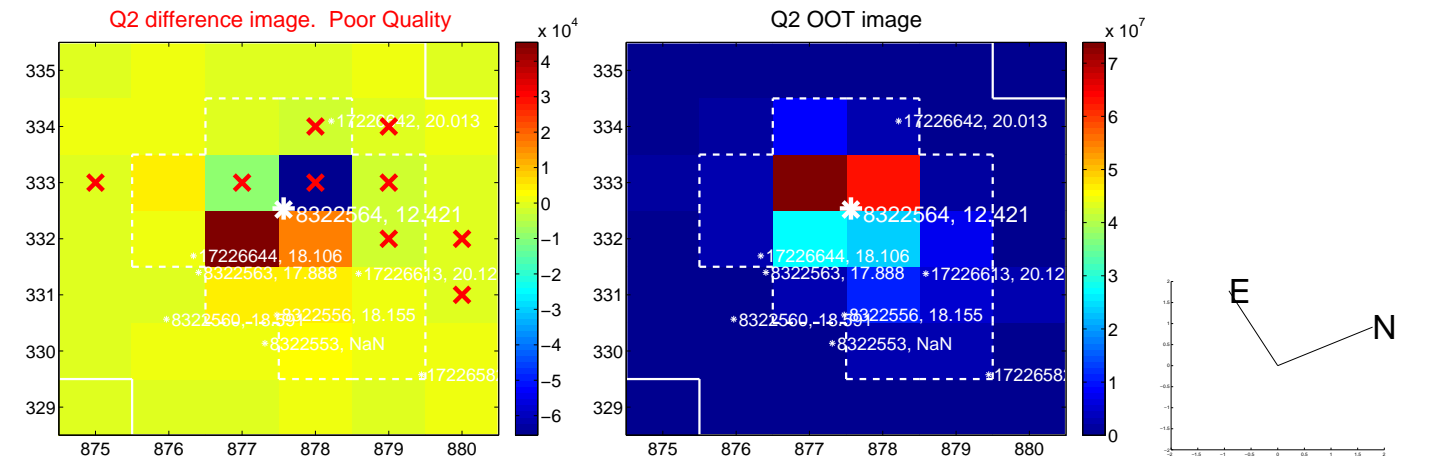
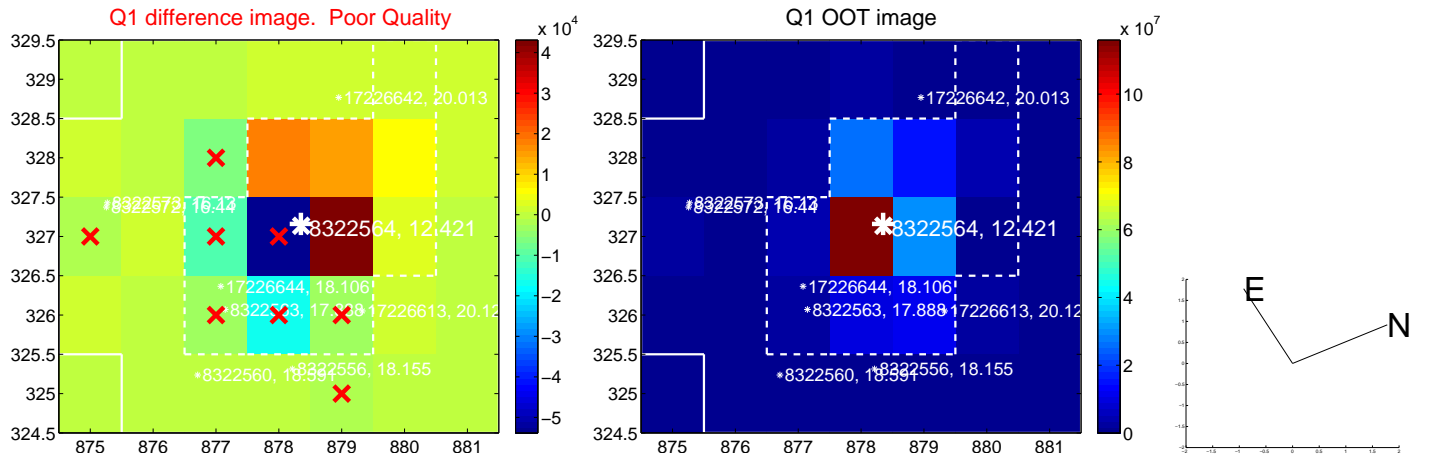
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.607 \pm 0.224	42.93	8.539 \pm 0.219	-4.403 \pm 0.240
PRF-fit source offset from KIC position	9.684 \pm 0.224	43.29	8.622 \pm 0.219	-4.410 \pm 0.240
photometric centroid source offset	0.41 \pm 0.15	2.66	0.04 \pm 0.20	-0.41 \pm 0.15

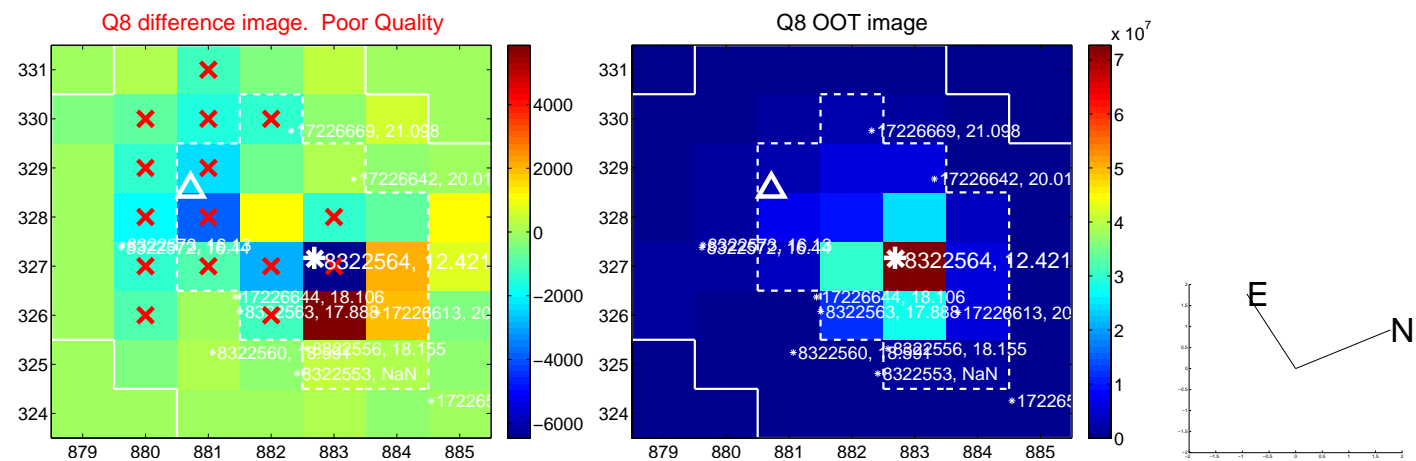
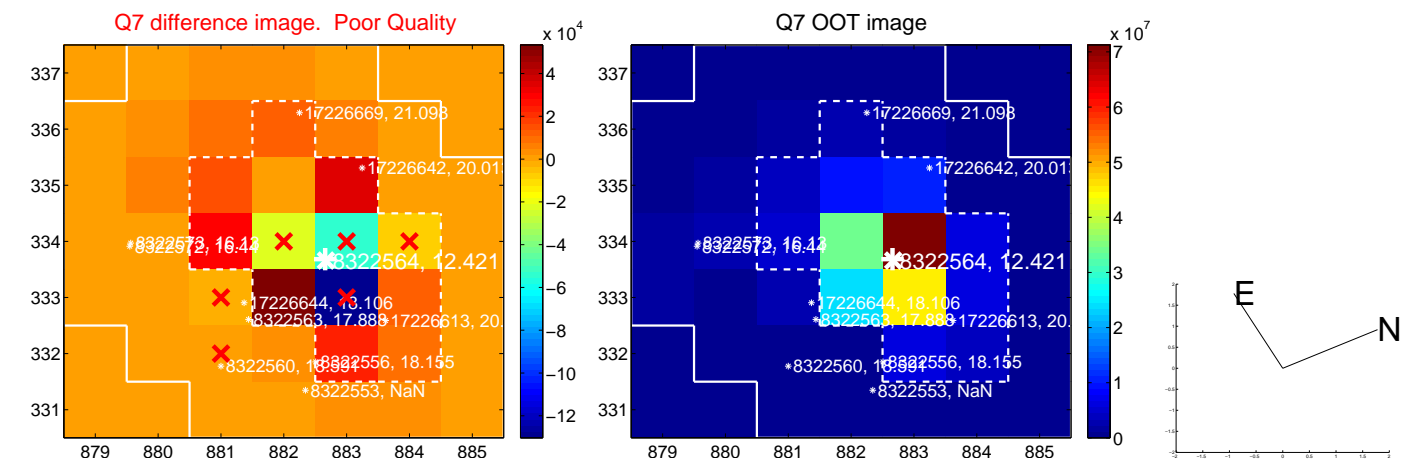
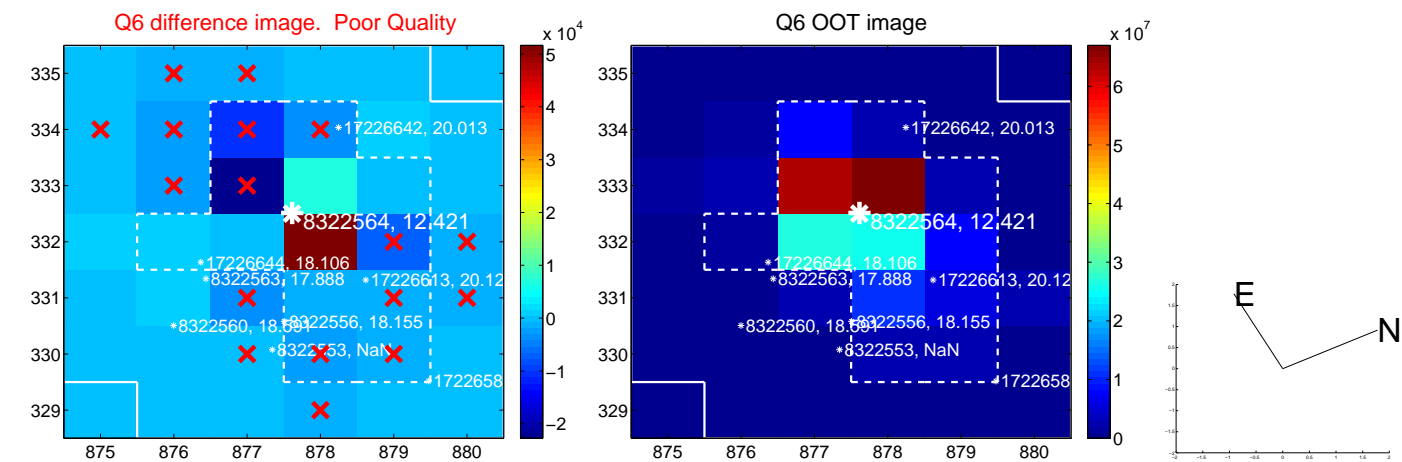
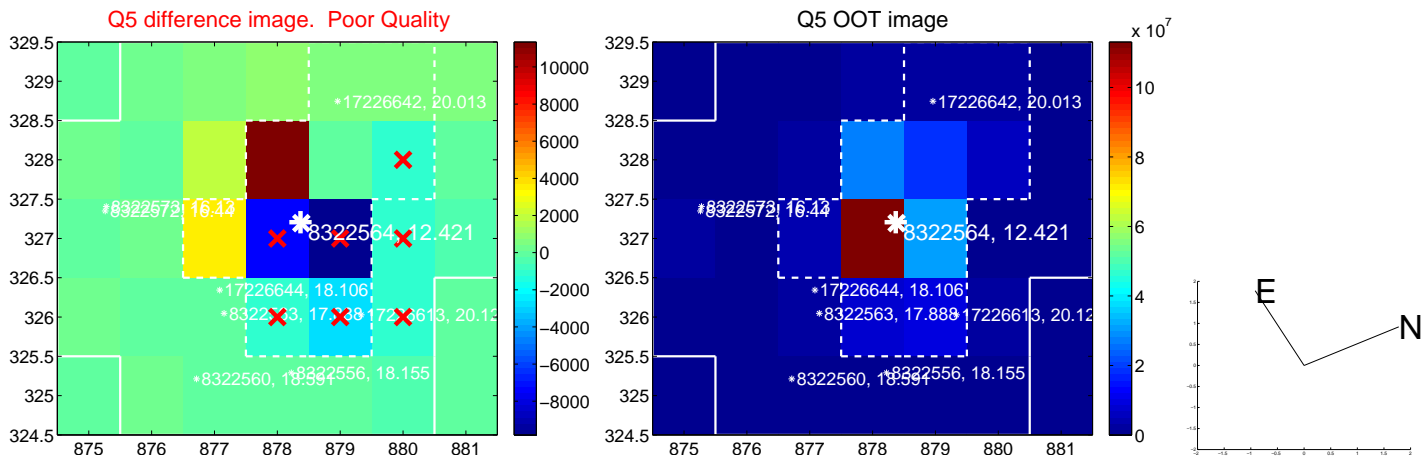


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

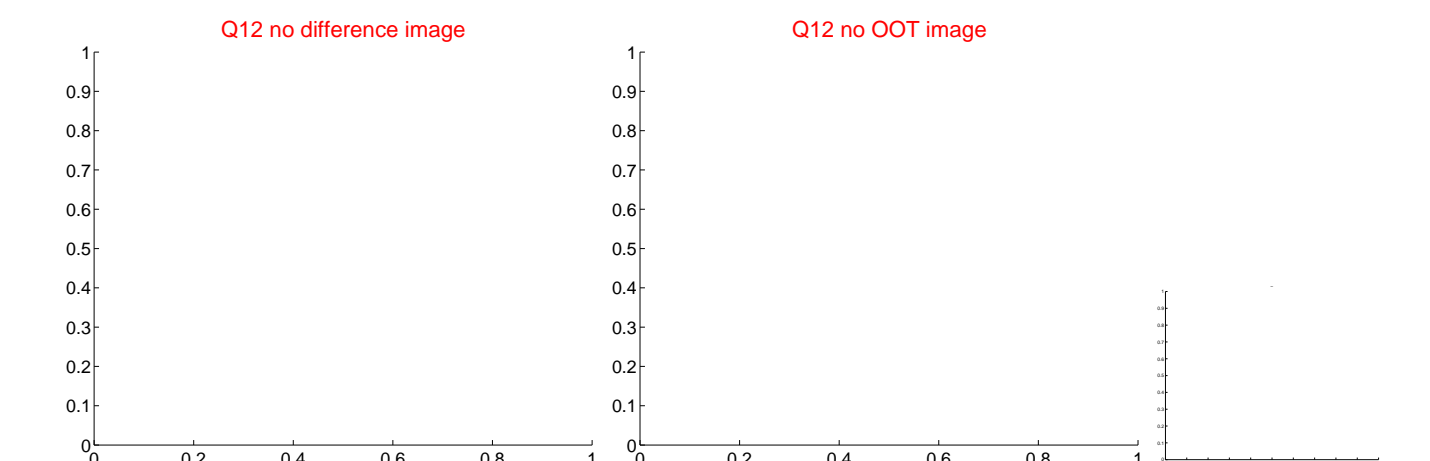
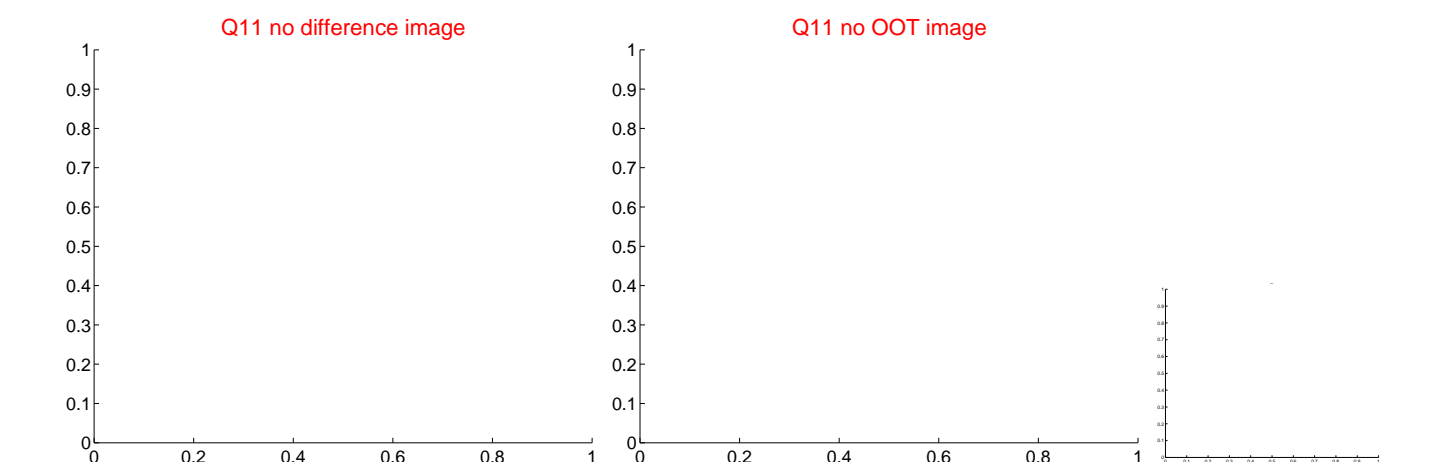
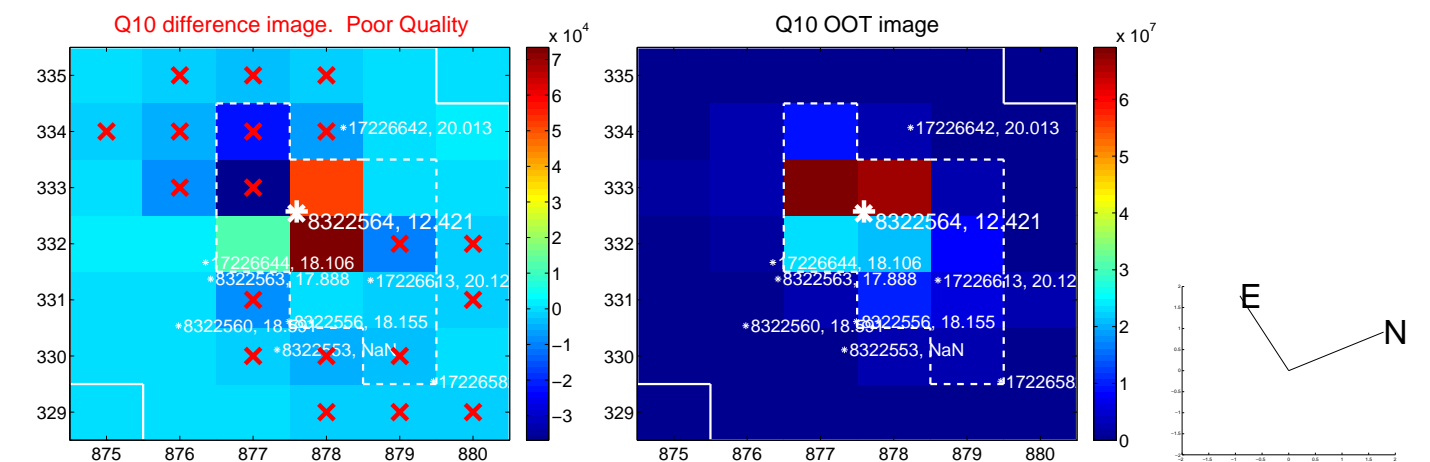
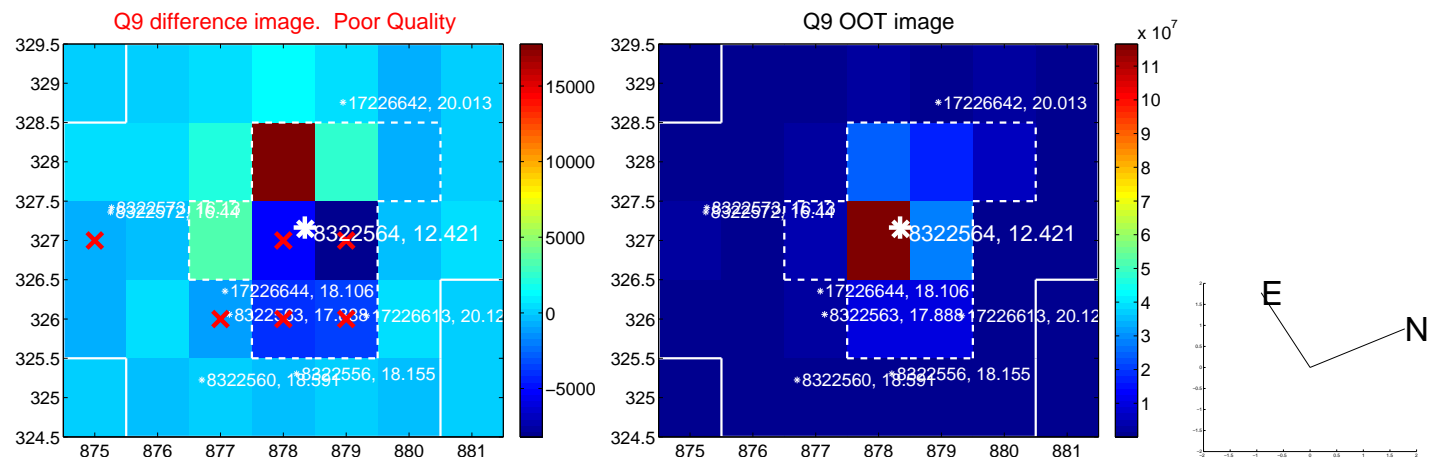
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



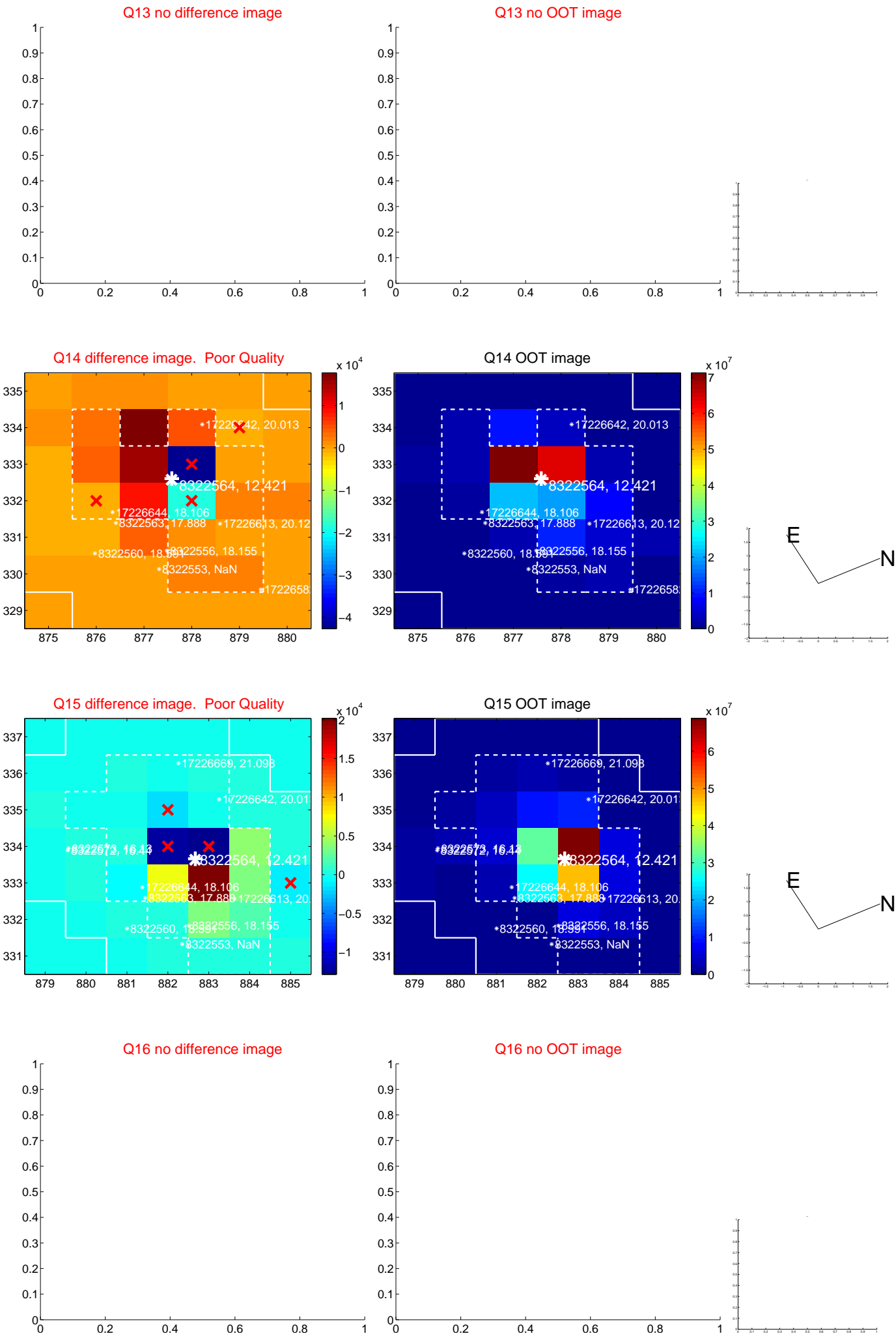
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

Declination

