

KIC 007456155

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})
007456155-03	OBS	No	378.940370	205.494103	2249.4	15.000	31.5	-1.0	0.85	5282	3.93	0.55

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007456155-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_SKYE_ZUMA—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS

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

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

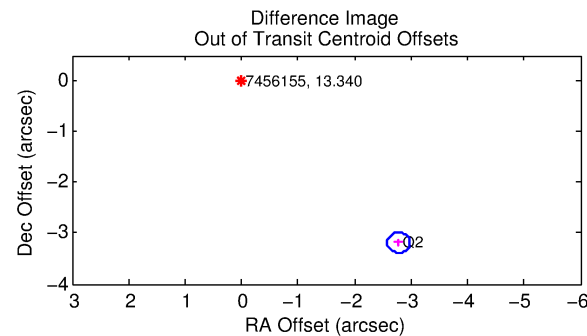
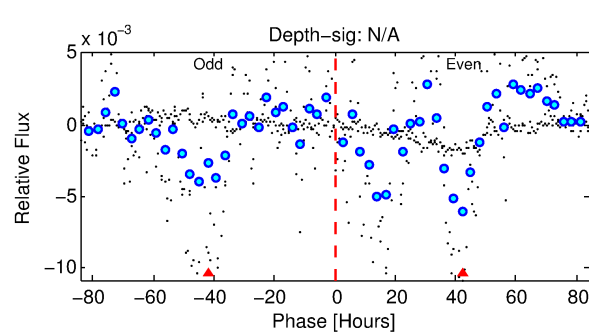
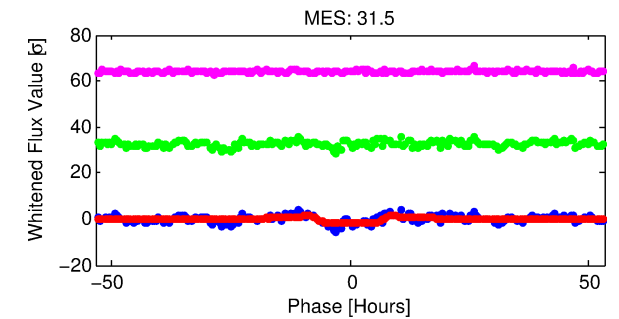
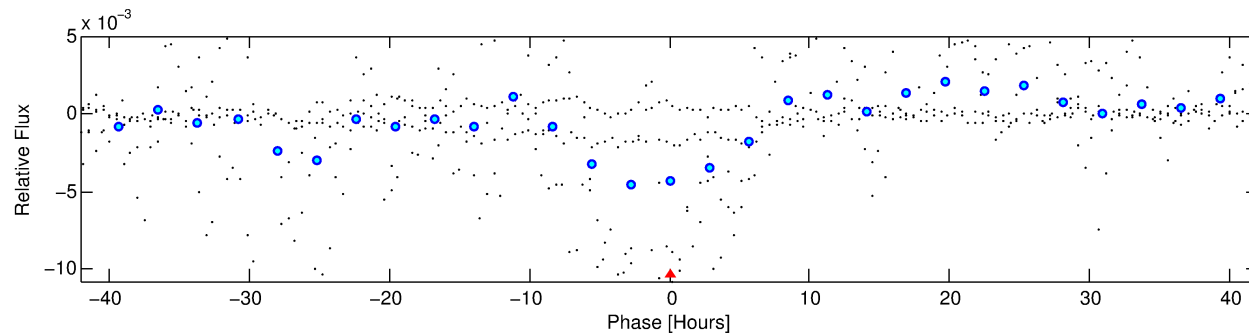
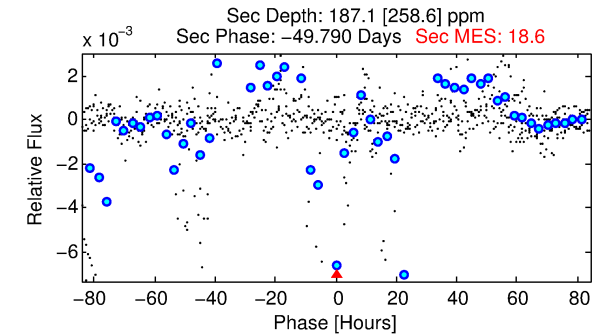
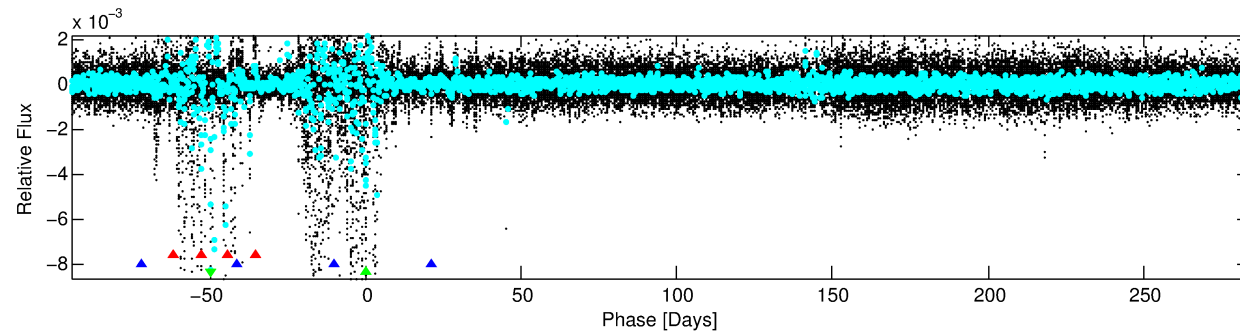
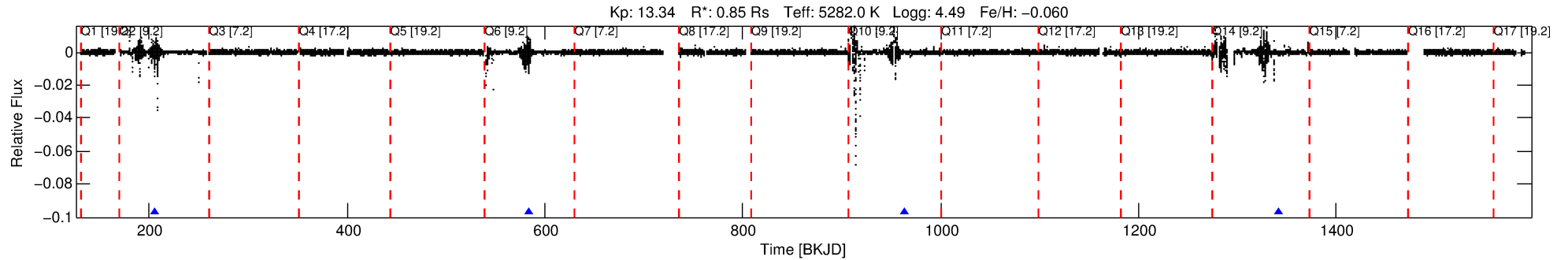
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007456155-03

No Significant Match Found

DV One-Page Summary

KIC: 7456155 Candidate: 3 of 3 Period: 378.940 d



TPS TCE Results:

Period = 378.94037 d
Epoch = 205.4941 BKJD

DV fit results are unavailable

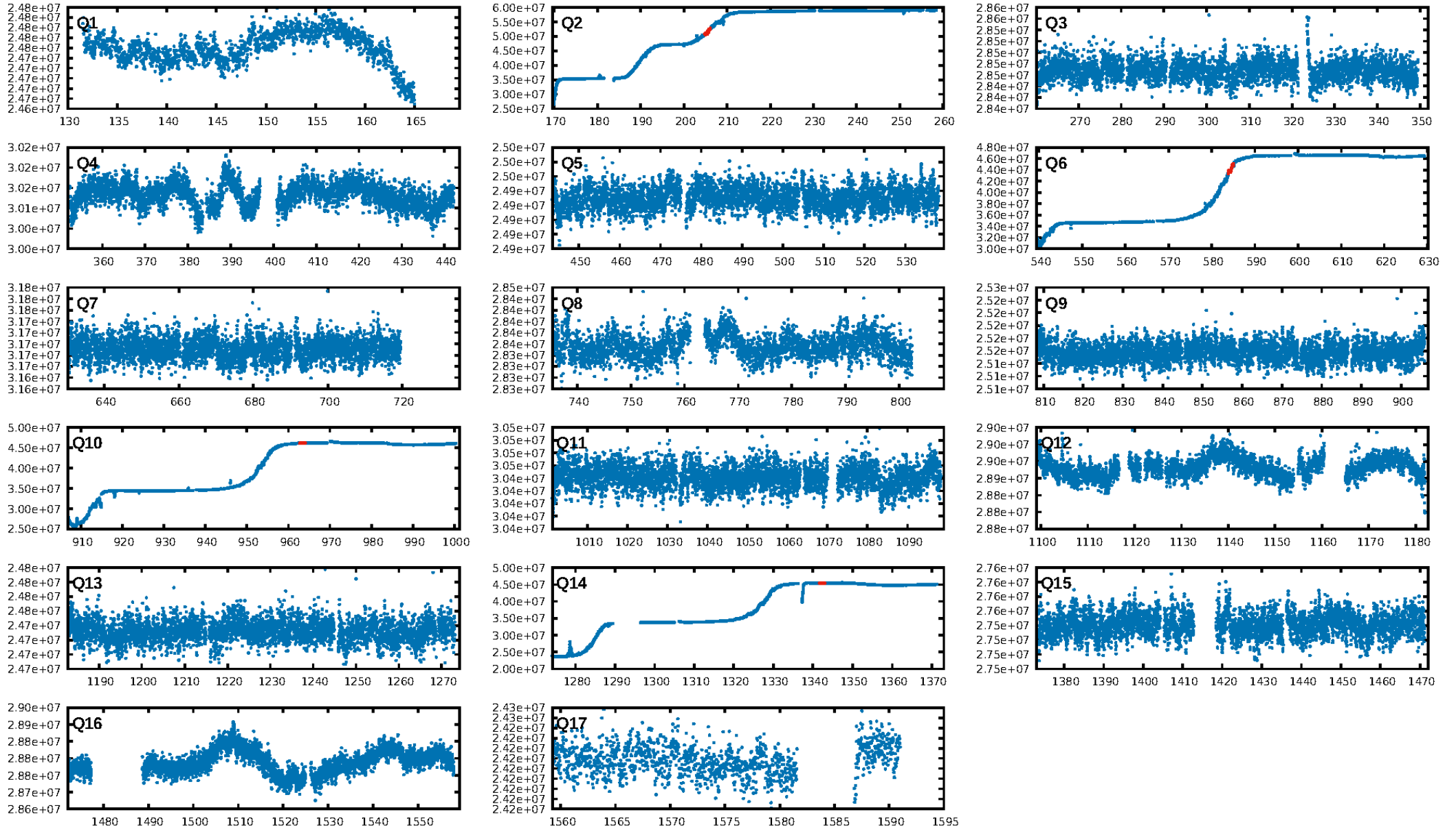
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [9.81σ]
LongPeriod-sig: 100.0% [41.24σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: -3.078
Centroid-sig: 0.4%
Centroid-so: 3.868 arcsec [8.33σ]
OotOffset-rm: 4.224 arcsec [63.10σ]
KicOffset-rm: 5.454 arcsec [81.51σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [4/4]

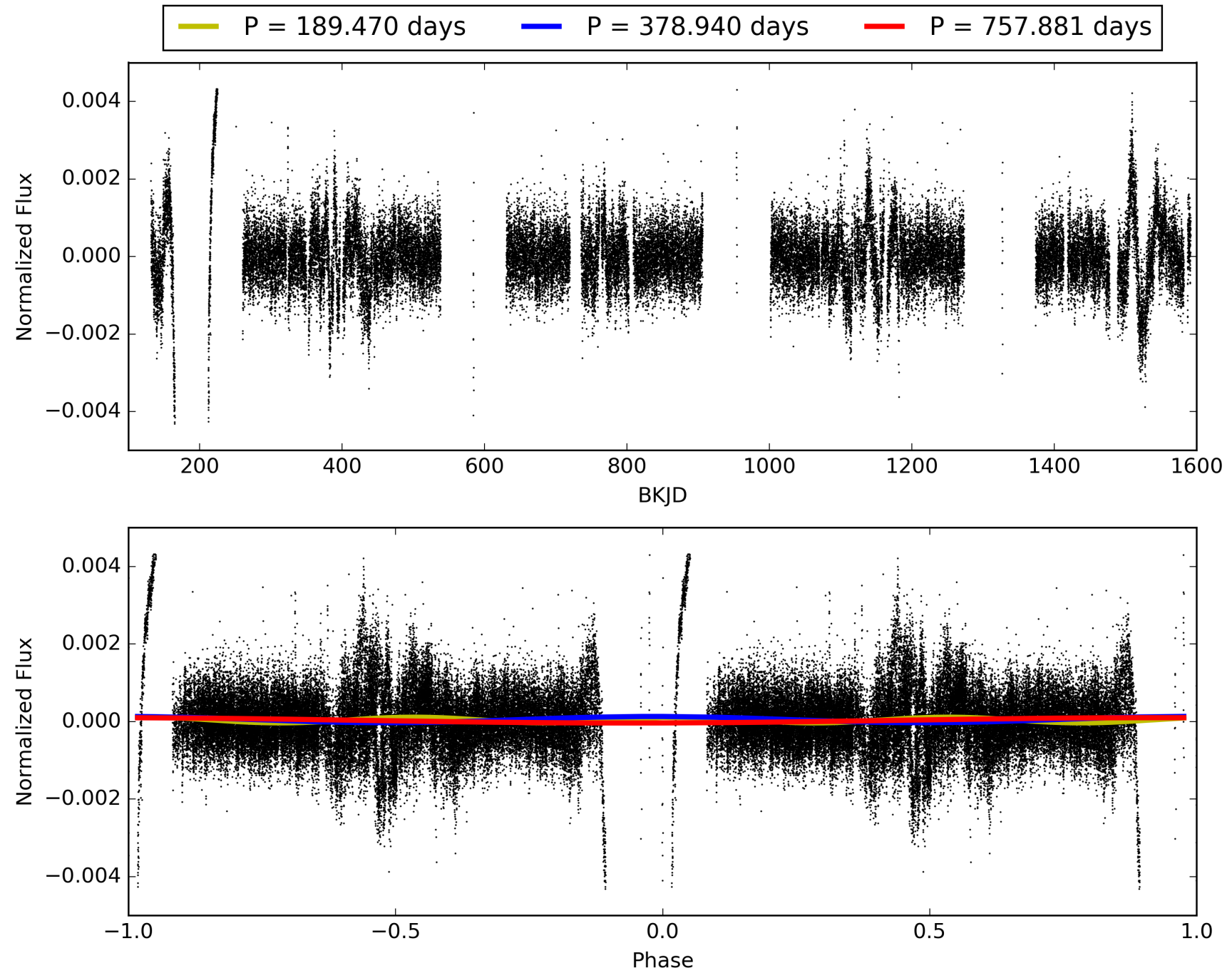
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:25:52 Z

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

TCE 007456155-03, PDC Light Curves

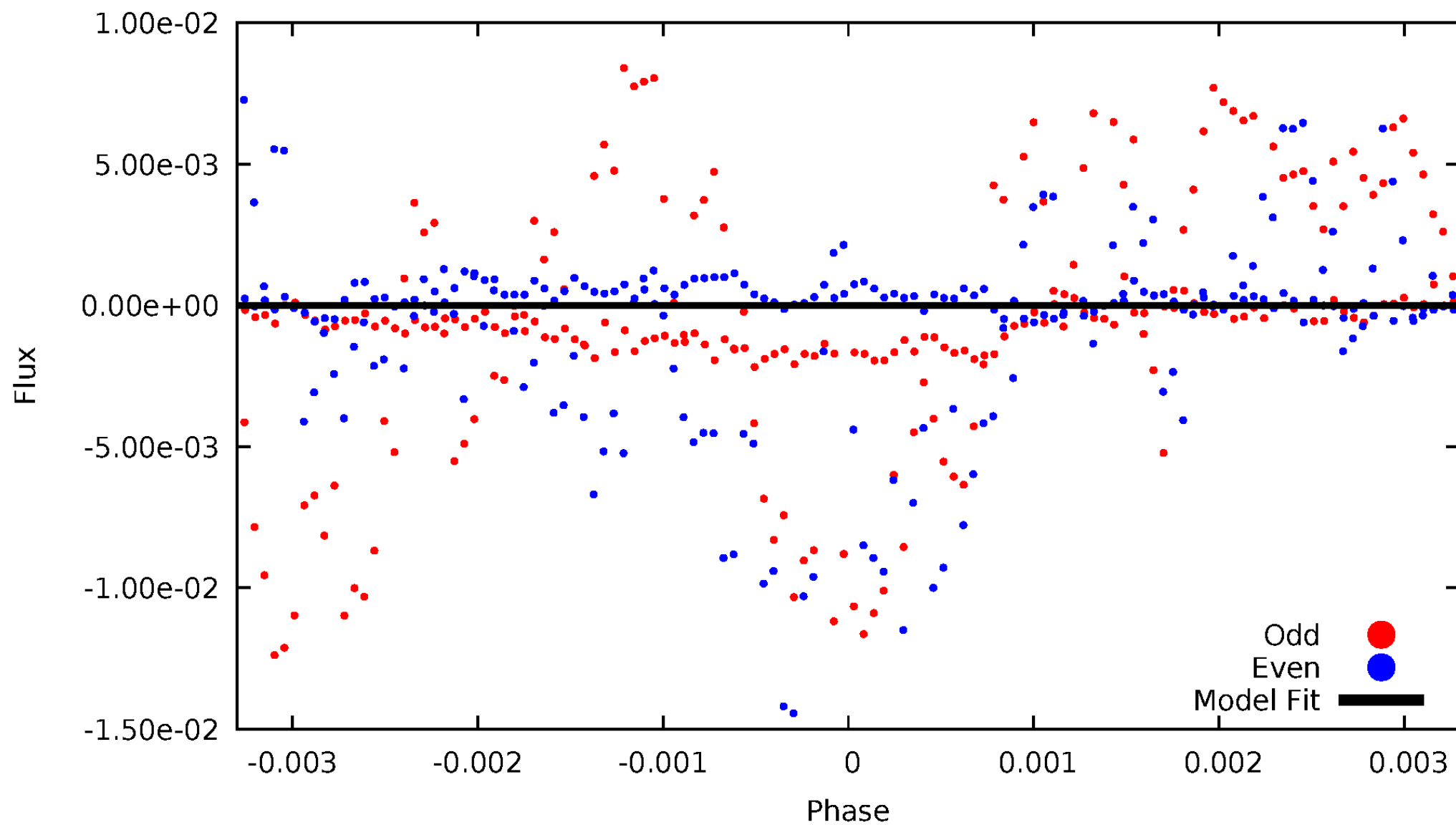


TCE 007456155-03



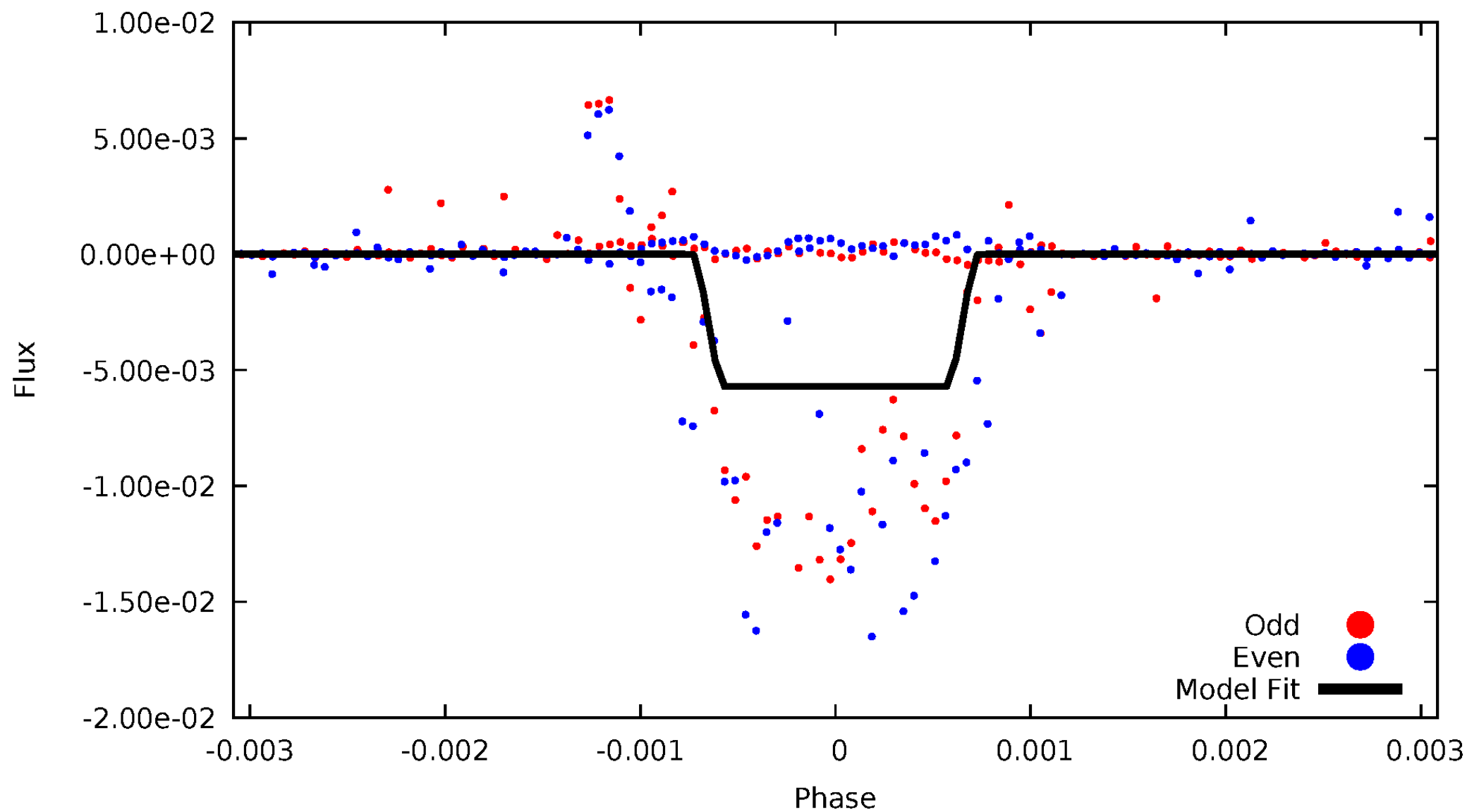
DV Odd/Even

TCE 007456155-03



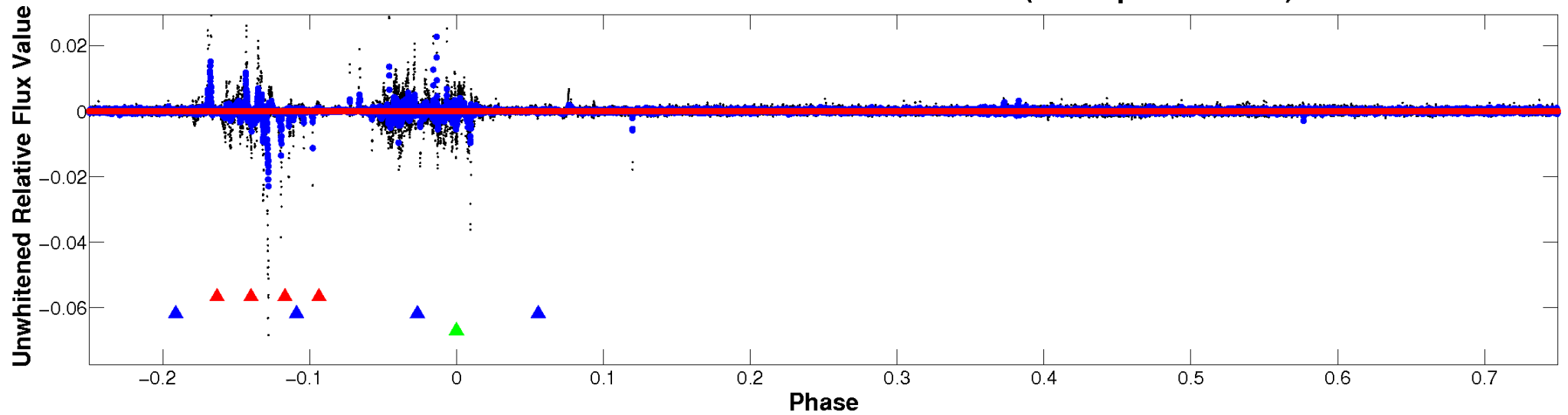
ALT Odd/Even

TCE 007456155-03



Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

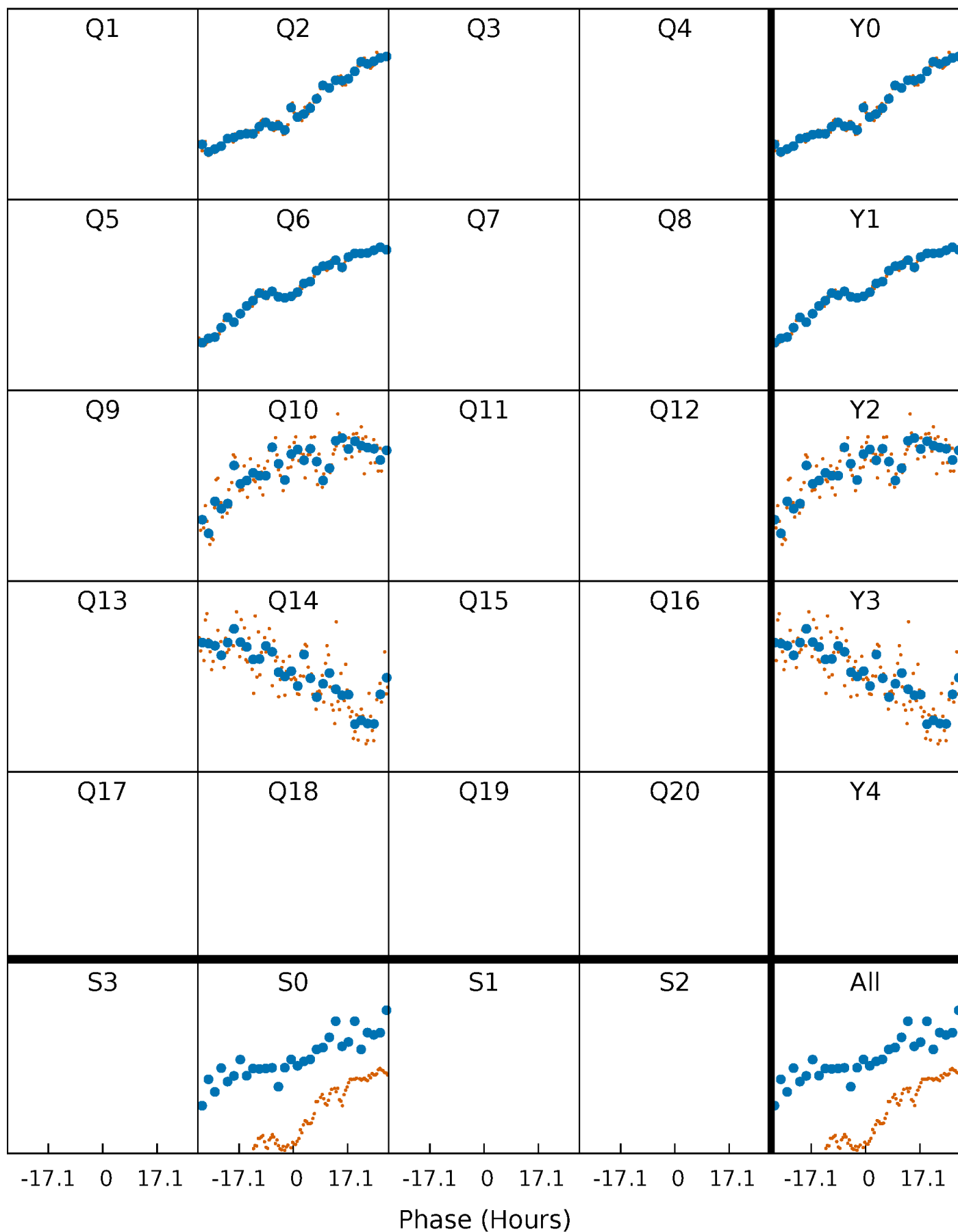


Planet 3 : Phased Whitened Flux Time Series (TPS Epoch/Period)



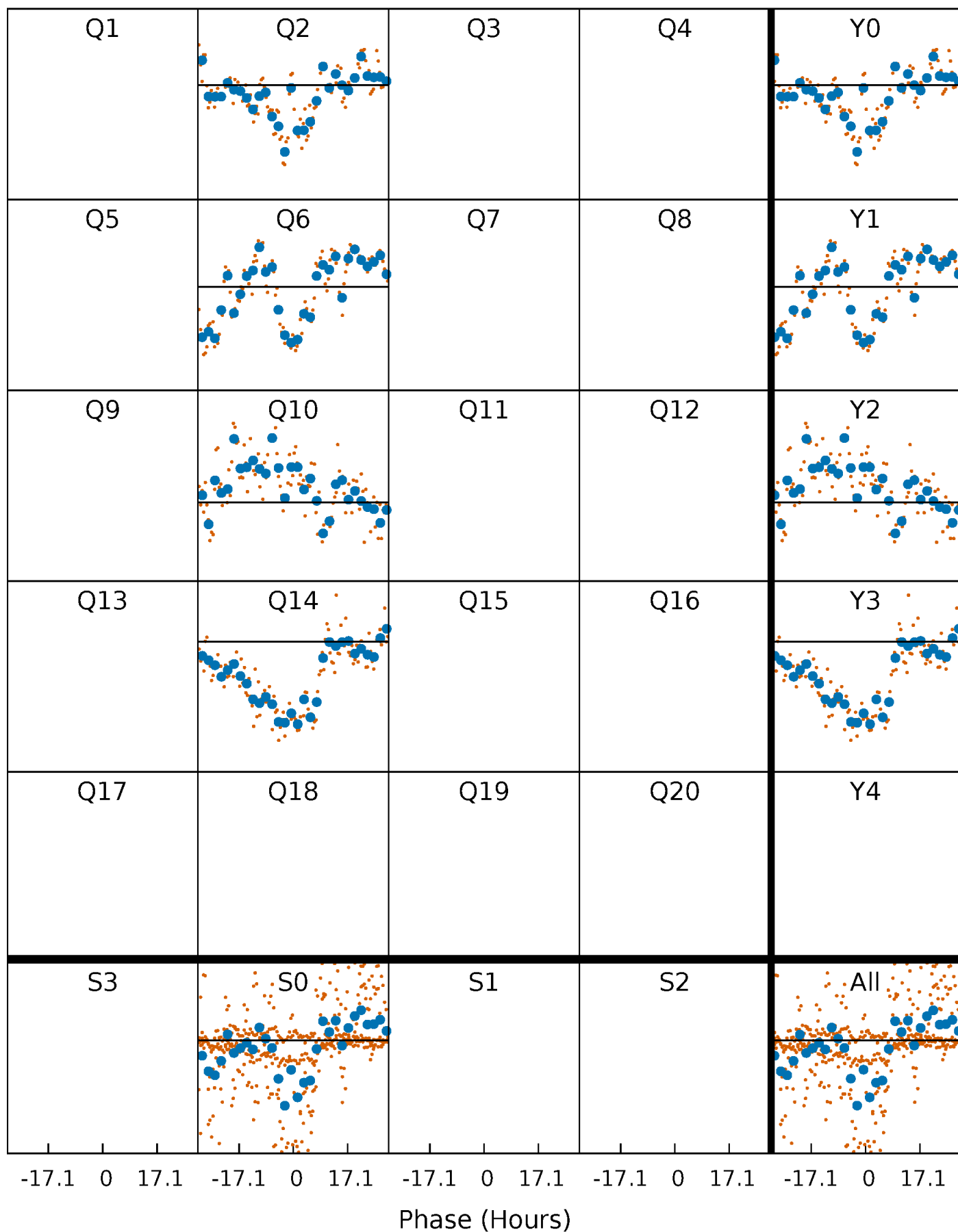
PDC Quarter-Phased Transit Curves

TCE 007456155-03 P=378.940370 Days $T_0=205.494103$ (BKJD)



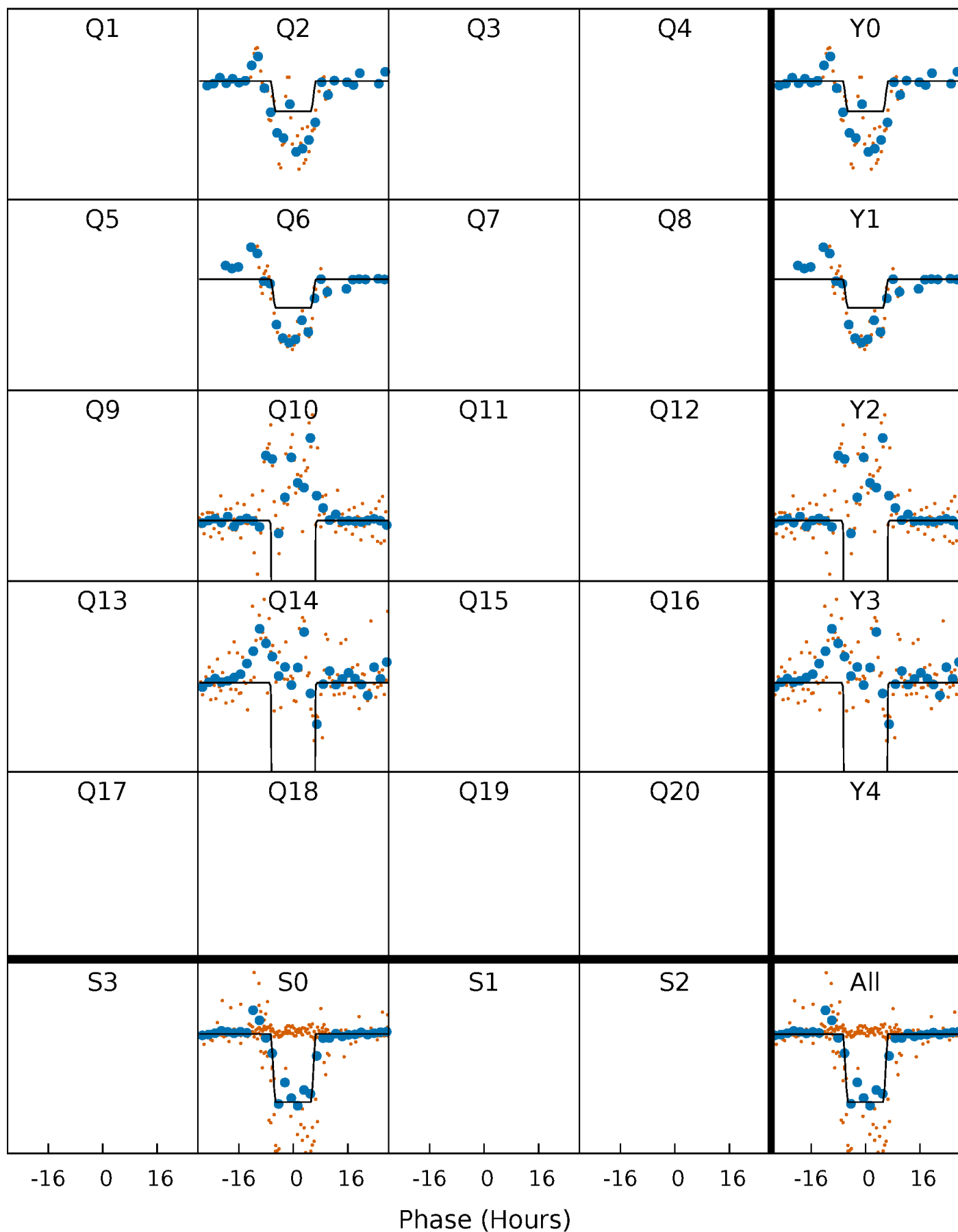
DV Quarter-Phased Transit Curves

TCE 007456155-03 P=378.940370 Days $T_0=205.494103$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

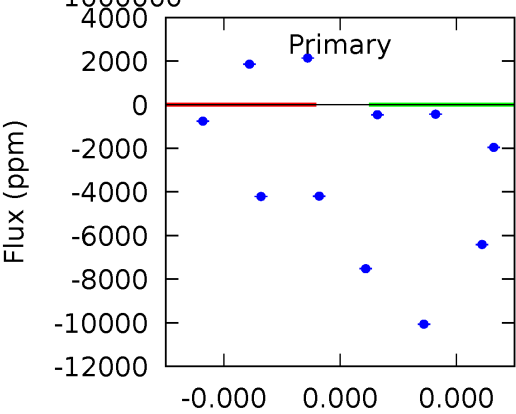
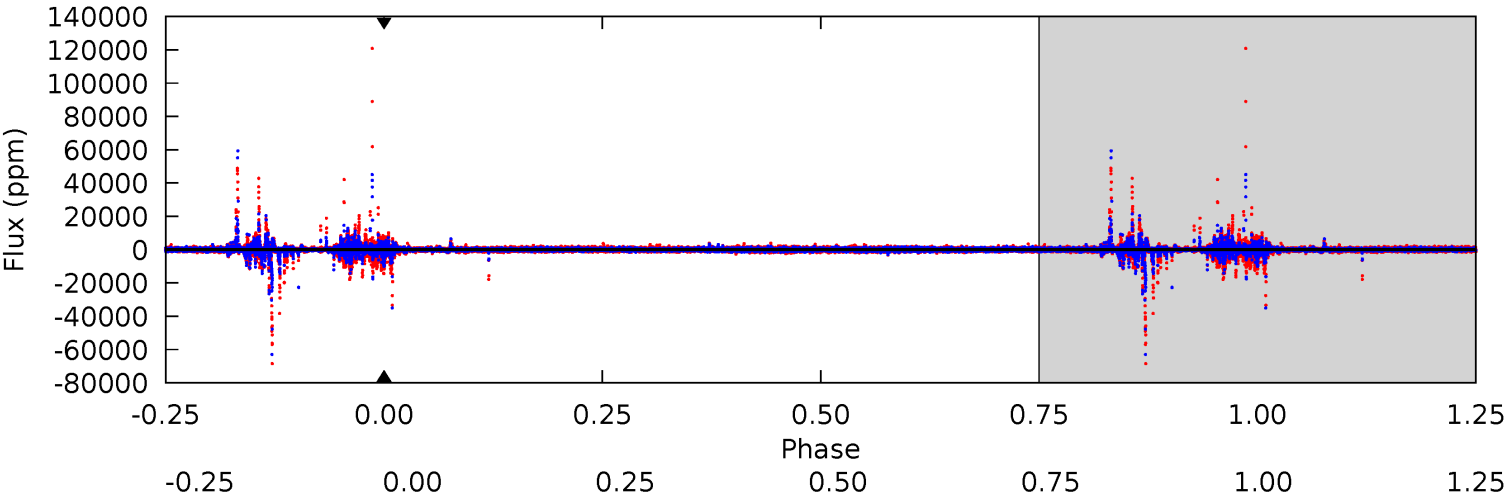
TCE 007456155-03 P=378.940370 Days $T_0=205.535890$ (BKJD)



DV Model-Shift Uniqueness Test

007456155-03, P = 378.940370 Days, E = 205.494103 Days

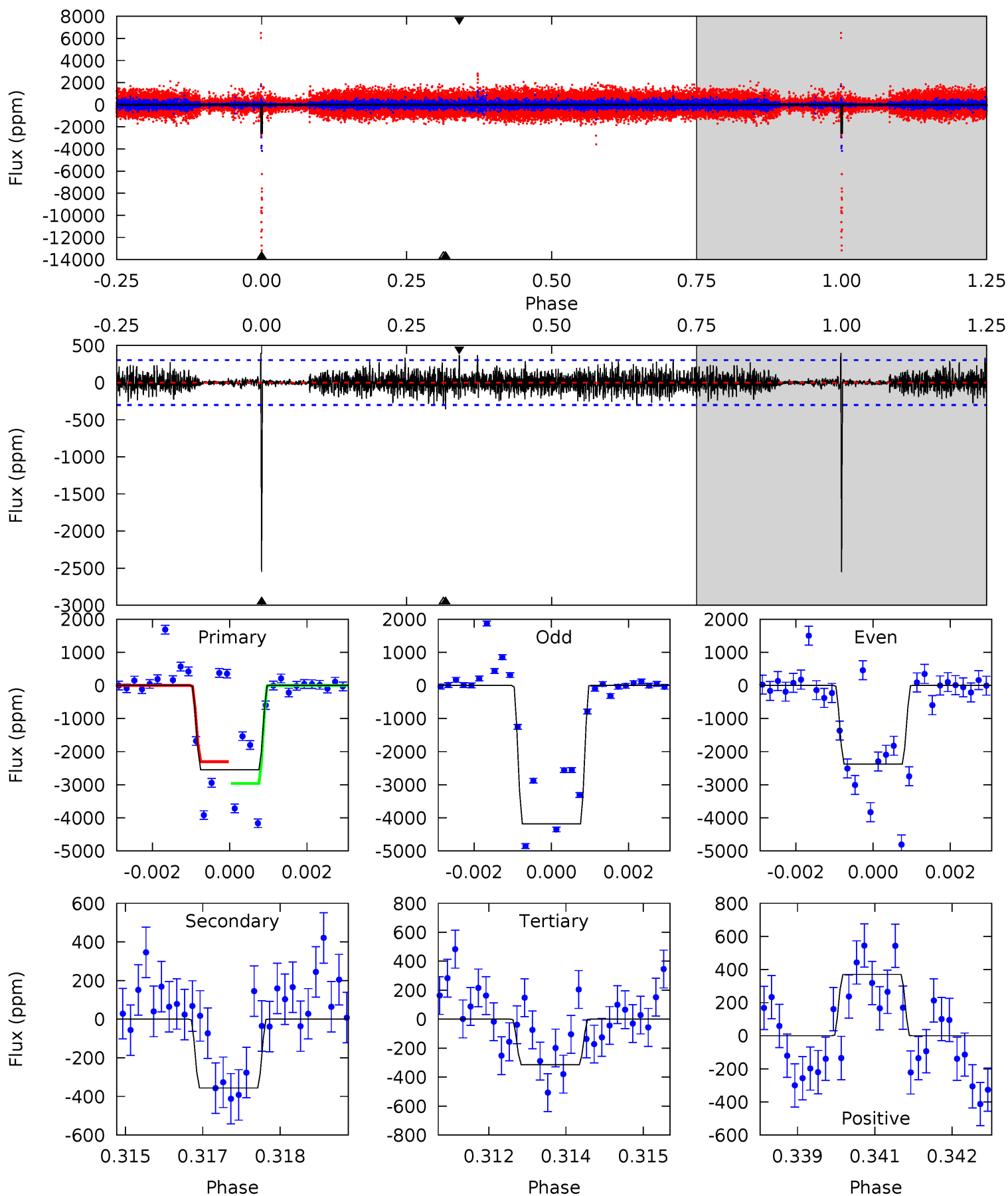
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007456155-03, P = 378.940370 Days, E = 205.535890 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
45.3	6.32	5.57	6.57	5.38	3.17	1.46	39.7	38.7	0.75	-0.24	16.8	1.00	0.13	5.80



Stellar Parameters For KIC 007456155

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5282^{+185}_{-185}	$4.491^{+0.090}_{-0.110}$	$-0.060^{+0.300}_{-0.300}$	$0.847^{+0.141}_{-0.094}$	$0.810^{+0.104}_{-0.070}$	$1.880^{+0.746}_{-0.632}$
	+4%/-4%	+2%/-2%	+500%/-500%	+17%/-11%	+13%/-9%	+40%/-34%
Source	PHO54	PHO54	PHO54	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007456155-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$7.66^{+8.04}_{-5.28}$	306^{+18}_{-14}	3582^{+11321}_{-17934}	$6838^{+1499412}_{-1508869}$
Alt.	-356 ± 56	$9.09^{+8.37}_{-5.96}$	309^{+16}_{-16}	2975^{+1267}_{-479}	2094^{+17168}_{-1516}

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

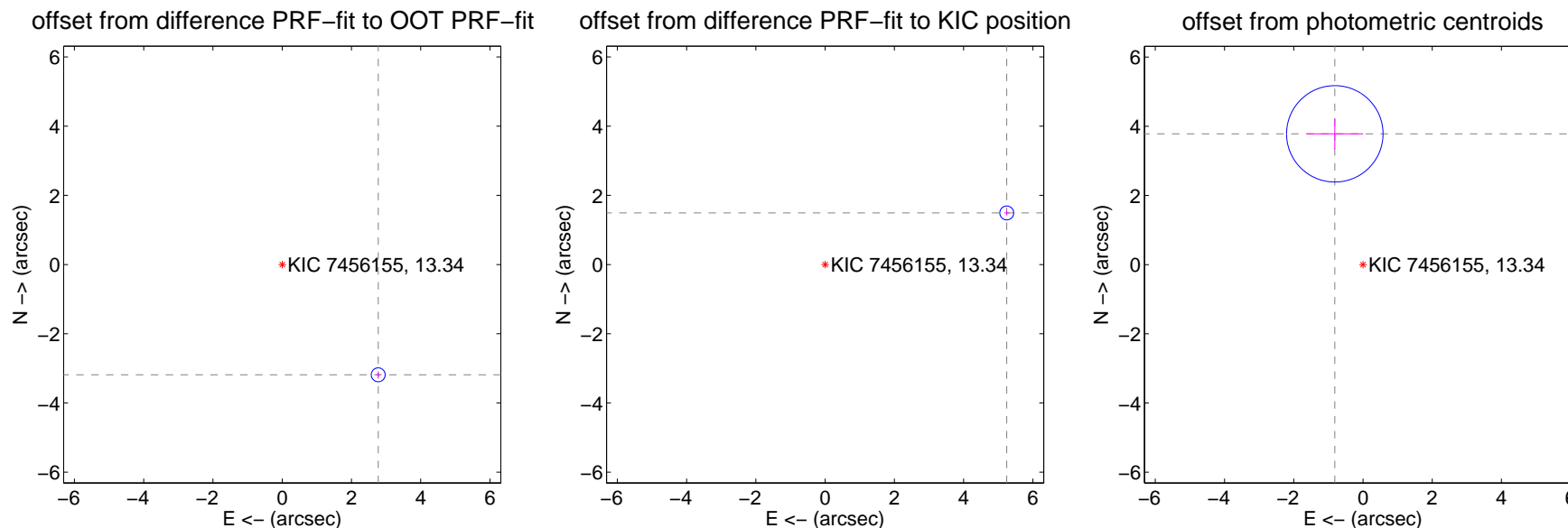
DV Centroid Data

Supplemental centroid analysis for 007456155-03. Kepler magnitude: 13.34. Transit SNR -1.00

There are 1 quarters with good PRF difference image offsets

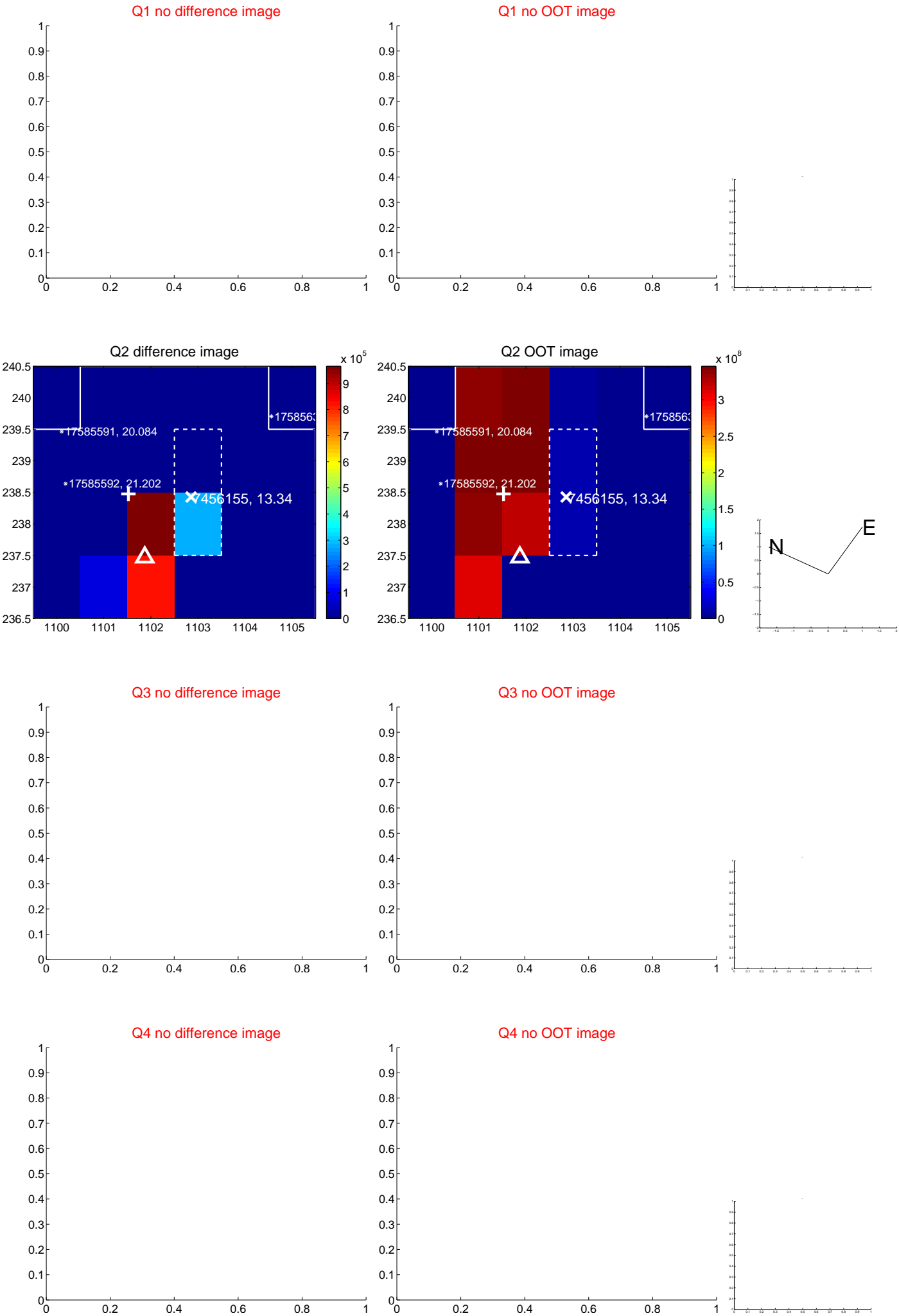
The OOT PRF centroid is offset from the target star catalog position by about 5.29 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.224 ± 0.067	63.10	-2.773 ± 0.067	-3.187 ± 0.067
PRF-fit source offset from KIC position	5.454 ± 0.067	81.51	-5.246 ± 0.067	1.491 ± 0.067
photometric centroid source offset	3.87 ± 0.46	8.33	0.81 ± 0.82	3.78 ± 0.44

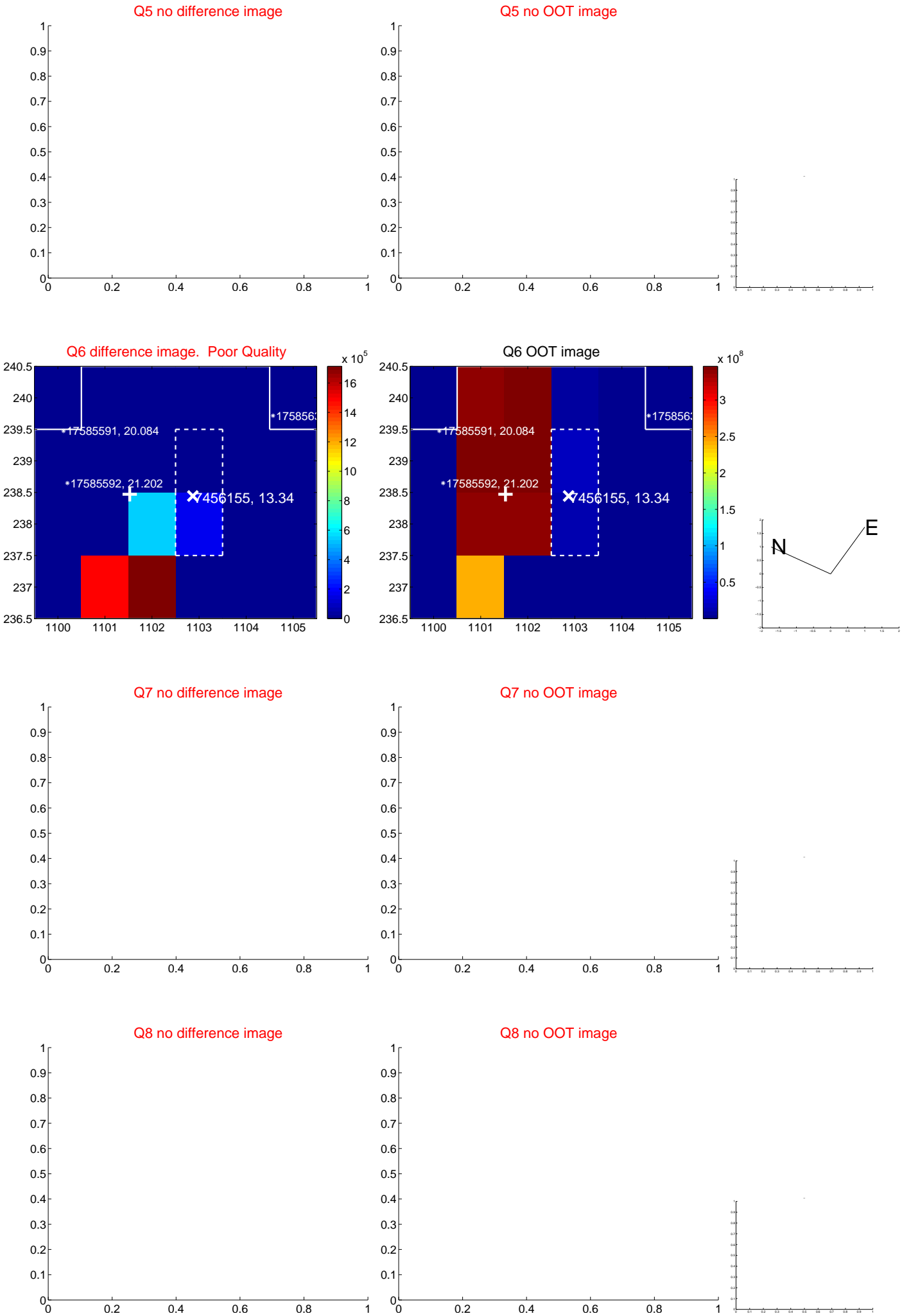


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

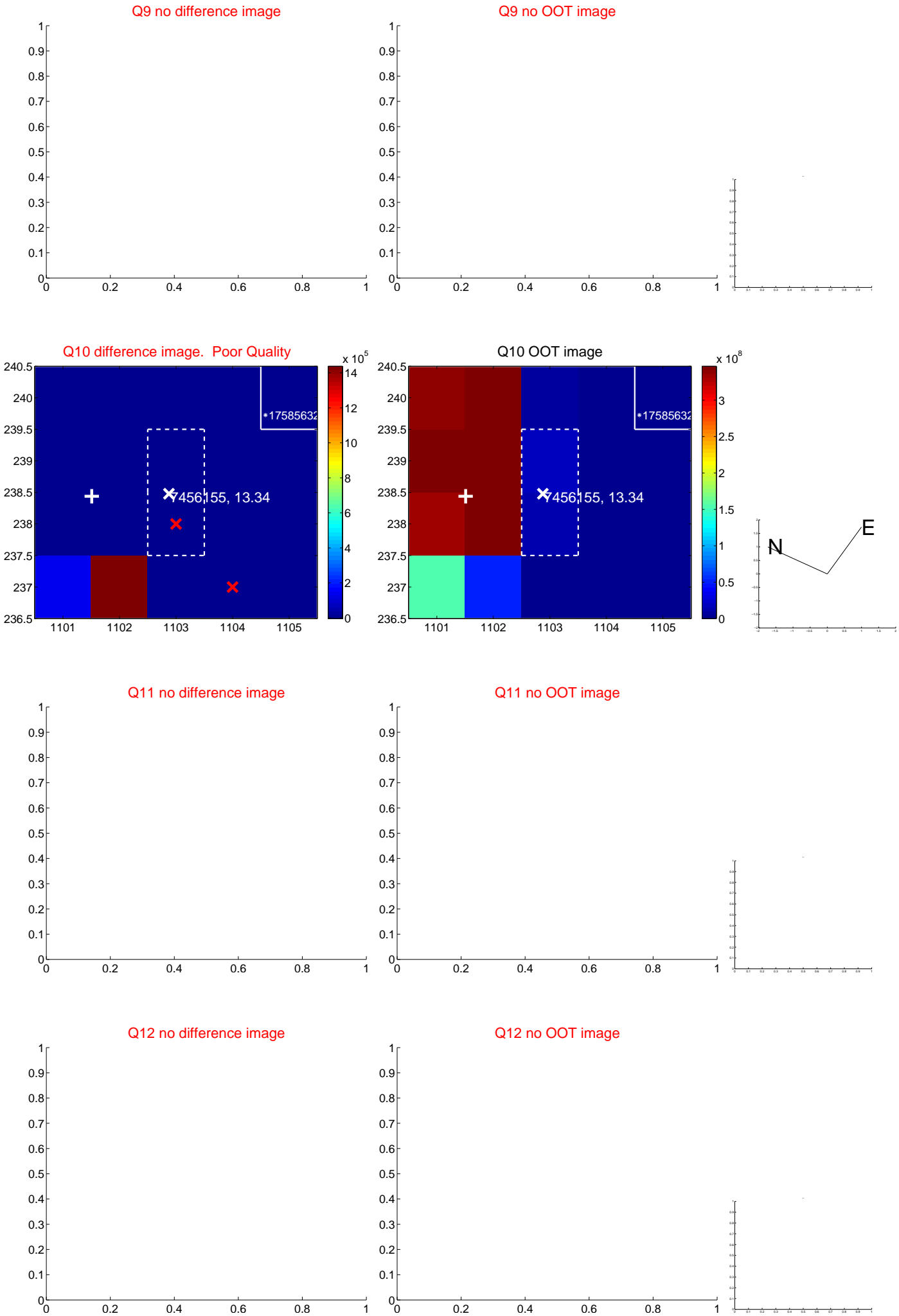
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



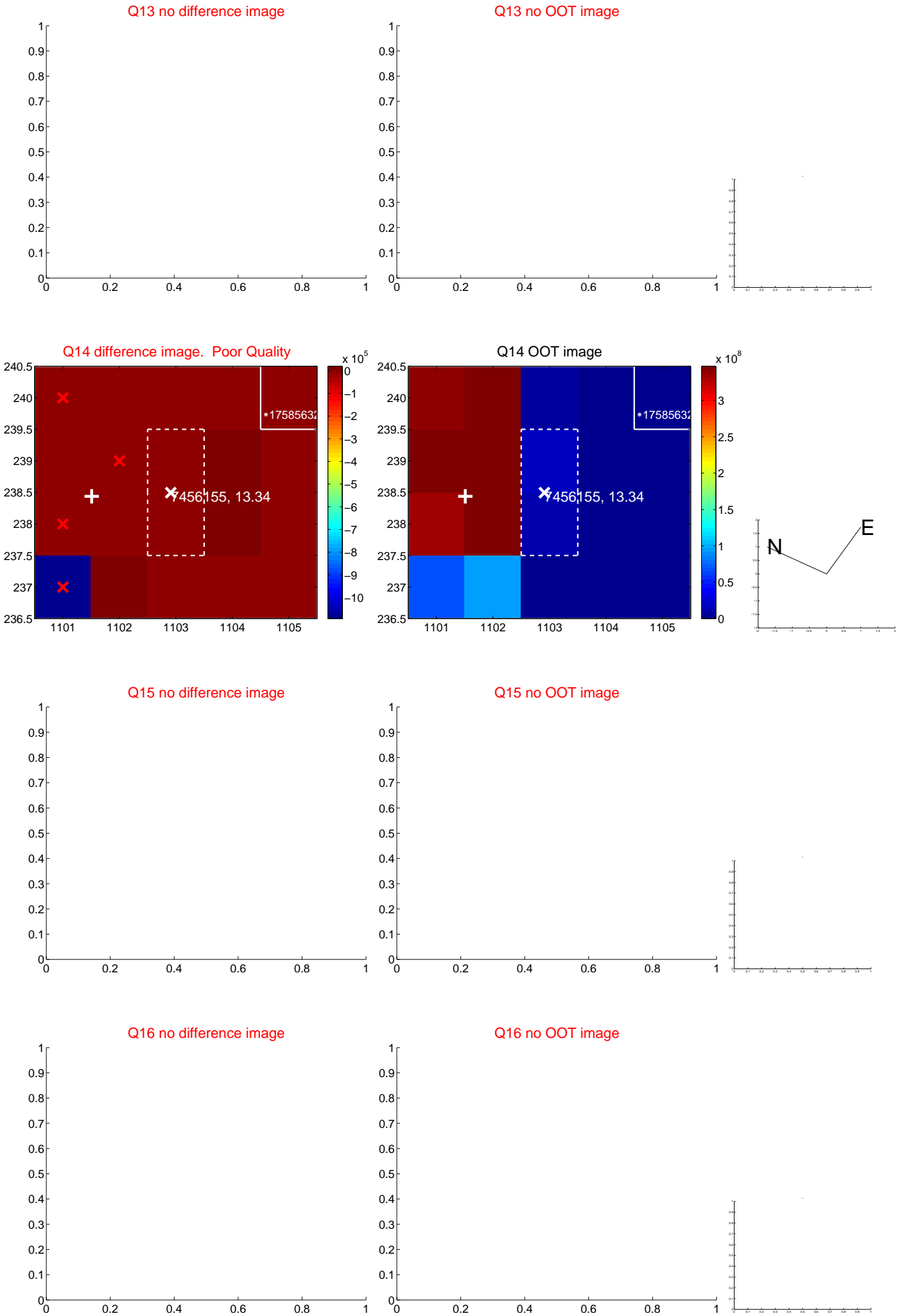
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



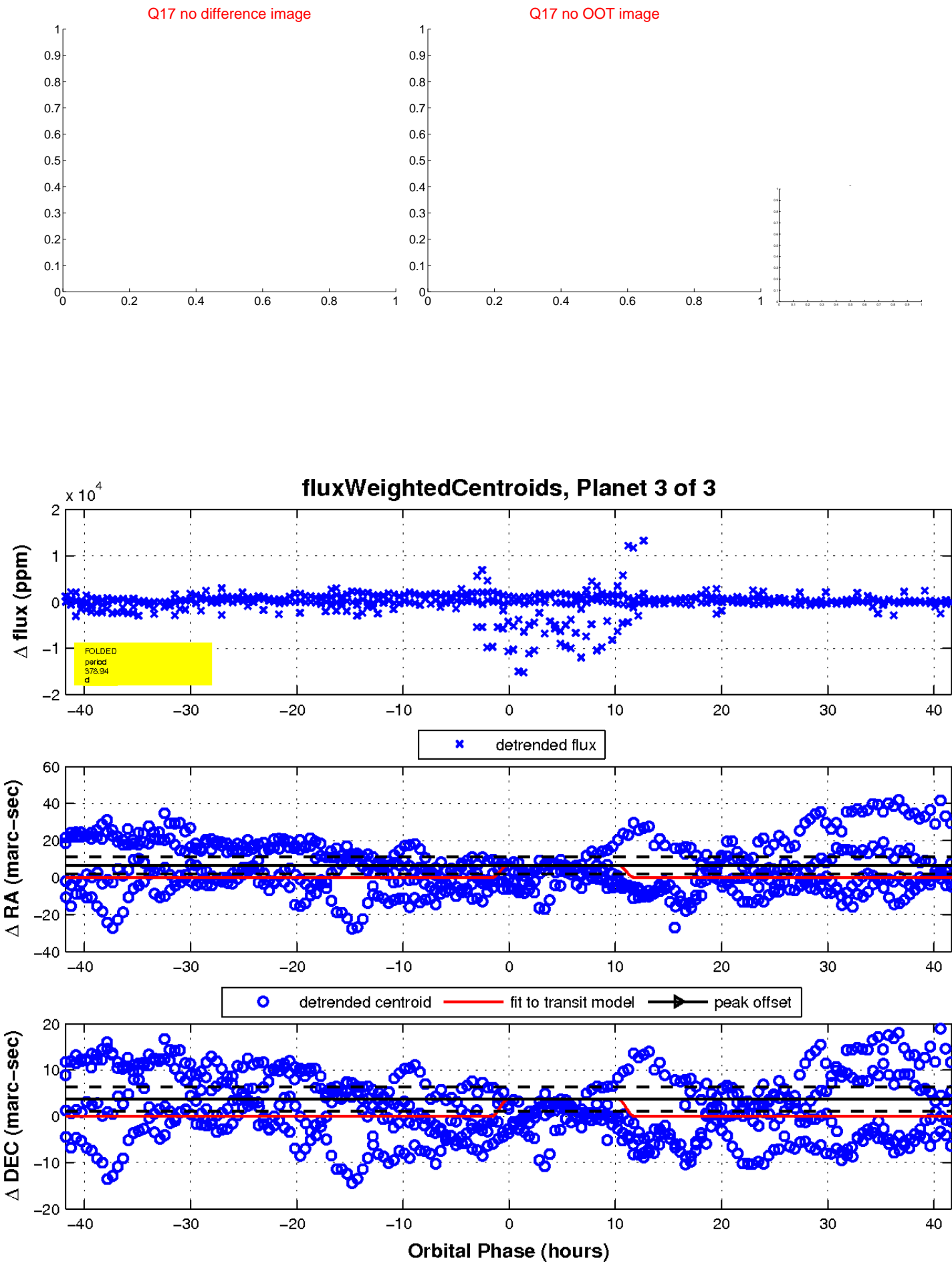
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

