

KIC 006583107

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})
006583107-01	OBS	8264.01	30.626177	157.948249	193.2	1.006	7.2	7.4	1.20	5860	1.81	43.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006583107-01	OBS	FP	0.17	1	0	0	0	MOD_NONUNIQ_ALT

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

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

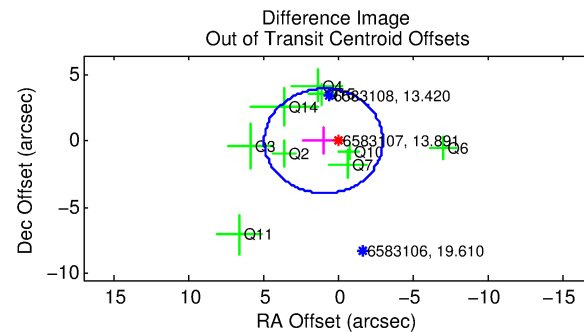
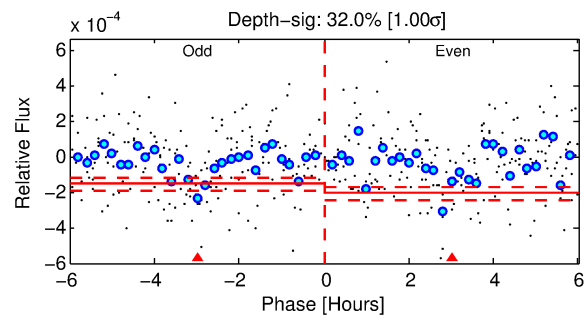
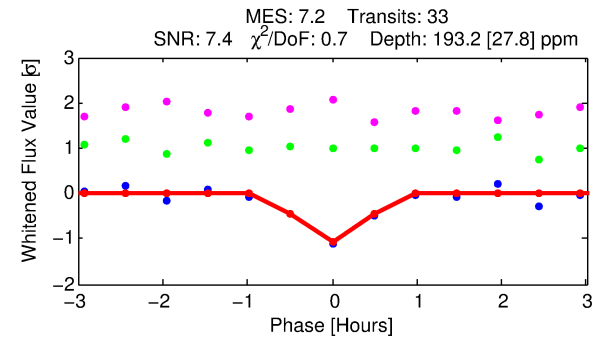
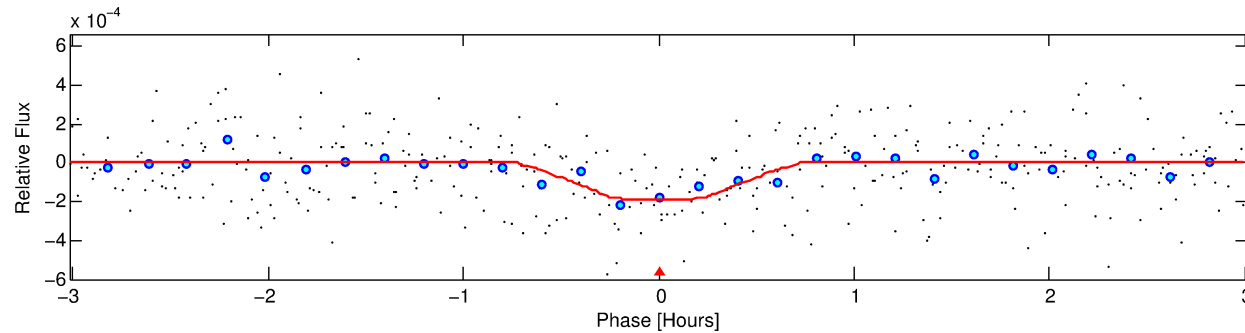
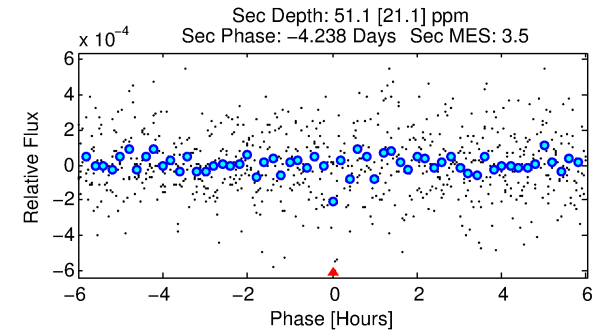
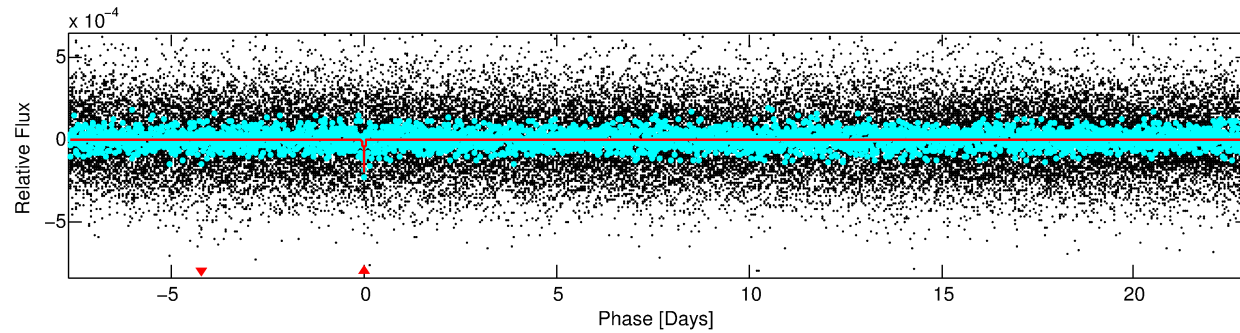
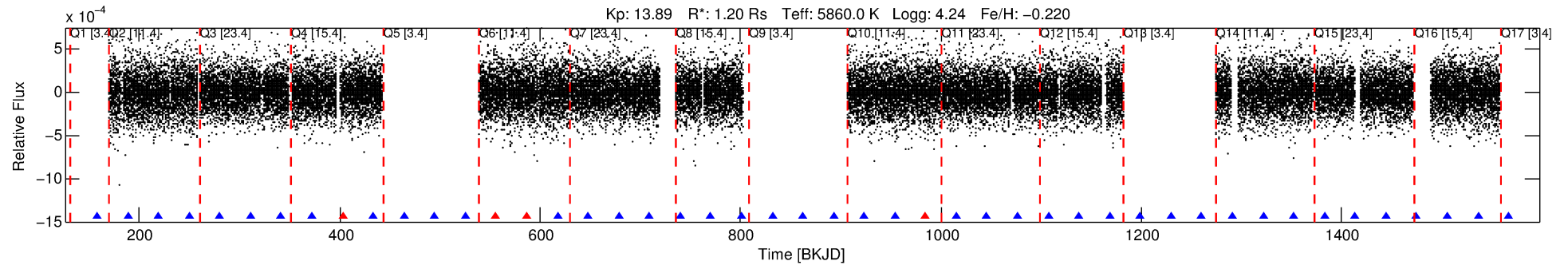
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006583107-01

No Significant Match Found

DV One-Page Summary

KIC: 6583107 Candidate: 1 of 1 Period: 30.626 d



DV Fit Results:

Period = 30.62618 [0.00018] d
Epoch = 157.9482 [0.0046] BKJD
Rp/R* = 0.0139 [0.0084]
a/R* = 161.71 [455.34]
b = 0.74 [1.76]
Seff = 43.69 [18.37]
Teff = 656 [69] K
Rp = 1.82 [1.20] Re
a = 0.1861 [0.0474] AU
Ag = 295.54 [394.93] [0.75σ]
Teffp = 4203 [1347] K [2.63σ]

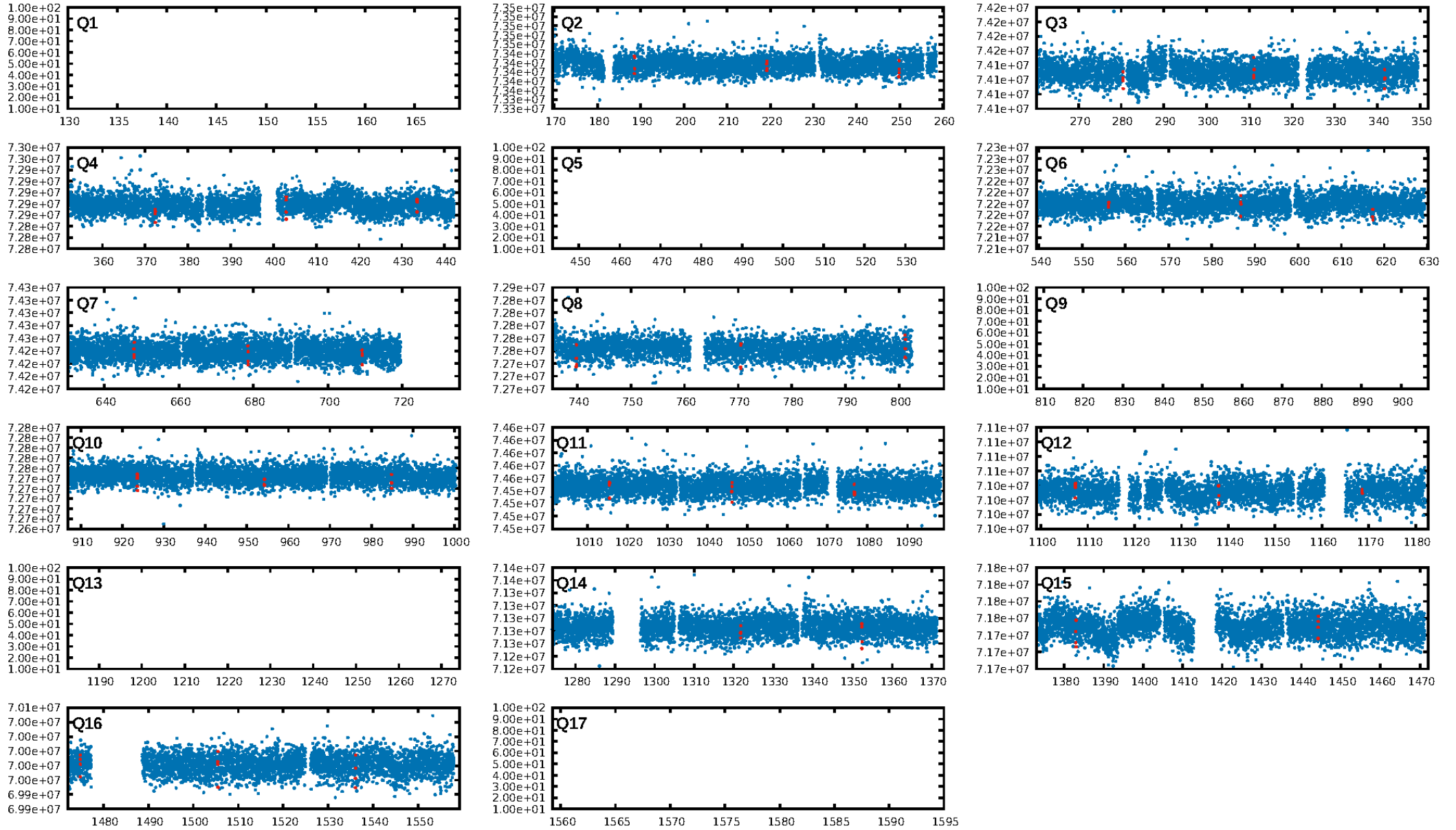
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.14e-13
RollingBand-fgt: 0.88 [29/33]
GhostDiagnostic-chr: 3.01
Centroid-sig: 2.3%
Centroid-so: 3.712 arcsec [1.73σ]
OotOffset-rm: 0.936 arcsec [0.71σ]
OotOffset-st: 4/4/1/0 [9]
KicOffset-rm: 1.290 arcsec [1.02σ]
KicOffset-st: 4/4/1/0 [9]
DiffImageQuality-fgm: 0.11 [1/9]
DiffImageOverlap-fno: 1.00 [12/12]

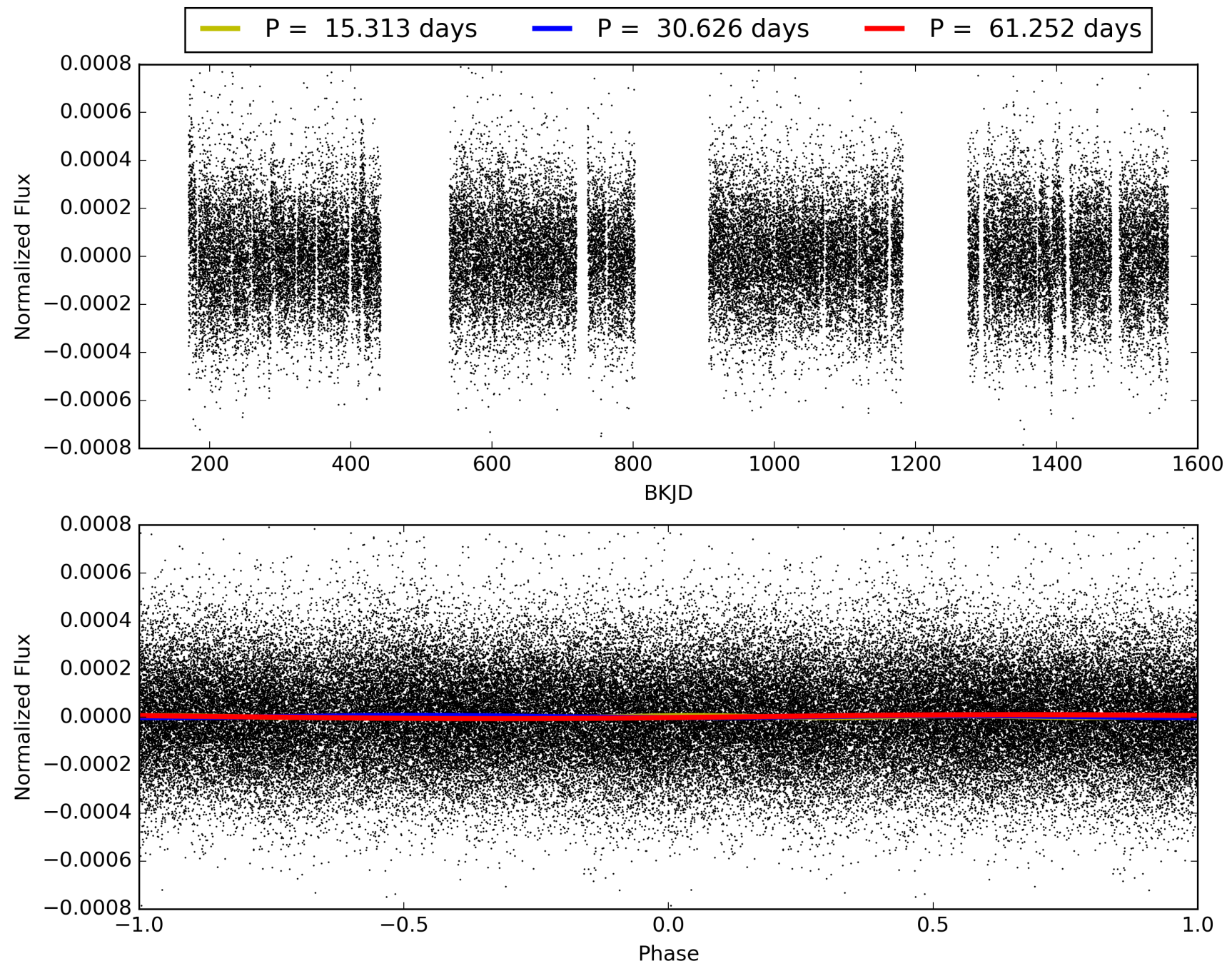
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 23:25:05 Z

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

TCE 006583107-01, PDC Light Curves

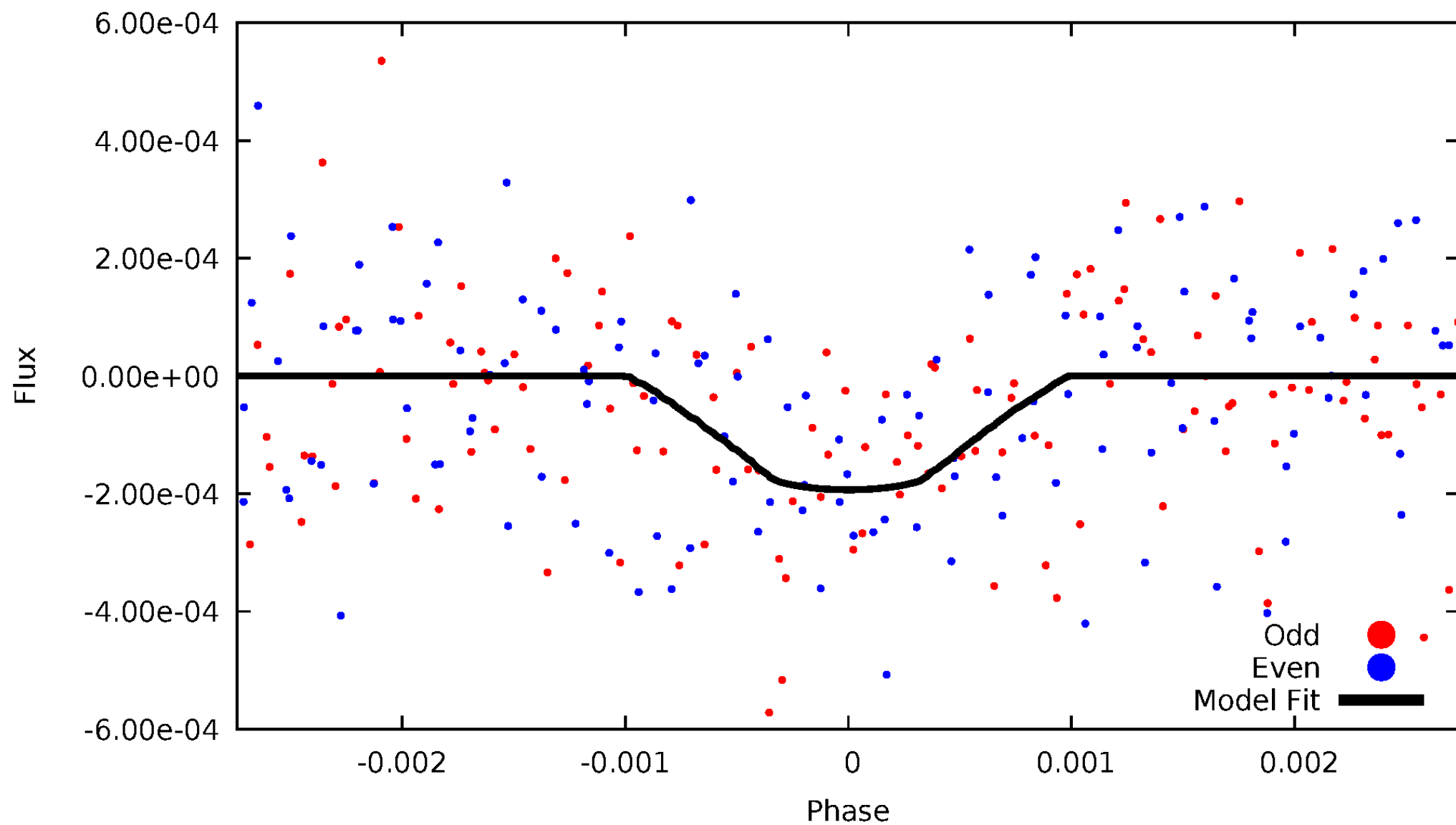


TCE 006583107-01



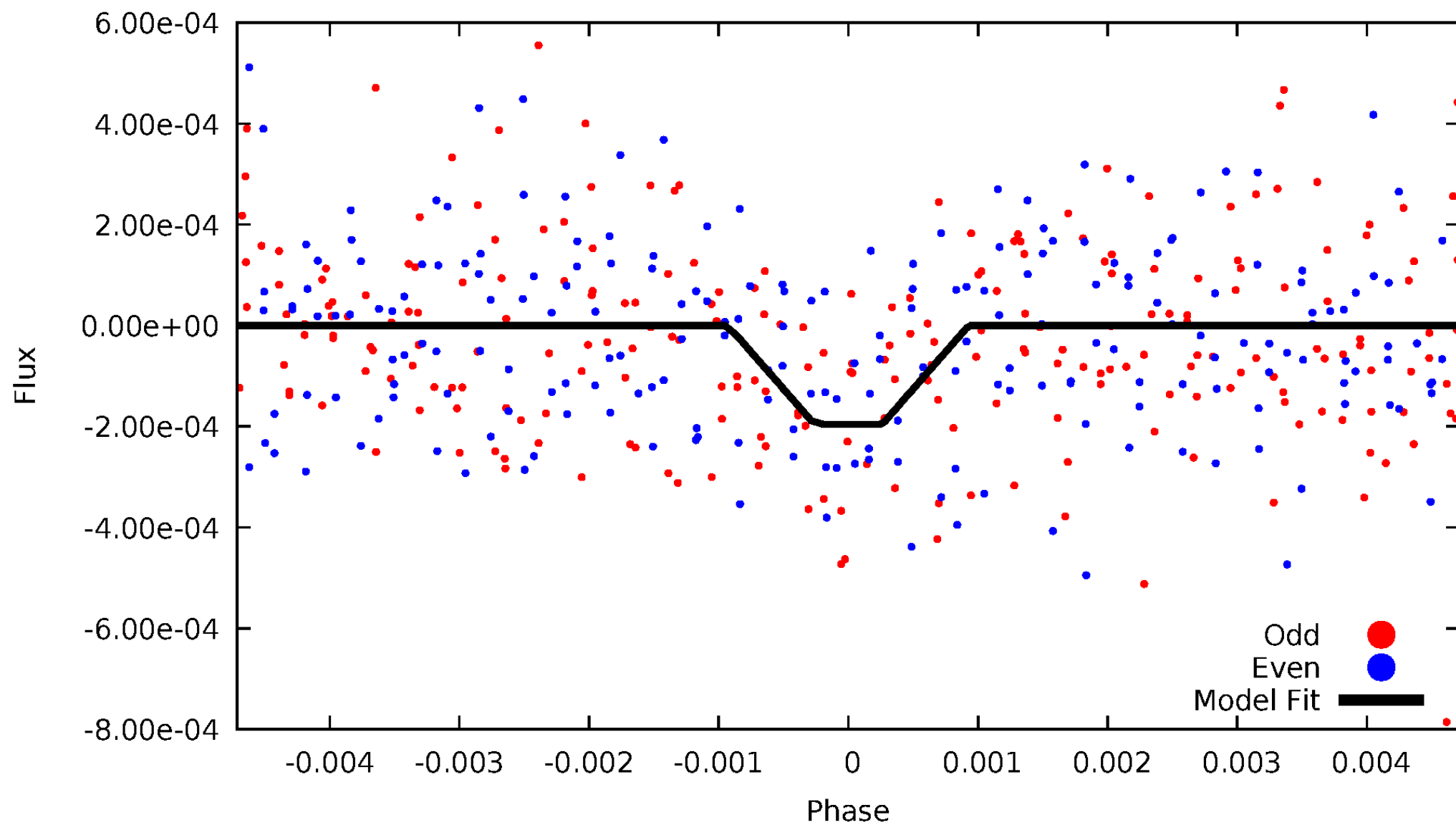
DV Odd/Even

TCE 006583107-01

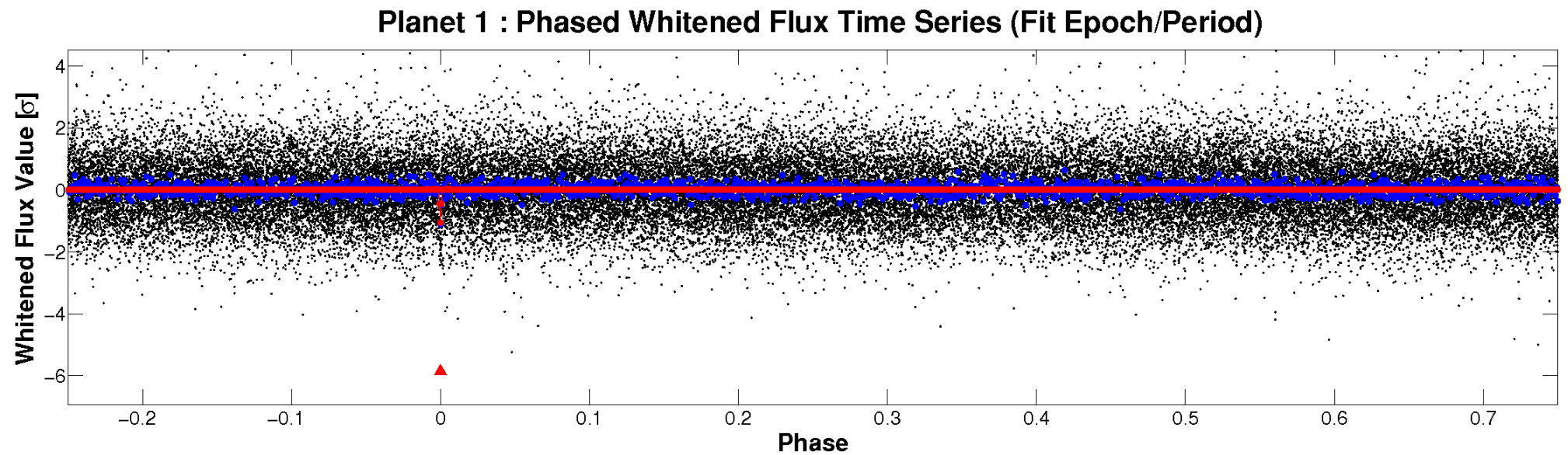
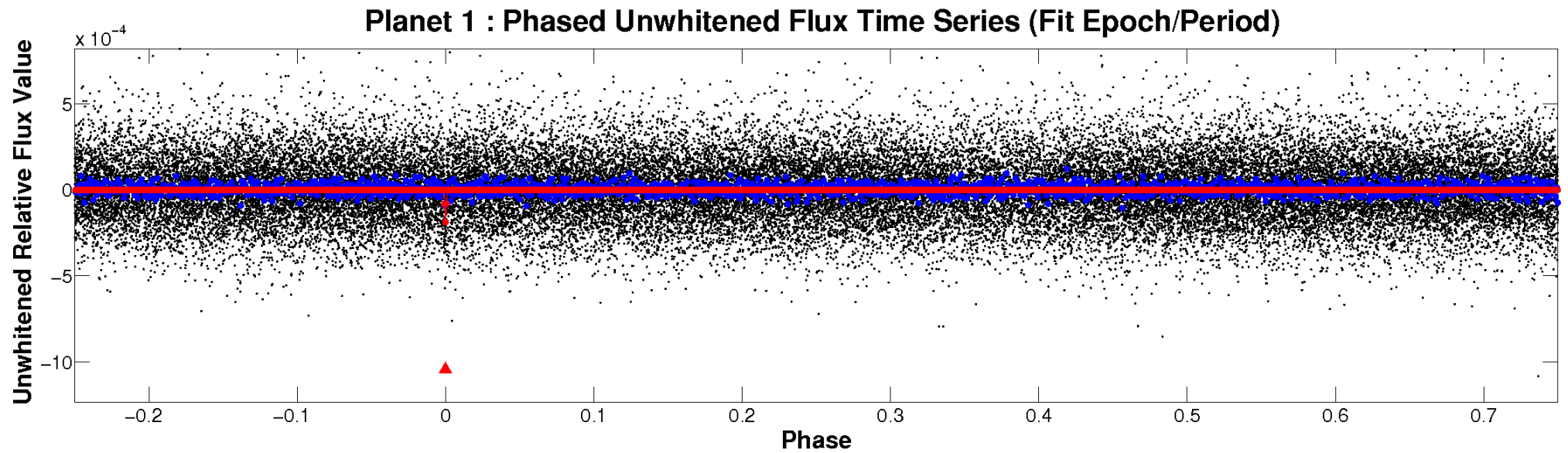


ALT Odd/Even

TCE 006583107-01

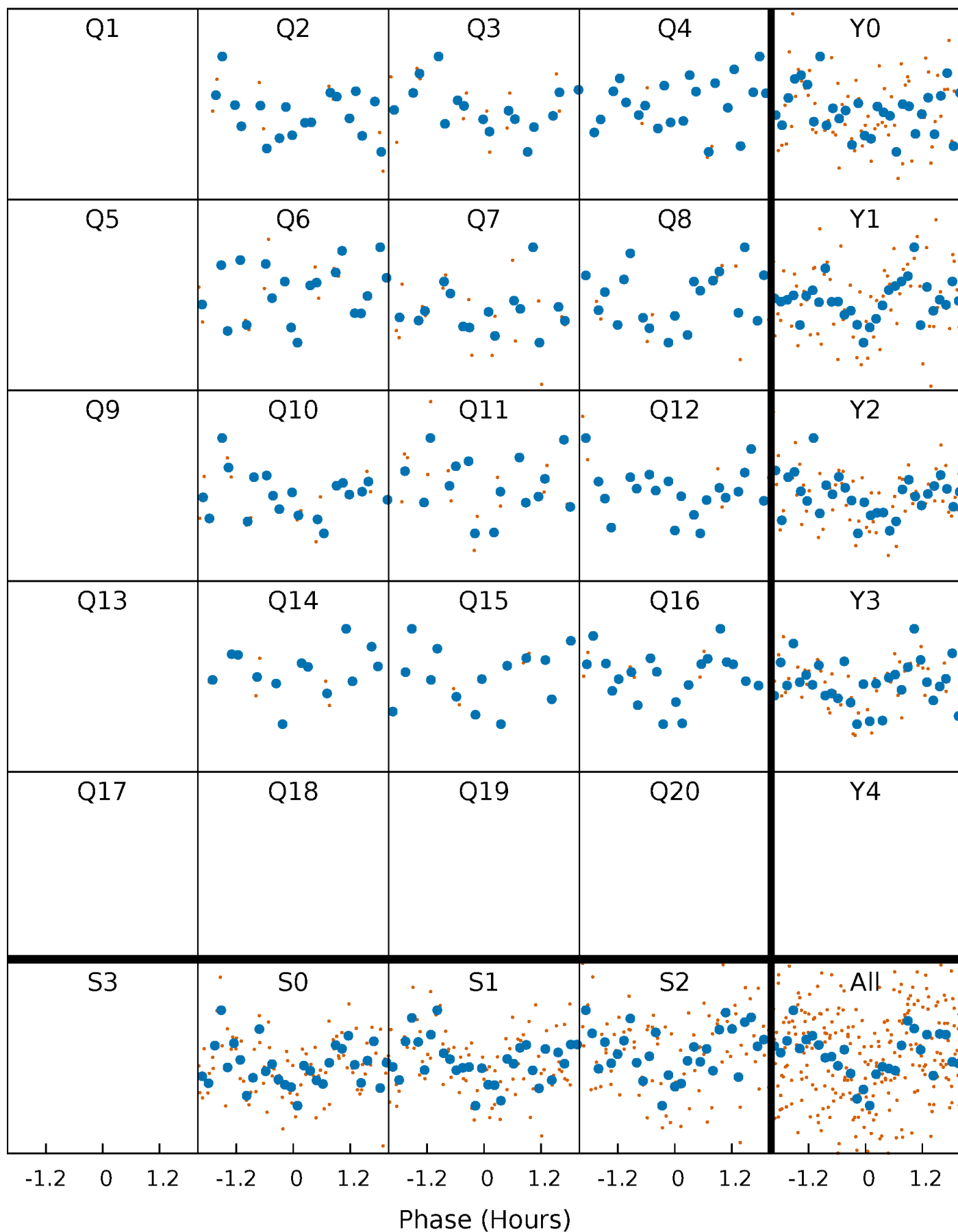


Non-Whitened Vs. Whitened Light Curve



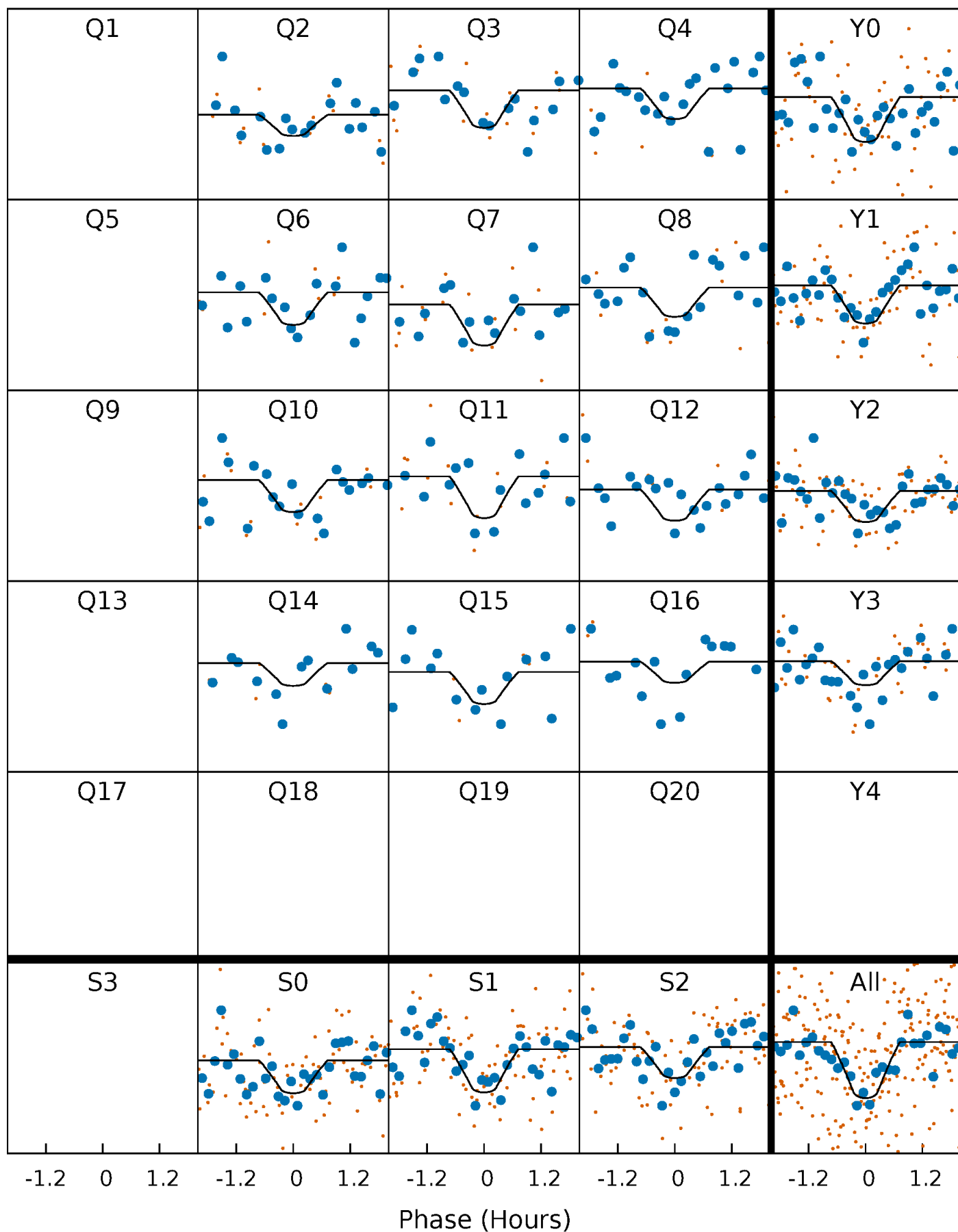
PDC Quarter-Phased Transit Curves

TCE 006583107-01 P= 30.626177 Days $T_0=157.948250$ (BKJD)



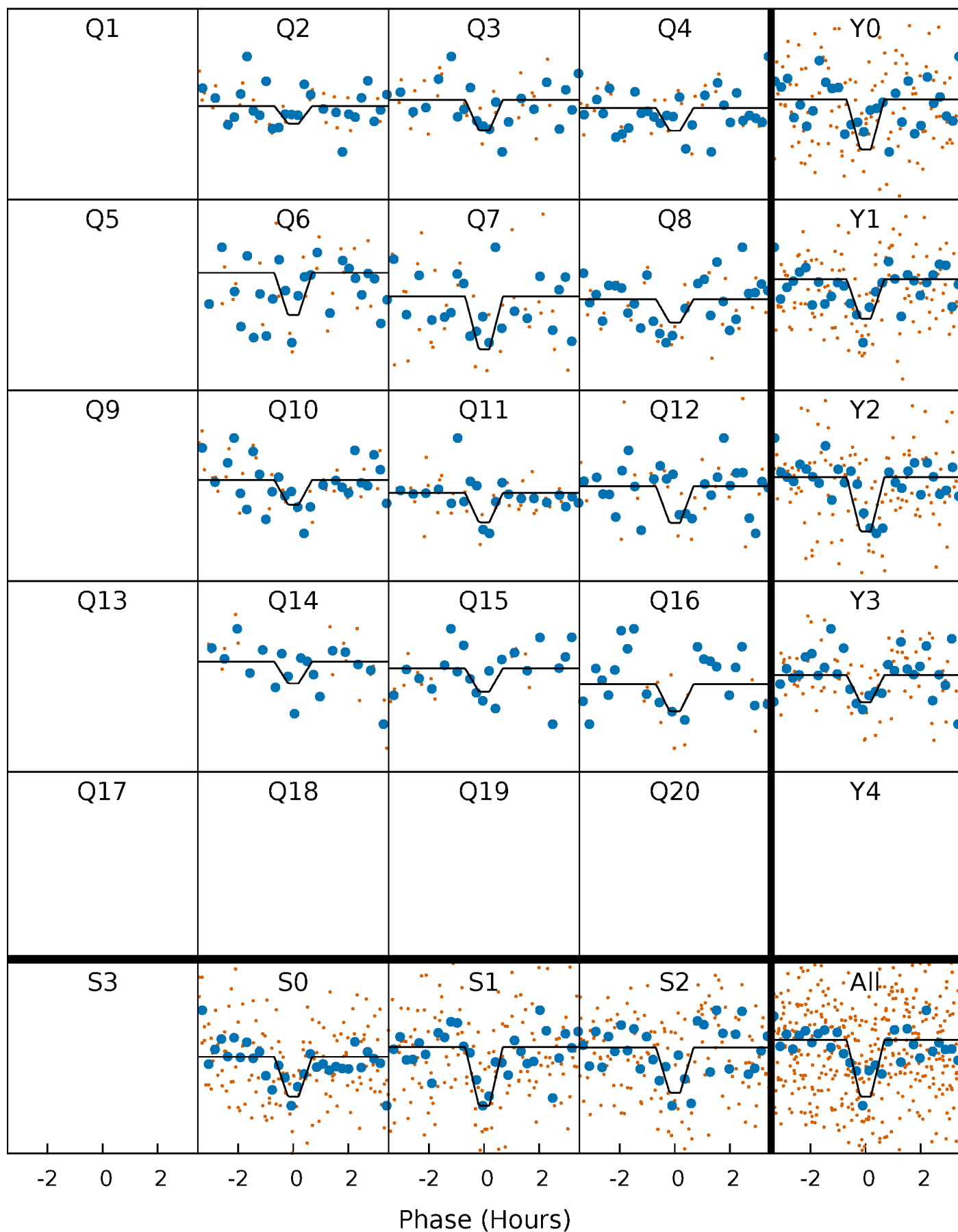
DV Quarter-Phased Transit Curves

TCE 006583107-01 P= 30.626177 Days $T_0=157.948250$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

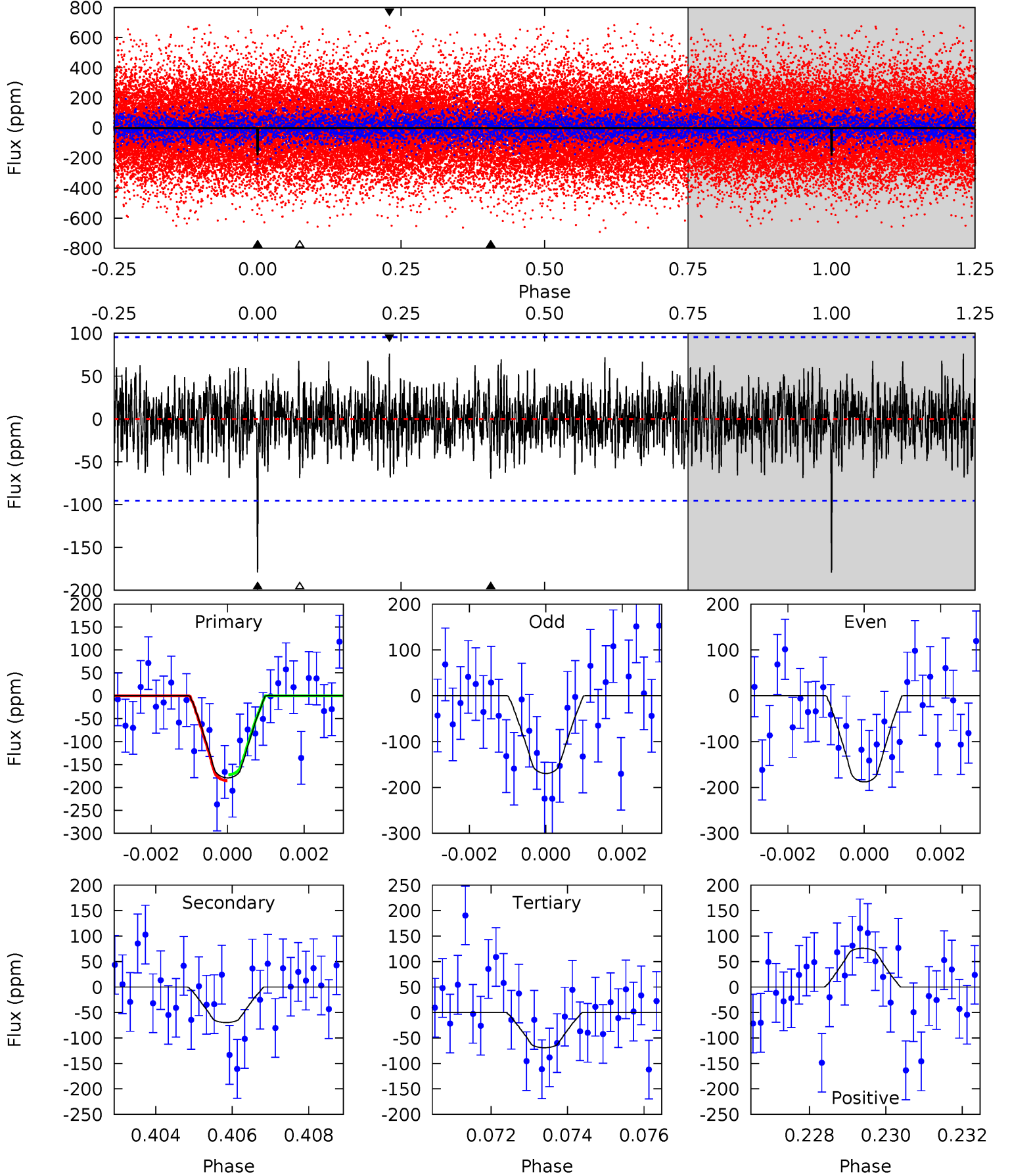
TCE 006583107-01 P= 30.625720 Days $T_0=157.958708$ (BKJD)



DV Model-Shift Uniqueness Test

006583107-01, $P = 30.626177$ Days, $E = 157.948250$ Days

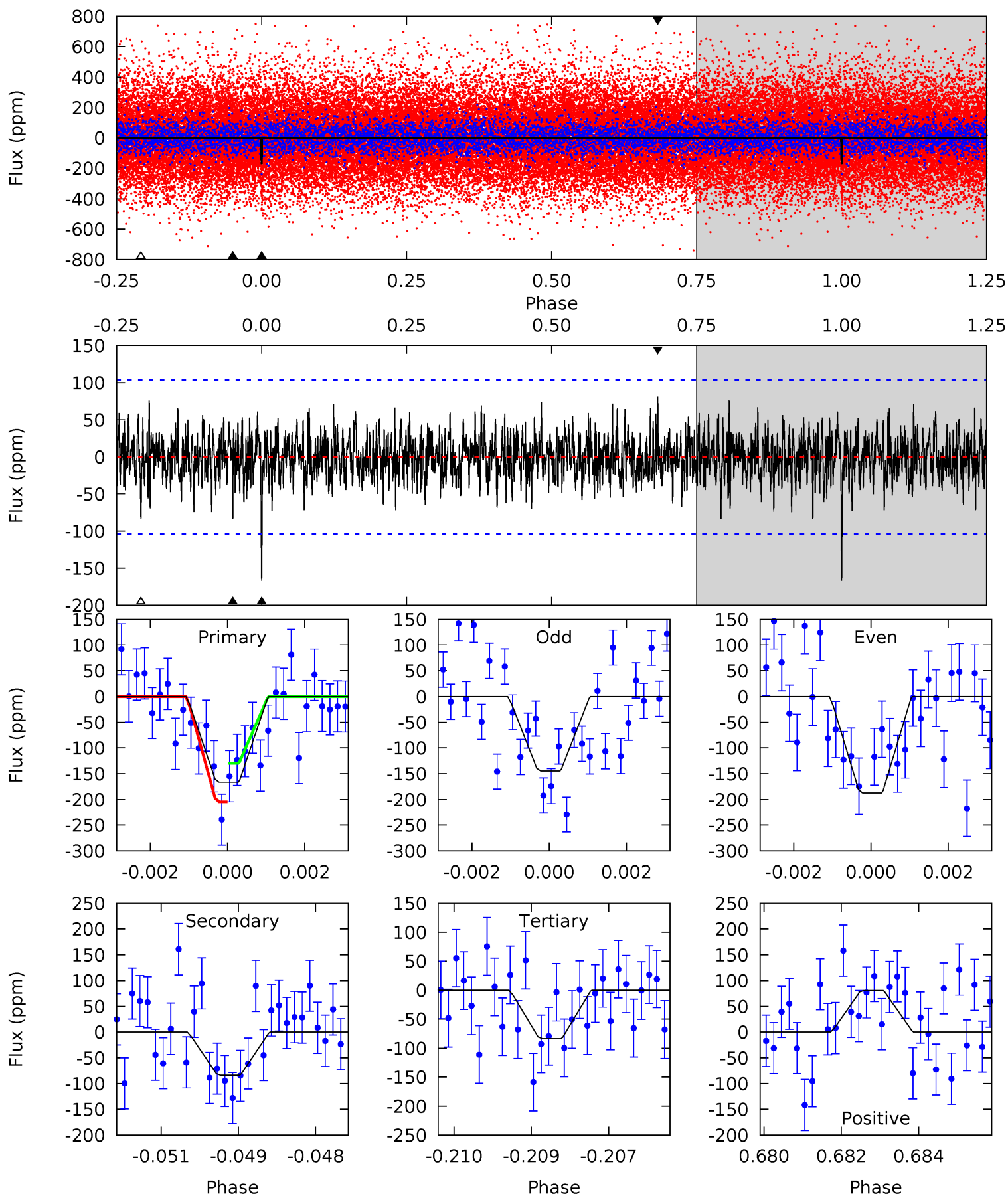
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.0	3.89	3.86	4.24	5.33	3.09	1.32	6.14	5.76	0.04	-0.35	0.52	1.06	0.30	0.36



Alt Model-Shift Uniqueness Test

006583107-01, P = 30.625720 Days, E = 157.958708 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.61	4.33	4.31	4.17	5.35	3.13	1.27	4.30	4.44	0.02	0.16	1.10	1.00	0.33	1.93



Stellar Parameters For KIC 006583107

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5860^{+177}_{-195}	$4.244^{+0.231}_{-0.189}$	$-0.220^{+0.300}_{-0.300}$	$1.197^{+0.328}_{-0.295}$	$0.917^{+0.132}_{-0.096}$	$0.753^{+1.071}_{-0.361}$
	+3%/-3%	+5%/-4%	+136%/-136%	+27%/-25%	+14%/-10%	+142%/-48%
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 006583107-01 / KOI 8264.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-70 ± 18	$1.78^{+1.06}_{-0.98}$	912^{+68}_{-71}	4670^{+1911}_{-779}	407^{+1505}_{-251}
Alt.	-84 ± 19	$1.94^{+1.11}_{-1.01}$	910^{+77}_{-67}	4723^{+1898}_{-753}	425^{+1384}_{-252}

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

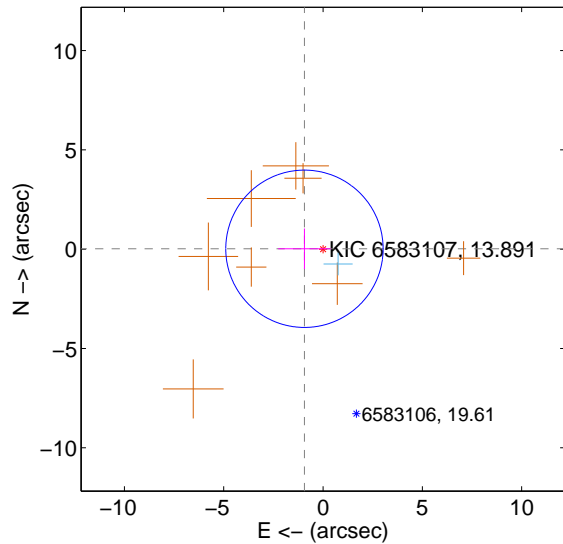
Supplemental centroid analysis for 006583107-01. Kepler magnitude: 13.89. Transit SNR 7.45

There are 1 quarters with good PRF difference image offsets

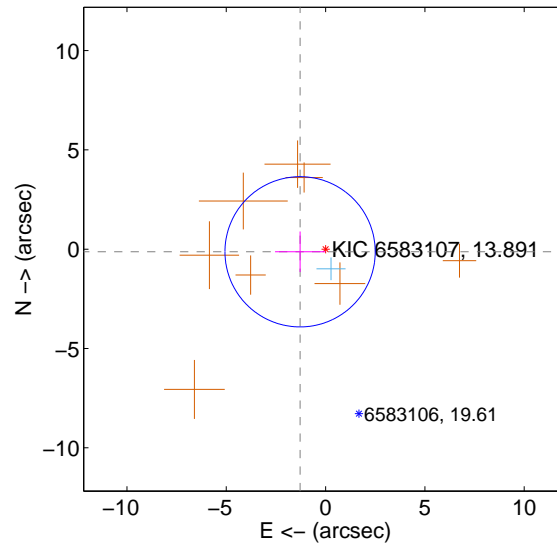
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.936 ± 1.320	0.71	0.936 ± 1.321	0.020 ± 1.023
PRF-fit source offset from KIC position	1.290 ± 1.261	1.02	1.284 ± 1.261	-0.132 ± 1.020
photometric centroid source offset	3.71 ± 2.15	1.73	3.56 ± 2.17	-1.05 ± 1.86

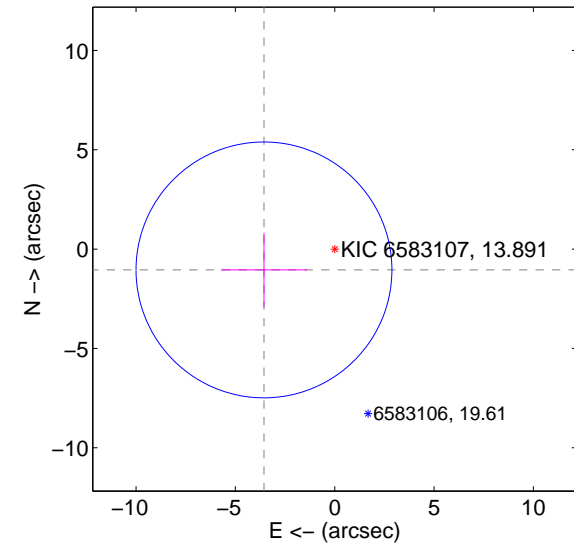
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

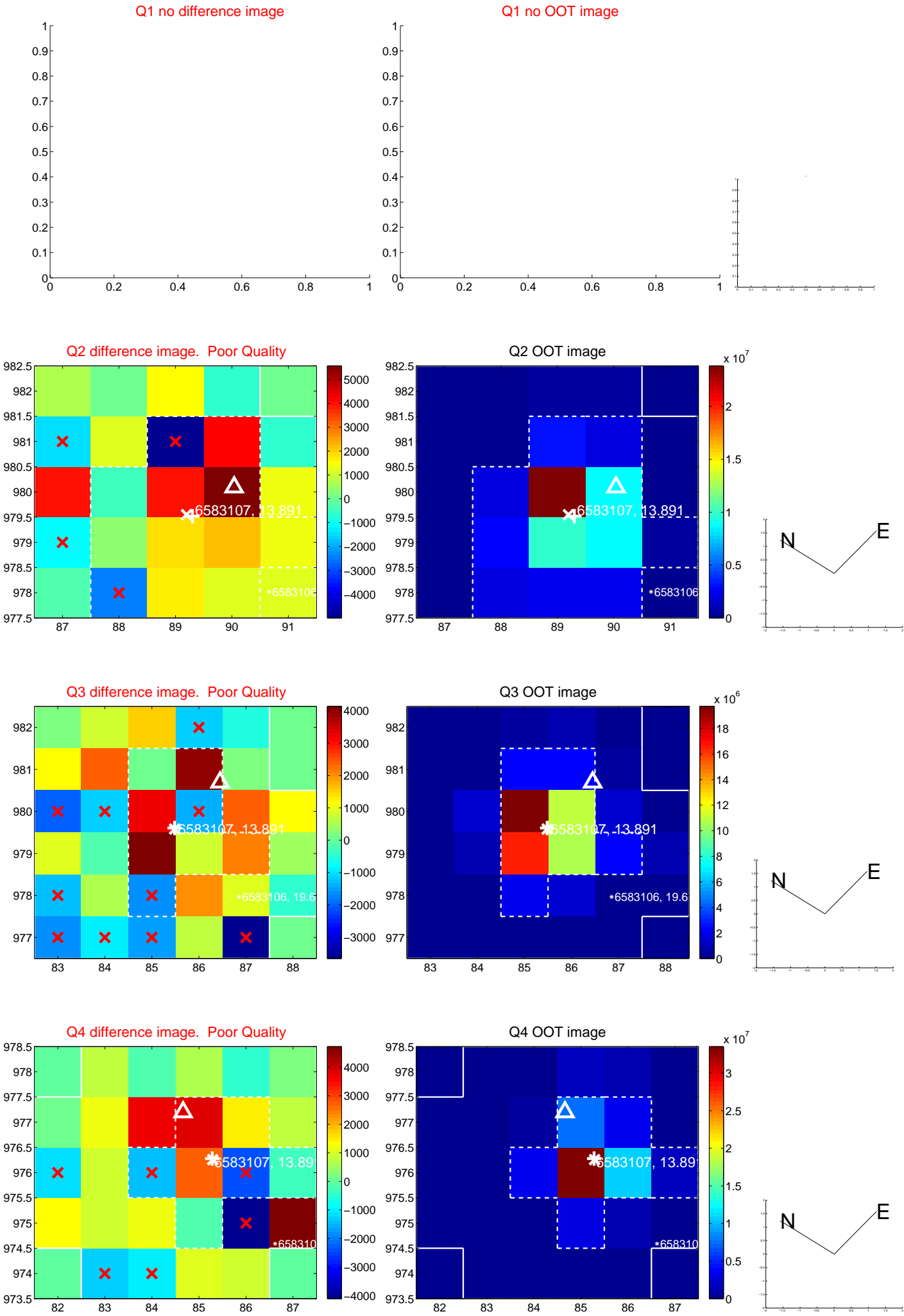


offset from photometric centroids

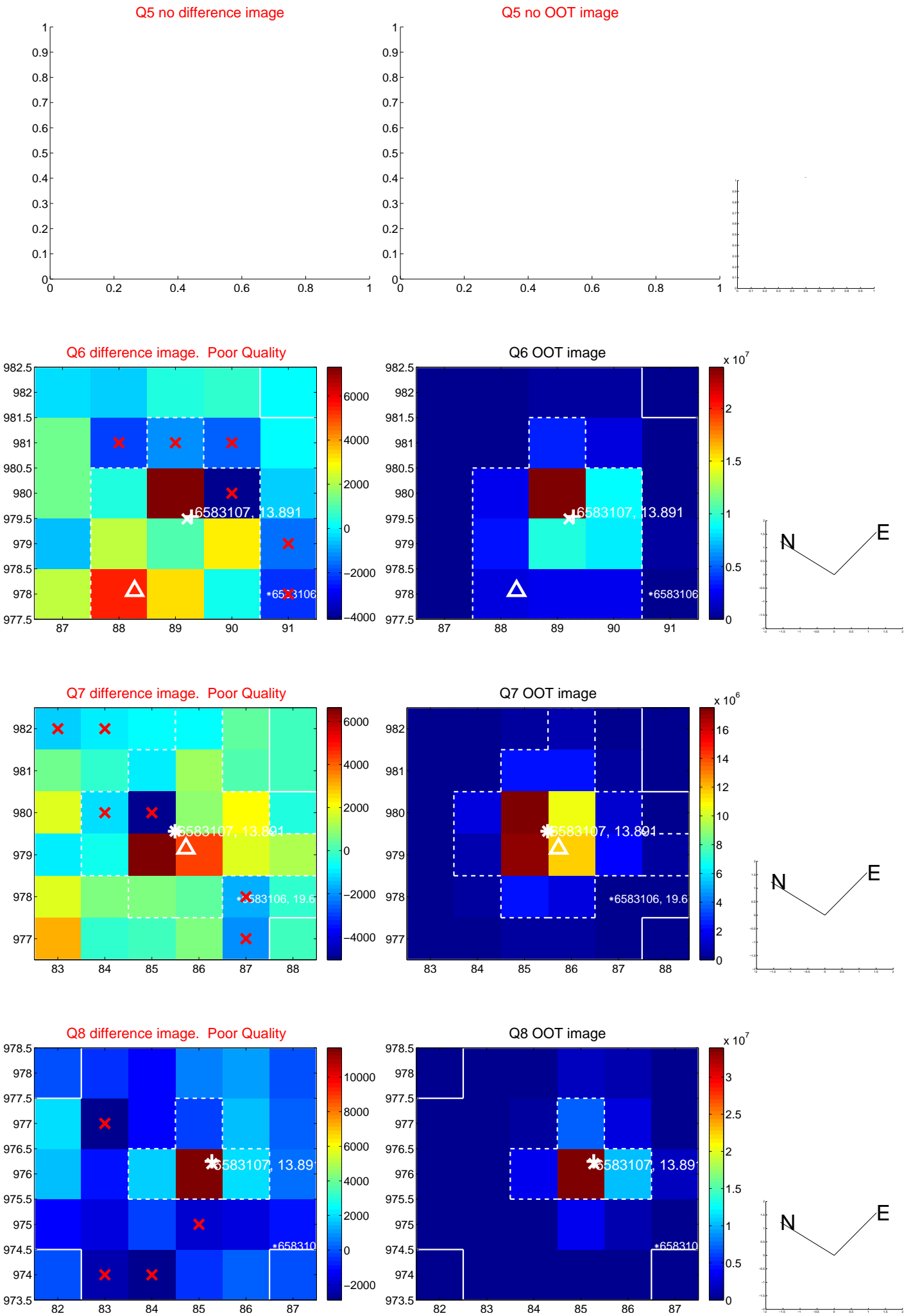


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

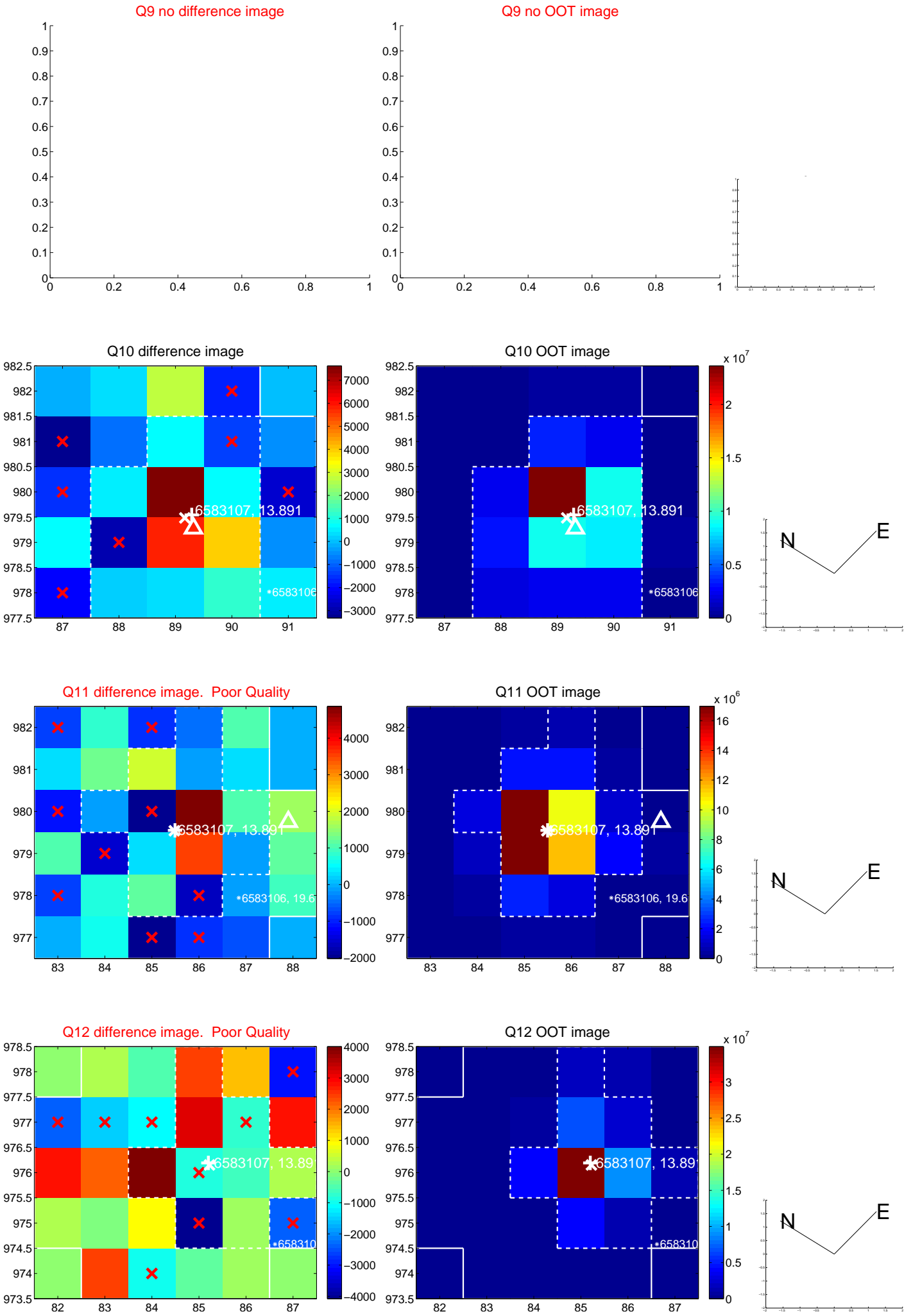
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



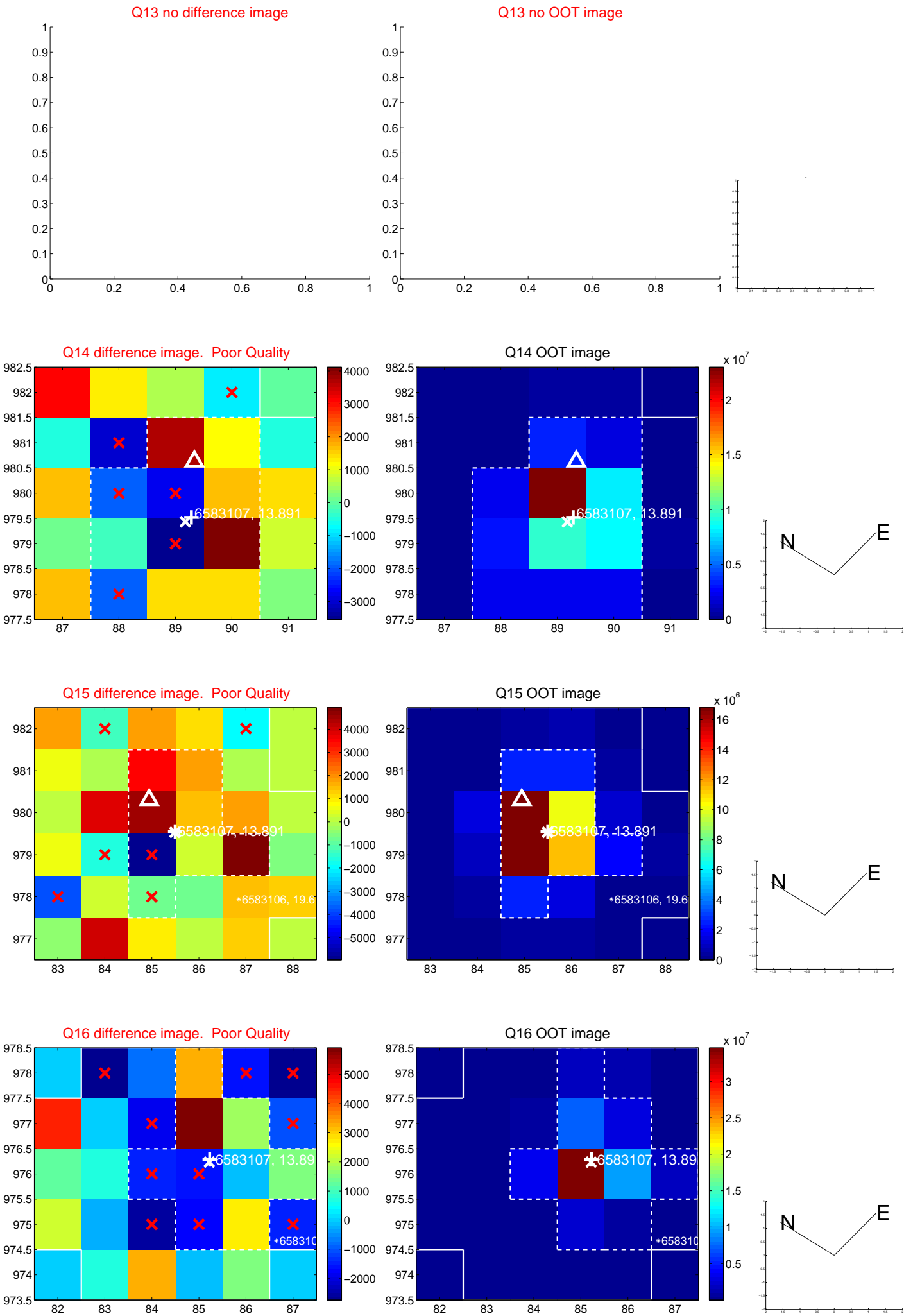
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



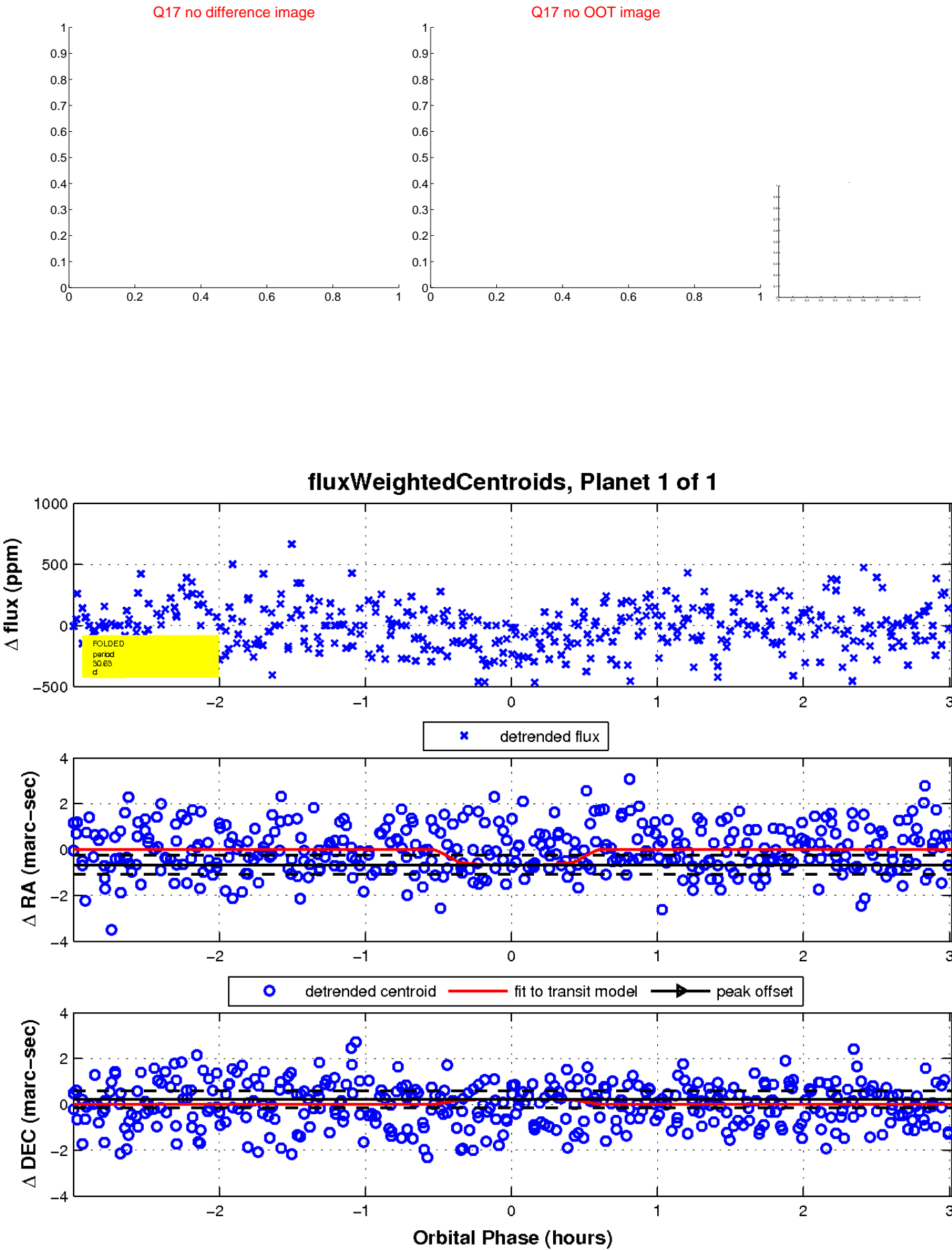
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

