

KIC 005521796

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})
005521796-01	OBS	No	374.683457	301.241474	1089.3	6.121	7.2	6.2	0.84	5237	3.06	0.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005521796-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_TRACKER—LPP_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS—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.

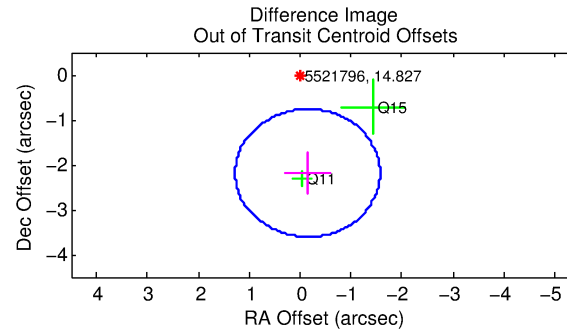
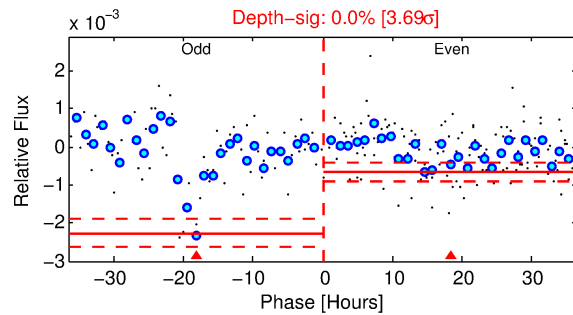
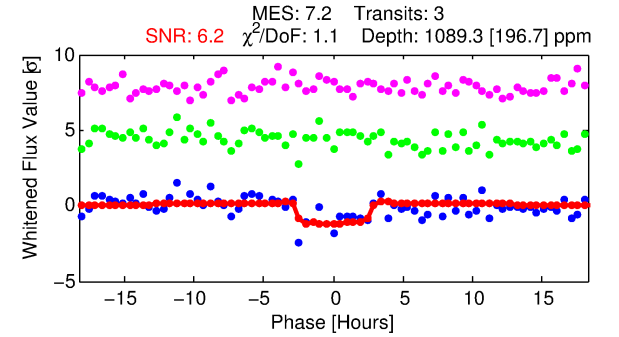
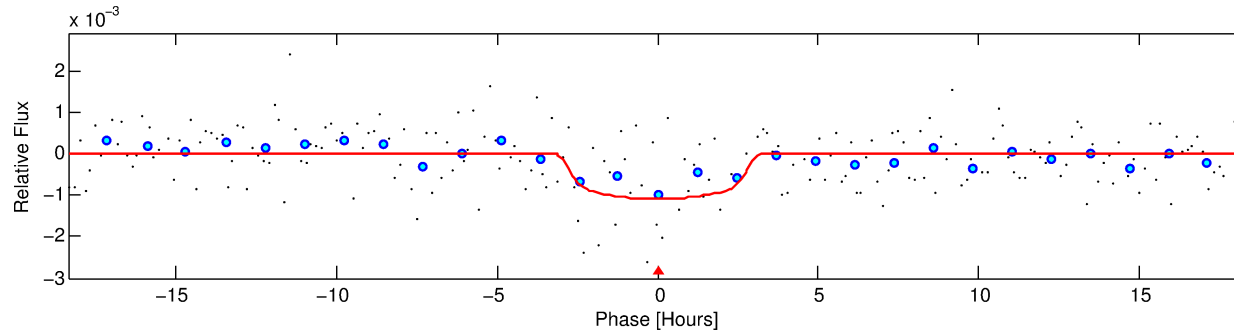
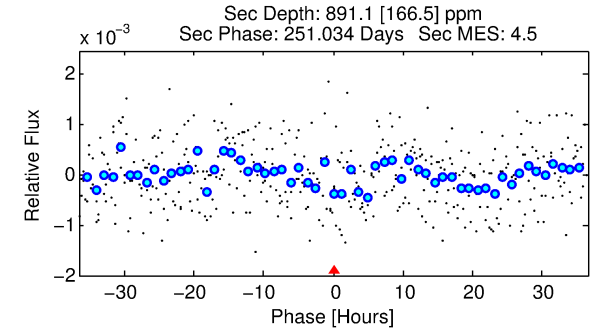
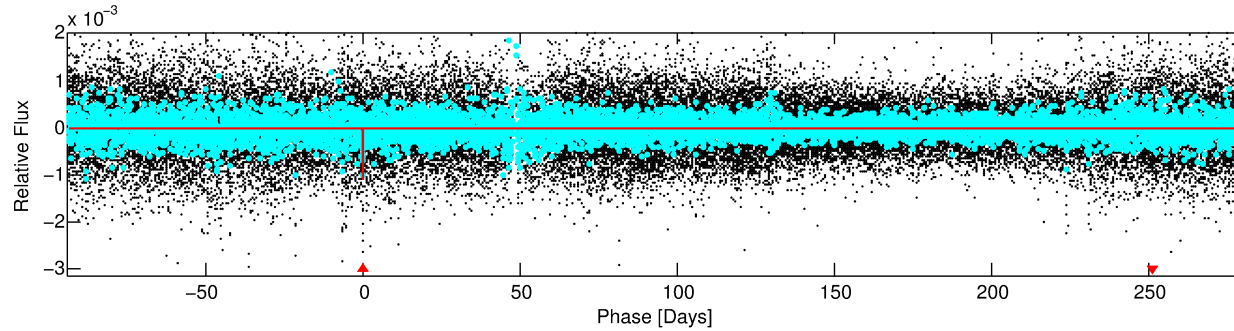
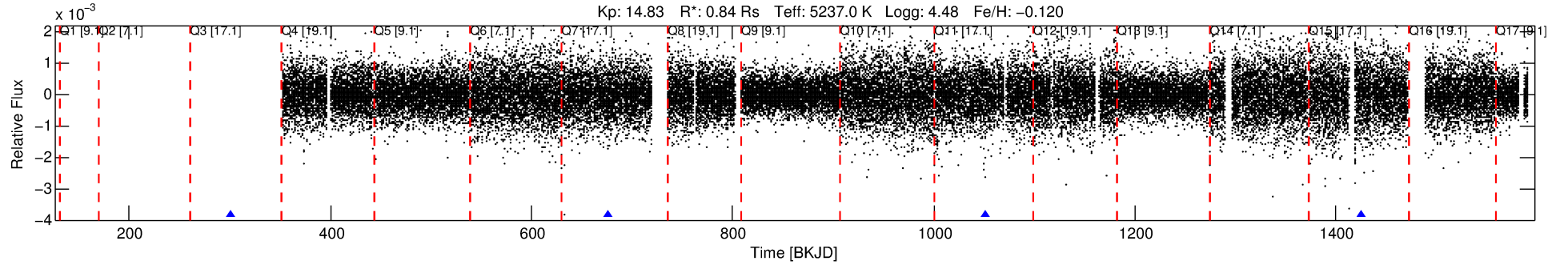
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005521796-01

No Significant Match Found

DV One-Page Summary

KIC: 5521796 Candidate: 1 of 1 Period: 374.683 d



DV Fit Results:

Period = 374.68346 [0.01007] d
Epoch = 301.2415 [0.0231] BKJD
Rp/R* = 0.0334 [0.0158]
a/R* = 315.32 [554.55]
b = 0.78 [0.89]
Seff = 0.54 [0.18]
Teq = 219 [18] K
Rp = 3.05 [1.56] Re
a = 0.9339 [0.1750] AU
Ag = 45817.23 [46377.48] [0.99σ]
Teffp = 4948 [1207] K [3.92σ]

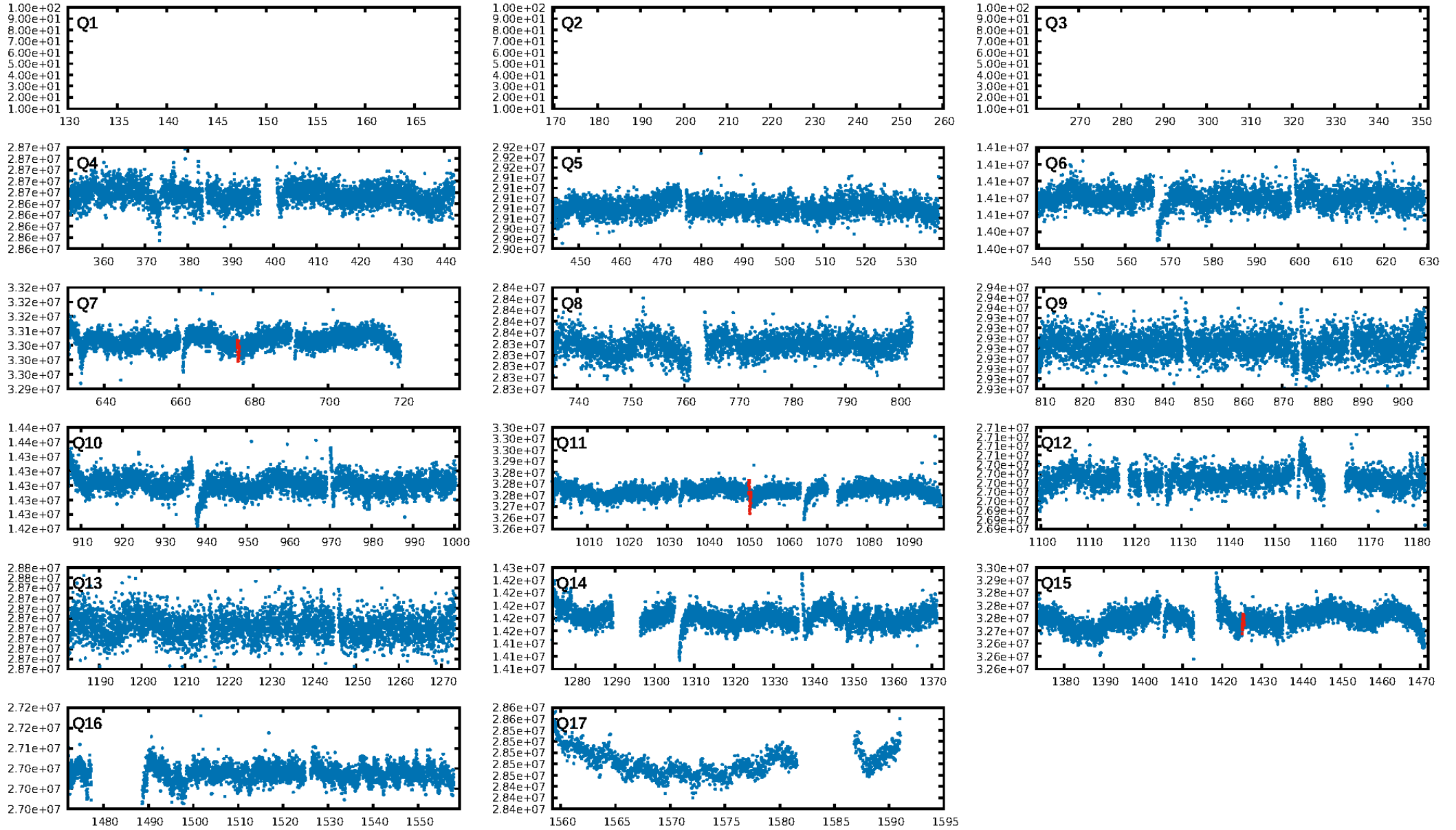
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 61.0%
Bootstrap-pfa: 1.80e-09
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.378
Centroid-sig: 67.8%
Centroid-so: 1.860 arcsec [9.98σ]
OotOffset-rm: 2.192 arcsec [4.62σ]
KicOffset-rm: 2.321 arcsec [4.70σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

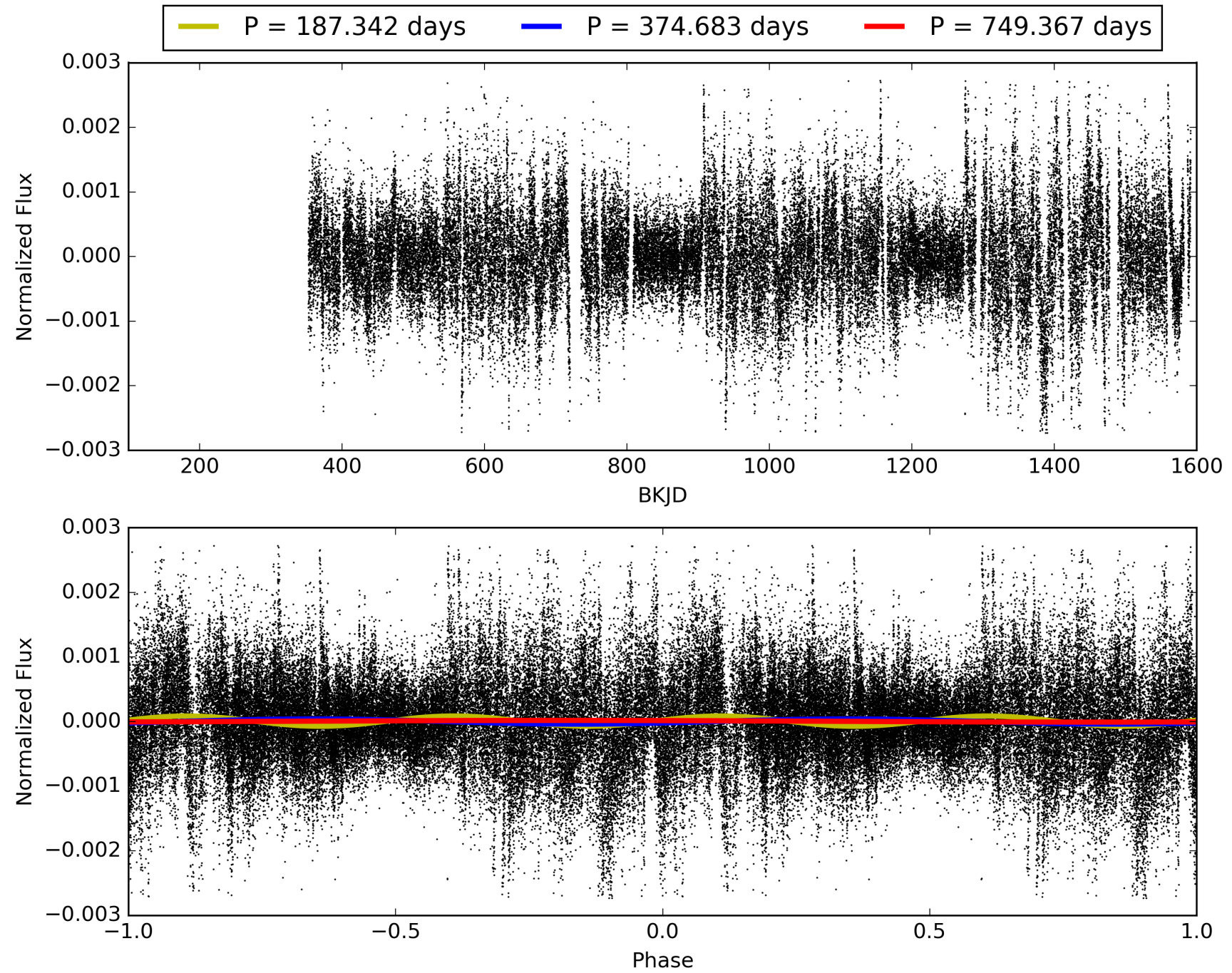
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 14:46:13 Z

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

TCE 005521796-01, PDC Light Curves

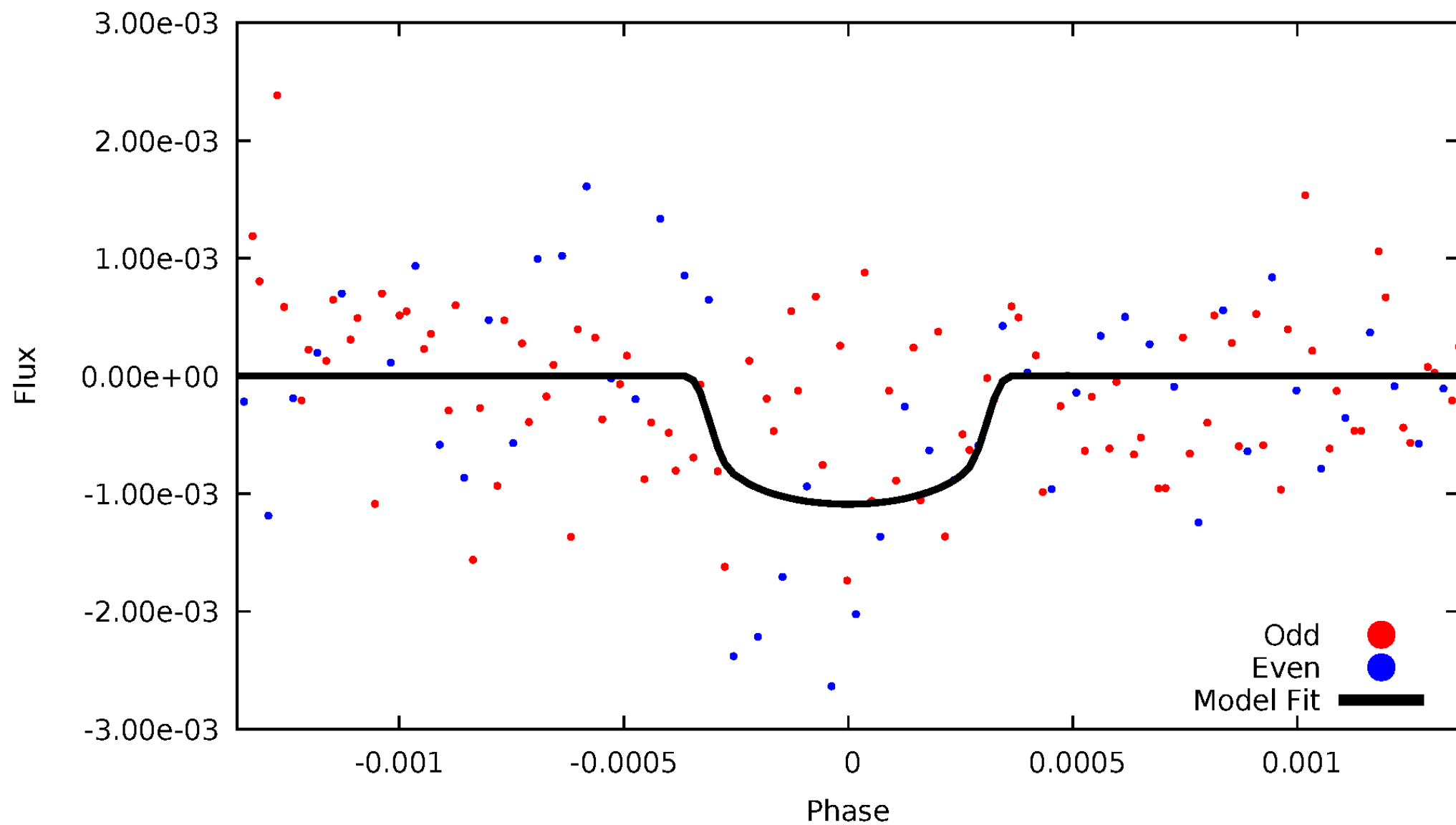


TCE 005521796-01



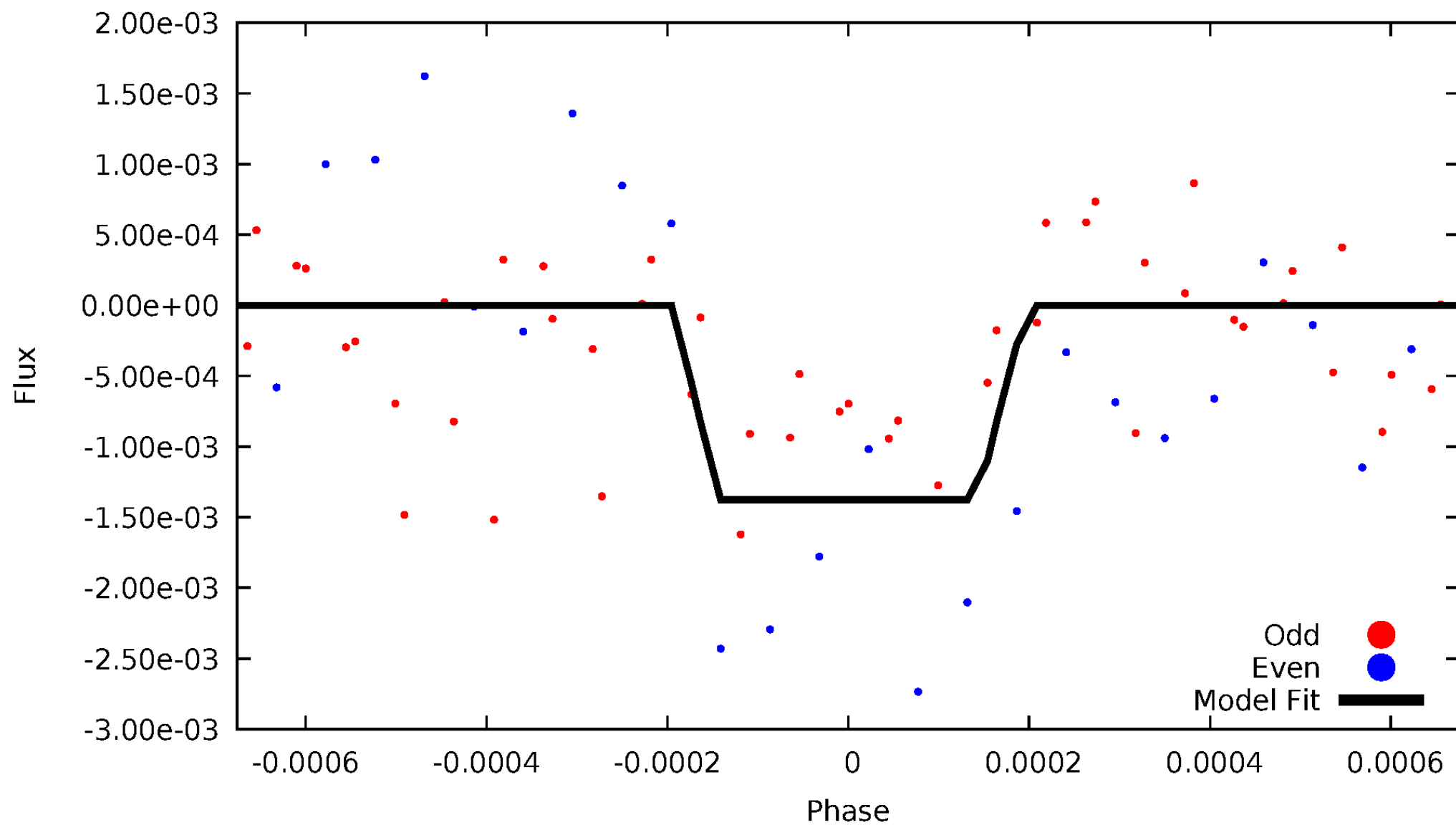
DV Odd/Even

TCE 005521796-01

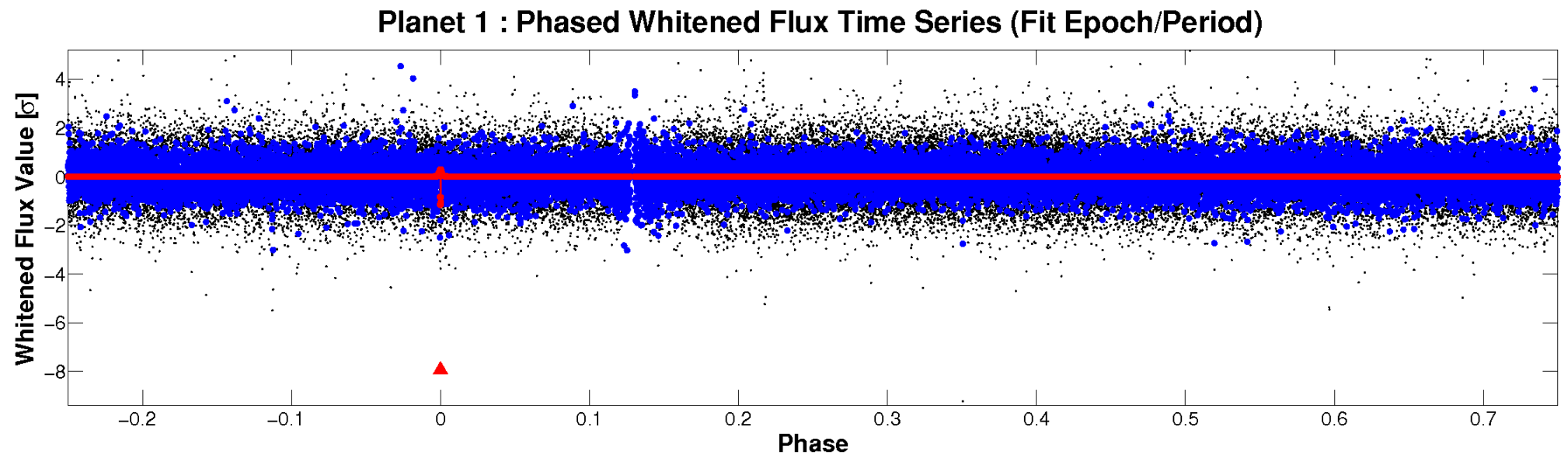
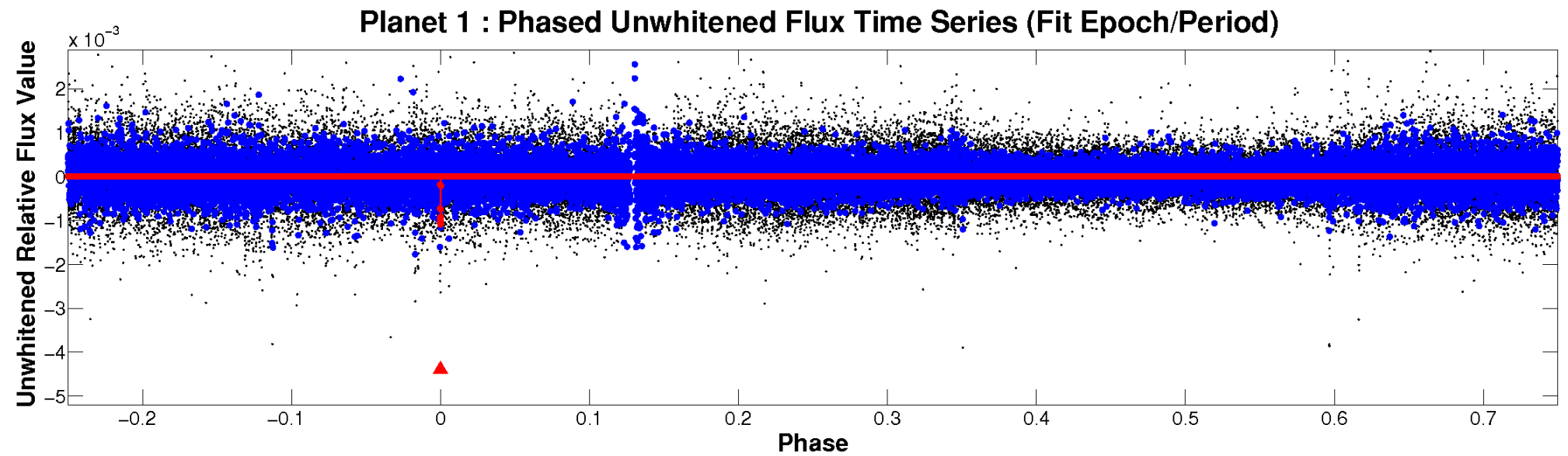


ALT Odd/Even

TCE 005521796-01

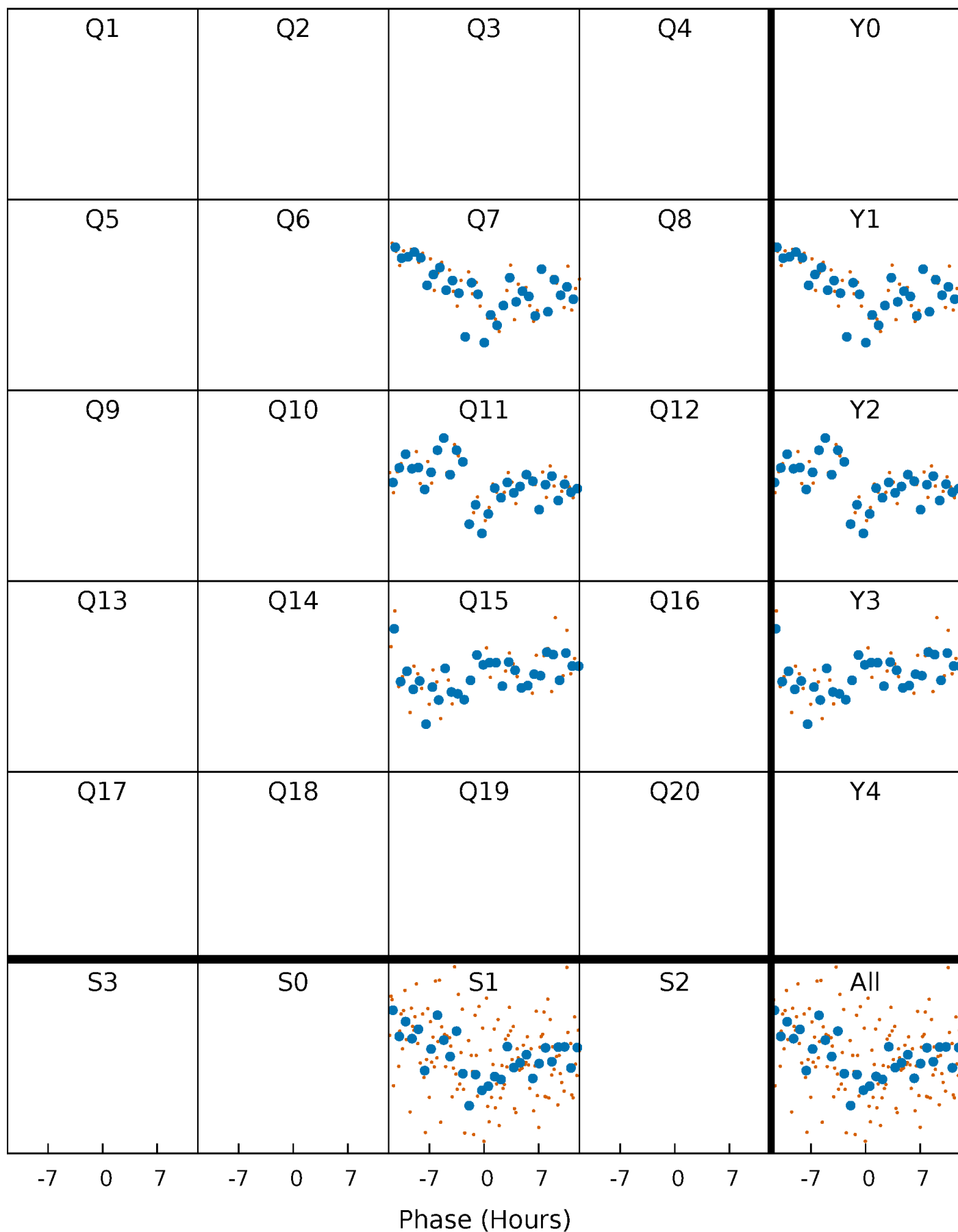


Non-Whitened Vs. Whitened Light Curve



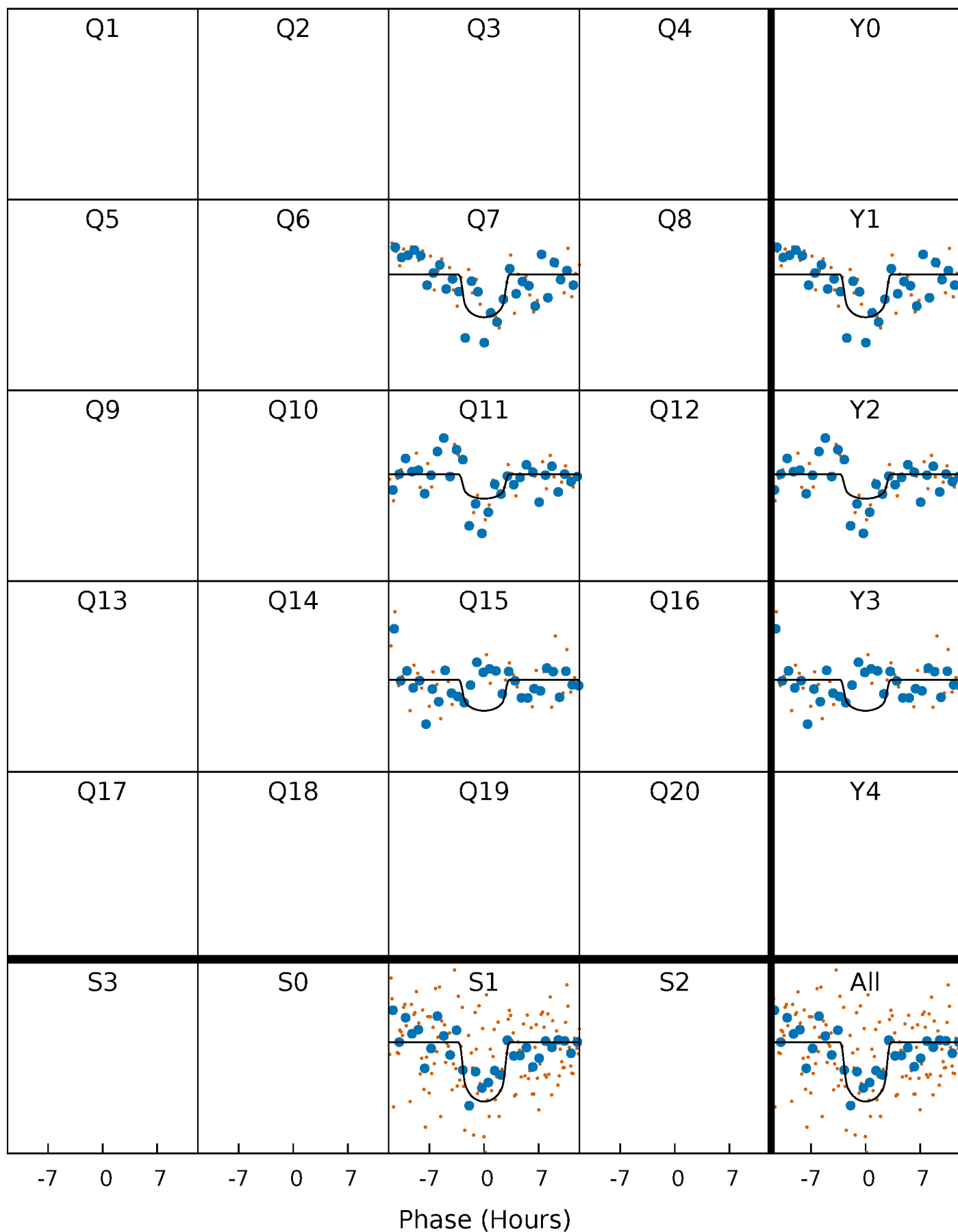
PDC Quarter-Phased Transit Curves

TCE 005521796-01 P=374.683457 Days $T_0=301.241474$ (BKJD)



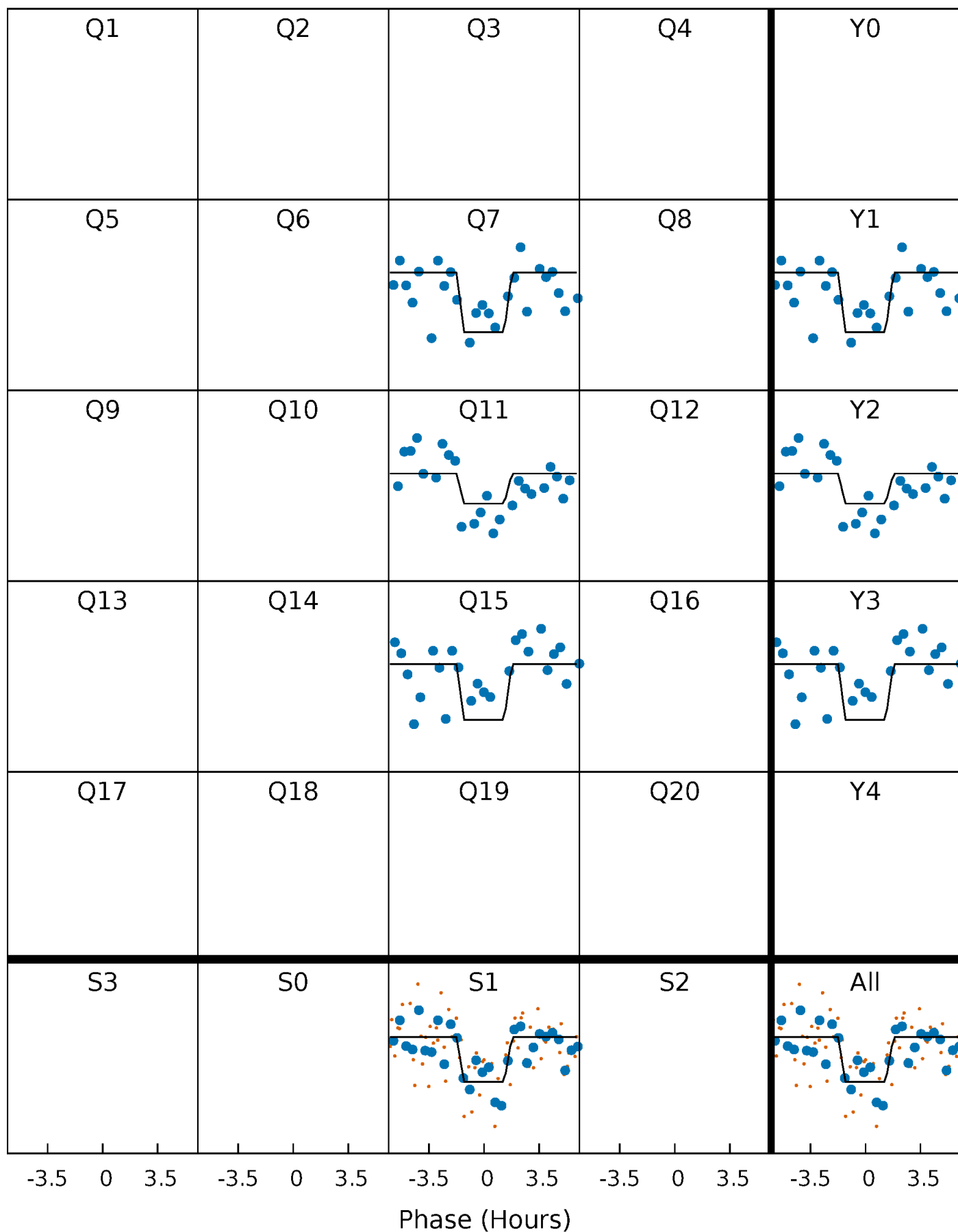
DV Quarter-Phased Transit Curves

TCE 005521796-01 $P=374.683457$ Days $T_0=301.241474$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

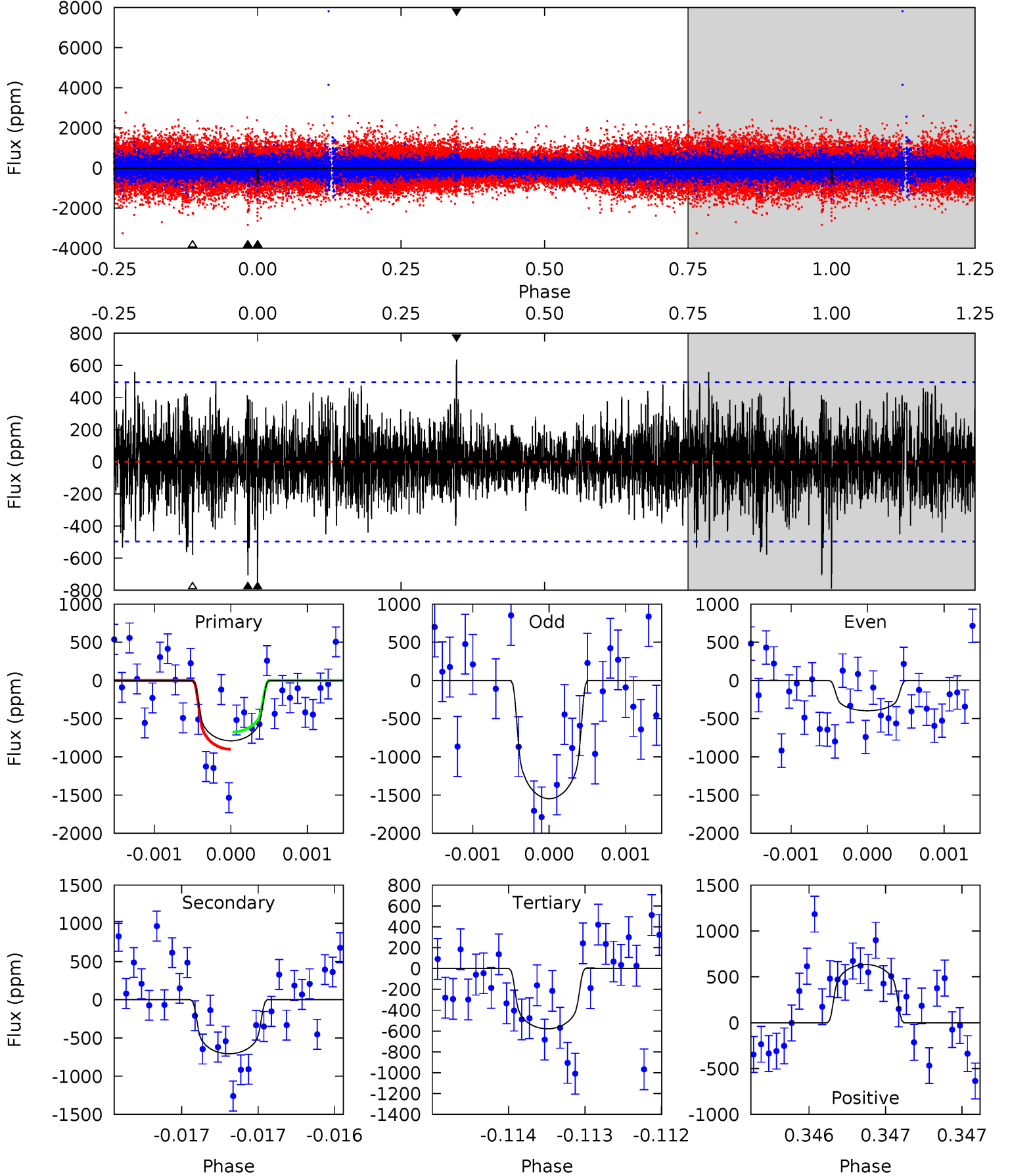
TCE 005521796-01 P=374.596939 Days $T_0=301.371510$ (BKJD)



DV Model-Shift Uniqueness Test

005521796-01, $P = 374.683457$ Days, $E = 301.241474$ Days

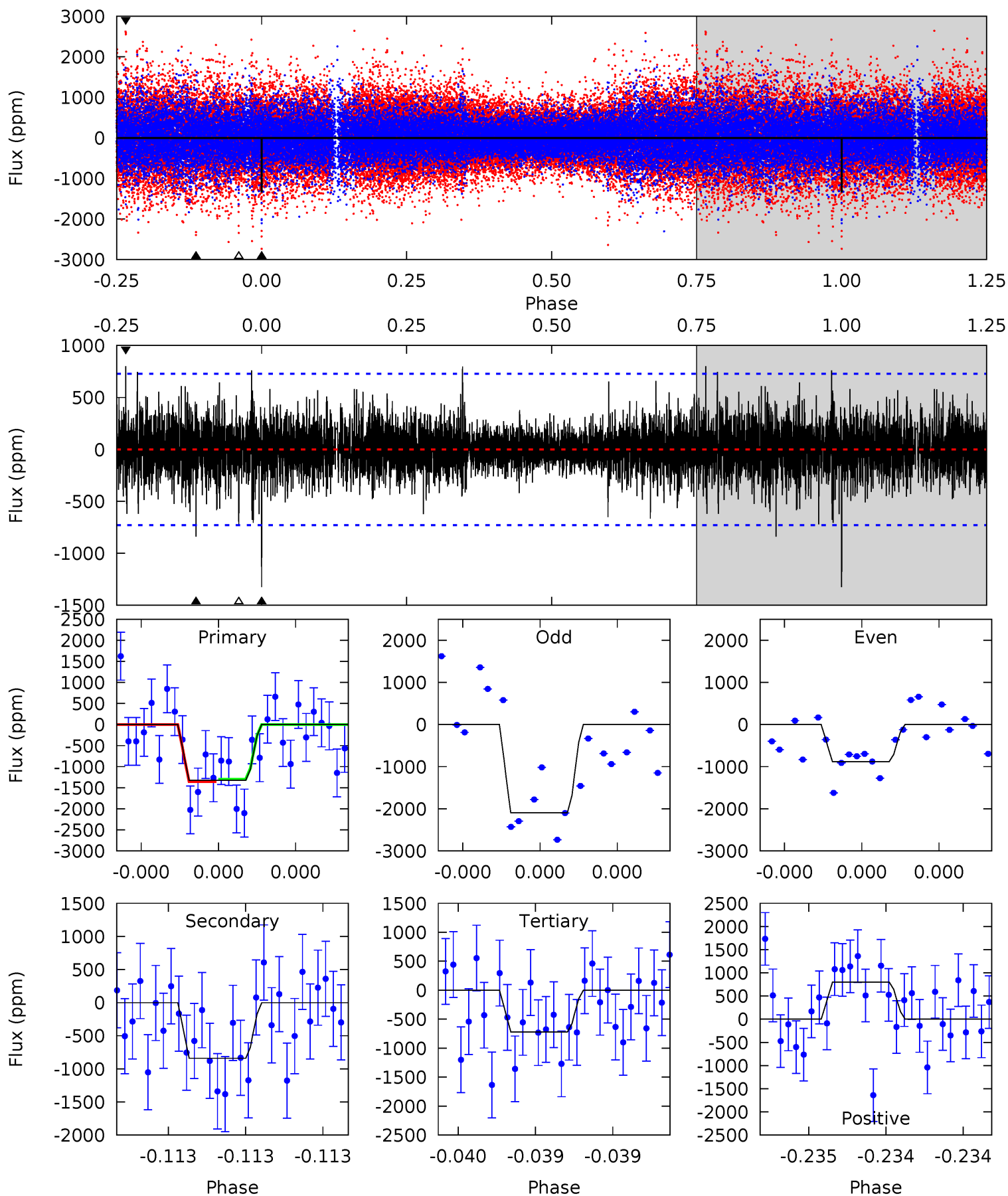
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.77	7.85	6.43	7.05	5.51	3.38	1.52	2.34	1.72	1.42	0.80	6.15	0.80	0.45	1.24



Alt Model-Shift Uniqueness Test

005521796-01, P = 374.596939 Days, E = 301.371510 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.2	6.48	5.55	6.18	5.62	3.56	1.26	4.67	4.04	0.93	0.30	4.69	1.19	0.38	0.21



Stellar Parameters For KIC 005521796

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5237^{+184}_{-184}	$4.481^{+0.105}_{-0.180}$	$-0.120^{+0.350}_{-0.250}$	$0.837^{+0.159}_{-0.106}$	$0.774^{+0.121}_{-0.060}$	$1.856^{+0.833}_{-0.833}$
	+4%/-4%	+2%/-4%	+292%/-208%	+19%/-13%	+16%/-8%	+45%/-45%
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 005521796-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-707 ± 90	$3.23^{+1.53}_{-1.55}$	309^{+19}_{-16}	4719^{+1572}_{-633}	32999^{+85159}_{-17752}
Alt.	-840 ± 130	$3.56^{+1.50}_{-1.49}$	310^{+19}_{-17}	4666^{+1266}_{-578}	31372^{+61649}_{-15914}

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 $A_{obs} \gg 1.0$

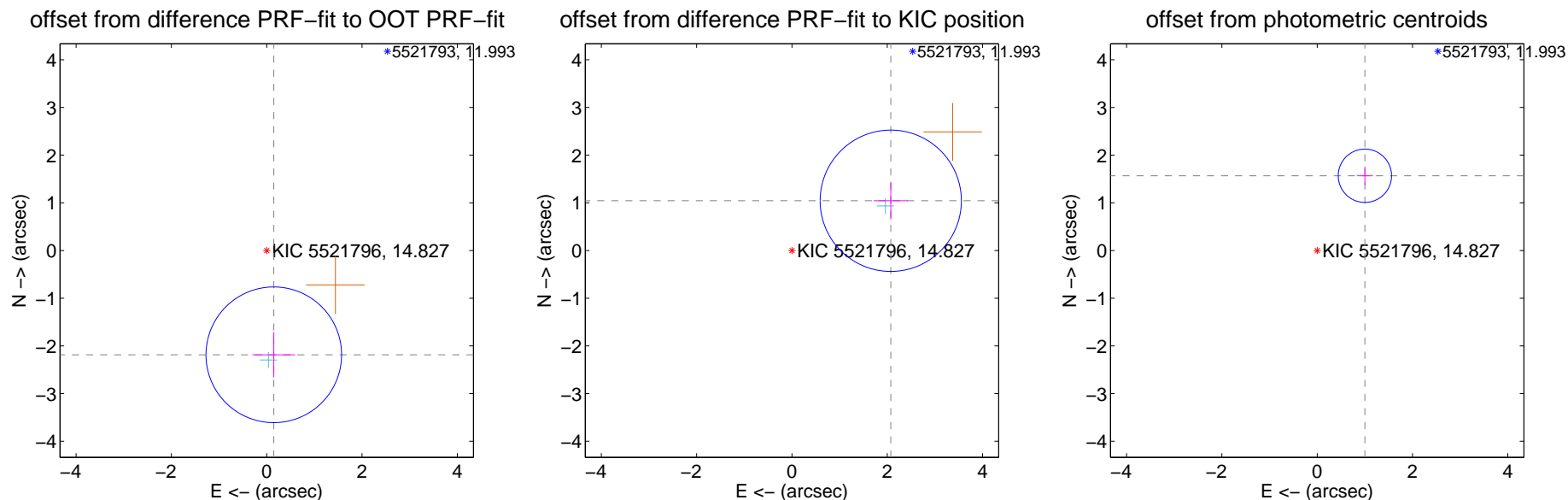
DV Centroid Data

Supplemental centroid analysis for 005521796-01. Kepler magnitude: 14.83. Transit SNR 6.23

There are 1 quarters with good PRF difference image offsets

The OOT PRF centroid is offset from the target star catalog position by about 3.74 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	2.192 ± 0.474	4.62	-0.149 ± 0.450	-2.187 ± 0.474
PRF-fit source offset from KIC position	2.321 ± 0.494	4.70	-2.073 ± 0.359	1.043 ± 0.394
photometric centroid source offset	1.86 ± 0.19	9.98	-1.00 ± 0.17	1.57 ± 0.19

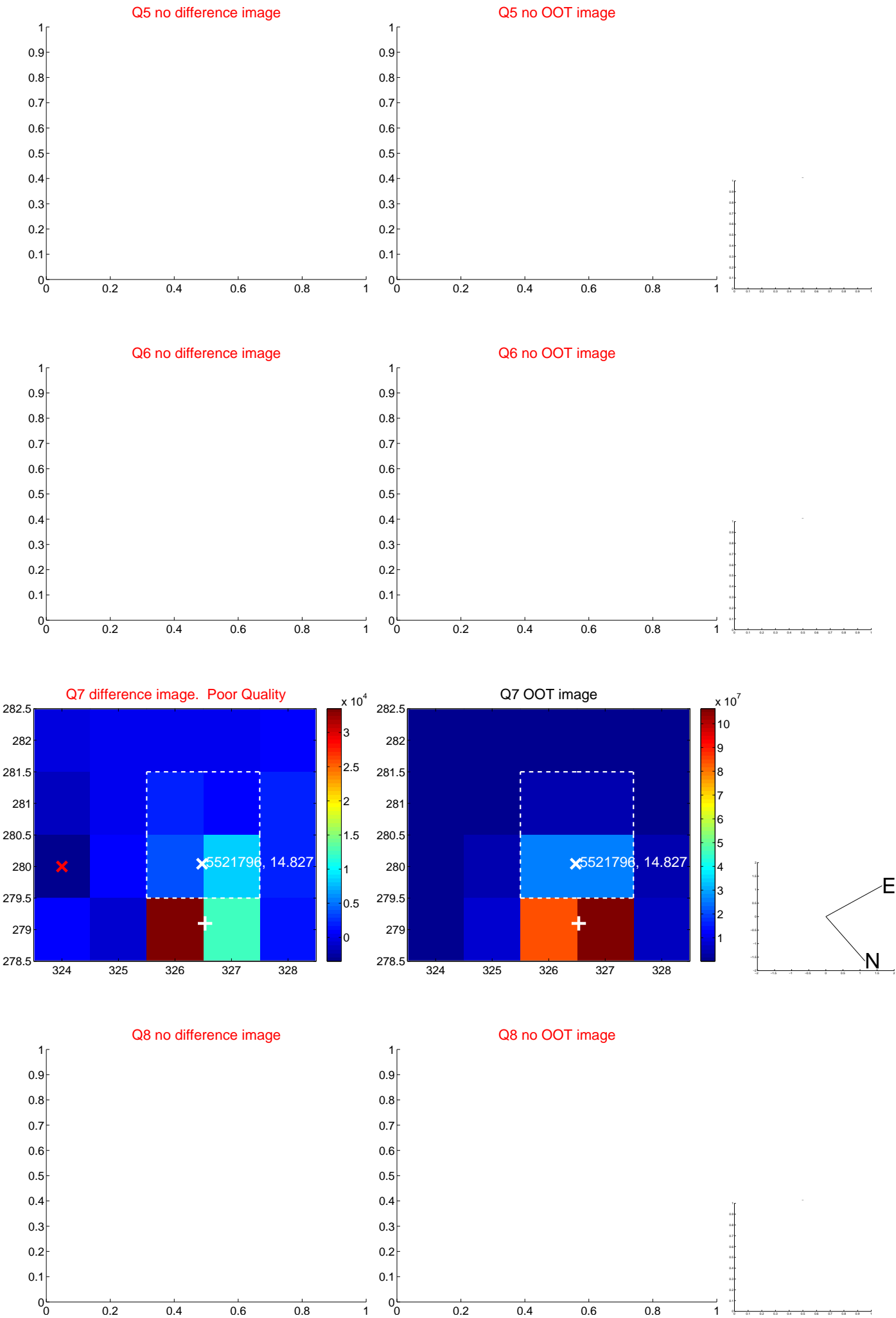


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

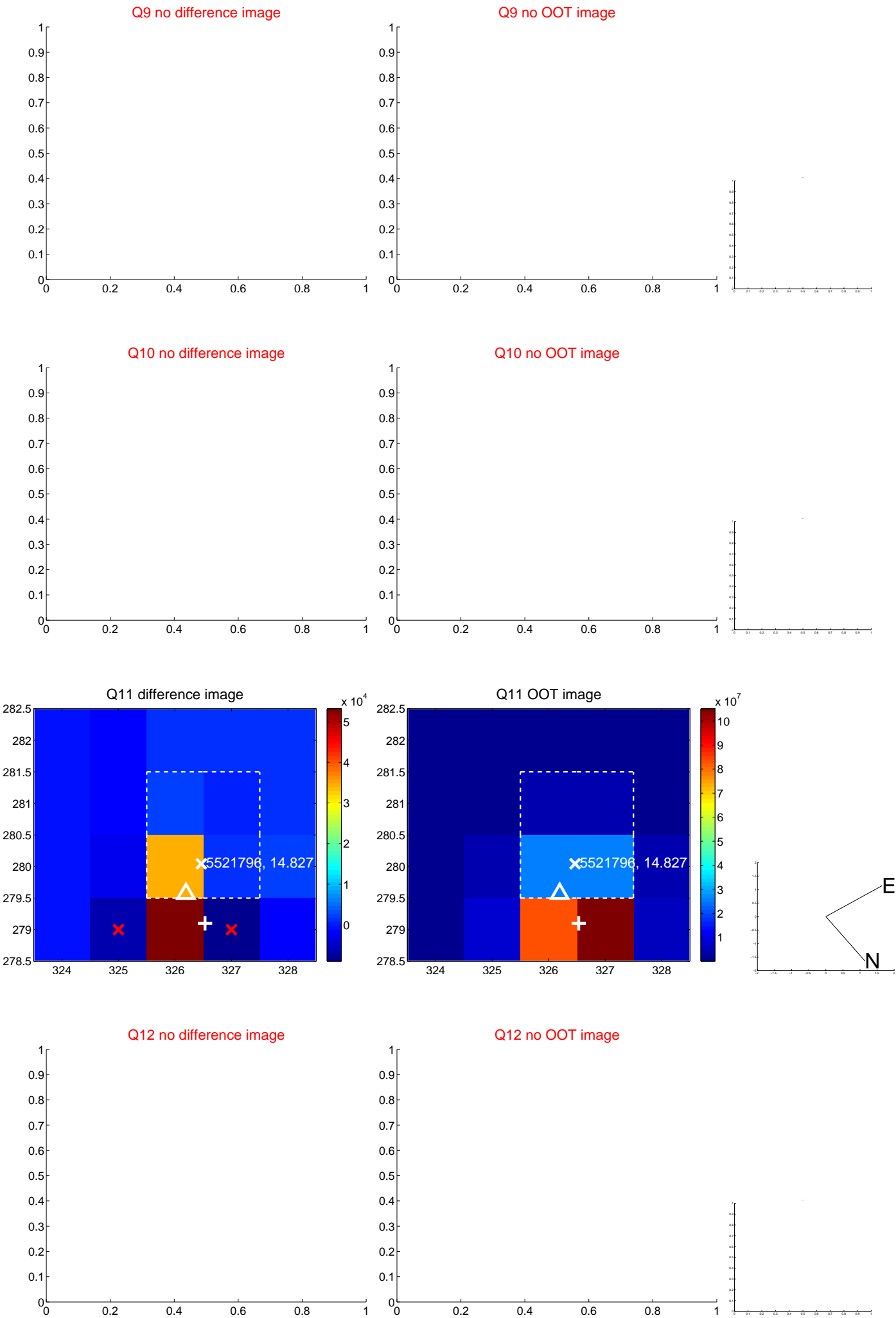
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



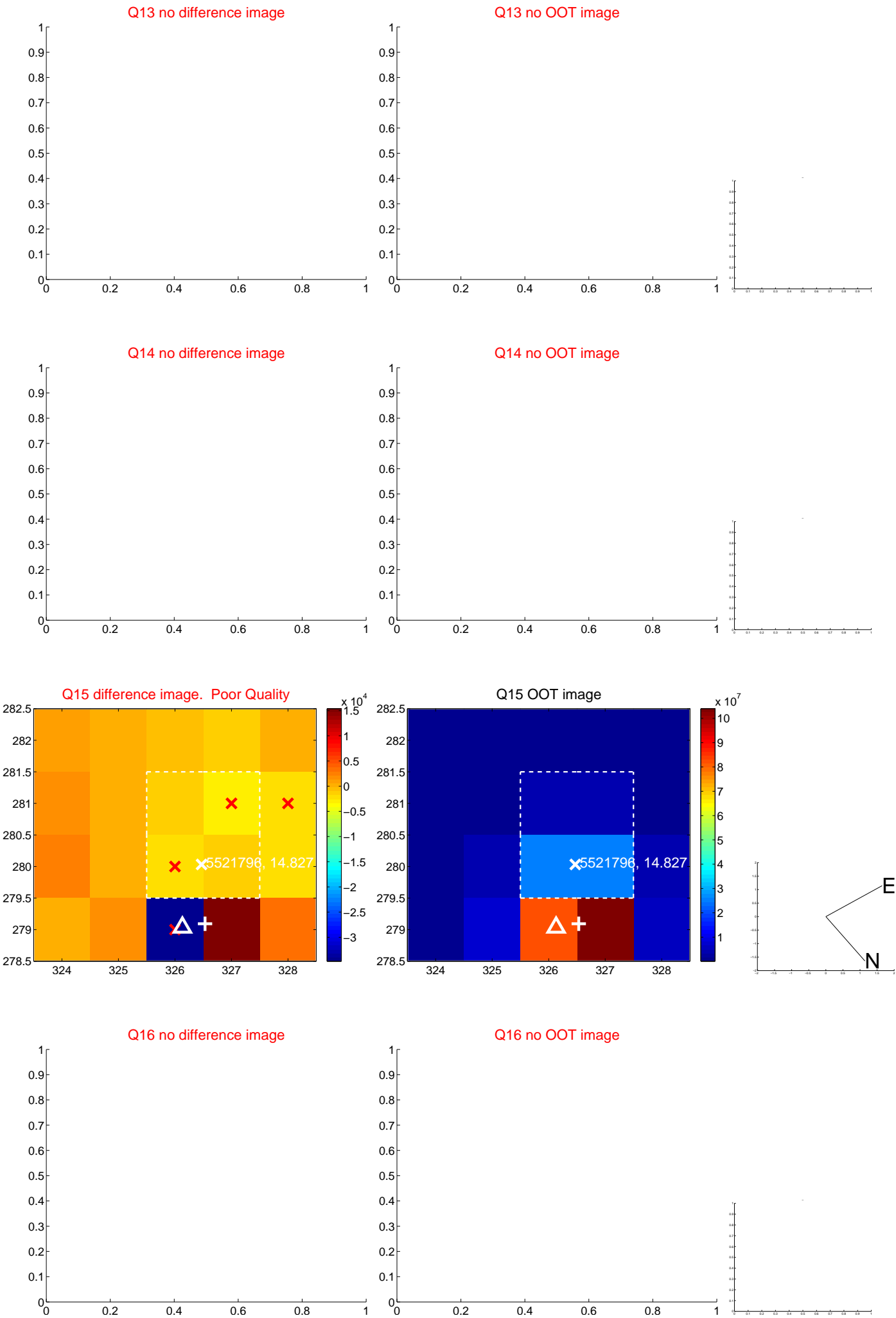
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



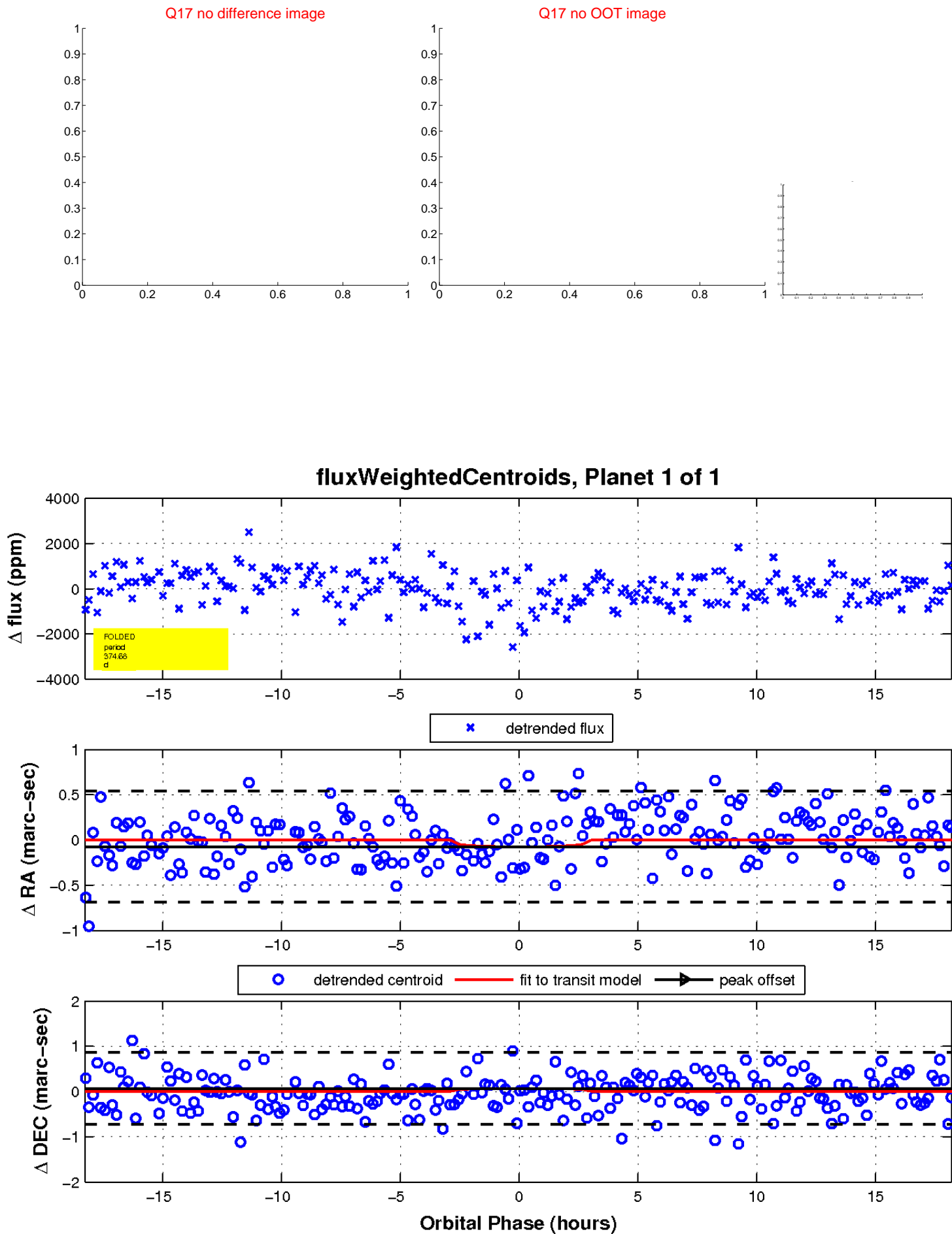
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \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

