

KIC 006696867

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})
006696867-01	OBS	No	414.292472	310.073439	666.1	27.640	7.2	7.6	1.11	6465	4.39	1.50

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006696867-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—ALL_TRANS_CHASES—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.

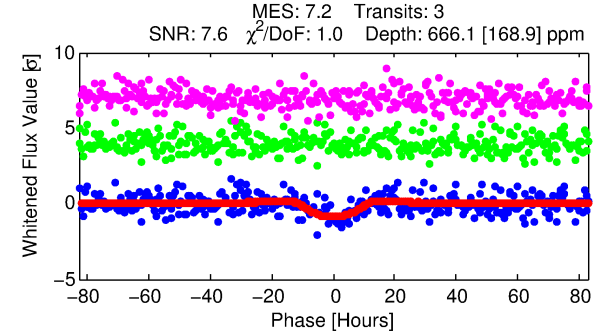
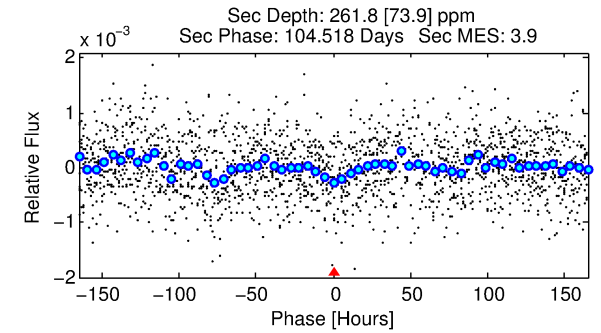
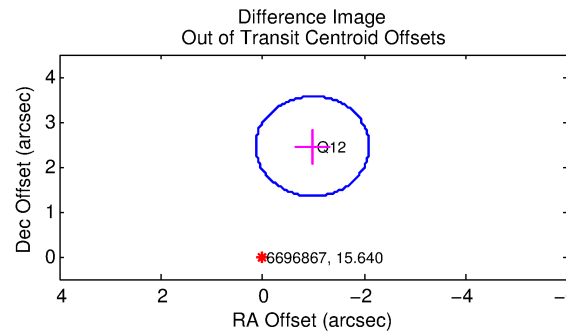
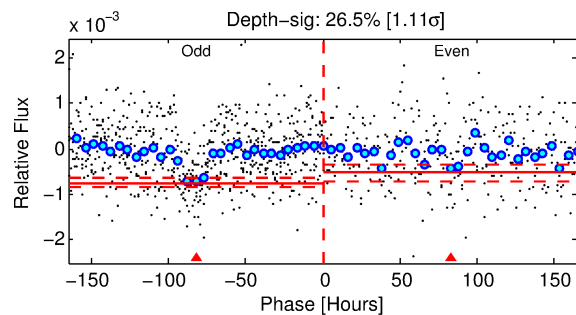
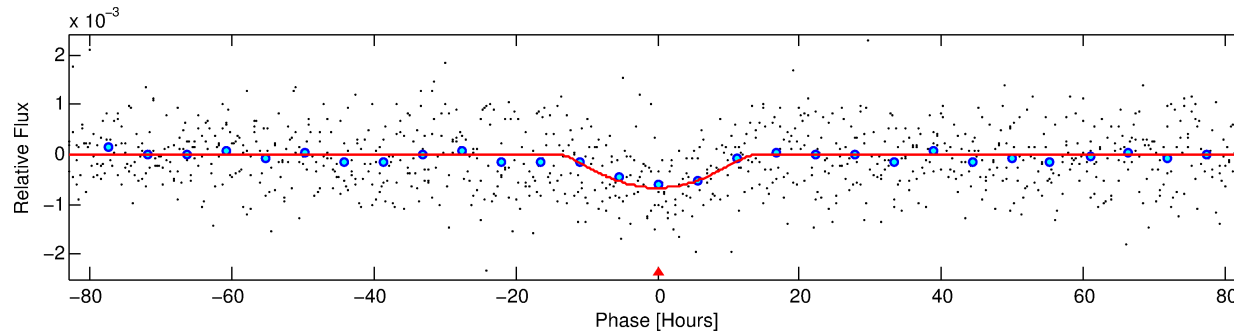
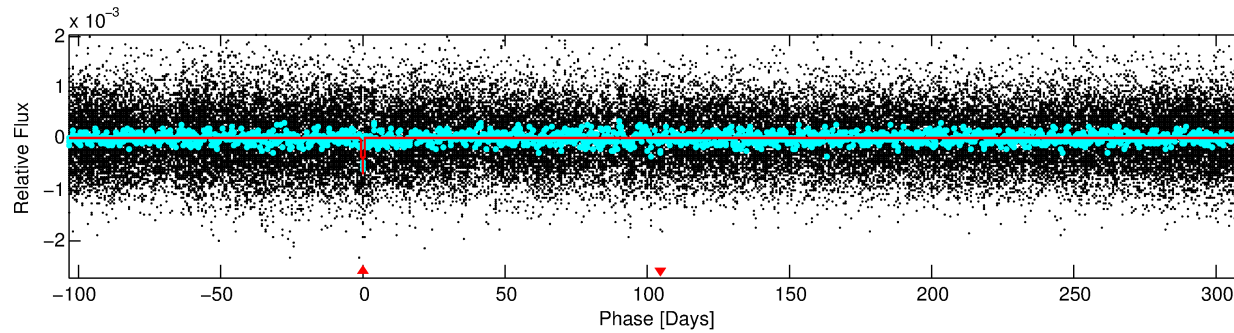
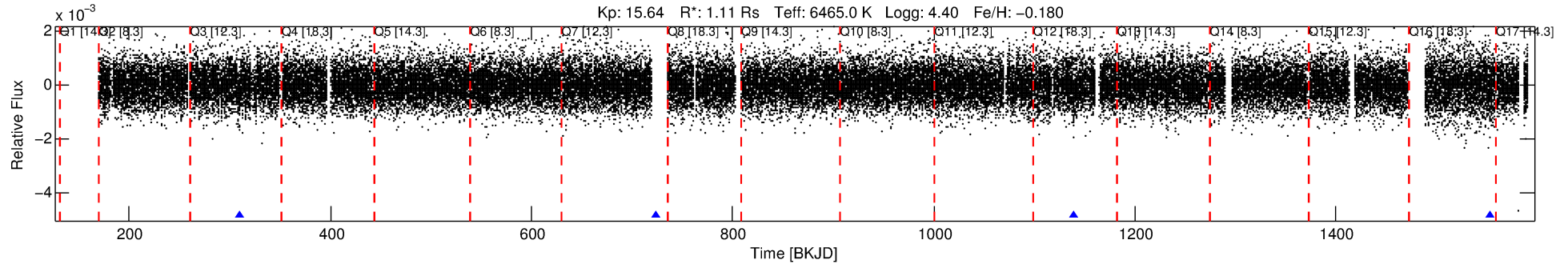
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006696867-01

No Significant Match Found

DV One-Page Summary

KIC: 6696867 Candidate: 1 of 1 Period: 414.292 d



DV Fit Results:

Period = 414.29247 [0.03297] d
Epoch = 310.0734 [0.0662] BKJD
Rp/R* = 0.0361 [0.0553]
a/R* = 36.90 [22.22]
b = 0.98 [0.11]
Seff = 1.50 [0.58]
Teq = 282 [27] K
Rp = 4.39 [6.86] Re
a = 1.1387 [0.2891] AU
Ag = 9694.51 [30060.44] [0.32σ]
Teff = 4330 [3337] K [1.21σ]

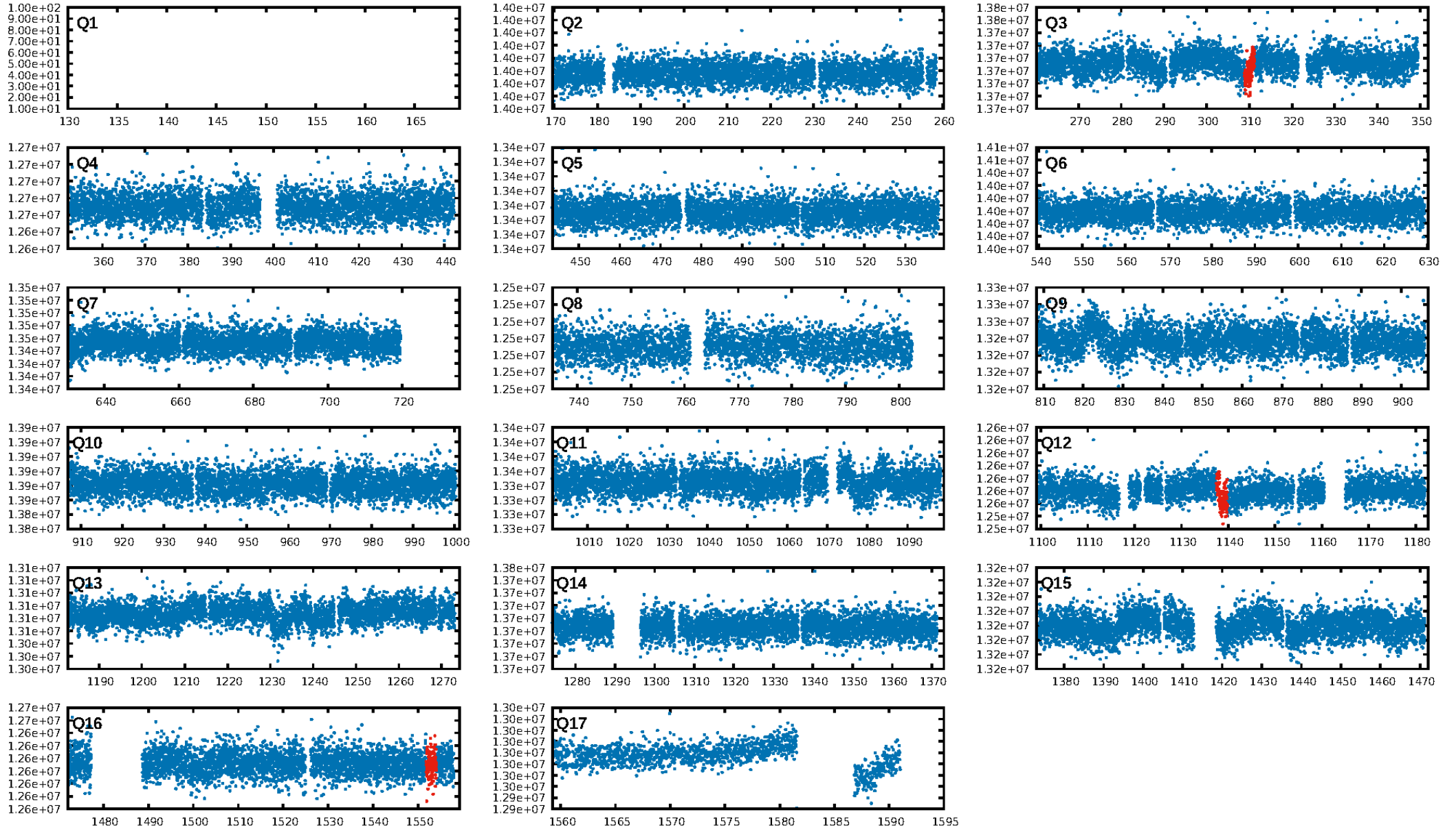
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.40e-12
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.049
Centroid-sig: 0.3%
Centroid-so: 3.029 arcsec [2.08σ]
OotOffset-rm: 2.641 arcsec [7.11σ]
KicOffset-rm: 2.801 arcsec [7.54σ]
OotOffset-st: 0/0/1/0 [1]
KicOffset-st: 0/0/1/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [3/3]

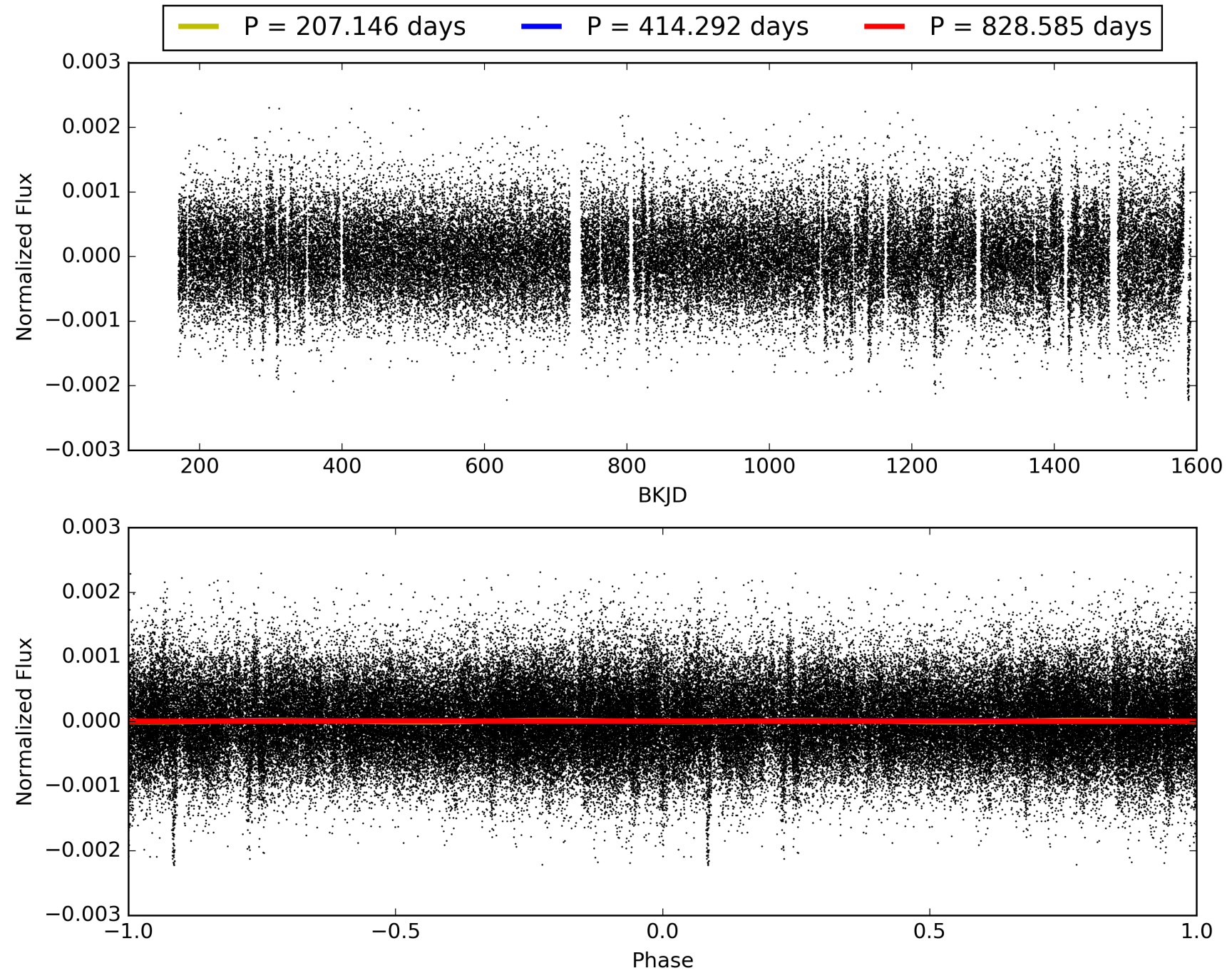
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 15:54:16 Z

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

TCE 006696867-01, PDC Light Curves

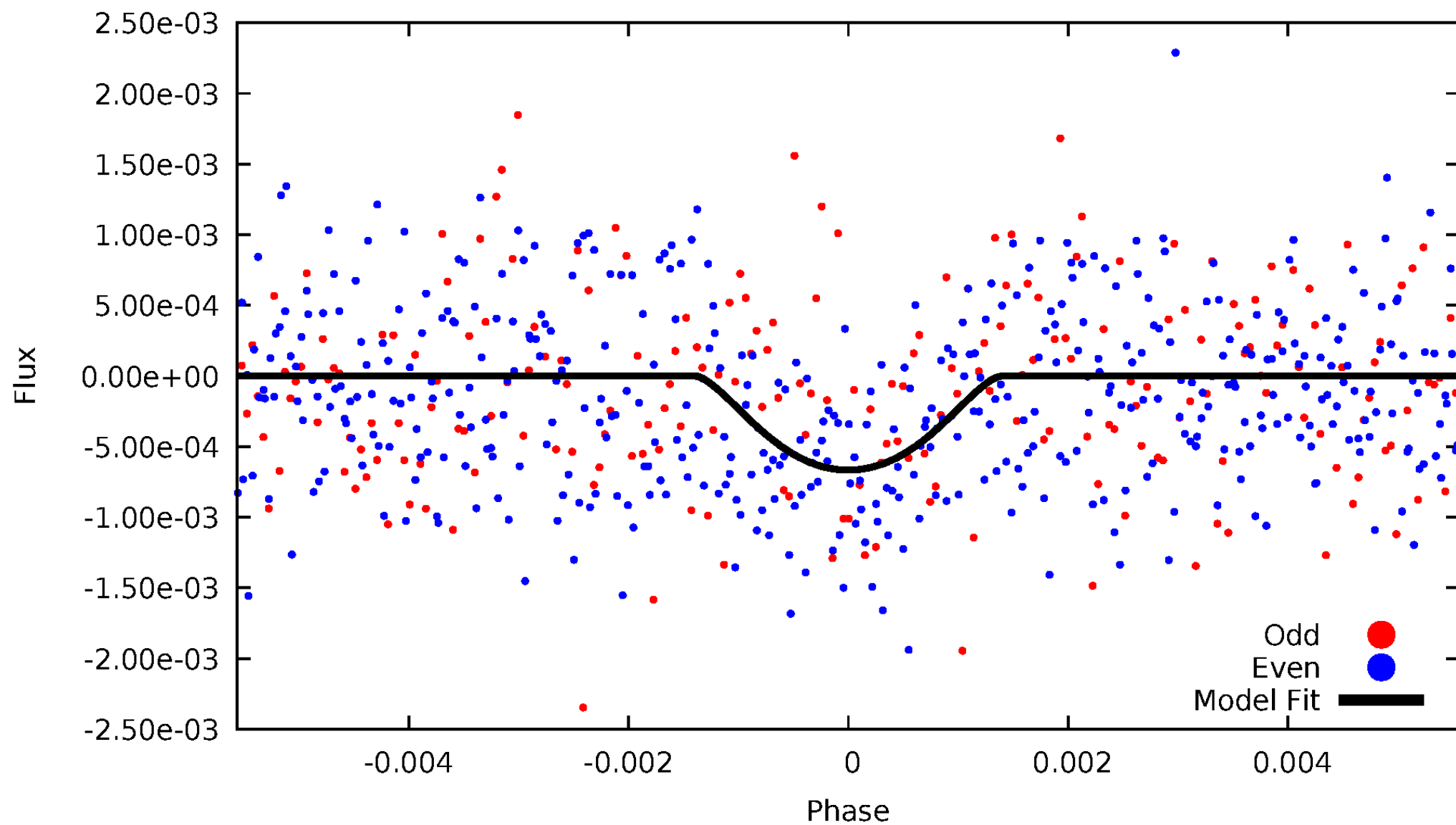


TCE 006696867-01



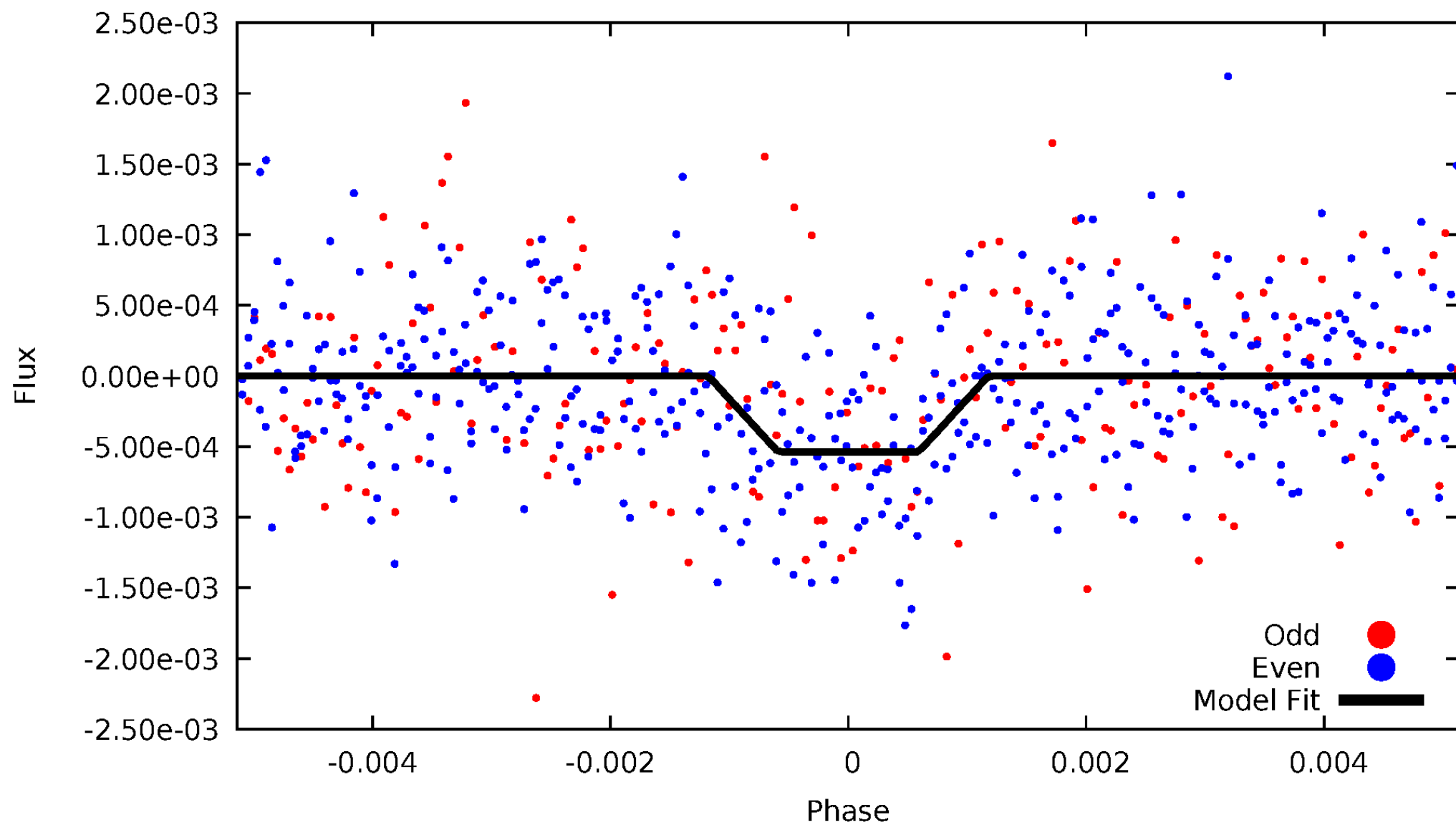
DV Odd/Even

TCE 006696867-01

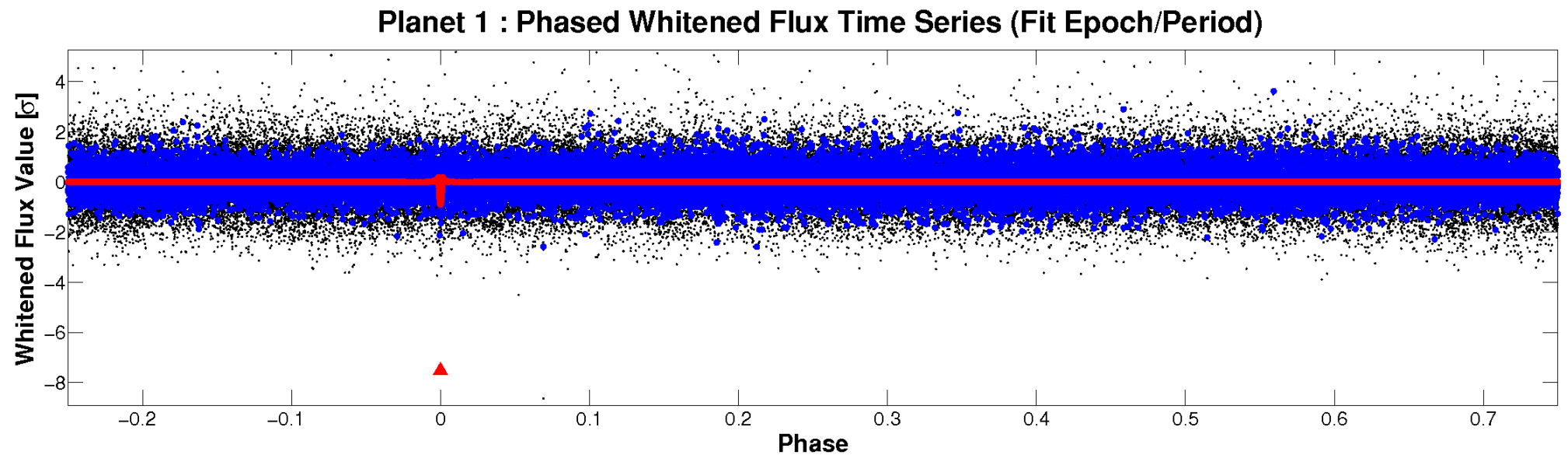
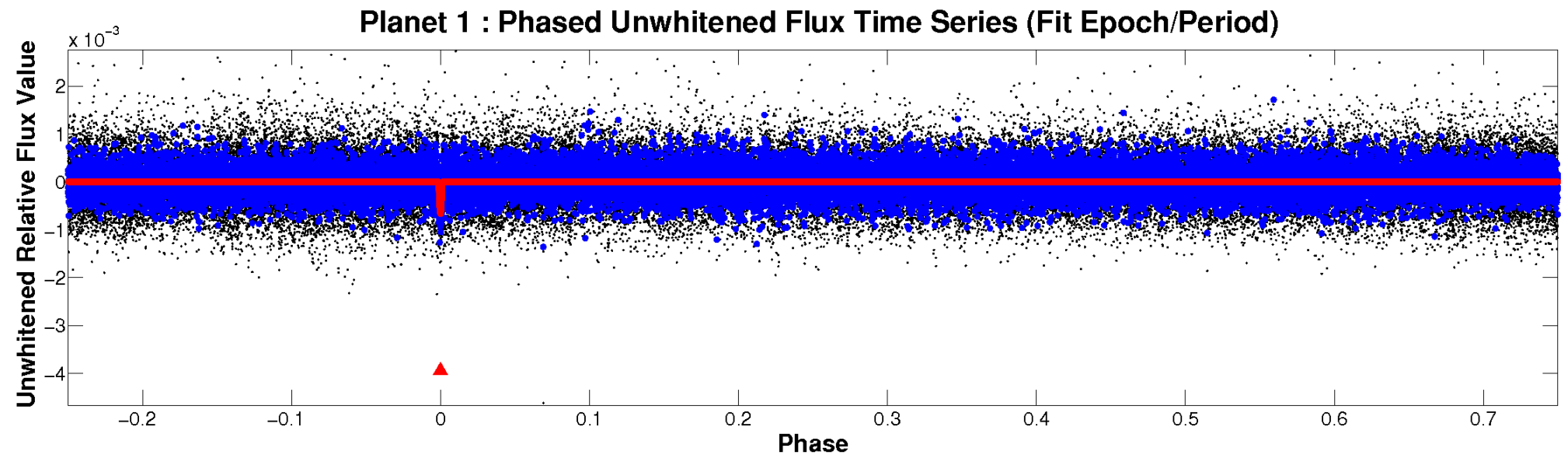


ALT Odd/Even

TCE 006696867-01

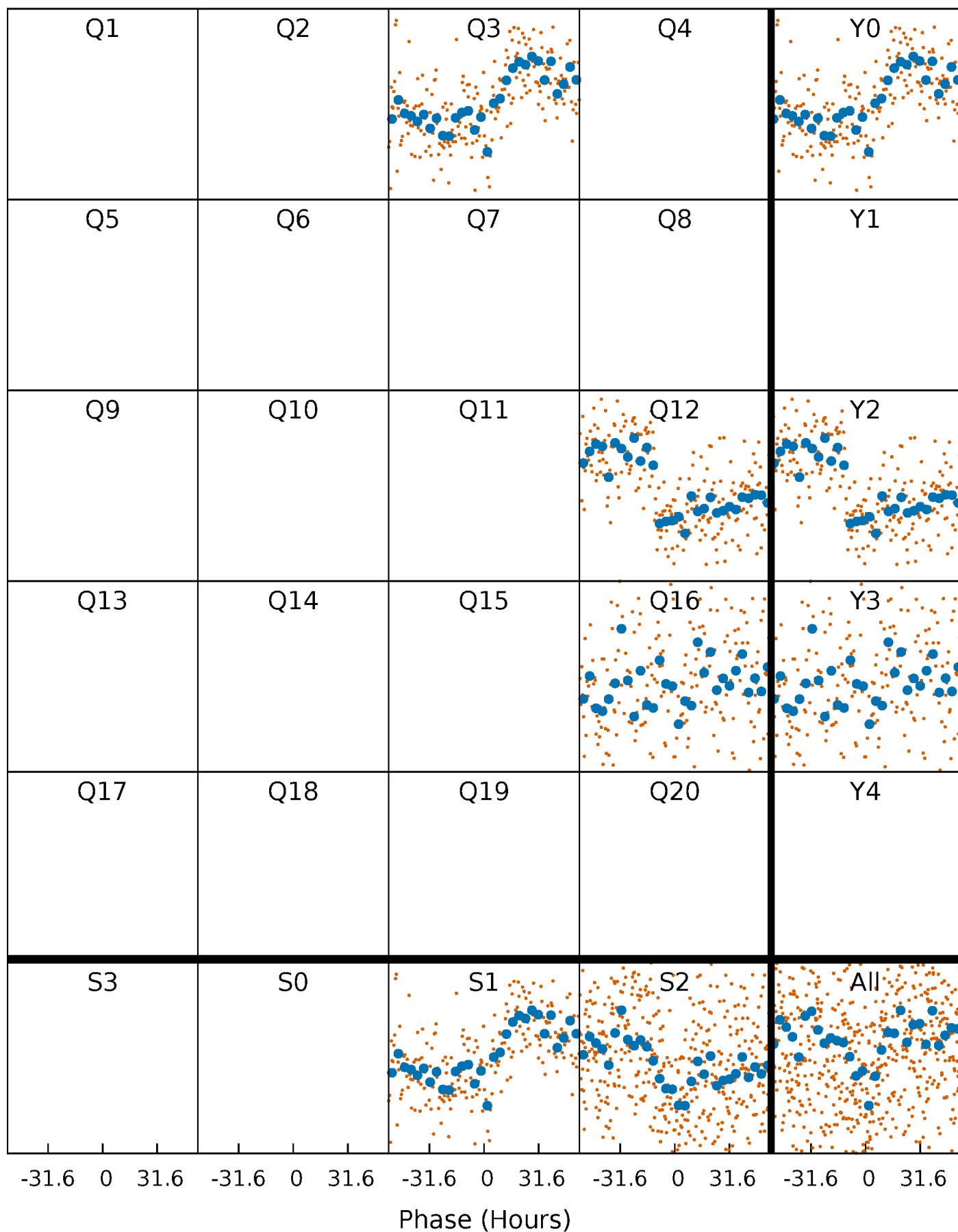


Non-Whitened Vs. Whitened Light Curve



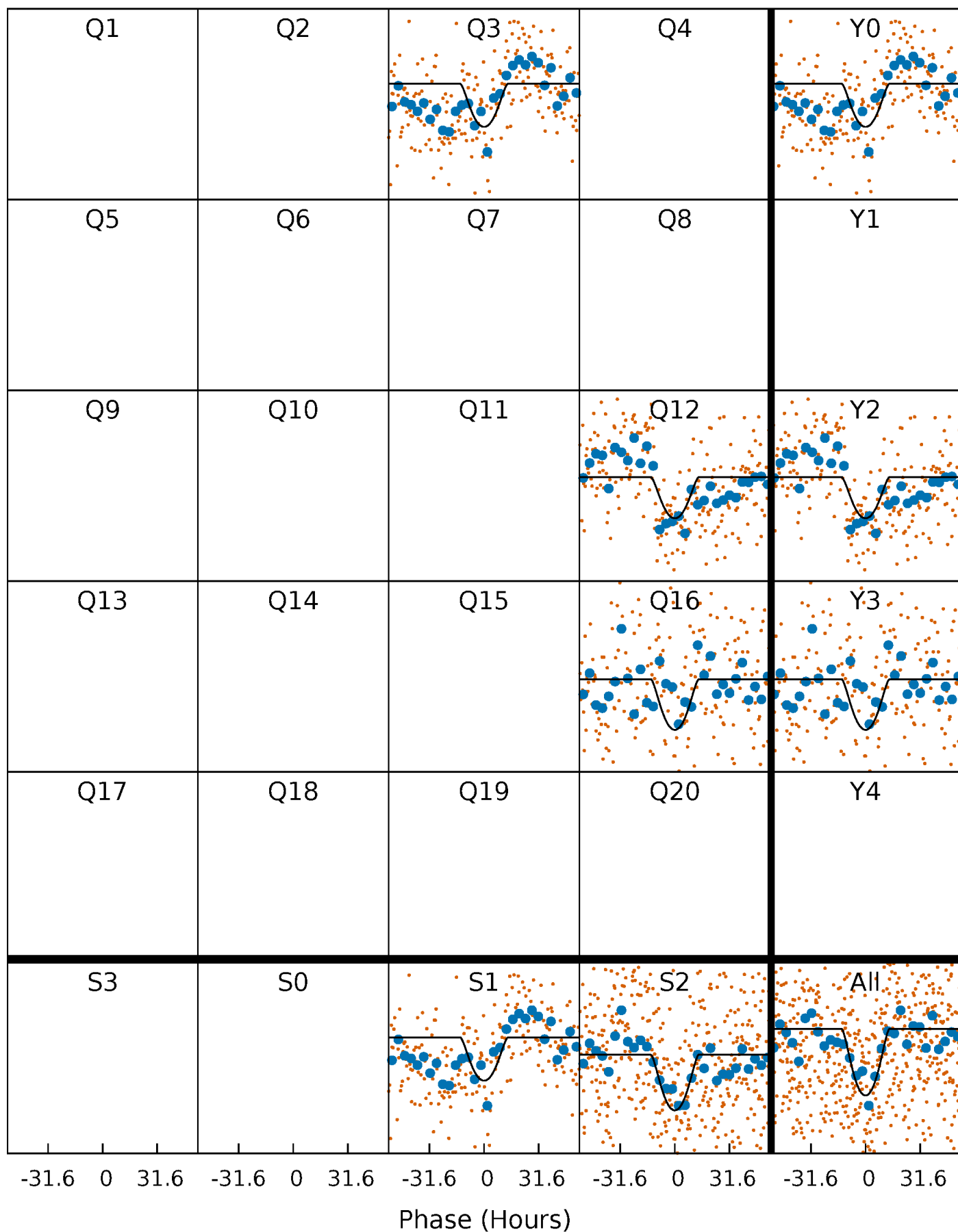
PDC Quarter-Phased Transit Curves

TCE 006696867-01 P=414.292472 Days $T_0=310.073439$ (BKJD)



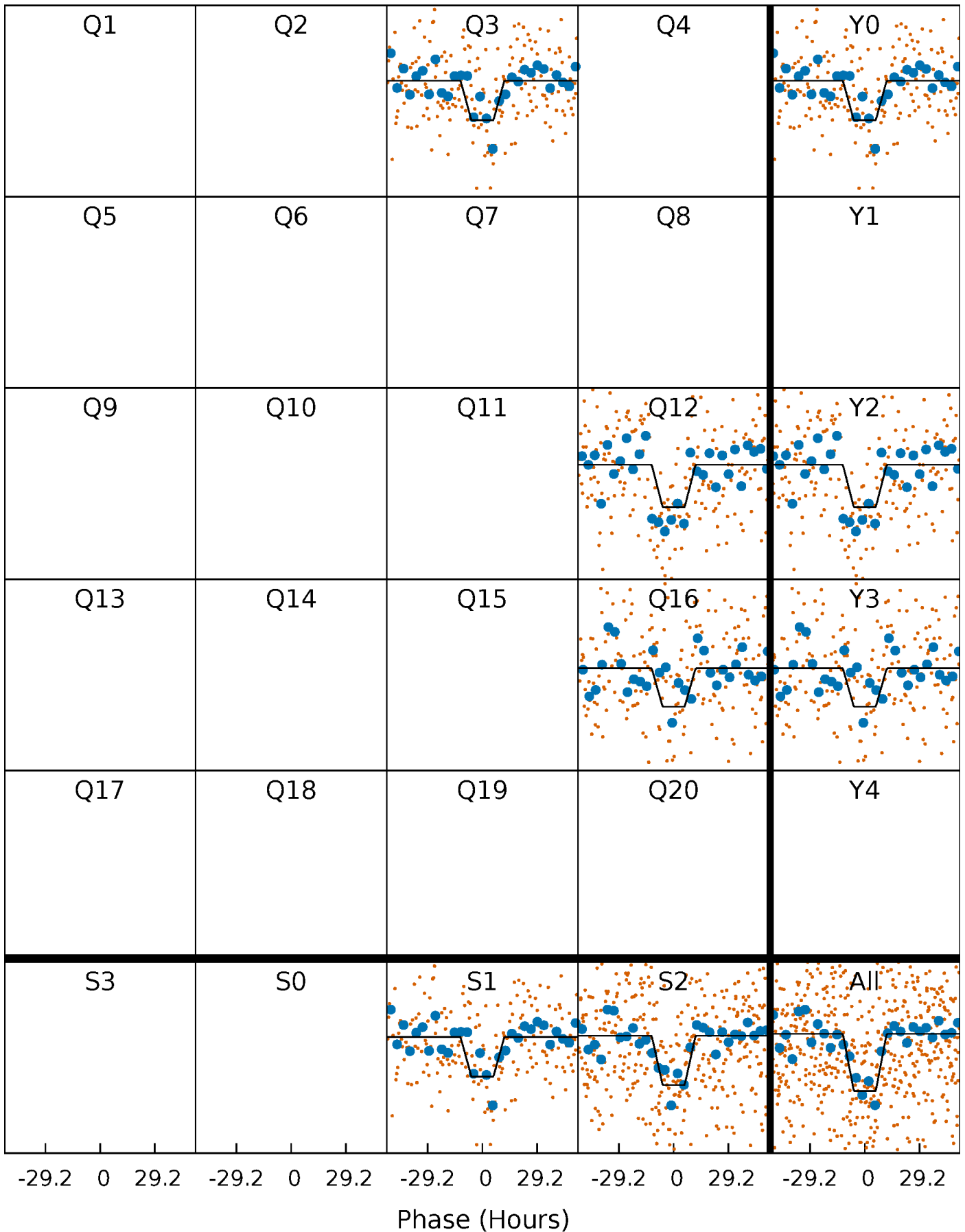
DV Quarter-Phased Transit Curves

TCE 006696867-01 P=414.292472 Days $T_0=310.073439$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

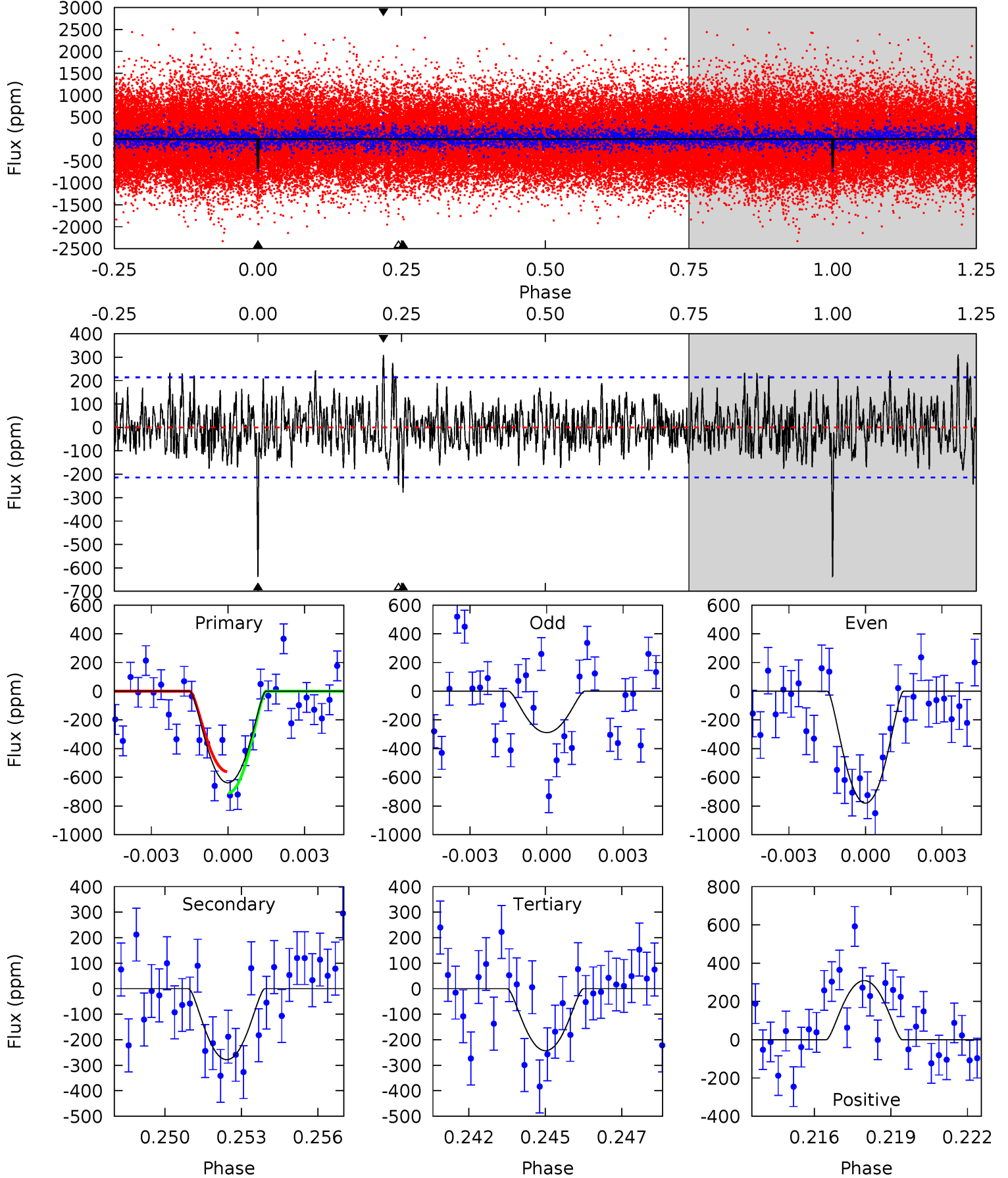
TCE 006696867-01 P=414.351730 Days $T_0=309.984008$ (BKJD)



DV Model-Shift Uniqueness Test

006696867-01, P = 414.292472 Days, E = 310.073439 Days

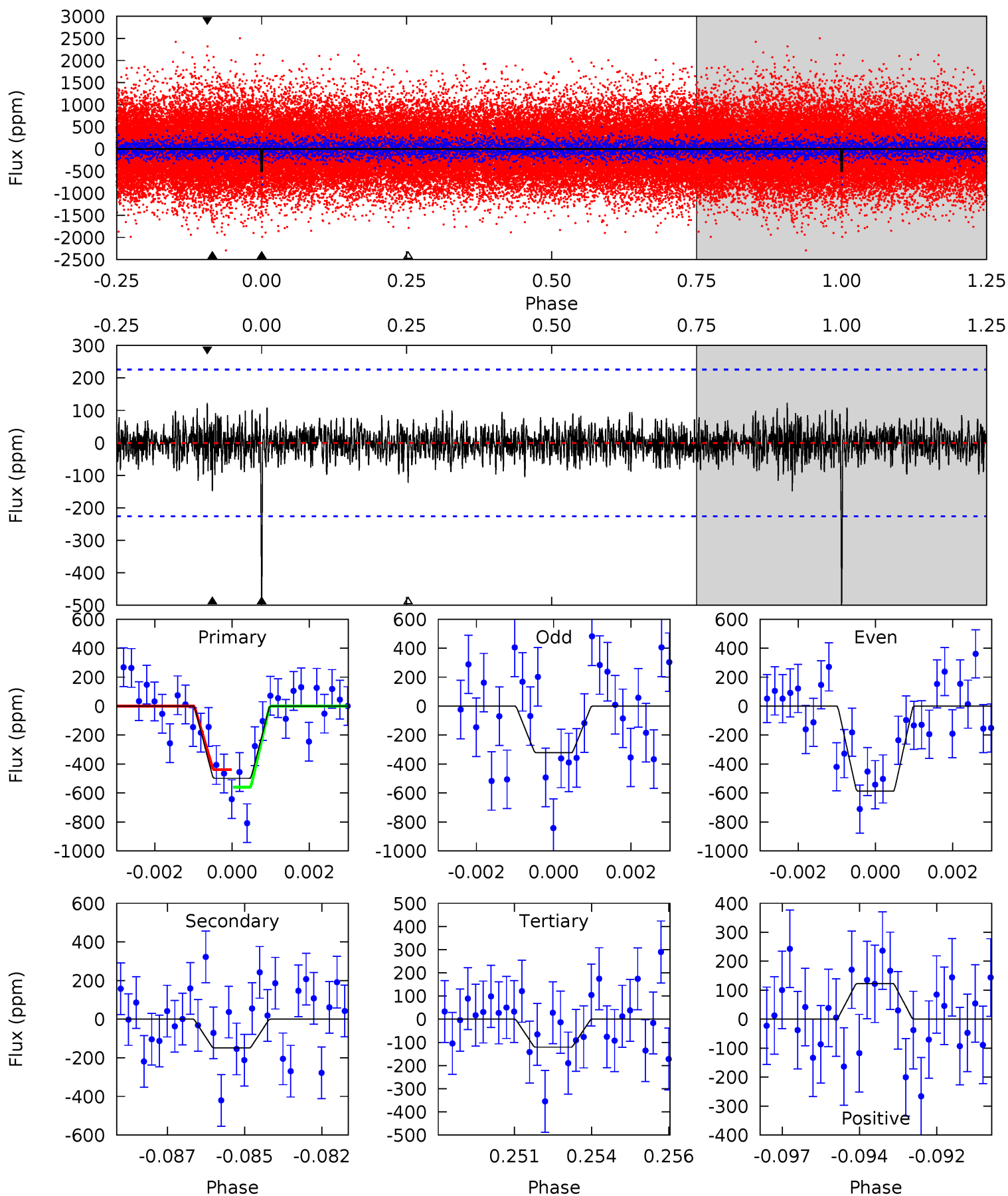
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	6.85	5.98	7.61	5.26	2.99	1.86	9.74	8.11	0.87	-0.76	5.69	0.93	0.33	1.83



Alt Model-Shift Uniqueness Test

006696867-01, P = 414.351730 Days, E = 309.984008 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	3.48	2.83	2.88	5.29	3.03	0.81	8.86	8.81	0.65	0.60	2.93	1.07	0.20	1.42



Stellar Parameters For KIC 006696867

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6465^{+158}_{-226}	$4.403^{+0.065}_{-0.195}$	$-0.180^{+0.250}_{-0.300}$	$1.115^{+0.343}_{-0.147}$	$1.148^{+0.162}_{-0.162}$	$1.165^{+0.331}_{-0.590}$
	+2%/-3%	+1%/-4%	+139%/-167%	+31%/-13%	+14%/-14%	+28%/-51%
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 006696867-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-278 ± 41	$7.05^{+6.21}_{-4.57}$	401^{+28}_{-20}	3844^{+2141}_{-642}	3912^{+28092}_{-2834}
Alt.	-148 ± 43	$6.08^{+6.22}_{-4.24}$	402^{+31}_{-20}	3689^{+2154}_{-760}	2865^{+27567}_{-2255}

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

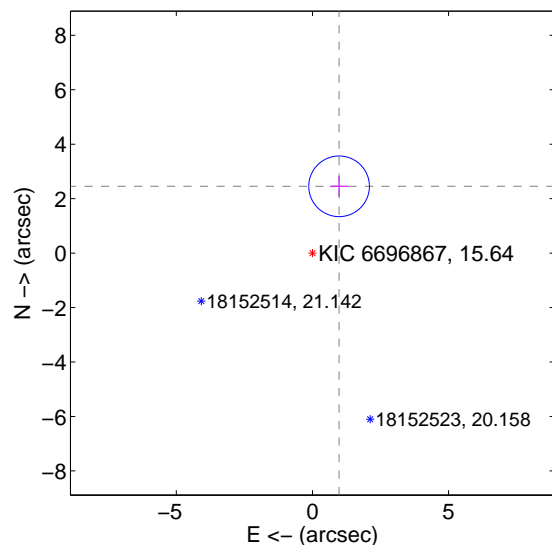
Supplemental centroid analysis for 006696867-01. Kepler magnitude: 15.64. Transit SNR 7.58

There are 1 quarters with good PRF difference image offsets

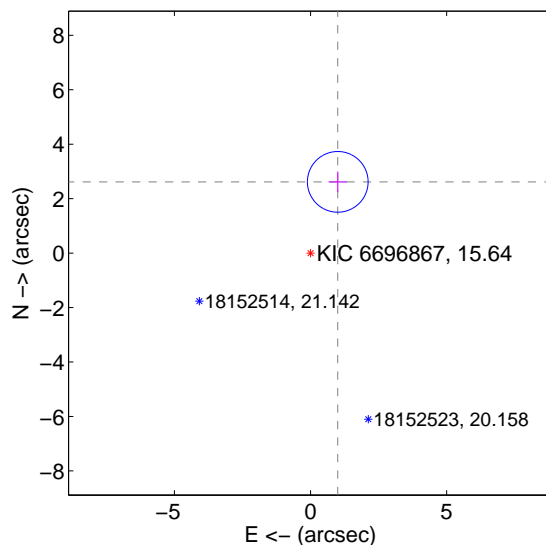
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.641 ± 0.371	7.11	-0.979 ± 0.338	2.453 ± 0.376
PRF-fit source offset from KIC position	2.801 ± 0.372	7.54	-1.000 ± 0.338	2.616 ± 0.376
photometric centroid source offset	3.03 ± 1.46	2.08	-2.11 ± 1.42	2.17 ± 1.49

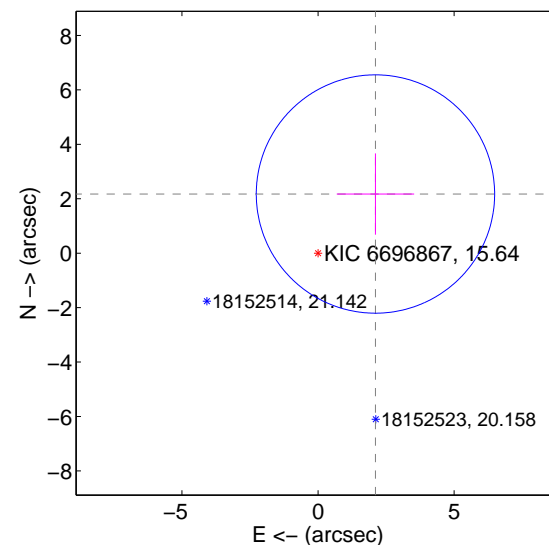
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

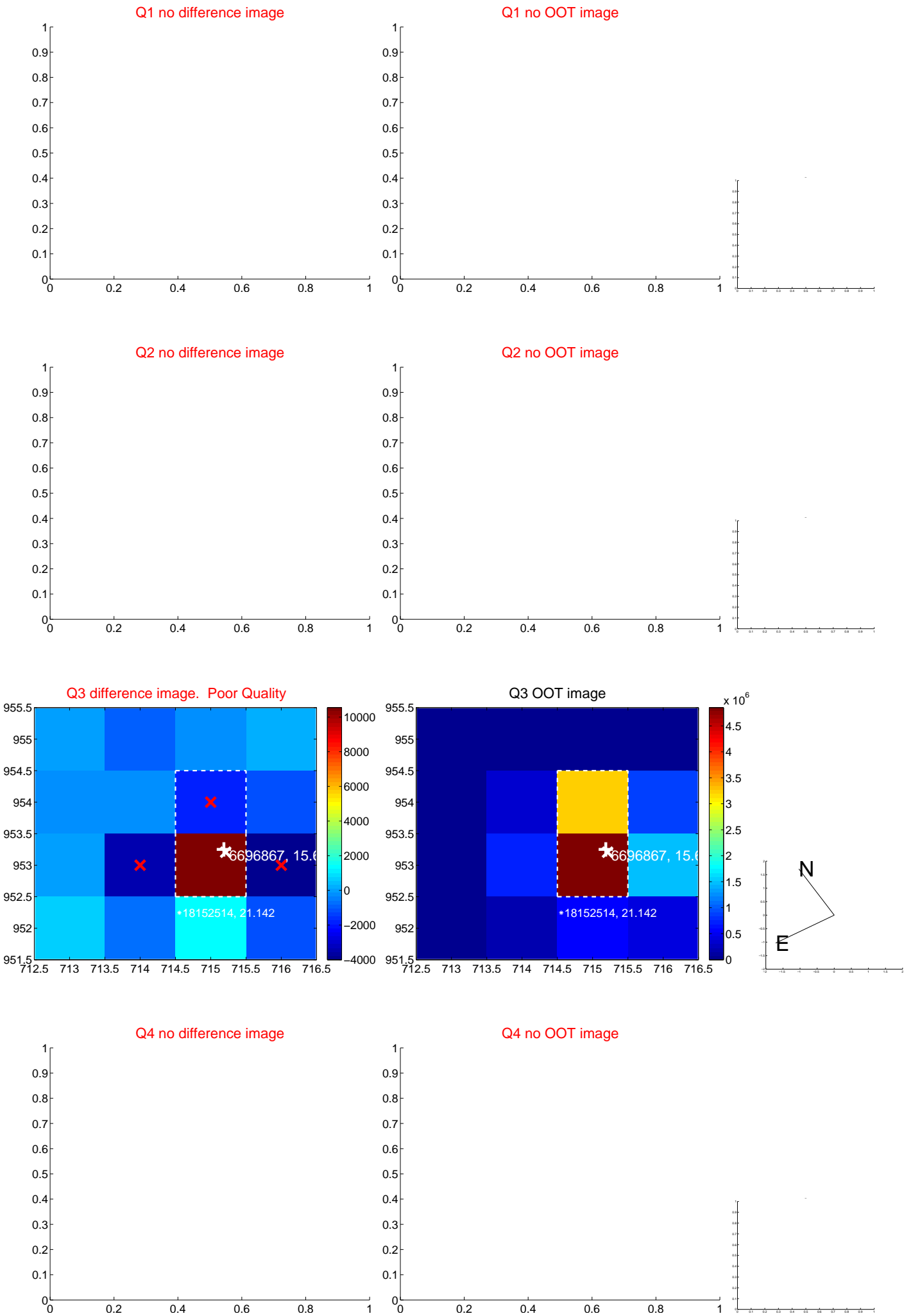


offset from photometric centroids



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 ×: 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.

Q9 no difference image



Q9 no OOT image



Q10 no difference image



Q10 no OOT image



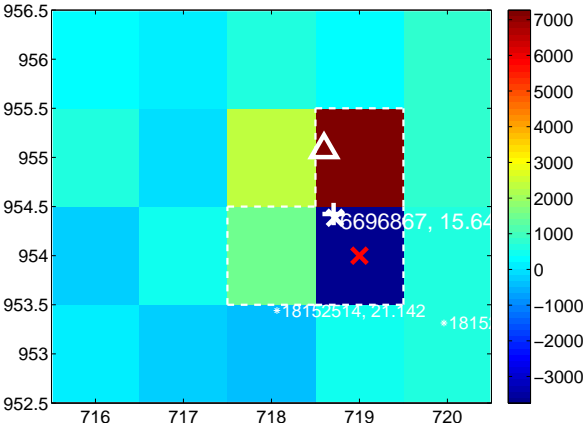
Q11 no difference image



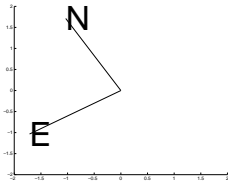
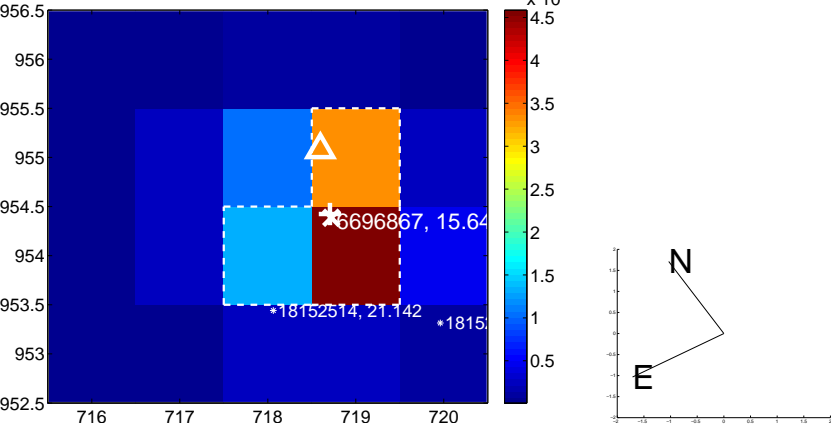
Q11 no OOT image



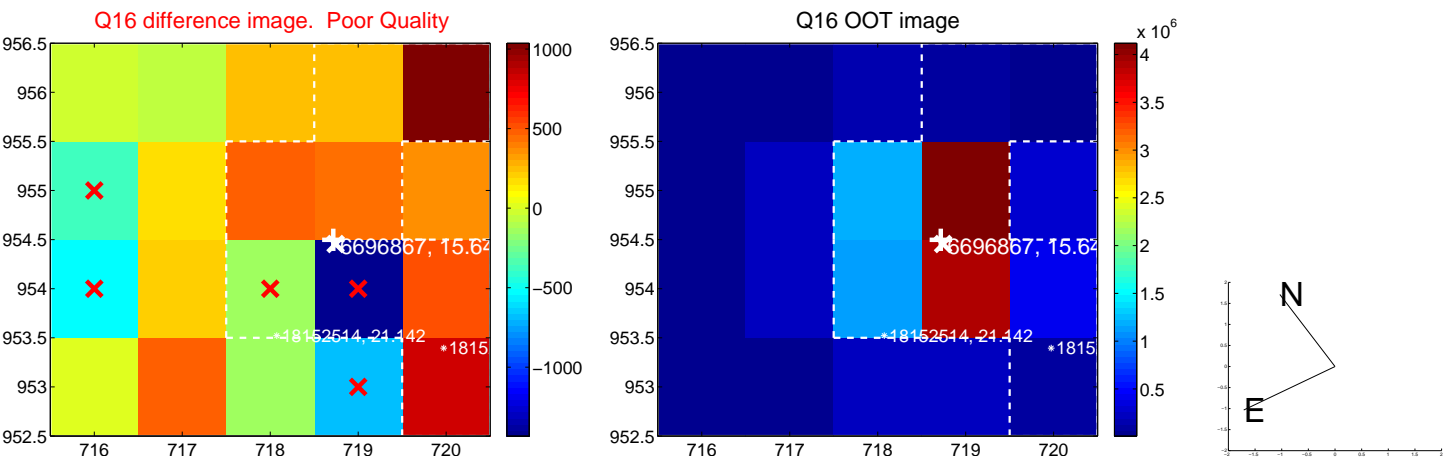
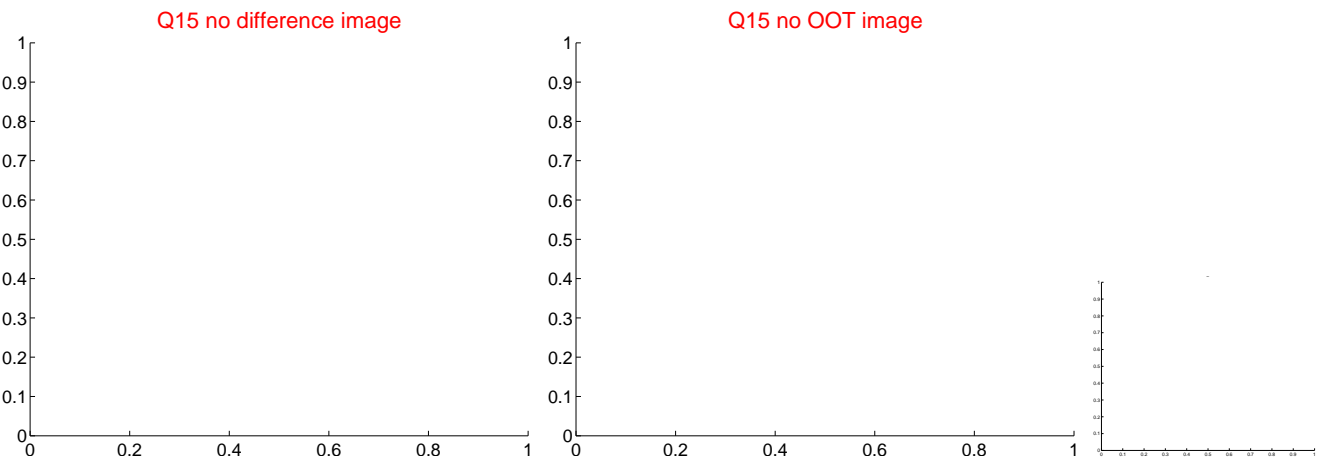
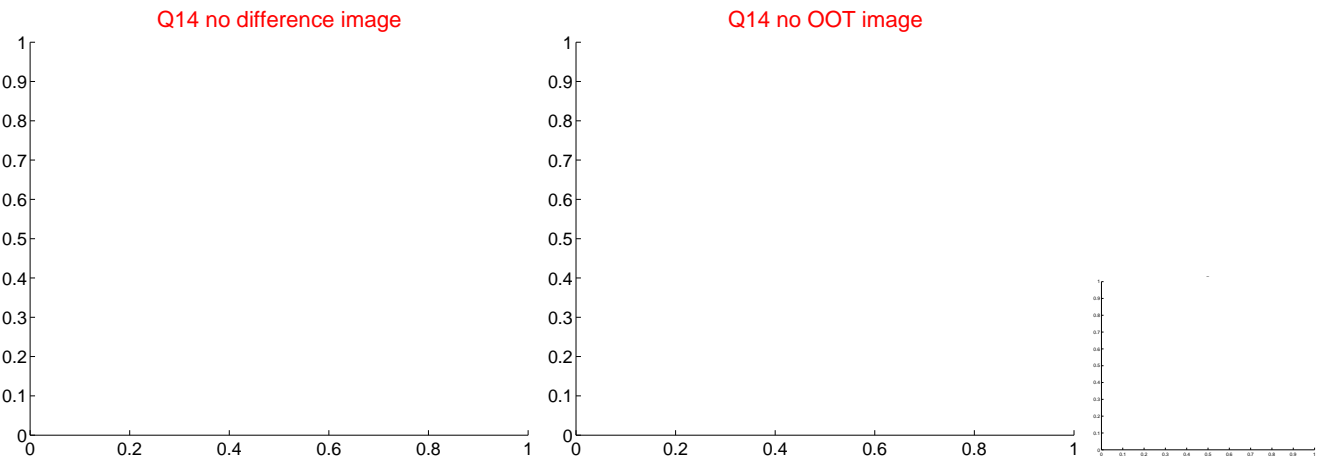
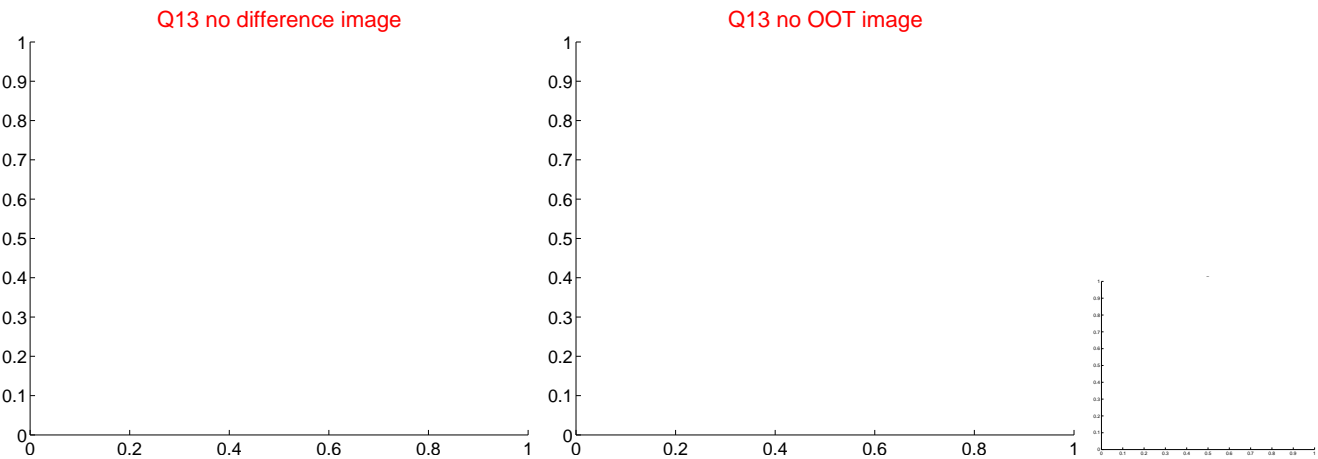
Q12 difference image



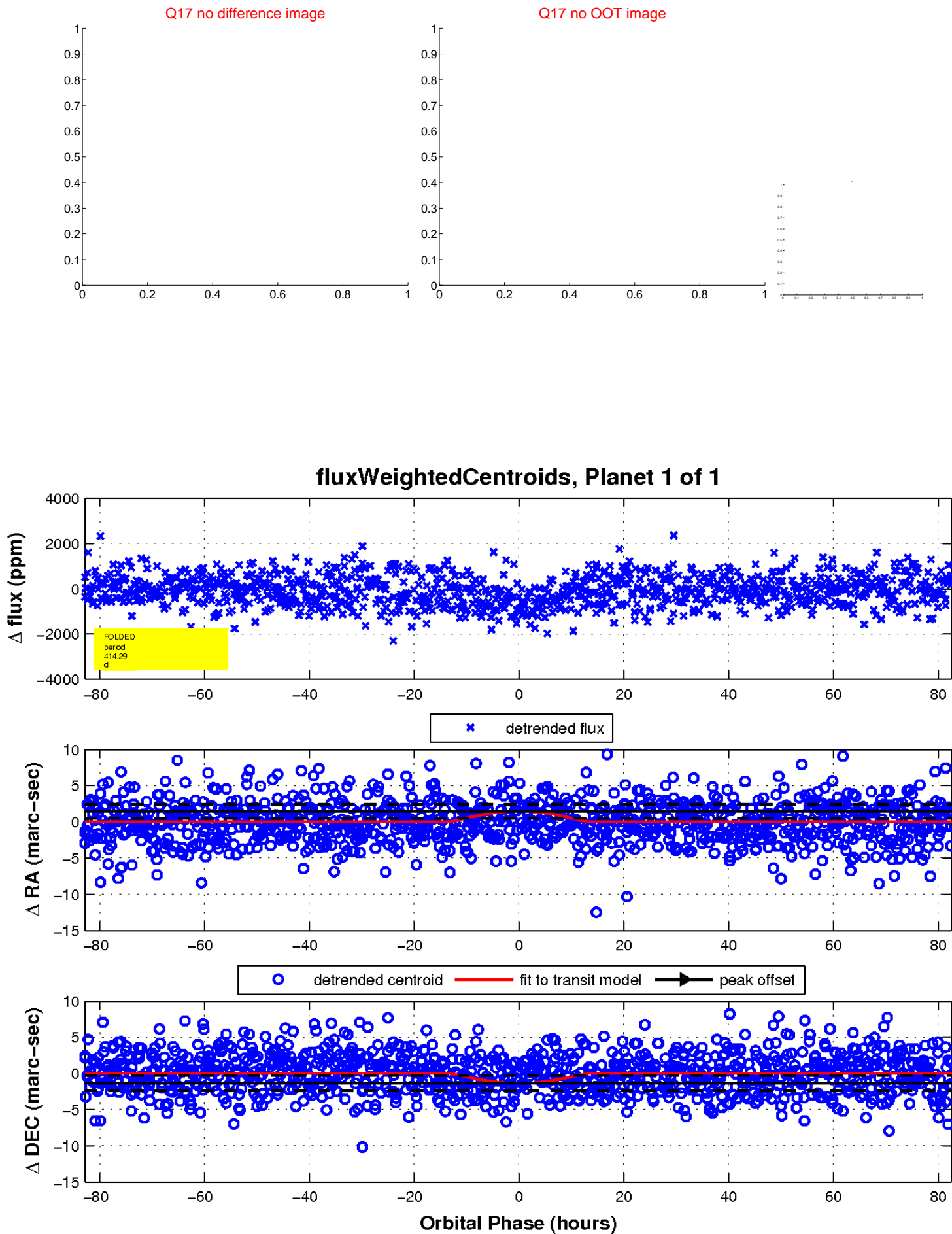
Q12 OOT image



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

