

KIC 006294656

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})
006294656-01	OBS	No	431.930470	207.978104	304.9	16.620	7.4	6.8	0.95	5750	1.83	0.84

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006294656-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—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.

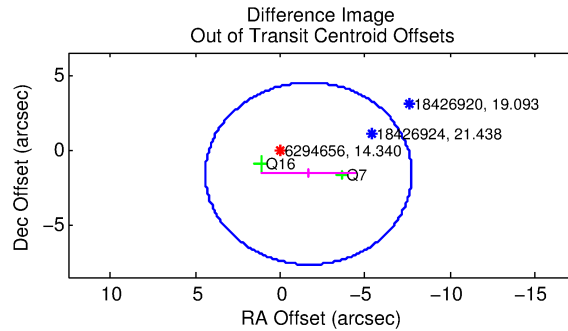
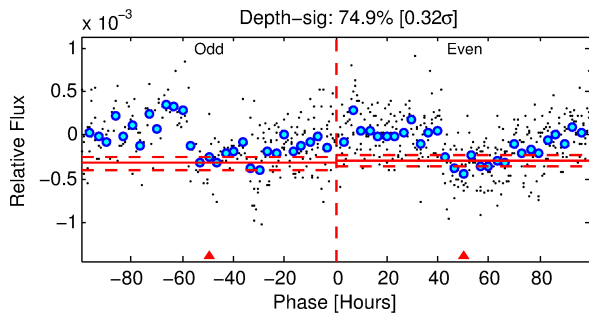
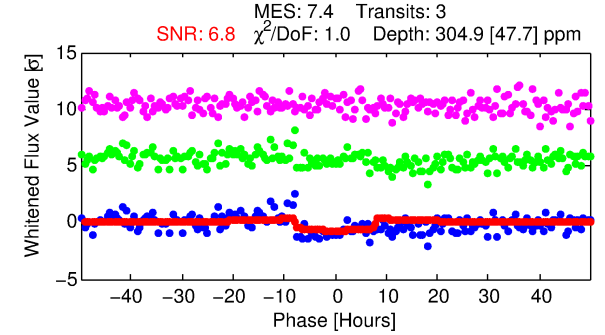
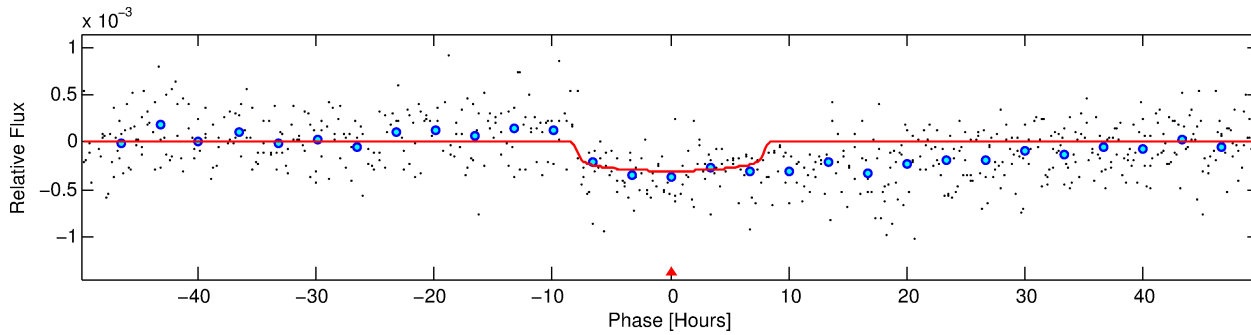
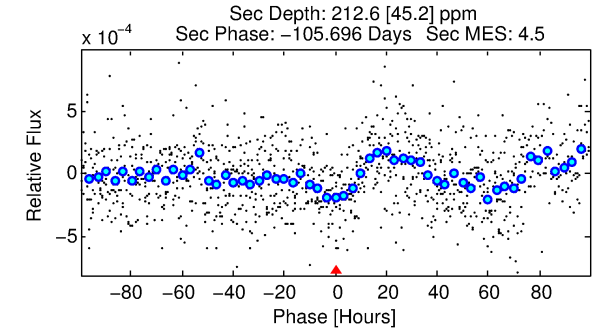
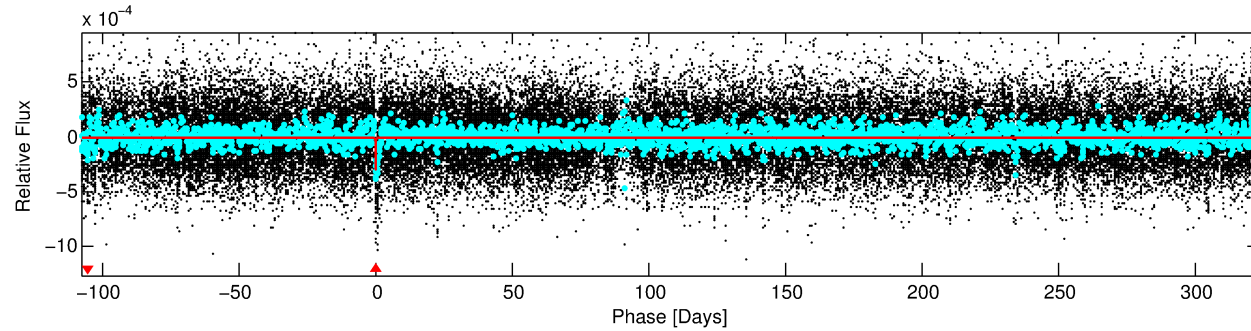
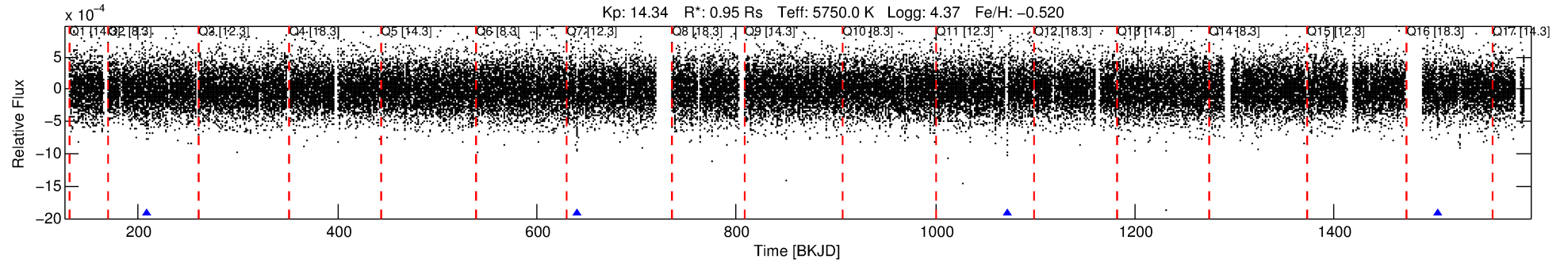
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006294656-01

No Significant Match Found

DV One-Page Summary

KIC: 6294656 Candidate: 1 of 1 Period: 431.930 d



DV Fit Results:

Period = 431.93047 [0.01125] d
Epoch = 207.9781 [0.0215] BKJD
Rp/R* = 0.0176 [0.0048]
a/R* = 127.03 [158.72]
b = 0.79 [0.59]
Seff = 0.85 [0.32]
Teff = 245 [23] K
Rp = 1.84 [0.73] Re
a = 1.0257 [0.2523] AU
Ag = 36538.60 [24994.84] [1.46 σ]
Teffp = 5227 [778] K [6.40 σ]

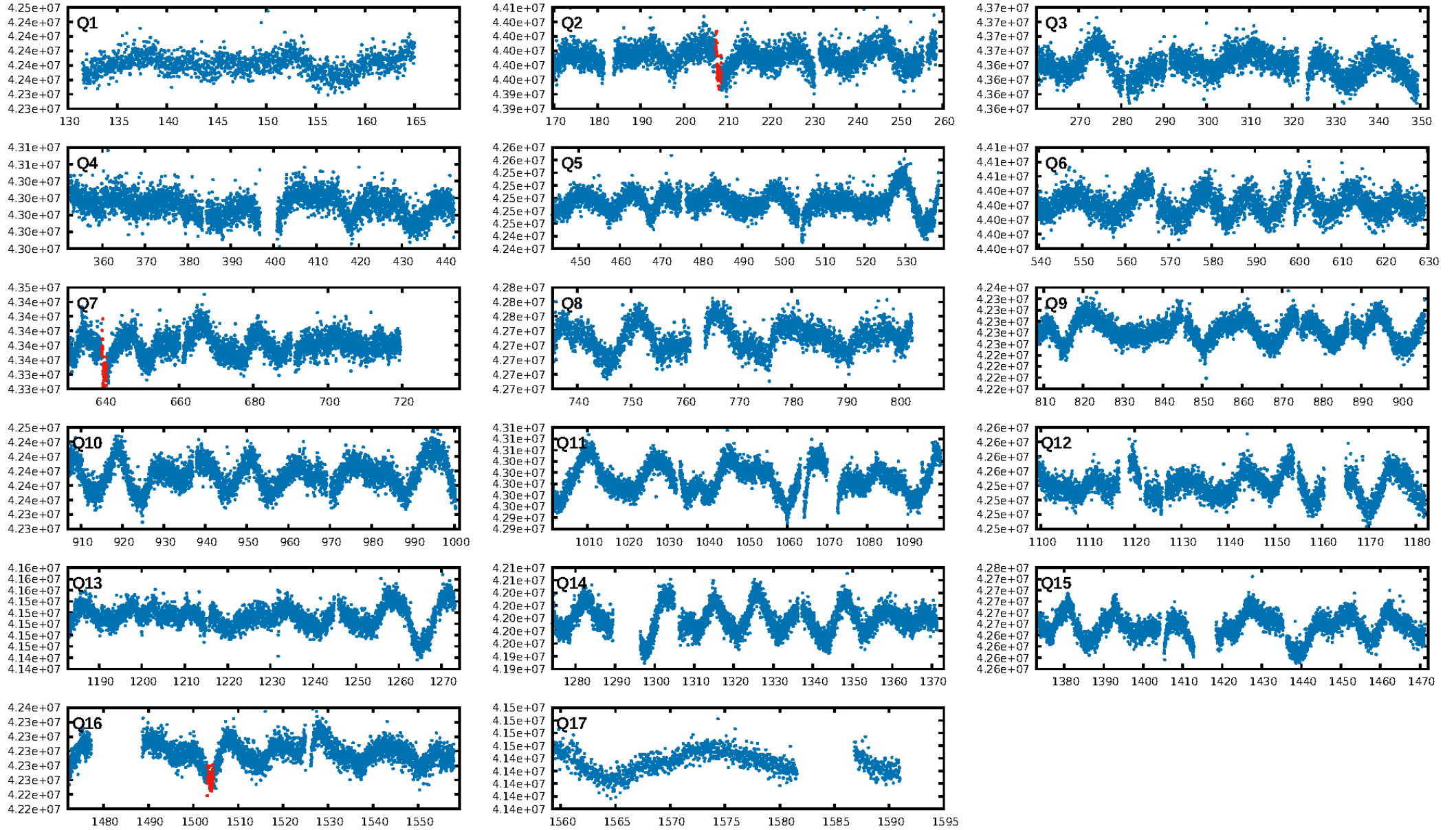
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 16.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 9.17e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -4.577
Centroid-sig: 2.8%
Centroid-so: 2.753 arcsec [2.31 σ]
OotOffset-rm: 2.322 arcsec [1.15 σ]
KicOffset-rm: 2.303 arcsec [1.08 σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [3/3]

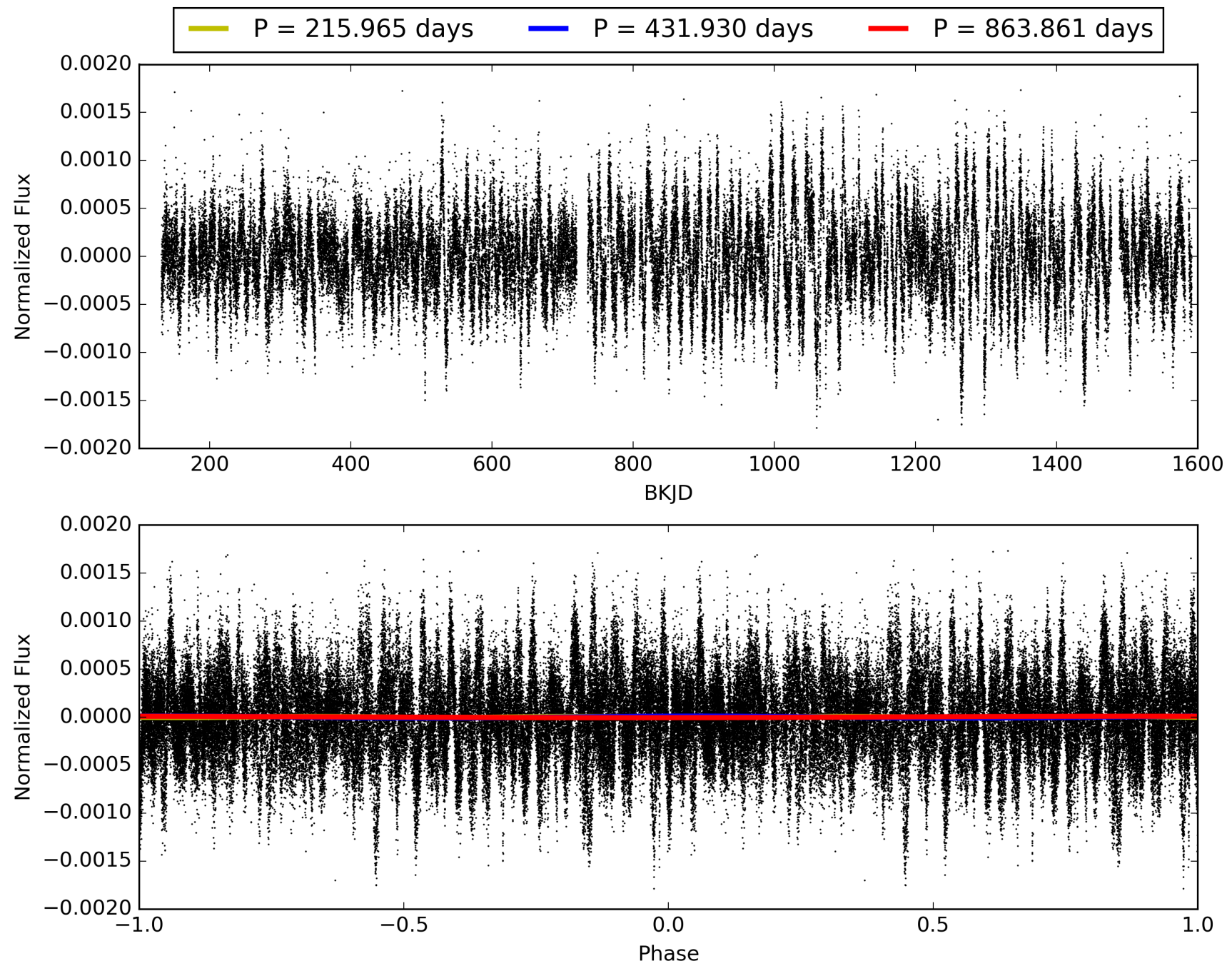
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 14:23:07 Z

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

TCE 006294656-01, PDC Light Curves

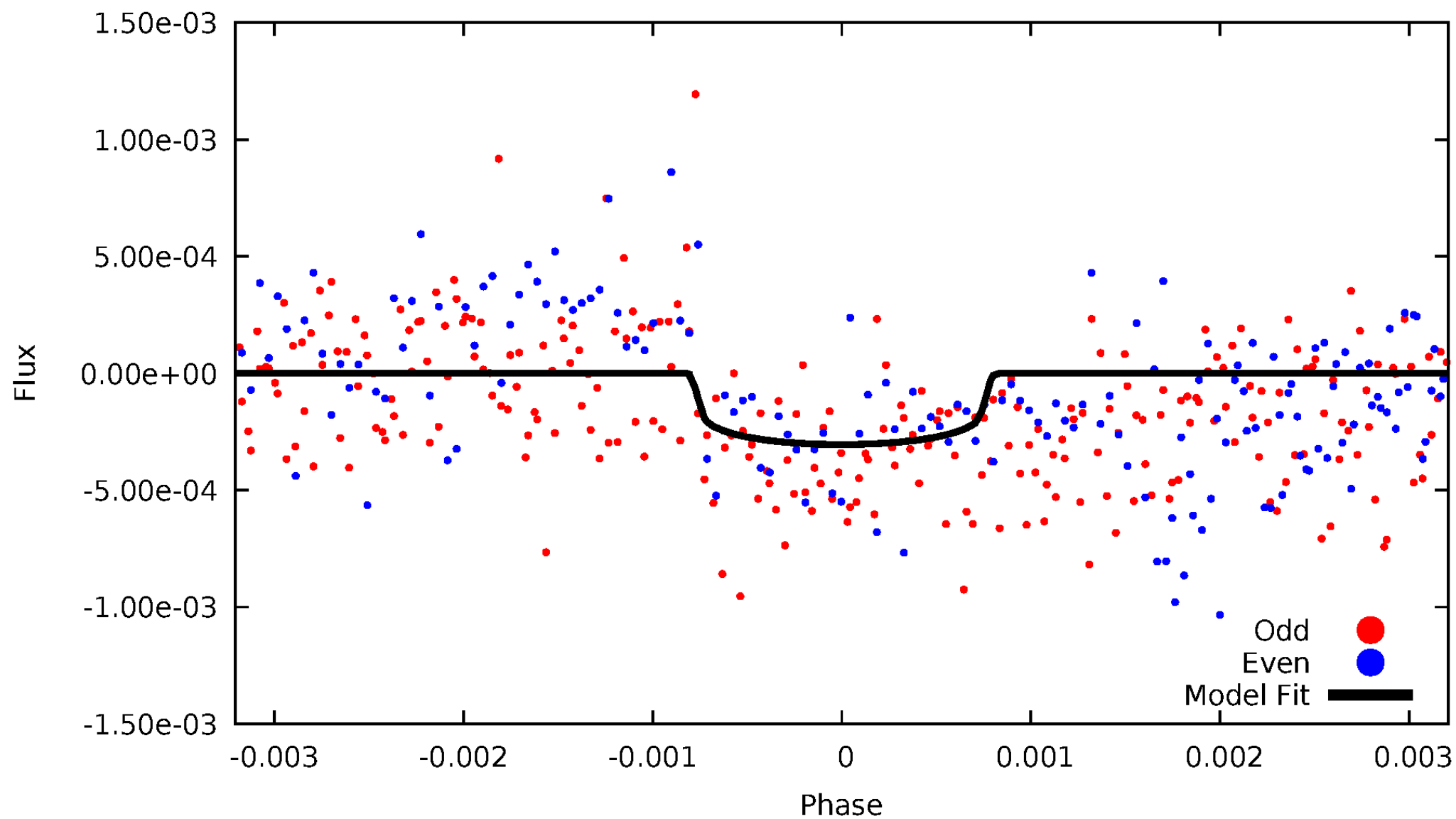


TCE 006294656-01



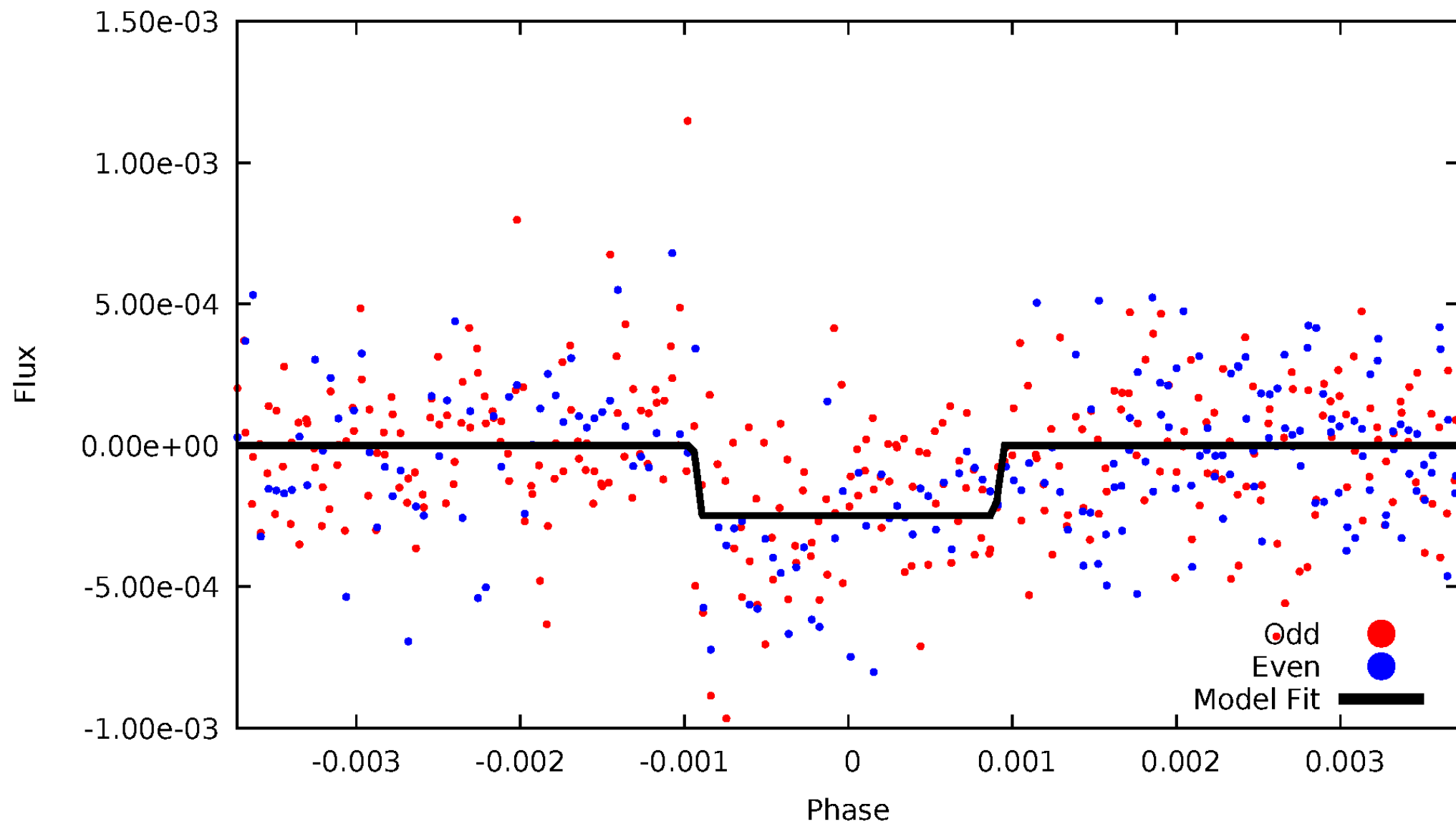
DV Odd/Even

TCE 006294656-01



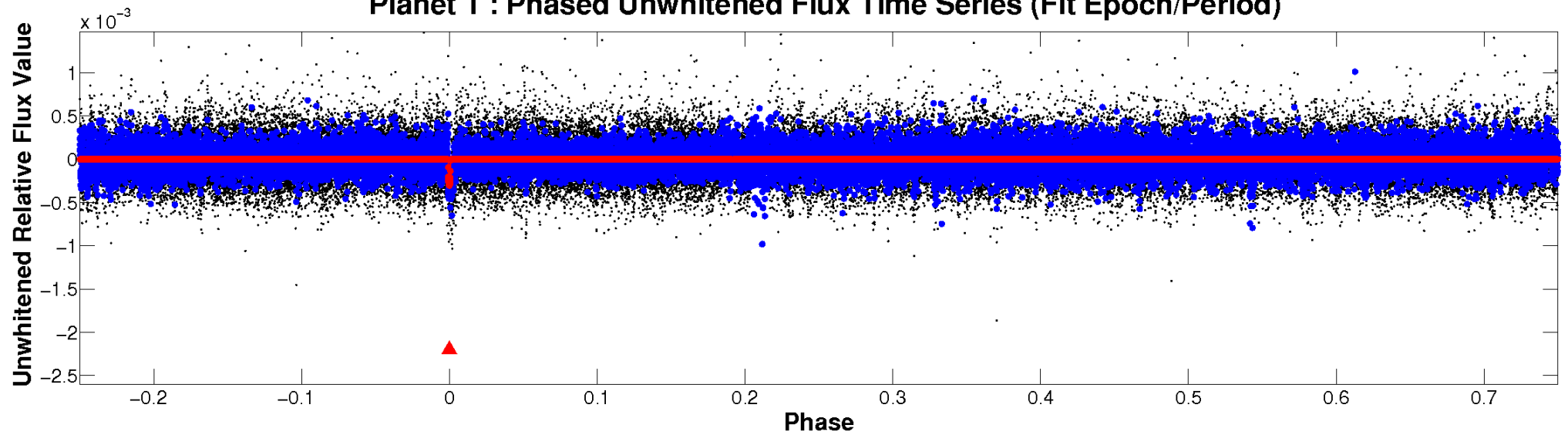
ALT Odd/Even

TCE 006294656-01

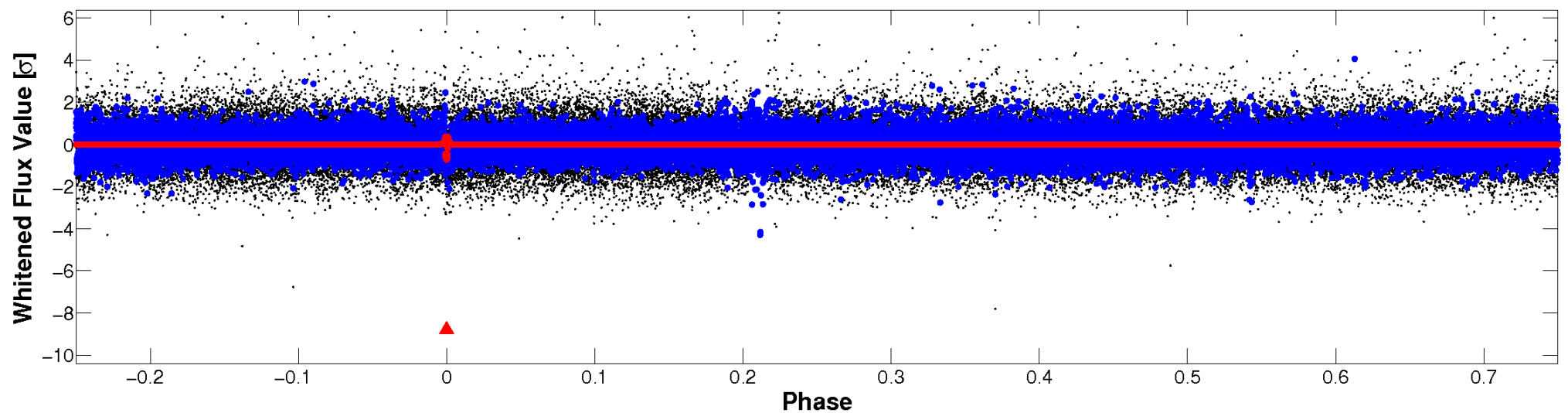


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

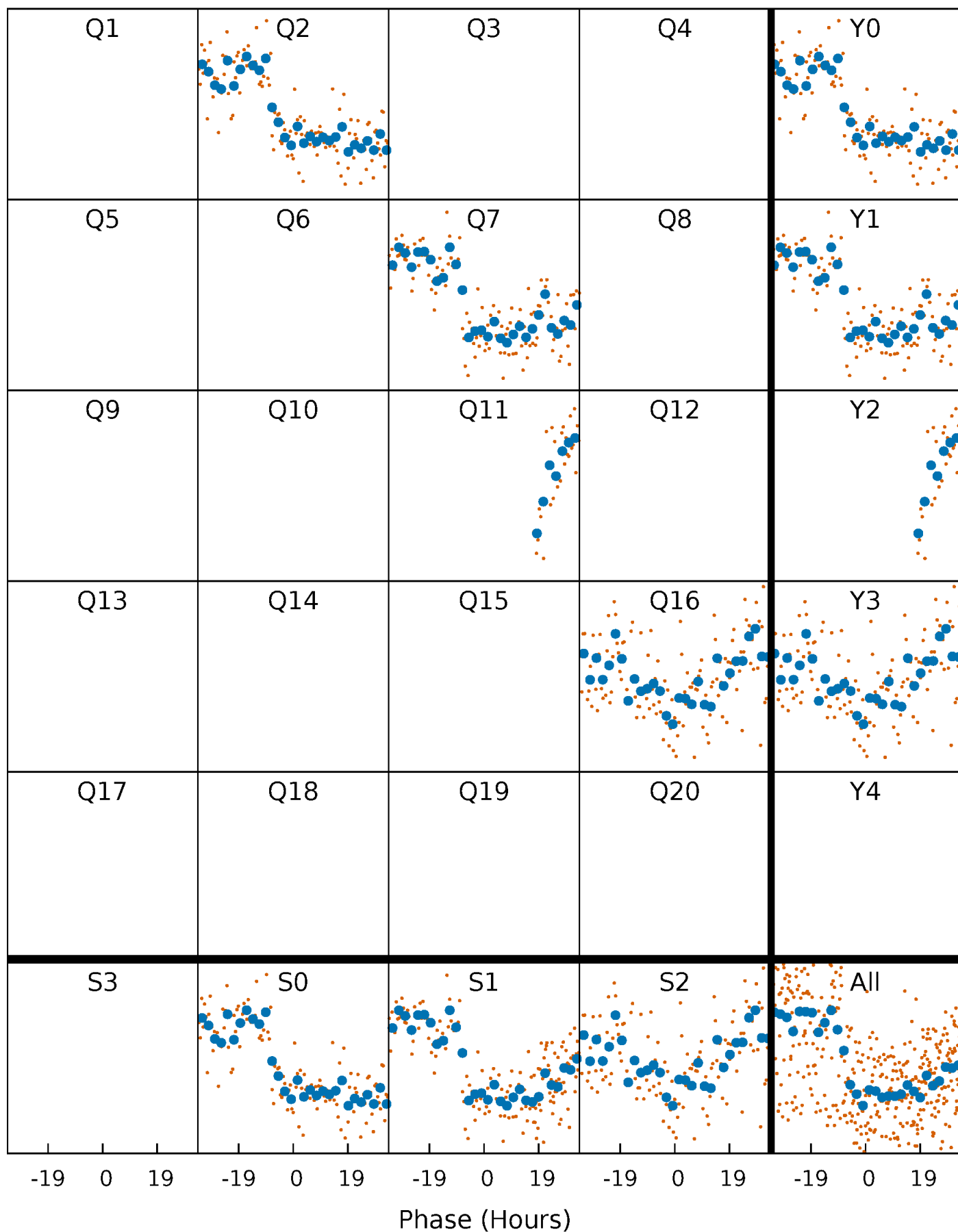


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



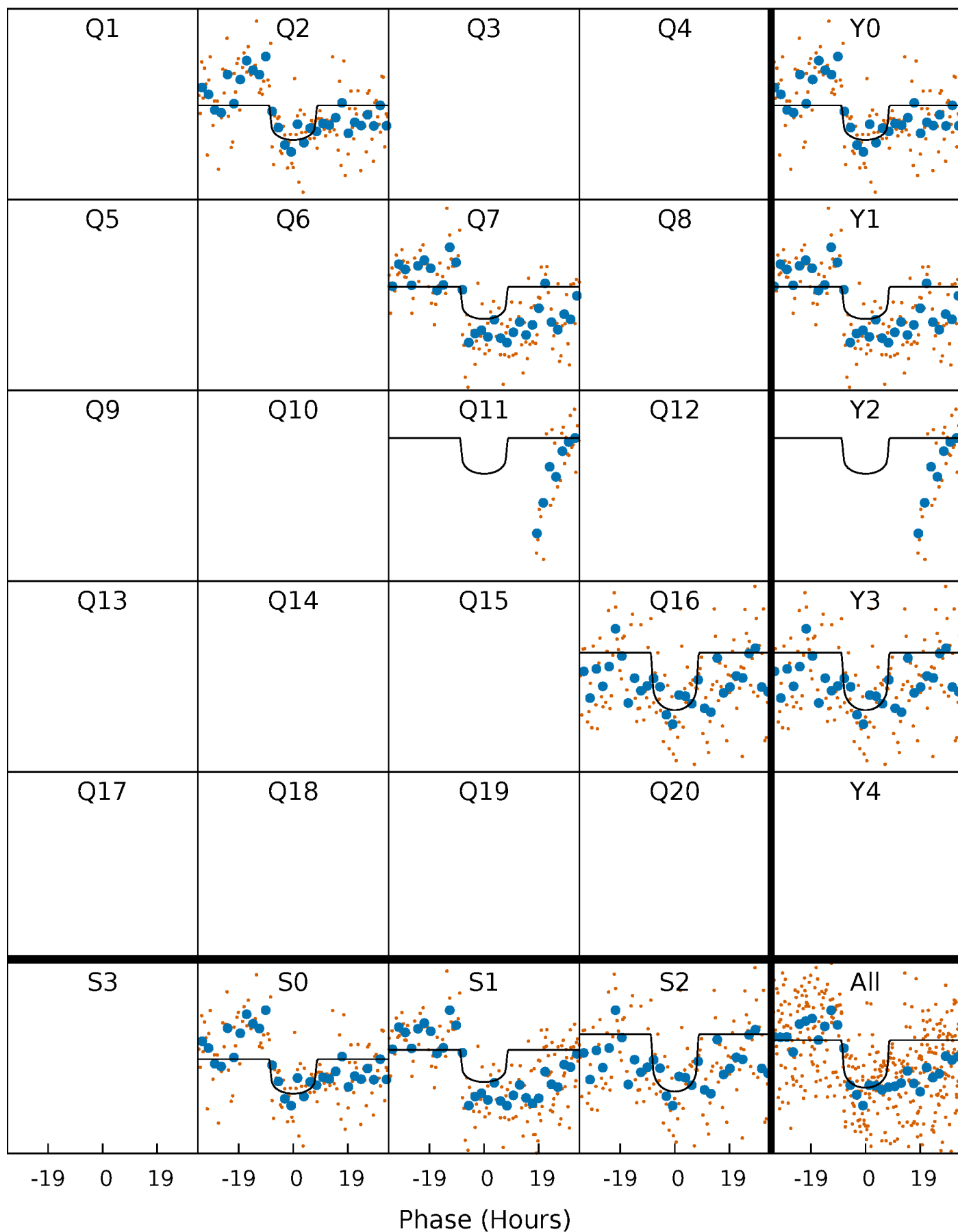
PDC Quarter-Phased Transit Curves

TCE 006294656-01 P=431.930470 Days $T_0=207.978104$ (BKJD)



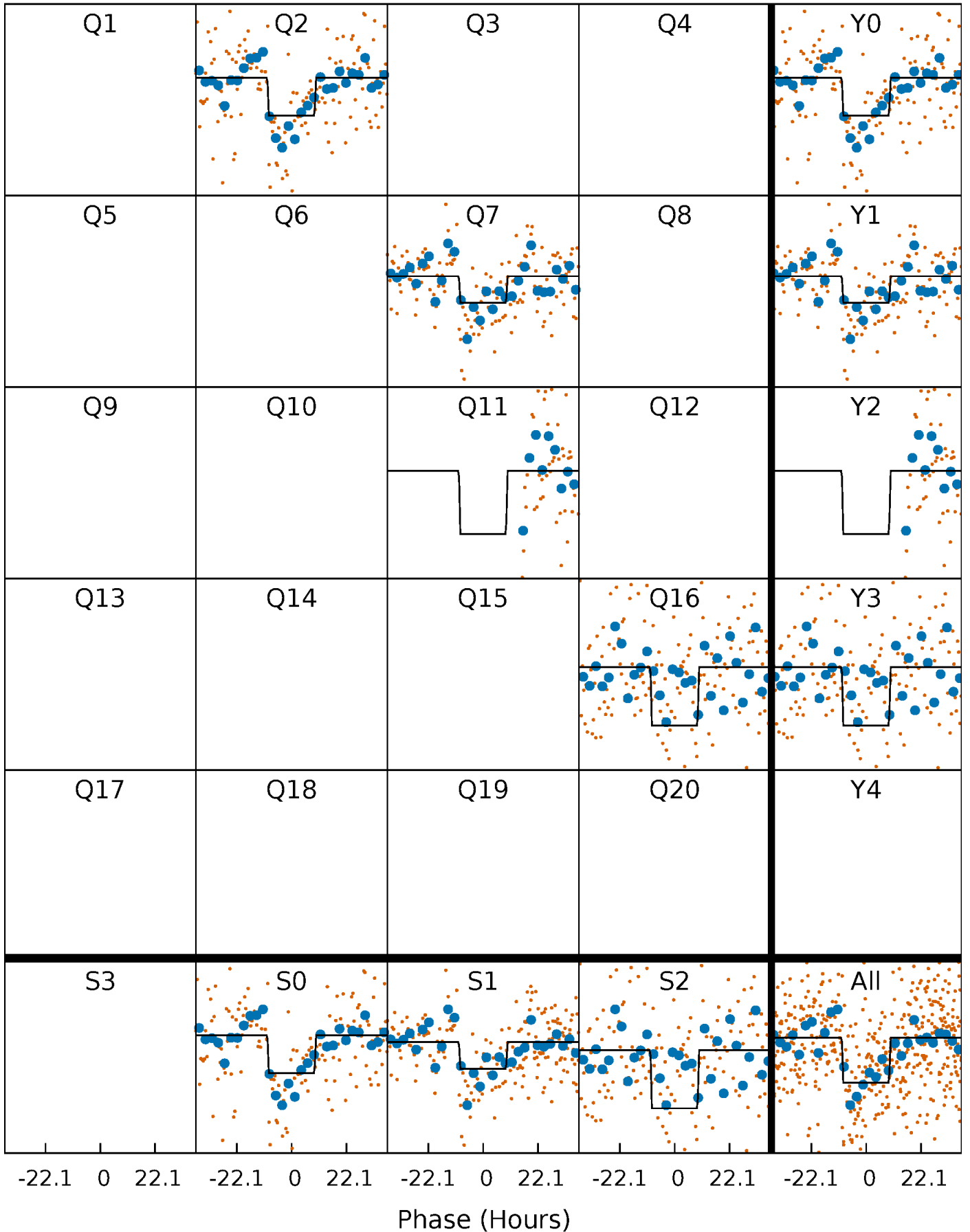
DV Quarter-Phased Transit Curves

TCE 006294656-01 P=431.930470 Days $T_0=207.978104$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

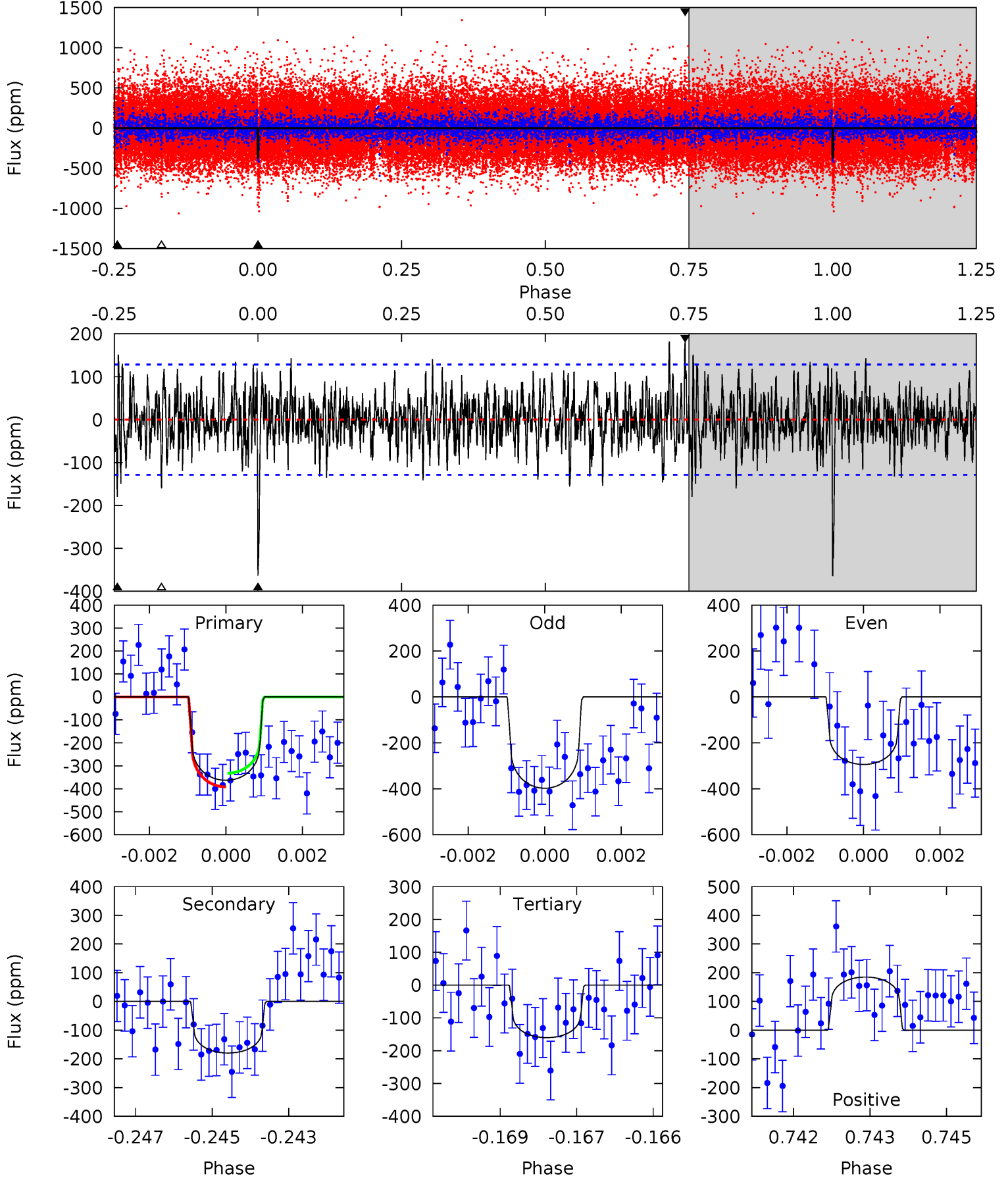
TCE 006294656-01 P=431.945025 Days $T_0=208.052826$ (BKJD)



DV Model-Shift Uniqueness Test

006294656-01, P = 431.930470 Days, E = 207.978104 Days

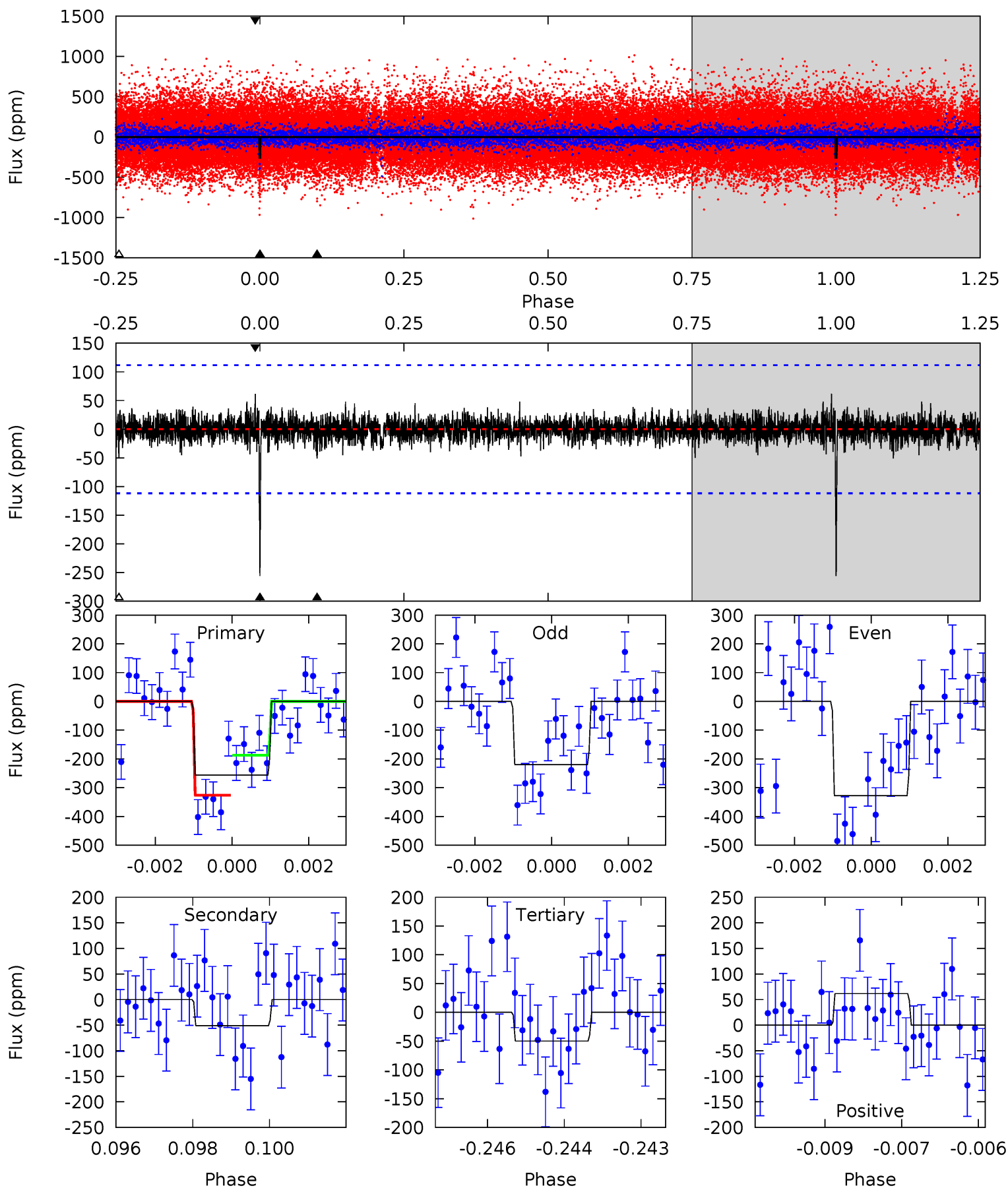
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.1	7.49	6.68	7.71	5.36	3.15	2.05	8.46	7.42	0.81	-0.23	2.05	1.22	0.34	1.23



Alt Model-Shift Uniqueness Test

006294656-01, P = 431.945025 Days, E = 208.052826 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.2	2.44	2.38	2.94	5.34	3.11	0.61	9.85	9.29	0.06	-0.50	2.43	0.78	0.19	3.32



Stellar Parameters For KIC 006294656

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5750^{+173}_{-155}	$4.367^{+0.195}_{-0.195}$	$-0.520^{+0.300}_{-0.300}$	$0.953^{+0.279}_{-0.186}$	$0.773^{+0.114}_{-0.044}$	$1.257^{+1.219}_{-0.618}$
	+3%/-3%	+4%/-4%	+58%/-58%	+29%/-20%	+15%/-6%	+97%/-49%
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 006294656-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-180 ± 24	$1.82^{+0.62}_{-0.53}$	340^{+29}_{-24}	5117^{+844}_{-563}	32581^{+31489}_{-15023}
Alt.	-51 ± 21	$1.65^{+0.59}_{-0.53}$	341^{+27}_{-23}	4126^{+676}_{-529}	10644^{+14011}_{-5992}

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

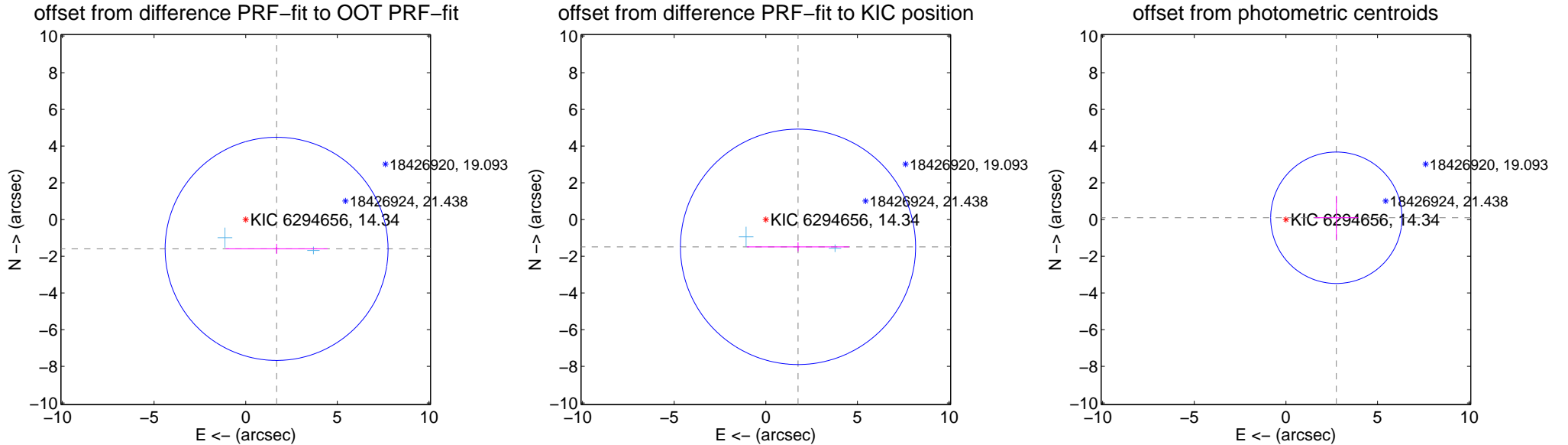
DV Centroid Data

Supplemental centroid analysis for 006294656-01. Kepler magnitude: 14.34. Transit SNR 6.78

There are 2 quarters with good PRF difference image offsets

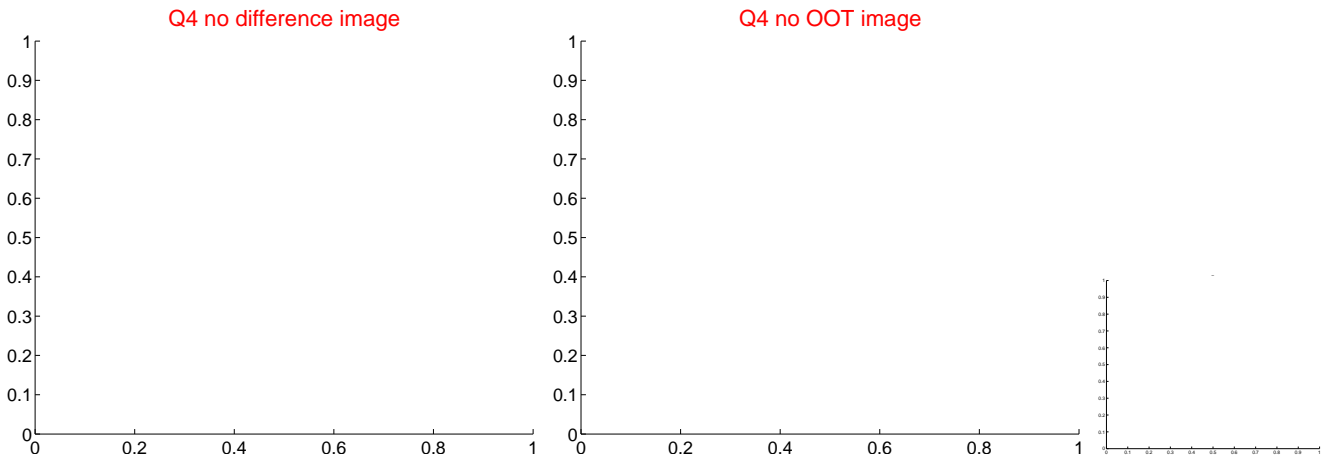
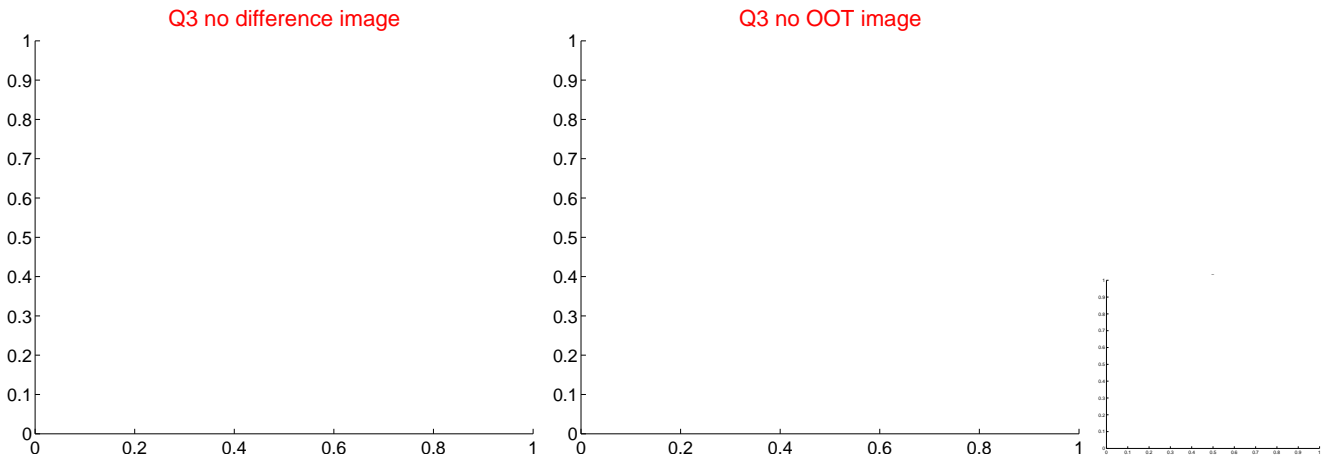
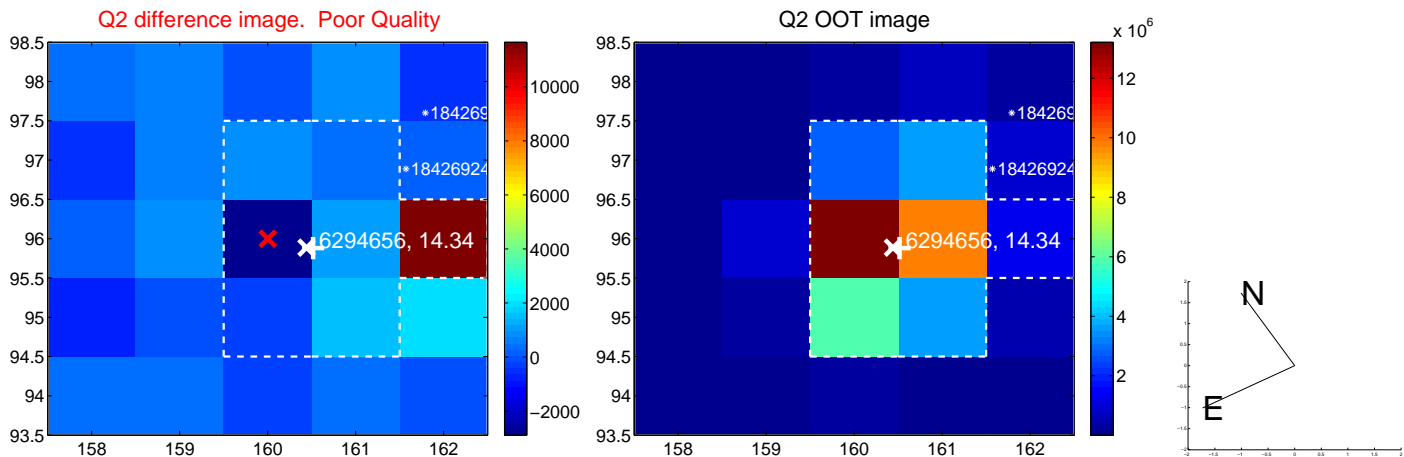
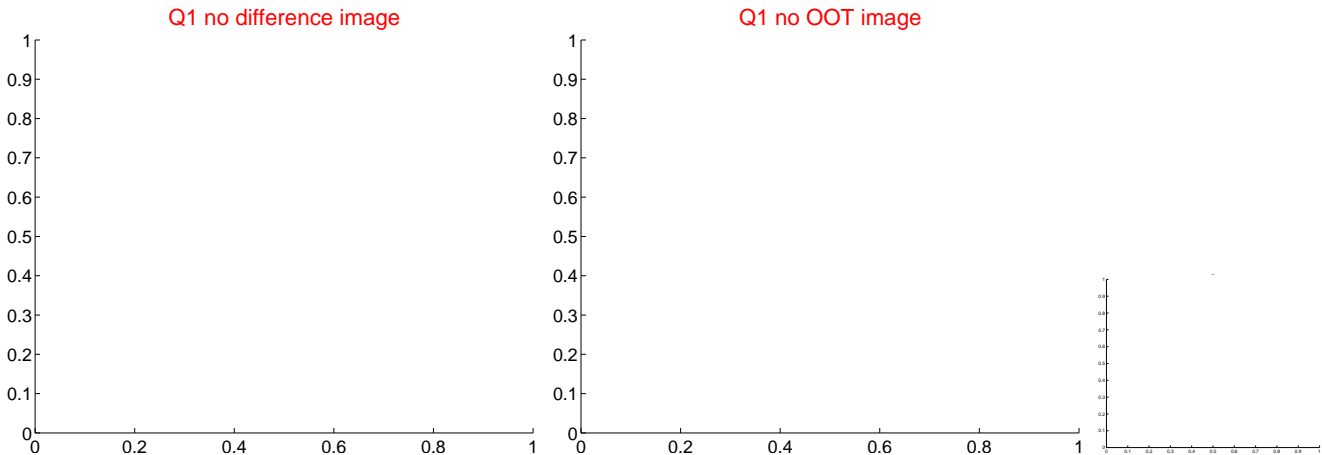
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.322 ± 2.027	1.15	-1.685 ± 2.781	-1.598 ± 0.276
PRF-fit source offset from KIC position	2.303 ± 2.138	1.08	-1.757 ± 2.795	-1.489 ± 0.251
photometric centroid source offset	2.75 ± 1.19	2.31	-2.75 ± 1.19	0.10 ± 1.19

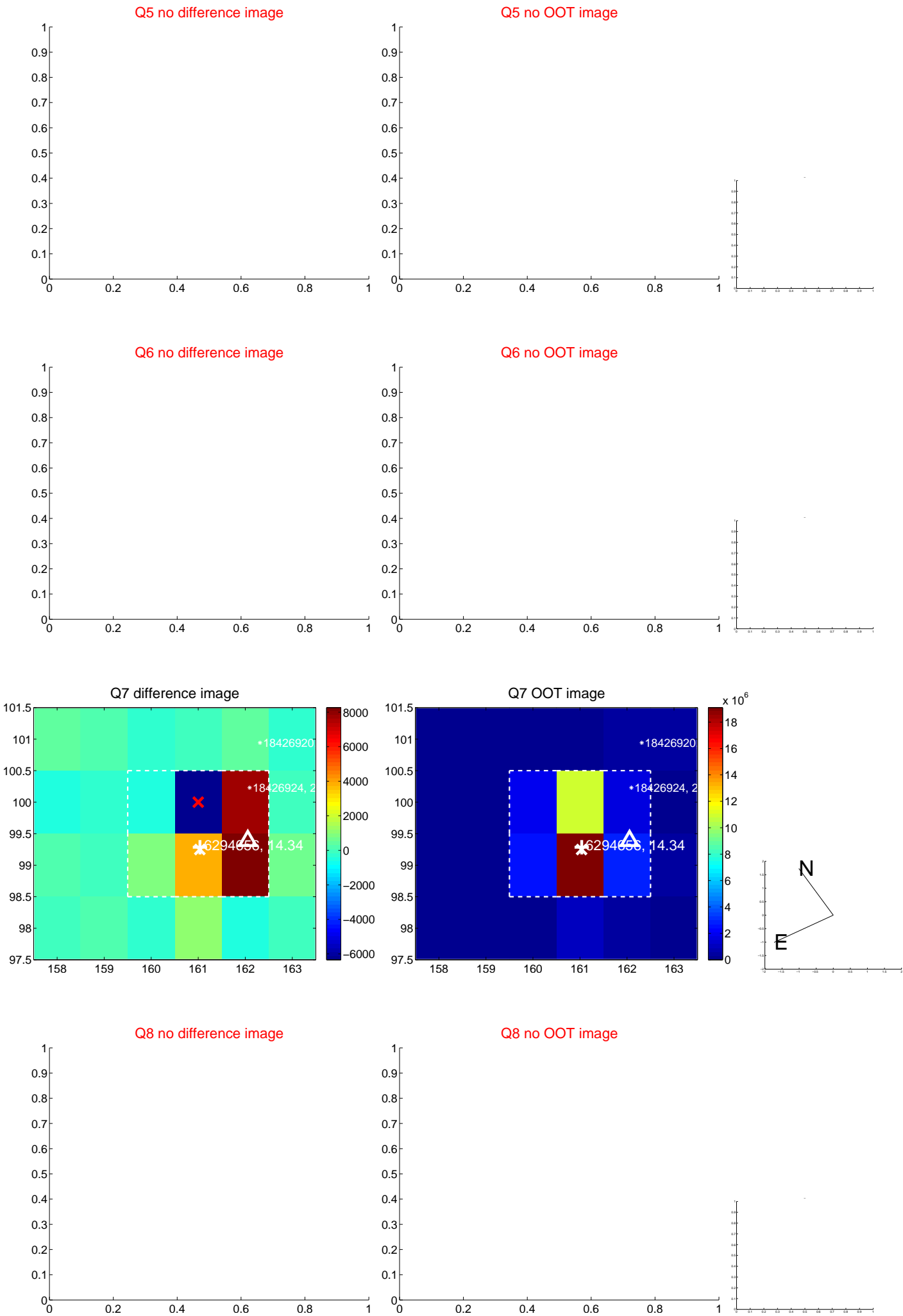


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

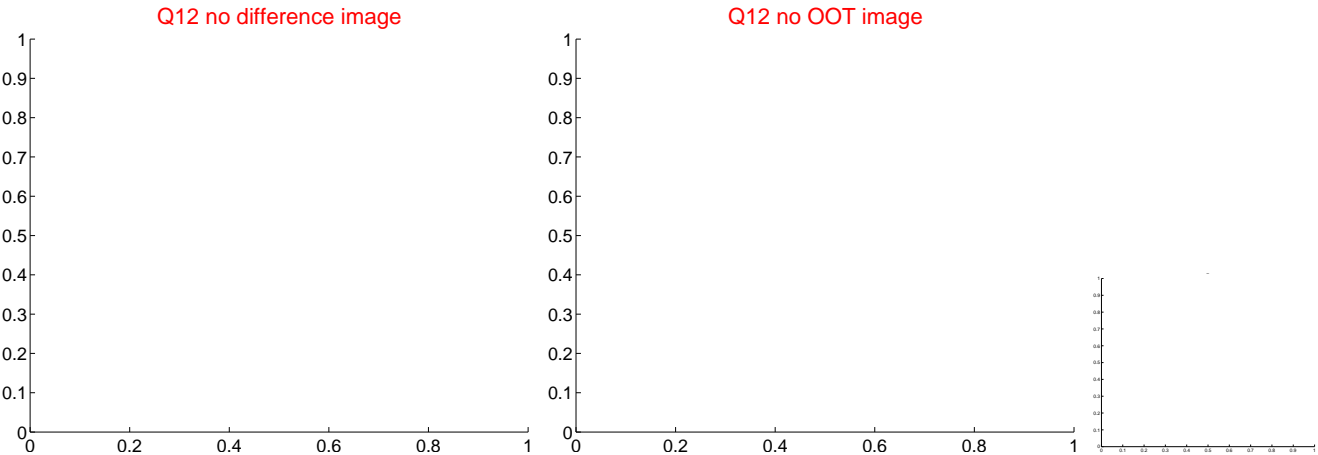
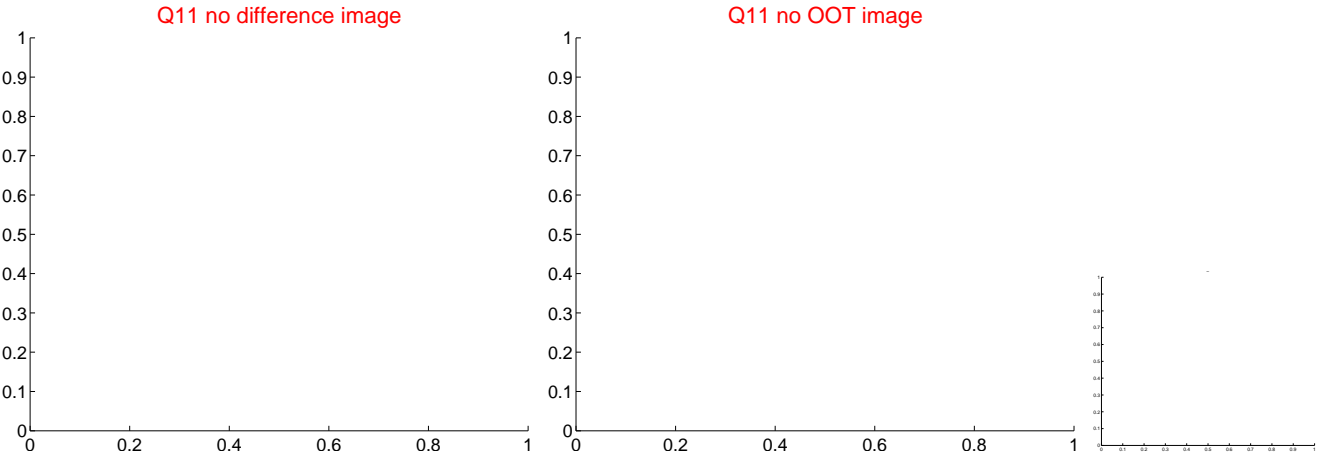
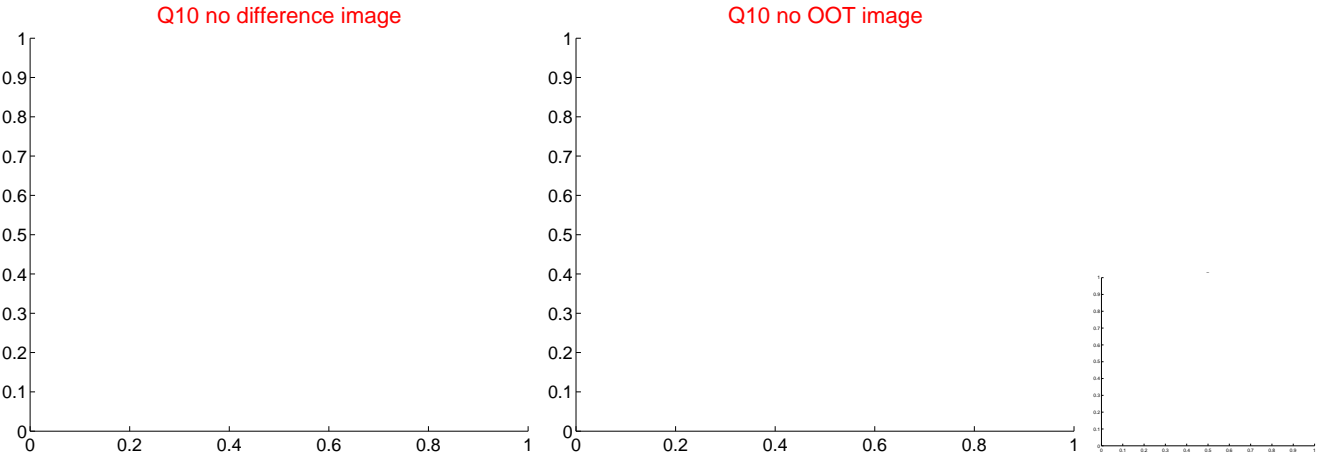
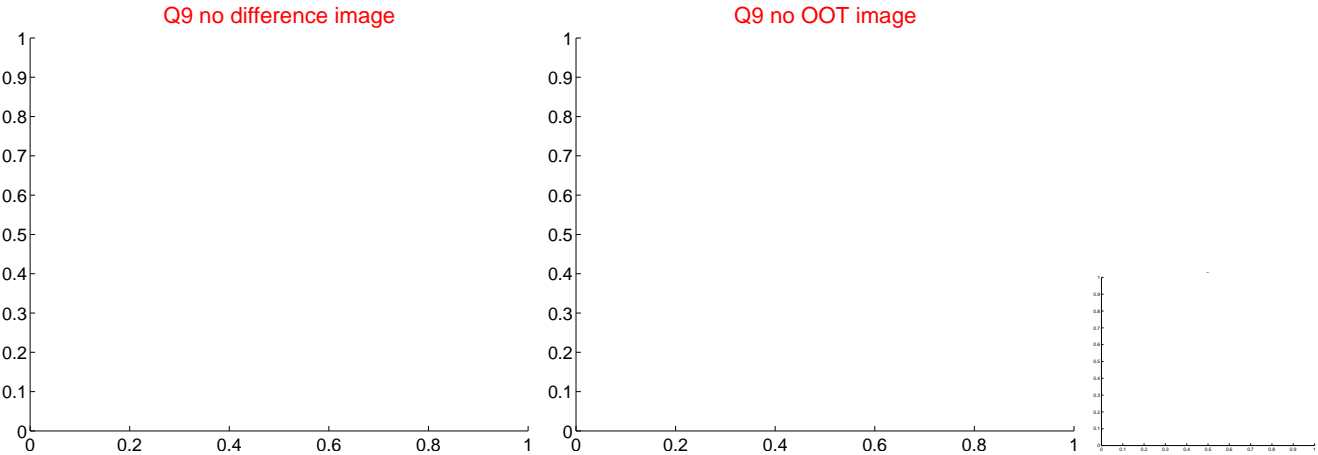
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



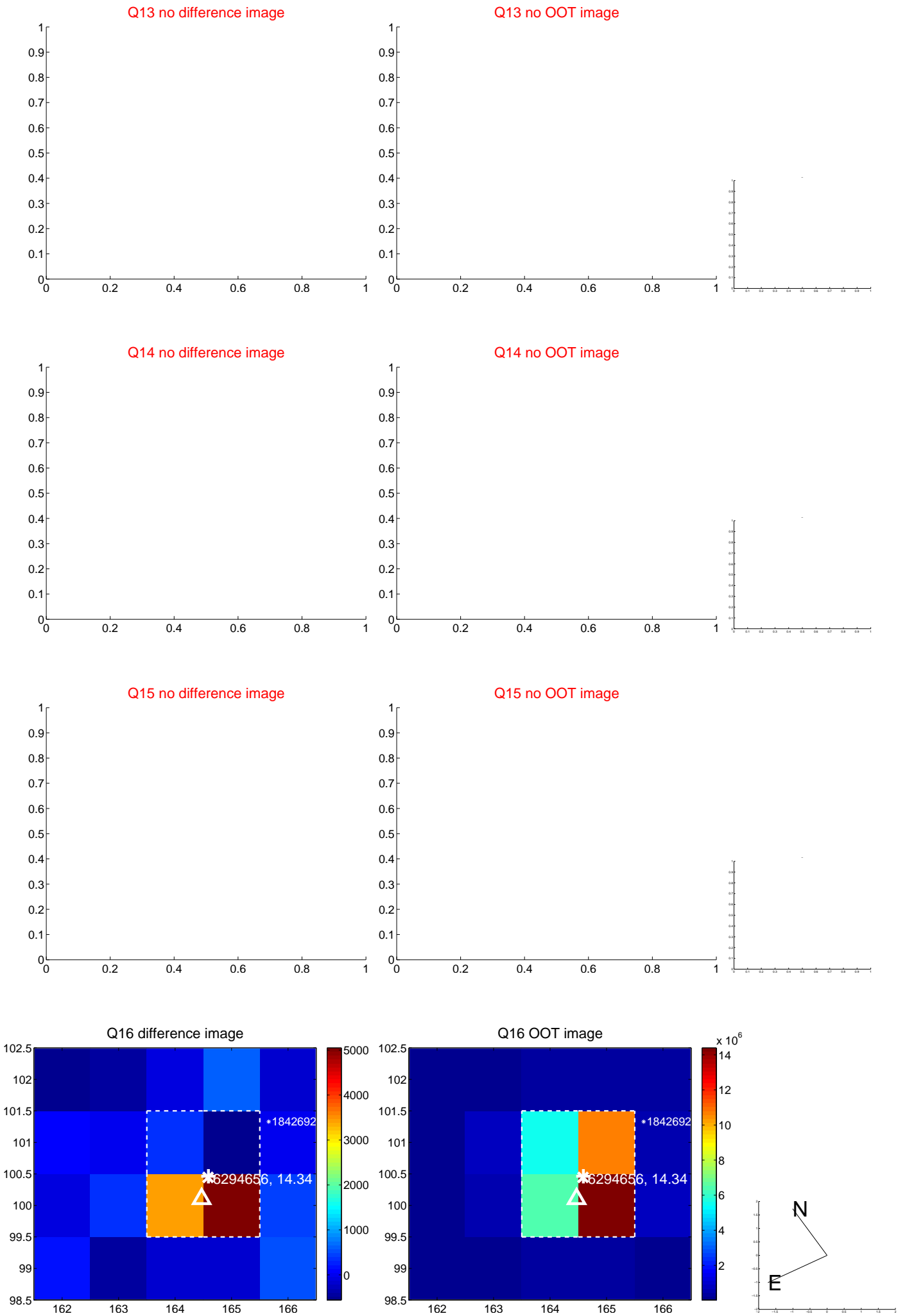
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



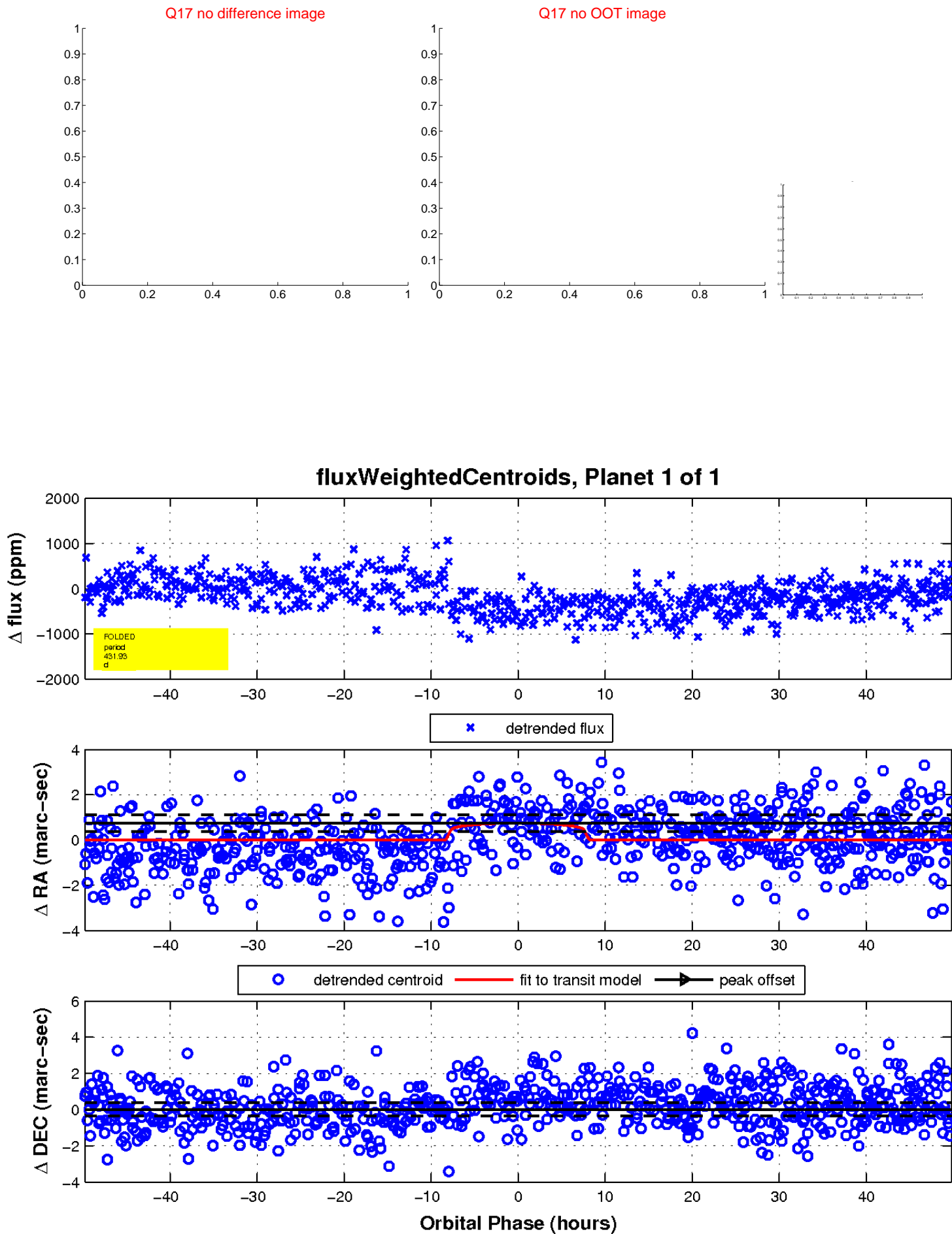
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

