

KIC 011442288

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})
011442288-01	OBS	No	563.996108	264.964541	564.9	17.272	12.8	13.0	2.67	5269	6.64	2.23

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011442288-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—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.

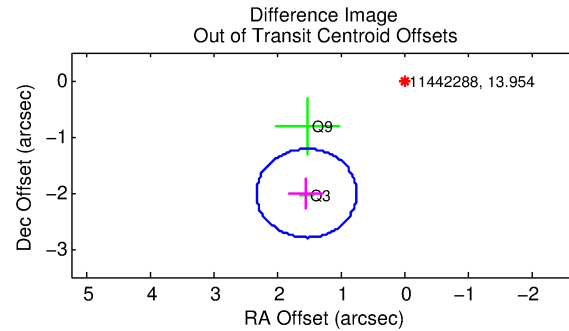
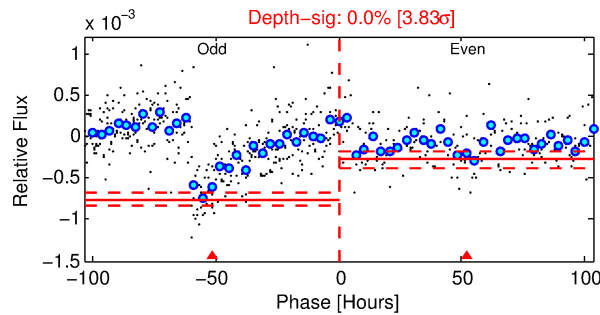
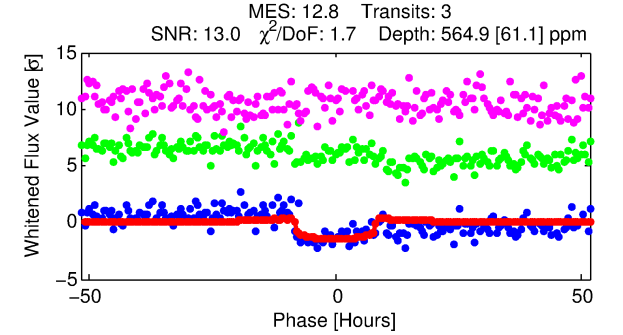
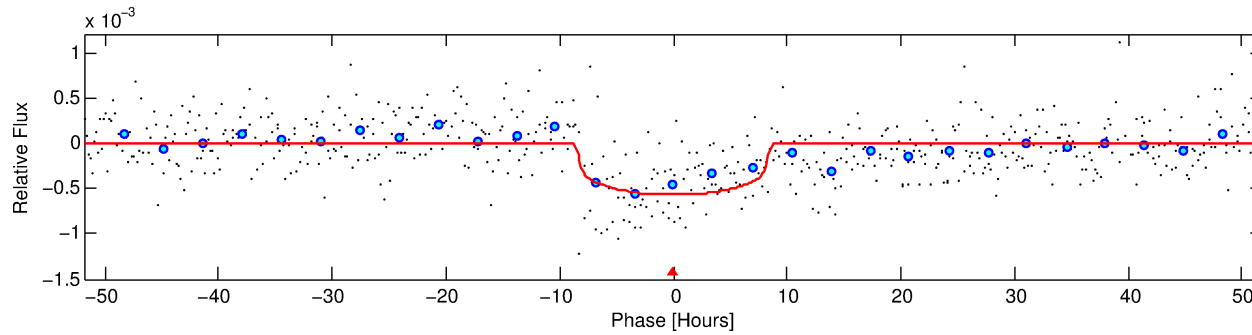
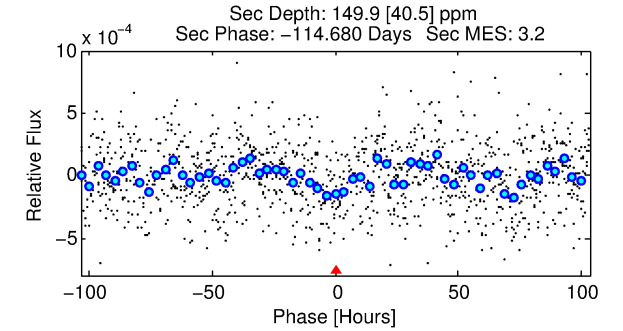
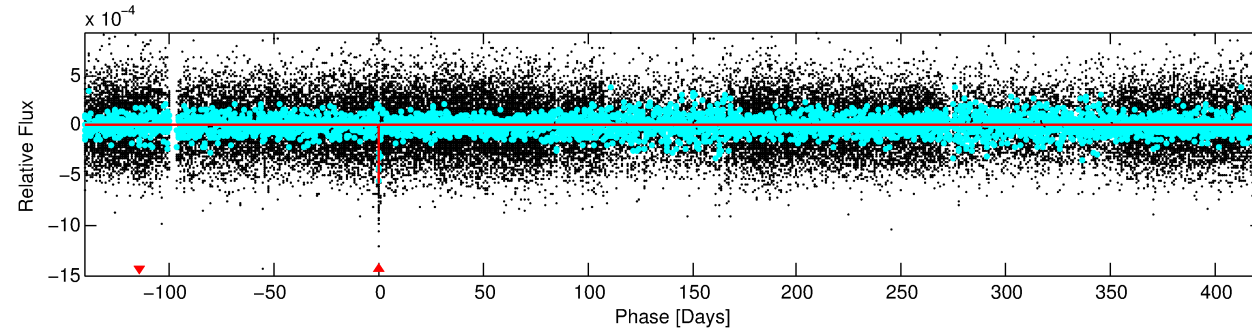
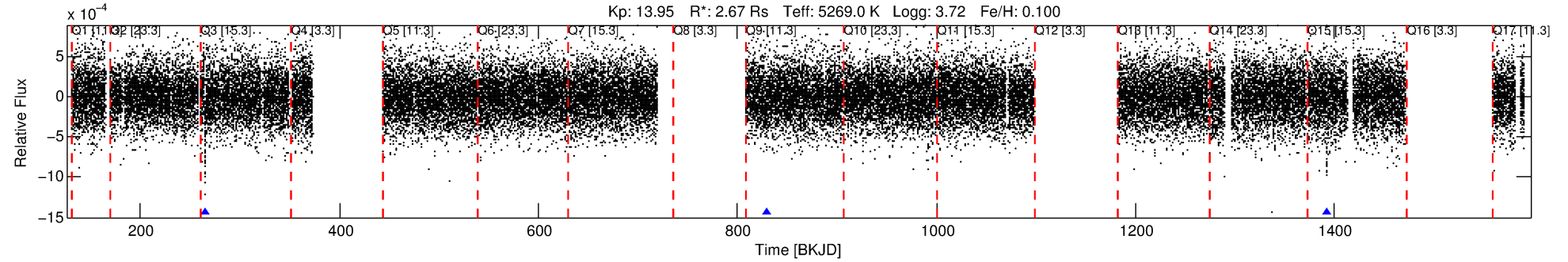
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011442288-01

No Significant Match Found

DV One-Page Summary

KIC: 11442288 Candidate: 1 of 1 Period: 563.996 d



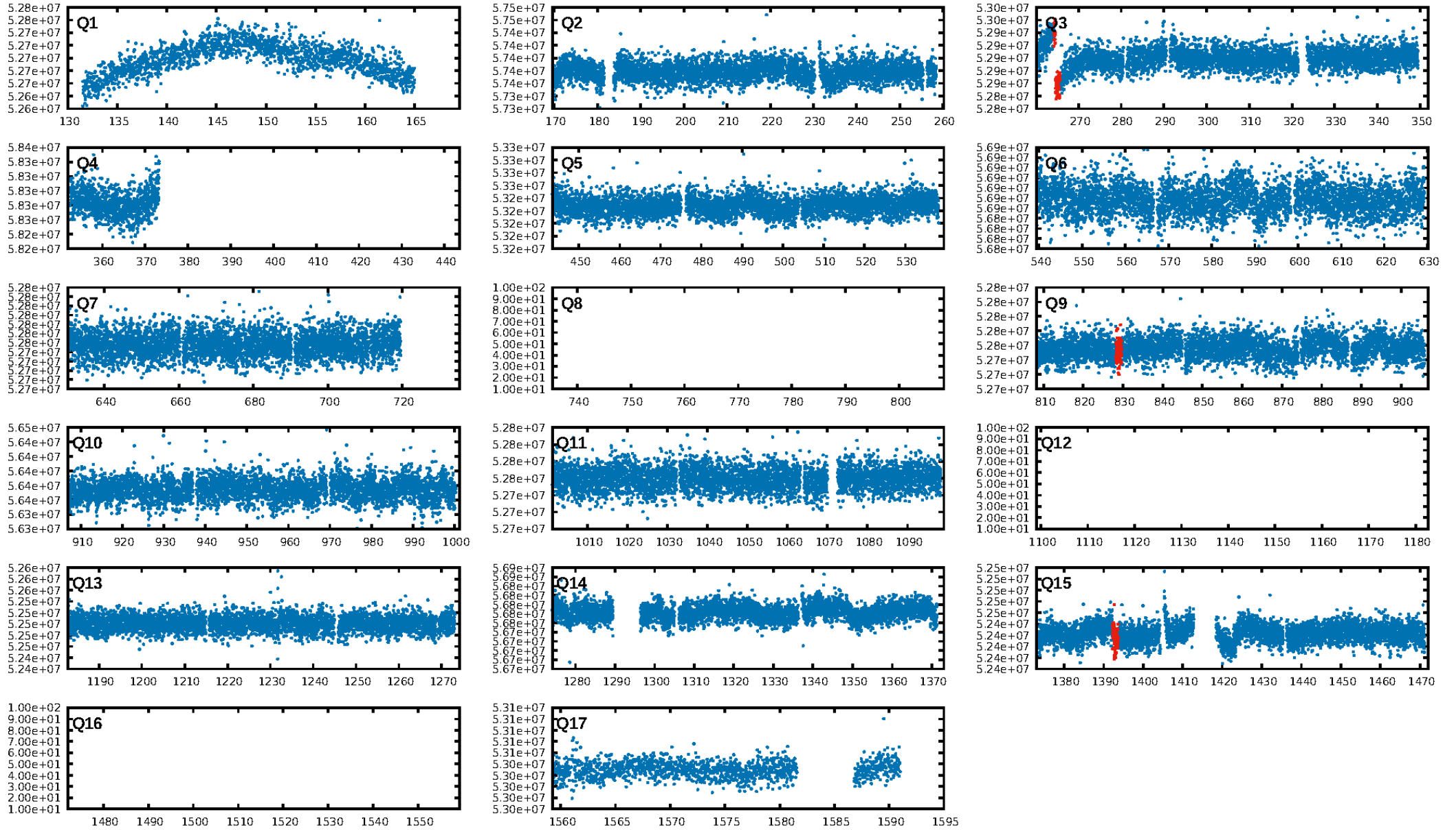
DV Fit Results:

Period = 563.99611 [0.01327] d
Epoch = 264.9645 [0.0173] BKJD
Rp/R* = 0.0228 [0.0085]
a/R* = 198.38 [273.75]
b = 0.64 [1.27]
Seff = 2.23 [2.89]
Teq = 312 [101] K
Rp = 6.64 [4.93] Re
a = 1.4856 [1.1042] AU
Ag = 4126.34 [6244.11] [0.66σ]
Teffp = 3862 [777] K [4.53σ]

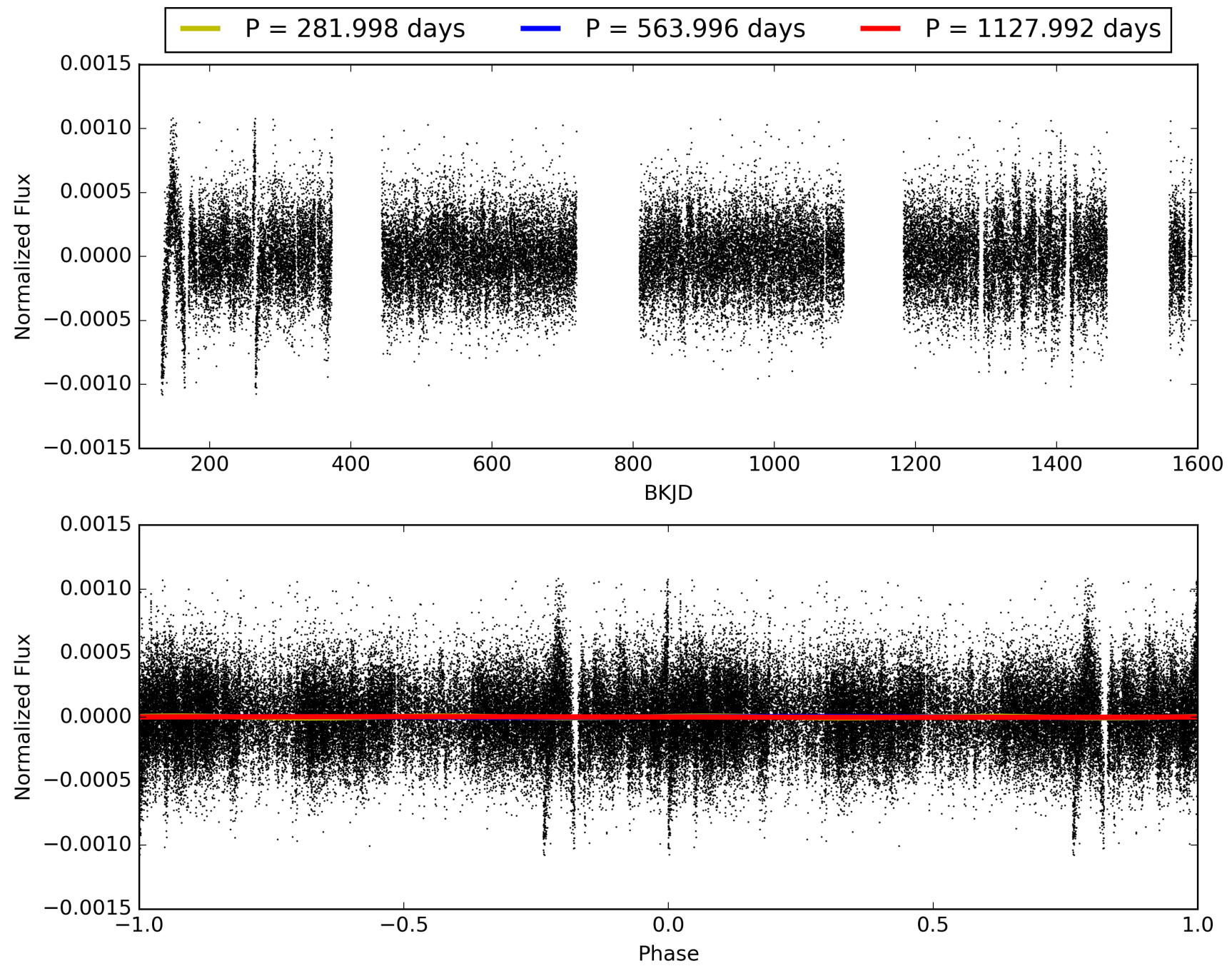
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 40.3%
Bootstrap-pfa: 1.87e-48
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -2.821
Centroid-sig: 89.9%
Centroid-so: 0.170 arcsec [0.24σ]
OotOffset-rm: 2.537 arcsec [9.65σ]
KicOffset-rm: 2.550 arcsec [5.07σ]
OotOffset-st: 0/1/0/1 [2]
KicOffset-st: 0/1/0/1 [2]
DiffImageQuality-fgm: 1.00 [2/2]
DiffImageOverlap-fno: 1.00 [2/2]

TCE 011442288-01, PDC Light Curves

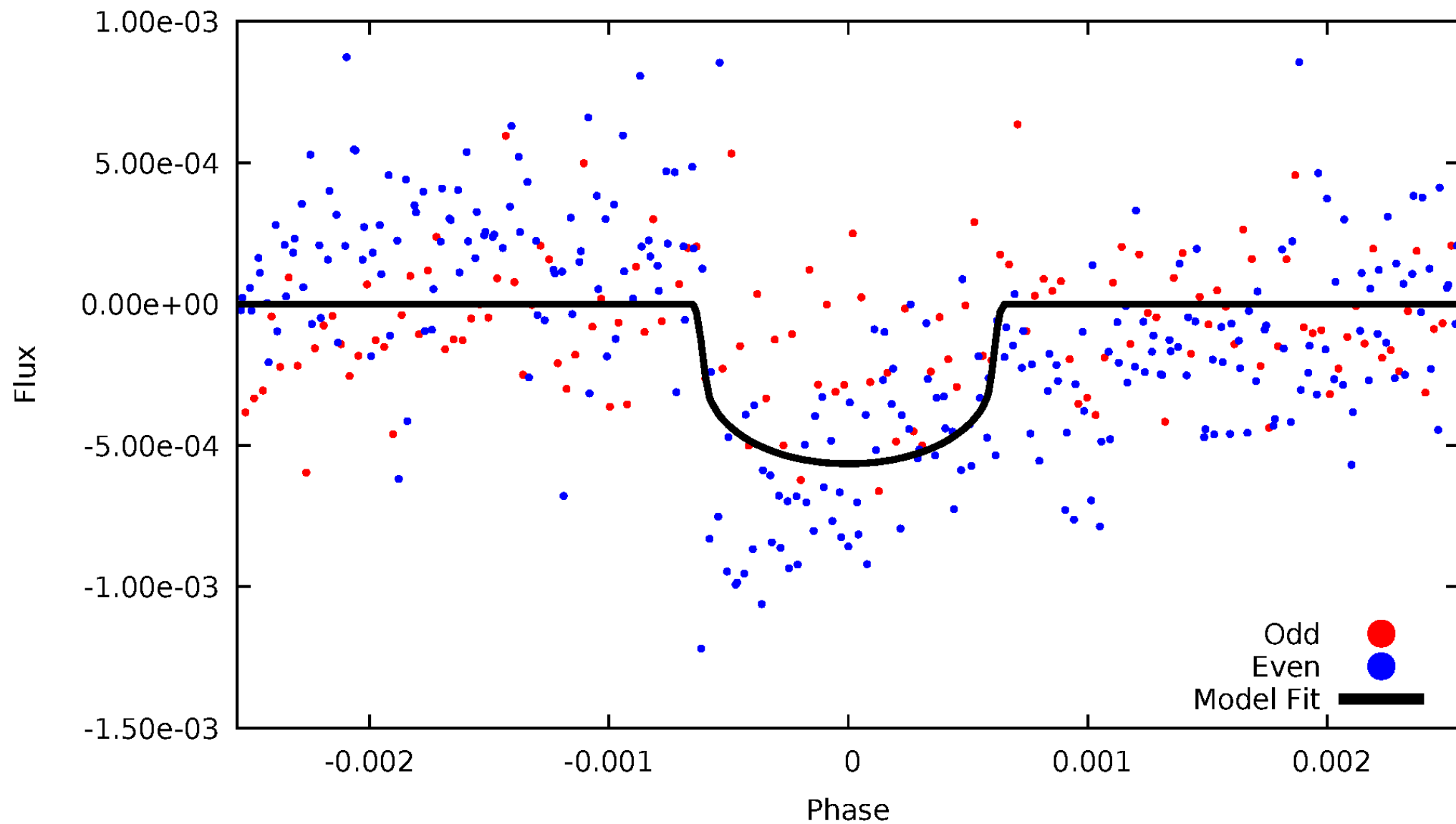


TCE 011442288-01



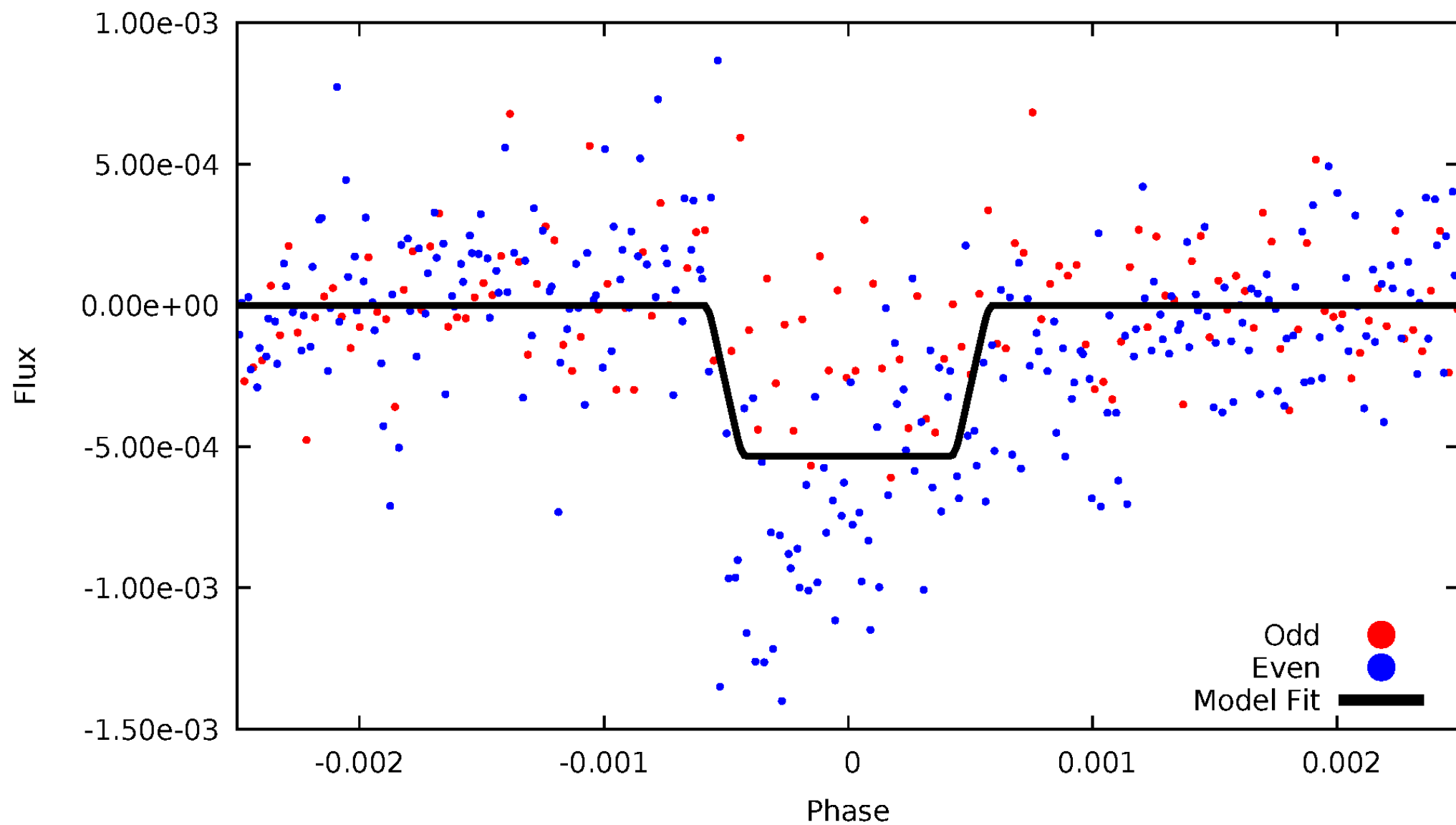
DV Odd/Even

TCE 011442288-01

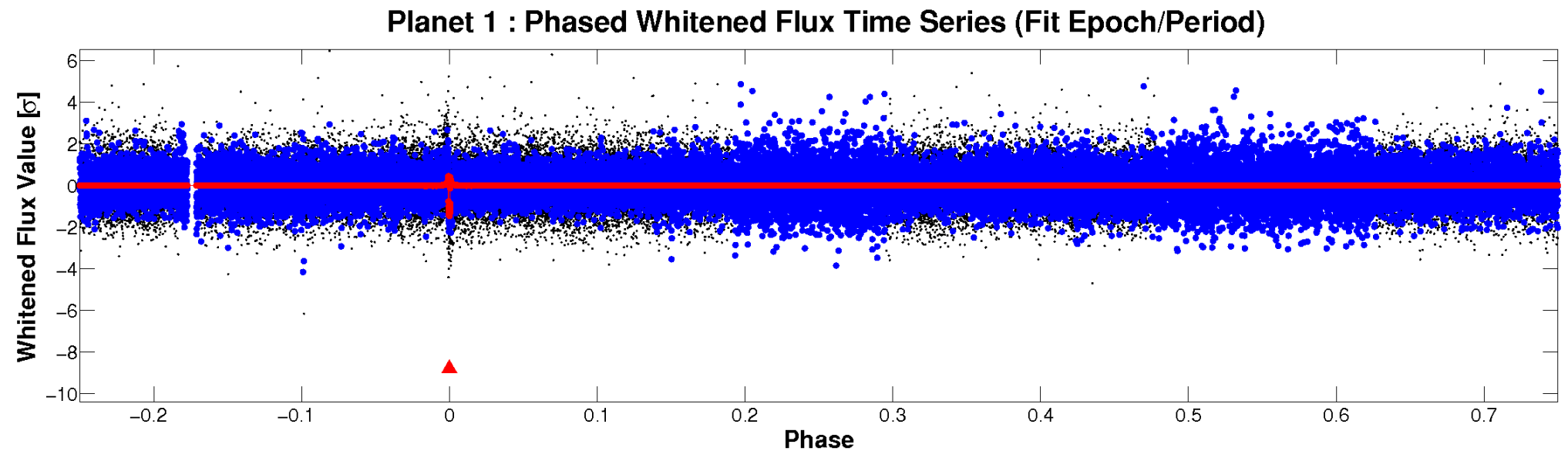
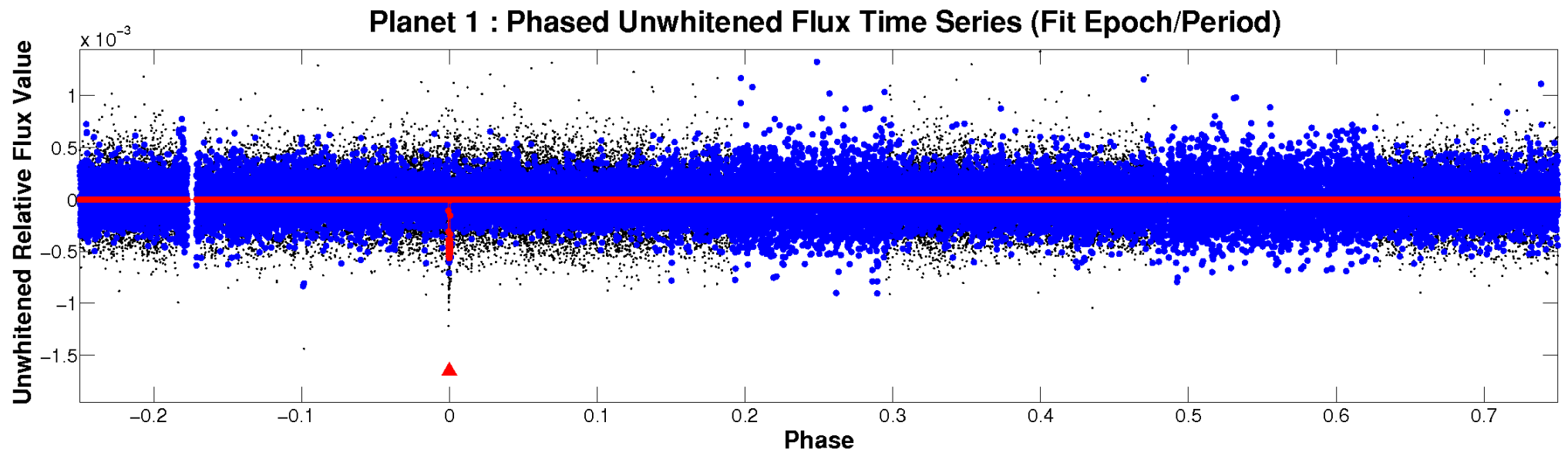


ALT Odd/Even

TCE 011442288-01

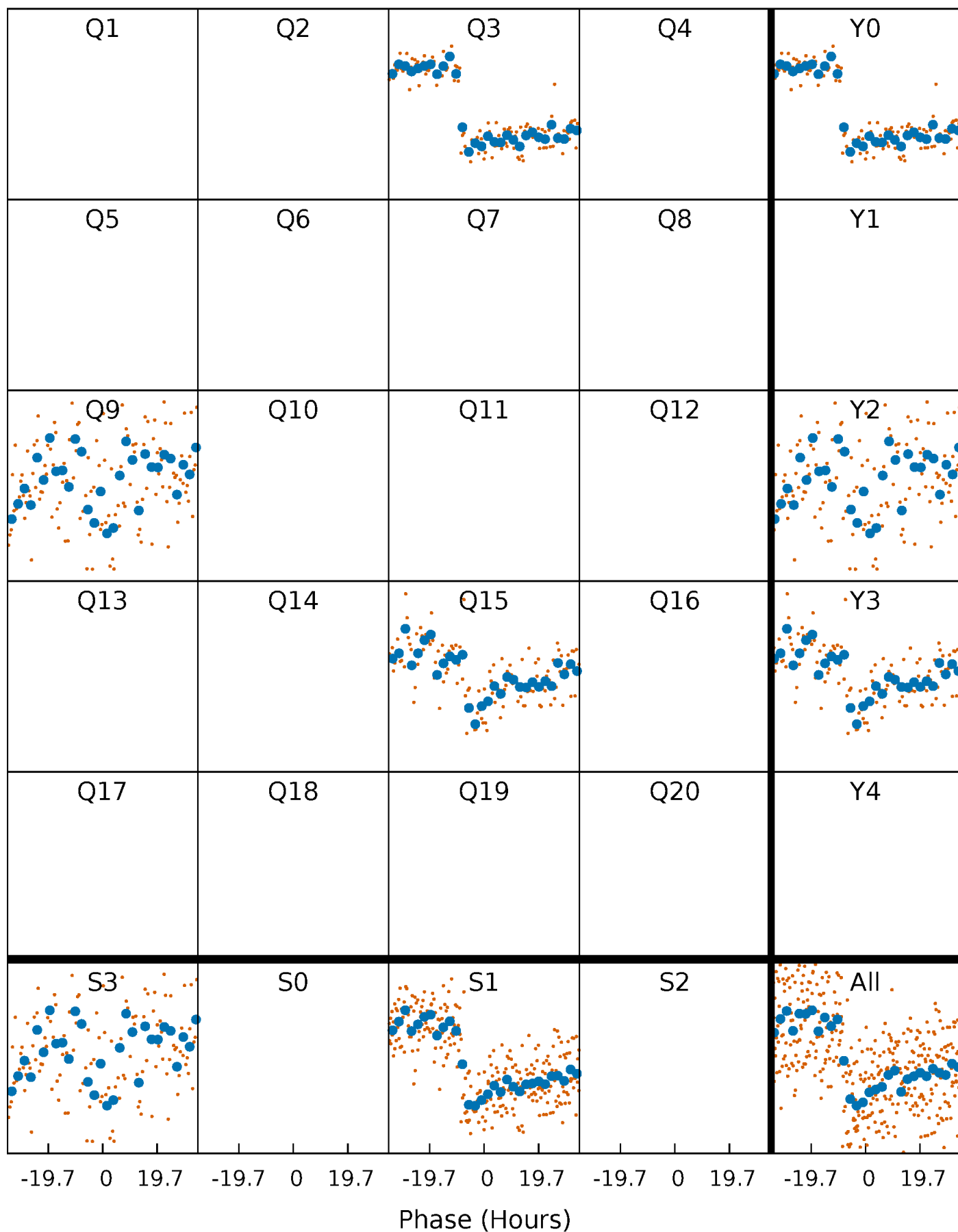


Non-Whitened Vs. Whitened Light Curve



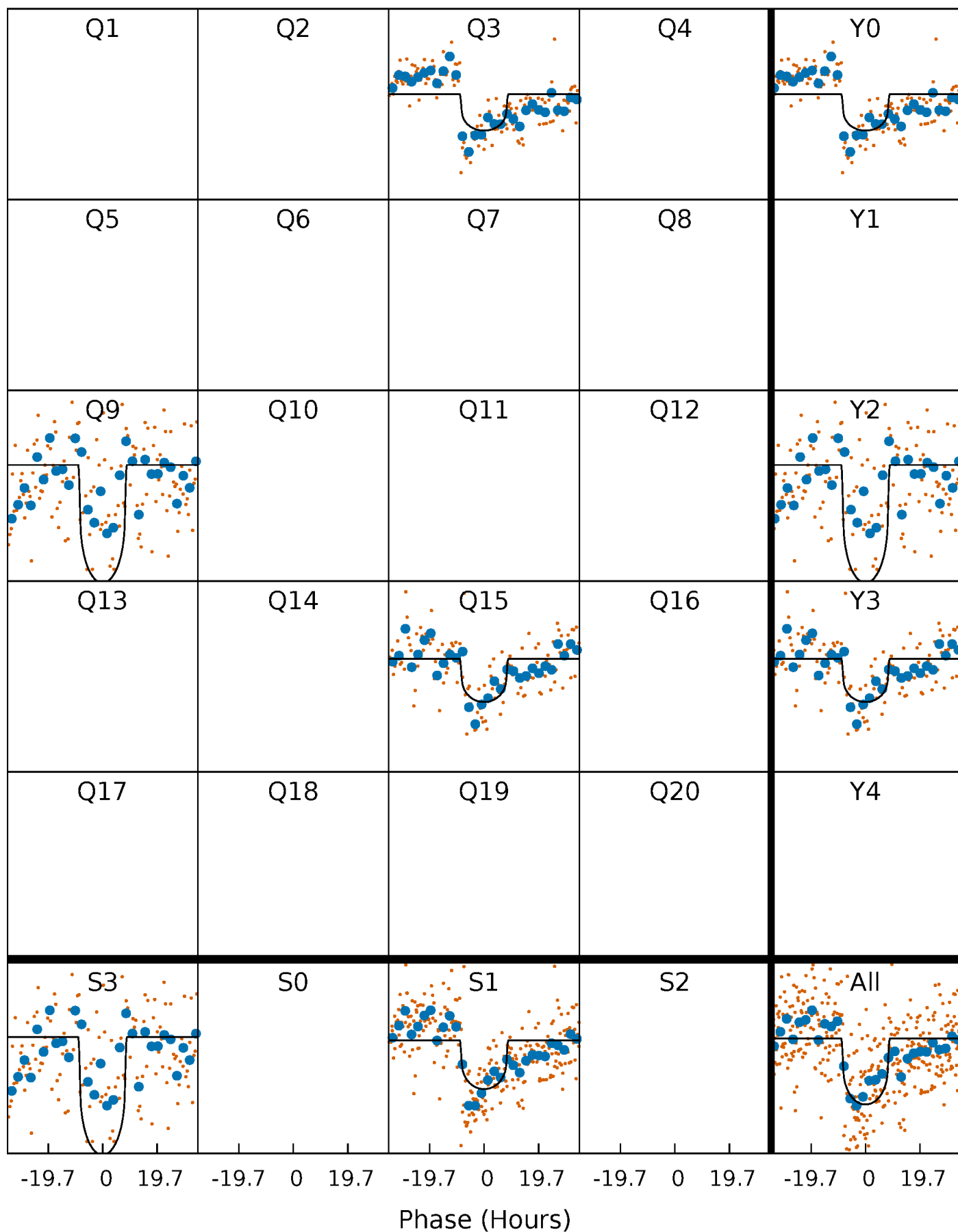
PDC Quarter-Phased Transit Curves

TCE 011442288-01 P=563.996108 Days $T_0=264.964541$ (BKJD)



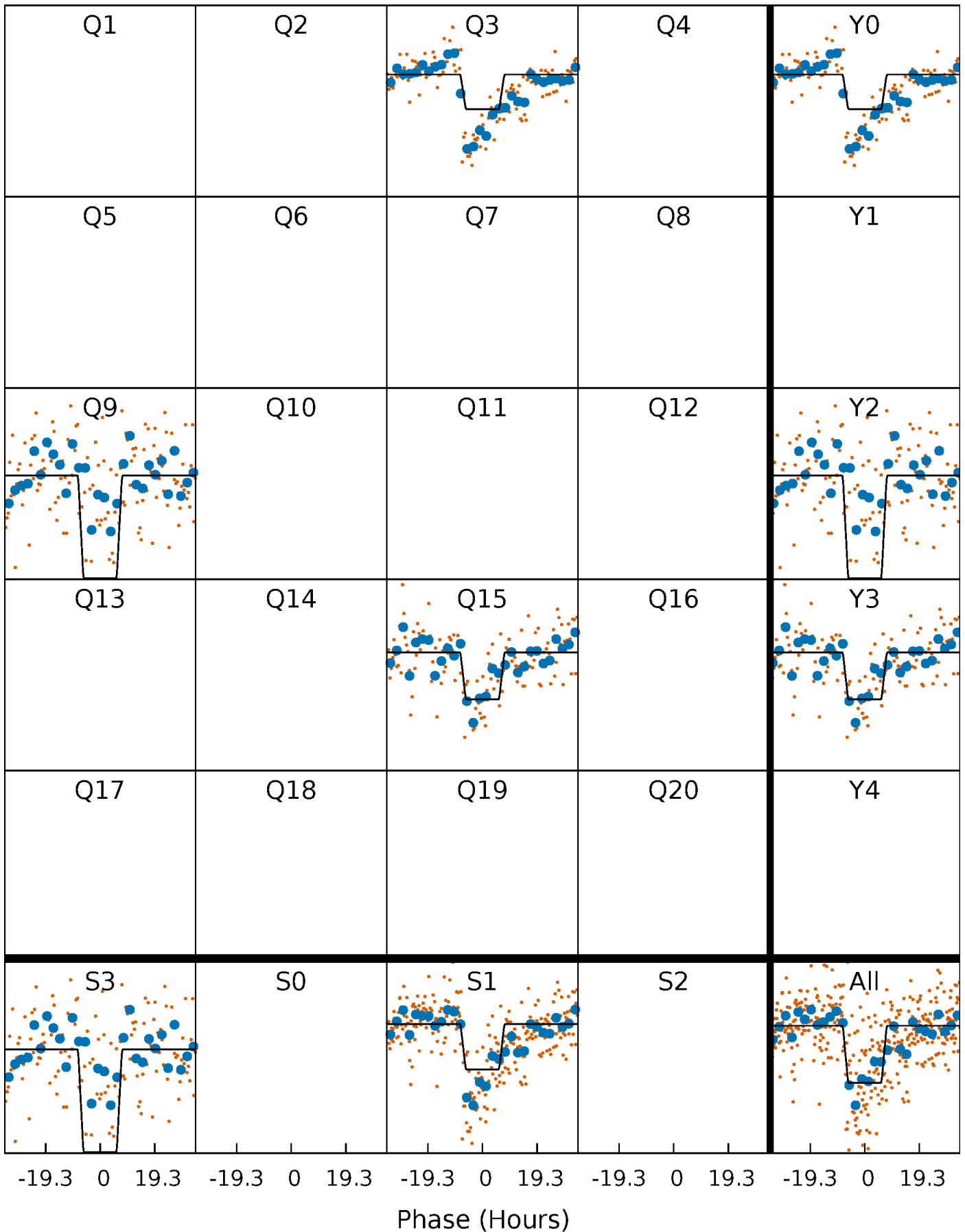
DV Quarter-Phased Transit Curves

TCE 011442288-01 P=563.996108 Days $T_0=264.964541$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

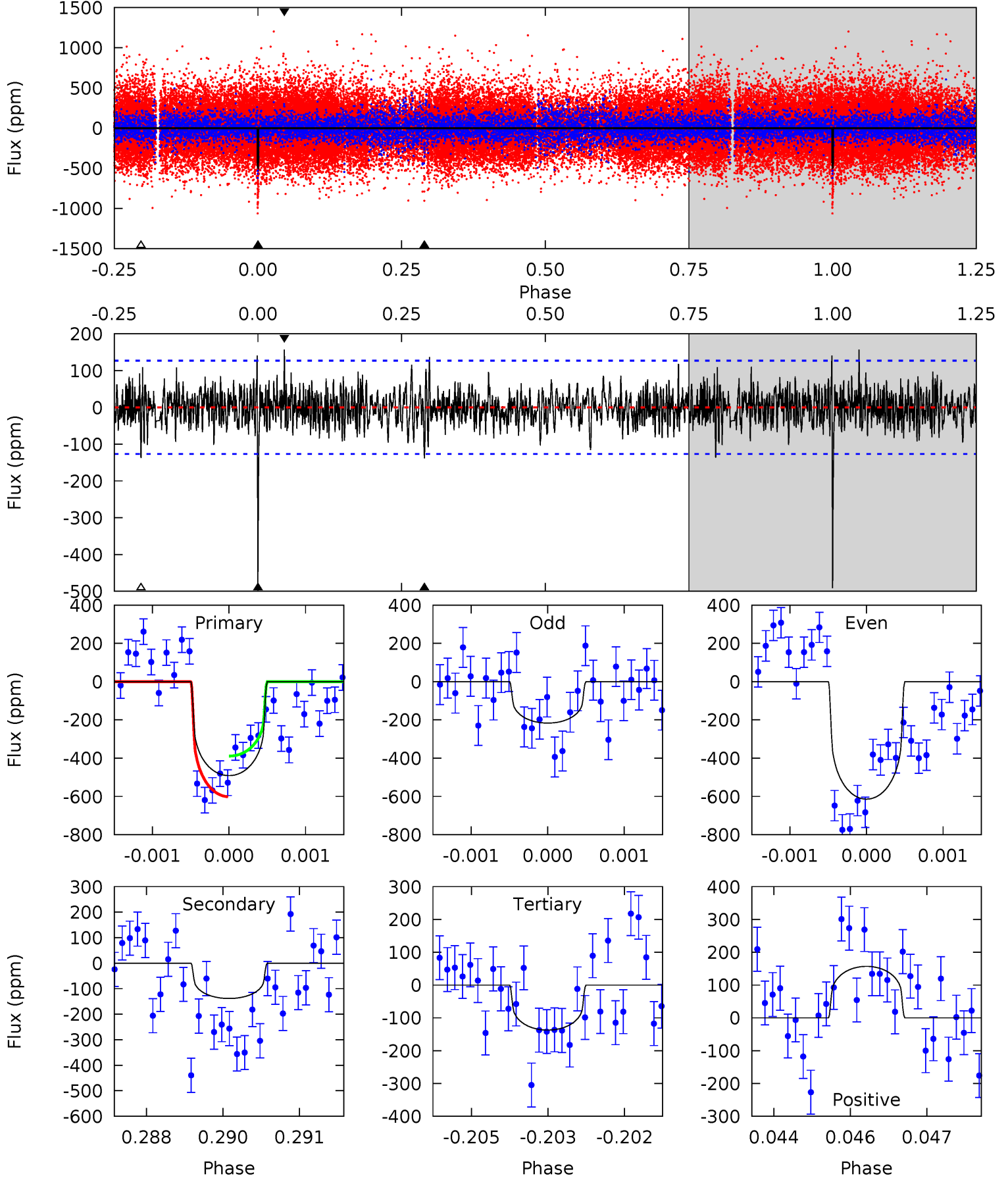
TCE 011442288-01 P=564.020745 Days $T_0=264.913596$ (BKJD)



DV Model-Shift Uniqueness Test

011442288-01, P = 563.996108 Days, E = 264.964541 Days

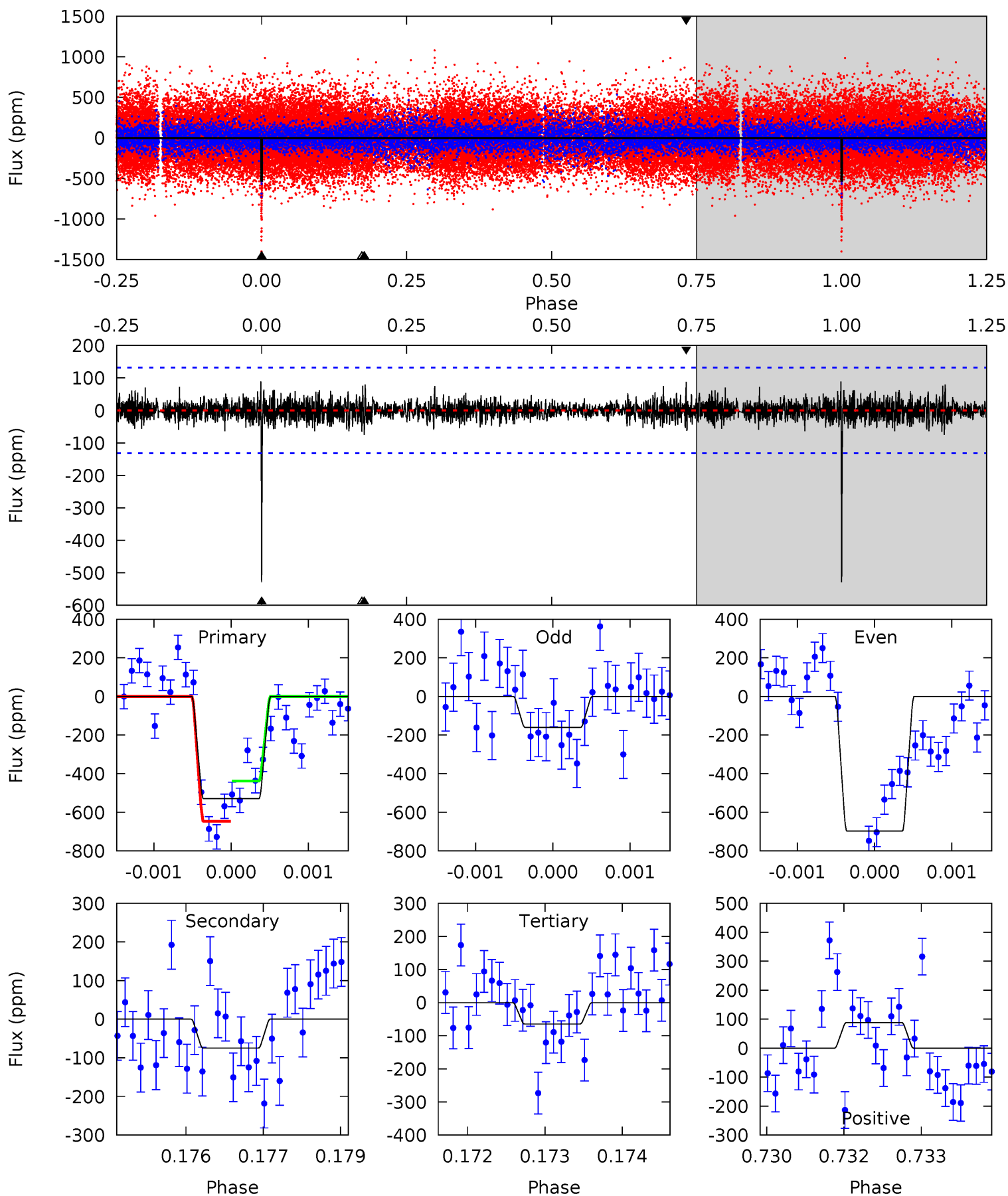
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	5.89	5.84	6.68	5.40	3.22	1.54	15.1	14.2	0.05	-0.79	8.13	0.86	0.24	4.52



Alt Model-Shift Uniqueness Test

011442288-01, P = 564.020745 Days, E = 264.913596 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.8	3.08	2.66	3.63	5.42	3.25	0.83	19.1	18.1	0.42	-0.55	10.6	1.08	0.14	4.27



Stellar Parameters For KIC 011442288

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5269^{+185}_{-167}	$3.723^{+0.792}_{-0.198}$	$0.100^{+0.250}_{-0.250}$	$2.670^{+0.791}_{-1.713}$	$1.373^{+0.207}_{-0.482}$	$0.102^{+1.733}_{-0.052}$
	+4%/-3%	+21%/-5%	+250%/-250%	+30%/-64%	+15%/-35%	+1706%/-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 011442288-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-138 ± 23	$5.74^{+3.14}_{-2.59}$	424^{+48}_{-73}	4048^{+827}_{-440}	4967^{+11796}_{-2925}
Alt.	-75 ± 24	$5.73^{+3.20}_{-2.66}$	426^{+44}_{-80}	3635^{+719}_{-393}	2586^{+5910}_{-1557}

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

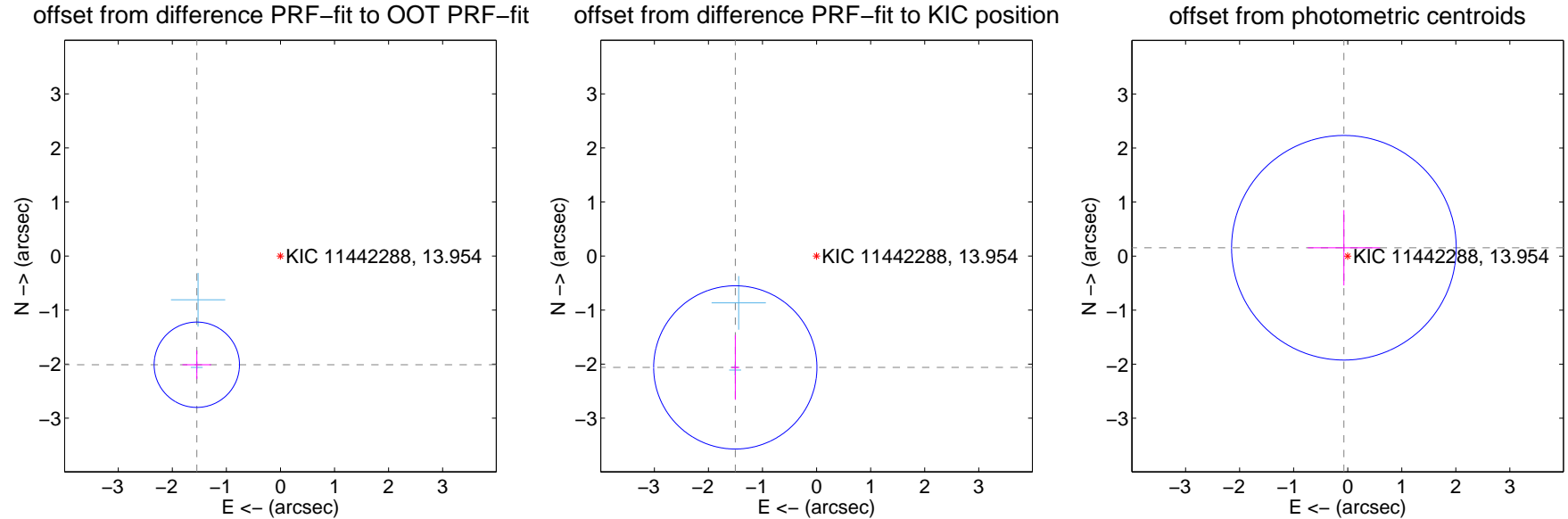
DV Centroid Data

Supplemental centroid analysis for 011442288-01. Kepler magnitude: 13.95. Transit SNR 13.03

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.10 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.537 ± 0.263	9.65	1.547 ± 0.265	-2.011 ± 0.262
PRF-fit source offset from KIC position	2.550 ± 0.503	5.07	1.503 ± 0.074	-2.060 ± 0.598
photometric centroid source offset	0.17 ± 0.69	0.24	0.07 ± 0.67	0.15 ± 0.70



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.

Q1 no difference image



Q1 no OOT image



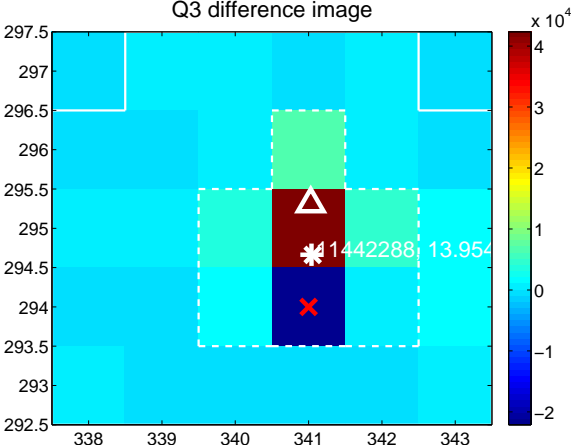
Q2 no difference image



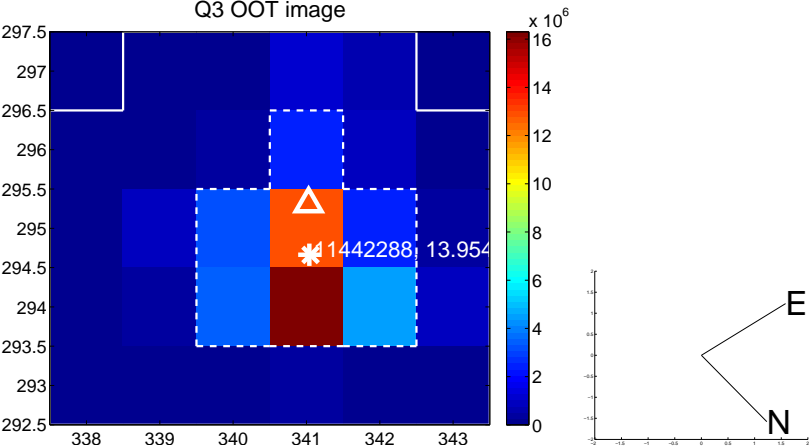
Q2 no OOT image



Q3 difference image



Q3 OOT image



Q4 no difference image



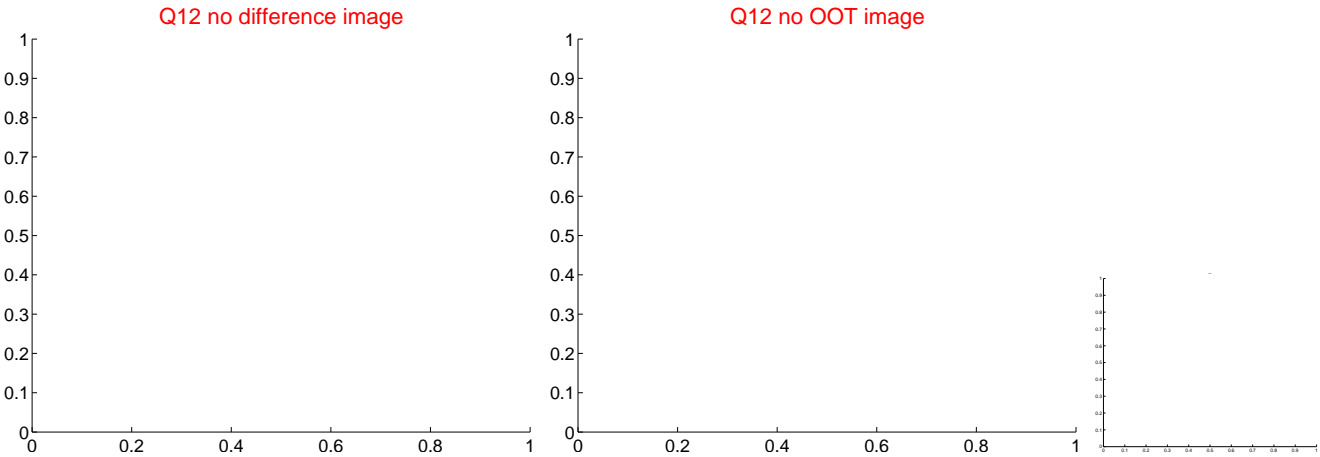
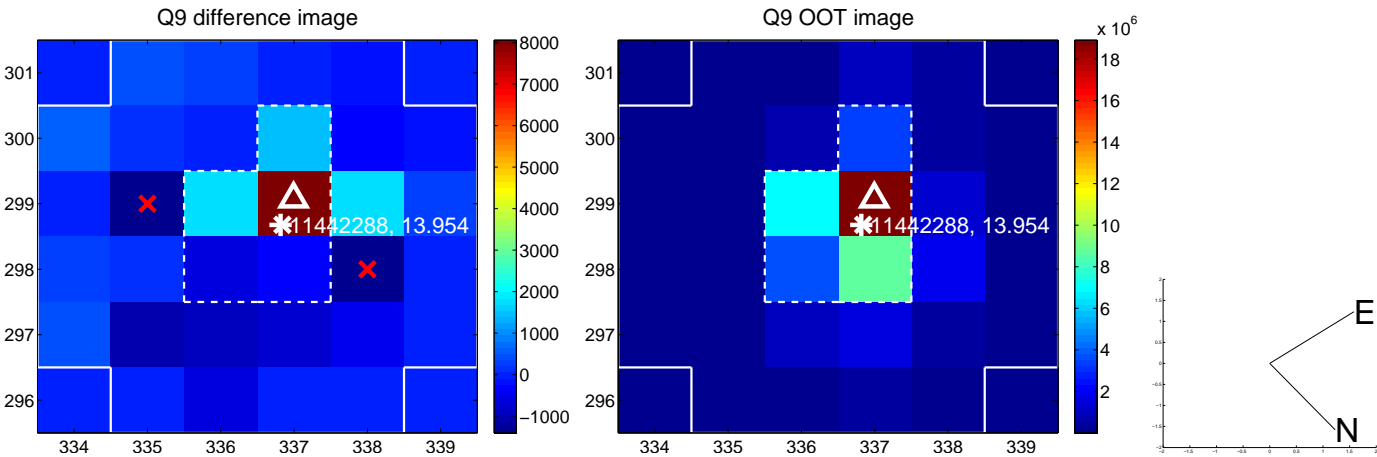
Q4 no OOT image



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



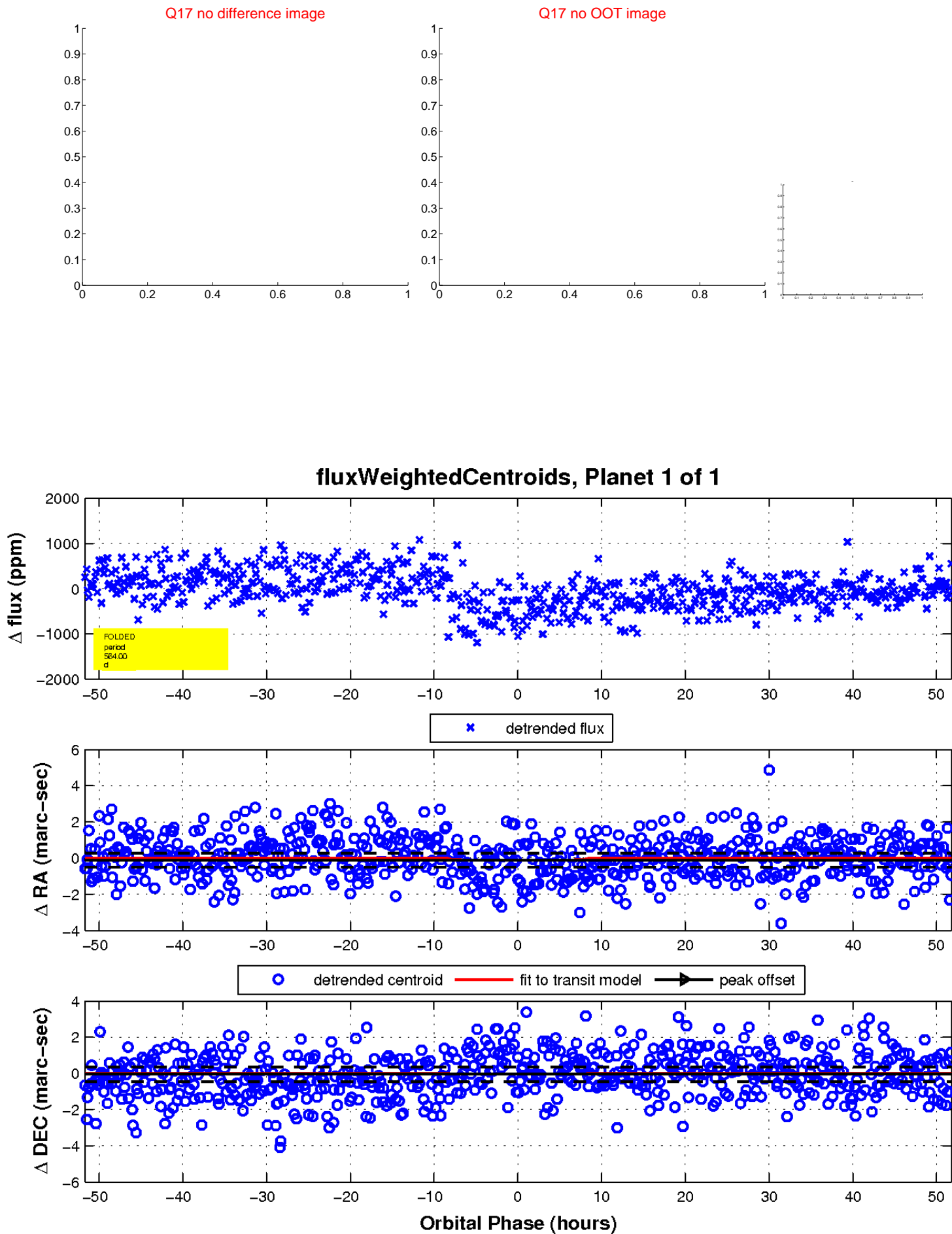
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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.



UKIRT Image

Declination

