

KIC 005717301

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})
005717301-01	OBS	No	279.035806	398.464068	99.1	17.231	10.3	9.8	2.75	8808	2.98	37.98

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005717301-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_SATURATED

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

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

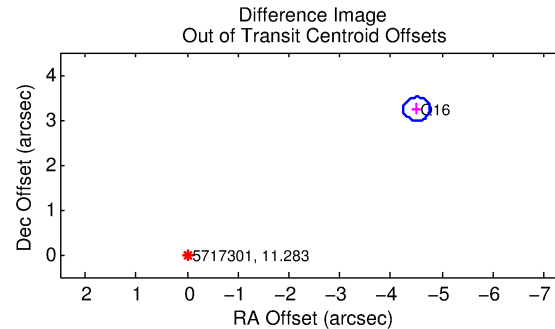
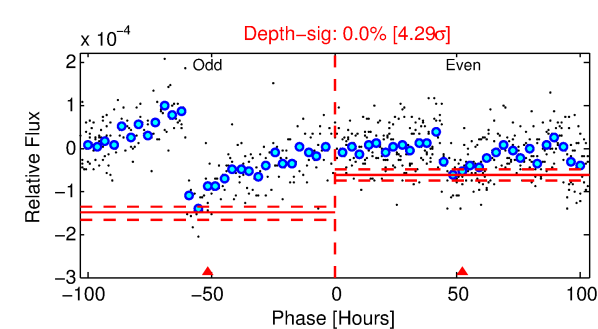
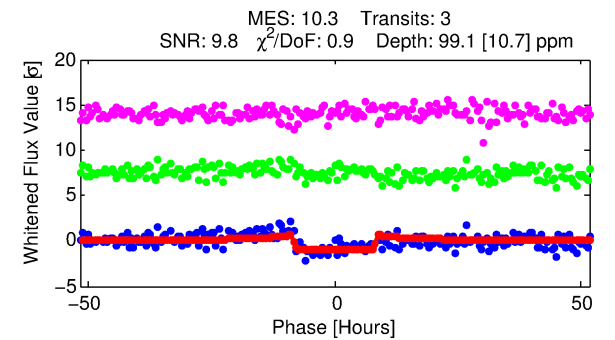
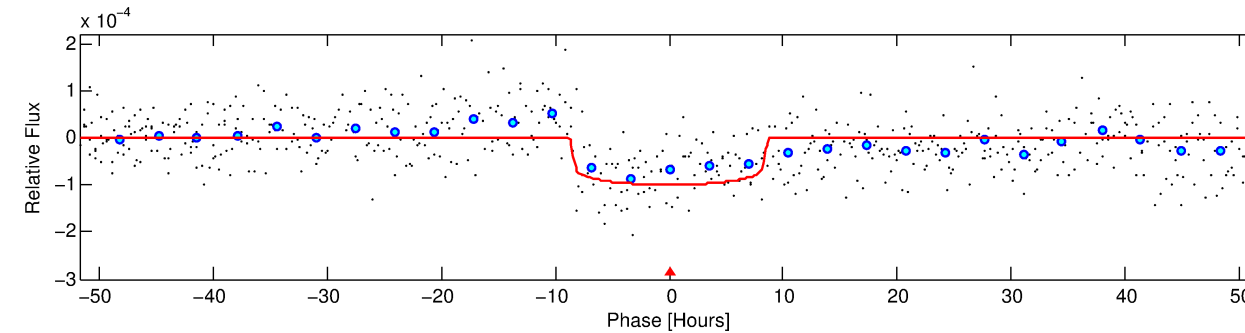
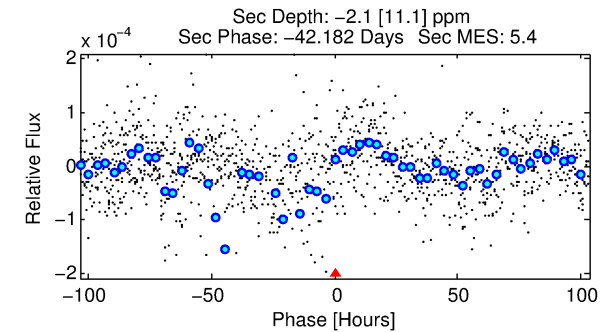
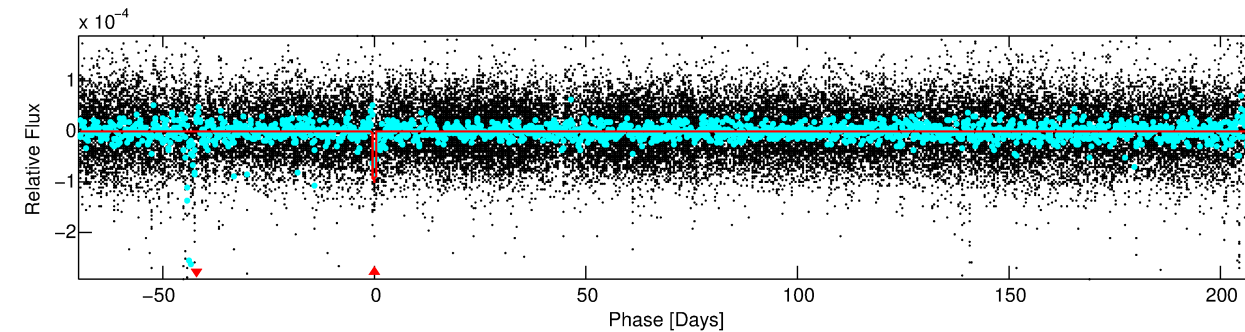
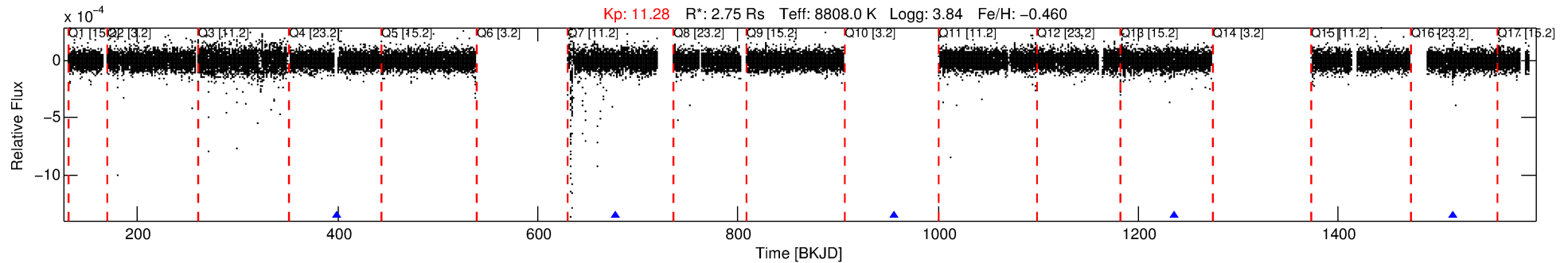
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005717301-01

No Significant Match Found

DV One-Page Summary

KIC: 5717301 Candidate: 1 of 1 Period: 279.036 d



DV Fit Results:

Period = 279.03581 [0.00533] d
Epoch = 398.4641 [0.0146] BKJD
Rp/R* = 0.0099 [0.0014]
a/R* = 83.75 [65.64]
b = 0.75 [0.46]
Seff = 37.98 [15.42]
Teq = 633 [64] K
Rp = 2.98 [0.93] Re
a = 1.0378 [0.2692] AU
Ag = N/A
Teffp = N/A

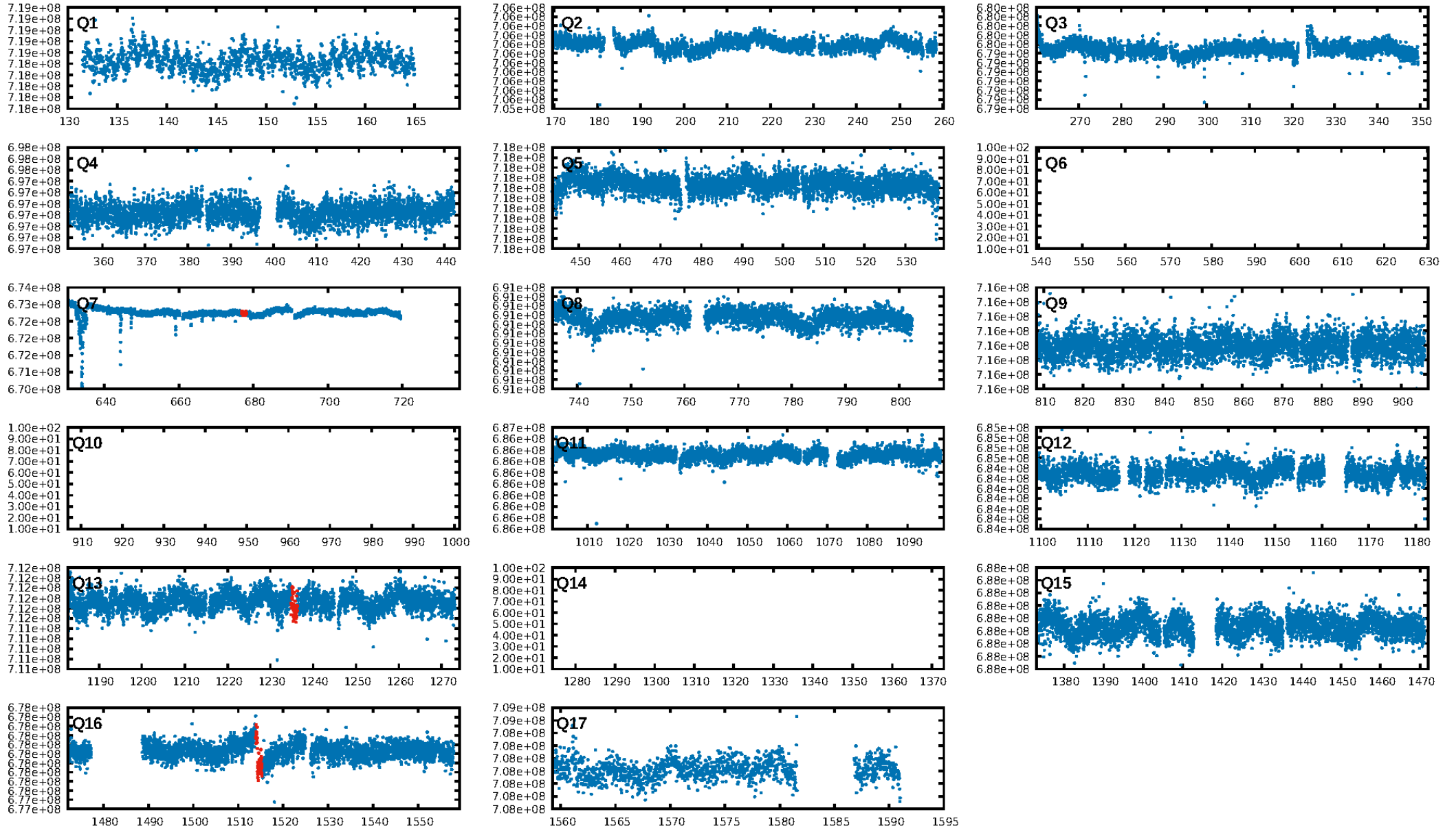
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.07e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.124
Centroid-sig: N/A
Centroid-so: 1.633 arcsec [1.13σ]
OotOffset-rm: 5.551 arcsec [64.13σ]
KicOffset-rm: 5.612 arcsec [64.89σ]
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]

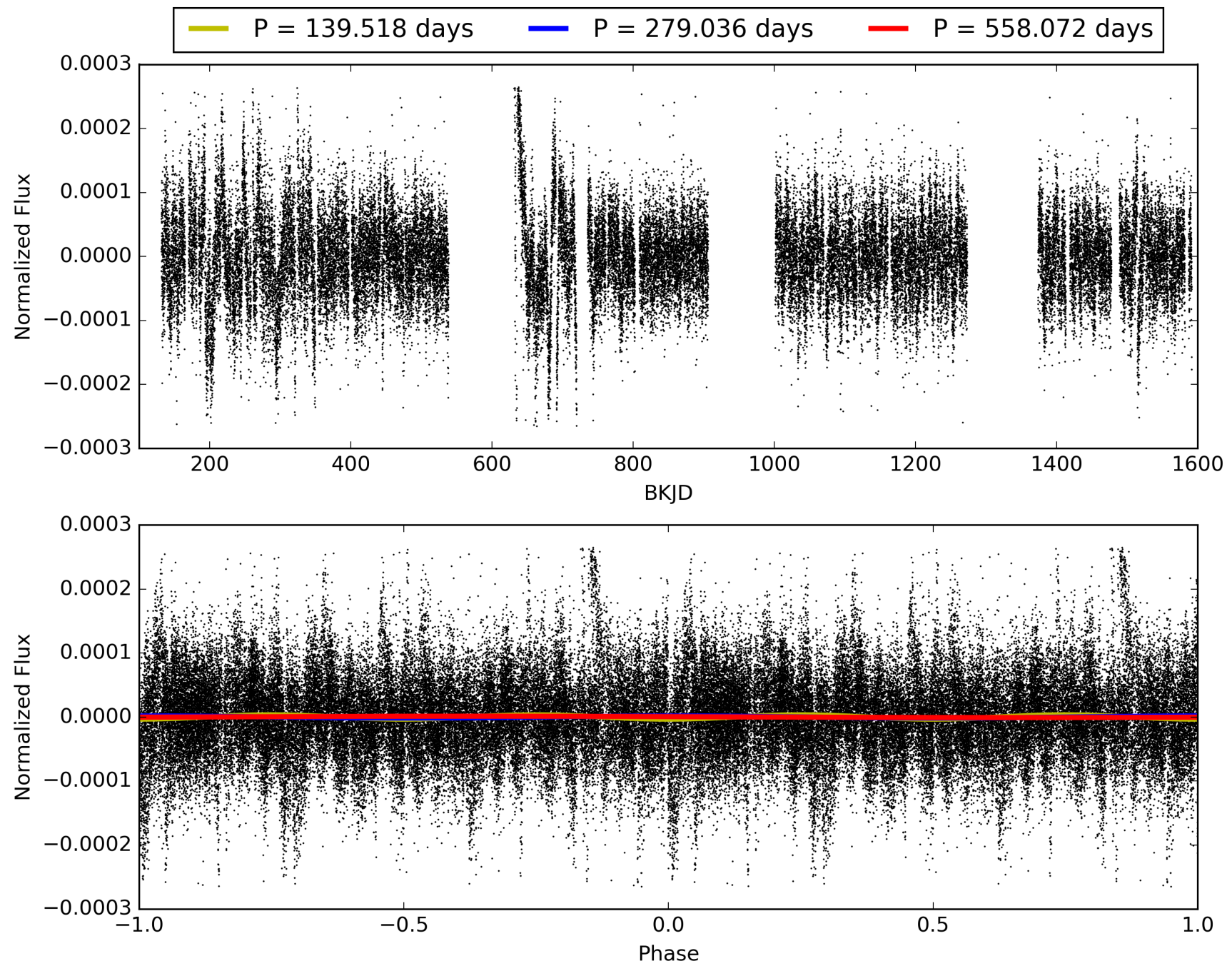
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 10:47:31 Z

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

TCE 005717301-01, PDC Light Curves

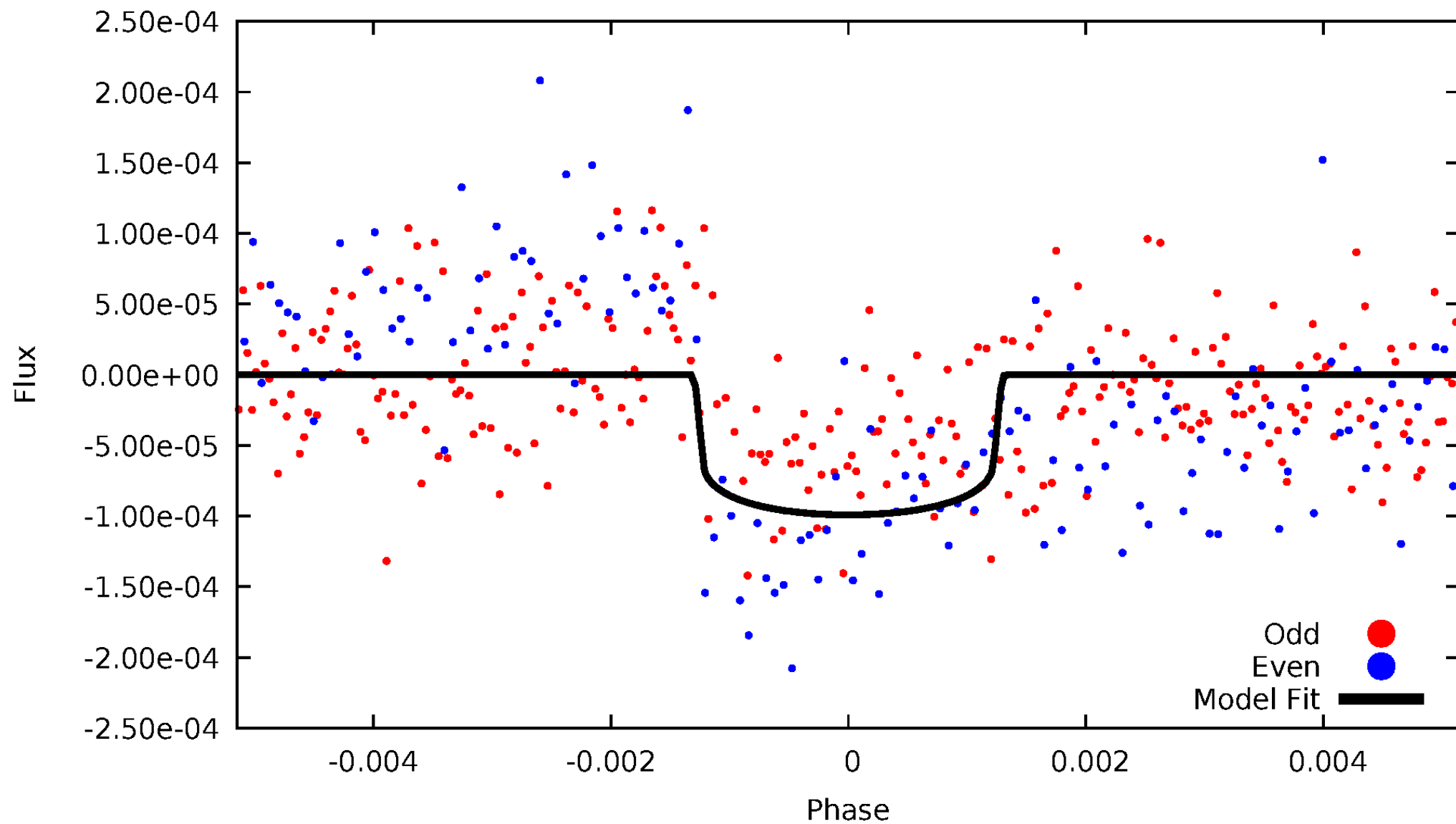


TCE 005717301-01



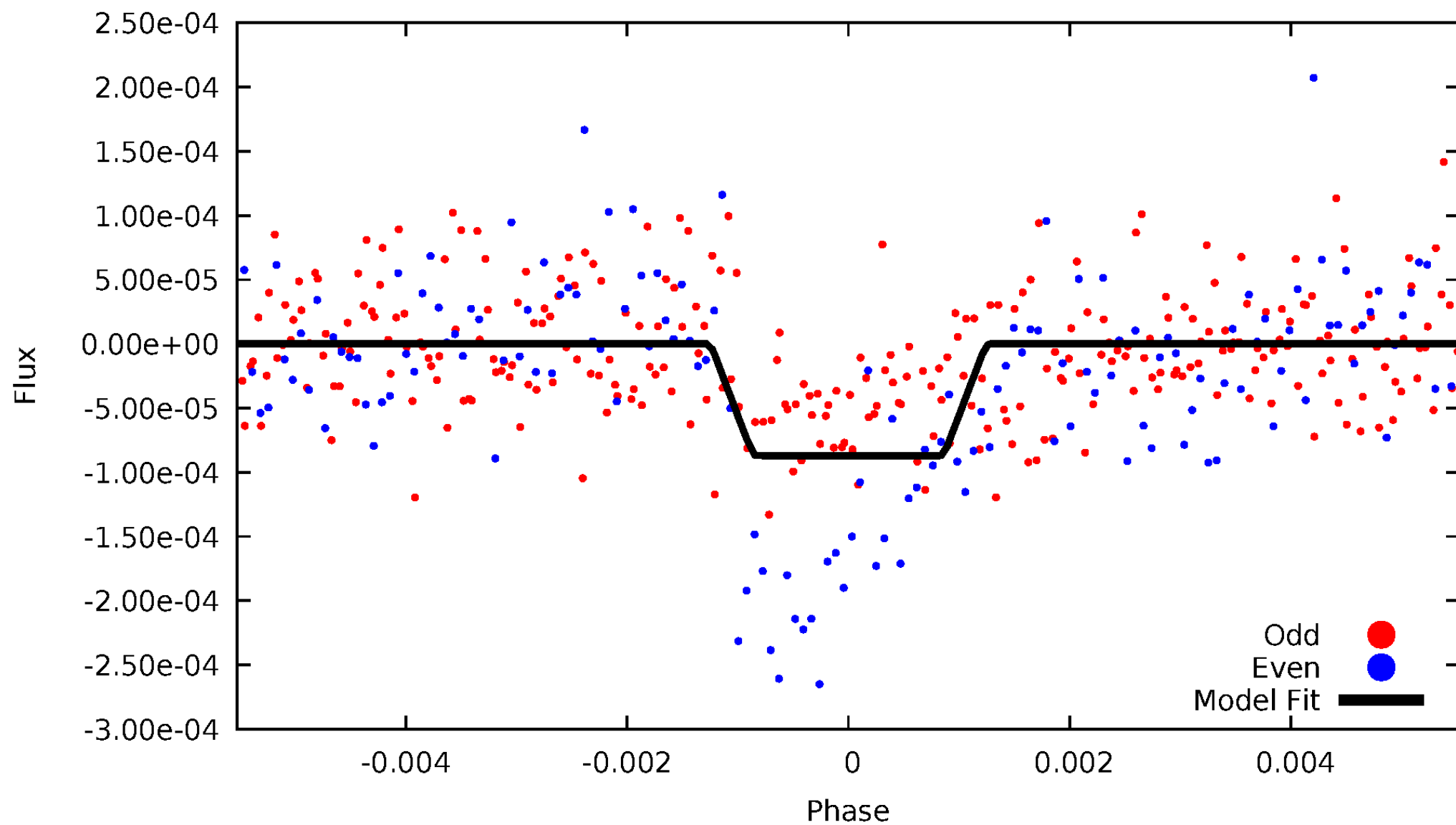
DV Odd/Even

TCE 005717301-01

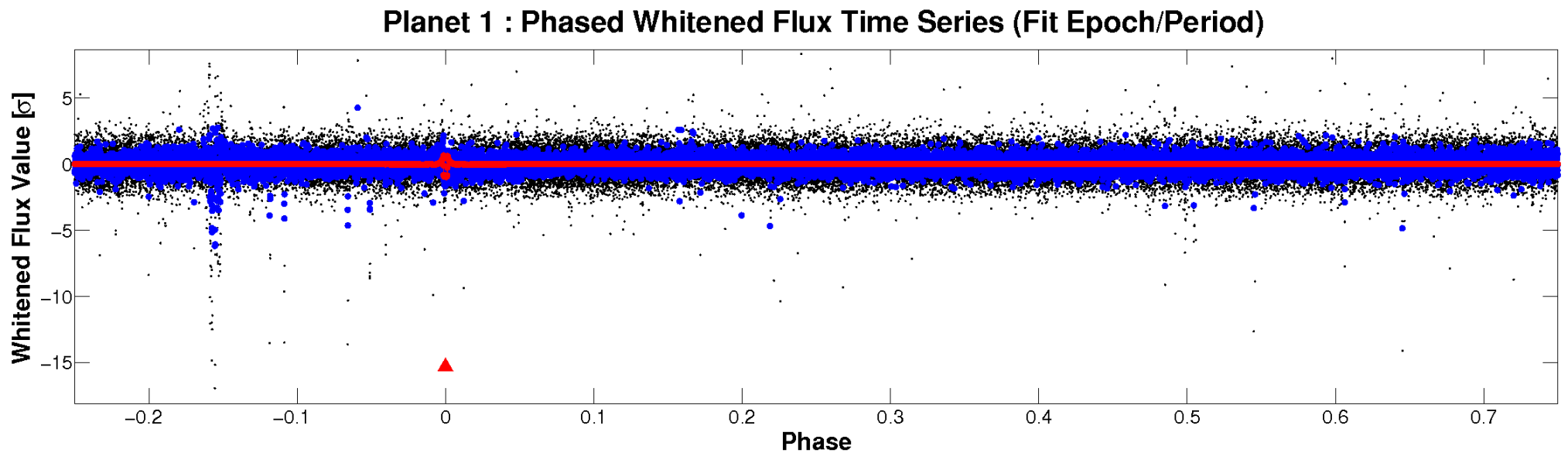
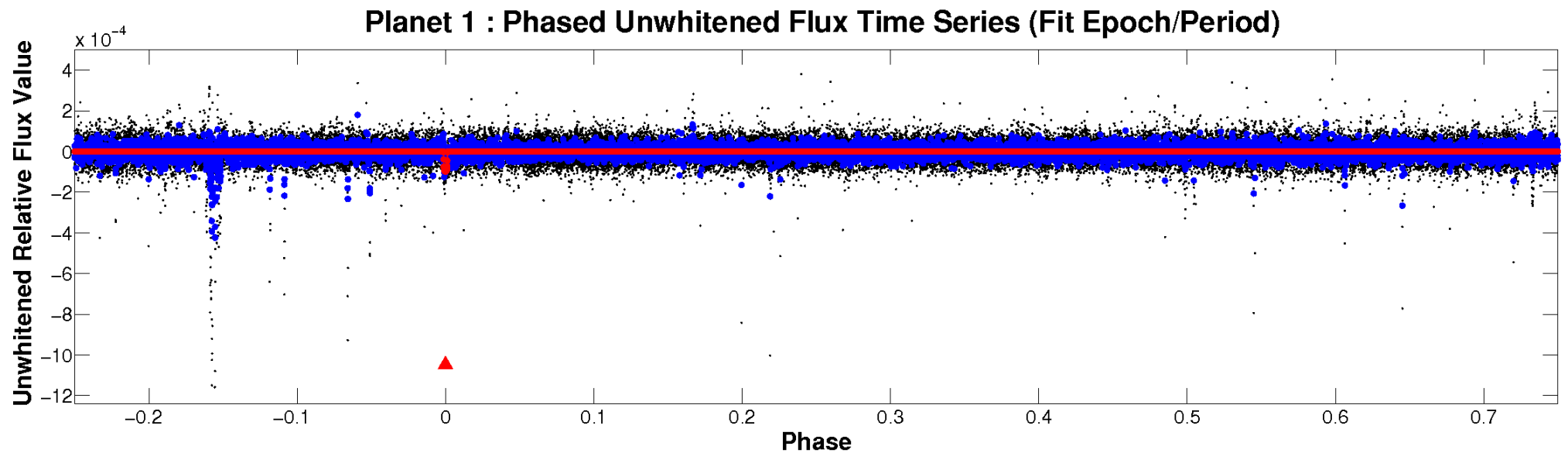


ALT Odd/Even

TCE 005717301-01

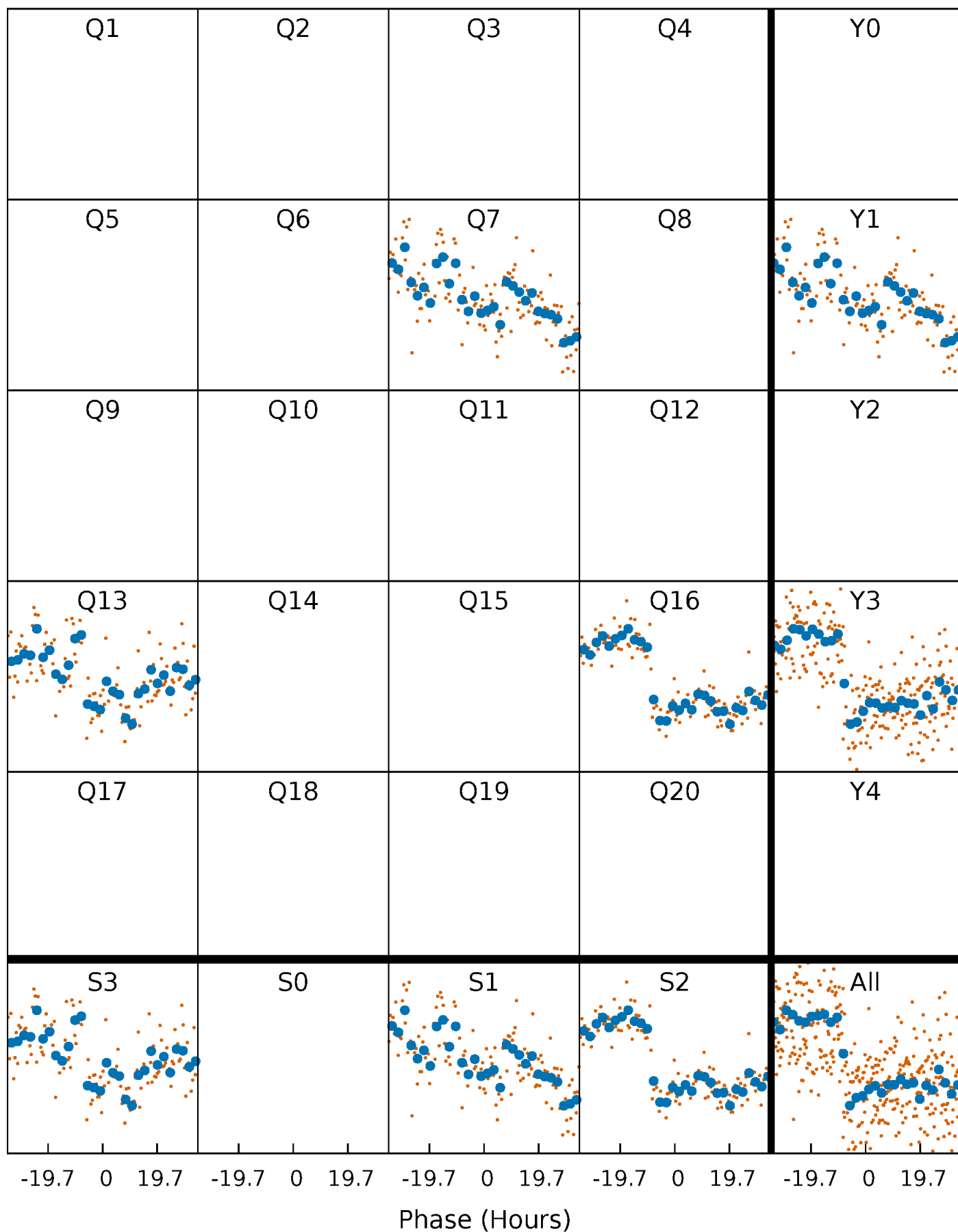


Non-Whitened Vs. Whitened Light Curve



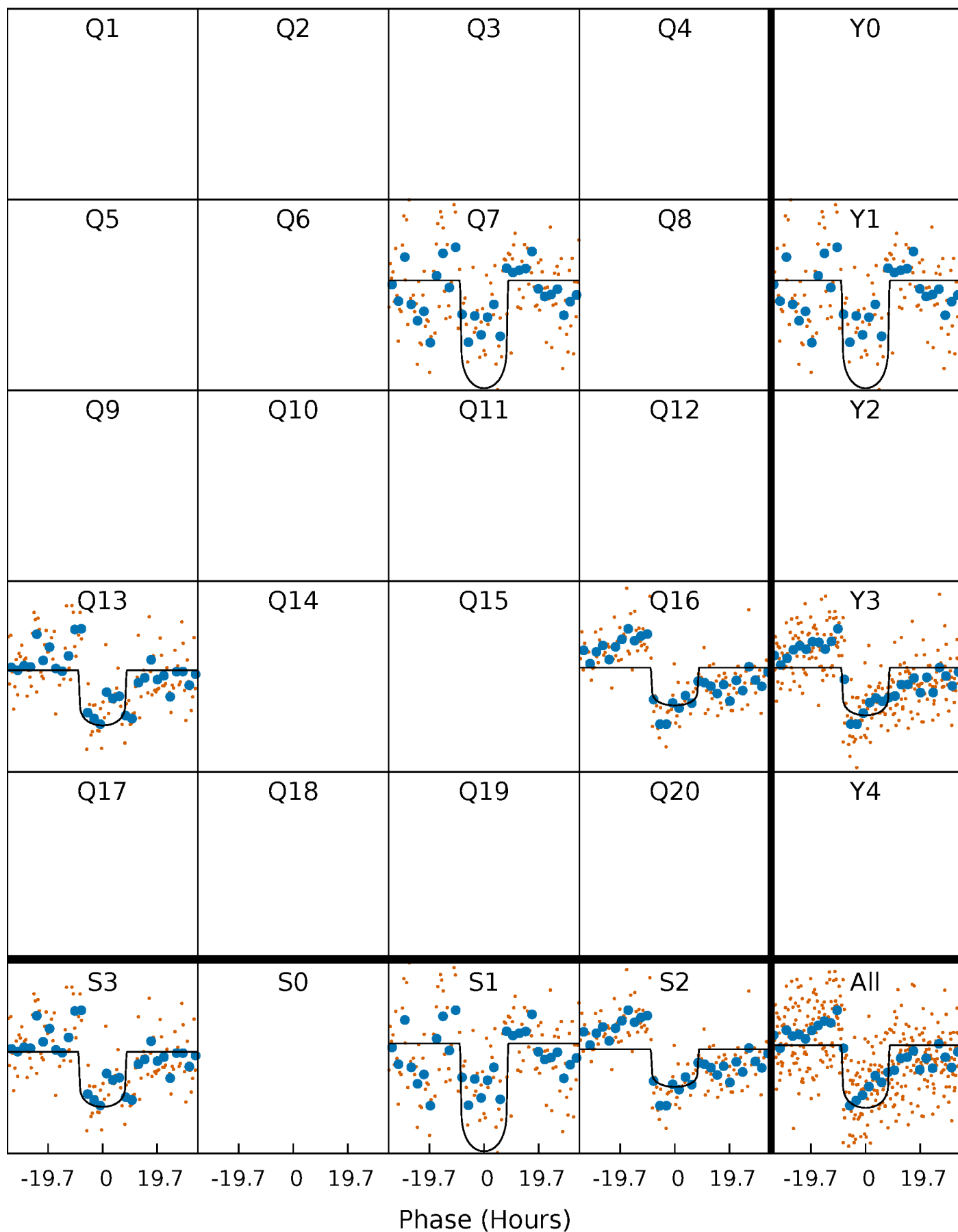
PDC Quarter-Phased Transit Curves

TCE 005717301-01 P=279.035806 Days $T_0=398.464068$ (BKJD)



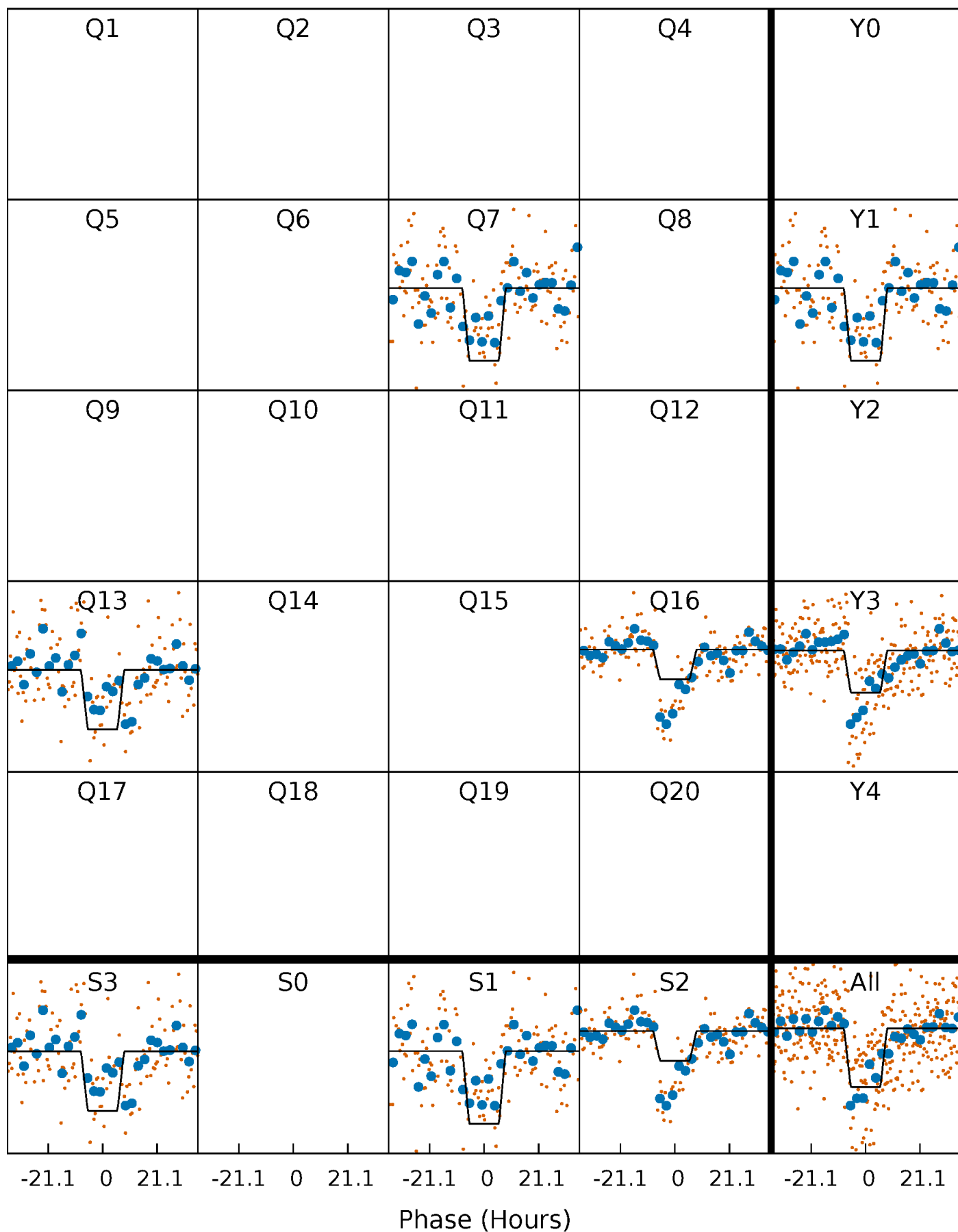
DV Quarter-Phased Transit Curves

TCE 005717301-01 $P=279.035806$ Days $T_0=398.464068$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

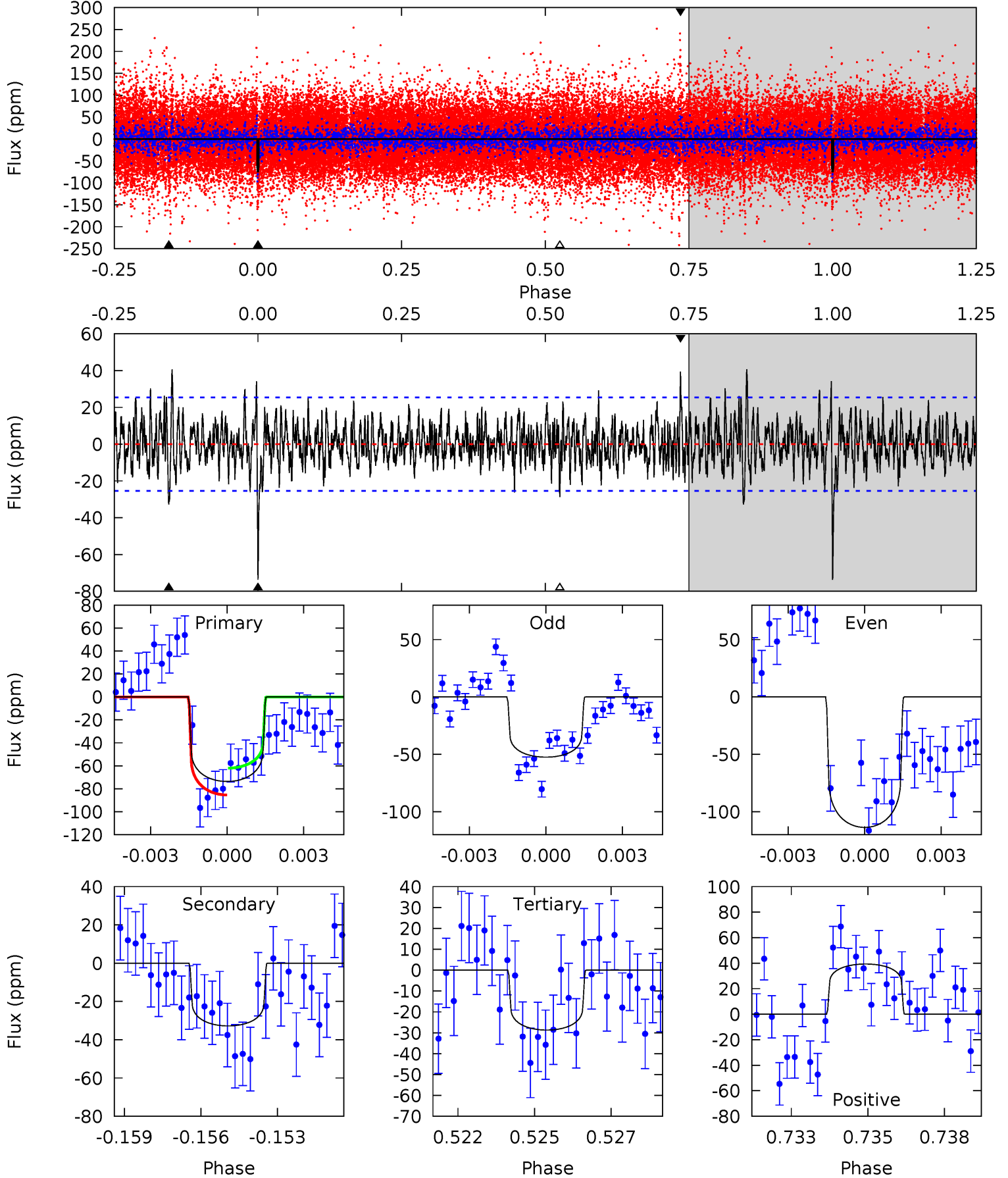
TCE 005717301-01 P=279.013451 Days $T_0=398.494334$ (BKJD)



DV Model-Shift Uniqueness Test

005717301-01, P = 279.035806 Days, E = 119.428262 Days

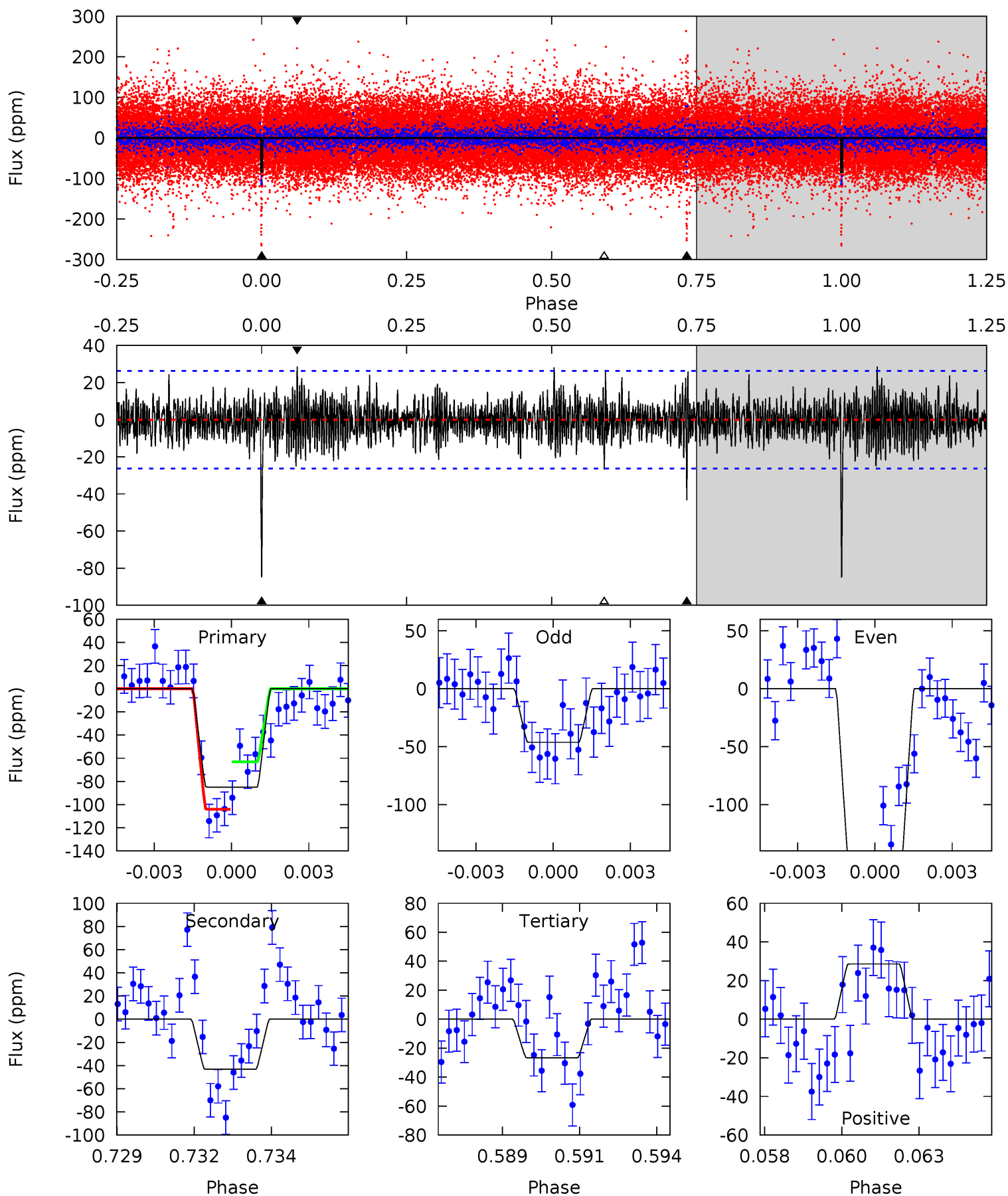
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	6.81	5.97	8.18	5.28	3.01	1.93	9.34	7.12	0.85	-1.37	6.03	1.12	0.36	2.42



Alt Model-Shift Uniqueness Test

005717301-01, P = 279.013451 Days, E = 119.480883 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
17.1	8.68	5.36	5.74	5.29	3.02	1.57	11.7	11.3	3.32	2.94	10.6	1.60	0.25	4.08



Stellar Parameters For KIC 005717301

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	8808^{+70}_{-87}	$3.840^{+0.233}_{-0.062}$	$-0.460^{+0.050}_{-0.150}$	$2.754^{+0.333}_{-0.776}$	$1.912^{+0.158}_{-0.190}$	$0.129^{+0.181}_{-0.033}$
	+1%/-1%	+6%/-2%	+11%/-33%	+12%/-28%	+8%/-10%	+140%/-26%
Source	SPE68	SPE68	SPE68	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 005717301-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-33 ± 5	$2.86^{+0.47}_{-0.49}$	873^{+31}_{-60}	6362^{+573}_{-482}	2382^{+1123}_{-699}
Alt.	-43 ± 5	$2.60^{+0.56}_{-0.47}$	870^{+34}_{-62}	7181^{+702}_{-563}	3838^{+1912}_{-1266}

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

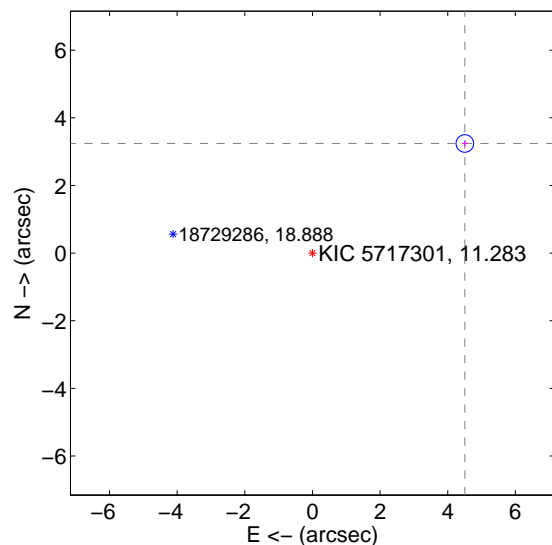
Supplemental centroid analysis for 005717301-01. **Kepler magnitude: 11.28.** Transit SNR 9.81

There are 1 quarters with good PRF difference image offsets

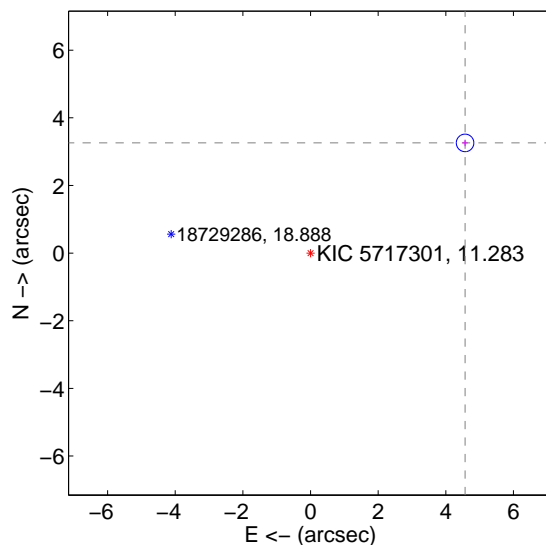
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	5.551 \pm 0.087	64.13	-4.506 \pm 0.080	3.242 \pm 0.097
PRF-fit source offset from KIC position	5.612 \pm 0.086	64.89	-4.570 \pm 0.080	3.258 \pm 0.097
photometric centroid source offset	1.63 \pm 1.44	1.13	-1.20 \pm 1.38	1.10 \pm 1.51

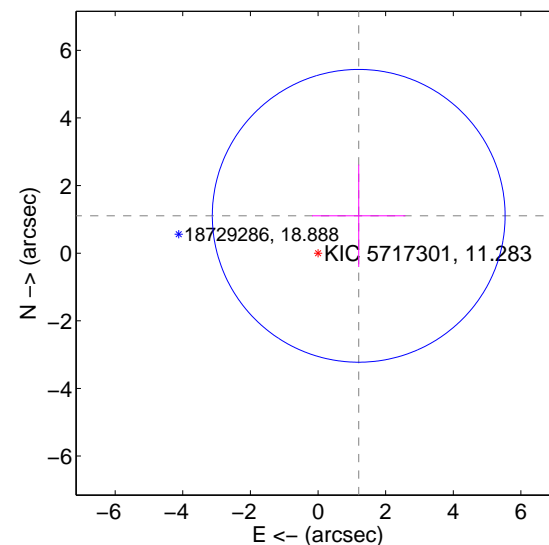
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

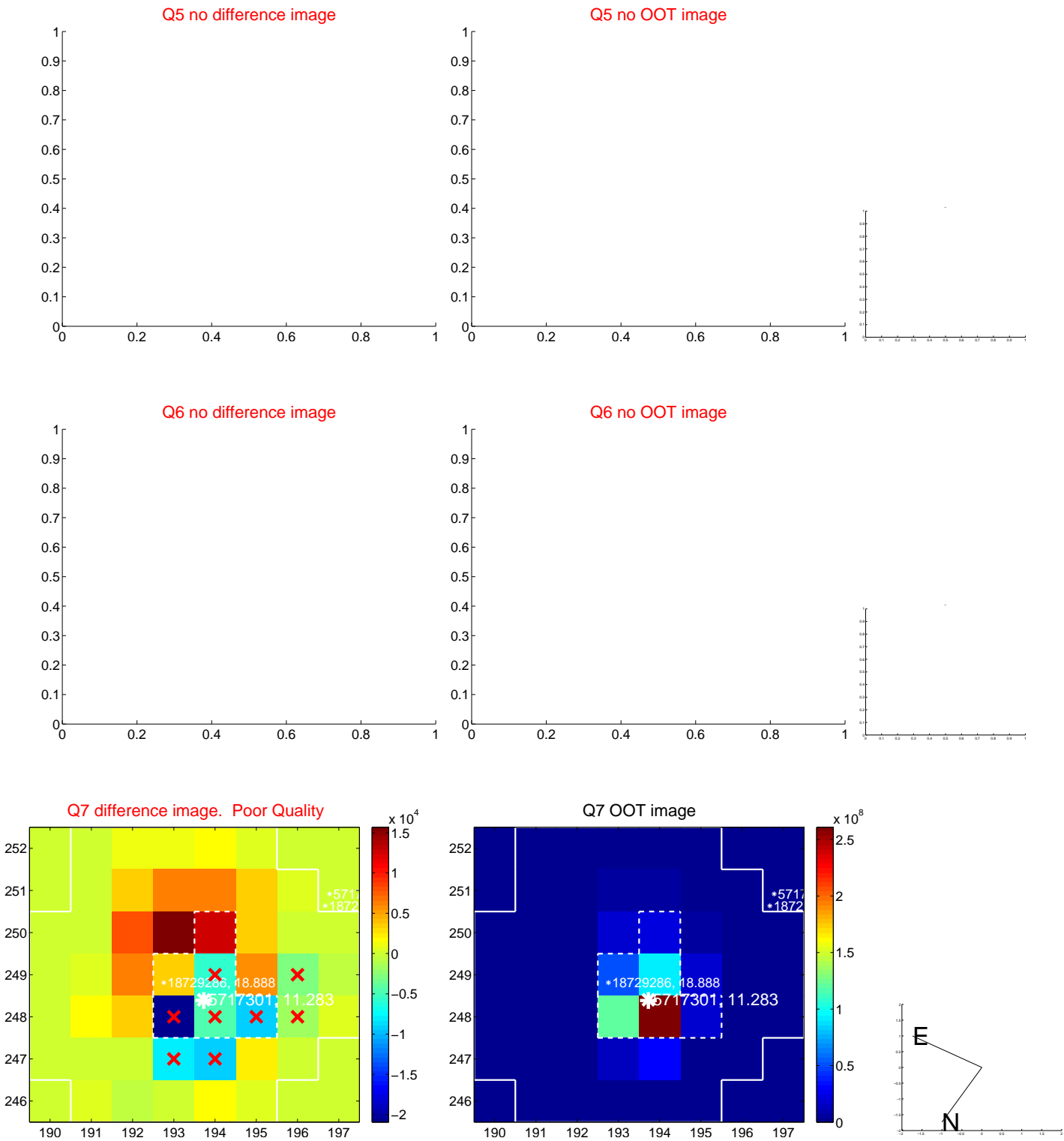


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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



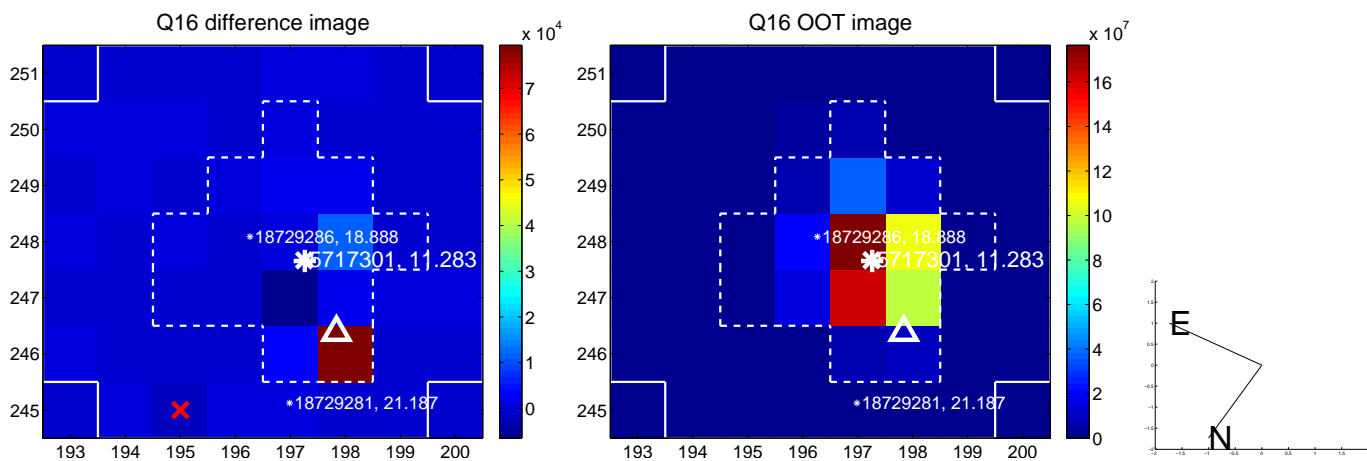
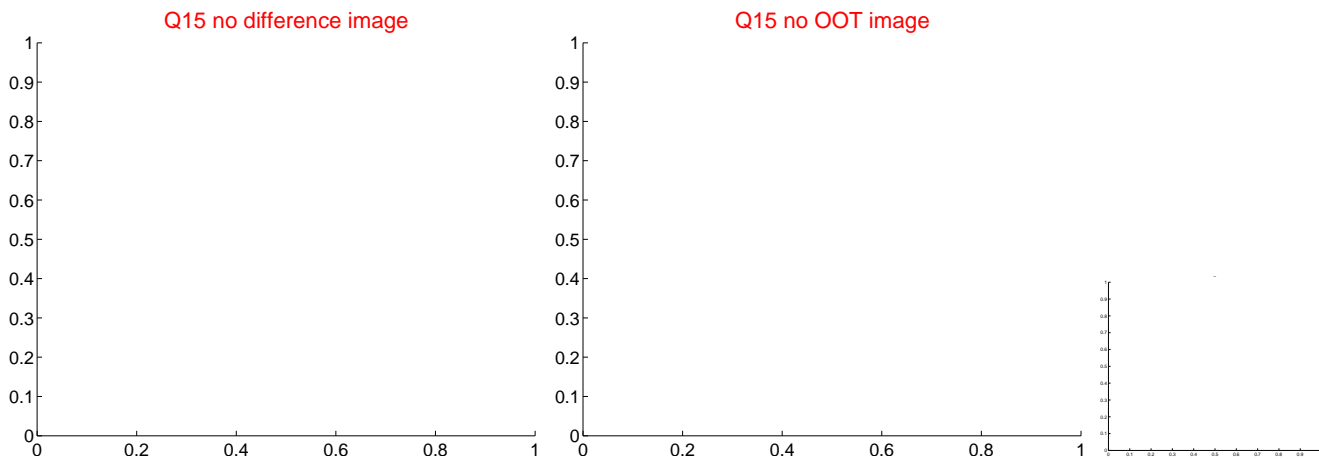
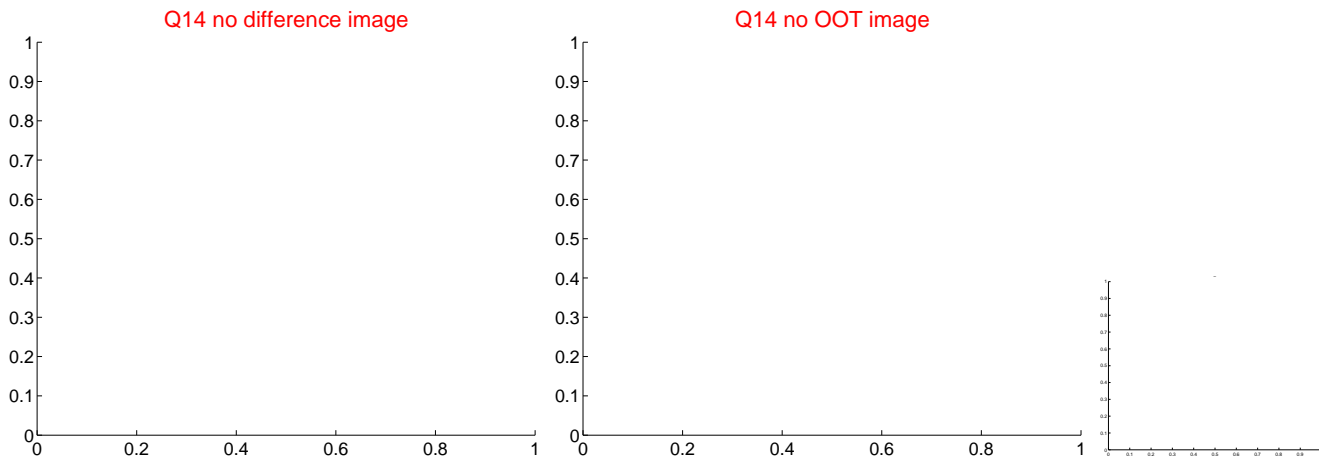
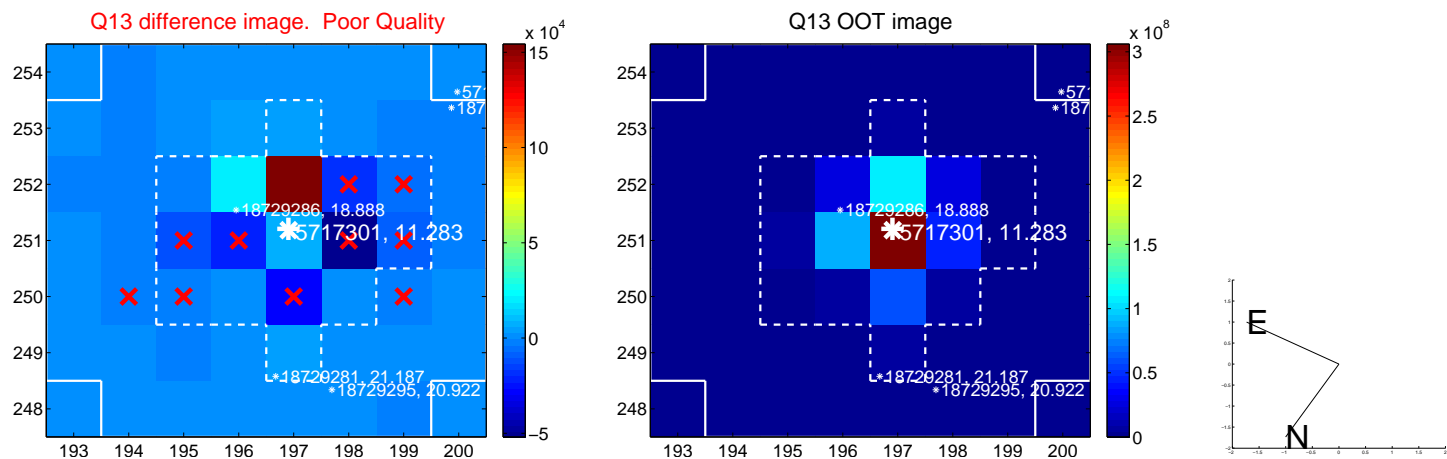
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



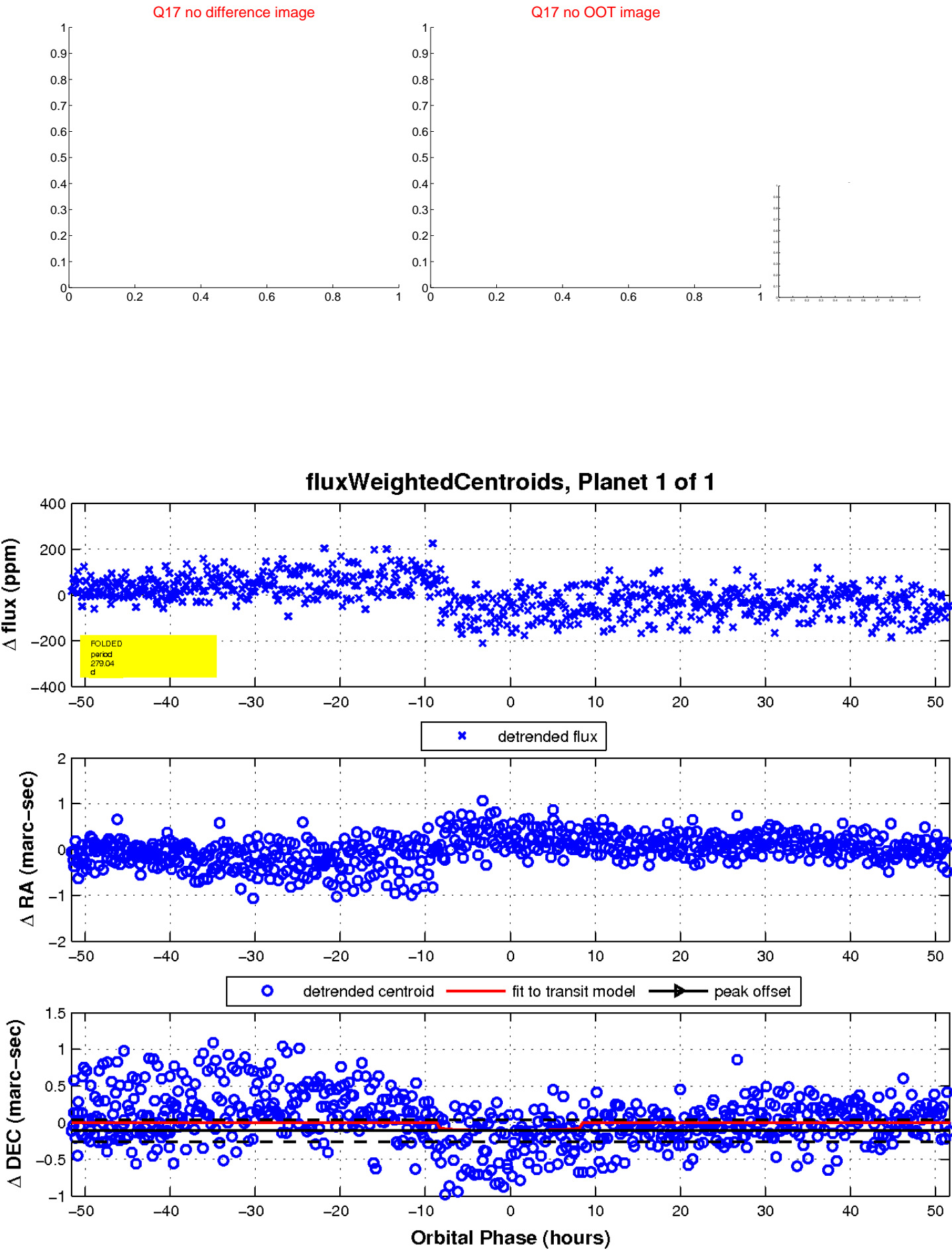
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UKIRT Image

Declination

