

KIC 008805179

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})
008805179-01	OBS	No	528.809507	478.679144	84.4	11.415	8.7	7.1	0.99	6013	1.01	0.69

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008805179-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL—LPP_DV—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.

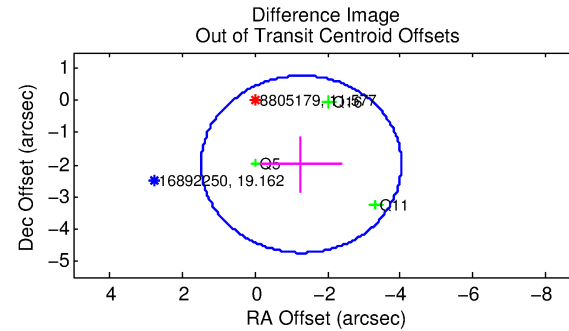
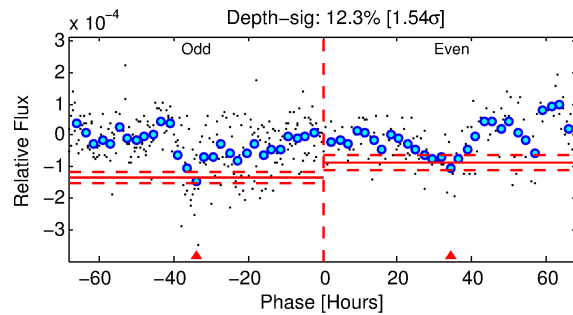
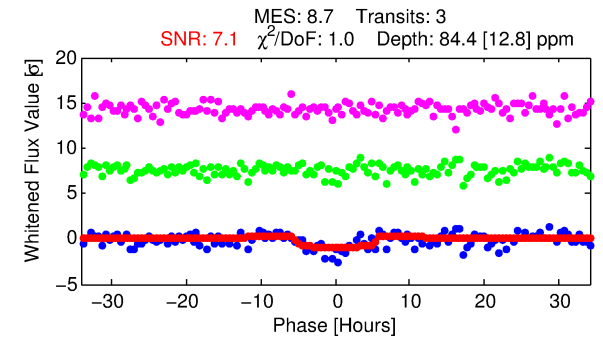
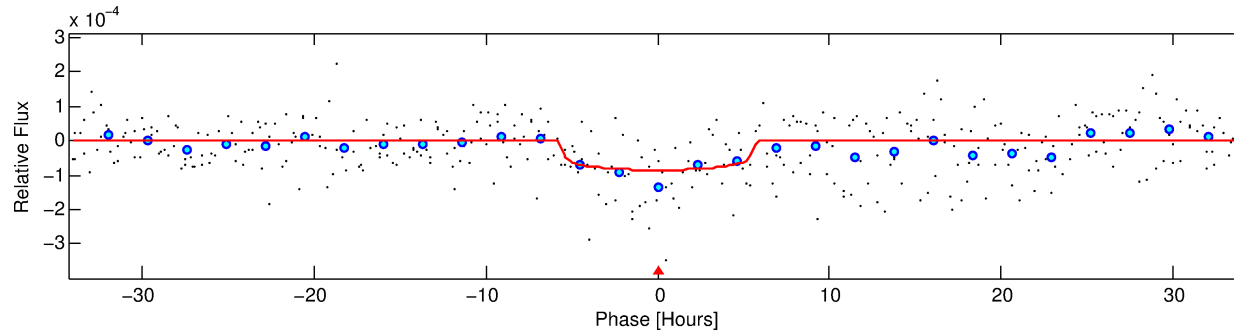
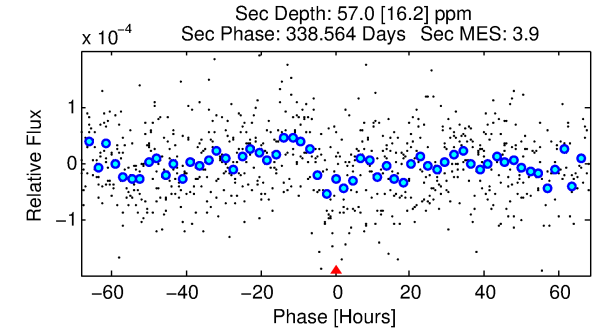
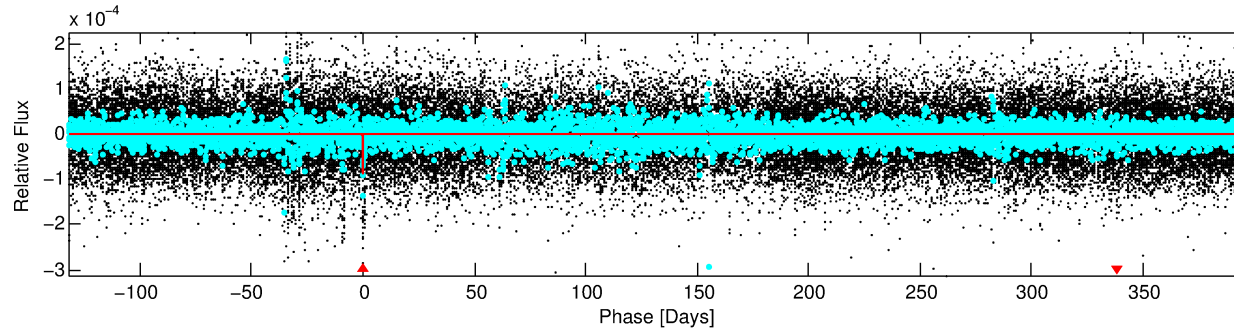
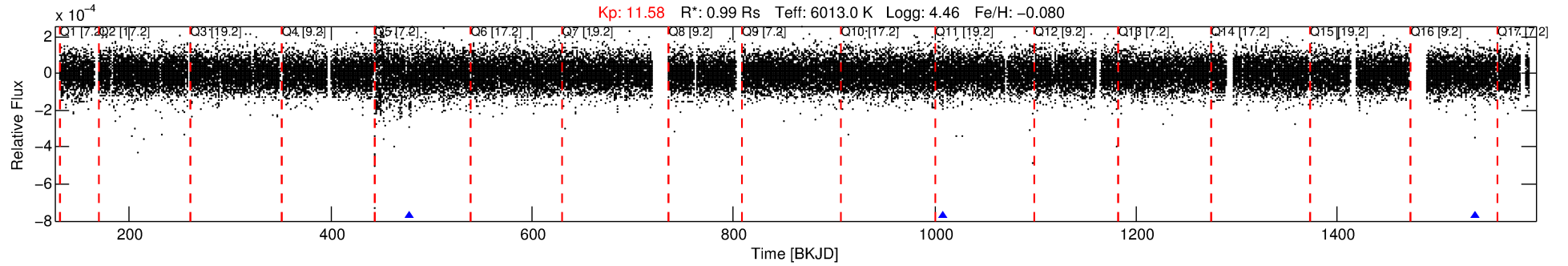
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008805179-01

No Significant Match Found

DV One-Page Summary

KIC: 8805179 Candidate: 1 of 1 Period: 528.810 d



DV Fit Results:

Period = 528.80951 [0.01390] d
Epoch = 478.6791 [0.0190] BKJD
Rp/R* = 0.0094 [0.0048]
a/R* = 212.05 [533.50]
b = 0.81 [1.06]
Seff = 0.69 [0.21]
Teq = 233 [17] K
Rp = 1.01 [0.57] Re
a = 1.2909 [0.2429] AU
Ag = 50759.00 [55898.36] [0.91σ]
Teffp = 5396 [1449] K [3.56σ]

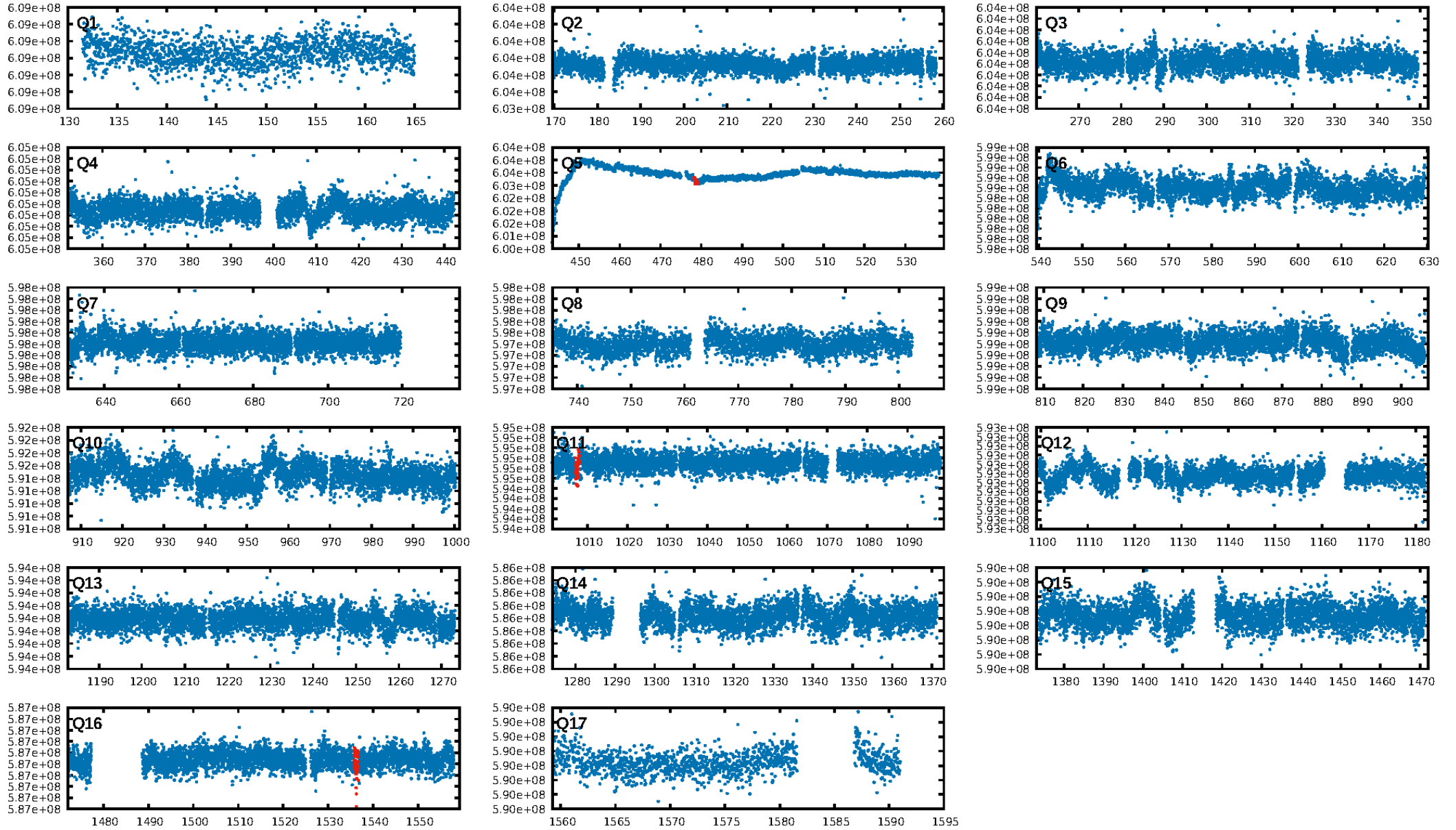
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 20.7%
ModelChiSquareGof-sig: 97.5%
Bootstrap-pfa: 2.51e-11
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: 2.314
Centroid-sig: 1.9%
Centroid-so: 2.754 arcsec [1.68σ]
OotOffset-rm: 2.365 arcsec [2.57σ]
KicOffset-rm: 1.867 arcsec [1.79σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.67 [2/3]
DiffImageOverlap-fno: 1.00 [3/3]

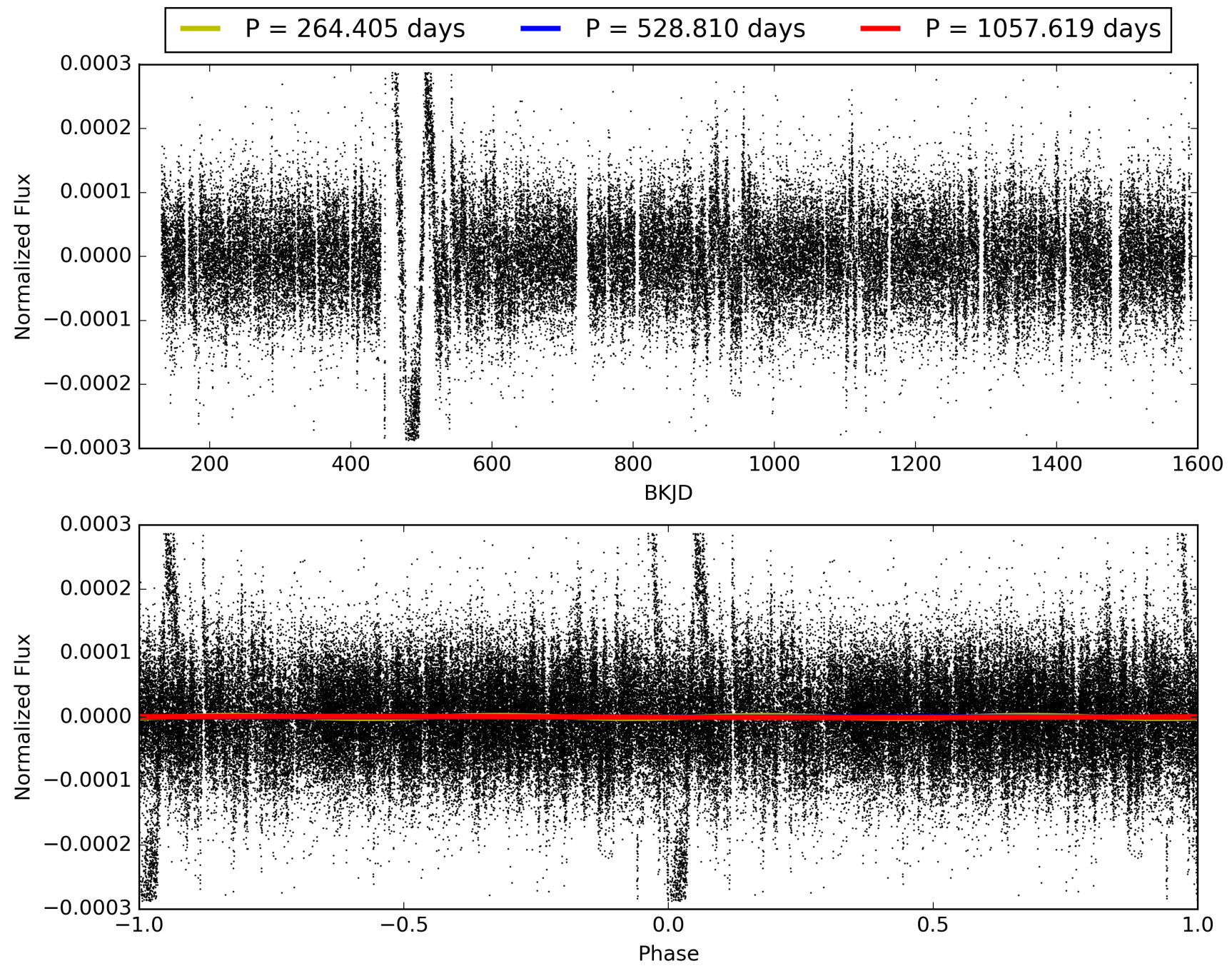
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 22:13:52 Z

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

TCE 008805179-01, PDC Light Curves

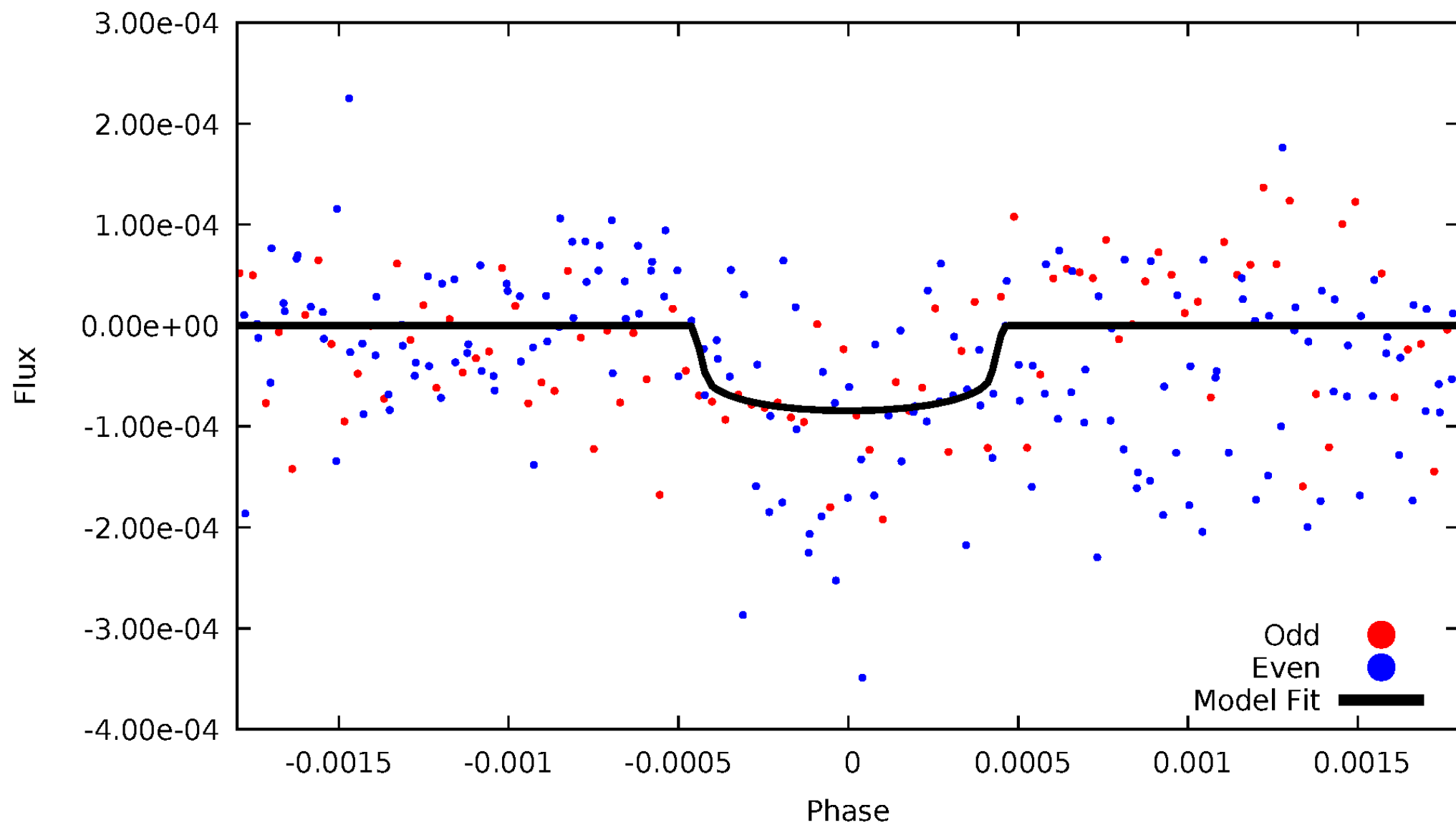


TCE 008805179-01



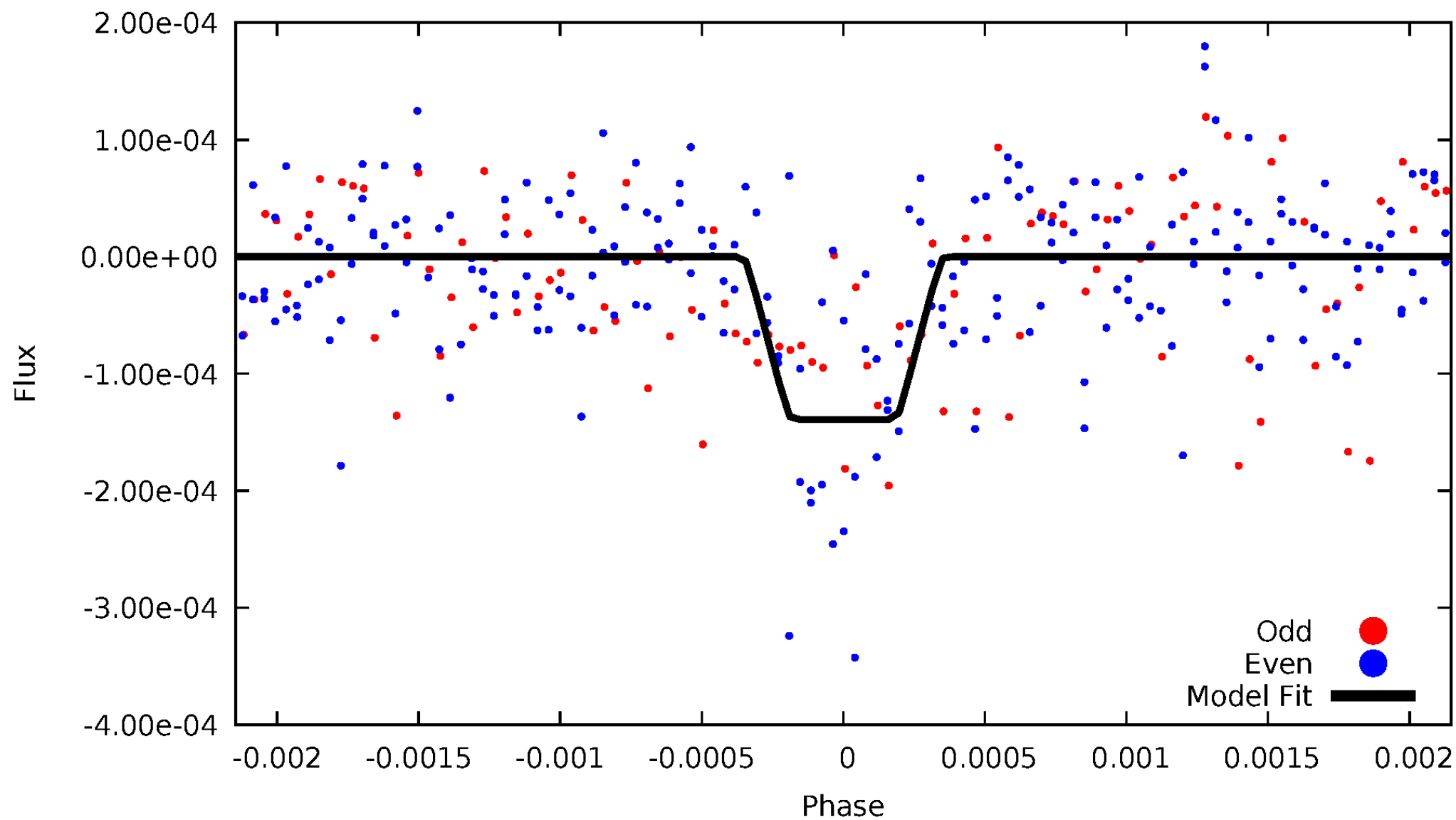
DV Odd/Even

TCE 008805179-01



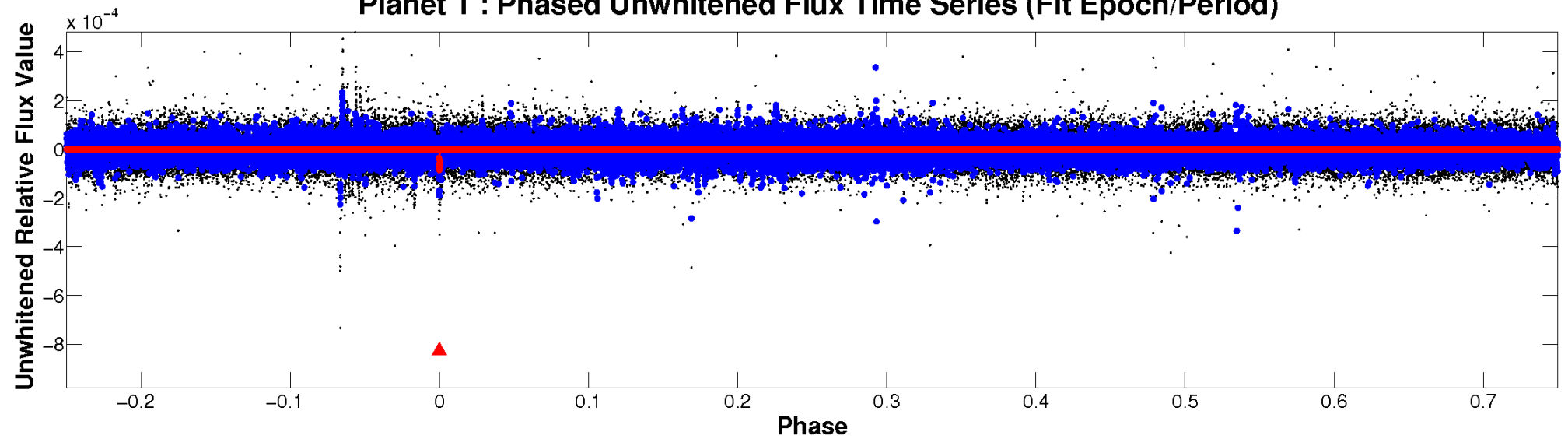
ALT Odd/Even

TCE 008805179-01

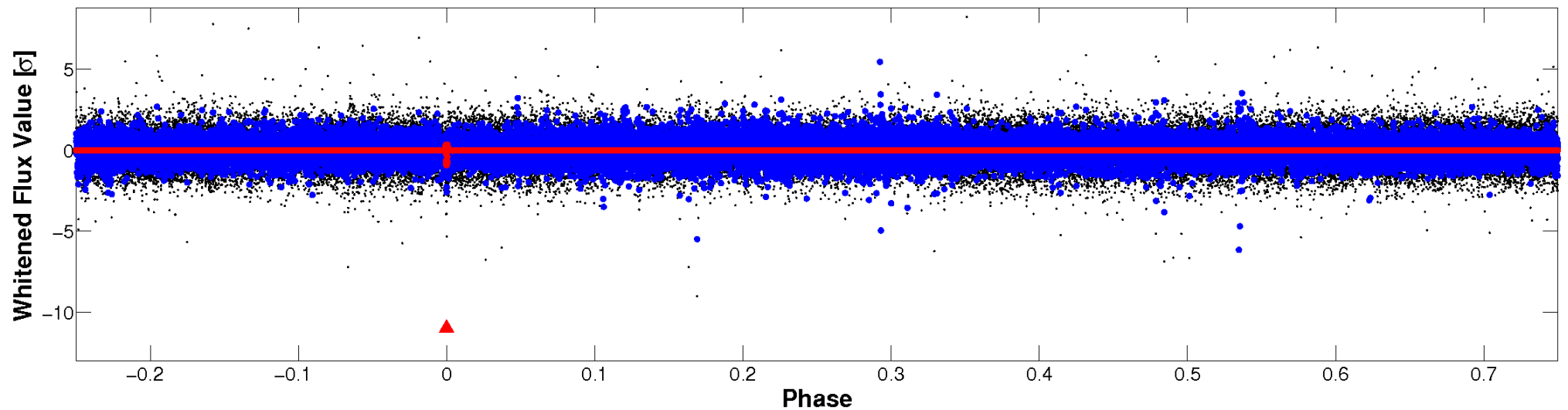


Non-Whitened Vs. Whitened Light Curve

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

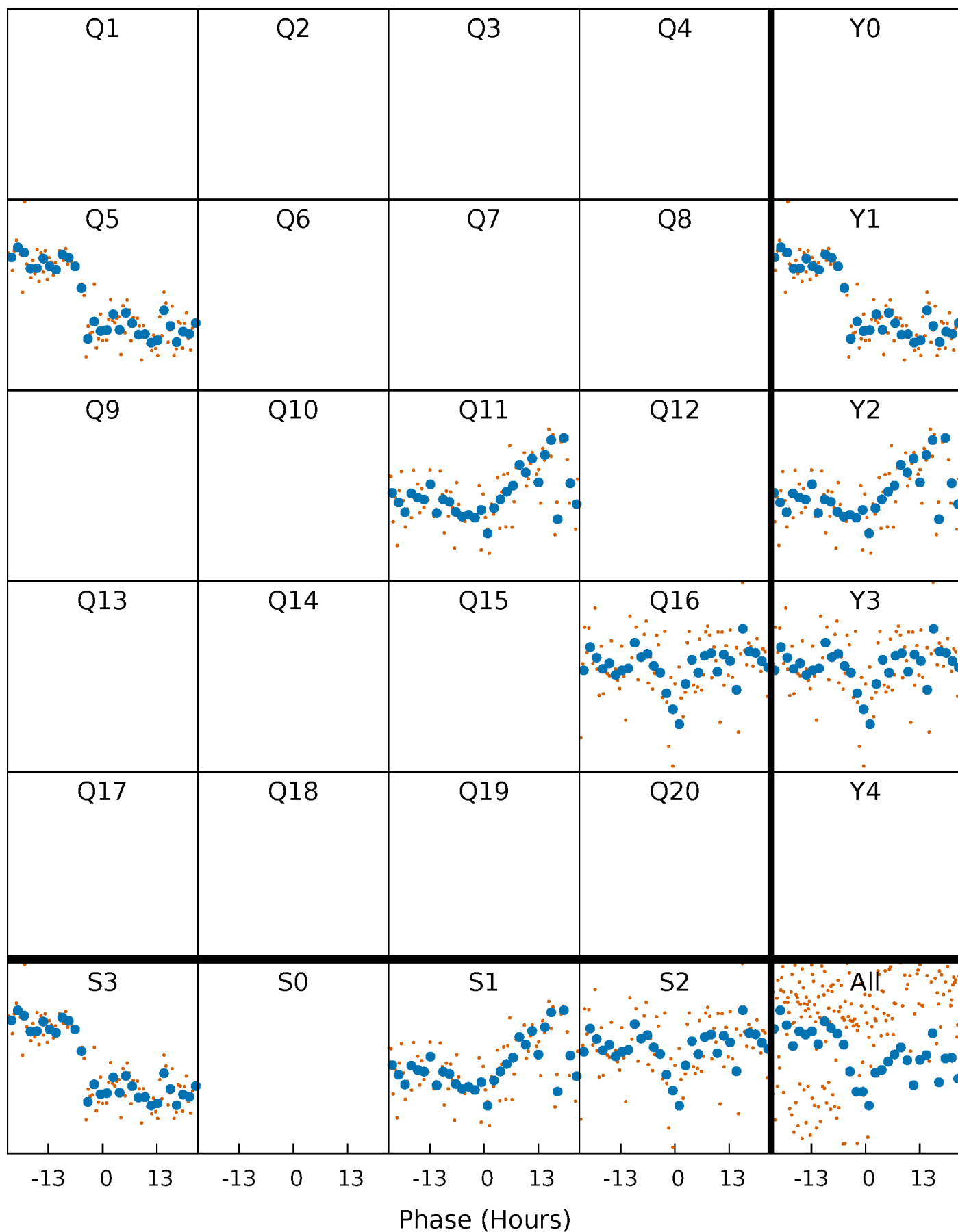


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



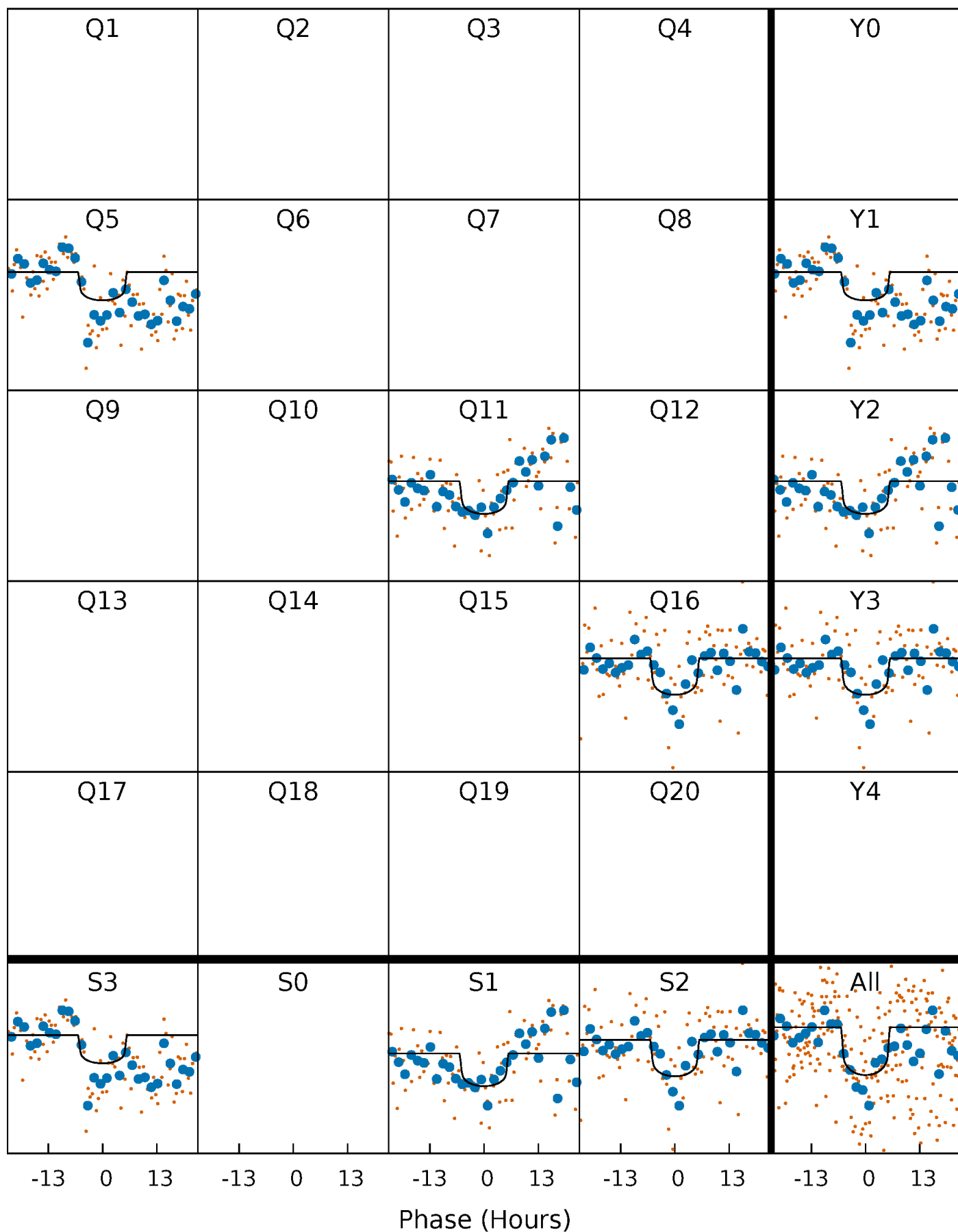
PDC Quarter-Phased Transit Curves

TCE 008805179-01 P=528.809507 Days $T_0=478.679144$ (BKJD)



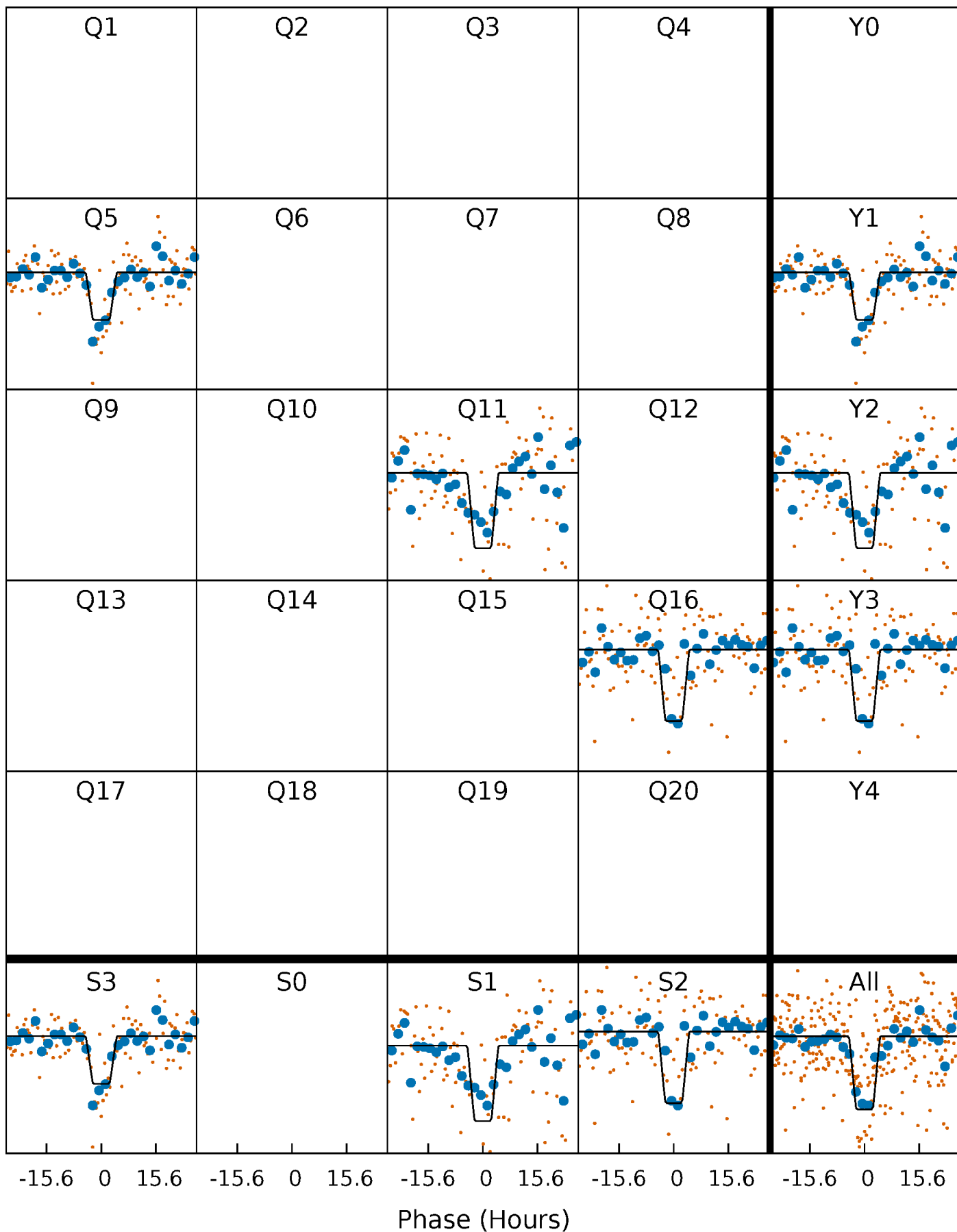
DV Quarter-Phased Transit Curves

TCE 008805179-01 P=528.809507 Days $T_0=478.679144$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

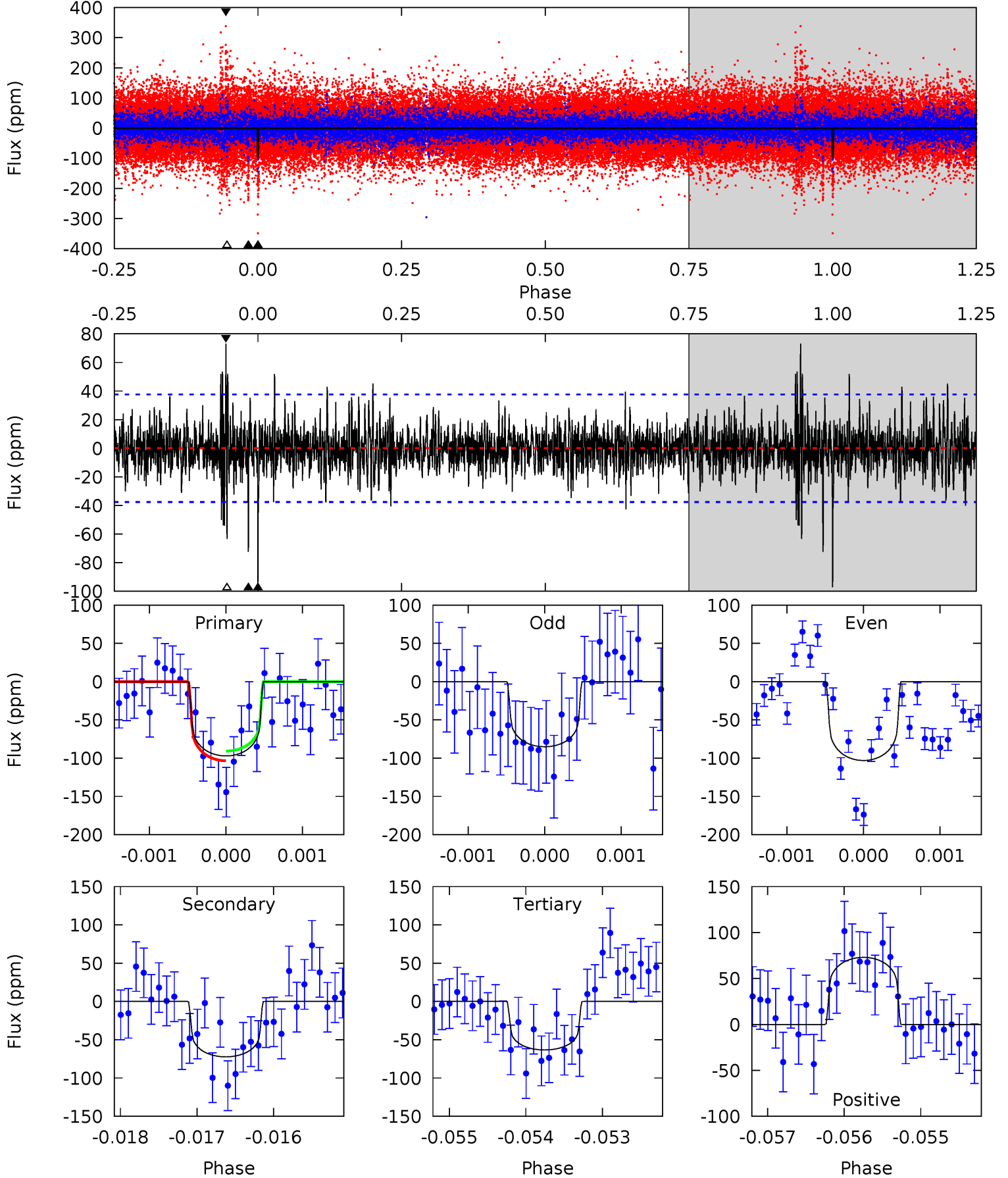
TCE 008805179-01 P=528.840966 Days $T_0=478.616431$ (BKJD)



DV Model-Shift Uniqueness Test

008805179-01, P = 528.809507 Days, E = 478.679144 Days

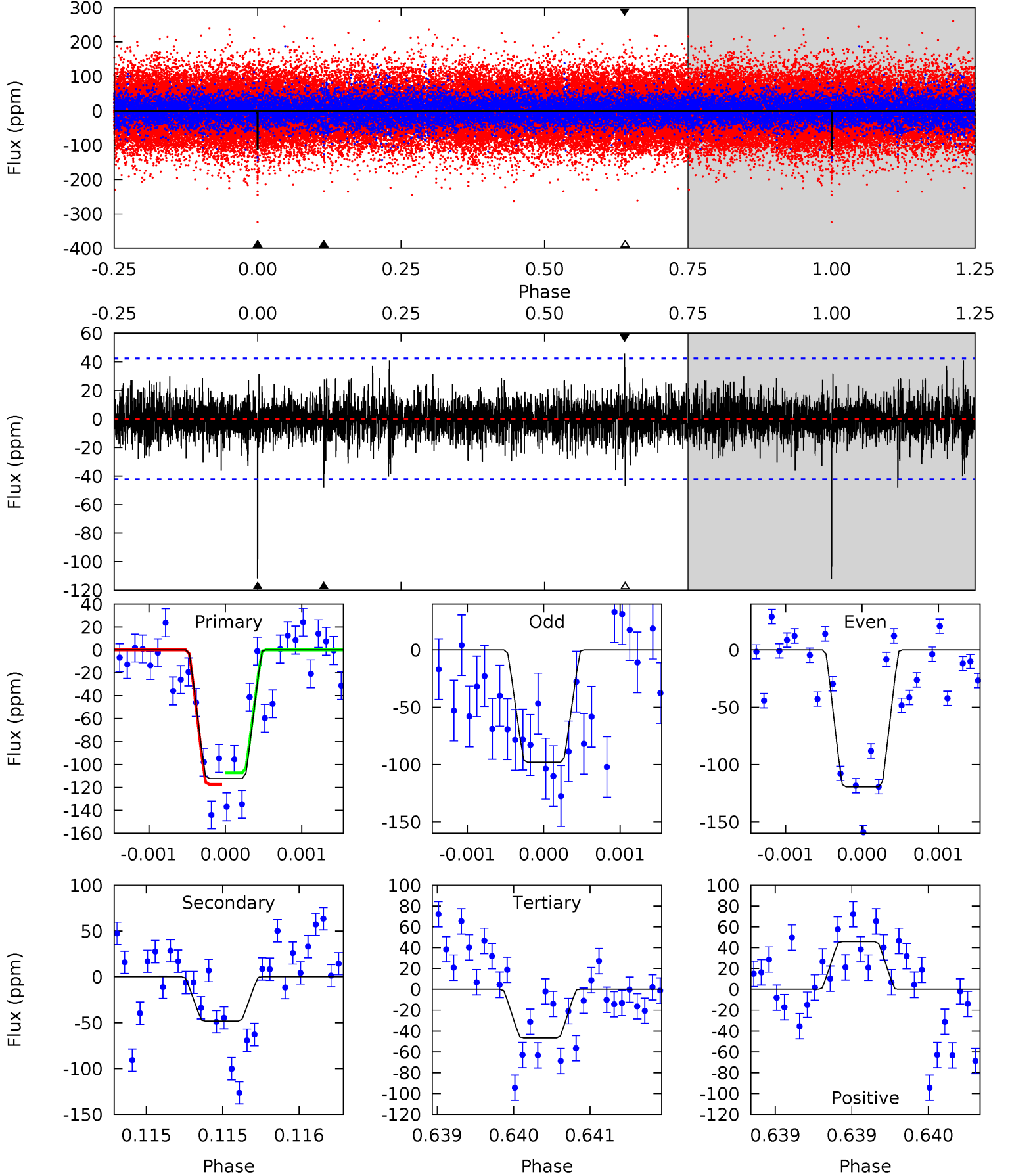
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.1	10.5	9.21	10.6	5.46	3.31	1.71	4.91	3.51	1.30	-0.10	1.23	1.14	0.43	0.92



Alt Model-Shift Uniqueness Test

008805179-01, P = 528.840966 Days, E = 478.616431 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.6	6.28	6.08	5.93	5.51	3.38	1.23	8.53	8.67	0.20	0.35	1.25	1.21	0.29	0.66



Stellar Parameters For KIC 008805179

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6013^{+150}_{-180}	$4.456^{+0.063}_{-0.147}$	$-0.080^{+0.250}_{-0.350}$	$0.992^{+0.224}_{-0.112}$	$1.022^{+0.118}_{-0.130}$	$1.473^{+0.393}_{-0.626}$
	+2%/-3%	+1%/-3%	+312%/-438%	+23%/-11%	+12%/-13%	+27%/-43%
Source	PHO1	FLK73	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 008805179-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-72 ± 7	$1.04^{+0.54}_{-0.49}$	329^{+18}_{-14}	5729^{+2393}_{-978}	$60422^{+149803}_{-34249}$
Alt.	-48 ± 8	$1.29^{+0.59}_{-0.51}$	328^{+19}_{-15}	4749^{+1303}_{-623}	26292^{+49673}_{-13940}

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

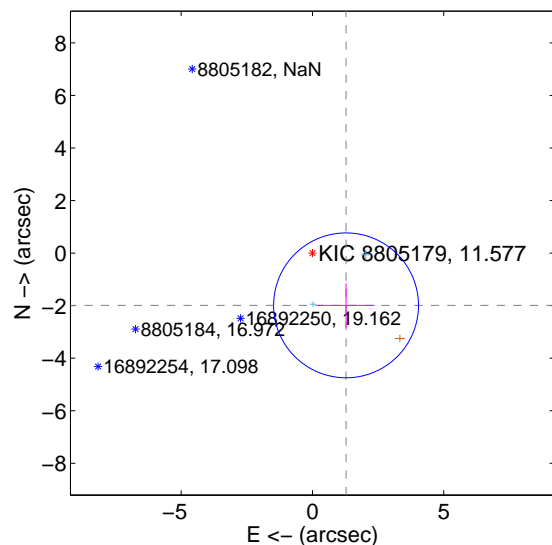
Supplemental centroid analysis for 008805179-01. **Kepler magnitude: 11.58.** Transit SNR 7.07

There are 2 quarters with good PRF difference image offsets

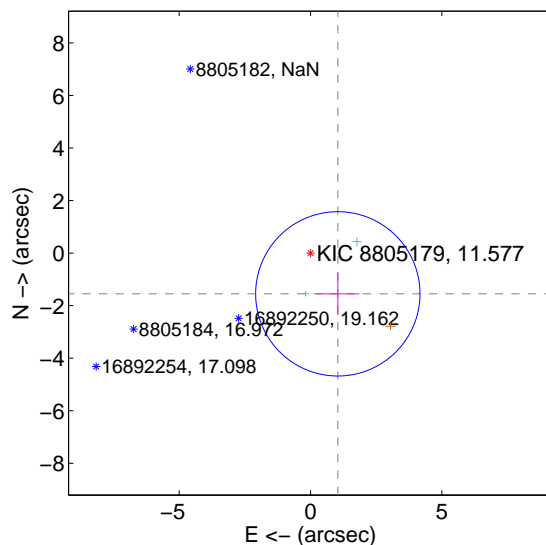
The direct PRF centroid is offset from the target star catalog position by about 0.57 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.365 ± 0.919	2.57	-1.279 ± 1.082	-1.989 ± 0.843
PRF-fit source offset from KIC position	1.867 ± 1.042	1.79	-1.039 ± 0.822	-1.551 ± 0.816
photometric centroid source offset	2.75 ± 1.64	1.68	2.14 ± 1.49	-1.73 ± 1.85

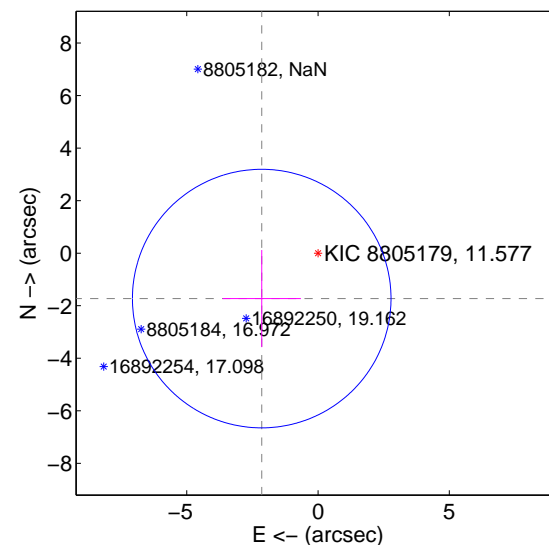
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids

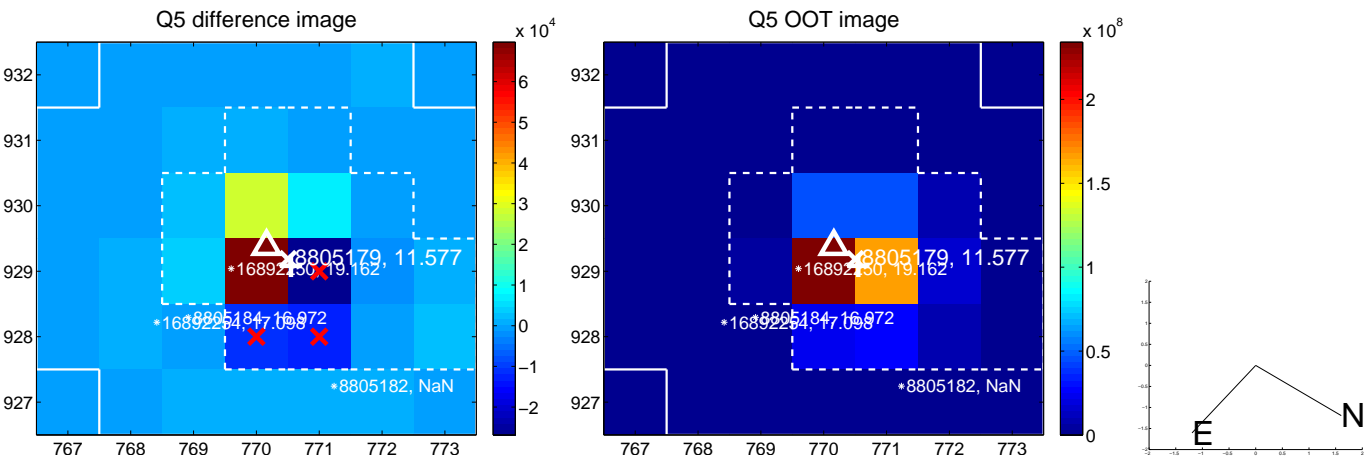


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

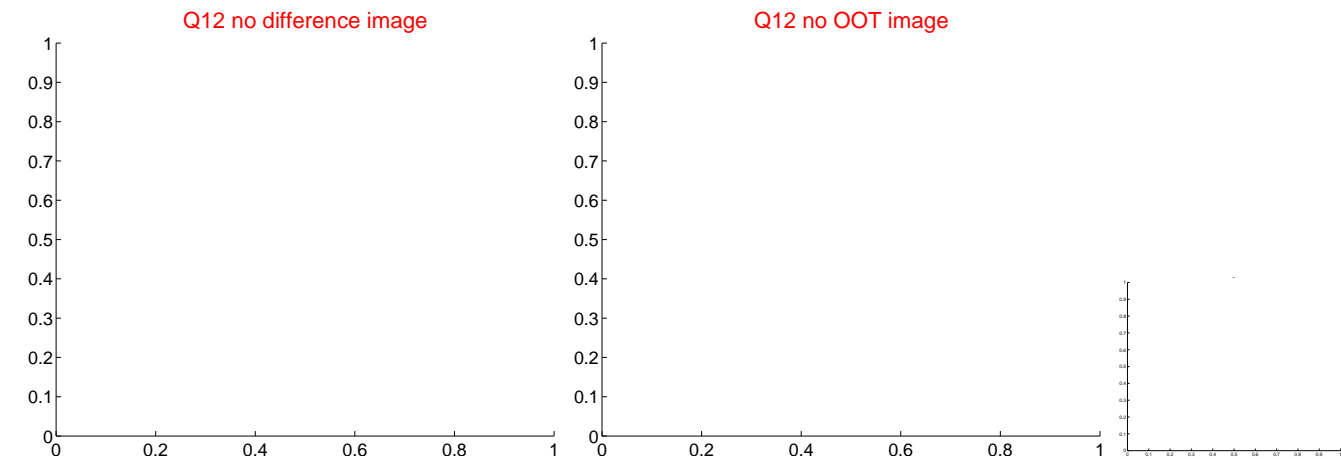
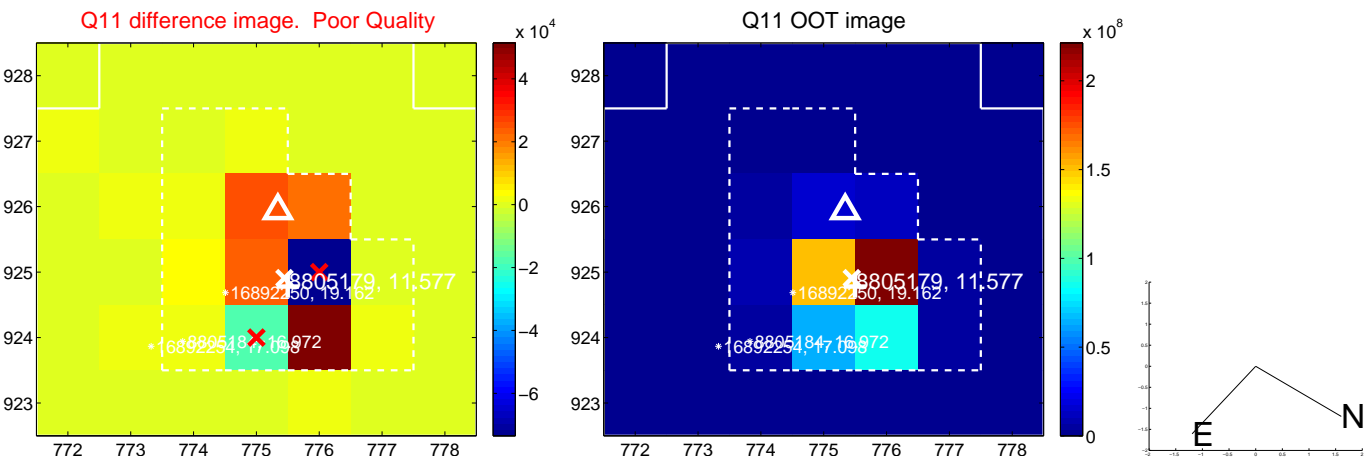
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



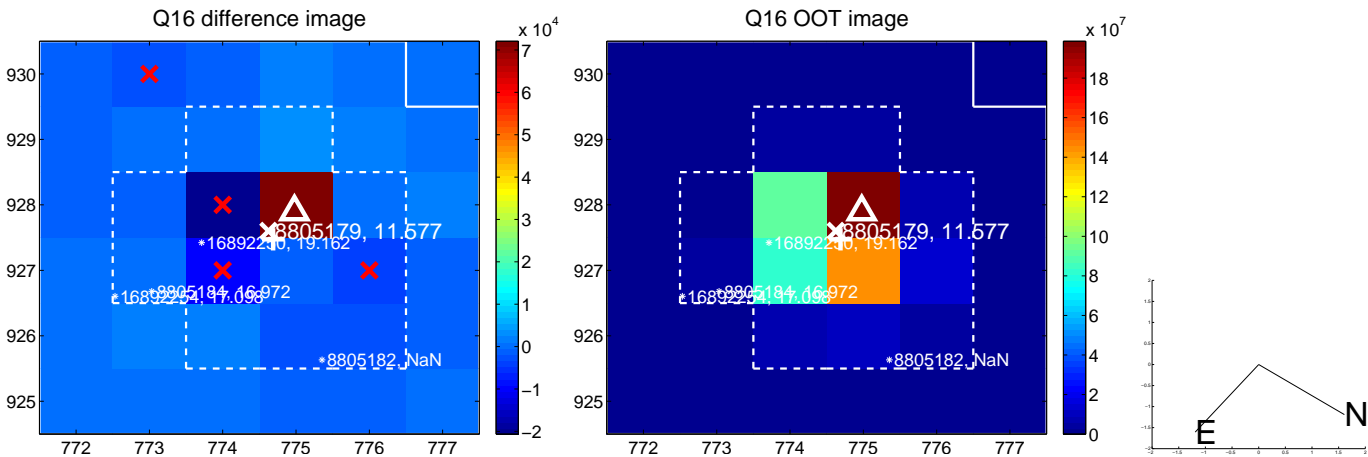
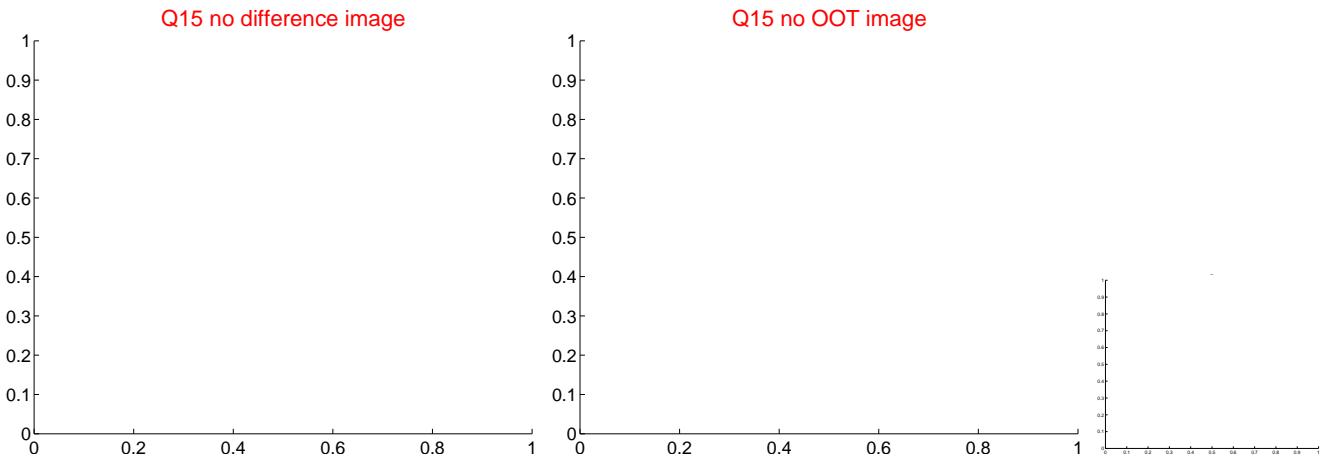
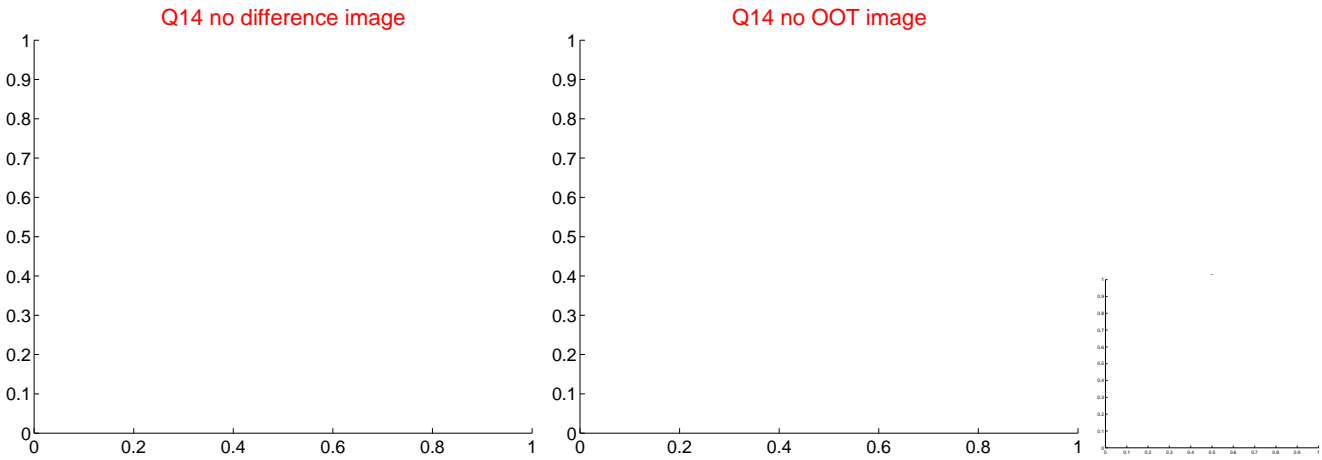
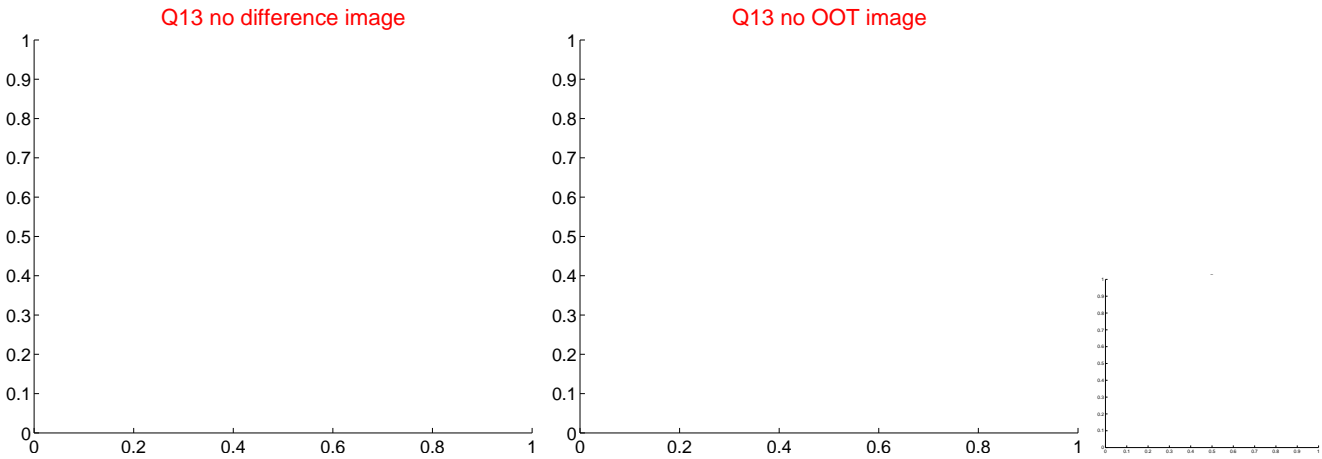
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



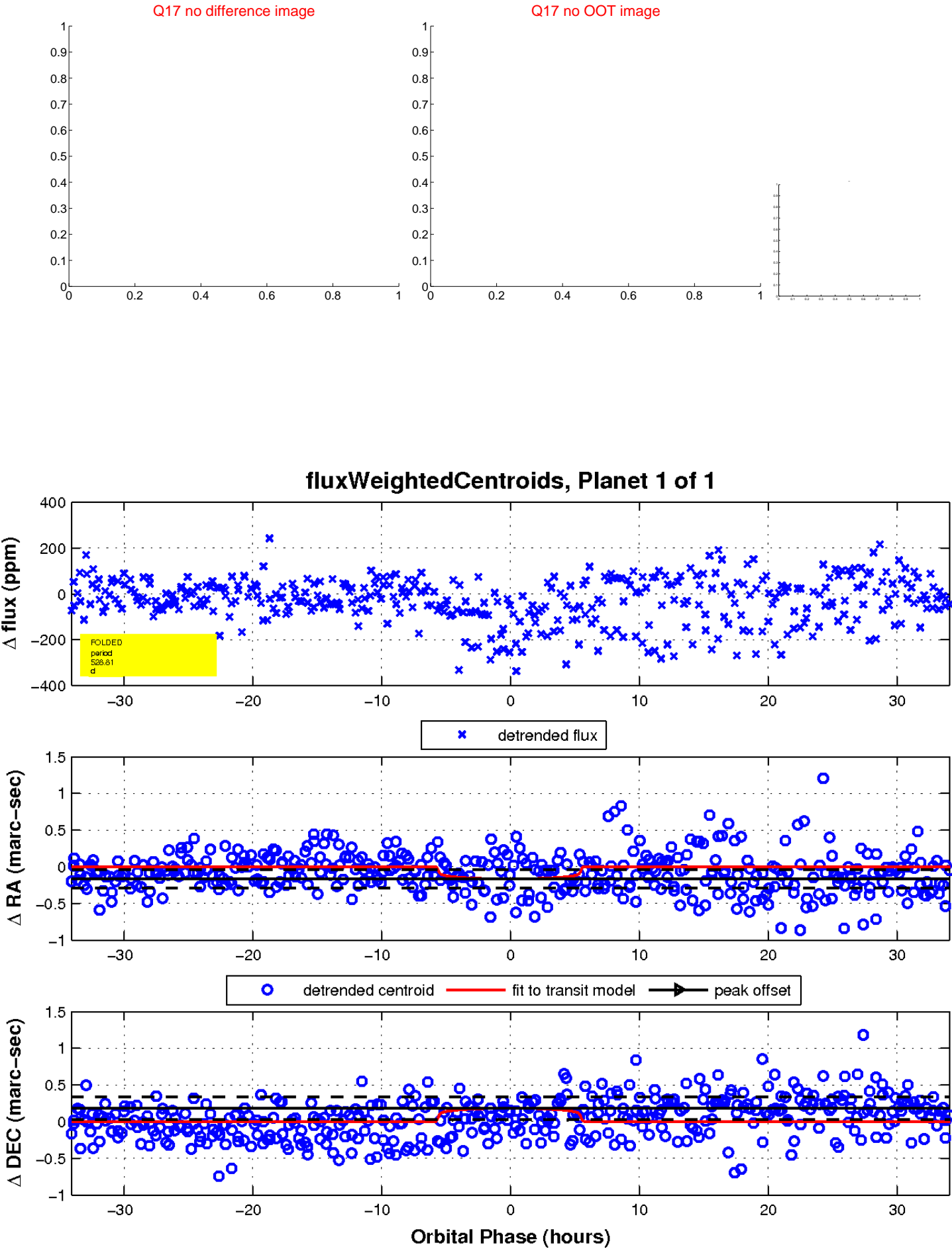
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

