

KIC 005785811

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})
005785811-01	OBS	No	323.610455	405.968479	993.3	22.326	9.8	10.2	0.76	5366	2.48	0.57

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005785811-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—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.

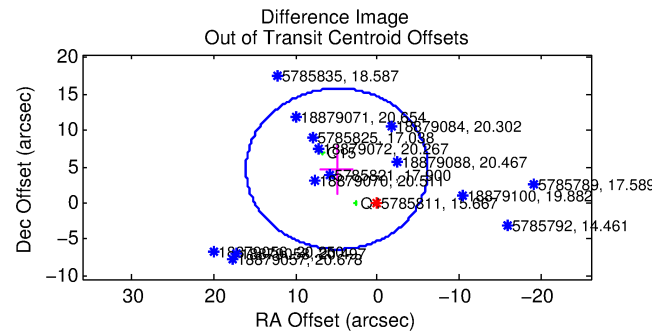
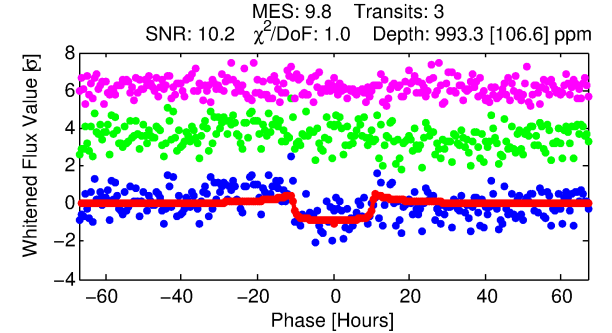
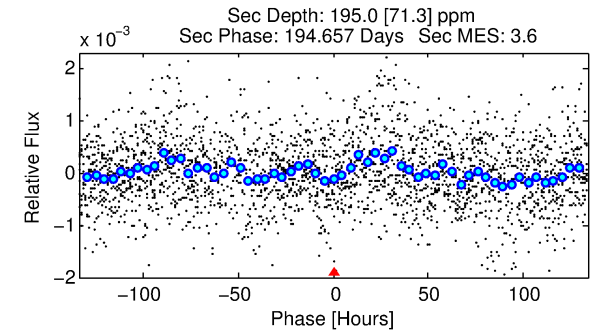
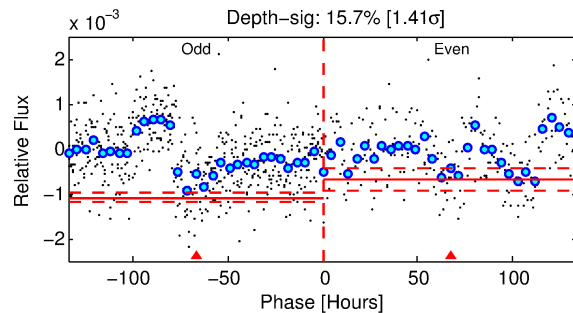
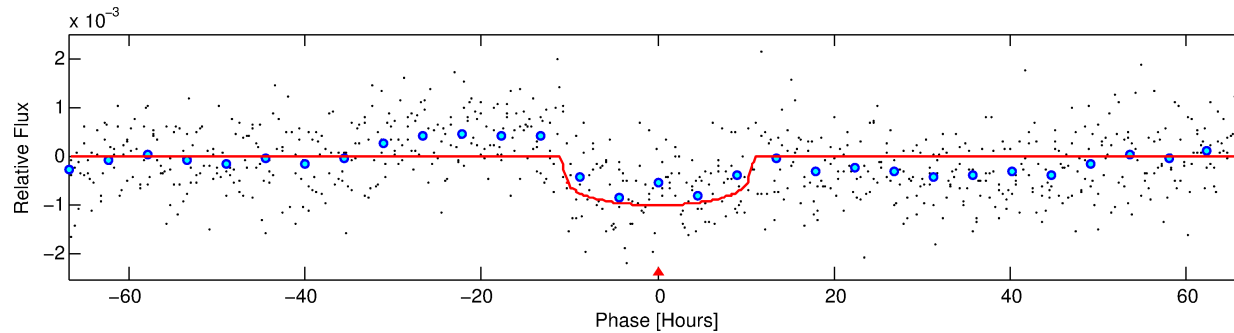
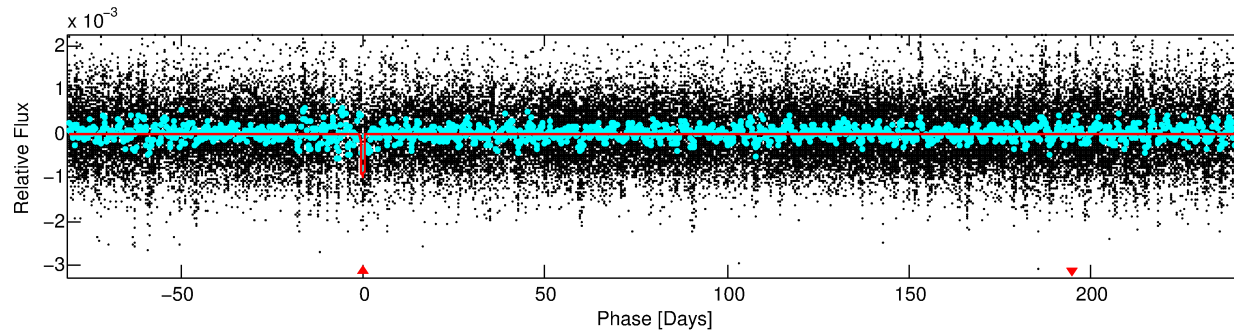
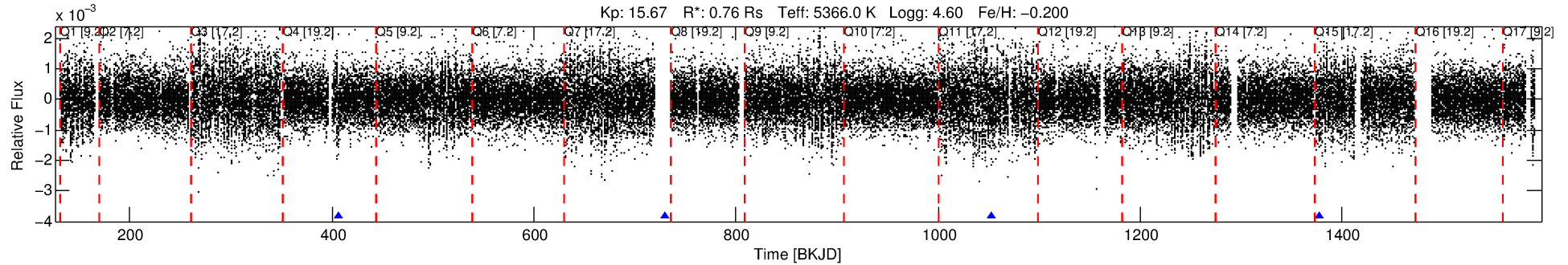
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005785811-01

No Significant Match Found

DV One-Page Summary

KIC: 5785811 Candidate: 1 of 1 Period: 323.610 d



DV Fit Results:

Period = 323.61046 [0.01005] d
Epoch = 405.9685 [0.0187] BKJD
Rp/R* = 0.0299 [0.0072]
a/R* = 93.50 [85.22]
b = 0.59 [1.02]
Seff = 0.57 [0.13]
Teq = 221 [12] K
Rp = 2.48 [0.72] Re
a = 0.8716 [0.1163] AU
Ag = 13250.23 [8389.94] [1.58 σ]
Teffp = 3669 [564] K [6.11 σ]

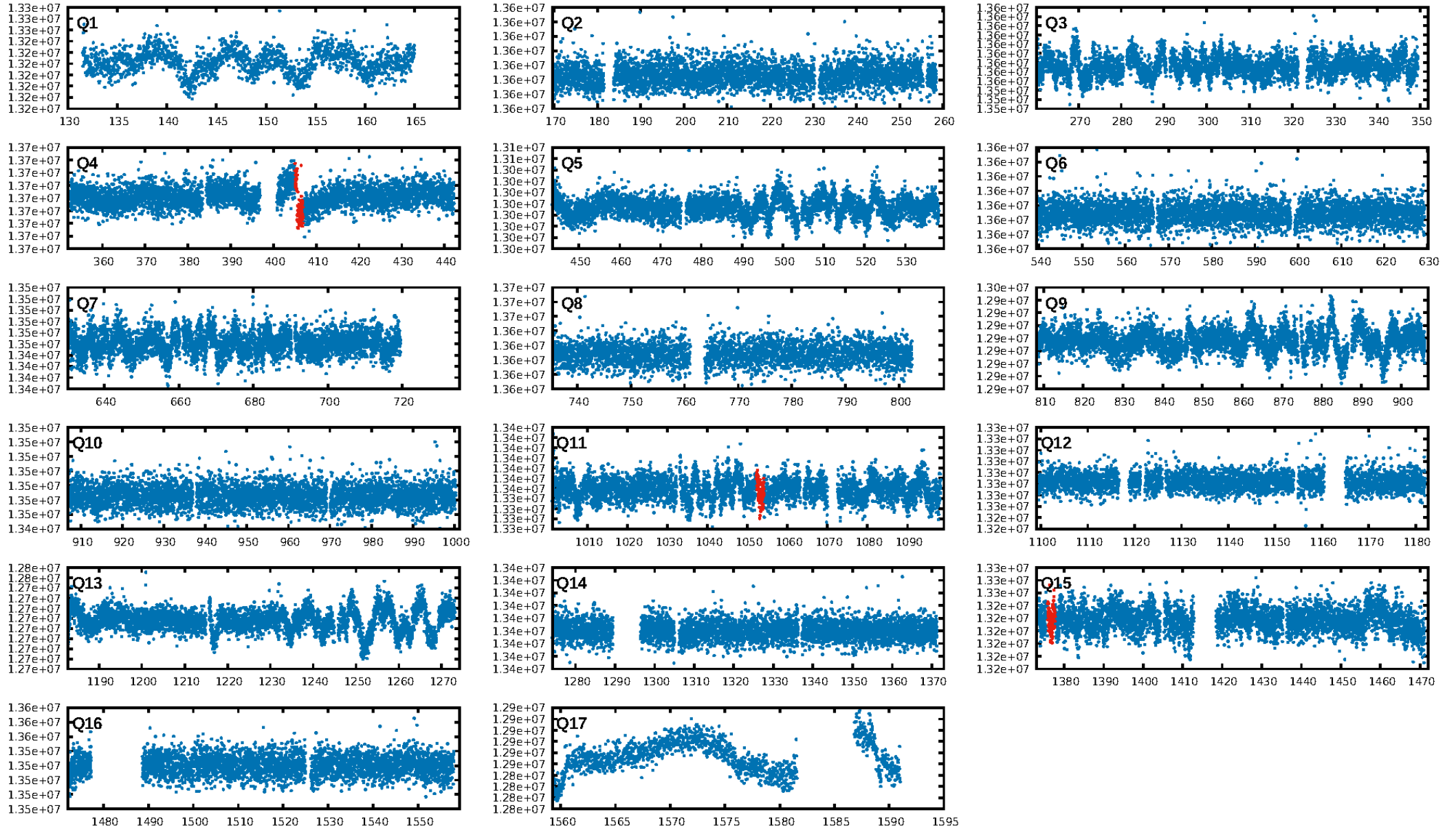
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 3.7%
ModelChiSquareGof-sig: 99.2%
Bootstrap-pfa: 2.61e-14
RollingBand-fgt: 1.00 [3/3]
GhostDiagnostic-chr: -1.54
Centroid-sig: 17.3%
Centroid-so: 1.283 arcsec [0.92 σ]
OotOffset-rm: 6.806 arcsec [1.84 σ]
KicOffset-rm: 6.643 arcsec [2.14 σ]
OotOffset-st: 0/1/1/0 [2]
KicOffset-st: 0/1/1/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [3/3]

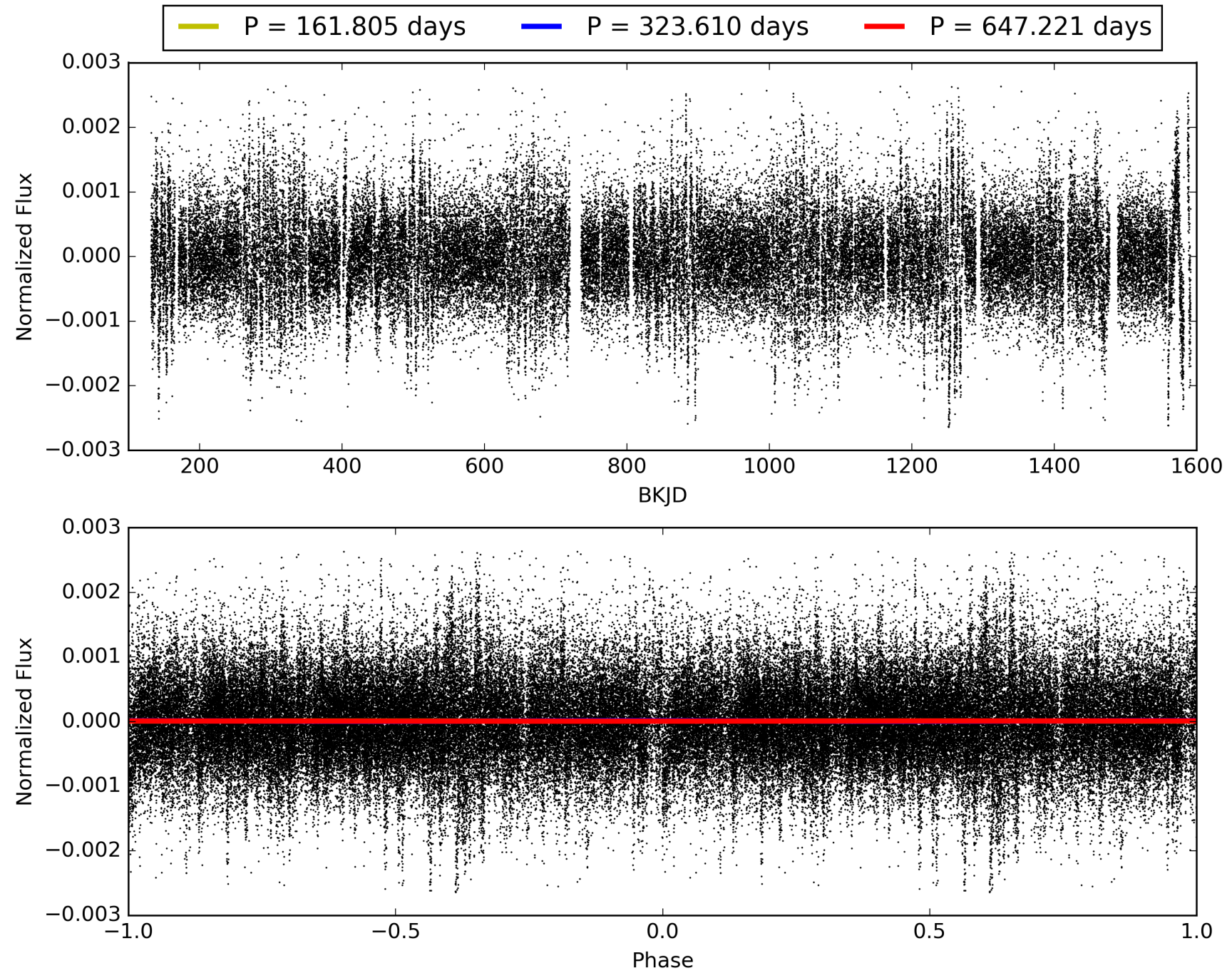
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:04:38 Z

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

TCE 005785811-01, PDC Light Curves

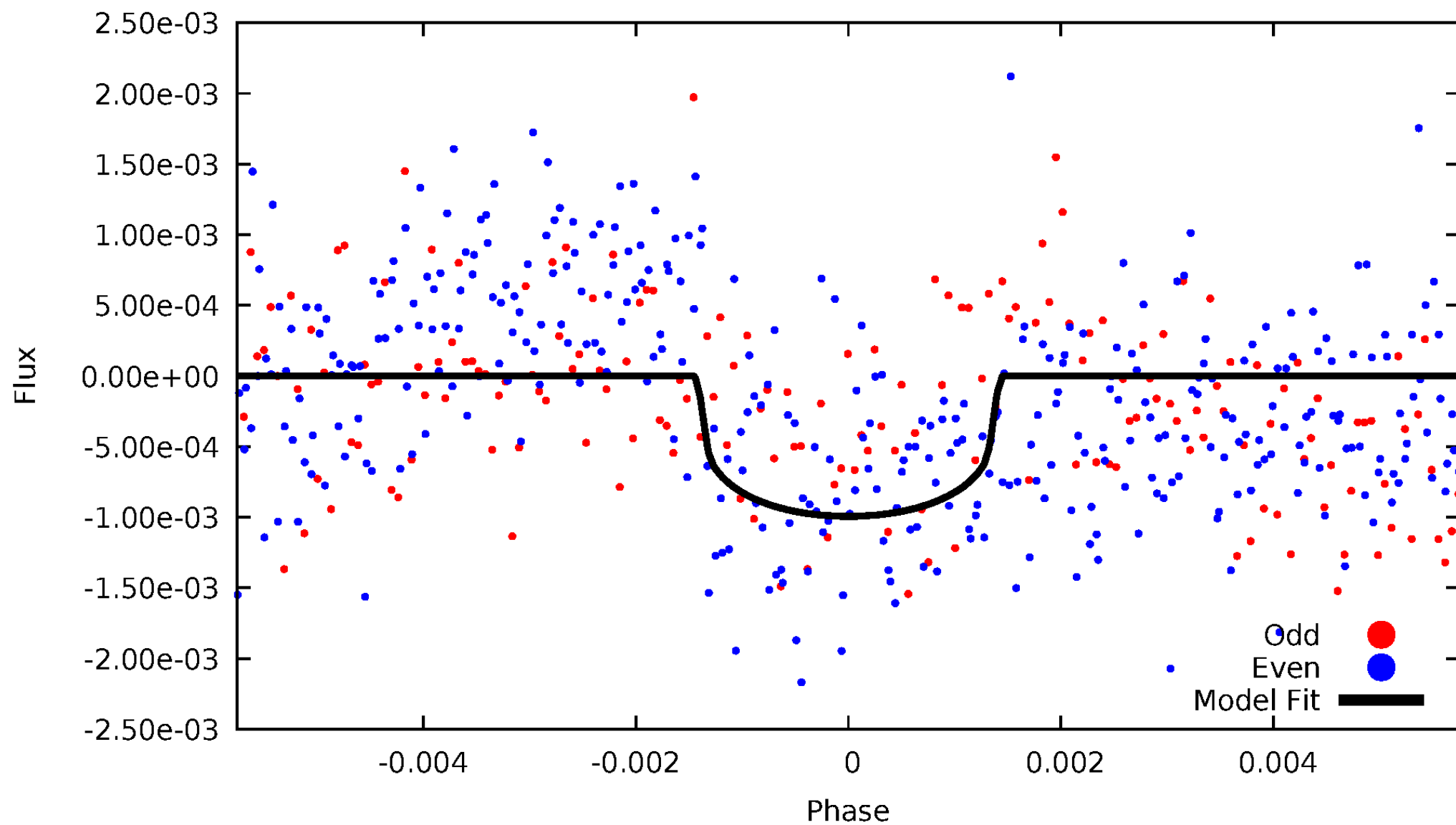


TCE 005785811-01



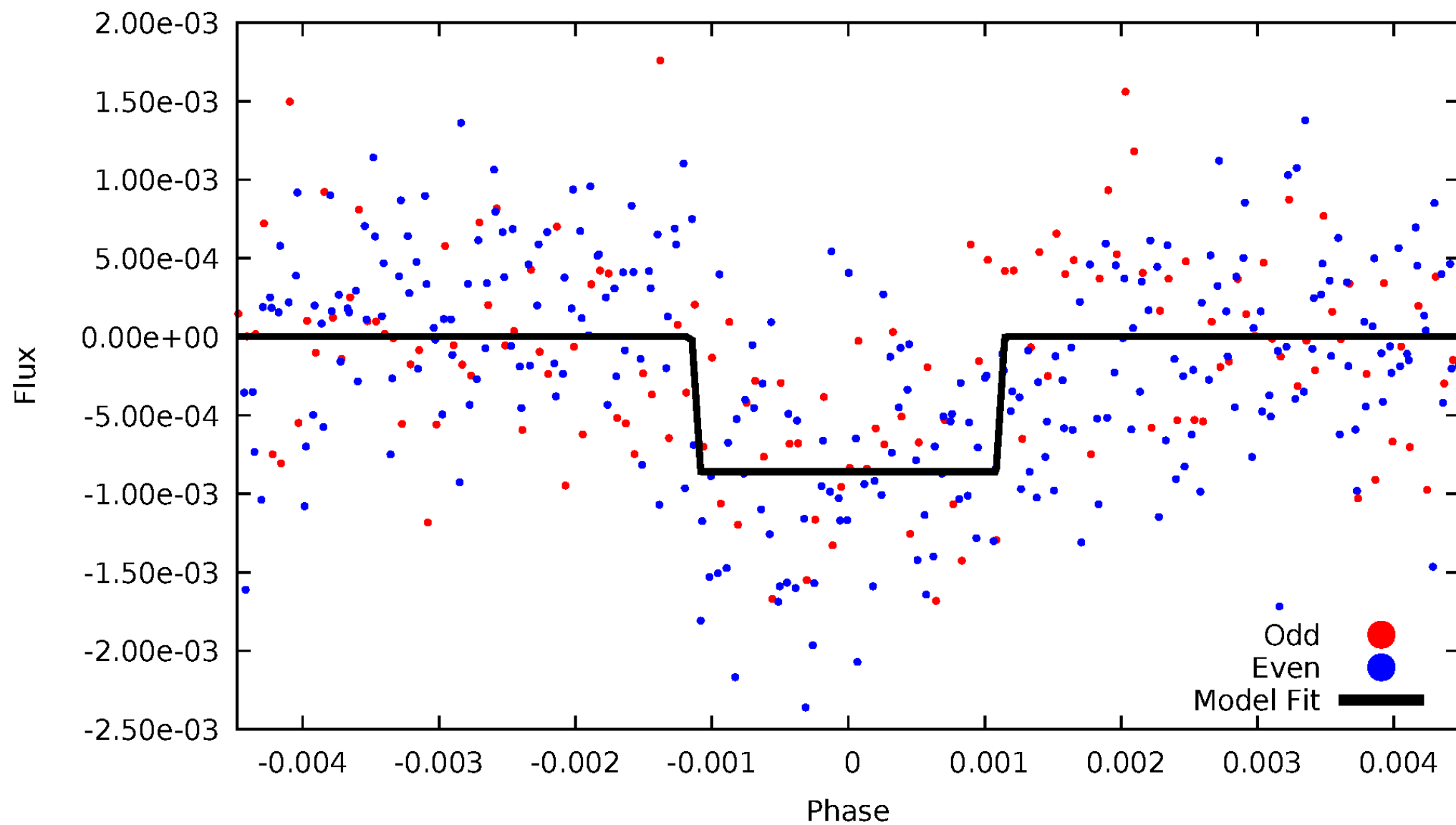
DV Odd/Even

TCE 005785811-01



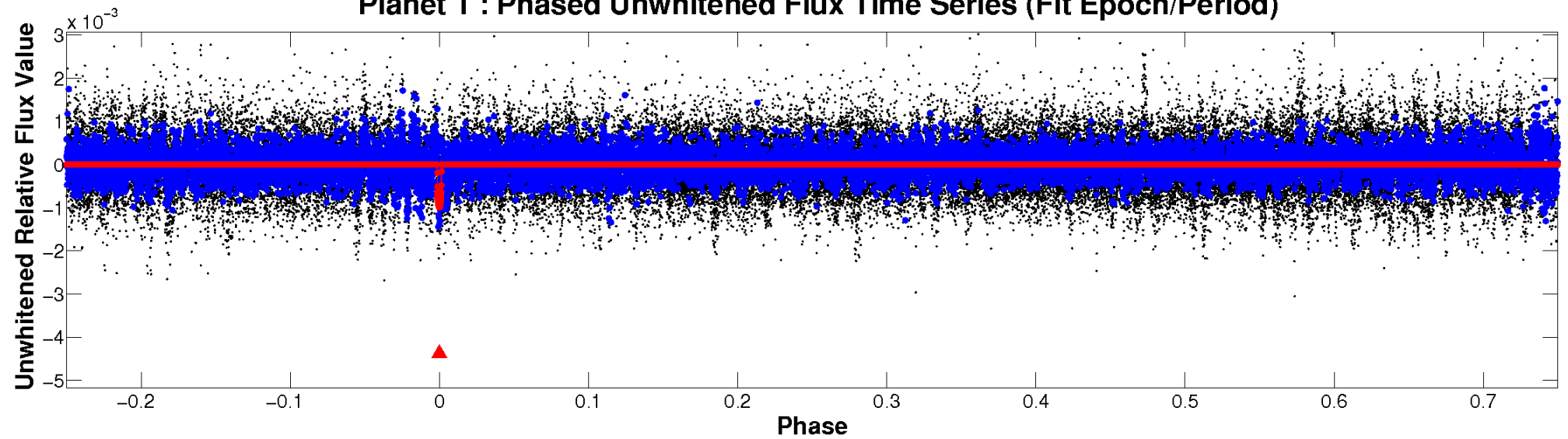
ALT Odd/Even

TCE 005785811-01

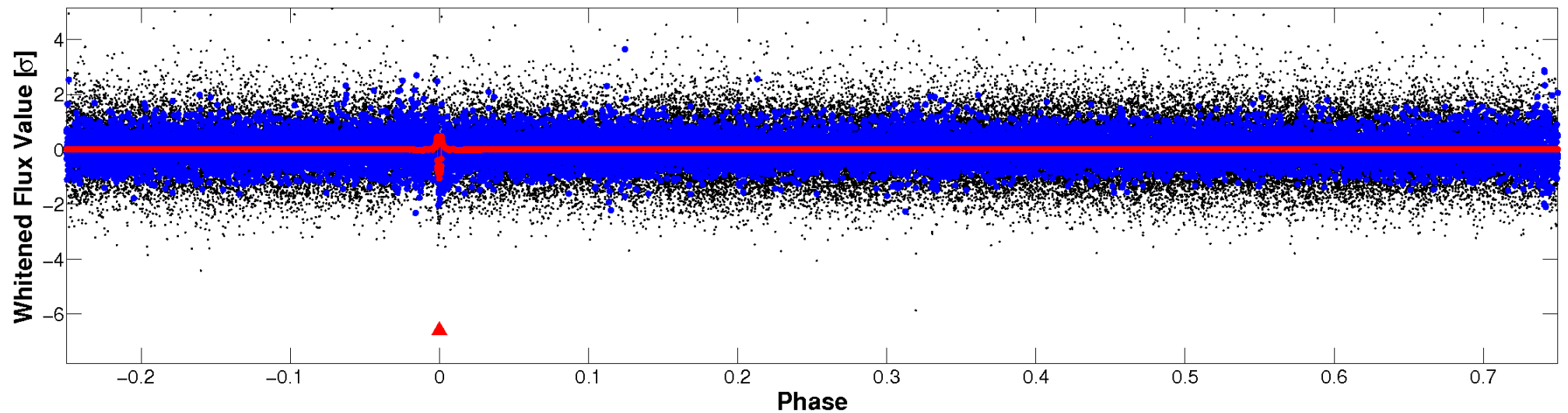


Non-Whitened Vs. Whitened Light Curve

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

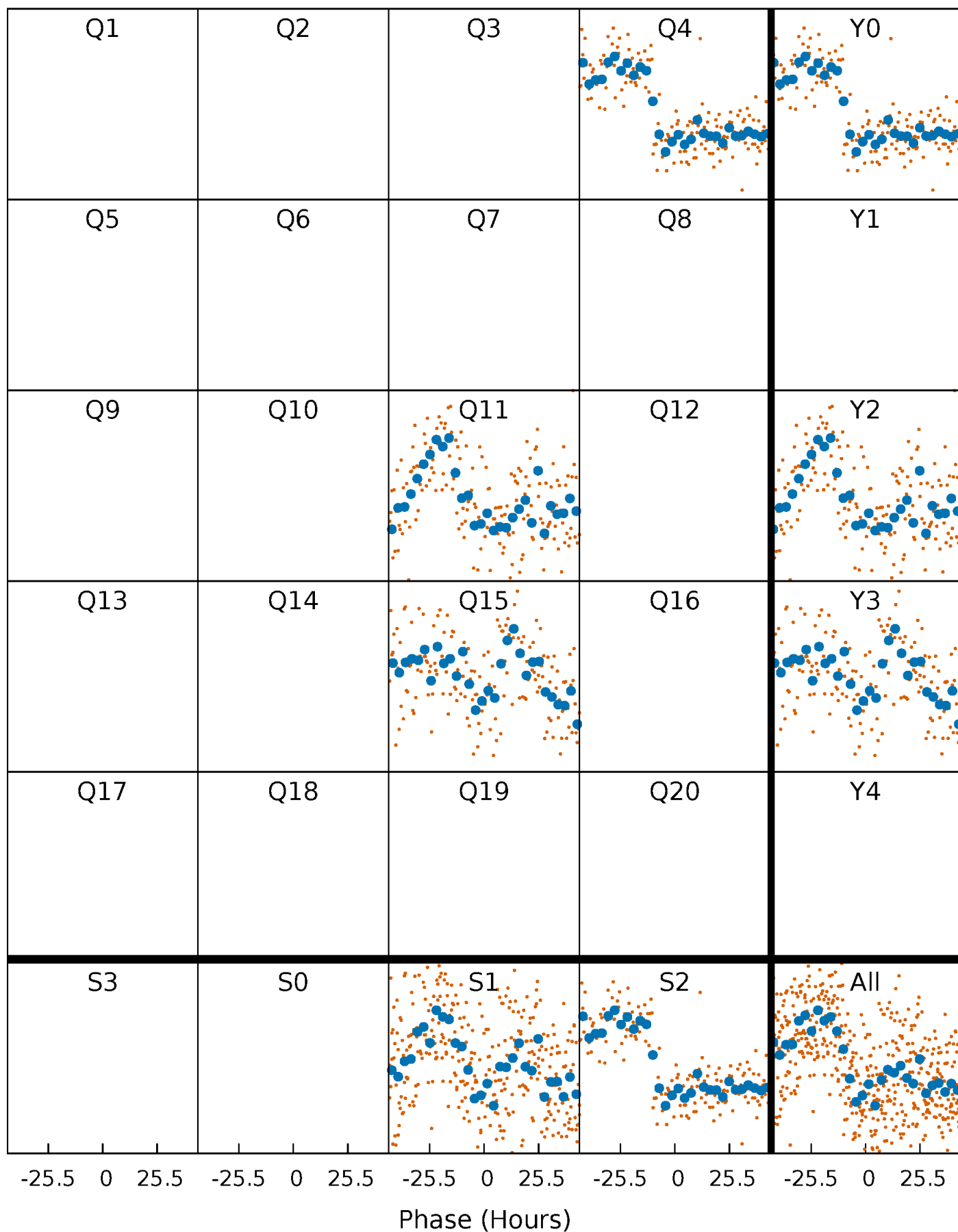


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



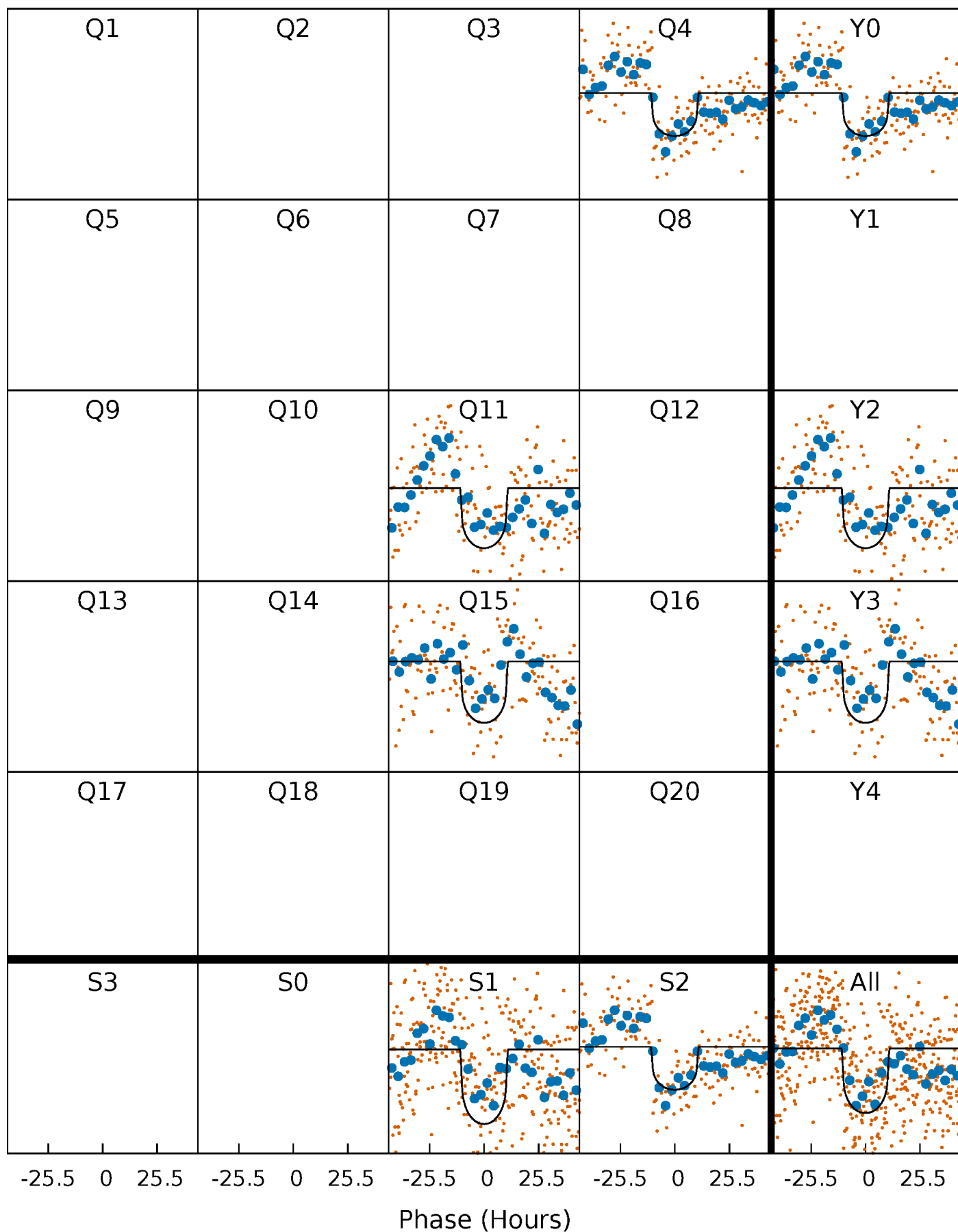
PDC Quarter-Phased Transit Curves

TCE 005785811-01 P=323.610455 Days $T_0=405.968479$ (BKJD)



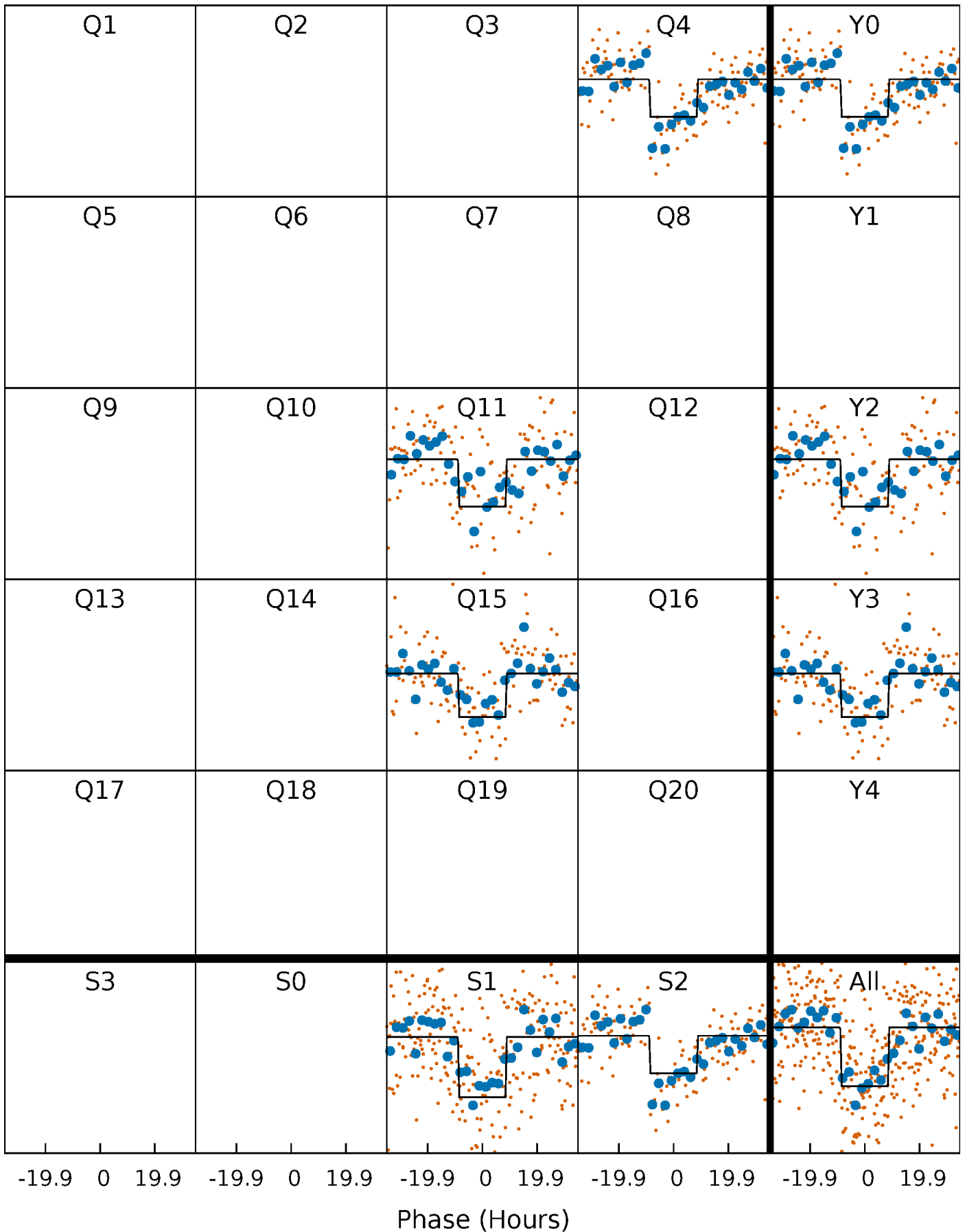
DV Quarter-Phased Transit Curves

TCE 005785811-01 P=323.610455 Days $T_0=405.968479$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

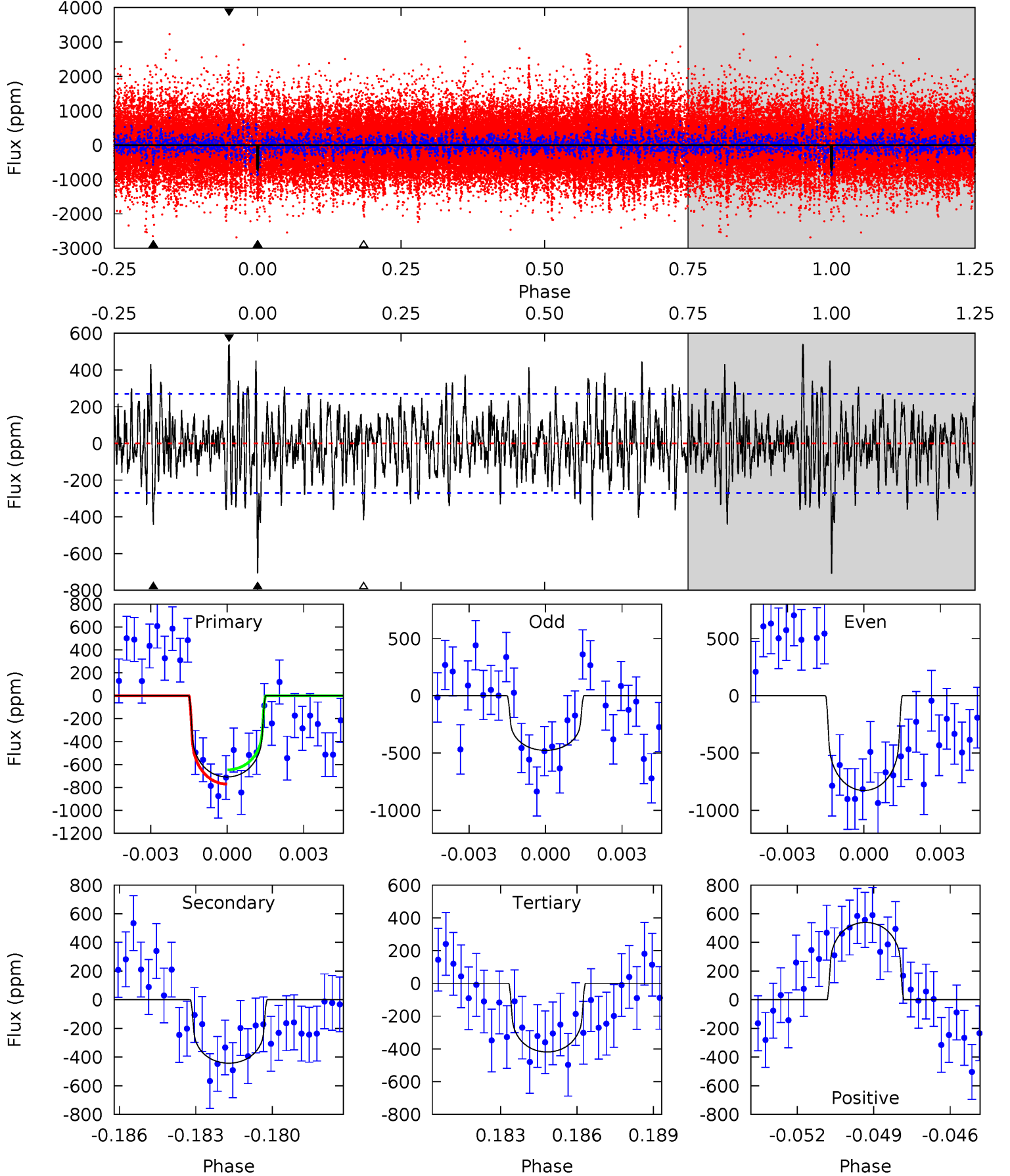
TCE 005785811-01 P=323.626723 Days $T_0=405.894183$ (BKJD)



DV Model-Shift Uniqueness Test

005785811-01, $P = 323.610455$ Days, $E = 82.358024$ Days

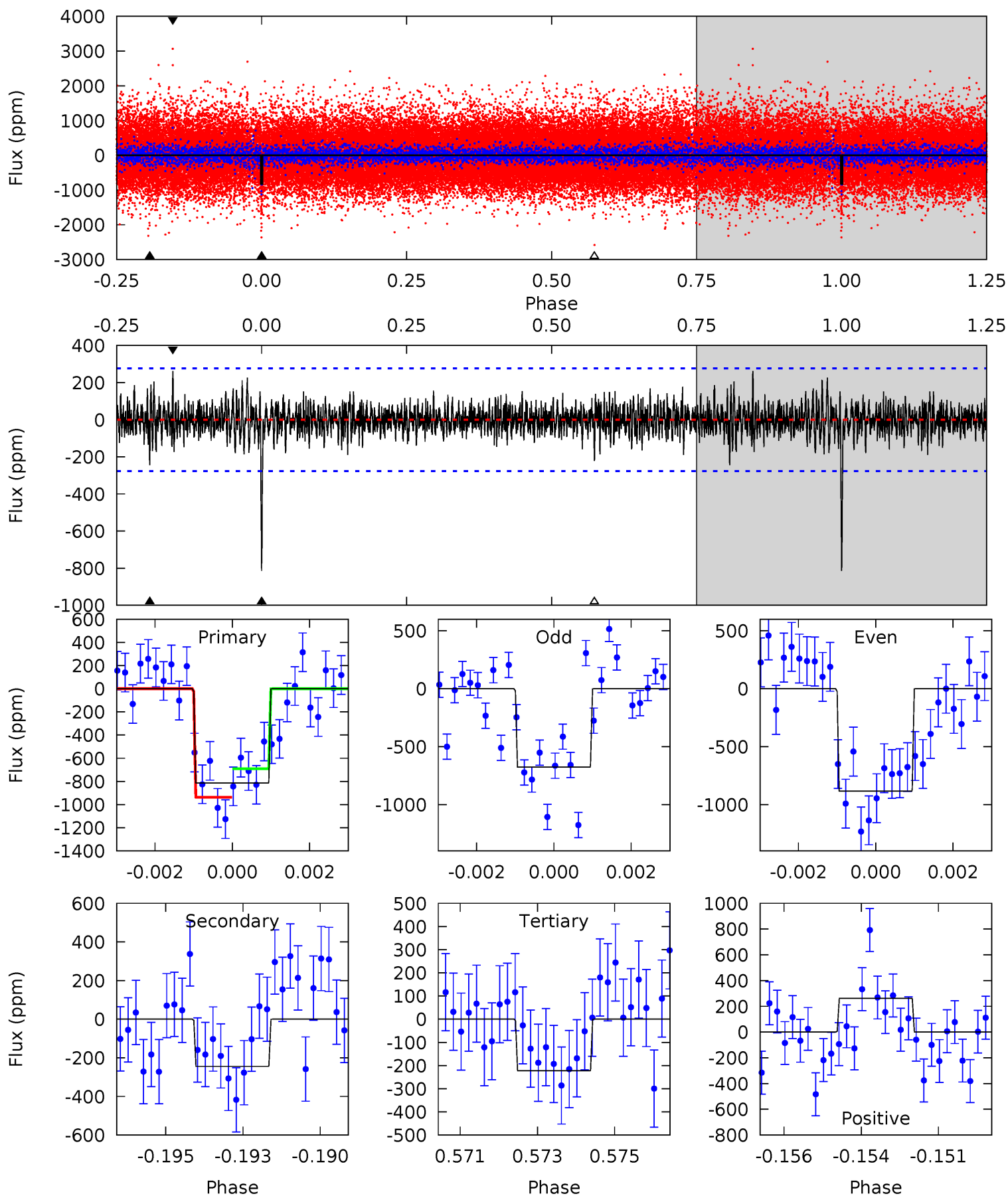
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.8	8.60	8.15	10.5	5.26	2.98	2.70	5.64	3.29	0.46	-1.89	3.23	1.17	0.43	1.20



Alt Model-Shift Uniqueness Test

005785811-01, $P = 323.626723$ Days, $E = 82.267460$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	4.68	4.26	5.01	5.30	3.05	1.09	11.3	10.6	0.42	-0.33	1.87	1.20	0.24	2.35



Stellar Parameters For KIC 005785811

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5366^{+159}_{-143}	$4.601^{+0.032}_{-0.104}$	$-0.200^{+0.300}_{-0.300}$	$0.761^{+0.122}_{-0.066}$	$0.853^{+0.070}_{-0.104}$	$2.723^{+0.491}_{-0.874}$
	+3%/-3%	+1%/-2%	+150%/-150%	+16%/-9%	+8%/-12%	+18%/-32%
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 005785811-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-443 ± 51	$2.55^{+0.65}_{-0.61}$	315^{+13}_{-12}	4628^{+565}_{-381}	28245^{+20015}_{-10375}
Alt.	-245 ± 52	$2.52^{+0.64}_{-0.64}$	313^{+14}_{-10}	4164^{+517}_{-353}	16328^{+12646}_{-6706}

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

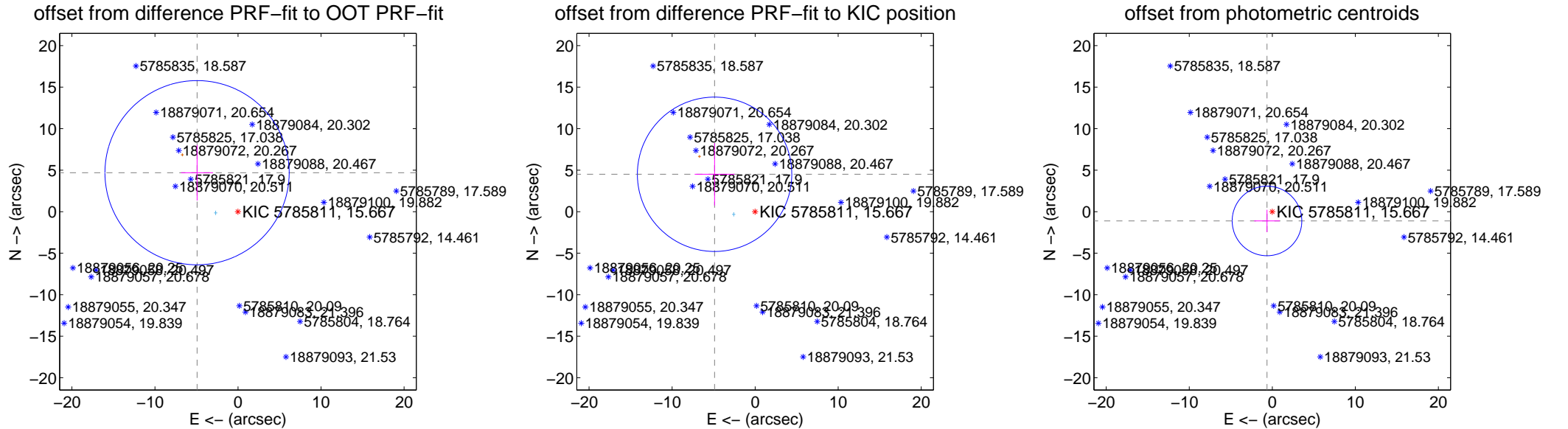
DV Centroid Data

Supplemental centroid analysis for 005785811-01. Kepler magnitude: 15.67. Transit SNR 10.20

There are 1 quarters with good PRF difference image offsets

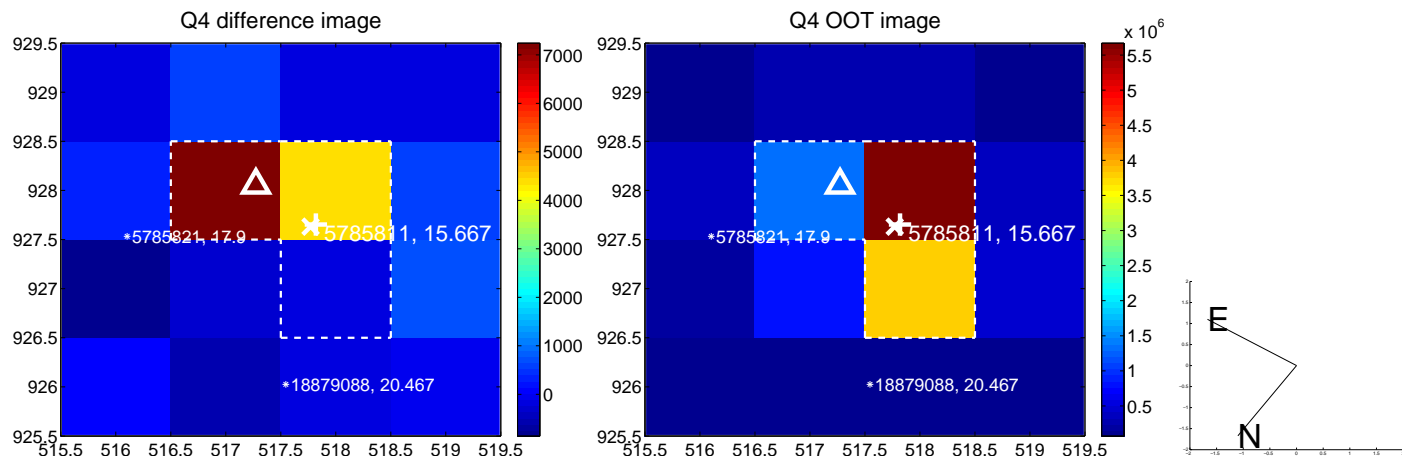
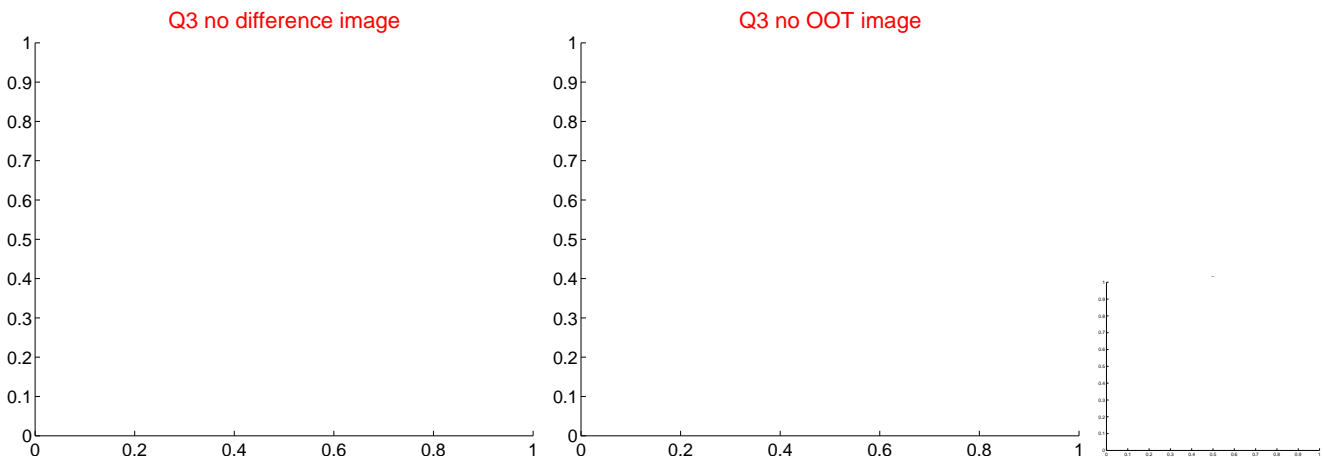
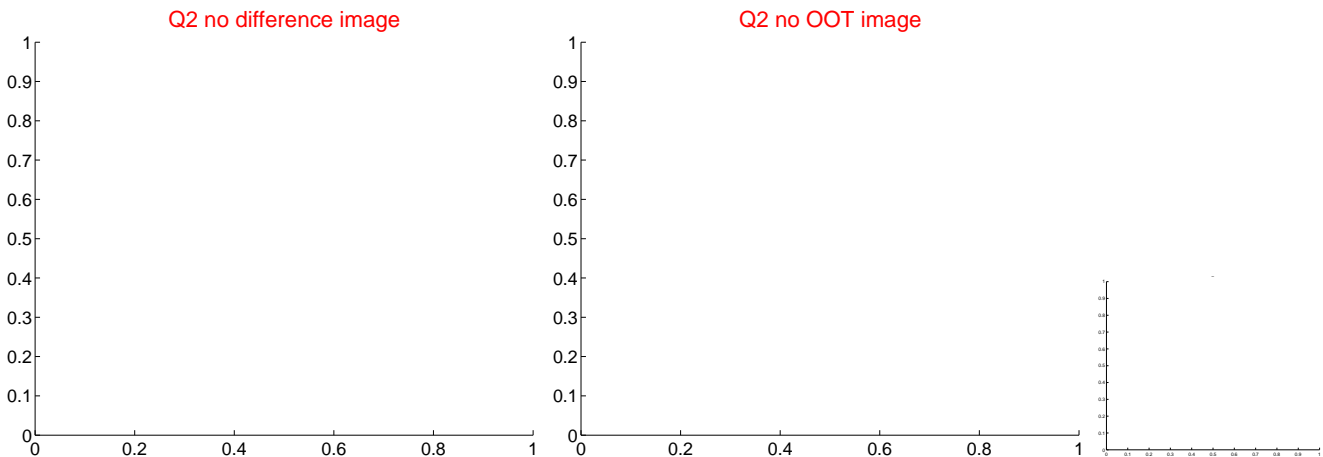
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.806 ± 3.697	1.84	4.929 ± 1.921	4.694 ± 3.345
PRF-fit source offset from KIC position	6.643 ± 3.098	2.14	4.883 ± 2.398	4.504 ± 3.759
photometric centroid source offset	1.28 ± 1.40	0.92	0.64 ± 1.54	-1.11 ± 1.35



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



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

Q9 no difference image



Q9 no OOT image



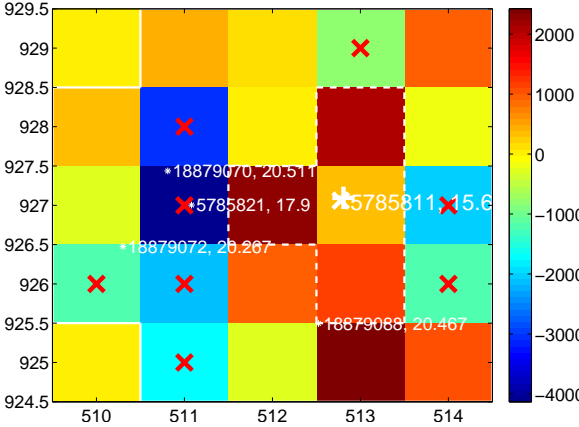
Q10 no difference image



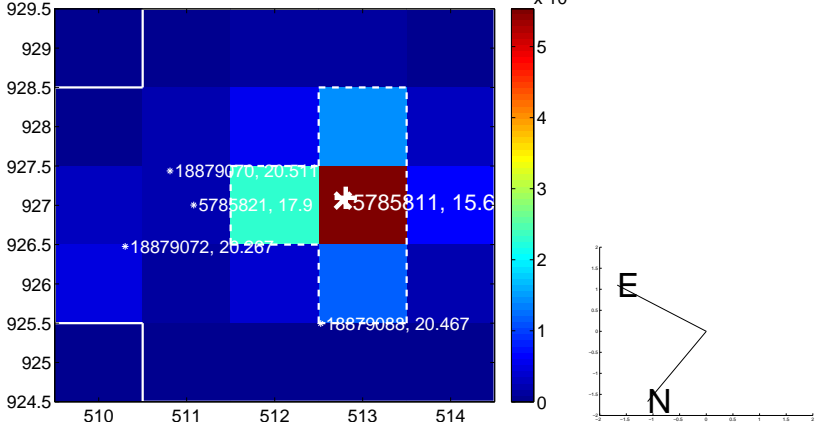
Q10 no OOT image



Q11 difference image. Poor Quality



Q11 OOT image



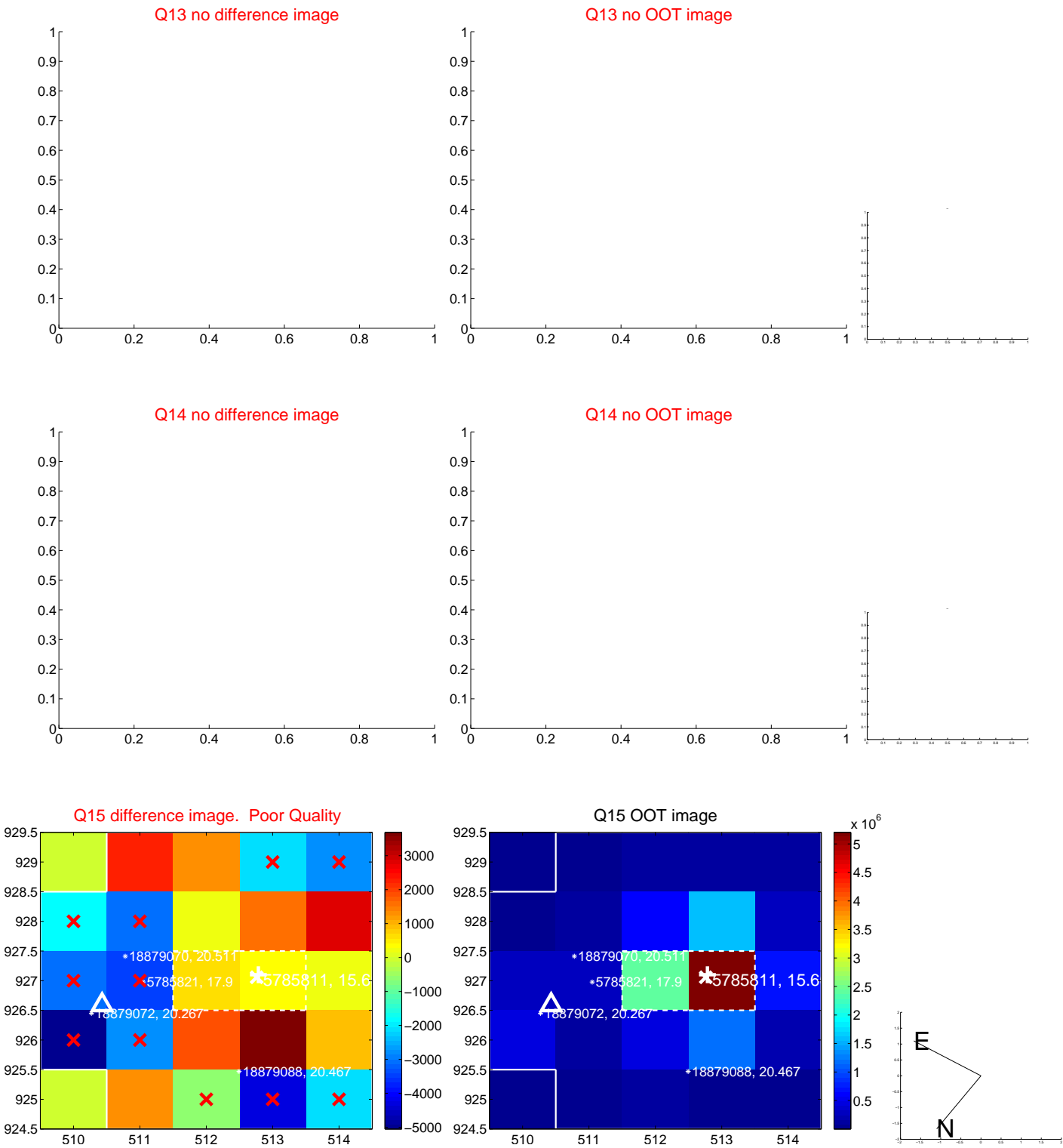
Q12 no difference image



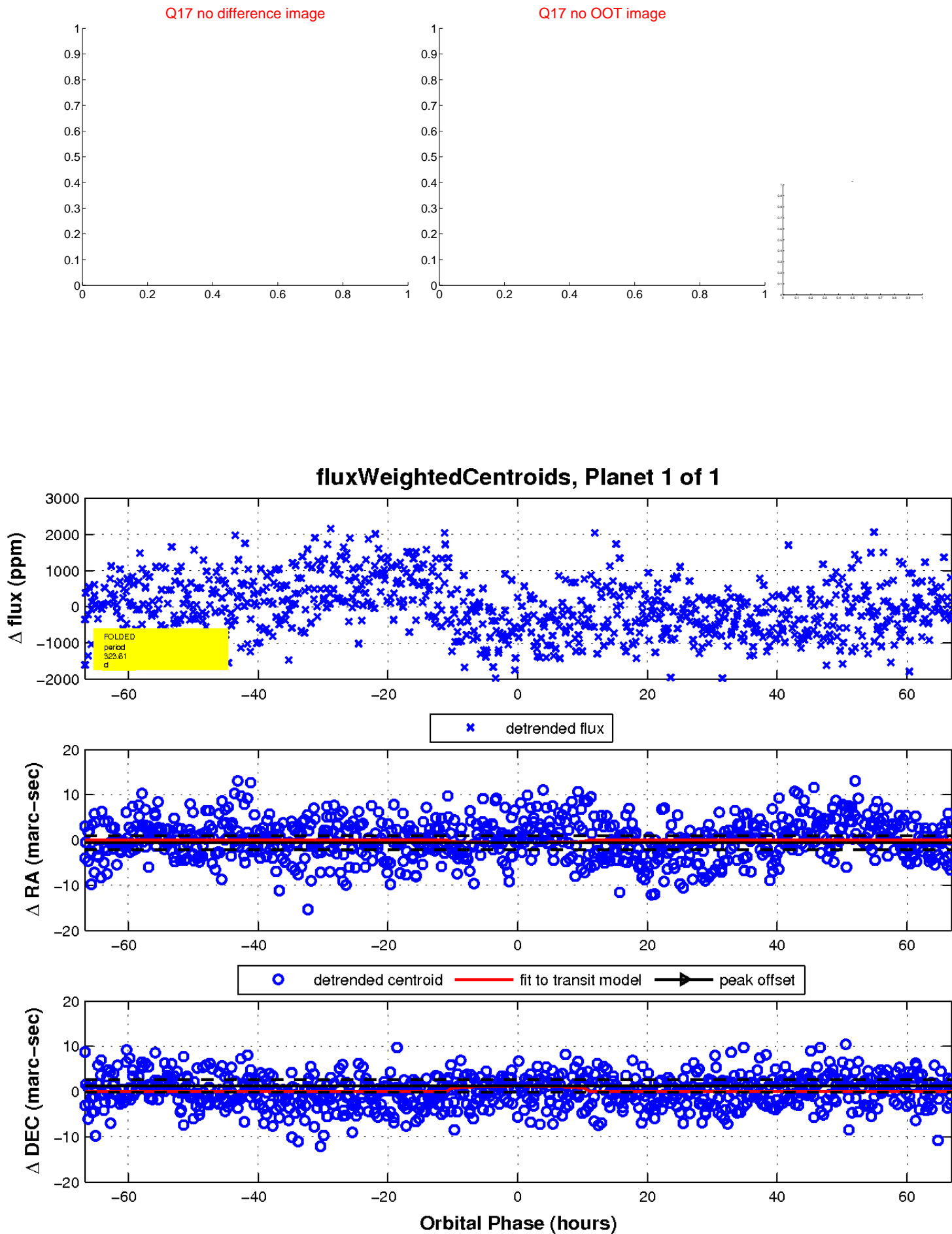
Q12 no OOT image



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.



UKIRT Image

Declination

