

KIC 008092459

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})
008092459-01	OBS	No	374.337927	264.232583	280.8	23.819	7.3	7.6	0.99	6088	1.81	1.16

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008092459-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_MARSHALL_SKYE—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—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.

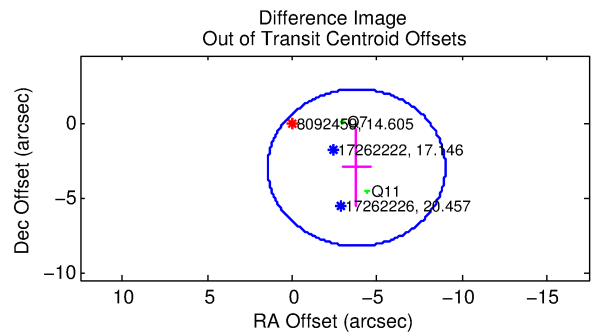
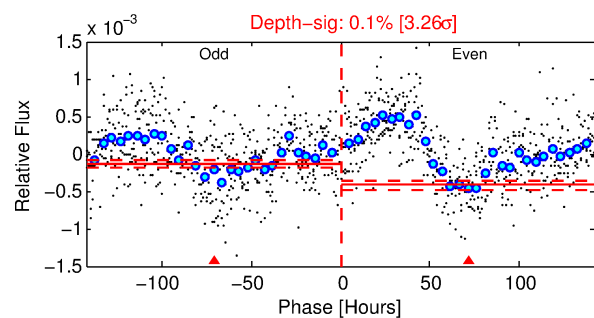
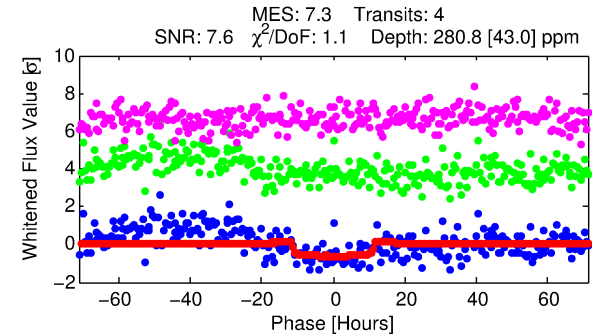
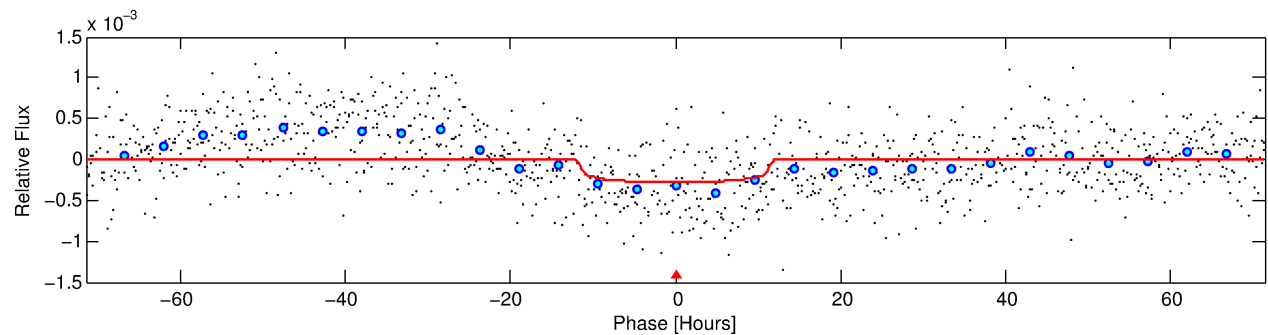
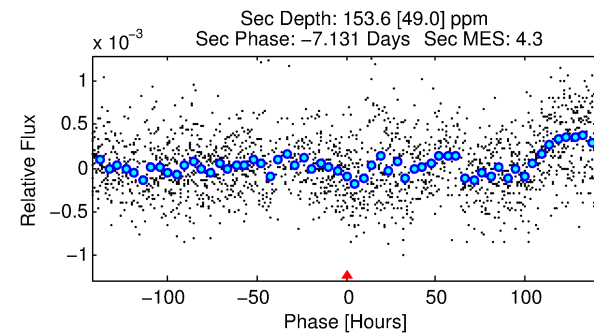
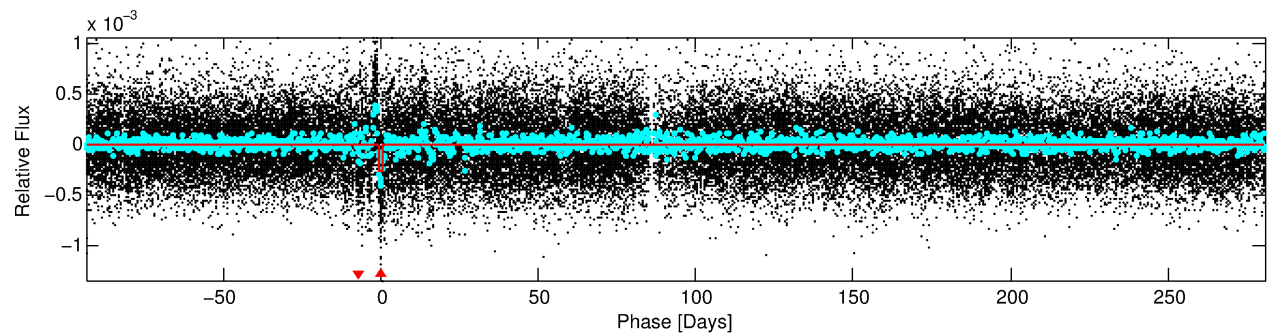
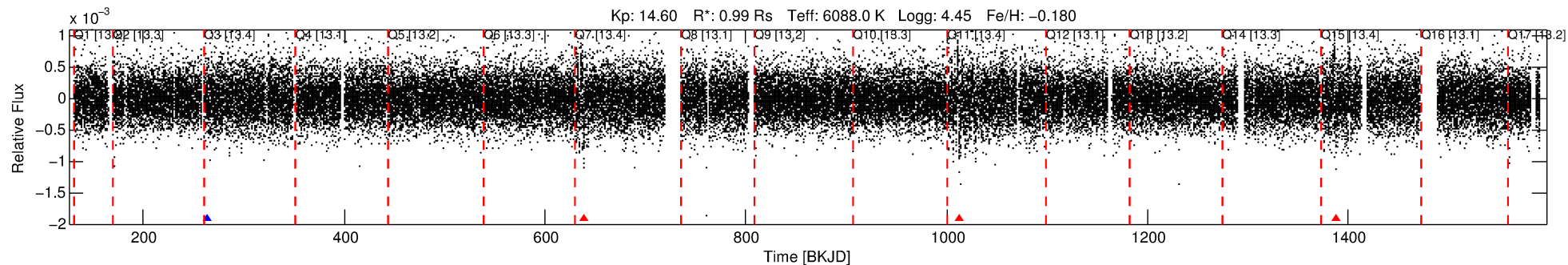
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008092459-01

No Significant Match Found

DV One-Page Summary

KIC: 8092459 Candidate: 1 of 1 Period: 374.338 d



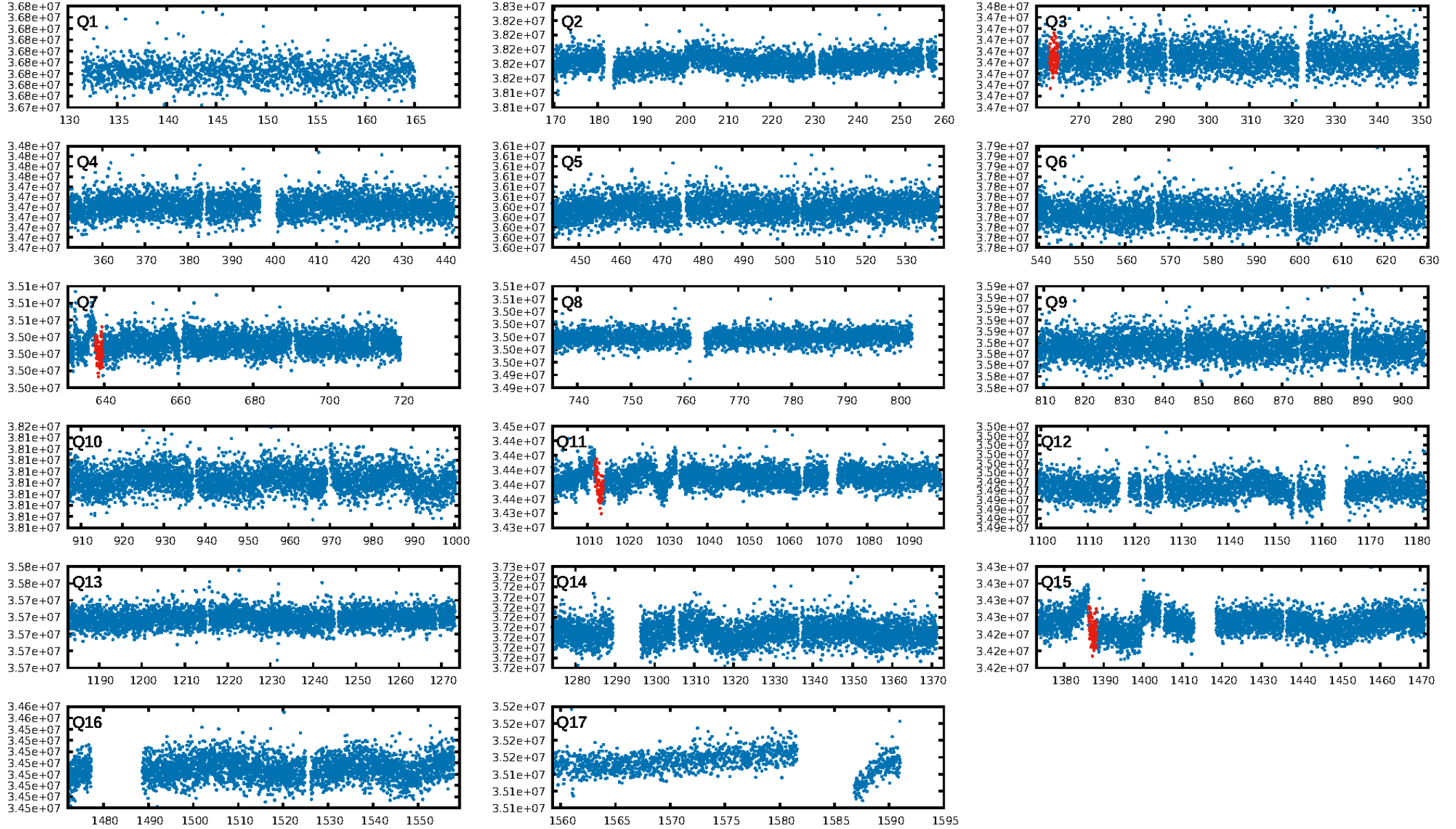
DV Fit Results:

Period = 374.33793 [0.01753] d
Epoch = 264.2326 [0.0334] BKJD
Rp/R* = 0.0167 [0.0042]
a/R* = 81.01 [96.85]
b = 0.76 [0.67]
Seff = 1.16 [0.47]
Teq = 265 [27] K
Rp = 1.81 [0.74] Re
a = 1.0201 [0.2729] AU
Ag = 26926.23 [19152.35] [1.41 σ]
Teffp = 5240 [801] K [6.21 σ]

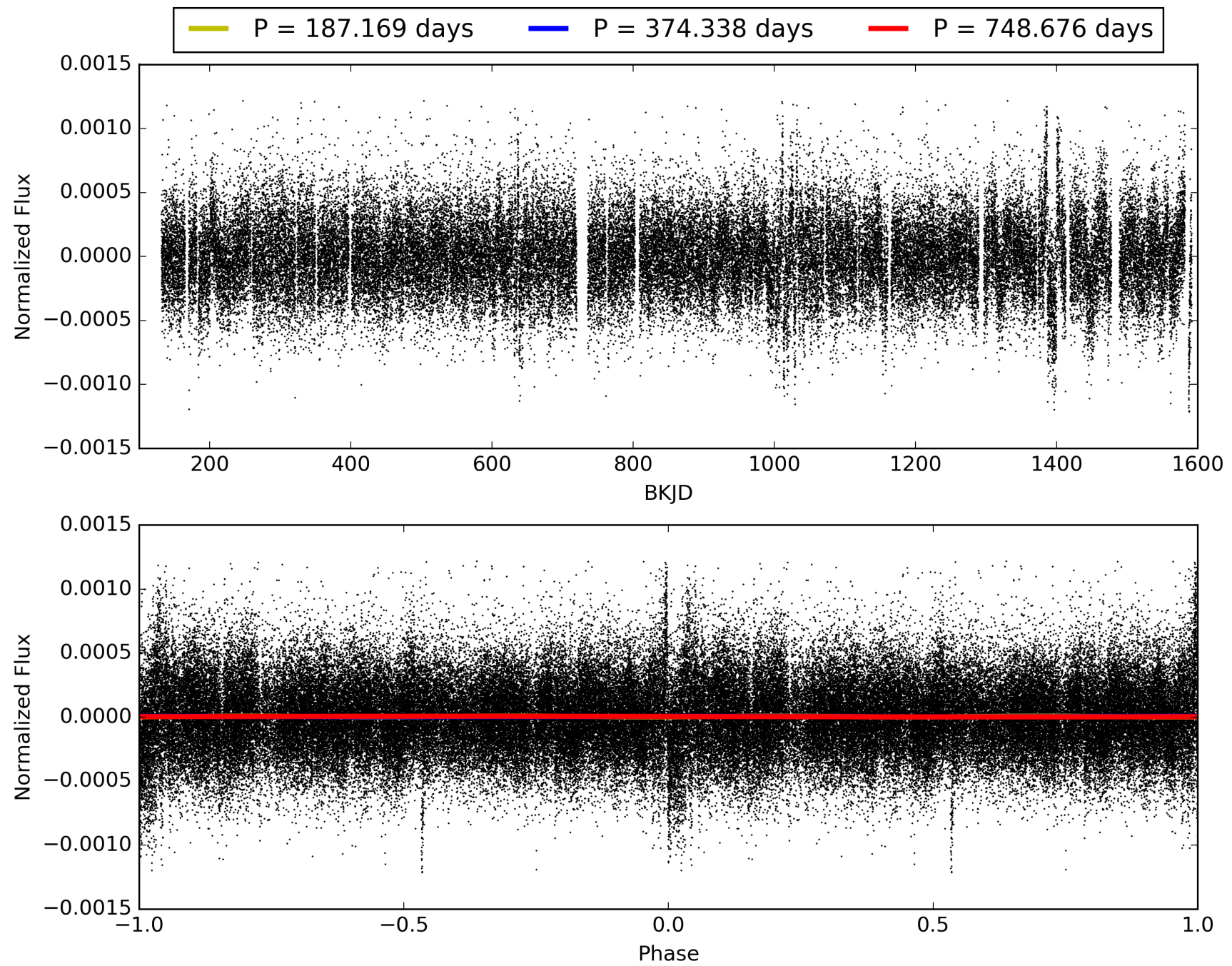
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 99.9%
Bootstrap-pfa: 1.07e-09
RollingBand-fgt: 0.25 [1/4]
GhostDiagnostic-chr: 1.307
Centroid-sig: 0.5%
Centroid-so: 5.223 arcsec [1.98 σ]
OotOffset-rm: 4.844 arcsec [2.77 σ]
OotOffset-st: 0/2/0/0 [2]
KicOffset-rm: 5.148 arcsec [3.00 σ]
KicOffset-st: 0/2/0/0 [2]
DiffImageQuality-fgm: 0.00 [0/2]
DiffImageOverlap-fno: 1.00 [3/3]

TCE 008092459-01, PDC Light Curves

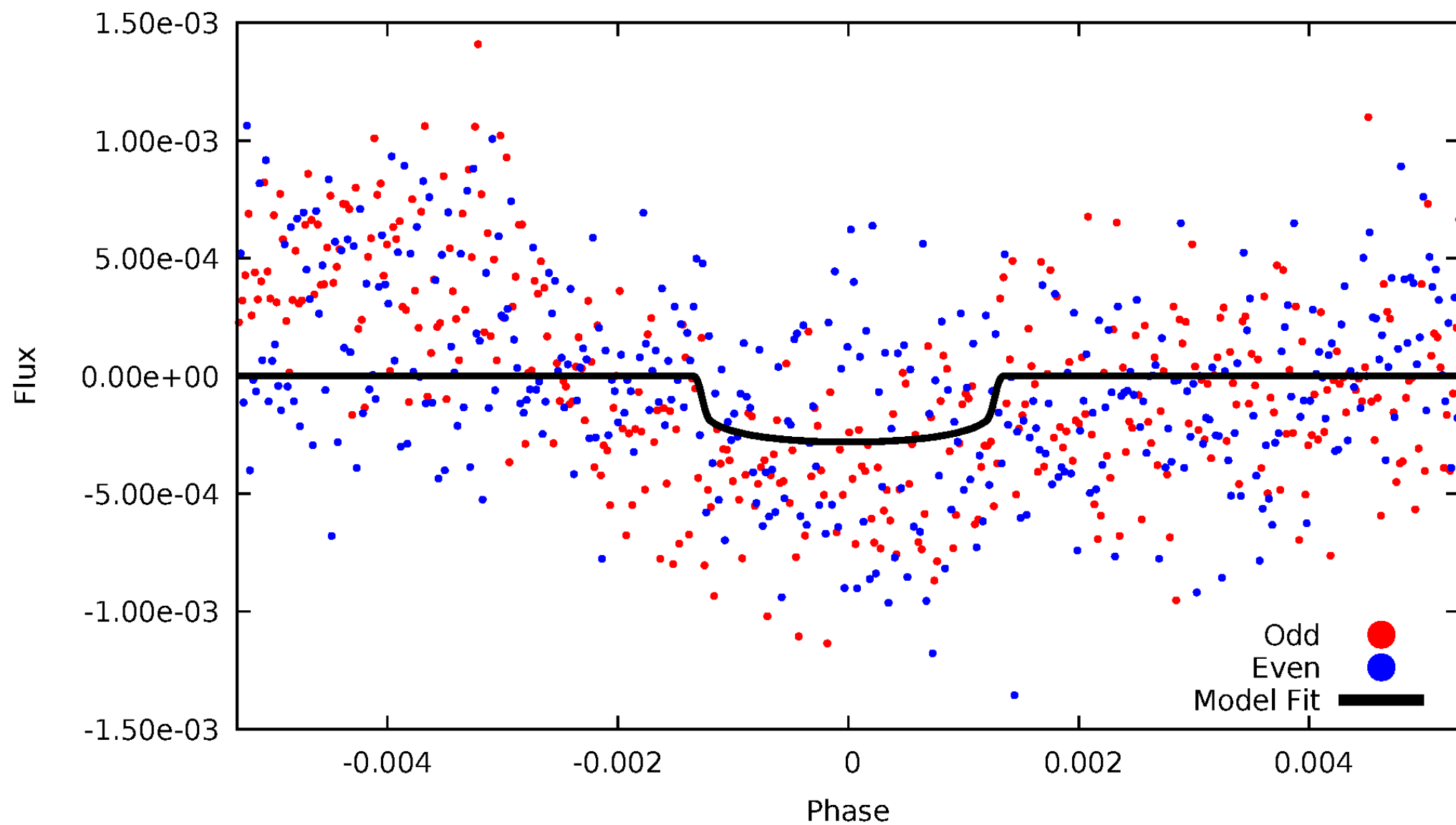


TCE 008092459-01



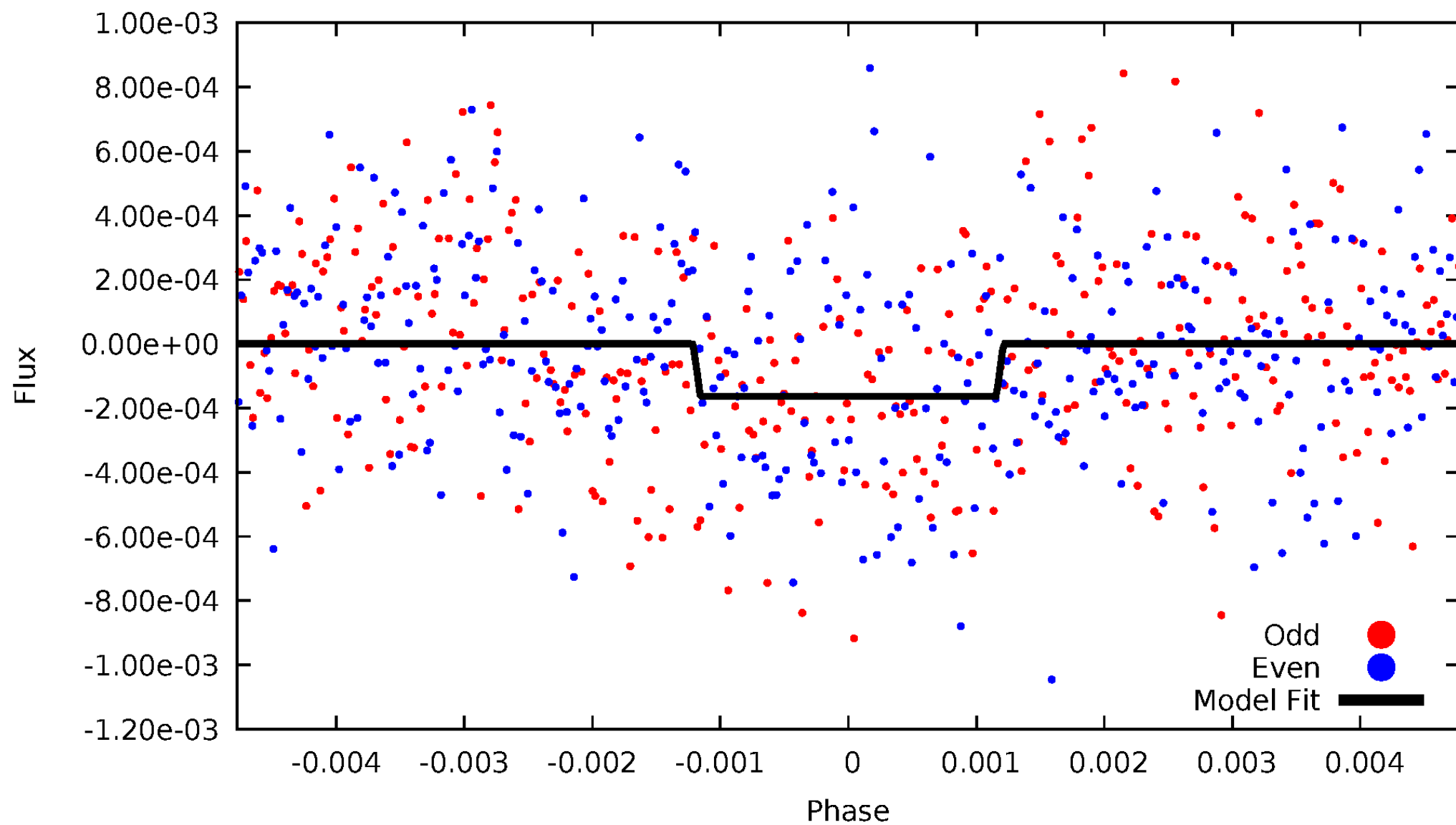
DV Odd/Even

TCE 008092459-01

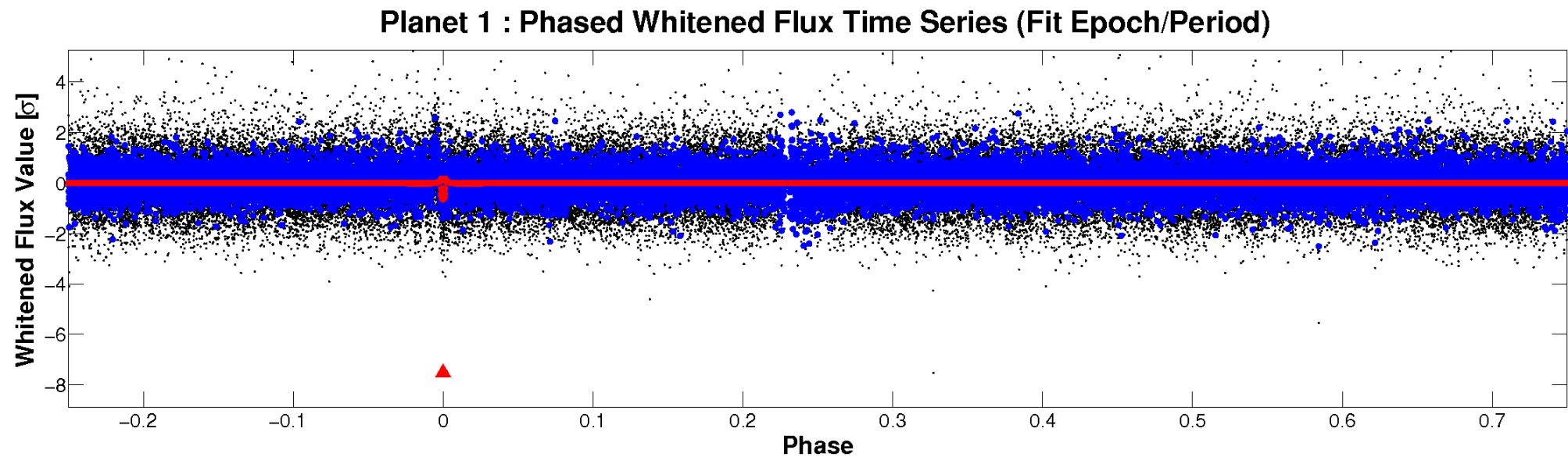
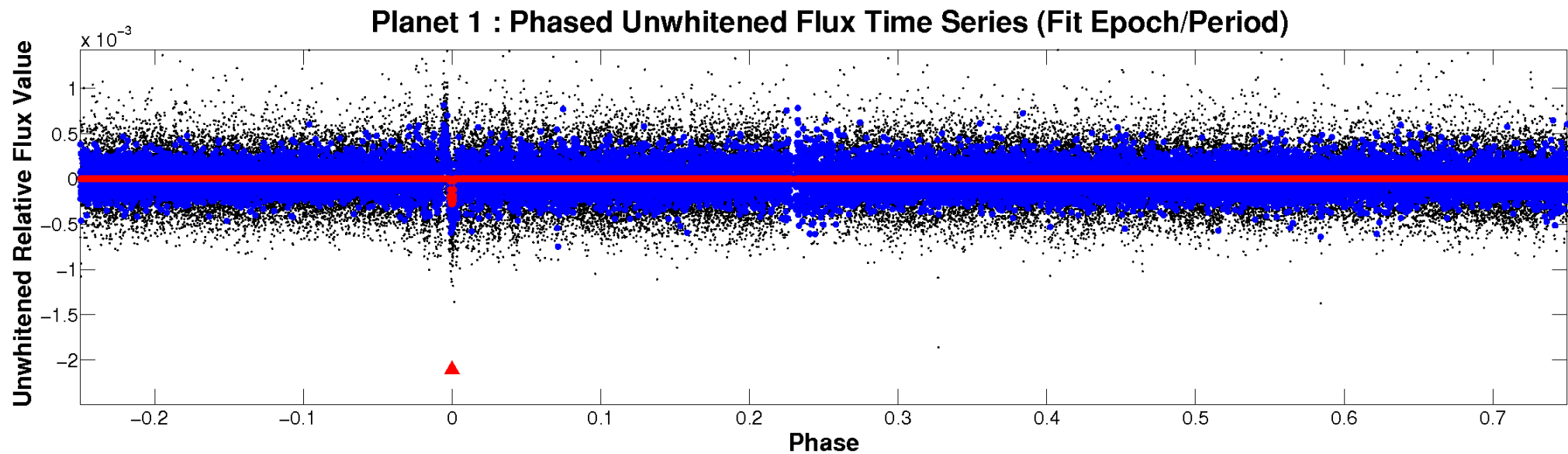


ALT Odd/Even

TCE 008092459-01

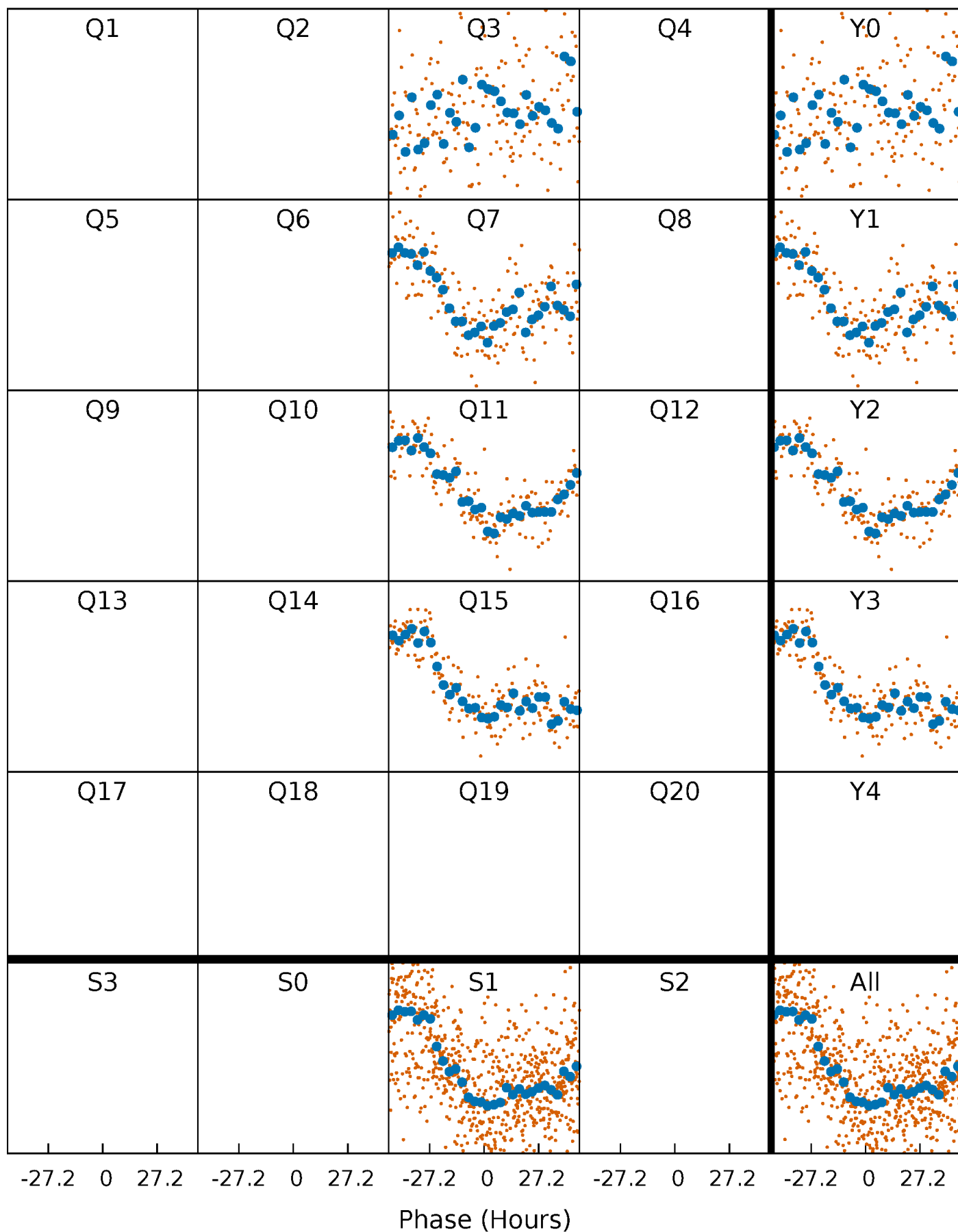


Non-Whitened Vs. Whitened Light Curve



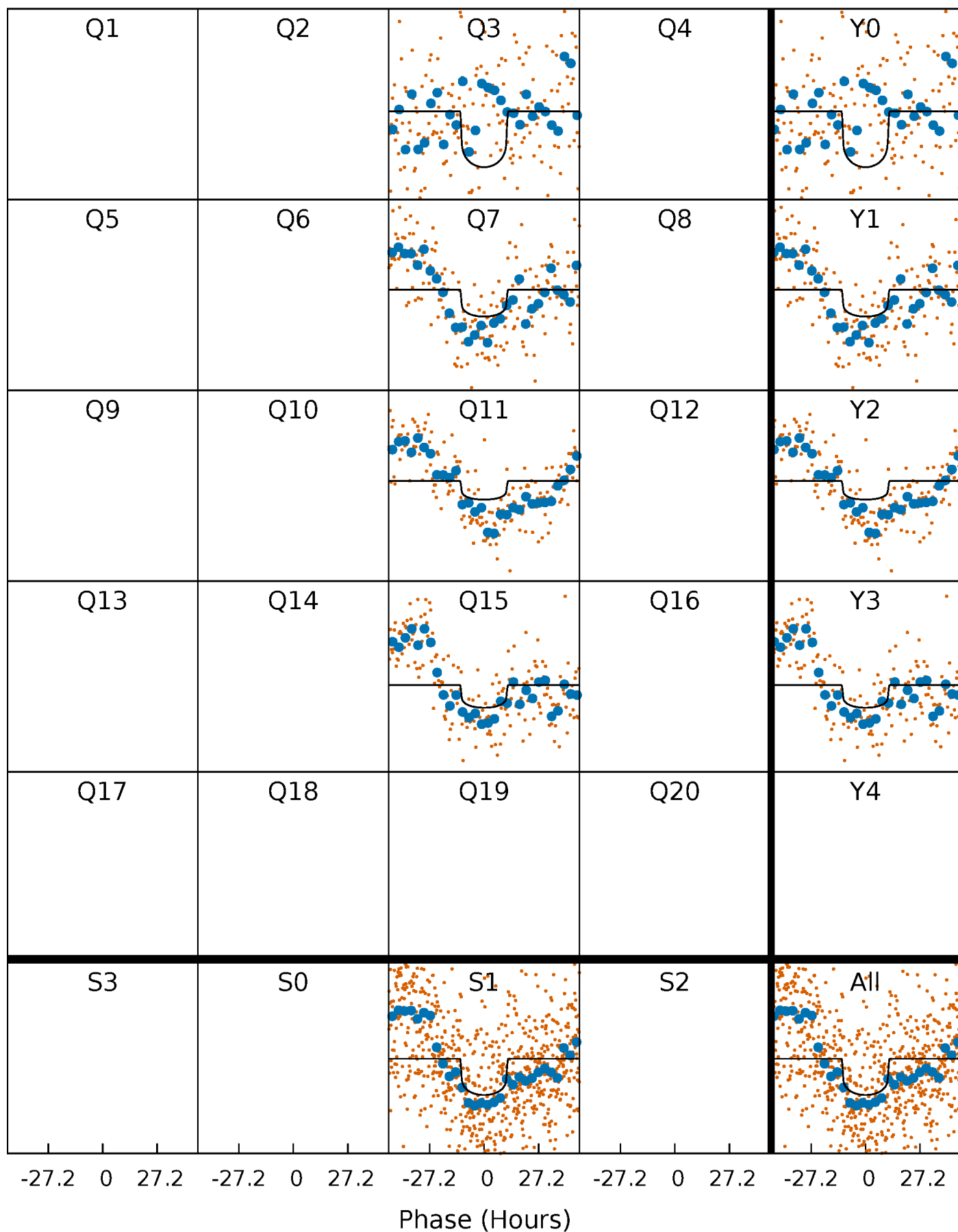
PDC Quarter-Phased Transit Curves

TCE 008092459-01 P=374.337927 Days $T_0=264.232583$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 008092459-01 P=374.337927 Days $T_0=264.232583$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

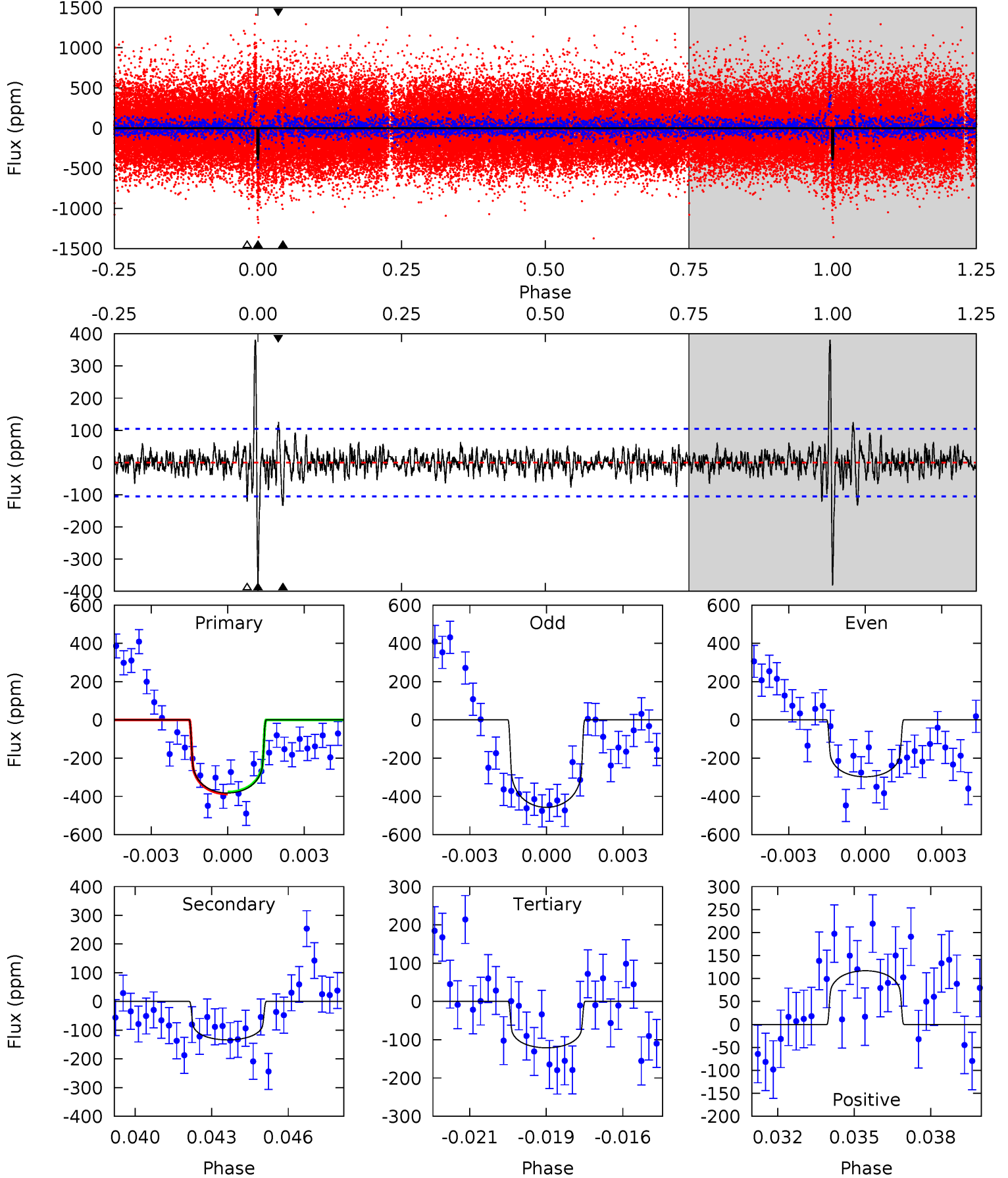
TCE 008092459-01 P=374.308763 Days $T_0=264.235584$ (BKJD)



DV Model-Shift Uniqueness Test

008092459-01, P = 374.337927 Days, E = 264.232583 Days

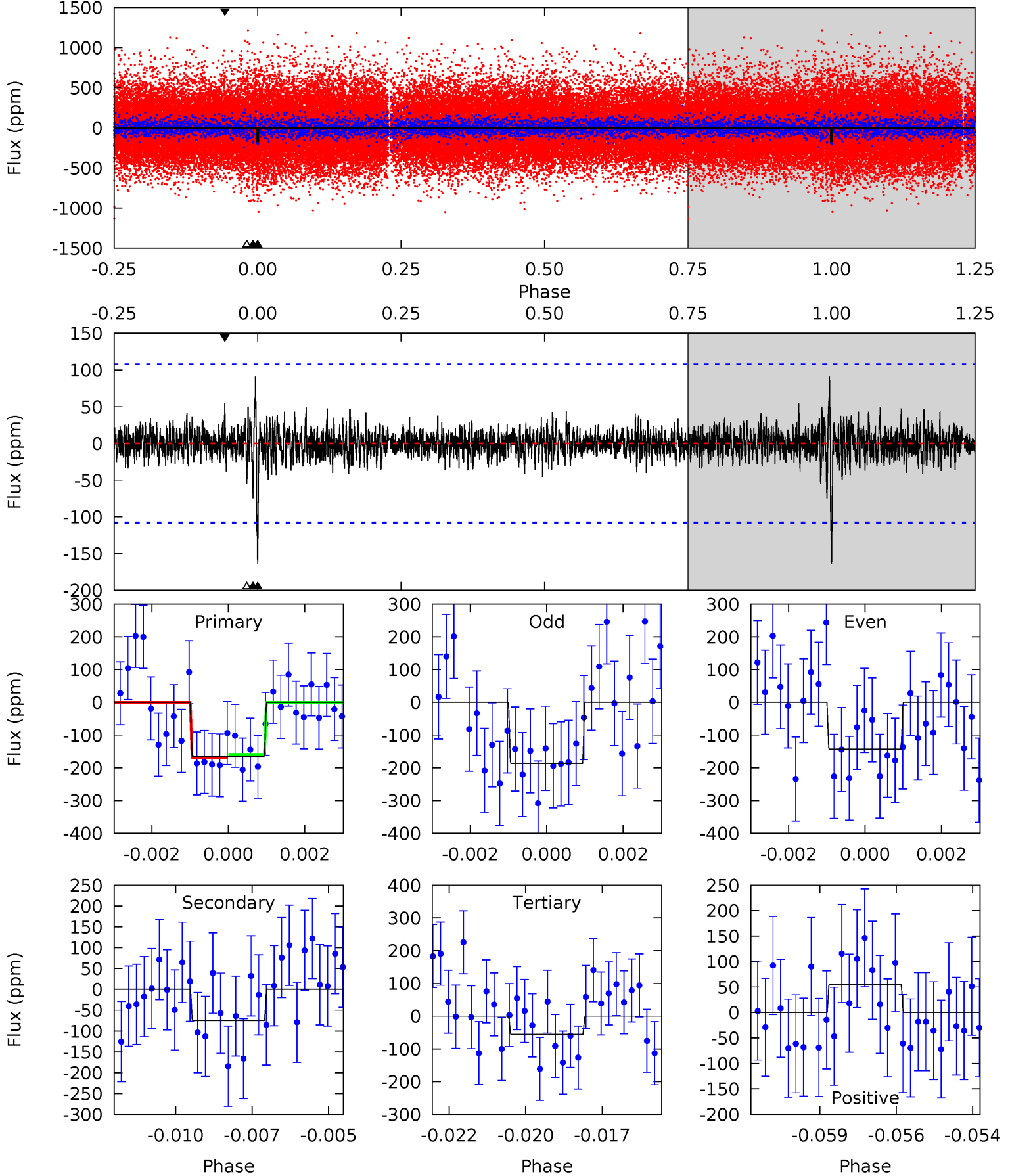
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.2	6.72	6.08	5.87	5.27	3.00	1.72	13.1	13.3	0.64	0.85	4.02	0.82	0.50	0.23



Alt Model-Shift Uniqueness Test

008092459-01, P = 374.308763 Days, E = 264.235584 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.08	3.65	2.71	2.68	5.29	3.03	0.69	5.36	5.39	0.94	0.97	1.08	0.87	0.36	0.25



Stellar Parameters For KIC 008092459

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6088^{+181}_{-199}	$4.451^{+0.070}_{-0.210}$	$-0.180^{+0.250}_{-0.300}$	$0.990^{+0.317}_{-0.127}$	$1.005^{+0.143}_{-0.117}$	$1.461^{+0.525}_{-0.743}$
	+3%/-3%	+2%/-5%	+139%/-167%	+32%/-13%	+14%/-12%	+36%/-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 008092459-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-134 ± 20	$1.89^{+0.60}_{-0.50}$	378^{+31}_{-19}	5133^{+775}_{-507}	21309^{+17653}_{-9136}
Alt.	-74 ± 20	$1.46^{+0.55}_{-0.49}$	376^{+30}_{-19}	5001^{+1131}_{-572}	18899^{+27319}_{-9324}

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

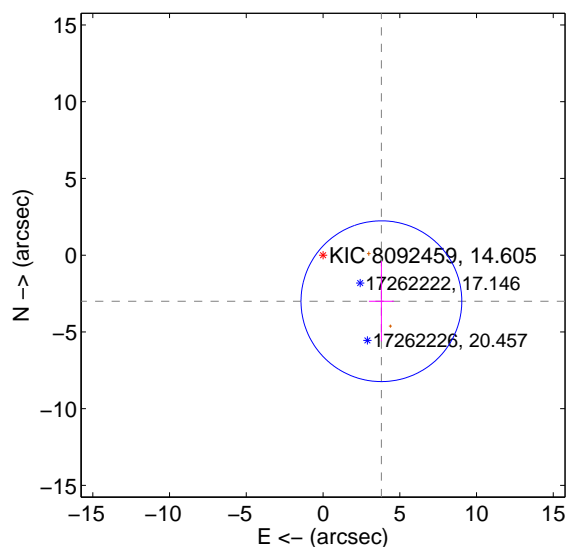
Supplemental centroid analysis for 008092459-01. Kepler magnitude: 14.61. Transit SNR 7.62

There are 0 quarters with good PRF difference image offsets

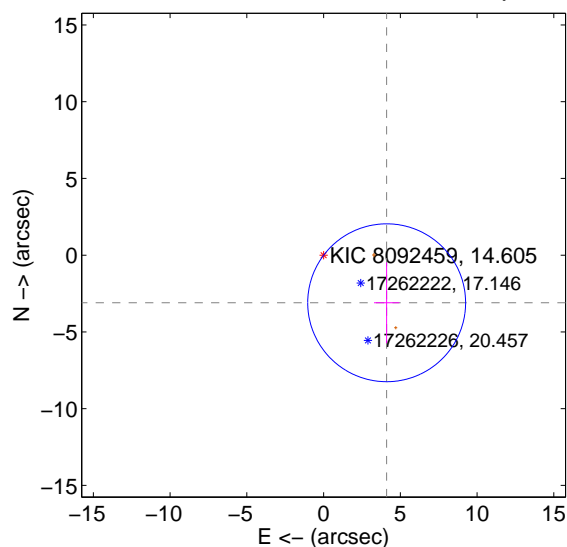
The direct PRF centroid is offset from the target star catalog position by about 0.33 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.844 ± 1.746	2.77	-3.803 ± 0.813	-3.000 ± 2.623
PRF-fit source offset from KIC position	5.148 ± 1.714	3.00	-4.109 ± 0.822	-3.101 ± 2.629
photometric centroid source offset	5.22 ± 2.64	1.98	-3.05 ± 1.89	4.24 ± 2.95

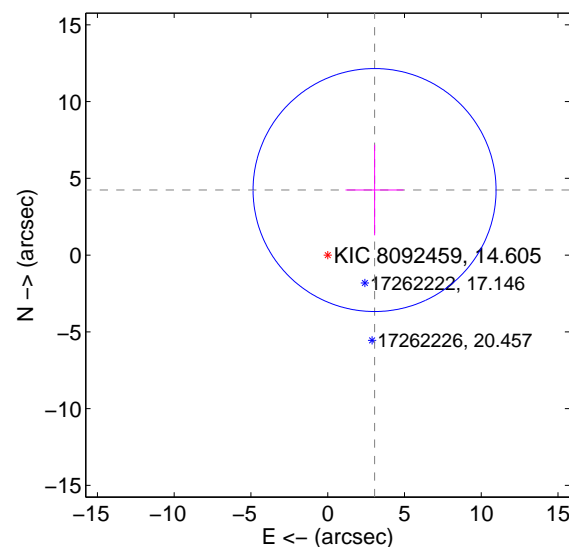
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

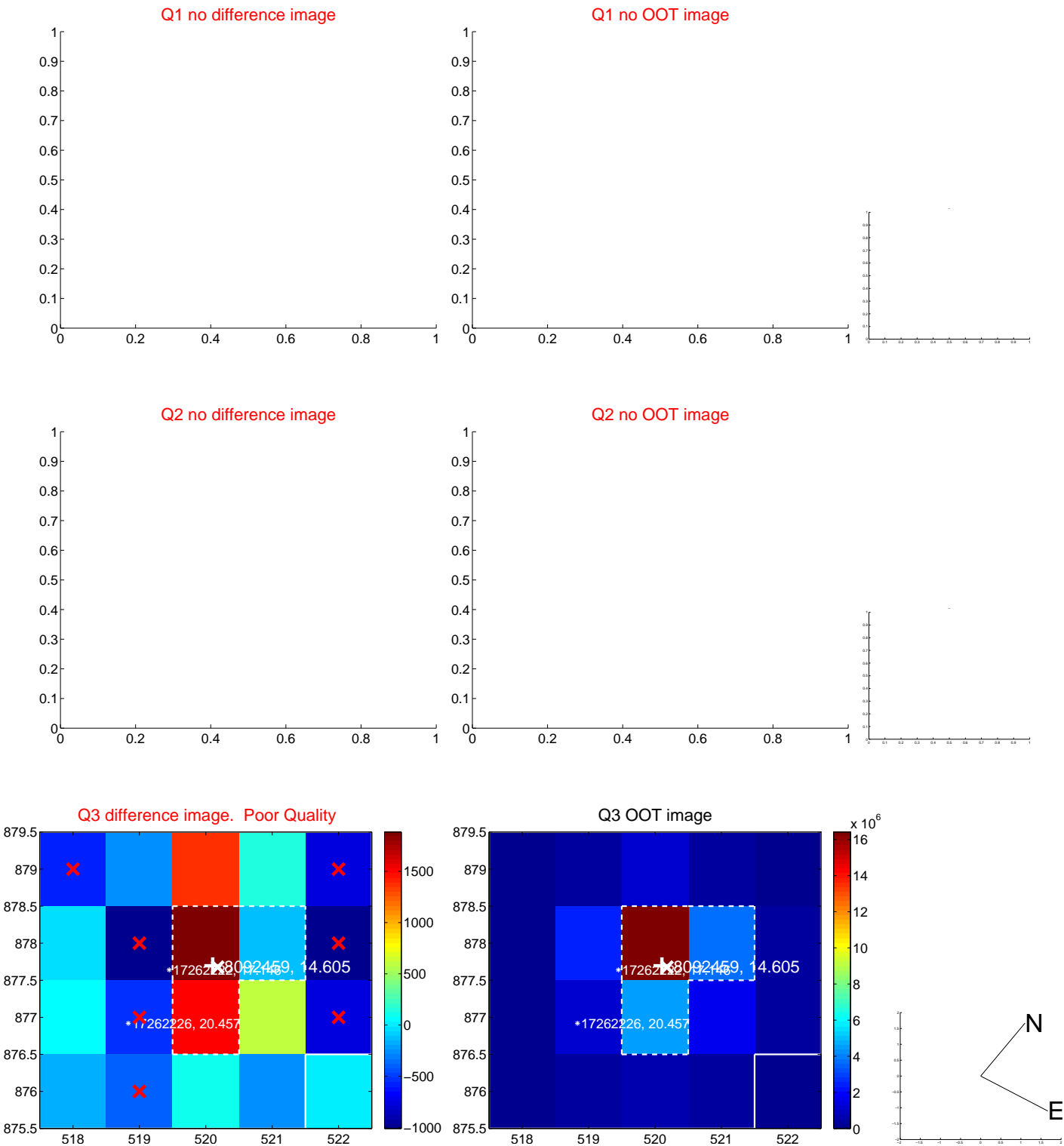


offset from photometric centroids

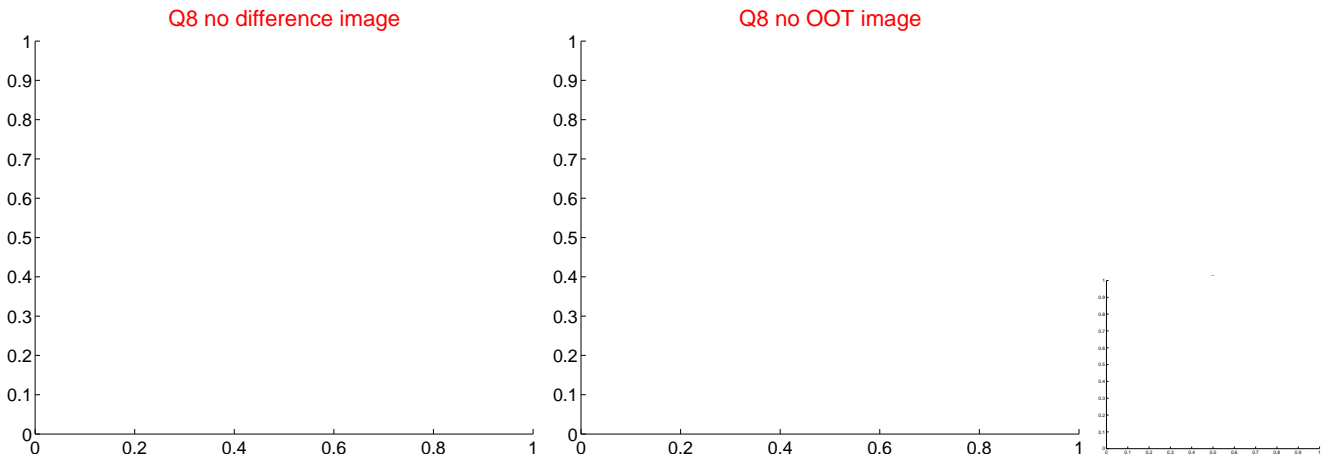
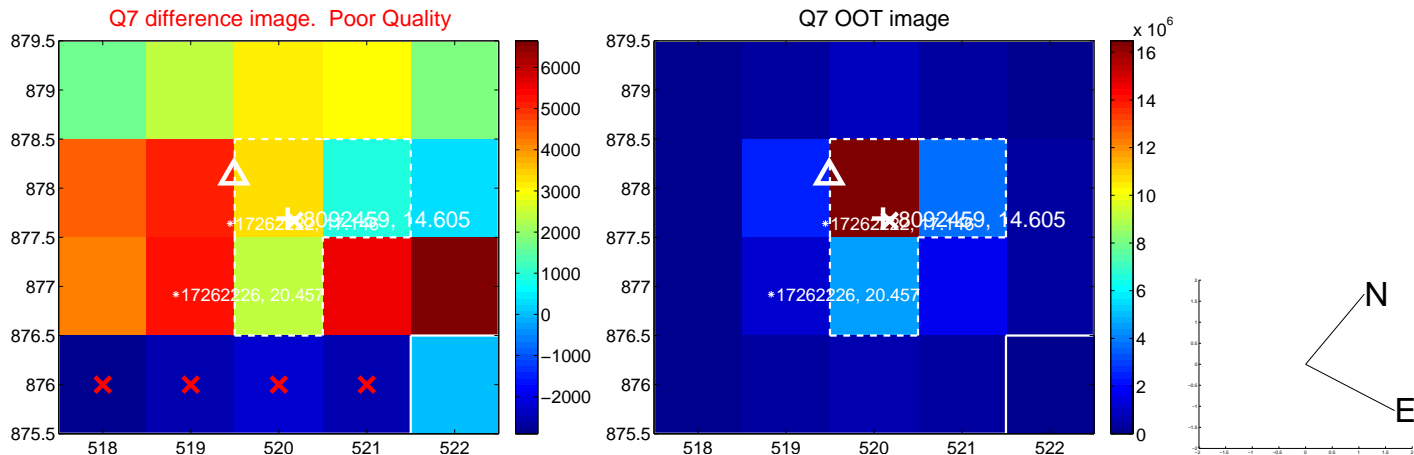
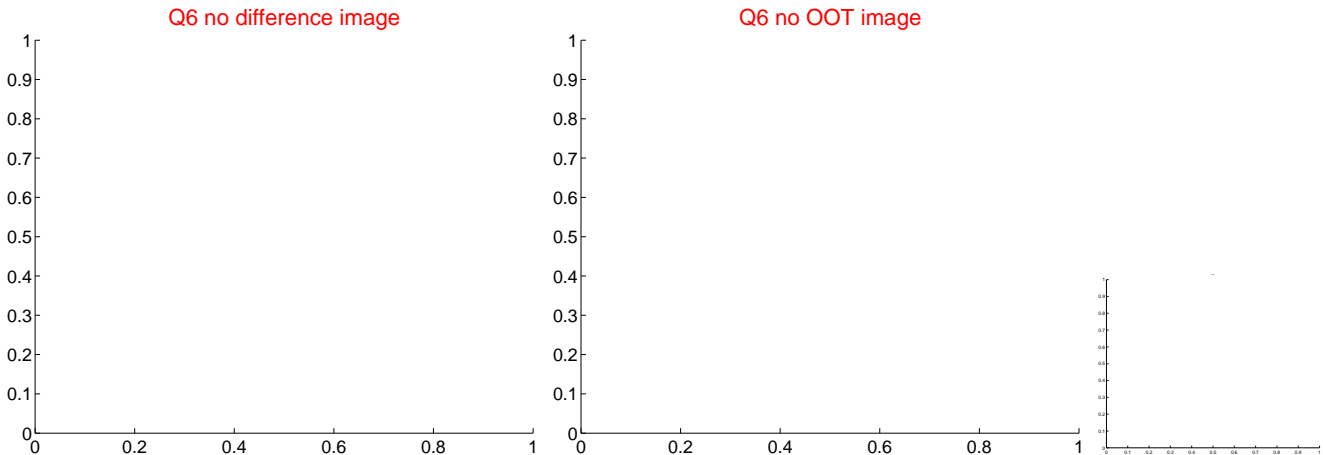
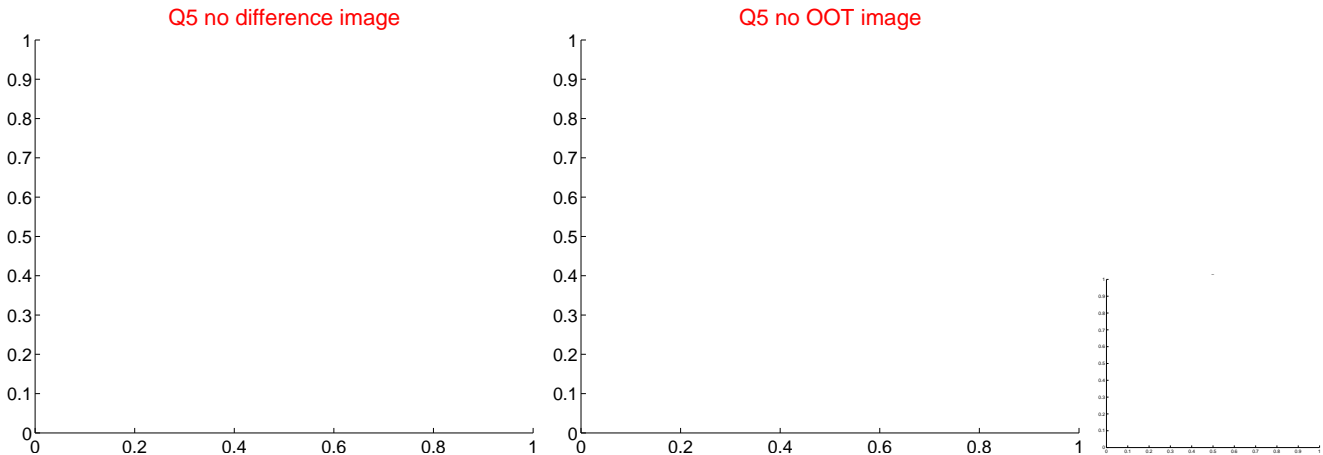


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

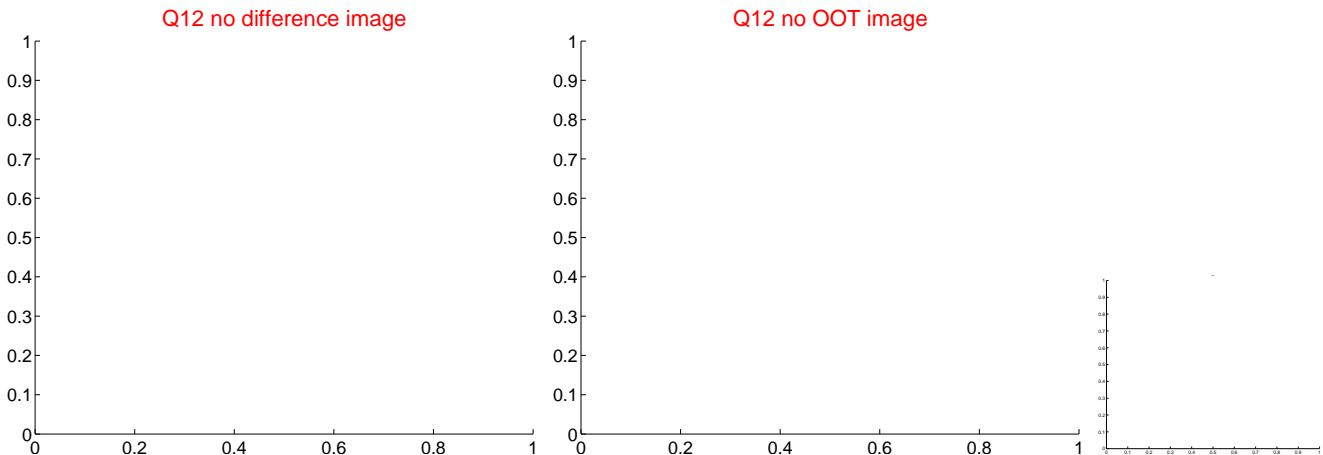
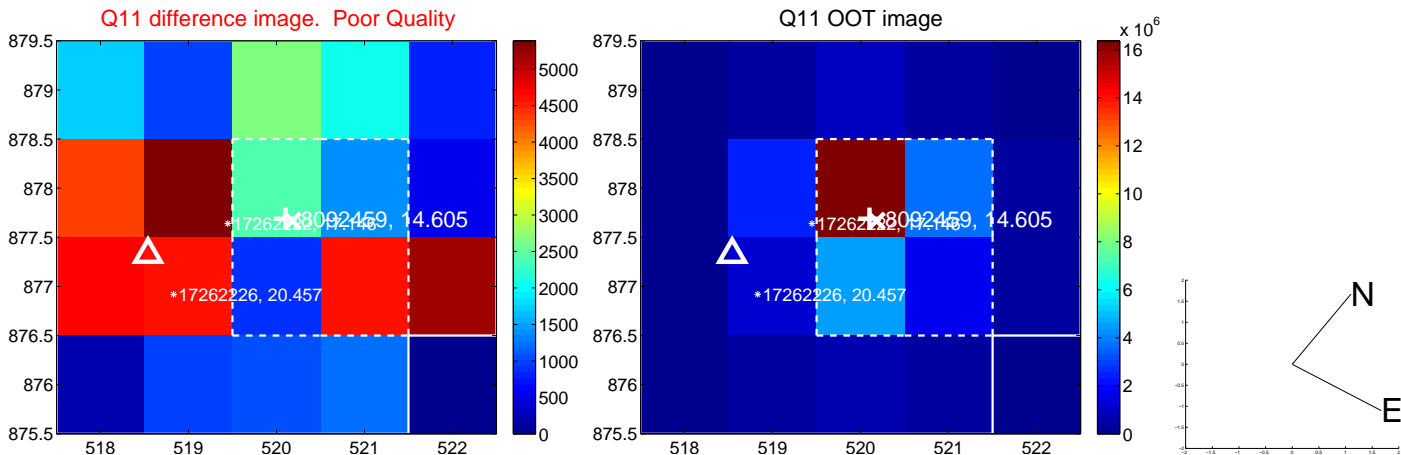
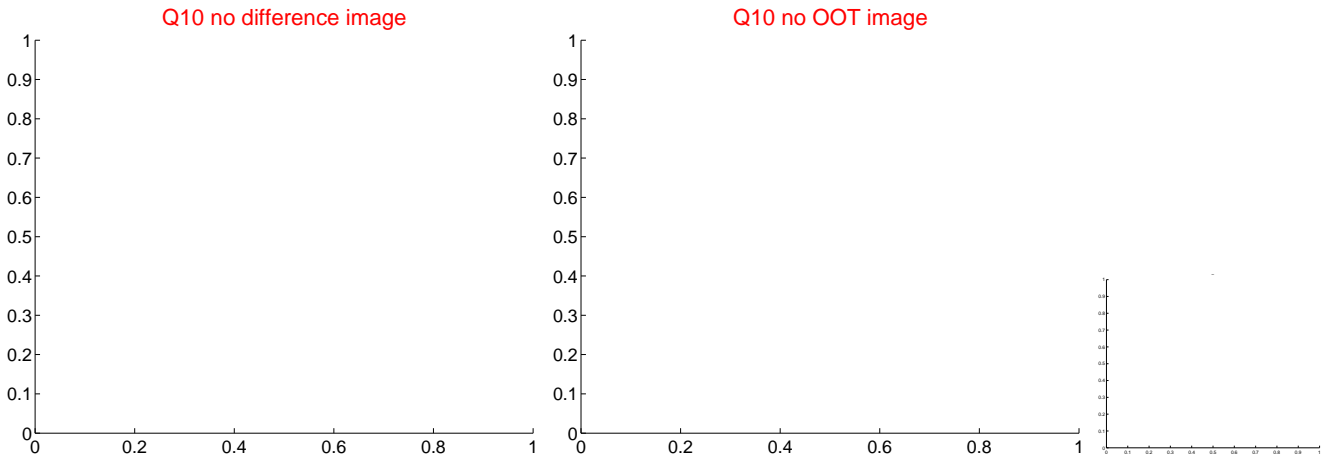
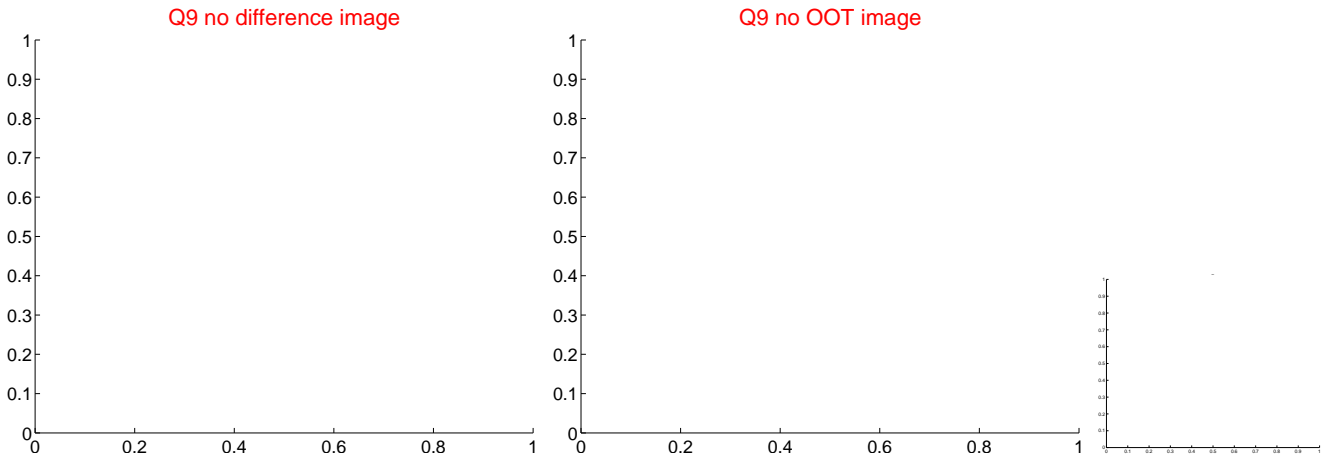
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



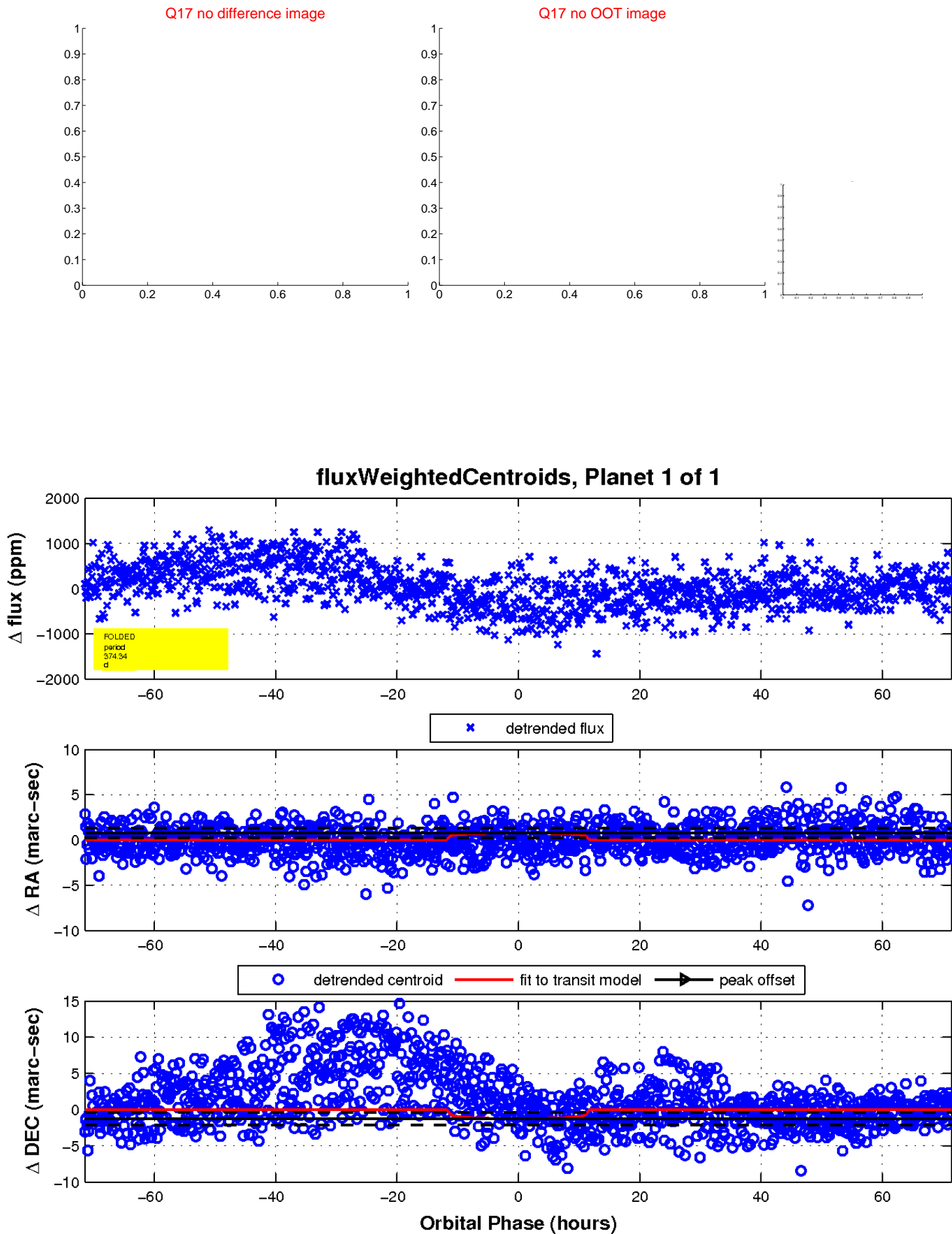
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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UKIRT Image

Declination

