

KIC 010808557

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})
010808557-01	OBS	No	173.500722	251.862996	1043.9	4.770	8.0	6.3	9.05	4647	60.28	98.73

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010808557-01	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_CHASES_MARSHALL_ZUMA—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—INCONSISTENT_TRANS

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

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

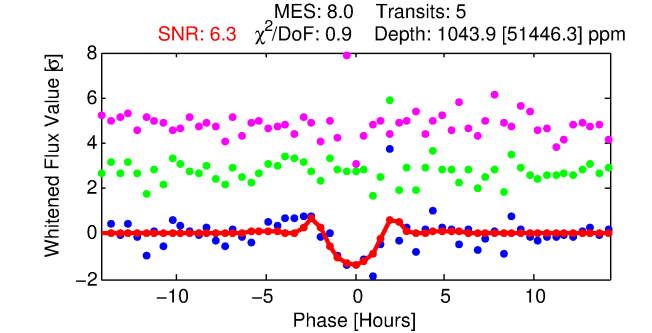
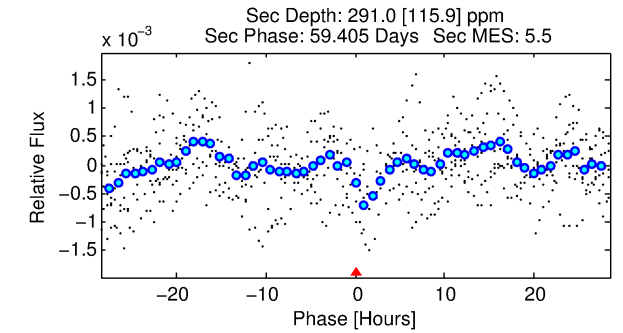
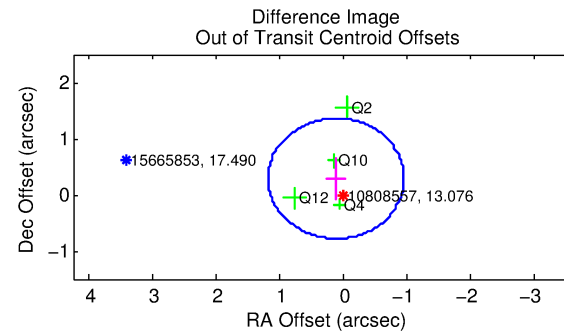
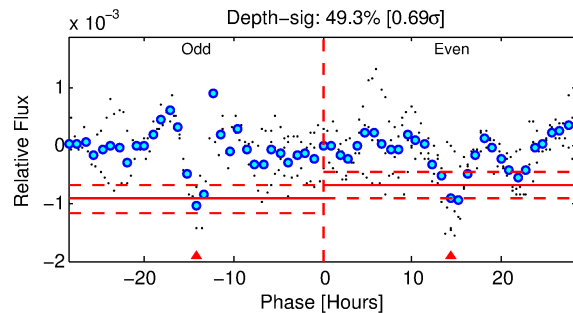
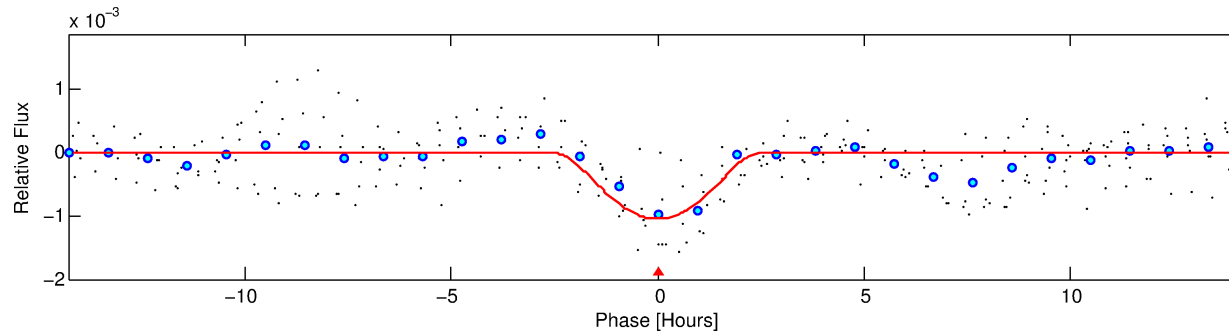
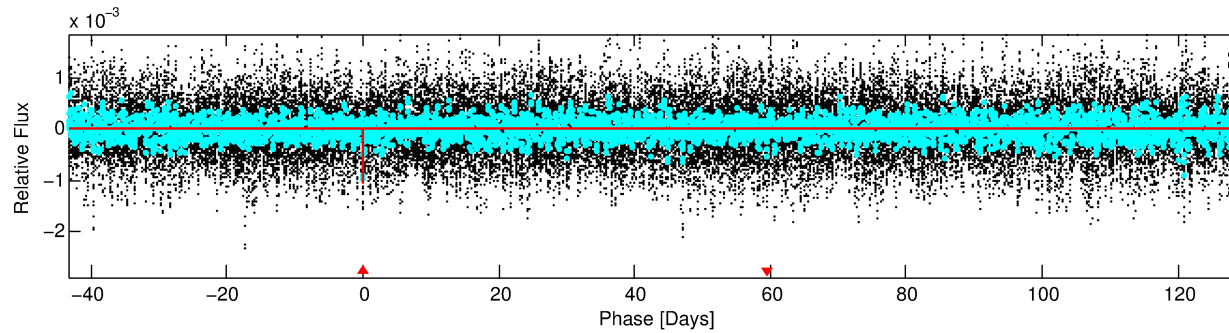
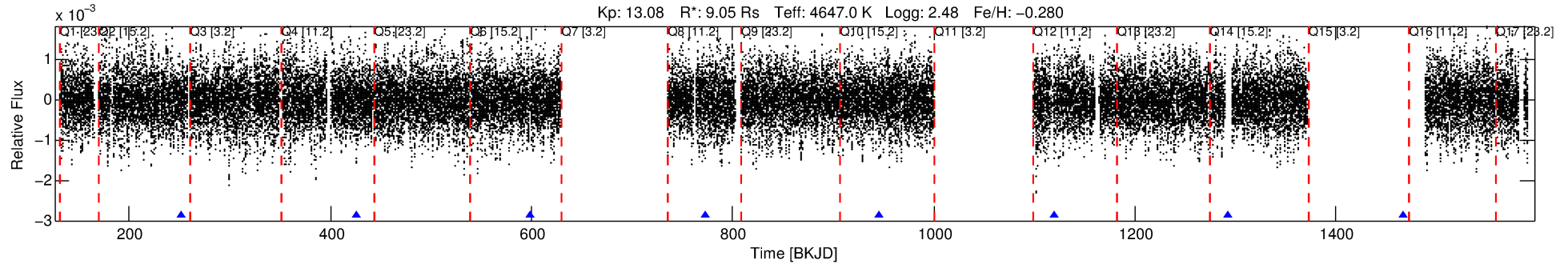
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010808557-01

No Significant Match Found

DV One-Page Summary

KIC: 10808557 Candidate: 1 of 1 Period: 173.501 d



DV Fit Results:

Period = 173.50072 [0.00307] d
Epoch = 251.8630 [0.0088] BKJD
Rp/R* = 0.0610 [0.1331]
a/R* = 98.53 [47.52]
b = 1.00 [2.15]
Seff = 98.73 [14.53]
Teq = 804 [30] K
Rp = 60.28 [132.03] Re
a = 0.5891 [0.0750] AU
Ag = 15.29 [67.02] [0.21 σ]
Teffp = 2457 [2693] K [0.61 σ]

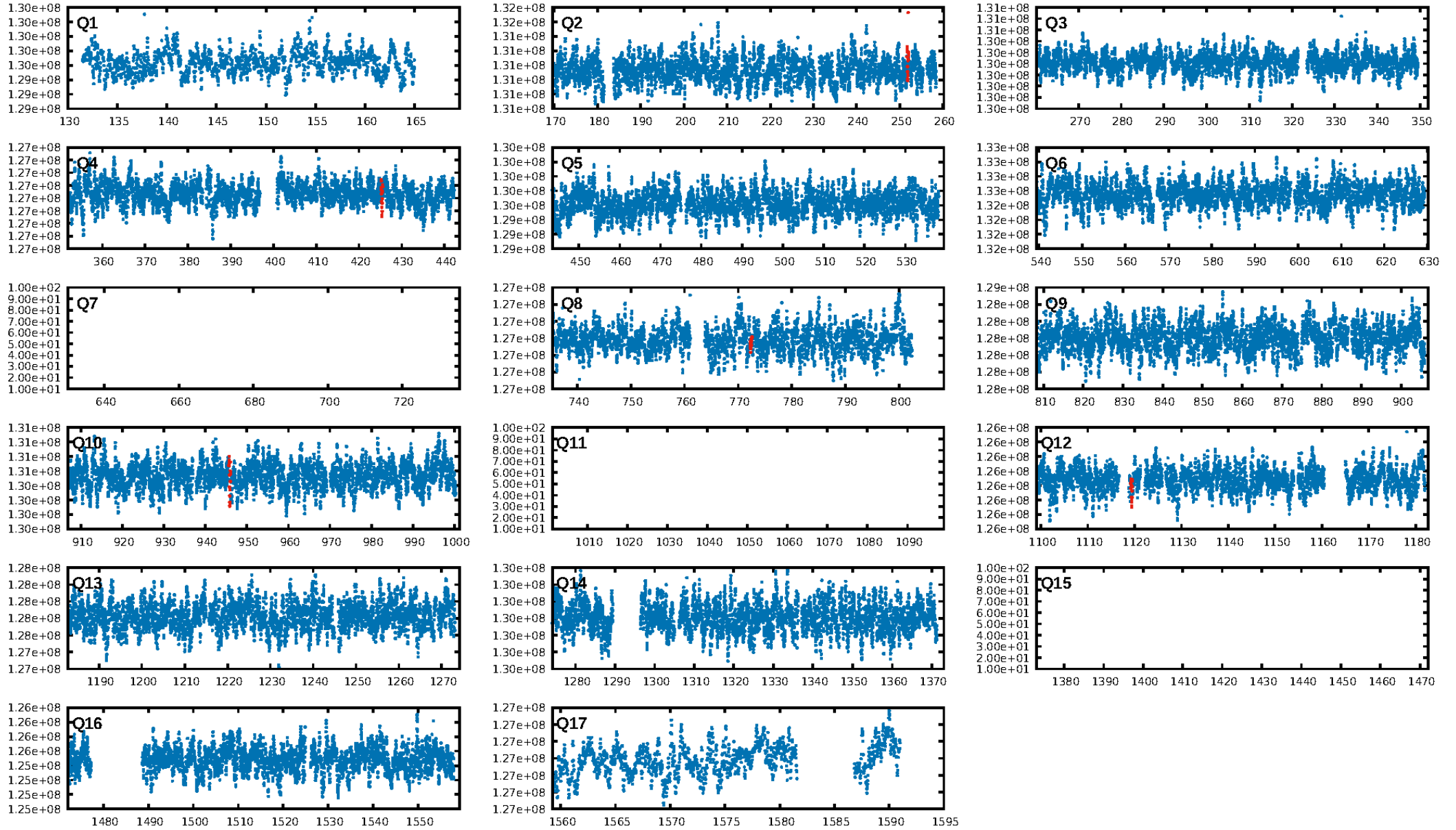
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 21.3%
ModelChiSquareGof-sig: 98.8%
Bootstrap-pfa: 6.99e-11
RollingBand-fgt: 1.00 [5/5]
GhostDiagnostic-chr: -78.66
Centroid-sig: 3.8%
Centroid-so: 0.366 arcsec [1.14 σ]
OotOffset-rm: 0.310 arcsec [0.87 σ]
OotOffset-st: 2/0/2/0 [4]
KicOffset-rm: 0.362 arcsec [1.08 σ]
KicOffset-st: 2/0/2/0 [4]
DiffImageQuality-fgm: 1.00 [4/4]
DiffImageOverlap-fno: 1.00 [5/5]

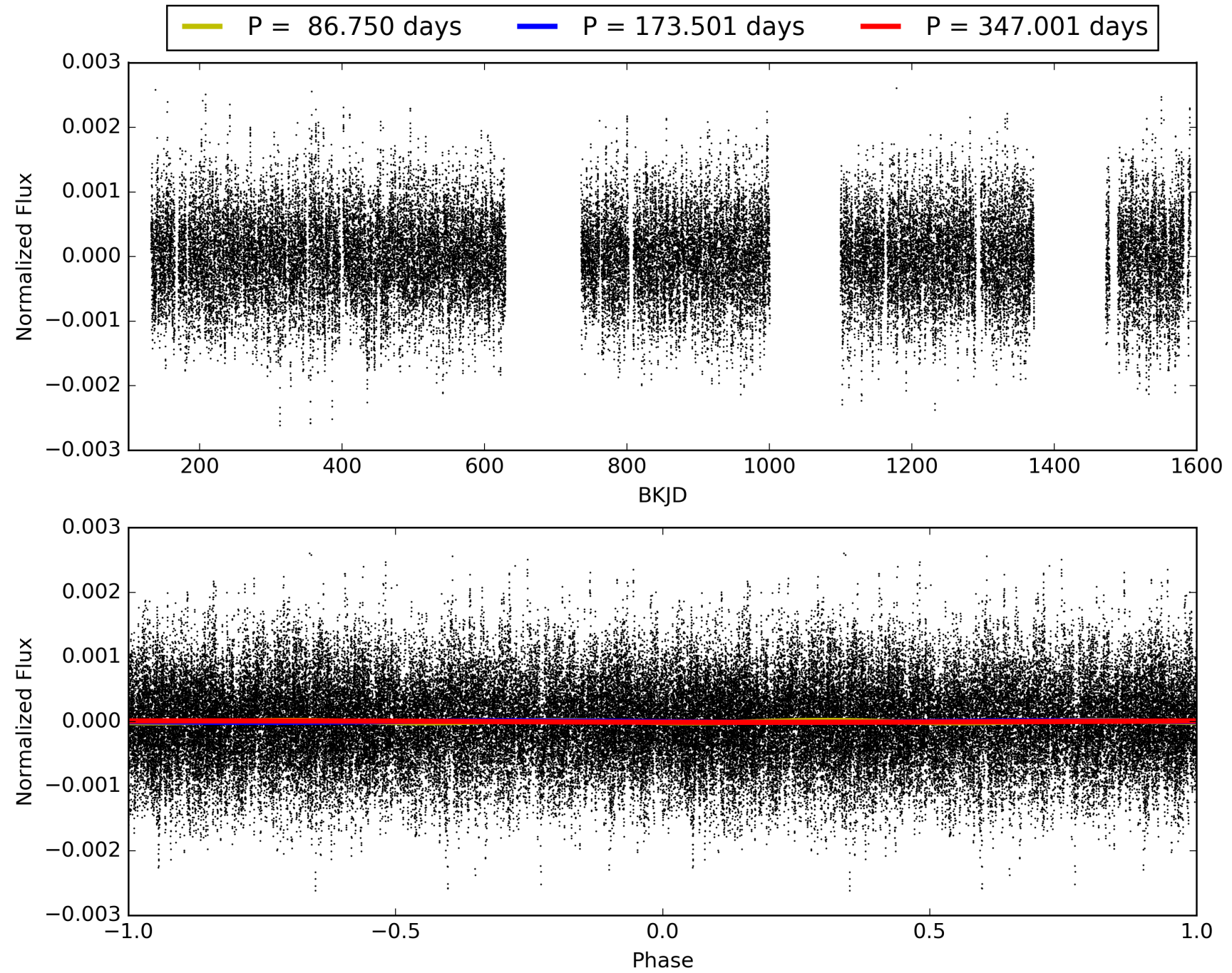
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 20:41:07 Z

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

TCE 010808557-01, PDC Light Curves

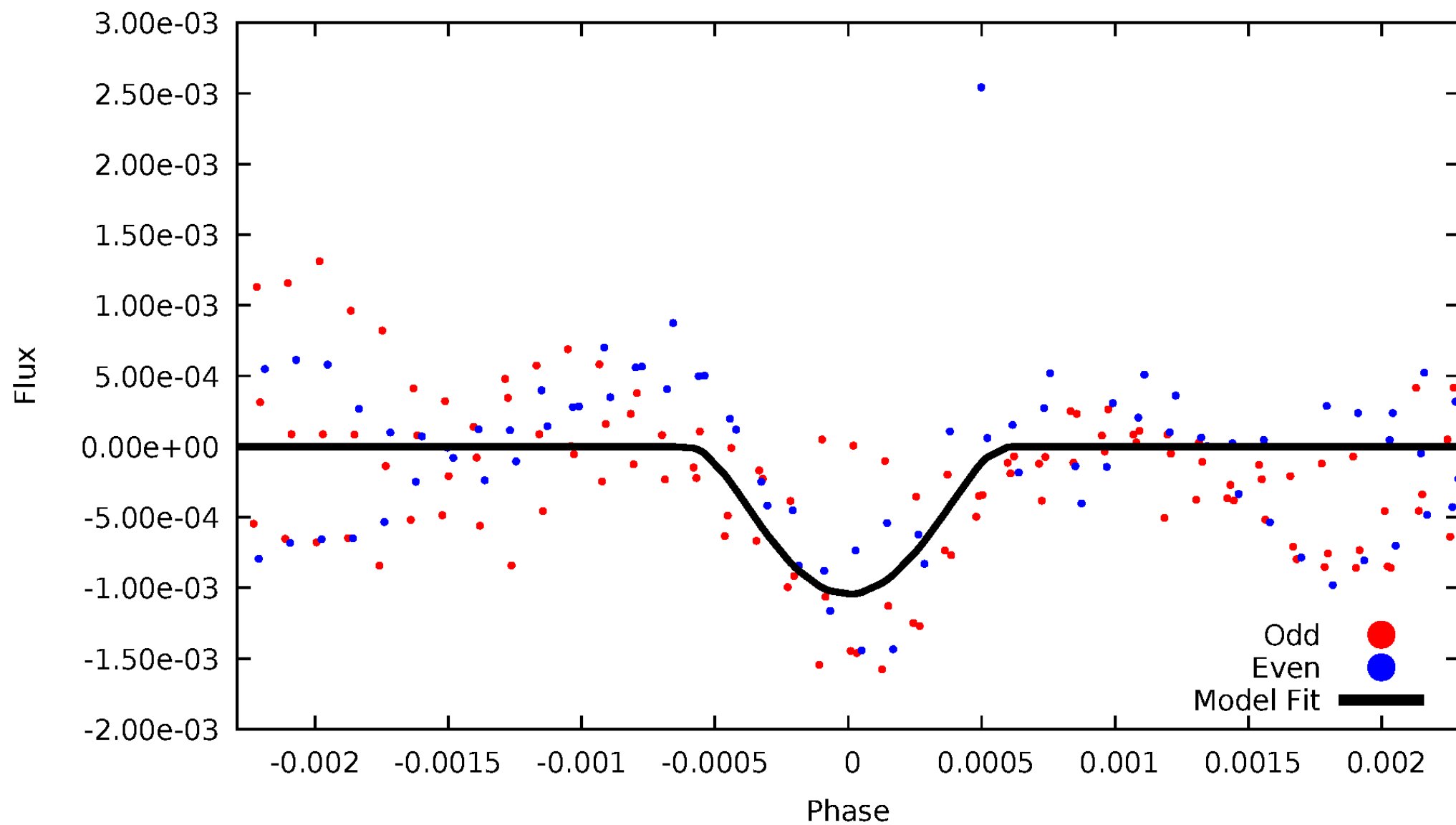


TCE 010808557-01



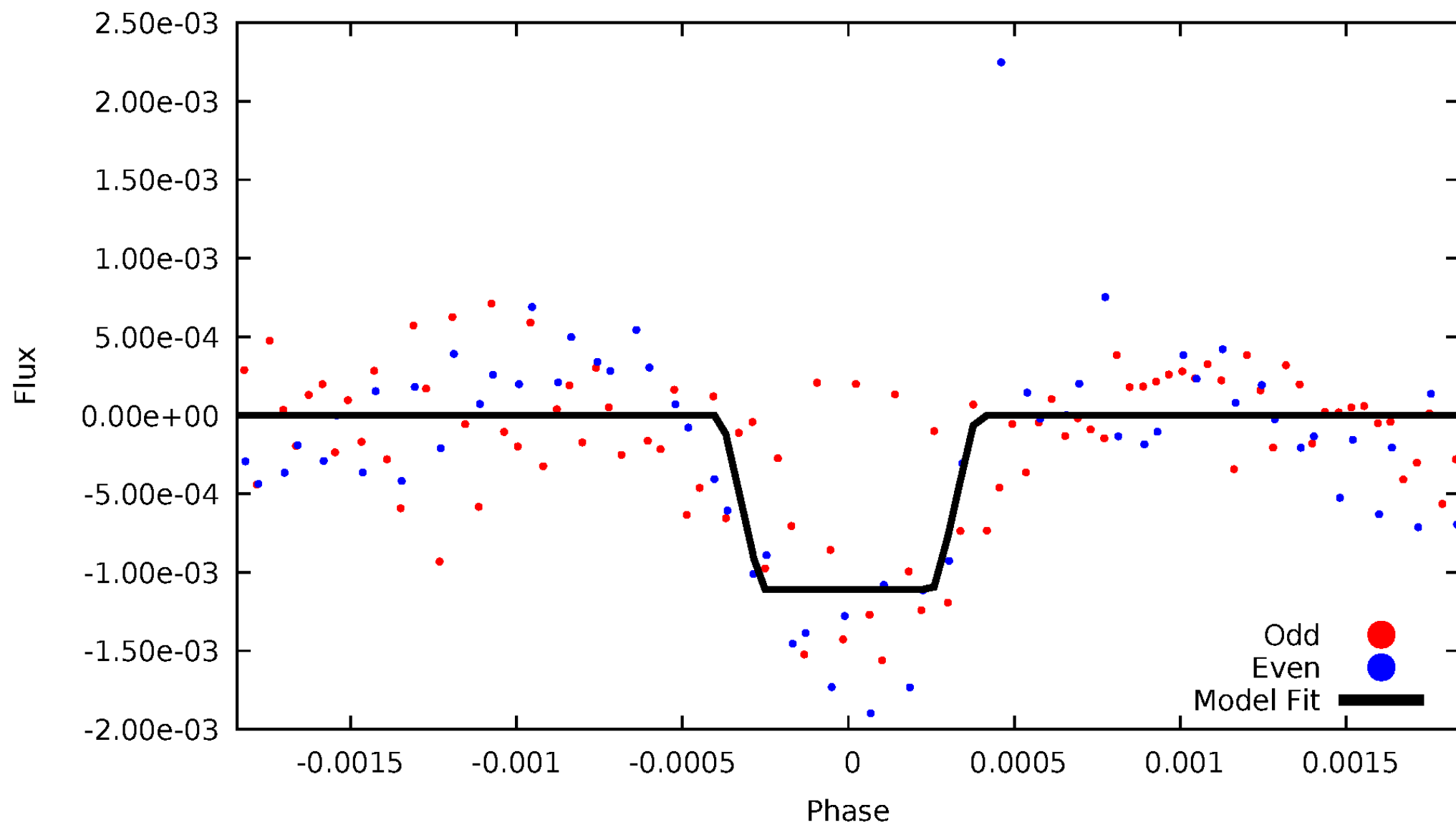
DV Odd/Even

TCE 010808557-01

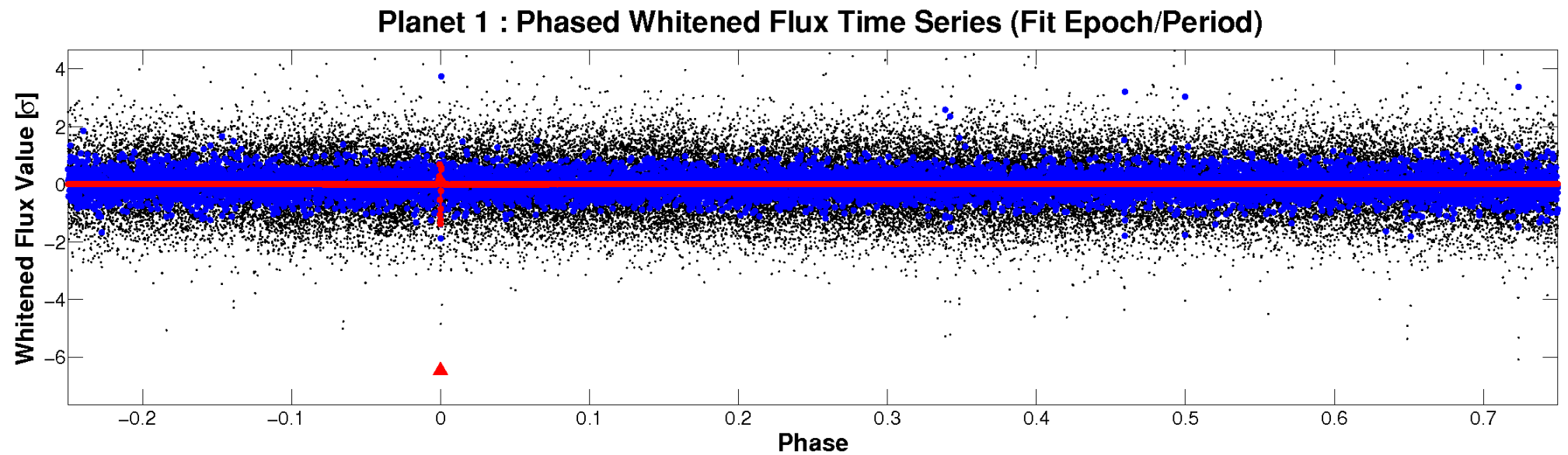
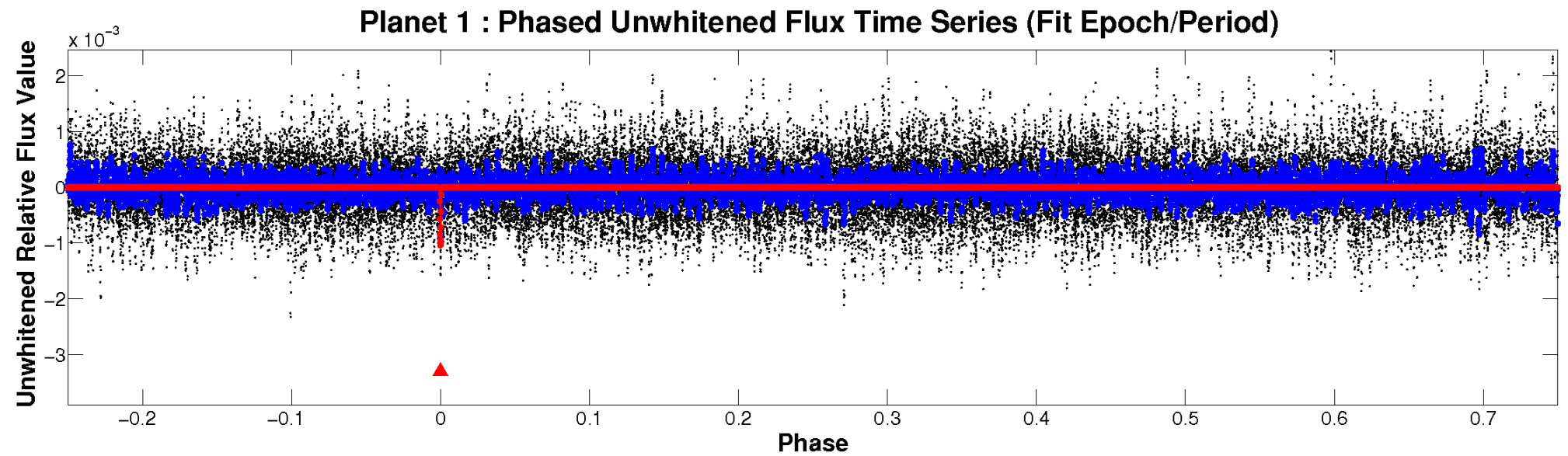


ALT Odd/Even

TCE 010808557-01

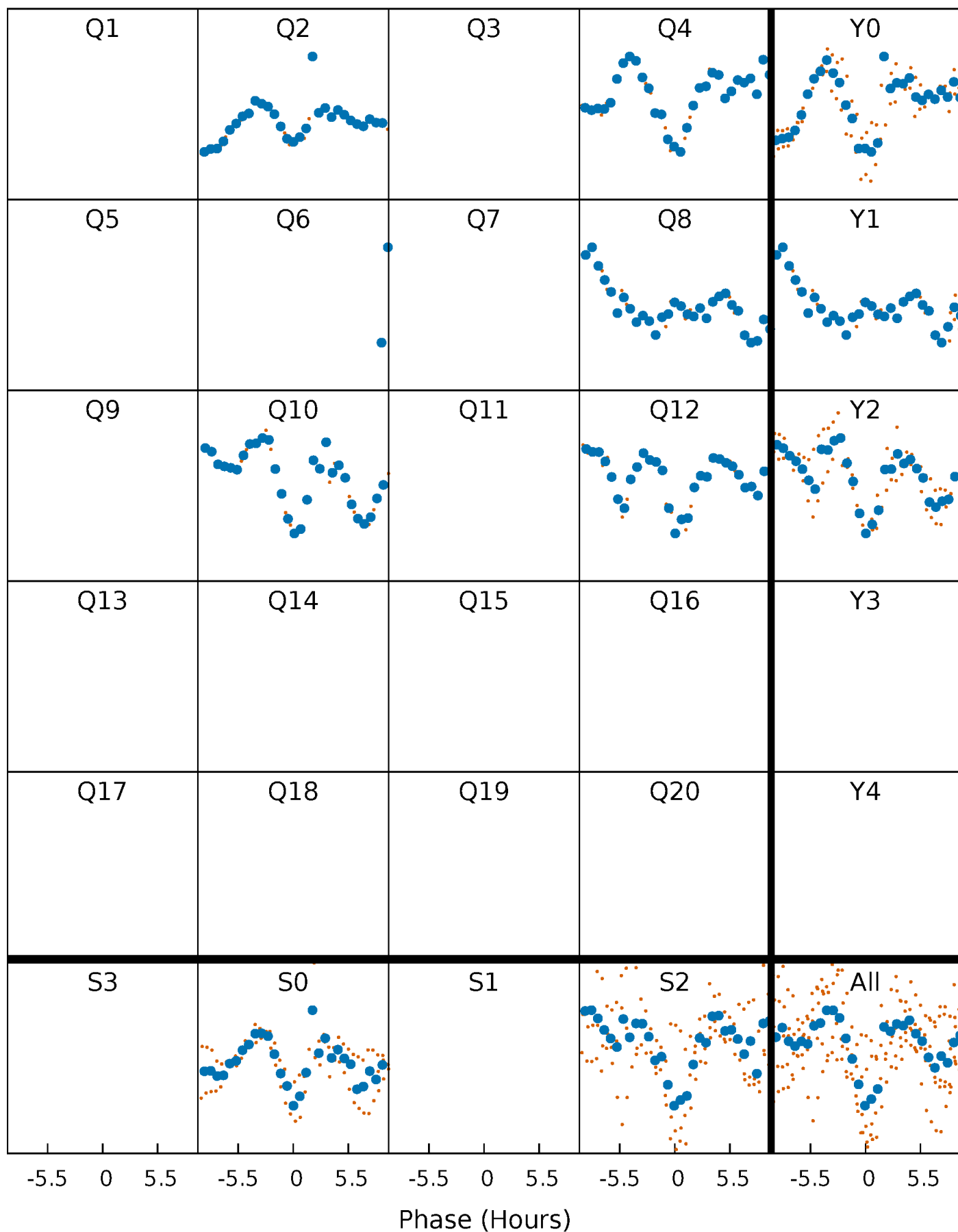


Non-Whitened Vs. Whitened Light Curve



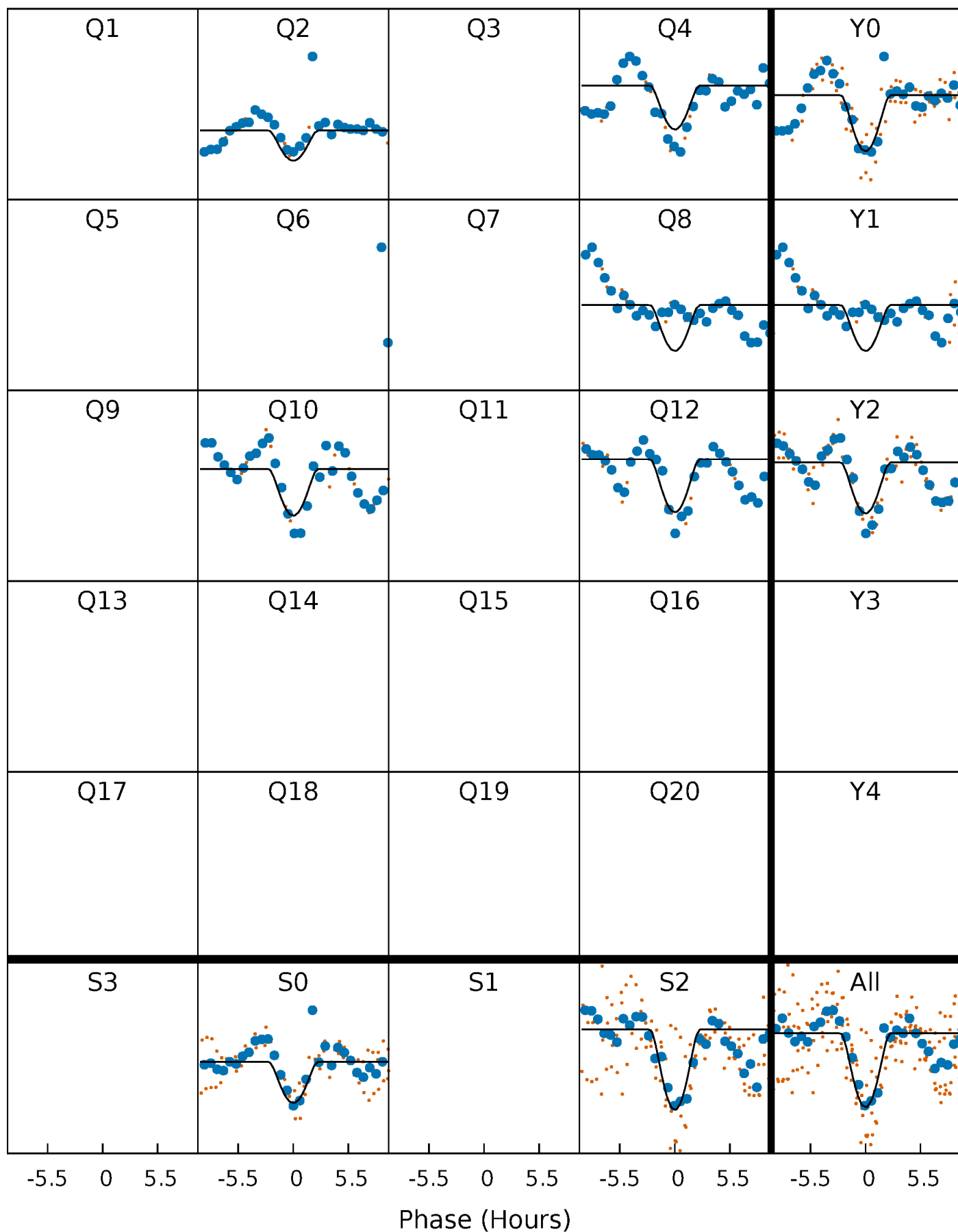
PDC Quarter-Phased Transit Curves

TCE 010808557-01 P=173.500722 Days $T_0=251.862996$ (BKJD)



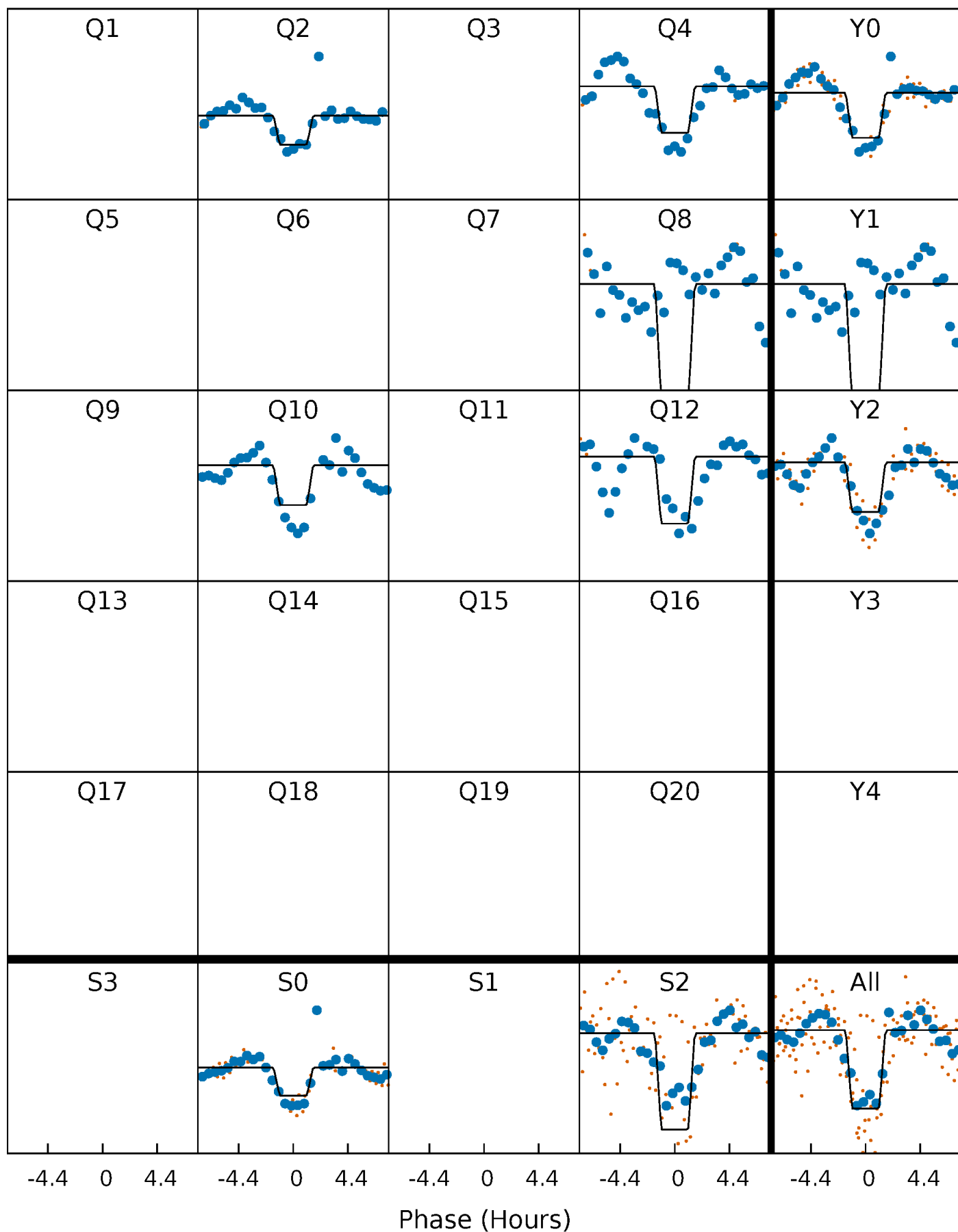
DV Quarter-Phased Transit Curves

TCE 010808557-01 $P=173.500722$ Days $T_0=251.862996$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

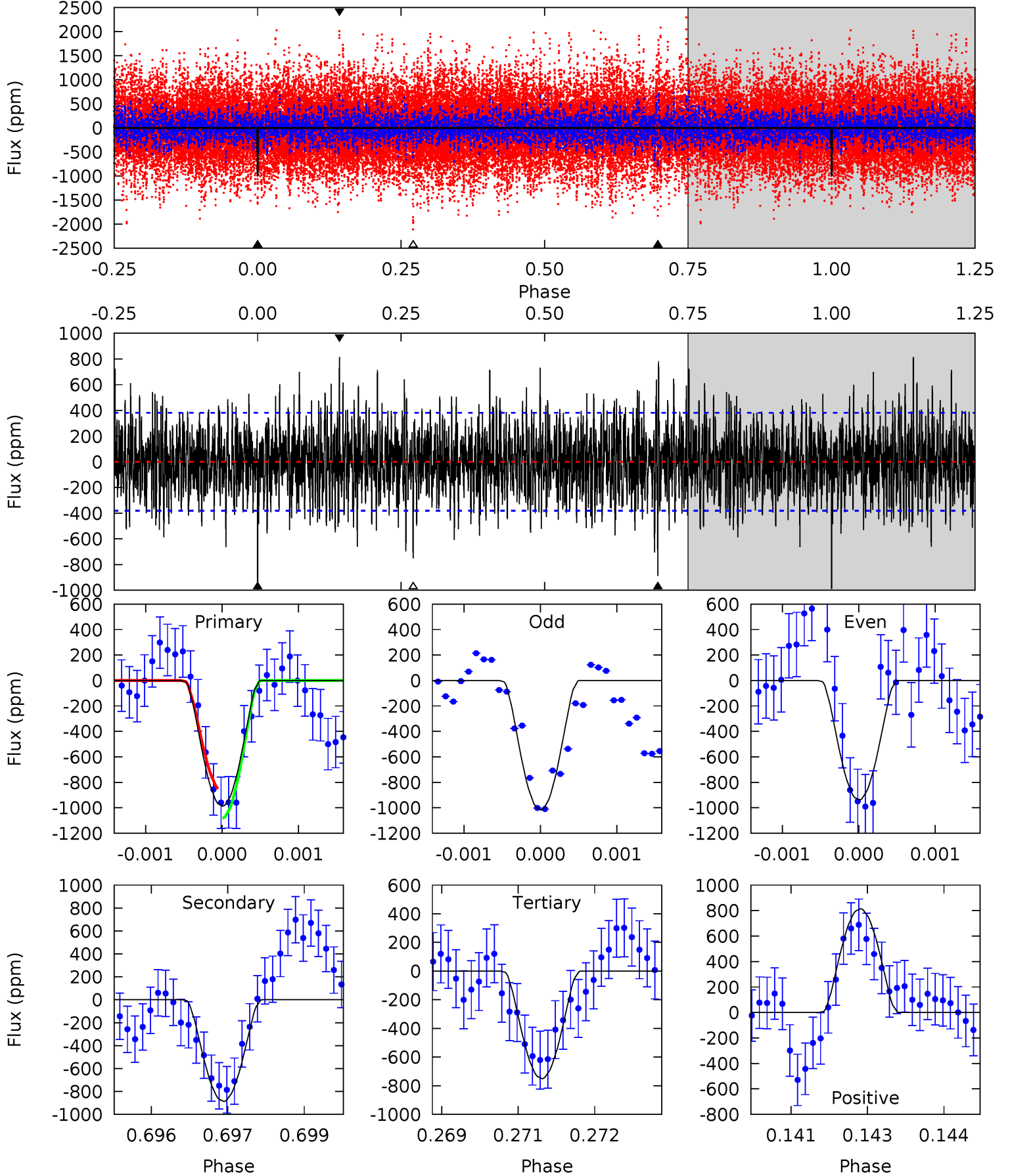
TCE 010808557-01 P=173.498293 Days $T_0=251.869584$ (BKJD)



DV Model-Shift Uniqueness Test

010808557-01, $P = 173.500722$ Days, $E = 78.362274$ Days

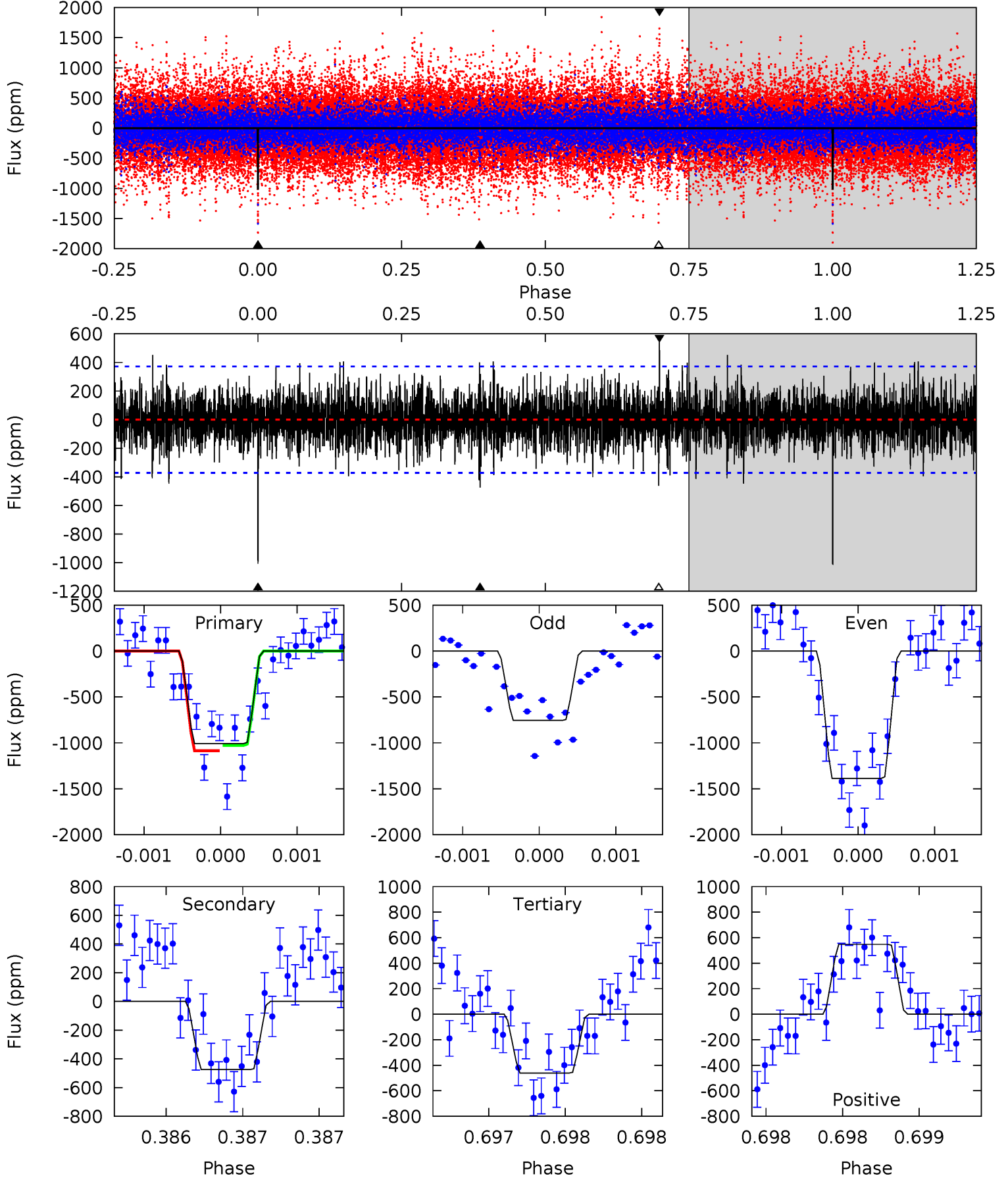
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.0	12.6	10.7	11.6	5.42	3.23	3.06	3.37	2.46	1.94	1.03	0.54	0.79	0.45	1.65



Alt Model-Shift Uniqueness Test

010808557-01, $P = 173.498293$ Days, $E = 78.371291$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	7.02	6.83	8.11	5.50	3.37	1.80	8.09	6.81	0.20	-1.08	4.69	0.87	0.35	0.43



Stellar Parameters For KIC 010808557

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4647^{+69}_{-41}	$2.481^{+0.033}_{-0.027}$	$-0.280^{+0.150}_{-0.100}$	$9.055^{+1.694}_{-0.299}$	$0.907^{+0.363}_{-0.020}$	$0.002^{+0.000}_{-0.000}$
	+1%/-1%	+1%/-1%	+54%/-36%	+19%/-3%	+40%/-2%	+10%/-16%
Source	SPE74	AST9	SPE74	DSEP		

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

Secondary Eclipse Parameters for KIC 010808557-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-887 ± 70	$115.62^{+109.96}_{-75.20}$	1123^{+23}_{-17}	2960^{+1209}_{-481}	13^{+97}_{-10}
Alt.	-474 ± 68	$101.85^{+107.79}_{-70.30}$	1122^{+22}_{-17}	2794^{+1269}_{-483}	$8.568^{+88.499}_{-6.452}$

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 $A_{obs} \gg 1.0$

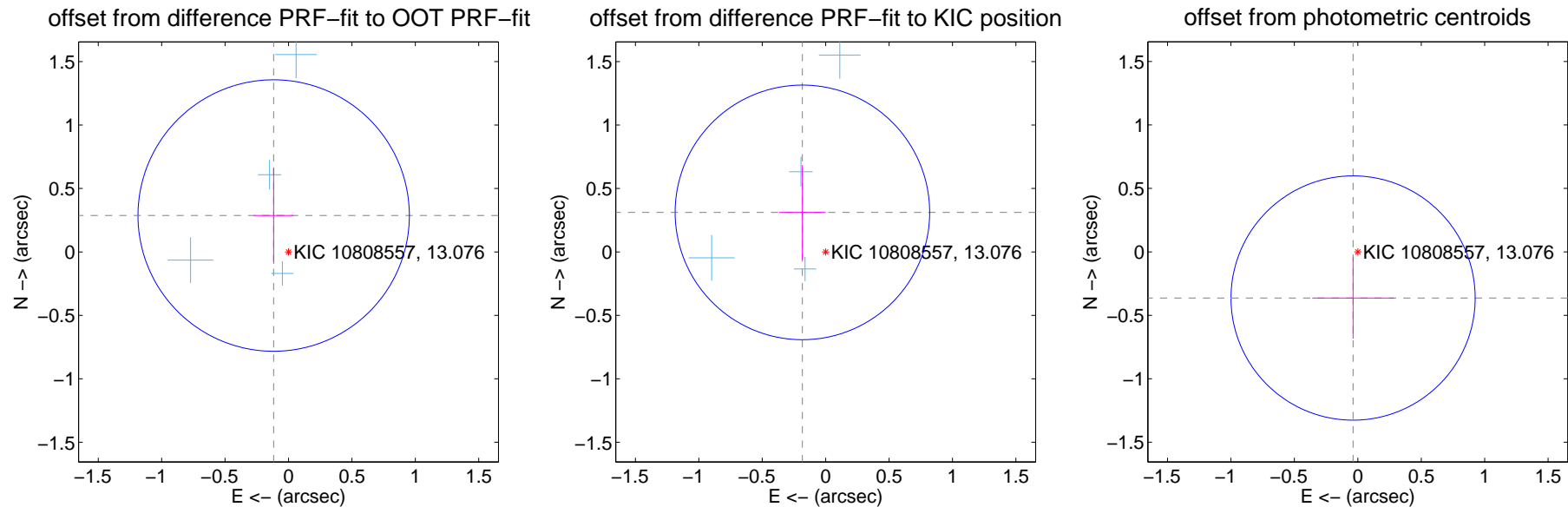
DV Centroid Data

Supplemental centroid analysis for 010808557-01. Kepler magnitude: 13.08. Transit SNR 6.32

There are 4 quarters with good PRF difference image offsets

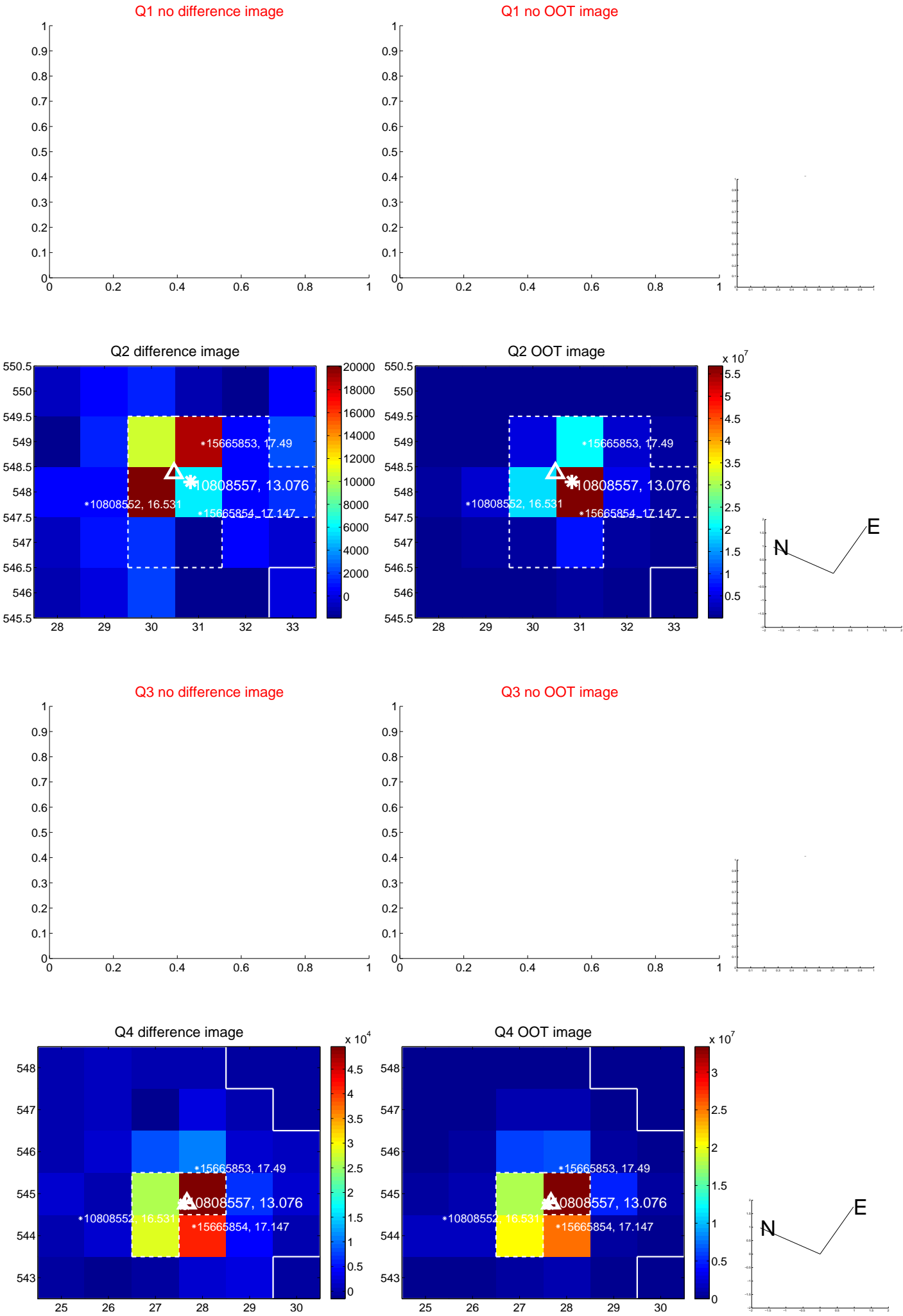
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.310 ± 0.357	0.87	0.117 ± 0.157	0.287 ± 0.380
PRF-fit source offset from KIC position	0.362 ± 0.334	1.08	0.183 ± 0.182	0.312 ± 0.373
photometric centroid source offset	0.37 ± 0.32	1.14	0.04 ± 0.32	-0.36 ± 0.32

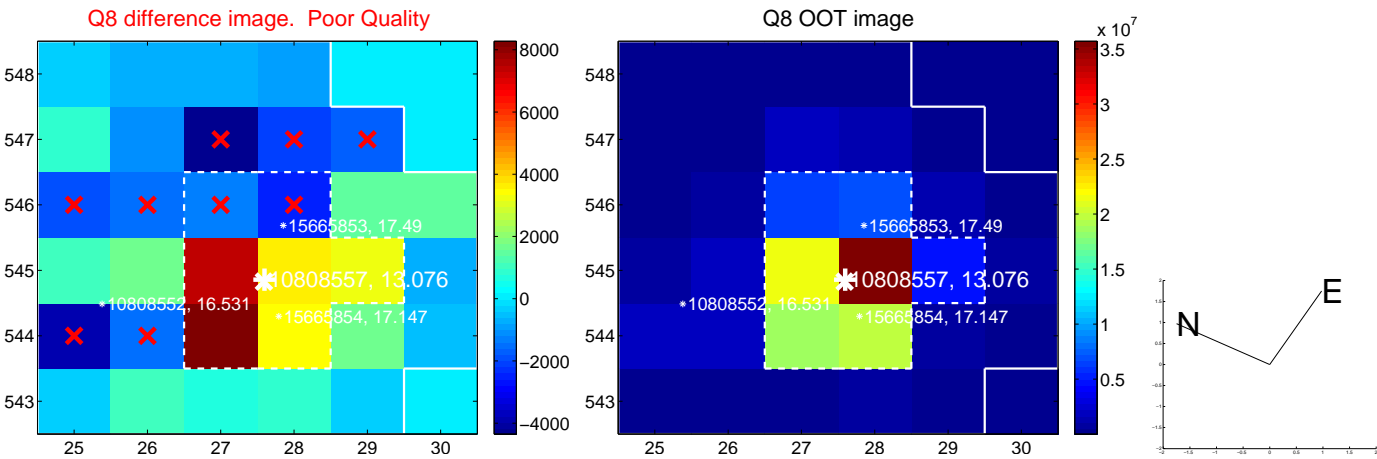
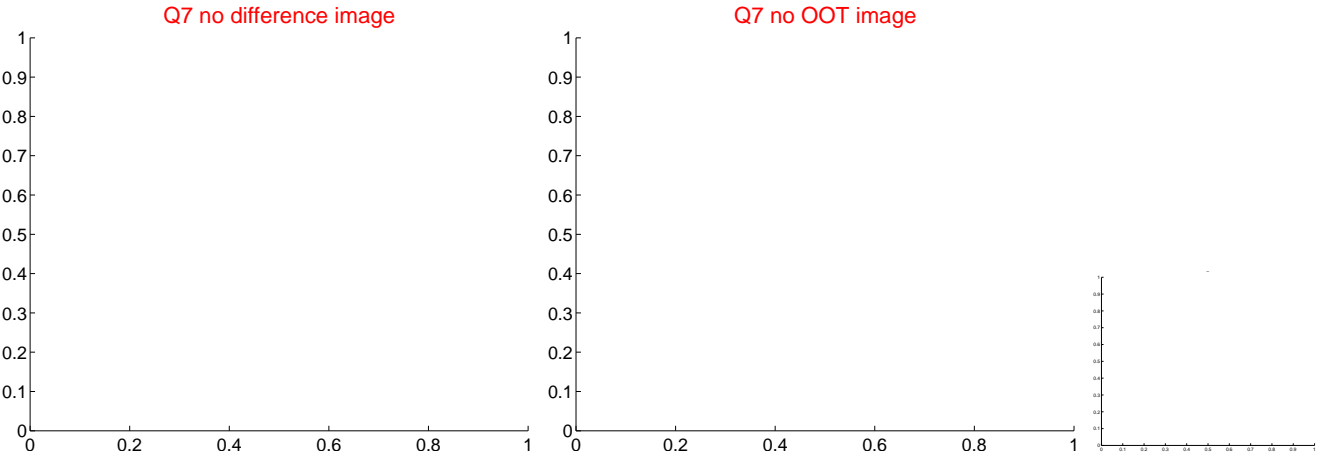
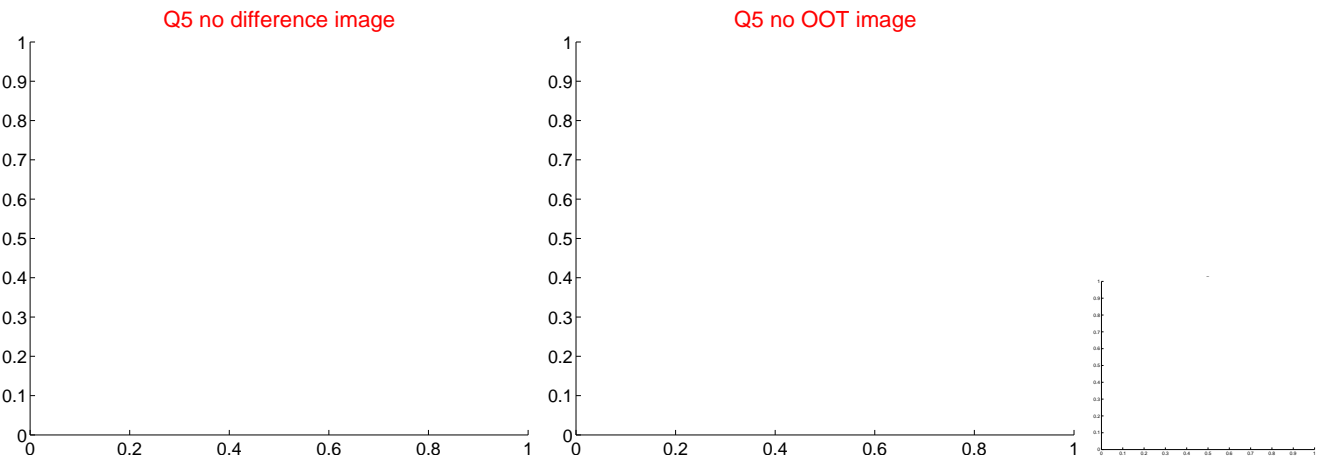


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

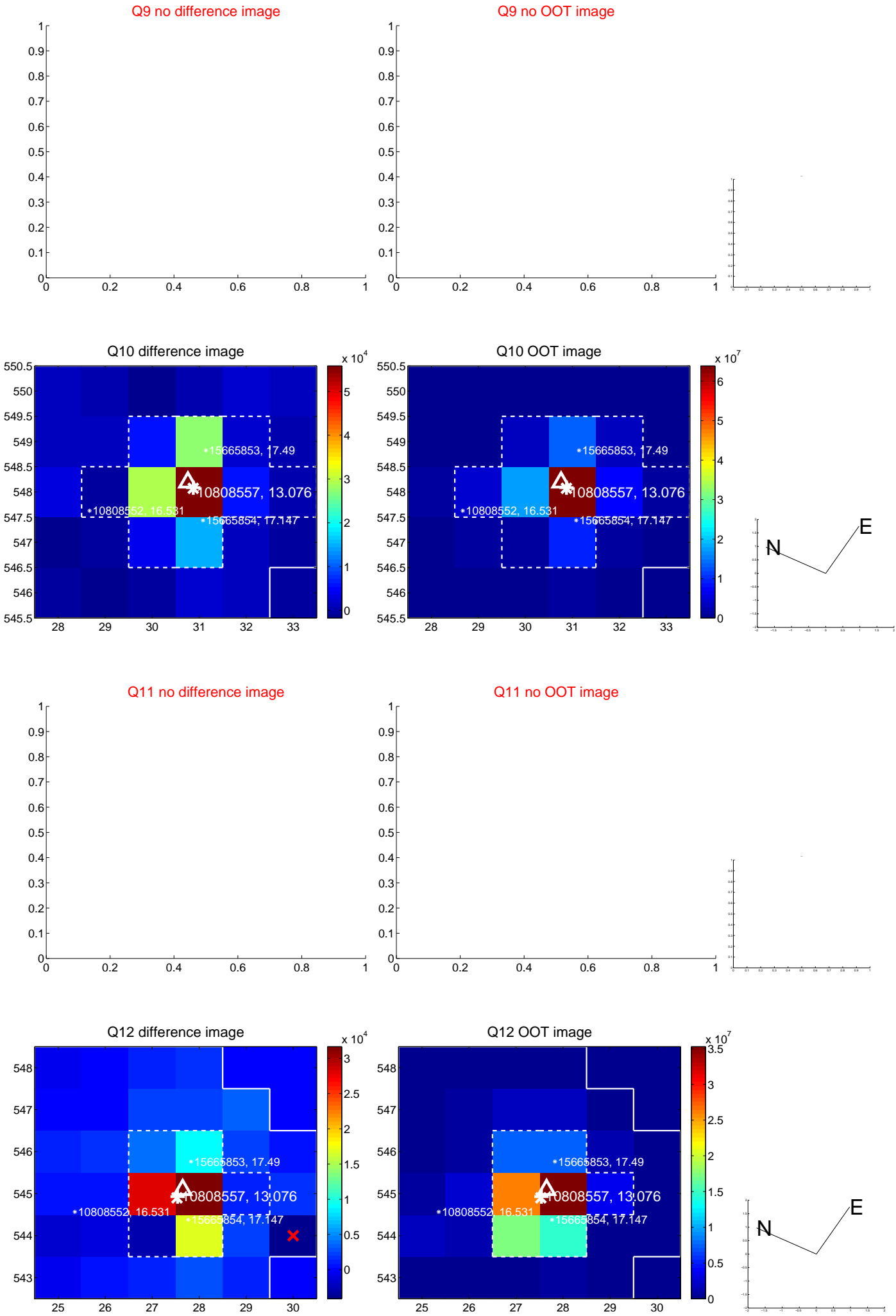
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



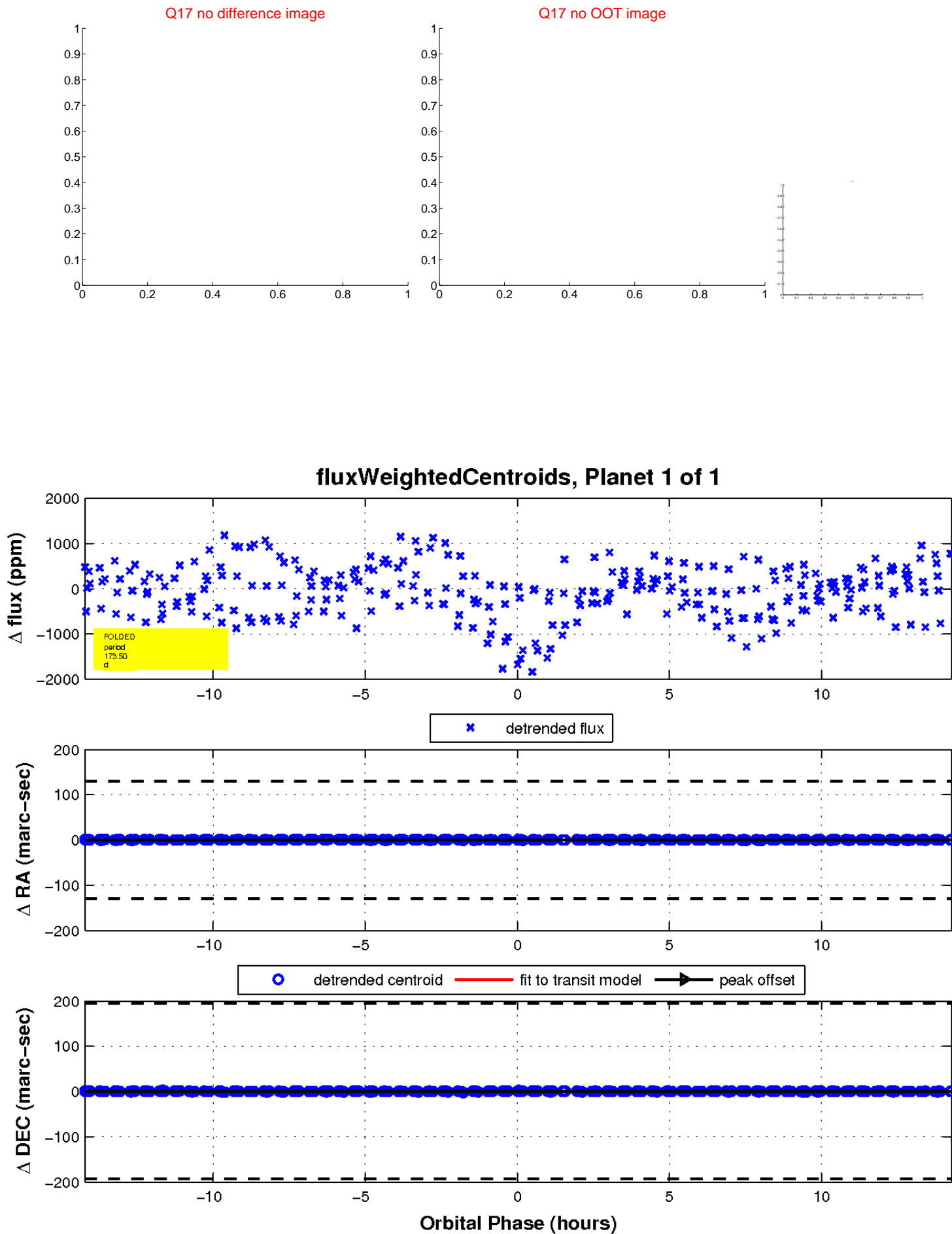
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

