

KIC 010797849

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})
010797849-01	OBS	No	109.111490	187.592472	88.6	2.570	9.0	6.6	1.40	6276	1.55	13.02

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010797849-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—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.

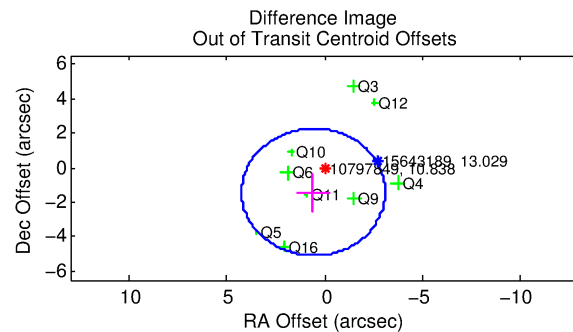
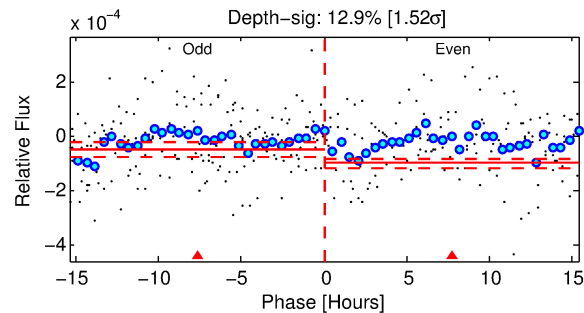
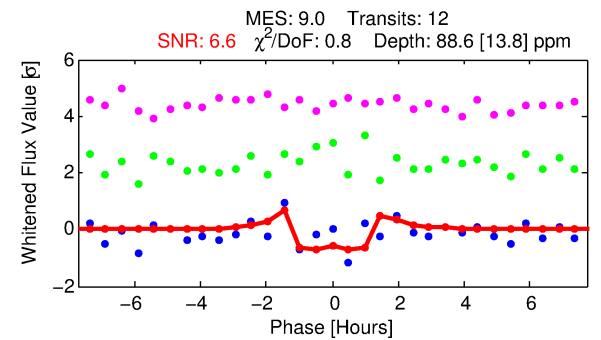
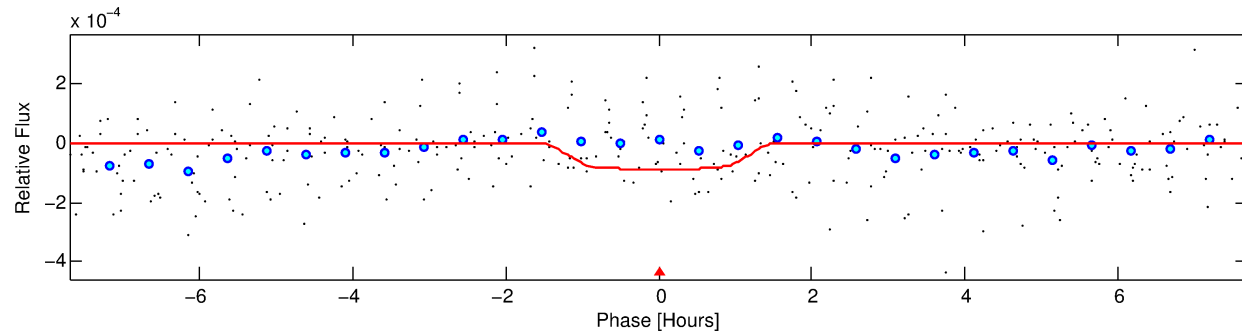
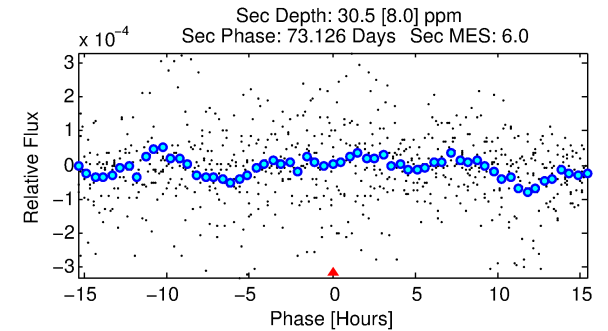
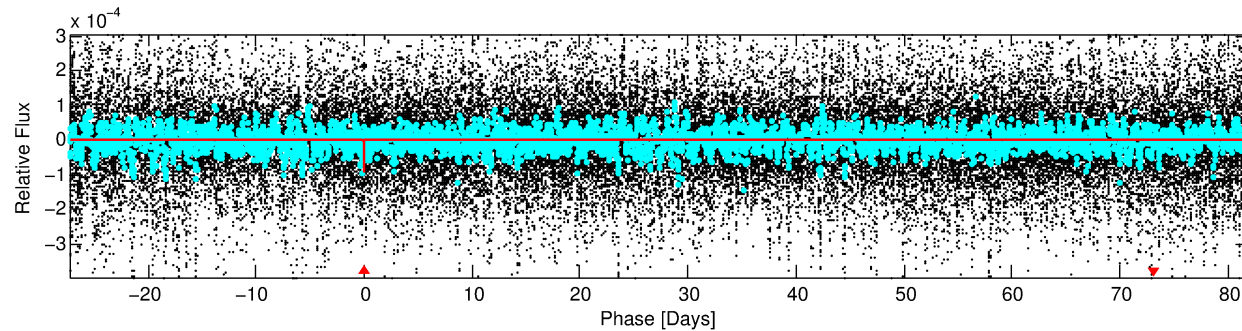
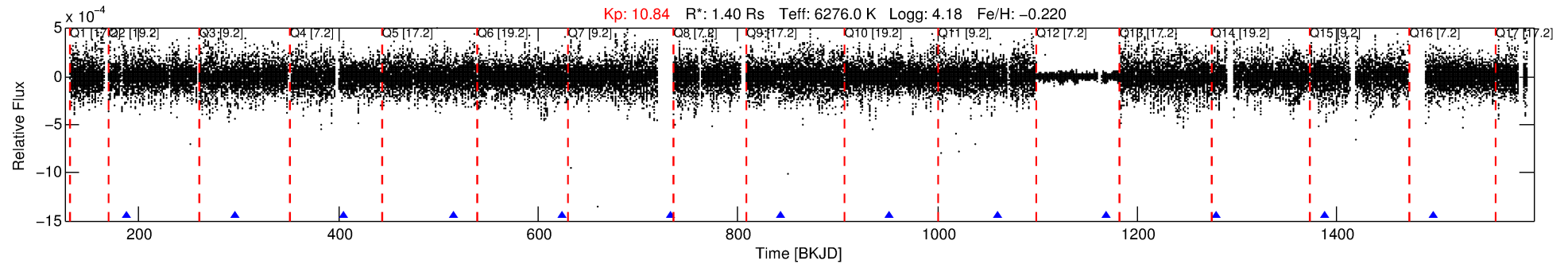
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010797849-01

No Significant Match Found

DV One-Page Summary

KIC: 10797849 Candidate: 1 of 1 Period: 109.111 d



DV Fit Results:

Period = 109.11149 [0.00056] d
Epoch = 187.5925 [0.0051] BKJD
Rp/R* = 0.0101 [0.0039]
a/R* = 149.07 [301.85]
b = 0.90 [0.44]
Seff = 13.02 [4.52]
Teff = 484 [42] K
Rp = 1.55 [0.69] Re
a = 0.4577 [0.0956] AU
Ag = 1469.43 [1287.00] [1.14σ]
Teffp = 4637 [949] K [4.37σ]

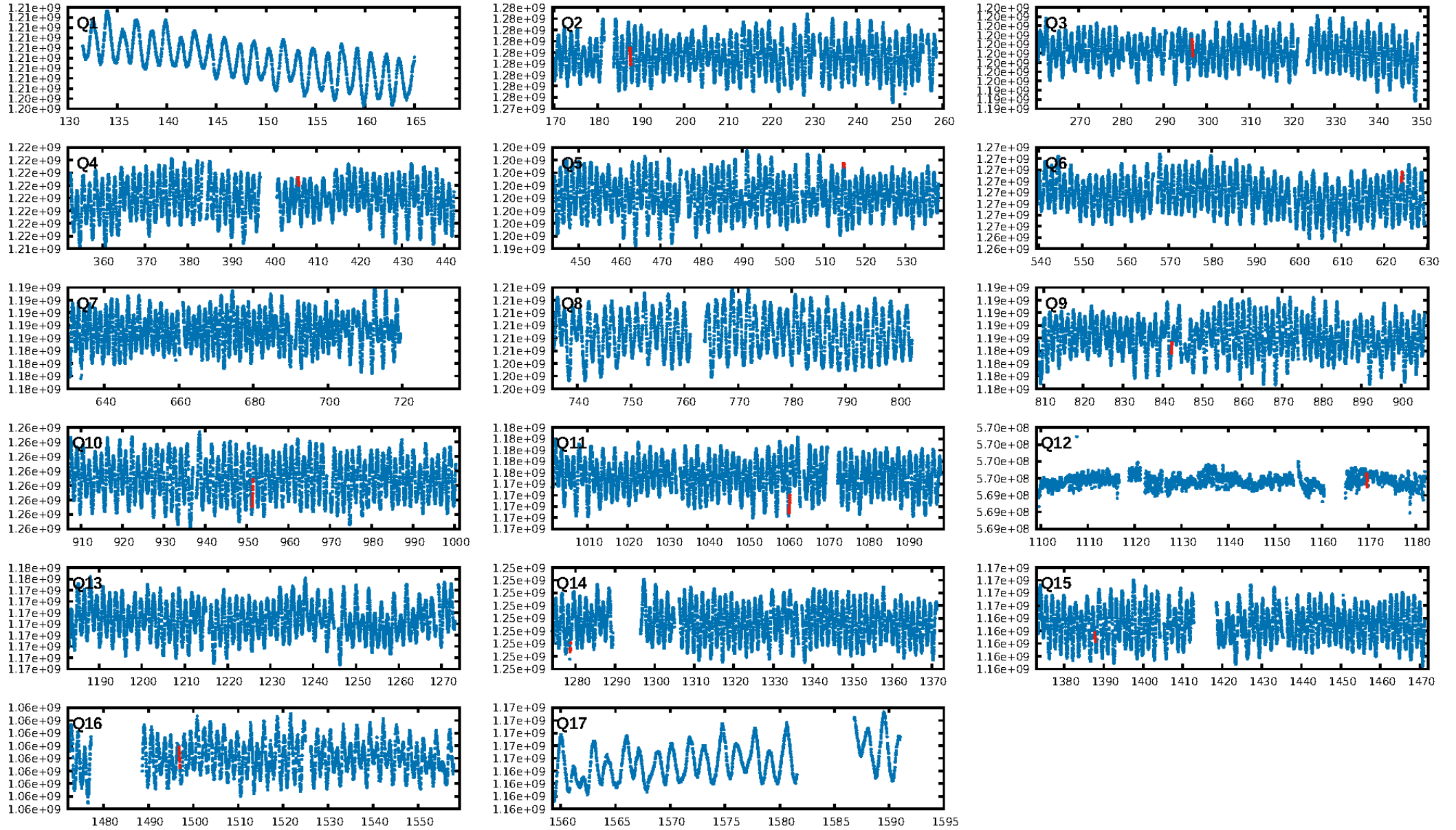
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 31.6%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.12e-14
RollingBand-fgt: 1.00 [12/12]
GhostDiagnostic-chr: -2.906
Centroid-sig: 19.4%
Centroid-so: 1.241 arcsec [1.11σ]
OotOffset-rm: 1.529 arcsec [1.25σ]
KicOffset-rm: 2.111 arcsec [2.14σ]
OotOffset-st: 2/2/3/2 [9]
KicOffset-st: 2/2/3/2 [9]
DiffImageQuality-fgm: 0.22 [2/9]
DiffImageOverlap-fno: 1.00 [11/11]

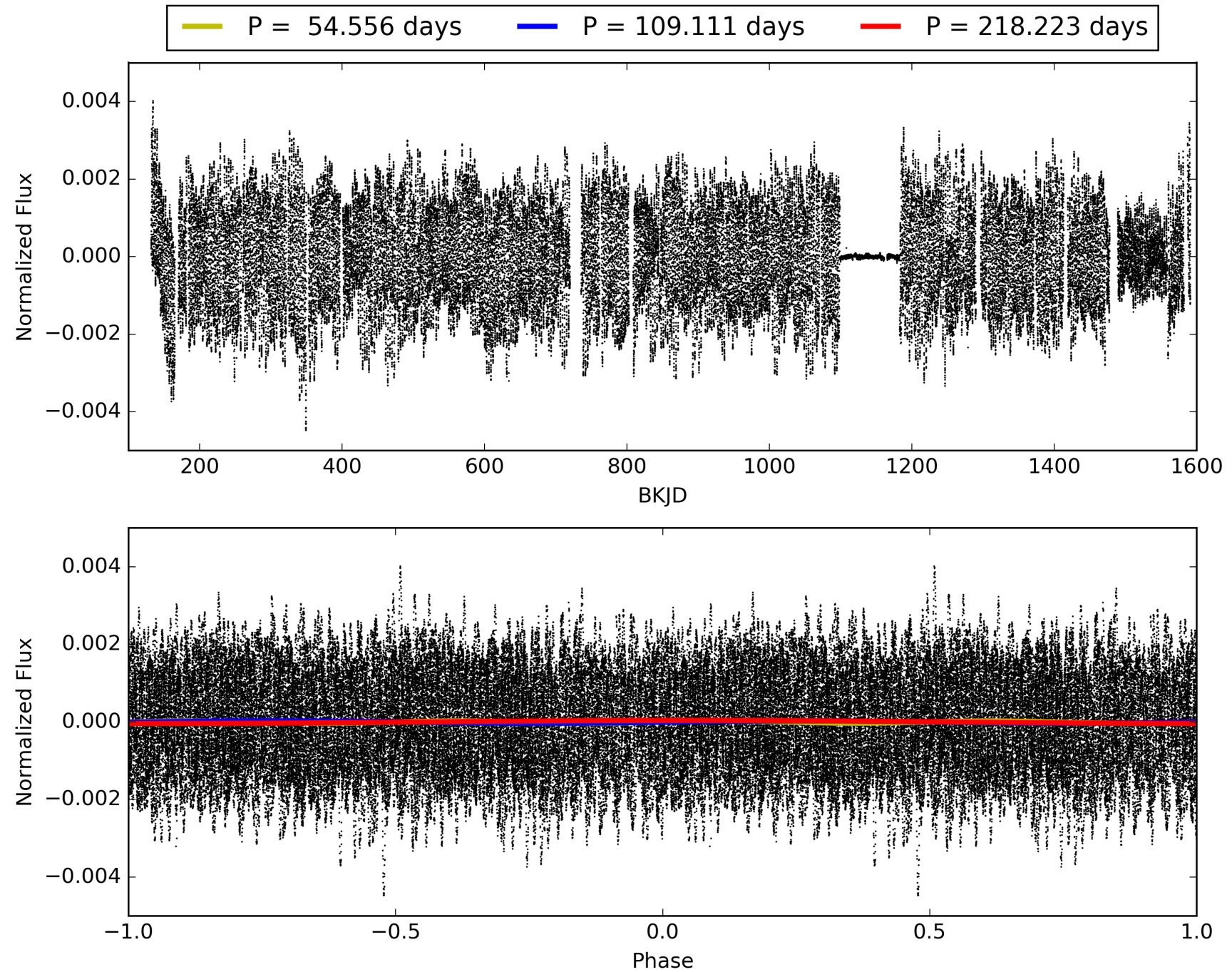
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 01:02:59 Z

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

TCE 010797849-01, PDC Light Curves

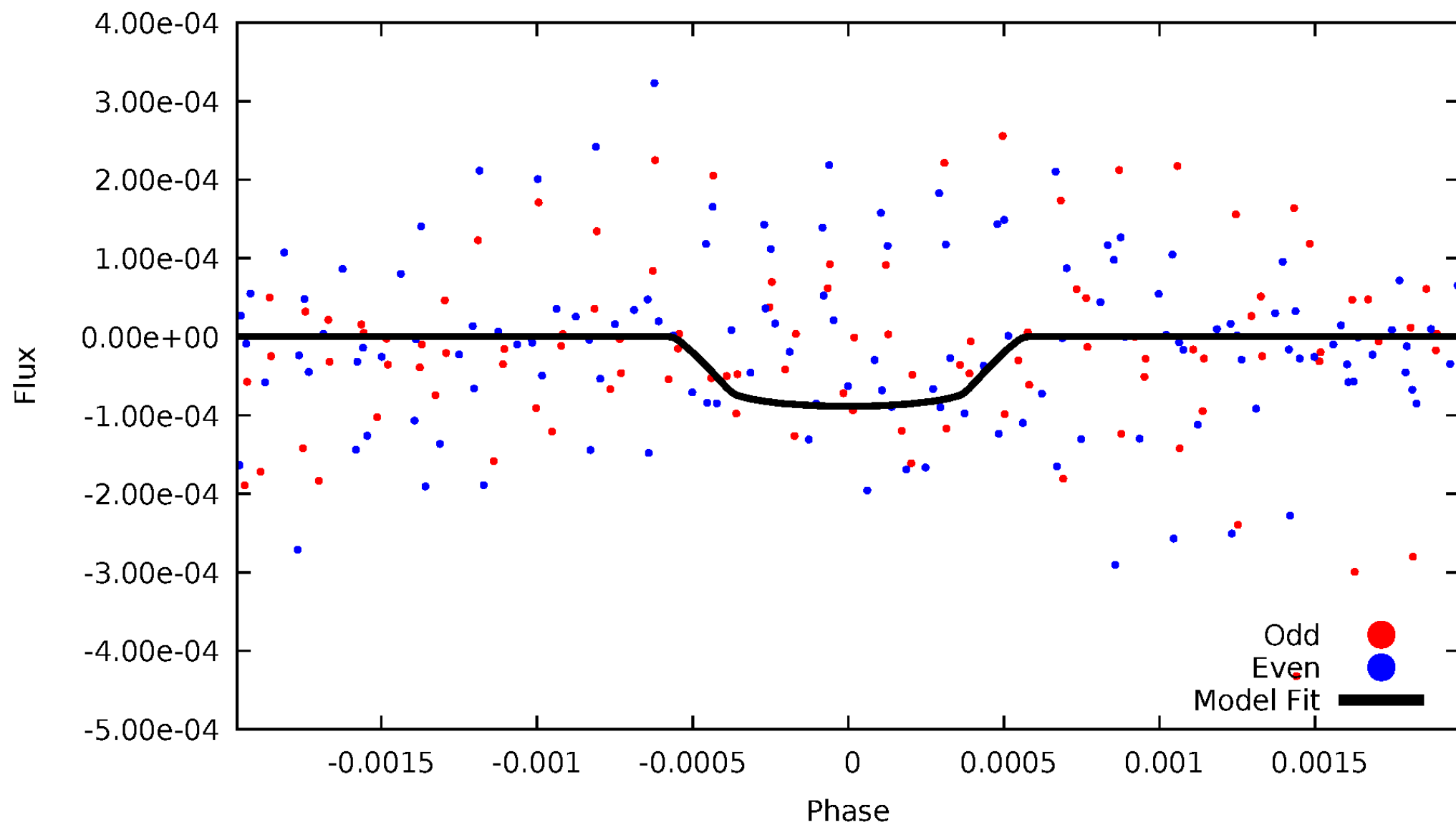


TCE 010797849-01



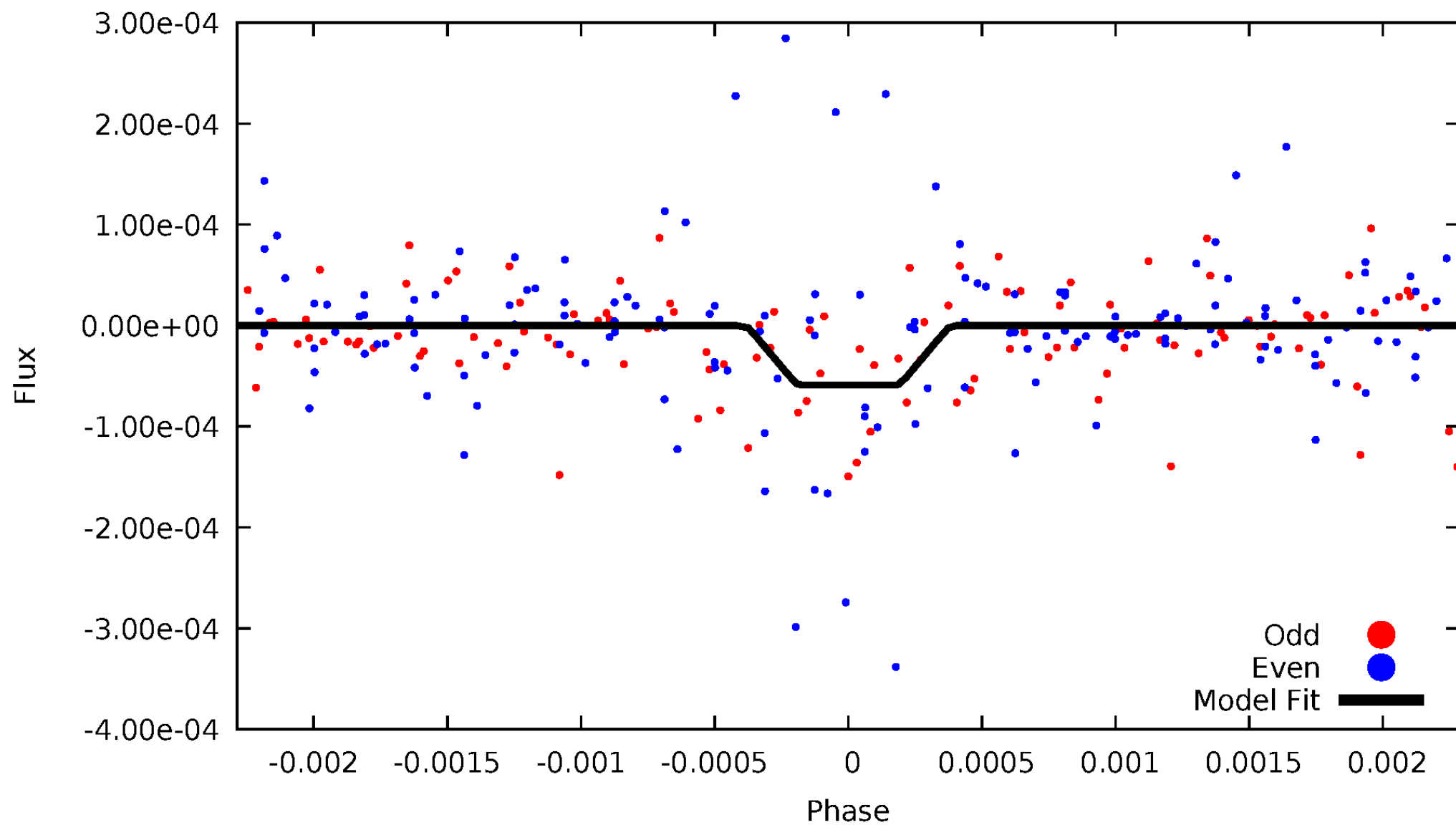
DV Odd/Even

TCE 010797849-01



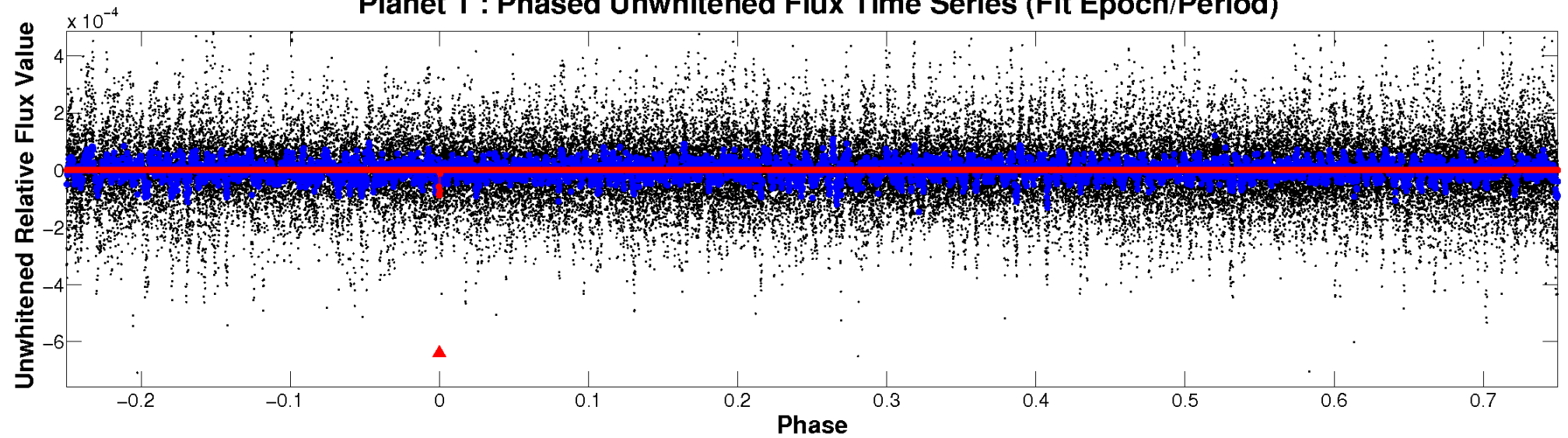
ALT Odd/Even

TCE 010797849-01

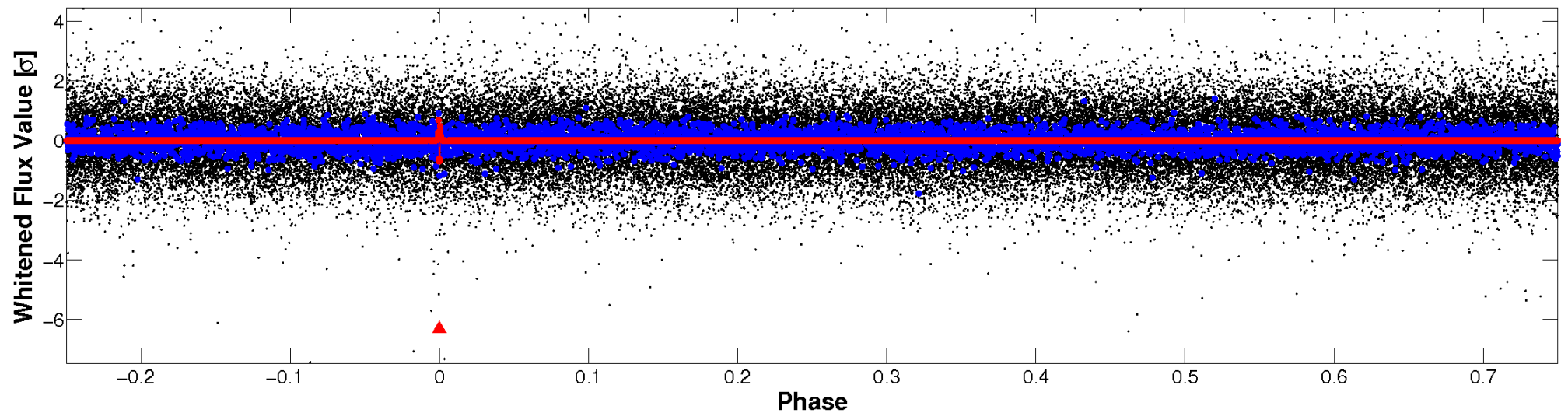


Non-Whitened Vs. Whitened Light Curve

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

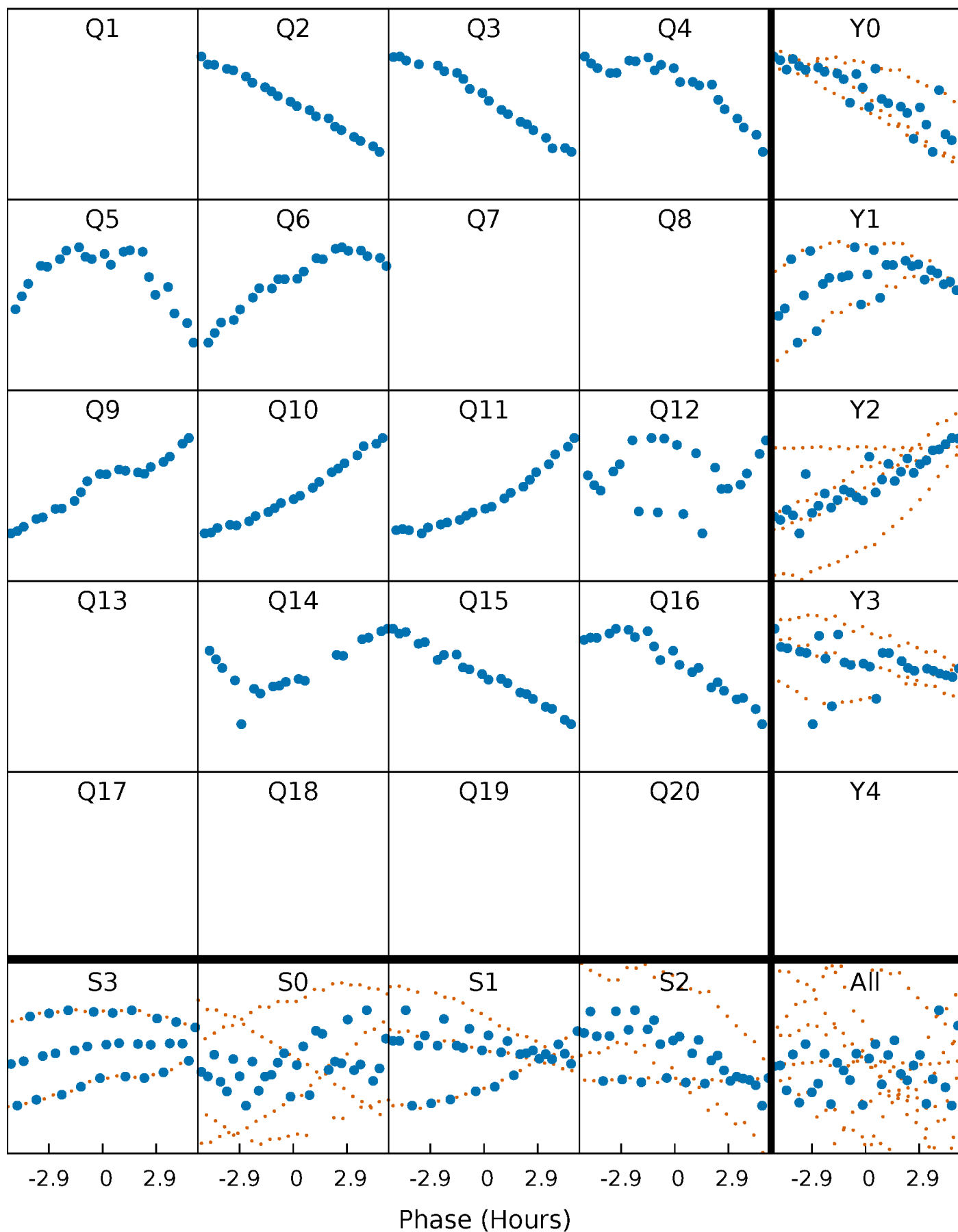


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



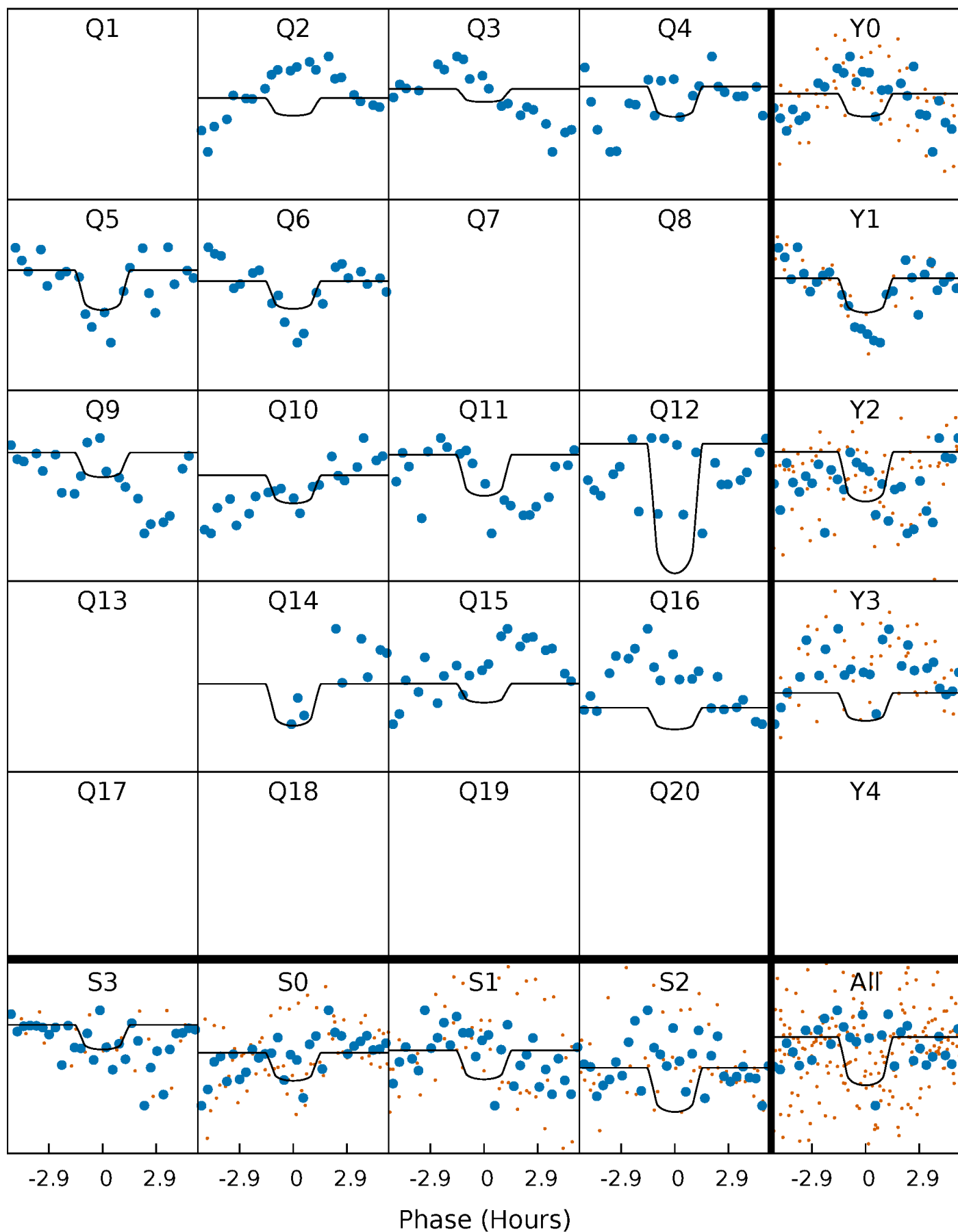
PDC Quarter-Phased Transit Curves

TCE 010797849-01 P=109.111490 Days $T_0=187.592472$ (BKJD)



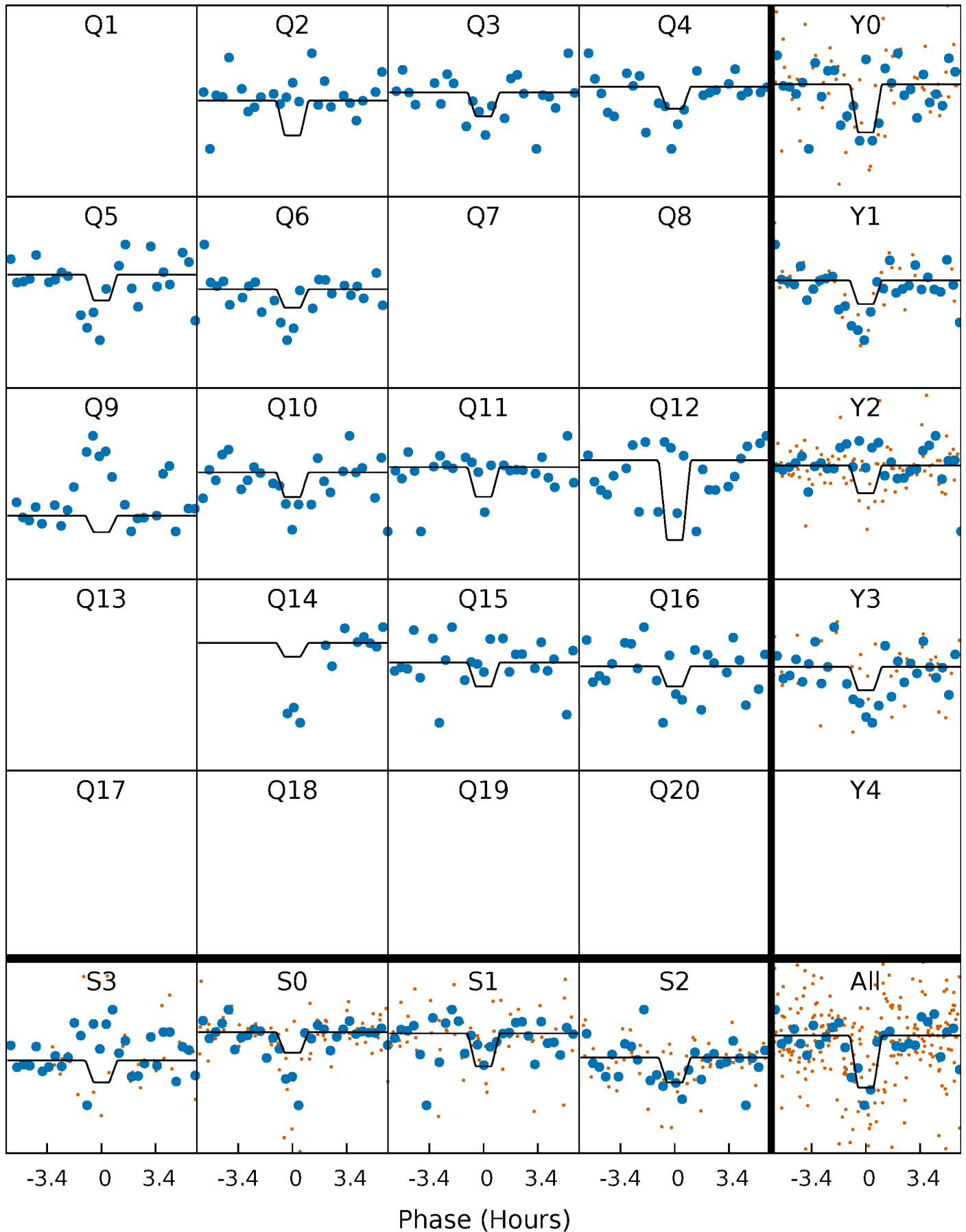
DV Quarter-Phased Transit Curves

TCE 010797849-01 P=109.111490 Days $T_0=187.592472$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

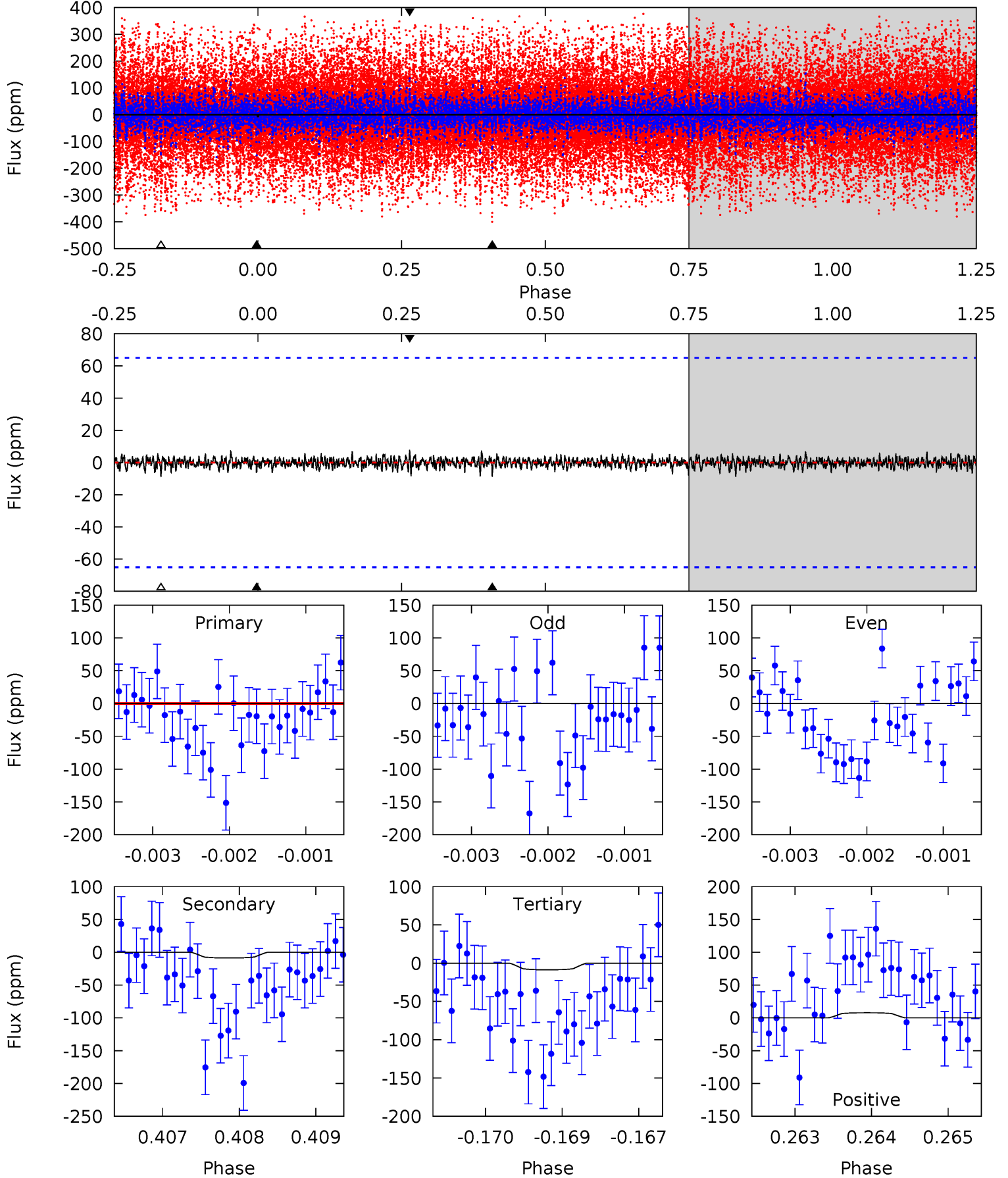
TCE 010797849-01 P=109.109806 Days $T_0=187.619546$ (BKJD)



DV Model-Shift Uniqueness Test

010797849-01, $P = 109.111490$ Days, $E = 78.480982$ Days

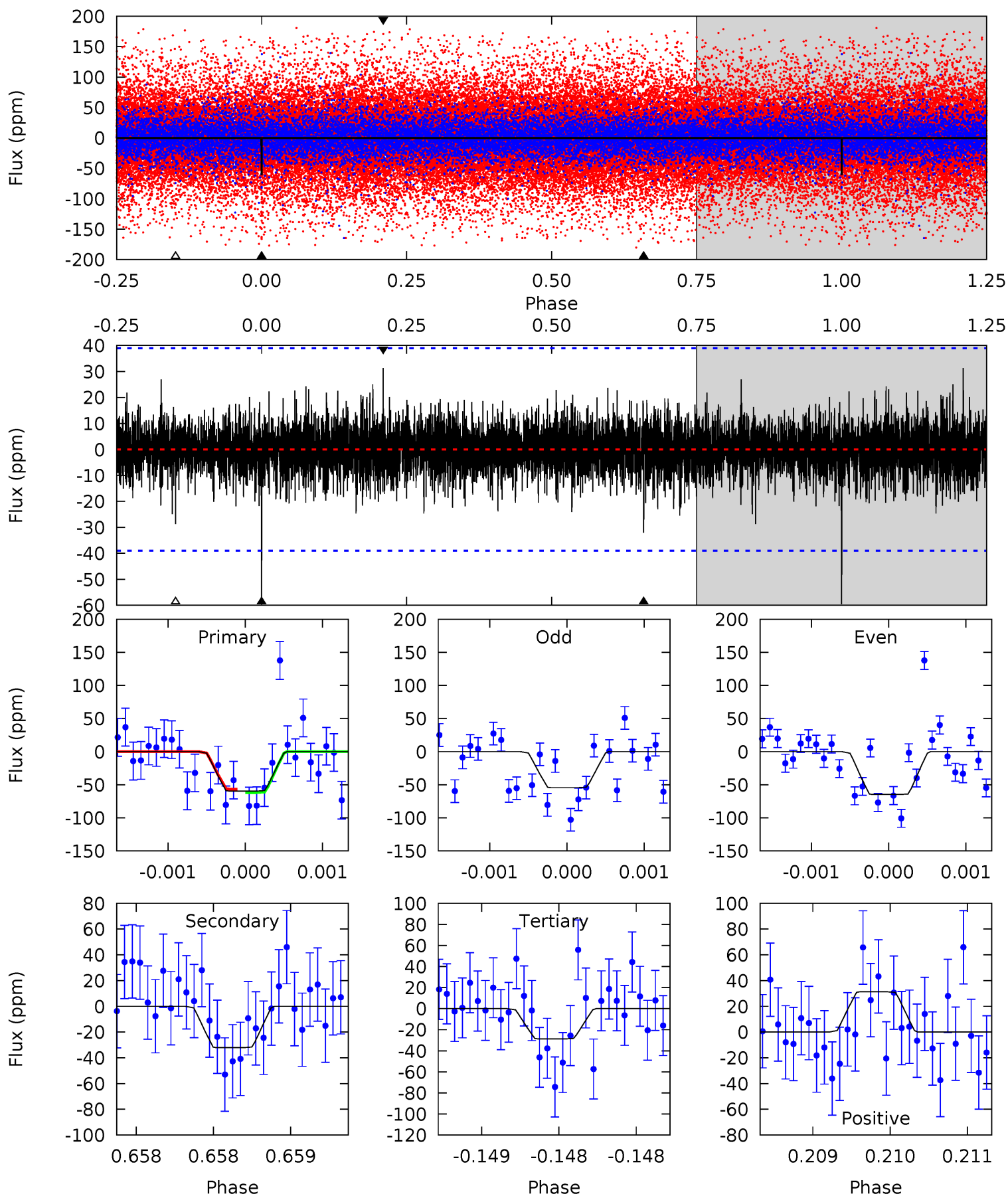
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.48	0.73	0.73	0.65	5.43	3.26	0.18	-0.25	-0.17	0.00	0.08	0.57	0.18	0.47	0.51



Alt Model-Shift Uniqueness Test

010797849-01, P = 109.109806 Days, E = 78.509740 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.42	4.53	4.05	4.42	5.50	3.37	0.99	4.37	4.00	0.48	0.11	0.73	0.79	0.34	0



Stellar Parameters For KIC 010797849

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6276^{+170}_{-170}	$4.176^{+0.192}_{-0.128}$	$-0.220^{+0.250}_{-0.300}$	$1.401^{+0.311}_{-0.311}$	$1.074^{+0.167}_{-0.121}$	$0.550^{+0.500}_{-0.226}$
	+3%/-3%	+5%/-3%	+114%/-136%	+22%/-22%	+16%/-11%	+91%/-41%
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 010797849-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9 ± 12	$1.54^{+0.70}_{-0.60}$	673^{+43}_{-42}	3675^{+1029}_{-6865}	352^{+1162}_{-495}
Alt.	-32 ± 7	$1.13^{+0.71}_{-0.57}$	674^{+41}_{-47}	5376^{+2526}_{-932}	2757^{+8649}_{-1738}

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

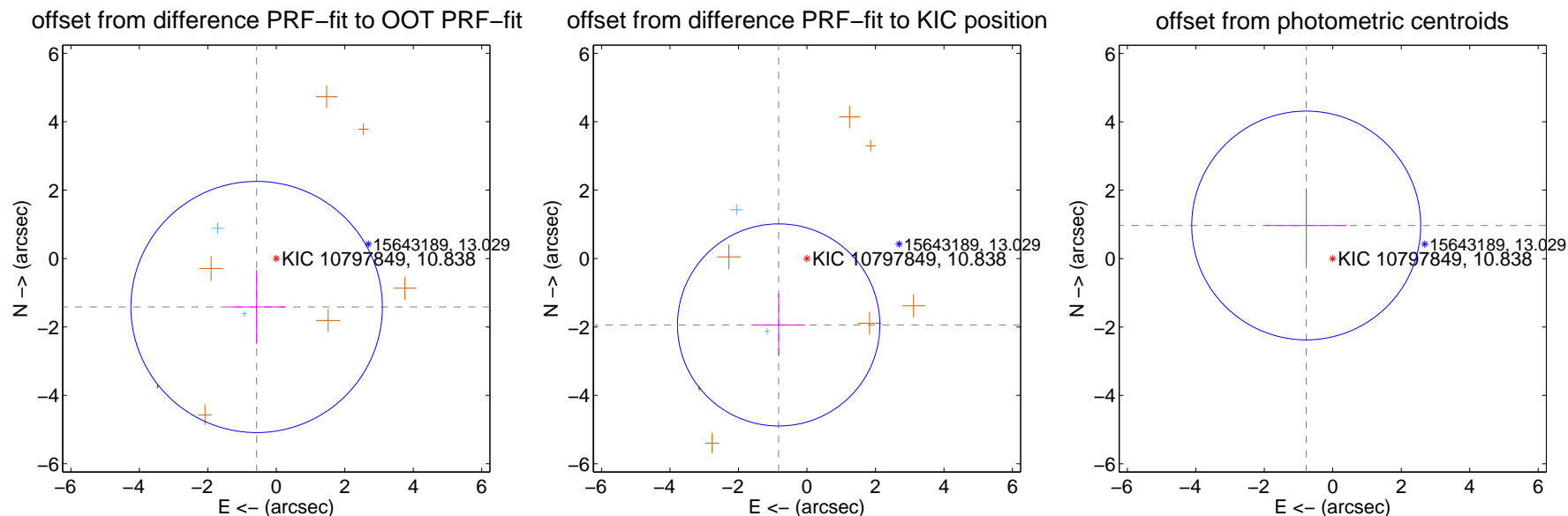
DV Centroid Data

Supplemental centroid analysis for 010797849-01. **Kepler magnitude: 10.84.** Transit SNR 6.63

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 1.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.529 ± 1.224	1.25	0.575 ± 0.836	-1.417 ± 1.081
PRF-fit source offset from KIC position	2.111 ± 0.985	2.14	0.828 ± 0.779	-1.942 ± 0.911
photometric centroid source offset	1.24 ± 1.11	1.11	0.78 ± 1.19	0.97 ± 1.07



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.

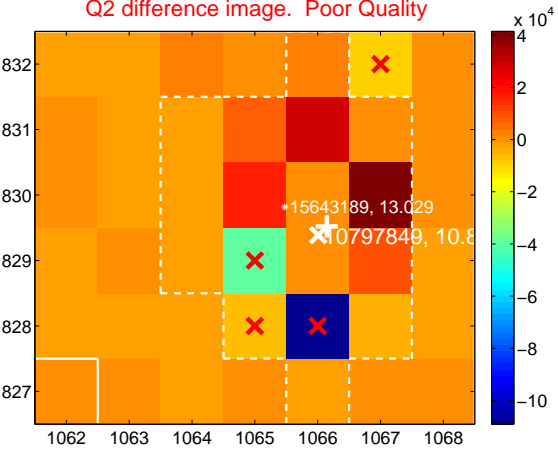
Q1 no difference image



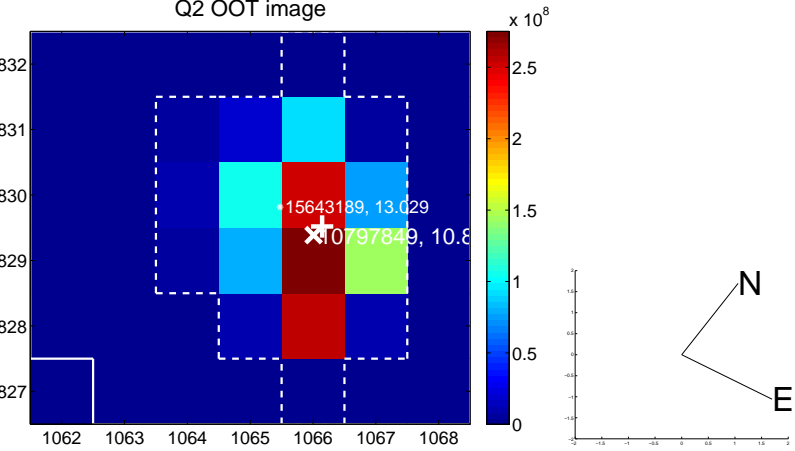
Q1 no OOT image



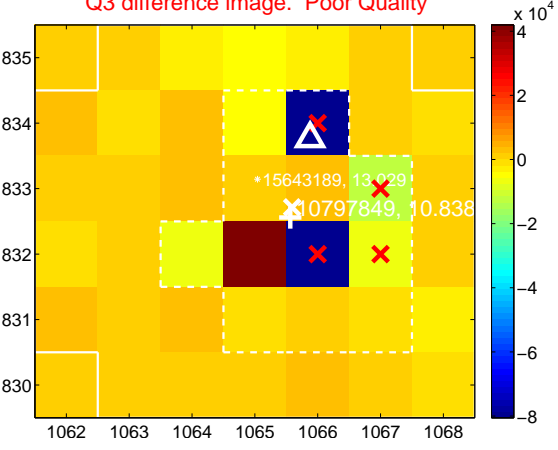
Q2 difference image. Poor Quality



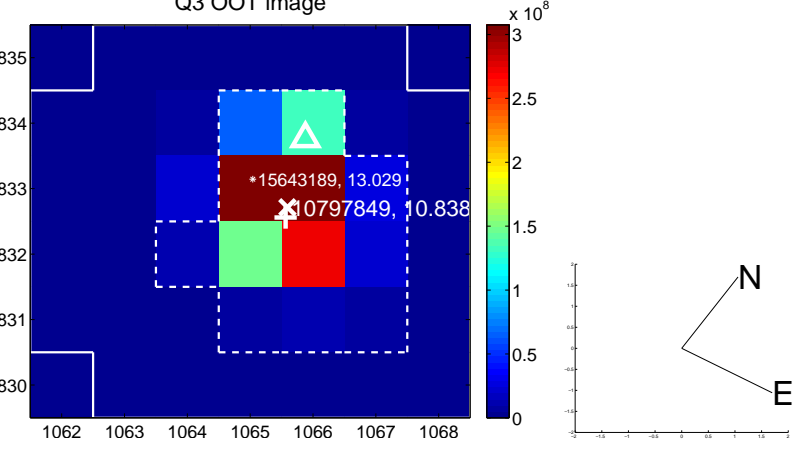
Q2 OOT image



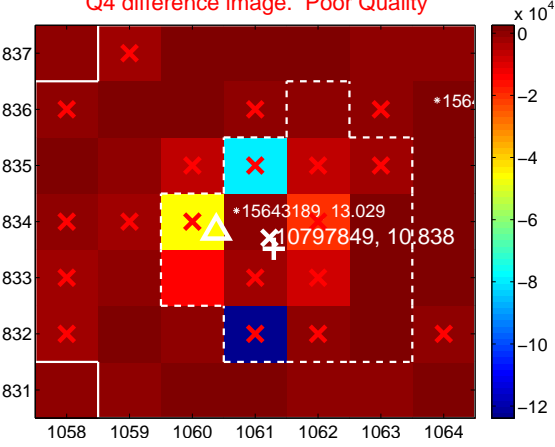
Q3 difference image. Poor Quality



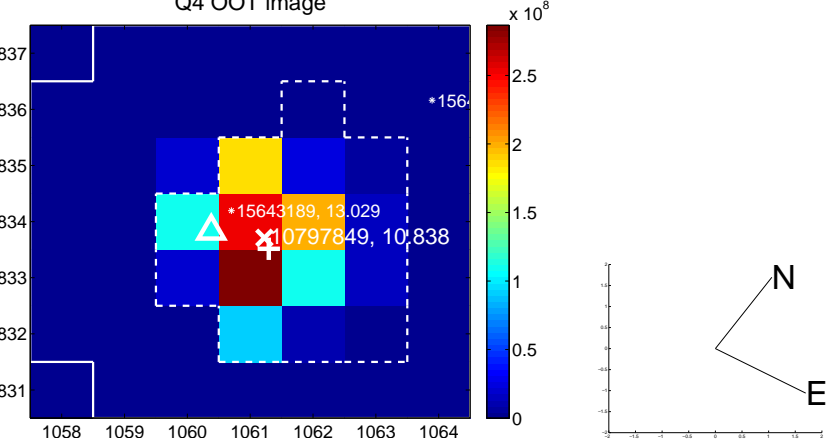
Q3 OOT image



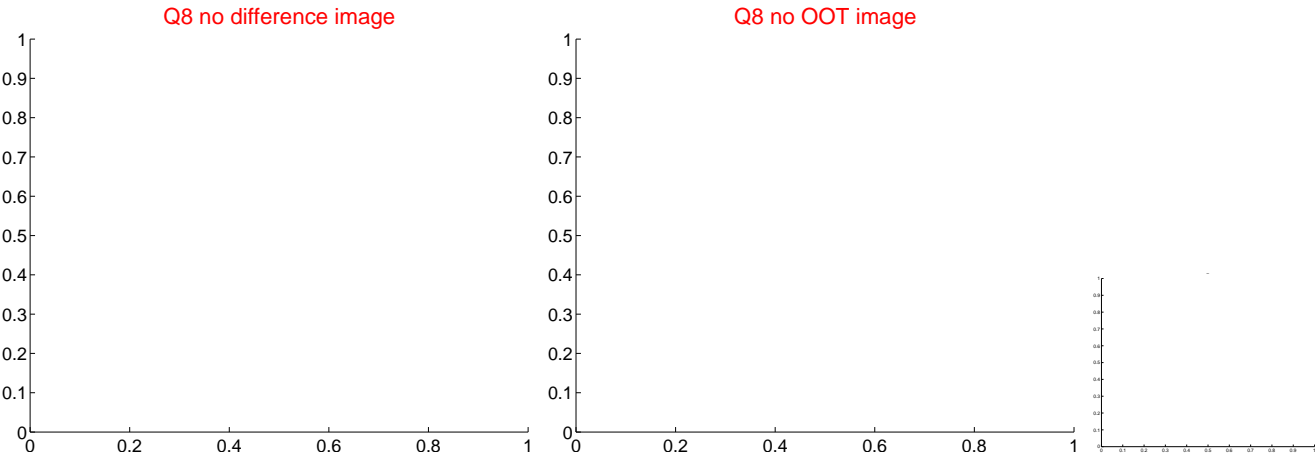
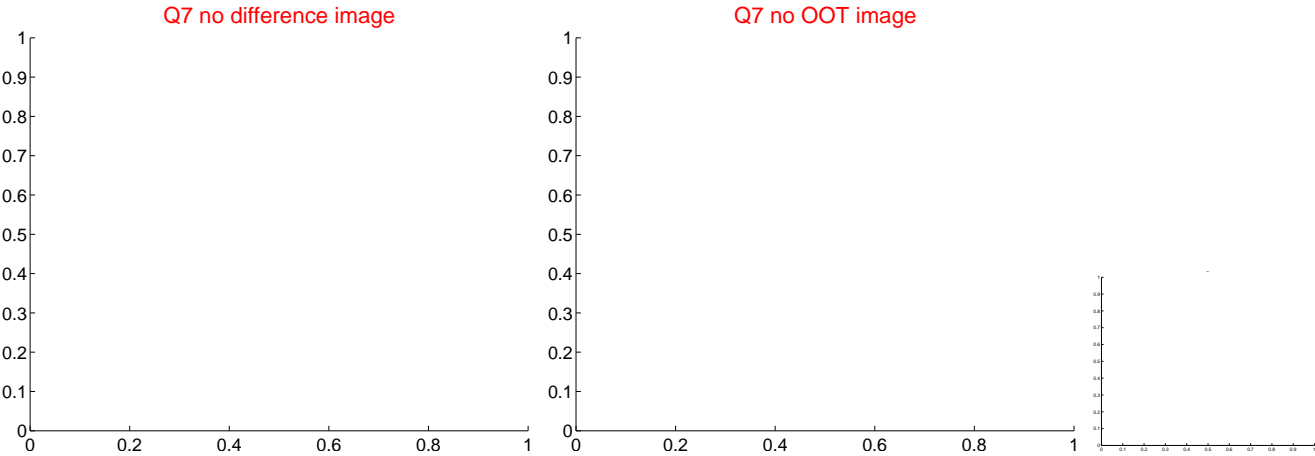
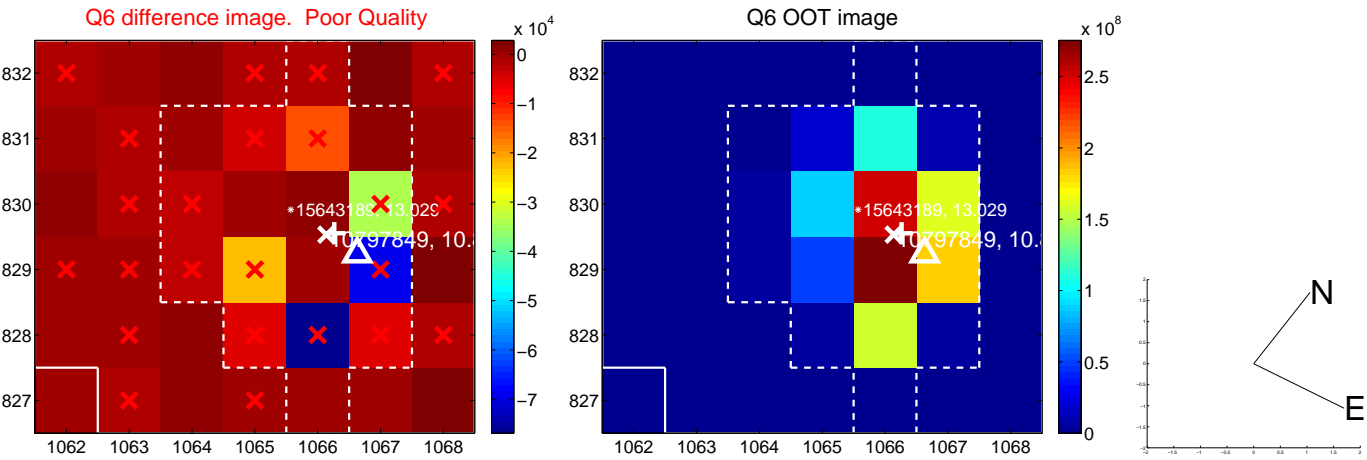
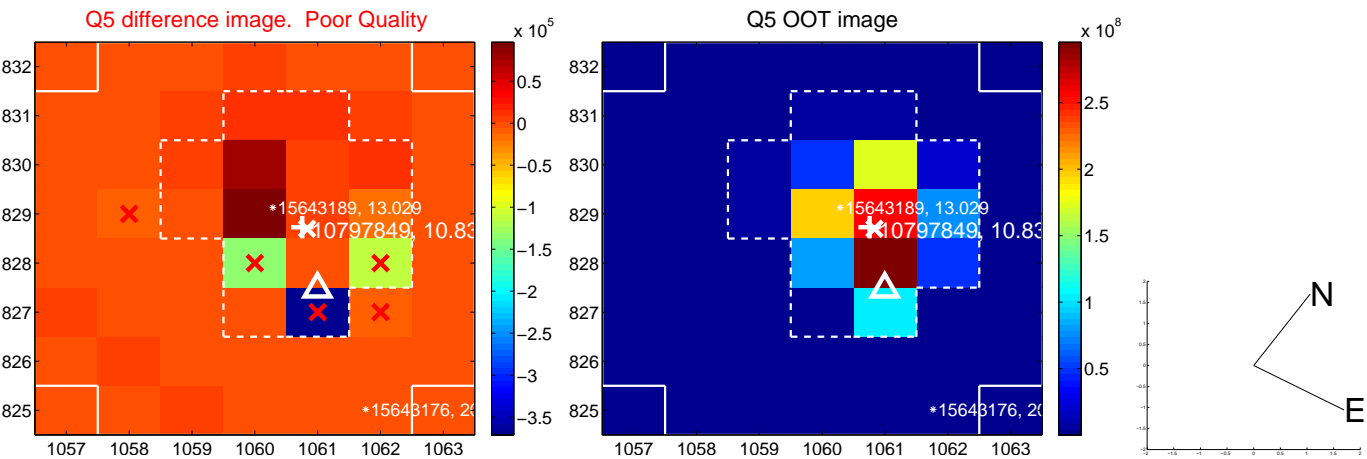
Q4 difference image. Poor Quality



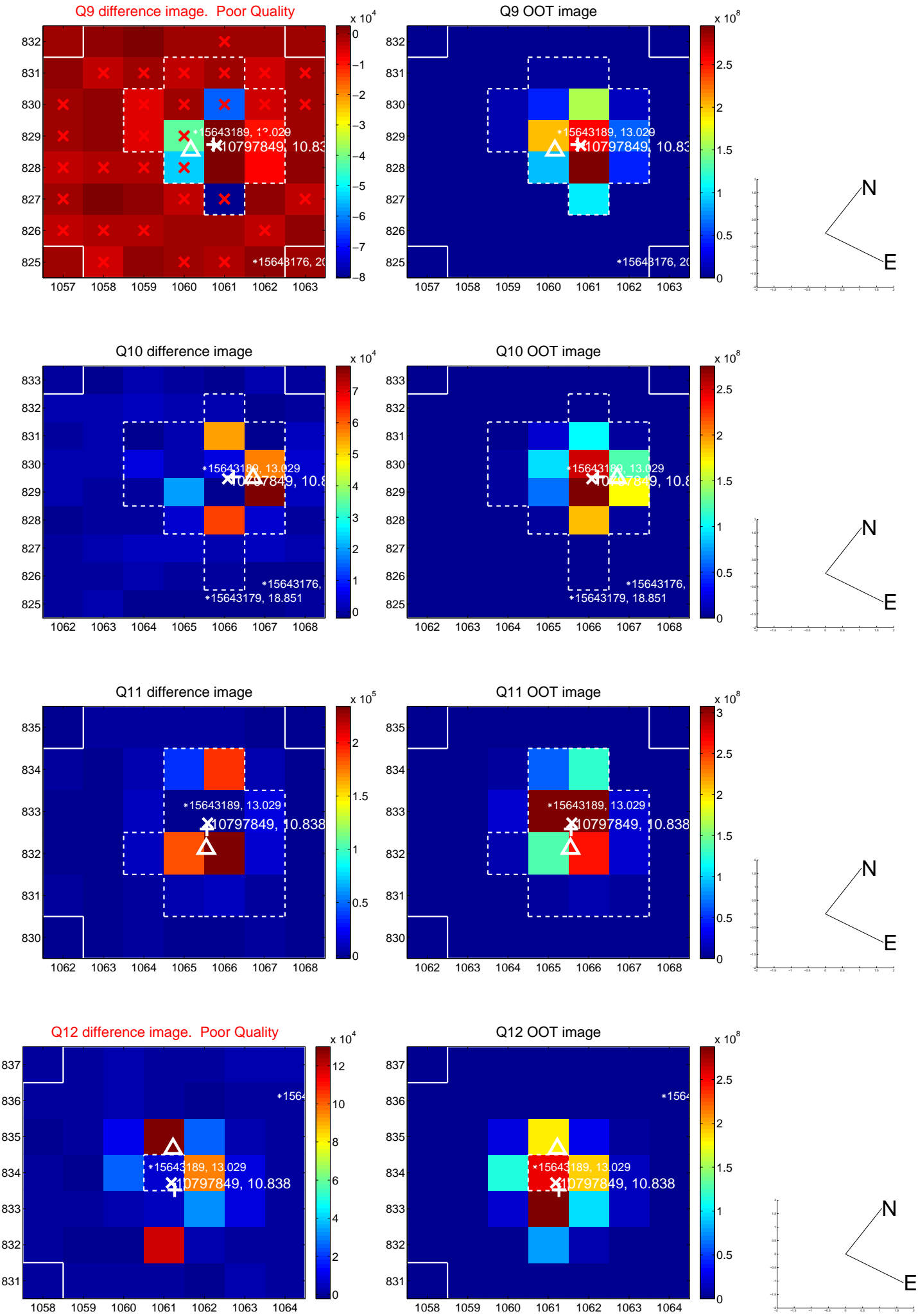
Q4 OOT image



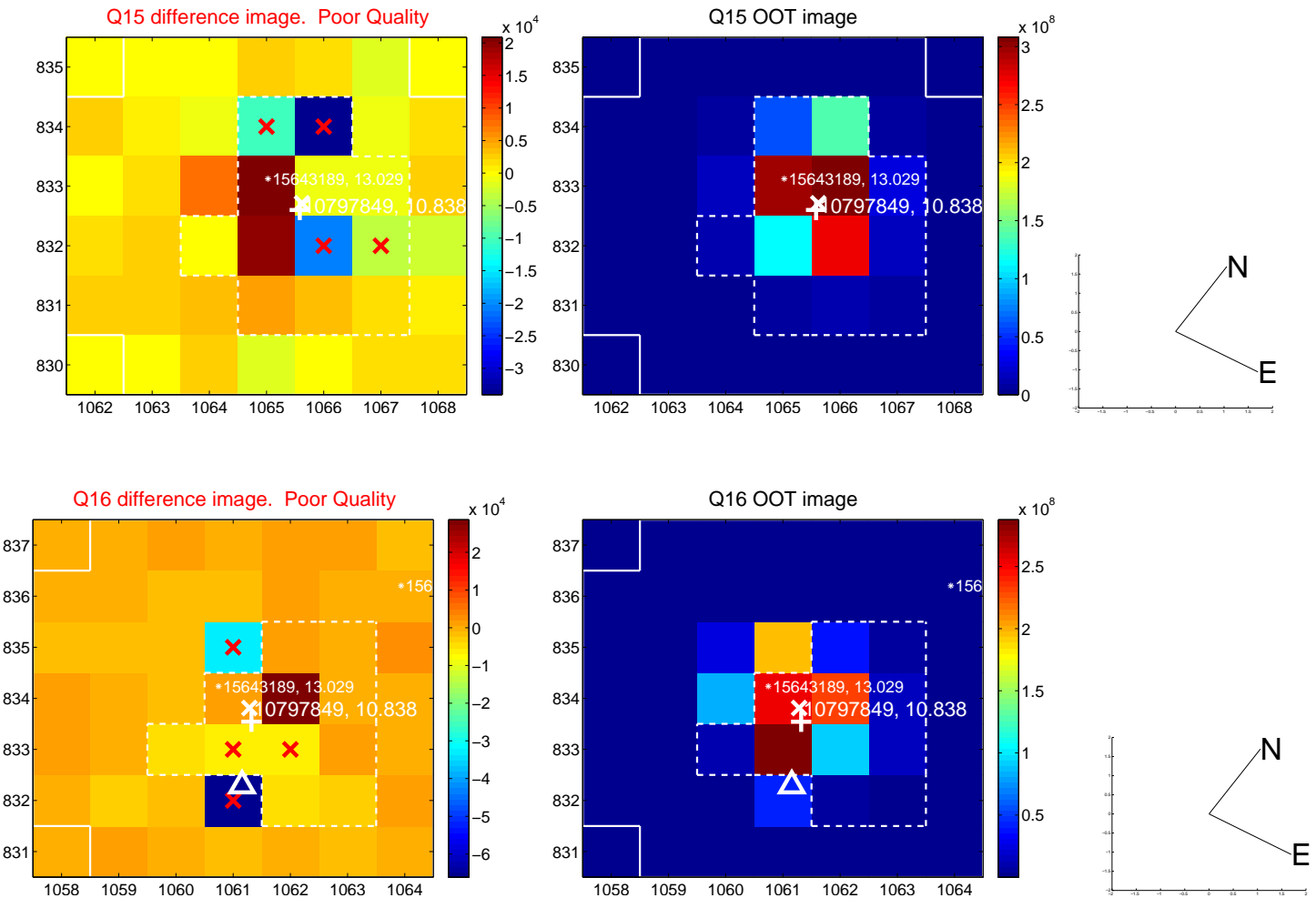
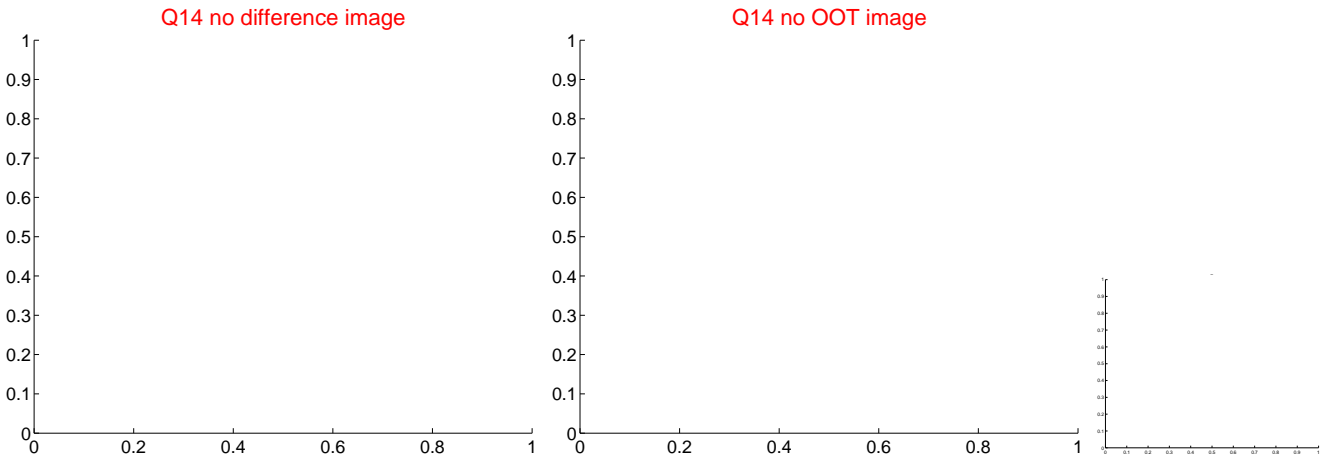
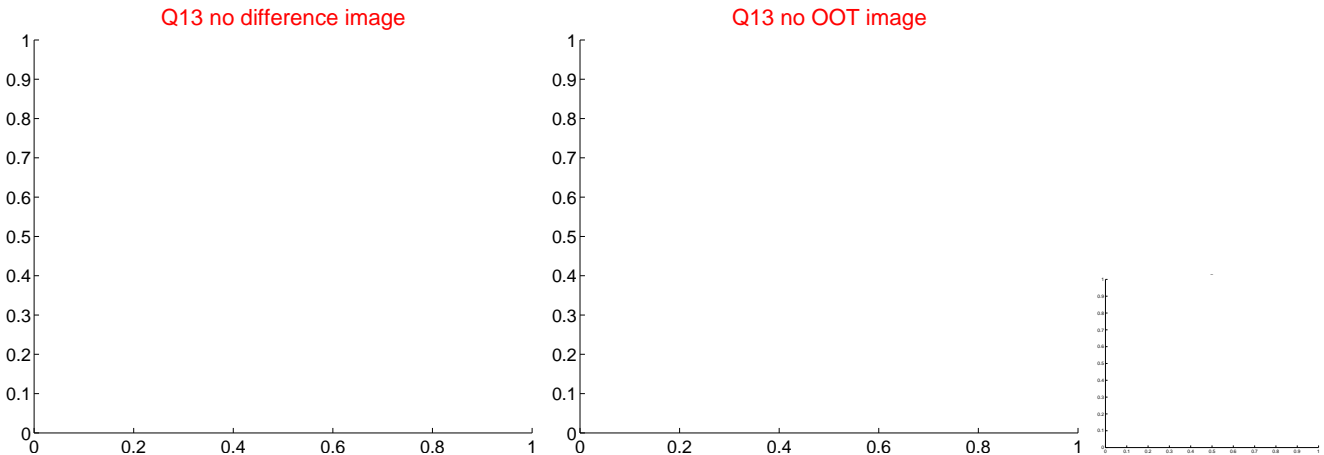
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



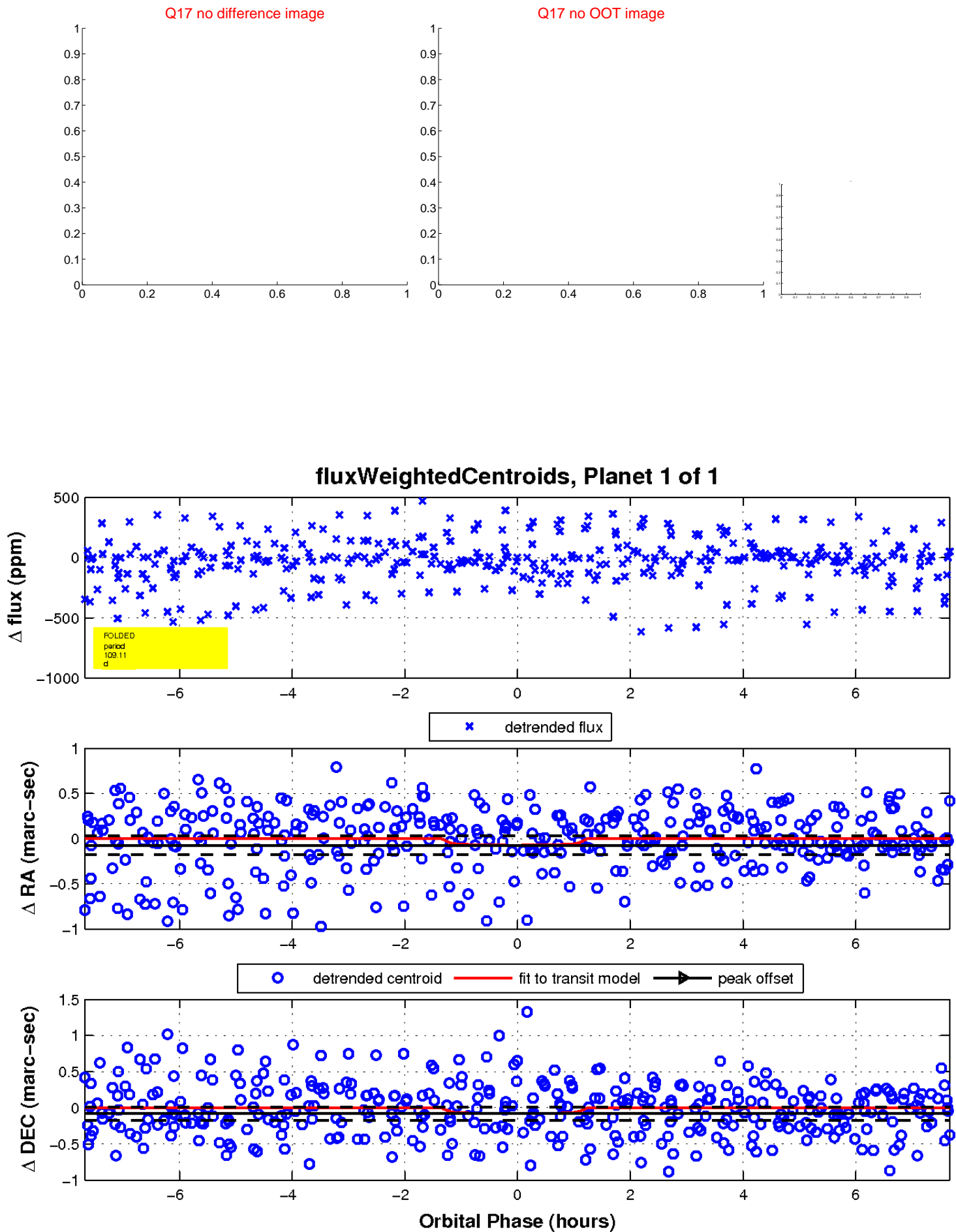
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

