

KIC 008283948

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})
008283948-01	OBS	No	19.646927	147.246840	23.1	13.731	9.0	8.8	1.05	5862	0.56	64.60

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008283948-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_DV—MOD_POS_DV

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

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

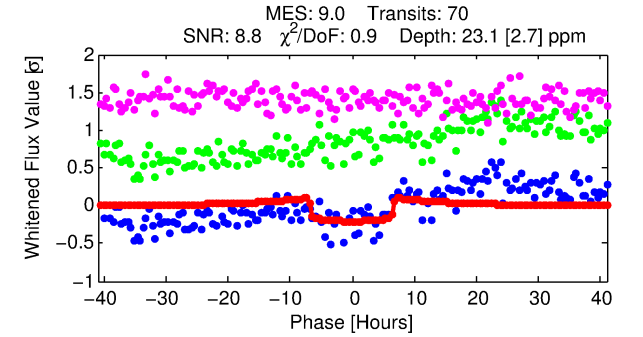
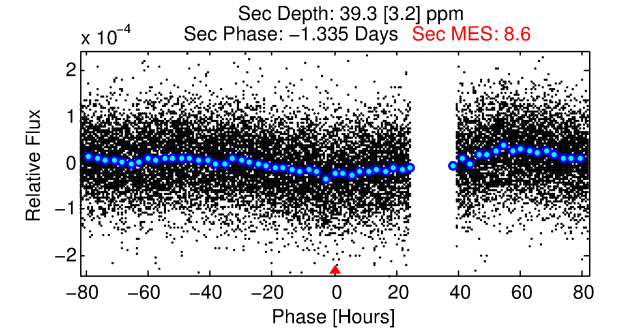
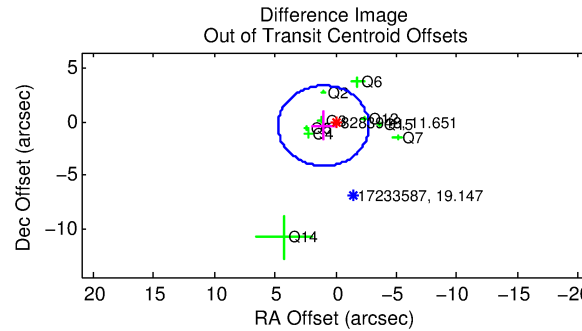
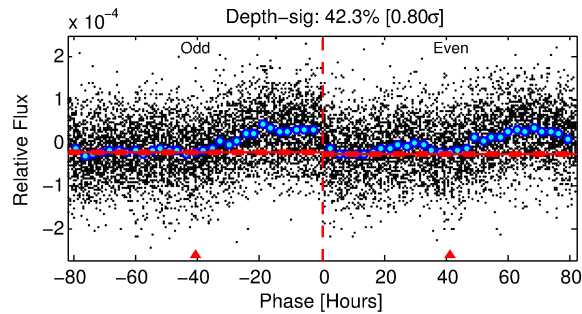
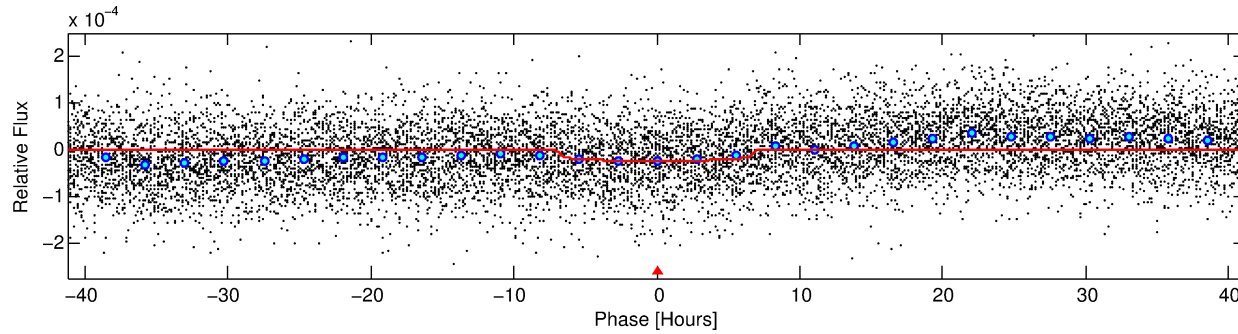
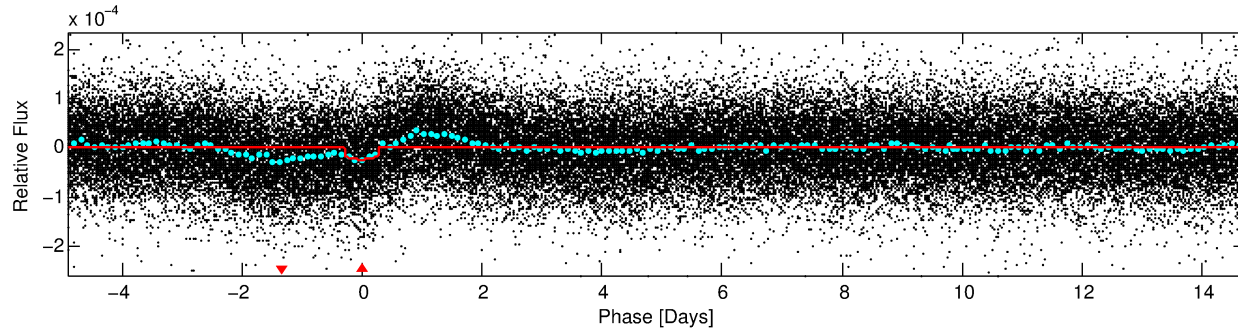
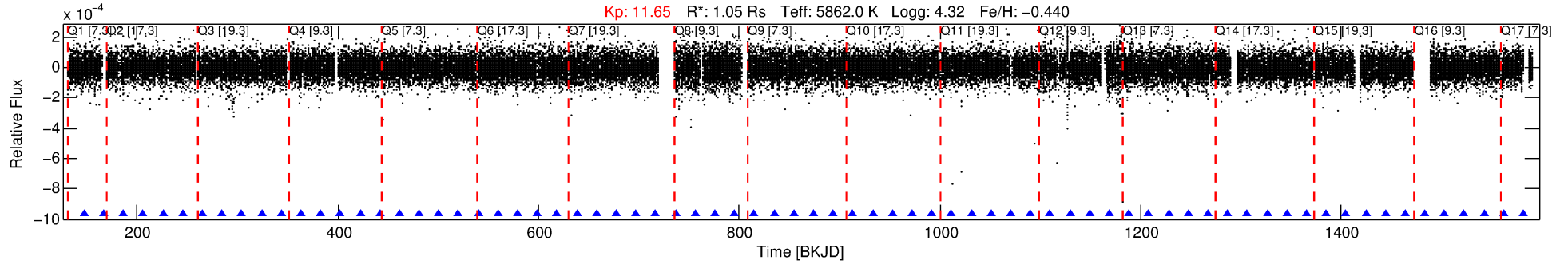
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 008283948-01

No Significant Match Found

DV One-Page Summary

KIC: 8283948 Candidate: 1 of 1 Period: 19.647 d



DV Fit Results:

Period = 19.64693 [0.00036] d
Epoch = 147.2468 [0.0149] BKJD
Rp/R* = 0.0049 [0.0011]
a/R* = 6.76 [7.43]
b = 0.80 [0.52]
Seff = 64.60 [24.19]
Teq = 723 [68] K
Rp = 0.56 [0.20] Re
a = 0.1341 [0.0323] AU
Ag = 1256.39 [744.11] [1.69 σ]
Teffp = 6654 [805] K [7.35 σ]

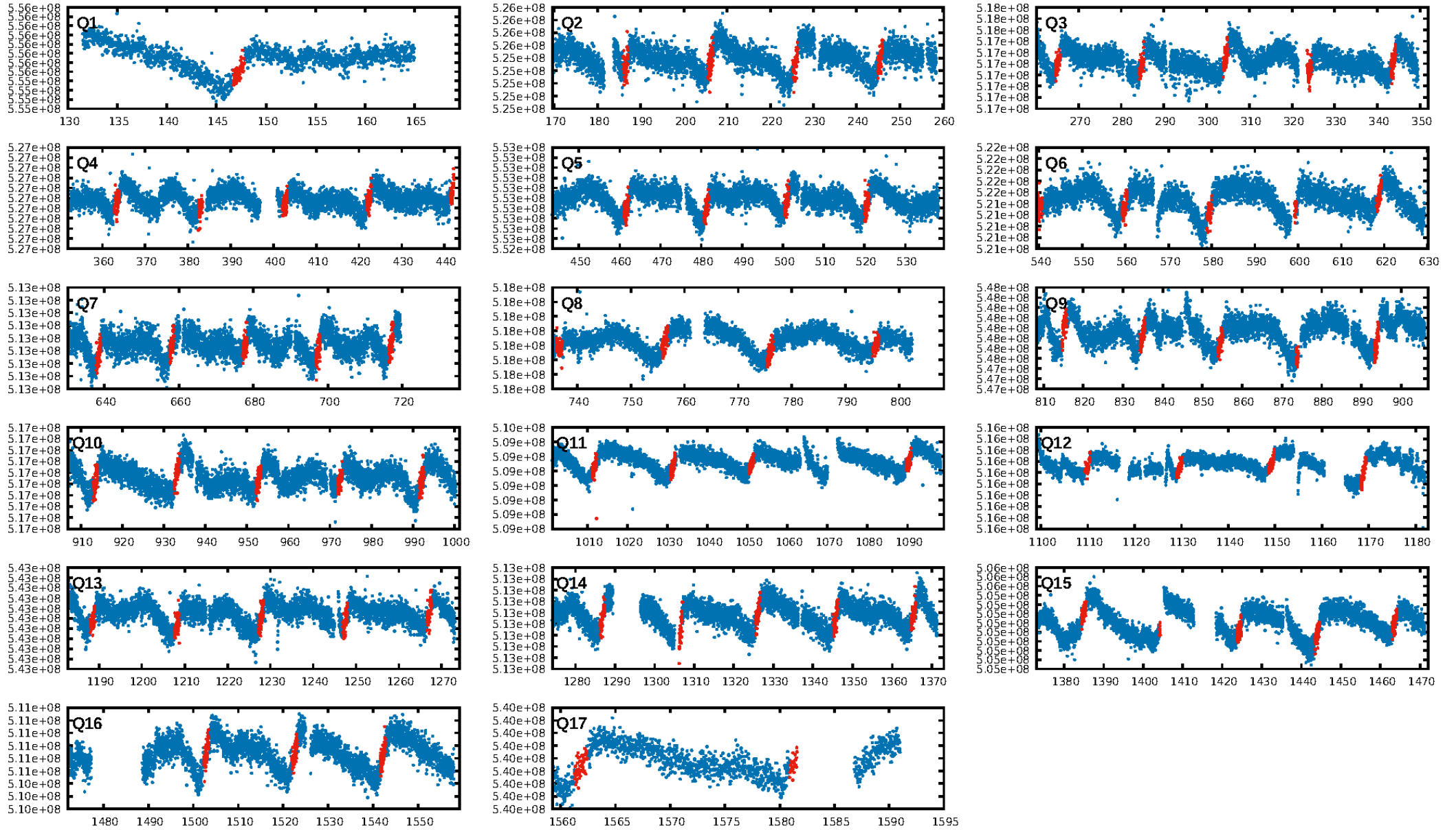
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 8.49e-19
RollingBand-fgt: 1.00 [67/67]
GhostDiagnostic-chr: -0.6557
Centroid-sig: 7.5%
Centroid-so: 1.438 arcsec [1.38 σ]
OotOffset-rm: 1.075 arcsec [0.86 σ]
KicOffset-rm: 0.947 arcsec [0.74 σ]
OotOffset-st: 3/3/2/1 [9]
KicOffset-st: 3/3/2/1 [9]
DiffImageQuality-fgm: 0.33 [3/9]
DiffImageOverlap-fno: 1.00 [16/16]

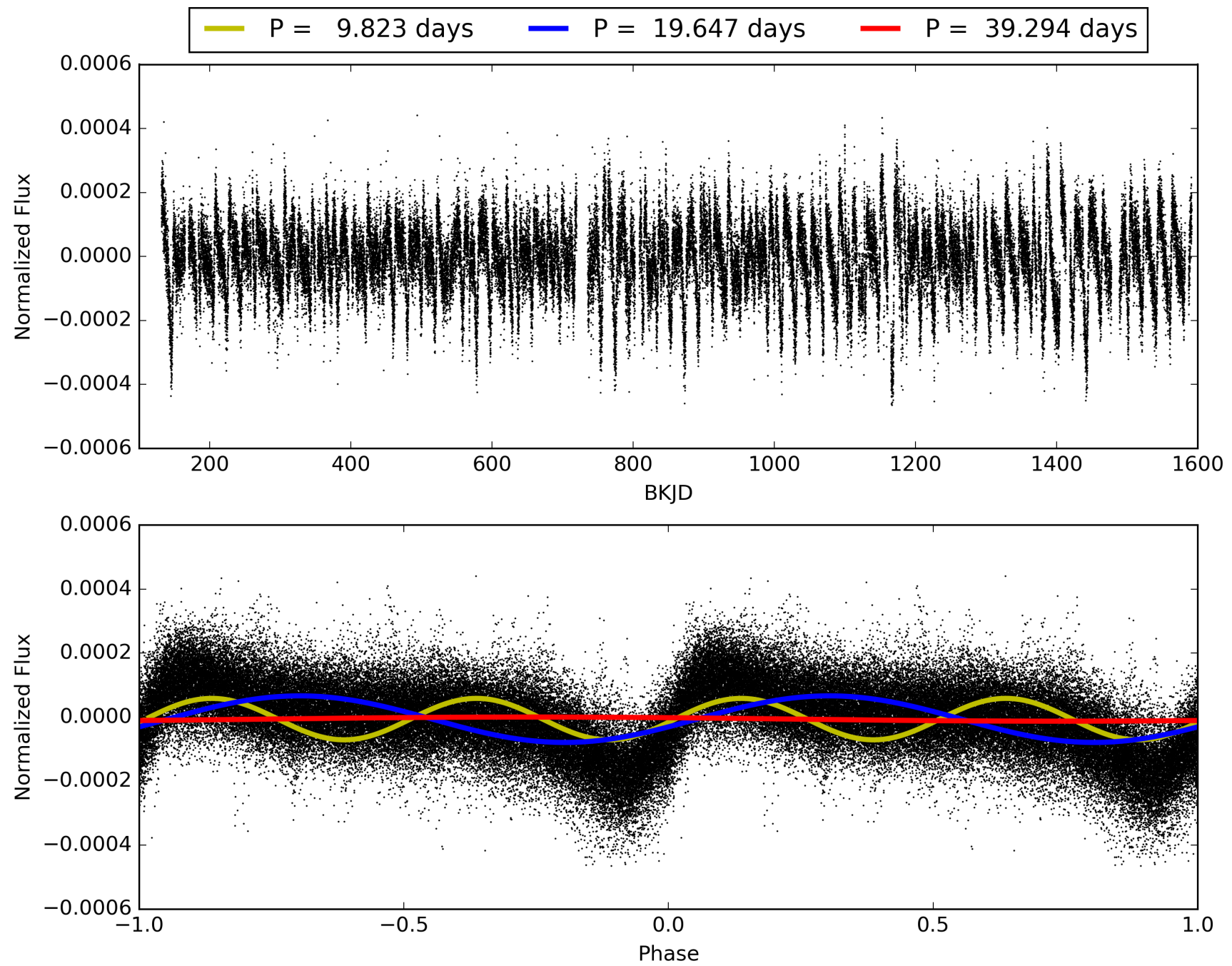
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 02:38:36 Z

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

TCE 008283948-01, PDC Light Curves

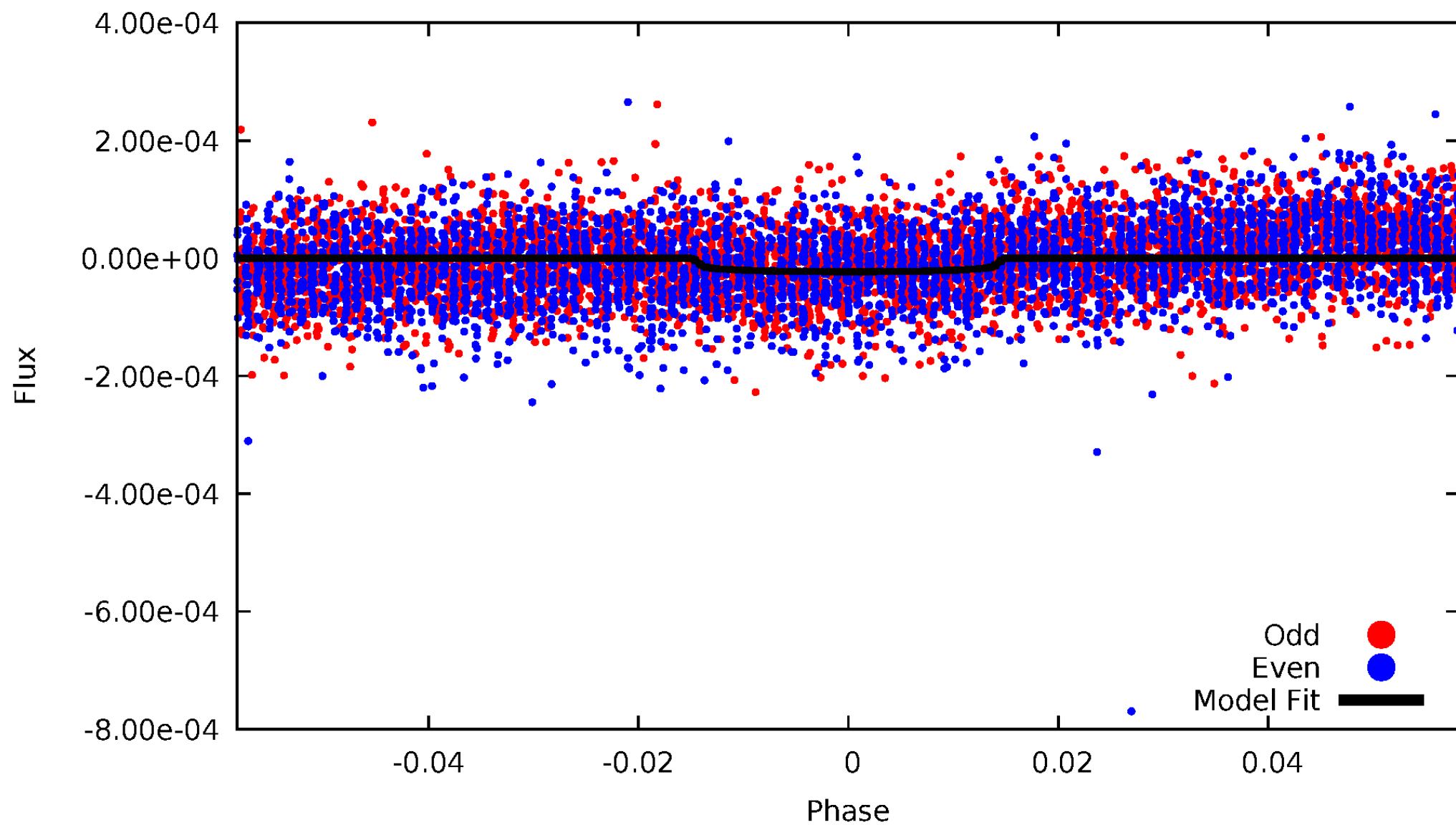


TCE 008283948-01



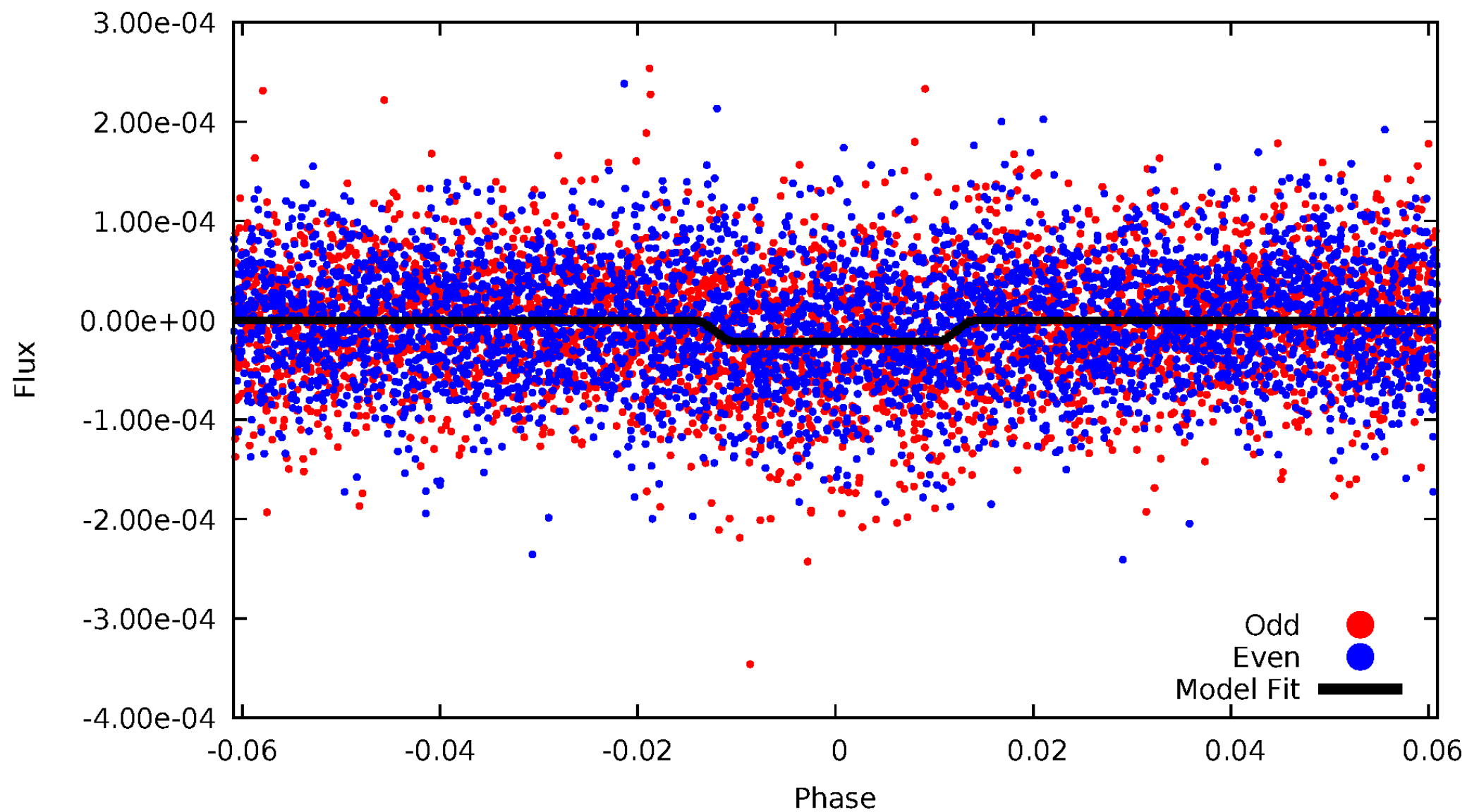
DV Odd/Even

TCE 008283948-01

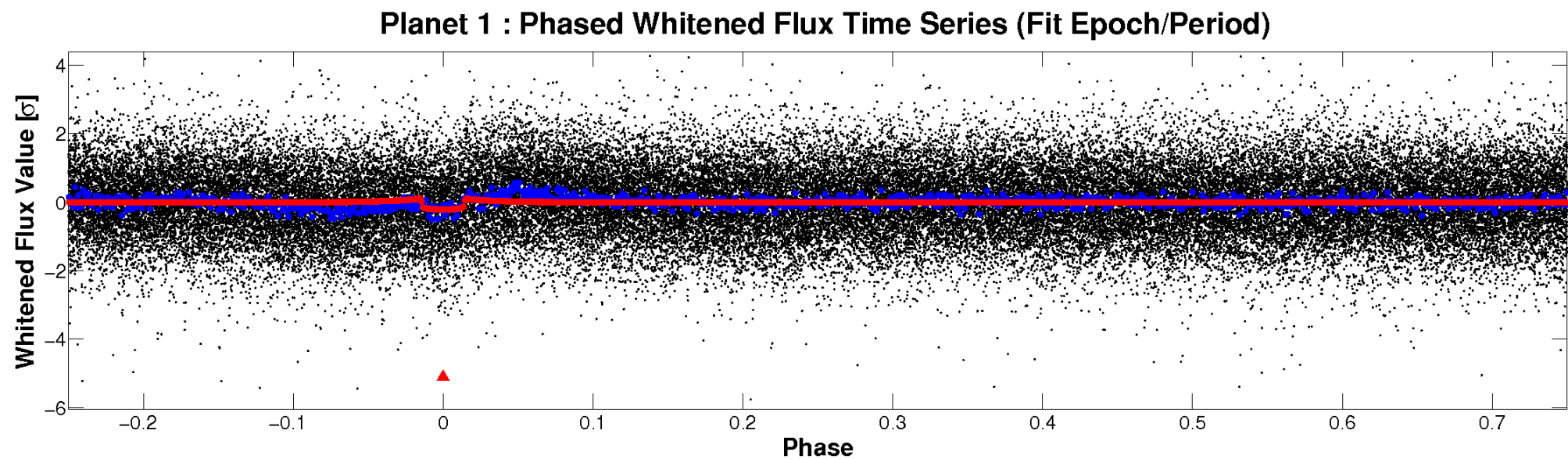
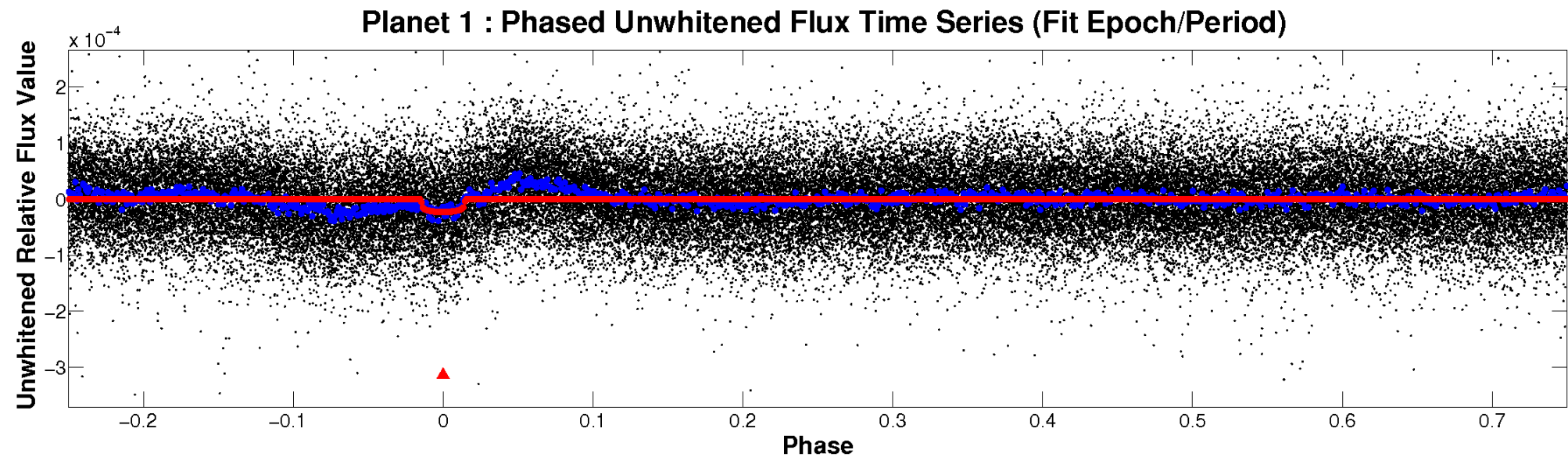


ALT Odd/Even

TCE 008283948-01

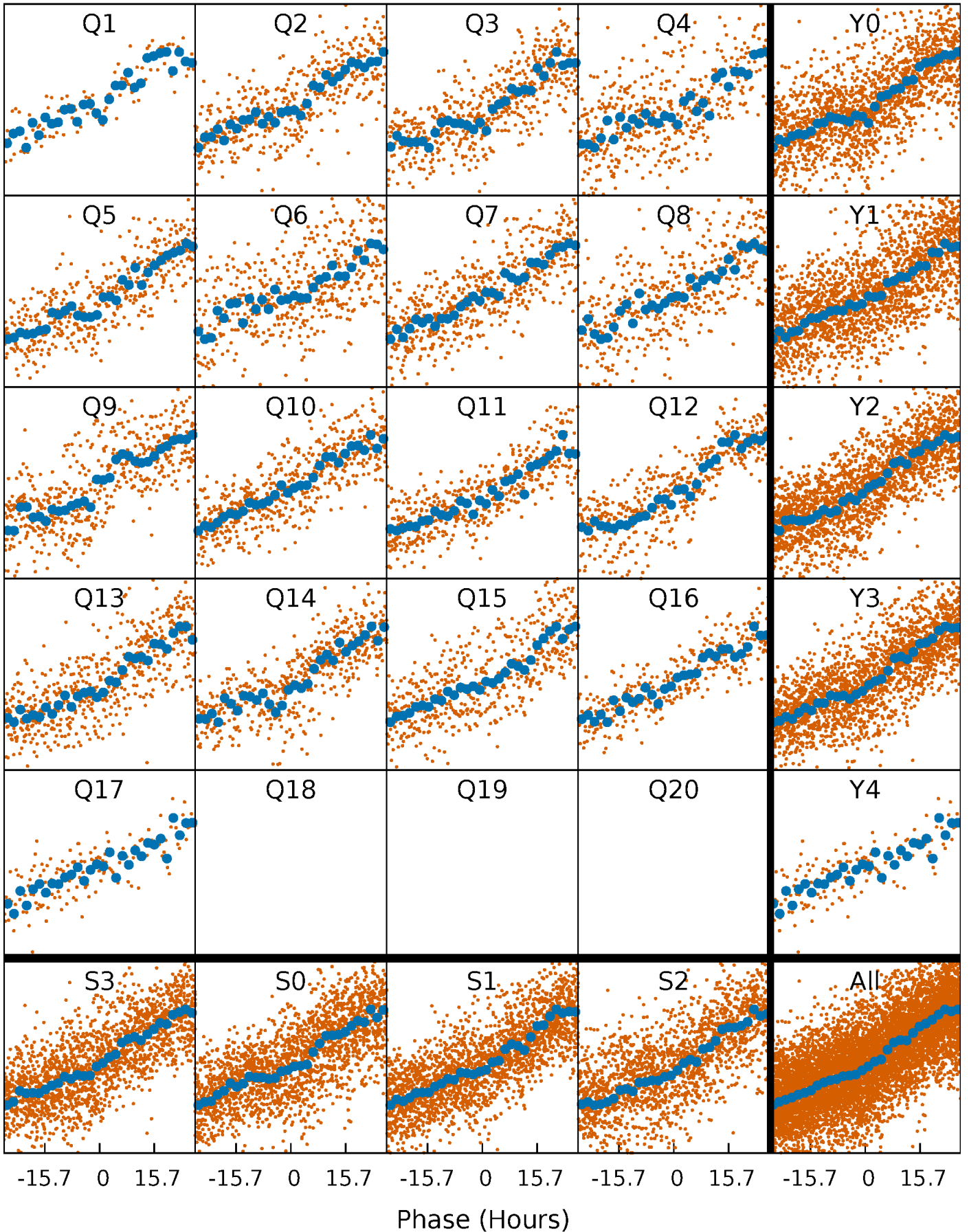


Non-Whitened Vs. Whitened Light Curve



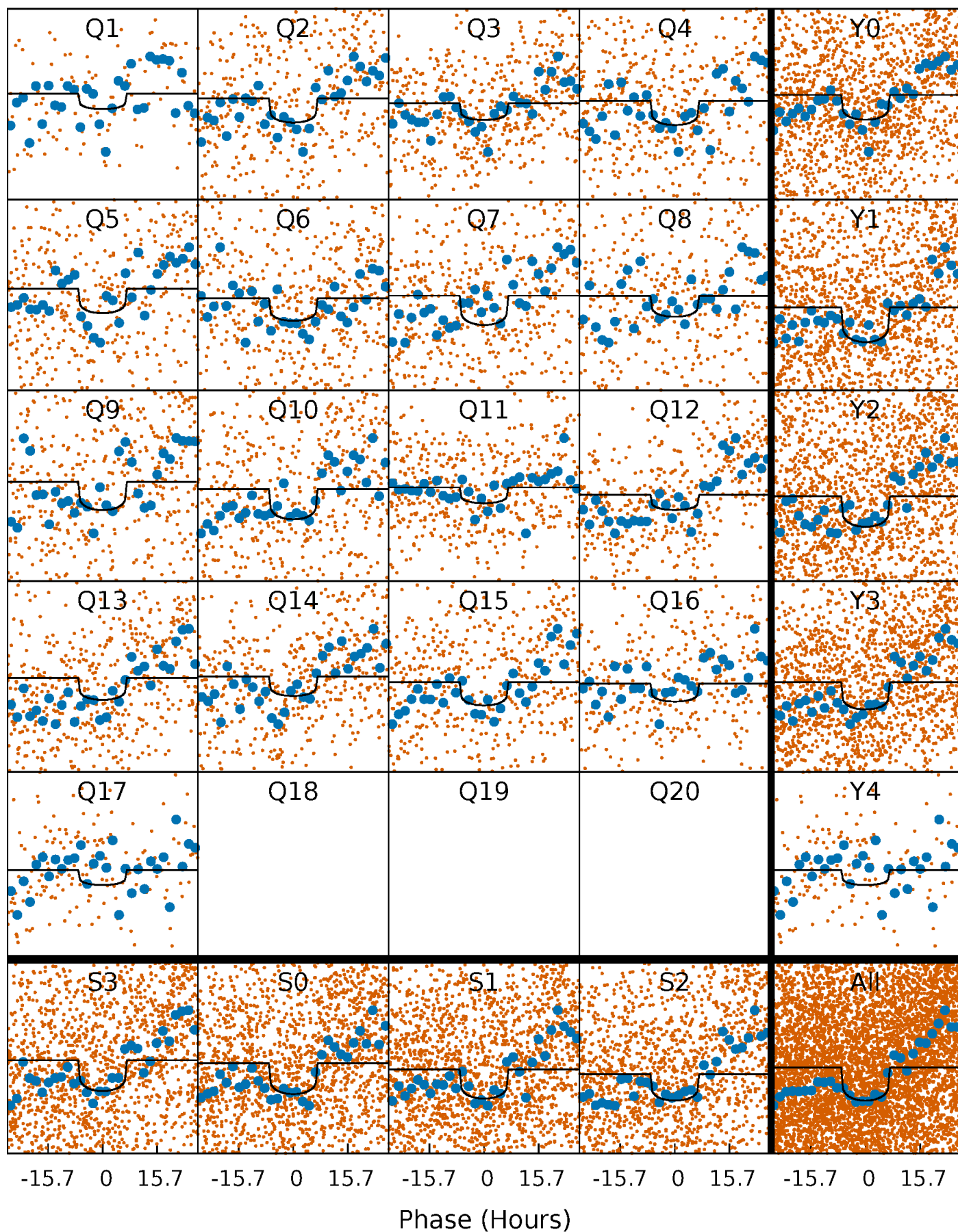
PDC Quarter-Phased Transit Curves

TCE 008283948-01 P= 19.646927 Days $T_0=147.246840$ (BKJD)



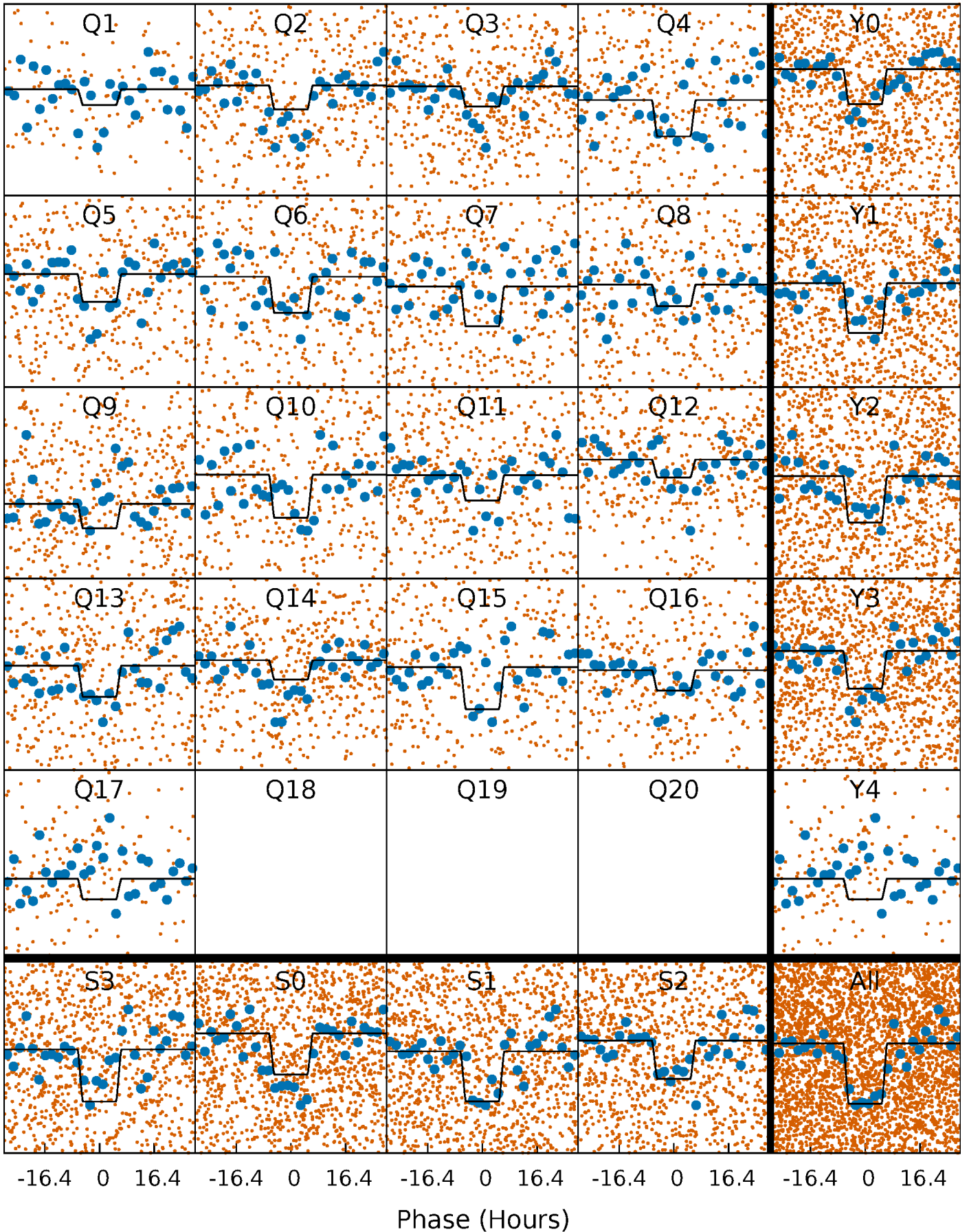
DV Quarter-Phased Transit Curves

TCE 008283948-01 P= 19.646927 Days $T_0=147.246840$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

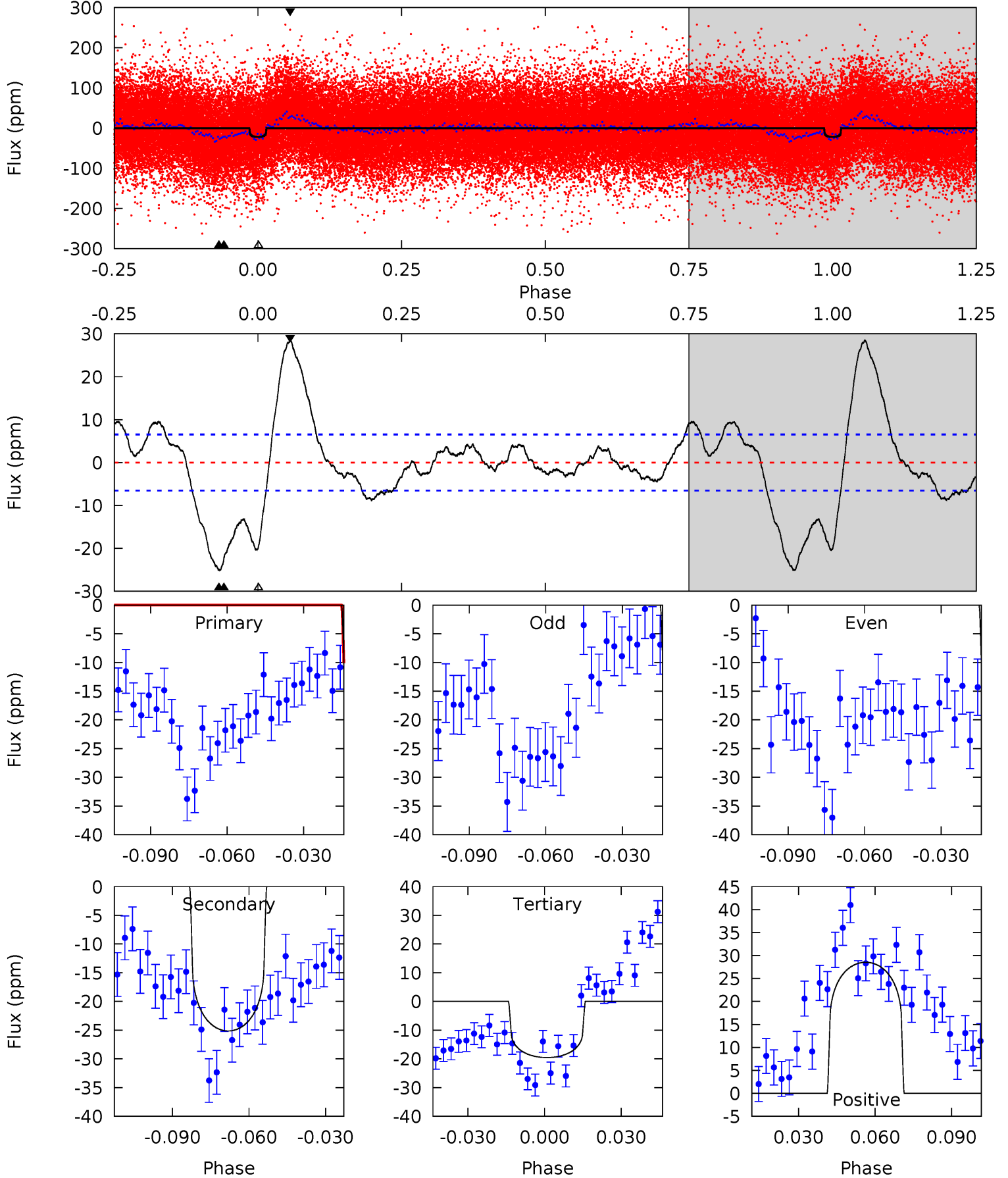
TCE 008283948-01 P= 19.646533 Days $T_0=147.265908$ (BKJD)



DV Model-Shift Uniqueness Test

008283948-01, $P = 19.646927$ Days, $E = 127.599913$ Days

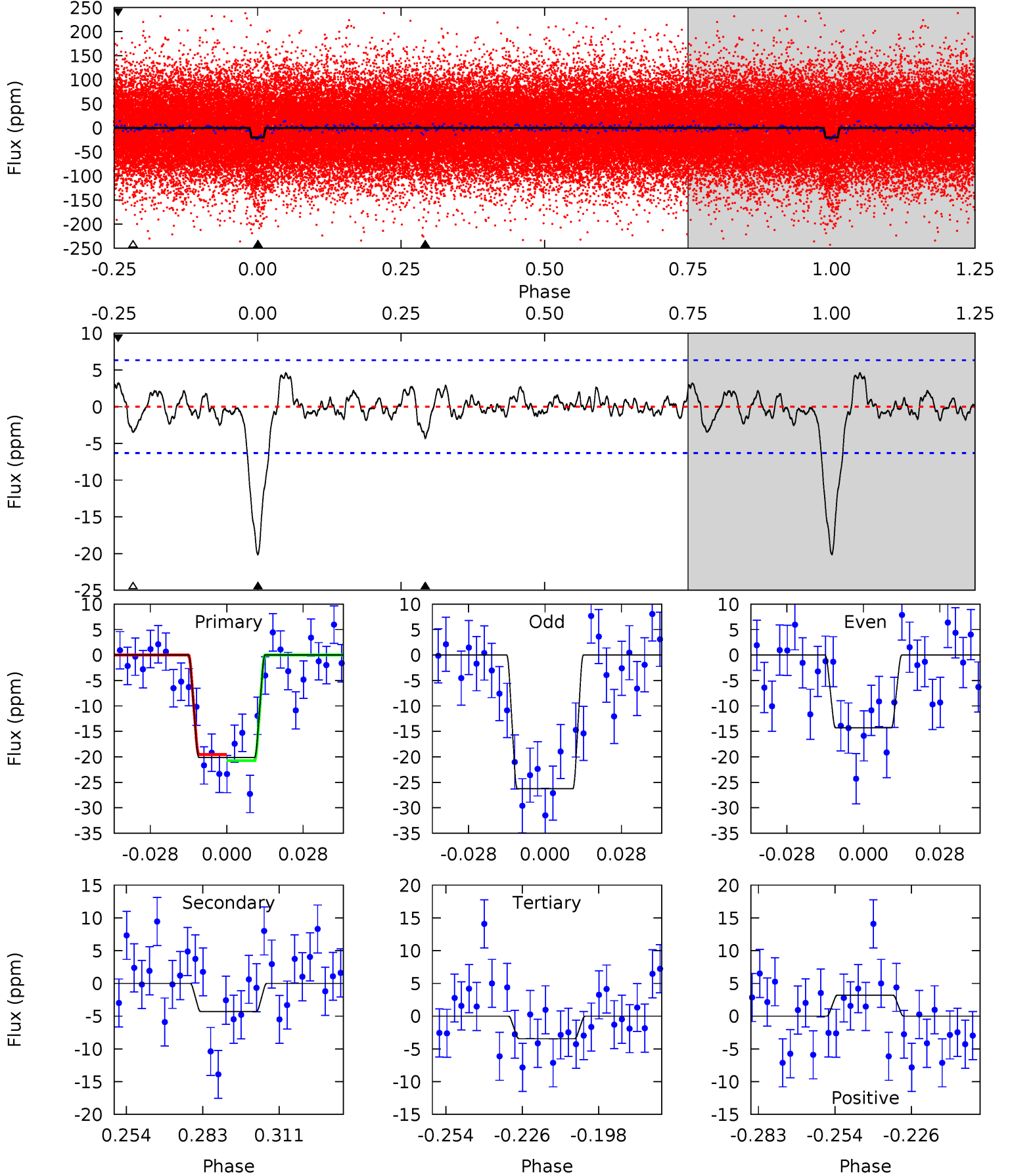
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.4	18.5	14.4	21.0	4.81	2.17	5.81	1.96	-4.66	4.12	-2.50	0.89	1.04	0.53	1.15



Alt Model-Shift Uniqueness Test

008283948-01, $P = 19.646533$ Days, $E = 127.619375$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	3.27	2.62	2.44	4.82	2.19	0.99	12.7	12.9	0.65	0.83	4.56	1.01	0.19	0.45



Stellar Parameters For KIC 008283948

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5862^{+158}_{-158}	$4.318^{+0.200}_{-0.200}$	$-0.440^{+0.300}_{-0.250}$	$1.048^{+0.291}_{-0.238}$	$0.833^{+0.119}_{-0.059}$	$1.020^{+1.028}_{-0.509}$
	+3%/-3%	+5%/-5%	+68%/-57%	+28%/-23%	+14%/-7%	+101%/-50%
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 008283948-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-25 ± 1	$0.56^{+0.17}_{-0.14}$	1011^{+79}_{-72}	5966^{+905}_{-559}	819^{+656}_{-334}
Alt.	-4 ± 1	$0.53^{+0.16}_{-0.15}$	1008^{+76}_{-70}	4169^{+539}_{-383}	152^{+146}_{-71}

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

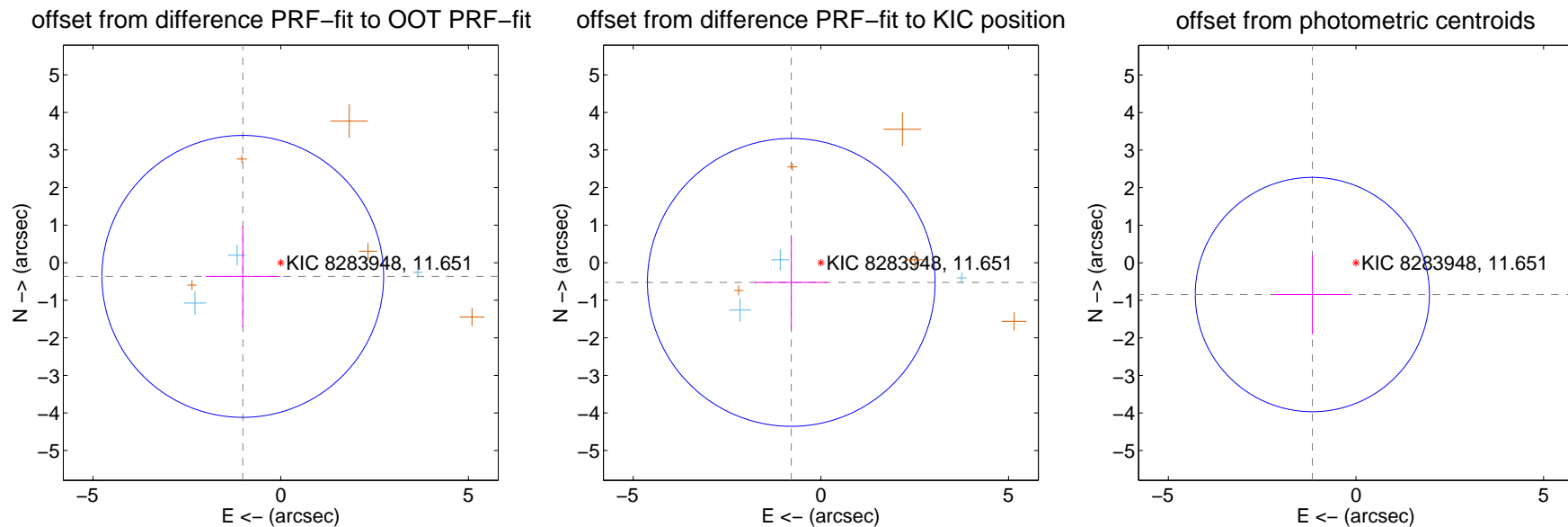
DV Centroid Data

Supplemental centroid analysis for 008283948-01. **Kepler magnitude: 11.65.** Transit SNR 8.75

There are 3 quarters with good PRF difference image offsets

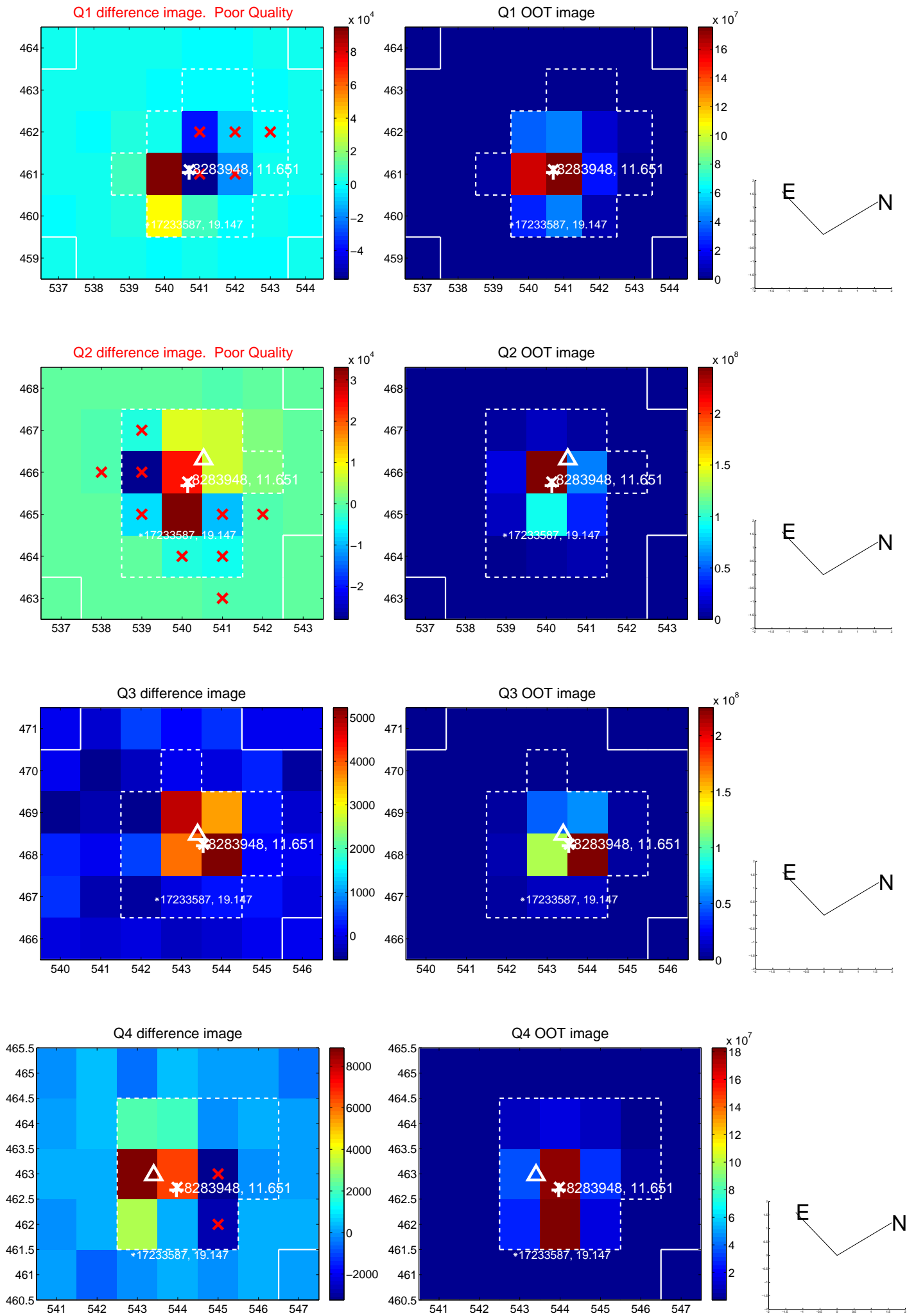
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.075 ± 1.251	0.86	1.012 ± 0.993	-0.365 ± 1.348
PRF-fit source offset from KIC position	0.947 ± 1.277	0.74	0.788 ± 0.976	-0.525 ± 1.258
photometric centroid source offset	1.44 ± 1.04	1.38	1.16 ± 1.03	-0.85 ± 1.06

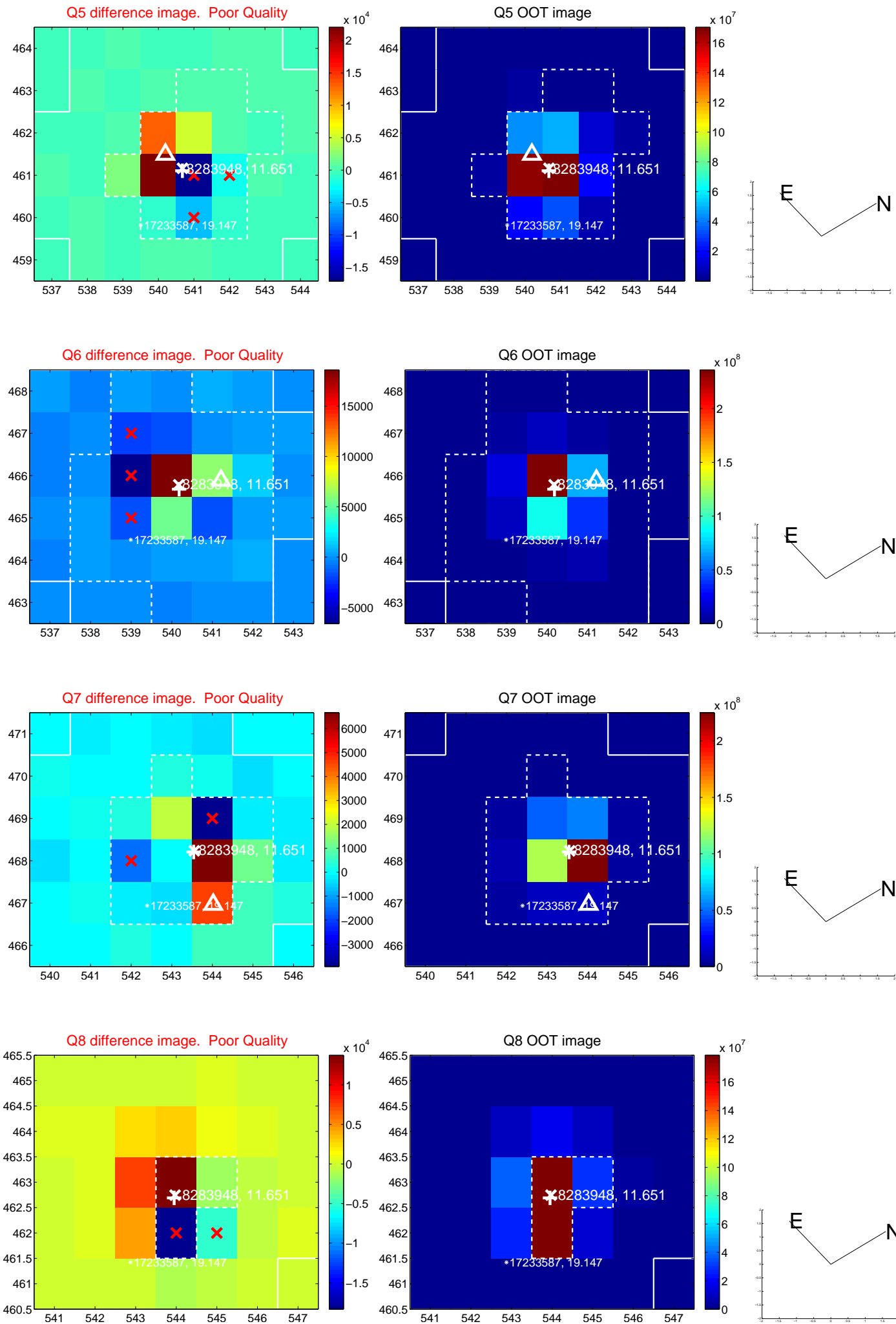


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

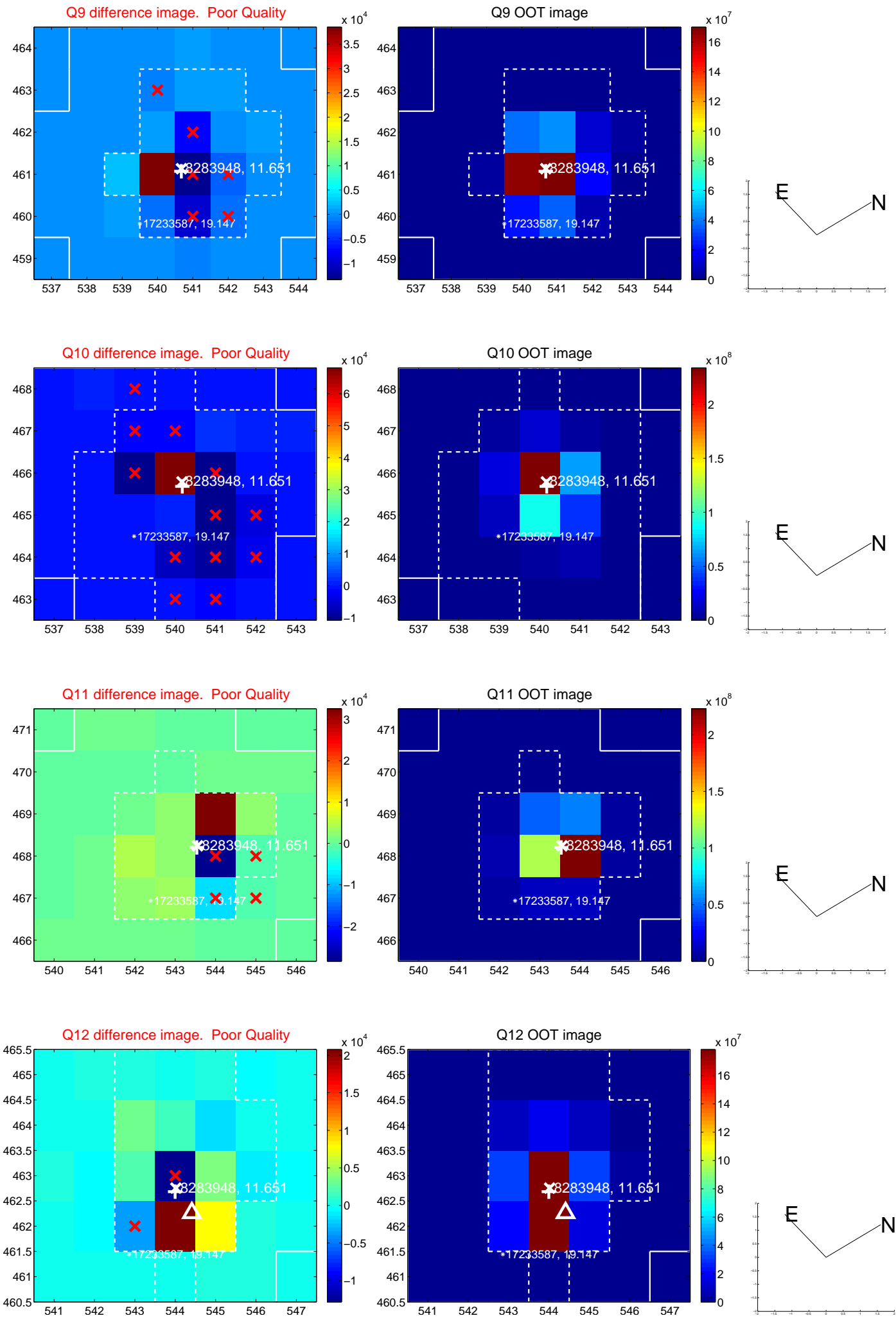
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



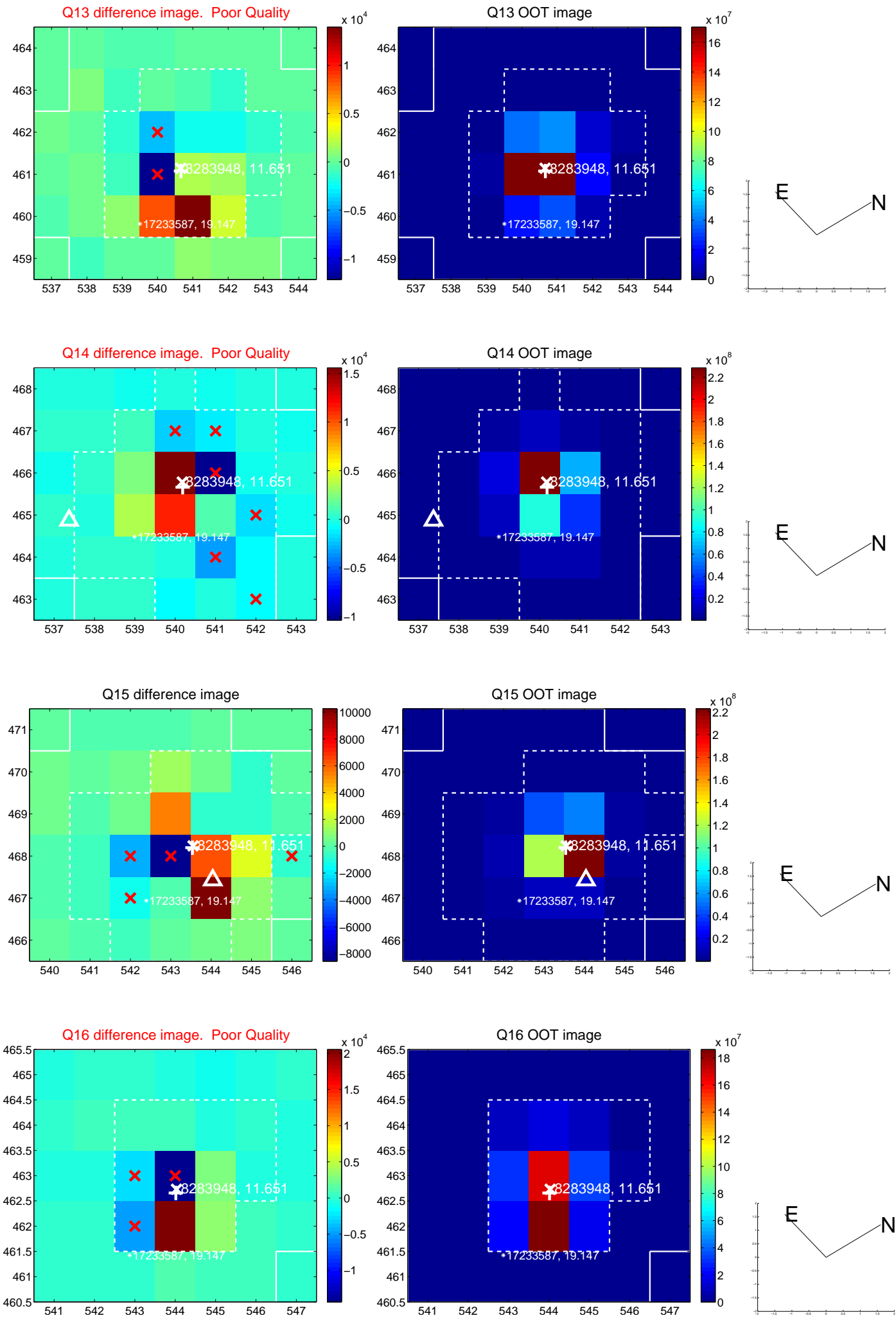
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



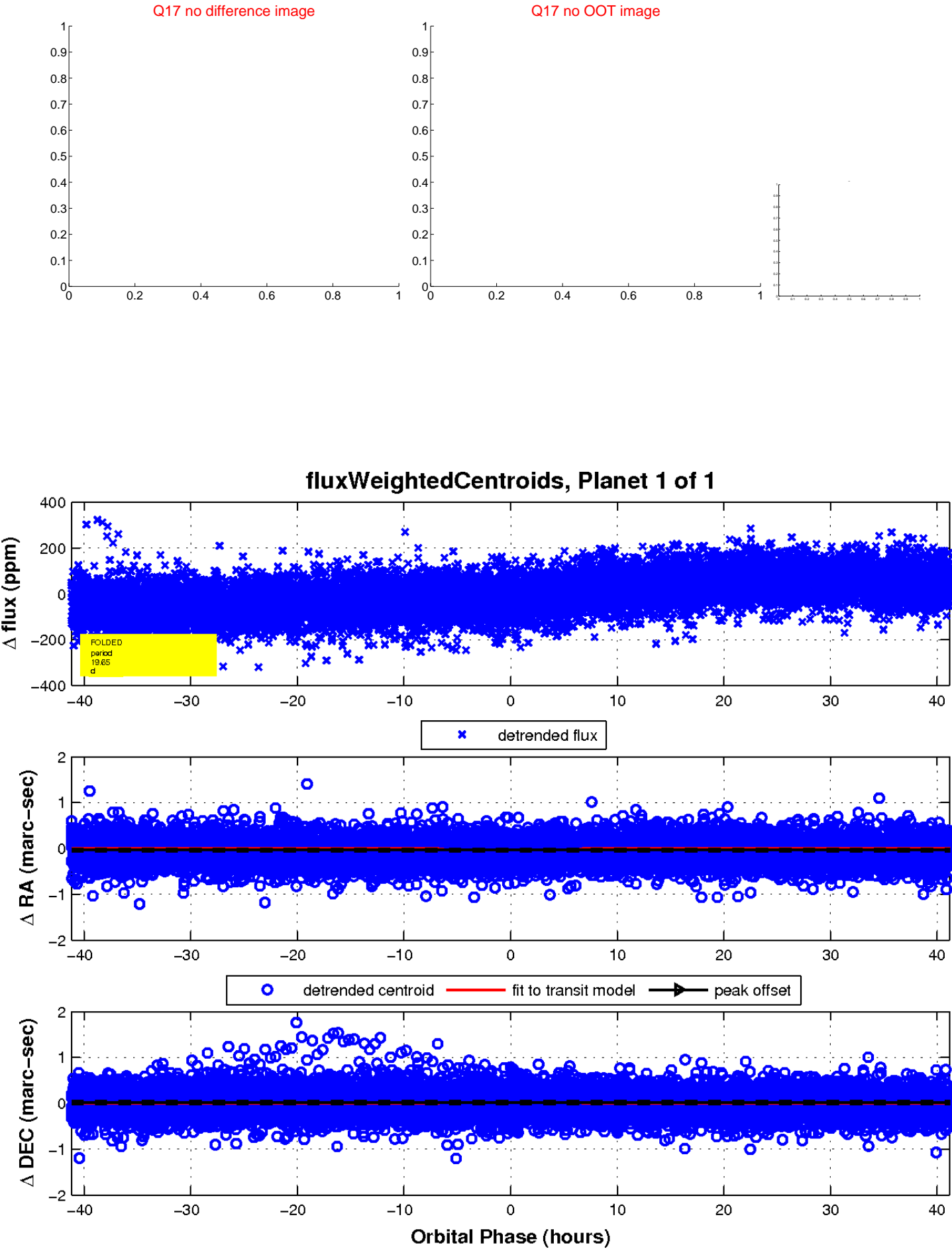
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

