

KIC 005217586

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})
005217586-01	OBS	1592.01	26.069433	143.120171	841.0	7.387	50.6	53.1	0.91	5585	4.62	28.90

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005217586-01	OBS	FP	0.00	0	0	1	0	CENT_UNRESOLVED_OFFSET

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.

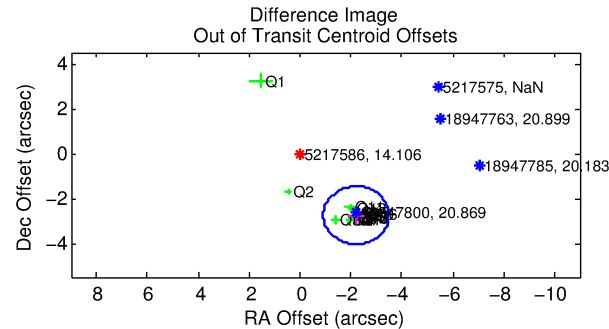
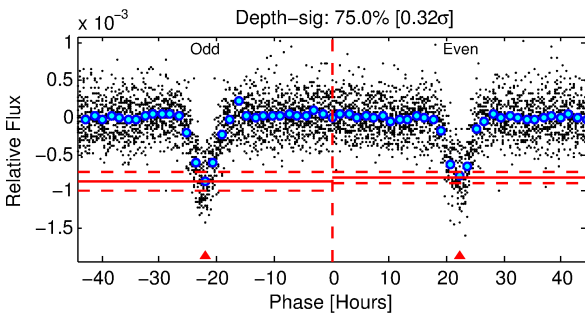
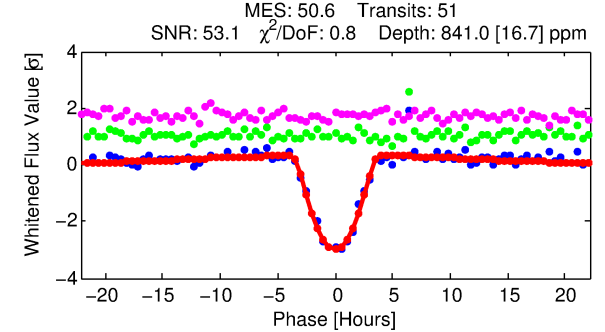
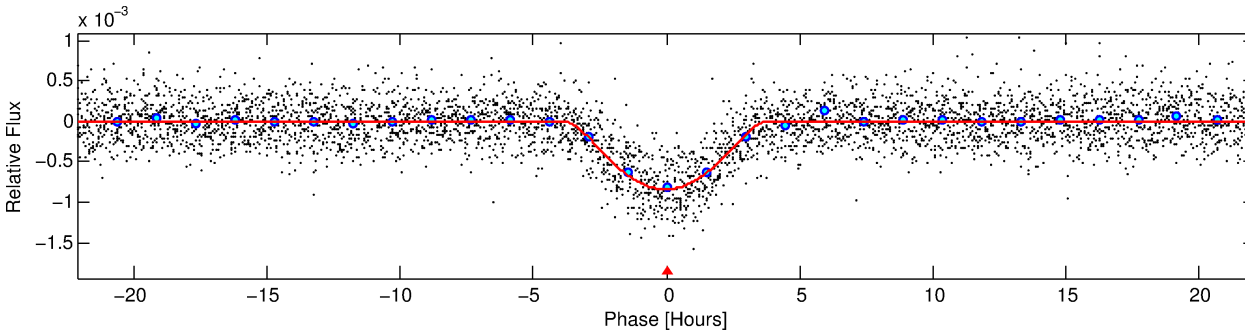
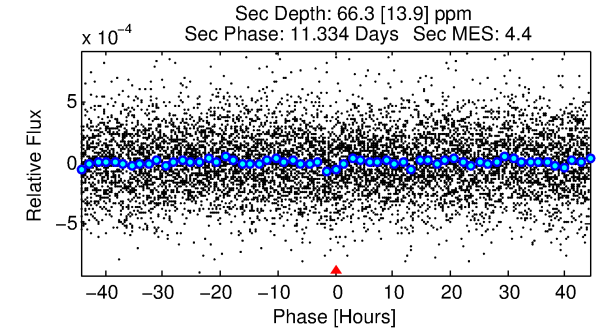
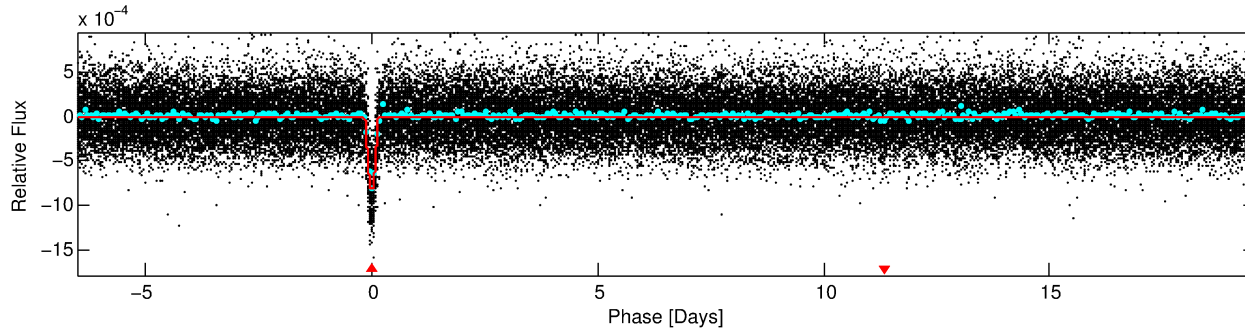
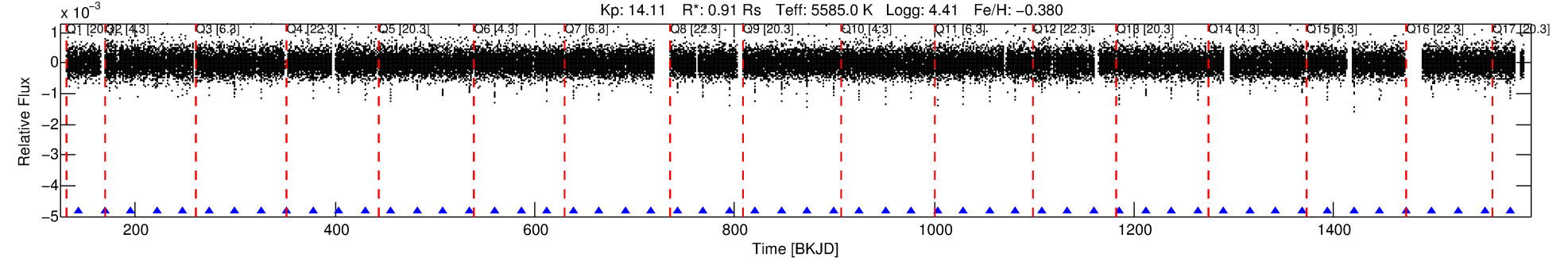
Ephemeris Match Information For 005217586-01

No Significant Match Found

DV One-Page Summary

KIC: 5217586 Candidate: 1 of 1 Period: 26.069 d

KOI: K01592.01 Corr: 0.992



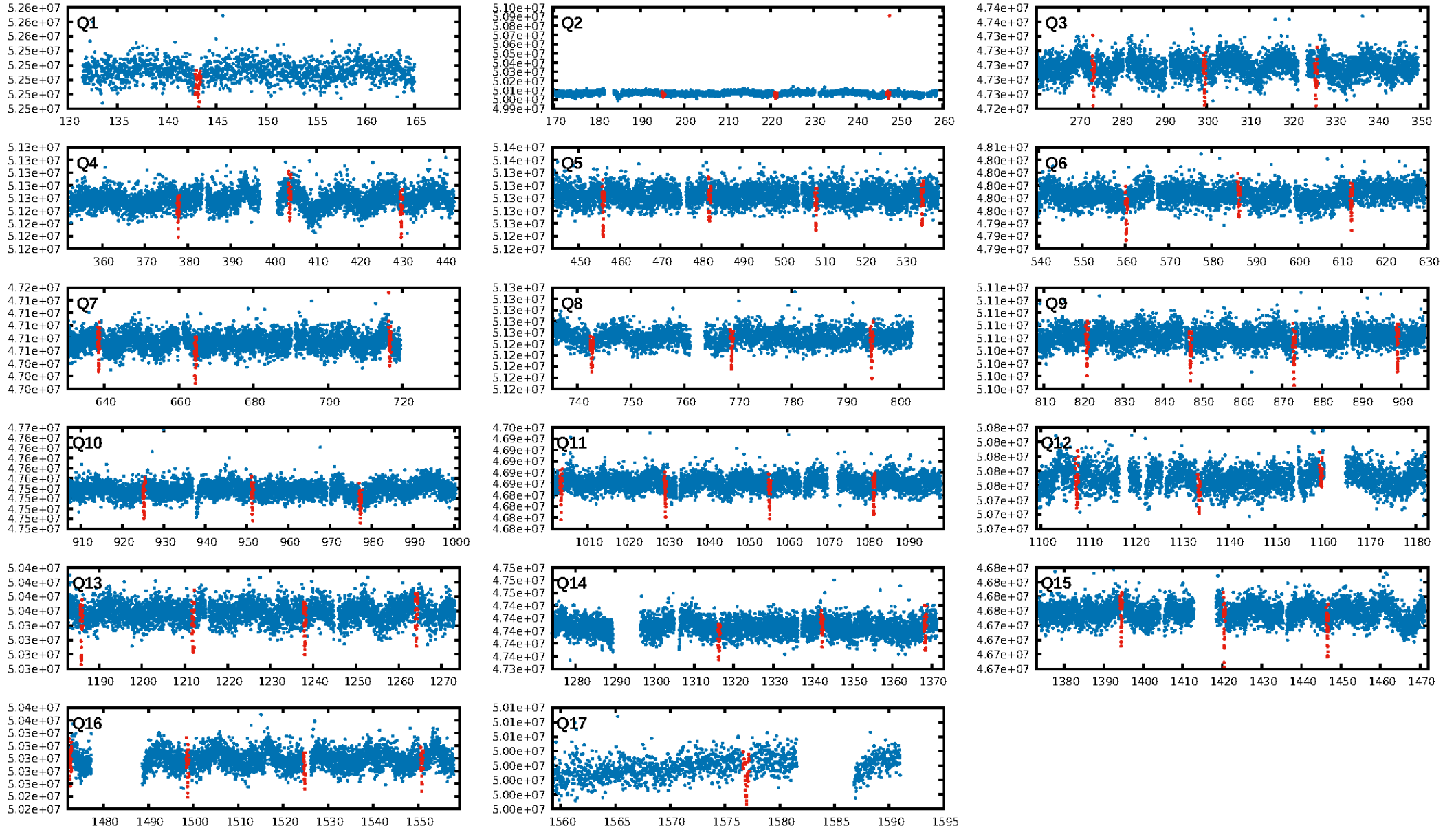
DV Fit Results:

Period = 26.06943 [0.00010] d
Epoch = 143.1202 [0.0032] BKJD
Rp/R* = 0.0466 [0.0207]
a/R* = 9.11 [1.15]
b = 0.99 [0.03]
Seff = 28.90 [11.07]
Teff = 591 [57] K
Rp = 4.62 [2.42] Re
a = 0.1581 [0.0383] AU
Ag = 42.57 [41.86] [0.99 σ]
Teffp = 2335 [538] K [3.22 σ]

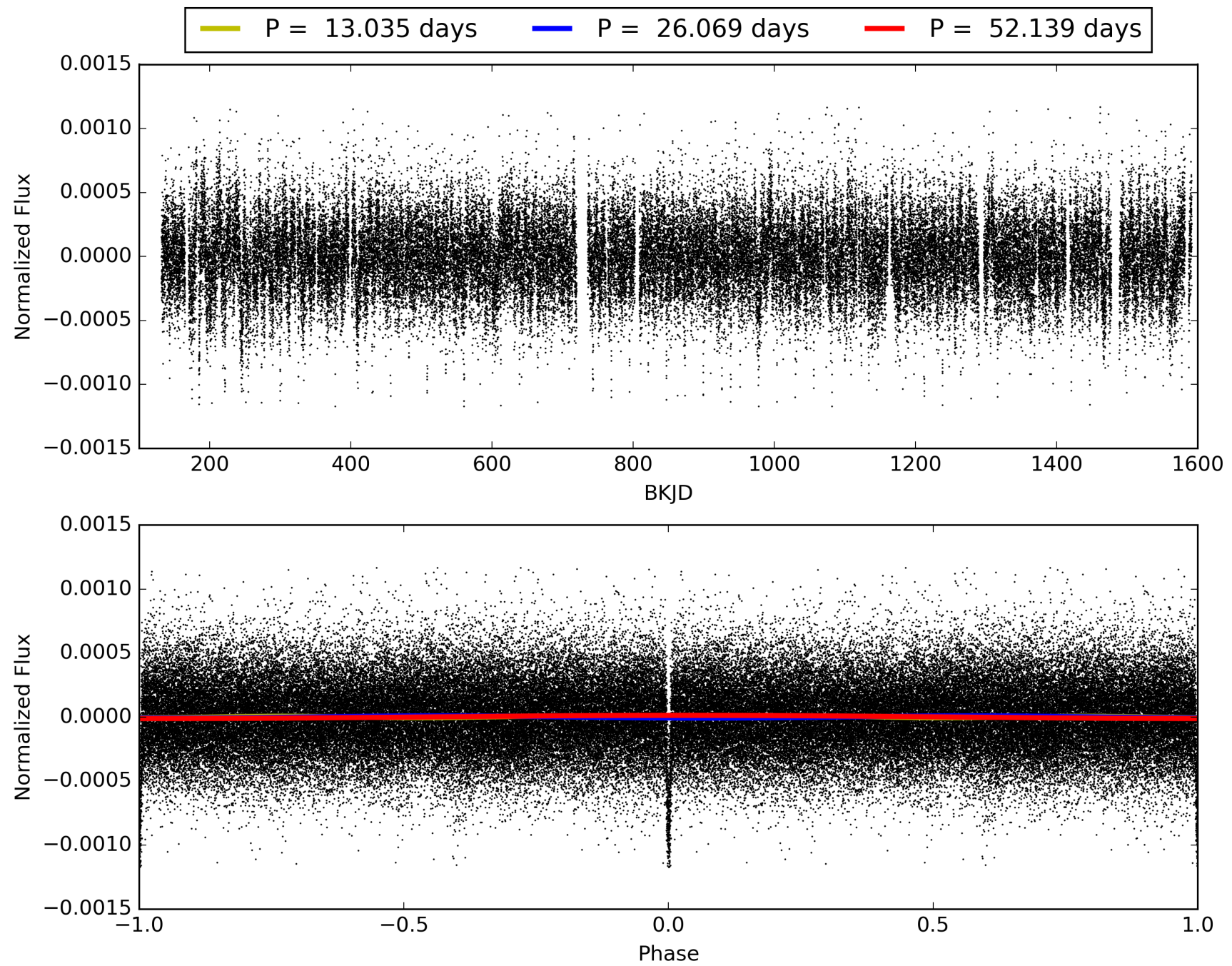
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 2.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [49/49]
GhostDiagnostic-chr: 1.472
Centroid-sig: 0.0%
Centroid-so: 3.733 arcsec [15.22 σ]
OotOffset-rm: 3.527 arcsec [8.19 σ]
KicOffset-rm: 3.560 arcsec [8.30 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.94 [16/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005217586-01, PDC Light Curves

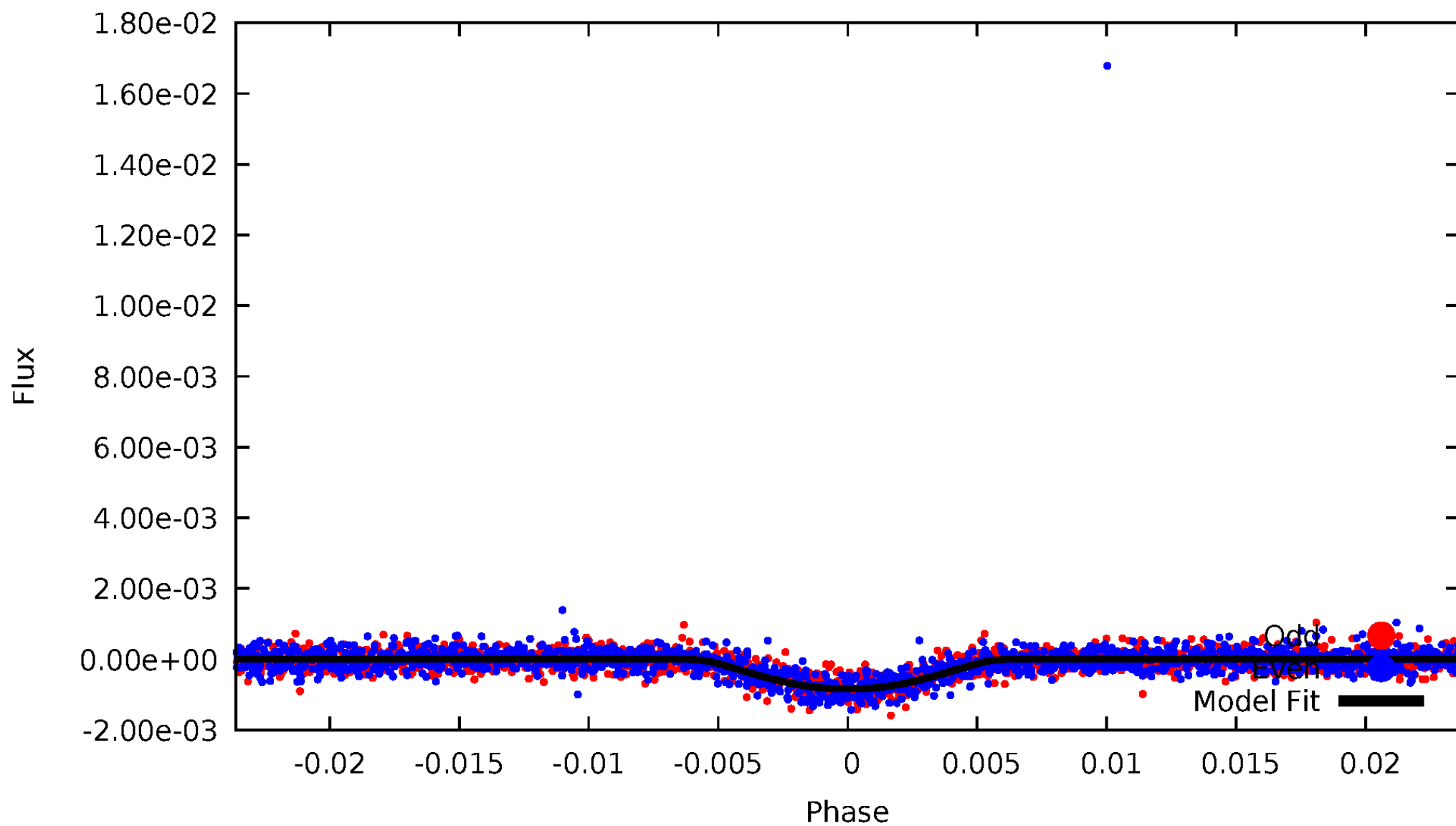


TCE 005217586-01



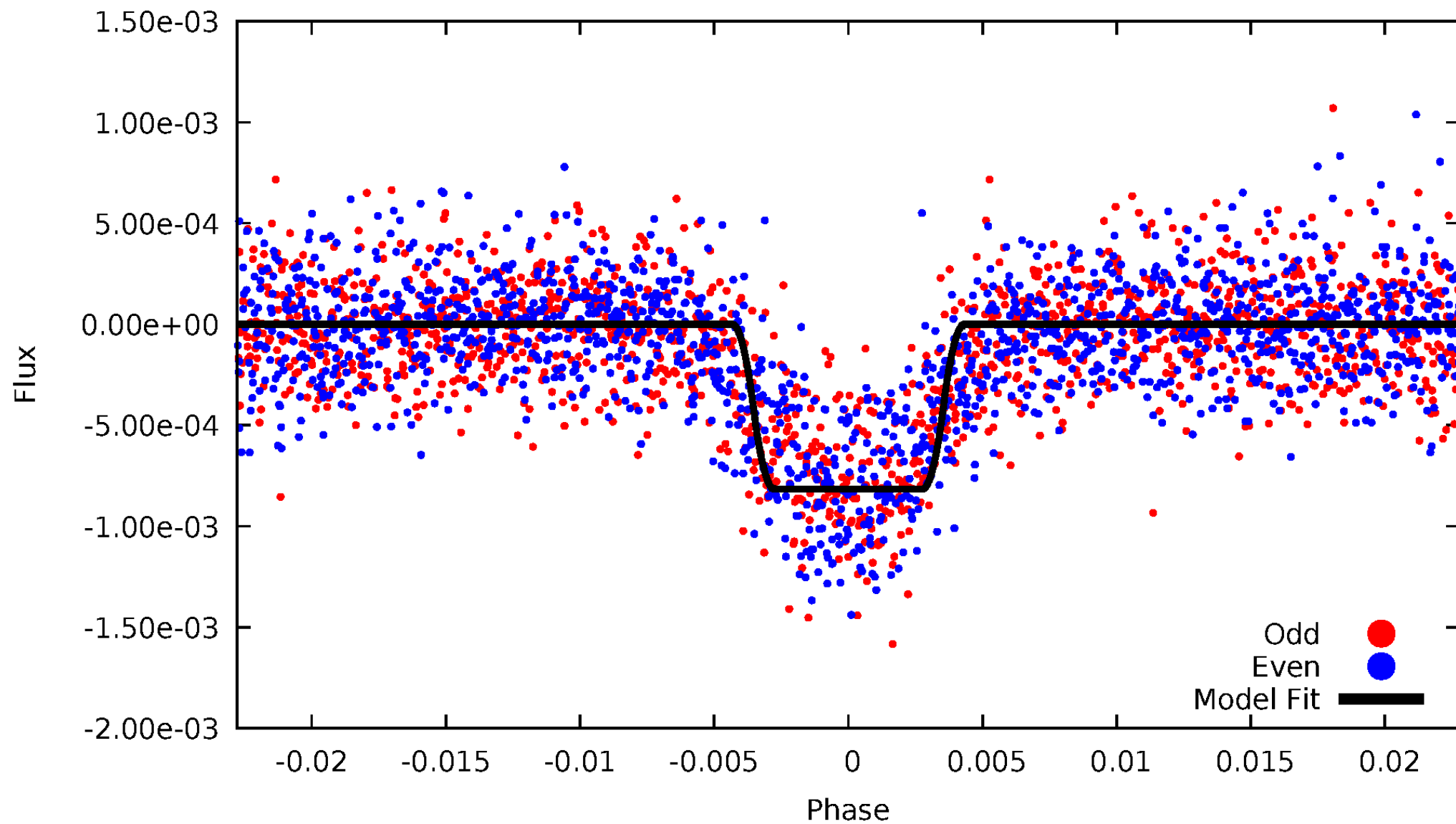
DV Odd/Even

TCE 005217586-01

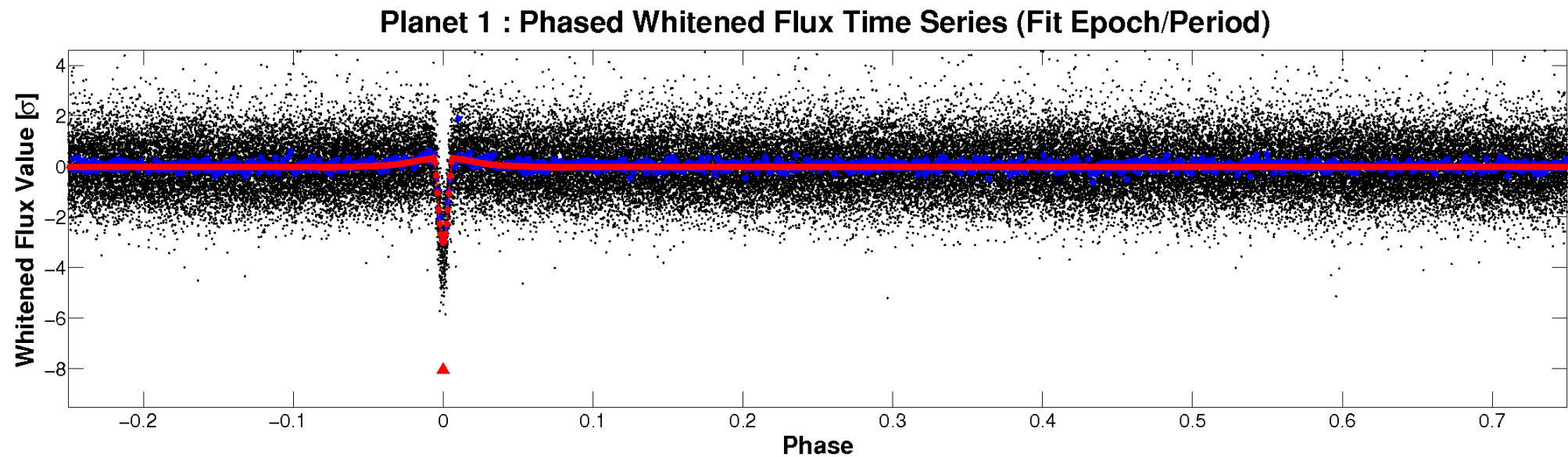
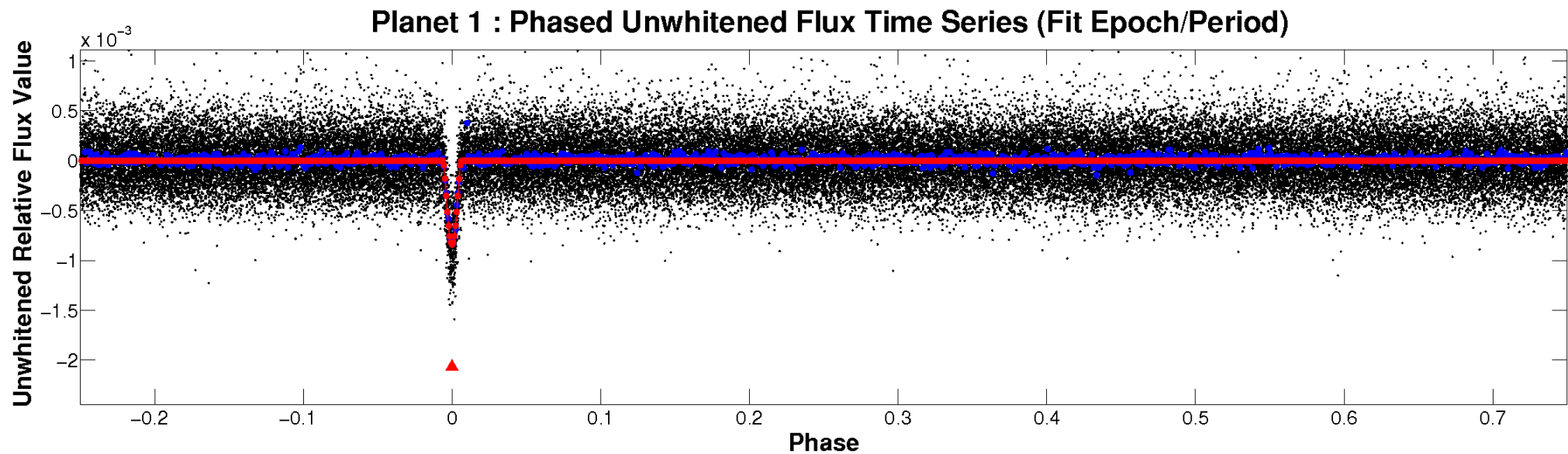


ALT Odd/Even

TCE 005217586-01

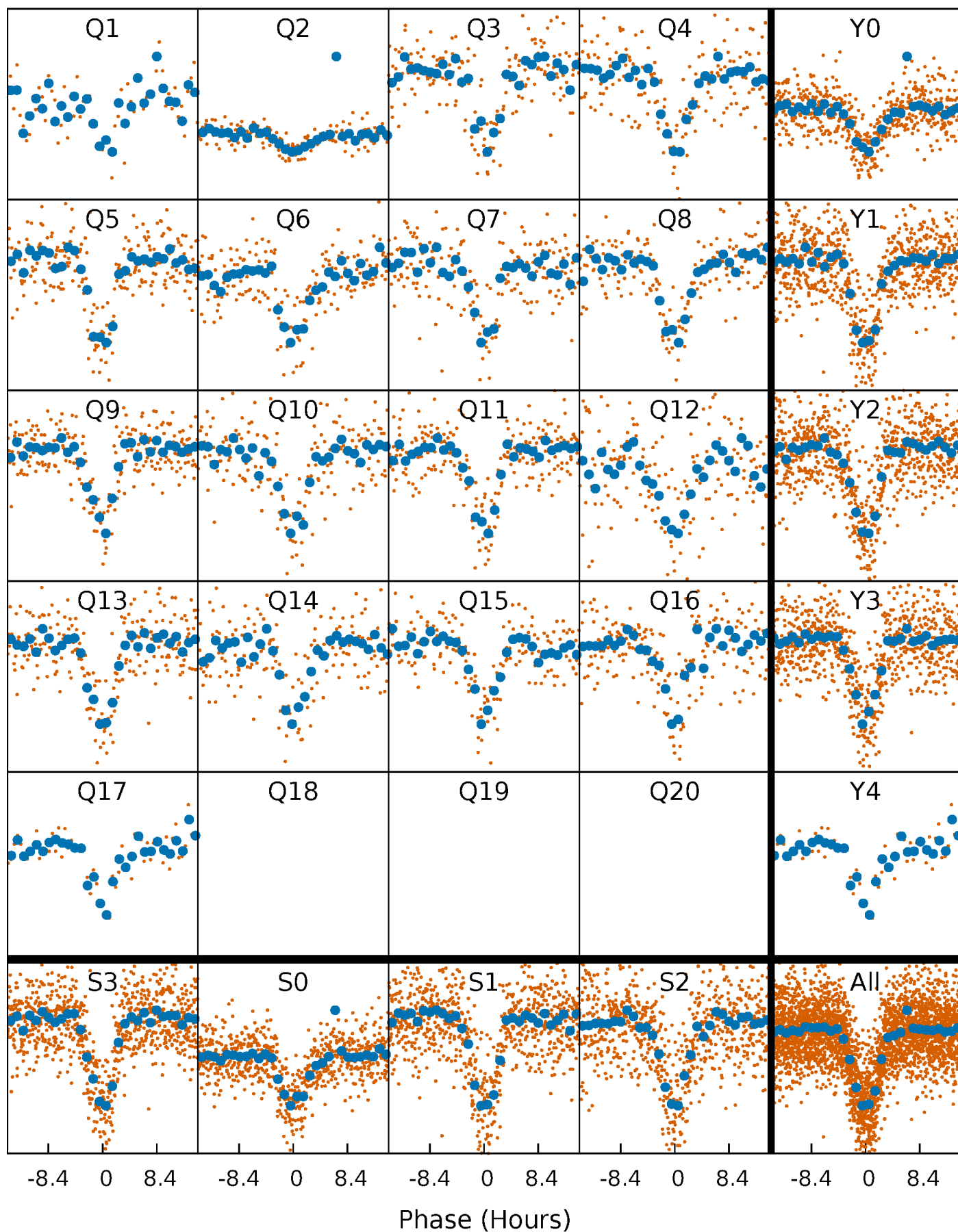


Non-Whitened Vs. Whitened Light Curve



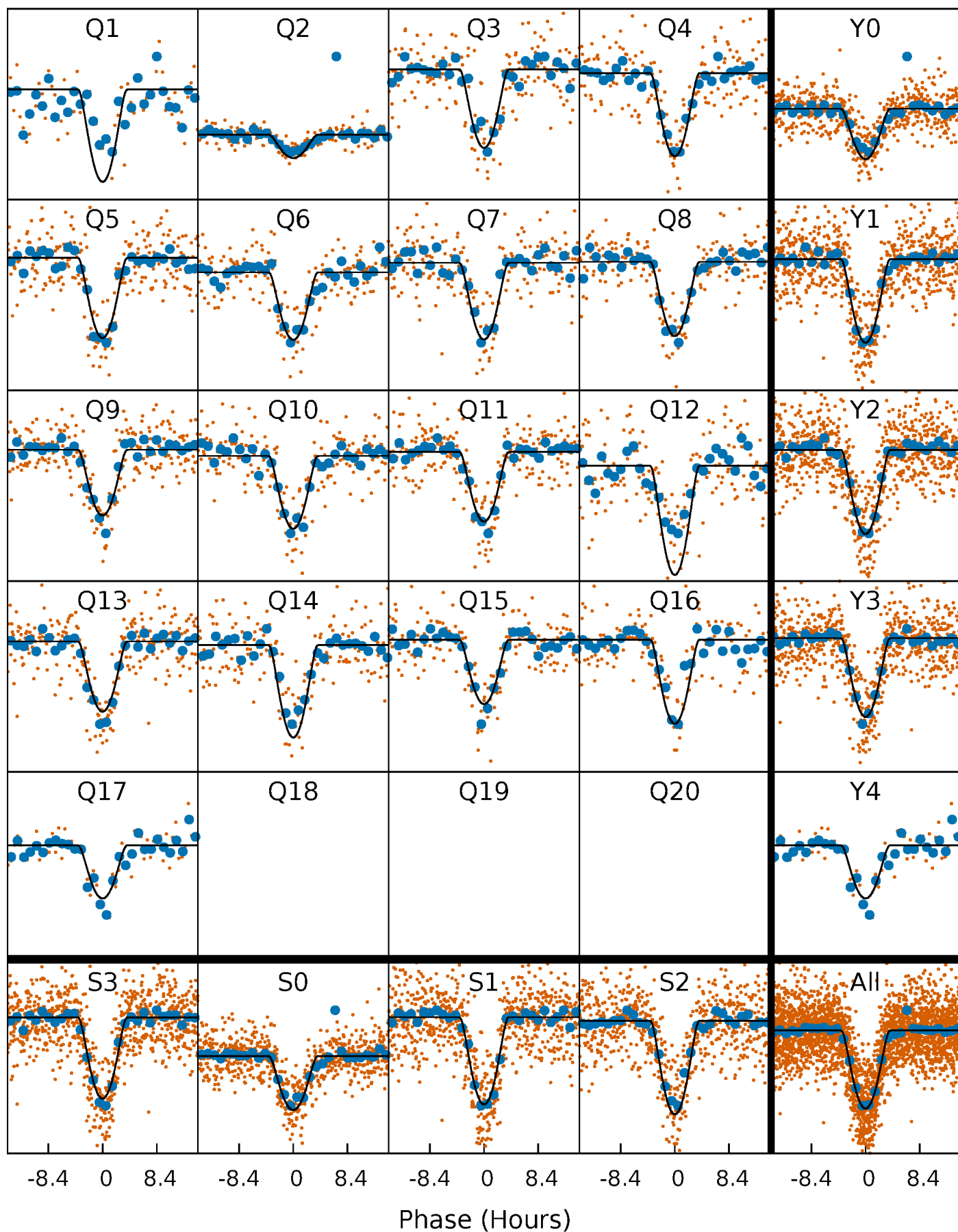
PDC Quarter-Phased Transit Curves

TCE 005217586-01 P= 26.069433 Days $T_0=143.120171$ (BKJD)



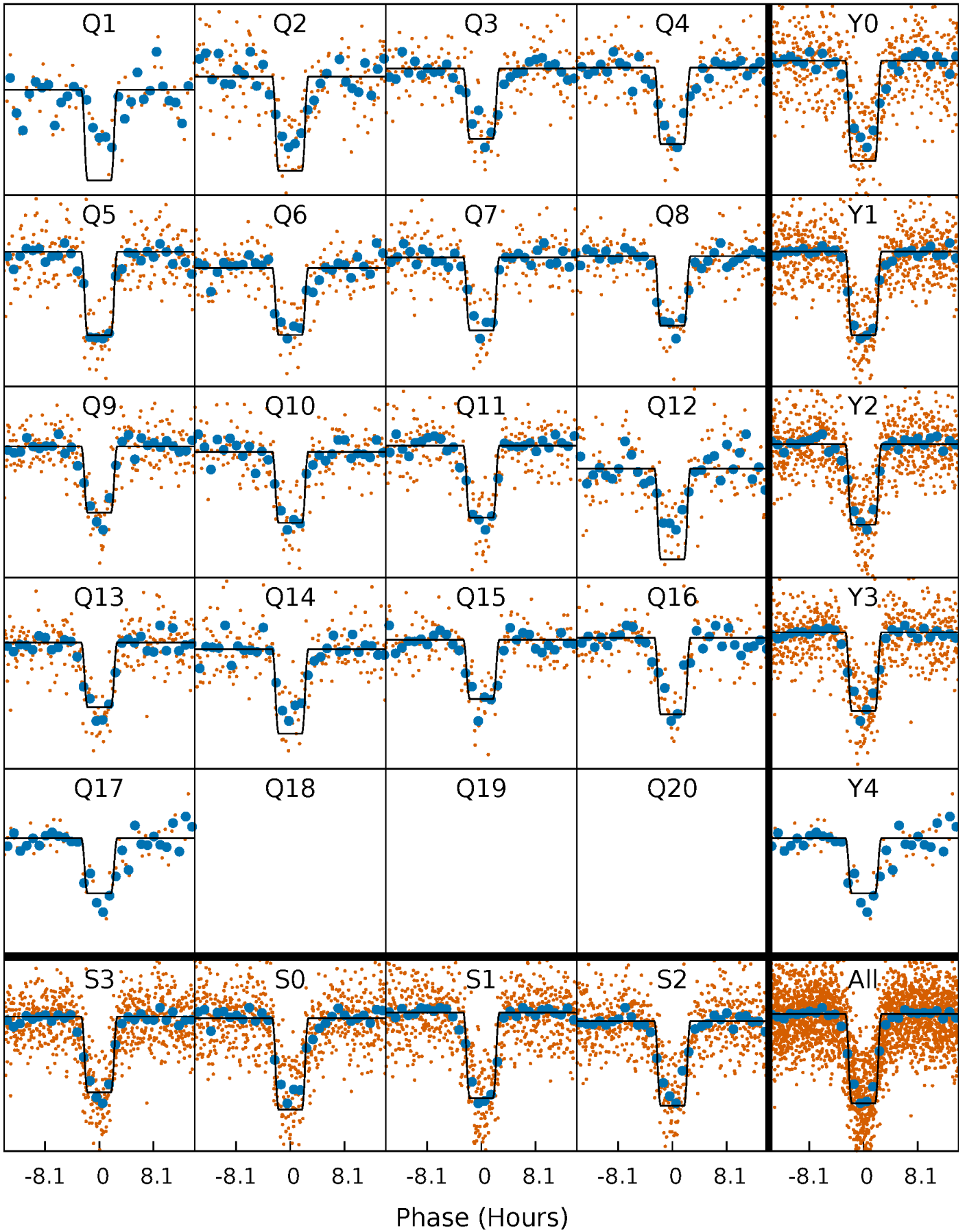
DV Quarter-Phased Transit Curves

TCE 005217586-01 P= 26.069433 Days $T_0=143.120171$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

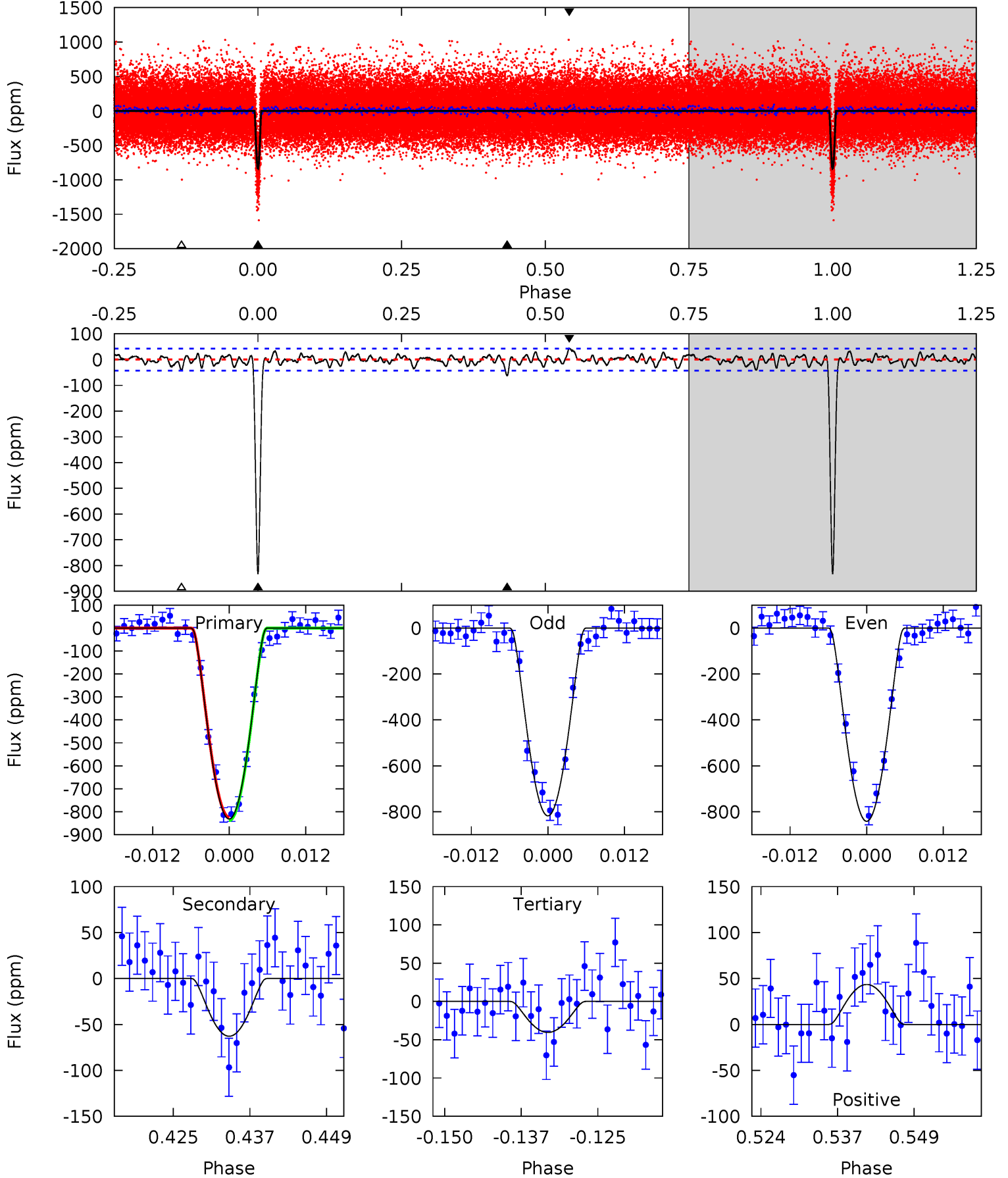
TCE 005217586-01 P= 26.069437 Days $T_0=143.120648$ (BKJD)



DV Model-Shift Uniqueness Test

005217586-01, P = 26.069433 Days, E = 117.050738 Days

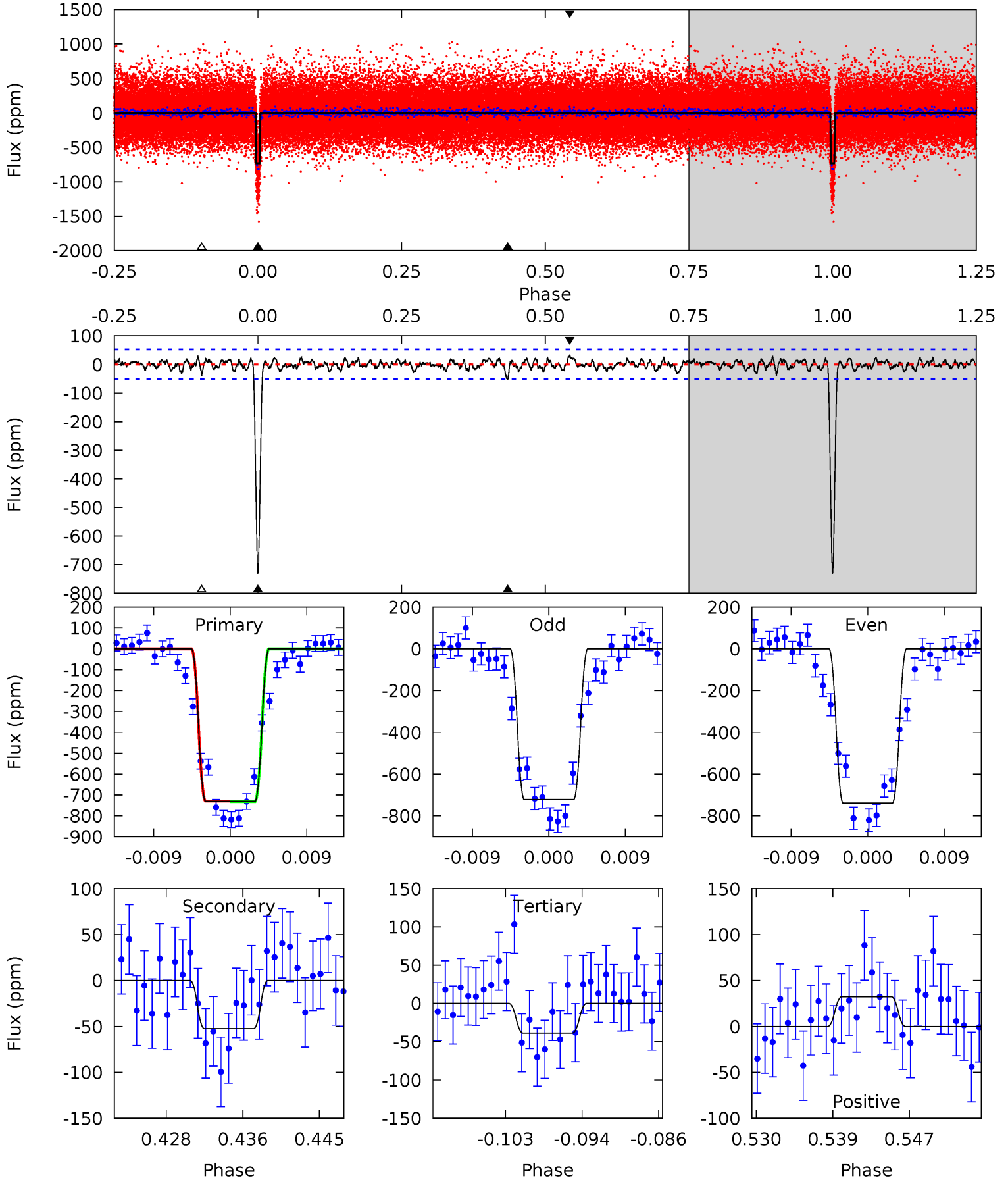
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
96.5	7.29	4.69	5.04	4.98	2.50	1.58	91.8	91.4	2.60	2.25	1.38	0.97	0.05	0.83



Alt Model-Shift Uniqueness Test

005217586-01, P = 26.069437 Days, E = 117.051211 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
70.8	5.08	3.75	3.14	5.06	2.63	1.10	67.0	67.6	1.34	1.94	0.80	0.95	0.04	0.12



Stellar Parameters For KIC 005217586

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5585^{+152}_{-169}	$4.409^{+0.148}_{-0.204}$	$-0.380^{+0.350}_{-0.250}$	$0.910^{+0.252}_{-0.155}$	$0.773^{+0.124}_{-0.053}$	$1.447^{+1.080}_{-0.748}$
	+3%/-3%	+3%/-5%	+92%/-66%	+28%/-17%	+16%/-7%	+75%/-52%
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 005217586-01 / KOI 1592.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-63 ± 9	$4.68^{+2.35}_{-1.99}$	832^{+66}_{-56}	2974^{+565}_{-297}	40^{+87}_{-22}
Alt.	-52 ± 10	$3.10^{+1.98}_{-1.78}$	829^{+59}_{-49}	3250^{+1161}_{-433}	72^{+355}_{-46}

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

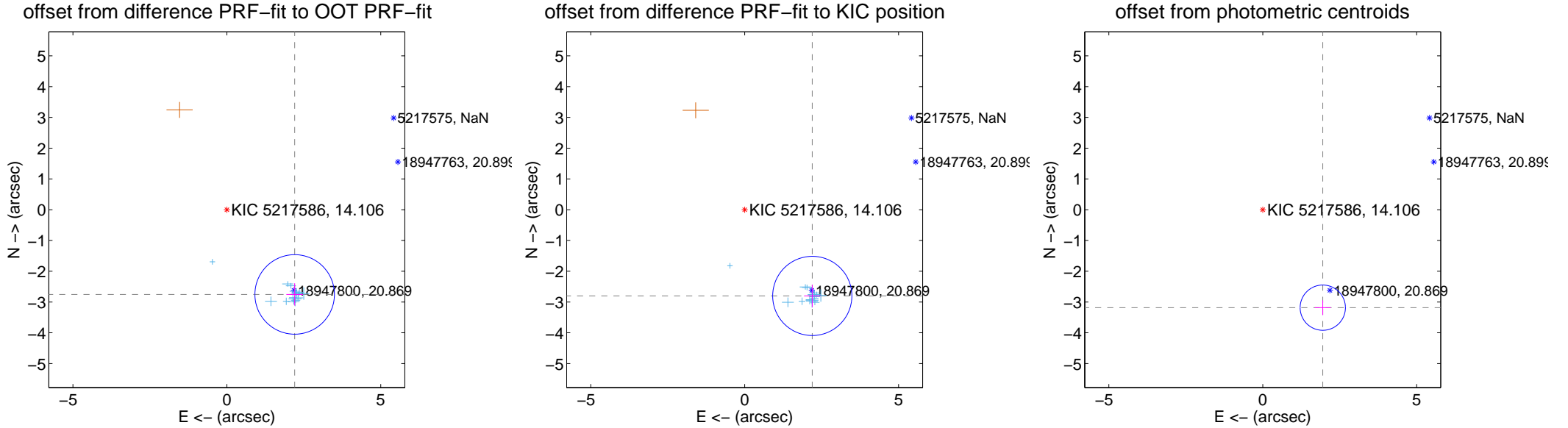
DV Centroid Data

Supplemental centroid analysis for 005217586-01. Kepler magnitude: 14.11. Transit SNR 53.08

There are 16 quarters with good PRF difference image offsets

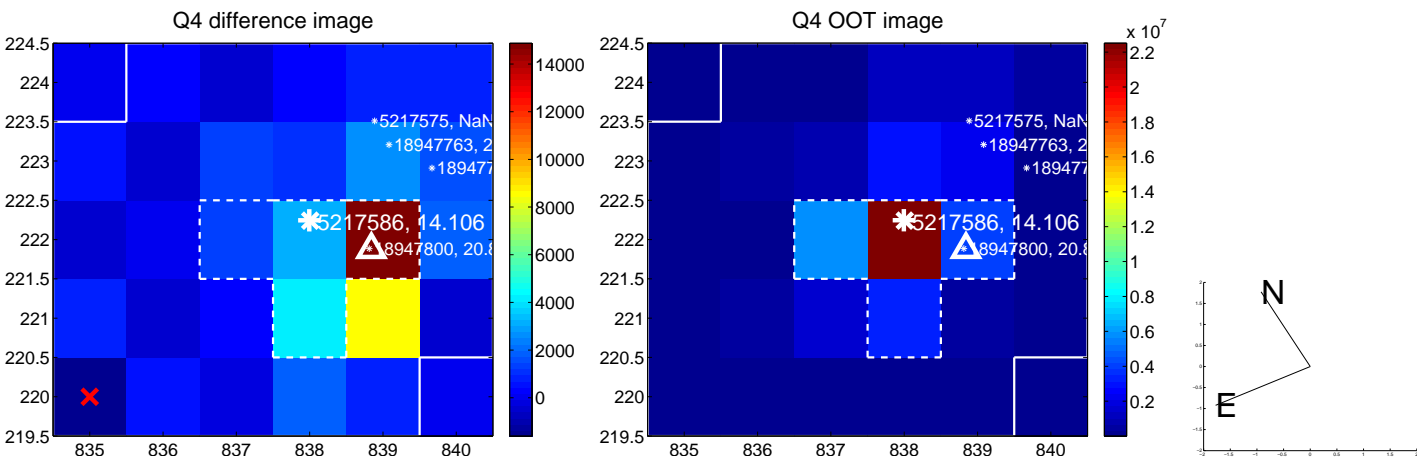
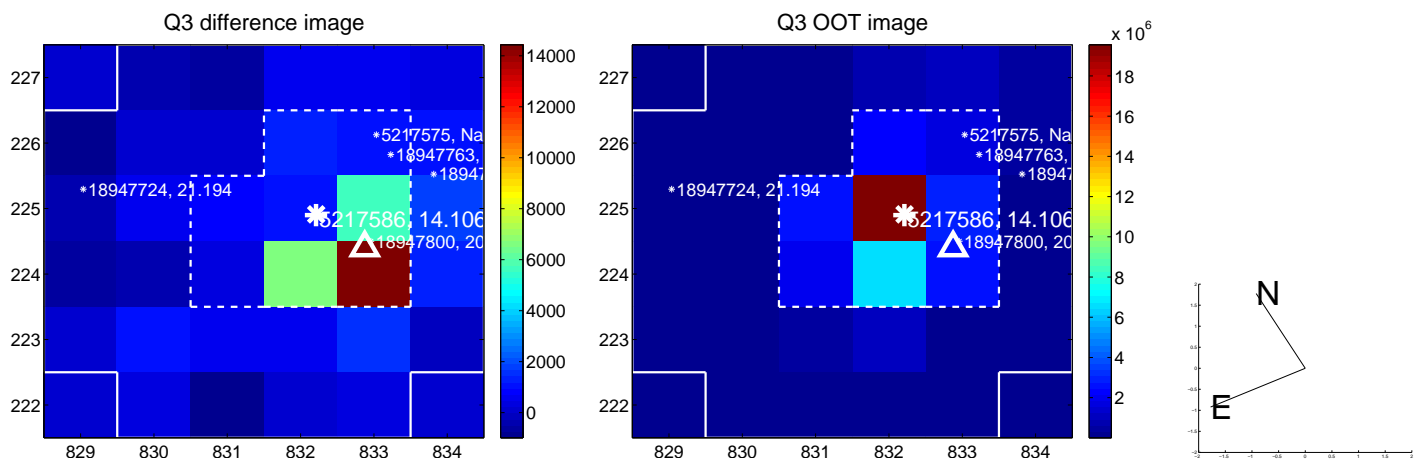
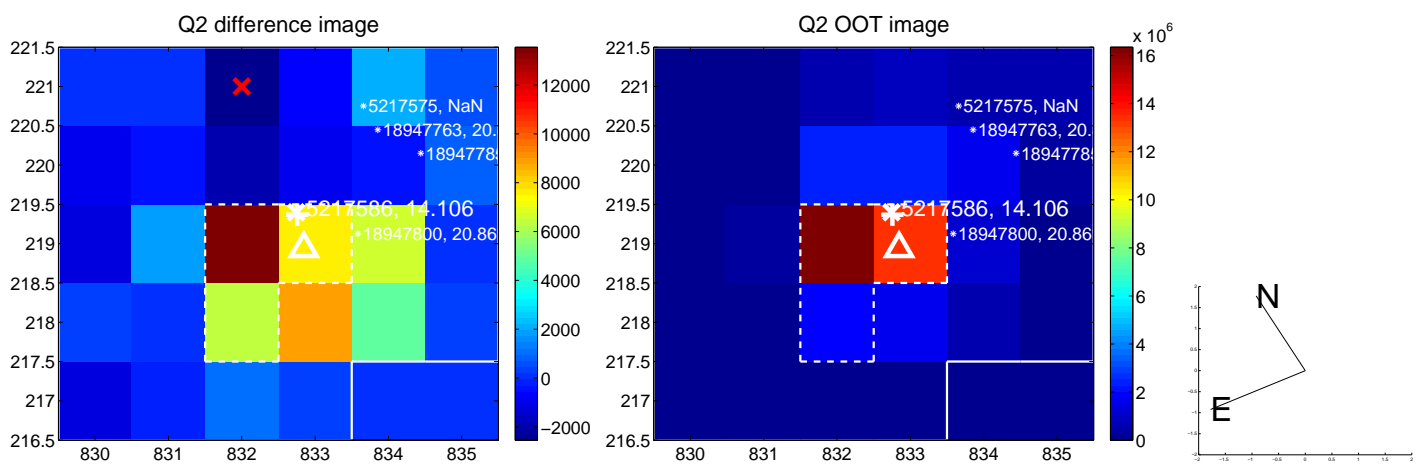
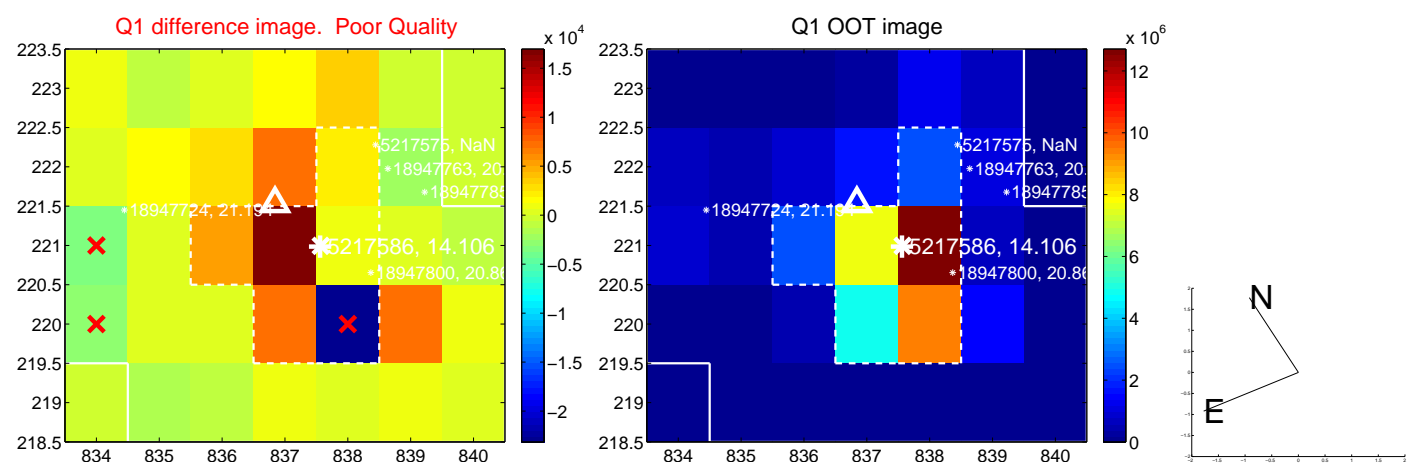
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.527 ± 0.431	8.19	-2.204 ± 0.271	-2.753 ± 0.362
PRF-fit source offset from KIC position	3.560 ± 0.429	8.30	-2.197 ± 0.265	-2.802 ± 0.363
photometric centroid source offset	3.73 ± 0.25	15.22	-1.95 ± 0.26	-3.18 ± 0.24

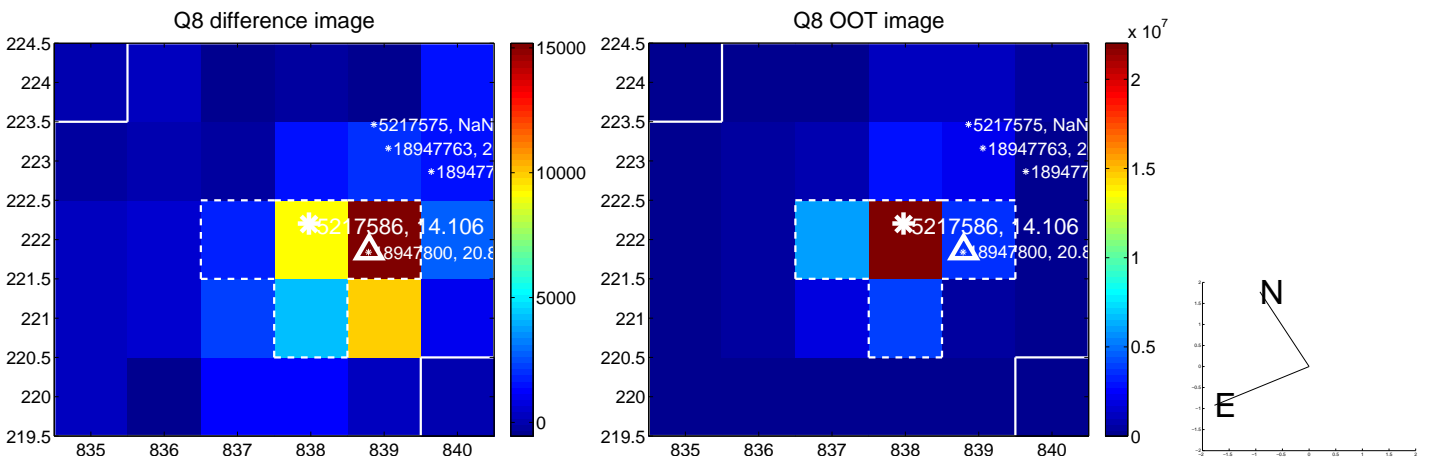
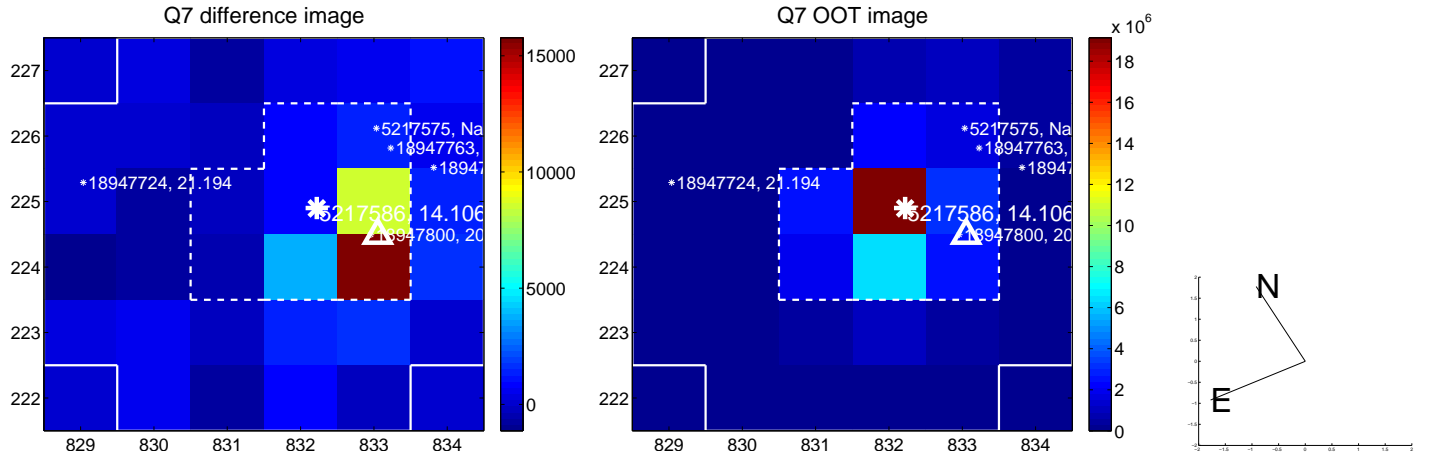
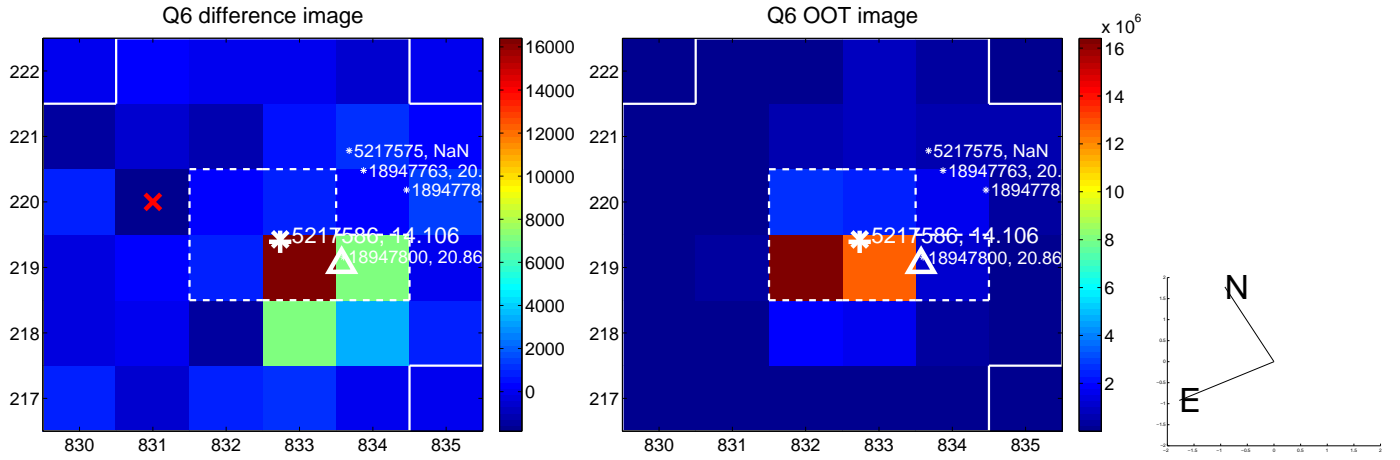
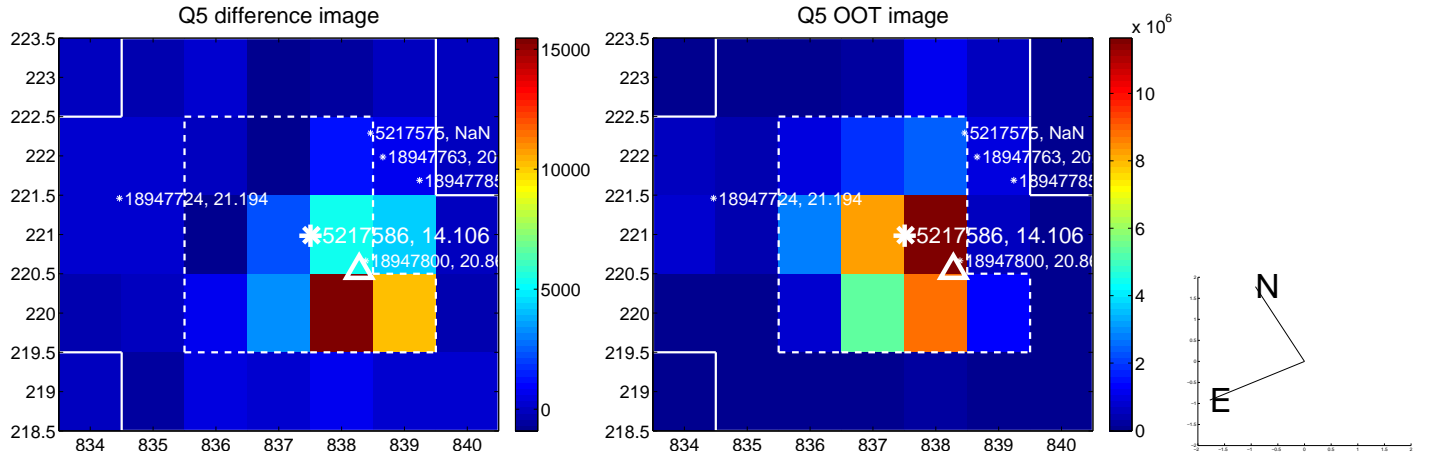


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

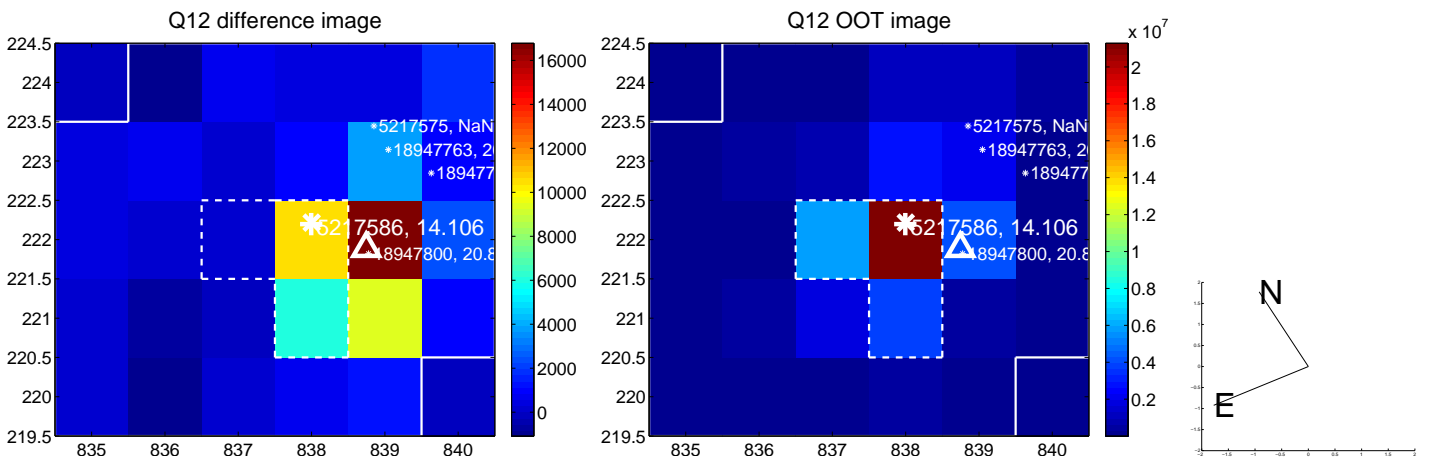
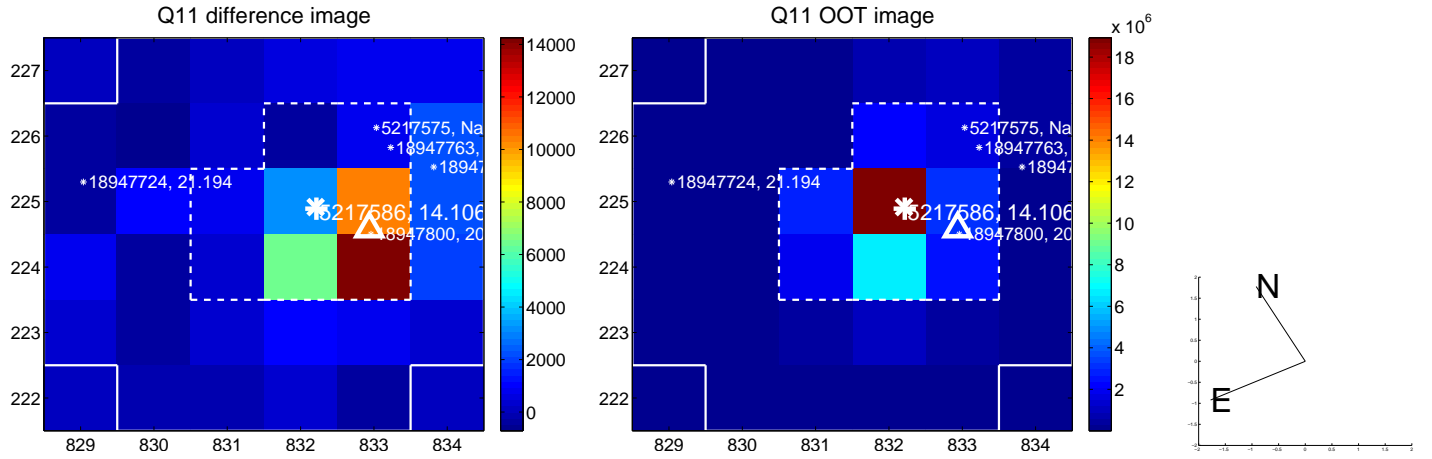
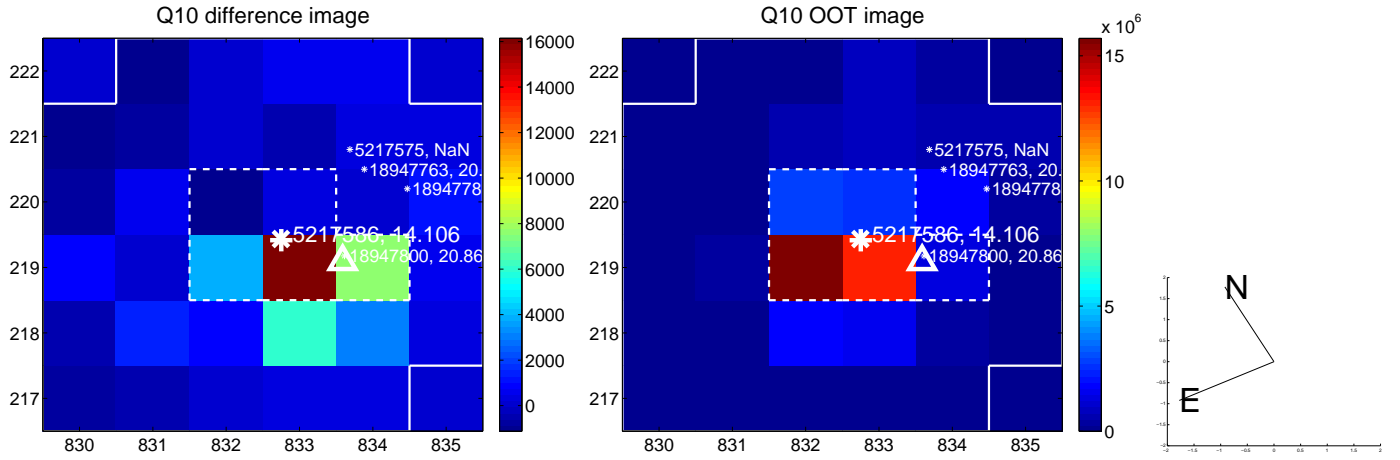
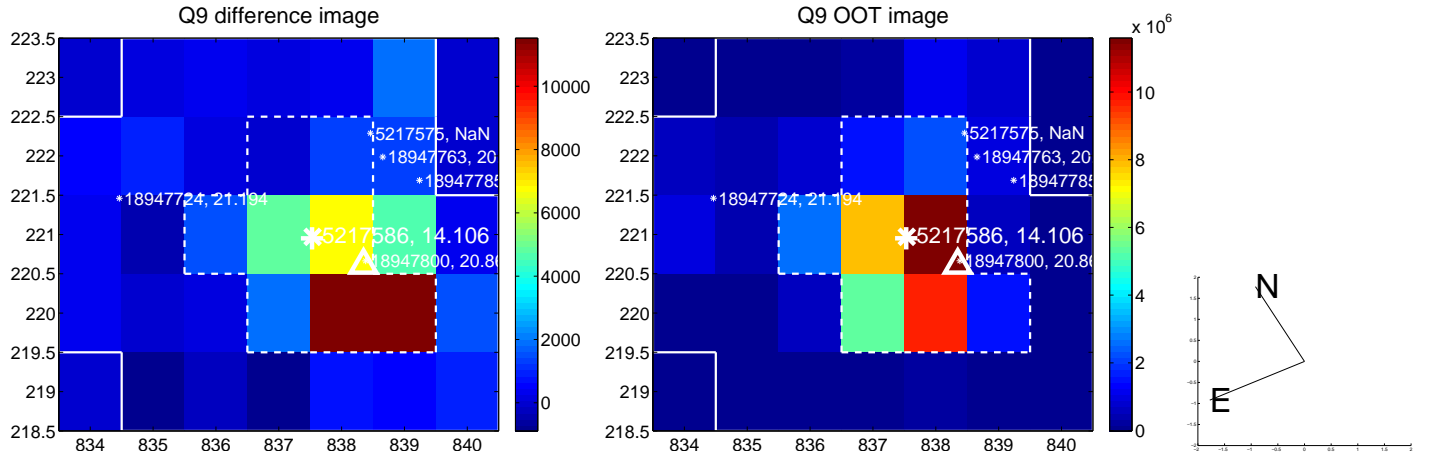
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



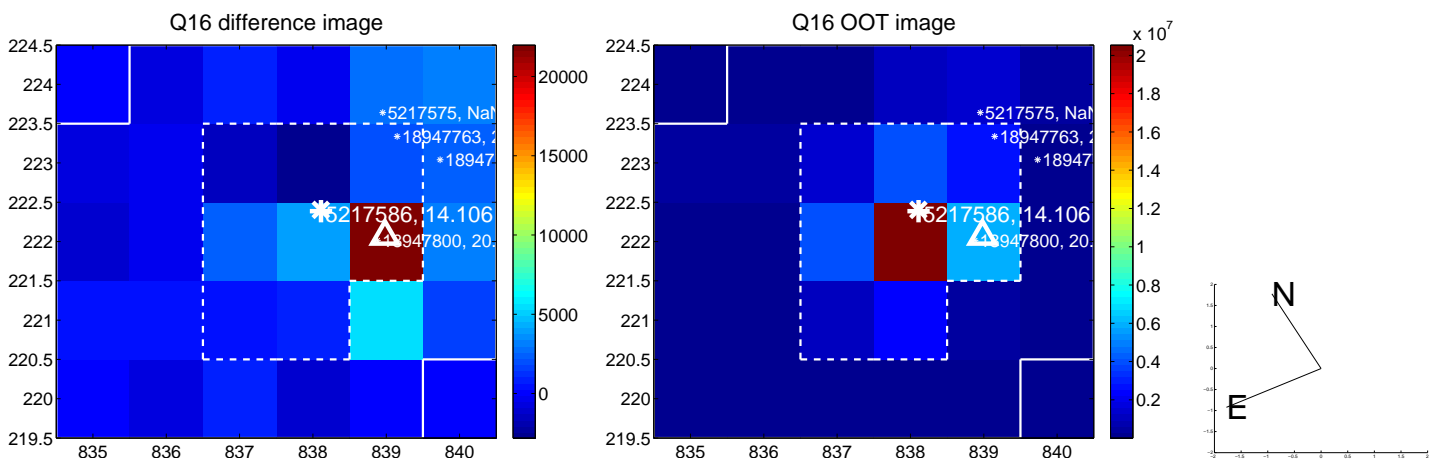
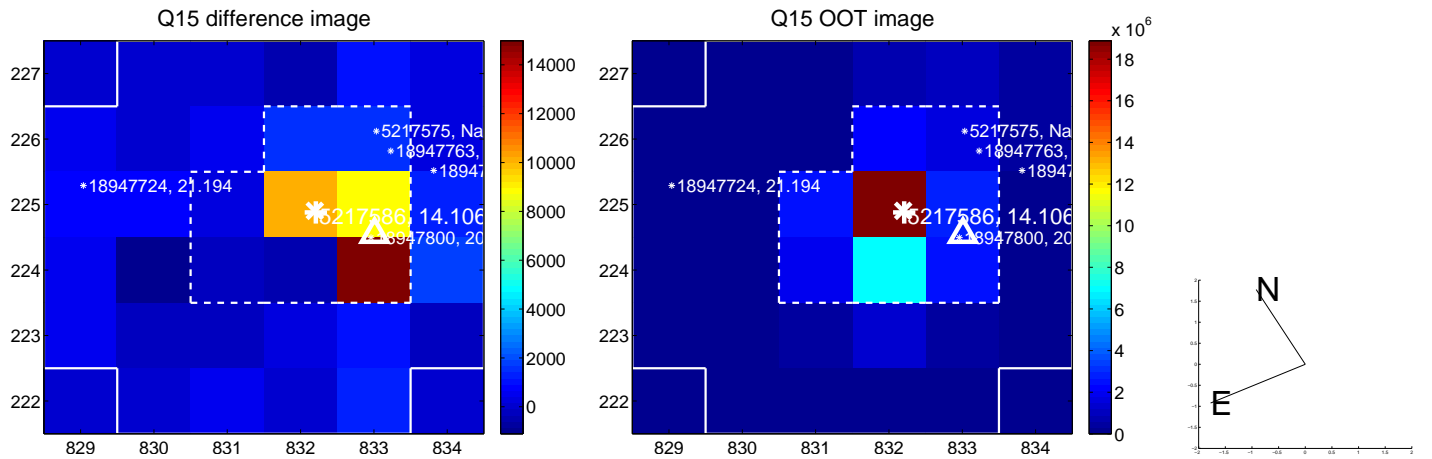
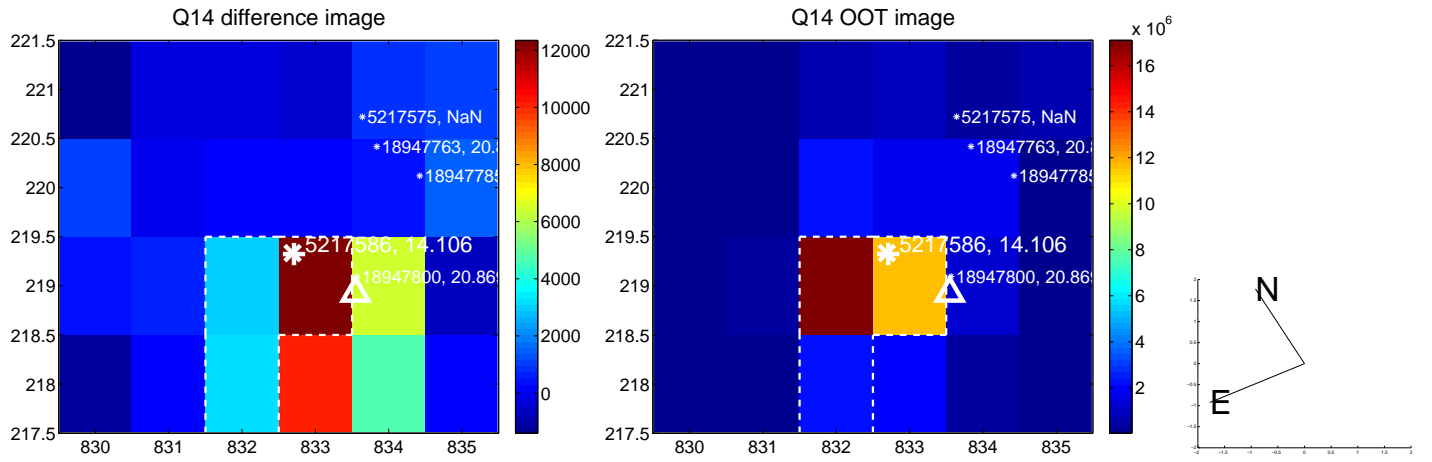
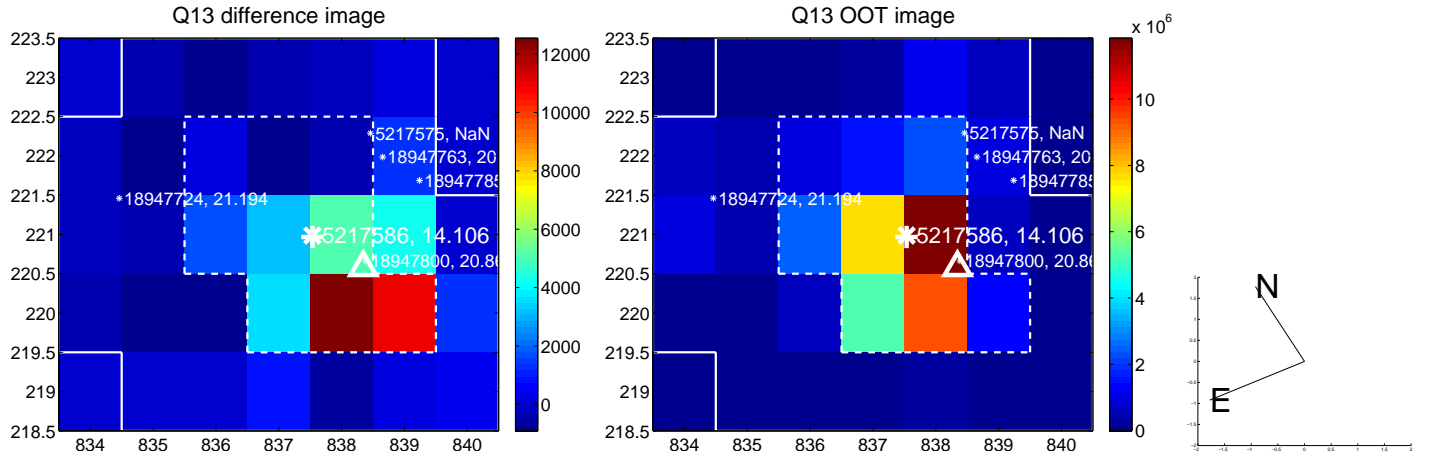
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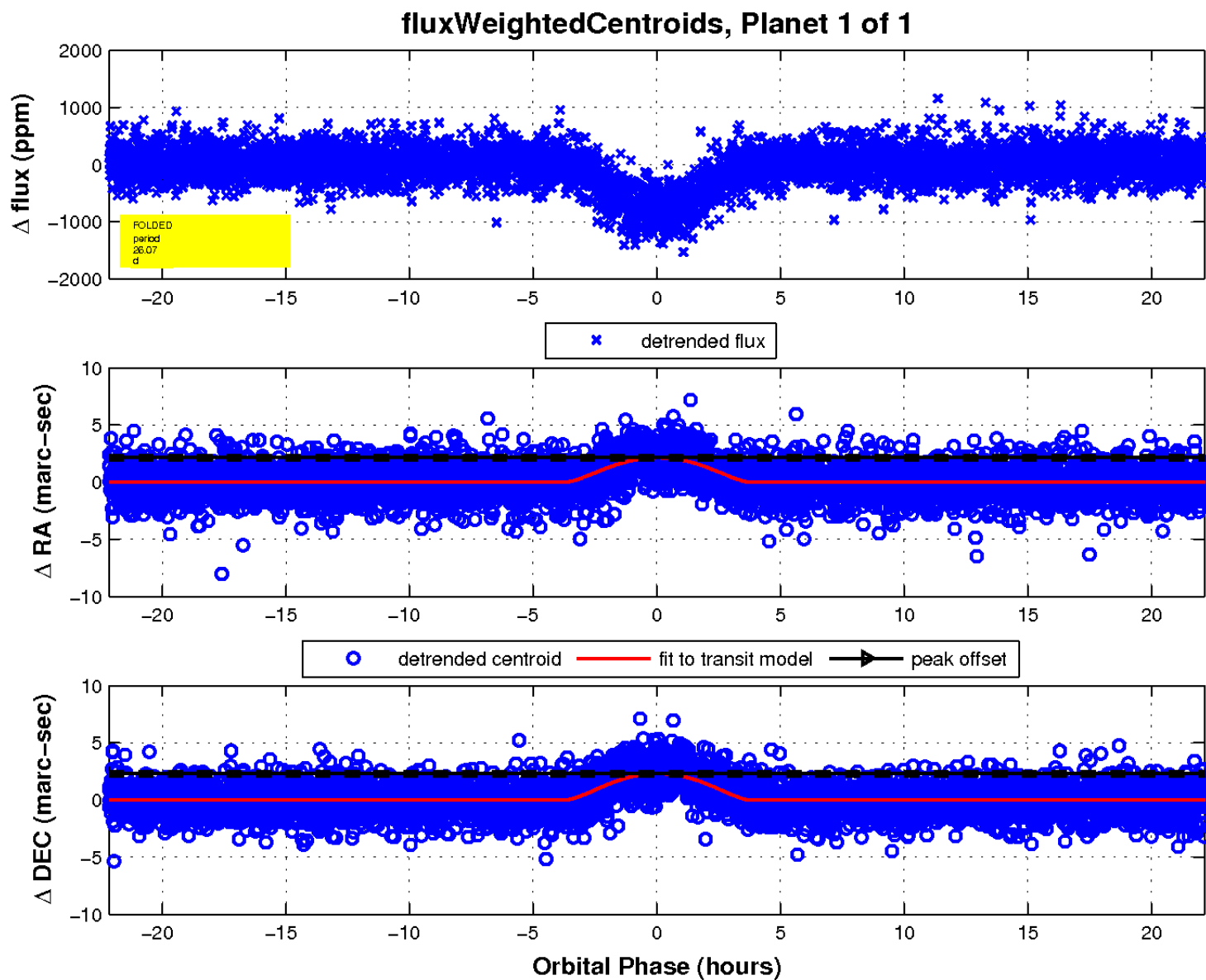
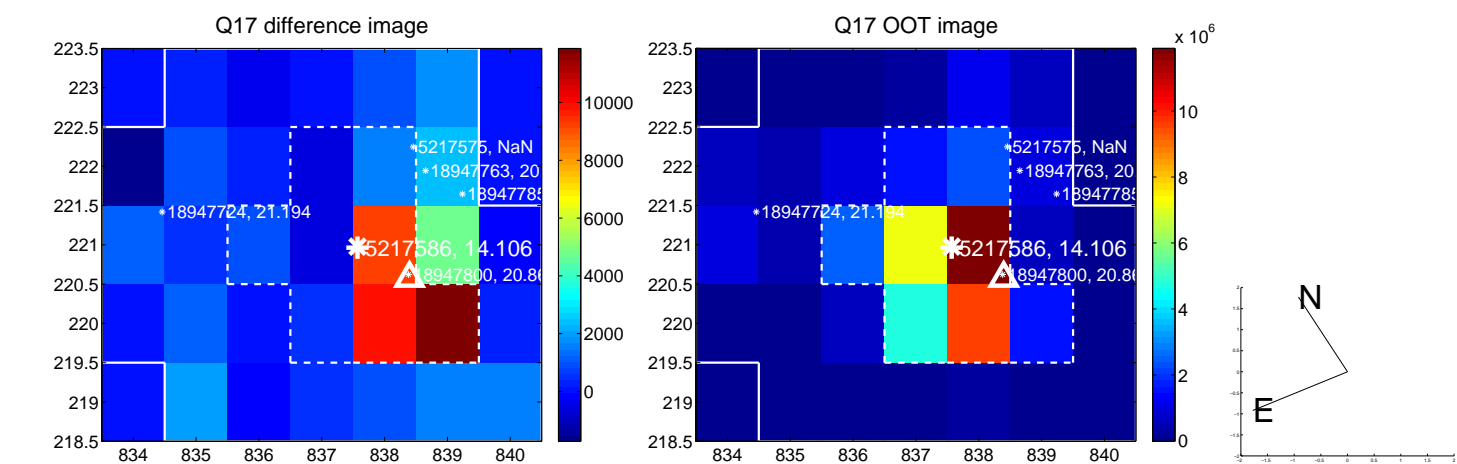
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UKIRT Image

Declination

