

KIC 005796675

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})
005796675-01	OBS	0652.01	16.080648	134.518497	3059.7	2.980	253.6	237.9	0.82	5303	4.76	33.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005796675-01	OBS	PC	1.00	0	0	0	0	NO_COMMENT

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

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

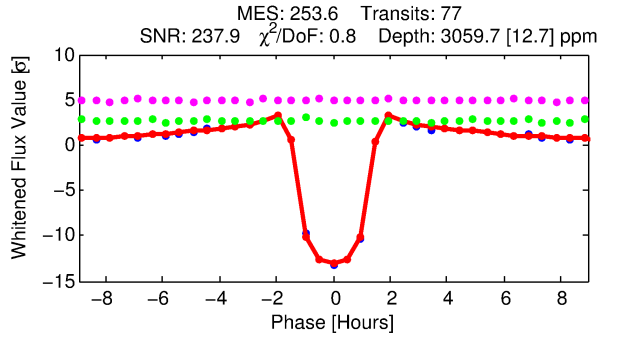
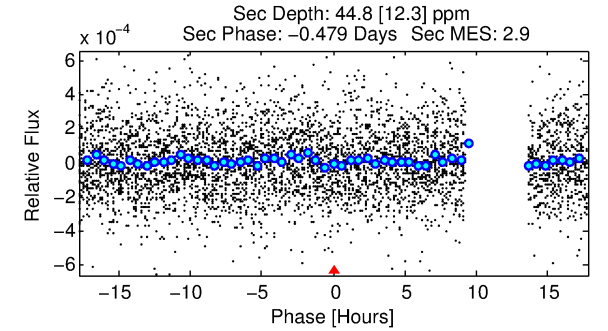
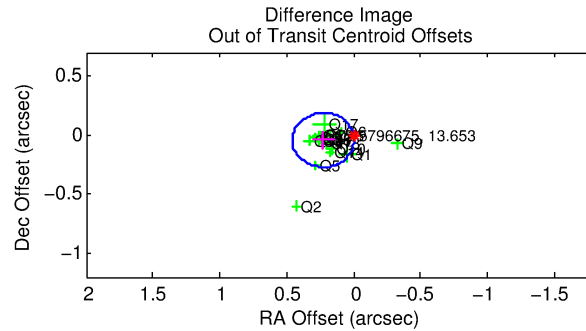
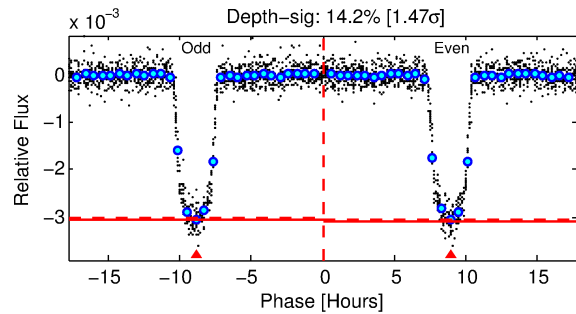
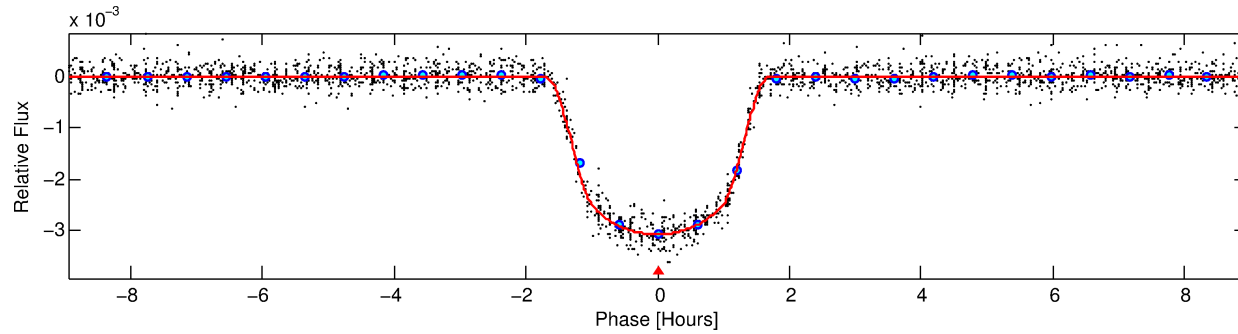
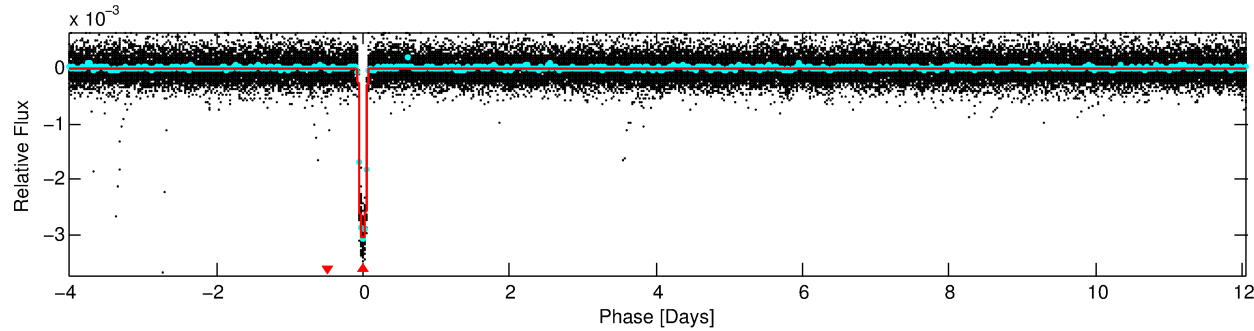
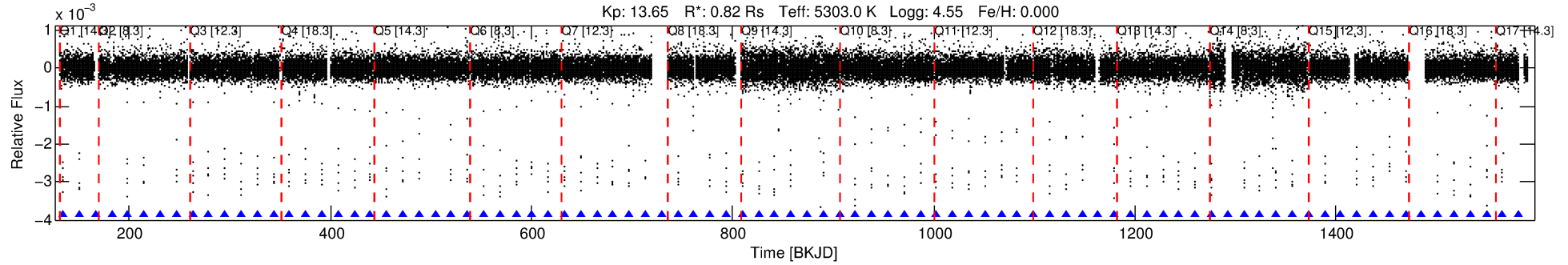
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005796675-01

No Significant Match Found

DV One-Page Summary

KIC: 5796675 Candidate: 1 of 1 Period: 16.081 d
KOI: K00652.01 Corr: 0.981



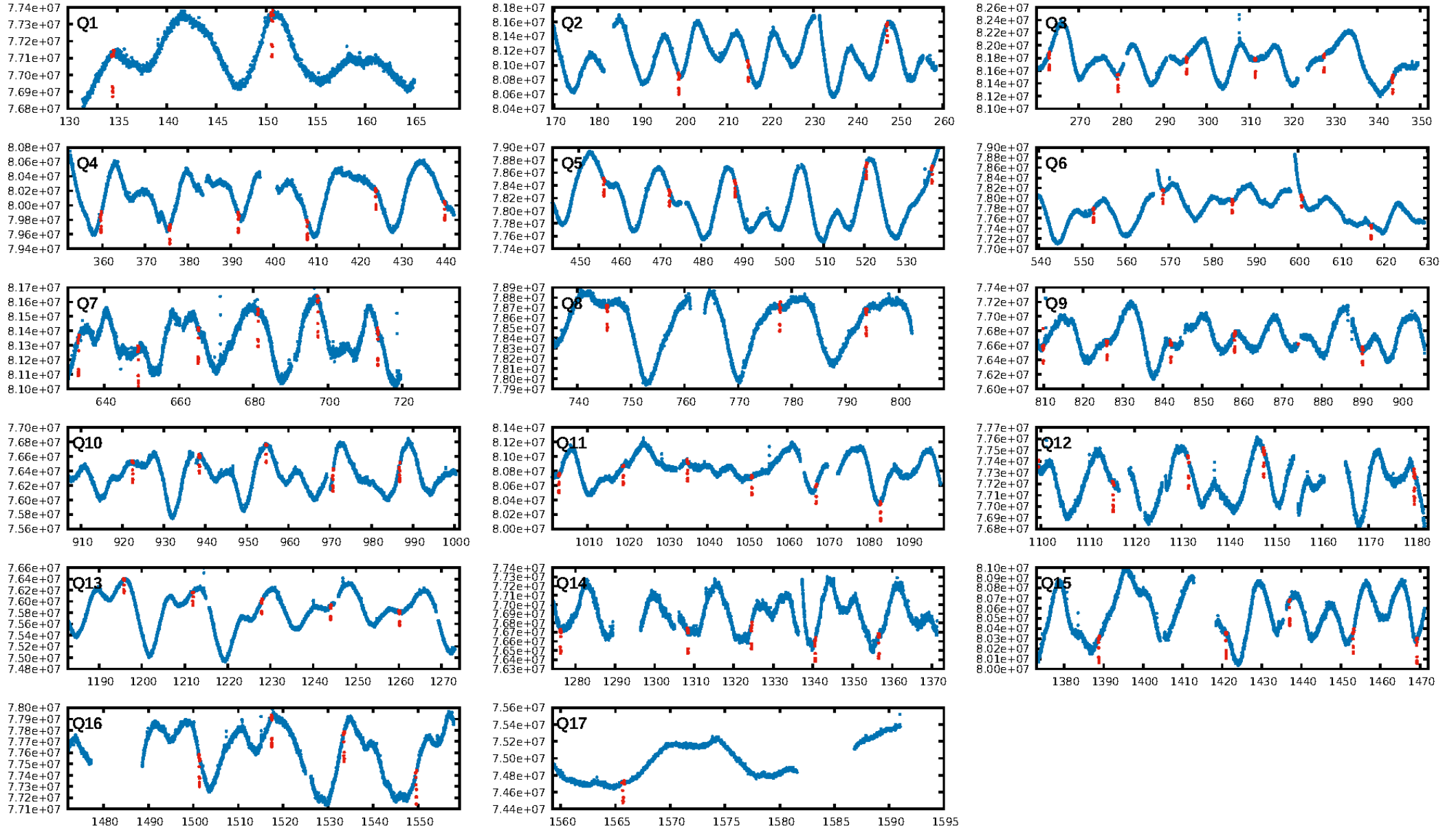
DV Fit Results:

Period = 16.08065 [0.00000] d
Epoch = 134.5185 [0.0002] BKJD
Rp/R* = 0.0534 [0.0014]
a/R* = 33.91 [3.12]
b = 0.66 [0.08]
Seff = 33.68 [4.89]
Teq = 614 [22] K
Rp = 4.76 [0.42] Re
a = 0.1185 [0.0092] AU
Ag = 15.27 [4.64] [3.07 σ]
Teffp = 1877 [136] K [9.16 σ]

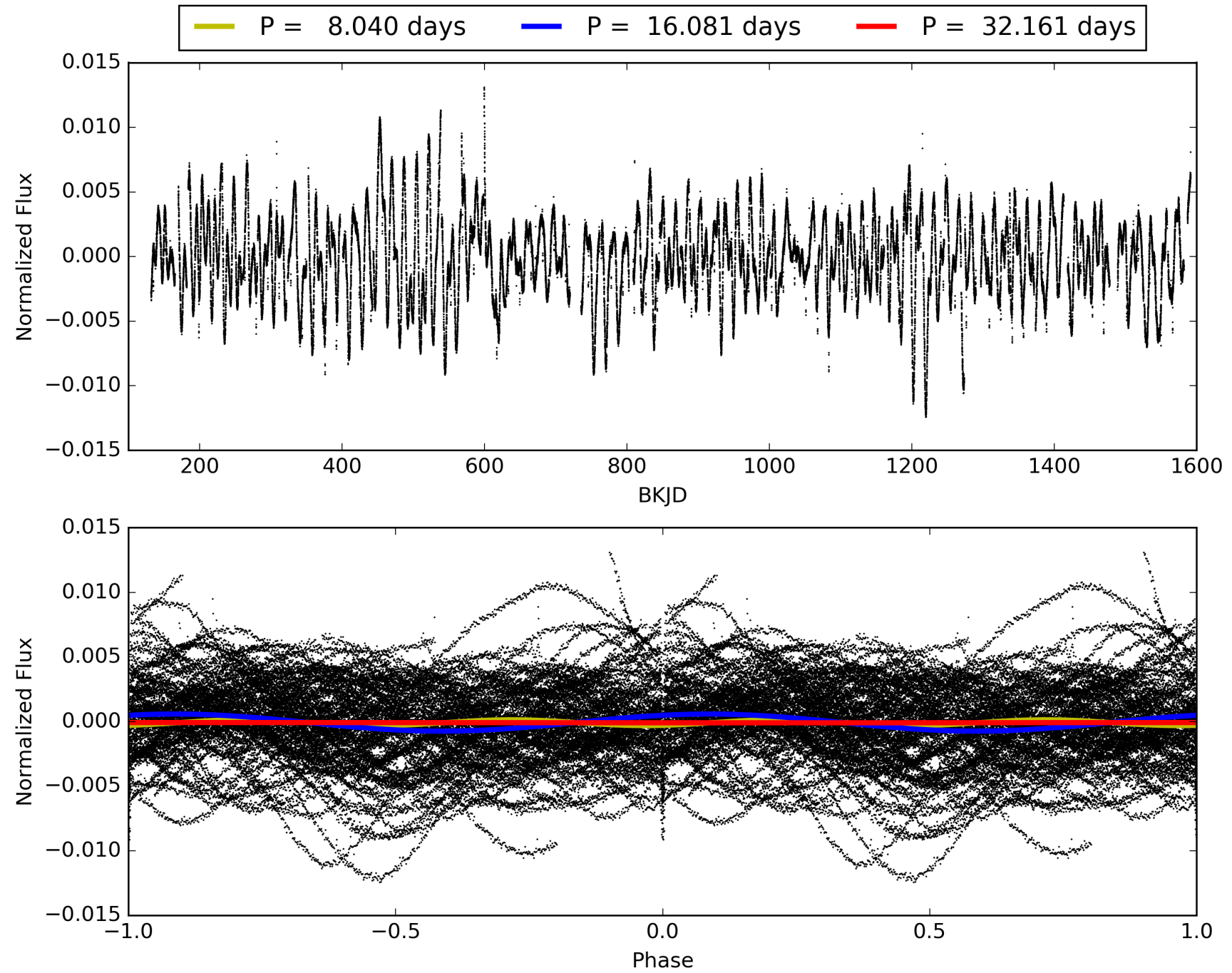
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 63.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [74/74]
GhostDiagnostic-chr: 4.37
Centroid-sig: 0.0%
Centroid-so: 0.427 arcsec [10.76 σ]
OotOffset-rm: 0.234 arcsec [3.06 σ]
KicOffset-rm: 0.428 arcsec [5.63 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005796675-01, PDC Light Curves

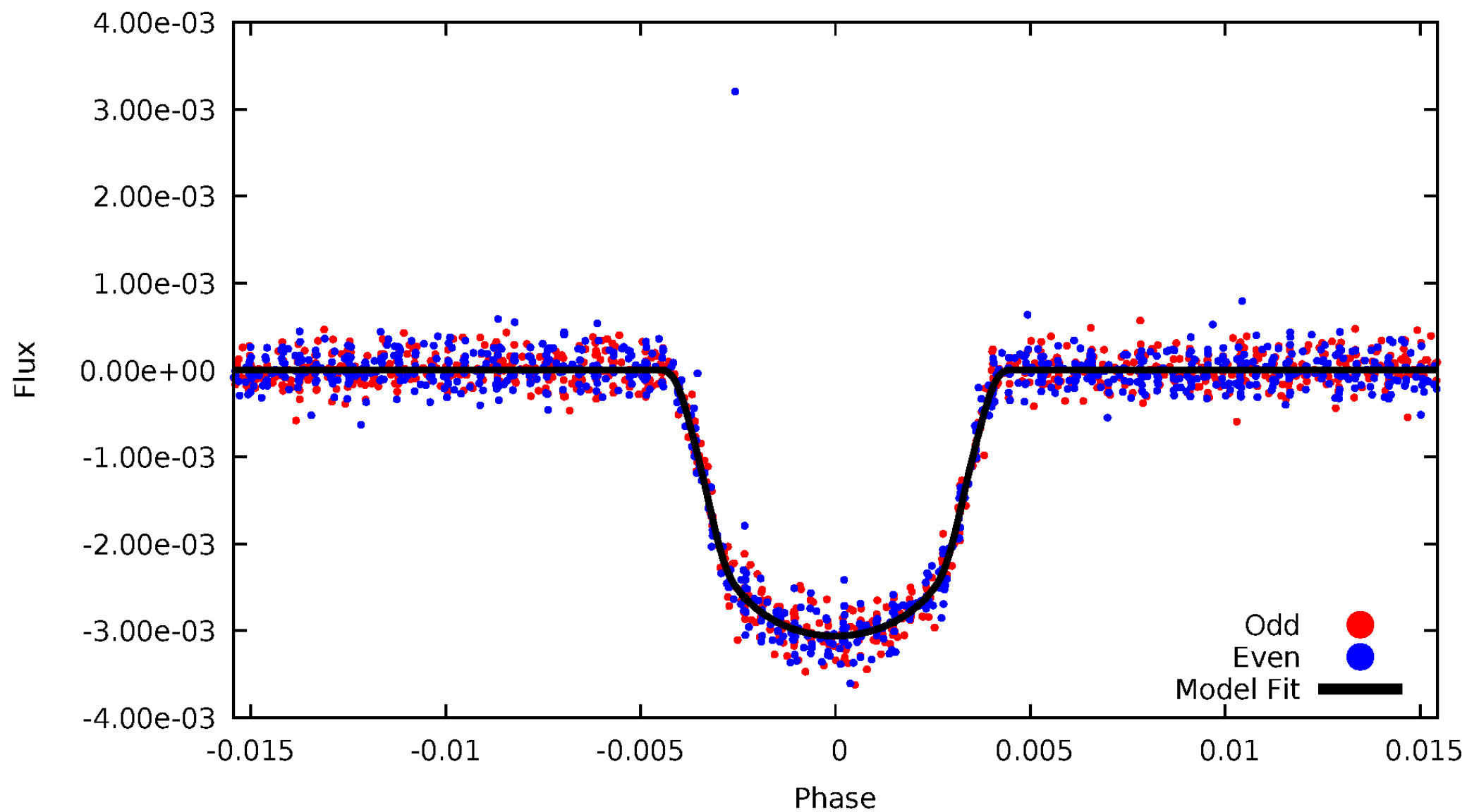


TCE 005796675-01



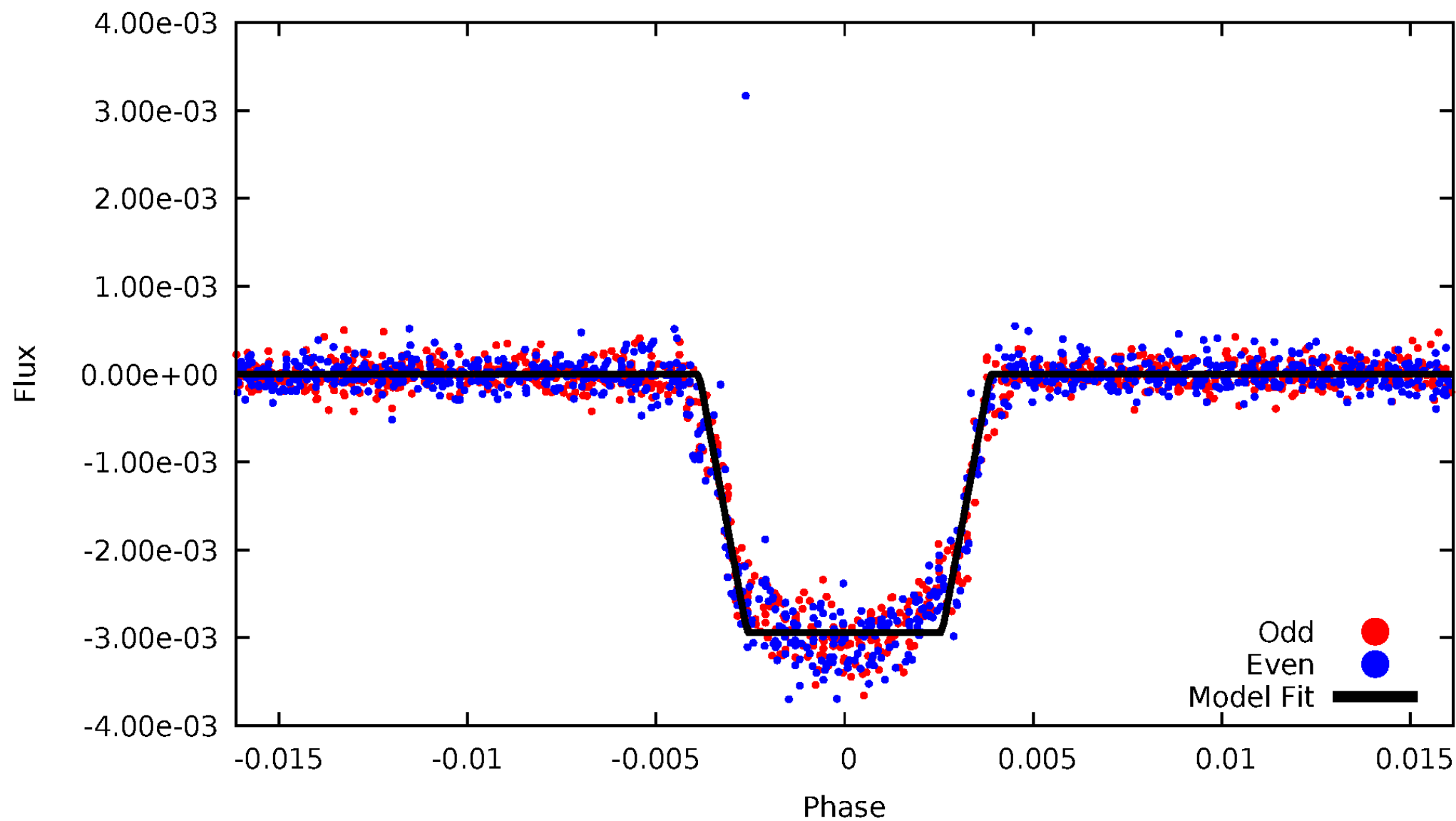
DV Odd/Even

TCE 005796675-01



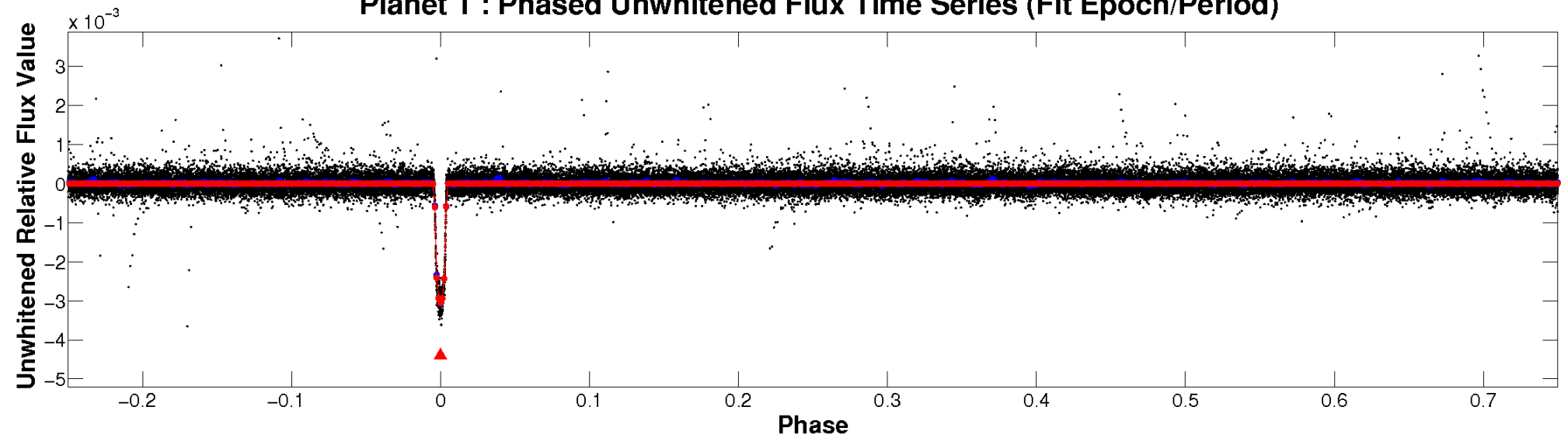
ALT Odd/Even

TCE 005796675-01

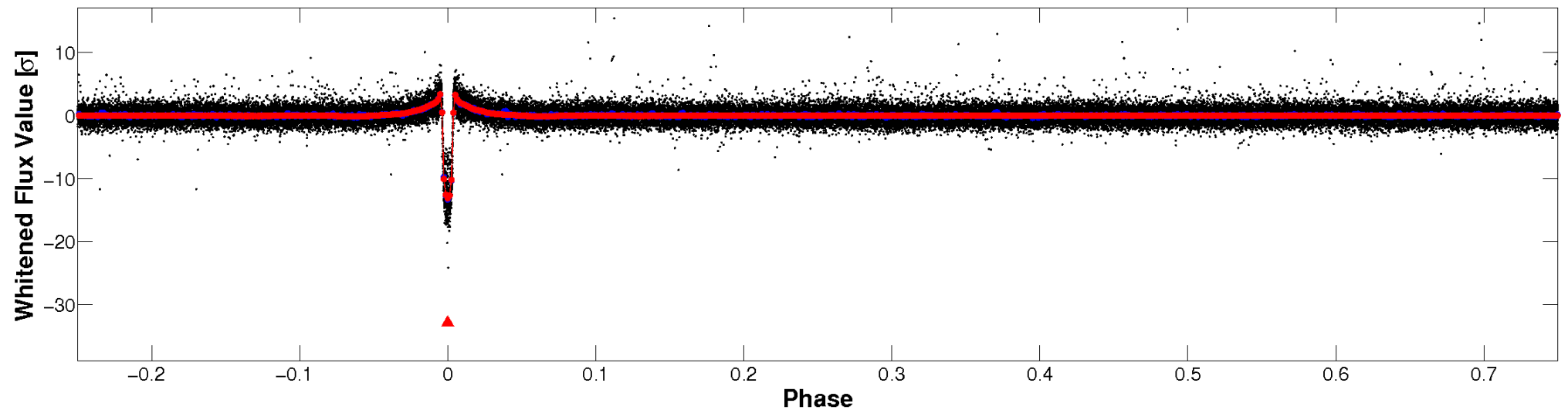


Non-Whitened Vs. Whitened Light Curve

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

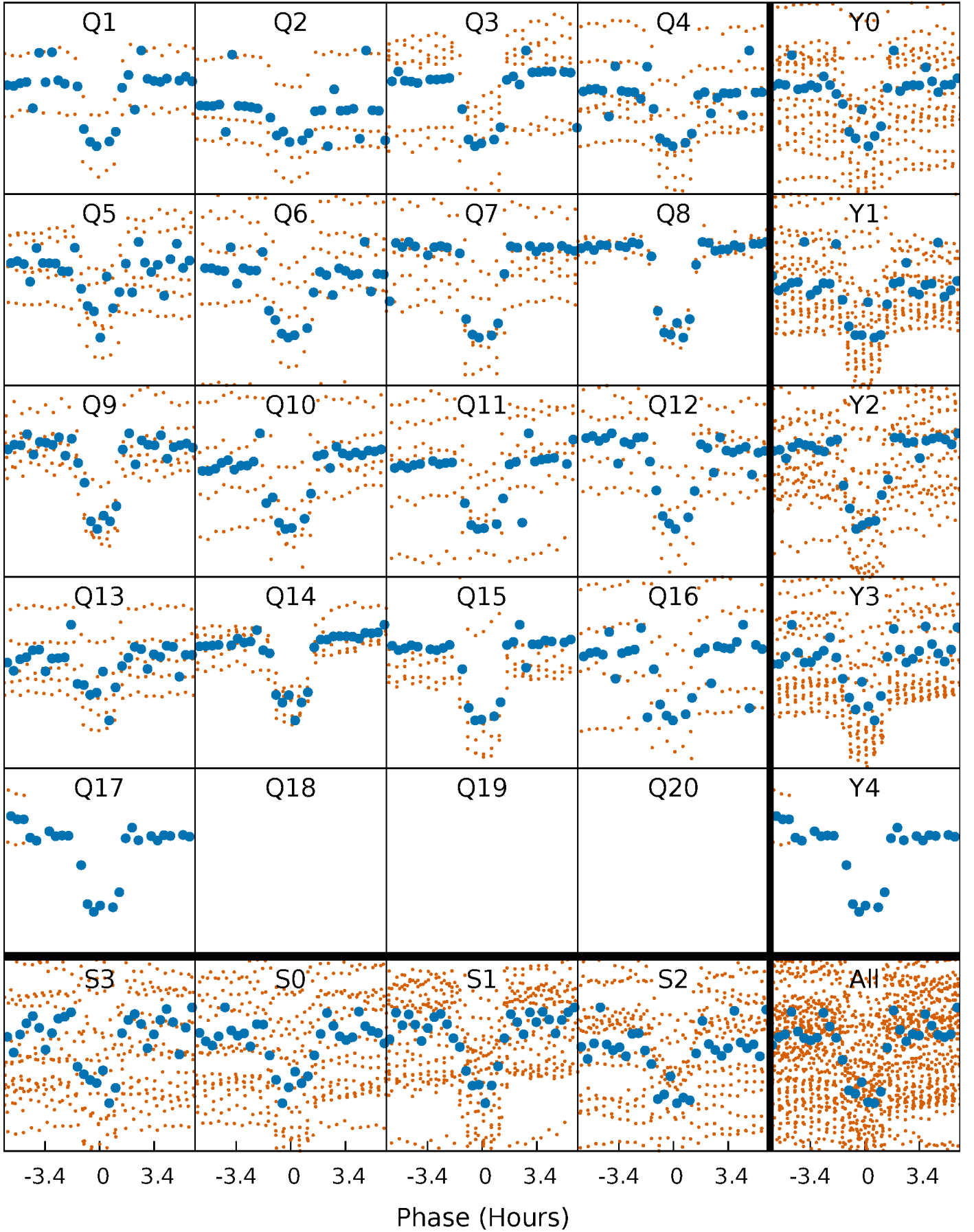


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



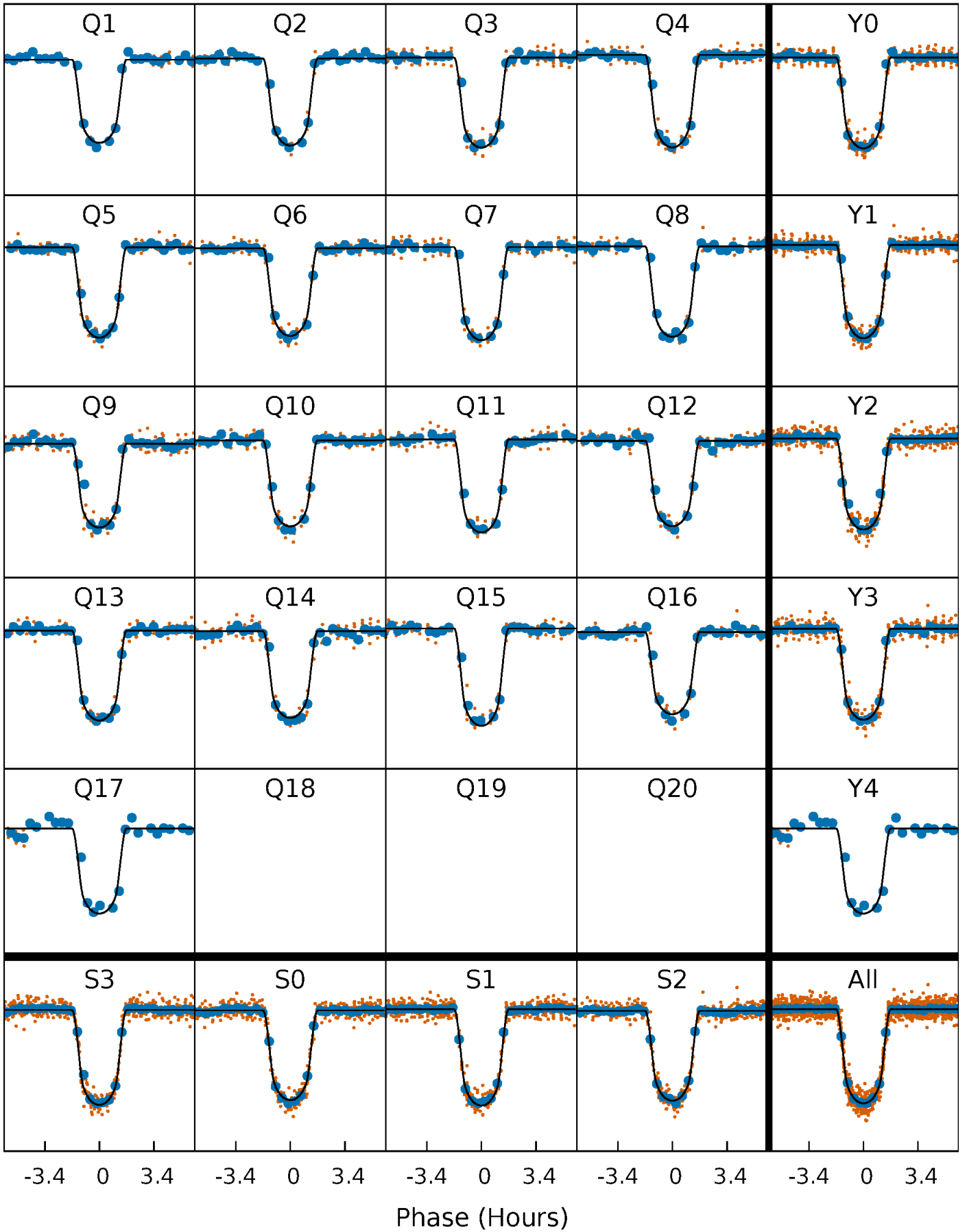
PDC Quarter-Phased Transit Curves

TCE 005796675-01 P= 16.080648 Days $T_0=134.518497$ (BKJD)



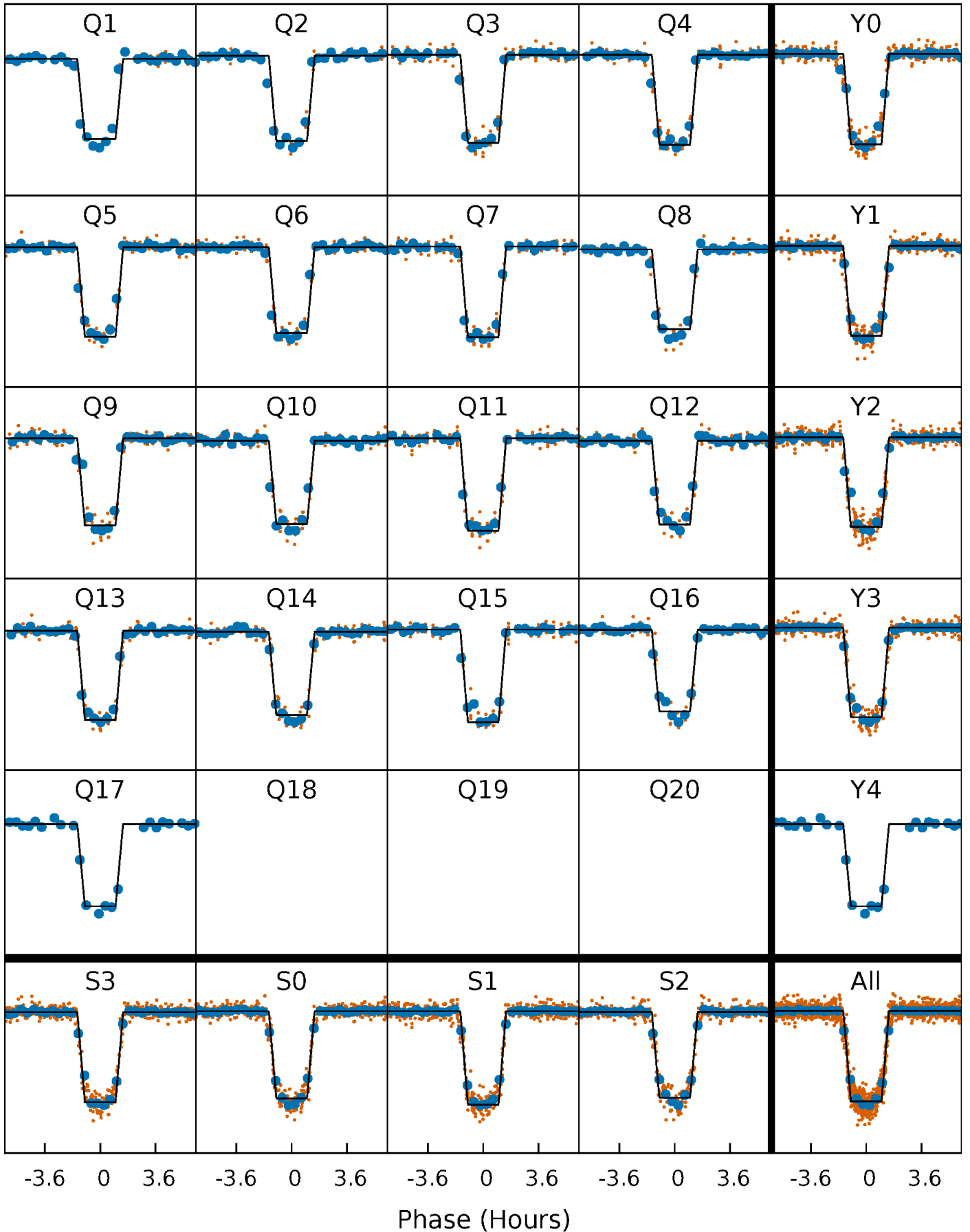
DV Quarter-Phased Transit Curves

TCE 005796675-01 P= 16.080648 Days $T_0=134.518497$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

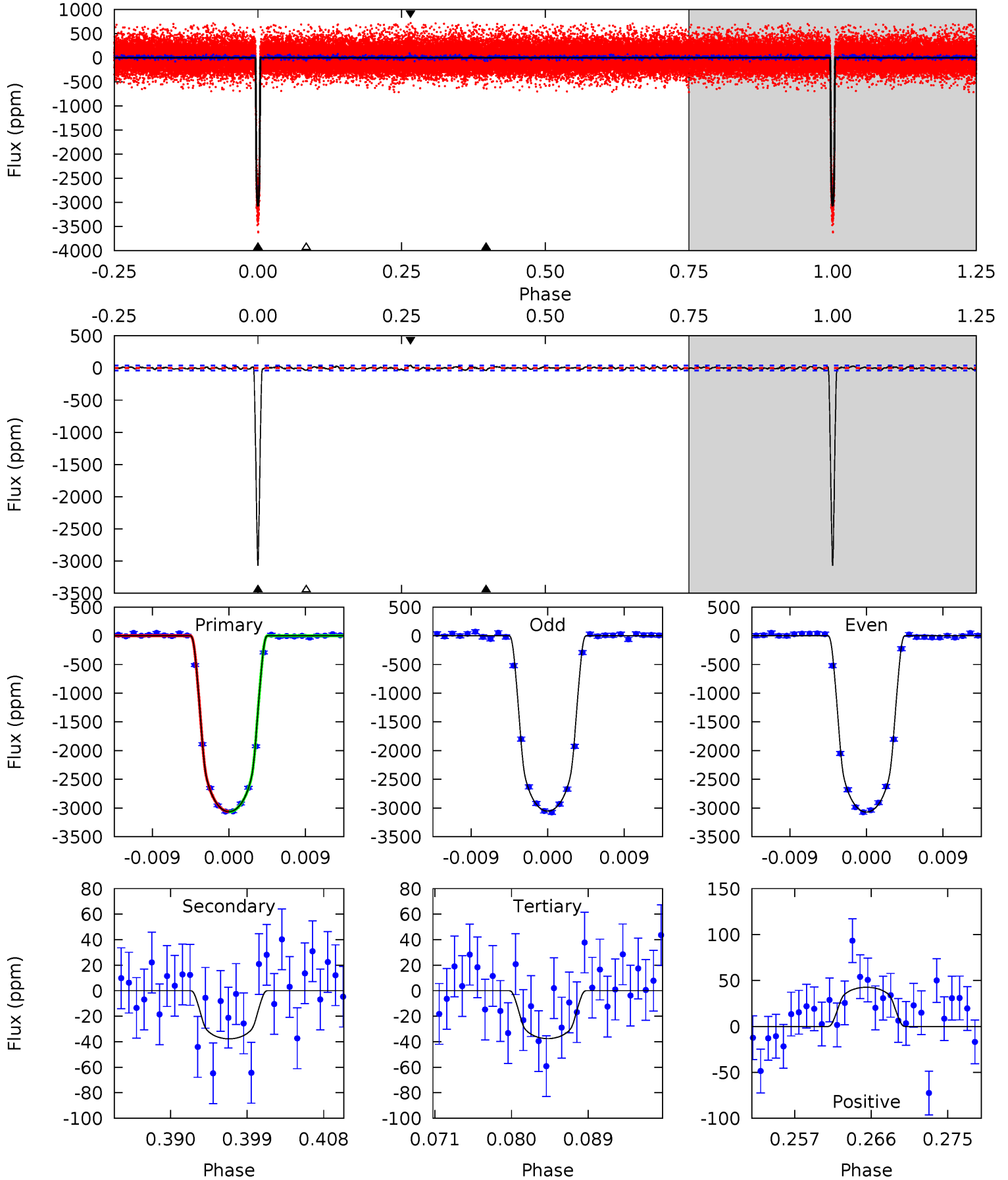
TCE 005796675-01 P= 16.080542 Days $T_0=134.523638$ (BKJD)



DV Model-Shift Uniqueness Test

005796675-01, P = 16.080648 Days, E = 118.437849 Days

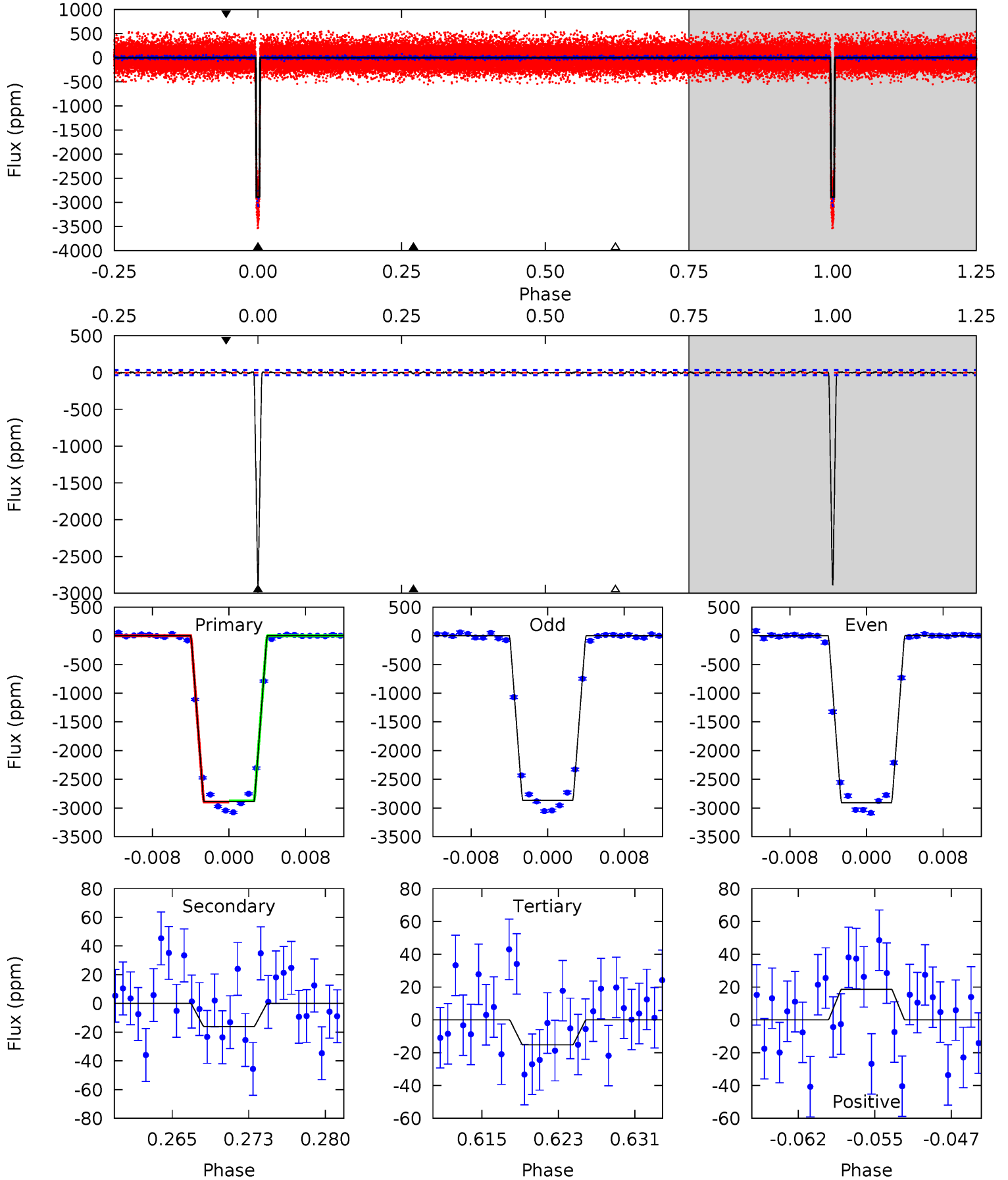
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
392.8	4.84	4.81	5.46	5.05	2.62	1.47	388.0	387.3	0.02	-0.63	1.07	0.99	0.01	0.28



Alt Model-Shift Uniqueness Test

005796675-01, P = 16.080542 Days, E = 118.443096 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
427.8	2.39	2.26	2.77	5.07	2.66	0.80	425.5	425.0	0.13	-0.38	2.82	1.00	0.01	1.50



Stellar Parameters For KIC 005796675

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5303^{+106}_{-106}	$4.547^{+0.030}_{-0.070}$	$0.000^{+0.150}_{-0.150}$	$0.817^{+0.069}_{-0.044}$	$0.860^{+0.047}_{-0.052}$	$2.216^{+0.307}_{-0.475}$
	+2%/-2%	+1%/-2%	+inf%/-inf%	+8%/-5%	+5%/-6%	+14%/-21%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 005796675-01 / KOI 0652.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-38 ± 8	$4.82^{+0.25}_{-0.22}$	865^{+25}_{-21}	2600^{+67}_{-85}	13^{+3}_{-3}
Alt.	-16 ± 7	$4.89^{+0.26}_{-0.24}$	864^{+24}_{-23}	2320^{+112}_{-144}	$5.202^{+2.082}_{-2.205}$

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 $A_{obs} \gg 1.0$

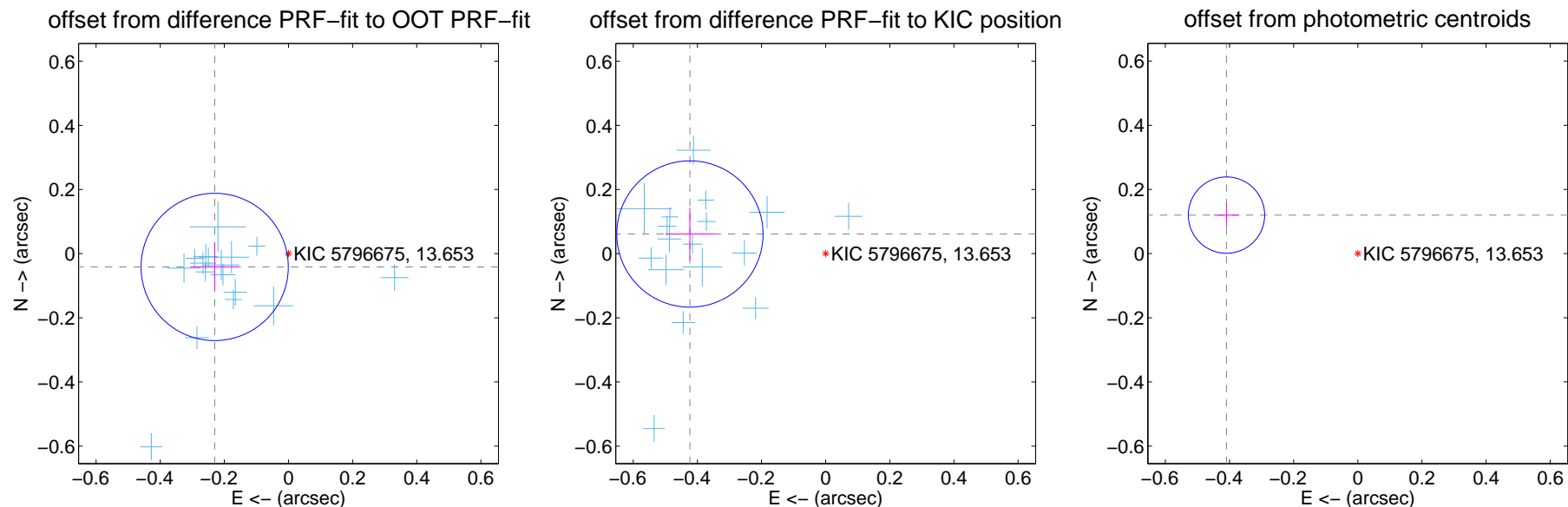
DV Centroid Data

Supplemental centroid analysis for 005796675-01. Kepler magnitude: 13.65. Transit SNR 237.93

There are 17 quarters with good PRF difference image offsets

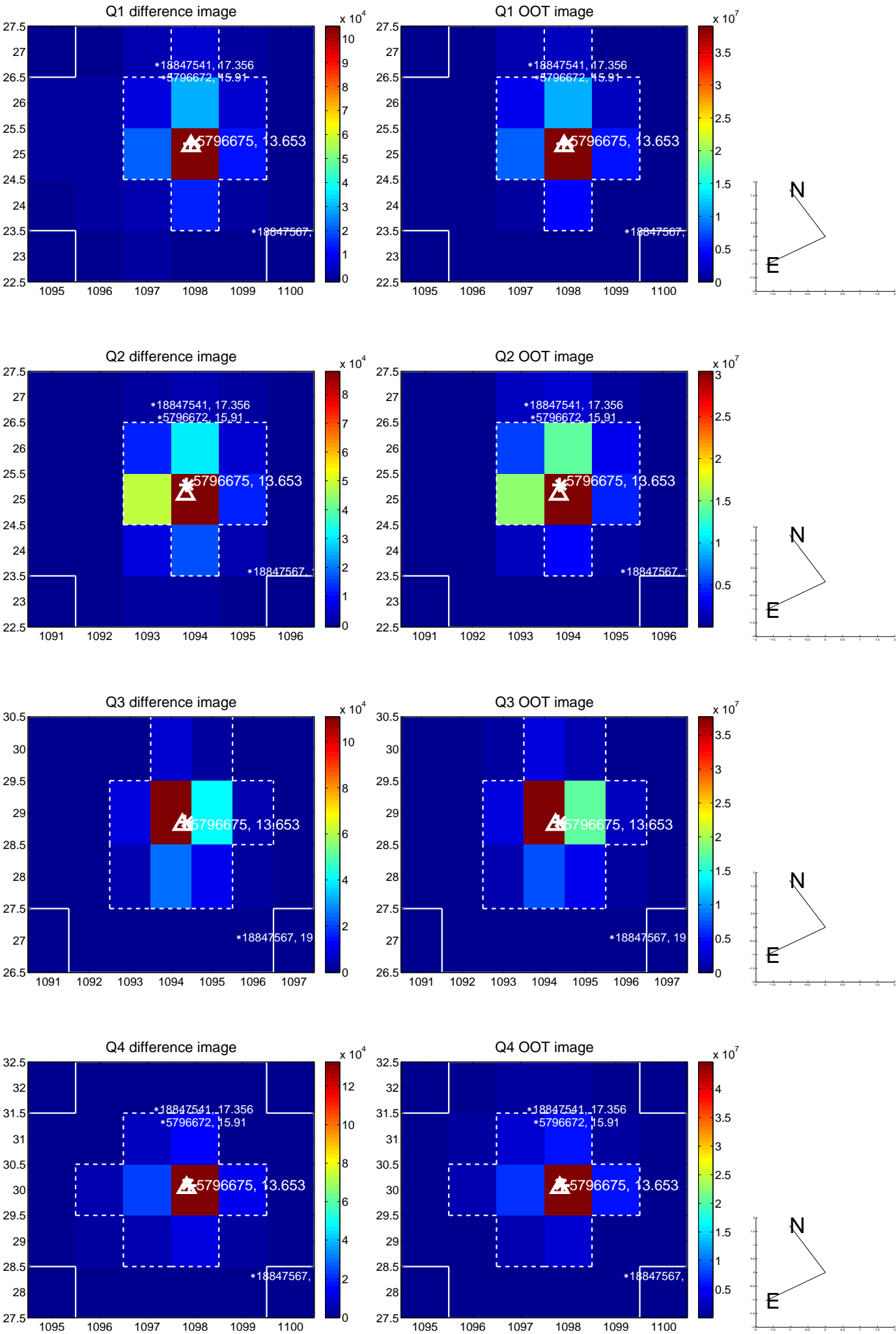
The direct PRF centroid is offset from the target star catalog position by about 0.35 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.234 ± 0.077	3.06	0.230 ± 0.076	-0.041 ± 0.074
PRF-fit source offset from KIC position	0.428 ± 0.076	5.63	0.423 ± 0.077	0.061 ± 0.081
photometric centroid source offset	0.43 ± 0.04	10.76	0.41 ± 0.04	0.12 ± 0.04

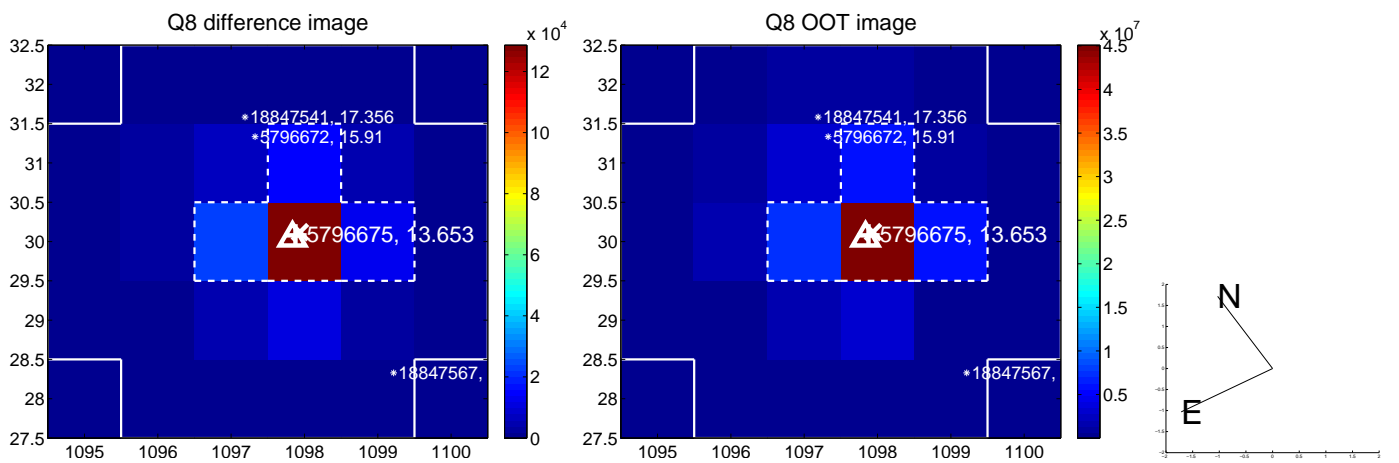
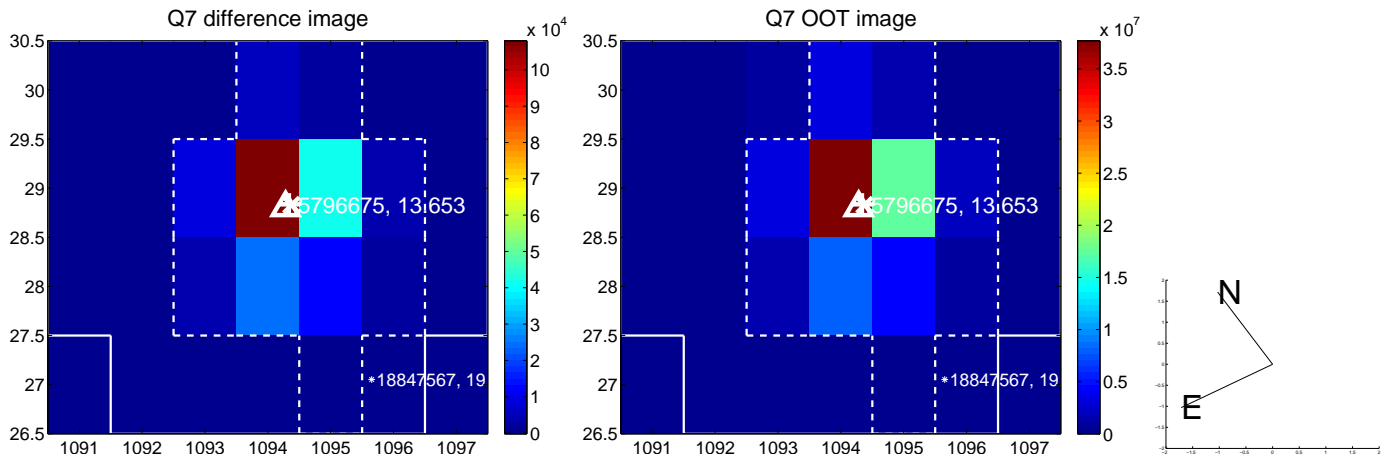
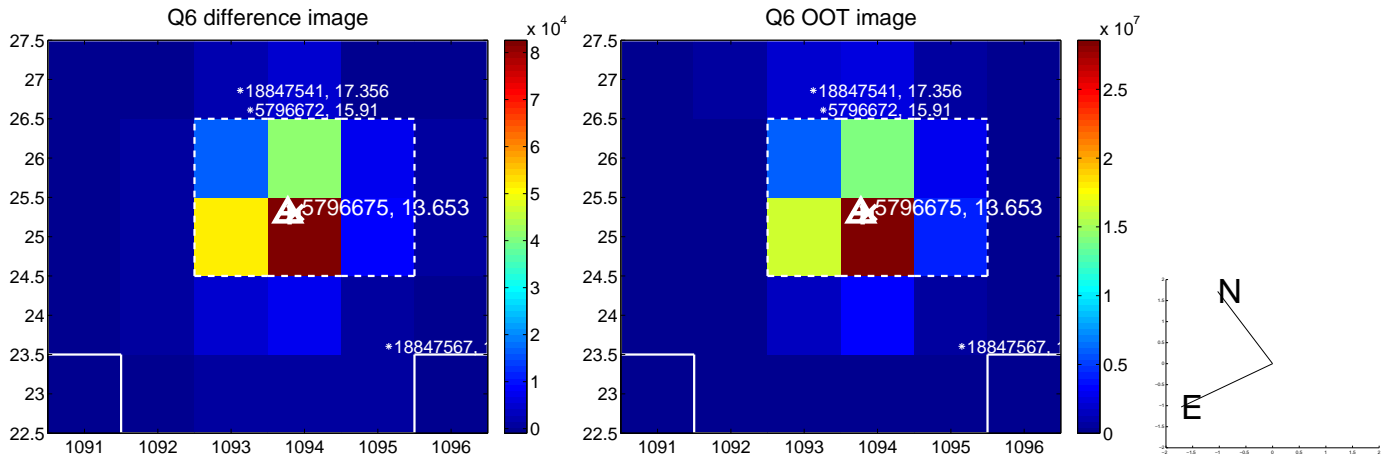
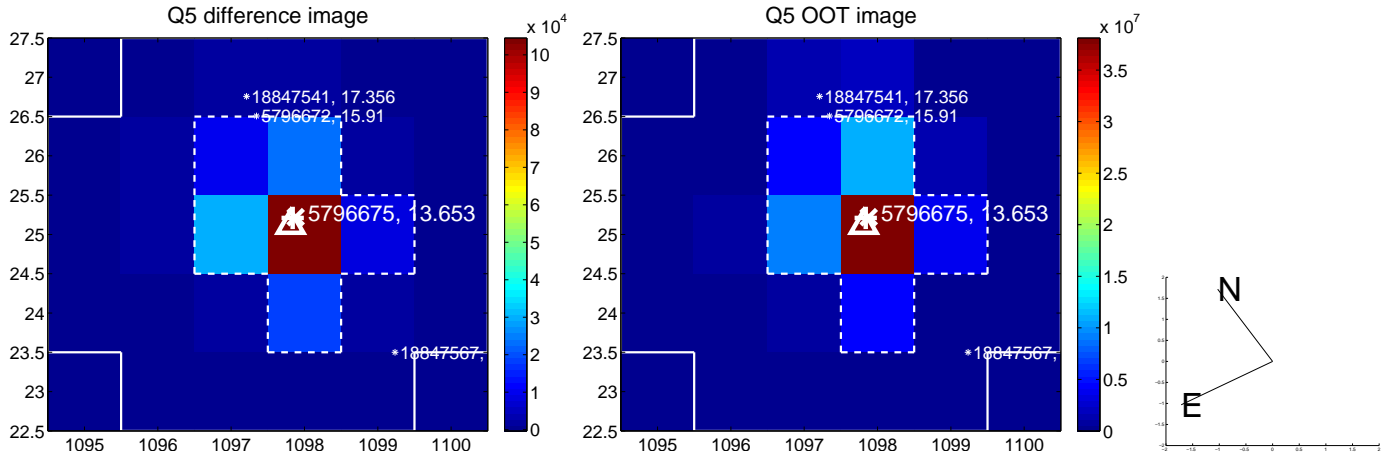


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

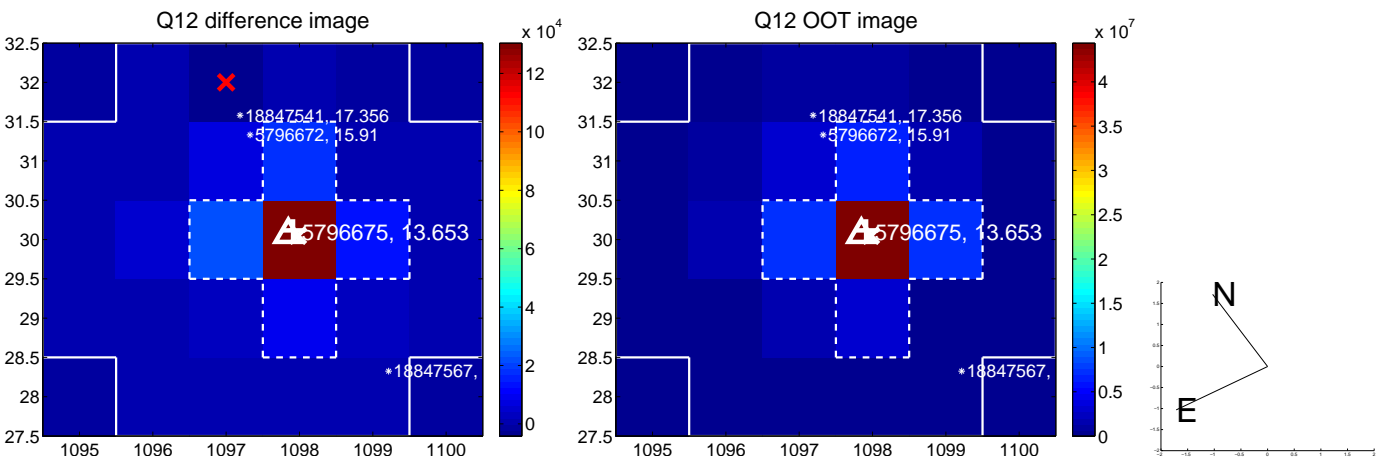
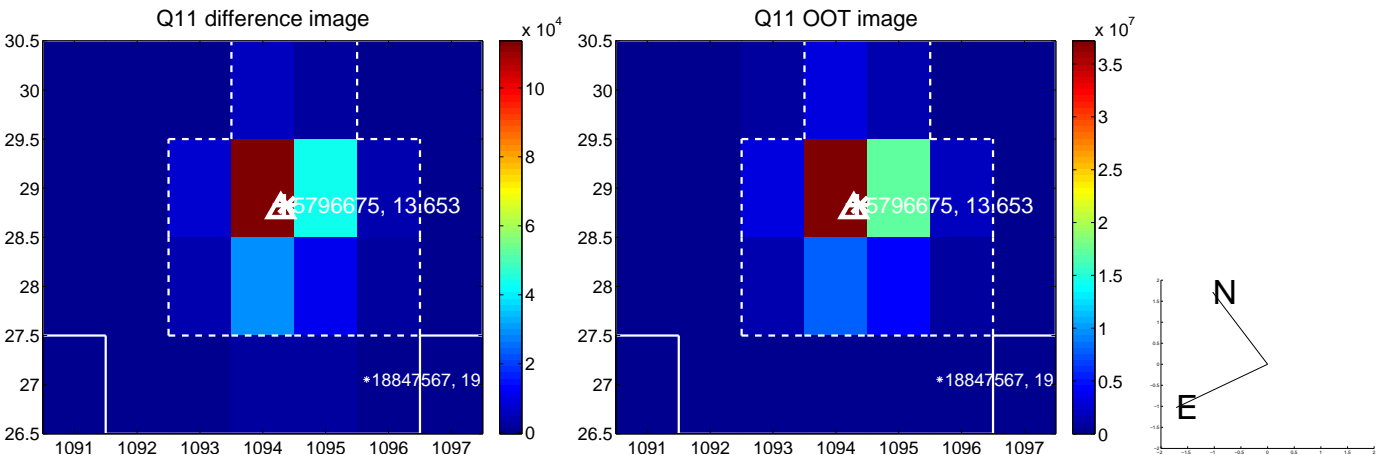
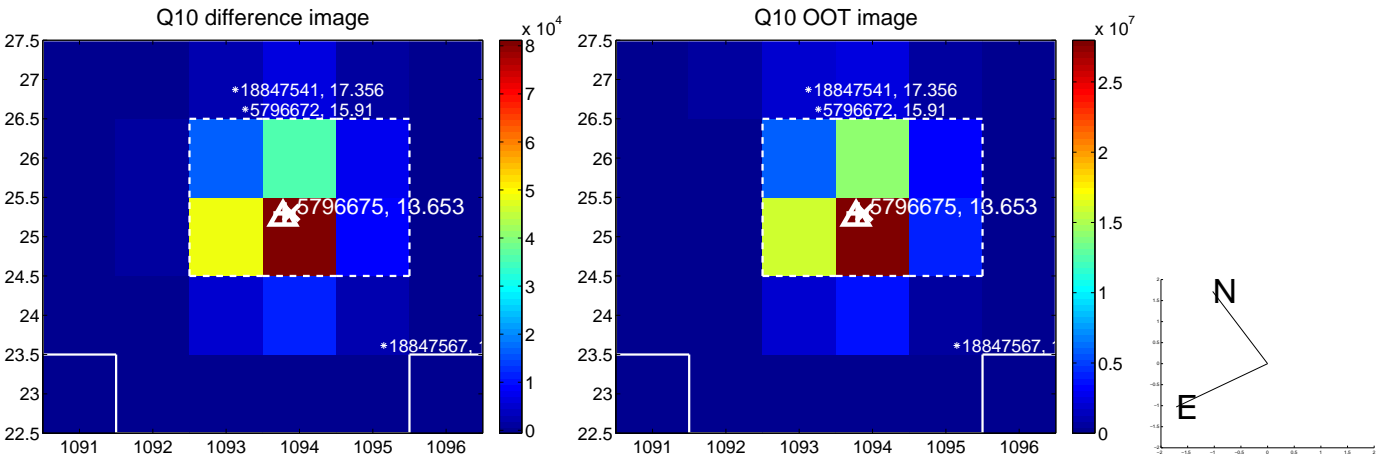
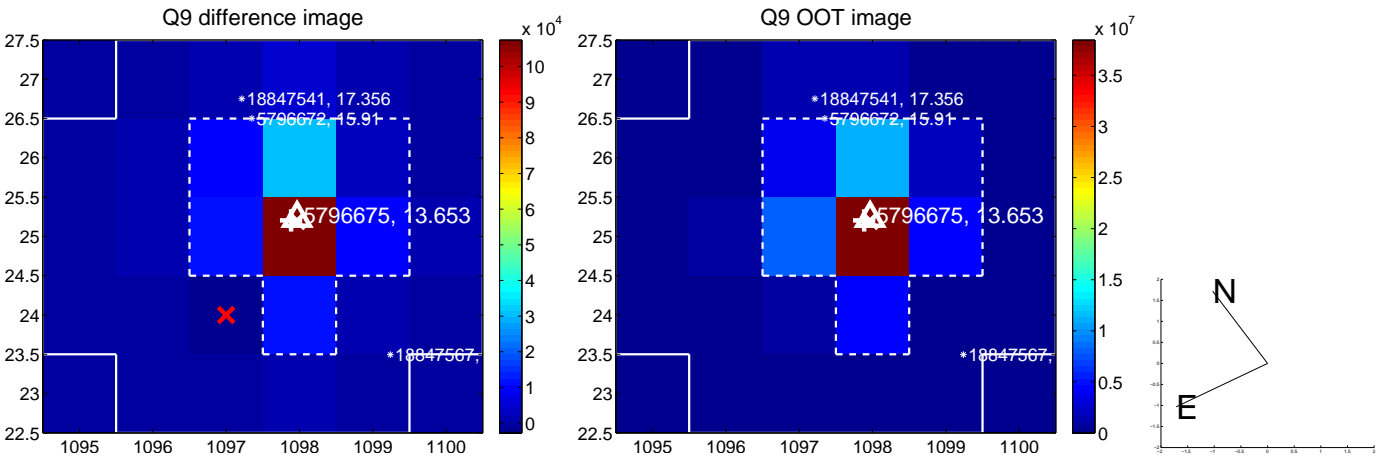
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



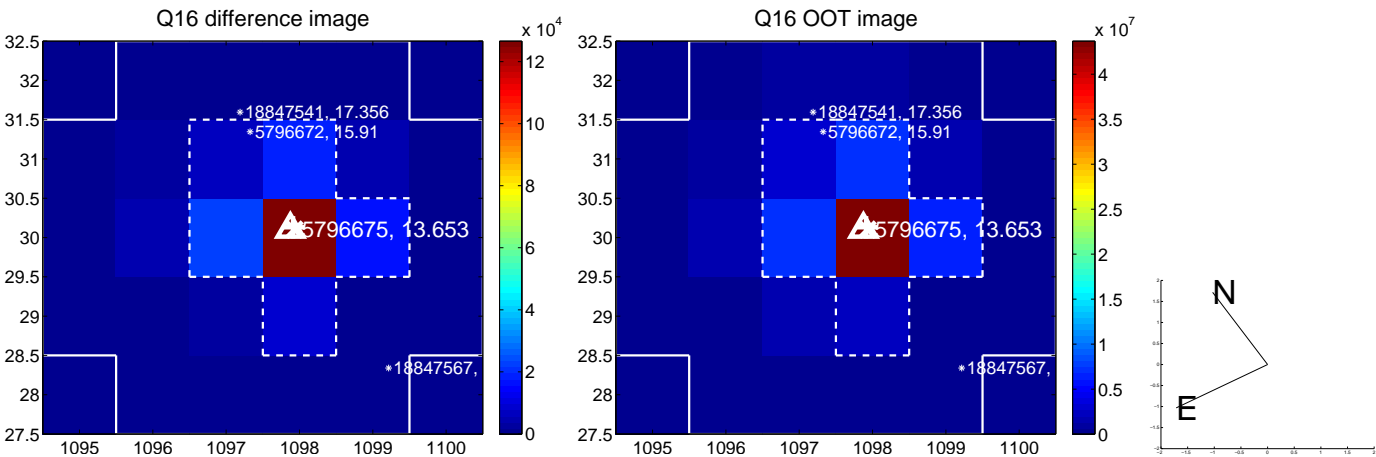
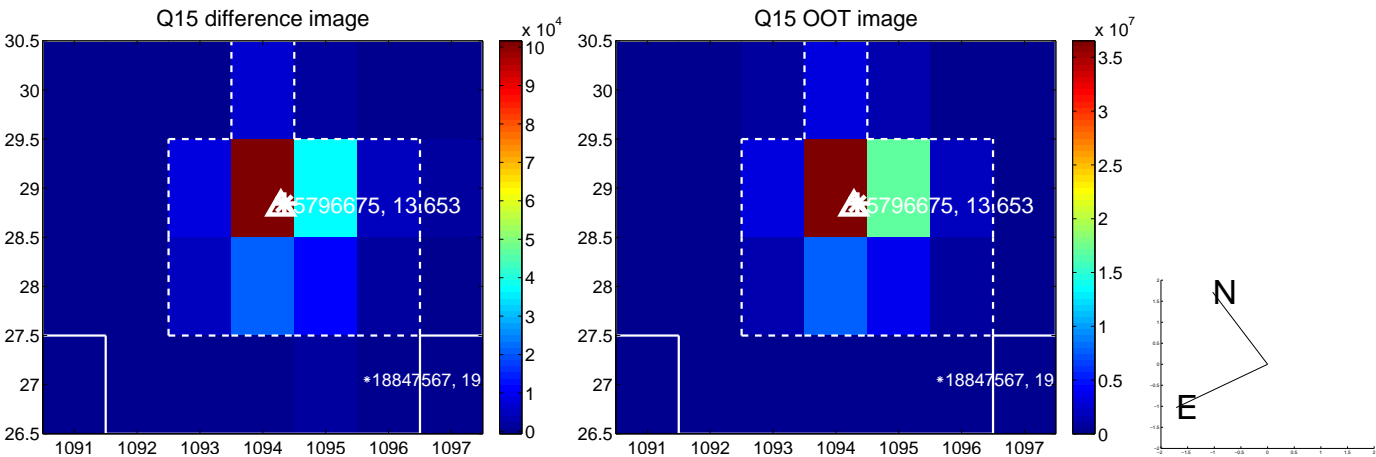
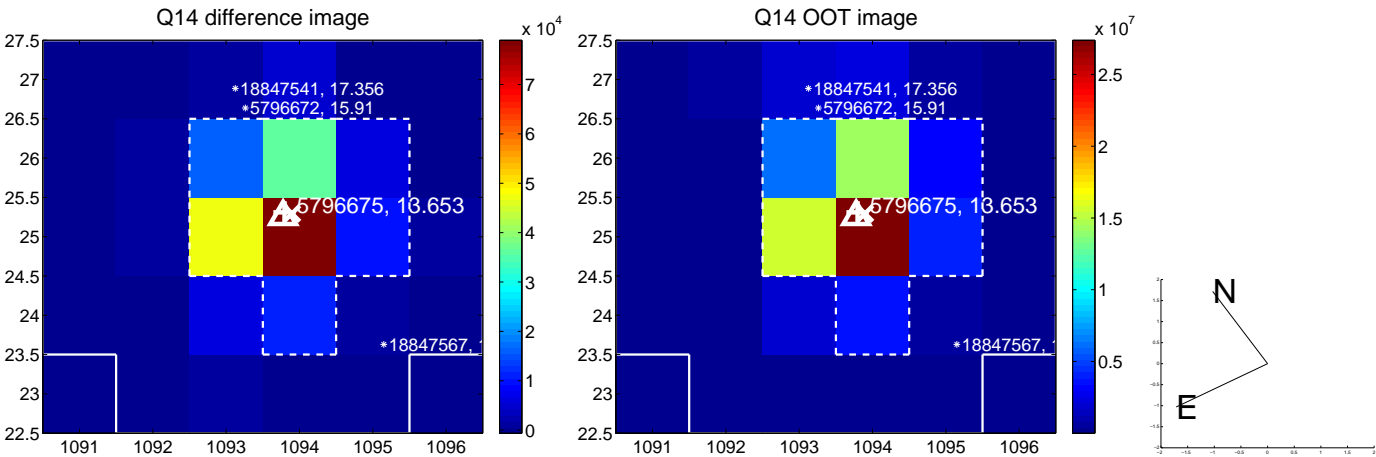
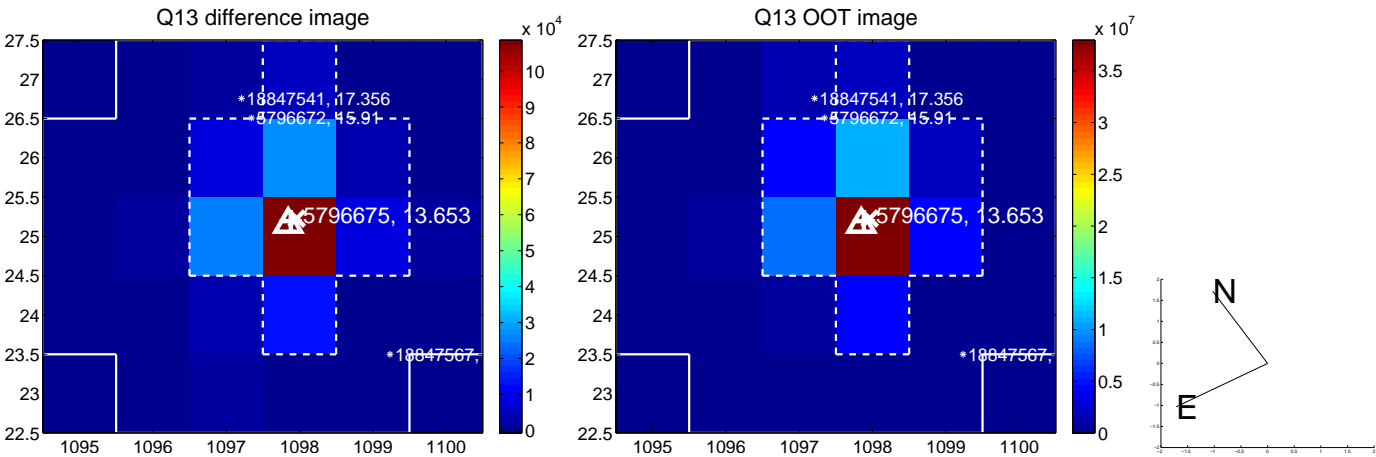
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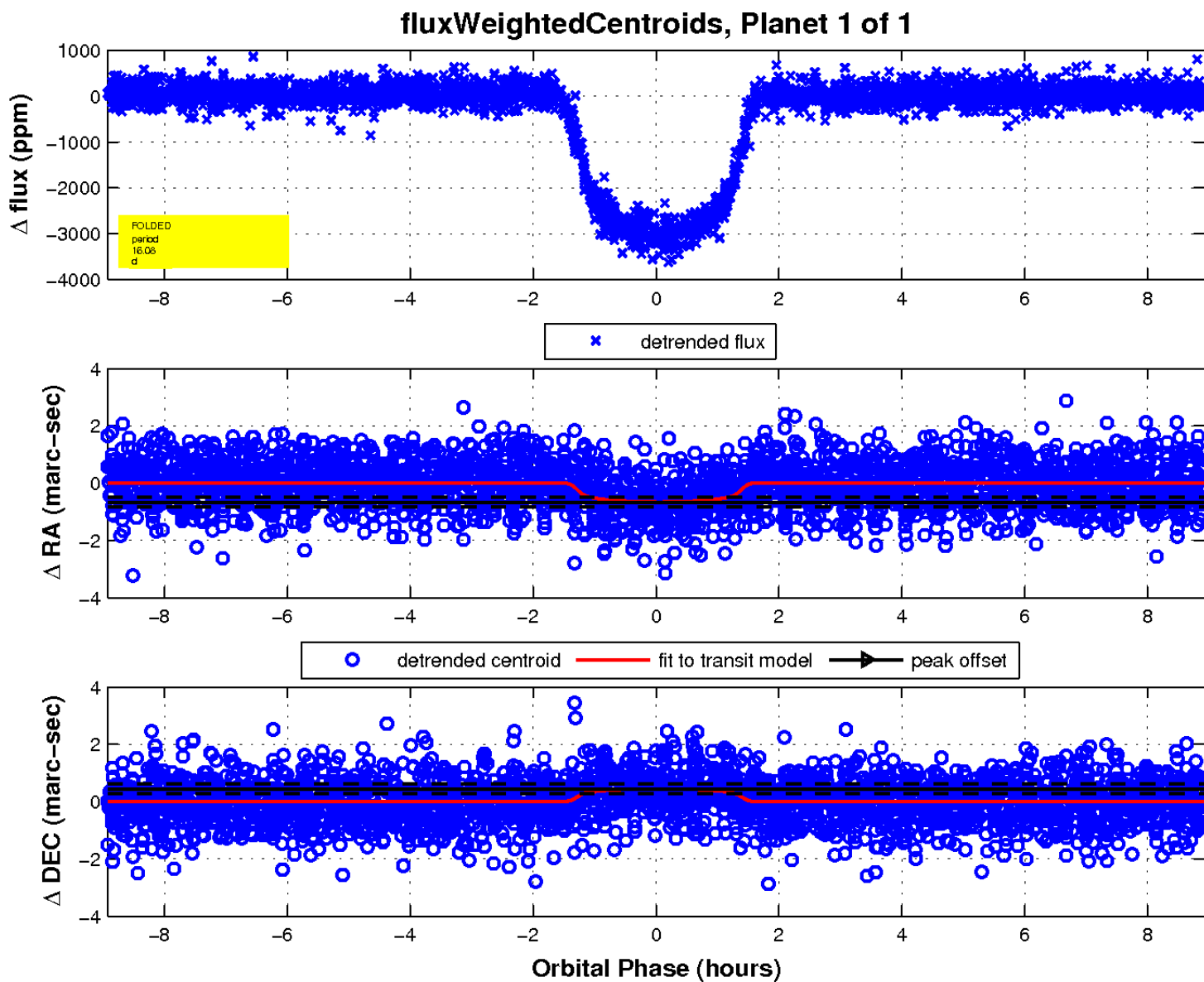
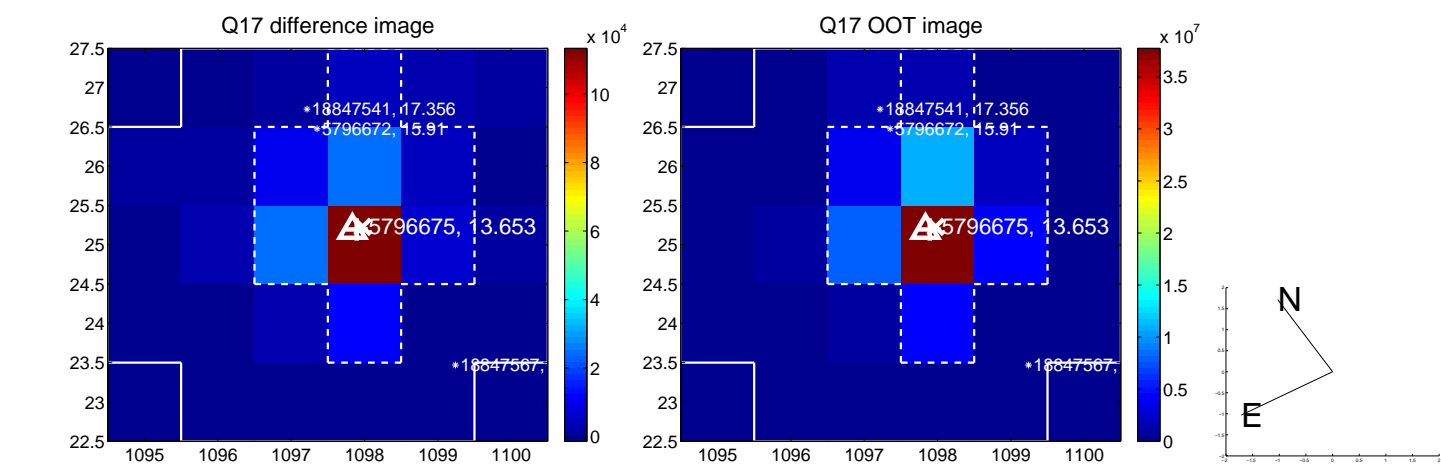
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UKIRT Image

Declination

