

KIC 006291653

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})
006291653-01	OBS	0850.01	10.526291	134.417489	9765.6	2.614	488.7	479.4	0.79	5386	8.52	61.25

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006291653-01	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.

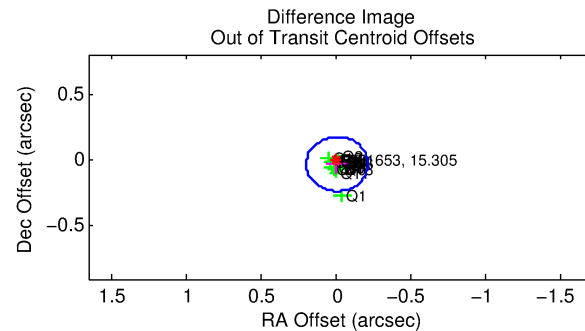
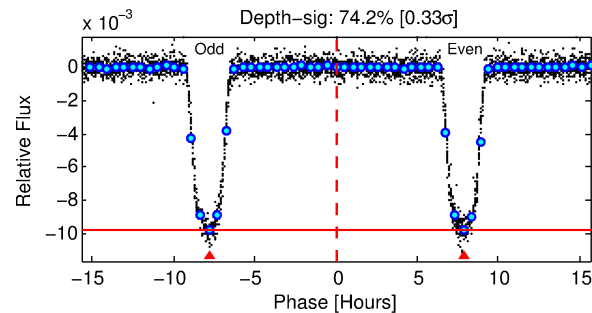
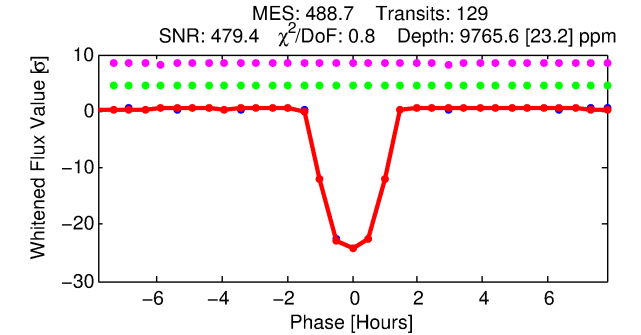
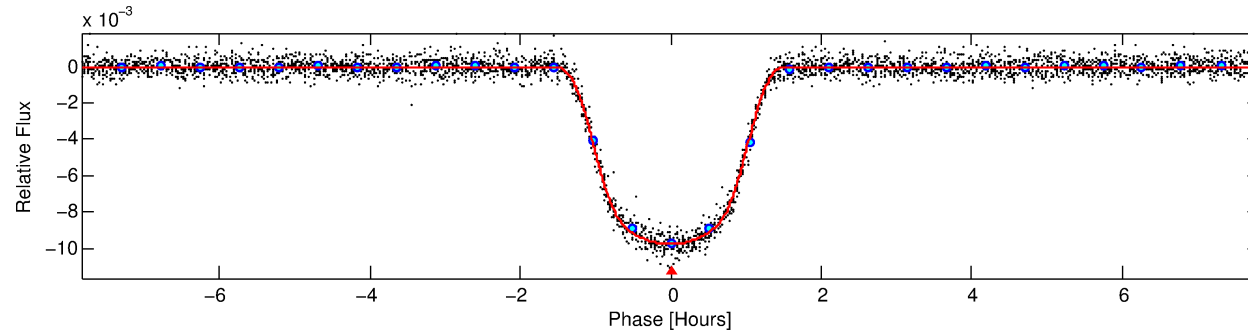
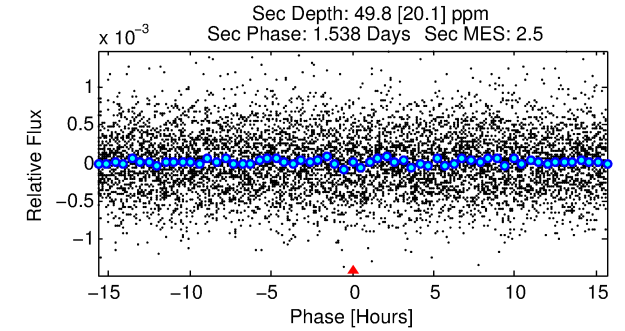
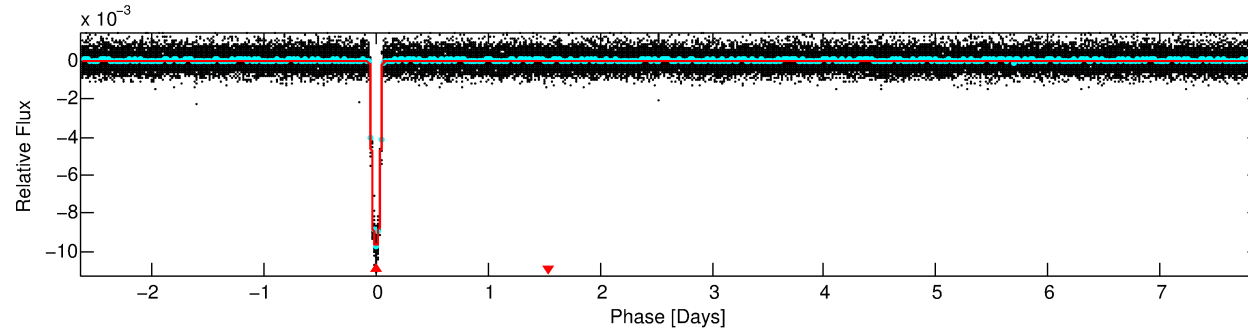
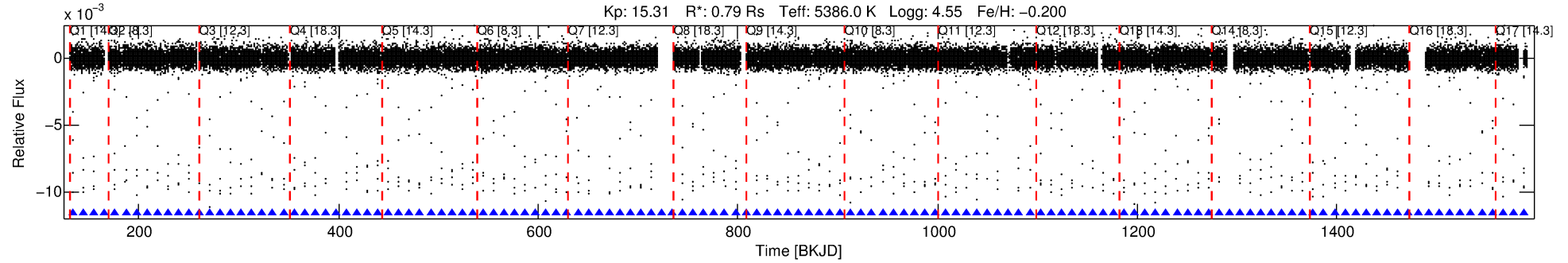
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006291653-01

No Significant Match Found

DV One-Page Summary

KIC: 6291653 Candidate: 1 of 1 Period: 10.526 d
KOI: K00850.01 Corr: 0.982



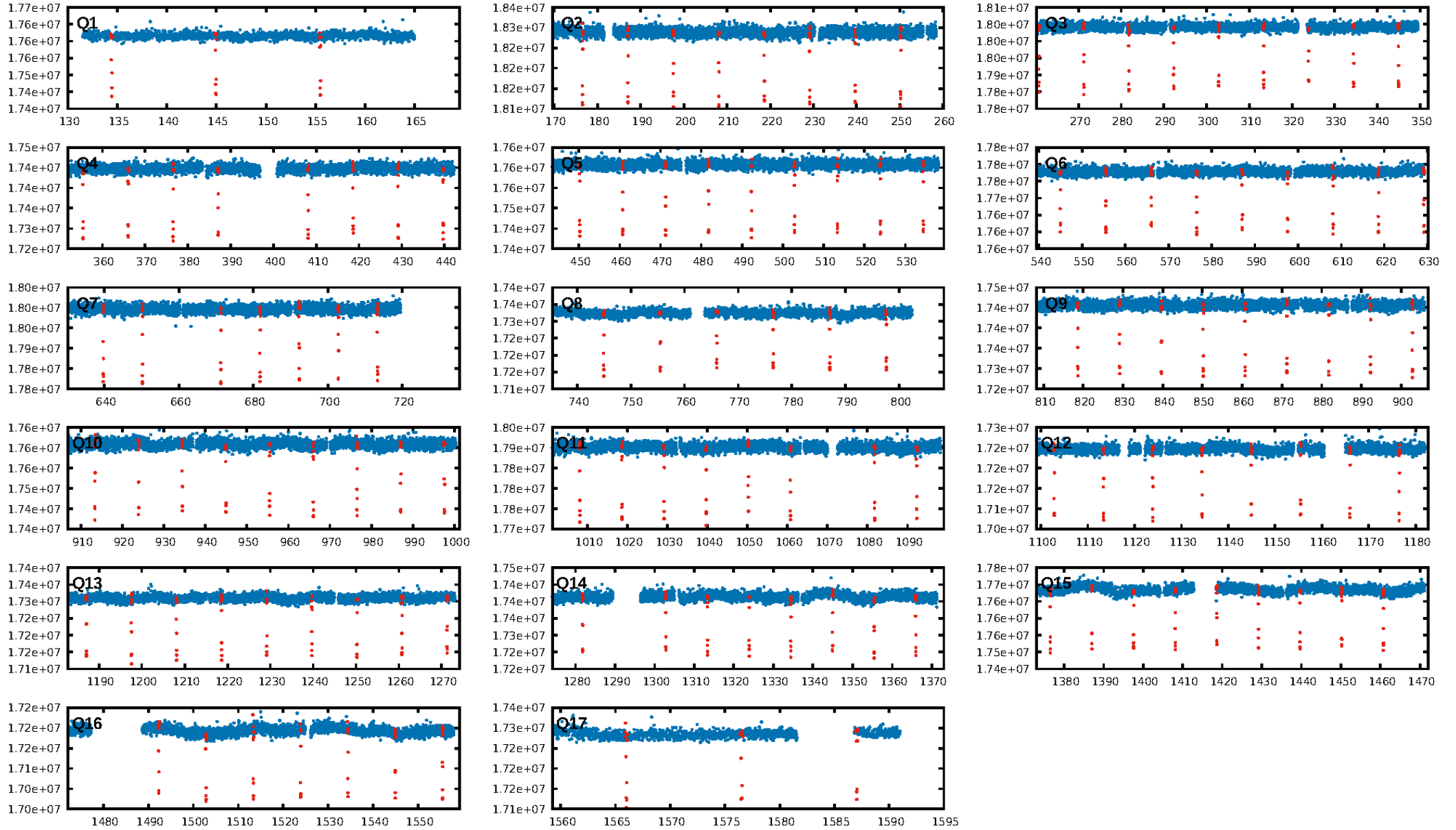
DV Fit Results:

Period = 10.52629 [0.00000] d
Epoch = 134.4175 [0.0001] BKJD
Rp/R* = 0.0984 [0.0005]
a/R* = 25.03 [0.44]
b = 0.74 [0.01]
Seff = 61.25 [14.22]
Teff = 713 [41] K
Rp = 8.51 [1.54] Re
a = 0.0880 [0.0127] AU
Ag = 2.93 [1.32] [1.46 σ]
Teffp = 1442 [151] K [4.65 σ]

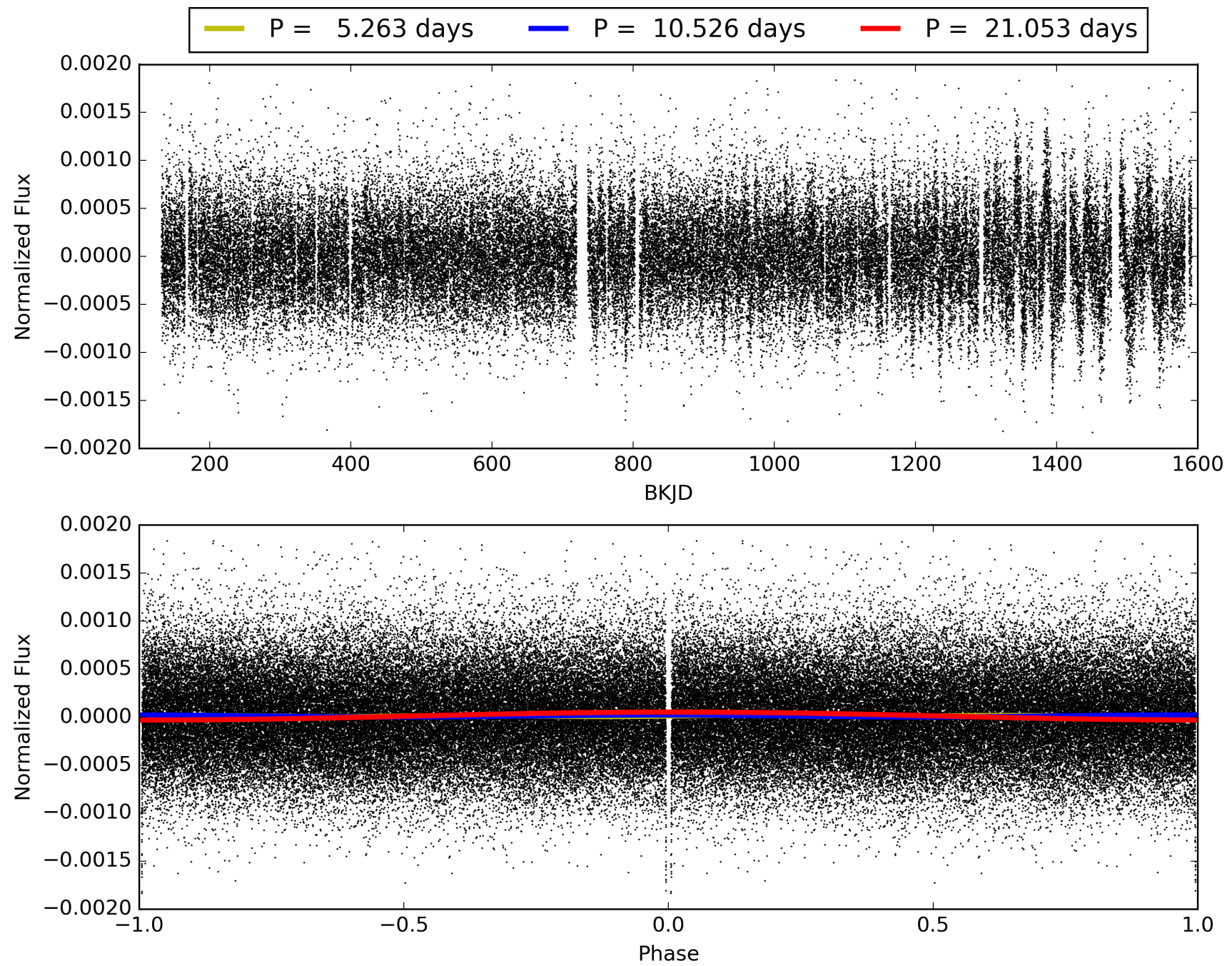
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [123/123]
GhostDiagnostic-chr: 4.16
Centroid-sig: 0.0%
Centroid-so: 0.153 arcsec [5.04 σ]
OotOffset-rm: 0.033 arcsec [0.48 σ]
KicOffset-rm: 0.178 arcsec [2.61 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 006291653-01, PDC Light Curves

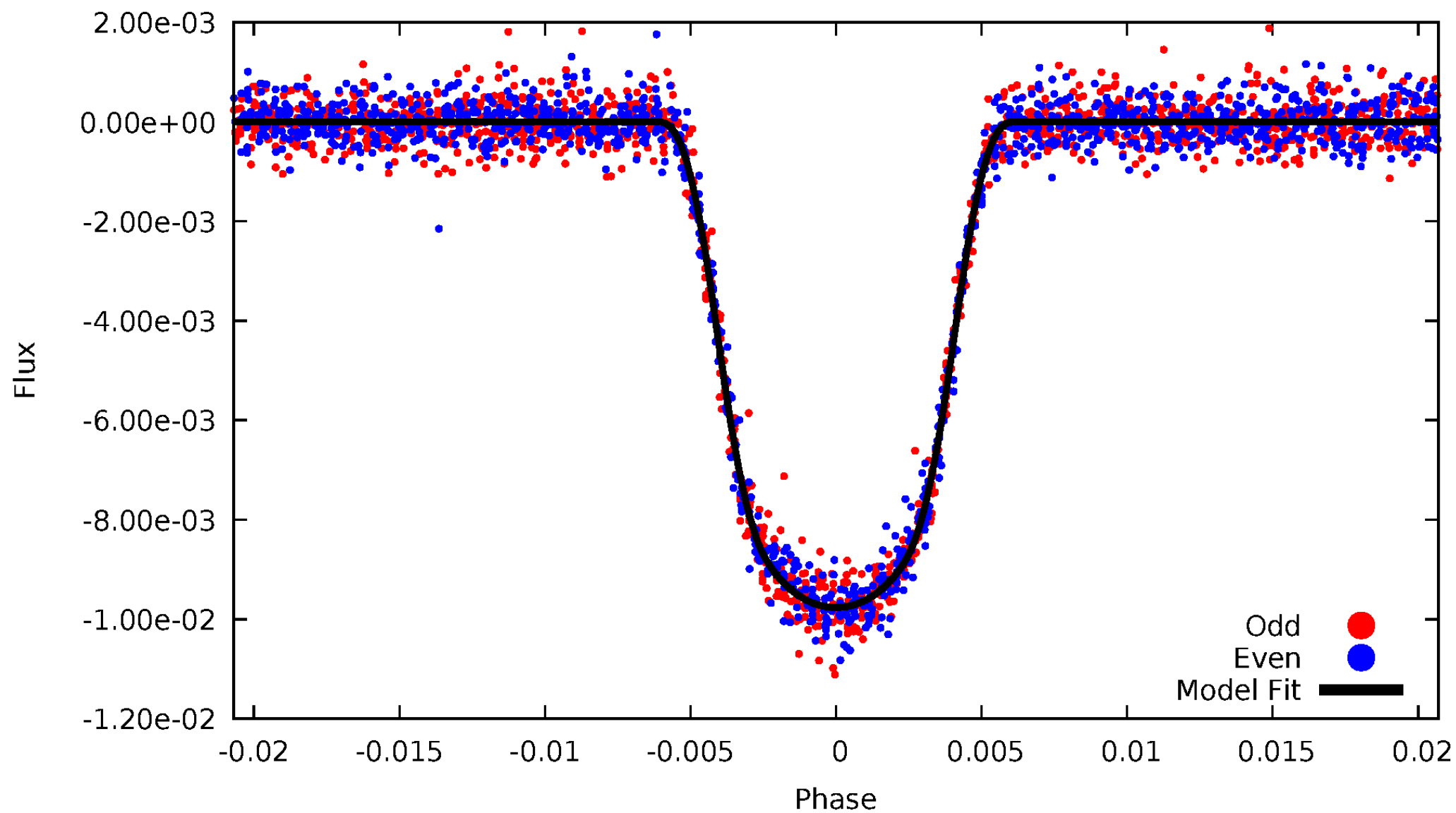


TCE 006291653-01



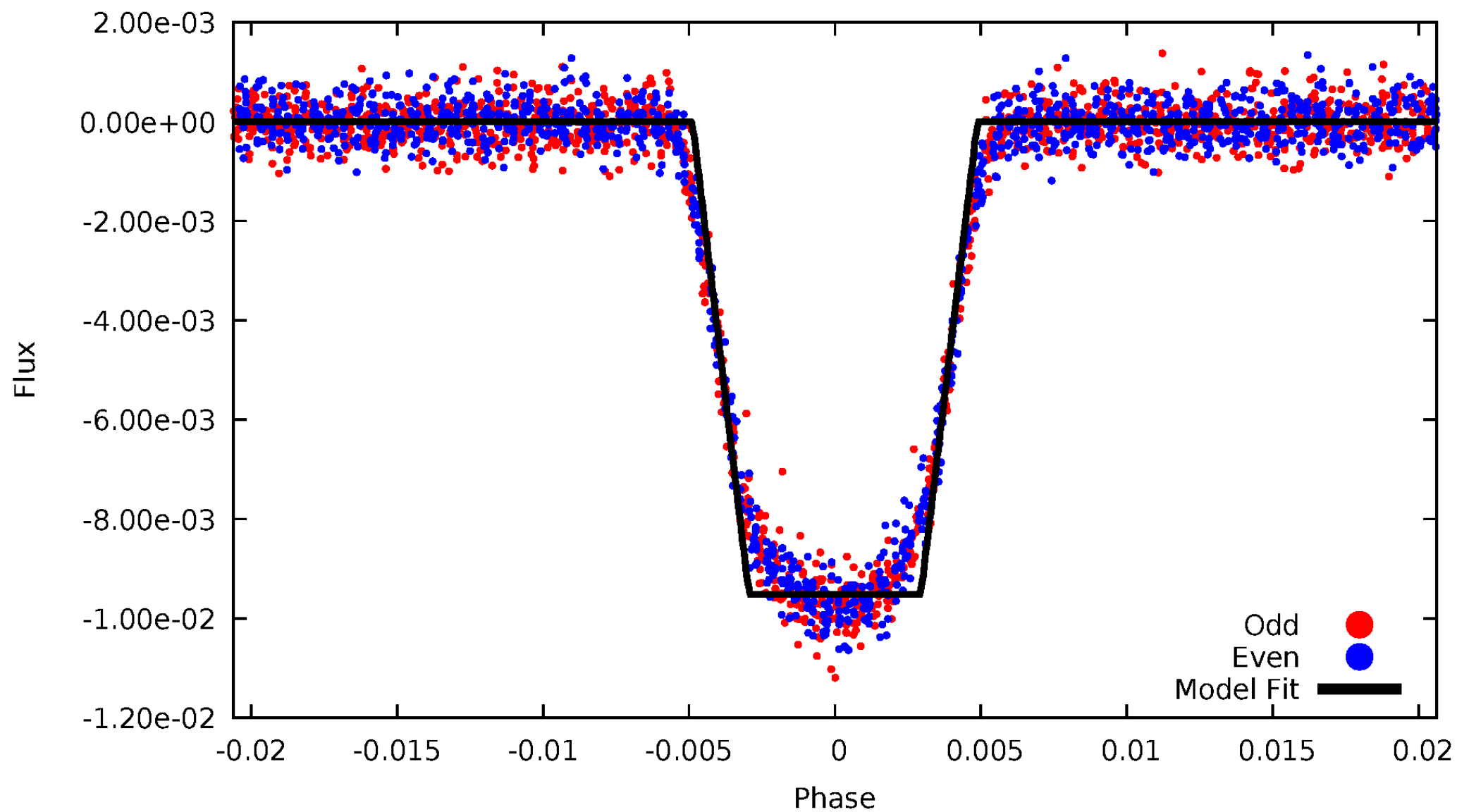
DV Odd/Even

TCE 006291653-01

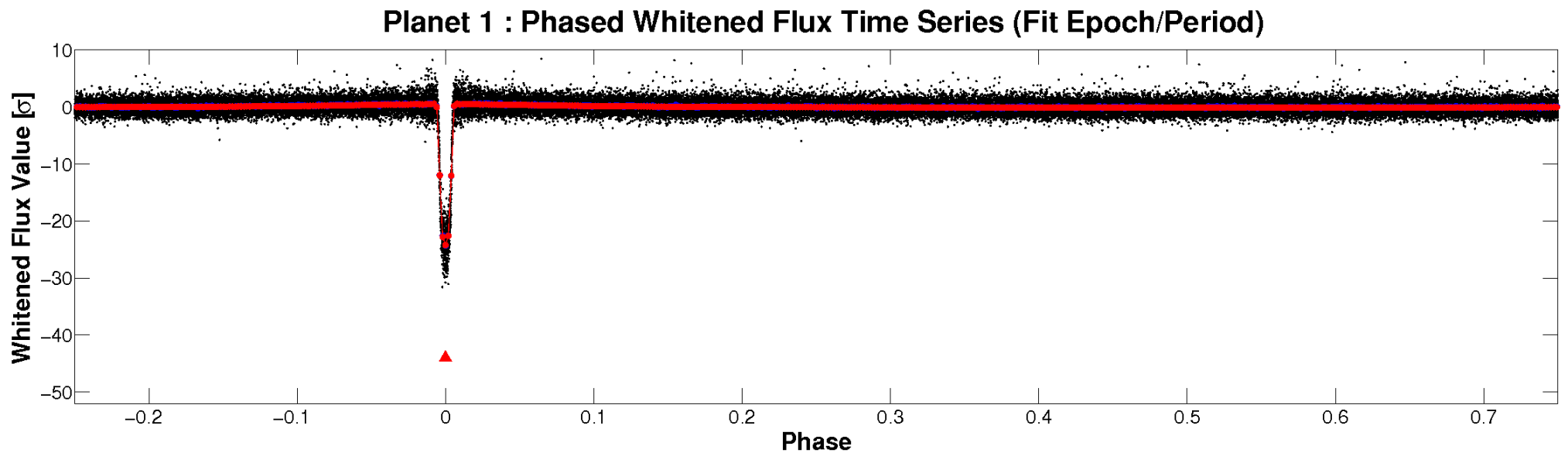
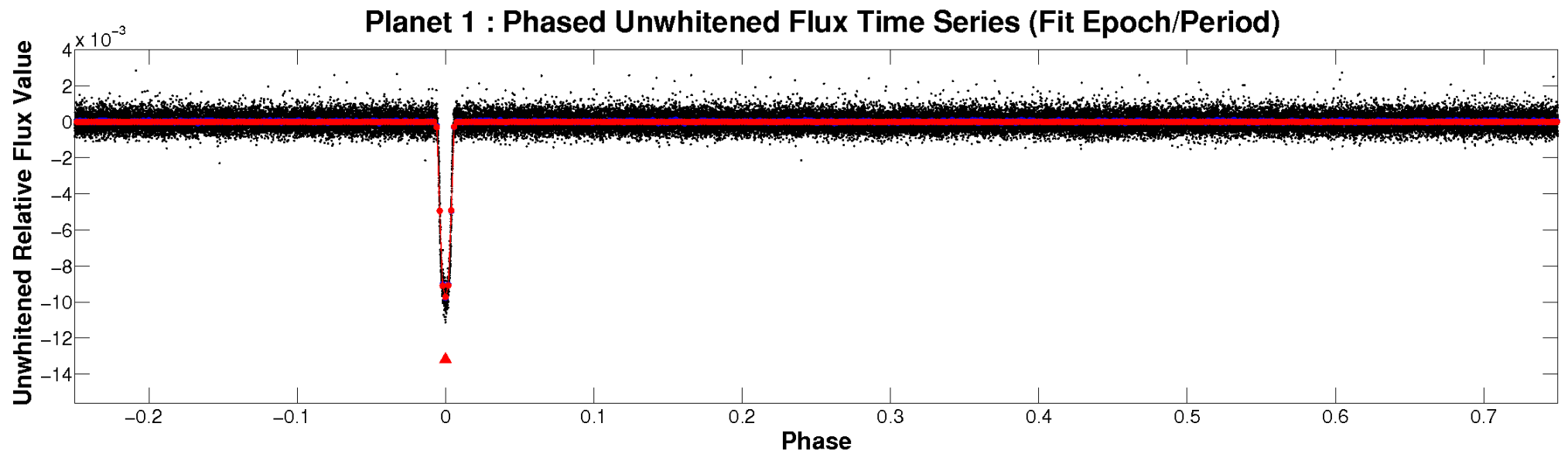


ALT Odd/Even

TCE 006291653-01

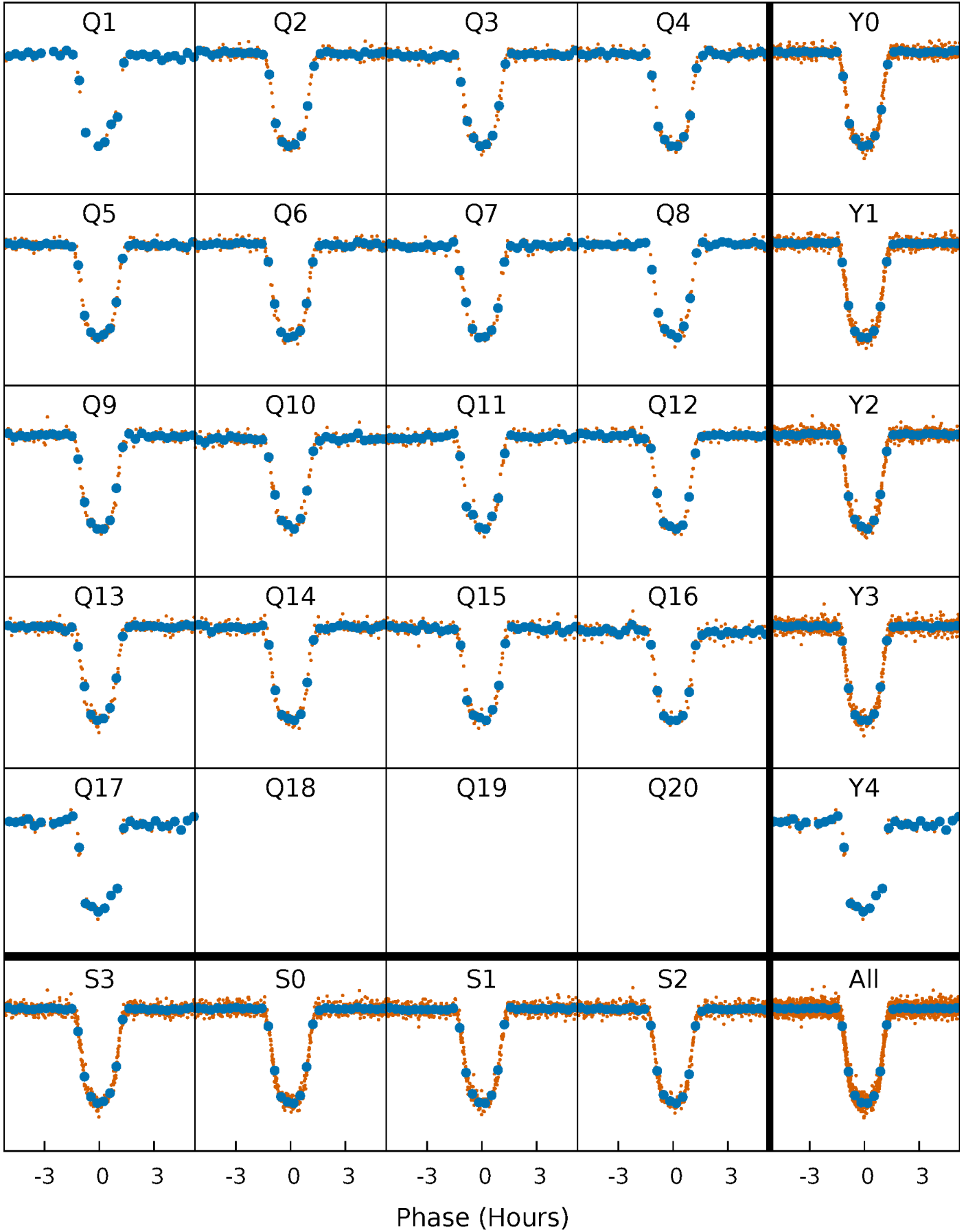


Non-Whitened Vs. Whitened Light Curve



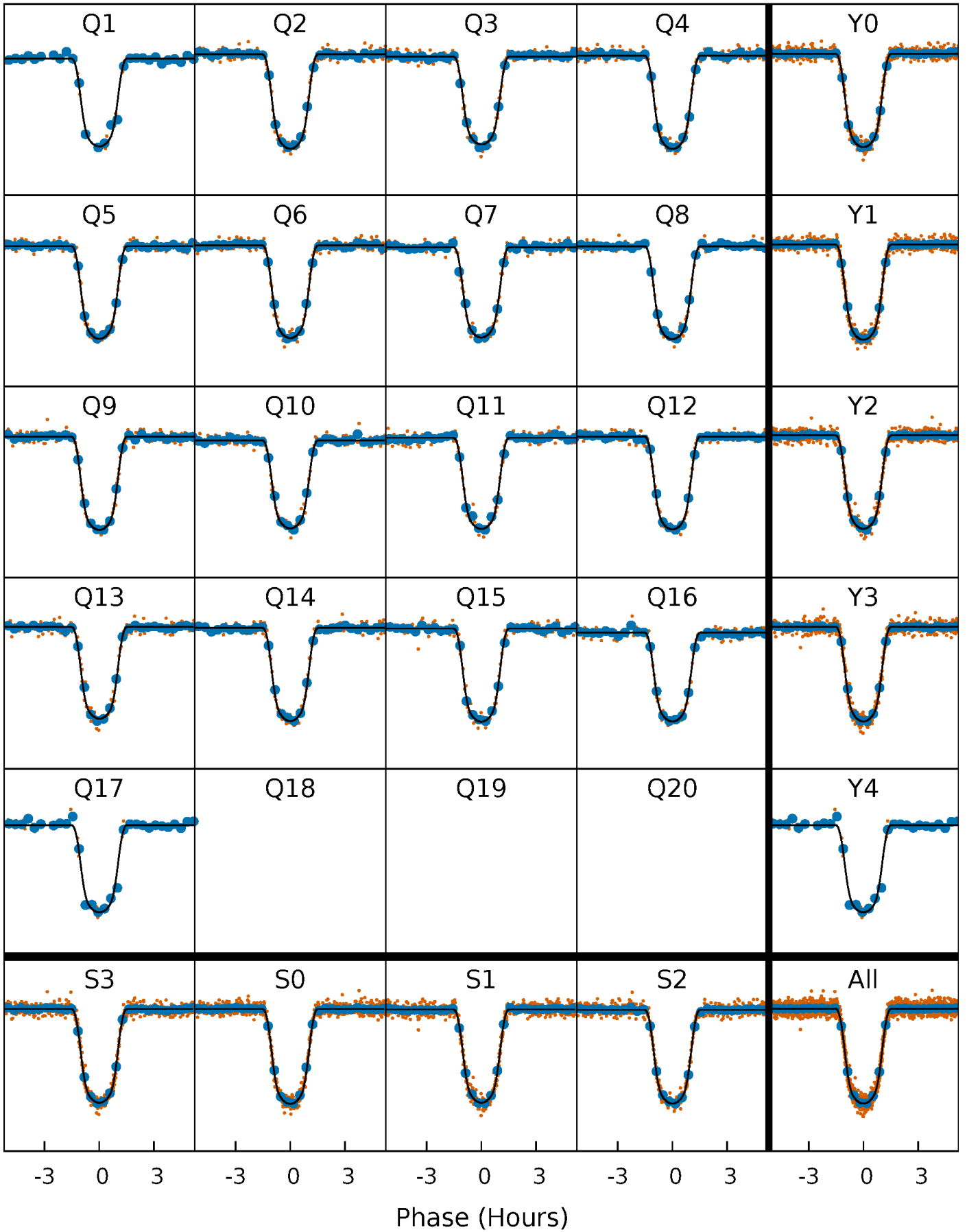
PDC Quarter-Phased Transit Curves

TCE 006291653-01 P= 10.526291 Days $T_0=134.417489$ (BKJD)



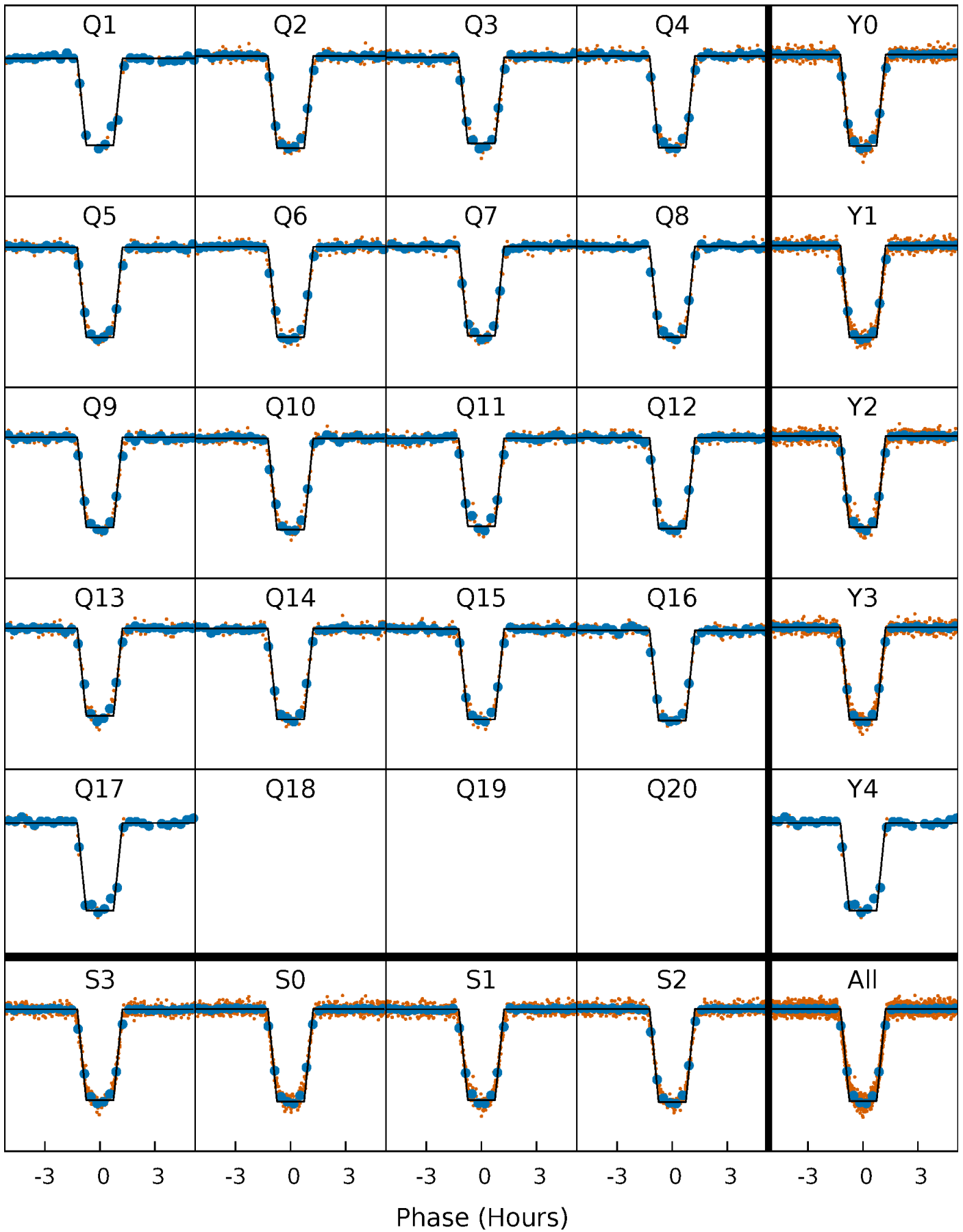
DV Quarter-Phased Transit Curves

TCE 006291653-01 P= 10.526291 Days $T_0=134.417489$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

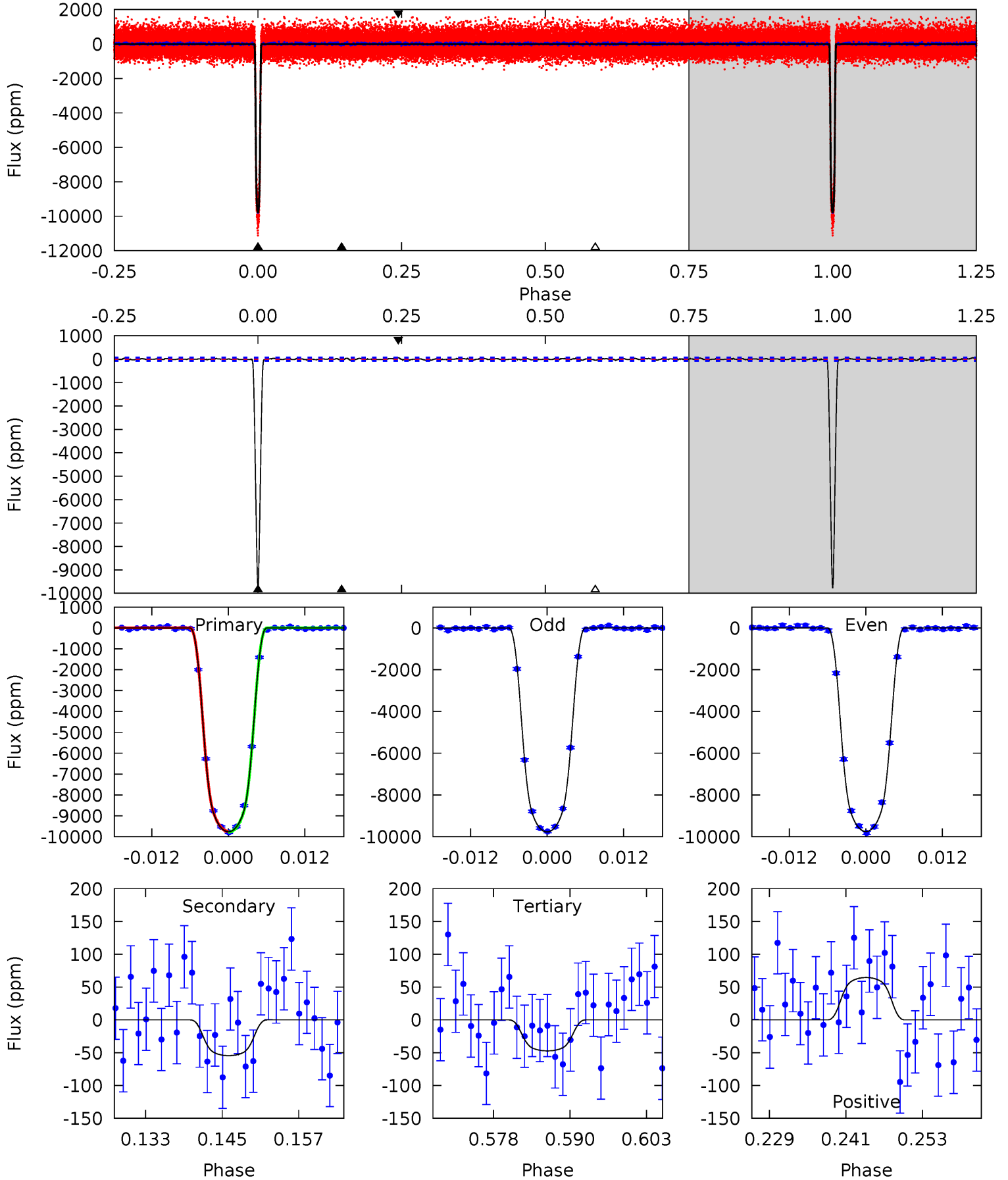
TCE 006291653-01 P= 10.526301 Days $T_0=134.416847$ (BKJD)



DV Model-Shift Uniqueness Test

006291653-01, P = 10.526291 Days, E = 123.891198 Days

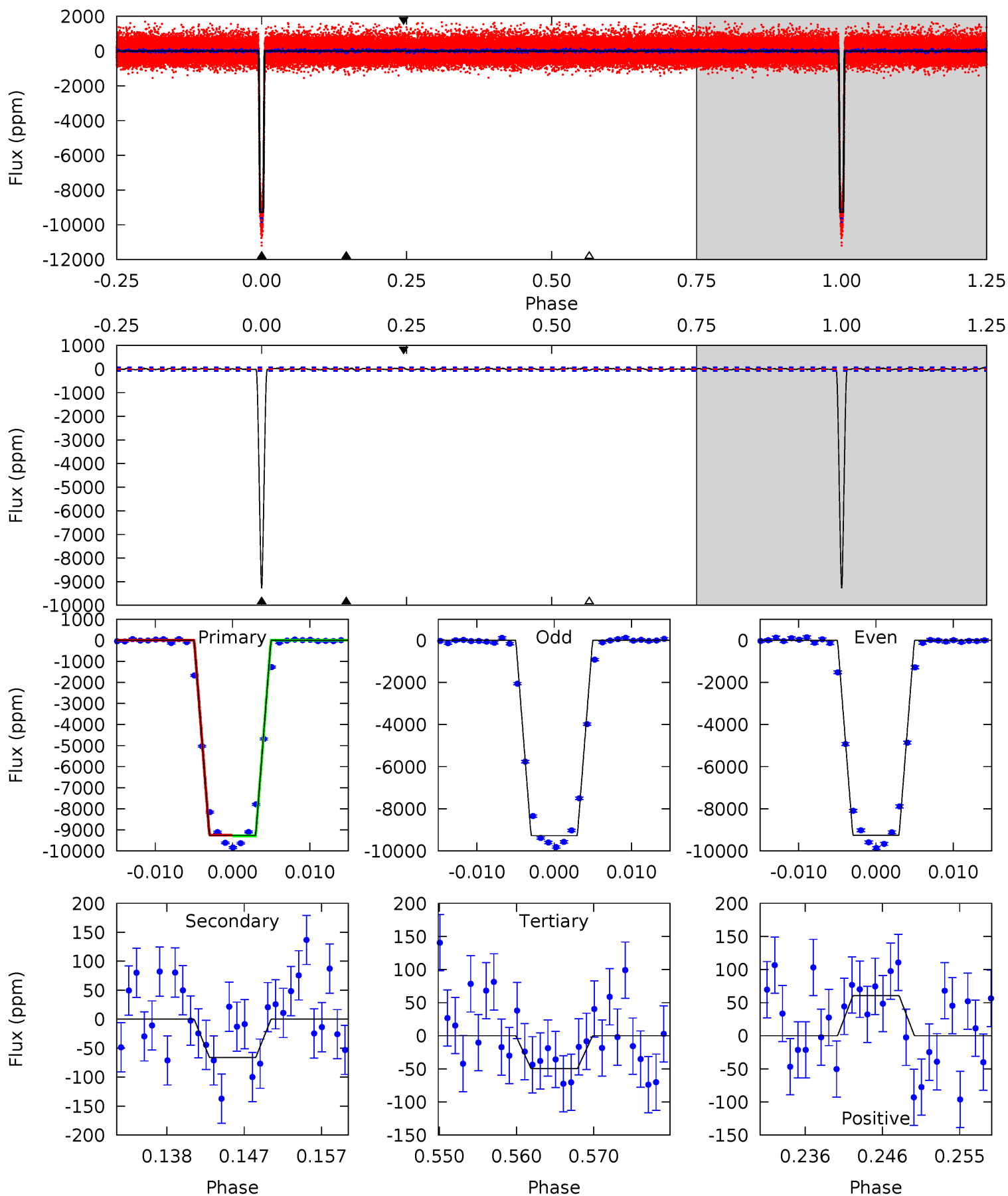
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
701.5	3.92	3.40	4.64	4.99	2.51	1.29	698.1	696.8	0.52	-0.71	0.76	1.00	0.01	1.56



Alt Model-Shift Uniqueness Test

006291653-01, $P = 10.526301$ Days, $E = 123.890546$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
588.9	4.21	3.16	3.85	5.03	2.58	1.07	585.8	585.1	1.04	0.36	0.55	1.00	0.01	1.08



Stellar Parameters For KIC 006291653

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5386^{+159}_{-159}	$4.553^{+0.056}_{-0.104}$	$-0.200^{+0.300}_{-0.300}$	$0.793^{+0.143}_{-0.077}$	$0.820^{+0.096}_{-0.078}$	$2.314^{+0.568}_{-0.777}$
	+3%/-3%	+1%/-2%	+150%/-150%	+18%/-10%	+12%/-10%	+25%/-34%
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 006291653-01 / KOI 0850.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-55 ± 14	$8.61^{+0.78}_{-0.51}$	1003^{+48}_{-37}	2335^{+85}_{-96}	$3.038^{+0.937}_{-0.834}$
Alt.	-66 ± 16	$8.52^{+0.75}_{-0.50}$	1006^{+42}_{-43}	2400^{+80}_{-95}	$3.743^{+1.097}_{-0.995}$

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 $A_{obs} \gg 1.0$

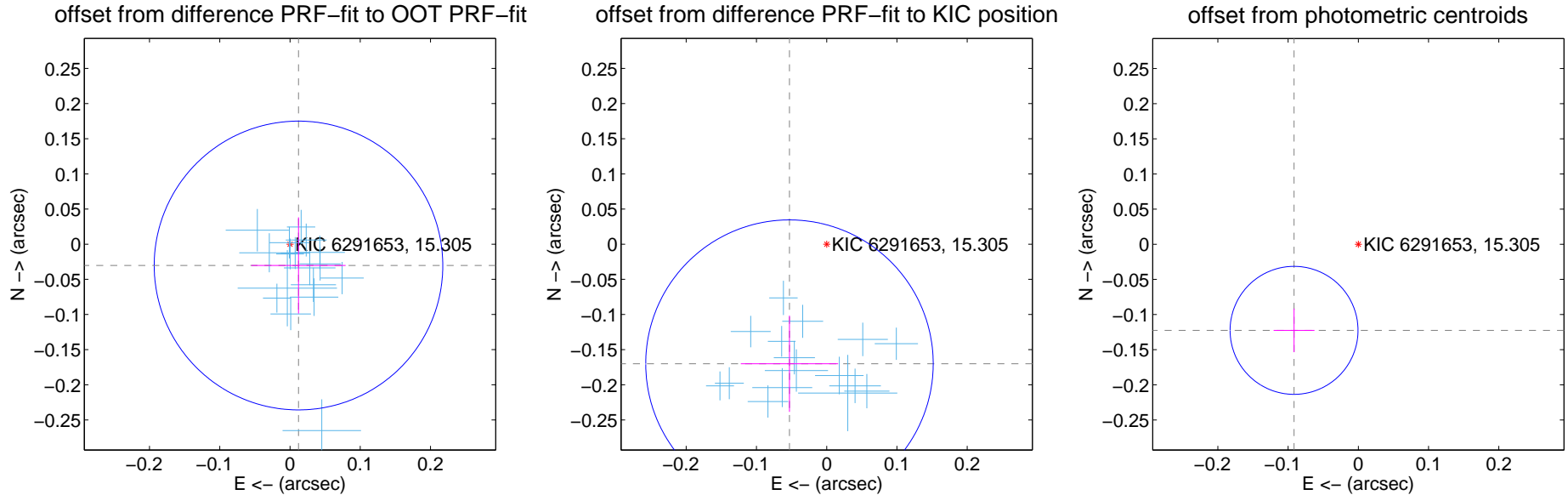
DV Centroid Data

Supplemental centroid analysis for 006291653-01. Kepler magnitude: 15.30. Transit SNR 479.38

There are 17 quarters with good PRF difference image offsets

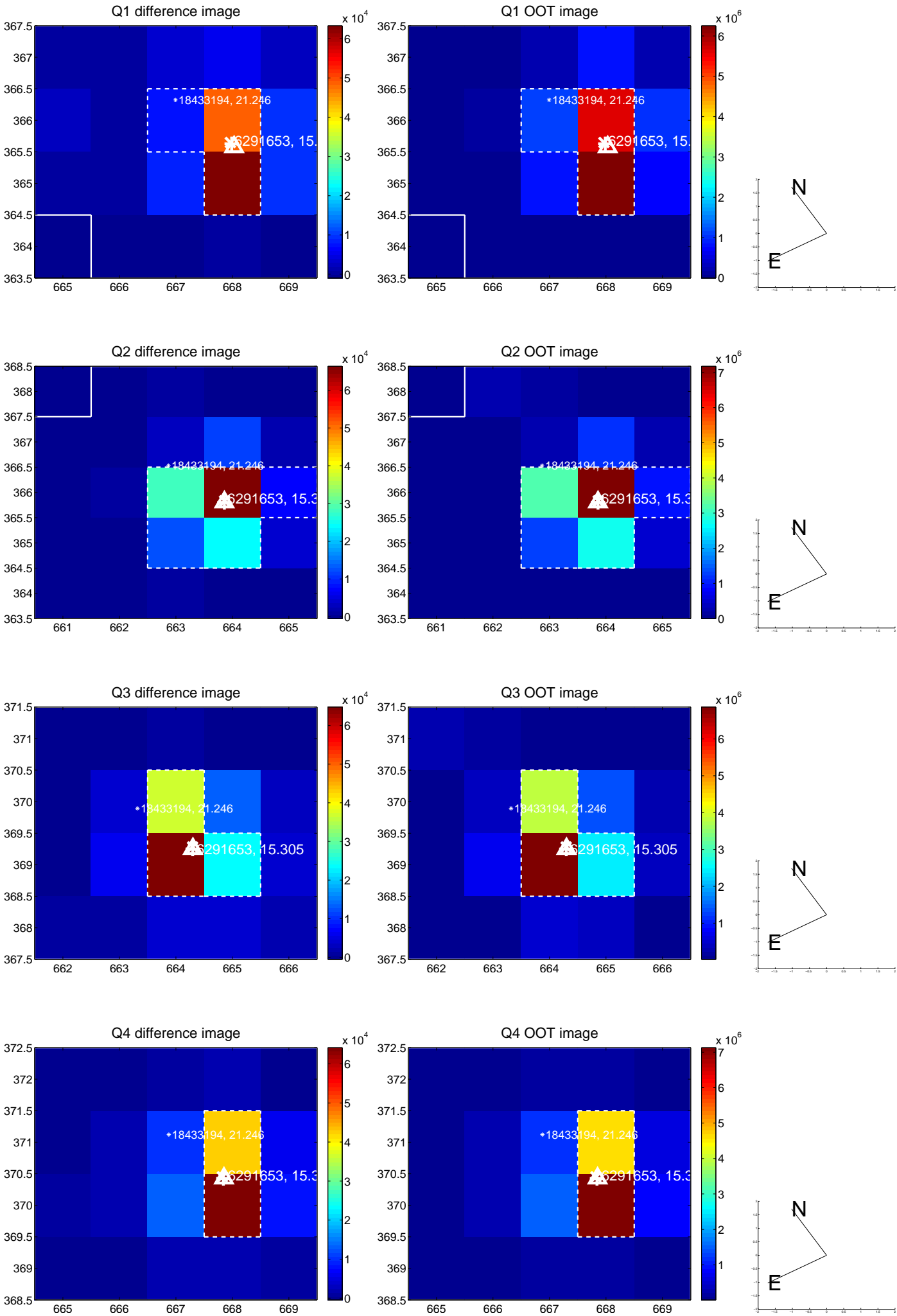
The direct PRF centroid is offset from the target star catalog position by about 0.15 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.033 ± 0.068	0.48	-0.012 ± 0.067	-0.030 ± 0.068
PRF-fit source offset from KIC position	0.178 ± 0.068	2.61	0.053 ± 0.069	-0.170 ± 0.068
photometric centroid source offset	0.15 ± 0.03	5.04	0.09 ± 0.03	-0.12 ± 0.03

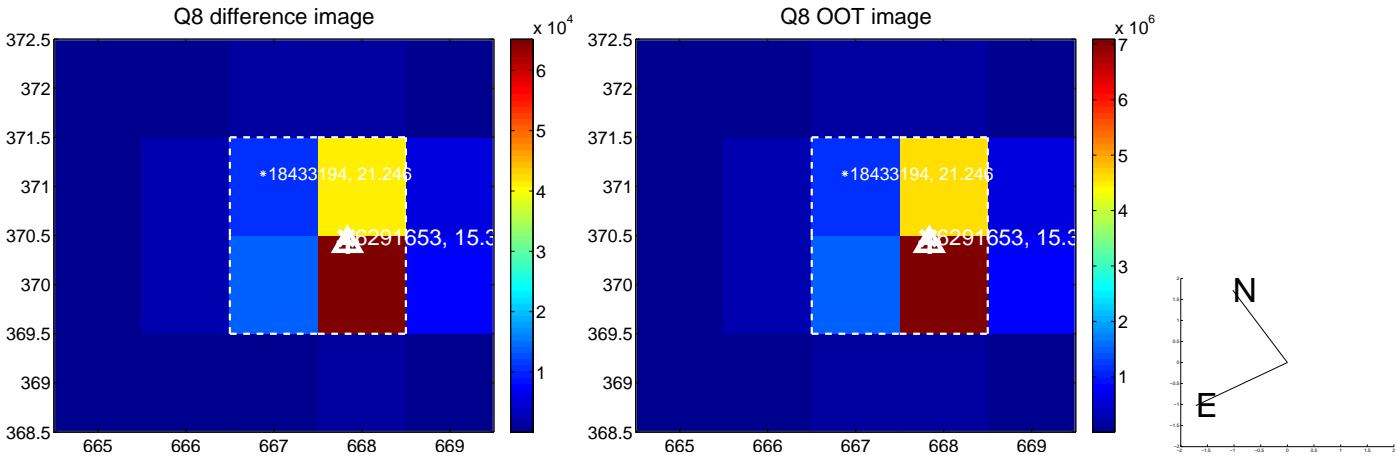
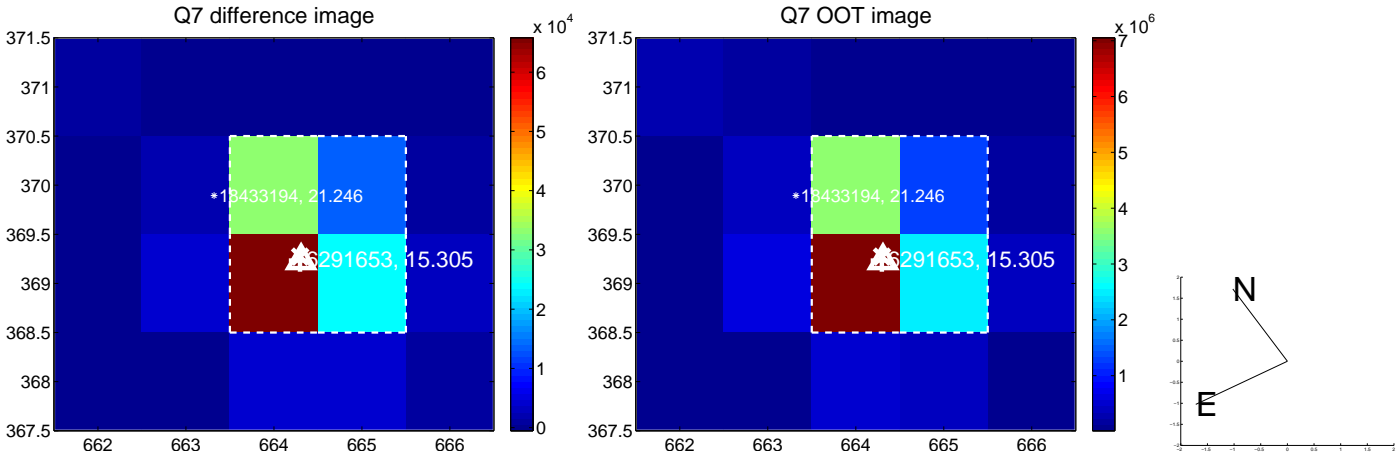
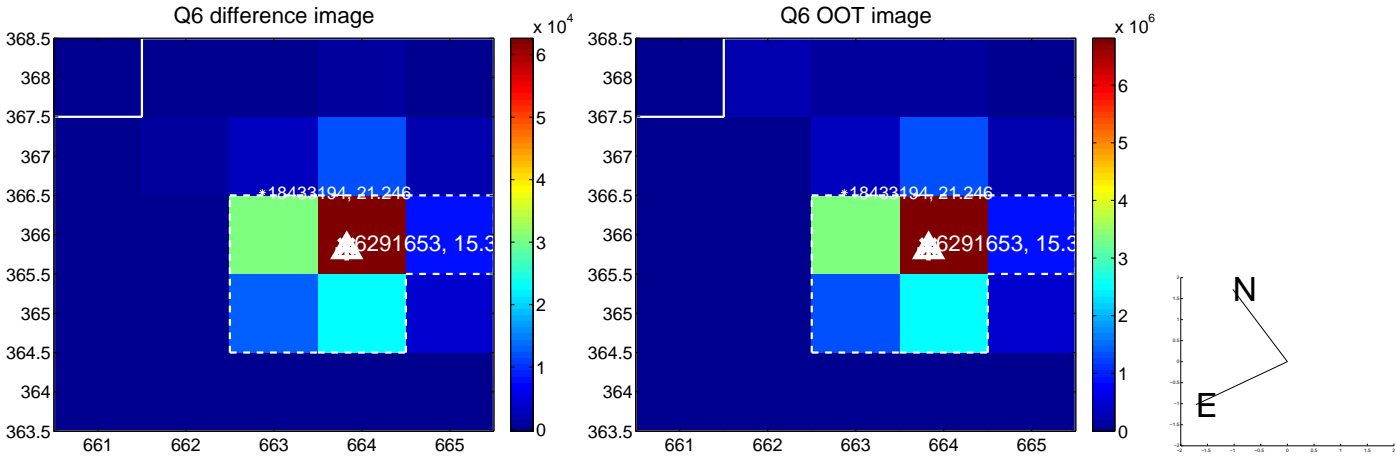
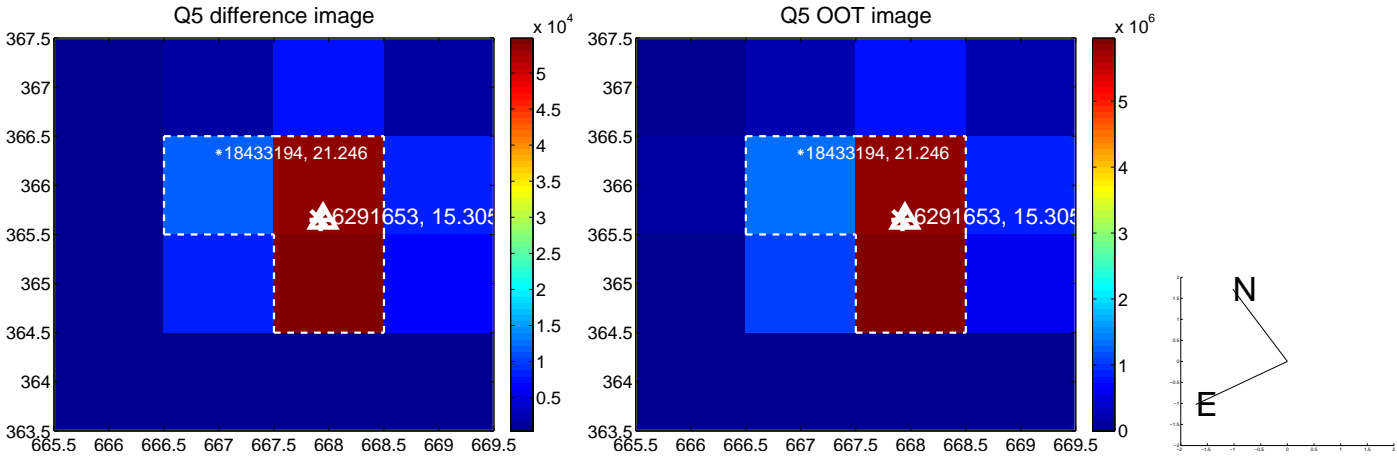


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

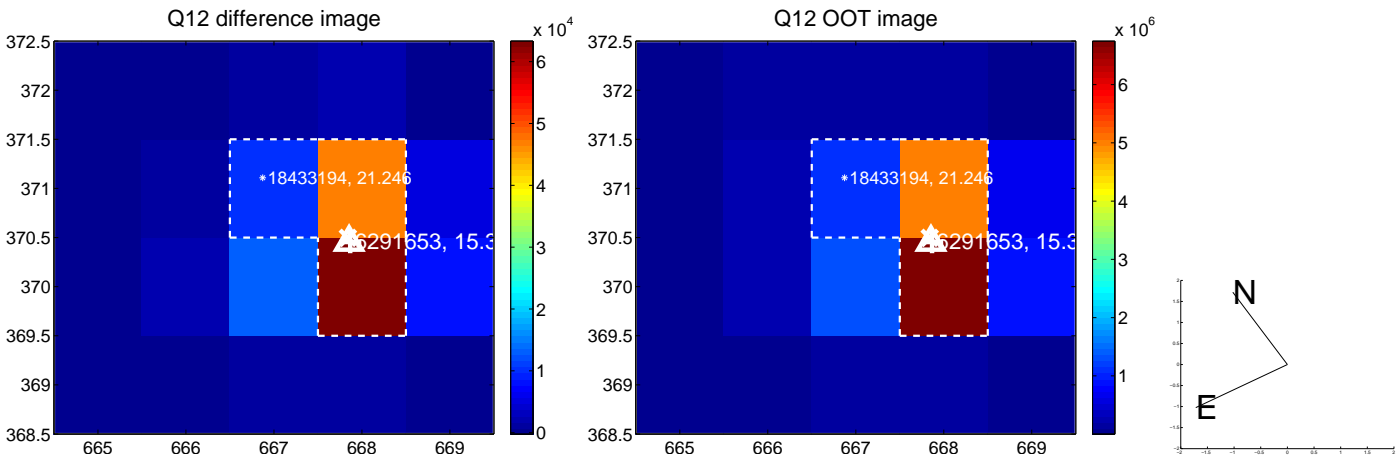
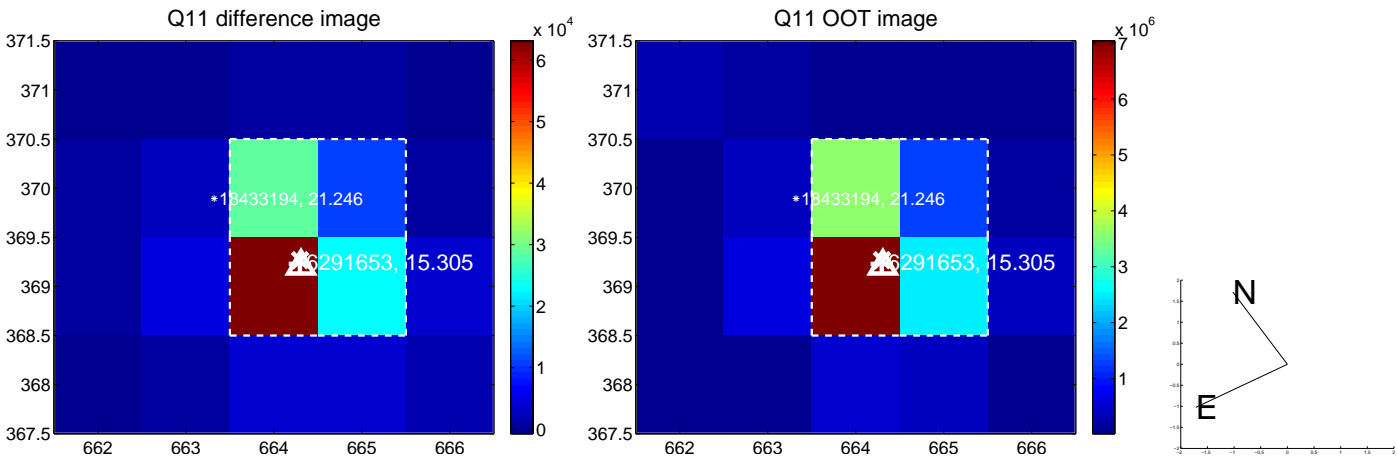
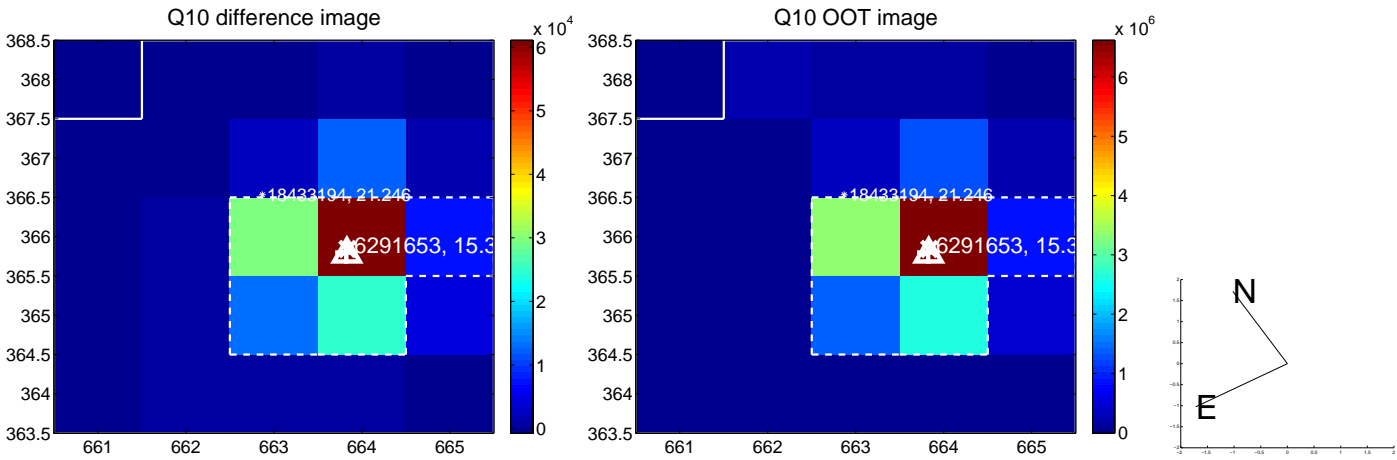
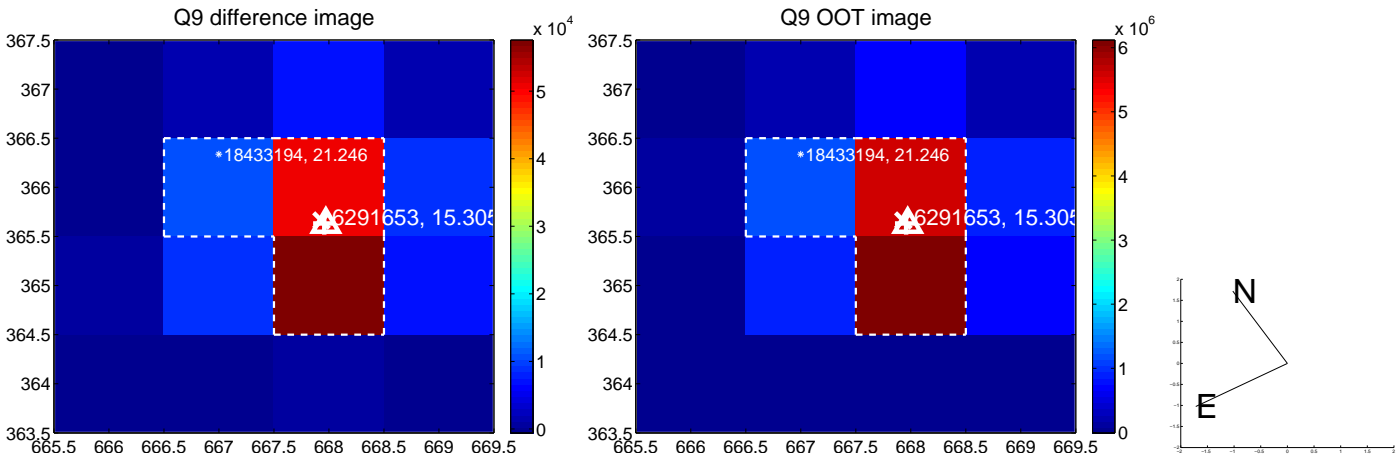
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



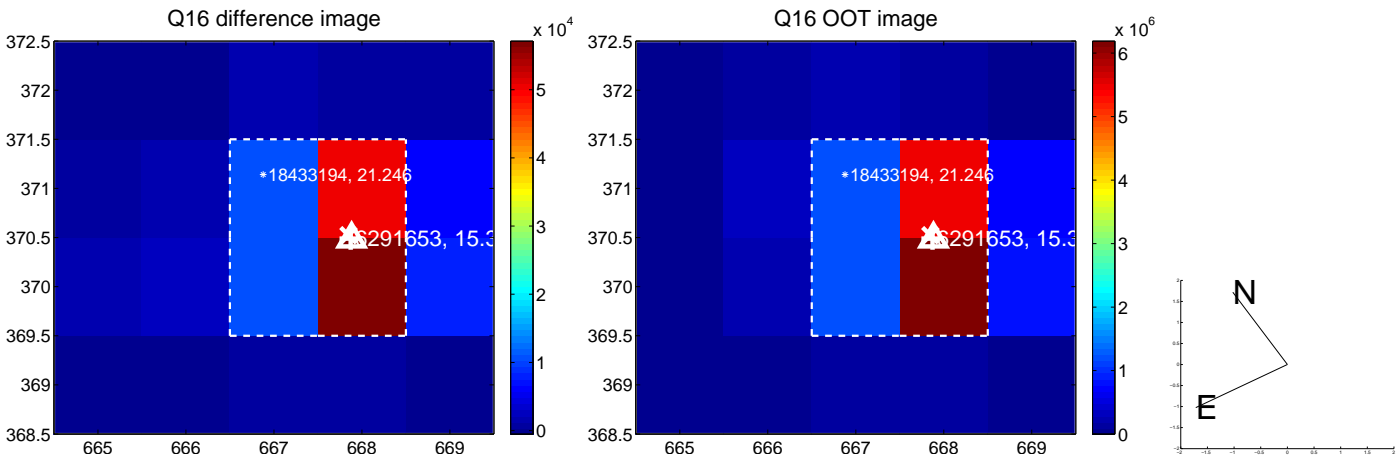
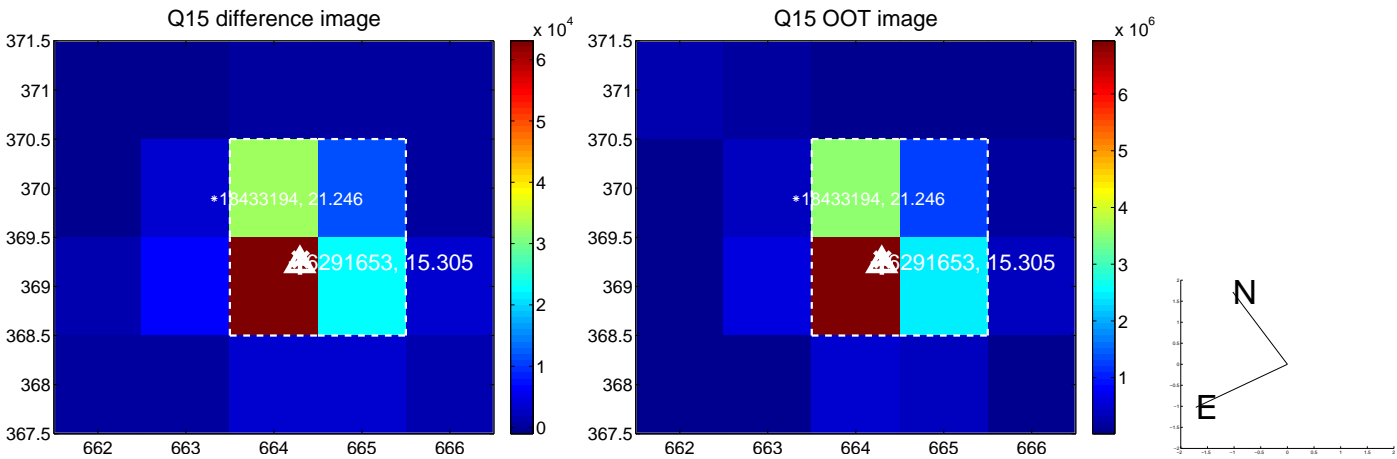
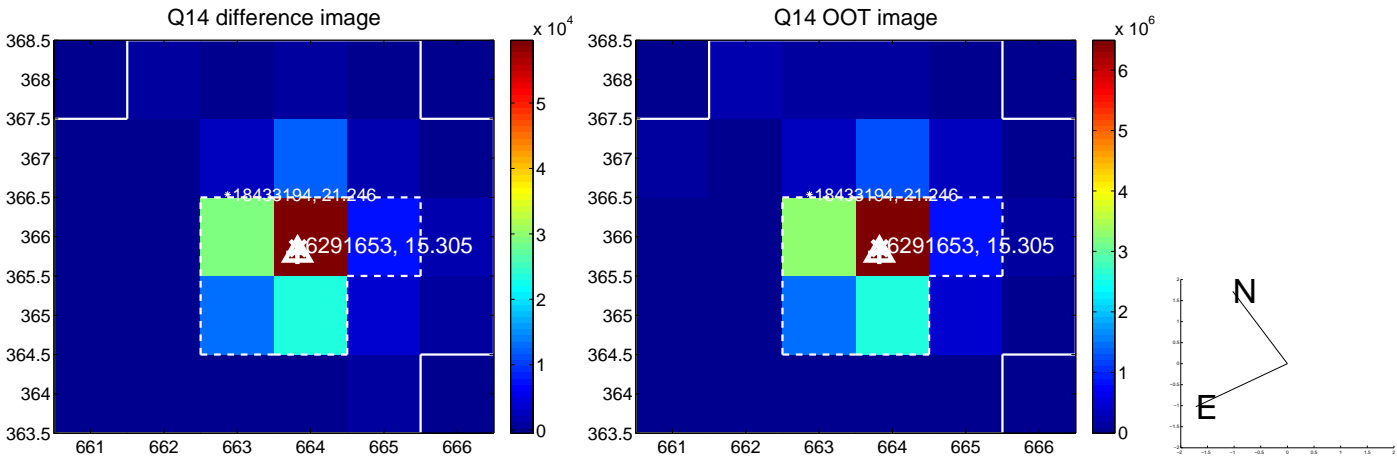
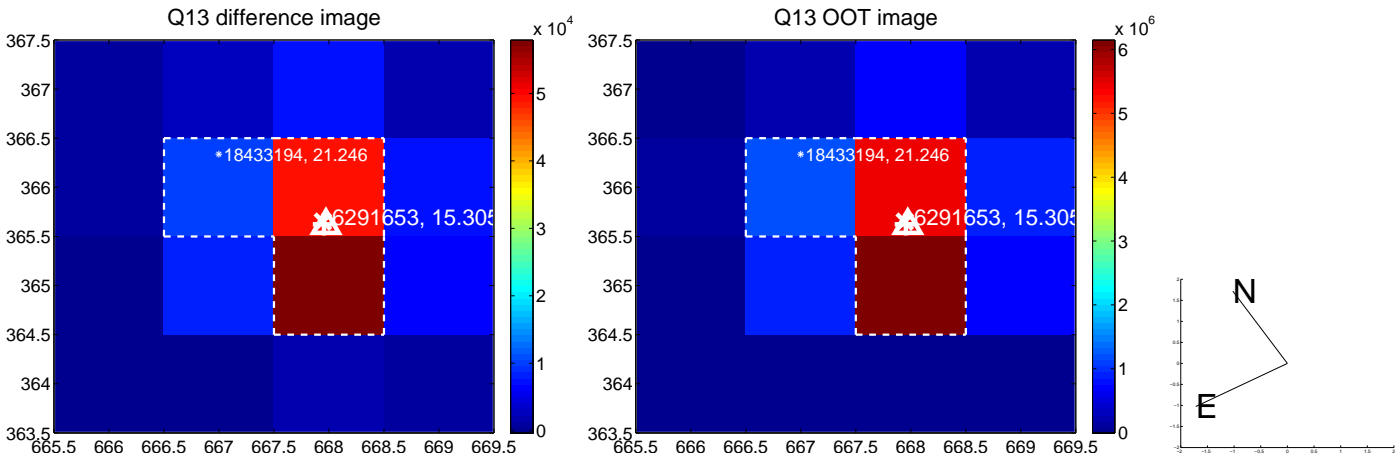
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



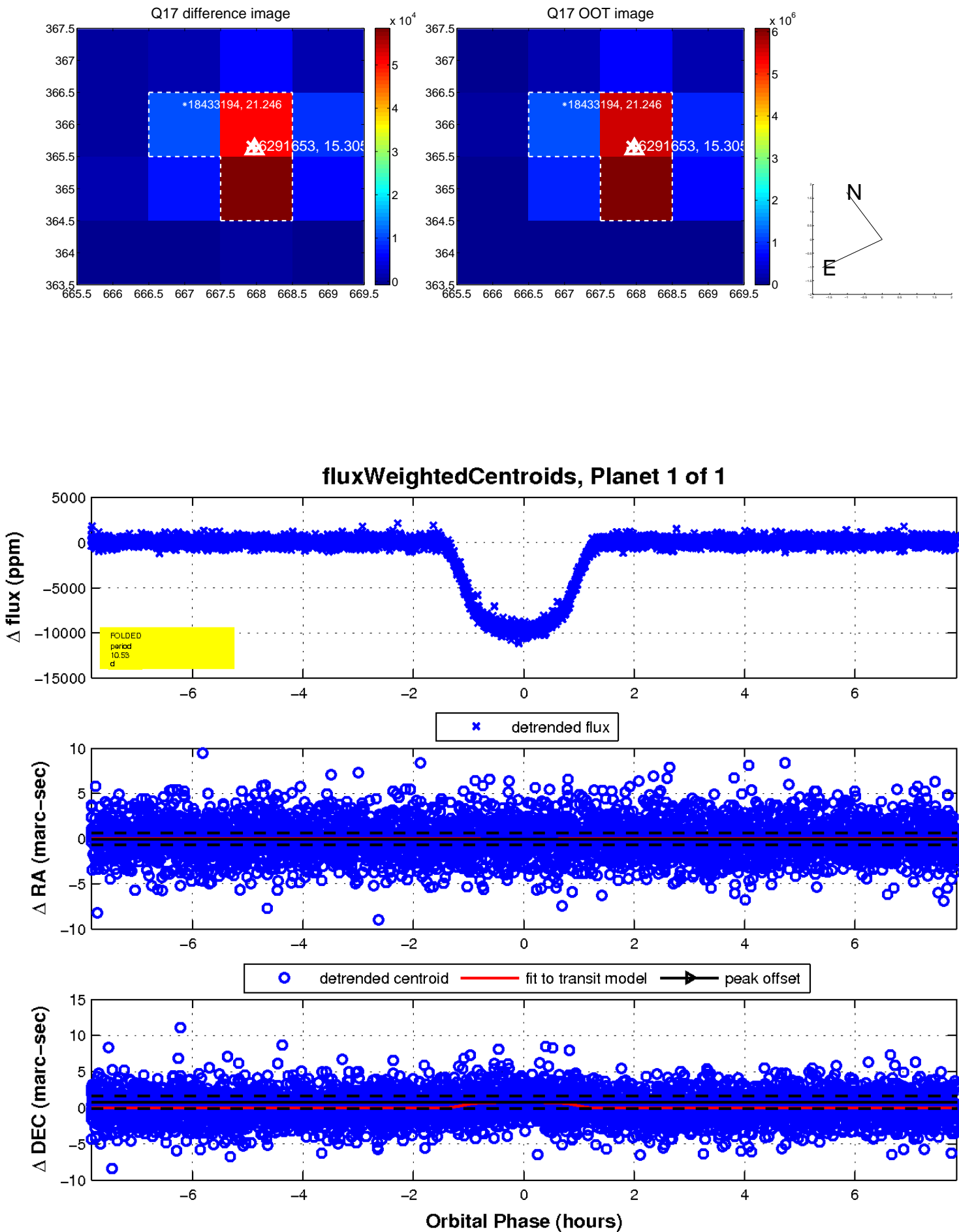
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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UKIRT Image

Declination

