

KIC 006707833

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})
006707833-01	OBS	0563.01	15.284683	145.052827	313.3	6.201	32.5	34.2	1.37	5763	2.77	124.68

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006707833-01	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.

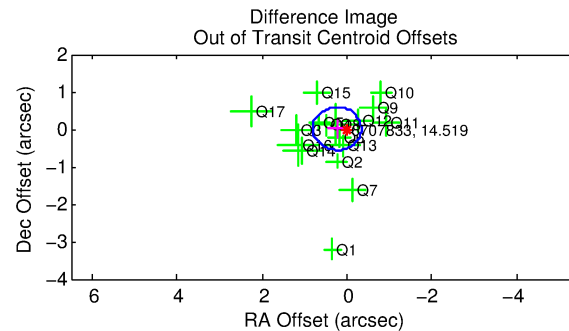
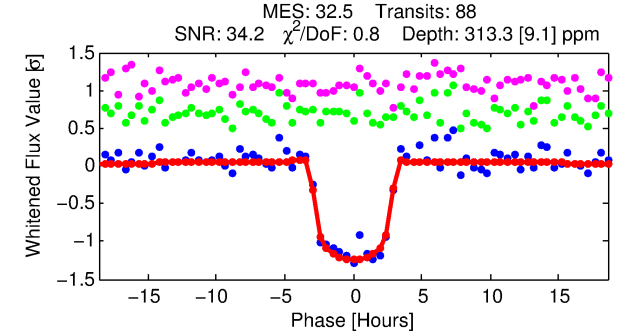
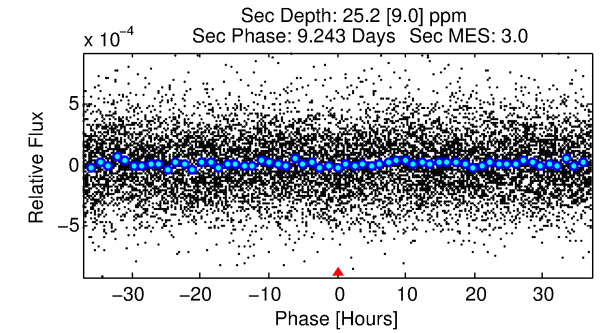
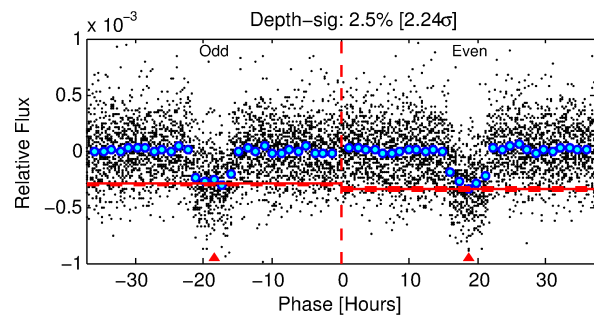
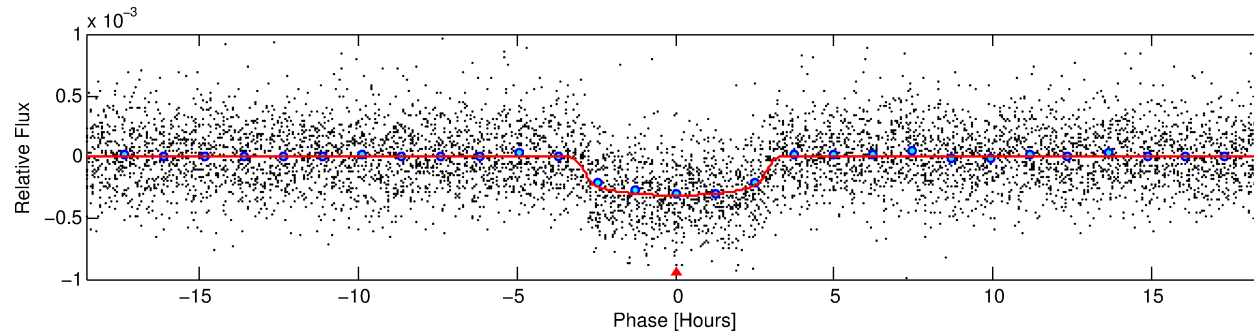
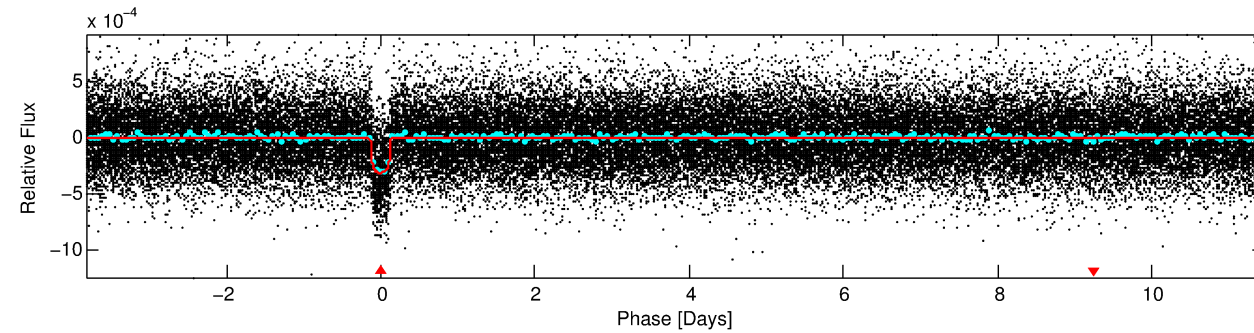
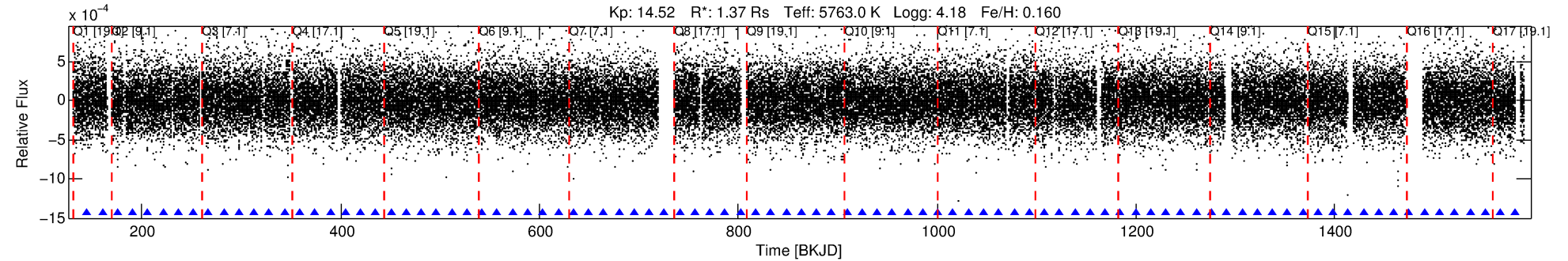
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 006707833-01

No Significant Match Found

DV One-Page Summary

KIC: 6707833 Candidate: 1 of 1 Period: 15.285 d
KOI: K00563.01 Corr: 0.976



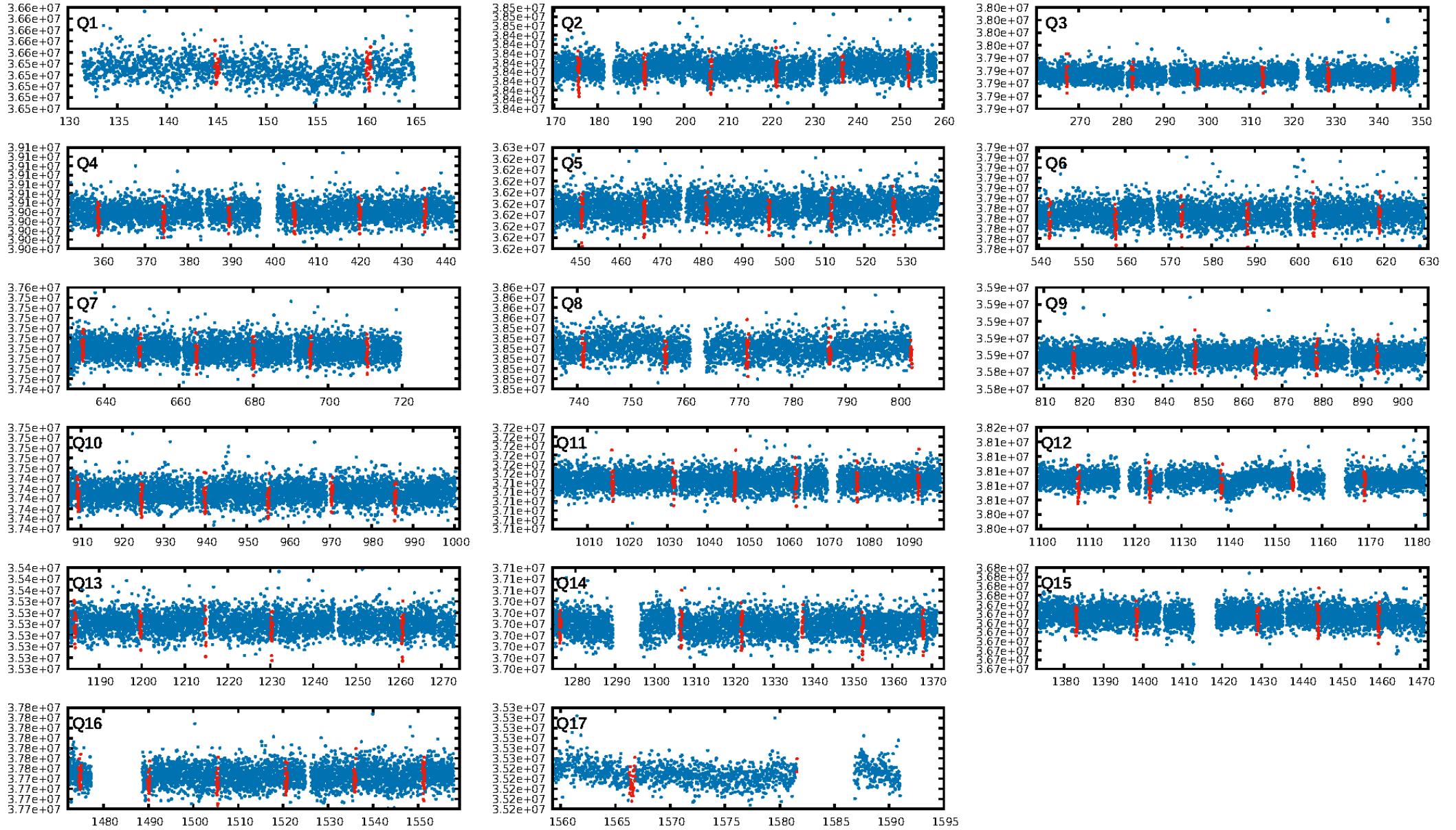
DV Fit Results:

Period = 15.28468 [0.00007] d
Epoch = 145.0528 [0.0034] BKJD
Rp/R* = 0.0185 [0.0024]
a/R* = 10.78 [6.13]
b = 0.84 [0.20]
Seff = 124.68 [35.77]
Teff = 852 [61] K
Rp = 2.77 [0.65] Re
a = 0.1223 [0.0220] AU
Ag = 27.06 [14.13] [1.84σ]
Teffp = 3005 [334] K [6.34σ]

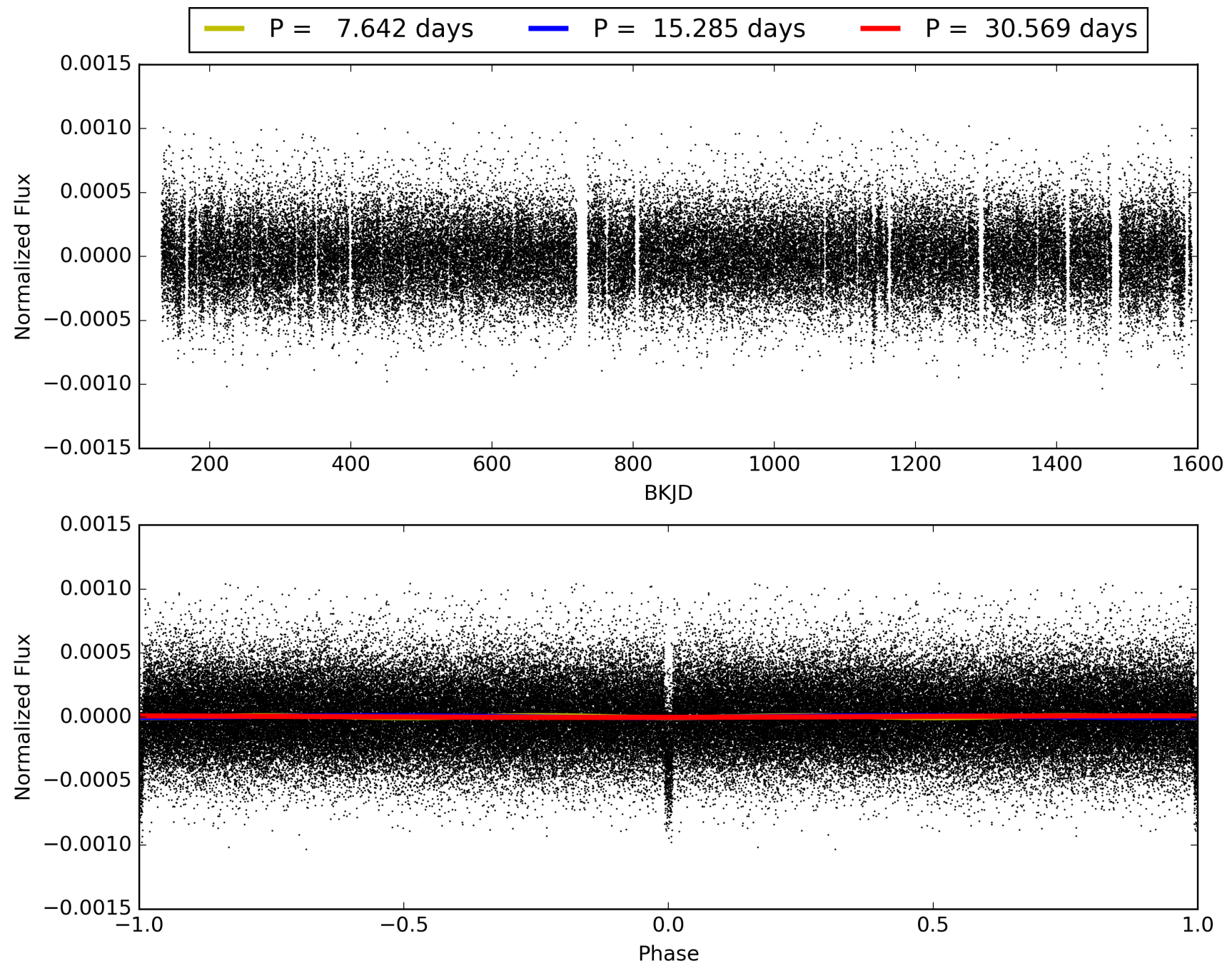
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 92.8%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 5.58e-229
RollingBand-fgt: 1.00 [85/85]
GhostDiagnostic-chr: 2.935
Centroid-sig: 0.8%
Centroid-so: 0.834 arcsec [2.03σ]
OotOffset-rm: 0.228 arcsec [1.20σ]
KicOffset-rm: 0.282 arcsec [1.18σ]
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 006707833-01, PDC Light Curves

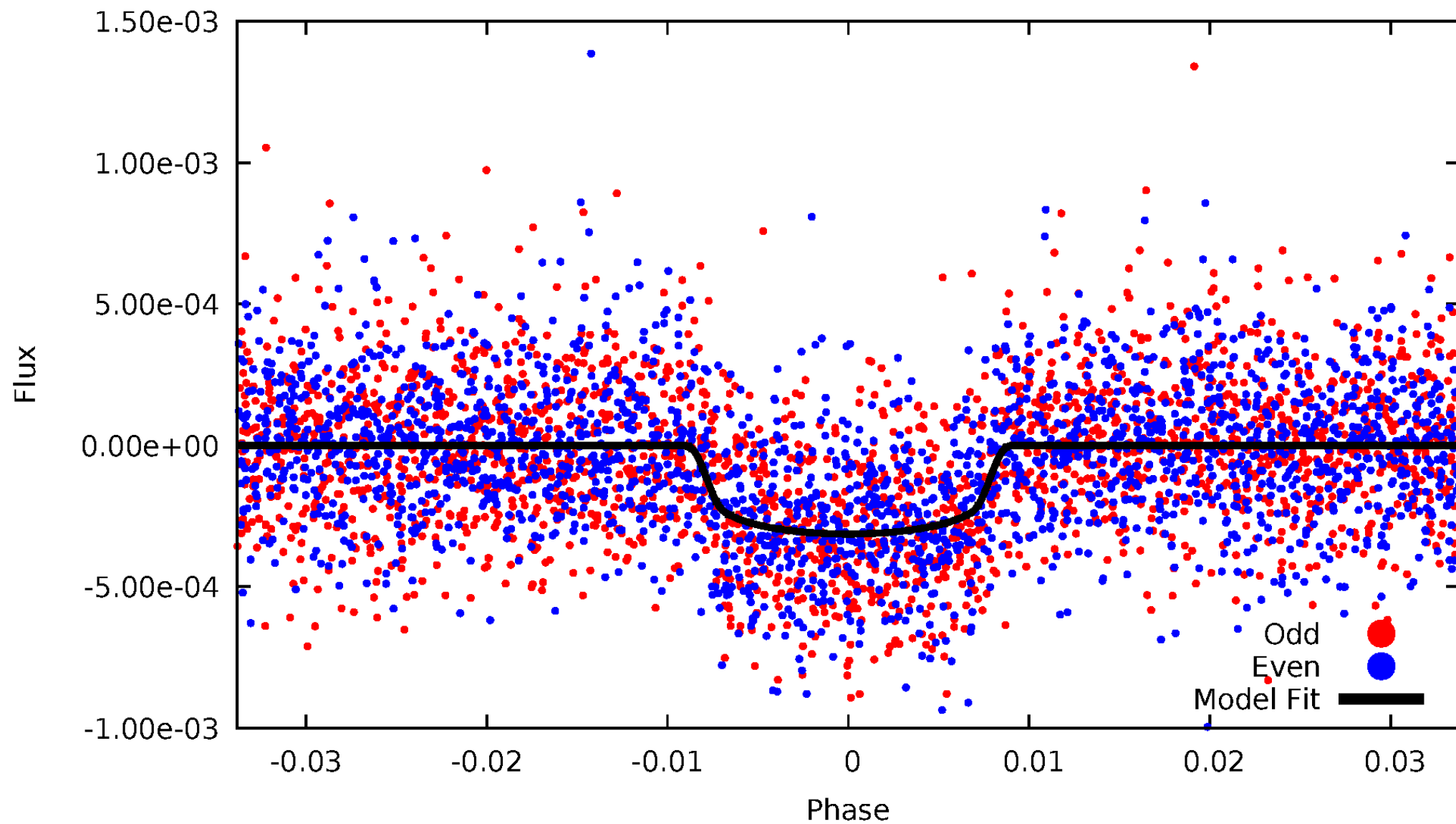


TCE 006707833-01



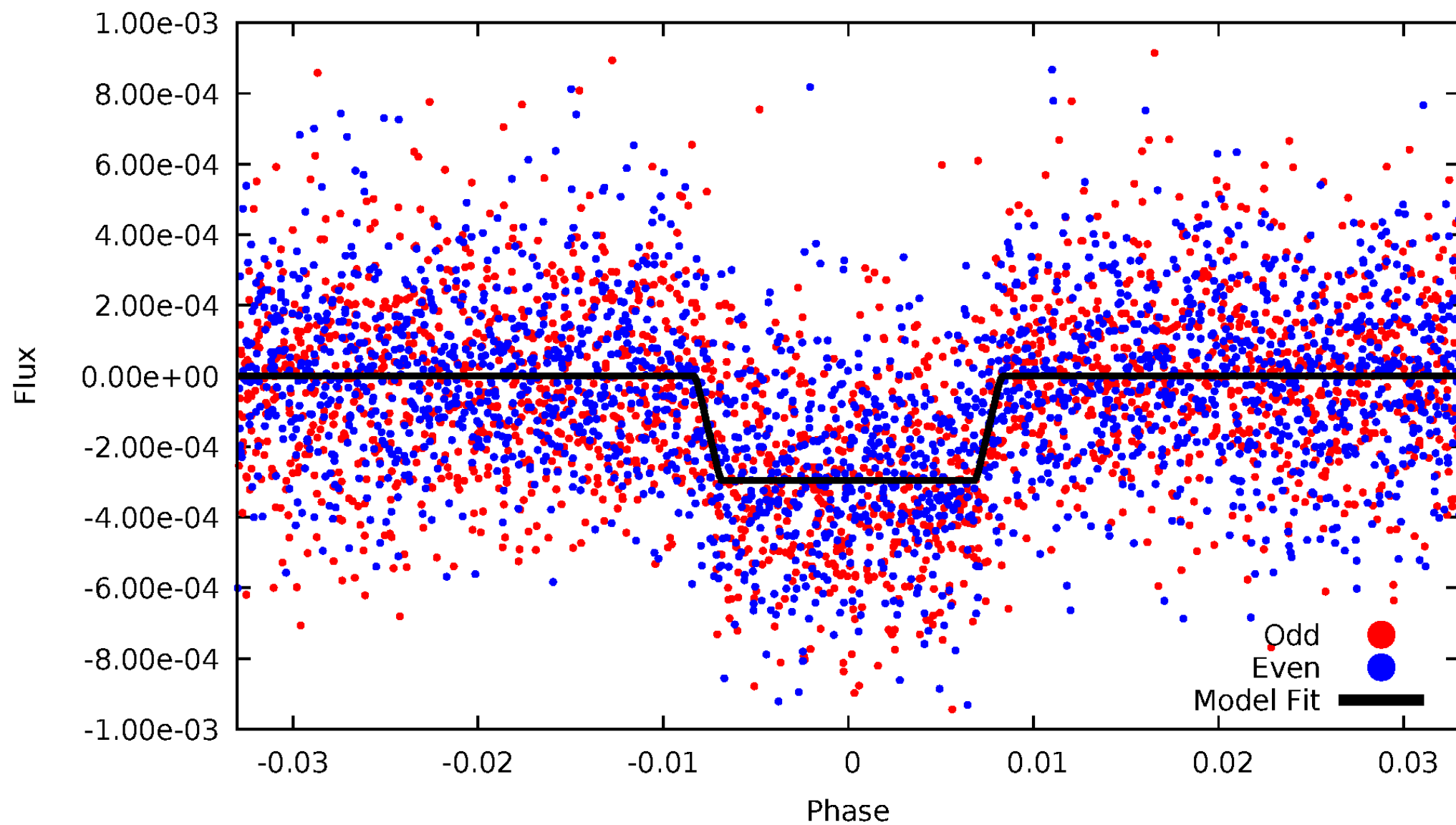
DV Odd/Even

TCE 006707833-01

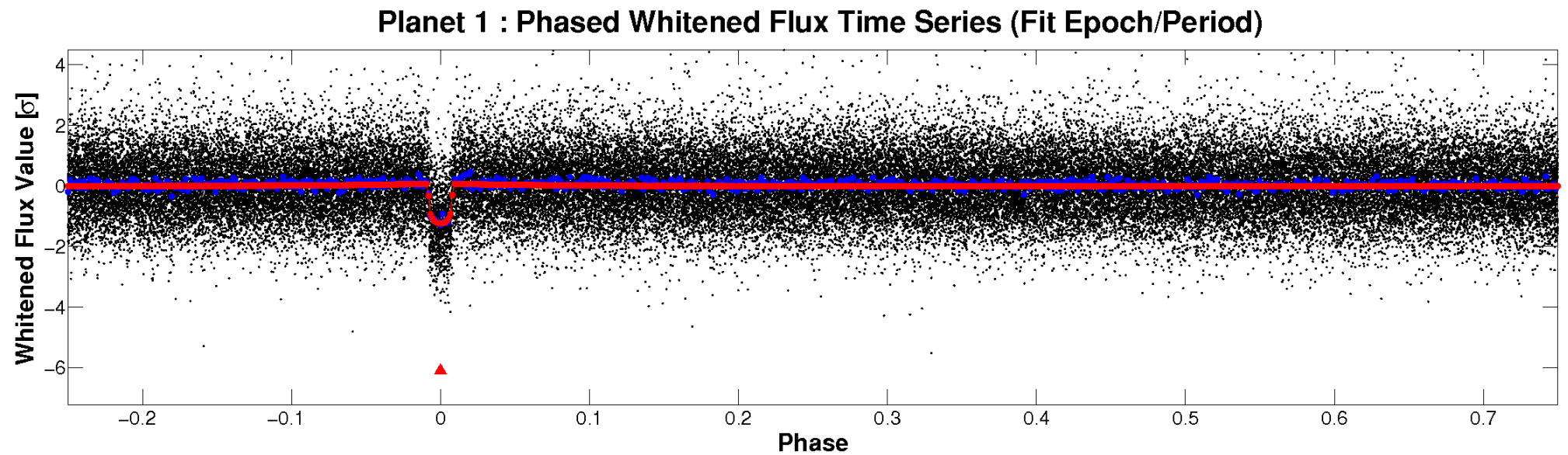
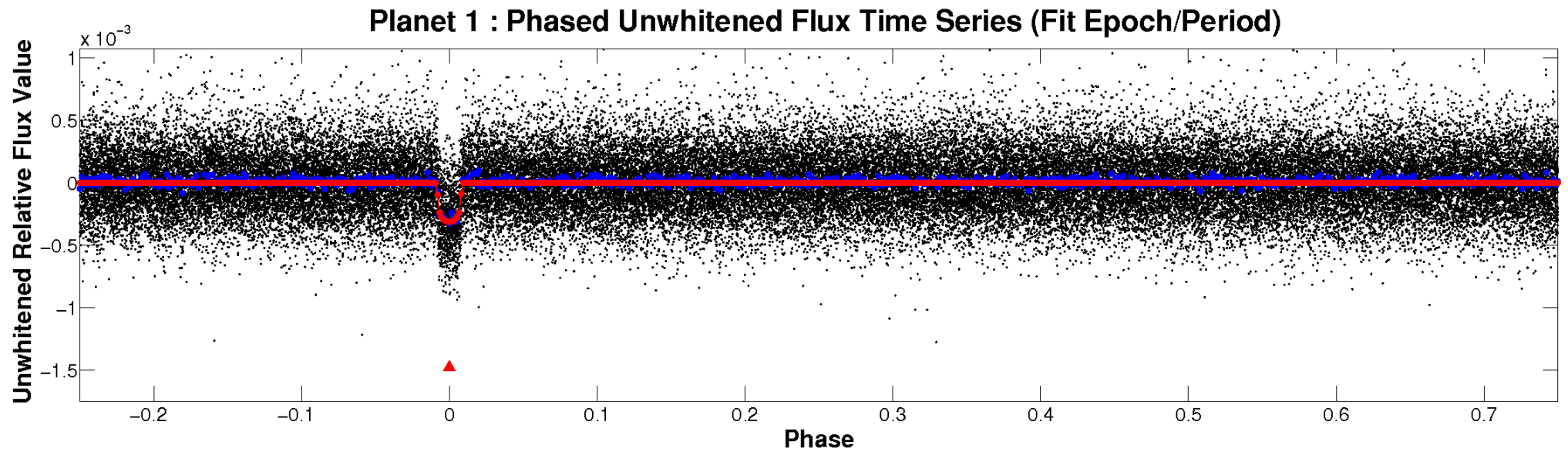


ALT Odd/Even

TCE 006707833-01

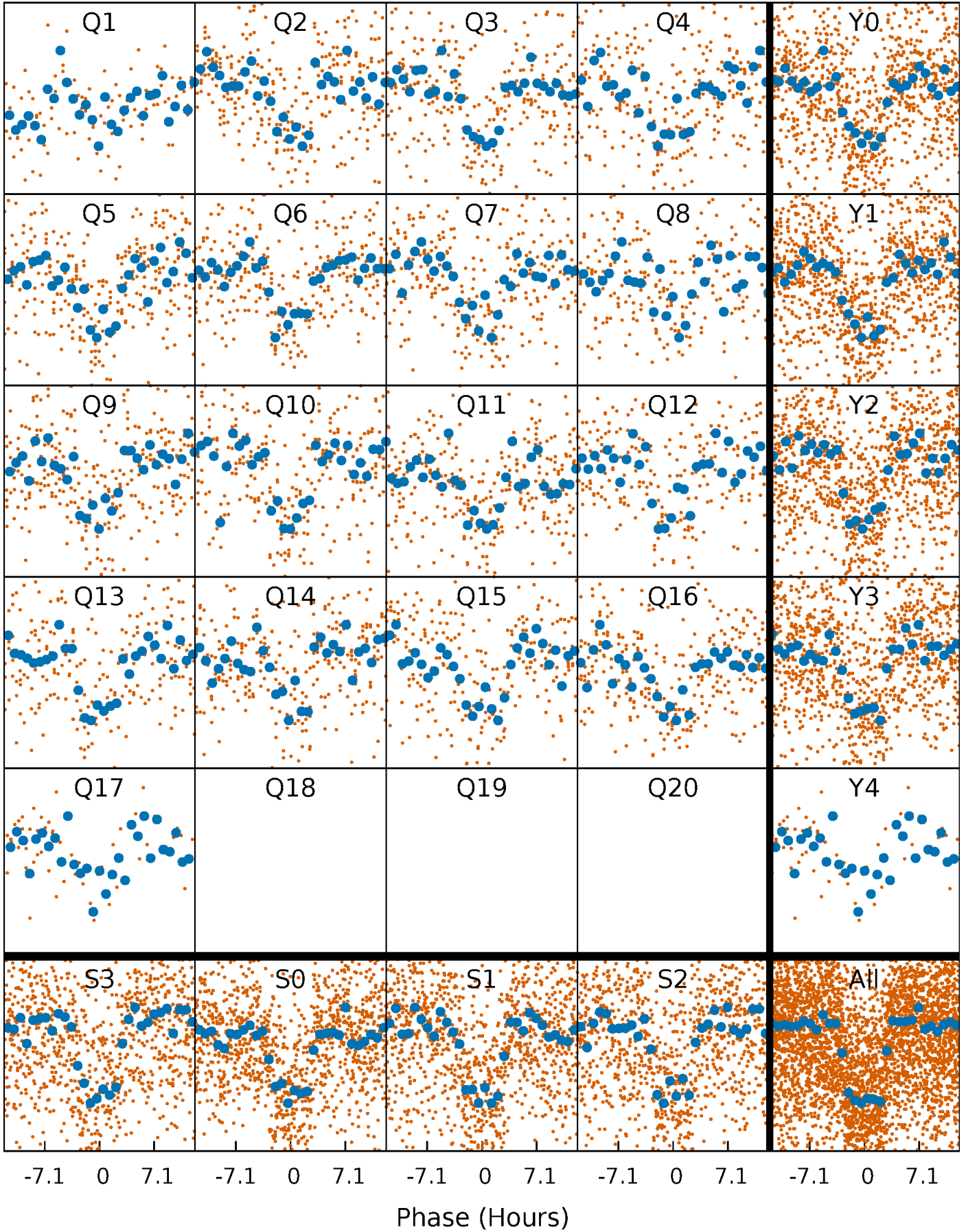


Non-Whitened Vs. Whitened Light Curve



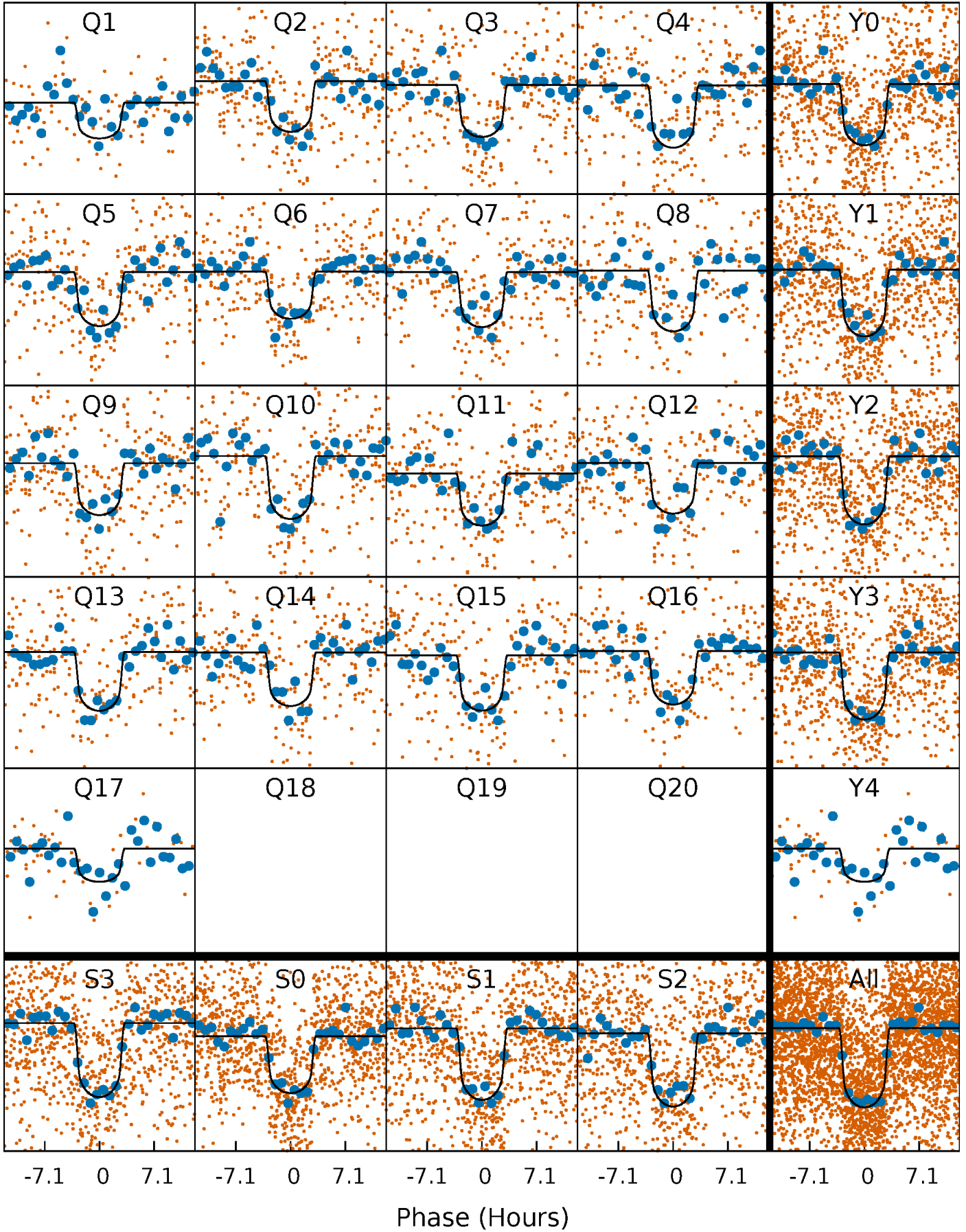
PDC Quarter-Phased Transit Curves

TCE 006707833-01 P= 15.284683 Days $T_0=145.052828$ (BKJD)



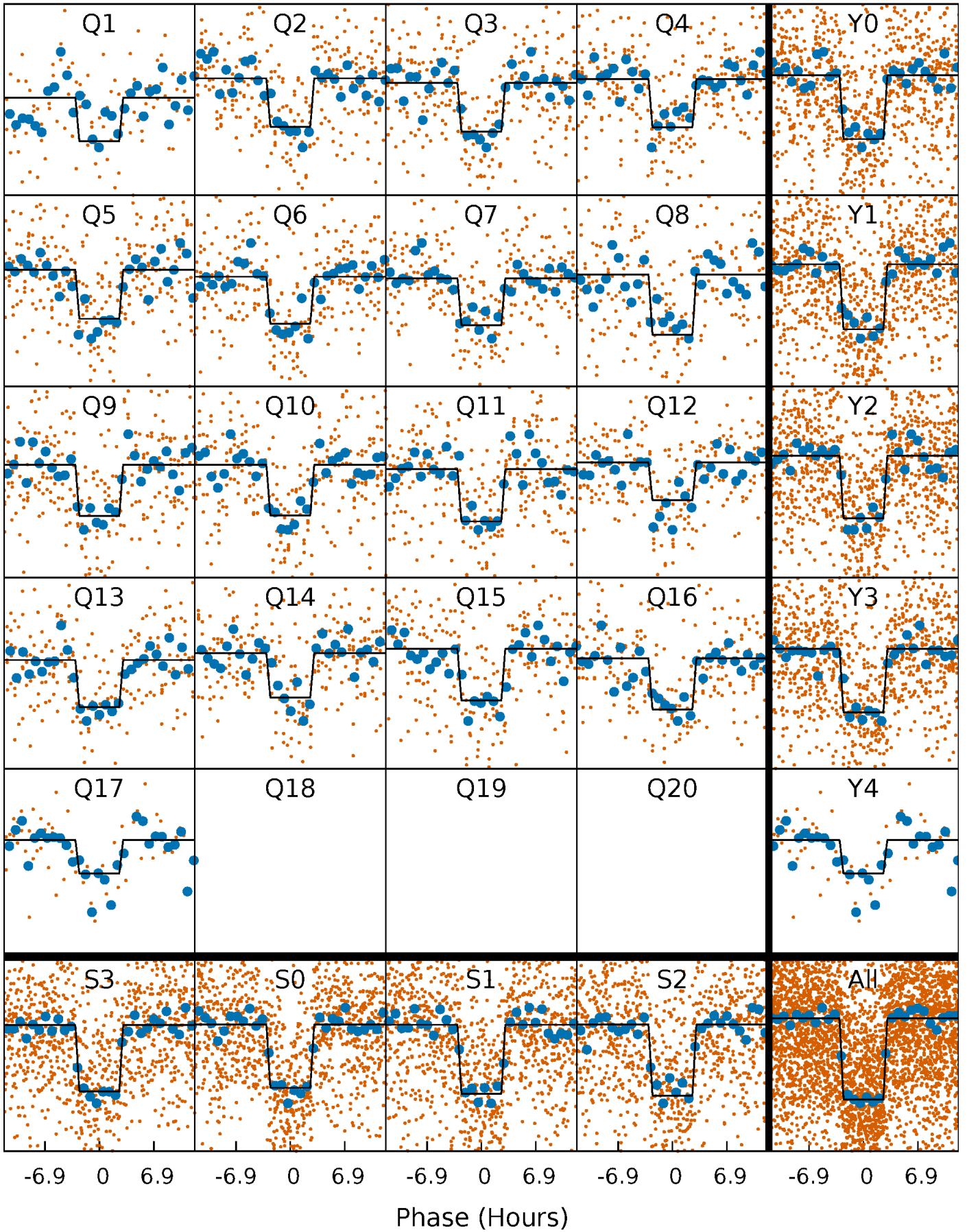
DV Quarter-Phased Transit Curves

TCE 006707833-01 P= 15.284683 Days $T_0=145.052828$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

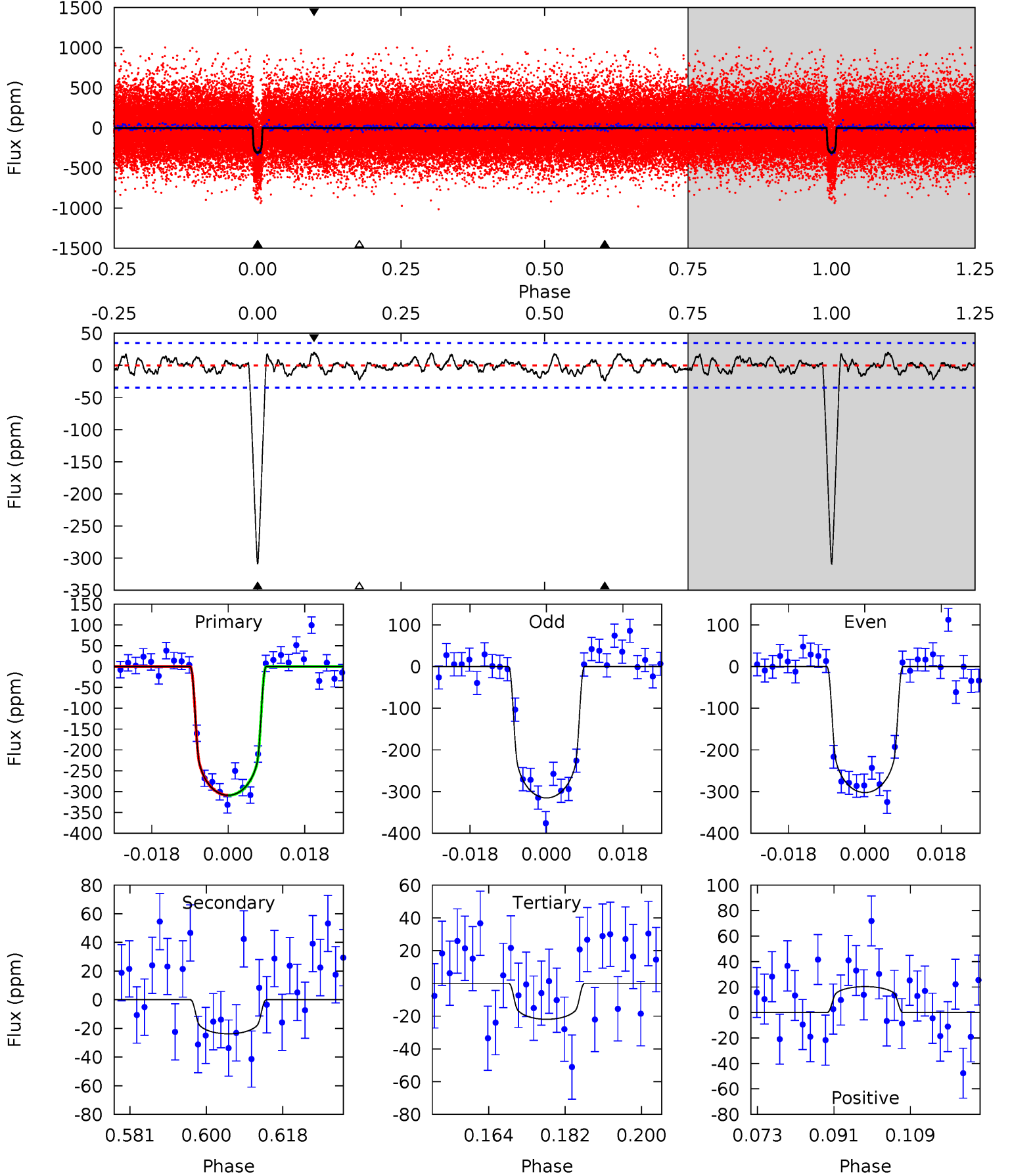
TCE 006707833-01 P= 15.284557 Days $T_0=145.059266$ (BKJD)



DV Model-Shift Uniqueness Test

006707833-01, P = 15.284683 Days, E = 129.768145 Days

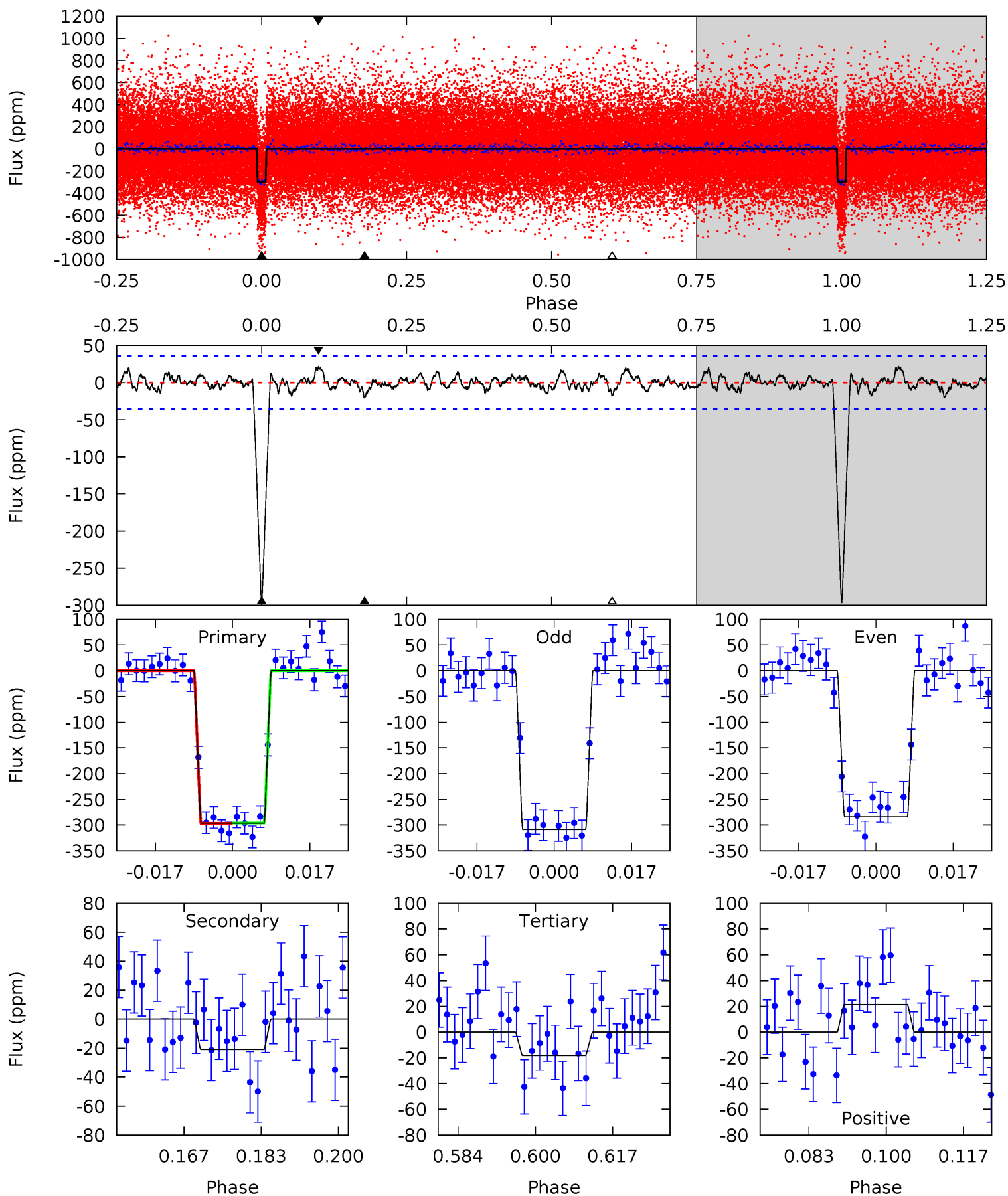
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.7	3.36	3.11	2.88	4.91	2.36	1.13	40.6	40.8	0.26	0.49	0.91	1.00	0.06	0.03



Alt Model-Shift Uniqueness Test

006707833-01, P = 15.284557 Days, E = 129.774709 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.7	2.86	2.49	2.93	4.93	2.39	0.98	38.2	37.7	0.38	-0.07	1.71	1.01	0.07	0.07



Stellar Parameters For KIC 006707833

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5763^{+86}_{-78}	$4.181^{+0.162}_{-0.108}$	$0.160^{+0.150}_{-0.150}$	$1.374^{+0.219}_{-0.268}$	$1.045^{+0.090}_{-0.073}$	$0.568^{+0.468}_{-0.189}$
	+1%/-1%	+4%/-3%	+94%/-94%	+16%/-20%	+9%/-7%	+83%/-33%
Source	SPE90	SPE90	SPE90	DSEP		

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

Secondary Eclipse Parameters for KIC 006707833-01 / KOI 0563.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-24 ± 7	$2.71^{+0.48}_{-0.44}$	1184^{+57}_{-59}	3451^{+217}_{-217}	26^{+15}_{-10}
Alt.	-21 ± 7	$2.55^{+0.42}_{-0.46}$	1186^{+57}_{-62}	3464^{+244}_{-269}	27^{+17}_{-12}

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

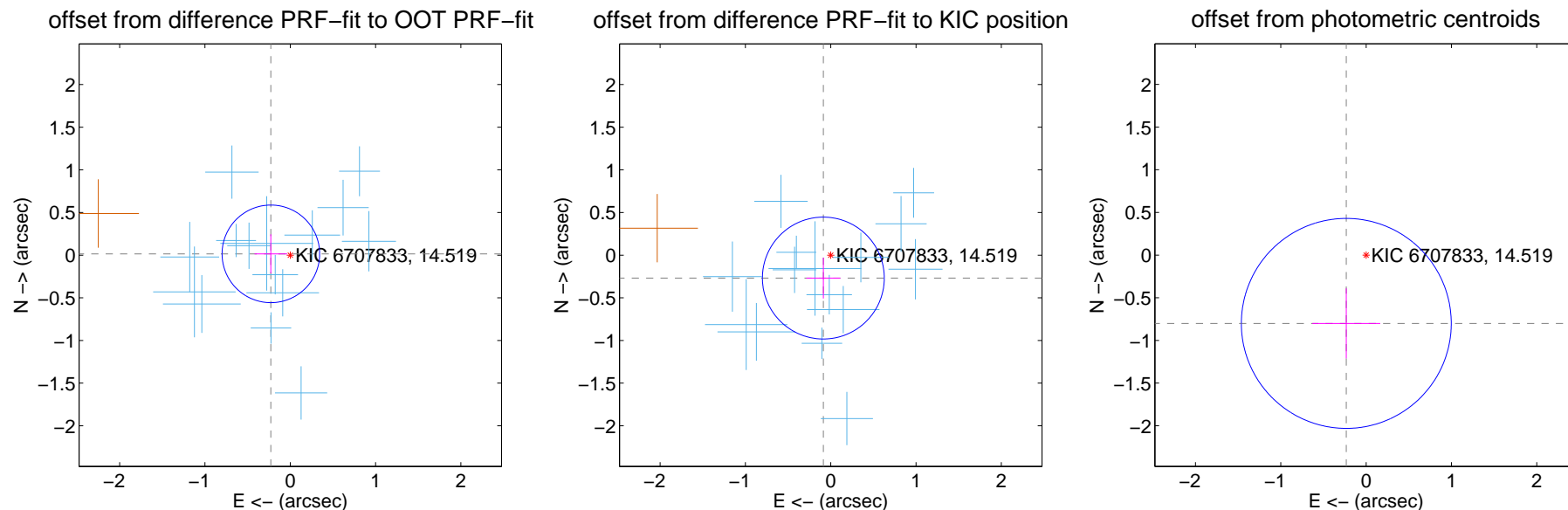
DV Centroid Data

Supplemental centroid analysis for 006707833-01. Kepler magnitude: 14.52. Transit SNR 34.24

There are 16 quarters with good PRF difference image offsets

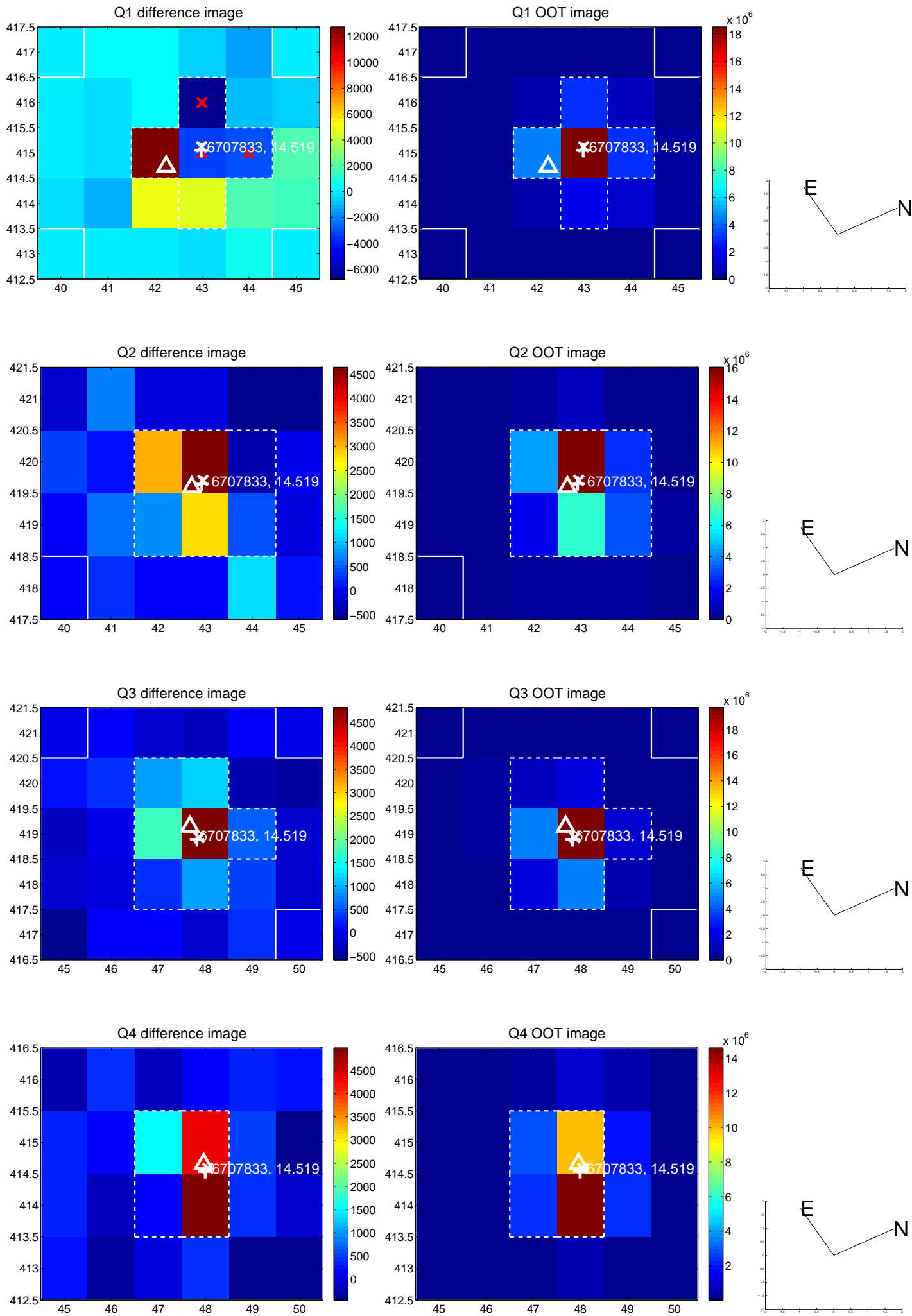
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.228 ± 0.191	1.20	0.227 ± 0.192	0.015 ± 0.230
PRF-fit source offset from KIC position	0.282 ± 0.238	1.18	0.086 ± 0.199	-0.268 ± 0.239
photometric centroid source offset	0.83 ± 0.41	2.03	0.23 ± 0.40	-0.80 ± 0.41

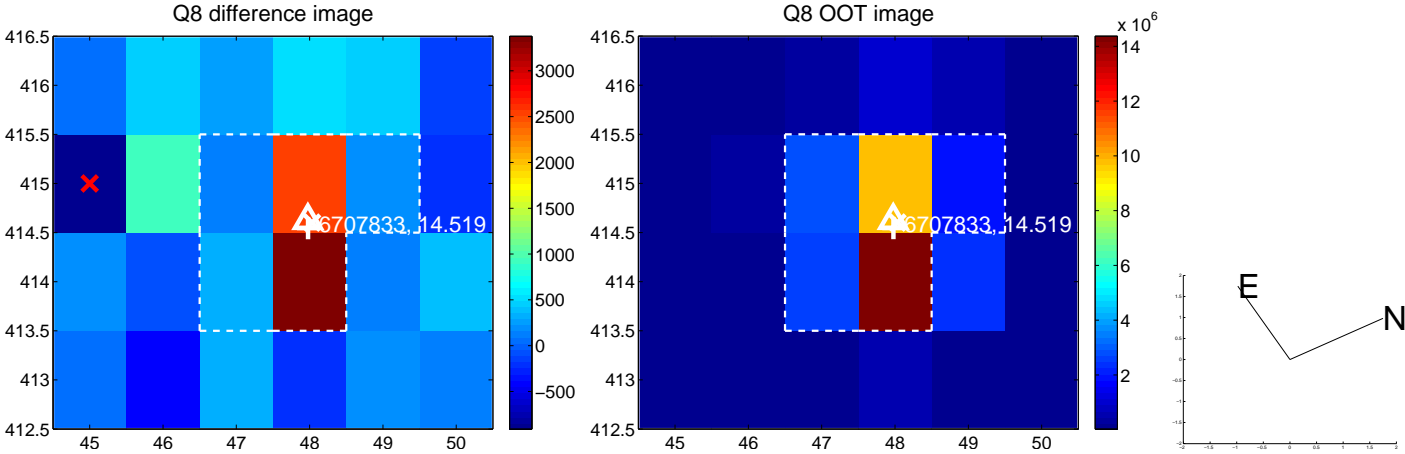
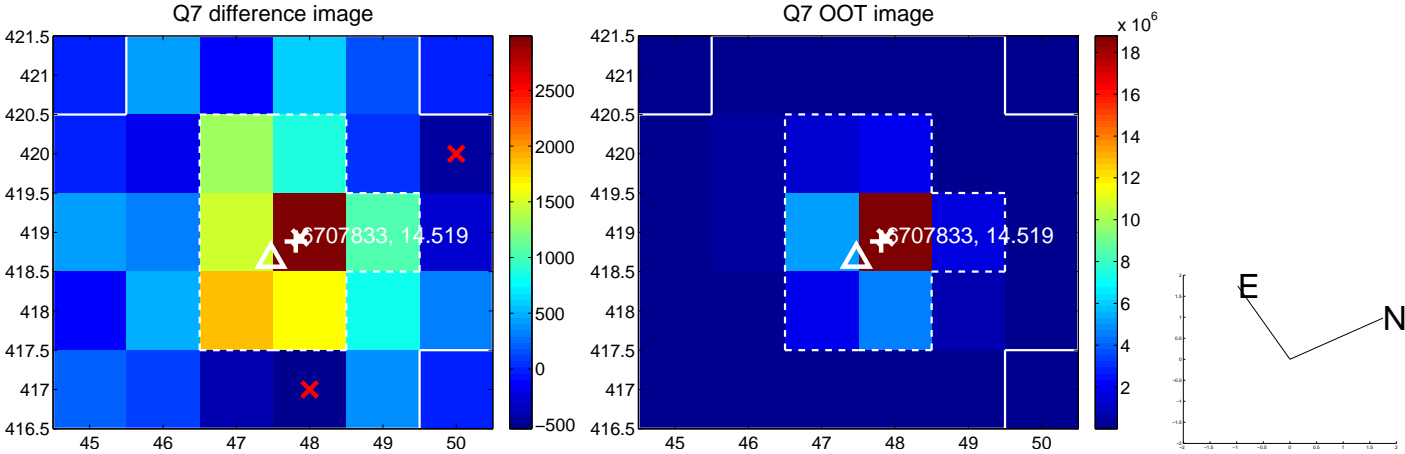
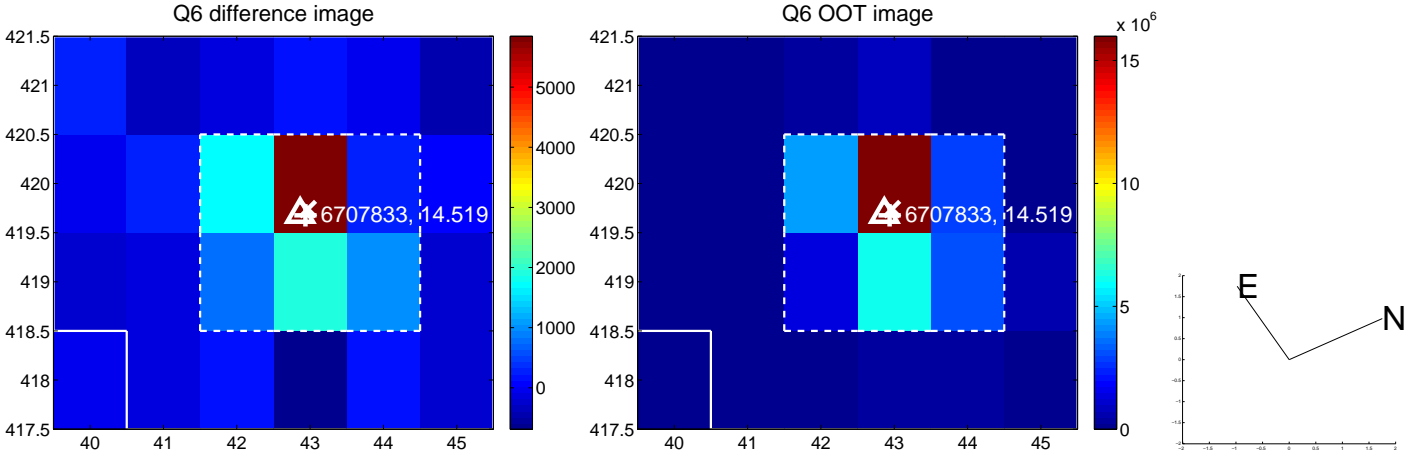
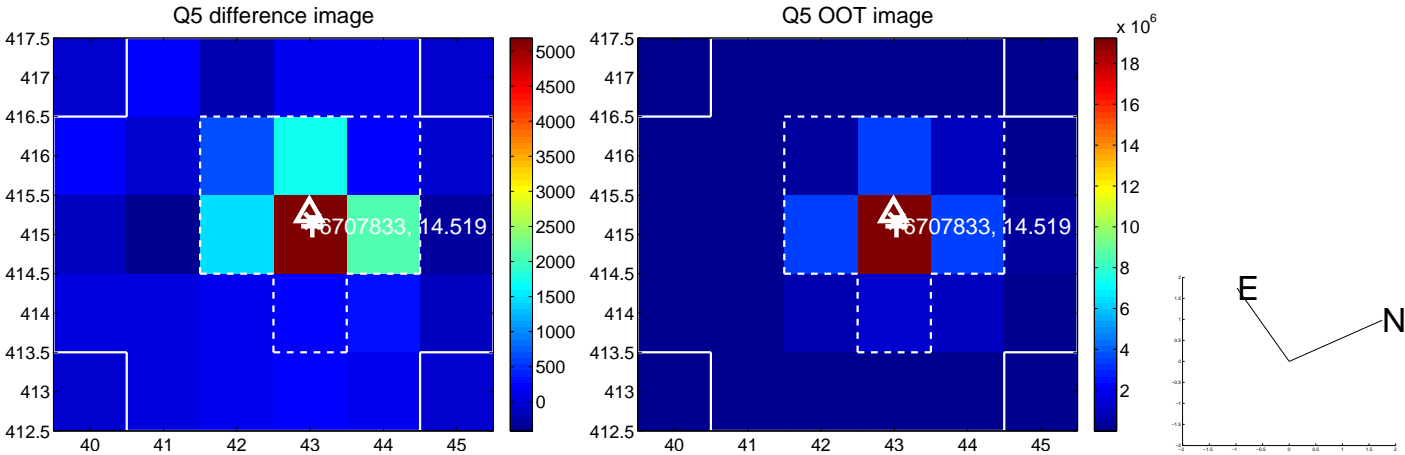


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

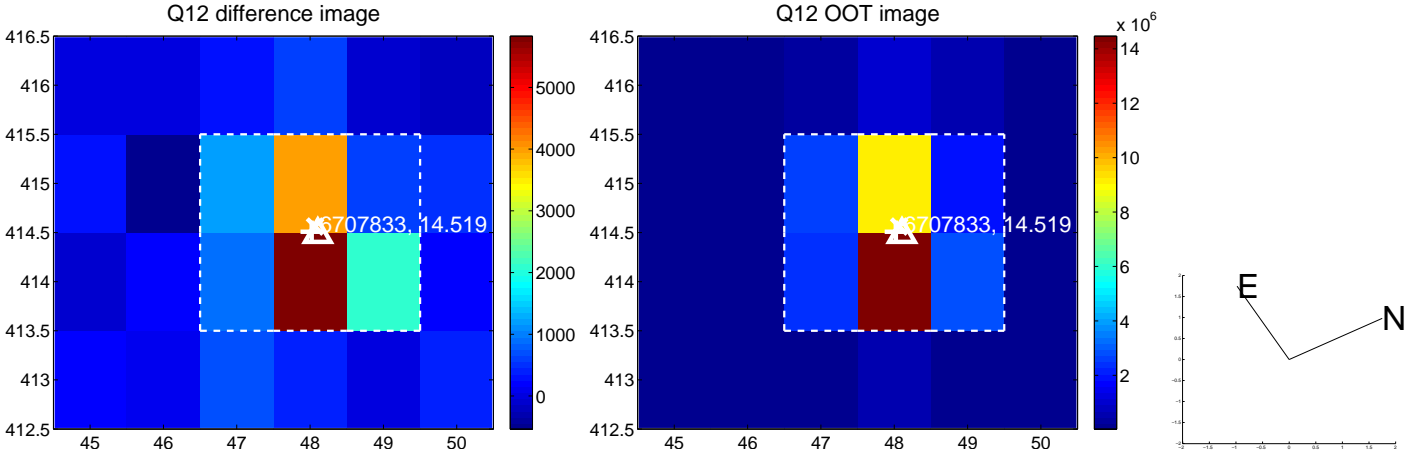
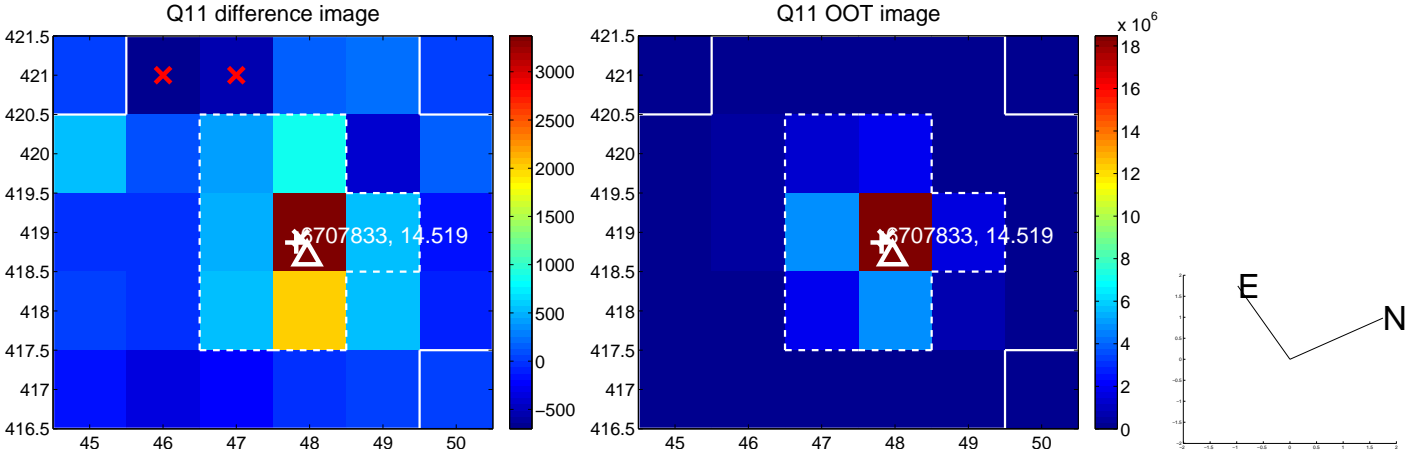
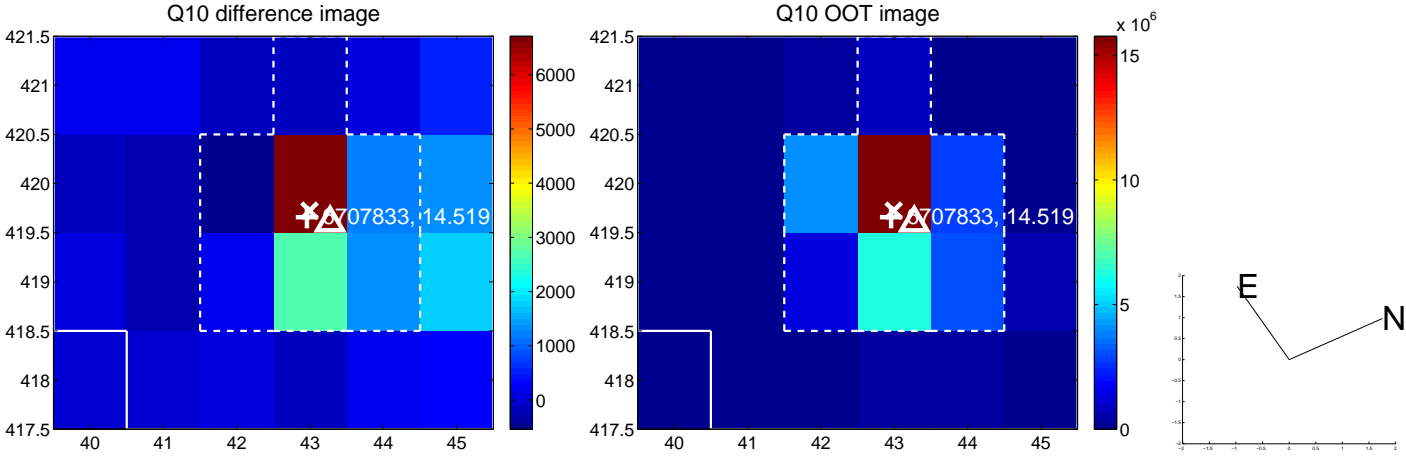
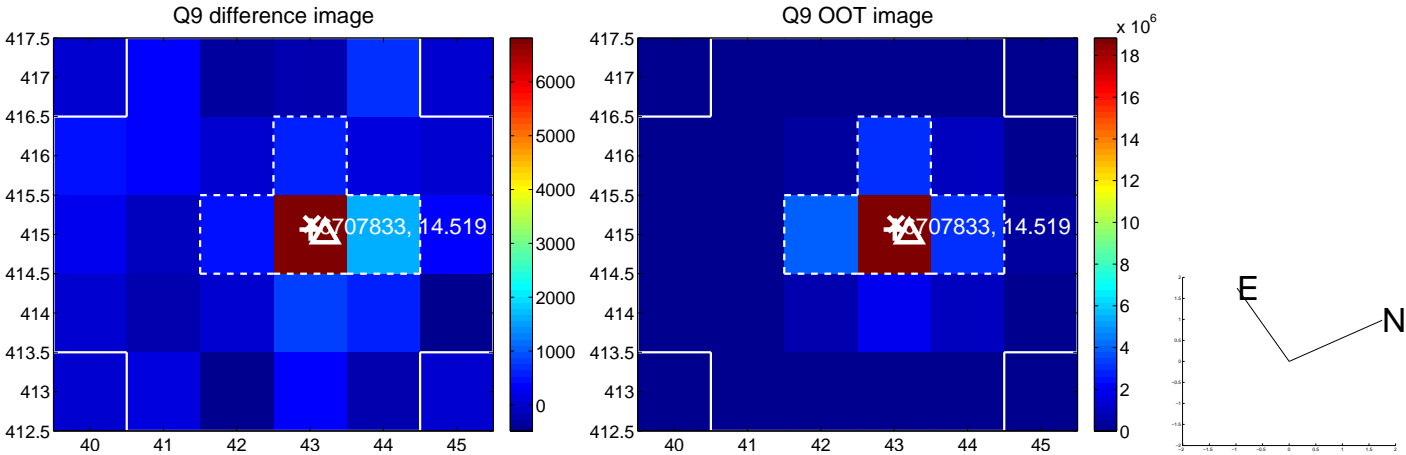
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



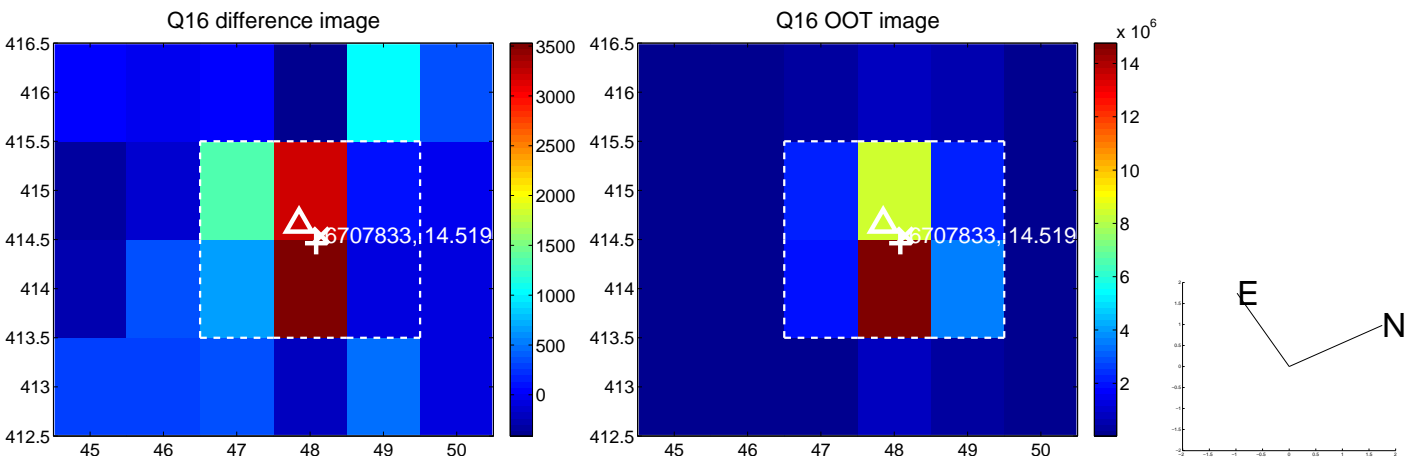
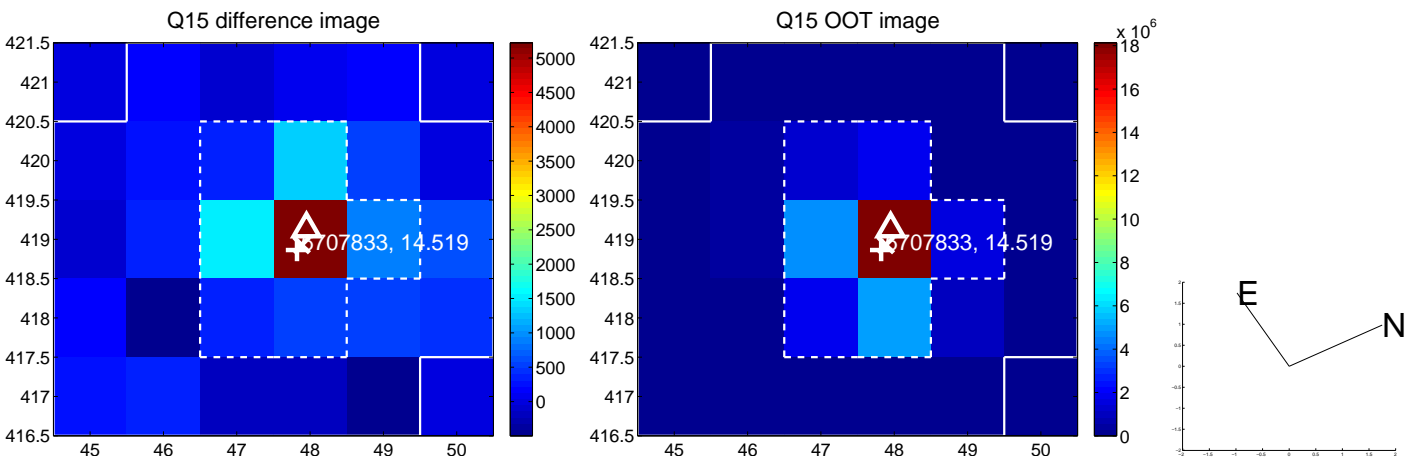
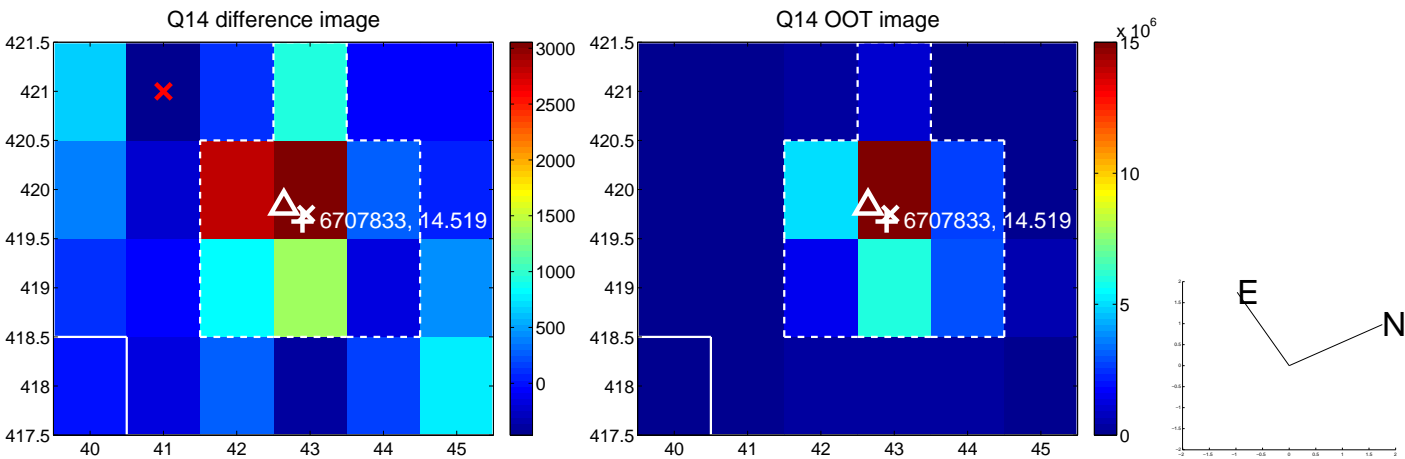
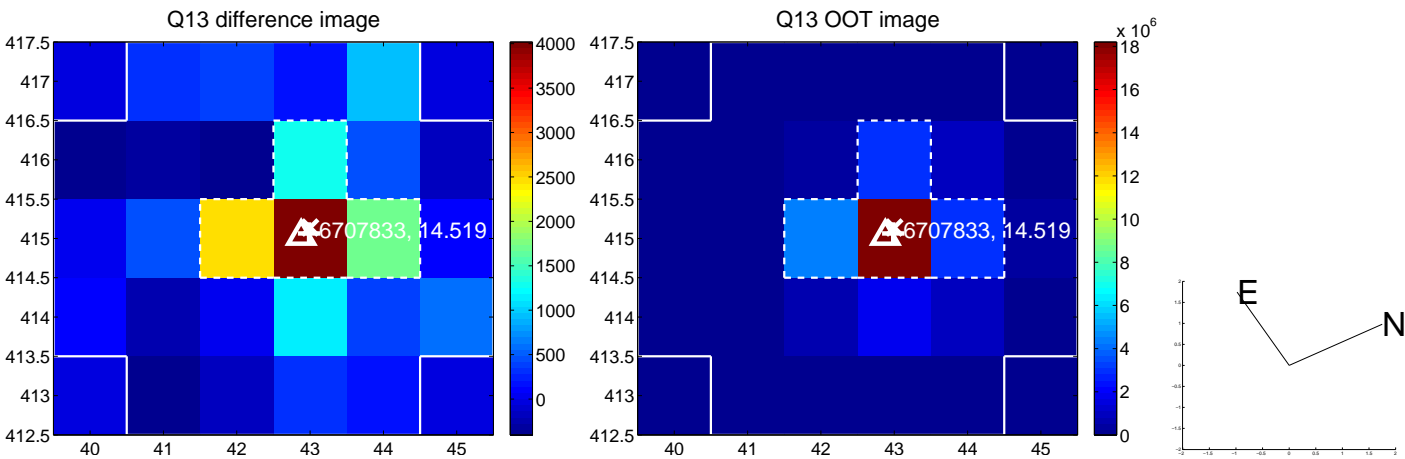
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



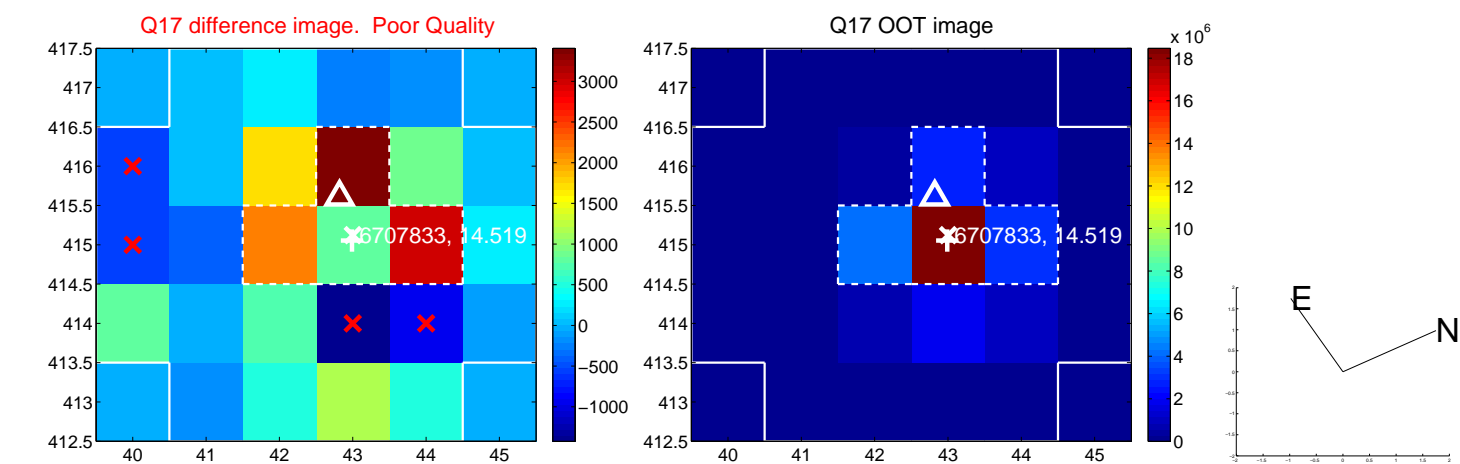
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



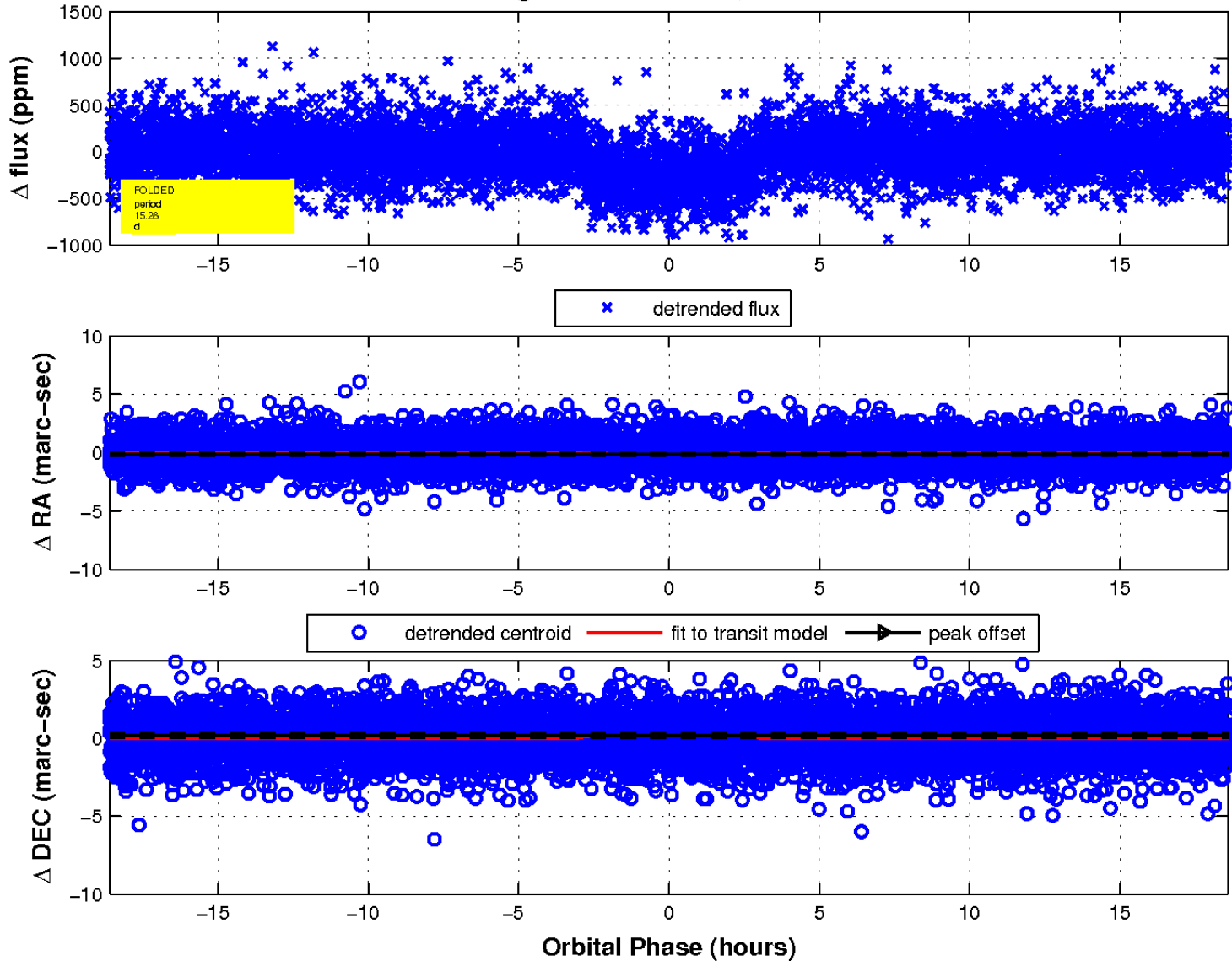
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

