

KIC 011444514

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})
011444514-01	OBS	4371.01	66.369749	174.080029	393.2	11.457	9.9	11.6	0.98	6143	2.08	11.61

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011444514-01	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.

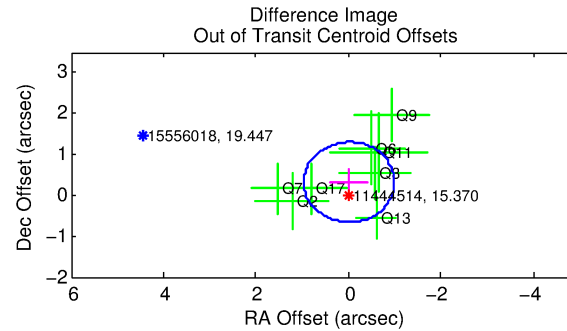
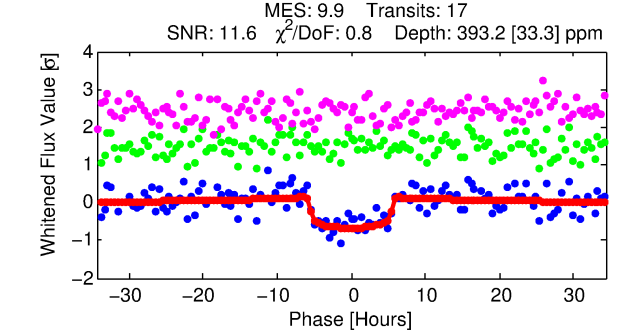
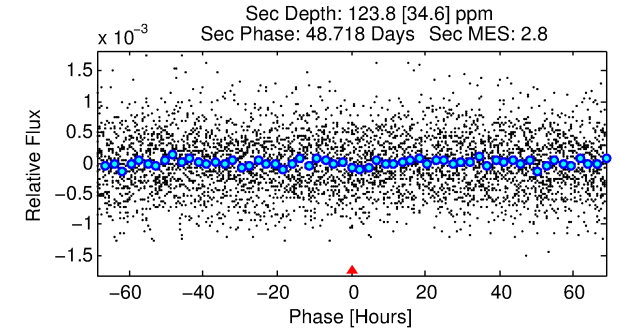
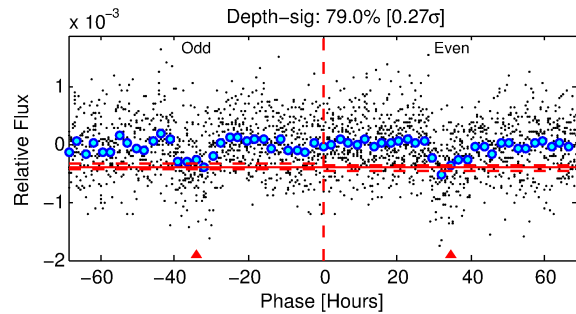
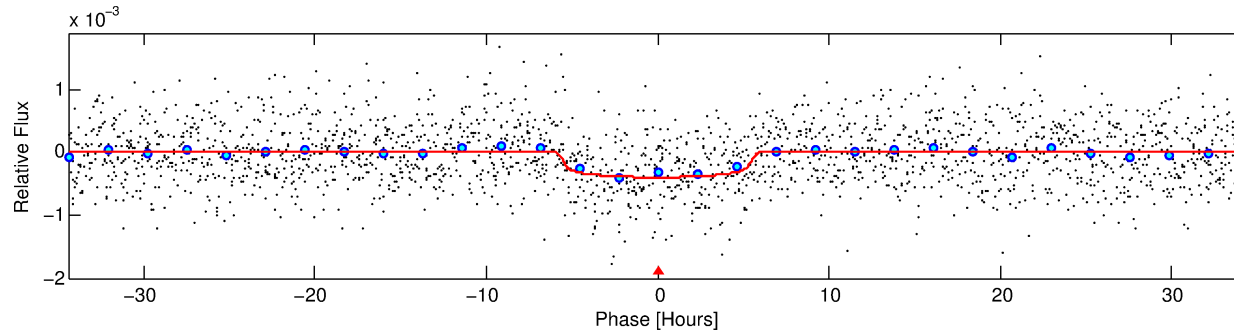
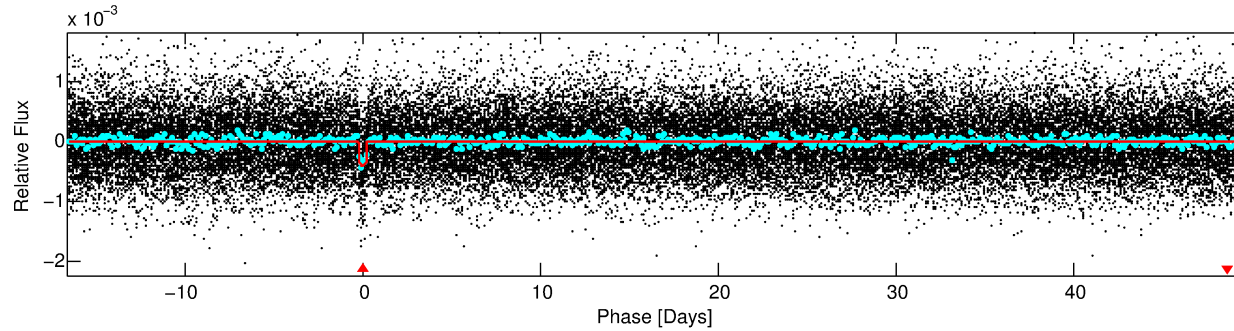
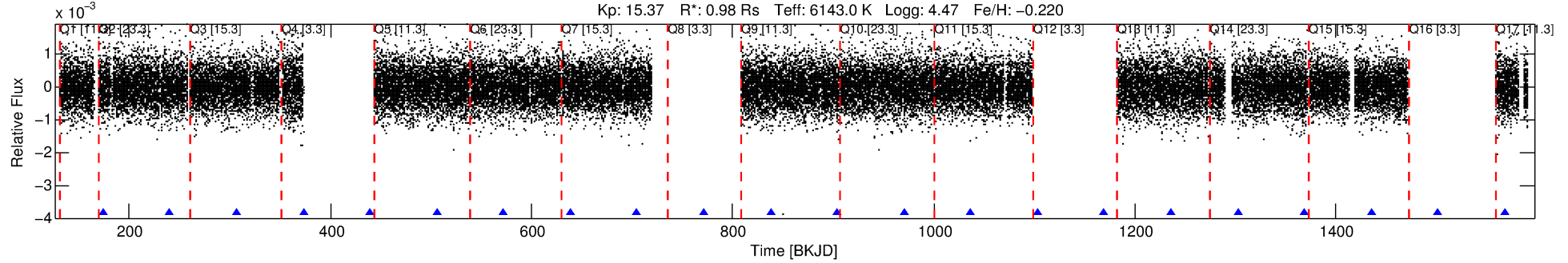
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011444514-01

No Significant Match Found

DV One-Page Summary

KIC: 11444514 Candidate: 1 of 1 Period: 66.370 d
KOI: K04371.01 Corr: 0.939



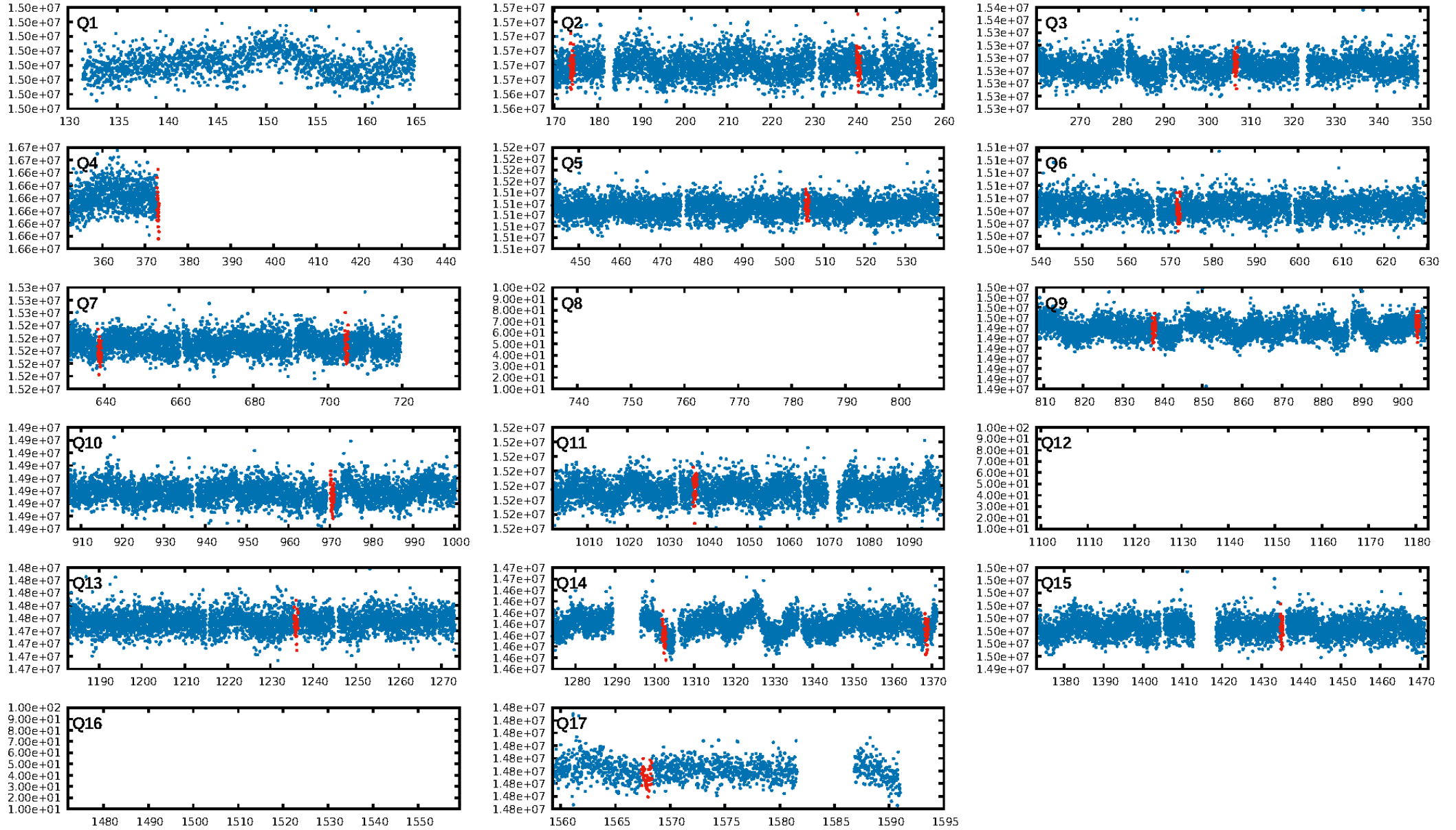
DV Fit Results:

Period = 66.36975 [0.00113] d
Epoch = 174.0800 [0.0134] BKJD
Rp/R* = 0.0195 [0.0059]
a/R* = 32.32 [48.78]
b = 0.71 [1.06]
Seff = 11.61 [4.95]
Teq = 471 [50] K
Rp = 2.08 [0.92] Re
a = 0.3236 [0.0891] AU
Ag = 1655.68 [1293.52] [1.28 σ]
Teffp = 4642 [789] K [5.27 σ]

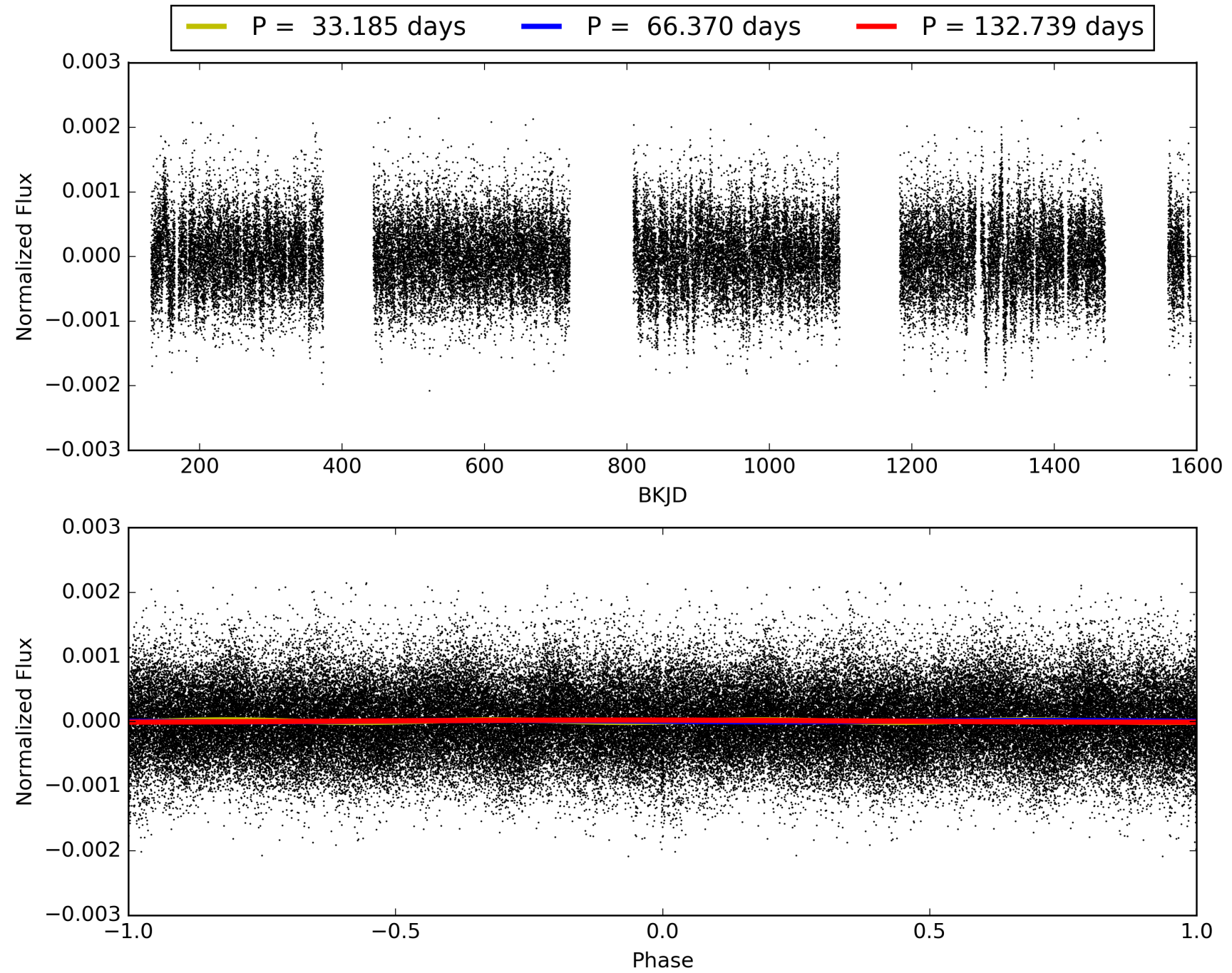
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 93.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 3.39e-21
RollingBand-fgt: 1.00 [15/15]
GhostDiagnostic-chr: 13.09
Centroid-sig: 45.4%
Centroid-so: 1.185 arcsec [0.94 σ]
OotOffset-rm: 0.322 arcsec [0.99 σ]
KicOffset-rm: 0.387 arcsec [1.19 σ]
OotOffset-st: 2/3/0/3 [8]
KicOffset-st: 2/3/0/3 [8]
DiffImageQuality-fgm: 1.00 [8/8]
DiffImageOverlap-fno: 1.00 [9/9]

TCE 011444514-01, PDC Light Curves

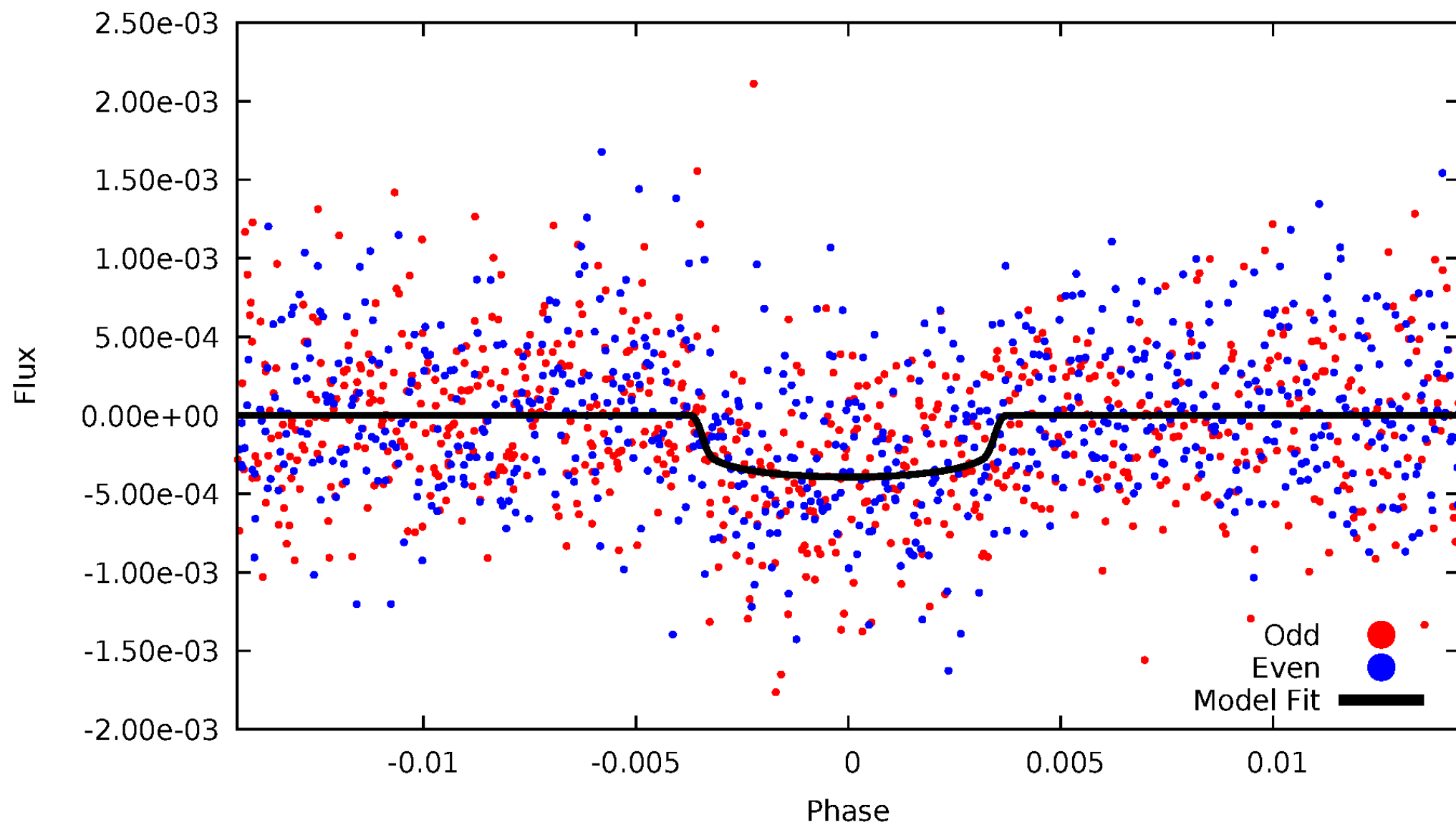


TCE 011444514-01



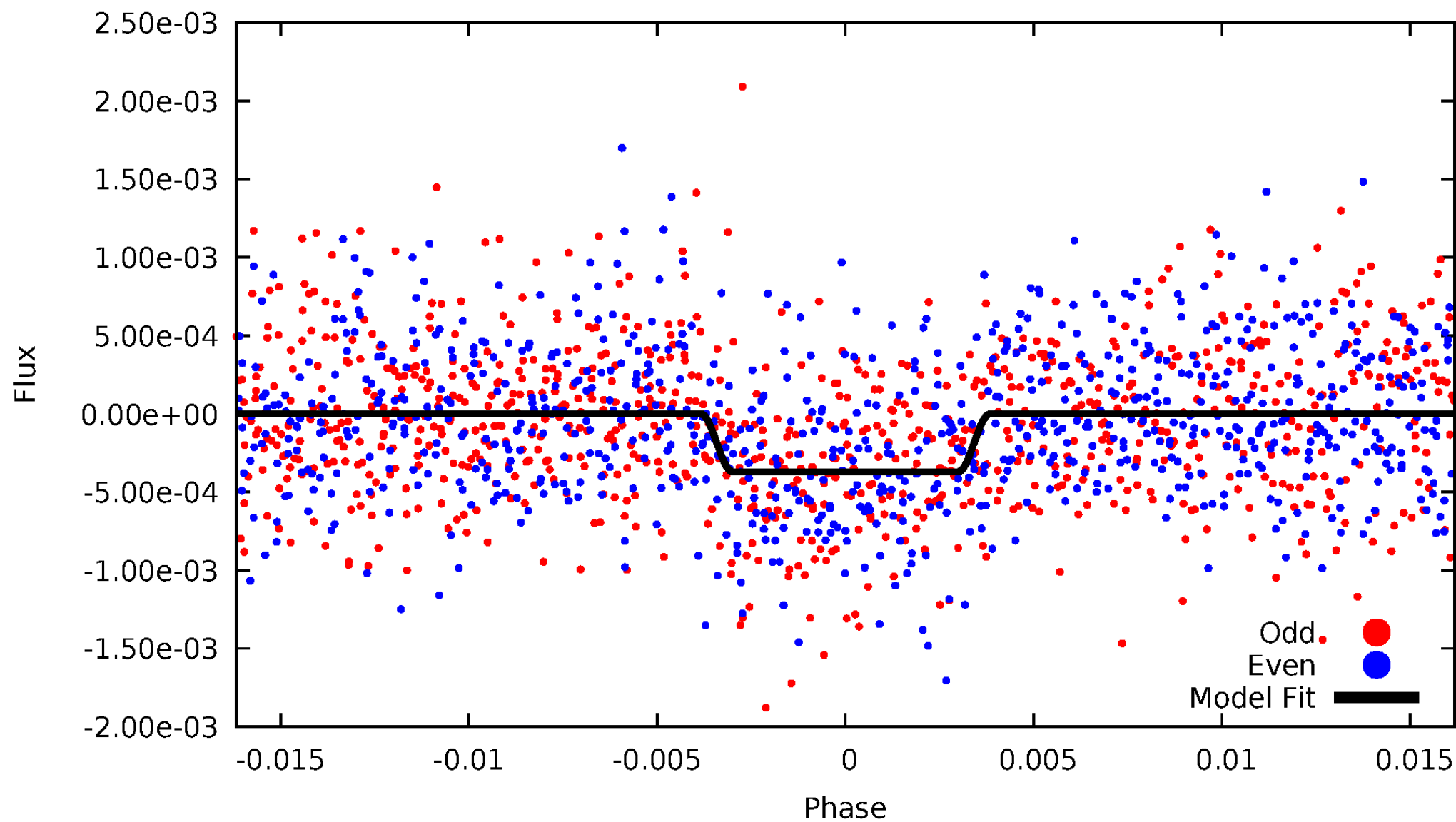
DV Odd/Even

TCE 011444514-01

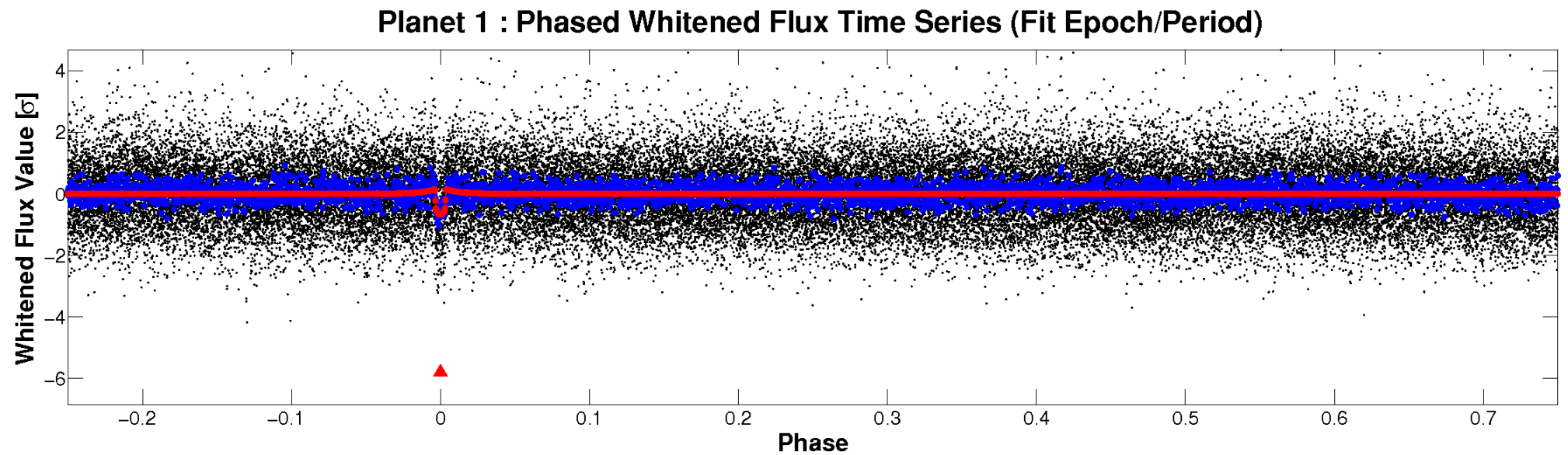
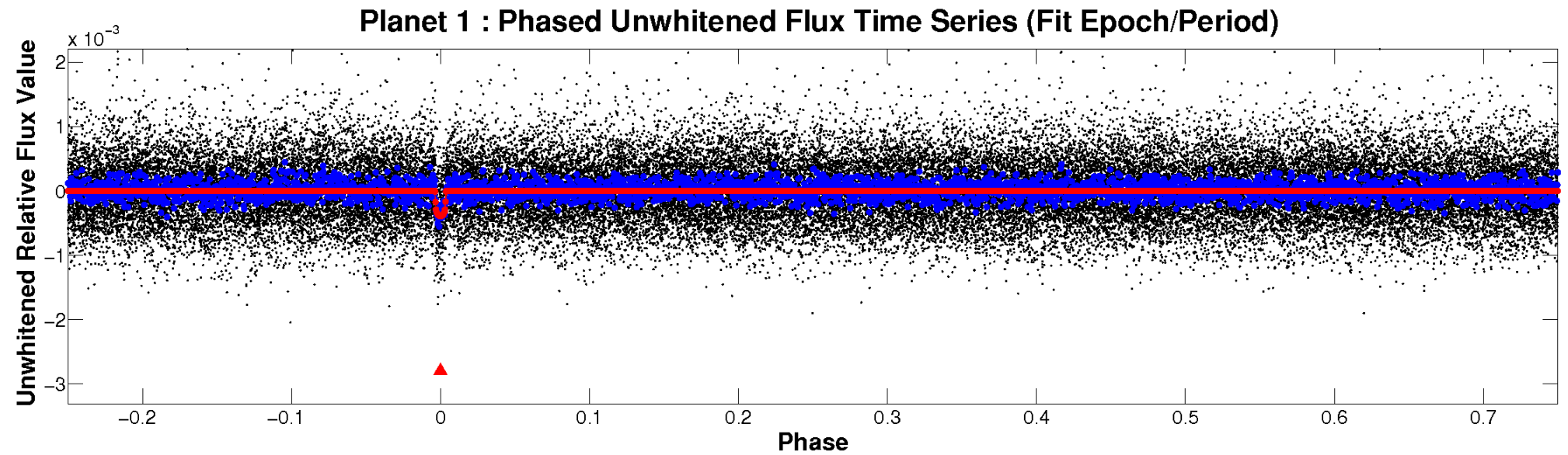


ALT Odd/Even

TCE 011444514-01

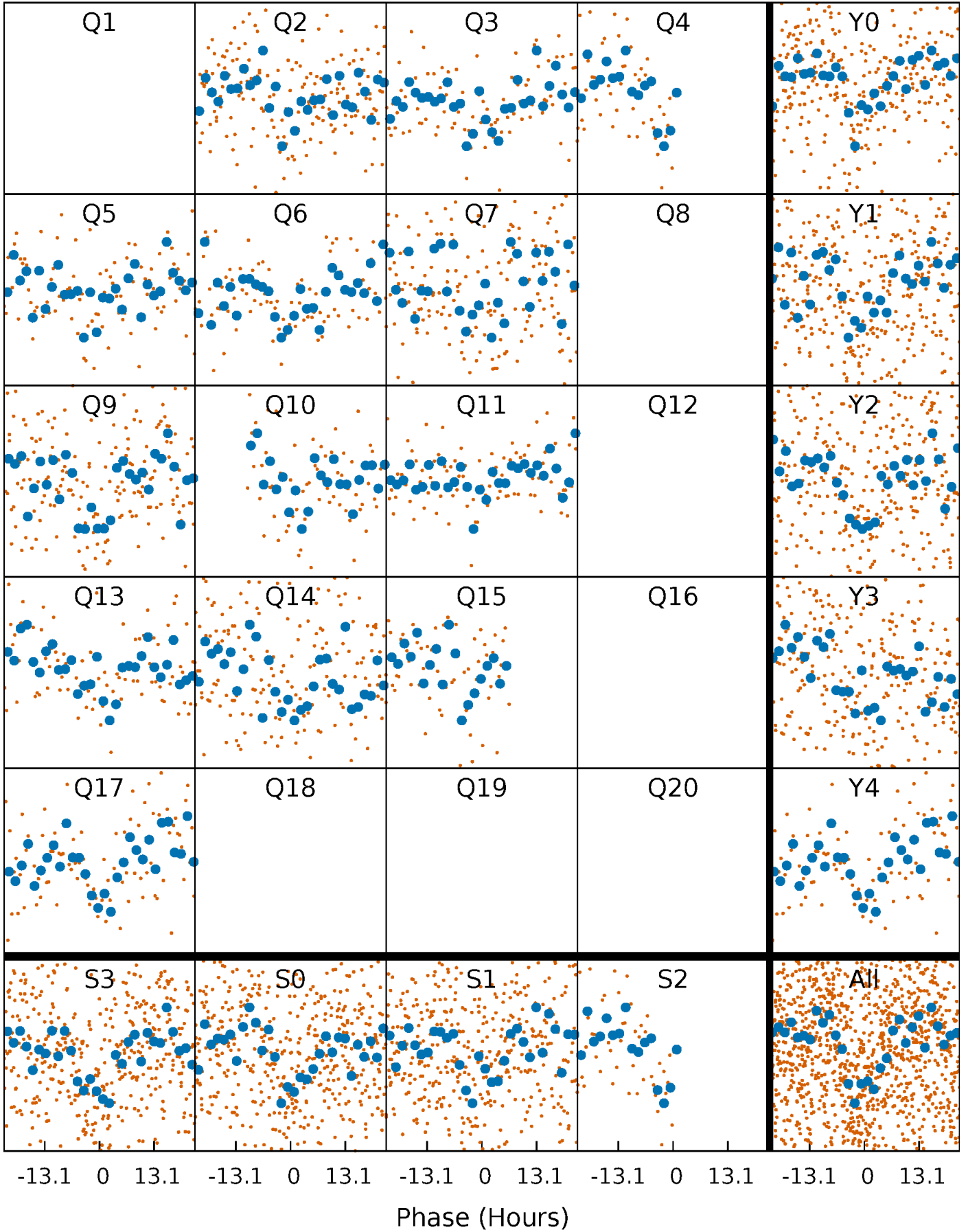


Non-Whitened Vs. Whitened Light Curve



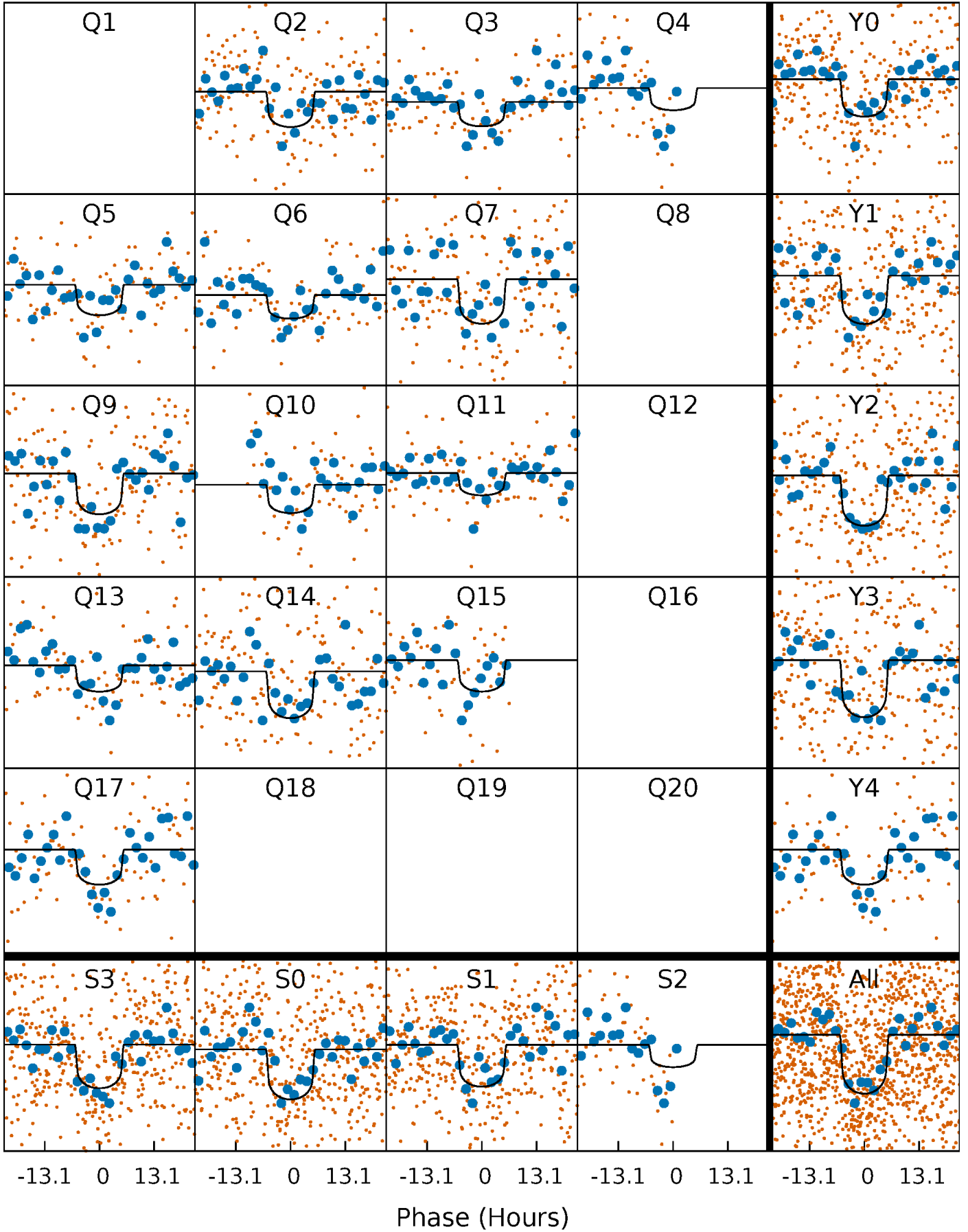
PDC Quarter-Phased Transit Curves

TCE 011444514-01 P= 66.369749 Days $T_0=174.080029$ (BKJD)



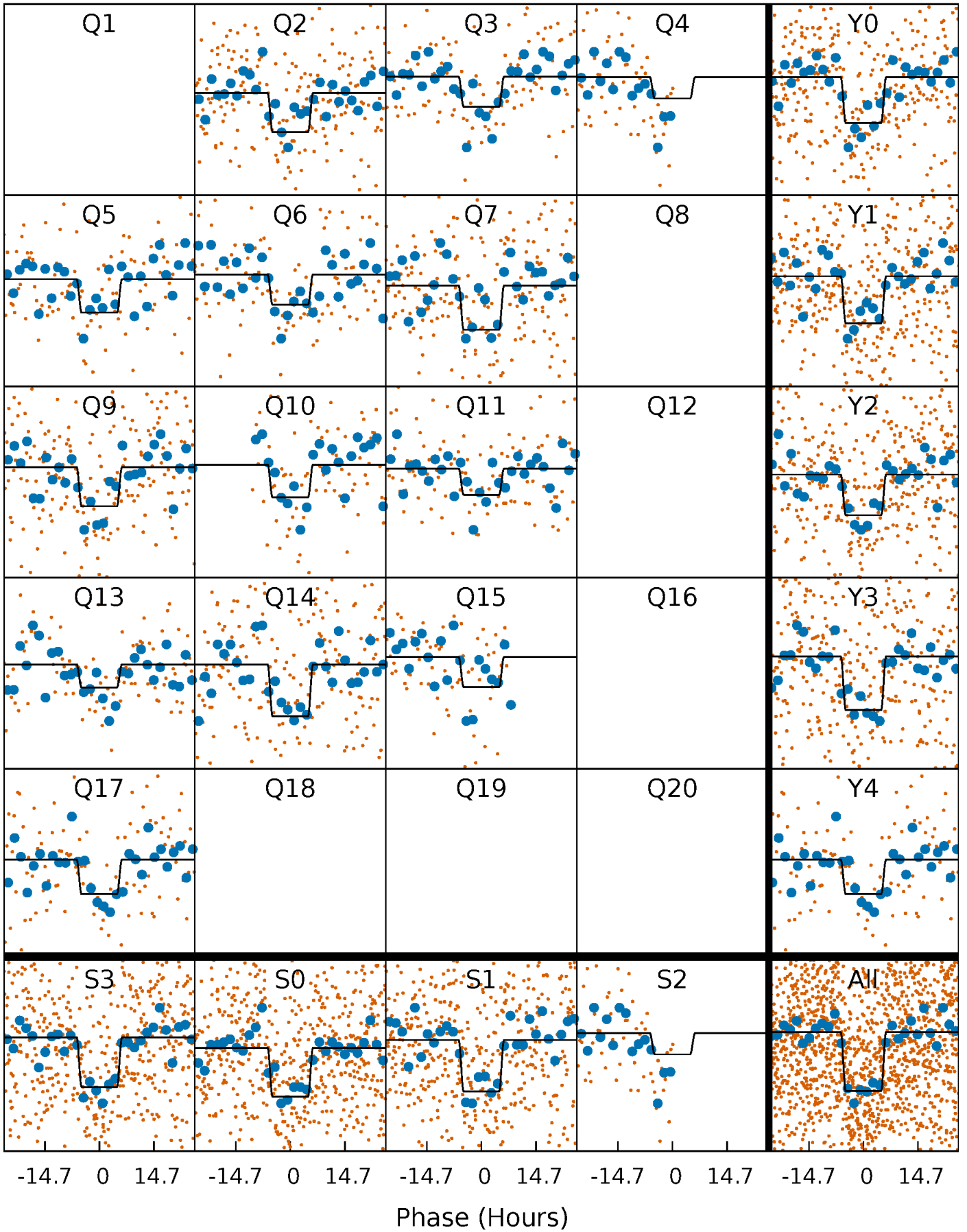
DV Quarter-Phased Transit Curves

TCE 011444514-01 P= 66.369749 Days $T_0=174.080029$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

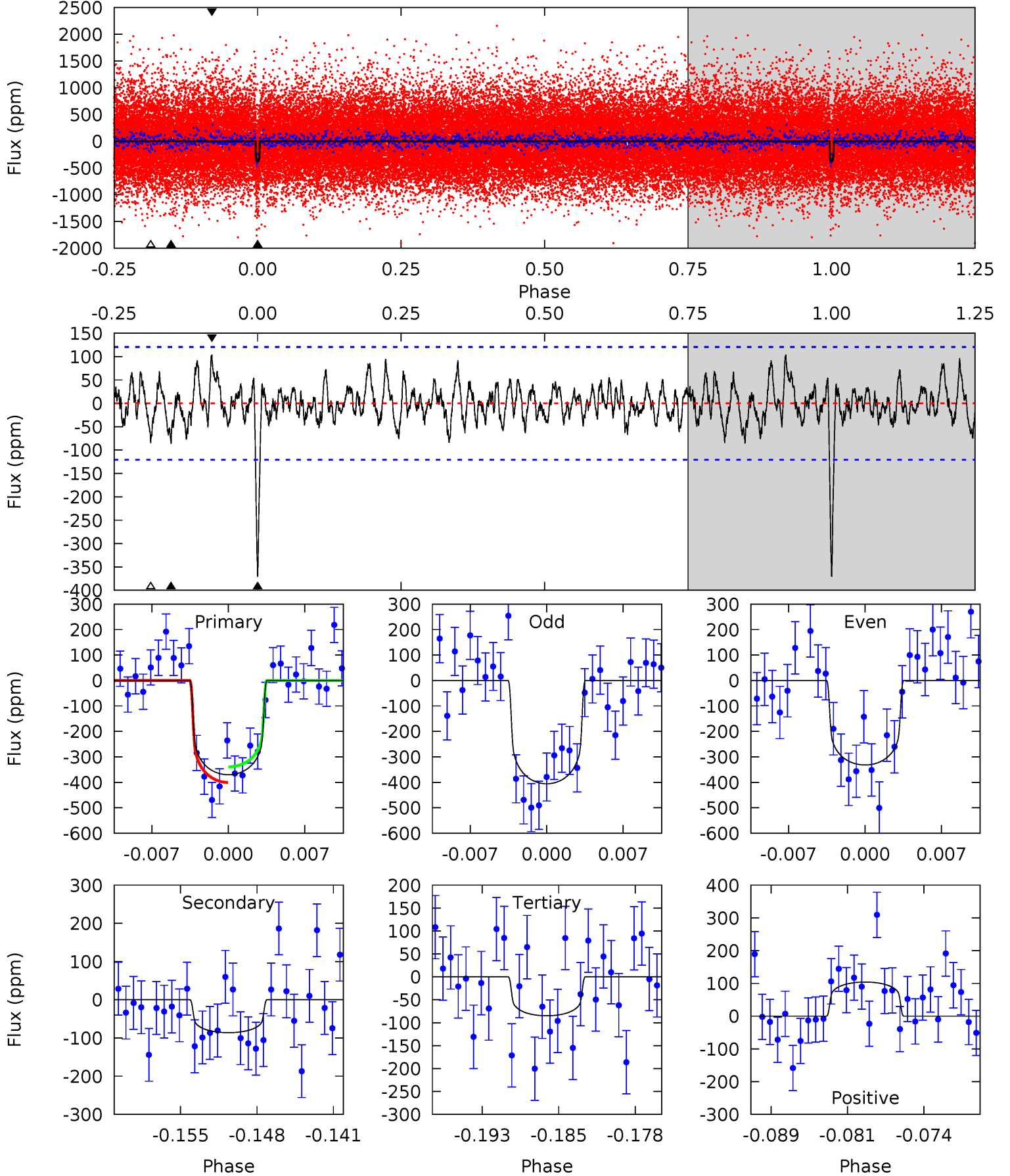
TCE 011444514-01 P= 66.366105 Days $T_0=174.117619$ (BKJD)



DV Model-Shift Uniqueness Test

011444514-01, P = 66.369749 Days, E = 107.710280 Days

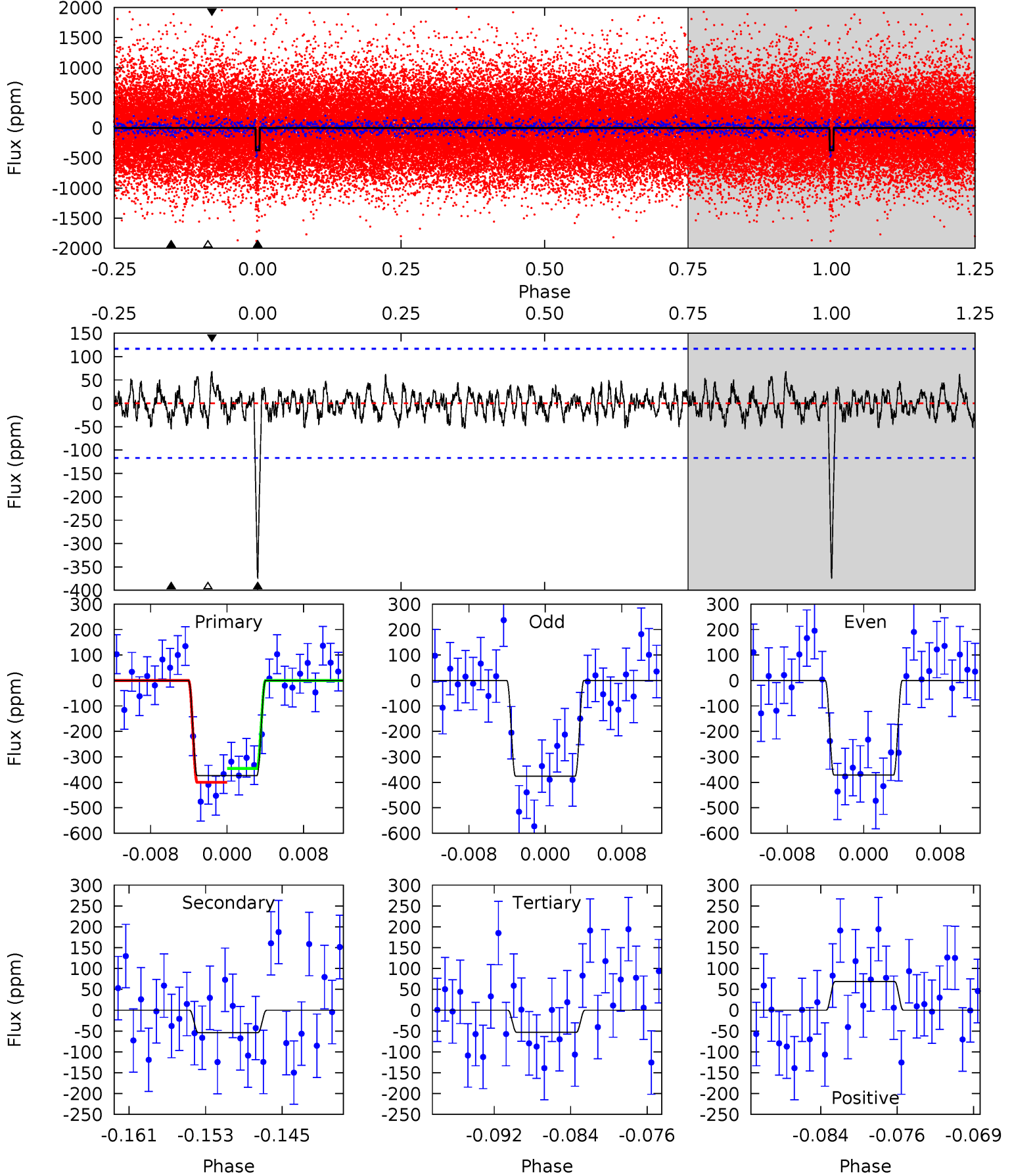
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.6	3.63	3.58	4.39	5.08	2.68	1.31	12.0	11.2	0.05	-0.76	1.56	1.05	0.22	1.29



Alt Model-Shift Uniqueness Test

011444514-01, P = 66.366105 Days, E = 107.751514 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.2	2.34	2.31	2.98	5.08	2.67	0.94	13.9	13.2	0.03	-0.64	0.10	1.10	0.16	1.18



Stellar Parameters For KIC 011444514

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6143^{+164}_{-200}	$4.470^{+0.056}_{-0.224}$	$-0.220^{+0.250}_{-0.350}$	$0.976^{+0.315}_{-0.105}$	$1.027^{+0.152}_{-0.124}$	$1.554^{+0.453}_{-0.828}$
	+3%/-3%	+1%/-5%	+114%/-159%	+32%/-11%	+15%/-12%	+29%/-53%
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 011444514-01 / KOI 4371.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-86 ± 24	$2.18^{+0.79}_{-0.64}$	671^{+52}_{-31}	4422^{+673}_{-474}	977^{+1100}_{-455}
Alt.	-54 ± 23	$2.19^{+0.73}_{-0.70}$	672^{+56}_{-32}	4047^{+638}_{-469}	616^{+803}_{-327}

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

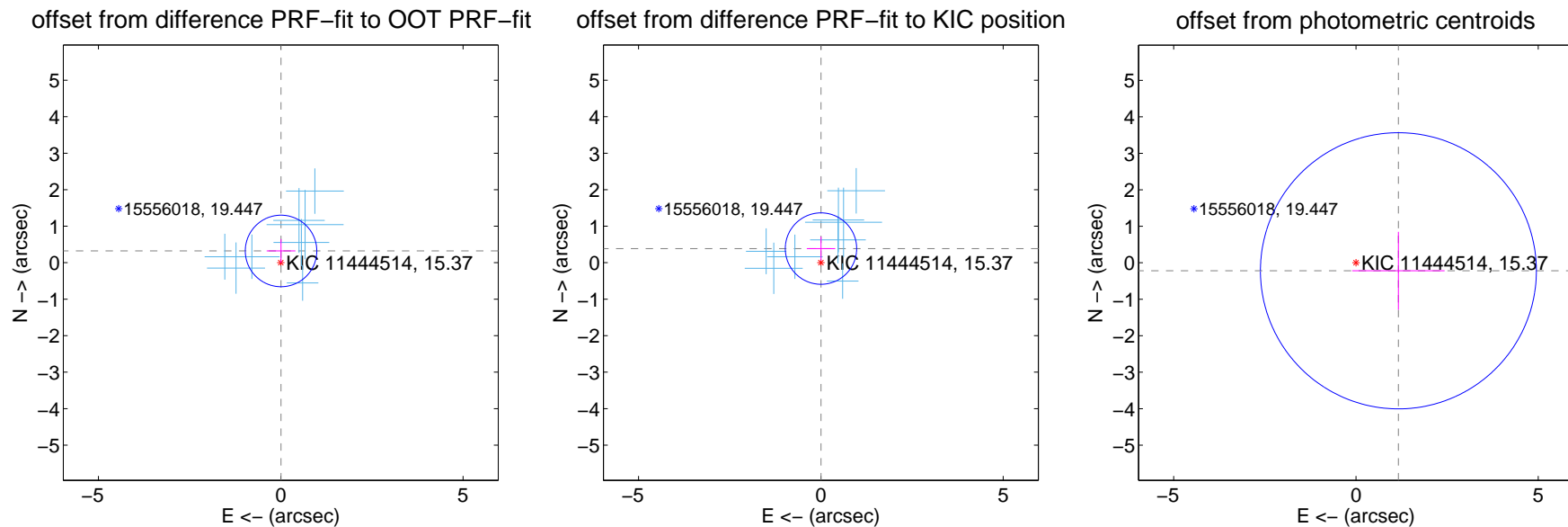
DV Centroid Data

Supplemental centroid analysis for 011444514-01. Kepler magnitude: 15.37. Transit SNR 11.57

There are 8 quarters with good PRF difference image offsets

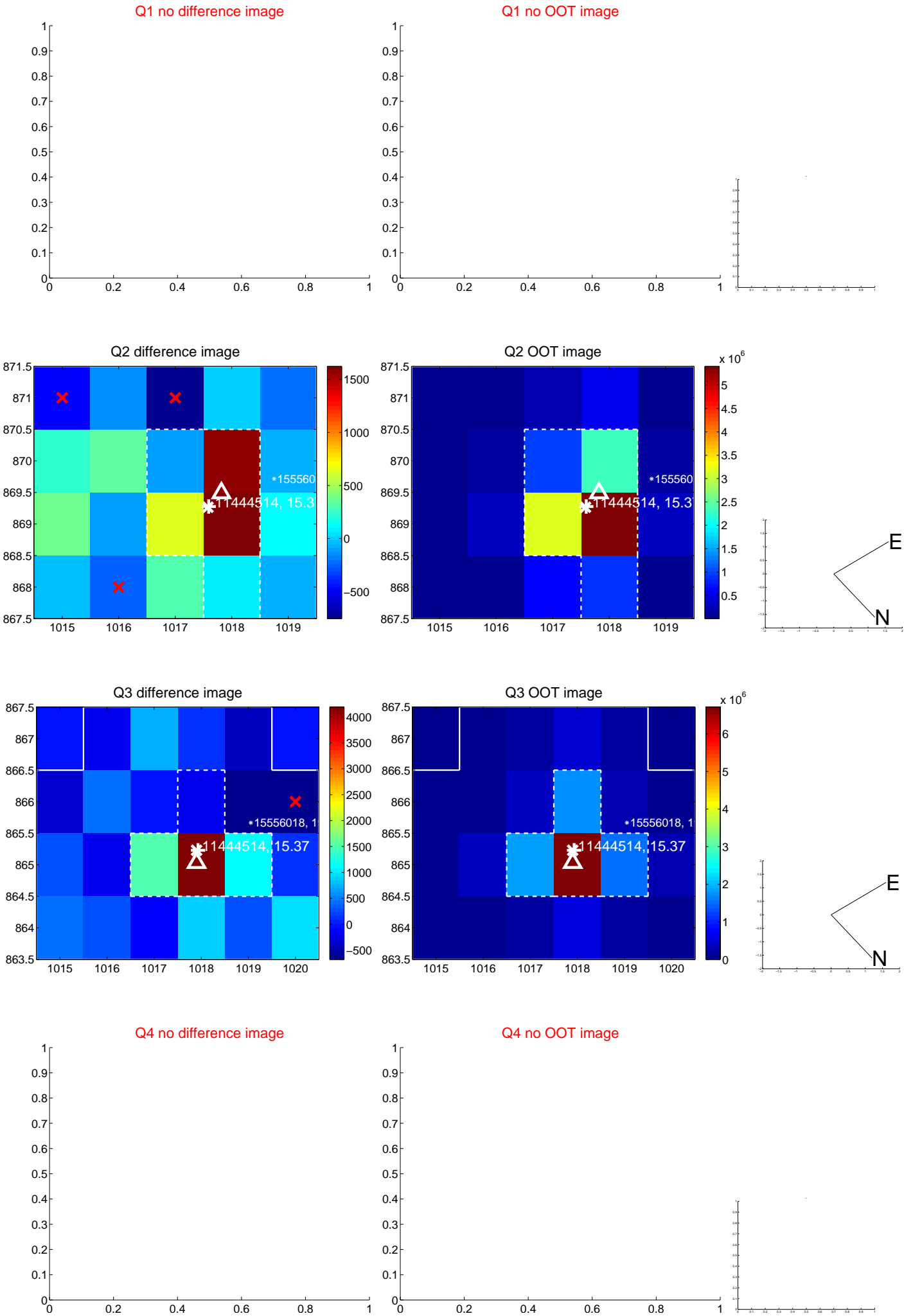
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.322 ± 0.327	0.99	-0.008 ± 0.394	0.322 ± 0.327
PRF-fit source offset from KIC position	0.387 ± 0.326	1.19	-0.003 ± 0.390	0.387 ± 0.326
photometric centroid source offset	1.19 ± 1.26	0.94	-1.16 ± 1.27	-0.22 ± 1.07

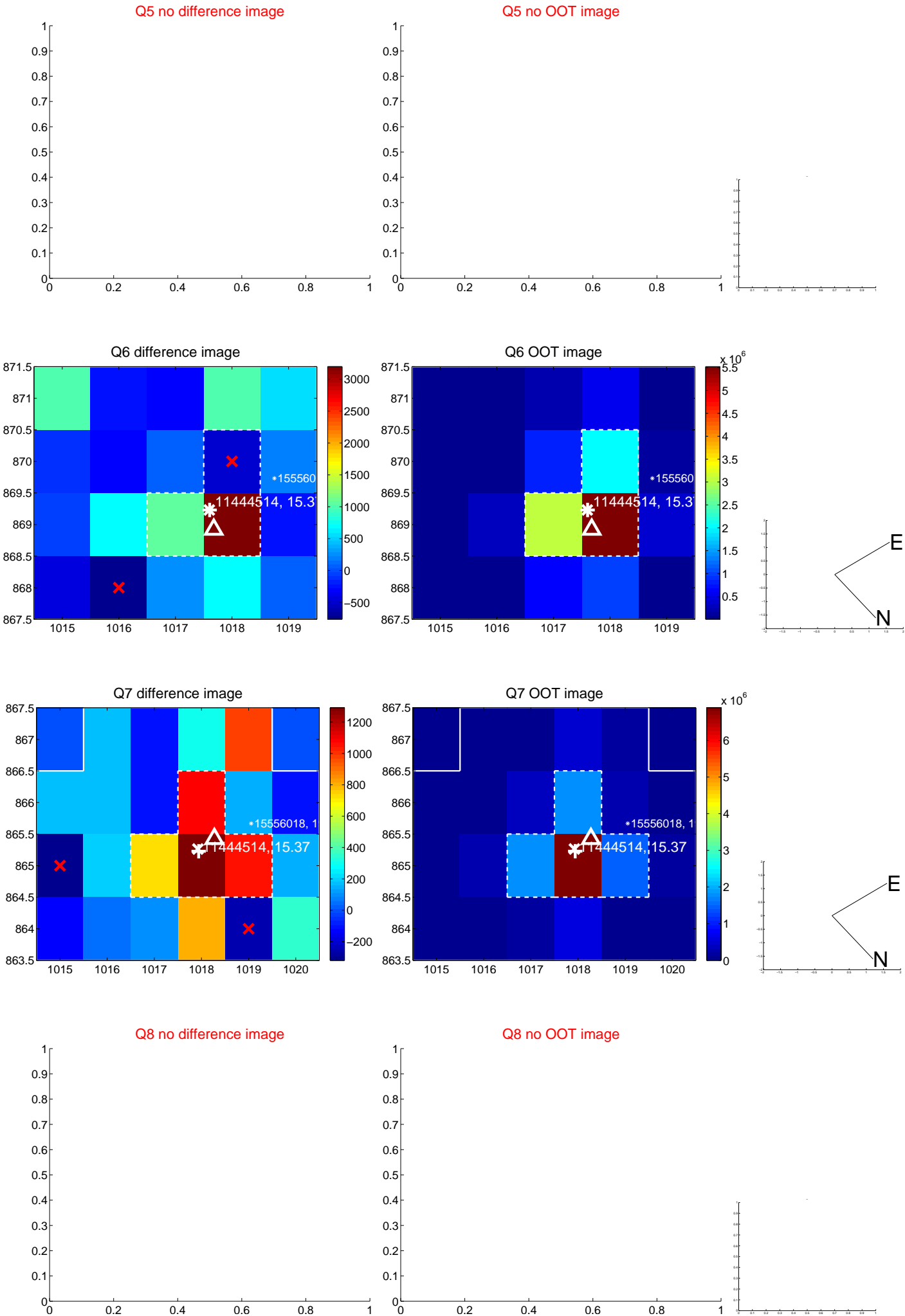


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

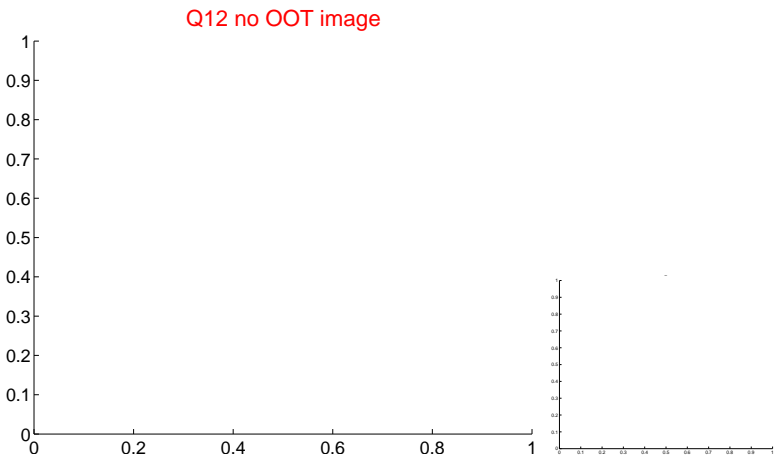
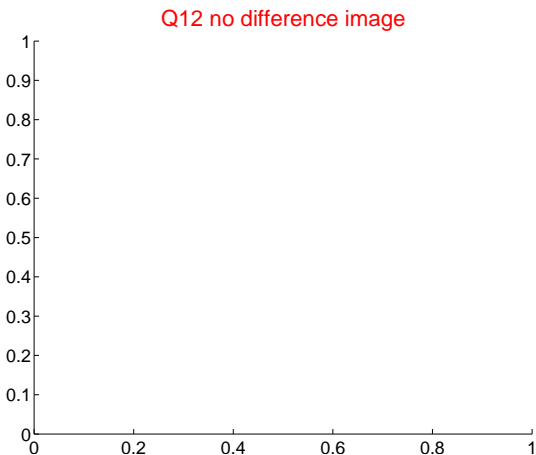
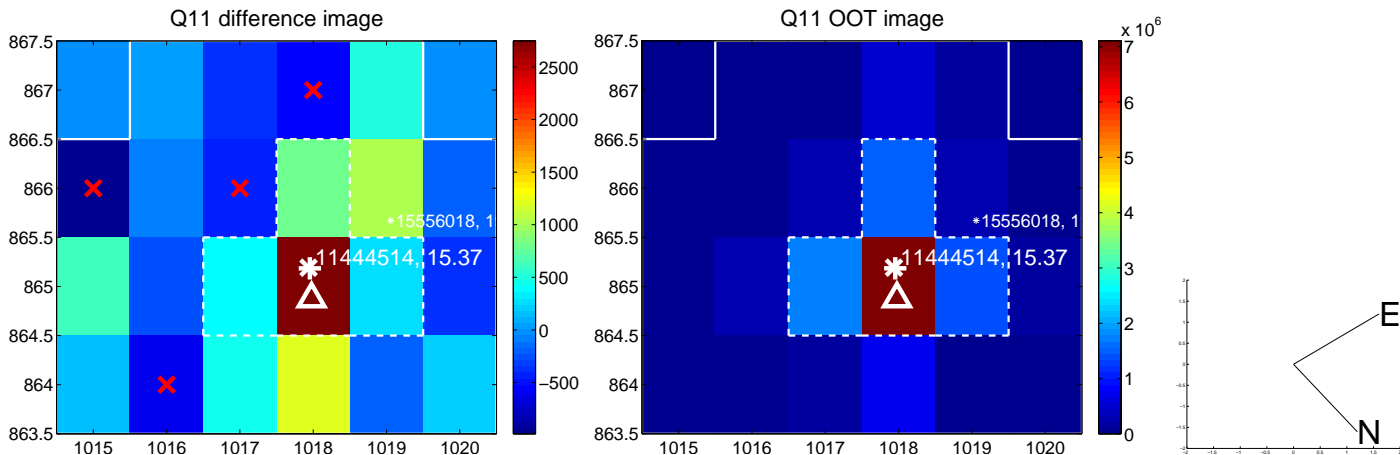
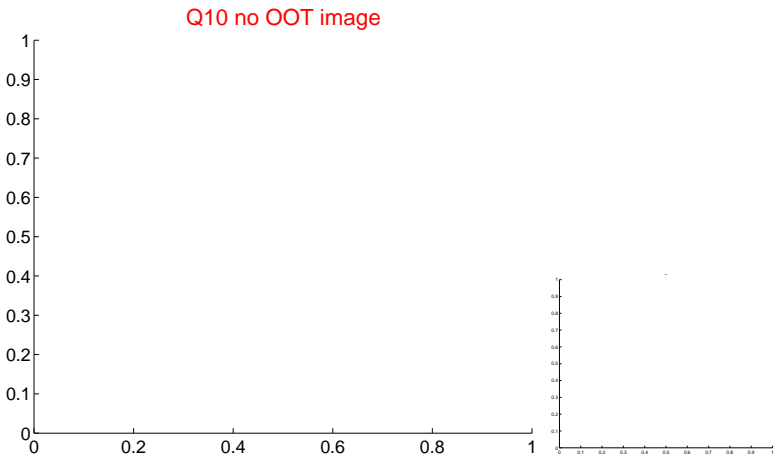
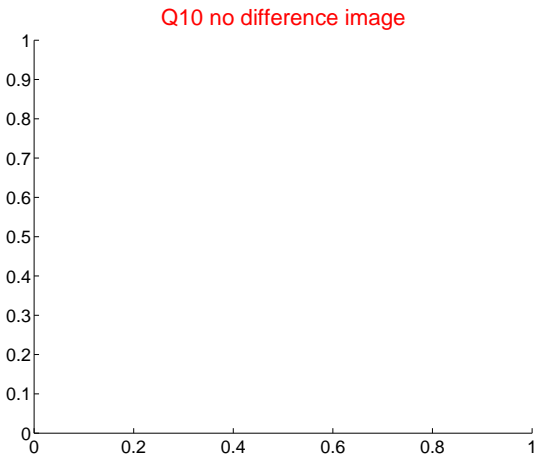
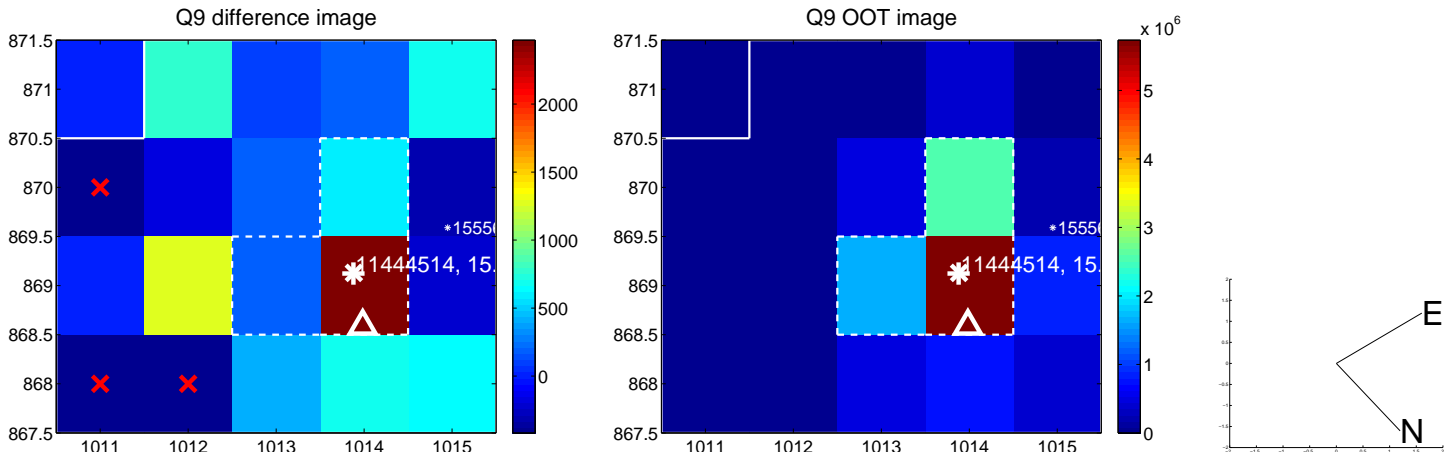
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



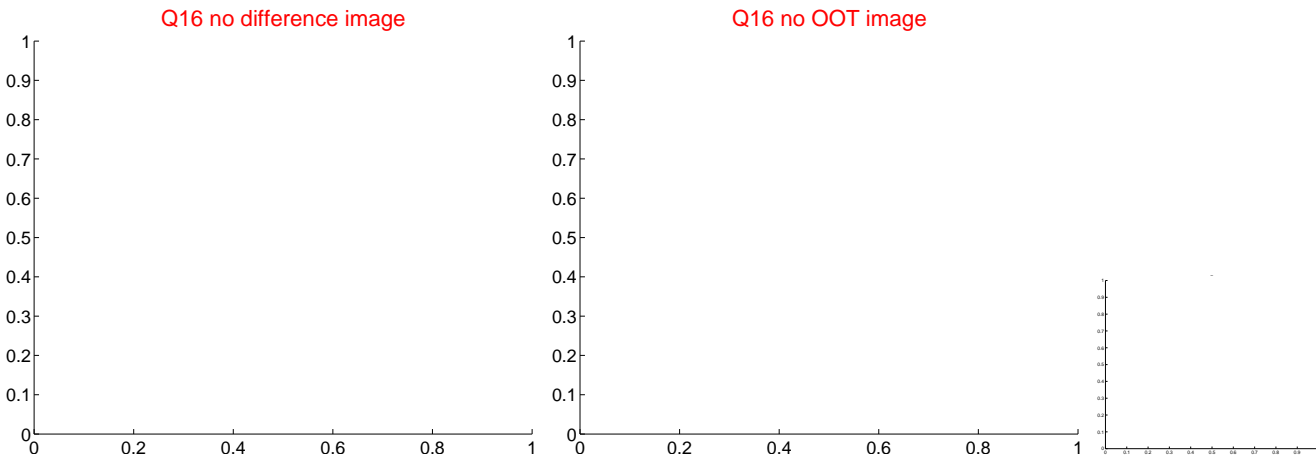
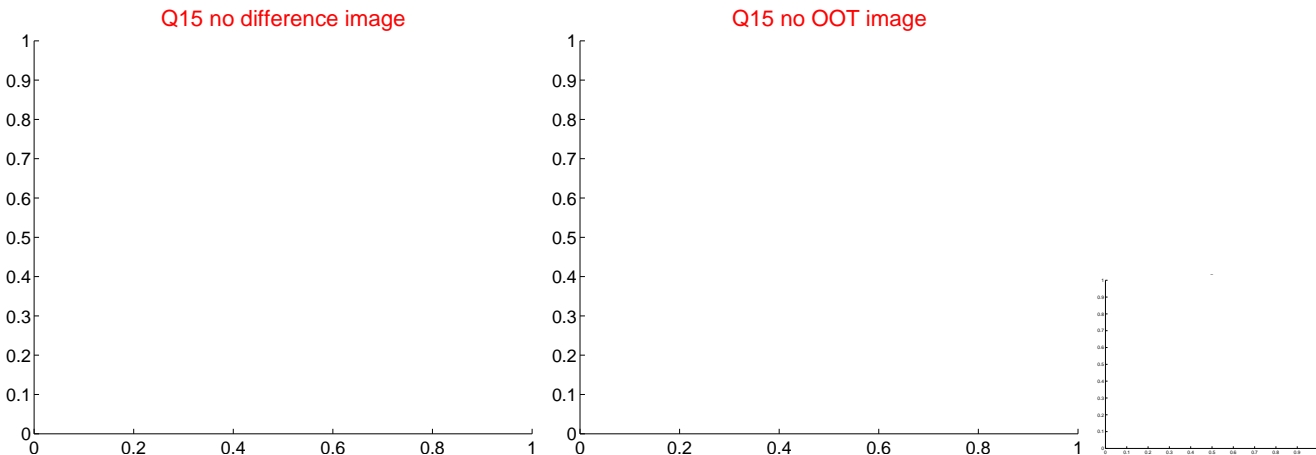
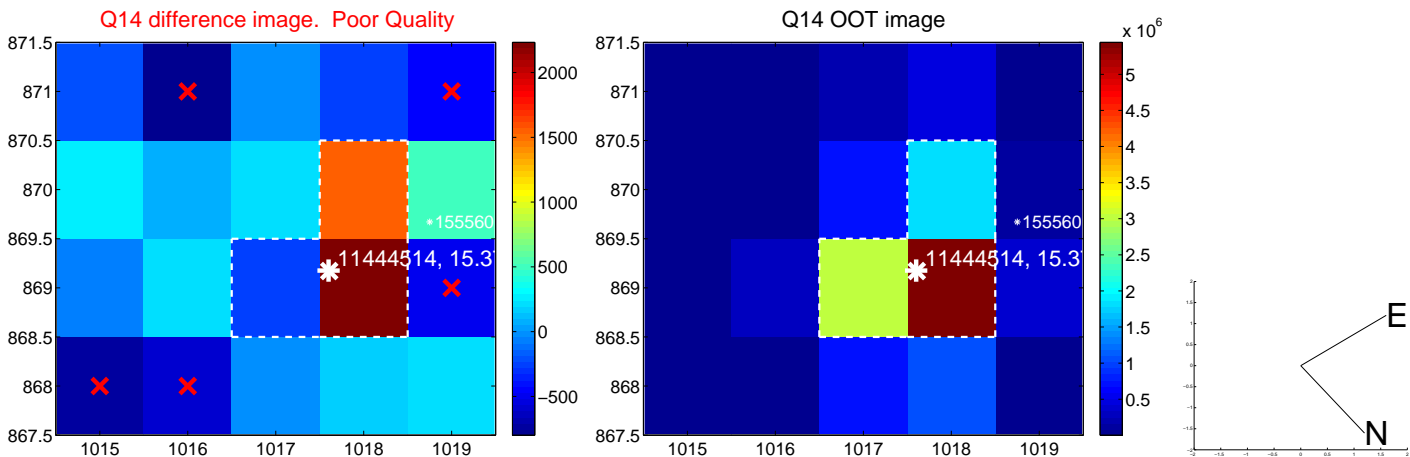
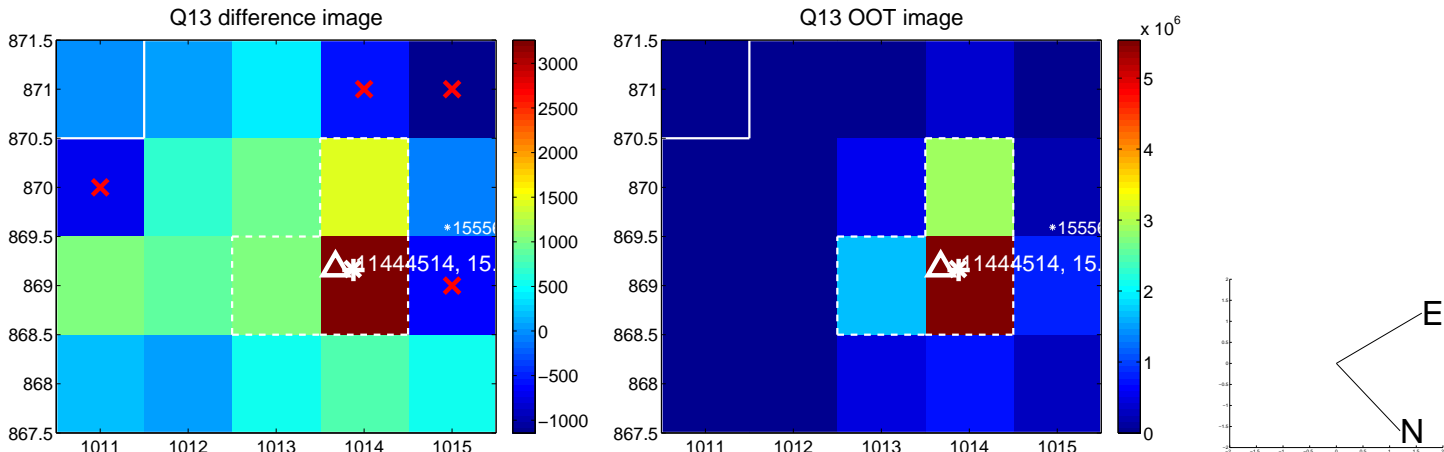
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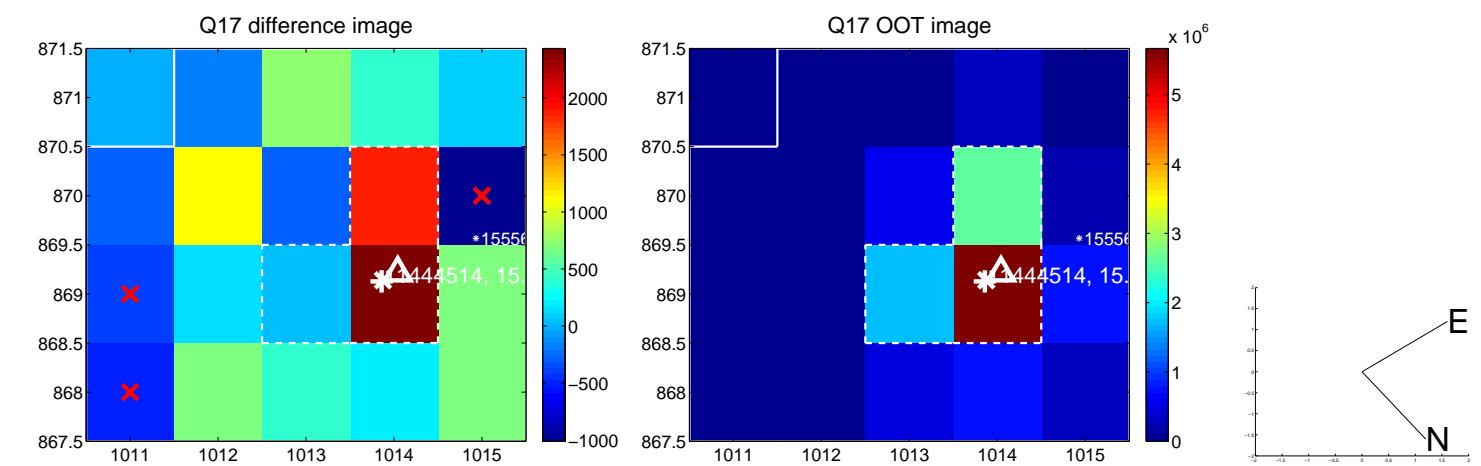
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



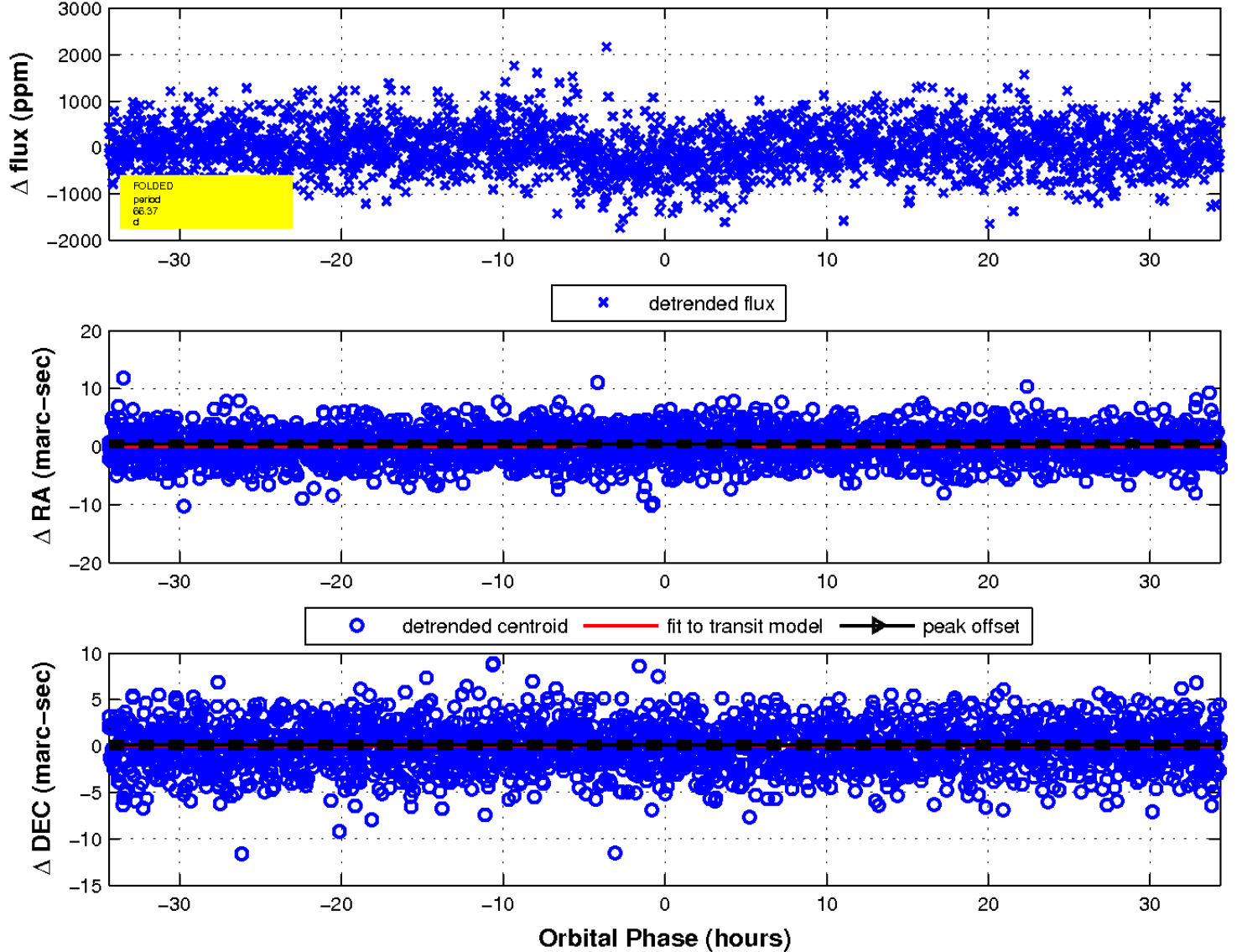
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

