

KIC 006364143

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})
006364143-01	OBS	5272.01	5.243466	132.752365	63.7	15.500	14.6	15.1	0.90	6011	1.03	275.00

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006364143-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_UNRESOLVED_OFFSET—HALO_GHOST—EPHEM_MATCH

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.

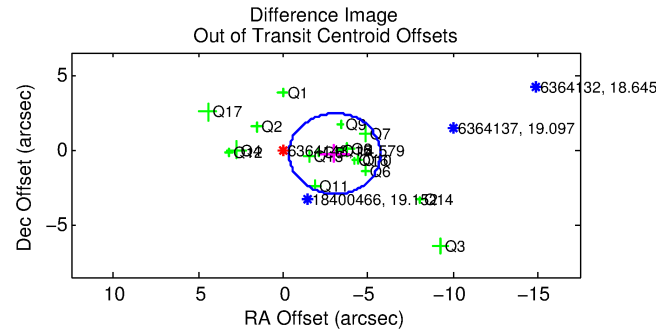
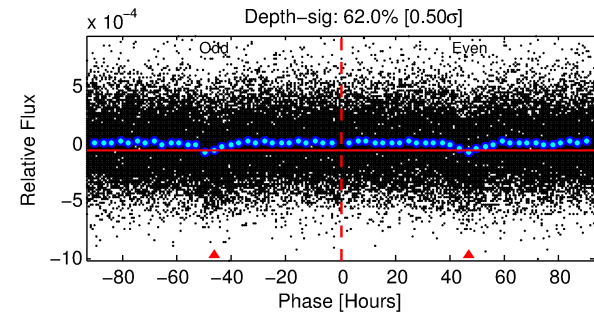
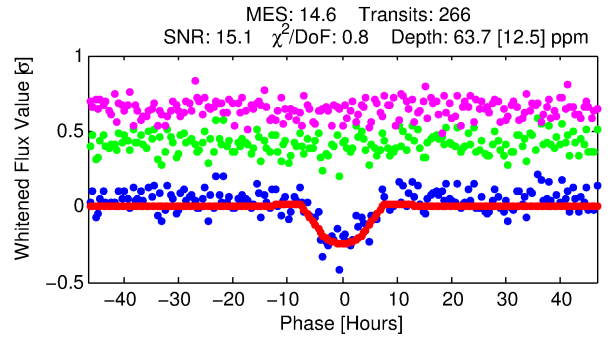
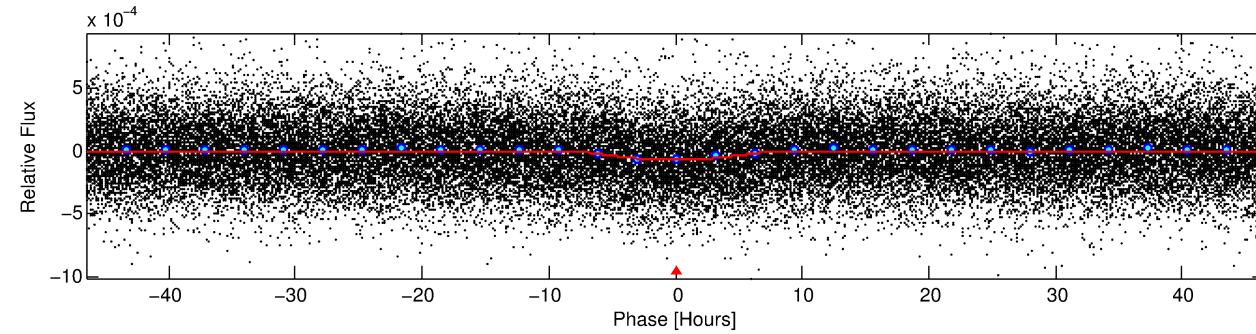
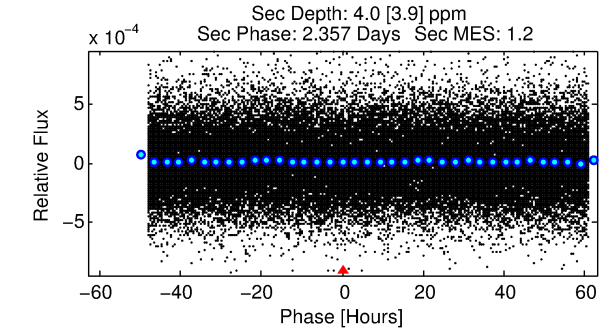
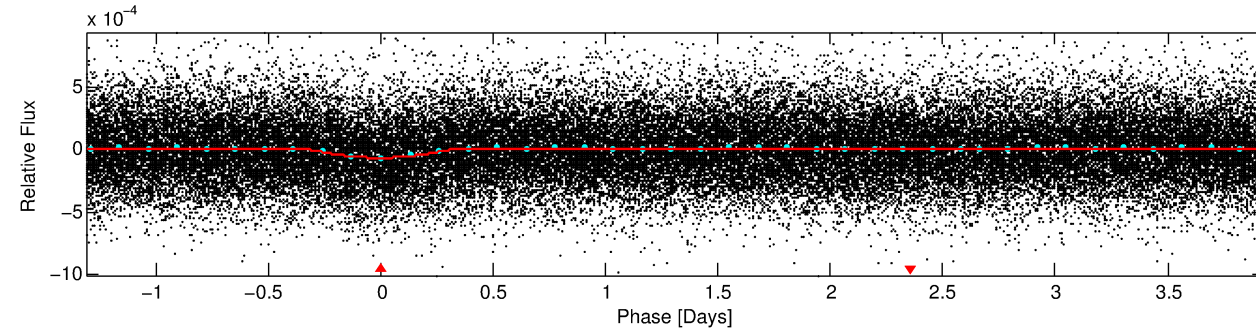
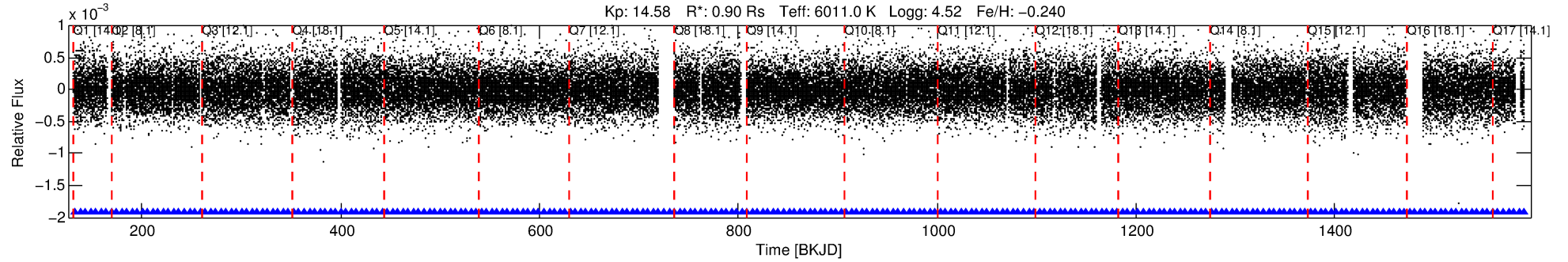
Ephemeris Match Information For 006364143-01

TCE (1)	KIC	Parent (2)	Parent KIC	$P_1:P_2$	Dist ($''$)	Δ Row	Δ Col	m_2	m_1	D_2/D_1	Mechanism	Flag	σ_P	σ_T
006364143-01	6364143	TT-Lyr-pri	6364290	1:1	258.7	-65	3	9.49	14.58	13346.00	Direct-PRF	0	2.46	2.43

Notes: $P_1:P_2$ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m_2 and m_1 are the magnitudes of the parent and child. D_2/D_1 is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

DV One-Page Summary

KIC: 6364143 Candidate: 1 of 1 Period: 5.243 d
KOI: K05272.01 Corr: 0.854



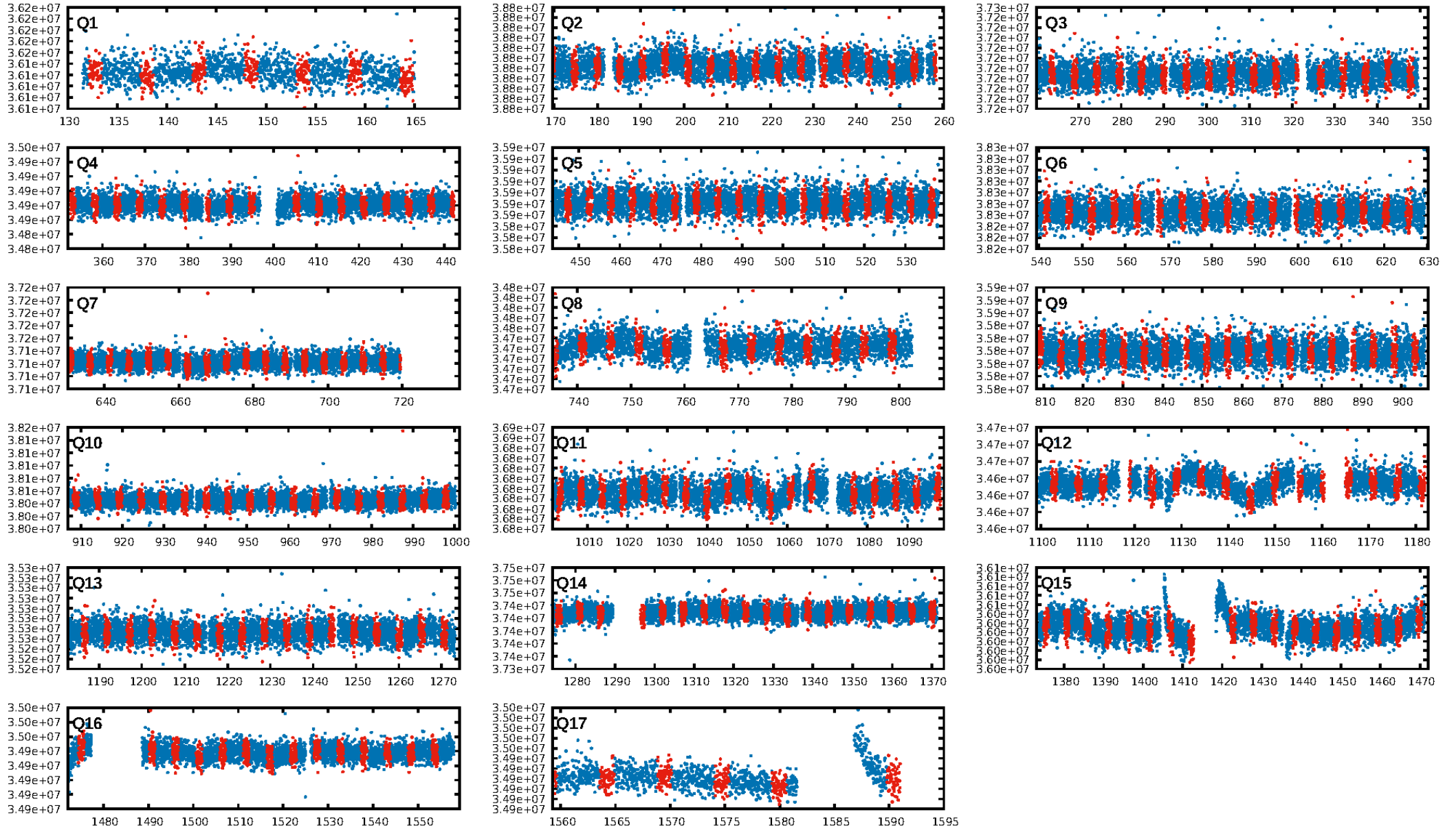
DV Fit Results:

Period = 5.24347 [0.00016] d
Epoch = 132.7524 [0.0242] BKJD
Rp/R* = 0.0104 [0.0015]
a/R* = 1.13 [0.04]
b = 0.99 [0.01]
Seff = 275.00 [111.08]
Teq = 1038 [105] K
Rp = 1.03 [0.35] Re
a = 0.0588 [0.0154] AU
Ag = 7.20 [7.88] [0.79σ]
Teffp = 2630 [678] K [2.32σ]

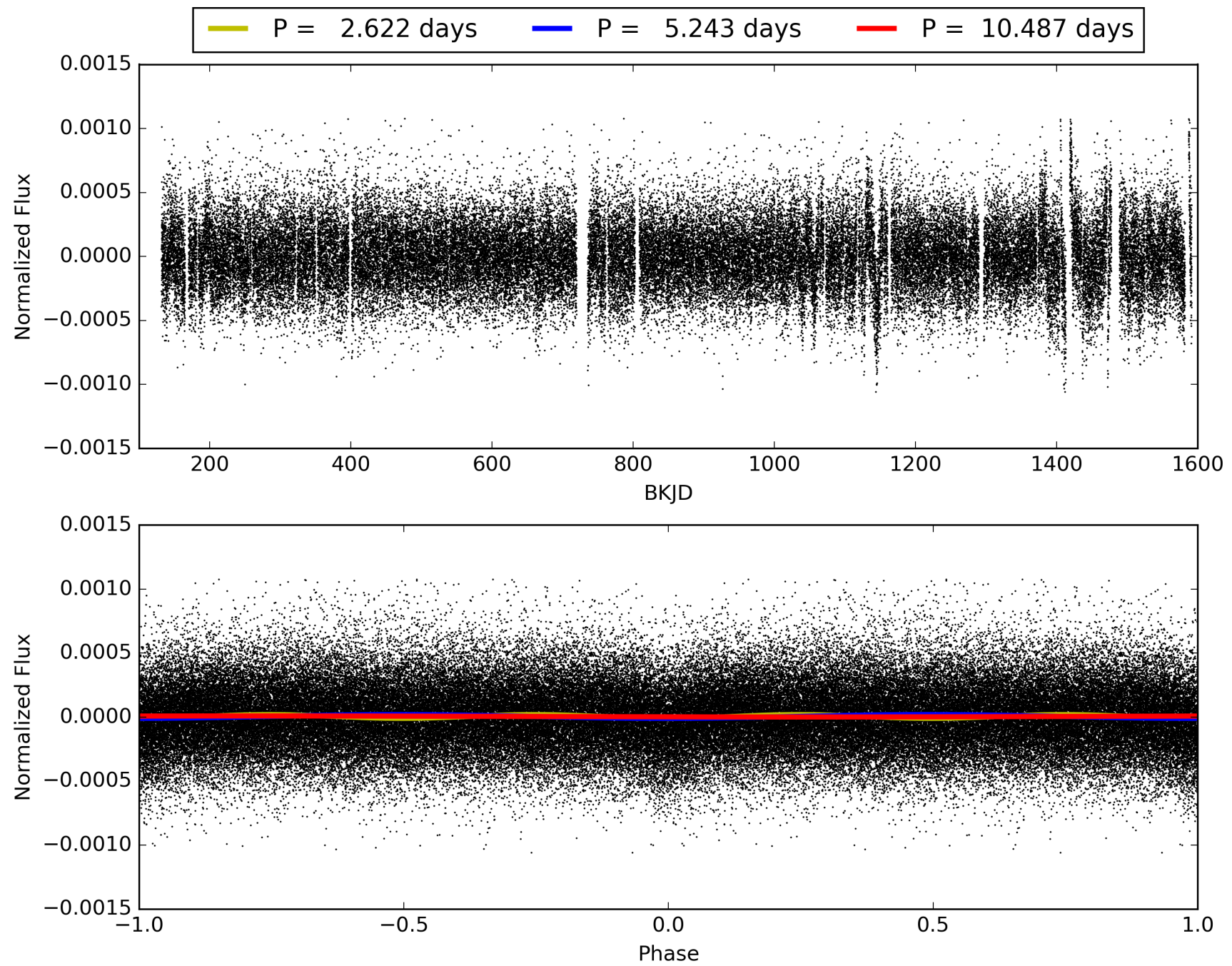
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 1.37e-45
RollingBand-fgt: 1.00 [253/253]
GhostDiagnostic-chr: 0.08986
Centroid-sig: 0.1%
Centroid-so: 2.211 arcsec [2.56σ]
OotOffset-rm: 3.053 arcsec [3.40σ]
KicOffset-rm: 2.817 arcsec [3.11σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.18 [3/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006364143-01, PDC Light Curves

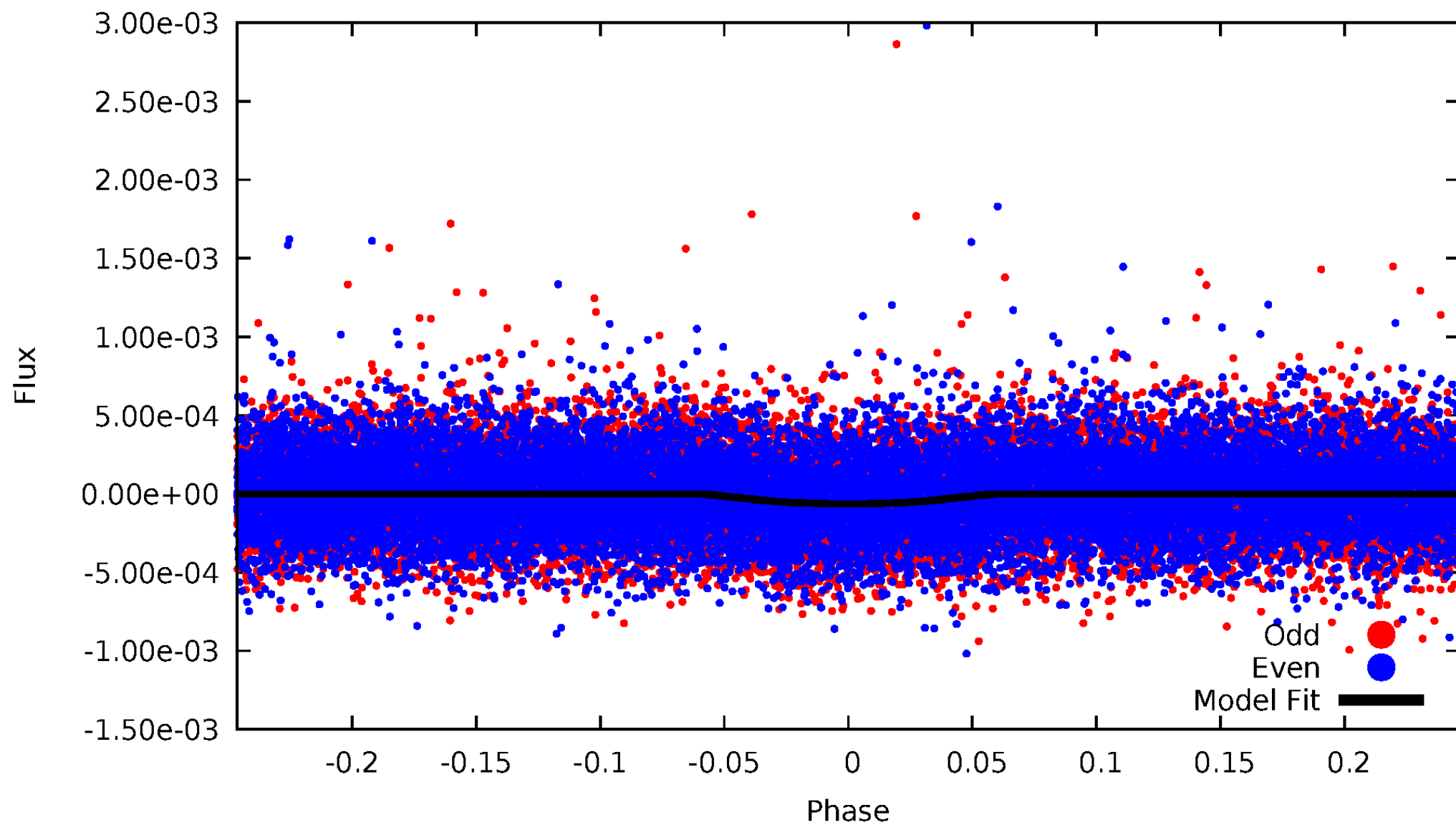


TCE 006364143-01



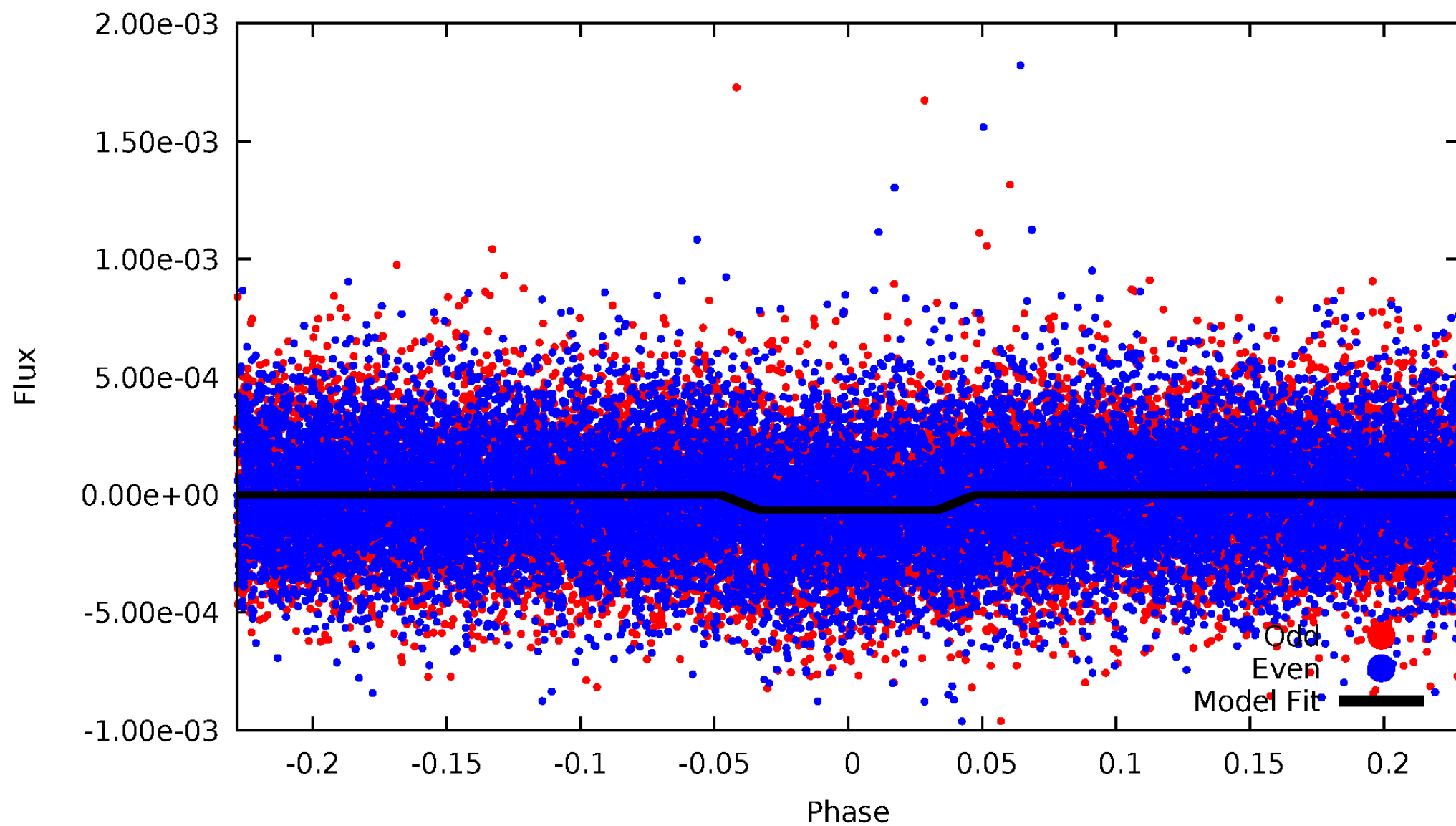
DV Odd/Even

TCE 006364143-01

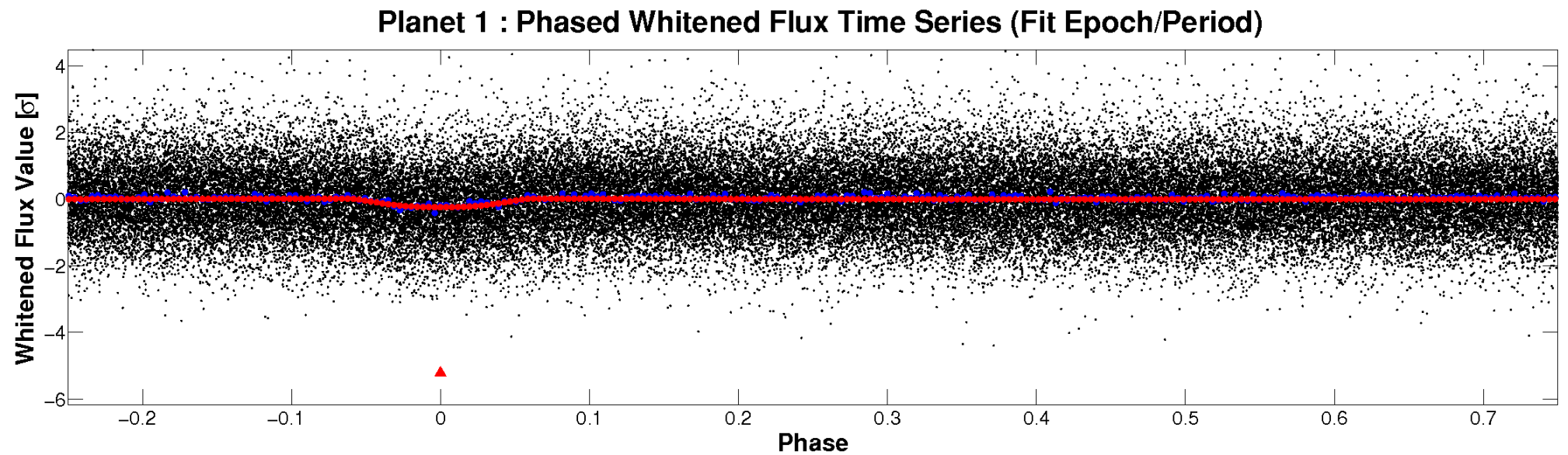
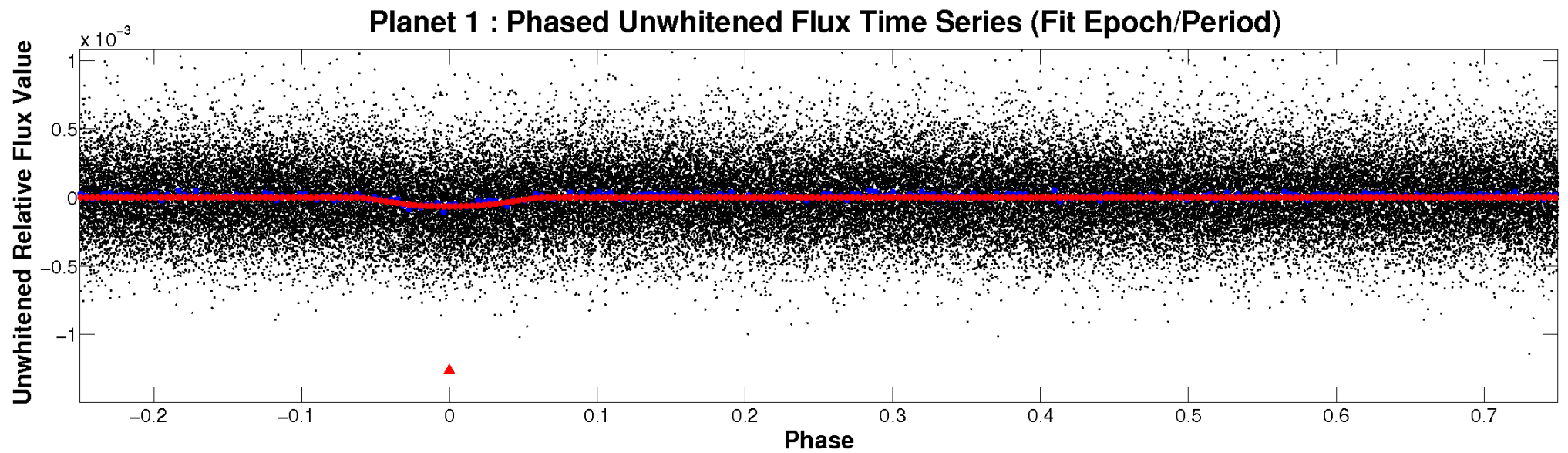


ALT Odd/Even

TCE 006364143-01

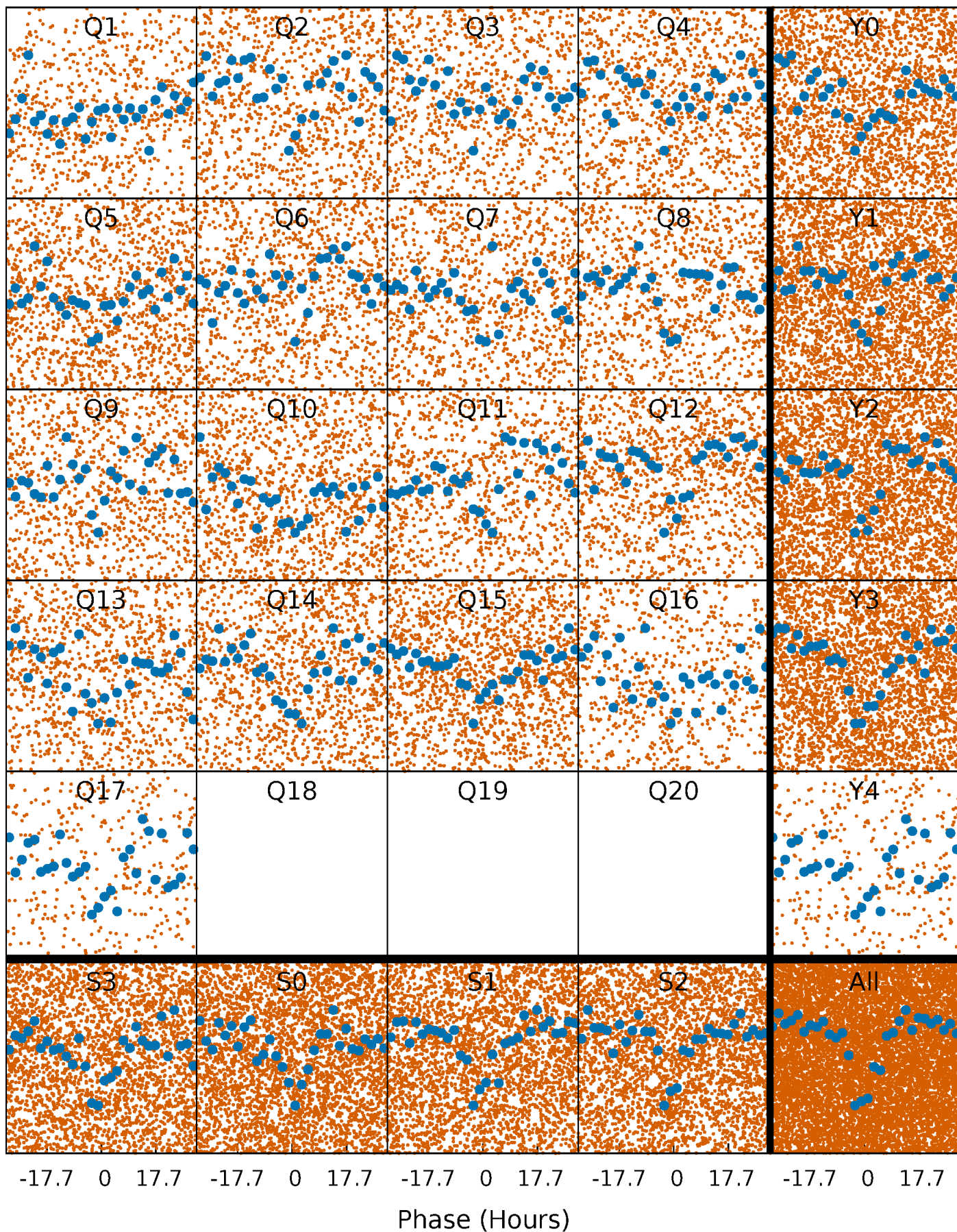


Non-Whitened Vs. Whitened Light Curve



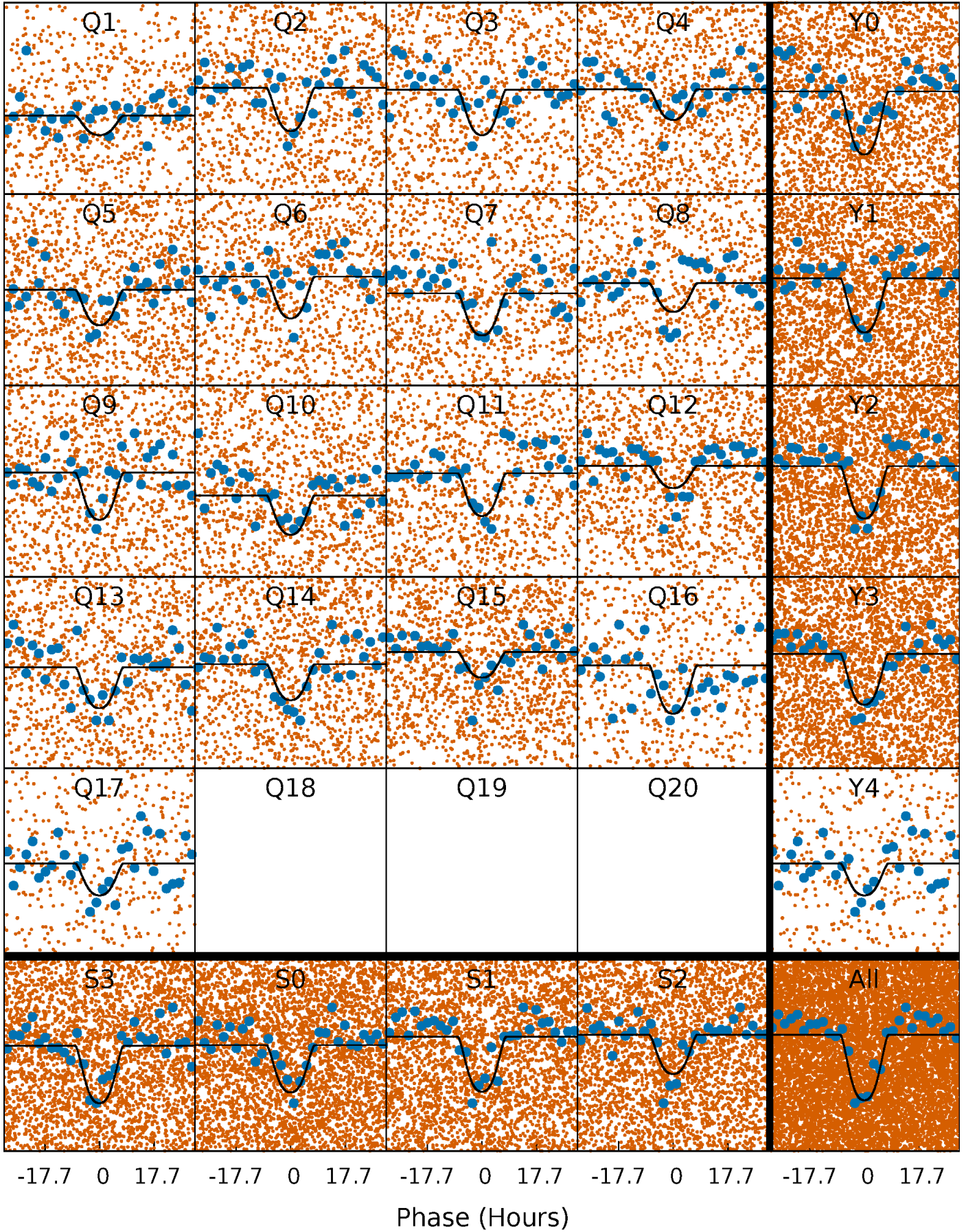
PDC Quarter-Phased Transit Curves

TCE 006364143-01 P= 5.243466 Days $T_0=132.752365$ (BKJD)



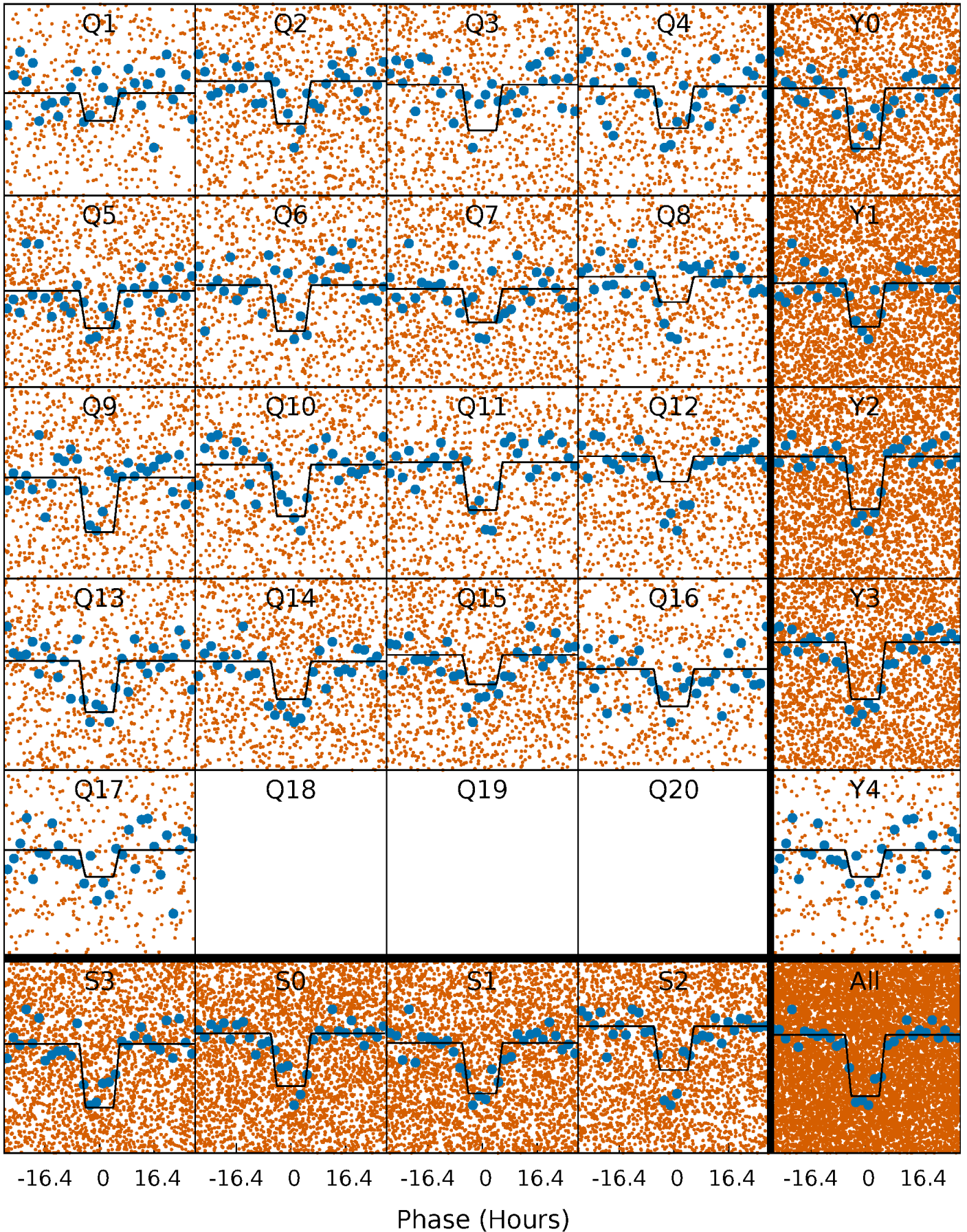
DV Quarter-Phased Transit Curves

TCE 006364143-01 P= 5.243466 Days $T_0=132.752365$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

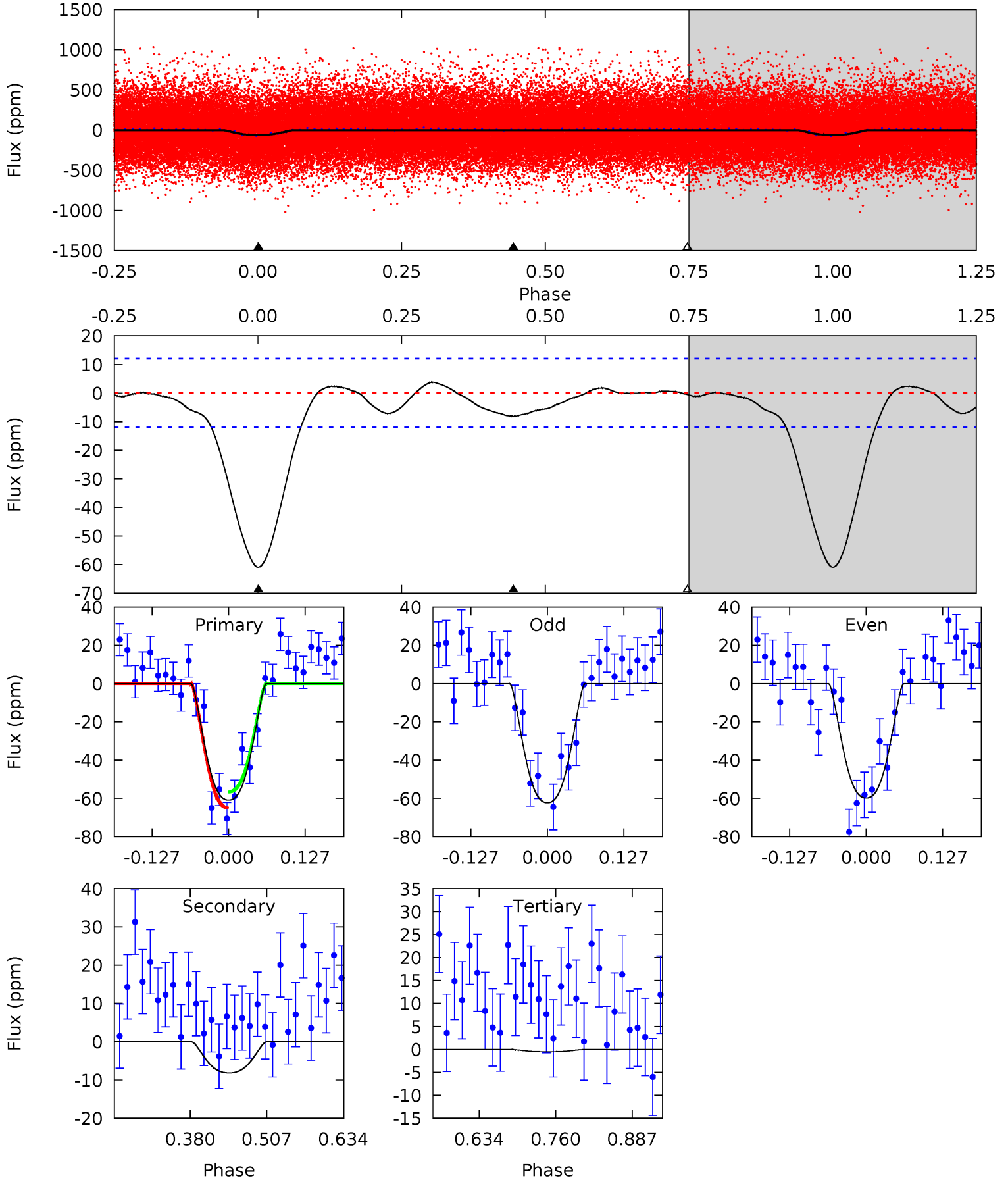
TCE 006364143-01 P= 5.243719 Days $T_0=132.717338$ (BKJD)



DV Model-Shift Uniqueness Test

006364143-01, P = 5.243466 Days, E = 127.508899 Days

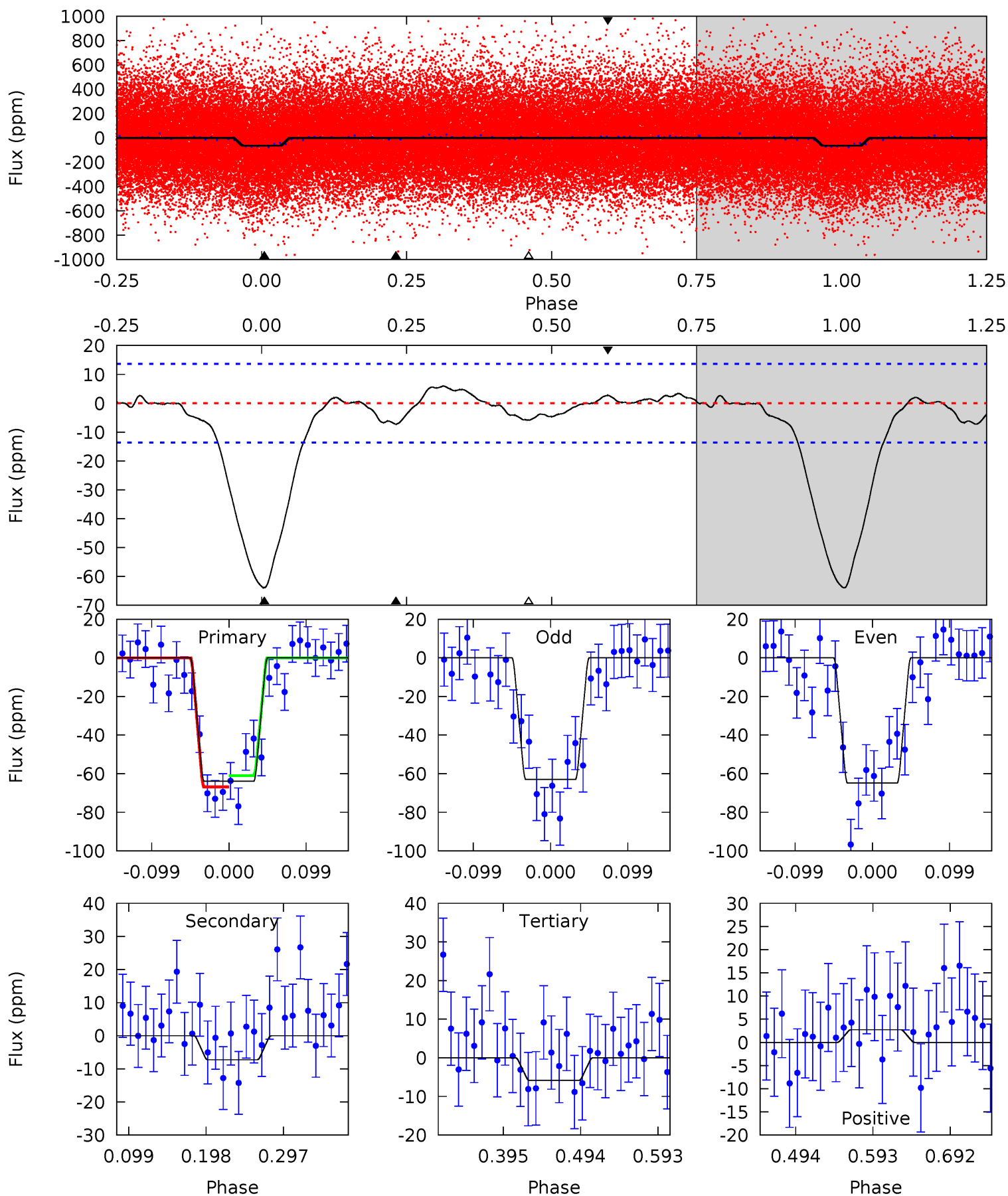
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.9	3.06	0.20	0	4.51	1.53	0.94	22.7	22.9	2.86	3.06	0.46	0.96	0.06	1.58



Alt Model-Shift Uniqueness Test

006364143-01, P = 5.243719 Days, E = 127.473619 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
21.4	2.43	1.96	0.92	4.57	1.65	0.91	19.5	20.5	0.47	1.51	0.31	0.97	0.09	0.99



Stellar Parameters For KIC 006364143

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6011^{+162}_{-180}	$4.522^{+0.050}_{-0.213}$	$-0.240^{+0.300}_{-0.300}$	$0.902^{+0.277}_{-0.092}$	$0.988^{+0.120}_{-0.132}$	$1.898^{+0.411}_{-1.037}$
	+3%/-3%	+1%/-5%	+125%/-125%	+31%/-10%	+12%/-13%	+22%/-55%
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 006364143-01 / KOI 5272.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 3	$1.09^{+0.20}_{-0.17}$	1489^{+101}_{-77}	3555^{+268}_{-260}	12^{+8}_{-5}
Alt.	-7 ± 3	$0.84^{+0.19}_{-0.16}$	1487^{+98}_{-70}	3793^{+426}_{-372}	19^{+14}_{-10}

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

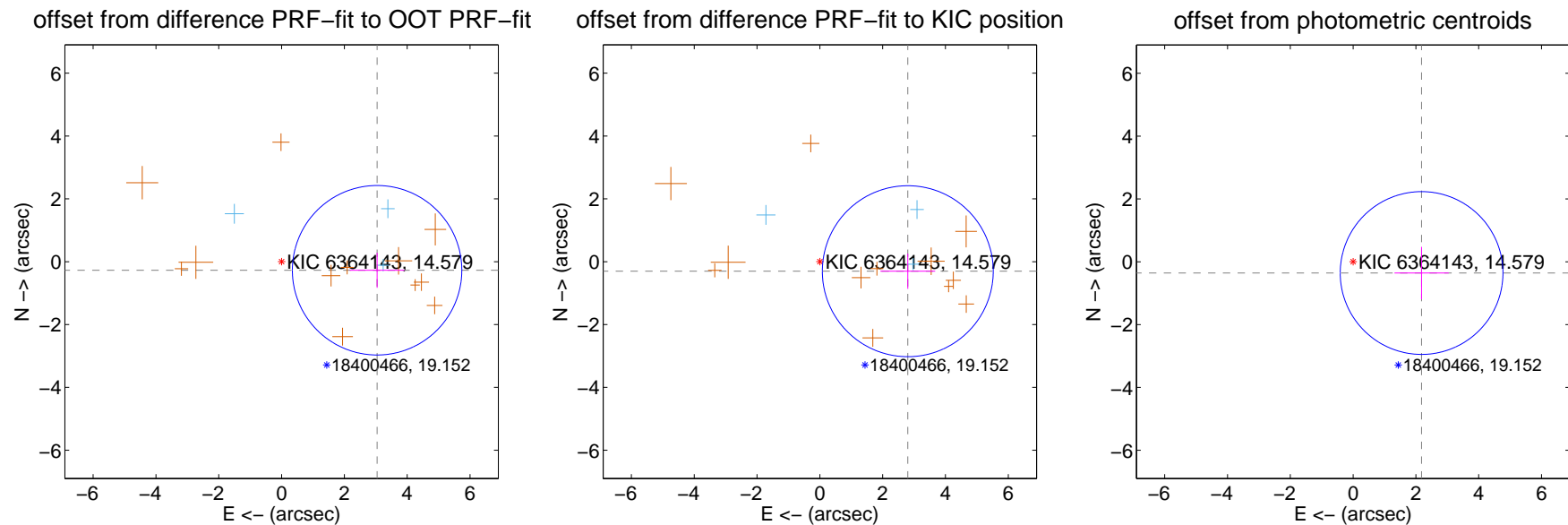
DV Centroid Data

Supplemental centroid analysis for 006364143-01. Kepler magnitude: 14.58. Transit SNR 15.13

There are 3 quarters with good PRF difference image offsets

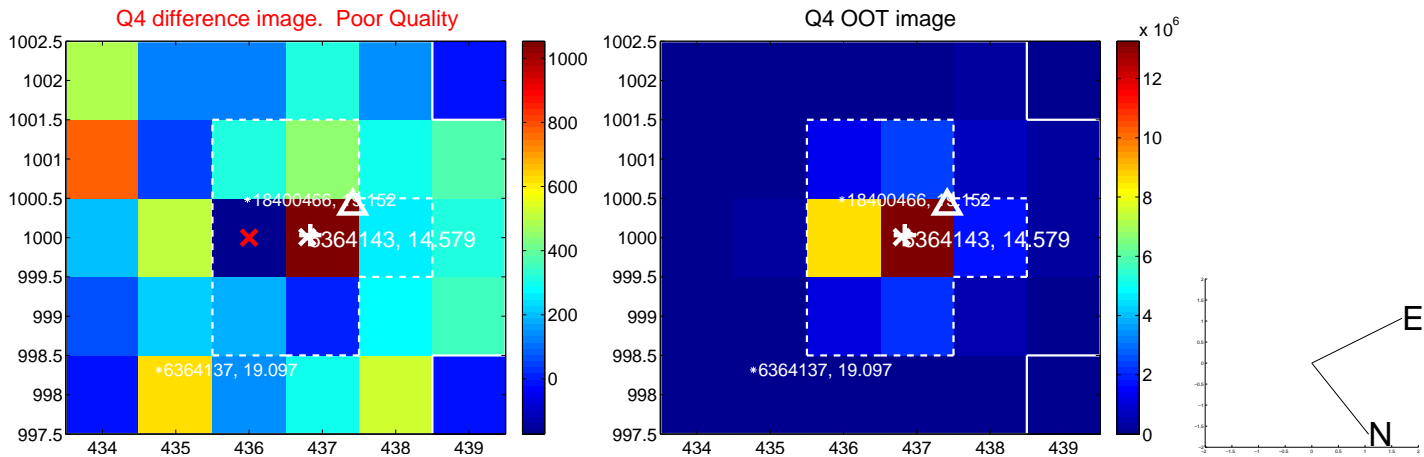
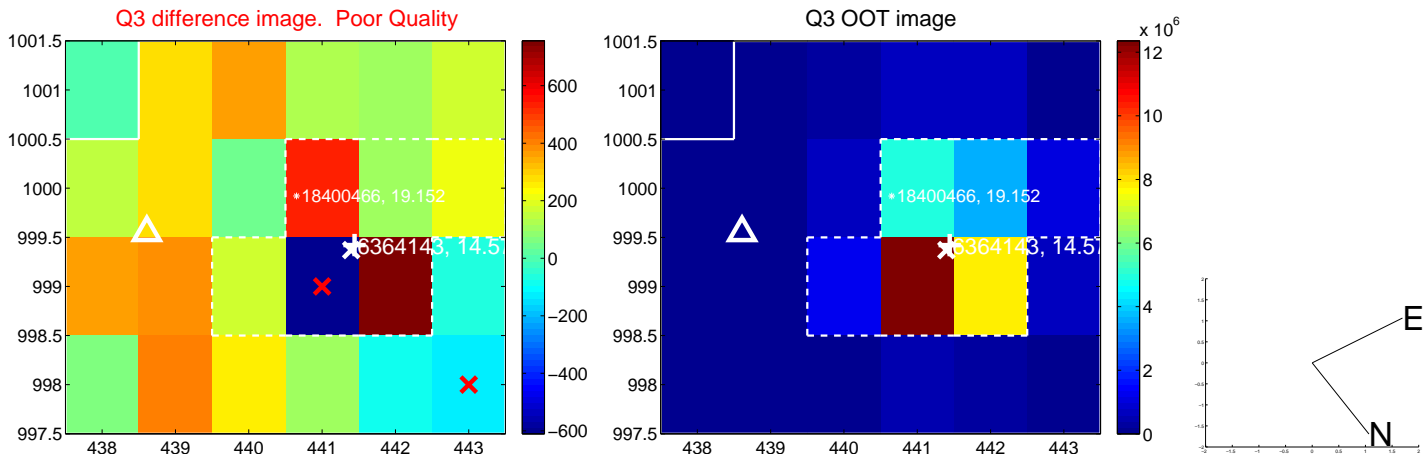
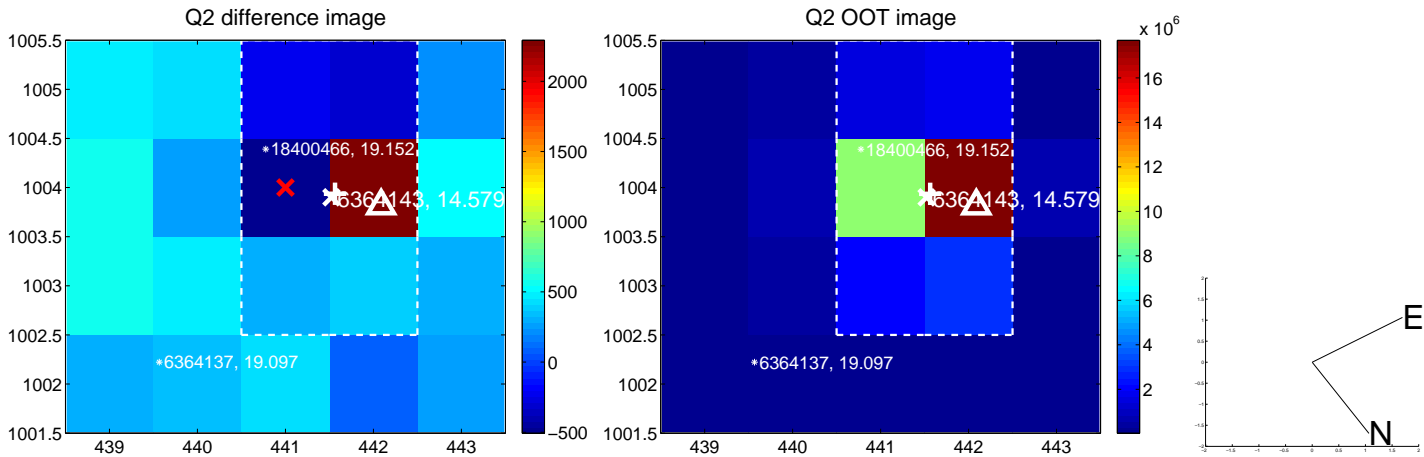
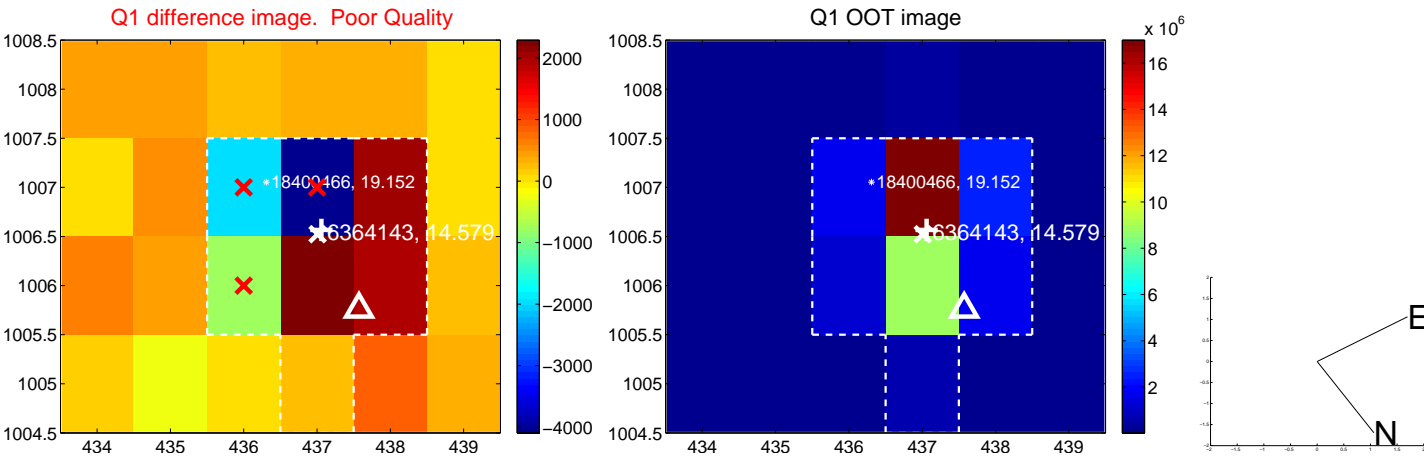
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.053 ± 0.899	3.40	-3.041 ± 0.869	-0.272 ± 0.558
PRF-fit source offset from KIC position	2.817 ± 0.907	3.11	-2.800 ± 0.871	-0.303 ± 0.561
photometric centroid source offset	2.21 ± 0.86	2.56	-2.18 ± 0.86	-0.36 ± 0.83

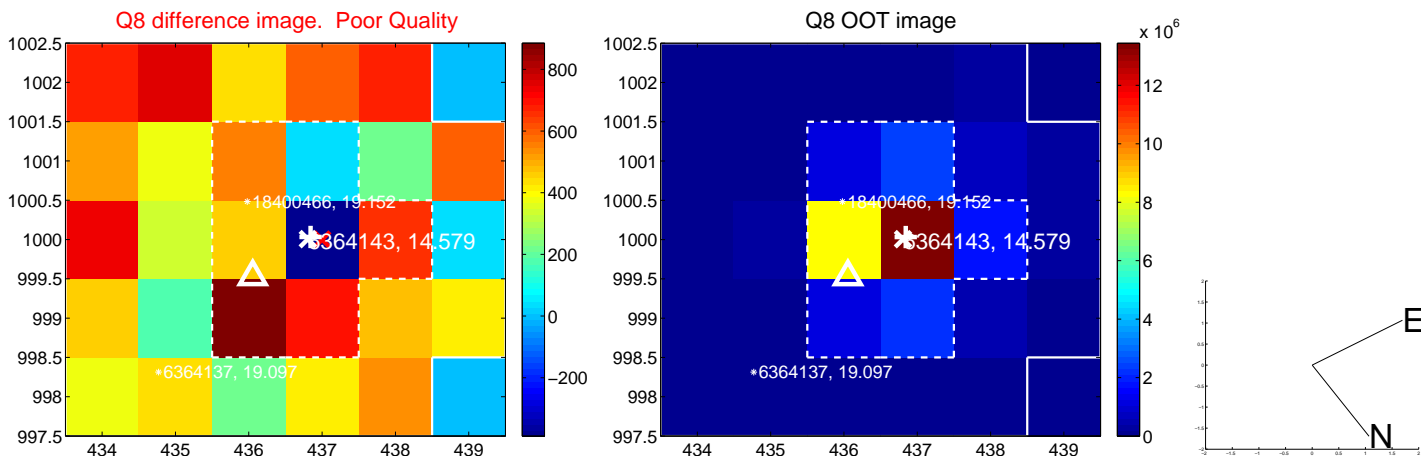
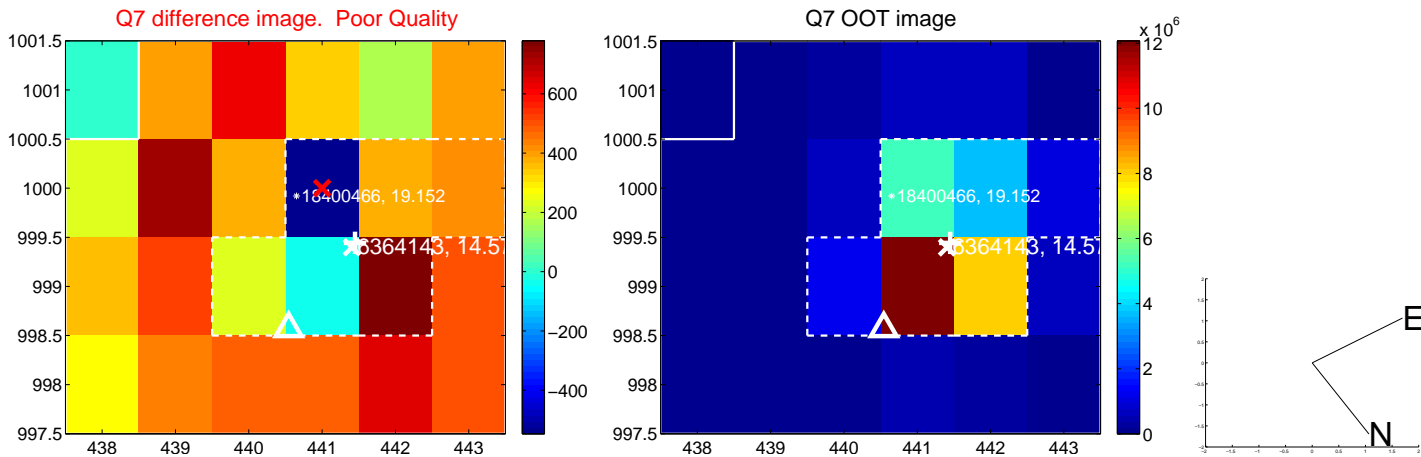
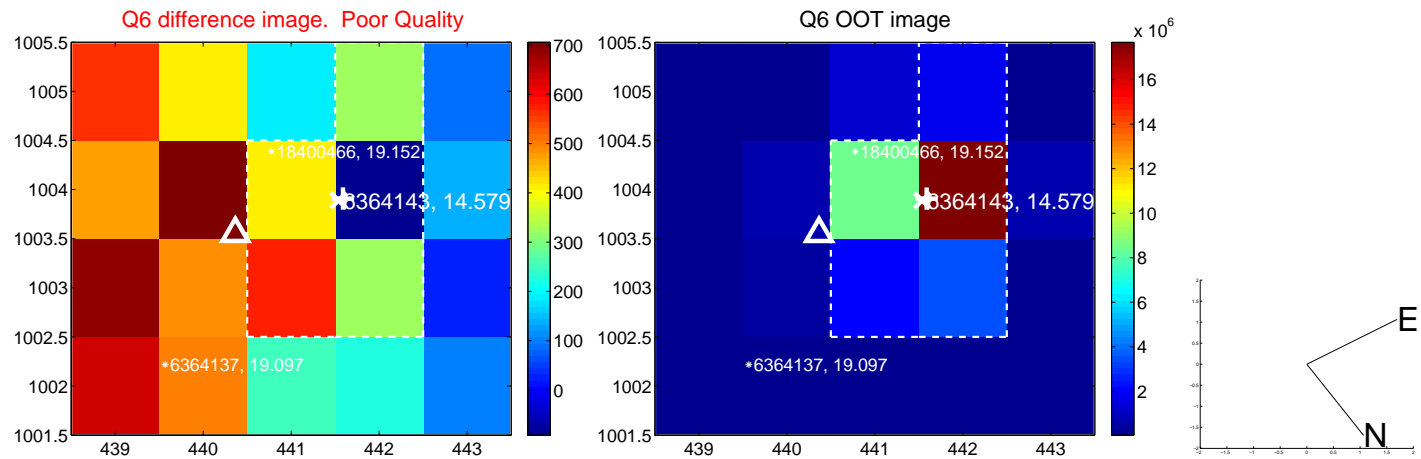
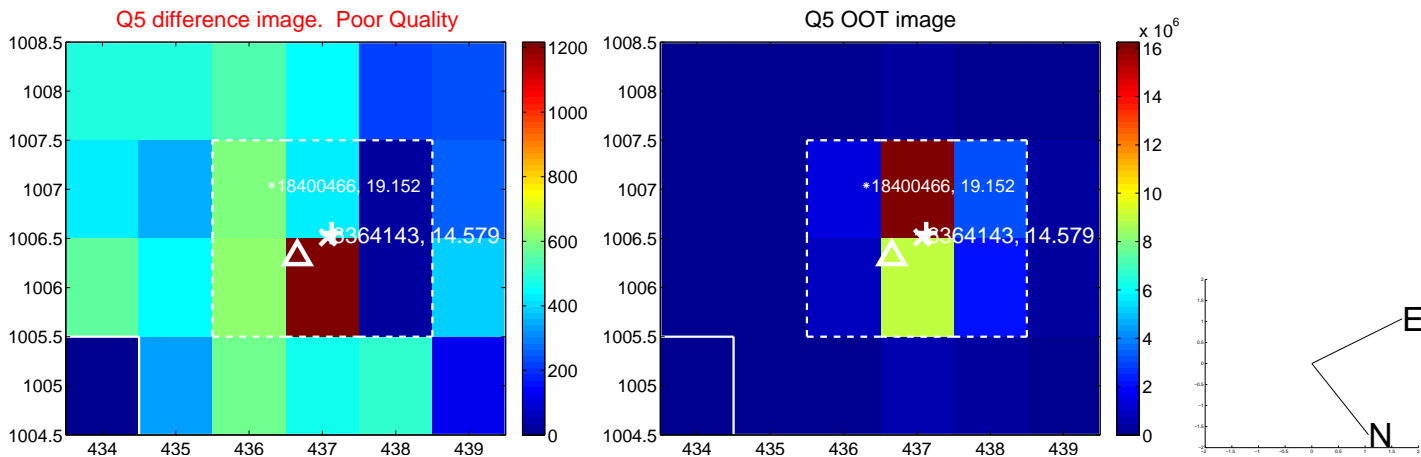


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

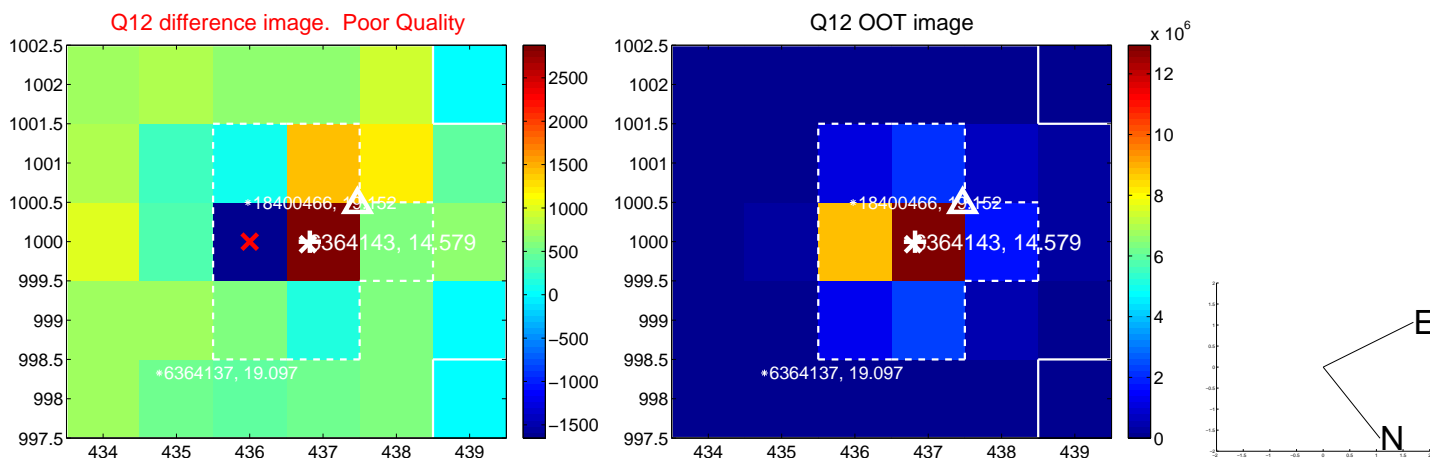
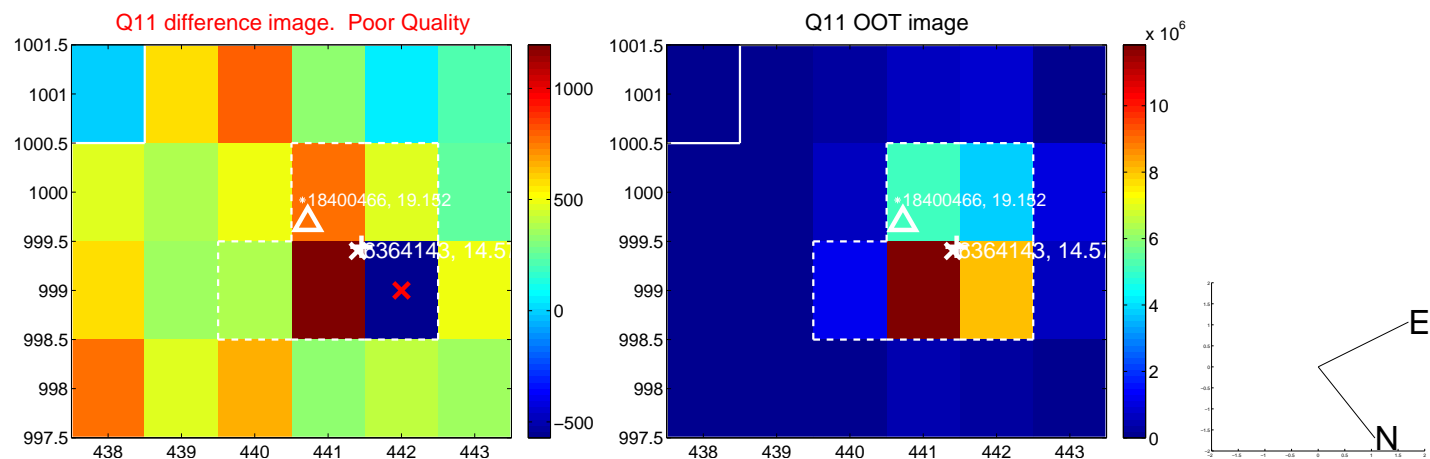
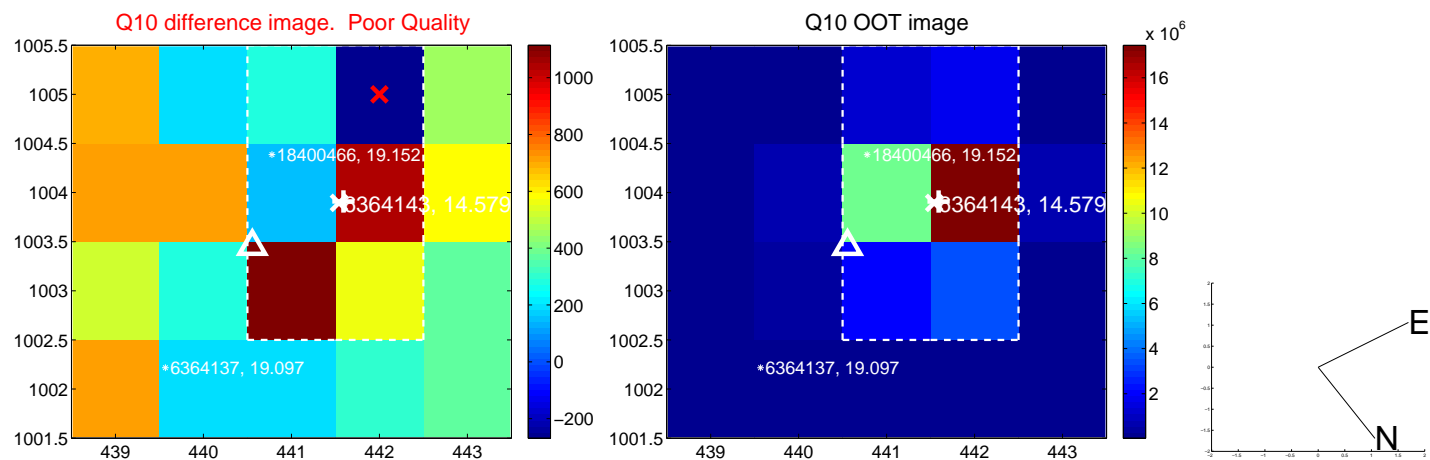
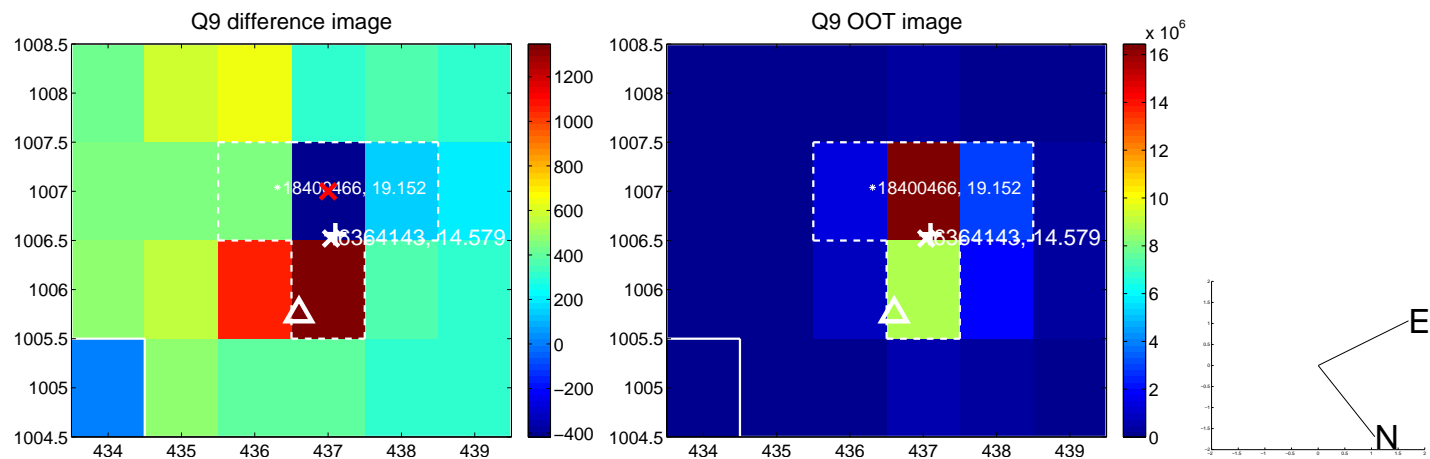
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



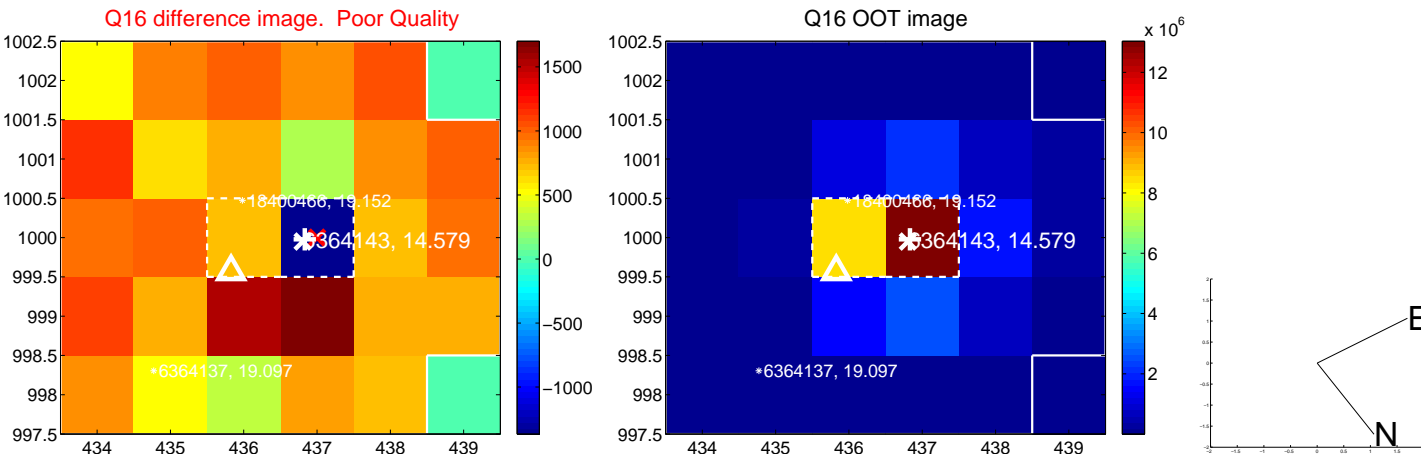
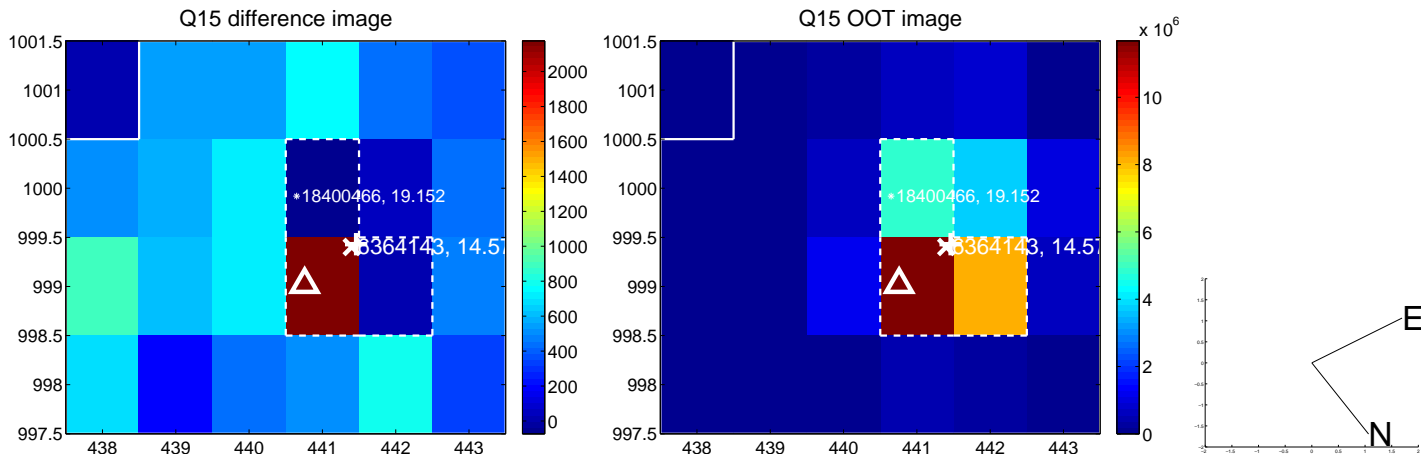
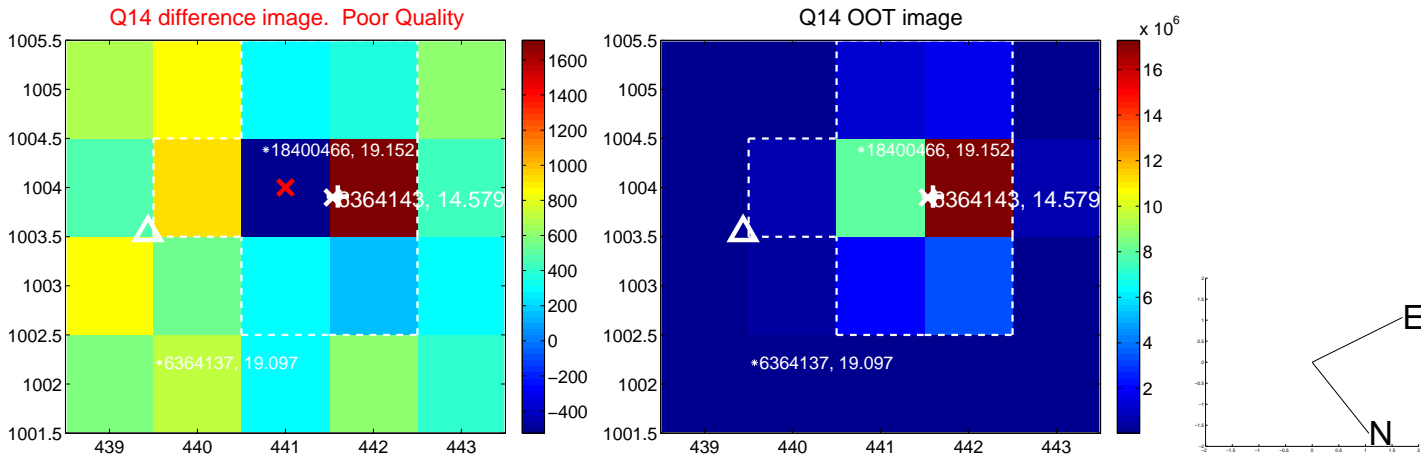
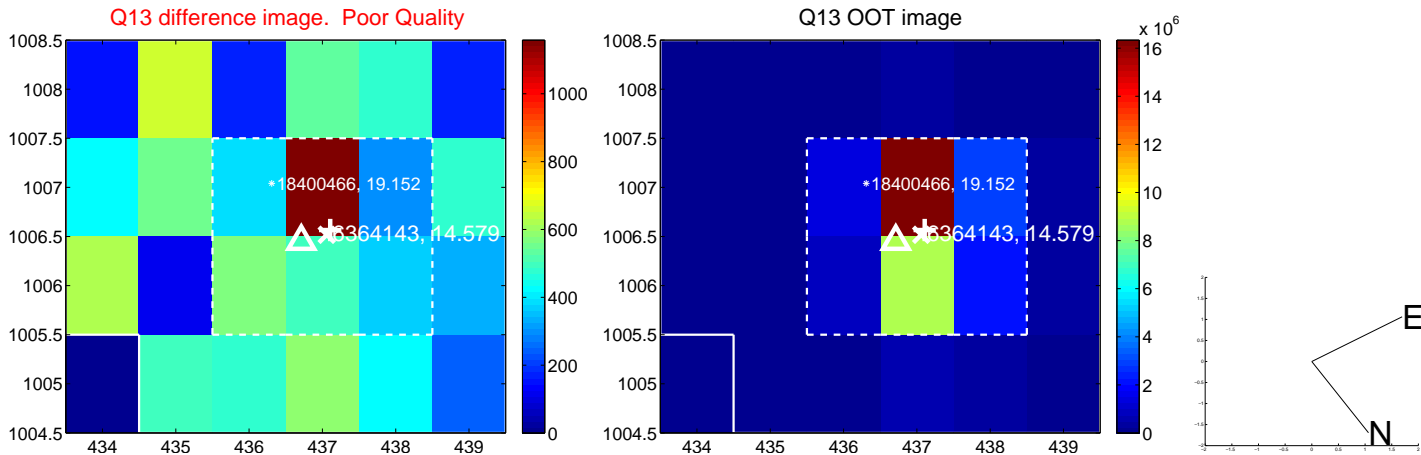
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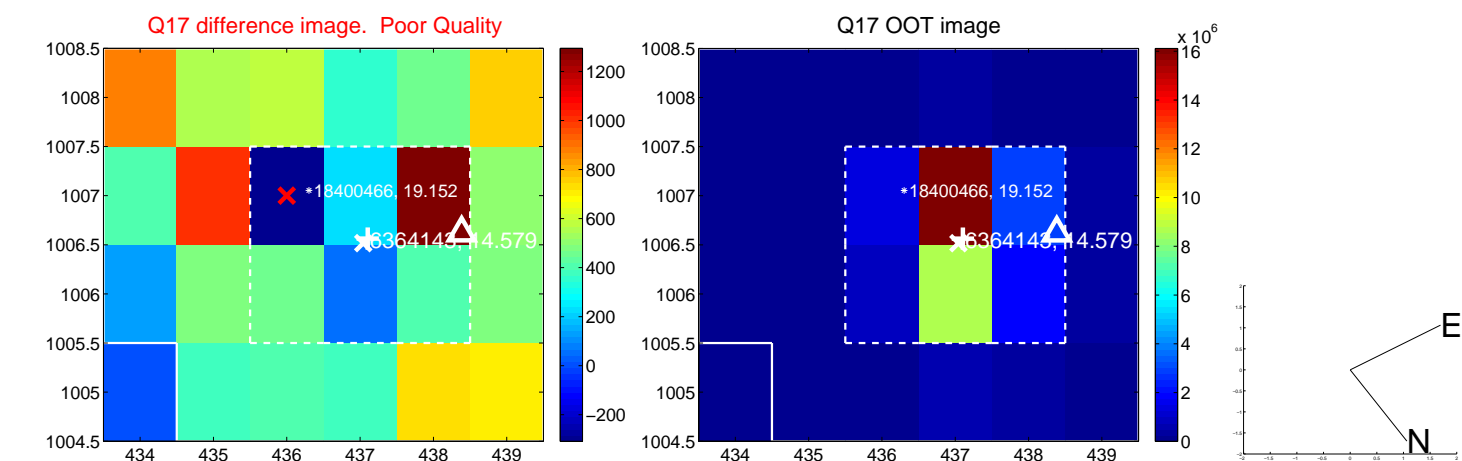
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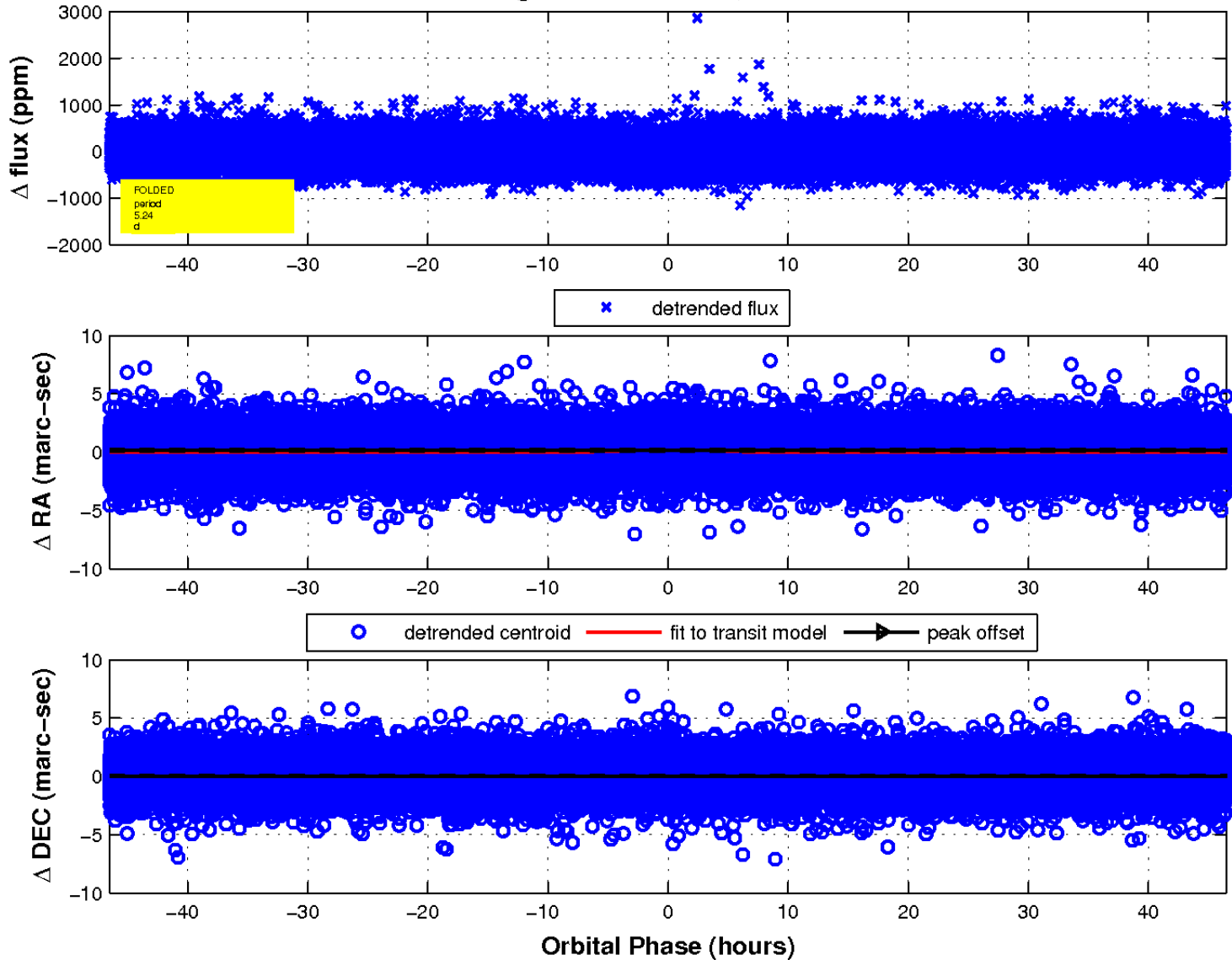
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

