

KIC 006634133

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})
006634133-01	OBS	2262.01	9.942191	133.851928	428.0	2.396	23.0	24.5	0.92	5213	3.40	76.71

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
006634133-01	OBS	FP	0.00	0	0	1	1	CENT_RESOLVED_OFFSET—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.

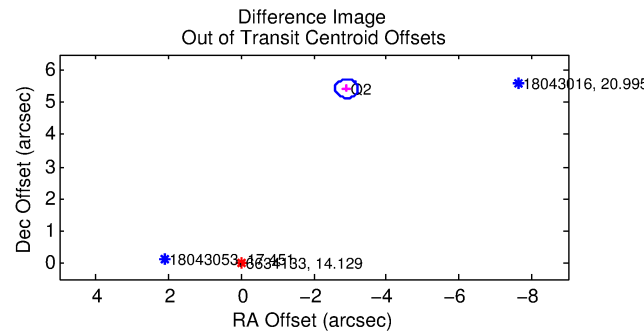
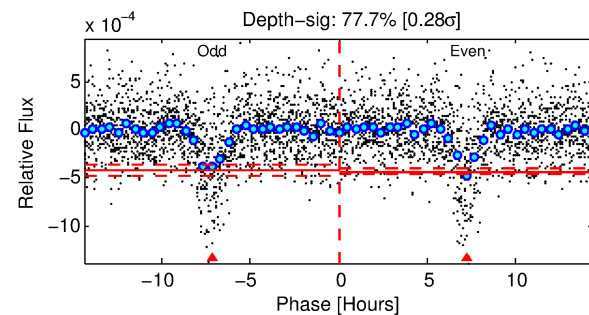
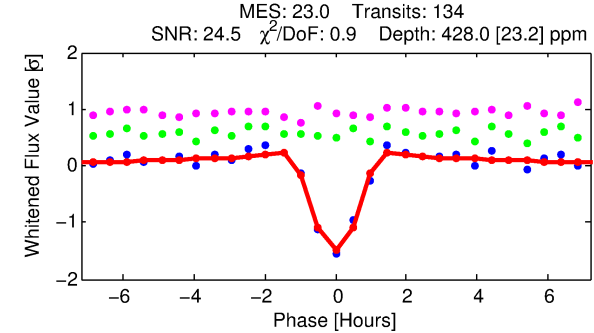
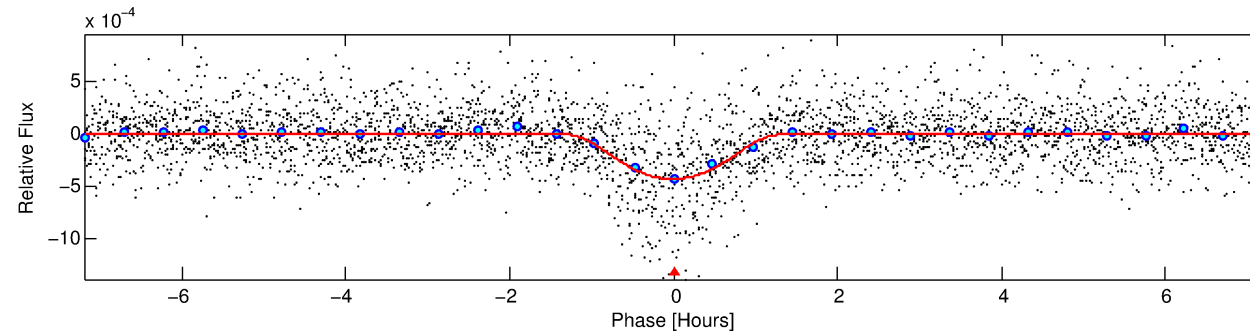
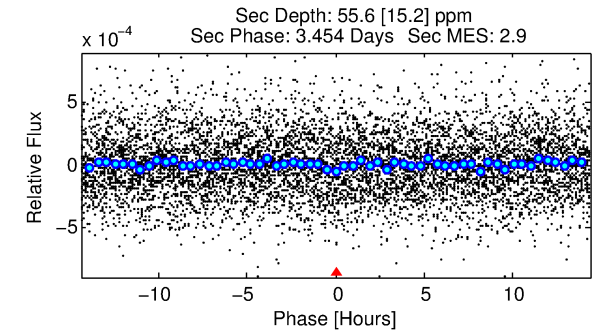
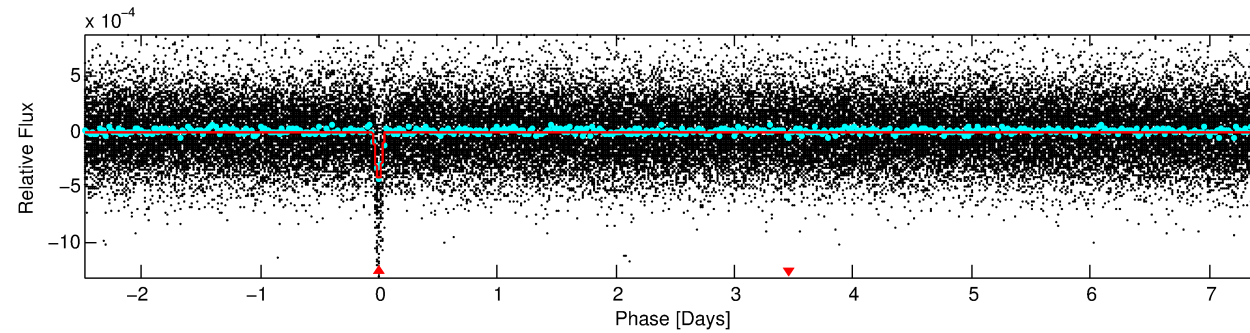
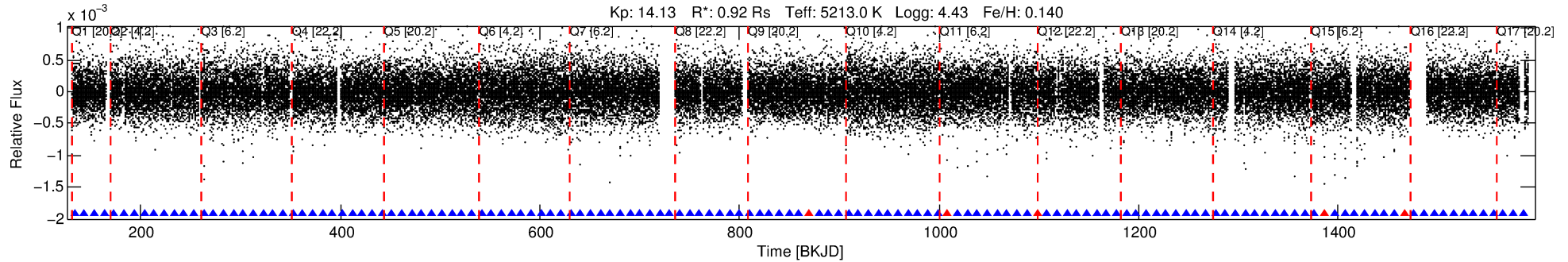
Ephemeris Match Information For 006634133-01

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
006634133-01	6634133	5308.01	6634112	1:1	12.7	3	0	14.10	14.13	76.20	Direct-PRF	0	0.15	0.14

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: 6634133 Candidate: 1 of 1 Period: 9.942 d
KOI: K02262.01 Corr: 0.967



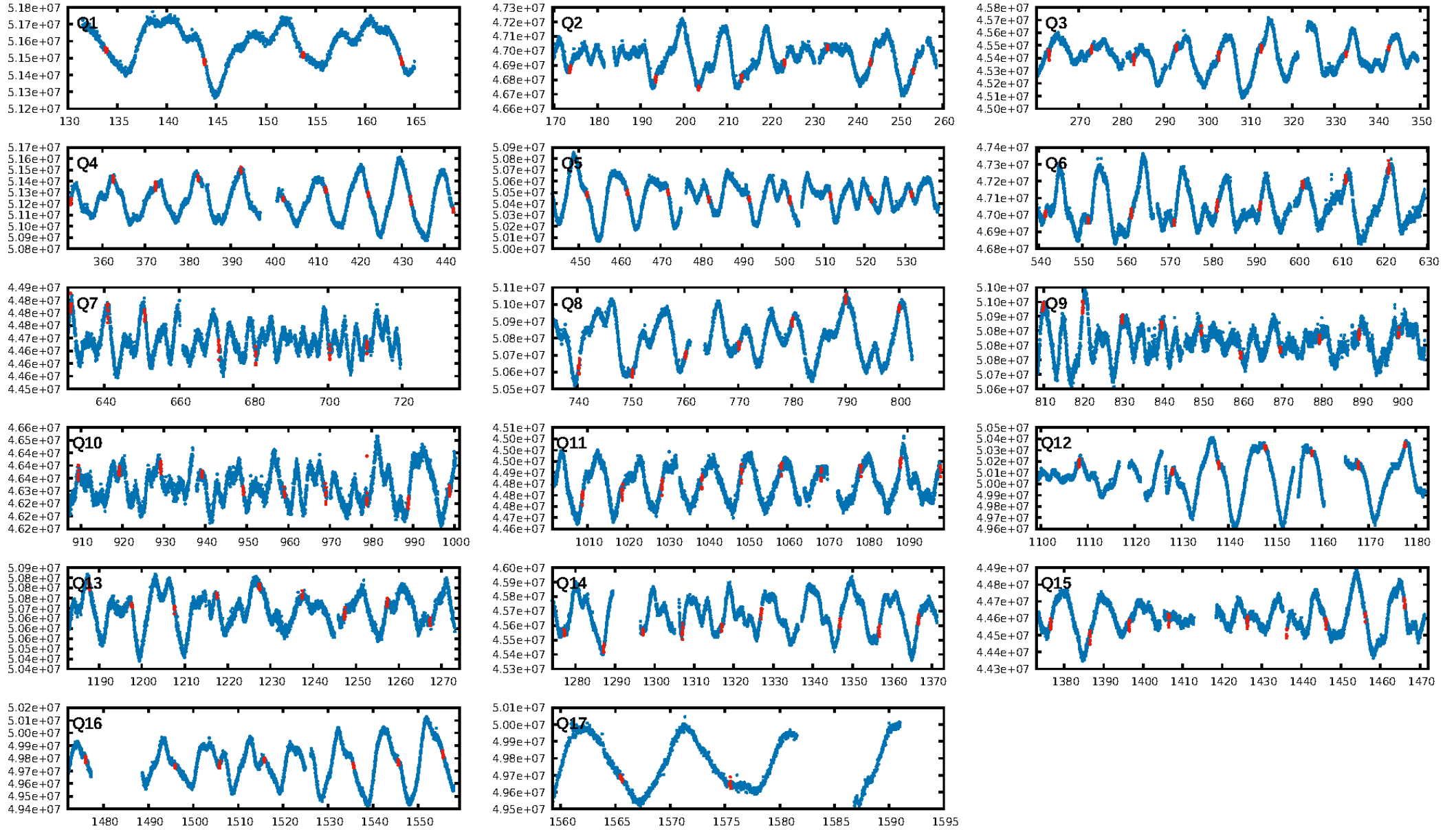
DV Fit Results:

Period = 9.94219 [0.00003] d
Epoch = 133.8519 [0.0020] BKJD
Rp/R* = 0.0340 [0.0343]
a/R* = 9.42 [3.07]
b = 0.99 [0.06]
Seff = 76.71 [36.63]
Teq = 755 [90] K
Rp = 3.40 [3.57] Re
a = 0.0852 [0.0244] AU
Ag = 19.15 [39.93] [0.45σ]
Teffp = 2441 [1243] K [1.35σ]

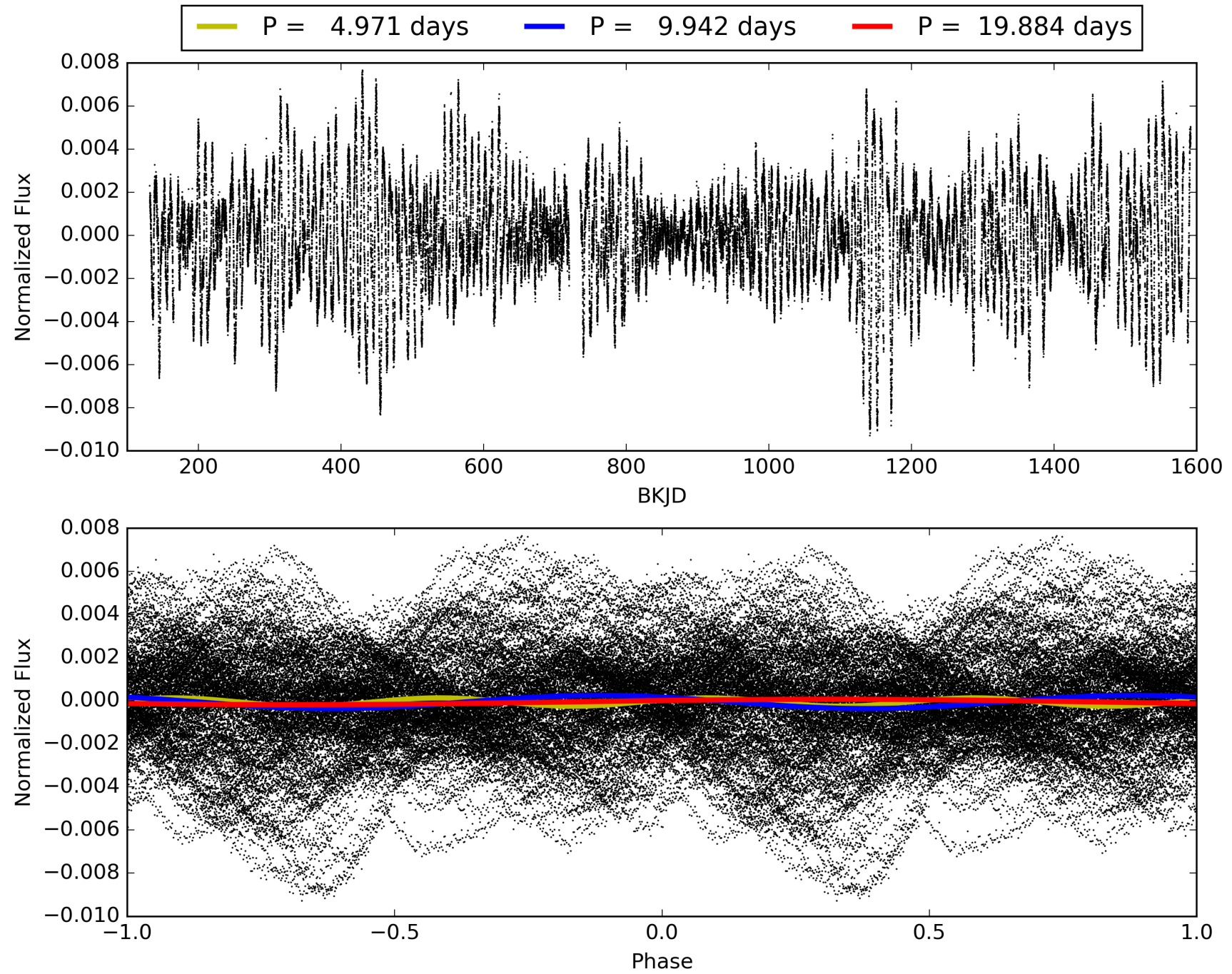
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.30e-110
RollingBand-fgt: 0.96 [123/128]
GhostDiagnostic-chr: -0.3237
Centroid-sig: 0.0%
Centroid-so: 48.932 arcsec [112.92σ]
OotOffset-rm: 6.165 arcsec [61.32σ]
KicOffset-rm: 6.170 arcsec [61.32σ]
OotOffset-st: 1/0/0/0 [1]
KicOffset-st: 1/0/0/0 [1]
DiffImageQuality-fgm: 1.00 [1/1]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 006634133-01, PDC Light Curves

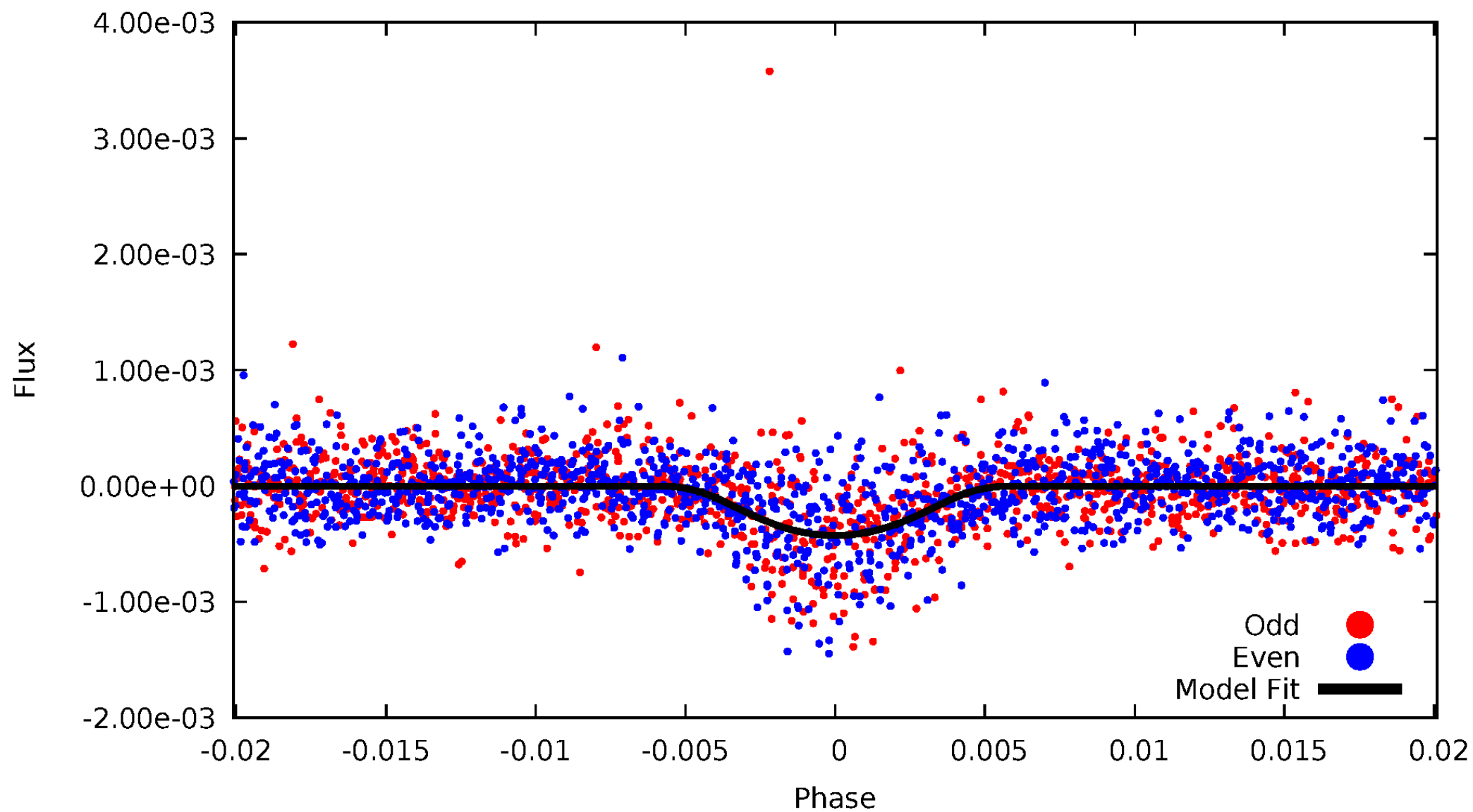


TCE 006634133-01



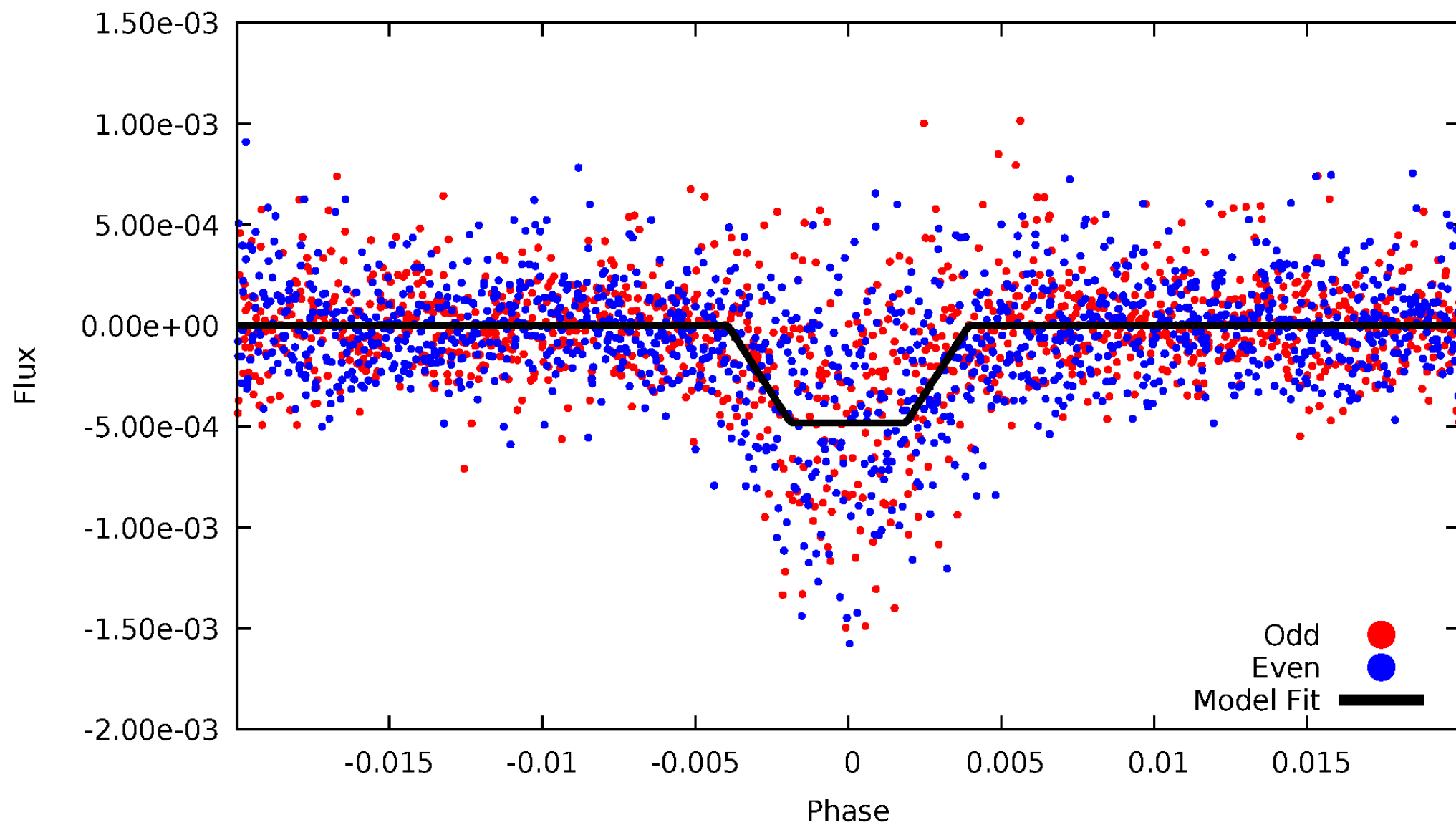
DV Odd/Even

TCE 006634133-01



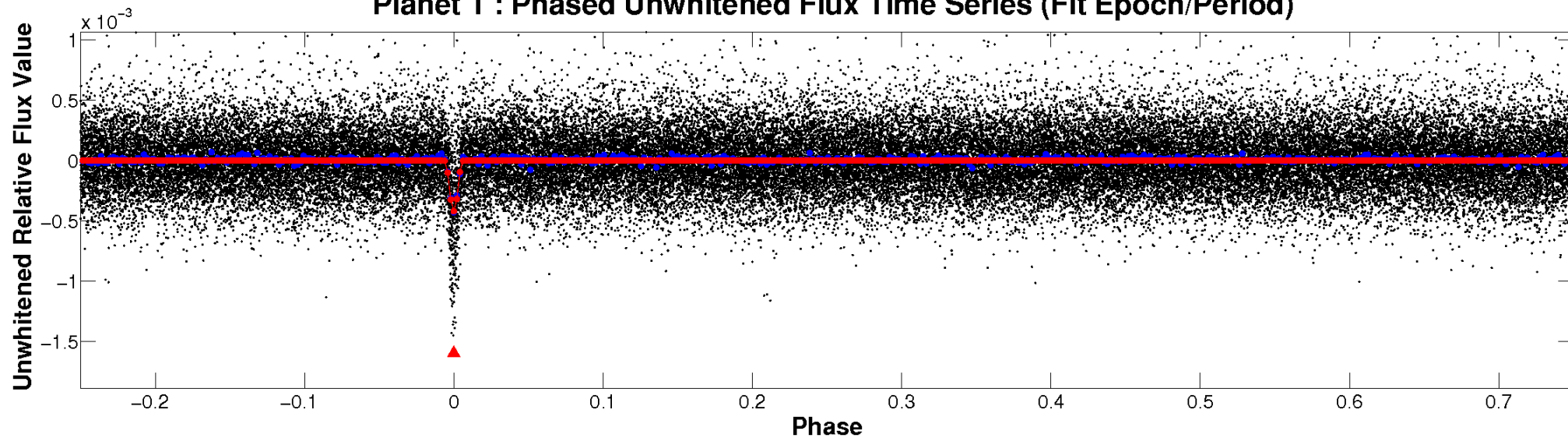
ALT Odd/Even

TCE 006634133-01

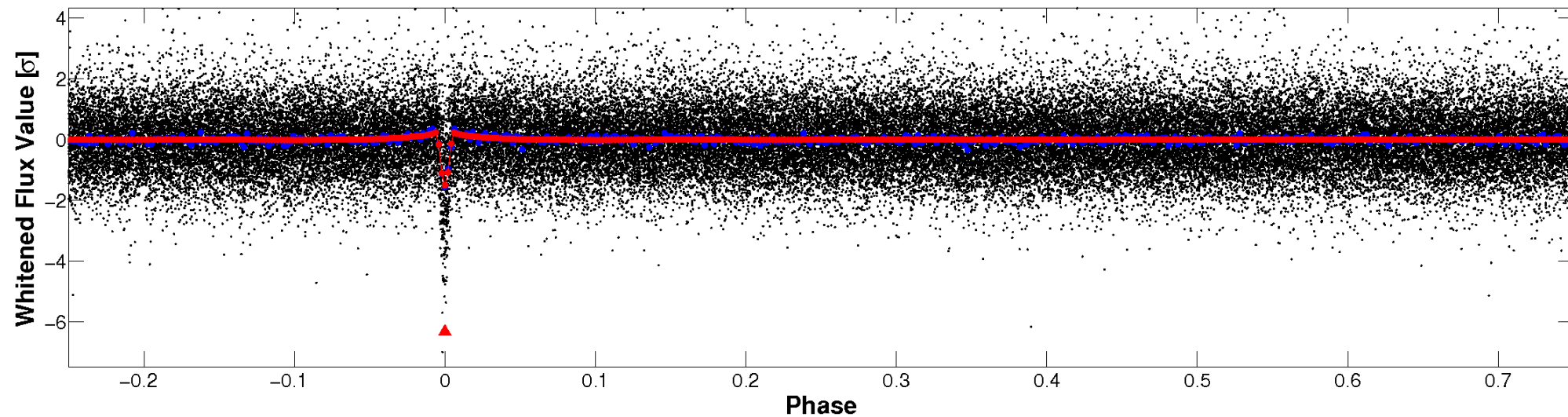


Non-Whitened Vs. Whitened Light Curve

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

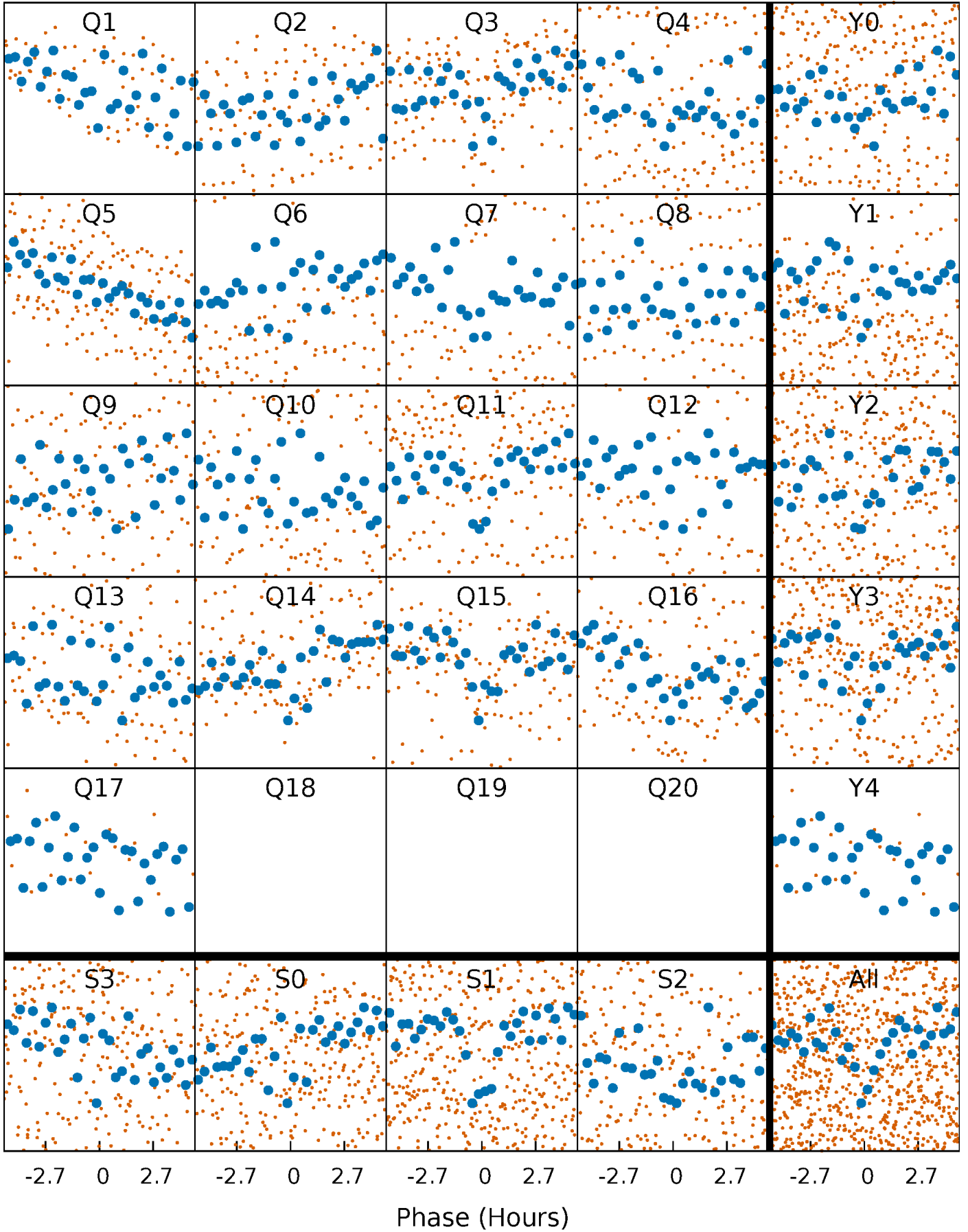


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



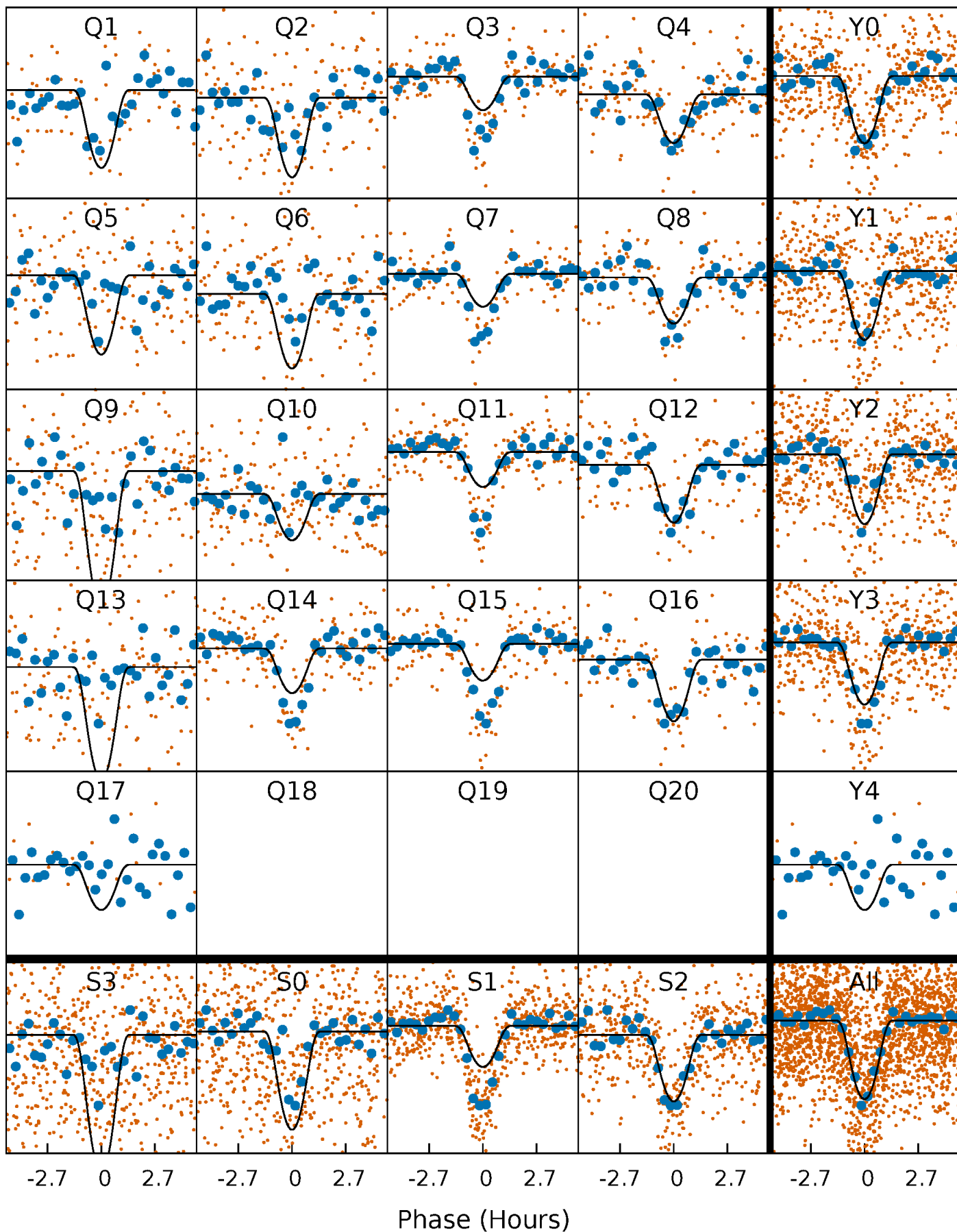
PDC Quarter-Phased Transit Curves

TCE 006634133-01 P= 9.942191 Days $T_0=133.851928$ (BKJD)



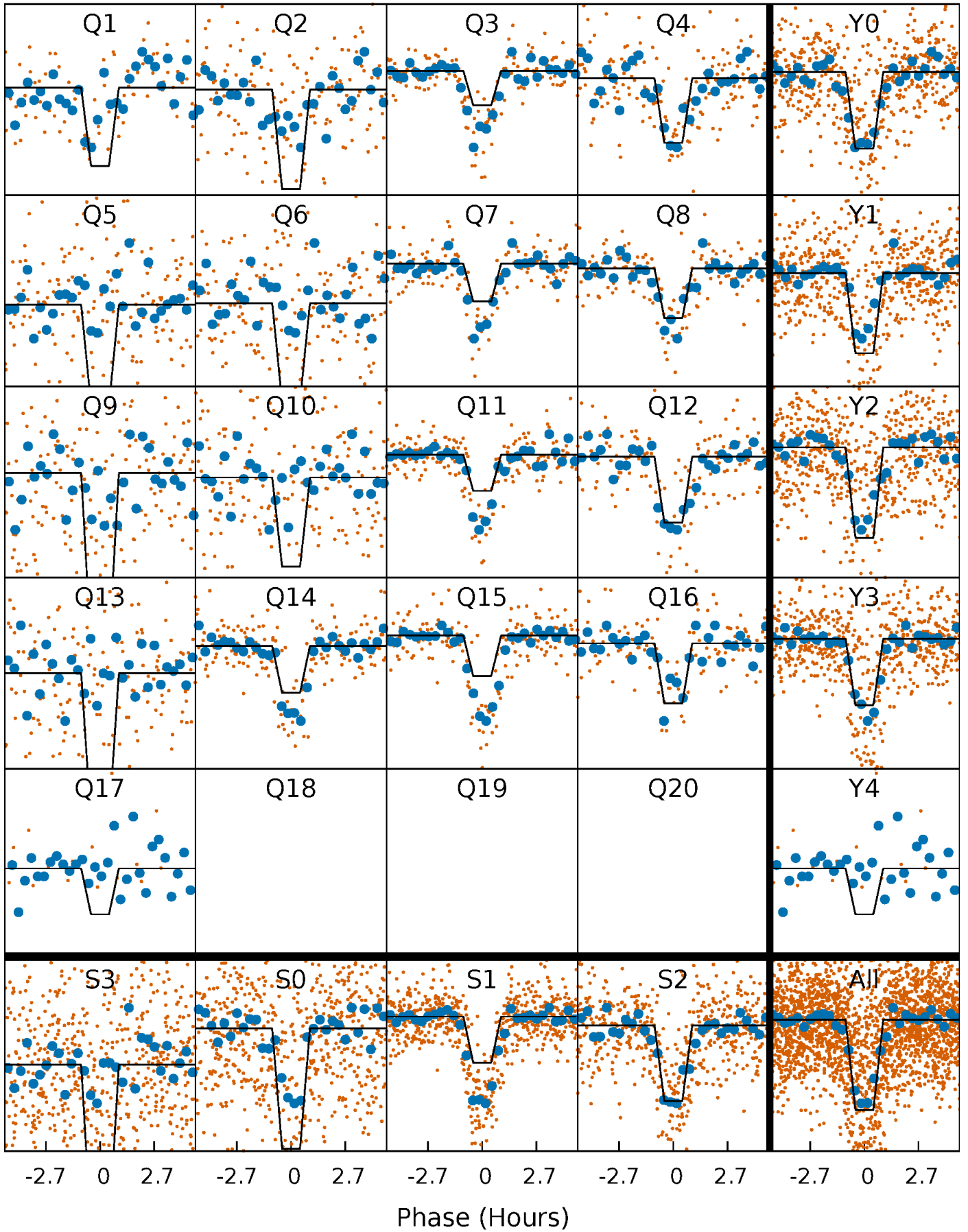
DV Quarter-Phased Transit Curves

TCE 006634133-01 P= 9.942191 Days $T_0=133.851928$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

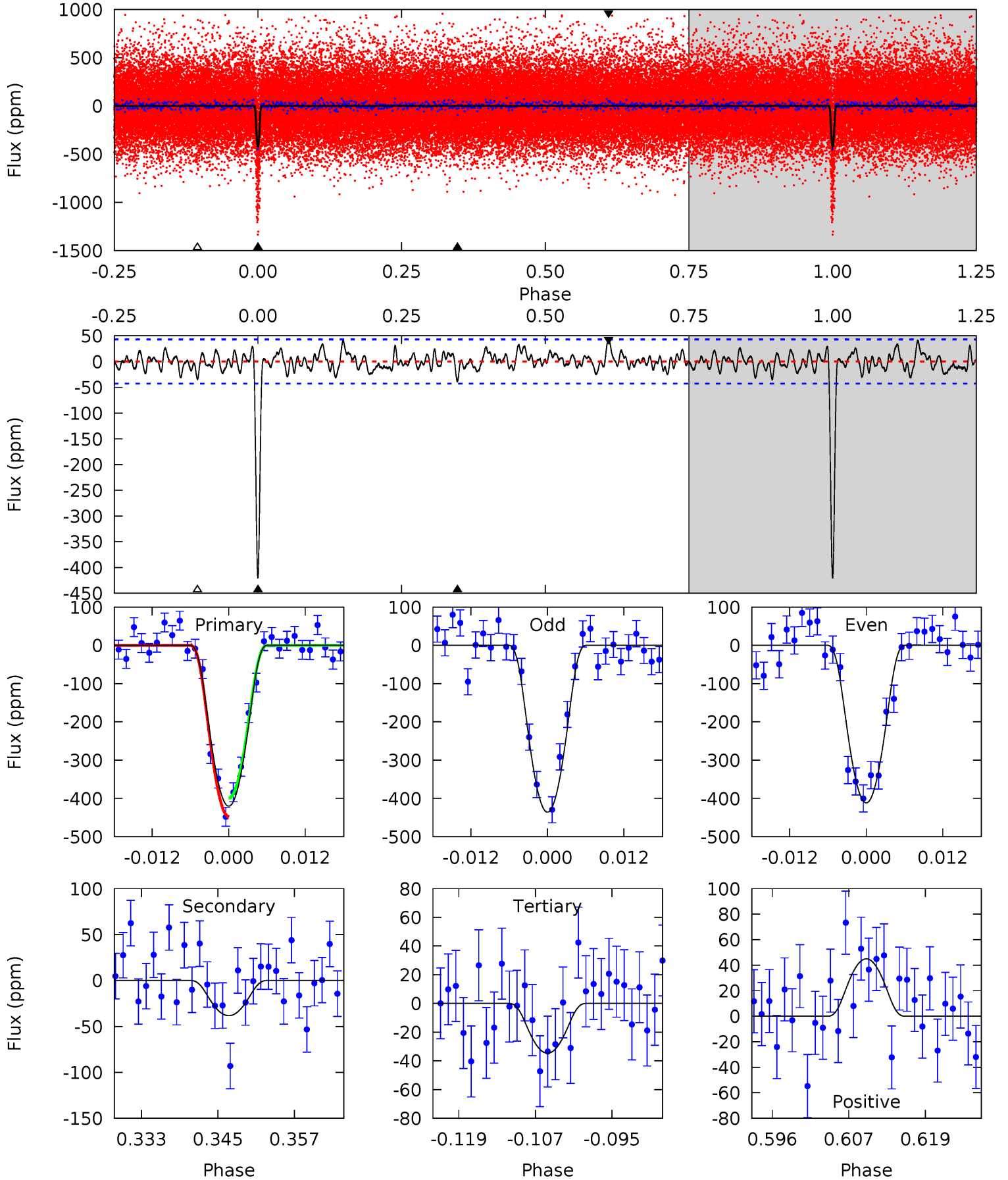
TCE 006634133-01 P= 9.942164 Days $T_0=133.852705$ (BKJD)



DV Model-Shift Uniqueness Test

006634133-01, P = 9.942191 Days, E = 123.909737 Days

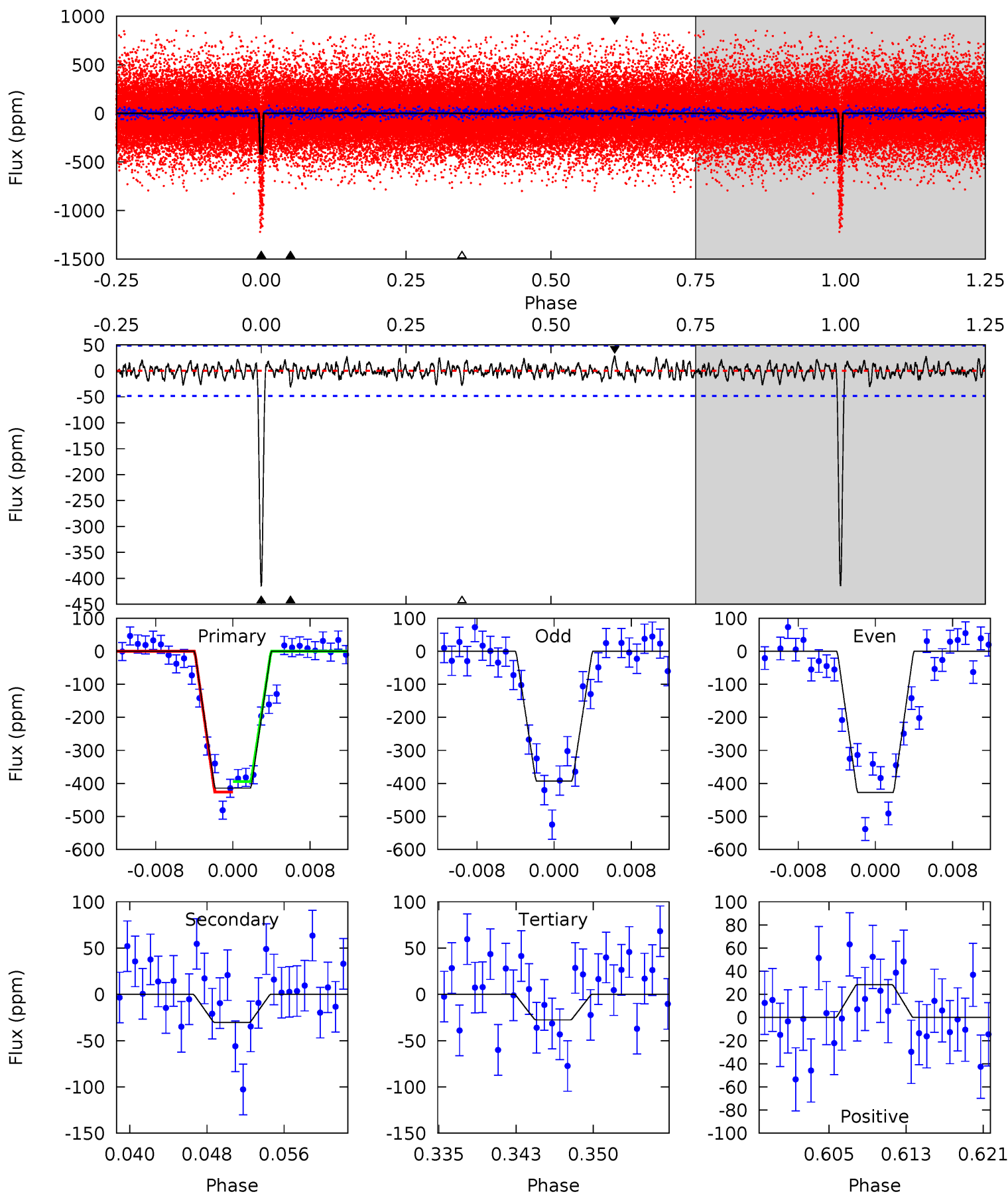
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.8	4.45	4.02	5.22	4.99	2.51	1.51	44.8	43.6	0.42	-0.77	1.41	1.01	0.10	2.79



Alt Model-Shift Uniqueness Test

006634133-01, P = 9.942164 Days, E = 123.910541 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
43.4	3.18	2.89	2.98	5.07	2.65	0.98	40.5	40.4	0.29	0.20	1.82	1.16	0.06	1.63



Stellar Parameters For KIC 006634133

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5213^{+155}_{-155}	$4.434^{+0.126}_{-0.273}$	$0.140^{+0.250}_{-0.250}$	$0.917^{+0.269}_{-0.124}$	$0.832^{+0.096}_{-0.064}$	$1.521^{+0.813}_{-0.988}$
	+3%/-3%	+3%/-6%	+179%/-179%	+29%/-14%	+12%/-8%	+53%/-65%
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 006634133-01 / KOI 2262.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-38 ± 9	$4.14^{+3.50}_{-2.54}$	1072^{+91}_{-67}	2756^{+947}_{-405}	$8.633^{+53.444}_{-6.051}$
Alt.	-30 ± 10	$3.31^{+3.10}_{-2.29}$	1065^{+88}_{-62}	2823^{+1224}_{-455}	10^{+104}_{-7}

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 $A_{obs} \gg 1.0$

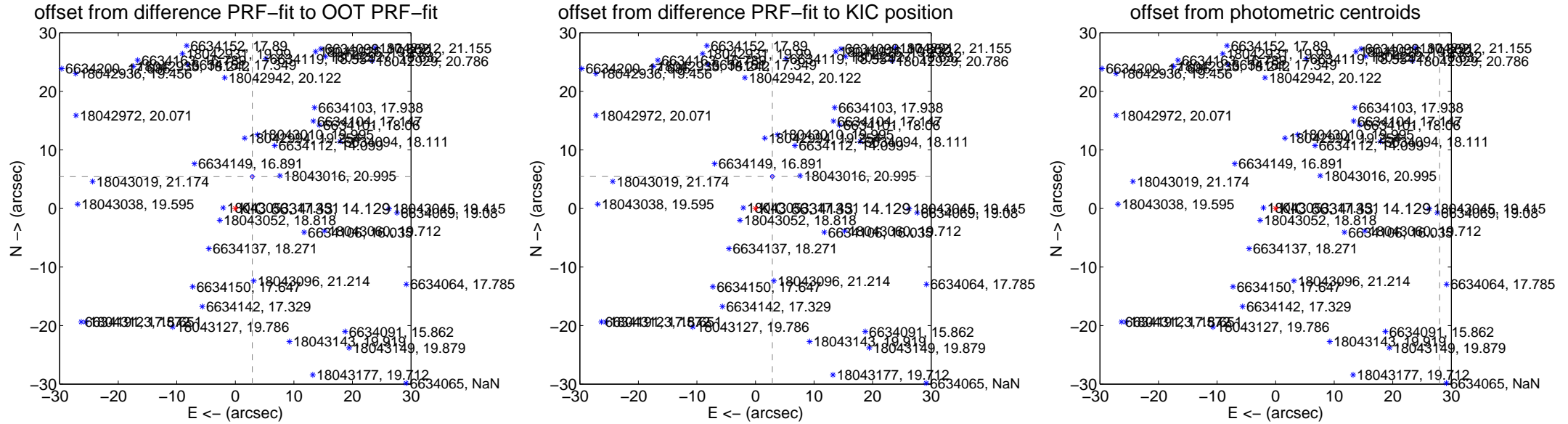
DV Centroid Data

Supplemental centroid analysis for 006634133-01. Kepler magnitude: 14.13. Transit SNR 24.46

There are 1 quarters with good PRF difference image offsets

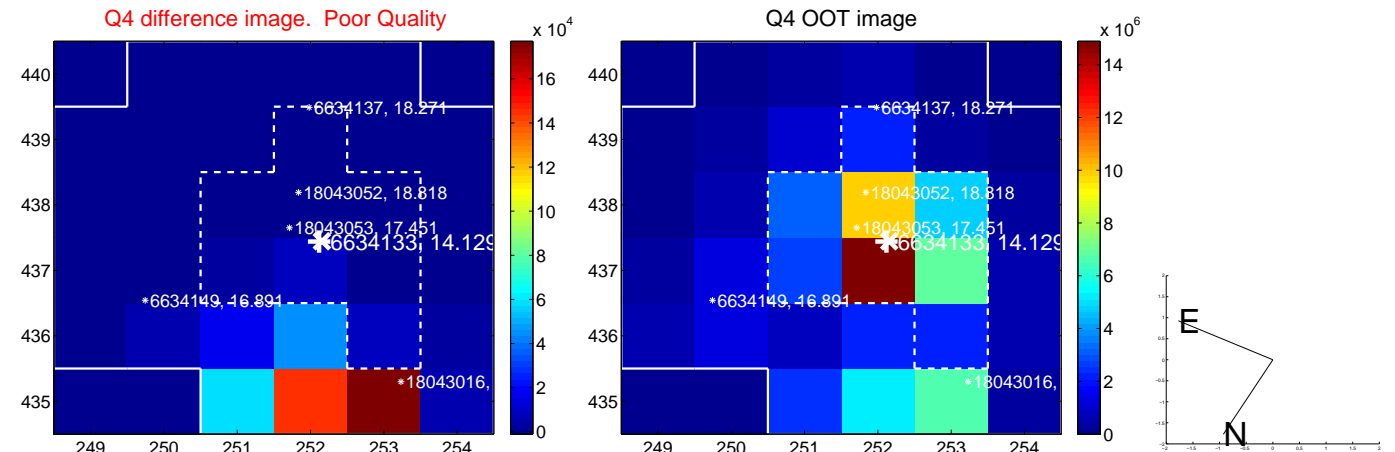
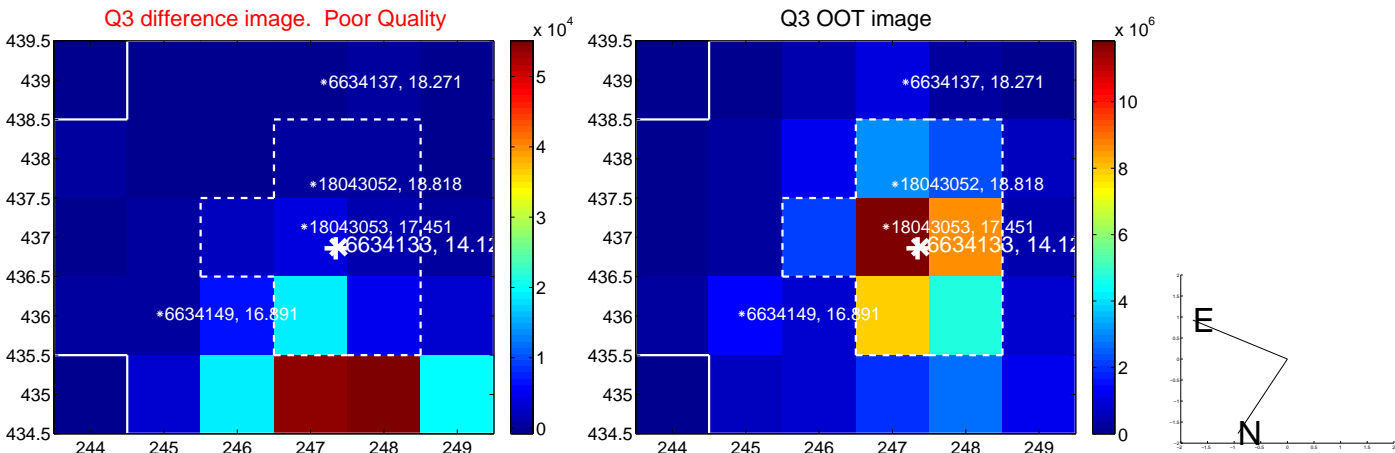
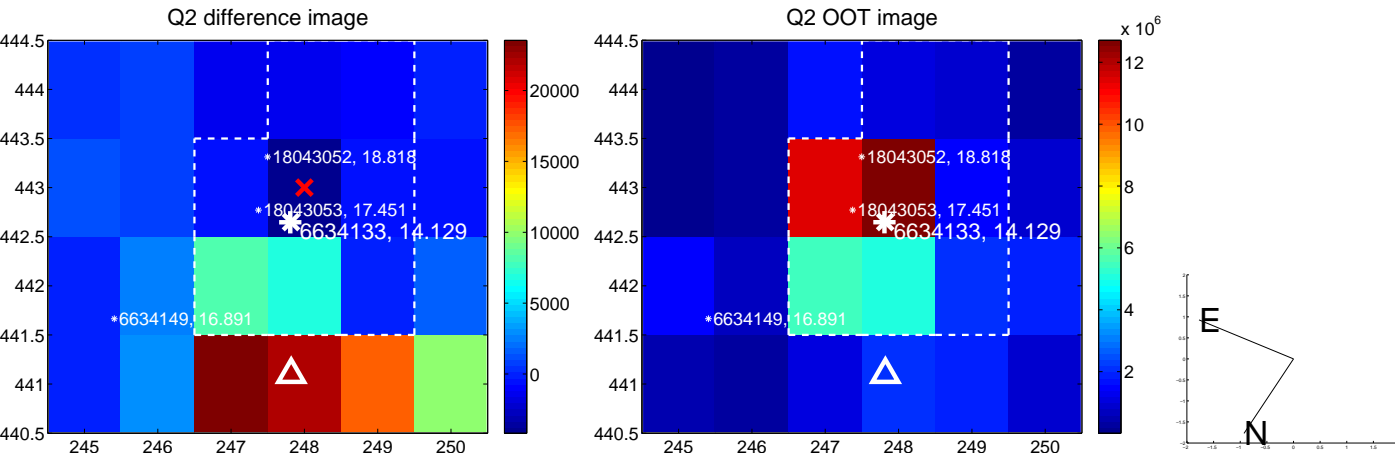
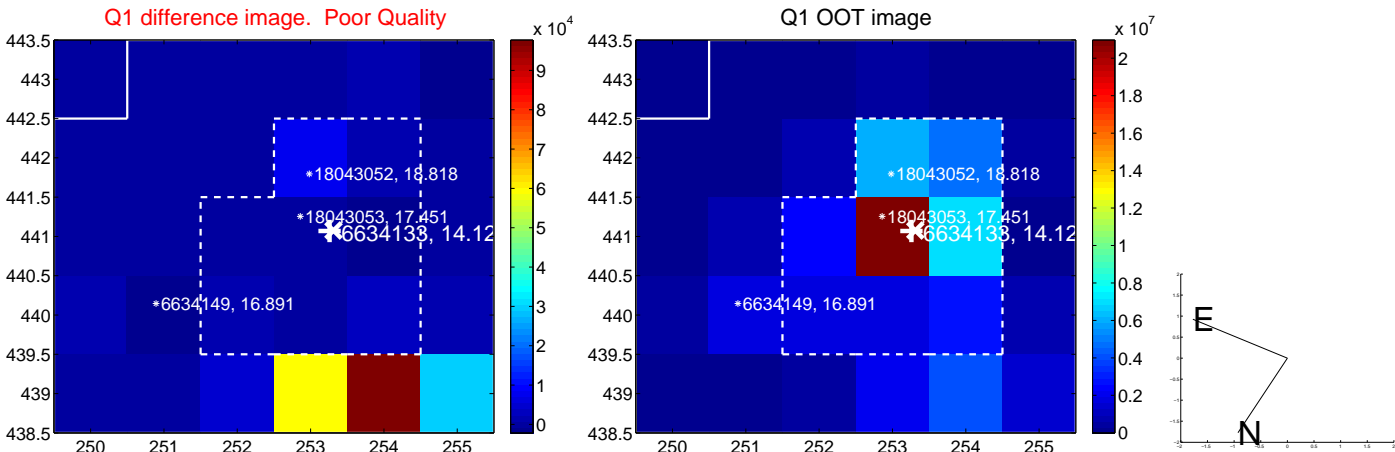
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	6.165 \pm 0.101	61.32	-2.905 \pm 0.087	5.437 \pm 0.104
PRF-fit source offset from KIC position	6.170 \pm 0.101	61.32	-2.874 \pm 0.087	5.459 \pm 0.104
photometric centroid source offset	48.93 \pm 0.43	112.93	-27.98 \pm 0.46	40.14 \pm 0.42

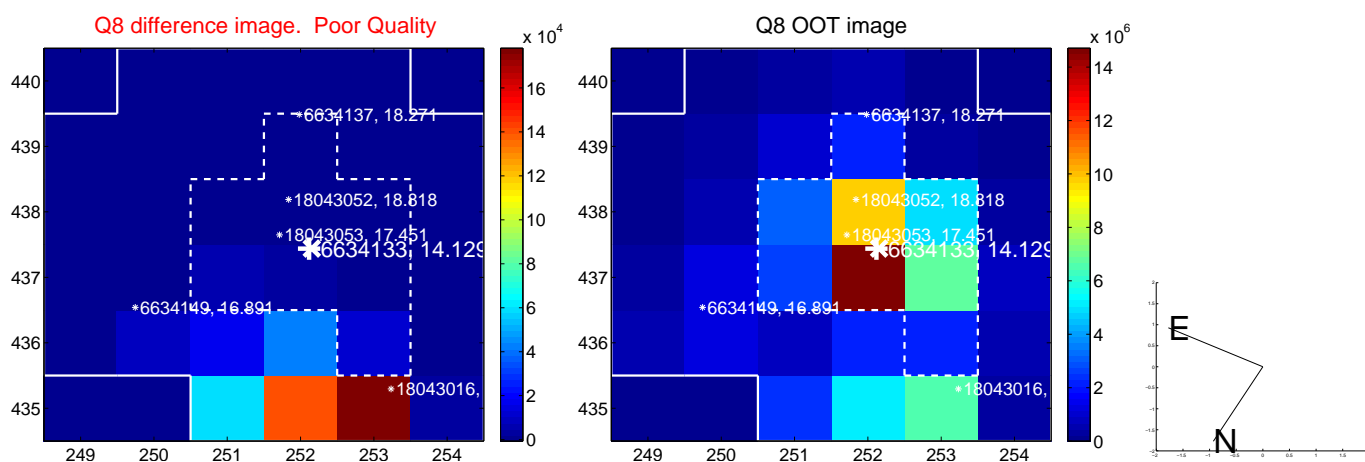
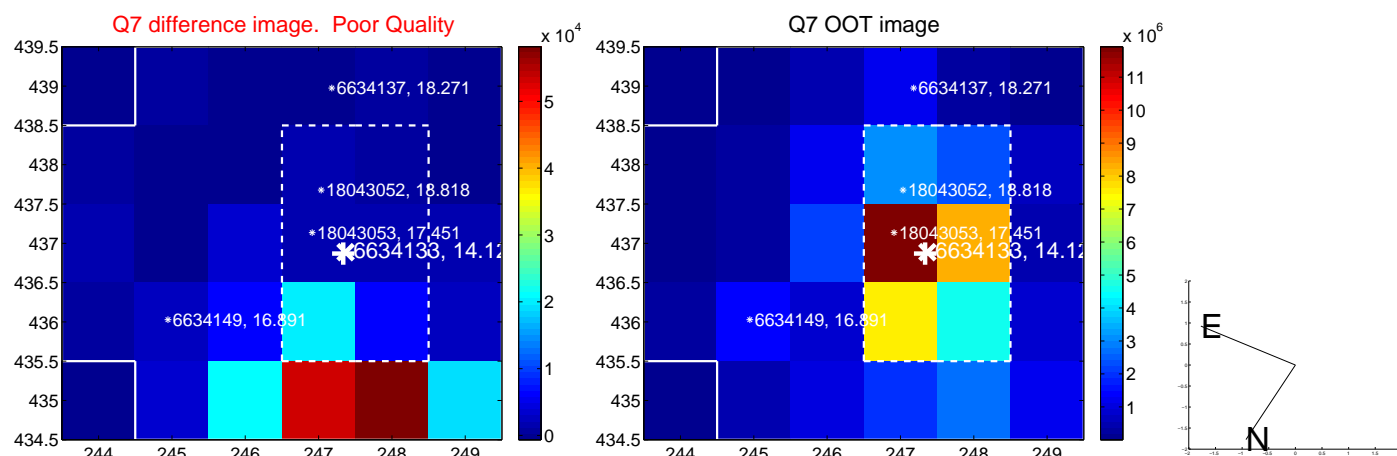
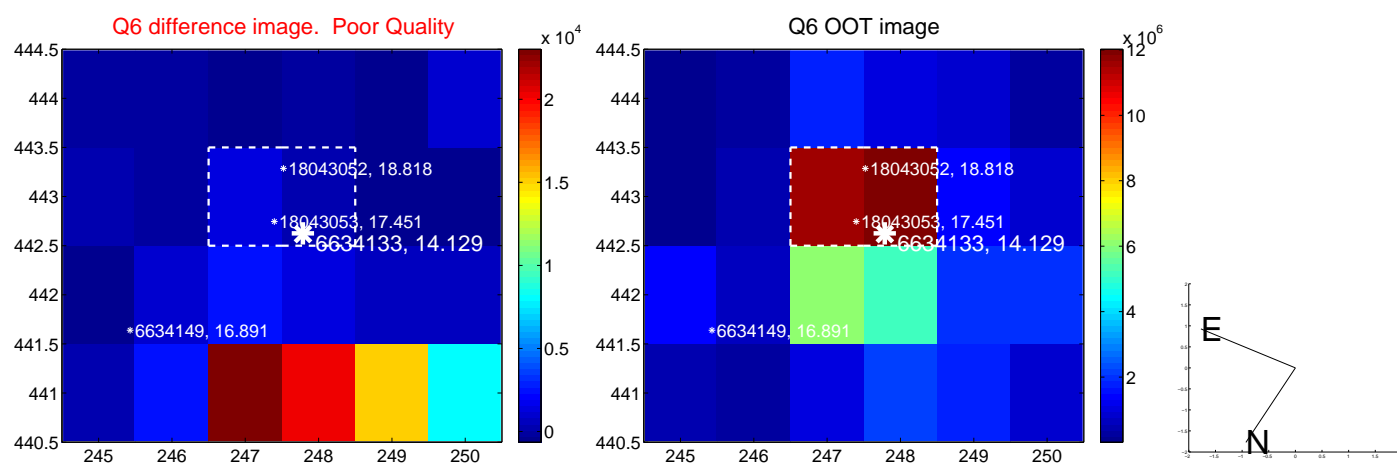
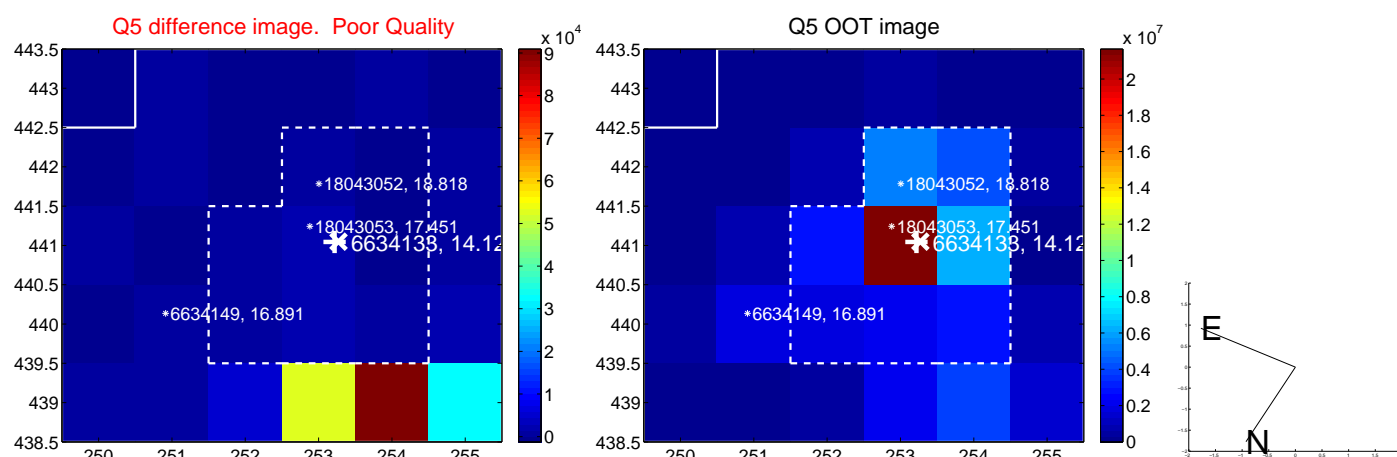


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

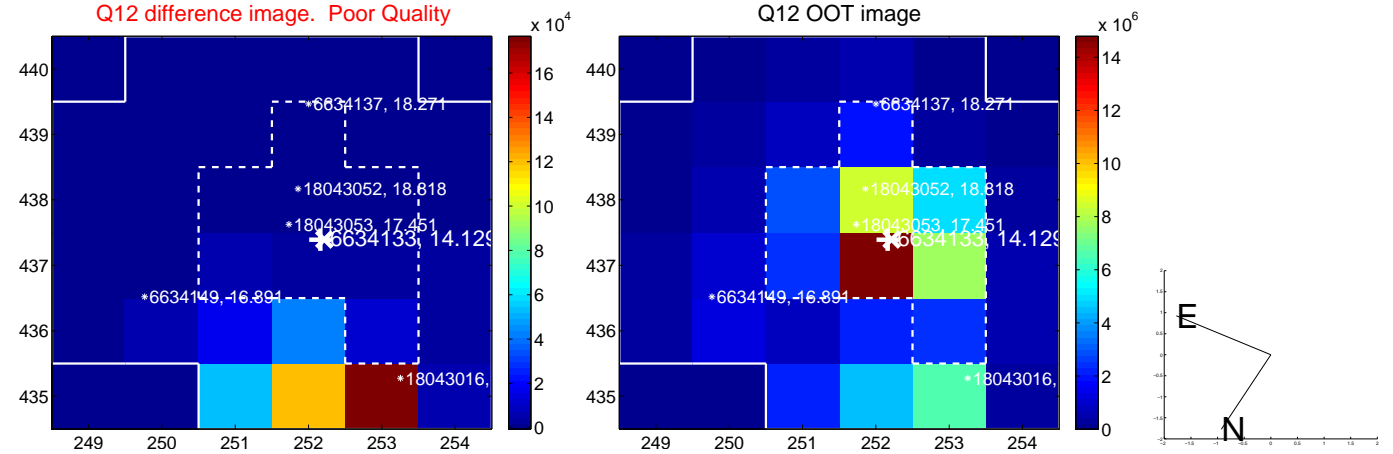
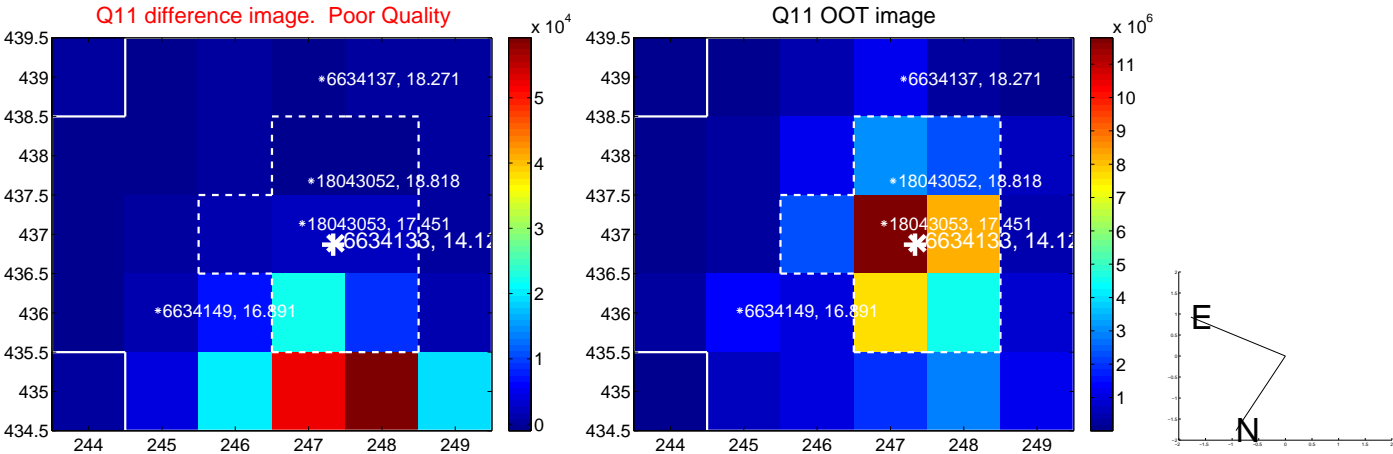
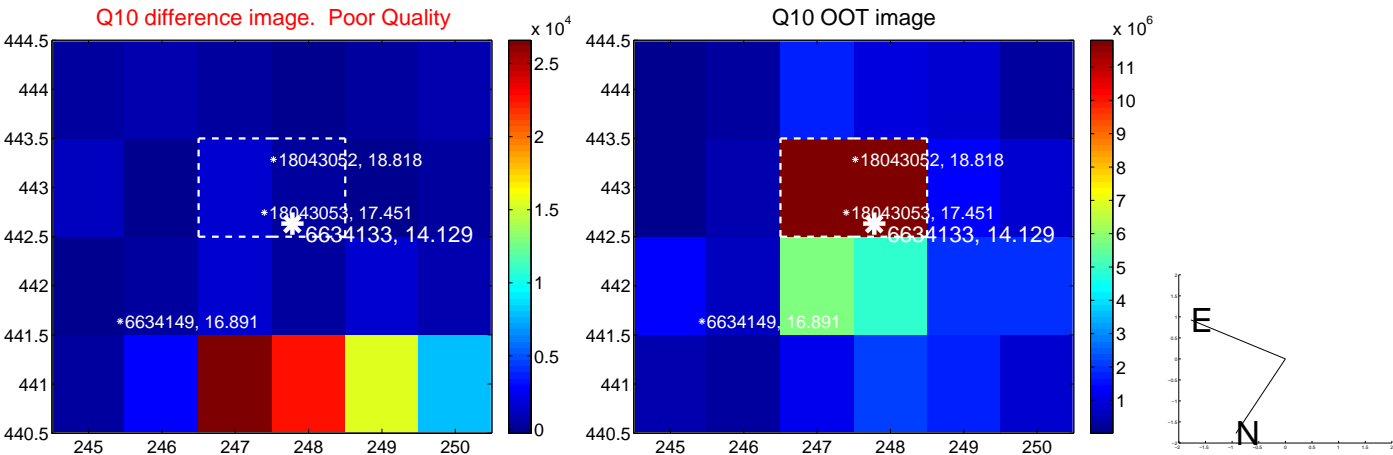
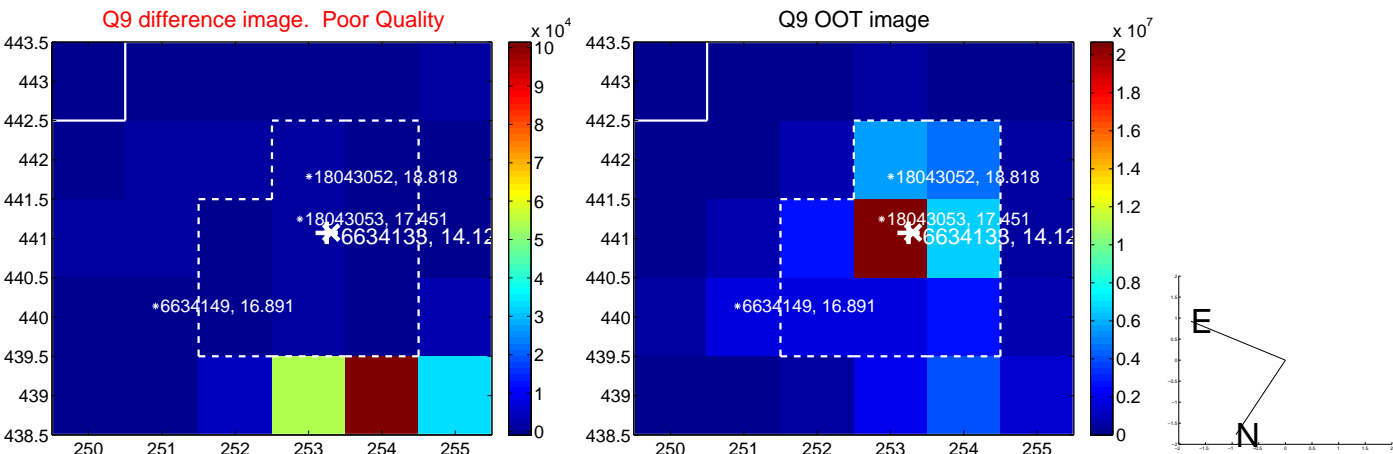
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



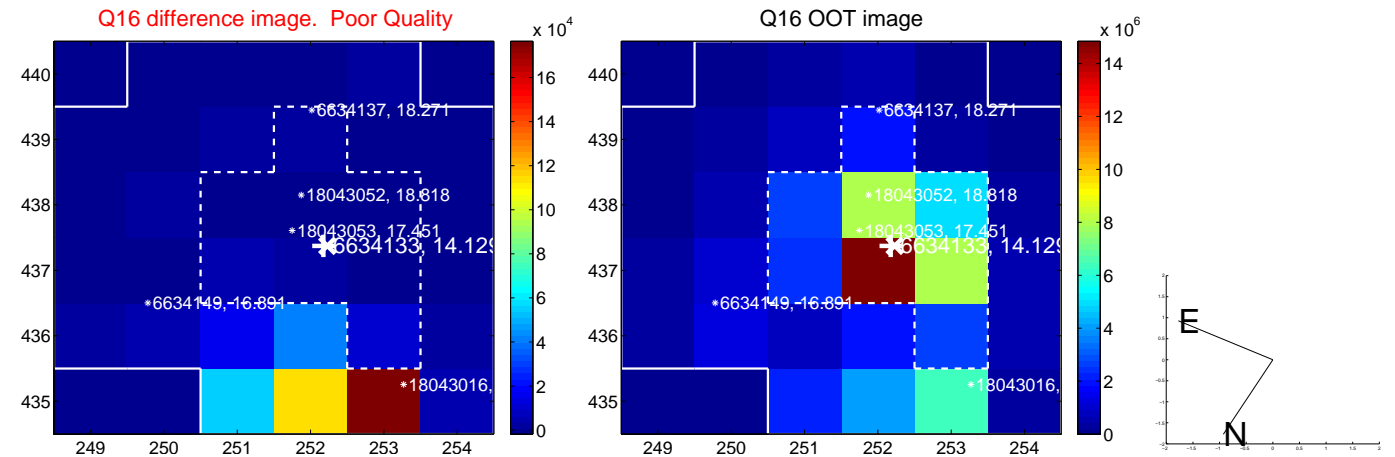
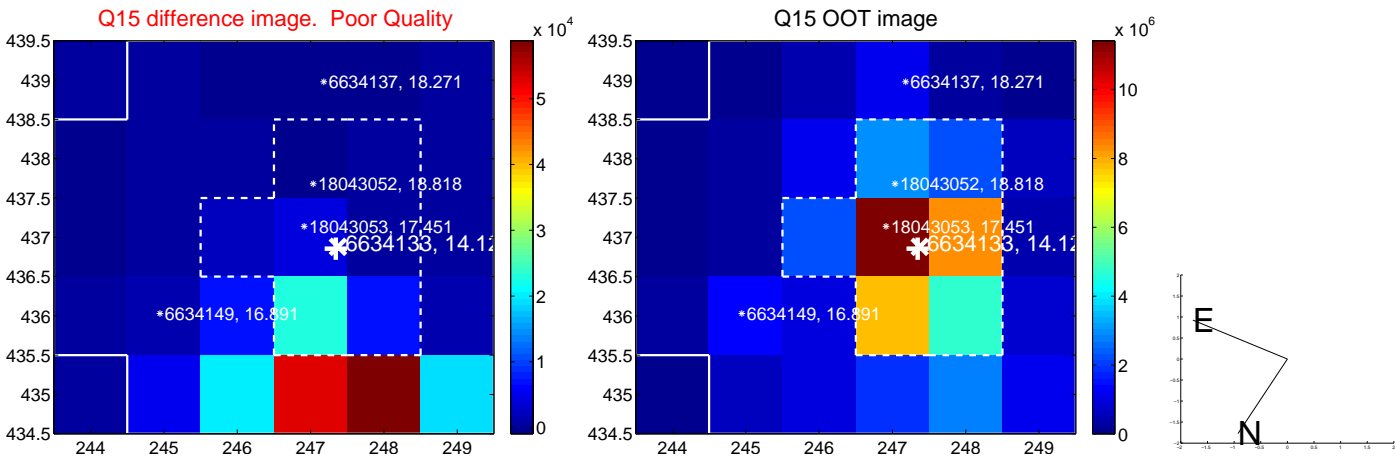
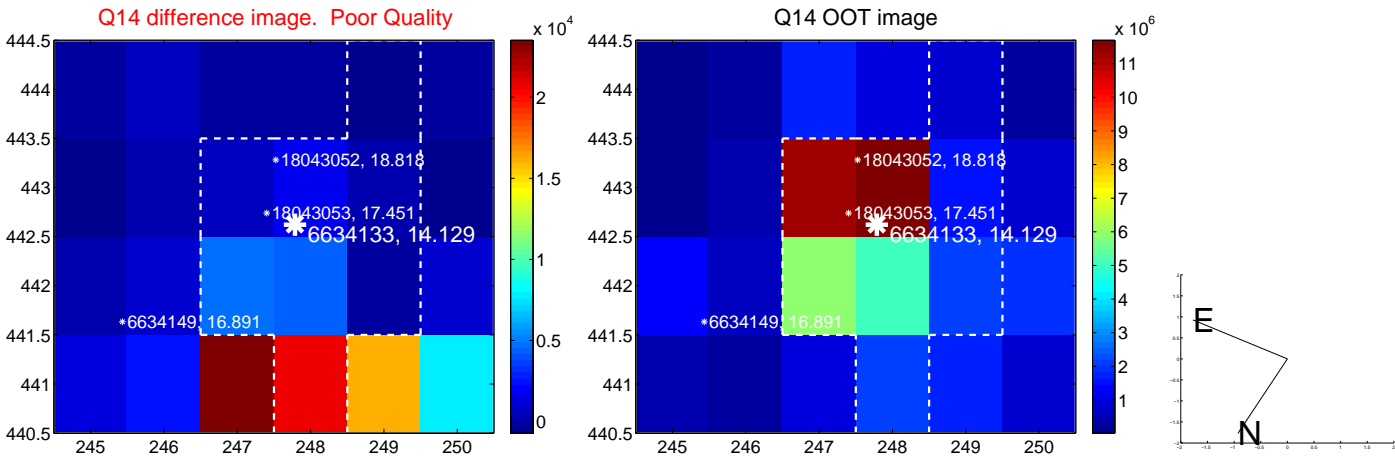
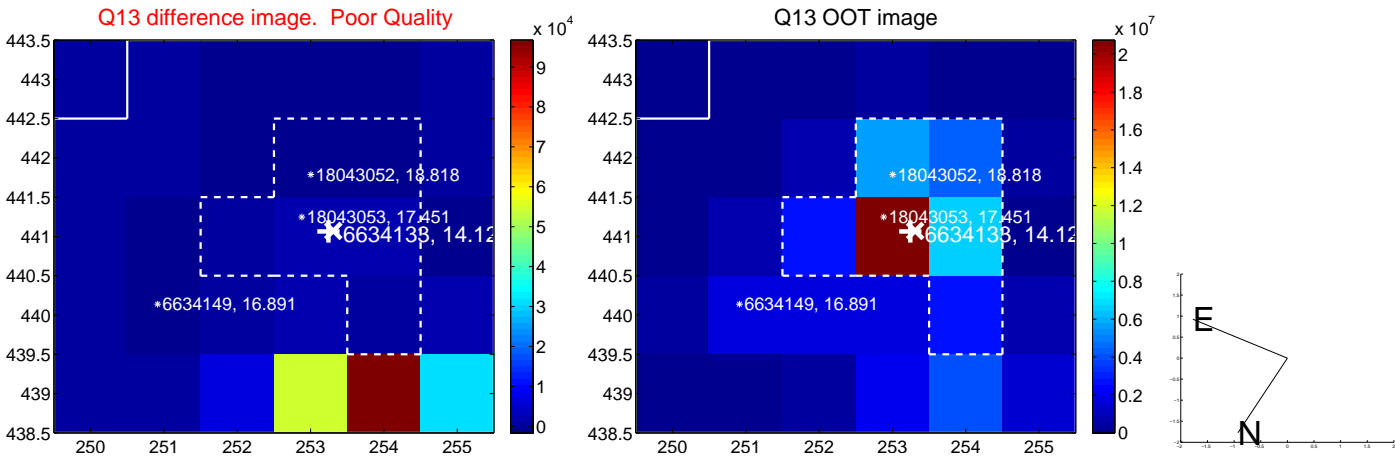
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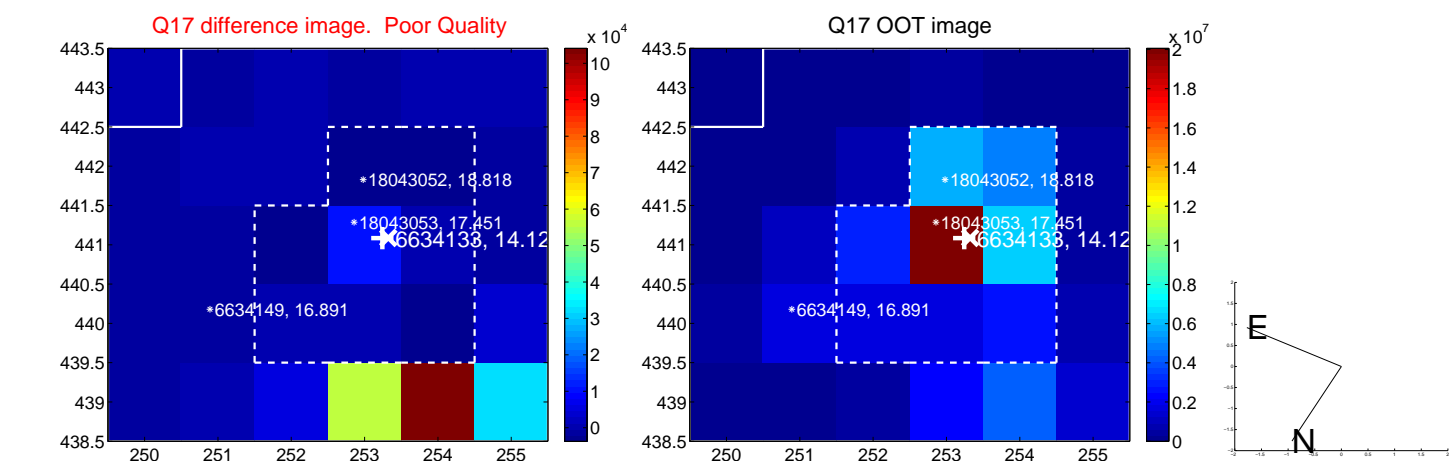
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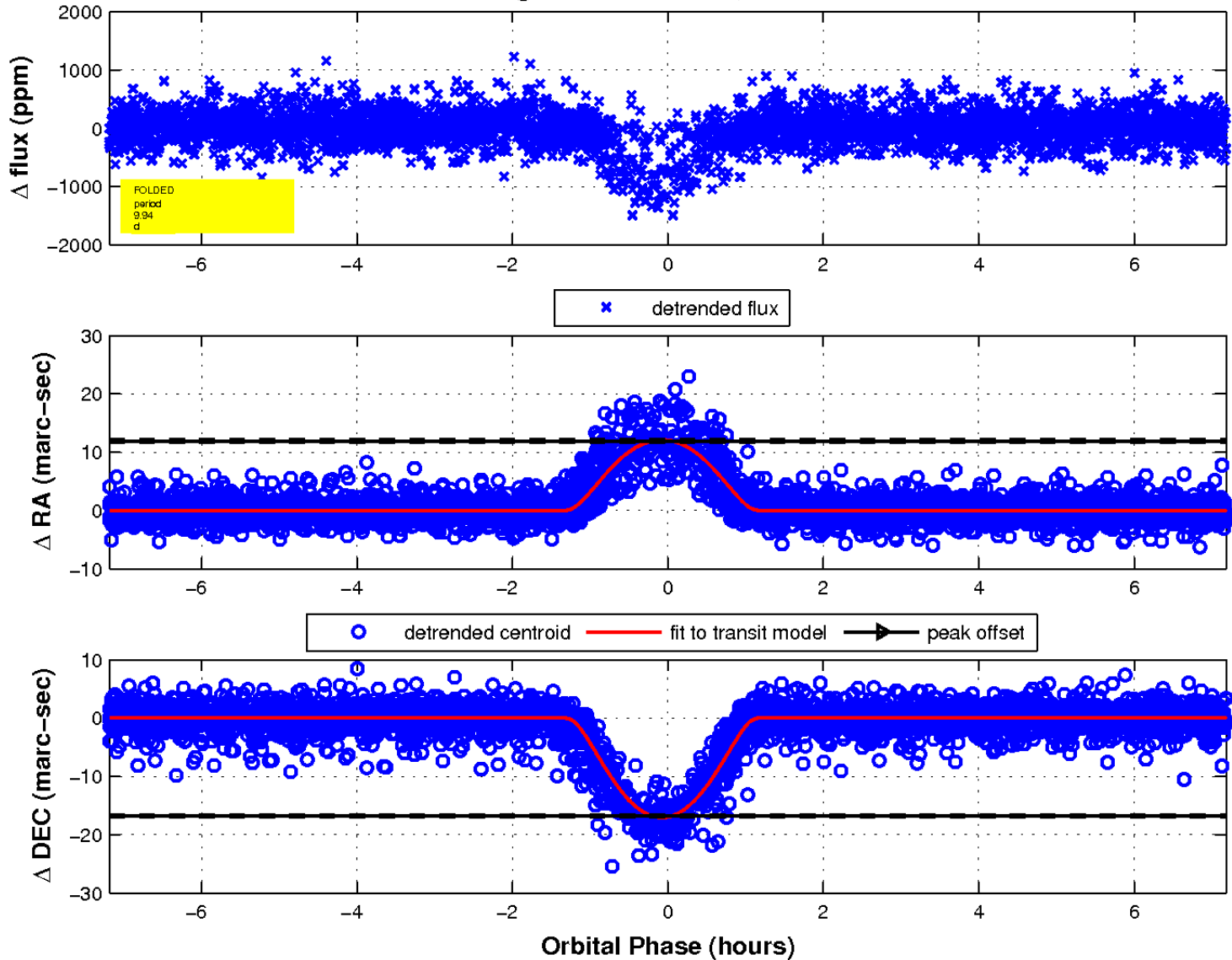
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

