

KIC 010535848

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})
010535848-01	OBS	No	0.933748	132.434812	33.6	4.602	9.0	9.4	0.61	4300	0.43	456.81

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010535848-01	OBS	FP	0.00	1	0	1	1	LPP_DV—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.

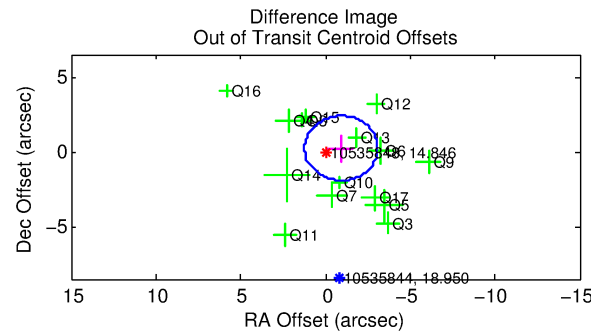
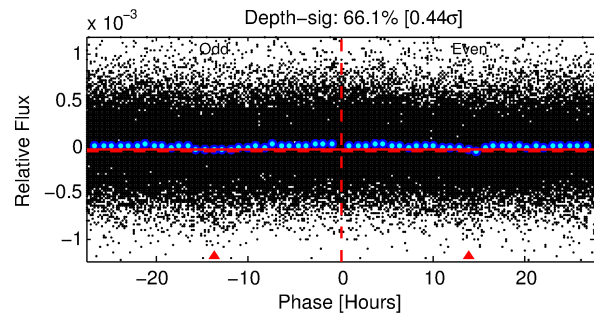
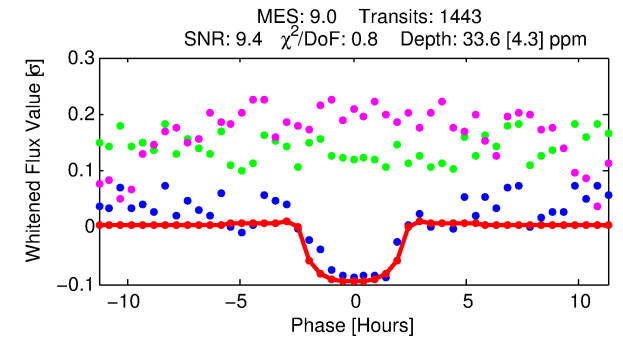
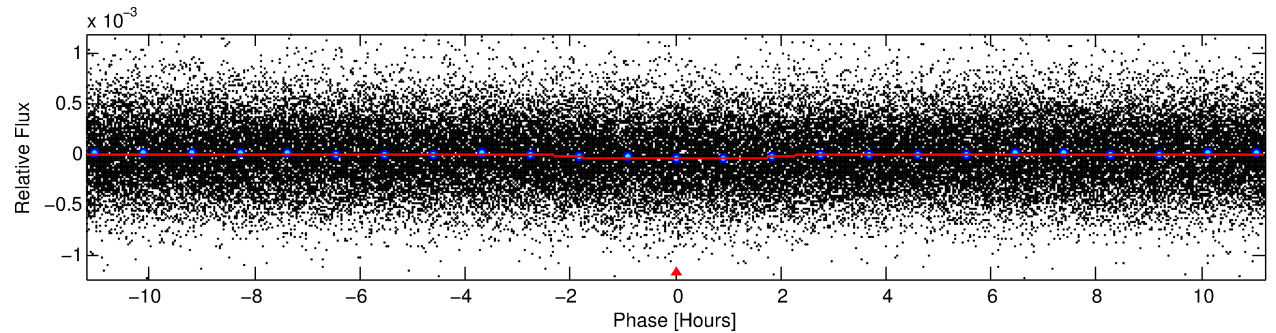
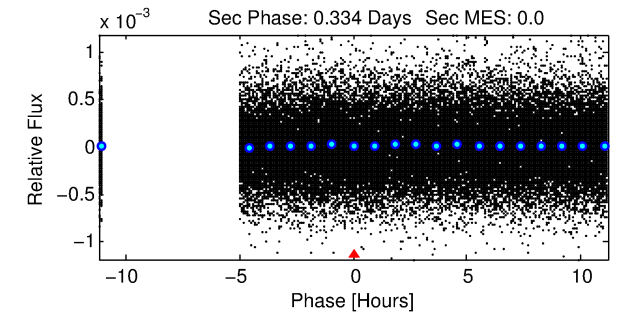
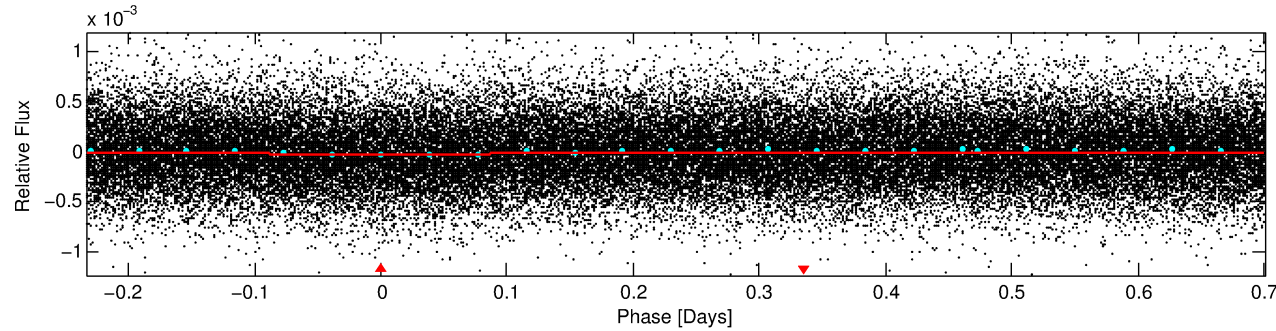
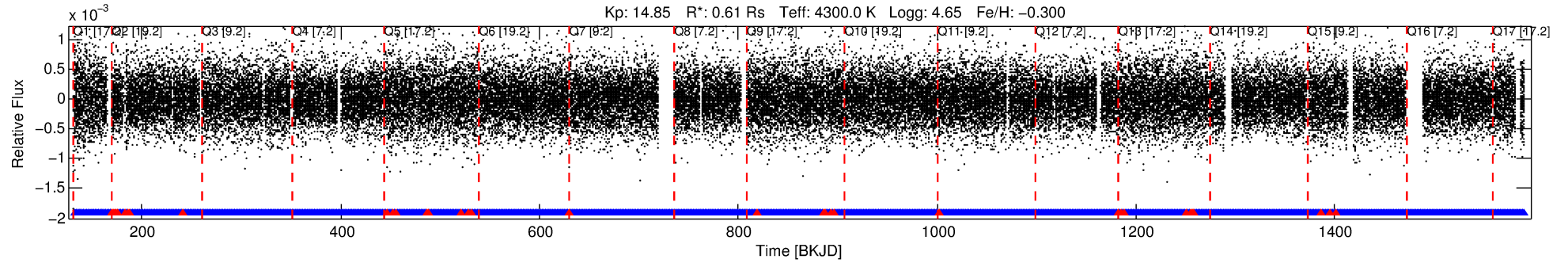
Ephemeris Match Information For 010535848-01

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
010535848-01	10535848	V2083-Cyg-pri	10342012	1:2	1826.9	404	-220	6.90	14.84	5833.00	Direct-PRF	0	0.12	1.33

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: 10535848 Candidate: 1 of 1 Period: 0.934 d



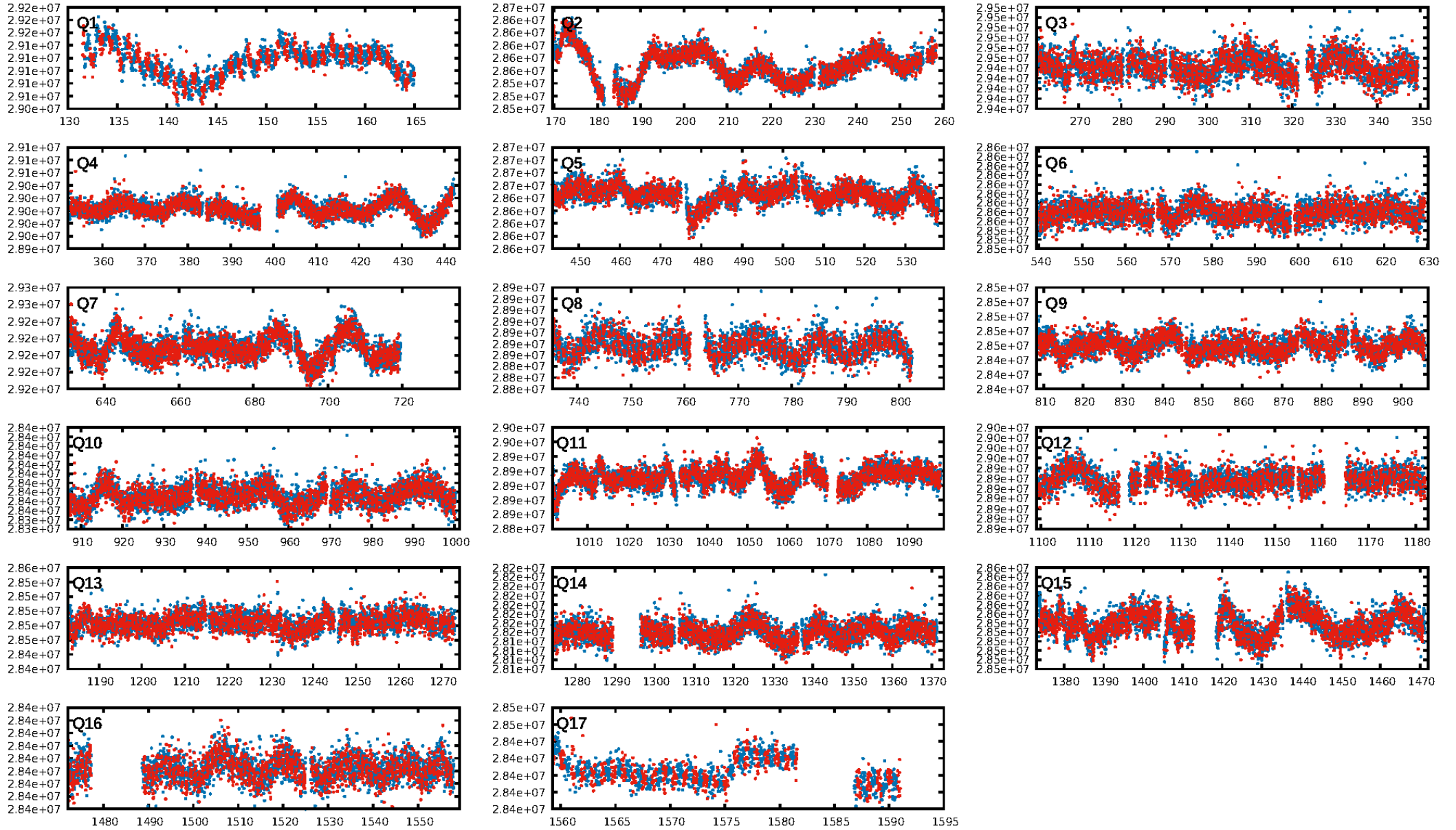
DV Fit Results:

Period = 0.93375 [0.00001] d
Epoch = 132.4348 [0.0055] BKJD
Rp/R* = 0.0065 [0.0045]
a/R* = 1.17 [0.94]
b = 0.90 [0.65]
Seff = 456.80 [72.79]
Teff = 1179 [47] K
Rp = 0.43 [0.30] Re
a = 0.0157 [0.0012] AU
Ag = N/A
Teffp = N/A

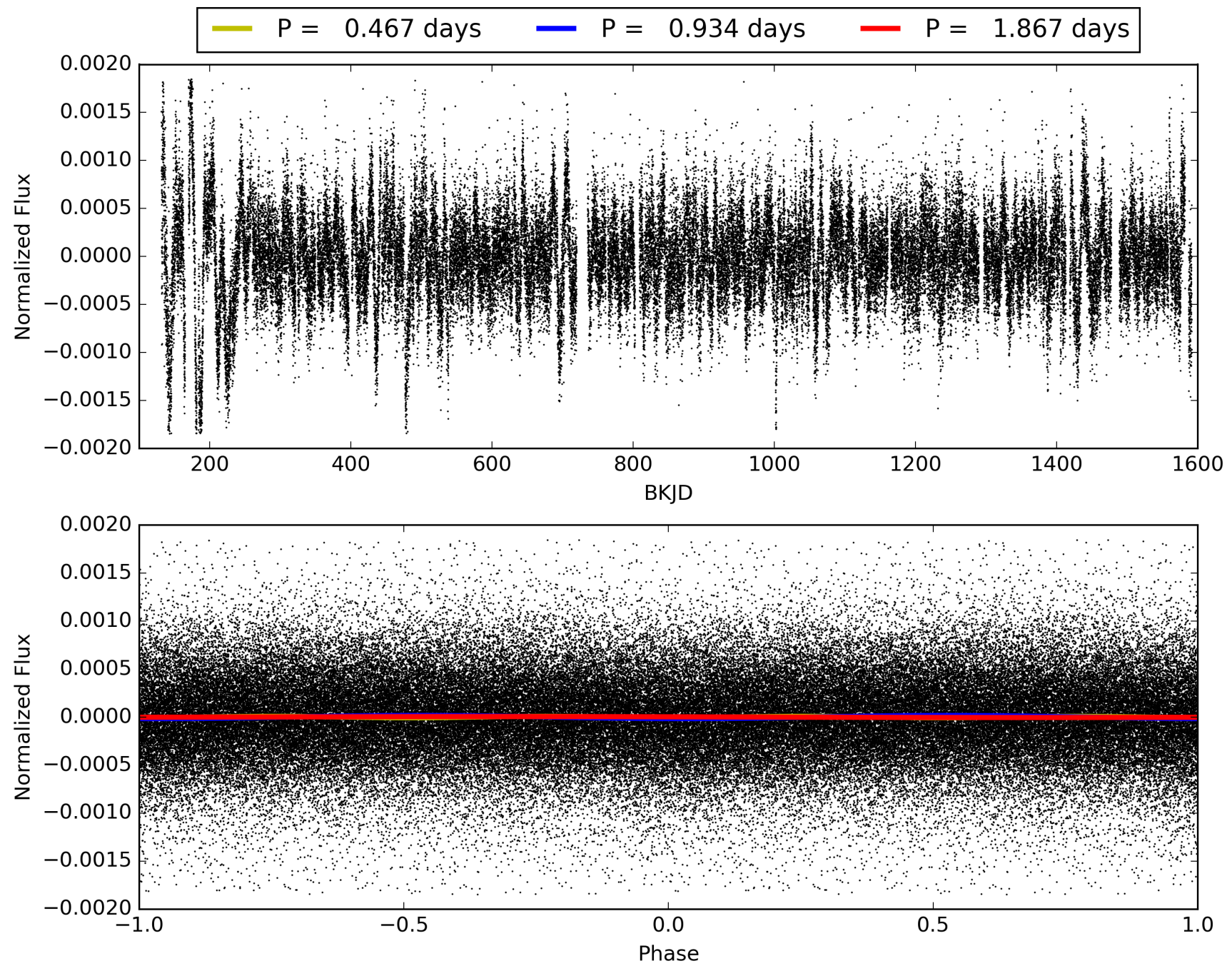
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 5.53e-18
RollingBand-fgt: 0.97 [1340/1377]
GhostDiagnostic-chr: 0.1053
Centroid-sig: 25.7%
Centroid-so: 2.034 arcsec [1.11 σ]
OotOffset-rm: 0.949 arcsec [1.32 σ]
KicOffset-rm: 1.102 arcsec [1.52 σ]
OotOffset-st: 3/4/4/4 [15]
KicOffset-st: 3/4/4/4 [15]
DiffImageQuality-fgm: 0.00 [0/15]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 010535848-01, PDC Light Curves

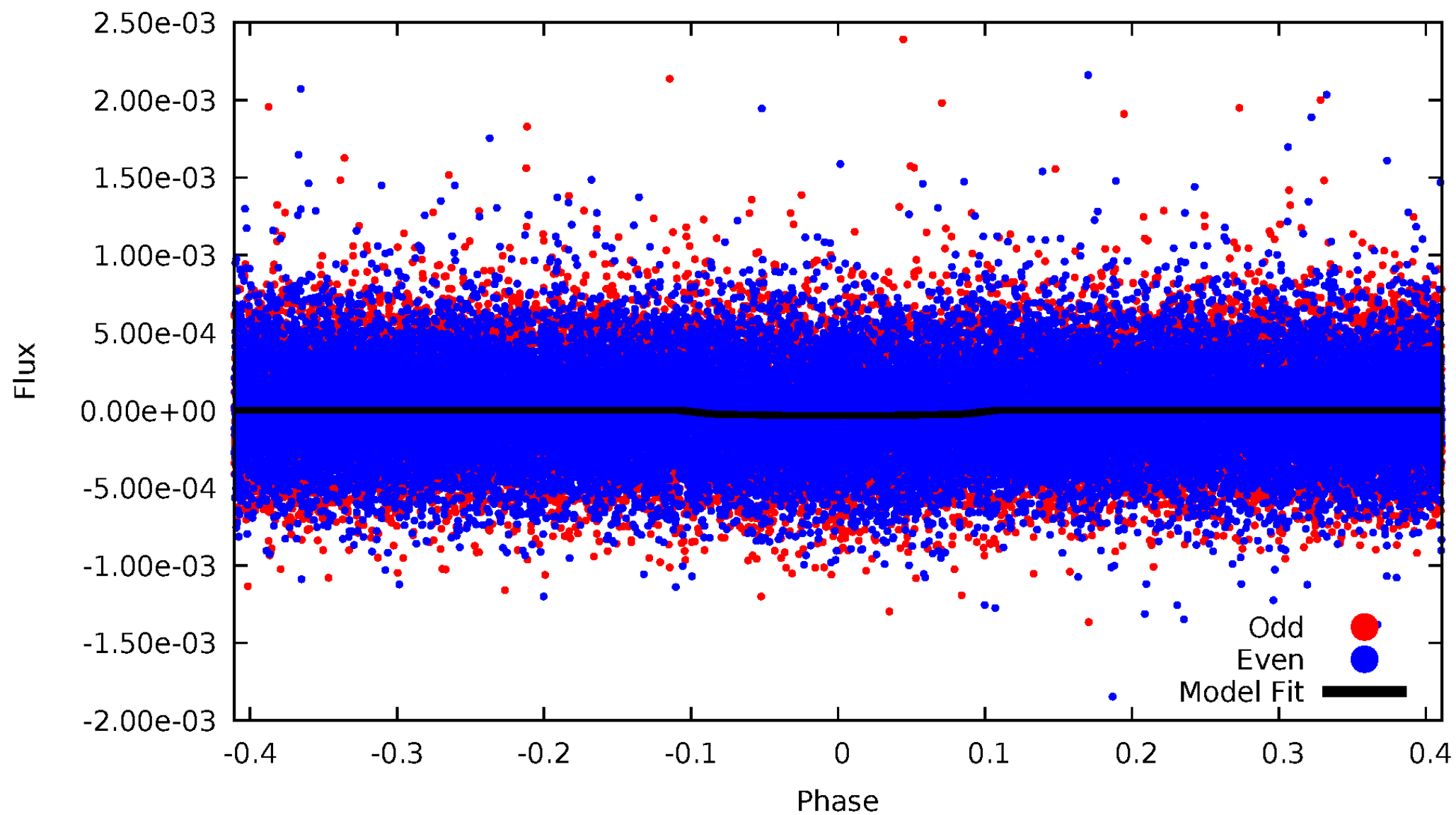


TCE 010535848-01



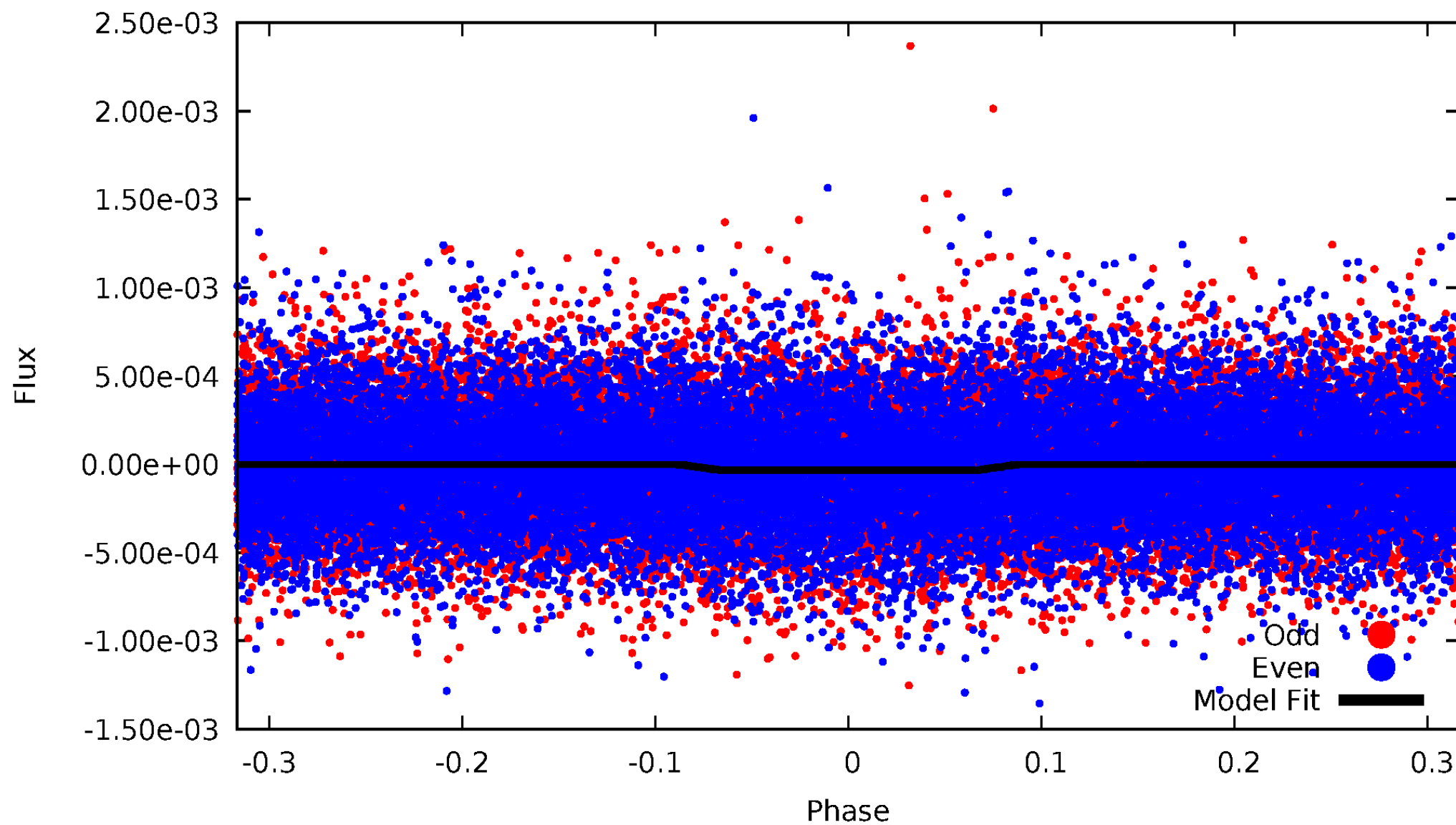
DV Odd/Even

TCE 010535848-01

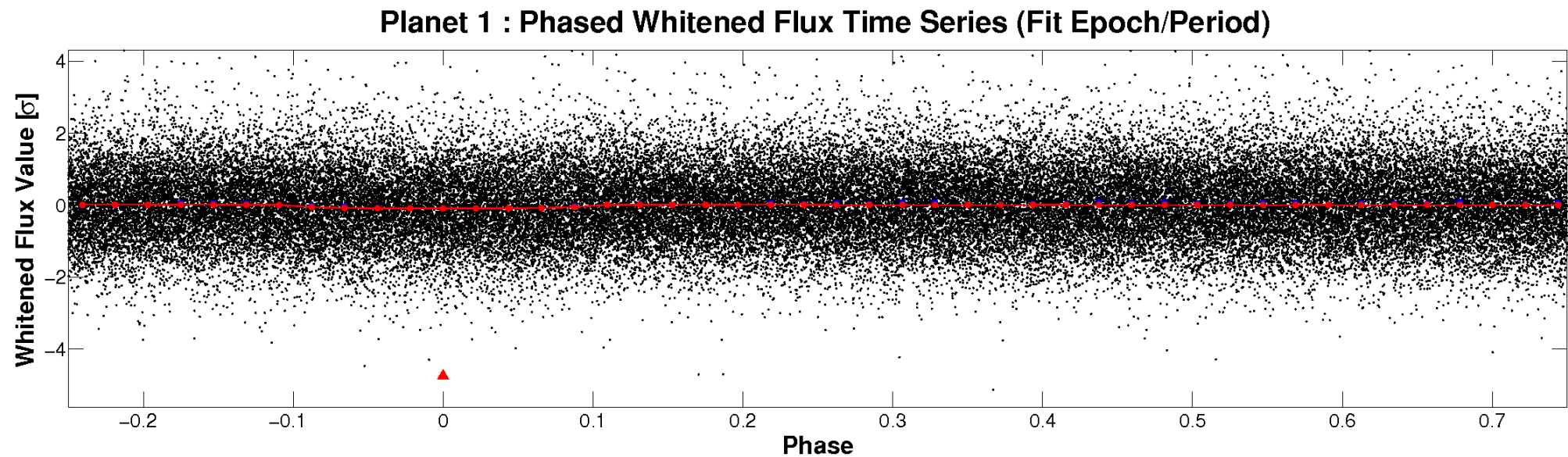
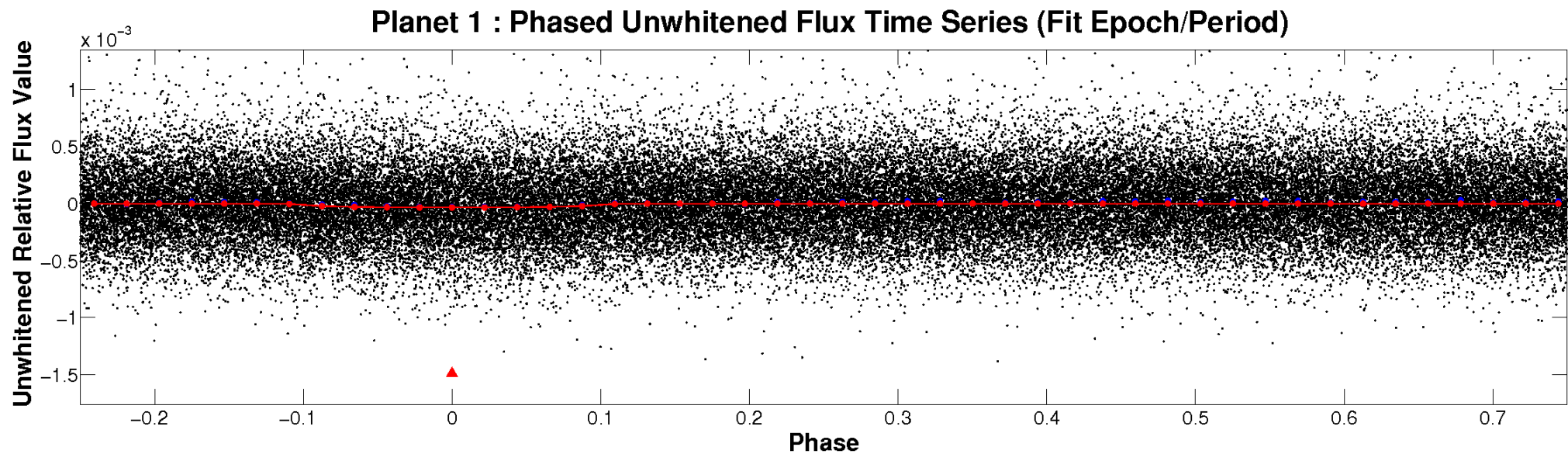


ALT Odd/Even

TCE 010535848-01

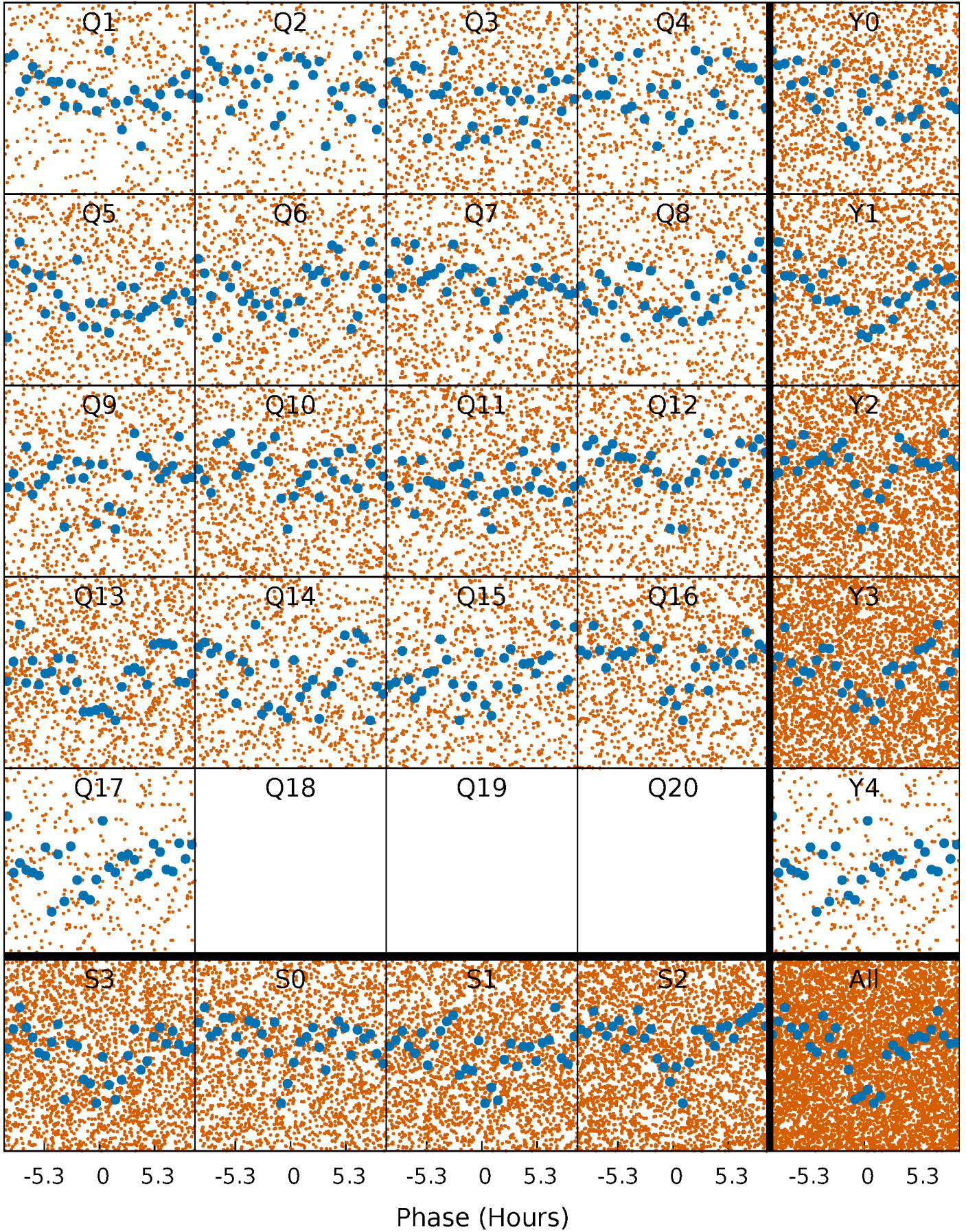


Non-Whitened Vs. Whitened Light Curve



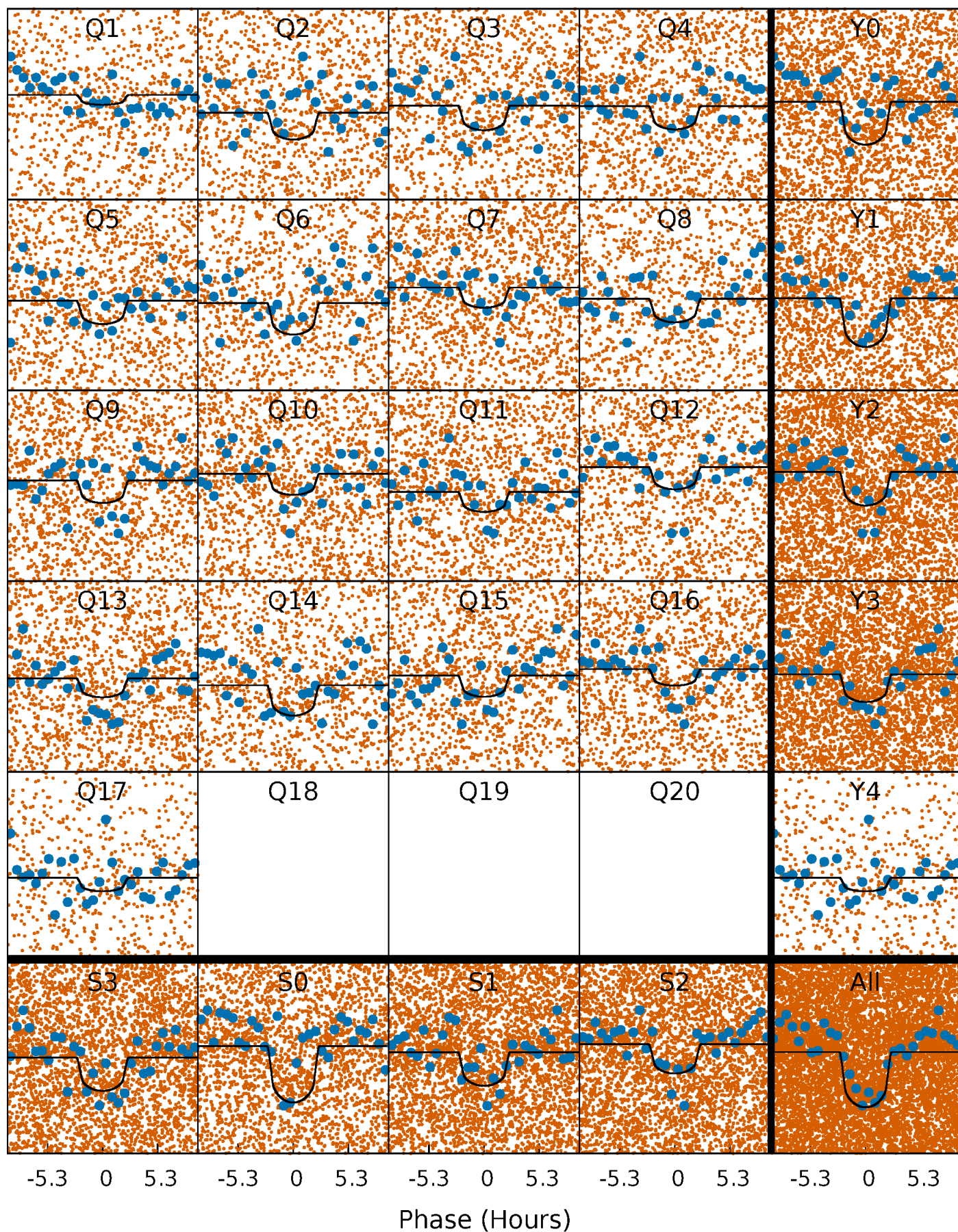
PDC Quarter-Phased Transit Curves

TCE 010535848-01 P= 0.933748 Days $T_0=132.434812$ (BKJD)



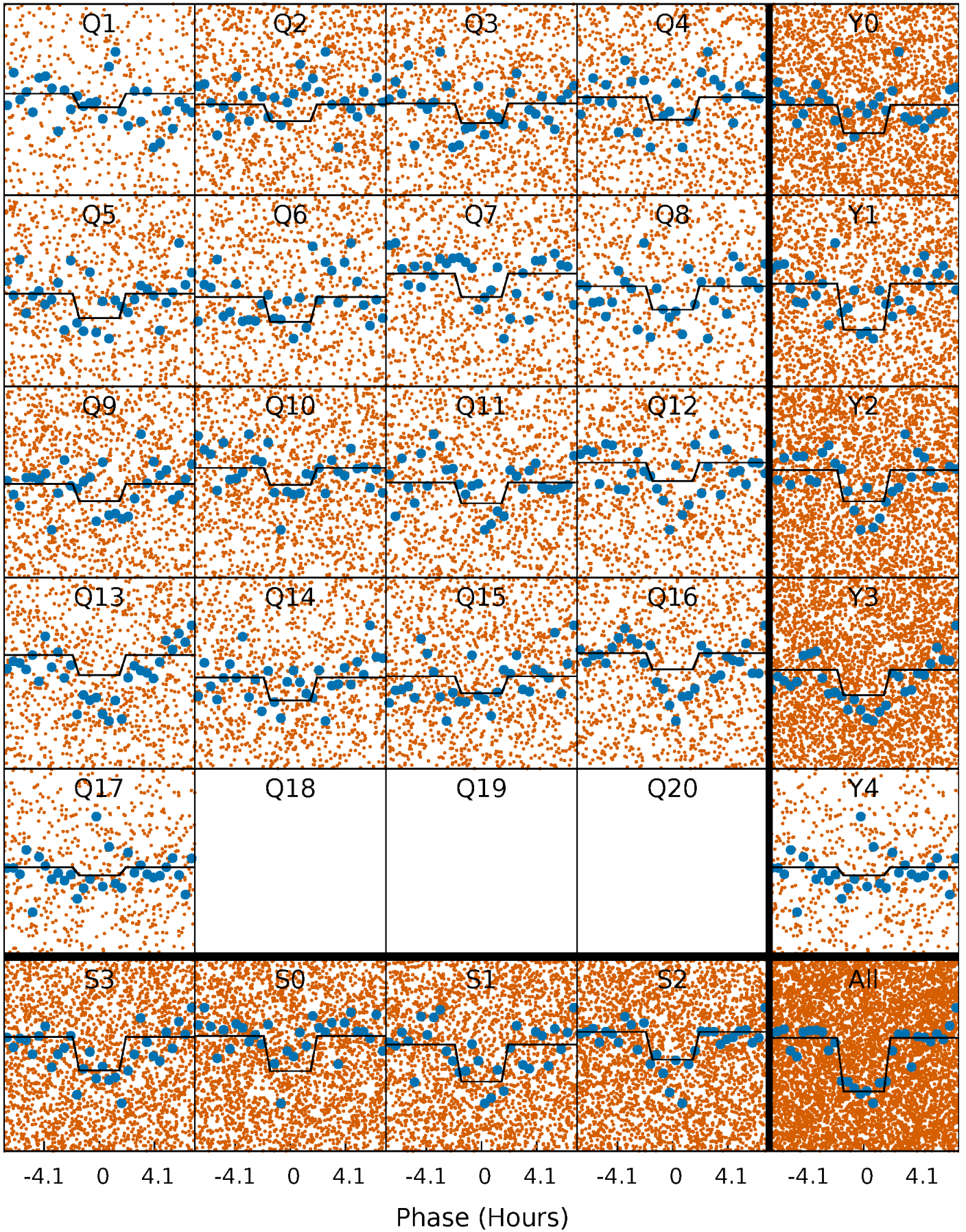
DV Quarter-Phased Transit Curves

TCE 010535848-01 P= 0.933748 Days $T_0=132.434812$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

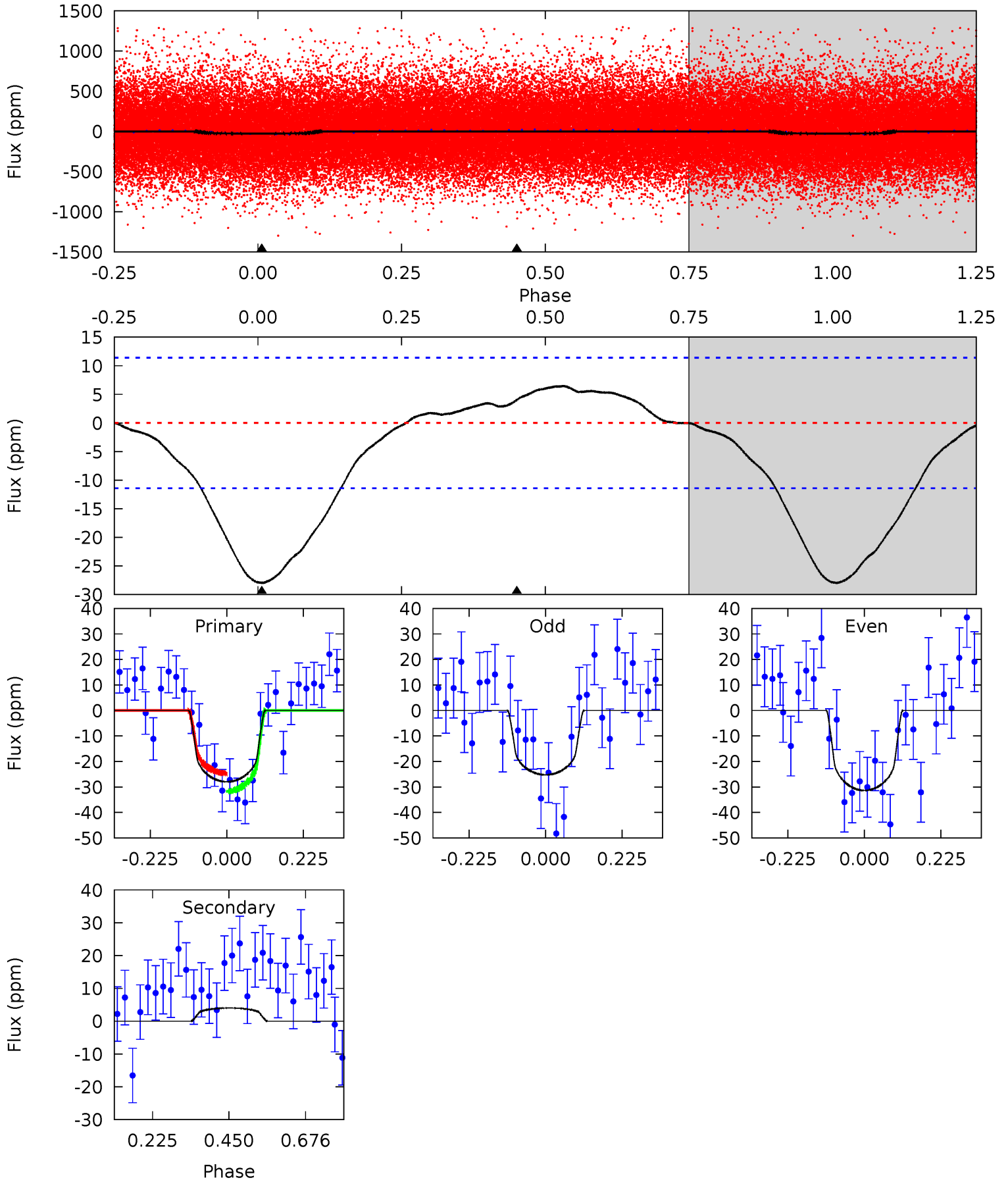
TCE 010535848-01 P= 0.933759 Days $T_0=132.429776$ (BKJD)



DV Model-Shift Uniqueness Test

010535848-01, $P = 0.933748$ Days, $E = 131.501064$ Days

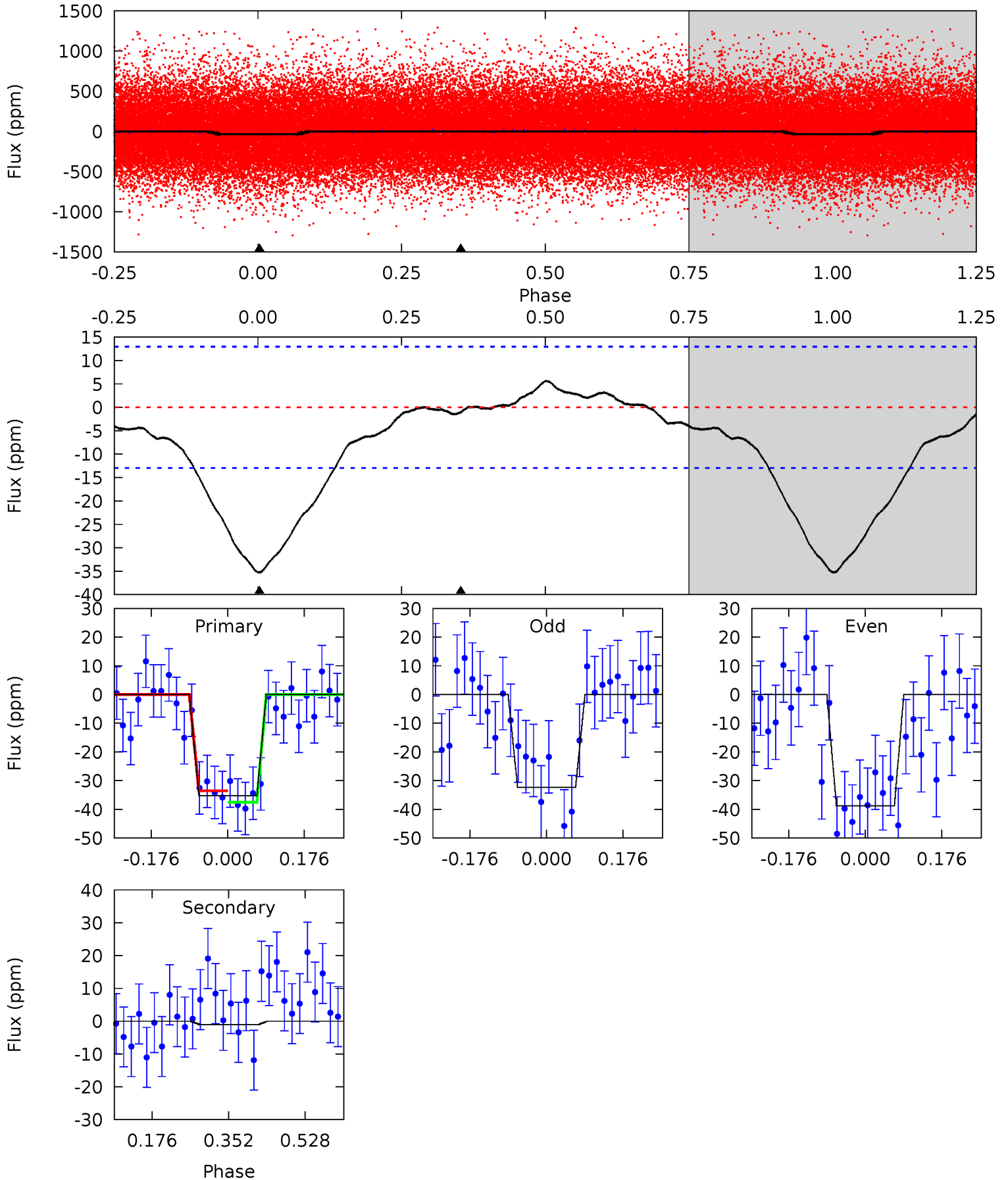
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	-1.54	0	0	4.39	1.21	0.33	10.8	10.8	-1.54	-1.54	1.19	0.87	0.19	1.36



Alt Model-Shift Uniqueness Test

010535848-01, P = 0.933759 Days, E = 131.496017 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	0.37	0	0	4.44	1.35	1.09	12.1	12.1	0.37	0.37	1.12	1.19	0.14	0.70



Stellar Parameters For KIC 010535848

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4300^{+116}_{-129}	$4.646^{+0.052}_{-0.024}$	$-0.300^{+0.300}_{-0.300}$	$0.608^{+0.045}_{-0.062}$	$0.597^{+0.066}_{-0.050}$	$3.747^{+0.862}_{-0.426}$
	+3%/-3%	+1%/-1%	+100%/-100%	+7%/-10%	+11%/-8%	+23%/-11%
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 010535848-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	4 ± 3	$0.45^{+0.28}_{-0.26}$	1638^{+48}_{-55}	-2903^{+400}_{-800}	$-2.428^{+1.878}_{-11.166}$
Alt.	-1 ± 3	$0.44^{+0.27}_{-0.27}$	1639^{+50}_{-54}	2121^{+1161}_{-4882}	$0.513^{+5.926}_{-2.027}$

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 $A_{obs} \gg 1.0$

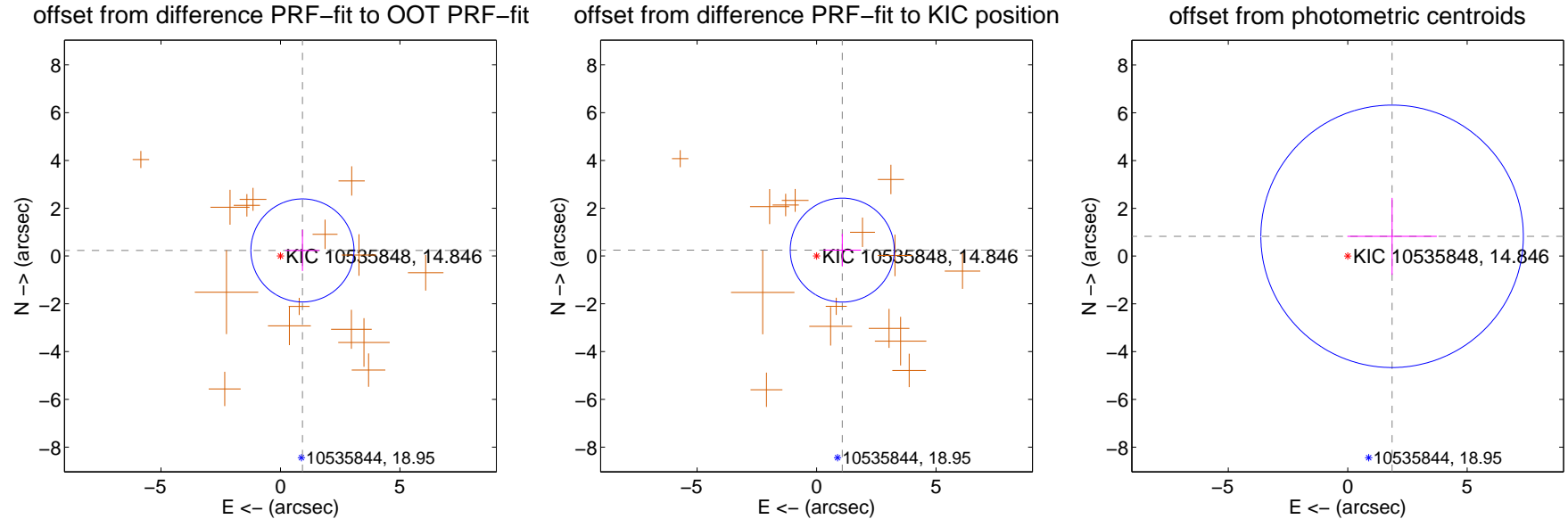
DV Centroid Data

Supplemental centroid analysis for 010535848-01. Kepler magnitude: 14.85. Transit SNR 9.35

There are 0 quarters with good PRF difference image offsets

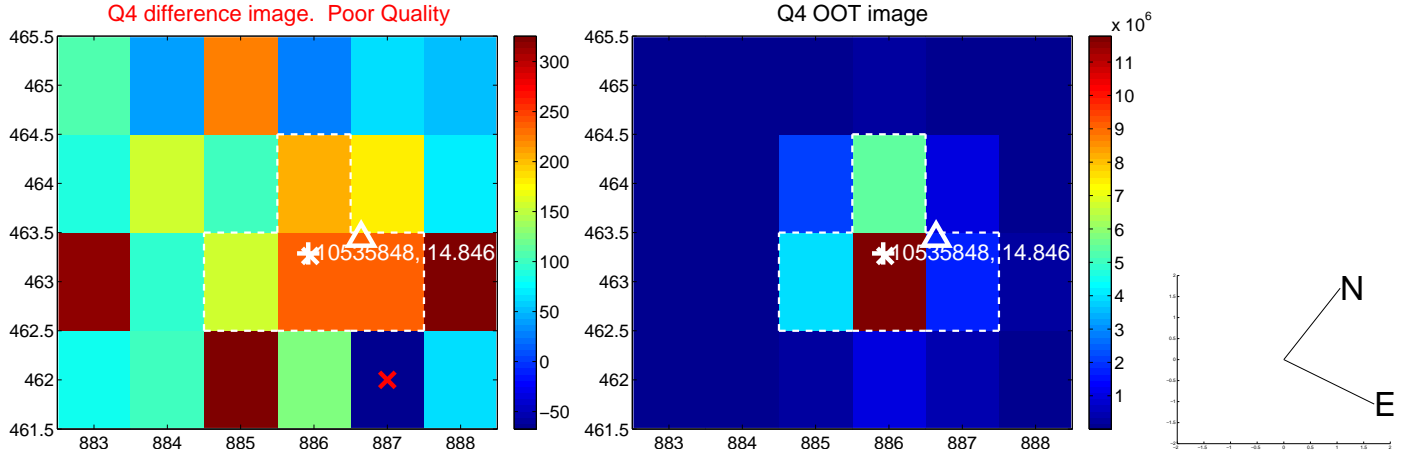
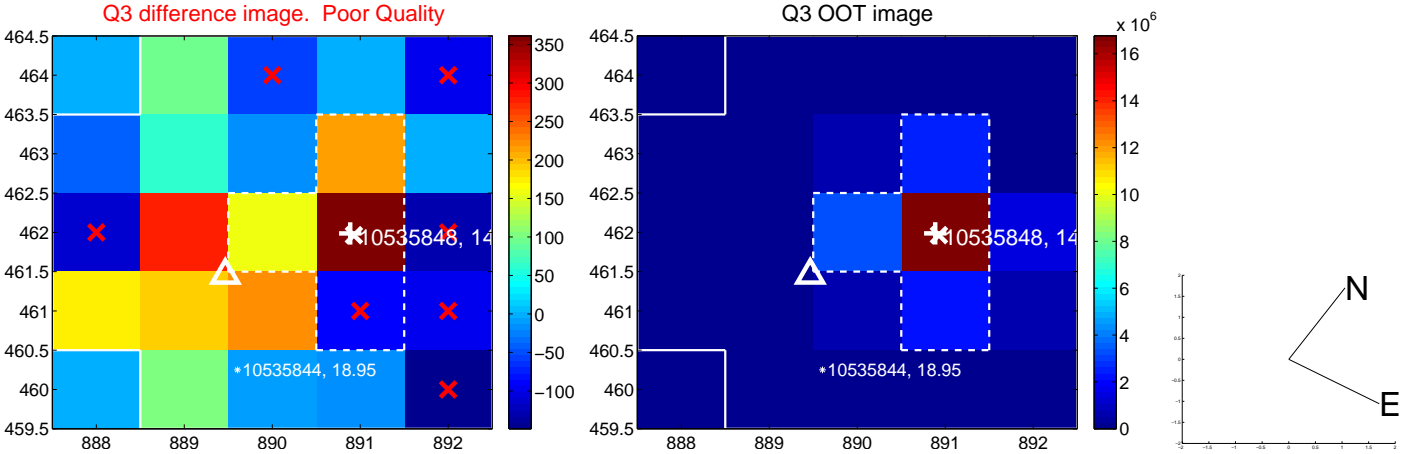
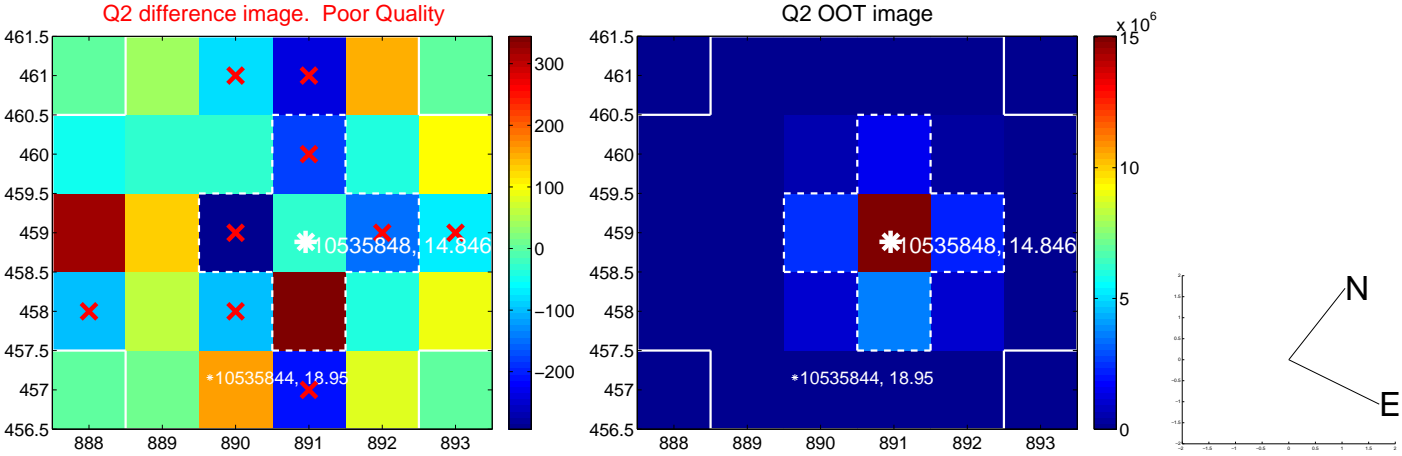
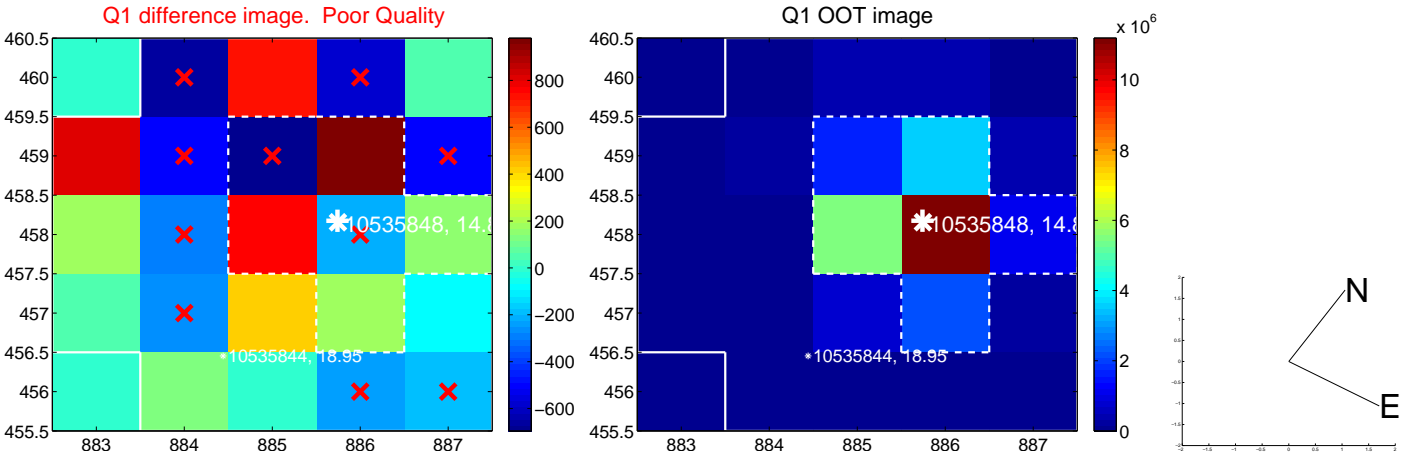
The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.949 ± 0.719	1.32	-0.920 ± 0.709	0.234 ± 0.859
PRF-fit source offset from KIC position	1.102 ± 0.725	1.52	-1.074 ± 0.784	0.248 ± 0.680
photometric centroid source offset	2.03 ± 1.83	1.11	-1.86 ± 1.87	0.83 ± 1.61

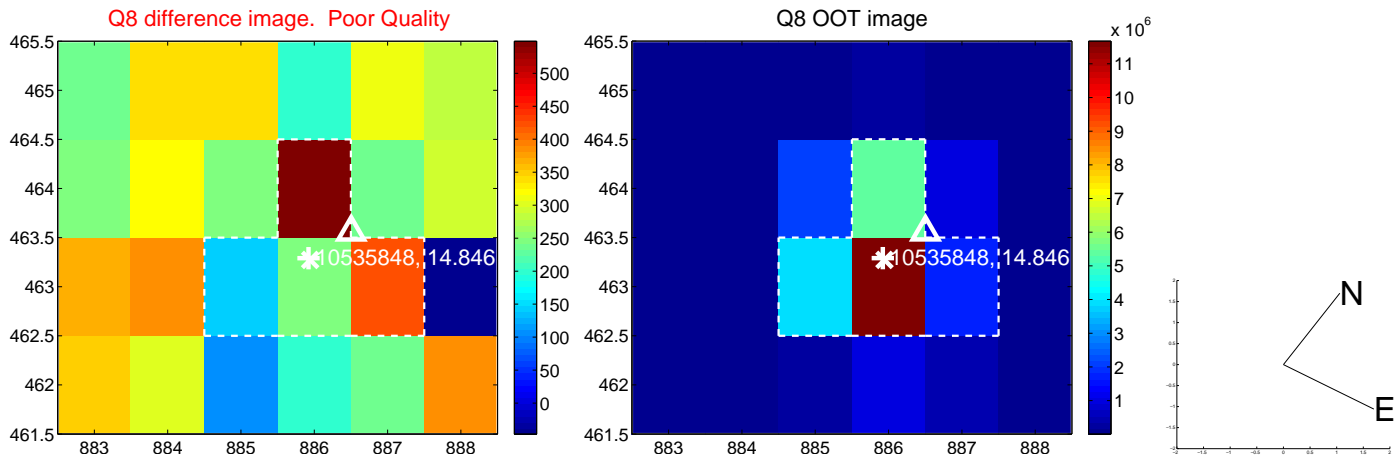
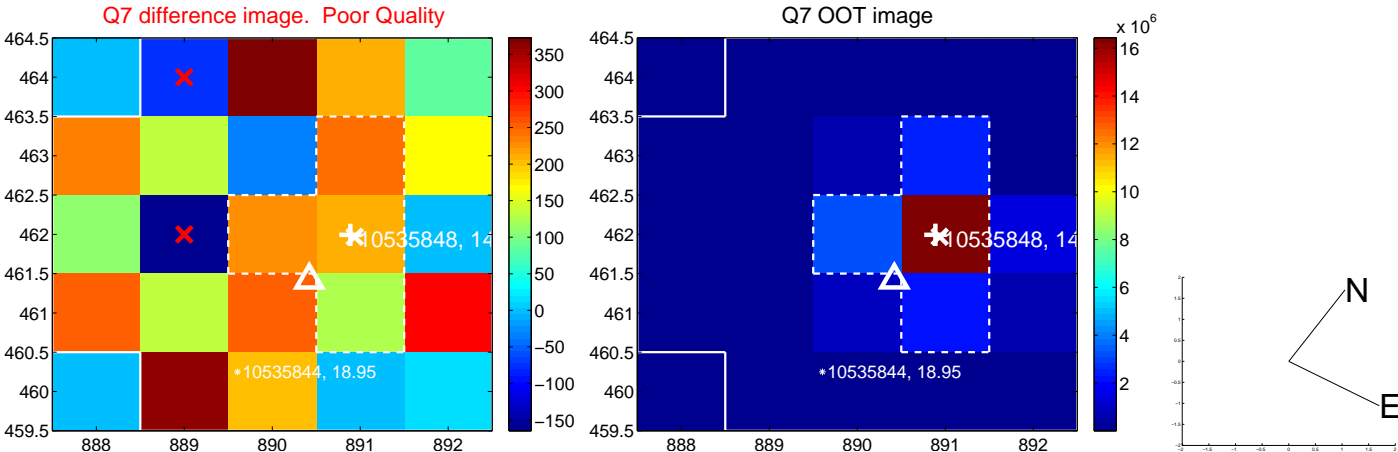
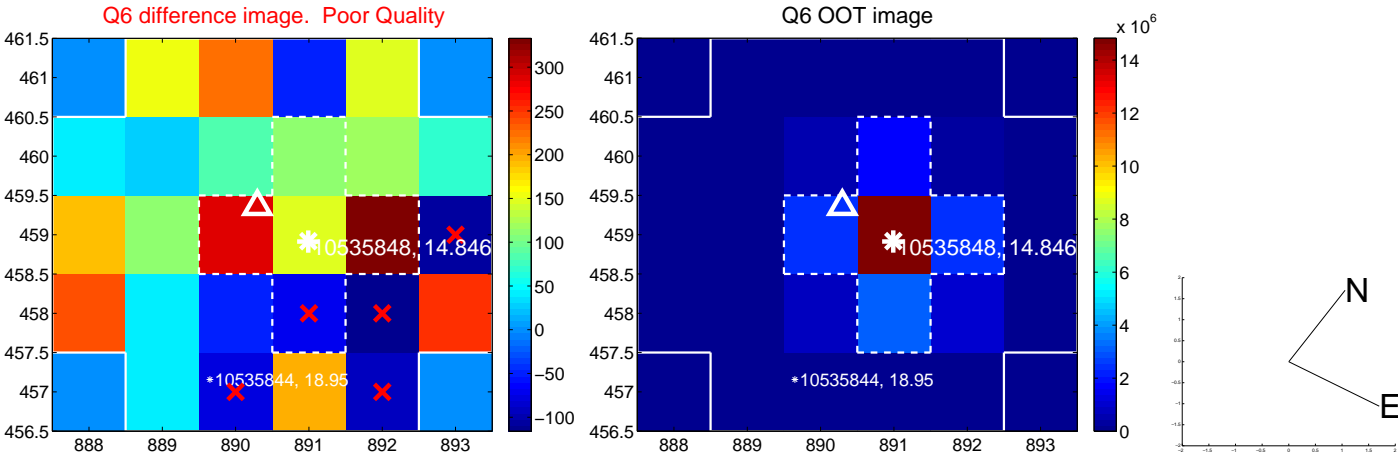
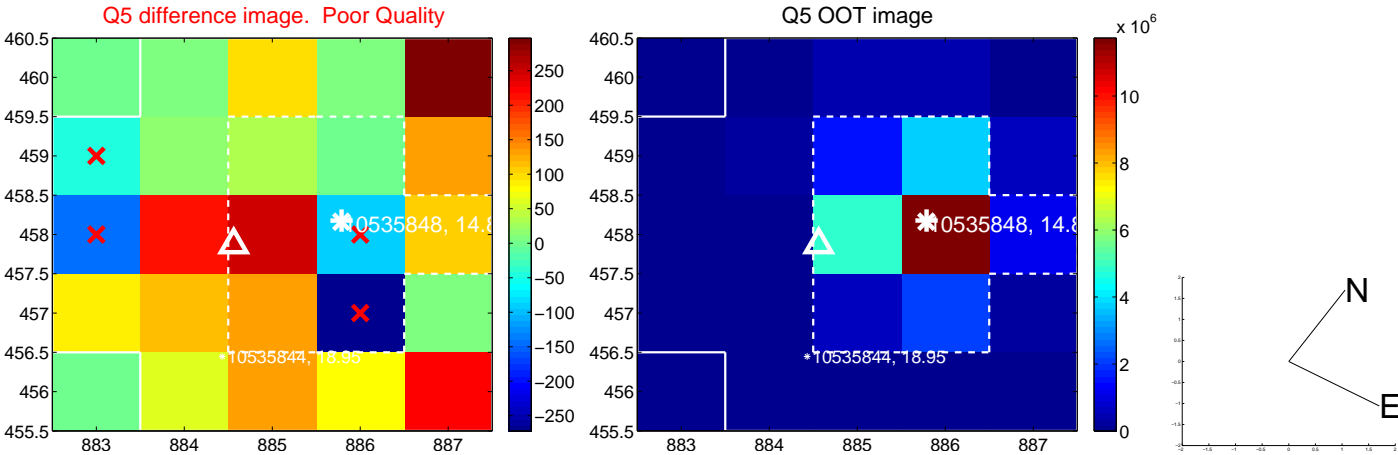


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

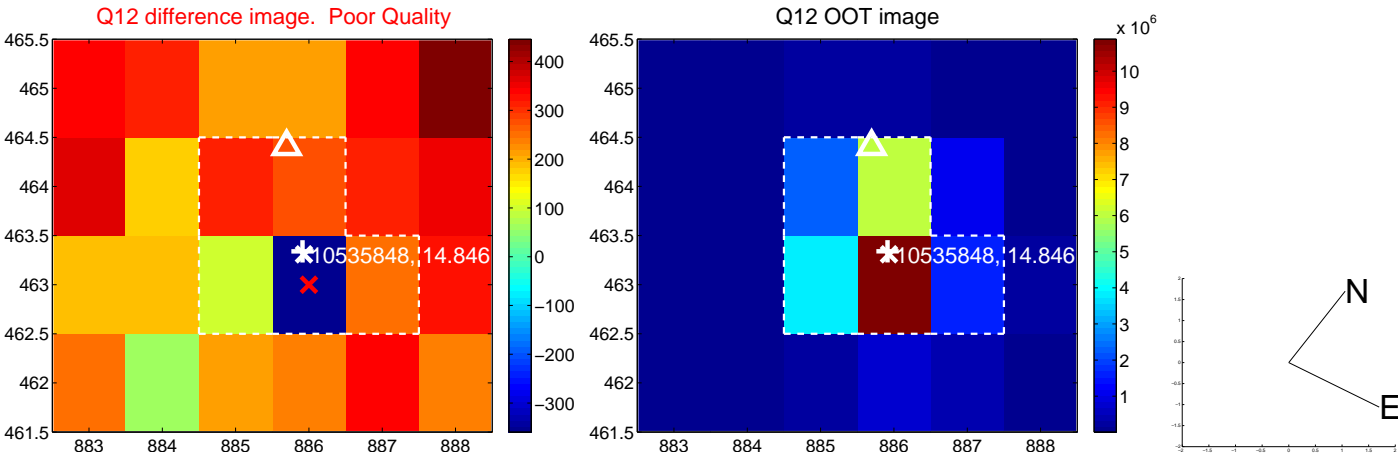
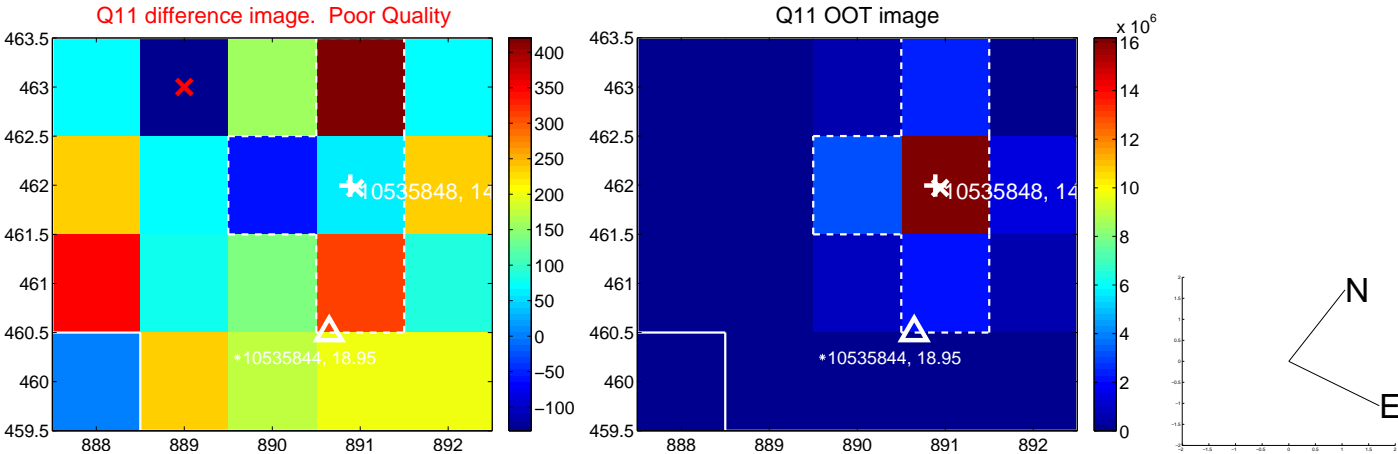
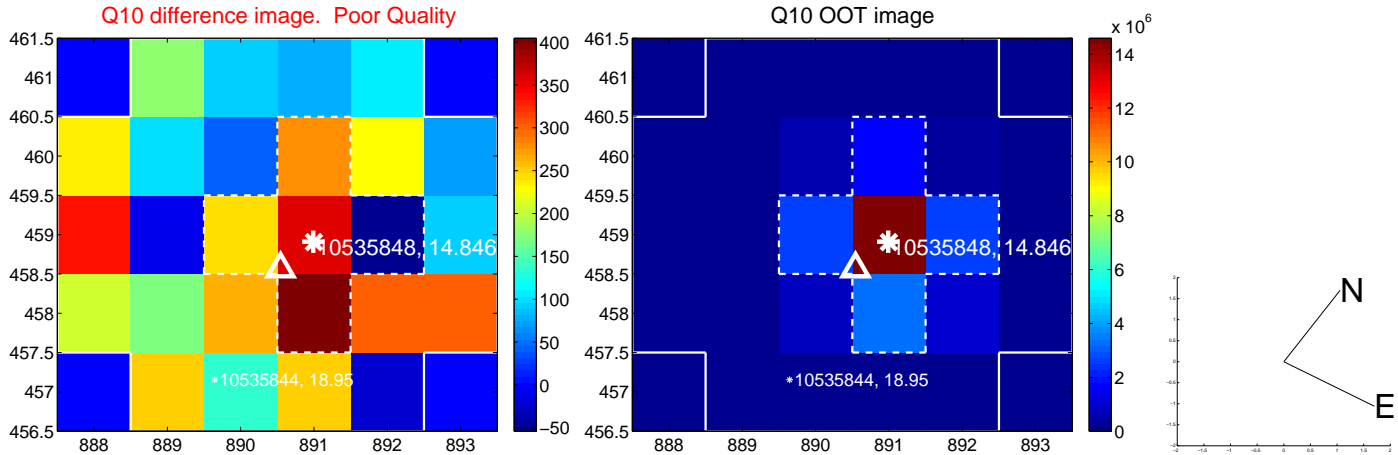
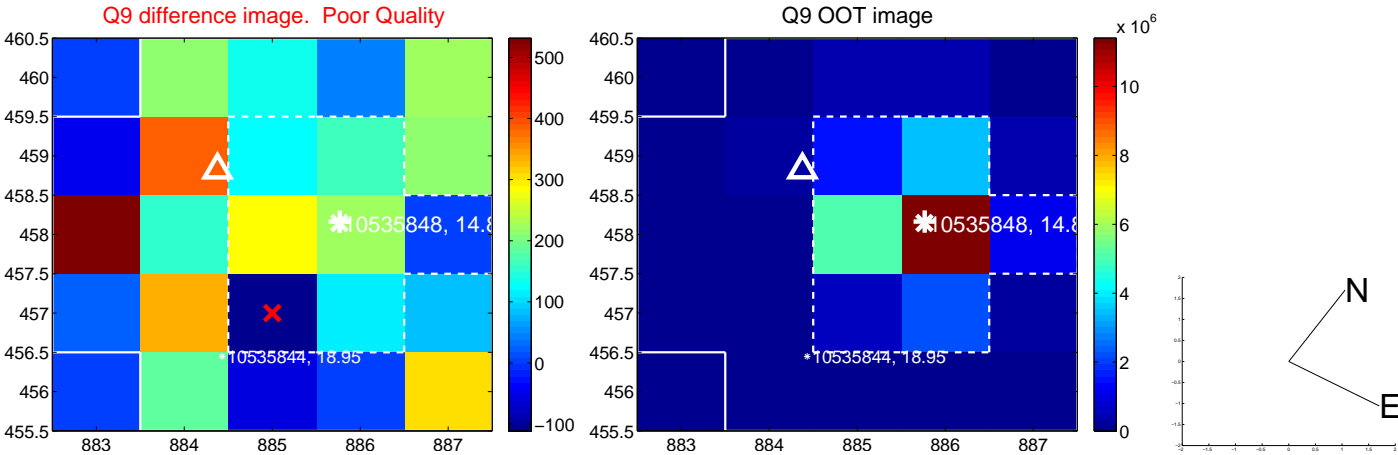
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



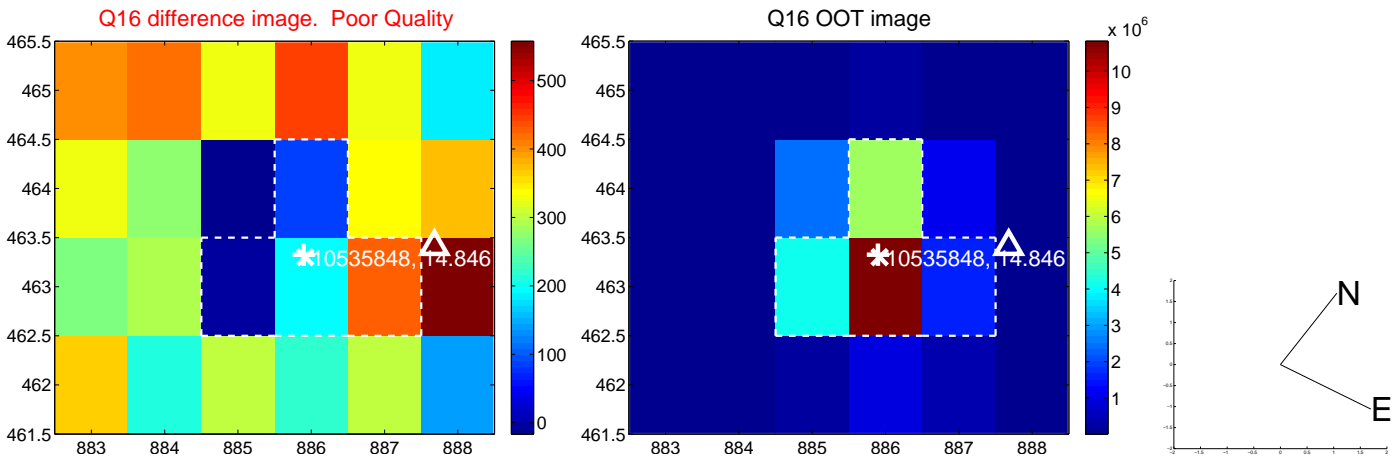
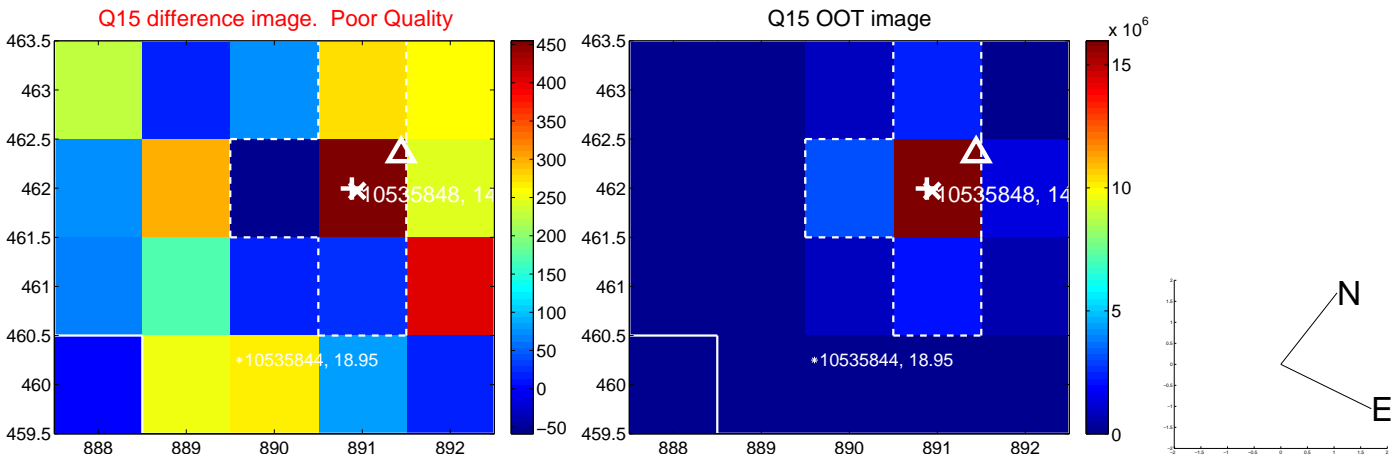
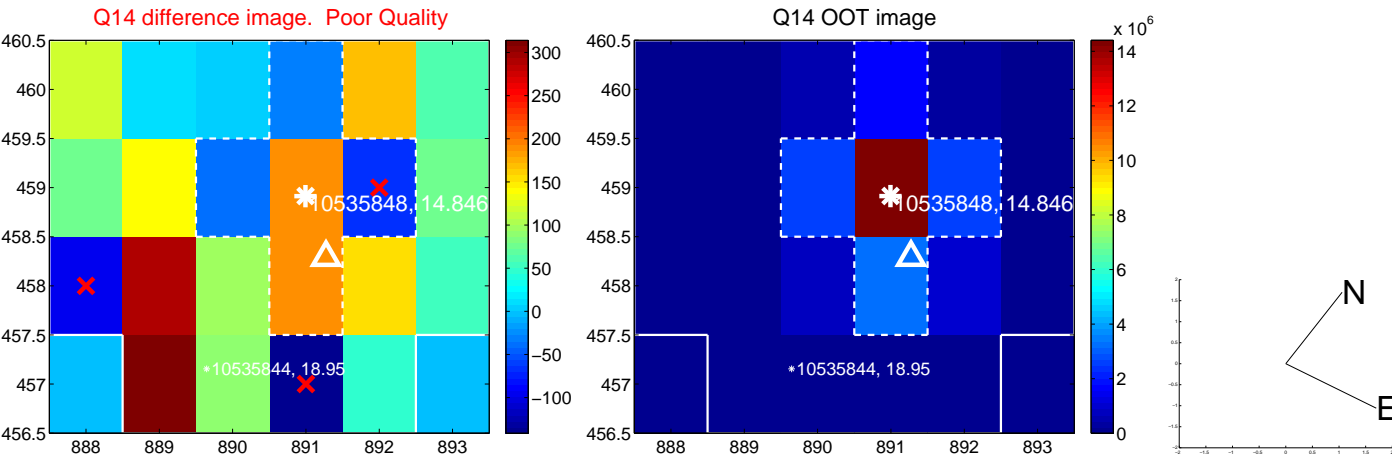
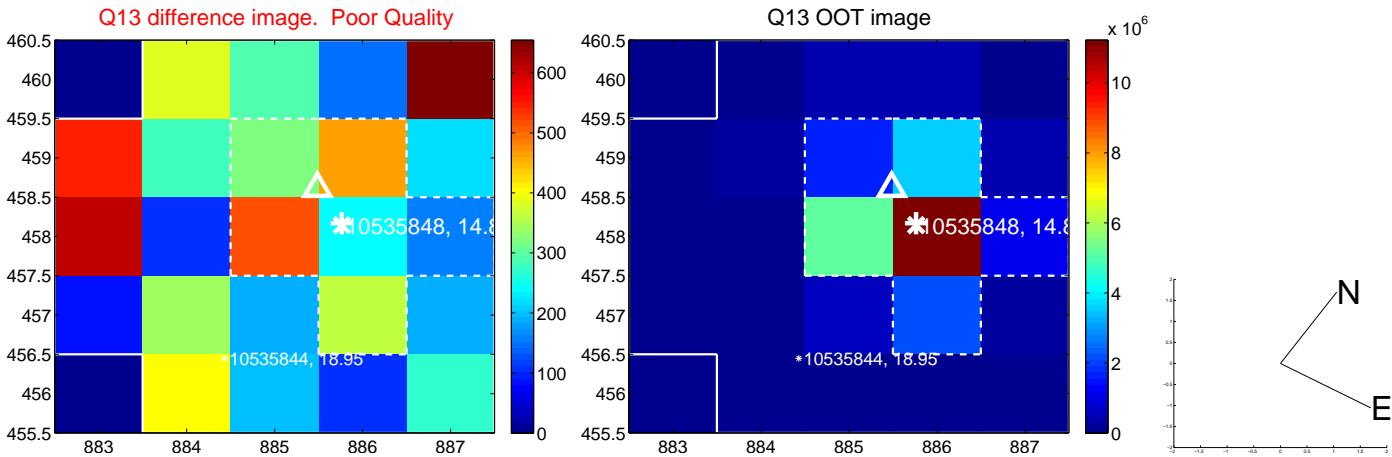
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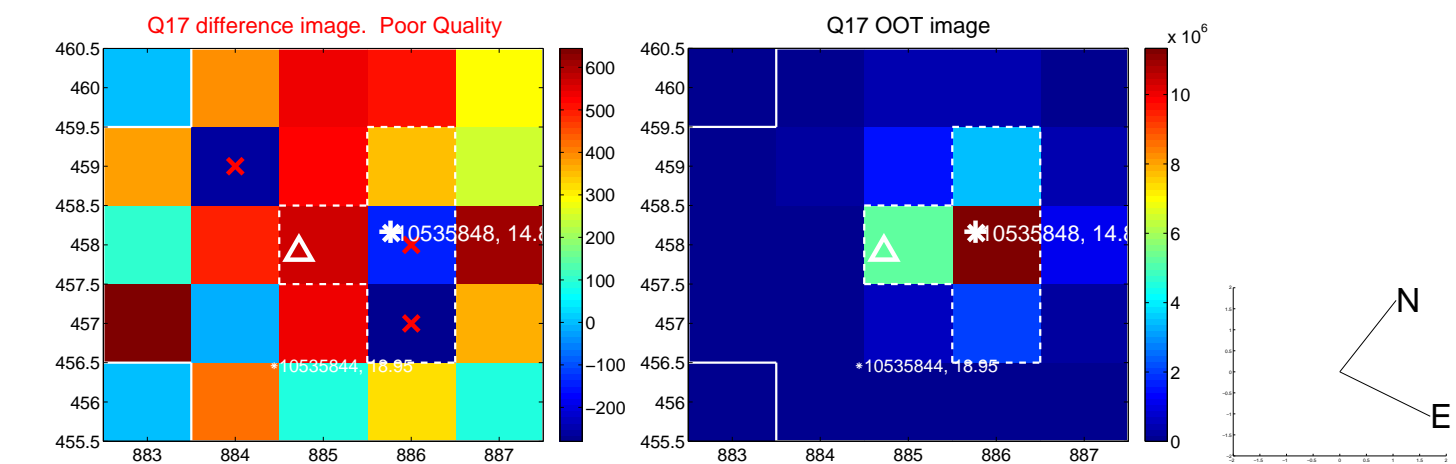
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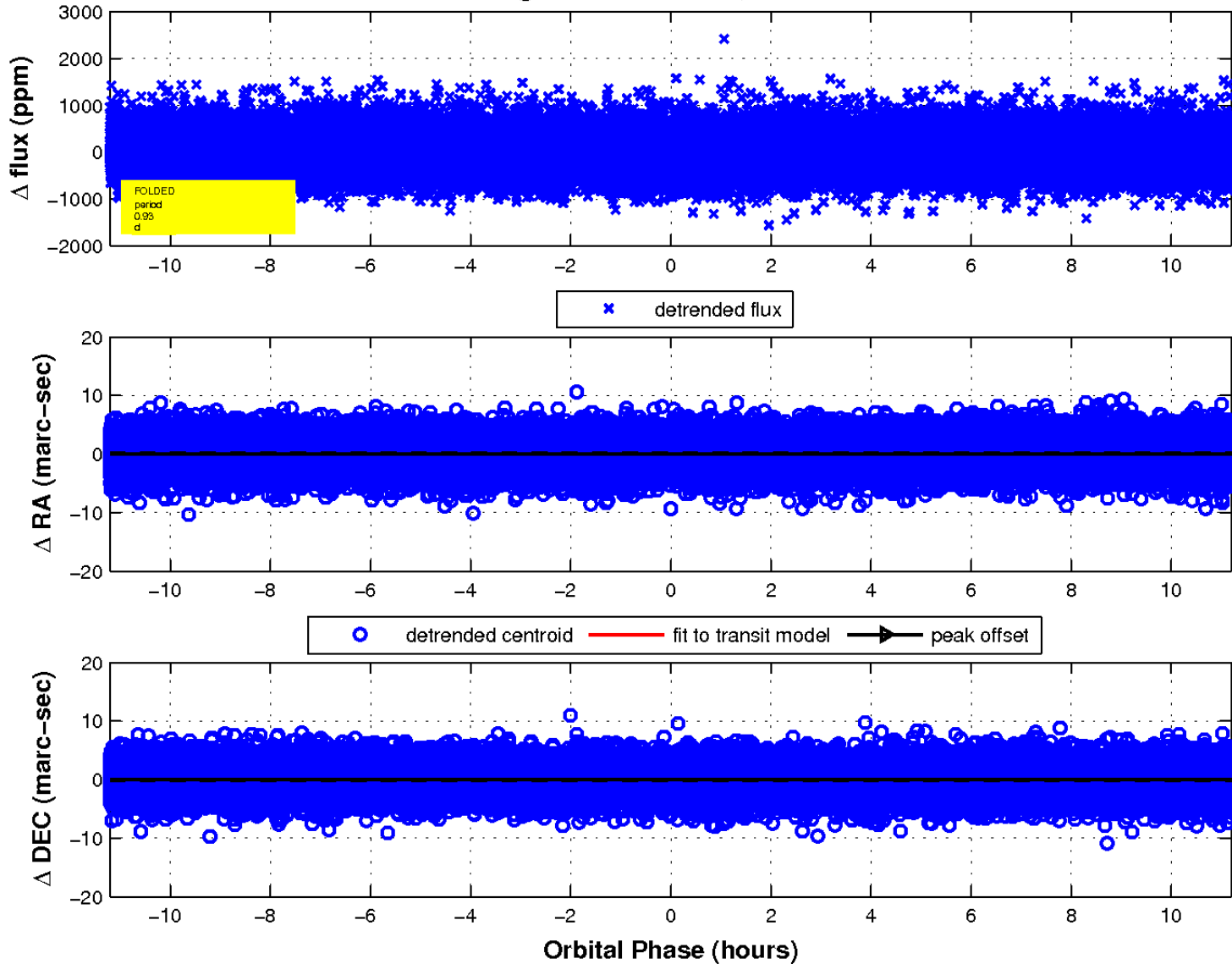
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

