

KIC 001433962

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})
001433962-01	OBS	0982.01	1.592624	132.337614	334.0	5.621	25.8	28.8	0.65	4506	1.68	291.72

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
001433962-01	OBS	FP	0.00	0	1	1	1	MOD_SEC_ALT—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.

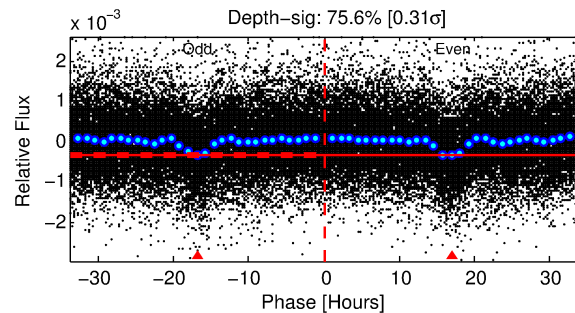
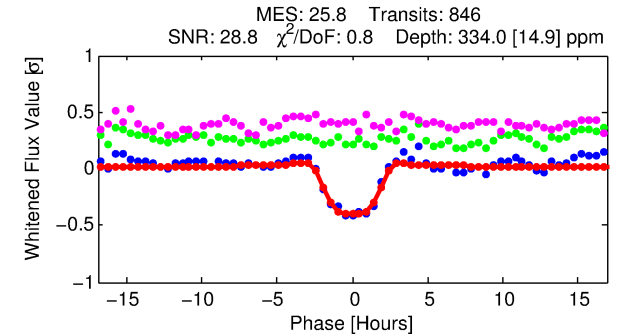
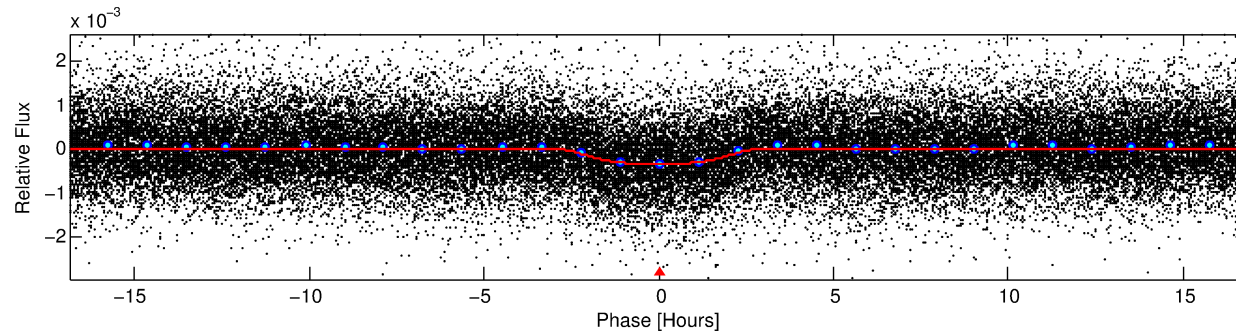
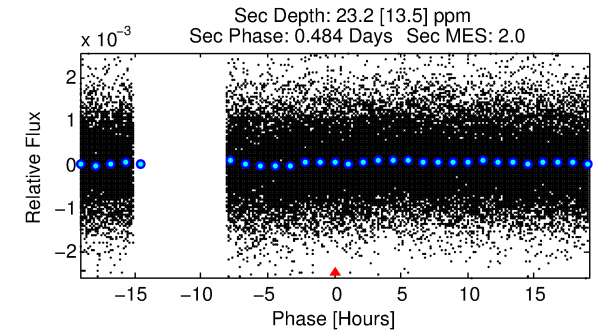
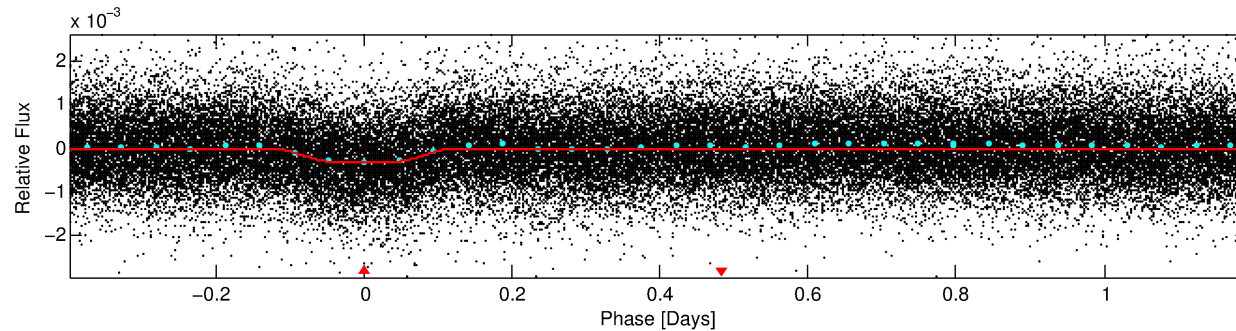
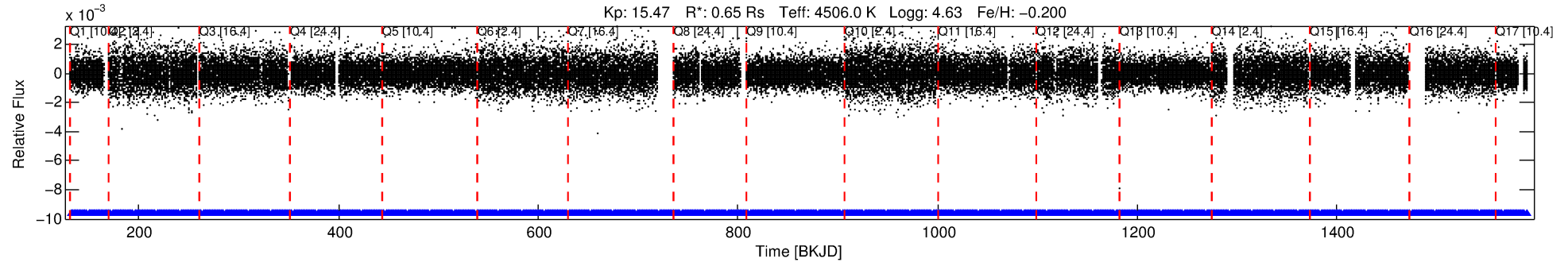
Ephemeris Match Information For 001433962-01

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
001433962-01	1433962	3924.01	1433980	1:1	13.5	3	-2	14.91	15.47	474.34	Direct-PRF	0	0.43	0.52

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: 1433962 Candidate: 1 of 1 Period: 1.593 d
KOI: K00982.01 Corr: 0.979



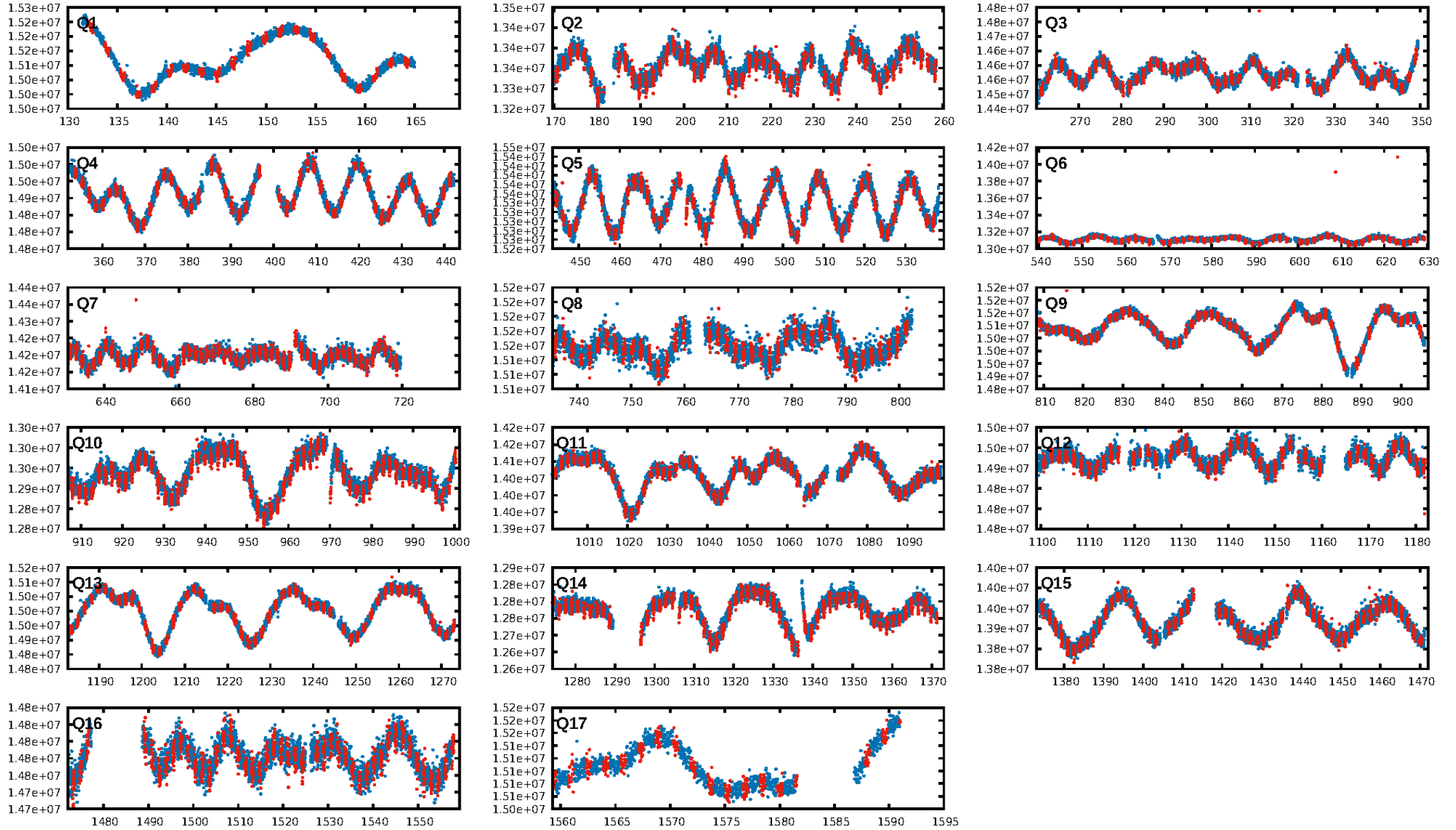
DV Fit Results:

Period = 1.59262 [0.00001] d
Epoch = 132.3376 [0.0029] BKJD
Rp/R* = 0.0236 [0.0008]
a/R* = 1.22 [0.03]
b = 0.97 [0.01]
Seff = 291.72 [42.74]
Teq = 1054 [39] K
Rp = 1.68 [0.15] Re
a = 0.0232 [0.0015] AU
Ag = 2.43 [1.44] [0.99σ]
Teffp = 2035 [305] K [3.19σ]

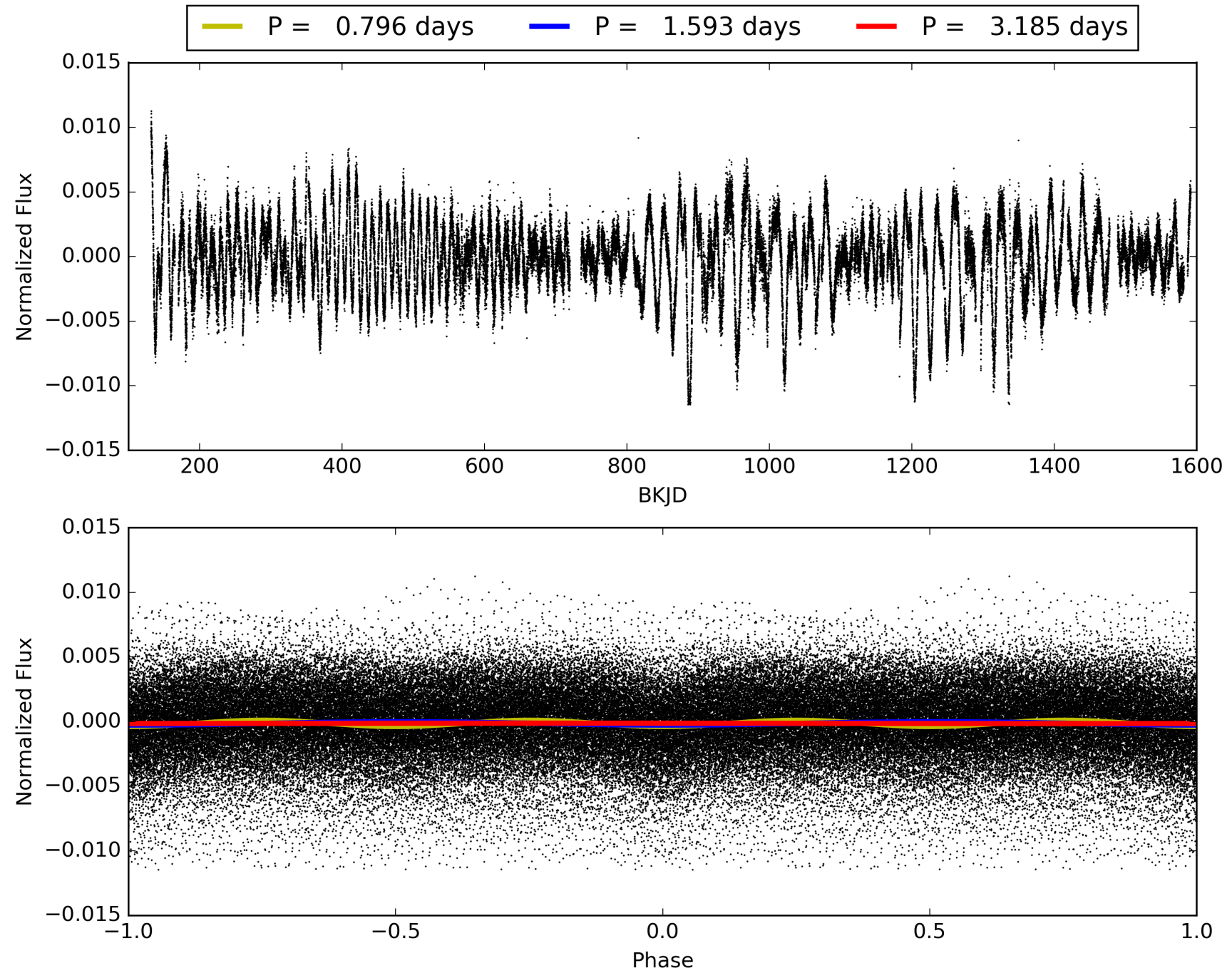
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 6.59e-119
RollingBand-fgt: 1.00 [808/808]
GhostDiagnostic-chr: -0.4508
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 1.00 [17/17]

TCE 001433962-01, PDC Light Curves

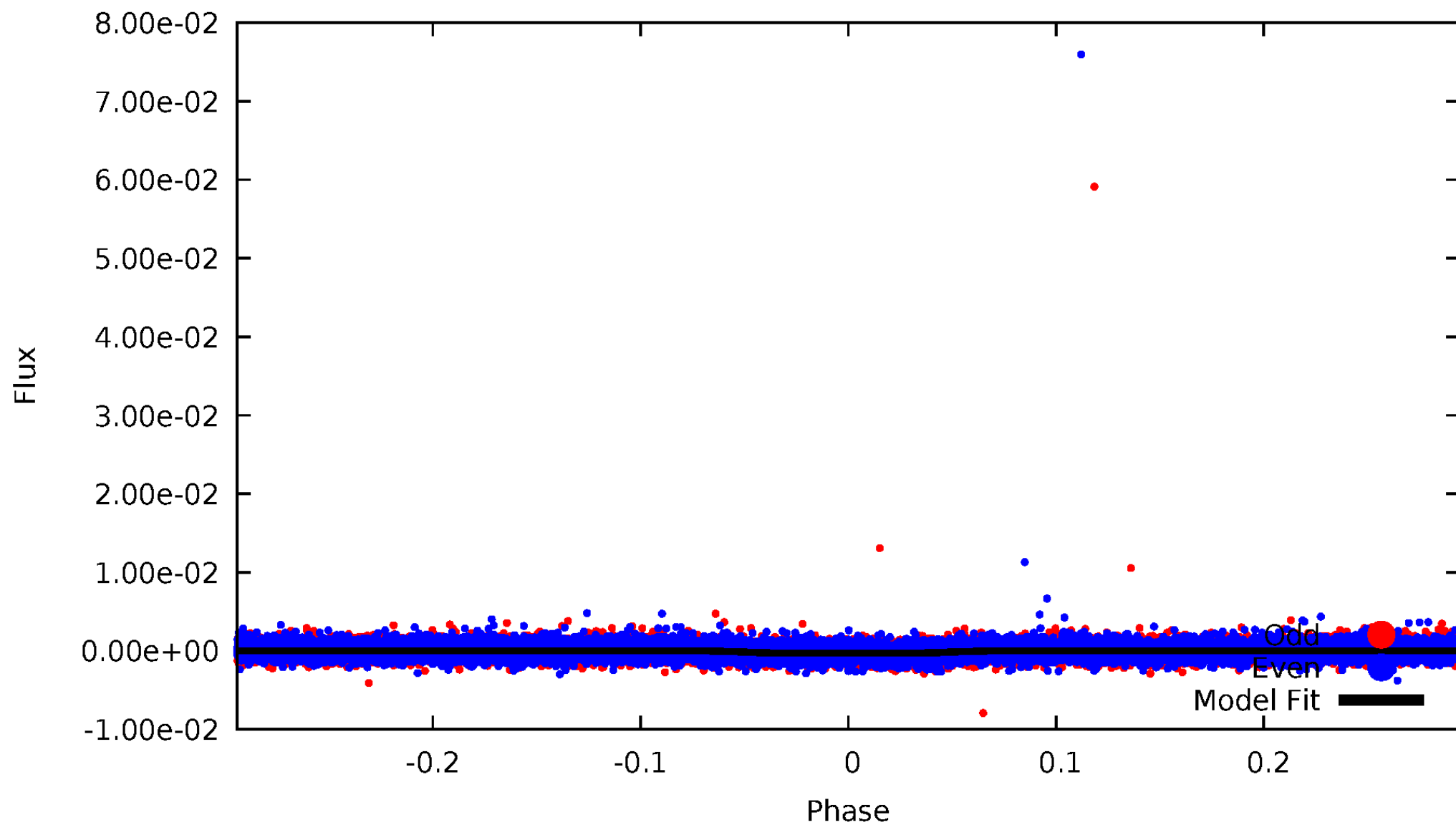


TCE 001433962-01



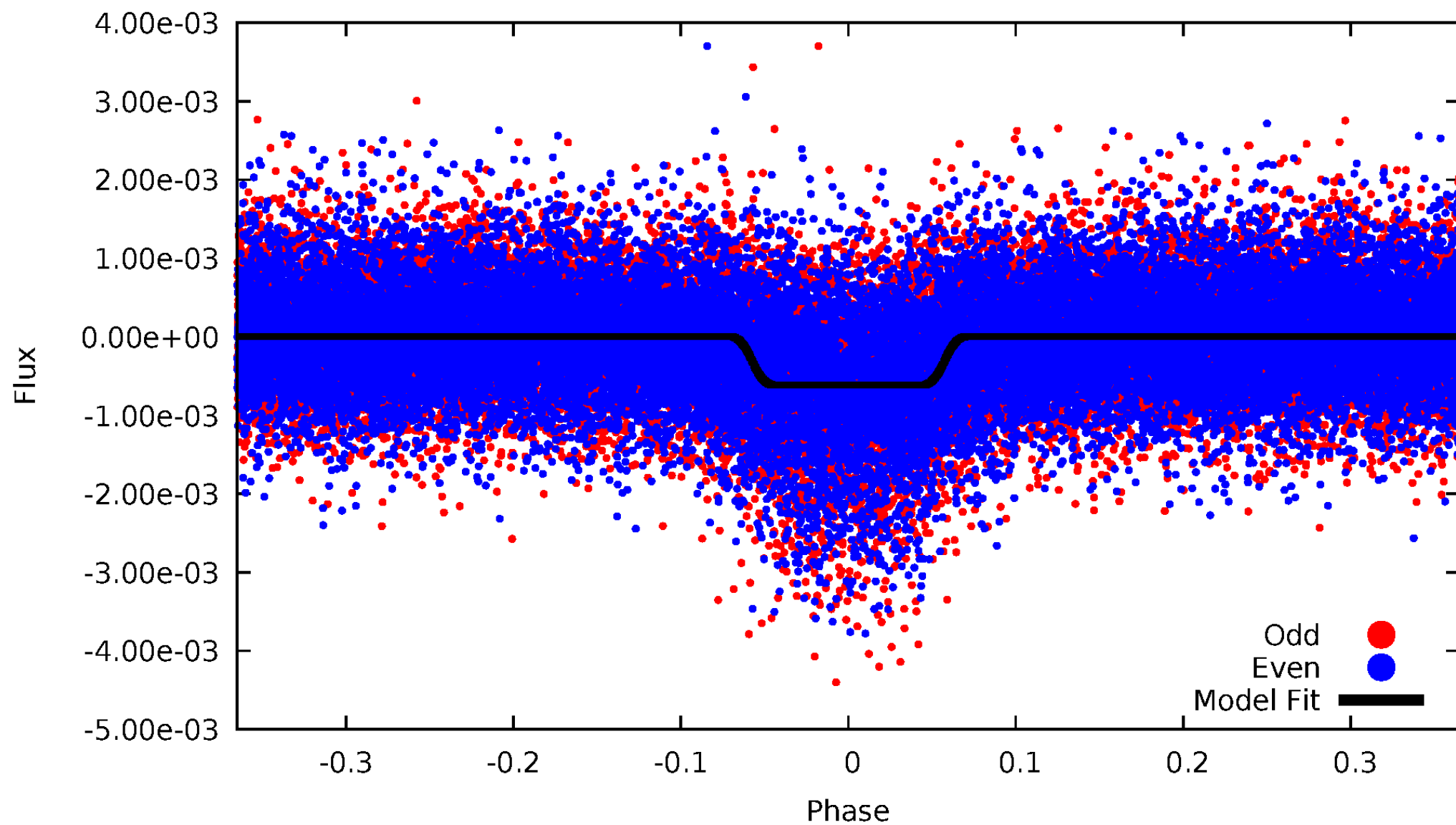
DV Odd/Even

TCE 001433962-01



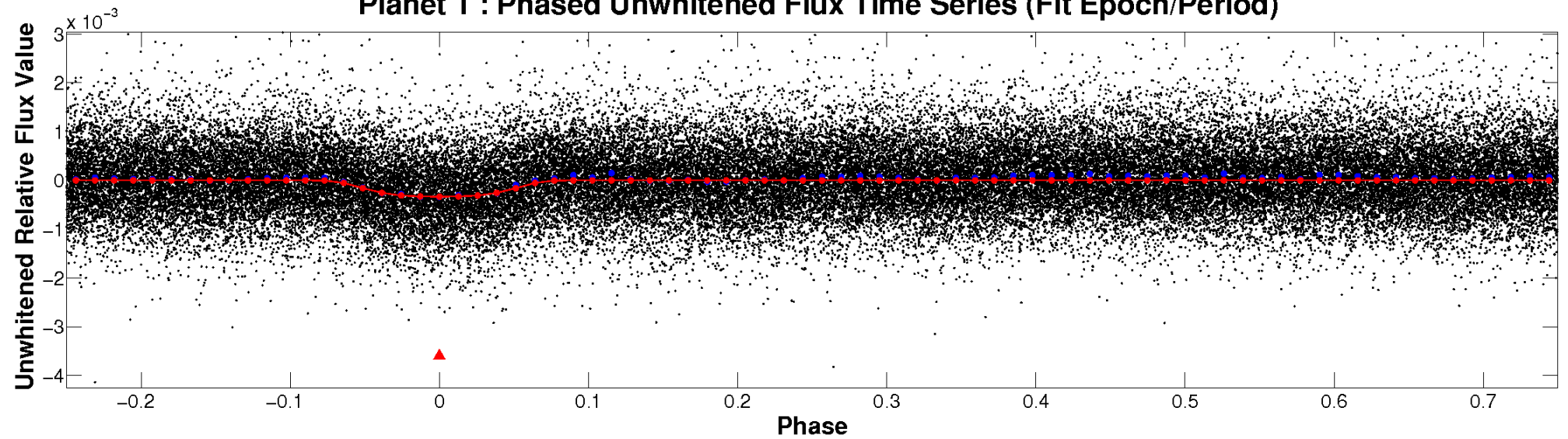
ALT Odd/Even

TCE 001433962-01

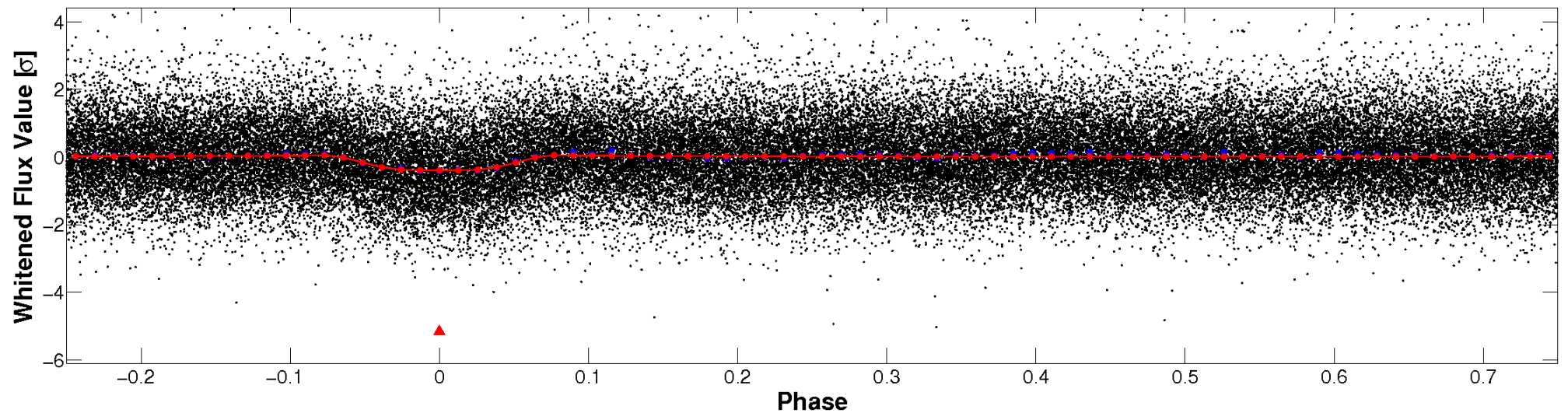


Non-Whitened Vs. Whitened Light Curve

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

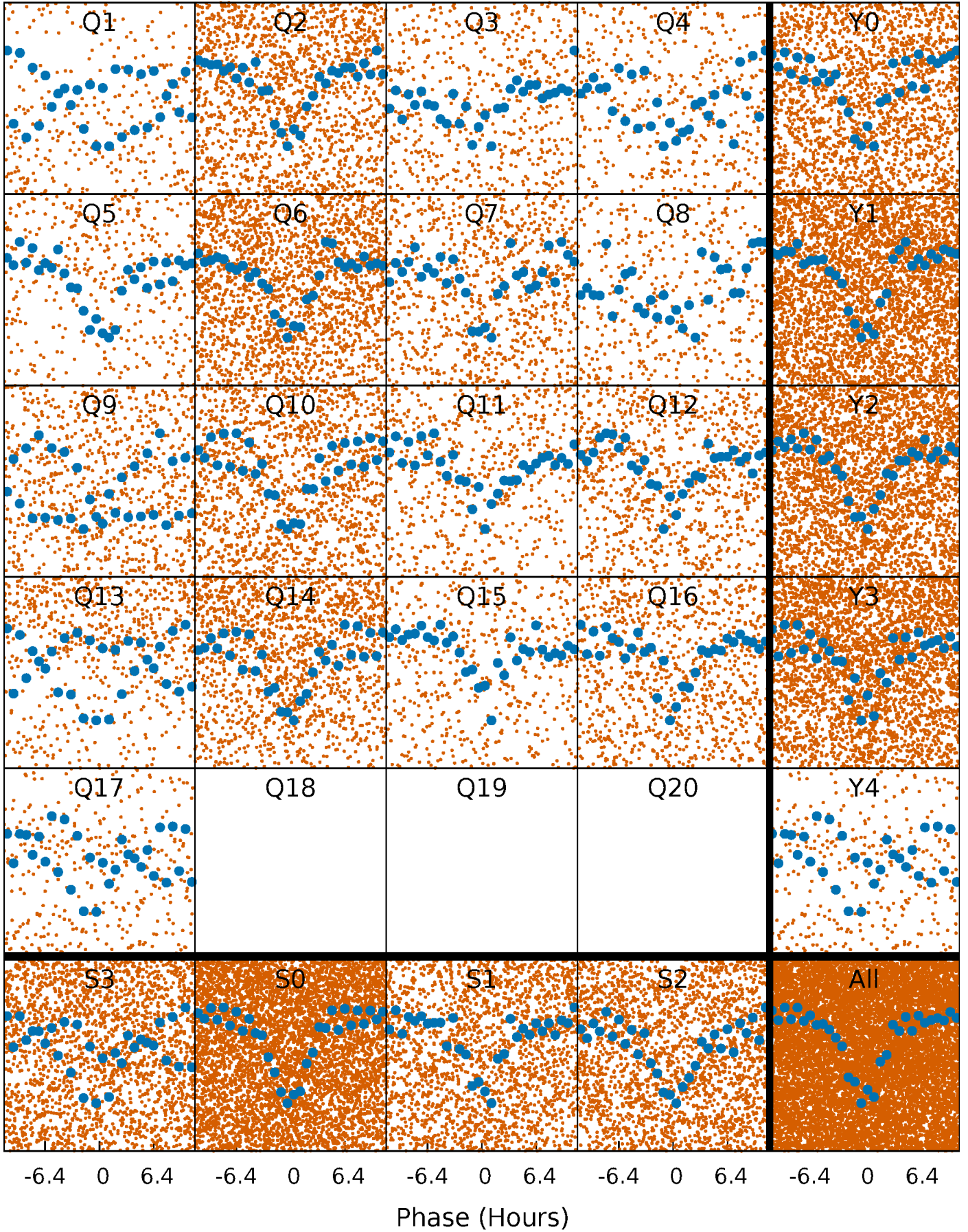


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



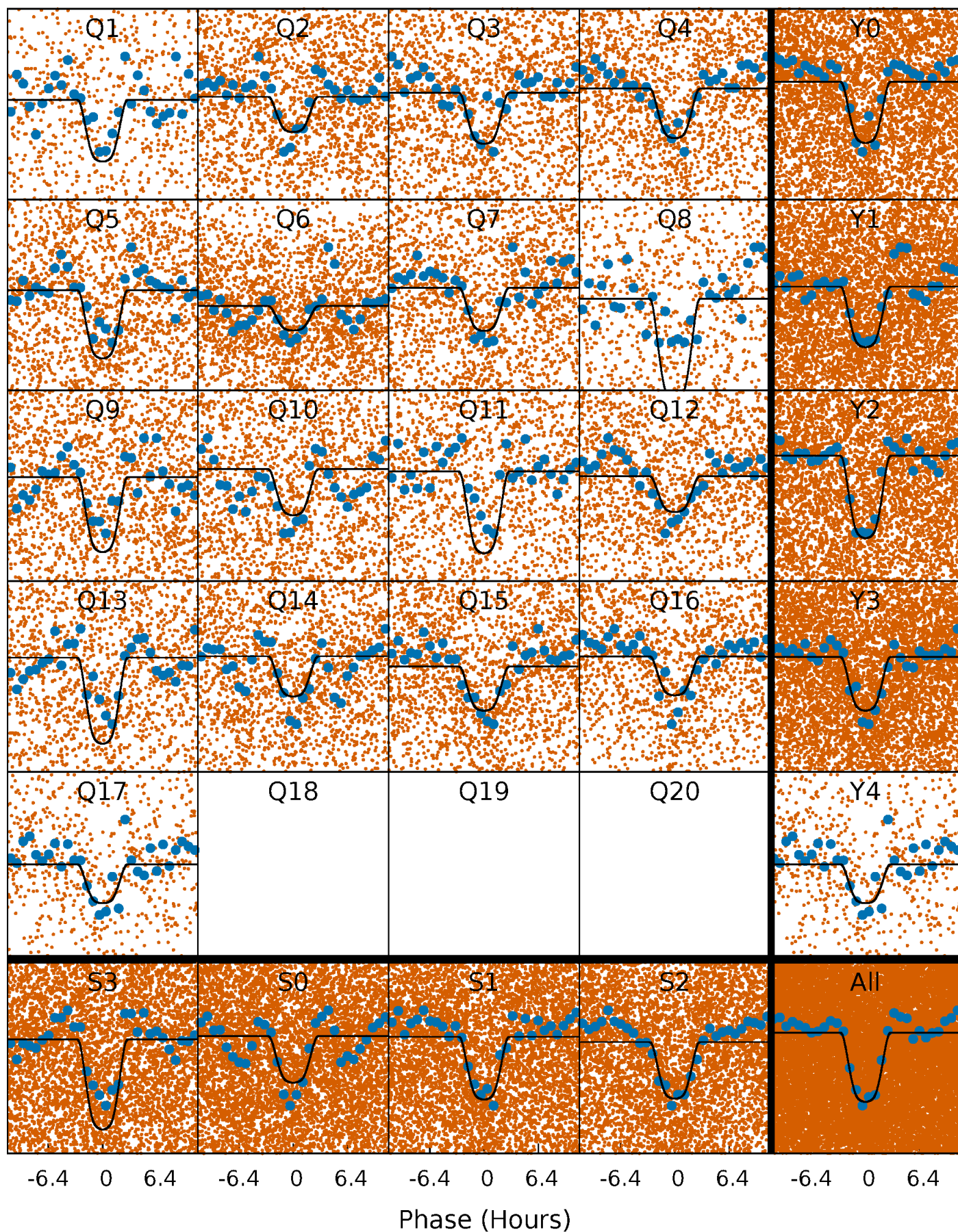
PDC Quarter-Phased Transit Curves

TCE 001433962-01 P= 1.592624 Days $T_0=132.337615$ (BKJD)



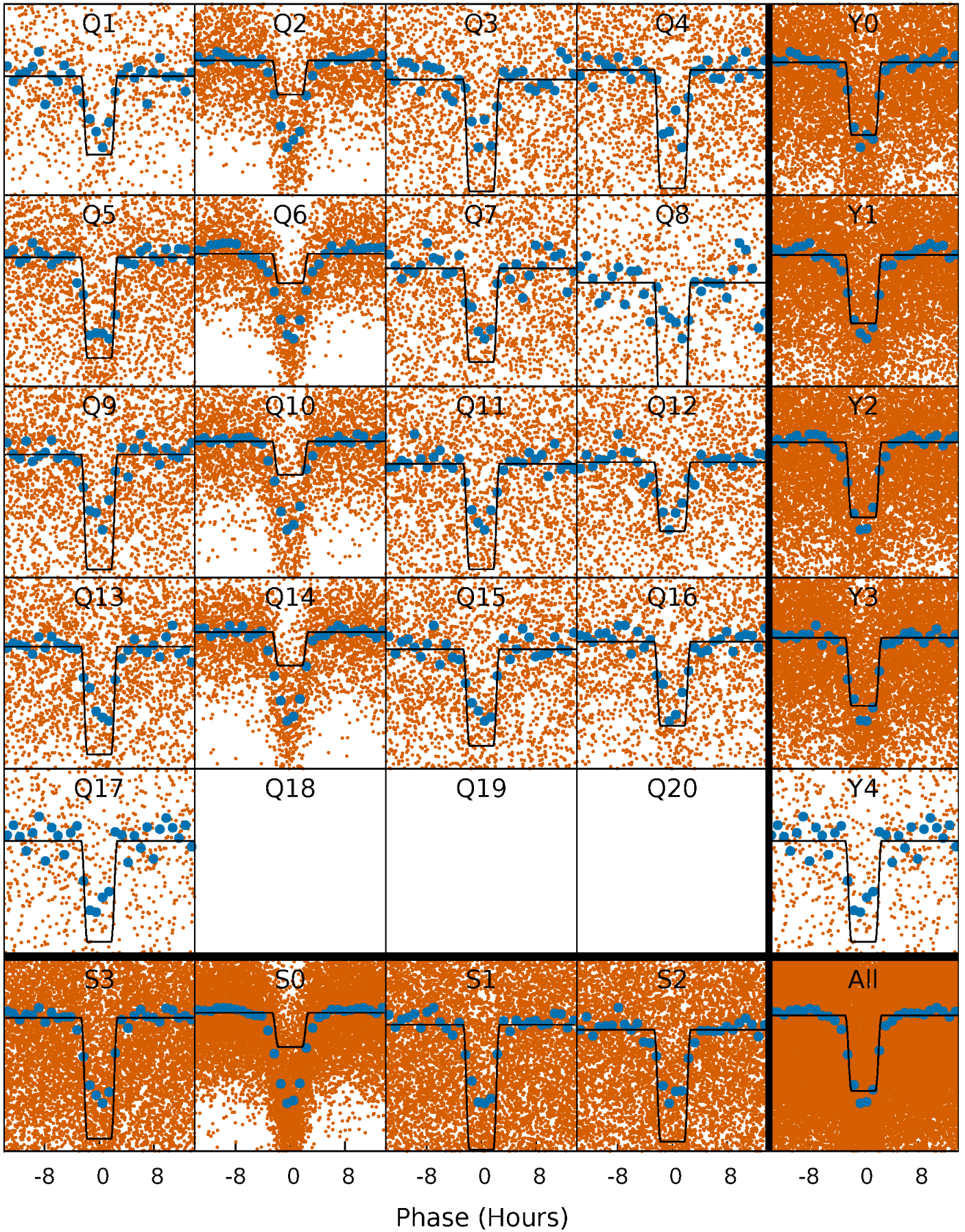
DV Quarter-Phased Transit Curves

TCE 001433962-01 P= 1.592624 Days $T_0=132.337615$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

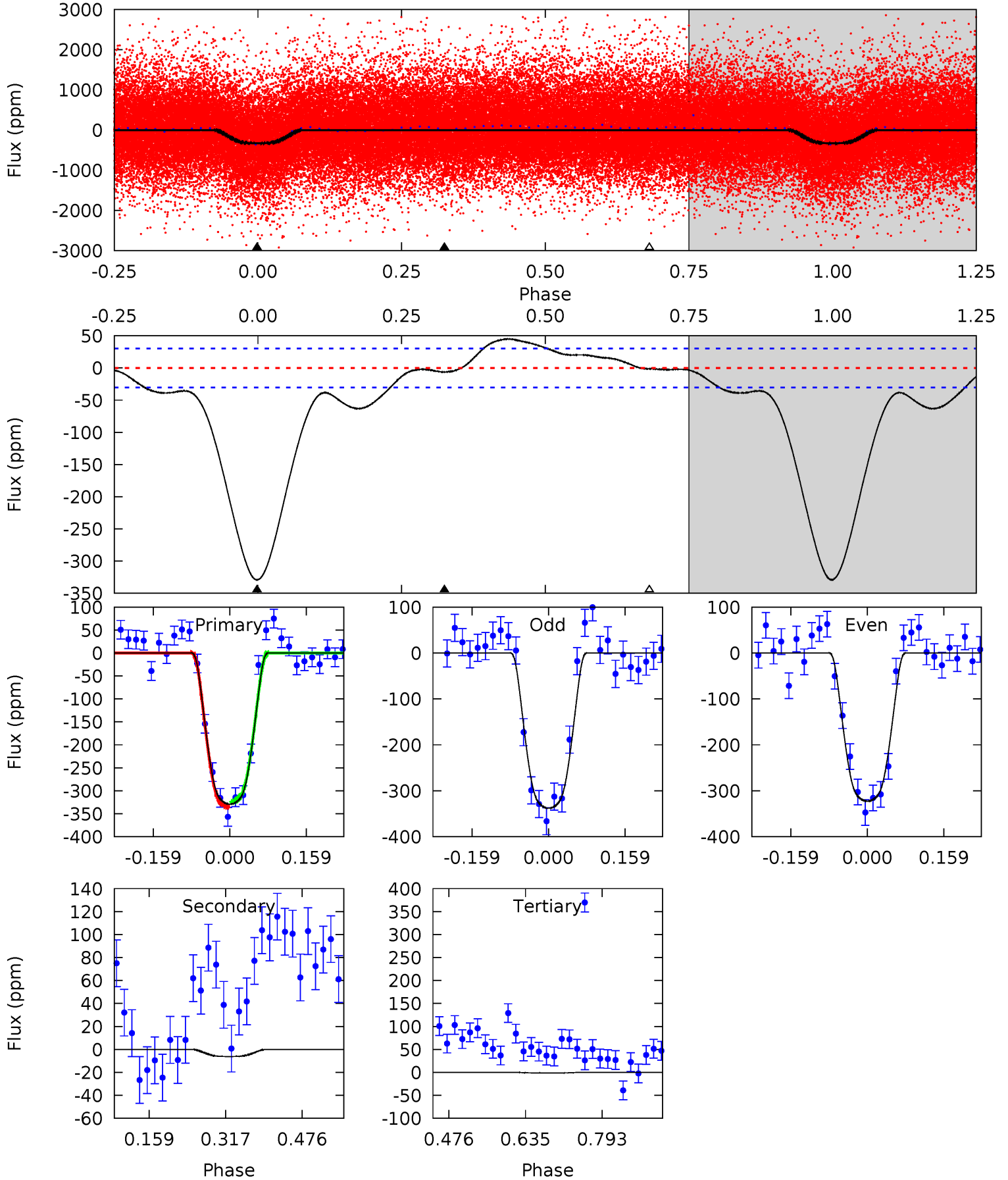
TCE 001433962-01 P= 1.592640 Days $T_0=132.328253$ (BKJD)



DV Model-Shift Uniqueness Test

001433962-01, P = 1.592624 Days, E = 130.744991 Days

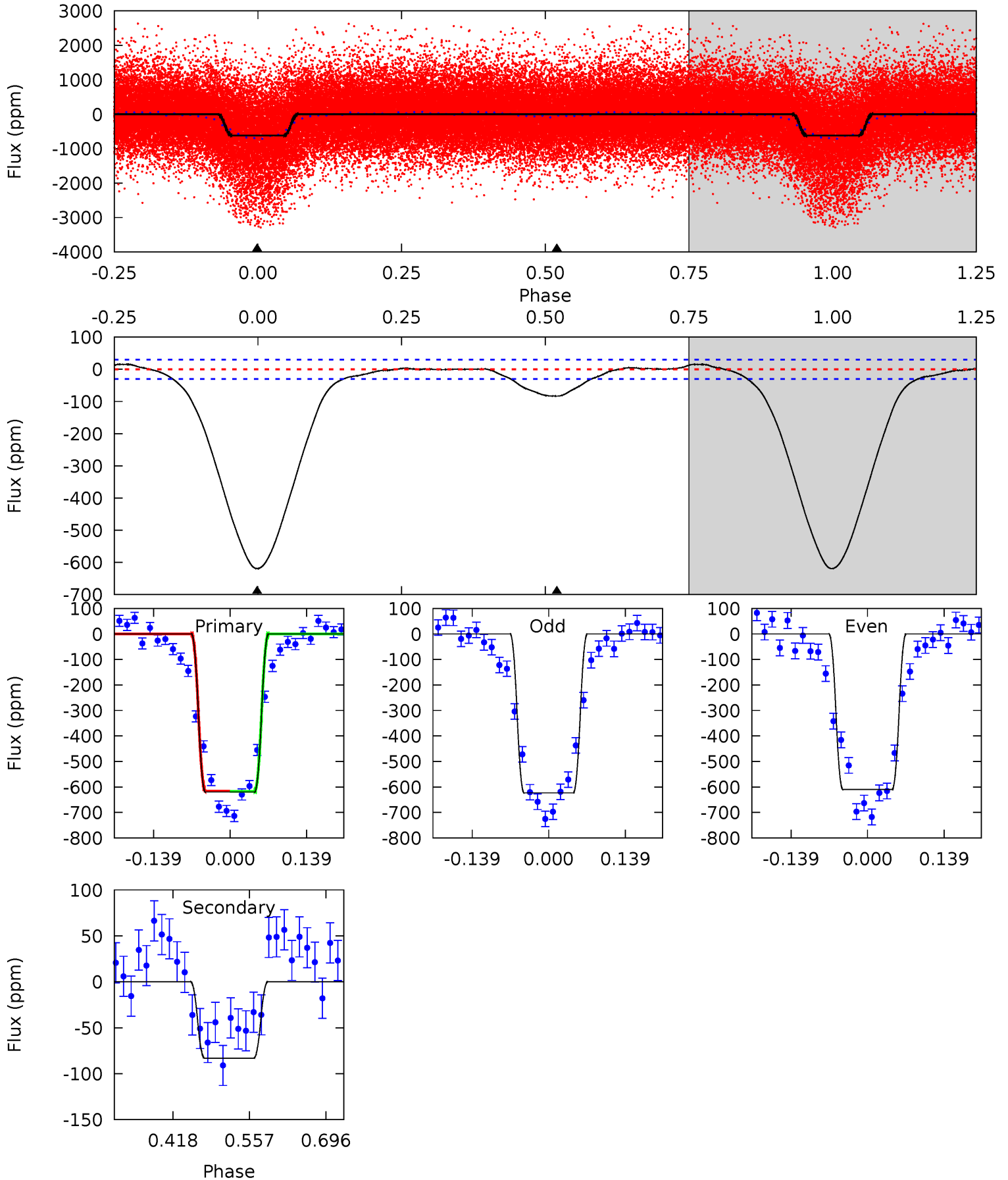
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.5	0.92	0.19	0	4.47	1.41	3.18	48.3	48.5	0.72	0.92	1.14	1.06	0.12	0.78



Alt Model-Shift Uniqueness Test

001433962-01, P = 1.592640 Days, E = 130.735613 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
92.6	12.4	0	0	4.49	1.48	1.72	92.6	92.6	12.4	12.4	1.00	1.25	0.02	0.08



Stellar Parameters For KIC 001433962

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	4506^{+121}_{-135}	$4.626^{+0.042}_{-0.028}$	$-0.200^{+0.300}_{-0.300}$	$0.651^{+0.053}_{-0.053}$	$0.654^{+0.066}_{-0.054}$	$3.331^{+0.651}_{-0.453}$
	+3%/-3%	+1%/-1%	+150%/-150%	+8%/-8%	+10%/-8%	+20%/-14%
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 001433962-01 / KOI 0982.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-6 ± 7	$1.67^{+0.10}_{-0.10}$	1469^{+46}_{-47}	2173^{+296}_{-4341}	$0.665^{+0.746}_{-0.751}$
Alt.	-83 ± 7	$1.76^{+0.10}_{-0.10}$	1468^{+46}_{-45}	3192^{+95}_{-83}	$8.018^{+1.018}_{-0.860}$

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 001433962-01. Kepler magnitude: 15.47. Transit SNR 28.77

There are 0 quarters with good PRF difference image offsets

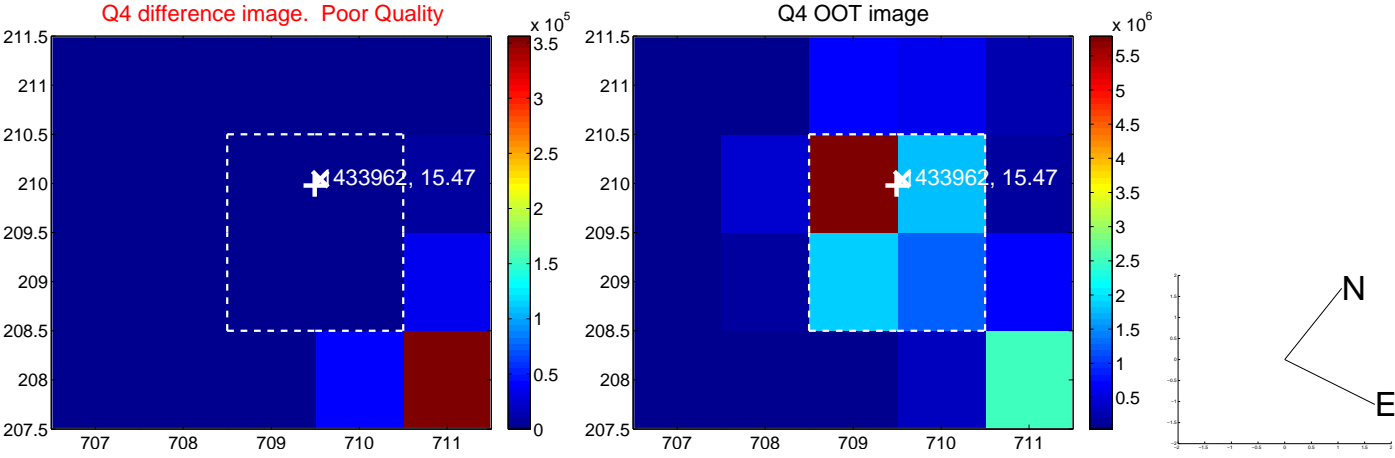
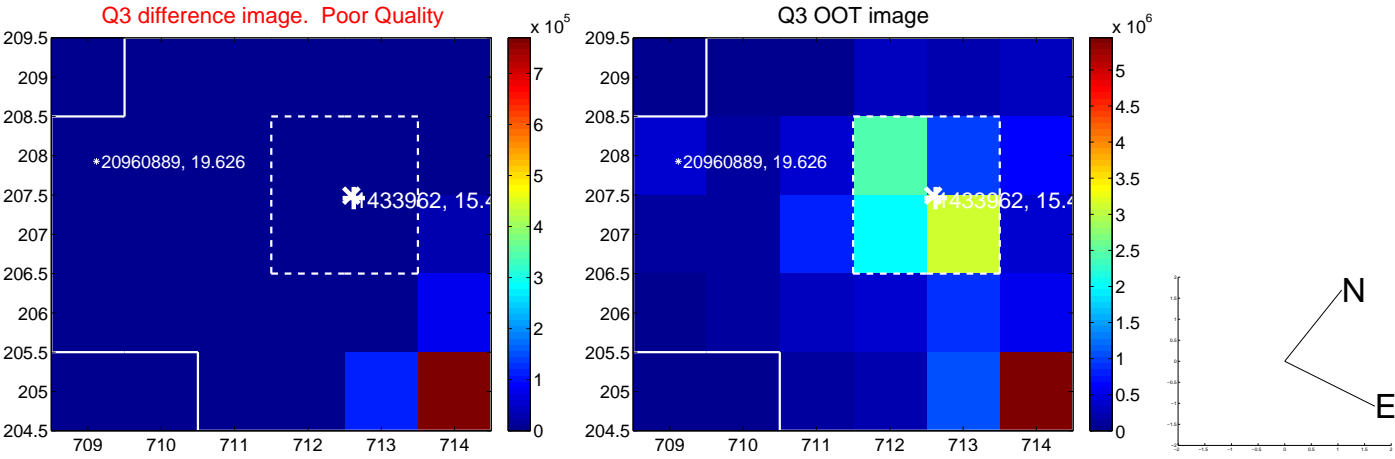
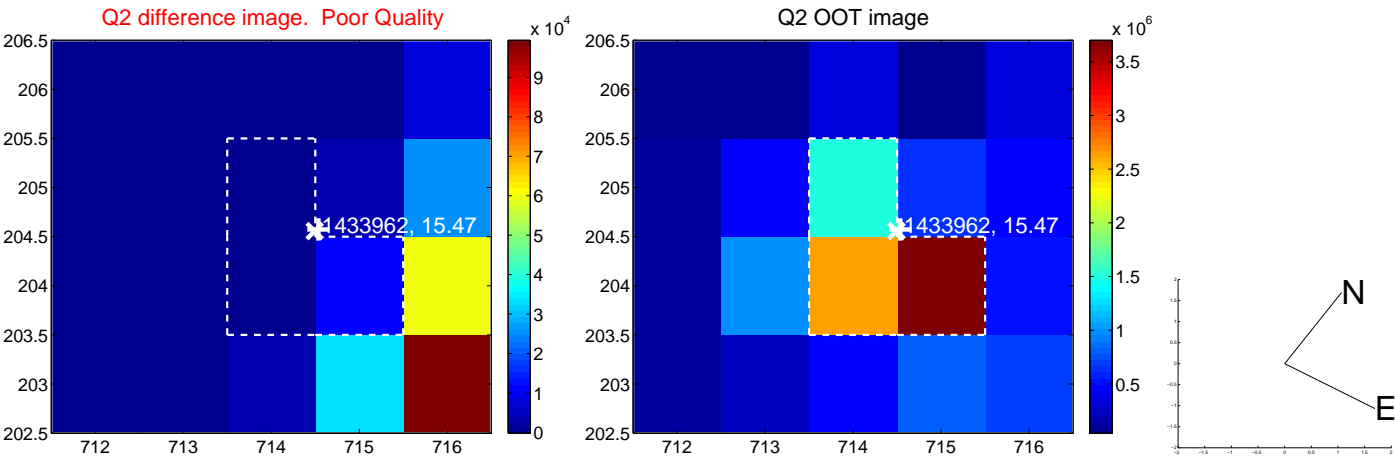
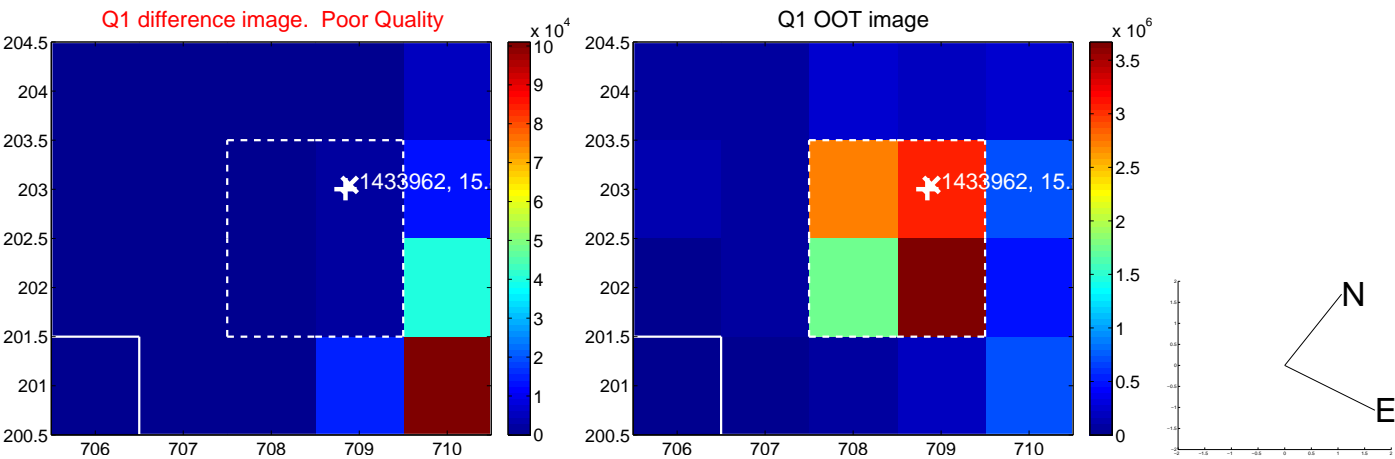
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	—	—	—	—

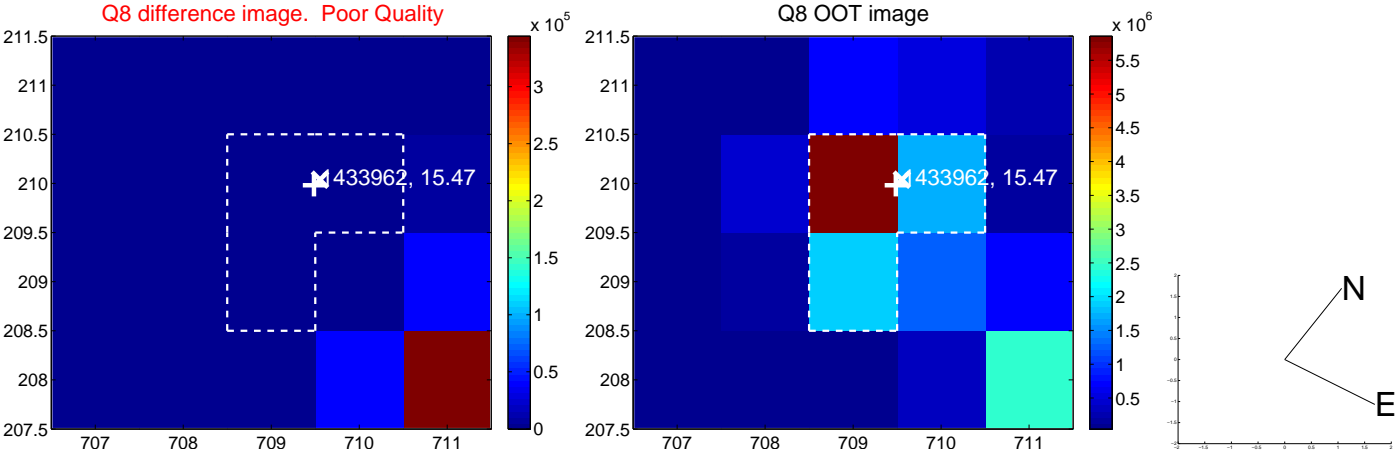
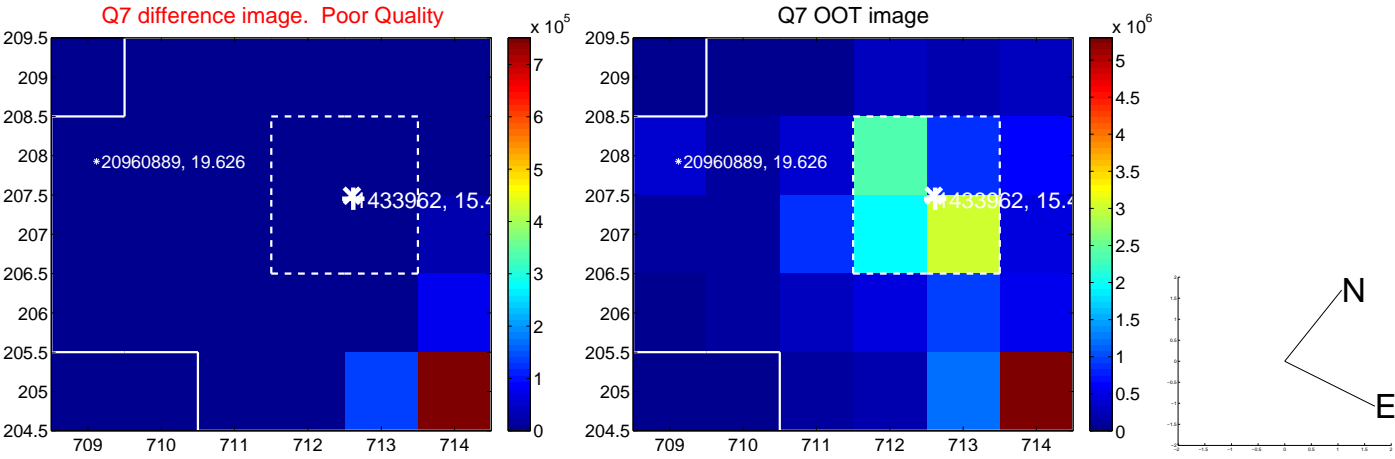
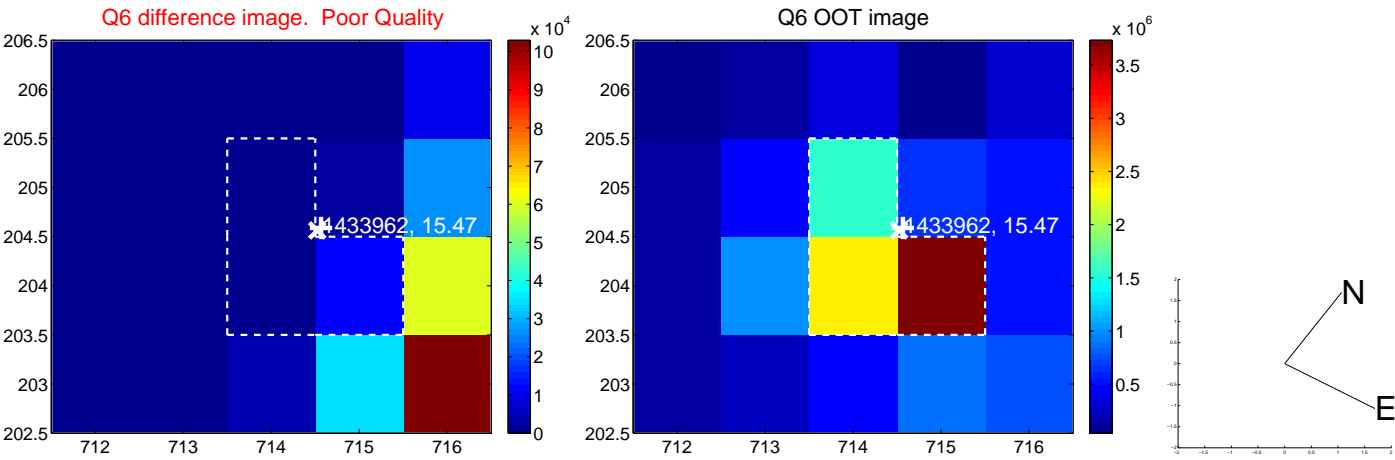
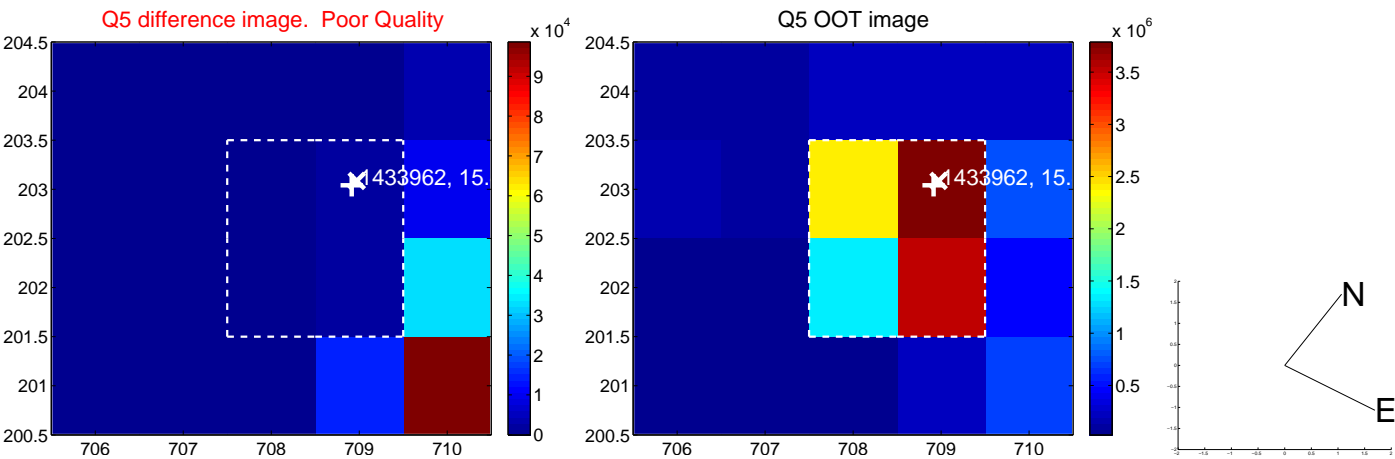


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

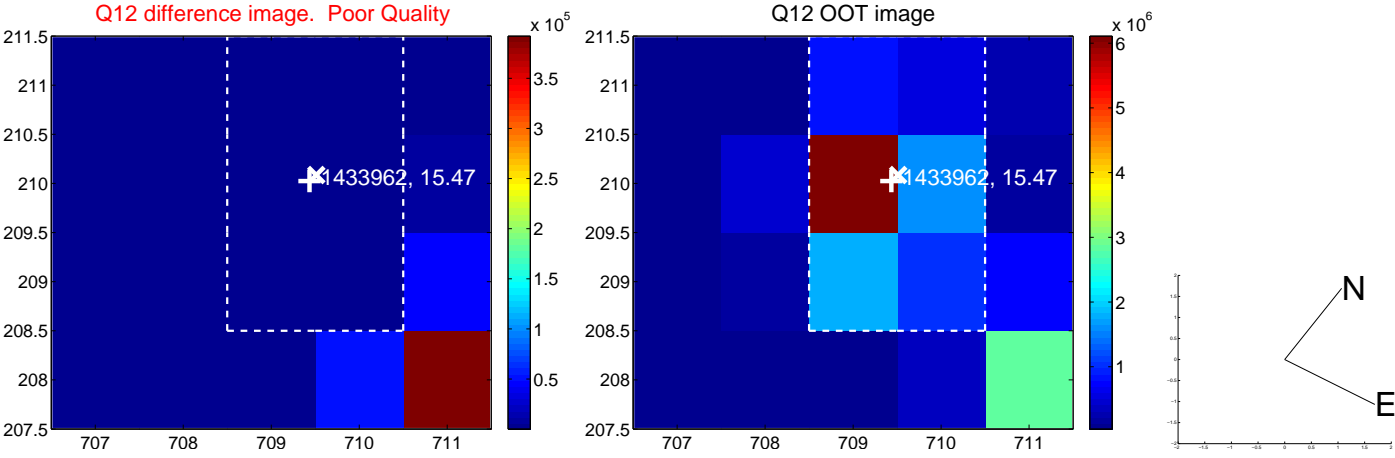
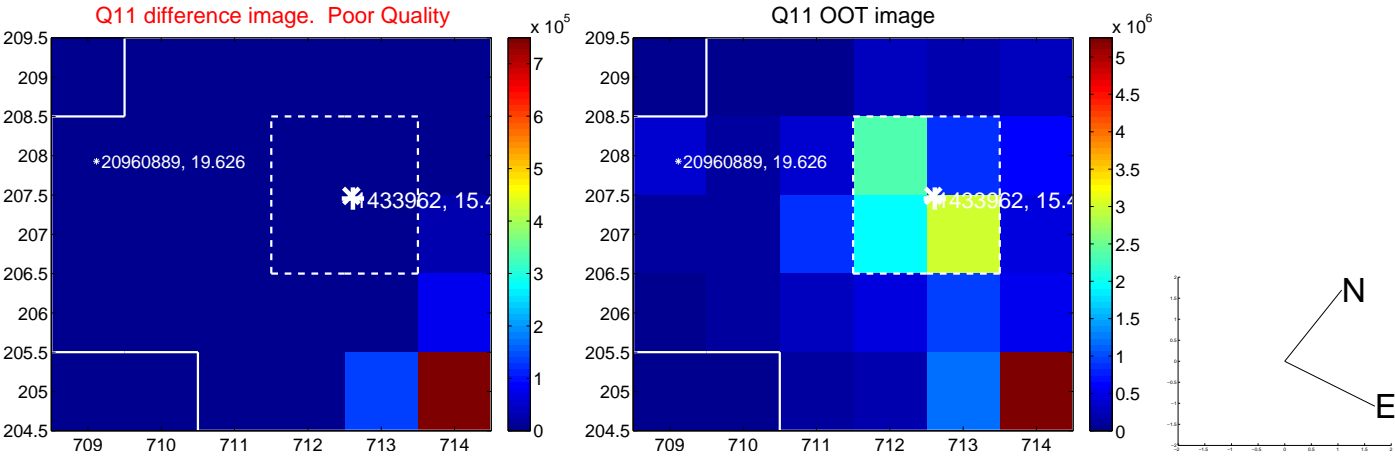
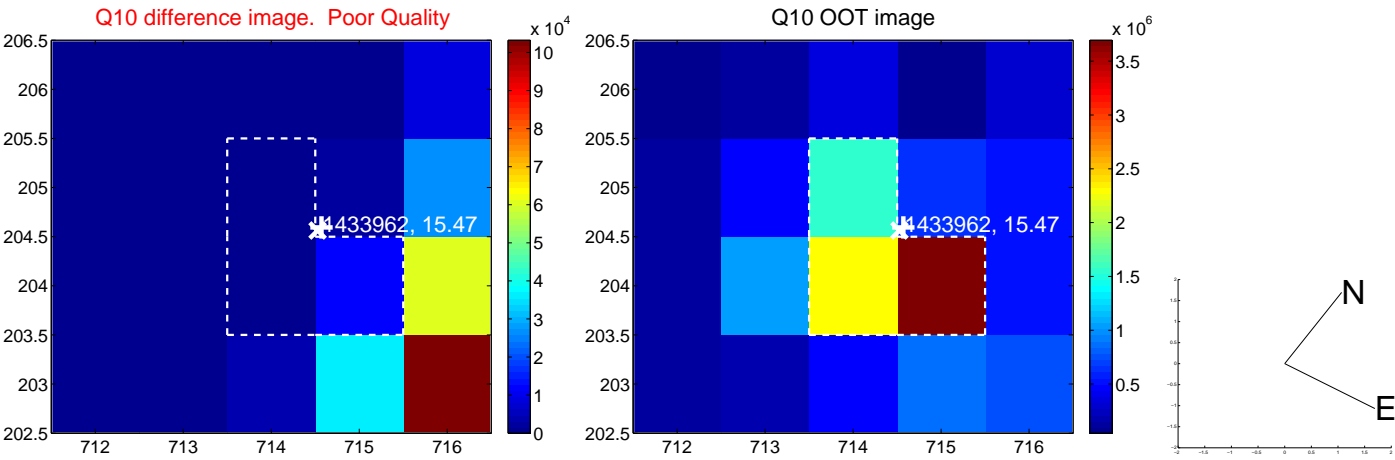
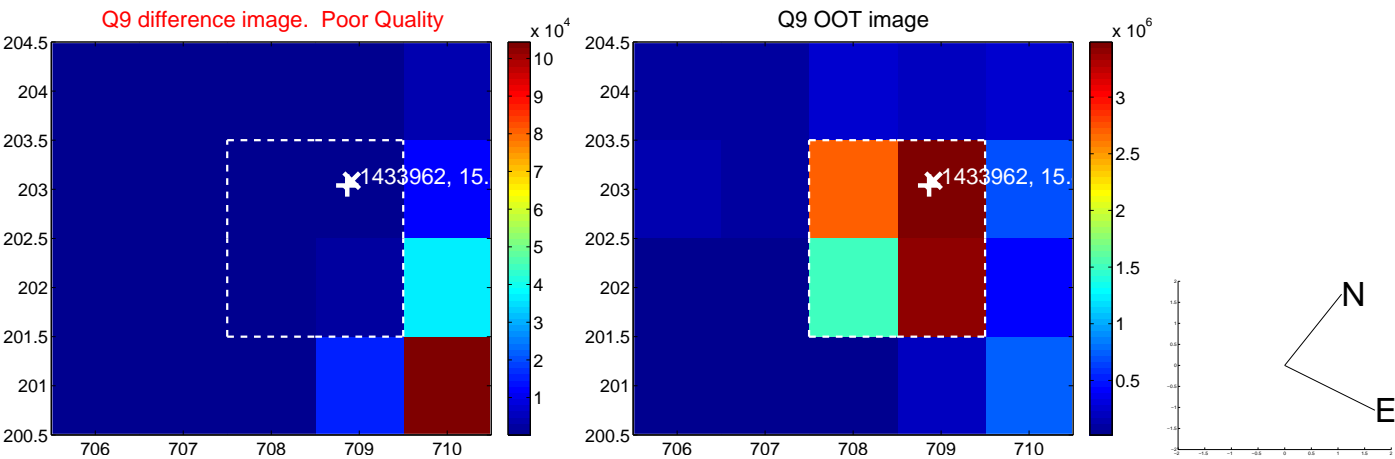
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



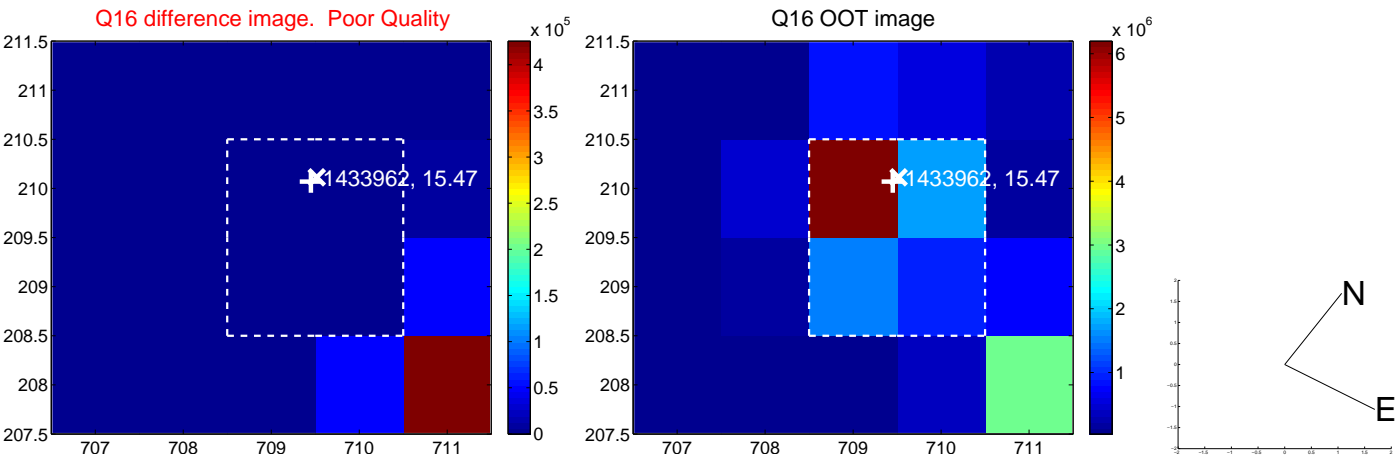
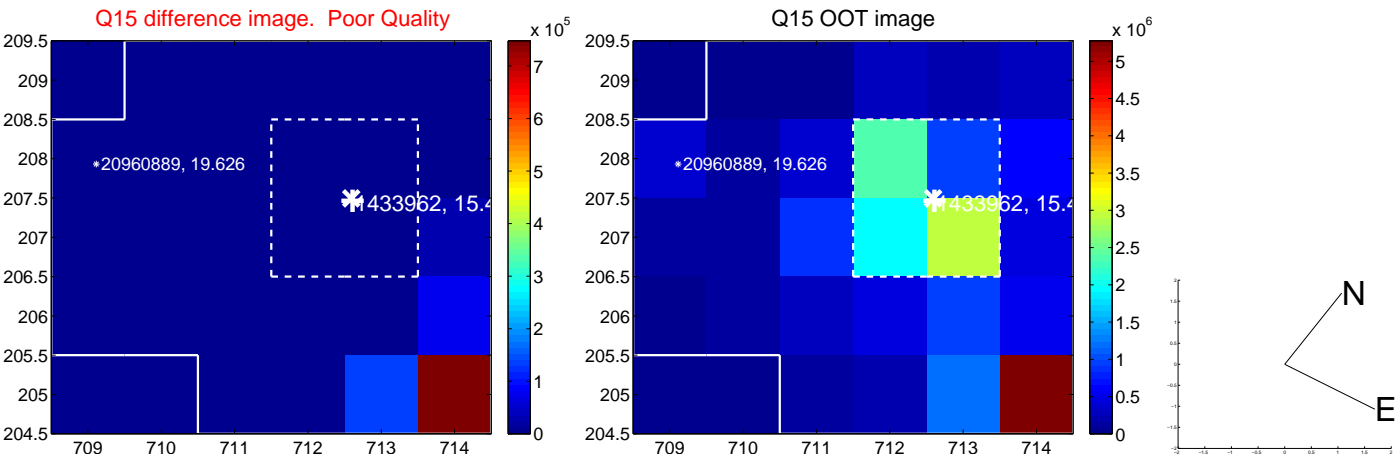
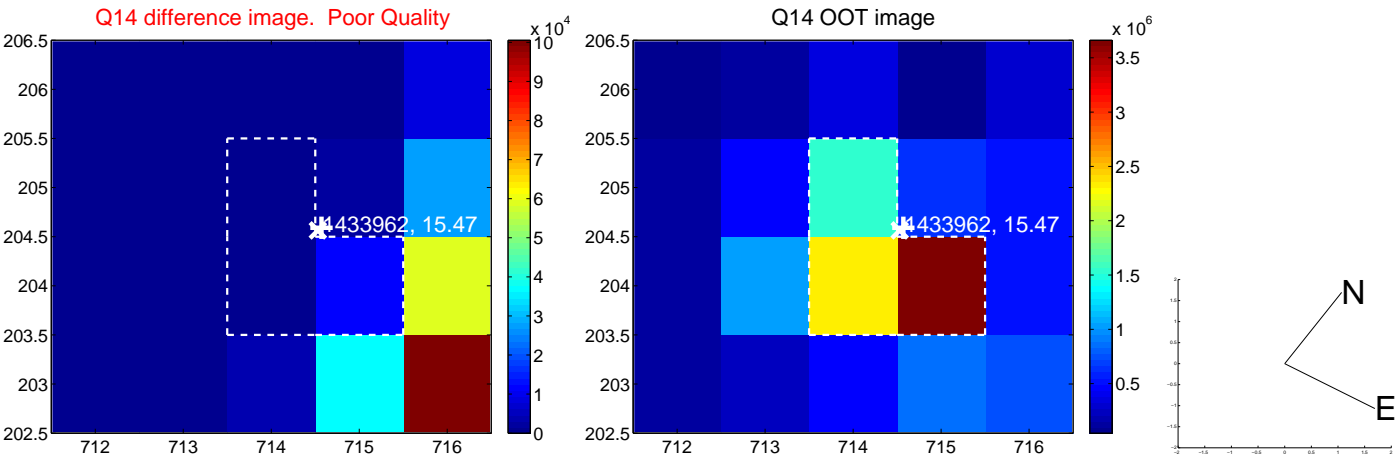
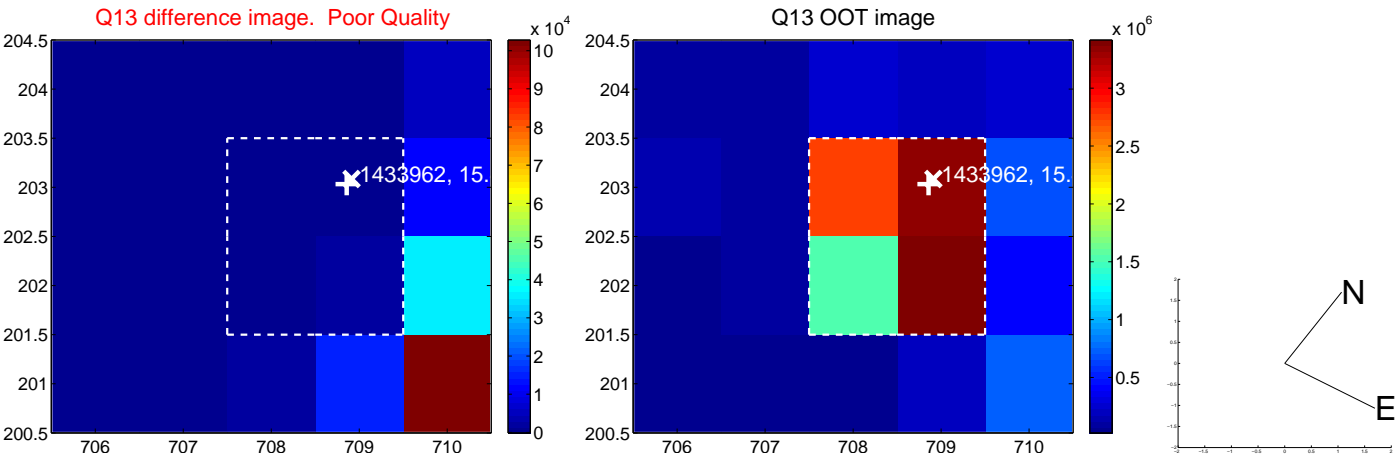
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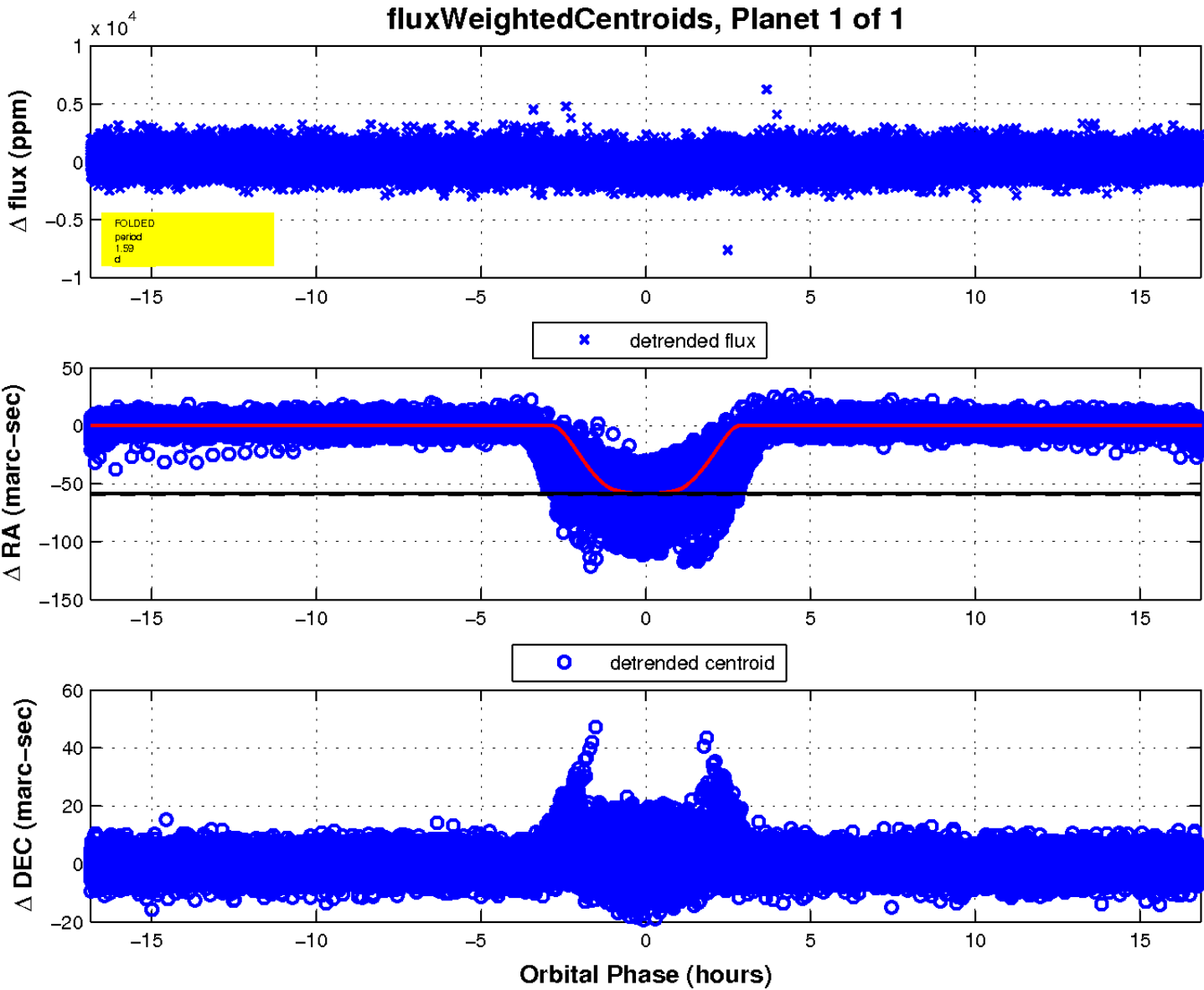
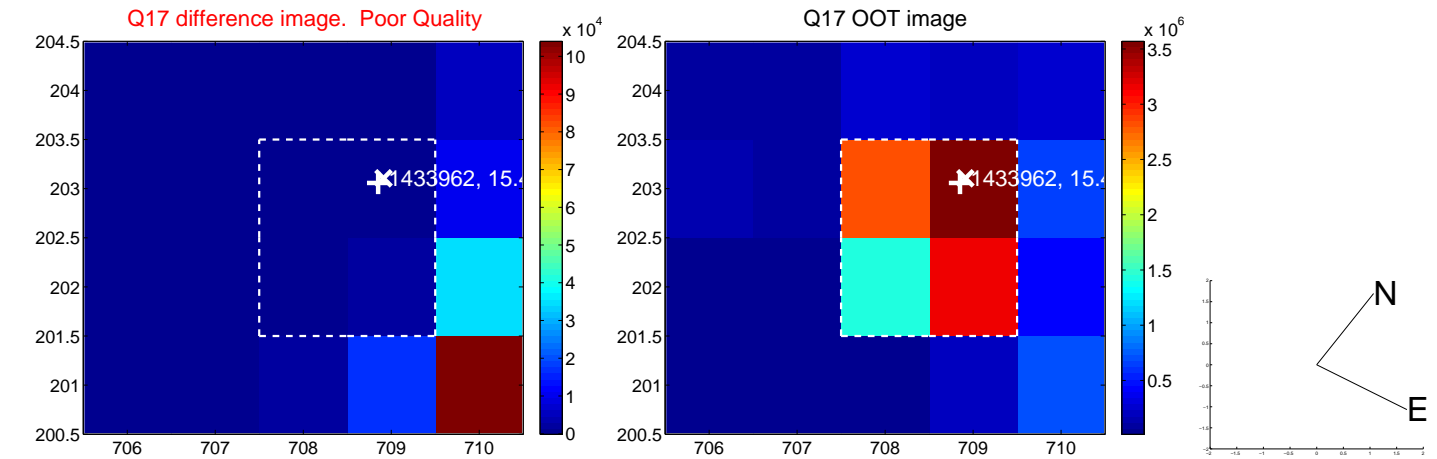
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UKIRT Image

Declination

