

KIC 011298815

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})
011298815-01	OBS	2015.01	5.738634	136.920927	516.4	4.060	37.0	30.8	0.51	3841	1.54	19.38

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011298815-01	OBS	FP	0.00	0	0	1	0	CENT_RESOLVED_OFFSET

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 011298815-01

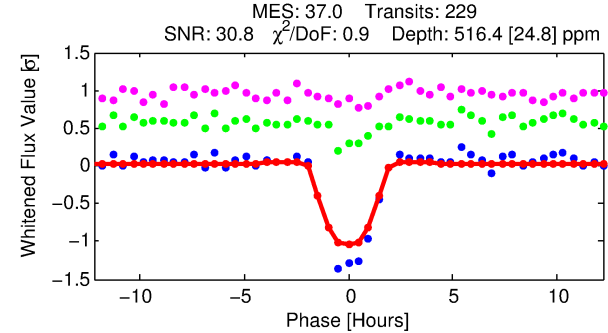
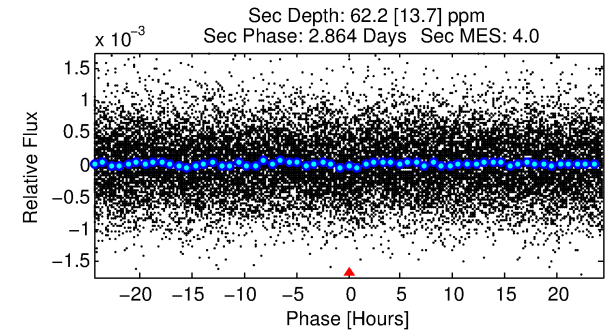
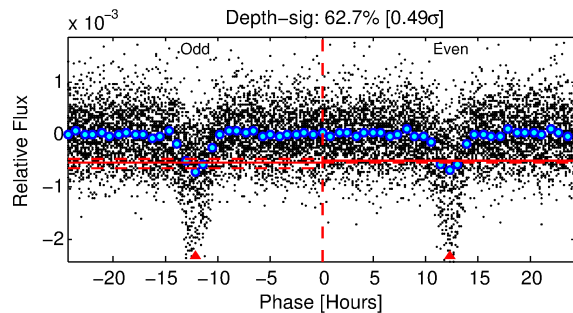
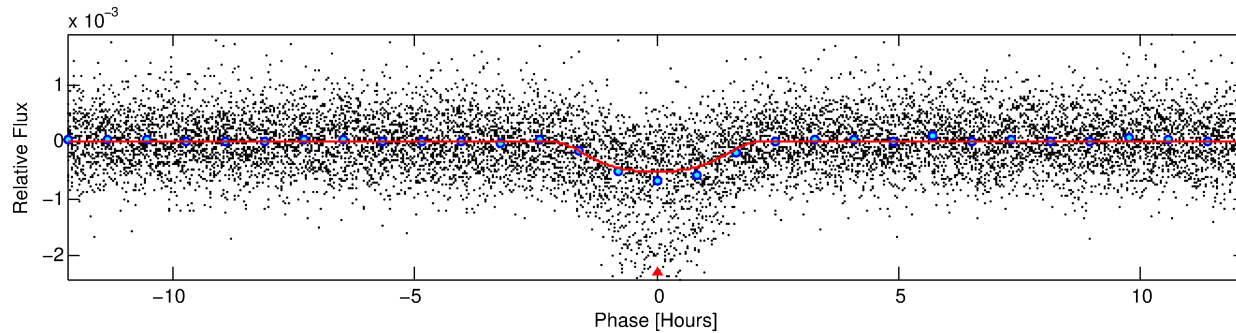
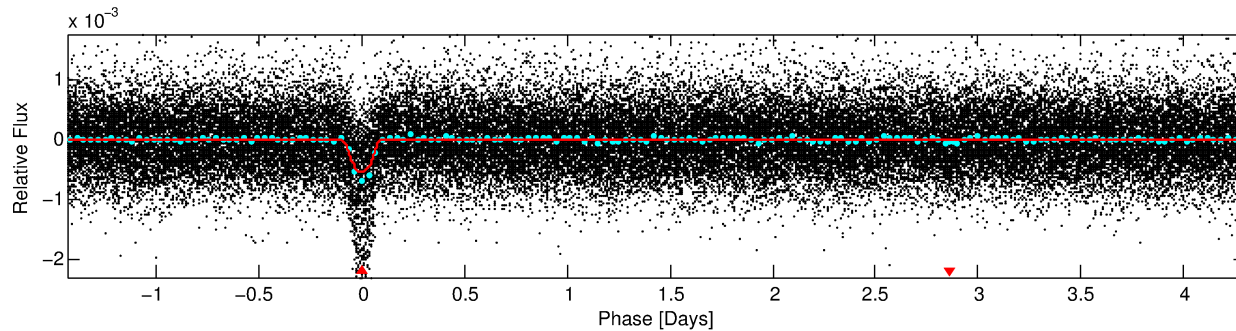
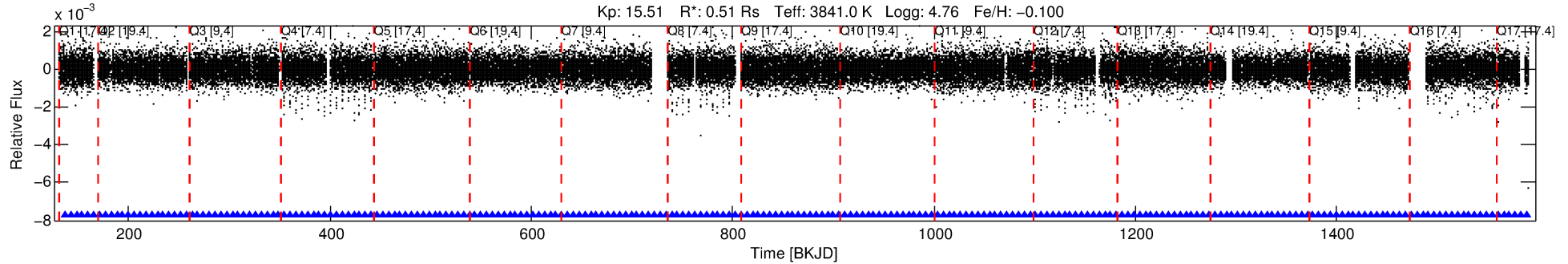
No Significant Match Found

DV One-Page Summary

KIC: 11298815 Candidate: 1 of 1 Period: 5.739 d

KOI: K02015.01 Corr: 0.968

Kp: 15.51 R*: 0.51 Rs Teff: 3841.0 K Logg: 4.76 Fe/H: -0.100



DV Fit Results:

Period = 5.73863 [0.00002] d
Epoch = 136.9209 [0.0030] BKJD
Rp/R* = 0.0278 [0.0011]
a/R* = 3.89 [0.32]
b = 0.97 [0.01]
Seff = 19.38 [1.88]
Teq = 535 [13] K
Rp = 1.54 [0.11] Re
a = 0.0511 [0.0024] AU
Ag = 37.42 [9.10] [4.00σ]
Teffp = 2046 [125] K [11.98σ]

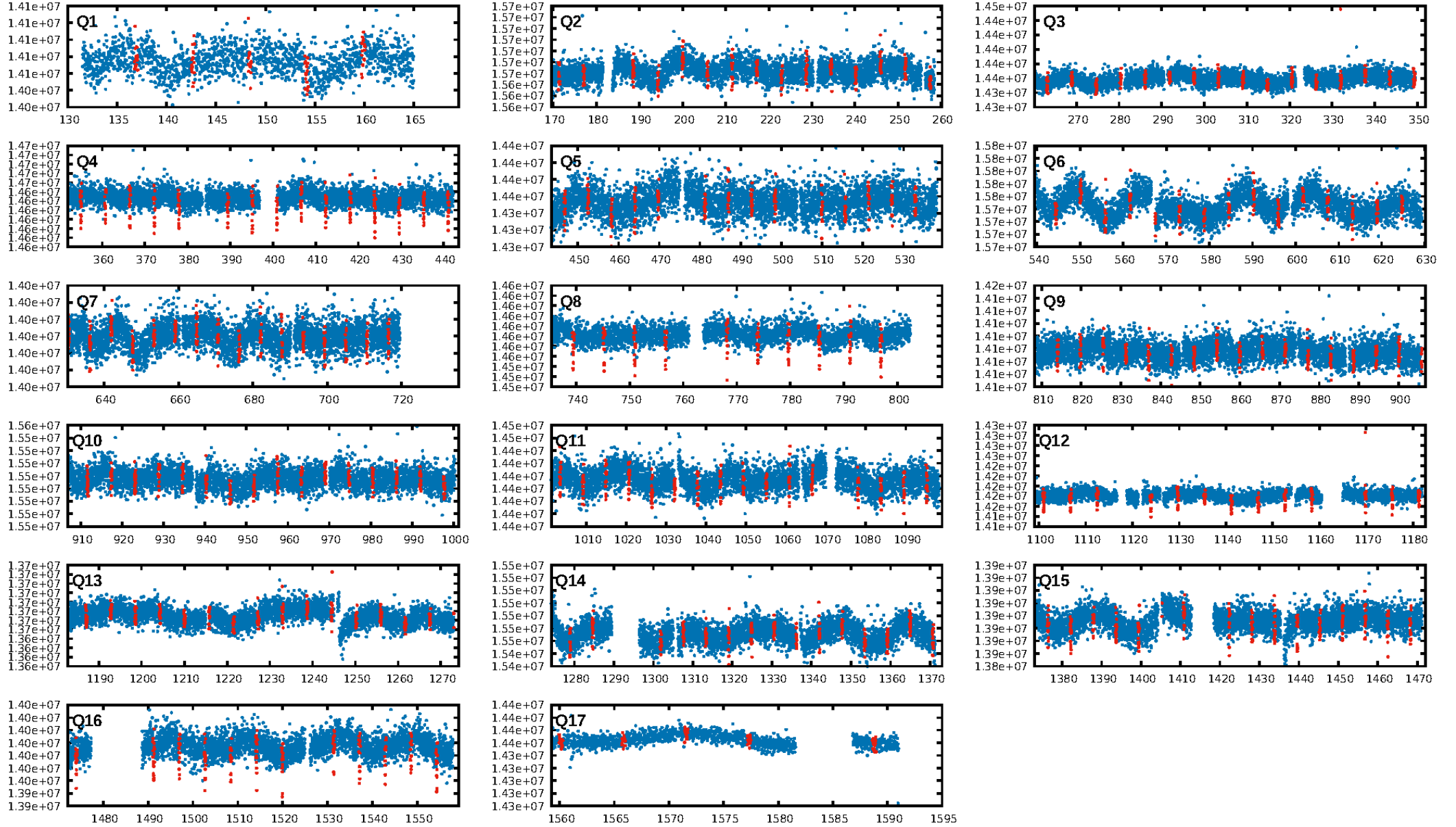
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.26e-282
RollingBand-fgt: 1.00 [219/219]
GhostDiagnostic-chr: -0.416
Centroid-sig: 0.0%
Centroid-so: 134.311 arcsec [417.75σ]
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]

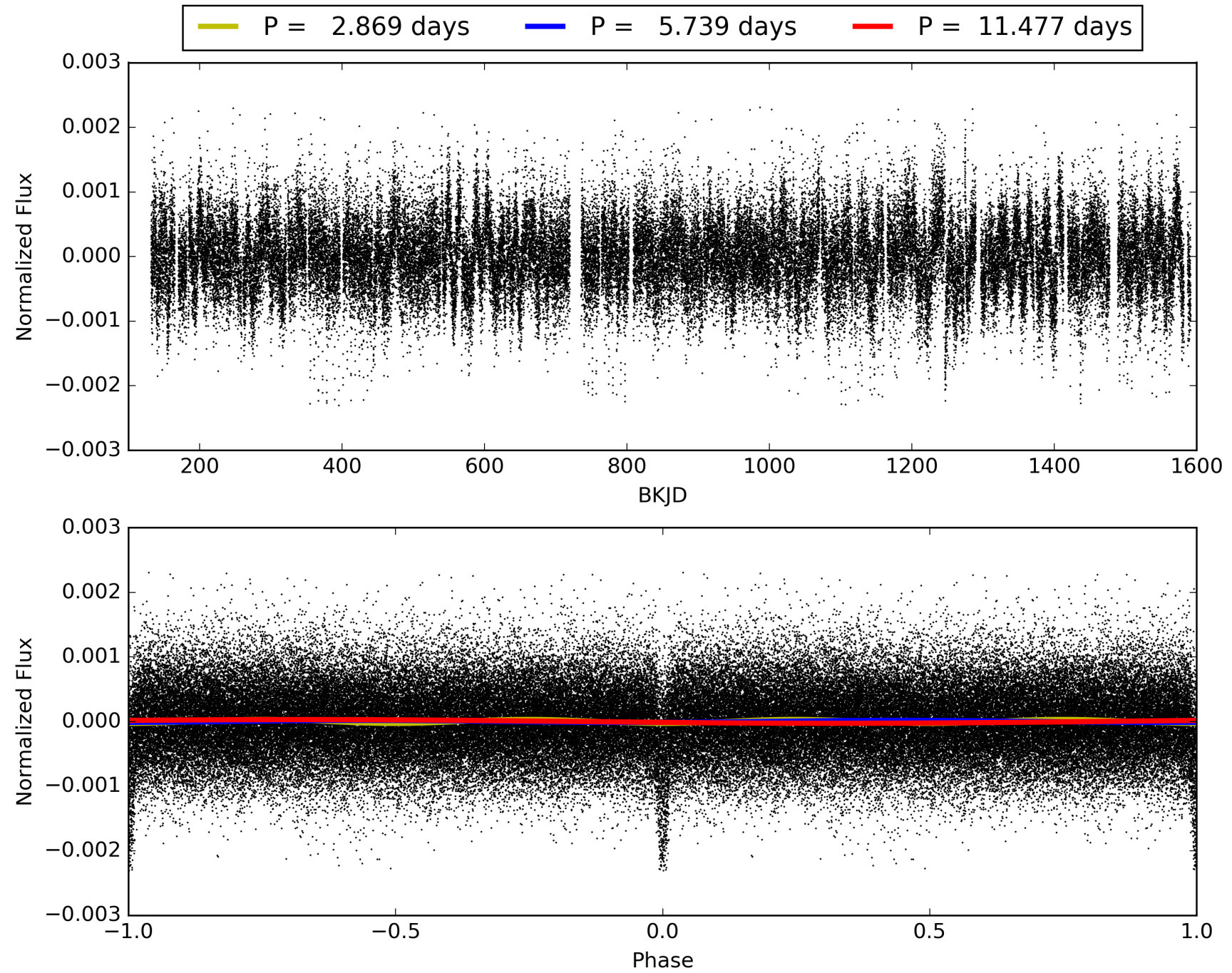
Software Revision: svn-ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:20:07 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011298815-01, PDC Light Curves

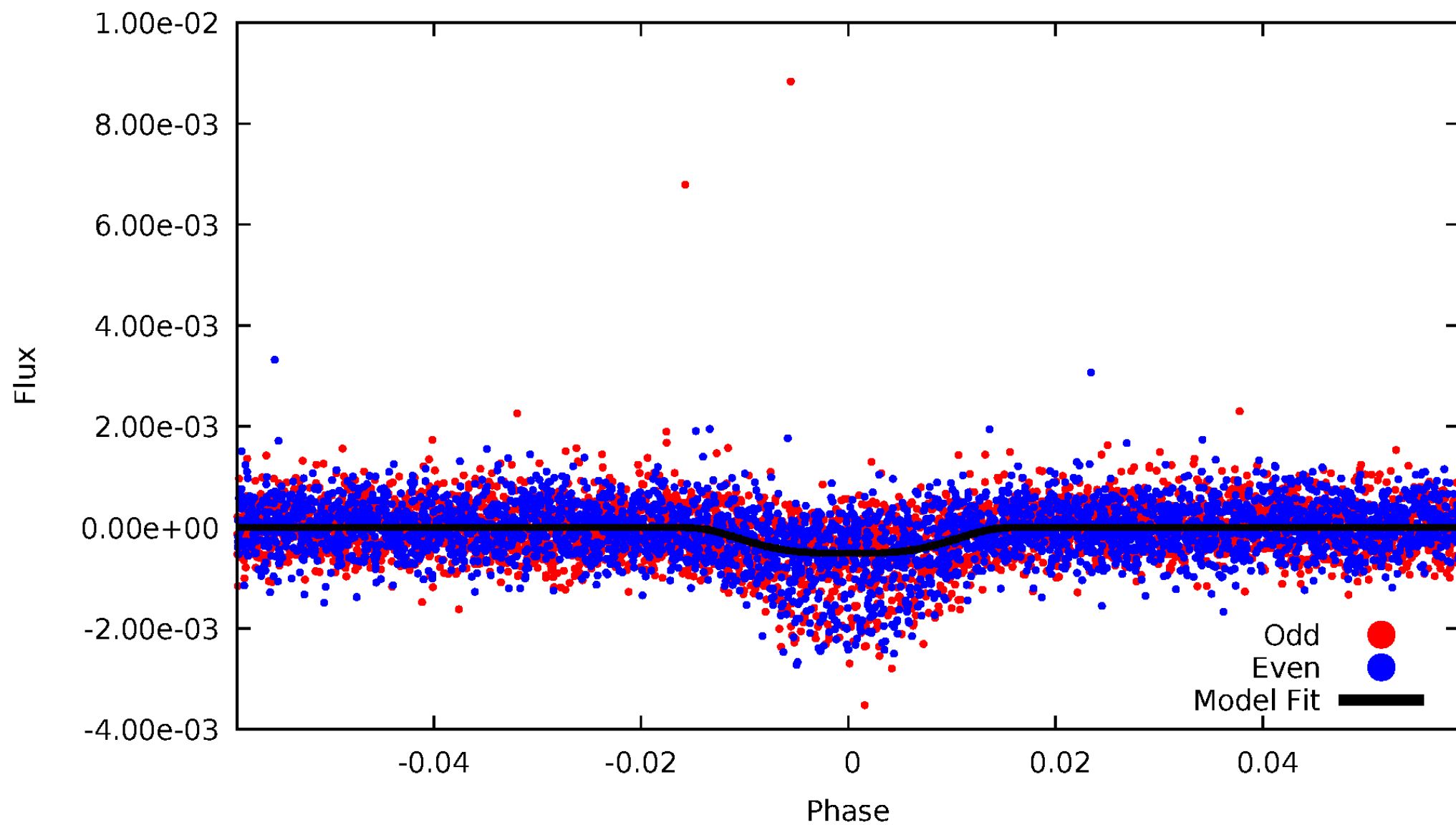


TCE 011298815-01



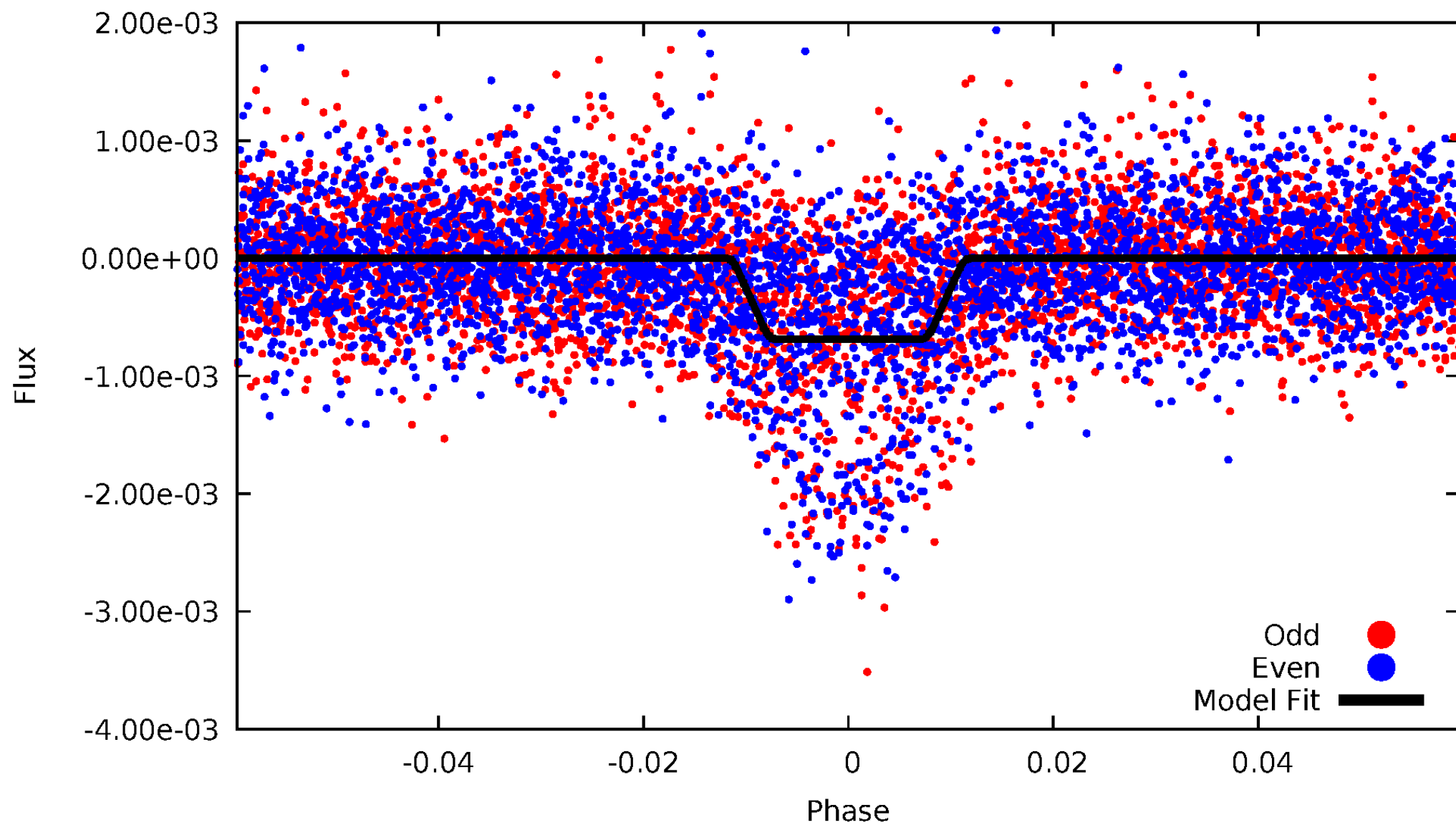
DV Odd/Even

TCE 011298815-01

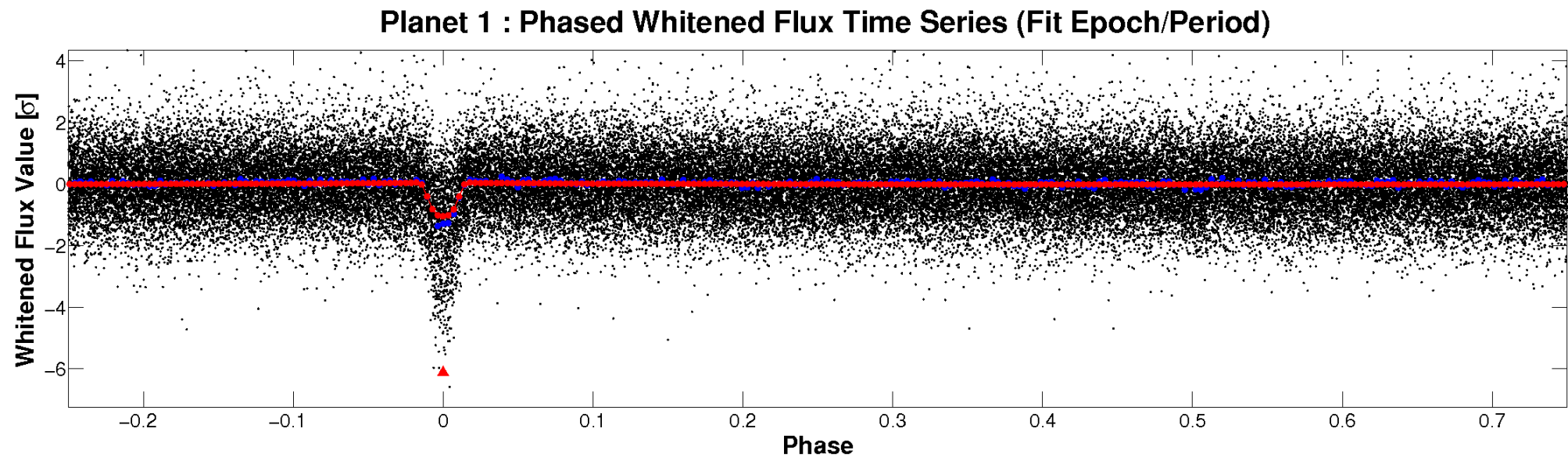
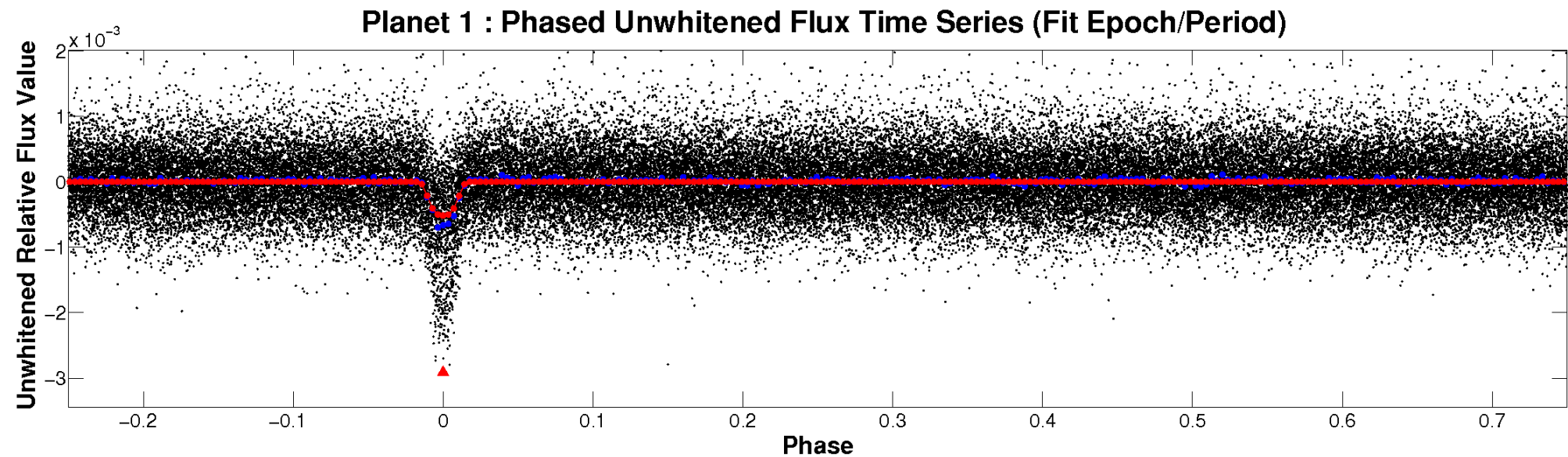


ALT Odd/Even

TCE 011298815-01

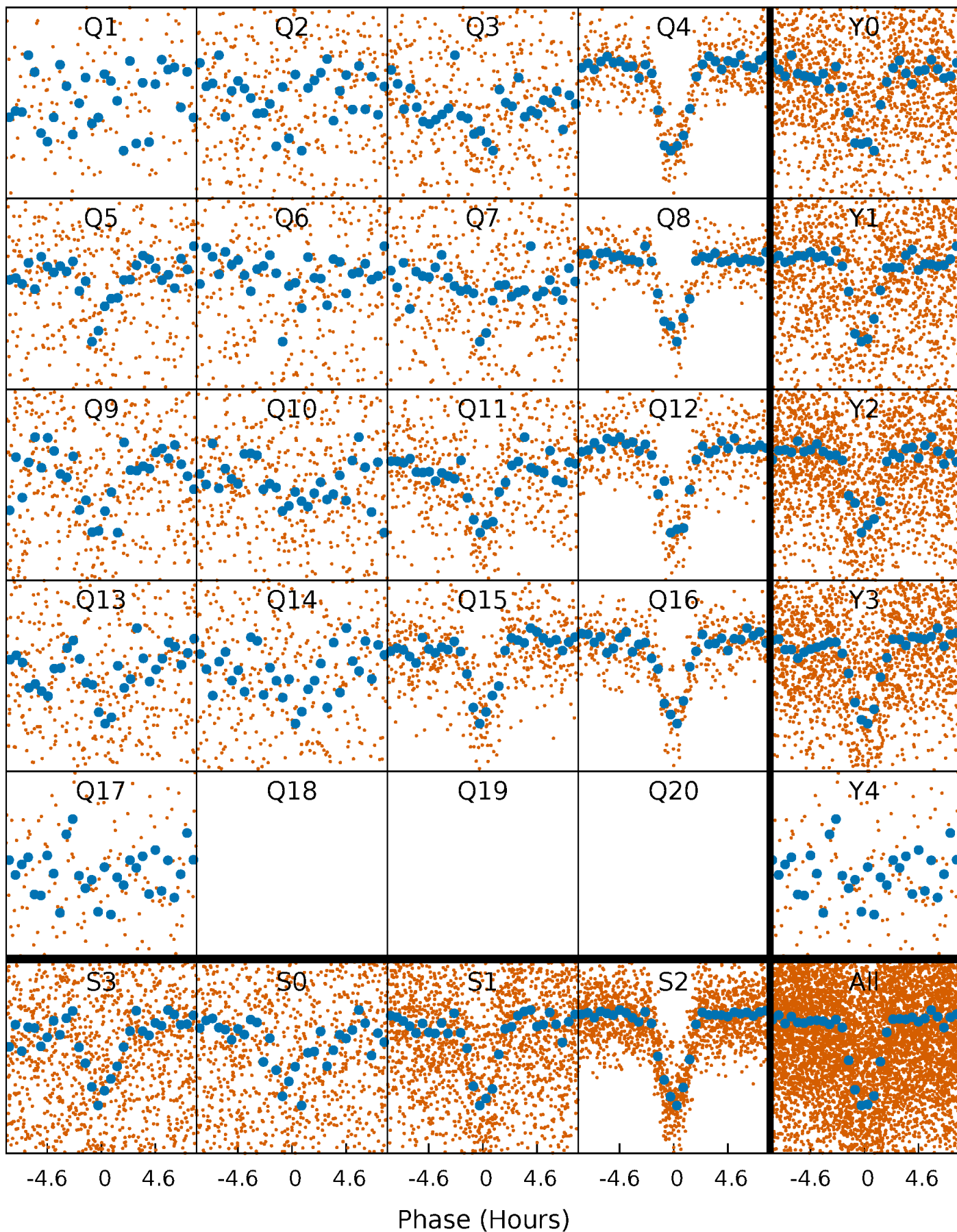


Non-Whitened Vs. Whitened Light Curve



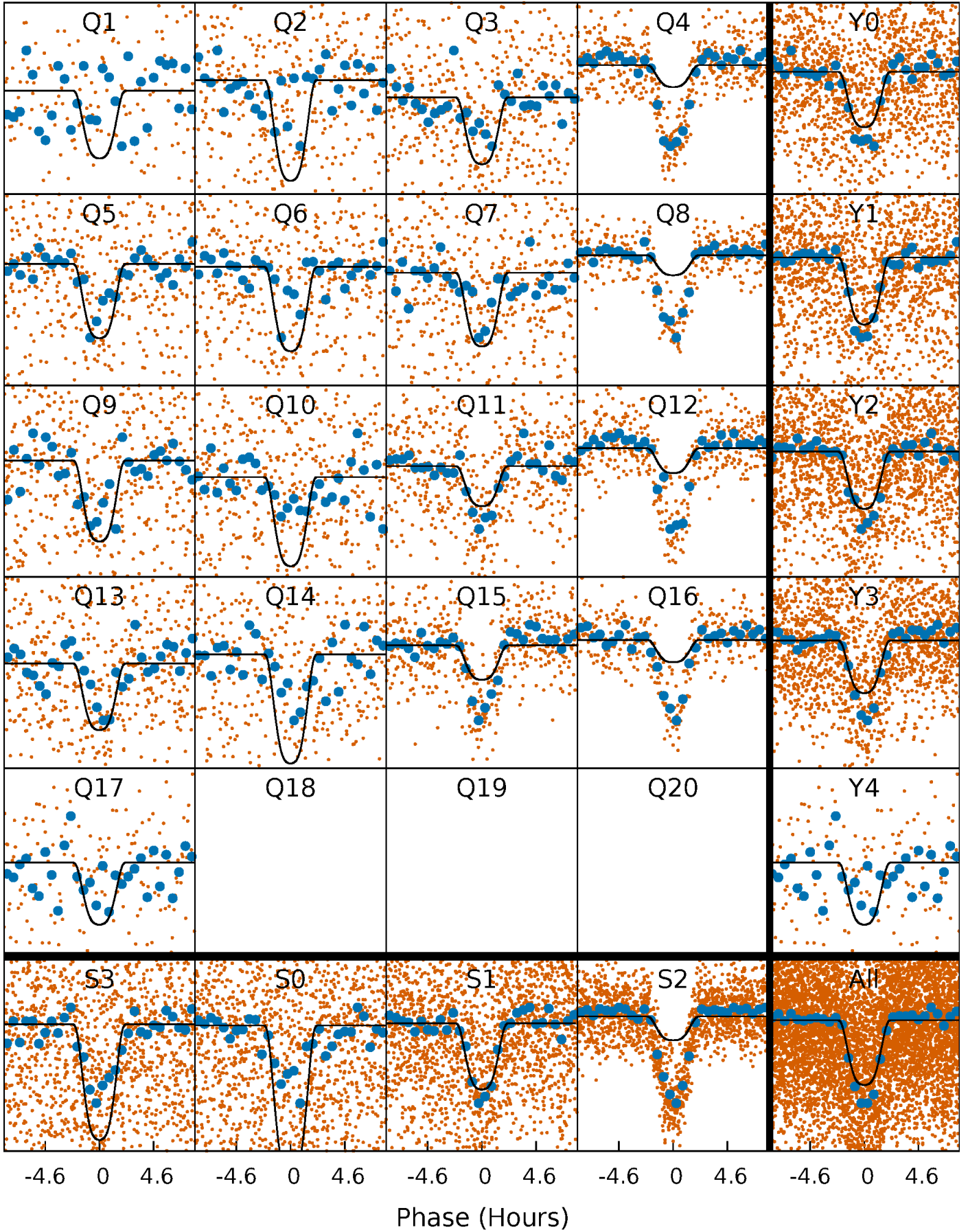
PDC Quarter-Phased Transit Curves

TCE 011298815-01 P= 5.738634 Days $T_0=136.920927$ (BKJD)



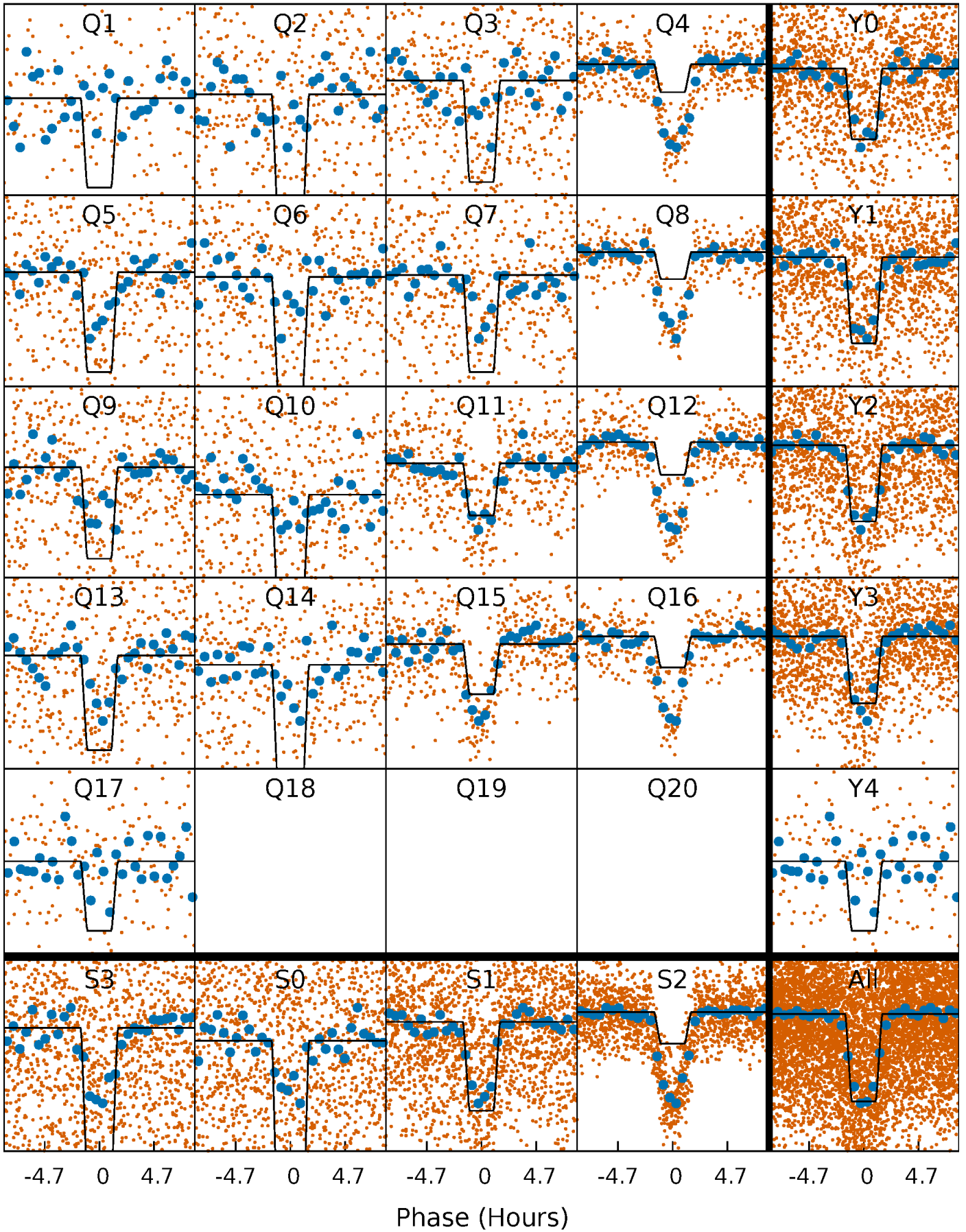
DV Quarter-Phased Transit Curves

TCE 011298815-01 P= 5.738634 Days $T_0=136.920927$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

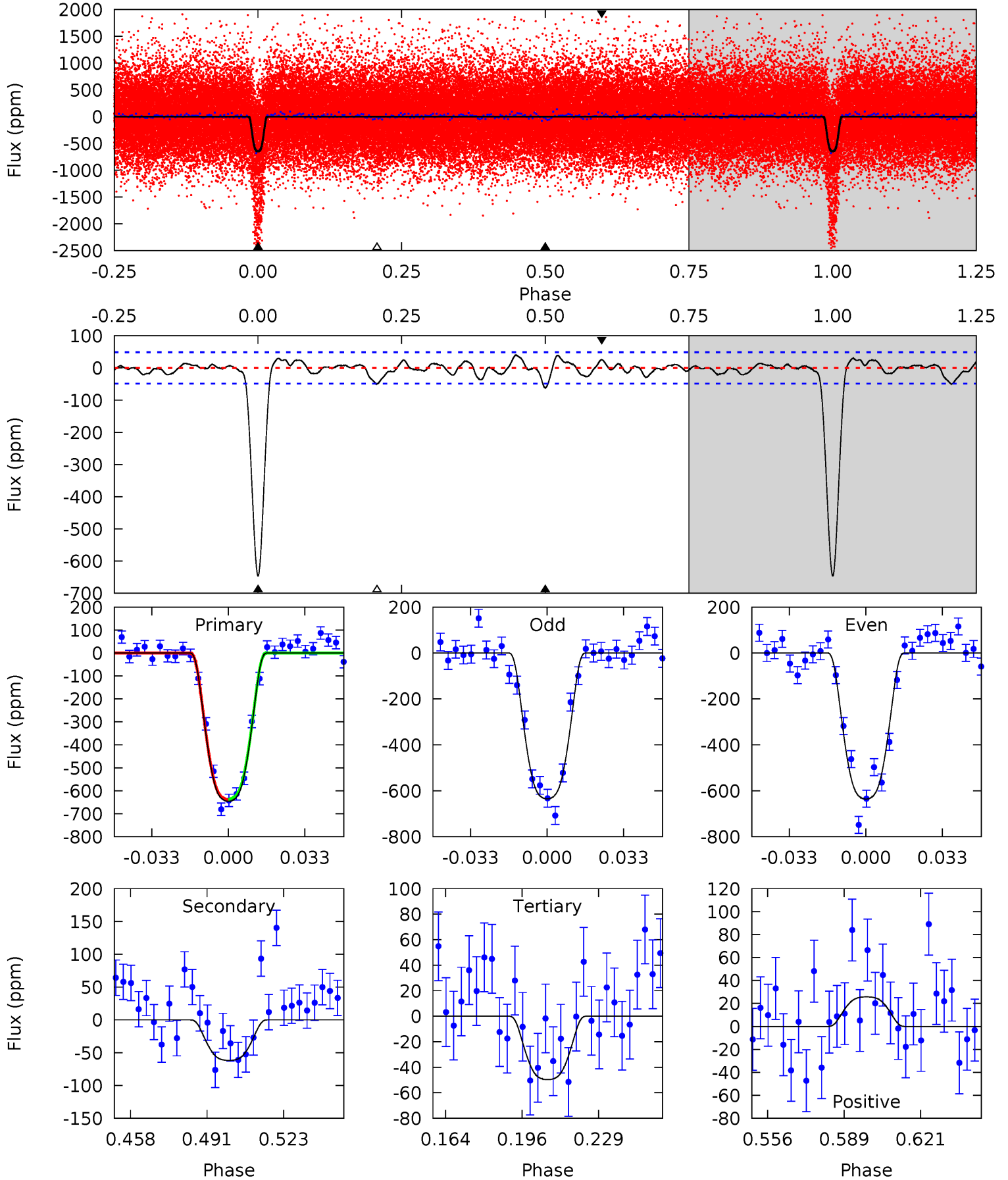
TCE 011298815-01 P= 5.738721 Days $T_0=136.909844$ (BKJD)



DV Model-Shift Uniqueness Test

011298815-01, P = 5.738634 Days, E = 131.182293 Days

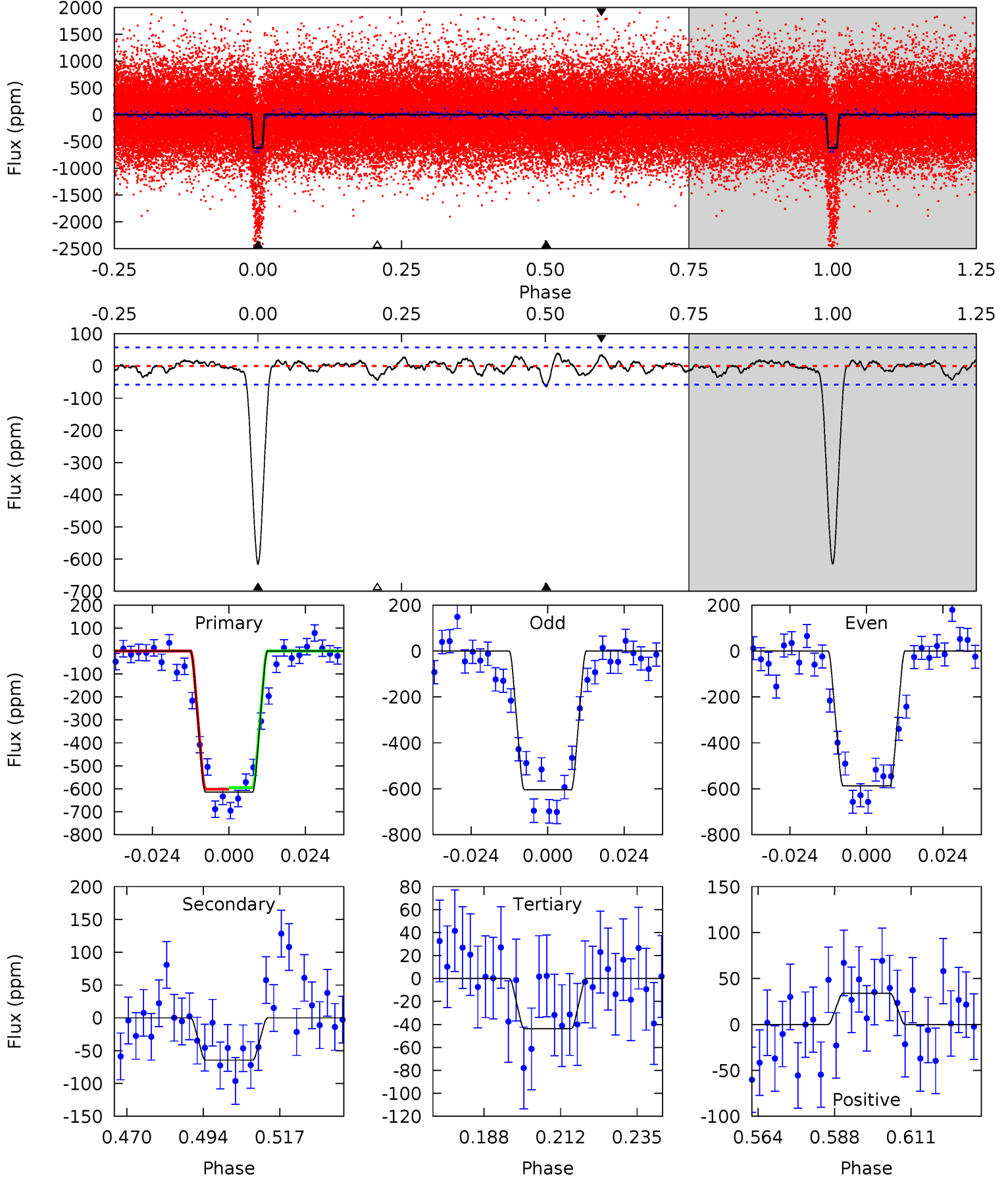
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
63.4	6.07	4.88	2.53	4.79	2.14	1.49	58.6	60.9	1.19	3.54	0.03	1.62	0.06	0.12



Alt Model-Shift Uniqueness Test

011298815-01, P = 5.738721 Days, E = 131.171123 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
51.6	5.41	3.66	2.84	4.86	2.26	1.18	47.9	48.7	1.75	2.57	0.71	1.69	0.06	0.29



Stellar Parameters For KIC 011298815

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	3841^{+61}_{-69}	$4.756^{+0.021}_{-0.033}$	$-0.100^{+0.100}_{-0.100}$	$0.509^{+0.031}_{-0.025}$	$0.538^{+0.022}_{-0.030}$	$5.755^{+0.626}_{-0.740}$
	+2%/-2%	+0%/-1%	+100%/-100%	+6%/-5%	+4%/-6%	+11%/-13%
Source	PHO2	PHO2	PHO2	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011298815-01 / KOI 2015.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-62 ± 10	$1.55^{+0.08}_{-0.08}$	749^{+16}_{-16}	2645^{+69}_{-72}	37^{+8}_{-7}
Alt.	-65 ± 12	$1.46^{+0.08}_{-0.08}$	749^{+15}_{-15}	2698^{+79}_{-78}	43^{+9}_{-8}

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 $A_{obs} \gg 1.0$

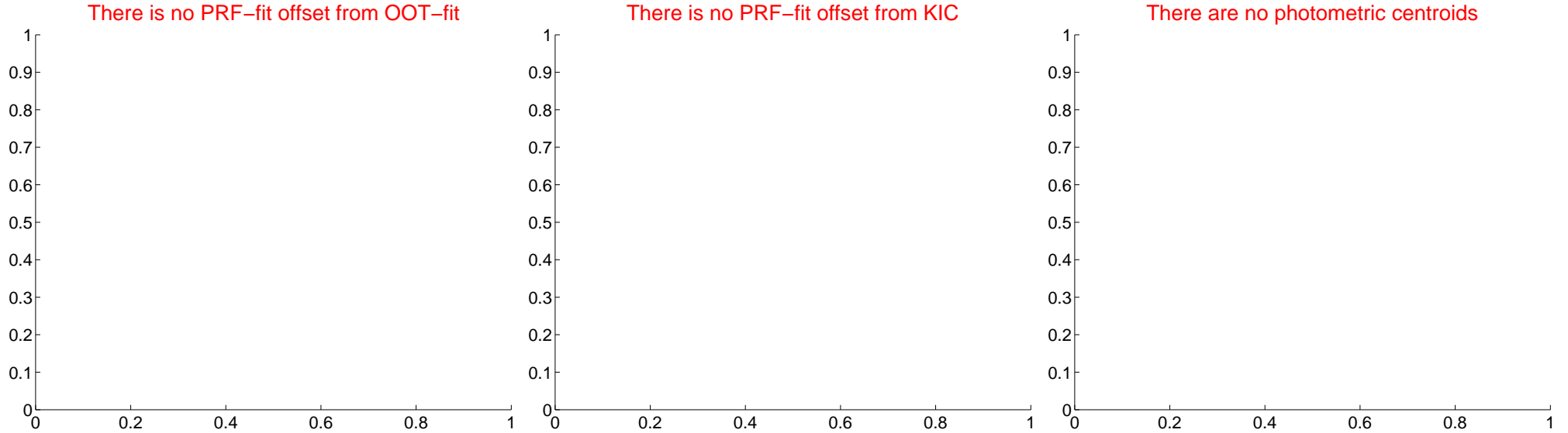
DV Centroid Data

Supplemental centroid analysis for 011298815-01. Kepler magnitude: 15.51. Transit SNR 30.80

There are 0 quarters with good PRF difference image offsets

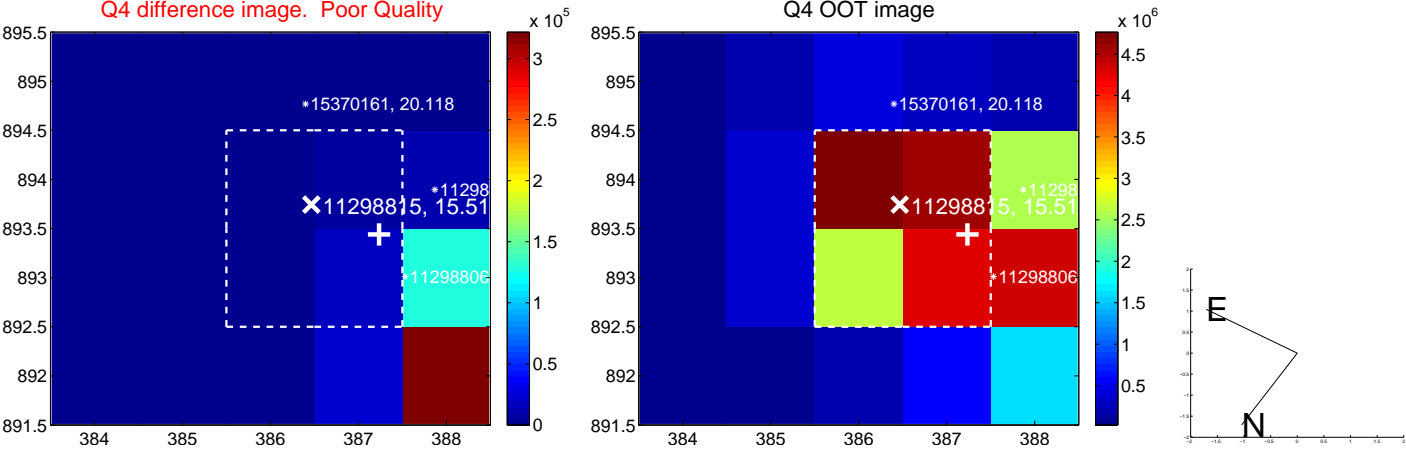
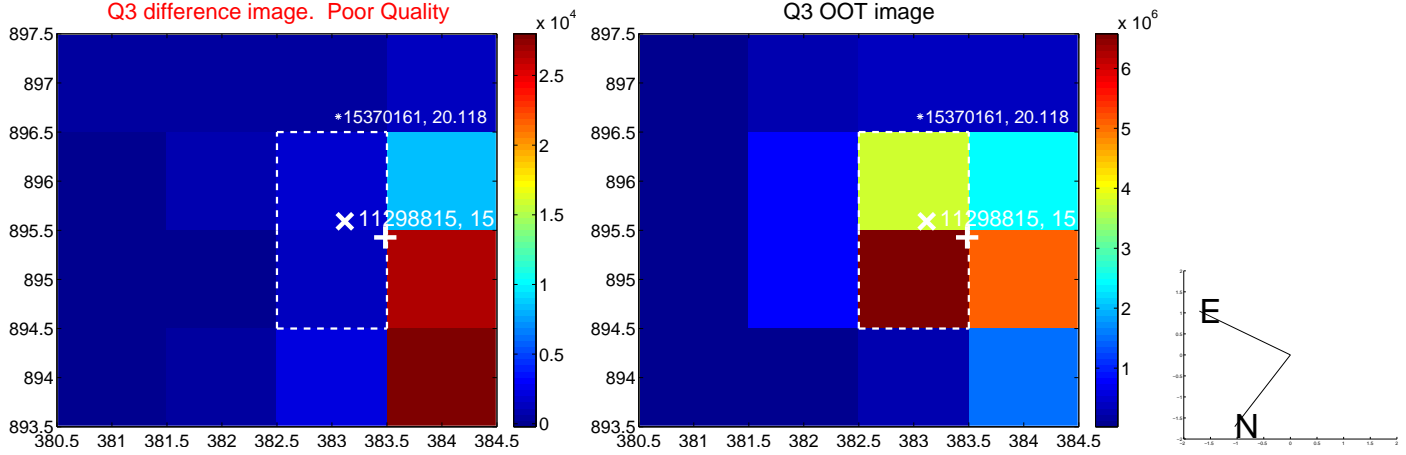
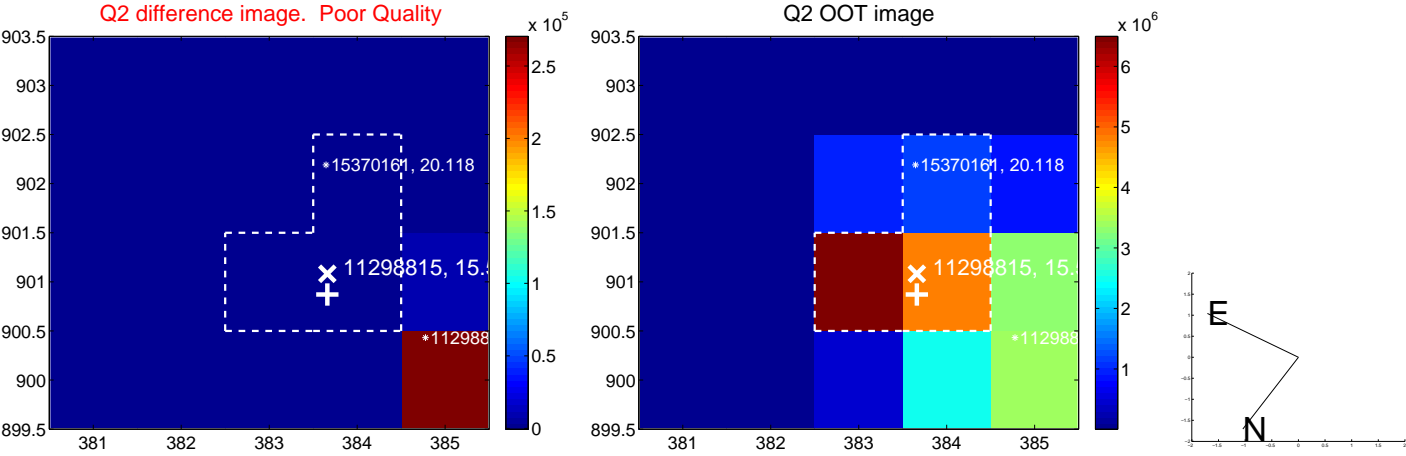
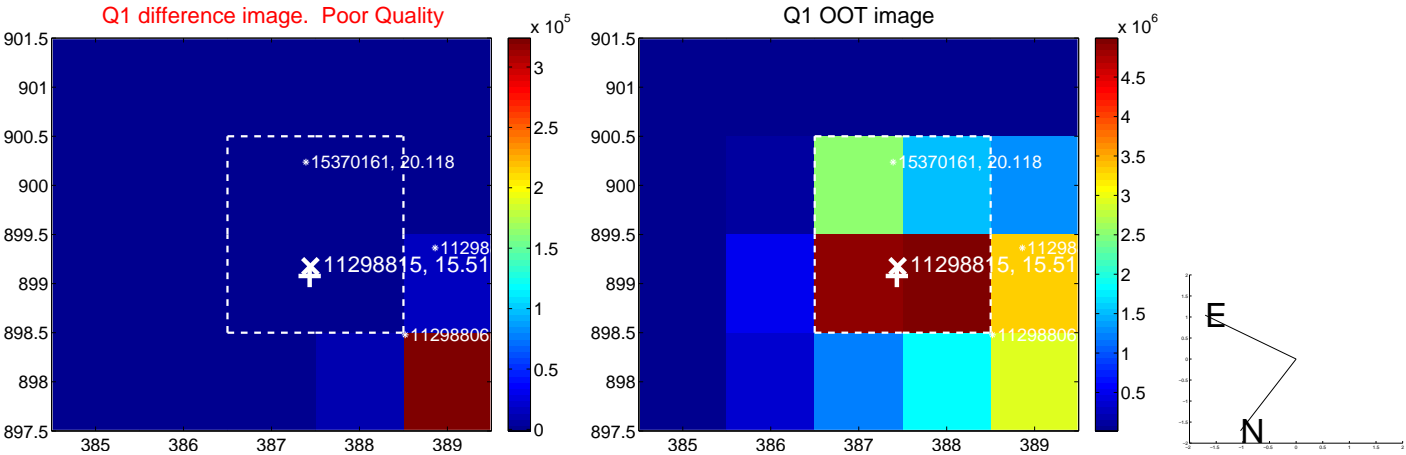
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	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	—	—	—	—

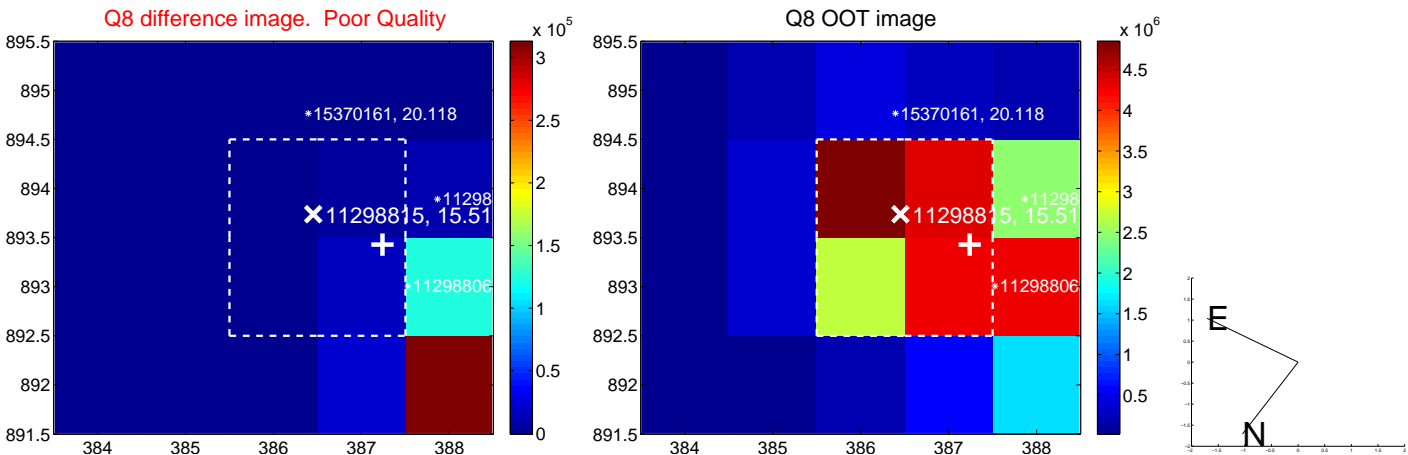
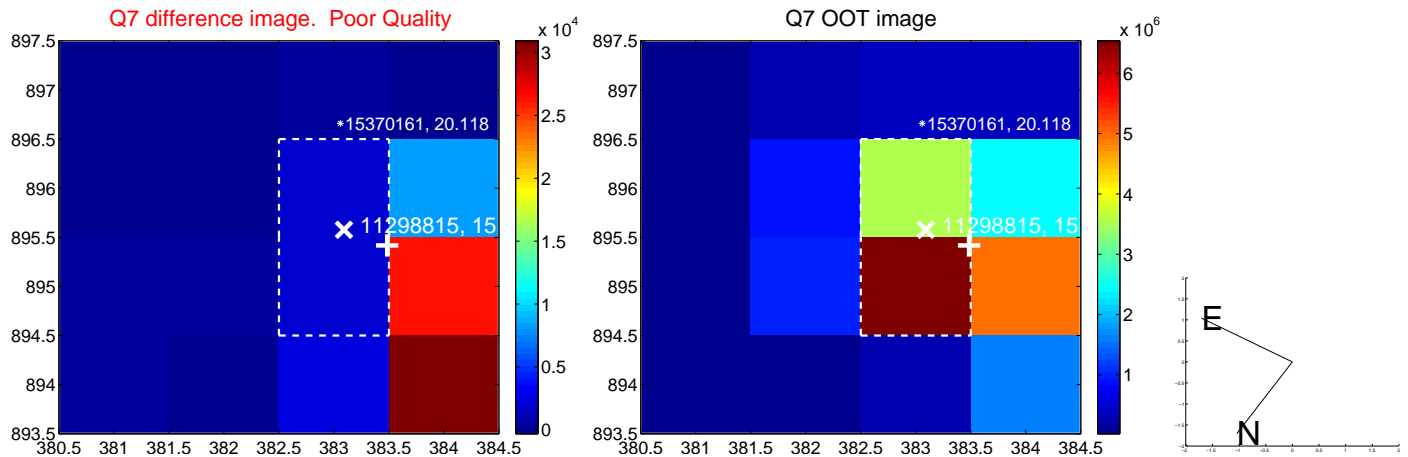
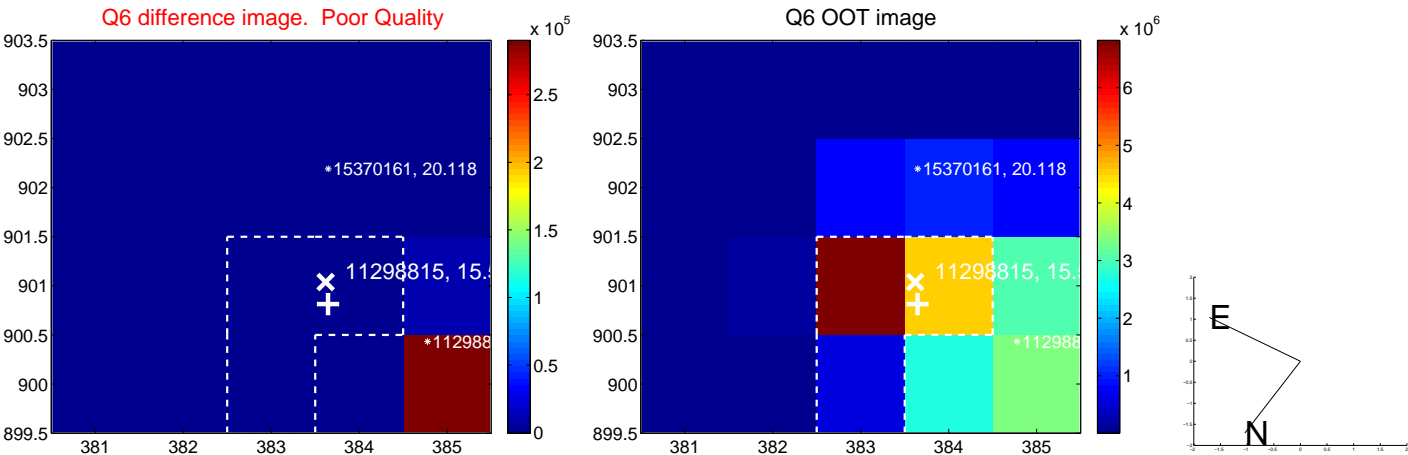
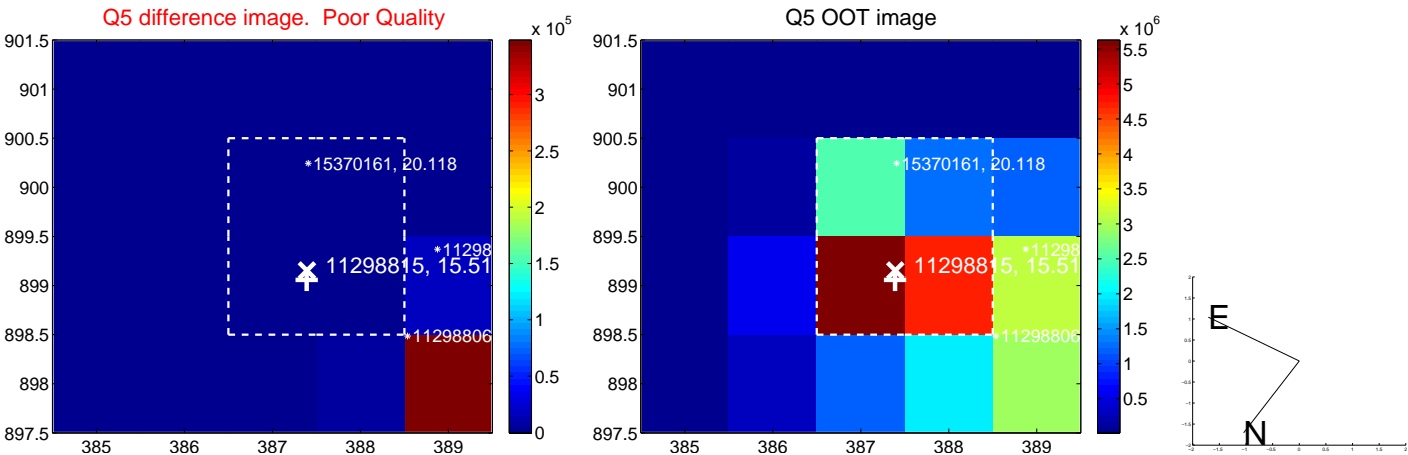


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

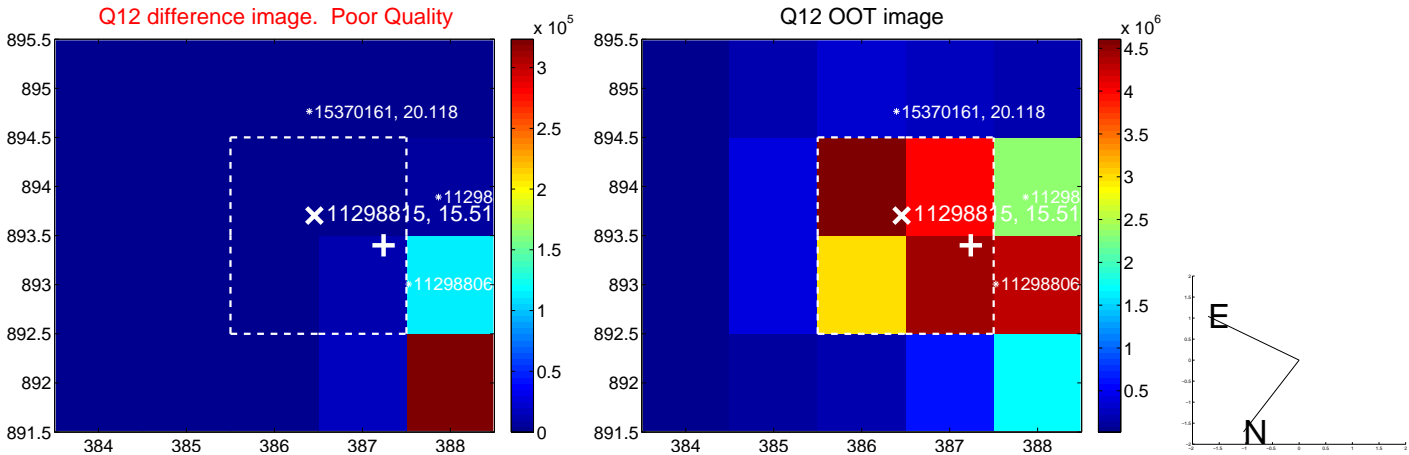
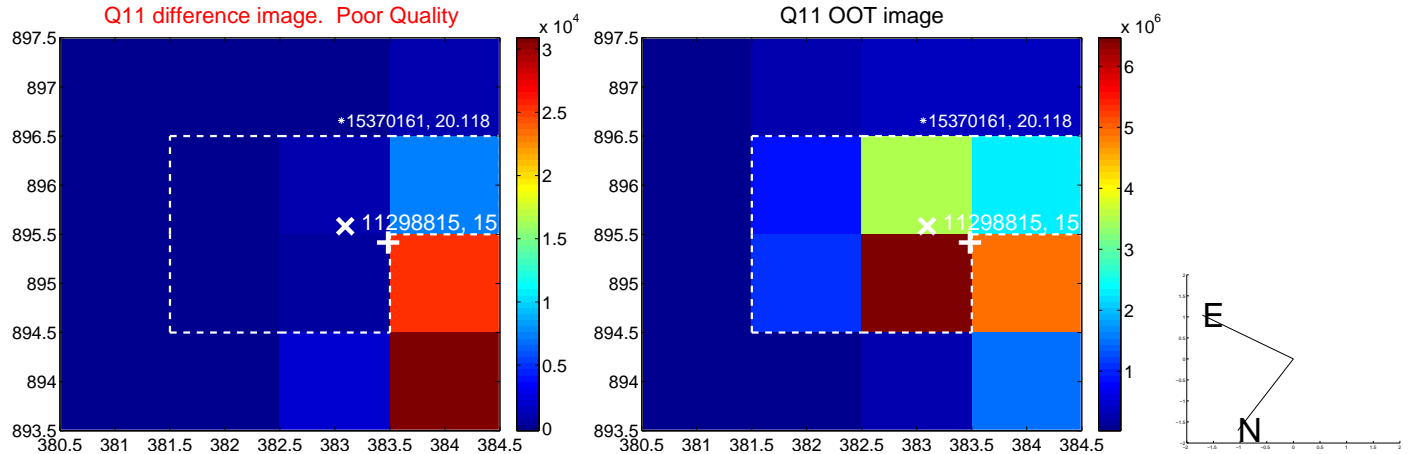
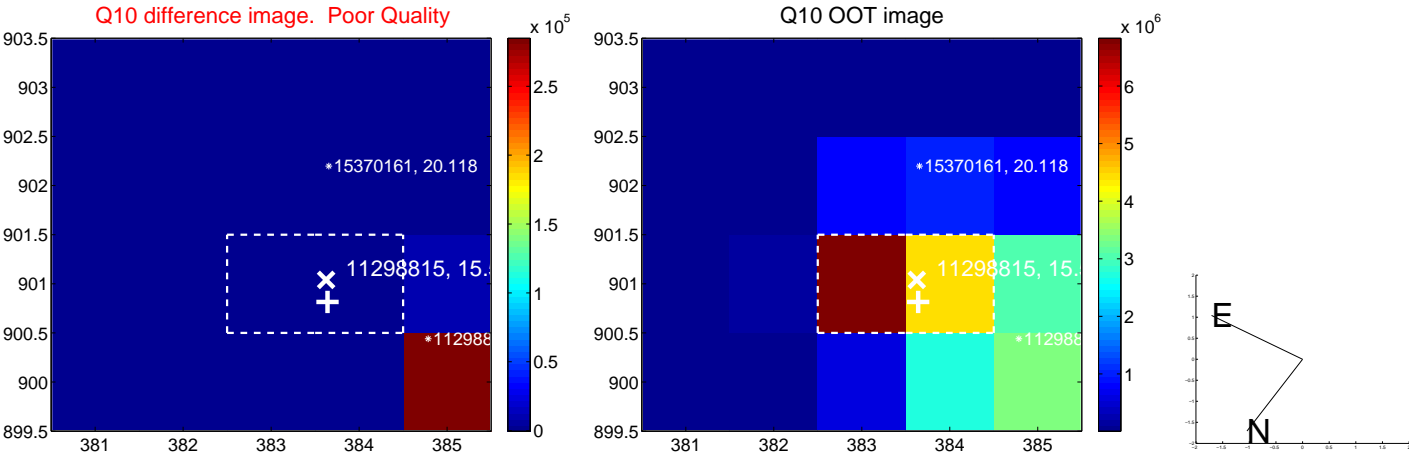
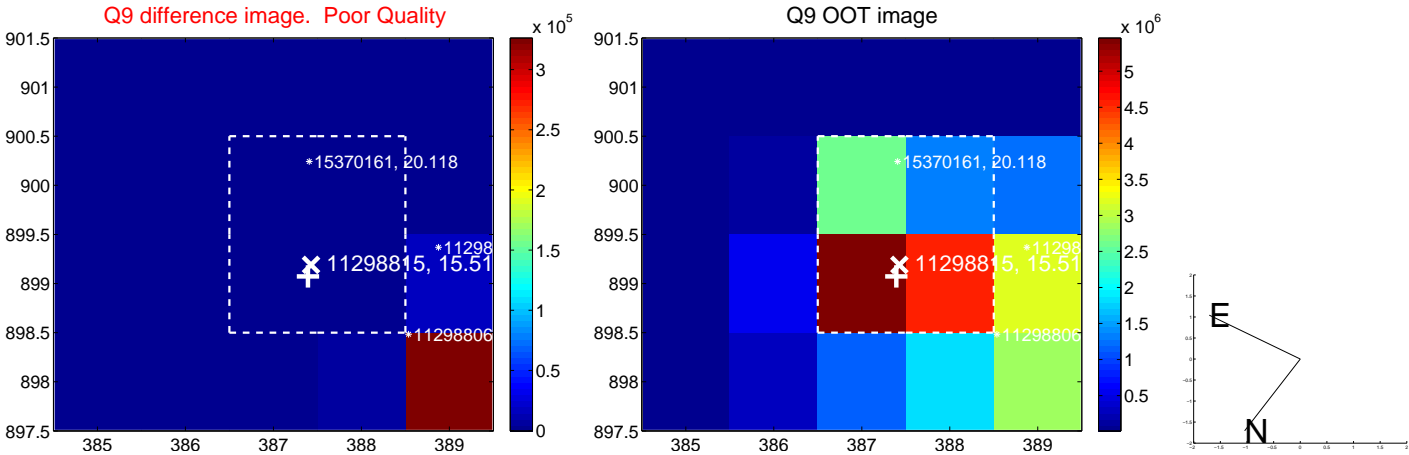
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



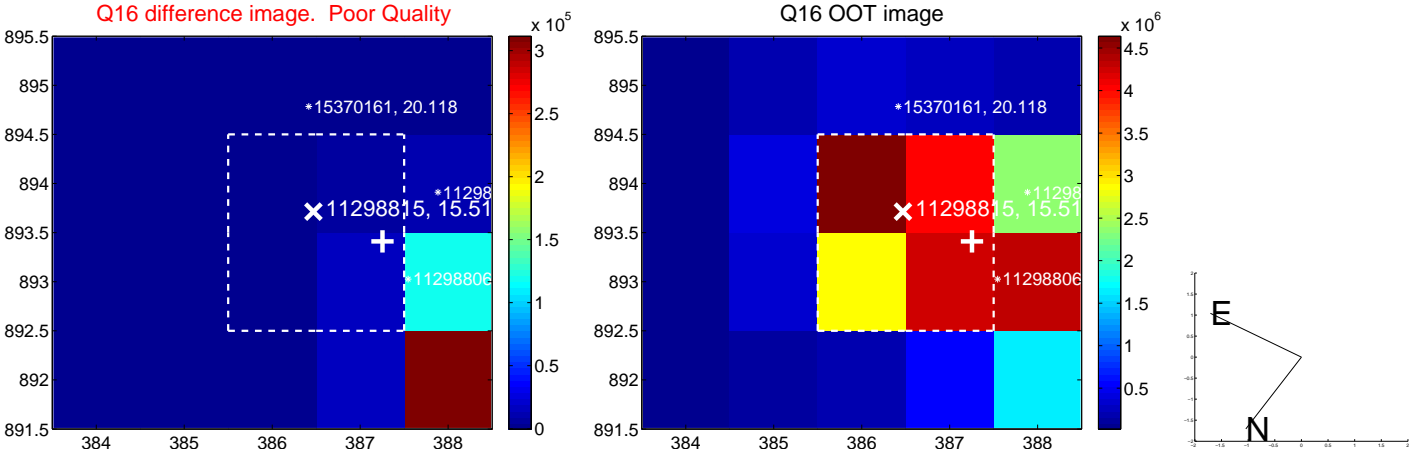
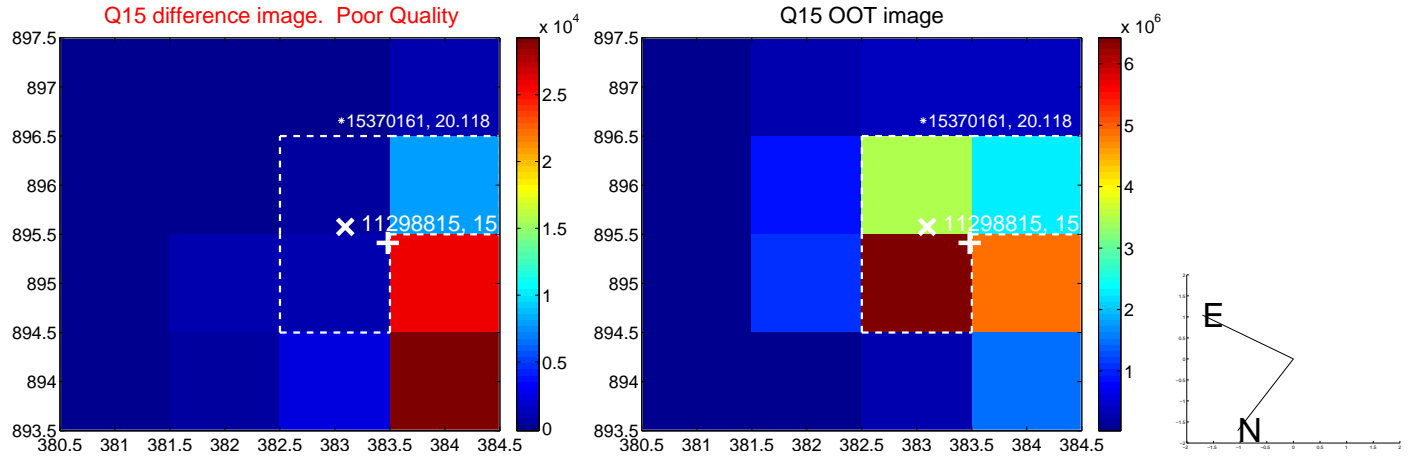
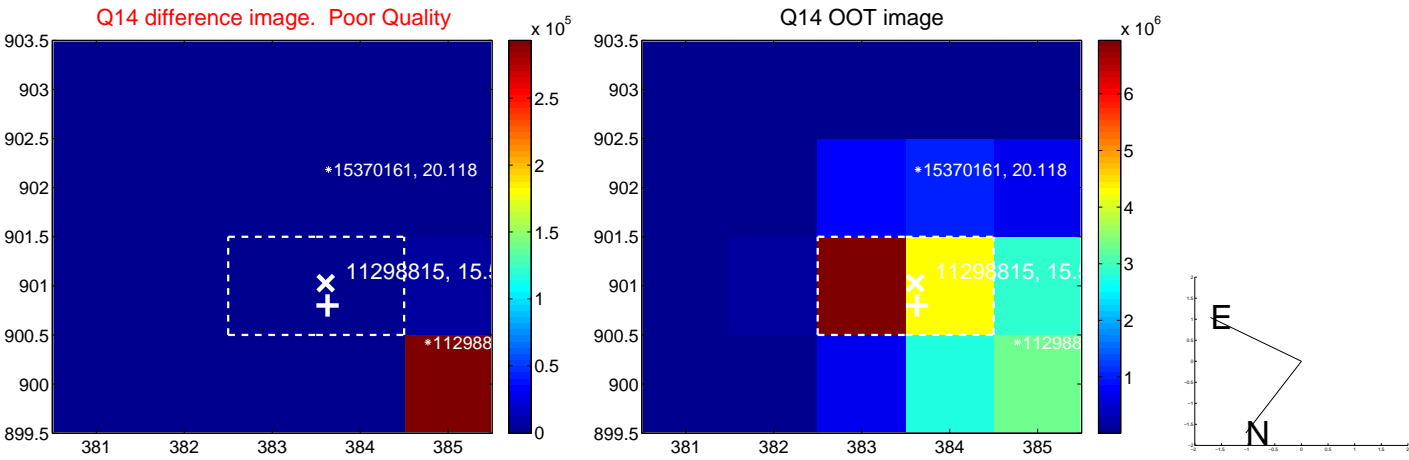
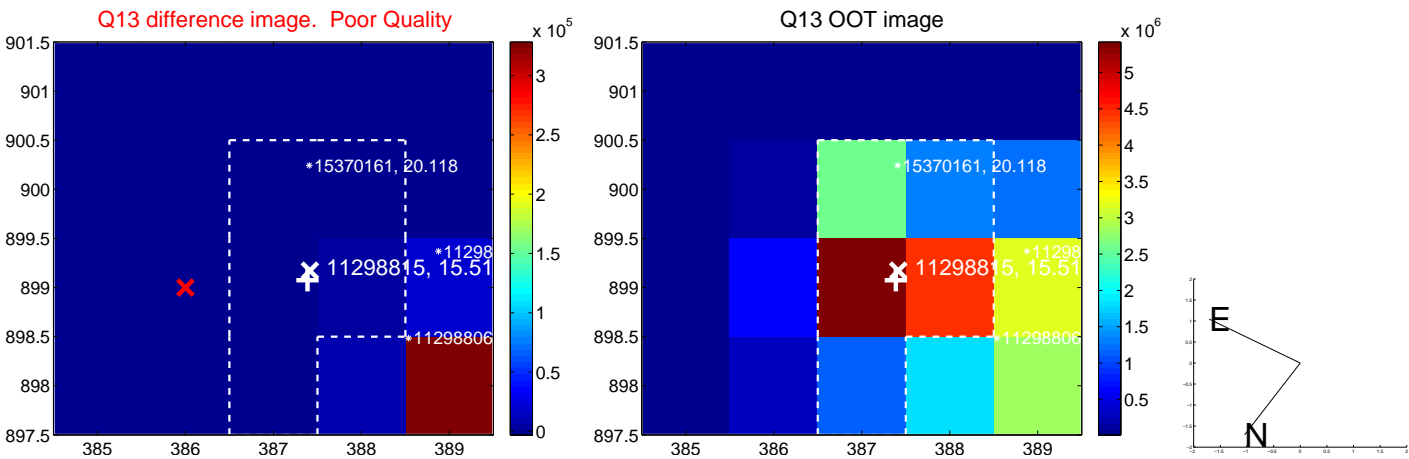
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



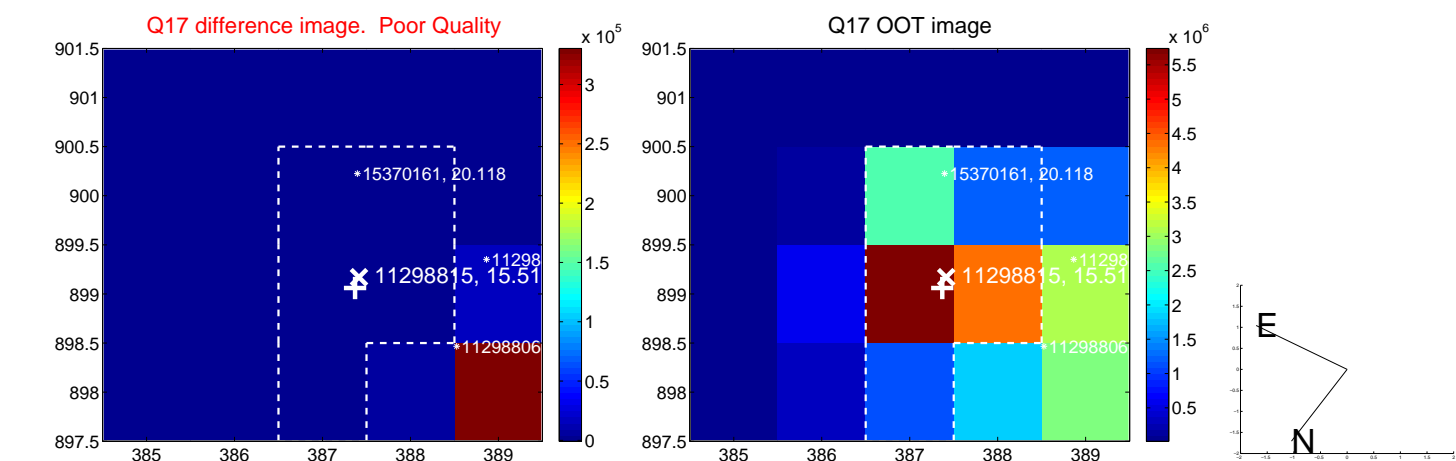
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



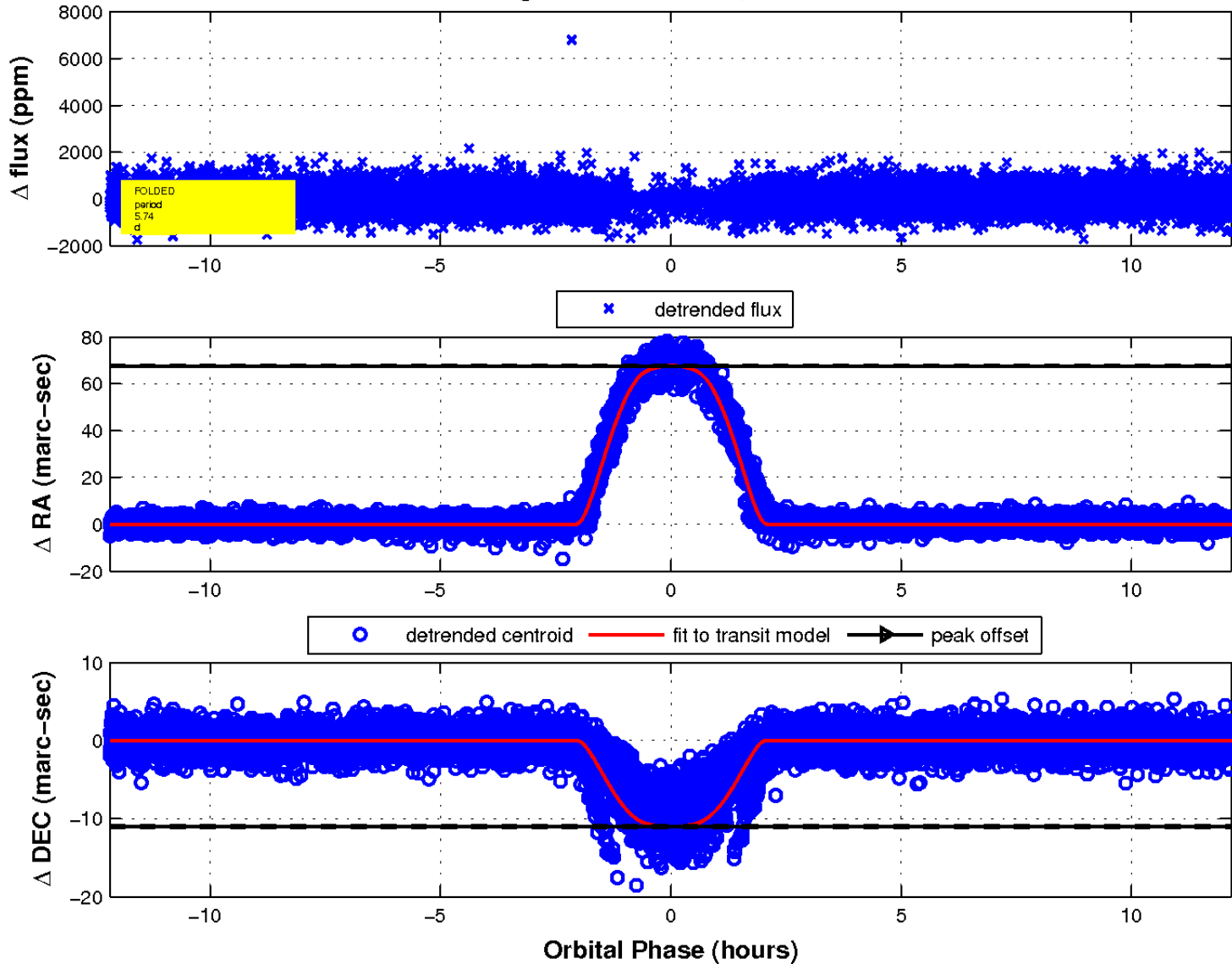
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

Declination

