

KIC 011498128

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})
011498128-01	OBS	2296.01	106.249761	135.727524	390.8	14.844	19.1	20.5	0.97	5679	2.24	4.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011498128-01	OBS	PC	0.99	0	0	0	0	NO_COMMENT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

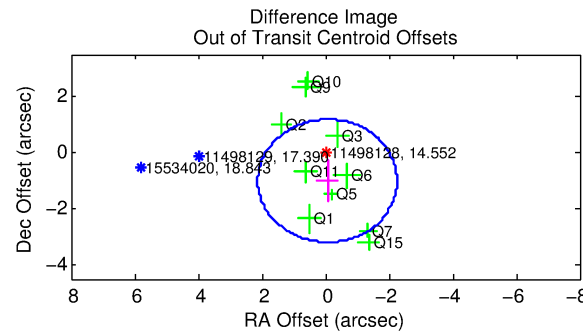
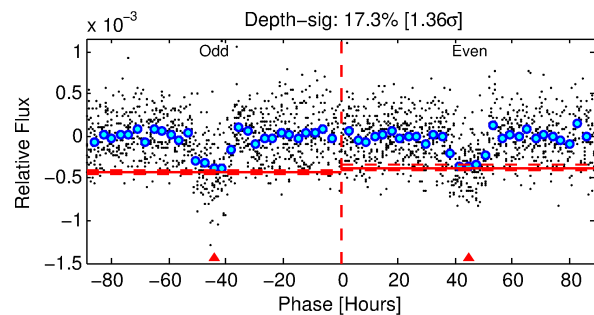
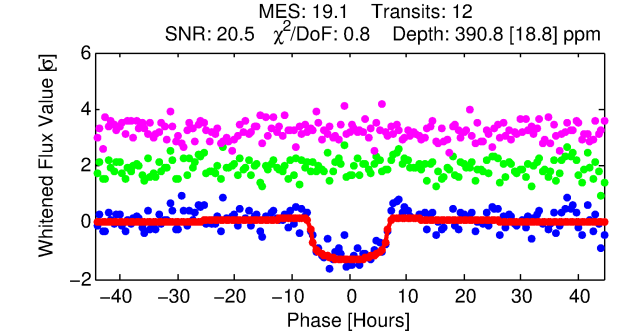
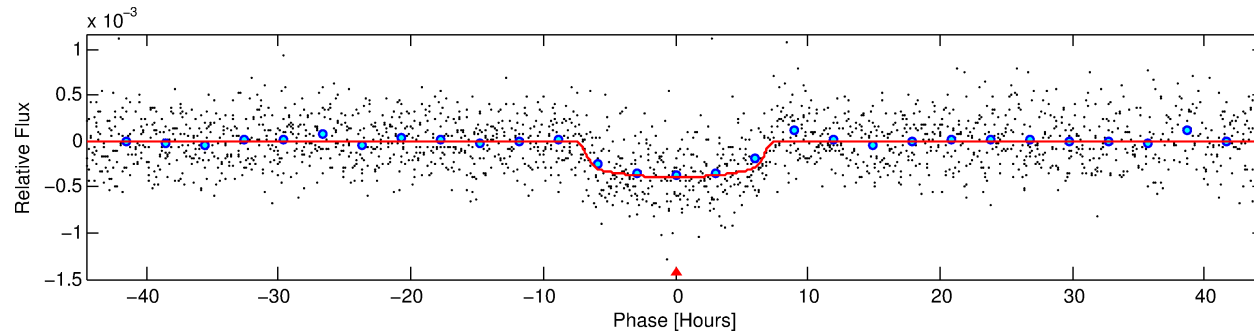
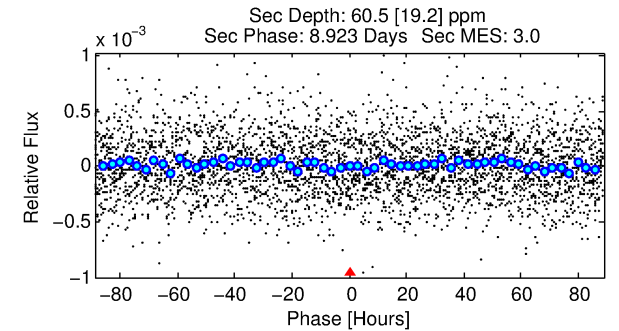
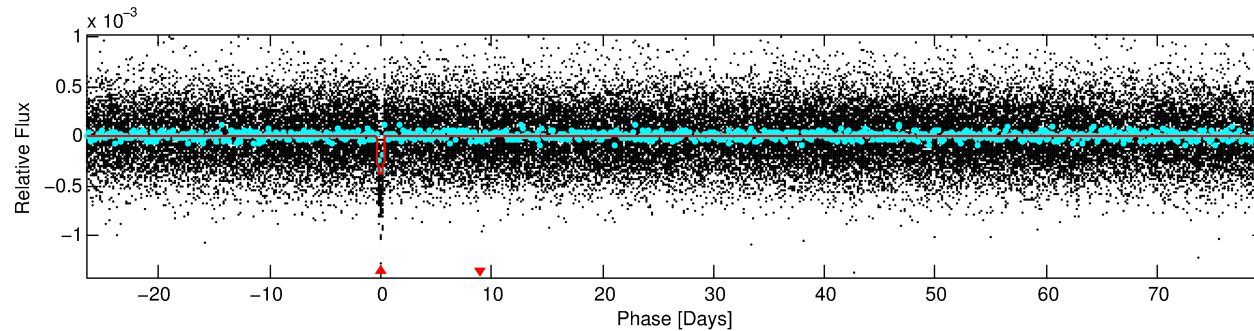
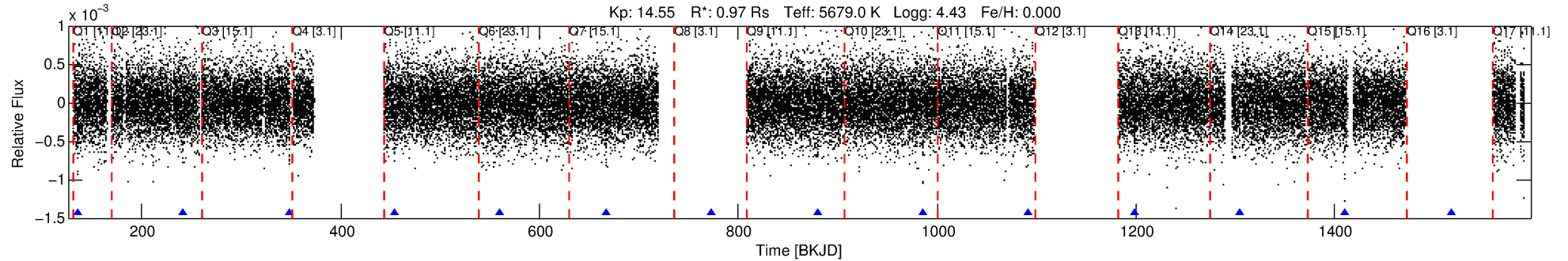
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011498128-01

No Significant Match Found

DV One-Page Summary

KIC: 11498128 Candidate: 1 of 1 Period: 106.250 d
KOI: K02296.01 Corr: 0.960



DV Fit Results:

Period = 106.24976 [0.00164] d
Epoch = 135.7275 [0.0116] BKJD
Rp/R* = 0.0212 [0.0016]
a/R* = 28.55 [9.08]
b = 0.88 [0.08]
Seff = 4.76 [0.96]
Teff = 377 [19] K
Rp = 2.24 [0.35] Re
a = 0.4299 [0.0526] AU
Ag = 1221.07 [484.71] [2.52 σ]
Teffp = 3443 [310] K [9.87 σ]

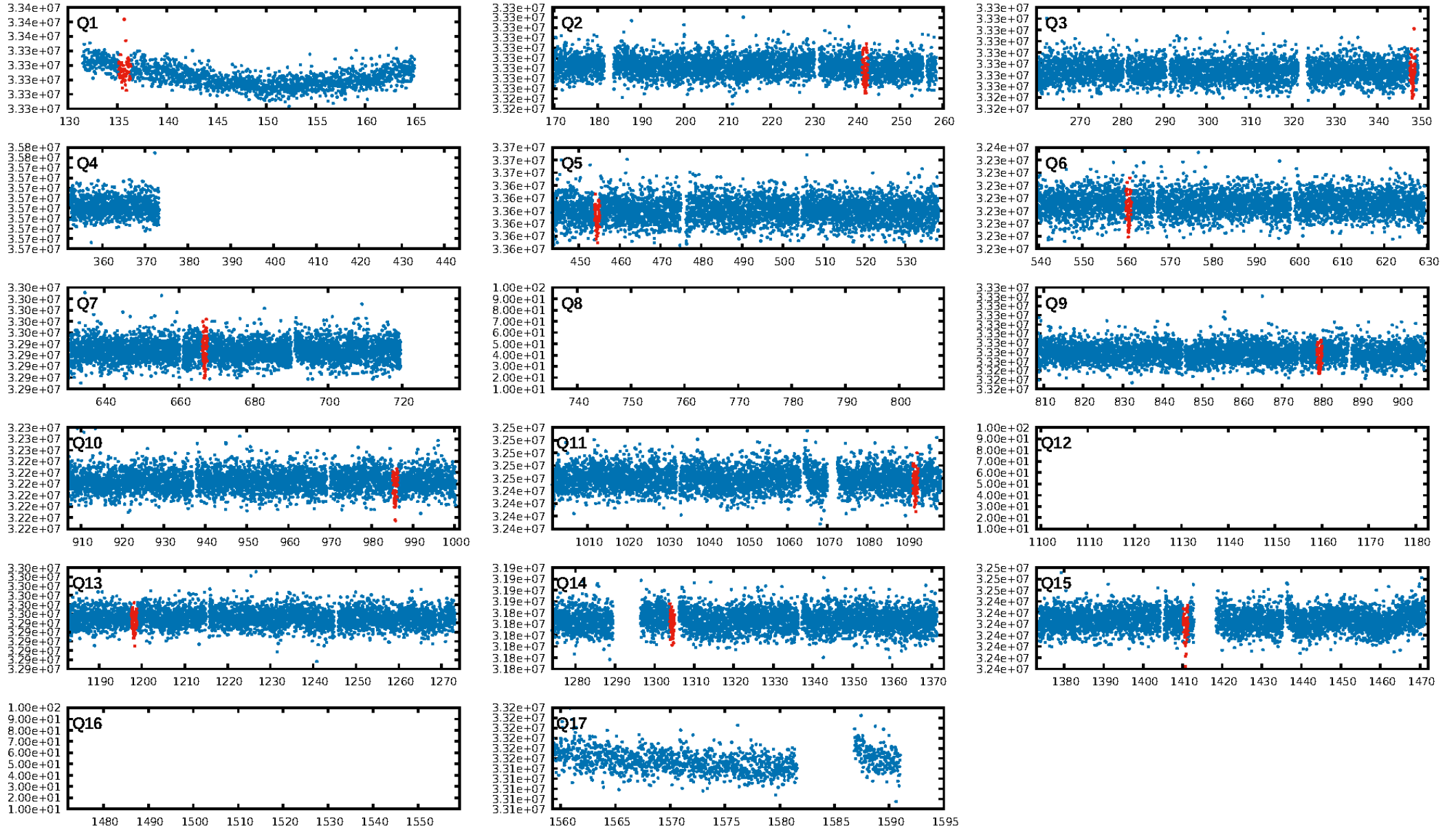
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 55.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 6.11e-76
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 33.61
Centroid-sig: 72.2%
Centroid-so: 0.181 arcsec [0.30 σ]
OotOffset-rm: 1.008 arcsec [1.38 σ]
KicOffset-rm: 1.053 arcsec [1.41 σ]
OotOffset-st: 3/4/0/3 [10]
KicOffset-st: 3/4/0/3 [10]
DiffImageQuality-fgm: 0.90 [9/10]
DiffImageOverlap-fno: 1.00 [10/10]

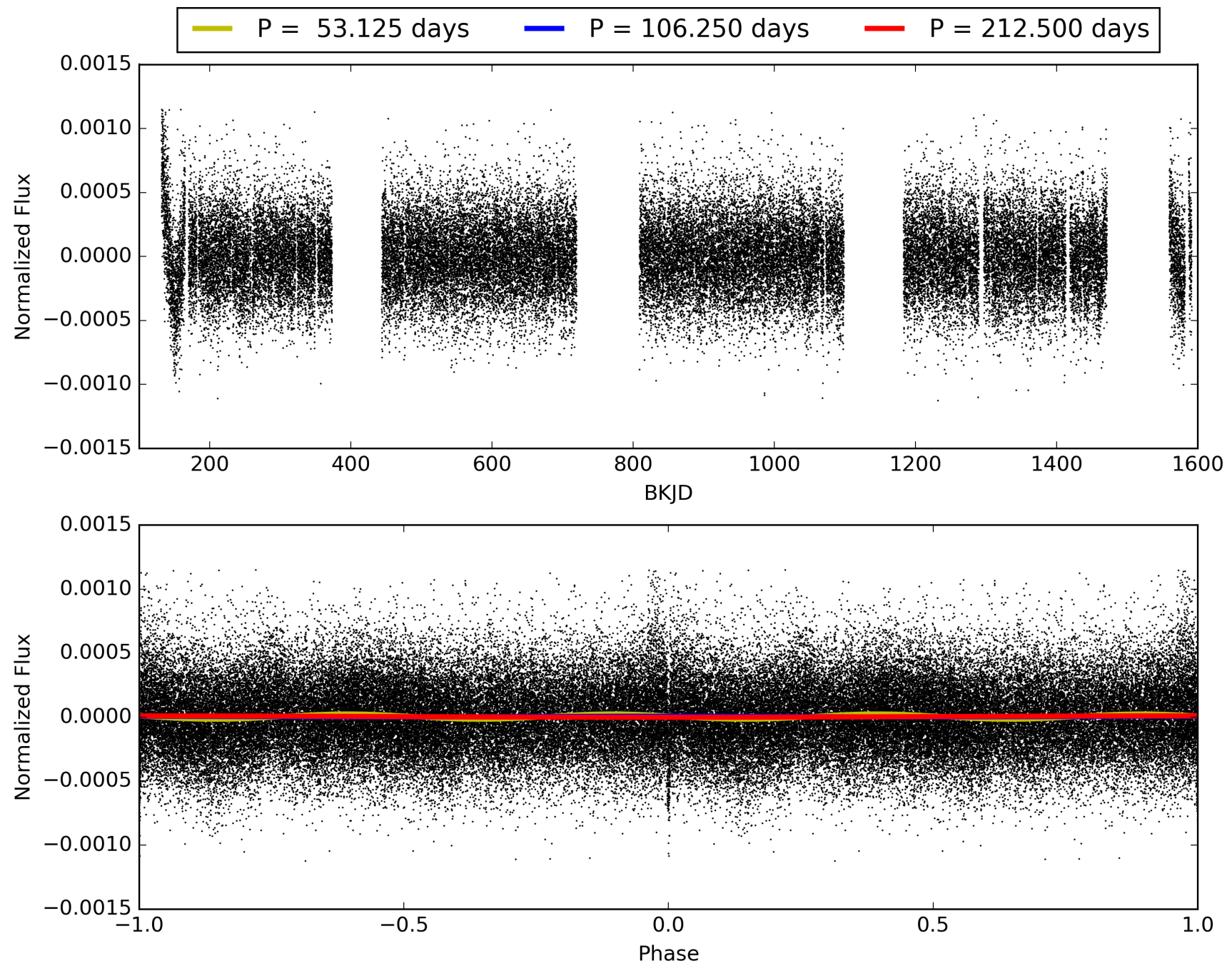
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:40:20 Z

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

TCE 011498128-01, PDC Light Curves

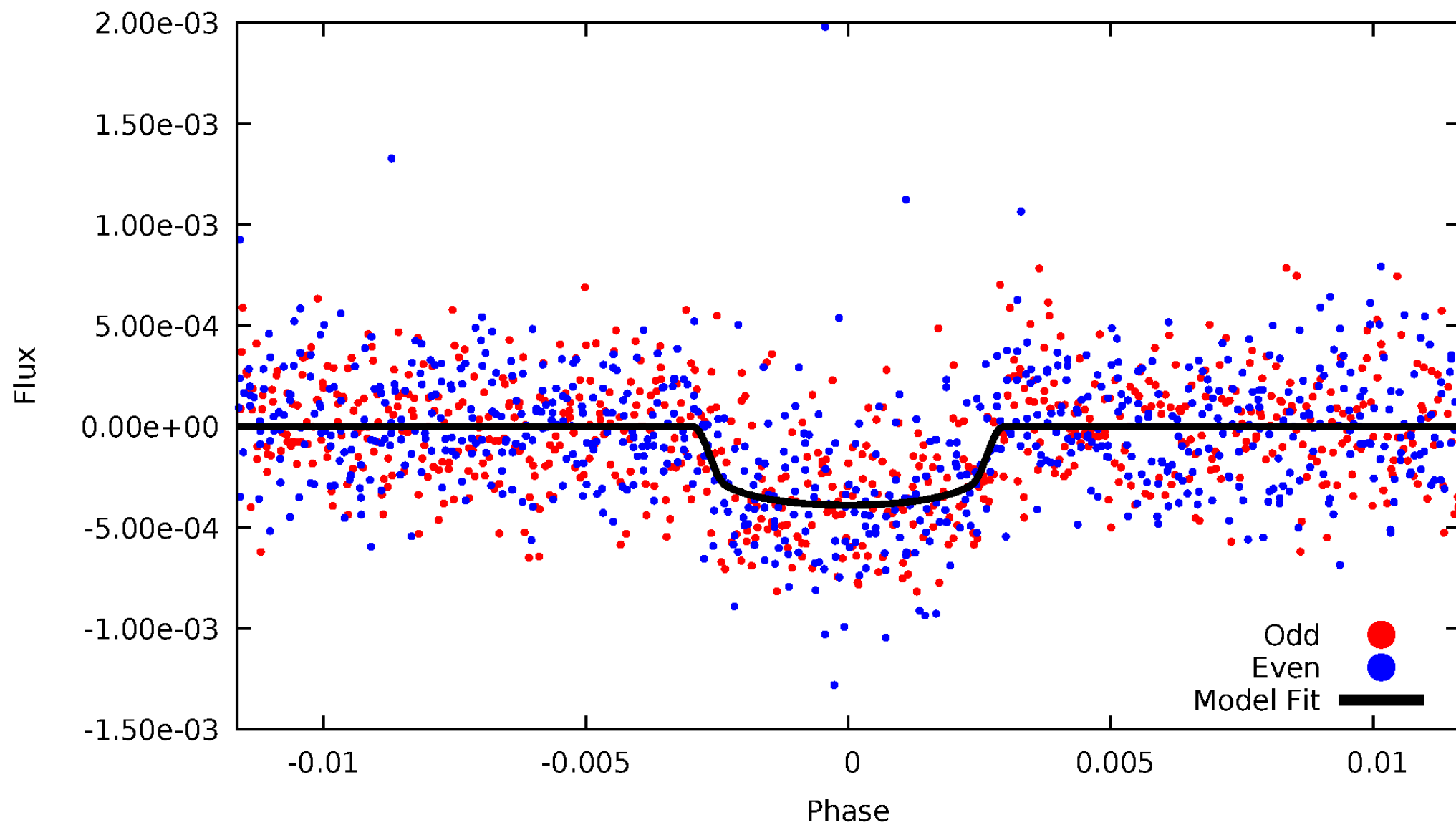


TCE 011498128-01



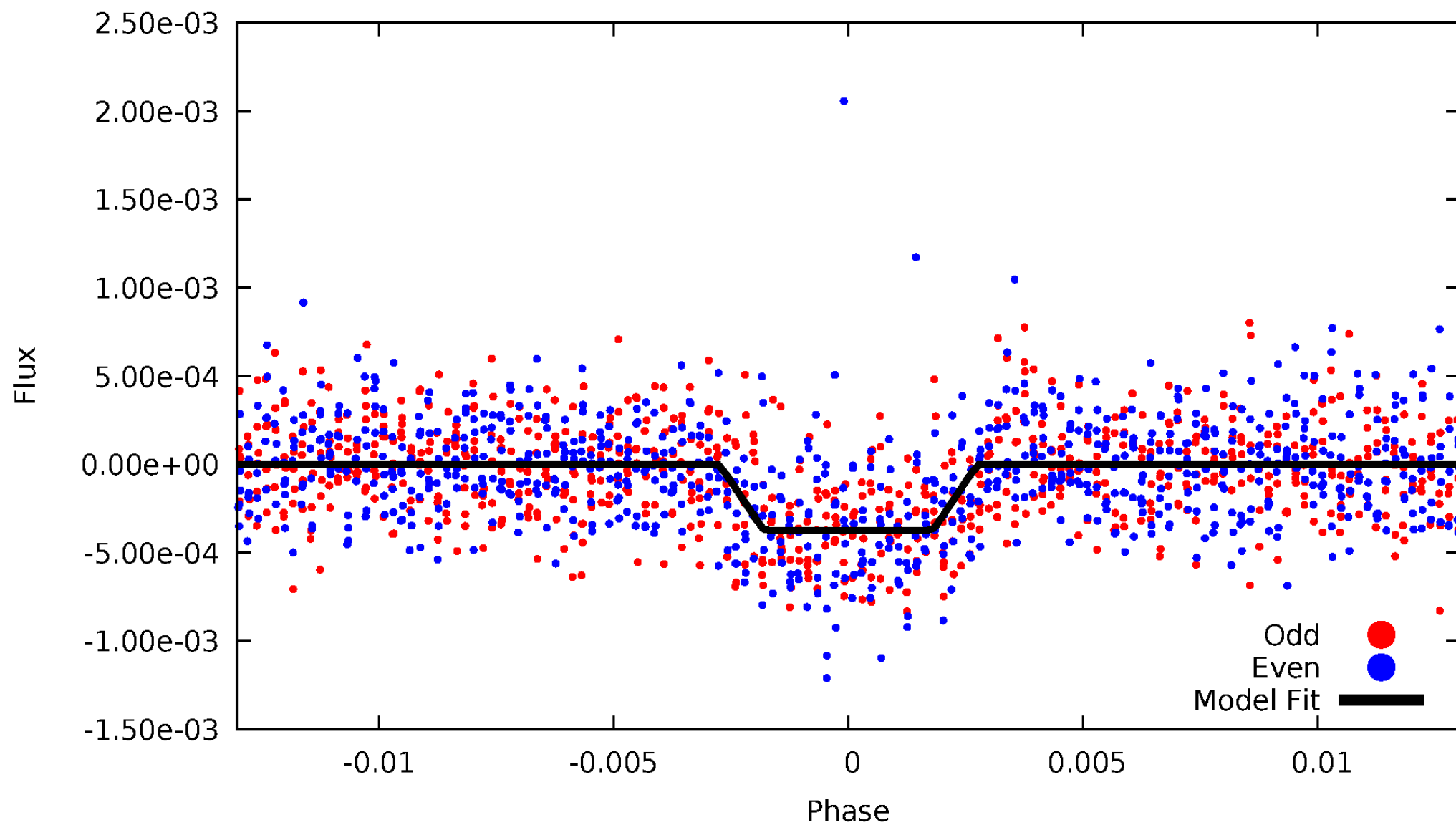
DV Odd/Even

TCE 011498128-01

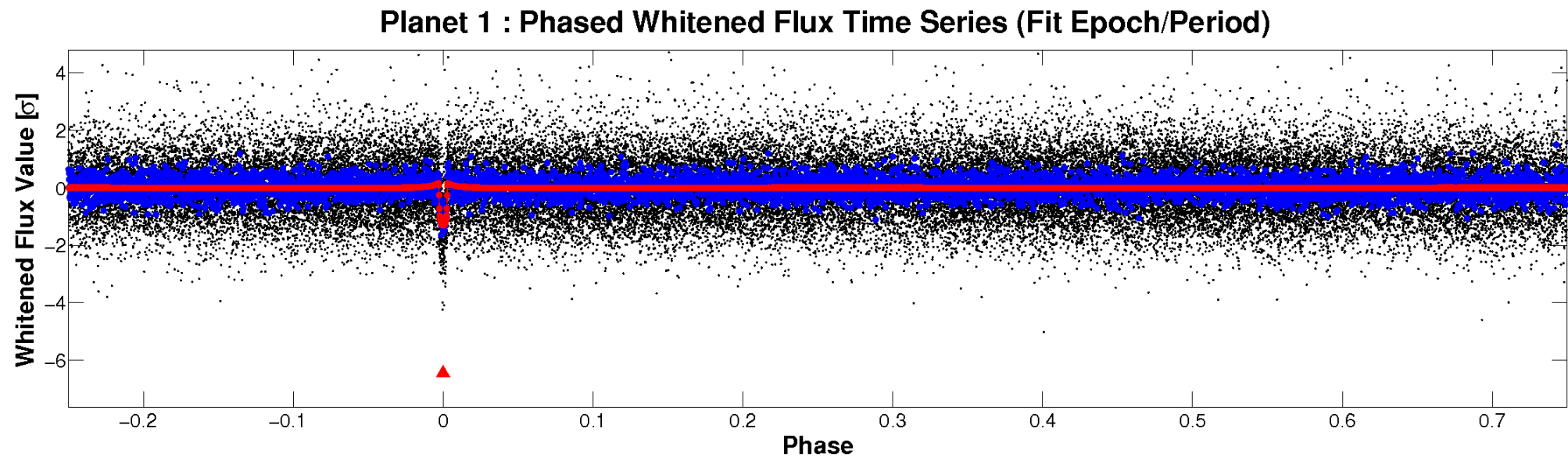
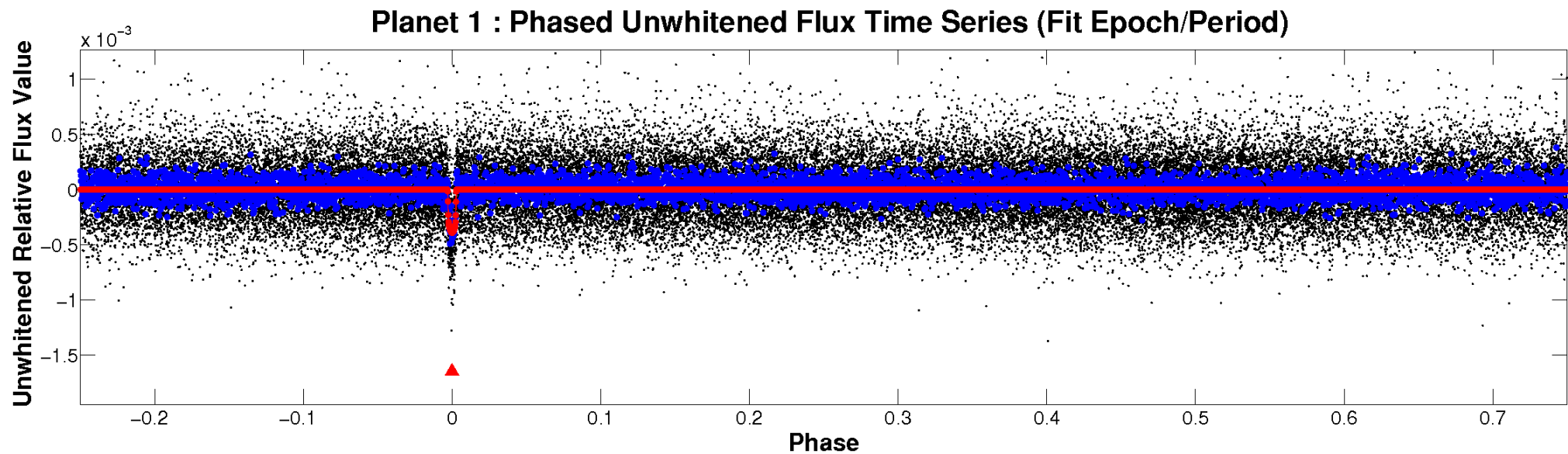


ALT Odd/Even

TCE 011498128-01

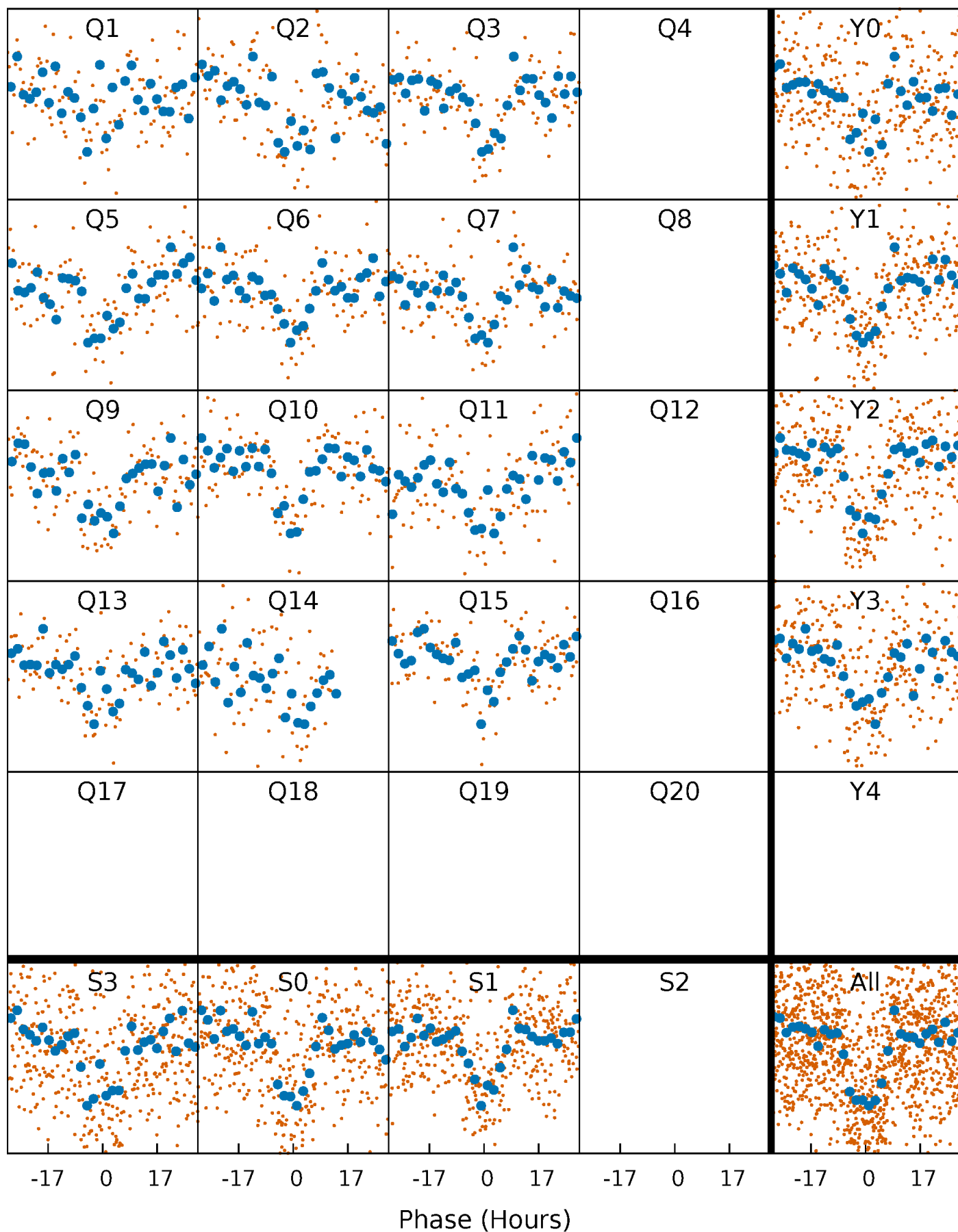


Non-Whitened Vs. Whitened Light Curve



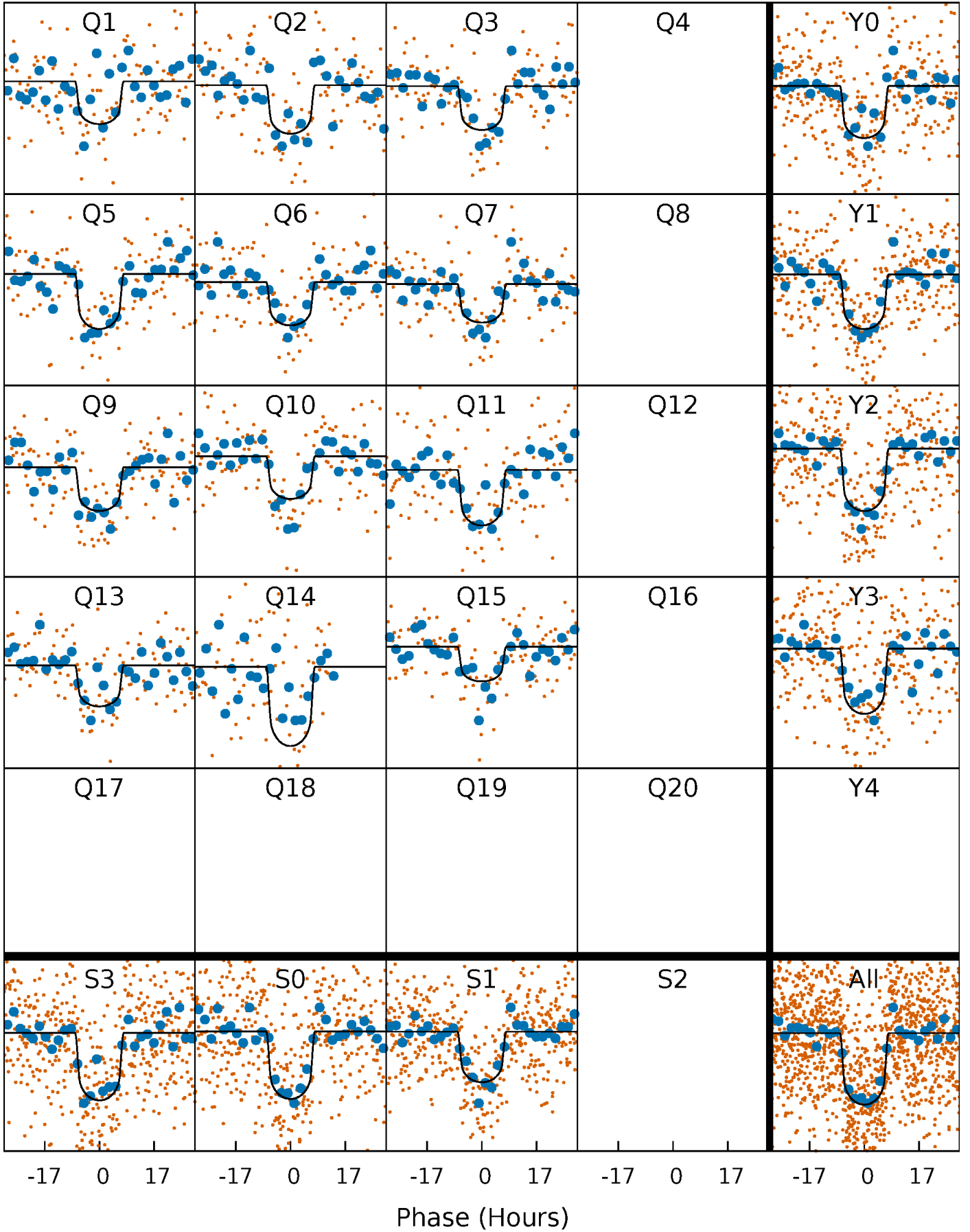
PDC Quarter-Phased Transit Curves

TCE 011498128-01 P=106.249761 Days $T_0=135.727524$ (BKJD)



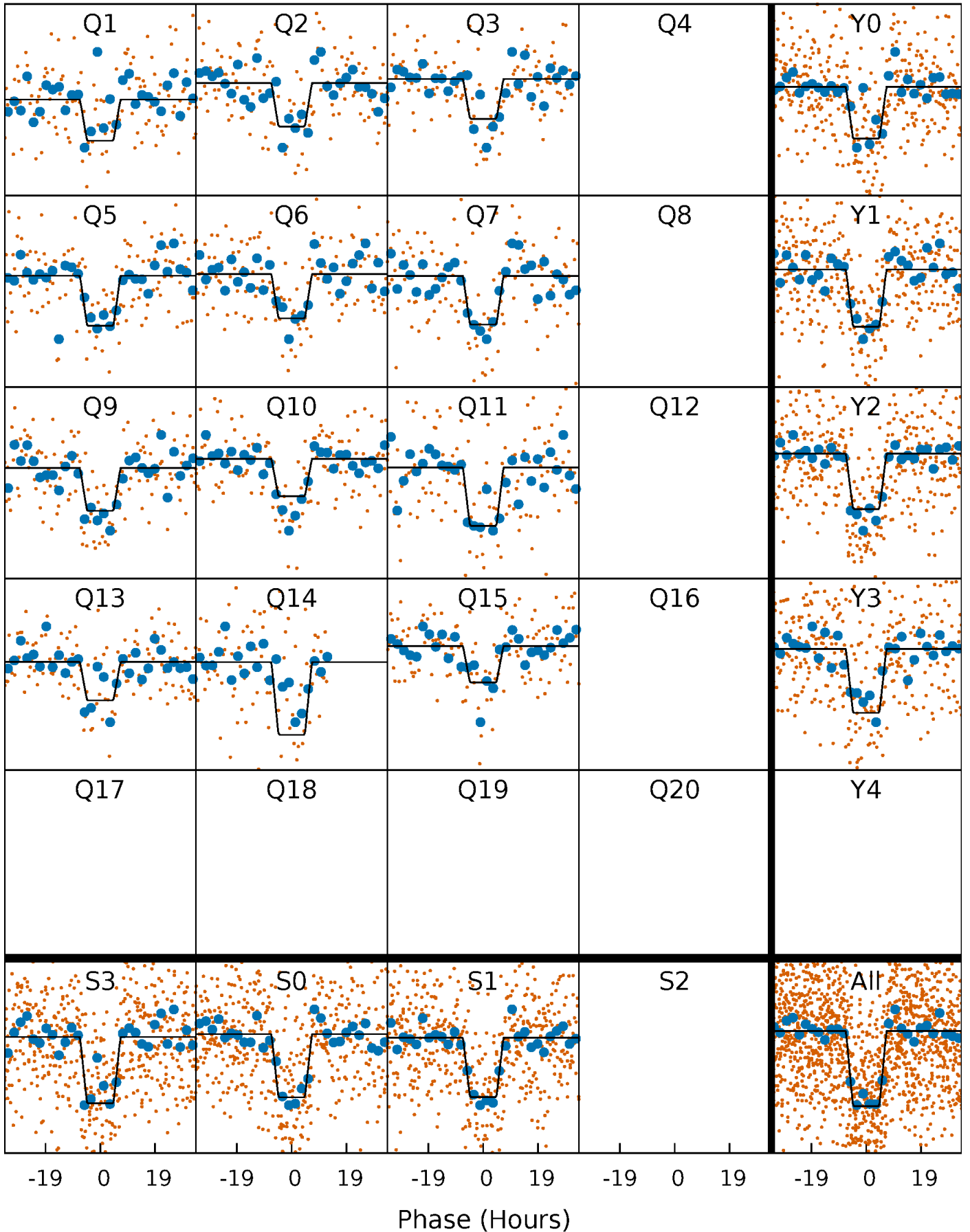
DV Quarter-Phased Transit Curves

TCE 011498128-01 P=106.249761 Days $T_0=135.727524$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

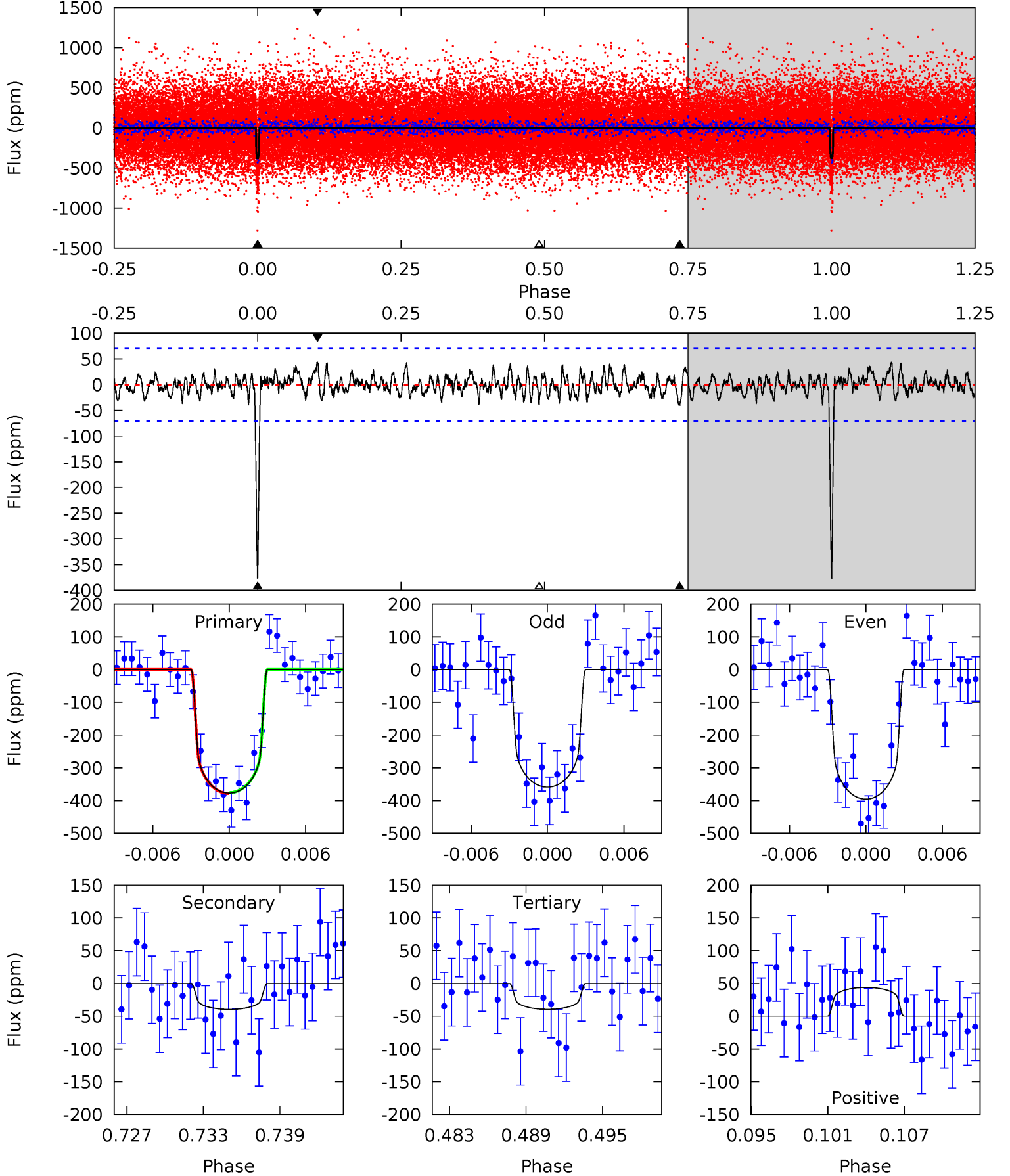
TCE 011498128-01 P=106.254512 Days $T_0=135.691080$ (BKJD)



DV Model-Shift Uniqueness Test

011498128-01, $P = 106.249761$ Days, $E = 29.477763$ Days

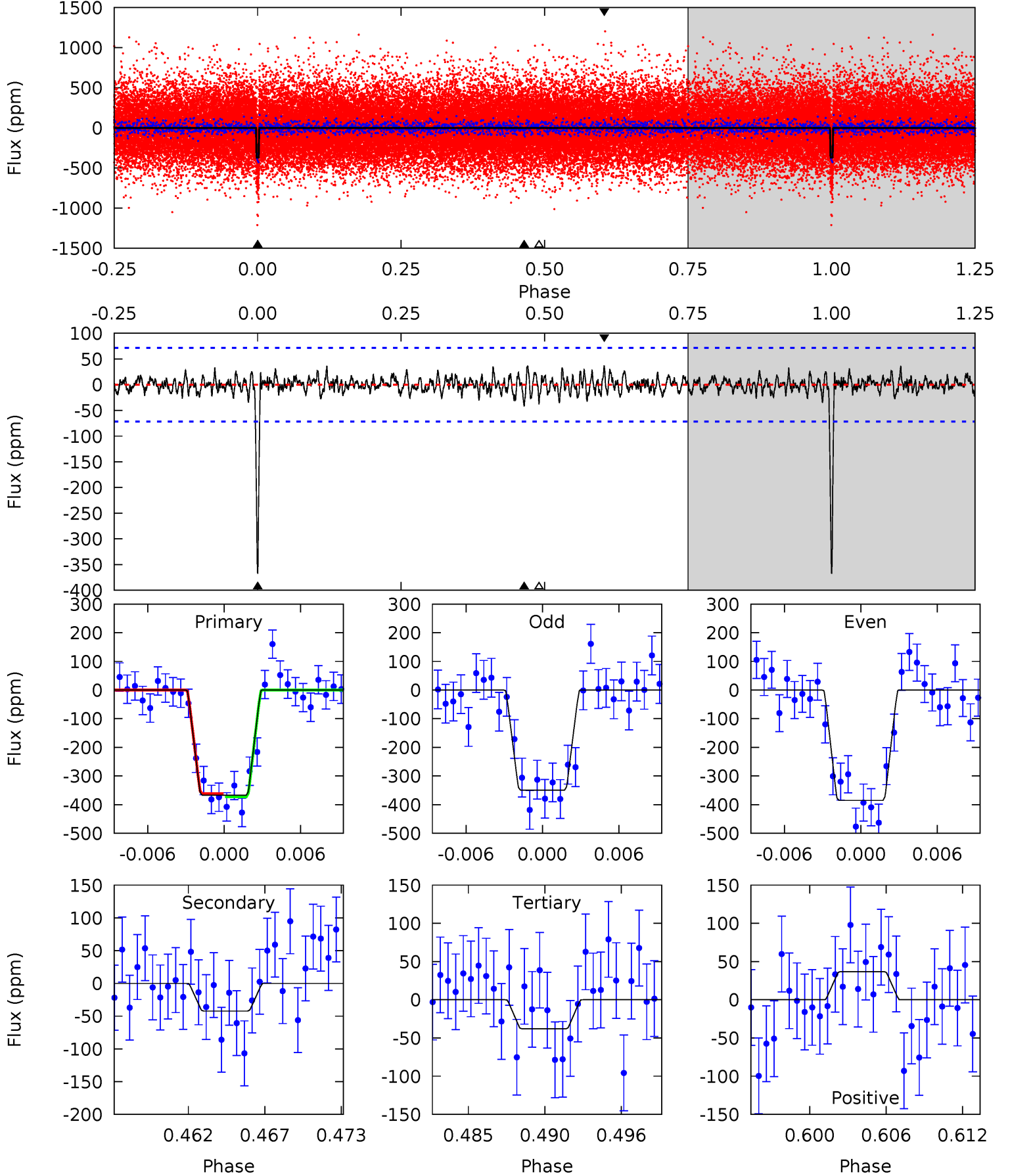
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27.1	2.86	2.85	3.15	5.12	2.75	1.11	24.3	24.0	0.01	-0.29	1.32	0.95	0.10	0.10



Alt Model-Shift Uniqueness Test

011498128-01, $P = 106.254512$ Days, $E = 29.436568$ Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.3	3.02	2.72	2.64	5.13	2.76	0.86	23.6	23.7	0.30	0.38	1.29	0.93	0.09	0.39



Stellar Parameters For KIC 011498128

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5679^{+101}_{-112}	$4.435^{+0.076}_{-0.104}$	$0.000^{+0.150}_{-0.150}$	$0.972^{+0.135}_{-0.090}$	$0.938^{+0.063}_{-0.057}$	$1.438^{+0.419}_{-0.457}$
	+2%/-2%	+2%/-2%	+inf%/-inf%	+14%/-9%	+7%/-6%	+29%/-32%
Source	SPE57	SPE57	SPE57	DSEP		

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

Secondary Eclipse Parameters for KIC 011498128-01 / KOI 2296.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-40 ± 14	$2.25^{+0.27}_{-0.21}$	529^{+22}_{-18}	3567^{+211}_{-263}	794^{+344}_{-322}
Alt.	-42 ± 14	$2.08^{+0.23}_{-0.21}$	528^{+20}_{-18}	3686^{+224}_{-255}	987^{+402}_{-361}

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 $A_{obs} \gg 1.0$

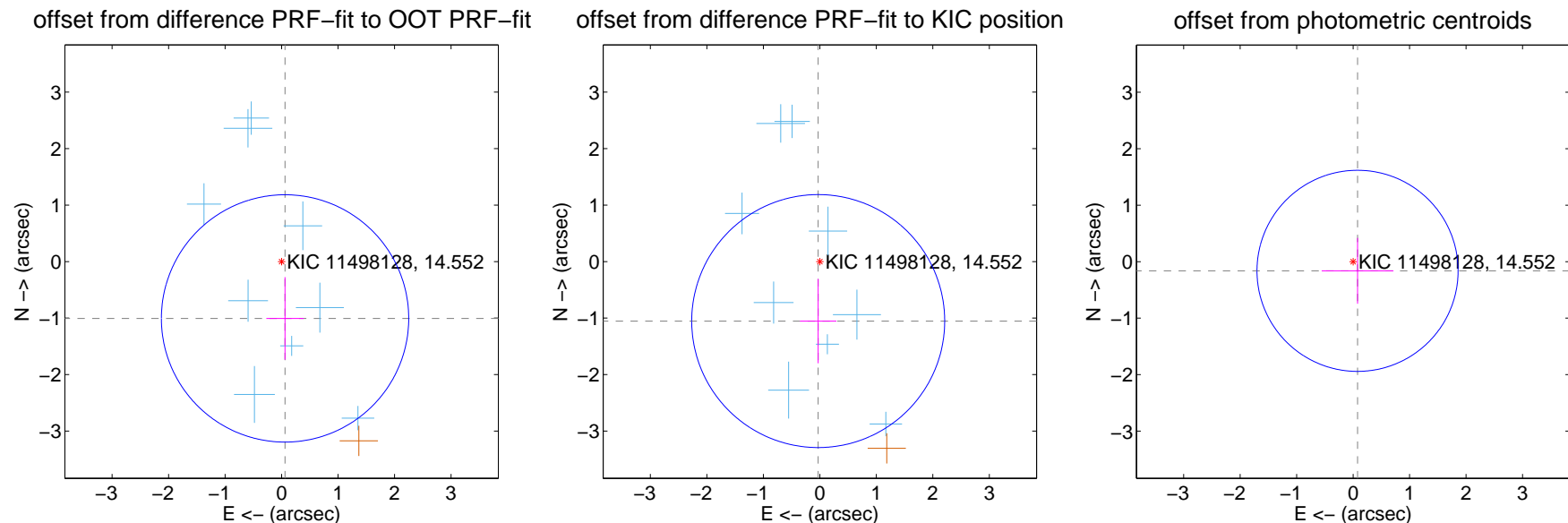
DV Centroid Data

Supplemental centroid analysis for 011498128-01. Kepler magnitude: 14.55. Transit SNR 20.51

There are 9 quarters with good PRF difference image offsets

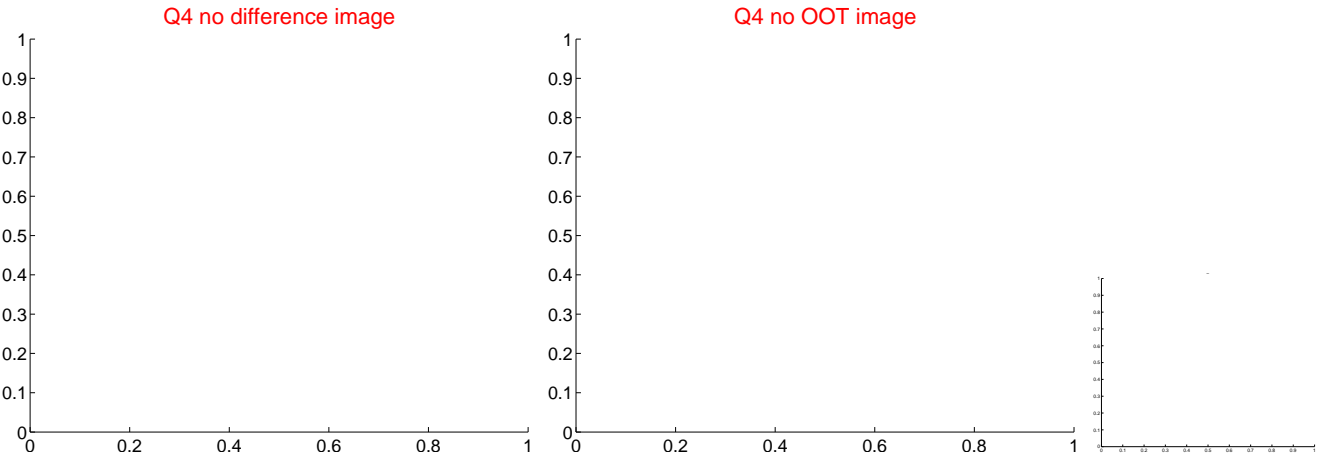
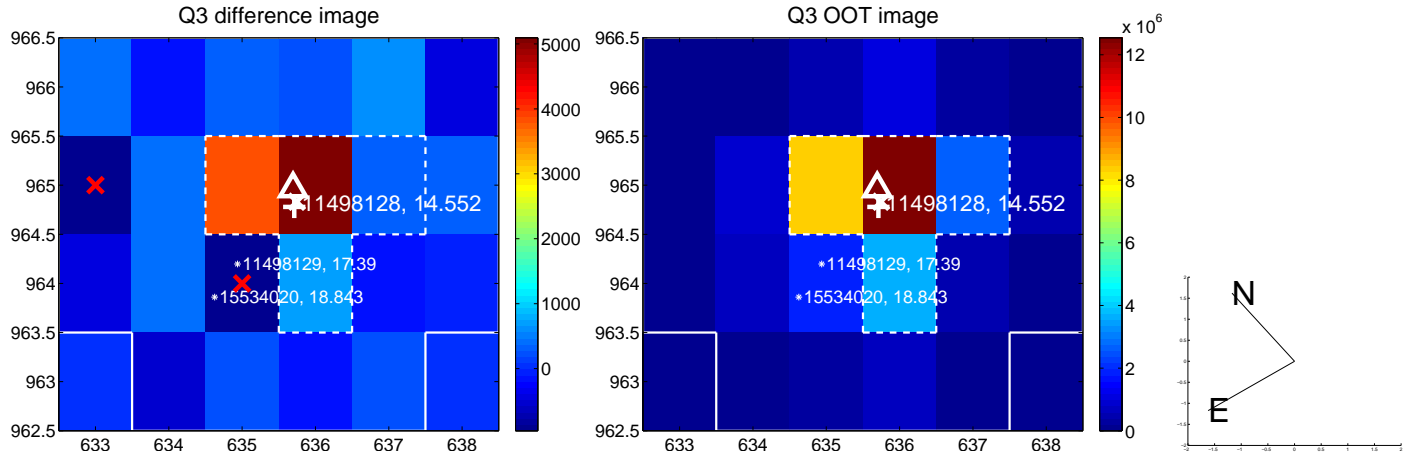
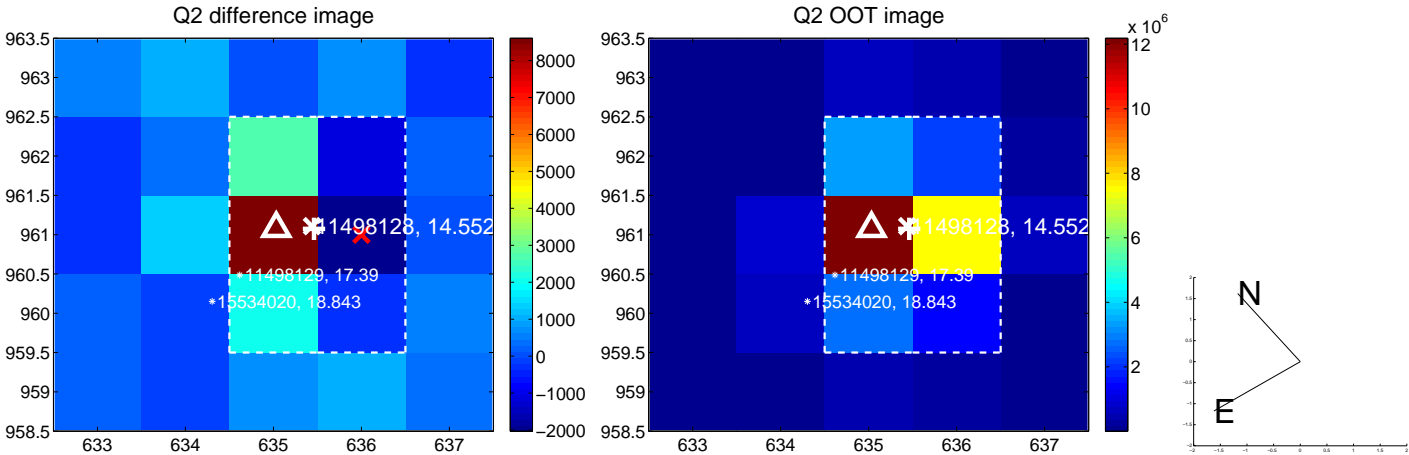
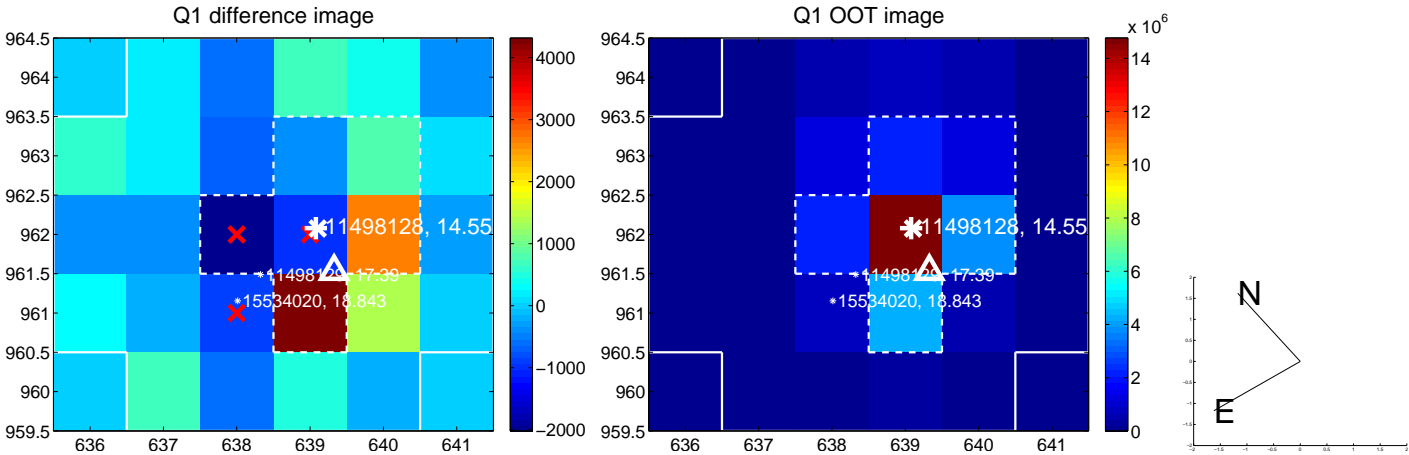
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.008 ± 0.730	1.38	-0.061 ± 0.331	-1.006 ± 0.731
PRF-fit source offset from KIC position	1.053 ± 0.746	1.41	0.029 ± 0.322	-1.053 ± 0.746
photometric centroid source offset	0.18 ± 0.59	0.30	-0.08 ± 0.64	-0.16 ± 0.58

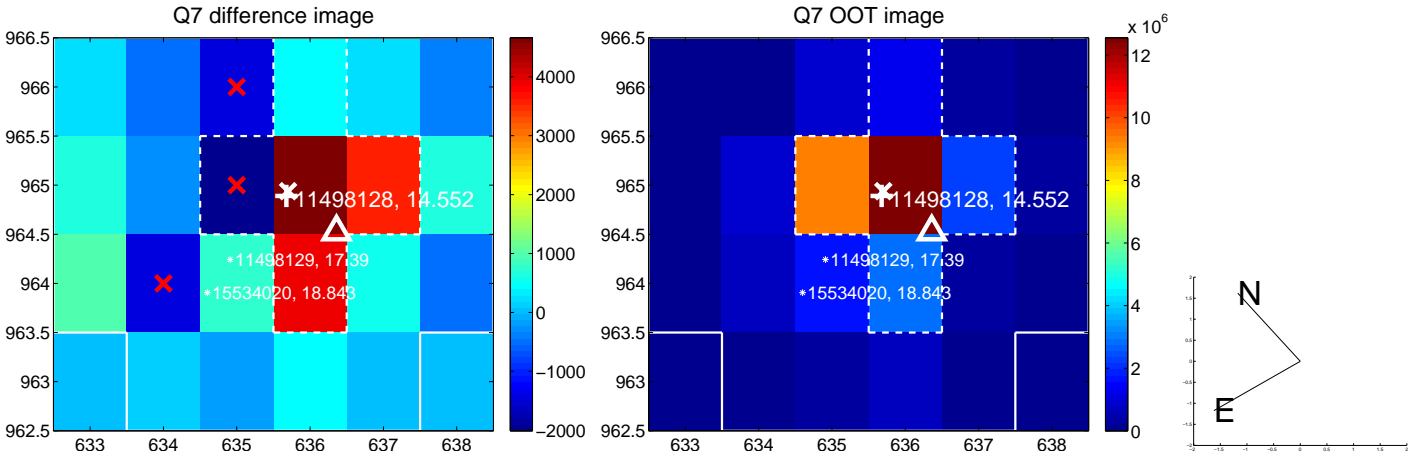
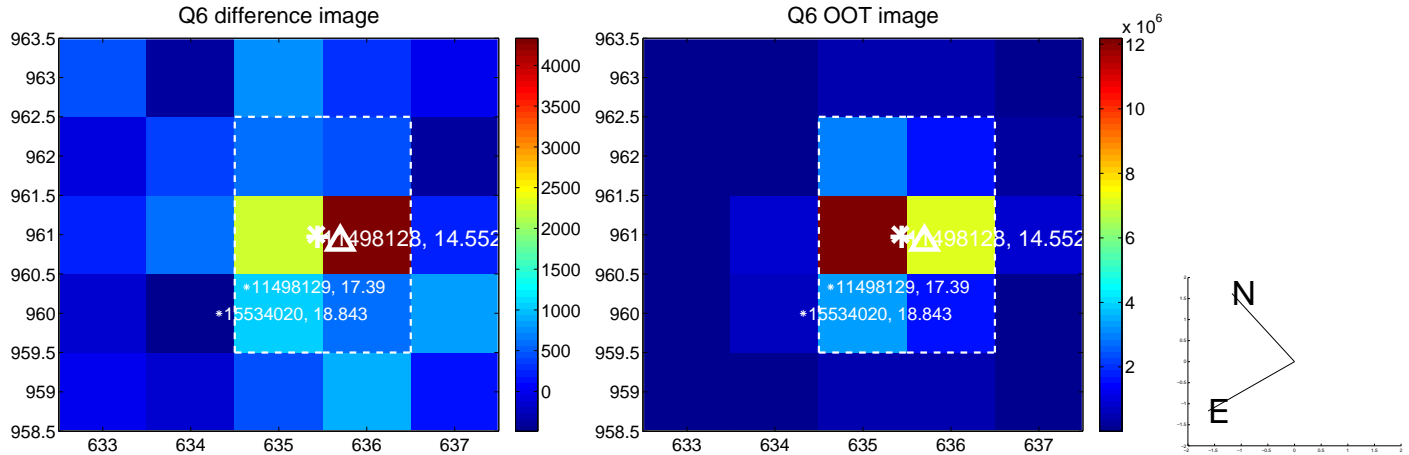
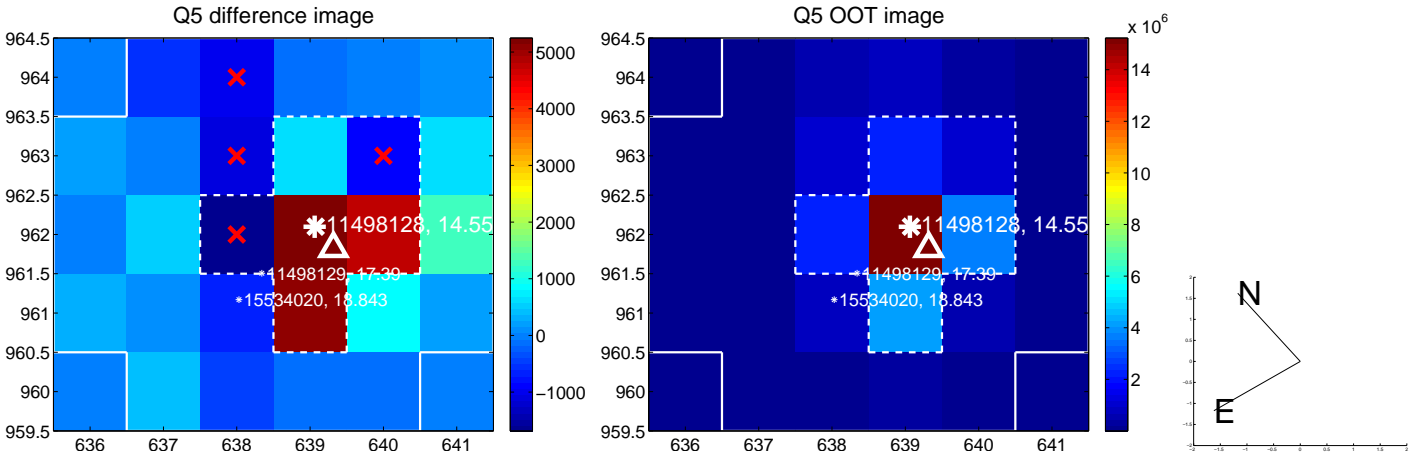


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

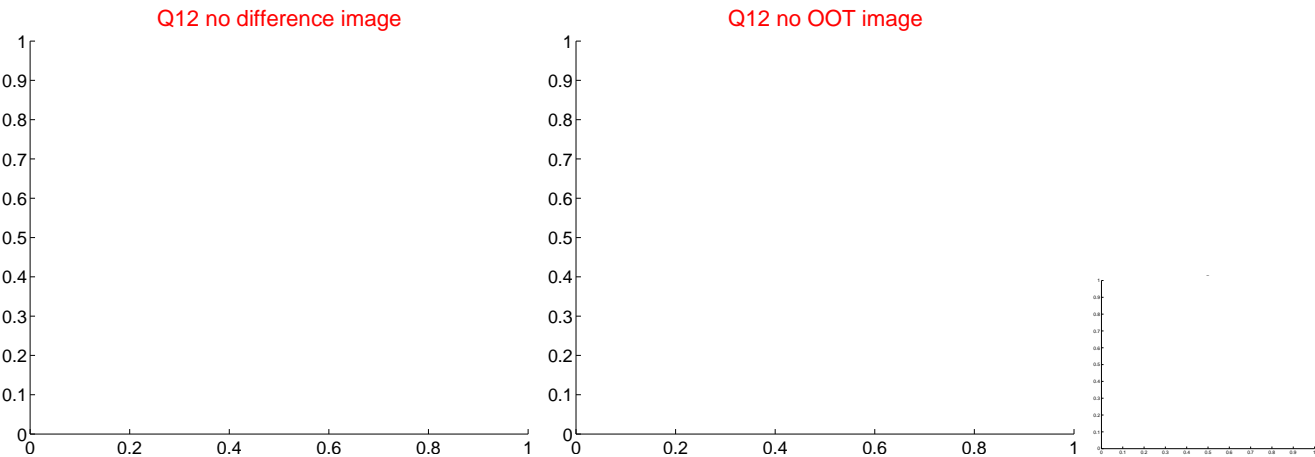
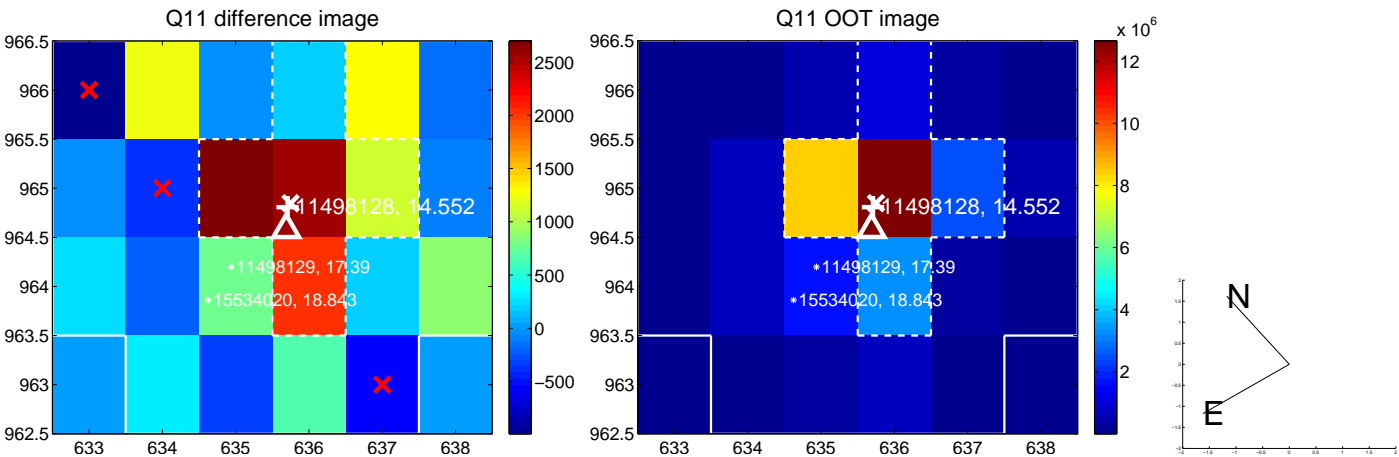
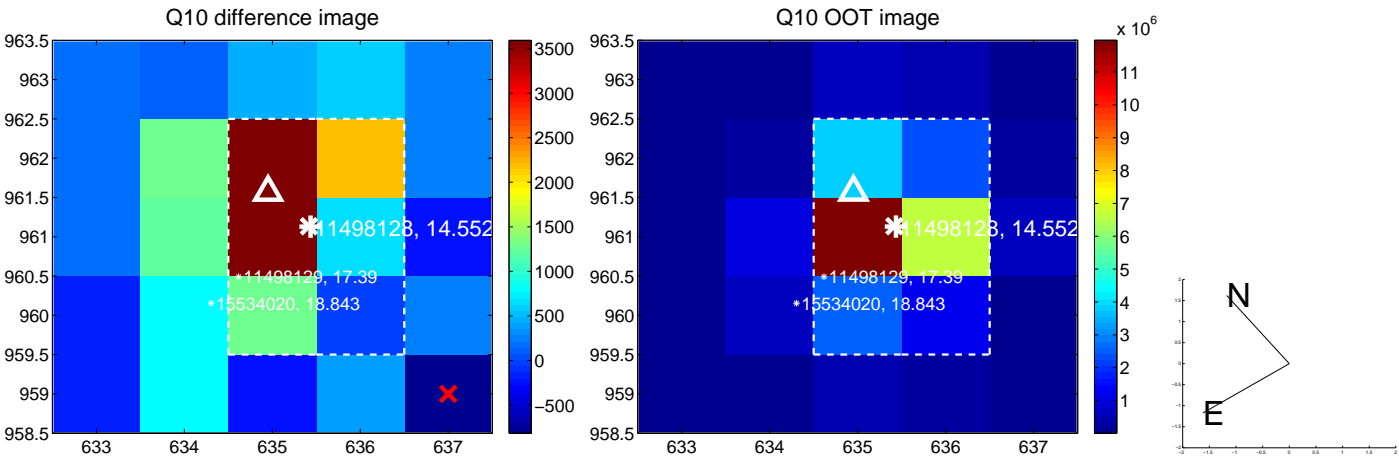
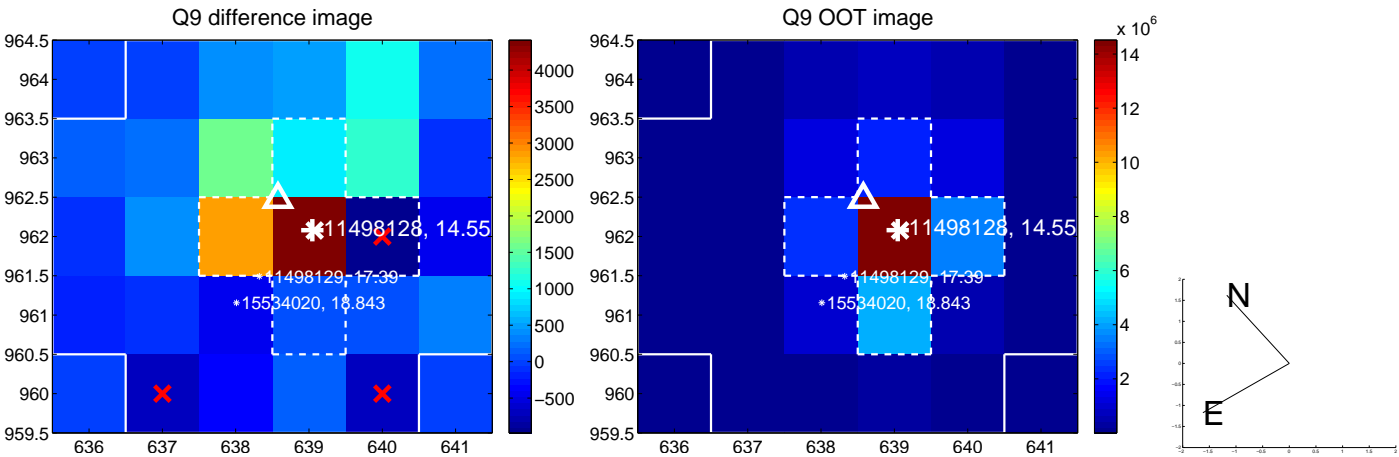
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



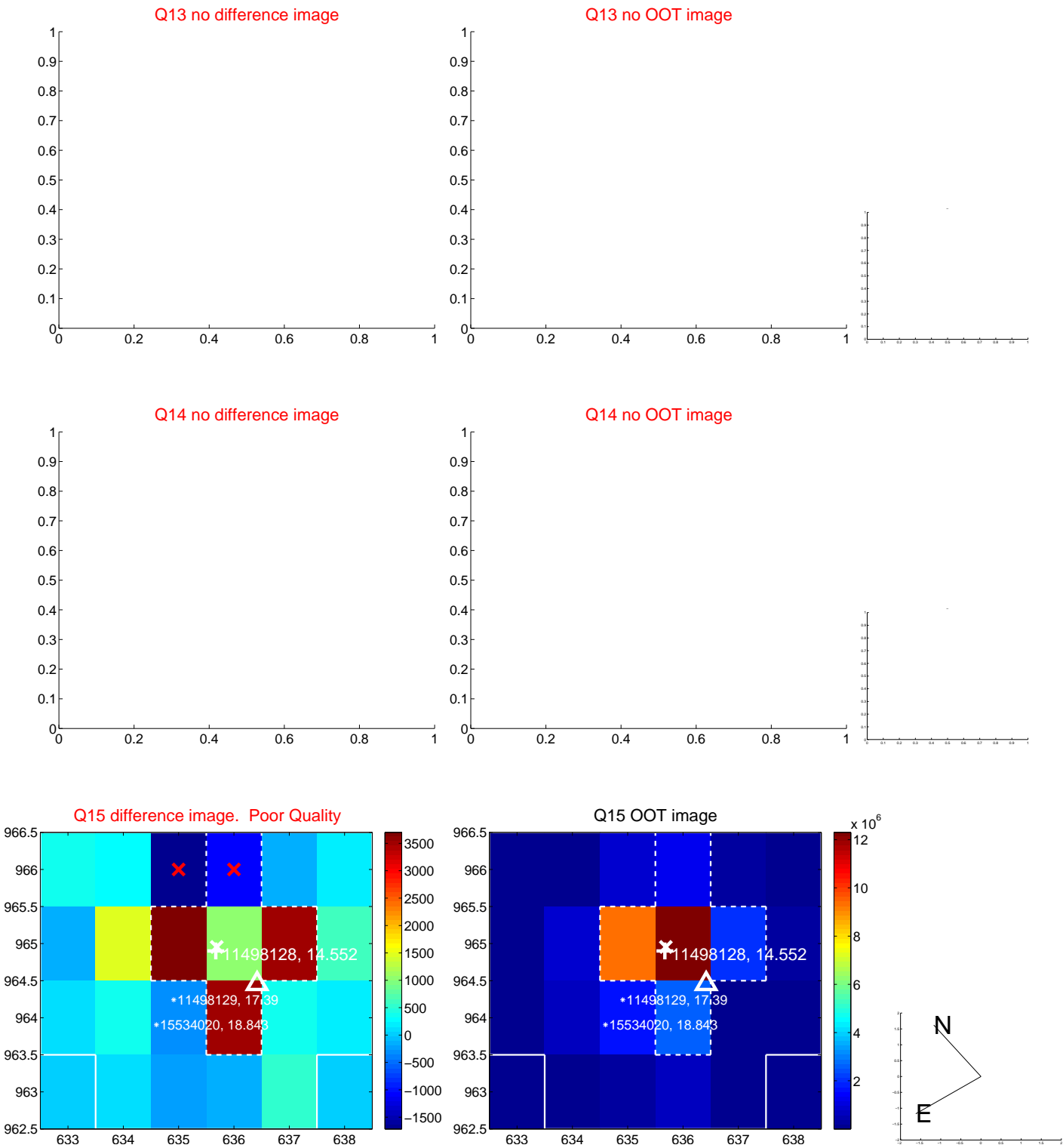
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



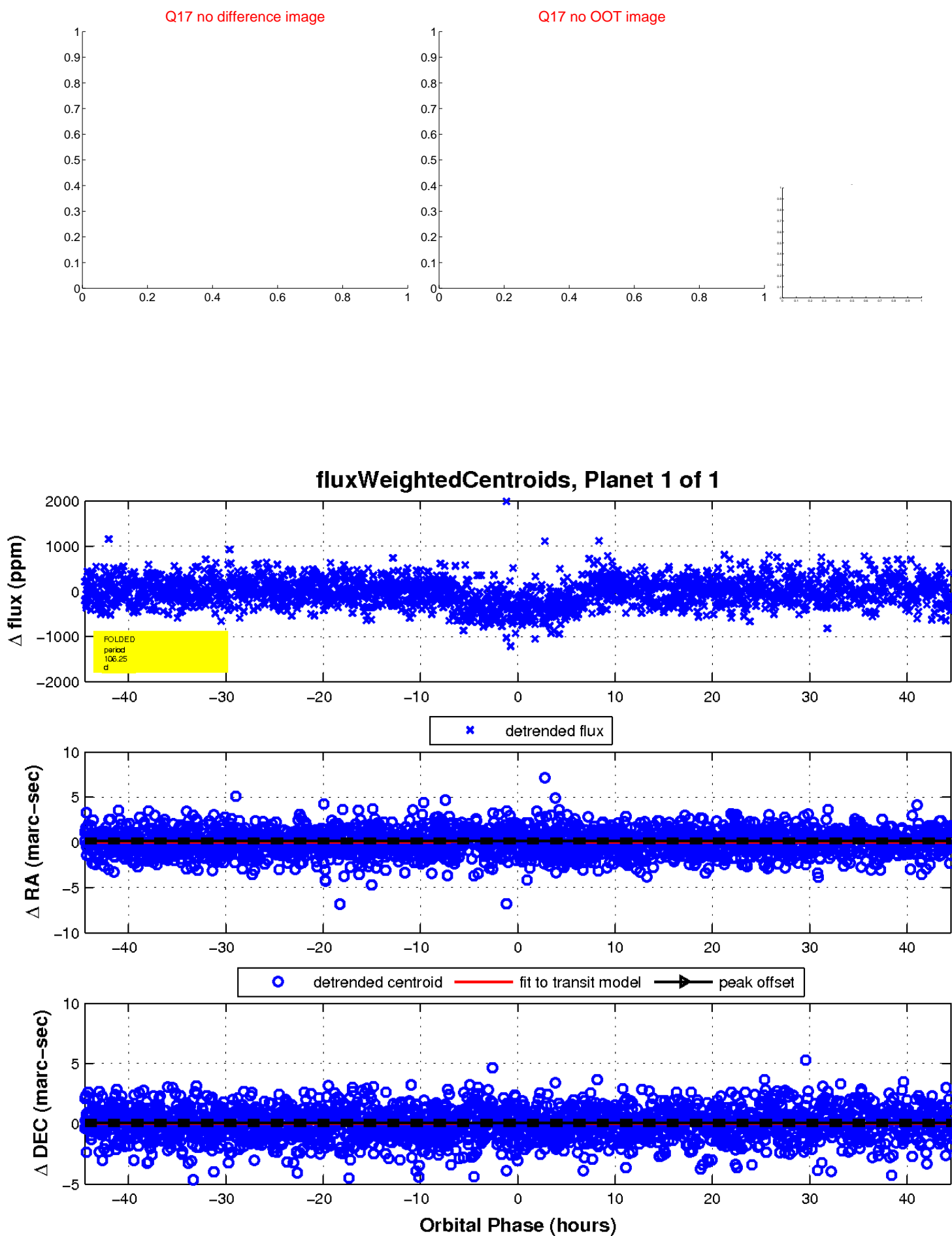
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white ×: KIC target position; +: OOT centroid; △: difference centroid. red ×: large negative pixel value.



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



UKIRT Image

Declination

