

KIC 005297298

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})
005297298-01	OBS	0130.01	34.193601	155.296570	13754.5	5.459	1312.7	1303.4	1.79	6129	22.19	86.92

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005297298-01	OBS	PC	0.91	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.

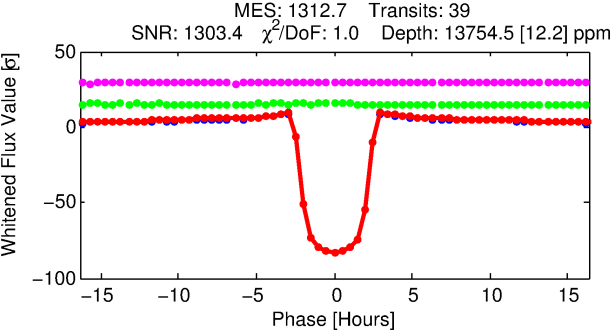
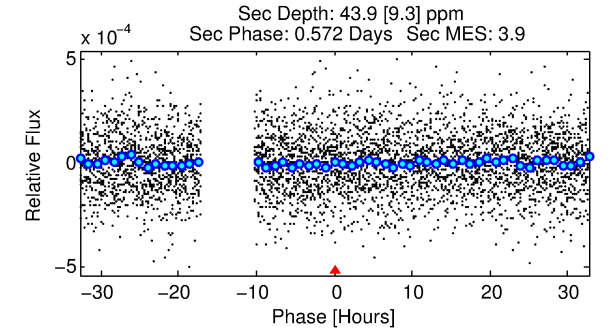
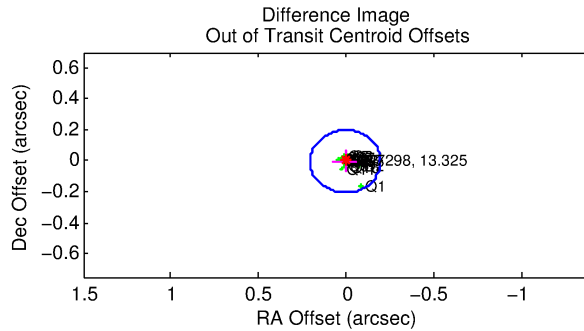
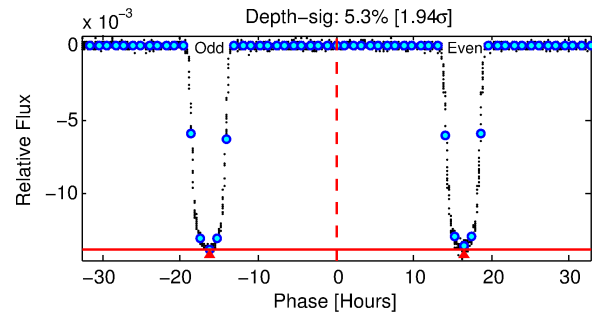
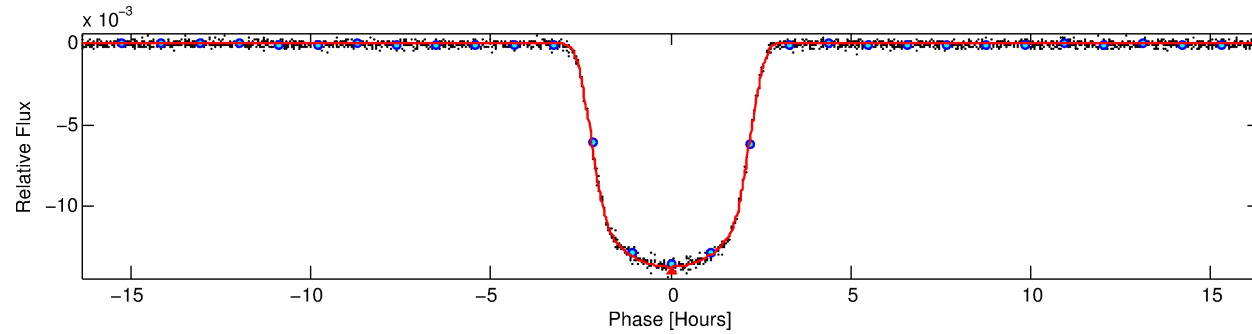
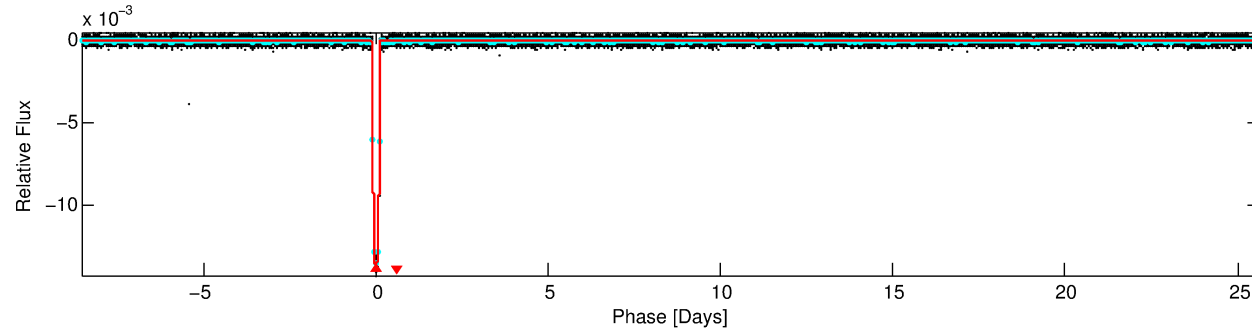
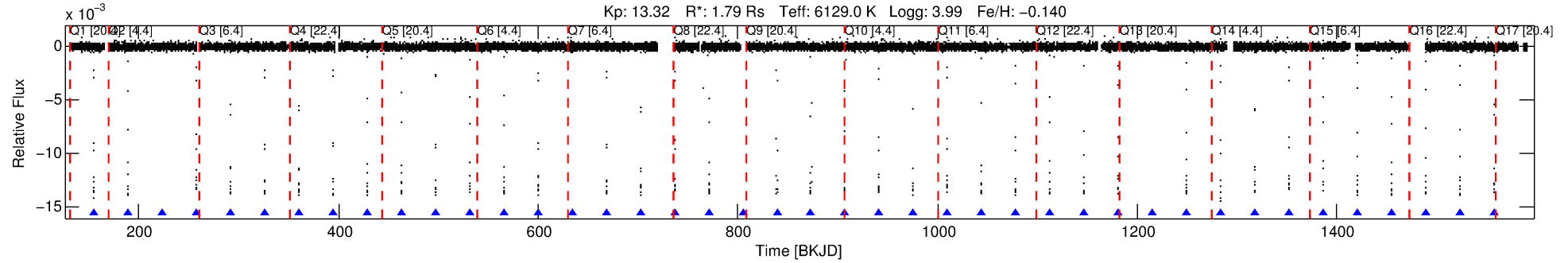
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005297298-01

No Significant Match Found

DV One-Page Summary

KIC: 5297298 Candidate: 1 of 1 Period: 34.194 d
KOI: K00130.01 Corr: 0.958



DV Fit Results:

Period = 34.19360 [0.00000] d
Epoch = 155.2966 [0.0001] BKJD
Rp/R* = 0.1139 [0.0001]
a/R* = 43.09 [0.17]
b = 0.66 [0.00]
Seff = 86.92 [27.45]
Teq = 779 [61] K
Rp = 22.19 [4.68] Re
a = 0.2154 [0.0419] AU
Ag = 2.28 [0.84] [1.51 σ]
Teffp = 1479 [85] K [6.67 σ]

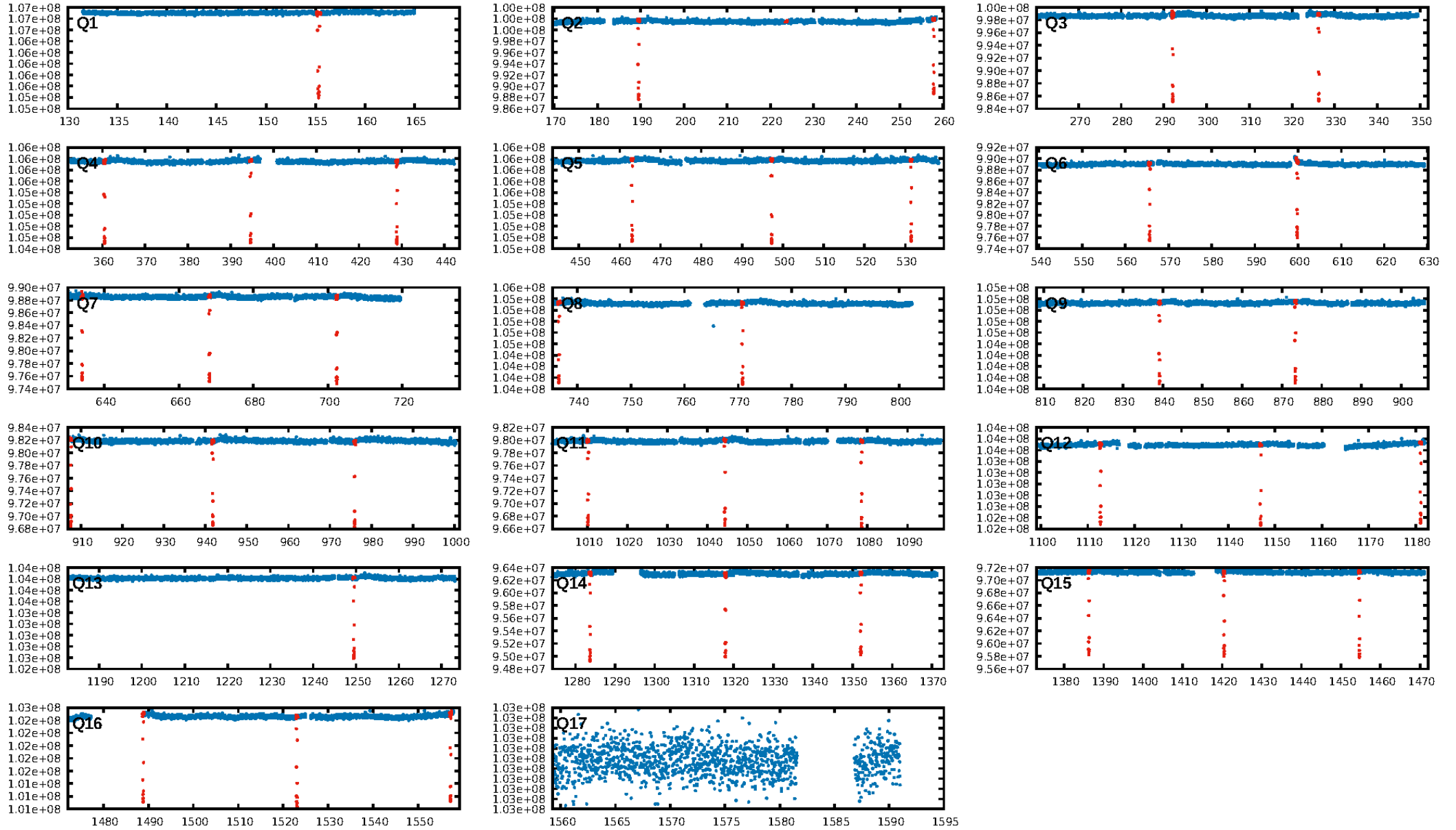
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 0.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [38/38]
GhostDiagnostic-chr: 5.451
Centroid-sig: 21.1%
Centroid-so: 0.183 arcsec [19.83 σ]
OotOffset-rm: 0.008 arcsec [0.12 σ]
KicOffset-rm: 0.098 arcsec [1.43 σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [16/16]

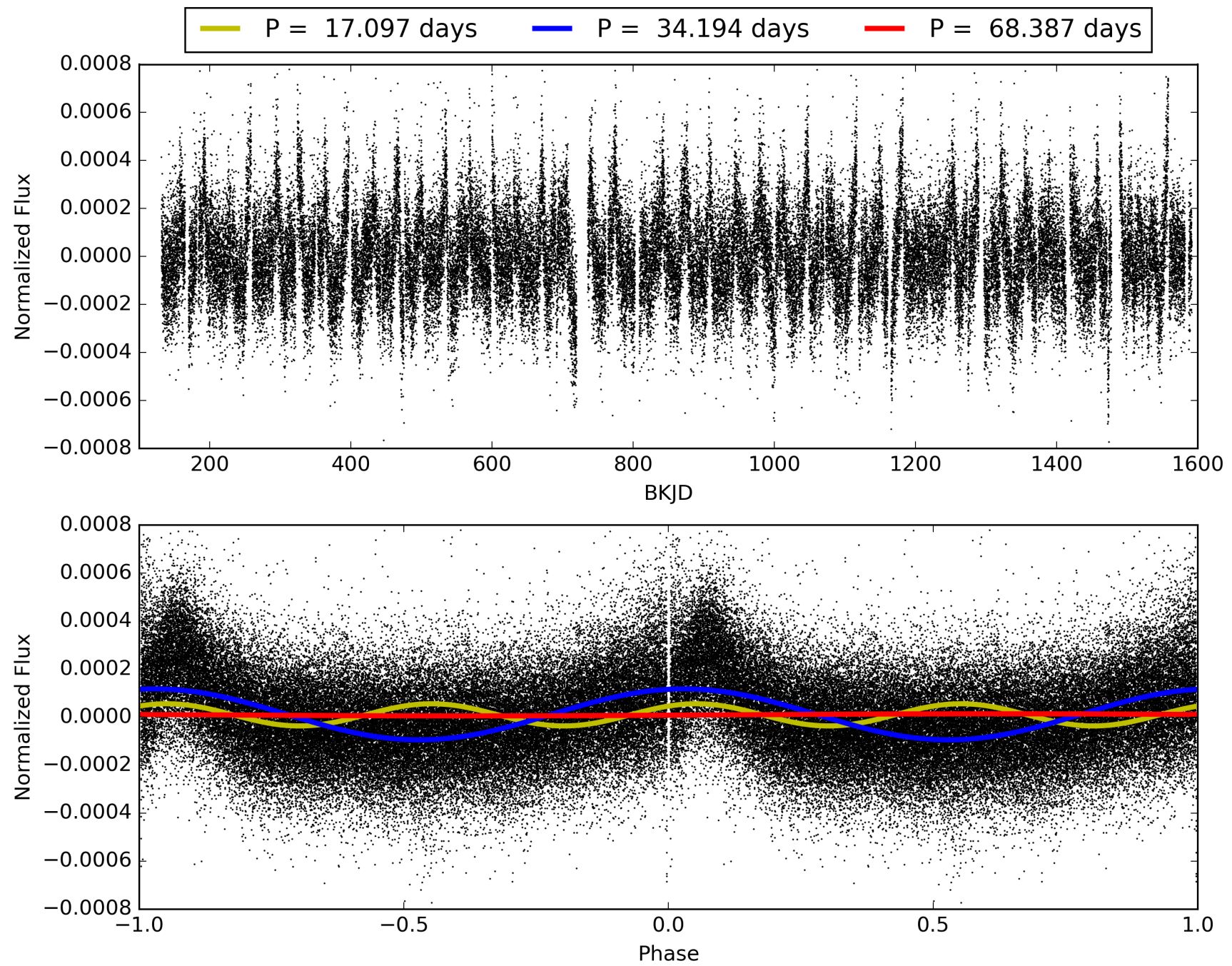
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 08:02:41 Z

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

TCE 005297298-01, PDC Light Curves

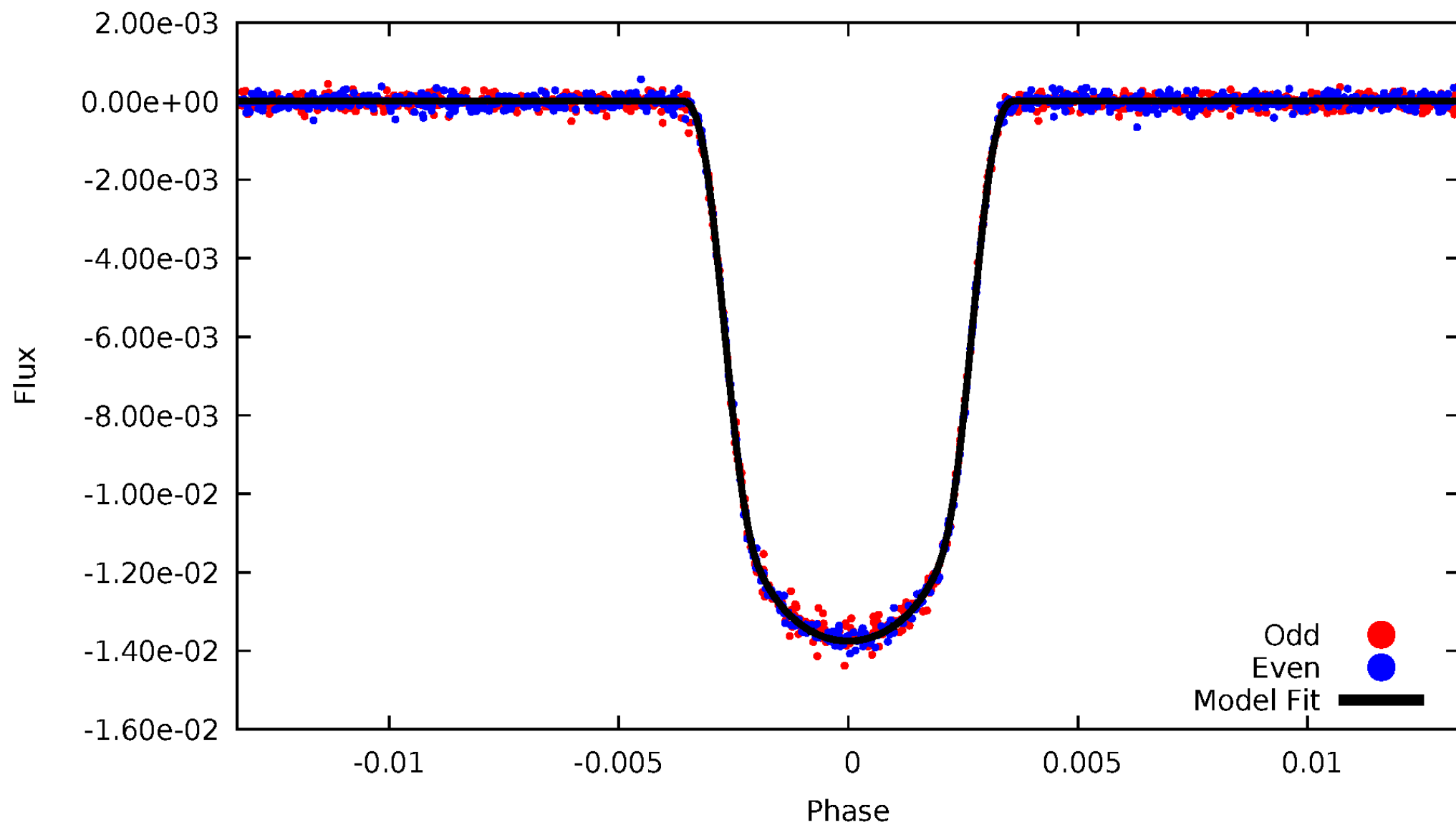


TCE 005297298-01



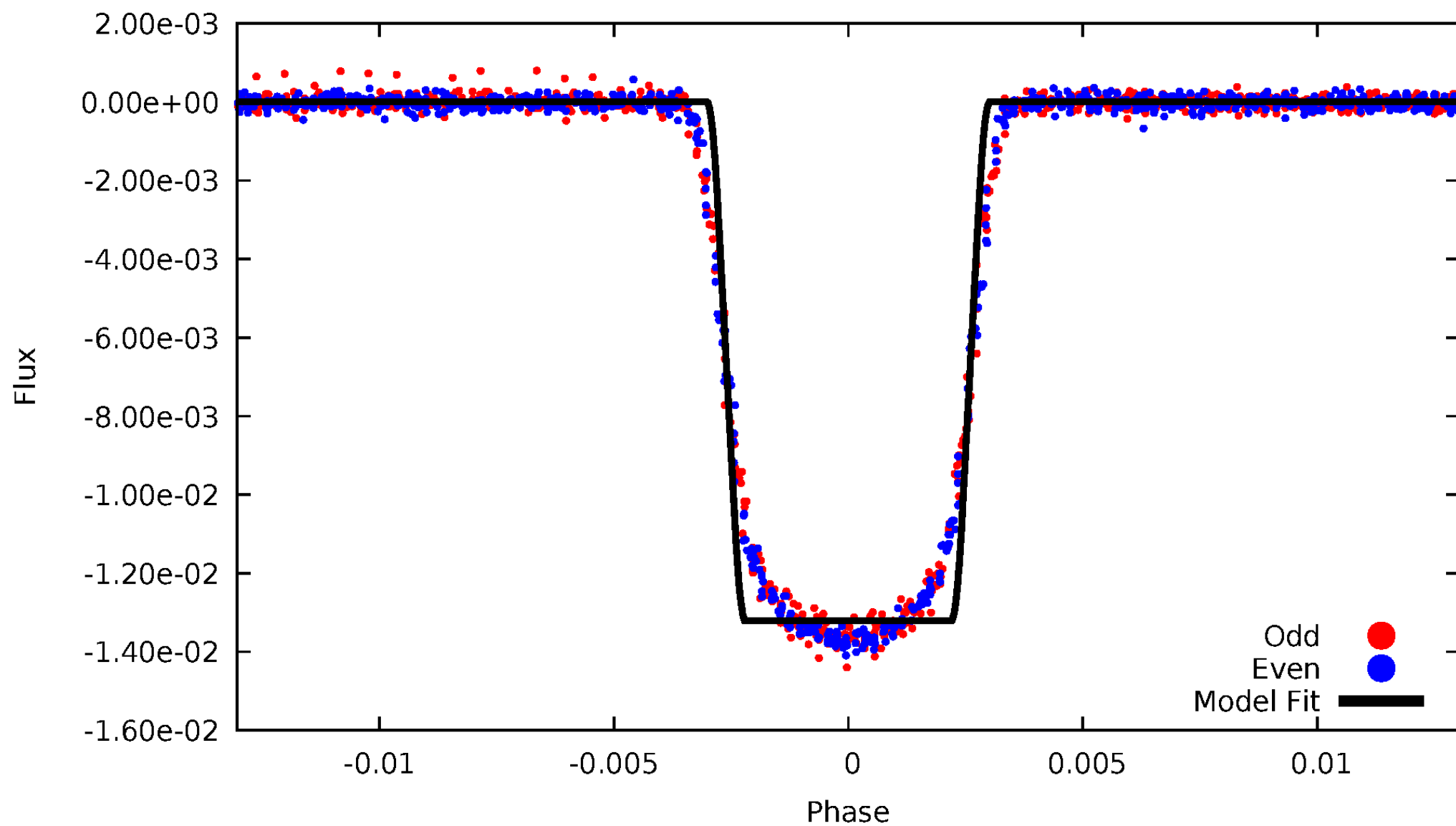
DV Odd/Even

TCE 005297298-01

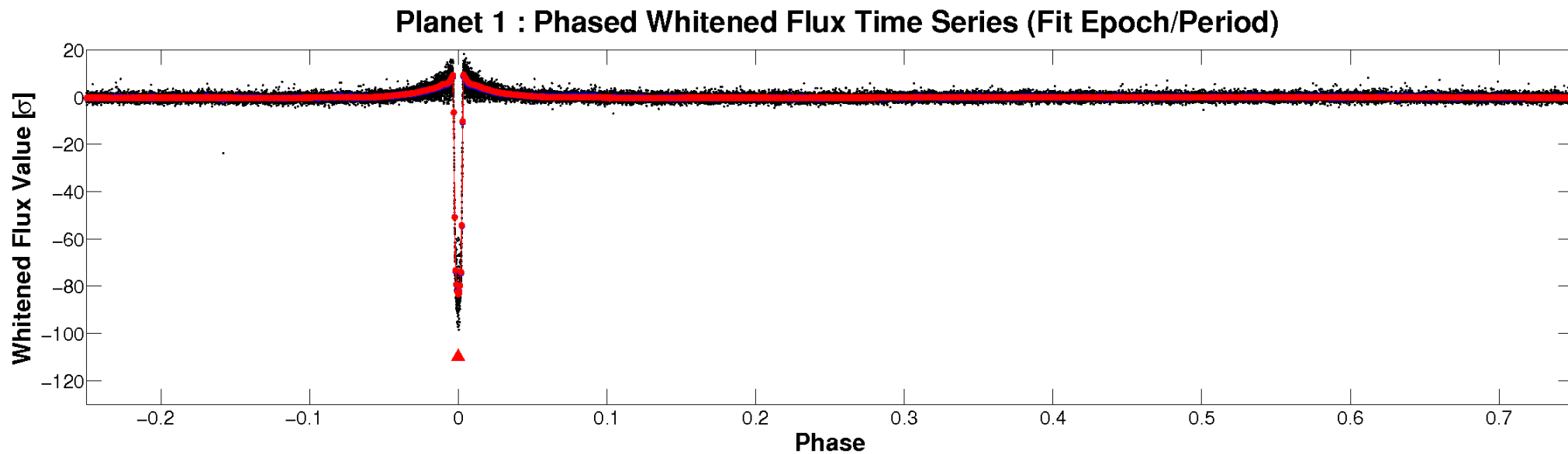
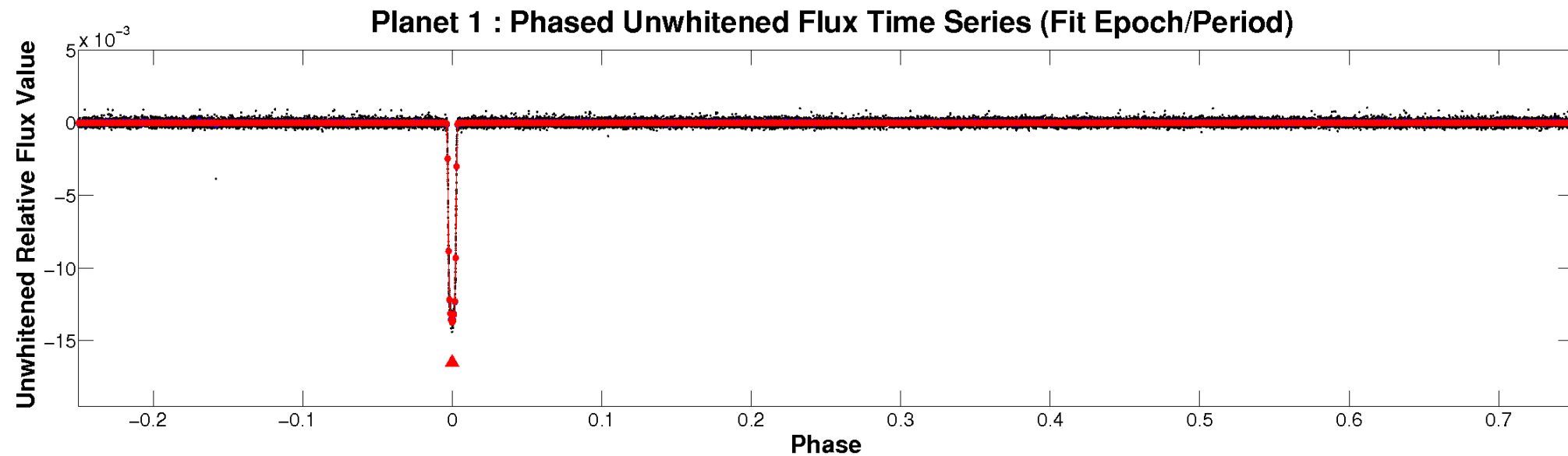


ALT Odd/Even

TCE 005297298-01

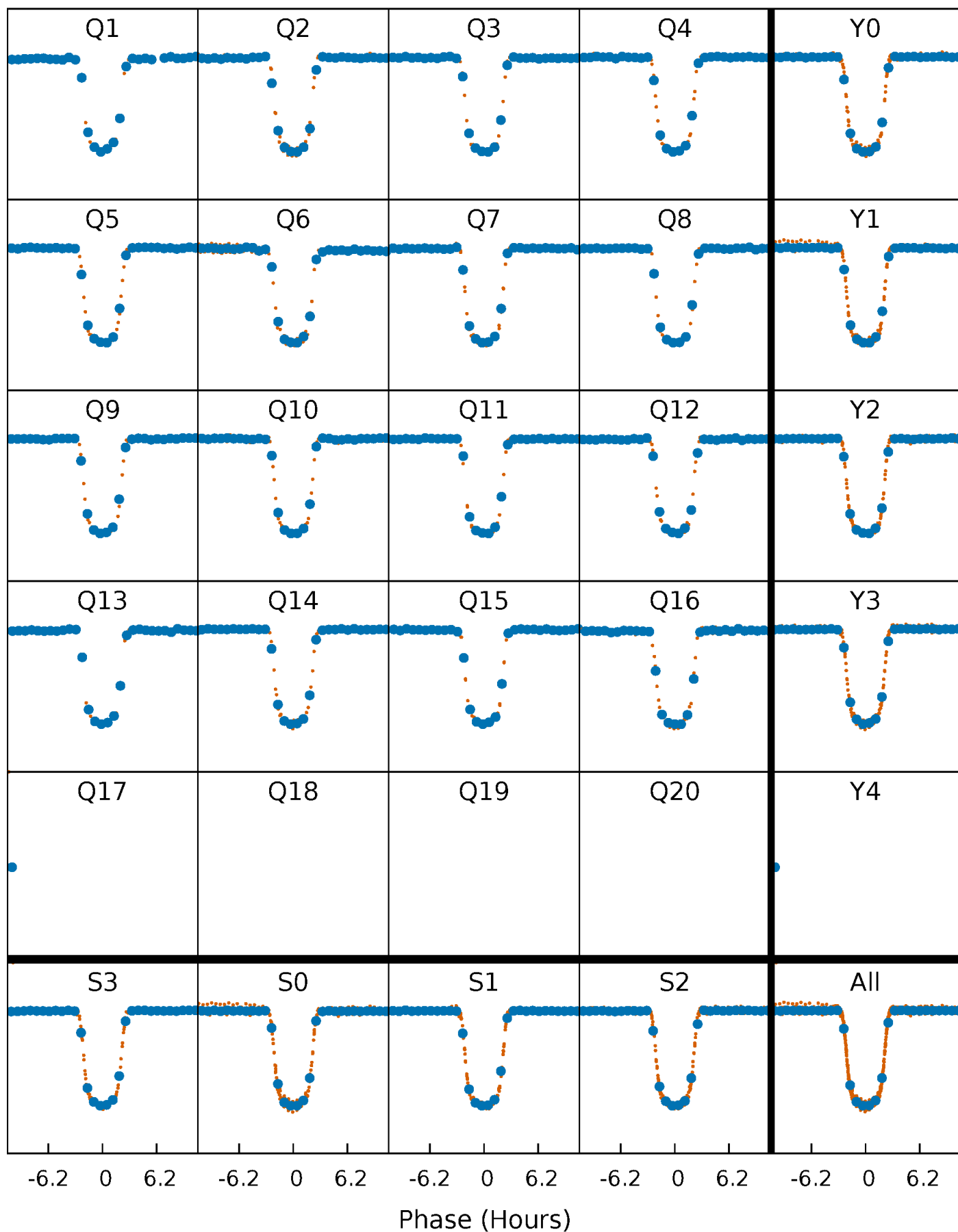


Non-Whitened Vs. Whitened Light Curve



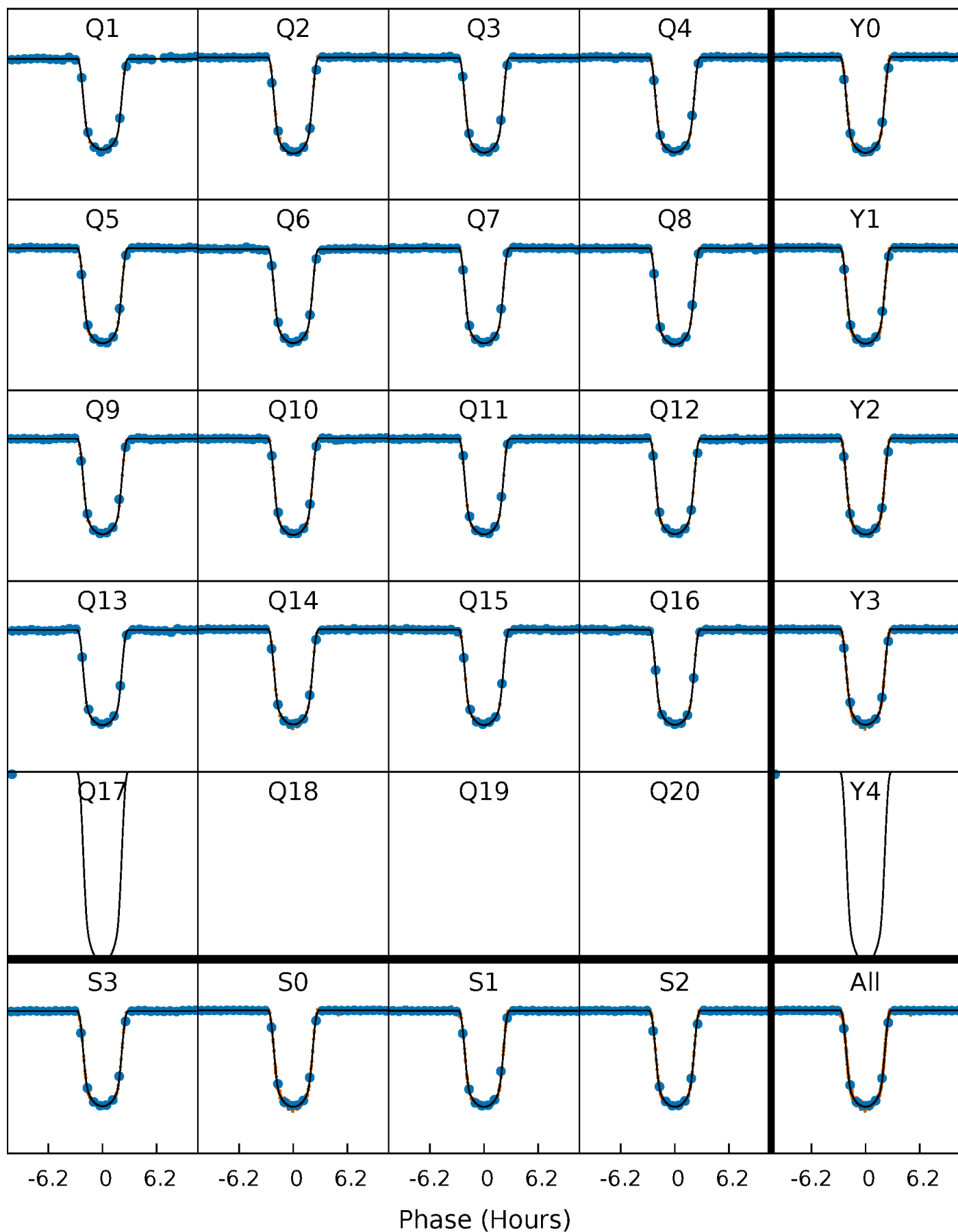
PDC Quarter-Phased Transit Curves

TCE 005297298-01 P= 34.193601 Days $T_0=155.296570$ (BKJD)



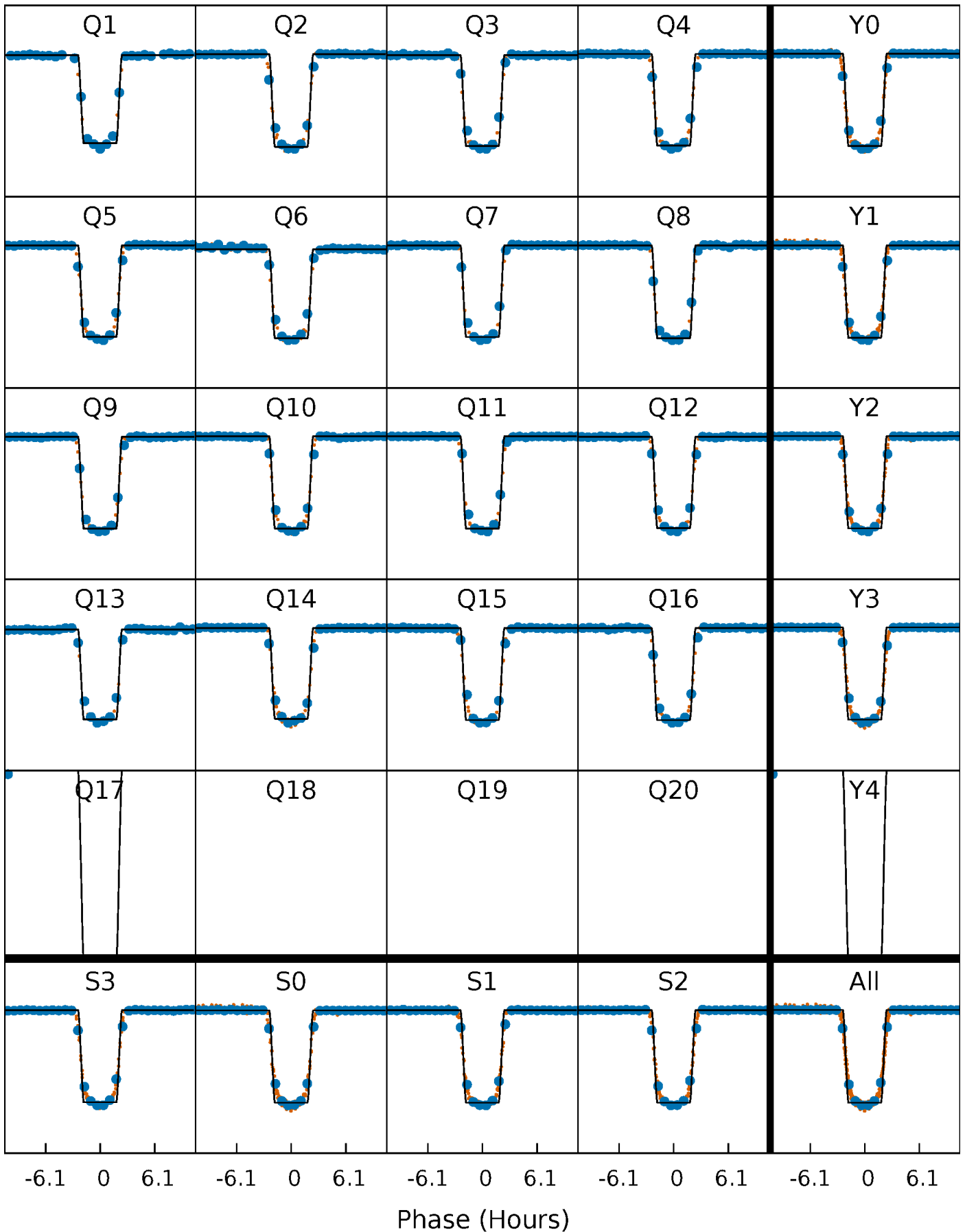
DV Quarter-Phased Transit Curves

TCE 005297298-01 P= 34.193601 Days $T_0=155.296570$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

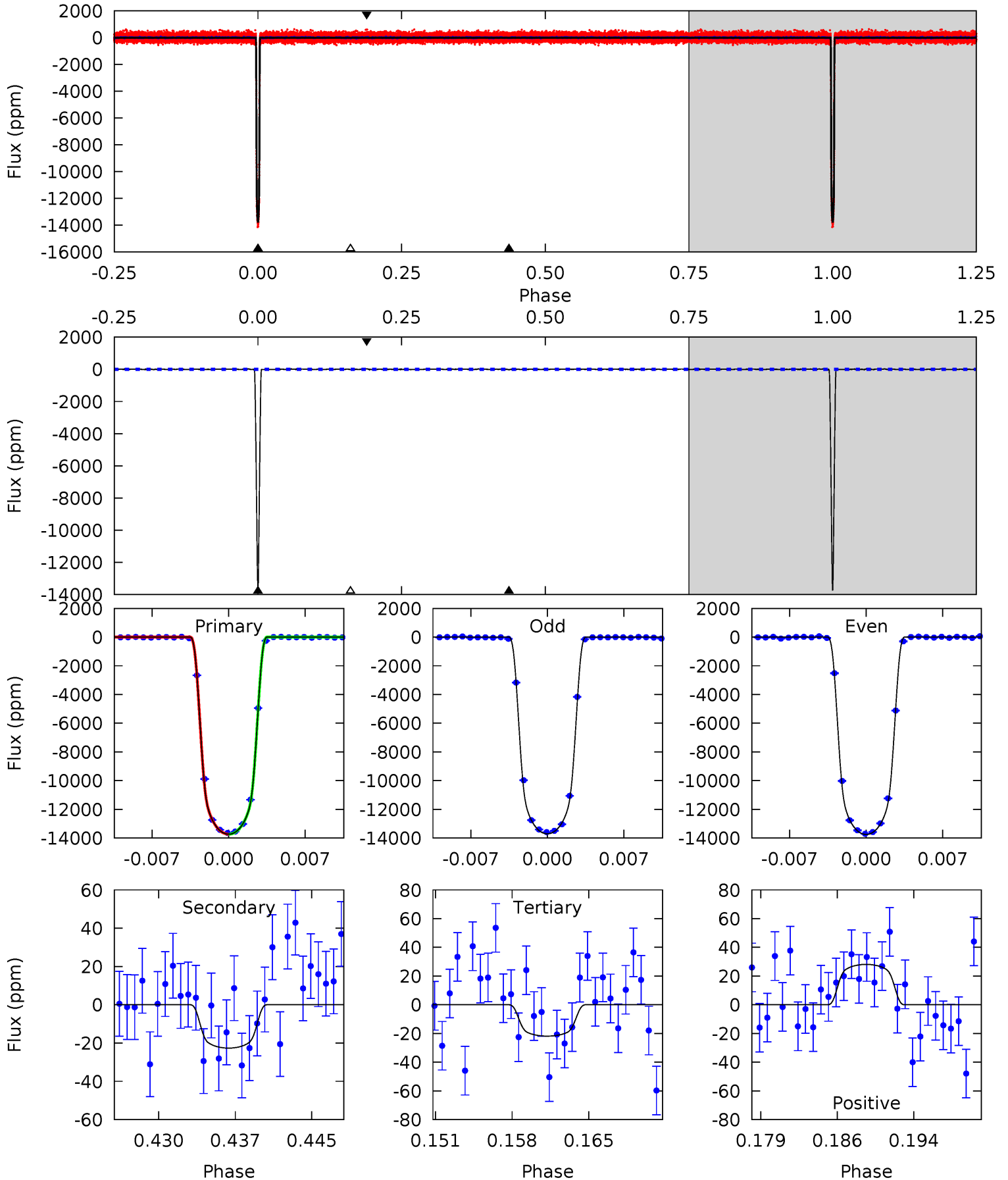
TCE 005297298-01 P= 34.193459 Days $T_0=155.299516$ (BKJD)



DV Model-Shift Uniqueness Test

005297298-01, P = 34.193601 Days, E = 121.102969 Days

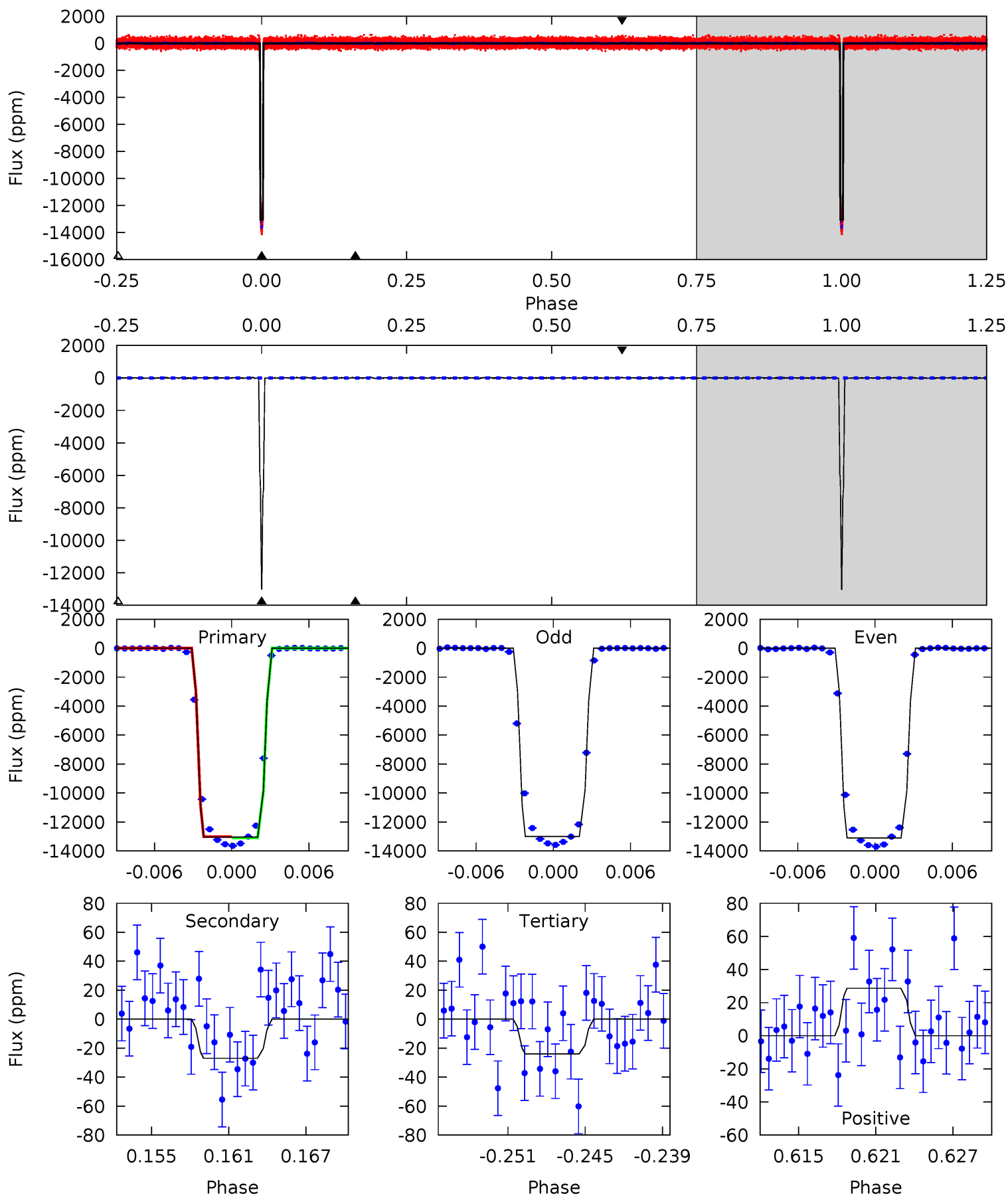
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2032	3.35	3.23	4.16	5.09	2.69	1.28	2028	2027	0.12	-0.81	3.46	1.00	0.00	0.08



Alt Model-Shift Uniqueness Test

005297298-01, P = 34.193459 Days, E = 121.106057 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1531	3.16	2.81	3.36	5.12	2.75	1.02	1528	1527	0.35	-0.20	5.43	1.00	0.00	5.34



Stellar Parameters For KIC 005297298

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6129^{+135}_{-123}	$3.991^{+0.175}_{-0.094}$	$-0.140^{+0.150}_{-0.150}$	$1.786^{+0.308}_{-0.377}$	$1.140^{+0.150}_{-0.109}$	$0.282^{+0.249}_{-0.088}$
	+2%/-2%	+4%/-2%	+107%/-107%	+17%/-21%	+13%/-10%	+88%/-31%
Source	SPE18	SPE18	SPE18	DSEP		

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

Secondary Eclipse Parameters for KIC 005297298-01 / KOI 0130.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-23 ± 7	$22.05^{+2.13}_{-2.51}$	1079^{+54}_{-58}	2135^{+76}_{-99}	$1.186^{+0.480}_{-0.334}$
Alt.	-27 ± 9	$22.37^{+2.04}_{-2.50}$	1083^{+53}_{-59}	2190^{+81}_{-125}	$1.402^{+0.595}_{-0.486}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

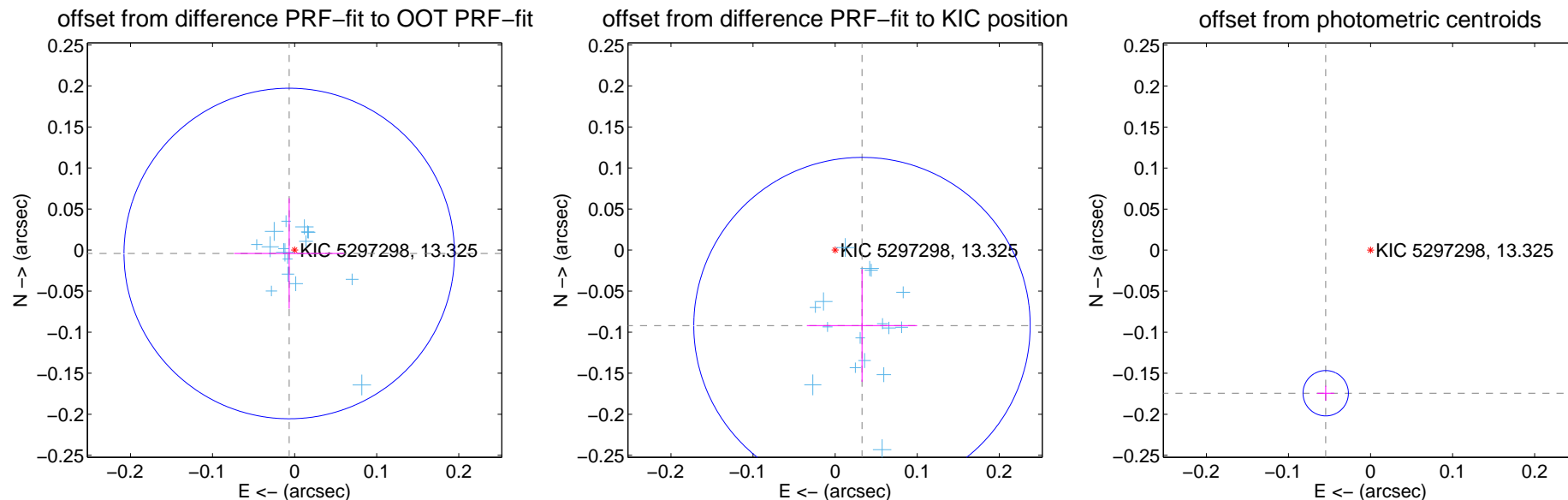
DV Centroid Data

Supplemental centroid analysis for 005297298-01. Kepler magnitude: 13.32. Transit SNR 1303.43

There are 16 quarters with good PRF difference image offsets

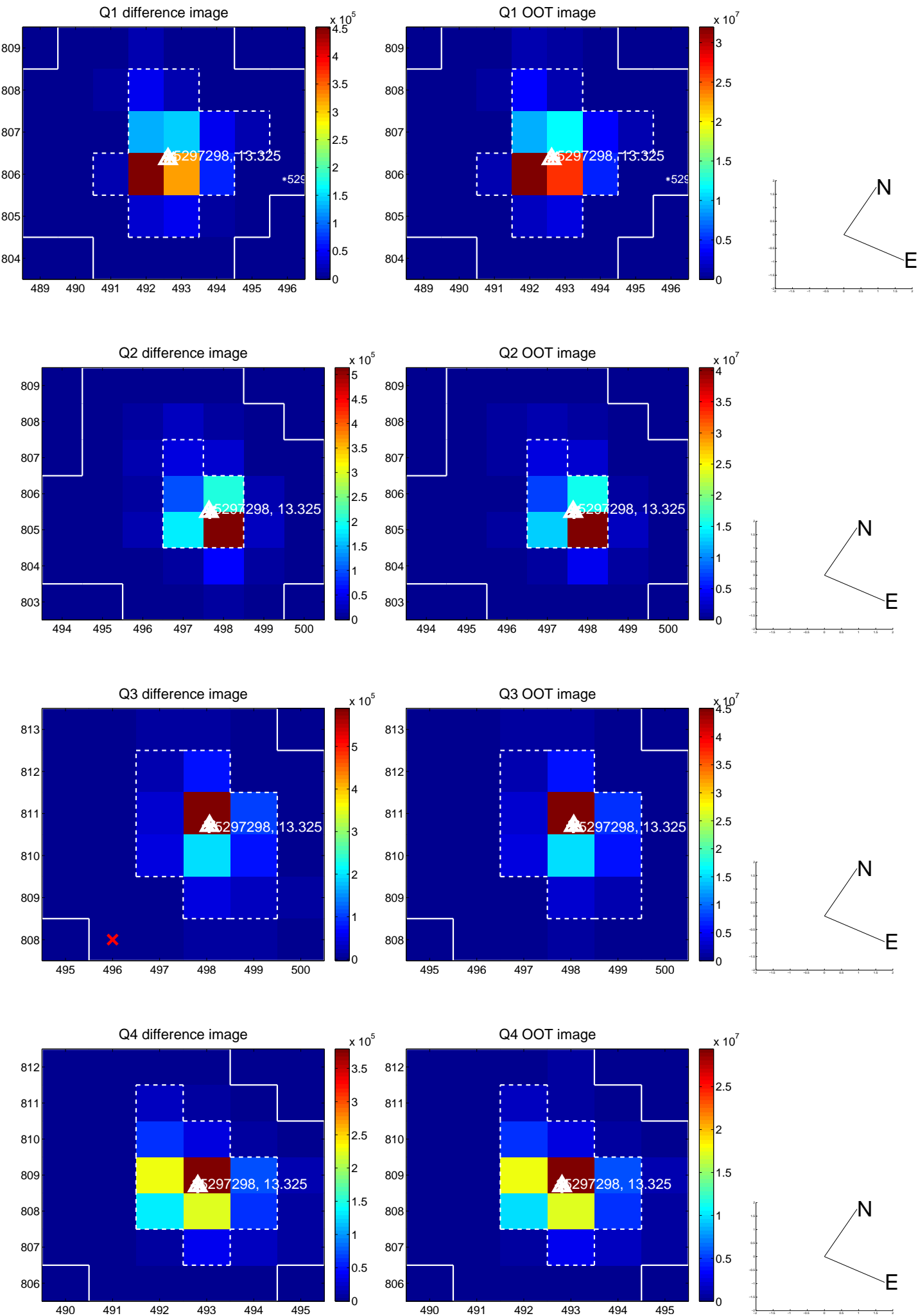
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.008 ± 0.067	0.12	0.007 ± 0.067	-0.004 ± 0.067
PRF-fit source offset from KIC position	0.098 ± 0.068	1.43	-0.033 ± 0.067	-0.092 ± 0.068
photometric centroid source offset	0.18 ± 0.01	19.83	0.05 ± 0.01	-0.17 ± 0.01

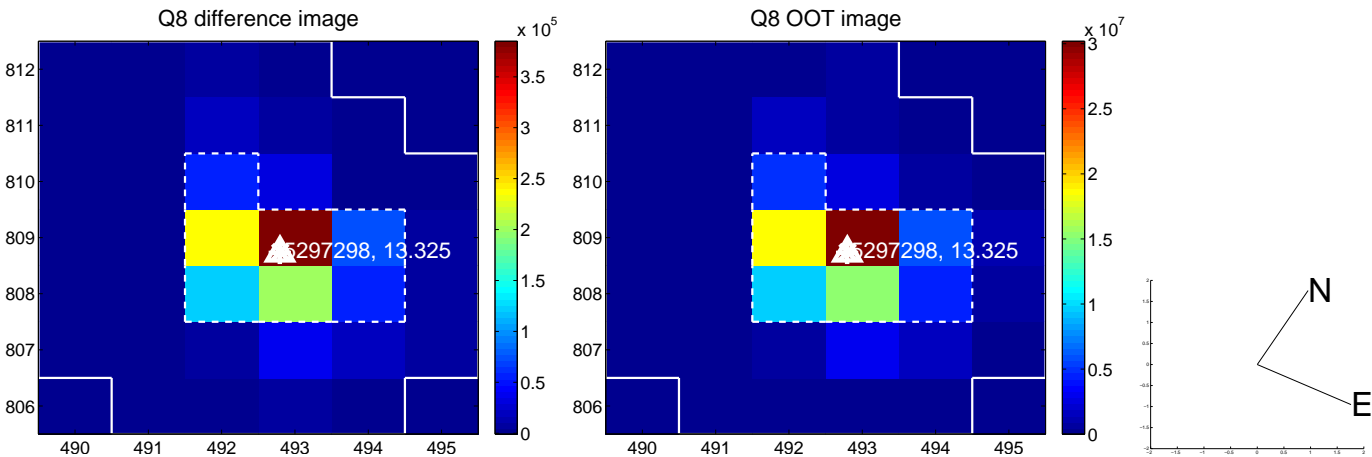
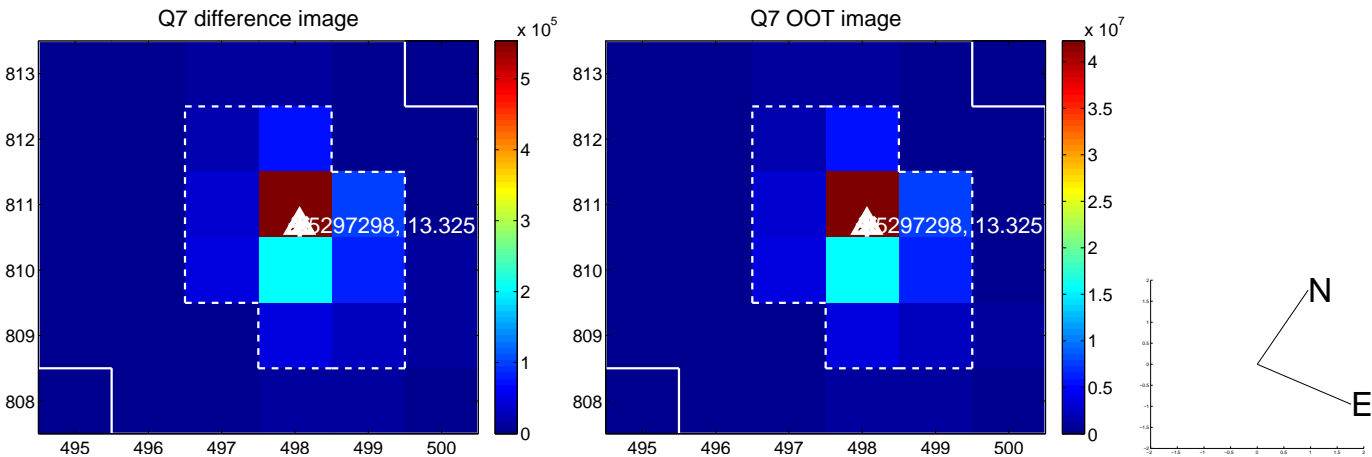
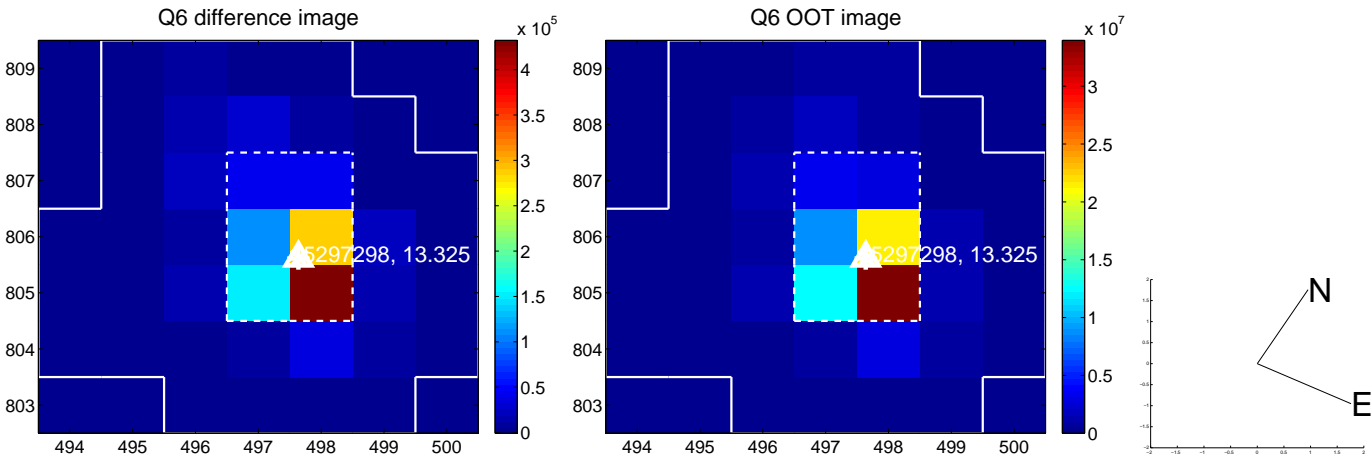
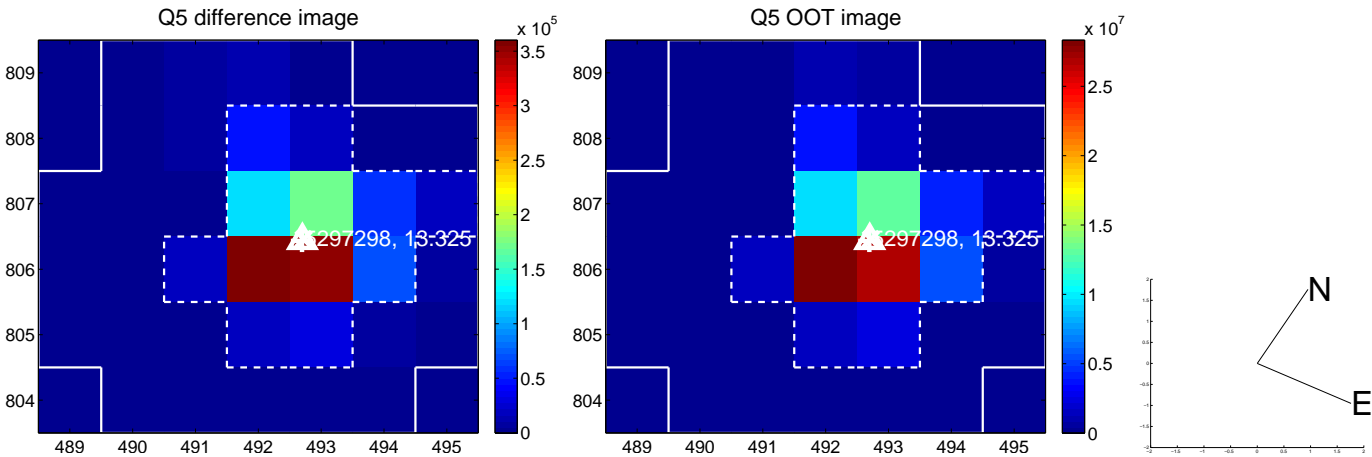


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

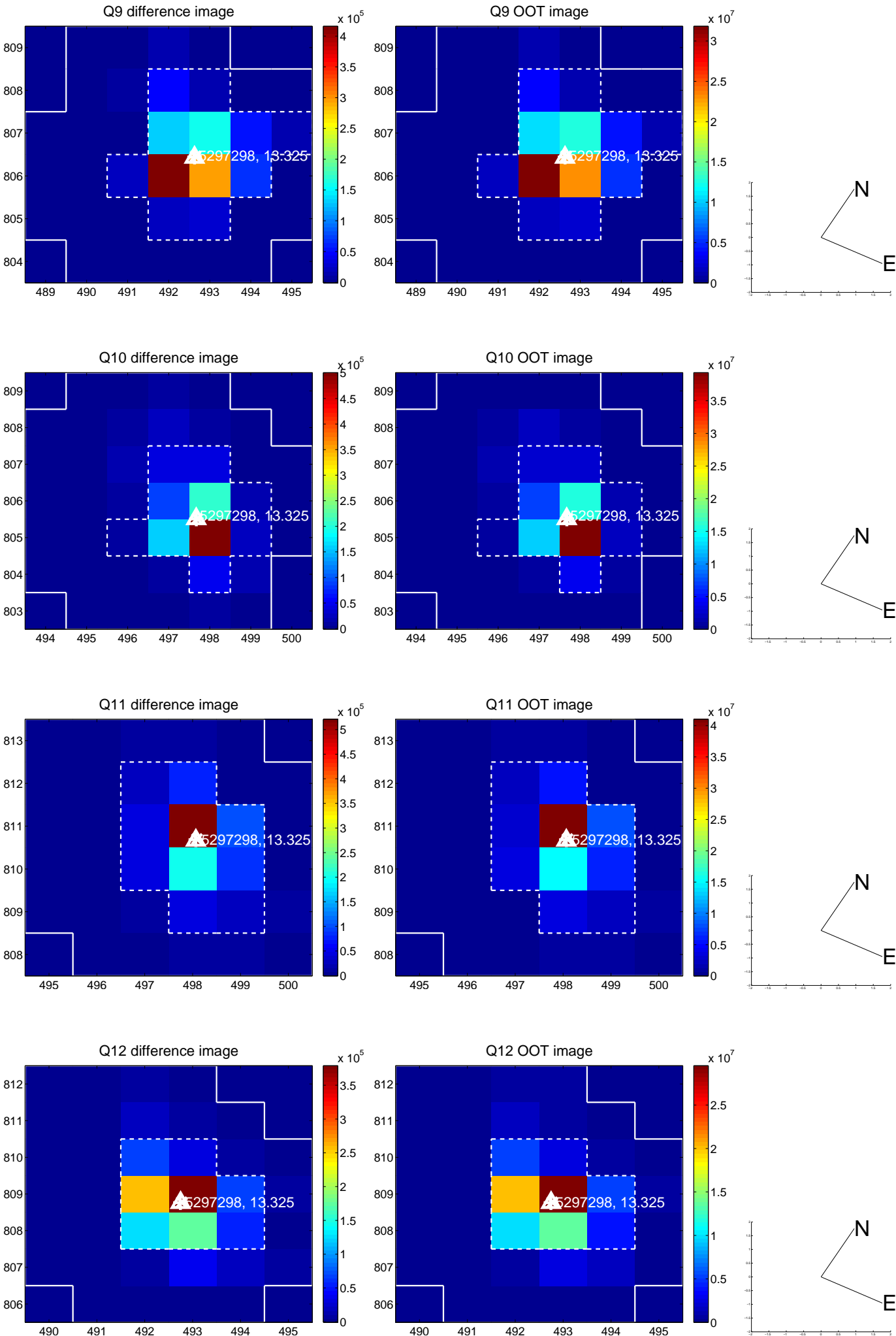
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



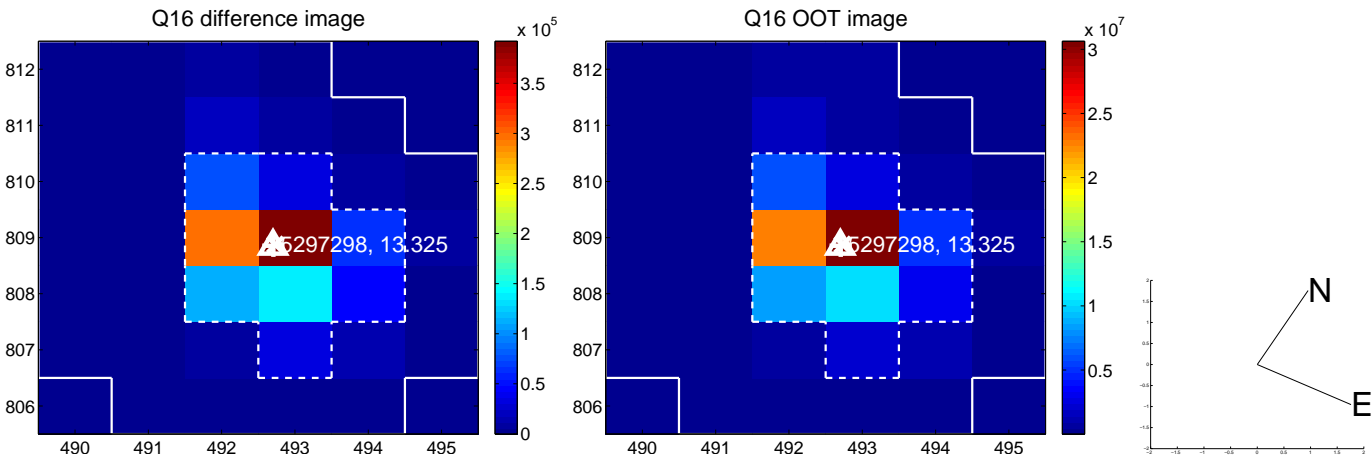
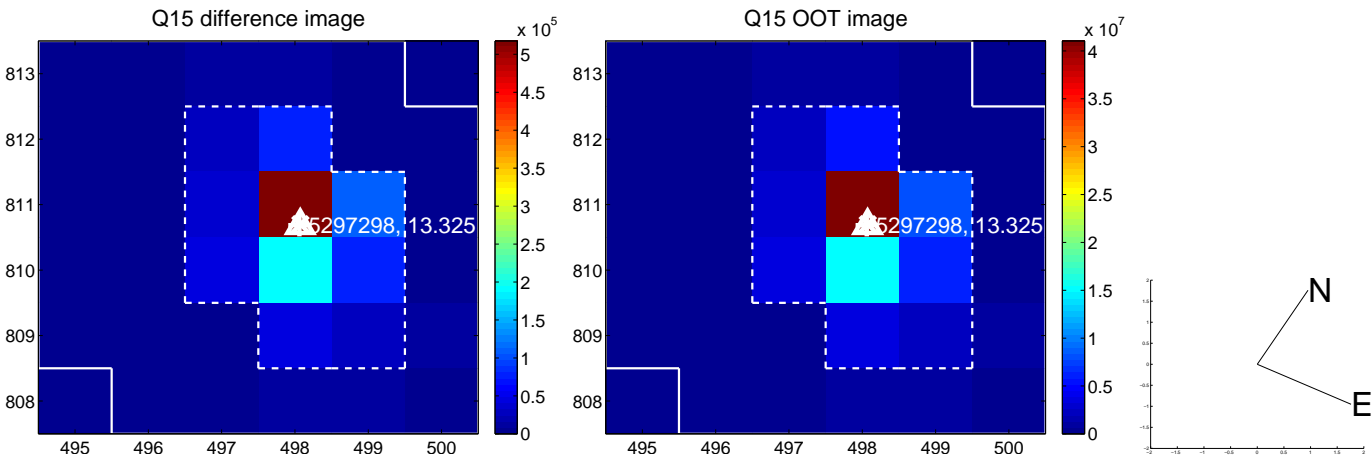
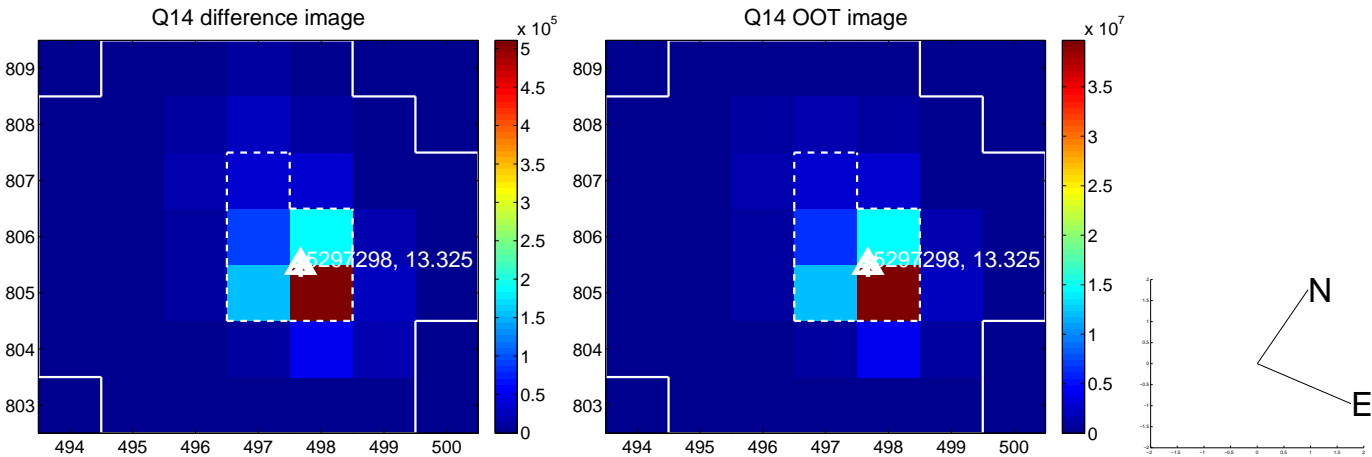
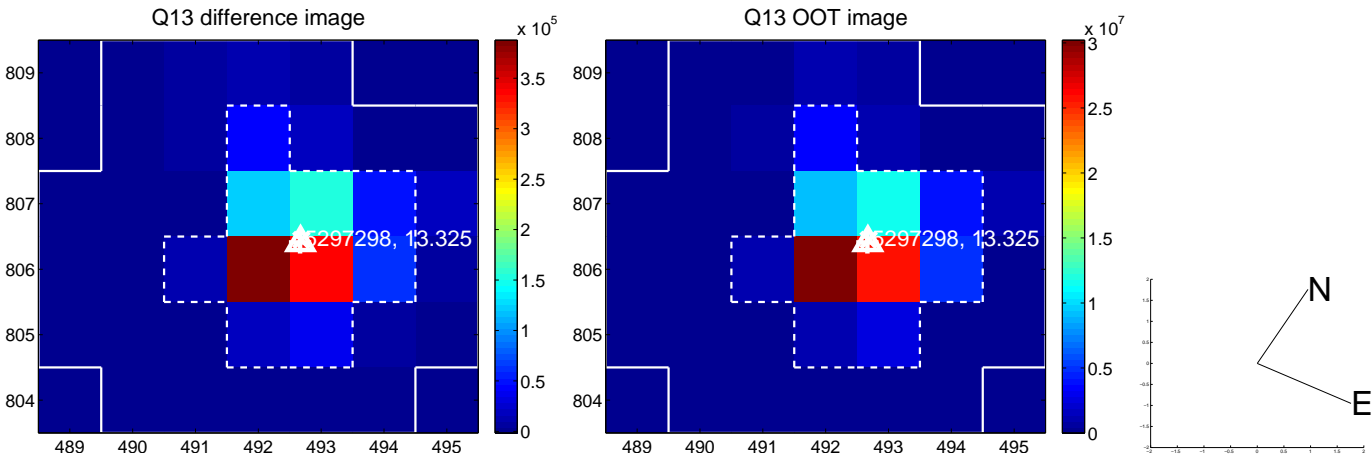
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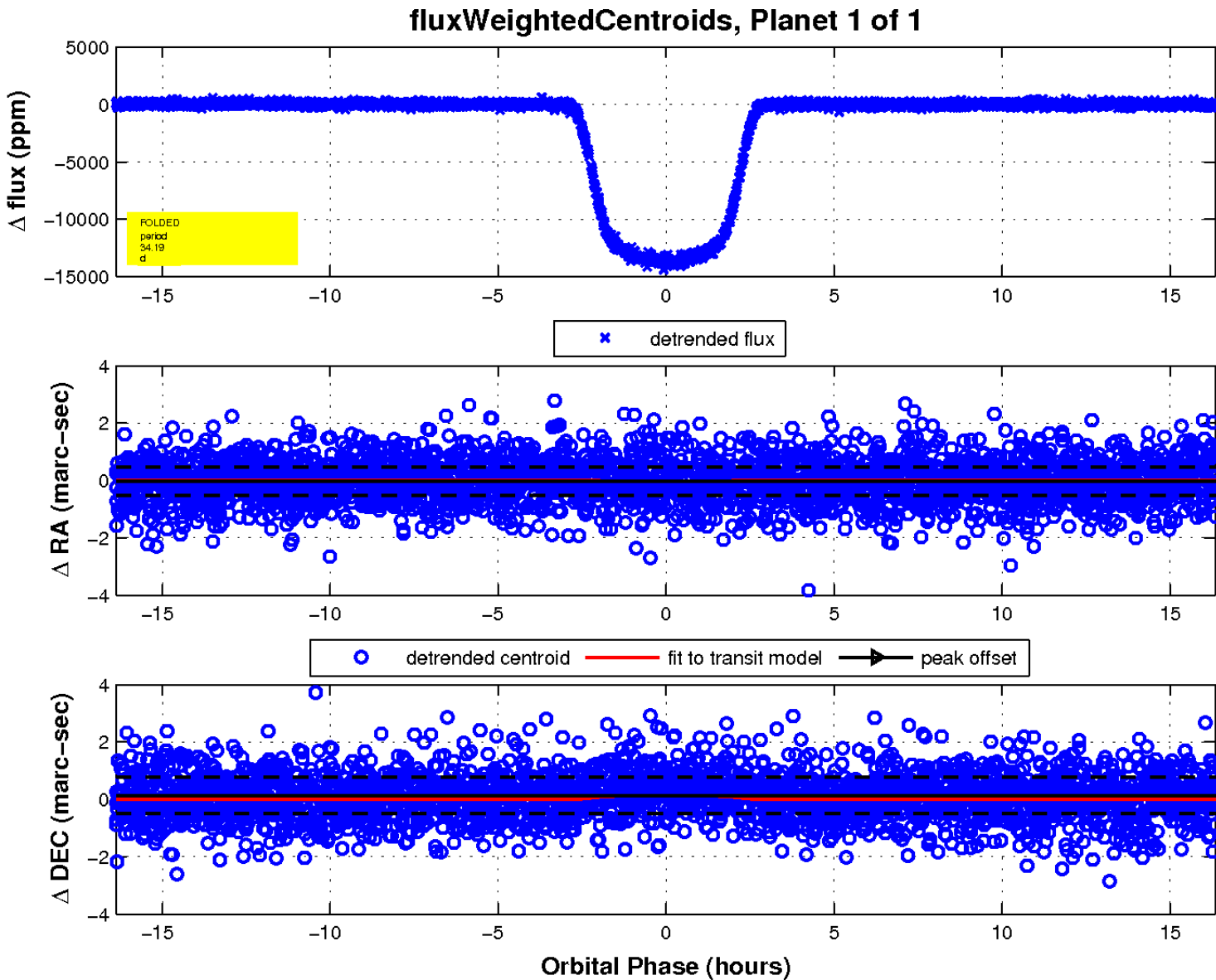
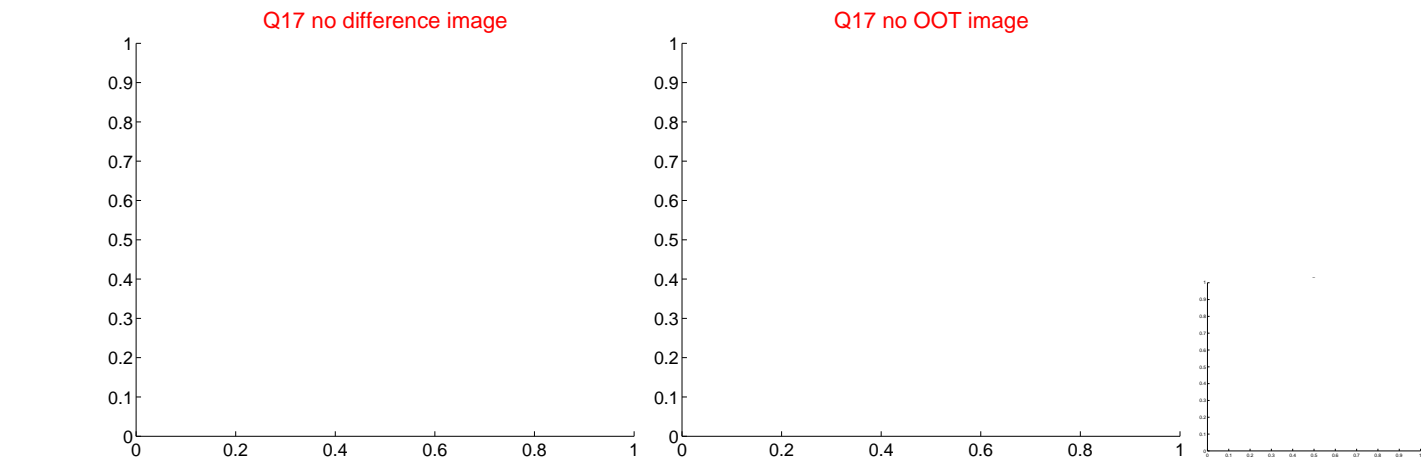
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

