

KIC 011494130

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})
011494130-01	OBS	0978.01	18.955066	148.675142	909.0	24.778	105.7	134.3	2.53	6362	14.49	398.27

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011494130-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_SATURATED

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.

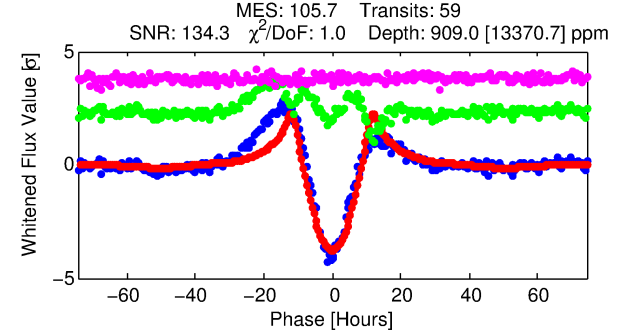
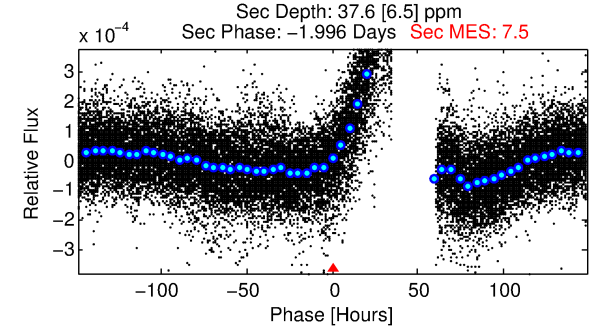
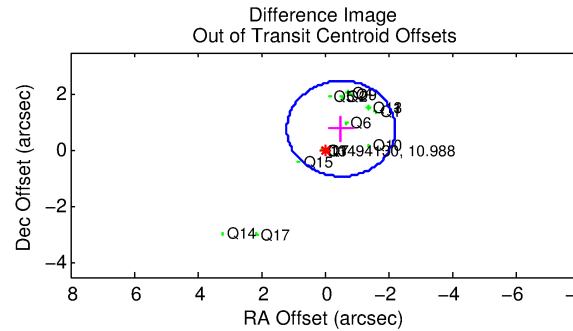
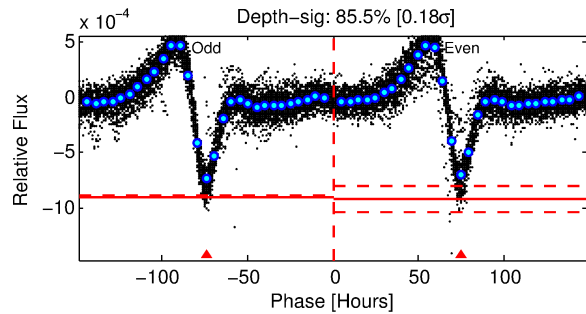
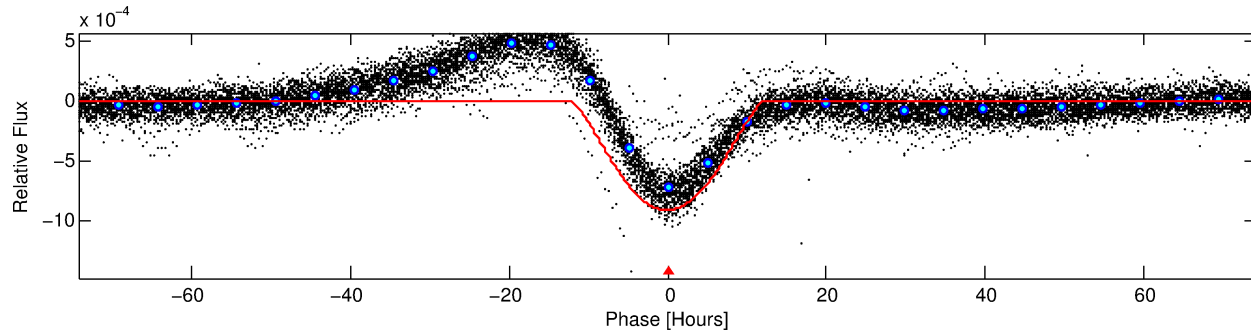
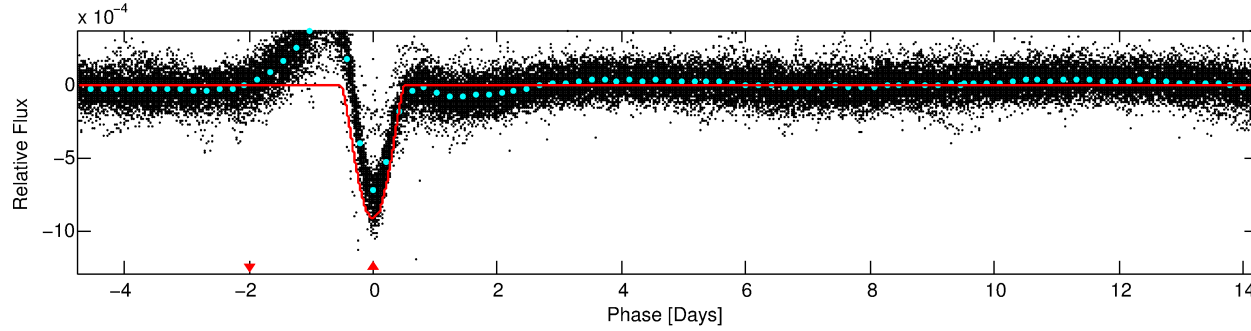
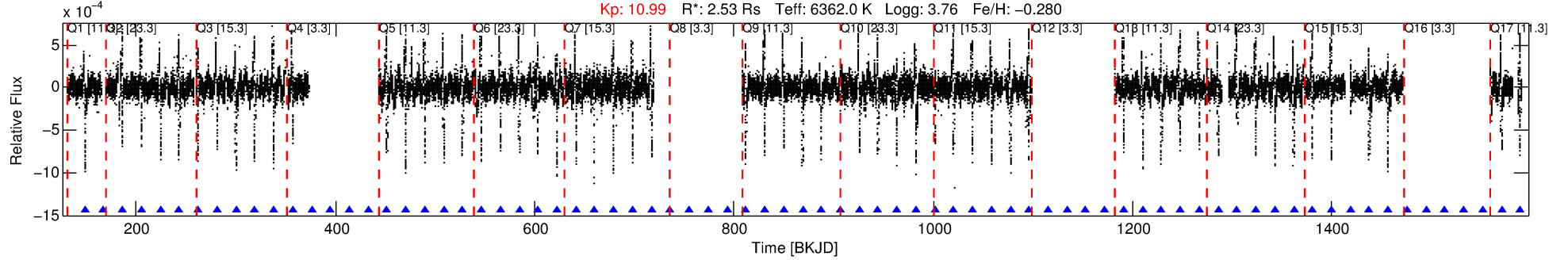
Ephemeris Match Information For 011494130-01

No Significant Match Found

DV One-Page Summary

KIC: 11494130 Candidate: 1 of 1 Period: 18.955 d
KOI: K00978.01 Corr: 0.809

Kp: 10.99 R*: 2.53 Rs Teff: 6362.0 K Logg: 3.76 Fe/H: -0.280



DV Fit Results:

Period = 18.95507 [0.00007] d
Epoch = 148.6751 [0.0030] BKJD
Rp/R* = 0.0524 [0.0064]
a/R* = 2.17 [0.05]
b = 1.00 [0.52]
Seff = 398.27 [159.78]
Teq = 1139 [114] K
Rp = 14.49 [4.43] Re
a = 0.1538 [0.0392] AU
Ag = 2.33 [1.15] [1.16σ]
Teffp = 2177 [168] K [5.10σ]

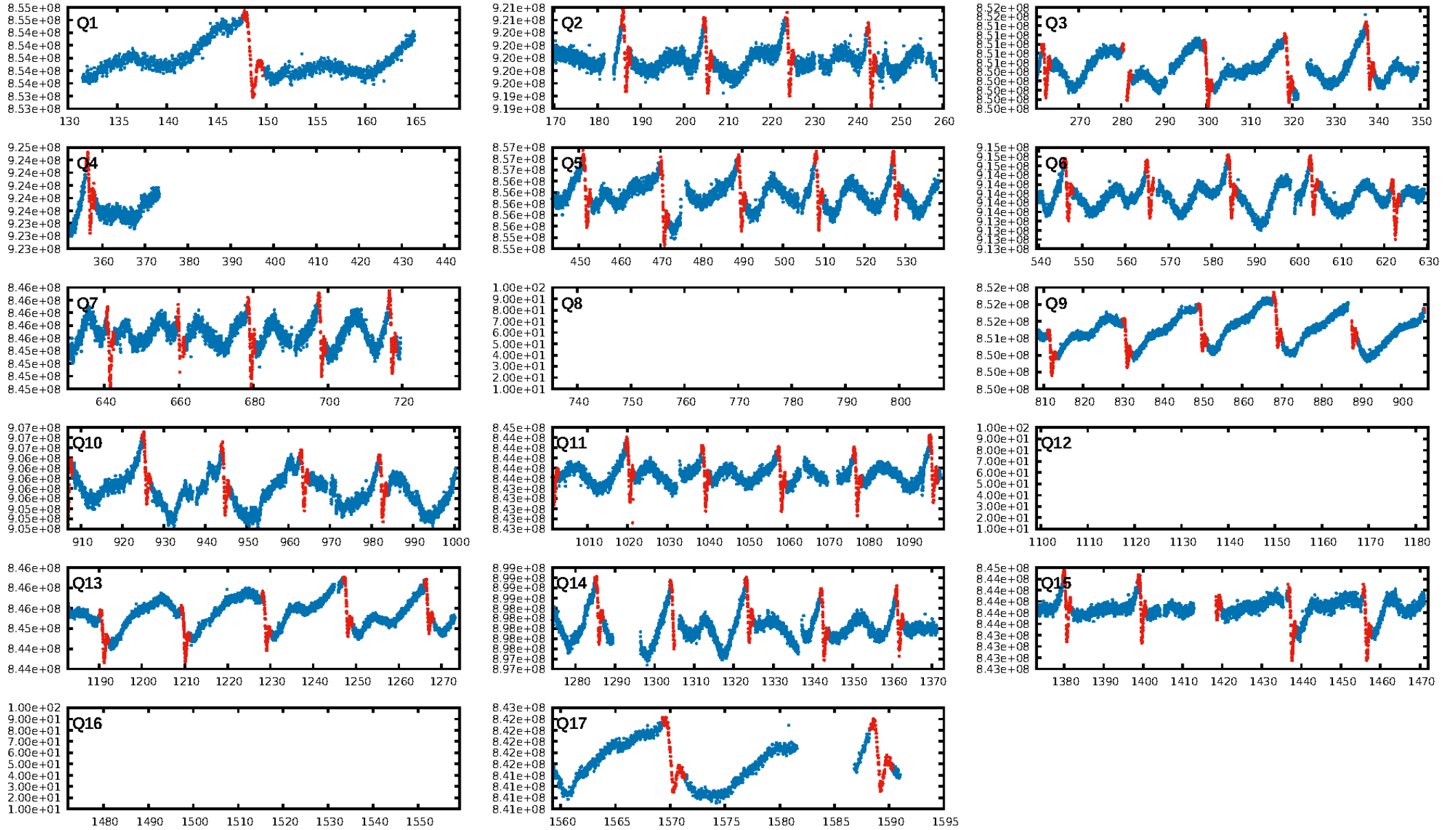
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [55/55]
GhostDiagnostic-chr: 3.144
Centroid-sig: 1.6%
Centroid-so: 0.529 arcsec [10.40σ]
OotOffset-rm: 0.937 arcsec [1.65σ]
KicOffset-rm: 1.134 arcsec [2.15σ]
OotOffset-st: 4/4/1/5 [14]
KicOffset-st: 4/4/1/5 [14]
DiffImageQuality-fgm: 0.86 [12/14]
DiffImageOverlap-fno: 1.00 [14/14]

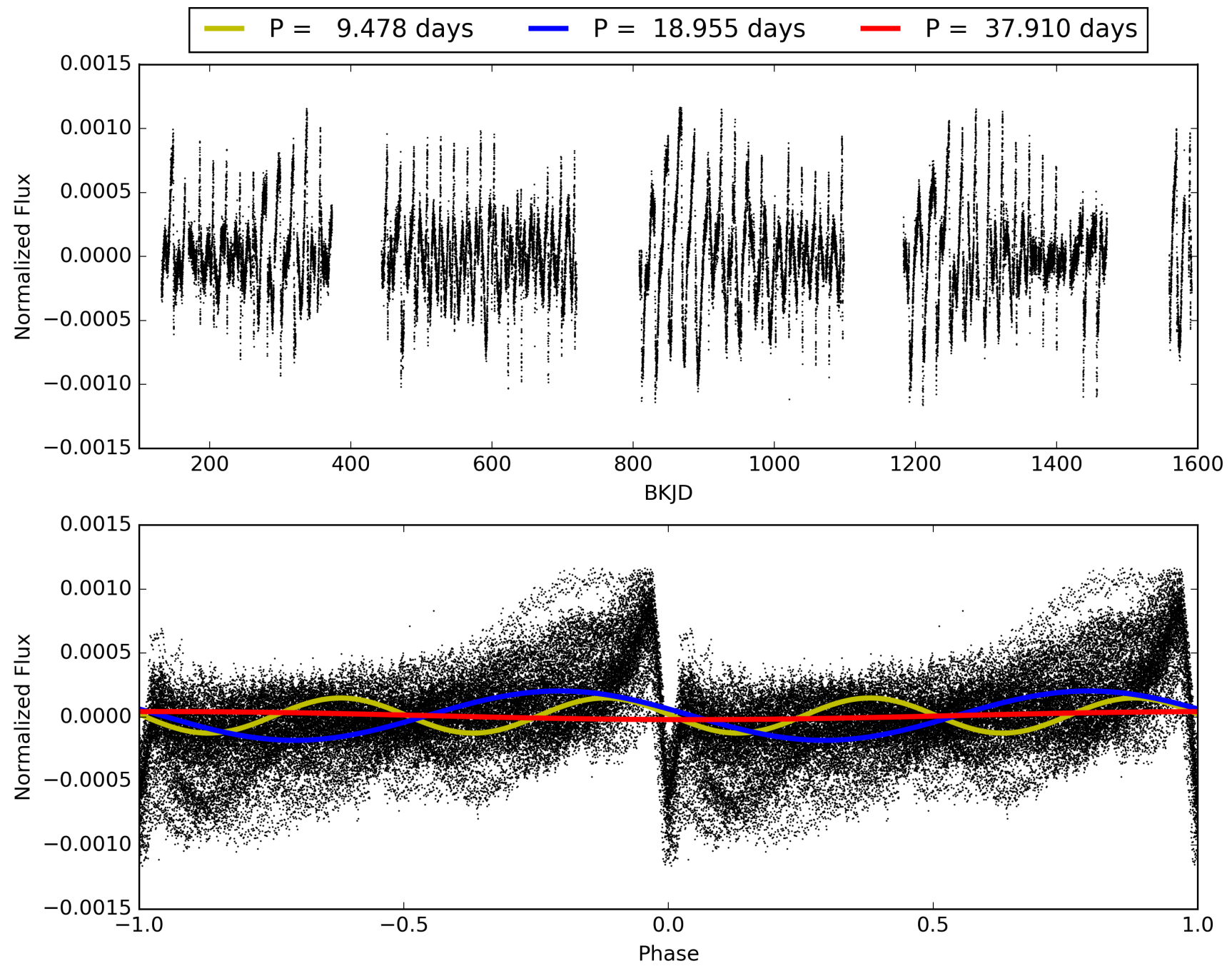
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:44:35 Z

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

TCE 011494130-01, PDC Light Curves

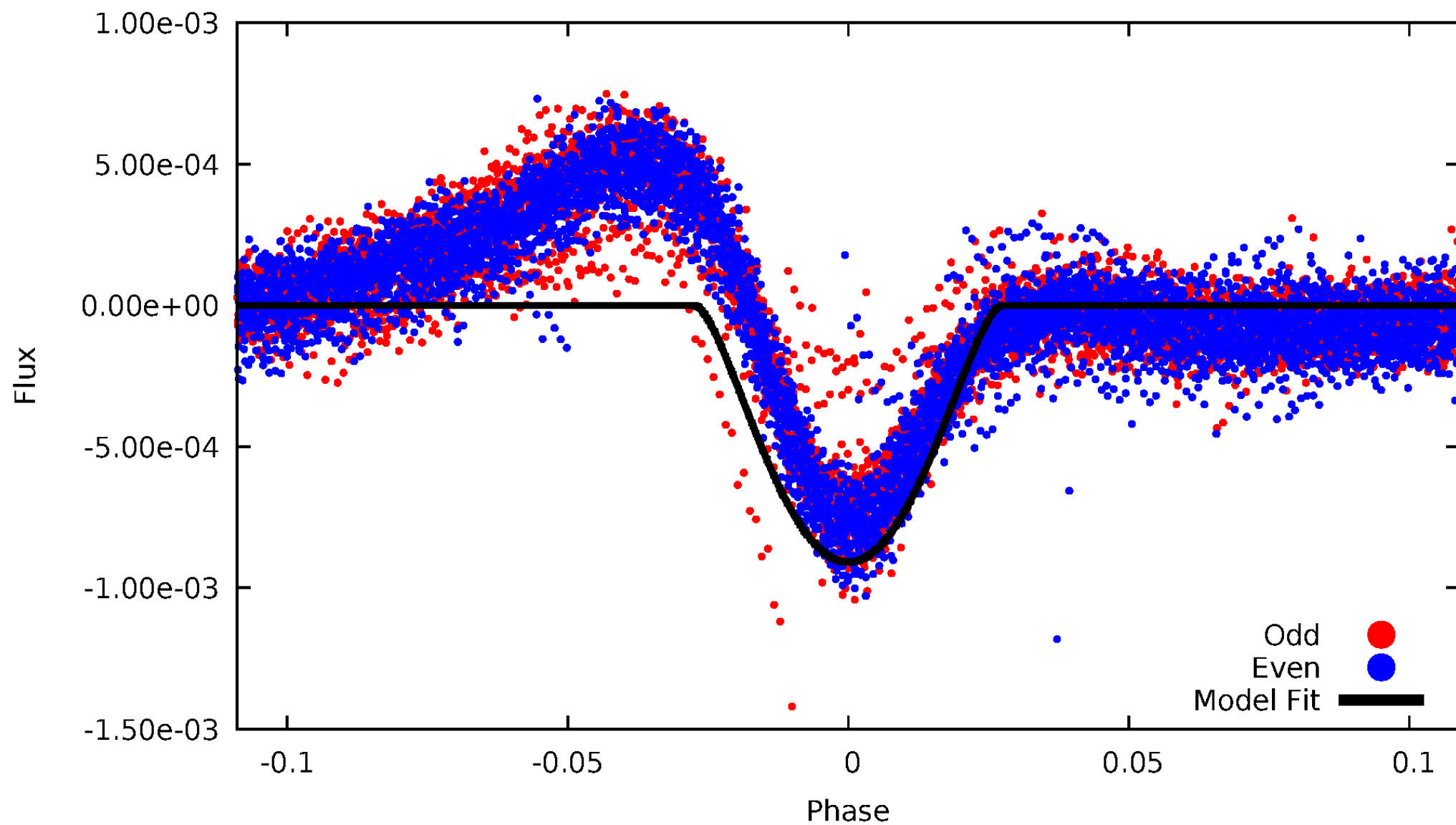


TCE 011494130-01



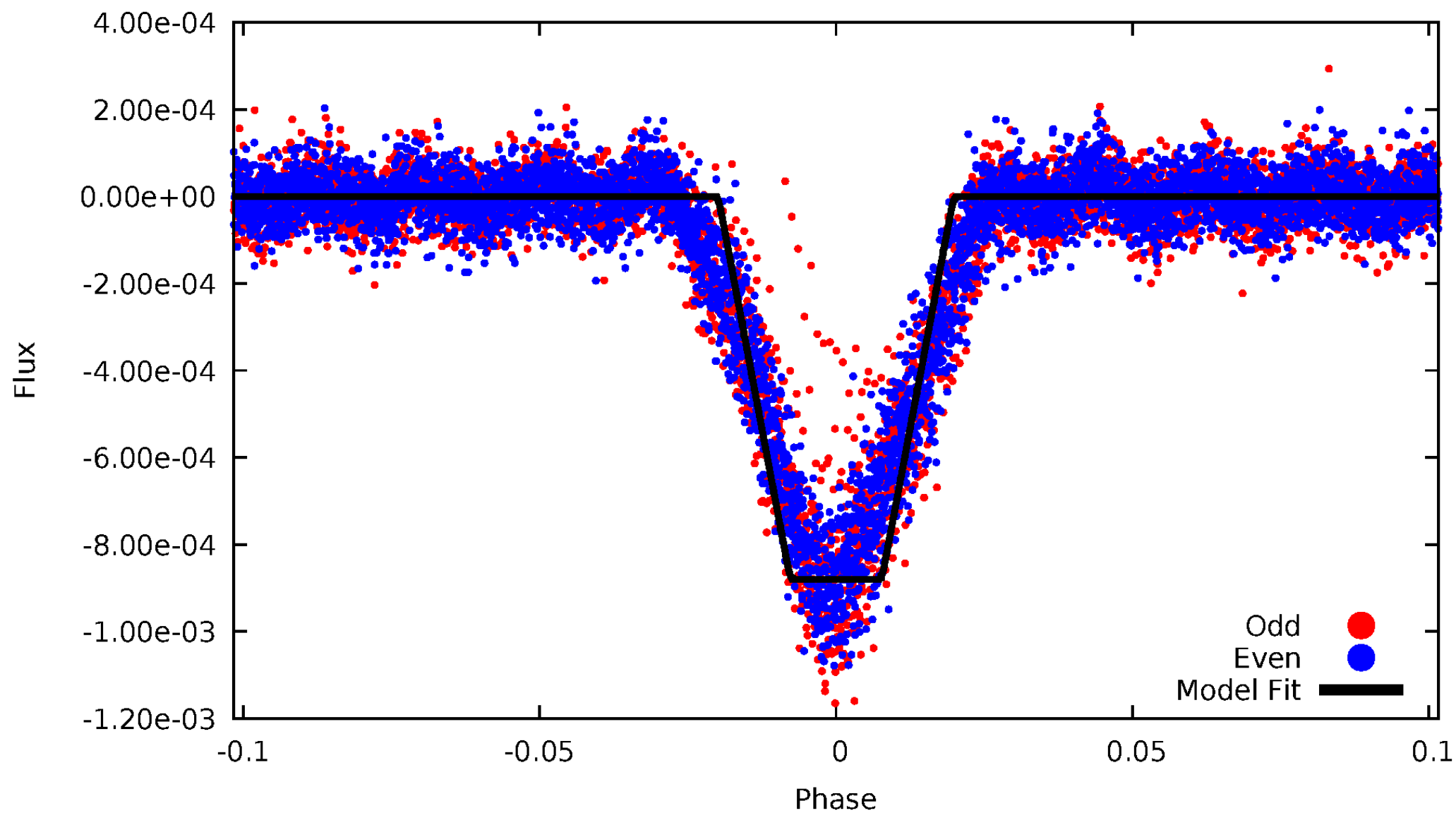
DV Odd/Even

TCE 011494130-01

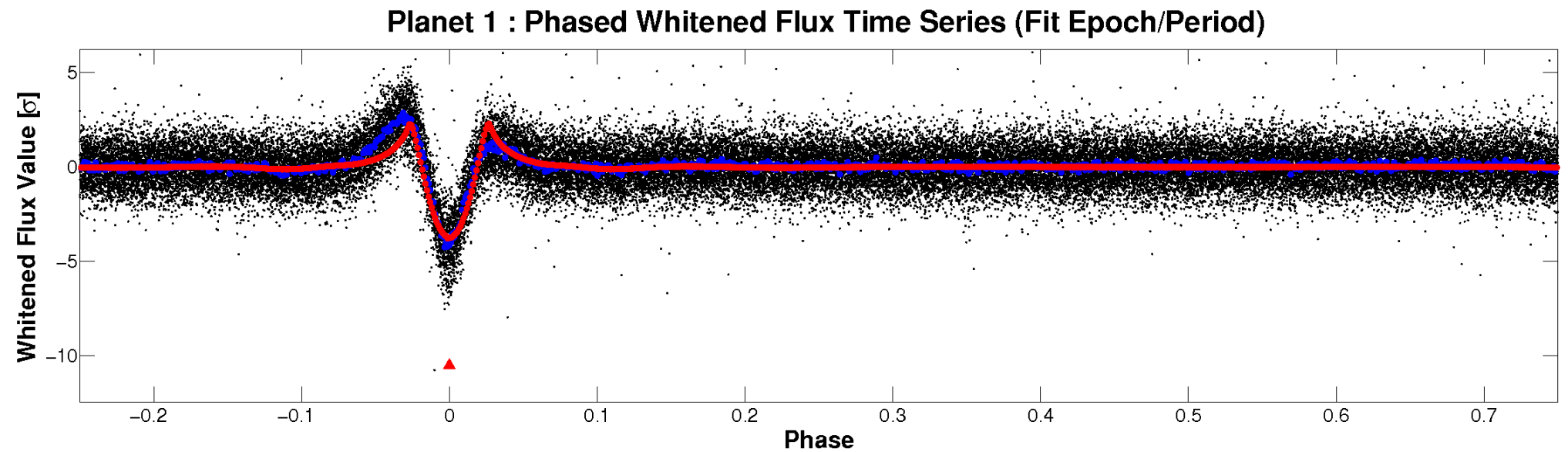
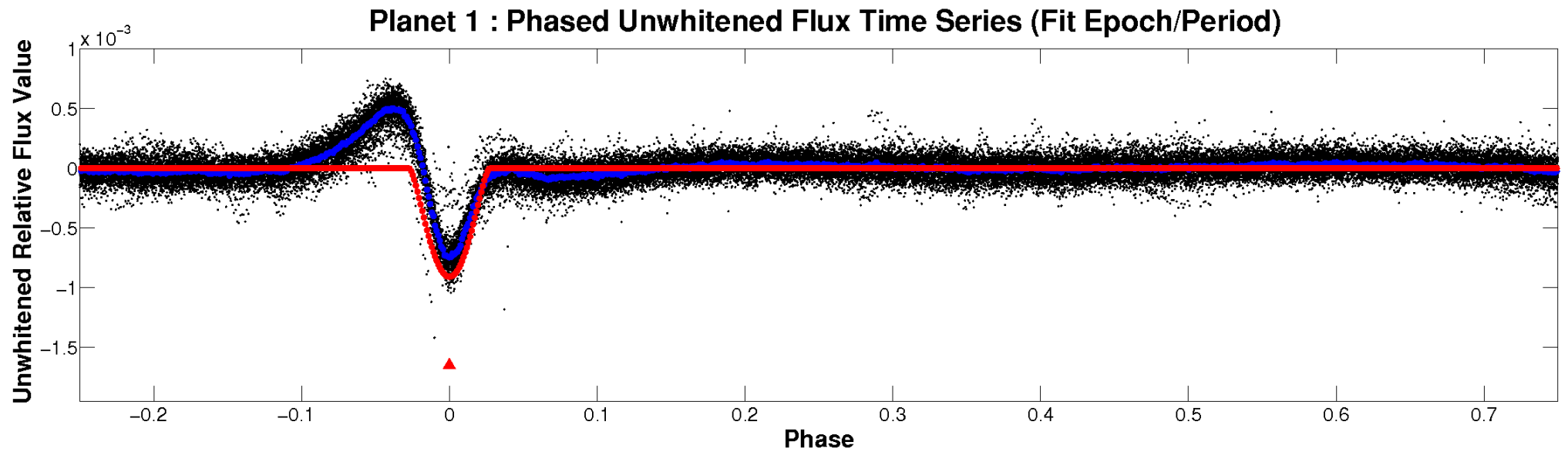


ALT Odd/Even

TCE 011494130-01

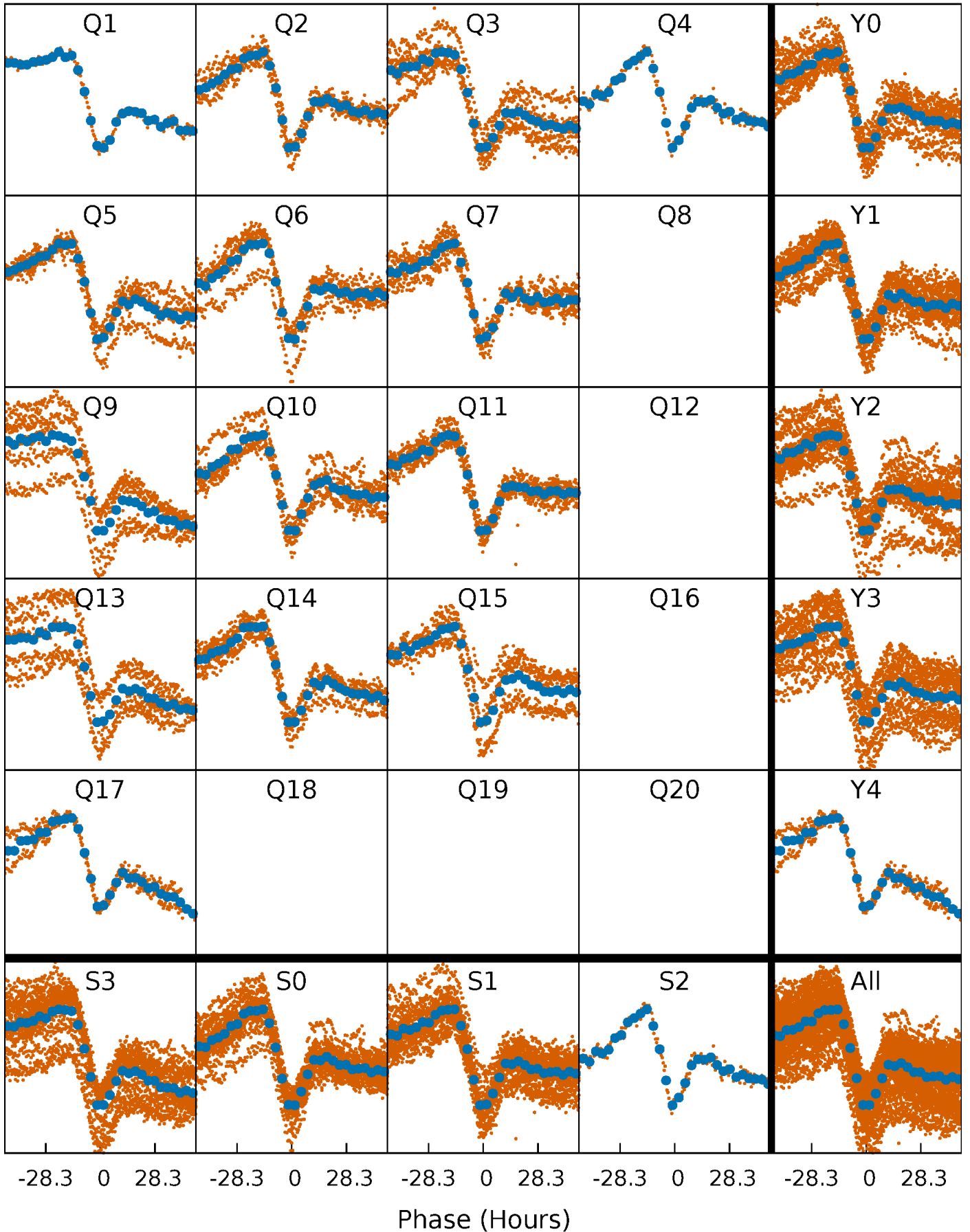


Non-Whitened Vs. Whitened Light Curve



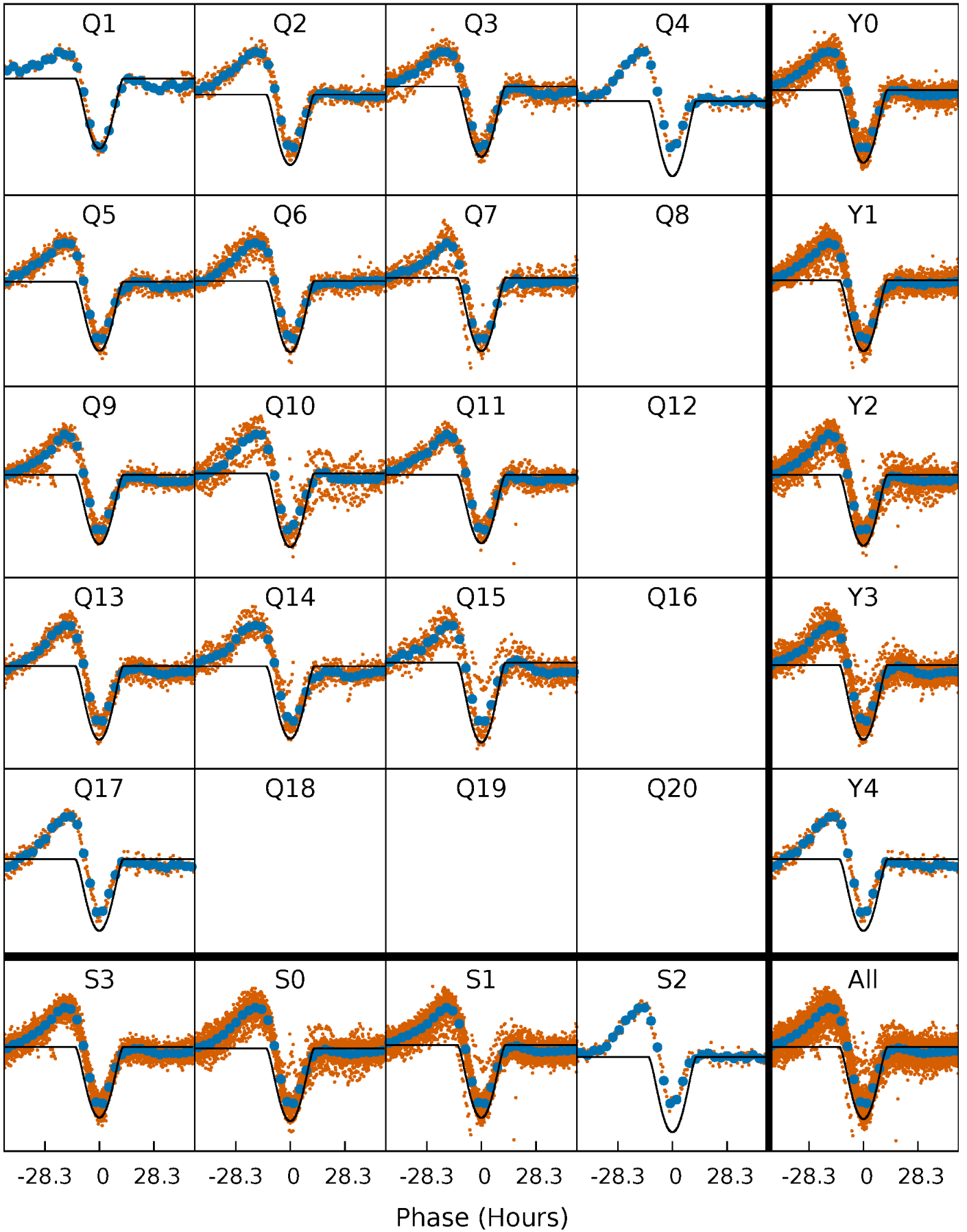
PDC Quarter-Phased Transit Curves

TCE 011494130-01 P= 18.955066 Days $T_0=148.675142$ (BKJD)



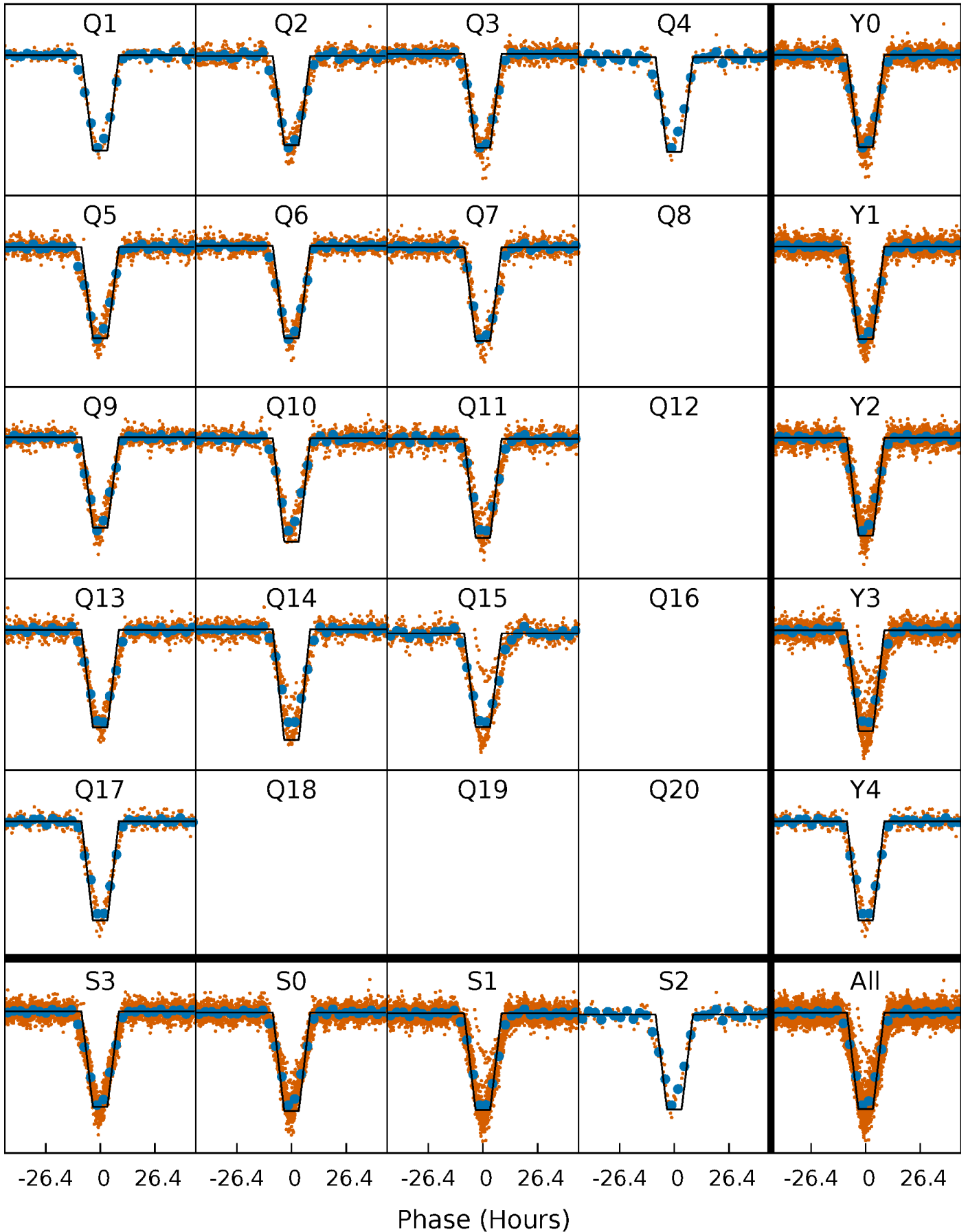
DV Quarter-Phased Transit Curves

TCE 011494130-01 P= 18.955066 Days $T_0=148.675142$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

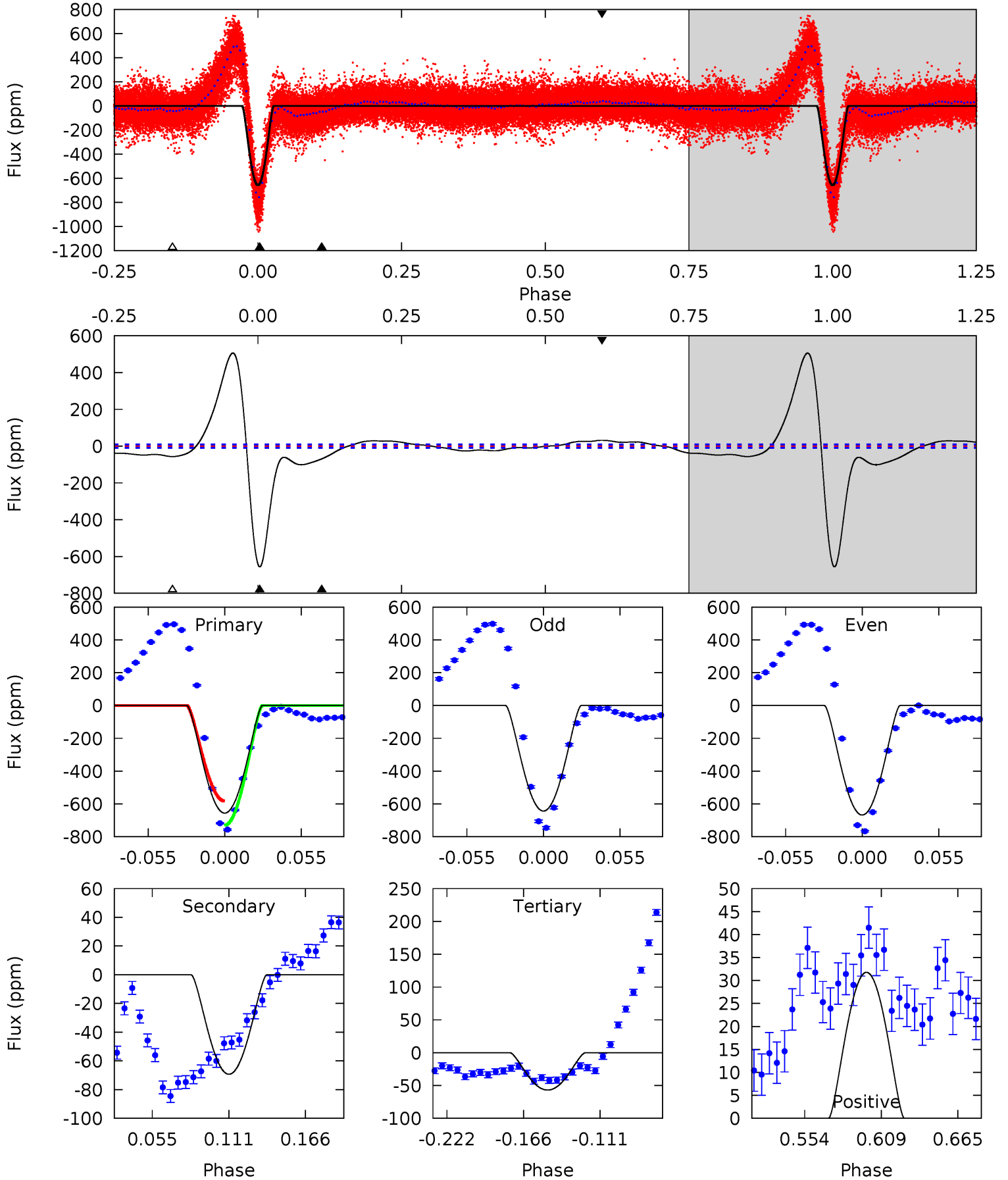
TCE 011494130-01 P= 18.954471 Days $T_0=148.673021$ (BKJD)



DV Model-Shift Uniqueness Test

011494130-01, P = 18.955066 Days, E = 129.720076 Days

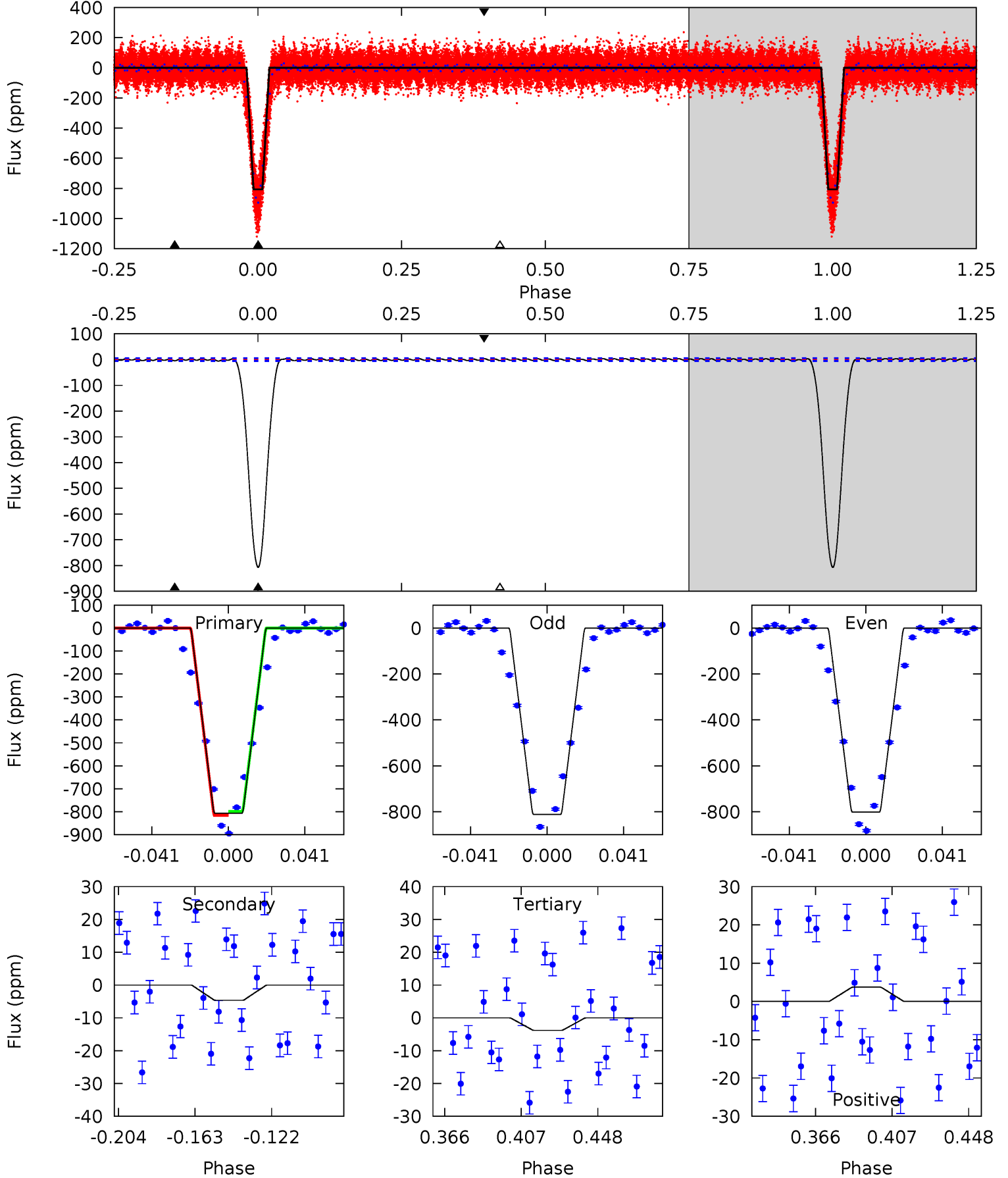
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
349.7	36.9	30.4	16.9	4.69	1.92	36.3	319.4	332.8	6.59	20.0	6.47	0.99	0.44	0



Alt Model-Shift Uniqueness Test

011494130-01, P = 18.954471 Days, E = 129.718550 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
671.5	3.86	3.19	3.11	4.75	2.05	1.75	668.3	668.3	0.68	0.76	4.32	0.99	0.01	7.01



Stellar Parameters For KIC 011494130

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6362^{+129}_{-116}	$3.761^{+0.225}_{-0.075}$	$-0.280^{+0.150}_{-0.150}$	$2.534^{+0.305}_{-0.712}$	$1.352^{+0.169}_{-0.207}$	$0.117^{+0.154}_{-0.028}$
	+2%/-2%	+6%/-2%	+54%/-54%	+12%/-28%	+12%/-15%	+132%/-24%
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 011494130-01 / KOI 0978.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-69±2	$13.86^{+2.66}_{-2.29}$	1574^{+72}_{-101}	3128^{+130}_{-121}	$4.661^{+2.137}_{-1.216}$
Alt.	-5±1	$7.88^{+2.05}_{-1.89}$	1581^{+64}_{-112}	2426^{+235}_{-209}	$0.956^{+0.783}_{-0.388}$

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

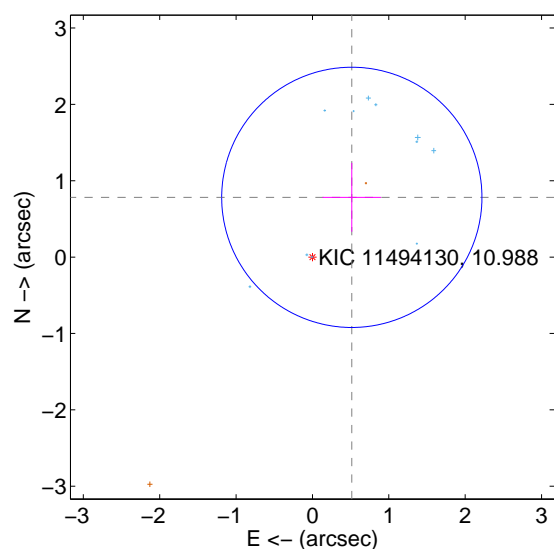
Supplemental centroid analysis for 011494130-01. **Kepler magnitude: 10.99.** Transit SNR 134.30

There are 12 quarters with good PRF difference image offsets

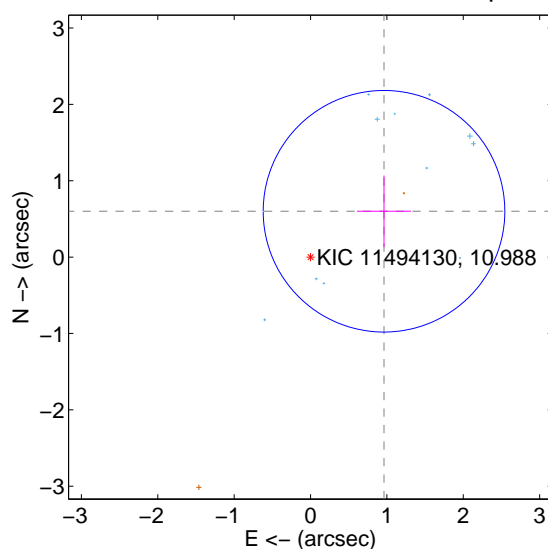
The direct PRF centroid is offset from the target star catalog position by about 0.67 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.937 ± 0.568	1.65	-0.516 ± 0.384	0.782 ± 0.451
PRF-fit source offset from KIC position	1.134 ± 0.527	2.15	-0.962 ± 0.354	0.600 ± 0.469
photometric centroid source offset	0.53 ± 0.05	10.40	-0.29 ± 0.05	-0.44 ± 0.05

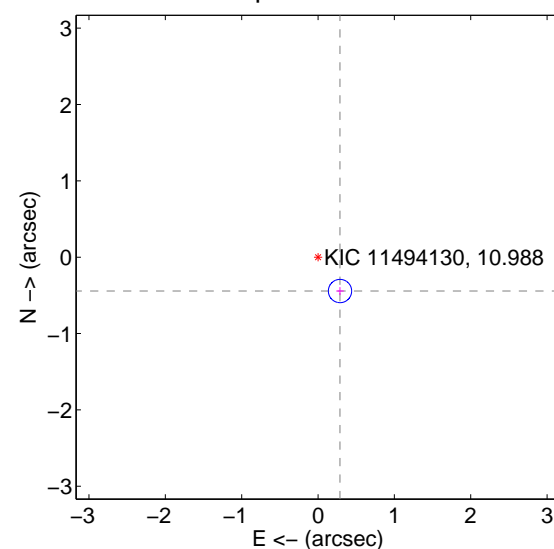
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

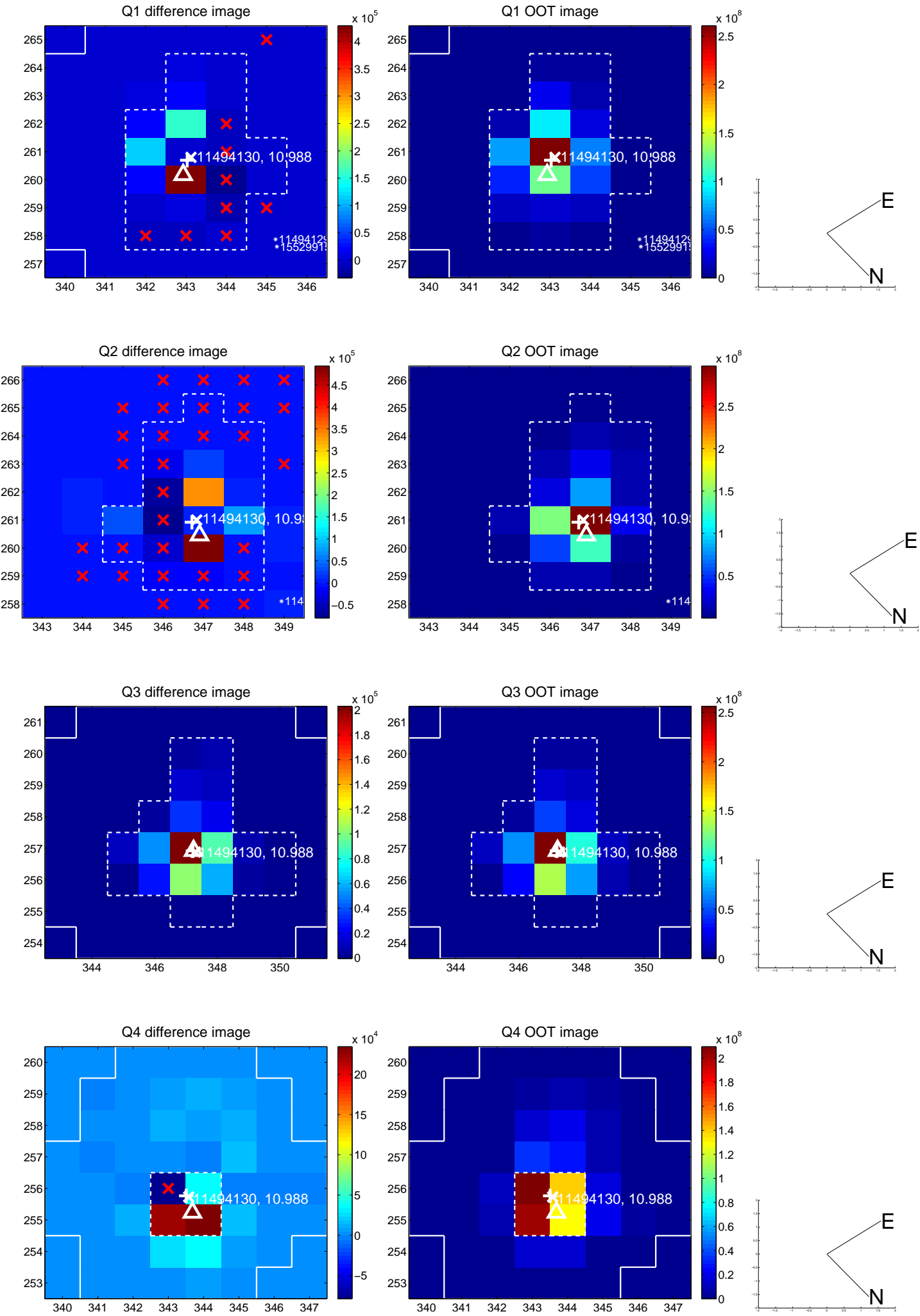


offset from photometric centroids

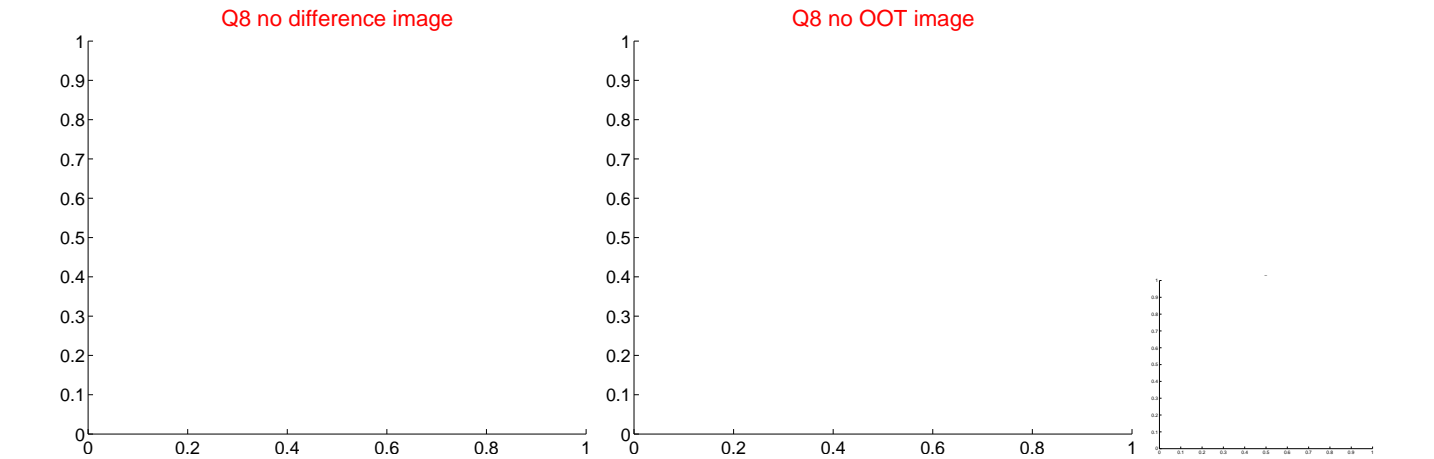
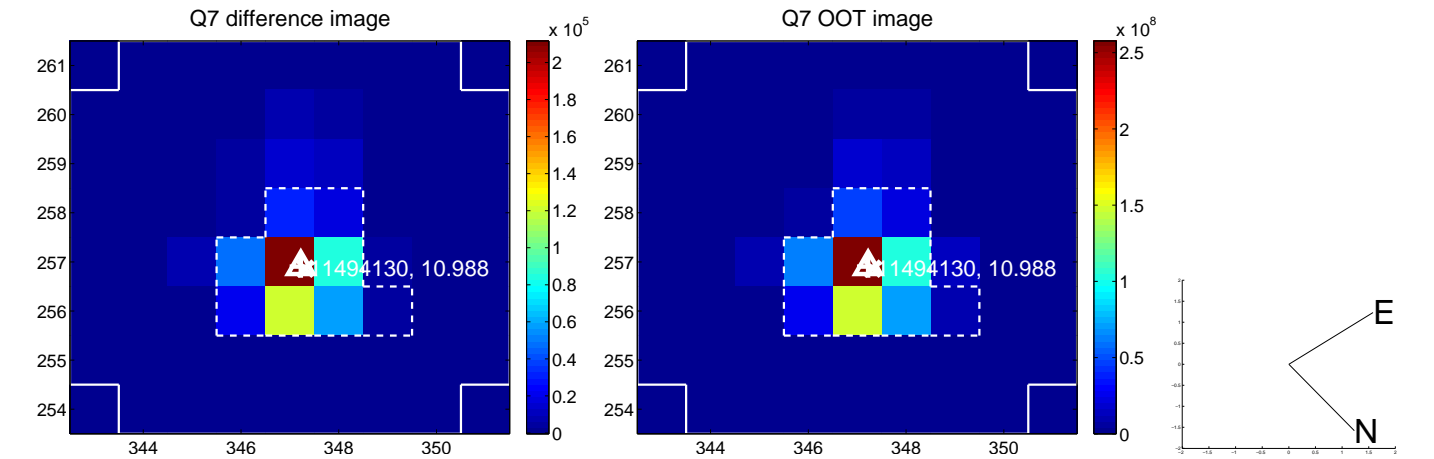
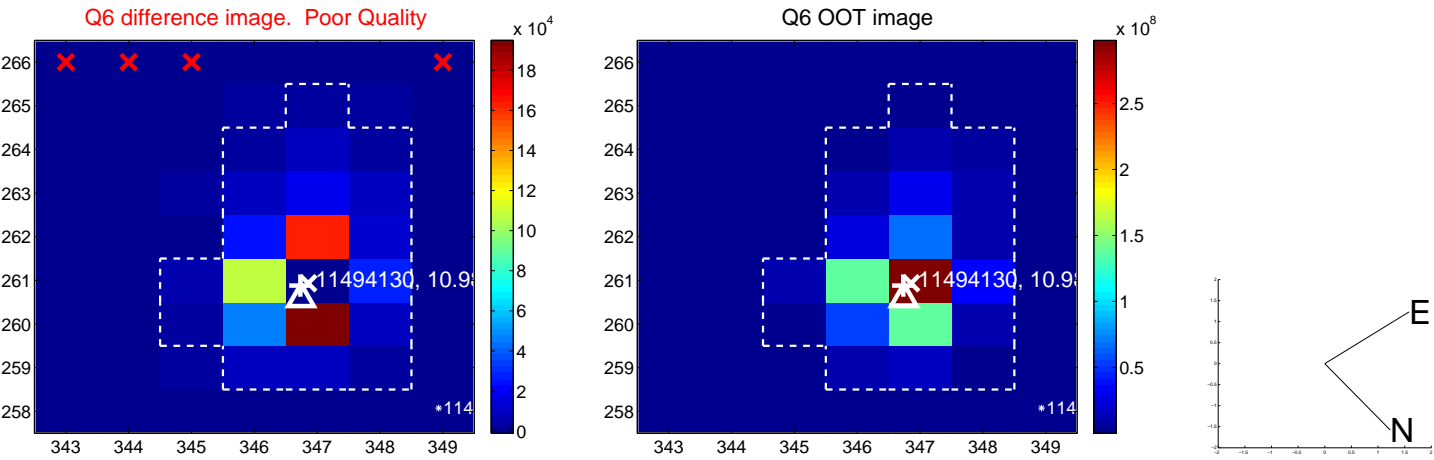
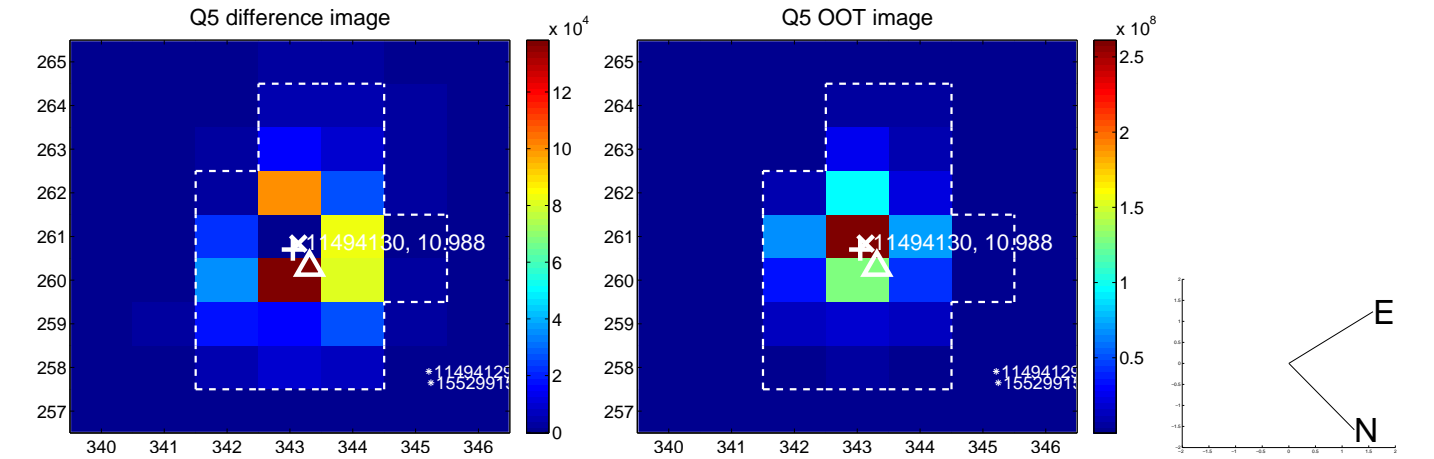


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

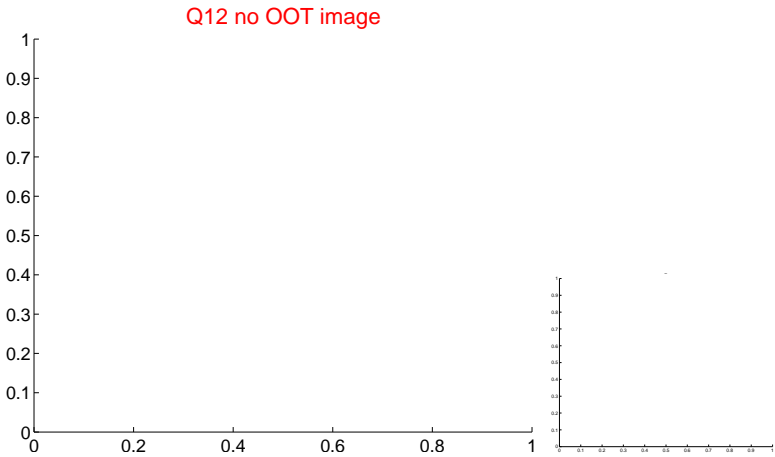
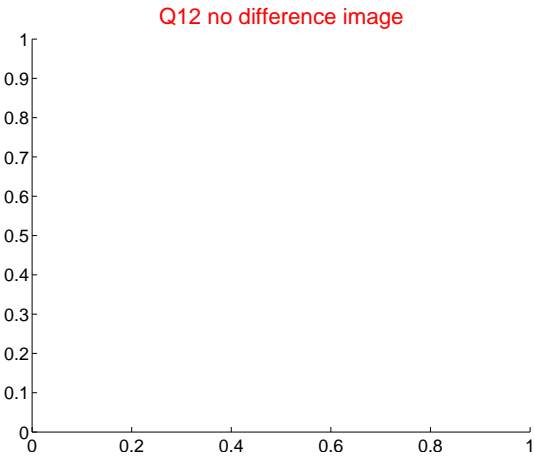
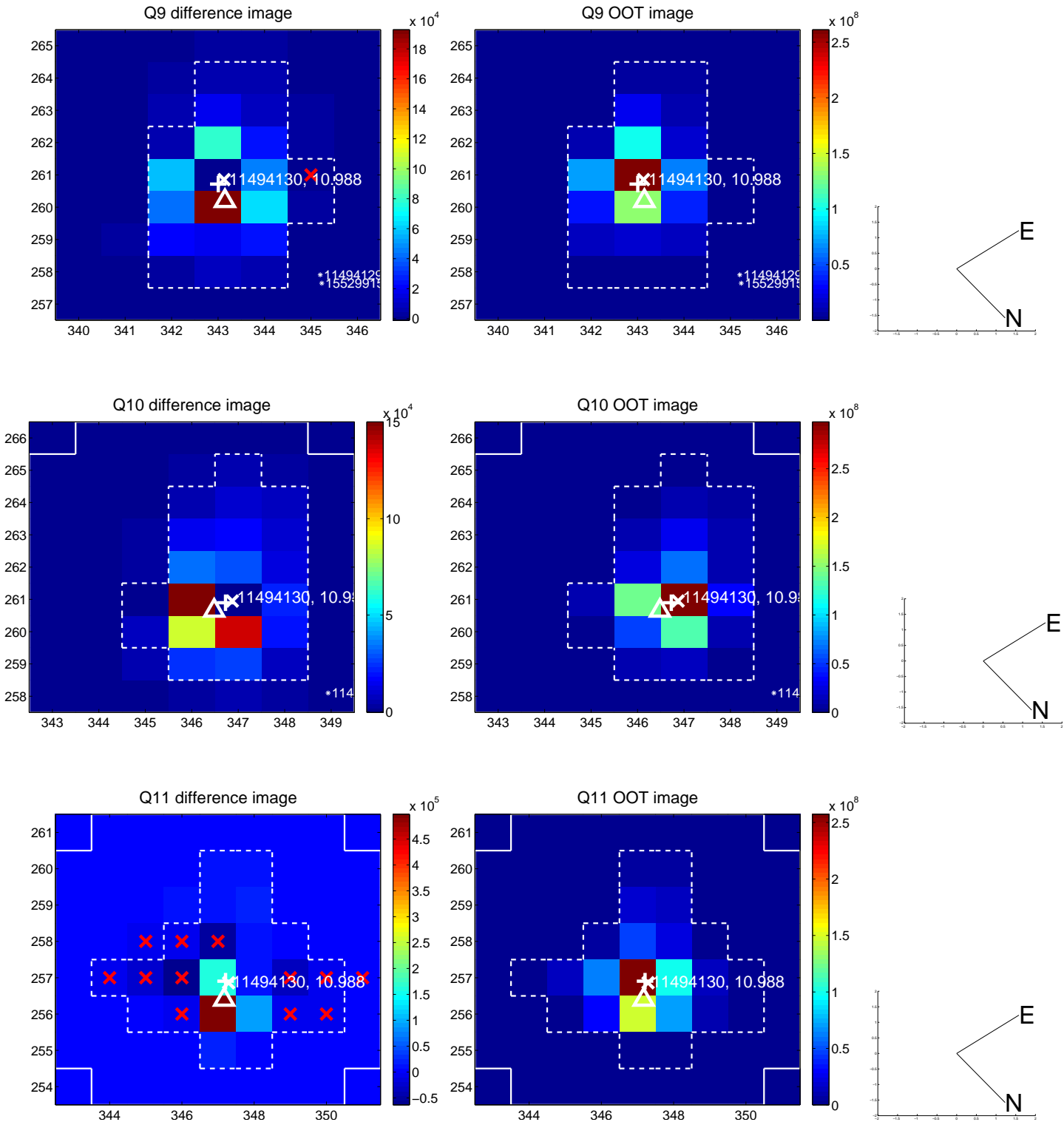
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



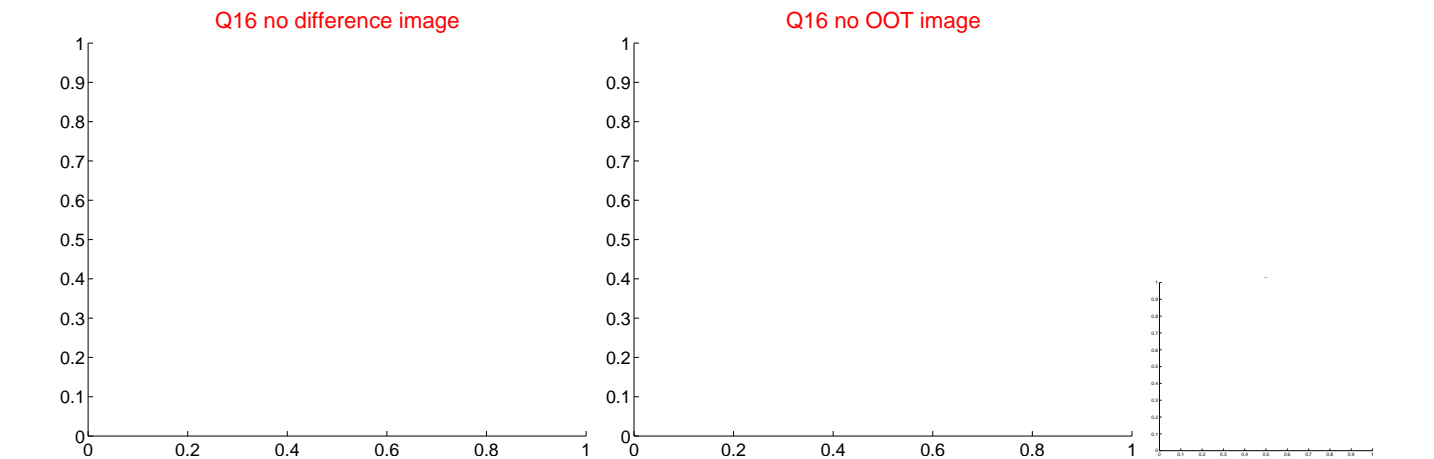
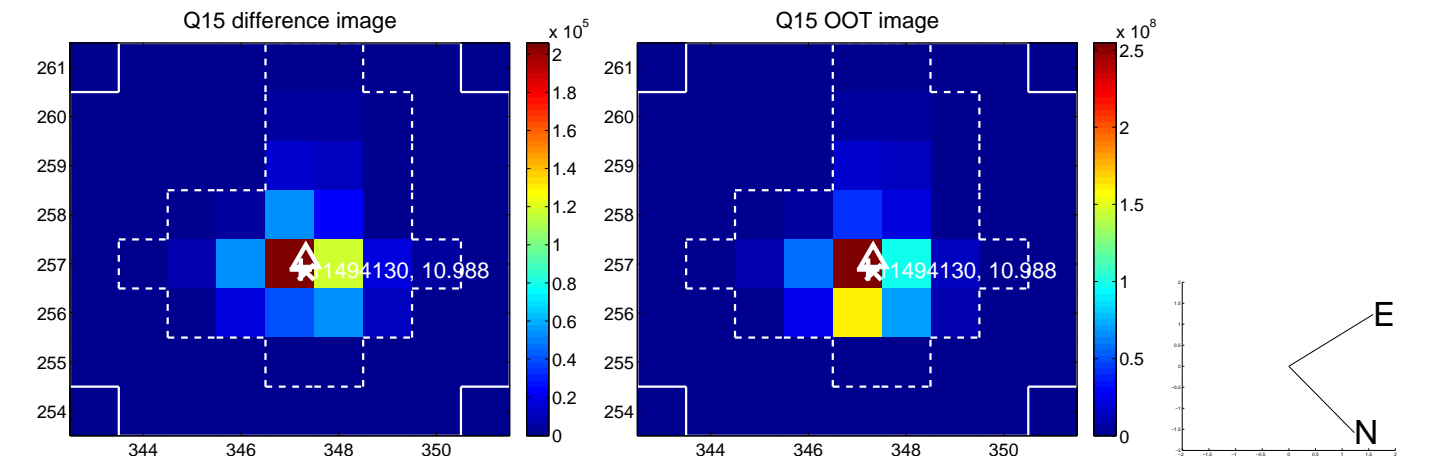
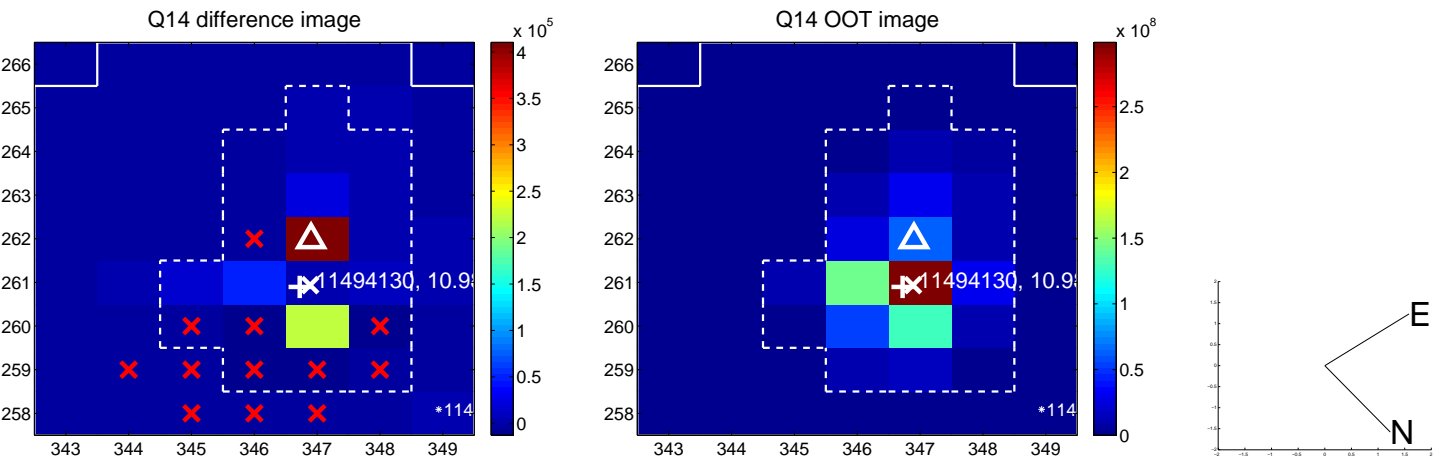
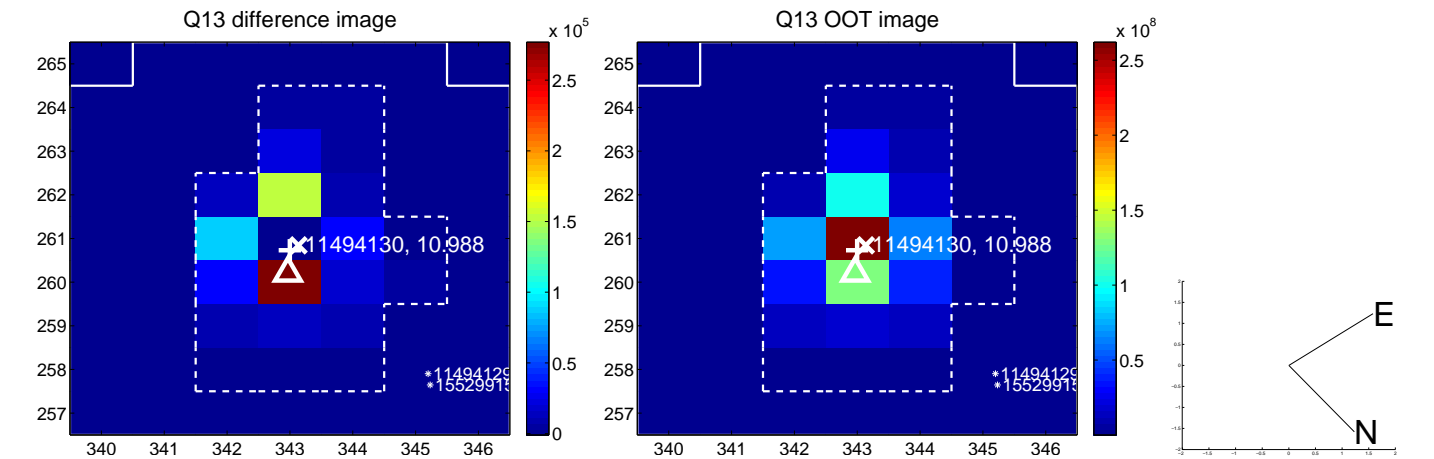
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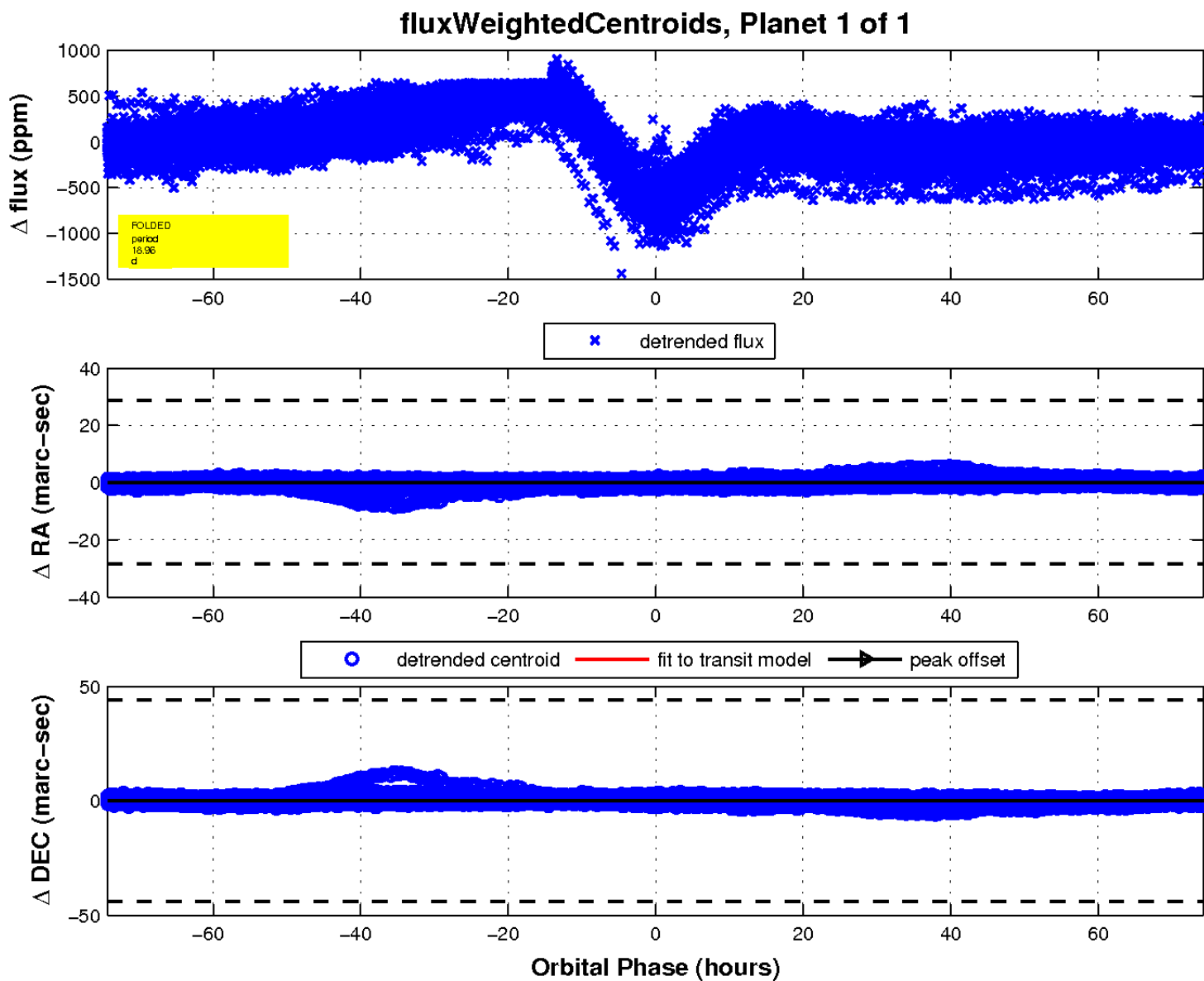
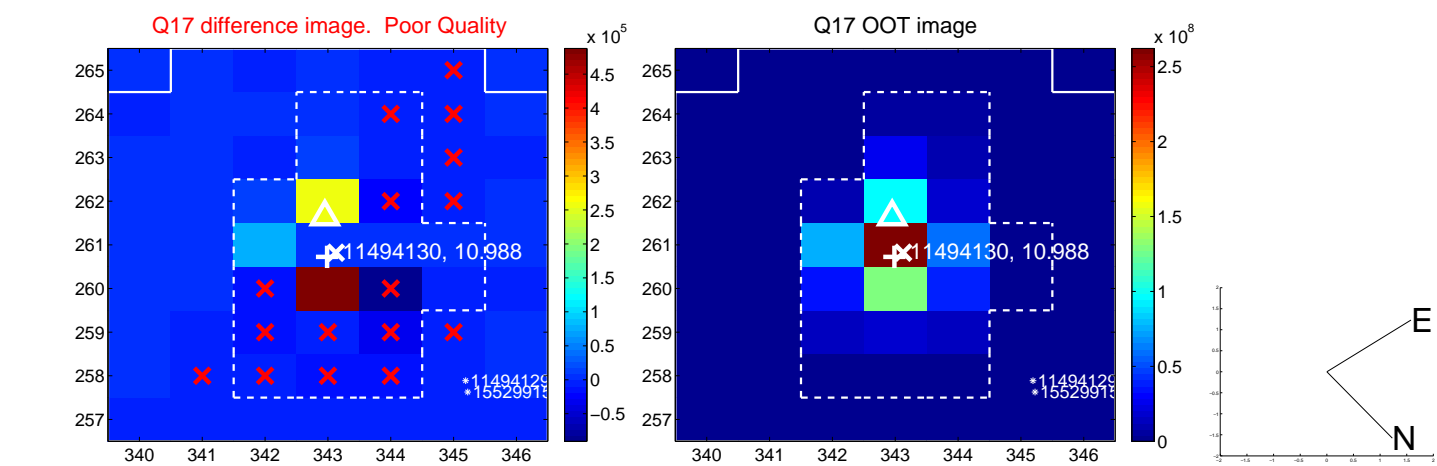
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UKIRT Image

