

KIC 004667734

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})
004667734-01	OBS	No	0.700428	132.047661	39.4	2.549	8.4	10.4	1.00	5780	0.74	4195.53

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
004667734-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—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.

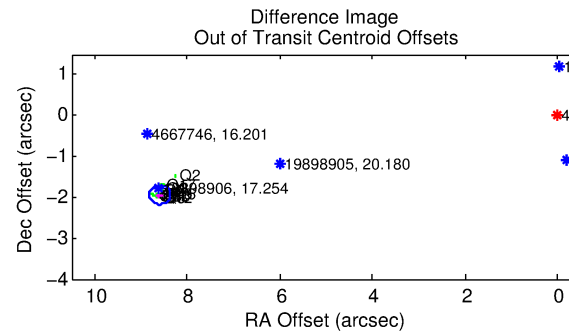
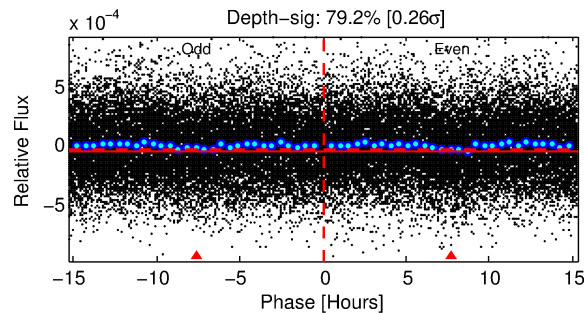
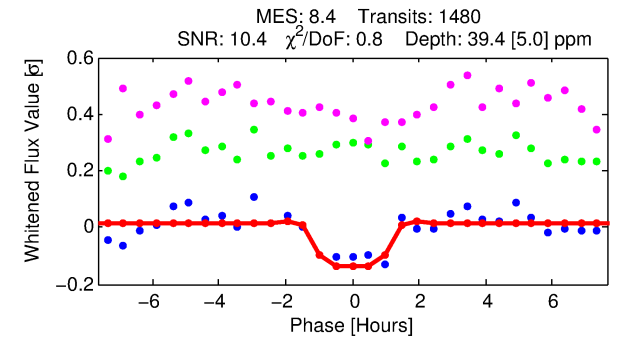
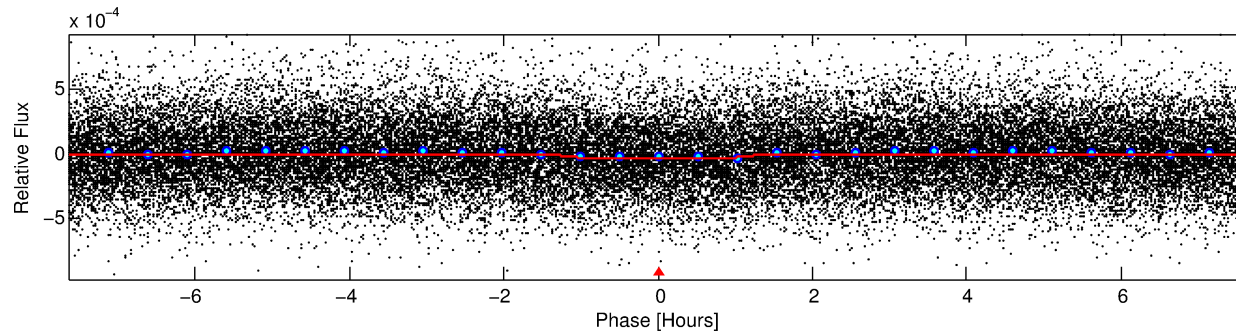
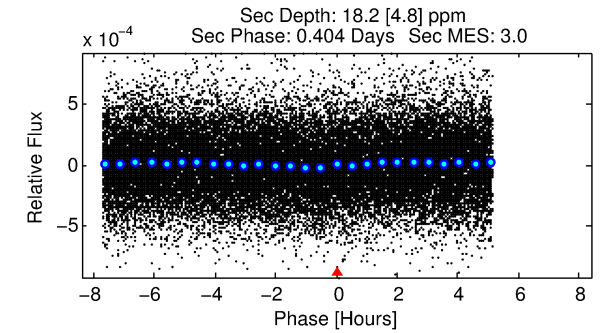
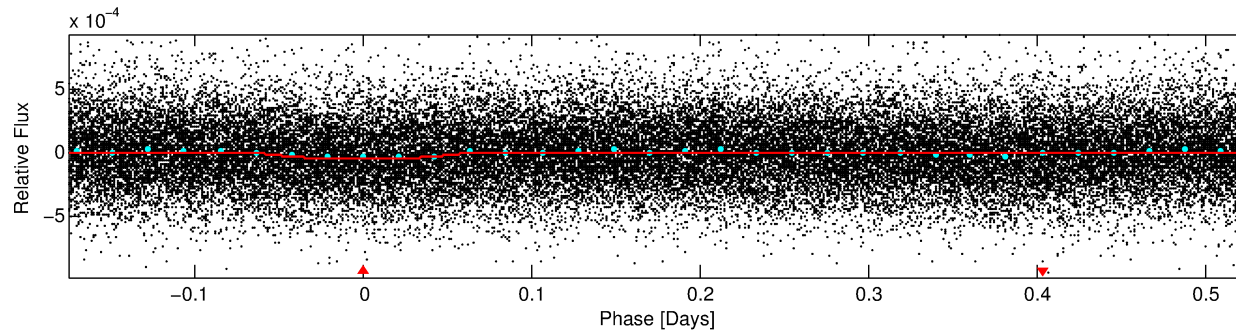
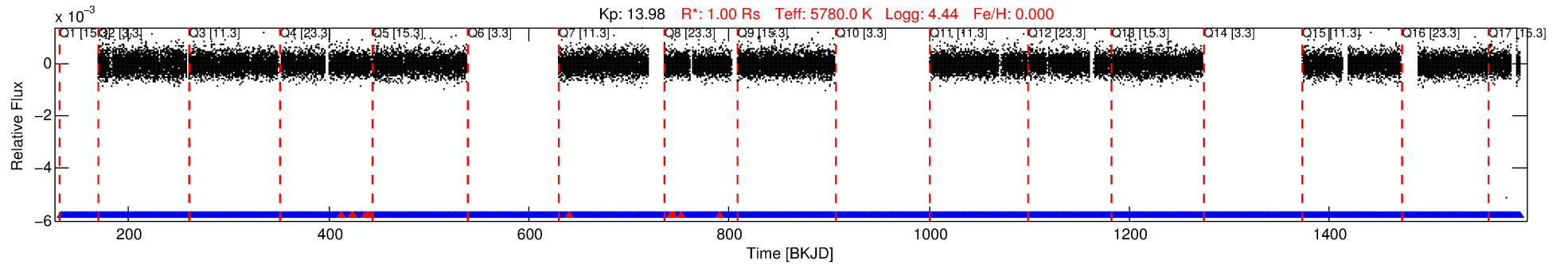
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 004667734-01

No Significant Match Found

DV One-Page Summary

KIC: 4667734 Candidate: 1 of 1 Period: 0.700 d



DV Fit Results:

Period = 0.70043 [0.00001] d
Epoch = 132.0477 [0.0029] BKJD
Rp/R* = 0.0068 [0.0040]
a/R* = 1.34 [1.69]
b = 0.90 [0.63]
Seff = 4195.54 [0.08]
Teq = 2052 [0] K
Rp = 0.74 [0.44] Re
a = 0.0154 [0.0000] AU
Ag = 4.29 [5.18] [0.64σ]
Teff = 4567 [1378] K [1.82σ]

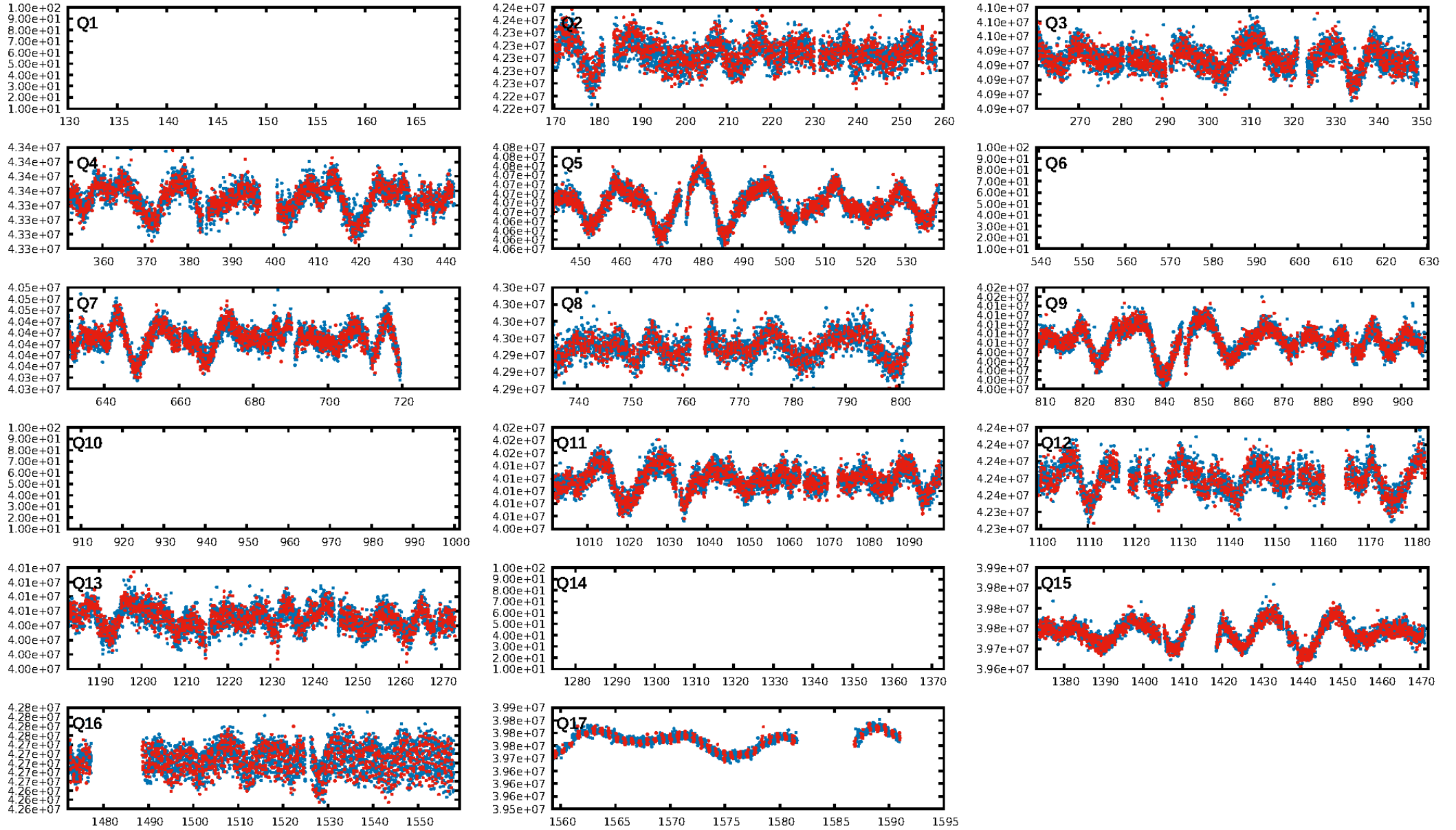
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.28e-14
RollingBand-fgt: 0.99 [1429/1441]
GhostDiagnostic-chr: 1.85
Centroid-sig: 78.0%
Centroid-so: 0.908 arcsec [0.85σ]
OotOffset-rm: 8.819 arcsec [114.70σ]
KicOffset-rm: 8.708 arcsec [122.27σ]
OotOffset-st: 1/4/4/4 [13]
KicOffset-st: 1/4/4/4 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

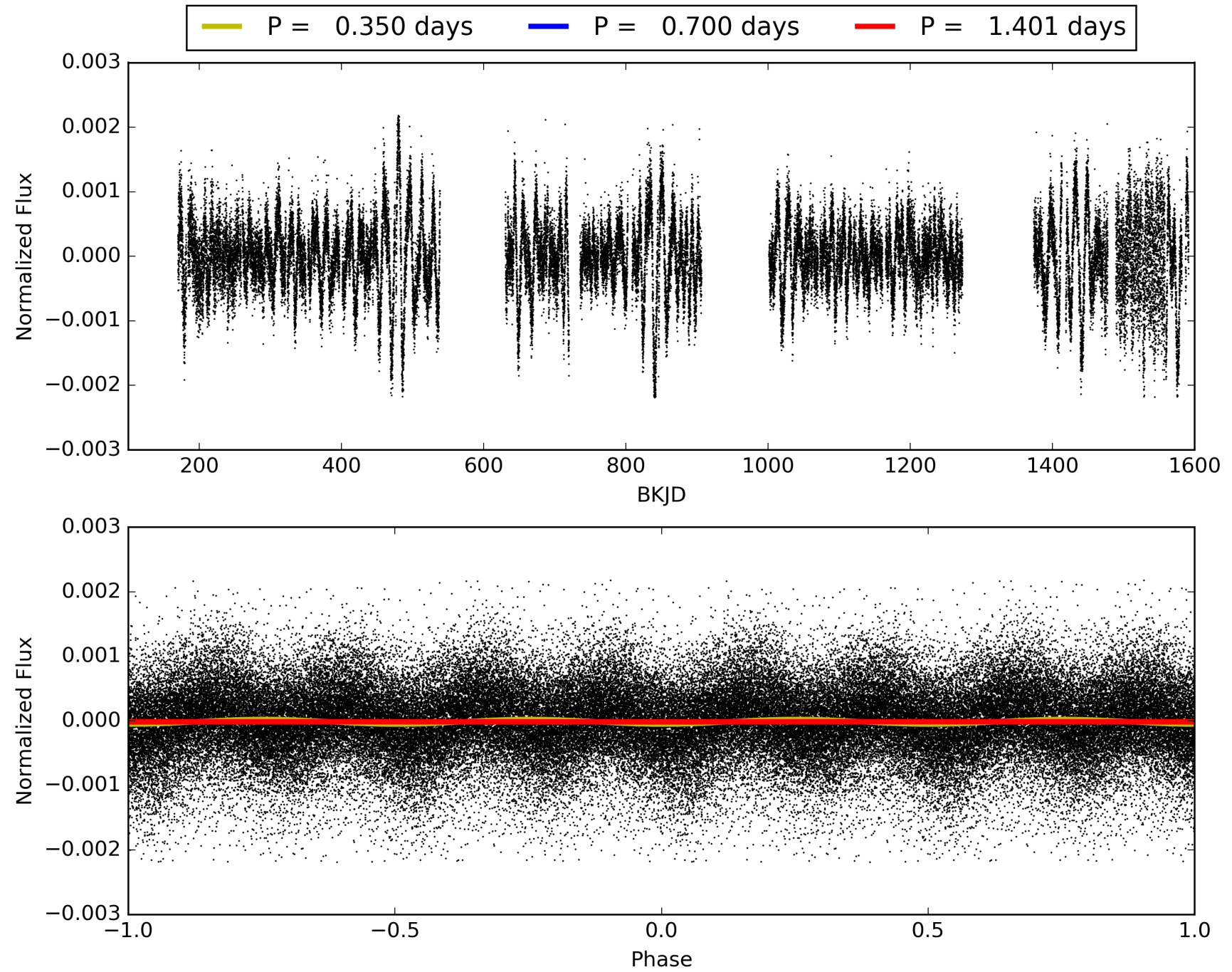
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 00:14:31 Z

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

TCE 004667734-01, PDC Light Curves

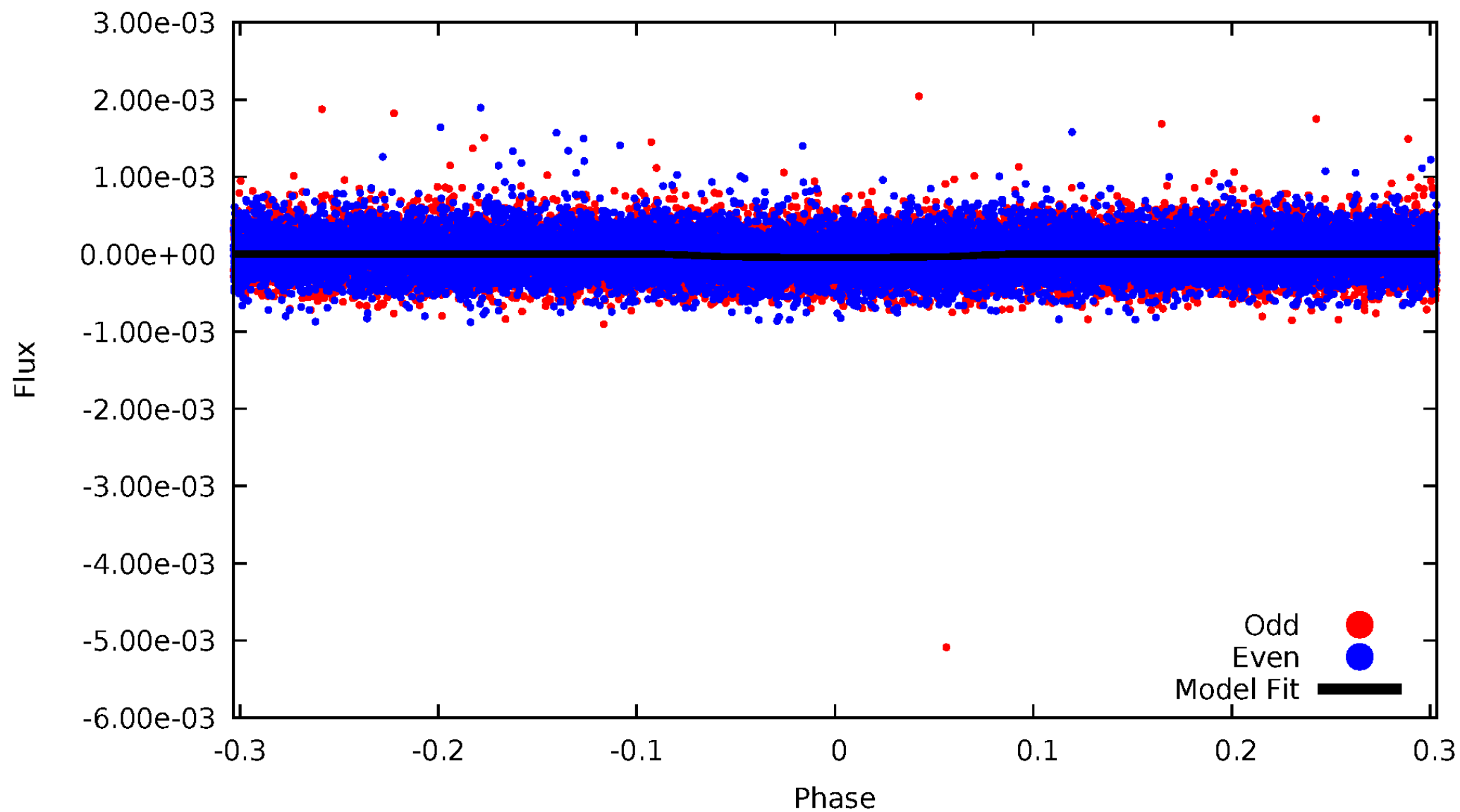


TCE 004667734-01



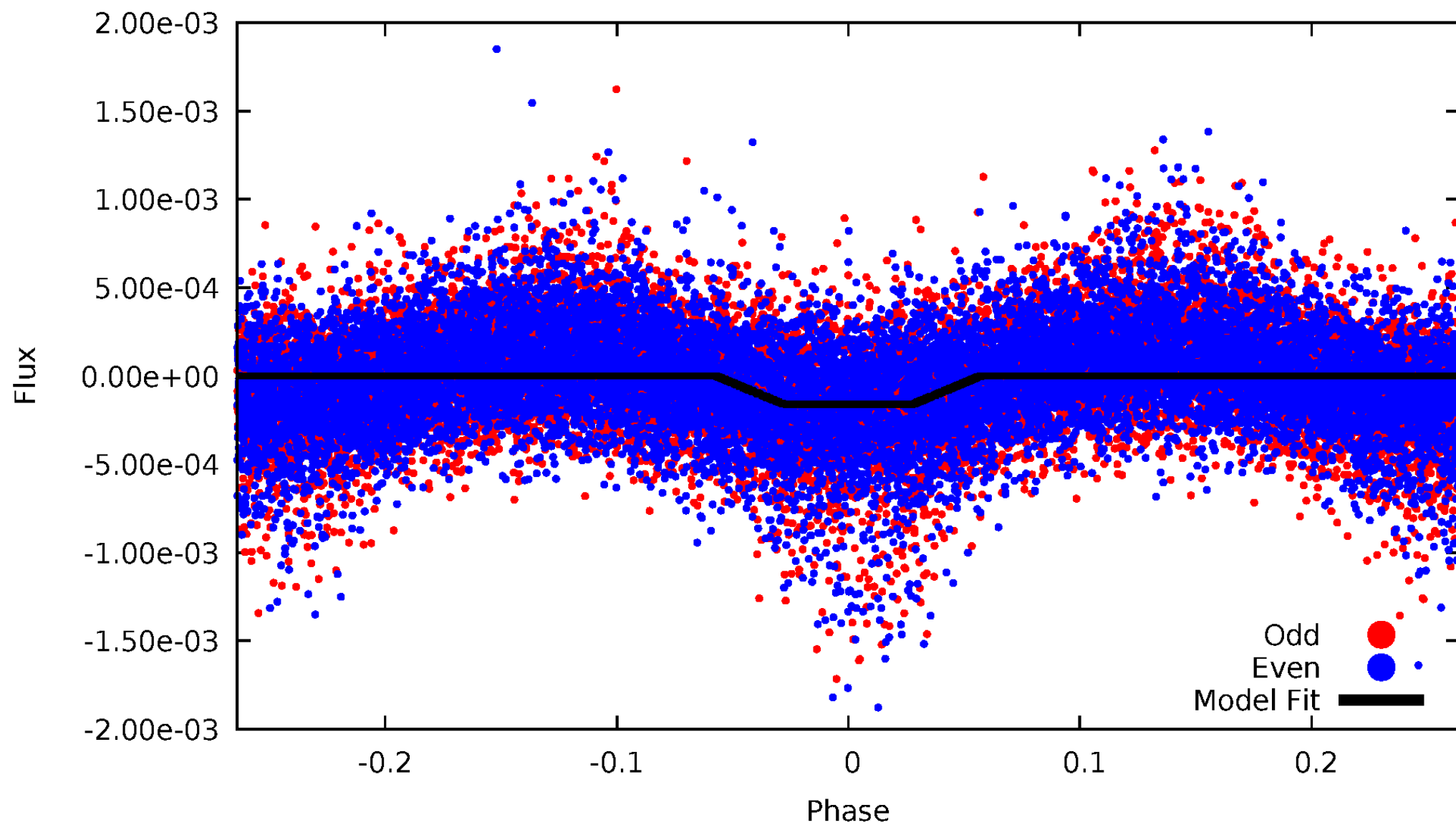
DV Odd/Even

TCE 004667734-01

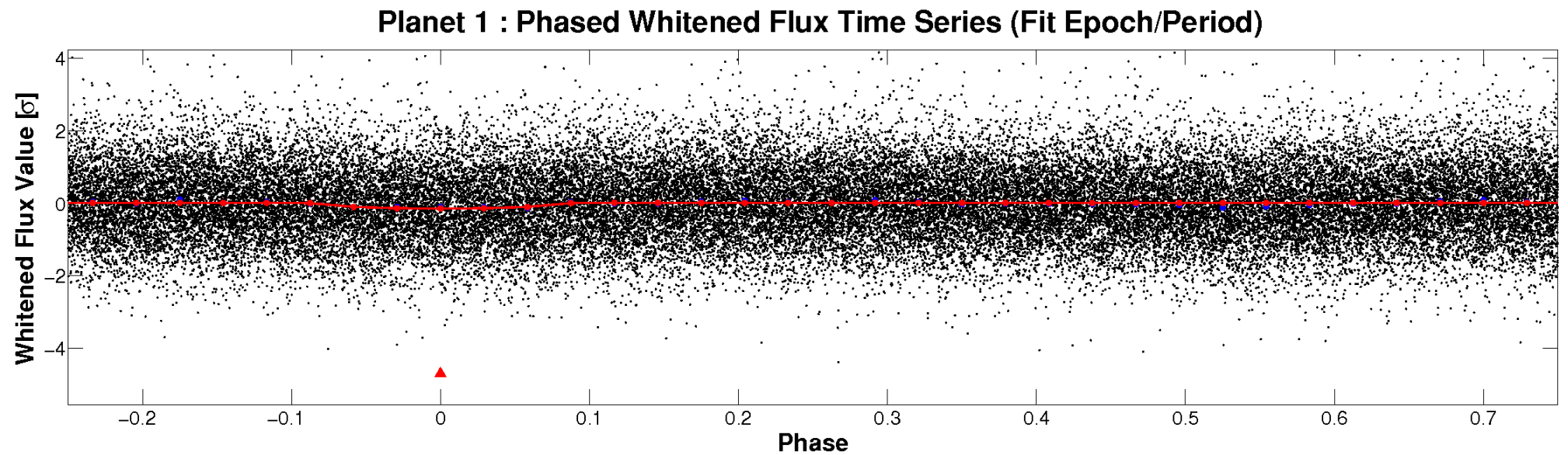
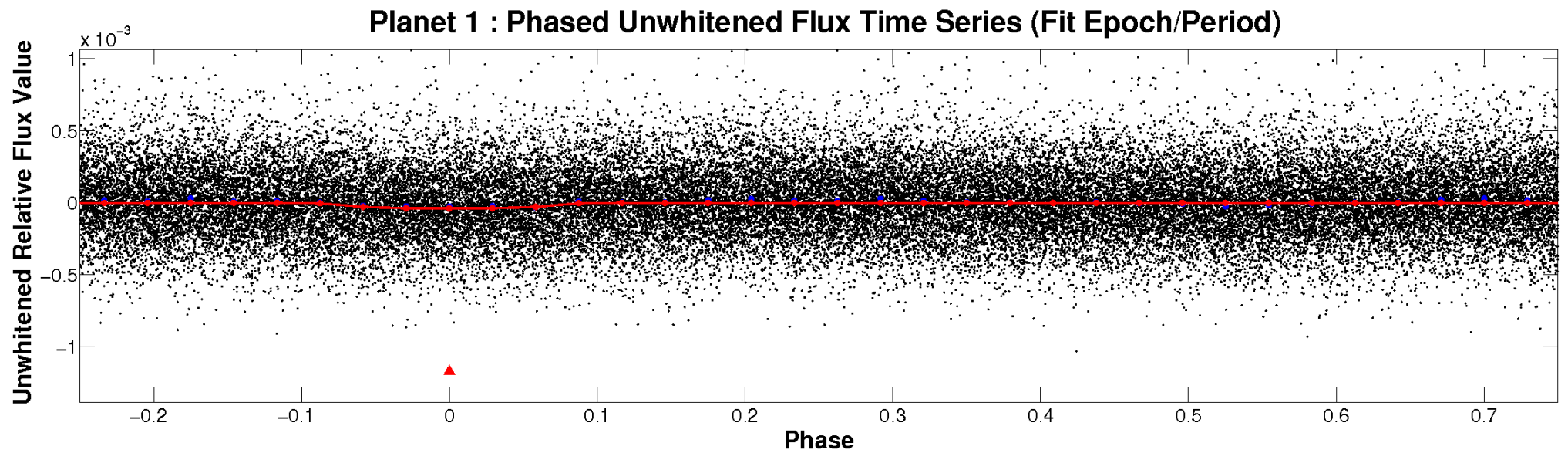


ALT Odd/Even

TCE 004667734-01

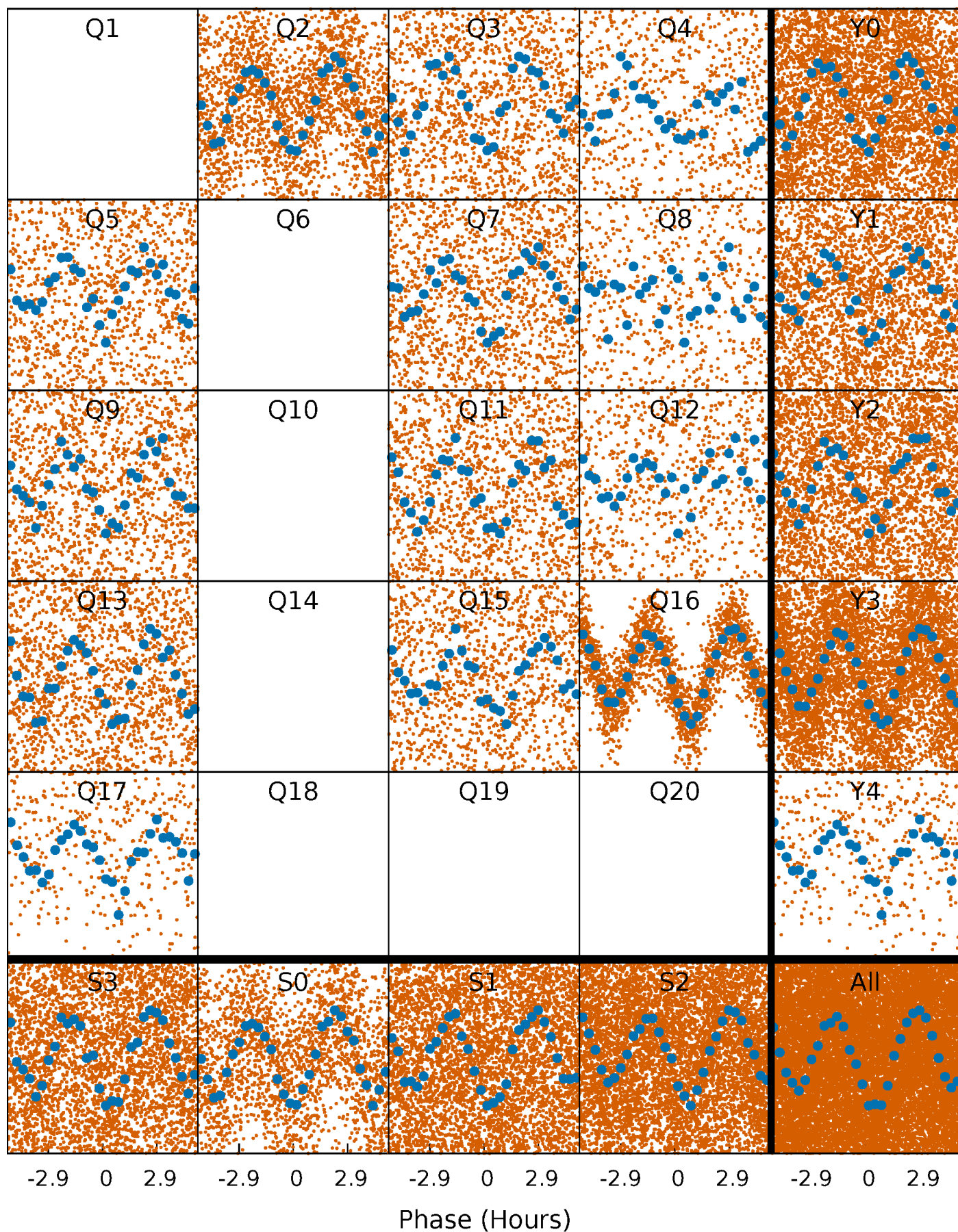


Non-Whitened Vs. Whitened Light Curve



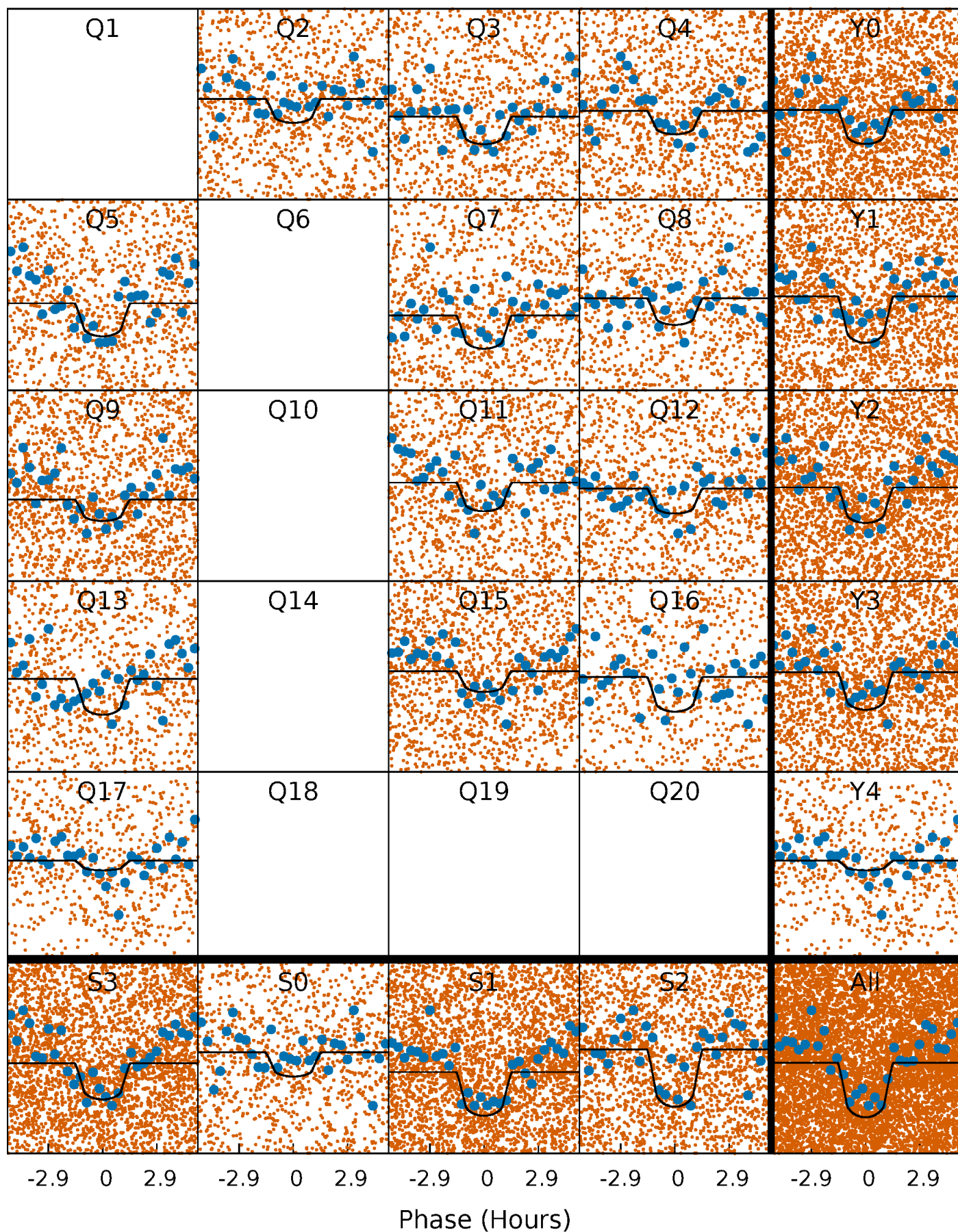
PDC Quarter-Phased Transit Curves

TCE 004667734-01 P= 0.700428 Days $T_0=132.047661$ (BKJD)



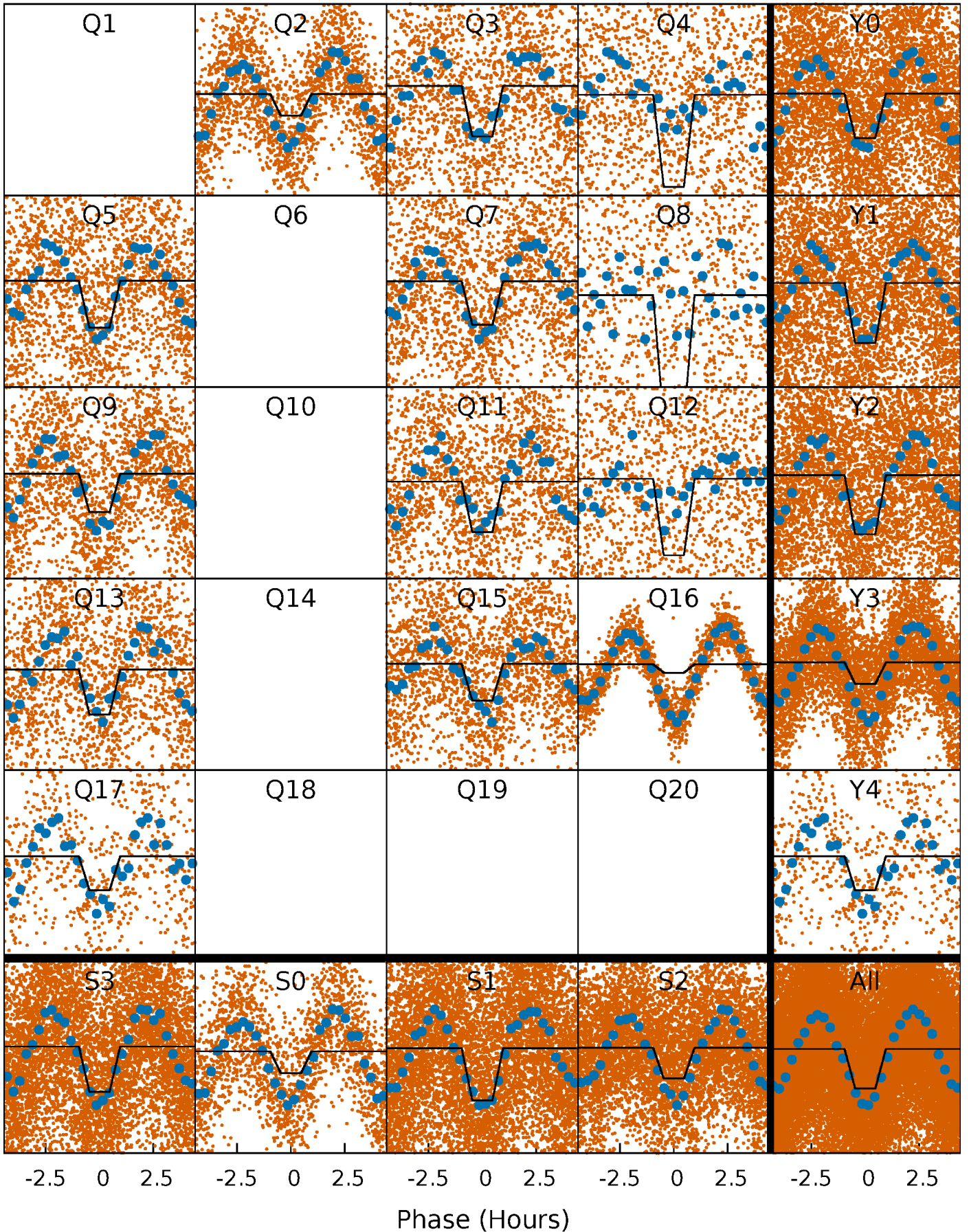
DV Quarter-Phased Transit Curves

TCE 004667734-01 P= 0.700428 Days $T_0=132.047661$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

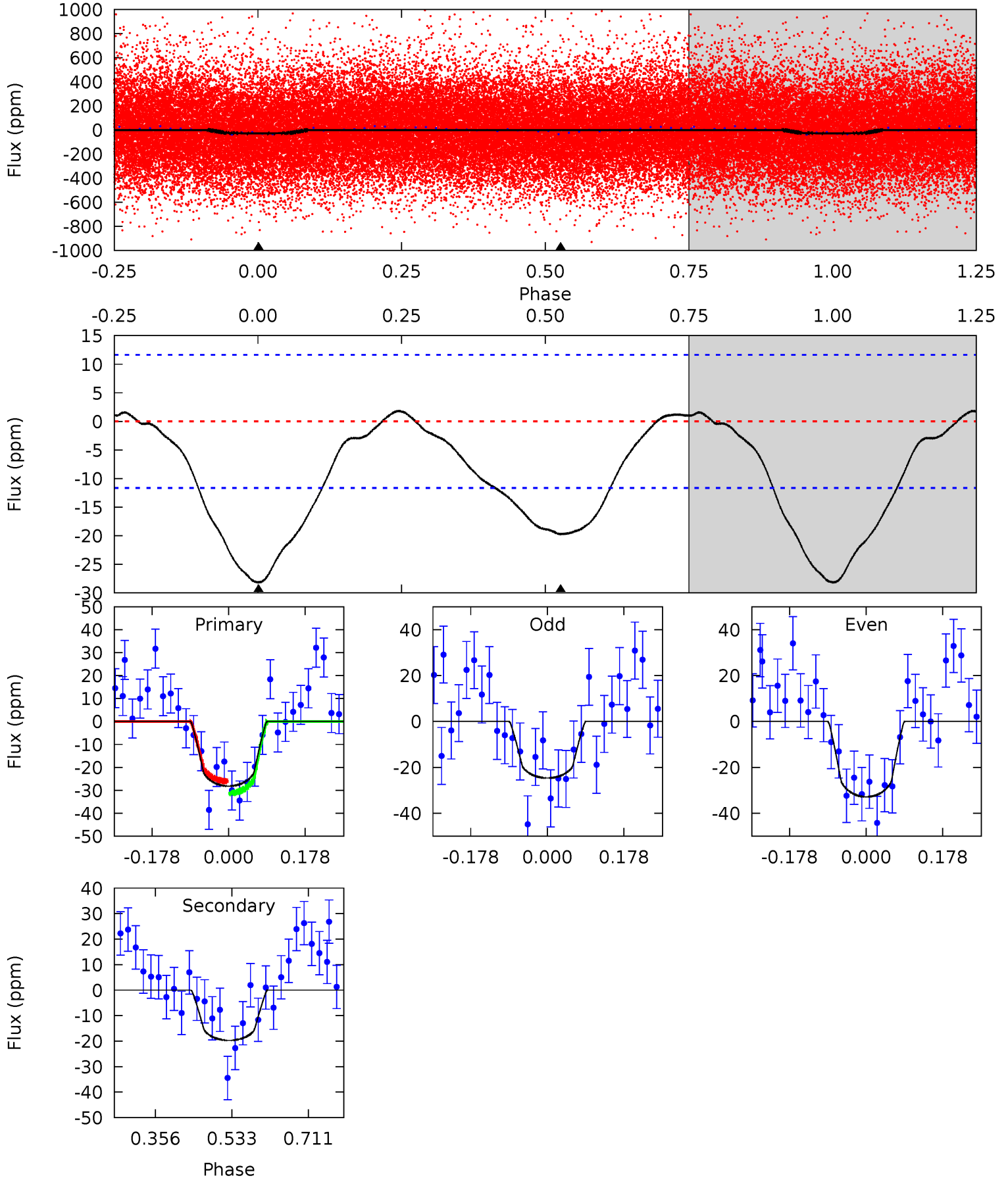
TCE 004667734-01 P= 0.700442 Days $T_0=132.050696$ (BKJD)



DV Model-Shift Uniqueness Test

004667734-01, P = 0.700428 Days, E = 132.047661 Days

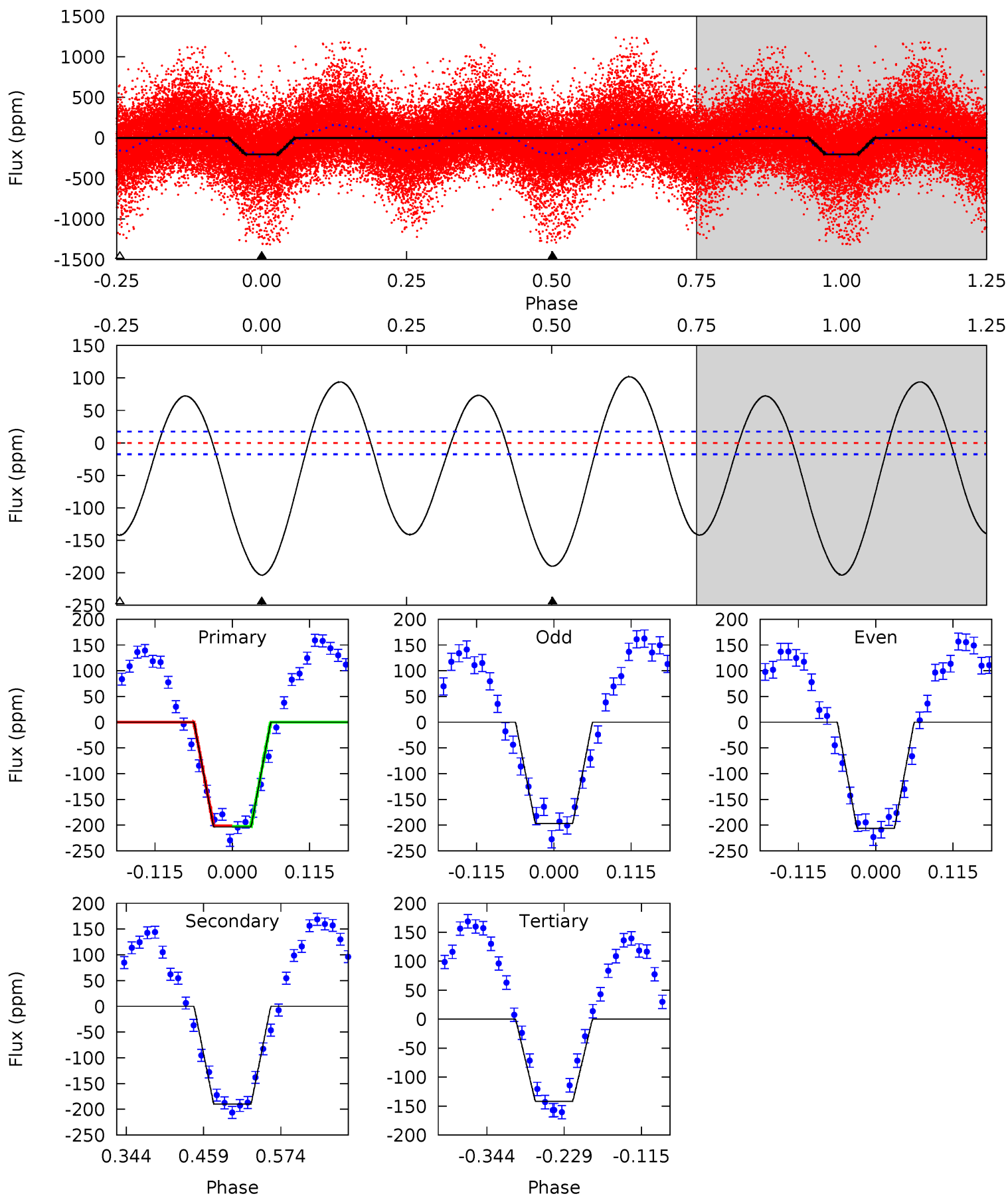
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.8	7.53	0	0	4.44	1.35	0.71	10.8	10.8	7.53	7.53	1.57	1.00	0.06	0.99



Alt Model-Shift Uniqueness Test

004667734-01, P = 0.700442 Days, E = 132.050696 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
53.0	49.5	37.0	0	4.54	1.58	21.9	16.0	53.0	12.5	49.5	1.25	1.22	0.33	0.11



Stellar Parameters For KIC 004667734

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5780^{+1}_{-1}	$4.438^{+1.000}_{-1.000}$	$0.000^{+1.000}_{-1.000}$	$1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$	$-1.000^{+1.000}_{-1.000}$
	+0%/-0%	+23%/-23%	+inf%/-inf%	+100%/-100%	+100%/-100%	+100%/-100%
Source	Solar	Solar	Solar	Solar		

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

Secondary Eclipse Parameters for KIC 004667734-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-20 ± 3	$0.77^{+0.44}_{-0.43}$	2871^{+138}_{-125}	4693^{+2158}_{-844}	$4.338^{+17.897}_{-2.569}$
Alt.	-190 ± 4	$1.39^{+0.49}_{-0.43}$	2873^{+139}_{-136}	5970^{+1393}_{-759}	13^{+14}_{-6}

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 $A_{\text{obs}} \gg 1.0$

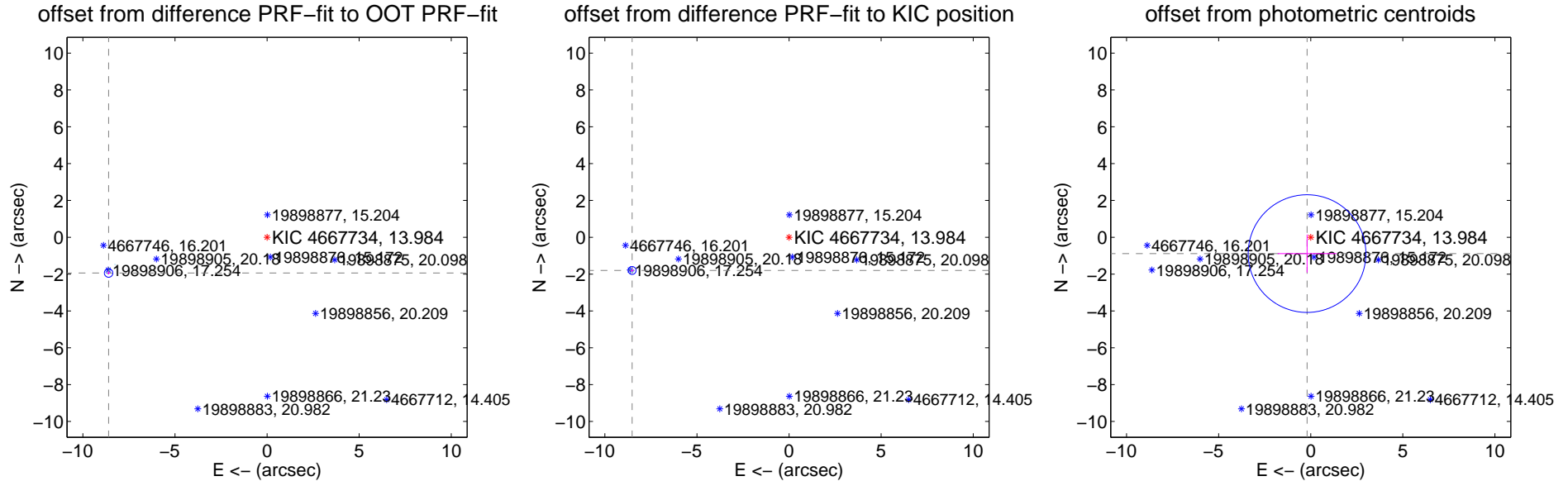
DV Centroid Data

Supplemental centroid analysis for 004667734-01. Kepler magnitude: 13.98. Transit SNR 10.41

There are 13 quarters with good PRF difference image offsets

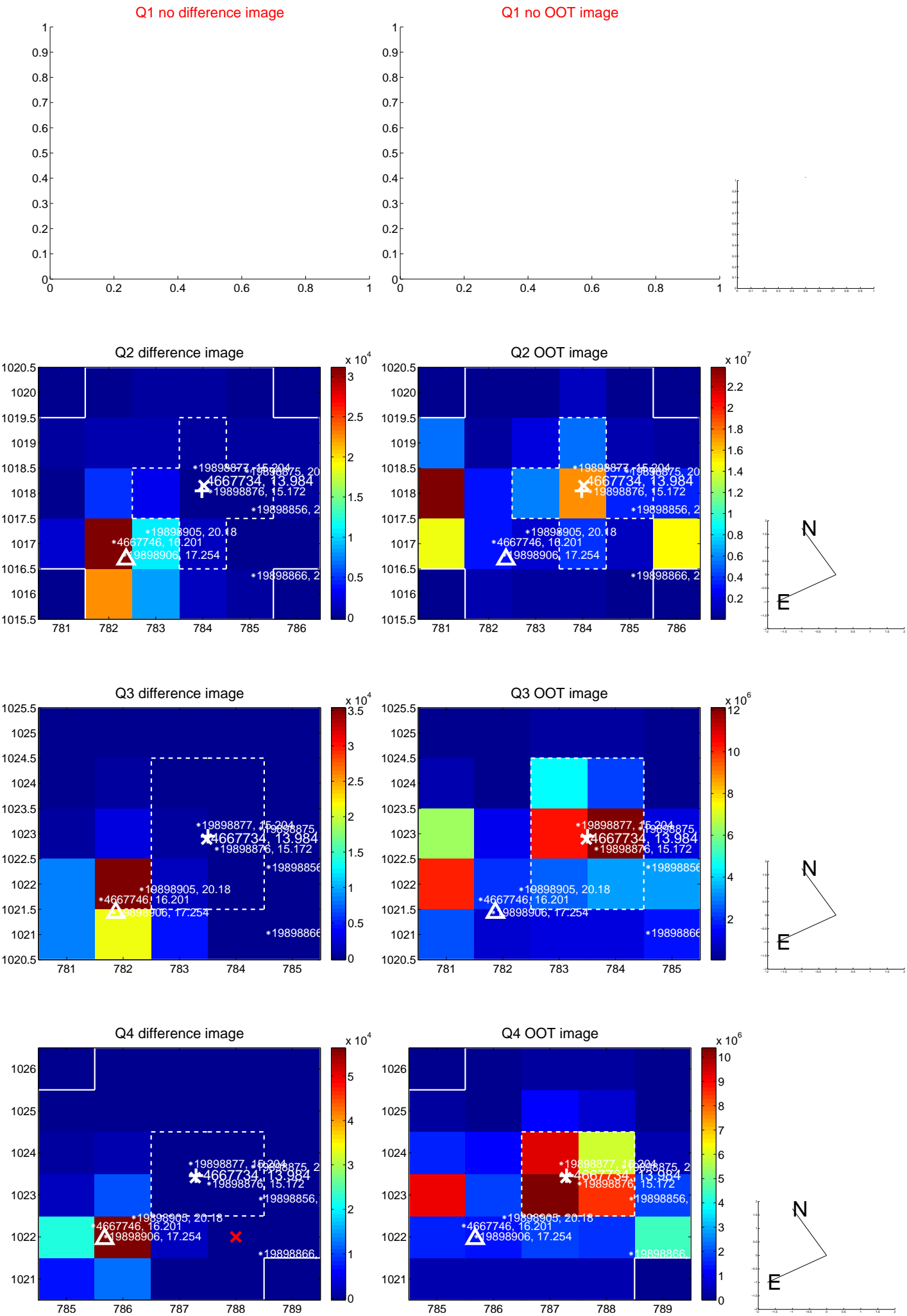
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	8.819 \pm 0.077	114.70	8.603 \pm 0.074	-1.940 \pm 0.078
PRF-fit source offset from KIC position	8.708 \pm 0.071	122.27	8.520 \pm 0.071	-1.803 \pm 0.068
photometric centroid source offset	0.91 \pm 1.06	0.85	0.20 \pm 1.60	-0.89 \pm 1.03

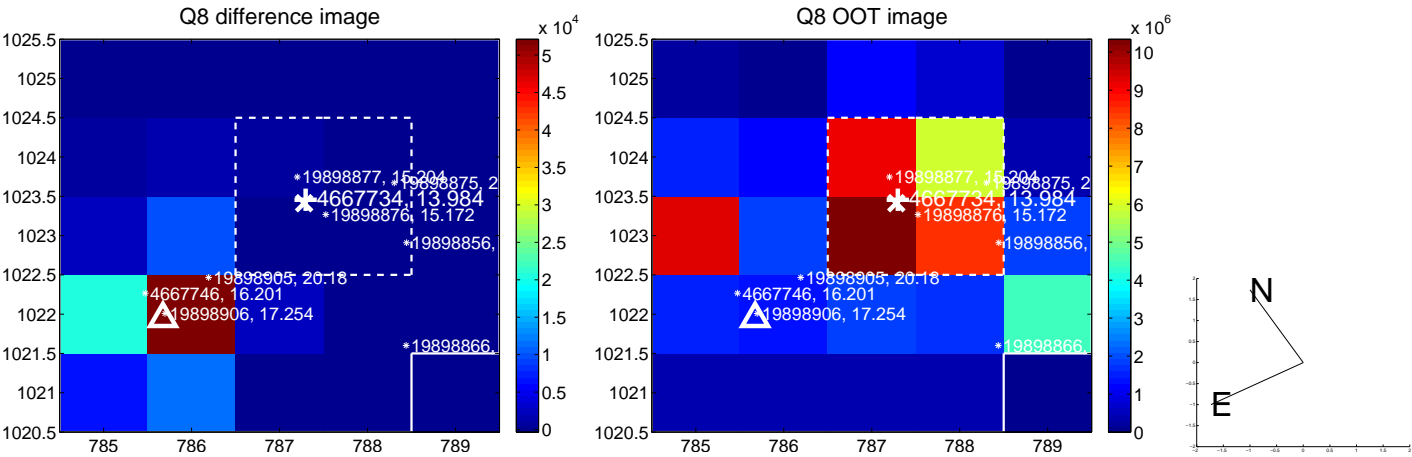
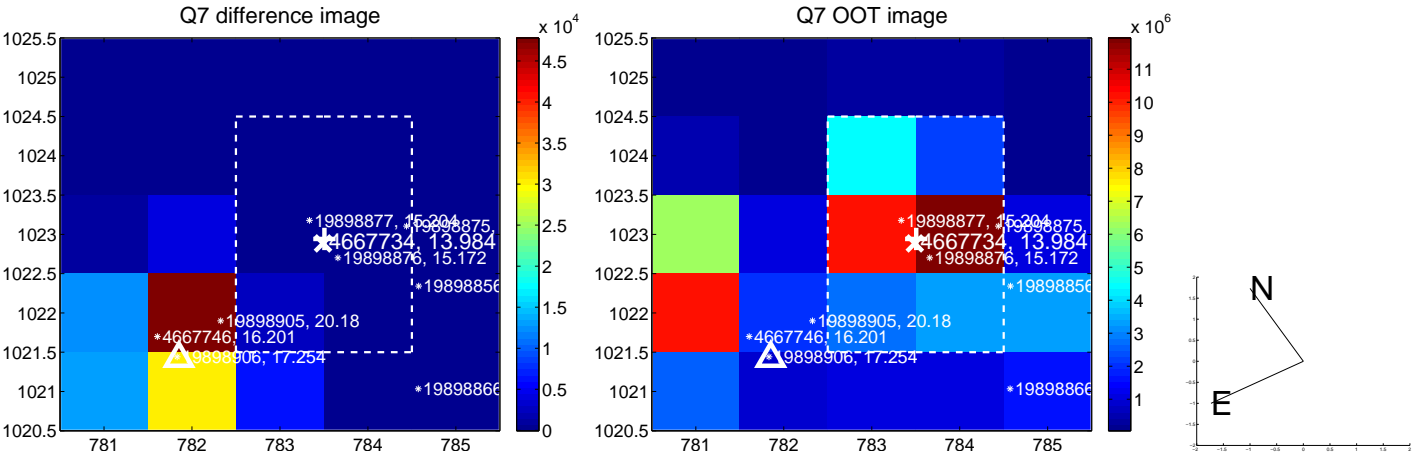
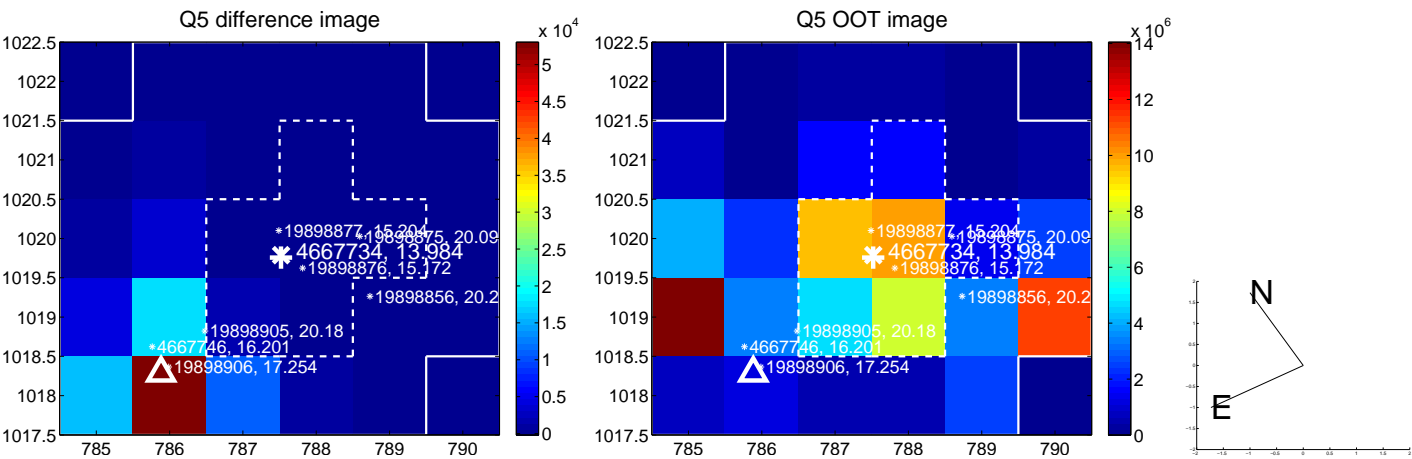


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

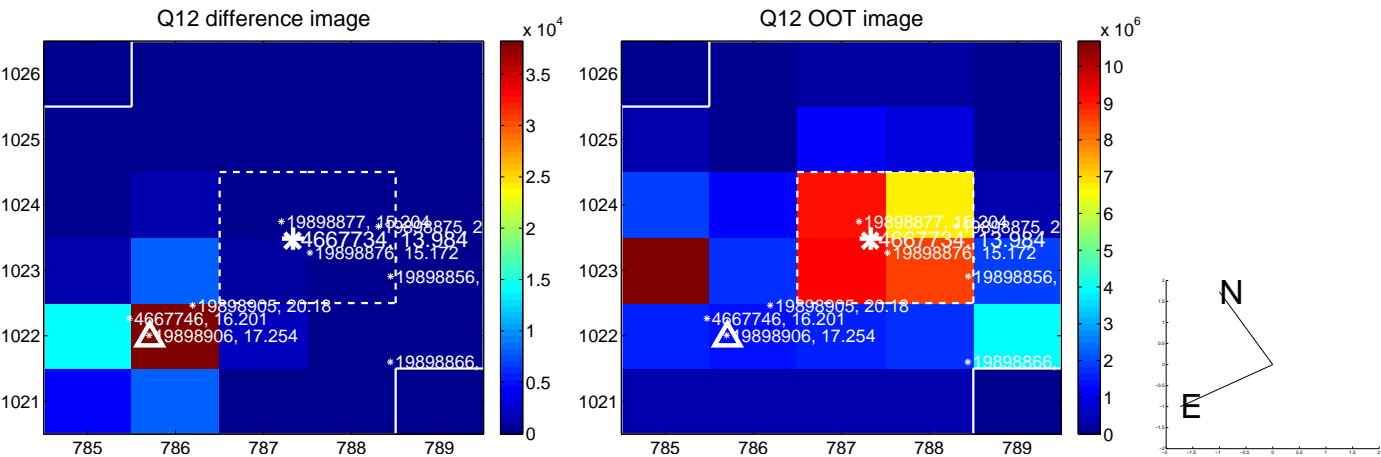
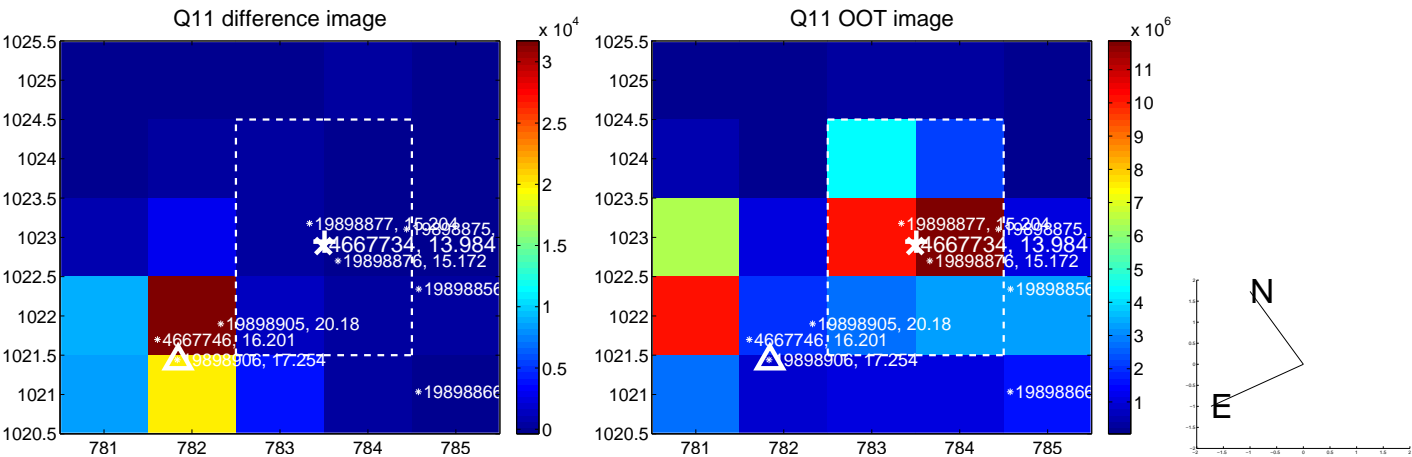
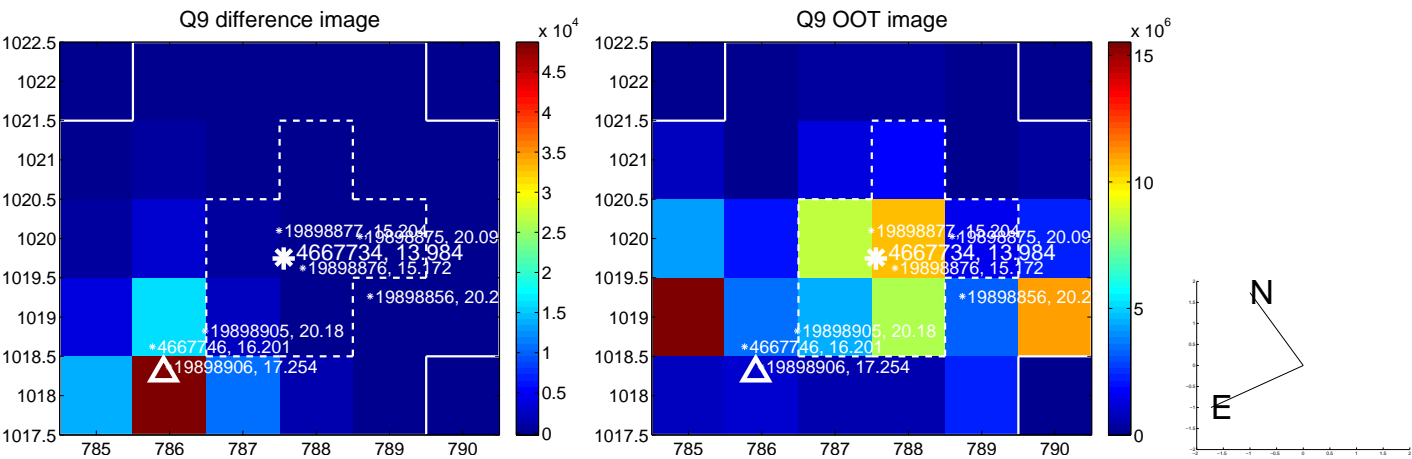
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



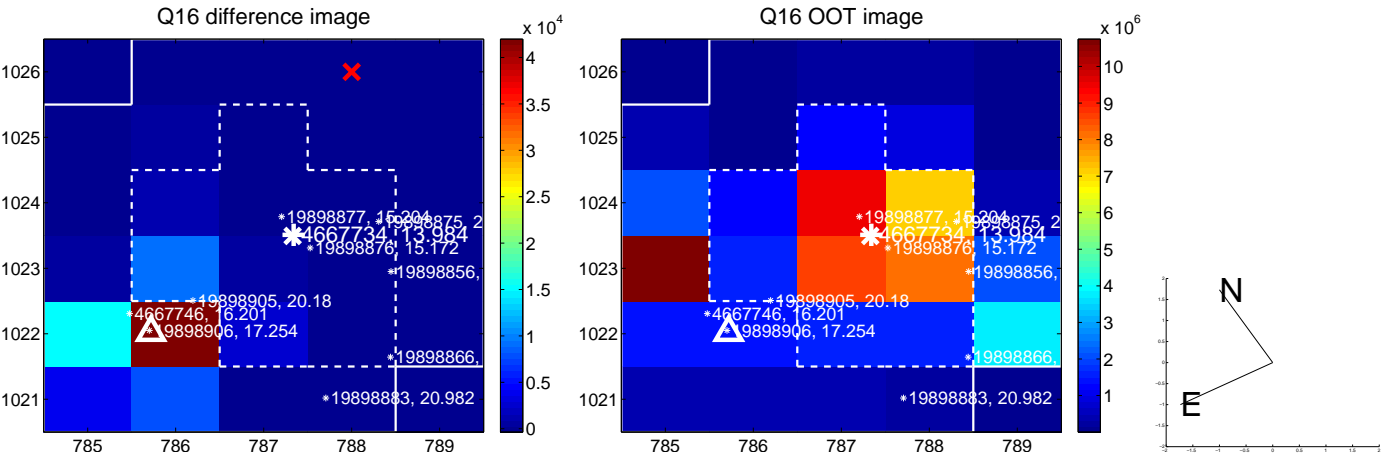
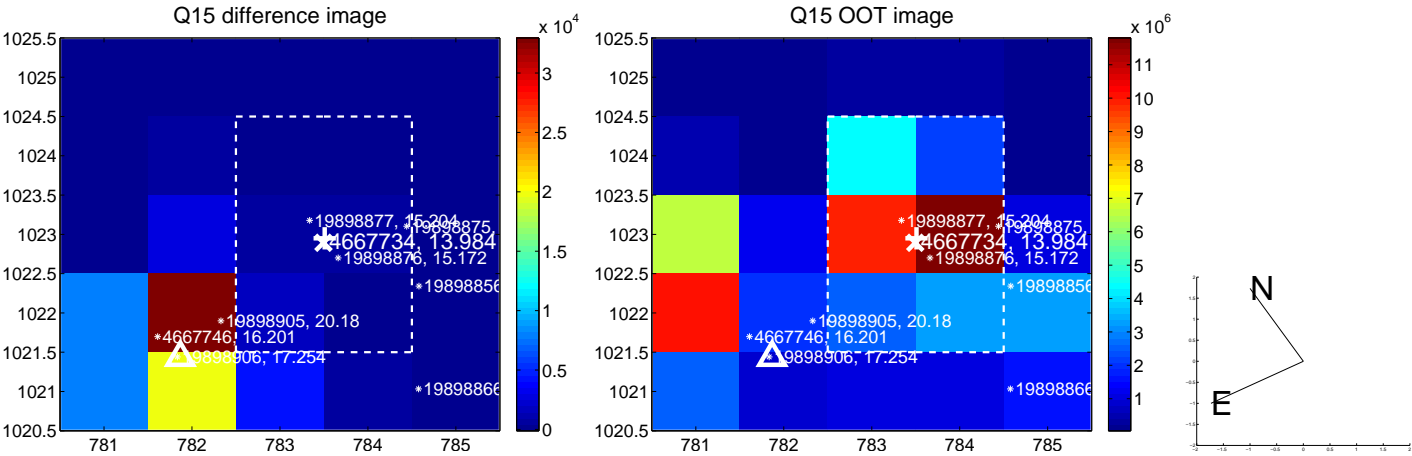
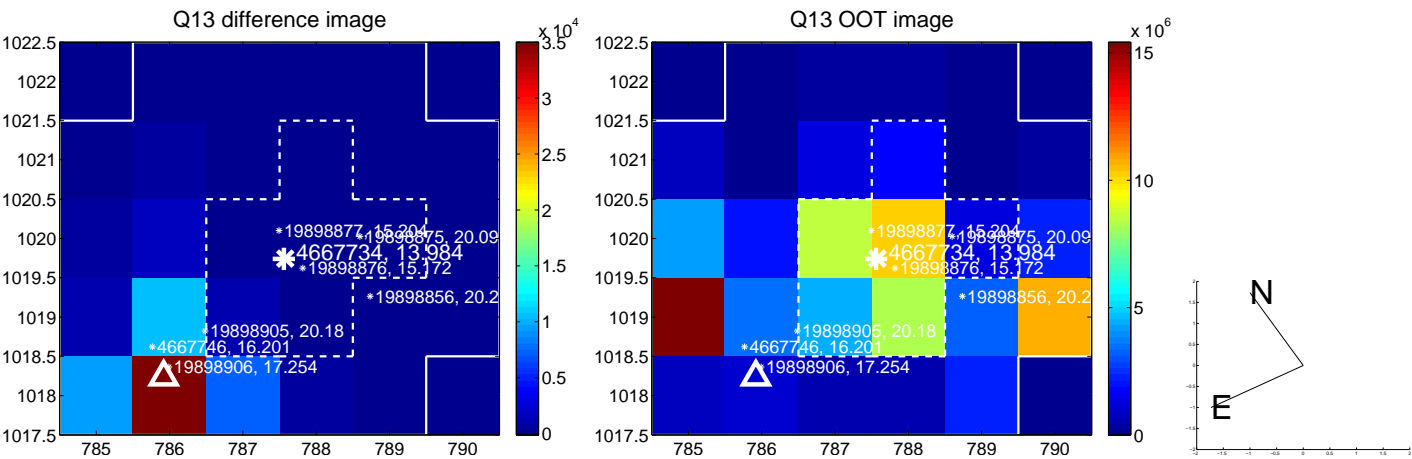
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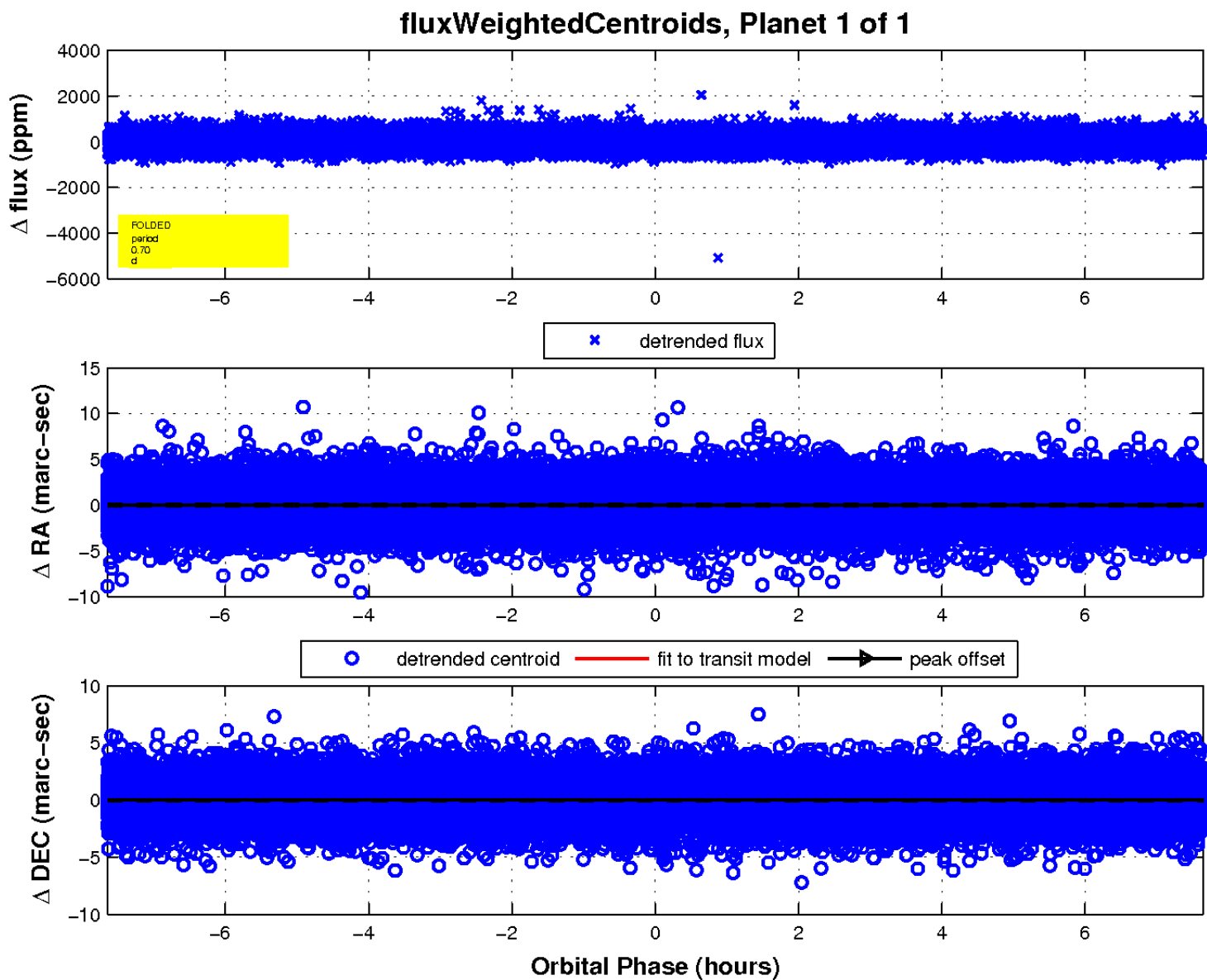
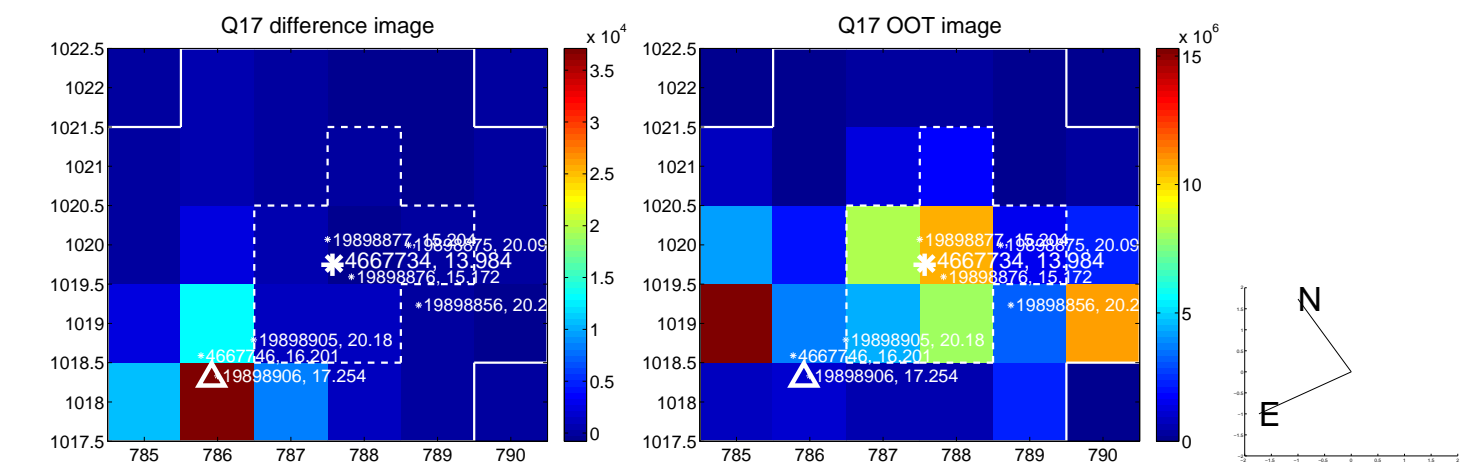
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UKIRT Image

Declination

