

KIC 011032748

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})
011032748-01	OBS	8039.01	43.944316	144.134466	152.0	5.465	8.0	8.7	0.88	6008	1.28	15.44

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011032748-01	OBS	PC	0.80	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.

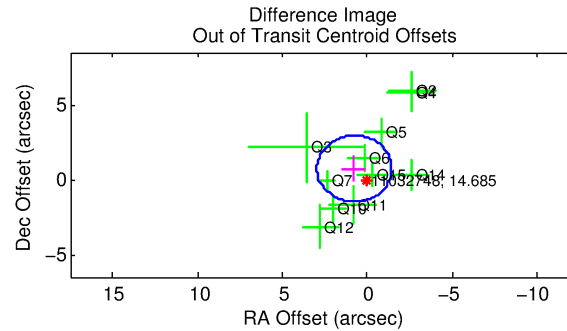
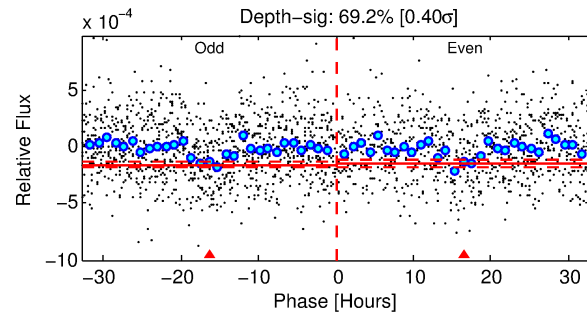
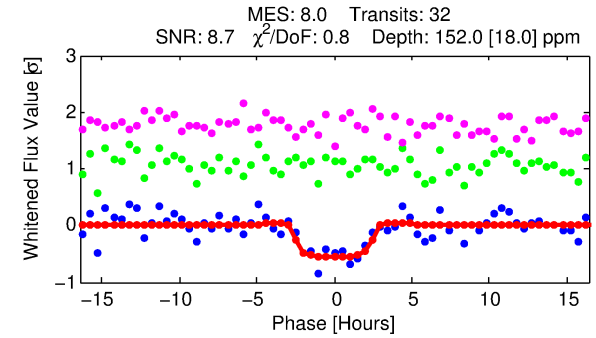
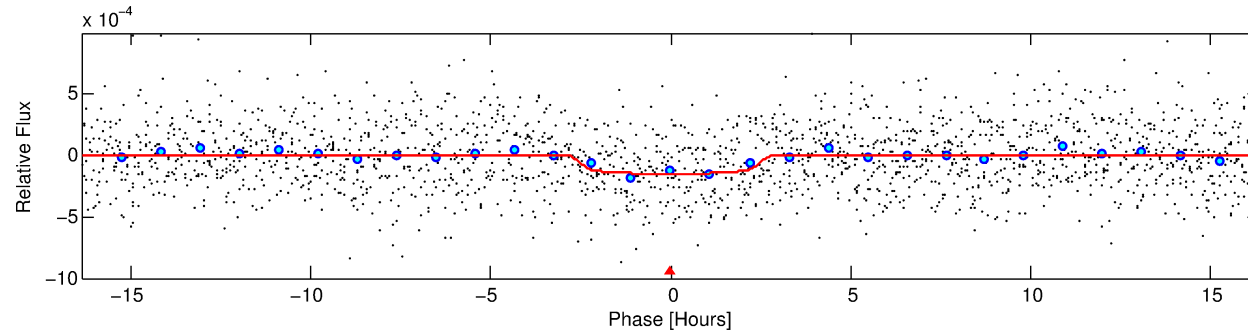
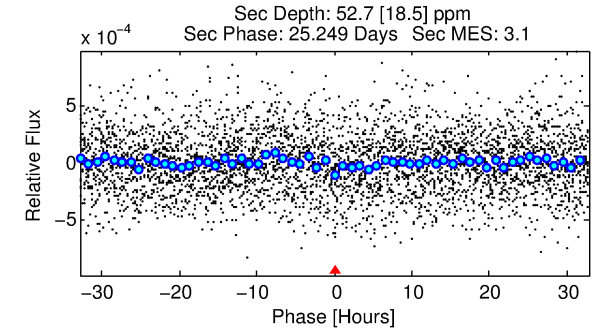
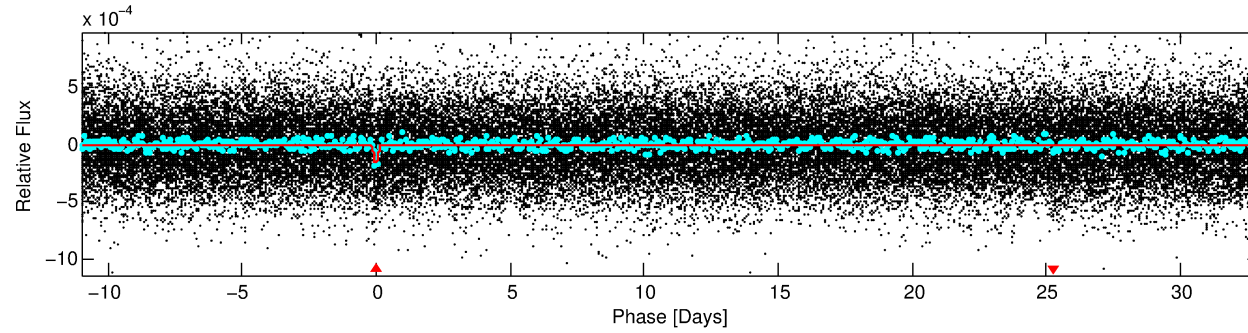
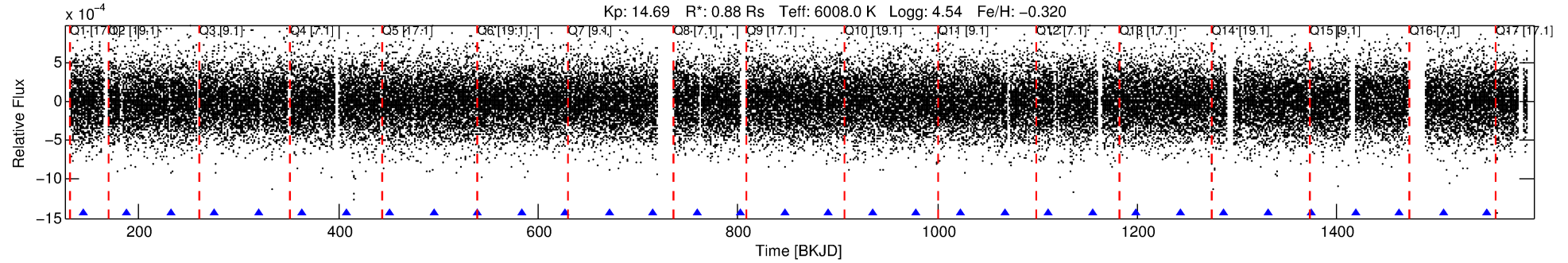
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011032748-01

No Significant Match Found

DV One-Page Summary

KIC: 11032748 Candidate: 1 of 1 Period: 43.944 d



DV Fit Results:

Period = 43.94432 [0.00064] d
Epoch = 144.1345 [0.0123] BKJD
Rp/R* = 0.0134 [0.0043]
a/R* = 27.68 [46.48]
b = 0.91 [0.33]
Seff = 15.44 [6.14]
Teq = 505 [50] K
Rp = 1.28 [0.56] Re
a = 0.2406 [0.0610] AU
Ag = 1026.81 [847.77] [1.21σ]
Teffp = 4424 [822] K [4.76σ]

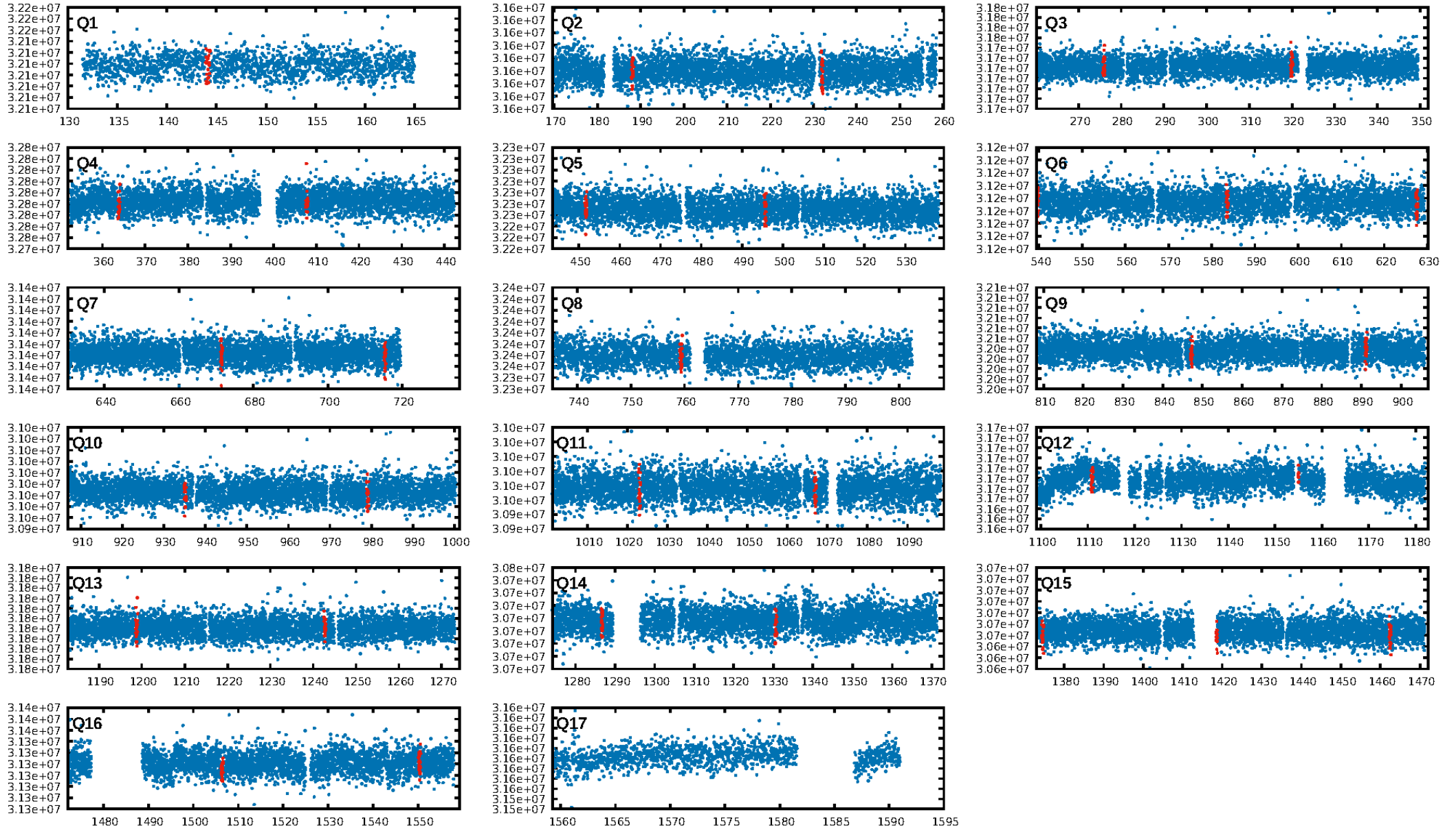
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 91.2%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 2.80e-15
RollingBand-fgt: 1.00 [31/31]
GhostDiagnostic-chr: -17.31
Centroid-sig: 0.1%
Centroid-so: 3.459 arcsec [2.24σ]
OotOffset-rm: 1.054 arcsec [1.43σ]
KicOffset-rm: 0.885 arcsec [1.22σ]
OotOffset-st: 4/4/2/1 [11]
KicOffset-st: 4/4/2/1 [11]
DiffImageQuality-fgm: 0.27 [3/11]
DiffImageOverlap-fno: 1.00 [16/16]

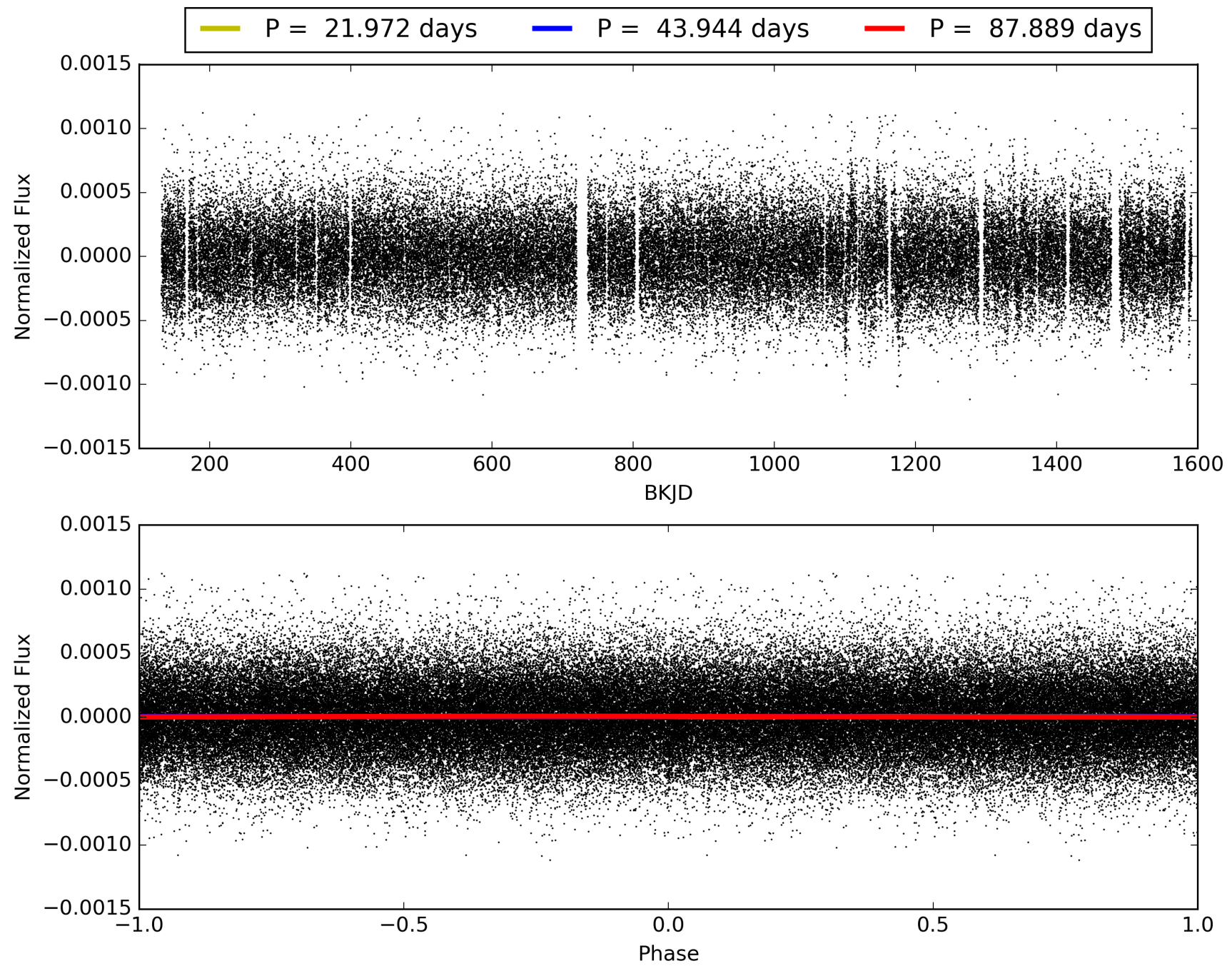
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 19:47:39 Z

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

TCE 011032748-01, PDC Light Curves

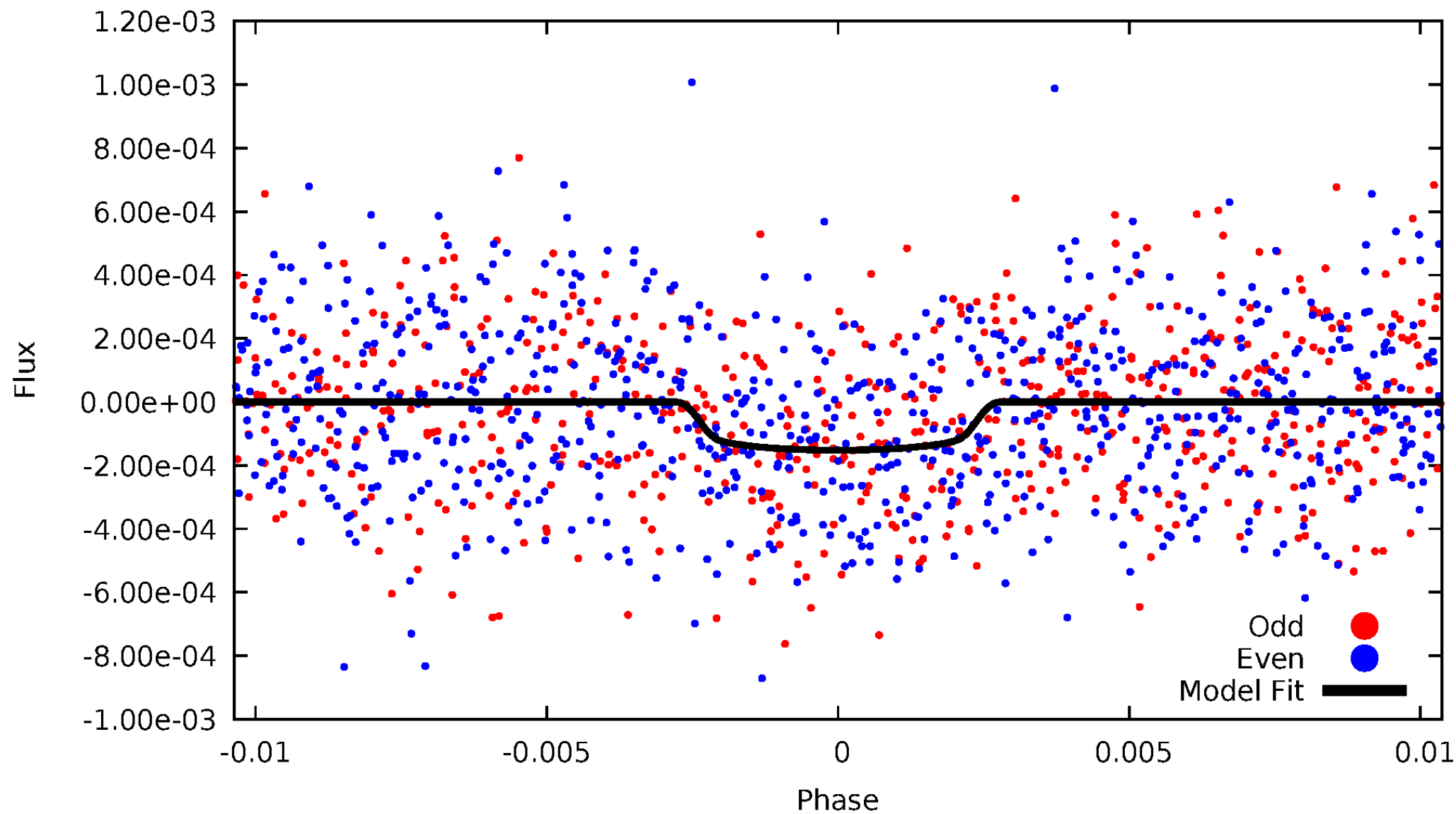


TCE 011032748-01



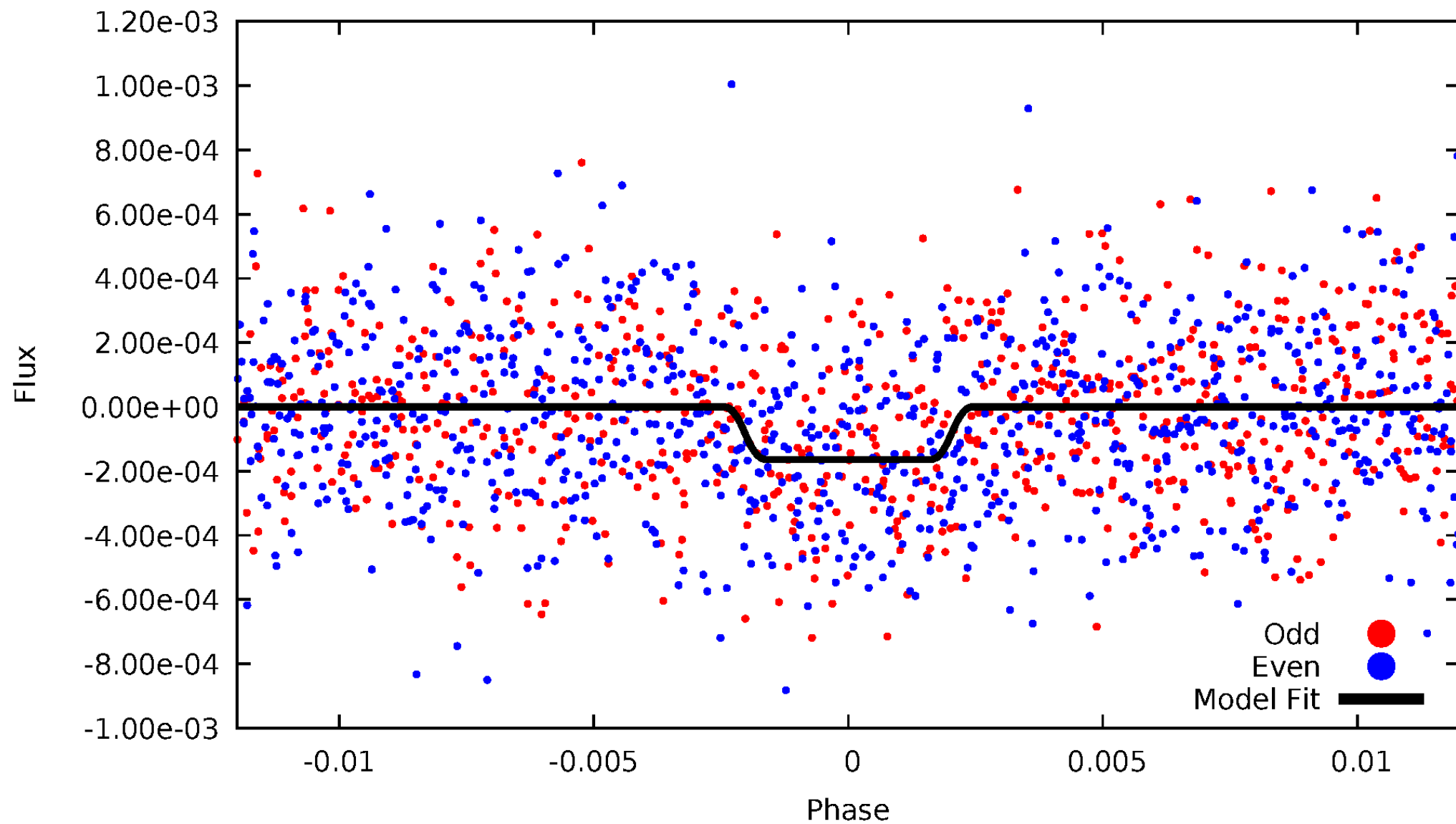
DV Odd/Even

TCE 011032748-01

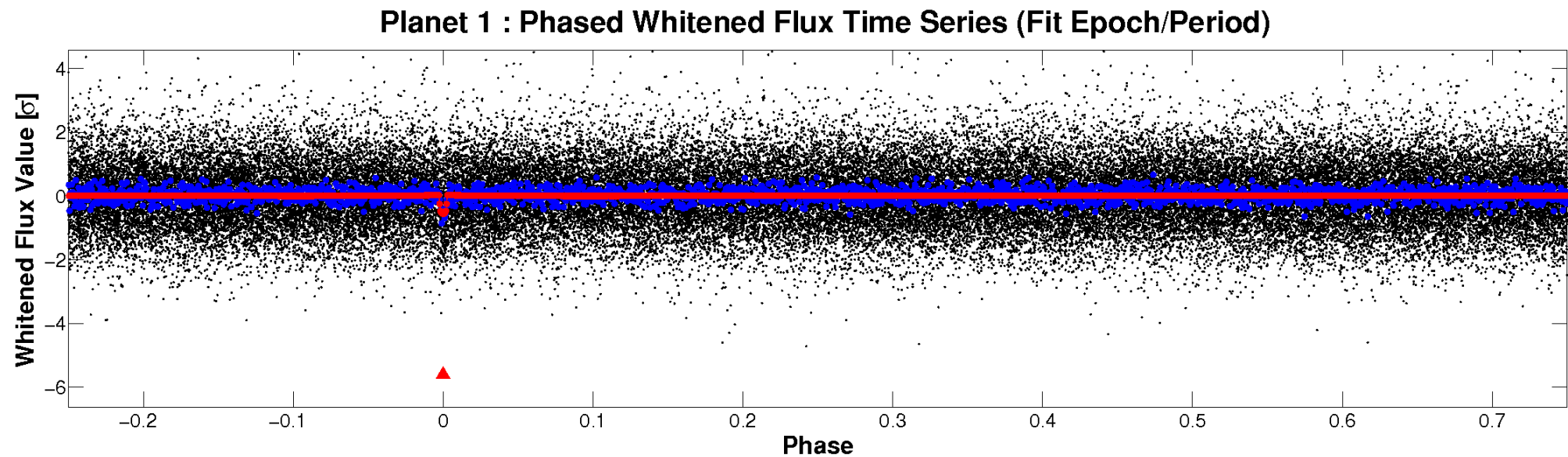
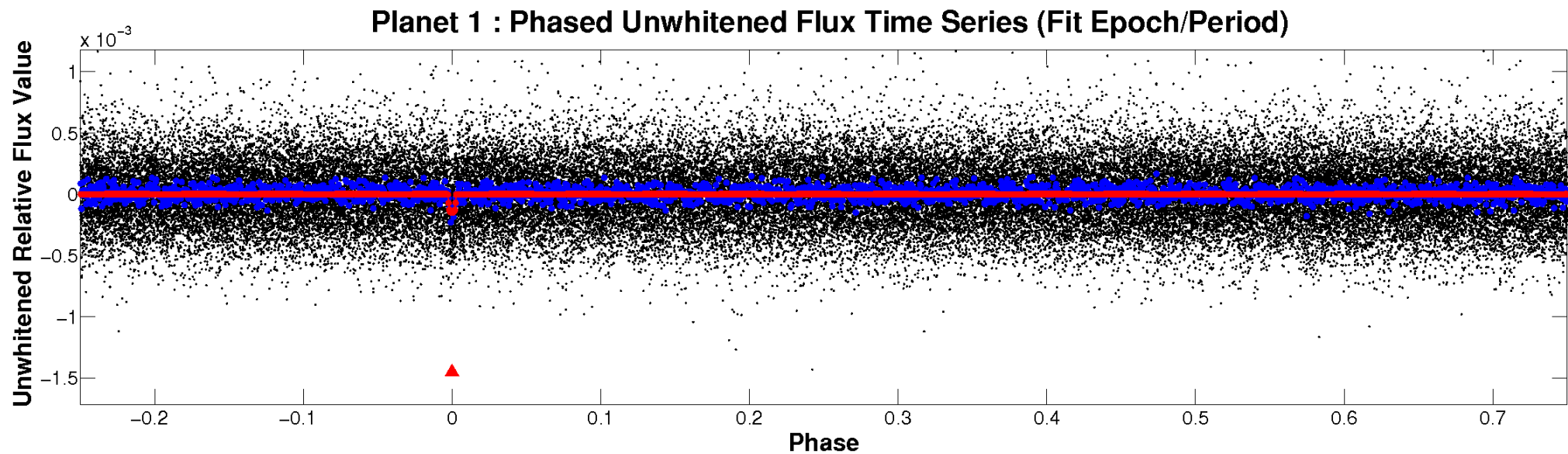


ALT Odd/Even

TCE 011032748-01

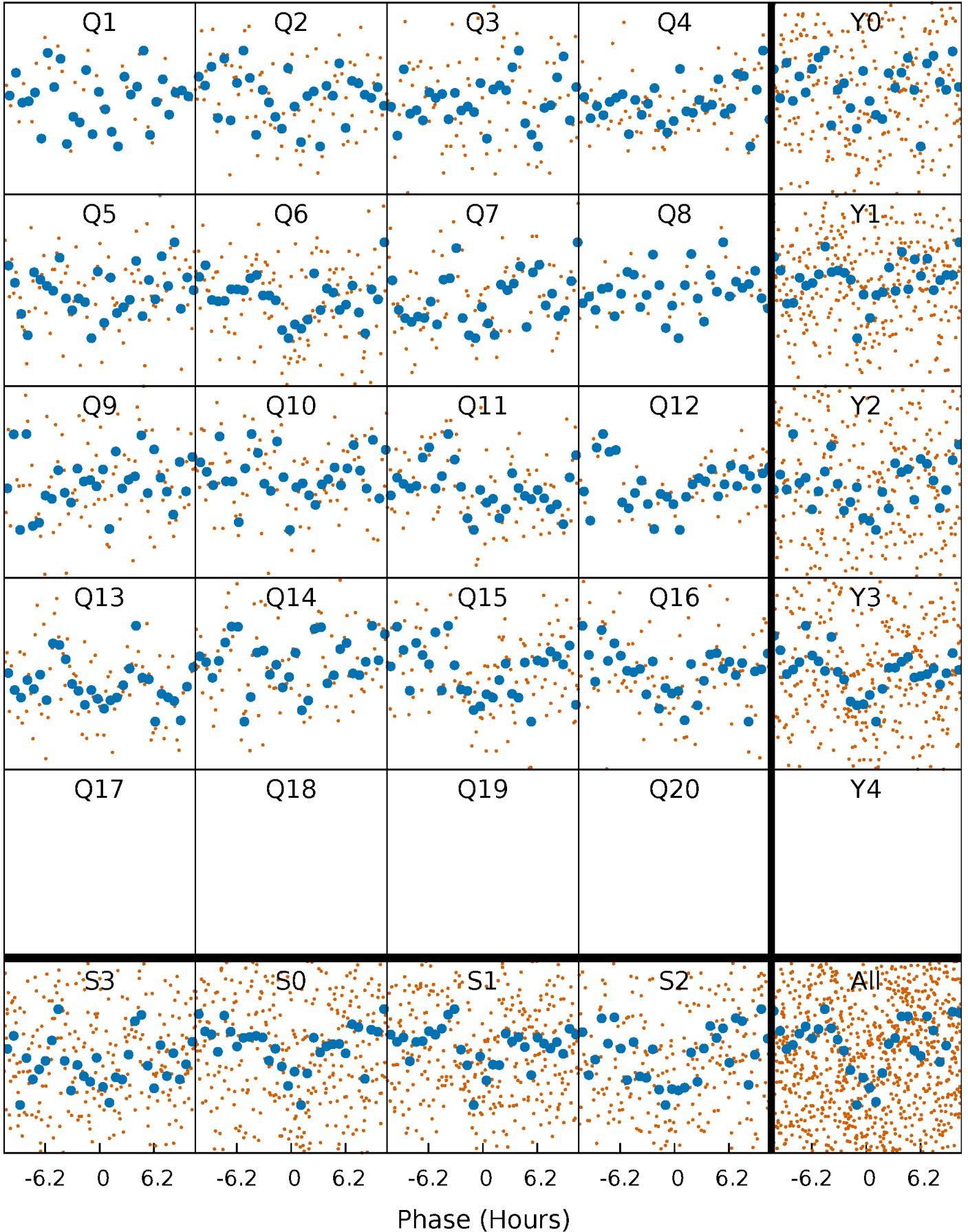


Non-Whitened Vs. Whitened Light Curve



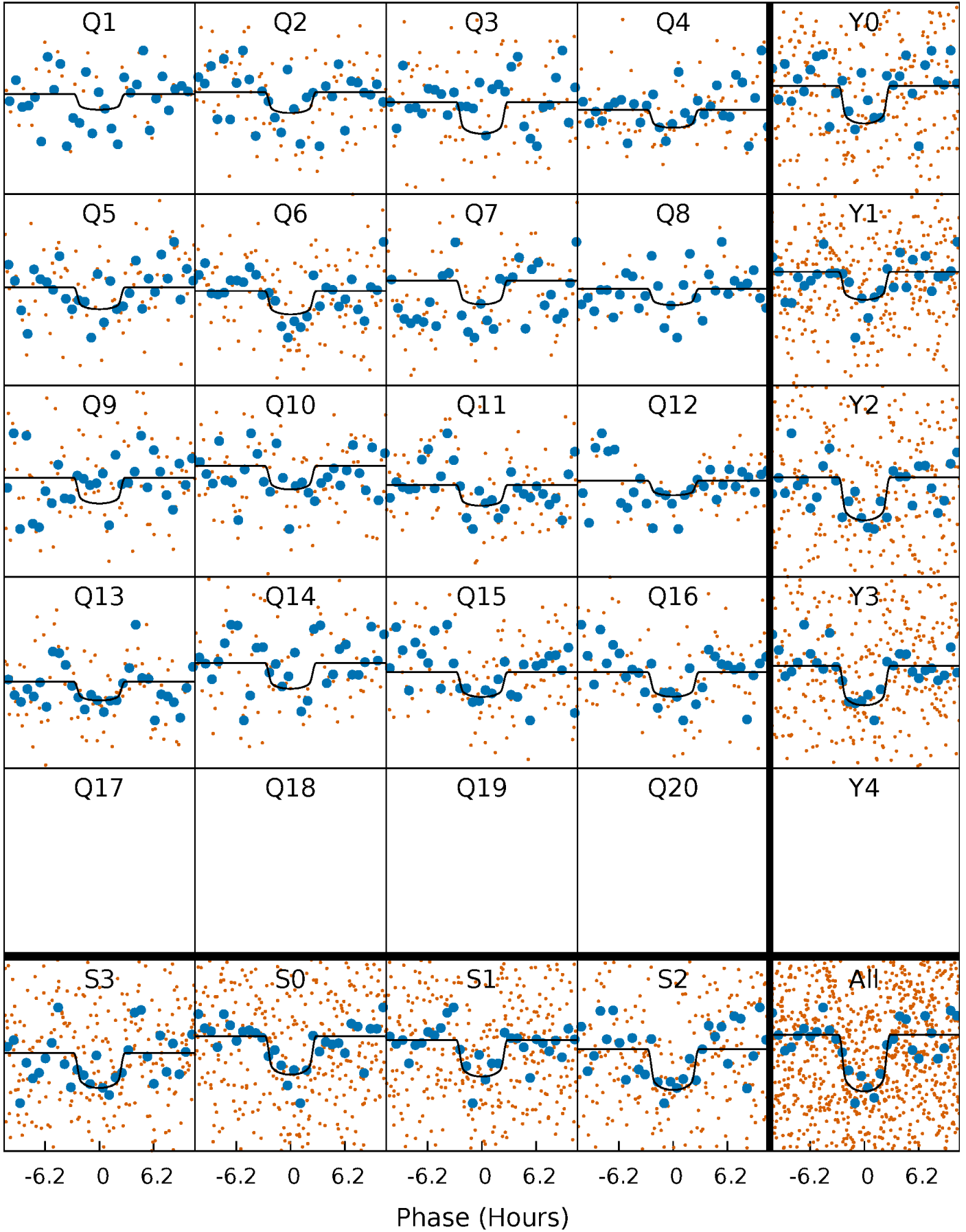
PDC Quarter-Phased Transit Curves

TCE 011032748-01 P= 43.944316 Days $T_0=144.134466$ (BKJD)



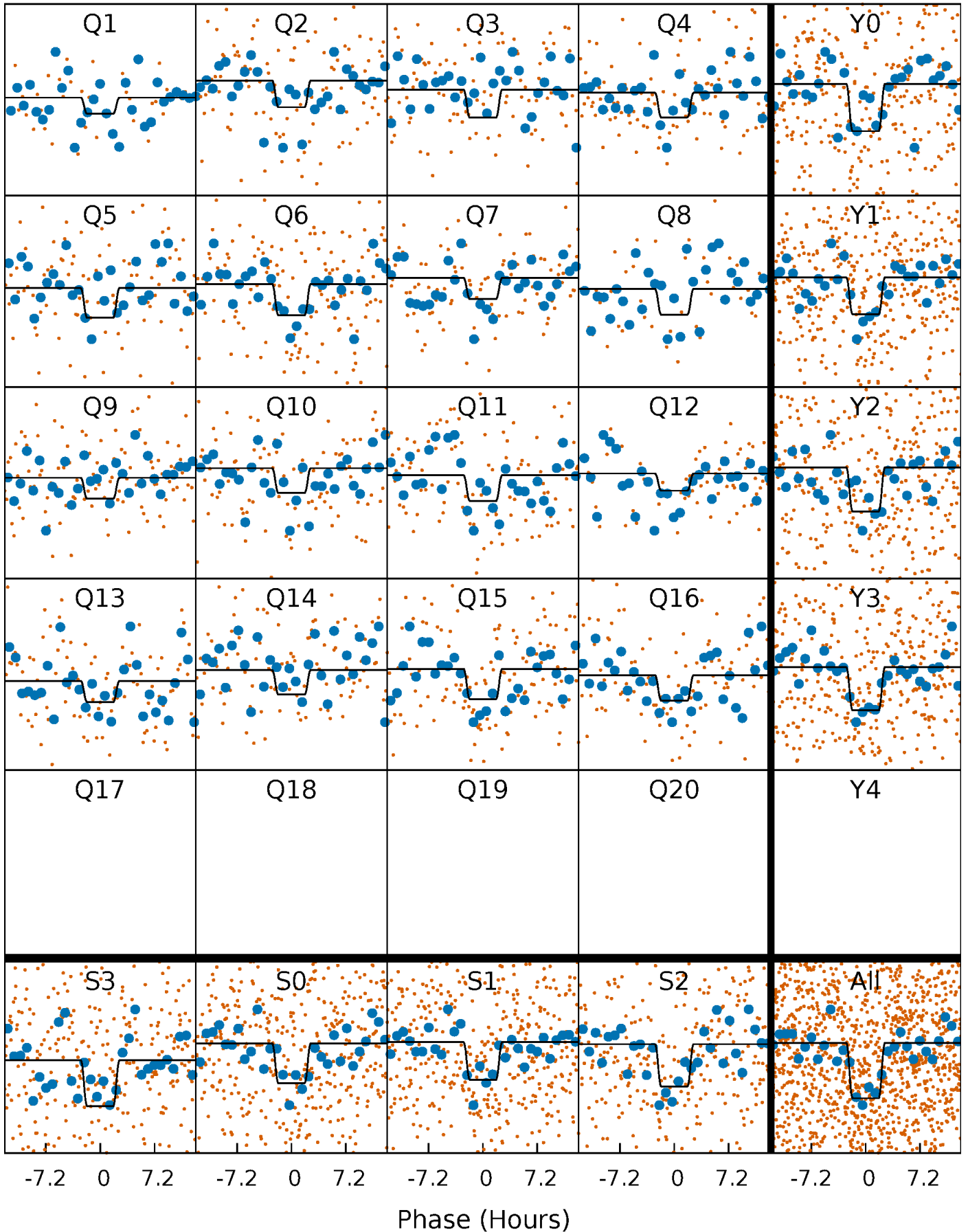
DV Quarter-Phased Transit Curves

TCE 011032748-01 P= 43.944316 Days $T_0=144.134466$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

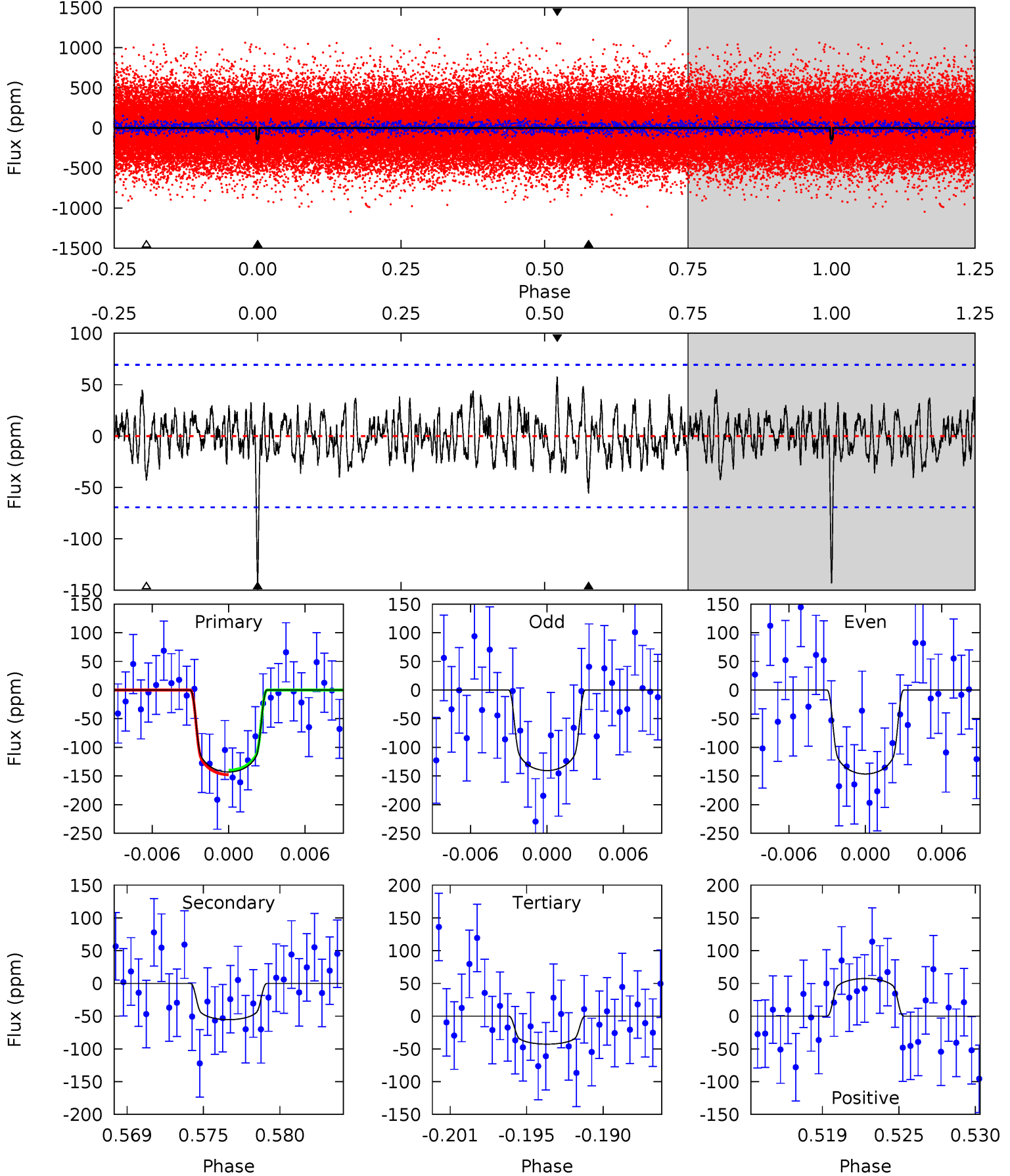
TCE 011032748-01 P= 43.945293 Days $T_0=144.119193$ (BKJD)



DV Model-Shift Uniqueness Test

011032748-01, P = 43.944316 Days, E = 100.190150 Days

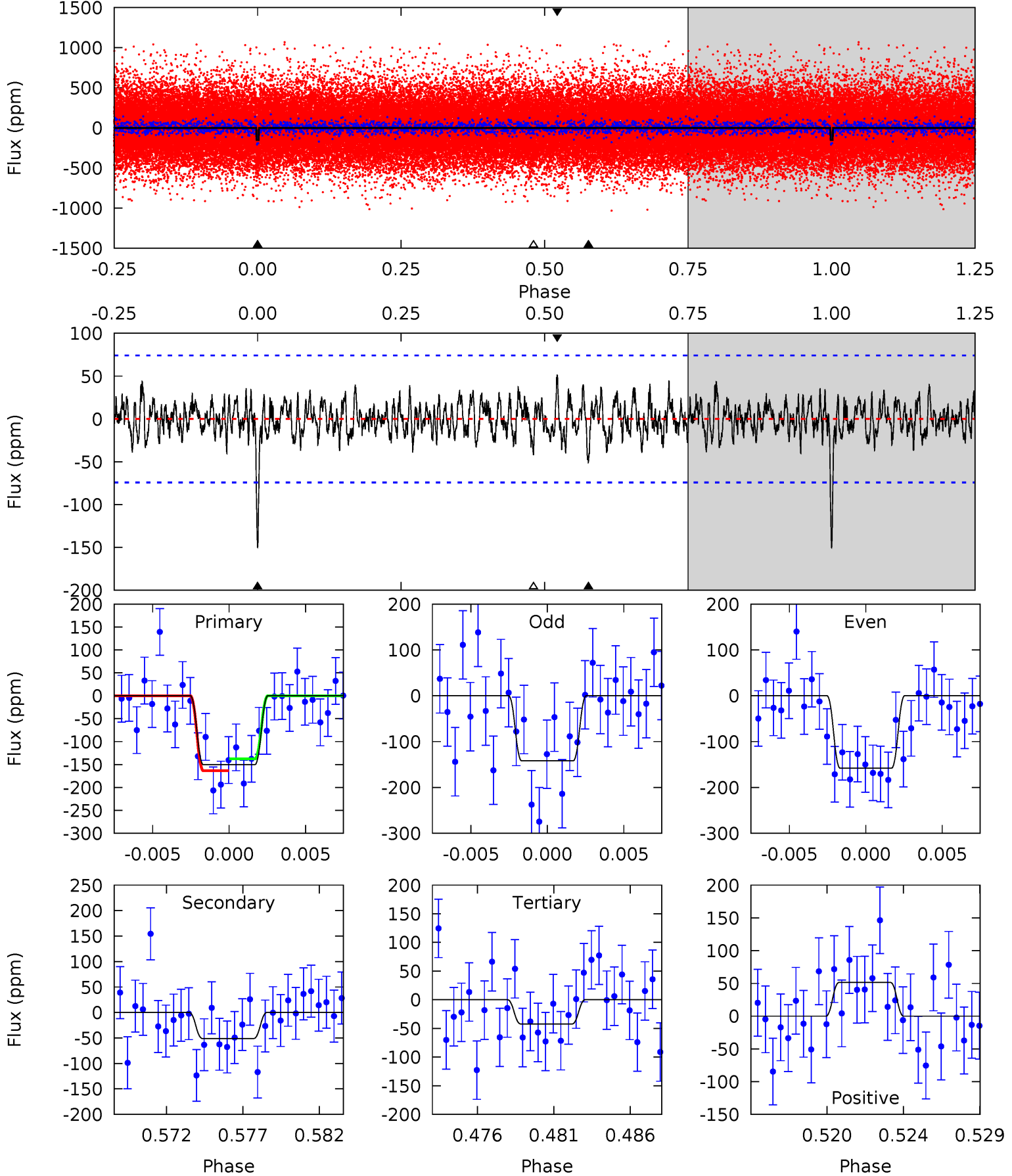
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	4.11	3.17	4.26	5.14	2.77	1.25	7.44	6.36	0.94	-0.14	0.22	0.97	0.29	0.29



Alt Model-Shift Uniqueness Test

011032748-01, P = 43.945293 Days, E = 100.173900 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	3.55	2.93	3.57	5.16	2.82	1.12	7.52	6.88	0.62	-0.03	0.55	1.04	0.25	0.89



Stellar Parameters For KIC 011032748

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6008^{+162}_{-180}	$4.537^{+0.038}_{-0.212}$	$-0.320^{+0.300}_{-0.300}$	$0.875^{+0.255}_{-0.068}$	$0.961^{+0.117}_{-0.129}$	$2.020^{+0.415}_{-1.070}$
	+3%/-3%	+1%/-5%	+94%/-94%	+29%/-8%	+12%/-13%	+21%/-53%
Source	PHO1	KIC0	KIC0	DSEP		

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

Secondary Eclipse Parameters for KIC 011032748-01 / KOI 8039.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-55 ± 13	$1.34^{+0.47}_{-0.49}$	727^{+54}_{-34}	4680^{+883}_{-560}	964^{+1235}_{-473}
Alt.	-51 ± 14	$1.32^{+0.48}_{-0.40}$	726^{+52}_{-32}	4552^{+870}_{-529}	891^{+1055}_{-470}

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 $A_{obs} \gg 1.0$

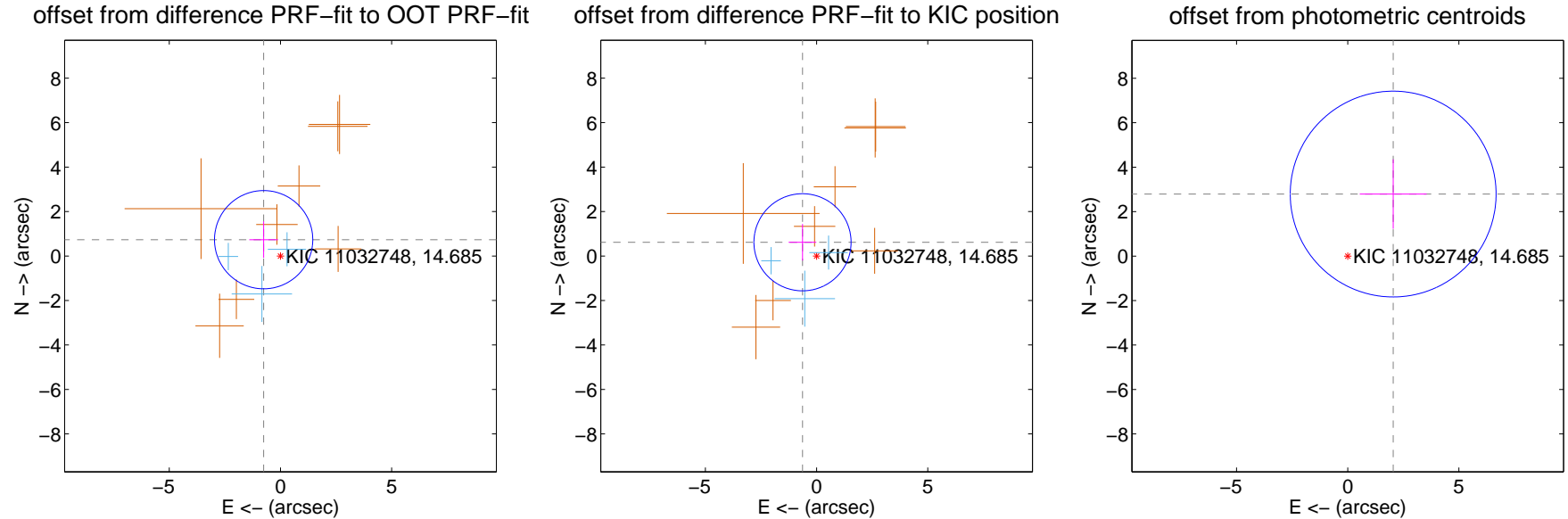
DV Centroid Data

Supplemental centroid analysis for 011032748-01. Kepler magnitude: 14.69. Transit SNR 8.71

There are 3 quarters with good PRF difference image offsets

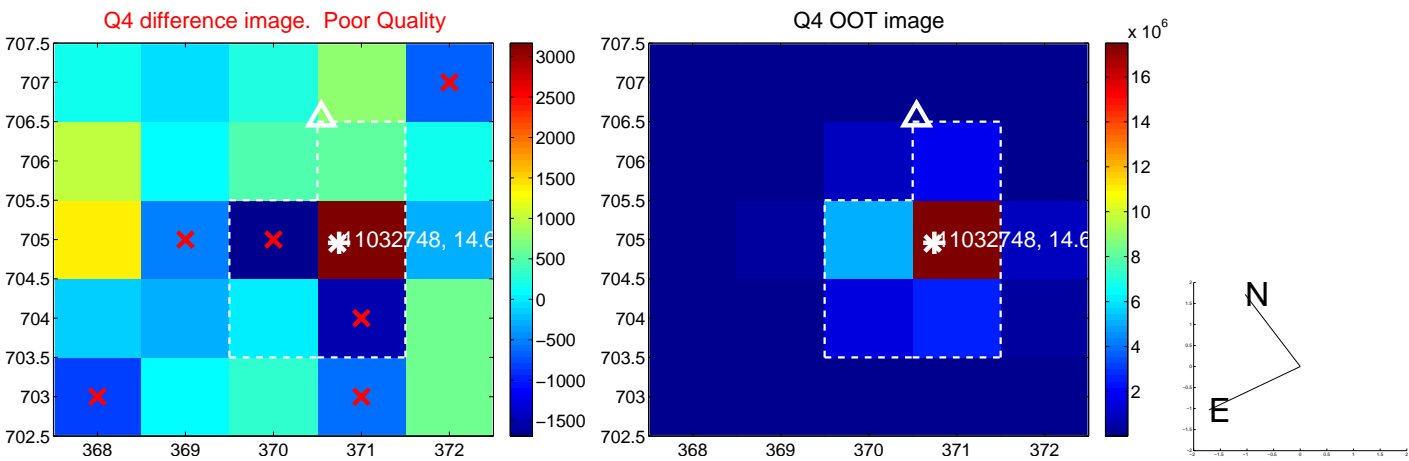
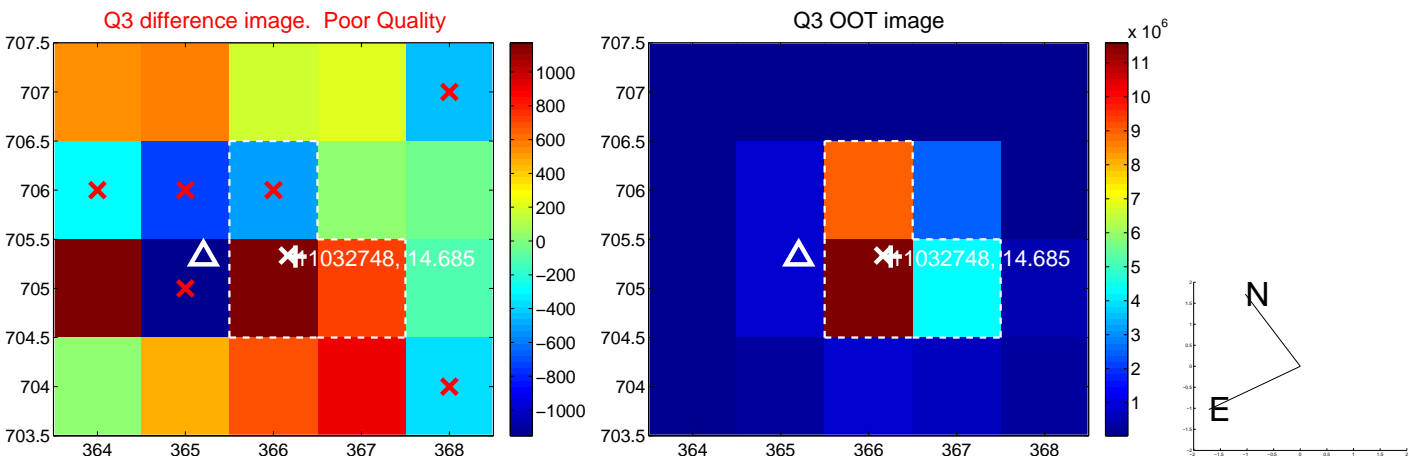
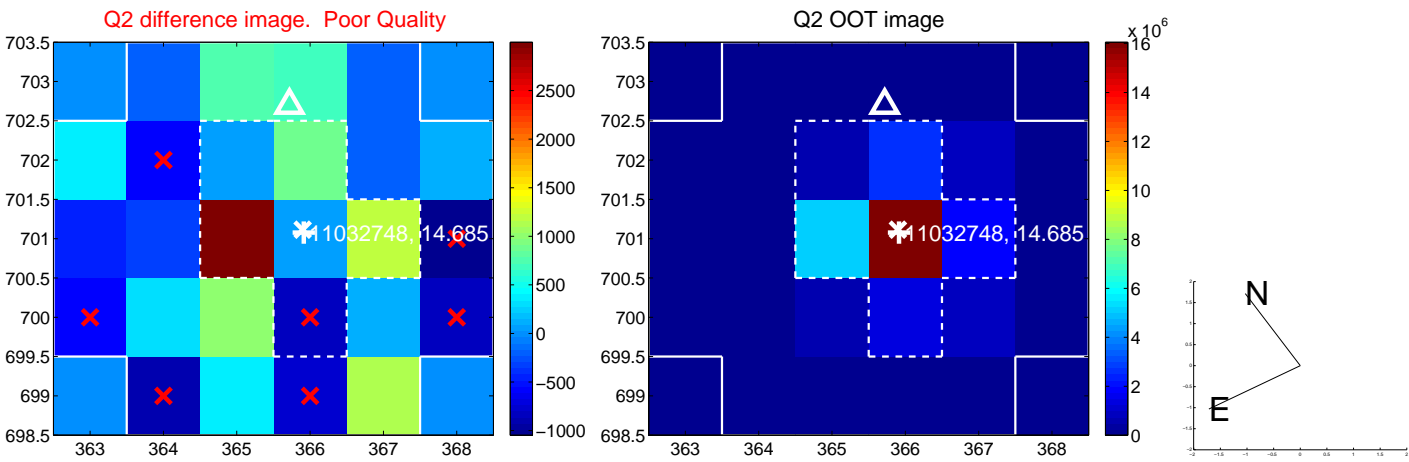
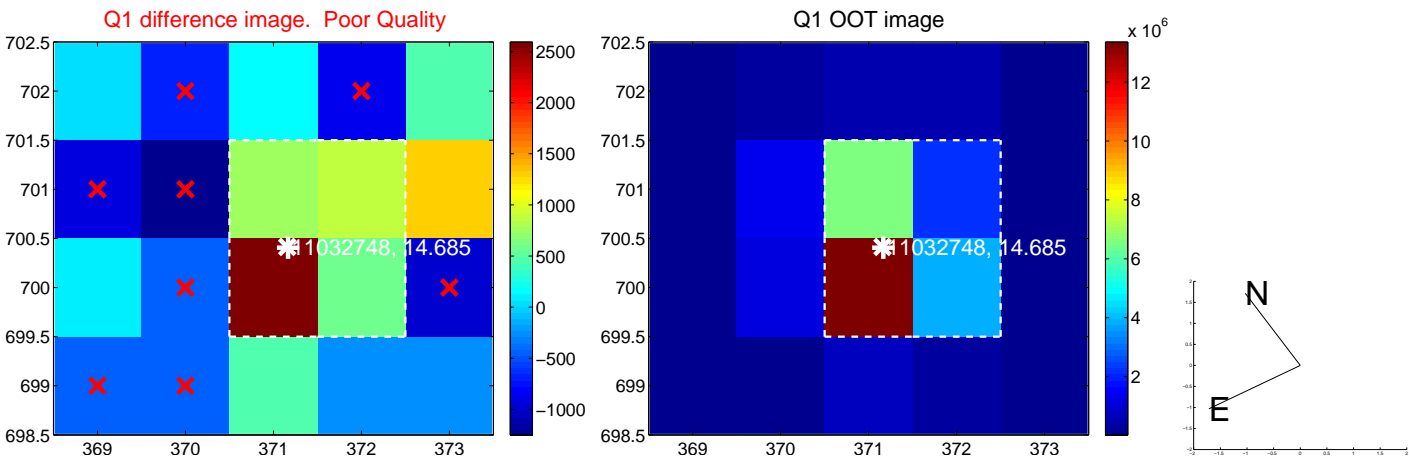
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.054 ± 0.736	1.43	0.756 ± 0.647	0.734 ± 0.821
PRF-fit source offset from KIC position	0.885 ± 0.728	1.22	0.633 ± 0.623	0.618 ± 0.823
photometric centroid source offset	3.46 ± 1.54	2.24	-2.04 ± 1.50	2.79 ± 1.56

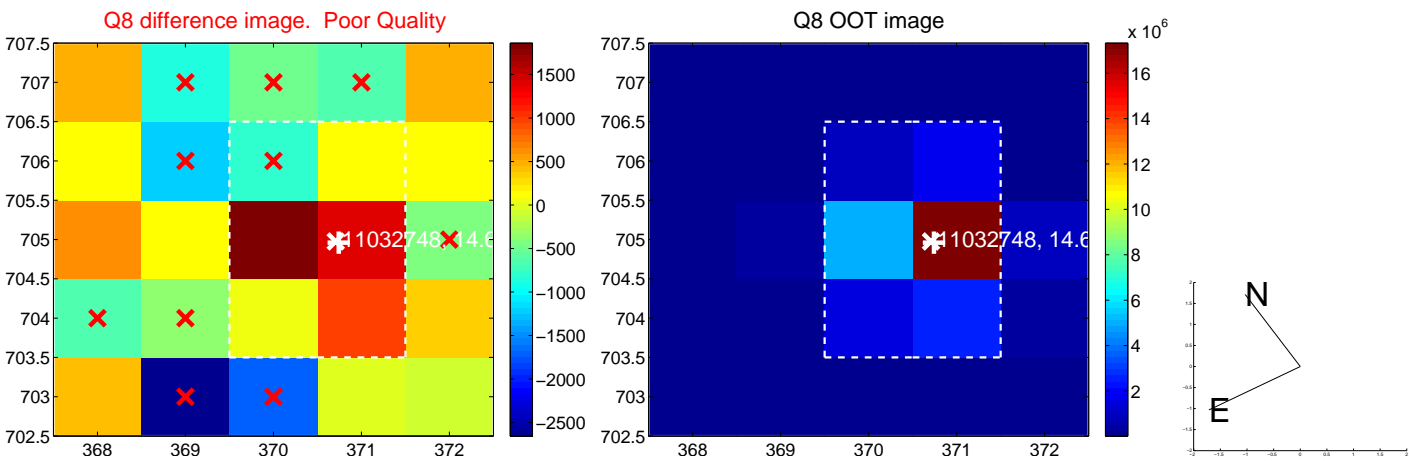
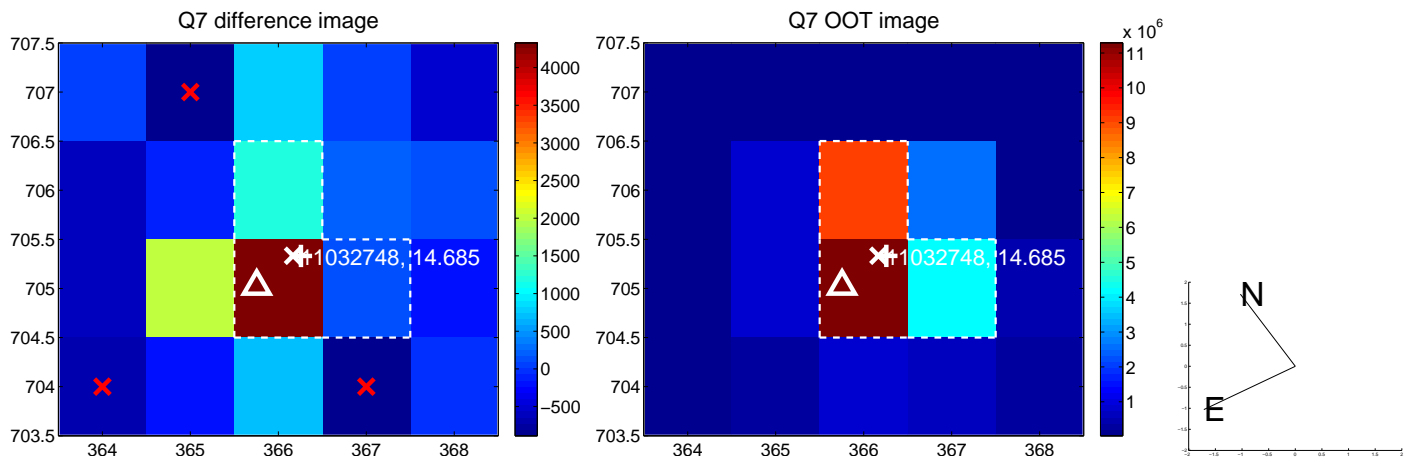
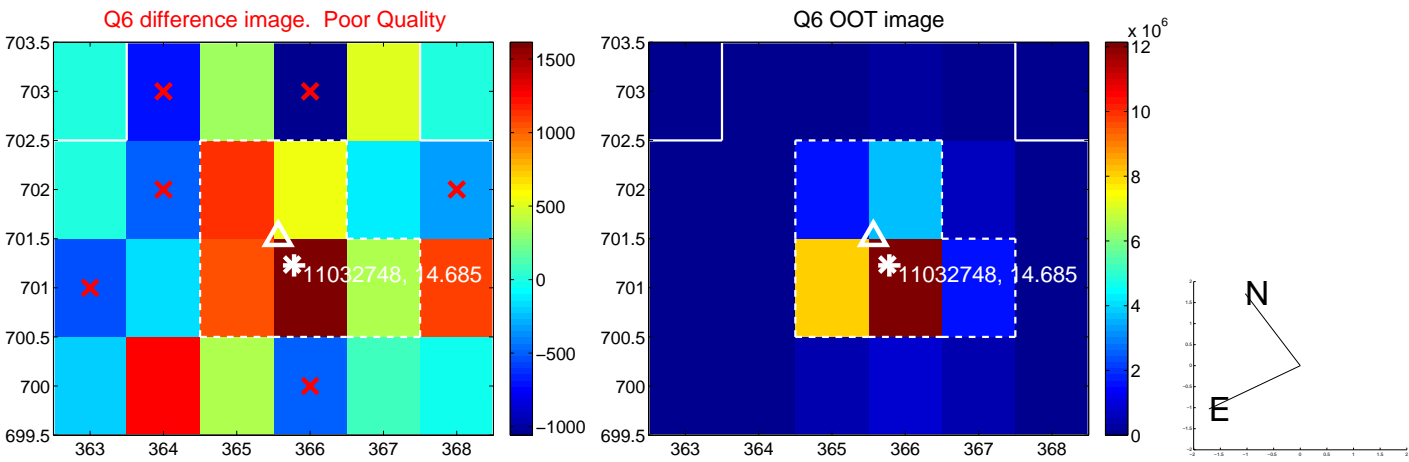
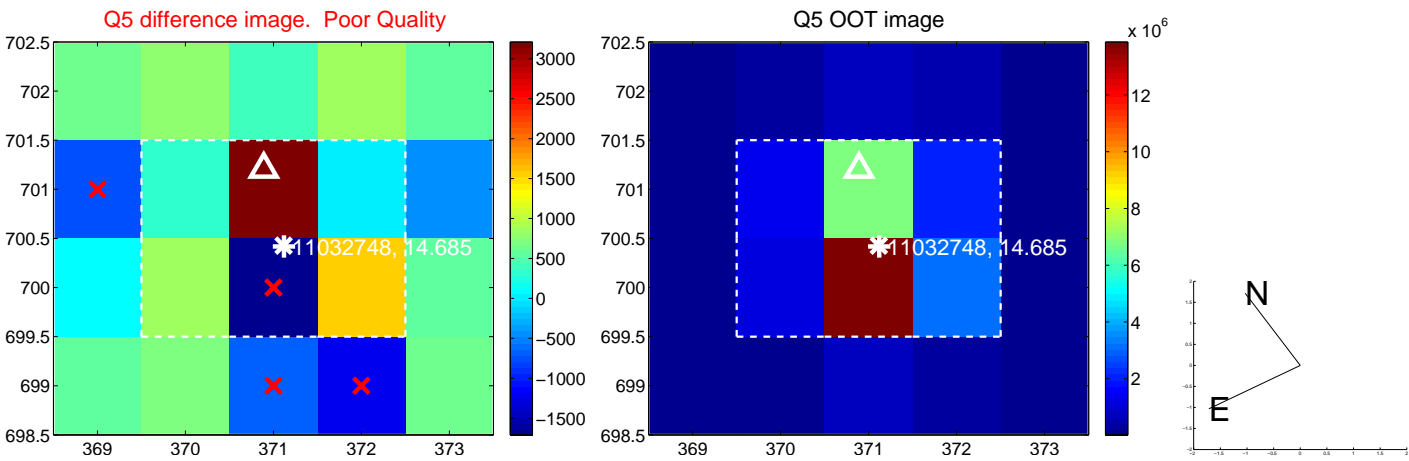


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

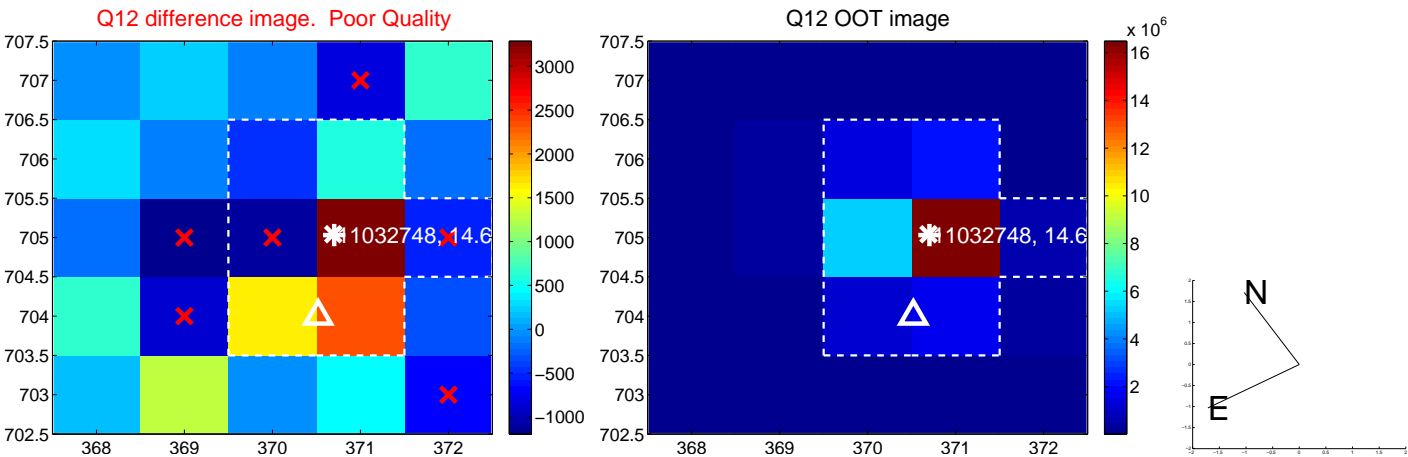
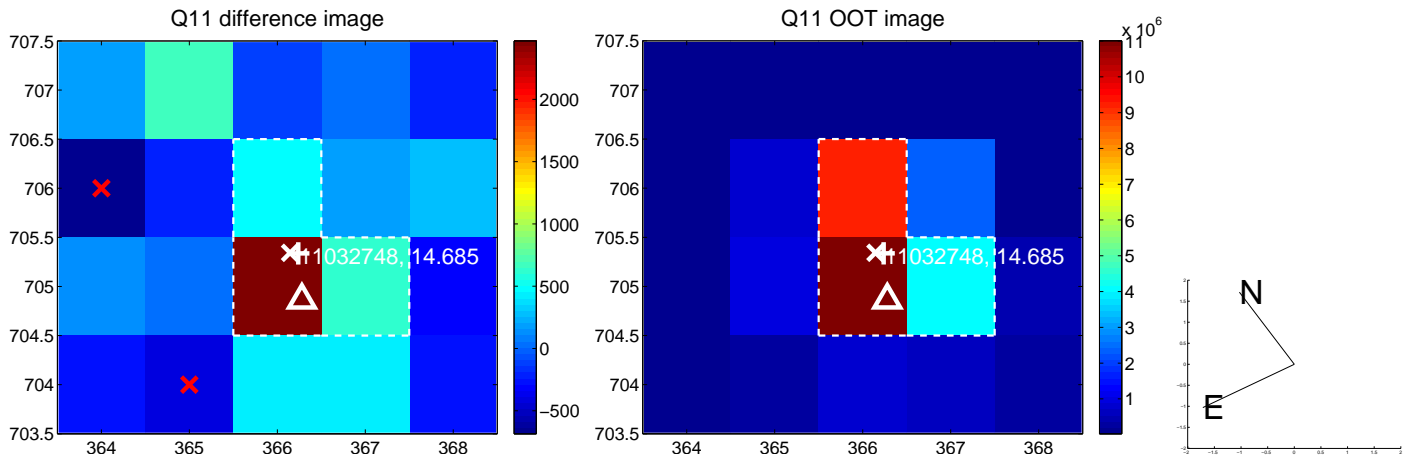
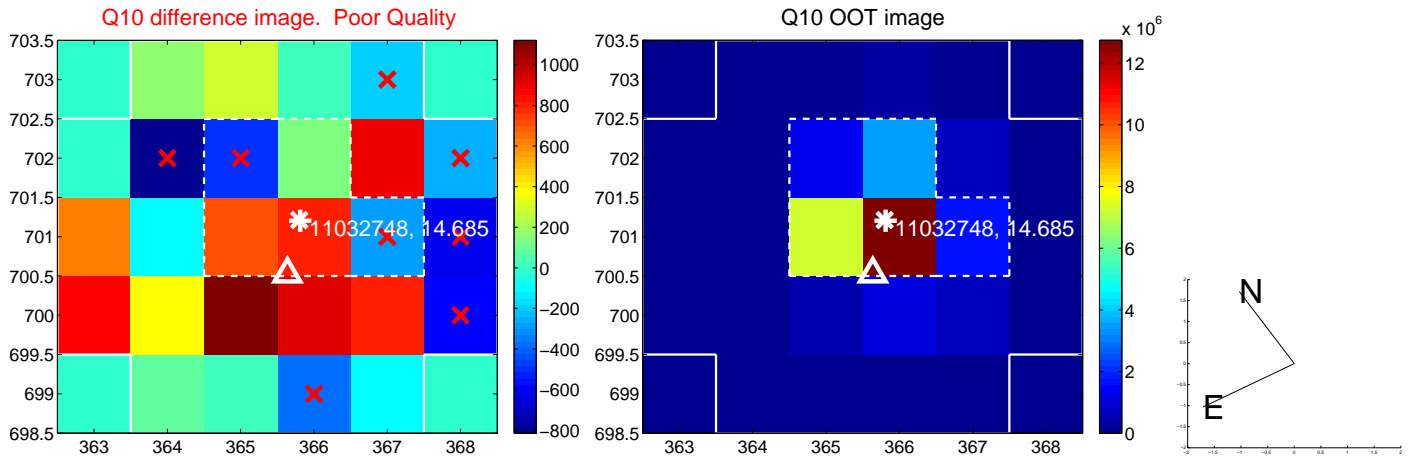
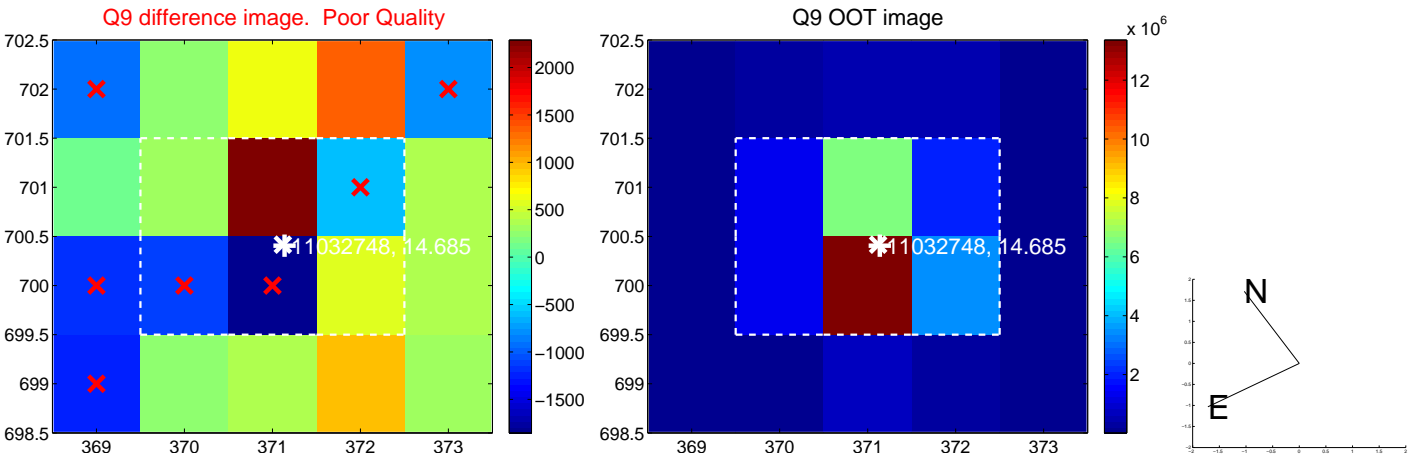
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



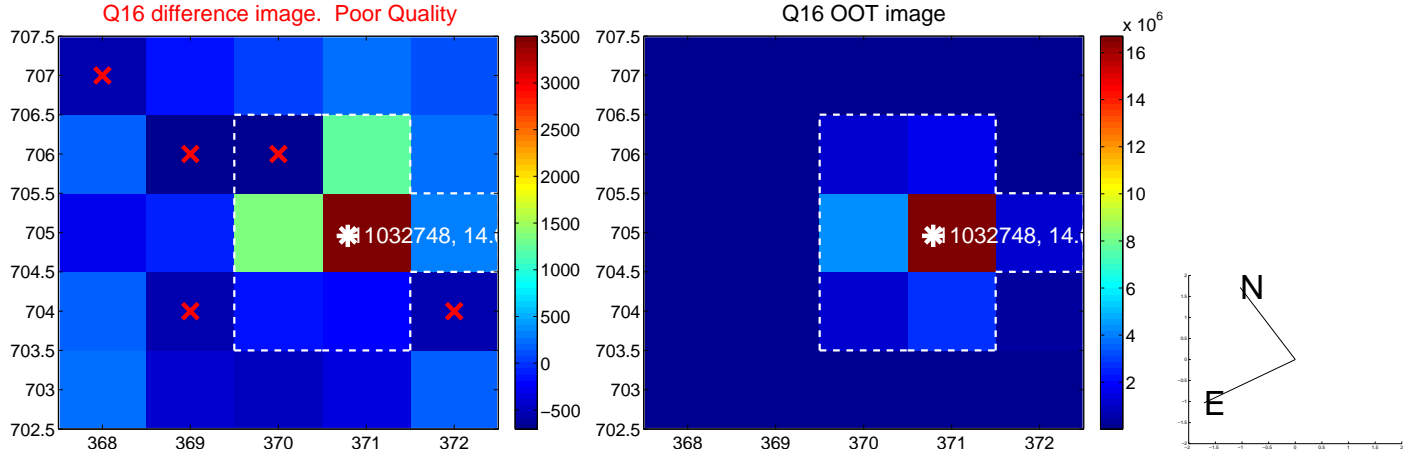
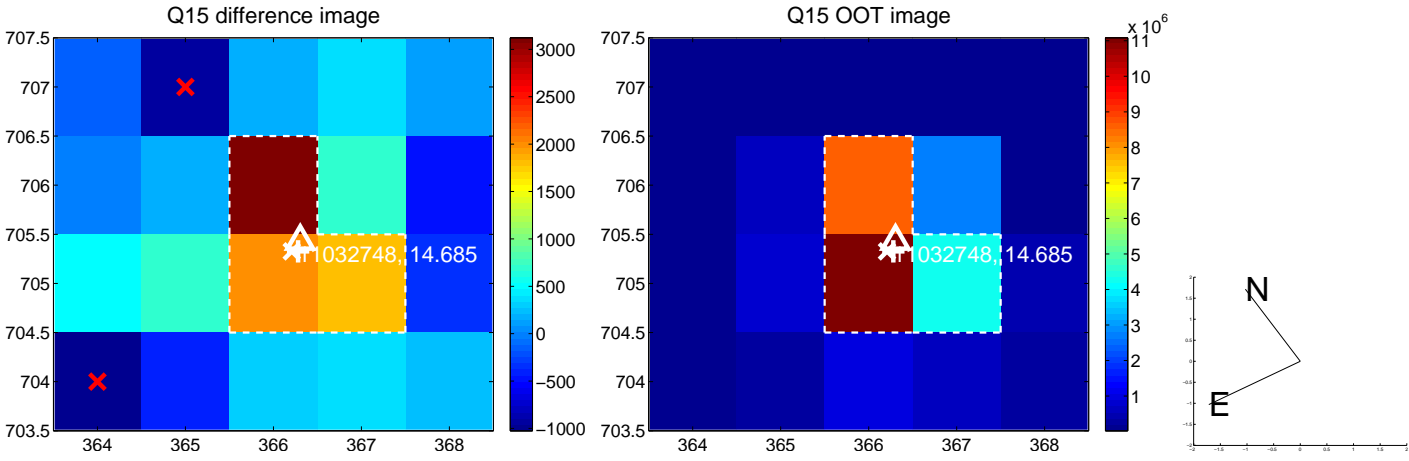
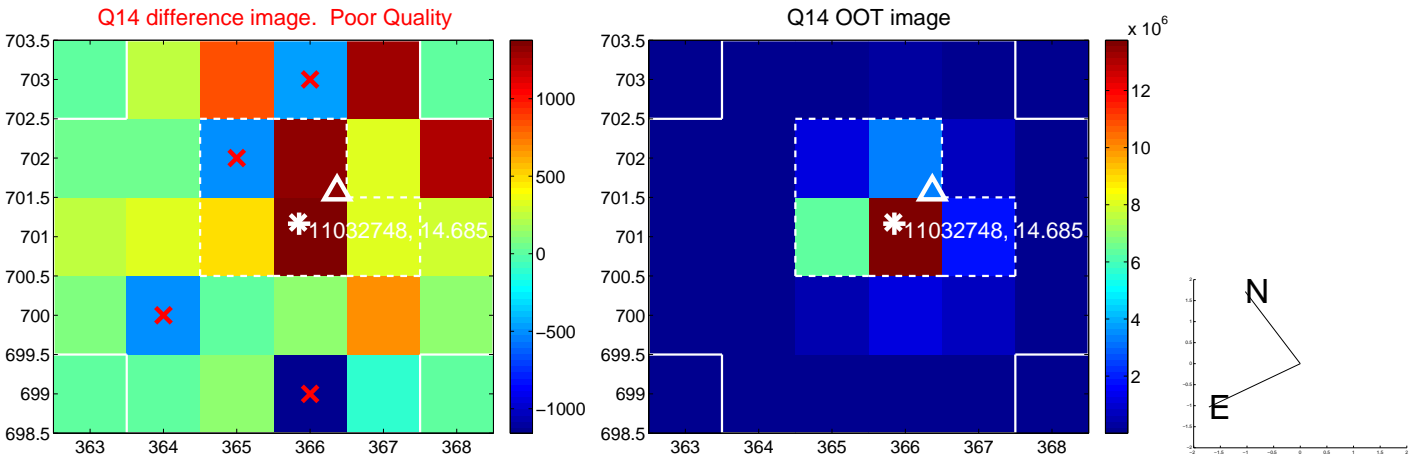
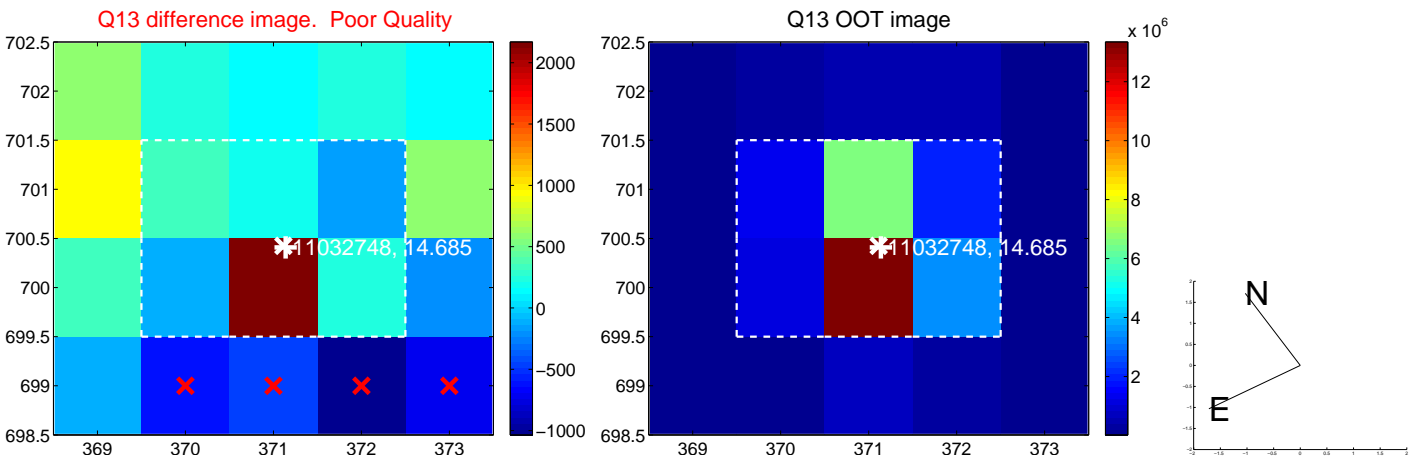
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



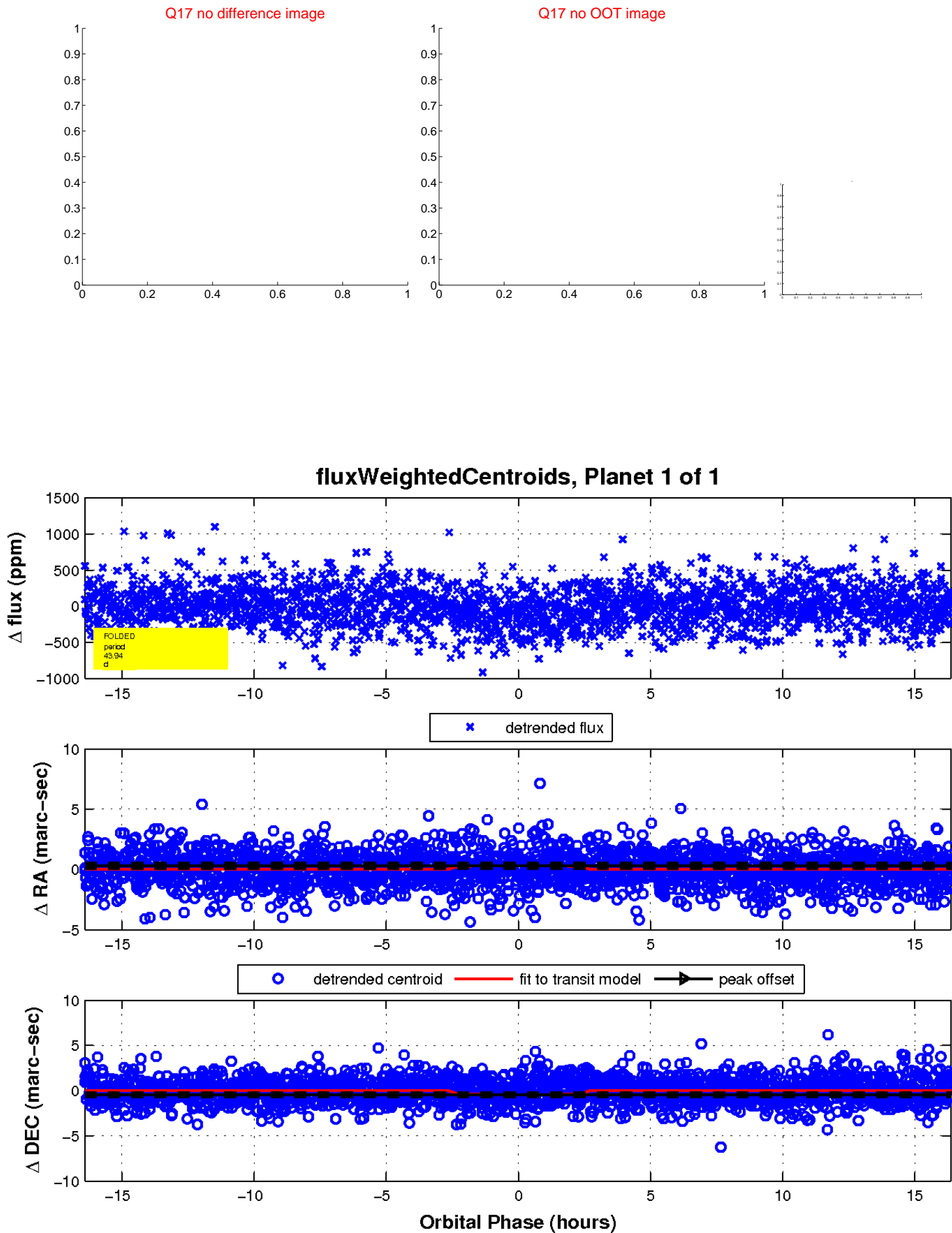
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

