

KIC 011621223

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})
011621223-01	OBS	0355.01	4.903342	133.670908	331.2	3.016	70.8	78.5	1.30	6045	2.70	571.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011621223-01	OBS	PC	1.00	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.

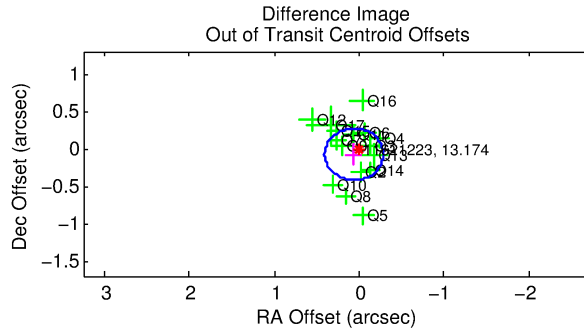
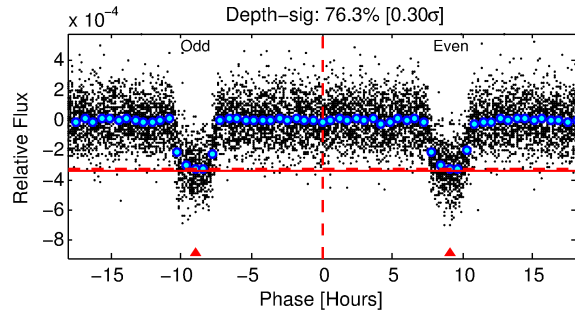
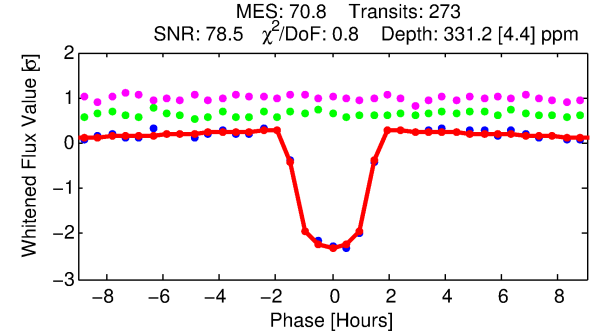
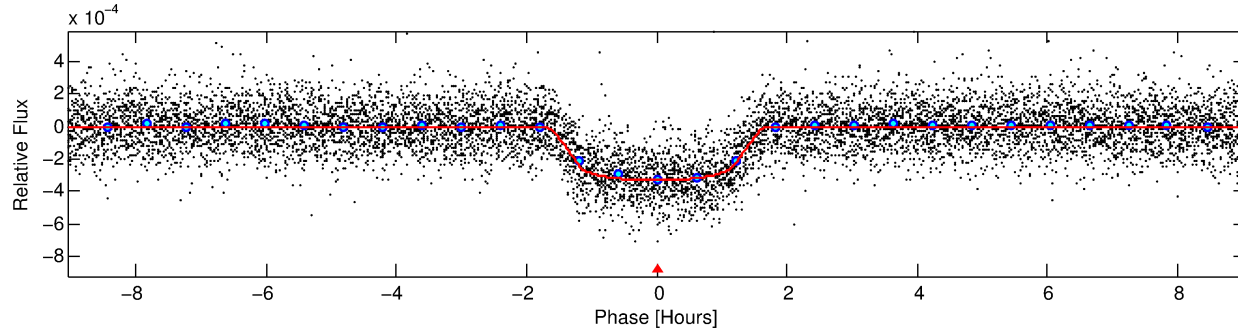
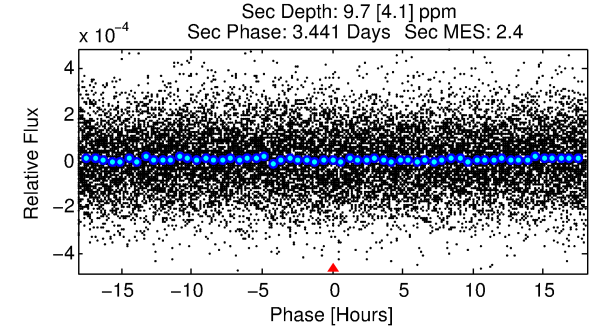
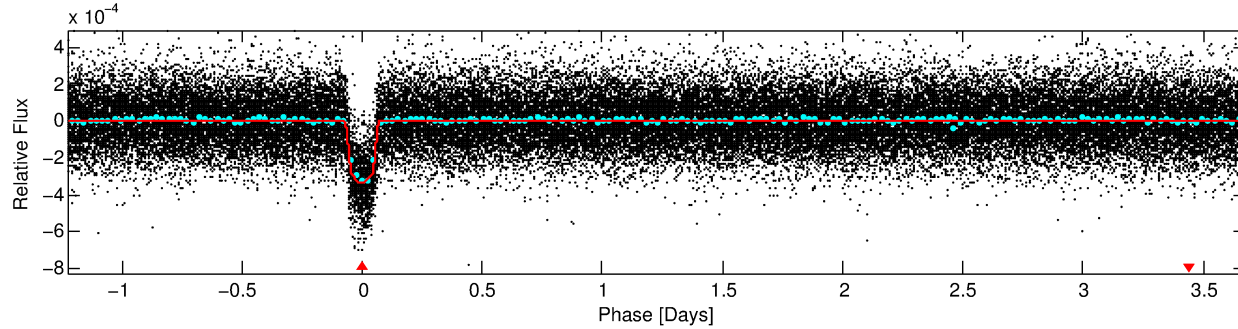
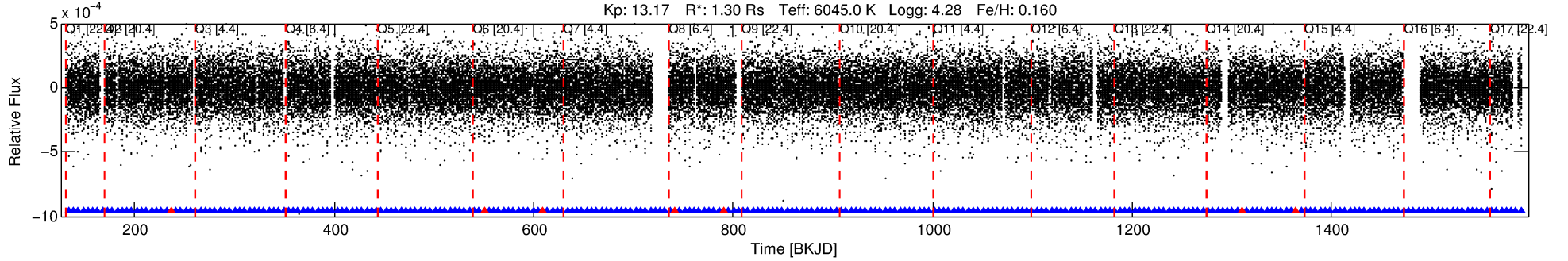
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011621223-01

No Significant Match Found

DV One-Page Summary

KIC: 11621223 Candidate: 1 of 1 Period: 4.903 d
KOI: K00355.01 Corr: 0.976



DV Fit Results:

Period = 4.90334 [0.00000] d
Epoch = 133.6709 [0.0006] BKJD
Rp/R* = 0.0191 [0.0015]
a/R* = 6.92 [2.61]
b = 0.86 [0.12]
Seff = 571.93 [137.10]
Teff = 1247 [75] K
Rp = 2.70 [0.50] Re
a = 0.0594 [0.0087] AU
Ag = 2.57 [1.31] [1.20σ]
Teffp = 2442 [284] K [4.08σ]

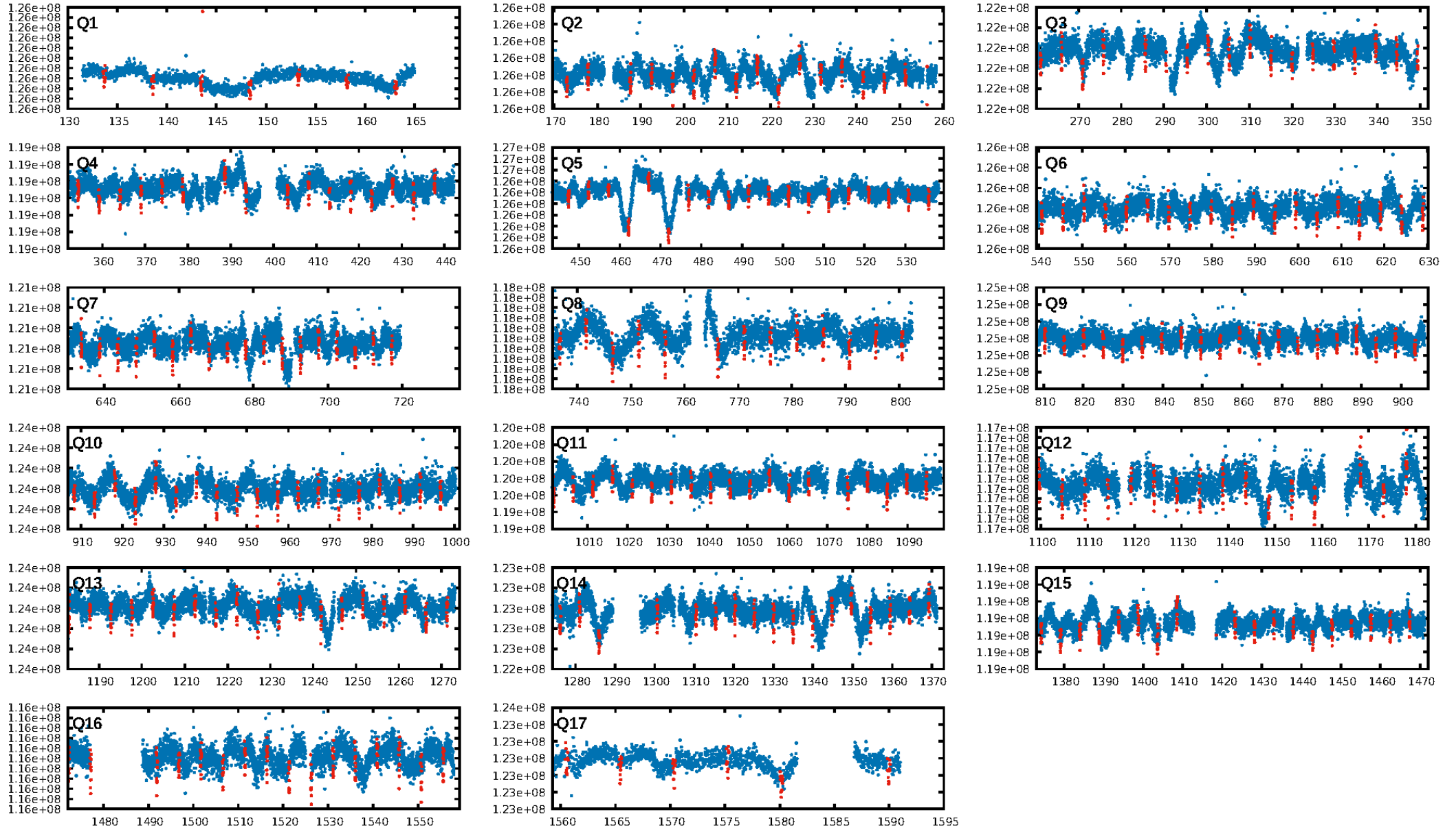
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 0.97 [253/260]
GhostDiagnostic-chr: 3.555
Centroid-sig: 71.9%
Centroid-so: 0.061 arcsec [0.38σ]
OotOffset-rm: 0.096 arcsec [0.84σ]
KicOffset-rm: 0.230 arcsec [1.87σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 1.00 [16/16]
DiffImageOverlap-fno: 1.00 [17/17]

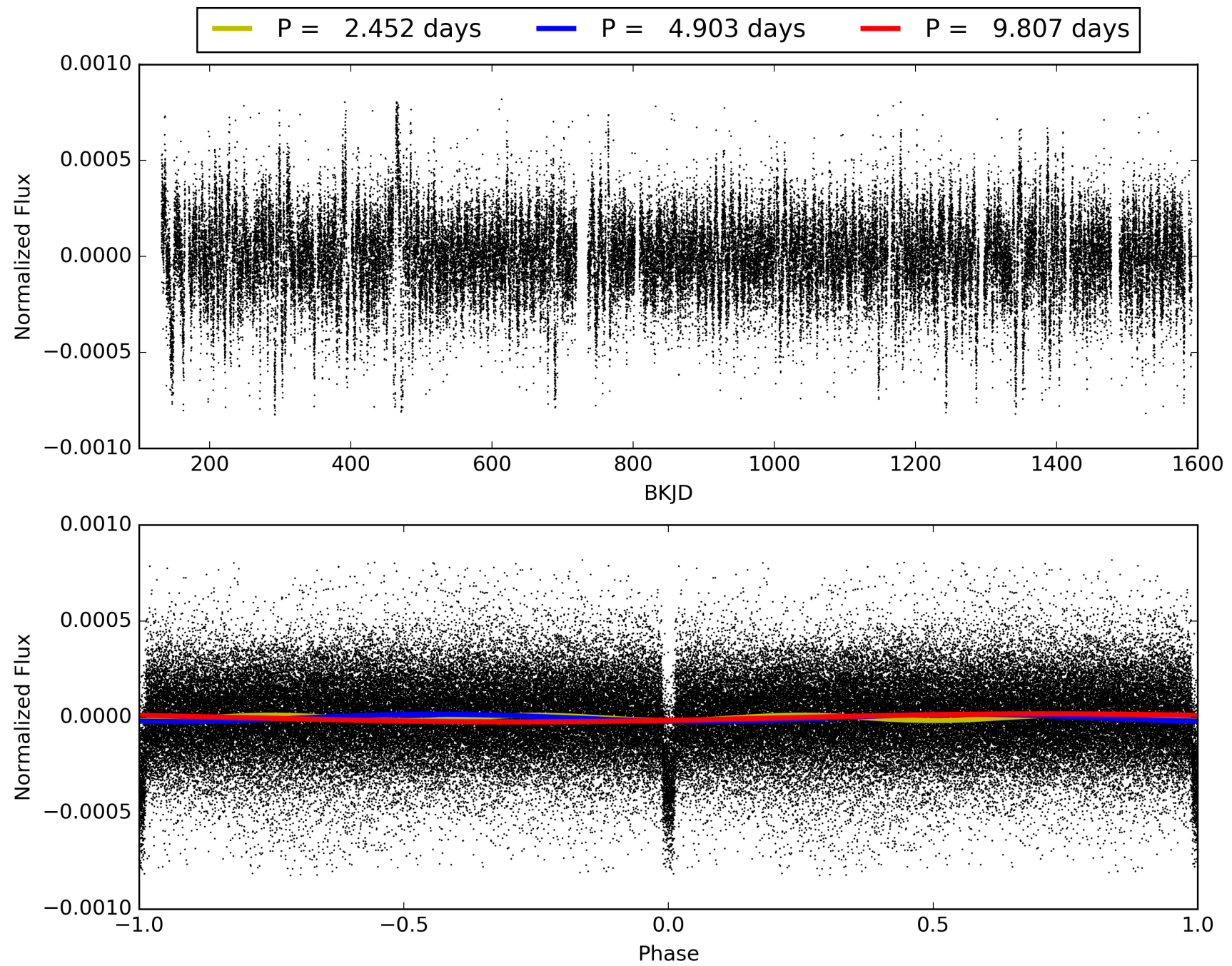
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 28-Jan-2016 23:00:01 Z

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

TCE 011621223-01, PDC Light Curves

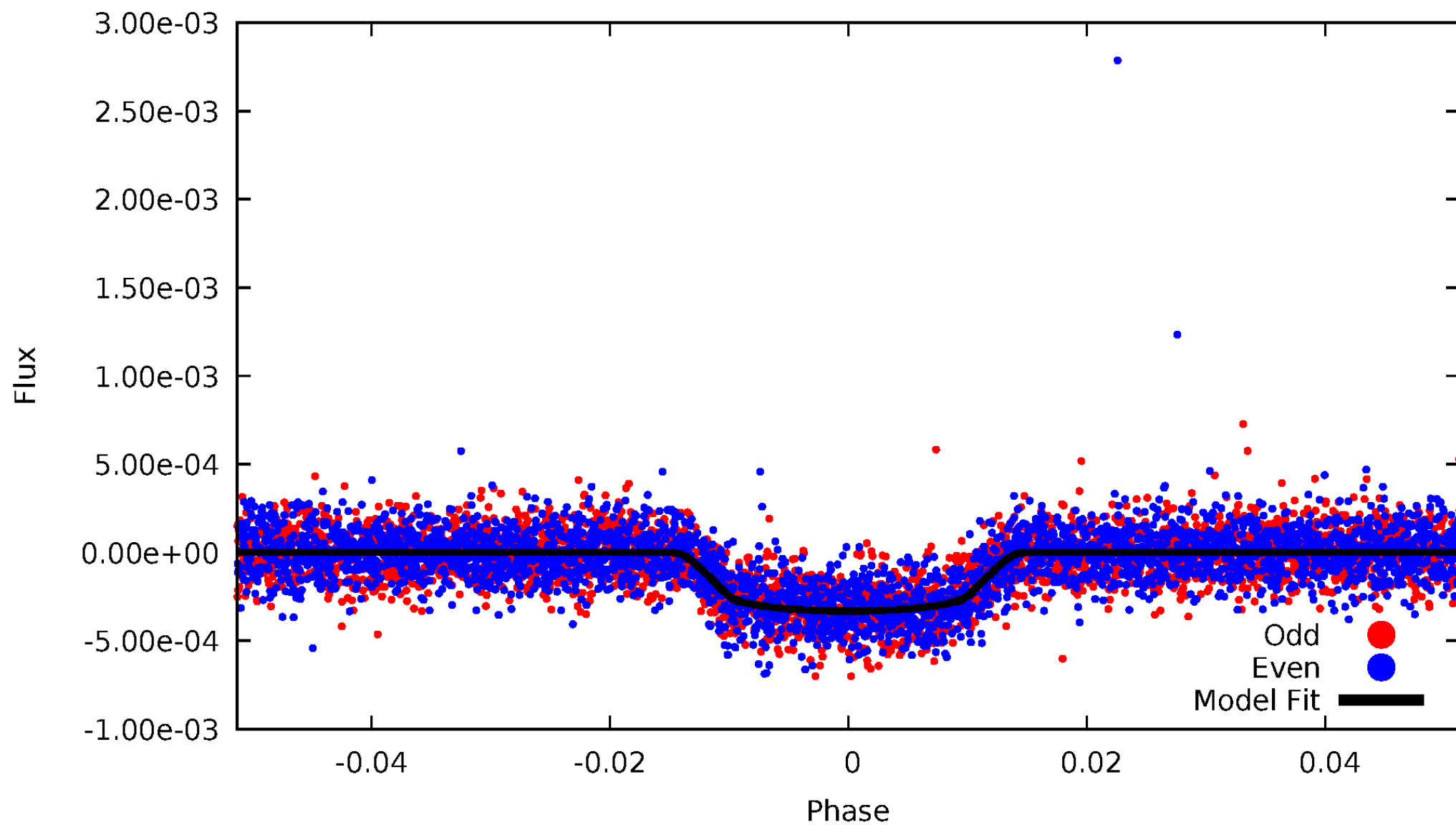


TCE 011621223-01



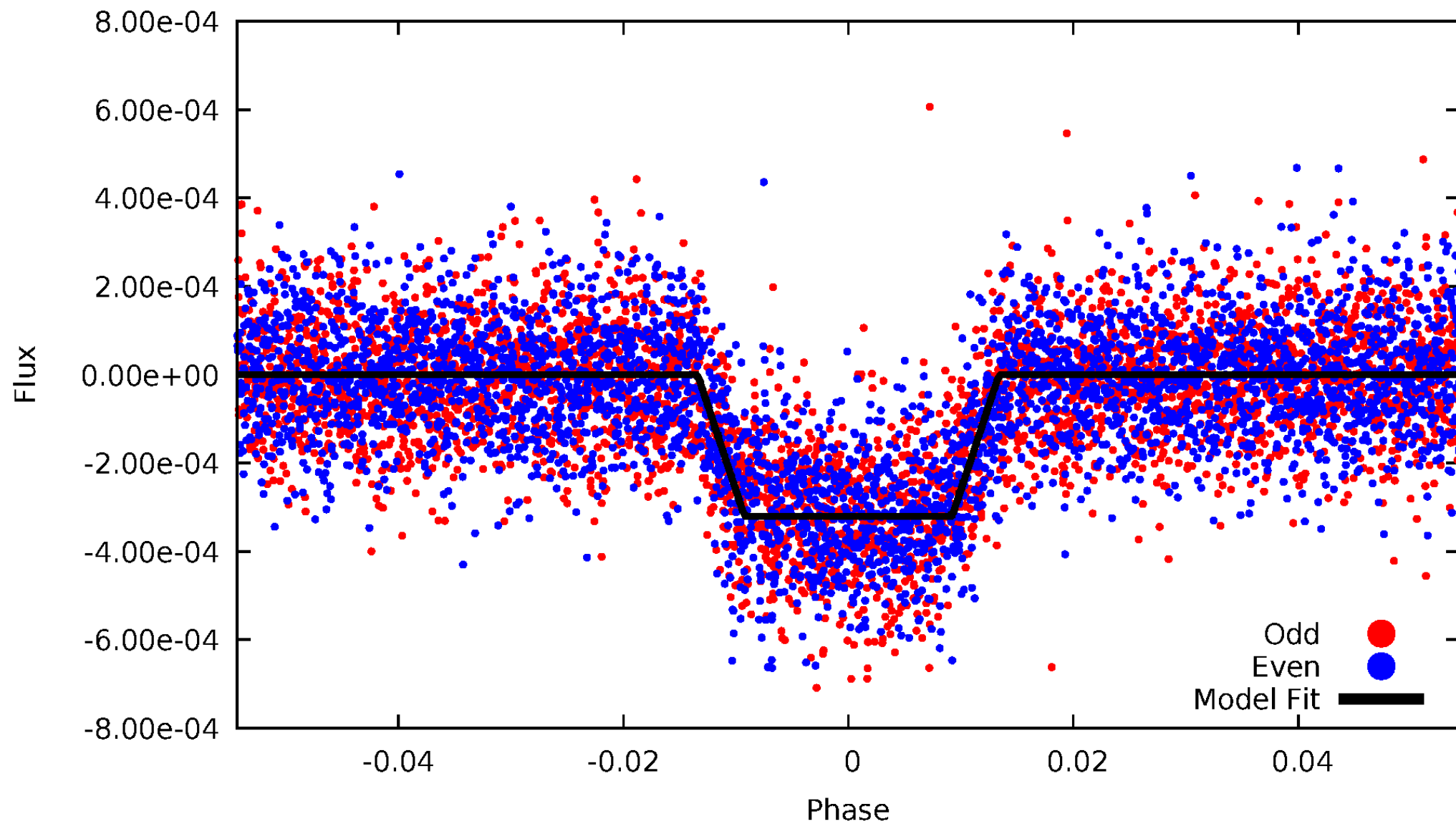
DV Odd/Even

TCE 011621223-01

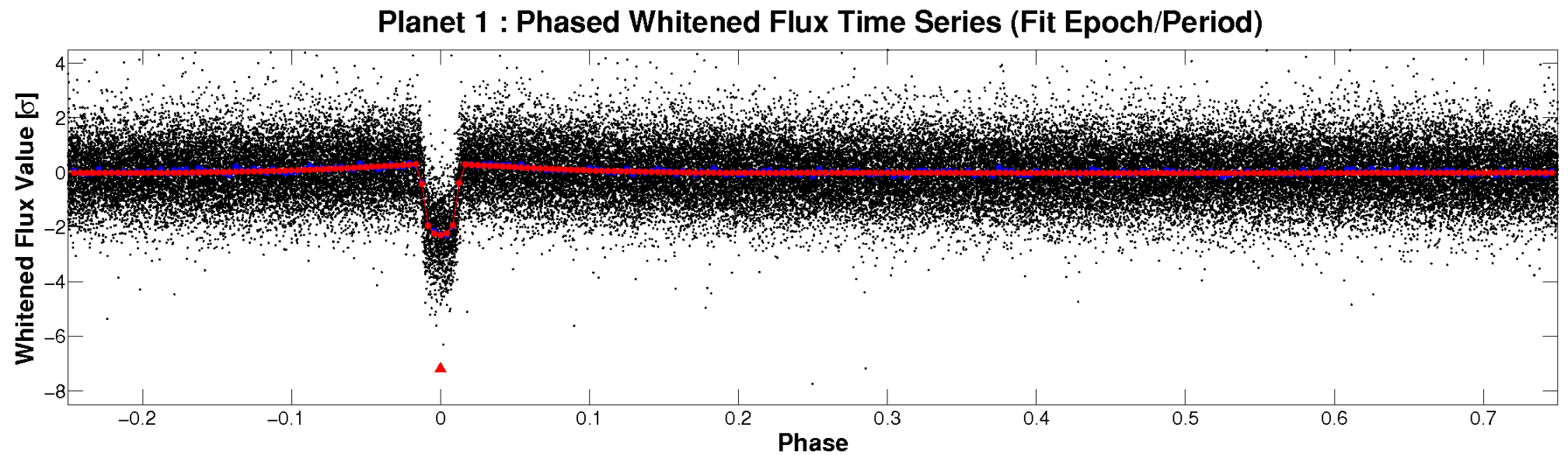
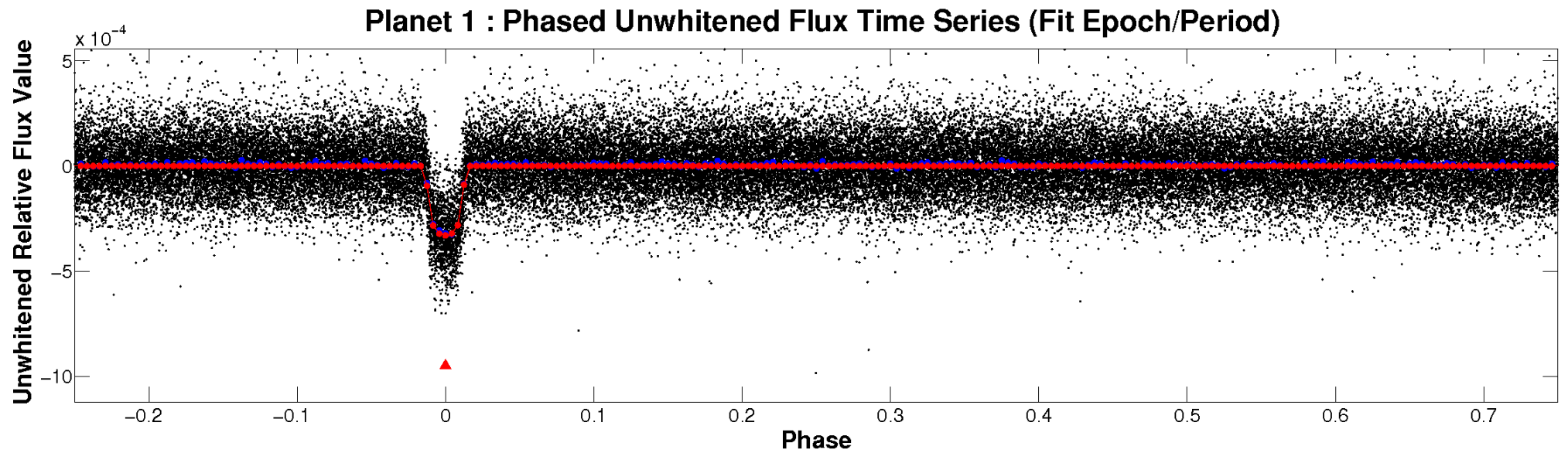


ALT Odd/Even

TCE 011621223-01

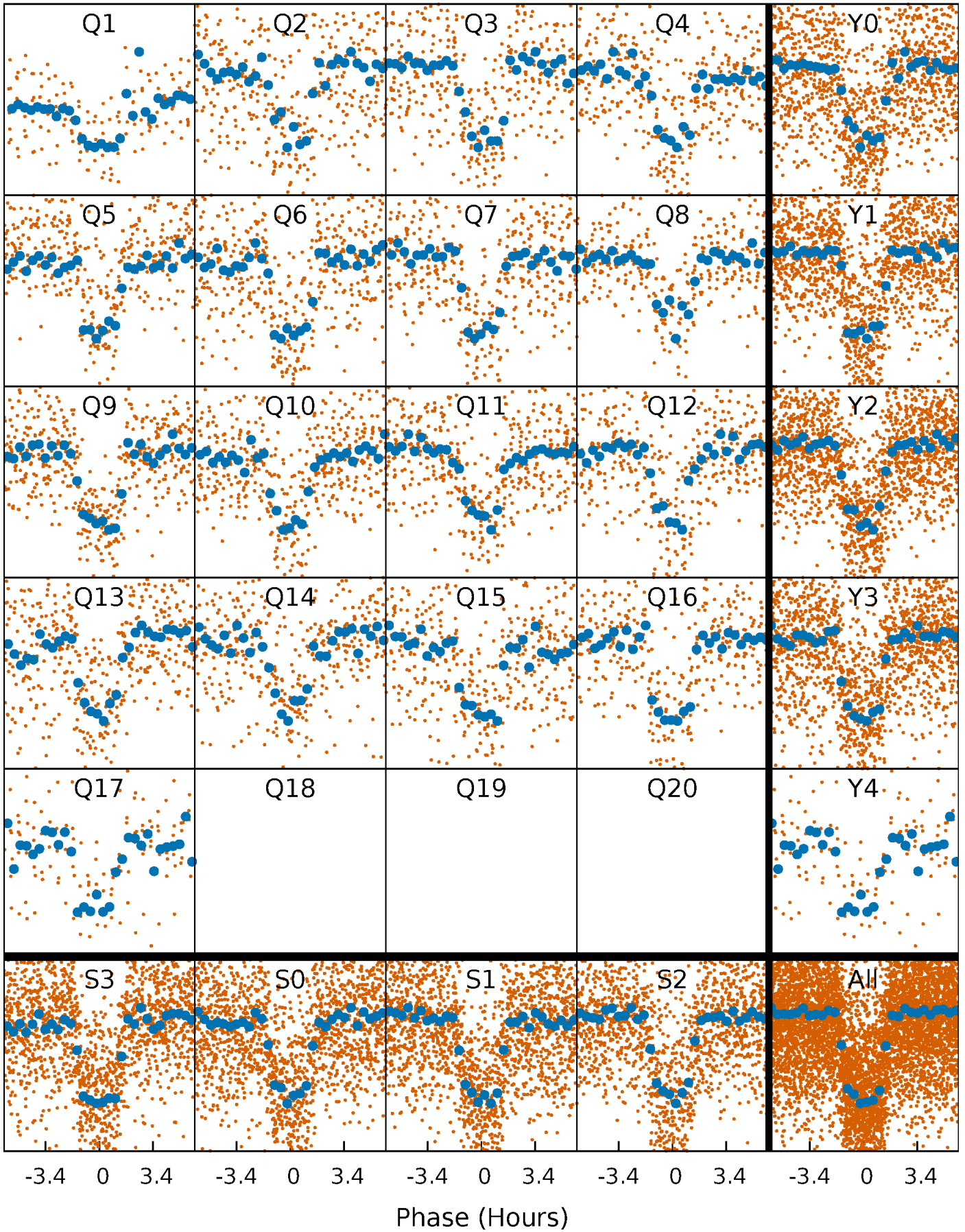


Non-Whitened Vs. Whitened Light Curve



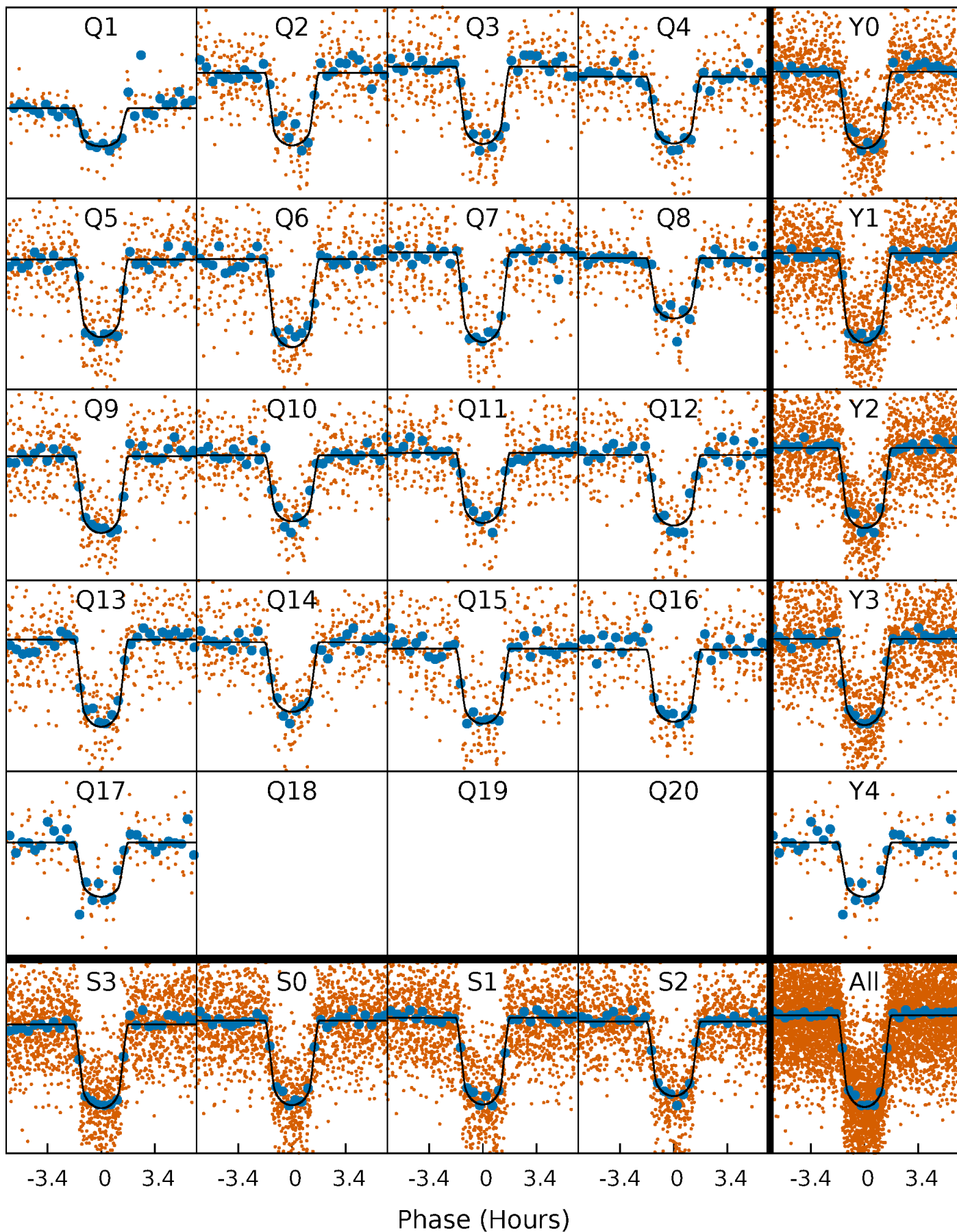
PDC Quarter-Phased Transit Curves

TCE 011621223-01 P= 4.903342 Days $T_0=133.670908$ (BKJD)



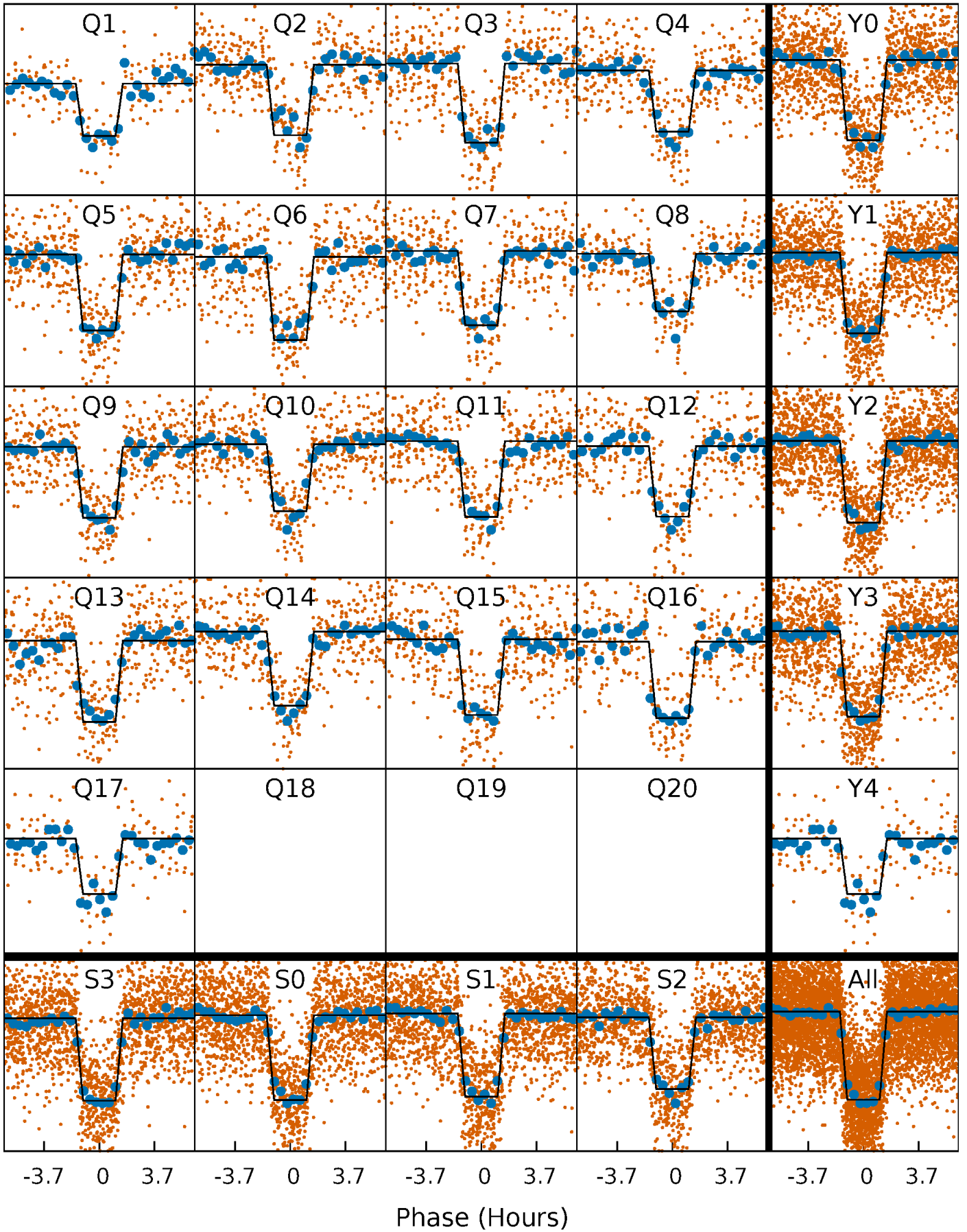
DV Quarter-Phased Transit Curves

TCE 011621223-01 P= 4.903342 Days $T_0=133.670908$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

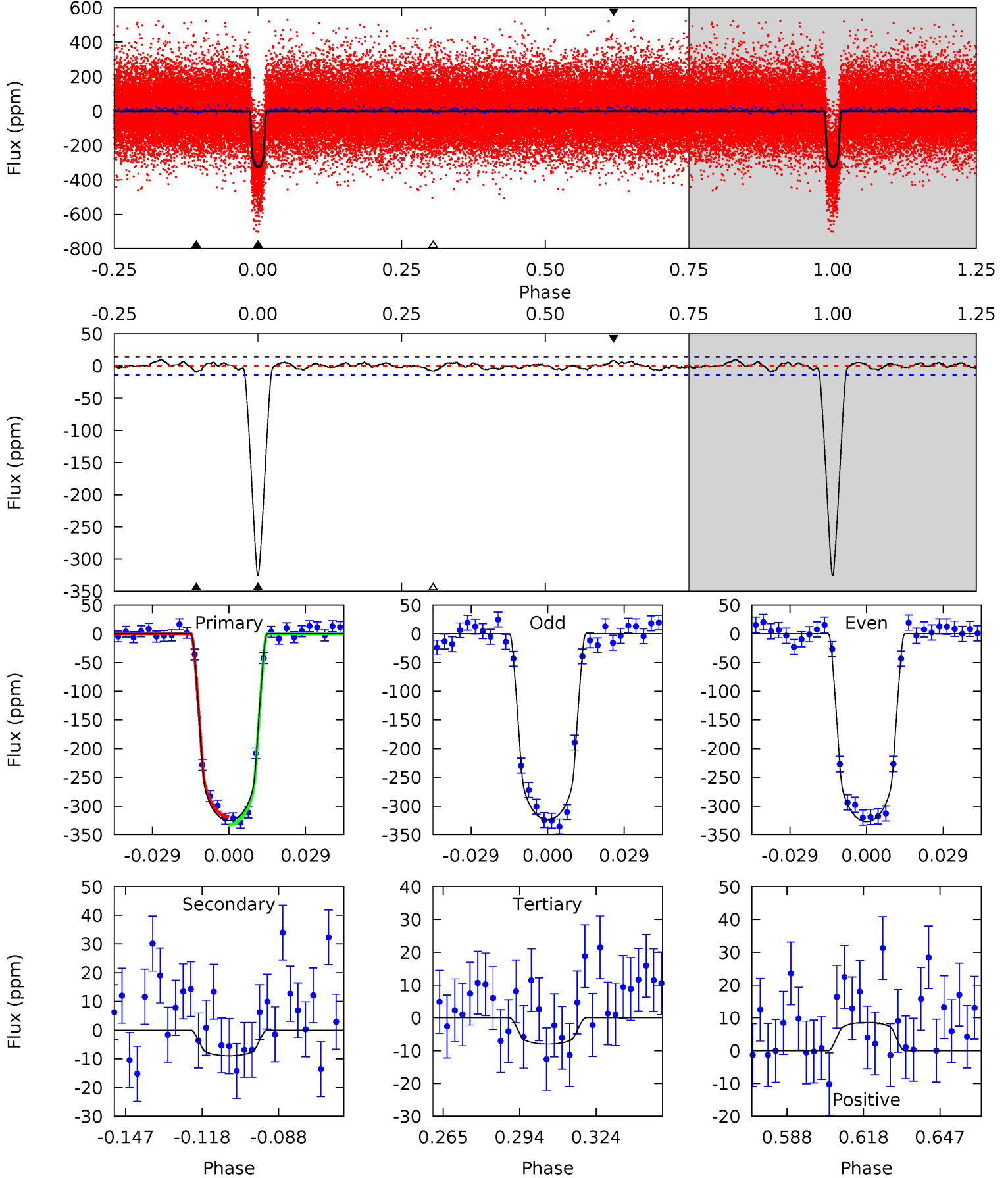
TCE 011621223-01 P= 4.903348 Days $T_0=133.670158$ (BKJD)



DV Model-Shift Uniqueness Test

011621223-01, P = 4.903342 Days, E = 128.767566 Days

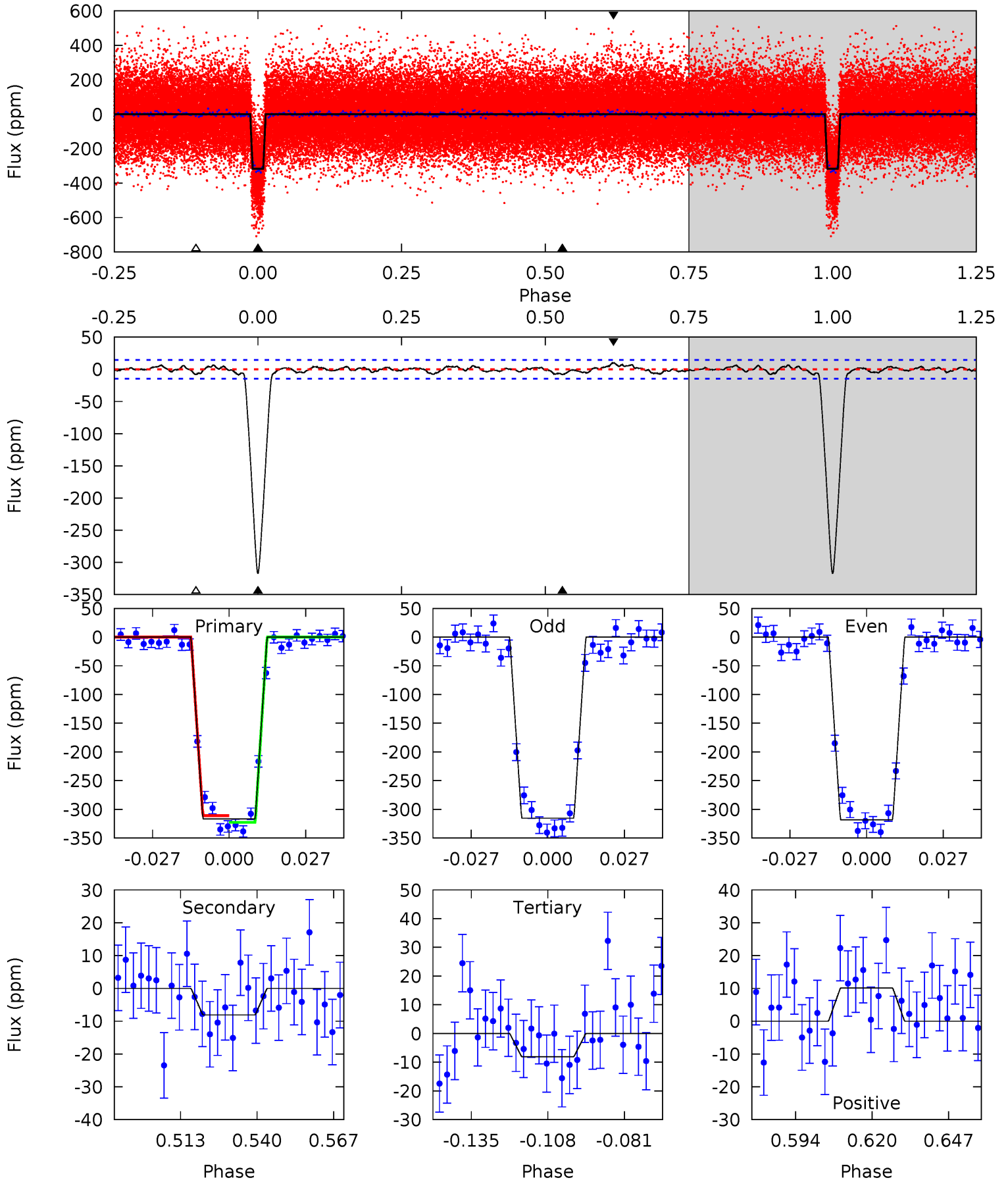
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
112.2	3.07	2.75	2.98	4.82	2.18	1.18	109.5	109.2	0.32	0.09	0.55	0.97	0.03	2.37



Alt Model-Shift Uniqueness Test

011621223-01, P = 4.903348 Days, E = 128.766810 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
105.0	2.68	2.68	3.35	4.83	2.21	1.10	102.3	101.6	0.00	-0.67	0.48	1.00	0.03	1.95



Stellar Parameters For KIC 011621223

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	6045^{+121}_{-133}	$4.276^{+0.115}_{-0.126}$	$0.160^{+0.150}_{-0.150}$	$1.298^{+0.216}_{-0.194}$	$1.166^{+0.083}_{-0.104}$	$0.750^{+0.393}_{-0.257}$
	+2%/-2%	+3%/-3%	+94%/-94%	+17%/-15%	+7%/-9%	+52%/-34%
Source	SPE59	SPE59	SPE59	DSEP		

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

Secondary Eclipse Parameters for KIC 011621223-01 / KOI 0355.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-9 ± 3	$2.71^{+0.36}_{-0.30}$	1743^{+87}_{-82}	2975^{+174}_{-211}	$2.307^{+1.114}_{-0.923}$
Alt.	-8 ± 3	$2.57^{+0.34}_{-0.30}$	1746^{+90}_{-78}	2997^{+184}_{-238}	$2.346^{+1.275}_{-0.898}$

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

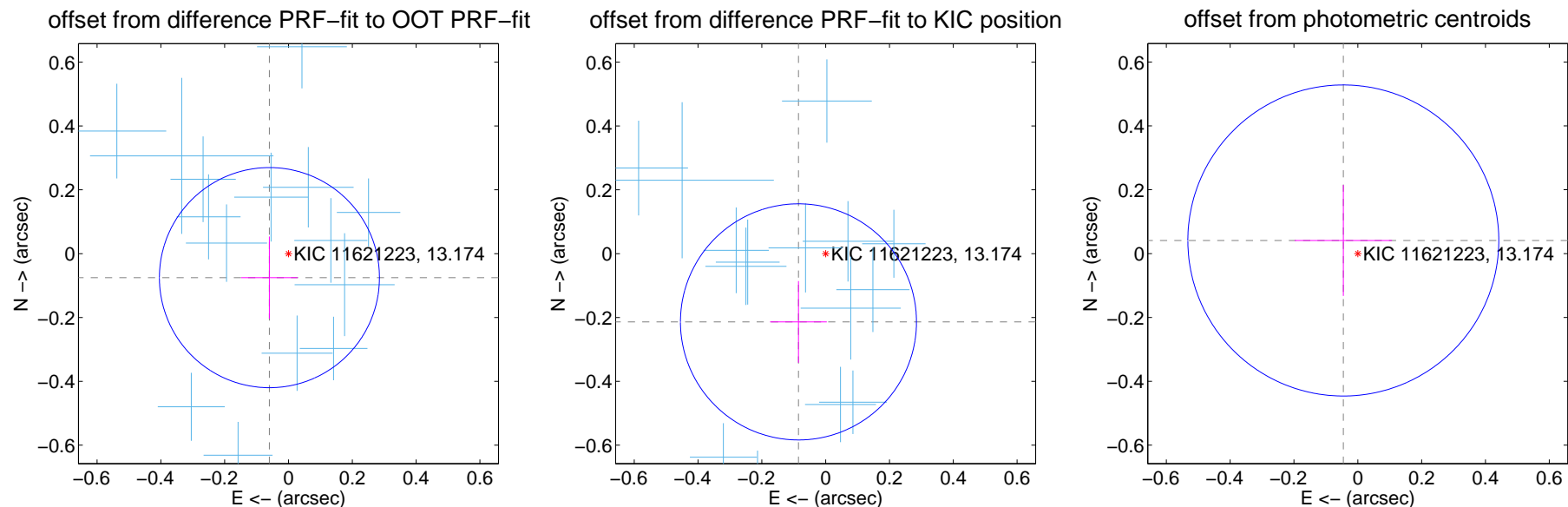
DV Centroid Data

Supplemental centroid analysis for 011621223-01. Kepler magnitude: 13.17. Transit SNR 78.54

There are 16 quarters with good PRF difference image offsets

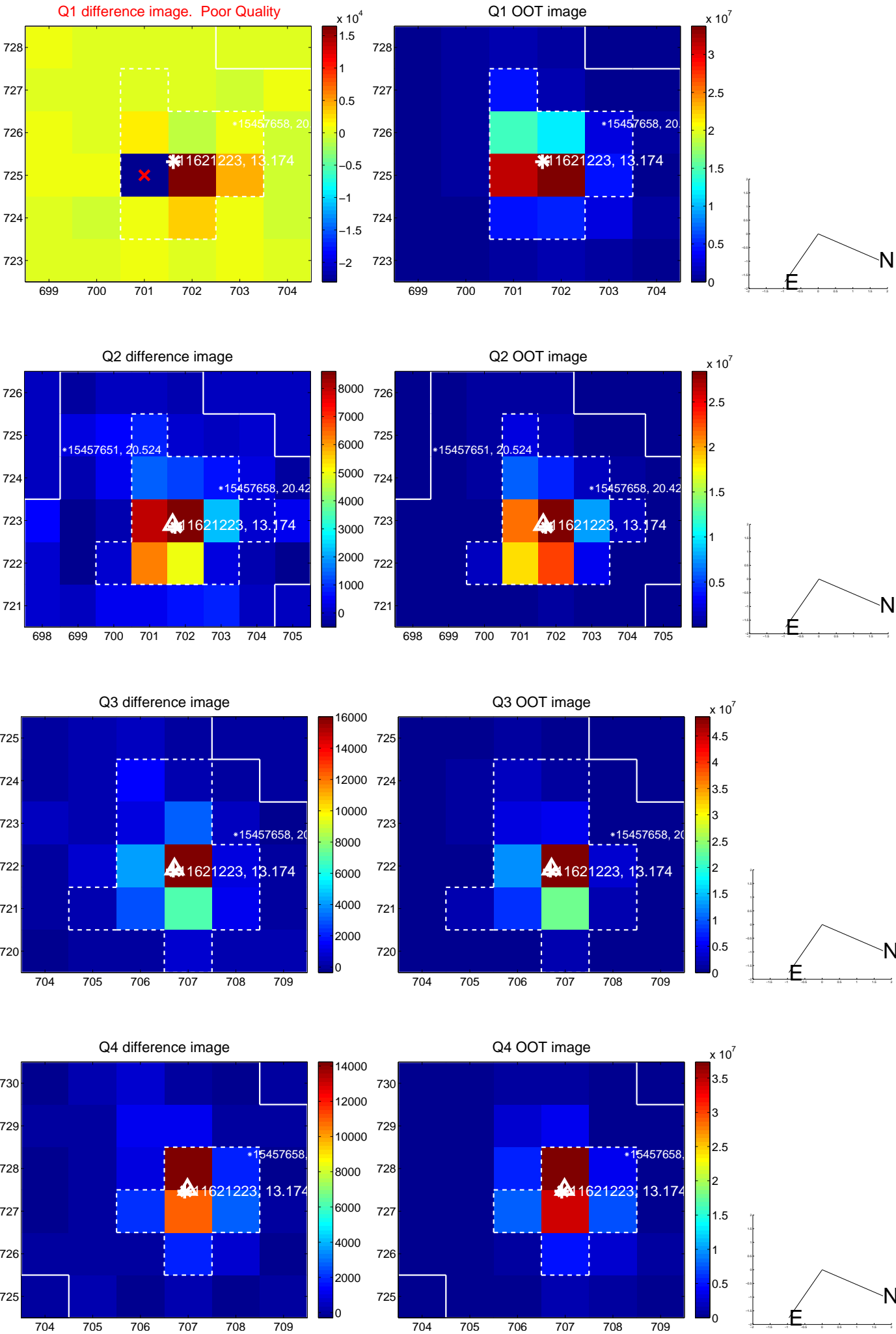
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.096 ± 0.115	0.84	0.060 ± 0.089	-0.075 ± 0.129
PRF-fit source offset from KIC position	0.230 ± 0.123	1.87	0.085 ± 0.089	-0.214 ± 0.128
photometric centroid source offset	0.06 ± 0.16	0.38	0.05 ± 0.15	0.04 ± 0.17

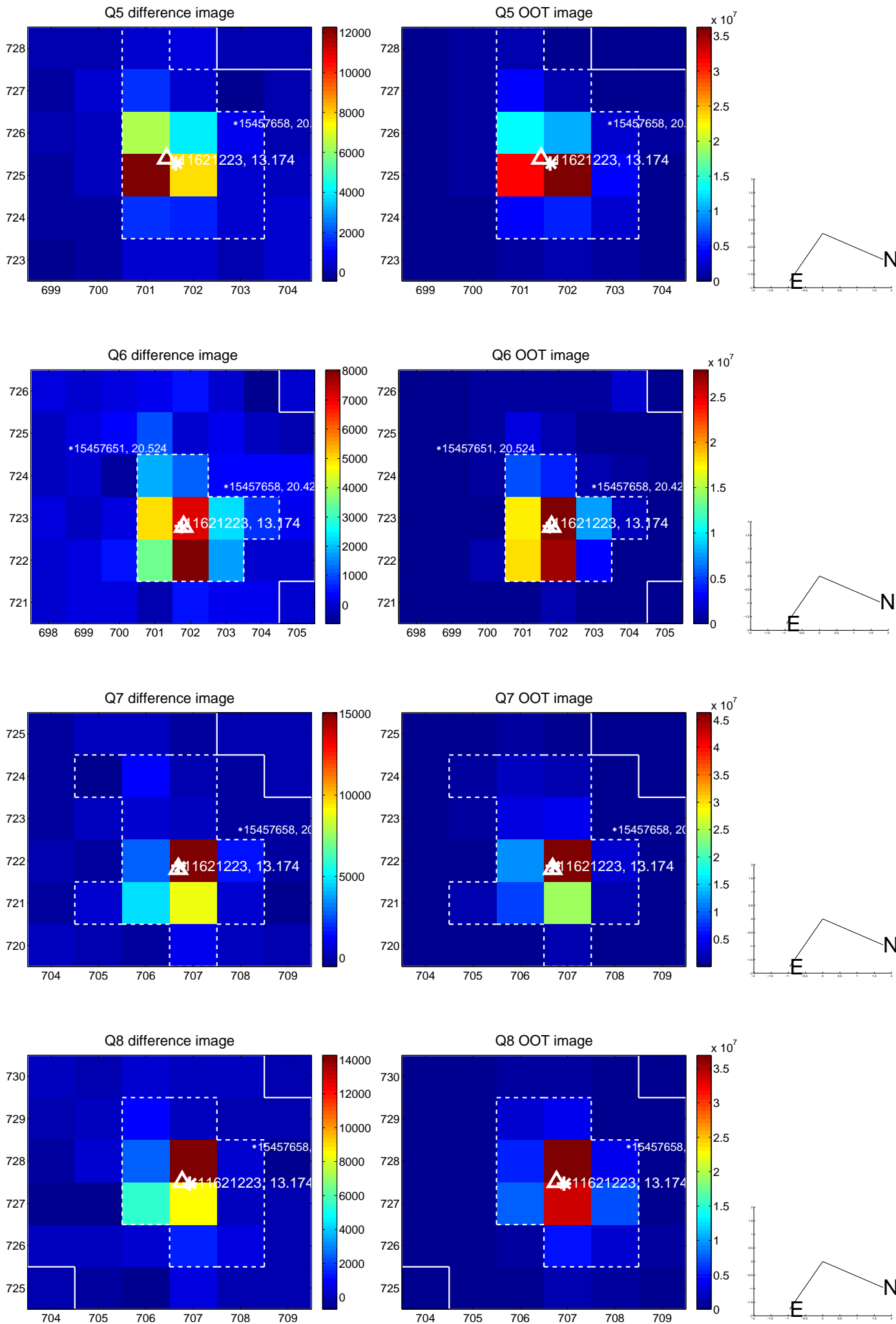


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

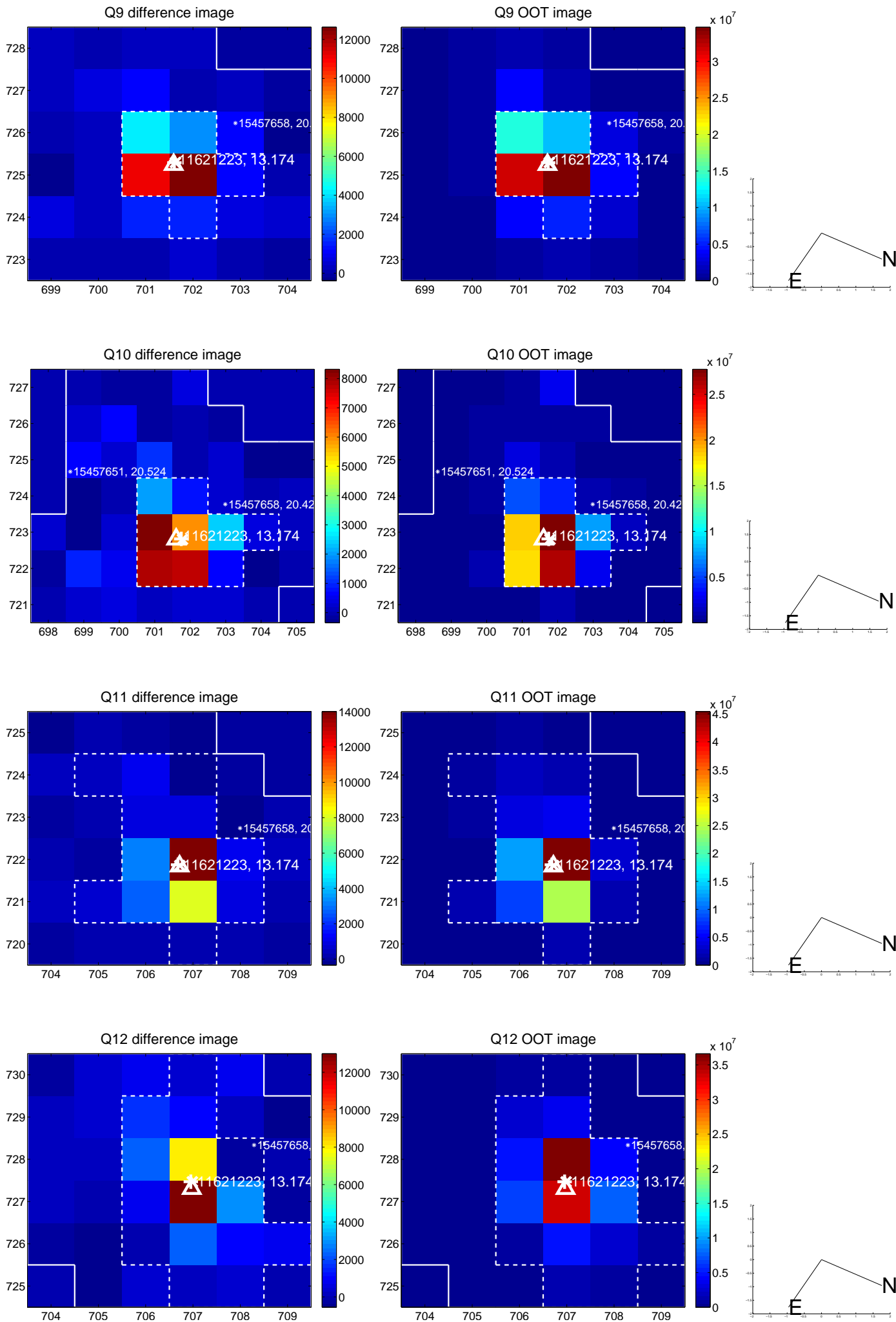
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



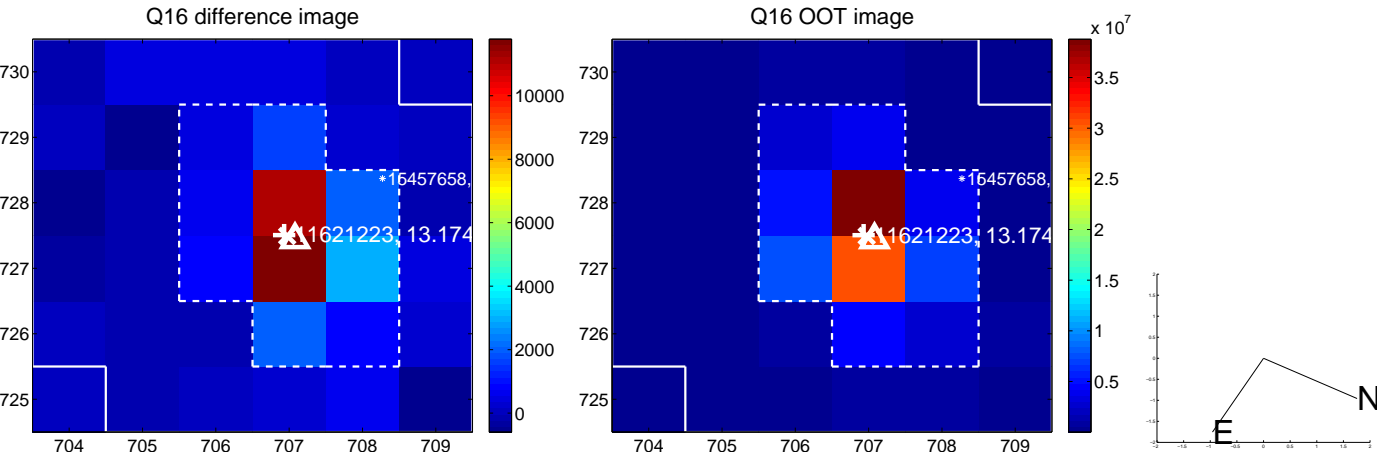
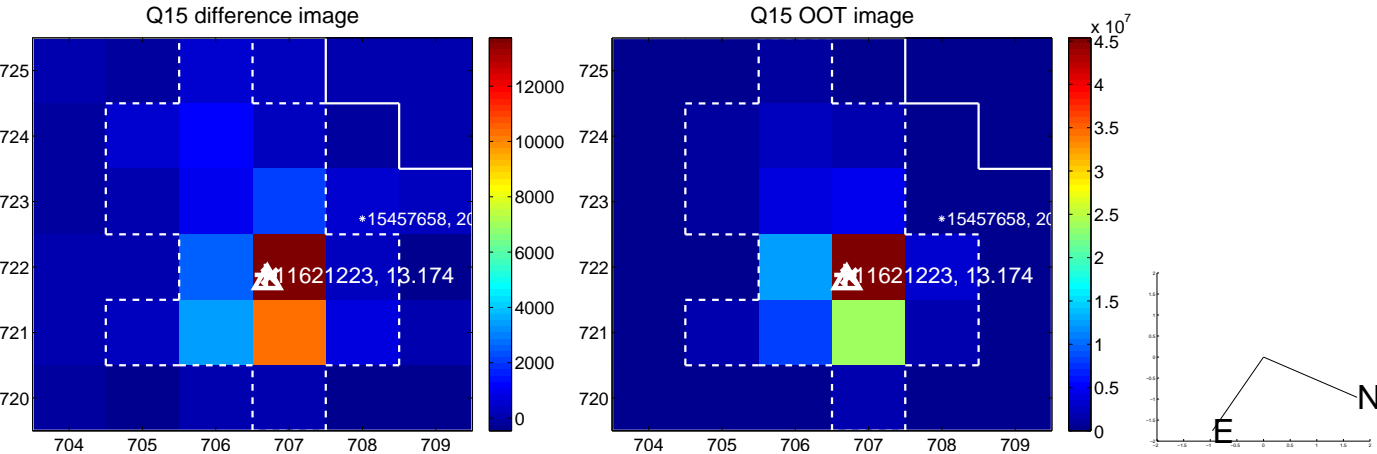
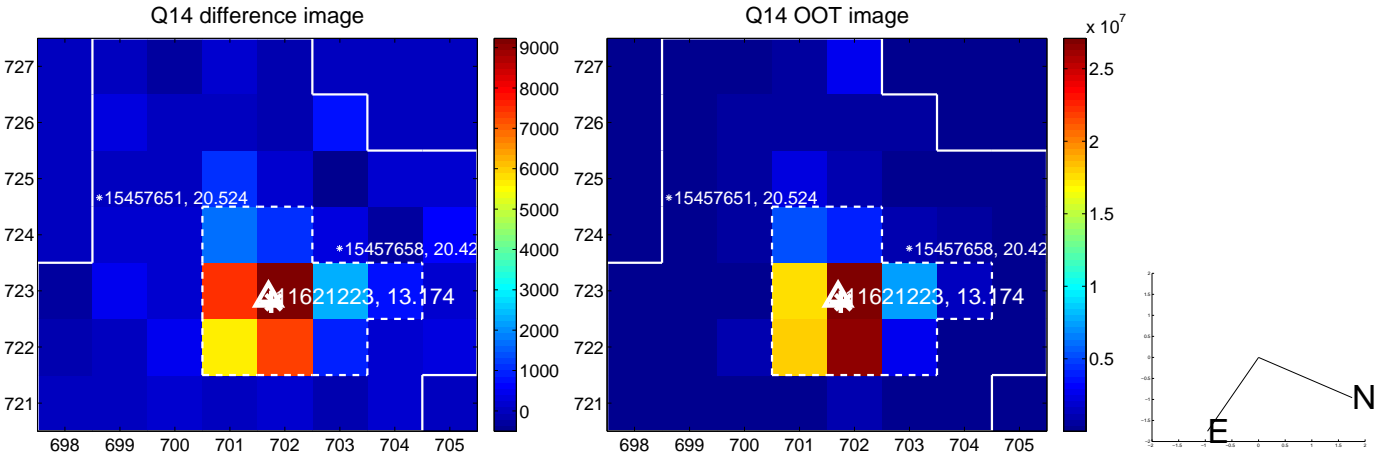
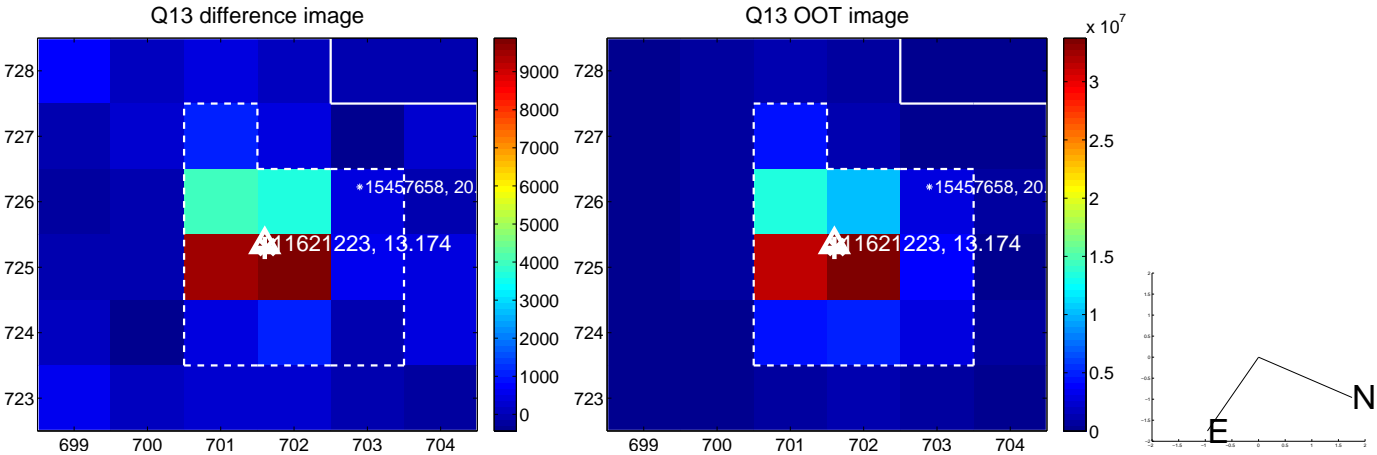
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



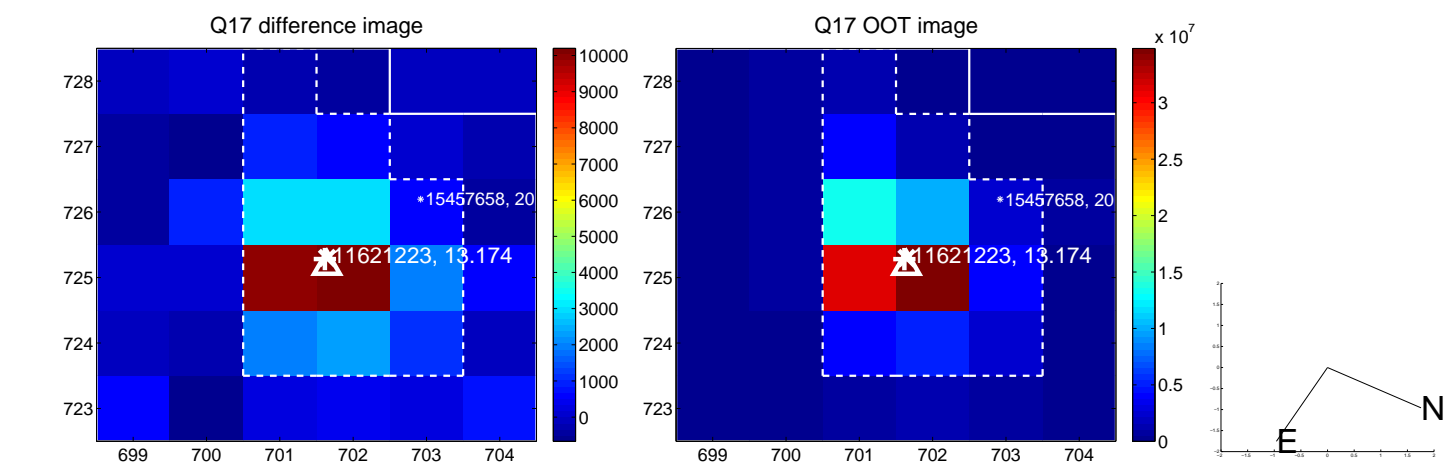
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



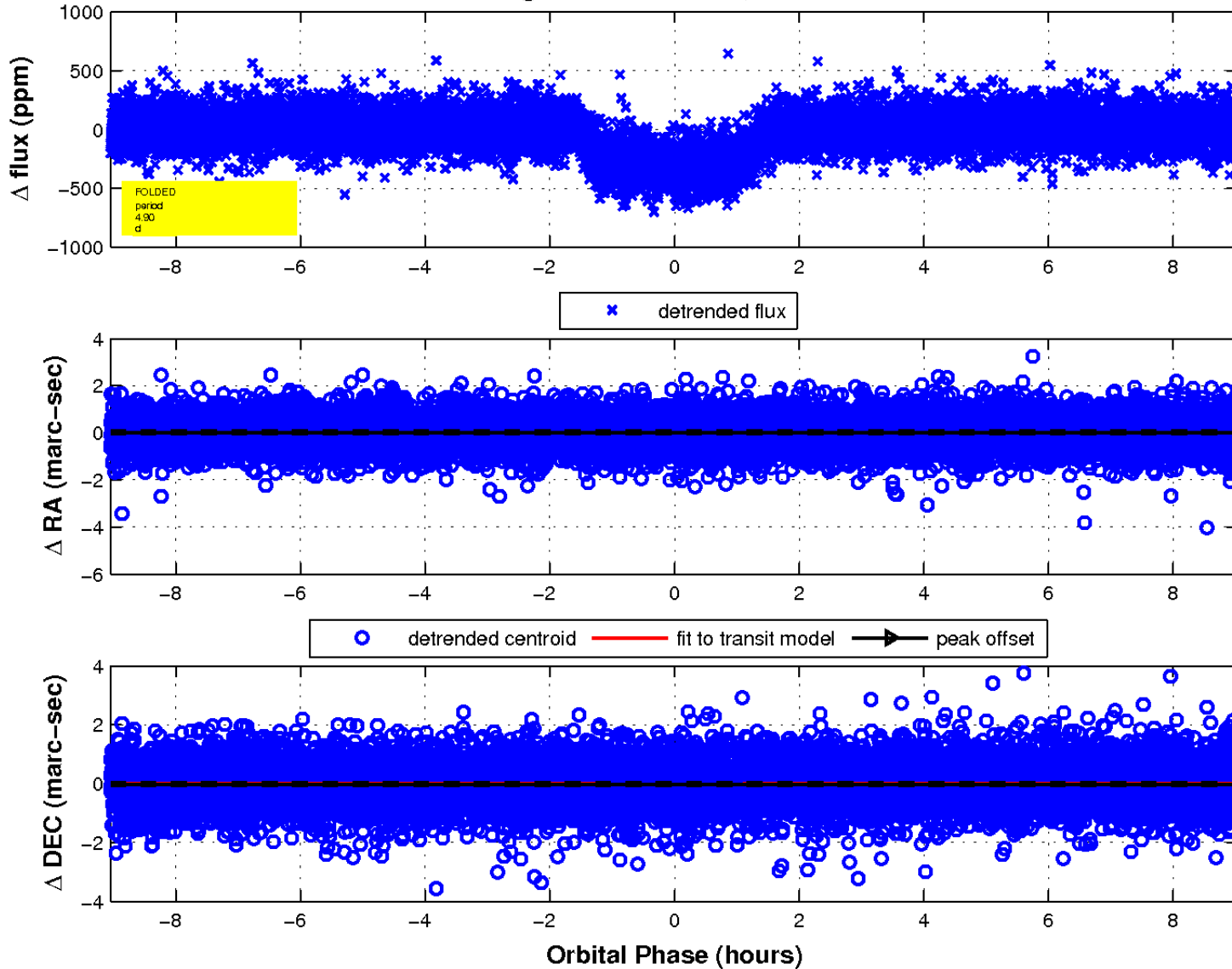
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fluxWeightedCentroids, Planet 1 of 1



UKIRT Image

