

KIC 008703532

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})
008703532-01	OBS	No	0.800053	131.770808	2400.7	3.869	160.5	58.2	0.92	6072	5.09	3632.43

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
008703532-01	OBS	FP	0.00	1	0	1	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—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.

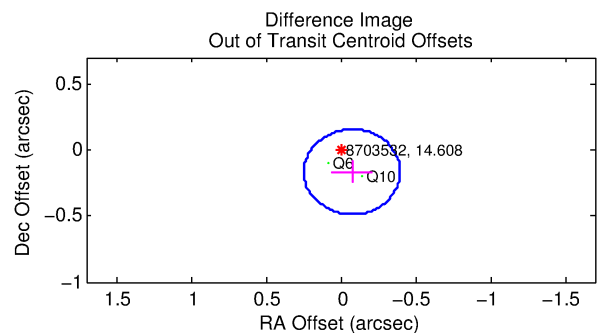
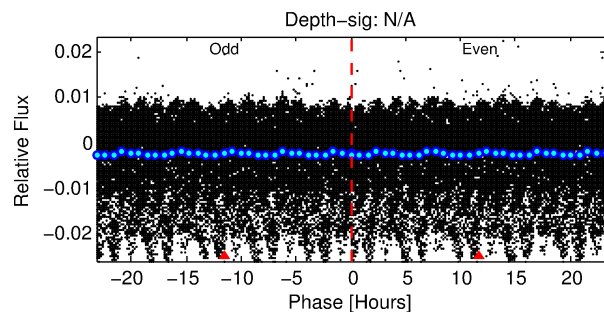
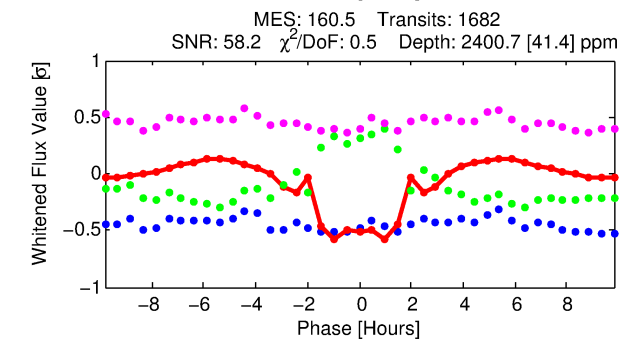
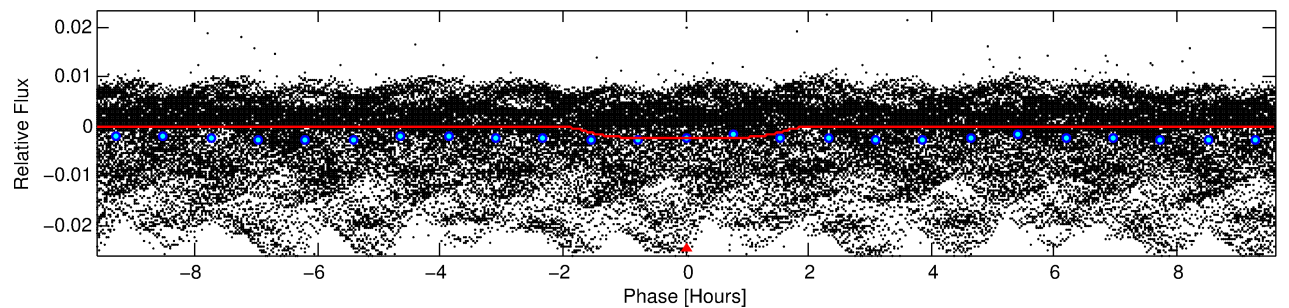
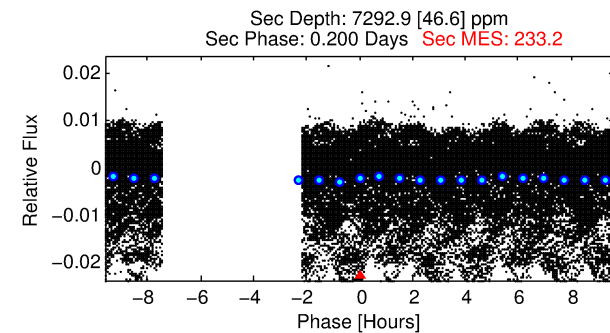
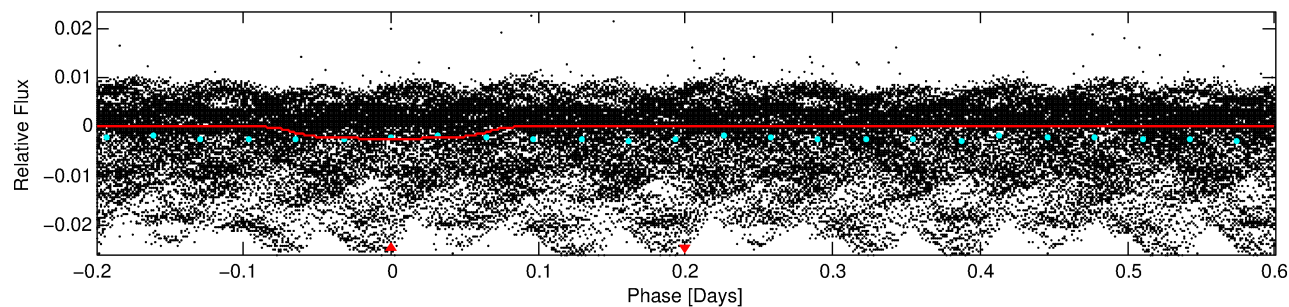
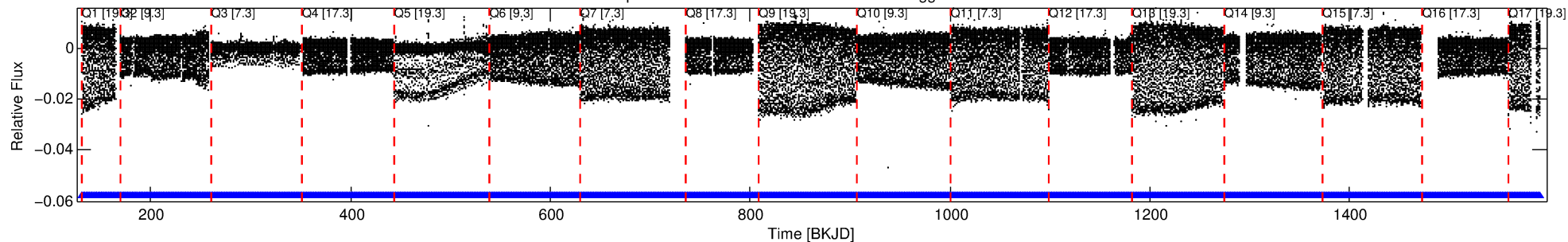
Ephemeris Match Information For 008703532-01

No Significant Match Found

DV One-Page Summary

KIC: 8703532 Candidate: 1 of 1 Period: 0.800 d

Kp: 14.61 R*: 0.92 Rs Teff: 6072.0 K Logg: 4.51 Fe/H: -0.240



DV Fit Results:

Period = 0.80005 [0.00000] d
Epoch = 131.7708 [0.0004] BKJD
Rp/R* = 0.0505 [0.0006]
a/R* = 1.37 [0.02]
b = 0.83 [0.01]
Seff = 3632.43 [1465.98]
Teq = 1980 [200] K
Rp = 5.09 [1.59] Re
a = 0.0169 [0.0044] AU
Ag = 44.25 [16.92] [2.56σ]
Teffp = 7894 [265] K [17.84σ]

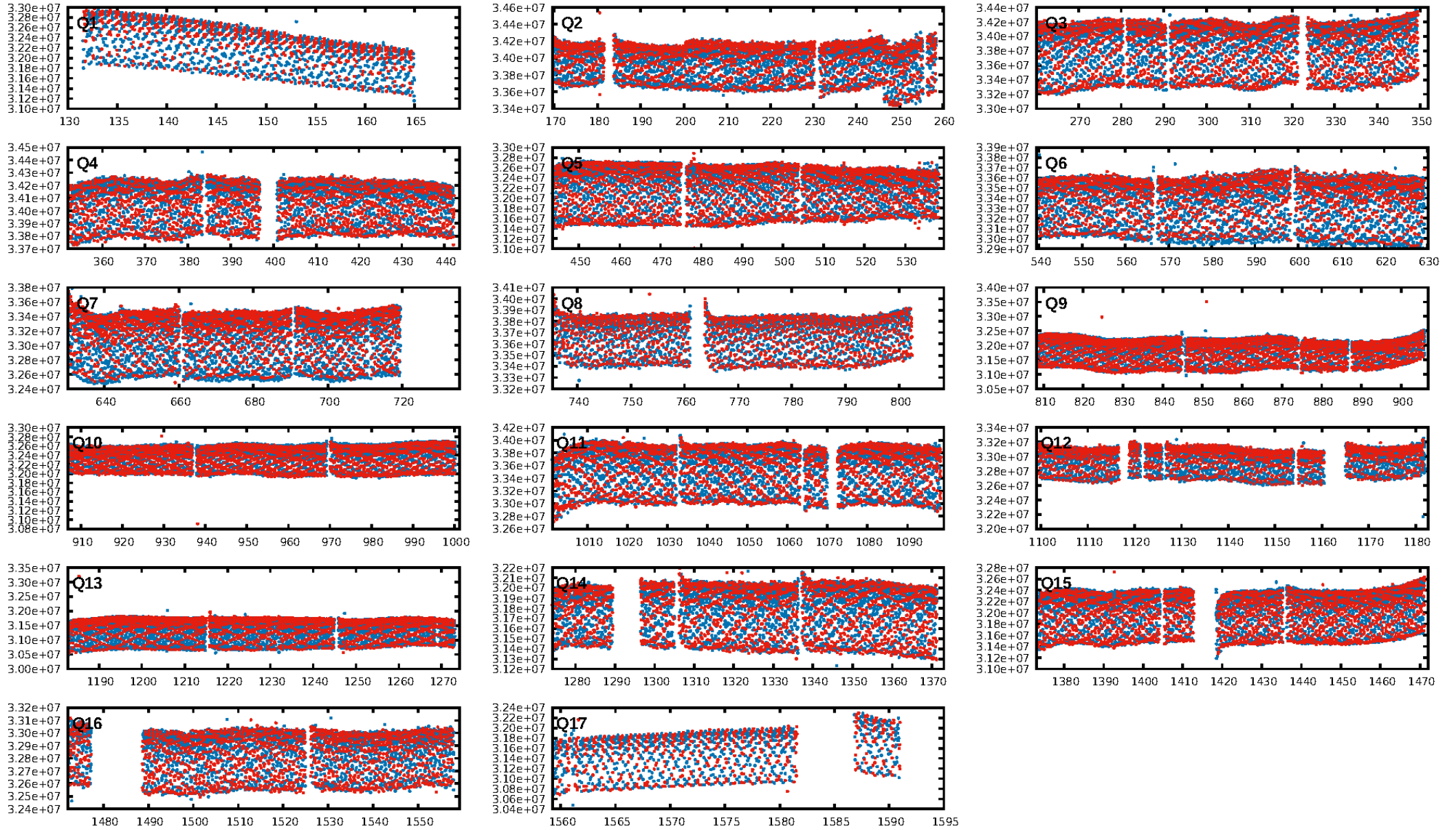
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1606/1606]
GhostDiagnostic-chr: -0.8592
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.183 arcsec [1.71σ]
KicOffset-rm: 9.420 arcsec [136.61σ]
OotOffset-st: 2/0/0/0 [2]
KicOffset-st: 2/0/0/0 [2]
DiffImageQuality-fgm: 0.50 [1/2]
DiffImageOverlap-fno: 1.00 [17/17]

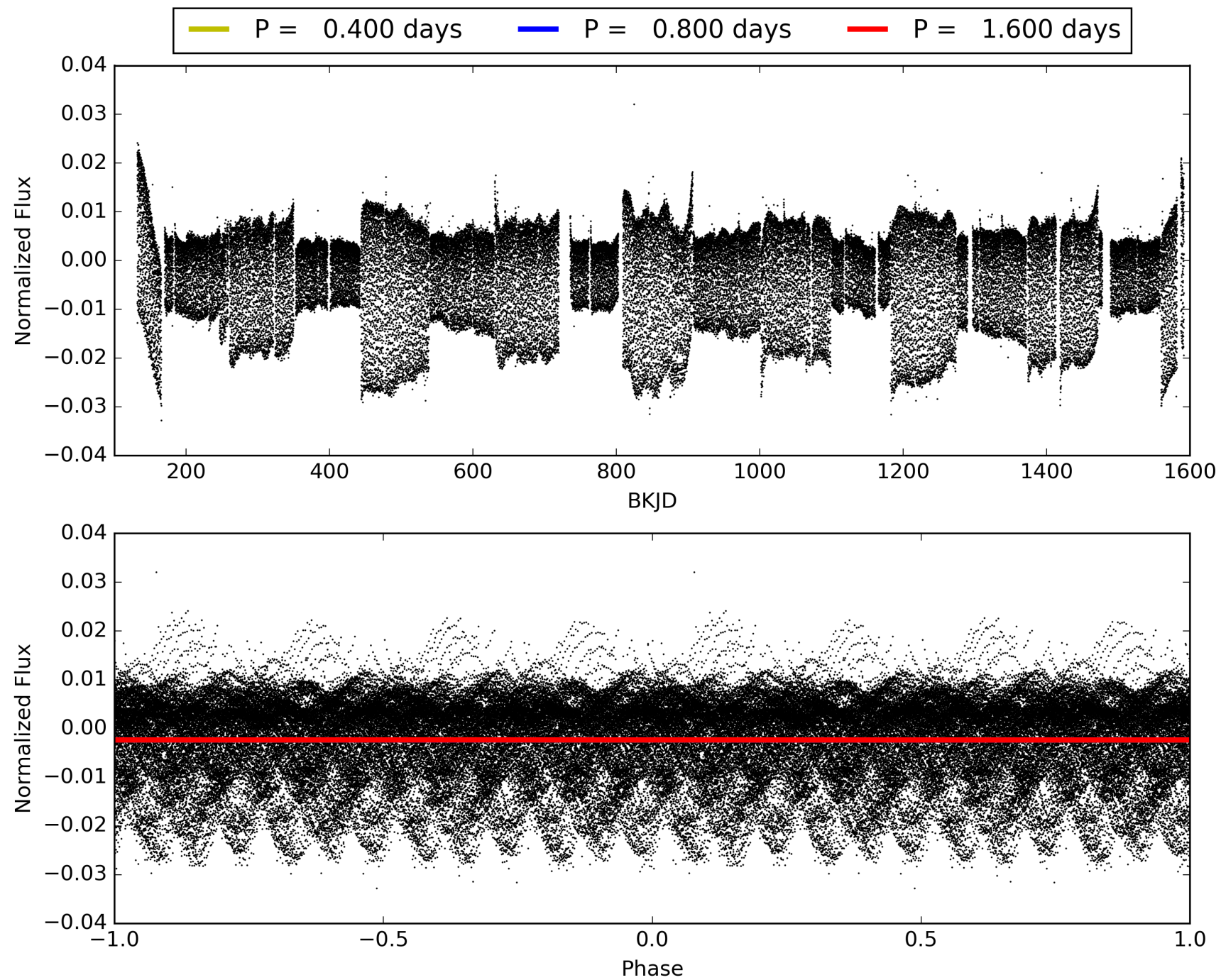
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 01-Feb-2016 03:59:02 Z

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

TCE 008703532-01, PDC Light Curves

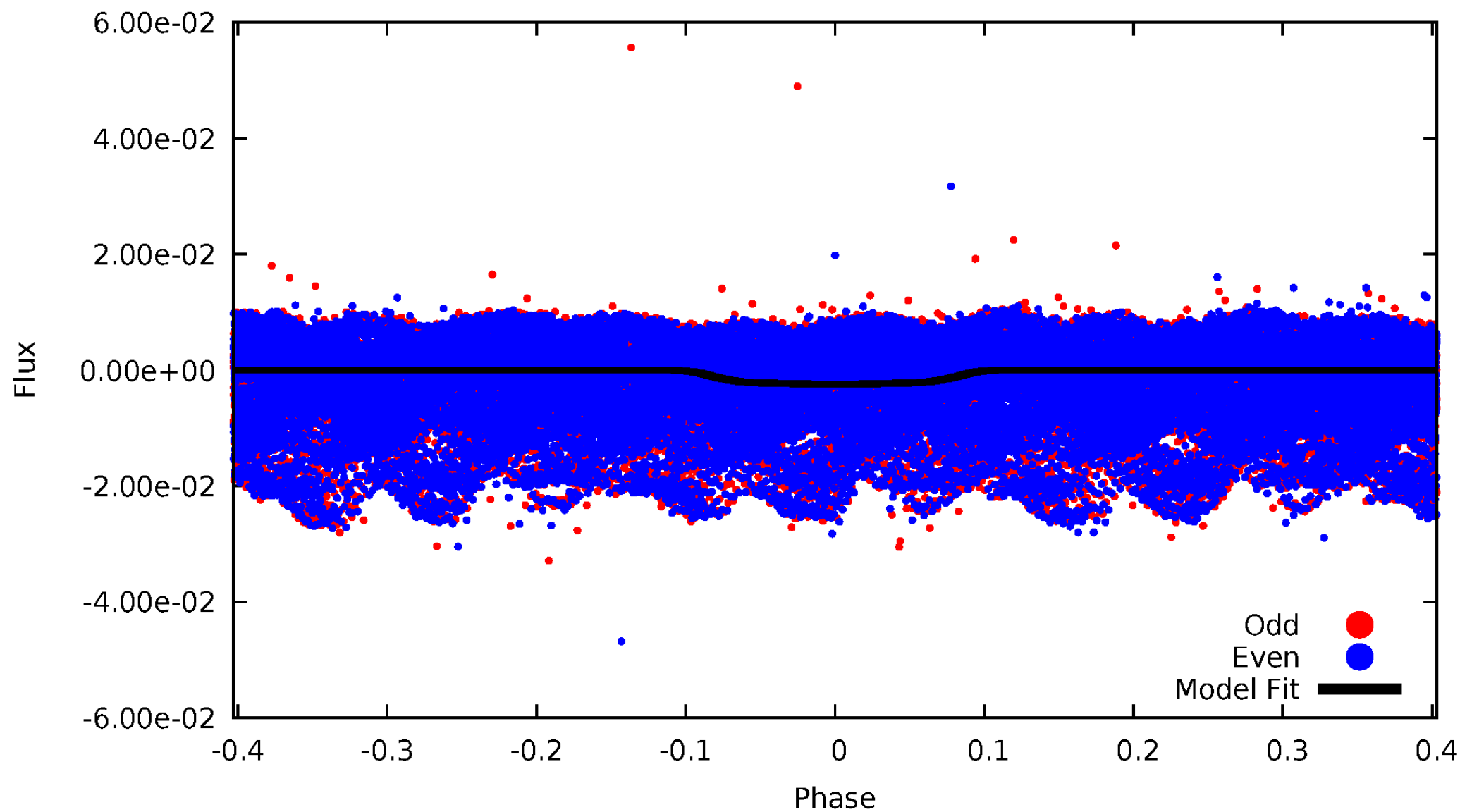


TCE 008703532-01



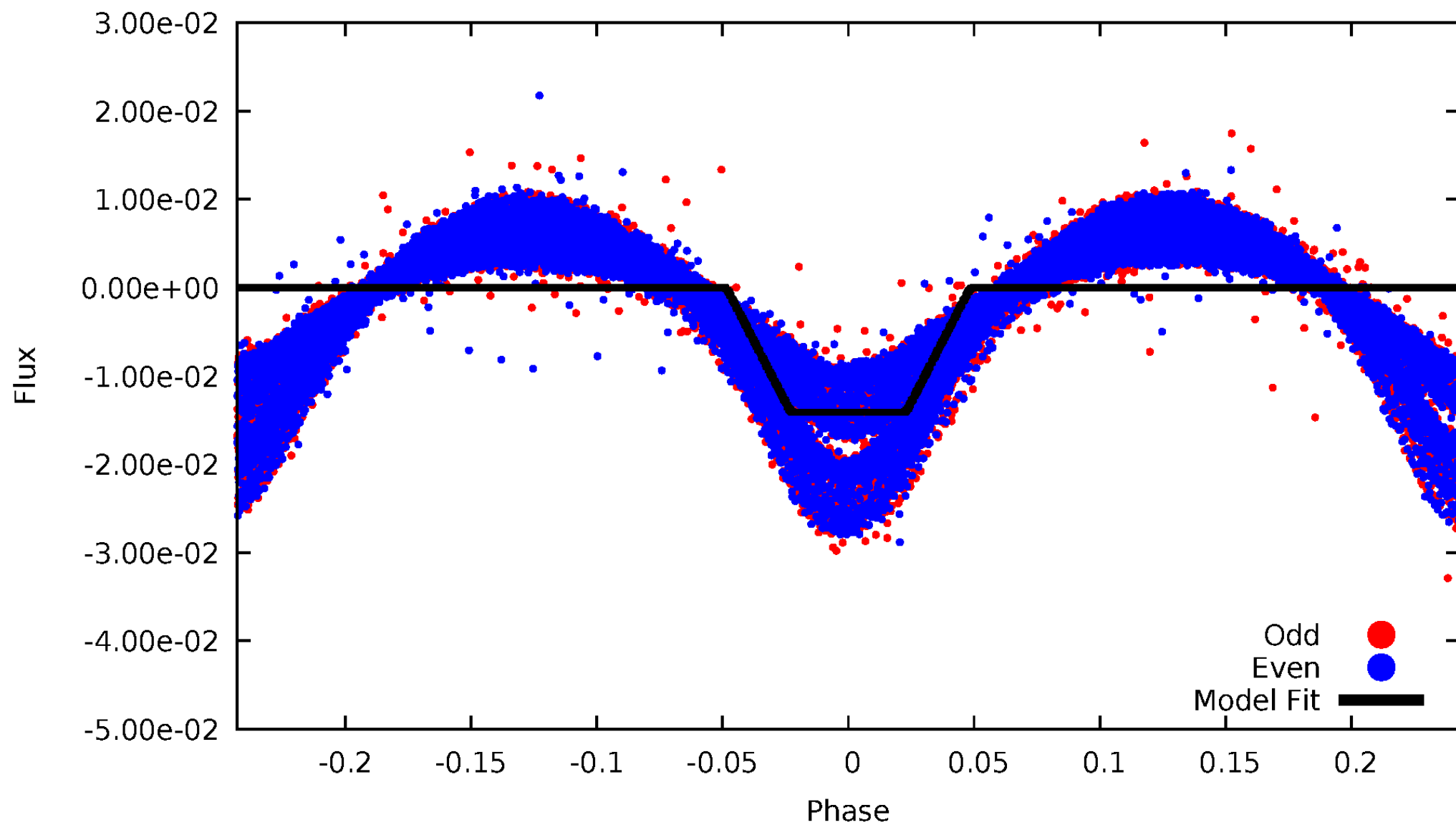
DV Odd/Even

TCE 008703532-01



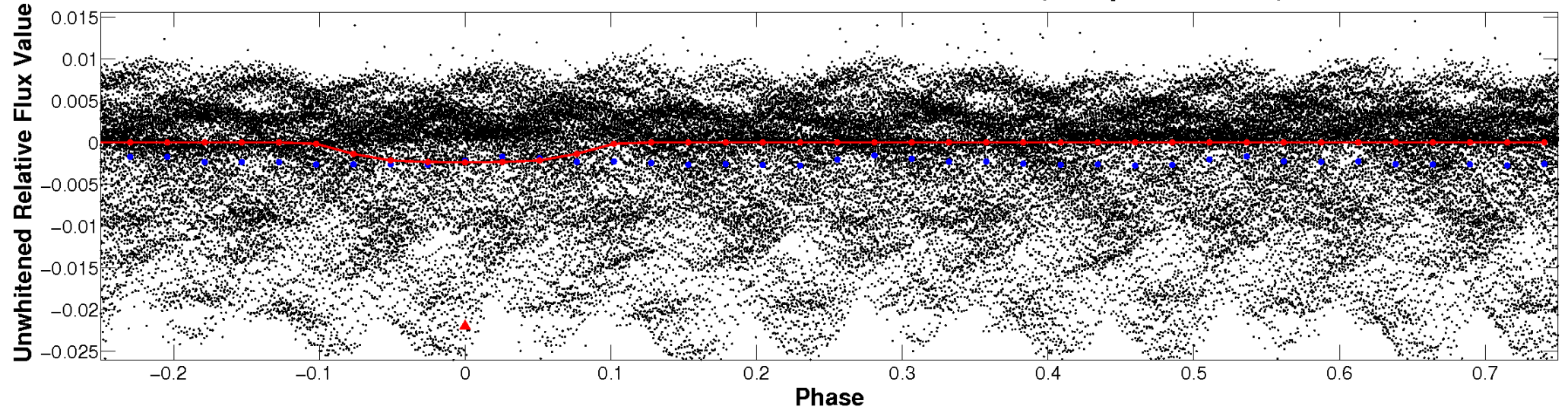
ALT Odd/Even

TCE 008703532-01

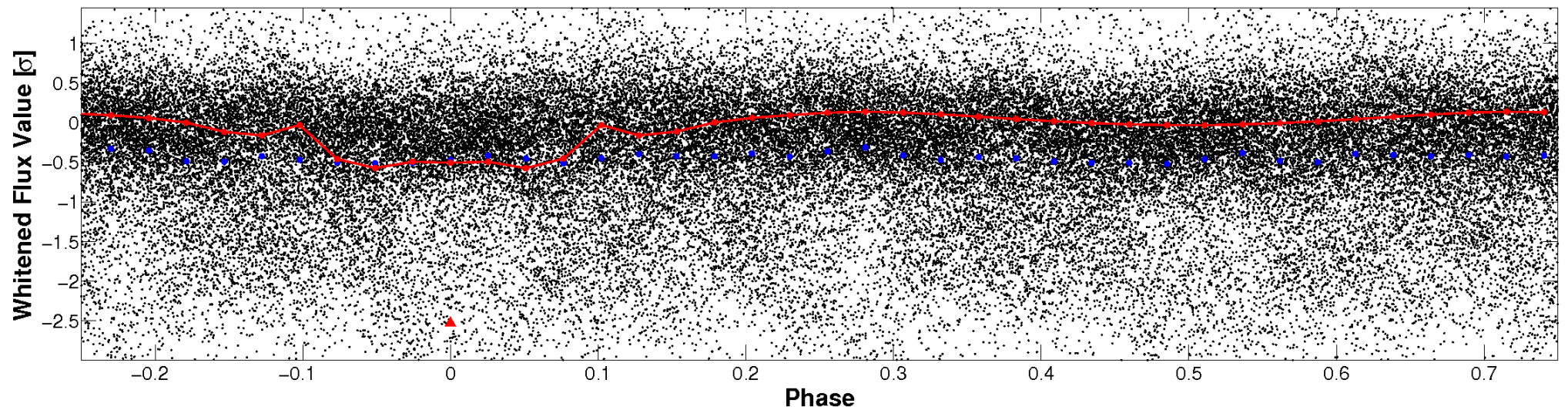


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

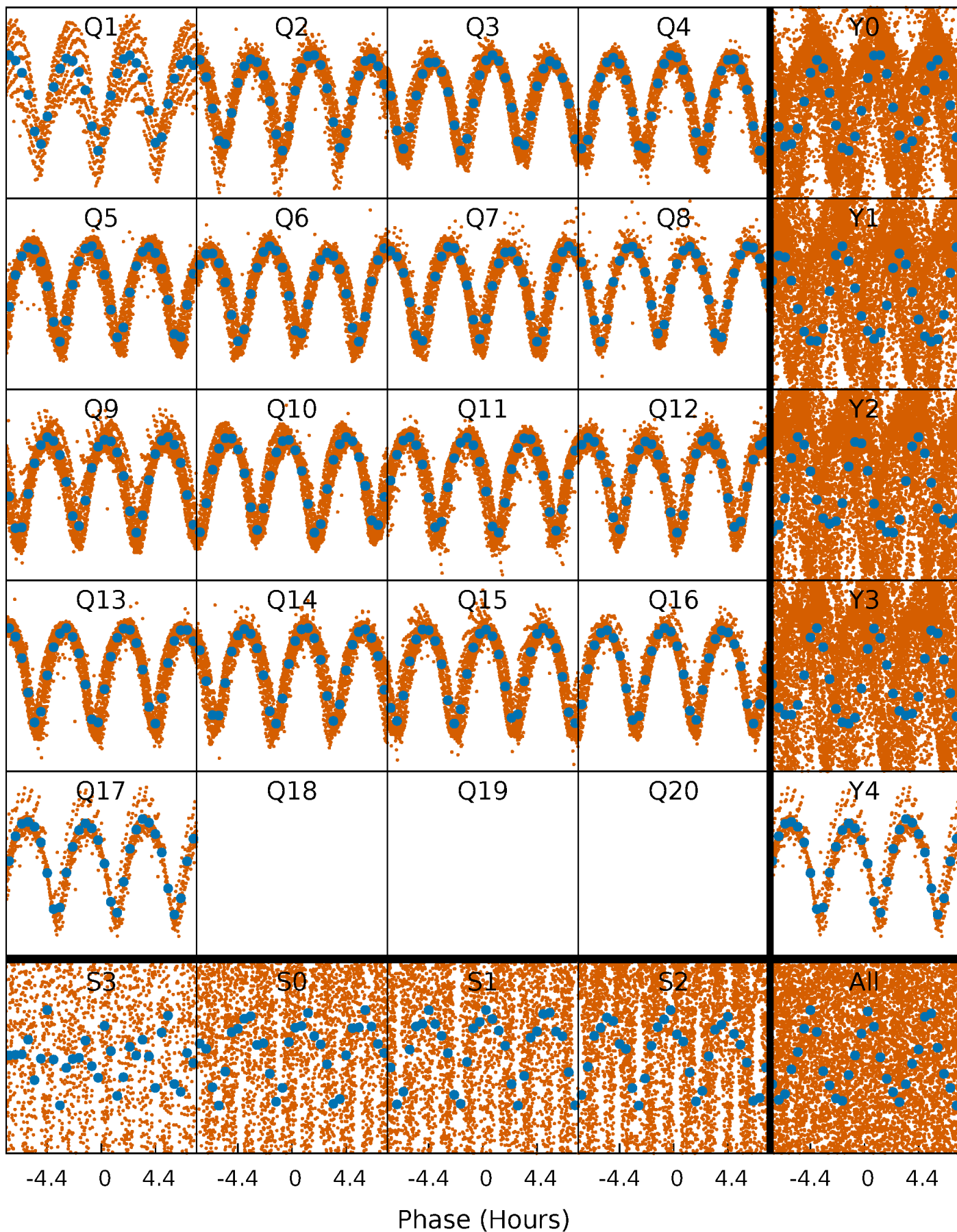


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



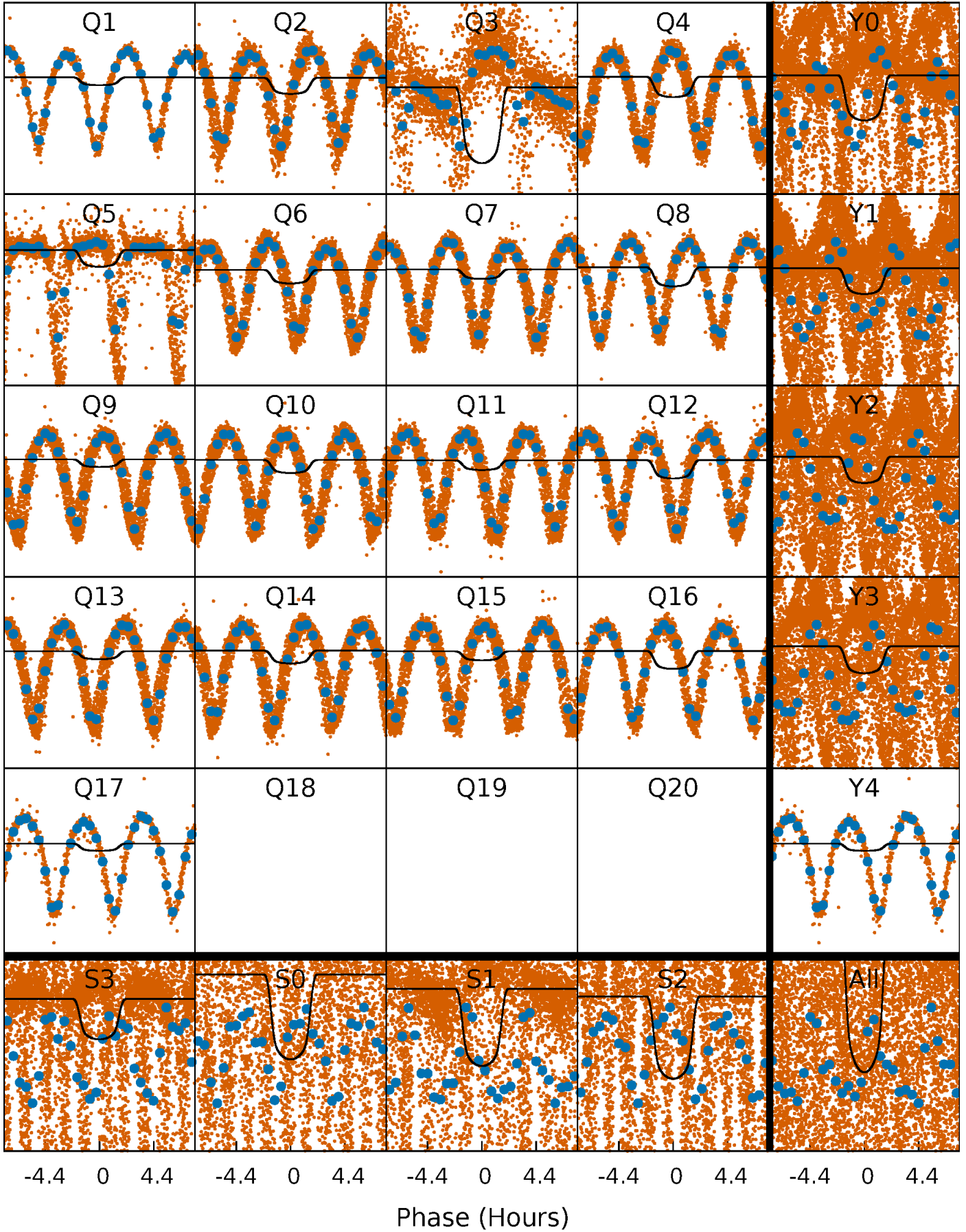
PDC Quarter-Phased Transit Curves

TCE 008703532-01 P= 0.800053 Days $T_0=131.770808$ (BKJD)



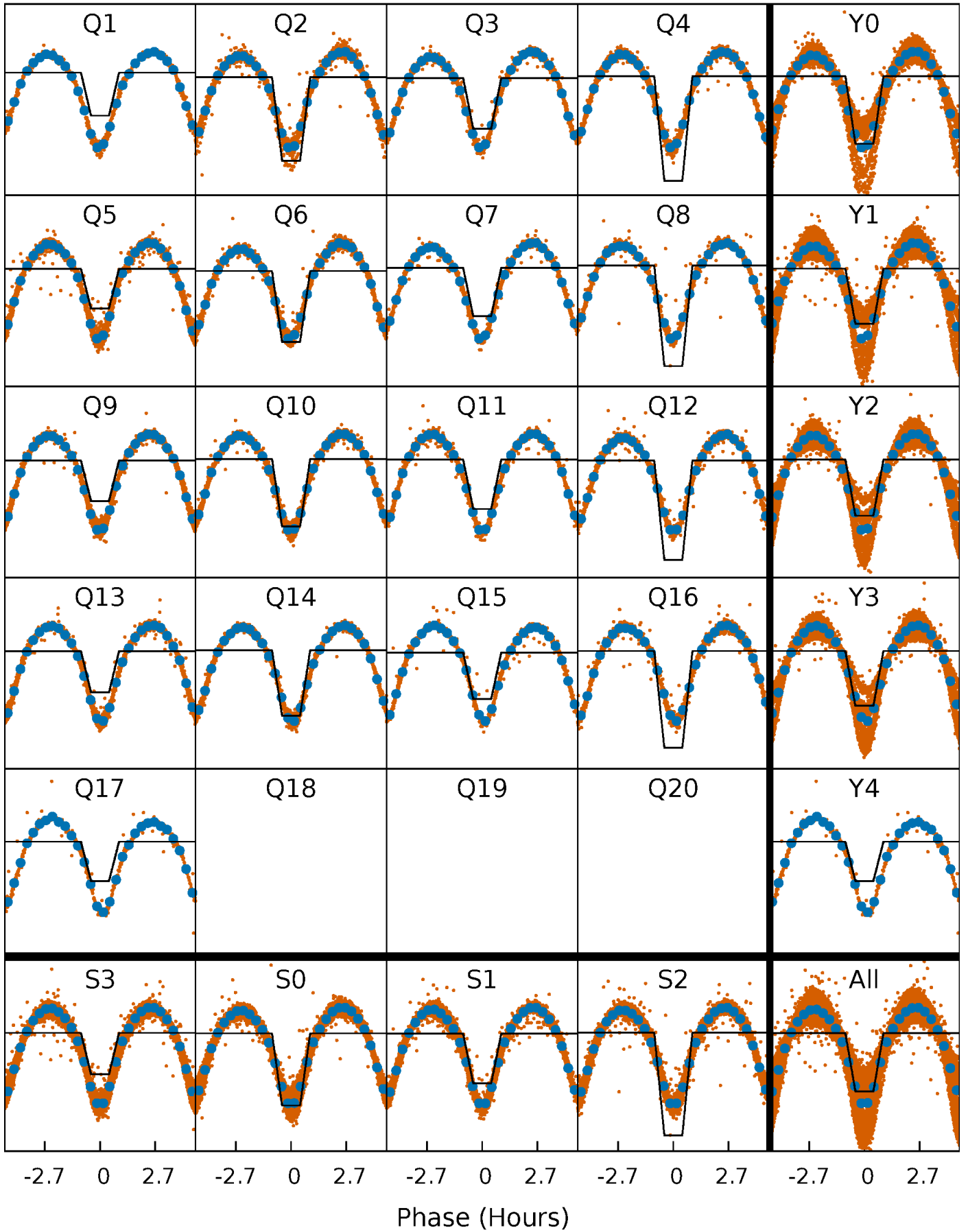
DV Quarter-Phased Transit Curves

TCE 008703532-01 P= 0.800053 Days $T_0=131.770808$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

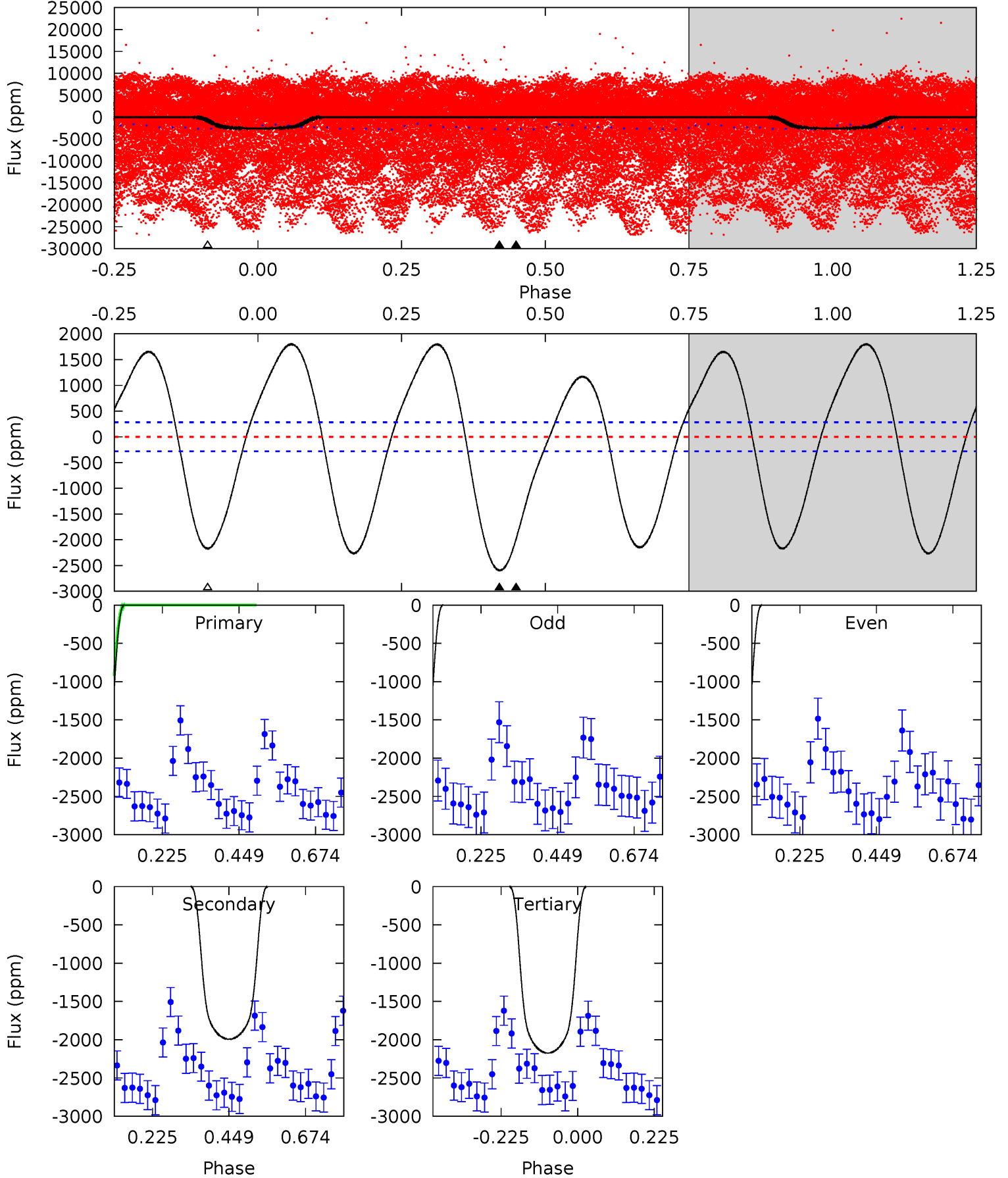
TCE 008703532-01 P= 0.799746 Days $T_0=131.769435$ (BKJD)



DV Model-Shift Uniqueness Test

008703532-01, P = 0.800053 Days, E = 130.970755 Days

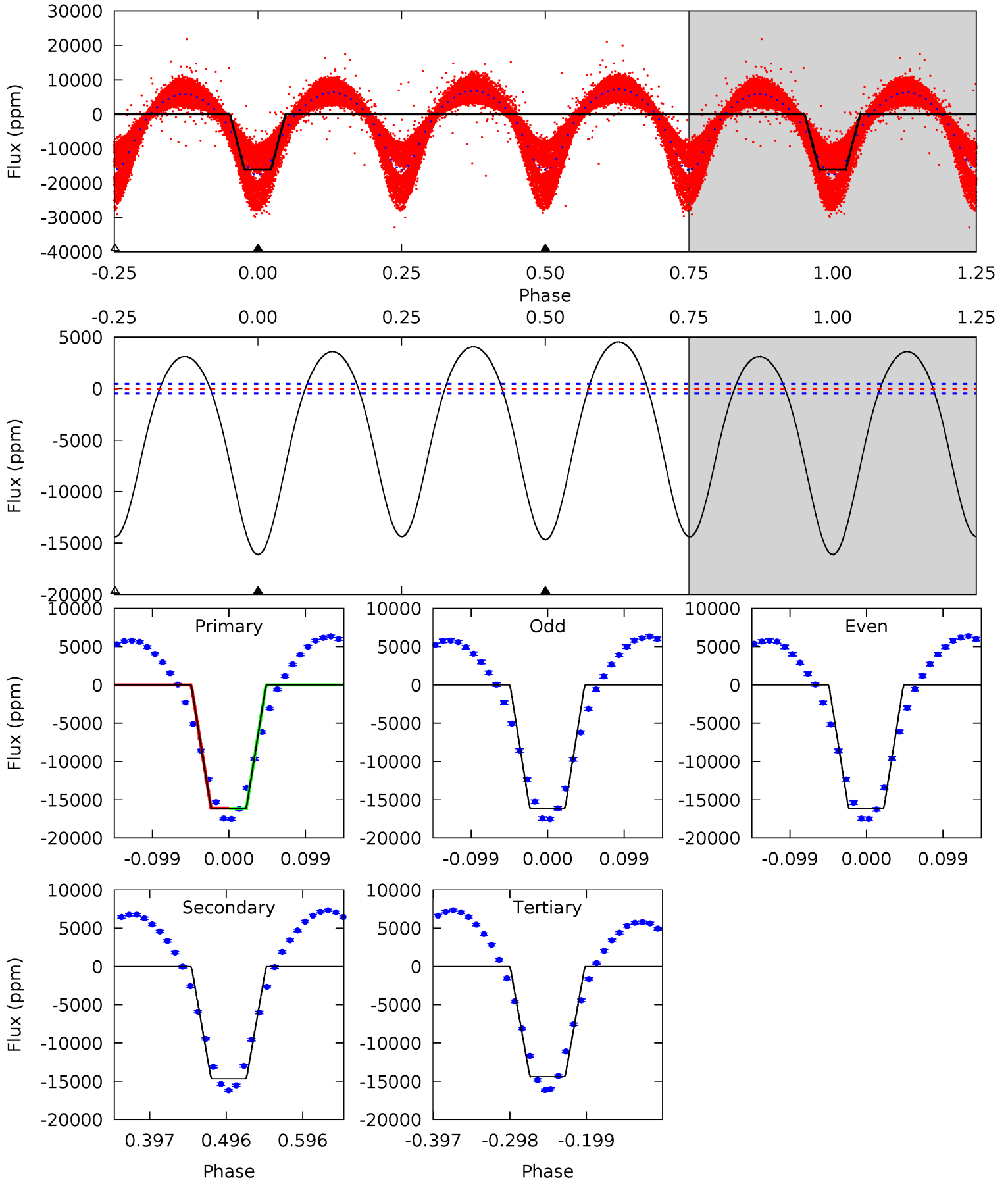
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
40.5	31.1	33.9	0	4.39	1.21	21.5	6.61	40.5	-2.82	31.1	0.82	1.19	0.41	5.79



Alt Model-Shift Uniqueness Test

008703532-01, P = 0.799746 Days, E = 130.969689 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
157.6	143.3	140.7	0	4.57	1.65	63.5	16.9	157.6	2.63	143.3	0.03	0.94	0.22	0.21



Stellar Parameters For KIC 008703532

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6072^{+163}_{-200}	$4.510^{+0.052}_{-0.208}$	$-0.240^{+0.300}_{-0.300}$	$0.923^{+0.289}_{-0.096}$	$1.005^{+0.125}_{-0.125}$	$1.800^{+0.379}_{-0.957}$
	+3%/-3%	+1%/-5%	+125%/-125%	+31%/-10%	+12%/-12%	+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 008703532-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1993 ± 64	$5.19^{+0.87}_{-0.38}$	2816^{+200}_{-131}	5680^{+152}_{-169}	11^{+2}_{-3}
Alt.	-14662 ± 102	$12.37^{+1.94}_{-0.96}$	2822^{+201}_{-133}	6117^{+166}_{-215}	15^{+2}_{-4}

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

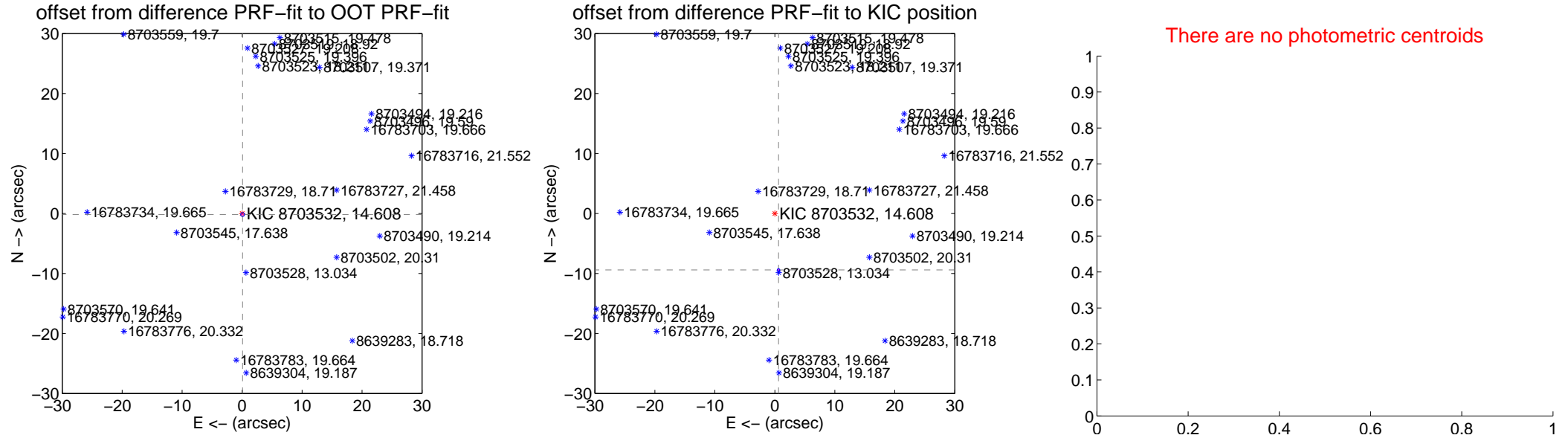
DV Centroid Data

Supplemental centroid analysis for 008703532-01. Kepler magnitude: 14.61. Transit SNR 58.22

There are 1 quarters with good PRF difference image offsets

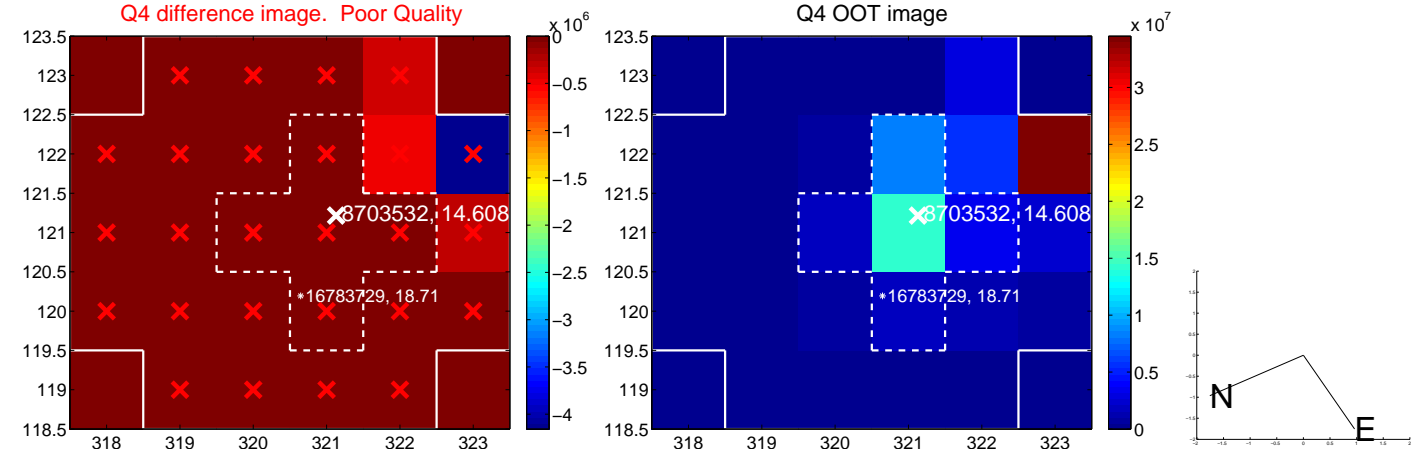
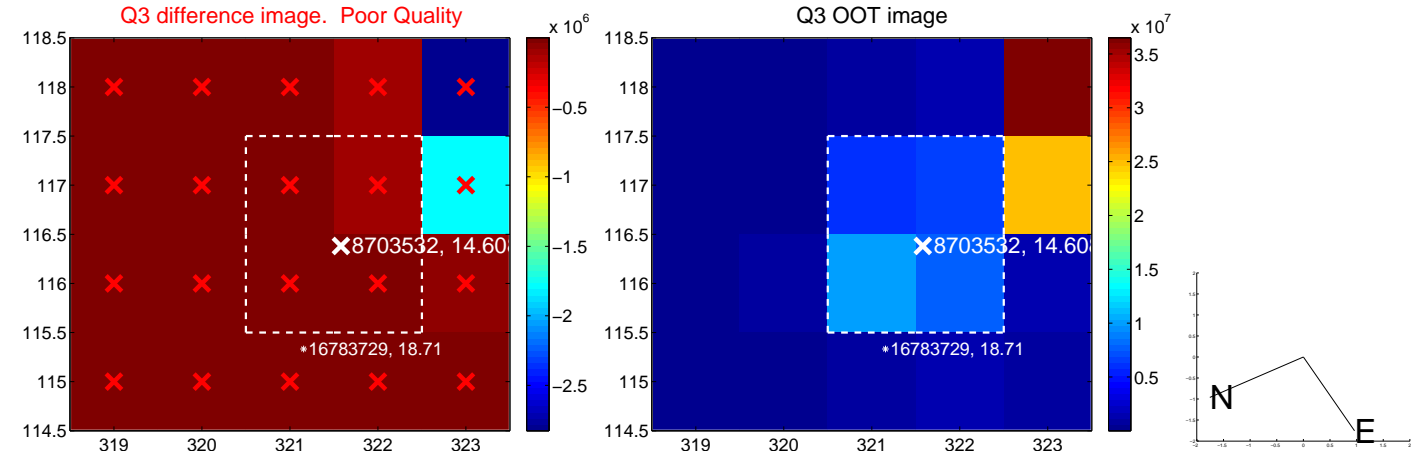
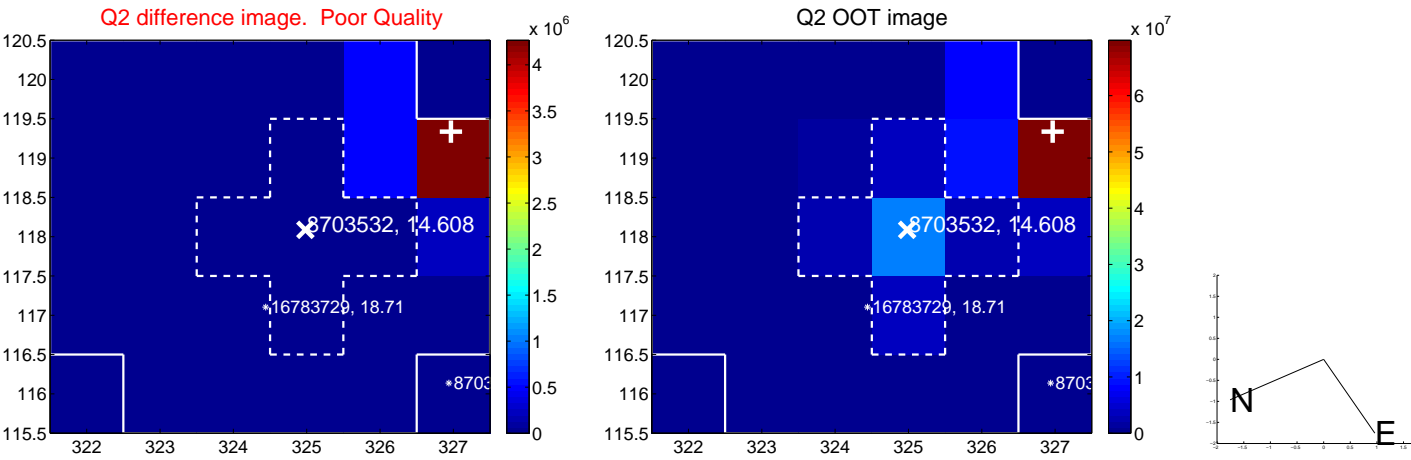
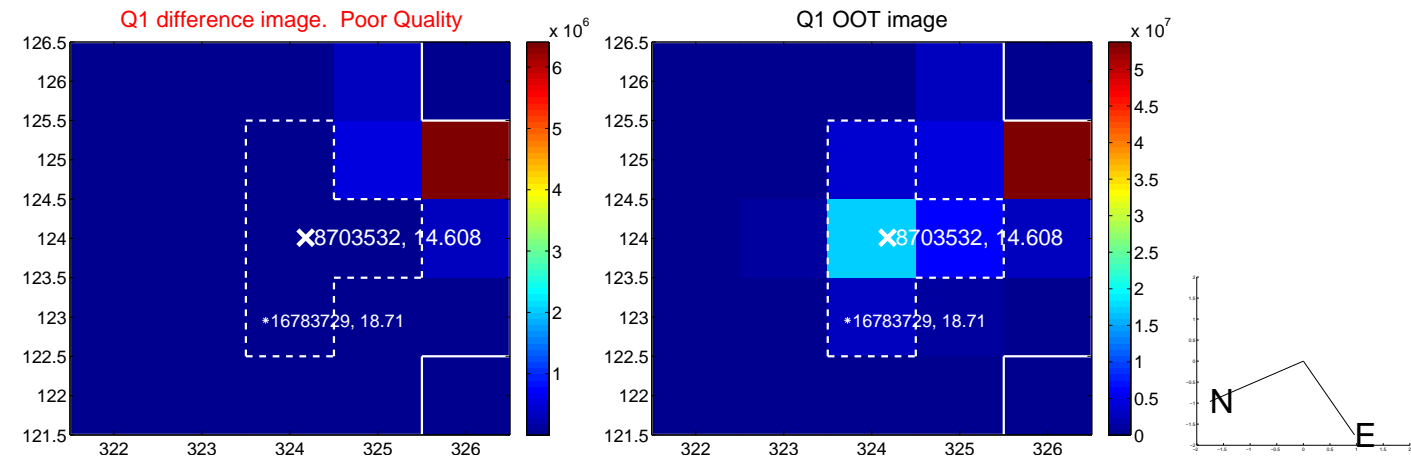
The OOT PRF centroid is offset from the target star catalog position by about 9.23 arcsec so the offset from difference PRF-fit to OOT-fit may be invalid.

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.183 ± 0.107	1.71	-0.076 ± 0.128	-0.167 ± 0.079
PRF-fit source offset from KIC position	9.420 ± 0.069	136.61	-0.617 ± 0.127	-9.400 ± 0.069
photometric centroid source offset	—	—	—	—

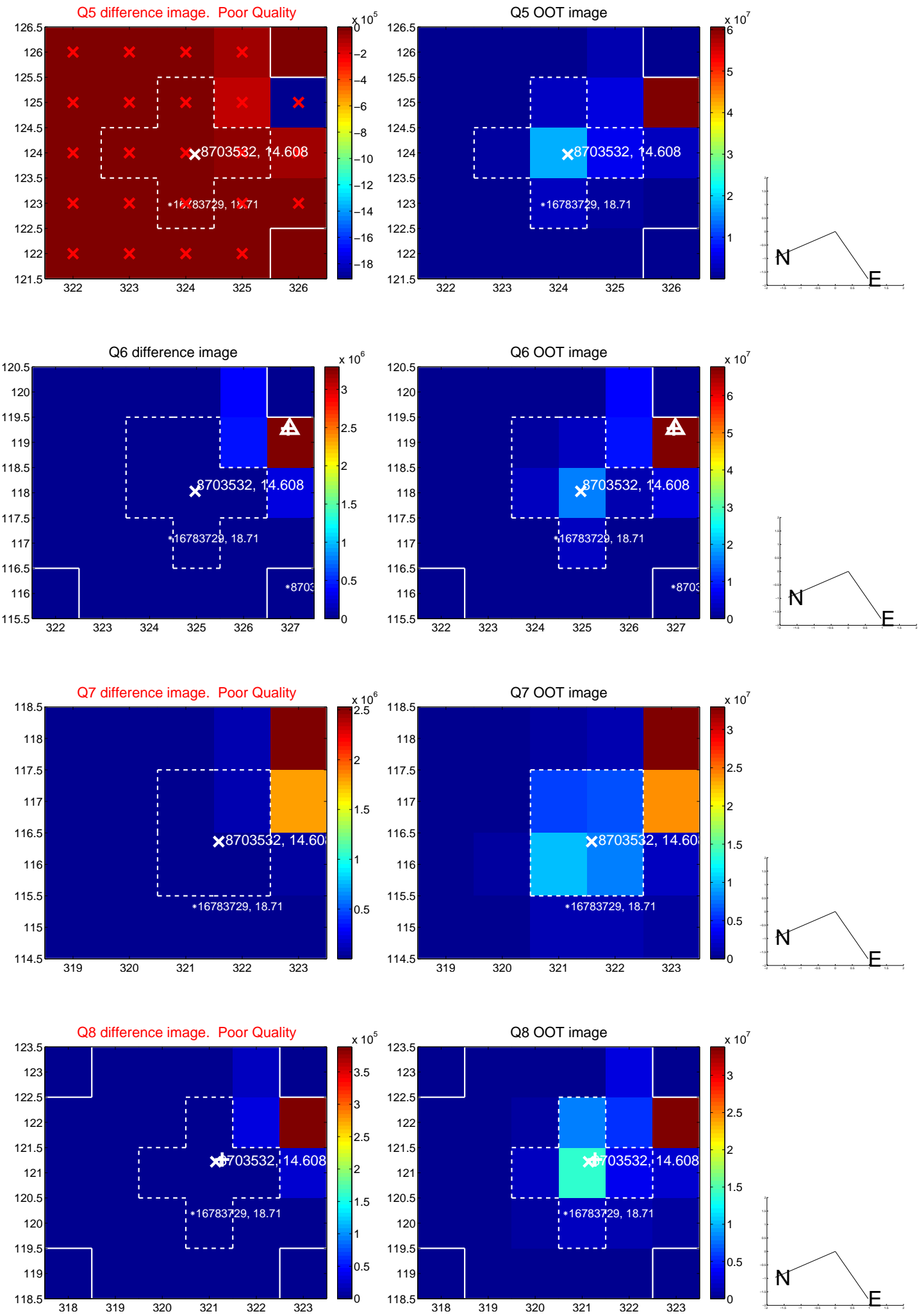


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

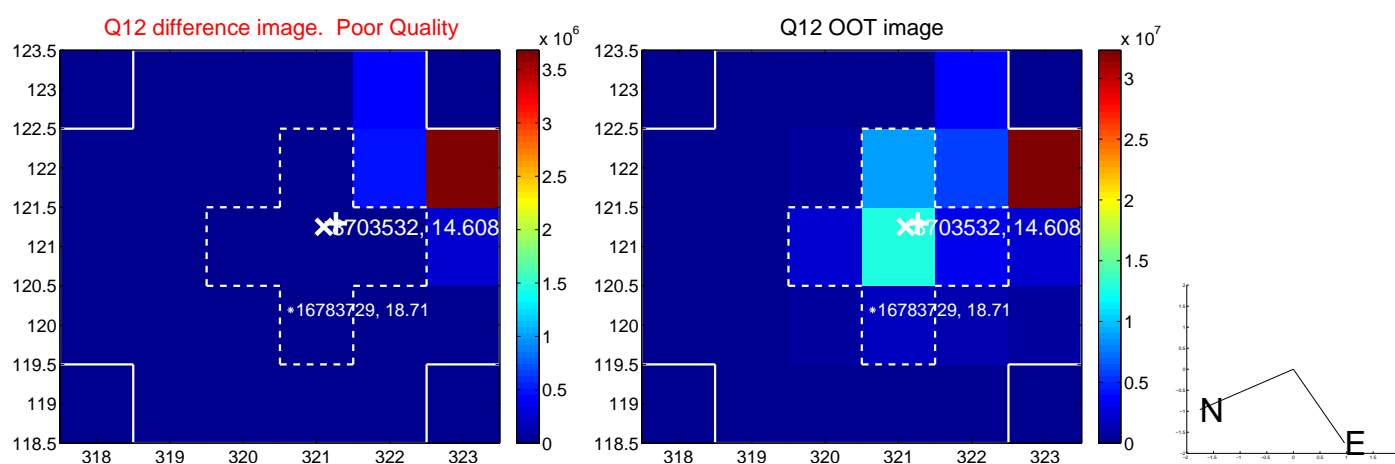
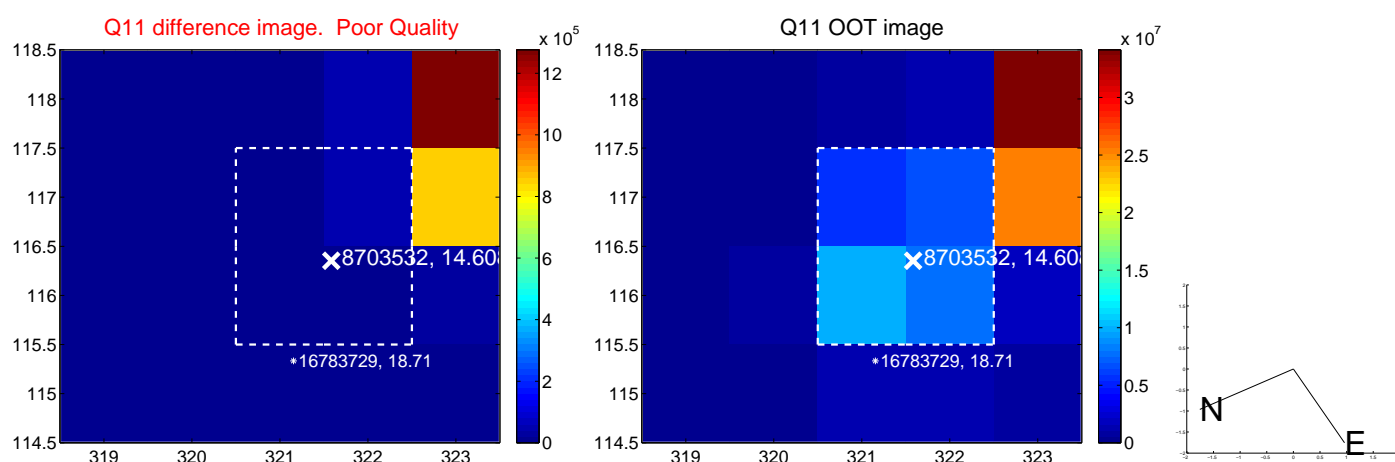
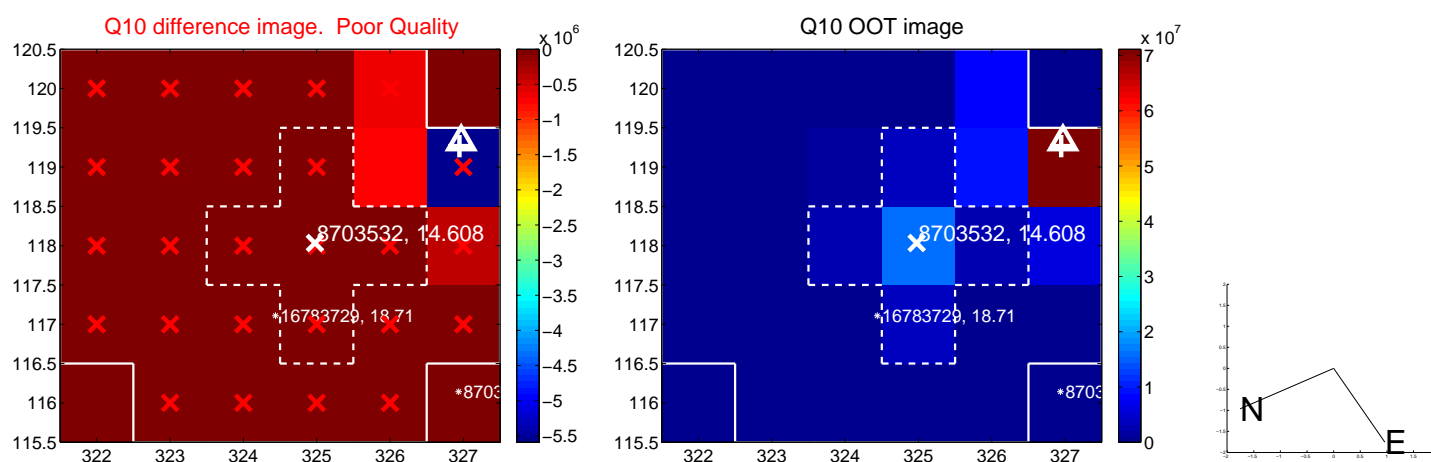
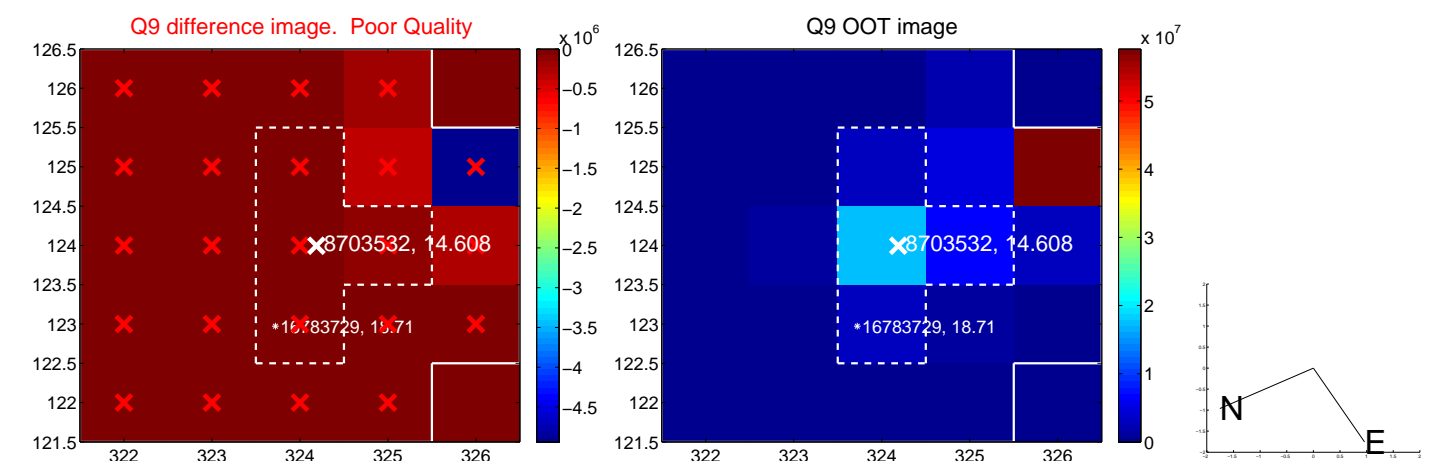
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



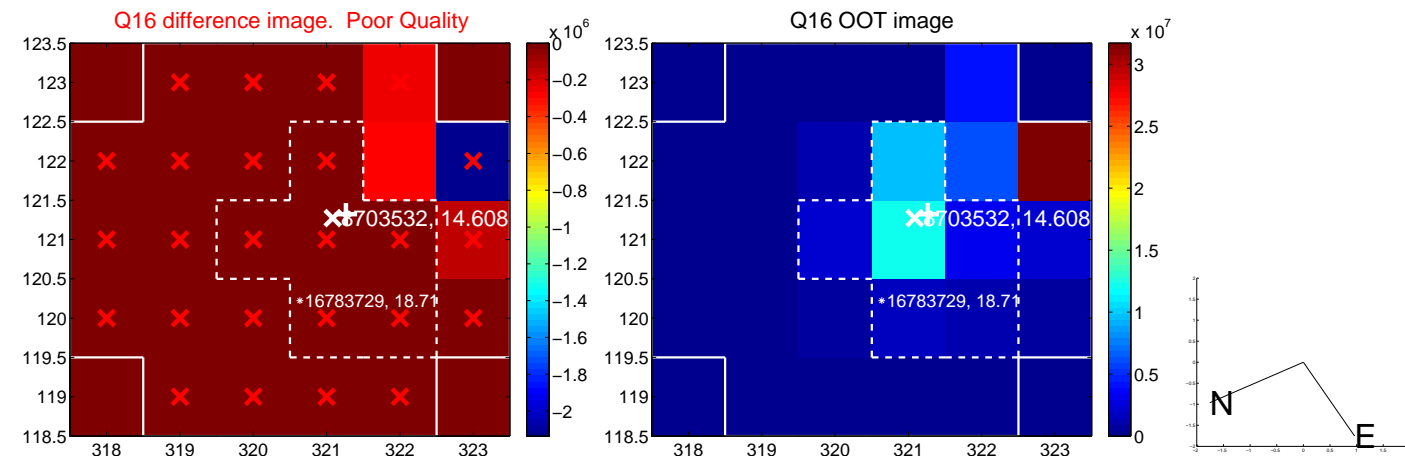
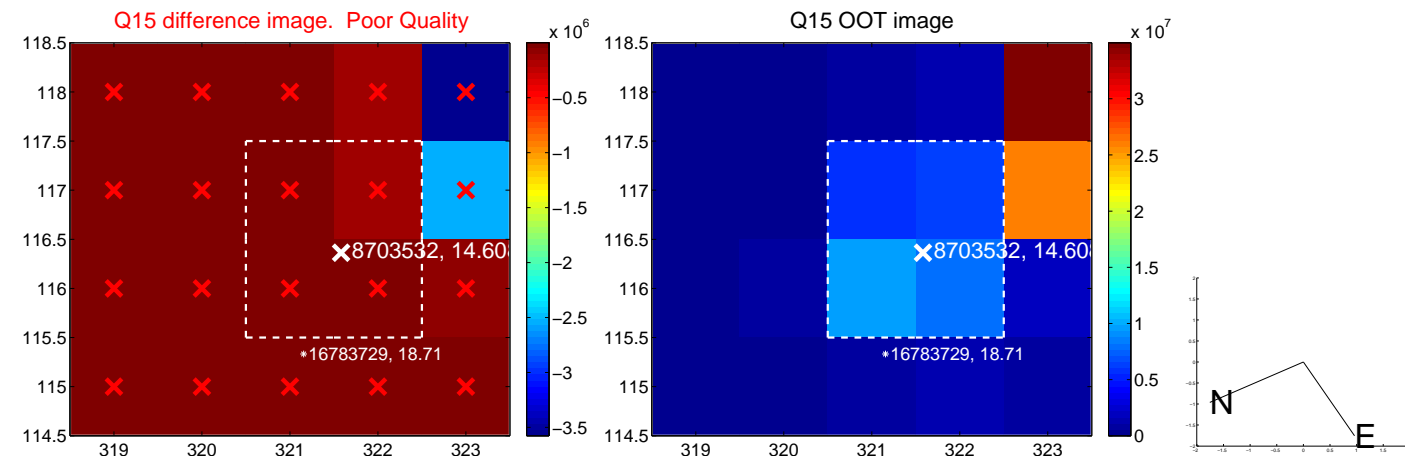
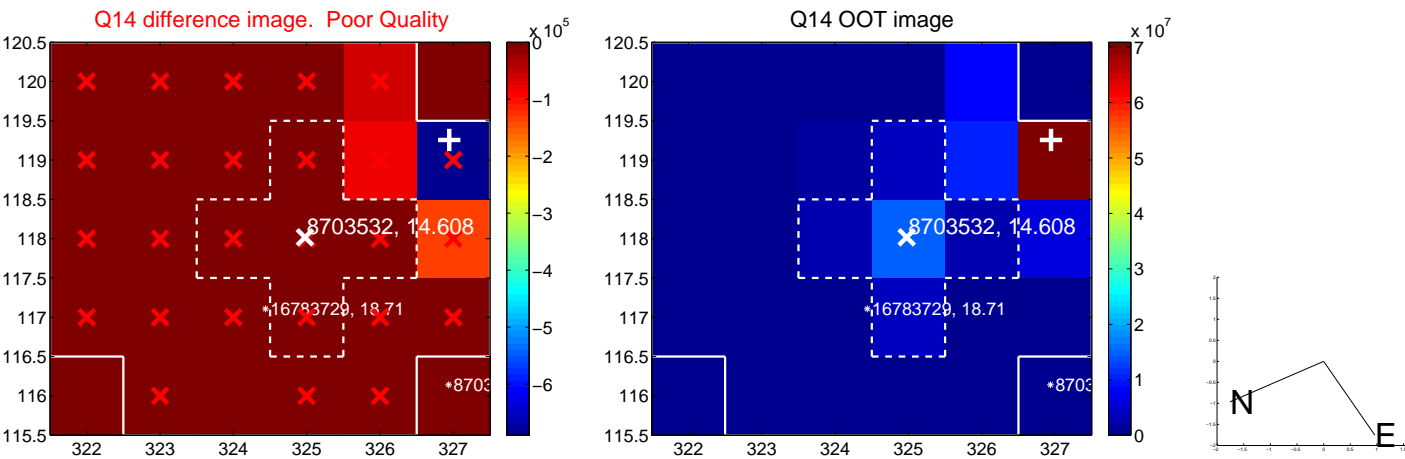
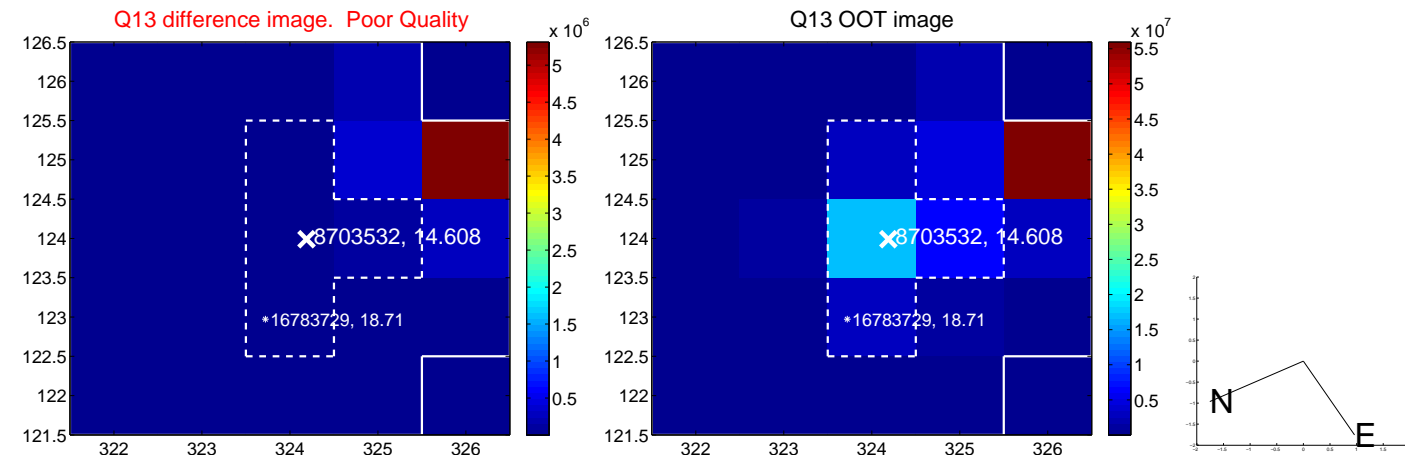
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



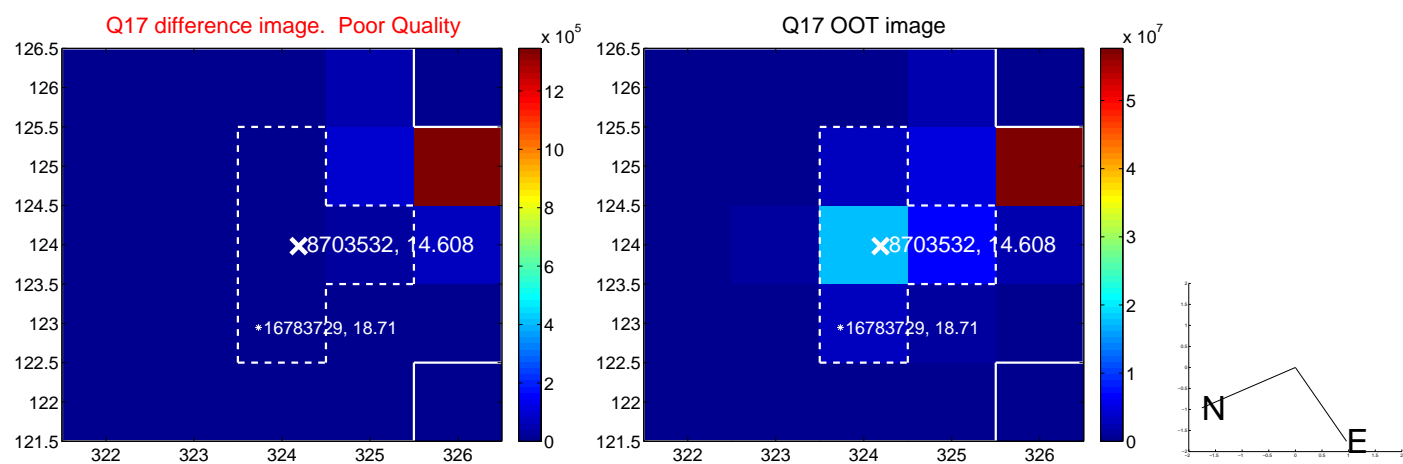
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



folded centroid time series figure for this object.

UKIRT Image

Declination

