

KIC 005725312

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})
005725312-01	OBS	No	1.381325	132.143825	164.6	16.576	13.9	16.5	2.11	6649	3.29	11154.21

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005725312-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

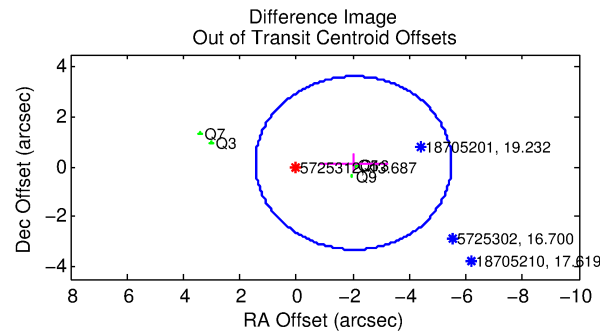
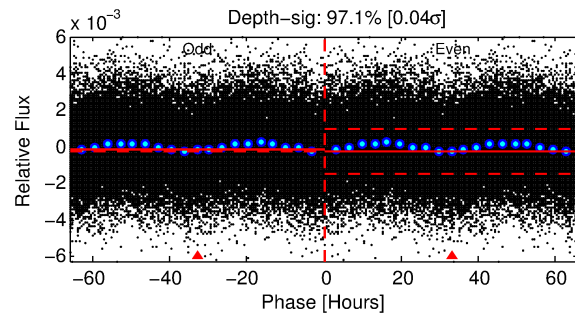
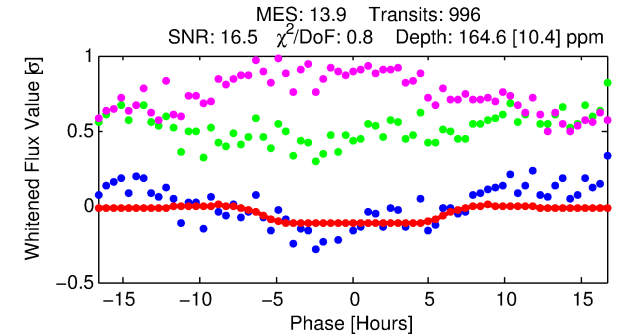
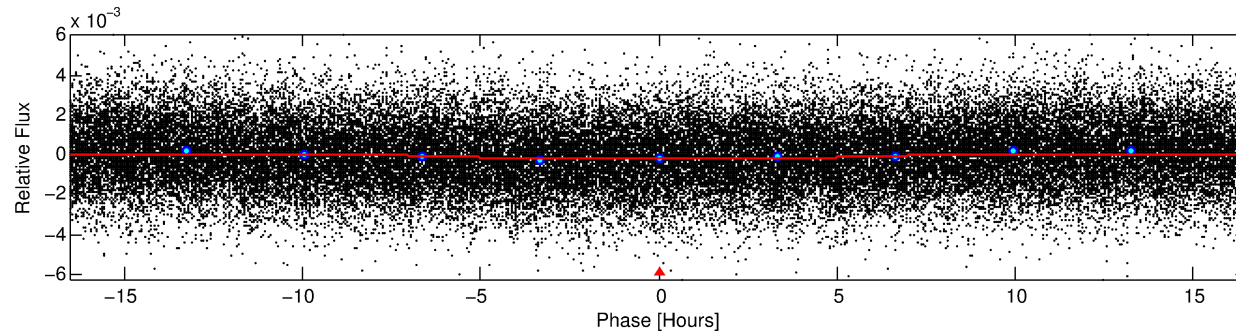
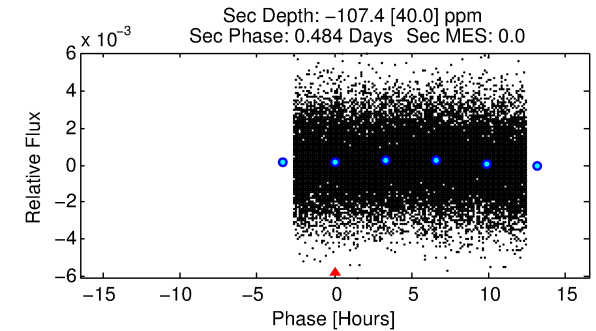
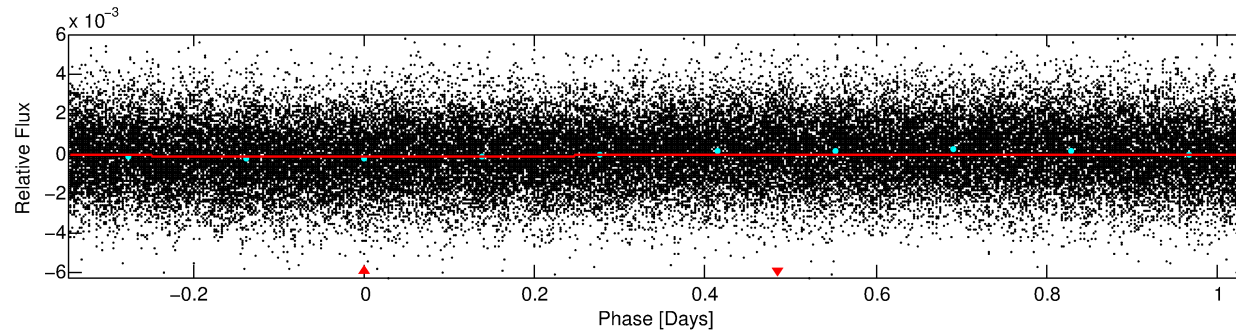
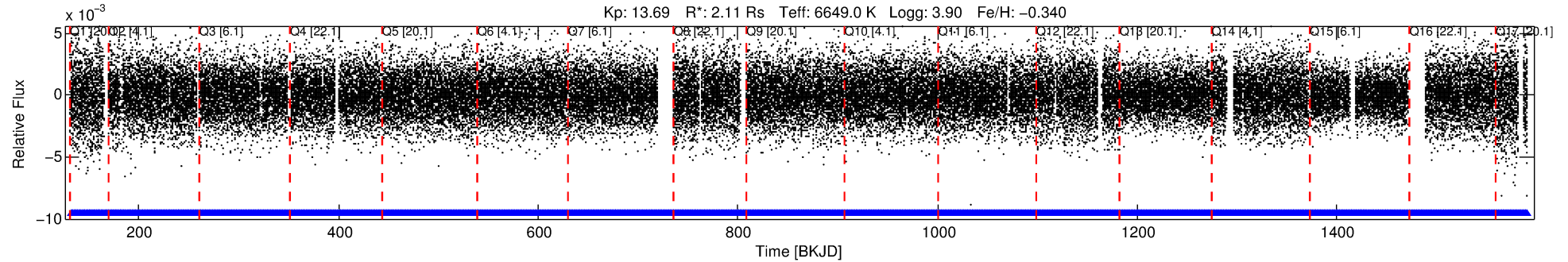
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005725312-01

No Significant Match Found

DV One-Page Summary

KIC: 5725312 Candidate: 1 of 1 Period: 1.381 d



DV Fit Results:

Period = 1.38133 [0.00003] d
Epoch = 132.1438 [0.0161] BKJD
Rp/R* = 0.0143 [0.0007]
a/R* = 1.01 [0.00]
b = 0.94 [0.02]
Seff = 11154.21 [7717.18]
Teq = 2621 [453] K
Rp = 3.29 [1.43] Re
a = 0.0264 [0.0111] AU
Ag = N/A
Teffp = N/A

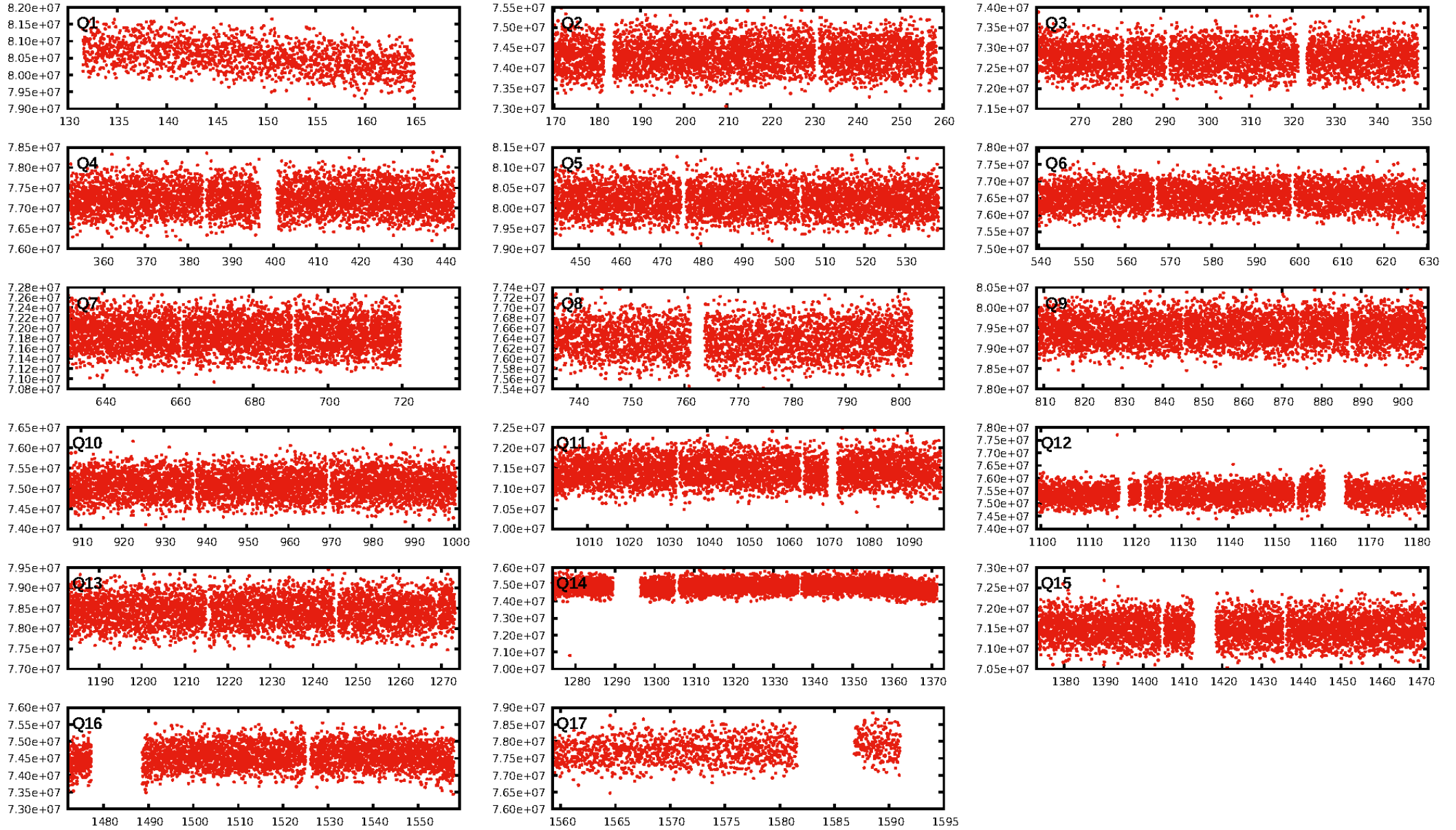
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [950/950]
GhostDiagnostic-chr: 1.334
Centroid-sig: 0.0%
Centroid-so: 0.281 arcsec [2.57σ]
OotOffset-rm: 2.031 arcsec [1.76σ]
KicOffset-rm: 2.161 arcsec [1.97σ]
OotOffset-st: 0.2/0/3 [5]
KicOffset-st: 0.2/0/3 [5]
DiffImageQuality-fgm: 0.60 [3/5]
DiffImageOverlap-fno: 1.00 [17/17]

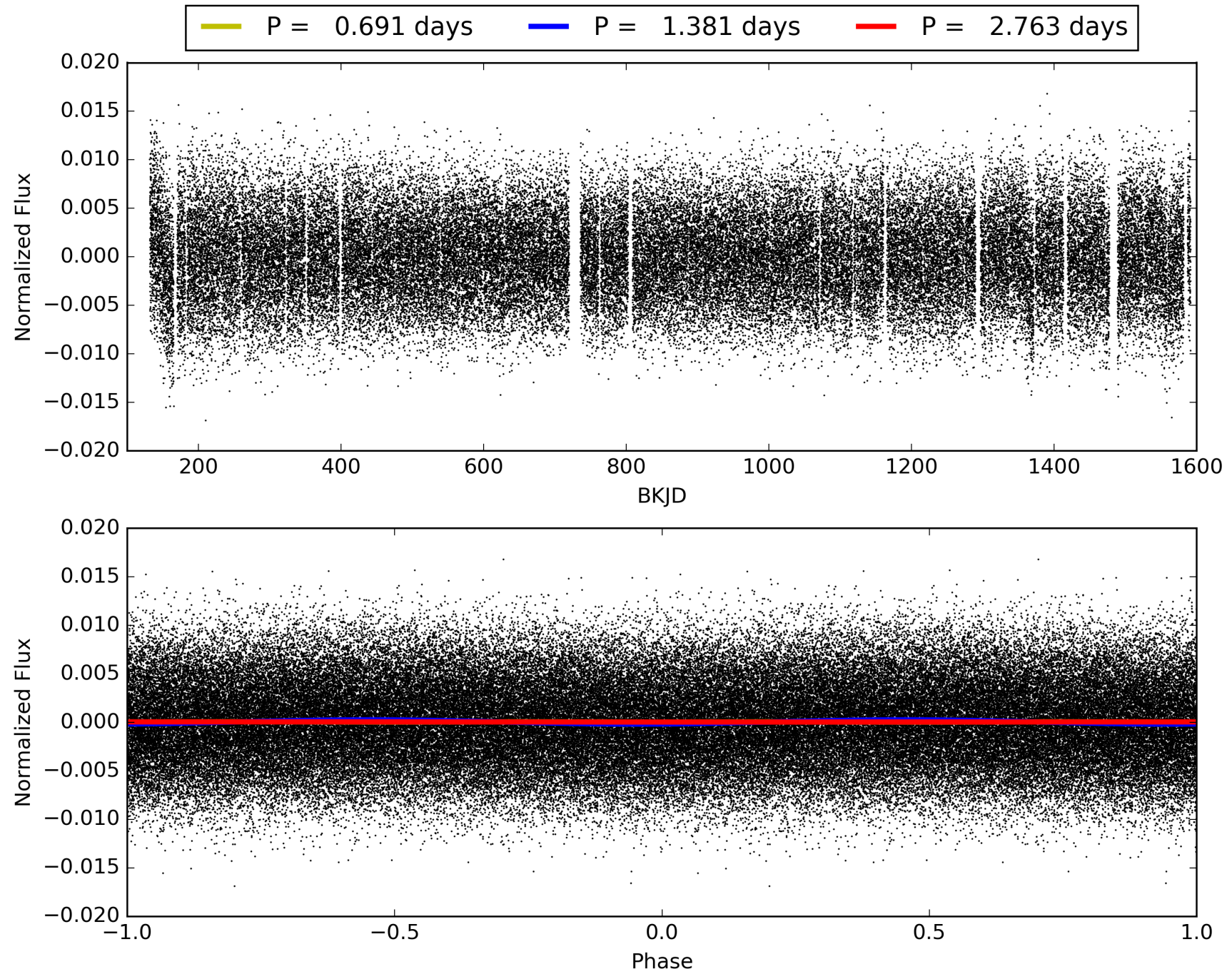
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 07:53:54 Z

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

TCE 005725312-01, PDC Light Curves

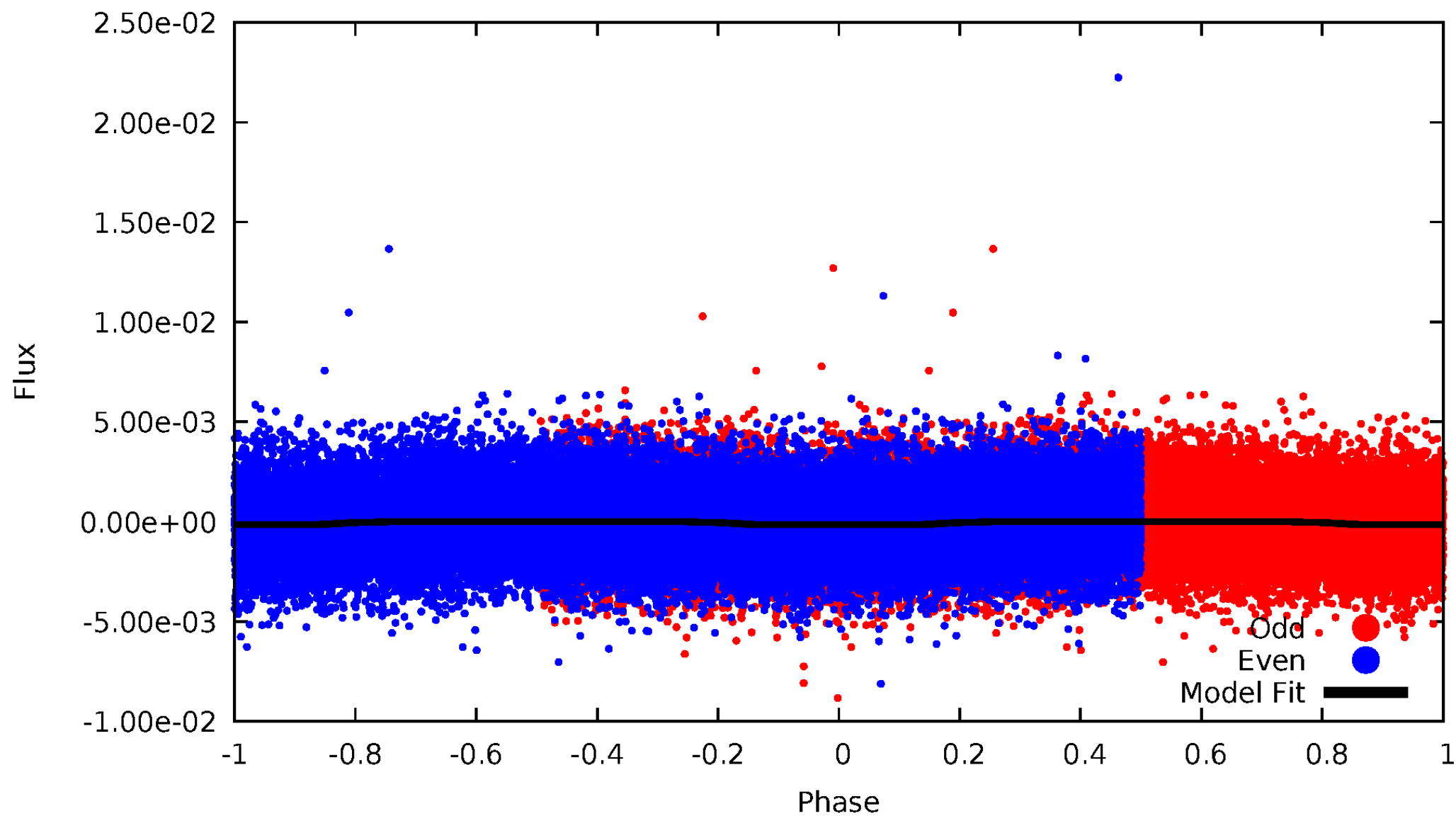


TCE 005725312-01



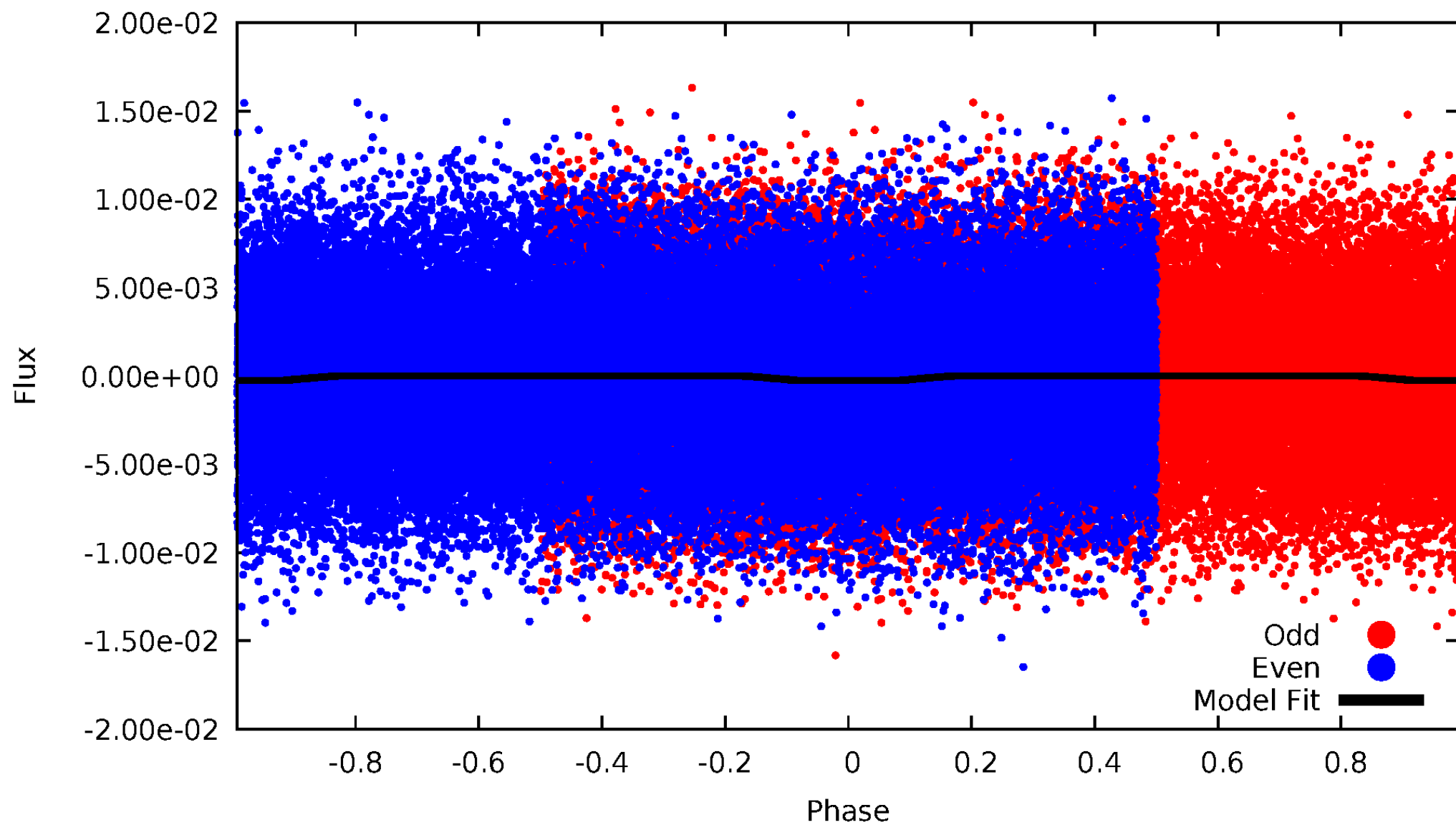
DV Odd/Even

TCE 005725312-01



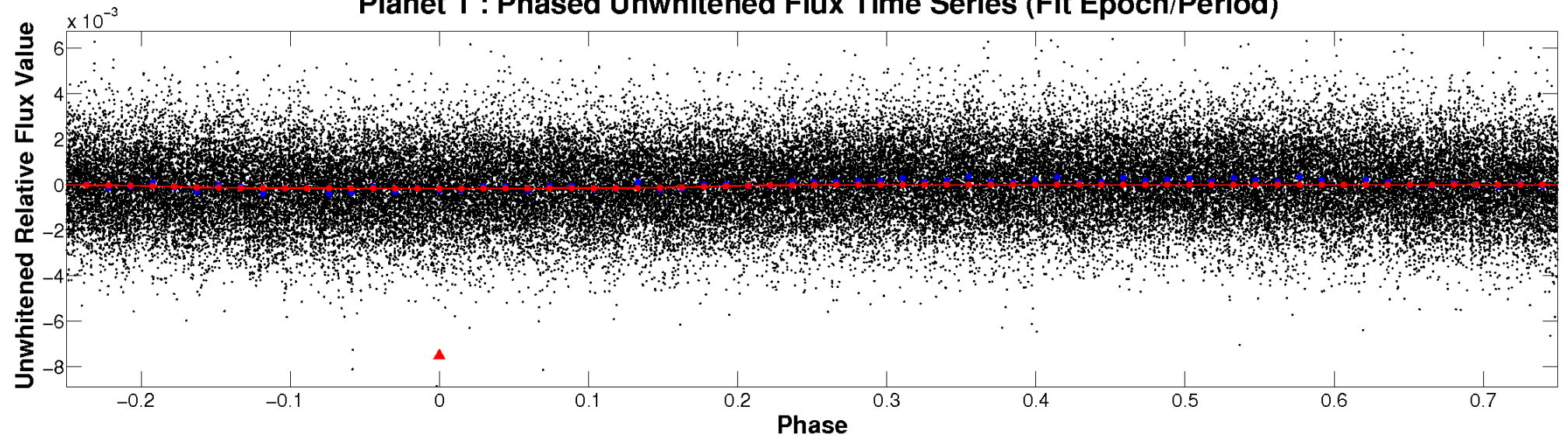
ALT Odd/Even

TCE 005725312-01

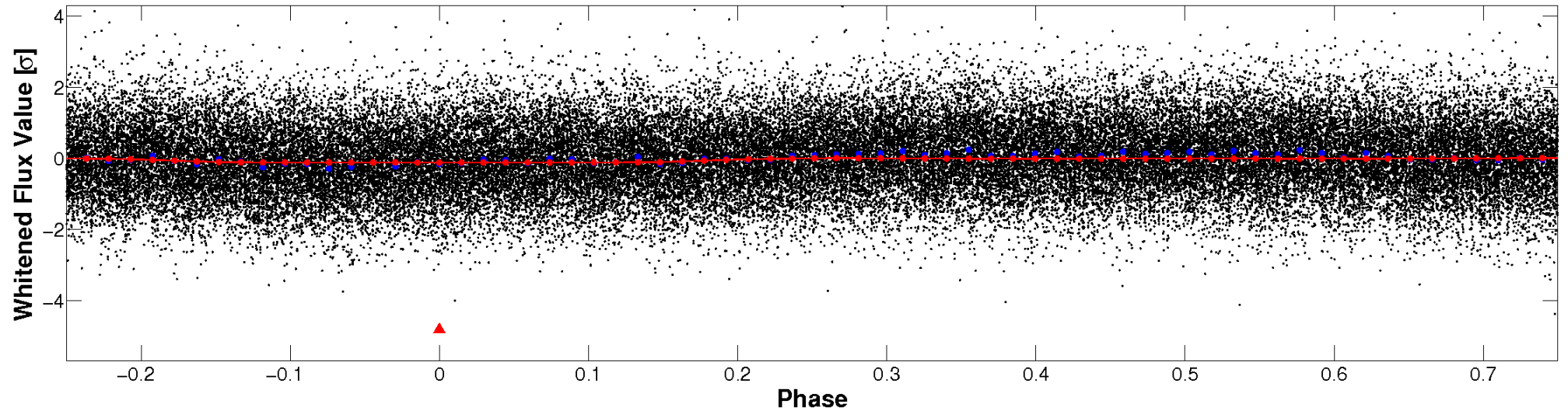


Non-Whitened Vs. Whitened Light Curve

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

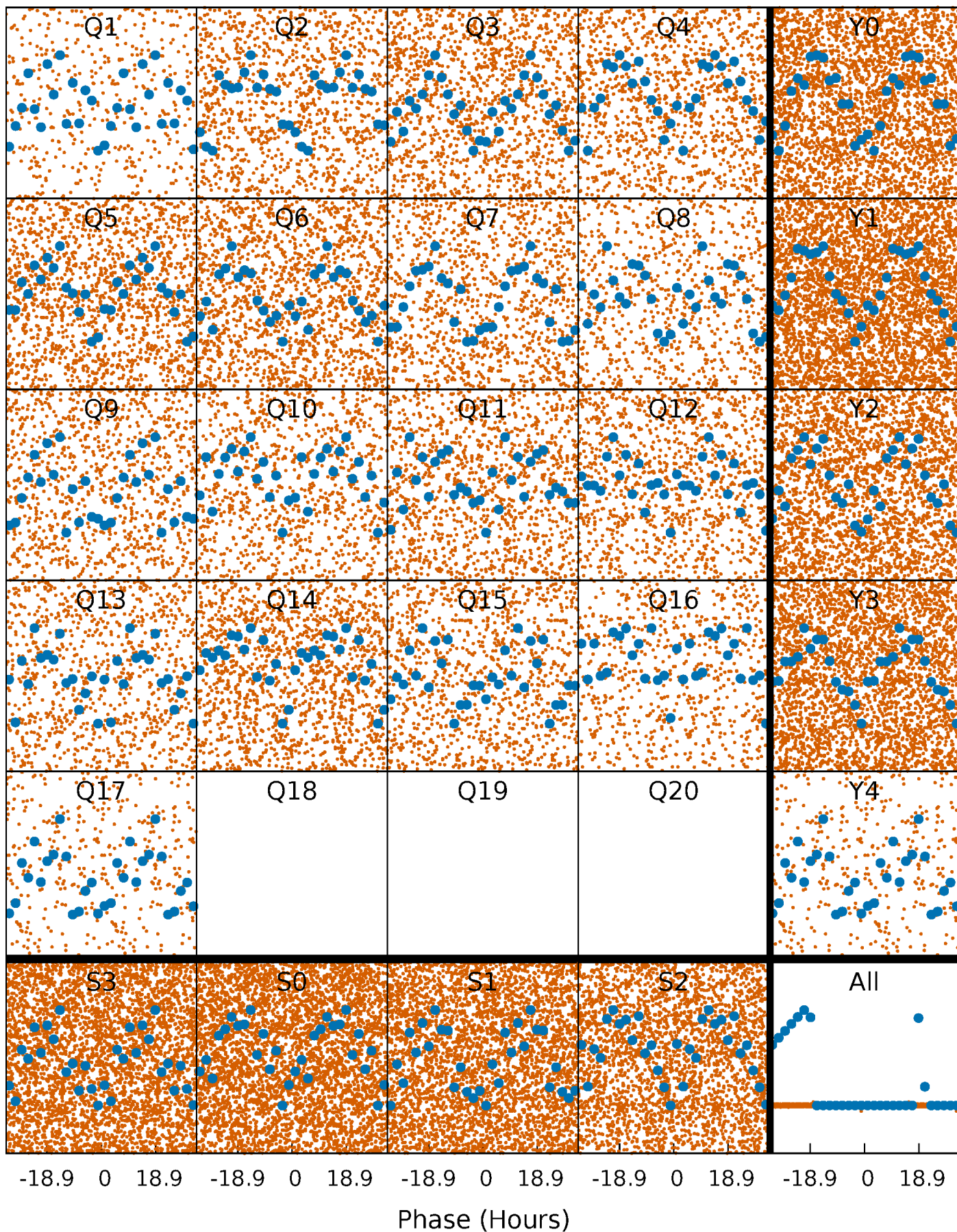


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



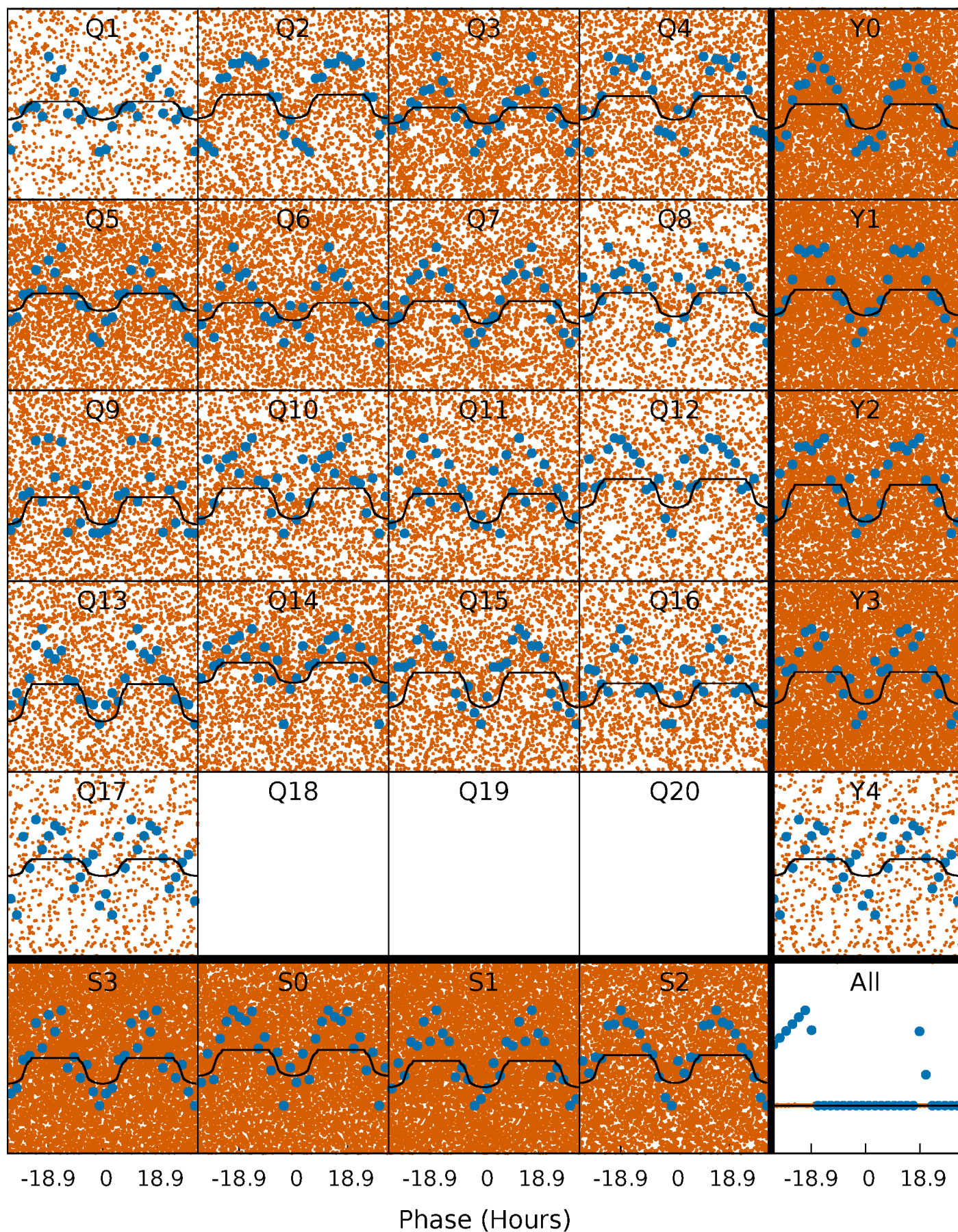
PDC Quarter-Phased Transit Curves

TCE 005725312-01 P= 1.381325 Days $T_0=132.143825$ (BKJD)



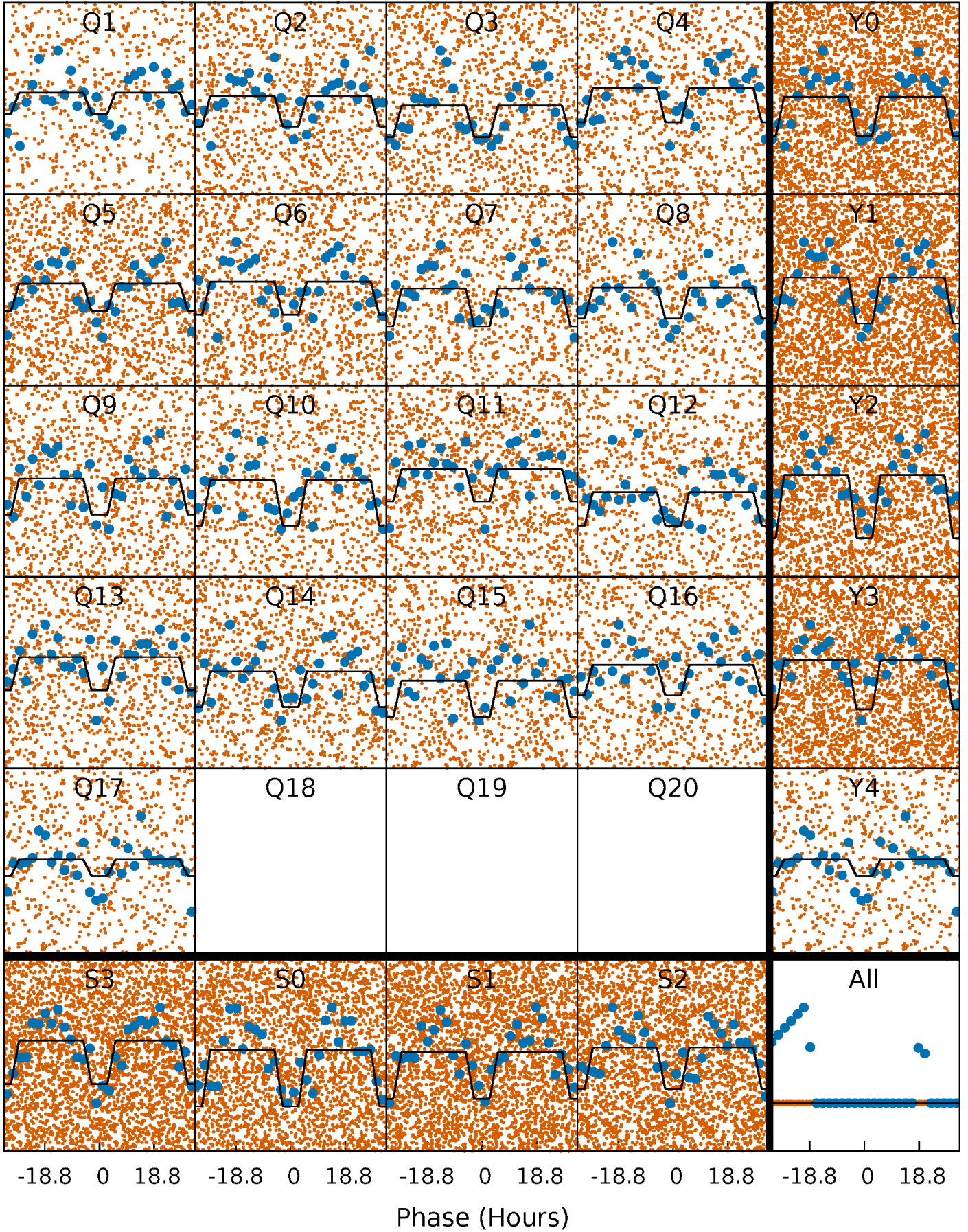
DV Quarter-Phased Transit Curves

TCE 005725312-01 P= 1.381325 Days $T_0=132.143825$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

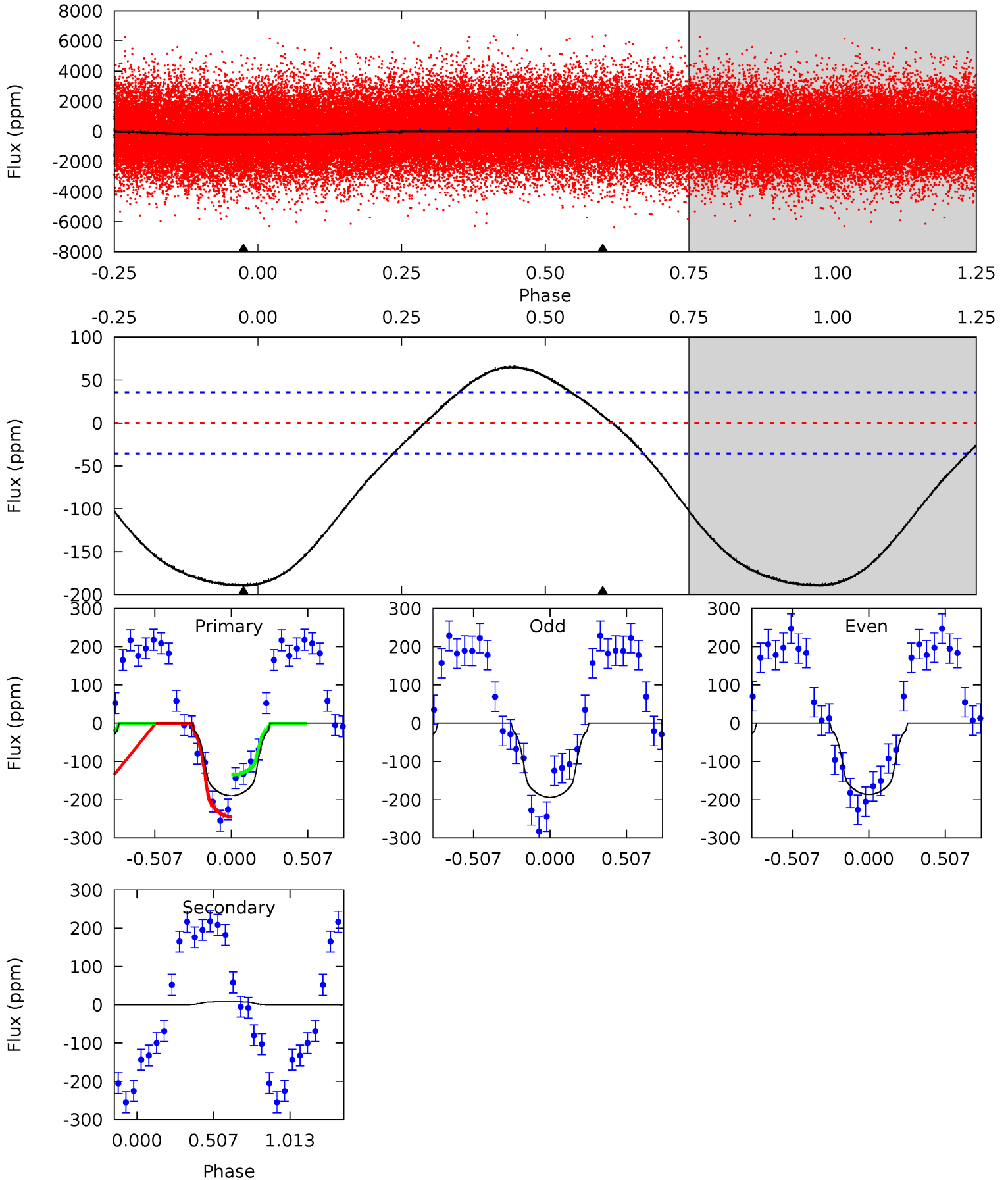
TCE 005725312-01 P= 1.381390 Days $T_0=132.025296$ (BKJD)



DV Model-Shift Uniqueness Test

005725312-01, P = 1.381325 Days, E = 130.762500 Days

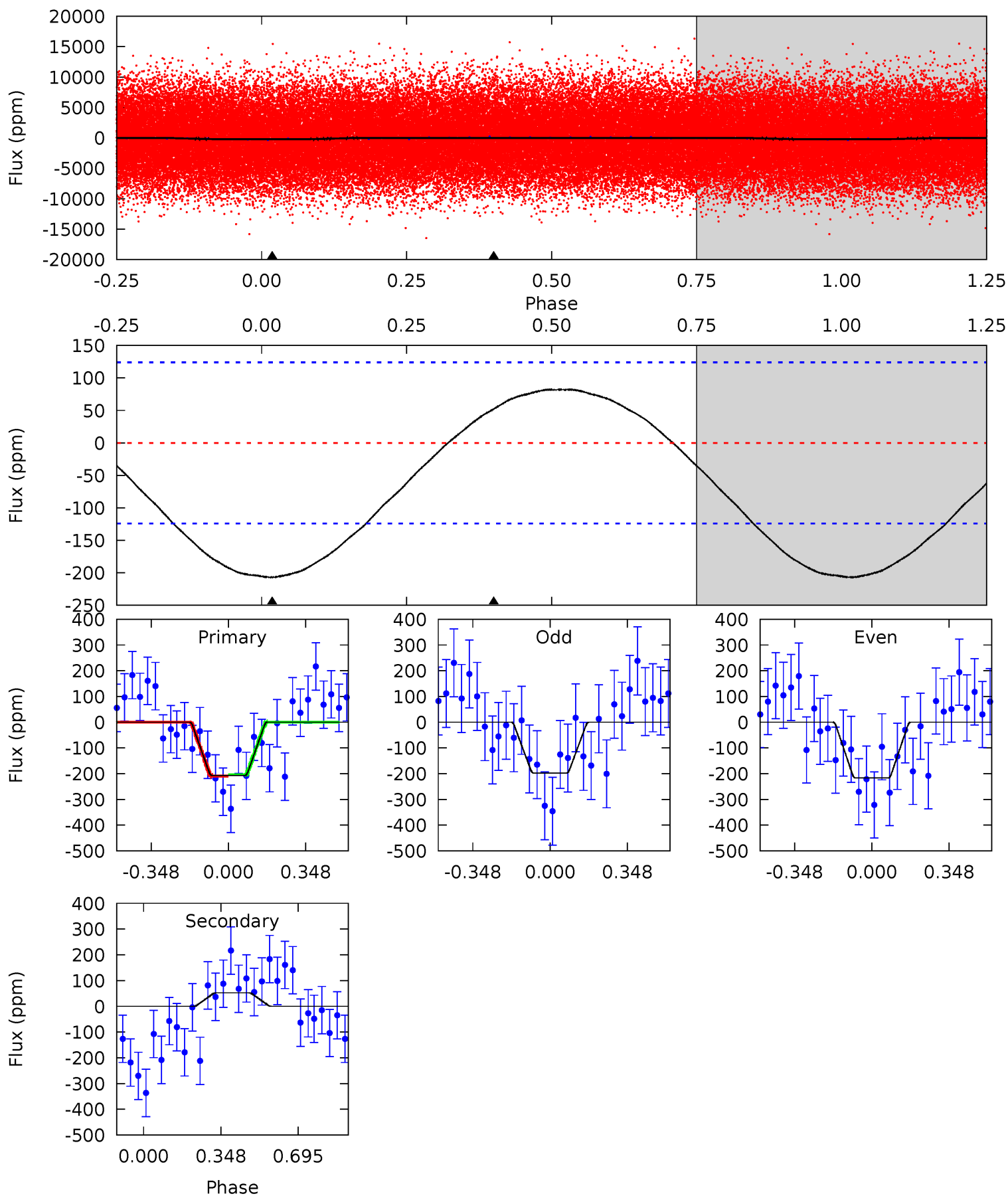
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
22.4	-0.97	0	0	4.21	0.66	2.21	22.4	22.4	-0.97	-0.97	0.44	1.31	0.26	6.43



Alt Model-Shift Uniqueness Test

005725312-01, P = 1.381390 Days, E = 130.643906 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.17	-1.81	0	0	4.30	0.94	0.82	7.17	7.17	-1.81	-1.81	0.33	1.29	0.28	0.08



Stellar Parameters For KIC 005725312

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6649^{+188}_{-259}	$3.900^{+0.397}_{-0.132}$	$-0.340^{+0.300}_{-0.300}$	$2.108^{+0.490}_{-0.911}$	$1.288^{+0.196}_{-0.239}$	$0.194^{+0.687}_{-0.079}$
	+3%/-4%	+10%/-3%	+88%/-88%	+23%/-43%	+15%/-19%	+354%/-41%
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 005725312-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	8 ± 8	$3.18^{+0.54}_{-0.72}$	3580^{+286}_{-418}	-3827^{+449}_{-323}	$-0.295^{+0.307}_{-0.418}$
Alt.	52 ± 29	$3.58^{+0.56}_{-0.82}$	3589^{+292}_{-412}	-4809^{+542}_{-398}	$-1.685^{+0.873}_{-1.353}$

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

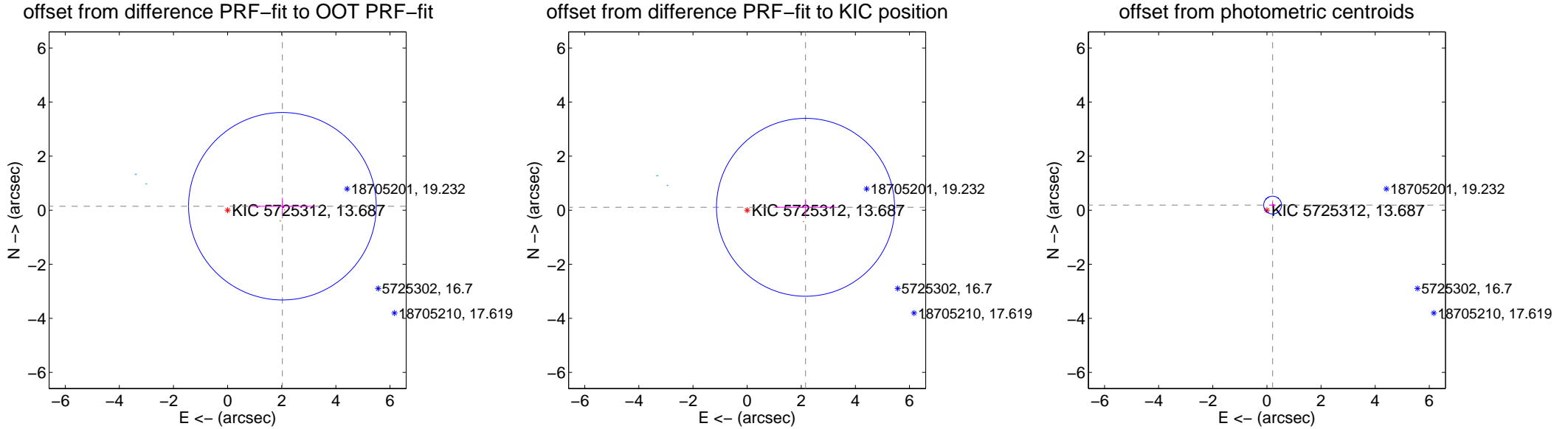
DV Centroid Data

Supplemental centroid analysis for 005725312-01. Kepler magnitude: 13.69. Transit SNR 16.49

There are 3 quarters with good PRF difference image offsets

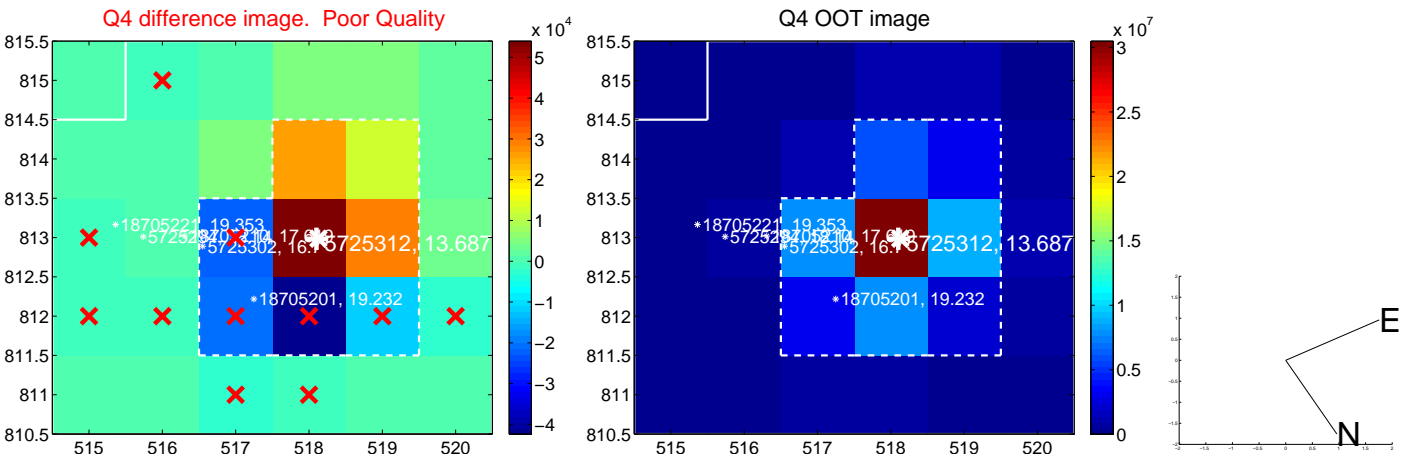
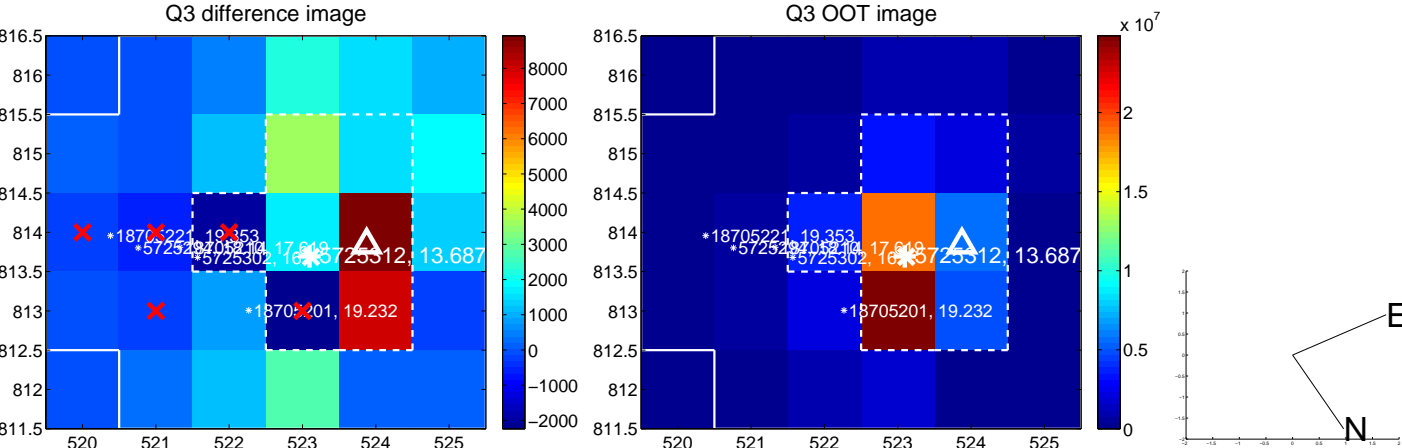
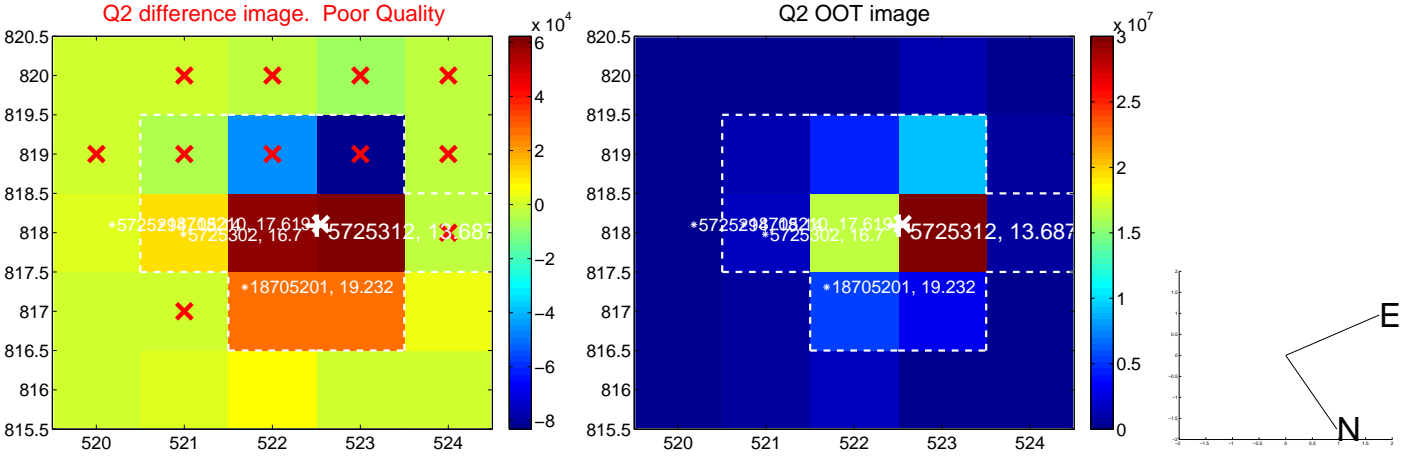
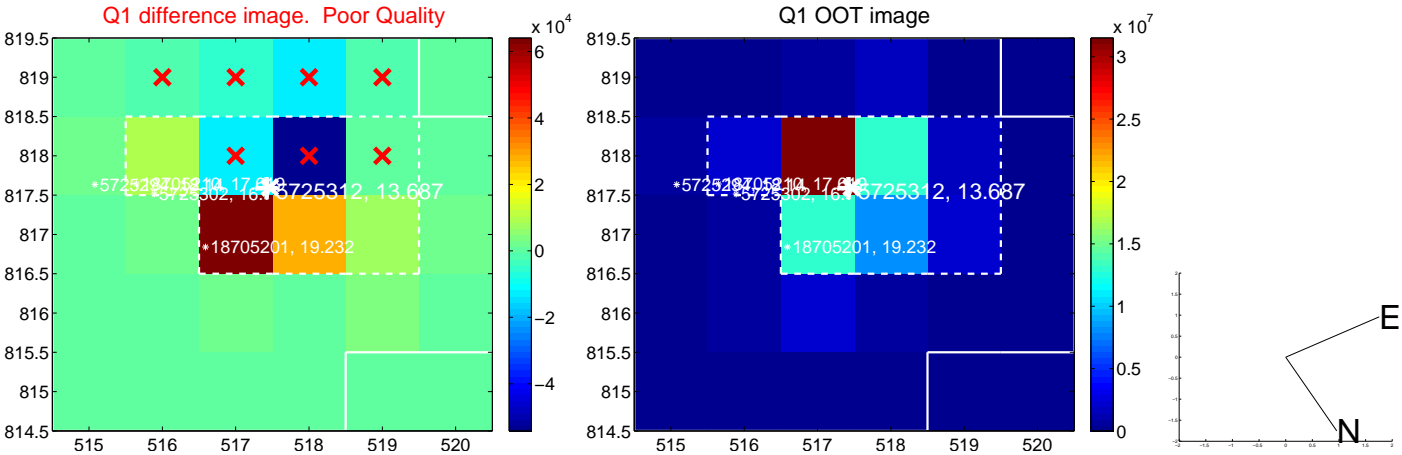
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.031 ± 1.156	1.76	-2.025 ± 1.179	0.147 ± 0.308
PRF-fit source offset from KIC position	2.161 ± 1.097	1.97	-2.158 ± 1.112	0.107 ± 0.300
photometric centroid source offset	0.28 ± 0.11	2.57	-0.21 ± 0.12	0.19 ± 0.10

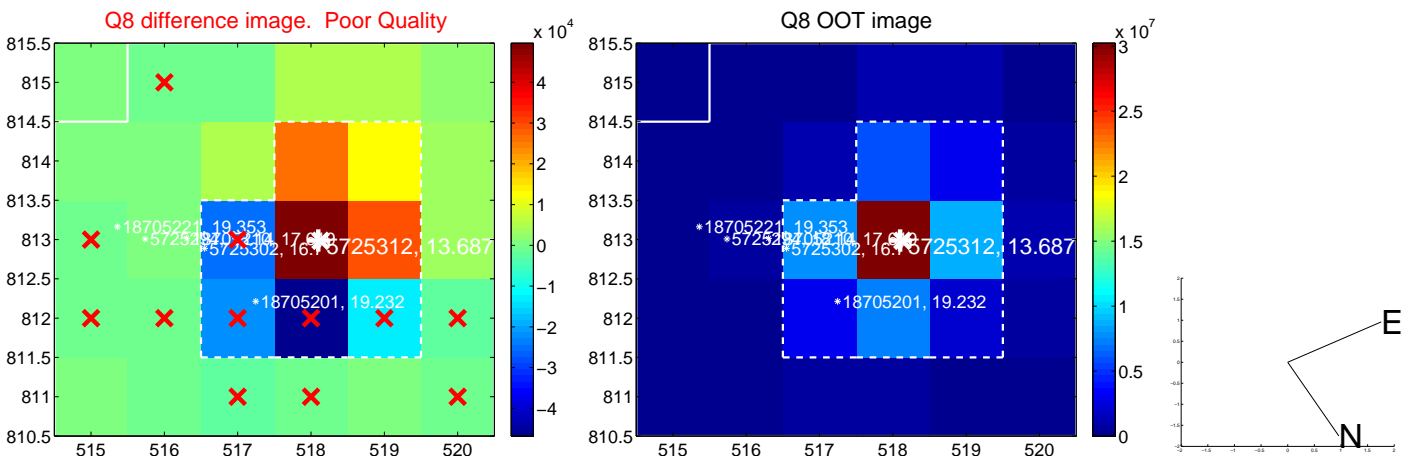
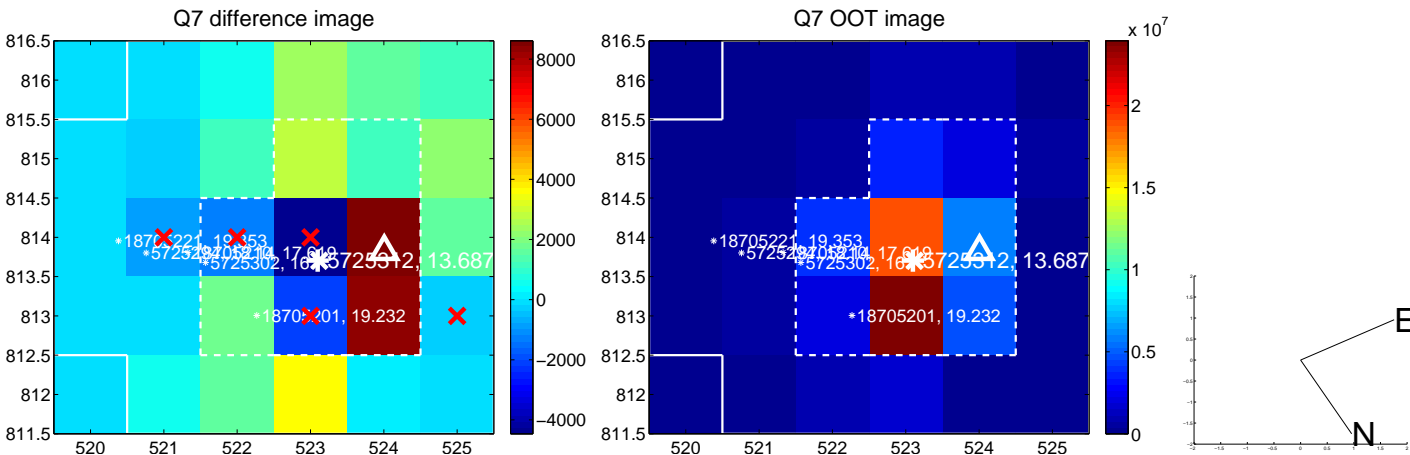
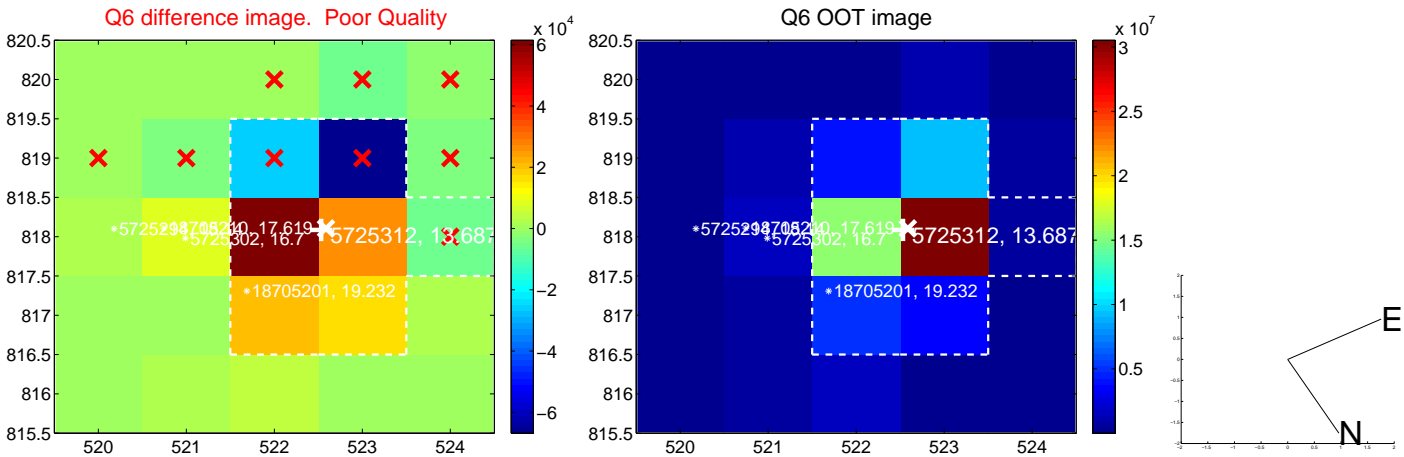
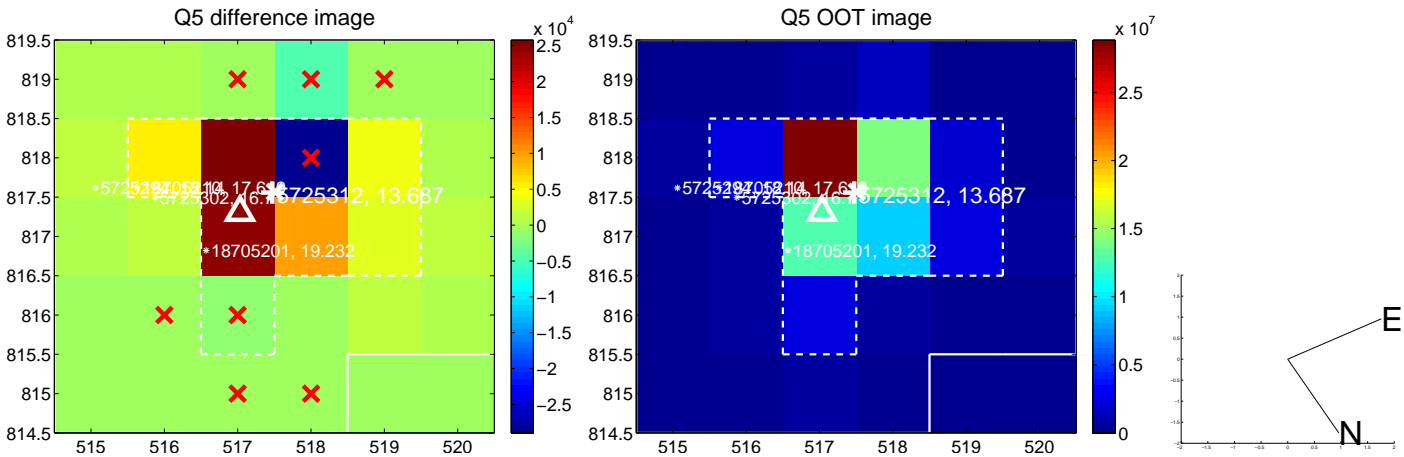


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

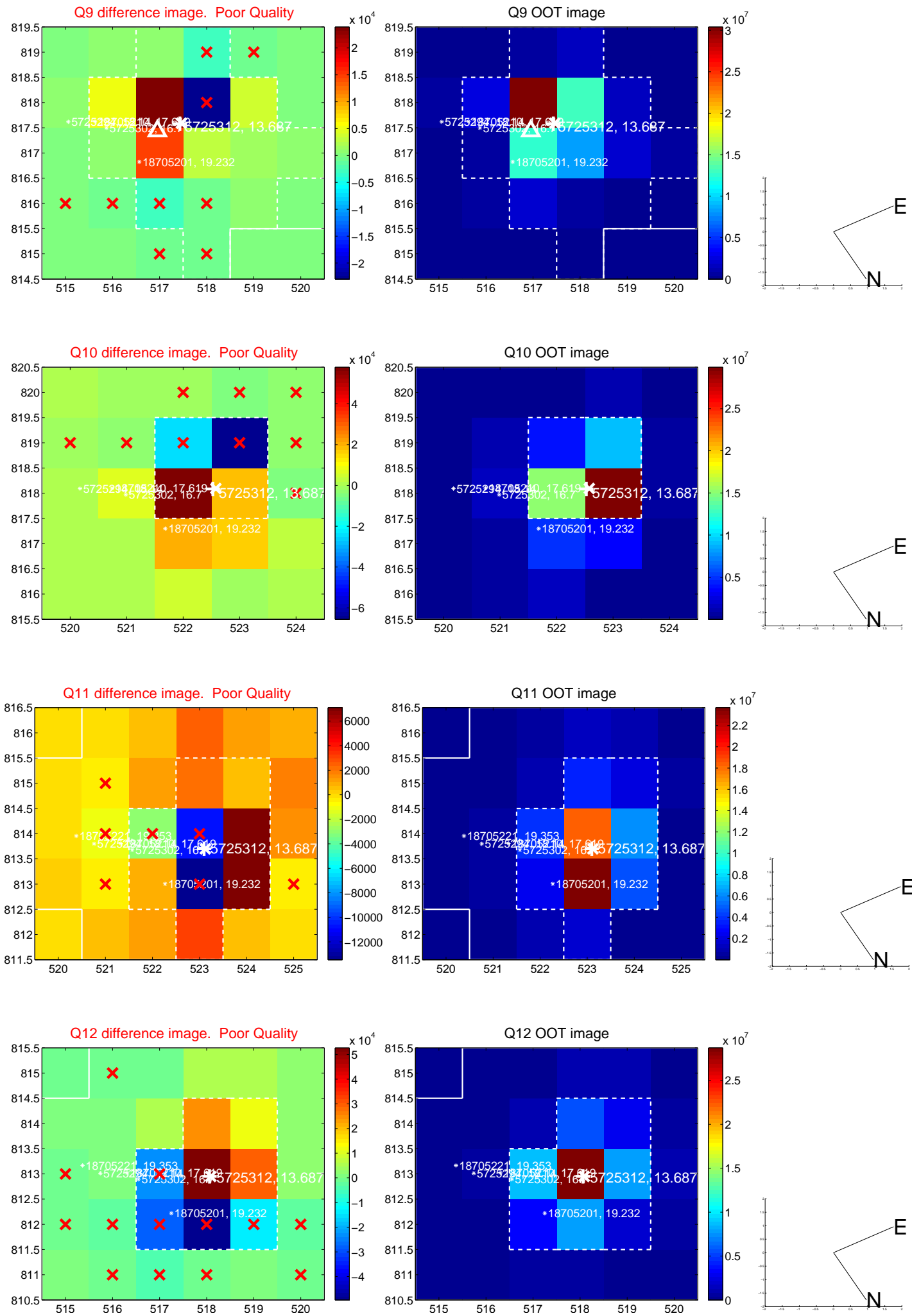
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



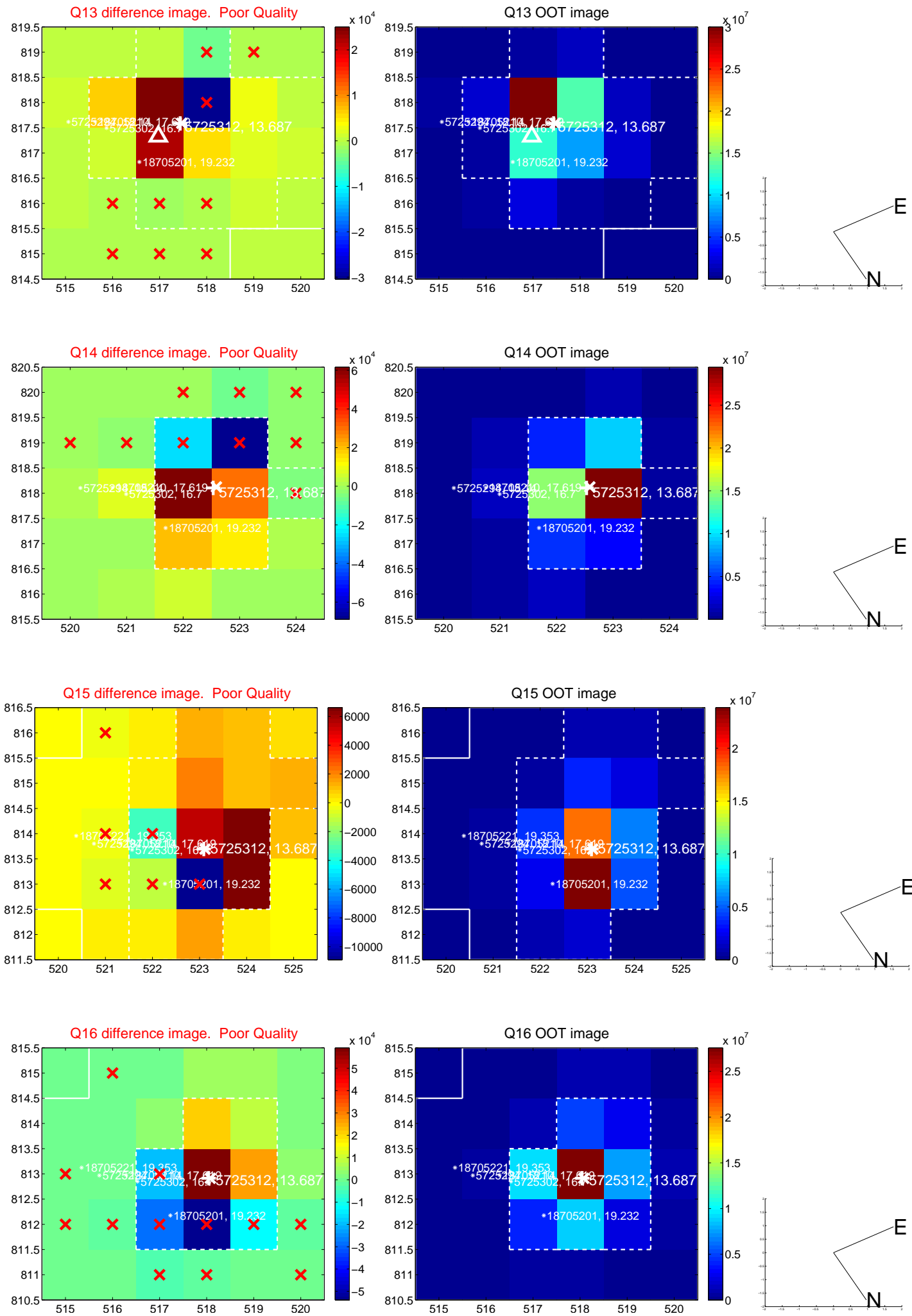
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



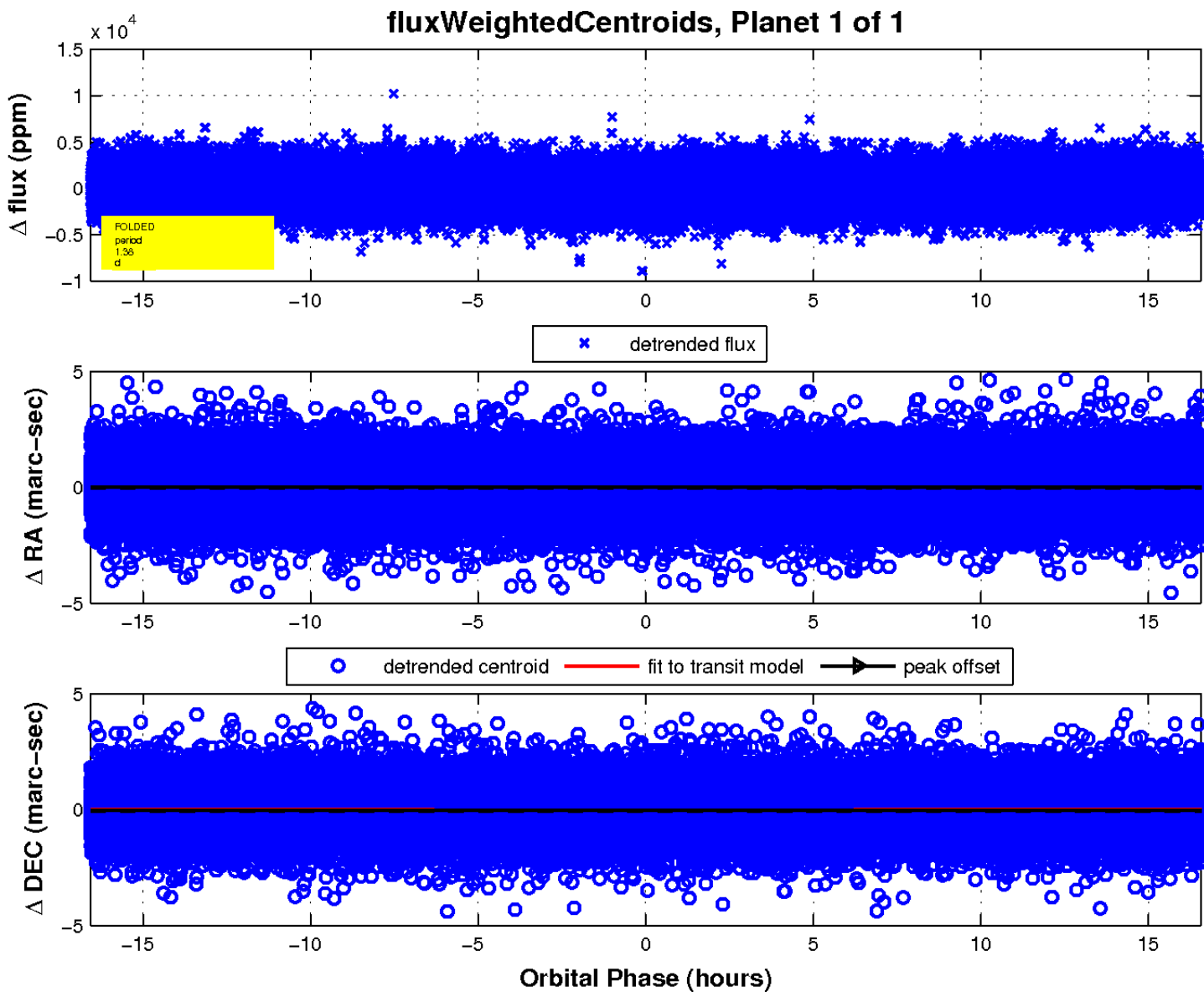
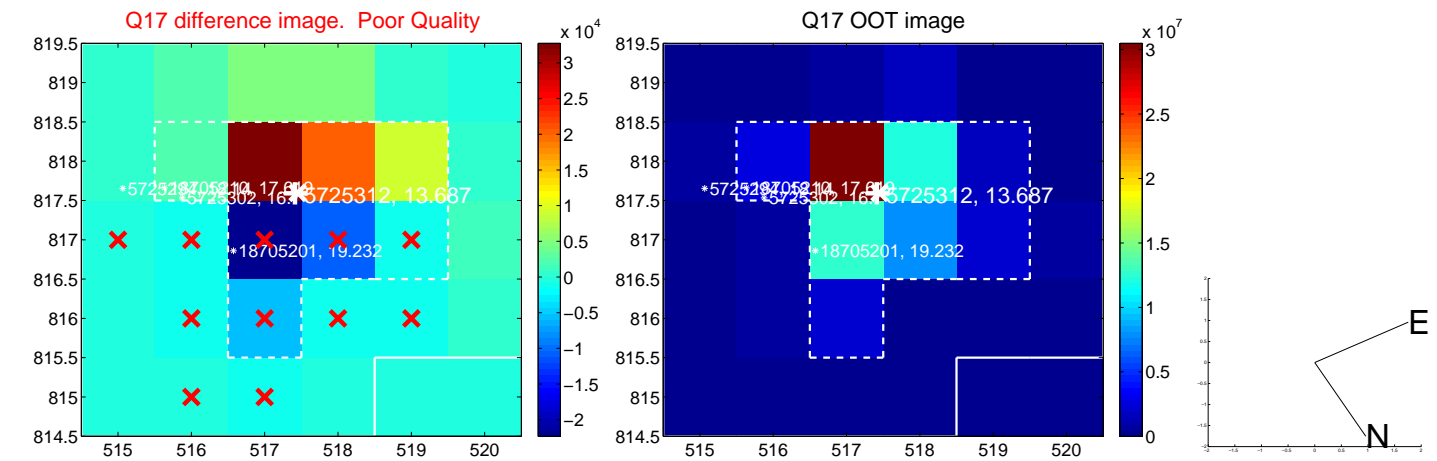
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



UKIRT Image

Declination

