

KIC 005650062

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})
005650062-01	OBS	No	1.015931	131.526618	93.0	7.705	13.2	13.2	1.83	6603	1.82	11848.81
005650062-02	OBS	No	12.704824	141.044738	2926.9	0.579	16.9	18.5	1.83	6603	10.30	408.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005650062-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
005650062-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_DV

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

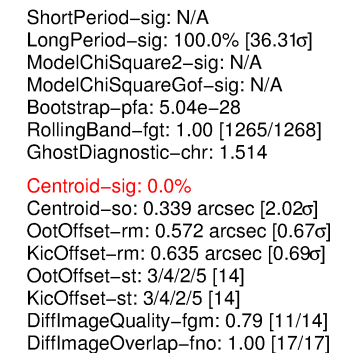
N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

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

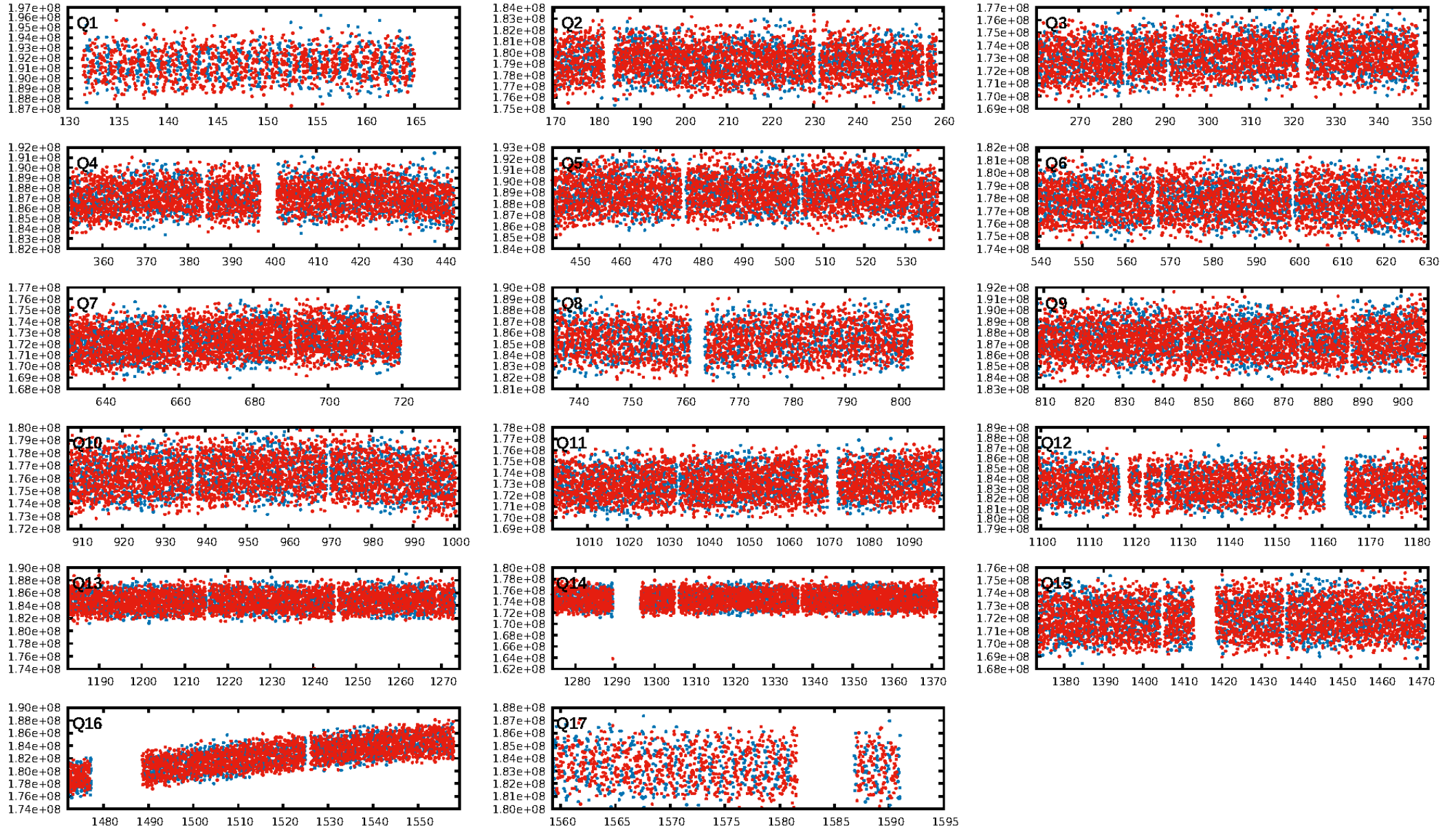
Ephemeris Match Information For 005650062-01

No Significant Match Found

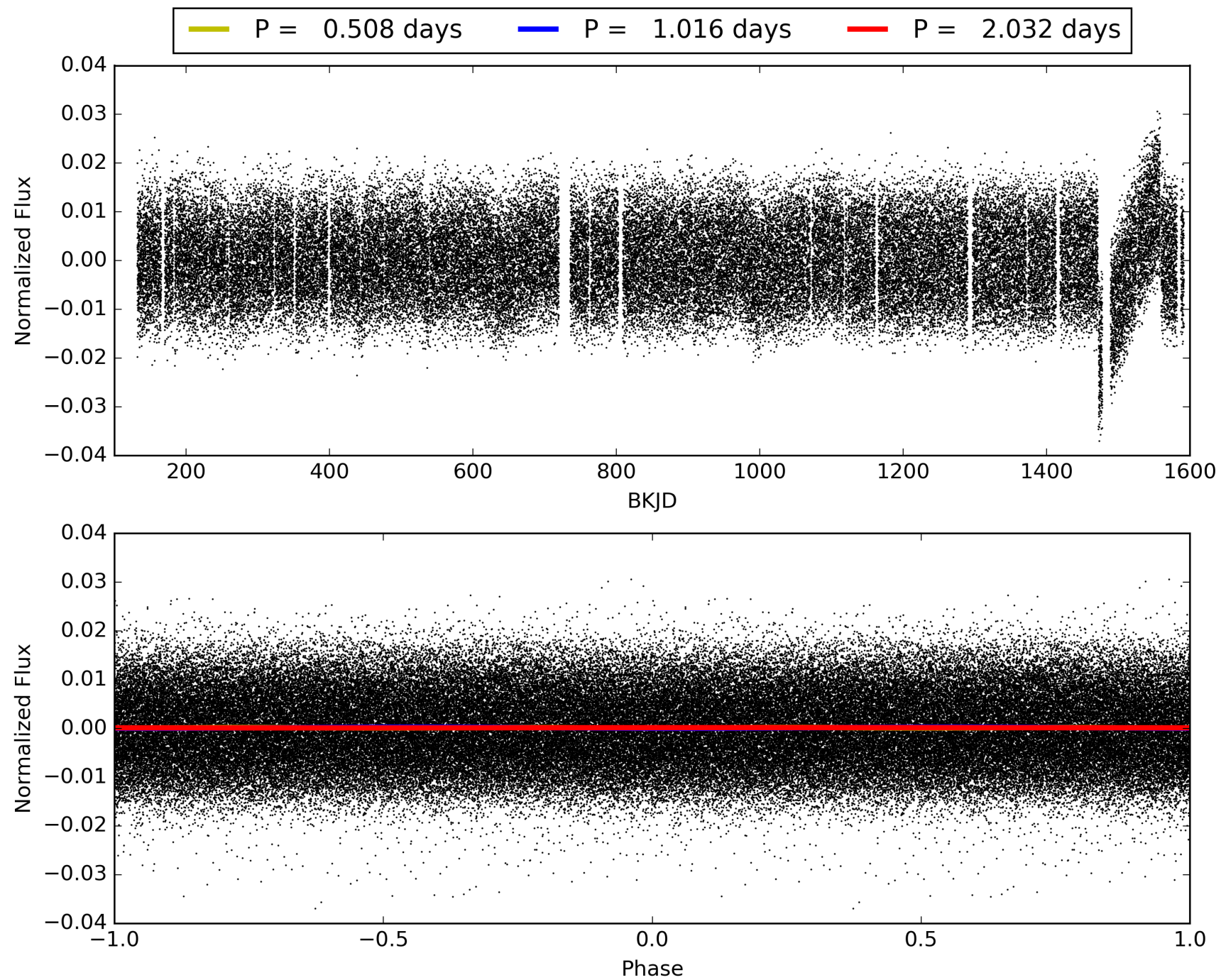
KIC: 5650062 Candidate: 1 of 2 Period: 1.016 d



TCE 005650062-01, PDC Light Curves

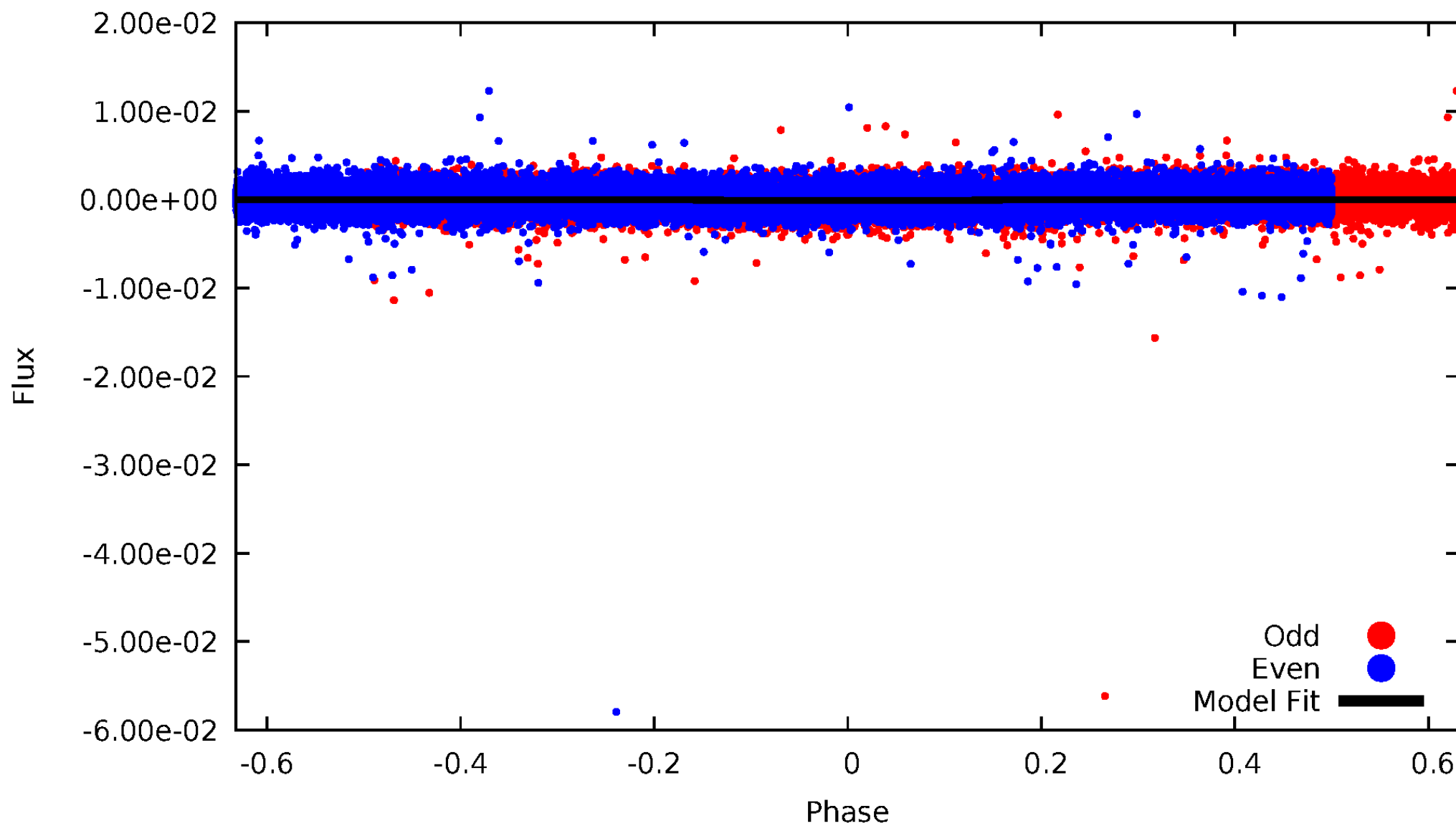


TCE 005650062-01



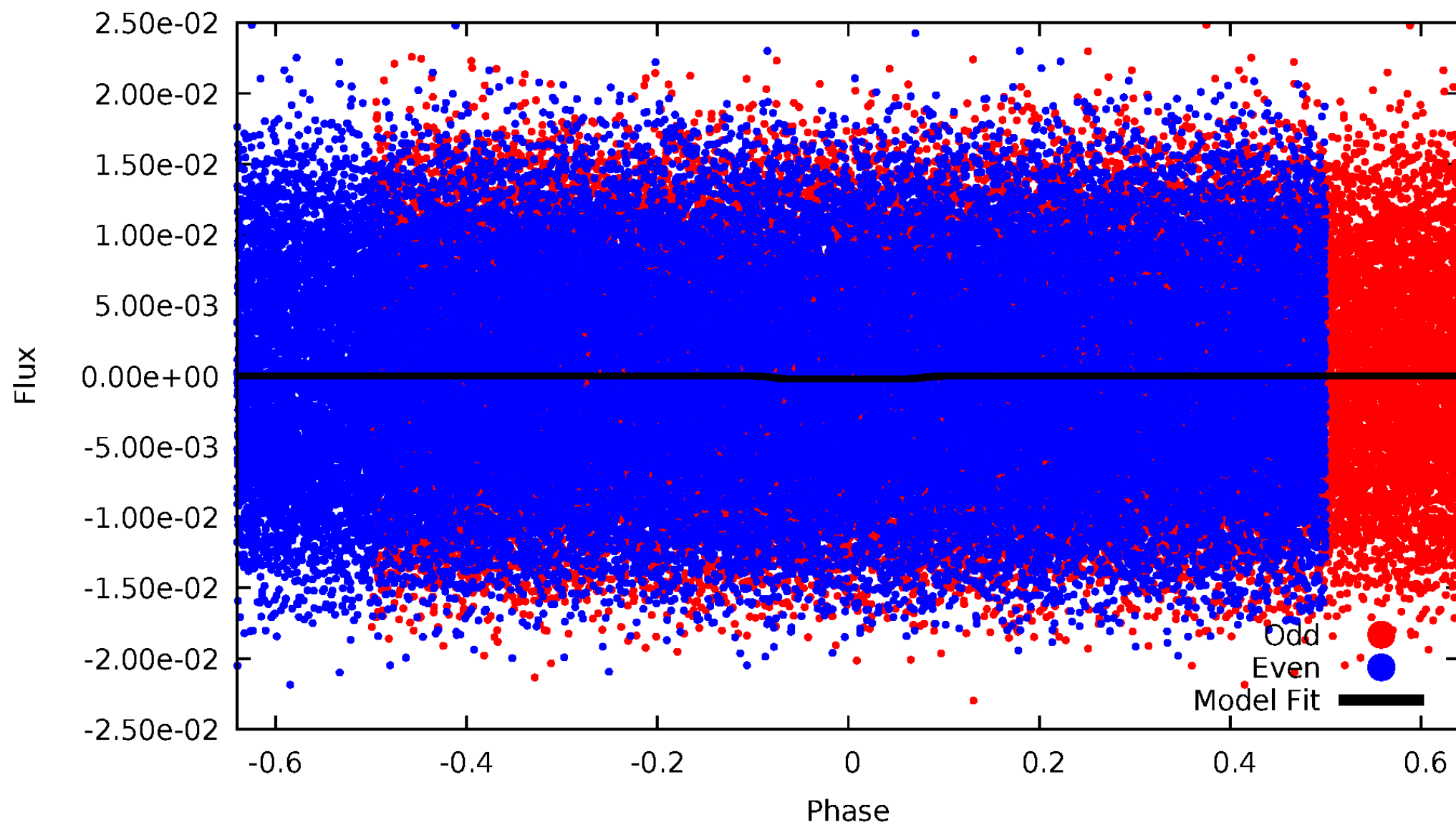
DV Odd/Even

TCE 005650062-01



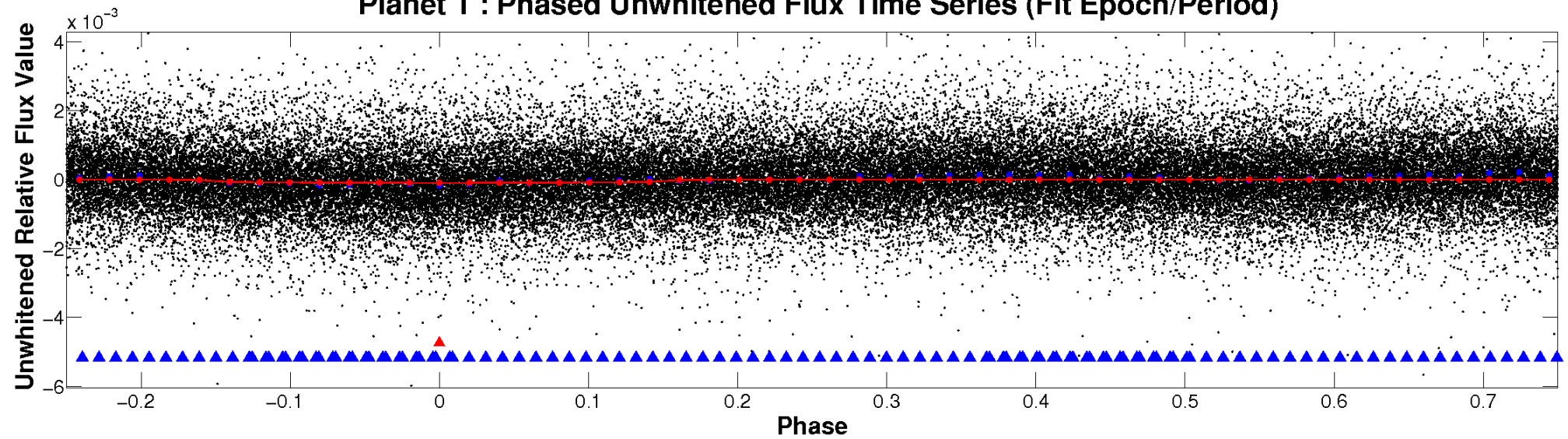
ALT Odd/Even

TCE 005650062-01

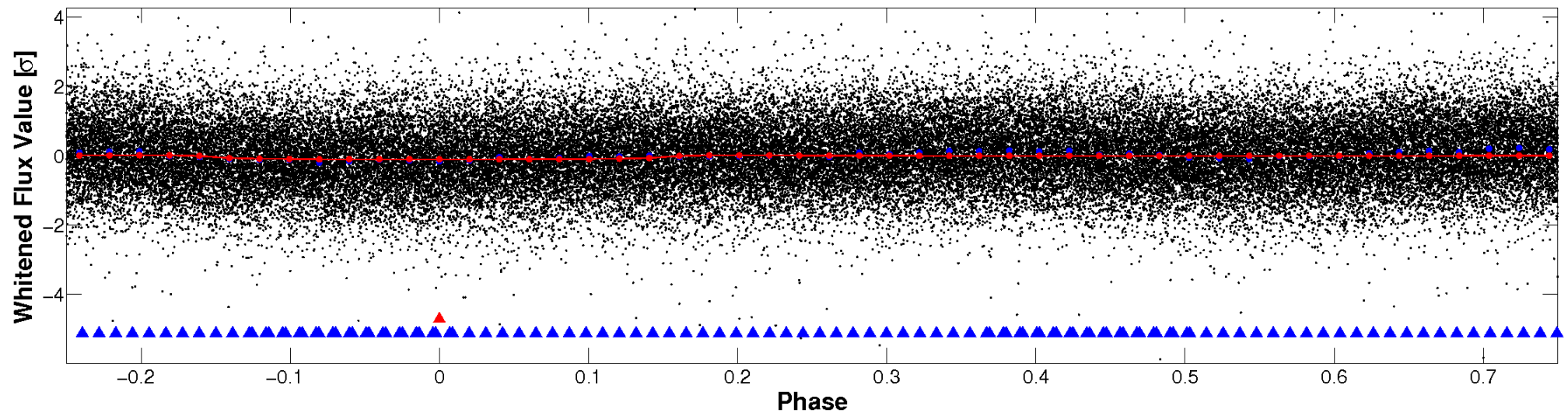


Non-Whitened Vs. Whitened Light Curve

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

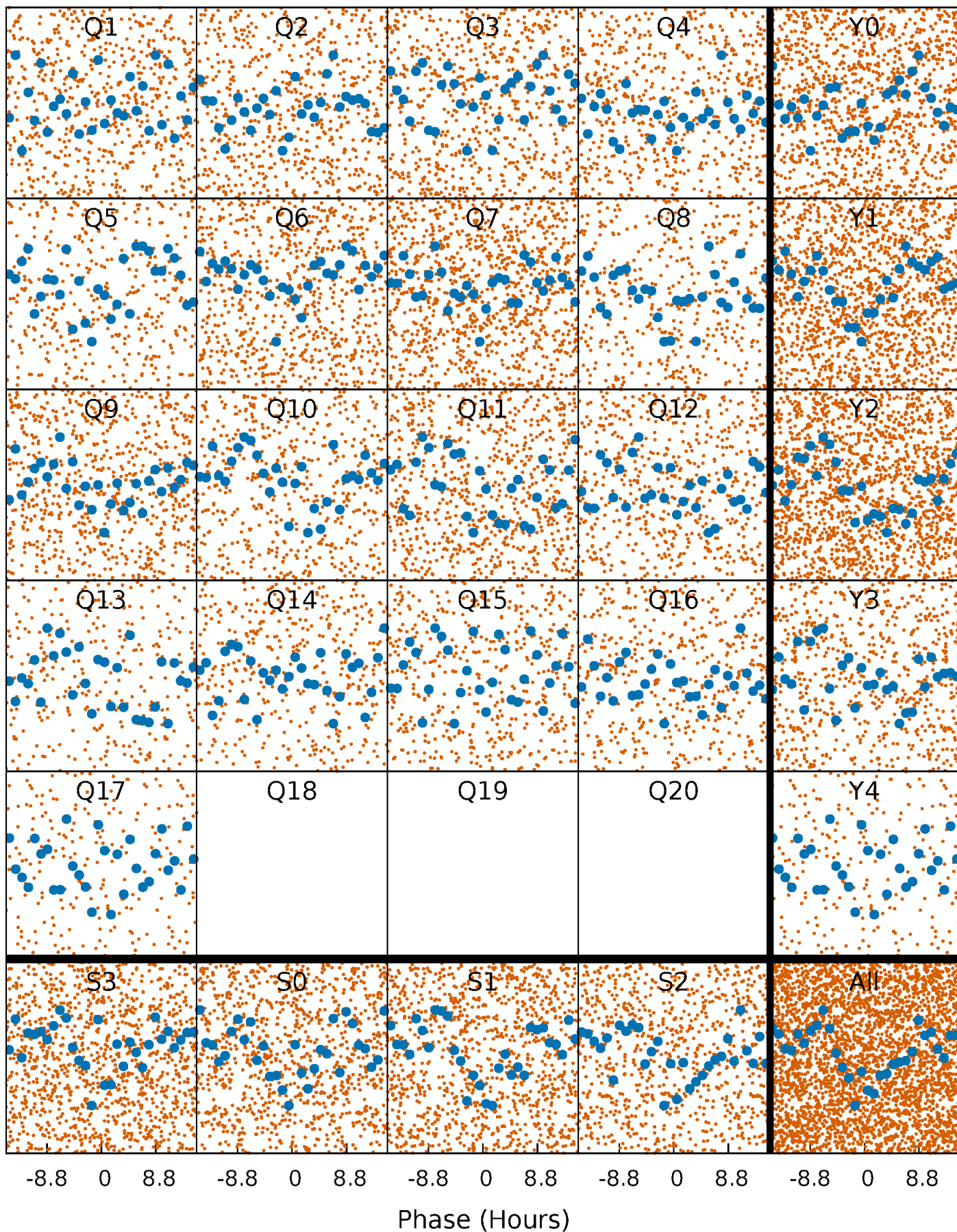


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



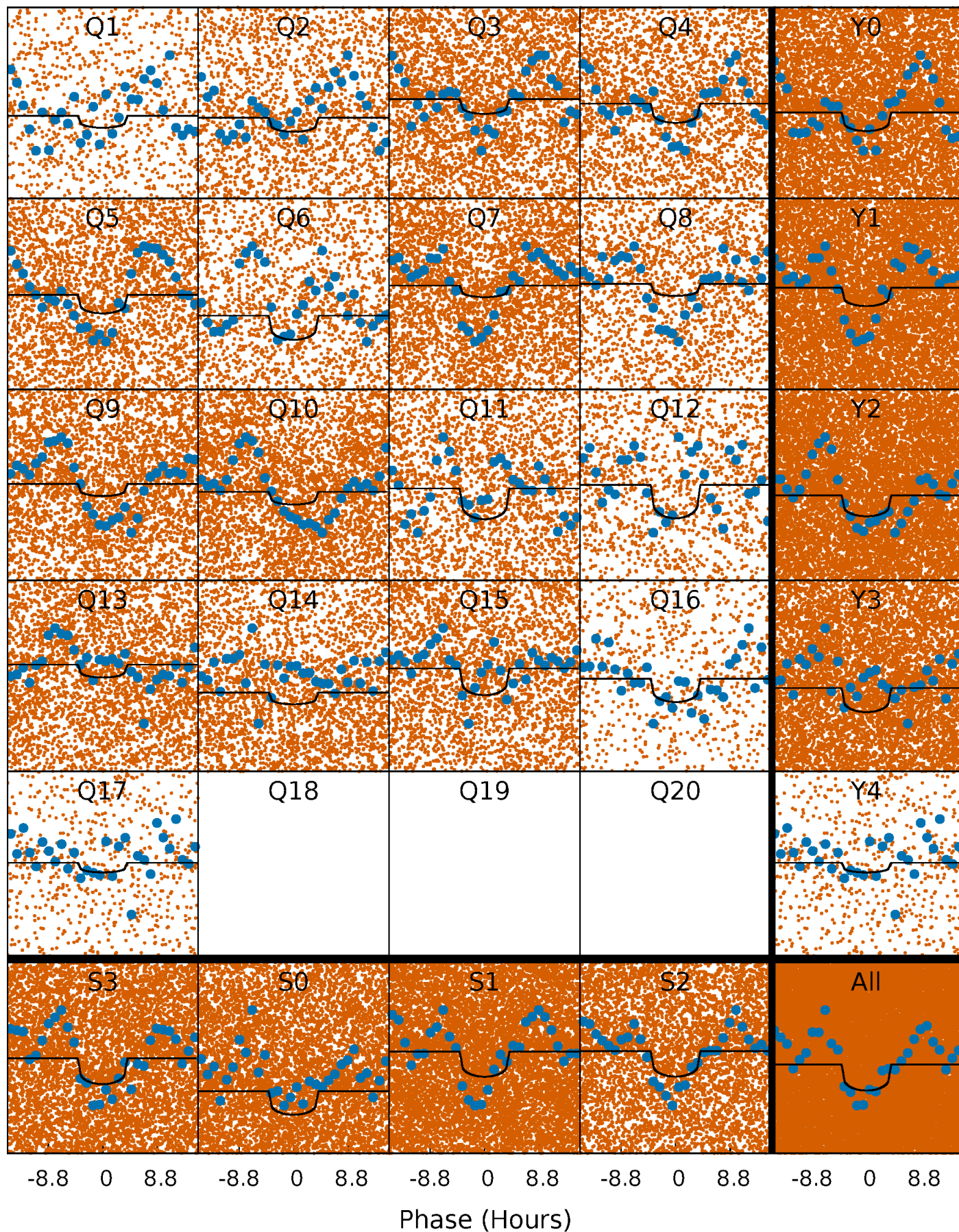
PDC Quarter-Phased Transit Curves

TCE 005650062-01 P= 1.015931 Days $T_0=131.526618$ (BKJD)



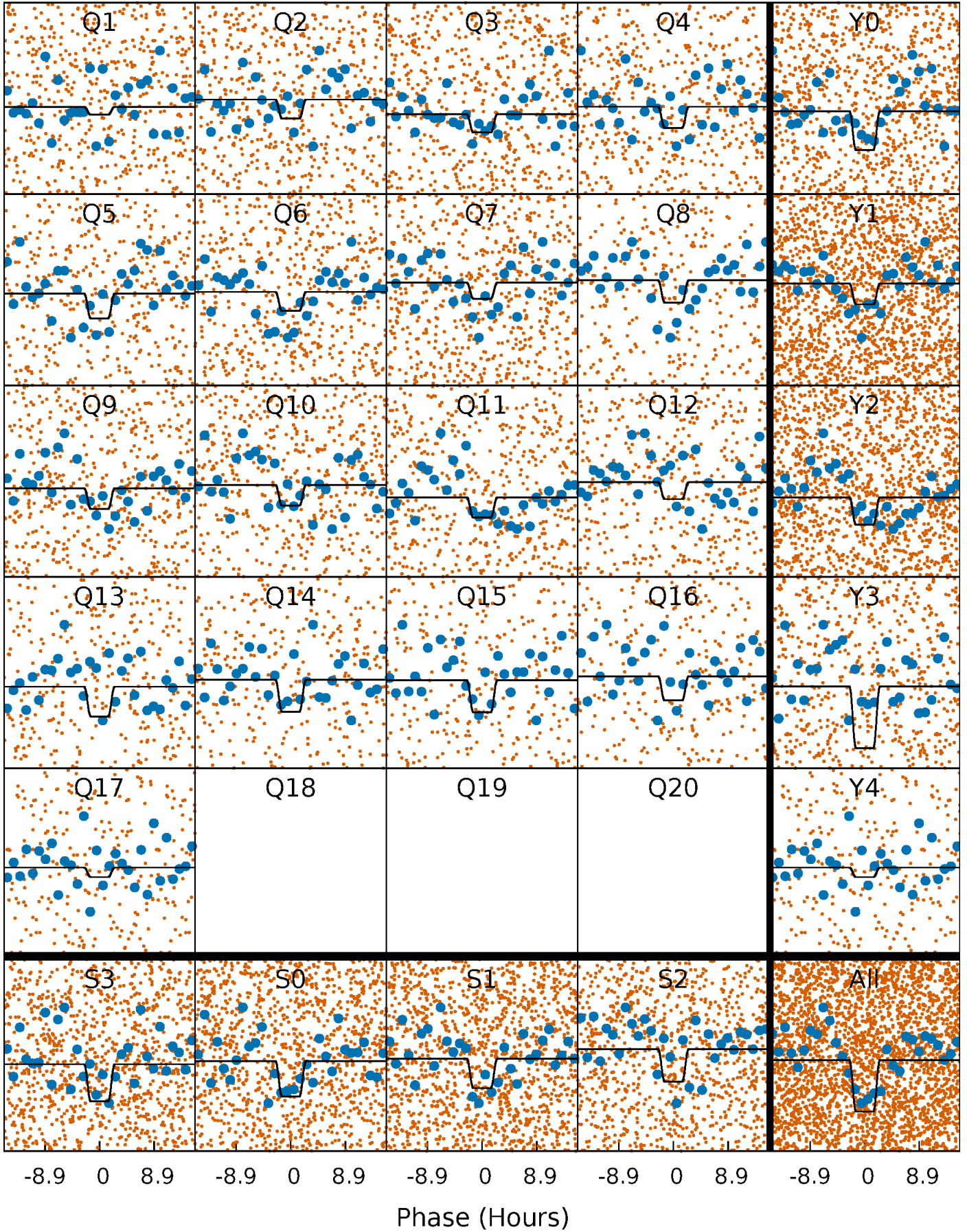
DV Quarter-Phased Transit Curves

TCE 005650062-01 P= 1.015931 Days $T_0=131.526618$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

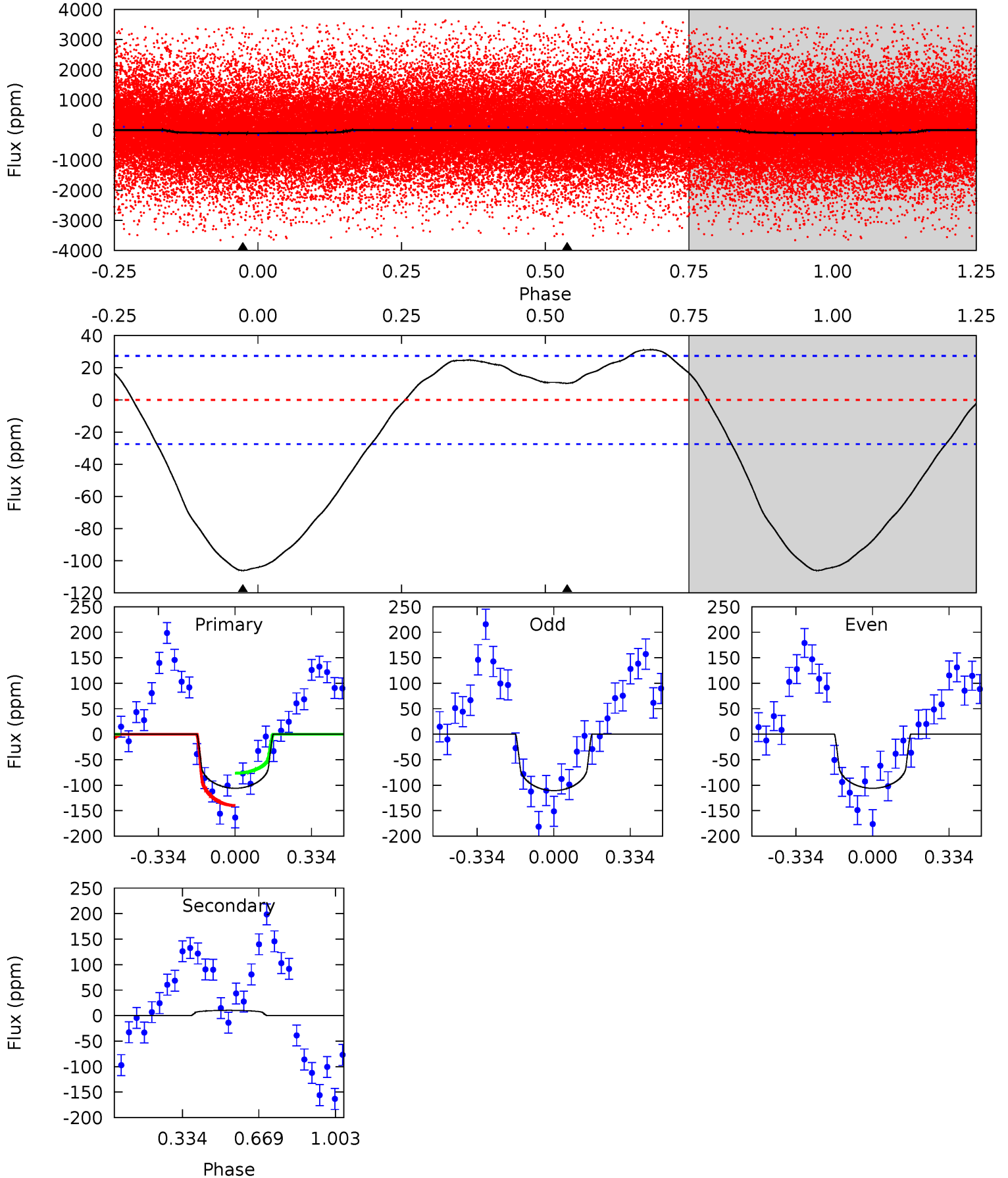
TCE 005650062-01 P= 1.015830 Days $T_0=131.560736$ (BKJD)



DV Model-Shift Uniqueness Test

005650062-01, P = 1.015931 Days, E = 130.510687 Days

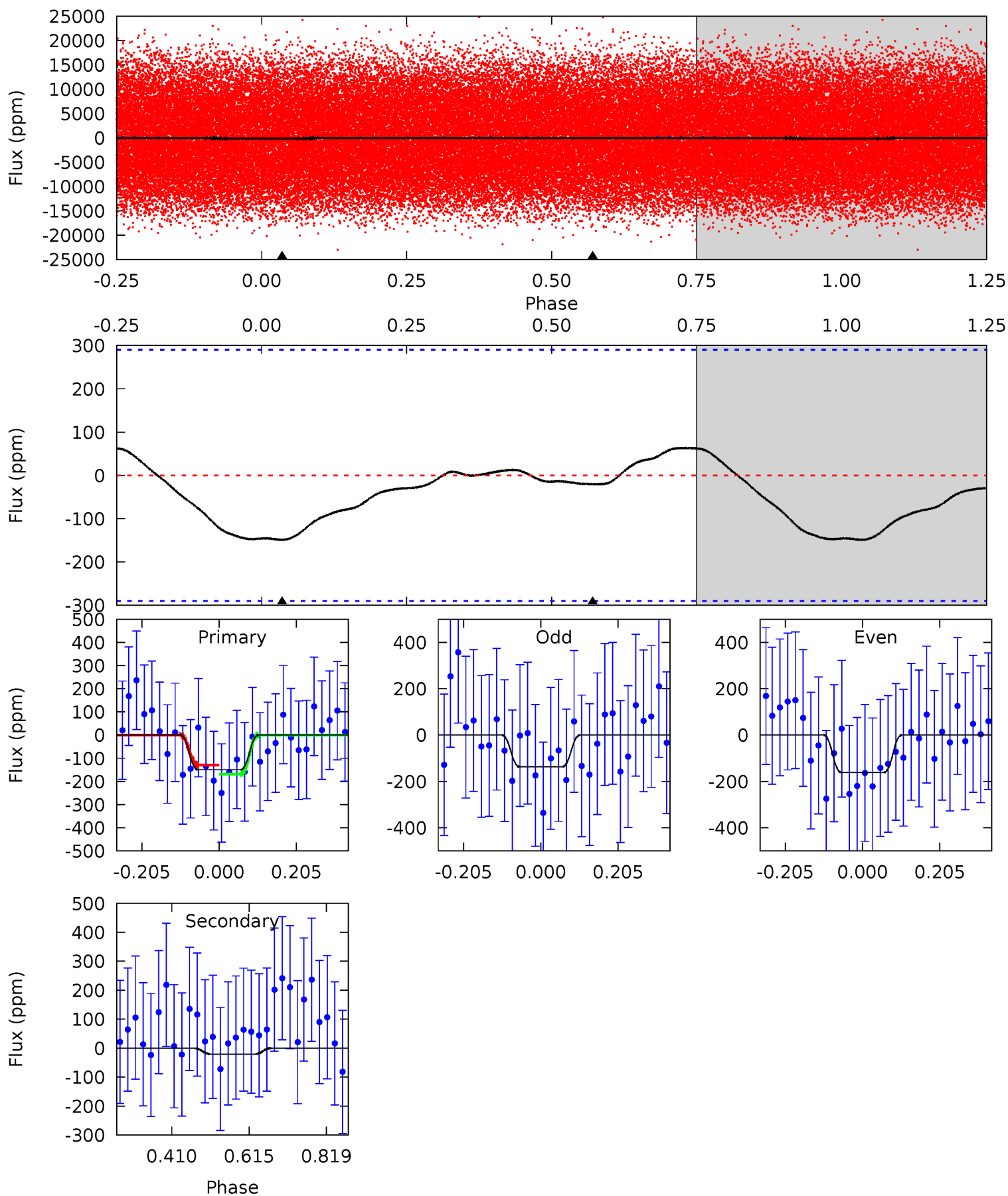
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.7	-1.63	0	0	4.30	0.97	1.88	16.7	16.7	-1.63	-1.63	0.36	1.05	0.23	4.95



Alt Model-Shift Uniqueness Test

005650062-01, P = 1.015830 Days, E = 130.544906 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.27	0.32	0	0	4.41	1.27	0.32	2.27	2.27	0.32	0.32	0.18	1.05	0.30	0.30



Stellar Parameters For KIC 005650062

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6603^{+175}_{-214}	$4.048^{+0.264}_{-0.176}$	$-0.140^{+0.250}_{-0.300}$	$1.830^{+0.548}_{-0.603}$	$1.370^{+0.182}_{-0.296}$	$0.315^{+0.518}_{-0.149}$
	+3%/-3%	+7%/-4%	+179%/-214%	+30%/-33%	+13%/-22%	+165%/-47%
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 005650062-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	10 ± 6	$1.94^{+1.41}_{-1.16}$	3687^{+302}_{-327}	-4256^{+522}_{-1460}	$-0.660^{+0.513}_{-3.105}$
Alt.	-21 ± 66	$2.68^{+1.66}_{-1.24}$	3692^{+291}_{-329}	3442^{+2342}_{-8289}	$0.560^{+4.018}_{-2.095}$

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

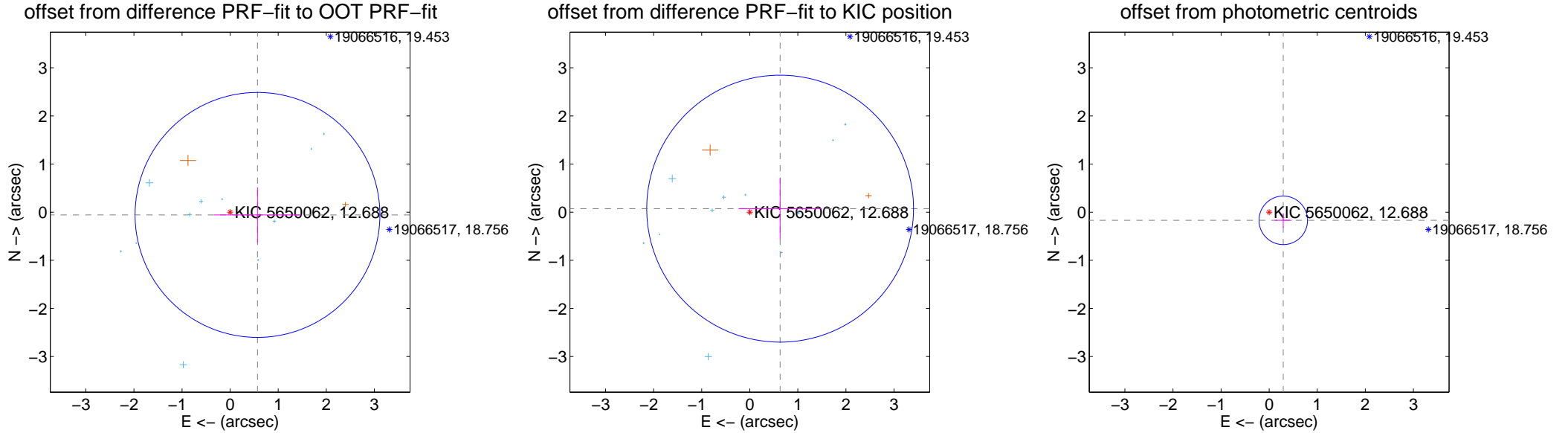
DV Centroid Data

Supplemental centroid analysis for 005650062-01. Kepler magnitude: 12.69. Transit SNR 13.16

There are 11 quarters with good PRF difference image offsets

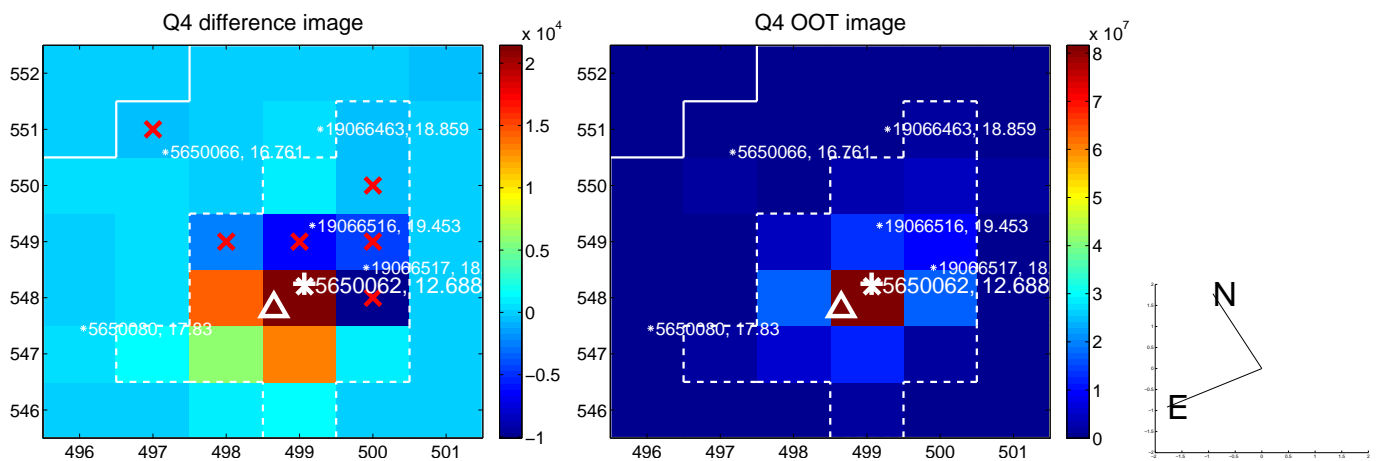
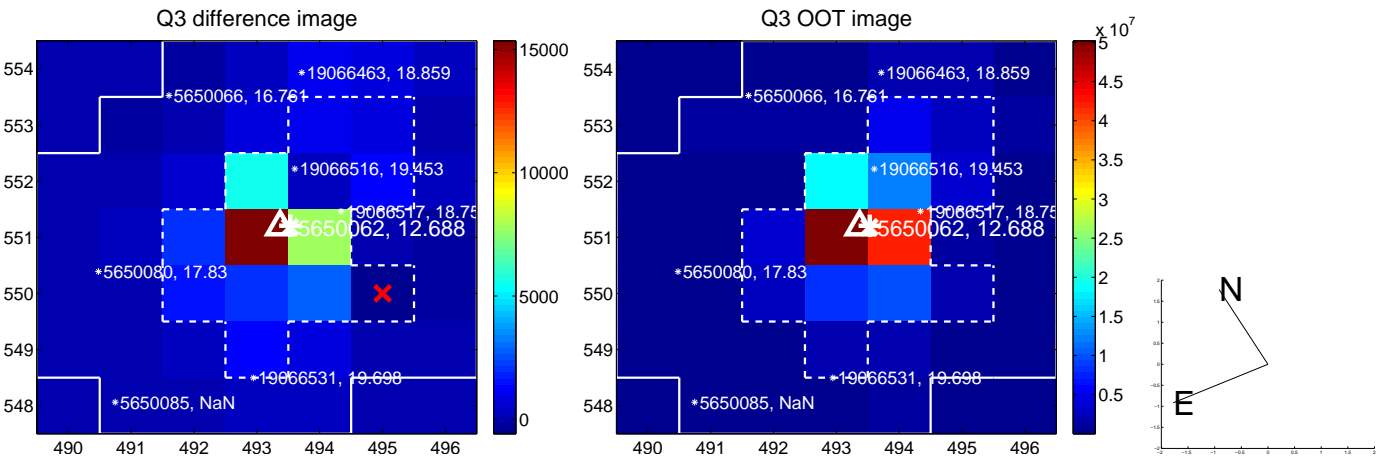
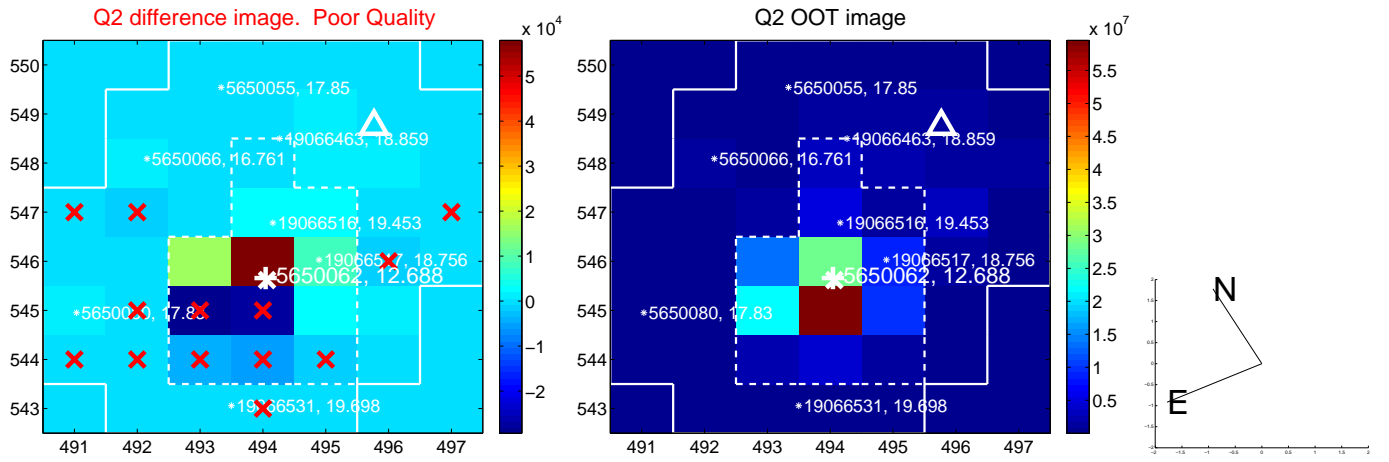
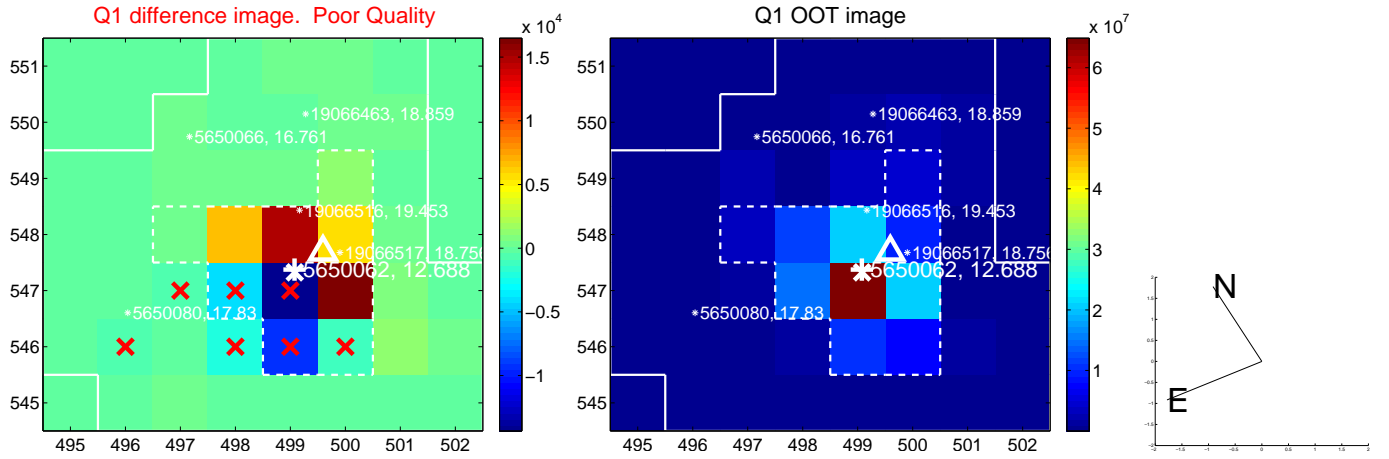
The direct PRF centroid is offset from the target star catalog position by about 0.20 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.572 ± 0.848	0.67	-0.569 ± 0.902	-0.057 ± 0.574
PRF-fit source offset from KIC position	0.635 ± 0.924	0.69	-0.631 ± 0.866	0.073 ± 0.635
photometric centroid source offset	0.34 ± 0.17	2.02	-0.29 ± 0.17	-0.17 ± 0.15

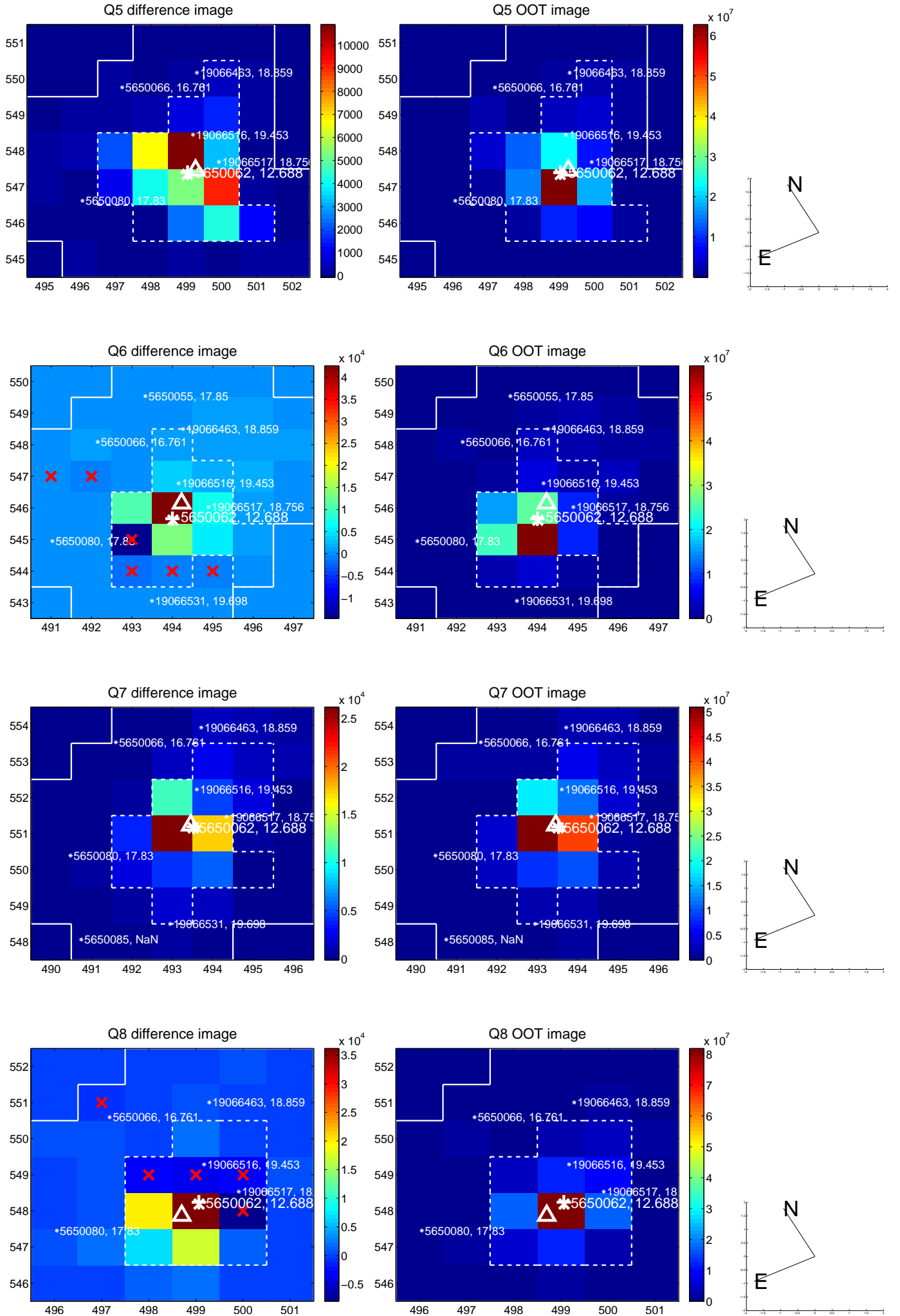


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

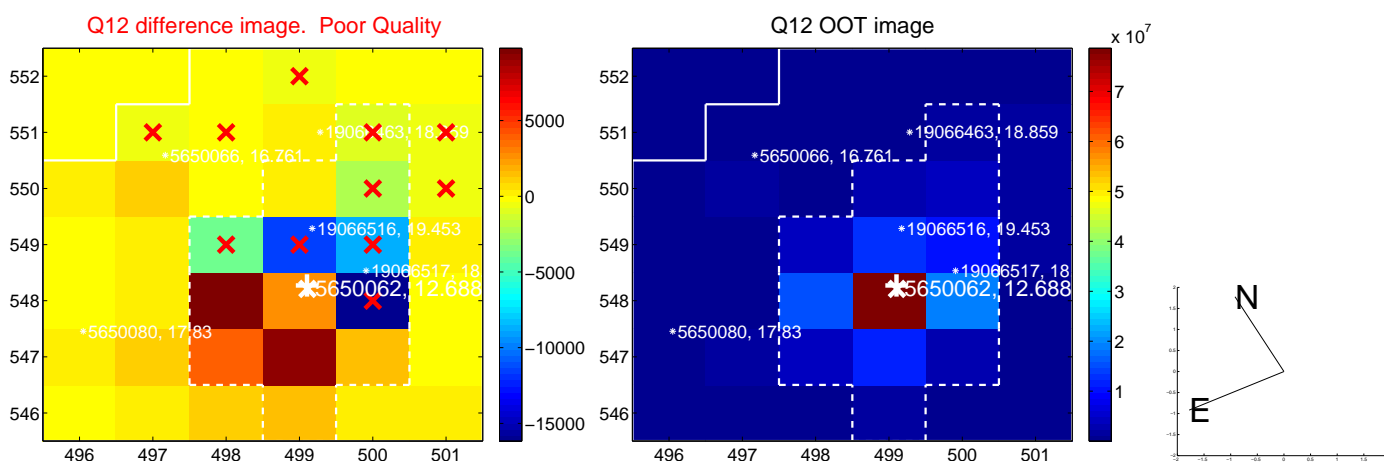
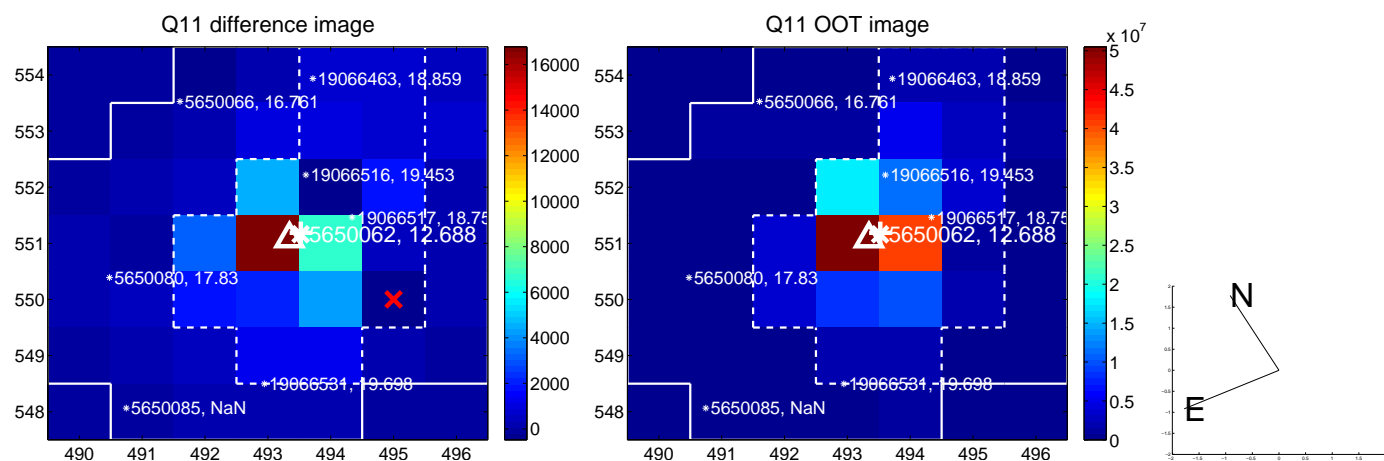
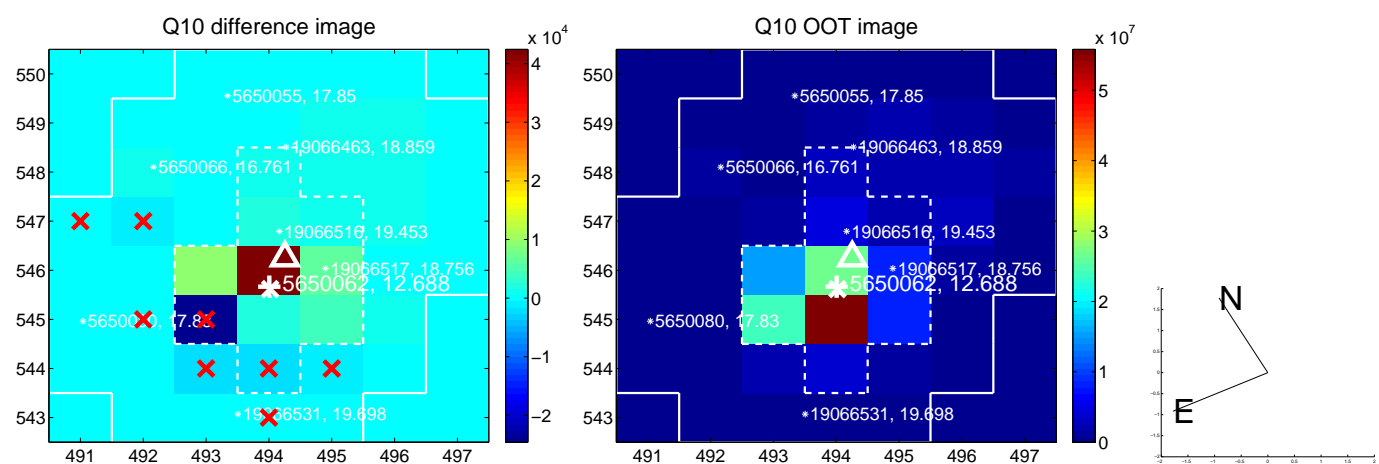
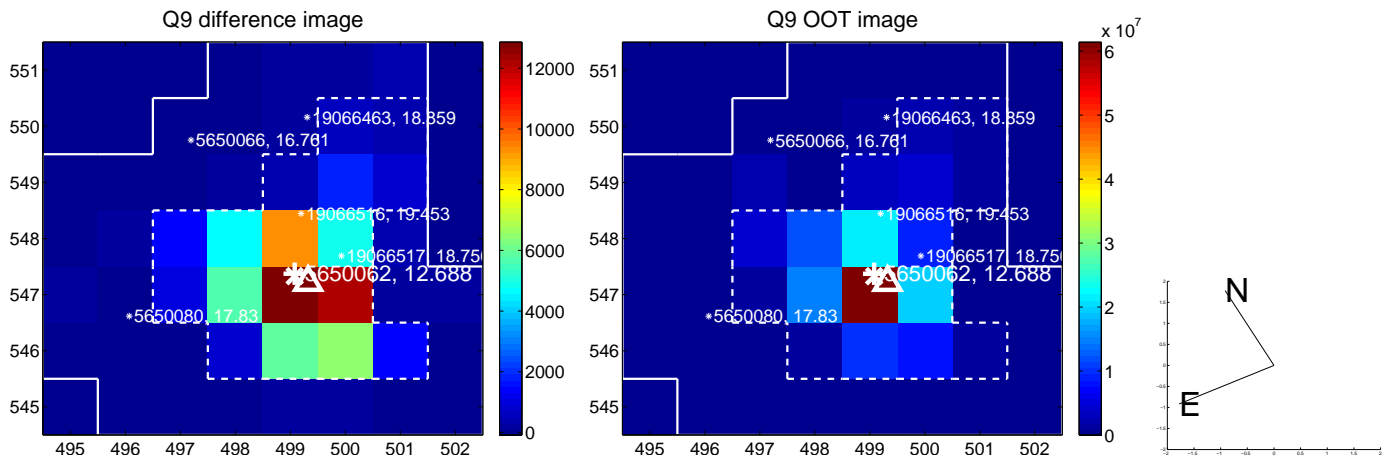
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



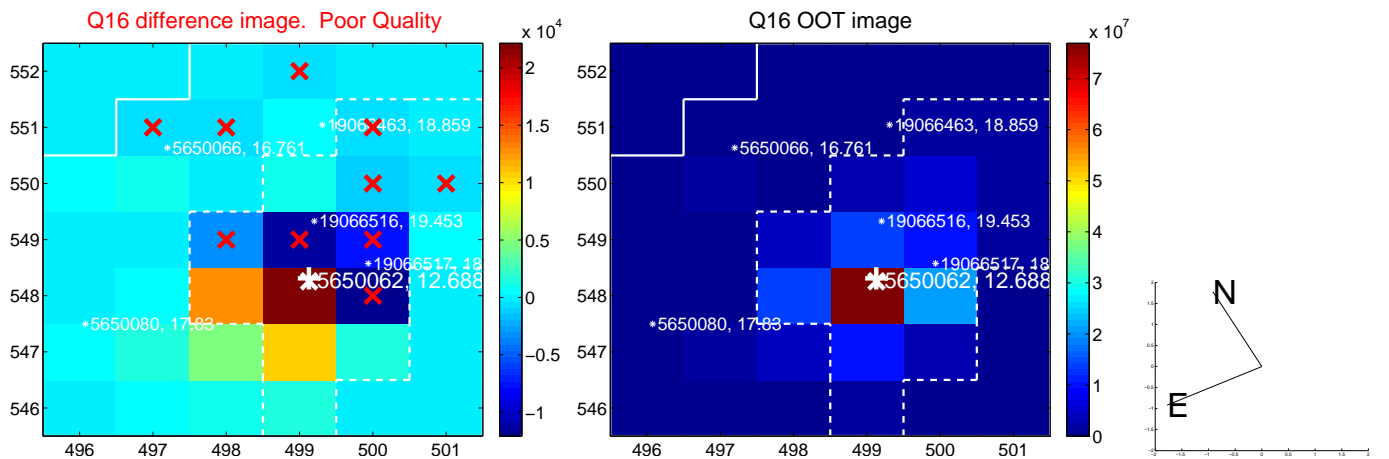
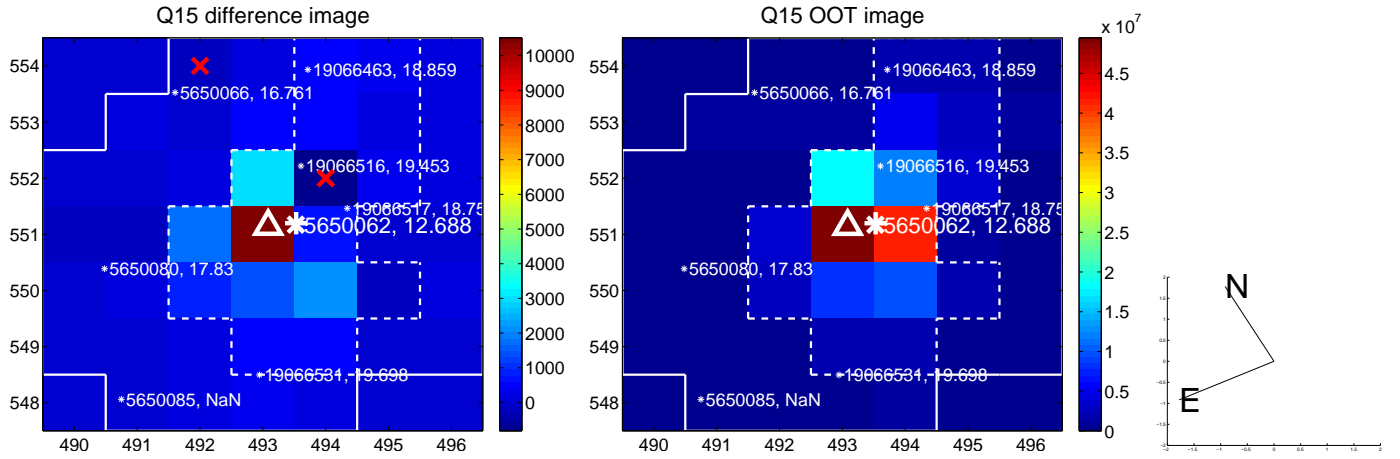
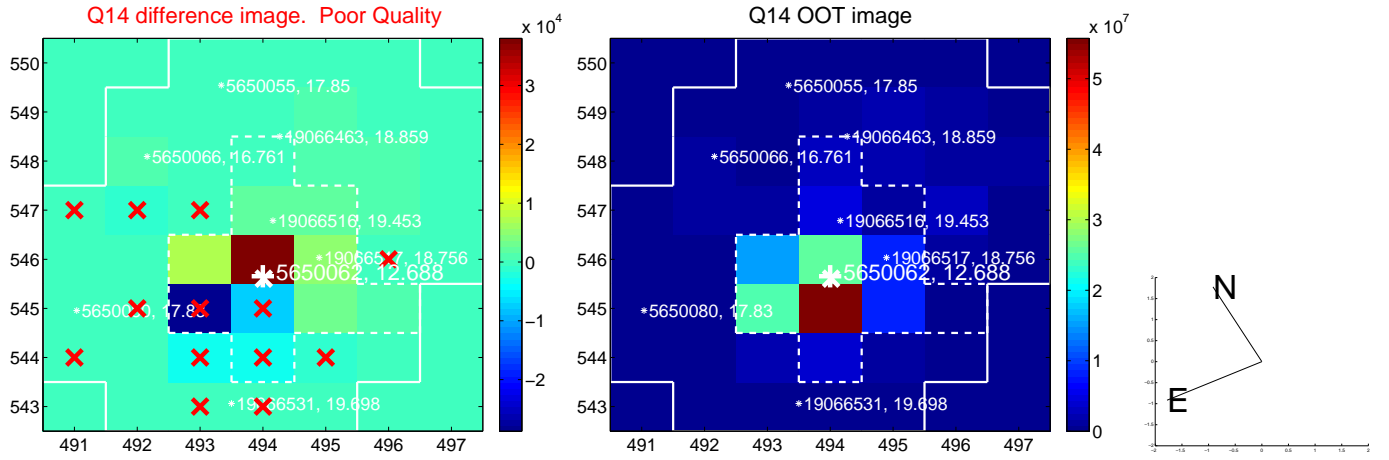
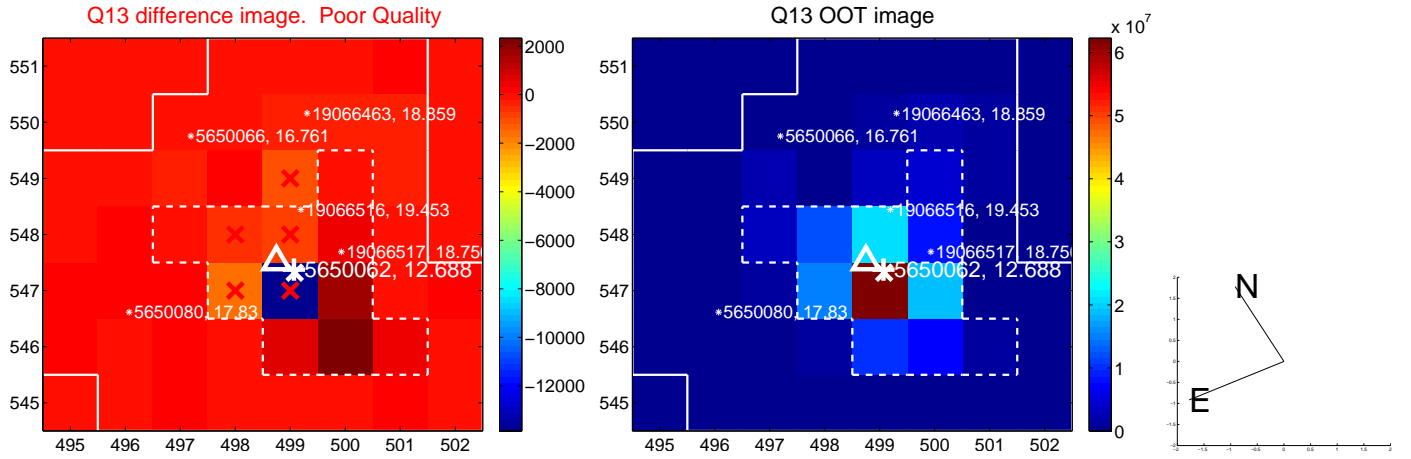
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



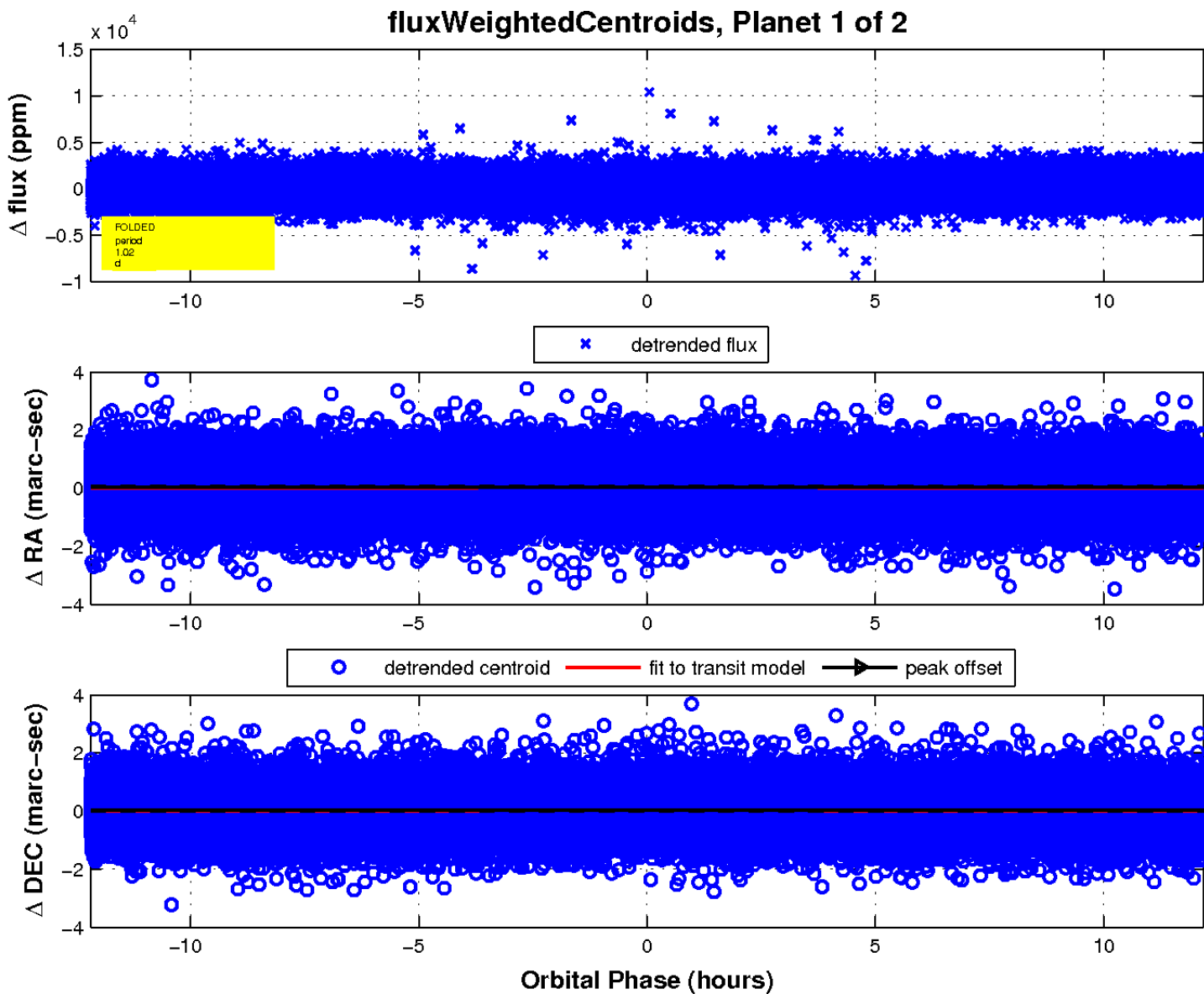
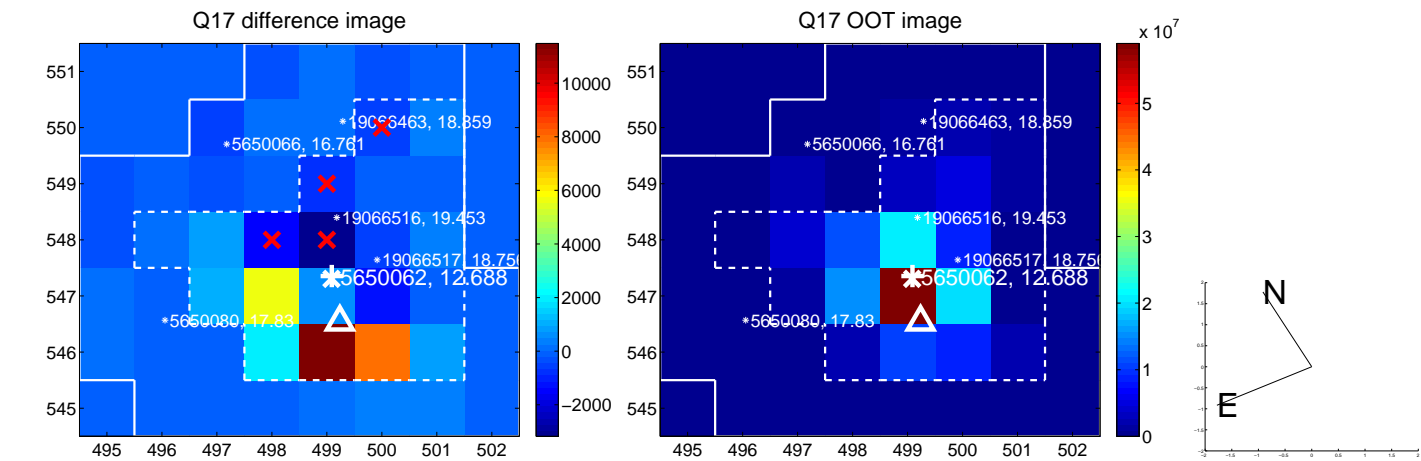
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

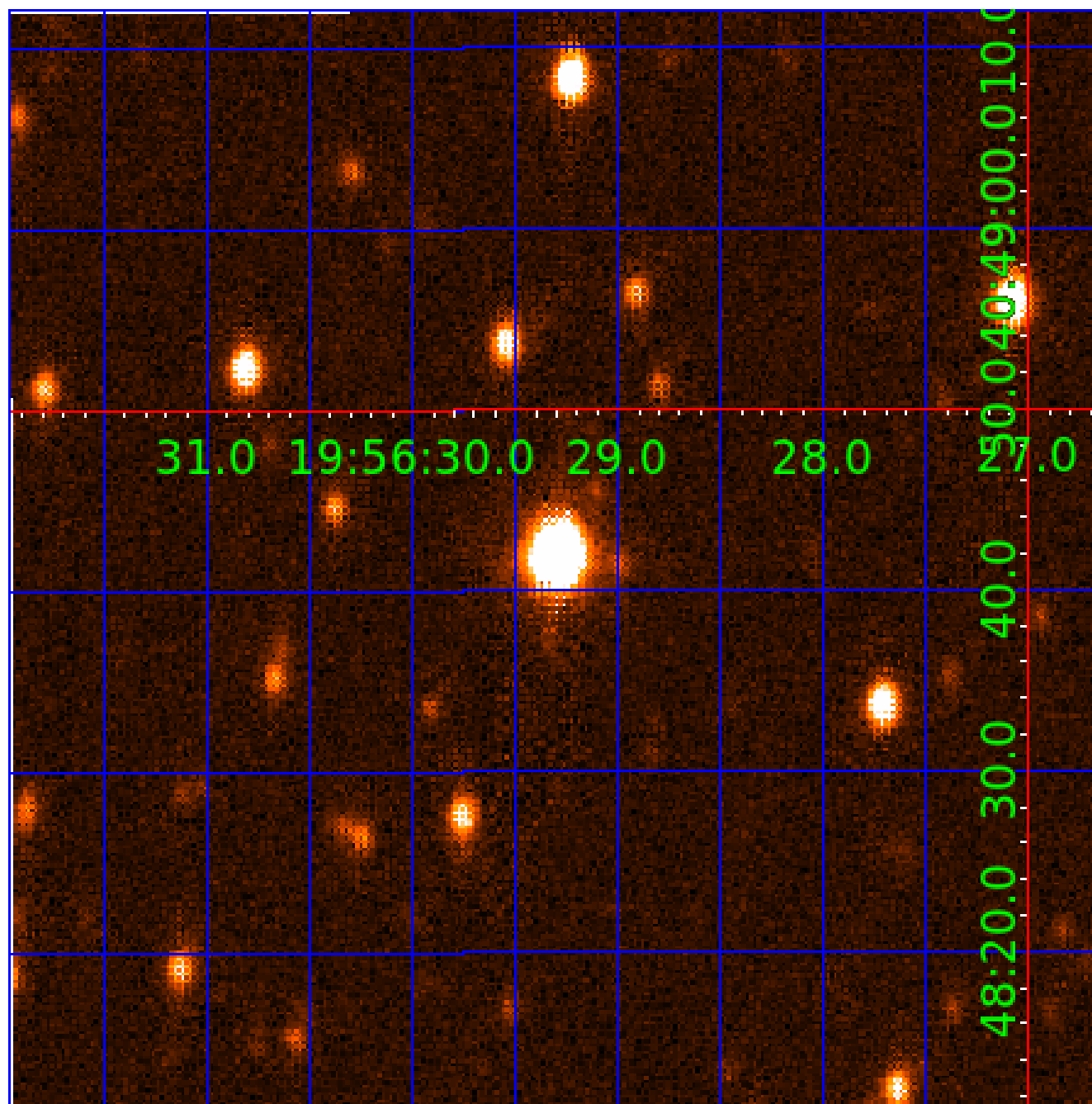


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005650062

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})
005650062-01	OBS	No	1.015931	131.526618	93.0	7.705	13.2	13.2	1.83	6603	1.82	11848.81
005650062-02	OBS	No	12.704824	141.044738	2926.9	0.579	16.9	18.5	1.83	6603	10.30	408.20

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005650062-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
005650062-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—TRANS_GAPPED—MOD_NONUNIQ_DV

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

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

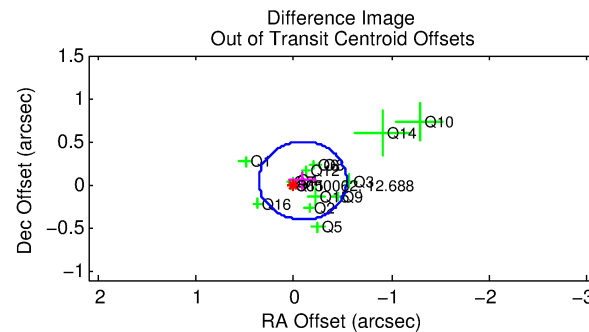
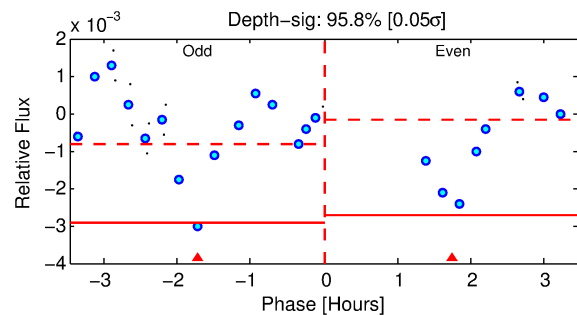
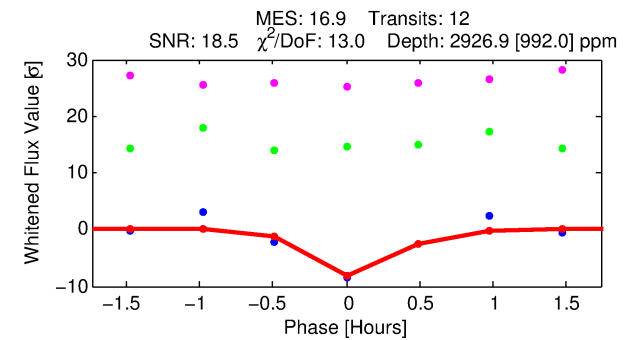
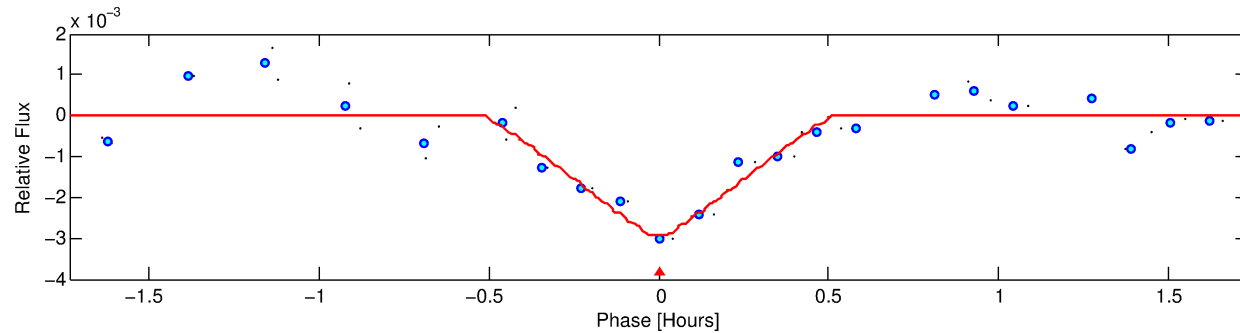
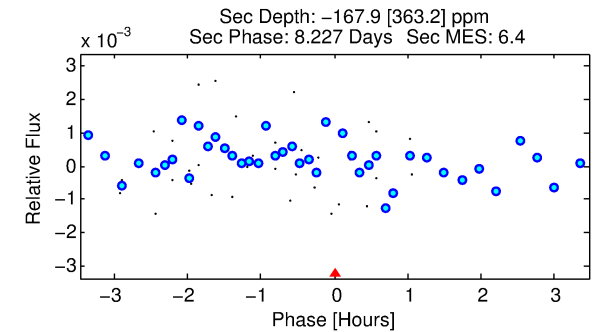
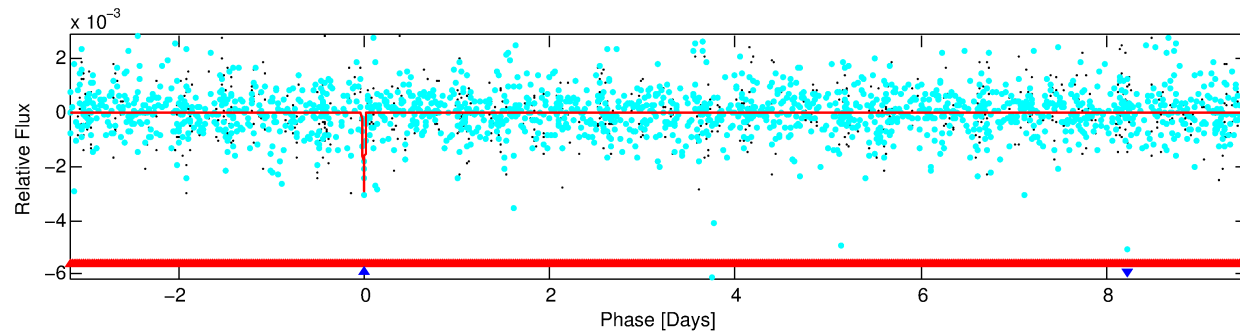
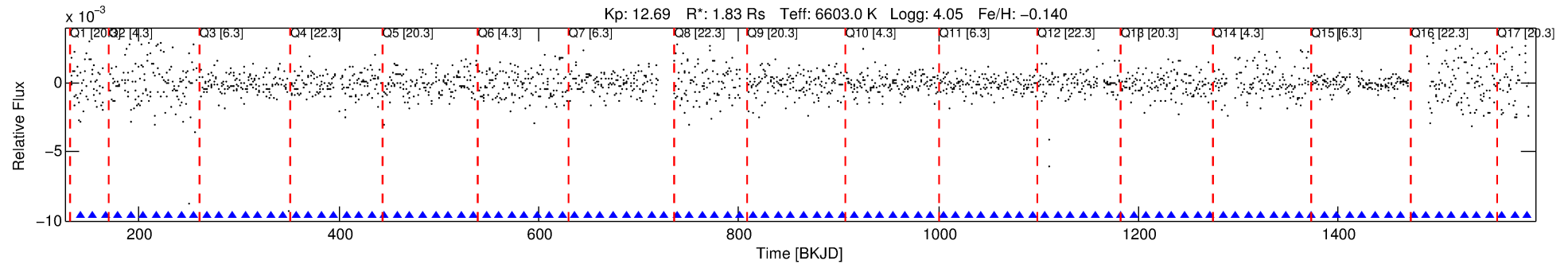
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005650062-02

No Significant Match Found

DV One-Page Summary

KIC: 5650062 Candidate: 2 of 2 Period: 12.705 d



DV Fit Results:

Period = 12.70482 [0.00007] d
Epoch = 141.0447 [0.0046] BKJD
Rp/R* = 0.0516 [0.0482]
a/R* = 175.87 [780.79]
b = 0.08 [55.17]
Seff = 408.20 [195.46]
Teff = 1146 [137] K
Rp = 10.30 [10.20] Re
a = 0.1182 [0.0353] AU
Ag = N/A
Teffp = N/A

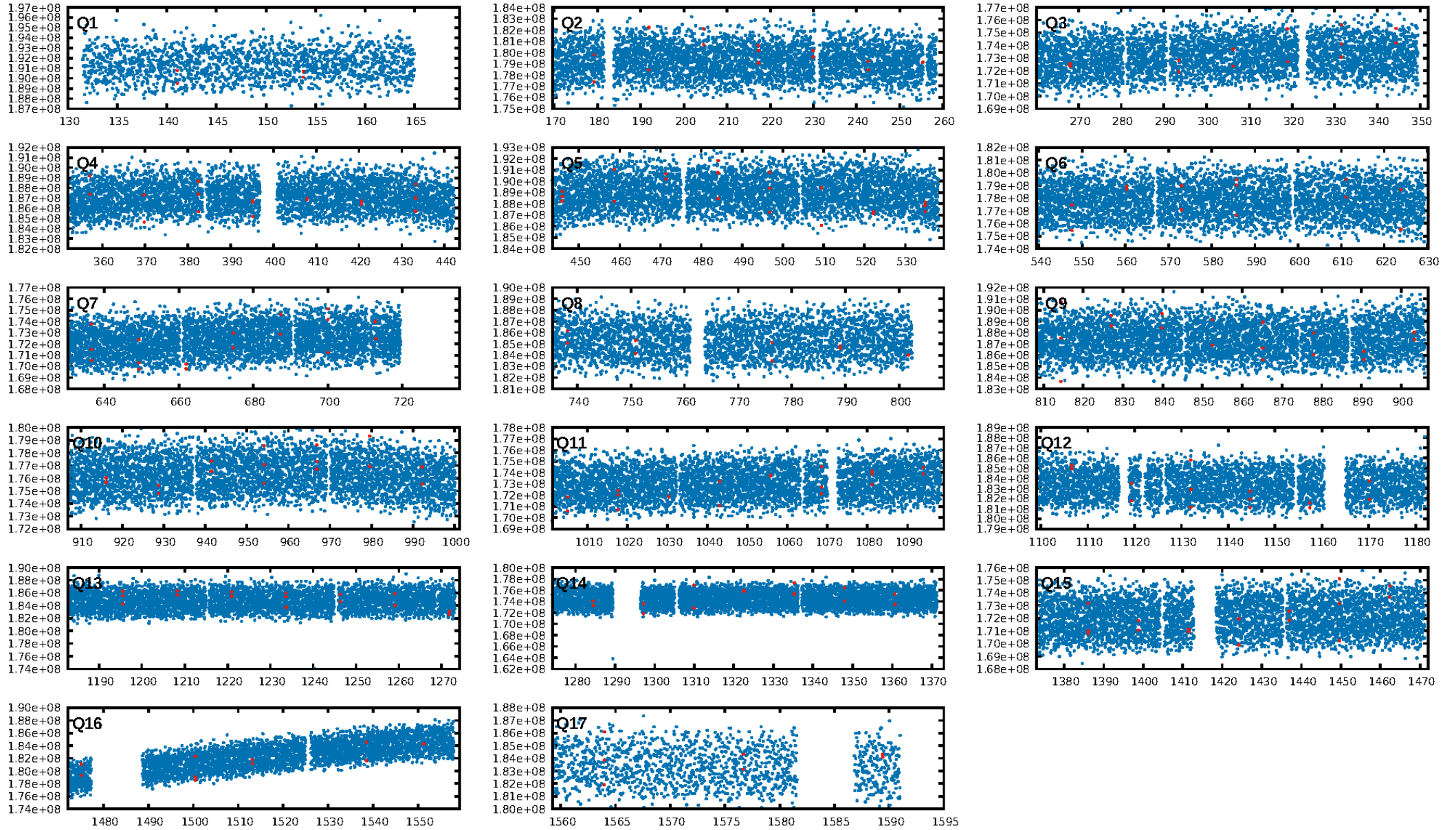
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [36.31 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.3%
ModelChiSquareGof-sig: 1.5%
Bootstrap-pfa: 5.93e-19
RollingBand-fgt: 1.00 [11/11]
GhostDiagnostic-chr: 0.4023
Centroid-sig: 20.2%
Centroid-so: 0.247 arcsec [3.58 σ]
OotOffset-rm: 0.103 arcsec [0.69 σ]
KicOffset-rm: 0.248 arcsec [2.00 σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 0.60 [9/15]
DiffImageOverlap-fno: 0.56 [9/16]

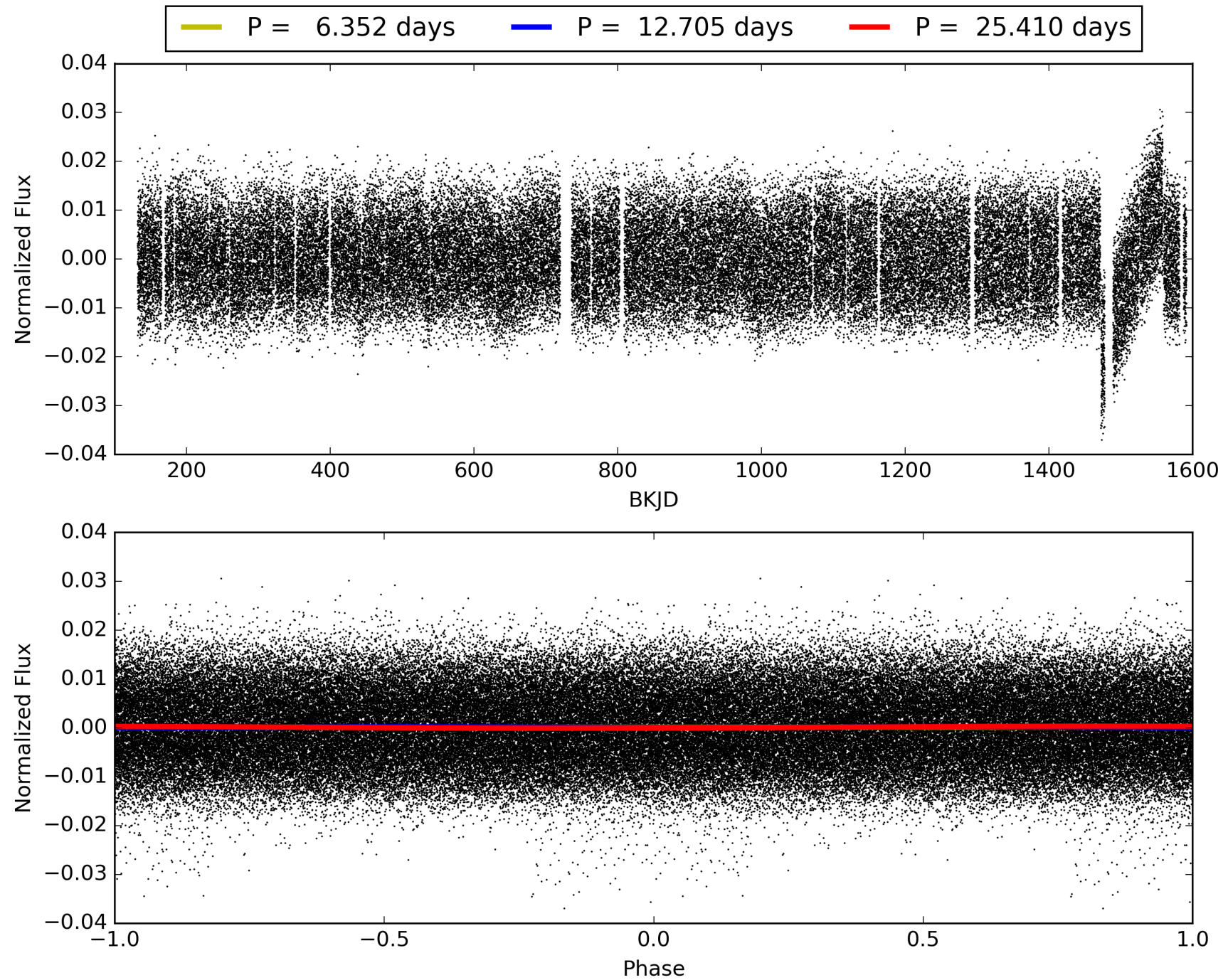
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 01:23:50 Z

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

TCE 005650062-02, PDC Light Curves

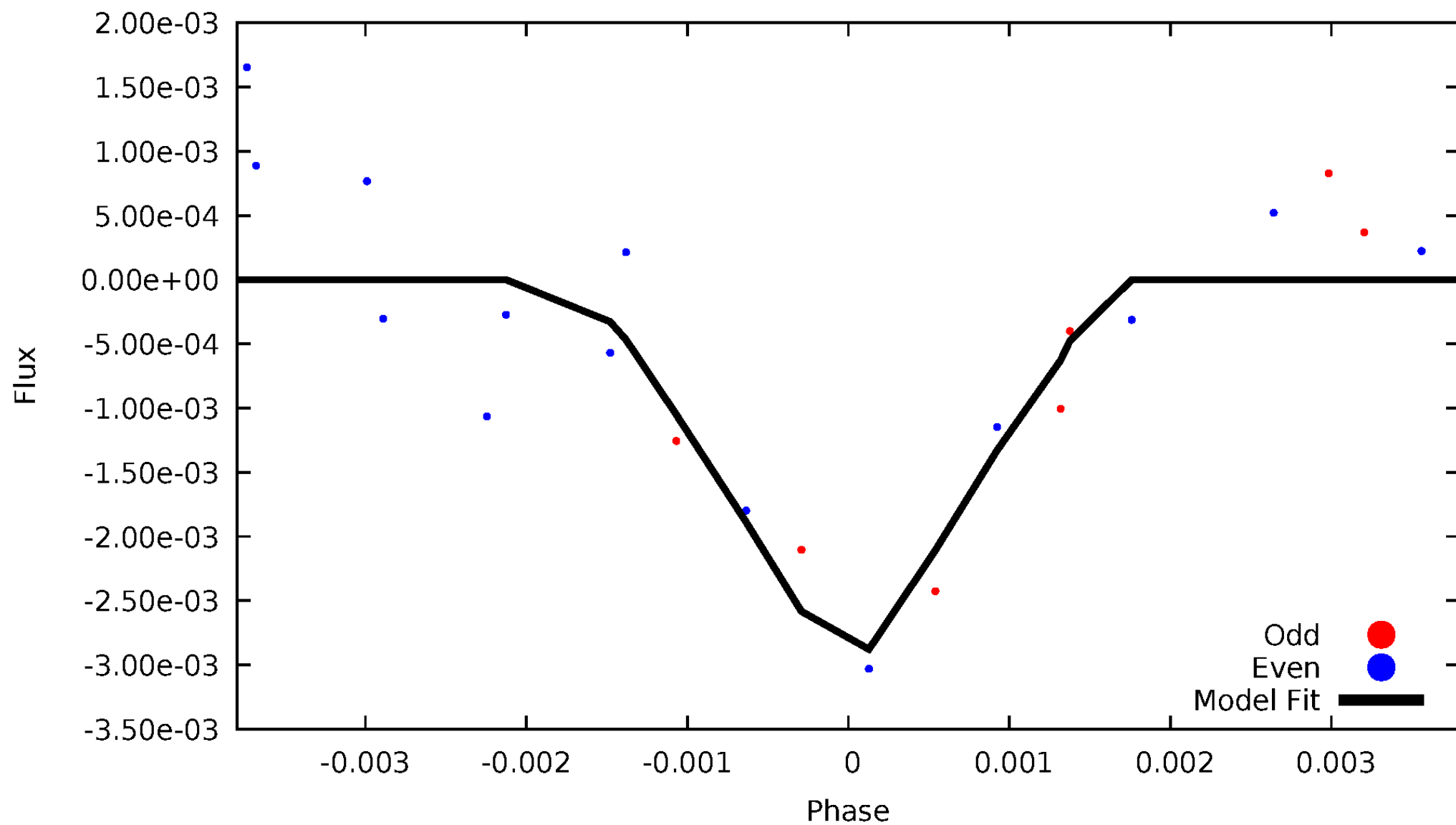


TCE 005650062-02



DV Odd/Even

TCE 005650062-02

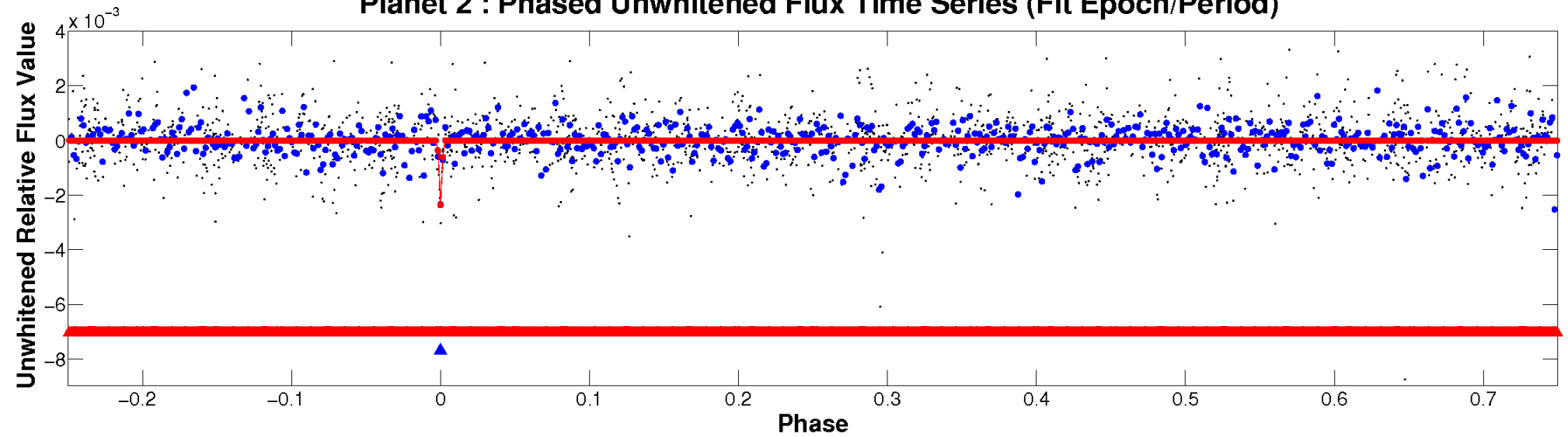


ALT Odd/Even

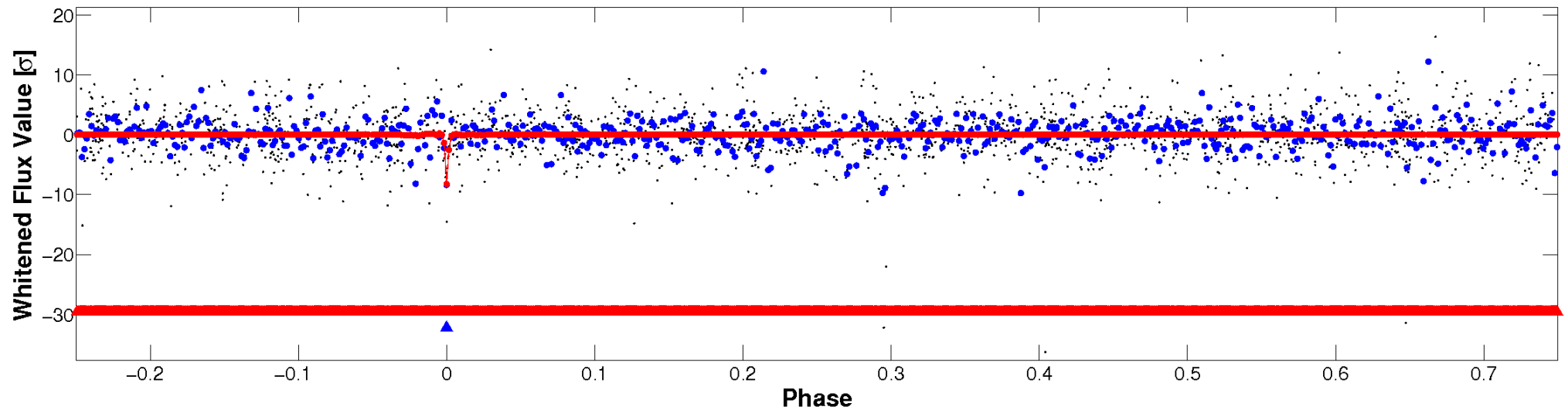
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

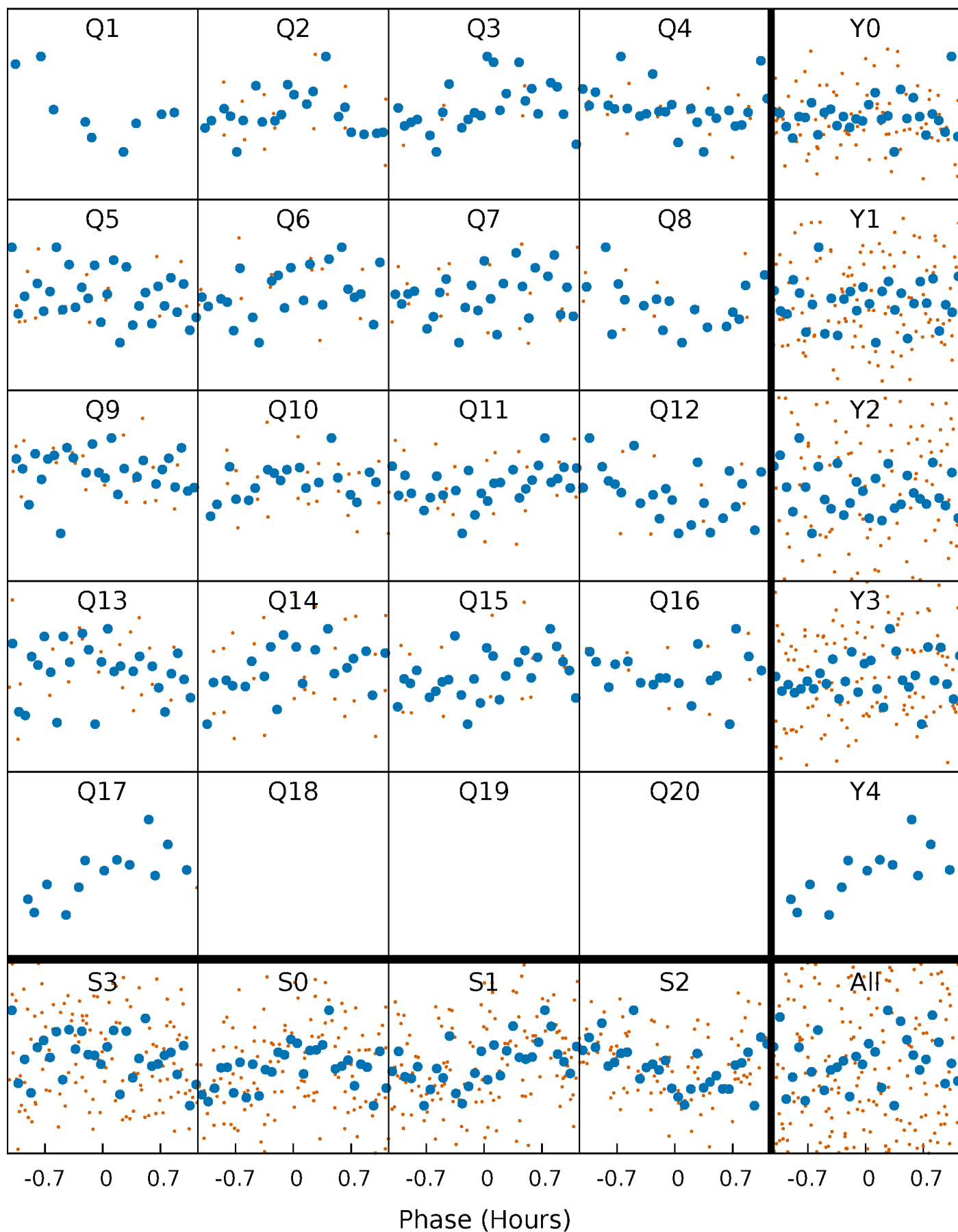


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



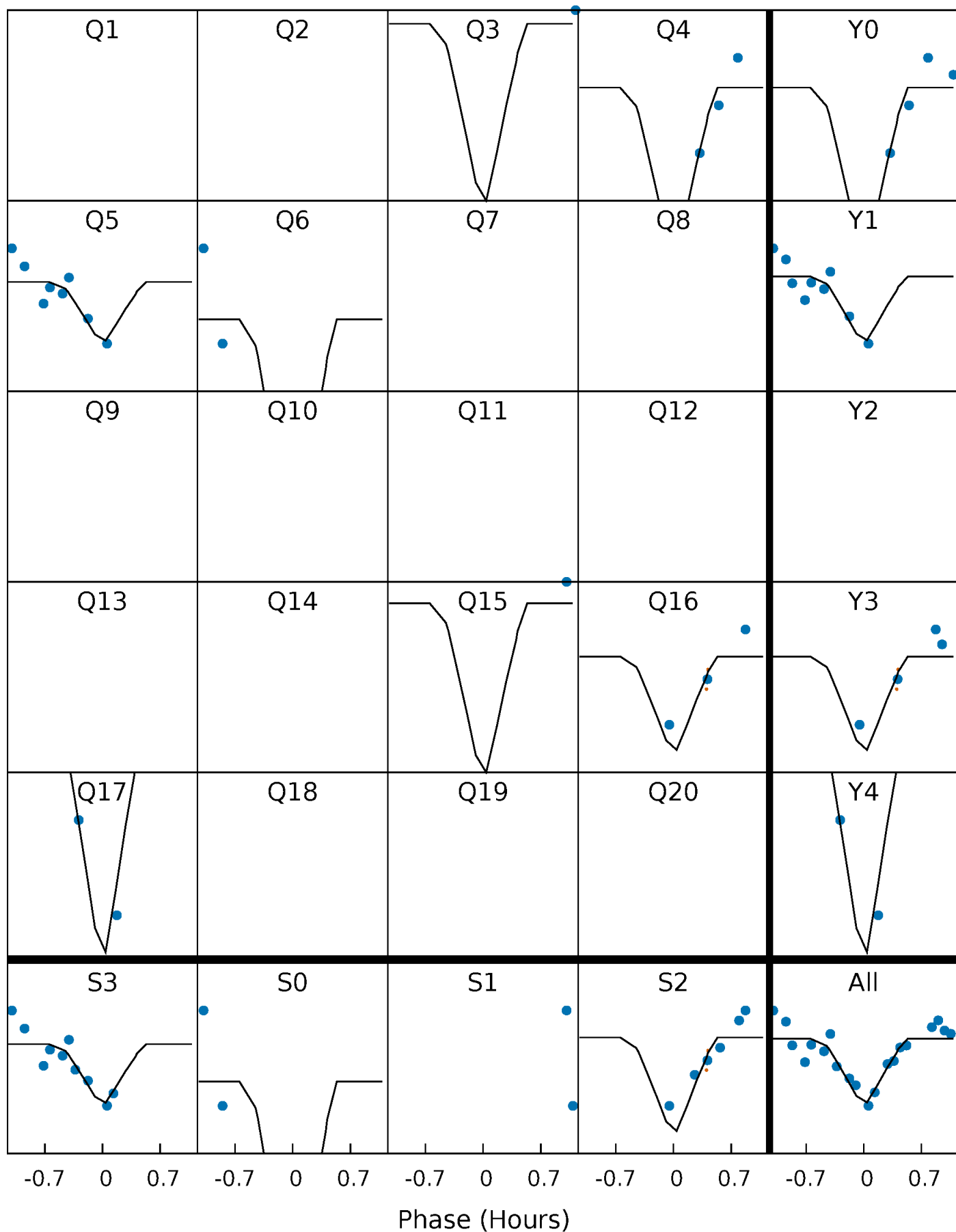
PDC Quarter-Phased Transit Curves

TCE 005650062-02 P= 12.704824 Days $T_0=141.044738$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005650062-02 P= 12.704824 Days $T_0=141.044738$ (BKJD)

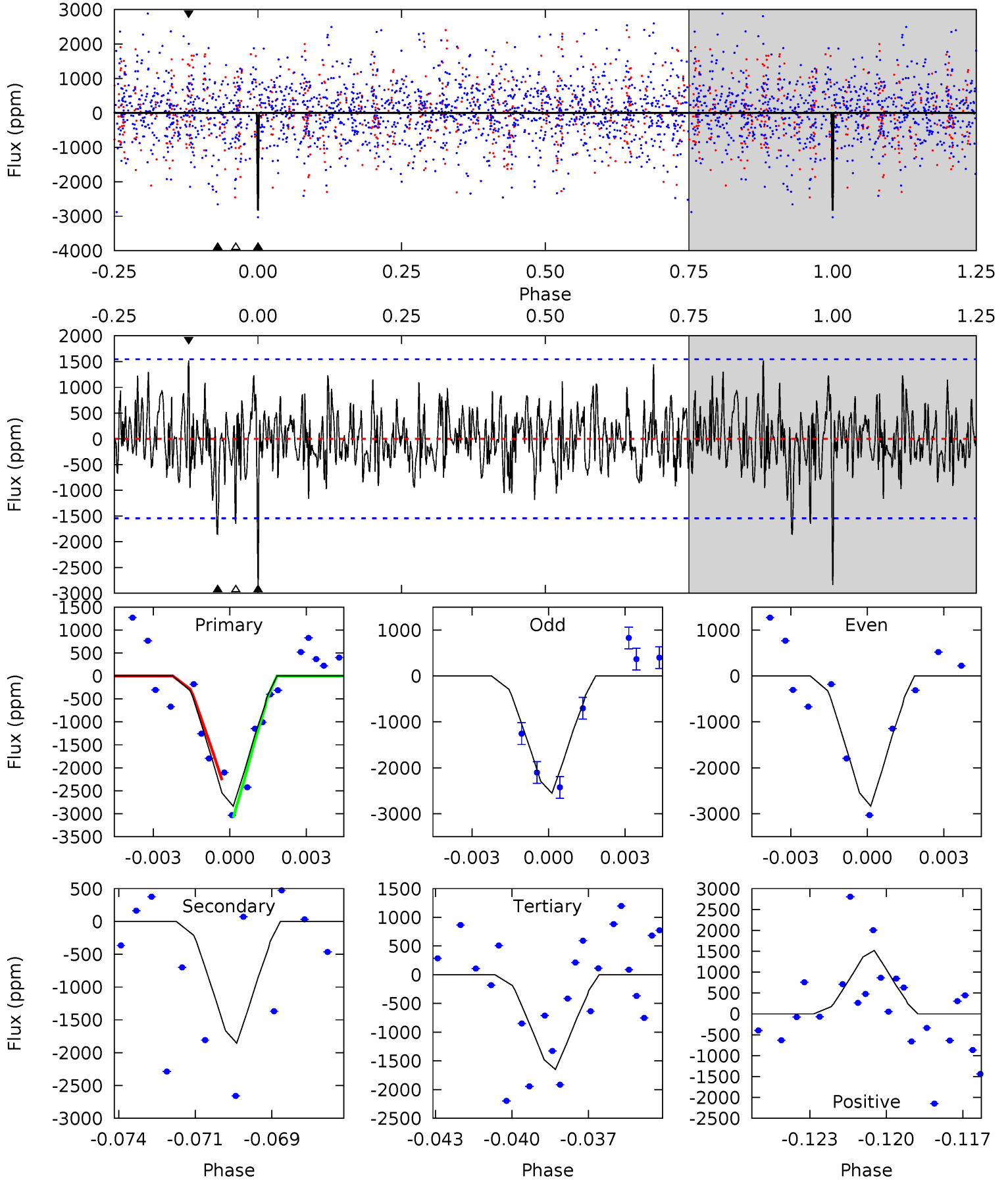


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005650062-02, P = 12.704824 Days, E = 128.339914 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.66	6.31	5.62	5.17	5.26	2.98	1.57	4.05	4.49	0.70	1.14	0.51	0.97	0.35	1.41



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005650062

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6603^{+175}_{-214}	$4.048^{+0.264}_{-0.176}$	$-0.140^{+0.250}_{-0.300}$	$1.830^{+0.548}_{-0.603}$	$1.370^{+0.182}_{-0.296}$	$0.315^{+0.518}_{-0.149}$
	+3%/-3%	+7%/-4%	+179%/-214%	+30%/-33%	+13%/-22%	+165%/-47%
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 005650062-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-1854 ± 294	$11.50^{+9.35}_{-7.04}$	1587^{+137}_{-142}	5572^{+4030}_{-1174}	107^{+566}_{-76}
Alt.	N/A	N/A	N/A	N/A	N/A

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

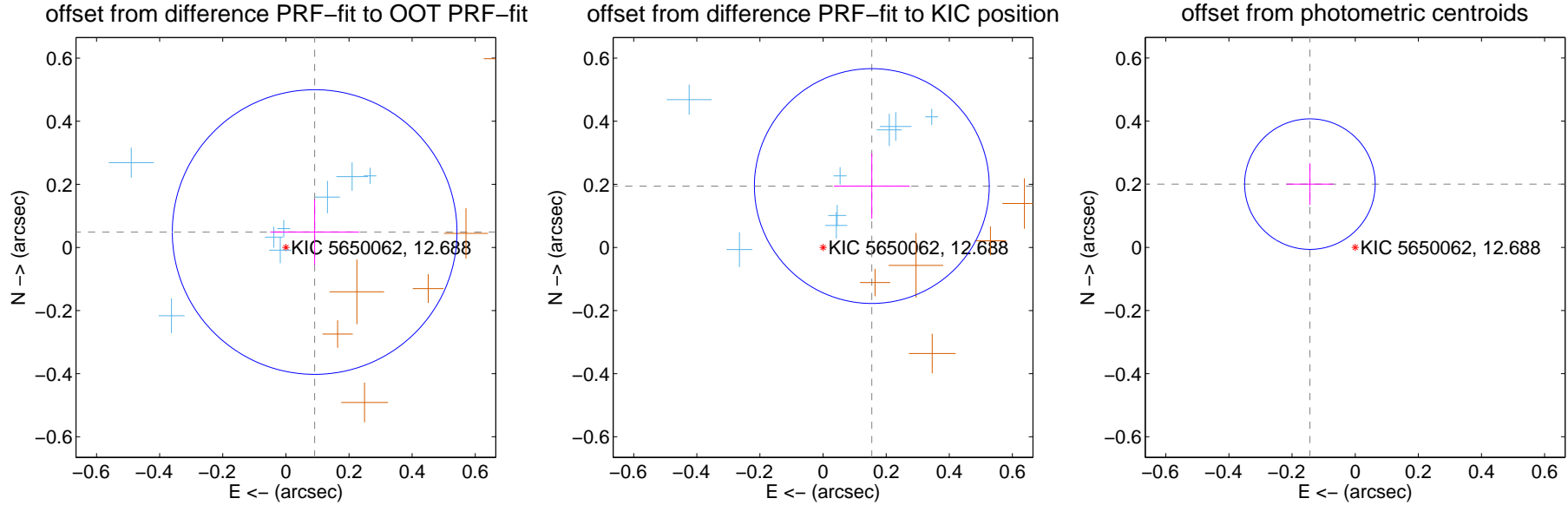
DV Centroid Data

Supplemental centroid analysis for 005650062-02. Kepler magnitude: 12.69. Transit SNR 18.54

There are 9 quarters with good PRF difference image offsets

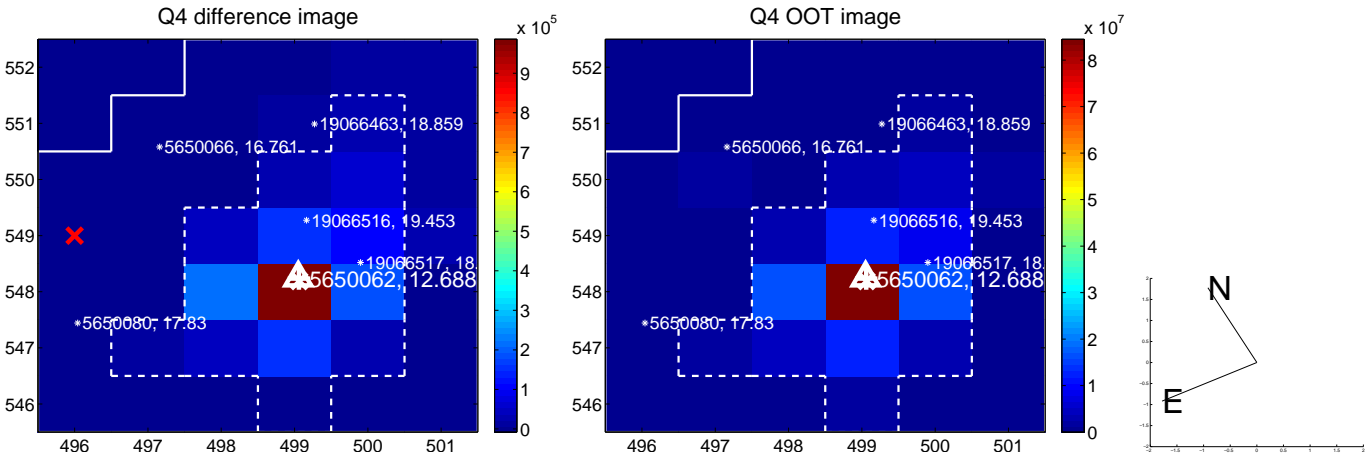
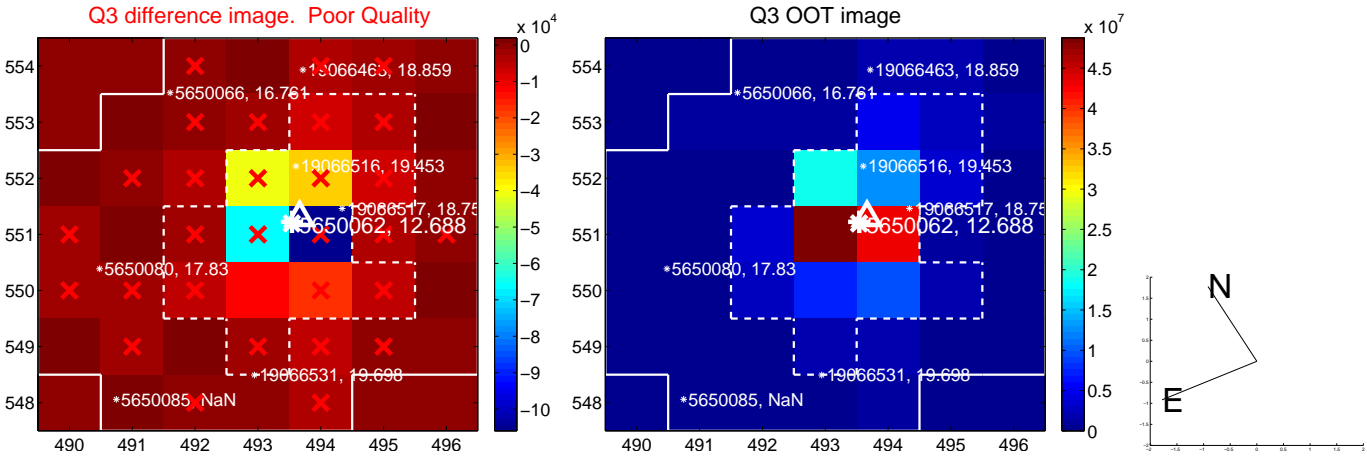
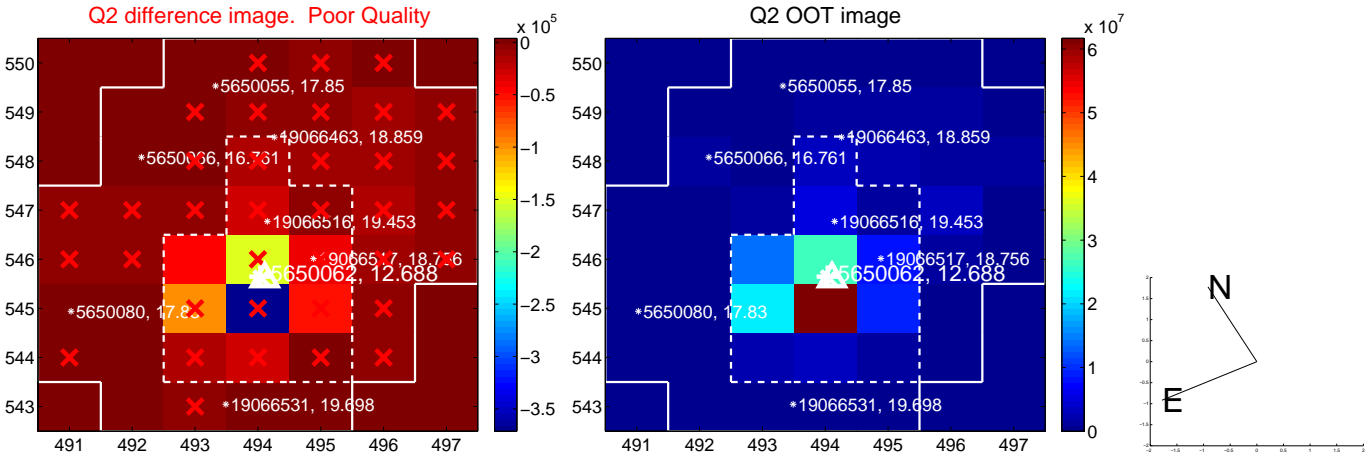
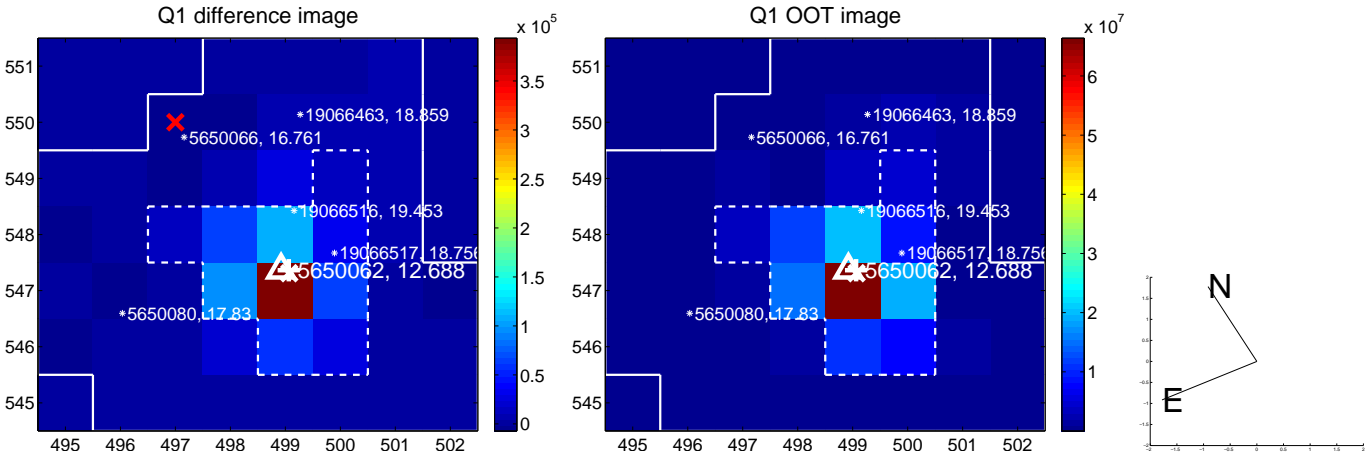
The direct PRF centroid is offset from the target star catalog position by about 0.23 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.103 ± 0.150	0.69	-0.091 ± 0.141	0.049 ± 0.104
PRF-fit source offset from KIC position	0.248 ± 0.124	2.00	-0.155 ± 0.120	0.195 ± 0.104
photometric centroid source offset	0.25 ± 0.07	3.58	0.14 ± 0.07	0.20 ± 0.07

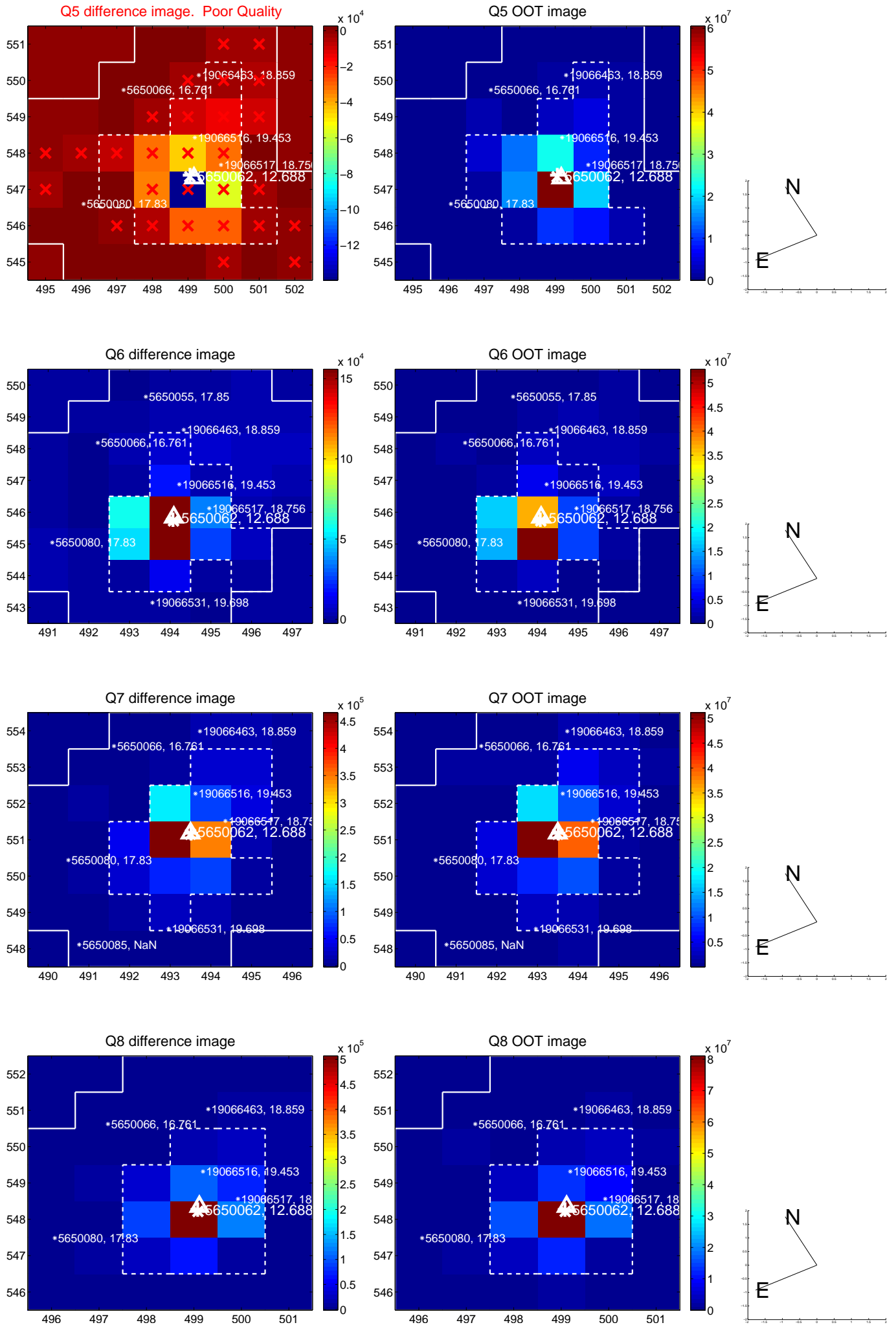


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

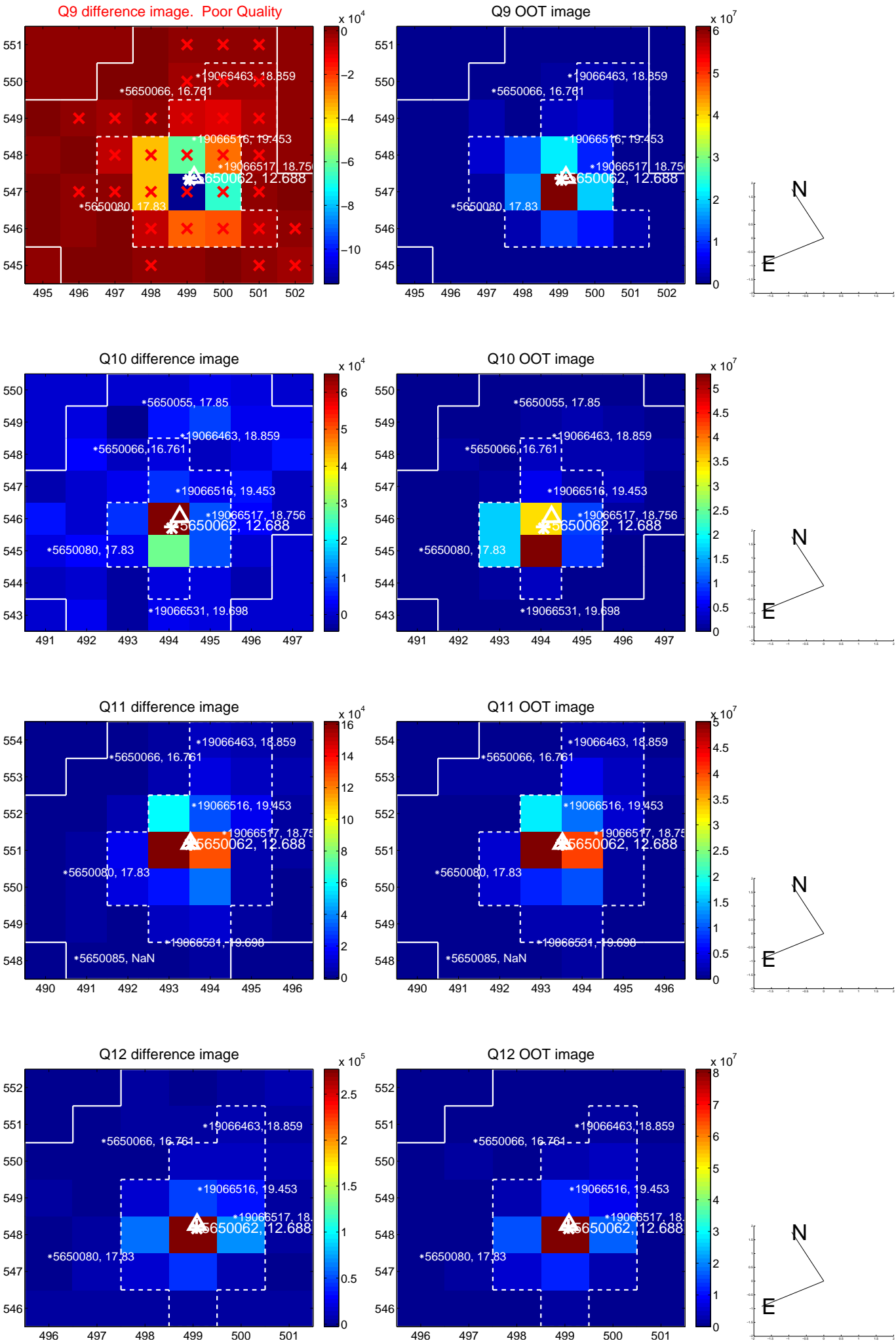
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



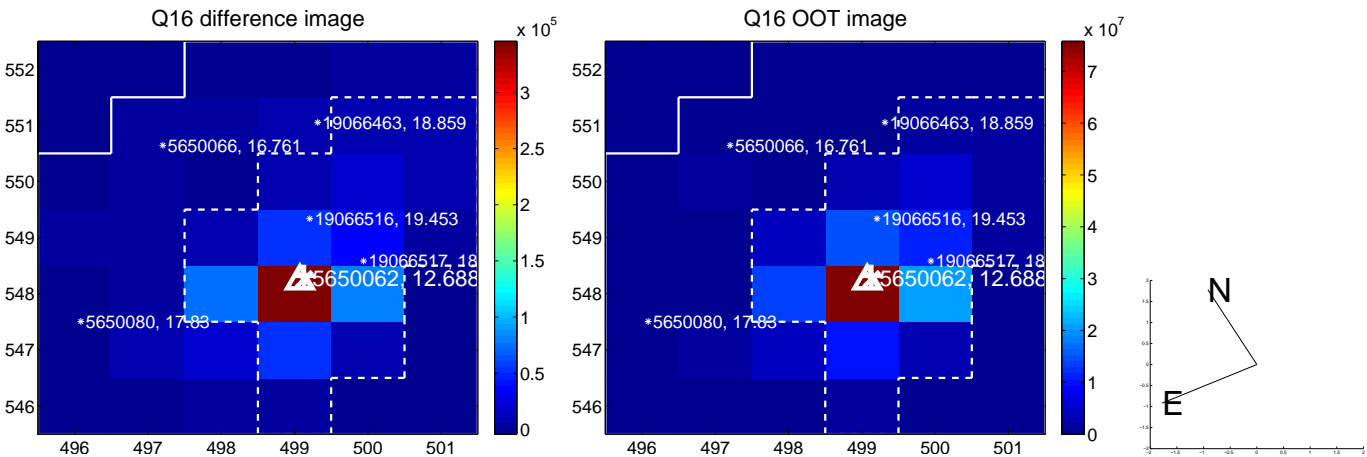
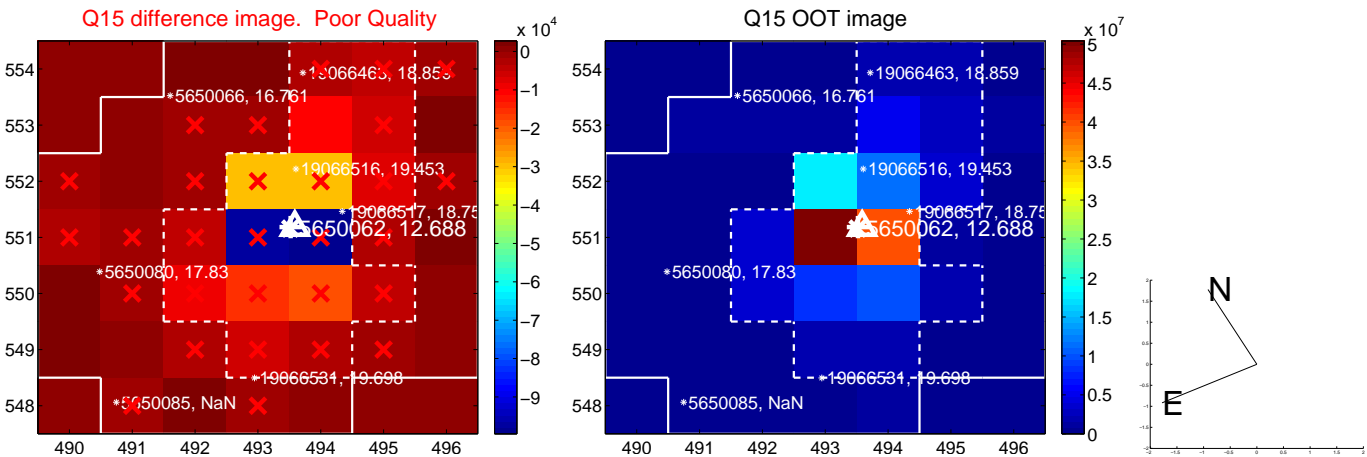
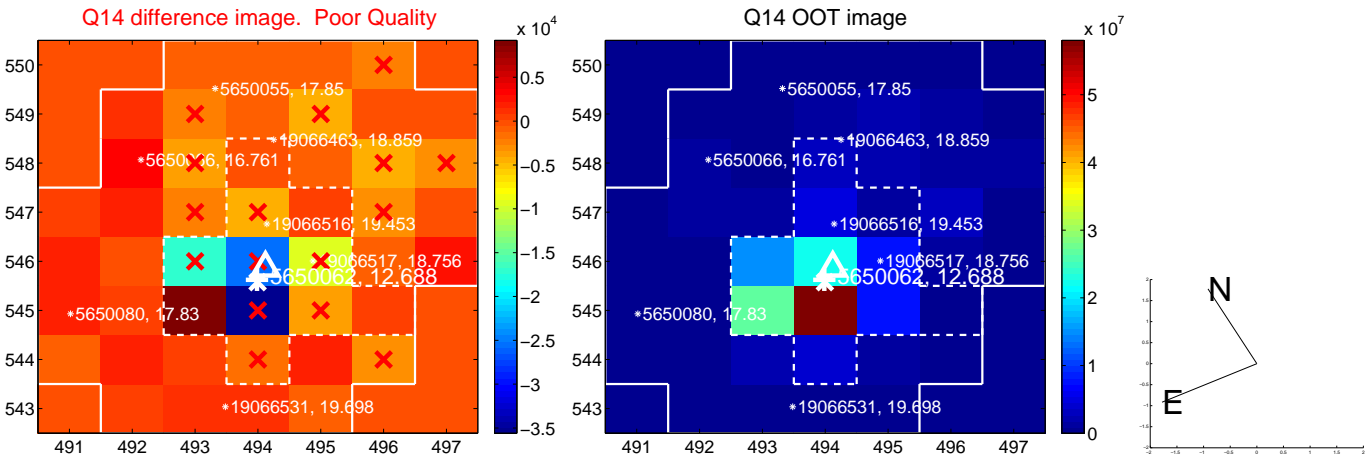
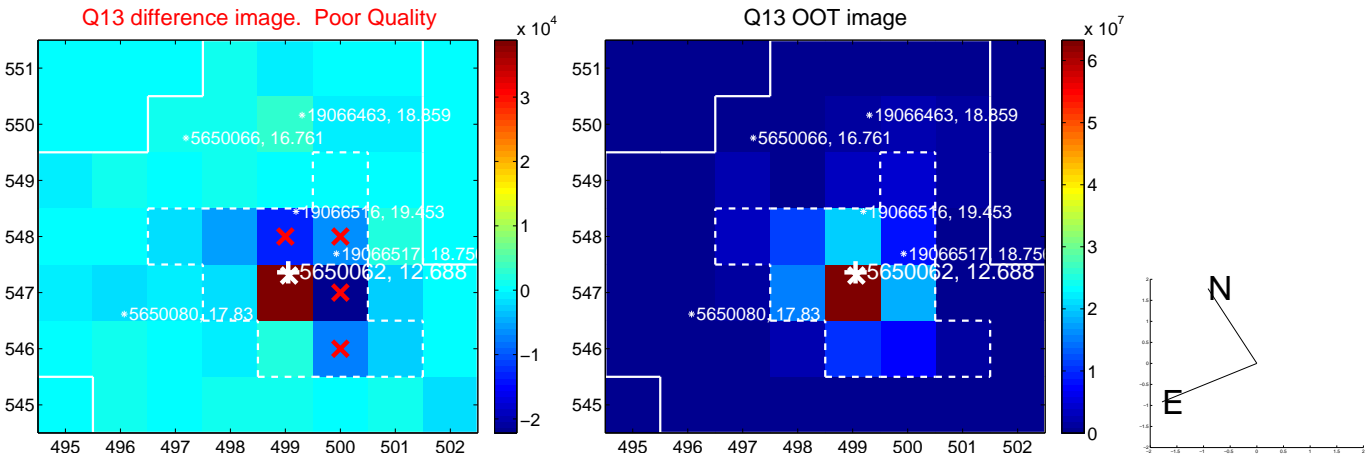
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



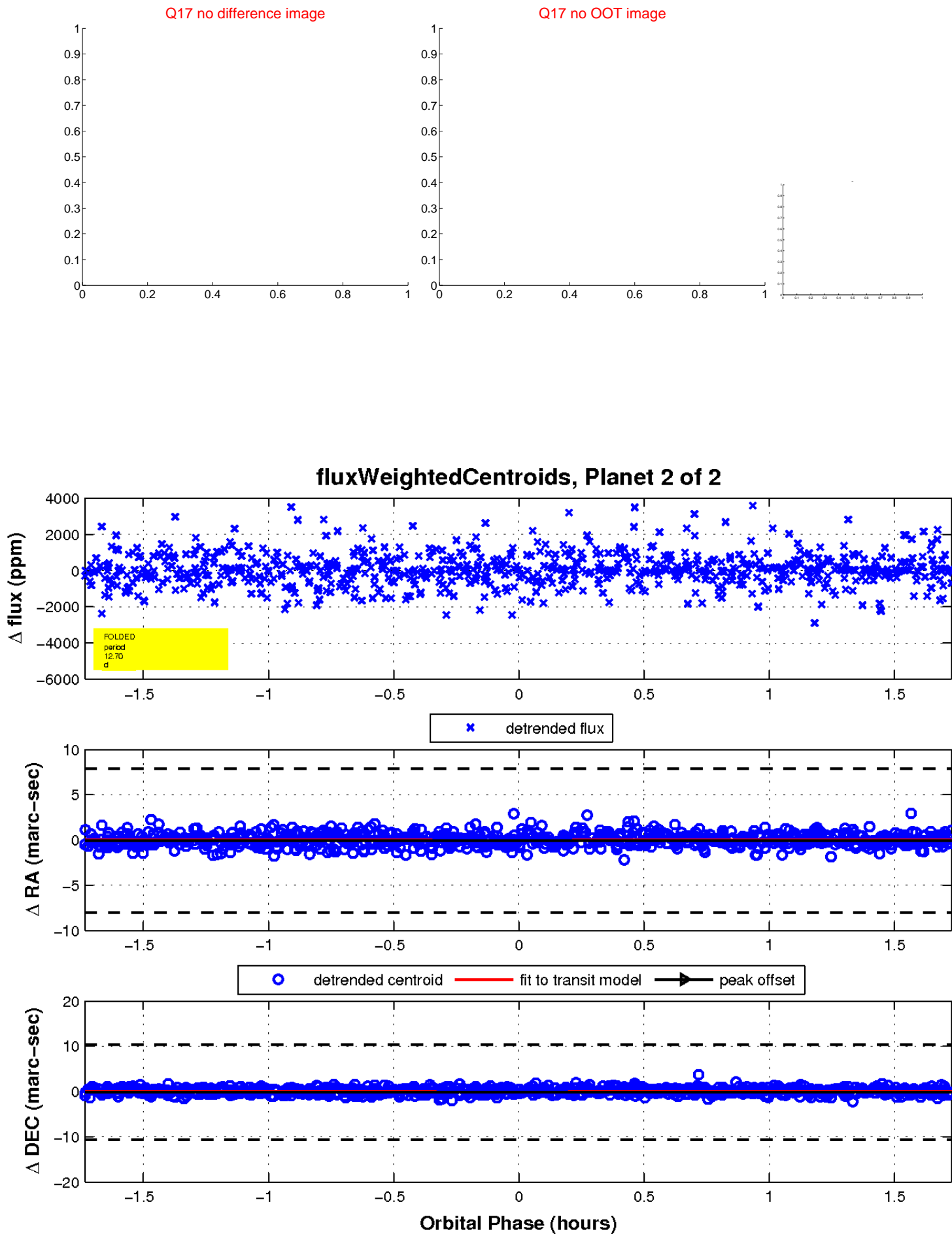
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

