

KIC 005738698

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})
005738698-01	OBS	6134.01	2.404366	133.213790	316964.8	4.500	47019.3	-1.0	1.21	6466	46.42	1842.02
005738698-02	OBS	No	2.404469	131.515682	0.1	1.295	1093.9	0.0	1.21	6466	0.04	1841.91
005738698-03	OBS	No	2.404330	132.321309	0.0	0.984	1084.3	0.0	1.21	6466	0.02	1842.05
005738698-04	OBS	No	2.404450	132.004805	3037.1	9.000	1106.8	-1.0	1.21	6466	6.71	1841.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005738698-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005738698-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005738698-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
005738698-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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.

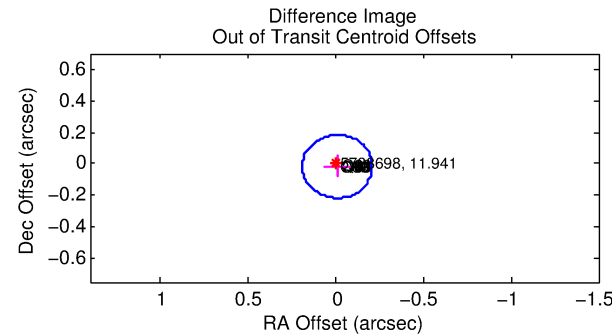
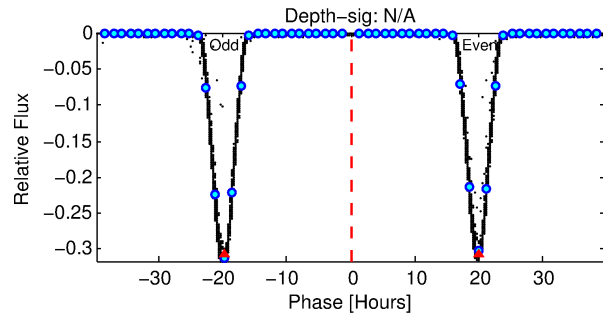
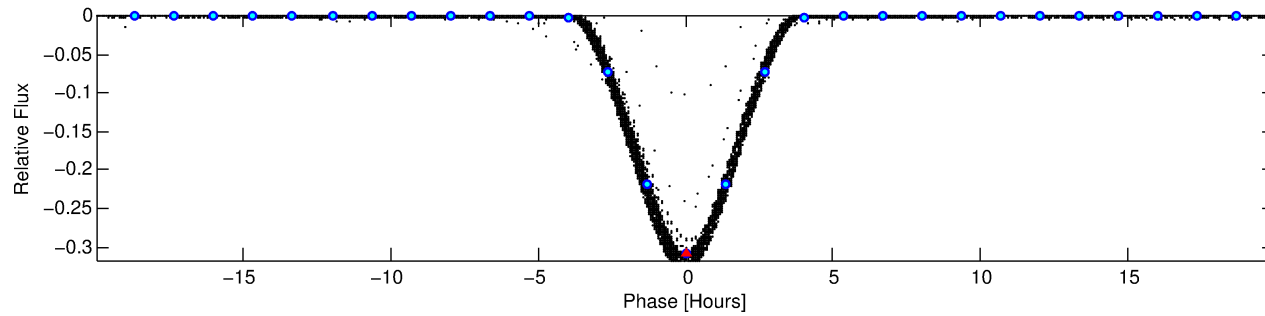
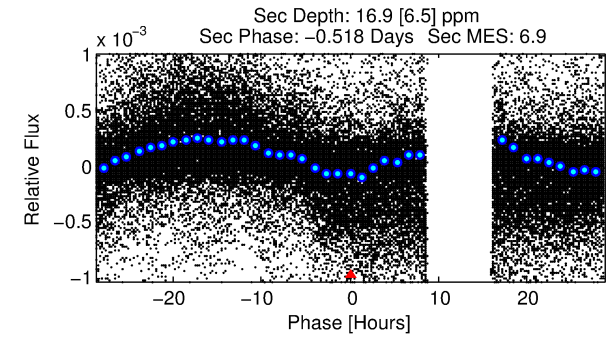
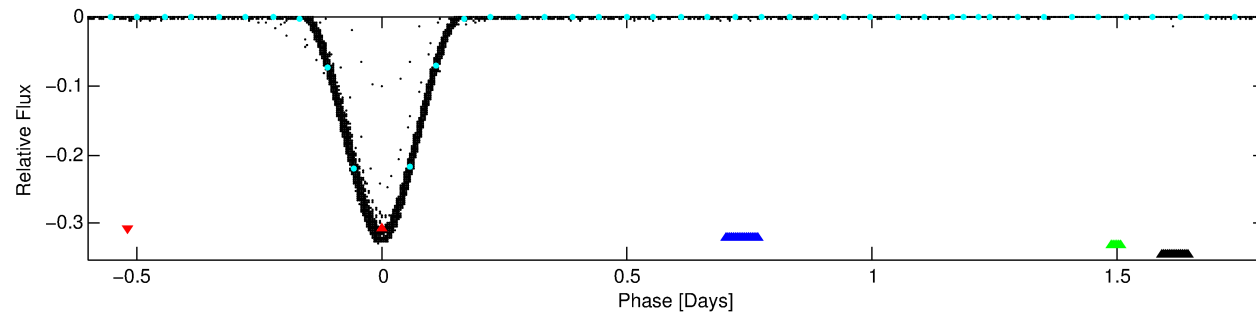
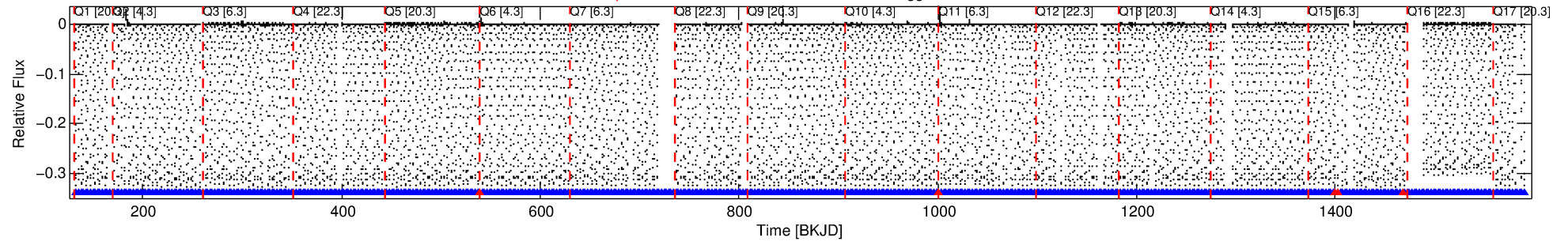
Ephemeris Match Information For 005738698-01

No Significant Match Found

DV One-Page Summary

KIC: 5738698 Candidate: 1 of 4 Period: 2.404 d
KOI: K06134.01 Corr: 0.783

Kp: 11.94 R*: 1.21 Rs Teff: 6466.0 K Logg: 4.28 Fe/H: -0.480



TPS TCE Results:

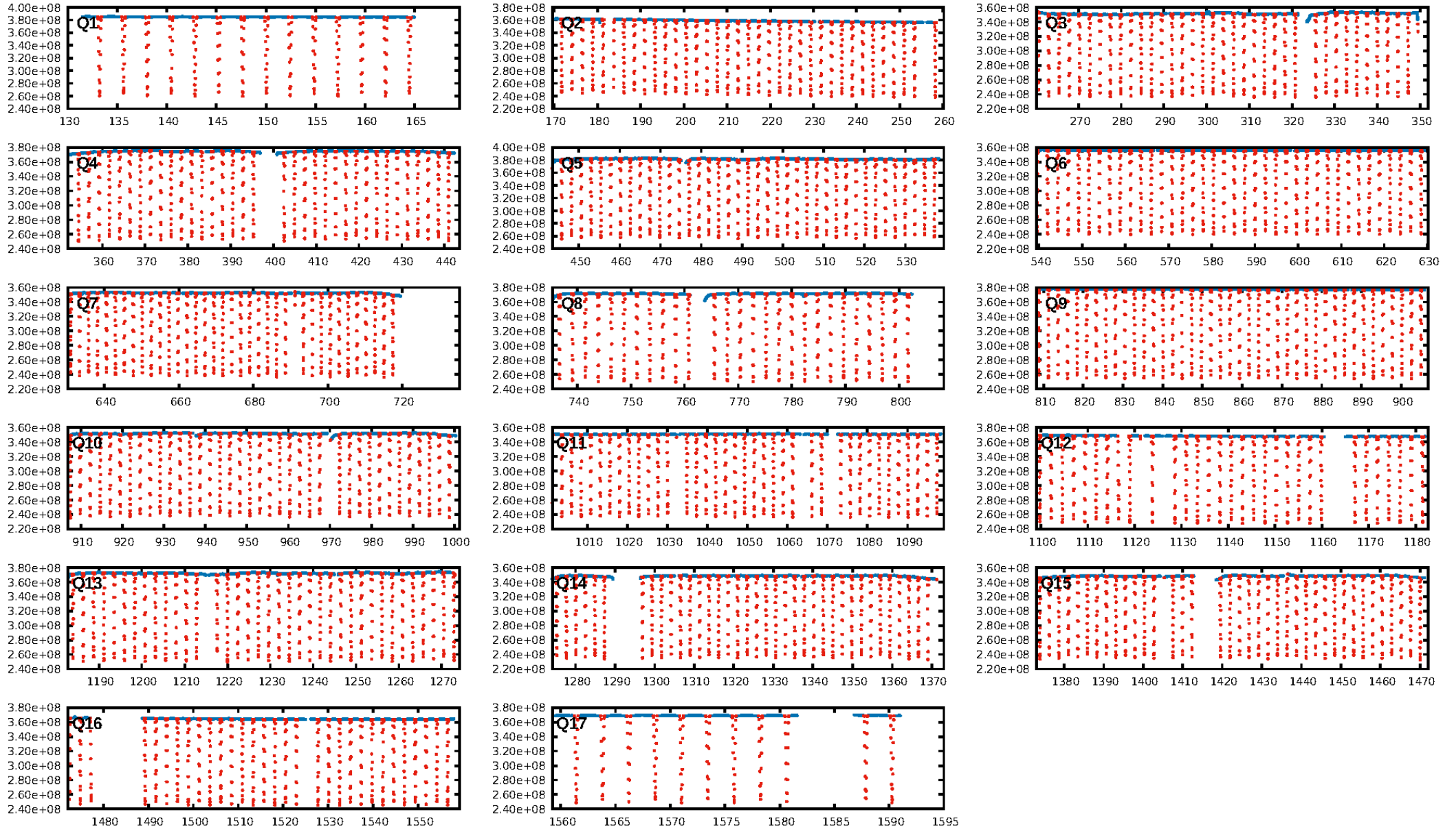
Period = 2.40437 d
Epoch = 133.2138 BKJD

DV fit results are unavailable

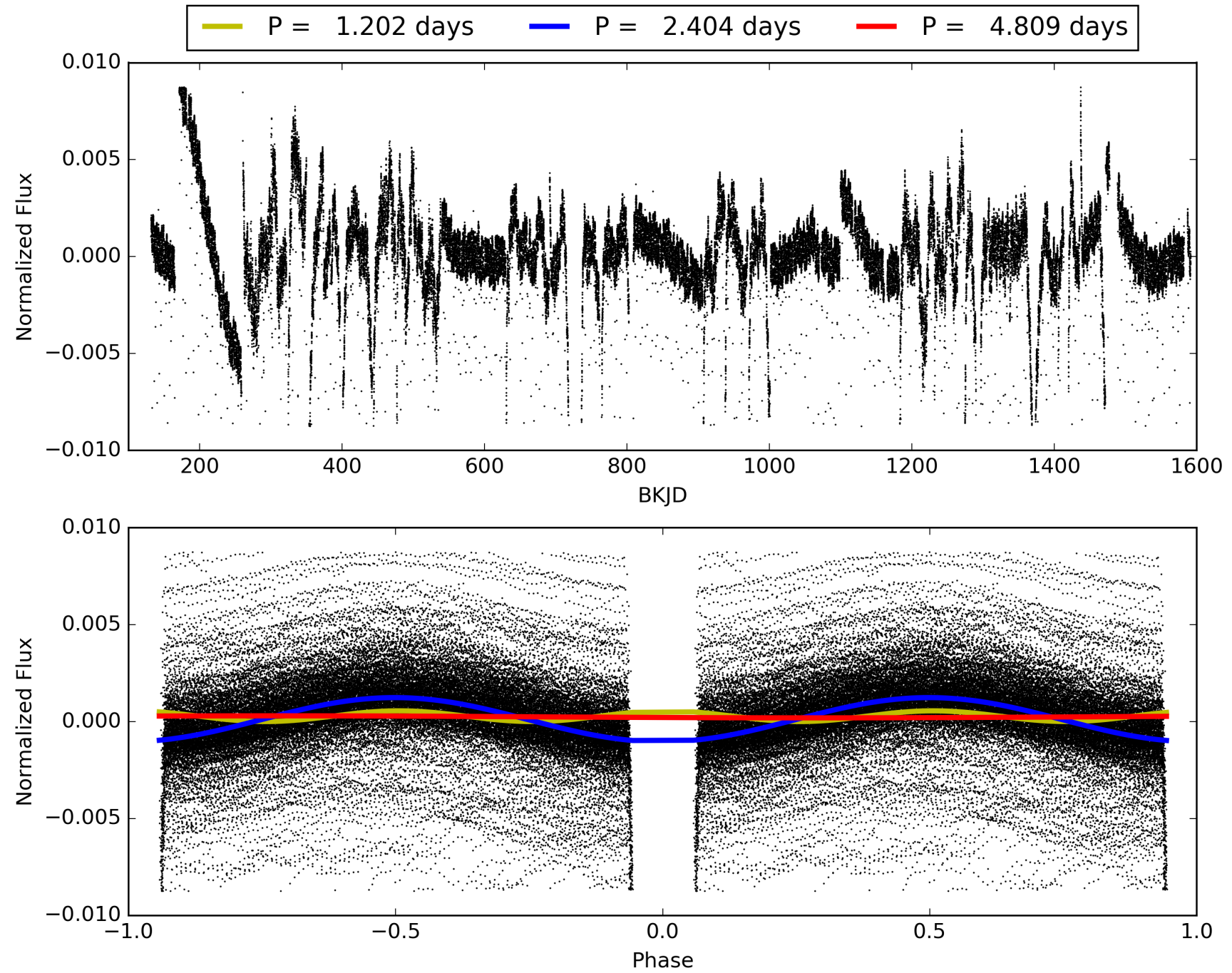
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [534/539]
GhostDiagnostic-chr: 1.904
Centroid-sig: N/A
Centroid-so: 0.101 arcsec [501.18σ]
OotOffset-rm: 0.020 arcsec [0.29σ]
KicOffset-rm: 0.019 arcsec [0.26σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 1.00 [17/17]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005738698-01, PDC Light Curves

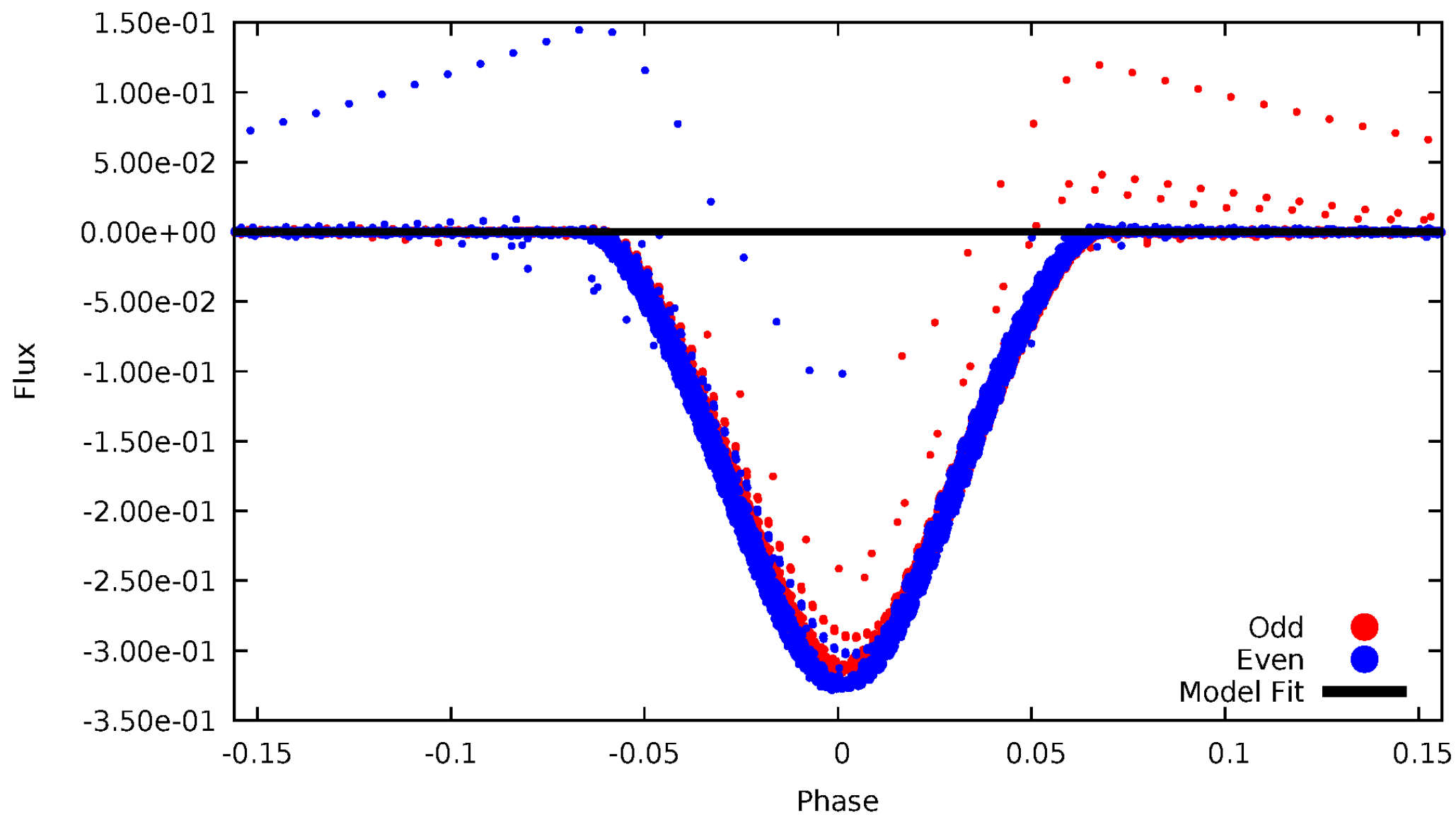


TCE 005738698-01



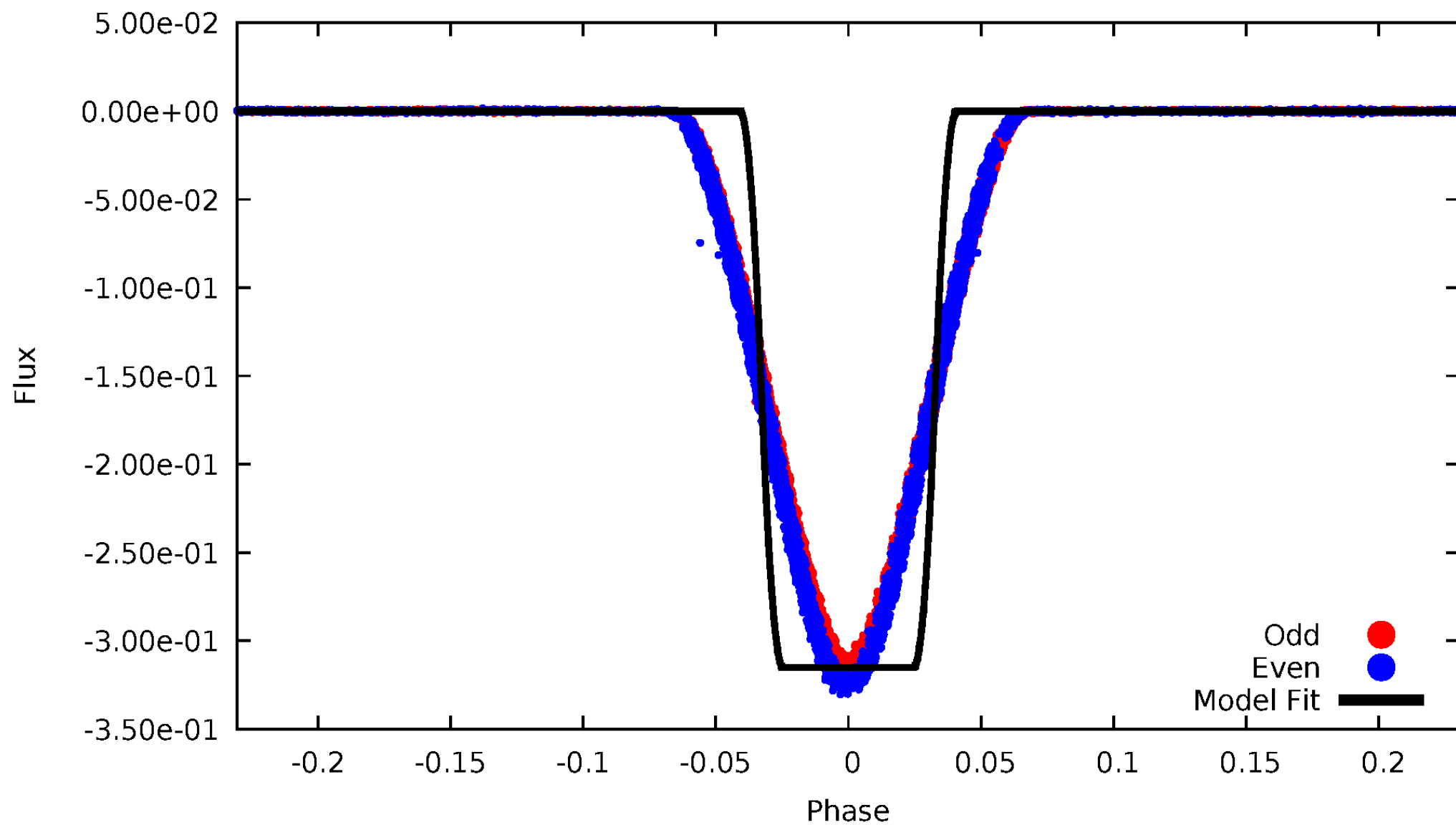
DV Odd/Even

TCE 005738698-01



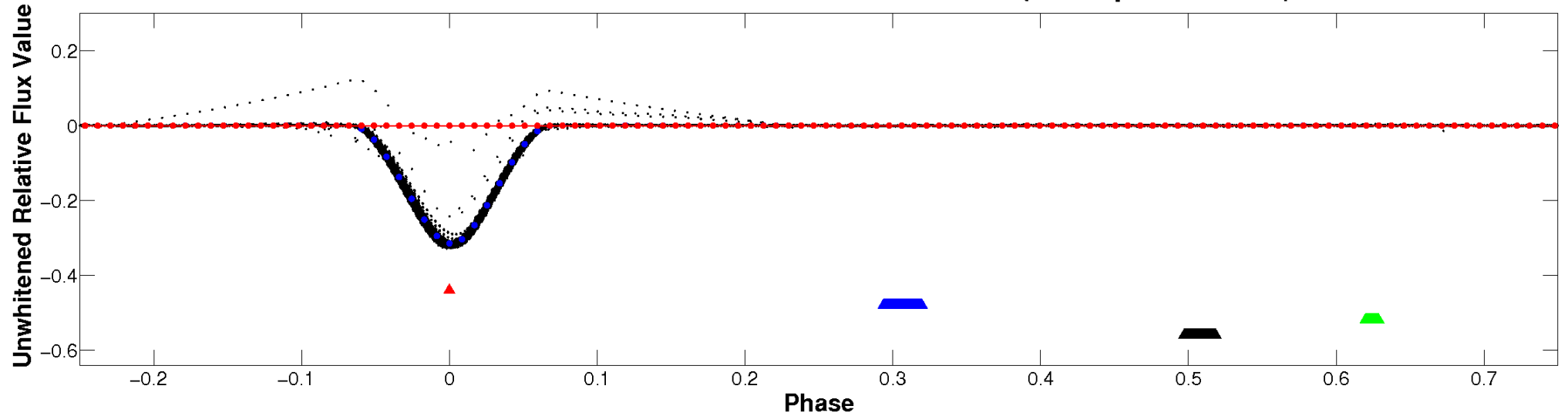
ALT Odd/Even

TCE 005738698-01

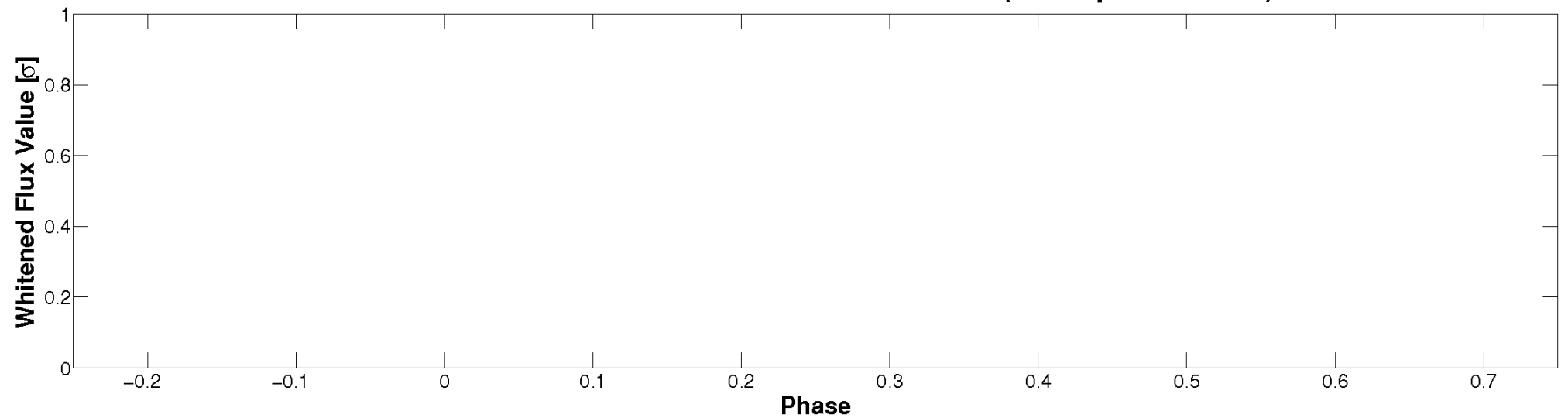


Non-Whitened Vs. Whitened Light Curve

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

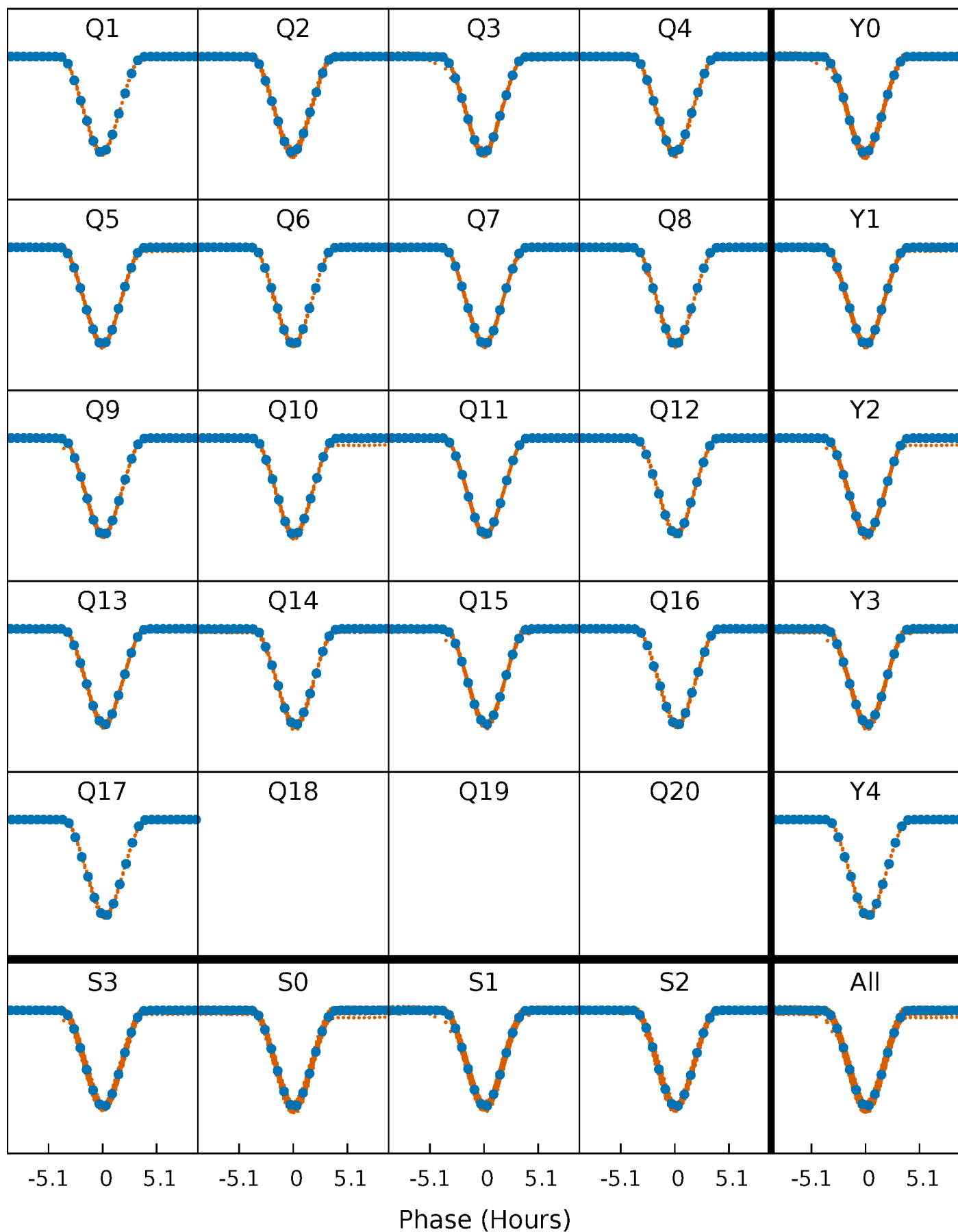


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



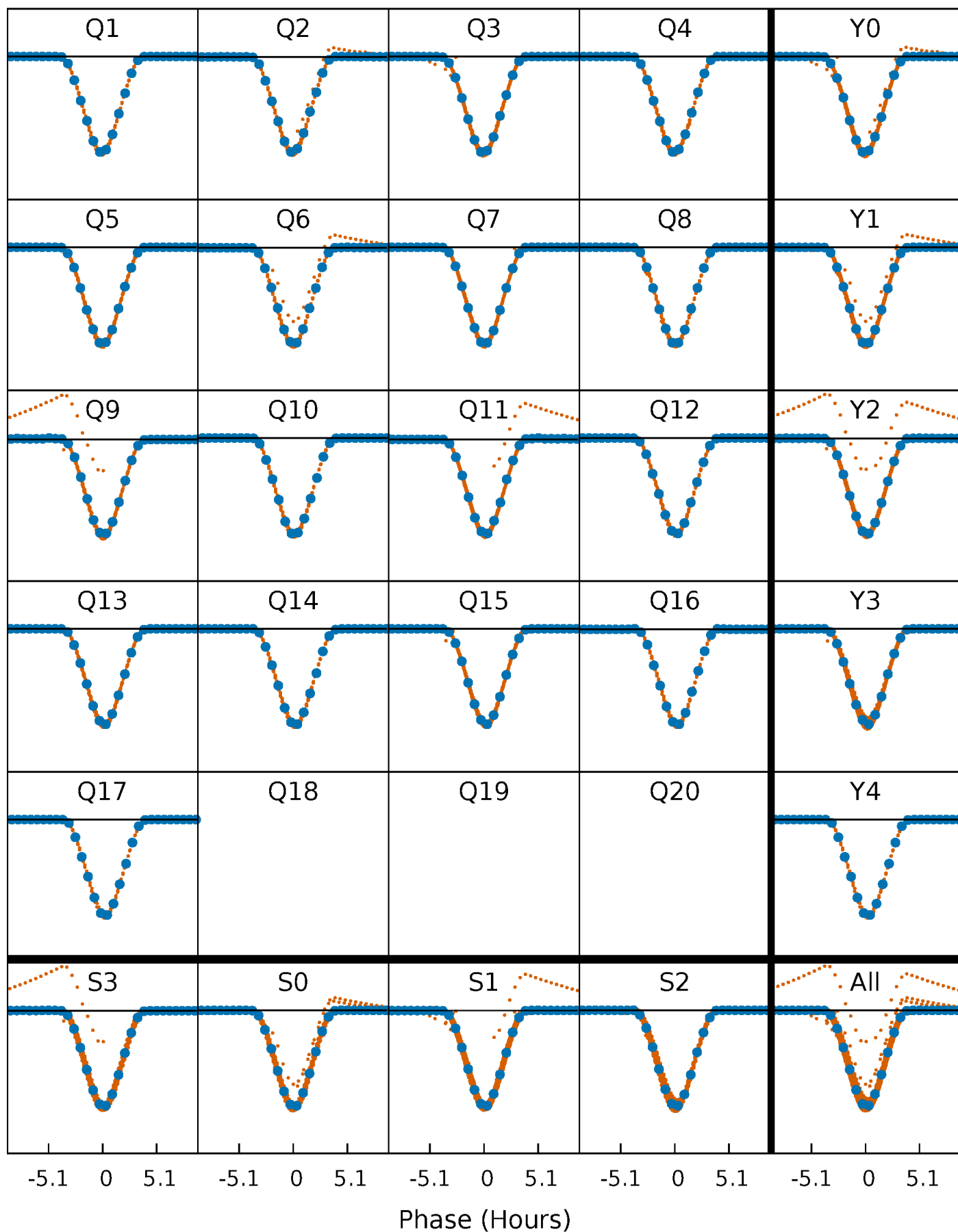
PDC Quarter-Phased Transit Curves

TCE 005738698-01 P= 2.404366 Days $T_0=133.213790$ (BKJD)



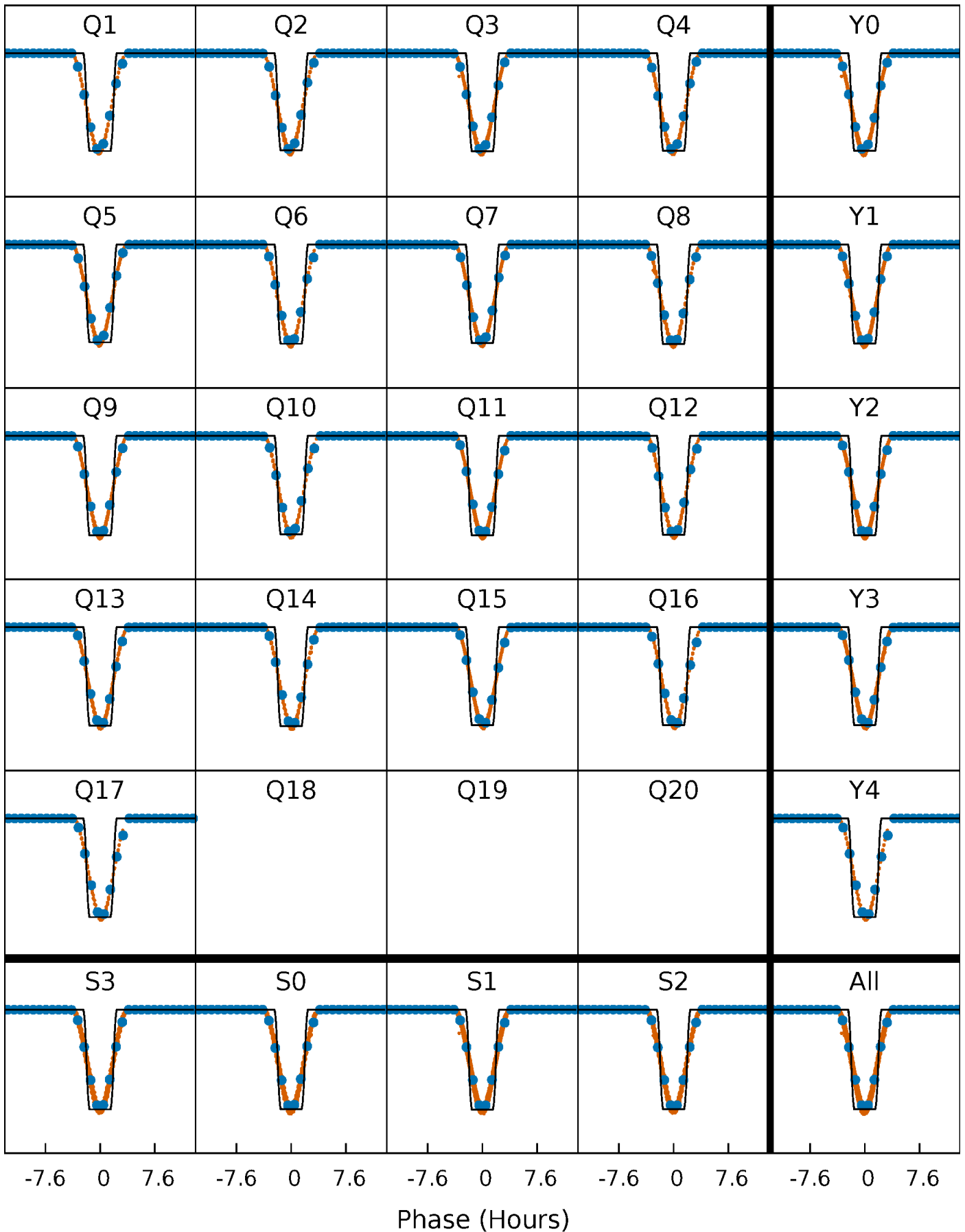
DV Quarter-Phased Transit Curves

TCE 005738698-01 P= 2.404366 Days $T_0=133.213790$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

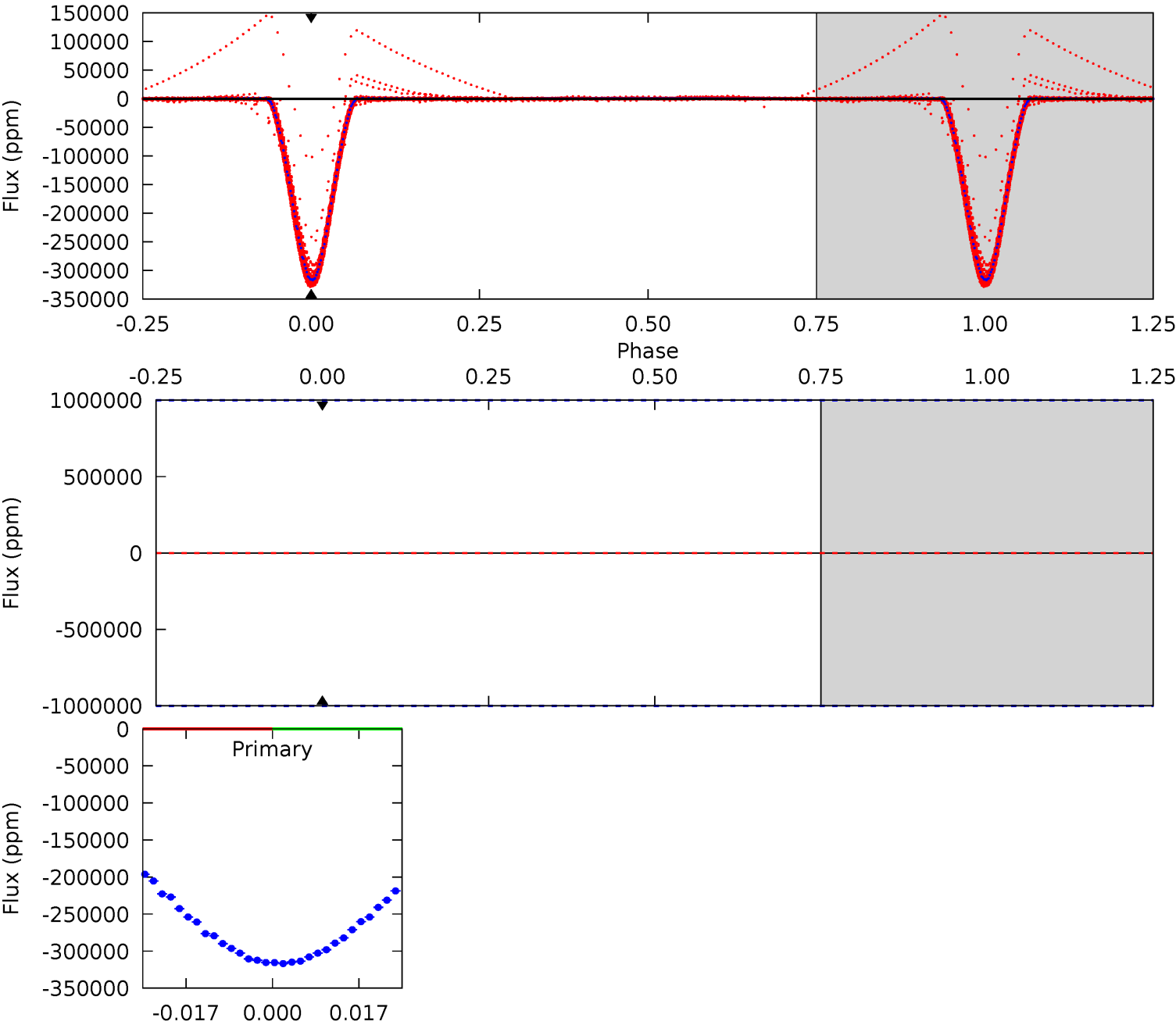
TCE 005738698-01 P= 2.404366 Days $T_0=133.216917$ (BKJD)



DV Model-Shift Uniqueness Test

005738698-01, P = 2.404366 Days, E = 130.809424 Days

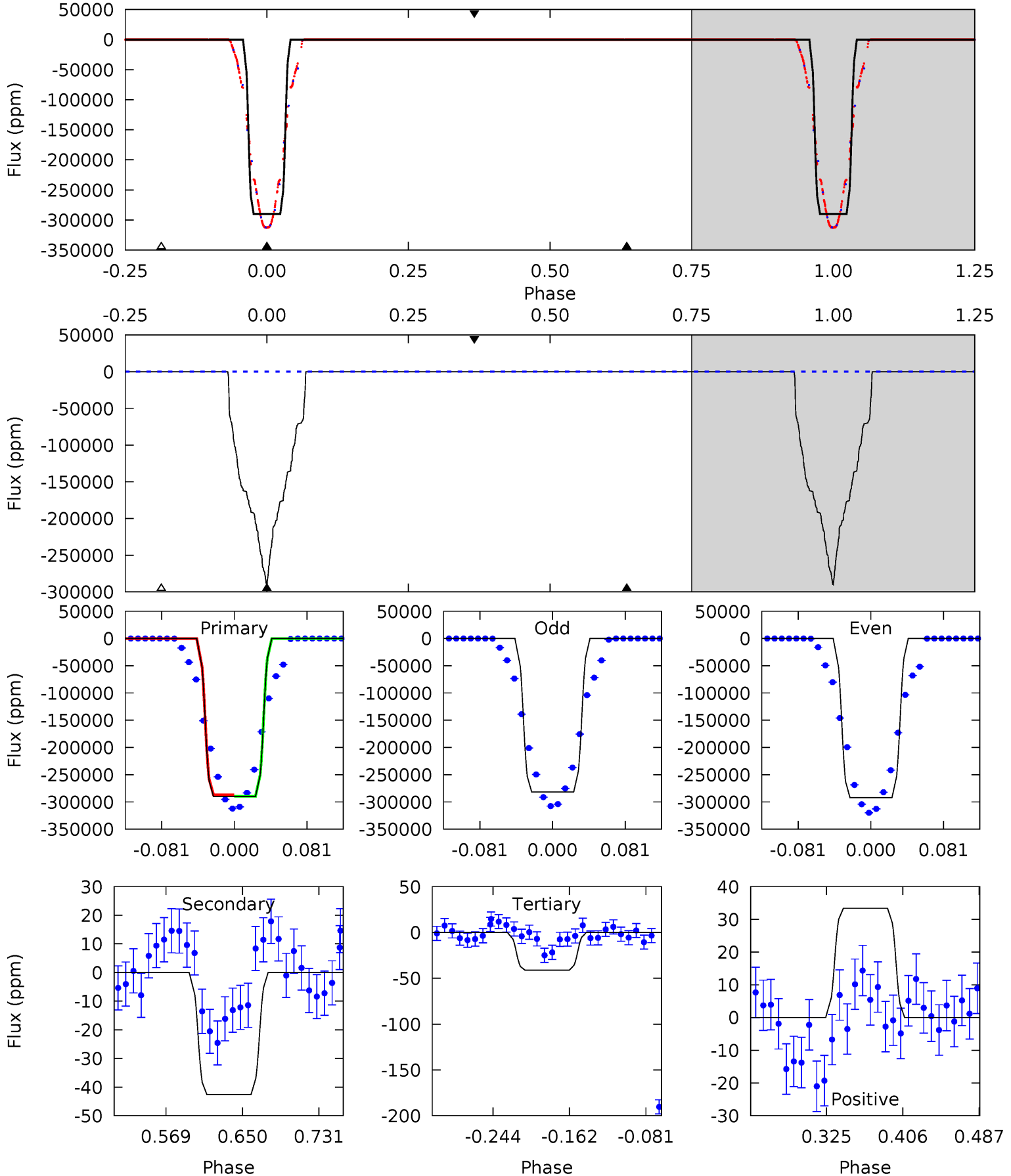
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005738698-01, P = 2.404366 Days, E = 130.812551 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
27099	3.98	3.86	3.12	4.61	1.74	1.12	27095	27096	0.13	0.86	525.9	1.00	0.00	0



Stellar Parameters For KIC 005738698

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6466^{+145}_{-178}	$4.278^{+0.165}_{-0.182}$	$-0.480^{+0.300}_{-0.300}$	$1.210^{+0.341}_{-0.227}$	$1.011^{+0.146}_{-0.106}$	$0.804^{+0.601}_{-0.401}$
	+2%/-3%	+4%/-4%	+62%/-62%	+28%/-19%	+14%/-10%	+75%/-50%
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 005738698-01 / KOI 6134.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$45.82^{+15.98}_{-12.65}$	2323^{+168}_{-139}	3047^{+3538}_{-9012}	$0.875^{+40.922}_{-28.357}$
Alt.	-43 ± 11	$75.88^{+17.09}_{-16.73}$	2340^{+173}_{-138}	-2693^{+86}_{-104}	$0.005^{+0.004}_{-0.002}$

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

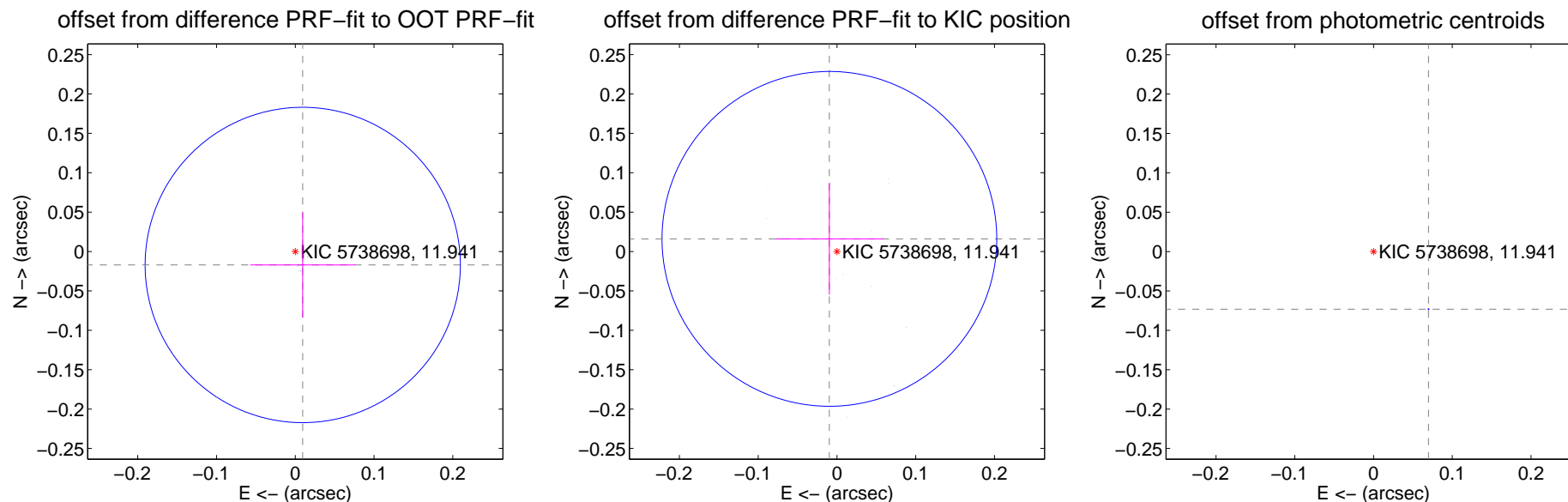
DV Centroid Data

Supplemental centroid analysis for 005738698-01. **Kepler magnitude: 11.94**. Transit SNR -1.00

There are 17 quarters with good PRF difference image offsets

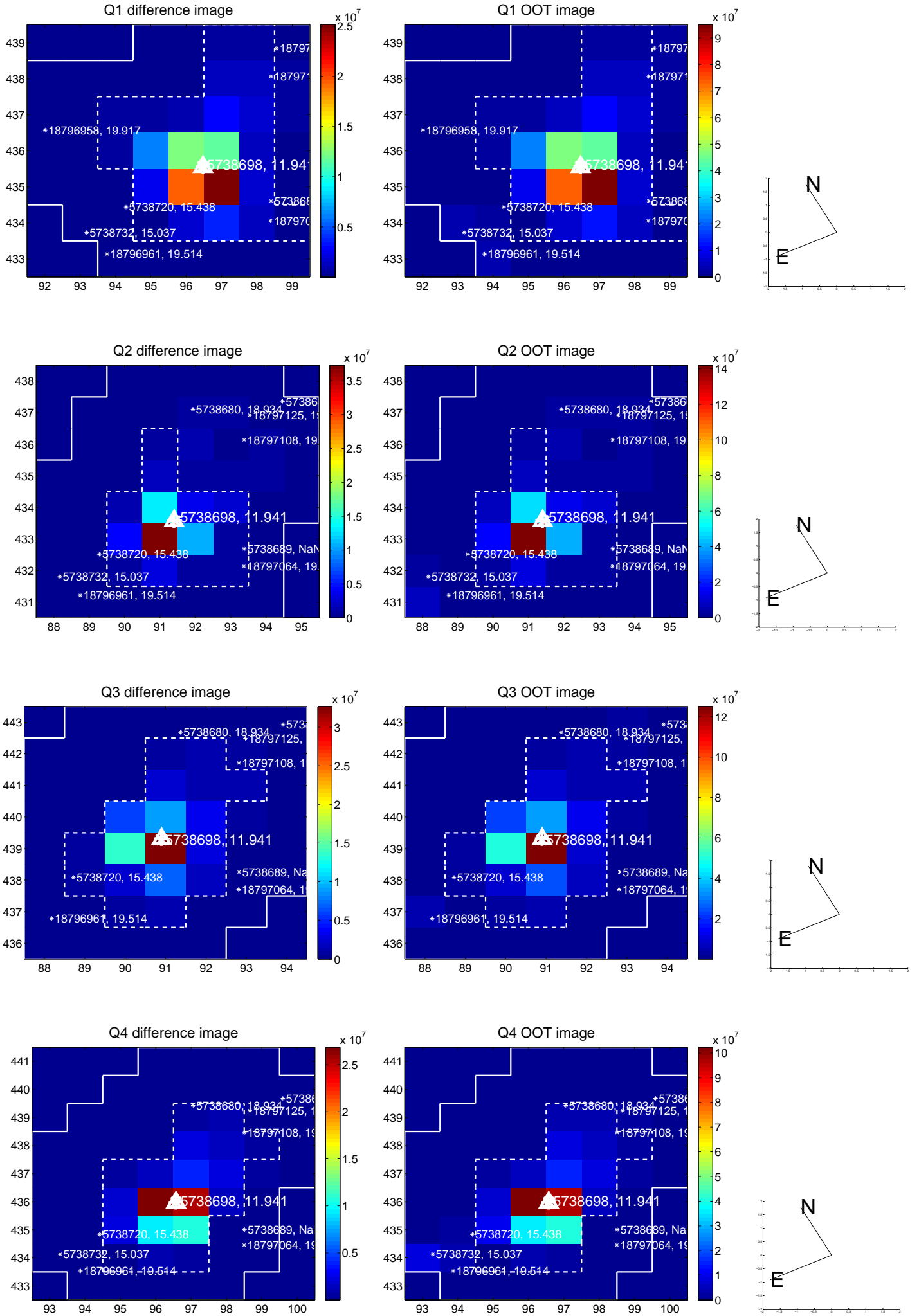
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.020 ± 0.067	0.29	-0.009 ± 0.067	-0.017 ± 0.067
PRF-fit source offset from KIC position	0.019 ± 0.071	0.26	0.010 ± 0.069	0.016 ± 0.071
photometric centroid source offset	0.10 ± 0.00	501.18	-0.07 ± 0.00	-0.07 ± 0.00

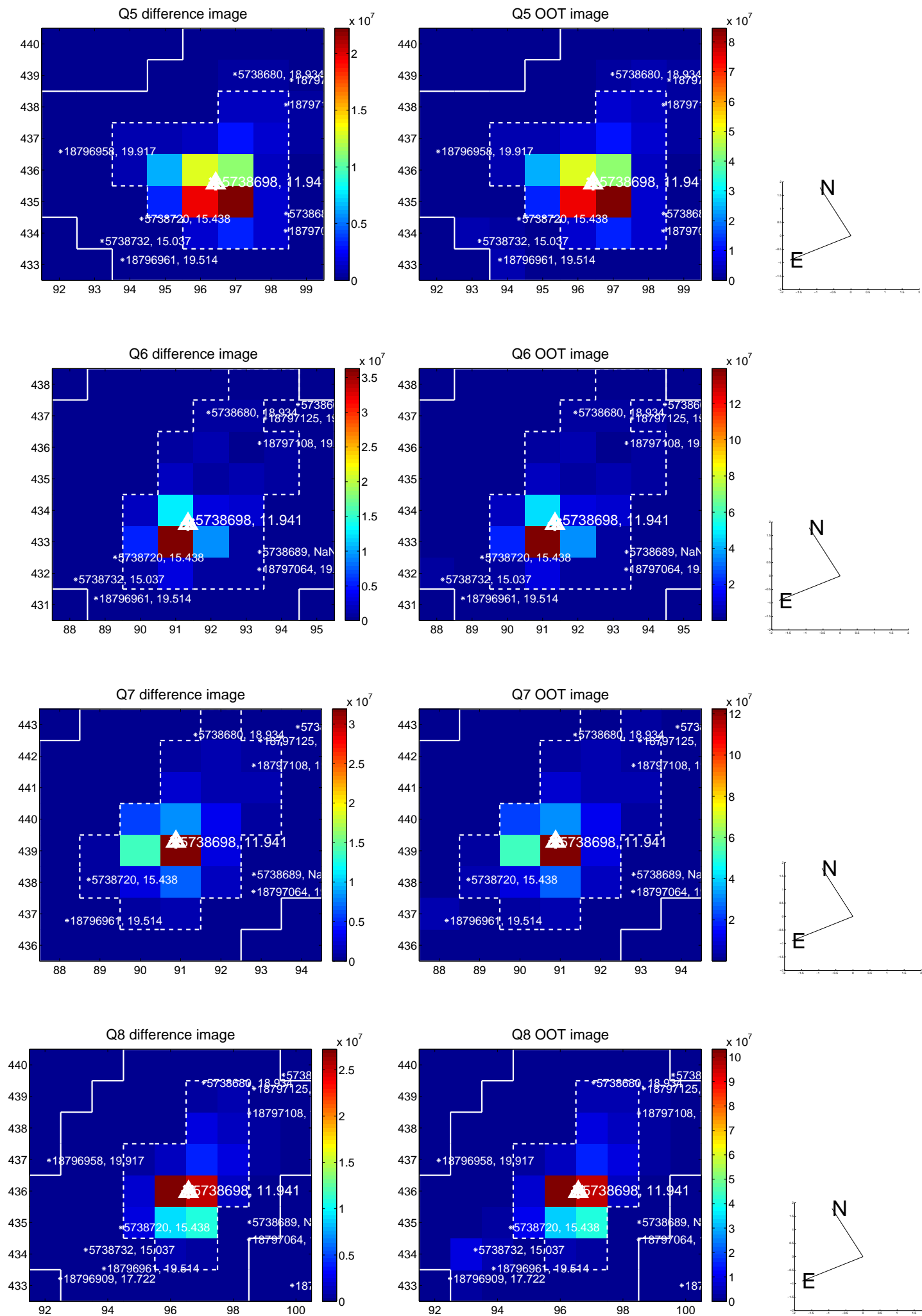


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

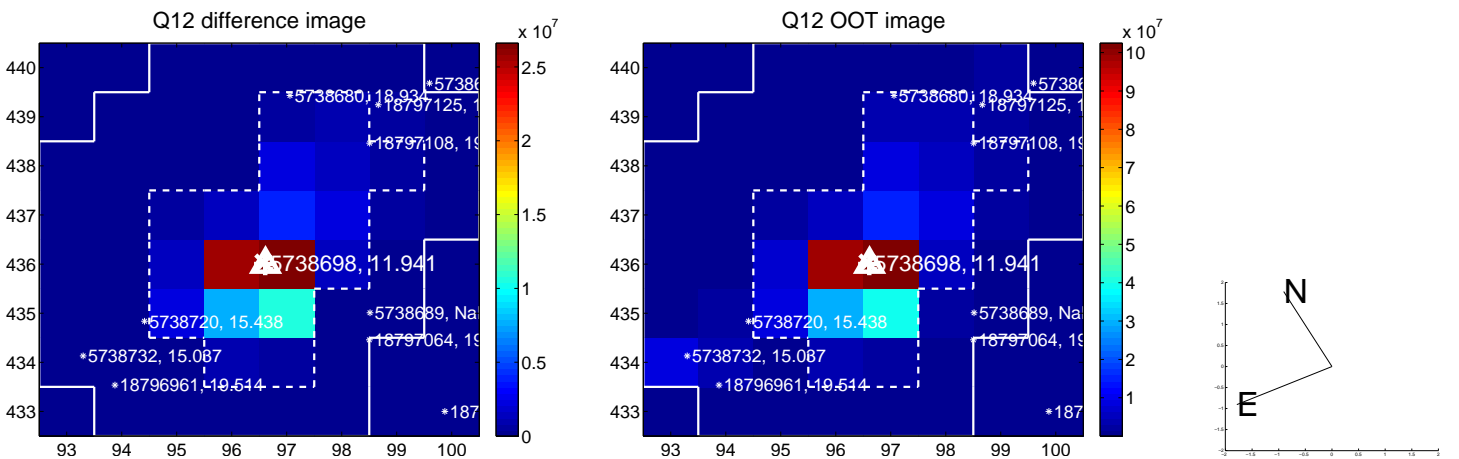
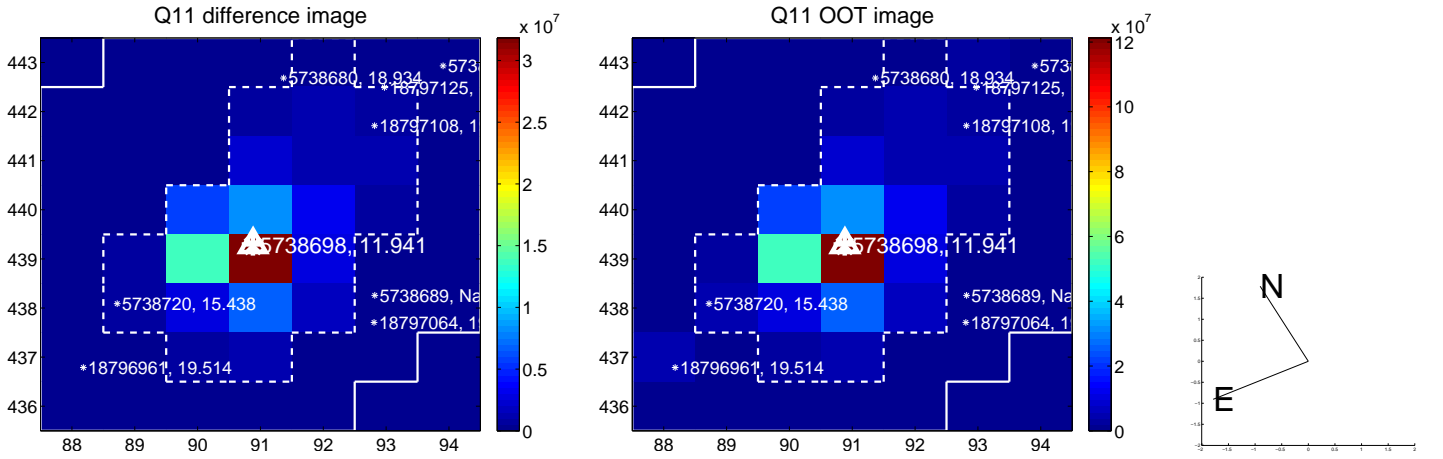
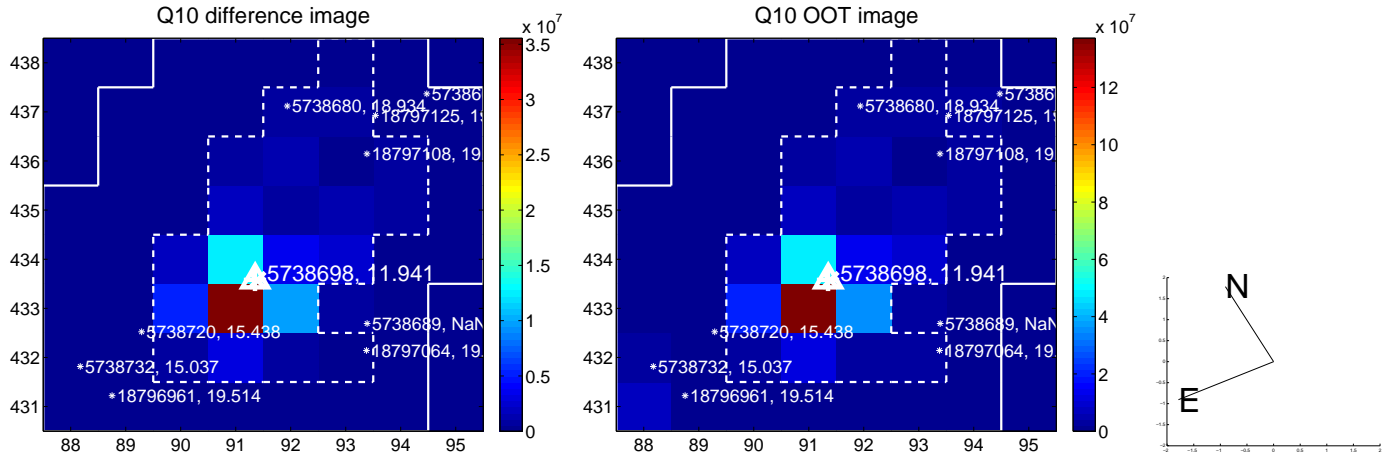
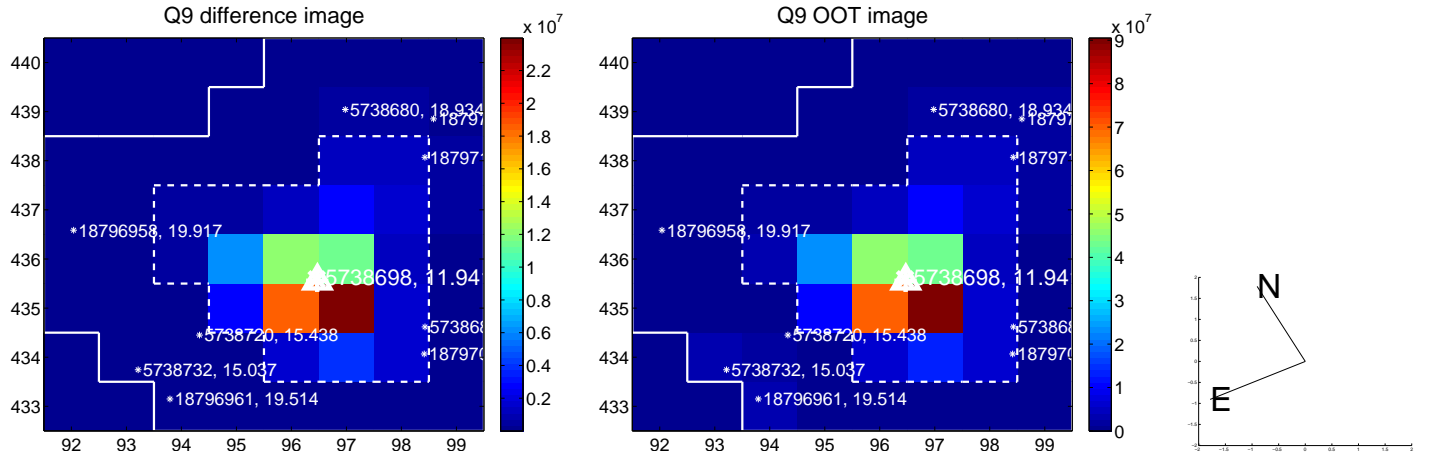
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



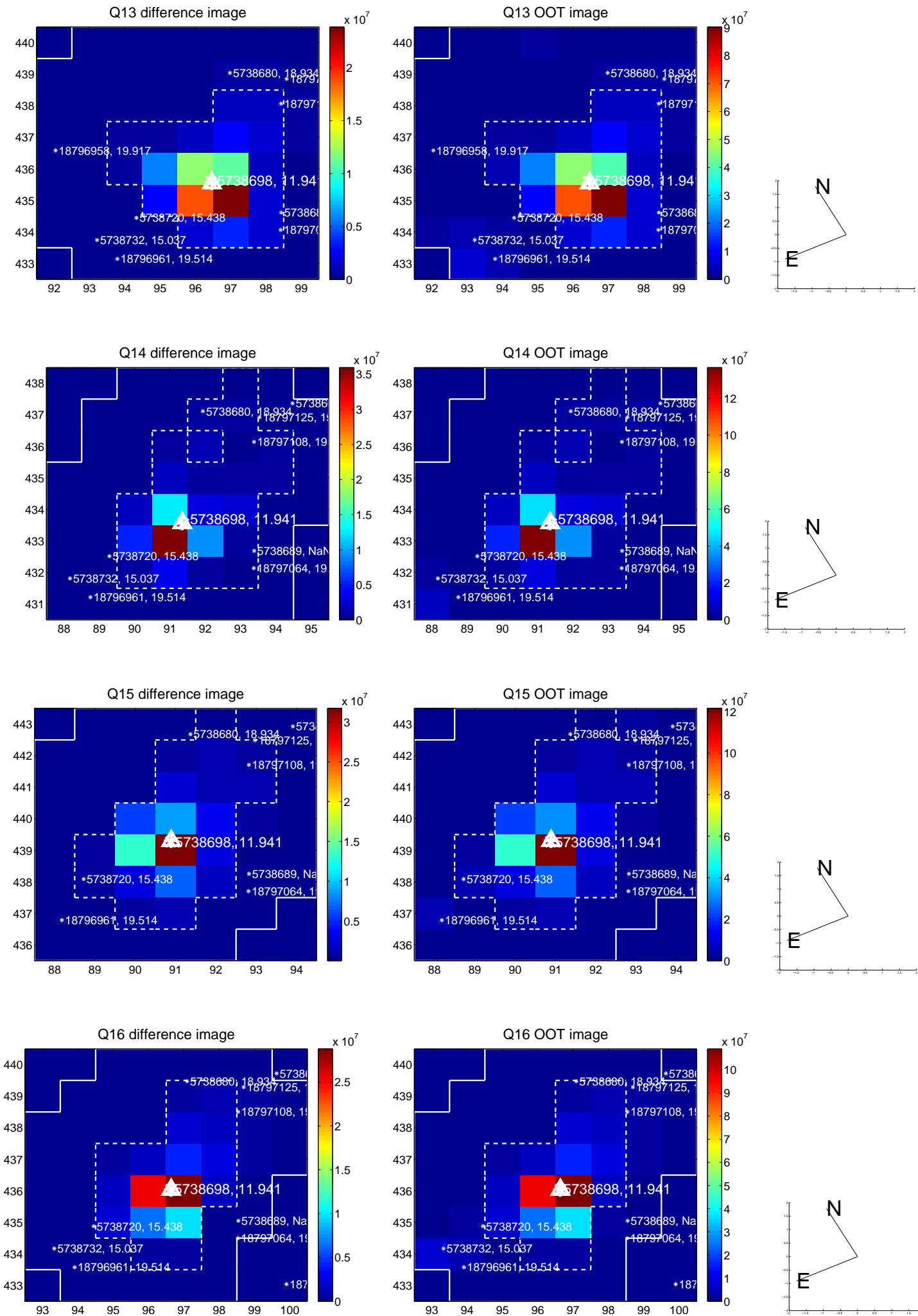
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



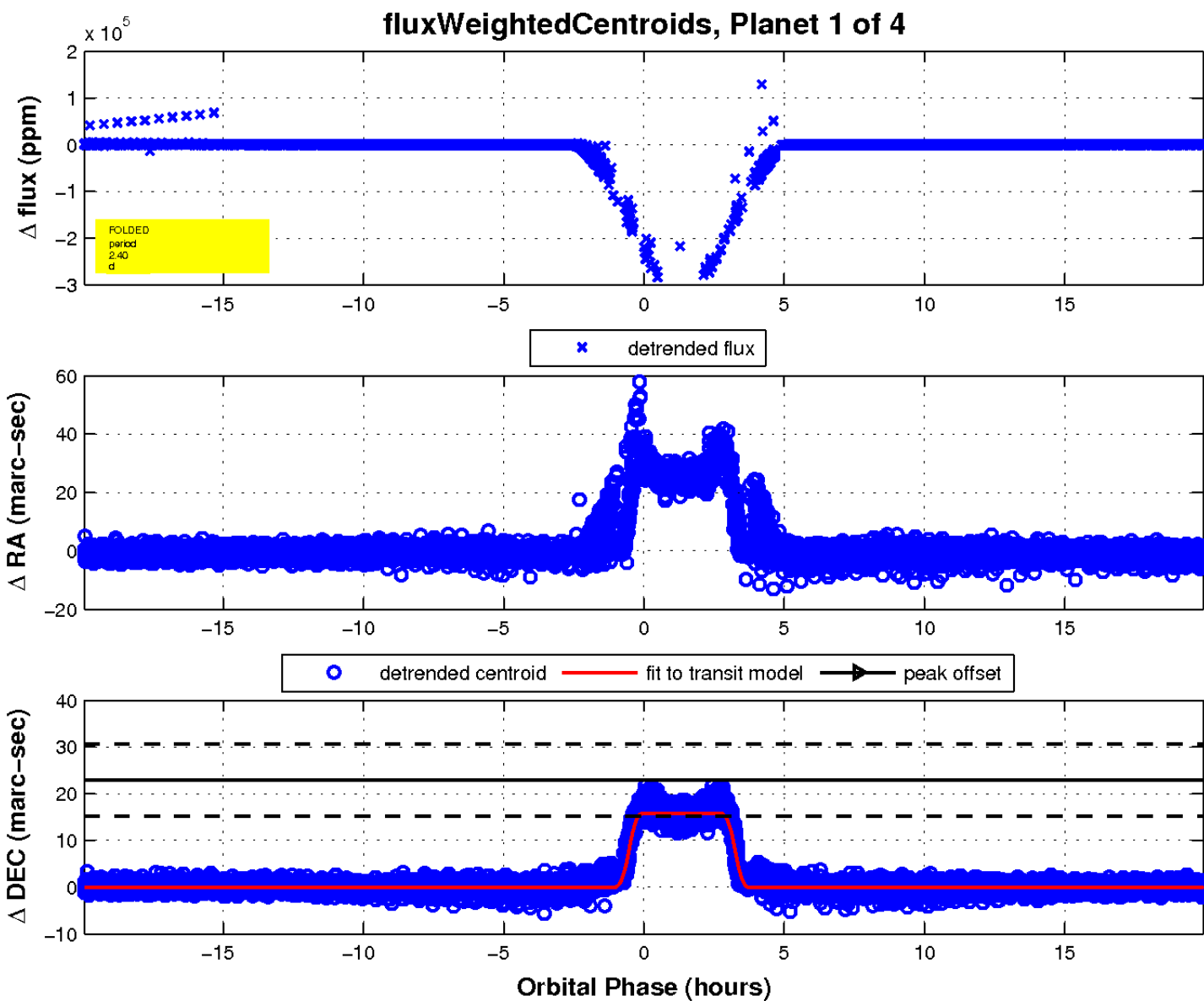
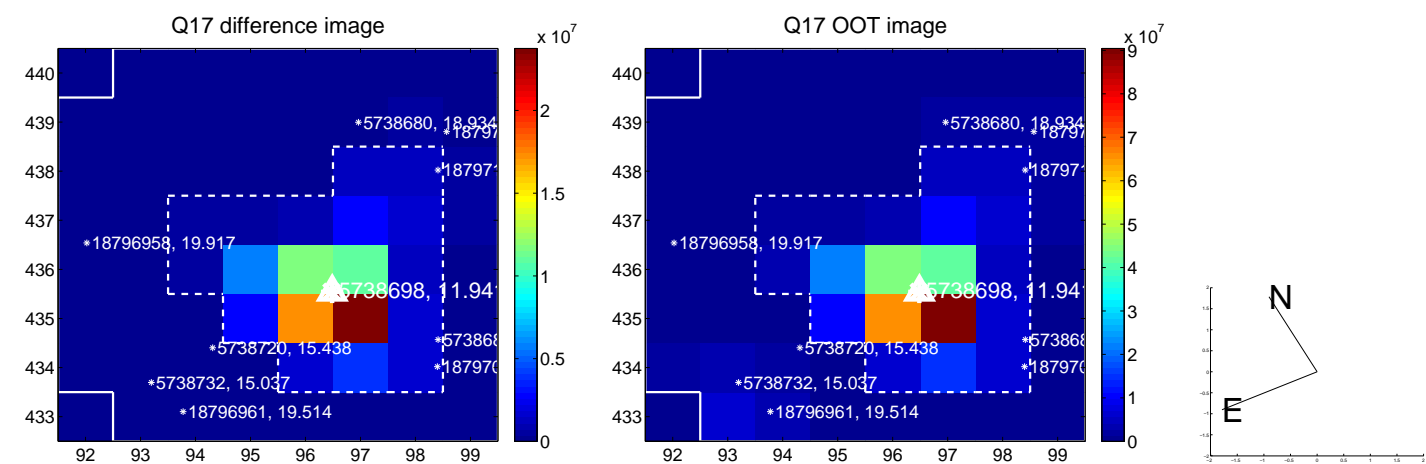
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

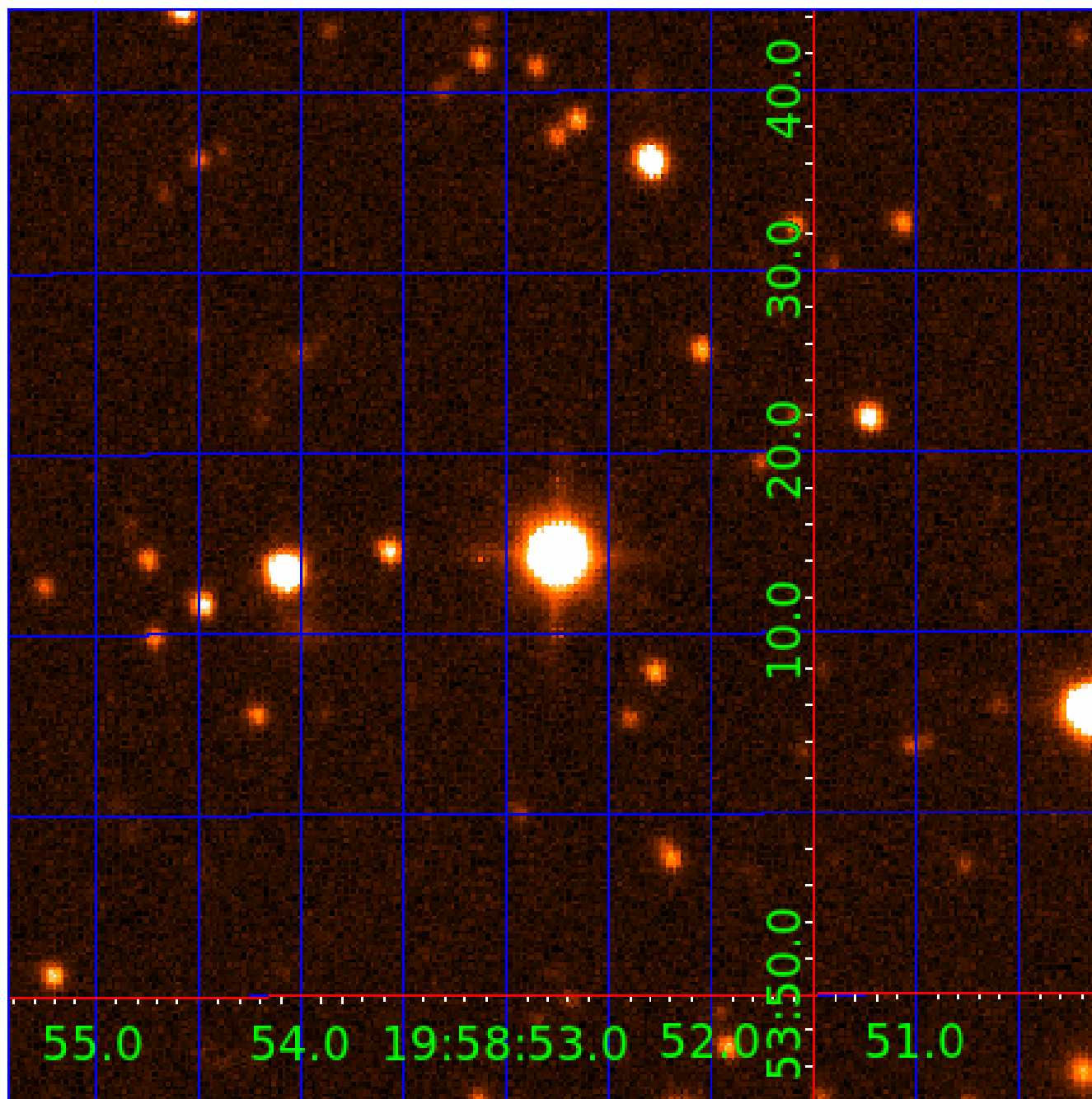


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005738698

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})
005738698-01	OBS	6134.01	2.404366	133.213790	316964.8	4.500	47019.3	-1.0	1.21	6466	46.42	1842.02
005738698-02	OBS	No	2.404469	131.515682	0.1	1.295	1093.9	0.0	1.21	6466	0.04	1841.91
005738698-03	OBS	No	2.404330	132.321309	0.0	0.984	1084.3	0.0	1.21	6466	0.02	1842.05
005738698-04	OBS	No	2.404450	132.004805	3037.1	9.000	1106.8	-1.0	1.21	6466	6.71	1841.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005738698-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005738698-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005738698-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
005738698-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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.

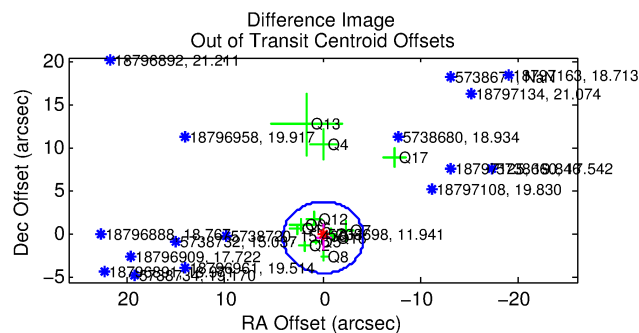
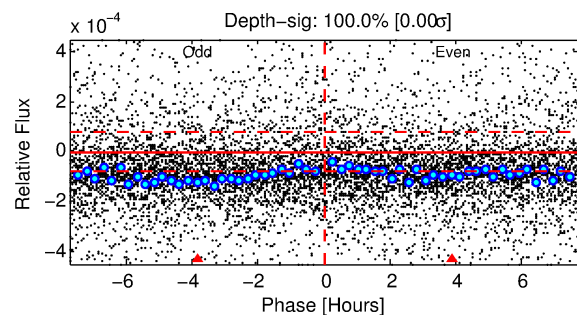
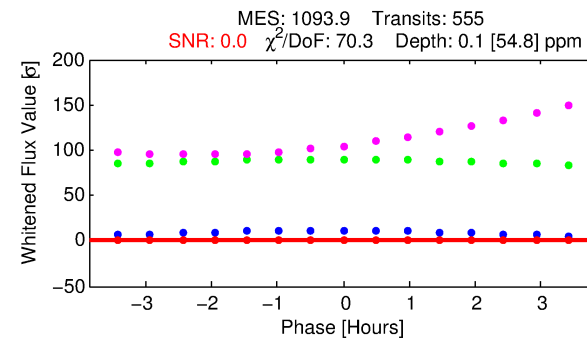
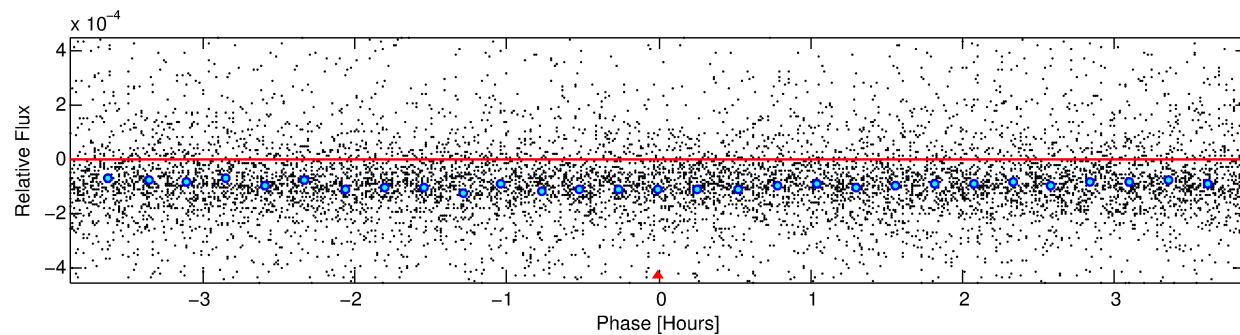
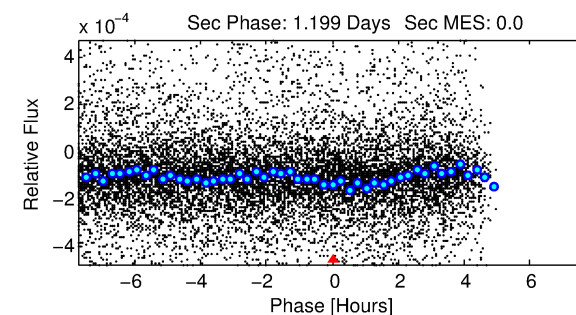
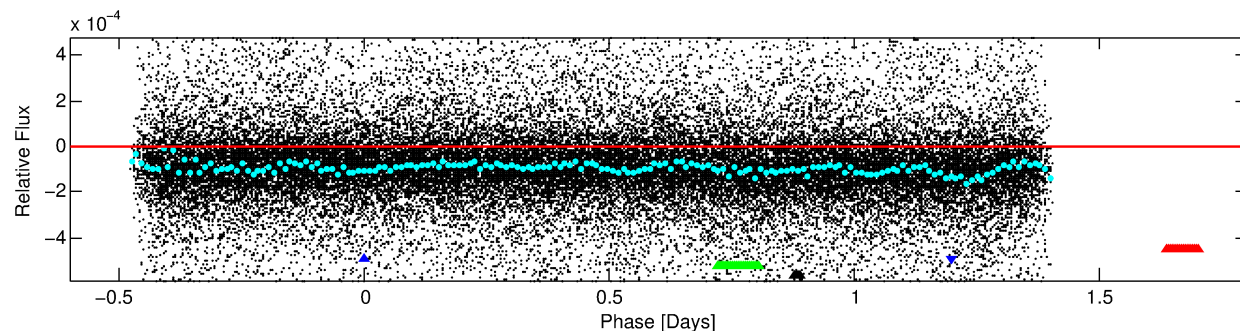
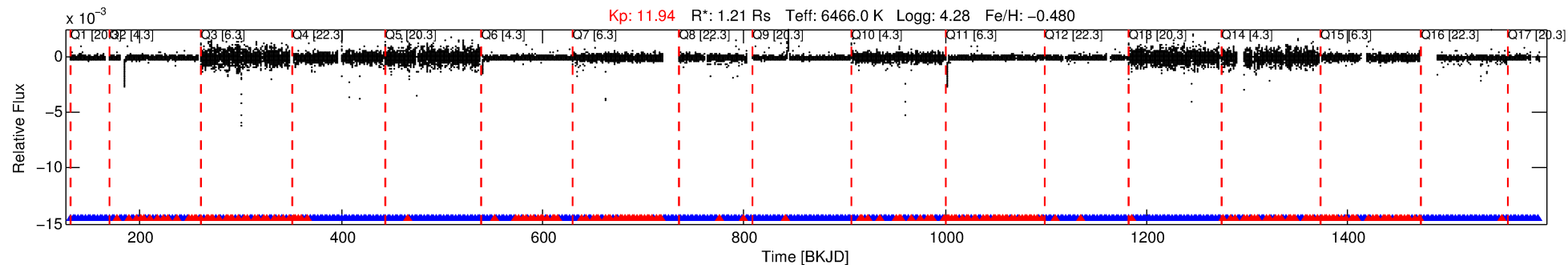
Ephemeris Match Information For 005738698-02

No Significant Match Found

DV One-Page Summary

KIC: 5738698 Candidate: 2 of 4 Period: 2.404 d
KOI: K06134 Corr: No Ephemeris Match

Kp: 11.94 R*: 1.21 Rs Teff: 6466.0 K Logg: 4.28 Fe/H: -0.480



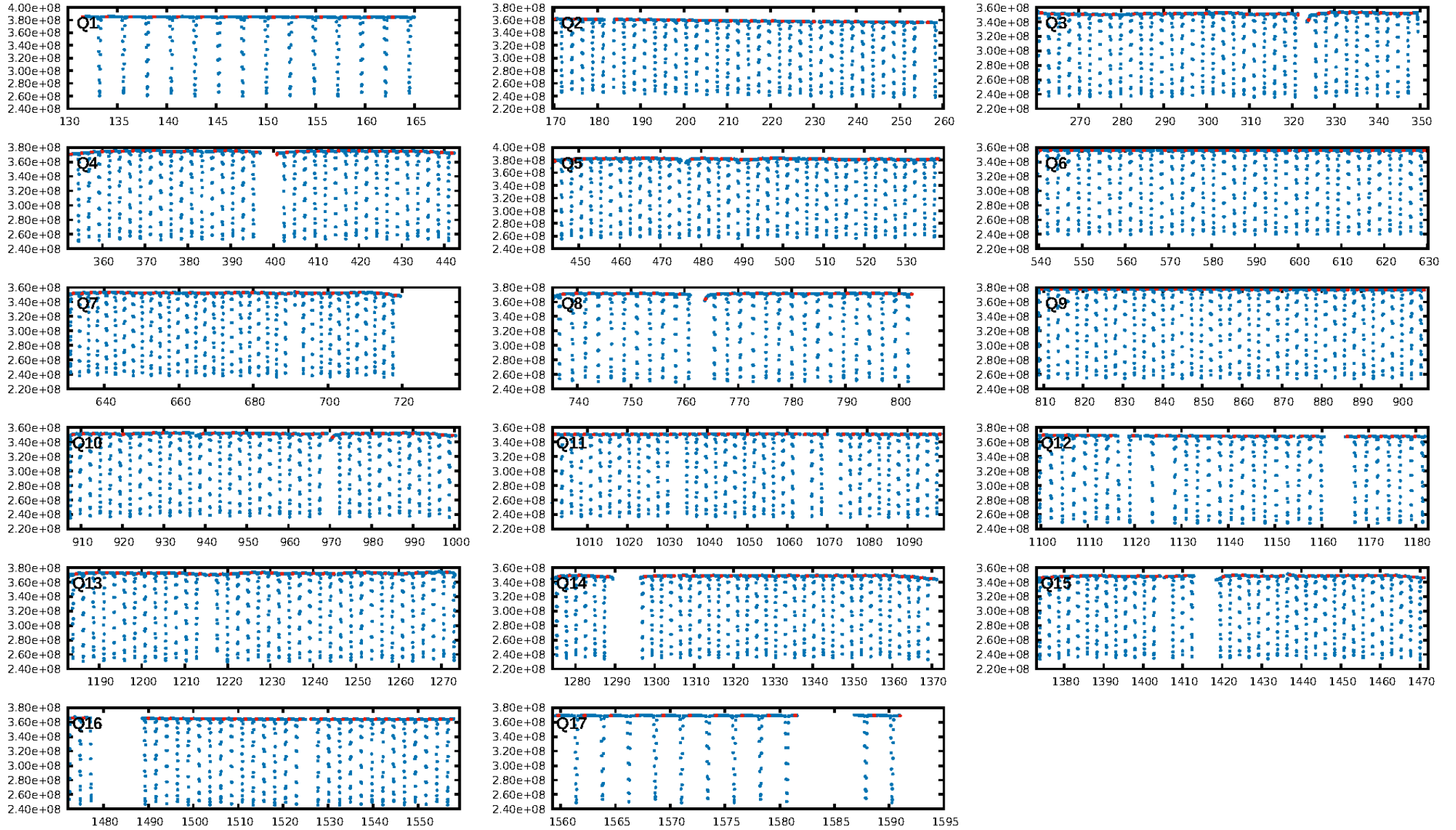
DV Fit Results:

Period = 2.40447 [0.05350] d
Epoch = 131.5157 [9.0220] BKJD
Rp/R* = 0.0003 [0.1015]
a/R* = 5.47 [912.80]
b = 0.93 [34.70]
Seff = 1841.91 [654.74]
Teq = 1670 [148] K
Rp = 0.04 [13.40] Re
a = 0.0353 [0.0083] AU
Ag = N/A
Teffp = N/A

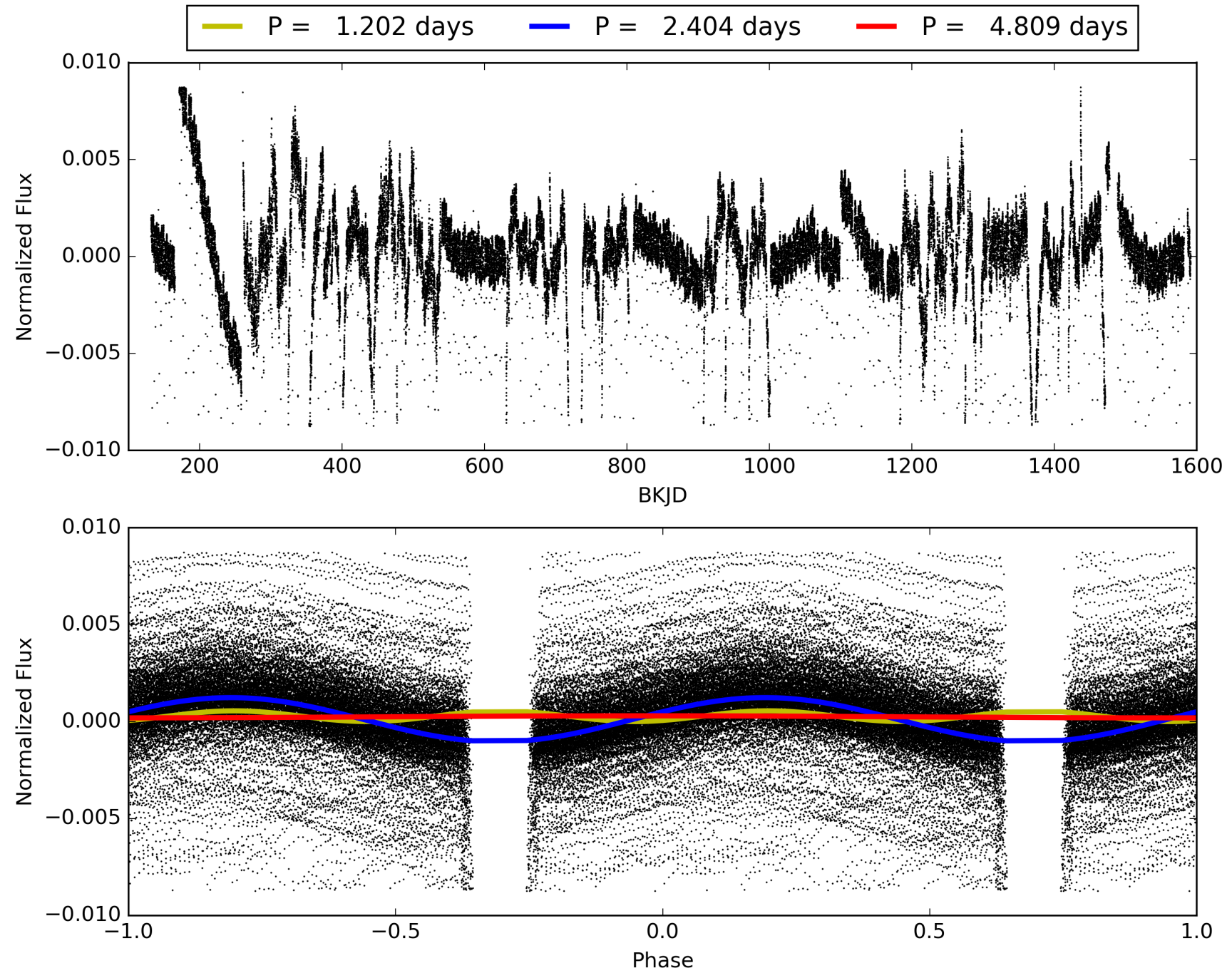
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.65 [346/529]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.348 arcsec [0.25σ]
KicOffset-rm: 0.370 arcsec [0.28σ]
OotOffset-st: 1/3/4/4 [12]
KicOffset-st: 1/3/4/4 [12]
DiffImageQuality-fgm: 0.17 [2/12]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 005738698-02, PDC Light Curves

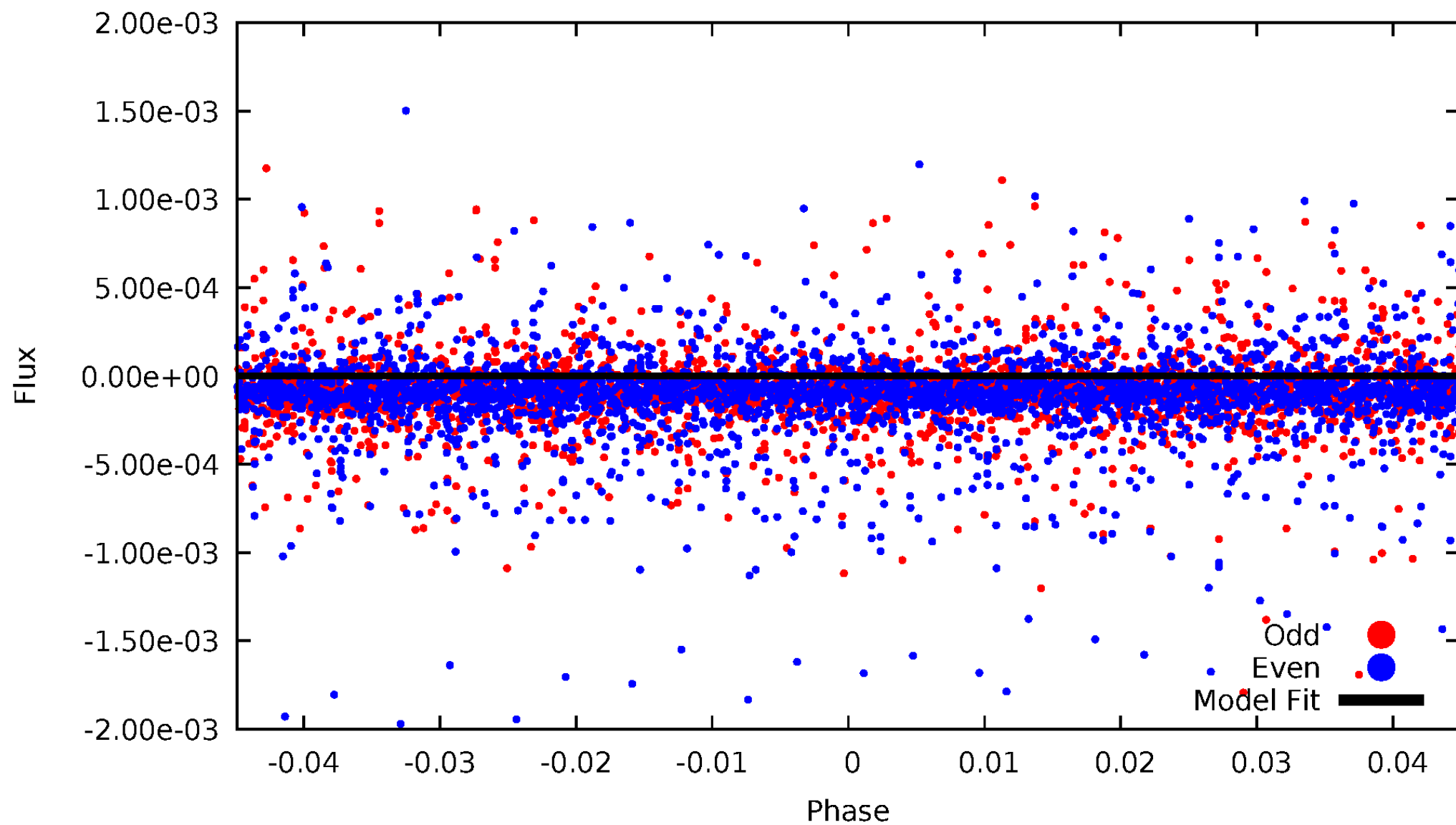


TCE 005738698-02



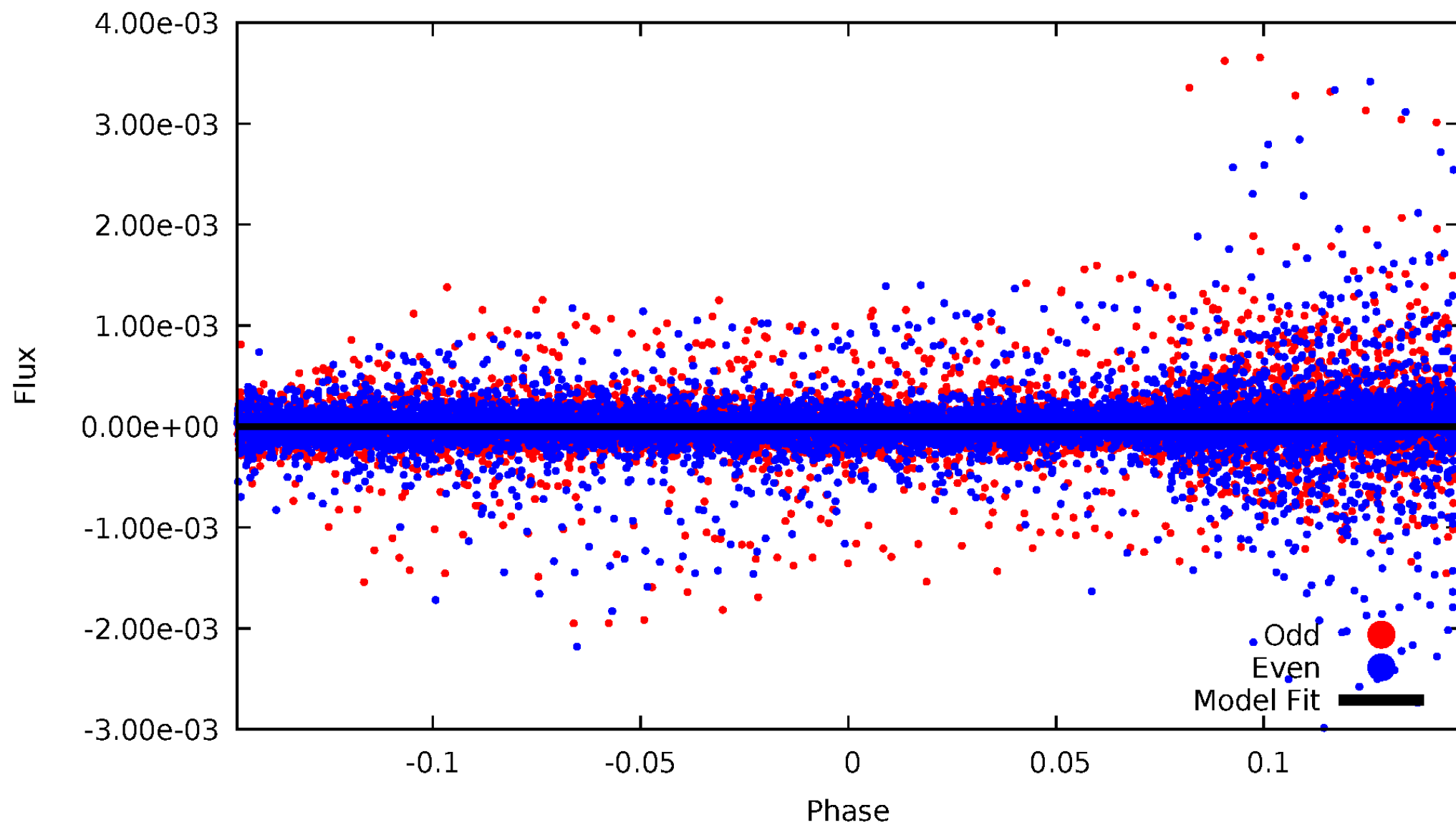
DV Odd/Even

TCE 005738698-02



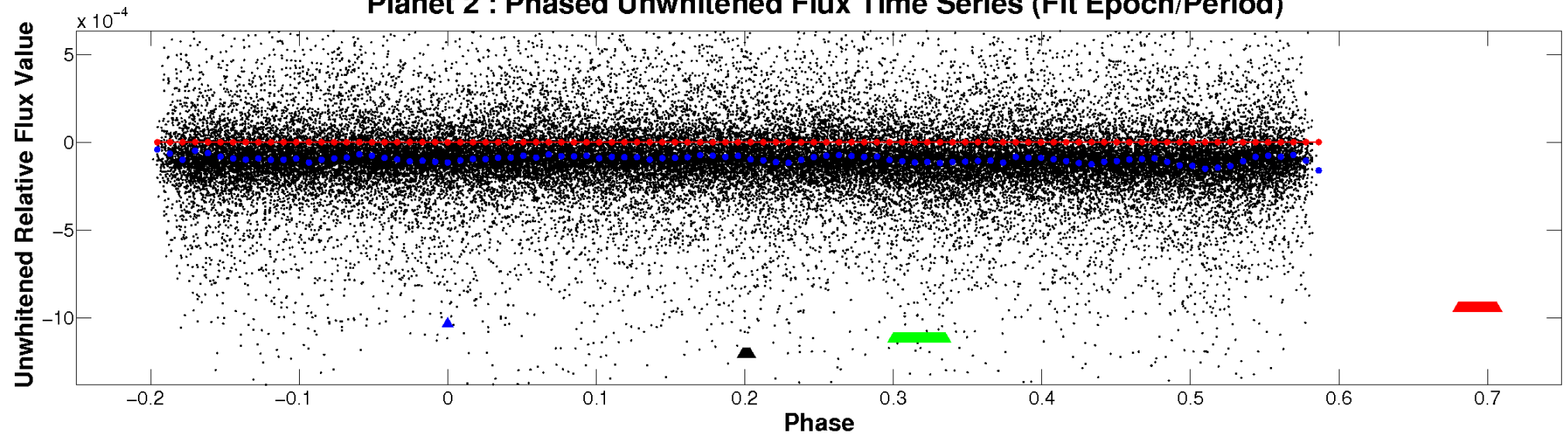
ALT Odd/Even

TCE 005738698-02

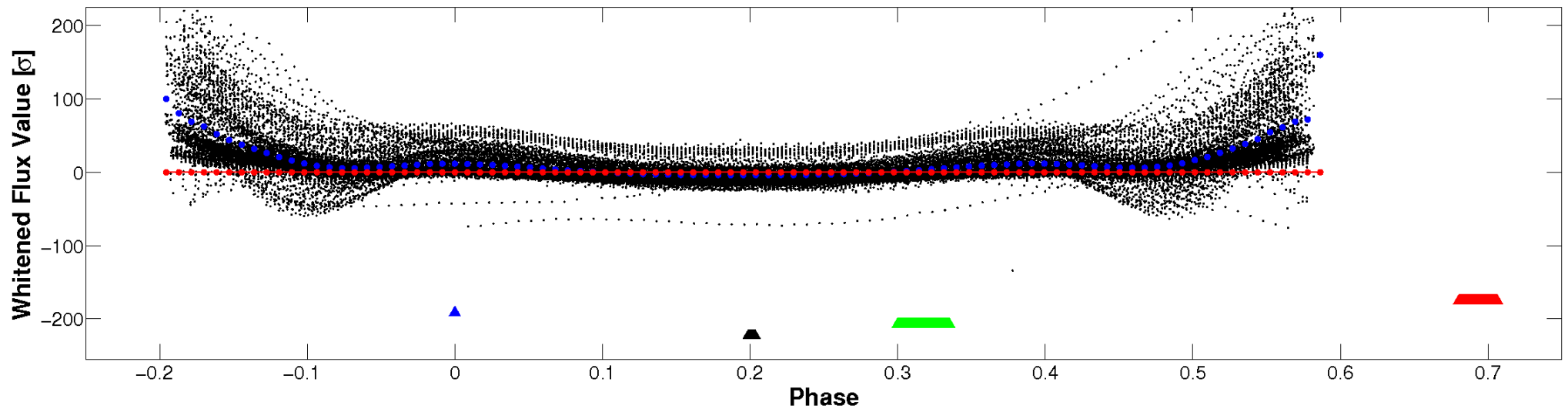


Non-Whitened Vs. Whitened Light Curve

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

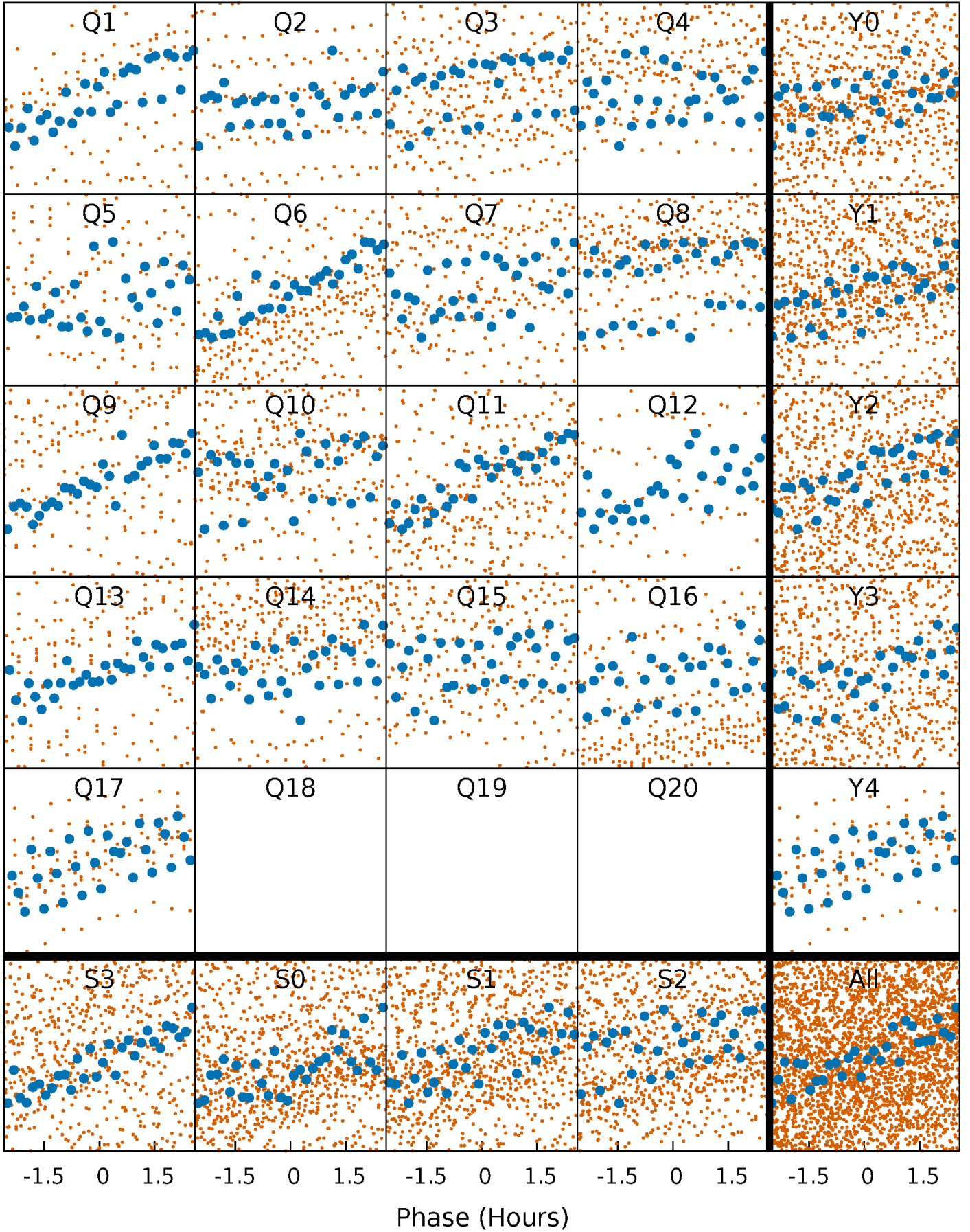


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



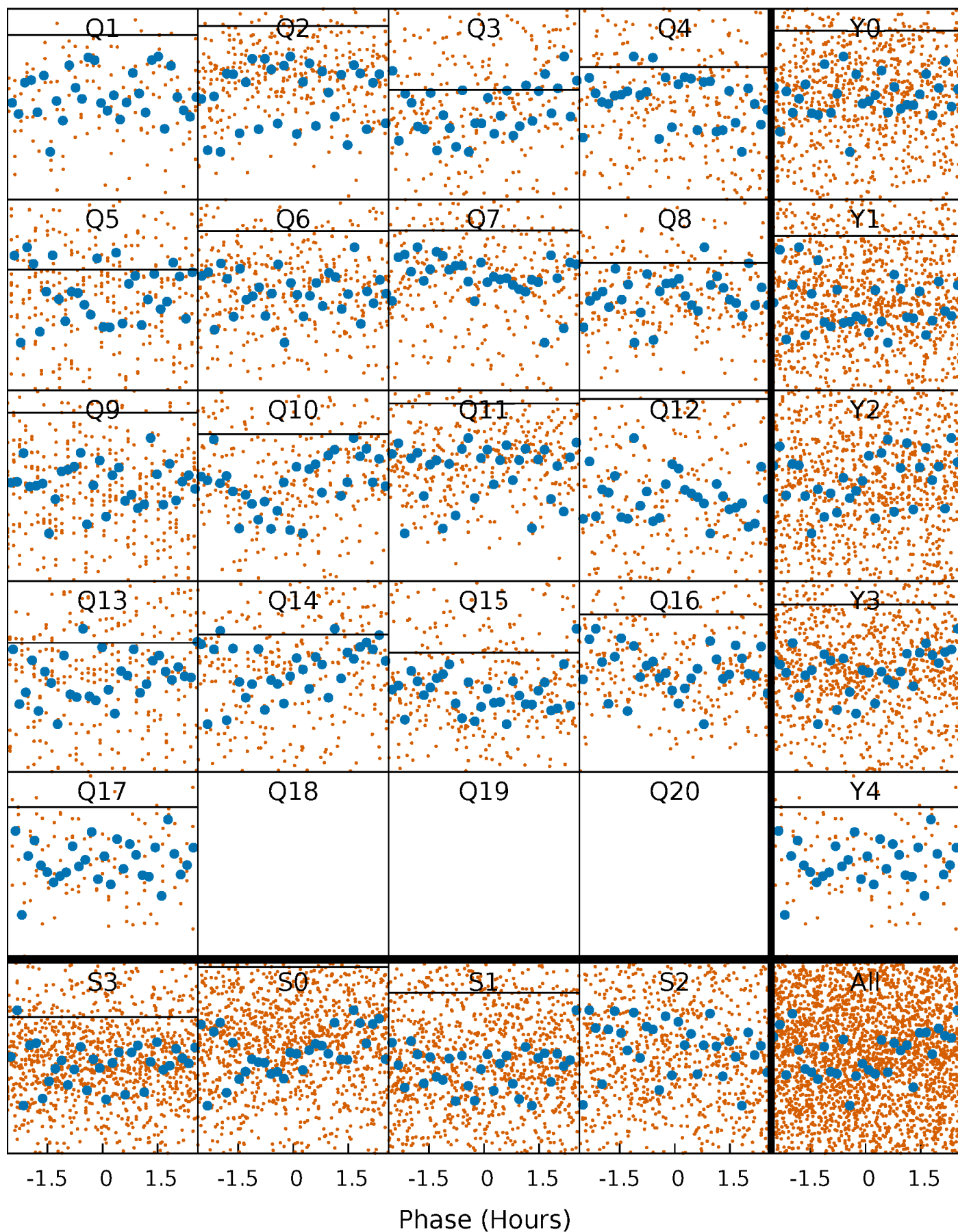
PDC Quarter-Phased Transit Curves

TCE 005738698-02 P= 2.404469 Days $T_0=131.515682$ (BKJD)



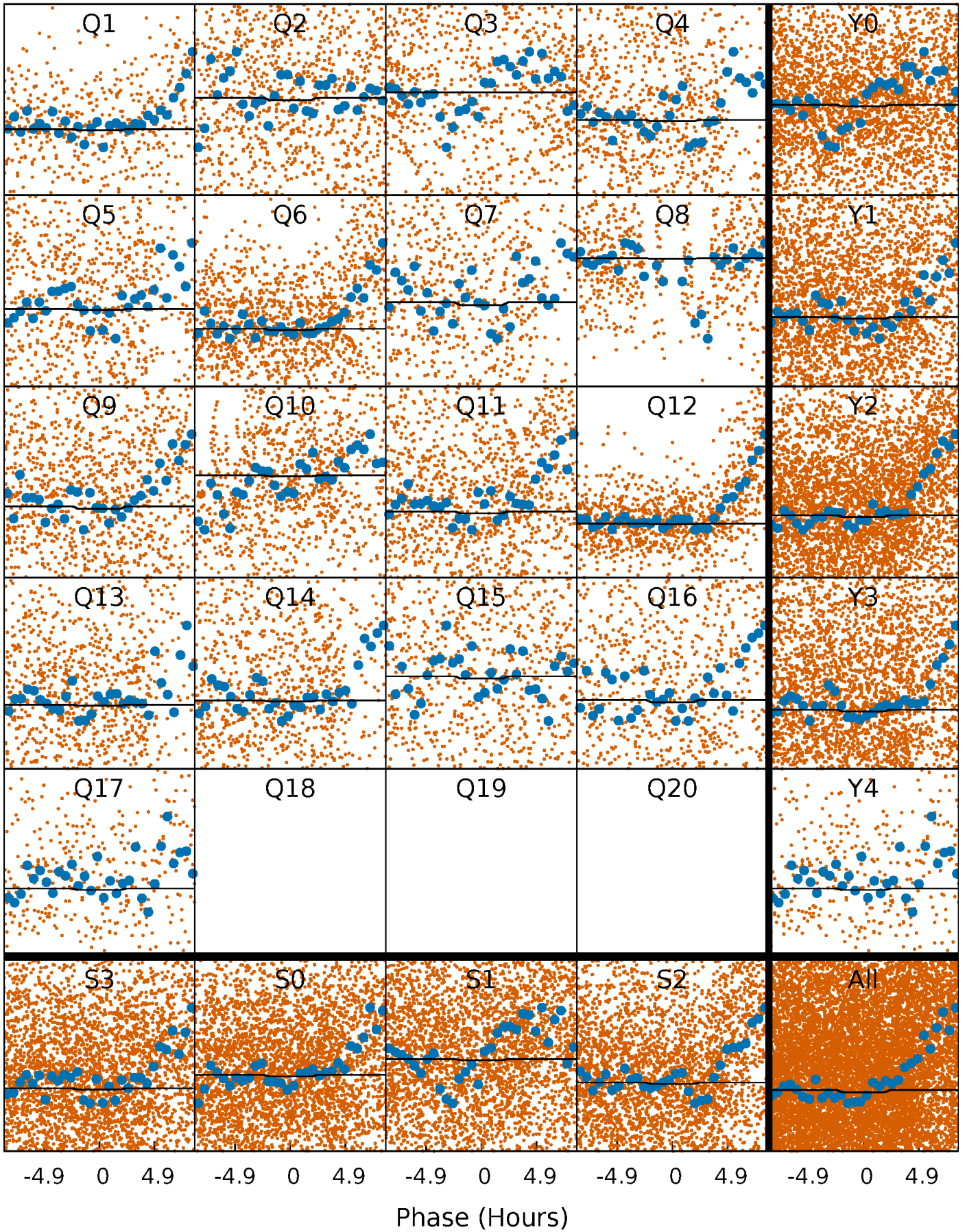
DV Quarter-Phased Transit Curves

TCE 005738698-02 P= 2.404469 Days $T_0=131.515682$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

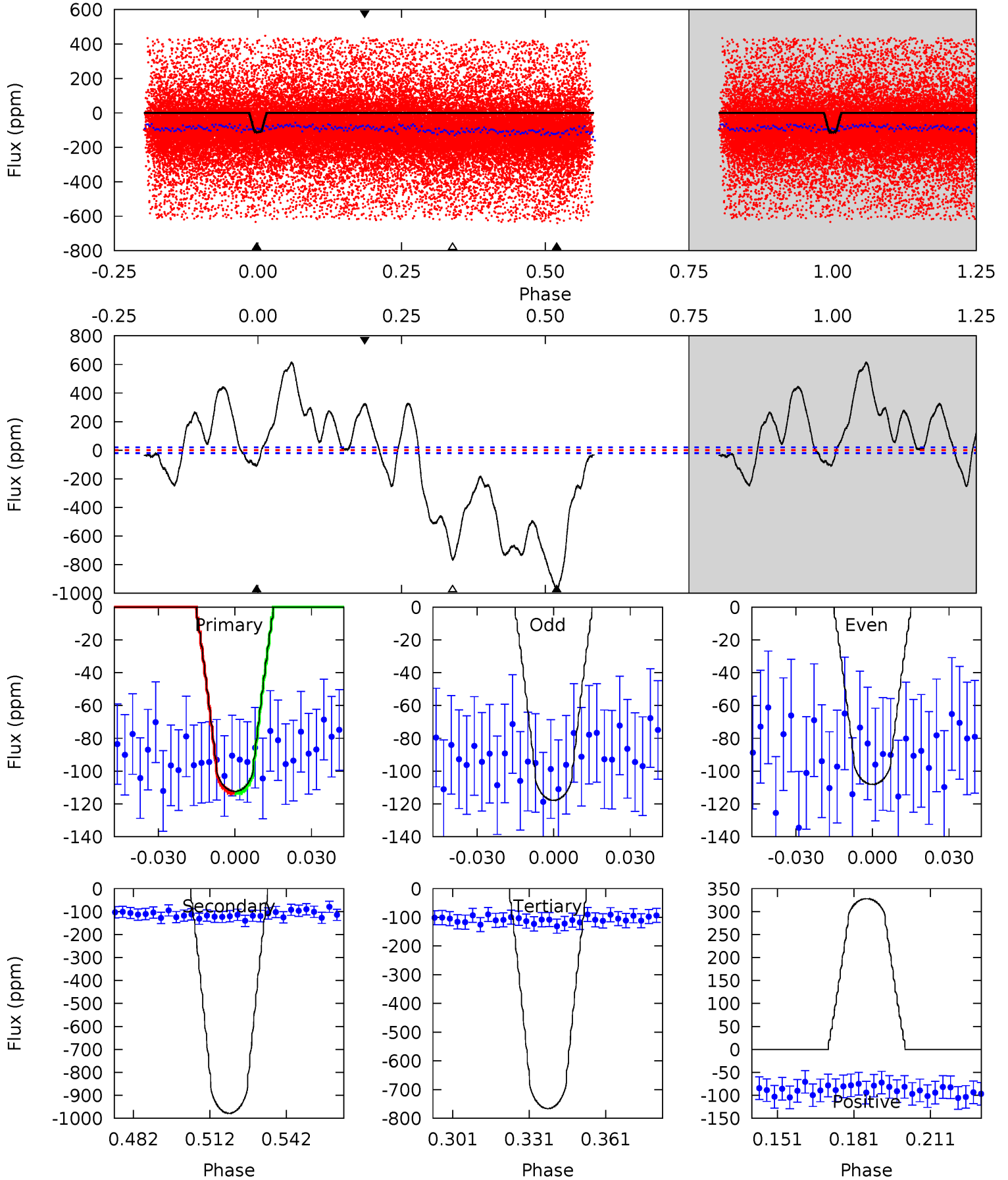
TCE 005738698-02 $P = 2.404450$ Days $T_0 = 131.514802$ (BKJD)



DV Model-Shift Uniqueness Test

005738698-02, P = 2.404469 Days, E = 129.111213 Days

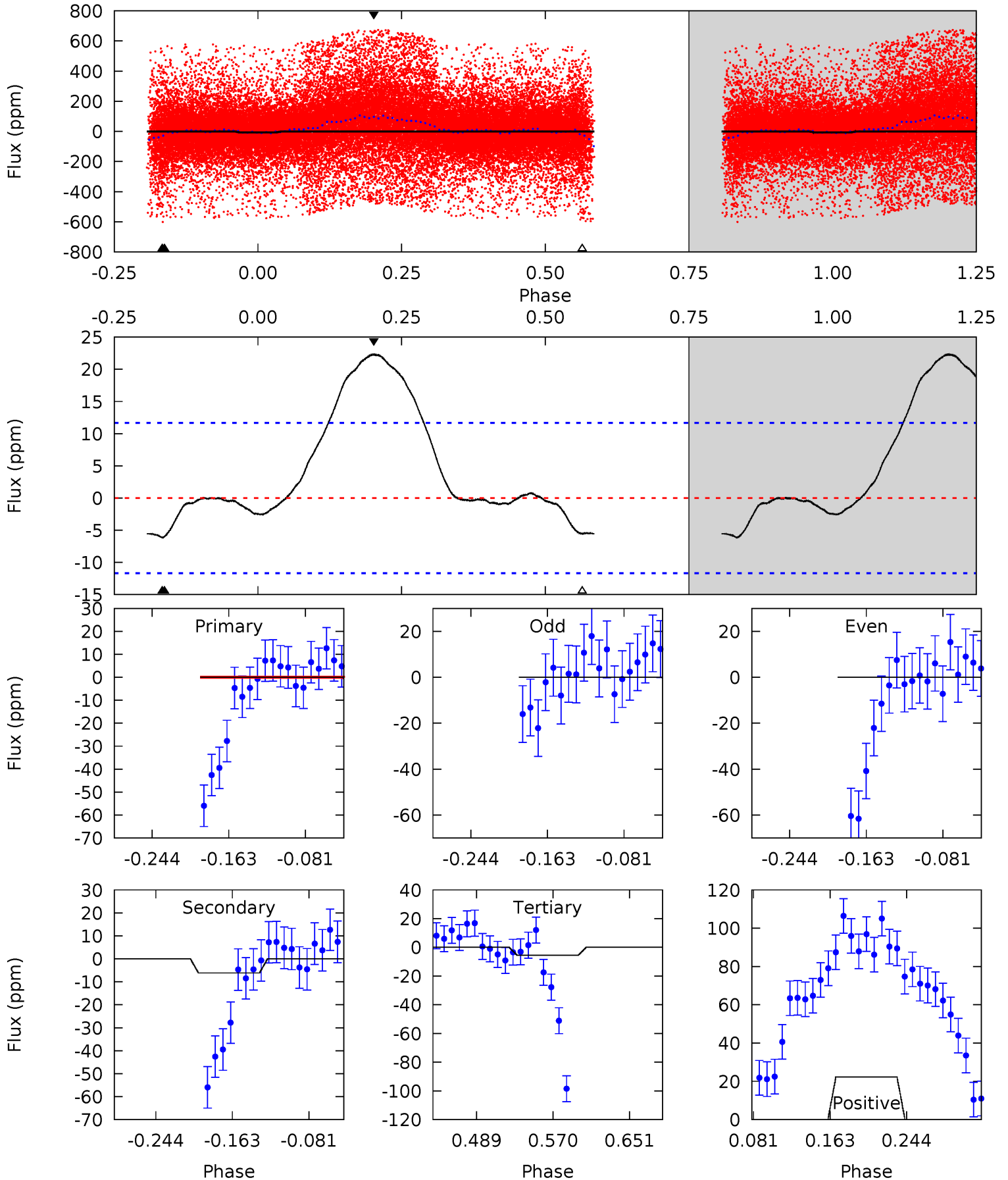
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
25.9	225.5	176.6	75.6	4.81	2.17	83.0	-150.7	-49.7	48.9	149.9	1.14	1.23	0.39	0.00



Alt Model-Shift Uniqueness Test

005738698-02, P = 2.404450 Days, E = 129.110352 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.36	2.43	2.19	8.80	4.61	1.74	3.30	0.17	-6.44	0.24	-6.38	0.91	2.83	0.78	0.88



Stellar Parameters For KIC 005738698

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6466^{+145}_{-178}	$4.278^{+0.165}_{-0.182}$	$-0.480^{+0.300}_{-0.300}$	$1.210^{+0.341}_{-0.227}$	$1.011^{+0.146}_{-0.106}$	$0.804^{+0.601}_{-0.401}$
	+2%/-3%	+4%/-4%	+62%/-62%	+28%/-19%	+14%/-10%	+75%/-50%
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 005738698-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-979 ± 4	$9.30^{+10.13}_{-6.61}$	2325^{+167}_{-143}	4438^{+3789}_{-1070}	$7.625^{+83.908}_{-5.804}$
Alt.	-6 ± 3	$9.26^{+10.23}_{-6.80}$	2342^{+162}_{-136}	-2607^{+5225}_{-138}	$0.046^{+0.561}_{-0.037}$

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

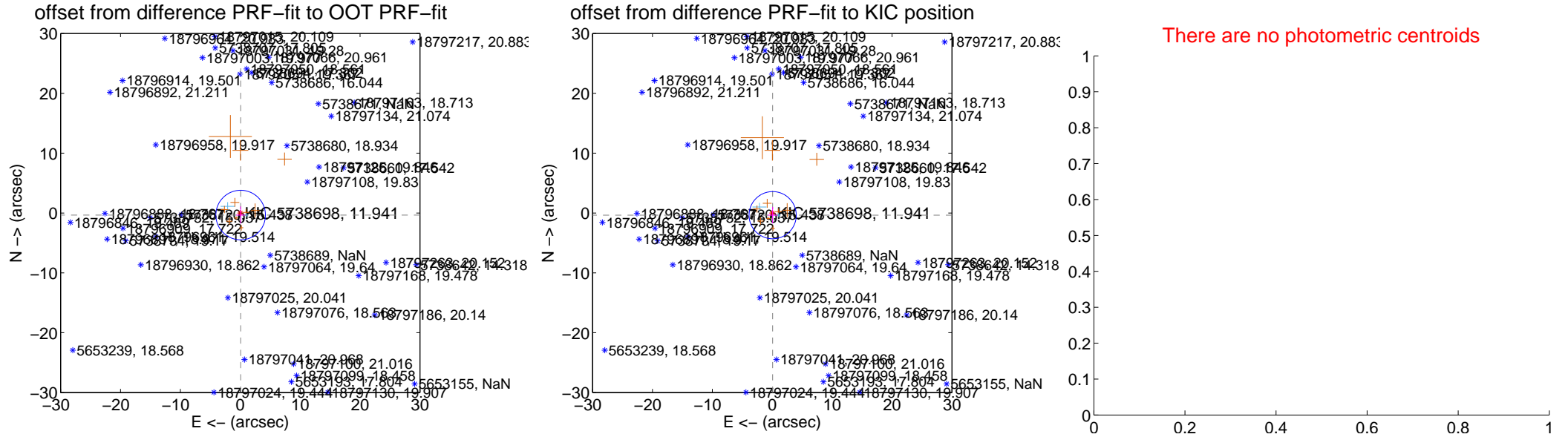
DV Centroid Data

Supplemental centroid analysis for 005738698-02. **Kepler magnitude: 11.94.** Transit SNR 0.02

There are 2 quarters with good PRF difference image offsets

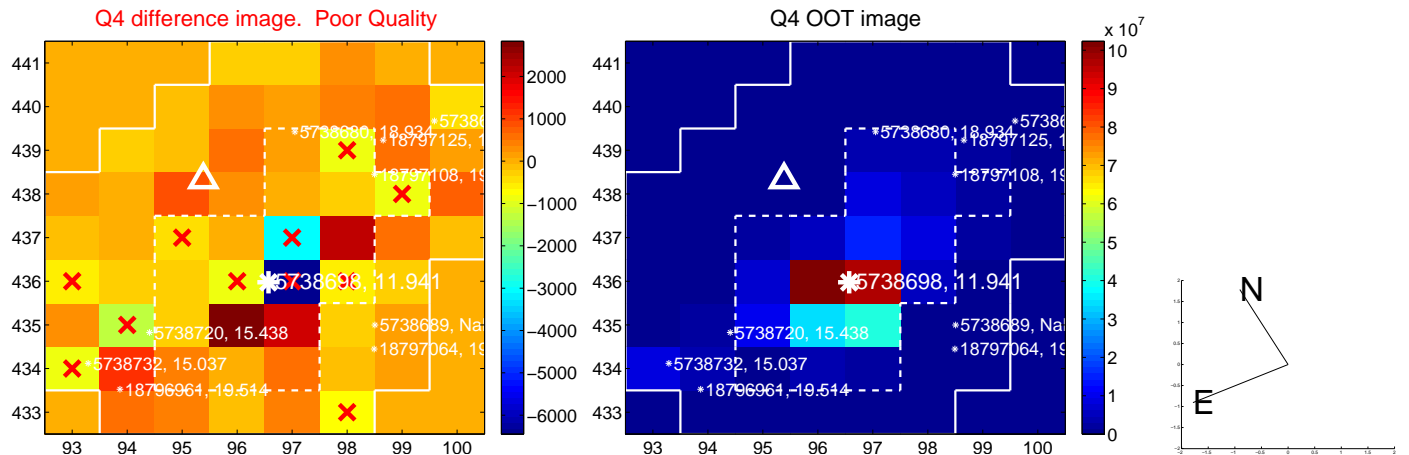
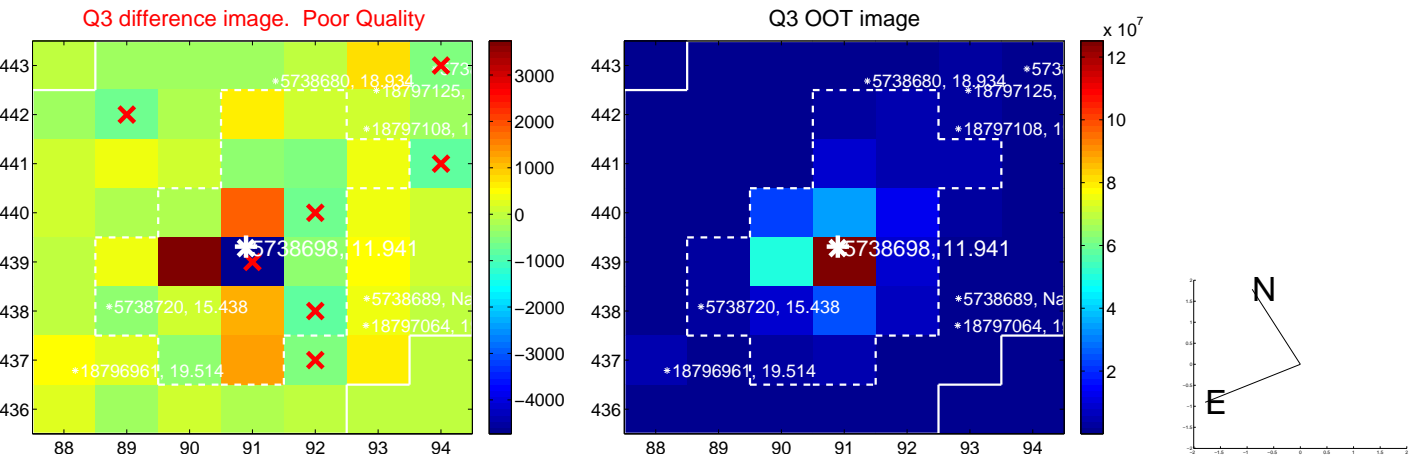
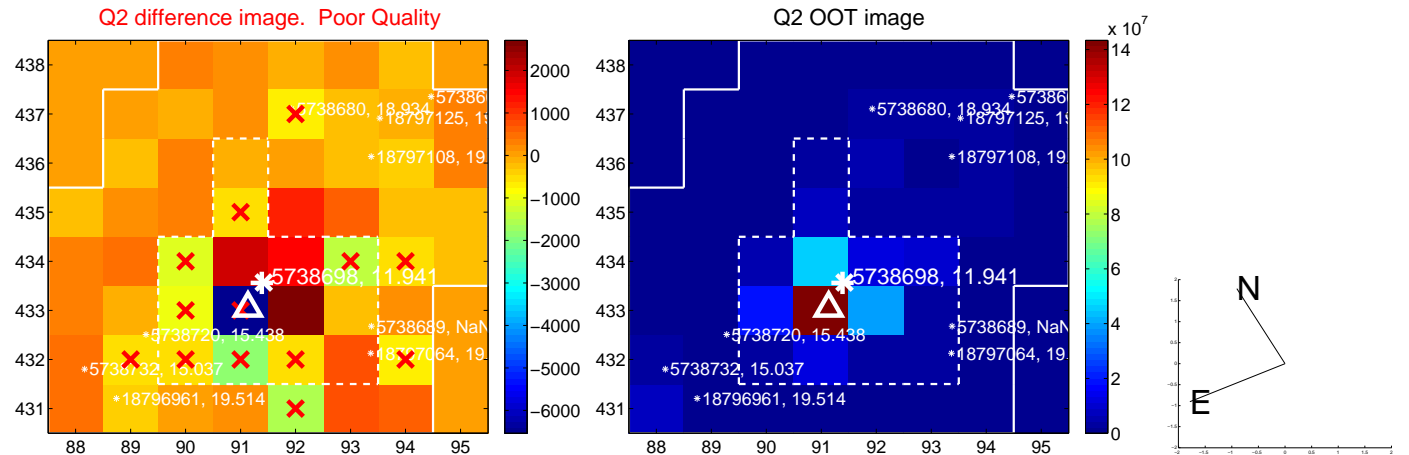
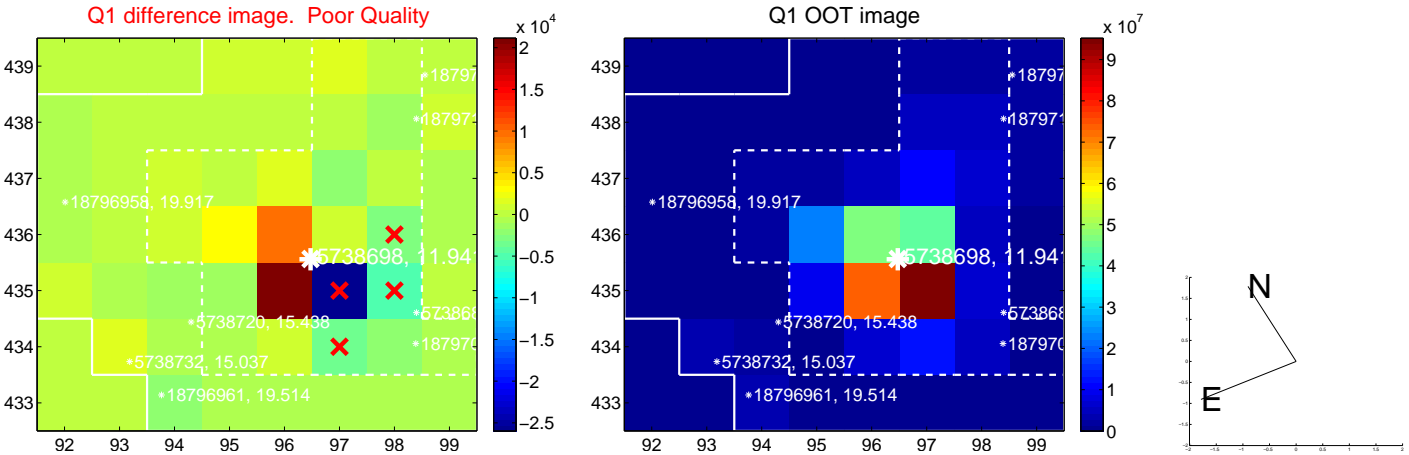
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.348 ± 1.380	0.25	-0.062 ± 0.766	-0.342 ± 1.444
PRF-fit source offset from KIC position	0.370 ± 1.314	0.28	-0.067 ± 0.798	-0.363 ± 1.375
photometric centroid source offset	—	—	—	—

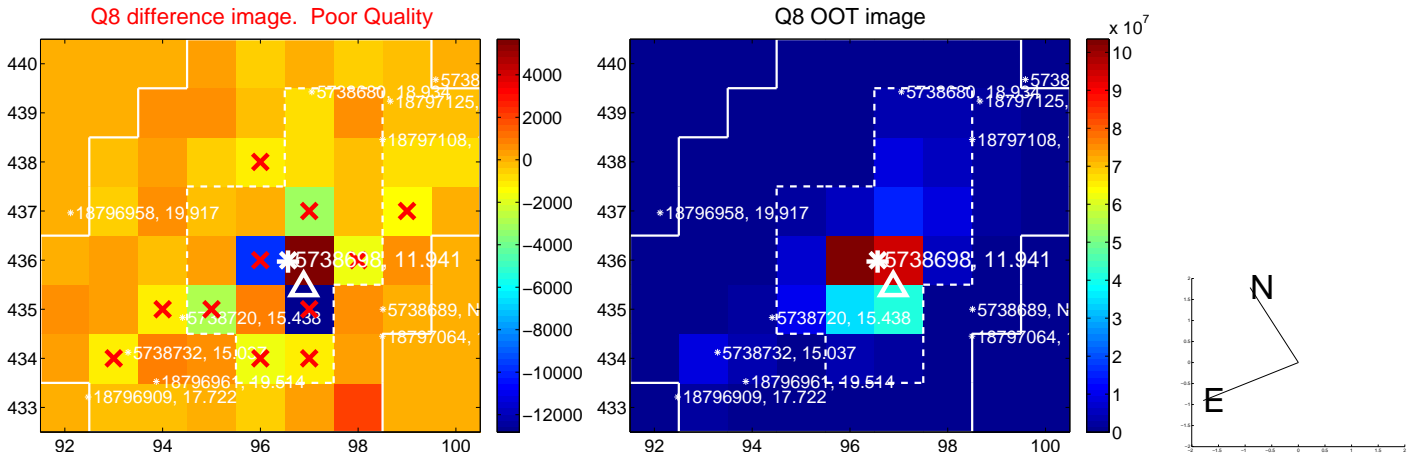
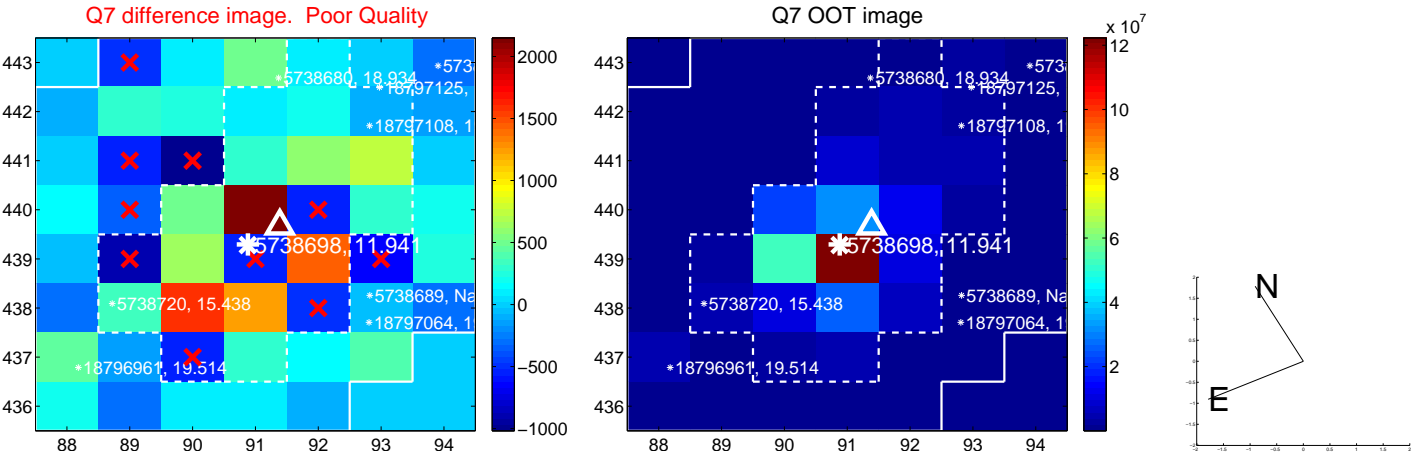
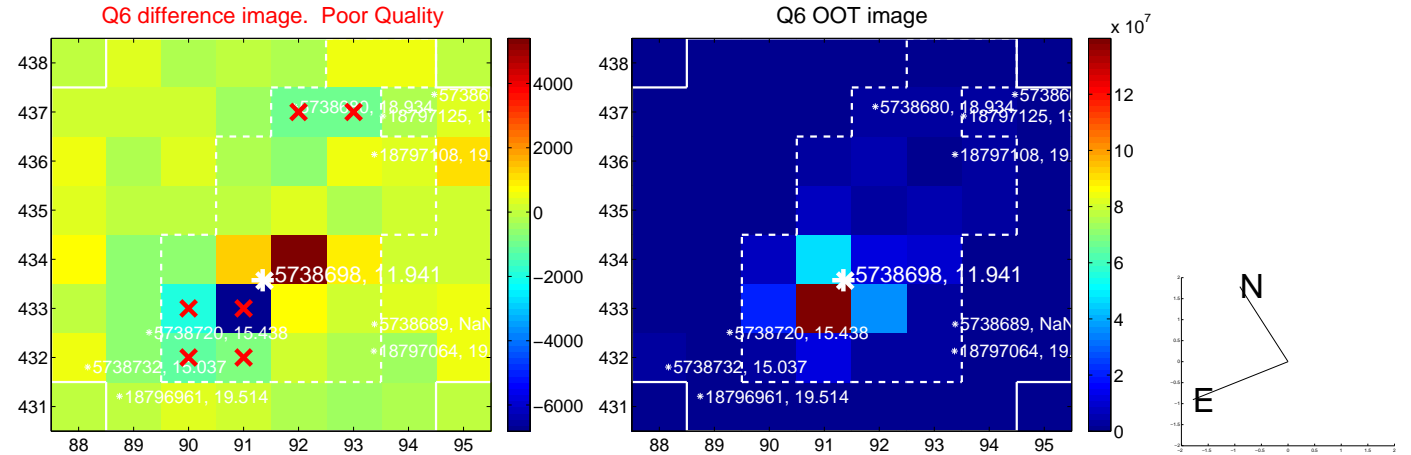
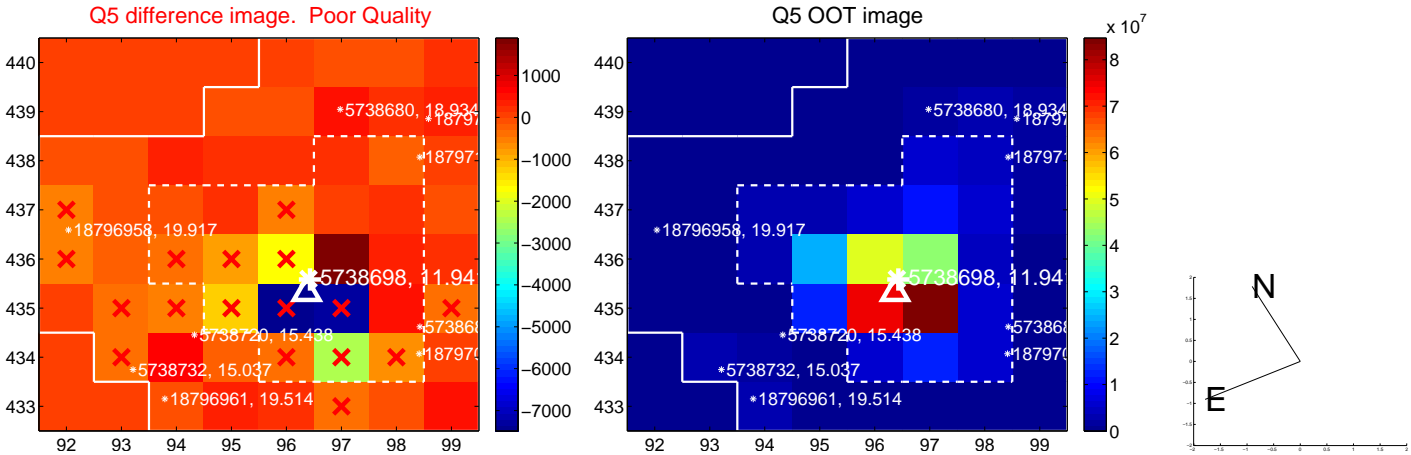


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

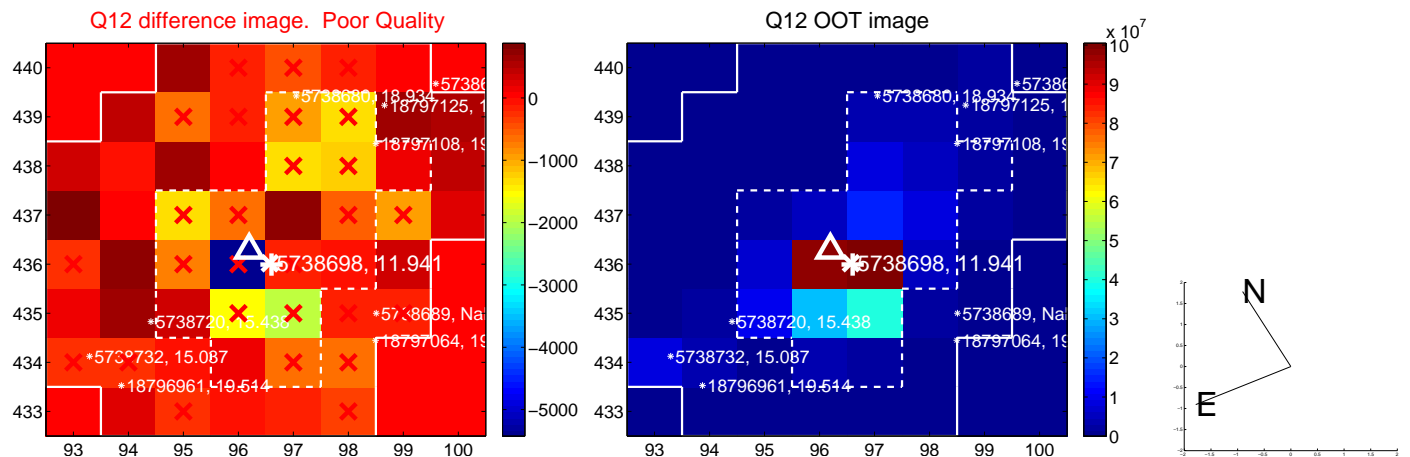
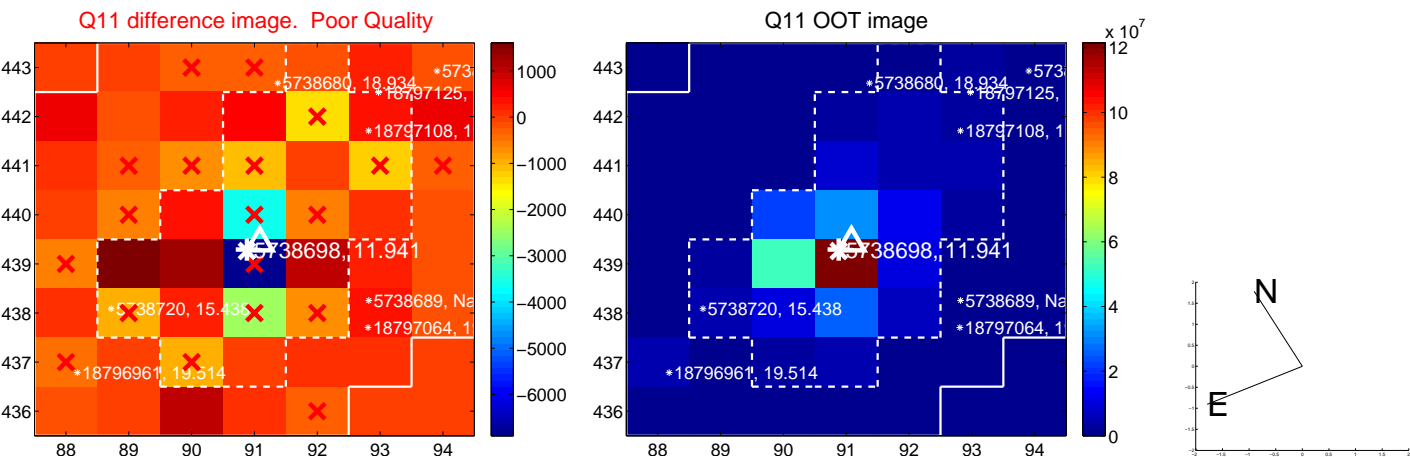
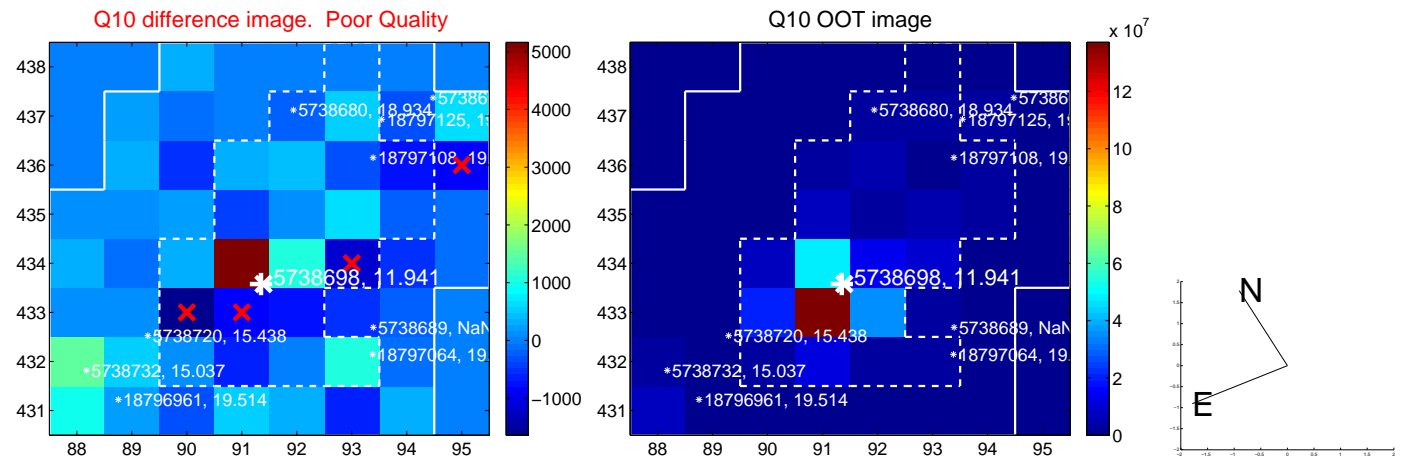
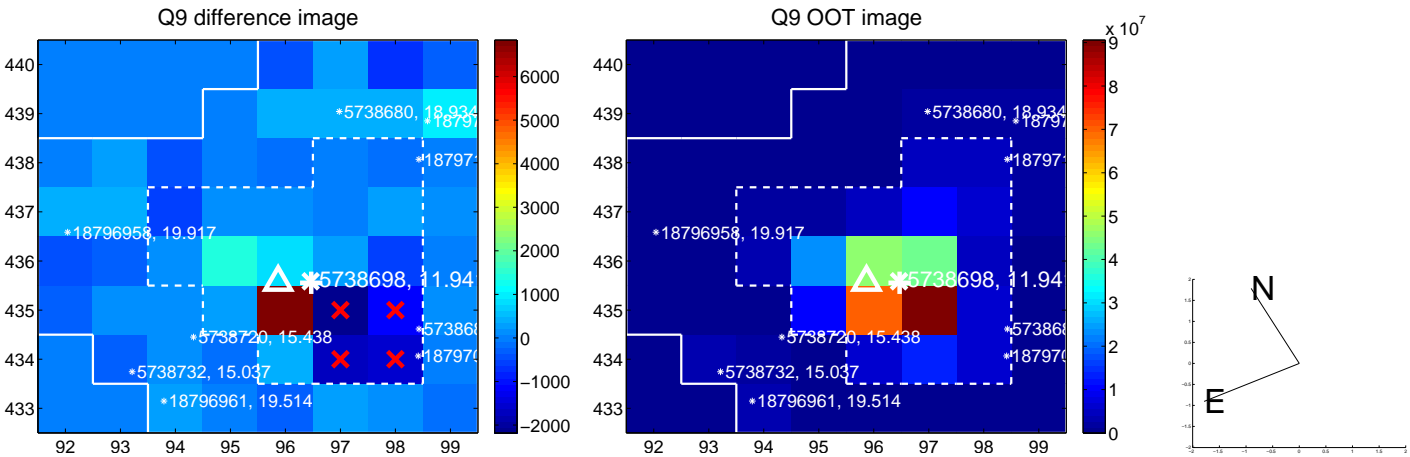
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



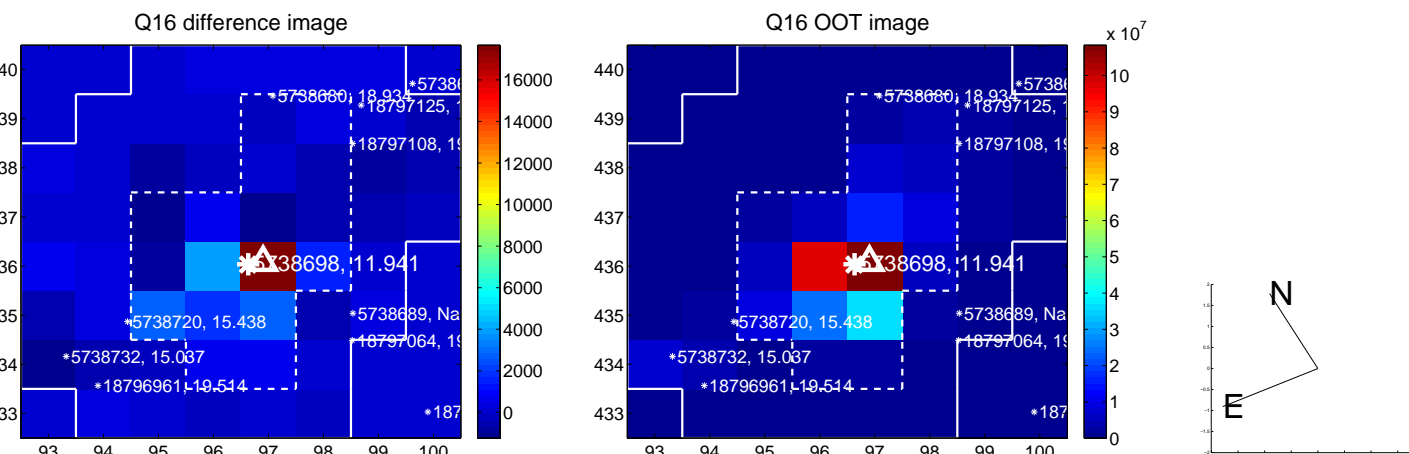
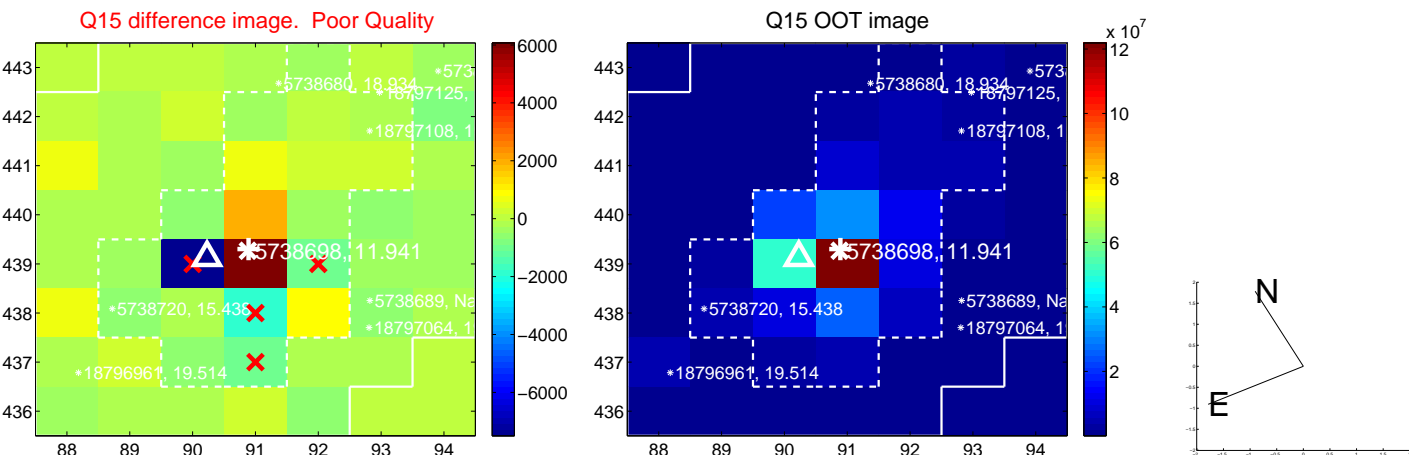
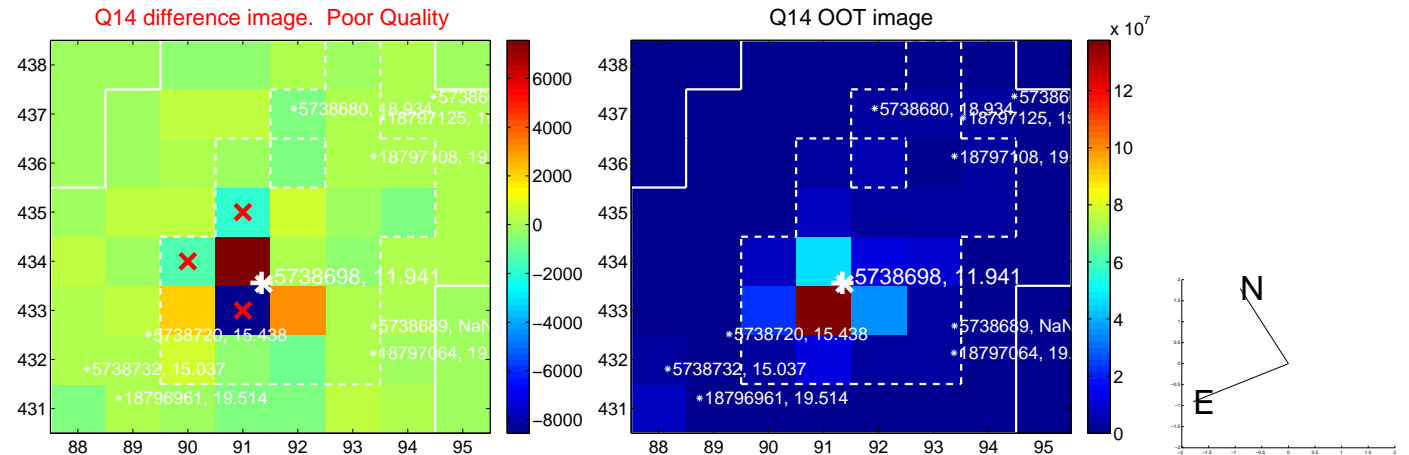
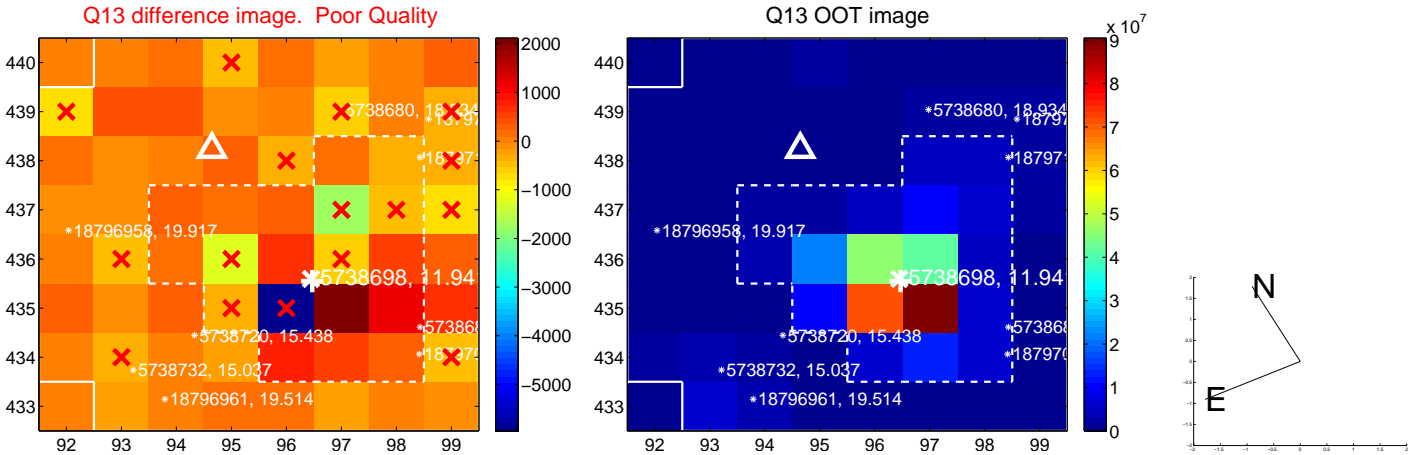
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



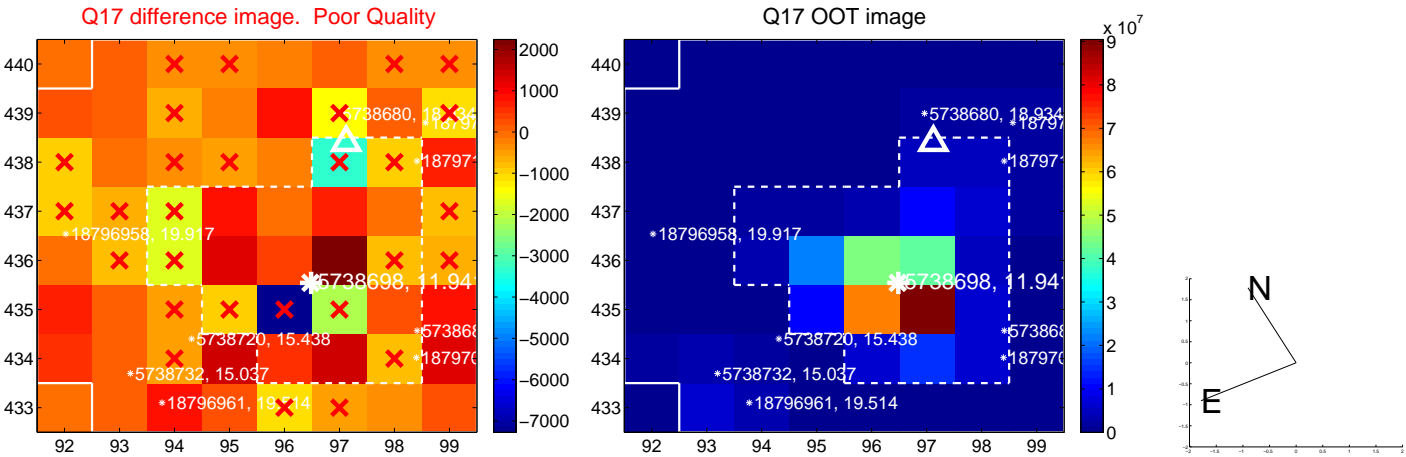
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



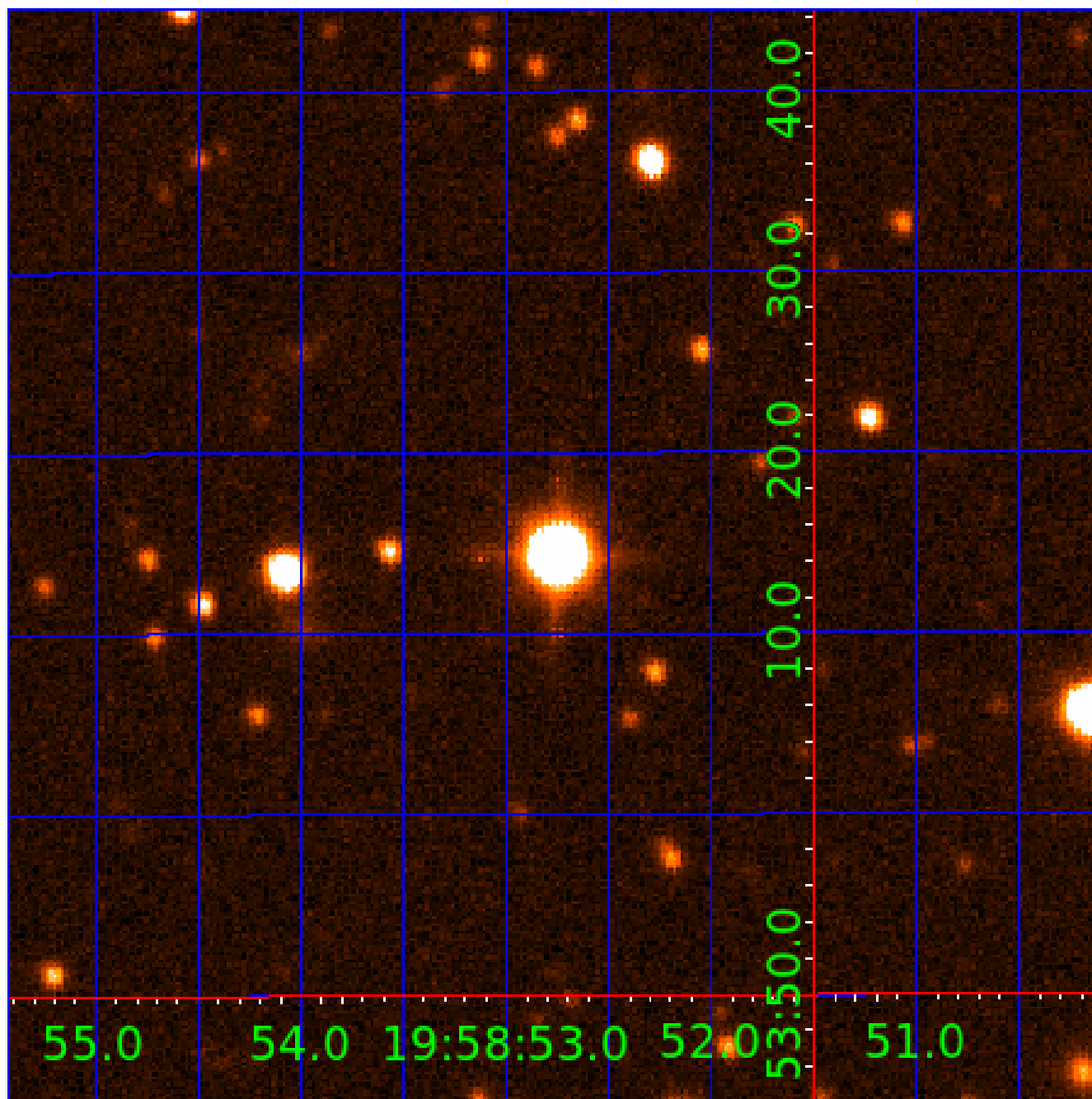
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005738698

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})
005738698-01	OBS	6134.01	2.404366	133.213790	316964.8	4.500	47019.3	-1.0	1.21	6466	46.42	1842.02
005738698-02	OBS	No	2.404469	131.515682	0.1	1.295	1093.9	0.0	1.21	6466	0.04	1841.91
005738698-03	OBS	No	2.404330	132.321309	0.0	0.984	1084.3	0.0	1.21	6466	0.02	1842.05
005738698-04	OBS	No	2.404450	132.004805	3037.1	9.000	1106.8	-1.0	1.21	6466	6.71	1841.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005738698-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005738698-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005738698-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
005738698-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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 005738698-03

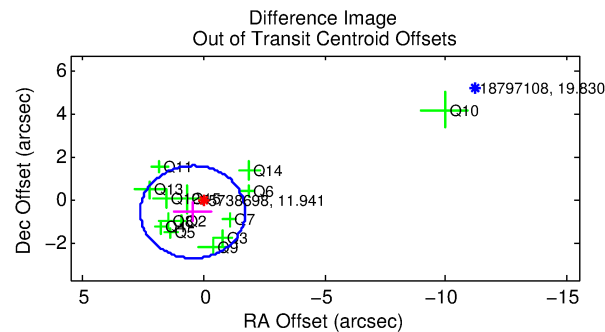
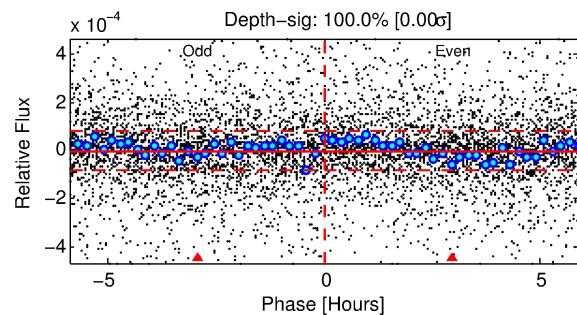
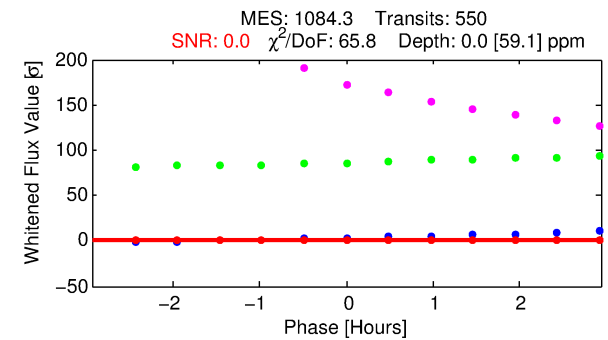
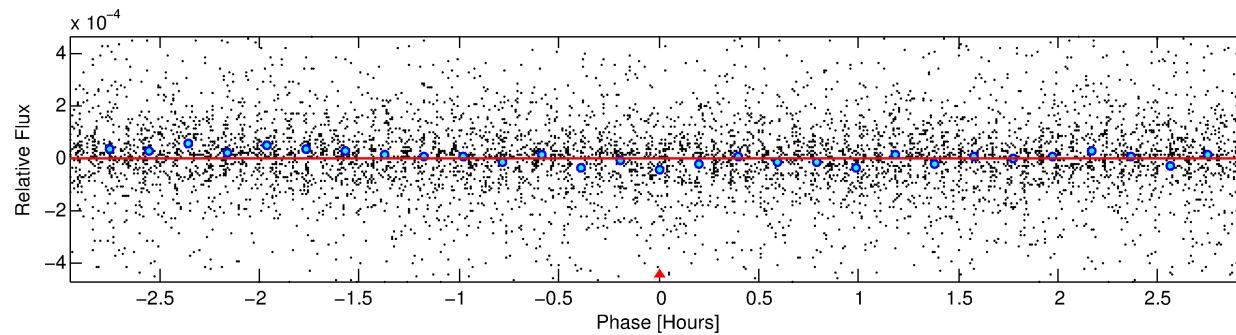
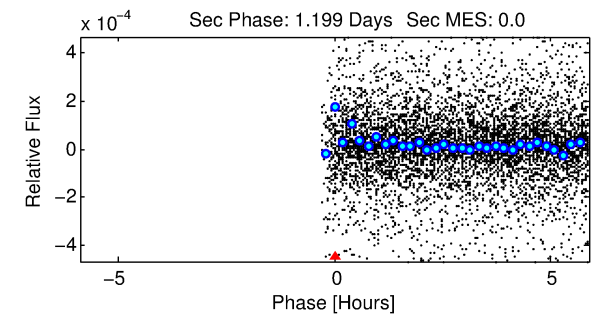
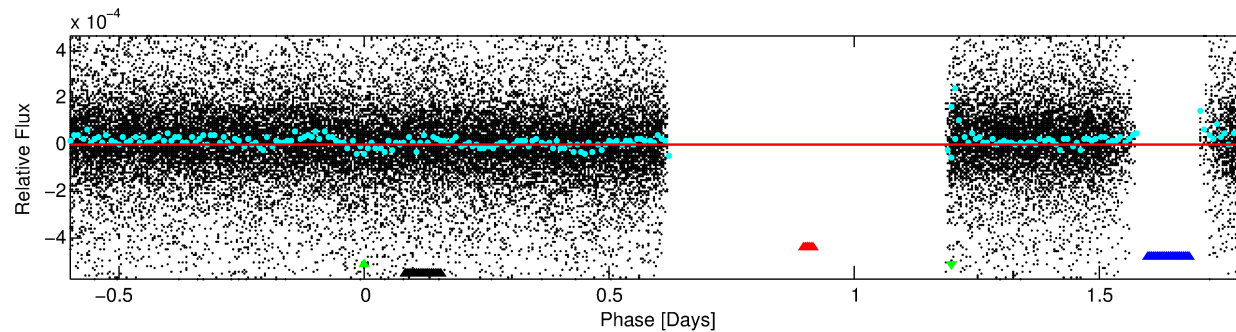
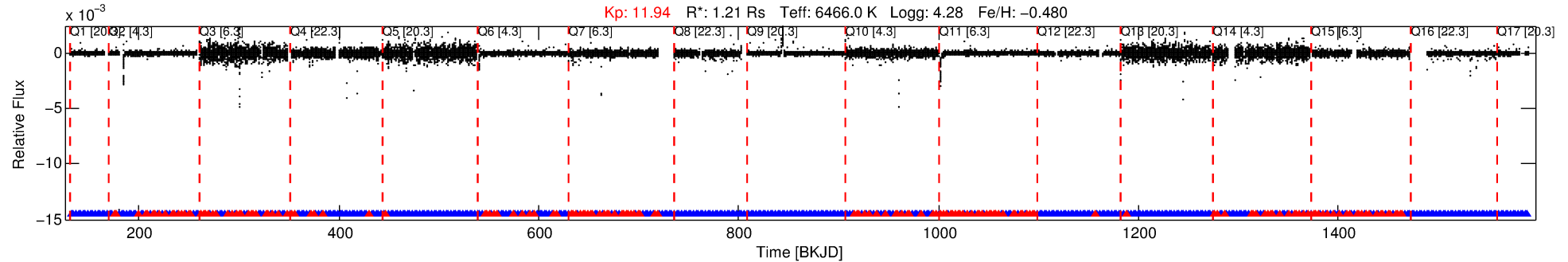
No Significant Match Found

DV One-Page Summary

KIC: 5738698 Candidate: 3 of 4 Period: 2.404 d

KOI: K06134 Corr: No Ephemeris Match

Kp: 11.94 R*: 1.21 Rs Teff: 6466.0 K Logg: 4.28 Fe/H: -0.480



DV Fit Results:

Period = 2.40433 [0.21464] d
Epoch = 132.3213 [32.7357] BKJD
Rp/R* = 0.0002 [0.2251]
a/R* = 6.29 [3031.85]
b = 0.94 [79.21]
Seff = 1842.05 [688.36]
Teff = 1671 [156] K
Rp = 0.02 [29.73] Re
a = 0.0353 [0.0085] AU
Ag = N/A
Teffp = N/A

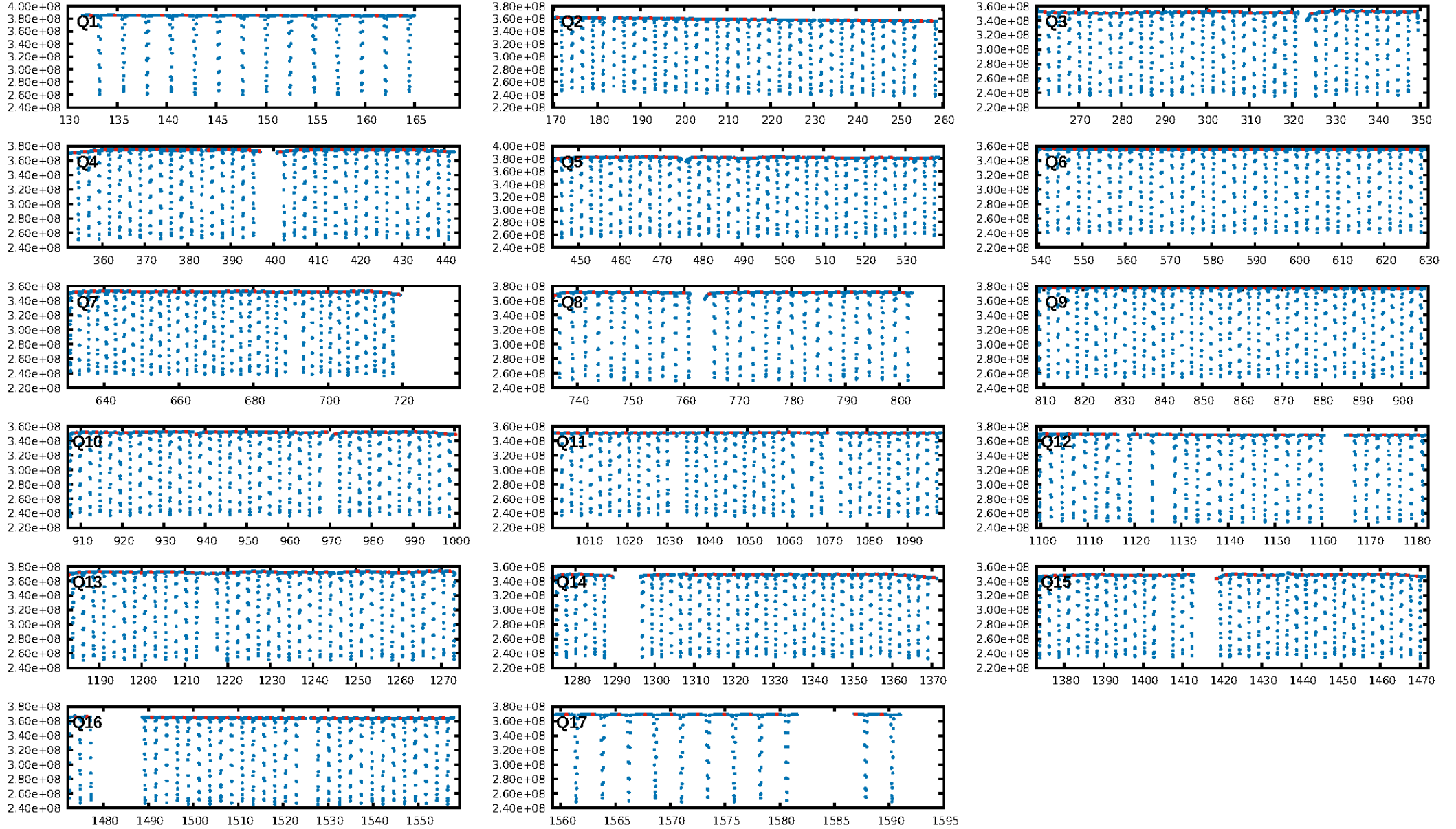
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.69 [361/525]
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: 0.729 arcsec [1.01σ]
KicOffset-rm: 0.745 arcsec [1.07σ]
OotOffset-st: 4/4/3/3 [14]
KicOffset-st: 4/4/3/3 [14]
DiffImageQuality-fgm: 0.00 [0/14]
DiffImageOverlap-fno: 0.00 [0/17]

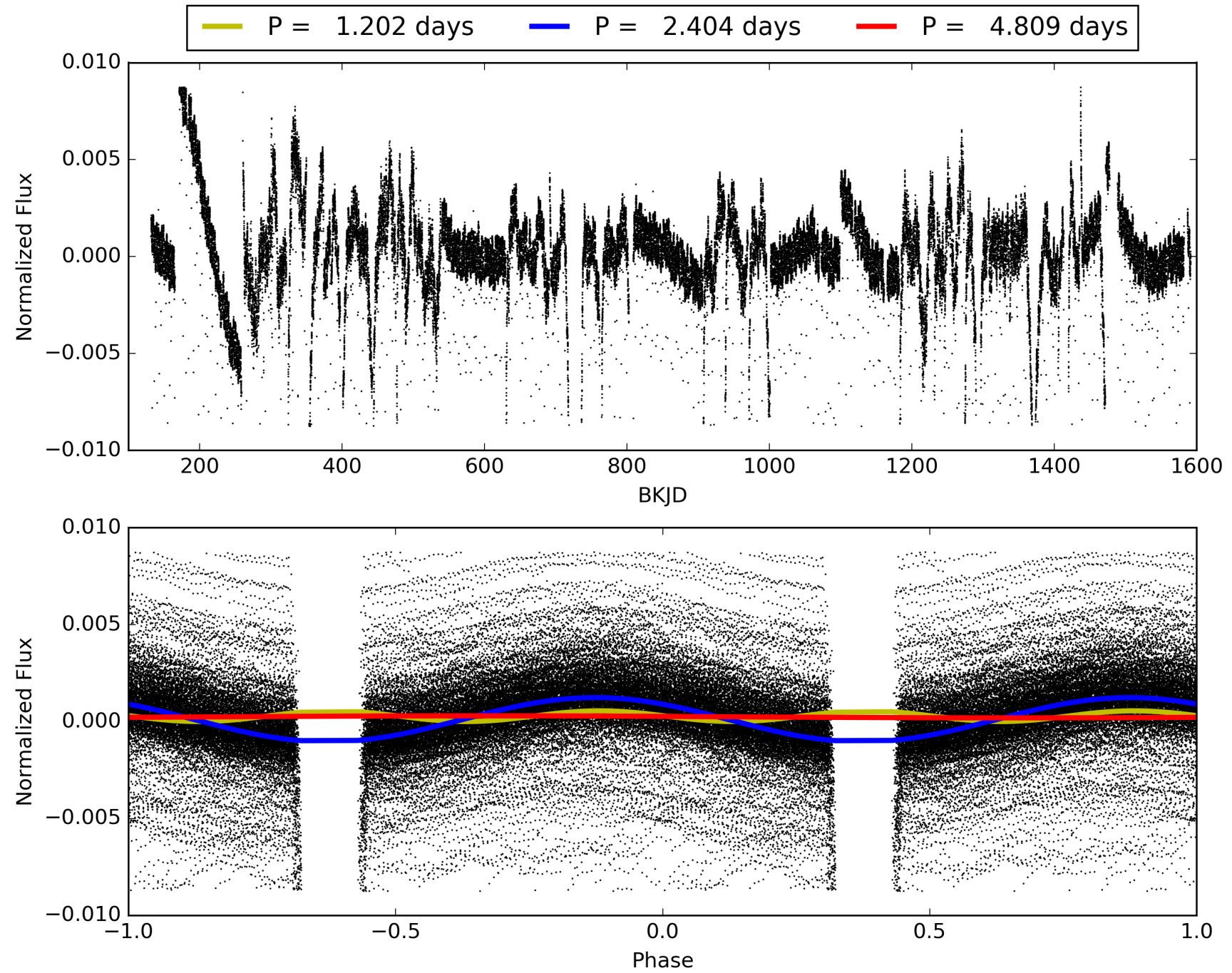
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:18:59 Z

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

TCE 005738698-03, PDC Light Curves

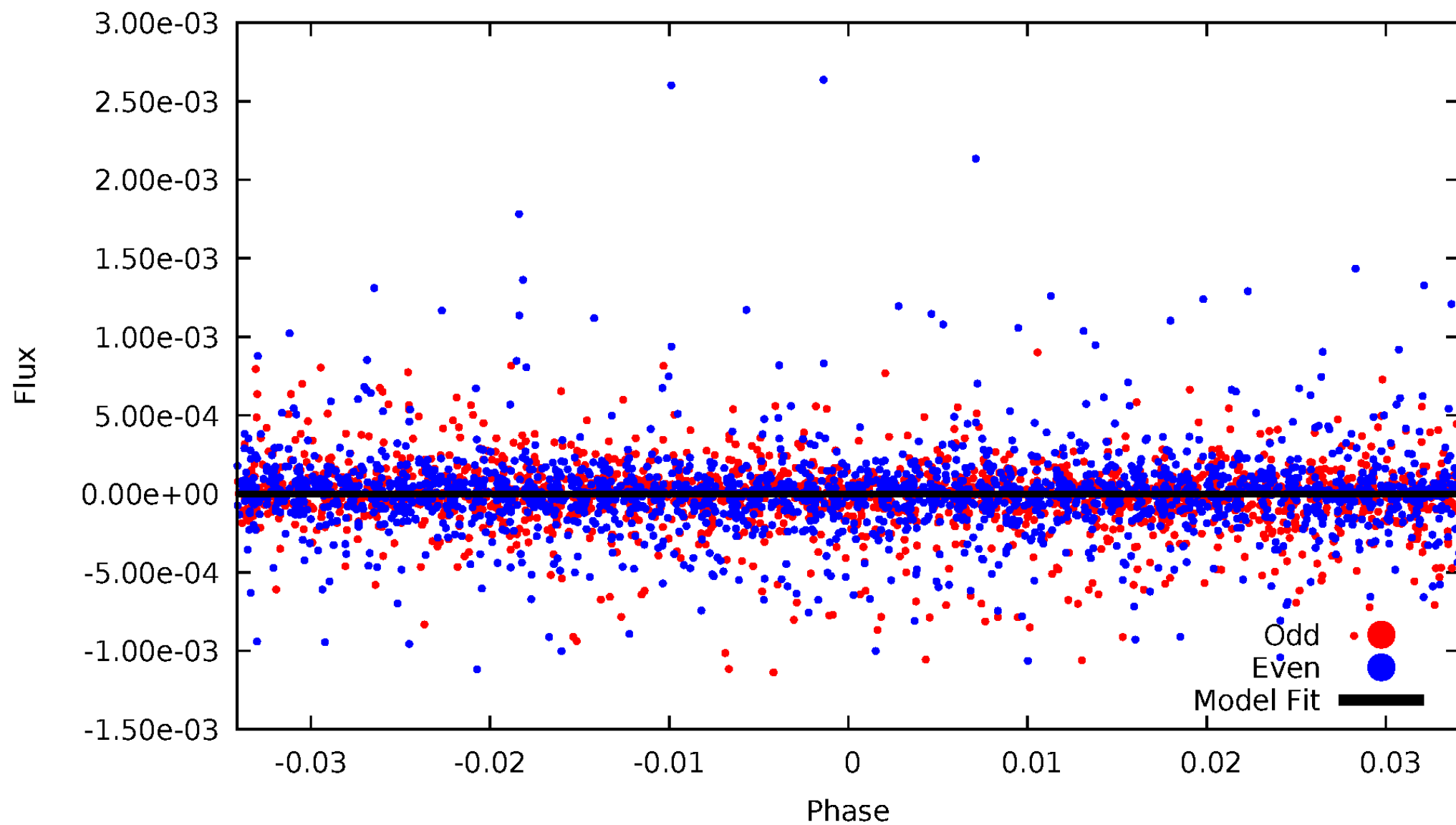


TCE 005738698-03



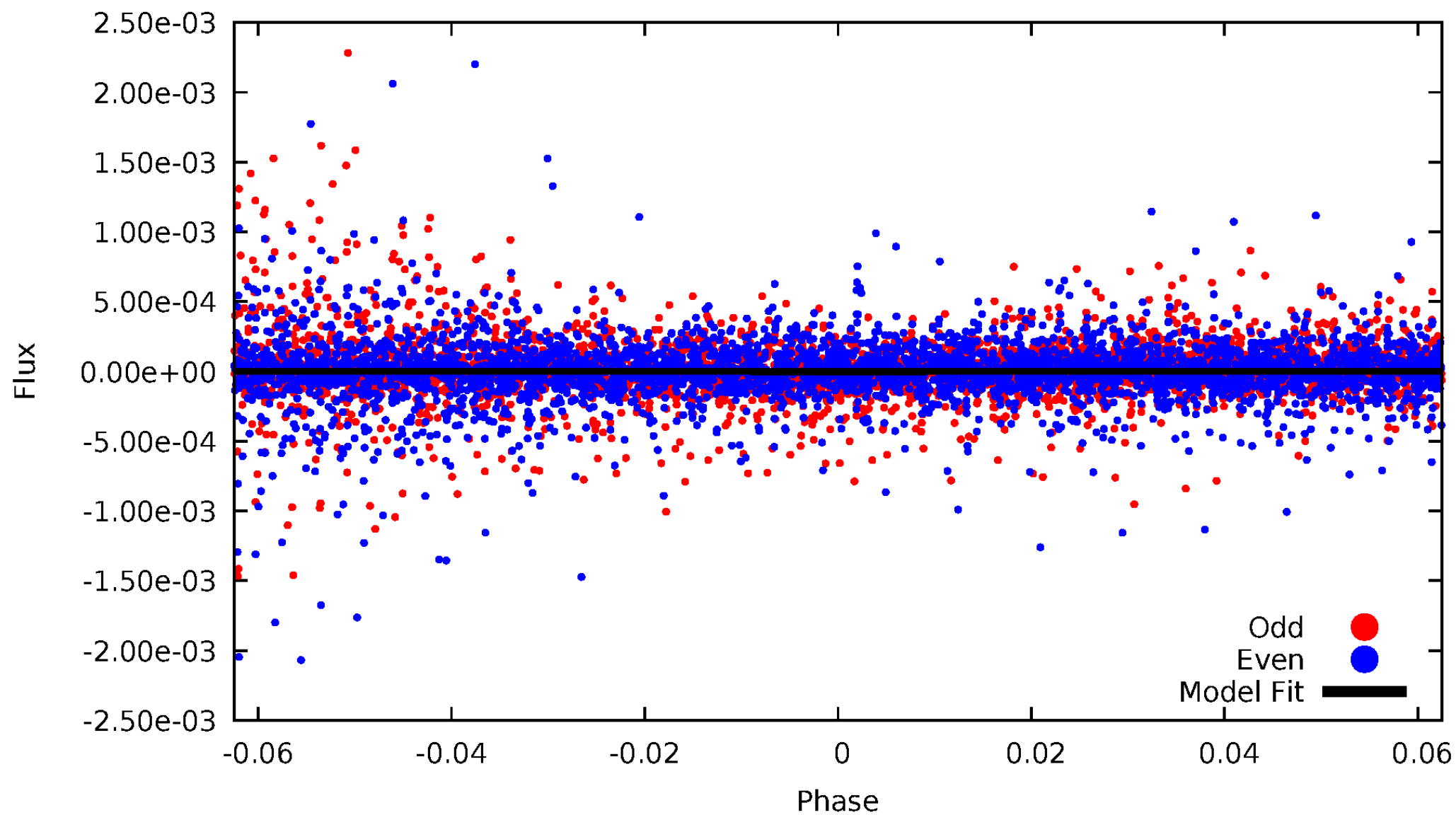
DV Odd/Even

TCE 005738698-03



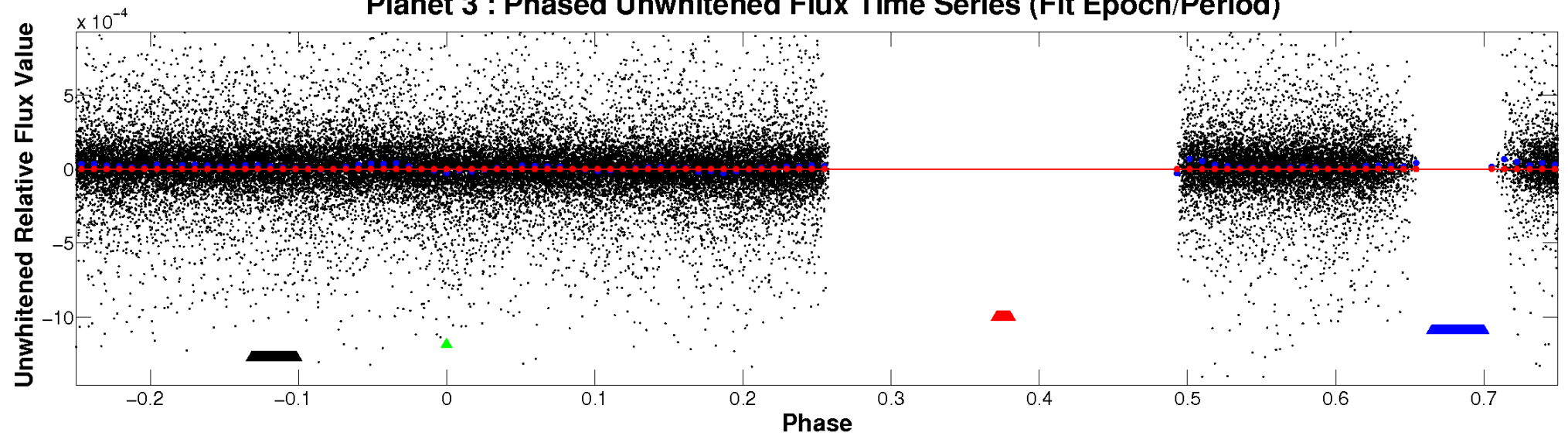
ALT Odd/Even

TCE 005738698-03

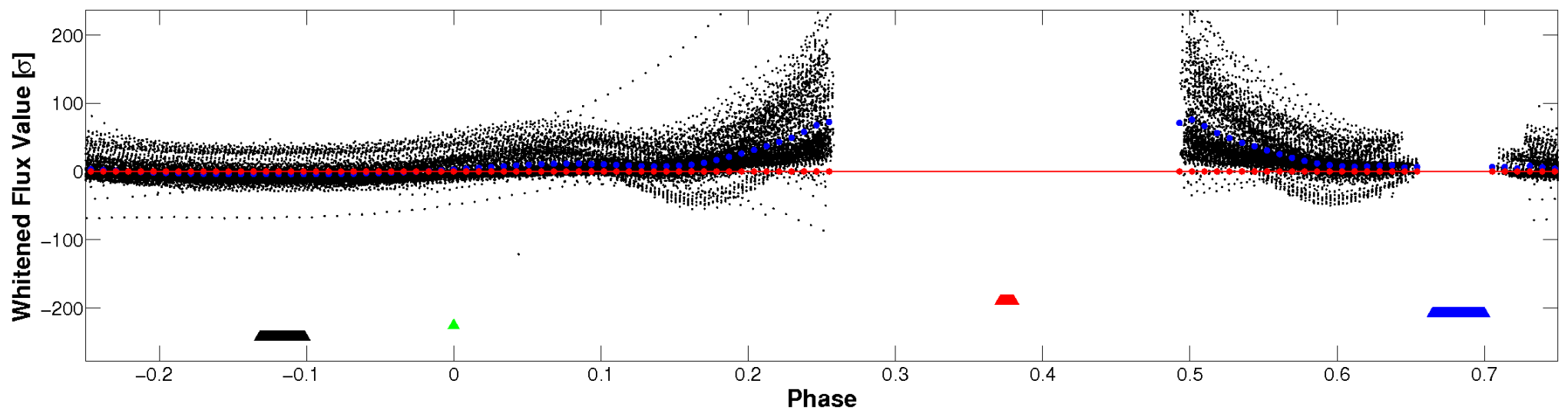


Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

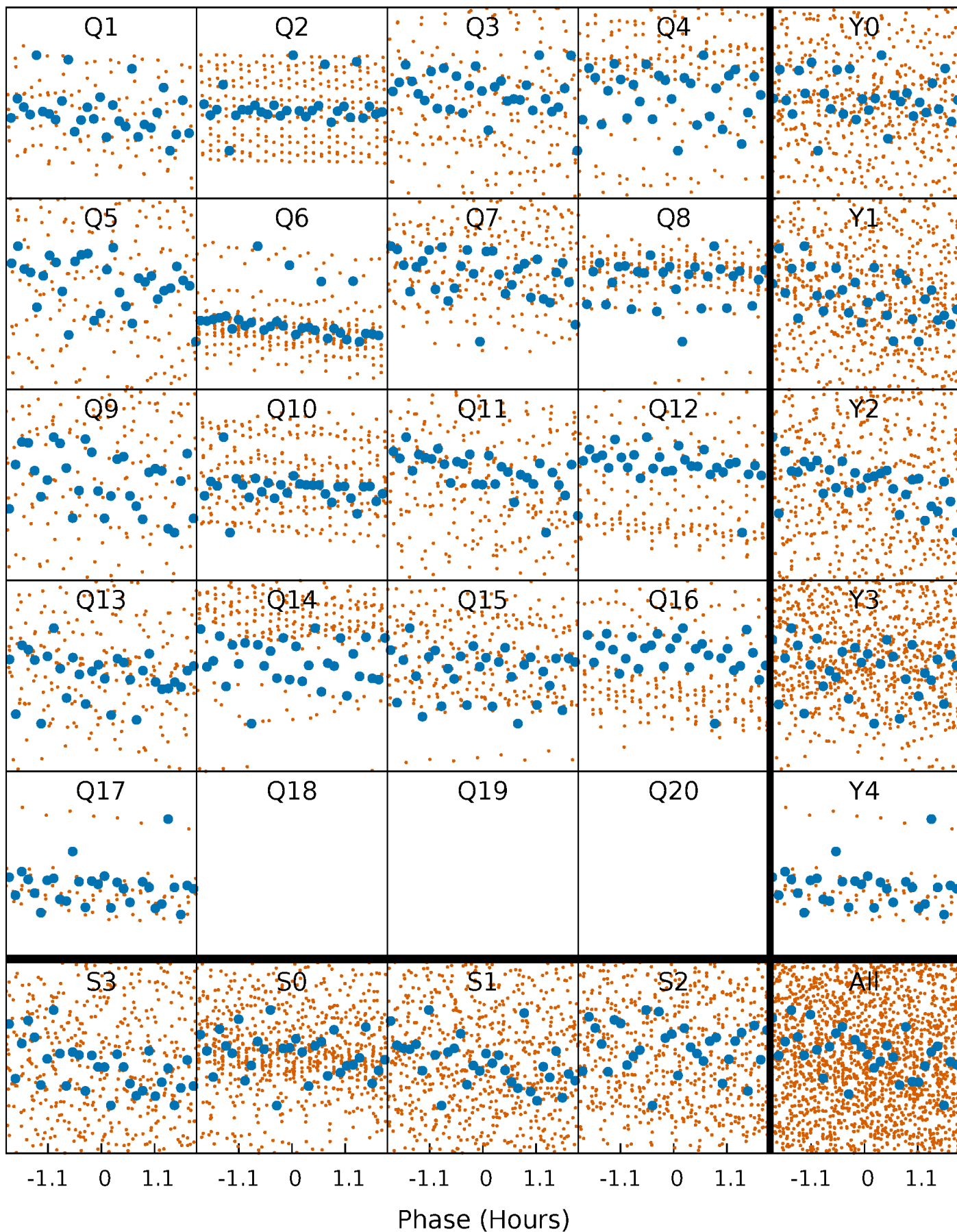


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



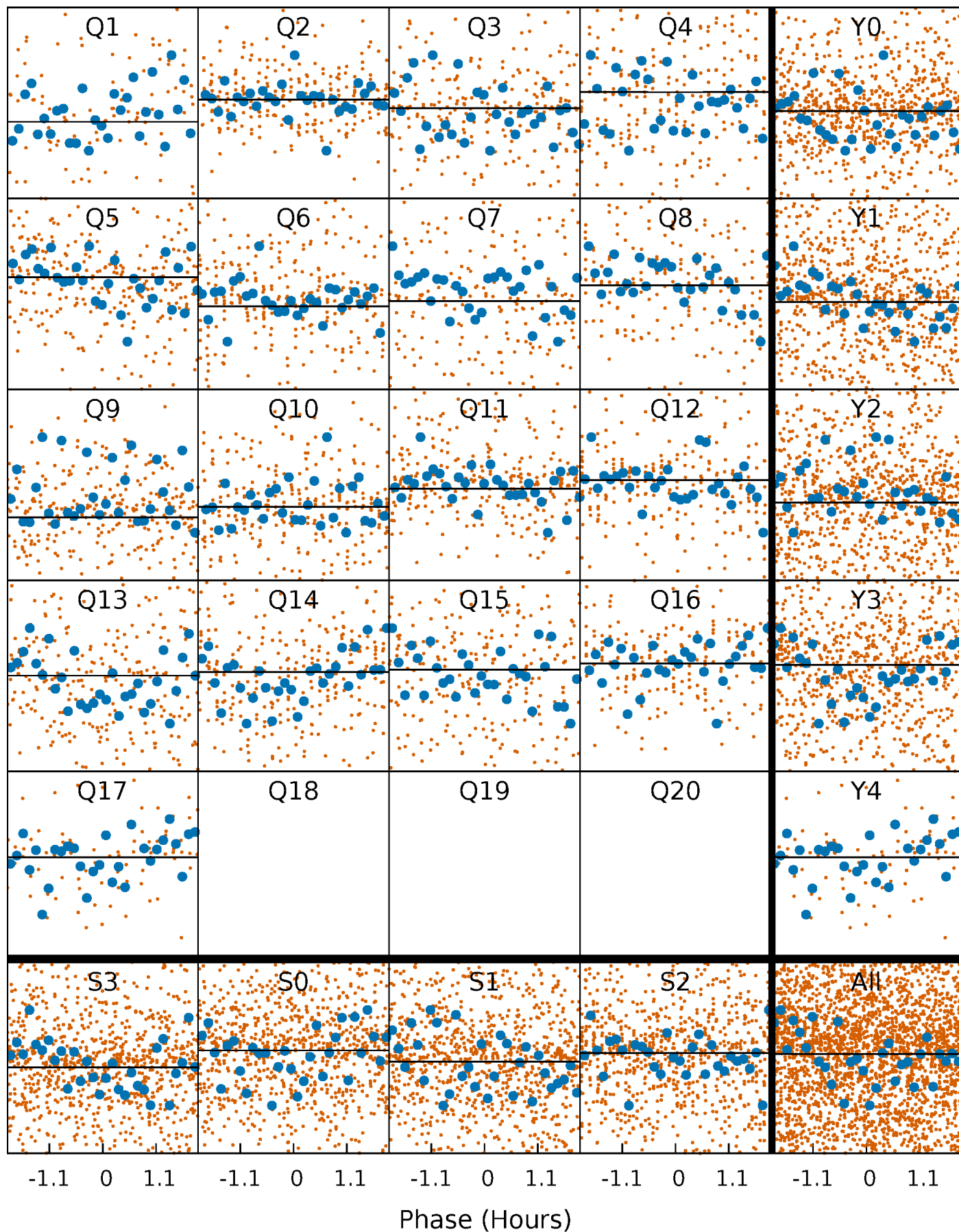
PDC Quarter-Phased Transit Curves

TCE 005738698-03 $P = 2.404330$ Days $T_0 = 132.321309$ (BKJD)



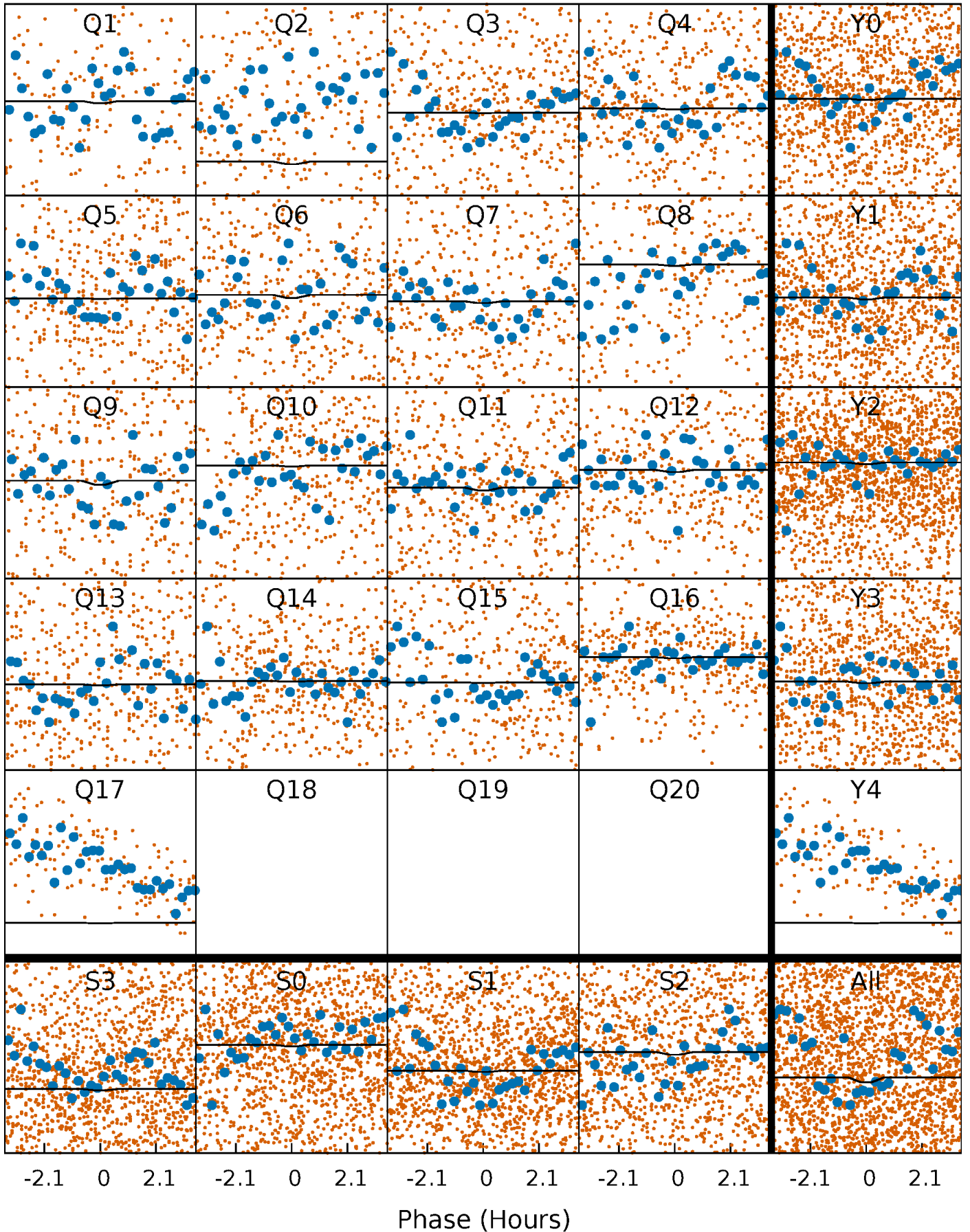
DV Quarter-Phased Transit Curves

TCE 005738698-03 P= 2.404330 Days $T_0=132.321309$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

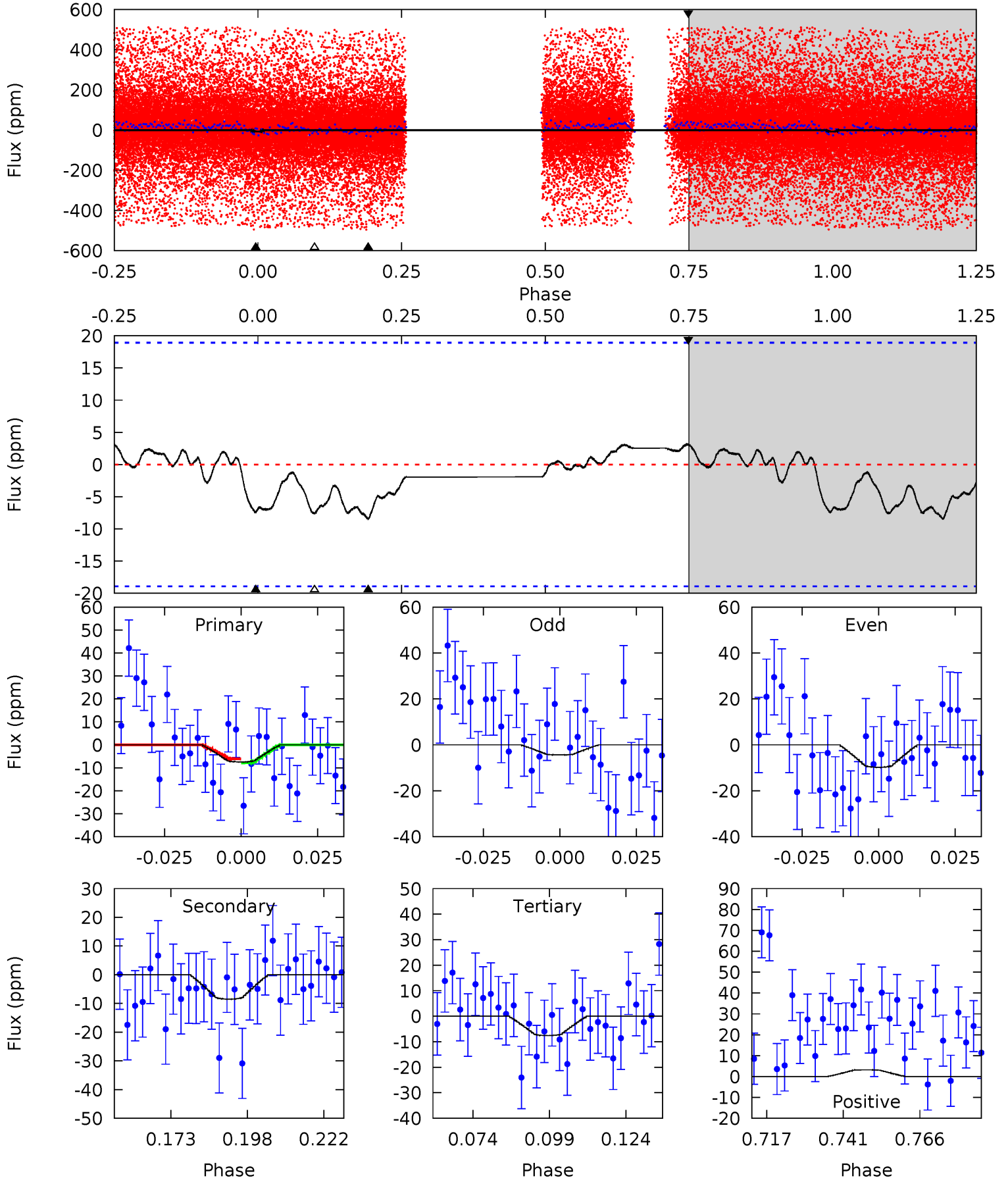
TCE 005738698-03 P= 2.404450 Days $T_0=132.340958$ (BKJD)



DV Model-Shift Uniqueness Test

005738698-03, P = 2.404330 Days, E = 129.916979 Days

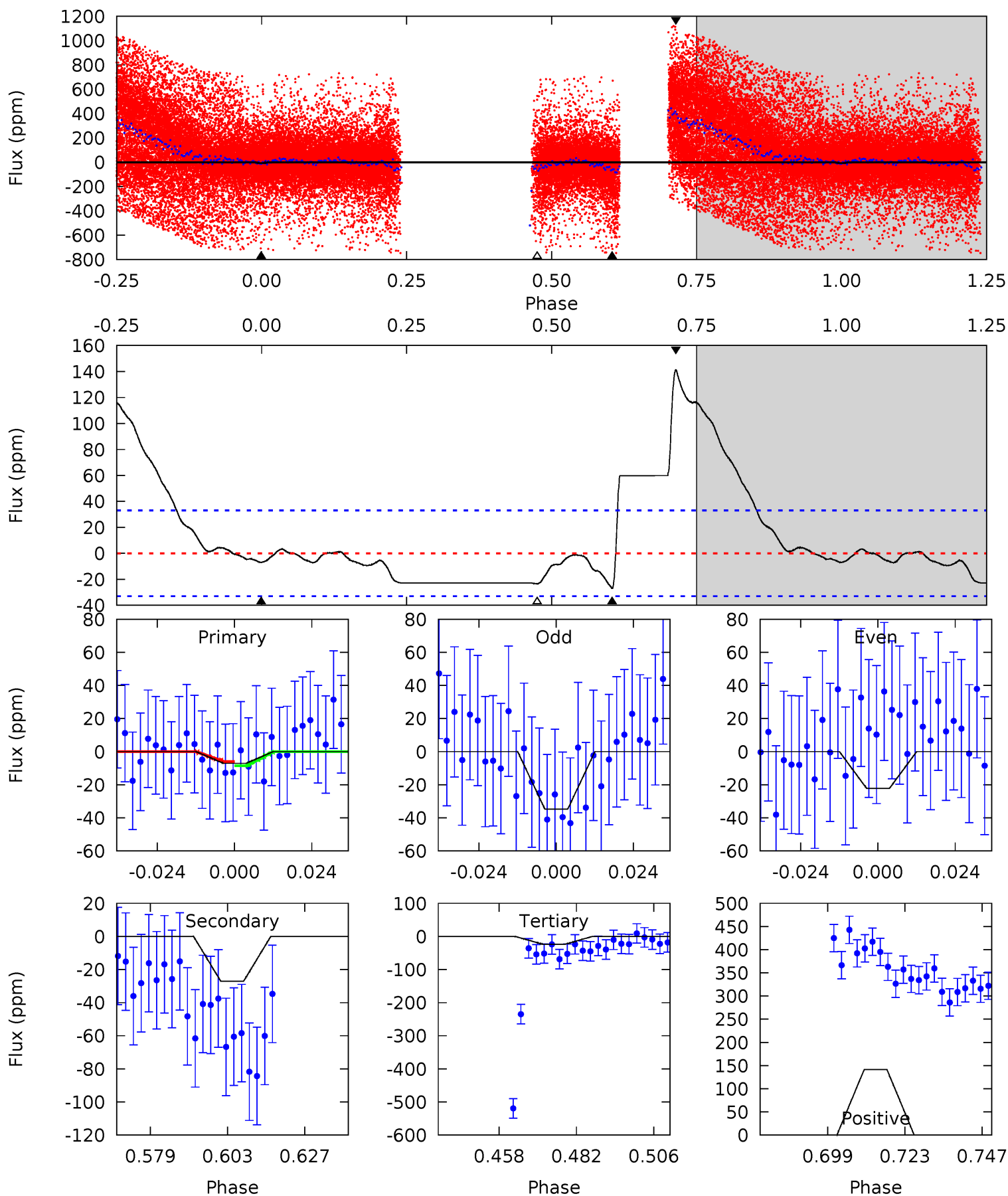
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.91	2.18	1.94	0.82	4.85	2.25	0.75	-0.04	1.08	0.23	1.35	0.70	9.12	0.27	0.23



Alt Model-Shift Uniqueness Test

005738698-03, P = 2.404450 Days, E = 129.936508 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.04	3.99	3.45	20.8	4.85	2.26	6.38	-2.41	-19.8	0.54	-16.8	0.97	1.00	0.84	0.19



Stellar Parameters For KIC 005738698

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6466^{+145}_{-178}	$4.278^{+0.165}_{-0.182}$	$-0.480^{+0.300}_{-0.300}$	$1.210^{+0.341}_{-0.227}$	$1.011^{+0.146}_{-0.106}$	$0.804^{+0.601}_{-0.401}$
	+2%/-3%	+4%/-4%	+62%/-62%	+28%/-19%	+14%/-10%	+75%/-50%
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 005738698-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-8 ± 4	$20.52^{+22.38}_{-13.96}$	2329^{+178}_{-165}	-2649^{+183}_{-113}	$0.012^{+0.113}_{-0.009}$
Alt.	-27 ± 7	$19.26^{+22.88}_{-13.88}$	2334^{+186}_{-155}	-2587^{+5300}_{-157}	$0.048^{+0.580}_{-0.038}$

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

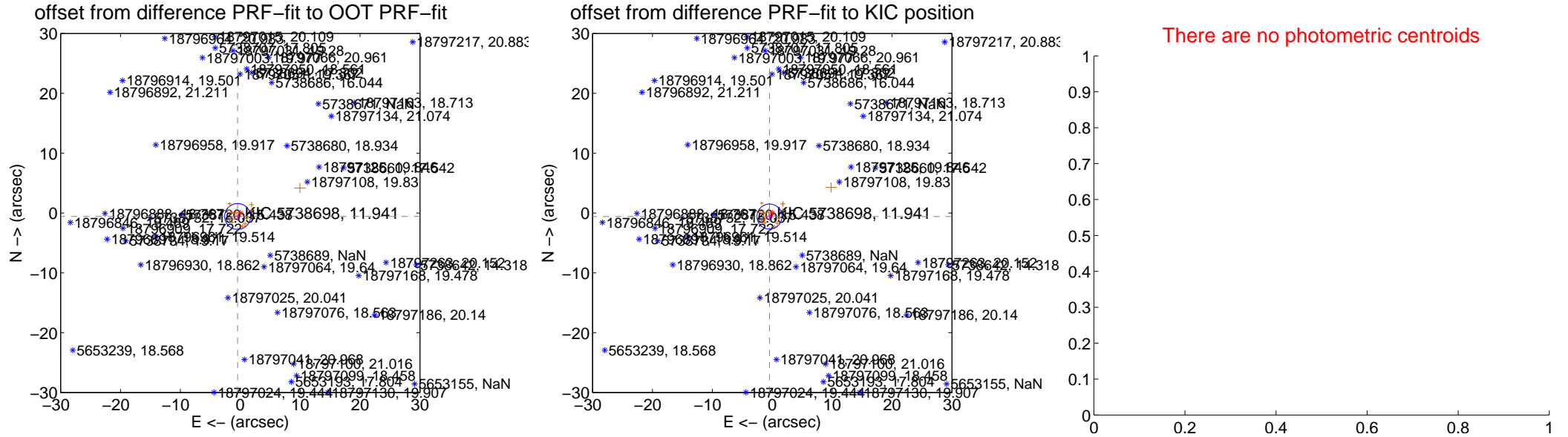
DV Centroid Data

Supplemental centroid analysis for 005738698-03. **Kepler magnitude: 11.94.** Transit SNR 0.00

There are 0 quarters with good PRF difference image offsets

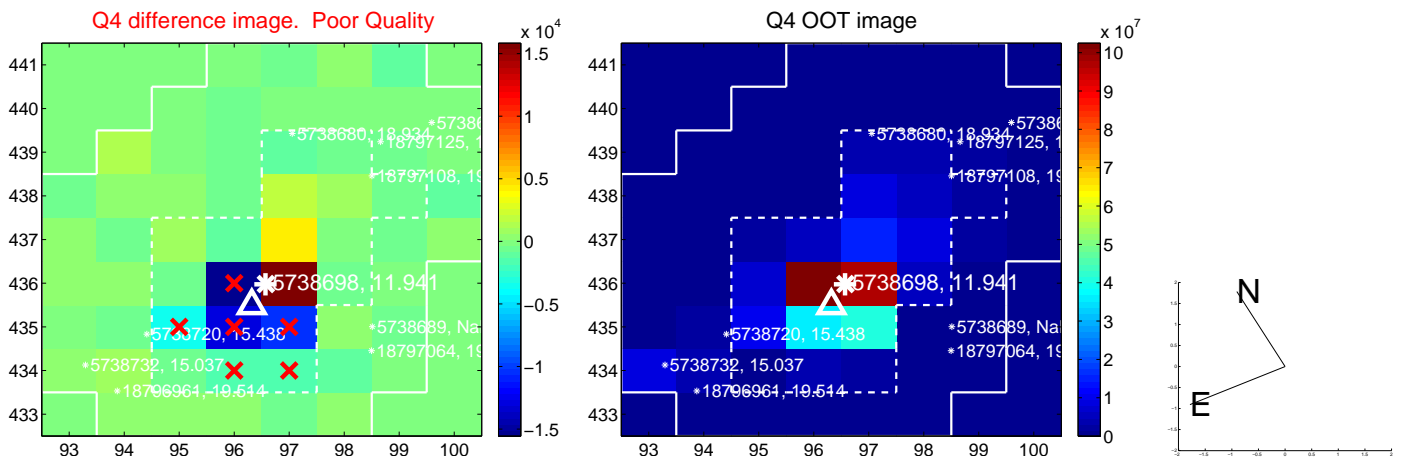
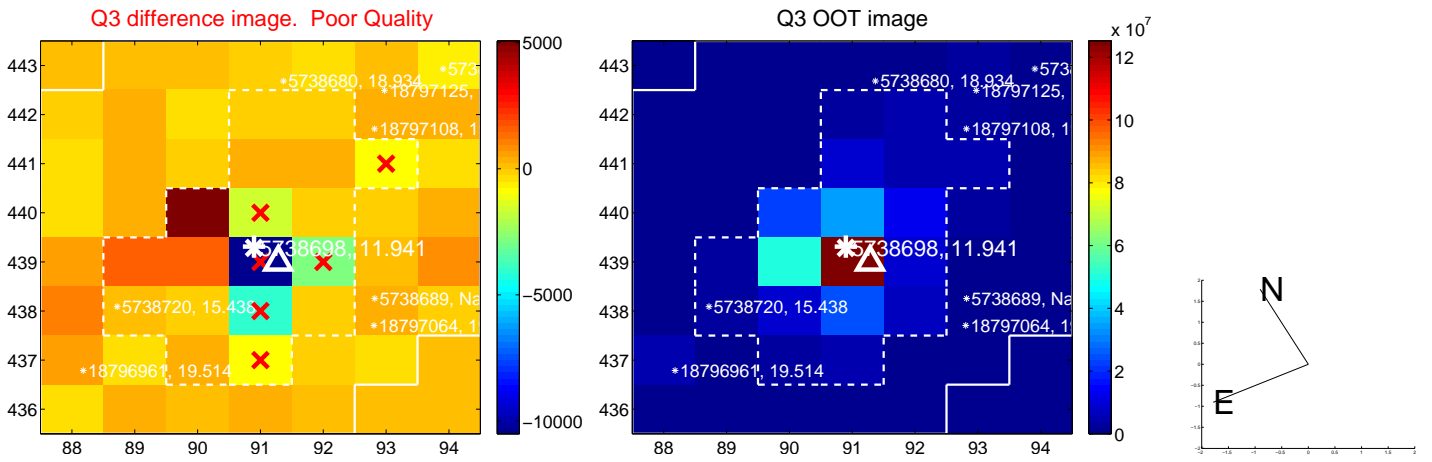
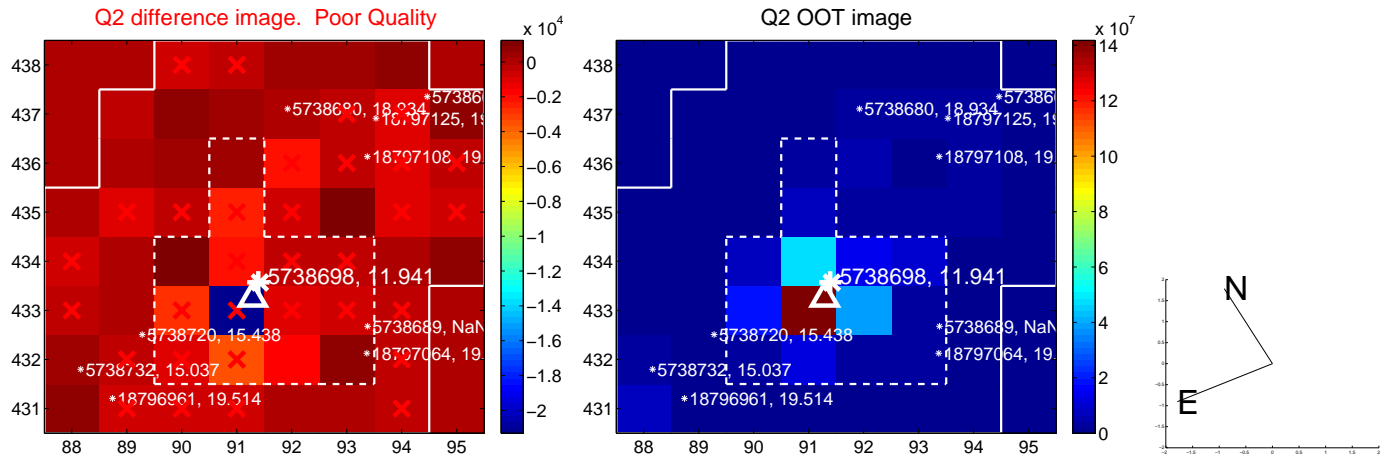
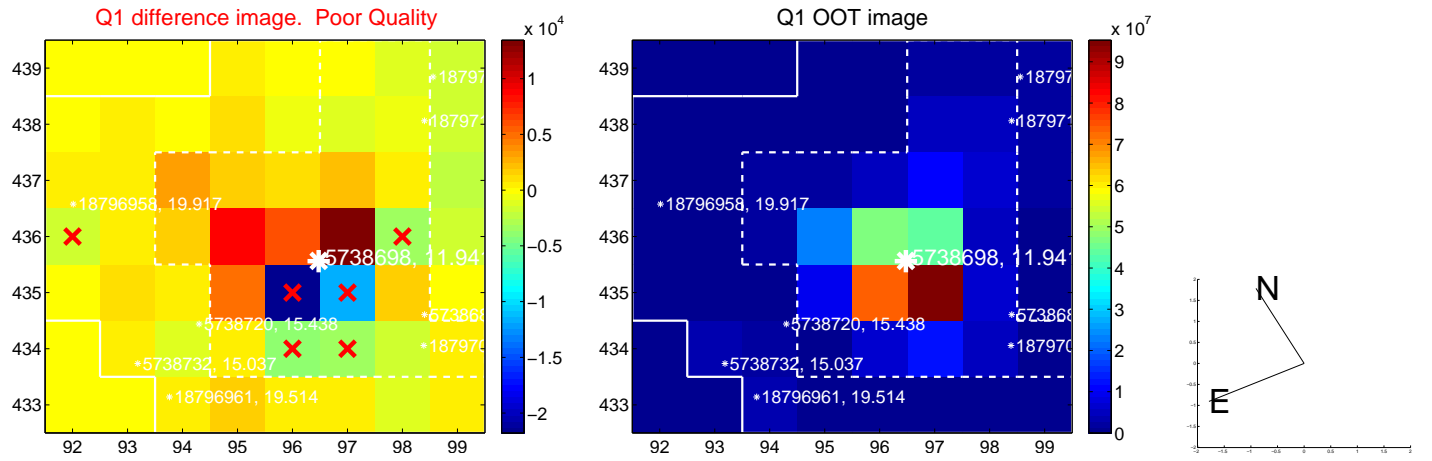
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.729 ± 0.721	1.01	0.446 ± 0.745	-0.576 ± 0.425
PRF-fit source offset from KIC position	0.745 ± 0.697	1.07	0.460 ± 0.729	-0.587 ± 0.429
photometric centroid source offset	—	—	—	—

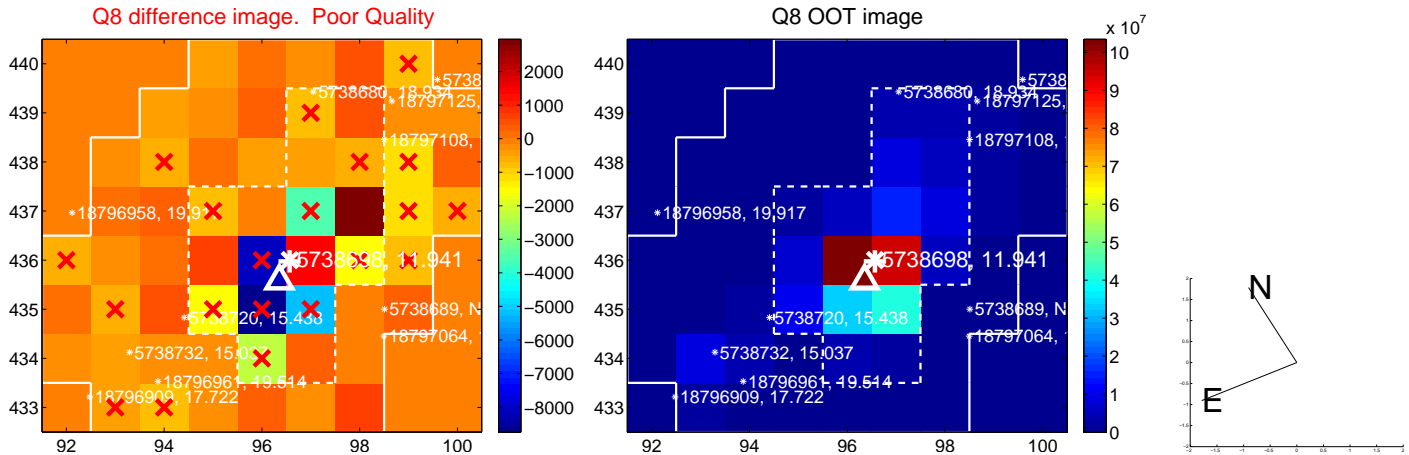
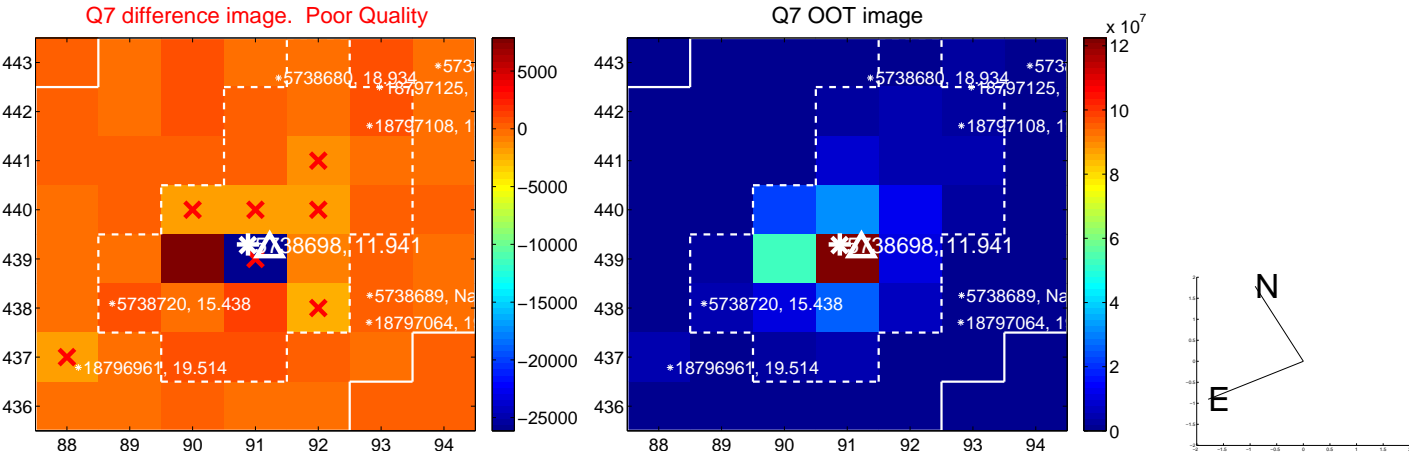
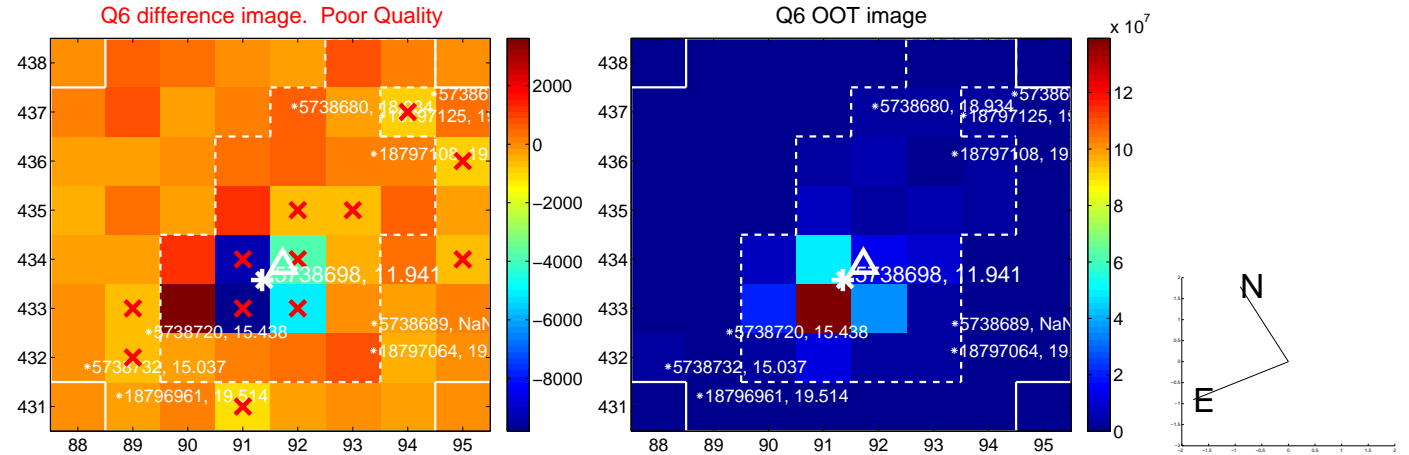
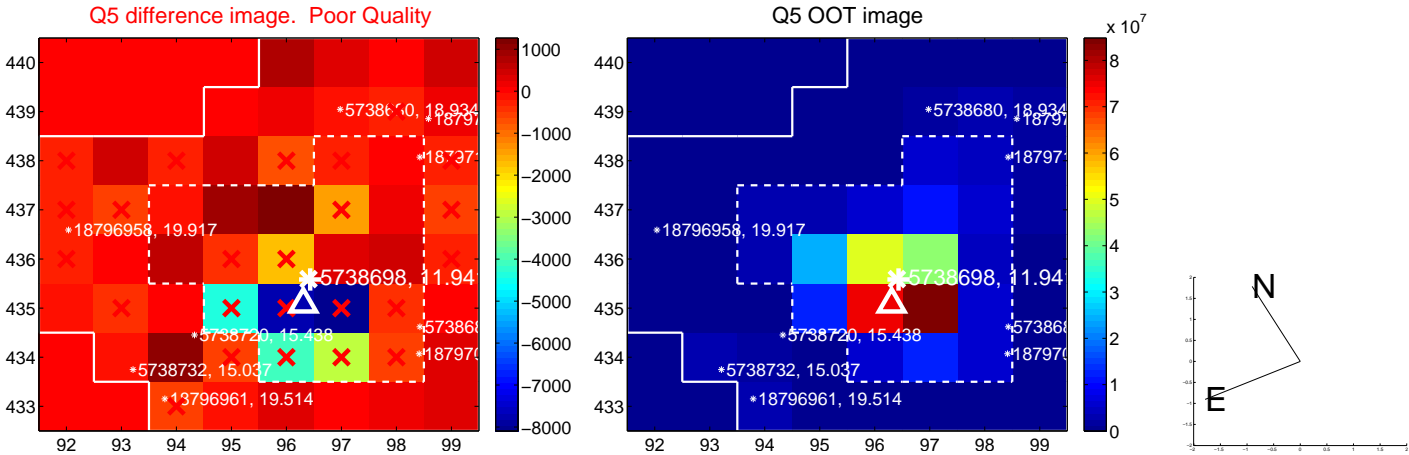


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

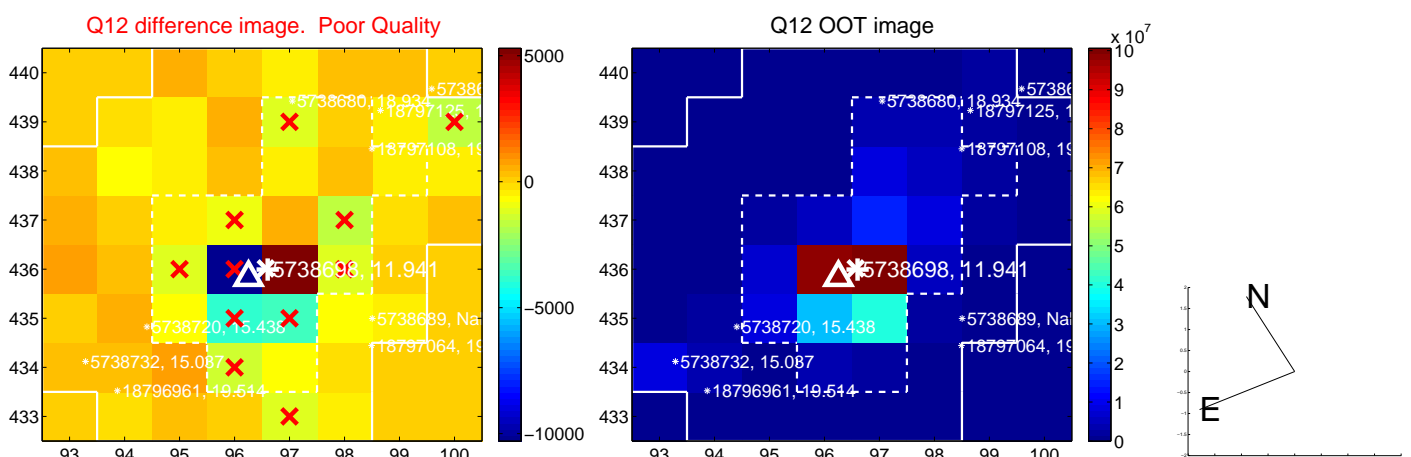
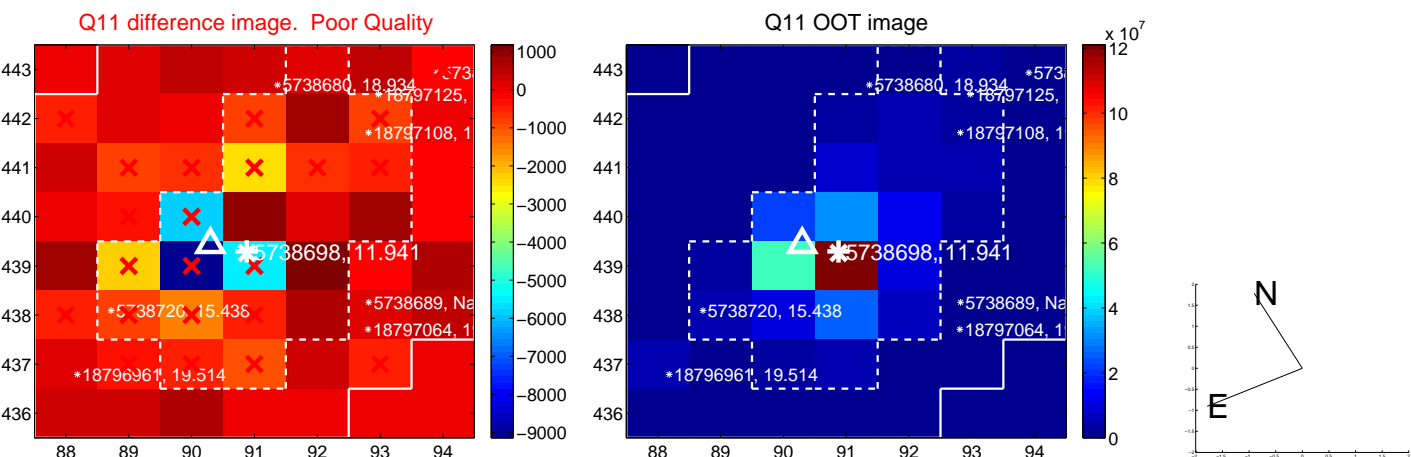
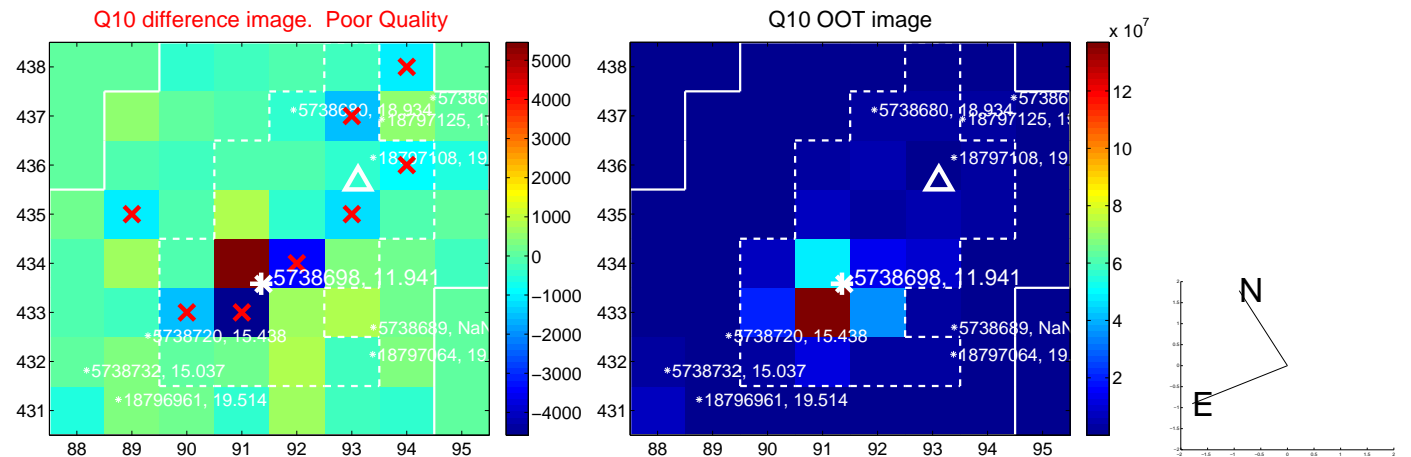
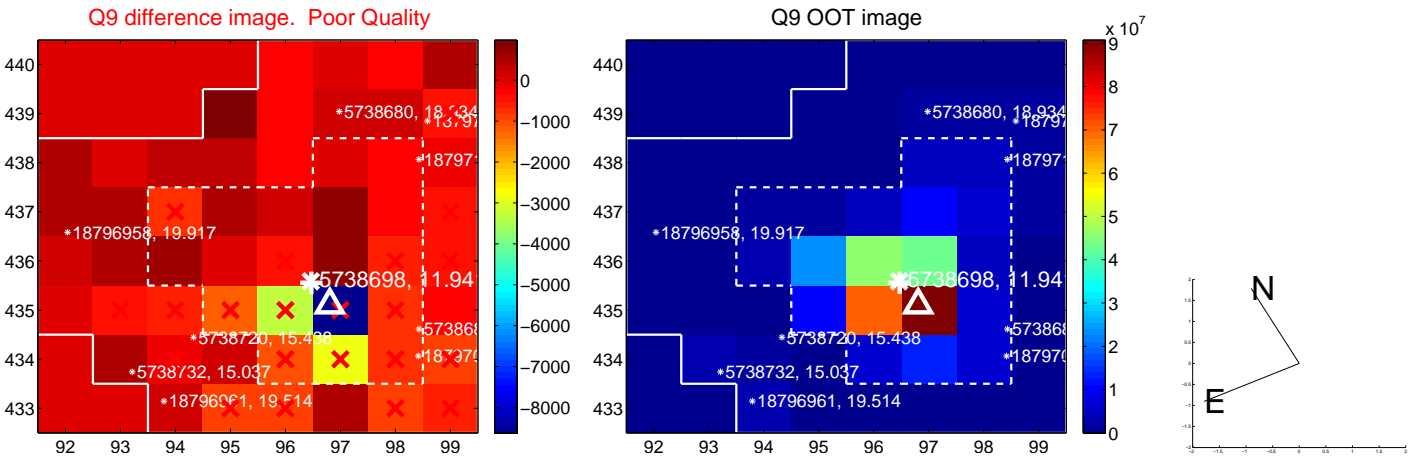
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



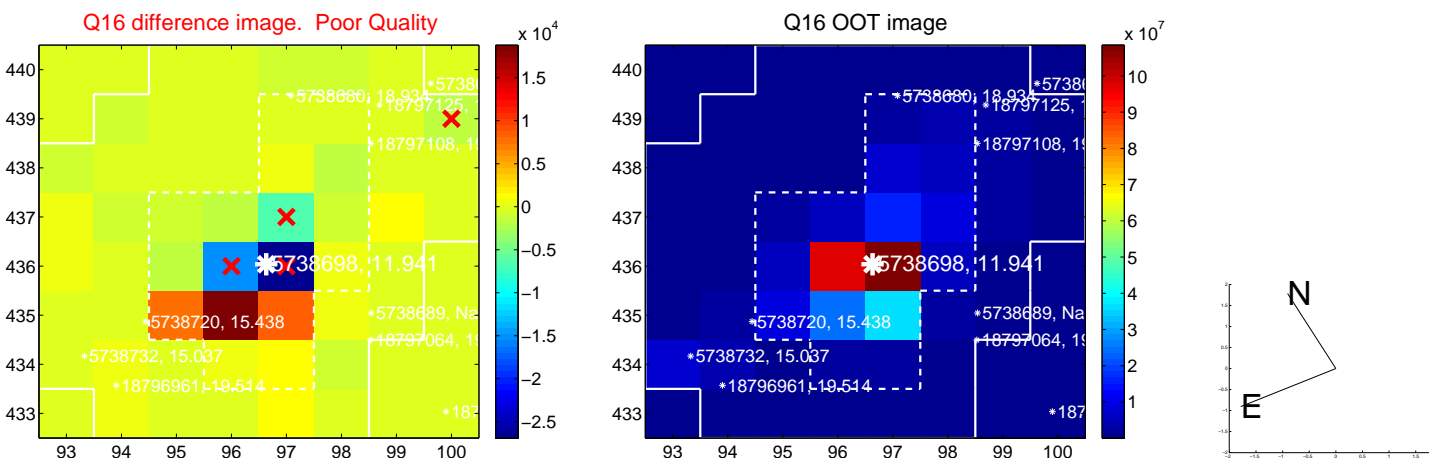
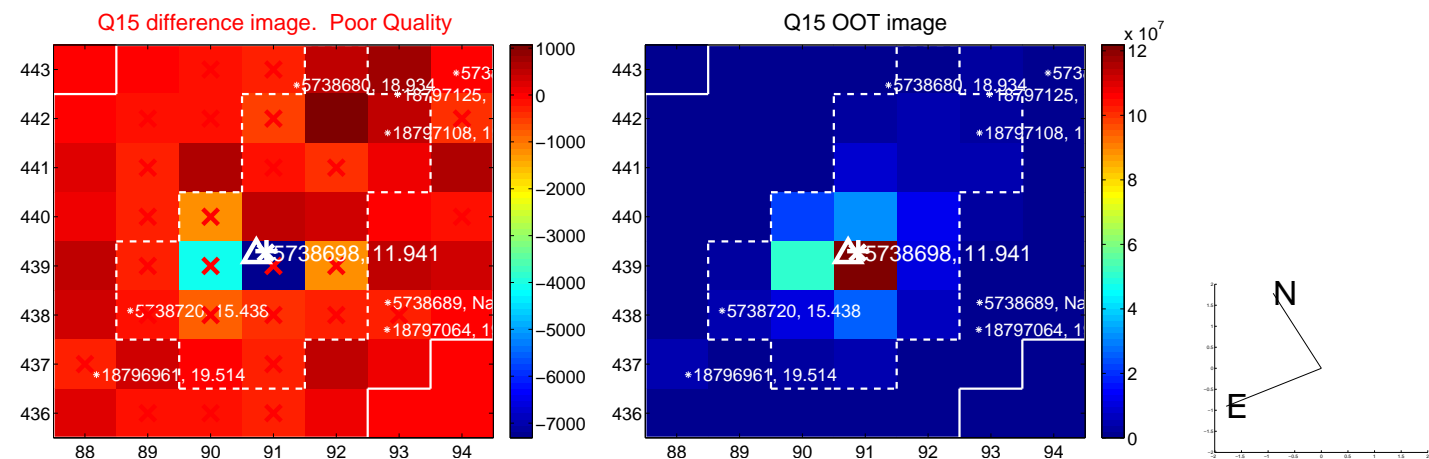
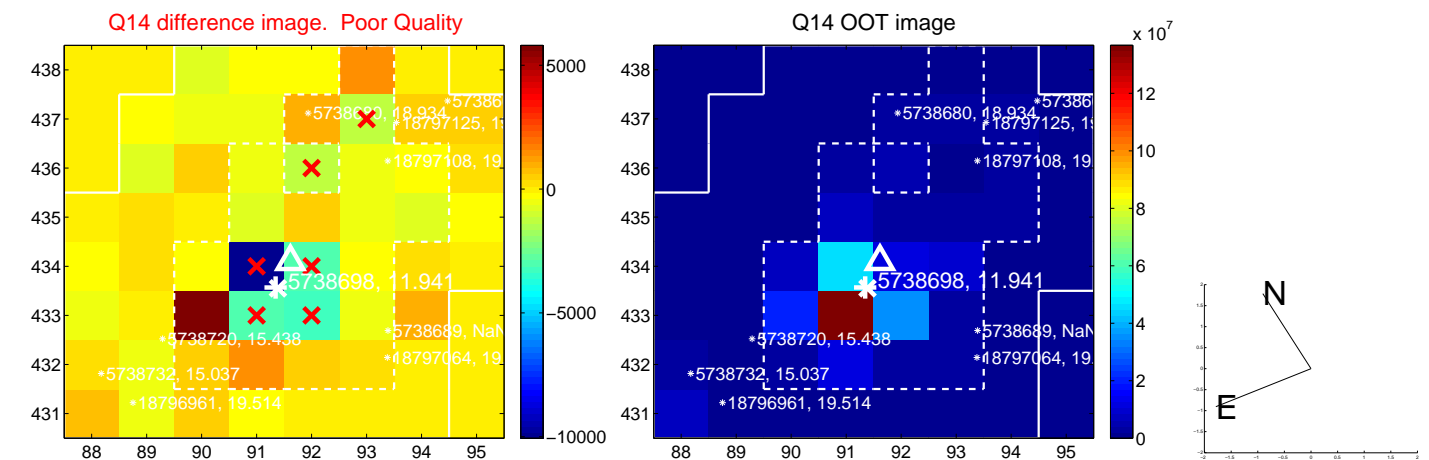
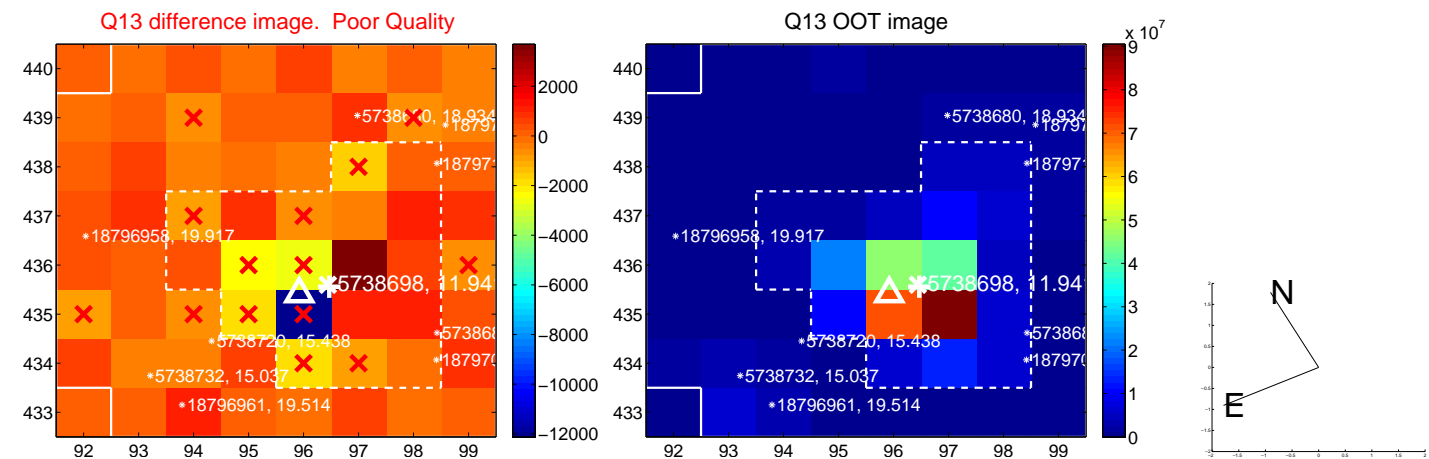
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



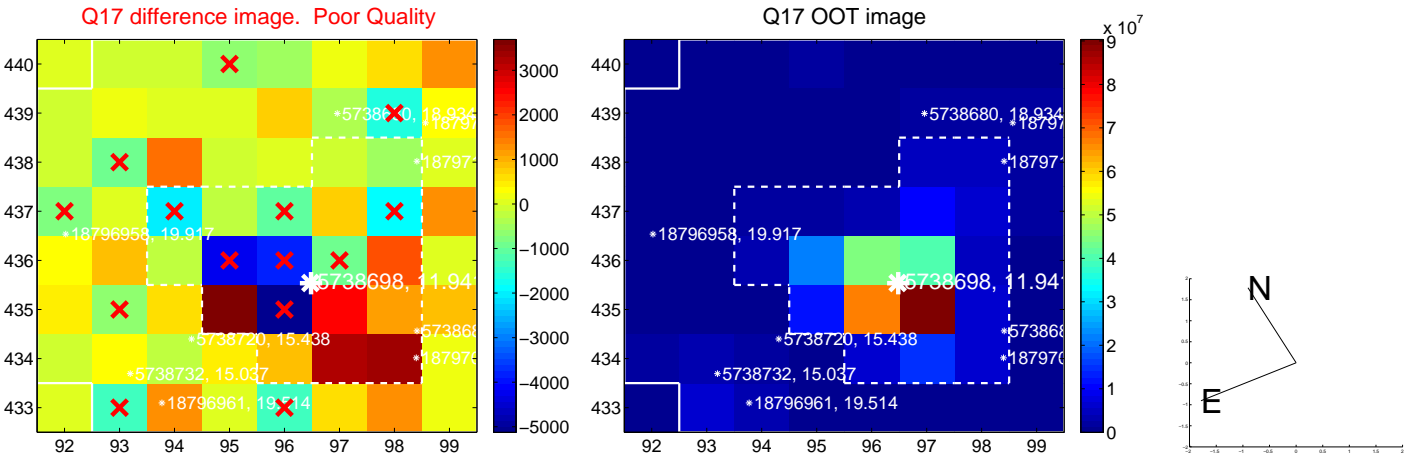
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



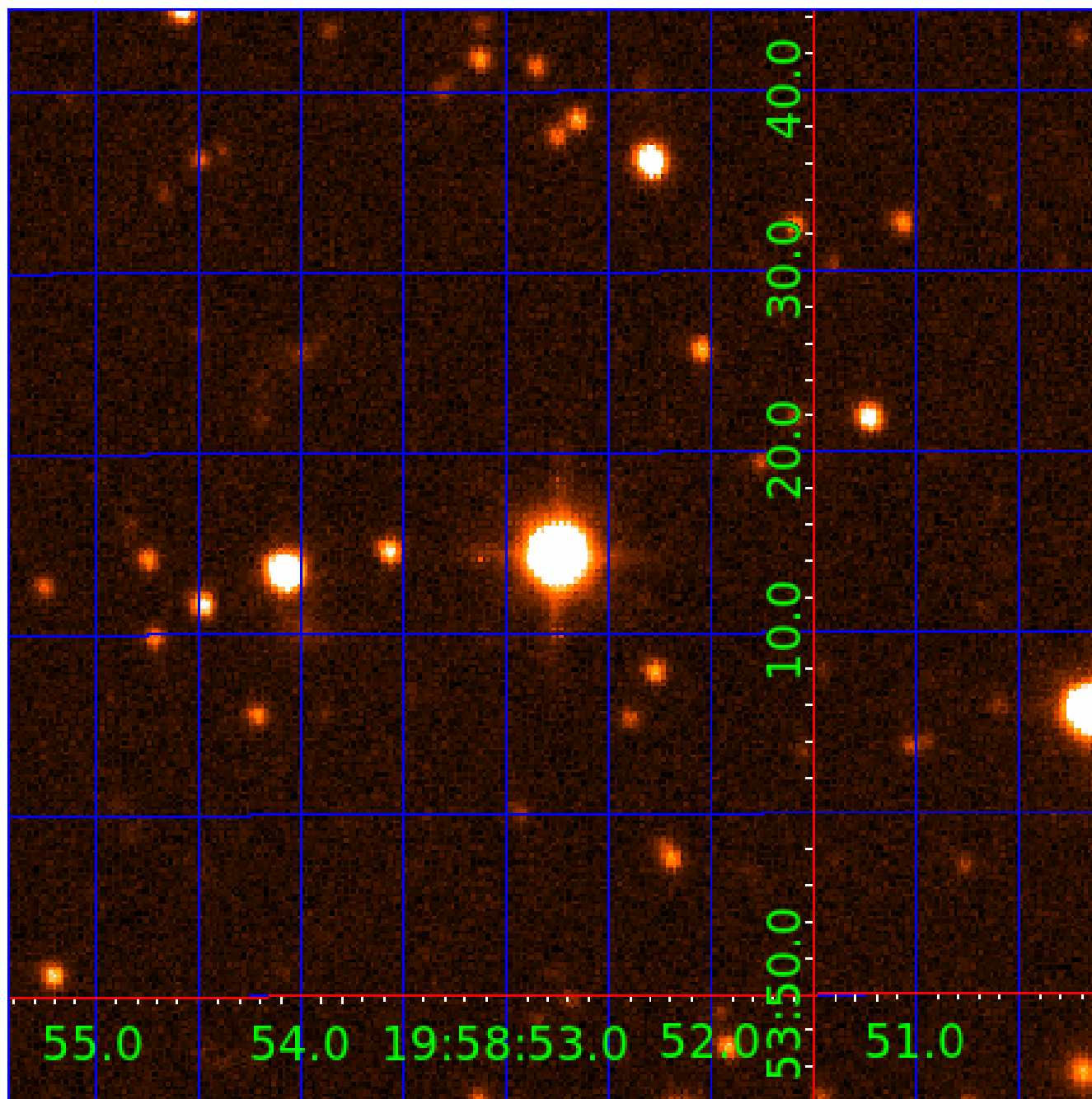
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



folded centroid time series figure for this object.

UKIRT Image

Declination



KIC 005738698

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})
005738698-01	OBS	6134.01	2.404366	133.213790	316964.8	4.500	47019.3	-1.0	1.21	6466	46.42	1842.02
005738698-02	OBS	No	2.404469	131.515682	0.1	1.295	1093.9	0.0	1.21	6466	0.04	1841.91
005738698-03	OBS	No	2.404330	132.321309	0.0	0.984	1084.3	0.0	1.21	6466	0.02	1842.05
005738698-04	OBS	No	2.404450	132.004805	3037.1	9.000	1106.8	-1.0	1.21	6466	6.71	1841.93

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005738698-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005738698-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005738698-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_FEW_DIFFS
005738698-04	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_NOFITS

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 005738698-04

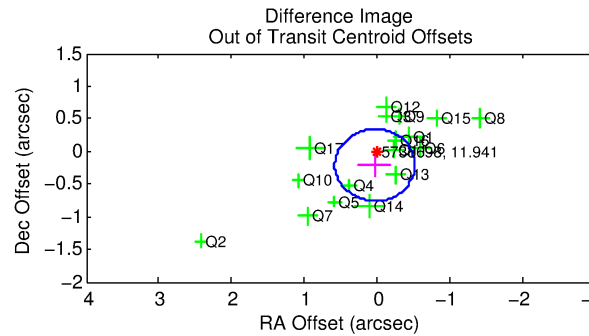
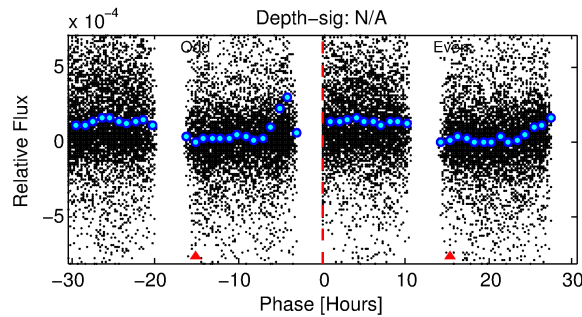
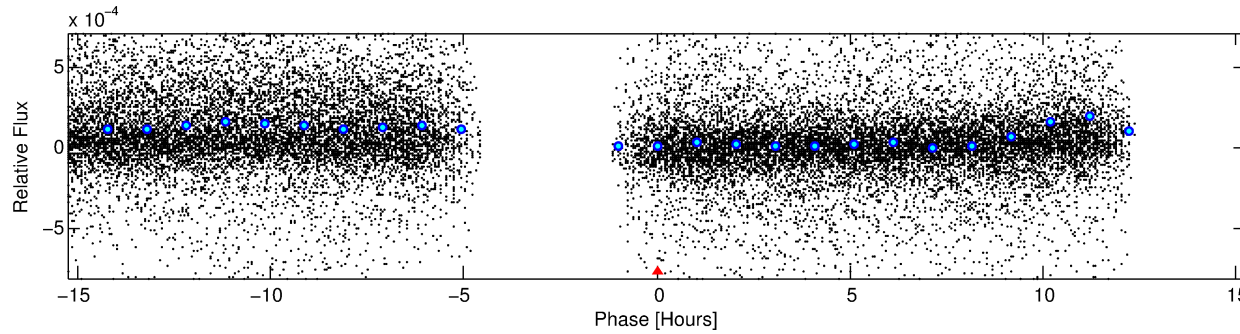
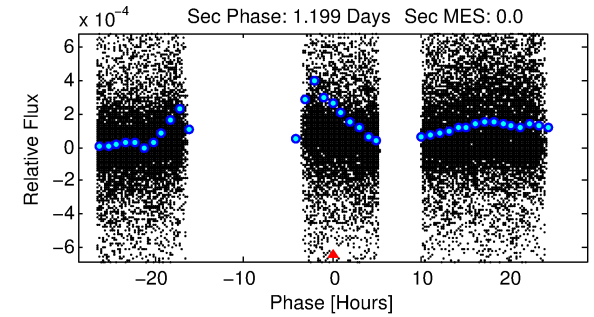
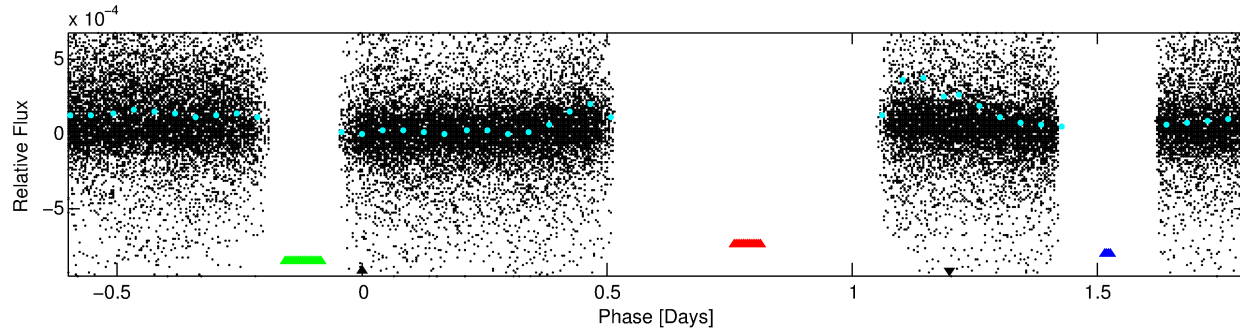
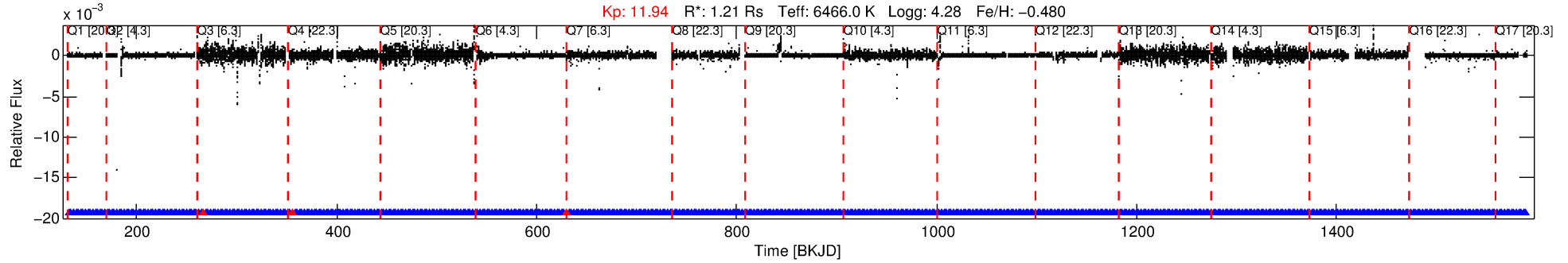
No Significant Match Found

DV One-Page Summary

KIC: 5738698 Candidate: 4 of 4 Period: 2.404 d

KOI: K06134 Corr: No Ephemeris Match

Kp: 11.94 R*: 1.21 Rs Teff: 6466.0 K Logg: 4.28 Fe/H: -0.480



TPS TCE Results:

Period = 2.40445 d
Epoch = 132.0048 BKJD

DV fit results are unavailable

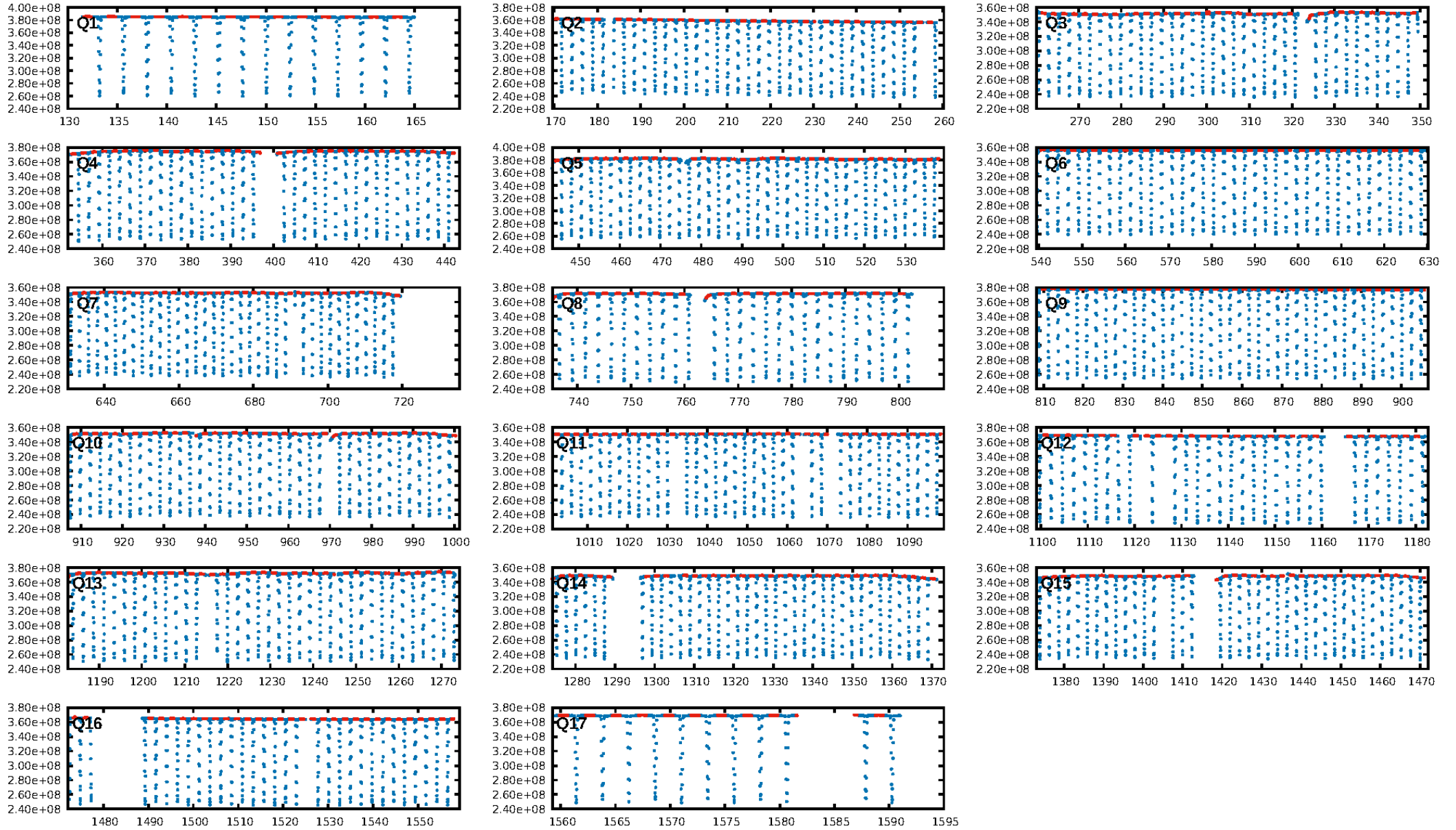
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [524/527]
GhostDiagnostic-chr: 0.8123
Centroid-sig: N/A
Centroid-so: 0.387 arcsec [1.26σ]
OotOffset-rm: 0.212 arcsec [1.15σ]
KicOffset-rm: 0.222 arcsec [1.22σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.00 [0/17]
DiffImageOverlap-fno: 0.00 [0/17]

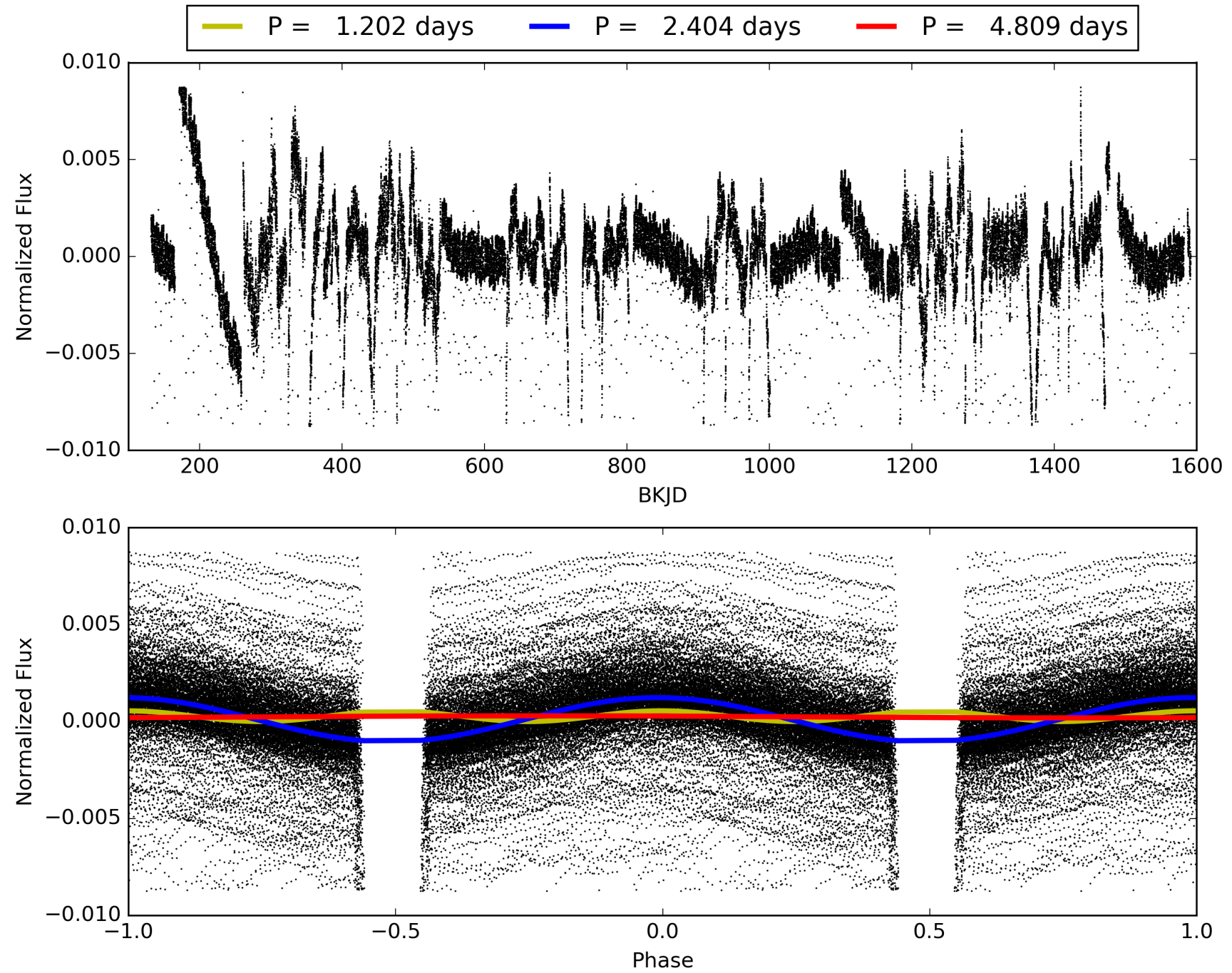
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 18:19:04 Z

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

TCE 005738698-04, PDC Light Curves

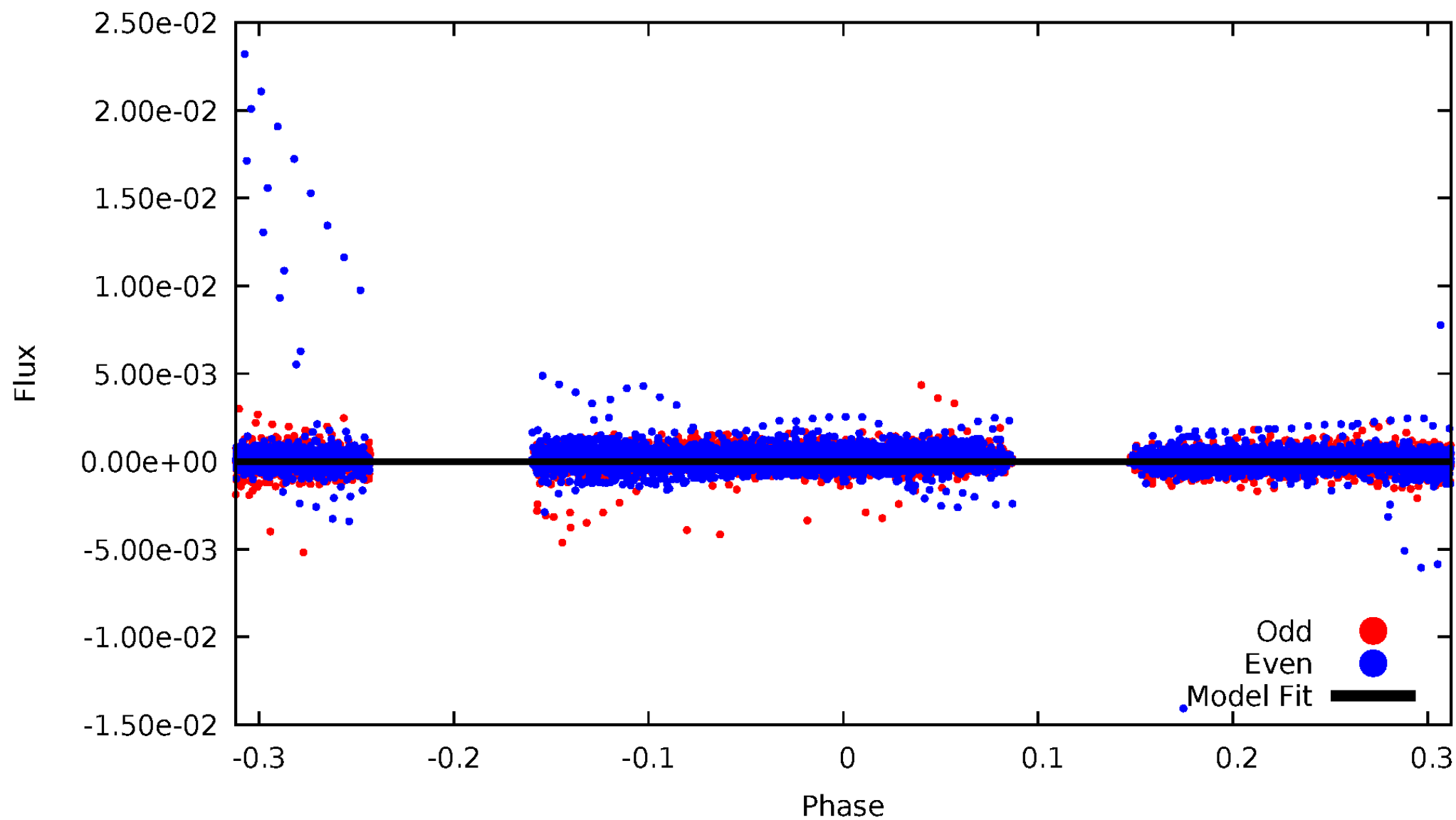


TCE 005738698-04



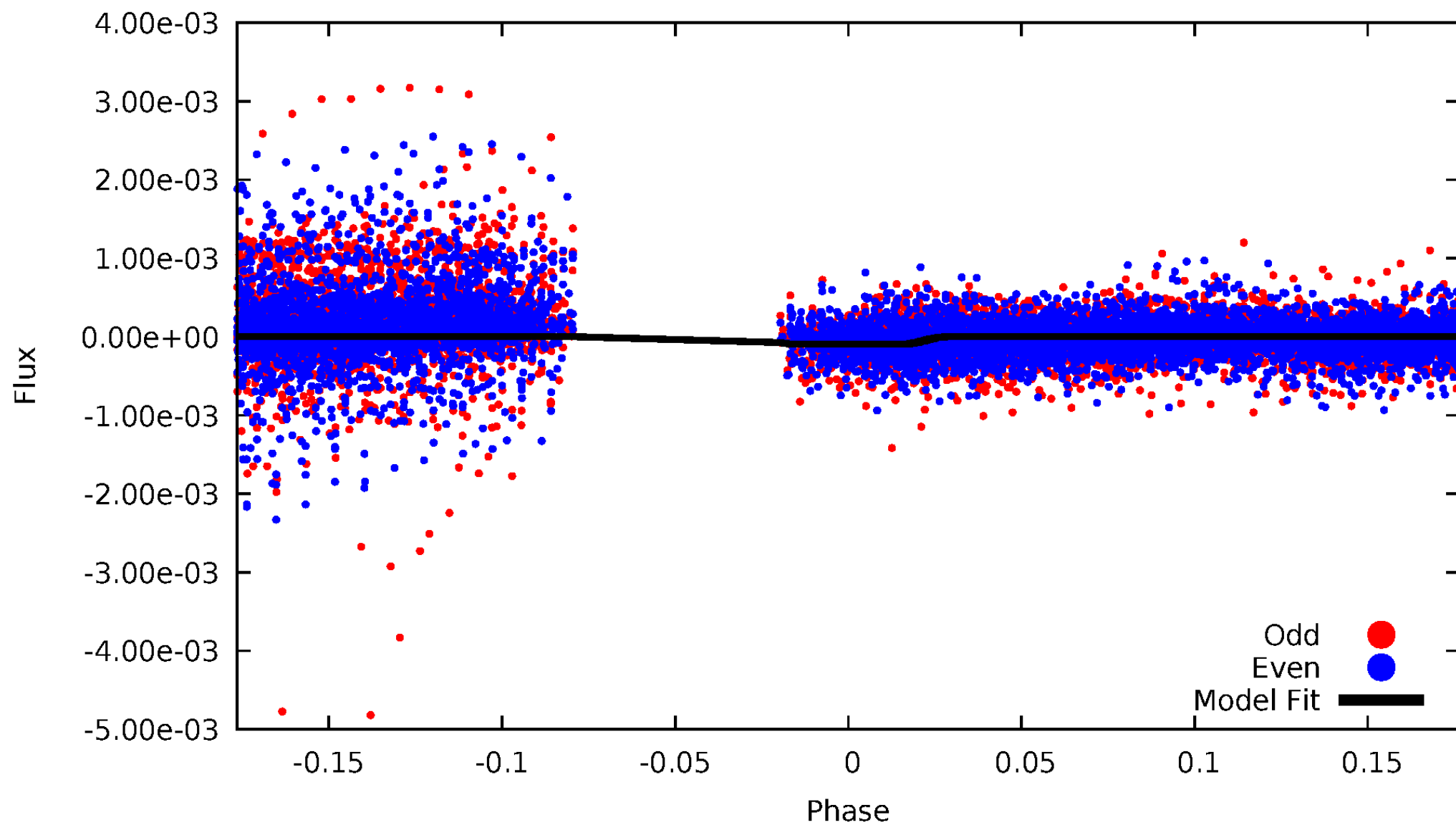
DV Odd/Even

TCE 005738698-04



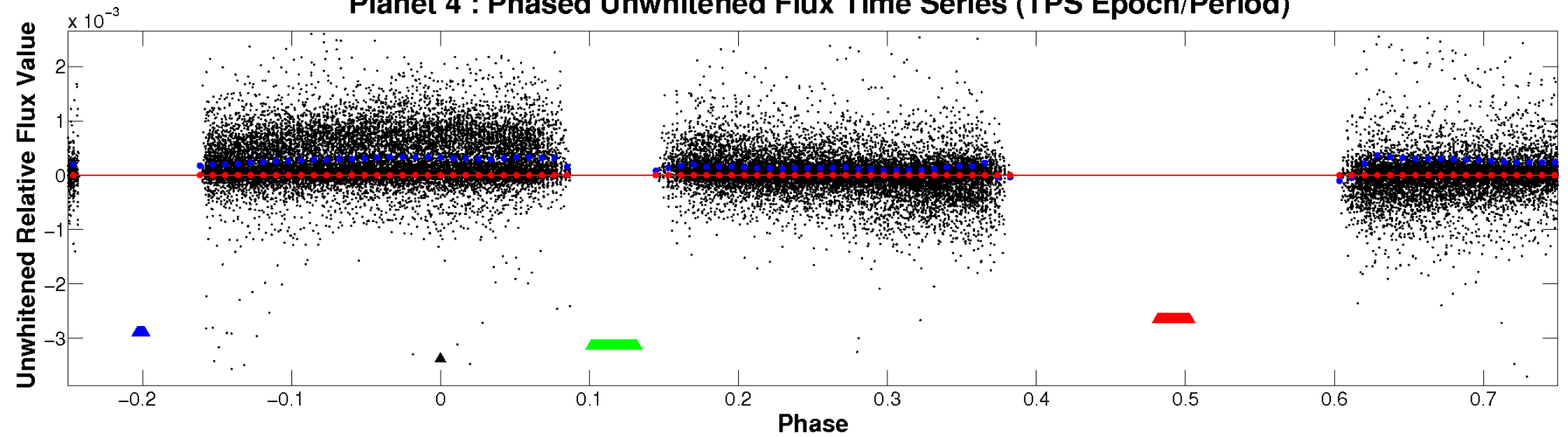
ALT Odd/Even

TCE 005738698-04

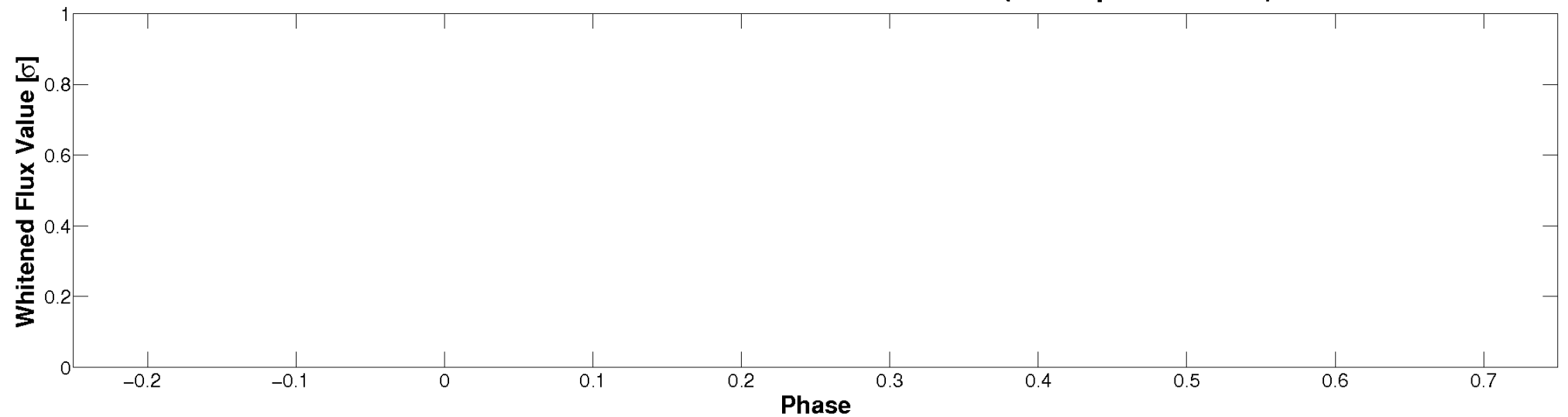


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

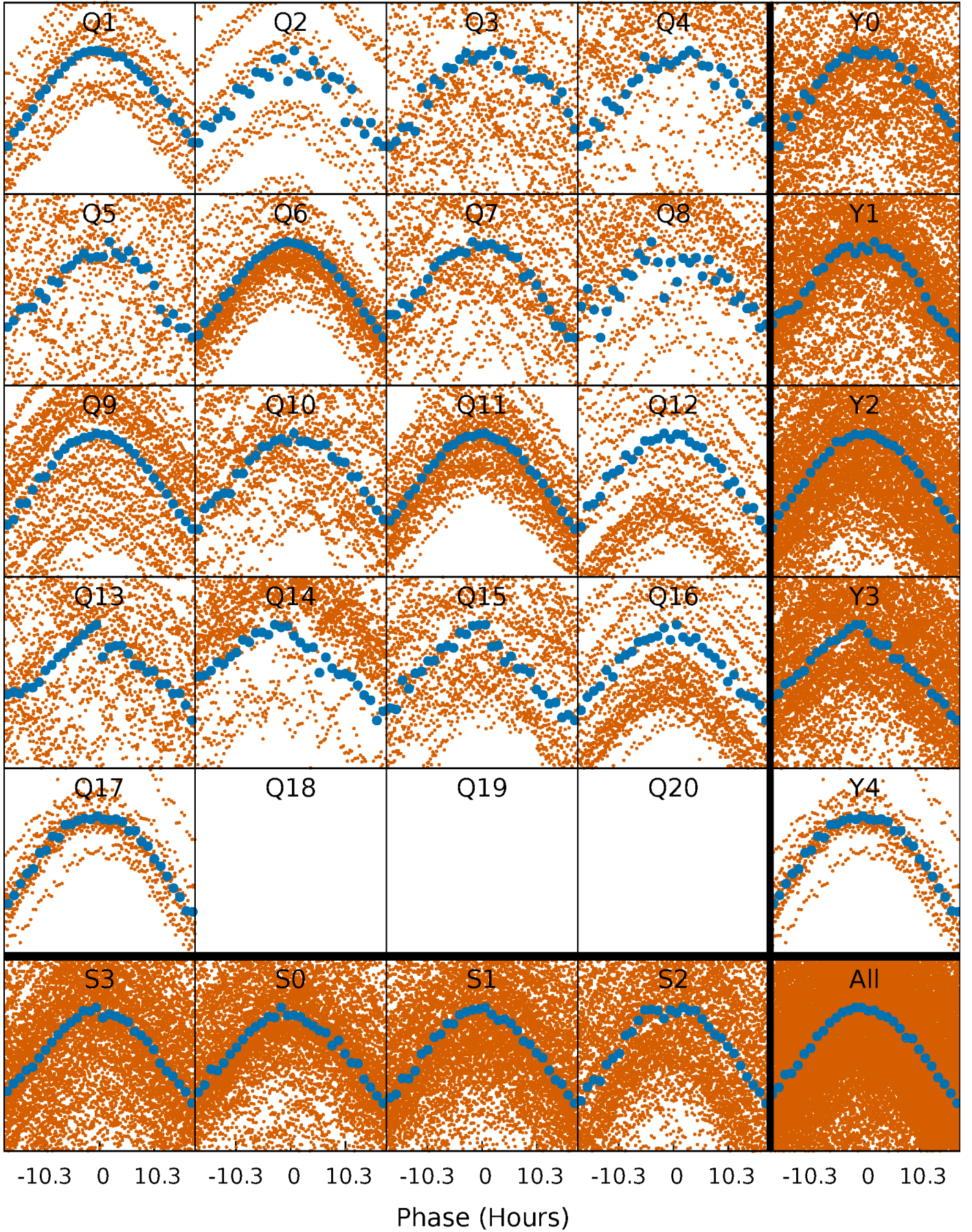


Planet 4 : Phased Whitened Flux Time Series (TPS Epoch/Period)



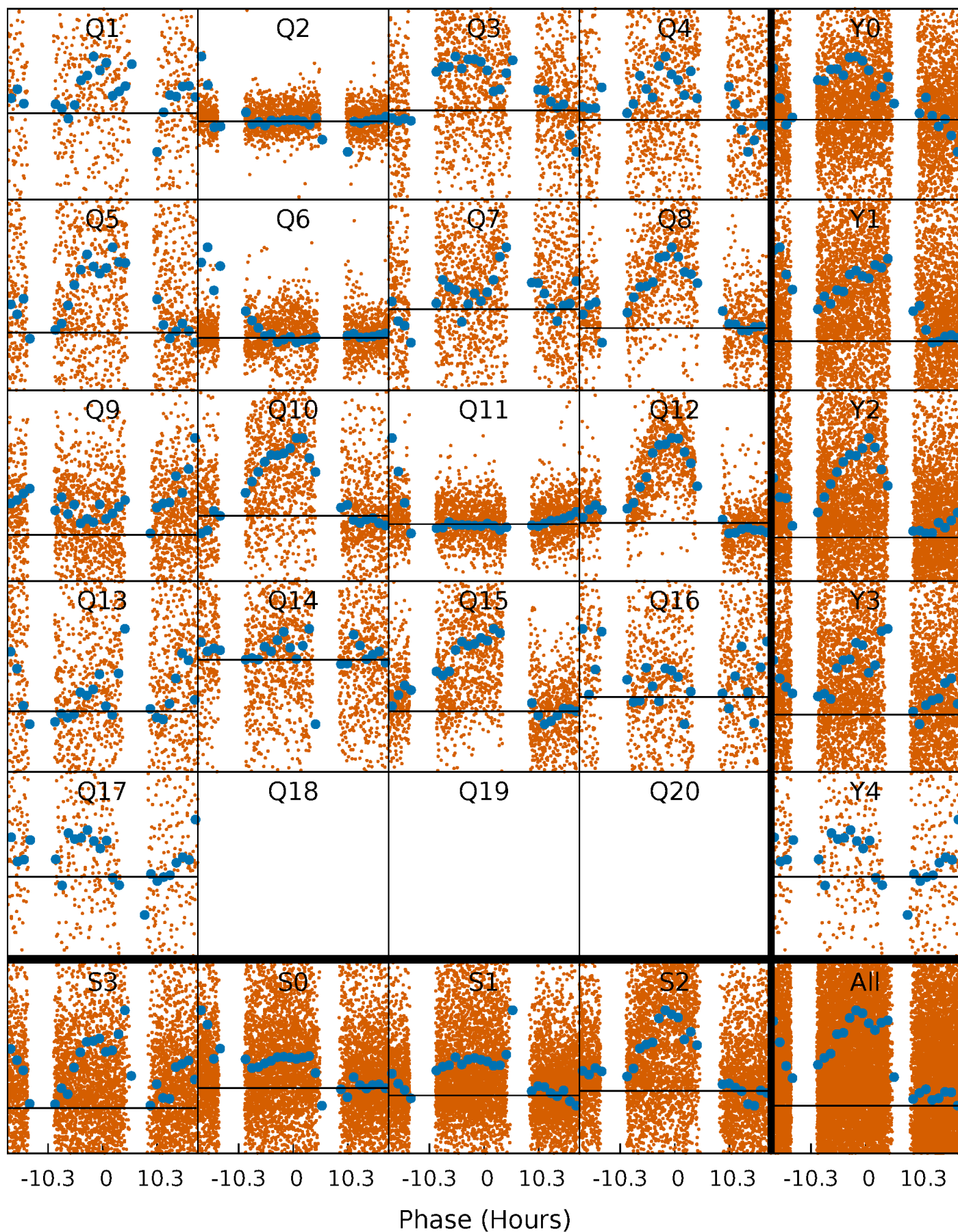
PDC Quarter-Phased Transit Curves

TCE 005738698-04 $P = 2.404450$ Days $T_0 = 132.004805$ (BKJD)



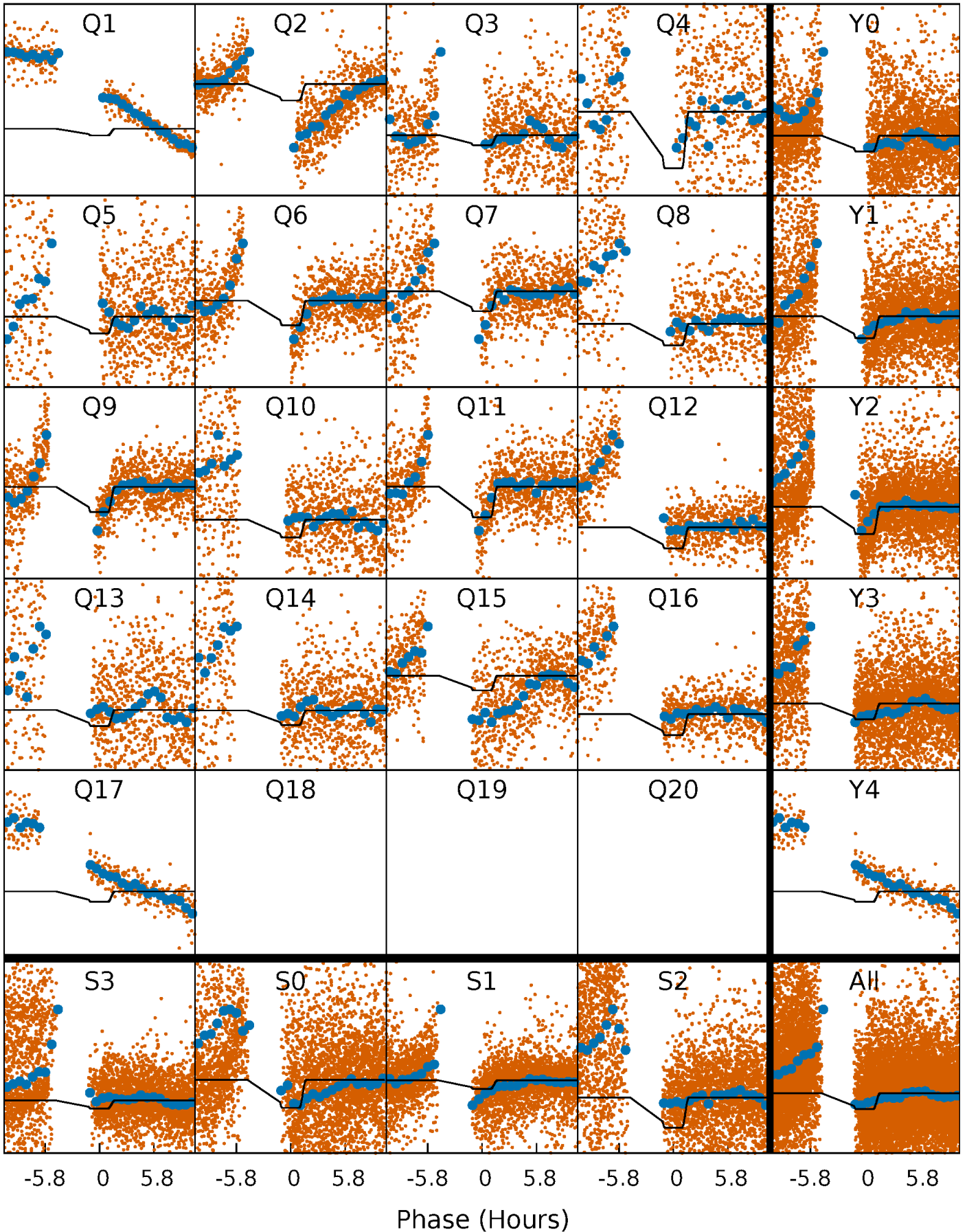
DV Quarter-Phased Transit Curves

TCE 005738698-04 P= 2.404450 Days $T_0=132.004805$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

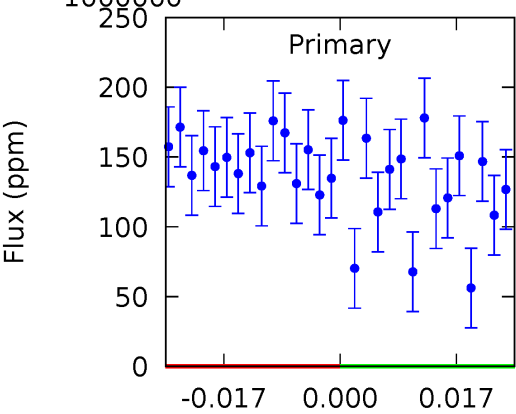
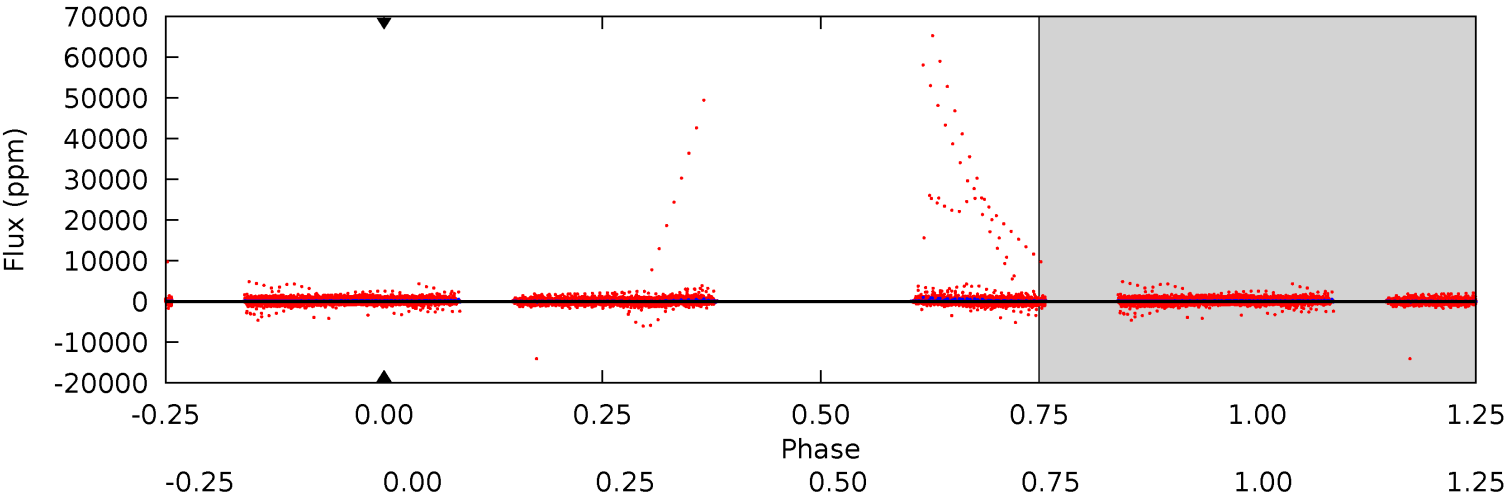
TCE 005738698-04 P= 2.404450 Days $T_0=132.404864$ (BKJD)



DV Model-Shift Uniqueness Test

005738698-04, P = 2.404450 Days, E = 129.600355 Days

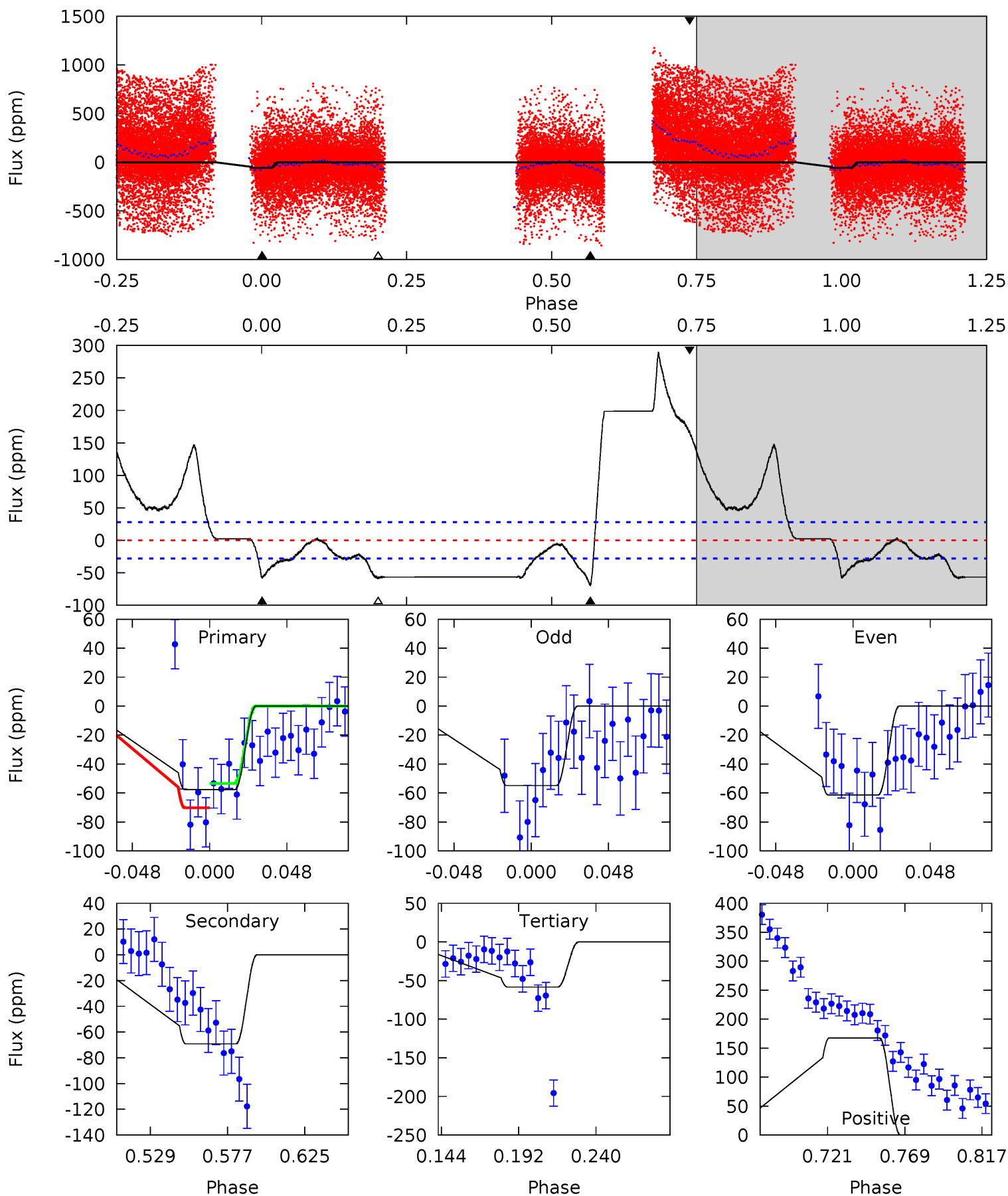
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005738698-04, P = 2.404450 Days, E = 130.000414 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.69	11.6	9.82	28.2	4.72	1.98	14.5	-0.13	-18.5	1.82	-16.5	0.55	1.14	0.81	0.97



Stellar Parameters For KIC 005738698

	$T_{\text{eff}} (K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M (M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6466^{+145}_{-178}	$4.278^{+0.165}_{-0.182}$	$-0.480^{+0.300}_{-0.300}$	$1.210^{+0.341}_{-0.227}$	$1.011^{+0.146}_{-0.106}$	$0.804^{+0.601}_{-0.401}$
	+2%/-3%	+4%/-4%	+62%/-62%	+28%/-19%	+14%/-10%	+75%/-50%
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 005738698-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	0 ± 1000000	$12.34^{+10.88}_{-8.31}$	2326^{+186}_{-136}	-5378^{+25369}_{-18298}	$-17.376^{+774.684}_{-966.655}$
Alt.	-69 ± 6	$9.25^{+10.38}_{-6.31}$	2332^{+169}_{-144}	2636^{+1539}_{-5174}	$0.559^{+5.079}_{-0.439}$

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

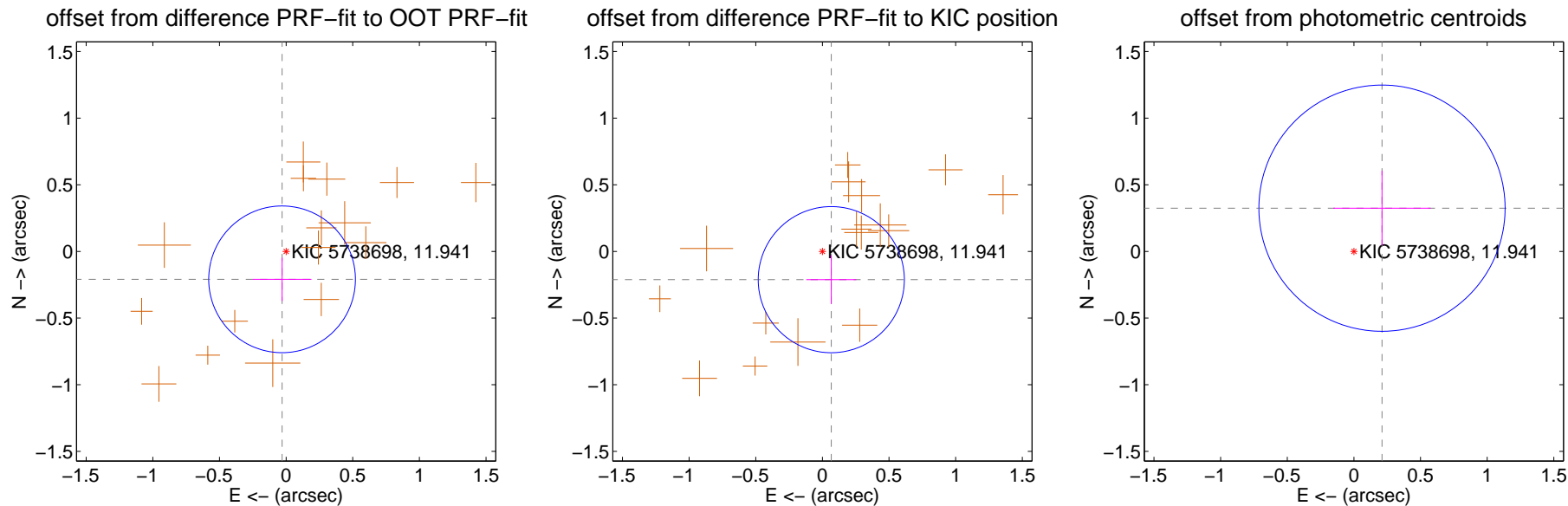
DV Centroid Data

Supplemental centroid analysis for 005738698-04. **Kepler magnitude: 11.94.** Transit SNR -1.00

There are 0 quarters with good PRF difference image offsets

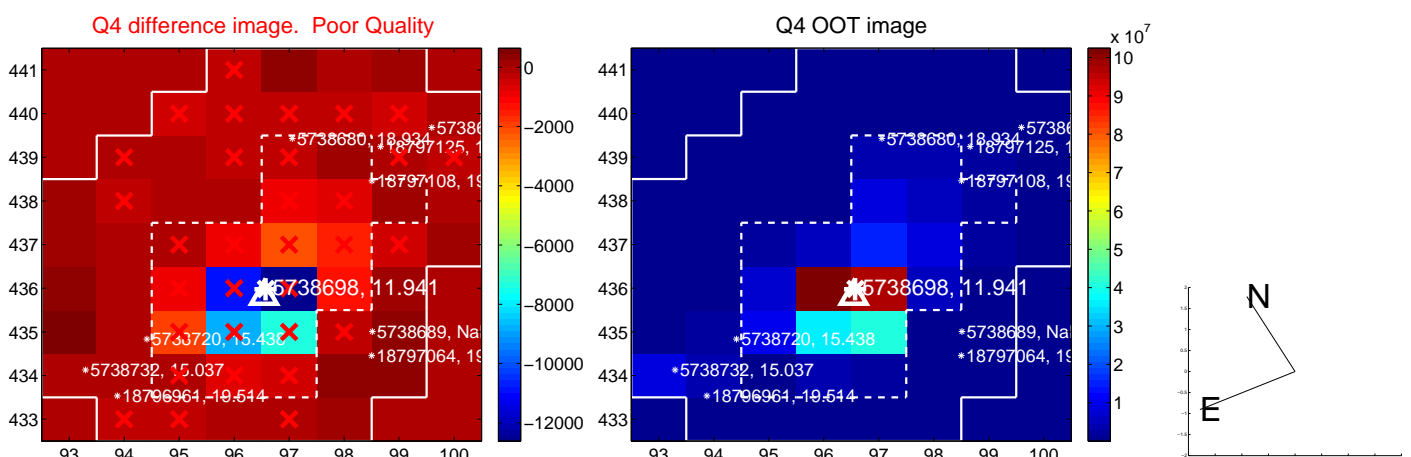
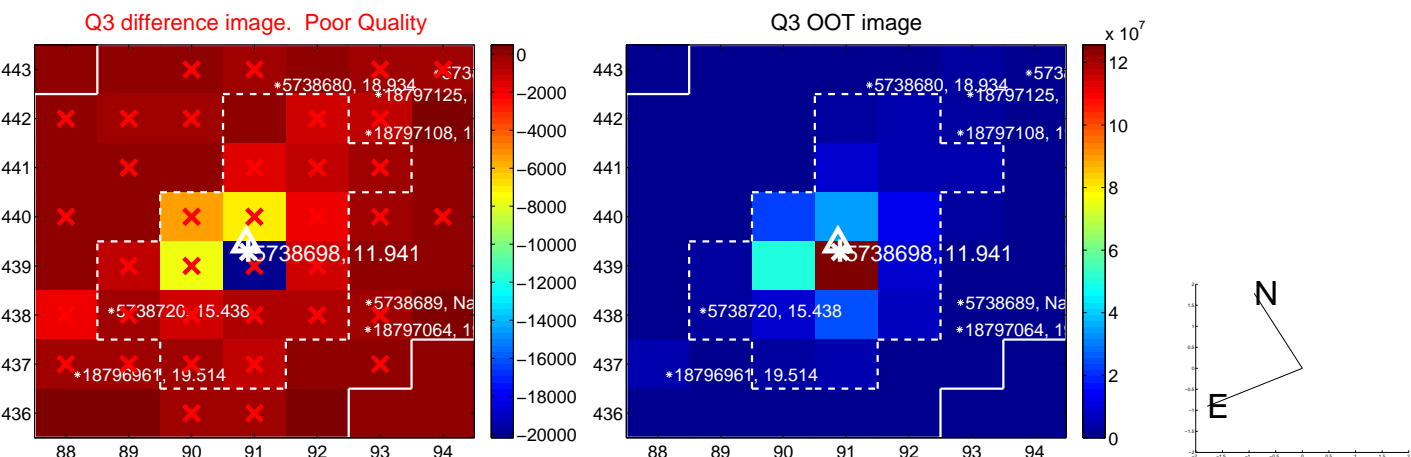
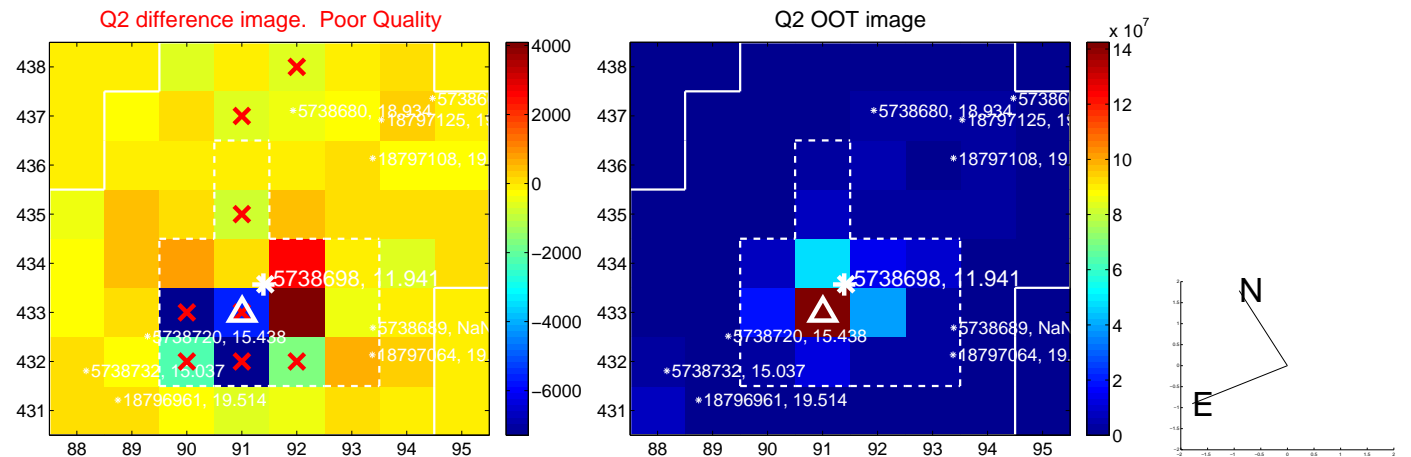
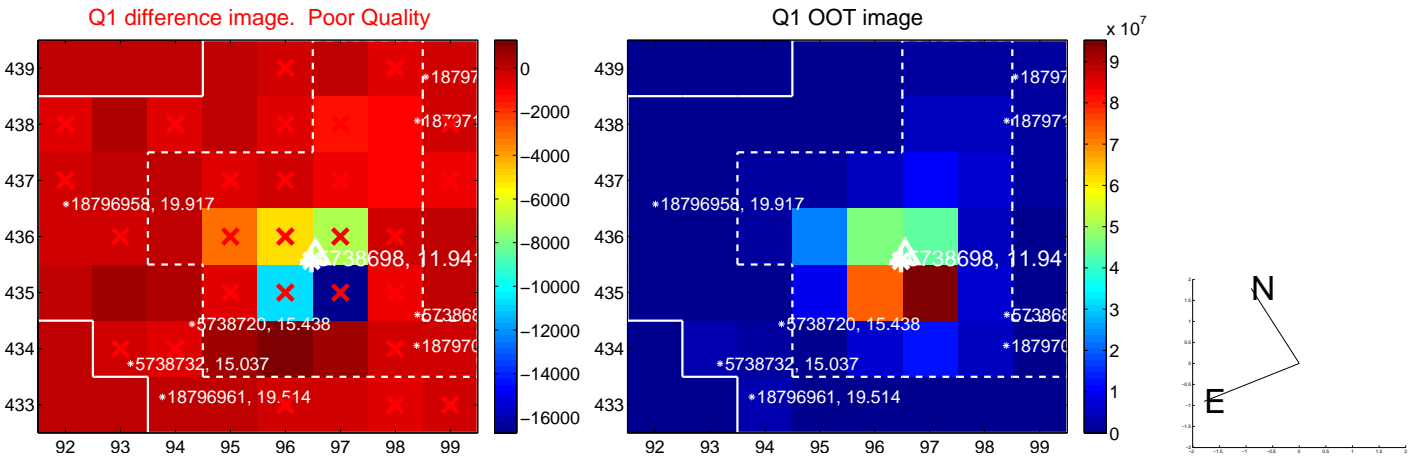
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.212 ± 0.183	1.15	0.030 ± 0.220	-0.209 ± 0.162
PRF-fit source offset from KIC position	0.222 ± 0.183	1.22	-0.067 ± 0.187	-0.212 ± 0.182
photometric centroid source offset	0.39 ± 0.31	1.26	-0.21 ± 0.37	0.32 ± 0.28

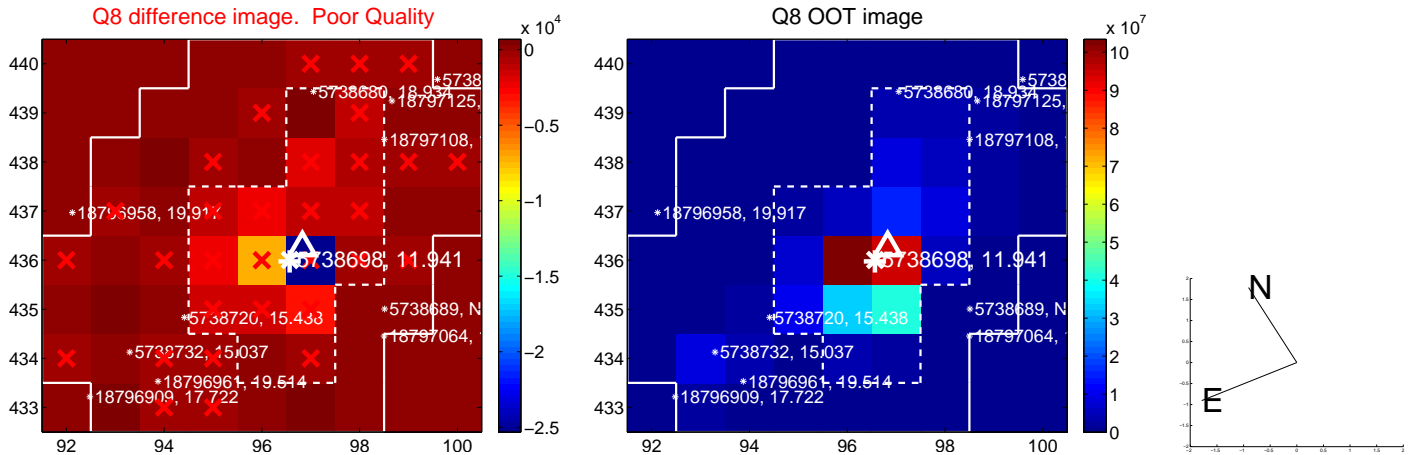
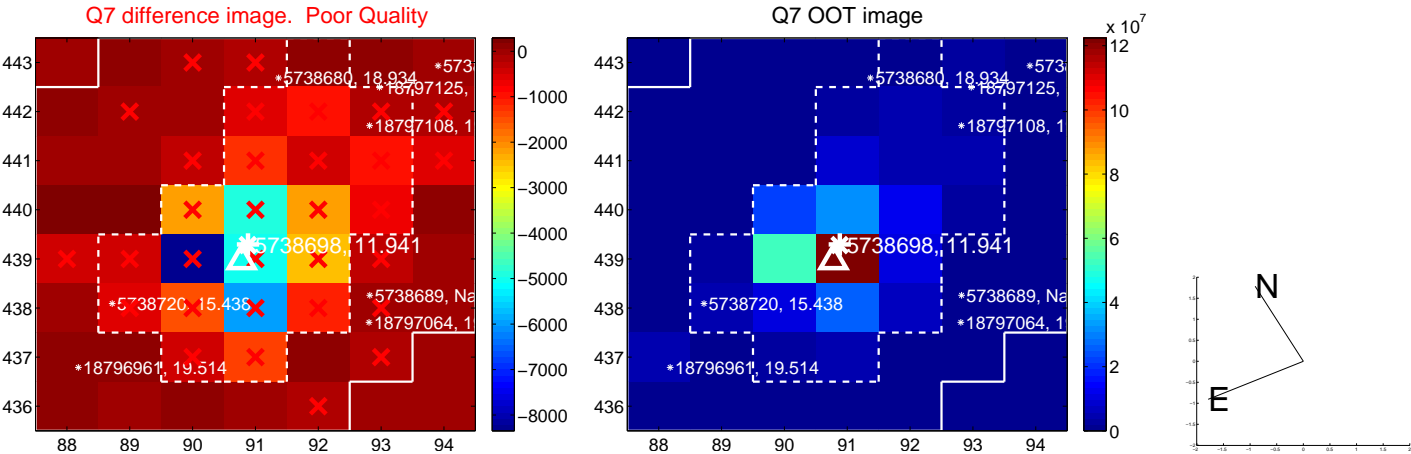
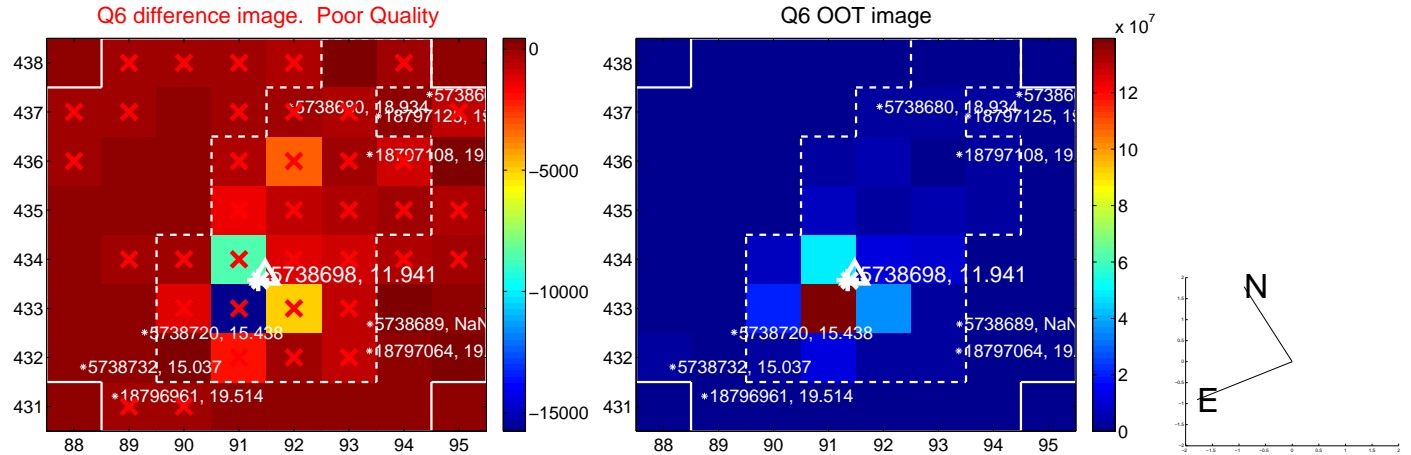
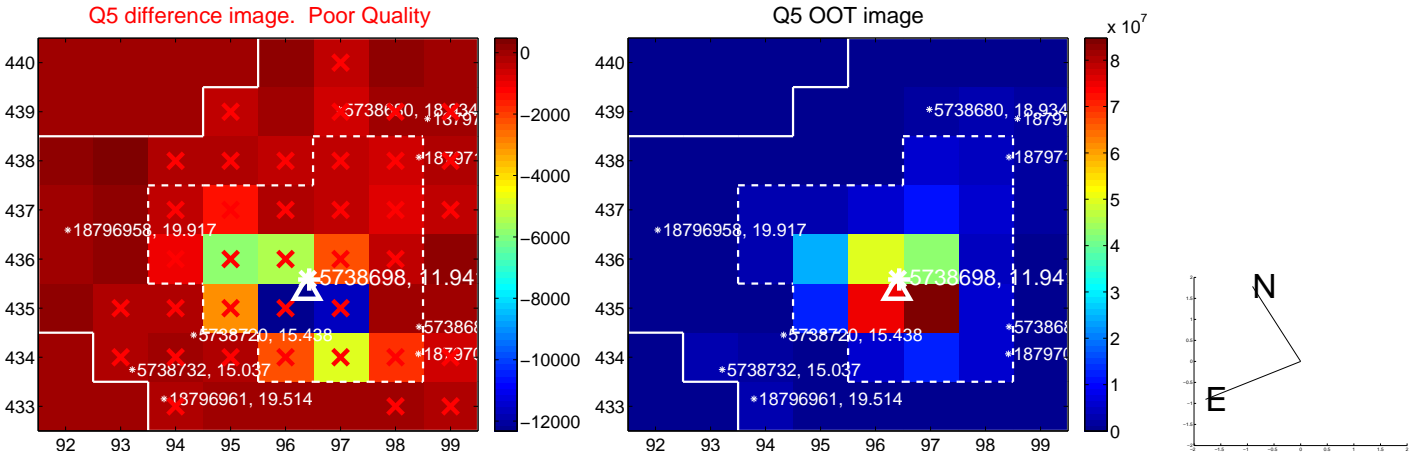


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

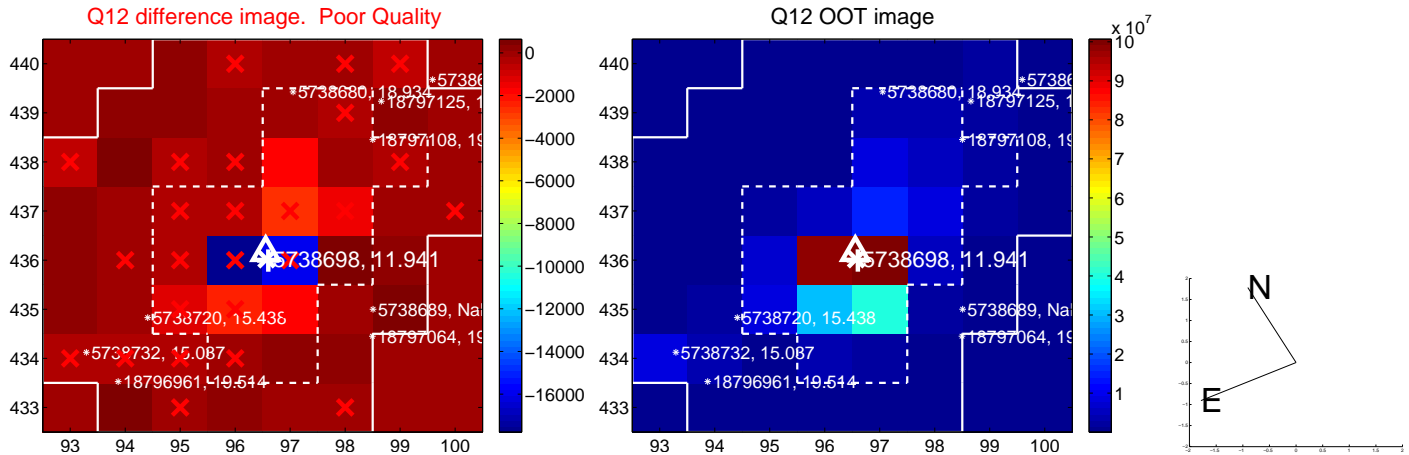
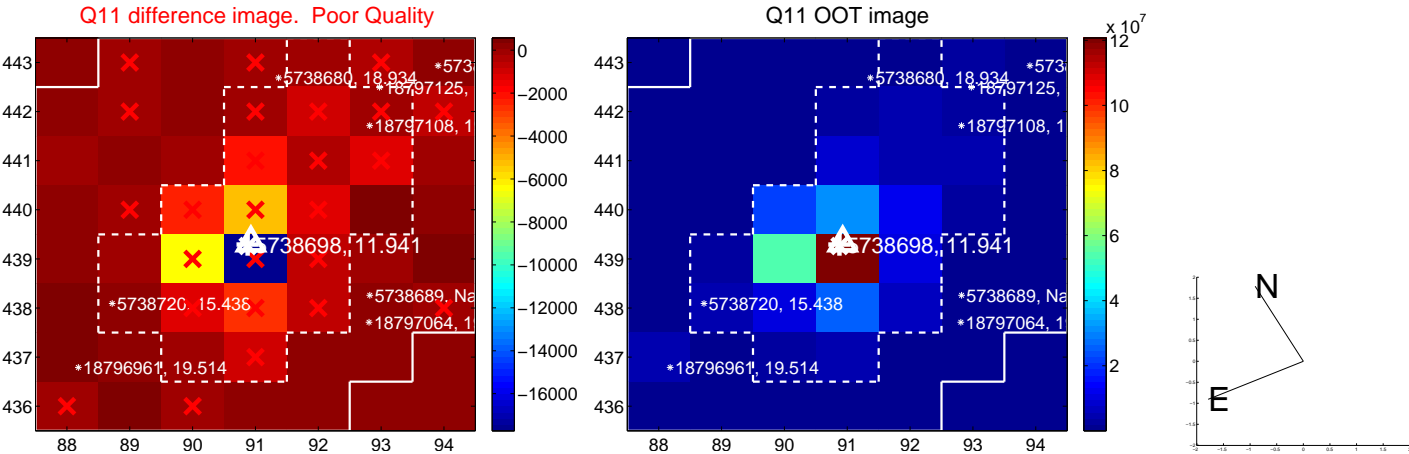
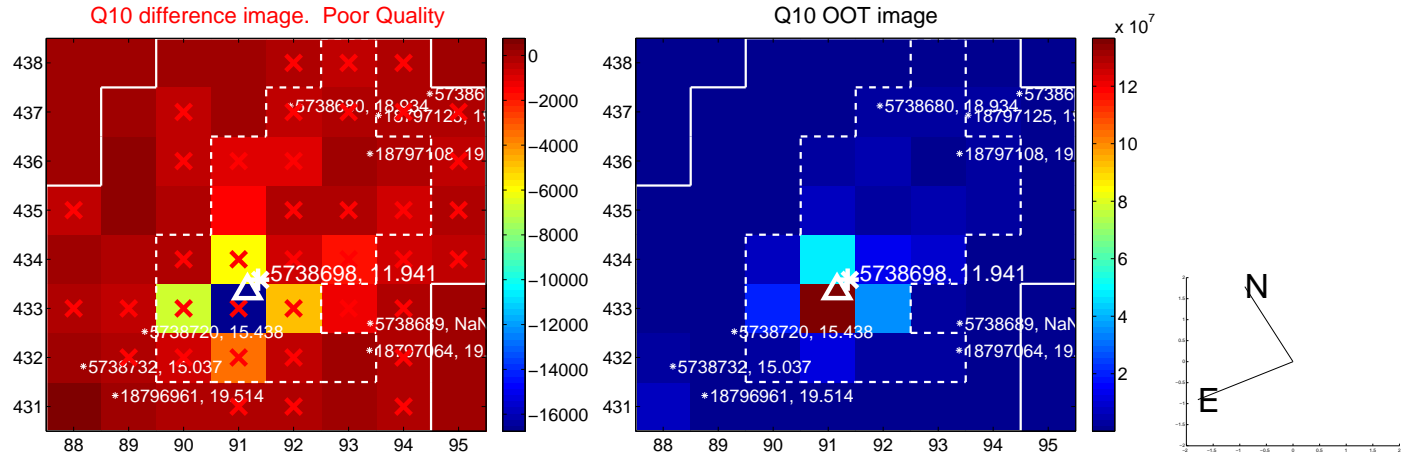
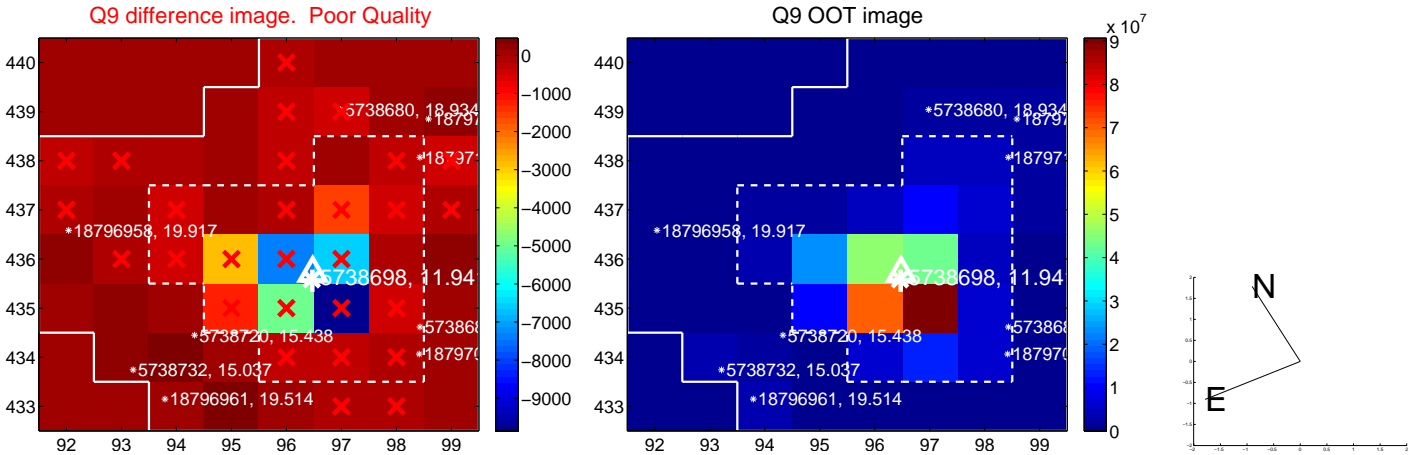
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



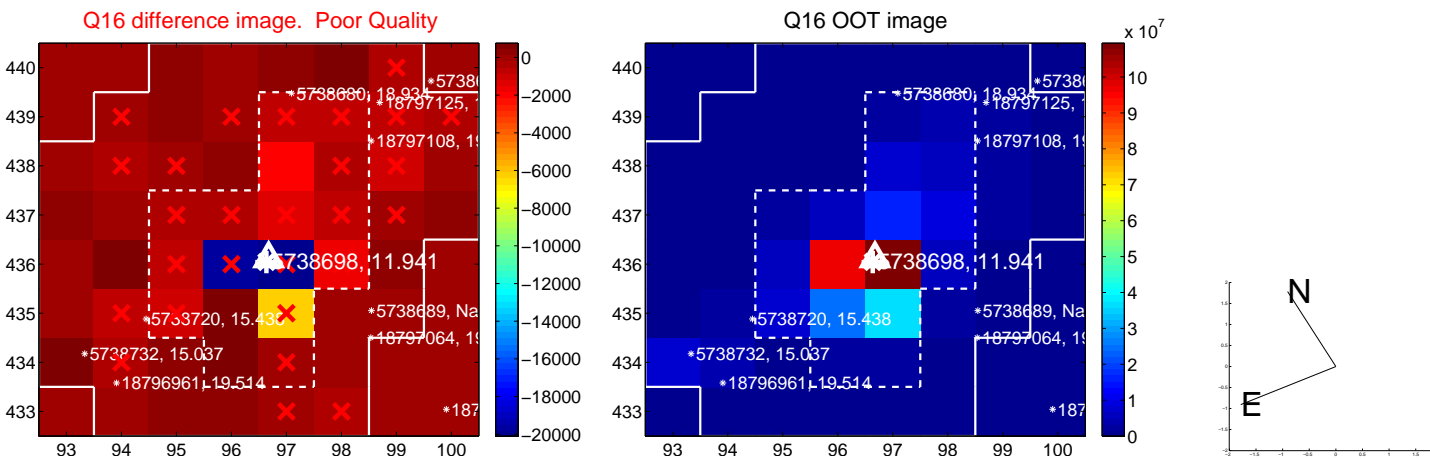
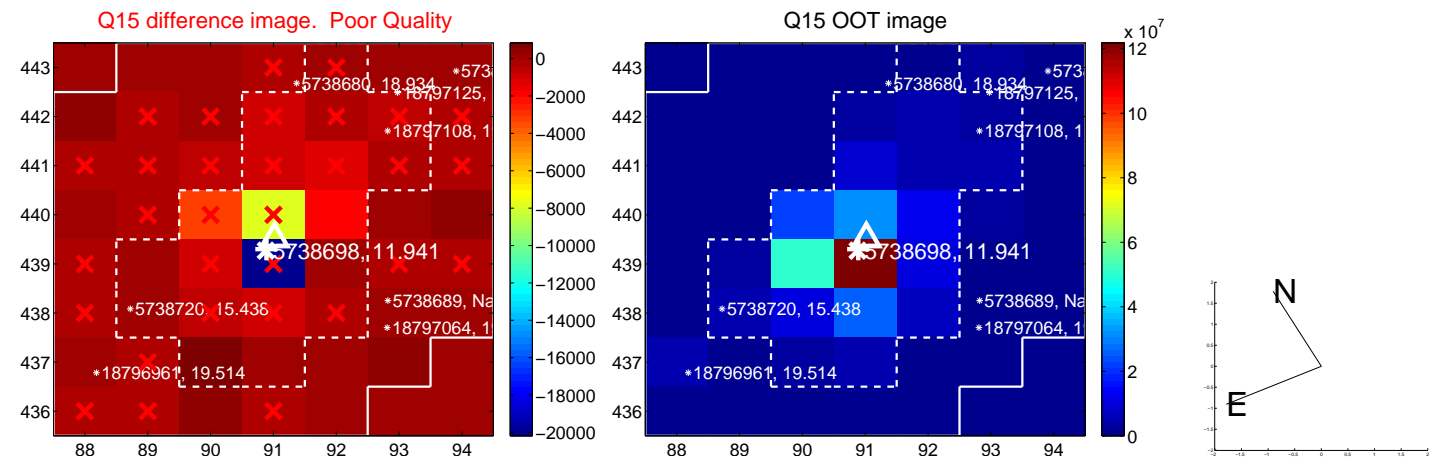
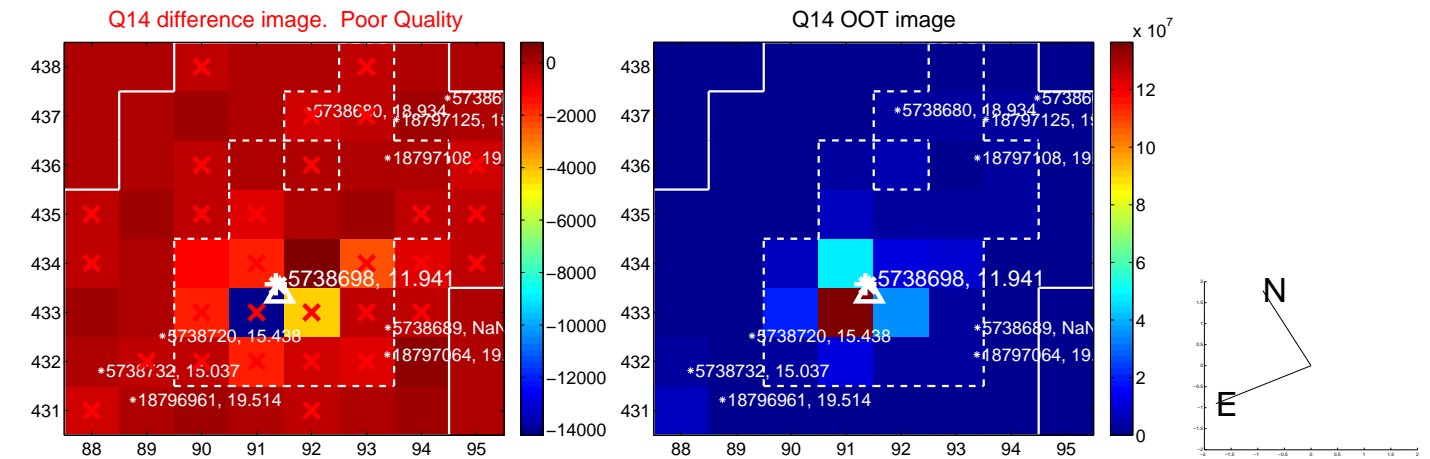
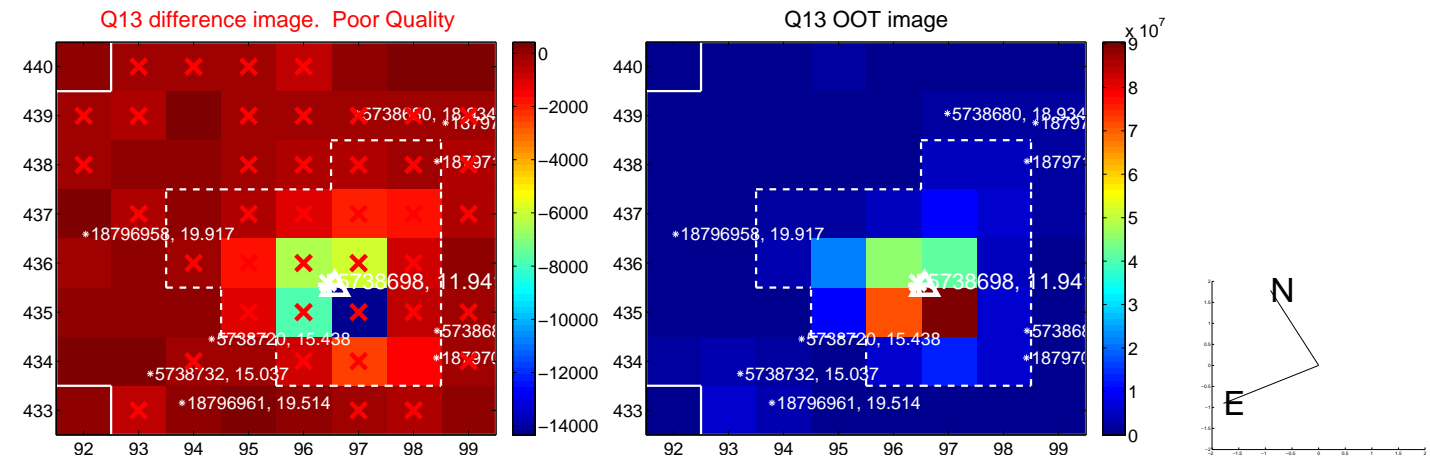
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



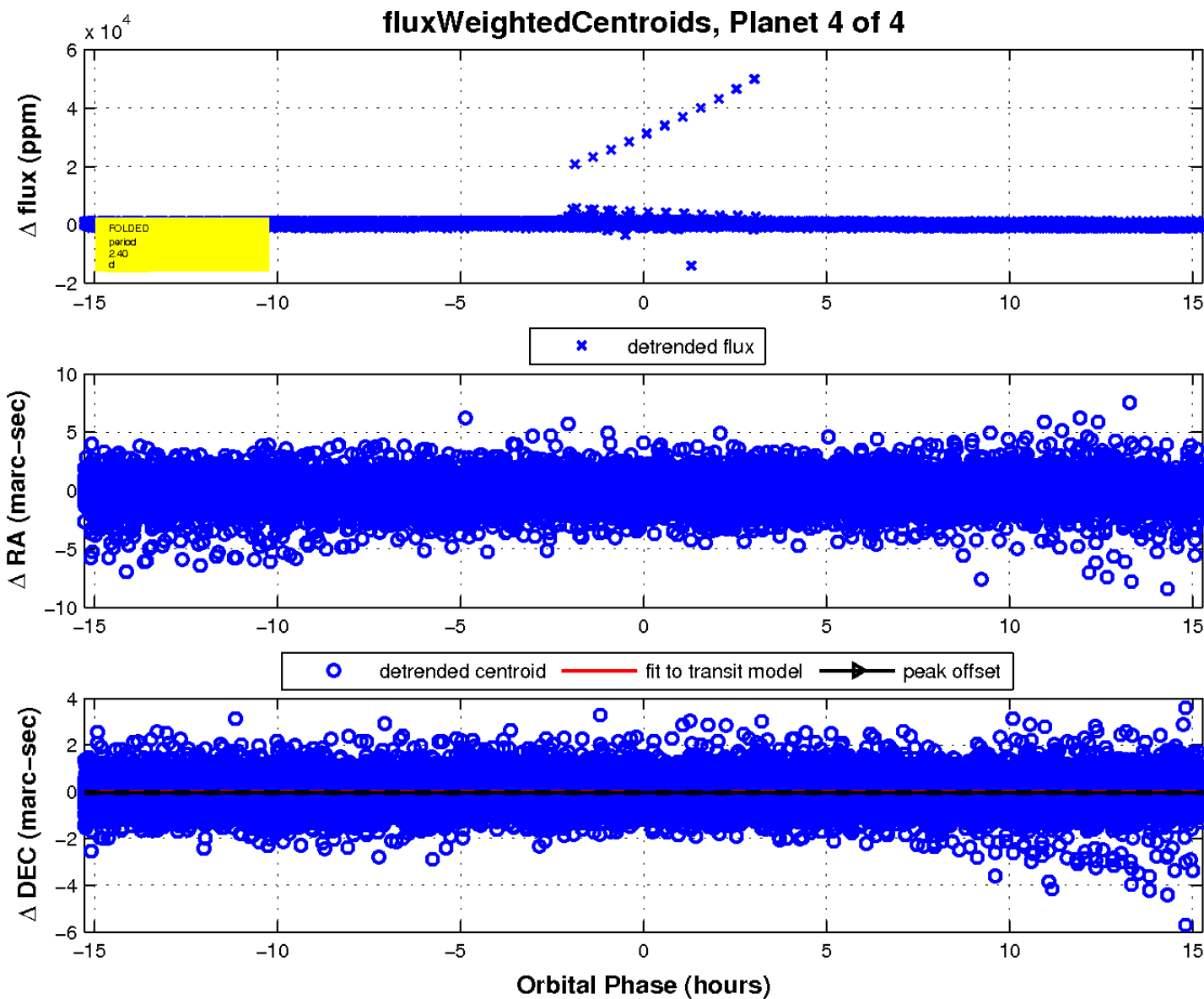
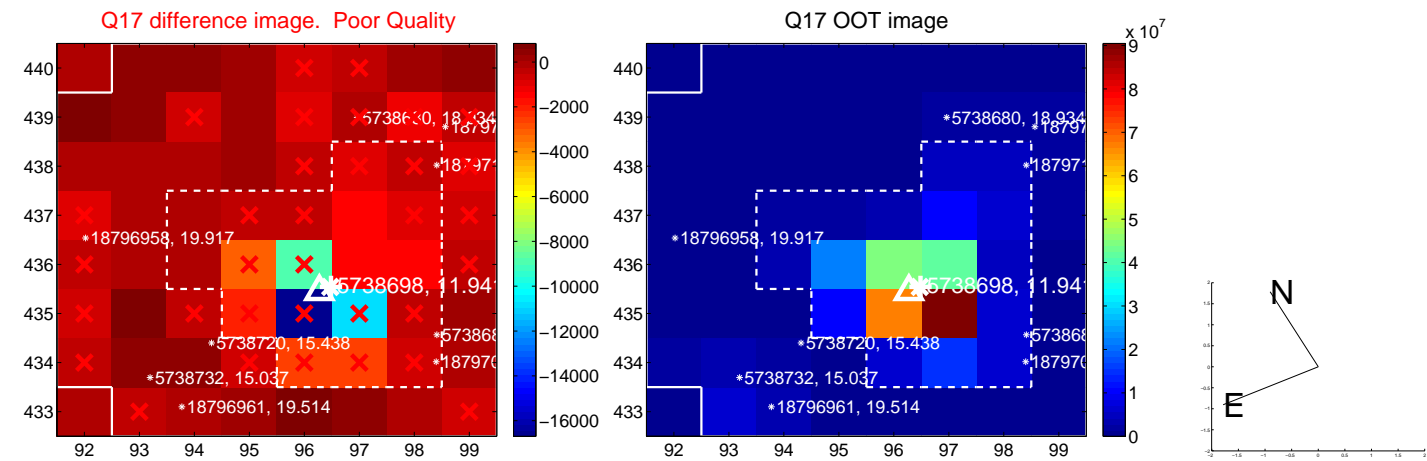
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

