

KIC 005080652

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})
005080652-01	OBS	6510.01	2.072179	133.094527	258636.9	3.000	12307.7	-1.0	0.72	5519	35.82	497.18
005080652-02	OBS	No	6.216500	134.137325	2537.2	13.922	781.1	43.8	0.72	5519	6.84	114.91
005080652-03	OBS	No	4.144340	131.545050	6833.4	7.500	264.5	-1.0	0.72	5519	5.88	197.31
005080652-04	OBS	No	4.144453	133.925882	28.4	0.534	125.3	0.5	0.72	5519	0.44	197.30
005080652-05	OBS	No	4.144360	133.377259	9682.3	12.500	98.6	-1.0	0.72	5519	7.00	197.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005080652-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005080652-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005080652-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
005080652-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005080652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—NO_FITS—RESIDUAL_TCE—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 005080652-01

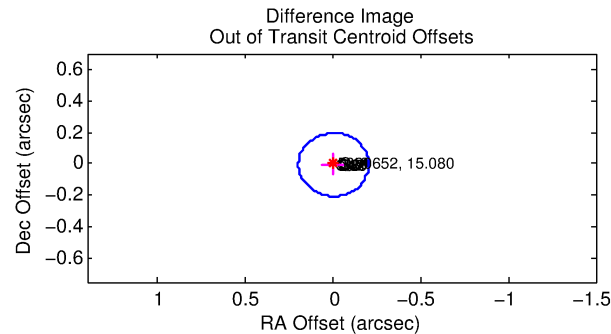
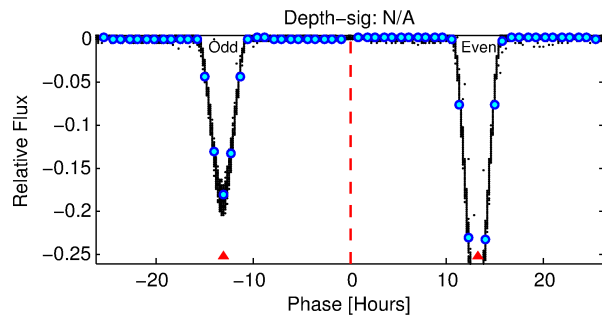
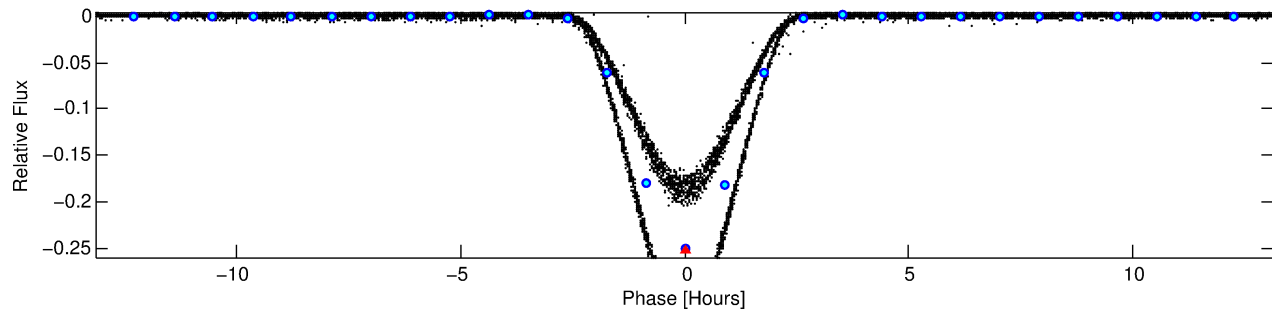
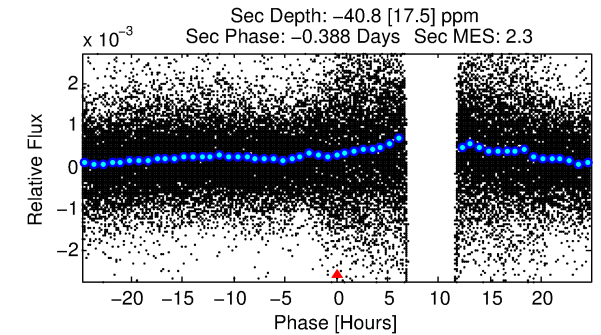
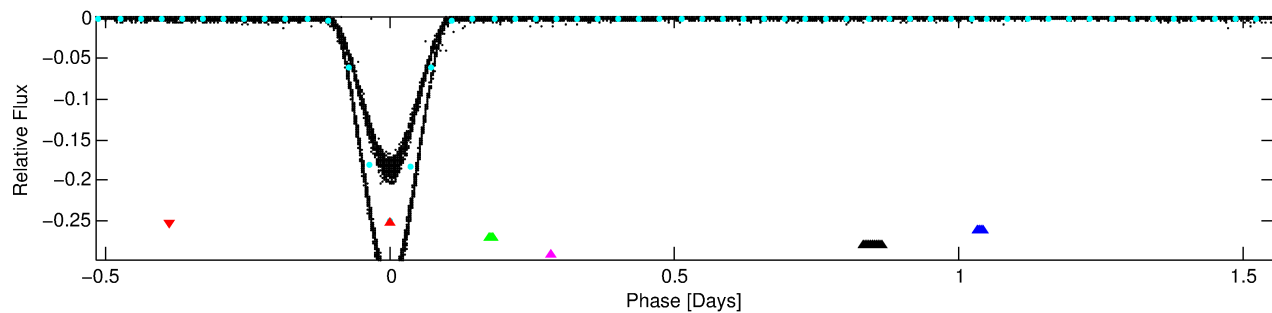
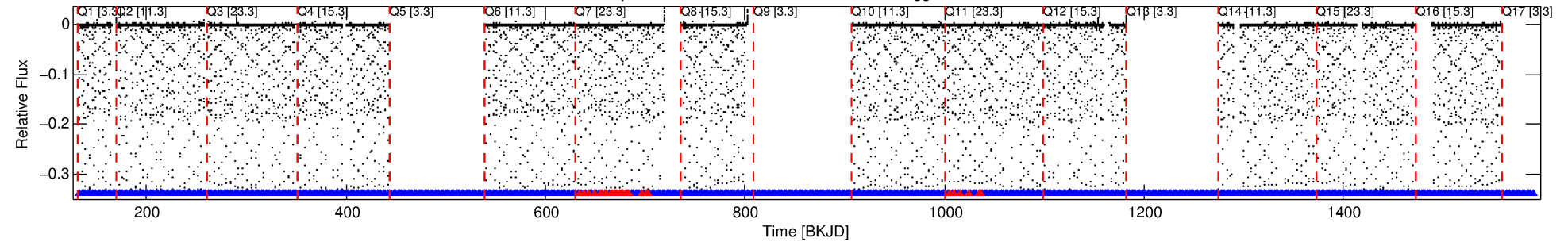
No Significant Match Found

DV One-Page Summary

KIC: 5080652 Candidate: 1 of 5 Period: 2.072 d

KOI: K06510.01 Corr: 0.793

Kp: 15.08 R*: 0.72 Rs Teff: 5519.0 K Logg: 4.62 Fe/H: -0.500



TPS TCE Results:

Period = 2.07218 d
Epoch = 133.0945 BKJD

DV fit results are unavailable

DV Diagnostic Results:

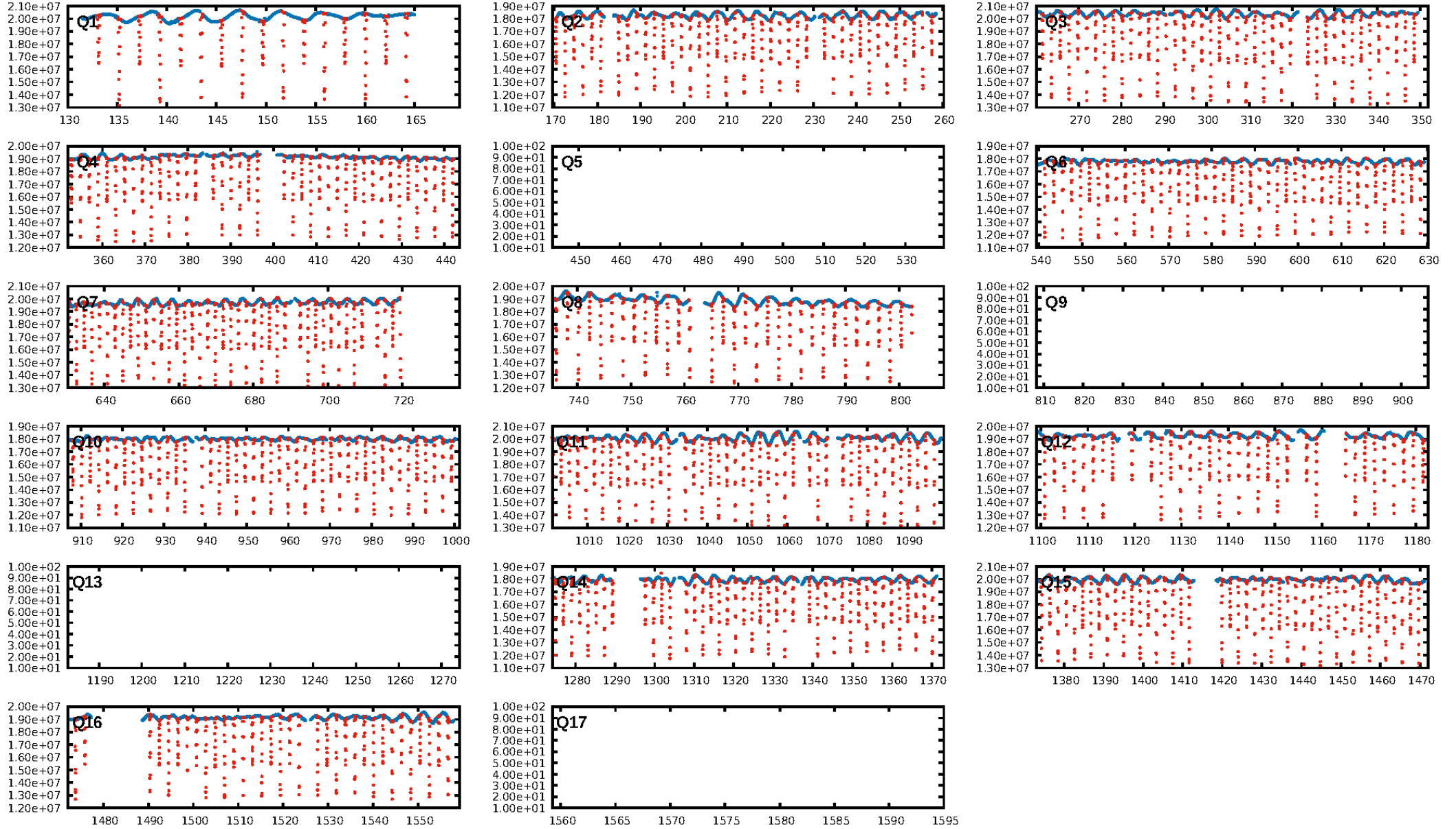
ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [6.16σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.95 [456/482]
GhostDiagnostic-chr: 1.187

Centroid-sig: 2.2%
Centroid-so: 0.049 arcsec [62.58σ]
OotOffset-rm: 0.007 arcsec [0.10σ]
KicOffset-rm: 0.136 arcsec [1.64σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 1.00 [13/13]

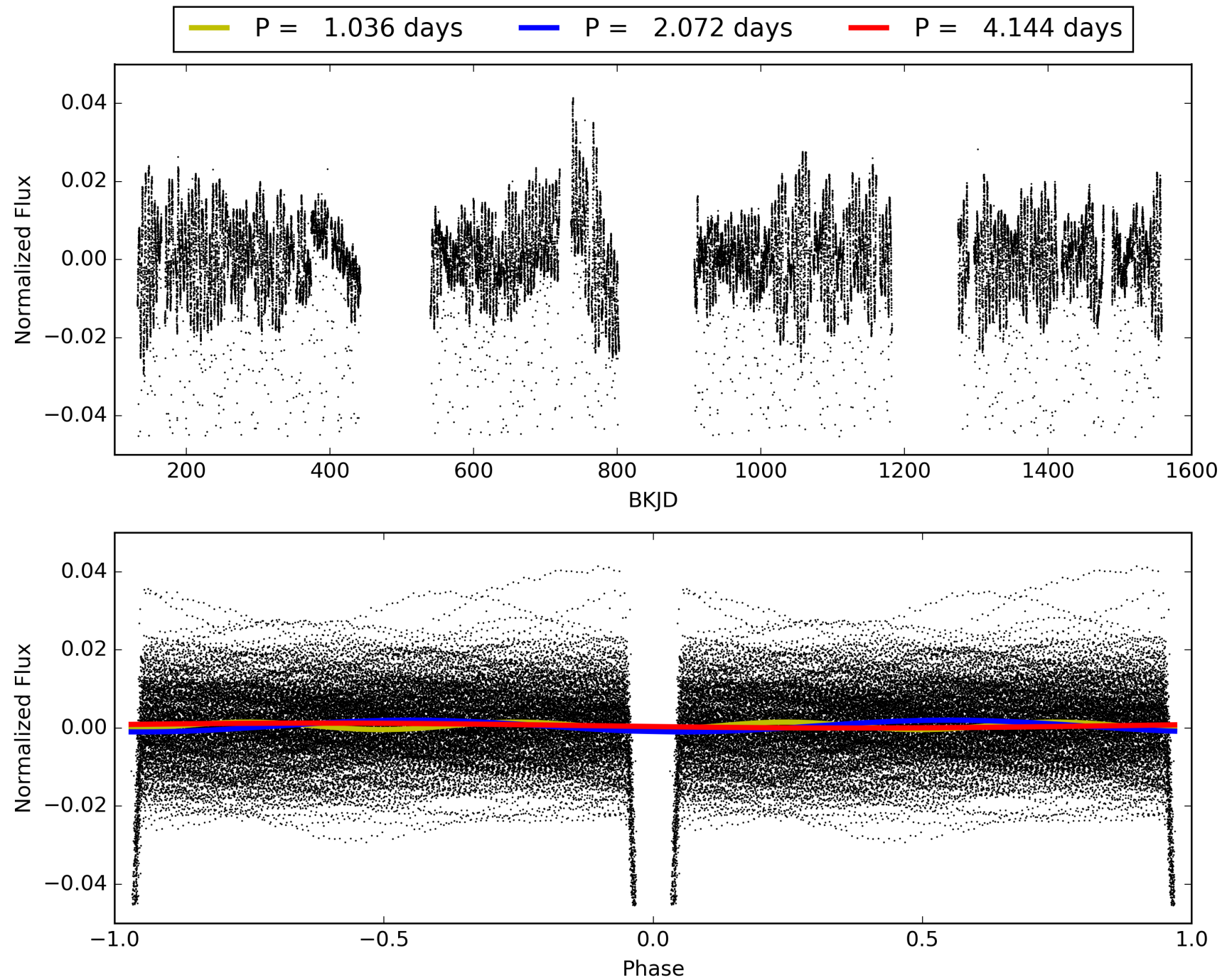
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:47:47 Z

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

TCE 005080652-01, PDC Light Curves

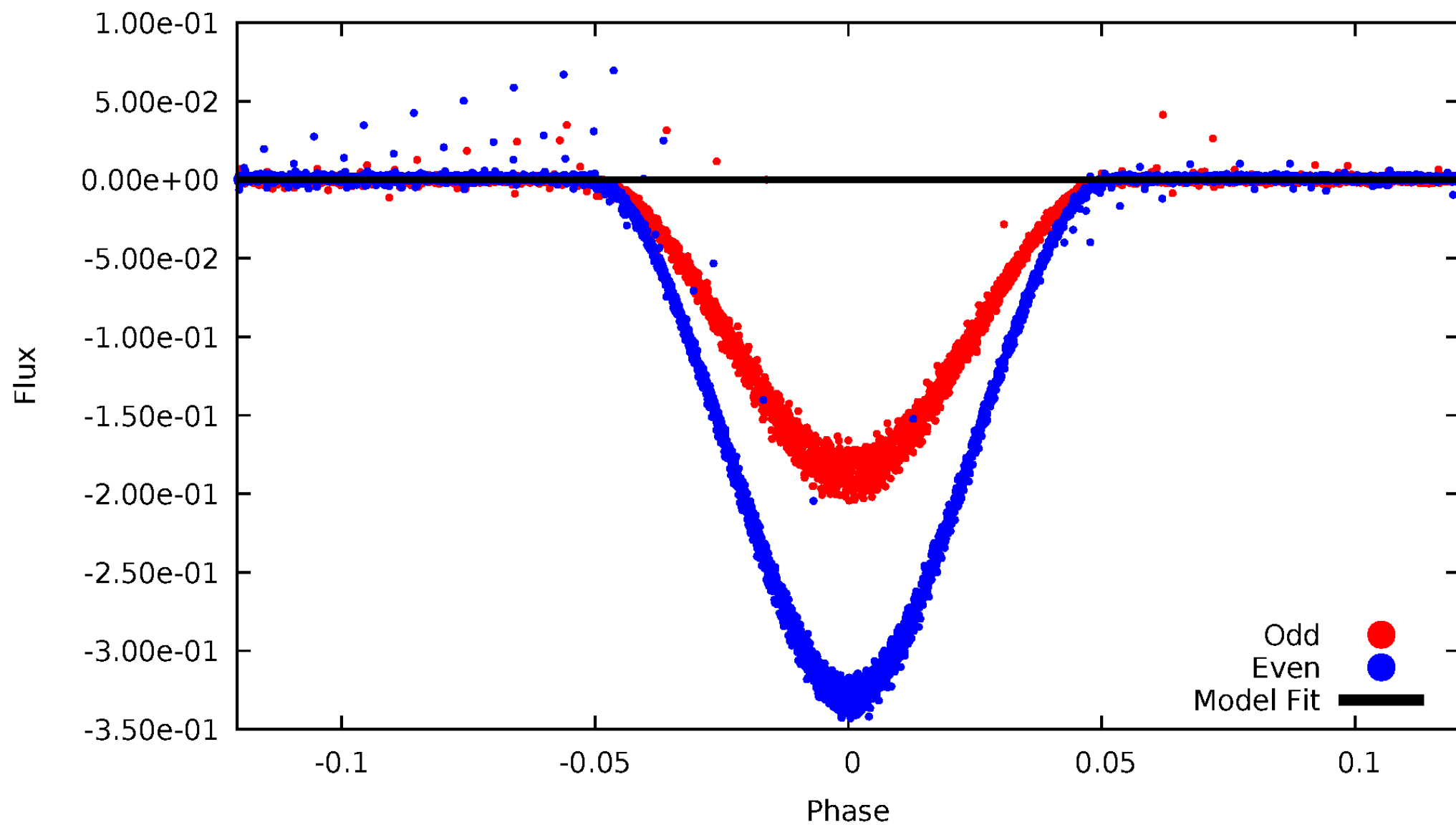


TCE 005080652-01



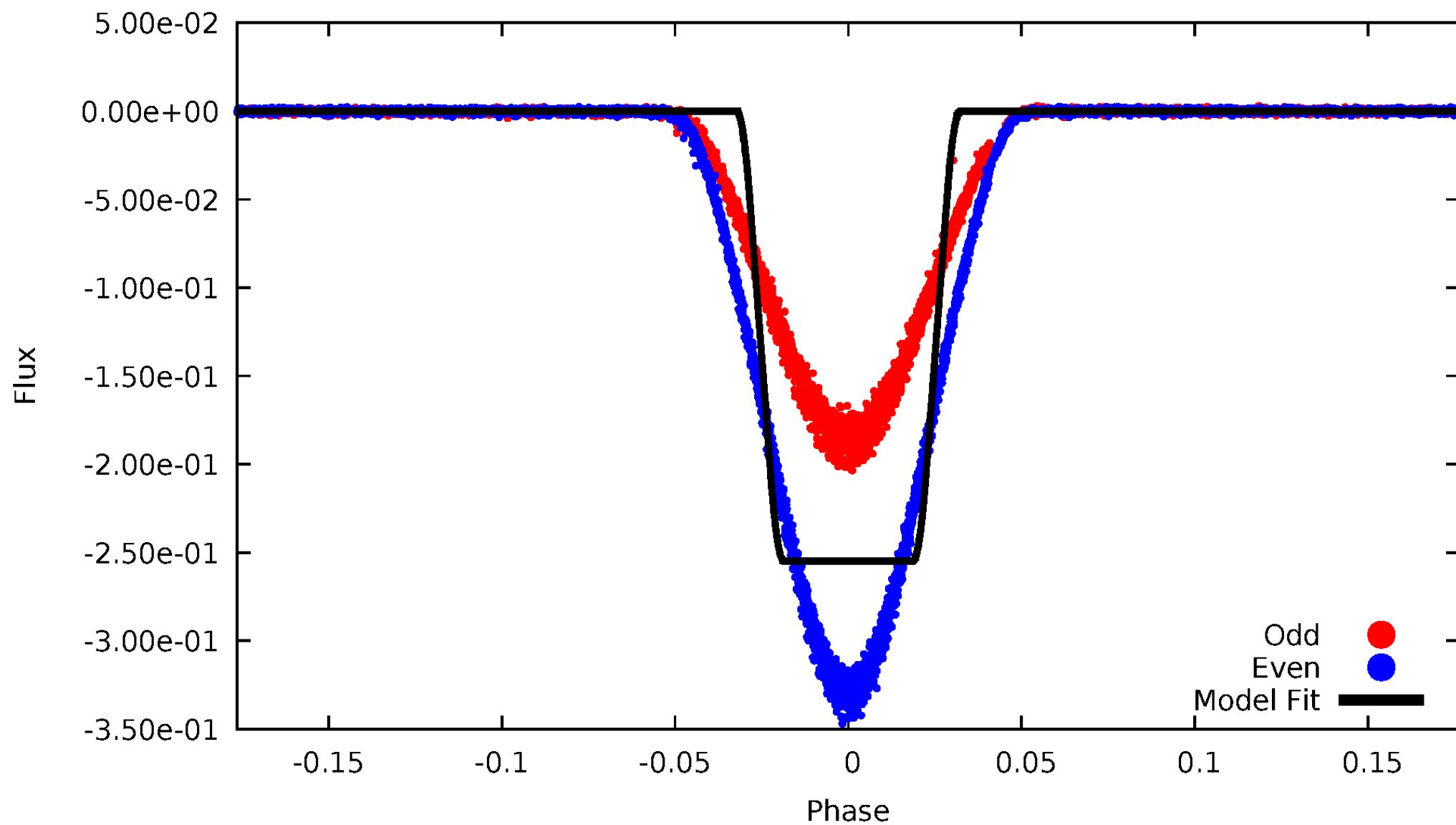
DV Odd/Even

TCE 005080652-01



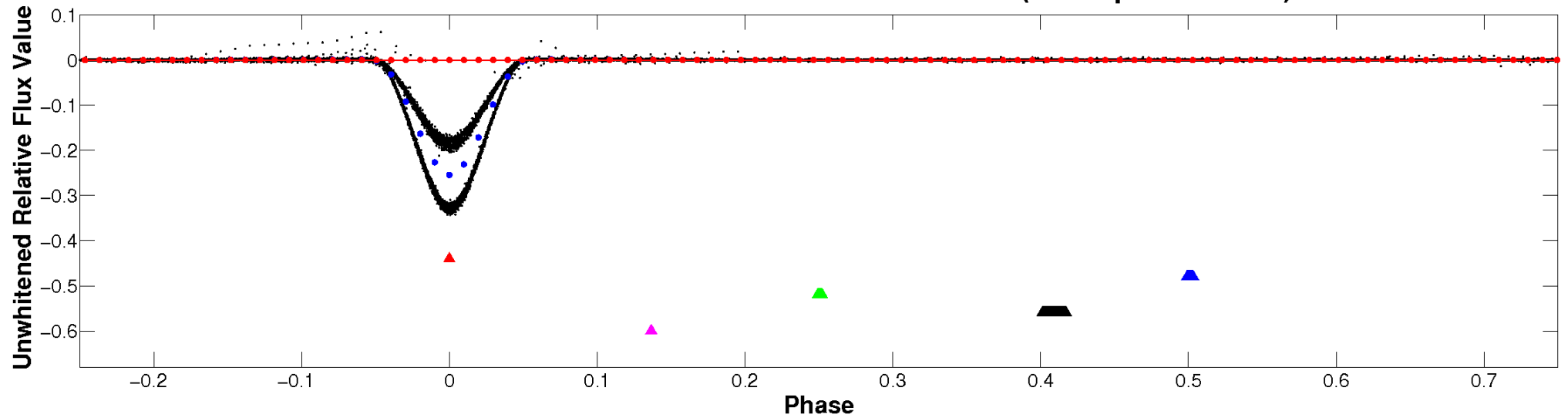
ALT Odd/Even

TCE 005080652-01



Non-Whitened Vs. Whitened Light Curve

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

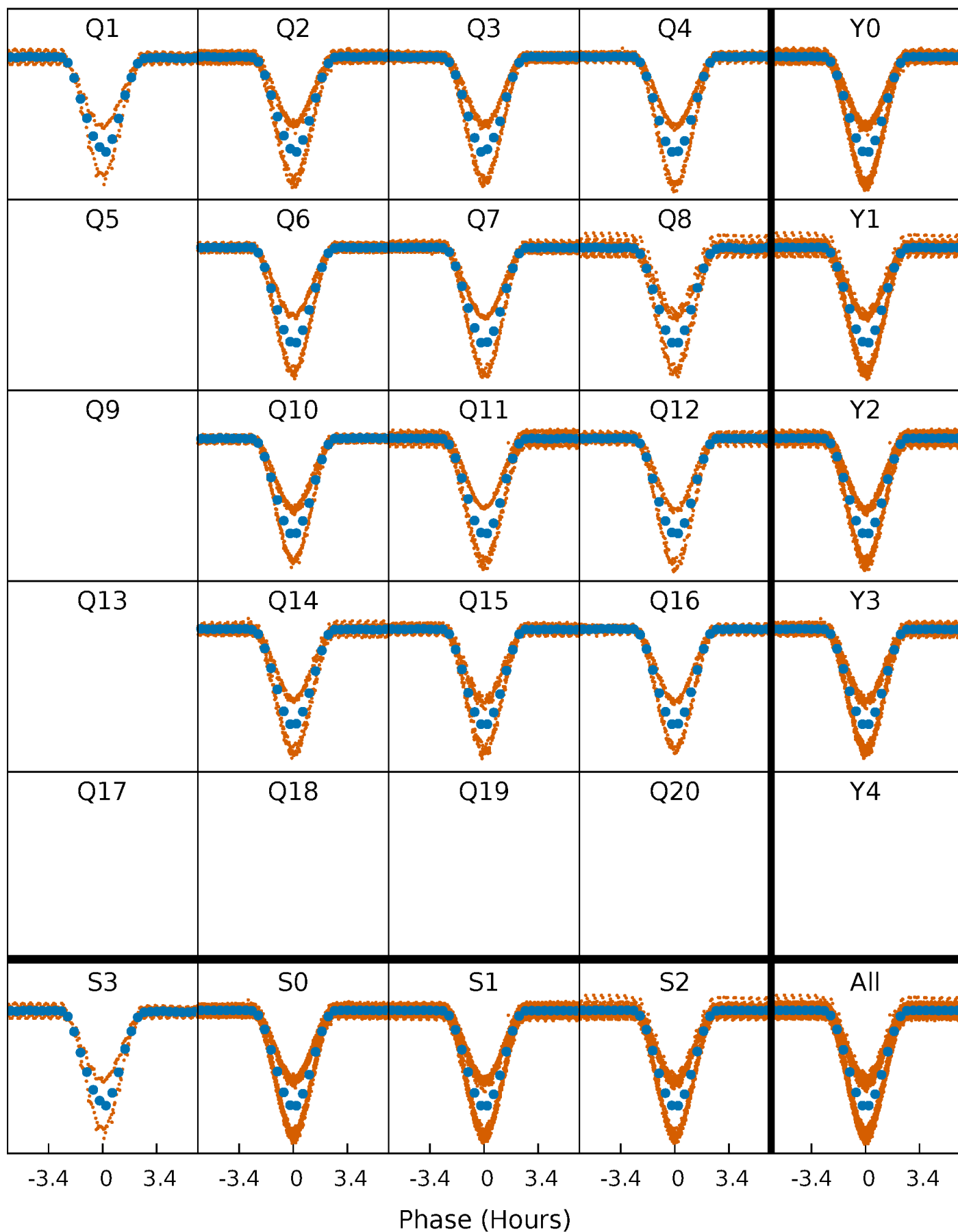


Planet 1 : Phased Whitened Flux Time Series (TPS Epoch/Period)



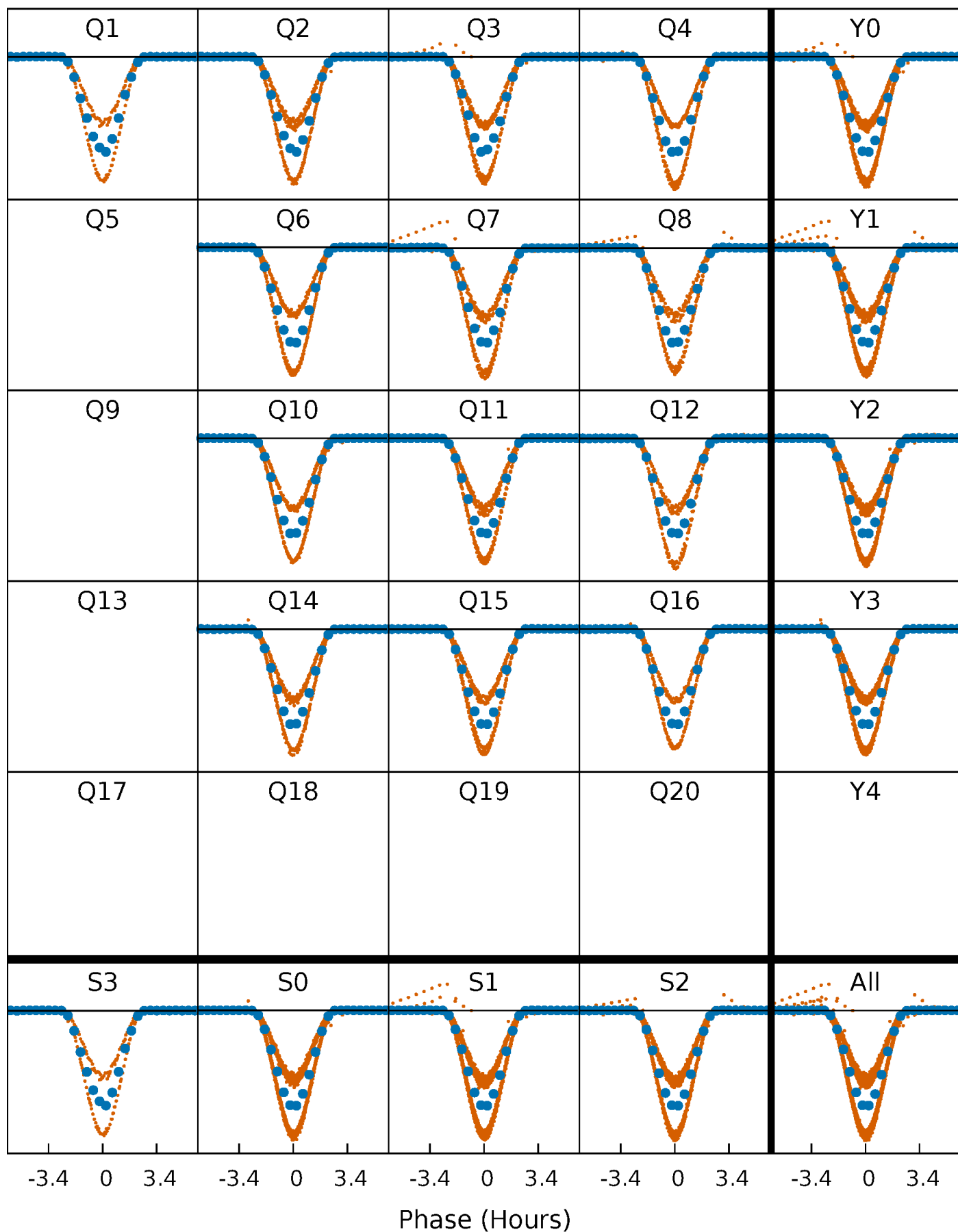
PDC Quarter-Phased Transit Curves

TCE 005080652-01 P= 2.072179 Days $T_0=133.094527$ (BKJD)



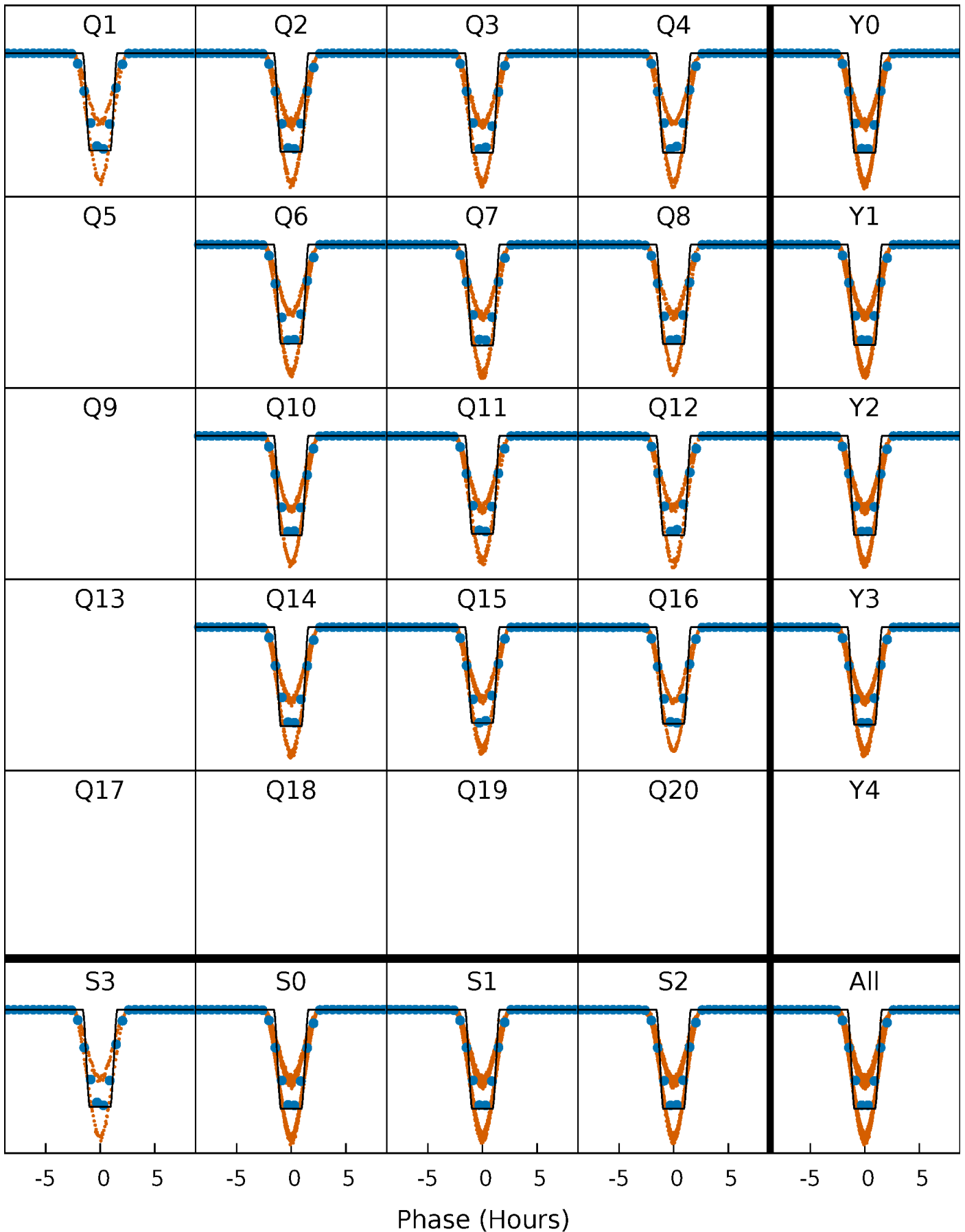
DV Quarter-Phased Transit Curves

TCE 005080652-01 P= 2.072179 Days $T_0=133.094527$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

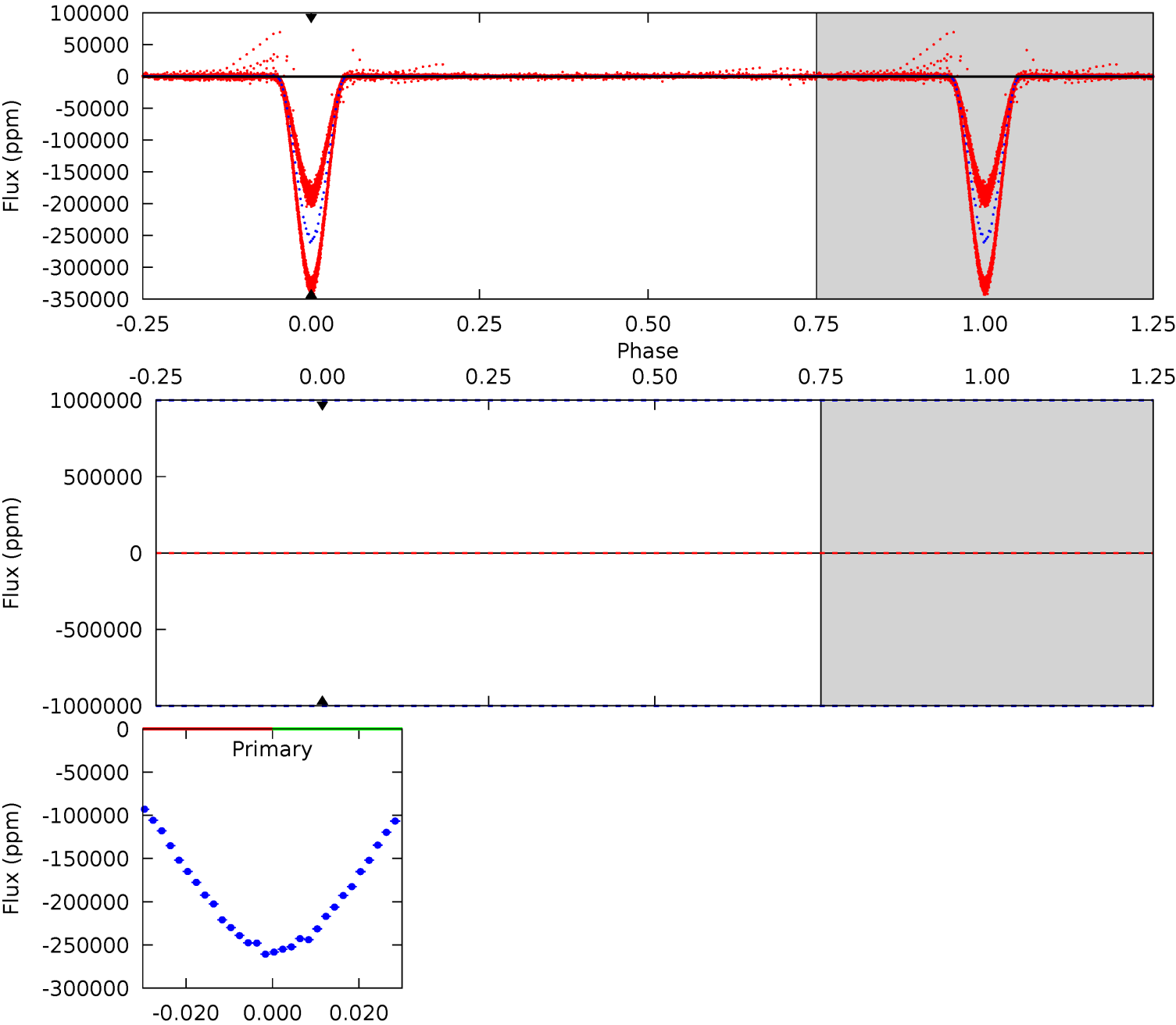
TCE 005080652-01 P= 2.072179 Days $T_0=133.095276$ (BKJD)



DV Model-Shift Uniqueness Test

005080652-01, P = 2.072179 Days, E = 131.022348 Days

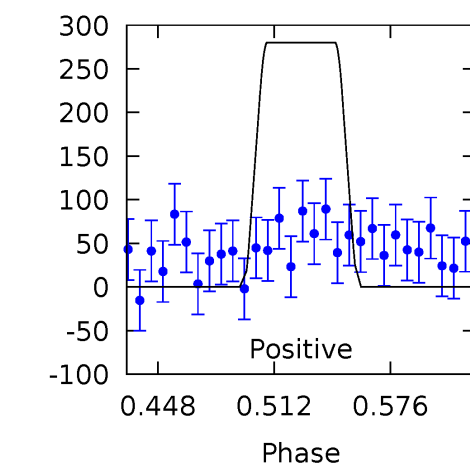
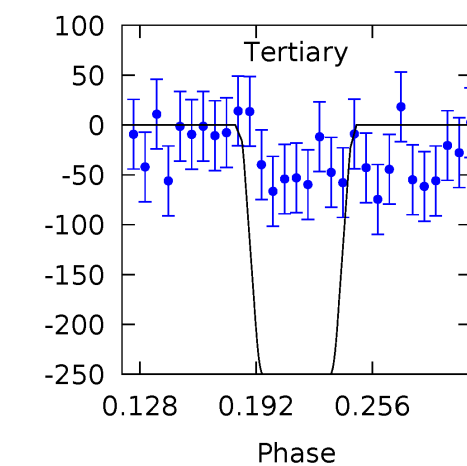
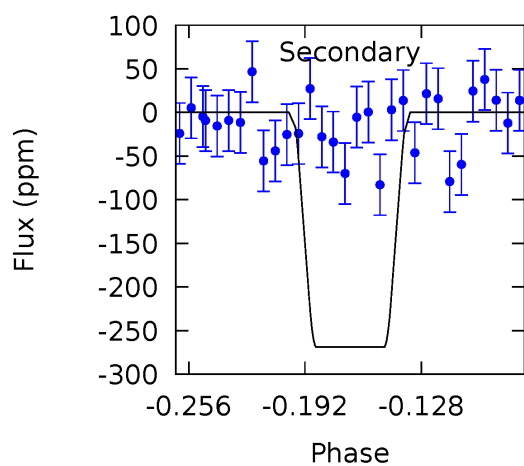
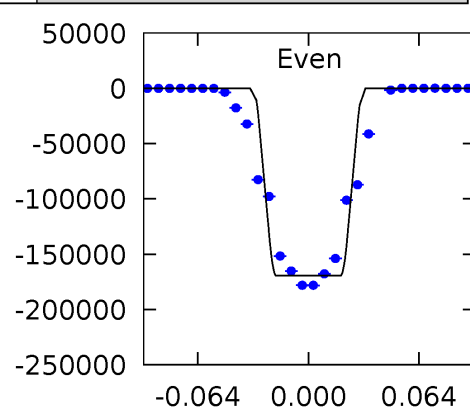
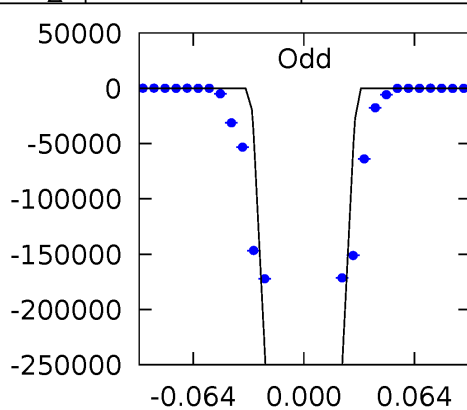
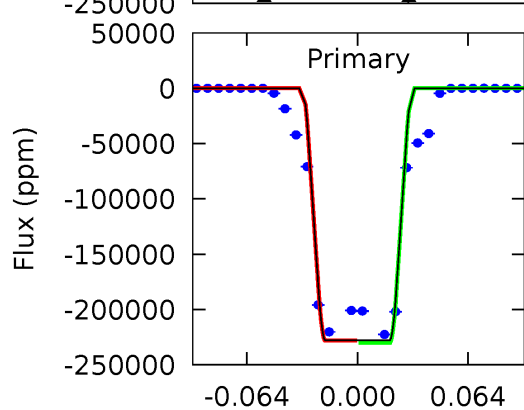
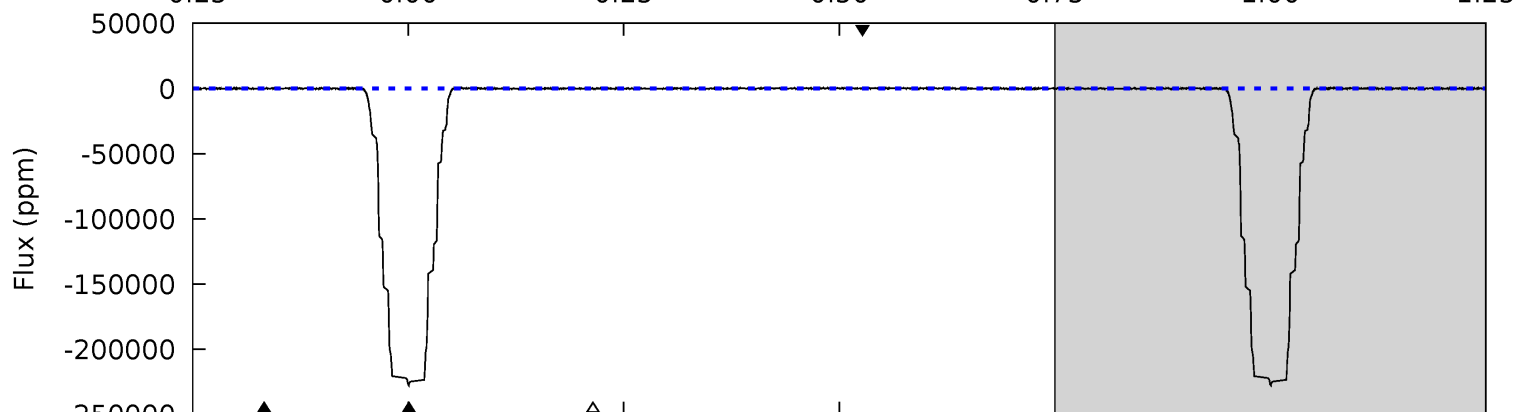
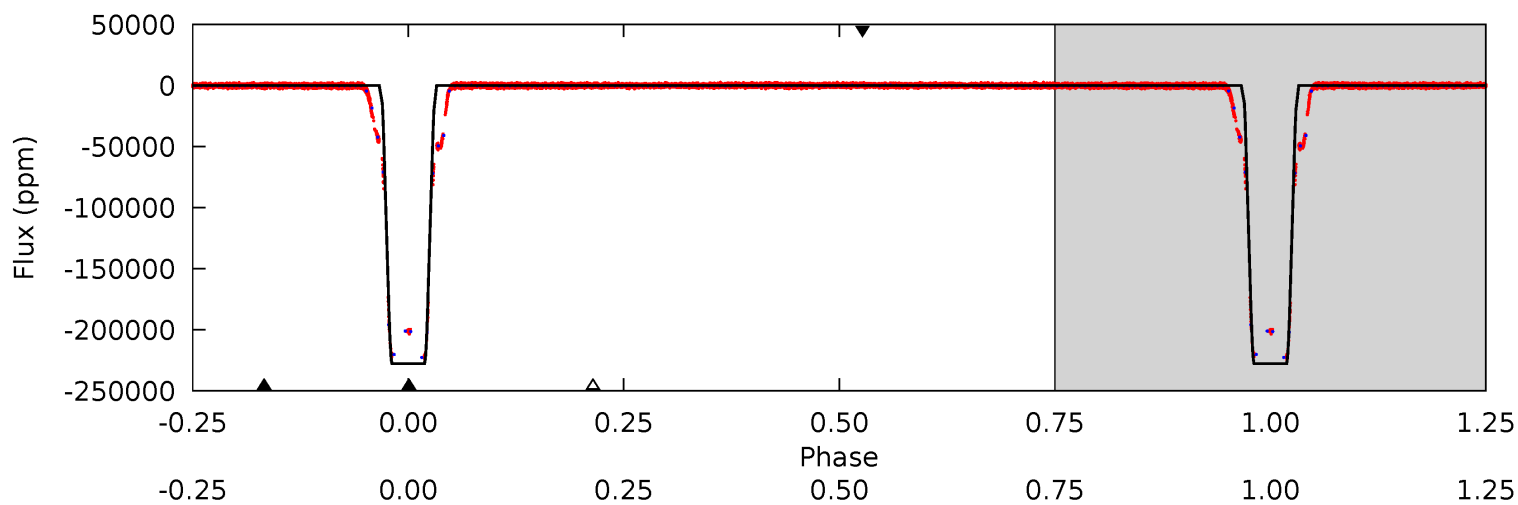
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005080652-01, P = 2.072179 Days, E = 131.023097 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3515	4.15	3.86	4.33	4.66	1.85	1.18	3512	3511	0.29	-0.18	2494	1.23	0.00	0



Stellar Parameters For KIC 005080652

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5519^{+163}_{-147}	$4.621^{+0.035}_{-0.105}$	$-0.500^{+0.300}_{-0.300}$	$0.718^{+0.118}_{-0.055}$	$0.811^{+0.073}_{-0.089}$	$3.085^{+0.455}_{-1.042}$
	+3%/-3%	+1%/-2%	+60%/-60%	+16%/-8%	+9%/-11%	+15%/-34%
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 005080652-01 / KOI 6510.01

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$36.80^{+8.79}_{-7.68}$	1707^{+73}_{-59}	2880^{+1999}_{-7485}	$2.151^{+39.059}_{-32.841}$
Alt.	-269 ± 65	$40.95^{+8.62}_{-8.49}$	1705^{+79}_{-63}	-2231^{+76}_{-64}	$0.075^{+0.053}_{-0.028}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

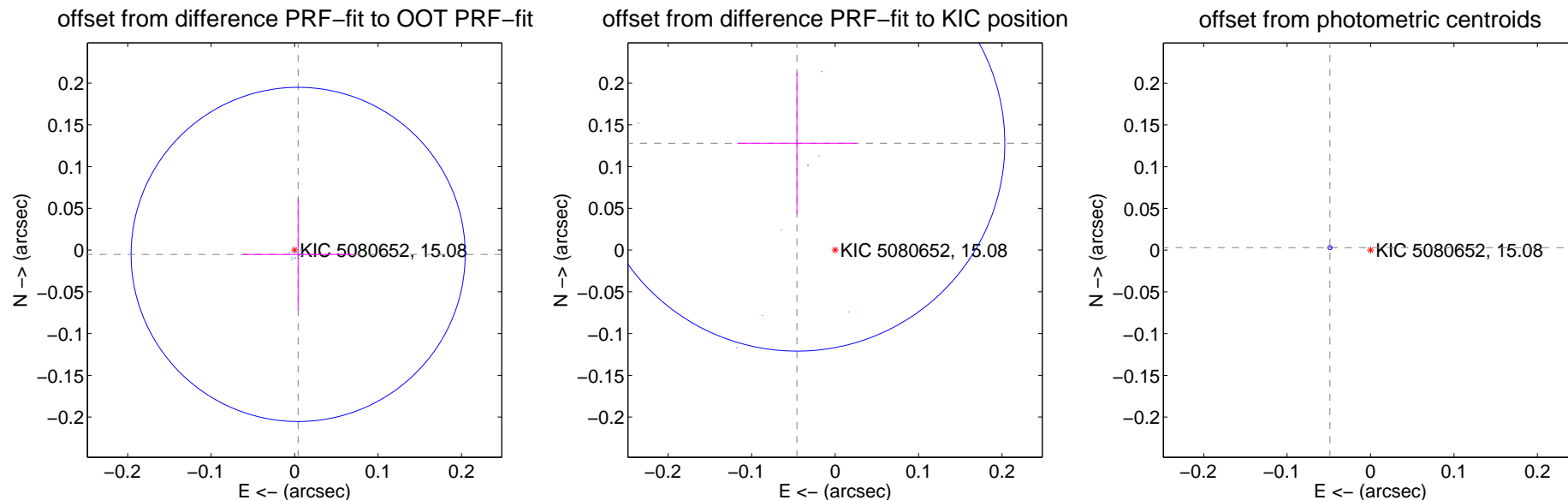
DV Centroid Data

Supplemental centroid analysis for 005080652-01. Kepler magnitude: 15.08. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

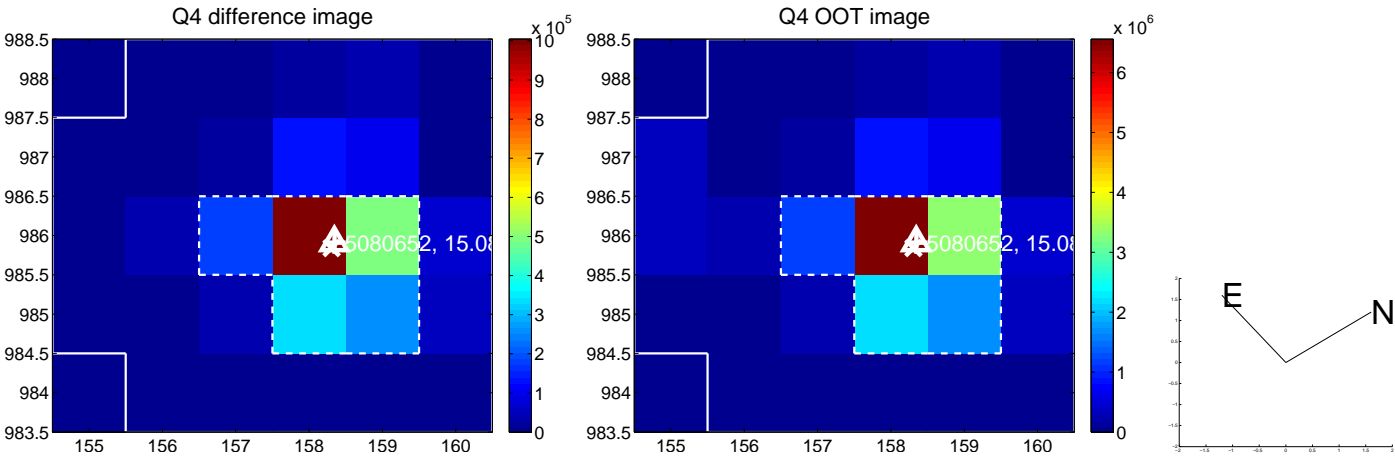
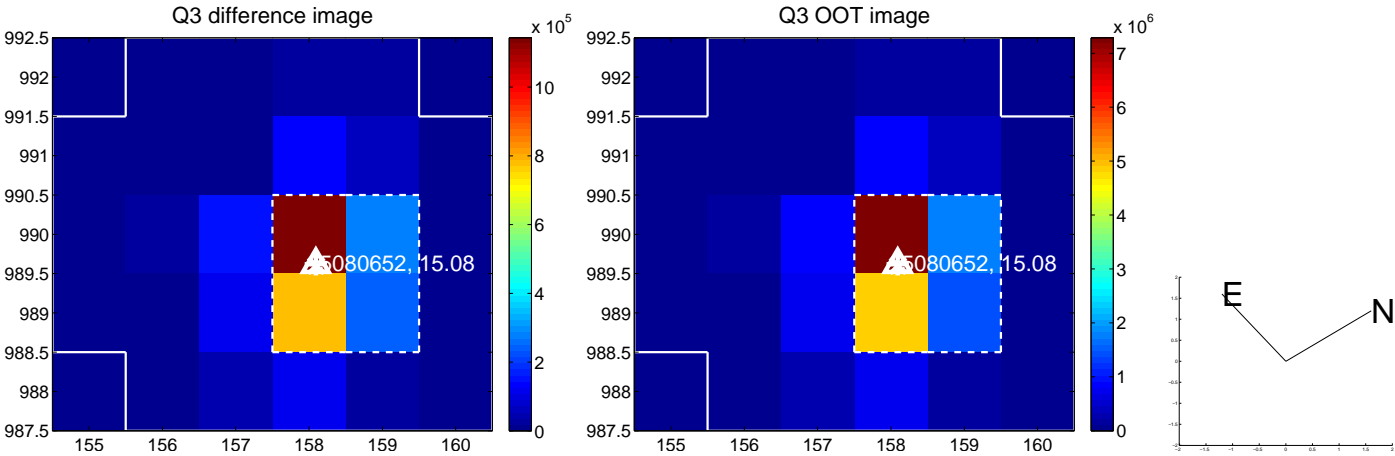
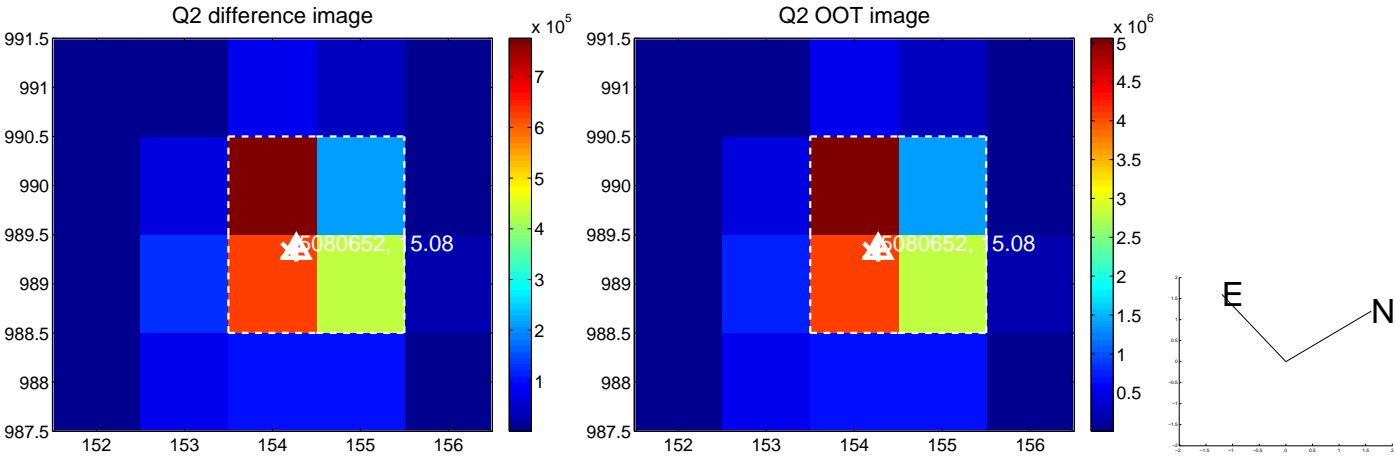
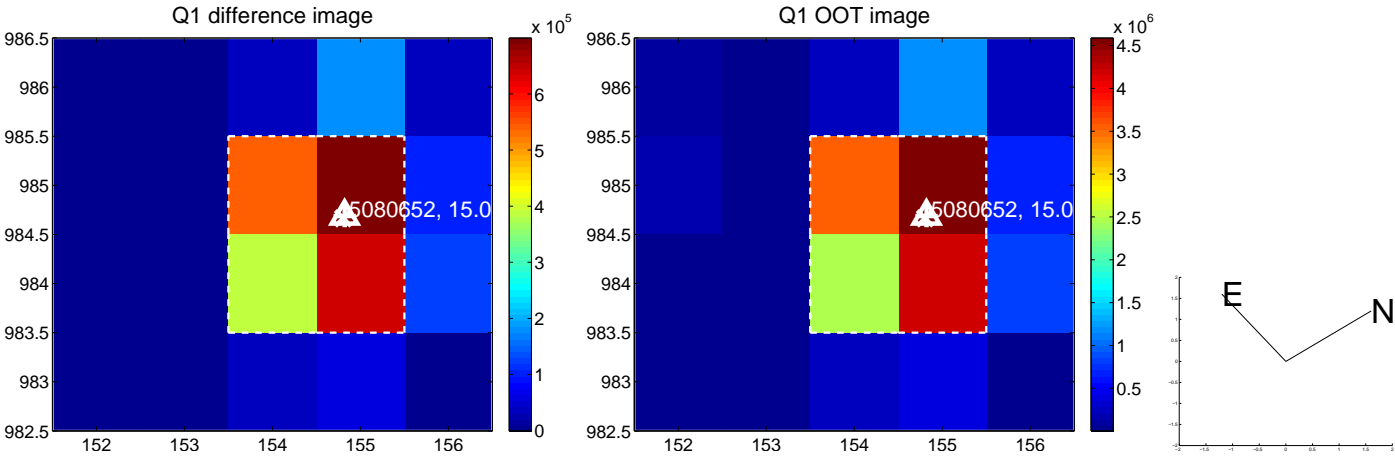
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.007 ± 0.067	0.10	-0.004 ± 0.067	-0.005 ± 0.067
PRF-fit source offset from KIC position	0.136 ± 0.083	1.64	0.046 ± 0.072	0.128 ± 0.084
photometric centroid source offset	0.05 ± 0.00	62.58	0.05 ± 0.00	0.00 ± 0.00

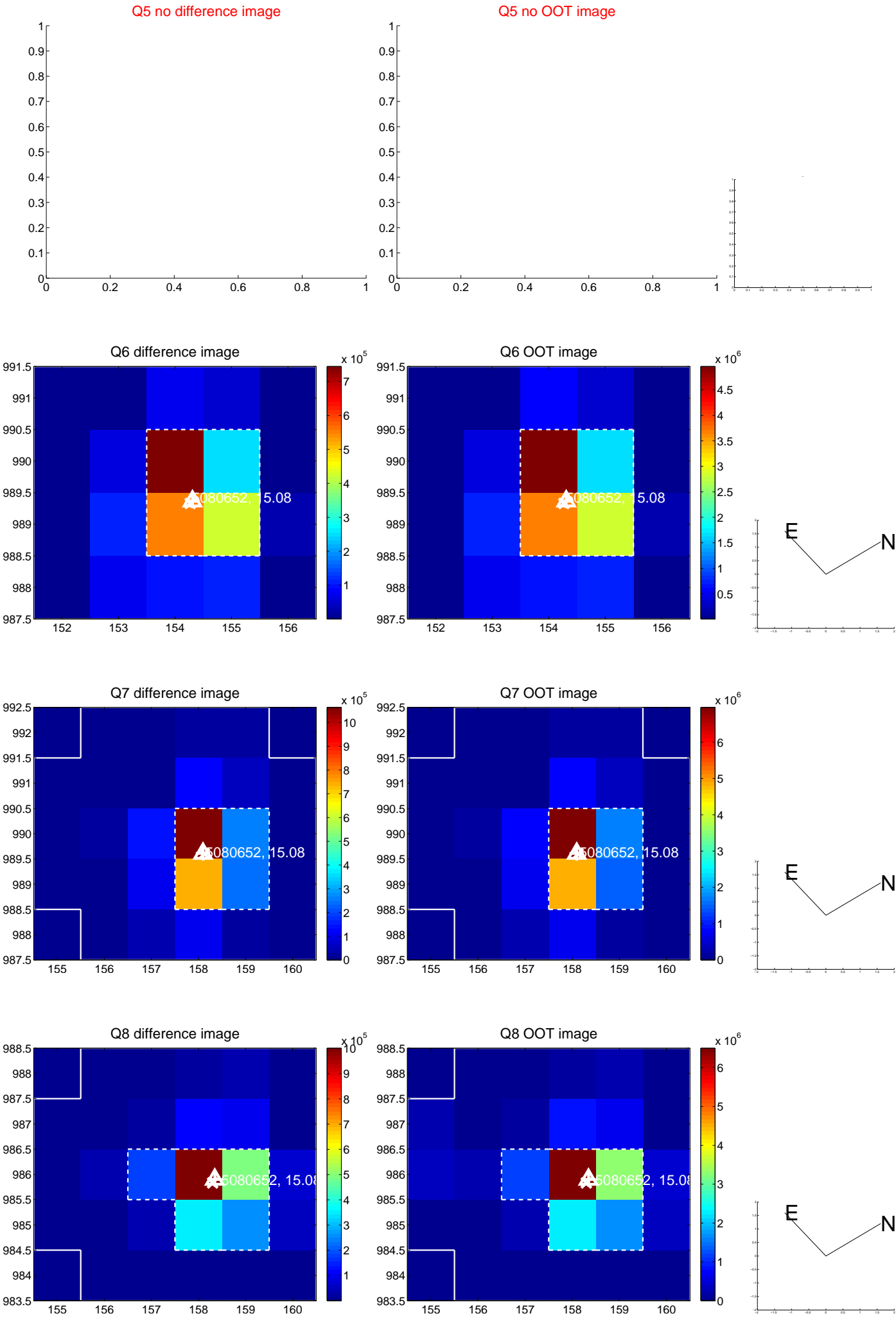


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

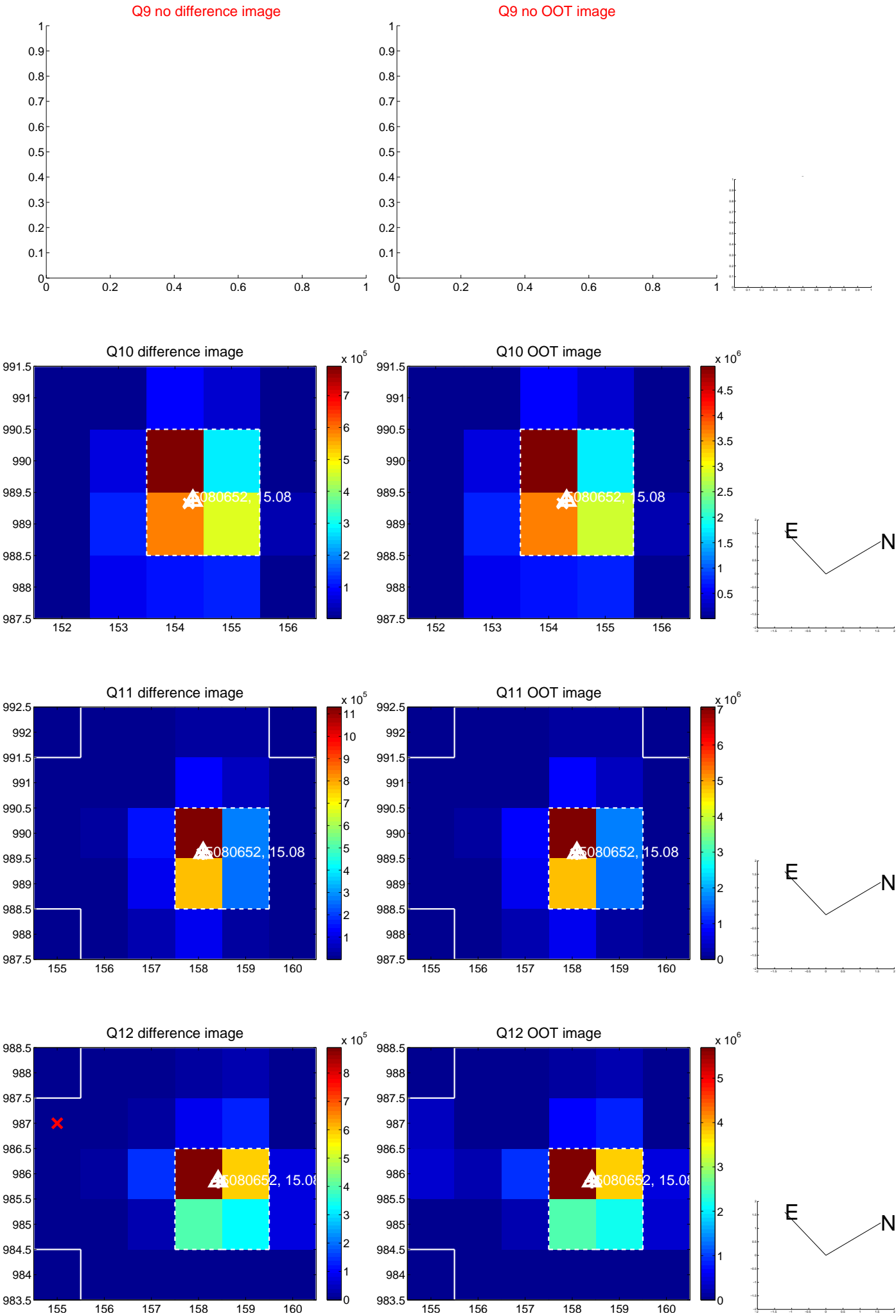
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



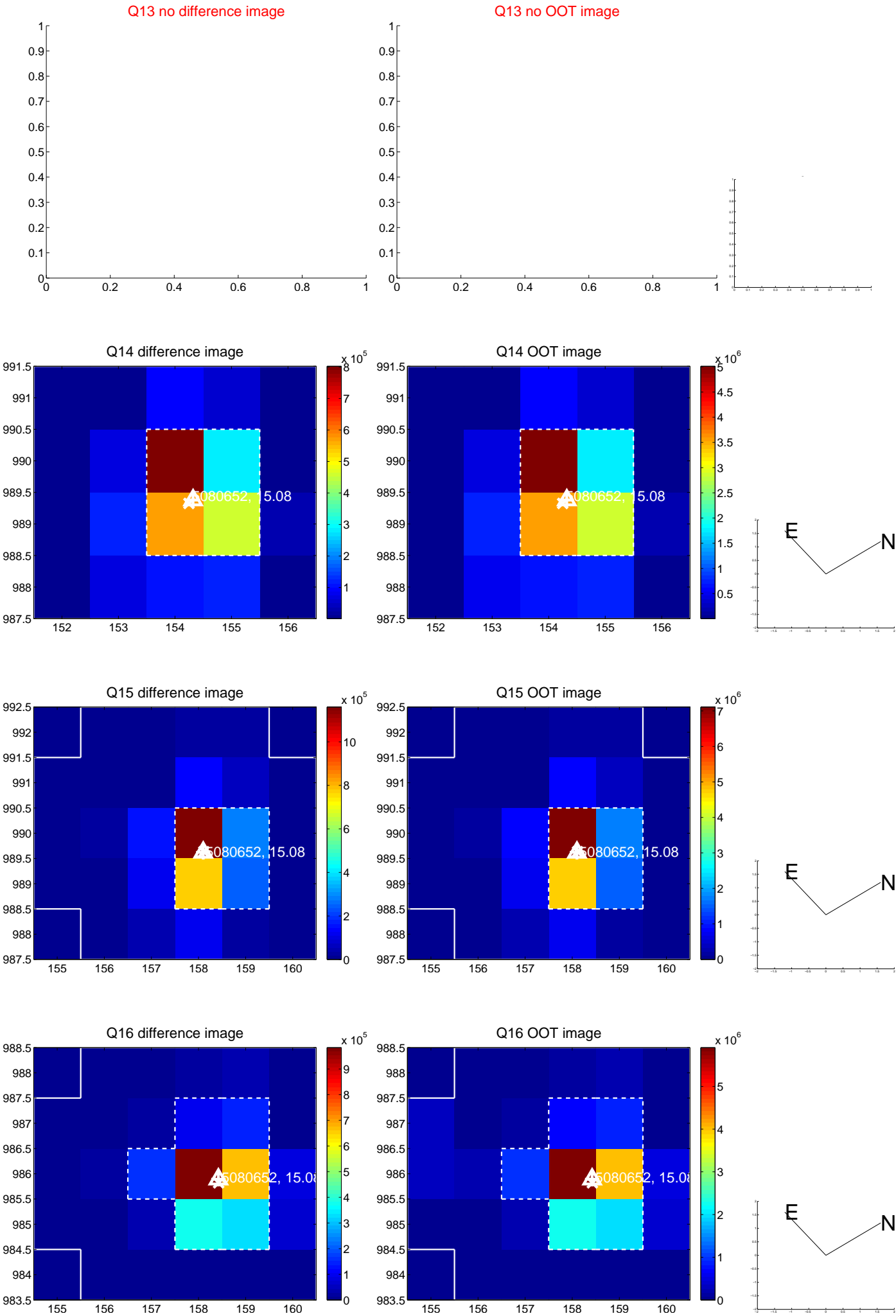
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



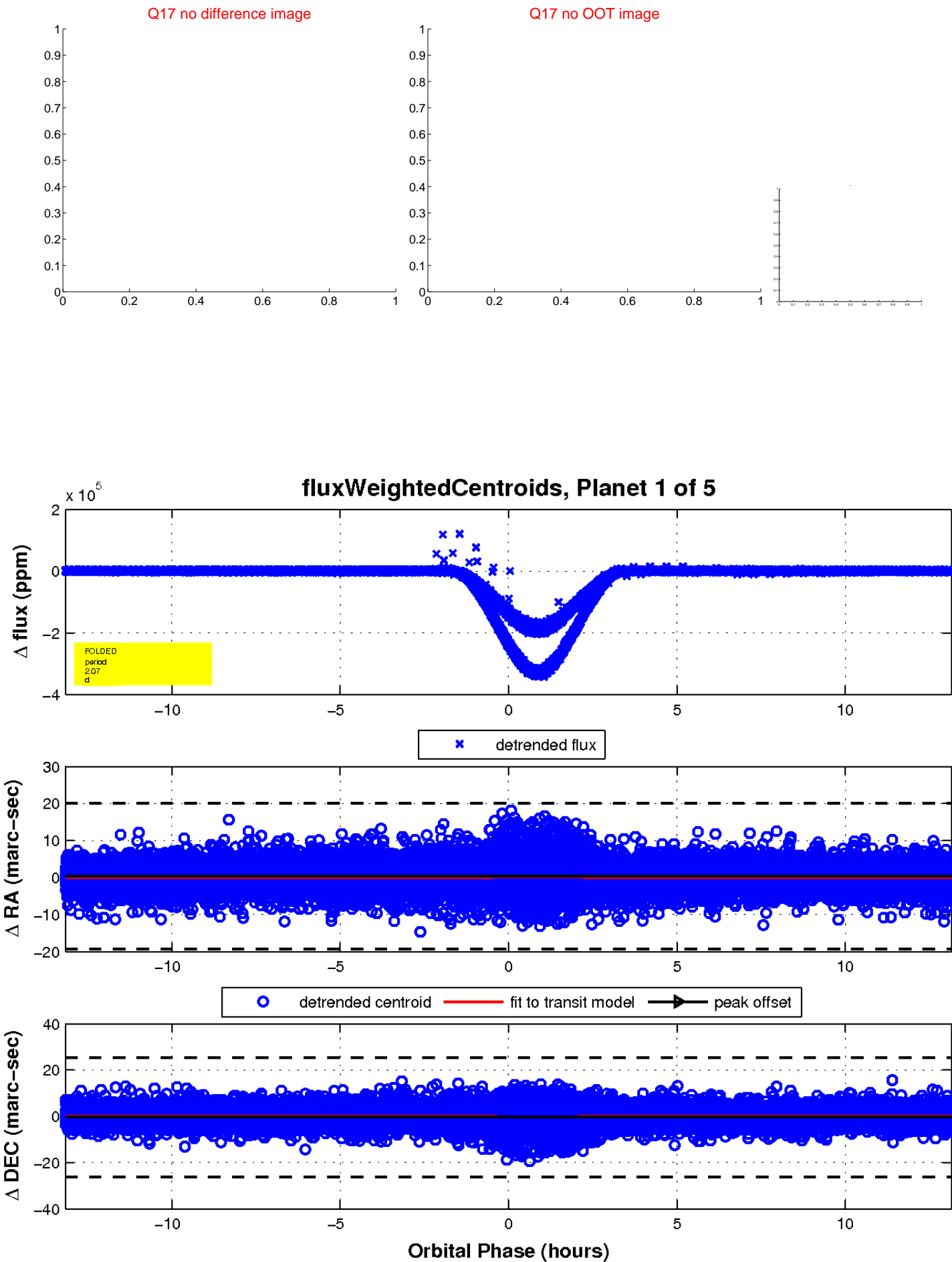
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

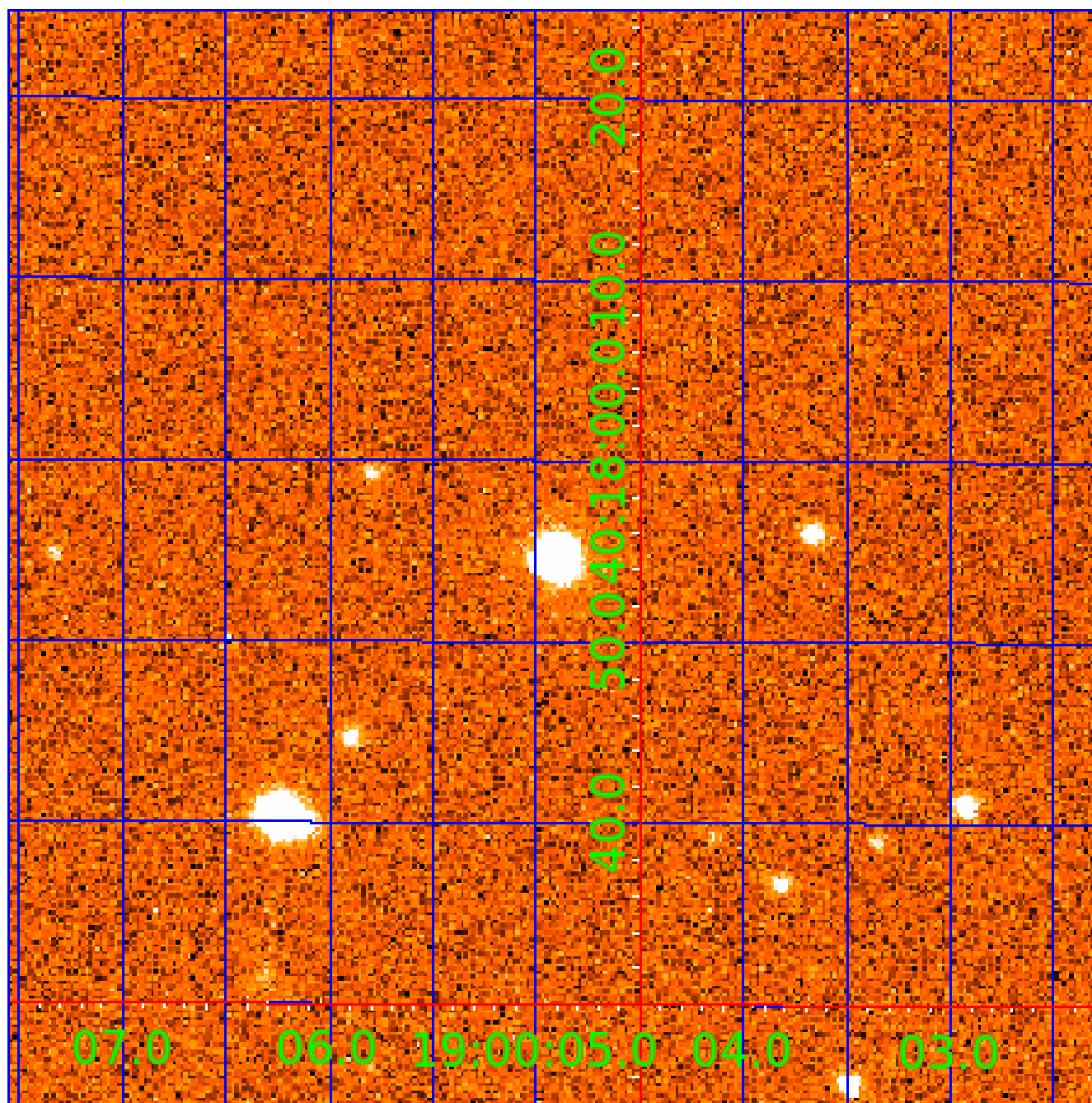


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005080652

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})
005080652-01	OBS	6510.01	2.072179	133.094527	258636.9	3.000	12307.7	-1.0	0.72	5519	35.82	497.18
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Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005080652-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005080652-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005080652-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
005080652-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005080652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—NO_FITS—RESIDUAL_TCE—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 005080652-02

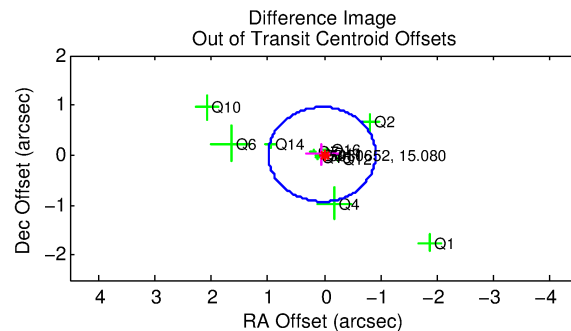
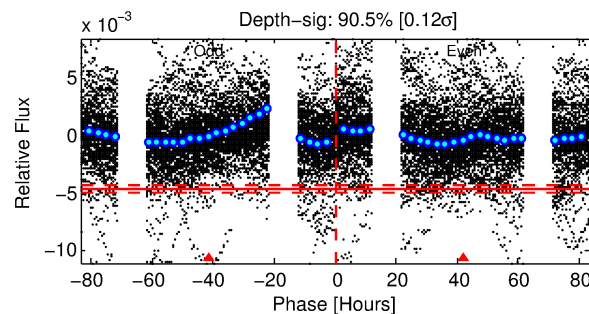
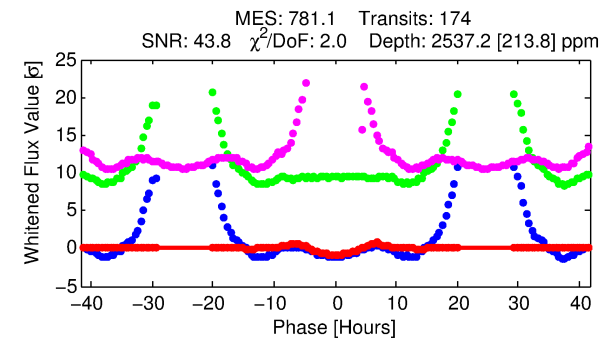
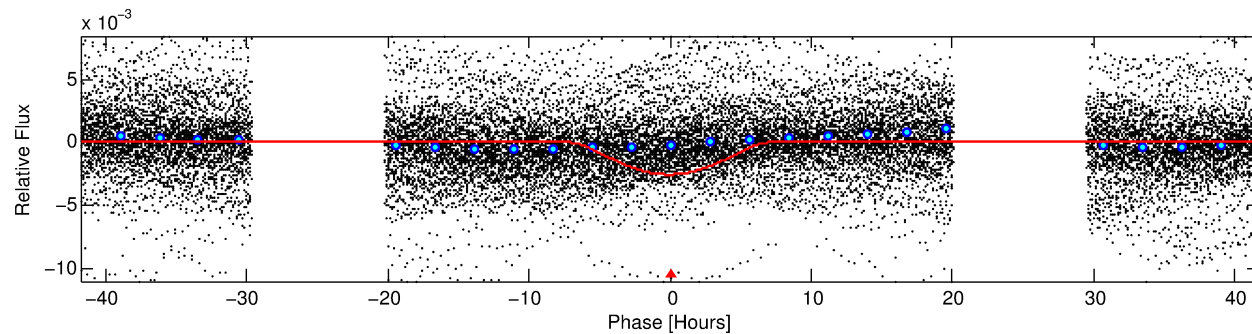
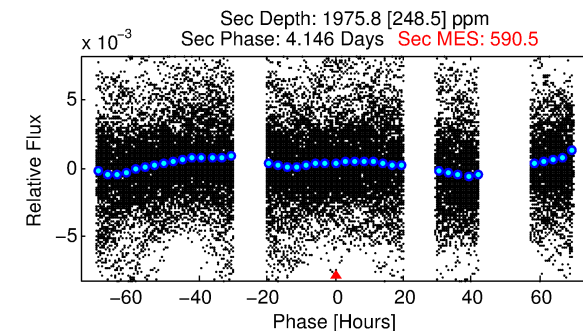
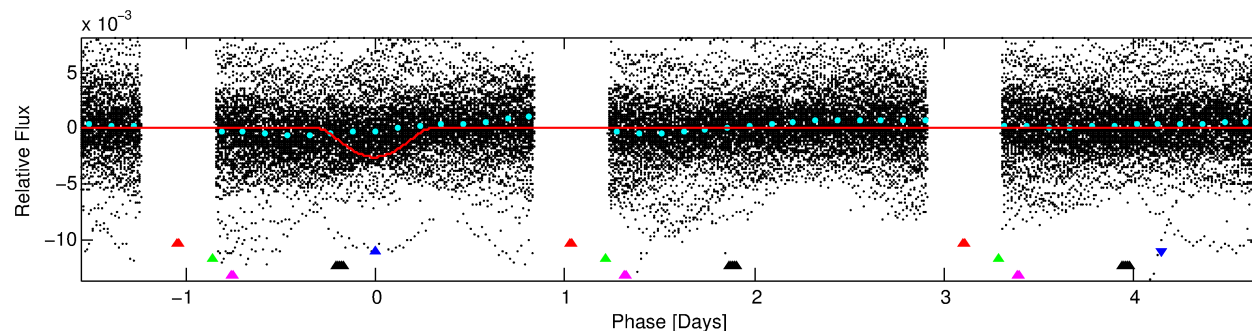
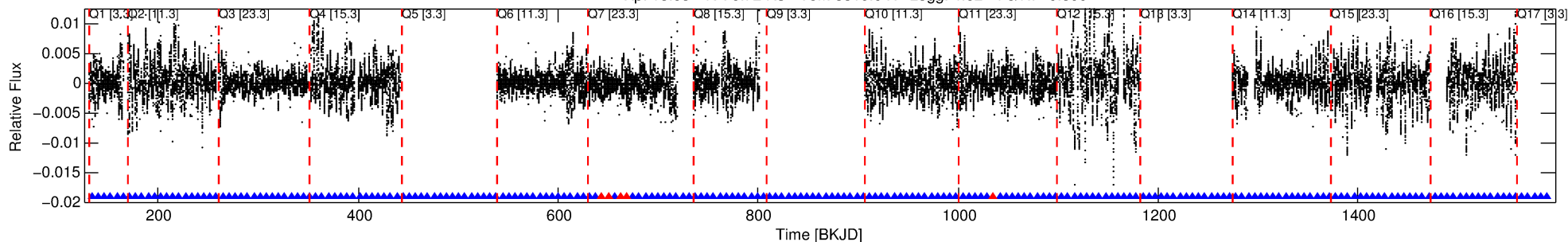
No Significant Match Found

DV One-Page Summary

KIC: 5080652 Candidate: 2 of 5 Period: 6.217 d

KOI: K06510 Corr: No Ephemeris Match

Kp: 15.08 R*: 0.72 Rs Teff: 5519.0 K Logg: 4.62 Fe/H: -0.500



DV Fit Results:

Period = 6.21650 [0.00005] d
Epoch = 134.1373 [0.0059] BKJD
Rp/R* = 0.0873 [0.0370]
a/R* = 1.78 [0.08]
b = 1.00 [0.05]
Seff = 114.91 [26.19]
Teq = 835 [48] K
Rp = 6.84 [3.11] Re
a = 0.0611 [0.0083] AU
Ag = 86.59 [76.13] [1.12σ]
Teff = 3937 [852] K [3.64σ]

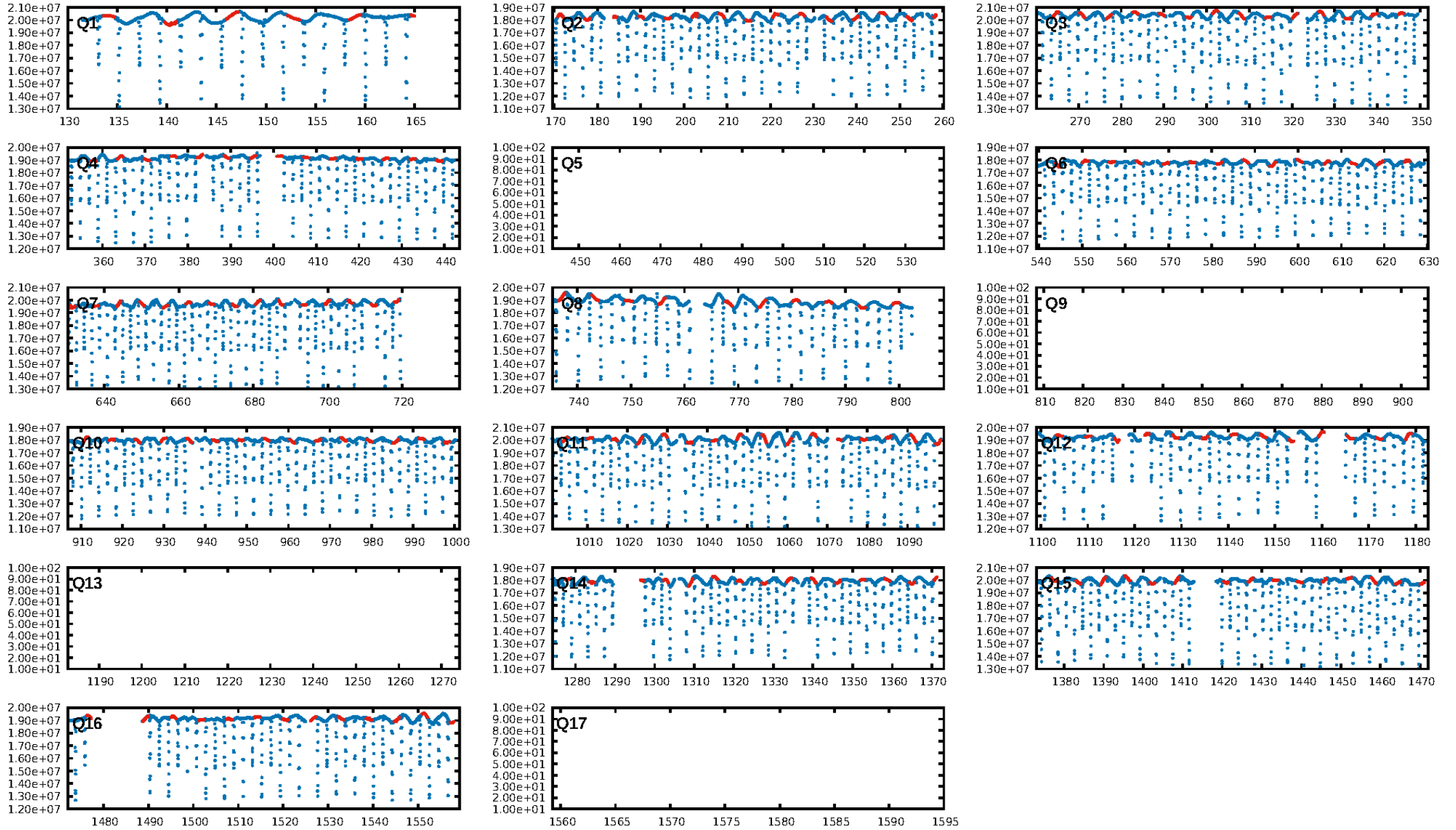
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [3.57σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGof-sig: 24.4%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.97 [163/168]
GhostDiagnostic-chr: 1.018
Centroid-sig: 0.2%
Centroid-so: 0.144 arcsec [1.95σ]
OotOffset-rm: 0.043 arcsec [0.13σ]
KicOffset-rm: 0.124 arcsec [0.39σ]
OotOffset-st: 4/4/3/1 [12]
KicOffset-st: 4/4/3/1 [12]
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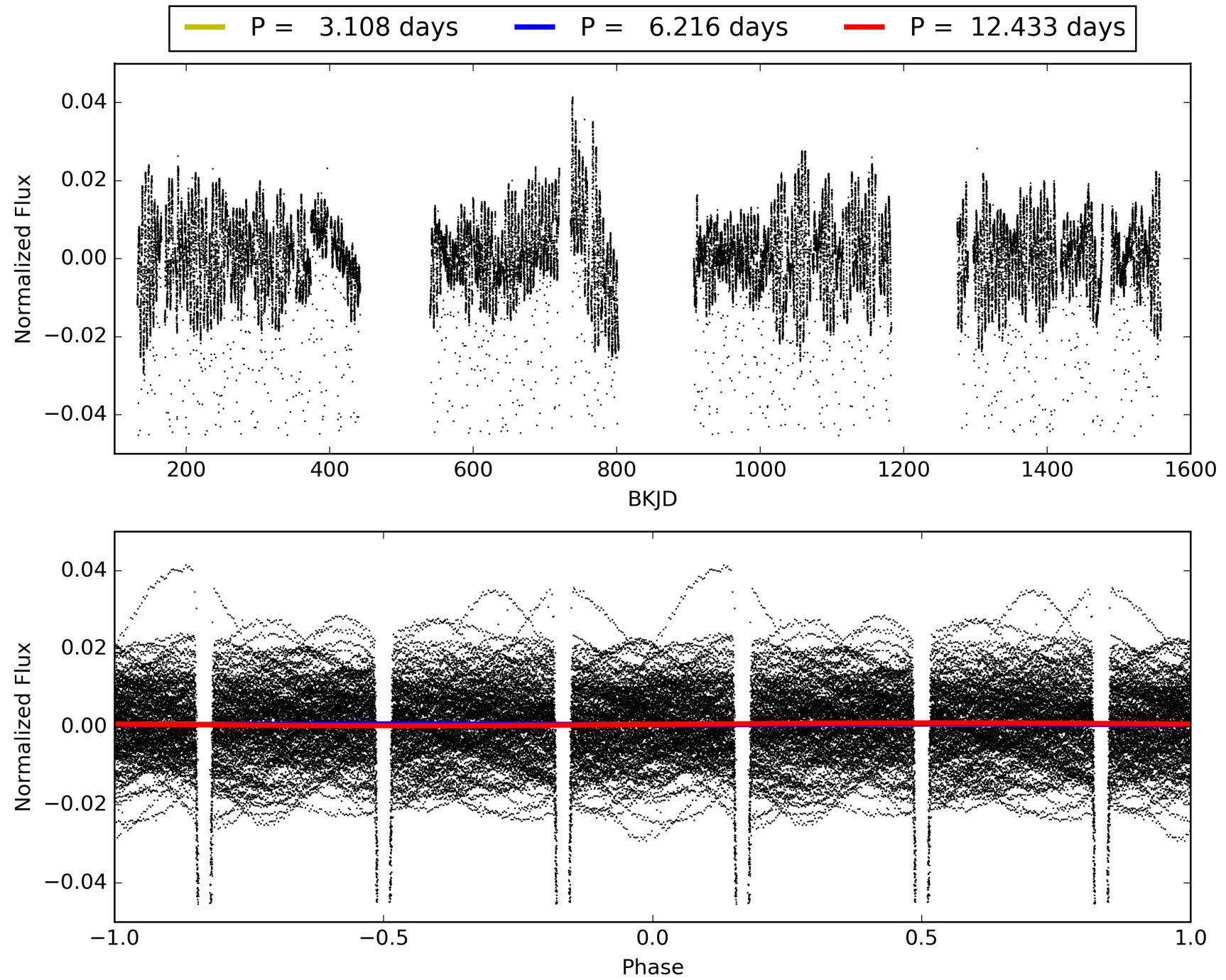
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:47:54 Z

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

TCE 005080652-02, PDC Light Curves

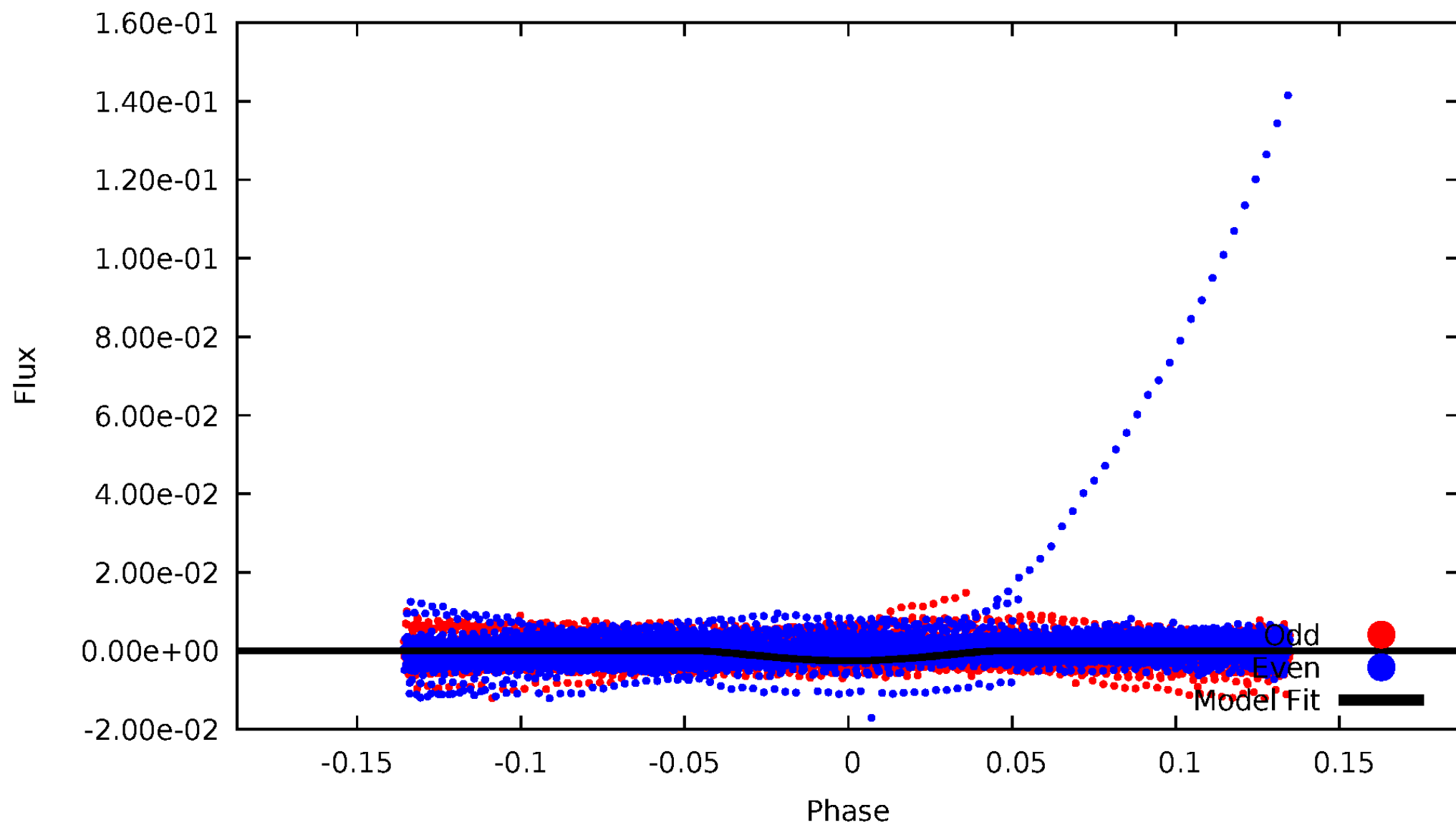


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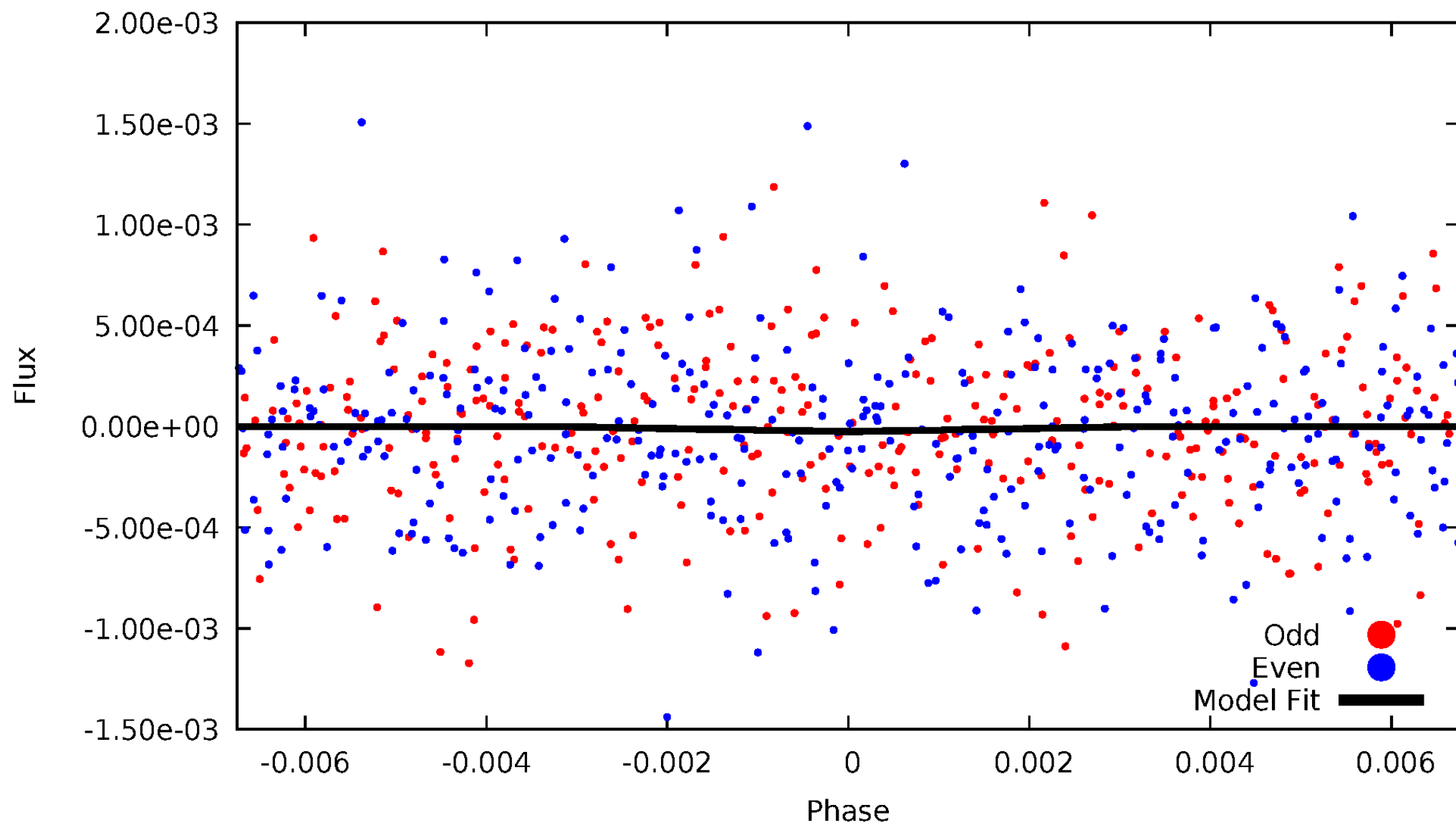
DV Odd/Even

TCE 005080652-02



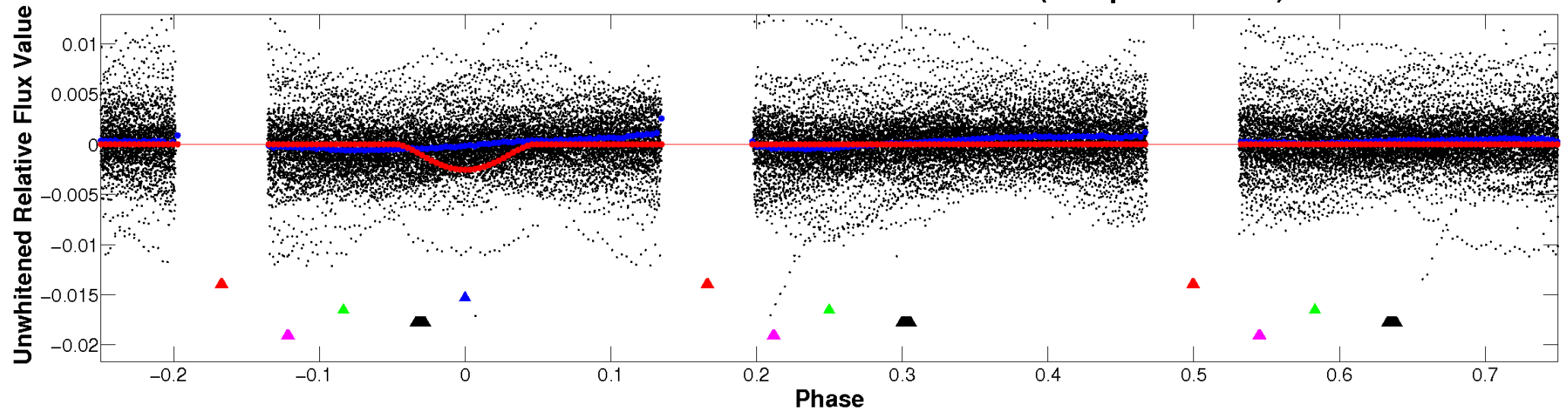
ALT Odd/Even

TCE 005080652-02

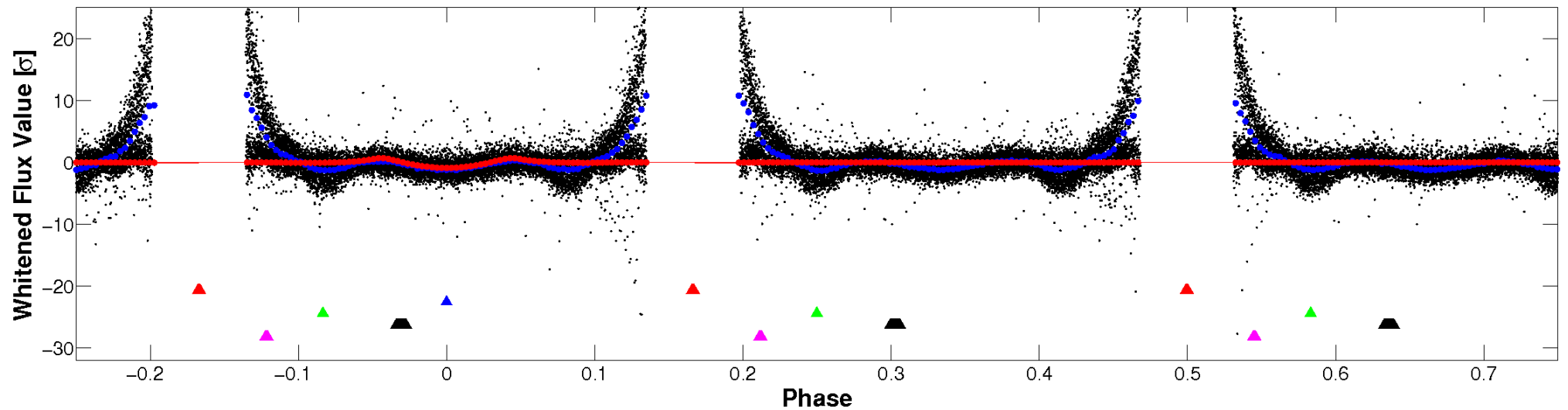


Non-Whitened Vs. Whitened Light Curve

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

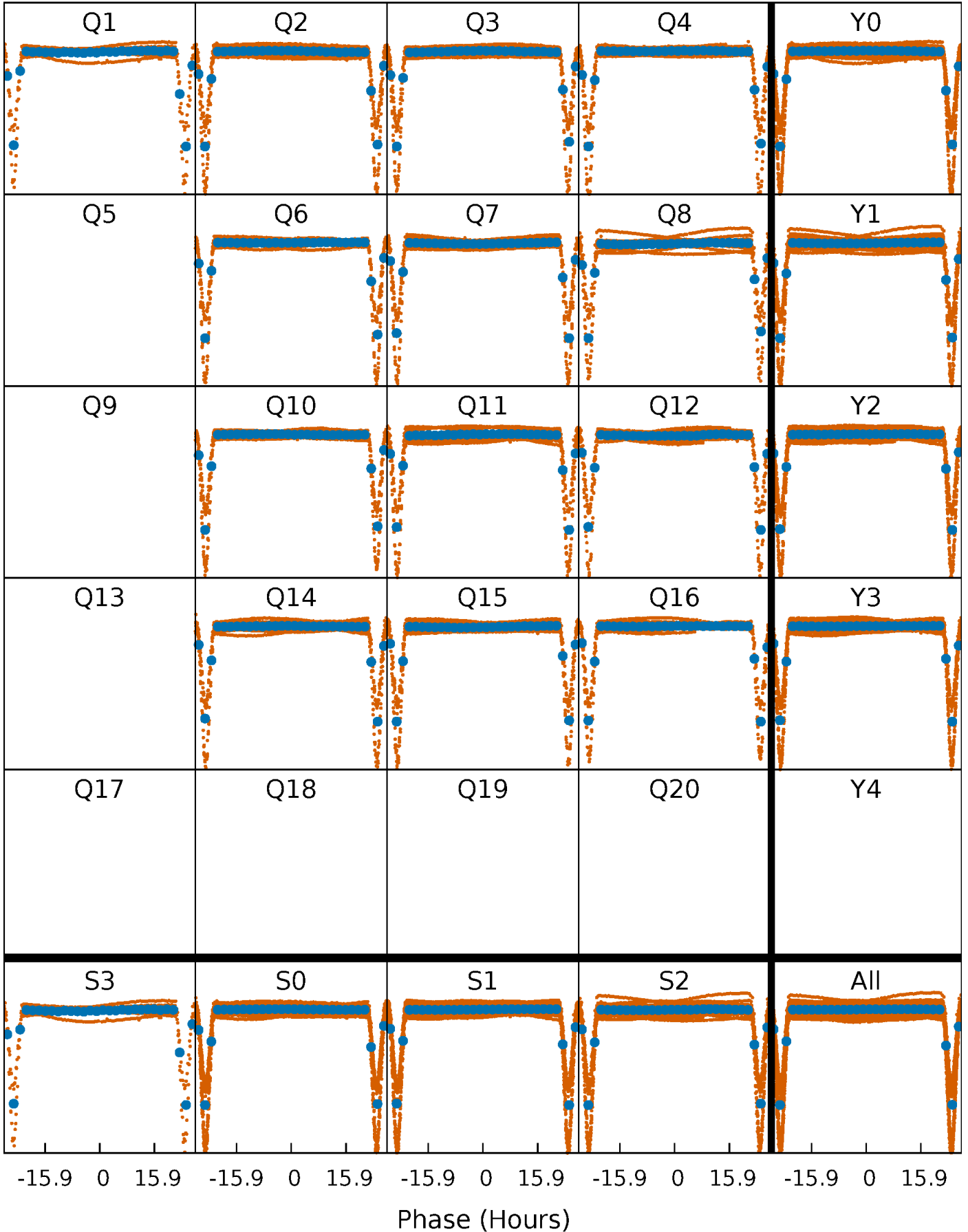


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



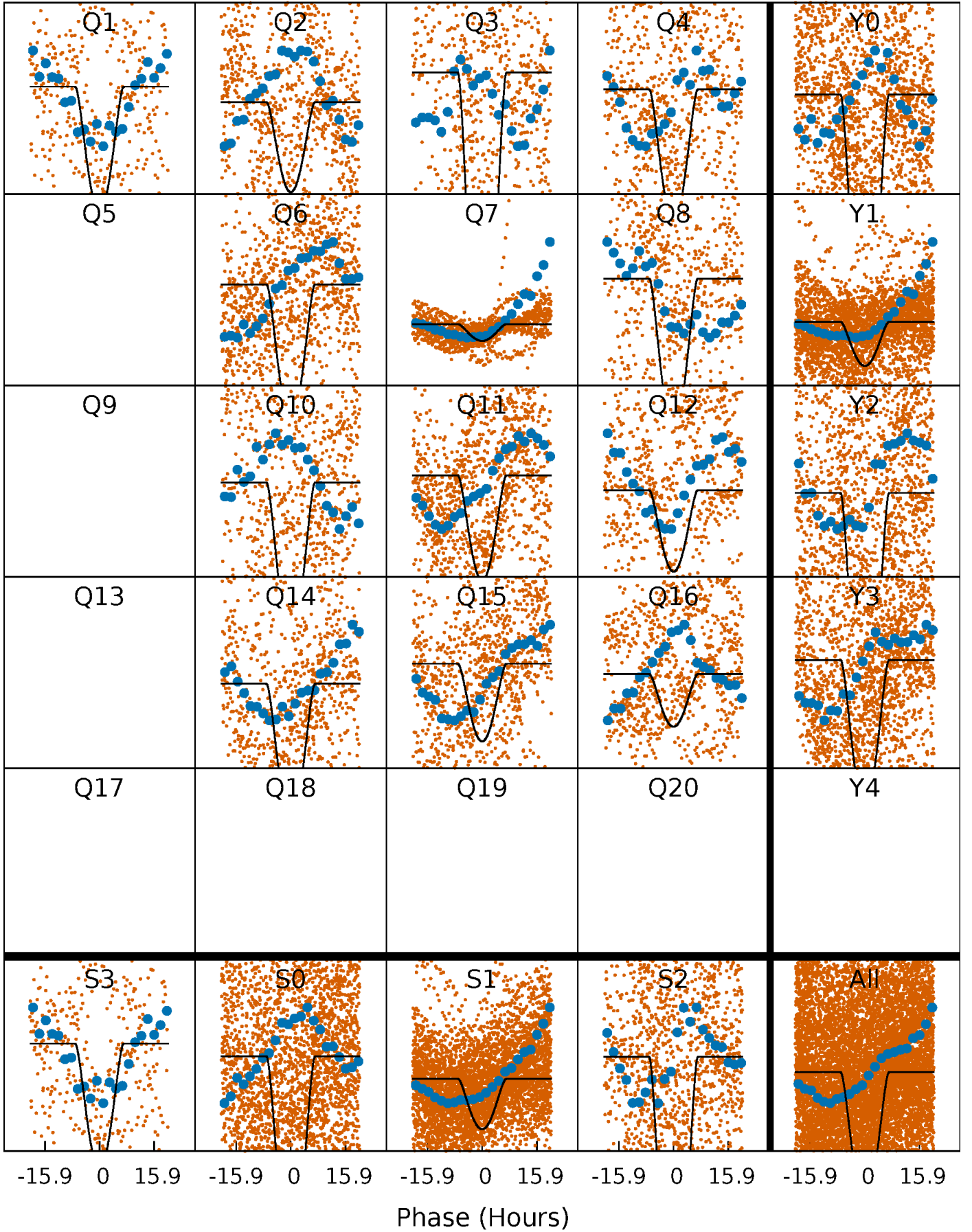
PDC Quarter-Phased Transit Curves

TCE 005080652-02 P= 6.216500 Days $T_0=134.137325$ (BKJD)



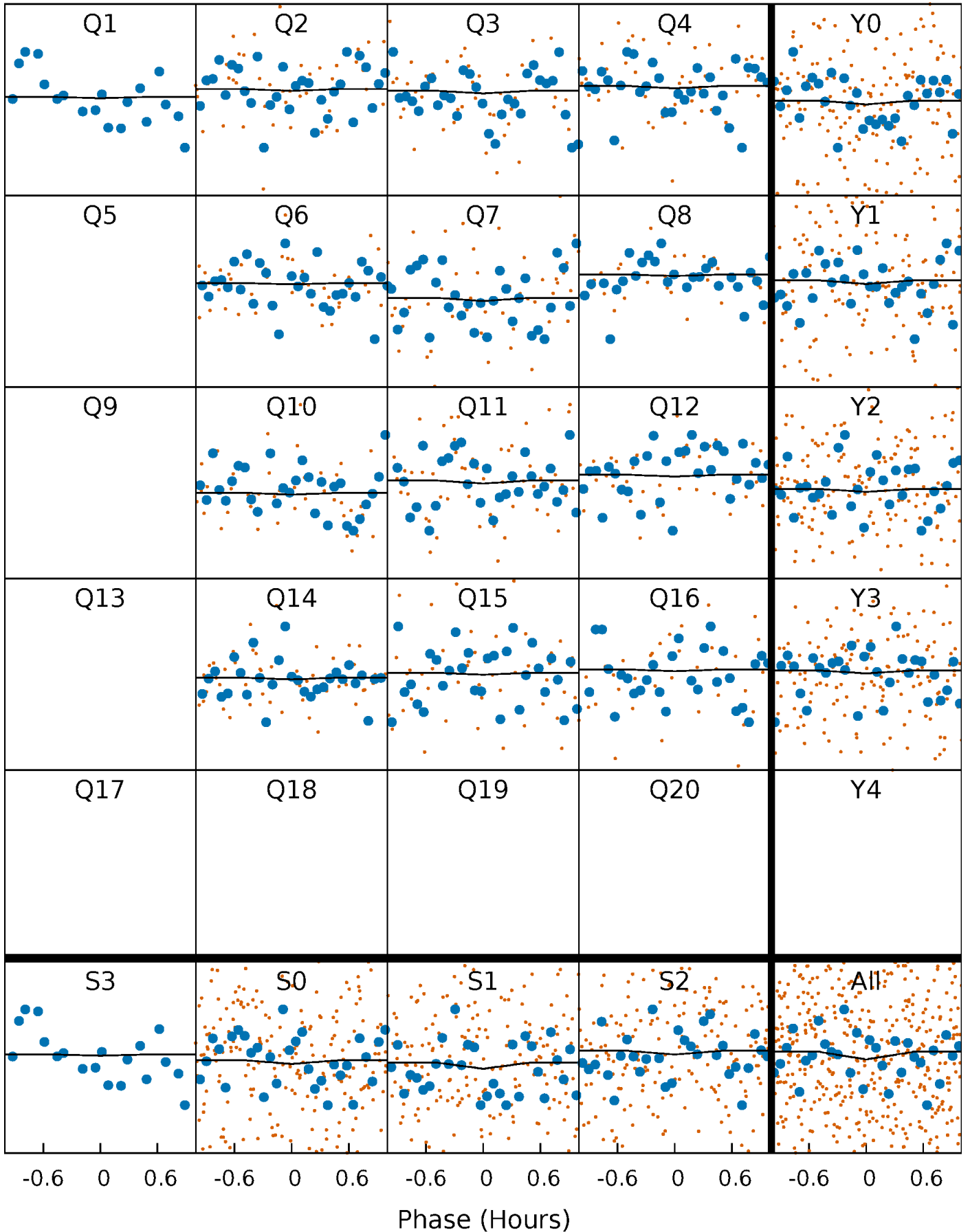
DV Quarter-Phased Transit Curves

TCE 005080652-02 $P = 6.216500$ Days $T_0 = 134.137325$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

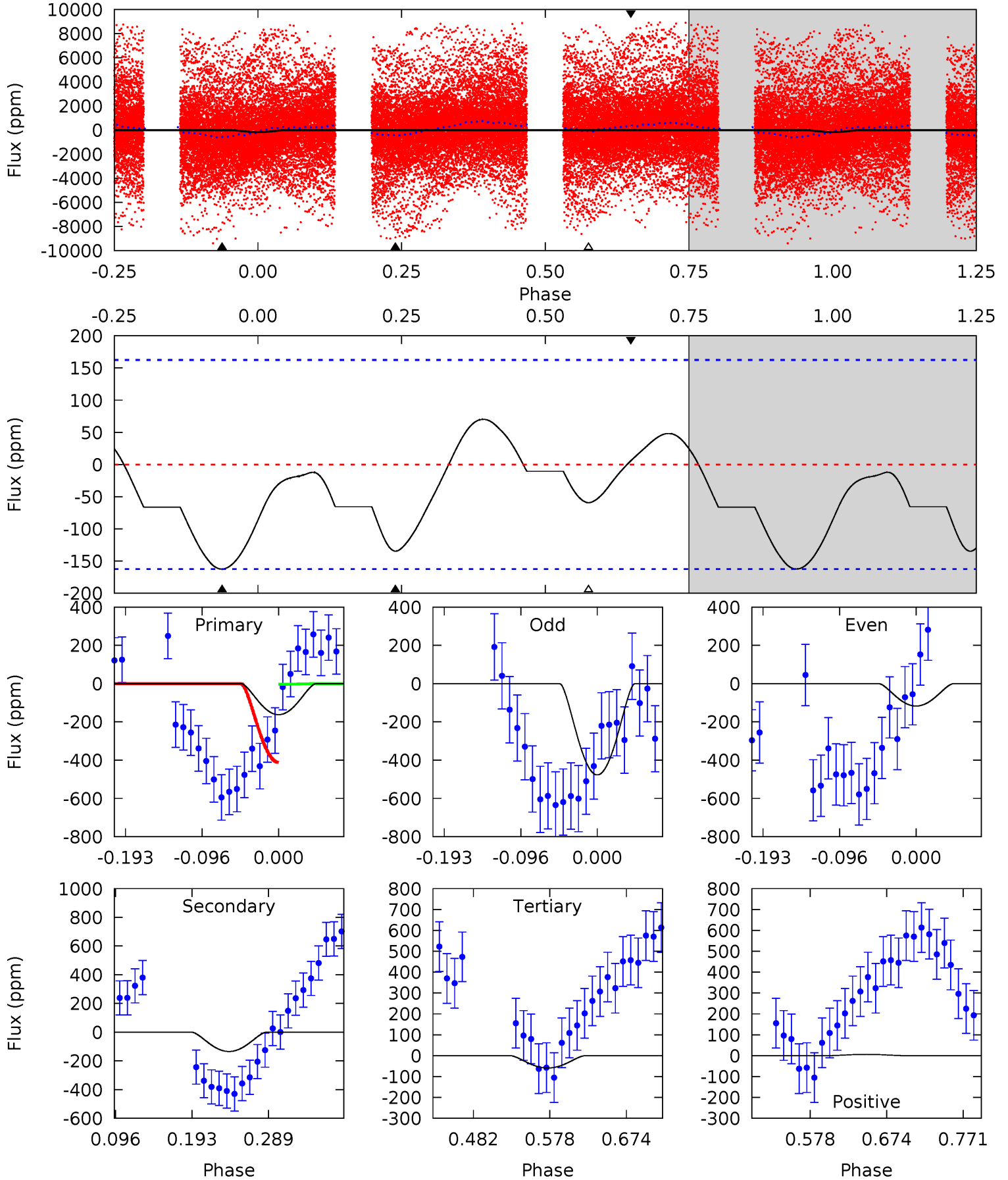
TCE 005080652-02 P= 6.216225 Days $T_0=134.025340$ (BKJD)



DV Model-Shift Uniqueness Test

005080652-02, P = 6.216500 Days, E = 127.920825 Days

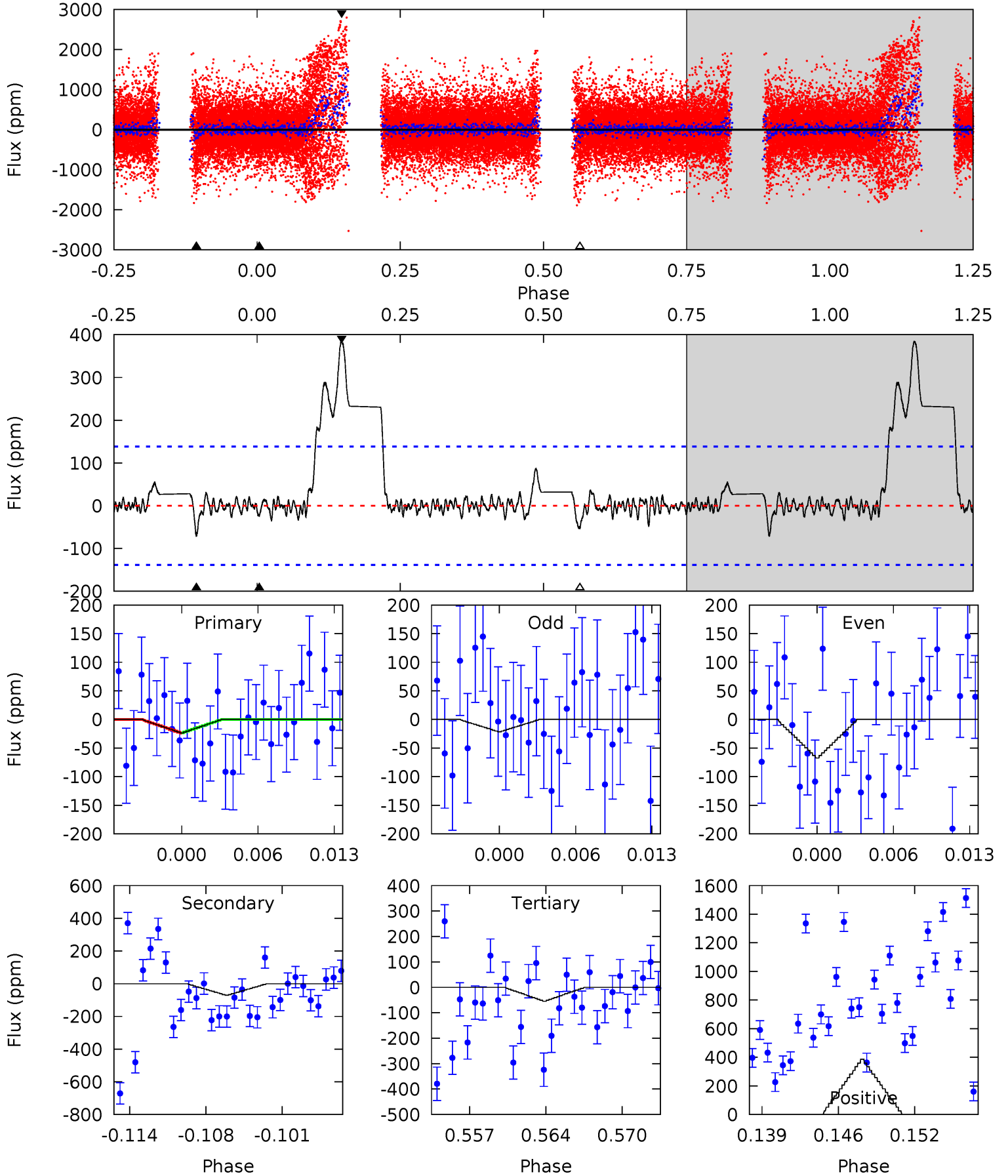
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.57	3.79	1.67	0.17	4.57	1.66	1.10	2.91	4.41	2.12	3.63	5.04	0.34	0.30	5.76



Alt Model-Shift Uniqueness Test

005080652-02, P = 6.216225 Days, E = 127.809115 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.87	2.62	2.02	14.2	5.11	2.73	1.74	-1.15	-13.3	0.60	-11.6	0.84	2.16	0.84	0.01



Stellar Parameters For KIC 005080652

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5519^{+163}_{-147}	$4.621^{+0.035}_{-0.105}$	$-0.500^{+0.300}_{-0.300}$	$0.718^{+0.118}_{-0.055}$	$0.811^{+0.073}_{-0.089}$	$3.085^{+0.455}_{-1.042}$
	+3%/-3%	+1%/-2%	+60%/-60%	+16%/-8%	+9%/-11%	+15%/-34%
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 005080652-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-135 ± 35	$7.04^{+3.09}_{-2.68}$	1185^{+54}_{-43}	2734^{+439}_{-293}	$5.437^{+9.379}_{-3.030}$
Alt.	-71 ± 27	$2.18^{+2.21}_{-1.51}$	1181^{+53}_{-42}	3498^{+1923}_{-672}	29^{+262}_{-23}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

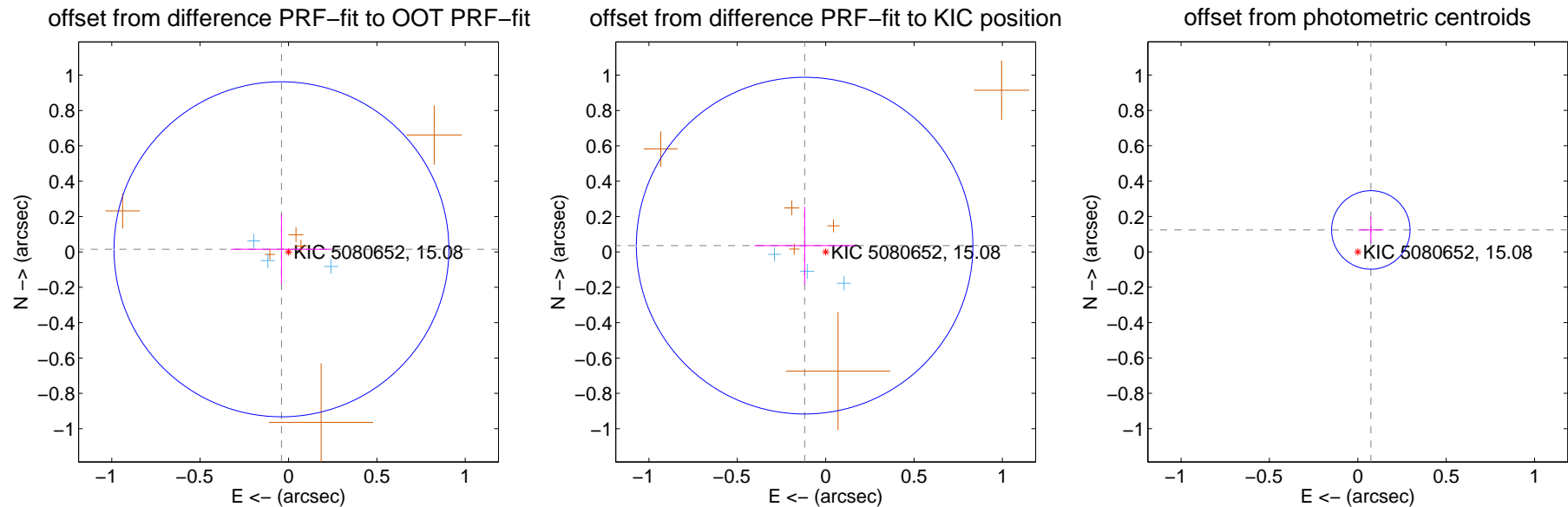
DV Centroid Data

Supplemental centroid analysis for 005080652-02. Kepler magnitude: 15.08. Transit SNR 43.83

There are 5 quarters with good PRF difference image offsets

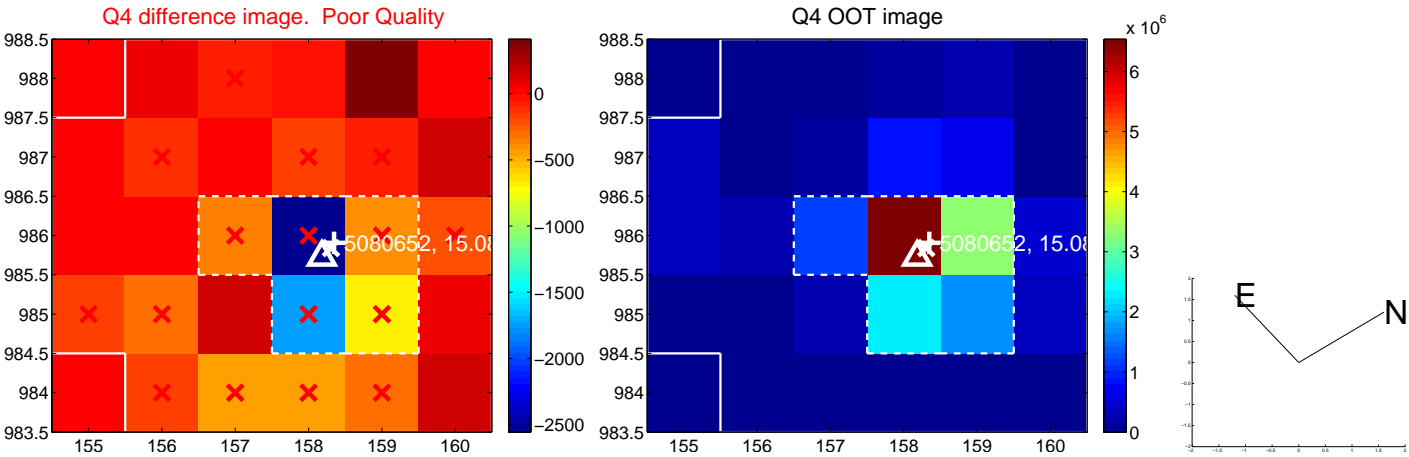
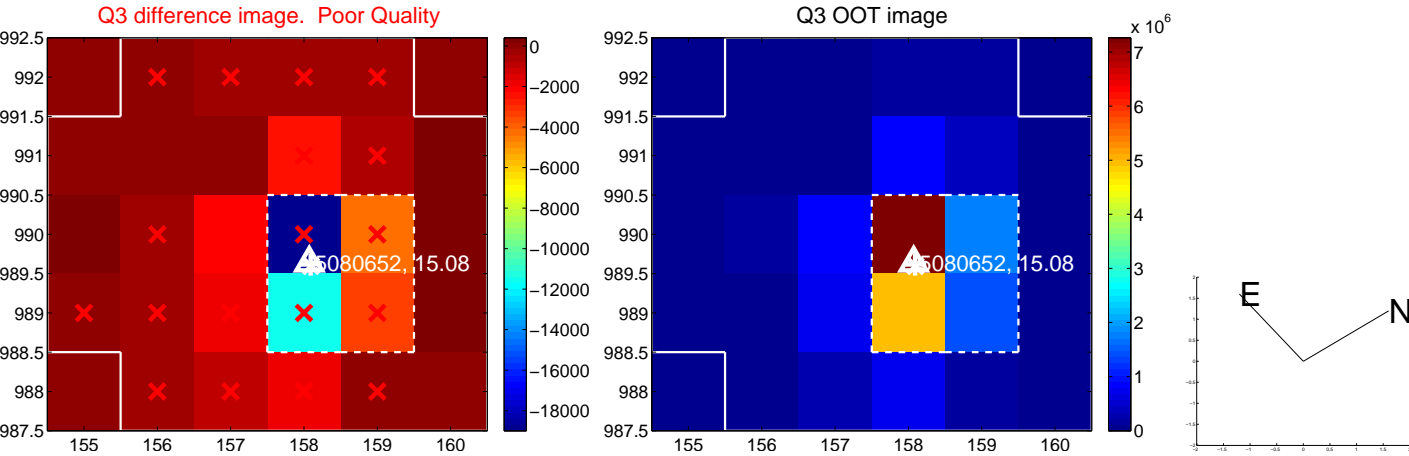
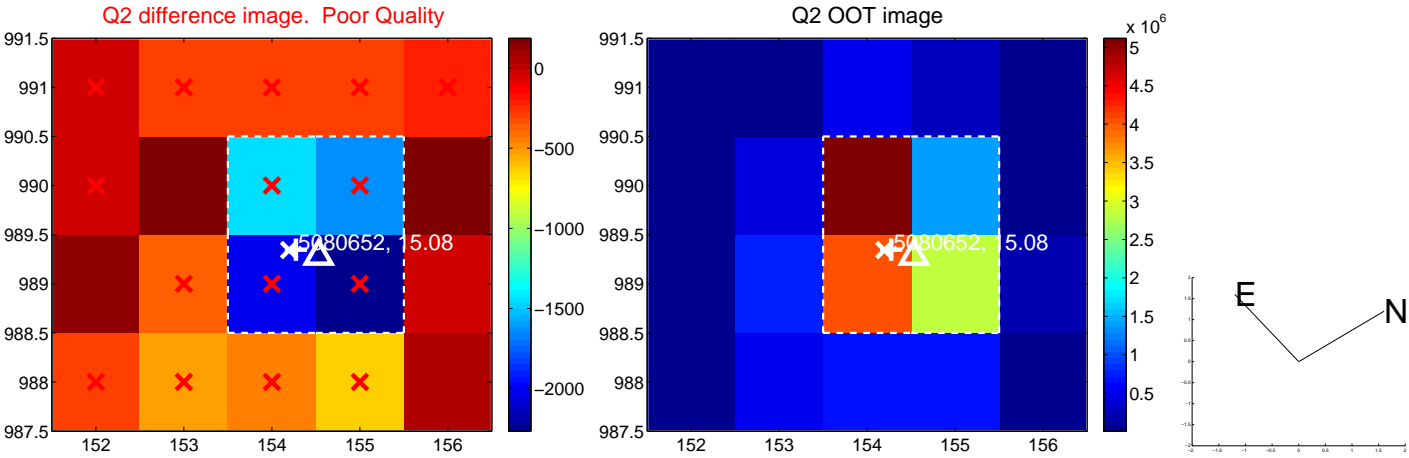
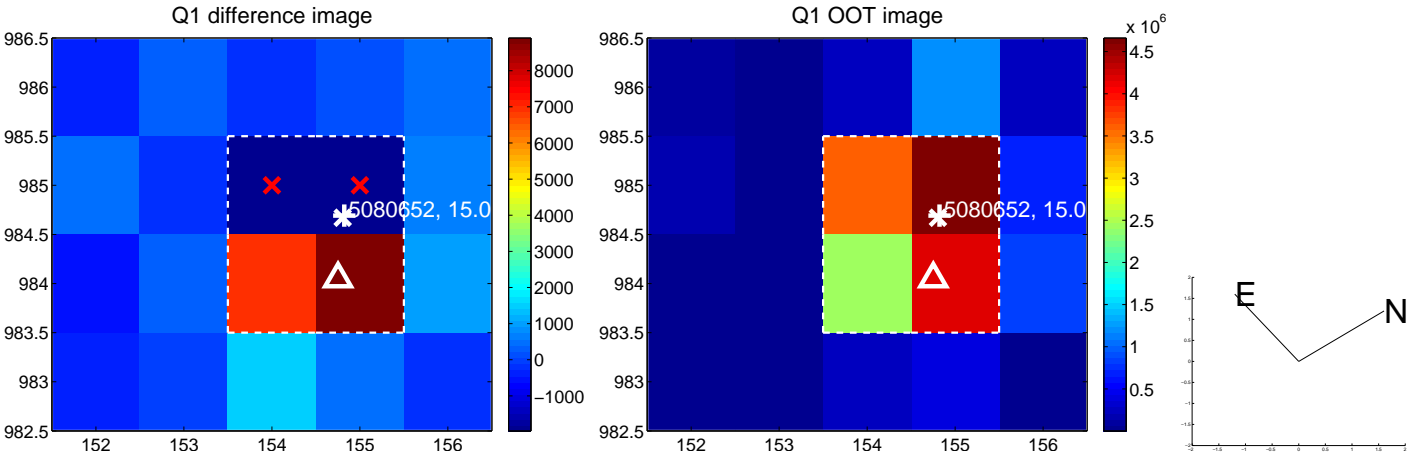
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.043 ± 0.316	0.13	0.040 ± 0.286	0.015 ± 0.198
PRF-fit source offset from KIC position	0.124 ± 0.317	0.39	0.119 ± 0.286	0.035 ± 0.219
photometric centroid source offset	0.14 ± 0.07	1.95	-0.07 ± 0.07	0.12 ± 0.07

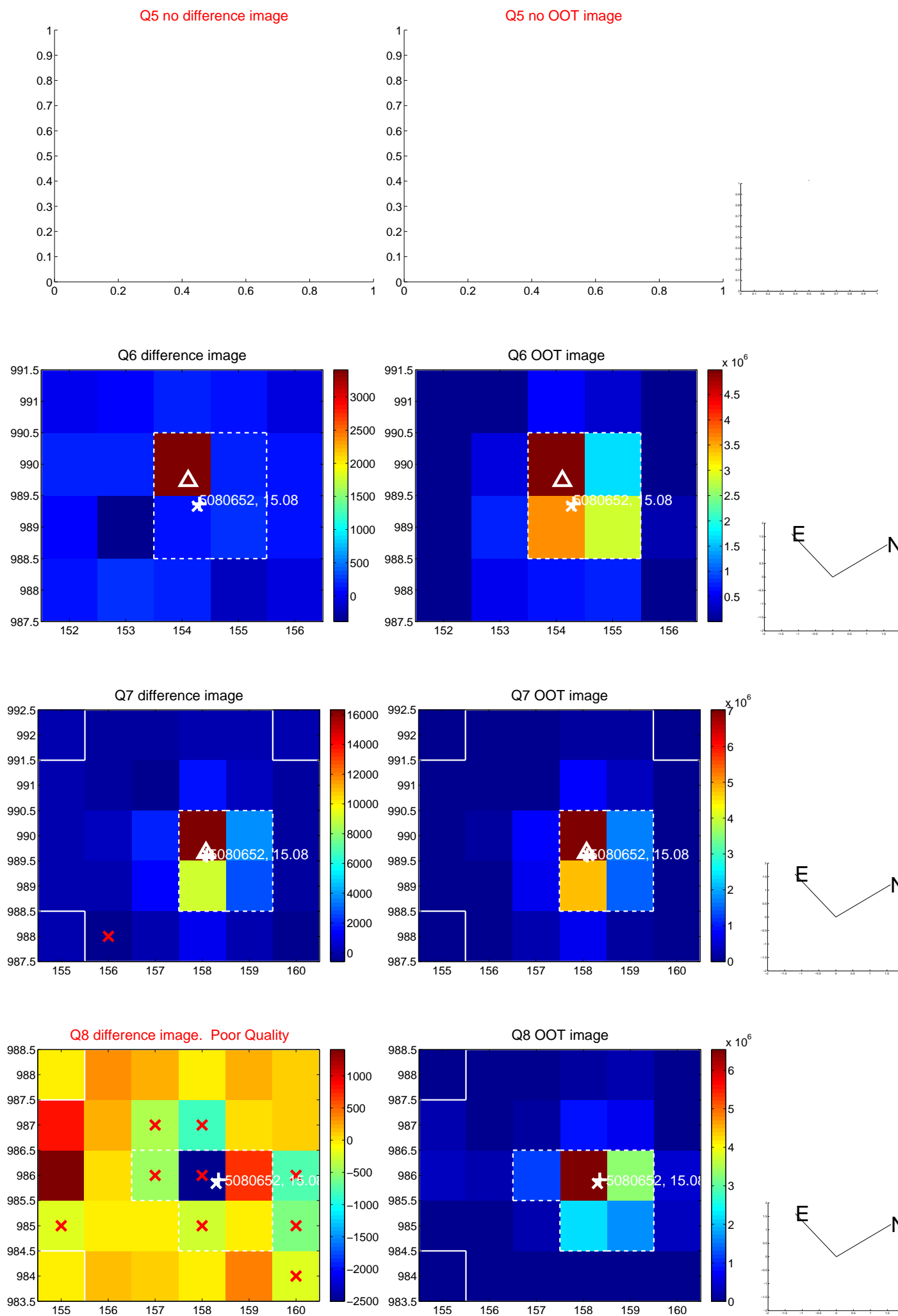


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000 are from the UKIRT catalog.

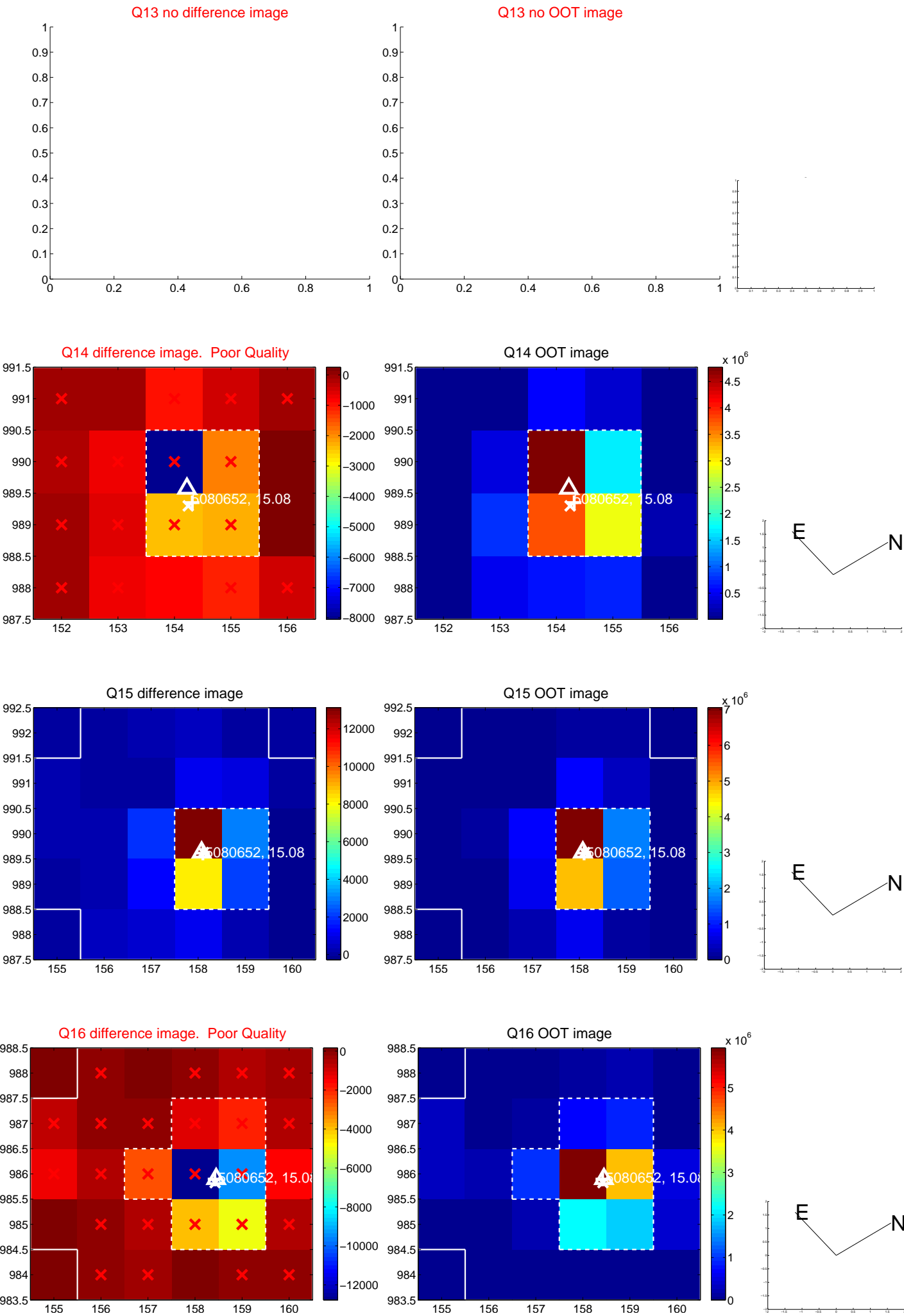
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



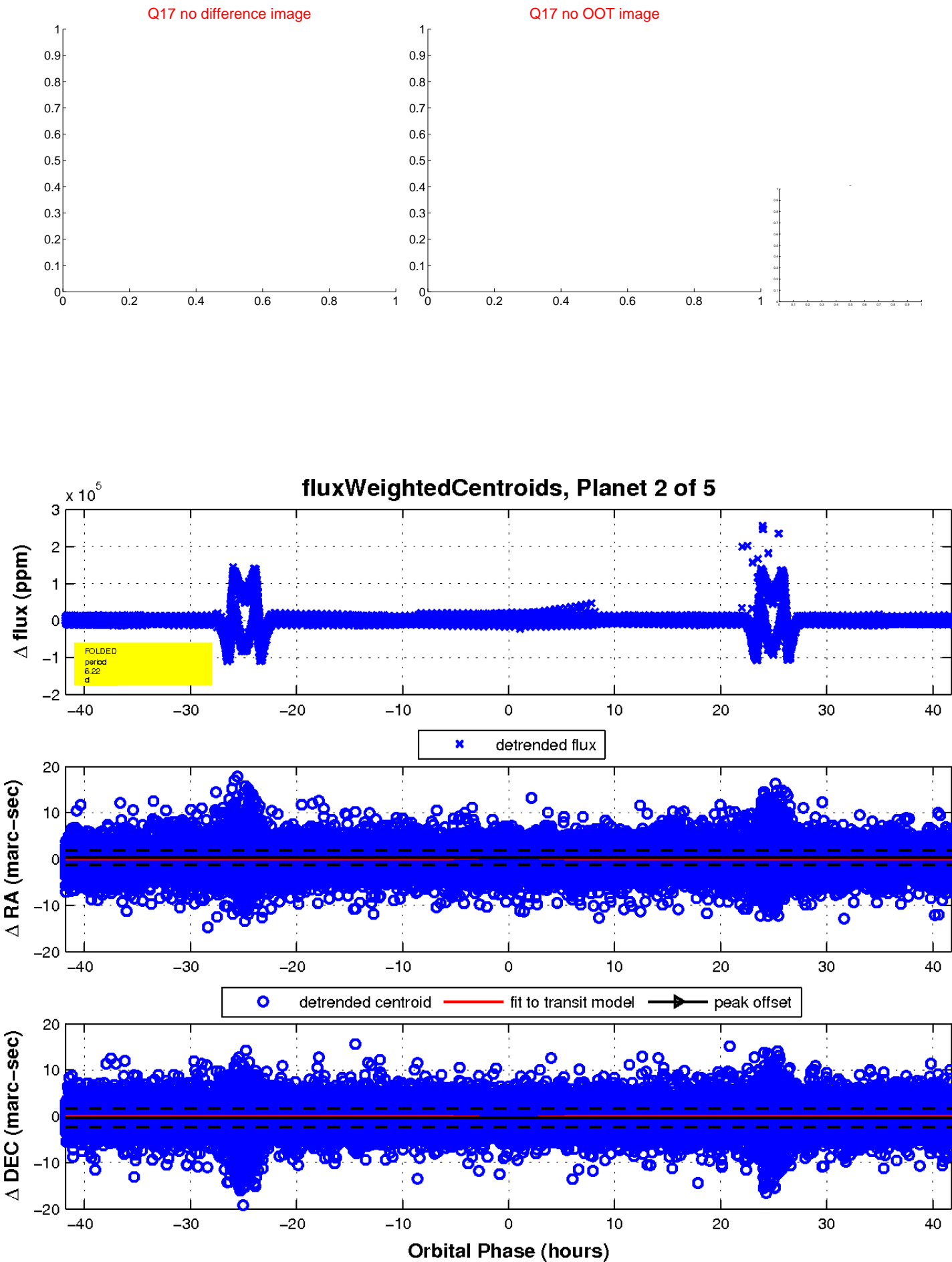
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

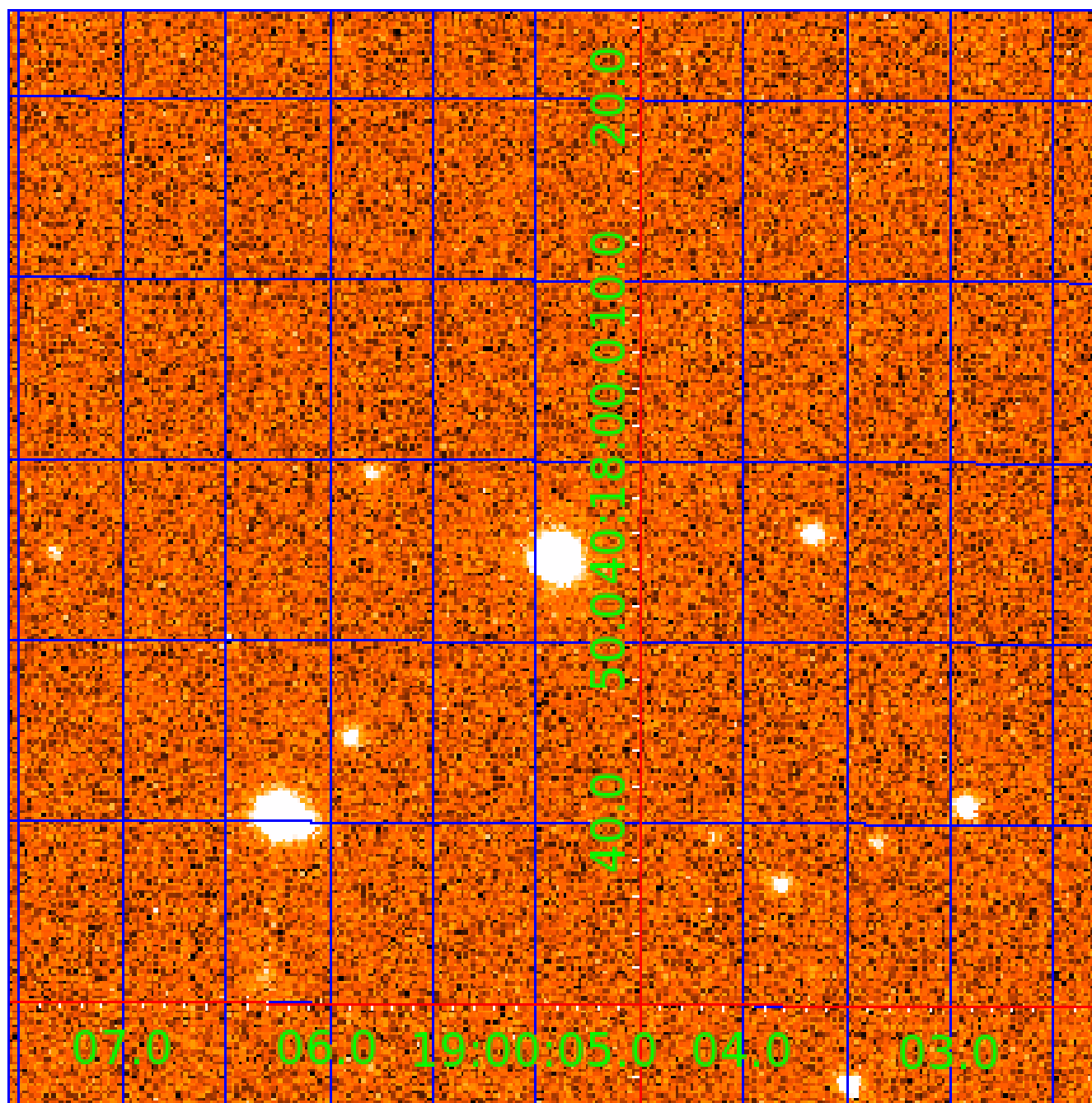


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005080652

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})
005080652-01	OBS	6510.01	2.072179	133.094527	258636.9	3.000	12307.7	-1.0	0.72	5519	35.82	497.18
005080652-02	OBS	No	6.216500	134.137325	2537.2	13.922	781.1	43.8	0.72	5519	6.84	114.91
005080652-03	OBS	No	4.144340	131.545050	6833.4	7.500	264.5	-1.0	0.72	5519	5.88	197.31
005080652-04	OBS	No	4.144453	133.925882	28.4	0.534	125.3	0.5	0.72	5519	0.44	197.30
005080652-05	OBS	No	4.144360	133.377259	9682.3	12.500	98.6	-1.0	0.72	5519	7.00	197.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005080652-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005080652-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005080652-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
005080652-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005080652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—NO_FITS—RESIDUAL_TCE—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 005080652-03

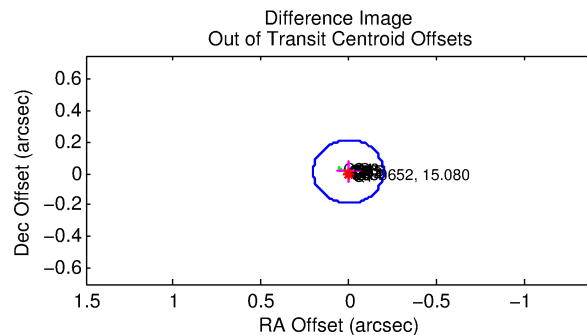
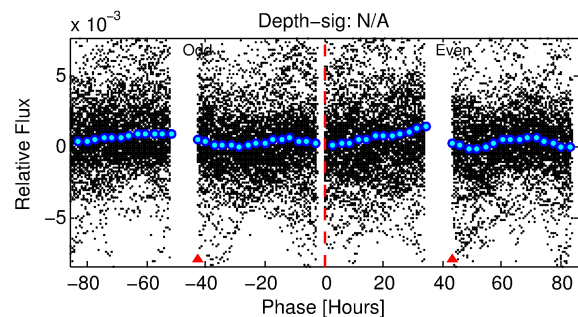
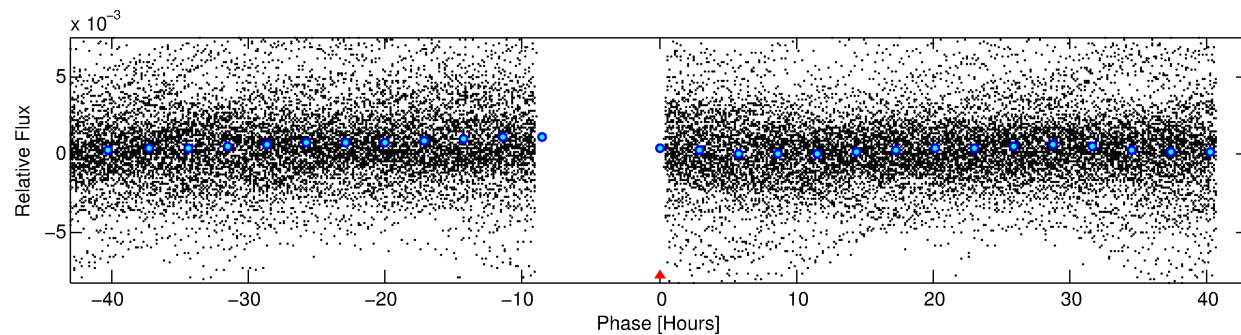
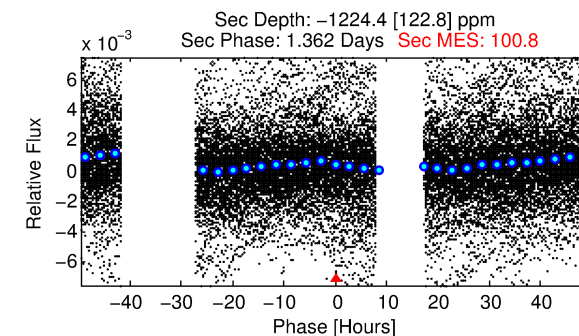
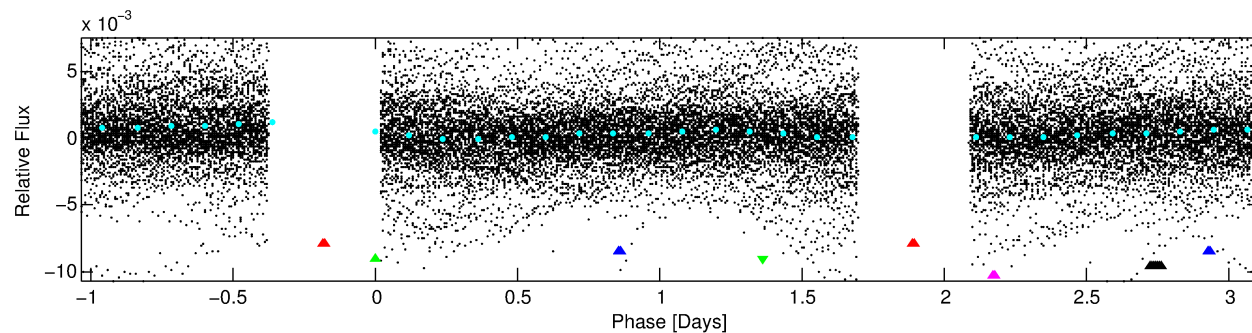
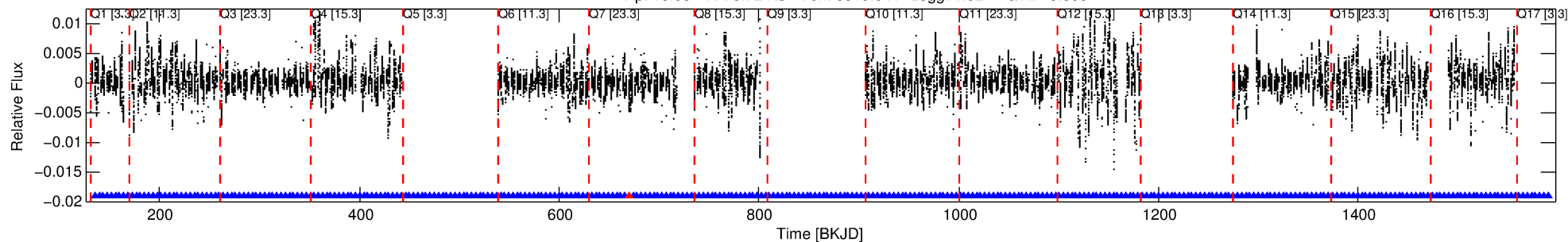
No Significant Match Found

DV One-Page Summary

KIC: 5080652 Candidate: 3 of 5 Period: 4.144 d

KOI: K06510 Corr: No Ephemeris Match

Kp: 15.08 R*: 0.72 Rs Teff: 5519.0 K Logg: 4.62 Fe/H: -0.500



TPS TCE Results:

Period = 4.14434 d
Epoch = 131.5450 BKJD

DV fit results are unavailable

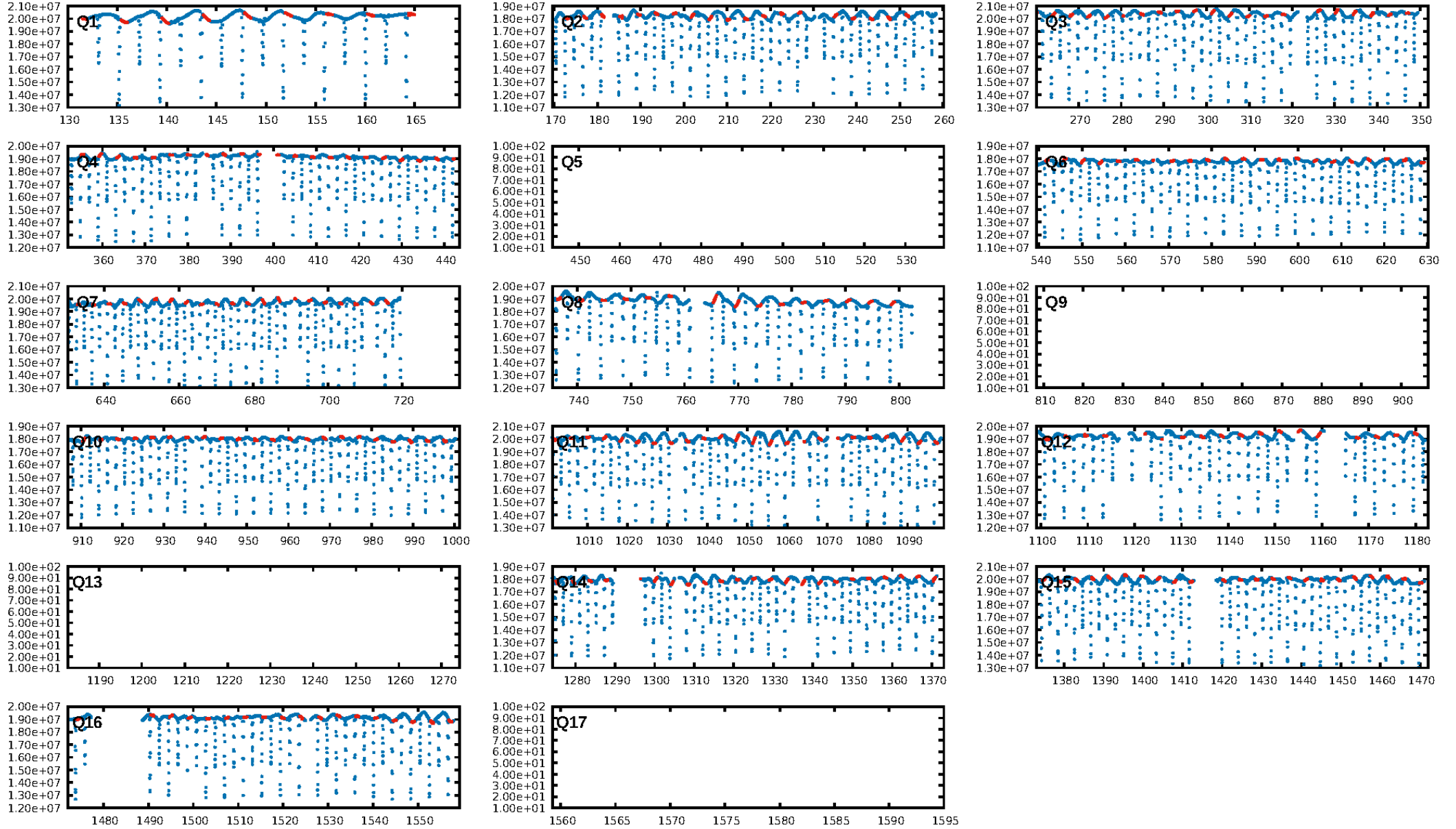
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [6.16 σ]
LongPeriod-sig: 0.0% [0.00 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [158/159]
GhostDiagnostic-chr: -0.7506
Centroid-sig: 70.9%
Centroid-so: 0.105 arcsec [0.44 σ]
OotOffset-rm: 0.014 arcsec [0.21 σ]
KicOffset-rm: 0.181 arcsec [2.19 σ]
OotOffset-st: 4/4/4/1 [13]
KicOffset-st: 4/4/4/1 [13]
DiffImageQuality-fgm: 1.00 [13/13]
DiffImageOverlap-fno: 0.00 [0/13]

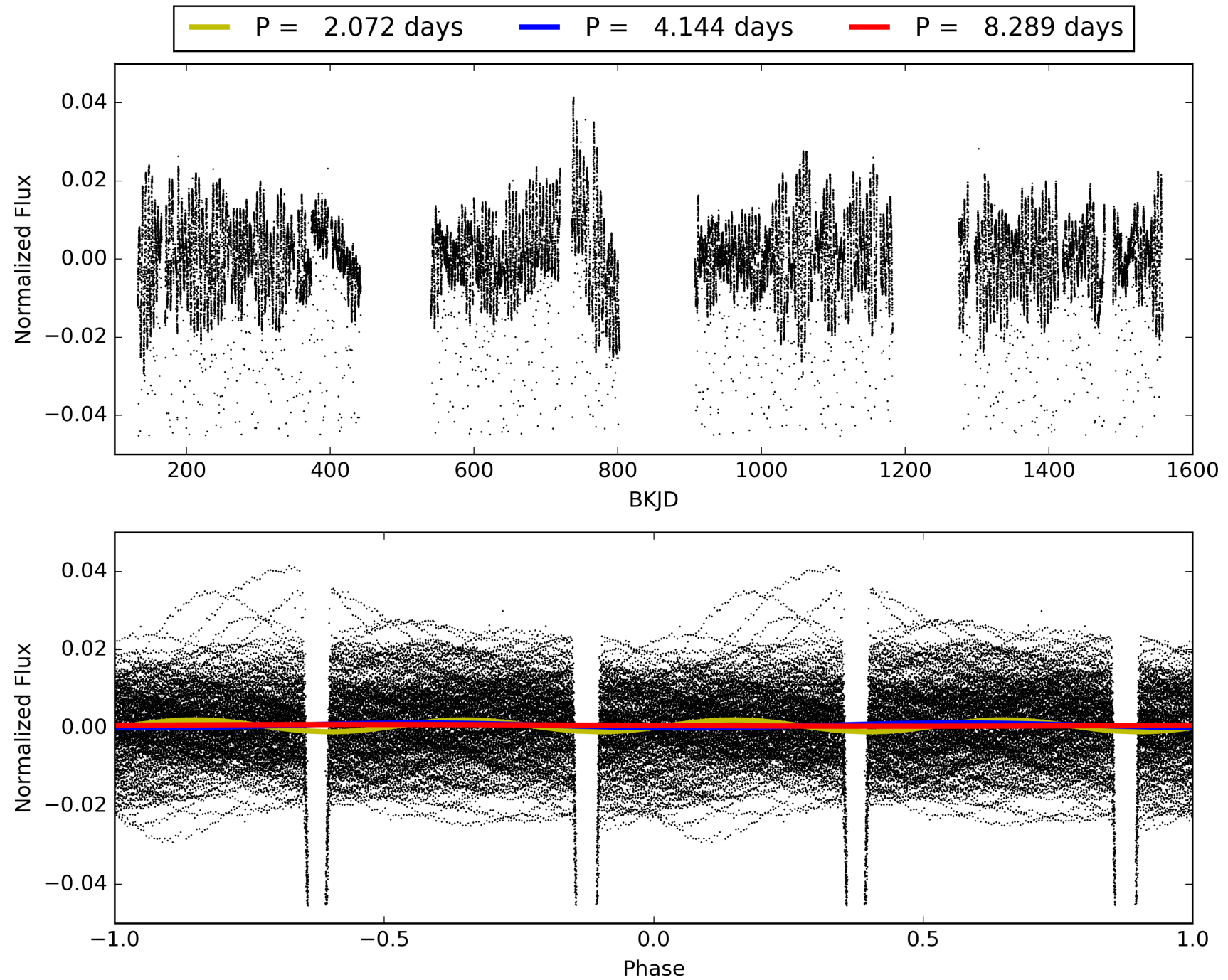
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:48:02 Z

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

TCE 005080652-03, PDC Light Curves

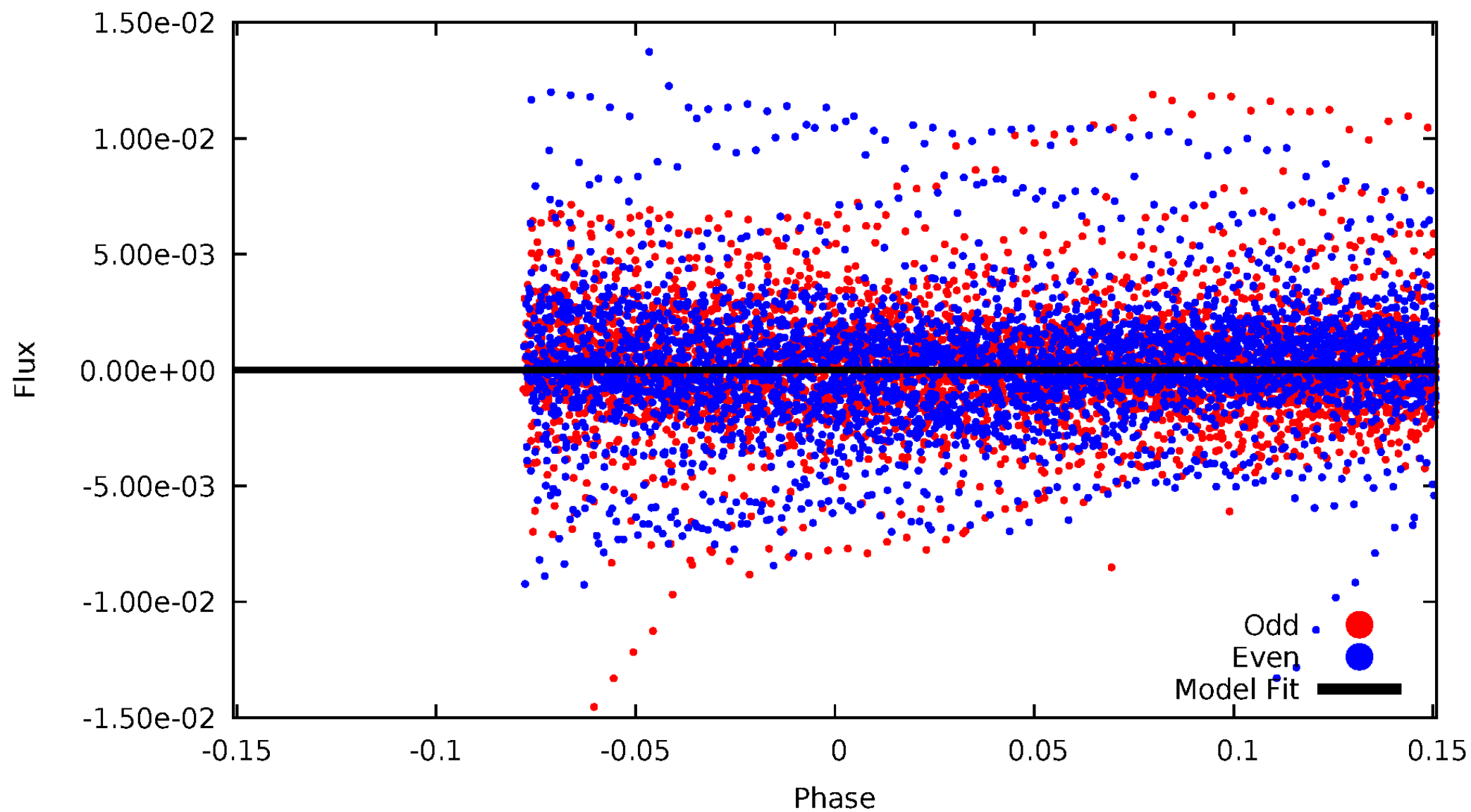


TCE 005080652-03



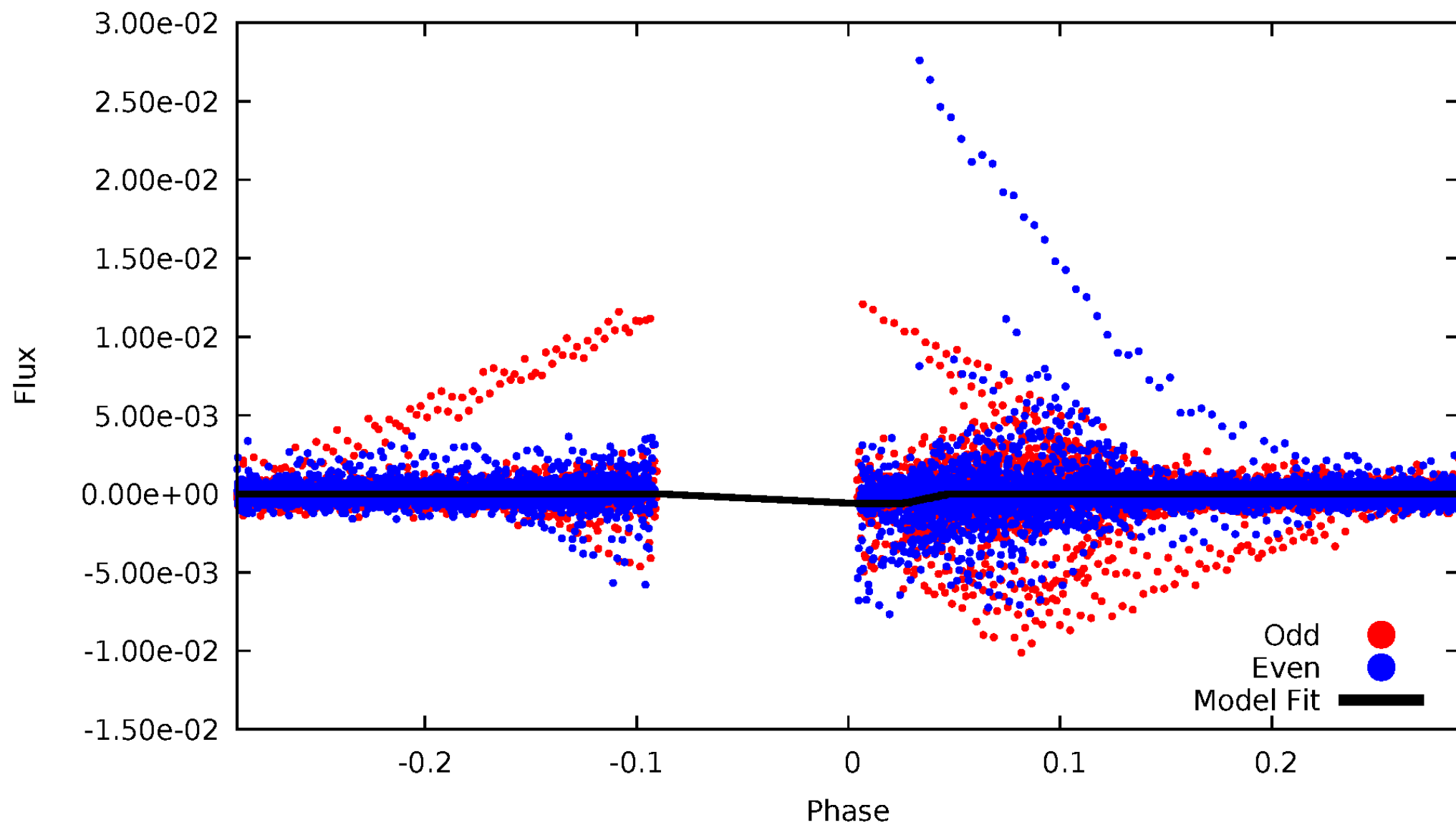
DV Odd/Even

TCE 005080652-03

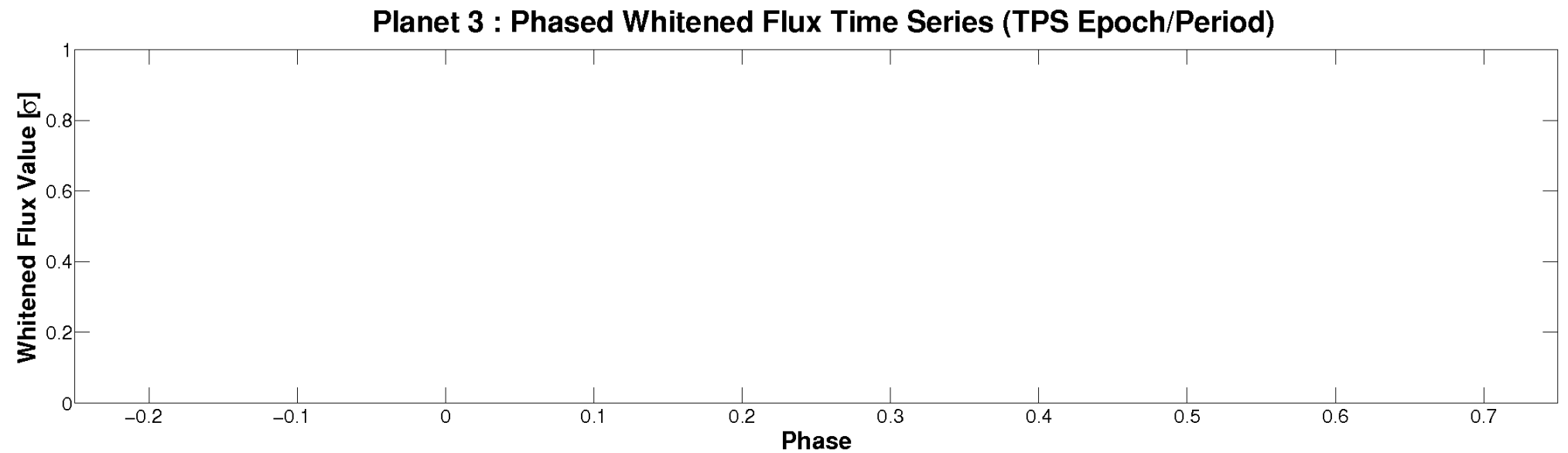
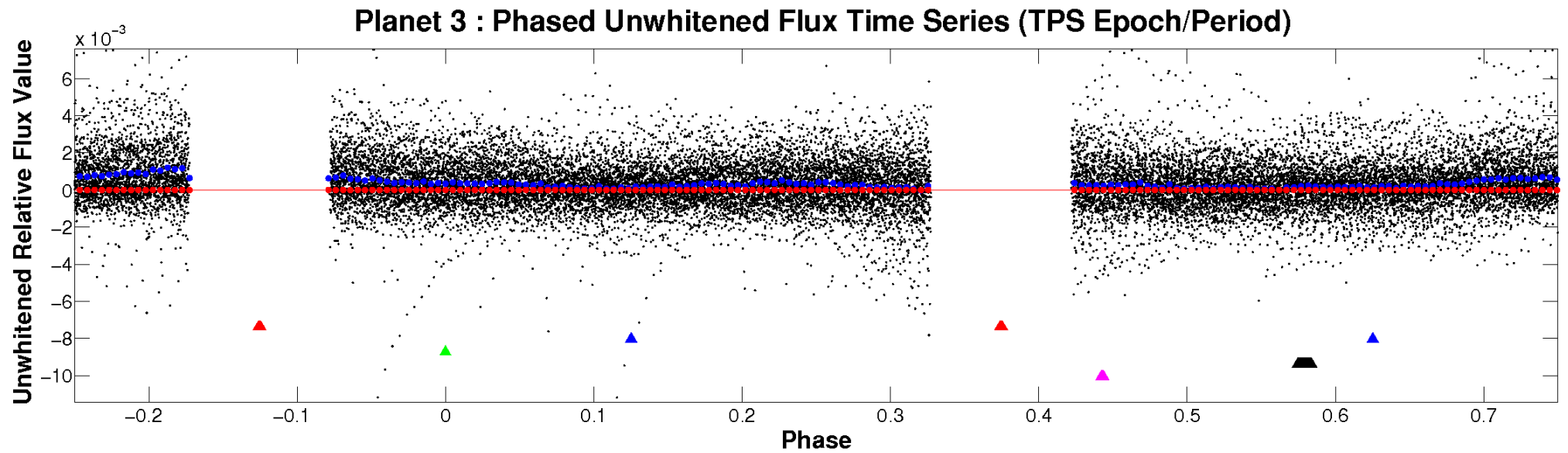


ALT Odd/Even

TCE 005080652-03

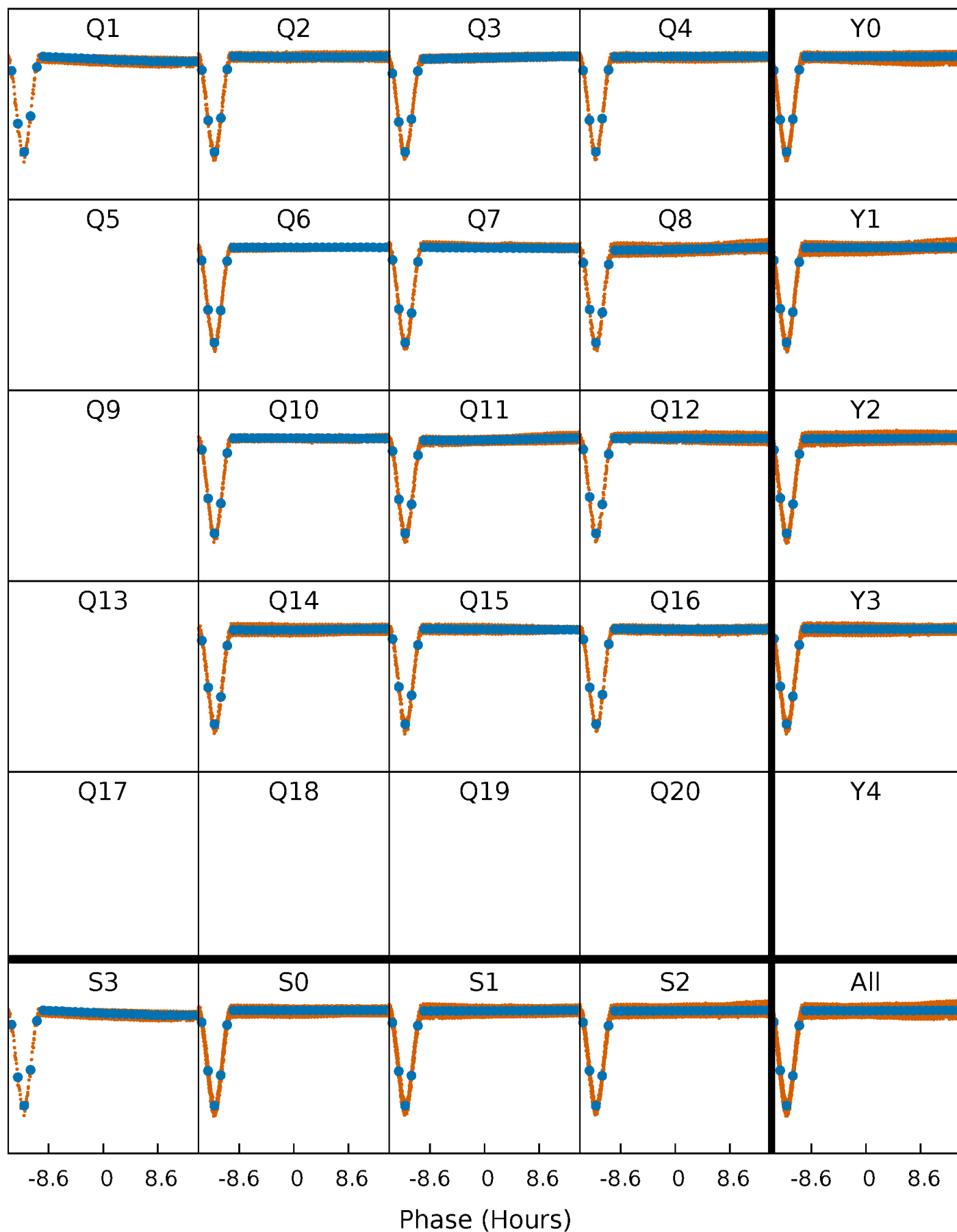


Non-Whitened Vs. Whitened Light Curve



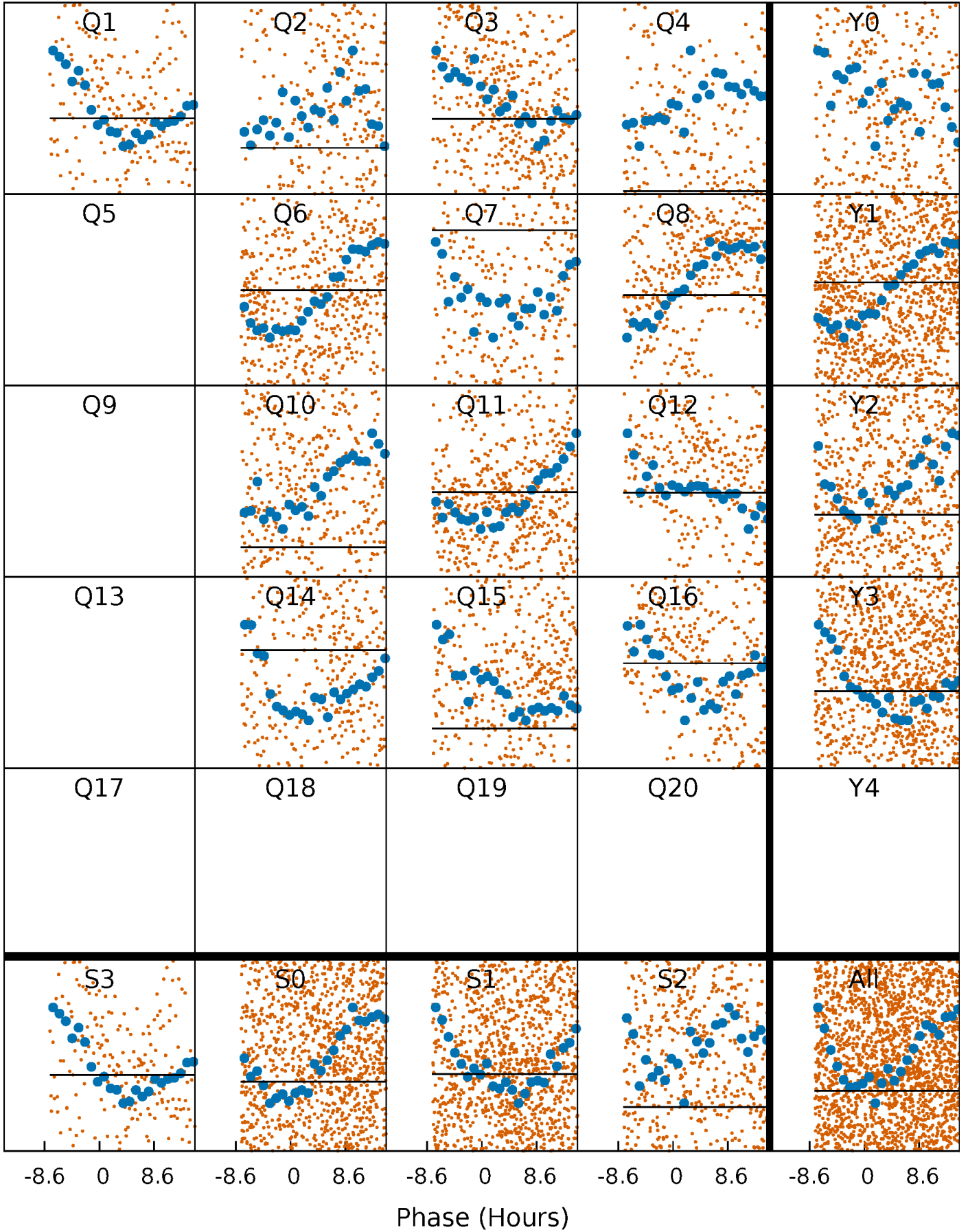
PDC Quarter-Phased Transit Curves

TCE 005080652-03 P= 4.144340 Days $T_0=131.545050$ (BKJD)



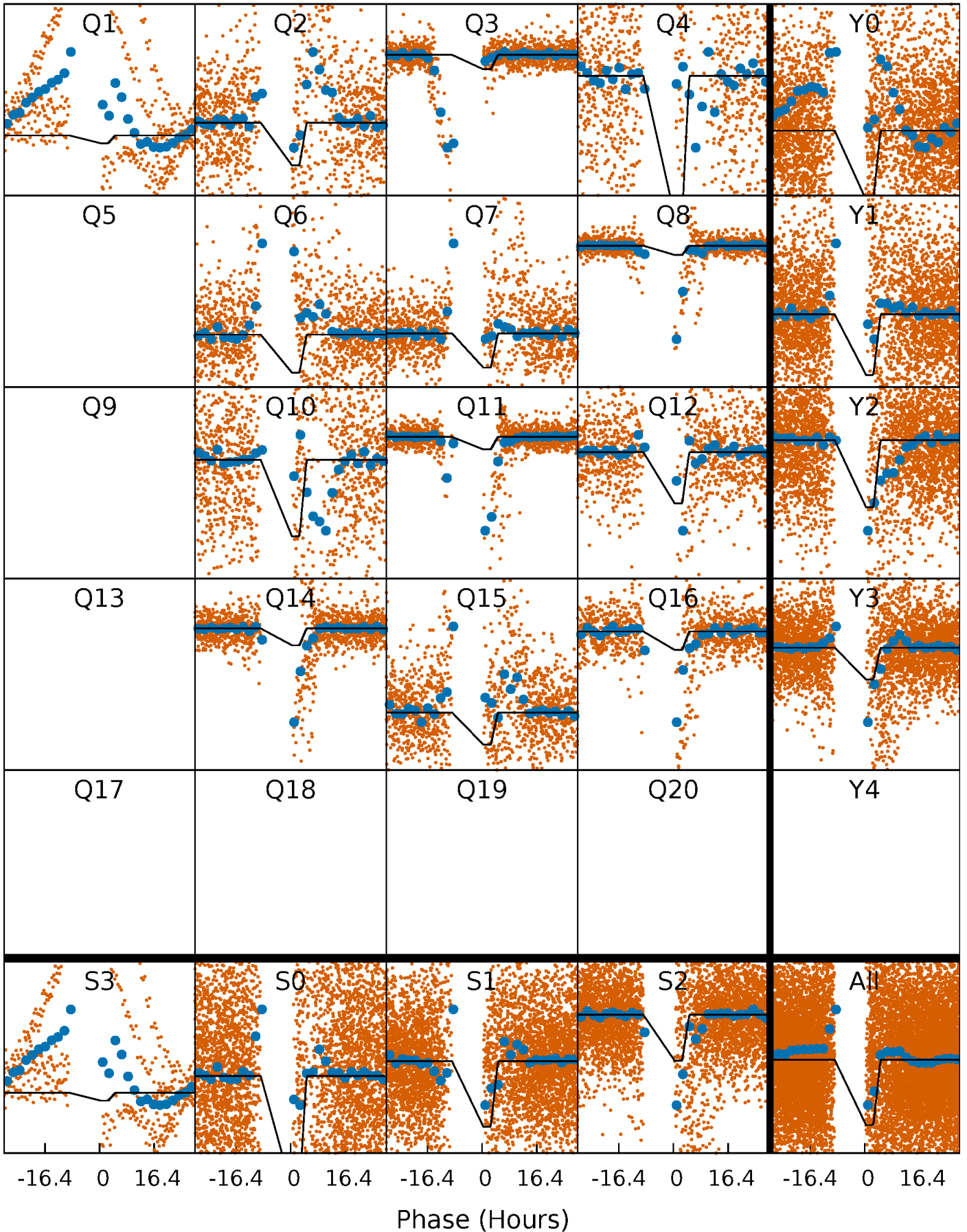
DV Quarter-Phased Transit Curves

TCE 005080652-03 $P = 4.144340$ Days $T_0 = 131.545050$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

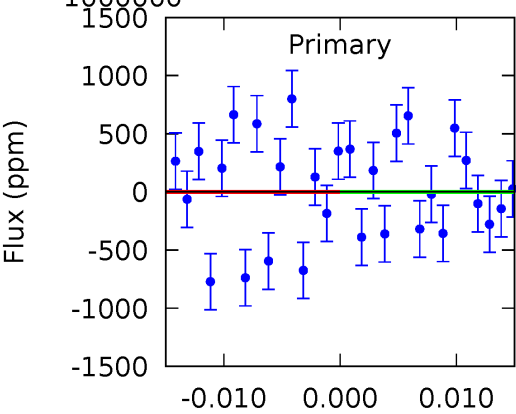
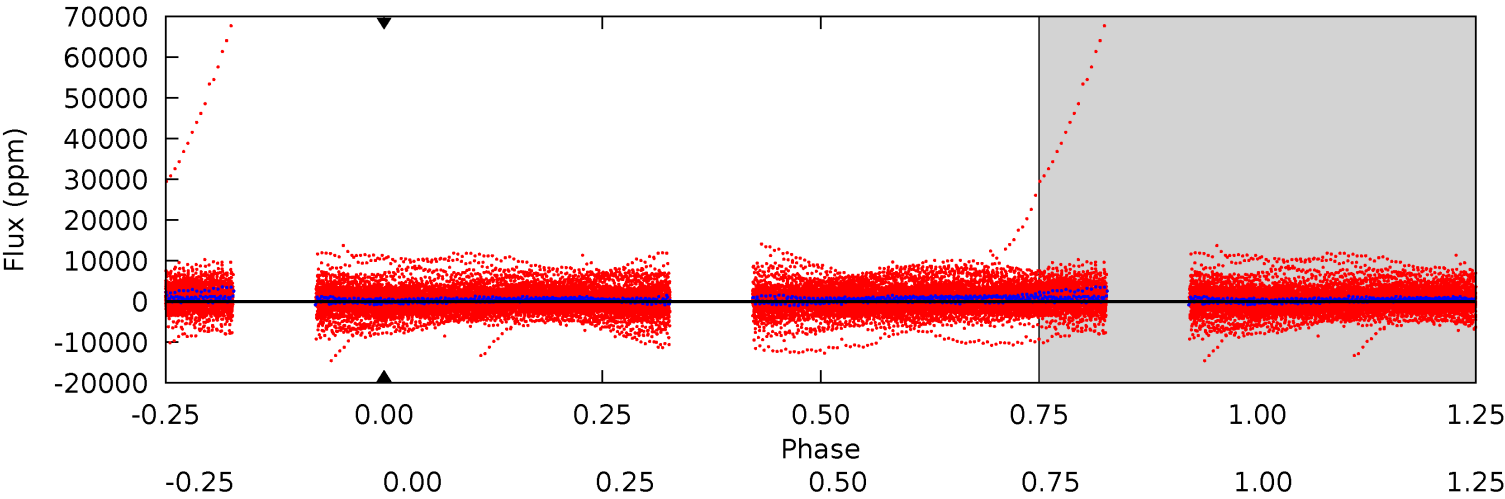
TCE 005080652-03 P= 4.144340 Days $T_0=135.349181$ (BKJD)



DV Model-Shift Uniqueness Test

005080652-03, P = 4.144340 Days, E = 127.400710 Days

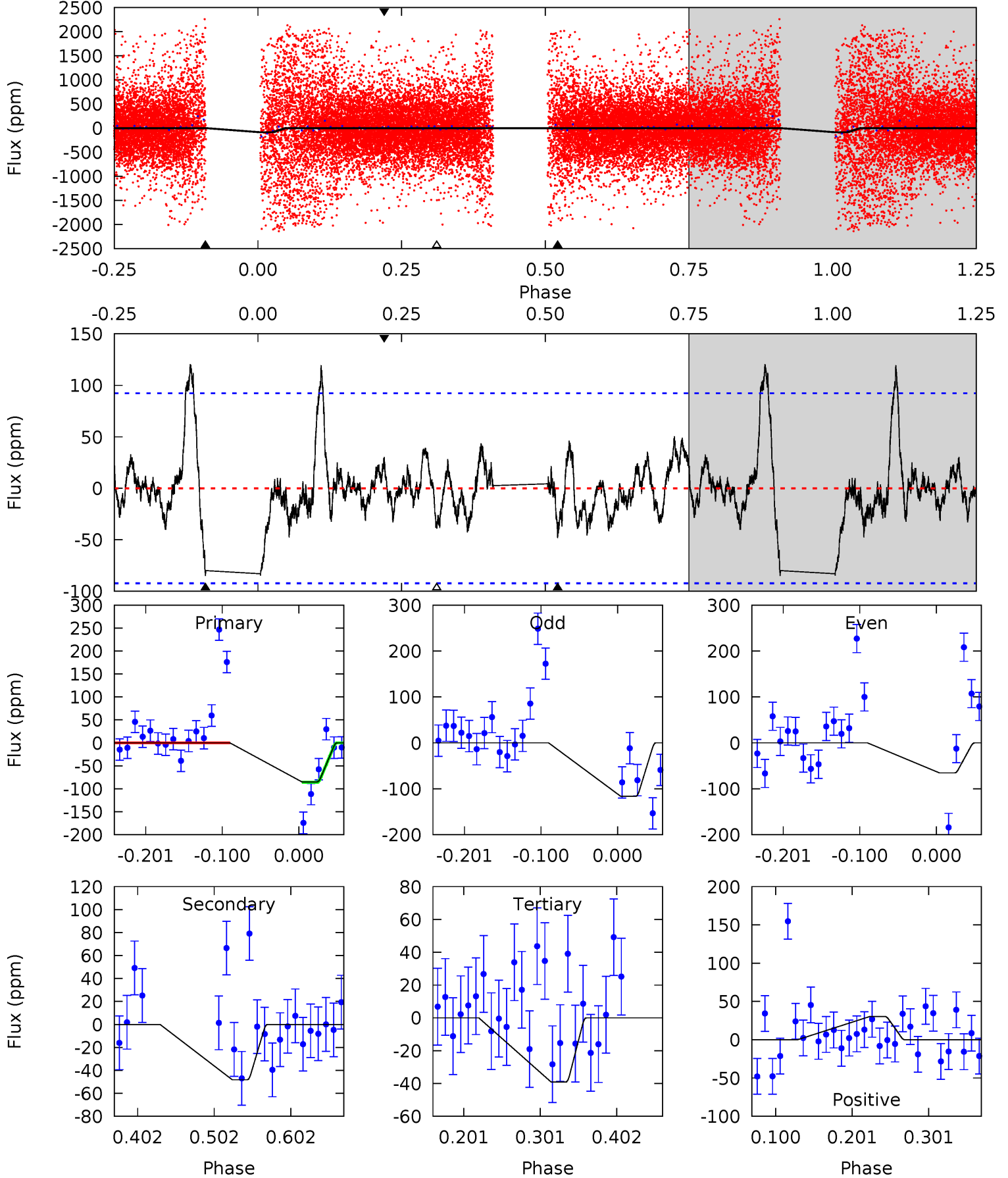
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

005080652-03, P = 4.144340 Days, E = 131.204841 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.21	2.38	1.93	1.50	4.56	1.64	1.13	2.28	2.71	0.45	0.88	1.29	-3.51	0.59	0



Stellar Parameters For KIC 005080652

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5519^{+163}_{-147}	$4.621^{+0.035}_{-0.105}$	$-0.500^{+0.300}_{-0.300}$	$0.718^{+0.118}_{-0.055}$	$0.811^{+0.073}_{-0.089}$	$3.085^{+0.455}_{-1.042}$
	+3%/-3%	+1%/-2%	+60%/-60%	+16%/-8%	+9%/-11%	+15%/-34%
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 005080652-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 1000000	$8.32^{+6.59}_{-5.54}$	1355^{+56}_{-51}	3632^{+10402}_{-16001}	22^{+3330}_{-2517}
Alt.	-48 ± 20	$6.26^{+6.26}_{-4.58}$	1355^{+59}_{-50}	2422^{+1162}_{-878}	$1.351^{+18.140}_{-1.037}$

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

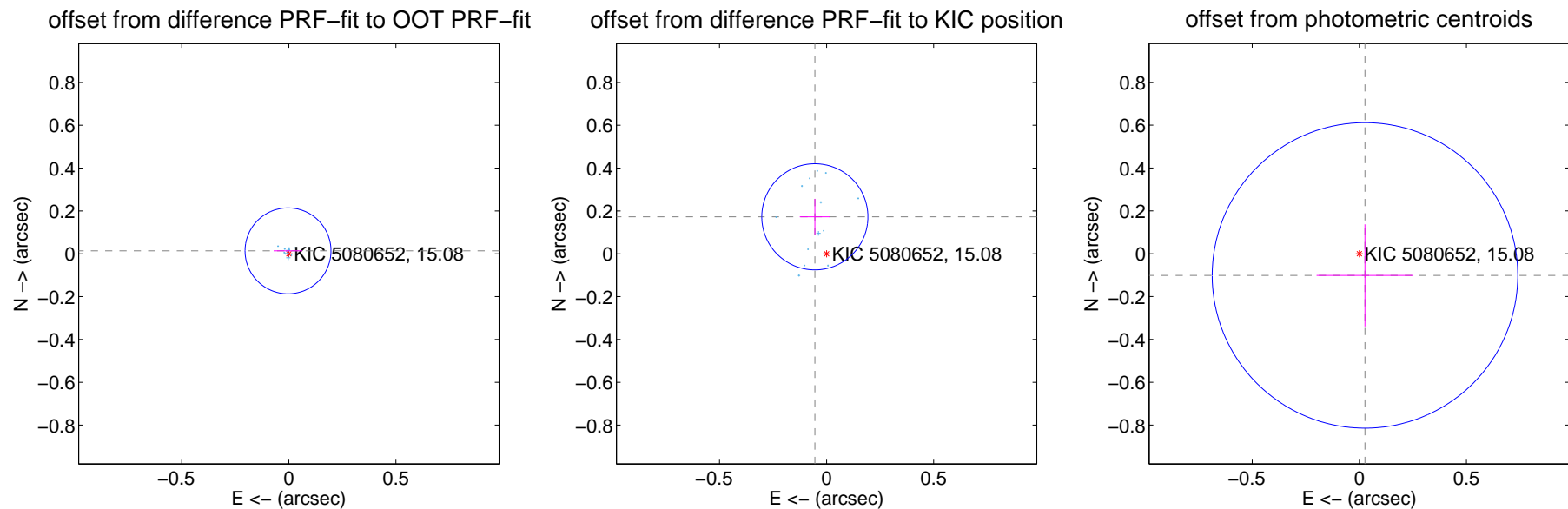
DV Centroid Data

Supplemental centroid analysis for 005080652-03. Kepler magnitude: 15.08. Transit SNR -1.00

There are 13 quarters with good PRF difference image offsets

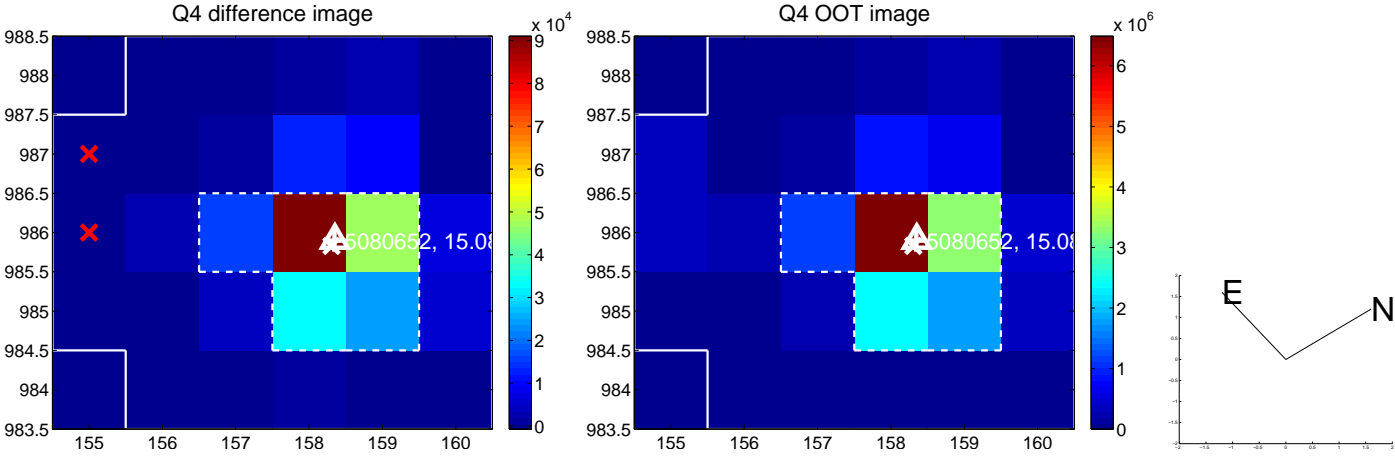
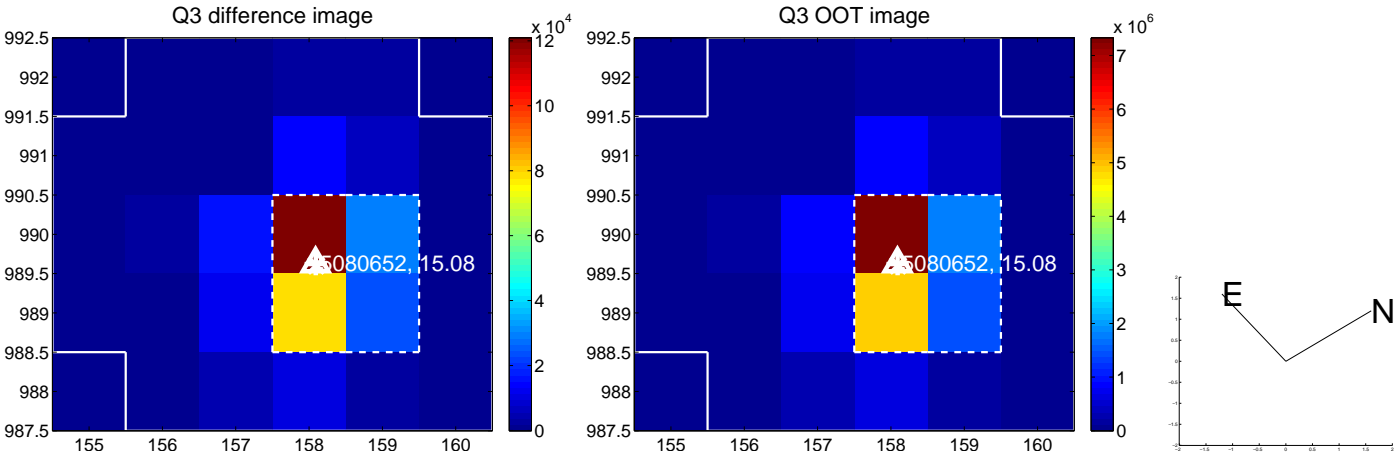
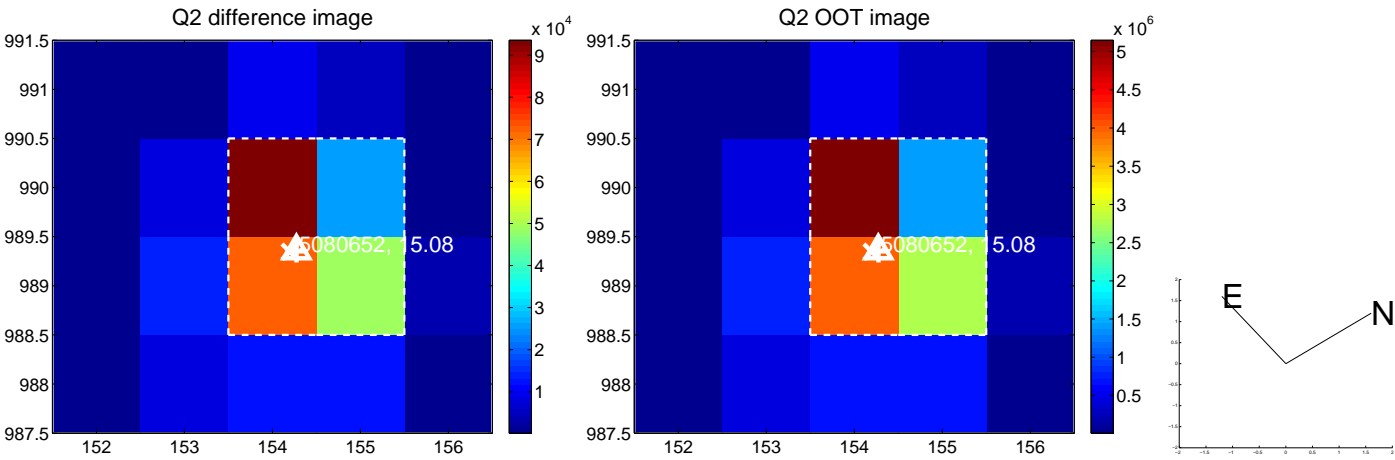
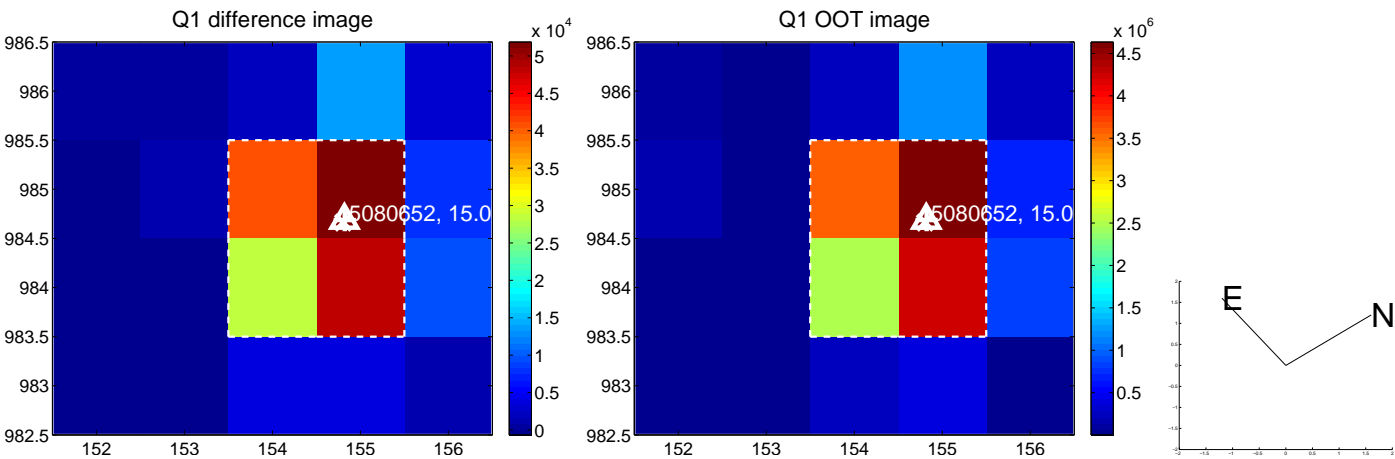
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.014 ± 0.067	0.21	0.004 ± 0.067	0.014 ± 0.067
PRF-fit source offset from KIC position	0.181 ± 0.083	2.19	0.055 ± 0.070	0.173 ± 0.084
photometric centroid source offset	0.10 ± 0.24	0.44	-0.03 ± 0.23	-0.10 ± 0.24

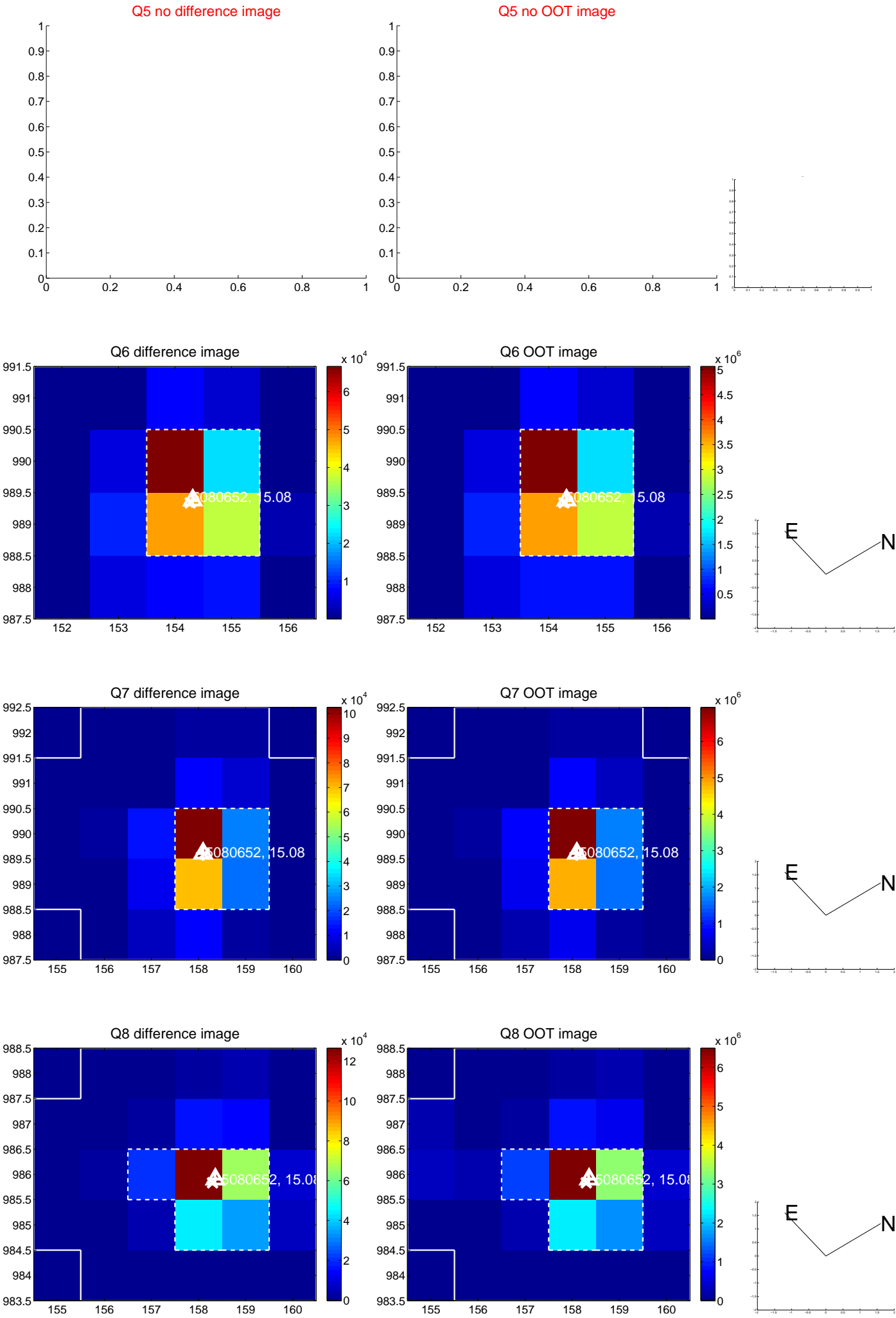


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

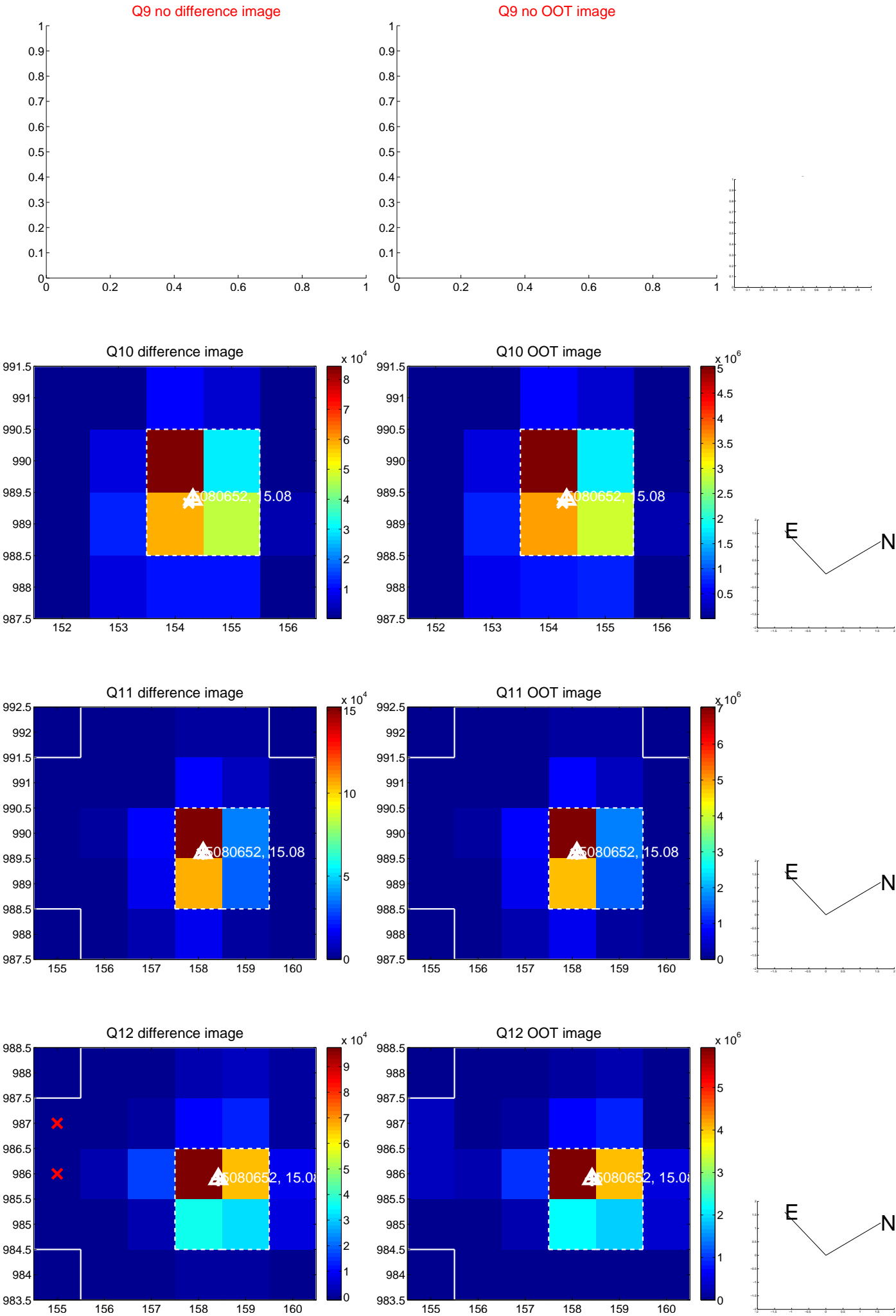
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



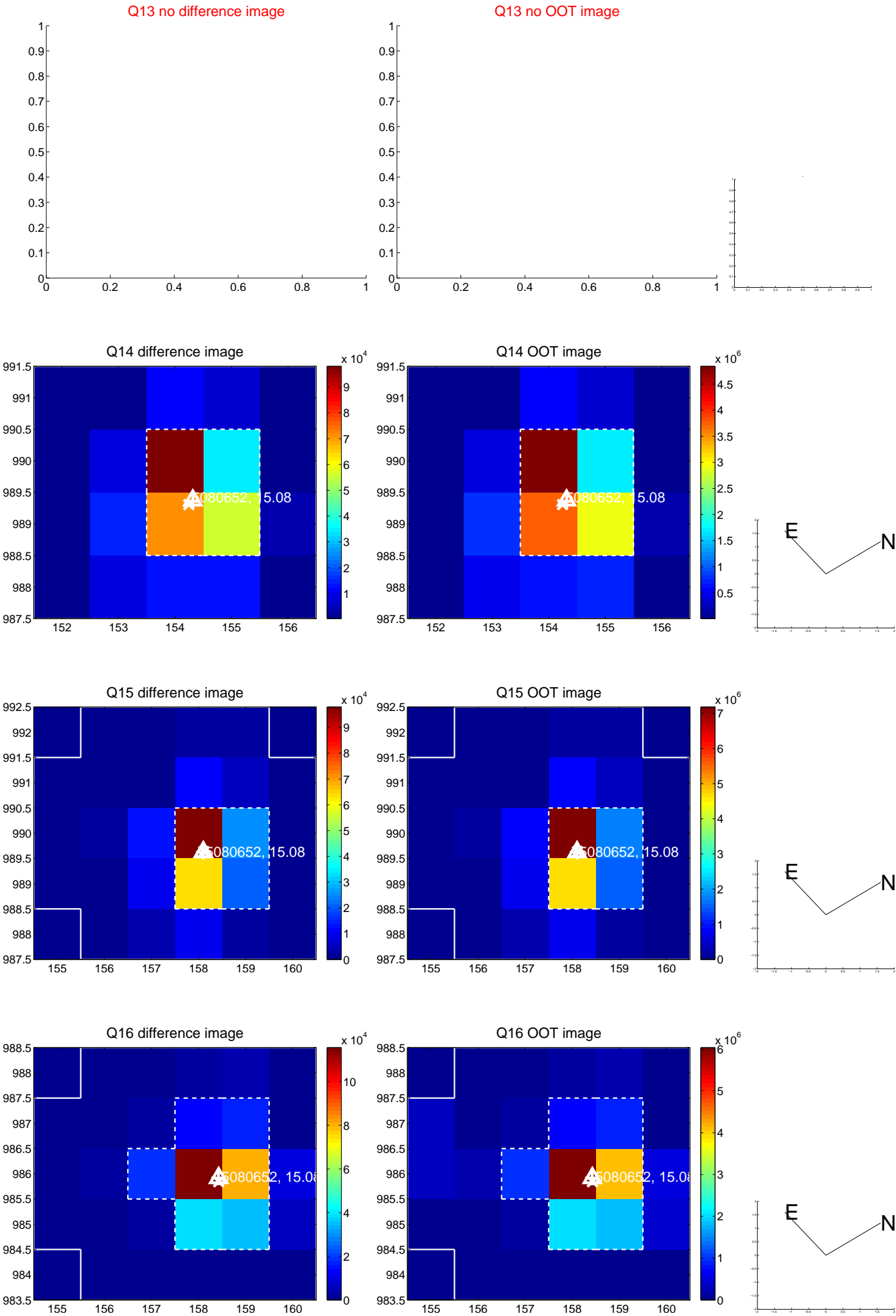
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



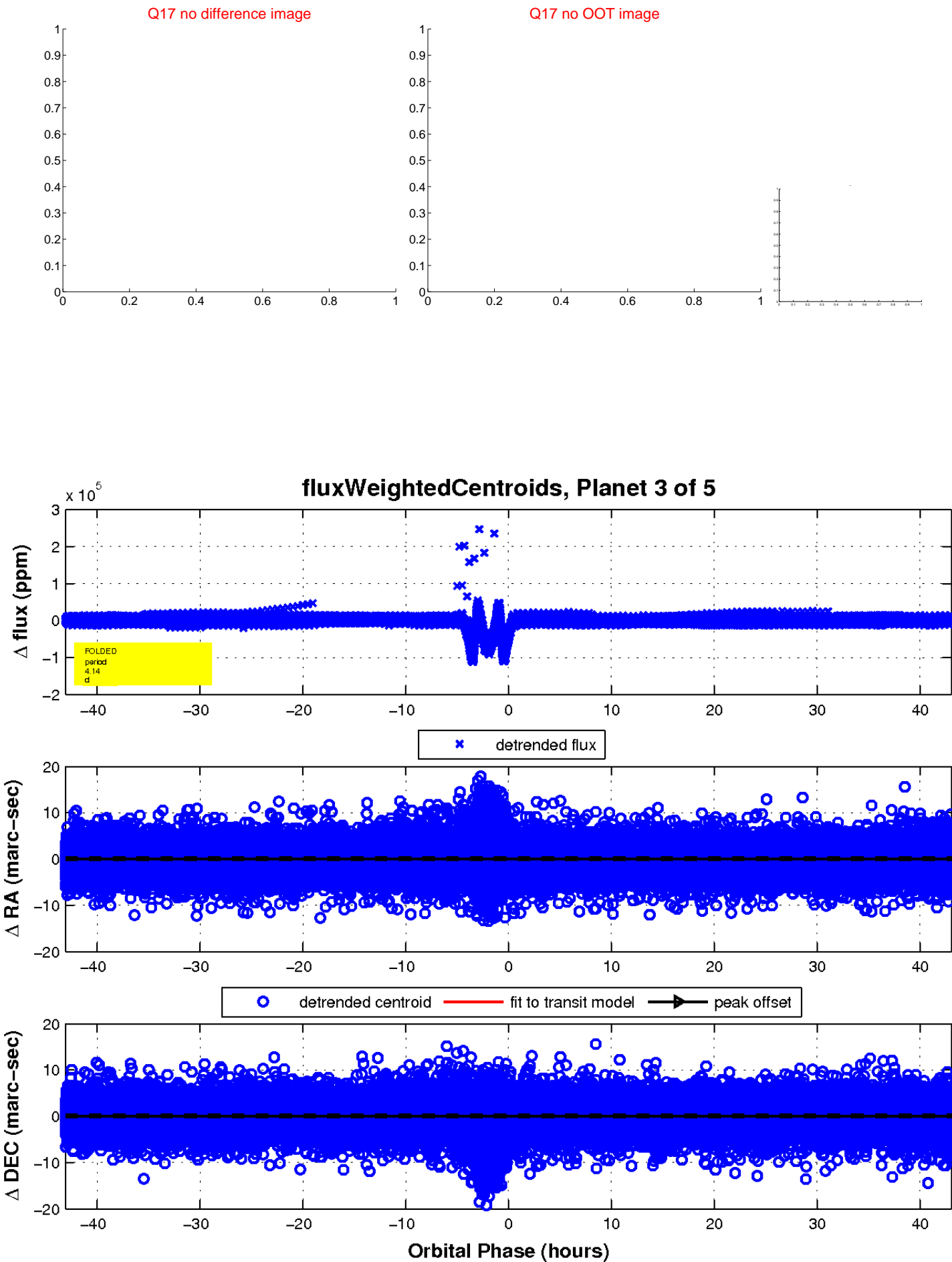
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

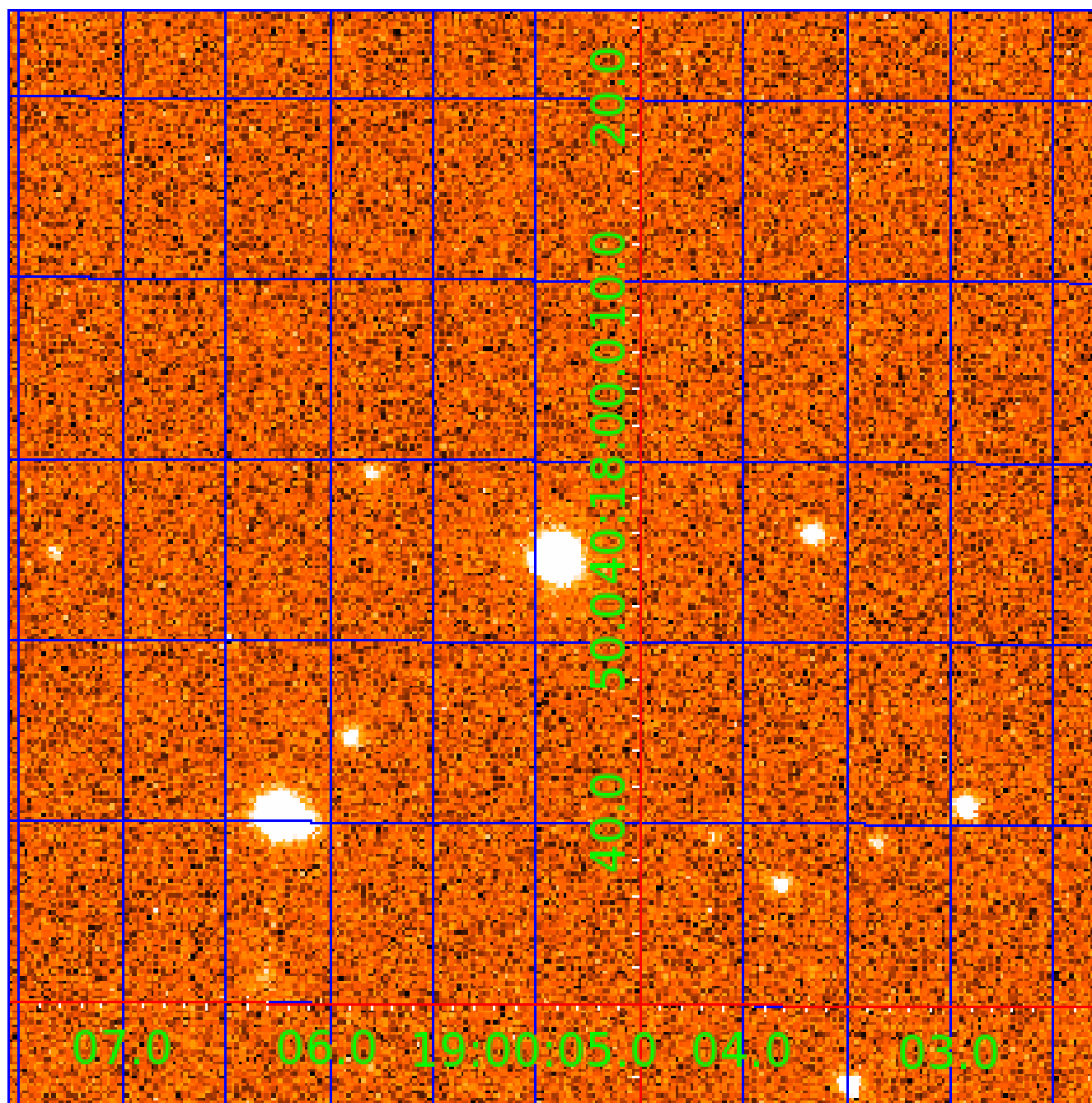


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005080652

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})
005080652-01	OBS	6510.01	2.072179	133.094527	258636.9	3.000	12307.7	-1.0	0.72	5519	35.82	497.18
005080652-02	OBS	No	6.216500	134.137325	2537.2	13.922	781.1	43.8	0.72	5519	6.84	114.91
005080652-03	OBS	No	4.144340	131.545050	6833.4	7.500	264.5	-1.0	0.72	5519	5.88	197.31
005080652-04	OBS	No	4.144453	133.925882	28.4	0.534	125.3	0.5	0.72	5519	0.44	197.30
005080652-05	OBS	No	4.144360	133.377259	9682.3	12.500	98.6	-1.0	0.72	5519	7.00	197.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005080652-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005080652-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005080652-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
005080652-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005080652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—NO_FITS—RESIDUAL_TCE—CENT_NOFITS

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

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

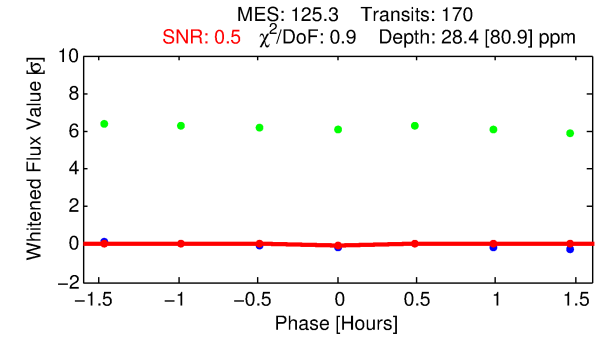
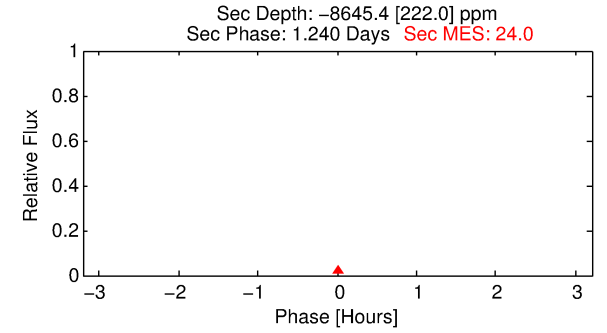
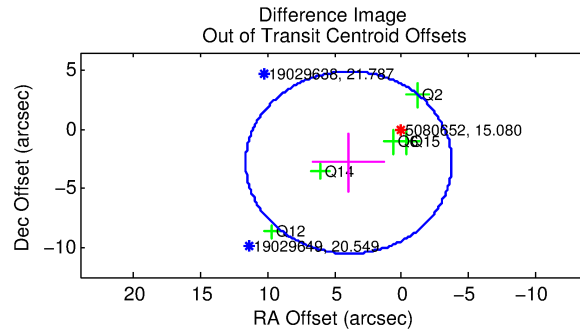
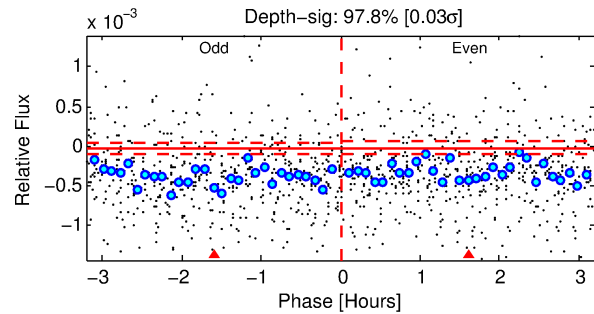
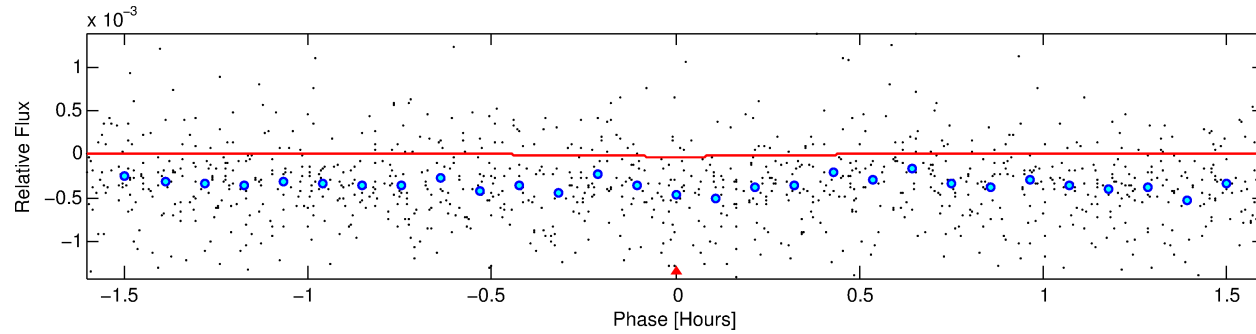
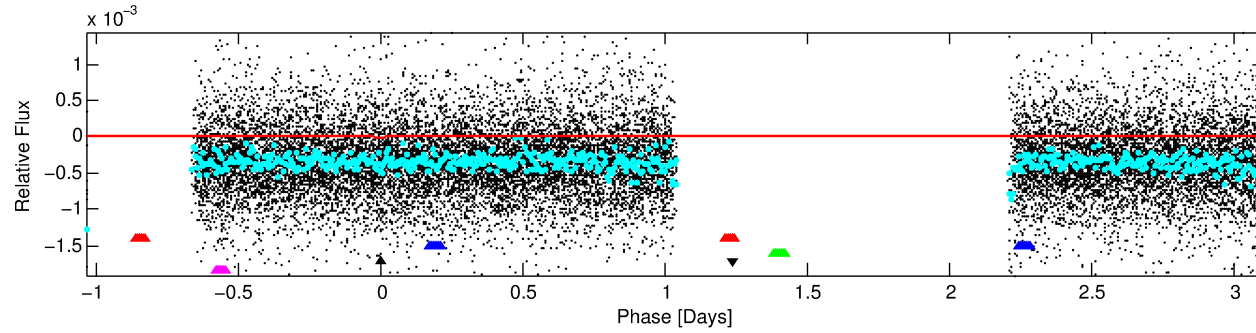
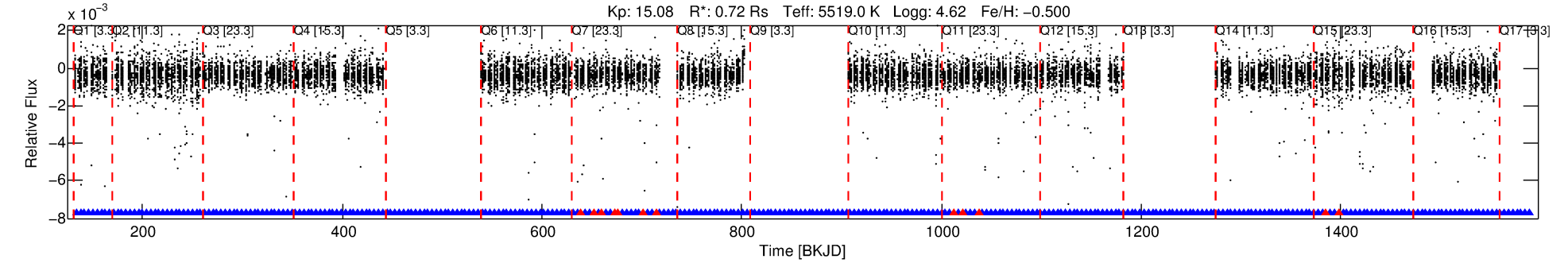
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005080652-04

No Significant Match Found

DV One-Page Summary

KIC: 5080652 Candidate: 4 of 5 Period: 4.144 d
KOI: K06510 Corr: No Ephemeris Match



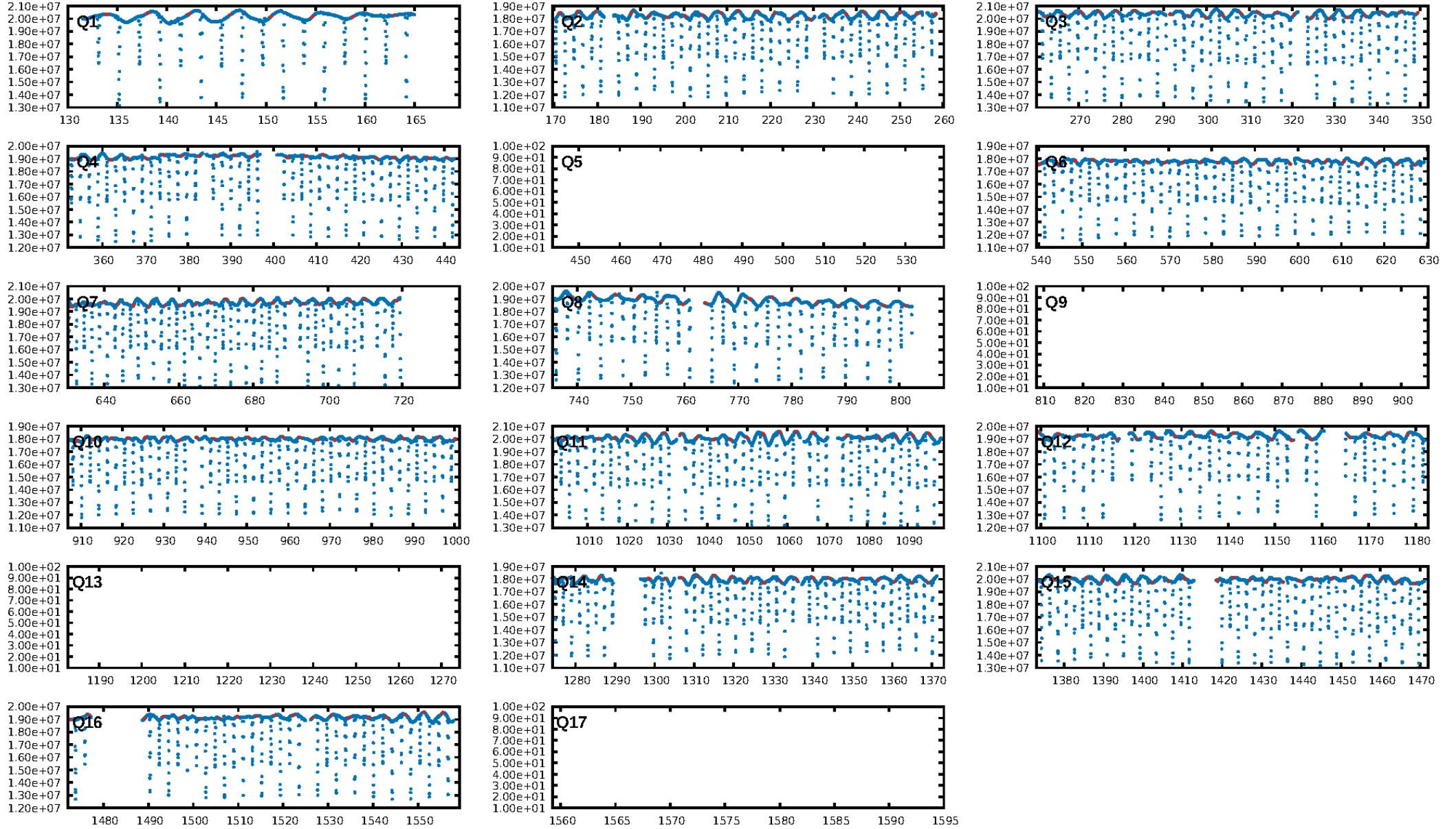
DV Fit Results:

Period = 4.14445 [0.00025] d
Epoch = 133.9259 [0.0252] BKJD
Rp/R* = 0.0056 [0.0455]
a/R* = 36.86 [1323.12]
b = 0.79 [17.28]
Seff = 197.30 [44.97]
Teff = 956 [54] K
Rp = 0.44 [3.56] Re
a = 0.0466 [0.0063] AU
Ag = N/A
Teffp = N/A

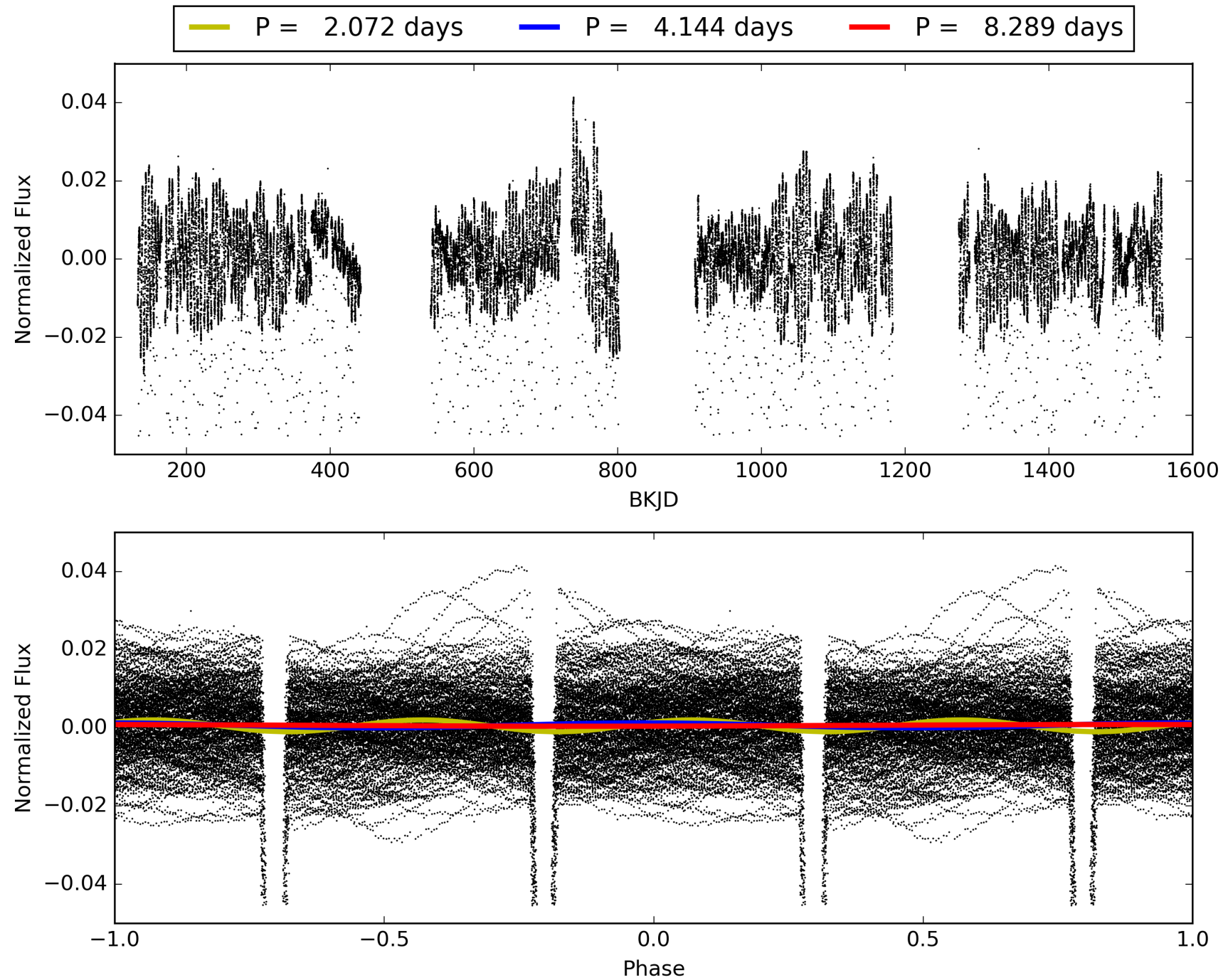
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 100.0% [3.57σ]
ModelChiSquare2-sig: 98.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 0.93 [153/165]
GhostDiagnostic-chr: 0.8802
Centroid-sig: 42.7%
Centroid-so: 12.994 arcsec [0.75σ]
OotOffset-rm: 4.837 arcsec [1.89σ]
KicOffset-rm: 4.620 arcsec [1.86σ]
OotOffset-st: 3/1/1/0 [5]
KicOffset-st: 3/1/1/0 [5]
DiffImageQuality-fgm: 0.40 [2/5]
DiffImageOverlap-fno: 1.00 [13/13]

TCE 005080652-04, PDC Light Curves

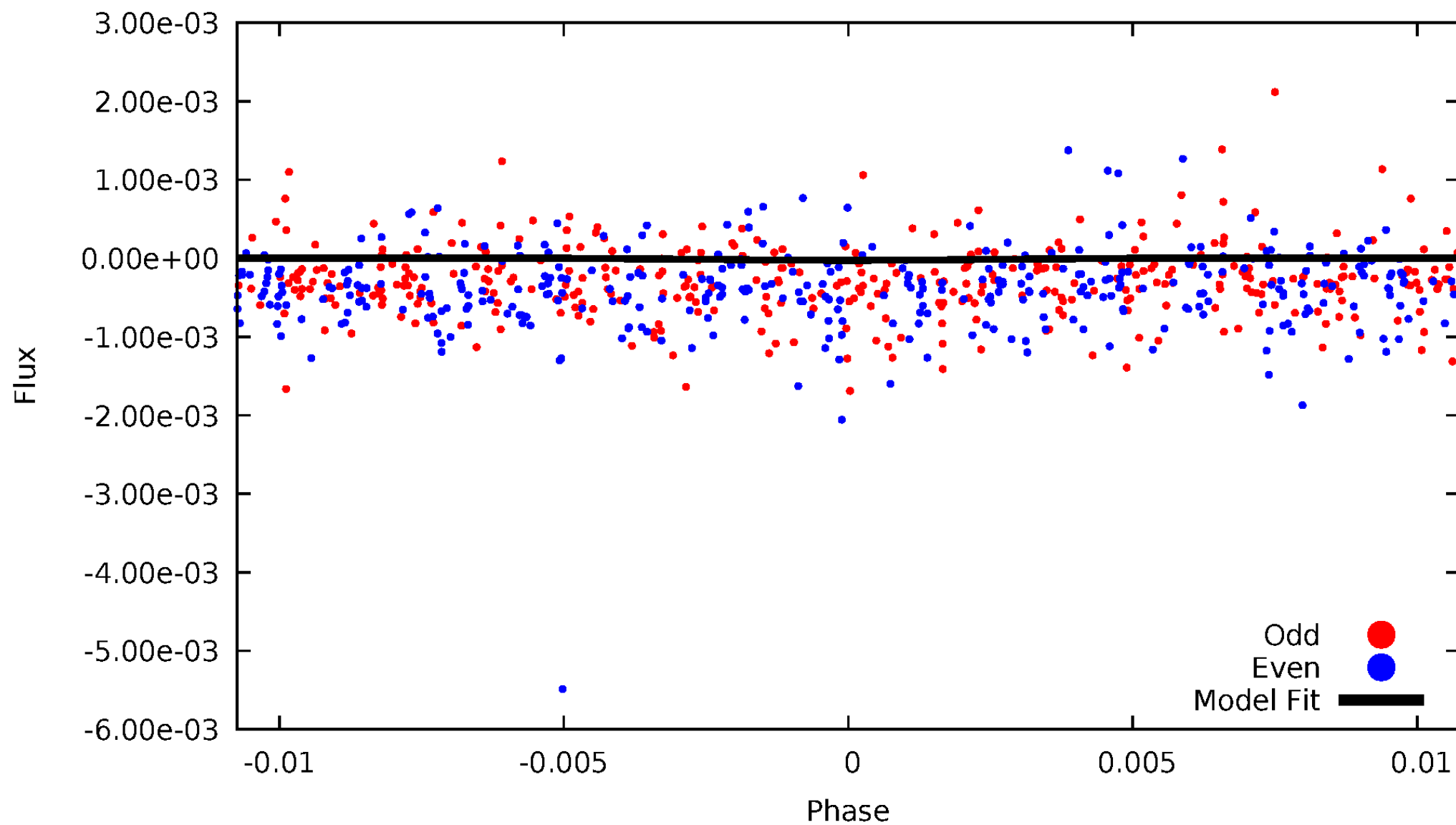


TCE 005080652-04



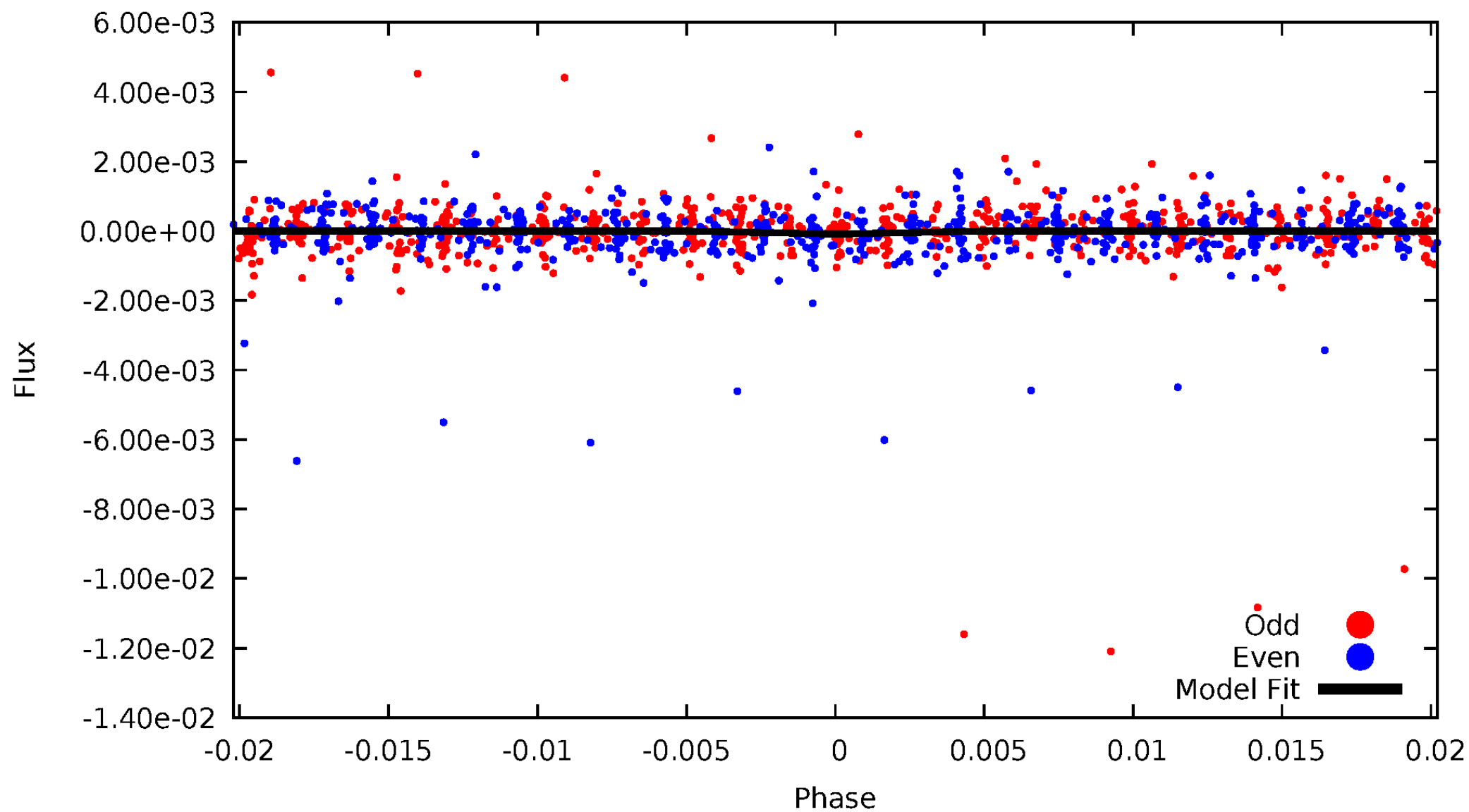
DV Odd/Even

TCE 005080652-04



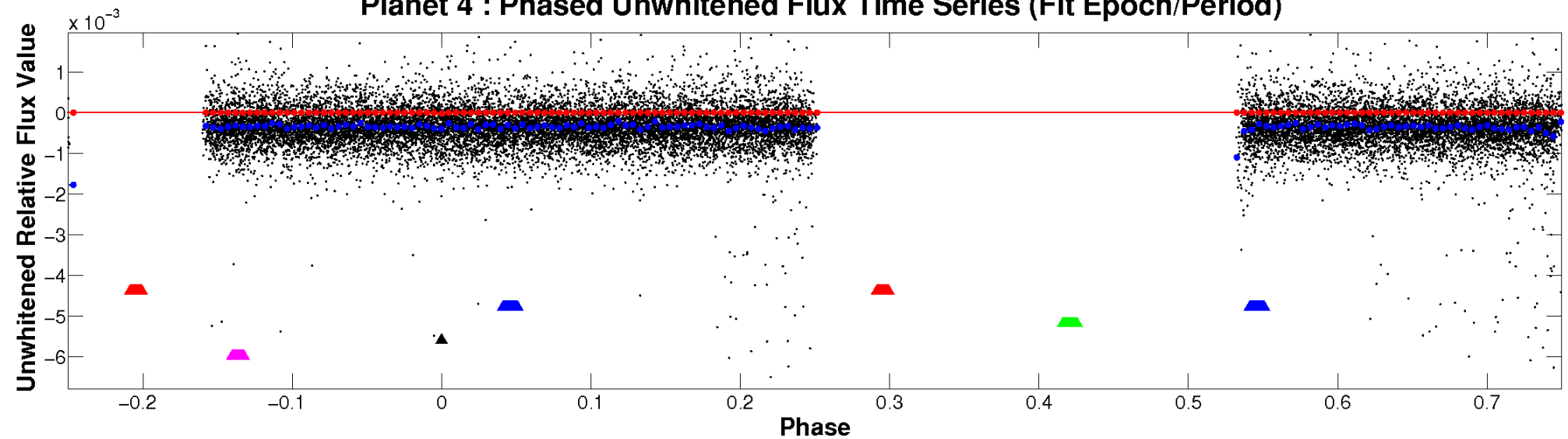
ALT Odd/Even

TCE 005080652-04

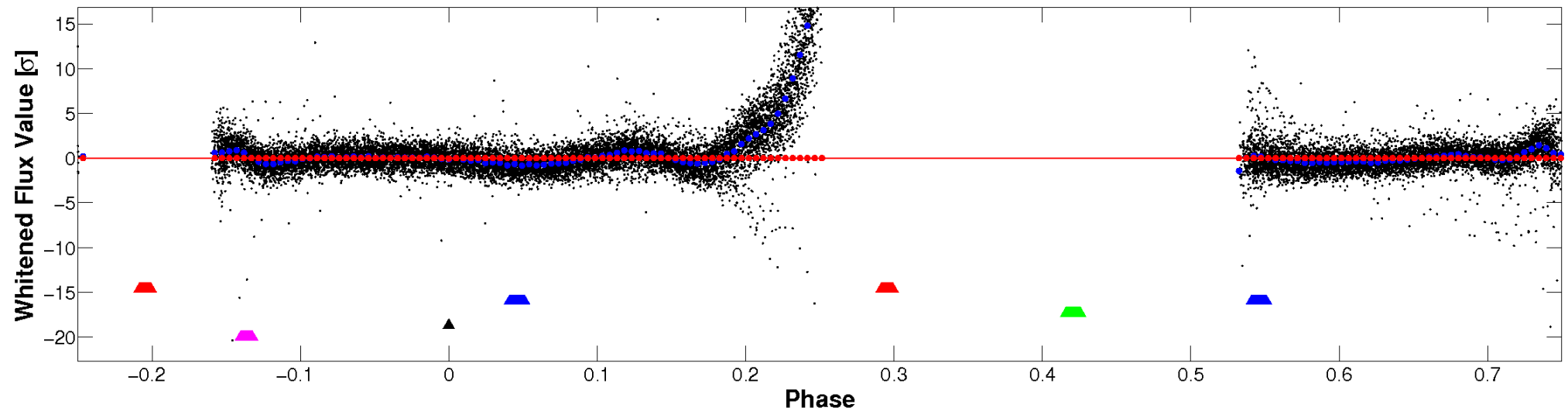


Non-Whitened Vs. Whitened Light Curve

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

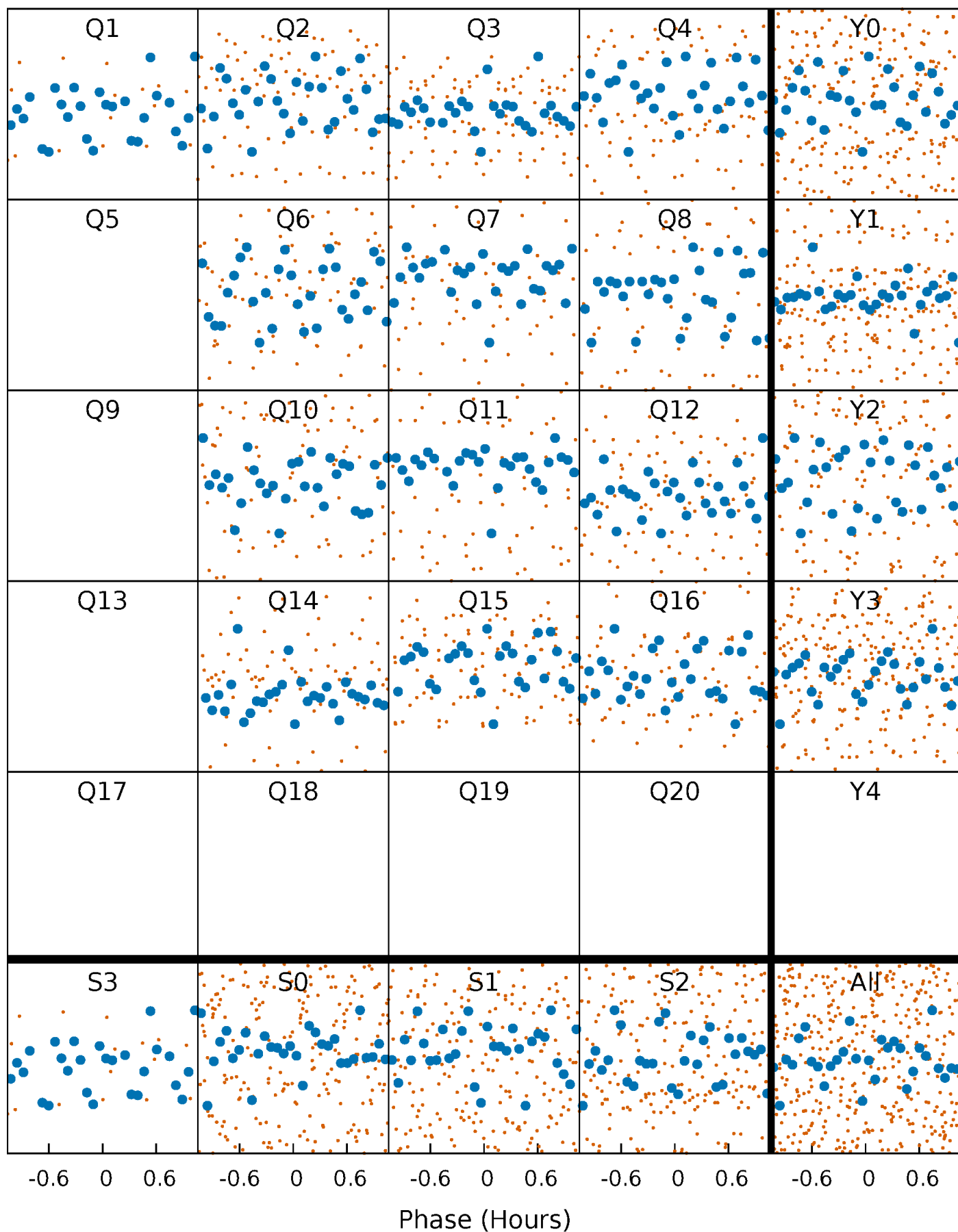


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



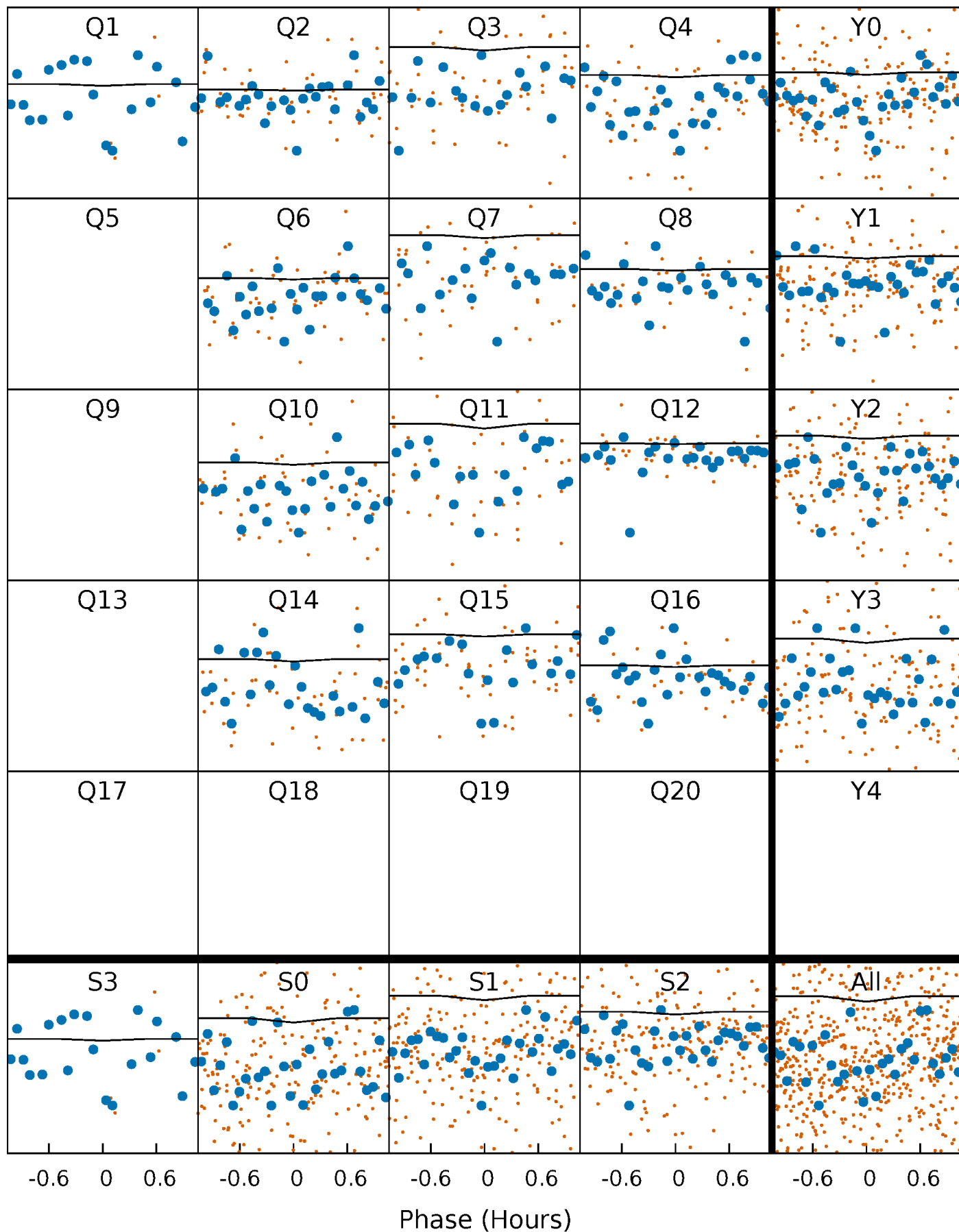
PDC Quarter-Phased Transit Curves

TCE 005080652-04 P= 4.144453 Days $T_0=133.925882$ (BKJD)



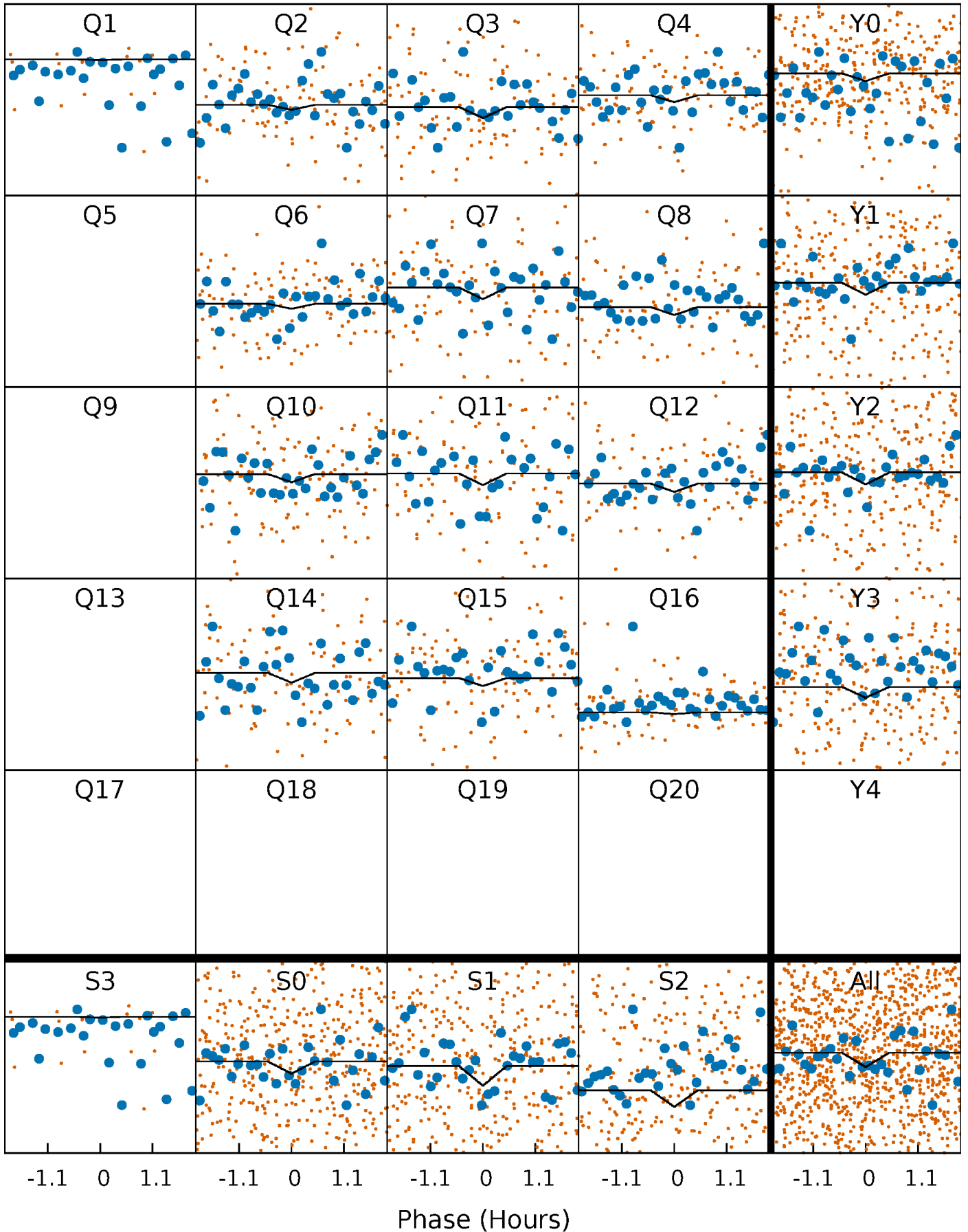
DV Quarter-Phased Transit Curves

TCE 005080652-04 P= 4.144453 Days $T_0=133.925882$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

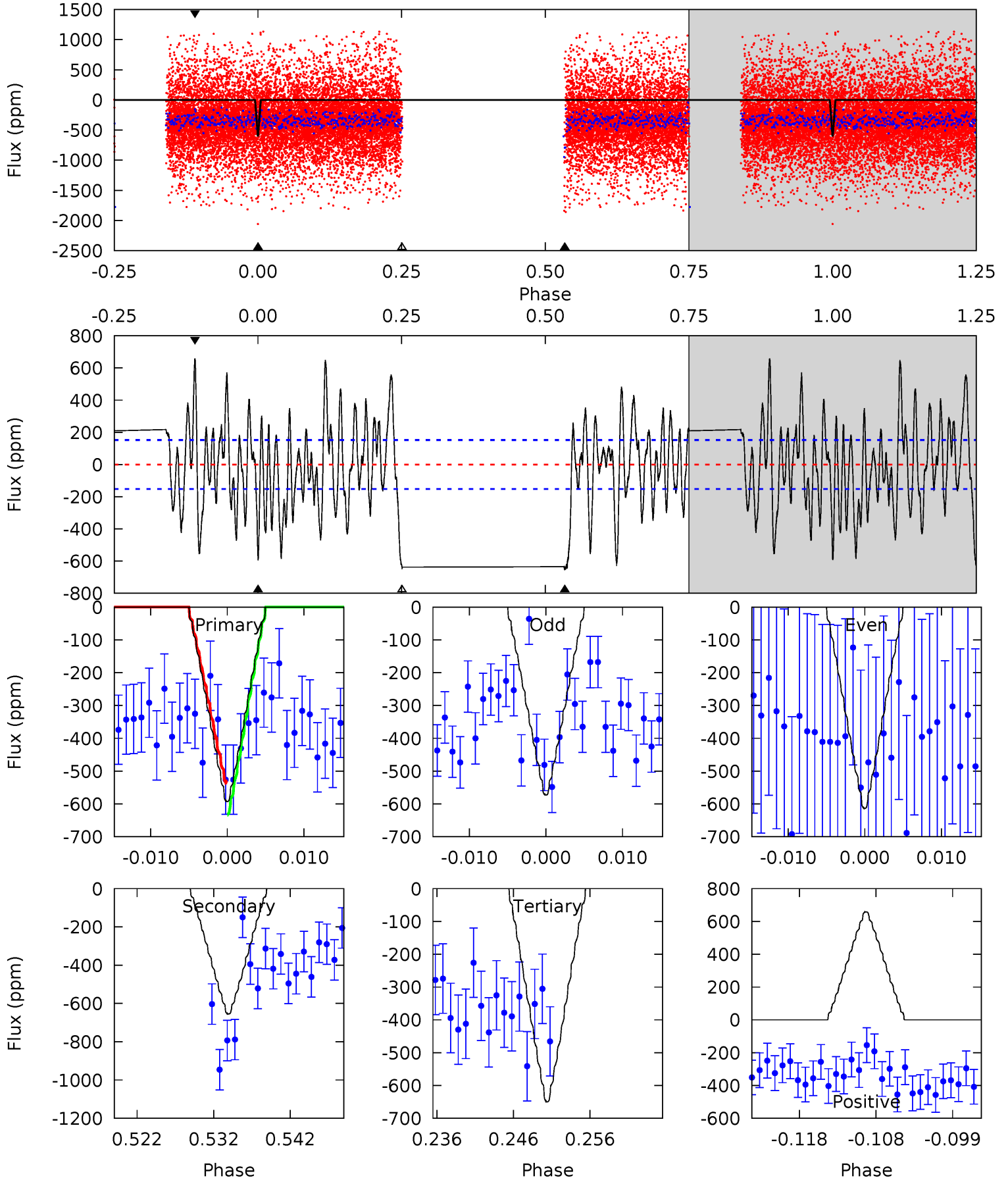
TCE 005080652-04 $P = 4.144465$ Days $T_0 = 133.924823$ (BKJD)



DV Model-Shift Uniqueness Test

005080652-04, P = 4.144453 Days, E = 129.781429 Days

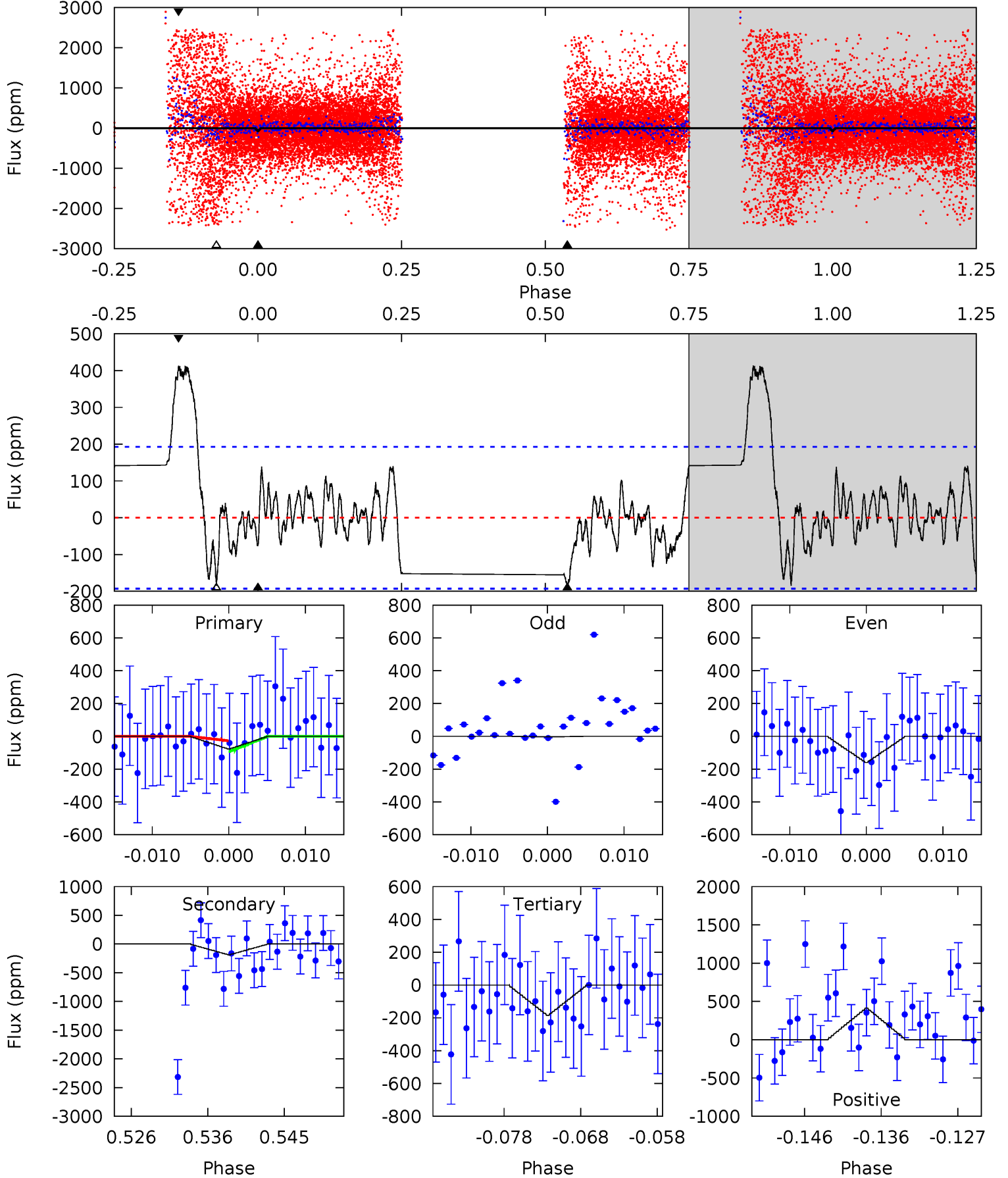
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.6	21.6	21.5	21.7	5.03	2.58	8.02	-1.87	-2.16	0.18	-0.11	0.68	1.07	0.50	1.58



Alt Model-Shift Uniqueness Test

005080652-04, P = 4.144465 Days, E = 129.780358 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
2.02	4.88	4.82	10.8	5.03	2.58	2.29	-2.80	-8.76	0.06	-5.90	2.10	1.13	0.69	0.81



Stellar Parameters For KIC 005080652

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (g \cdot \text{cm}^{-3})$
	5519^{+163}_{-147}	$4.621^{+0.035}_{-0.105}$	$-0.500^{+0.300}_{-0.300}$	$0.718^{+0.118}_{-0.055}$	$0.811^{+0.073}_{-0.089}$	$3.085^{+0.455}_{-1.042}$
	+3%/-3%	+1%/-2%	+60%/-60%	+16%/-8%	+9%/-11%	+15%/-34%
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 005080652-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-655 ± 30	$2.57^{+2.92}_{-1.79}$	1352^{+57}_{-50}	5016^{+4547}_{-1209}	118^{+1101}_{-91}
Alt.	-187 ± 38	$2.65^{+2.87}_{-1.86}$	1357^{+65}_{-51}	3877^{+2559}_{-795}	31^{+333}_{-24}

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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

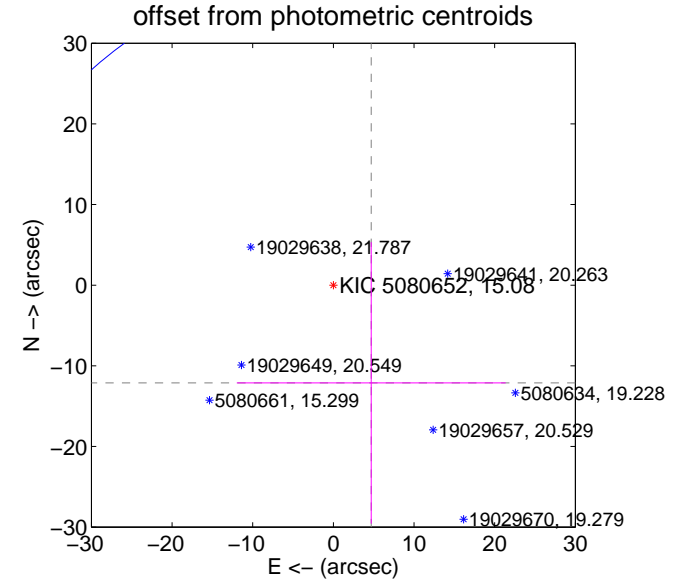
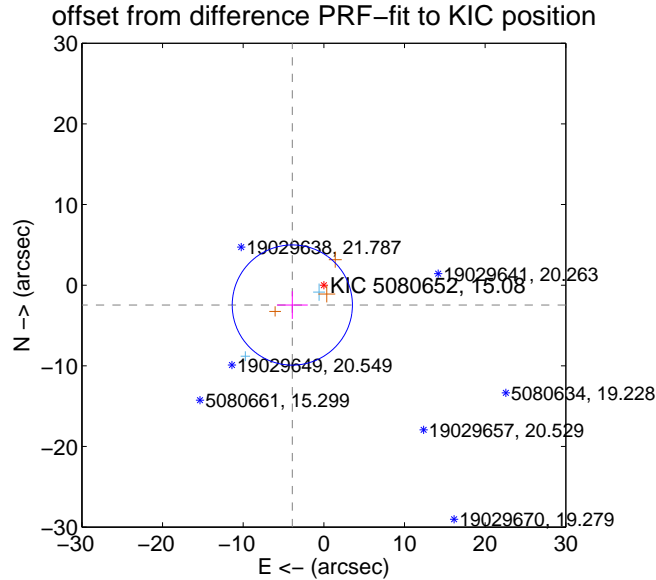
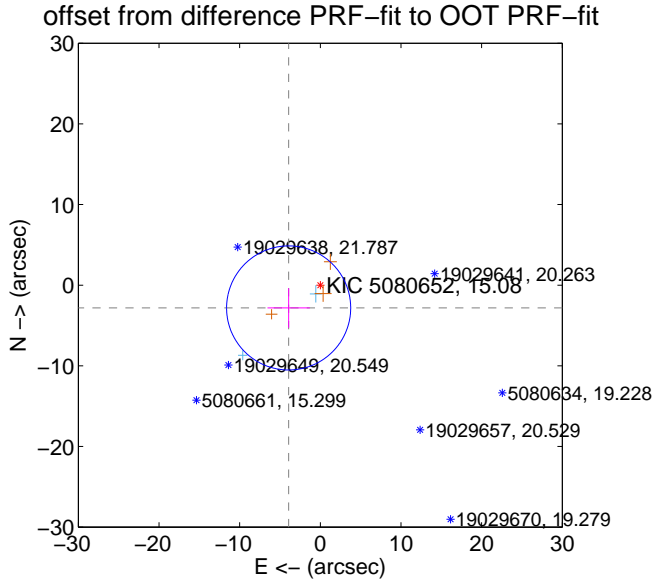
DV Centroid Data

Supplemental centroid analysis for 005080652-04. Kepler magnitude: 15.08. Transit SNR 0.49

There are 2 quarters with good PRF difference image offsets

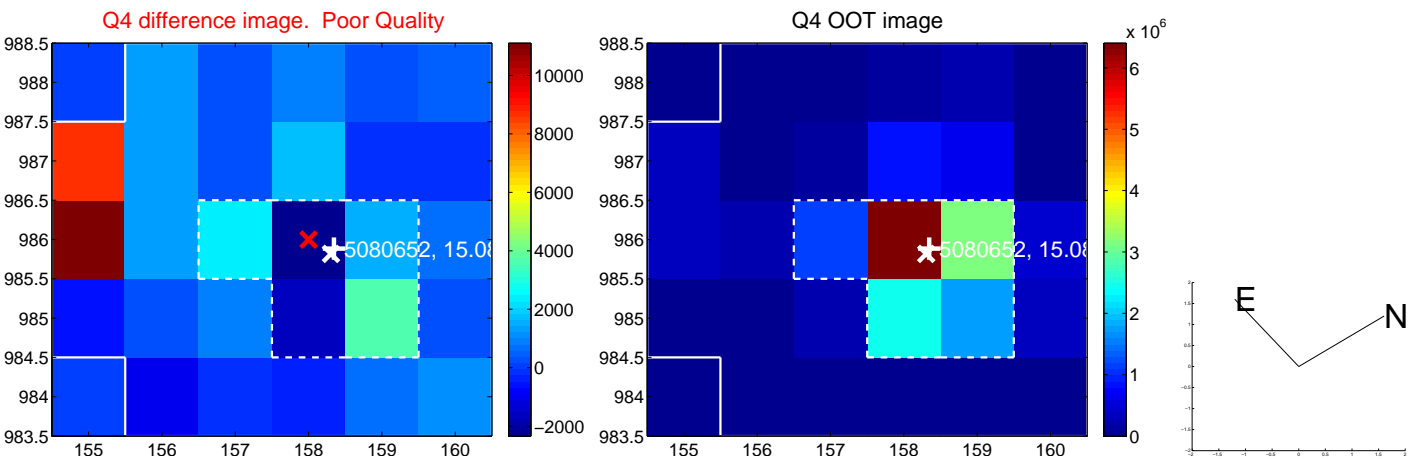
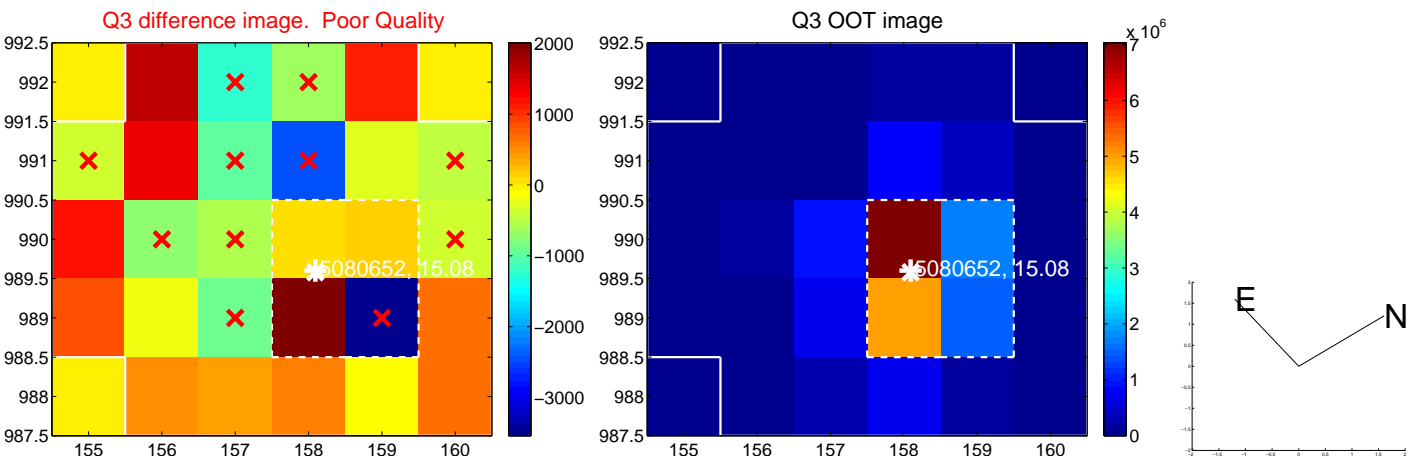
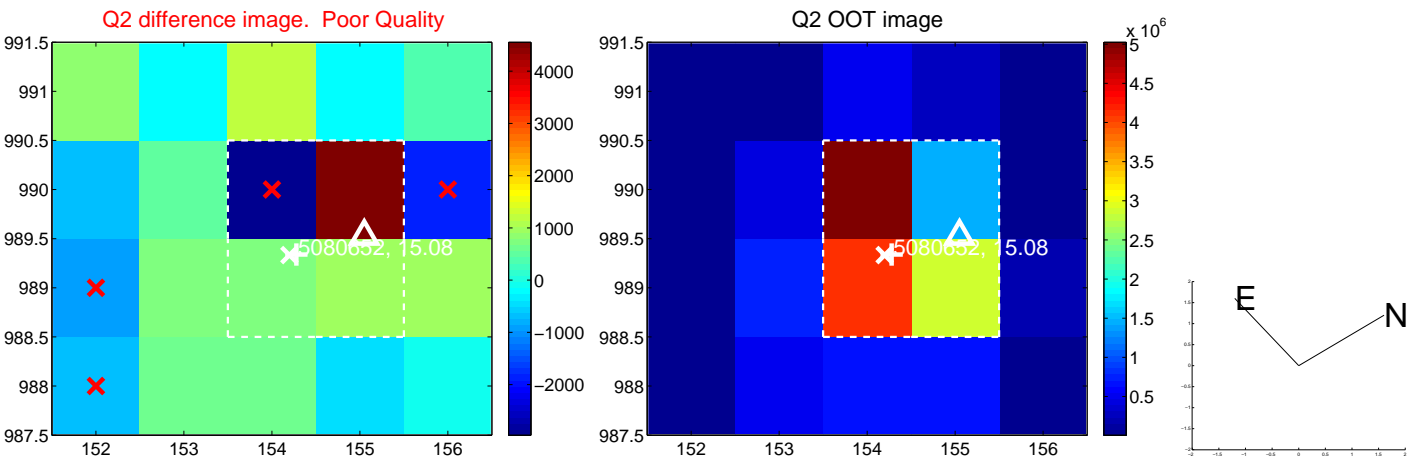
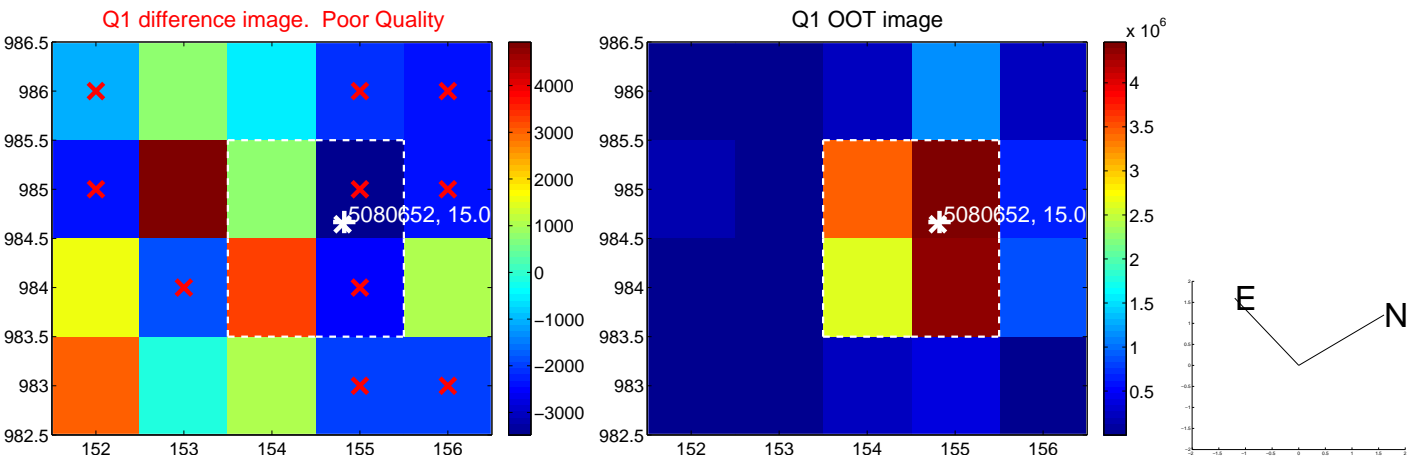
The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	4.837 ± 2.564	1.89	3.928 ± 2.622	-2.823 ± 2.449
PRF-fit source offset from KIC position	4.620 ± 2.484	1.86	3.909 ± 1.908	-2.462 ± 1.721
photometric centroid source offset	12.99 ± 17.35	0.75	-4.69 ± 16.67	-12.12 ± 17.45

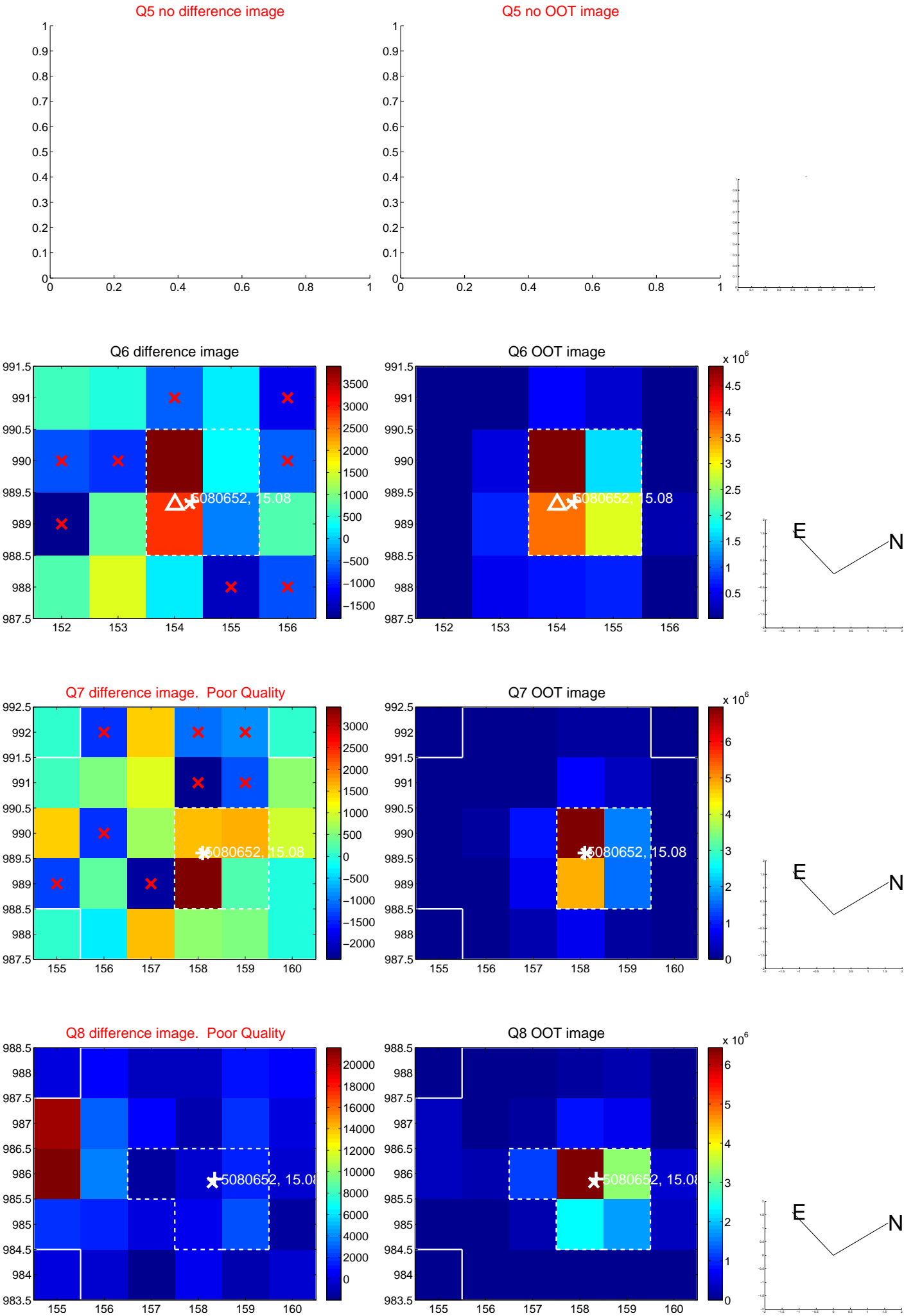


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

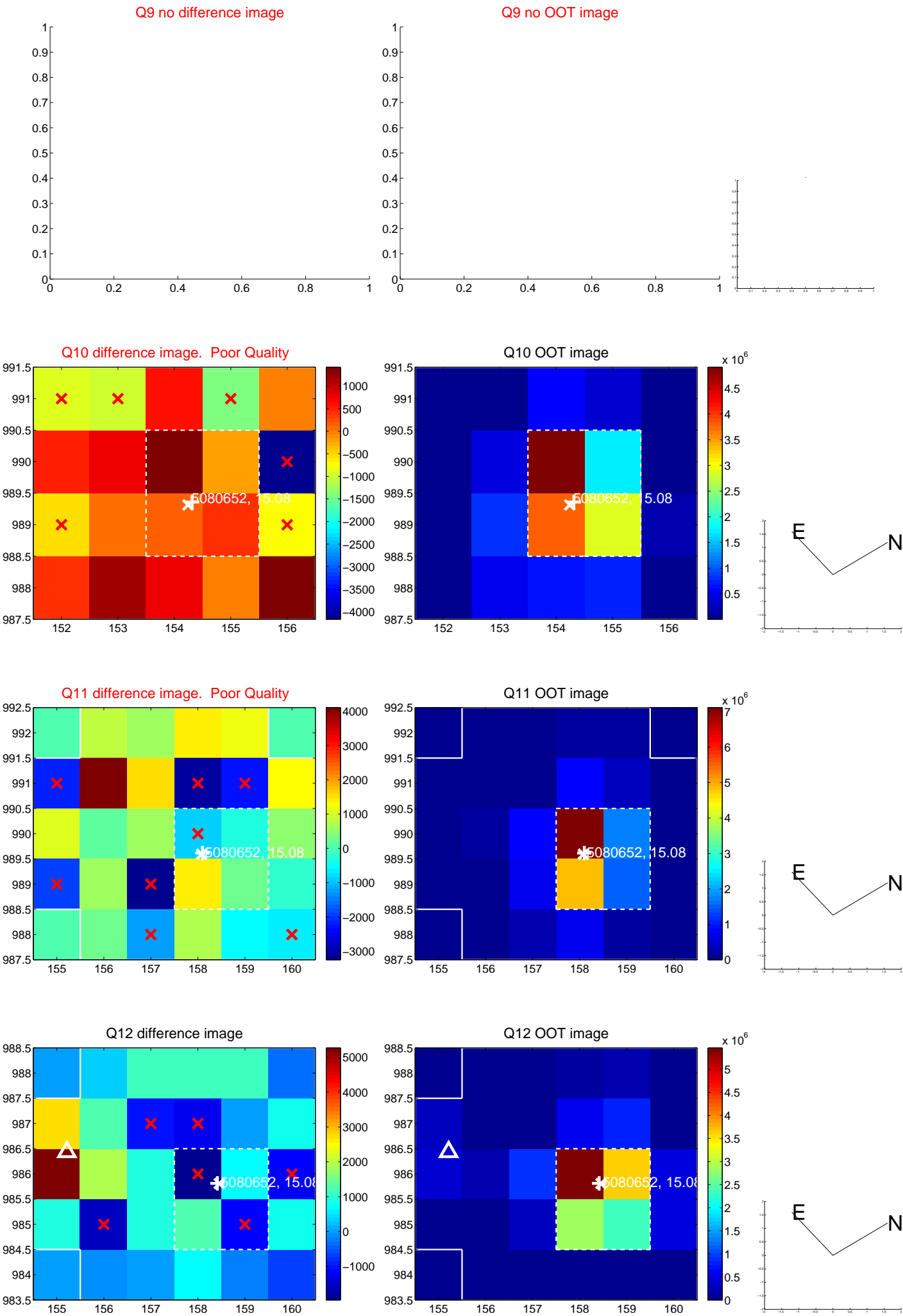
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



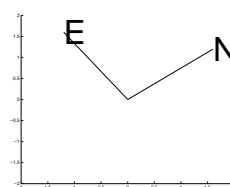
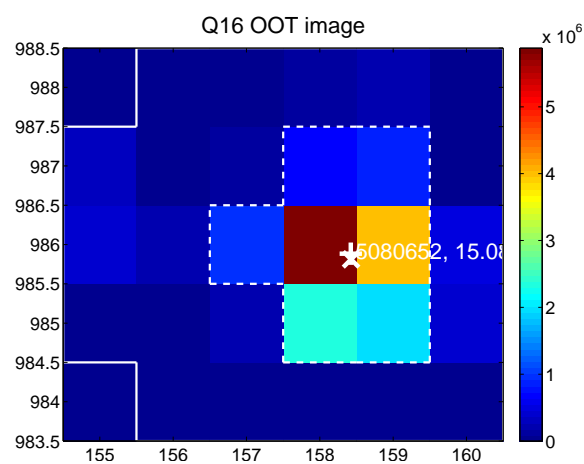
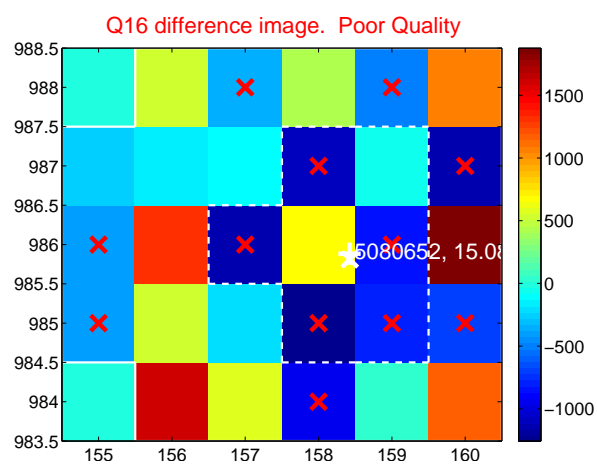
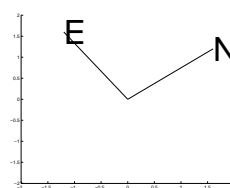
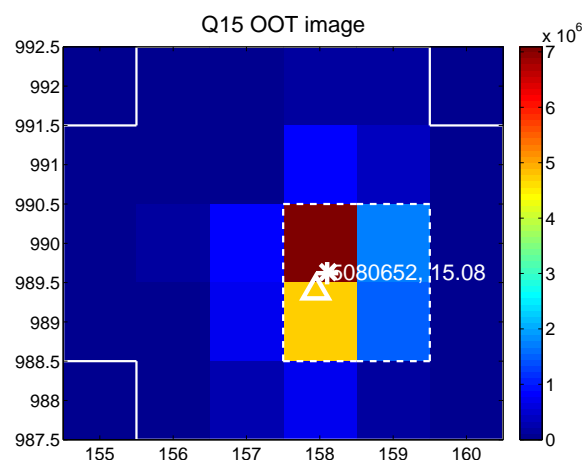
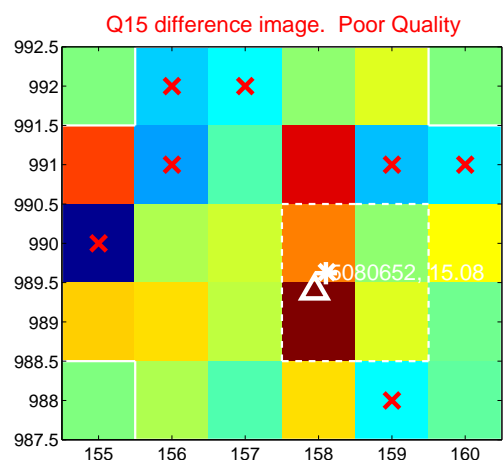
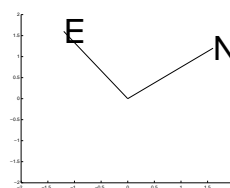
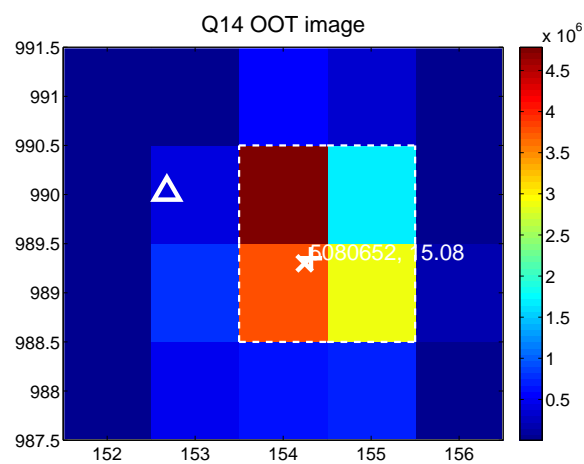
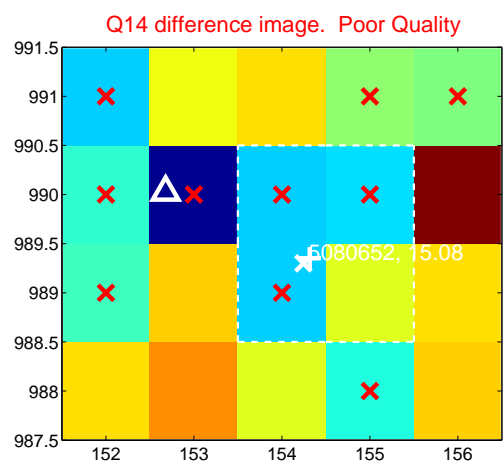
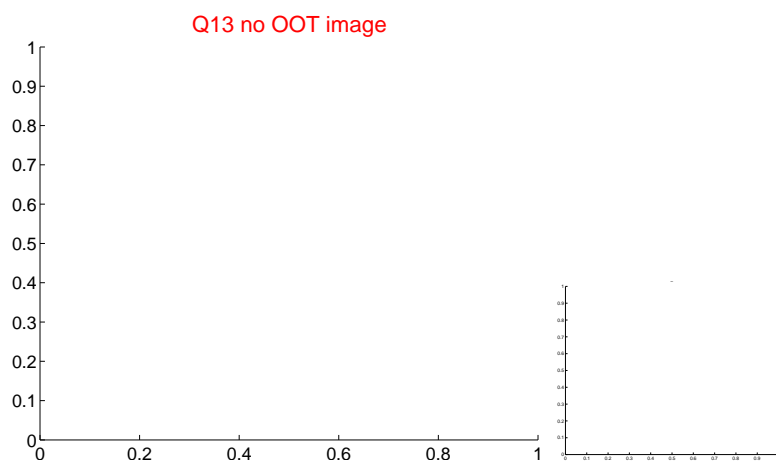
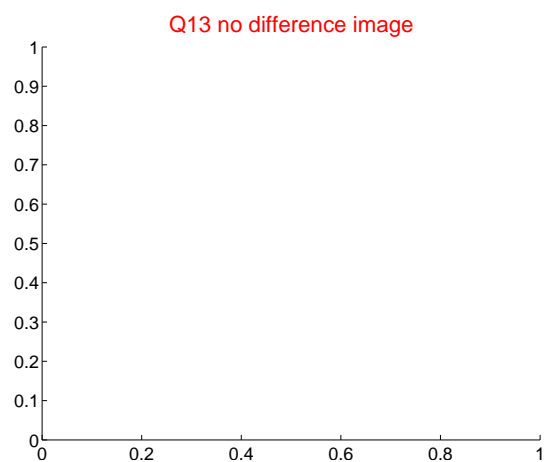
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



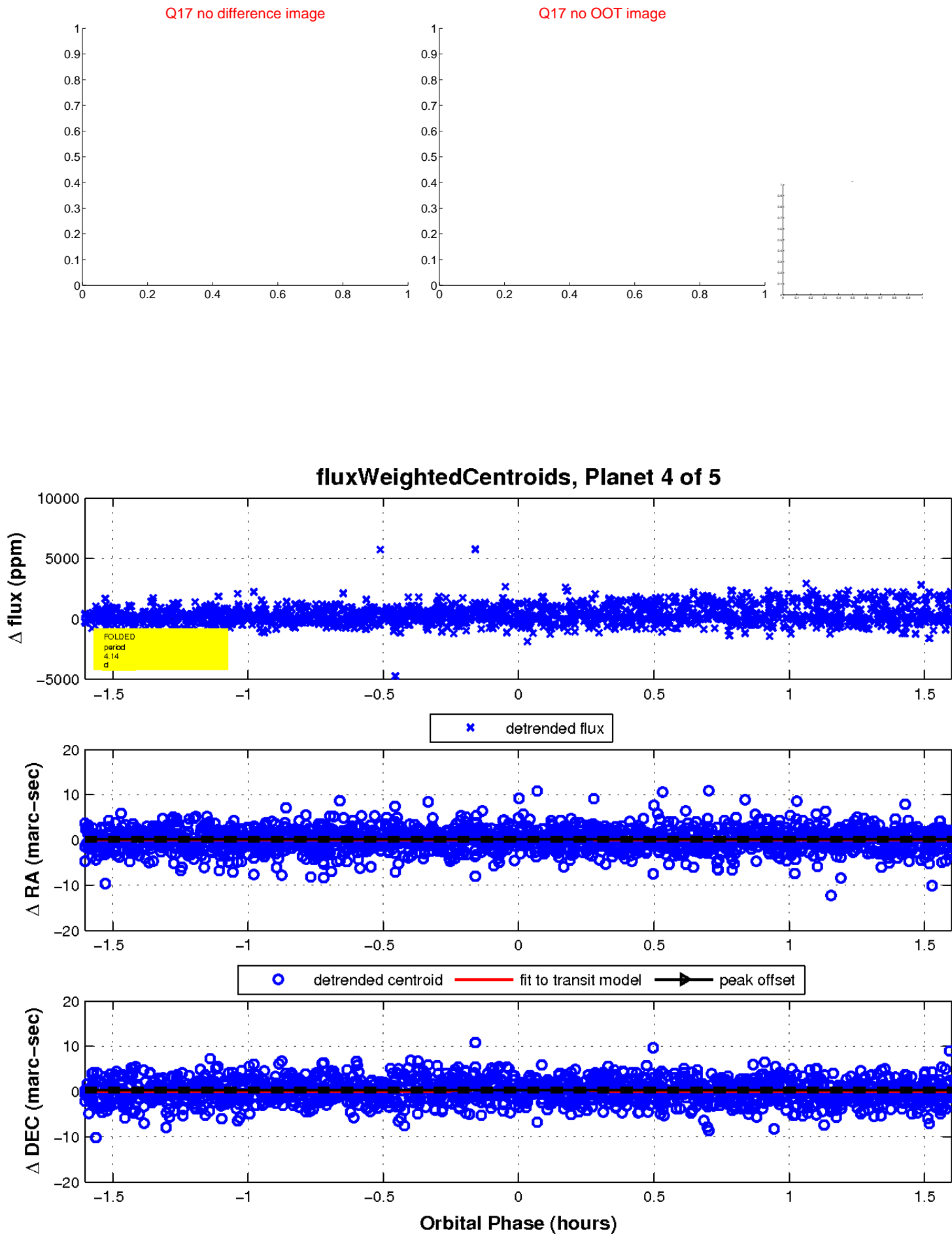
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

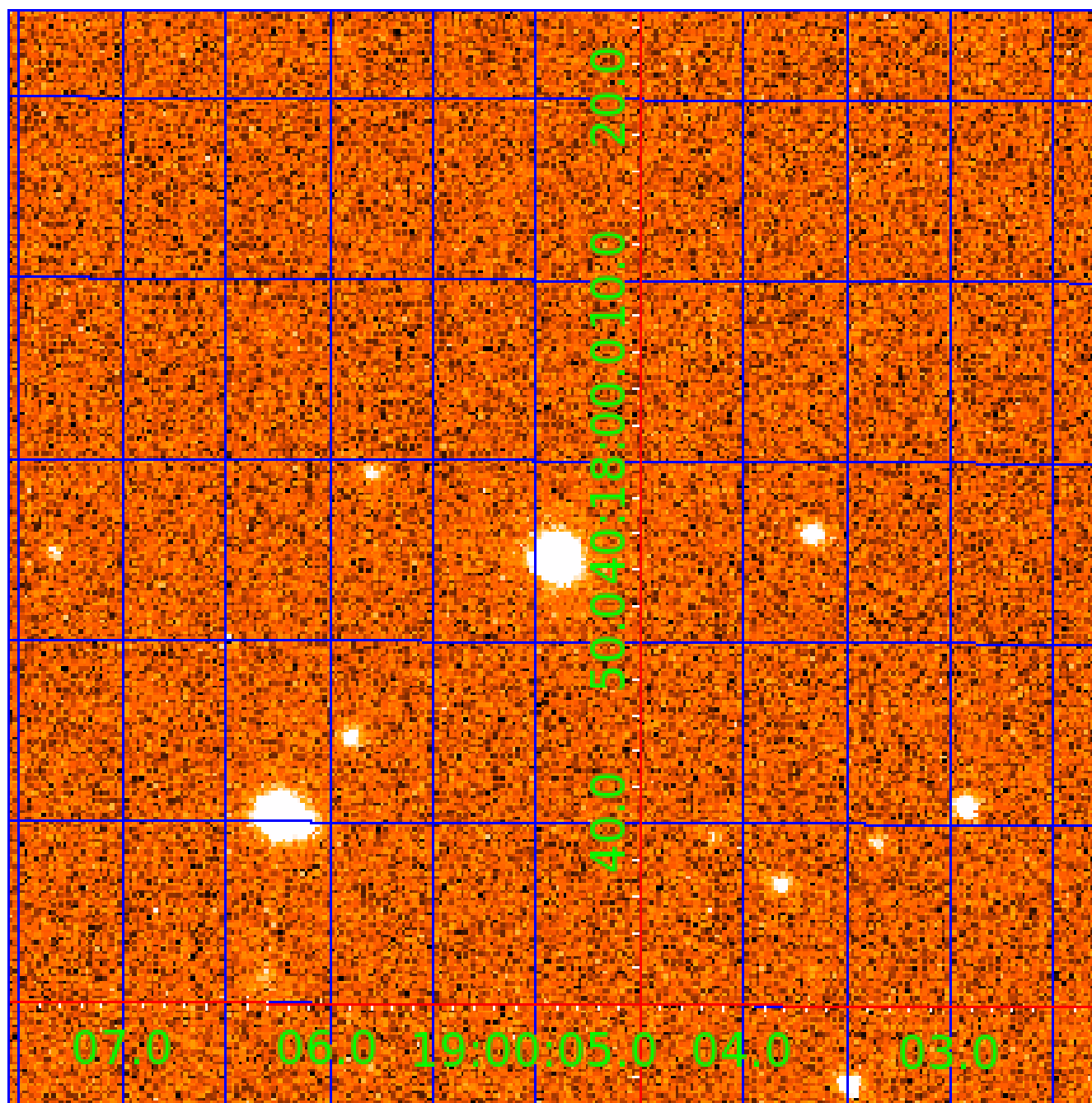


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005080652

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})
005080652-01	OBS	6510.01	2.072179	133.094527	258636.9	3.000	12307.7	-1.0	0.72	5519	35.82	497.18
005080652-02	OBS	No	6.216500	134.137325	2537.2	13.922	781.1	43.8	0.72	5519	6.84	114.91
005080652-03	OBS	No	4.144340	131.545050	6833.4	7.500	264.5	-1.0	0.72	5519	5.88	197.31
005080652-04	OBS	No	4.144453	133.925882	28.4	0.534	125.3	0.5	0.72	5519	0.44	197.30
005080652-05	OBS	No	4.144360	133.377259	9682.3	12.500	98.6	-1.0	0.72	5519	7.00	197.31

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005080652-01	OBS	FP	0.00	0	1	0	0	DEPTH_ODDEVEN_DV—DEPTH_ODDEVEN_ALT—MOD_ODDEVEN_ALT—HAS_SEC_TCE—CENT_NOFITS
005080652-02	OBS	FP	0.00	1	1	0	0	IS_SEC_TCE
005080652-03	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_NOFITS
005080652-04	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—SAME_NTL_PERIOD—CENT_RESOLVED_OFFSET
005080652-05	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—LPP_DV—NO_FITS—RESIDUAL_TCE—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.

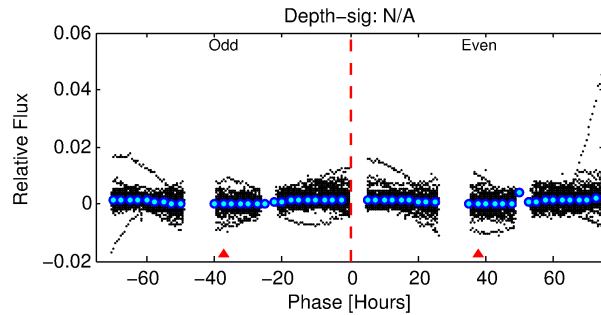
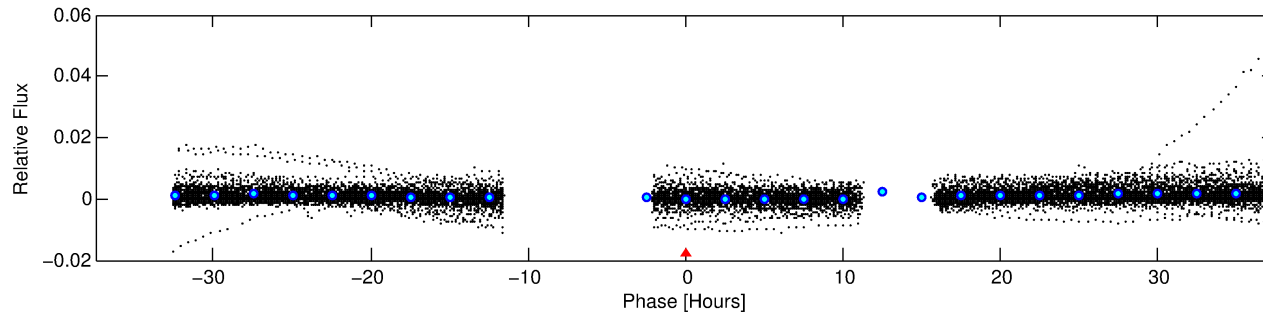
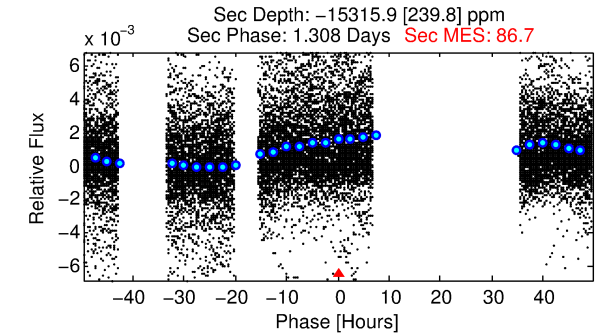
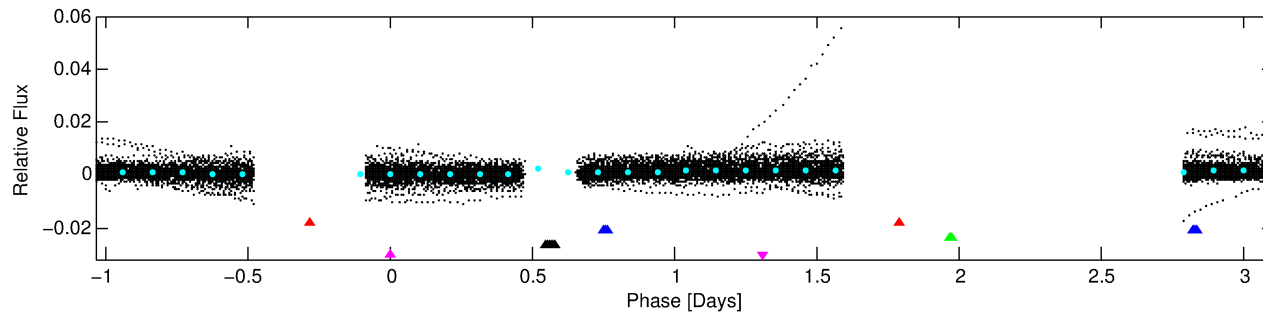
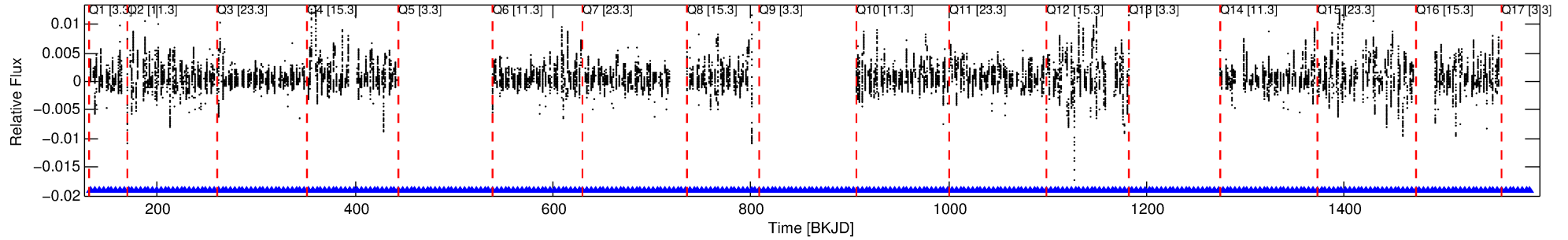
Ephemeris Match Information For 005080652-05

No Significant Match Found

DV One-Page Summary

KIC: 5080652 Candidate: 5 of 5 Period: 4.144 d
KOI: K06510 Corr: No Ephemeris Match

Kp: 15.08 R*: 0.72 Rs Teff: 5519.0 K Logg: 4.62 Fe/H: -0.500



TPS TCE Results:

Period = 4.14436 d
Epoch = 133.3773 BKJD

DV fit results are unavailable

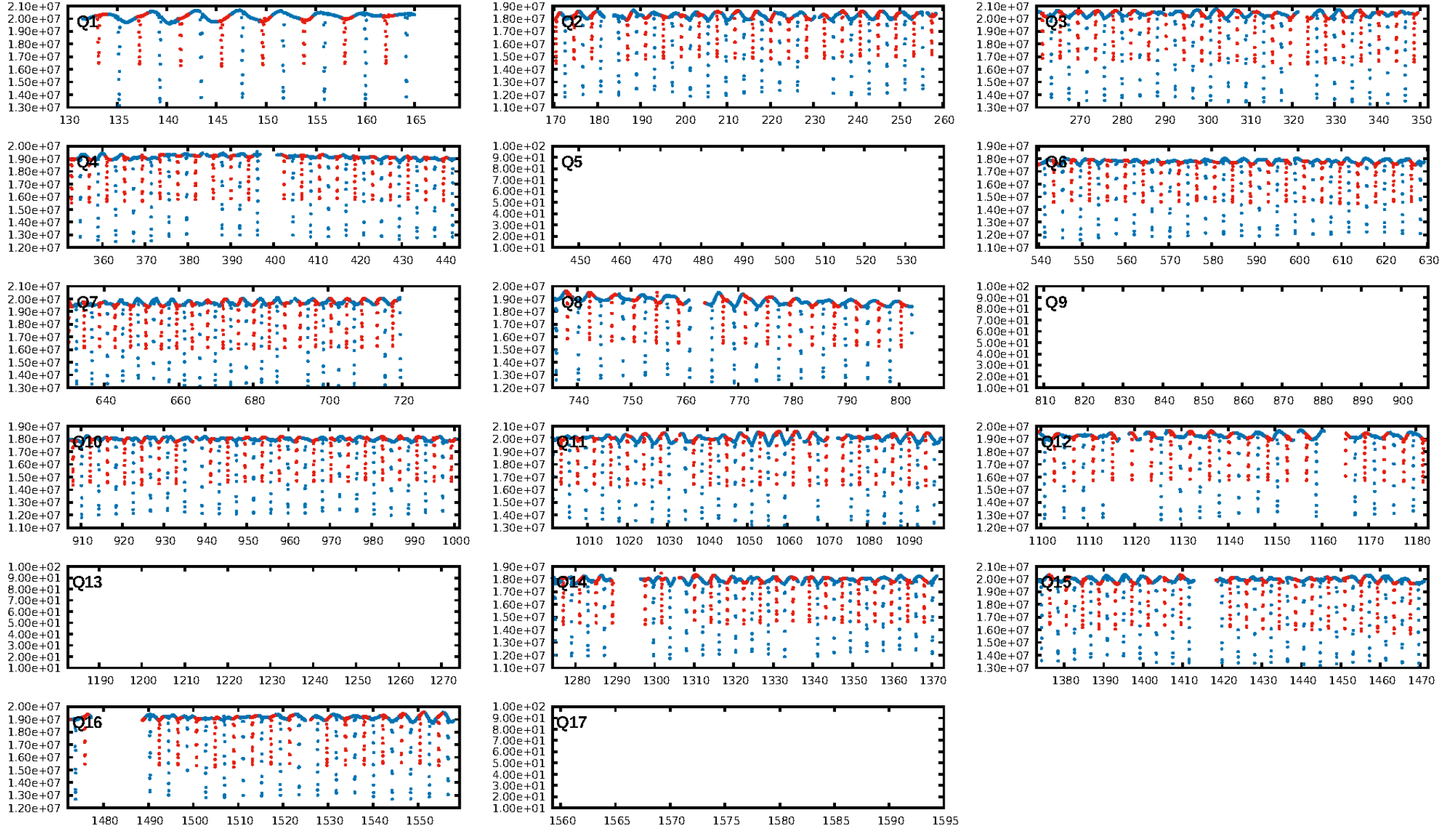
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.006]
LongPeriod-sig: 0.0% [0.006]
ModelChiSquare2-sig: N/A
ModelChiSquareGoF-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: N/A
GhostDiagnostic-chr: N/A
Centroid-sig: N/A
Centroid-so: N/A
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0 [0]
KicOffset-st: 0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: N/A

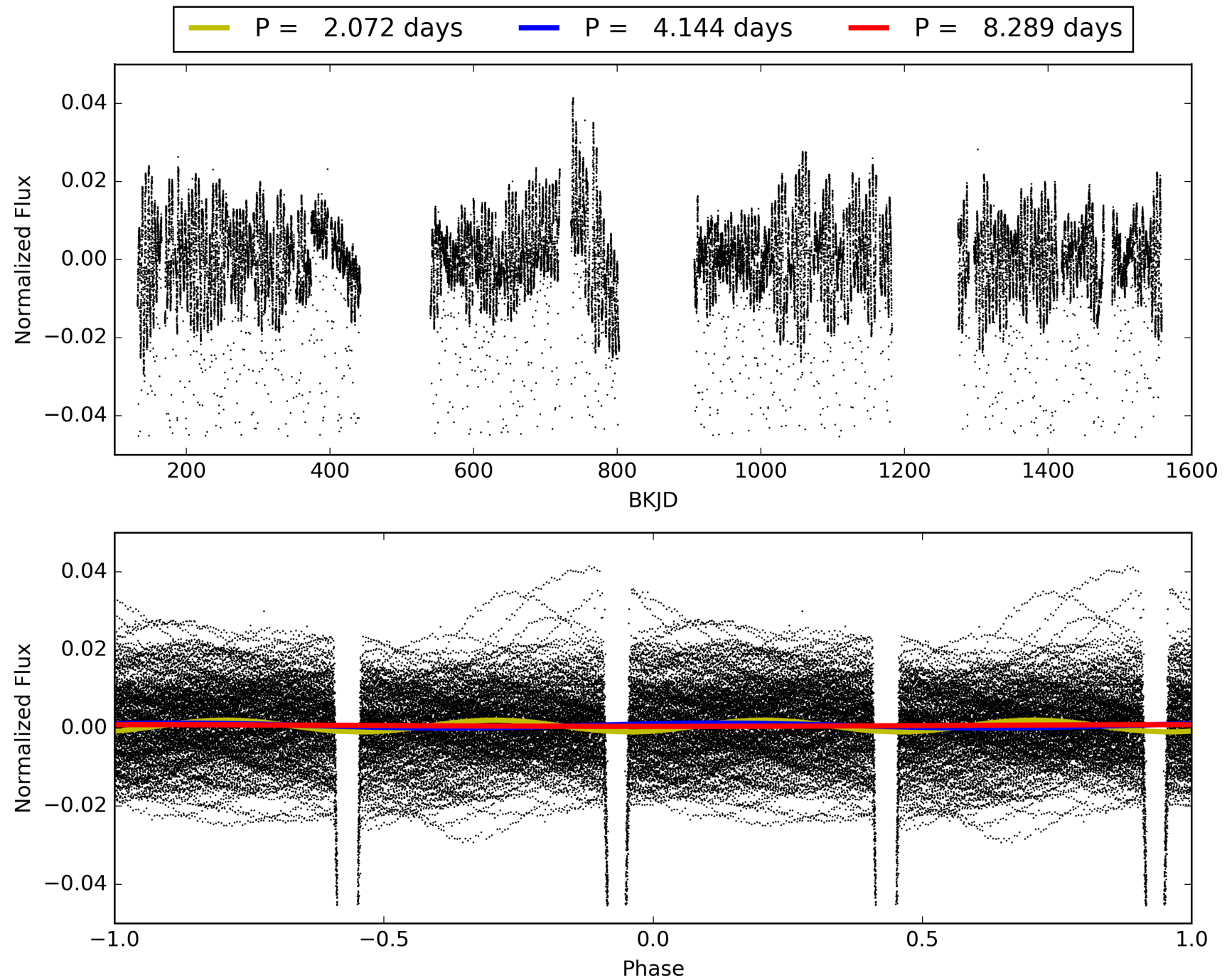
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 08:48:13 Z

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

TCE 005080652-05, PDC Light Curves

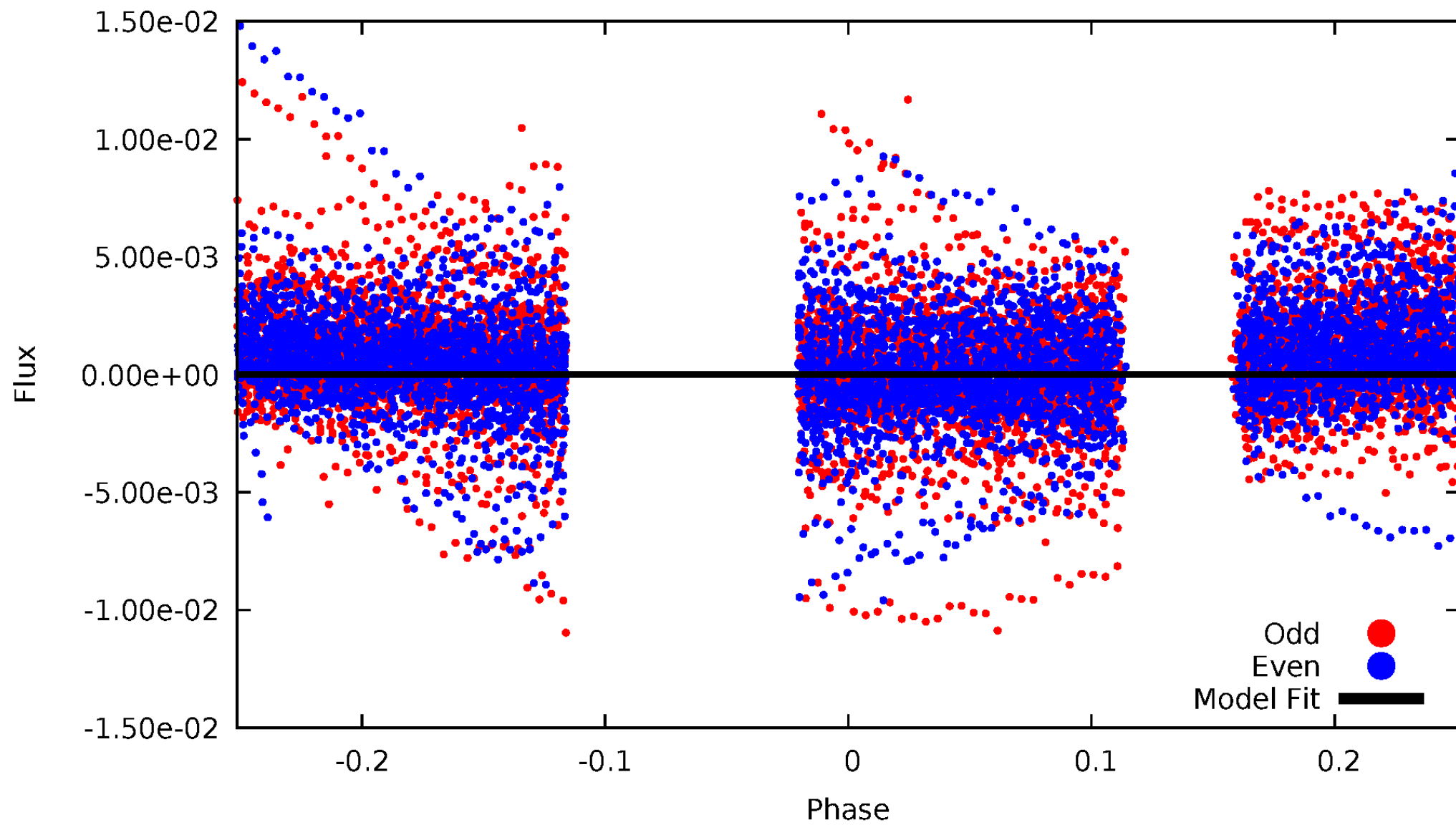


TCE 005080652-05



DV Odd/Even

TCE 005080652-05

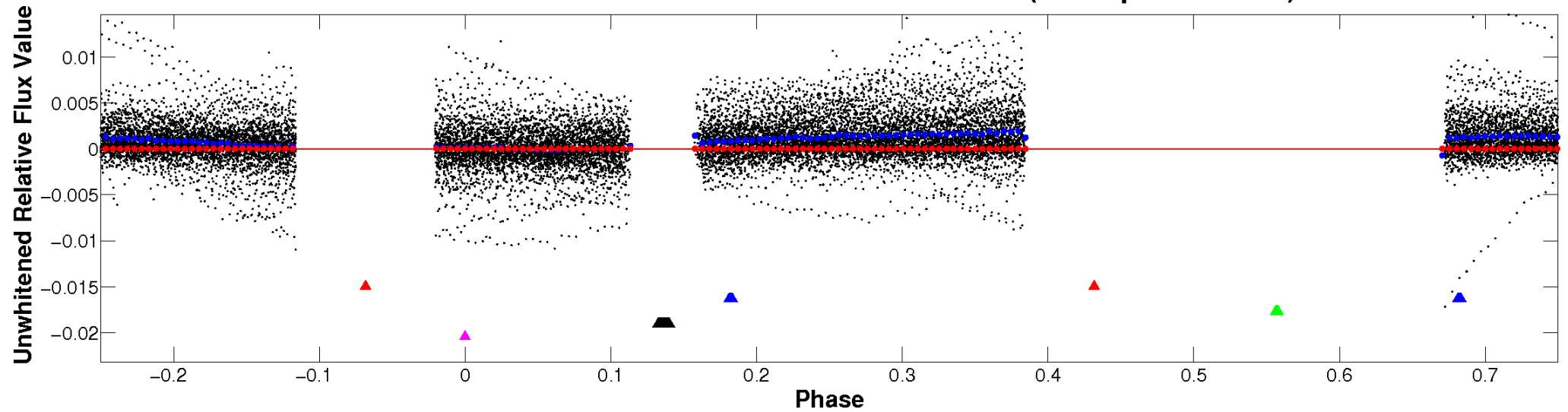


ALT Odd/Even

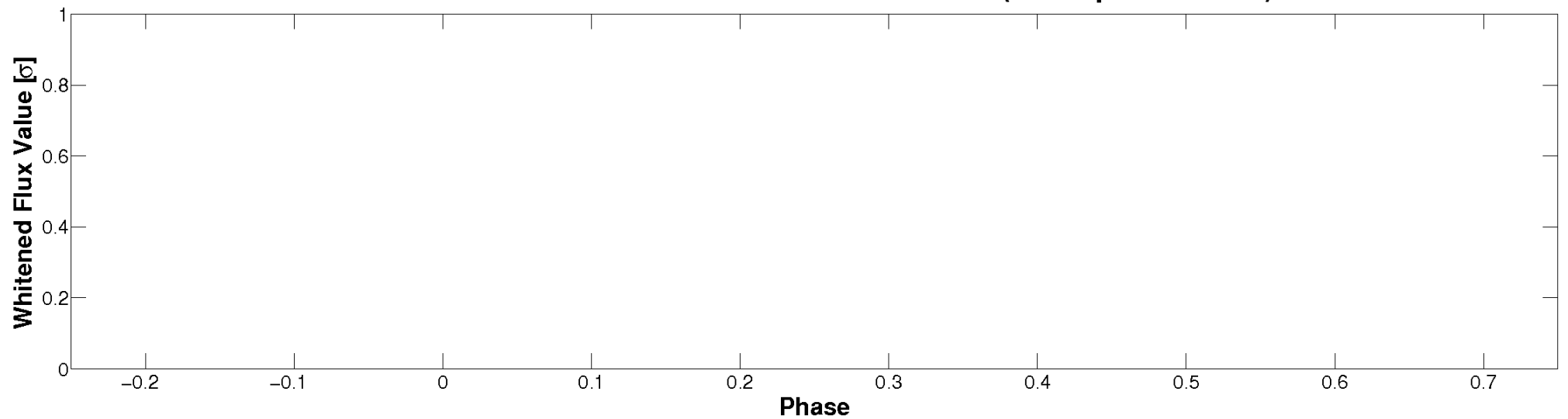
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

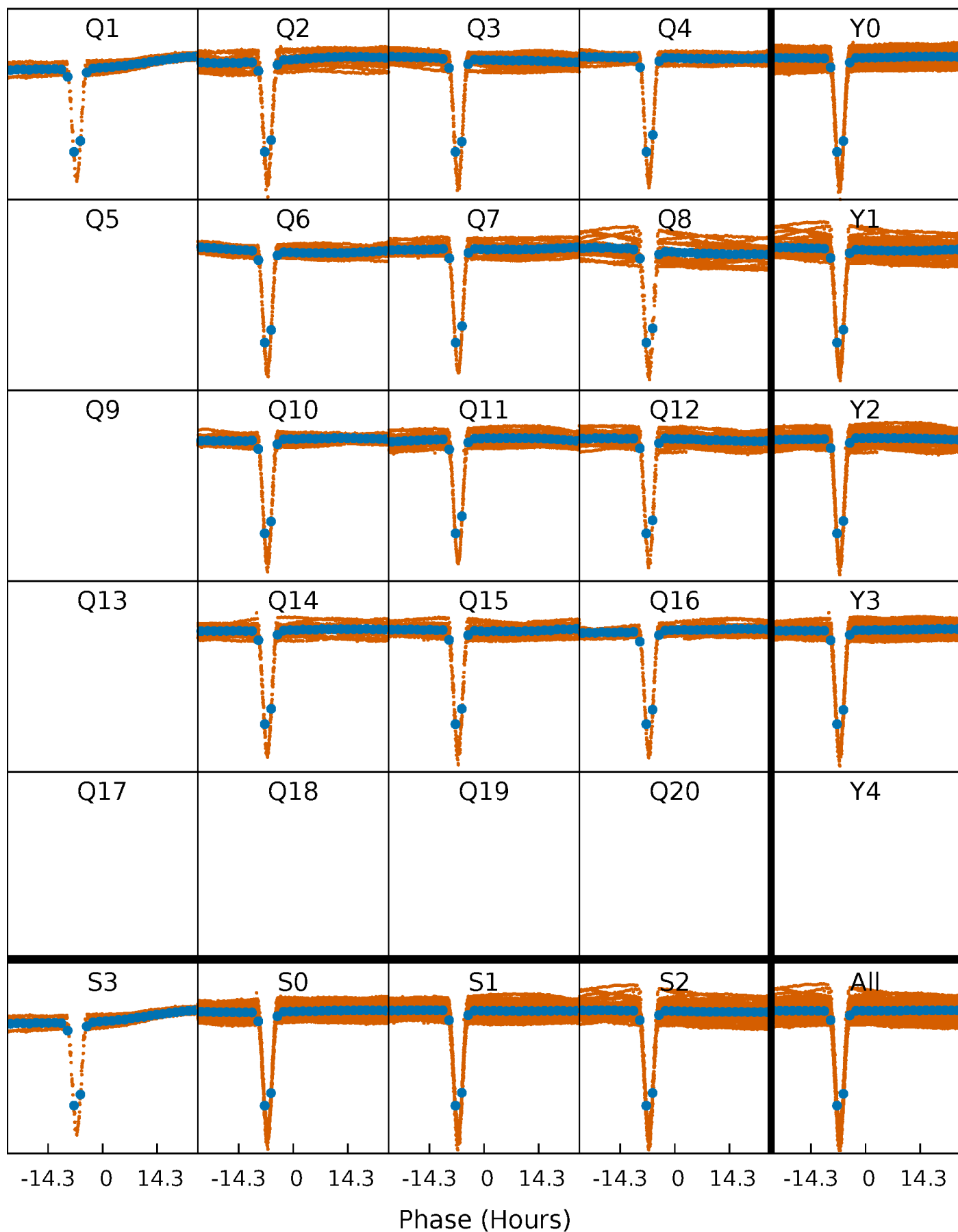


Planet 5 : Phased Whitened Flux Time Series (TPS Epoch/Period)



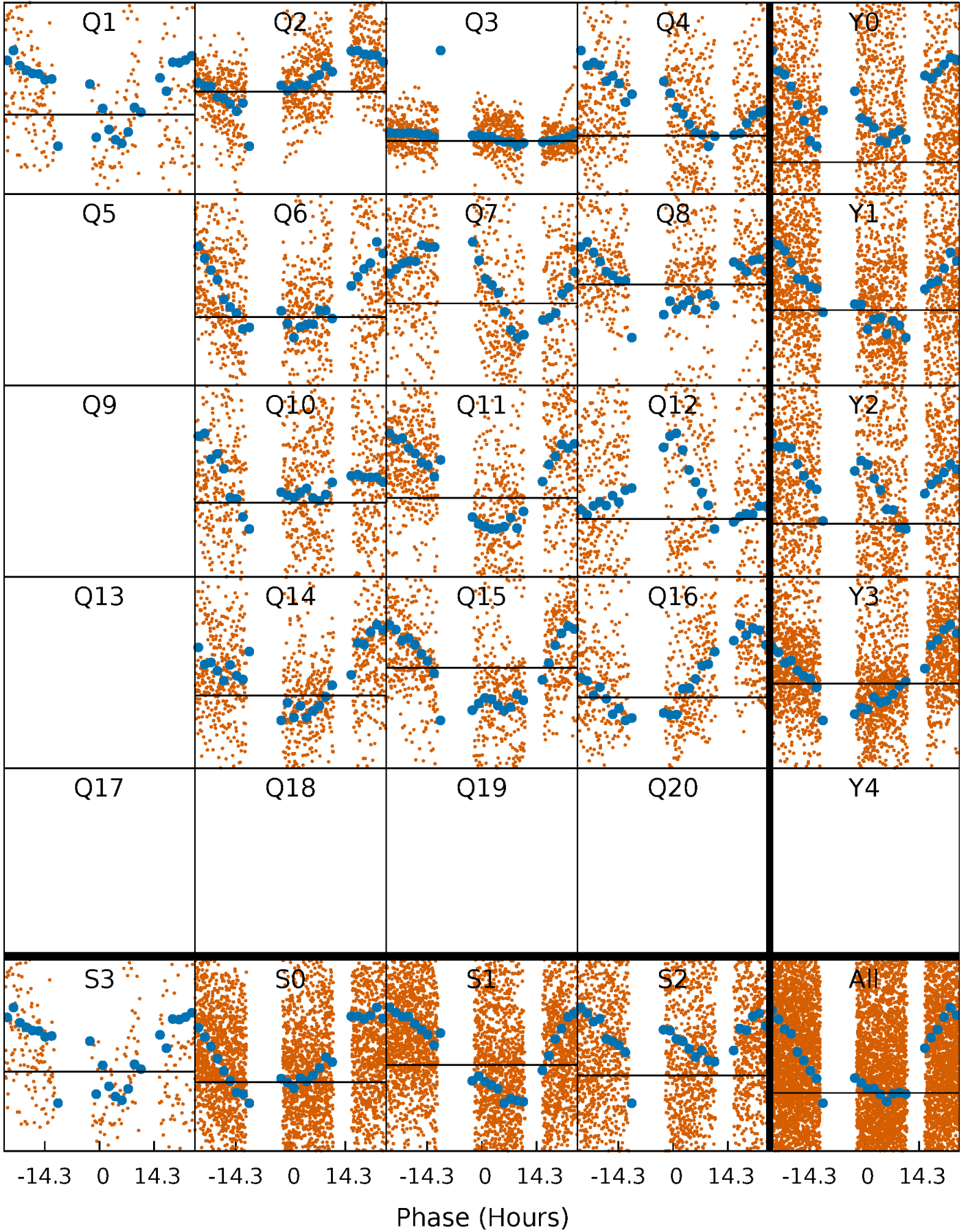
PDC Quarter-Phased Transit Curves

TCE 005080652-05 $P = 4.144360$ Days $T_0 = 133.377259$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005080652-05 $P = 4.144360$ Days $T_0 = 133.377259$ (BKJD)

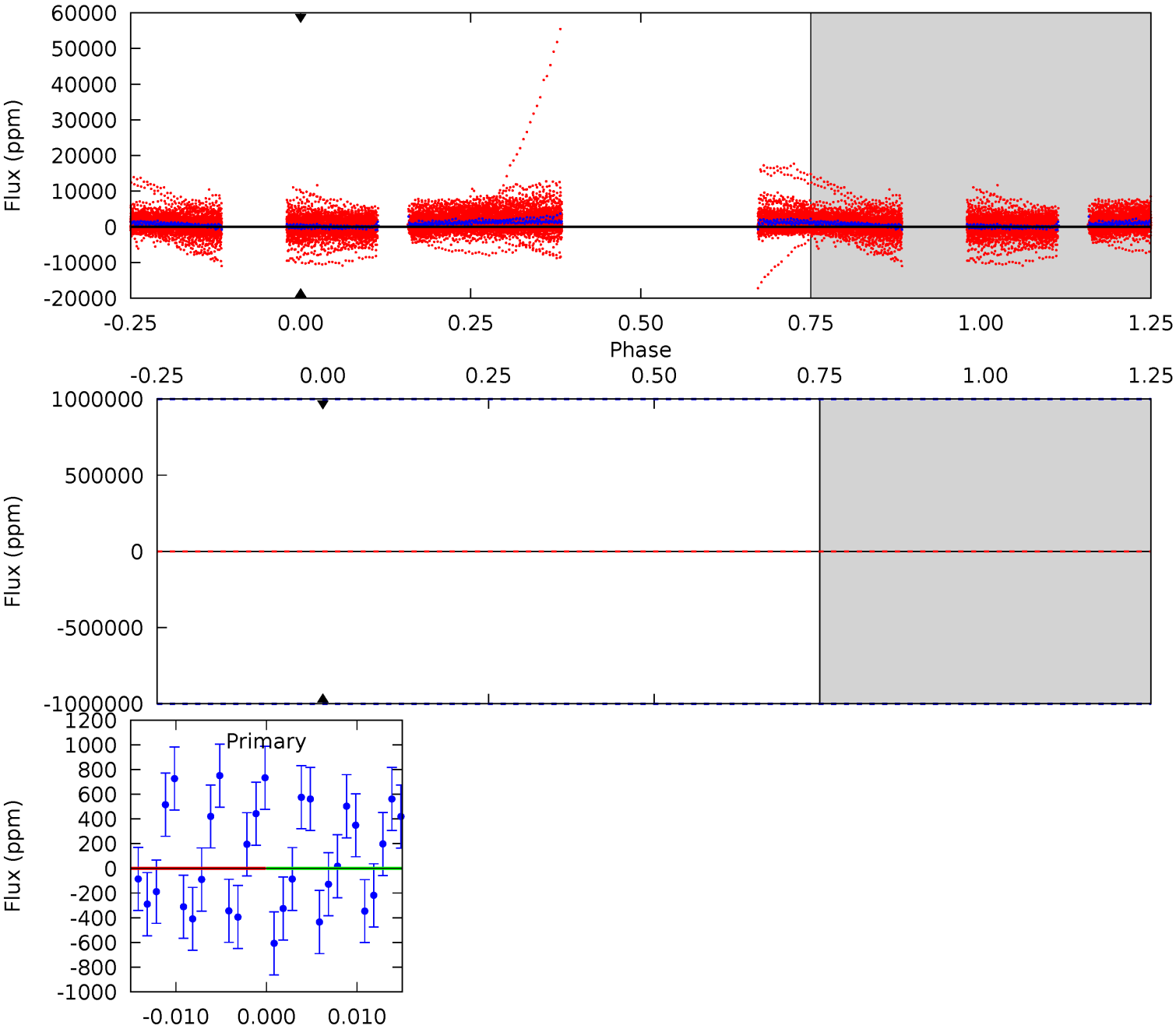


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005080652-05, P = 4.144360 Days, E = 129.232899 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

This plot does not exist for this TCE.

Stellar Parameters For KIC 005080652

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5519^{+163}_{-147}	$4.621^{+0.035}_{-0.105}$	$-0.500^{+0.300}_{-0.300}$	$0.718^{+0.118}_{-0.055}$	$0.811^{+0.073}_{-0.089}$	$3.085^{+0.455}_{-1.042}$
	+3%/-3%	+1%/-2%	+60%/-60%	+16%/-8%	+9%/-11%	+15%/-34%
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 005080652-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$9.35^{+7.80}_{-6.00}$	1352^{+59}_{-46}	-3776^{+16063}_{-6956}	$-23.720^{+2555.783}_{-1730.548}$
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 $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

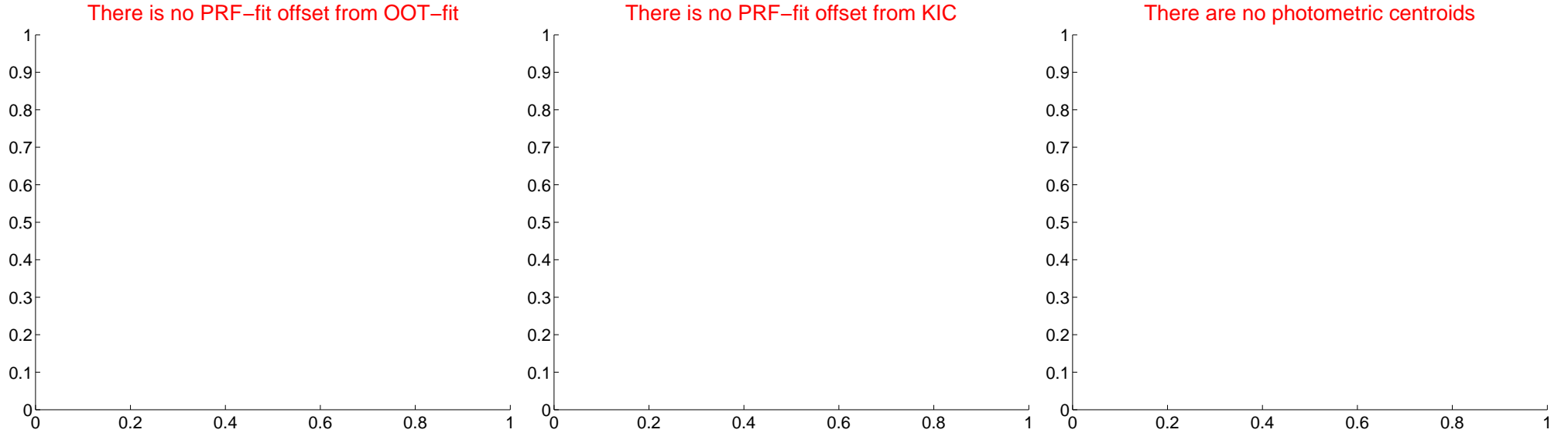
DV Centroid Data

Supplemental centroid analysis for 005080652-05. Kepler magnitude: 15.08. 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 NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
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

