

KIC 007282194

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})
007282194-01	OBS	No	0.566766	131.827695	19.0	3.993	10.1	5.7	0.99	6096	0.44	6733.02
007282194-02	OBS	No	26.711261	137.066151	1004.9	1.233	11.1	11.3	0.99	6096	3.20	39.55
007282194-03	OBS	No	23.838315	143.501262	439.2	4.306	9.7	9.9	0.99	6096	2.30	46.03
007282194-04	OBS	No	31.636510	156.020193	620.3	0.919	10.3	8.1	0.99	6096	2.55	31.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007282194-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_KIC_POS—HALO_GHOST—EPHEM_MATCH
007282194-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007282194-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
007282194-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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

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

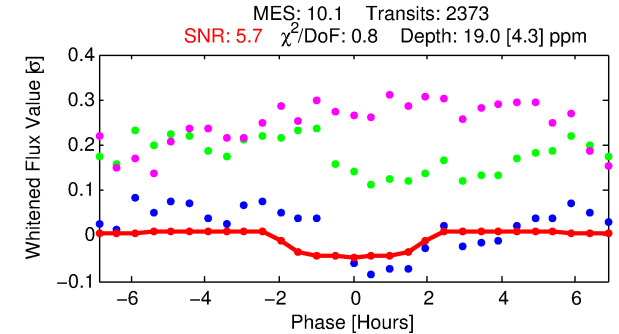
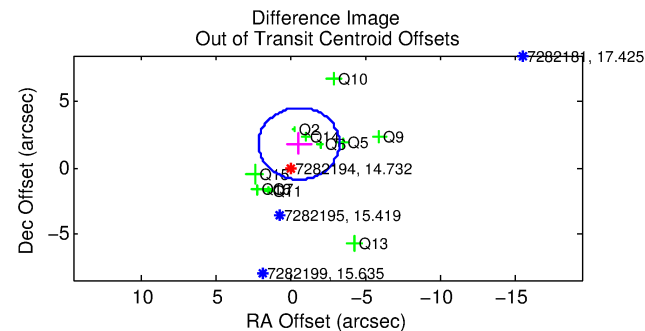
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007282194-01

TCE (1)	KIC	Parent (2)	Parent KIC	P ₁ :P ₂	Dist ($''$)	Δ Row	Δ Col	m ₂	m ₁	D ₂ /D ₁	Mechanism	Flag	σ_P	σ_T
007282194-01	7282194	RR-Lyr-pri	7198959	1:1	1287.6	104	306	7.86	14.73	32805.00	Direct-PRF	0	3.77	25.27

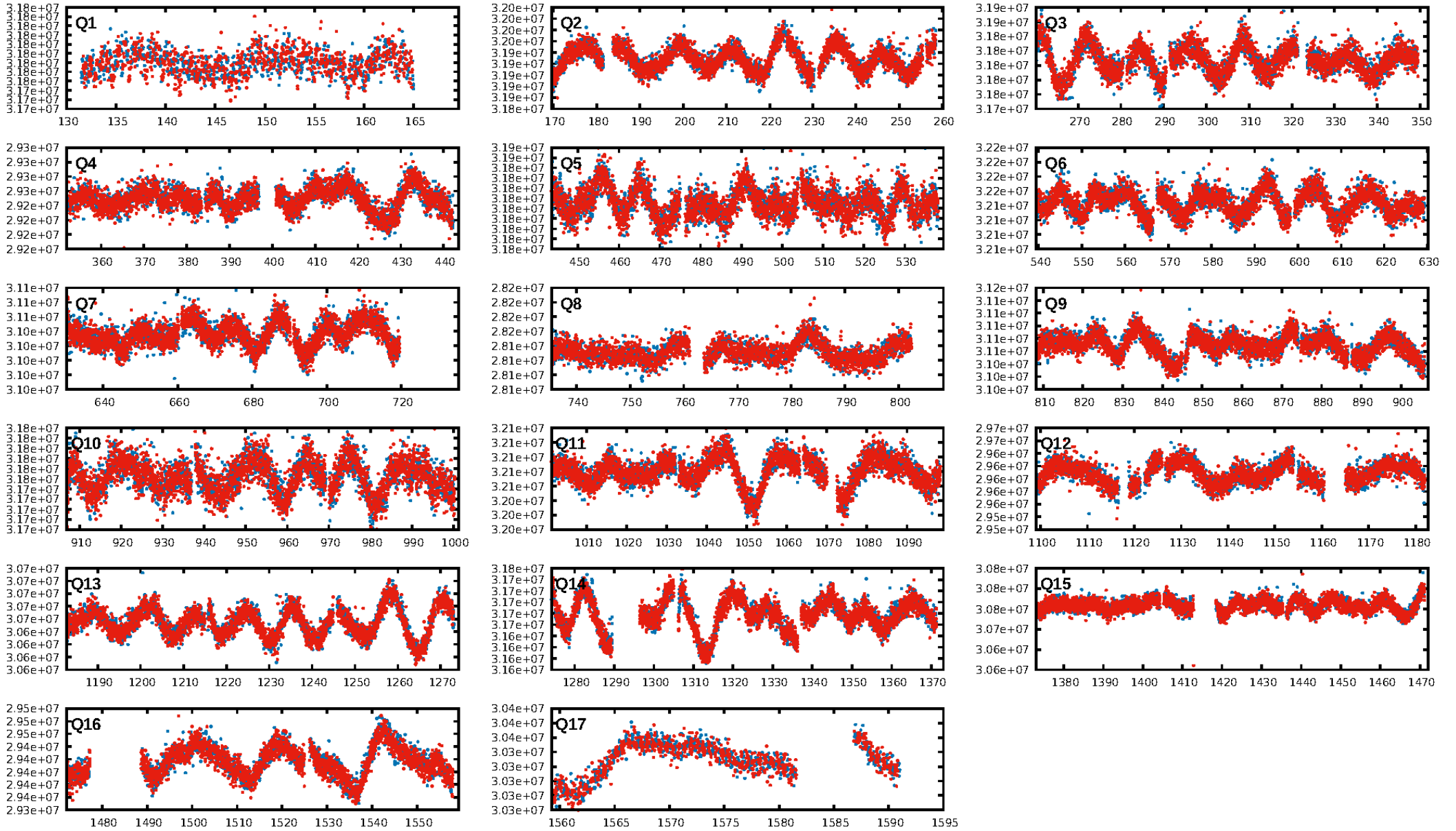
Notes: P₁:P₂ is the period ratio. Dist is the distance in arcseconds. Δ Row and Δ Col are the number of pixels apart in row and column. m₂ and m₁ are the magnitudes of the parent and child. D₂/D₁ is the parent's transit depth divided by the child's. σ_P and σ_T are the significance of the match in period and epoch. For a match to be considered significant $\sigma_P < 5.0$ and $\sigma_T < 5.0$. Matches which have σ_P and σ_T very close to this cutoff should receive extra scrutiny, especially if the period ratio is very large.

KIC: 7282194 Candidate: 1 of 4 Period: 0.567 d

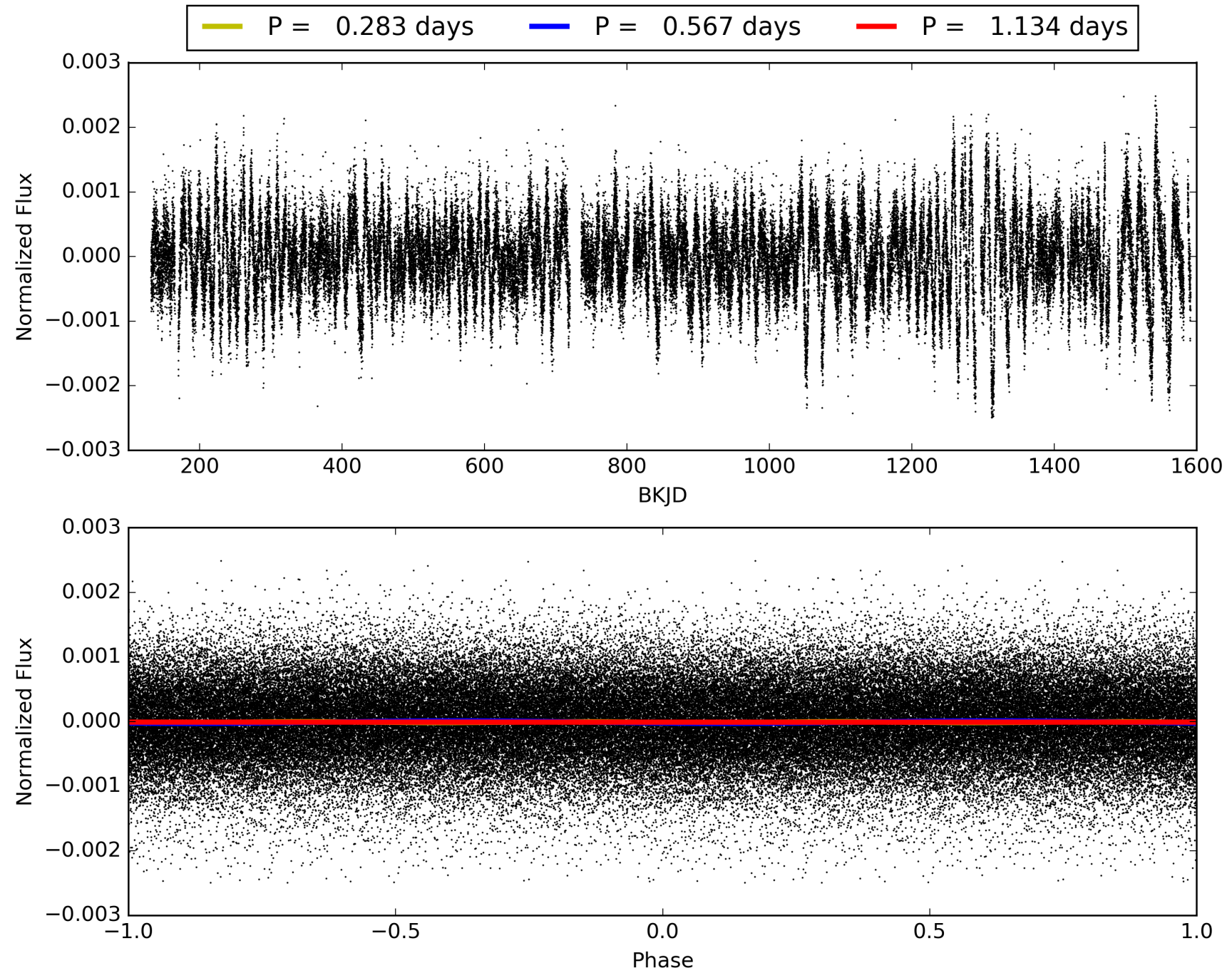


ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [95.12σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 3.85e-16
RollingBand-fgt: 1.00 [2267/2267]
GhostDiagnostic-chr: 0.03672
Centroid-sig: 0.0%
Centroid-so: 2.259 arcsec [1.74σ]
OotOffset-rm: 1.911 arcsec [2.12σ]
KicOffset-rm: 0.947 arcsec [0.94σ]
OotOffset-st: 4/3/1/3 [11]
KicOffset-st: 4/3/1/3 [11]
DiffImageQuality-fgm: 0.64 [7/11]
DiffImageOverlap-fno: 1.00 [17/17]

TCE 007282194-01, PDC Light Curves

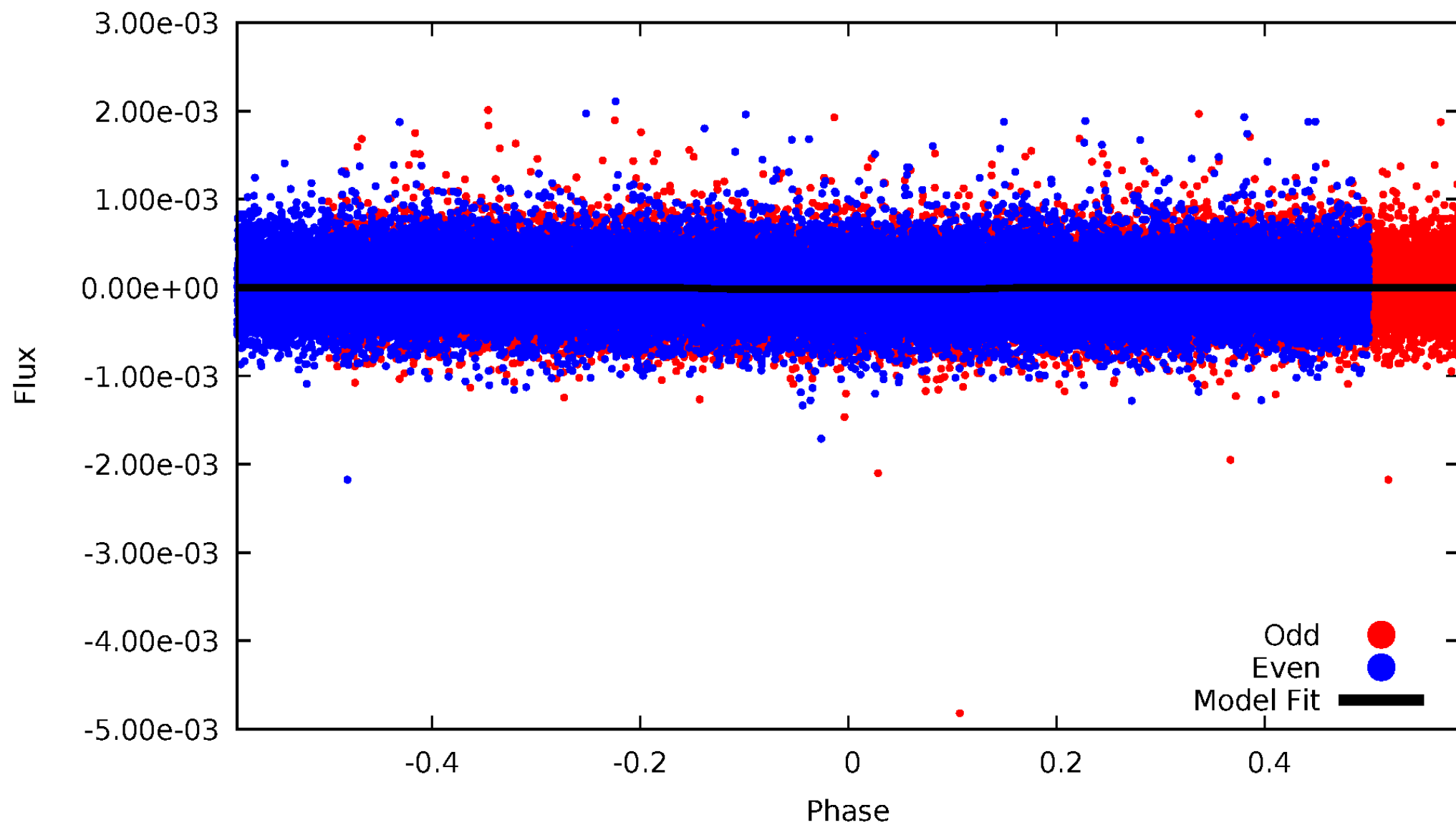


TCE 007282194-01



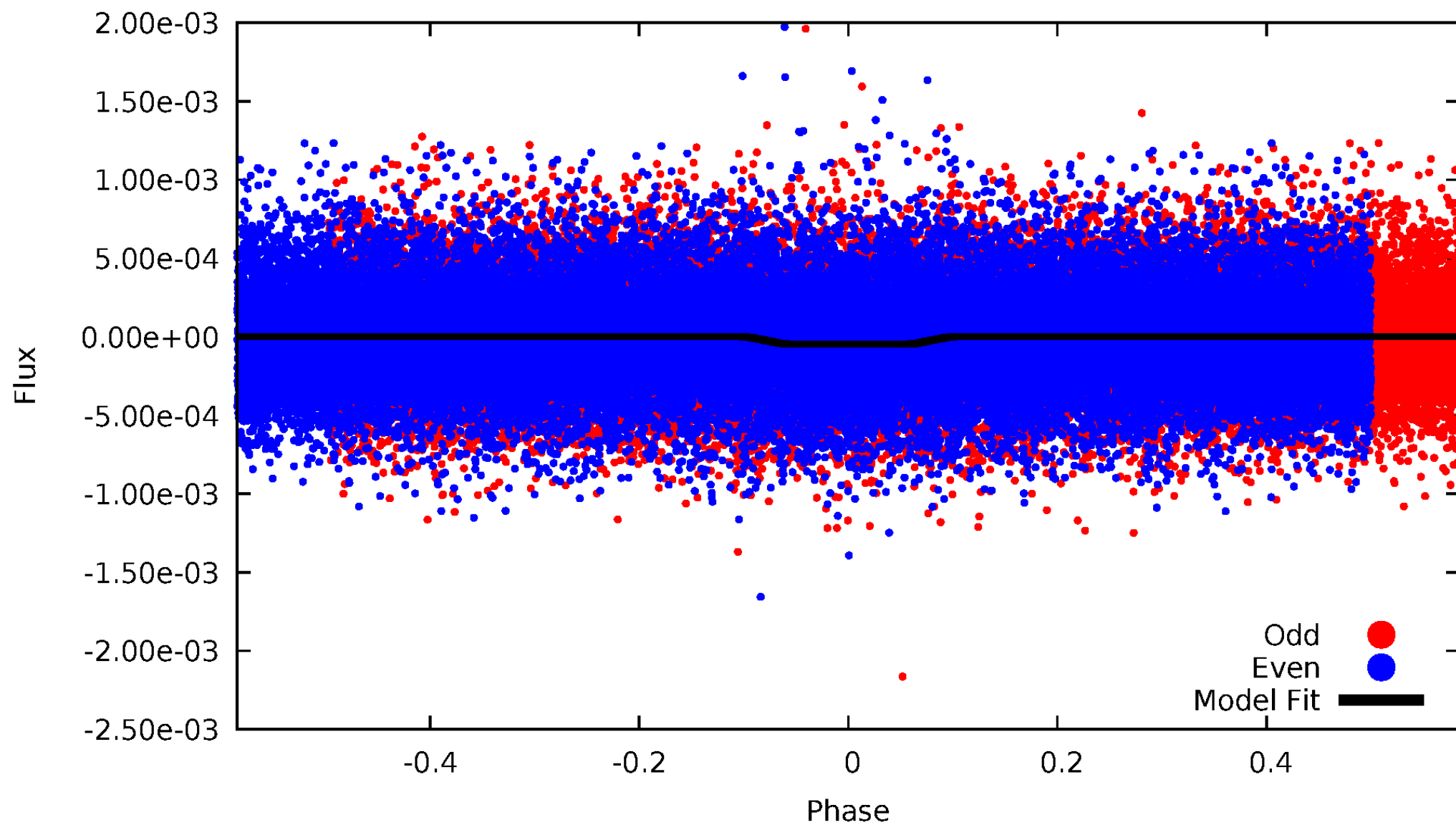
DV Odd/Even

TCE 007282194-01



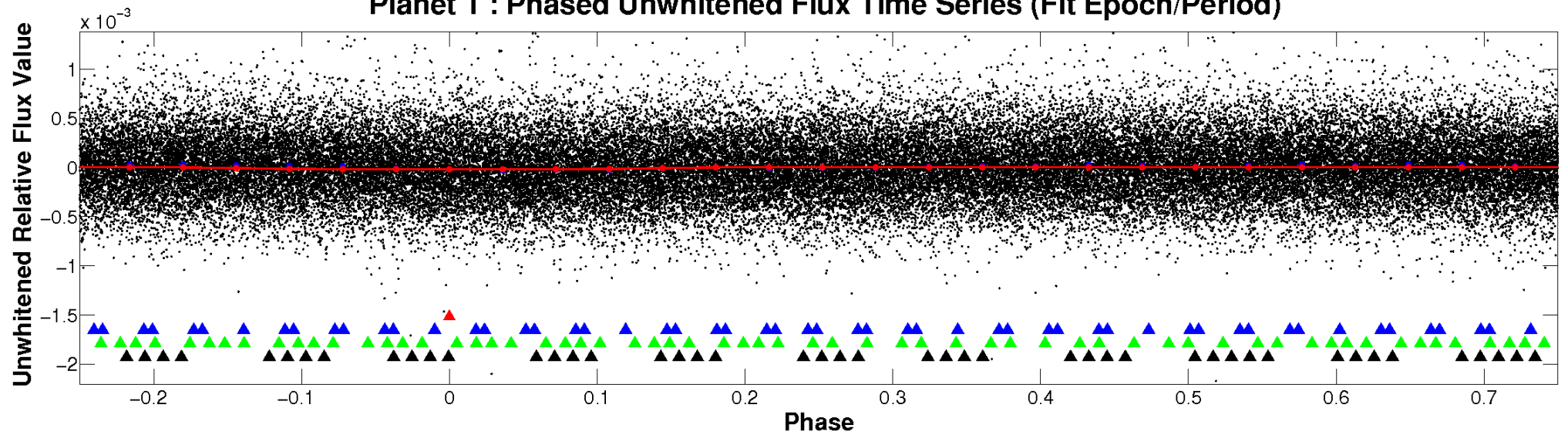
ALT Odd/Even

TCE 007282194-01

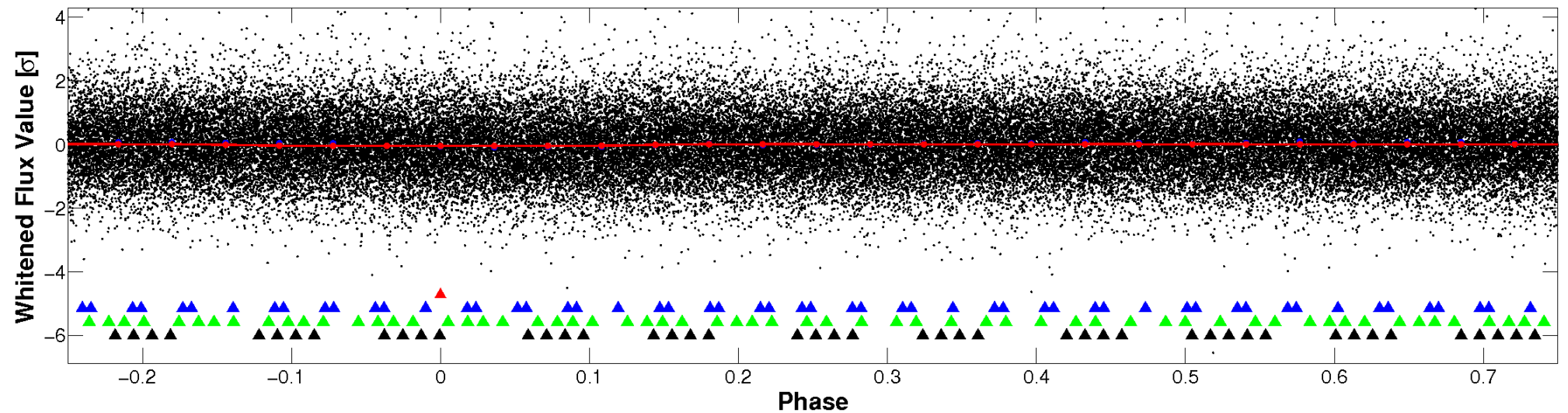


Non-Whitened Vs. Whitened Light Curve

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

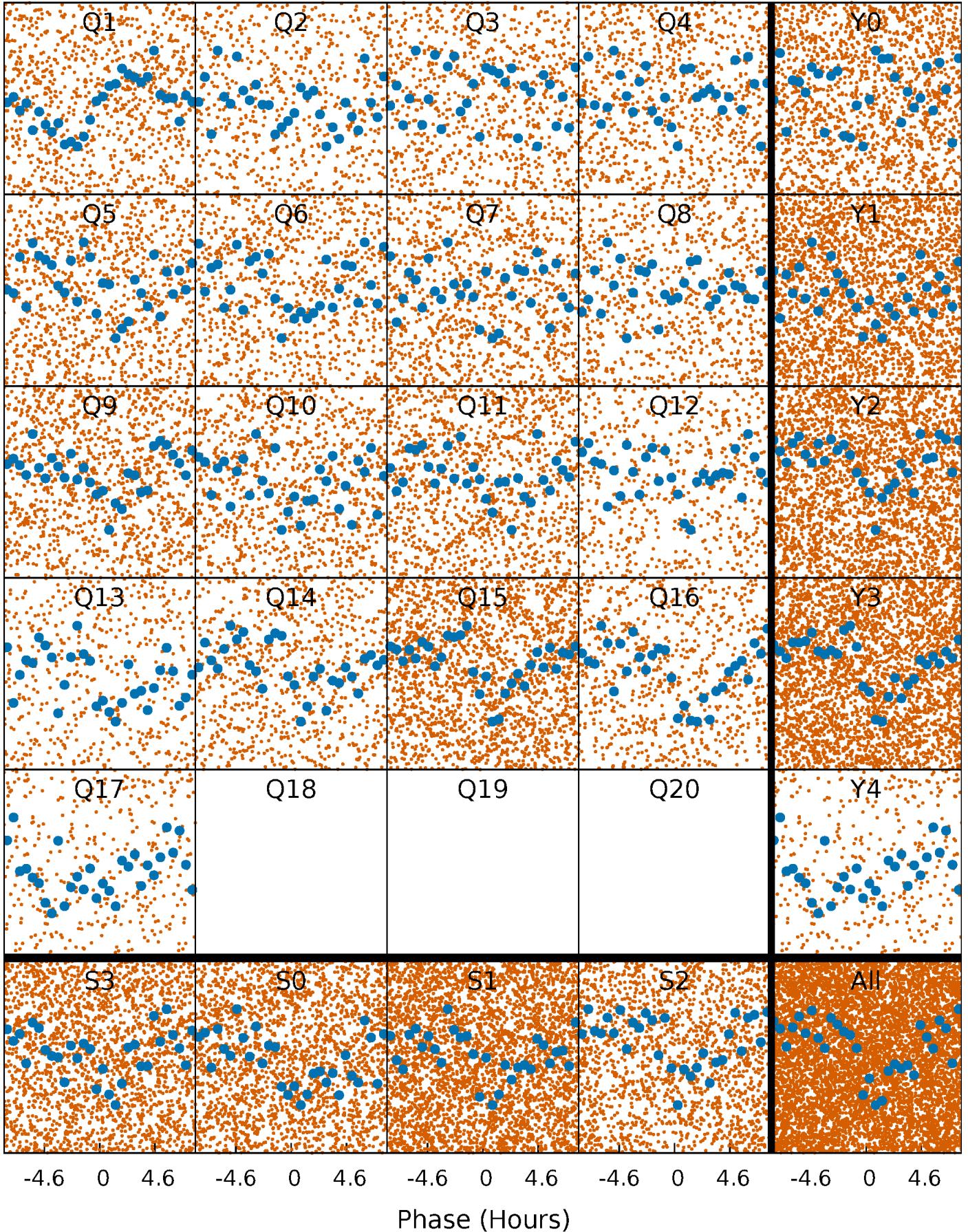


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



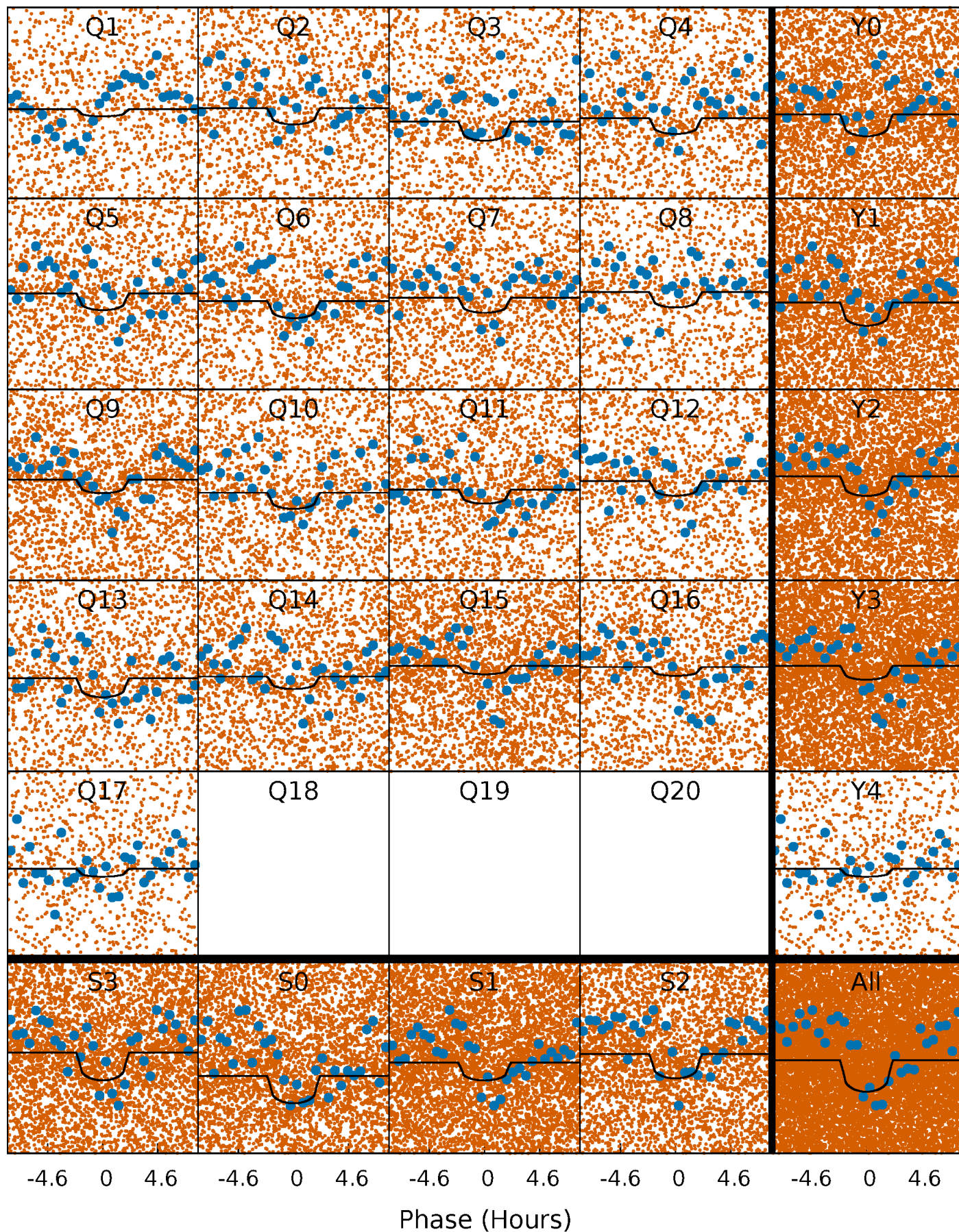
PDC Quarter-Phased Transit Curves

TCE 007282194-01 P= 0.566766 Days $T_0=131.827695$ (BKJD)



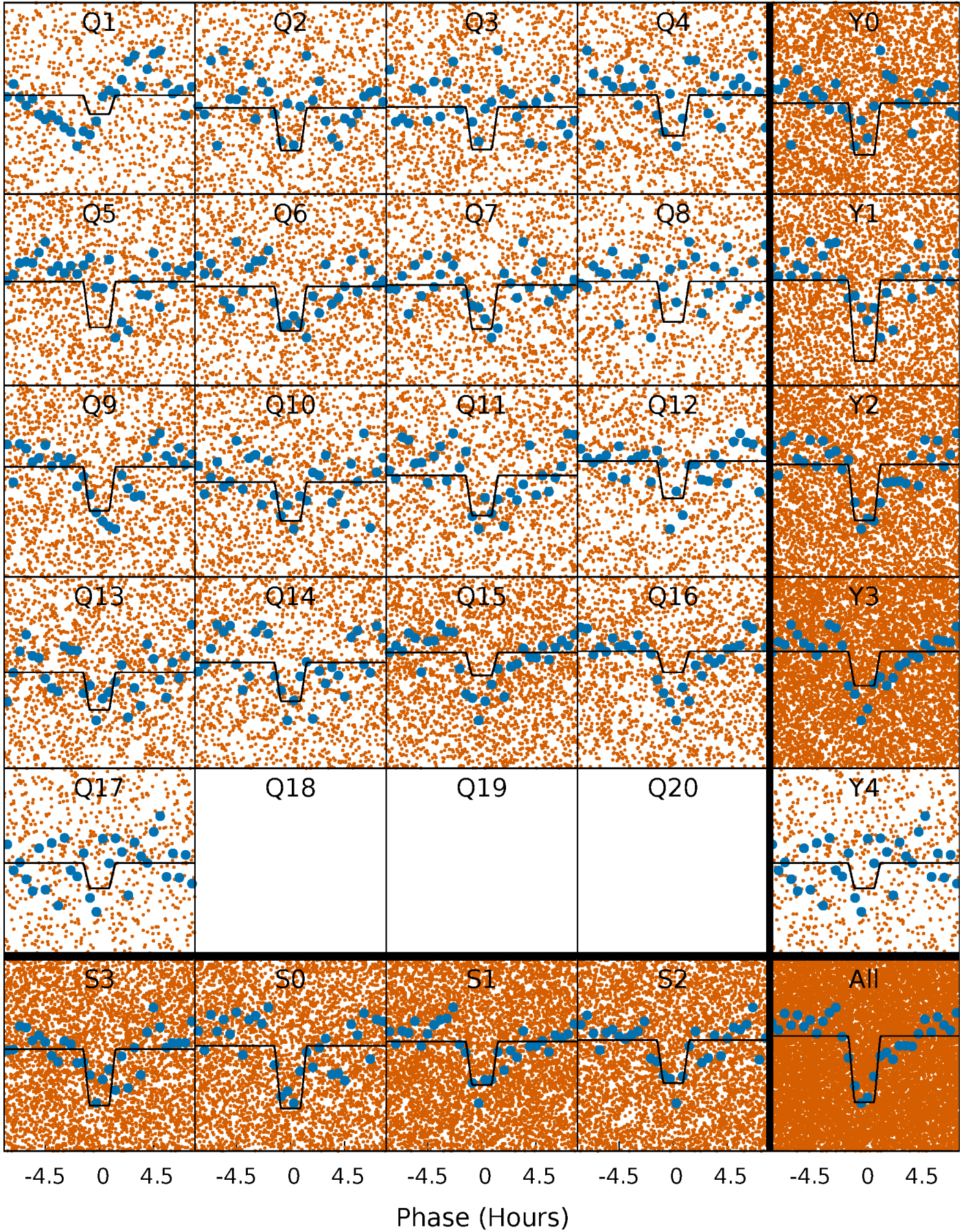
DV Quarter-Phased Transit Curves

TCE 007282194-01 P= 0.566766 Days $T_0=131.827695$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

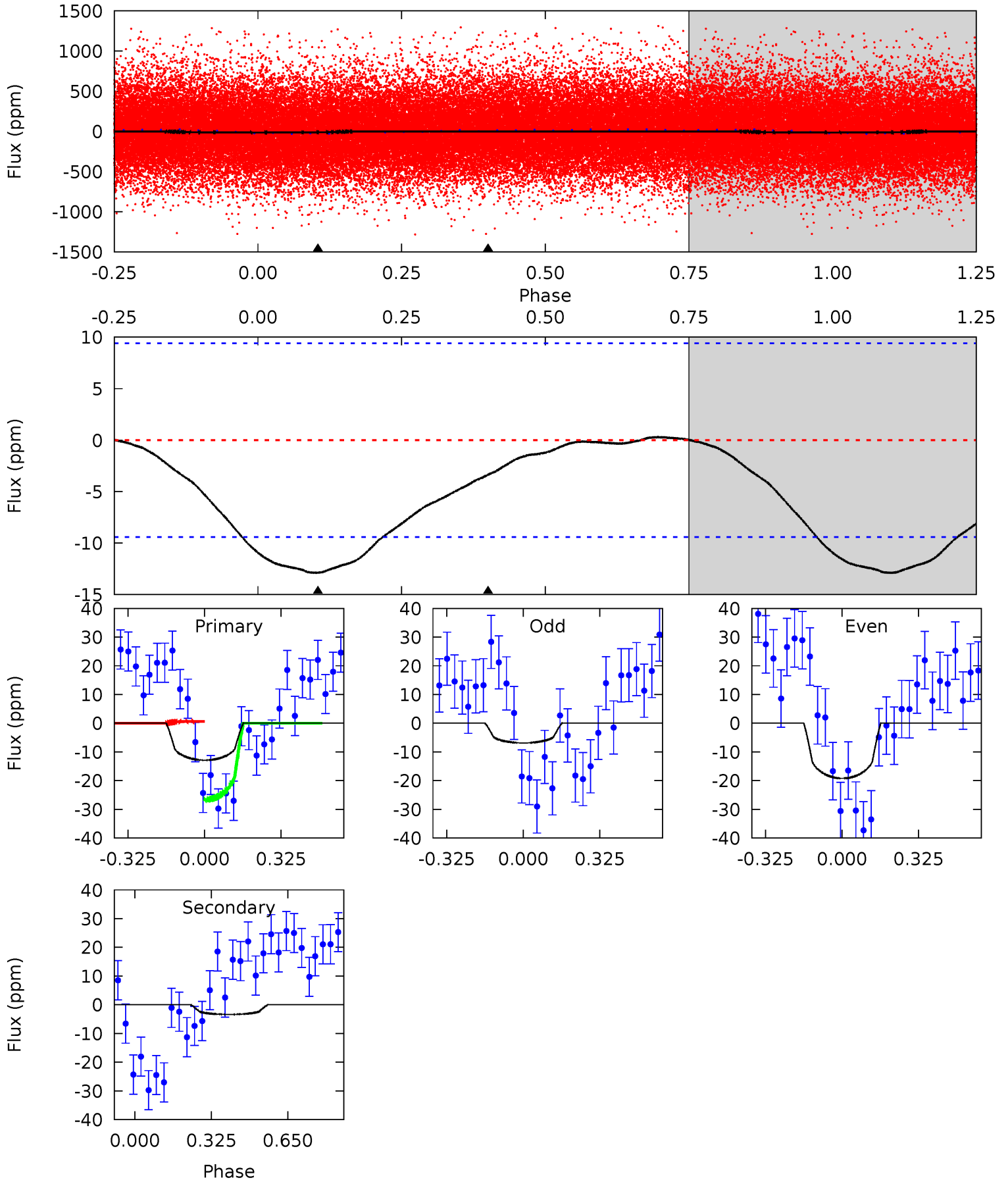
TCE 007282194-01 P= 0.566801 Days $T_0=131.800100$ (BKJD)



DV Model-Shift Uniqueness Test

007282194-01, P = 0.566766 Days, E = 131.260929 Days

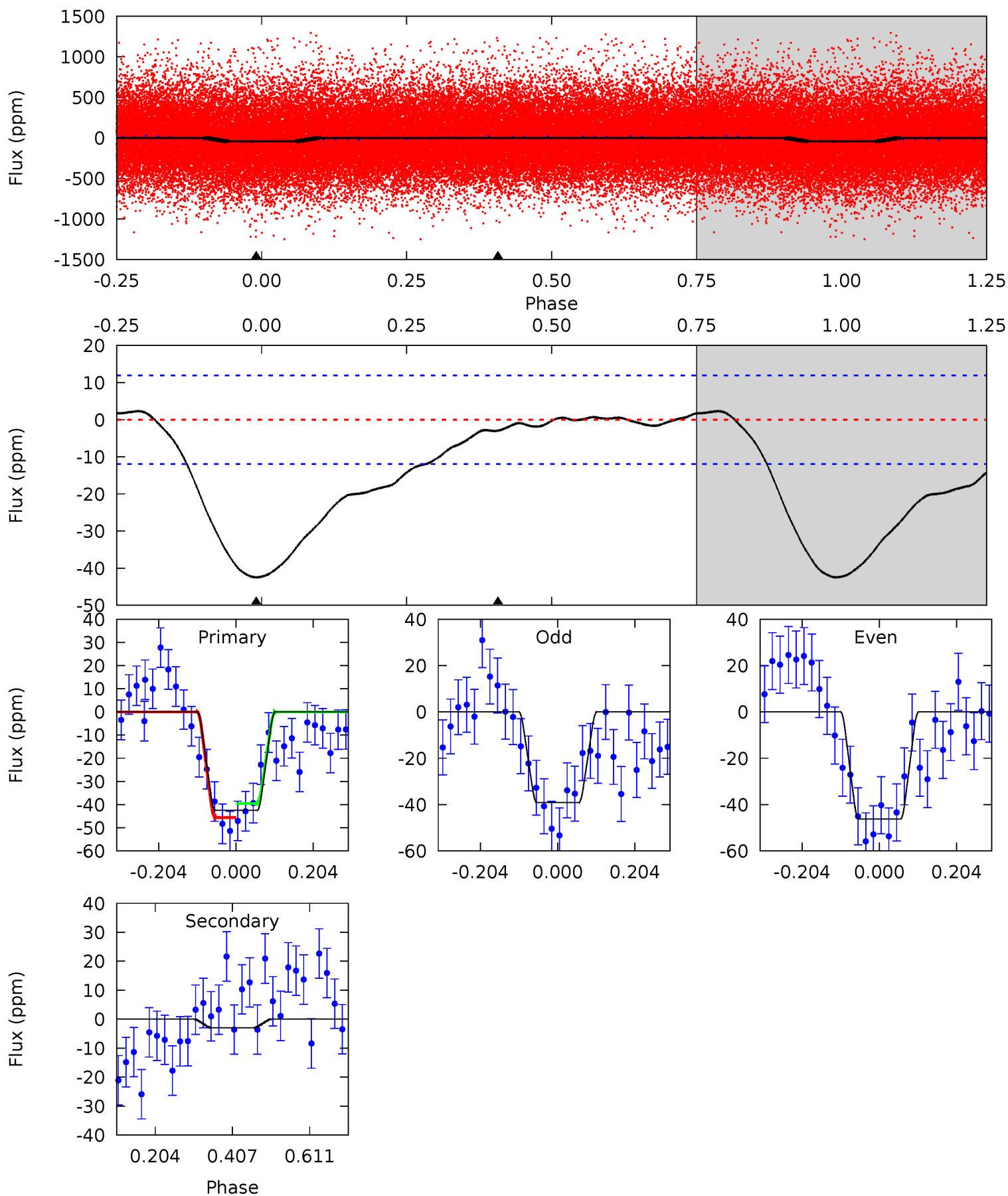
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.91	1.55	0	0	4.31	0.98	0.15	5.91	5.91	1.55	1.55	2.84	0.89	0.02	5.89



Alt Model-Shift Uniqueness Test

007282194-01, P = 0.566801 Days, E = 131.233299 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.7	1.10	0	0	4.41	1.27	1.58	15.7	15.7	1.10	1.10	1.32	1.01	0.05	1.11



Stellar Parameters For KIC 007282194

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6096^{+181}_{-199}	$4.449^{+0.070}_{-0.210}$	$-0.180^{+0.300}_{-0.300}$	$0.992^{+0.317}_{-0.127}$	$1.007^{+0.156}_{-0.117}$	$1.453^{+0.430}_{-0.787}$
	+3%/-3%	+2%/-5%	+167%/-167%	+32%/-13%	+15%/-12%	+30%/-54%
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 007282194-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-3 ± 2	$0.67^{+0.58}_{-0.45}$	3282^{+277}_{-169}	3387^{+2249}_{-6411}	$0.671^{+4.984}_{-0.543}$
Alt.	-3 ± 3	$0.88^{+0.65}_{-0.51}$	3305^{+229}_{-179}	-2127^{+6654}_{-1148}	$0.290^{+1.718}_{-0.268}$

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 $A_{obs} \gg 1.0$

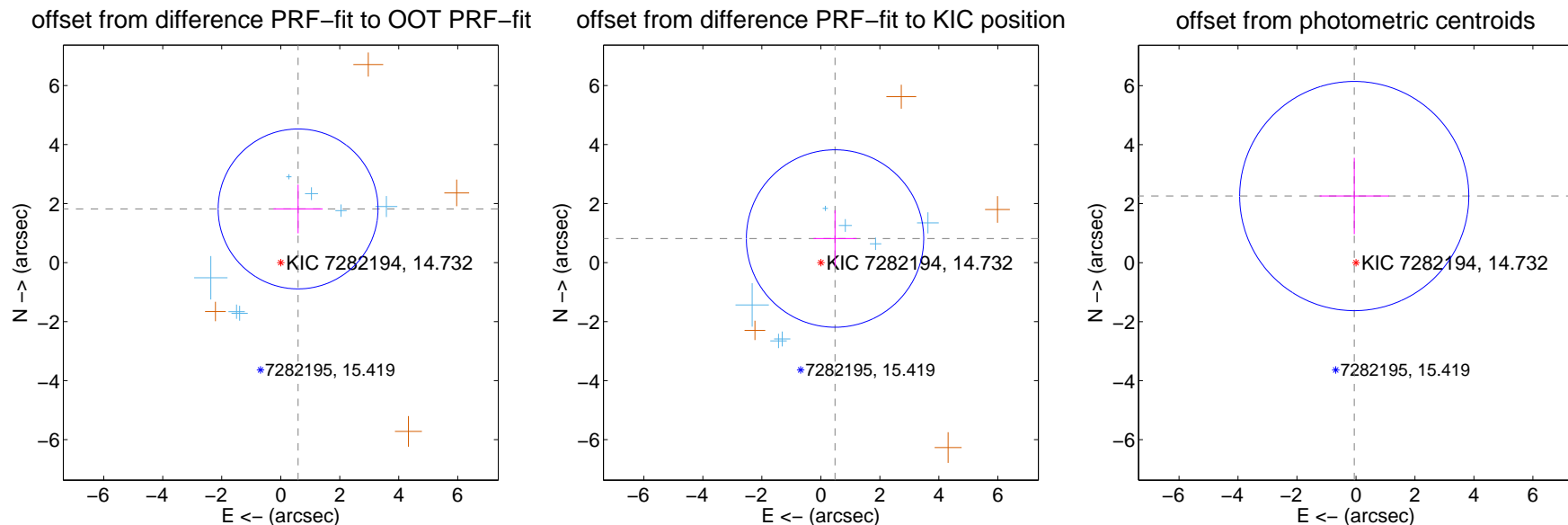
DV Centroid Data

Supplemental centroid analysis for 007282194-01. Kepler magnitude: 14.73. Transit SNR 5.72

There are 7 quarters with good PRF difference image offsets

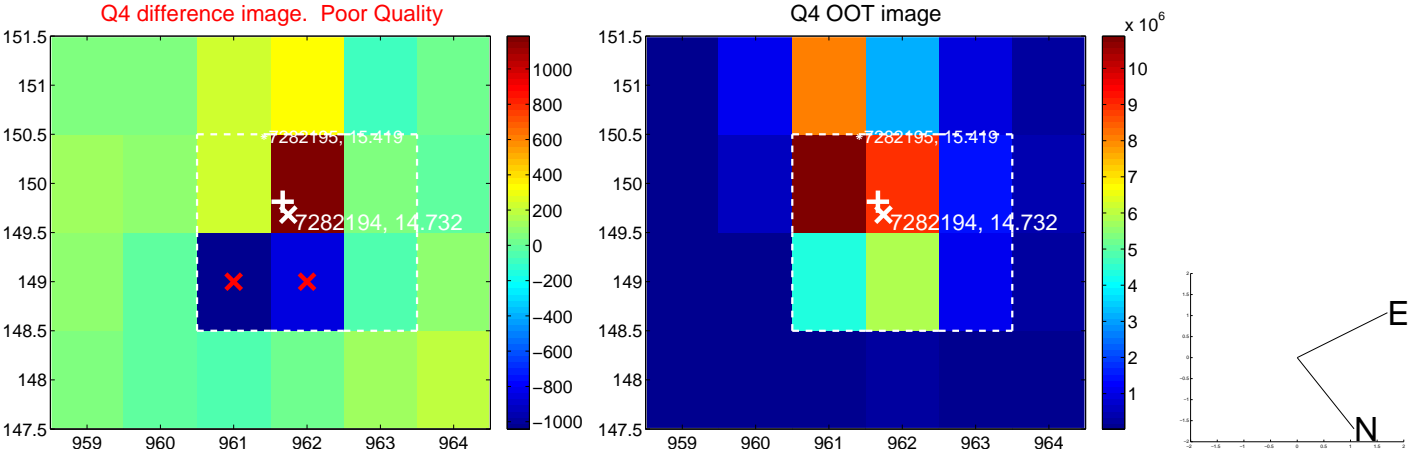
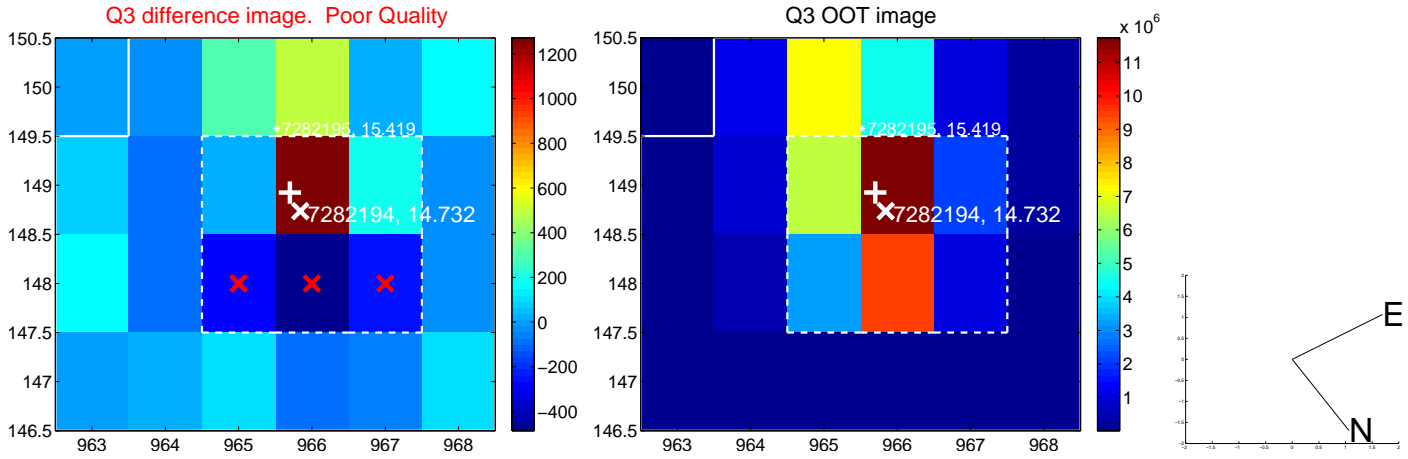
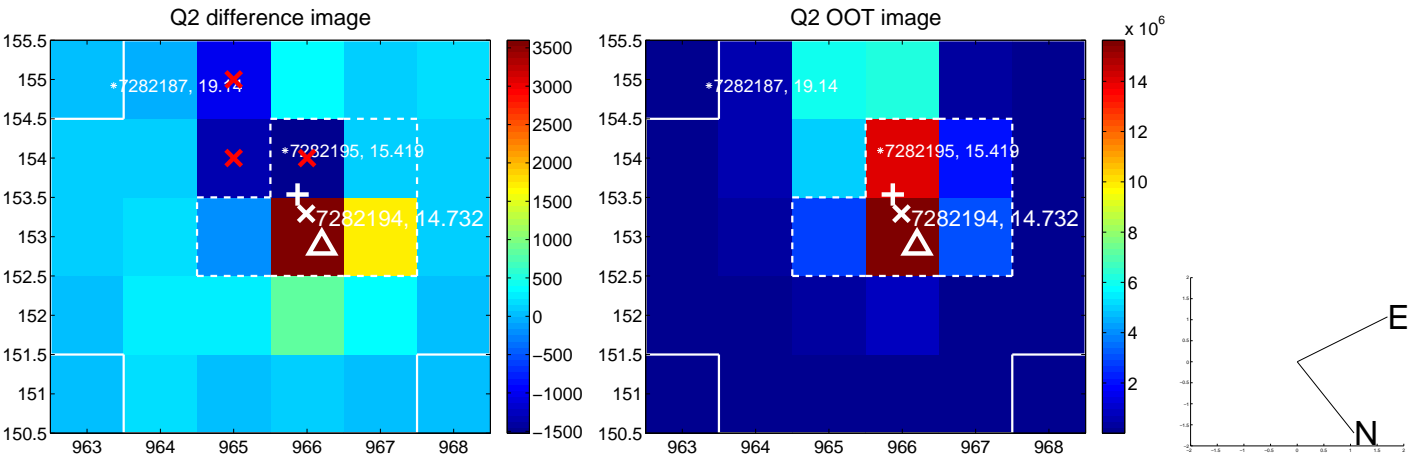
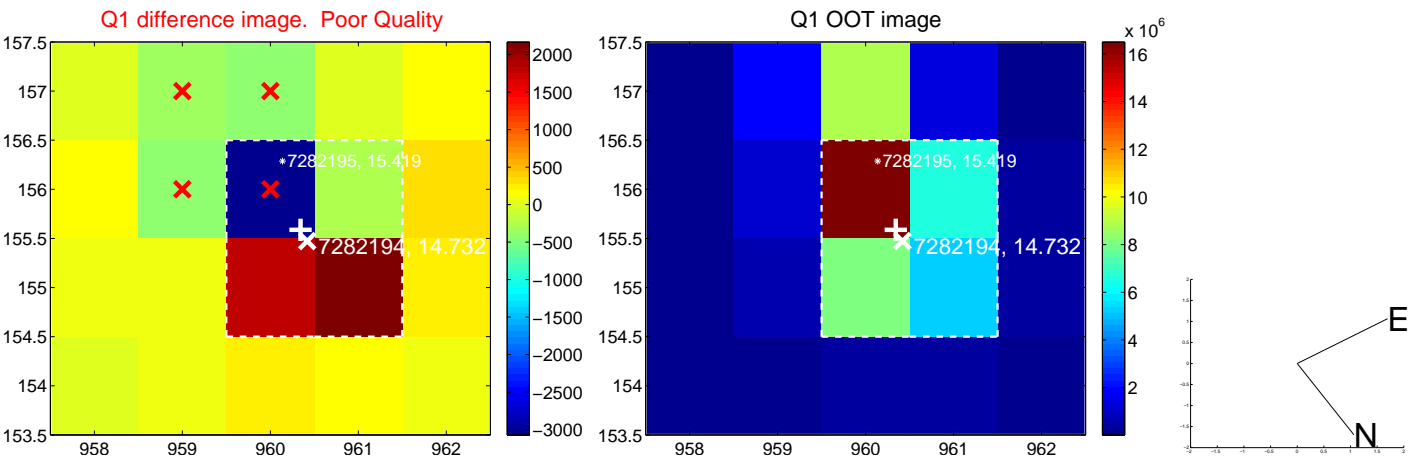
The direct PRF centroid is offset from the target star catalog position by about 0.64 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.911 ± 0.903	2.12	-0.588 ± 0.834	1.818 ± 0.825
PRF-fit source offset from KIC position	0.947 ± 1.002	0.94	-0.480 ± 0.730	0.816 ± 0.955
photometric centroid source offset	2.26 ± 1.30	1.74	0.06 ± 1.18	2.26 ± 1.30

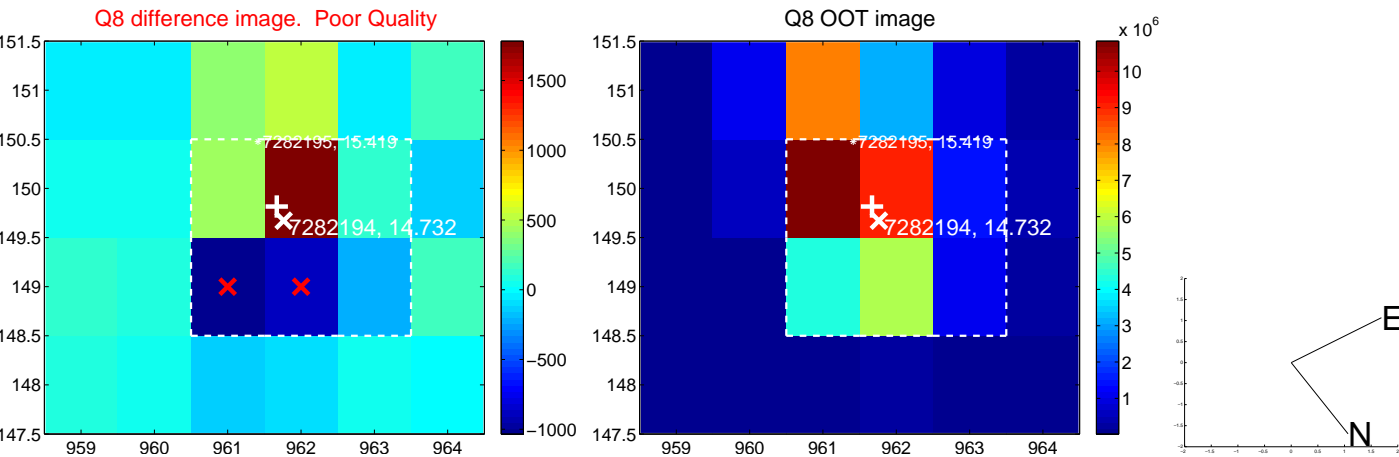
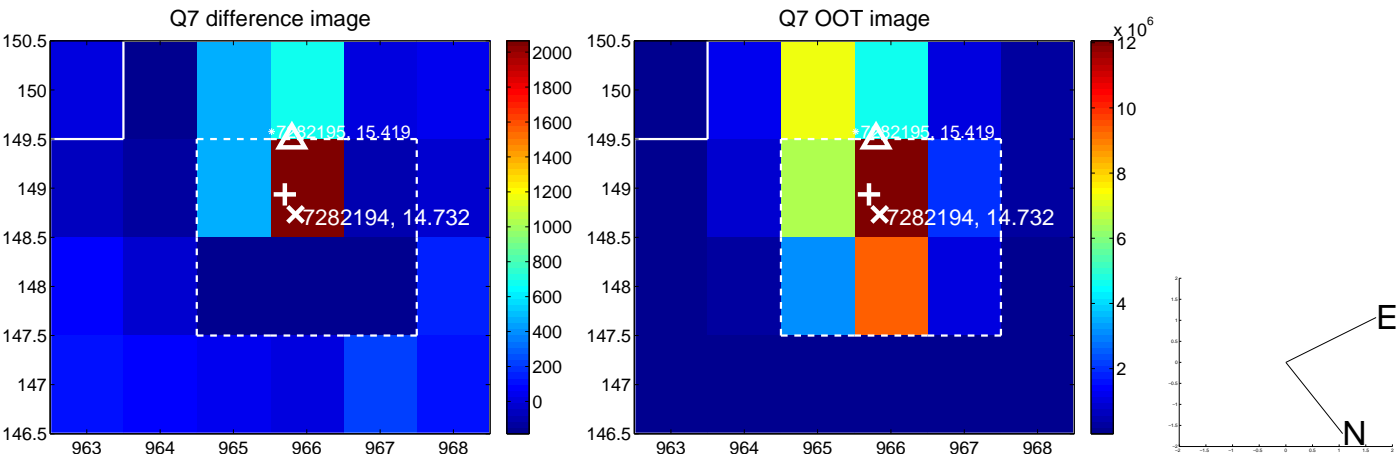
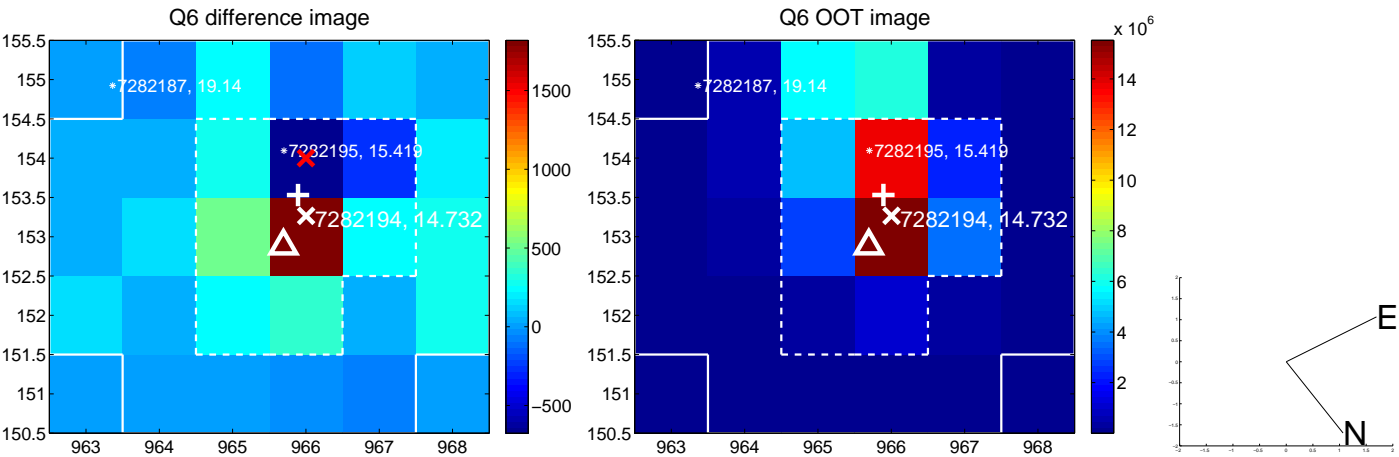
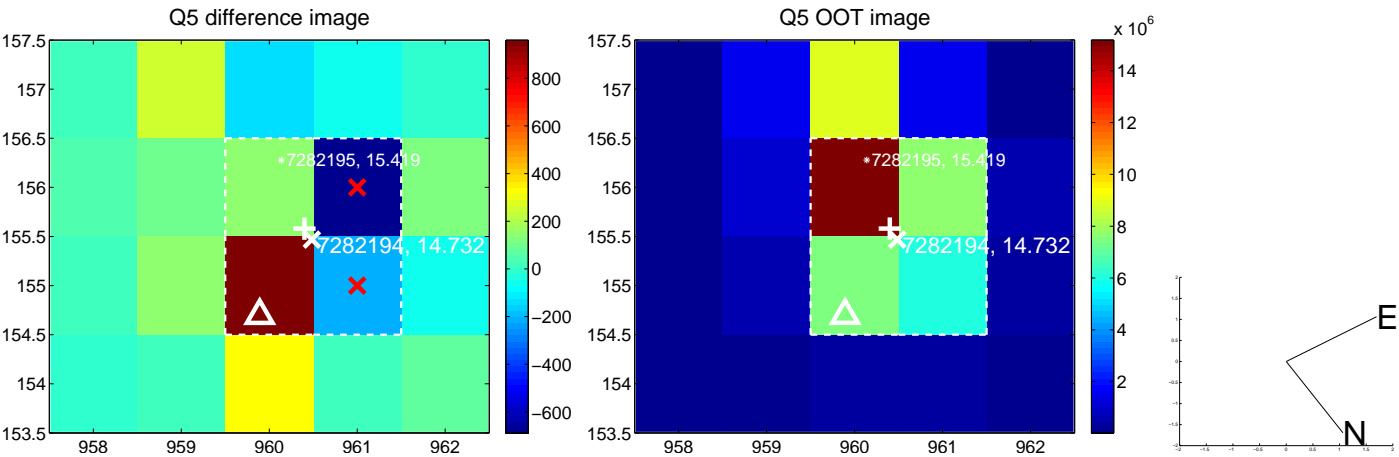


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

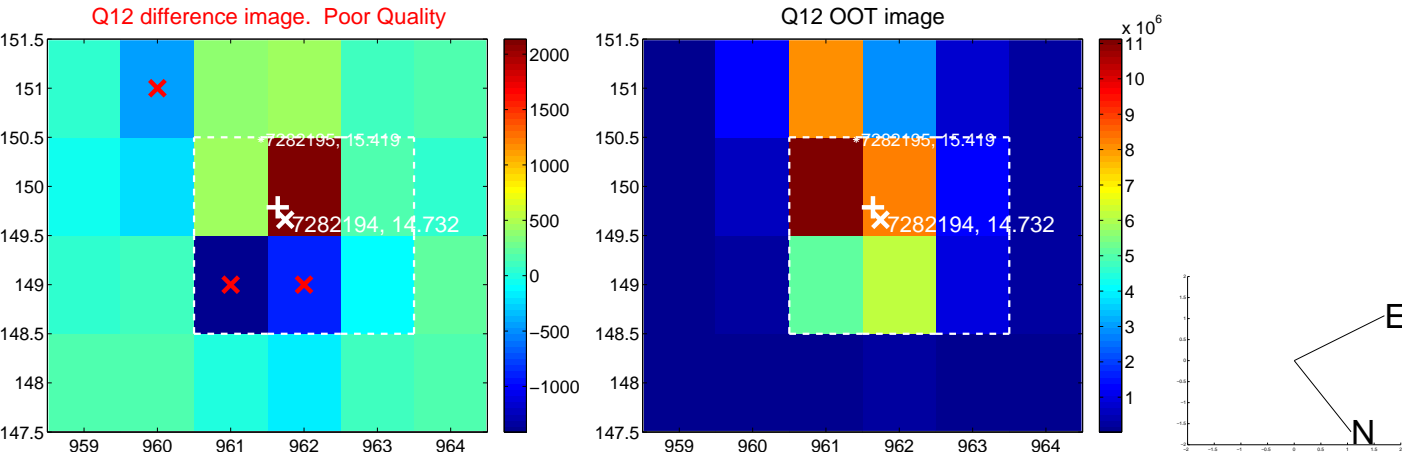
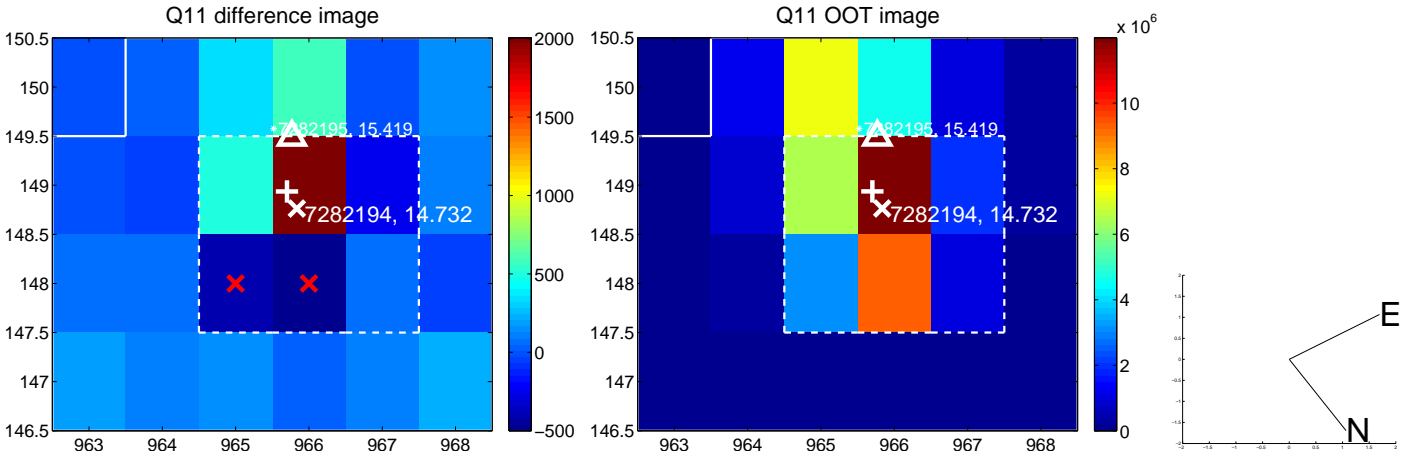
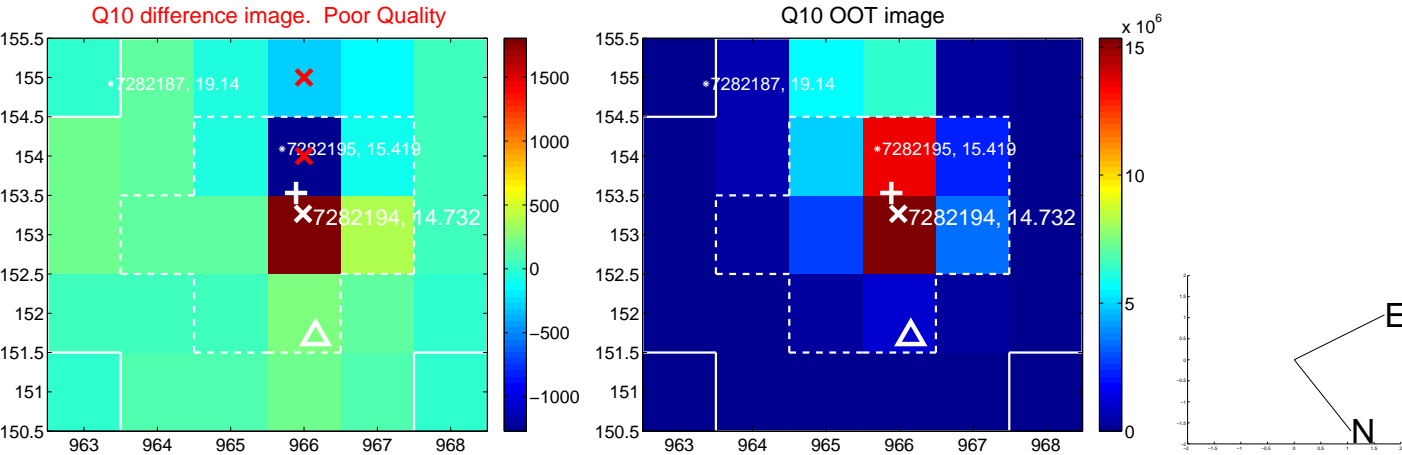
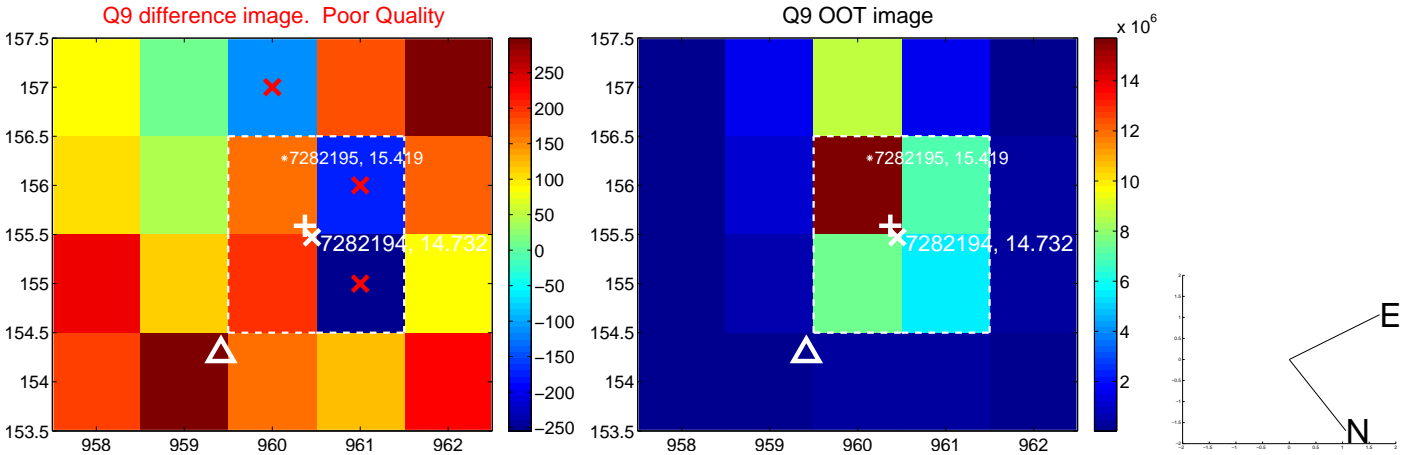
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



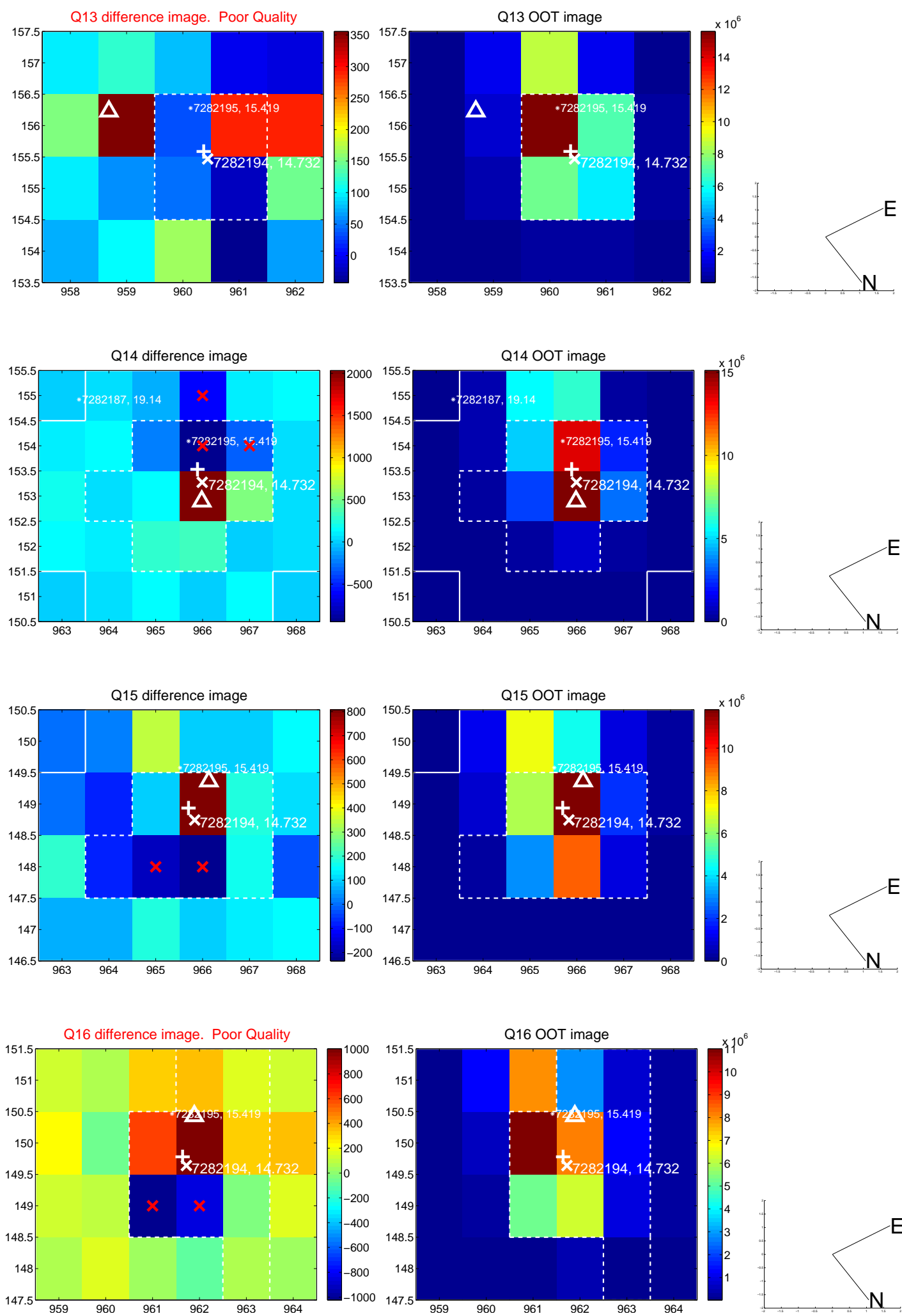
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



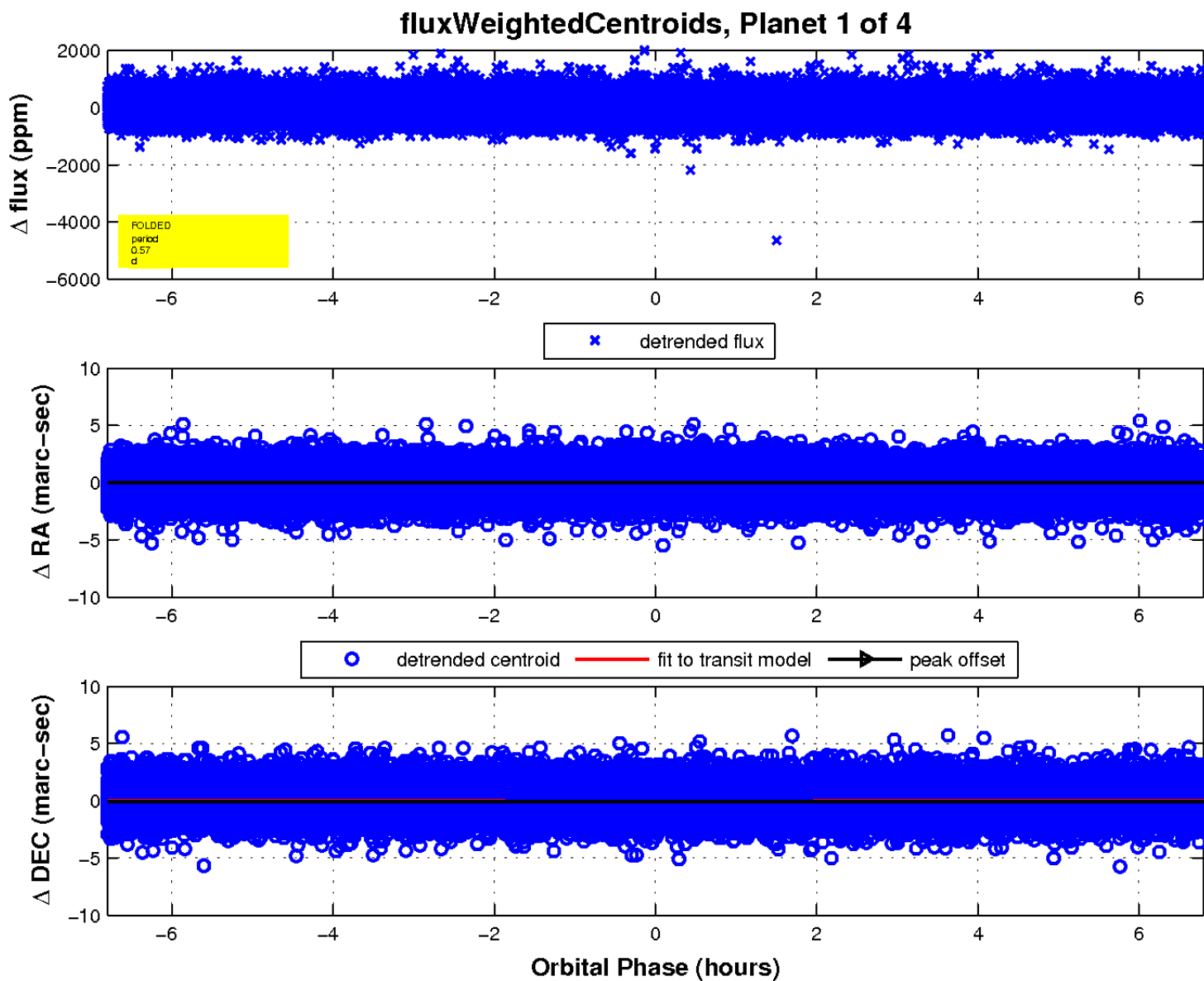
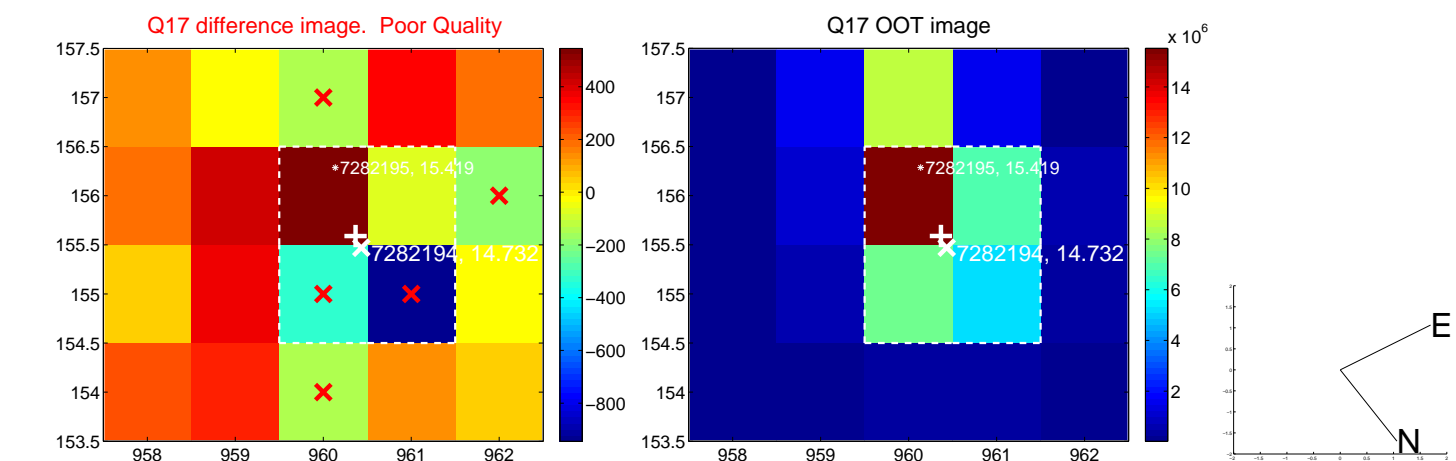
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

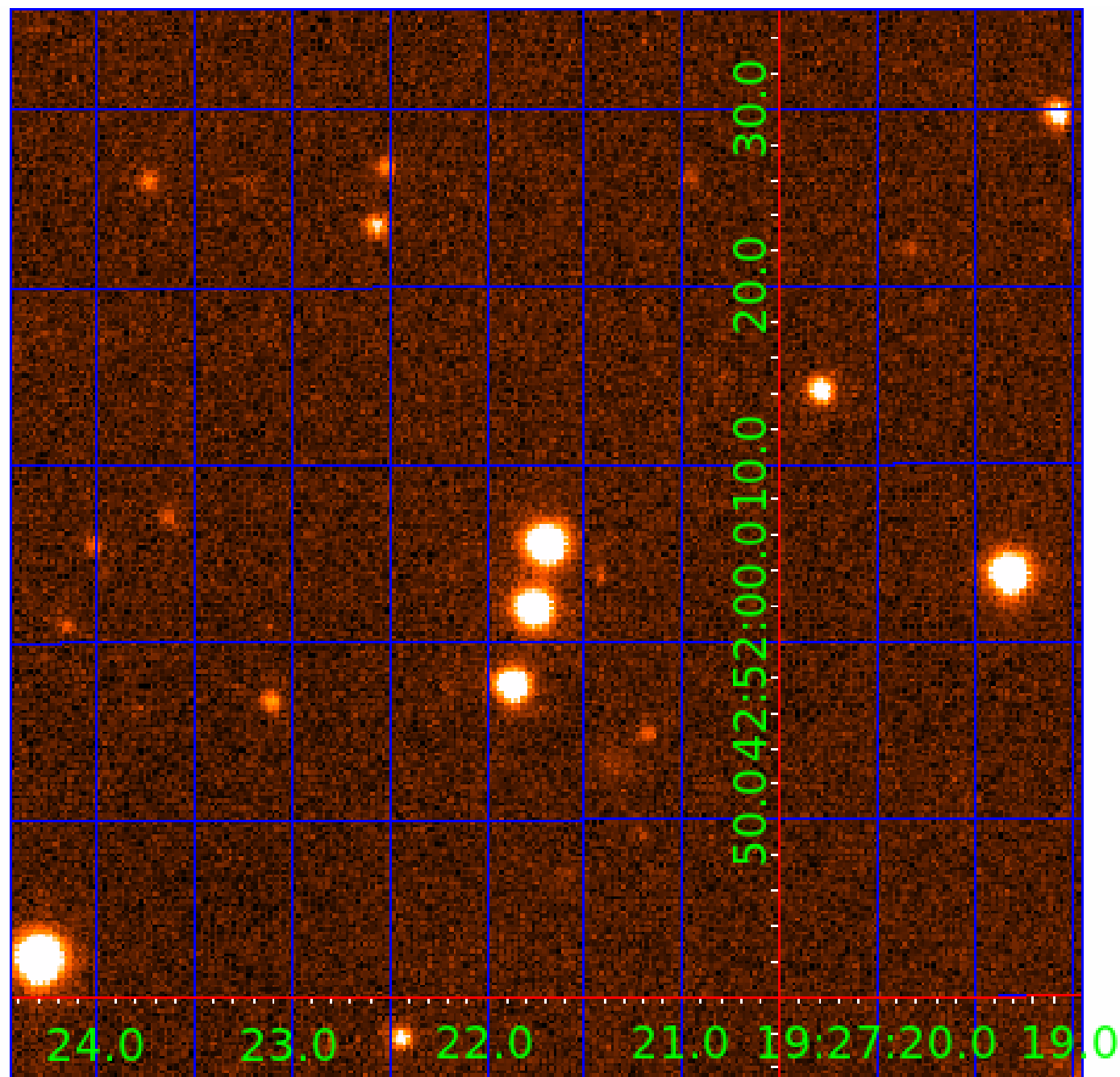


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007282194

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})
007282194-01	OBS	No	0.566766	131.827695	19.0	3.993	10.1	5.7	0.99	6096	0.44	6733.02
007282194-02	OBS	No	26.711261	137.066151	1004.9	1.233	11.1	11.3	0.99	6096	3.20	39.55
007282194-03	OBS	No	23.838315	143.501262	439.2	4.306	9.7	9.9	0.99	6096	2.30	46.03
007282194-04	OBS	No	31.636510	156.020193	620.3	0.919	10.3	8.1	0.99	6096	2.55	31.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007282194-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_KIC_POS—HALO_GHOST—EPHEM_MATCH
007282194-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007282194-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
007282194-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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

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

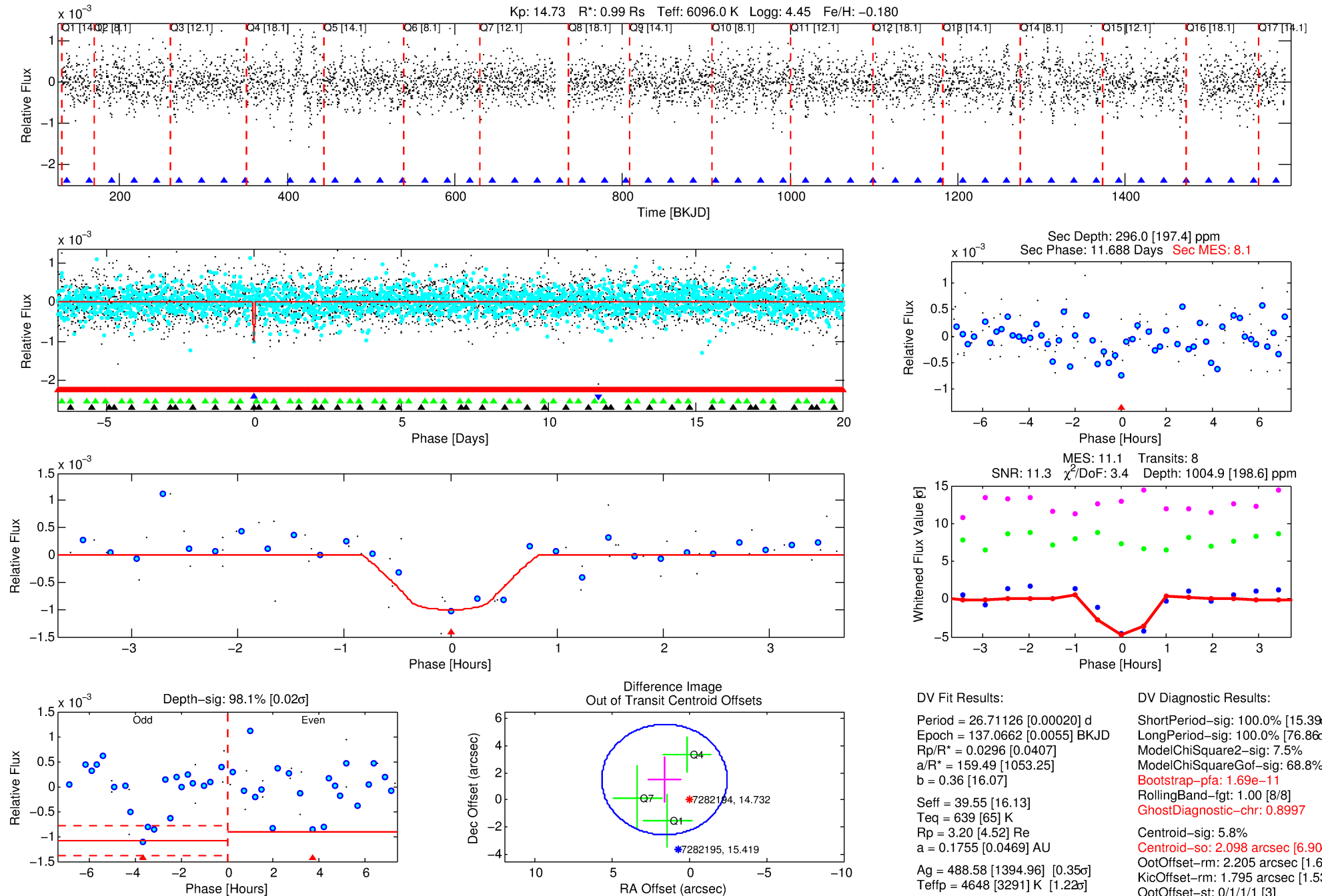
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007282194-02

No Significant Match Found

DV One-Page Summary

KIC: 7282194 Candidate: 2 of 4 Period: 26.711 d



DV Fit Results:

Period = 26.71126 [0.00020] d
Epoch = 137.0662 [0.0055] BKJD
Rp/R* = 0.0296 [0.0407]
a/R* = 159.49 [1053.25]
b = 0.36 [16.07]
Seff = 39.55 [16.13]
Teq = 639 [65] K
Rp = 3.20 [4.52] Re
a = 0.1755 [0.0469] AU
Ag = 488.58 [1394.96] [0.35 σ]
Teffp = 4648 [3291] K [1.22 σ]

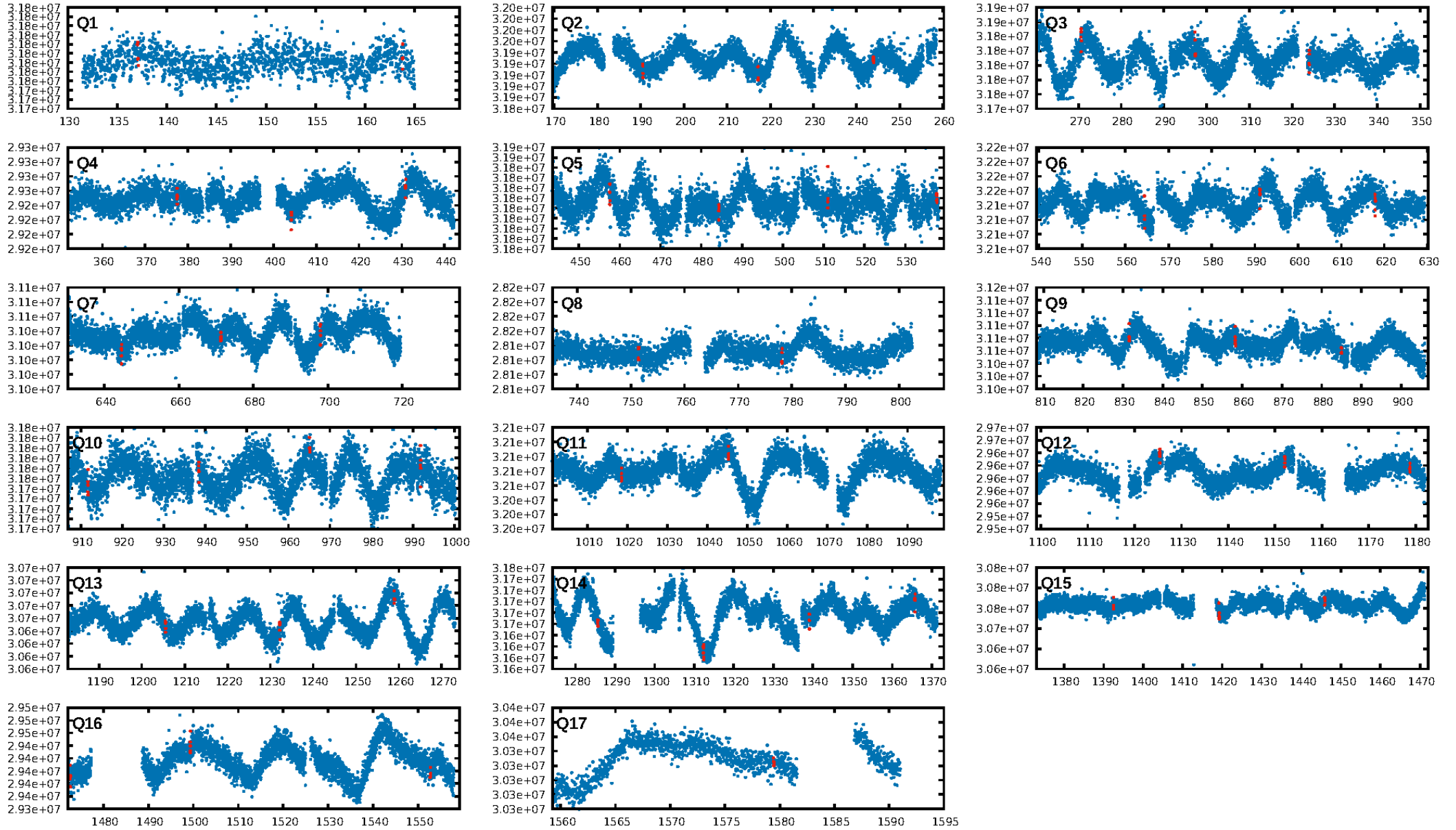
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [15.39 σ]
LongPeriod-sig: 100.0% [76.86 σ]
ModelChiSquare2-sig: 7.5%
ModelChiSquareGof-sig: 68.8%
Bootstrap-pfa: 1.69e-11
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 0.8997
Centroid-sig: 5.8%
Centroid-so: 2.098 arcsec [6.90 σ]
OotOffset-rm: 2.205 arcsec [1.63 σ]
KicOffset-rm: 1.795 arcsec [1.53 σ]
OotOffset-st: 0/1/1/1 [3]
KicOffset-st: 0/1/1/1 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 0.00 [0/17]

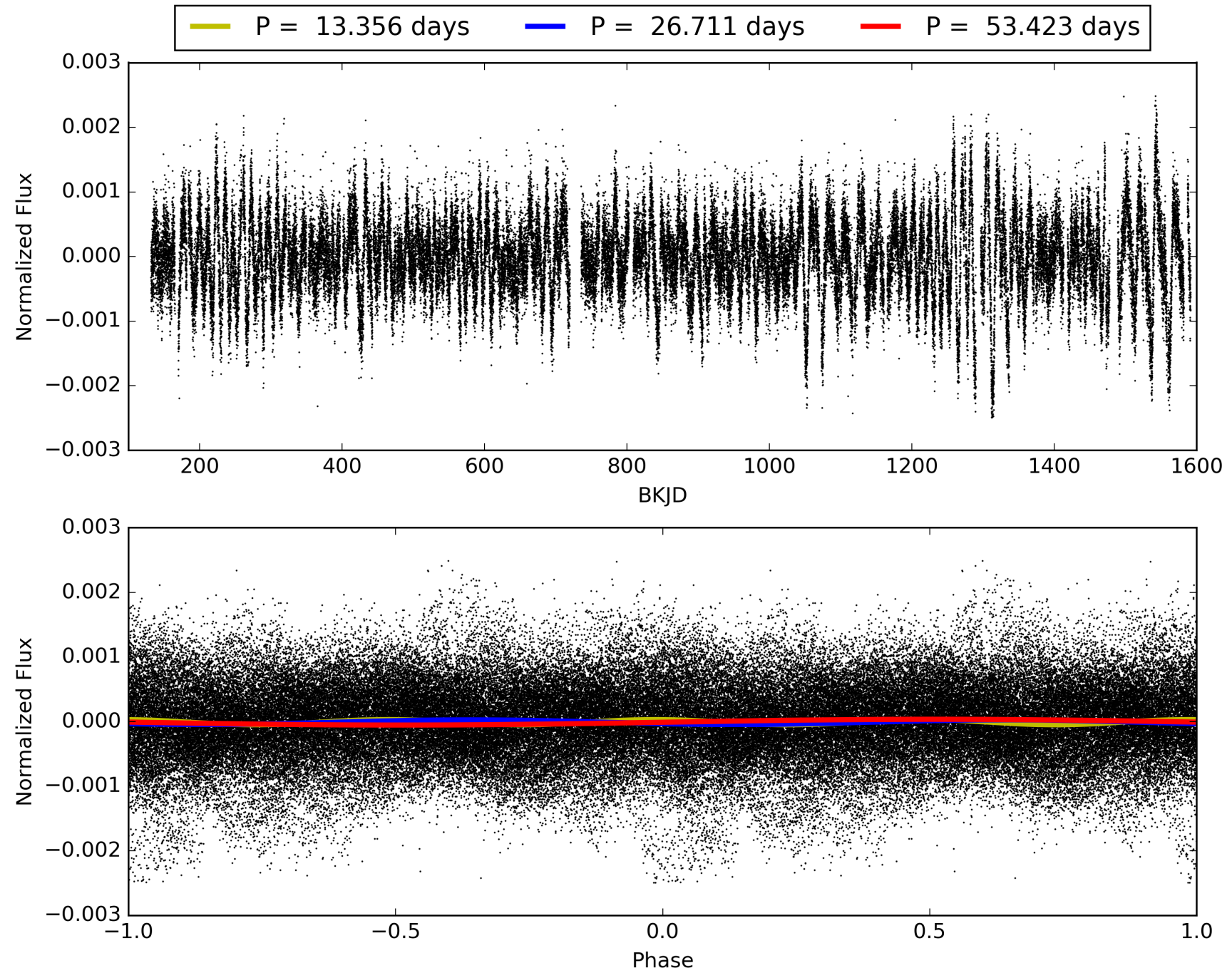
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:17:02 Z

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

TCE 007282194-02, PDC Light Curves

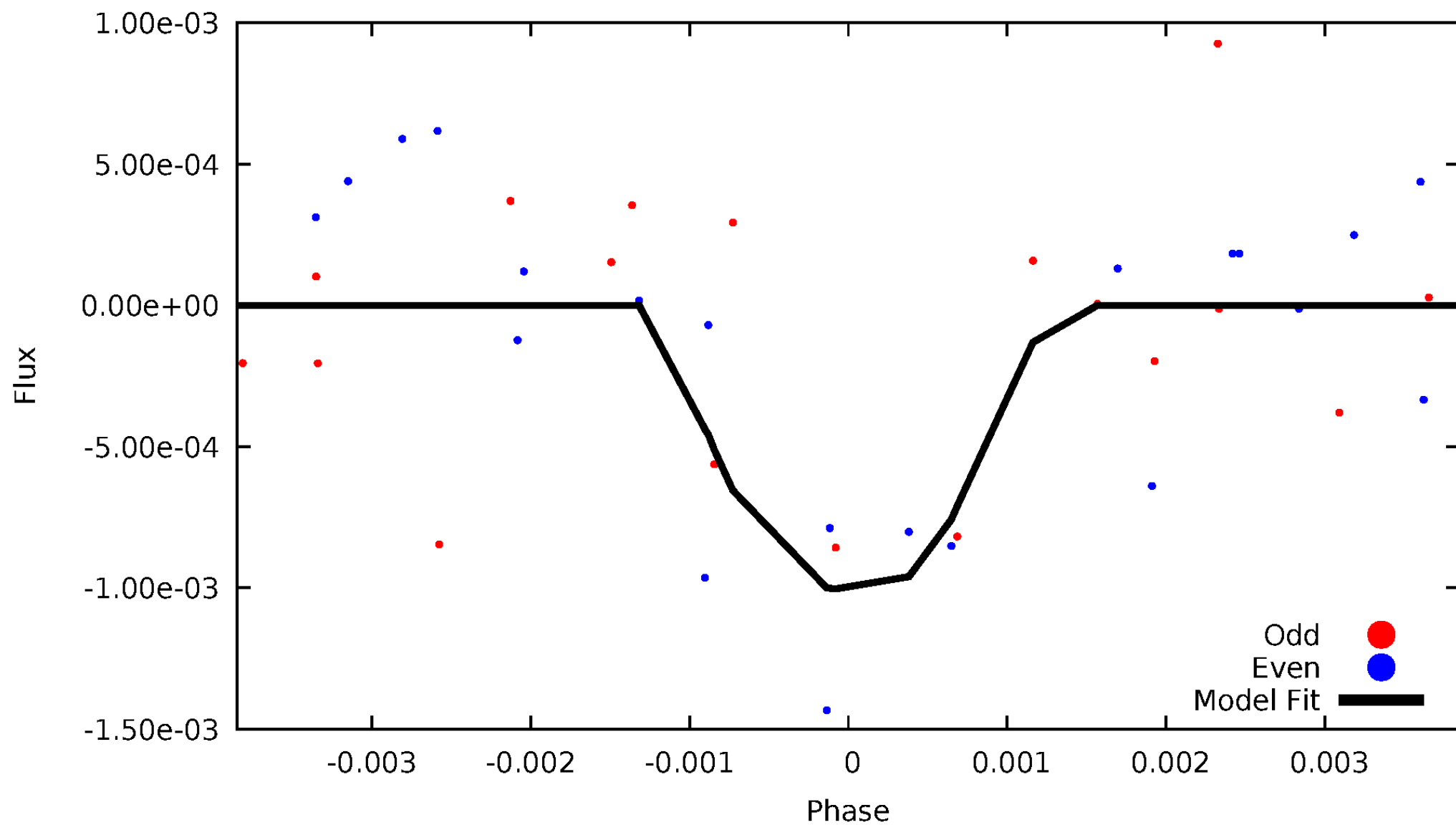


TCE 007282194-02



DV Odd/Even

TCE 007282194-02

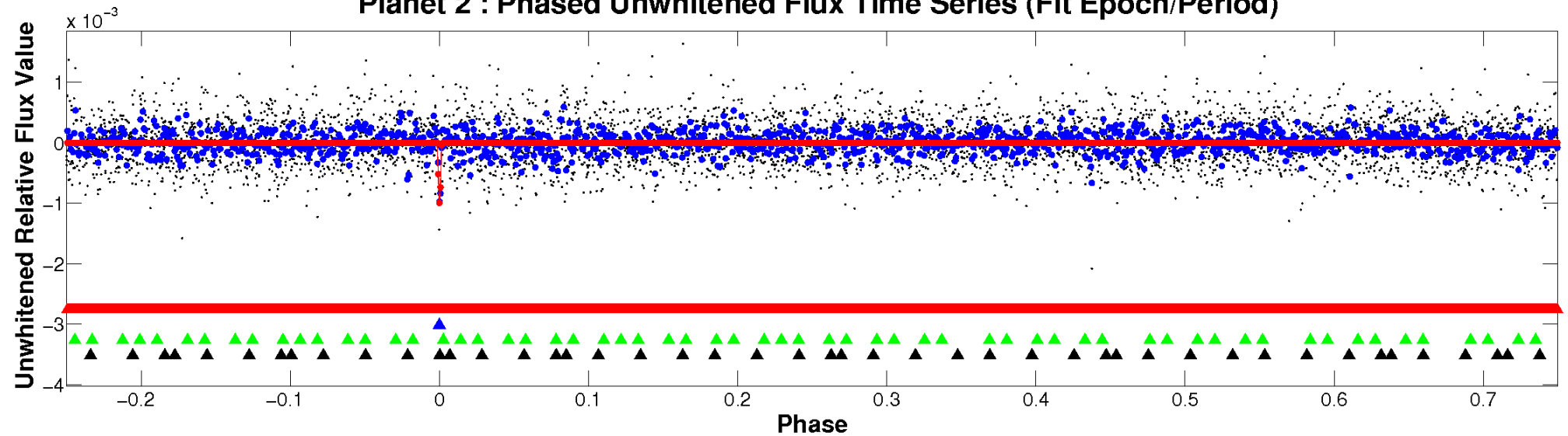


ALT Odd/Even

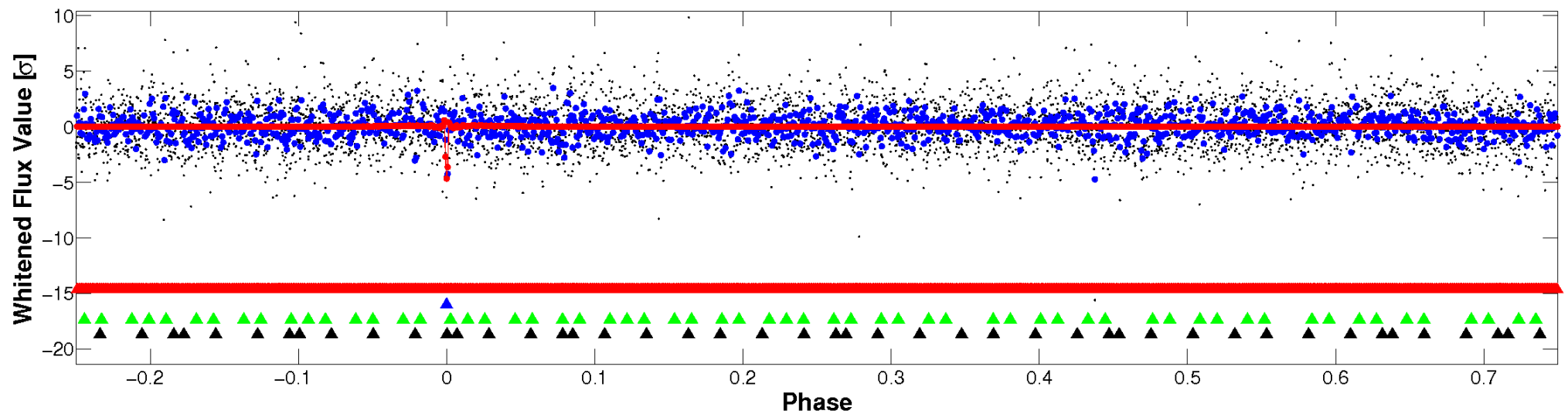
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

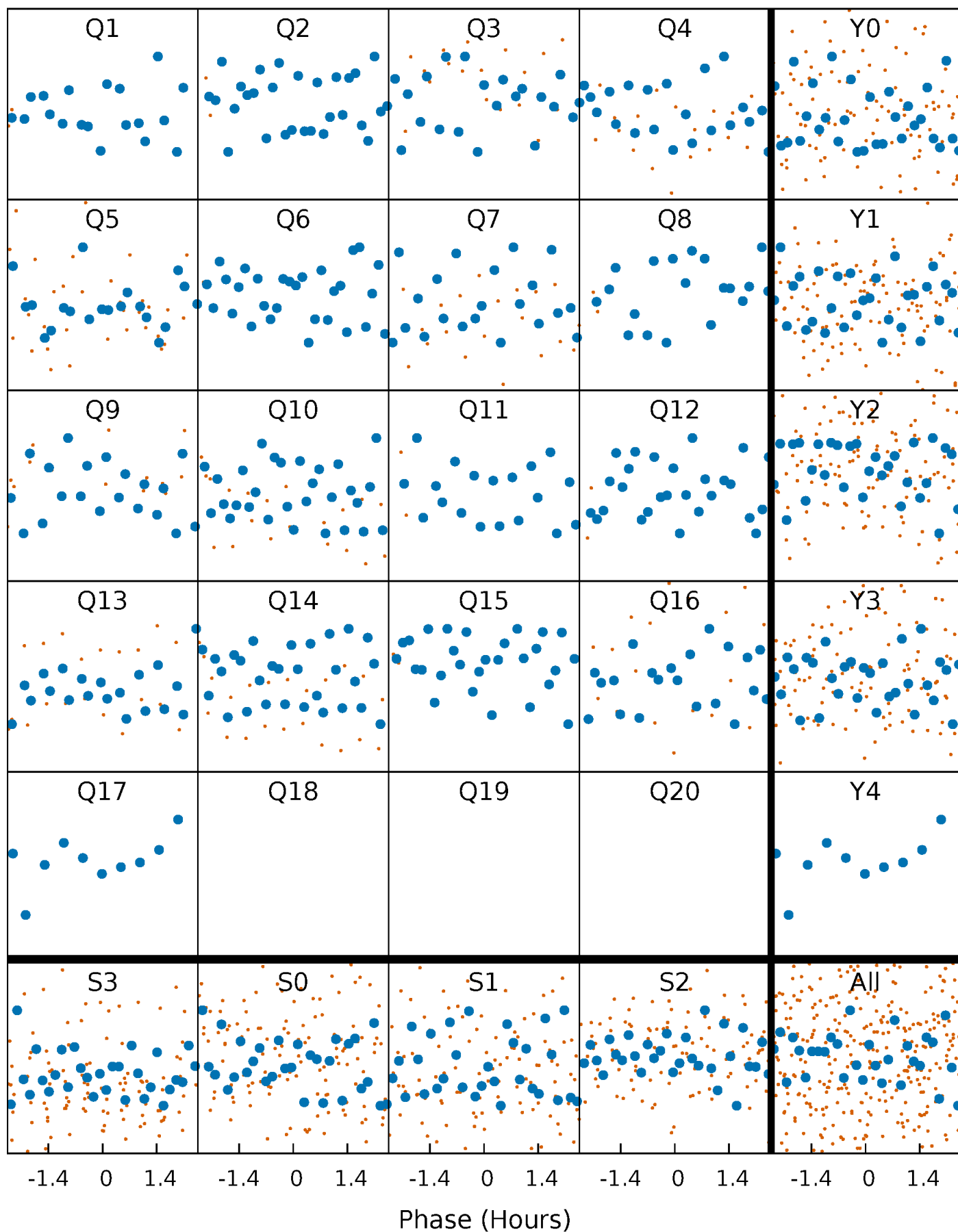


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



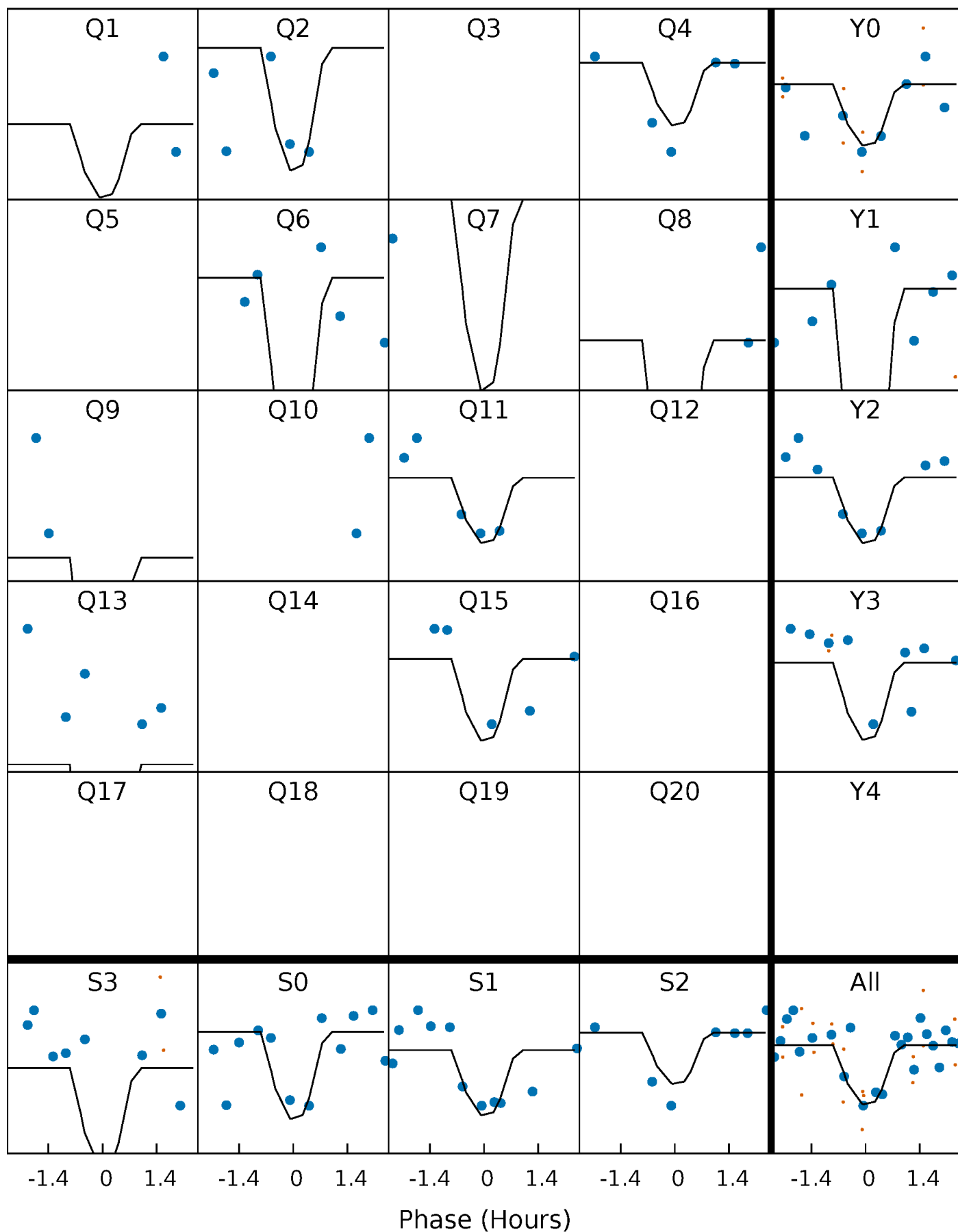
PDC Quarter-Phased Transit Curves

TCE 007282194-02 P= 26.711261 Days $T_0=137.066151$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007282194-02 P= 26.711261 Days $T_0=137.066151$ (BKJD)

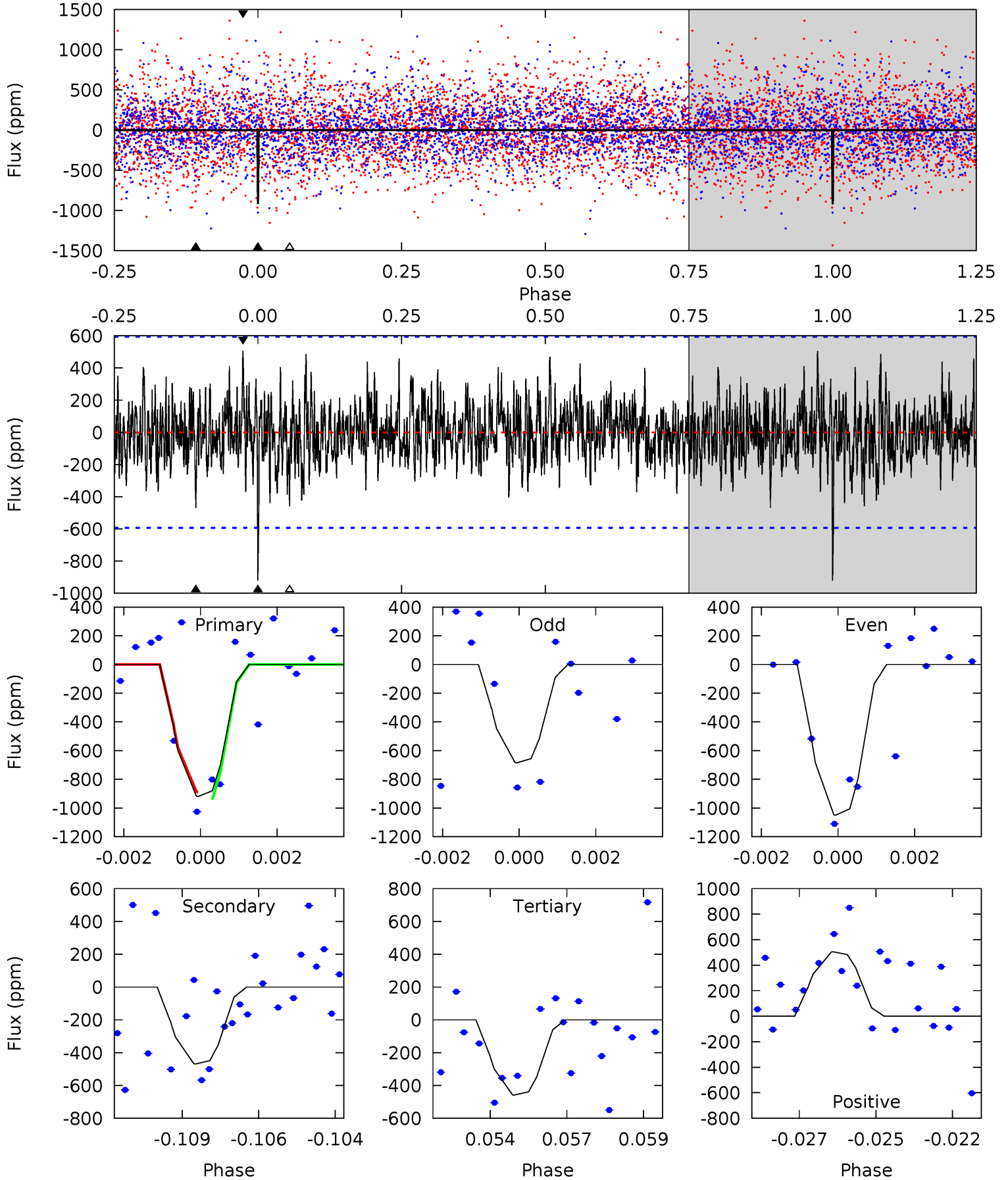


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007282194-02, P = 26.711261 Days, E = 110.354890 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.19	4.18	4.09	4.50	5.29	3.03	1.30	4.11	3.70	0.09	-0.32	1.70	1.15	0.35	0.23



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007282194

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6096^{+181}_{-199}	$4.449^{+0.070}_{-0.210}$	$-0.180^{+0.300}_{-0.300}$	$0.992^{+0.317}_{-0.127}$	$1.007^{+0.156}_{-0.117}$	$1.453^{+0.430}_{-0.787}$
	+3%/-3%	+2%/-5%	+167%/-167%	+32%/-13%	+15%/-12%	+30%/-54%
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 007282194-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-469 ± 112	$4.98^{+3.98}_{-3.05}$	914^{+63}_{-51}	4431^{+2496}_{-820}	289^{+1853}_{-199}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

DV Centroid Data

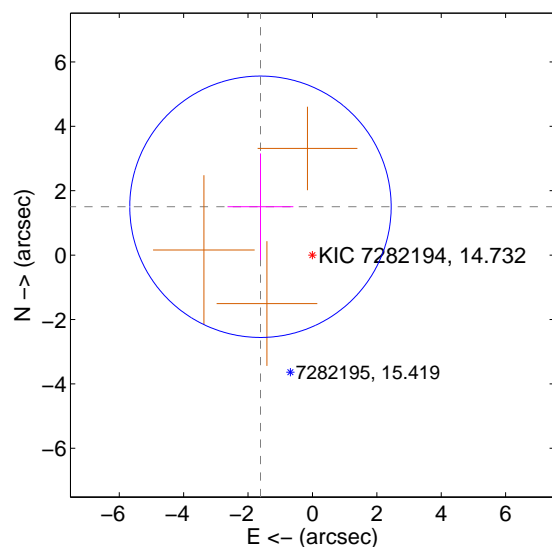
Supplemental centroid analysis for 007282194-02. Kepler magnitude: 14.73. Transit SNR 11.26

There are 0 quarters with good PRF difference image offsets

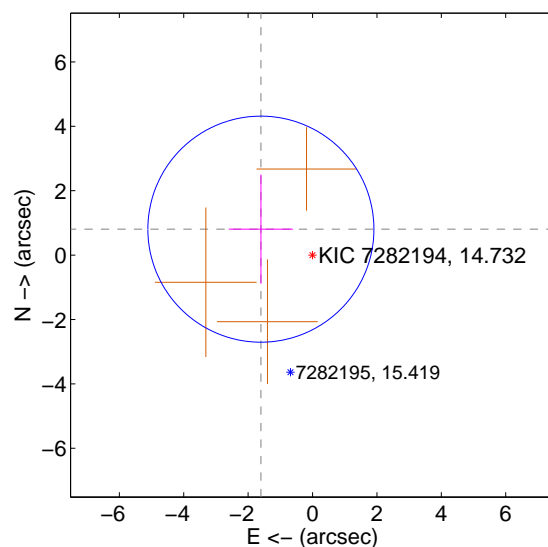
The direct PRF centroid is offset from the target star catalog position by about 1.00 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.205 ± 1.353	1.63	1.614 ± 1.022	1.501 ± 1.655
PRF-fit source offset from KIC position	1.795 ± 1.170	1.53	1.604 ± 0.994	0.805 ± 1.697
photometric centroid source offset	2.10 ± 0.30	6.90	0.49 ± 0.29	-2.04 ± 0.30

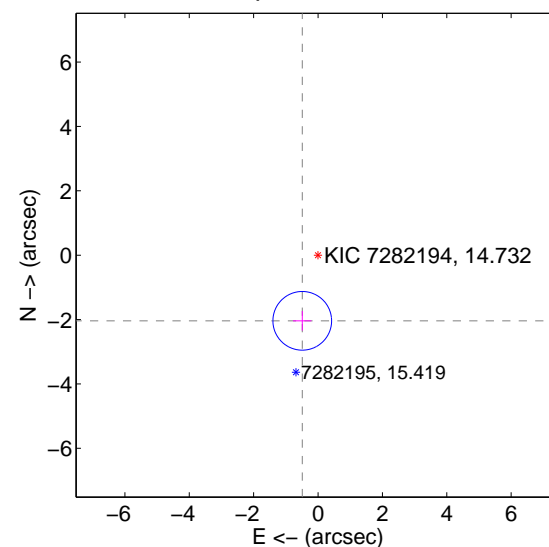
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

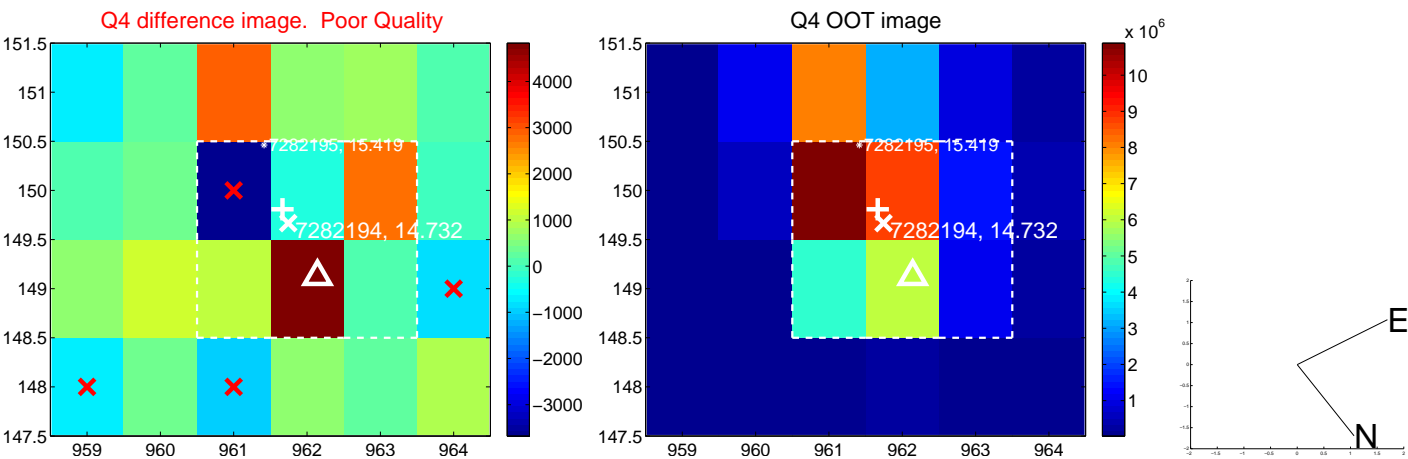
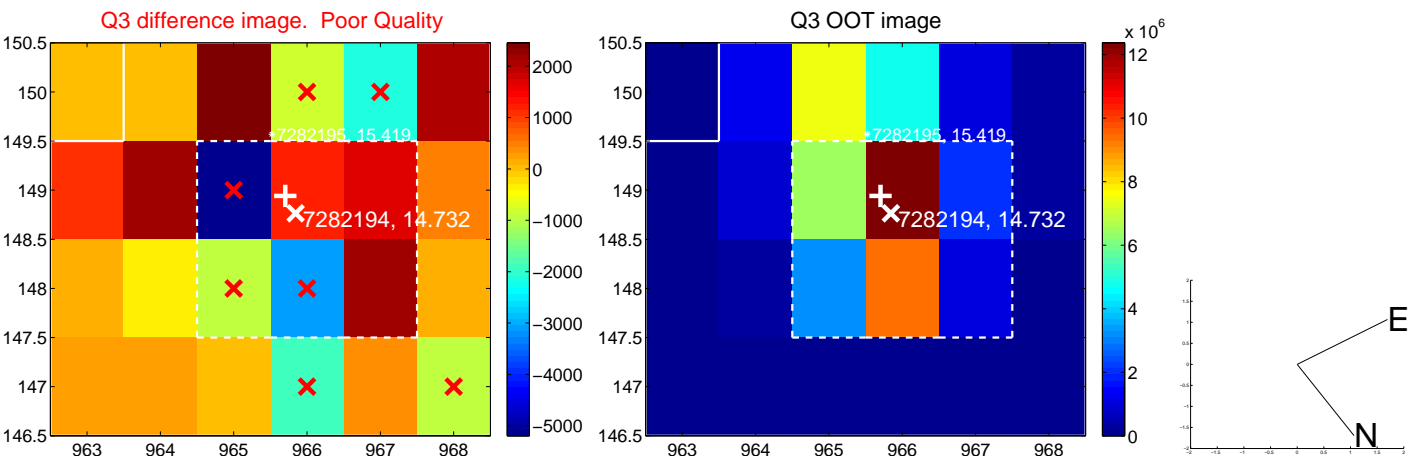
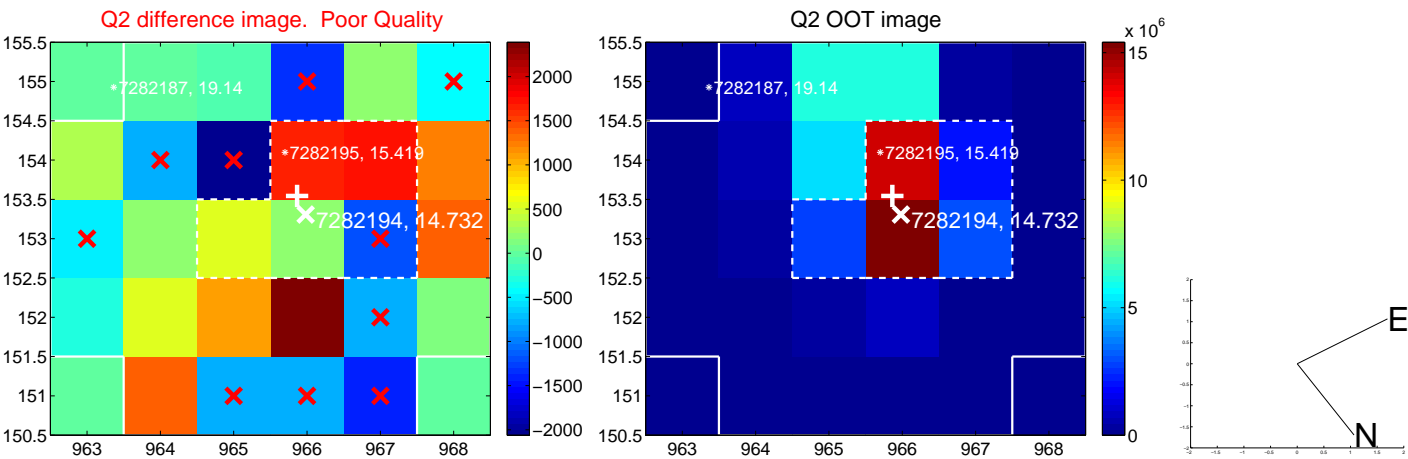
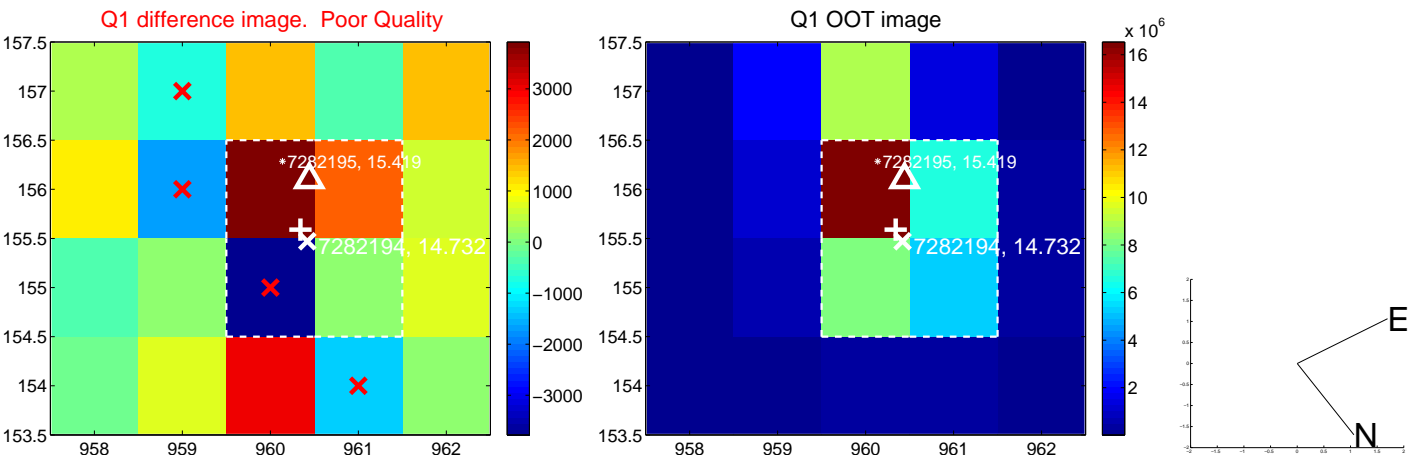


offset from photometric centroids

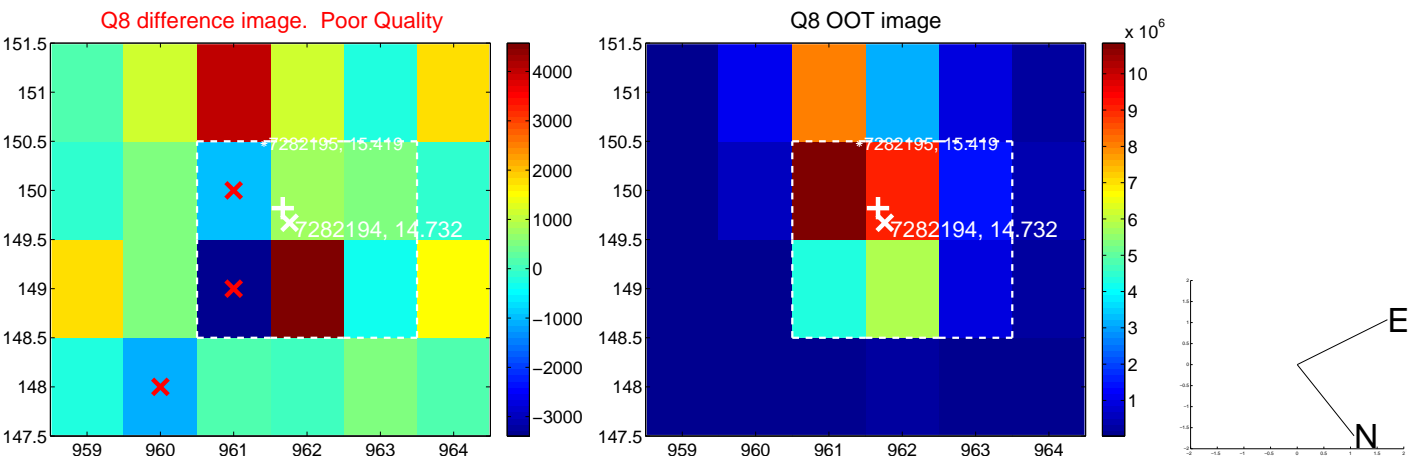
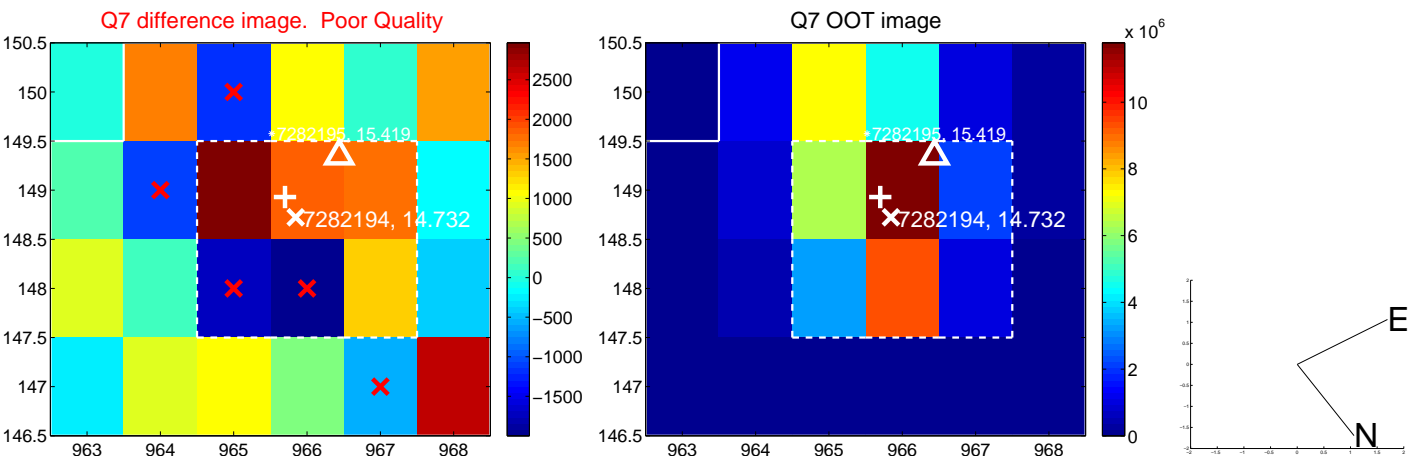
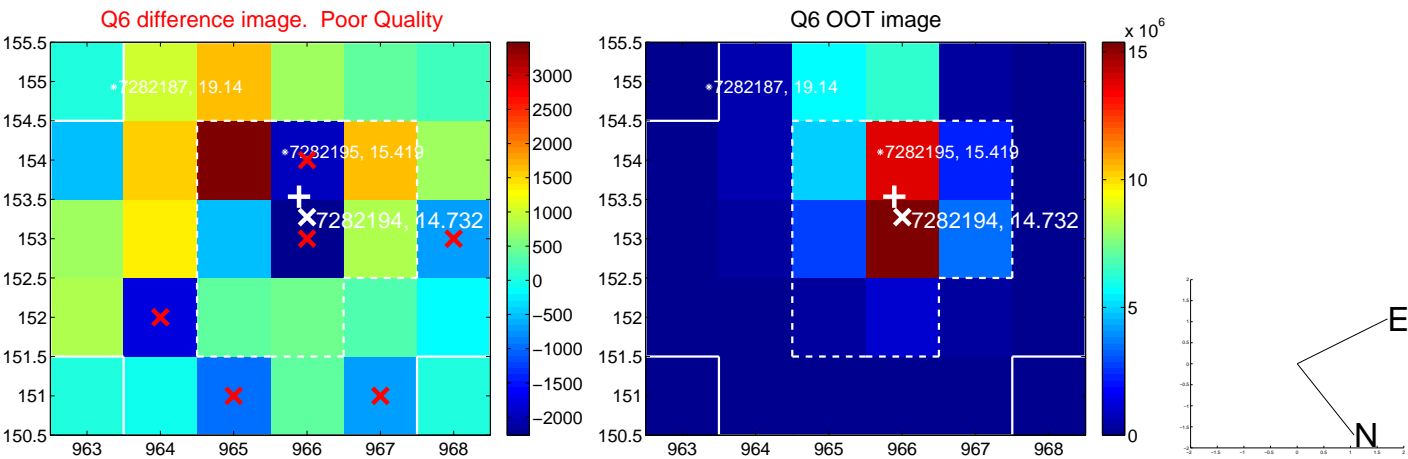
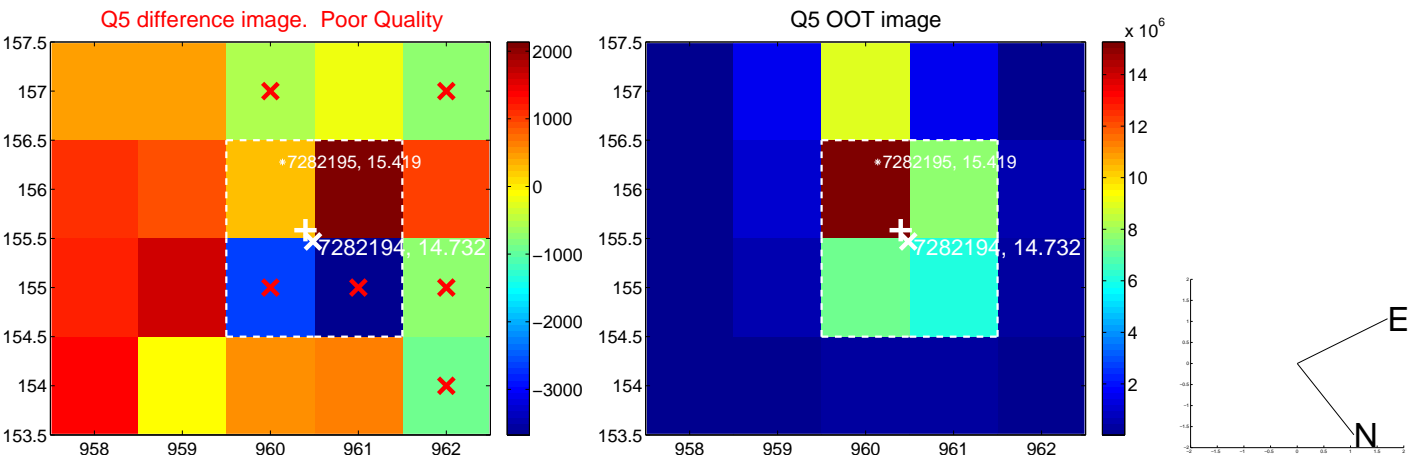


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

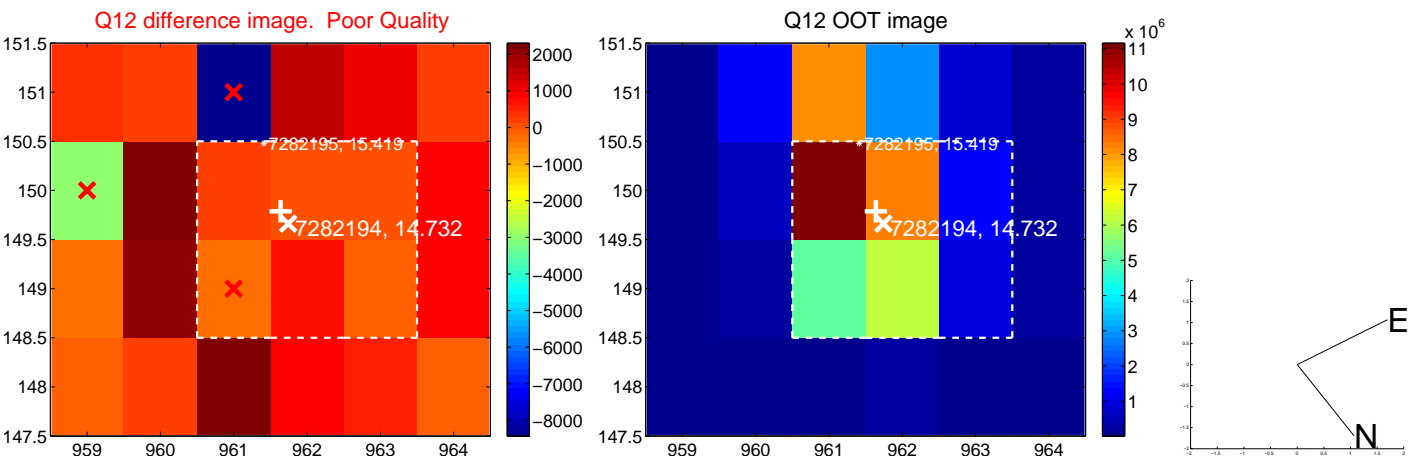
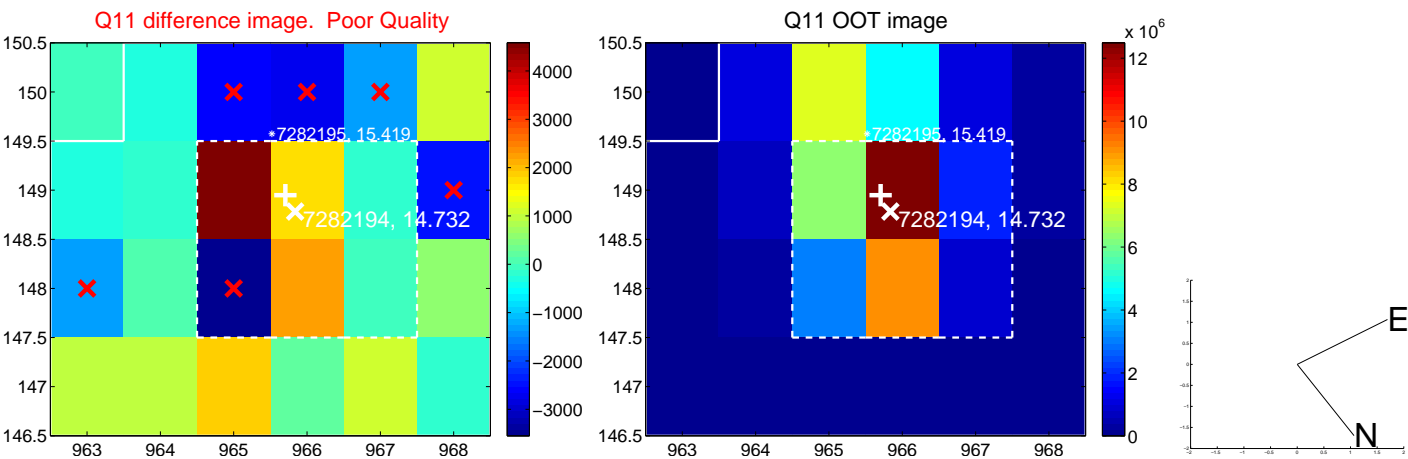
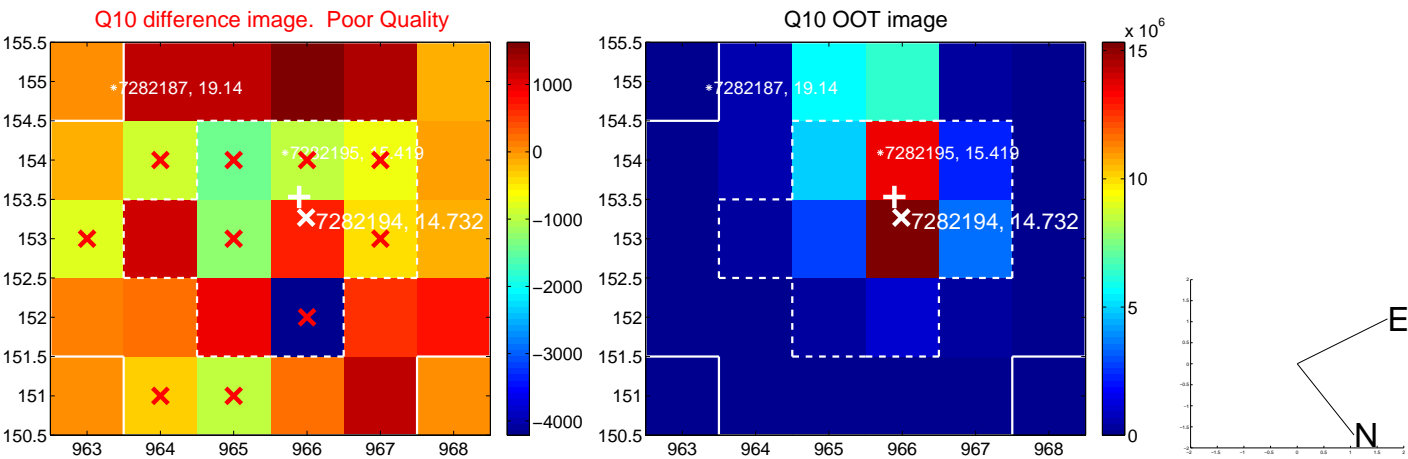
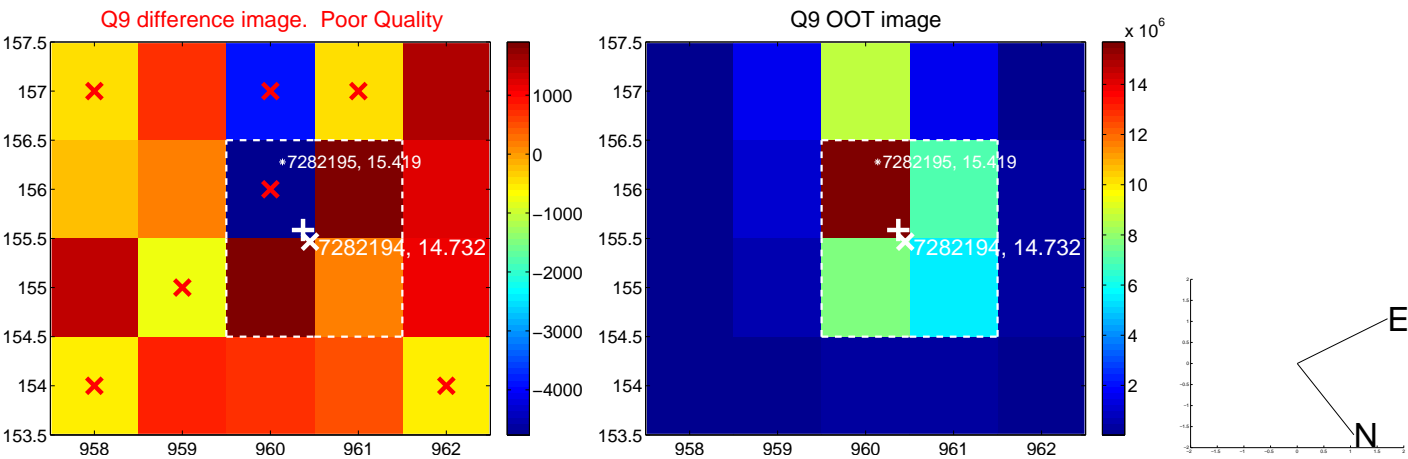
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



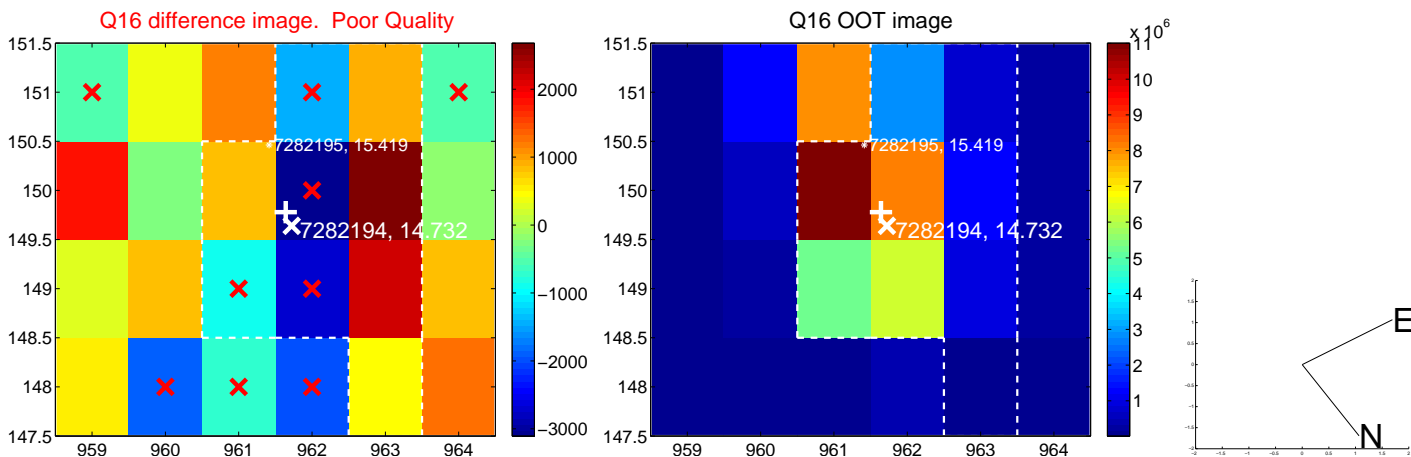
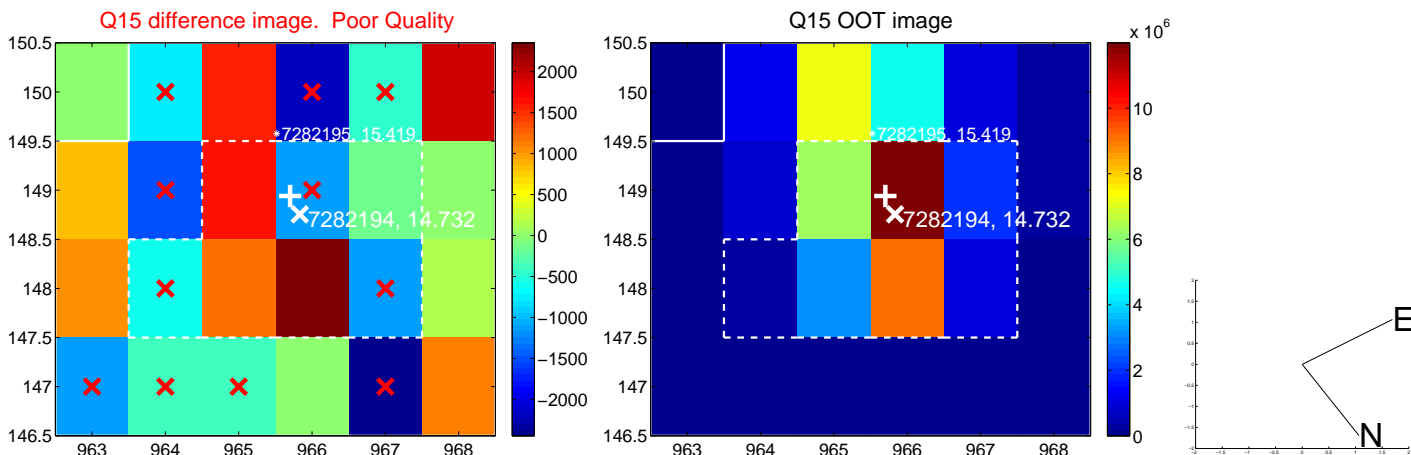
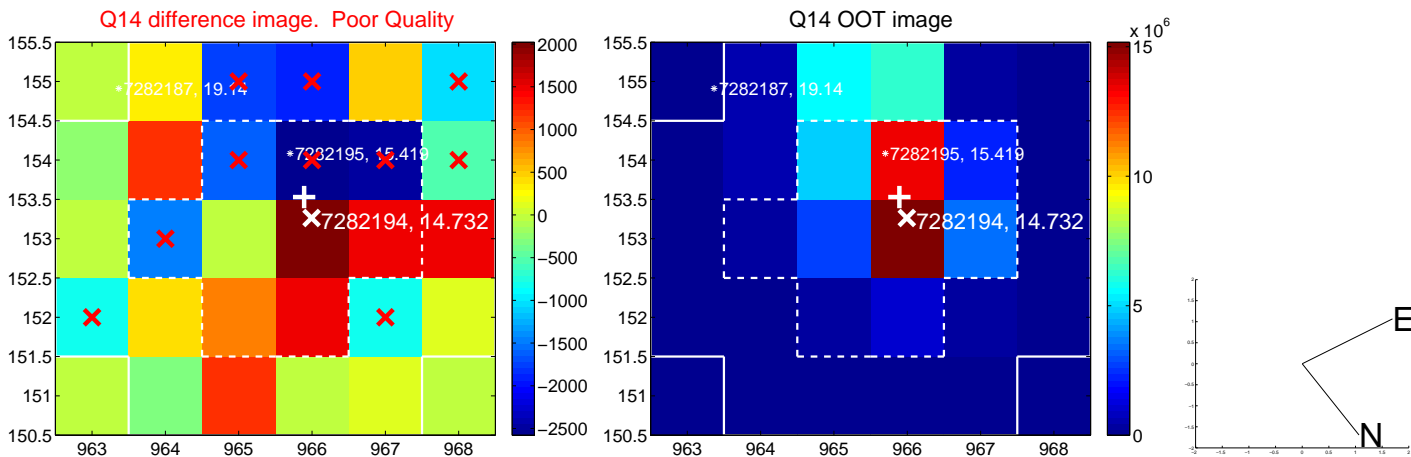
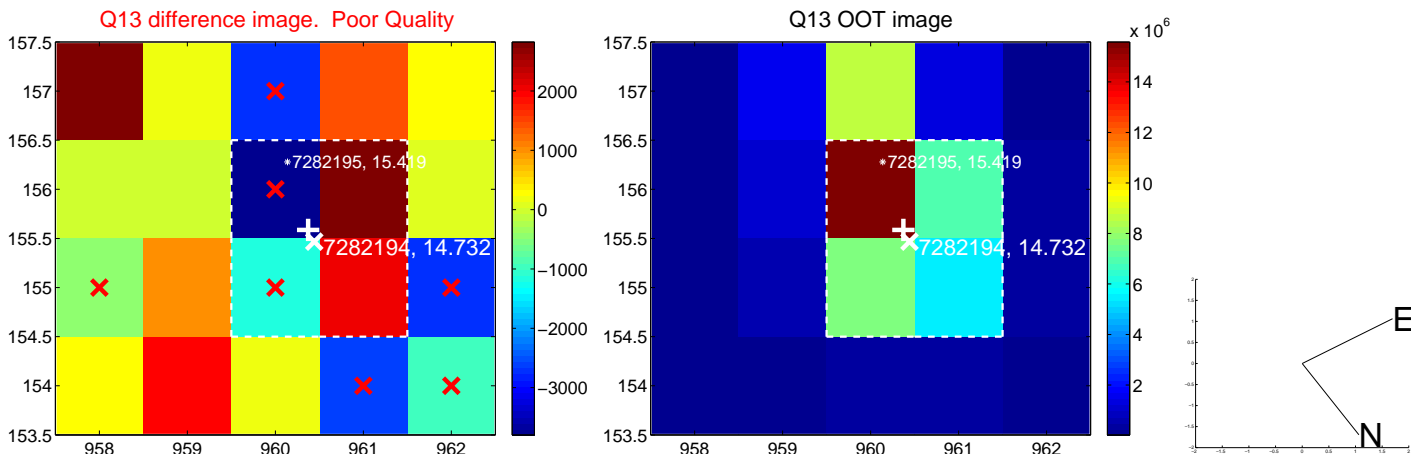
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



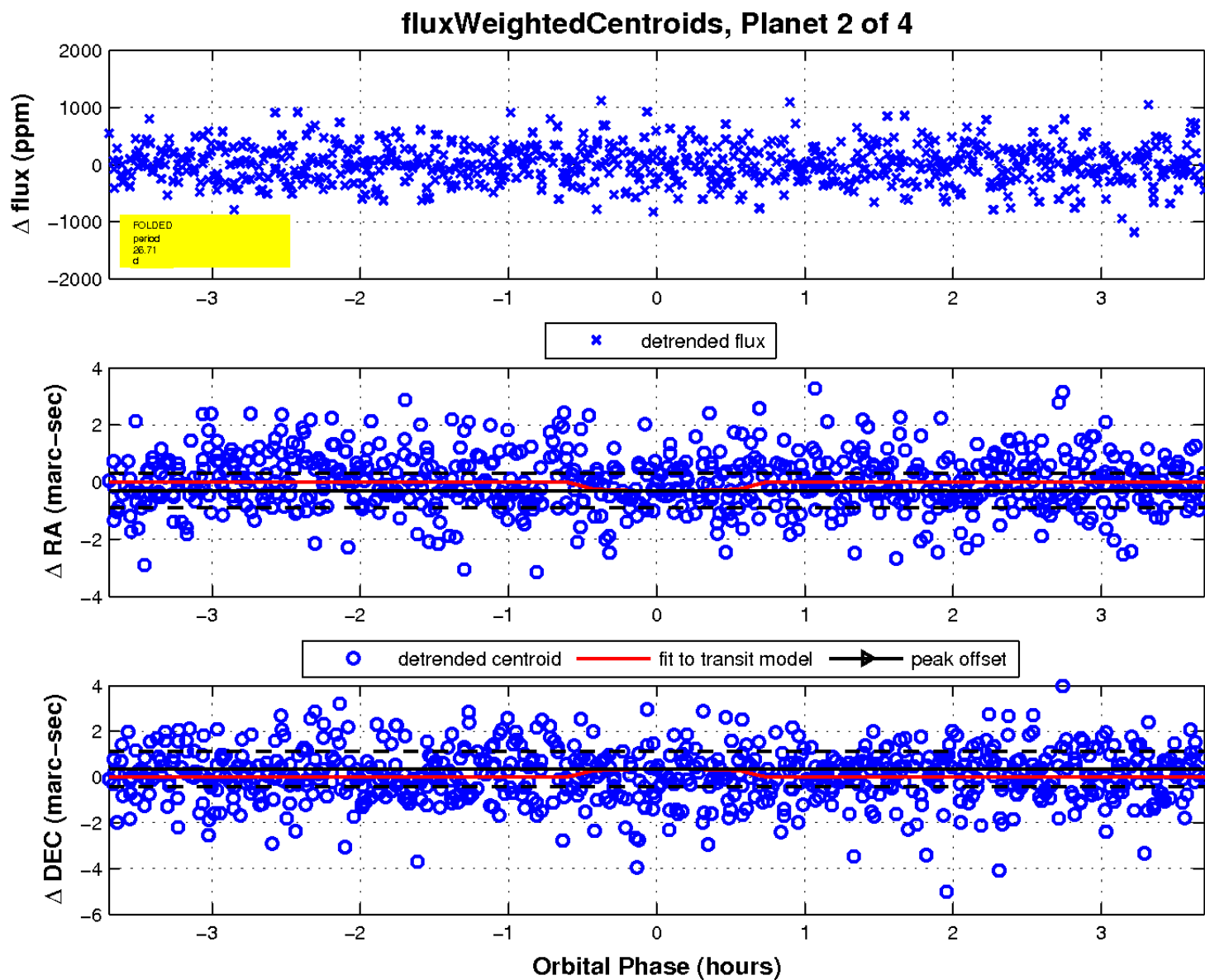
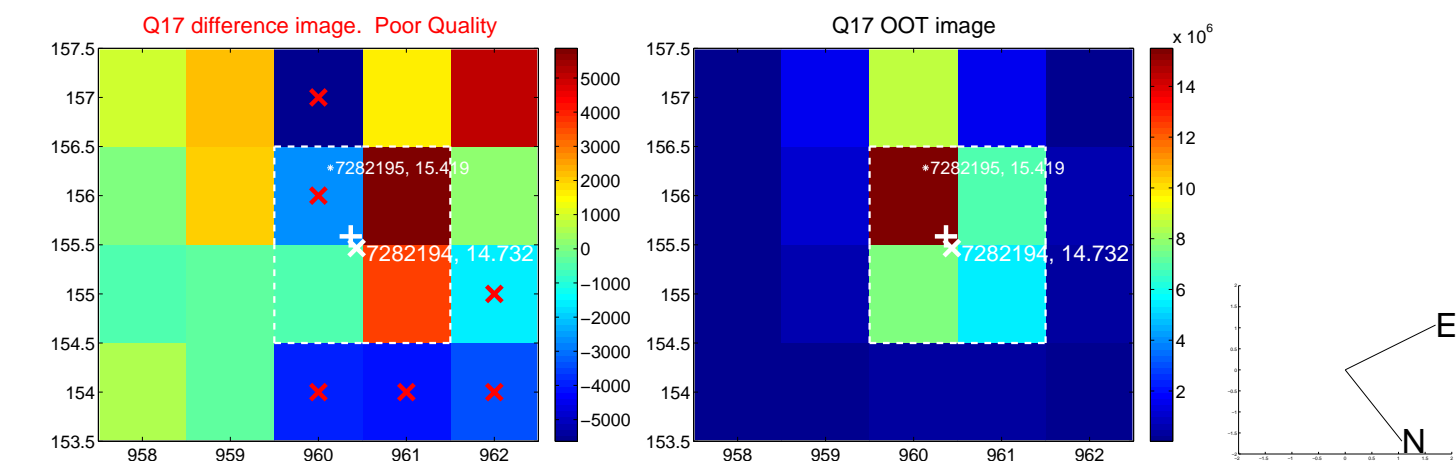
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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

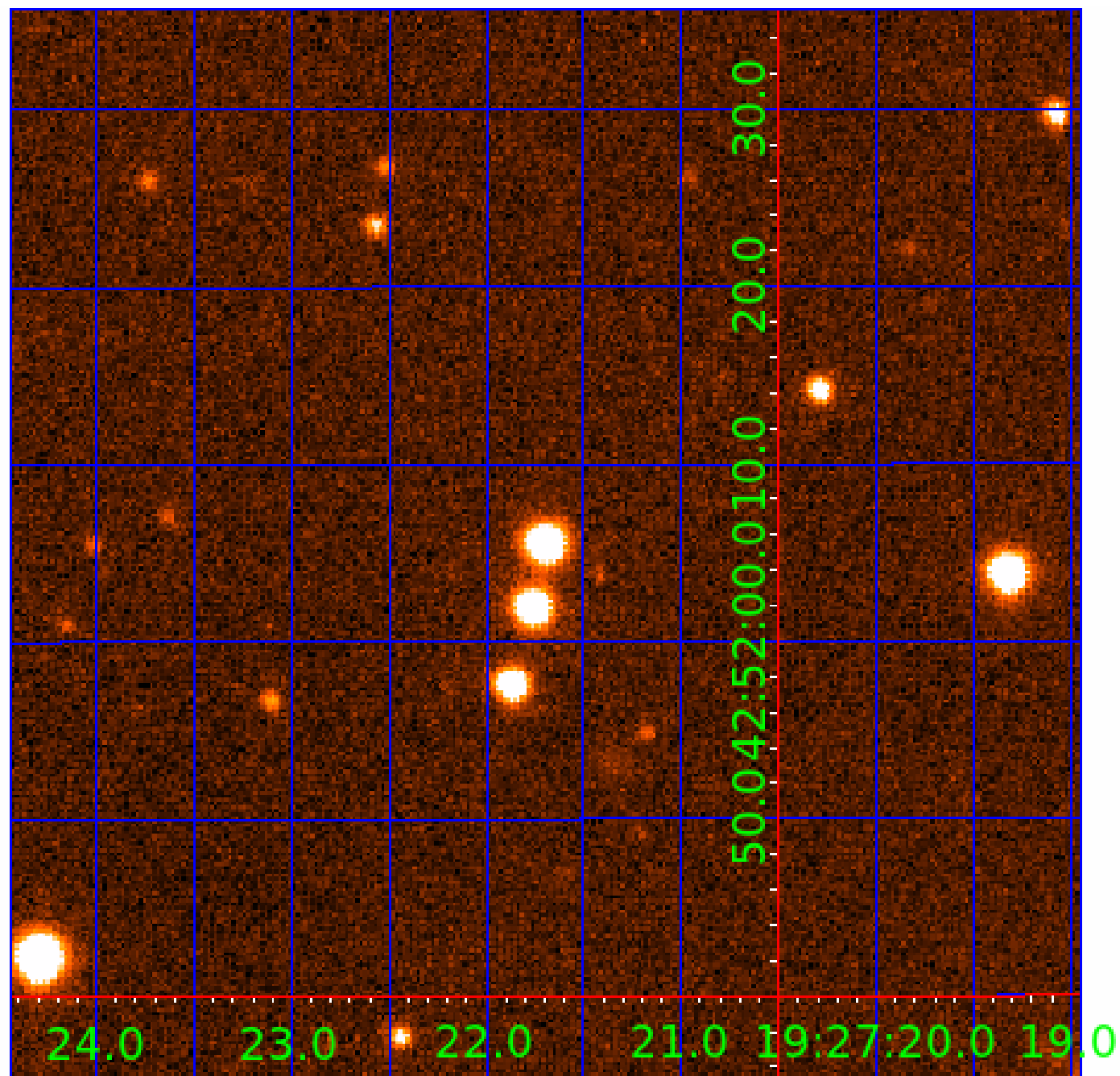


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007282194

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})
007282194-01	OBS	No	0.566766	131.827695	19.0	3.993	10.1	5.7	0.99	6096	0.44	6733.02
007282194-02	OBS	No	26.711261	137.066151	1004.9	1.233	11.1	11.3	0.99	6096	3.20	39.55
007282194-03	OBS	No	23.838315	143.501262	439.2	4.306	9.7	9.9	0.99	6096	2.30	46.03
007282194-04	OBS	No	31.636510	156.020193	620.3	0.919	10.3	8.1	0.99	6096	2.55	31.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007282194-01	OBS	FP	0.00	1	0	1	1	LPP_DV—CENT_KIC_POS—HALO_GHOST—EPHEM_MATCH
007282194-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007282194-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
007282194-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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

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

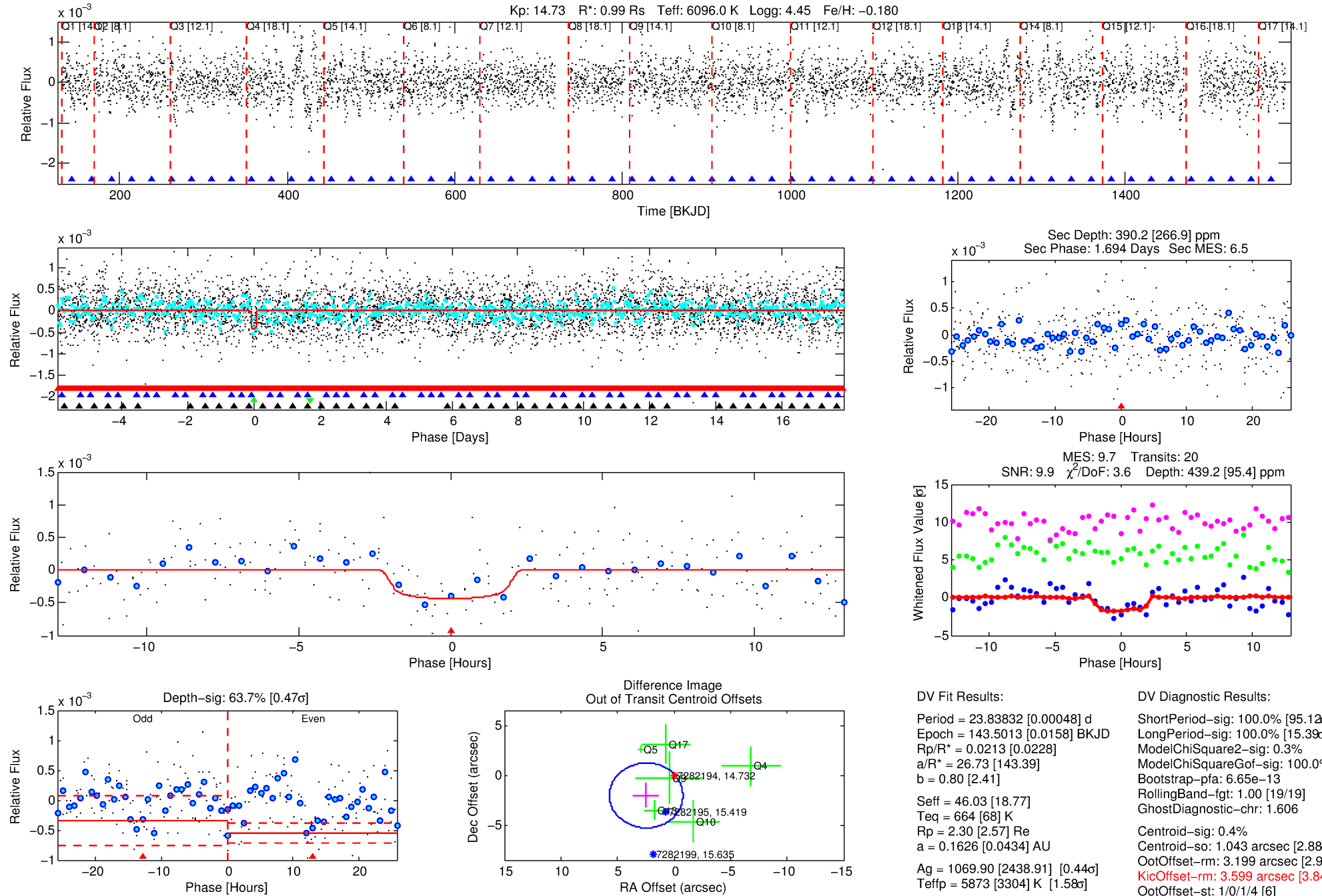
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007282194-03

No Significant Match Found

DV One-Page Summary

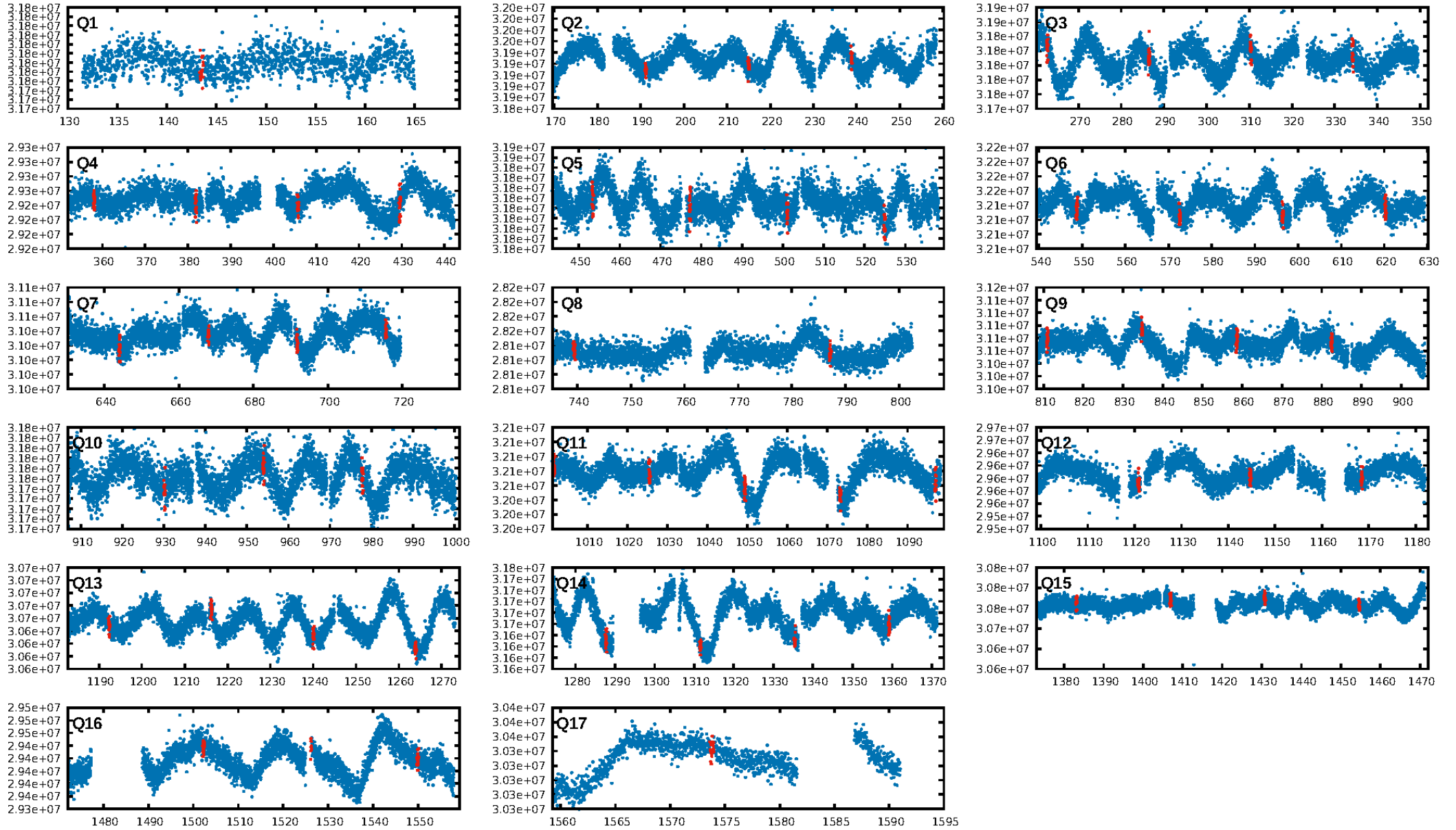
KIC: 7282194 Candidate: 3 of 4 Period: 23.838 d



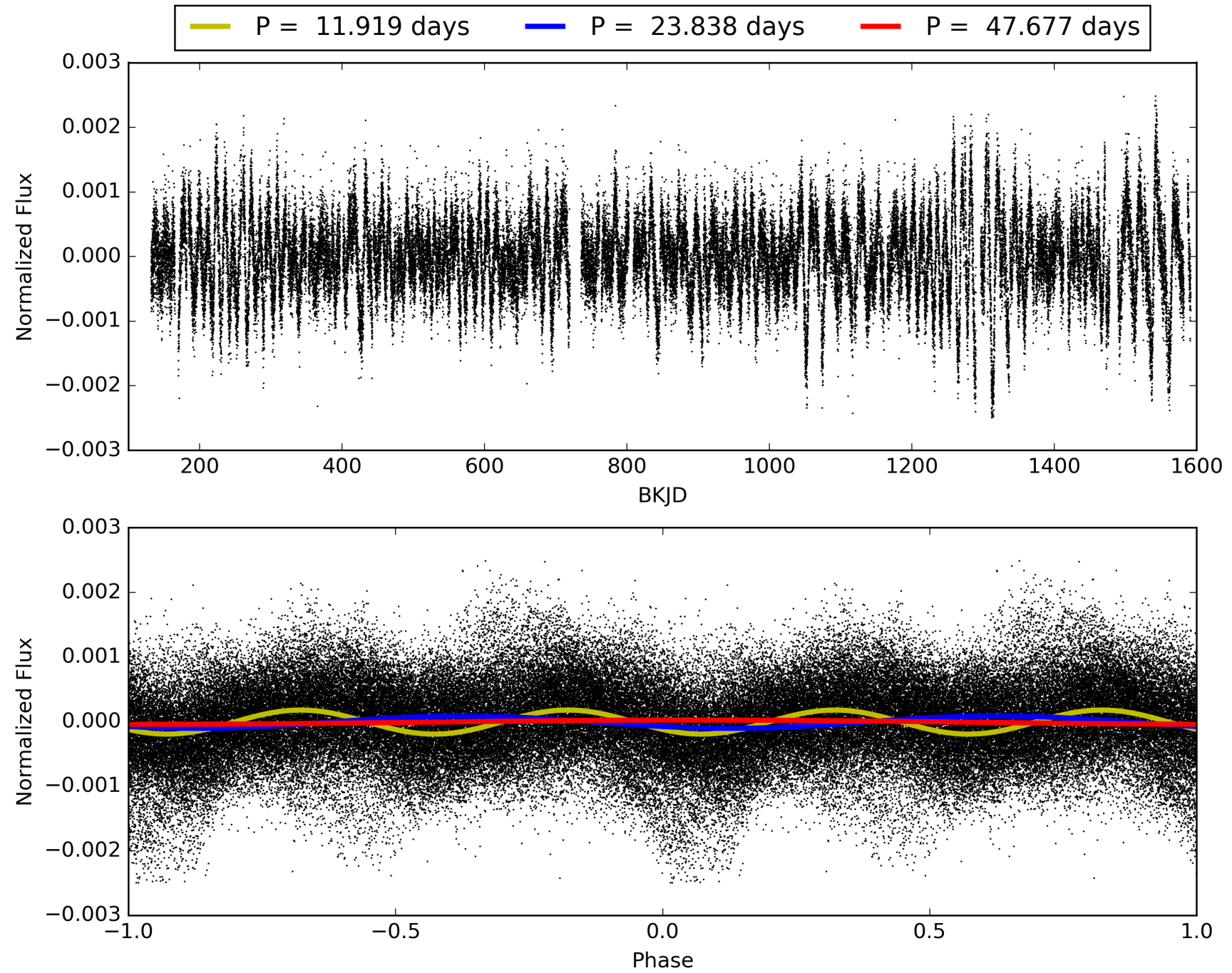
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:17:04 Z

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

TCE 007282194-03, PDC Light Curves

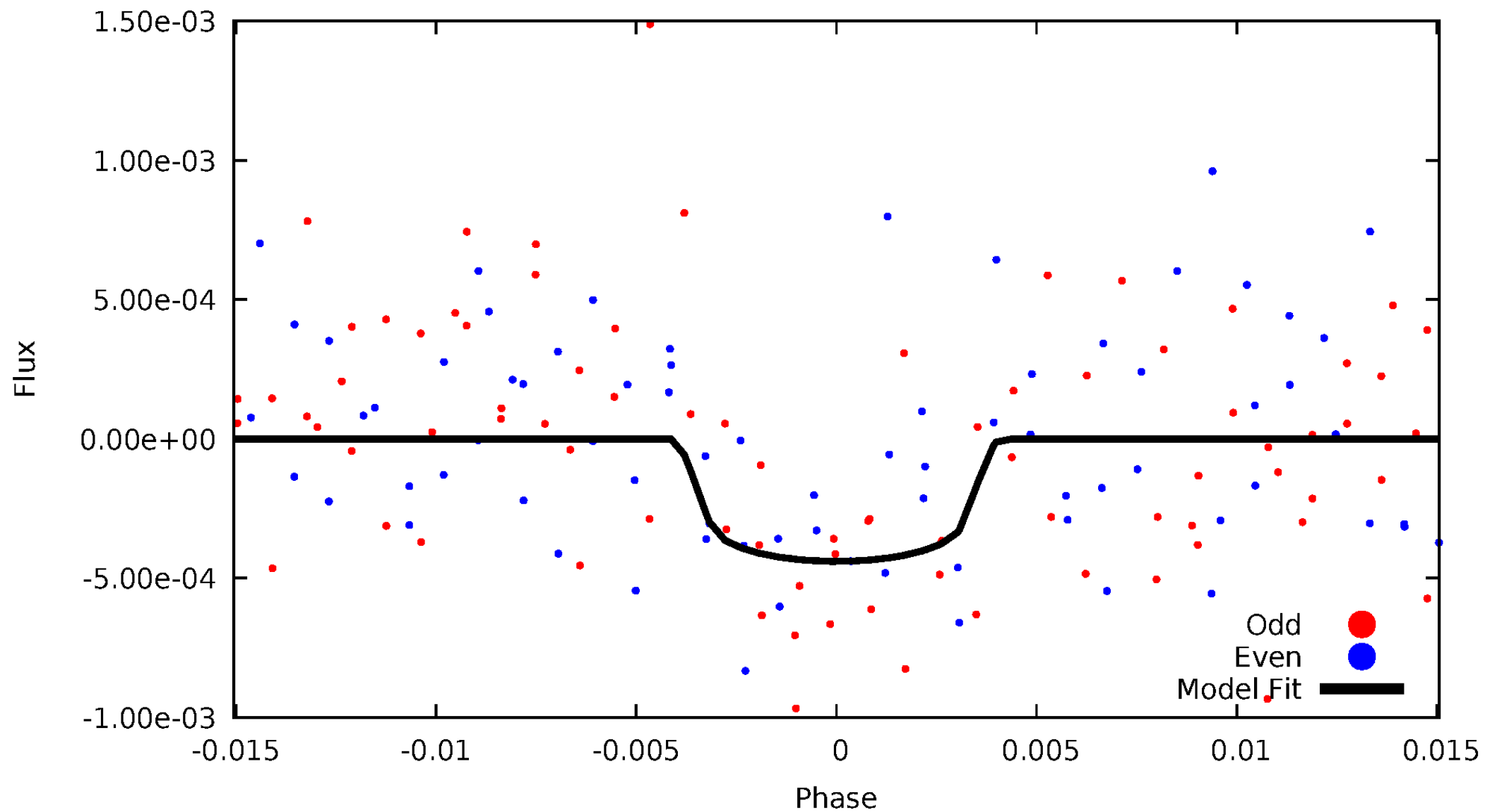


TCE 007282194-03



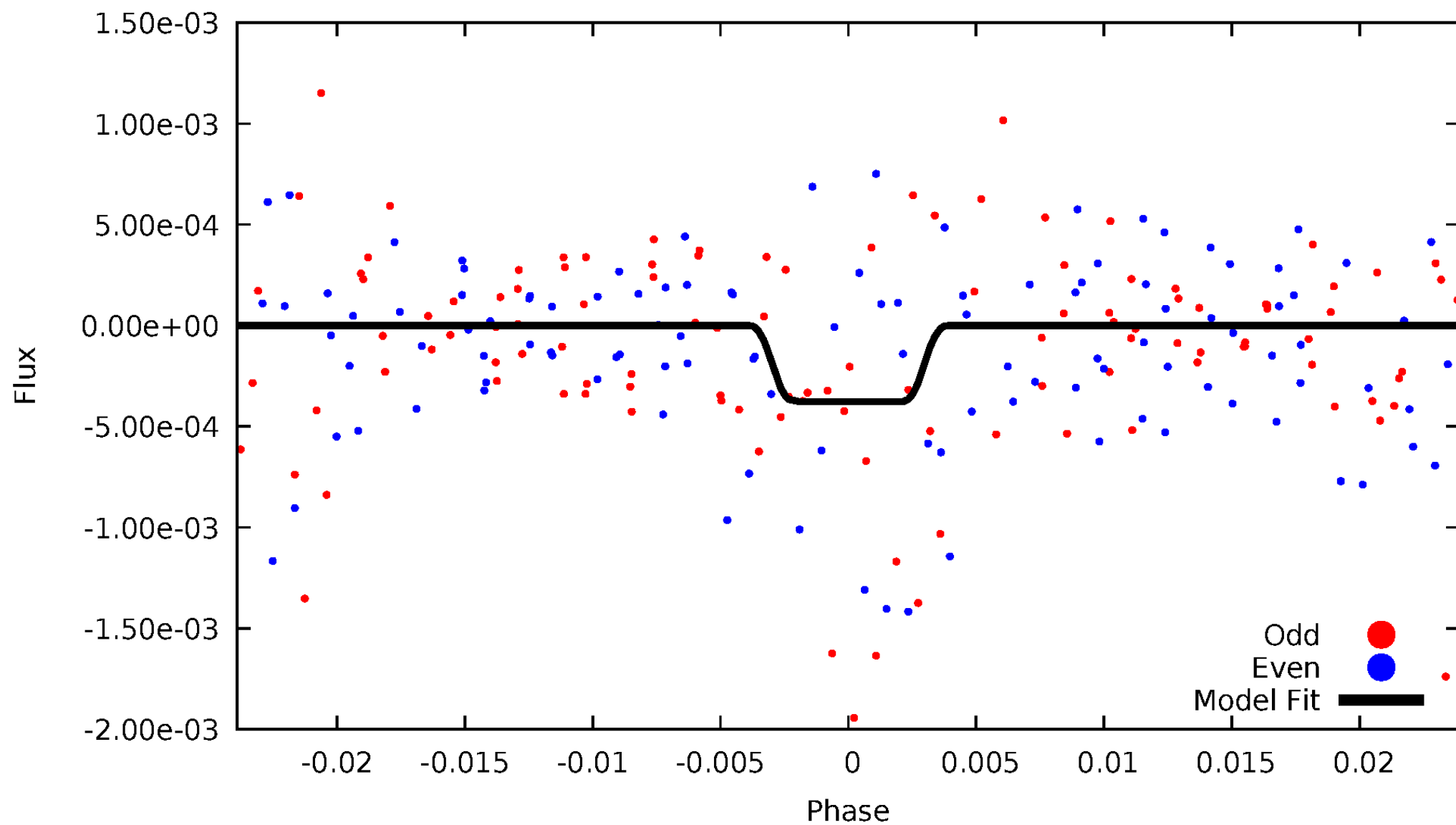
DV Odd/Even

TCE 007282194-03



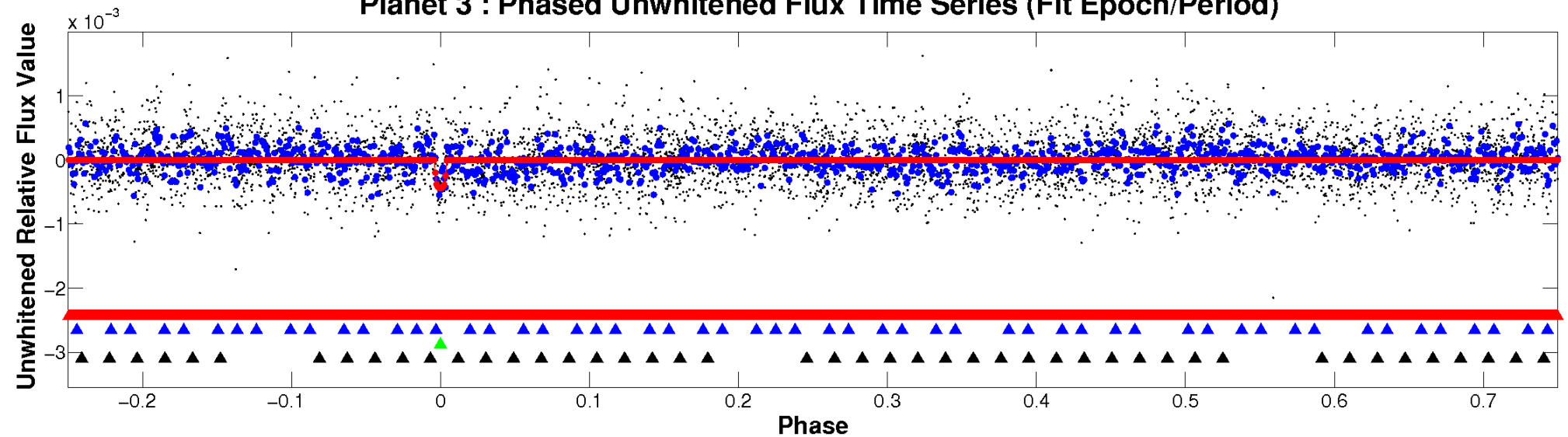
ALT Odd/Even

TCE 007282194-03

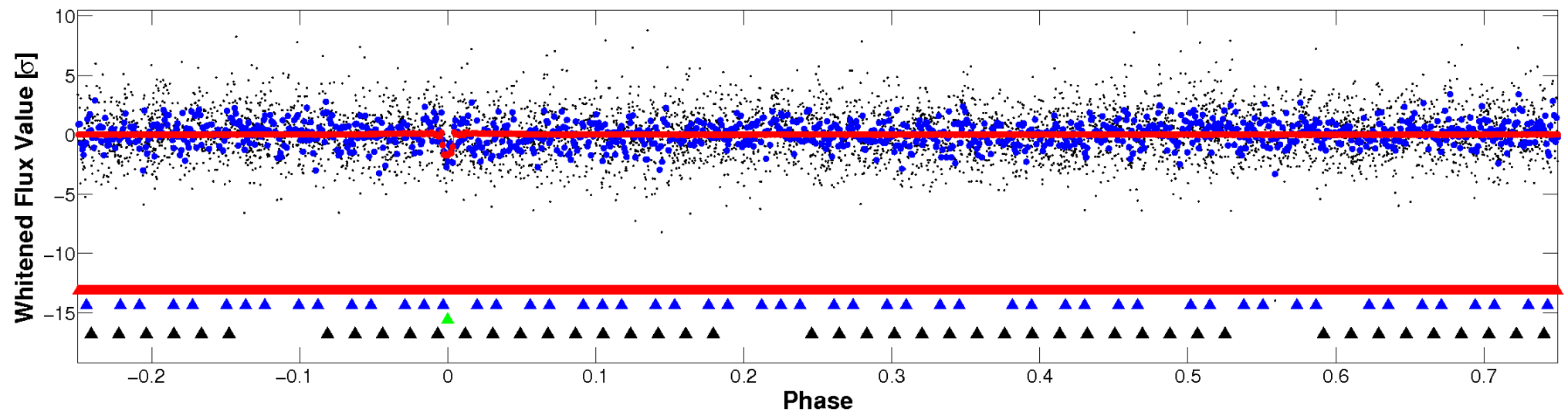


Non-Whitened Vs. Whitened Light Curve

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

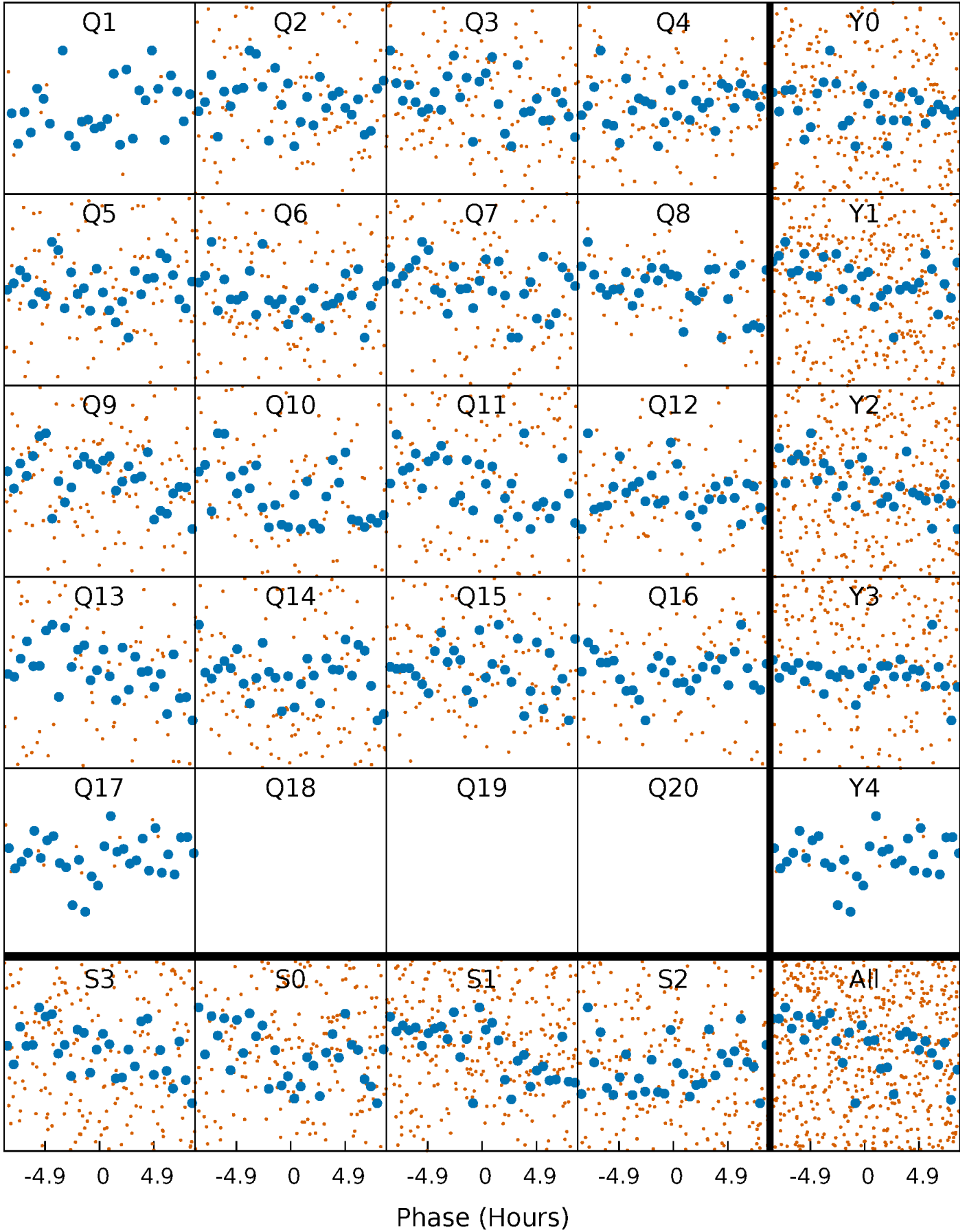


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



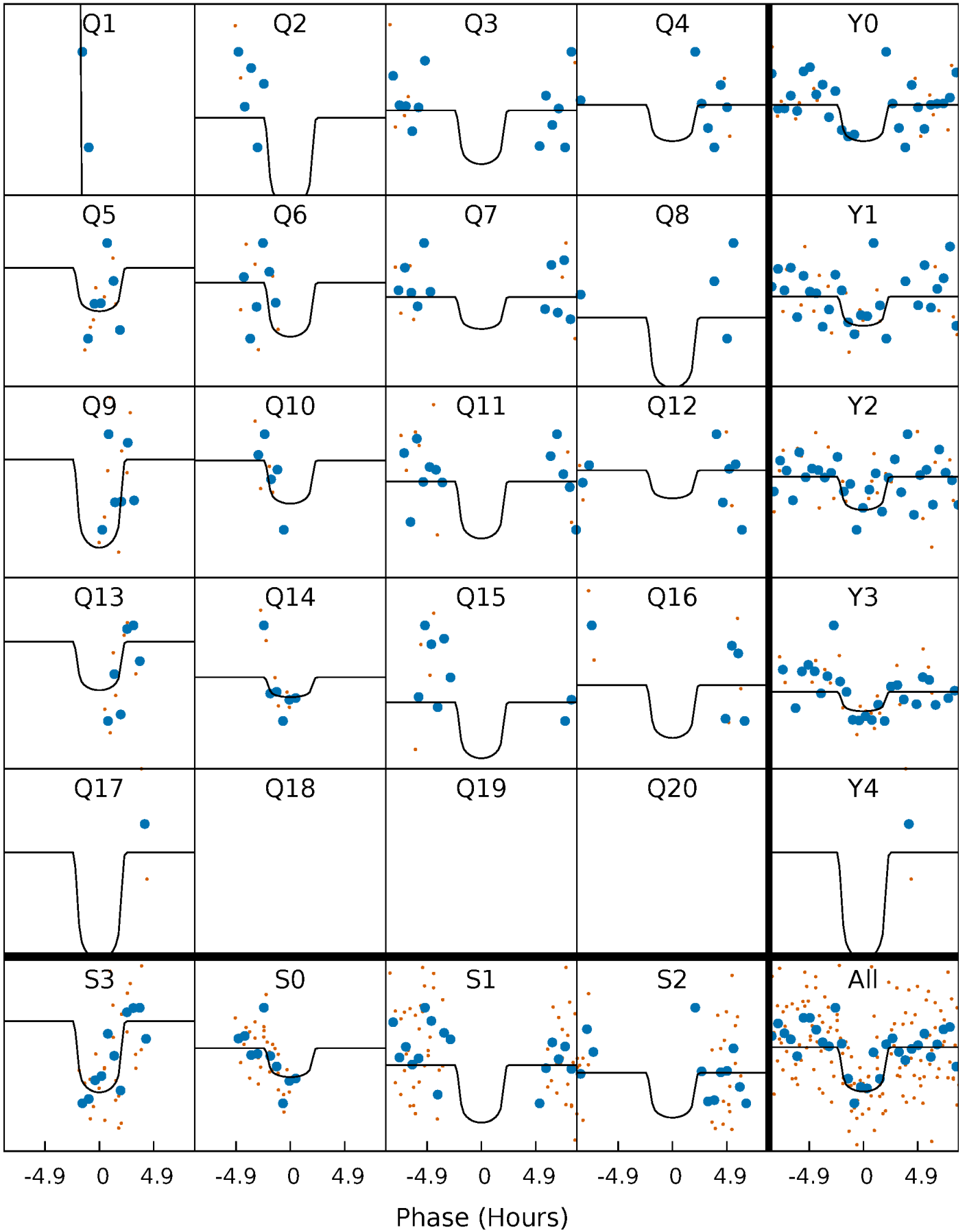
PDC Quarter-Phased Transit Curves

TCE 007282194-03 P= 23.838315 Days $T_0=143.501262$ (BKJD)



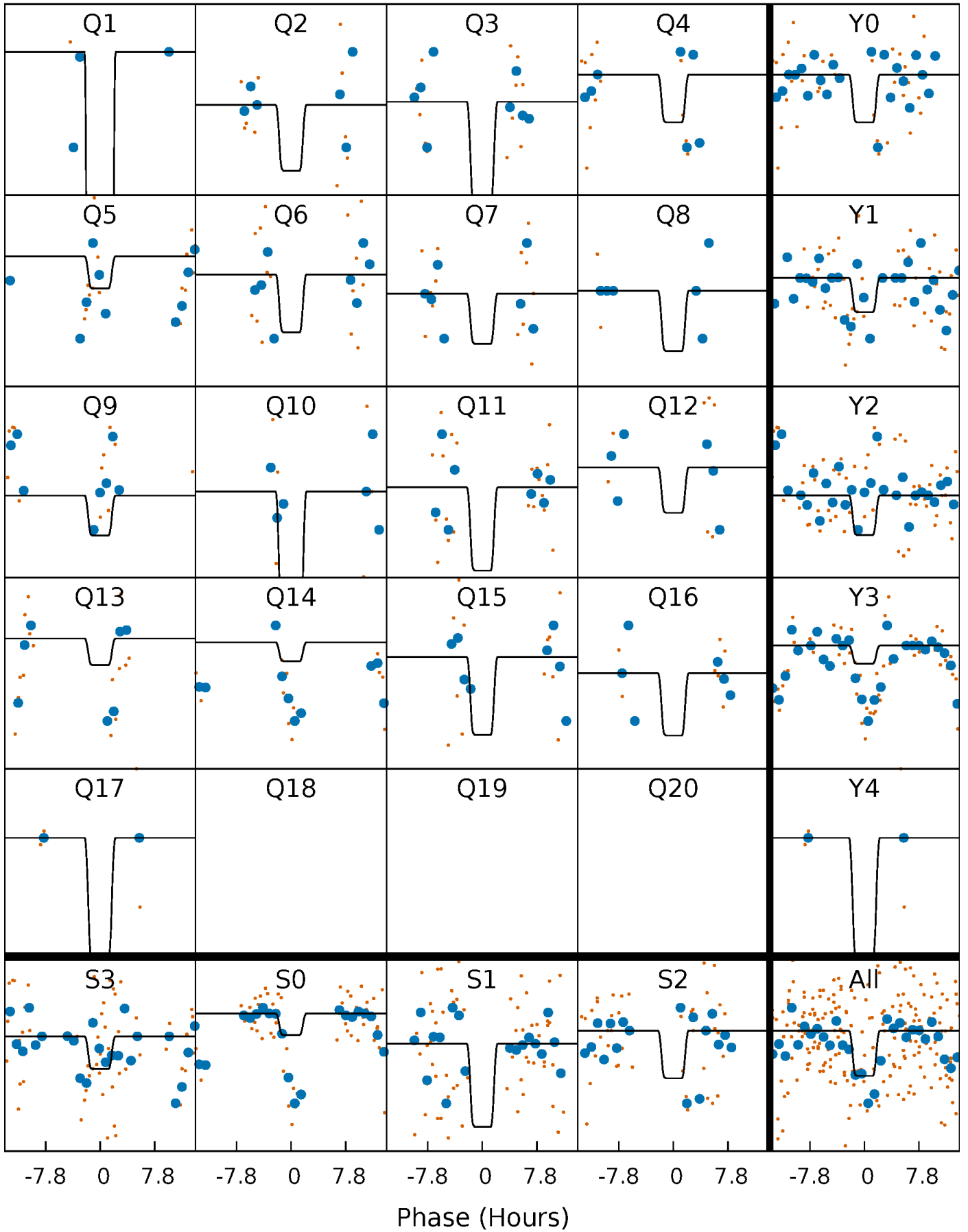
DV Quarter-Phased Transit Curves

TCE 007282194-03 P= 23.838315 Days $T_0=143.501262$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

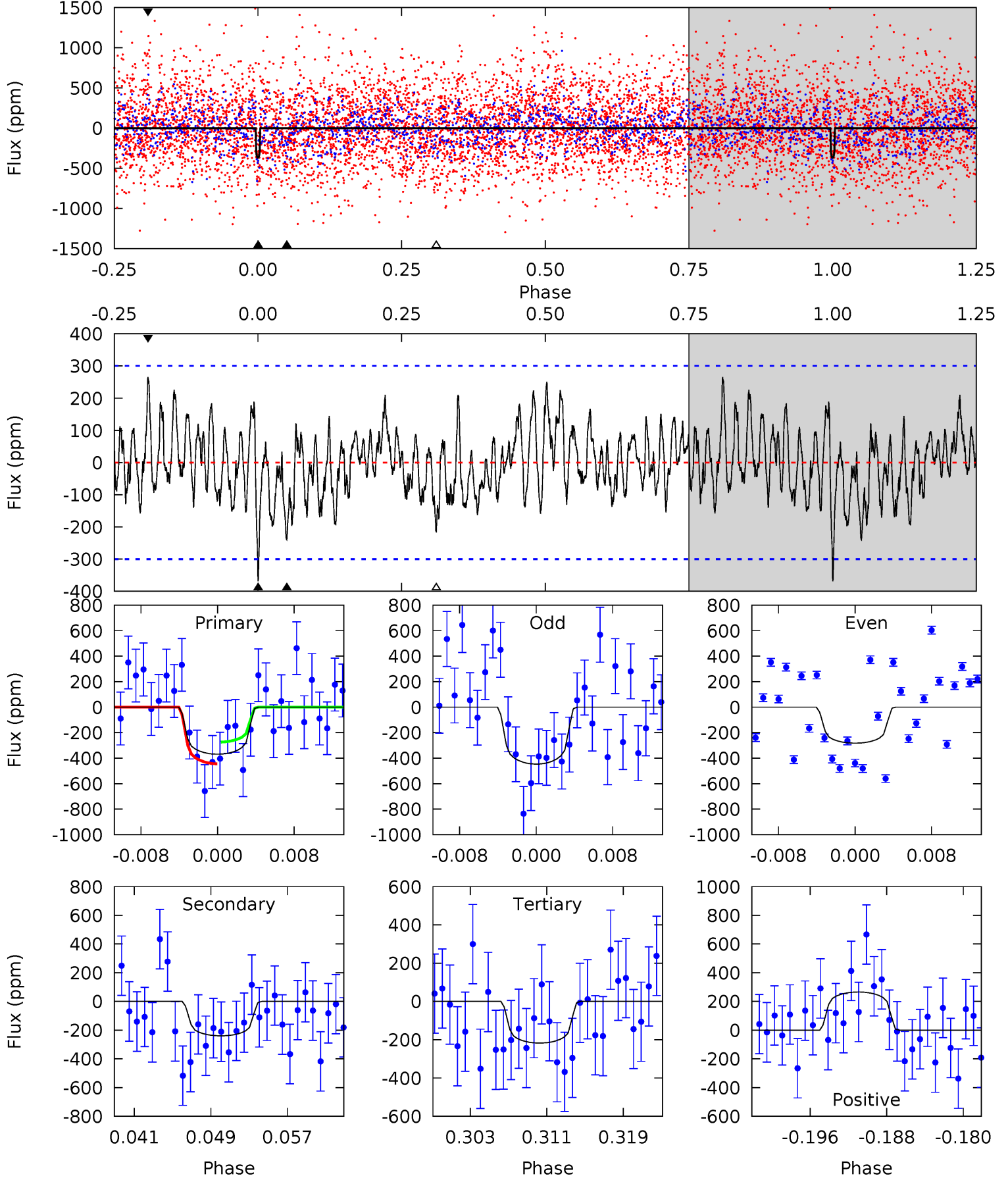
TCE 007282194-03 P= 23.835643 Days $T_0=143.602681$ (BKJD)



DV Model-Shift Uniqueness Test

007282194-03, P = 23.838315 Days, E = 119.662947 Days

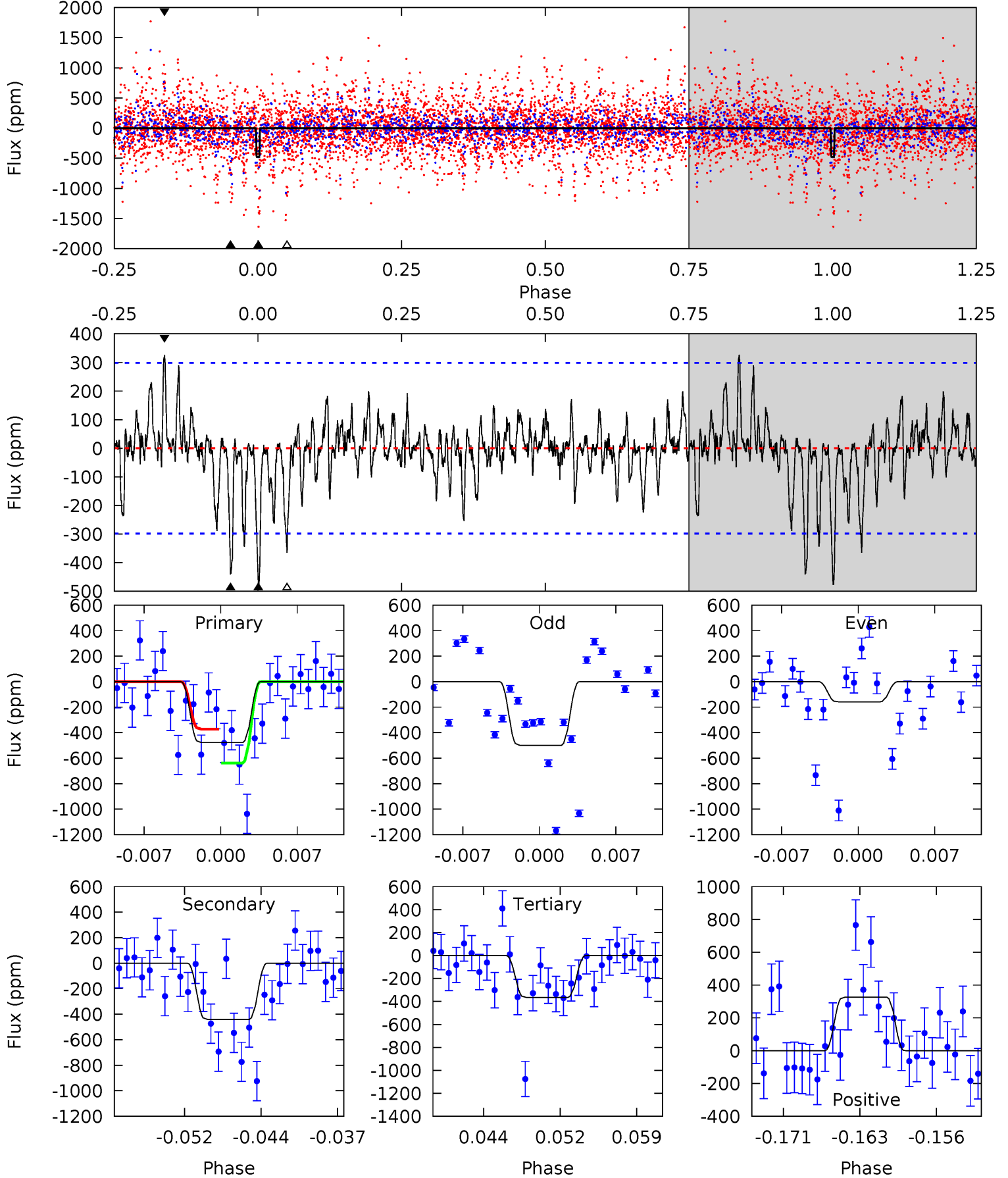
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.22	4.04	3.67	4.49	5.06	2.64	1.51	2.56	1.74	0.37	-0.45	1.38	0.83	0.42	1.44



Alt Model-Shift Uniqueness Test

007282194-03, P = 23.835643 Days, E = 119.767038 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.13	7.51	6.21	5.56	5.08	2.68	1.36	1.92	2.57	1.30	1.95	2.73	1.15	0.41	2.23



Stellar Parameters For KIC 007282194

	$T_{\text{eff}} (K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M (M_{\odot})$	$\rho_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6096^{+181}_{-199}	$4.449^{+0.070}_{-0.210}$	$-0.180^{+0.300}_{-0.300}$	$0.992^{+0.317}_{-0.127}$	$1.007^{+0.156}_{-0.117}$	$1.453^{+0.430}_{-0.787}$
	+3%/-3%	+2%/-5%	+167%/-167%	+32%/-13%	+15%/-12%	+30%/-54%
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 007282194-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-240 ± 59	$3.01^{+2.33}_{-1.91}$	944^{+72}_{-49}	4708^{+3019}_{-864}	347^{+2275}_{-232}
Alt.	-441 ± 59	$2.82^{+2.21}_{-1.80}$	948^{+69}_{-48}	5696^{+4476}_{-1296}	827^{+5225}_{-581}

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

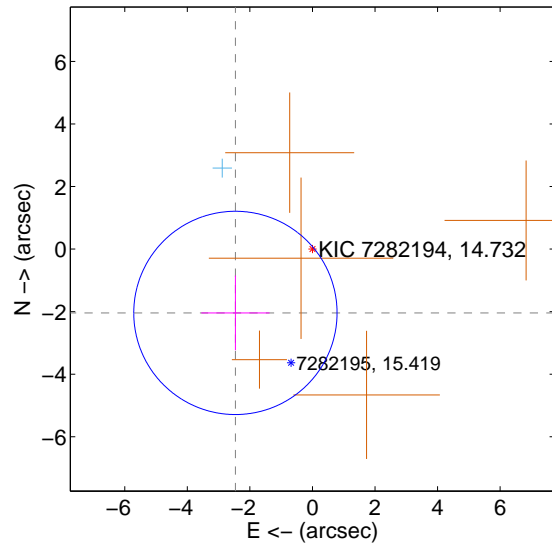
Supplemental centroid analysis for 007282194-03. Kepler magnitude: 14.73. Transit SNR 9.90

There are 1 quarters with good PRF difference image offsets

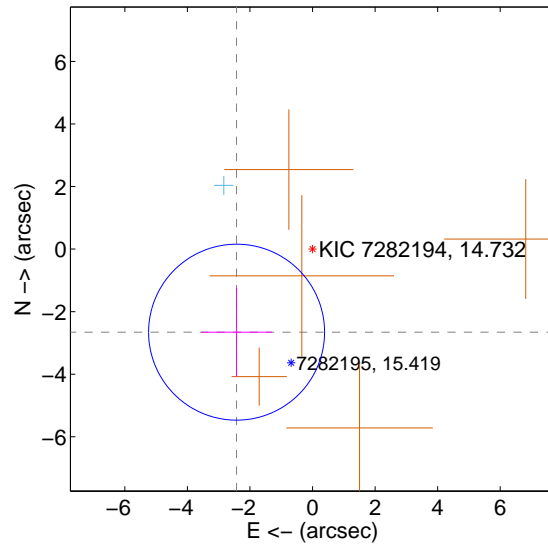
The direct PRF centroid is offset from the target star catalog position by about 0.54 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	3.199 ± 1.083	2.95	2.463 ± 1.092	-2.041 ± 1.197
PRF-fit source offset from KIC position	3.599 ± 0.938	3.84	2.428 ± 1.126	-2.657 ± 1.428
photometric centroid source offset	1.04 ± 0.36	2.88	0.03 ± 0.32	-1.04 ± 0.36

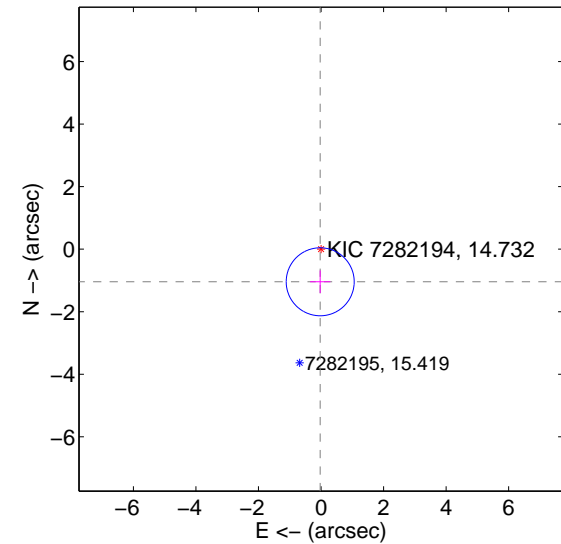
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

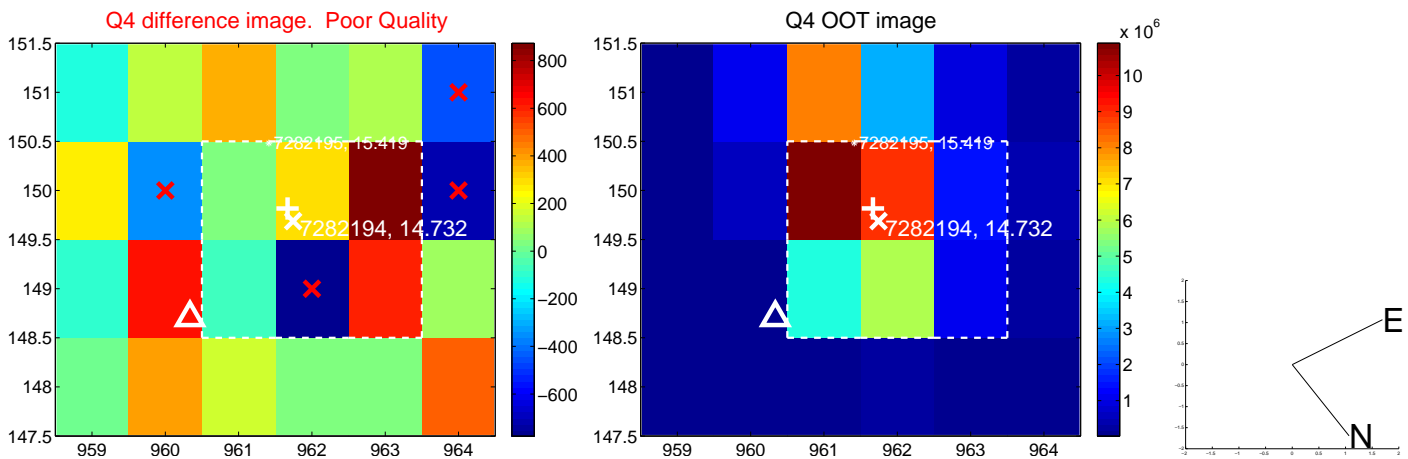
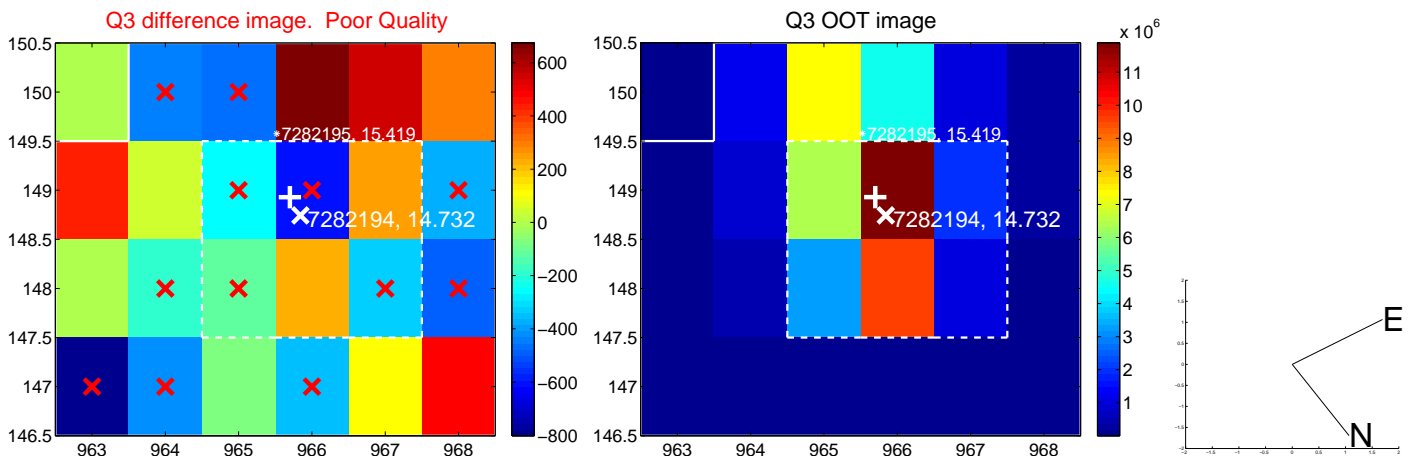
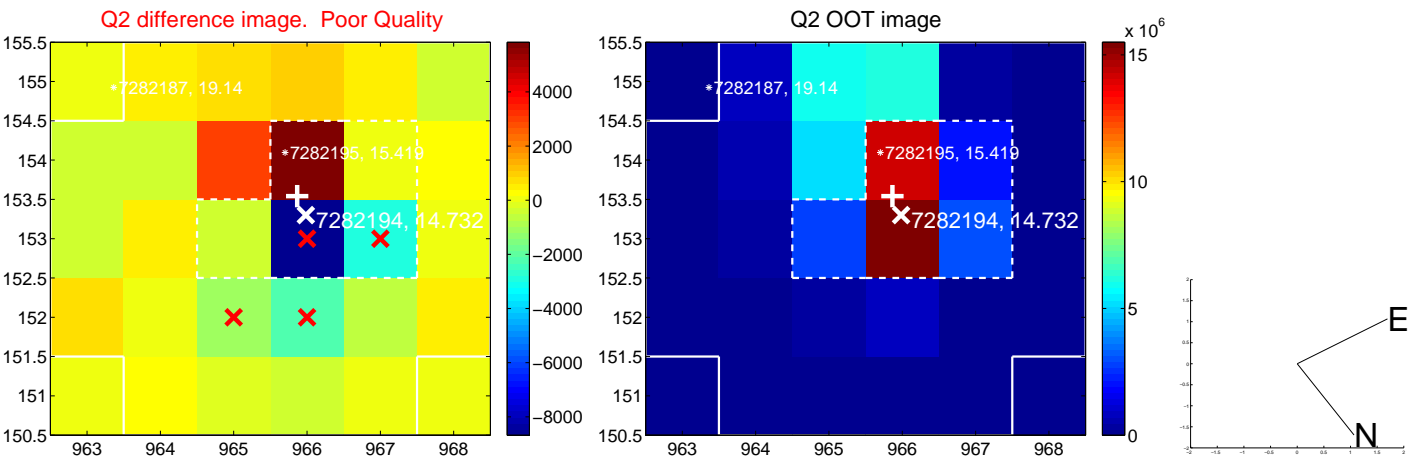
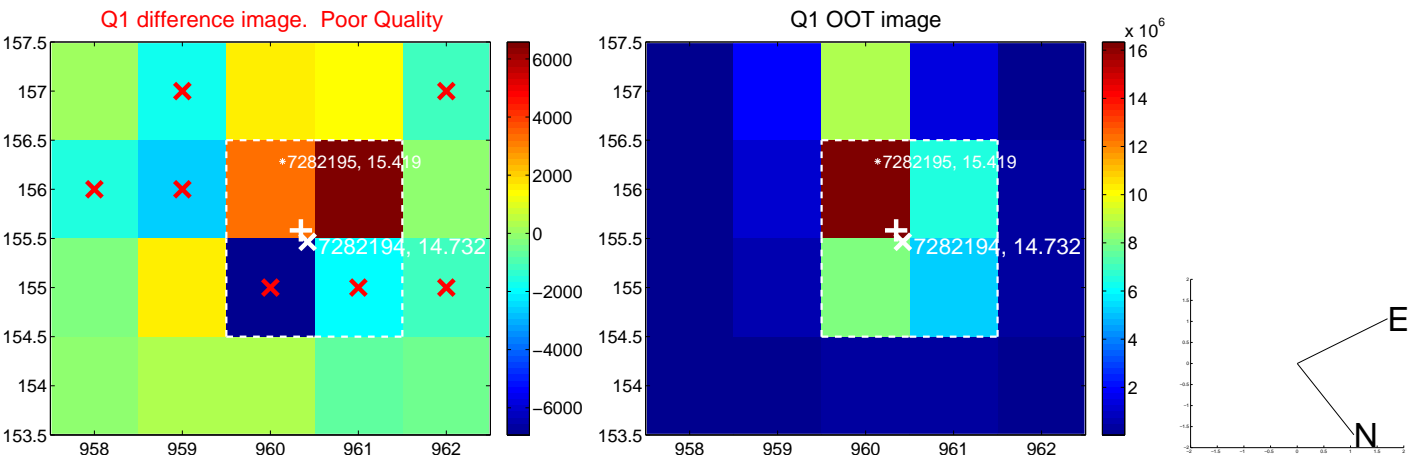


offset from photometric centroids

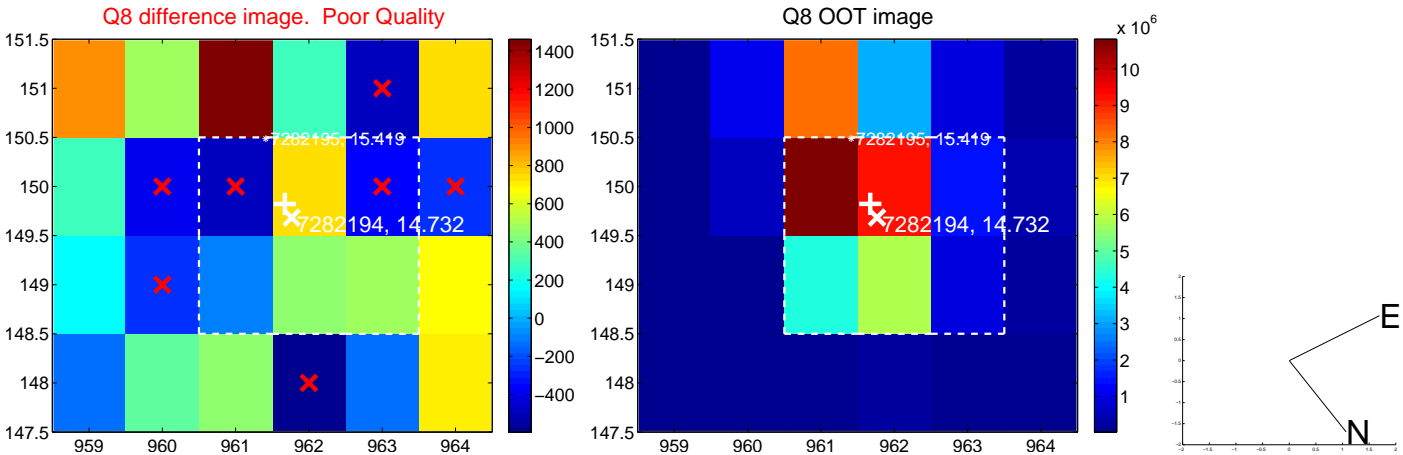
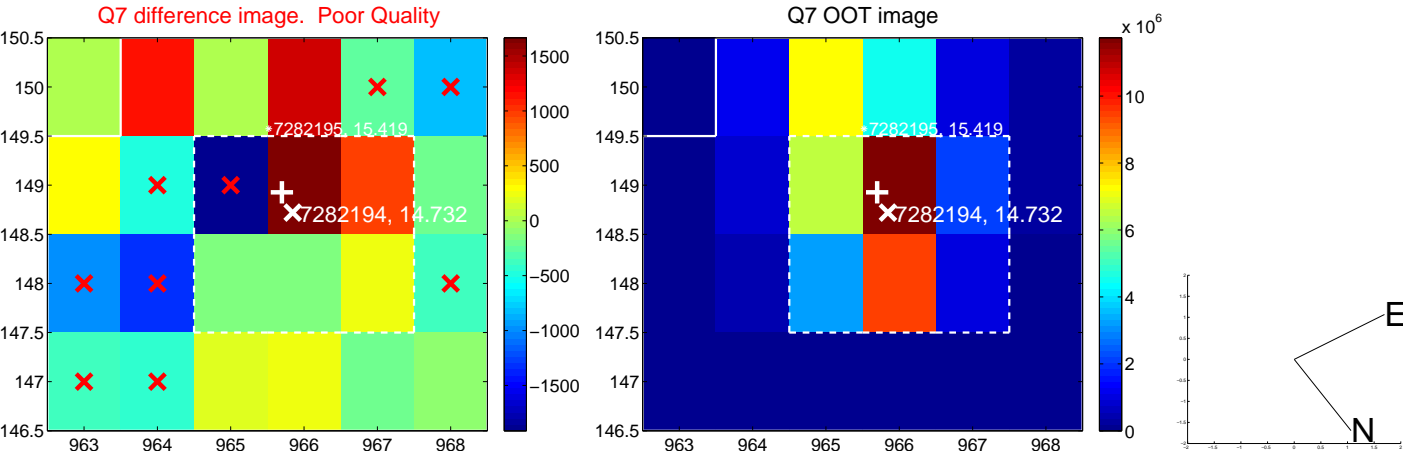
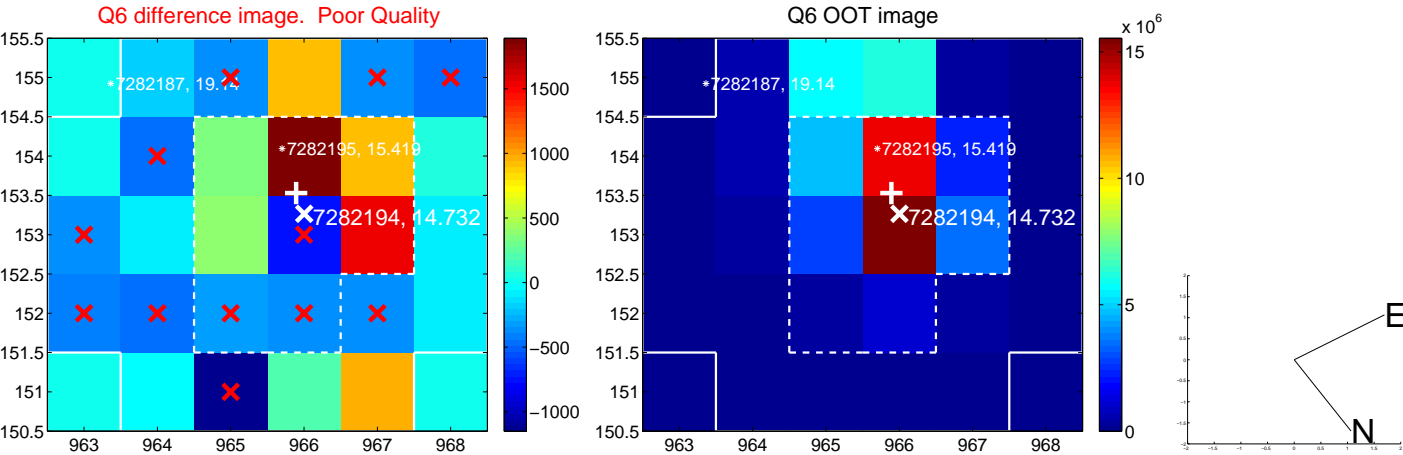
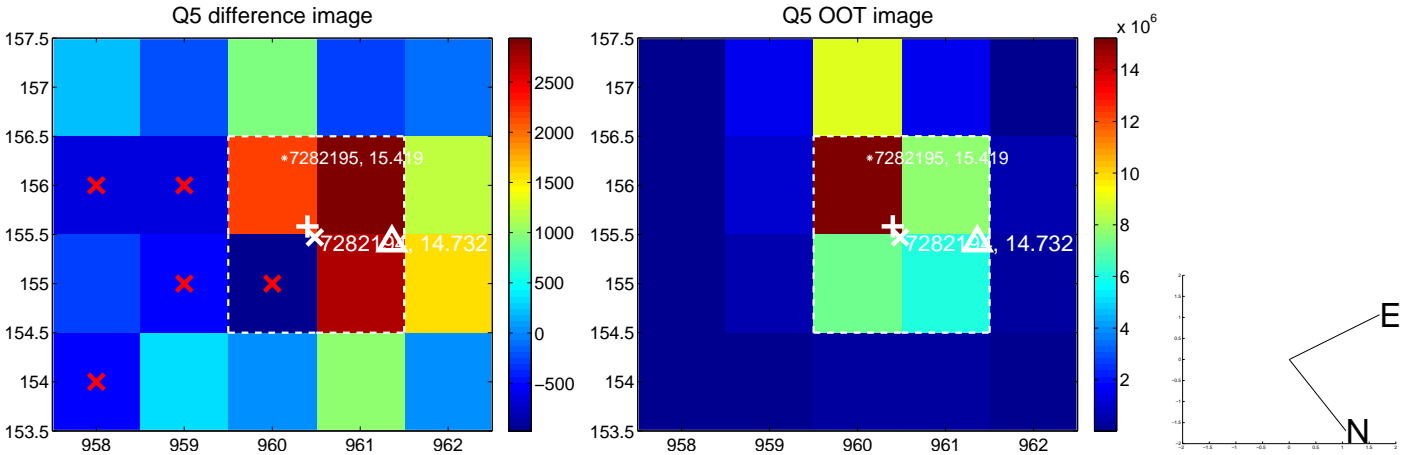


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

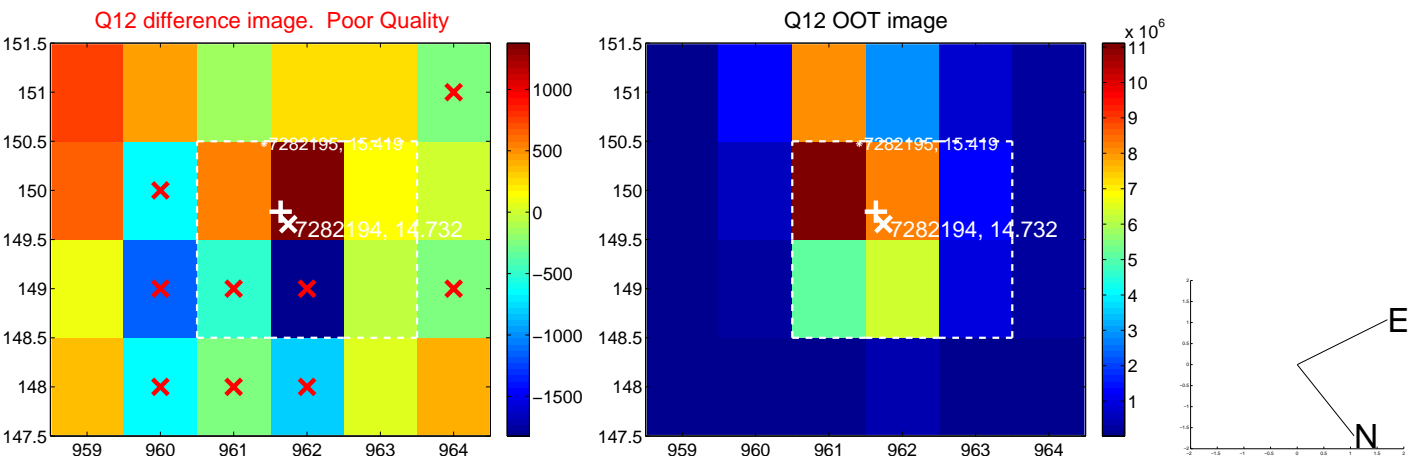
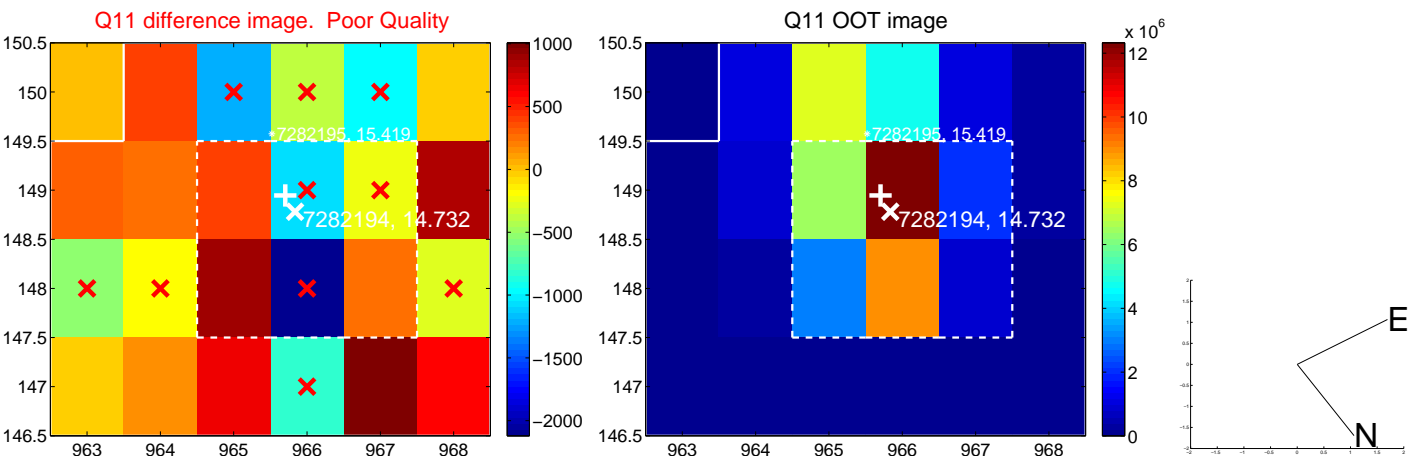
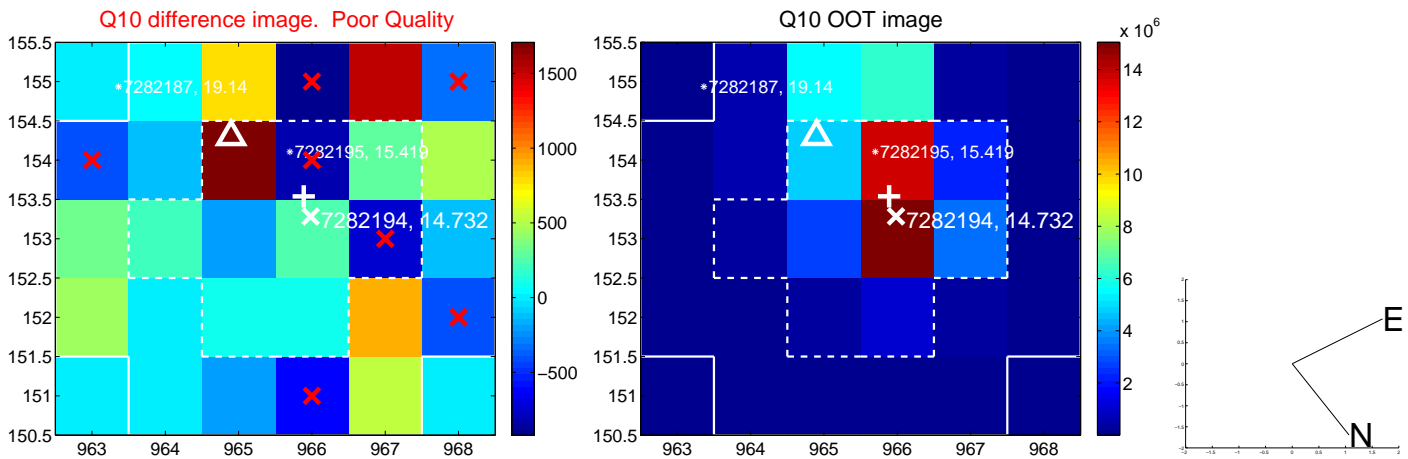
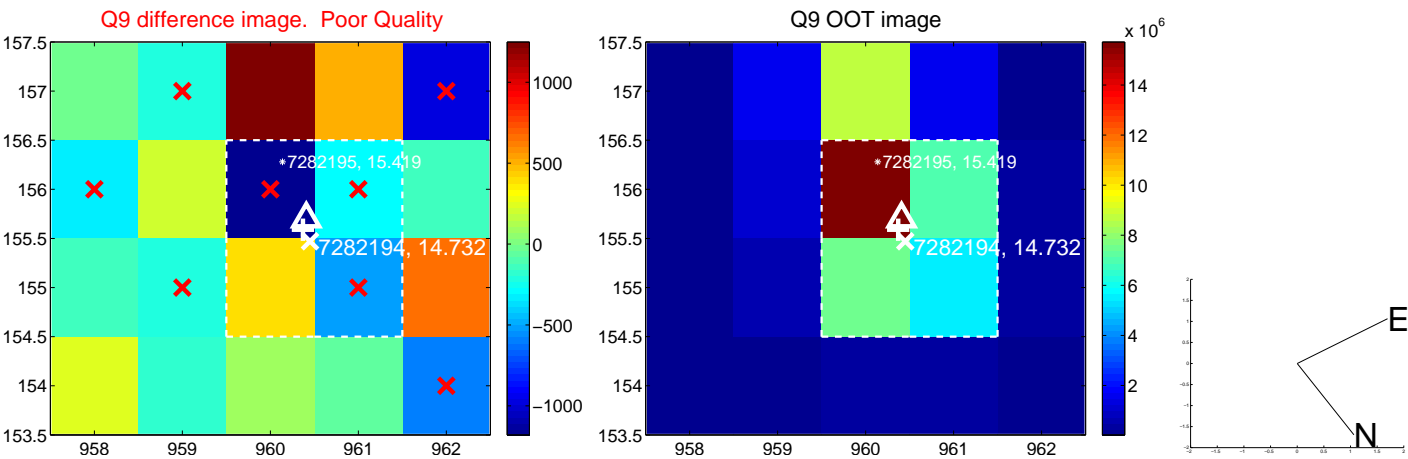
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



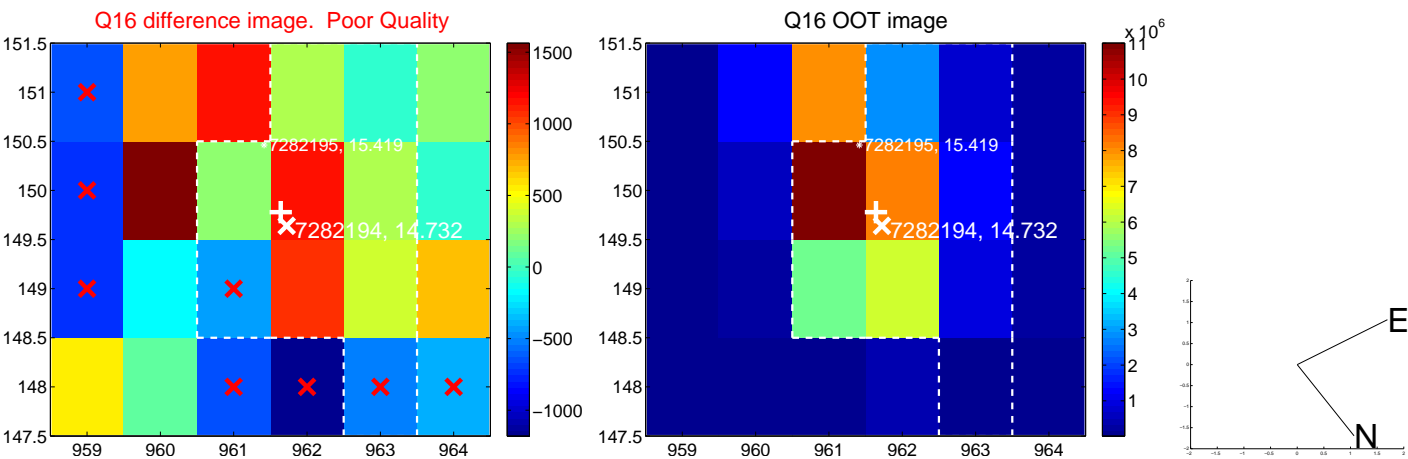
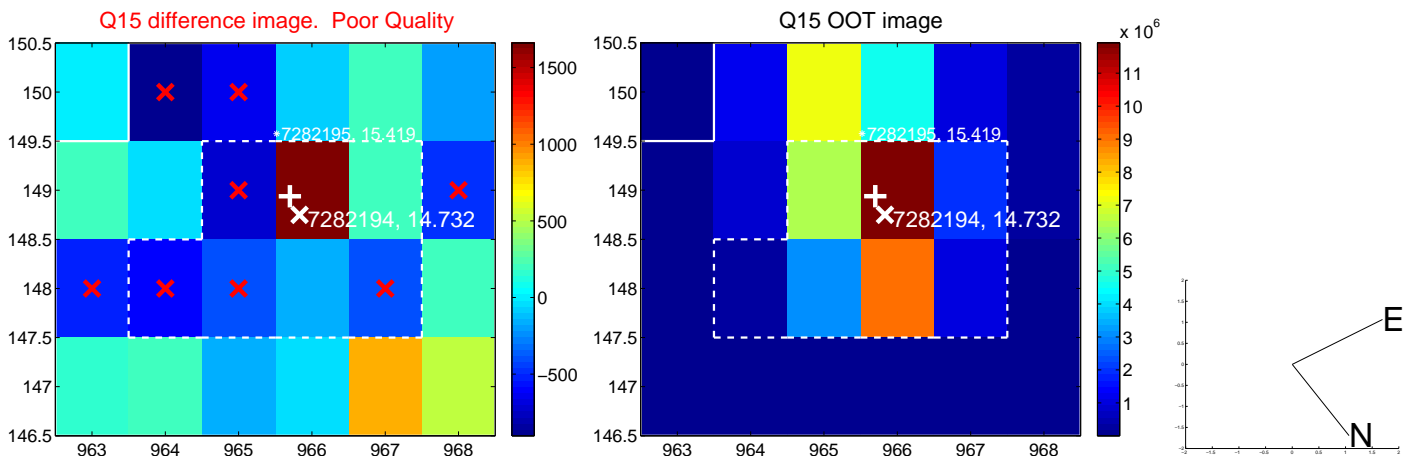
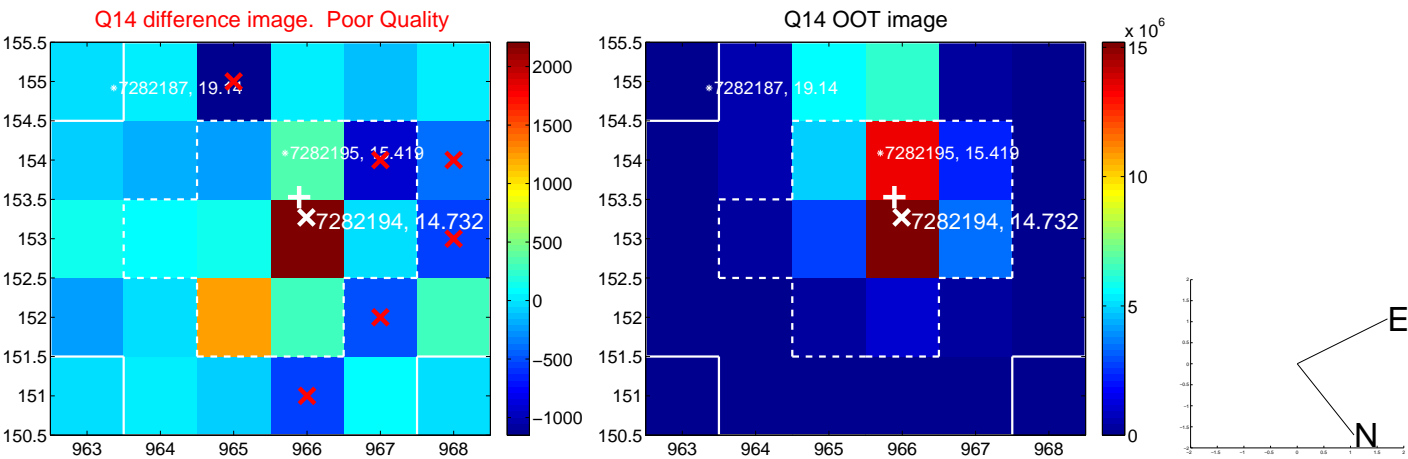
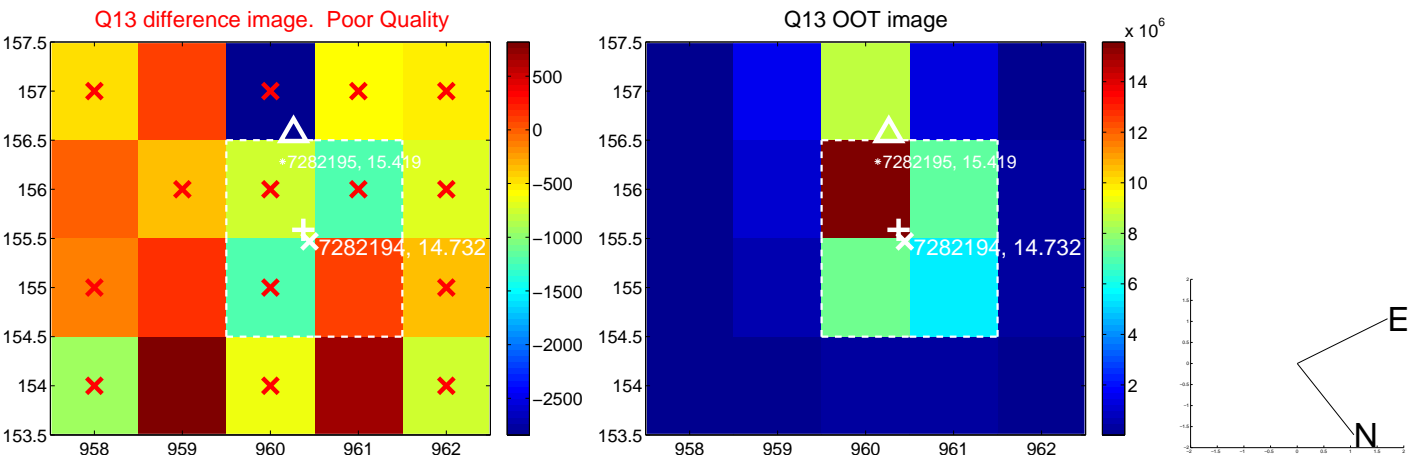
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



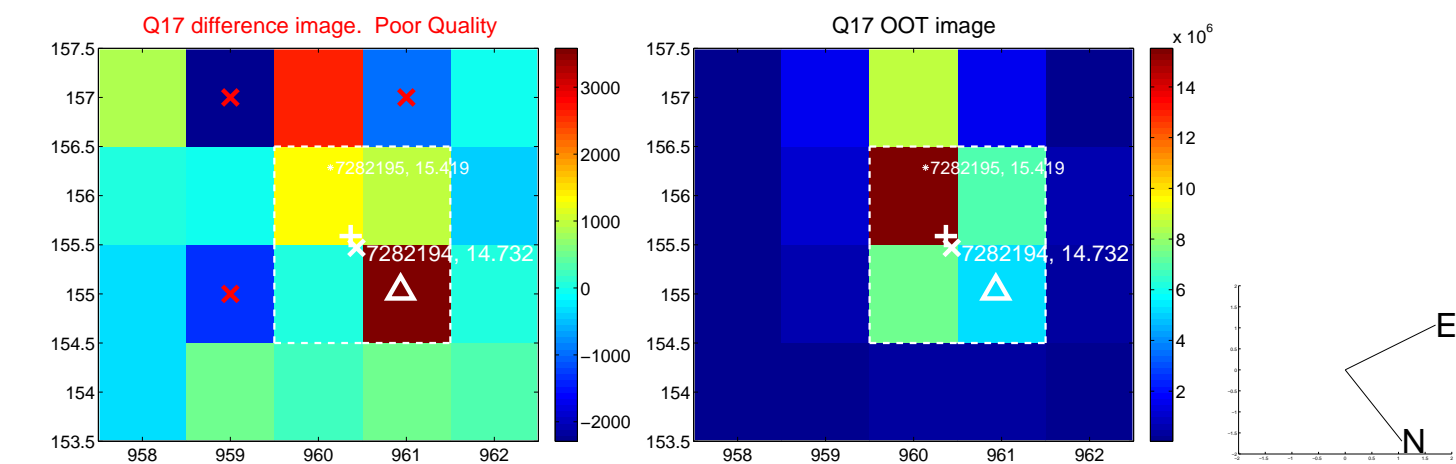
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



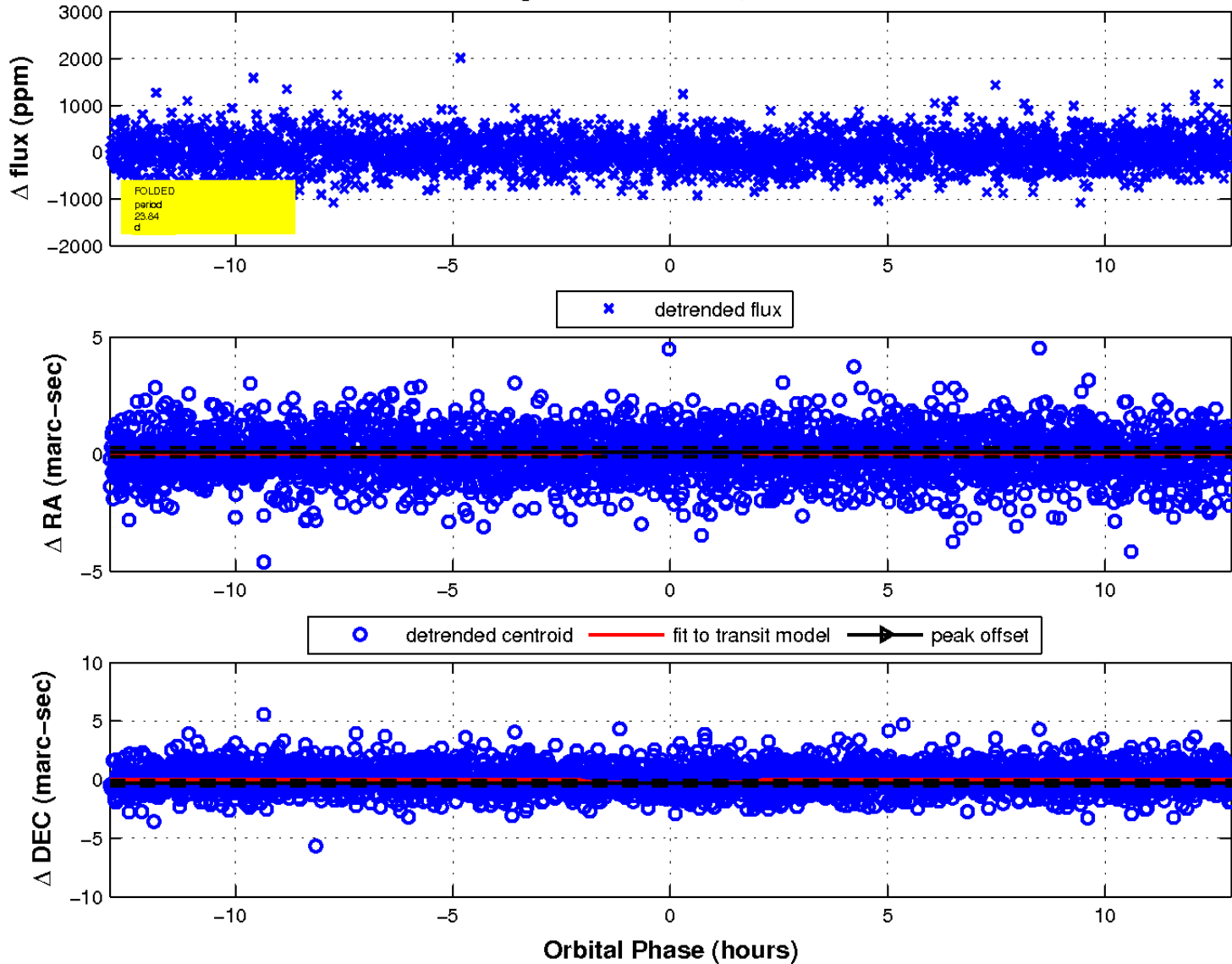
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

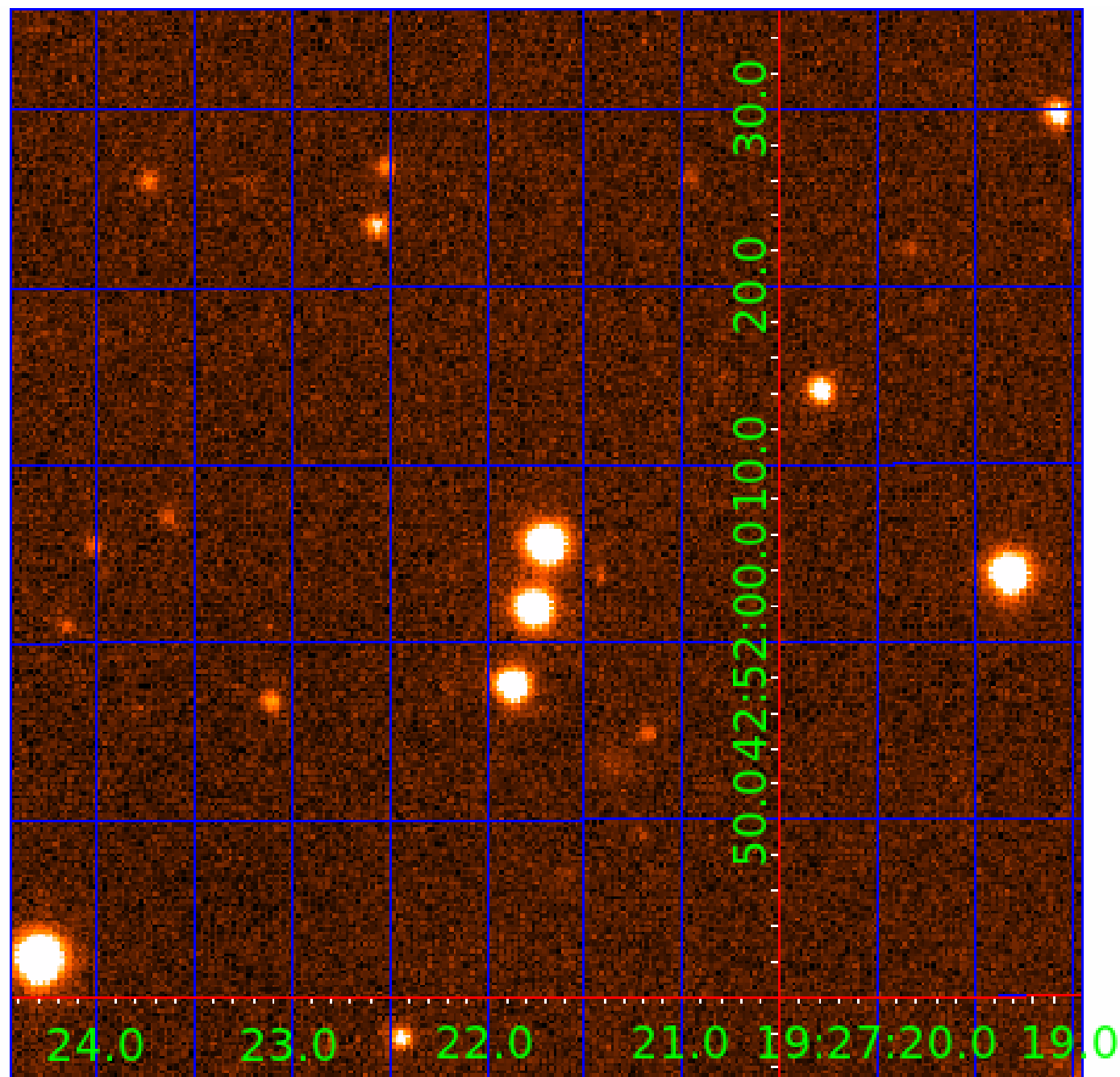


fluxWeightedCentroids, Planet 3 of 4



UKIRT Image

Declination



KIC 007282194

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})
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007282194-02	OBS	No	26.711261	137.066151	1004.9	1.233	11.1	11.3	0.99	6096	3.20	39.55
007282194-03	OBS	No	23.838315	143.501262	439.2	4.306	9.7	9.9	0.99	6096	2.30	46.03
007282194-04	OBS	No	31.636510	156.020193	620.3	0.919	10.3	8.1	0.99	6096	2.55	31.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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007282194-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—MOD_NONUNIQ_DV—CENT_FEW_DIFFS
007282194-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
007282194-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_FEW_DIFFS

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

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

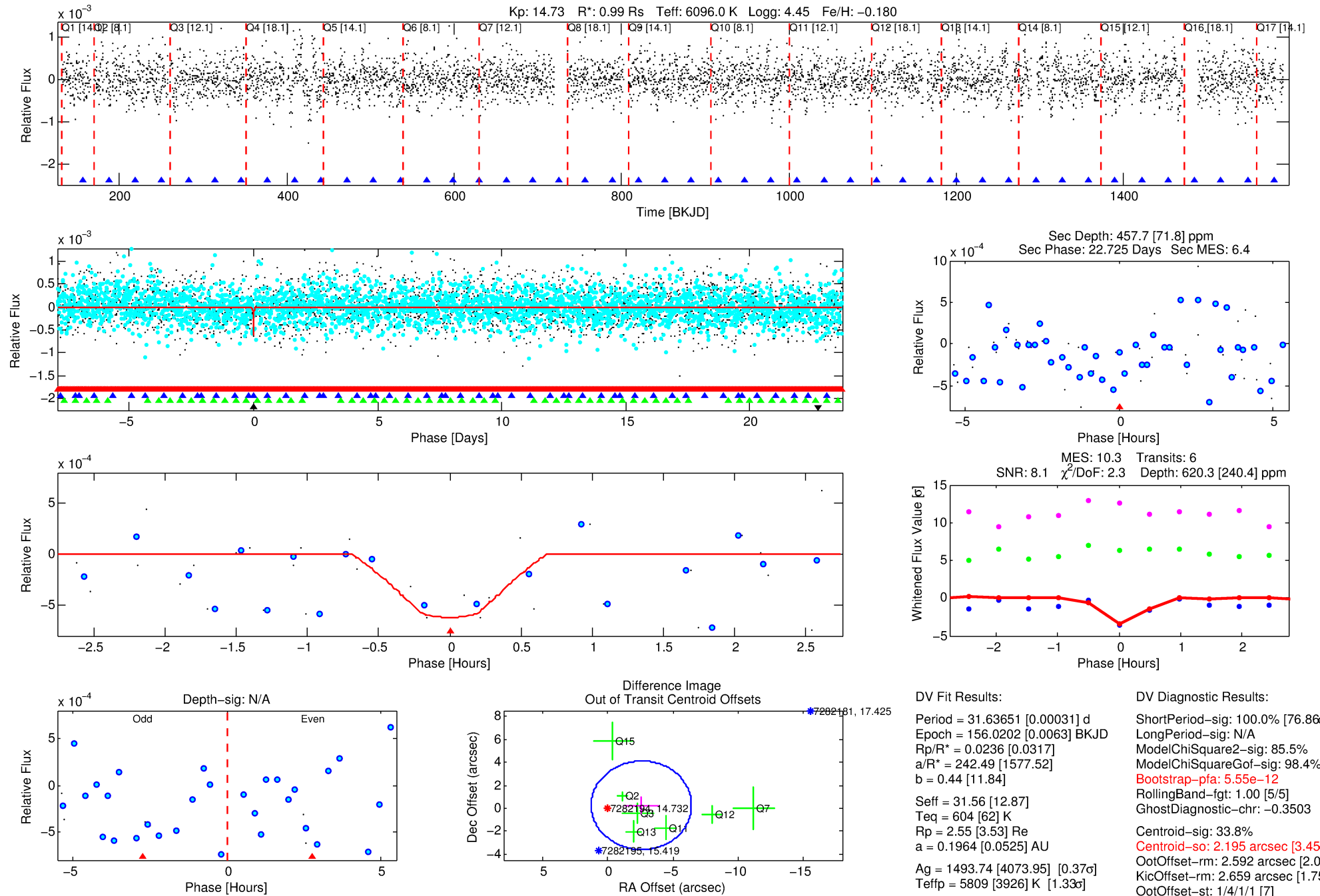
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007282194-04

No Significant Match Found

DV One-Page Summary

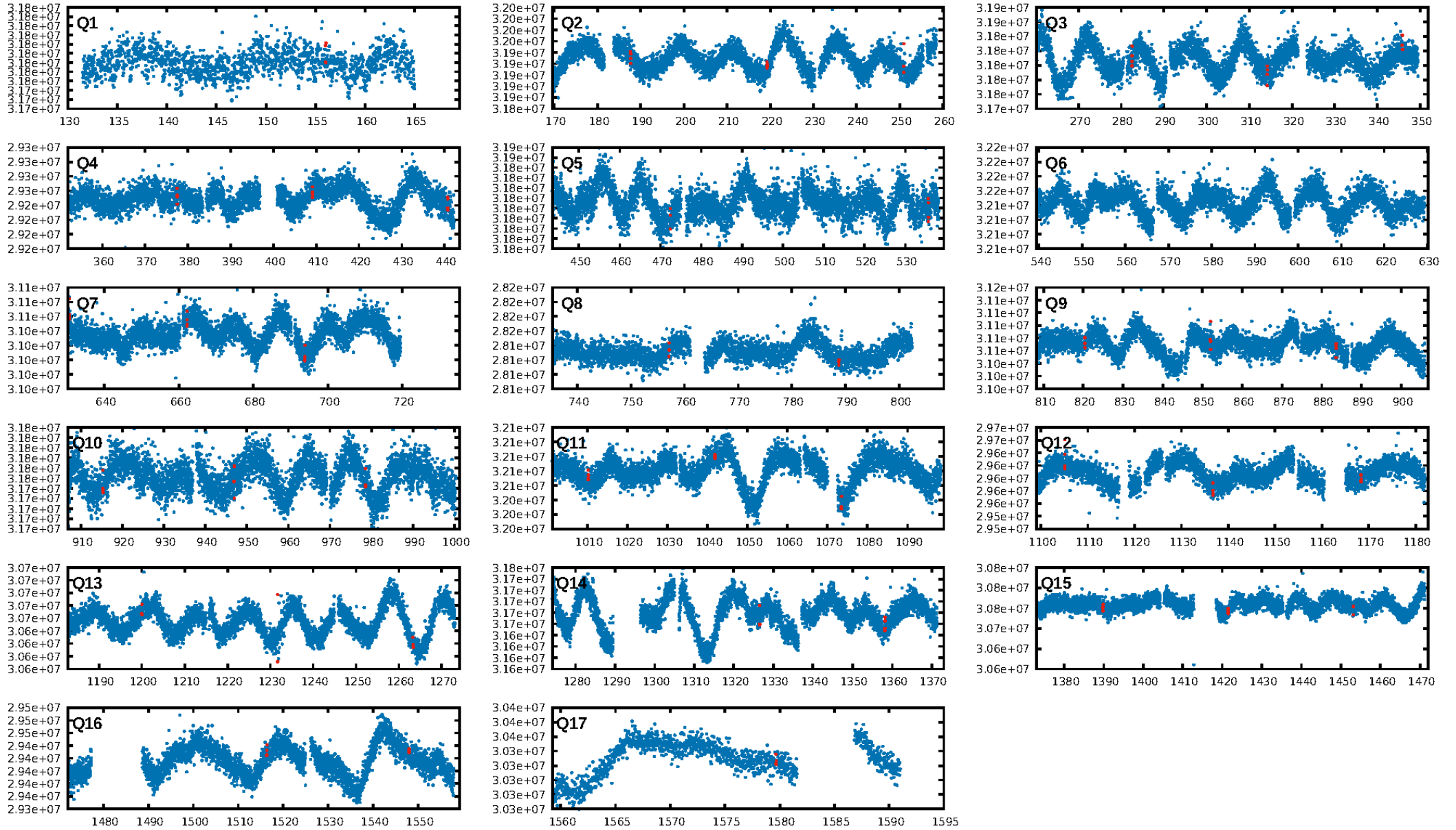
KIC: 7282194 Candidate: 4 of 4 Period: 31.637 d



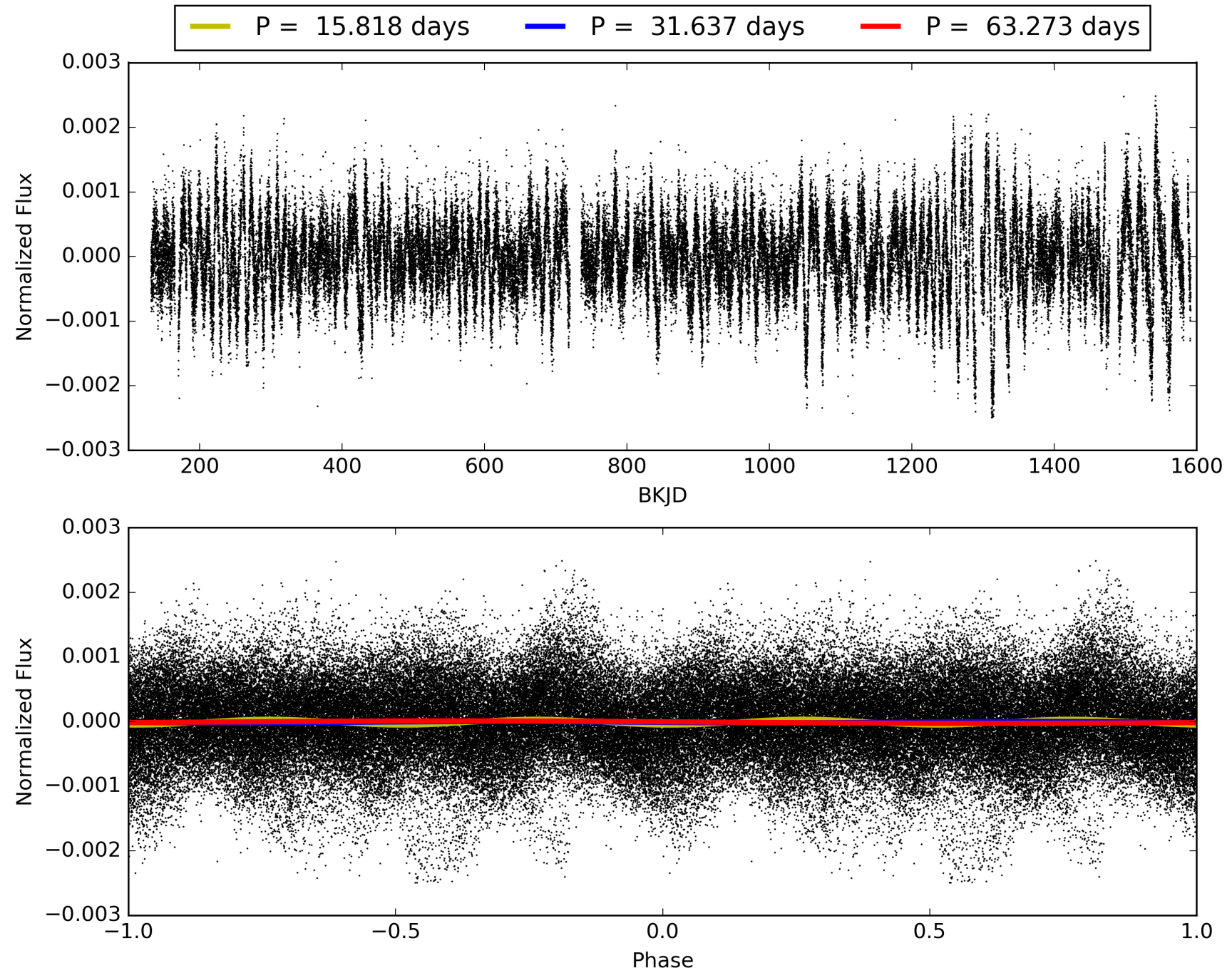
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 22:17:08 Z

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

TCE 007282194-04, PDC Light Curves

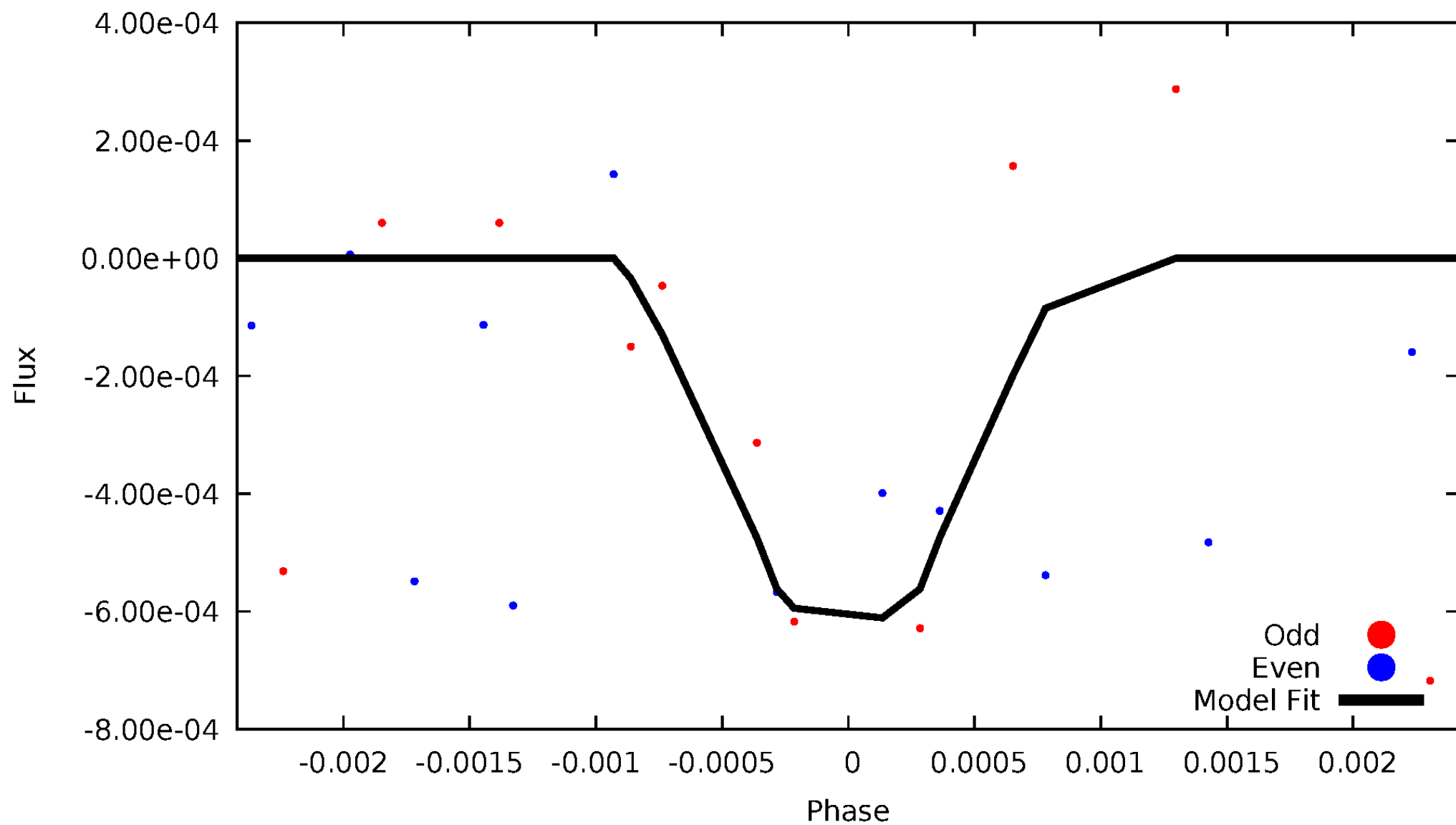


TCE 007282194-04



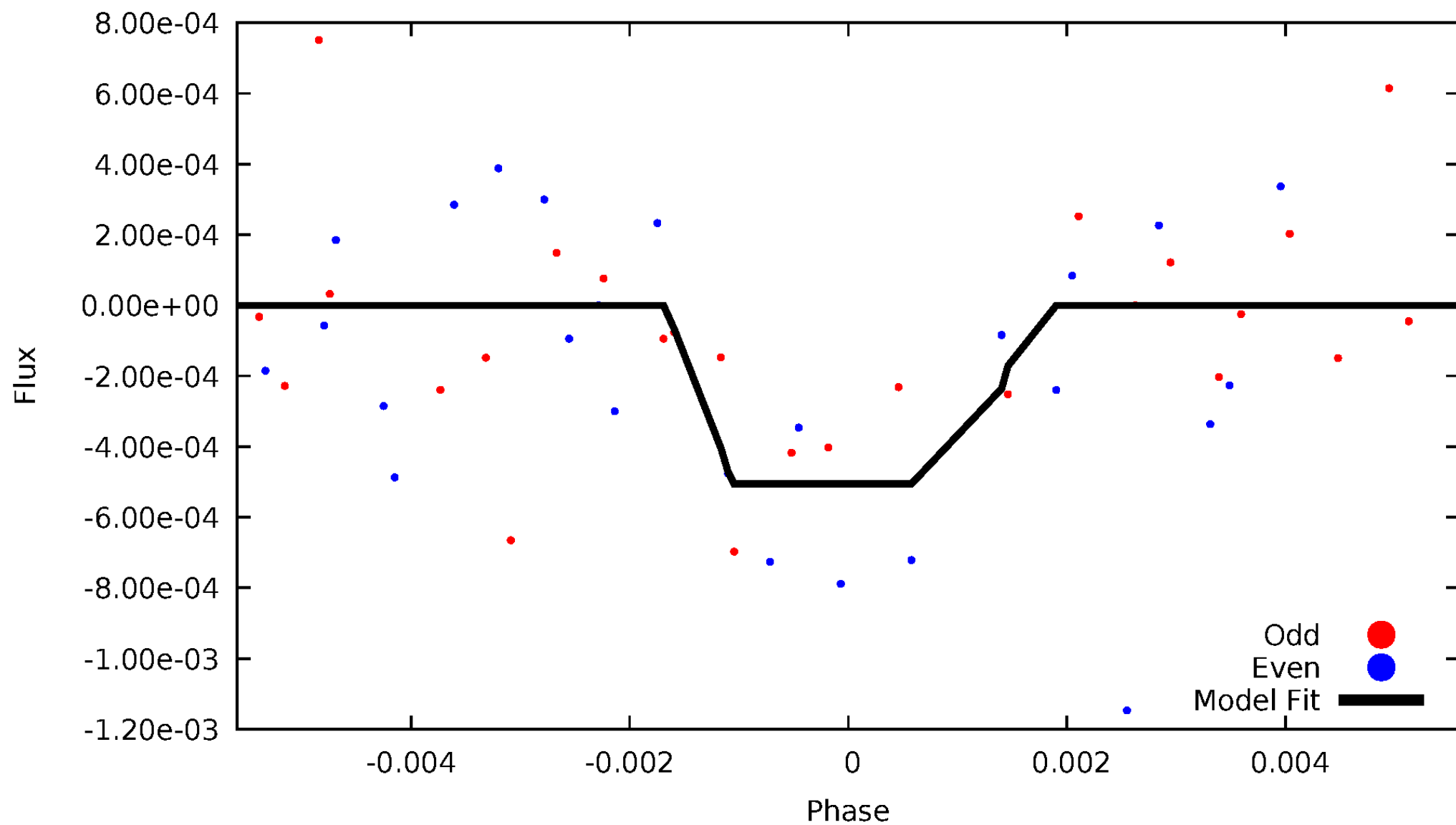
DV Odd/Even

TCE 007282194-04



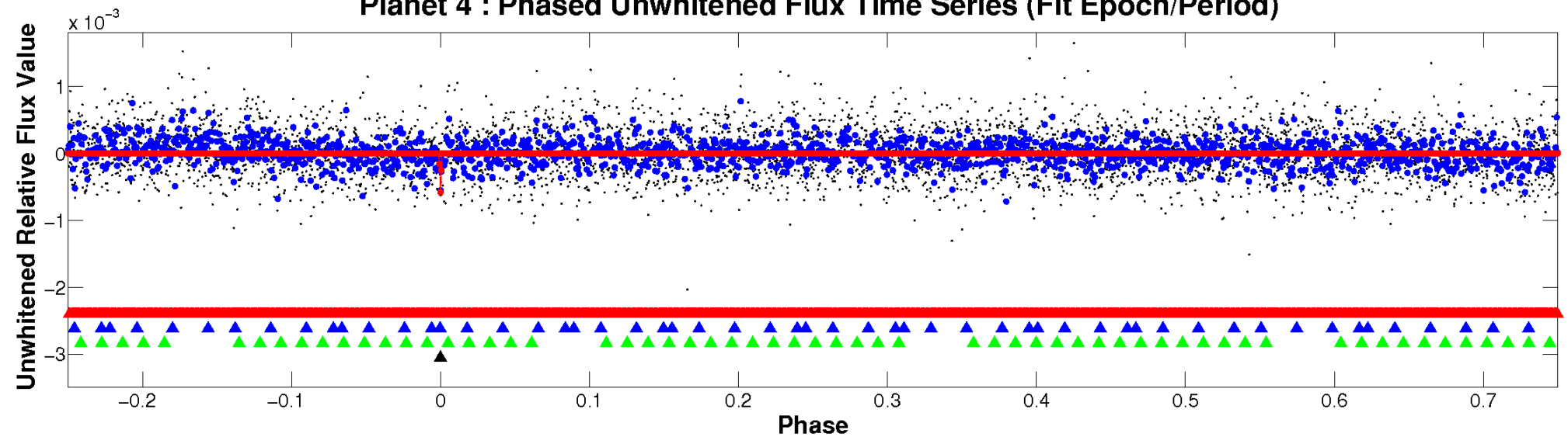
ALT Odd/Even

TCE 007282194-04

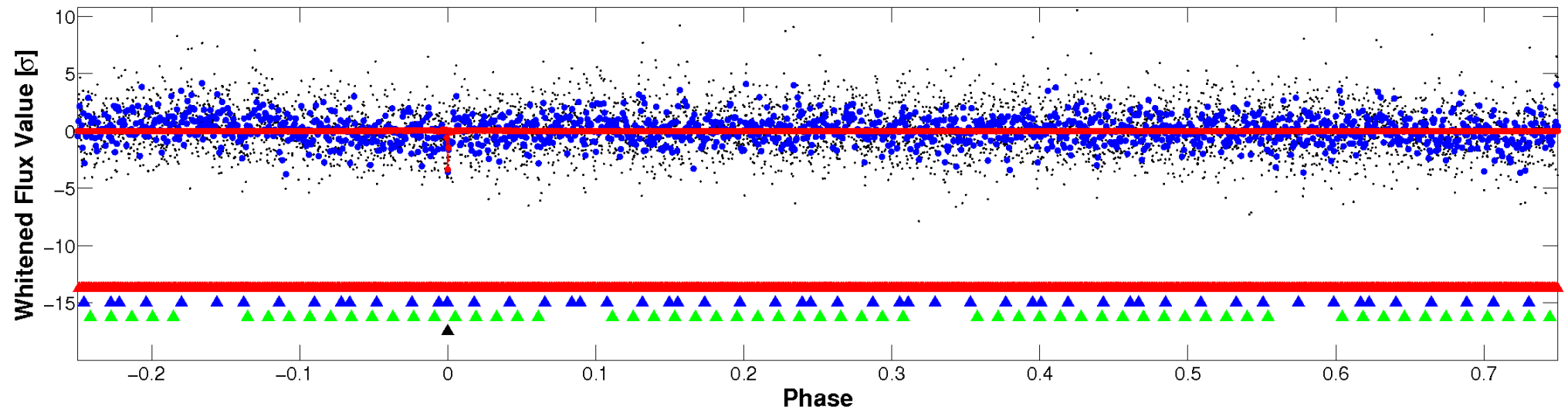


Non-Whitened Vs. Whitened Light Curve

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

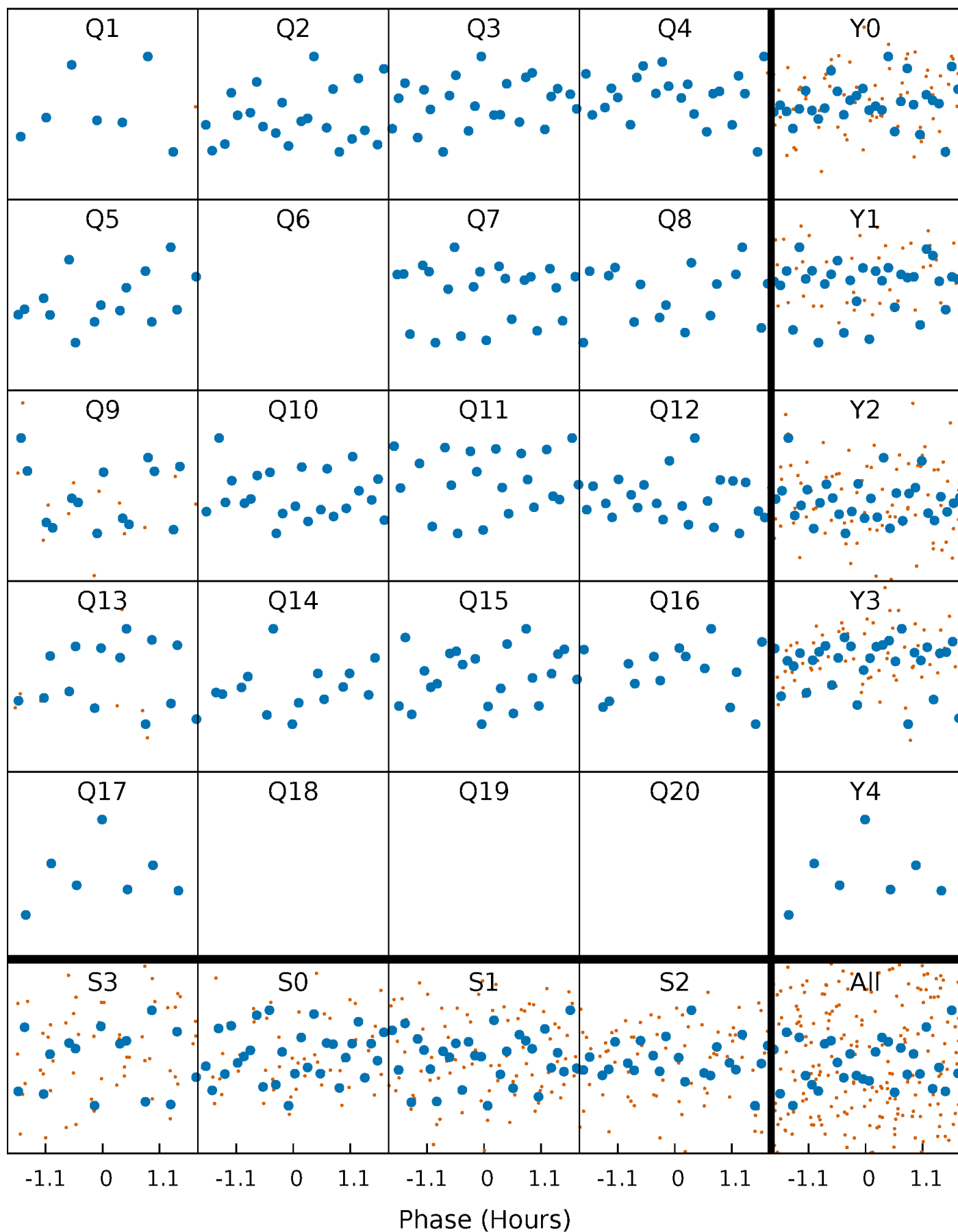


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



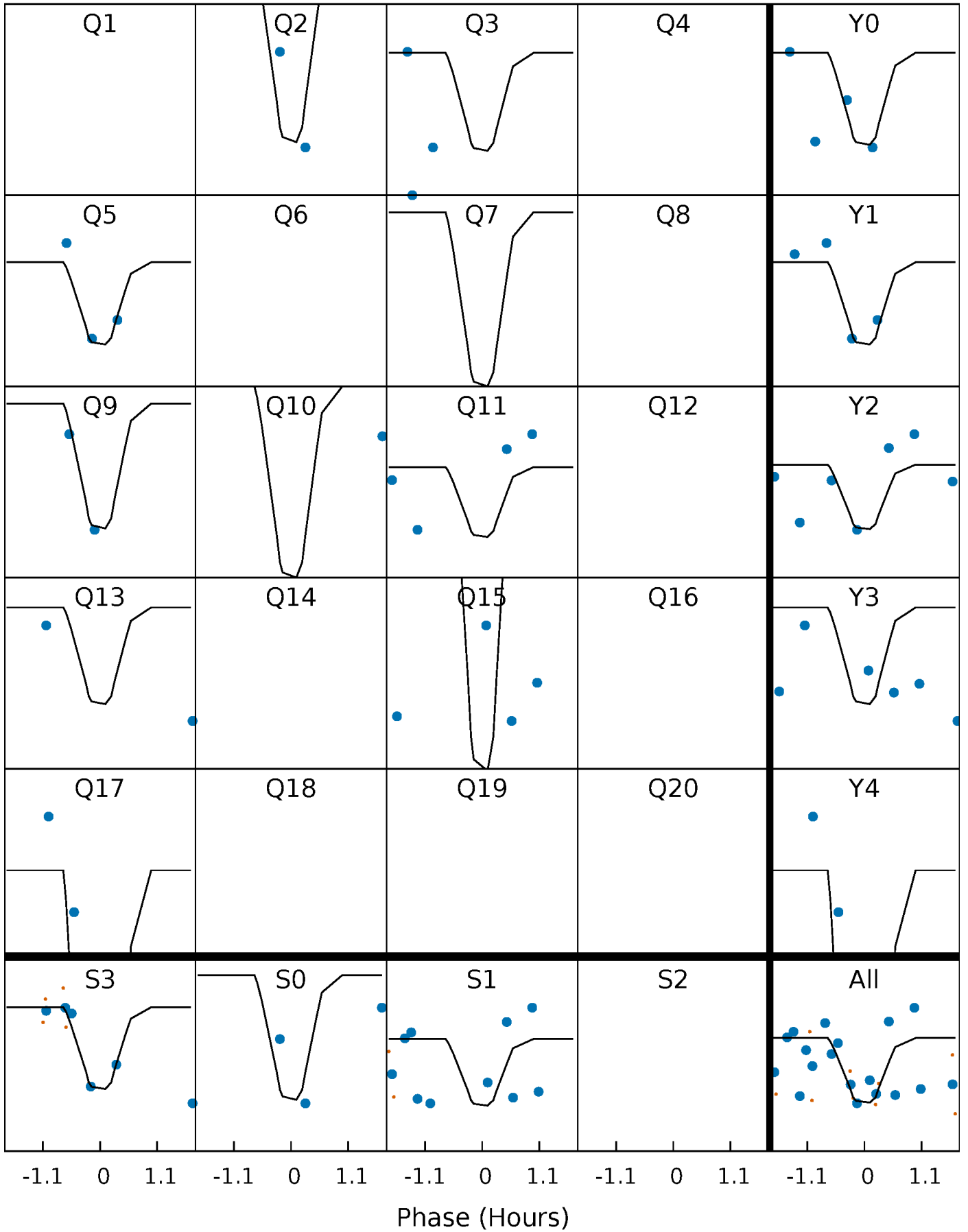
PDC Quarter-Phased Transit Curves

TCE 007282194-04 P= 31.636510 Days $T_0=156.020193$ (BKJD)



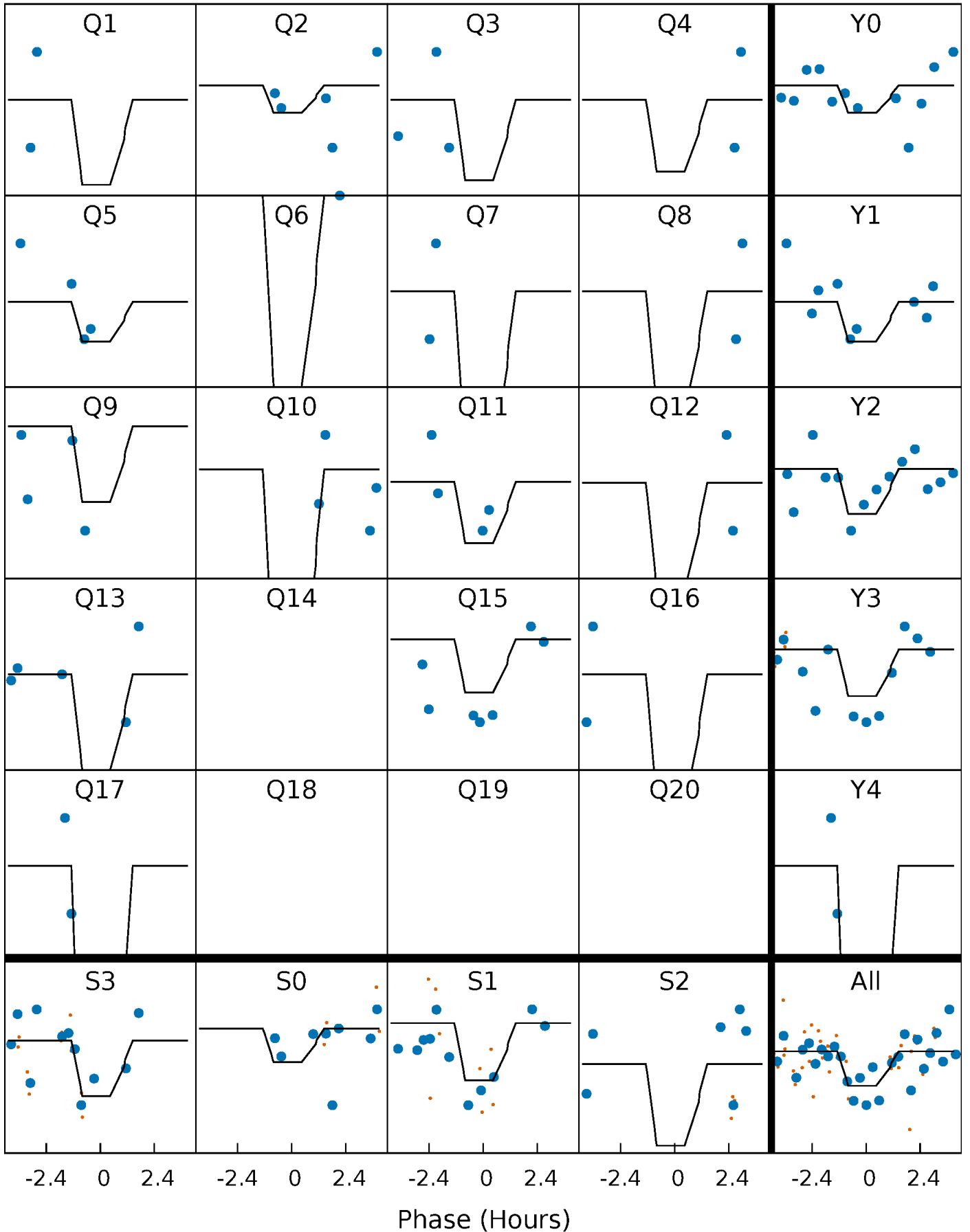
DV Quarter-Phased Transit Curves

TCE 007282194-04 P= 31.636510 Days $T_0=156.020193$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

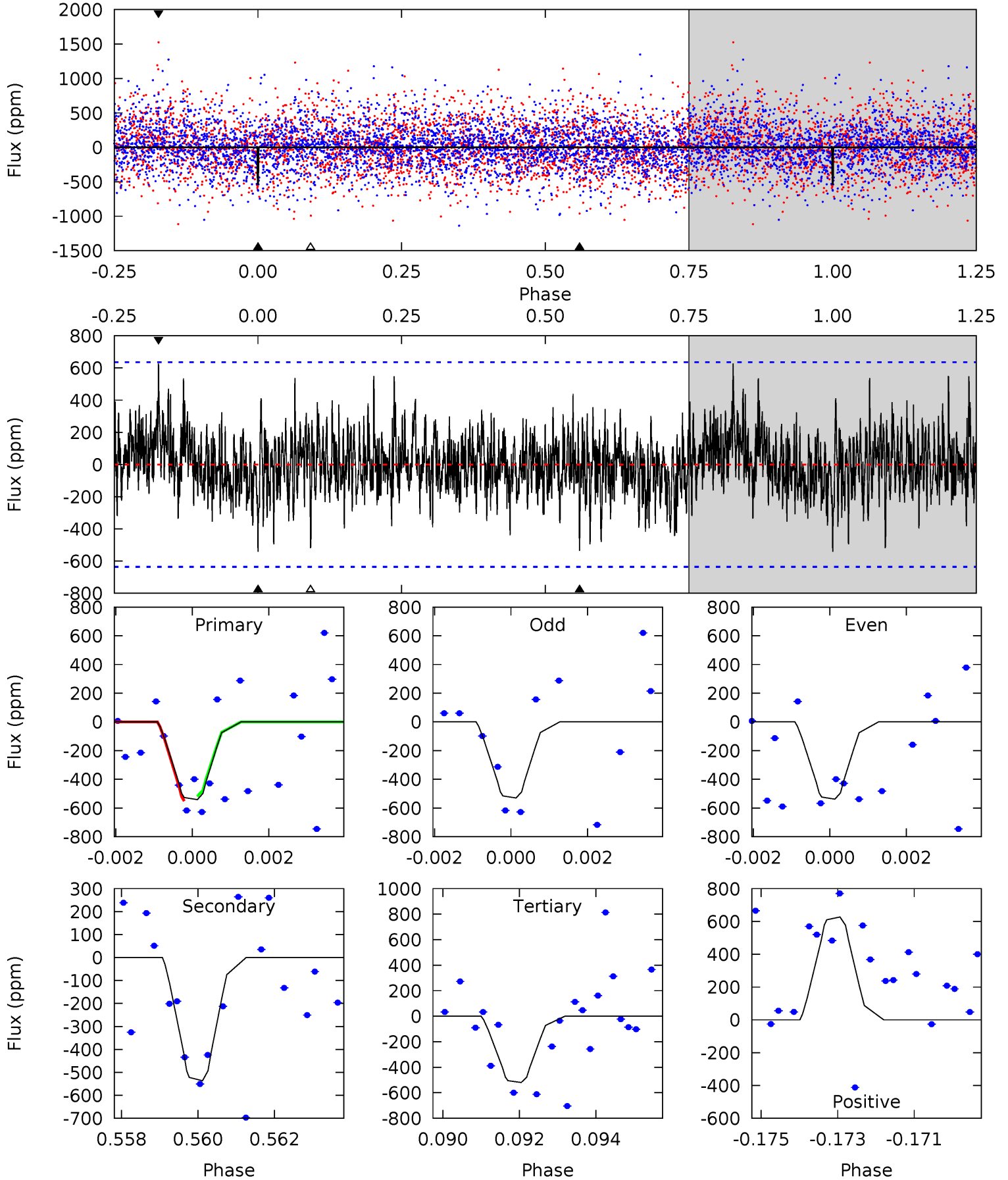
TCE 007282194-04 P= 31.636549 Days $T_0=156.045574$ (BKJD)



DV Model-Shift Uniqueness Test

007282194-04, P = 31.636510 Days, E = 124.383683 Days

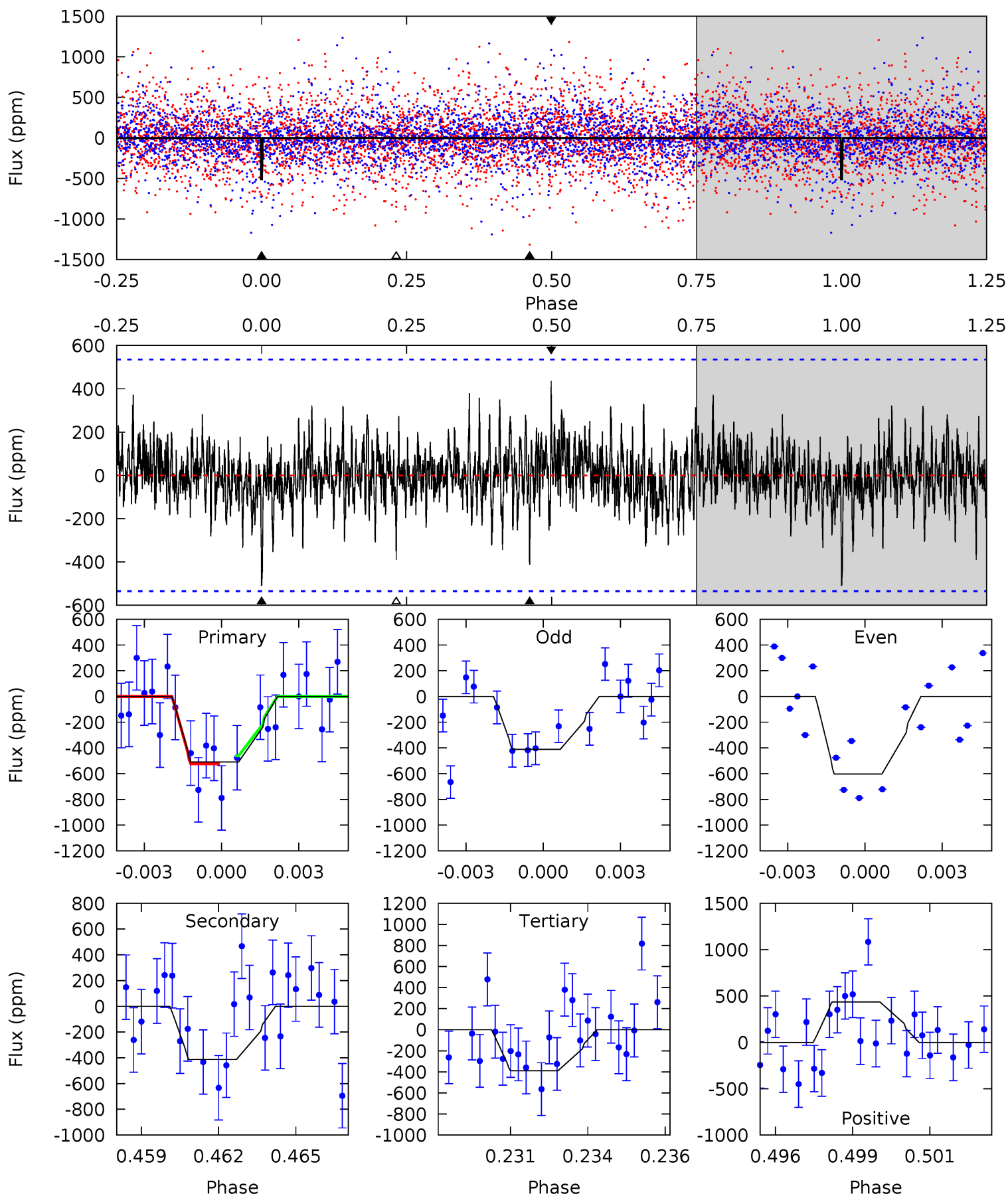
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.53	4.49	4.35	5.25	5.32	3.09	1.31	0.19	-0.71	0.14	-0.76	0.04	0.98	0.54	0.13



Alt Model-Shift Uniqueness Test

007282194-04, P = 31.636549 Days, E = 124.409025 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.02	4.07	3.83	4.30	5.28	3.01	1.07	1.19	0.72	0.24	-0.23	0.91	1.21	0.46	0.29



Stellar Parameters For KIC 007282194

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6096^{+181}_{-199}	$4.449^{+0.070}_{-0.210}$	$-0.180^{+0.300}_{-0.300}$	$0.992^{+0.317}_{-0.127}$	$1.007^{+0.156}_{-0.117}$	$1.453^{+0.430}_{-0.787}$
	+3%/-3%	+2%/-5%	+167%/-167%	+32%/-13%	+15%/-12%	+30%/-54%
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 007282194-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-537 ± 120	$3.59^{+3.33}_{-2.33}$	859^{+65}_{-44}	5259^{+3957}_{-1223}	892^{+5746}_{-667}
Alt.	-413 ± 101	$3.61^{+3.16}_{-2.44}$	862^{+69}_{-45}	4967^{+3759}_{-1069}	639^{+5744}_{-456}

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

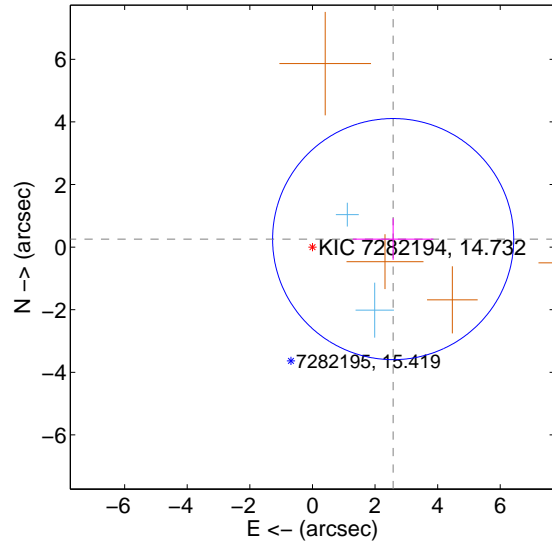
Supplemental centroid analysis for 007282194-04. Kepler magnitude: 14.73. Transit SNR 8.06

There are 2 quarters with good PRF difference image offsets

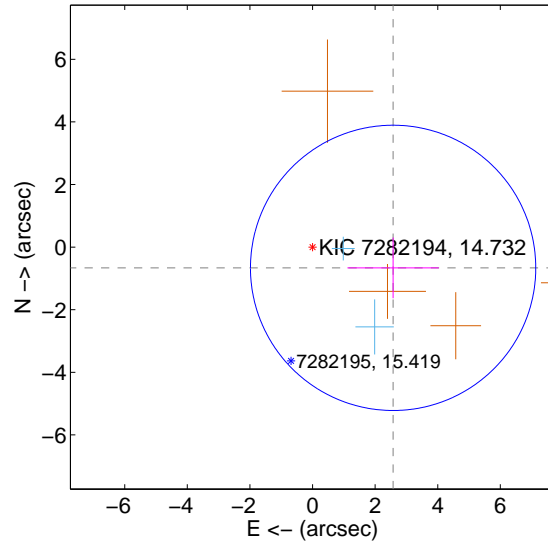
The direct PRF centroid is offset from the target star catalog position by about 0.88 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	2.592 ± 1.284	2.02	-2.579 ± 1.289	0.256 ± 0.665
PRF-fit source offset from KIC position	2.659 ± 1.519	1.75	-2.575 ± 1.462	-0.663 ± 0.971
photometric centroid source offset	2.19 ± 0.64	3.45	0.45 ± 0.60	-2.15 ± 0.64

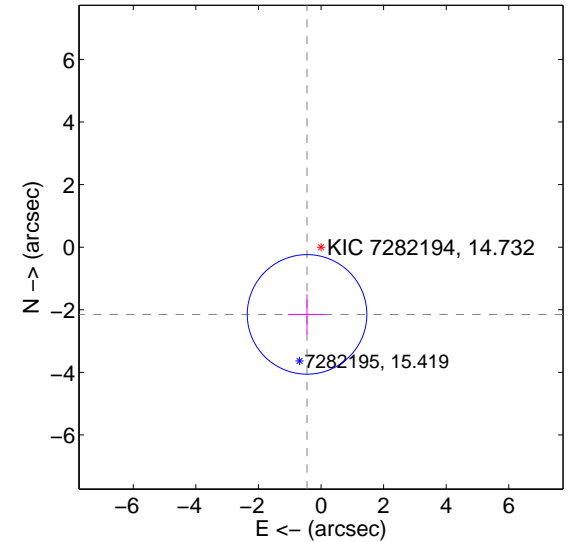
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

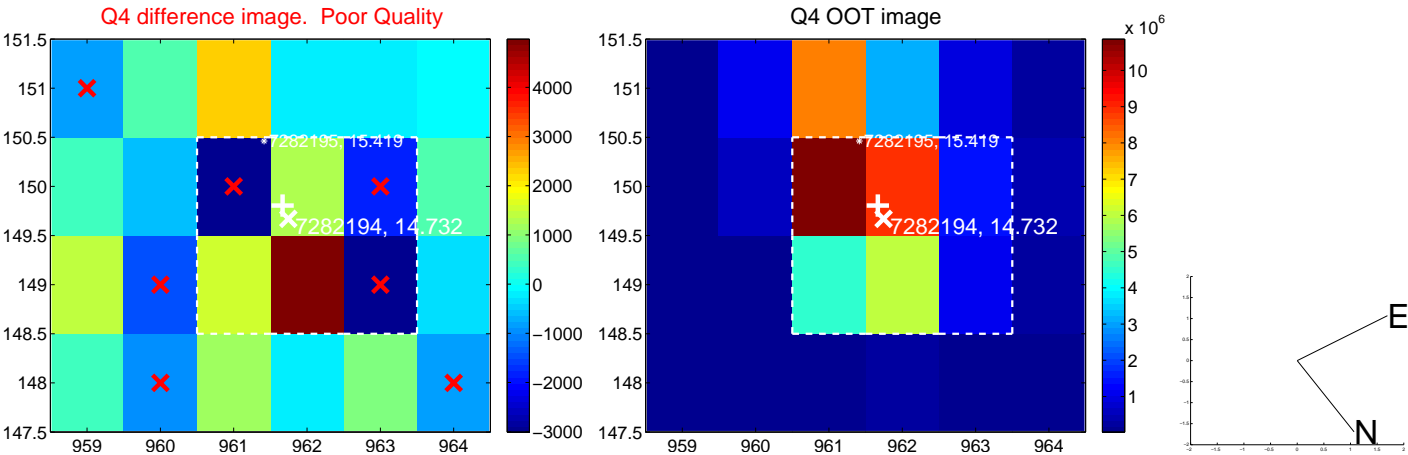
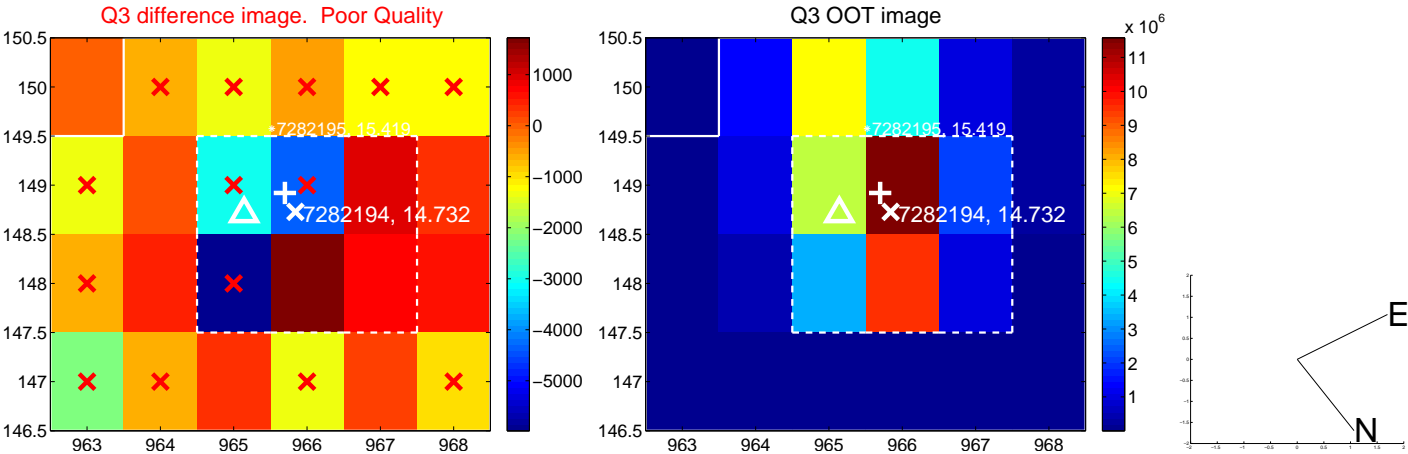
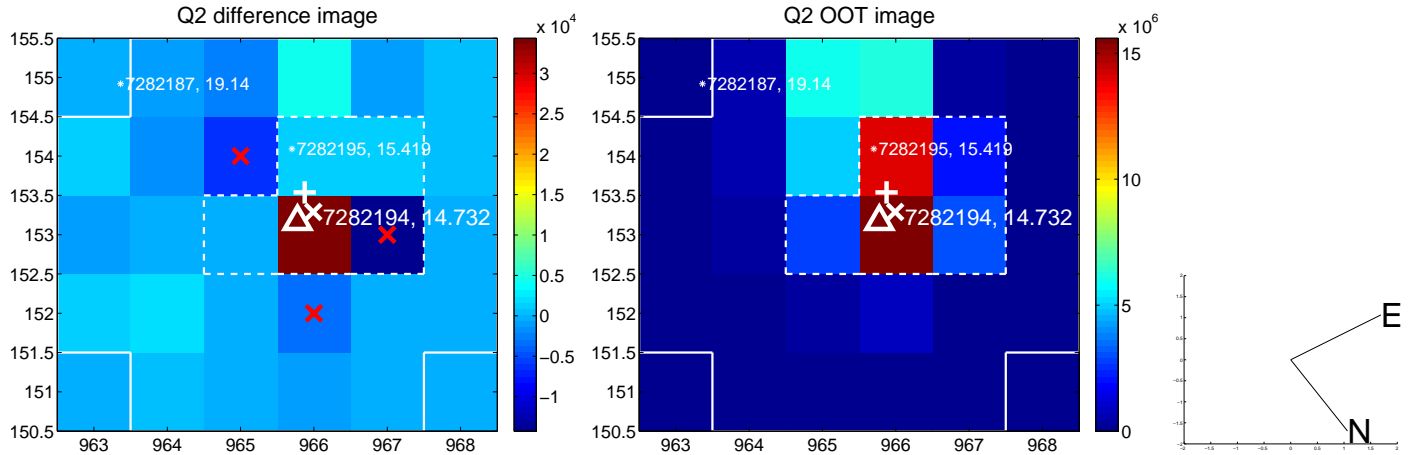
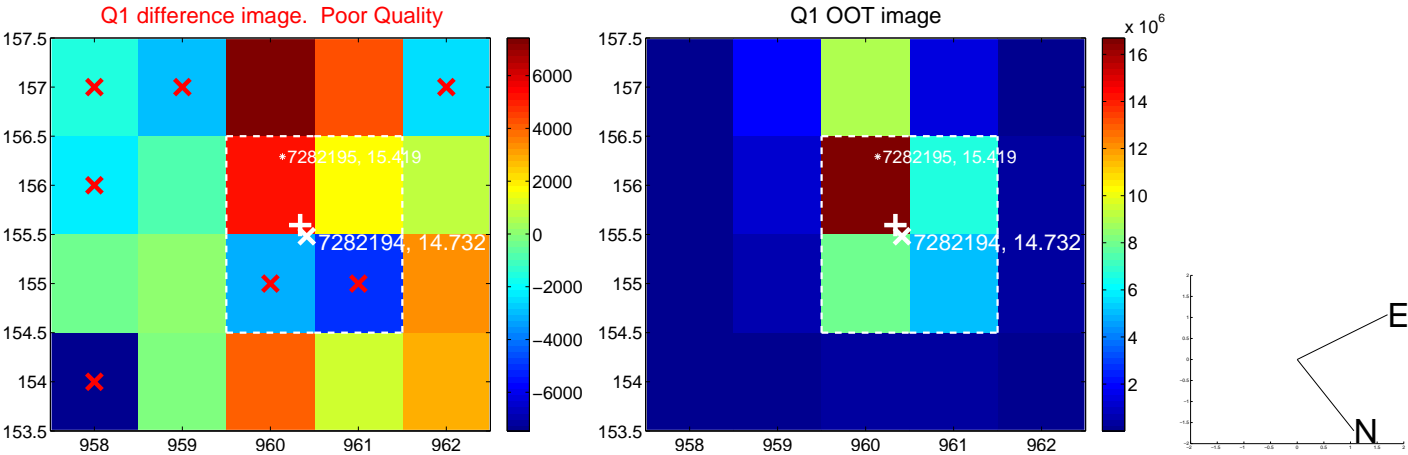


offset from photometric centroids

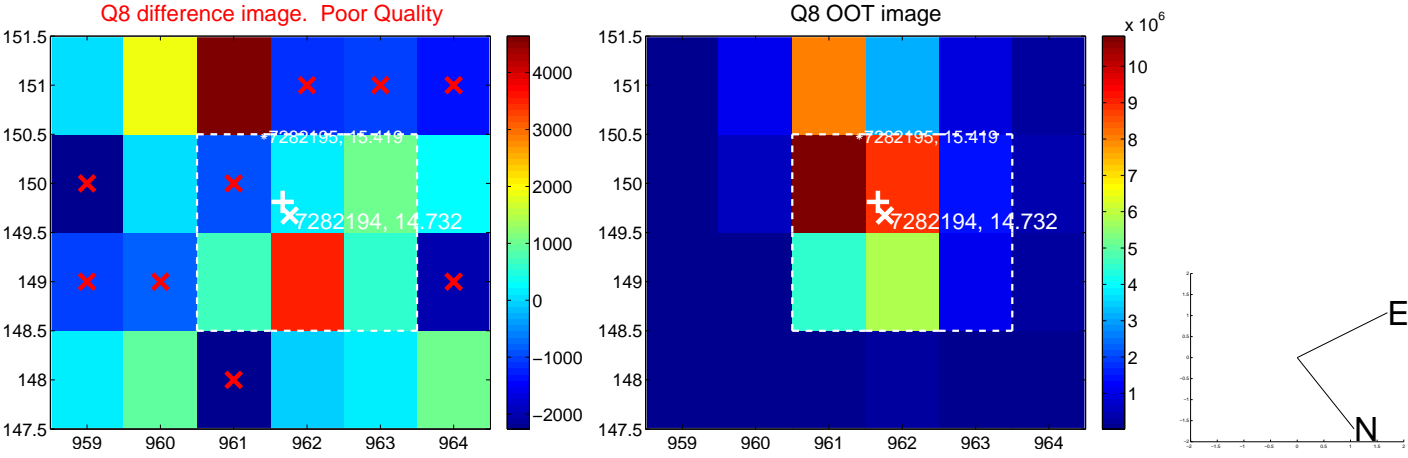
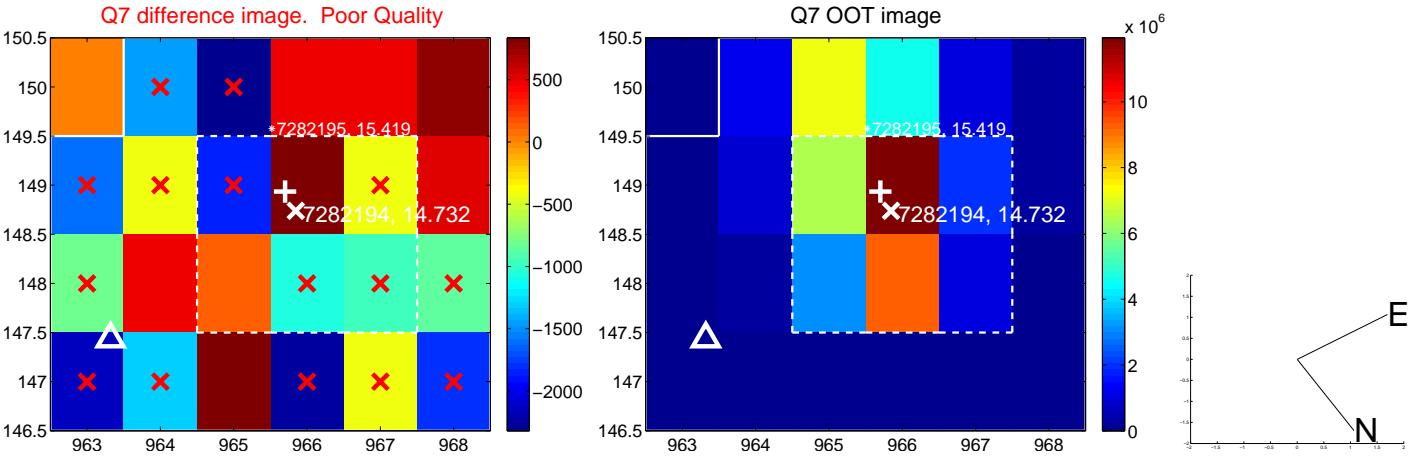
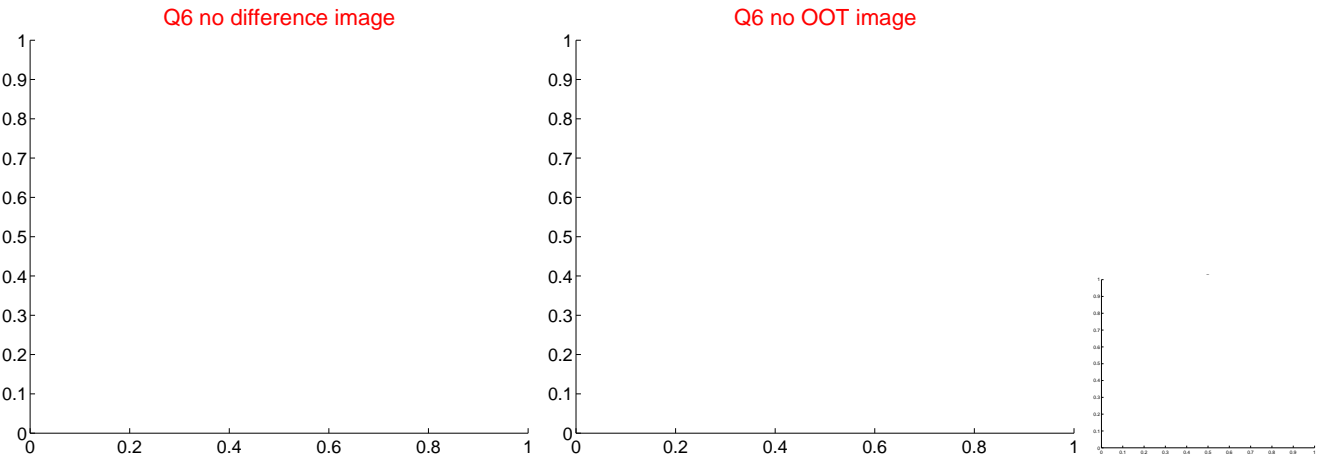
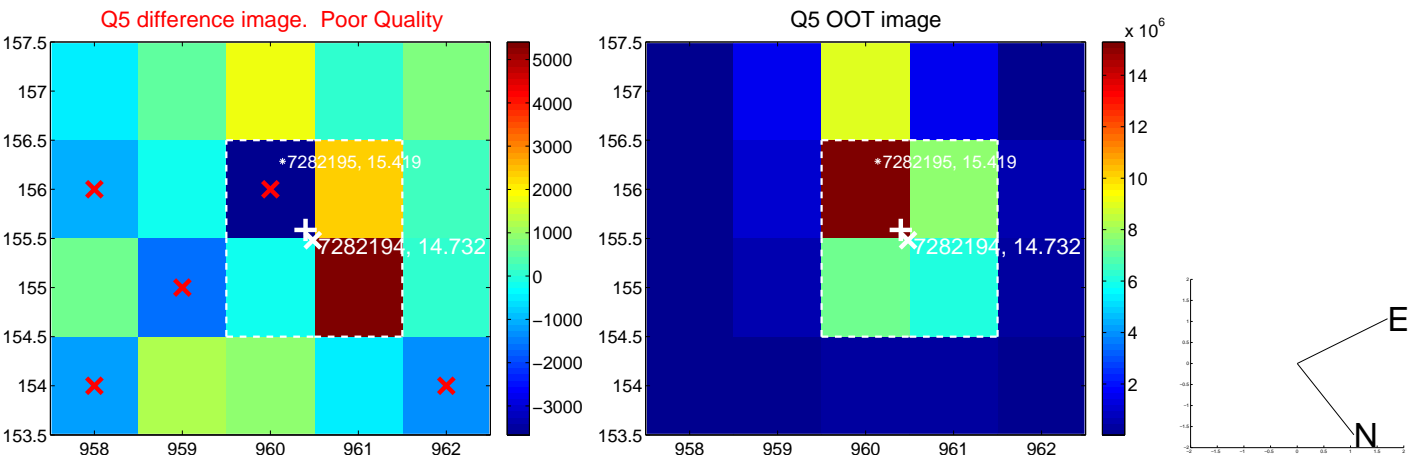


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ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

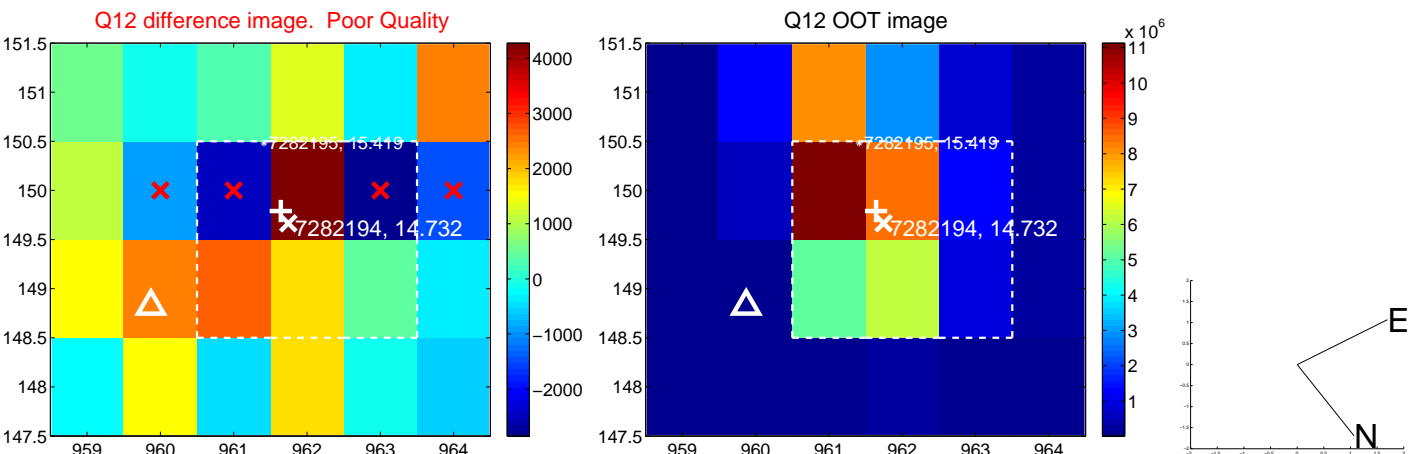
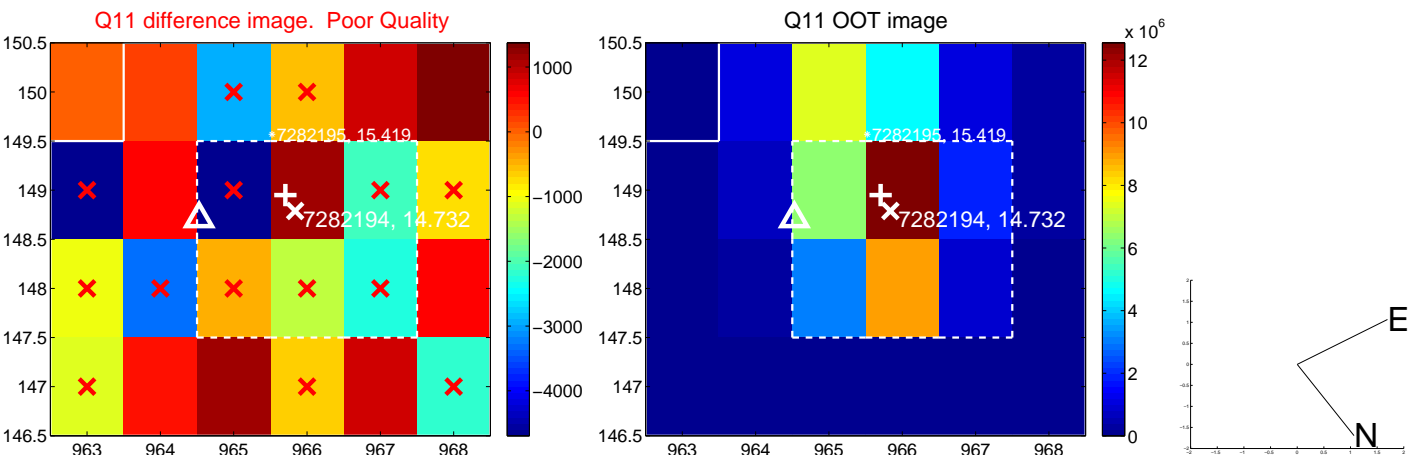
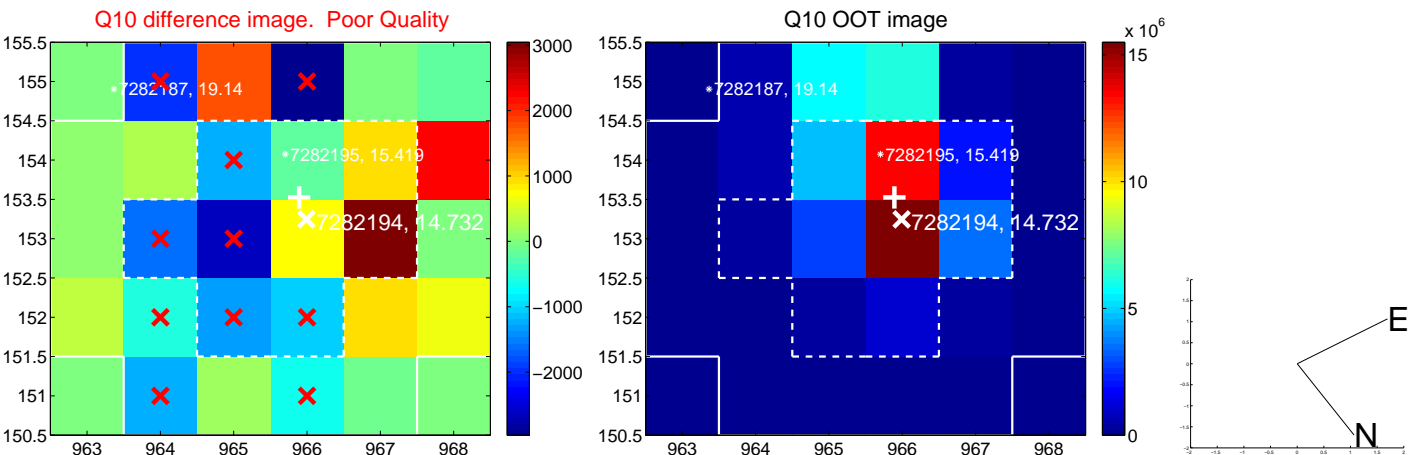
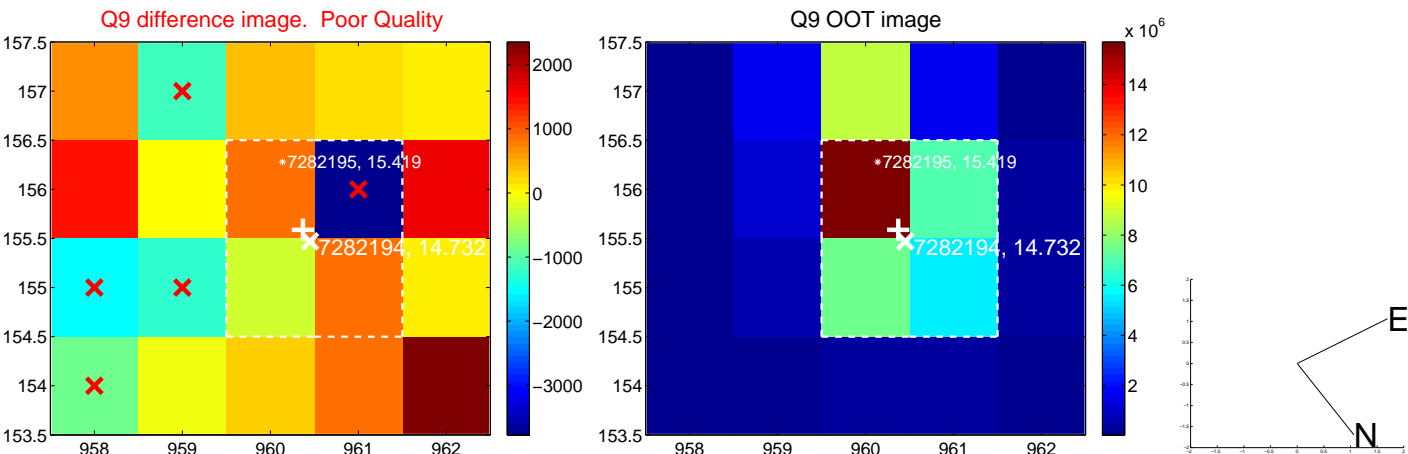
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



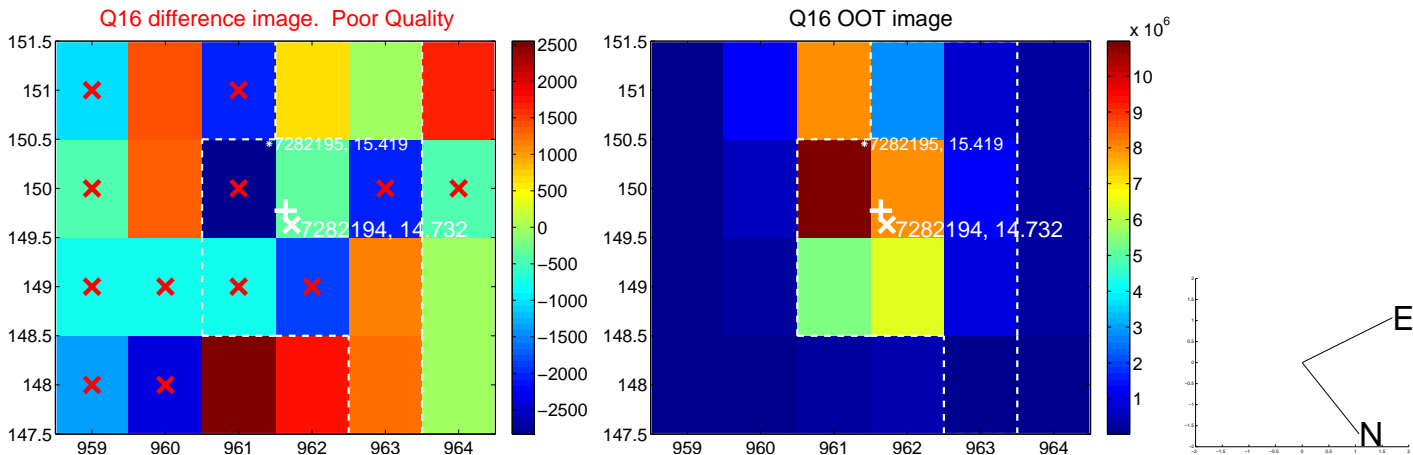
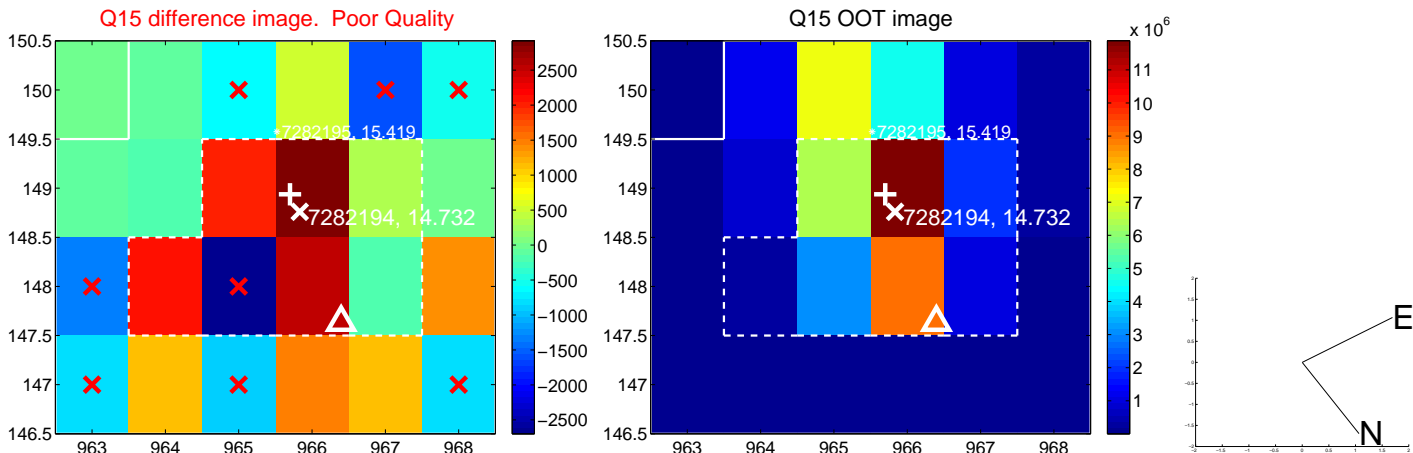
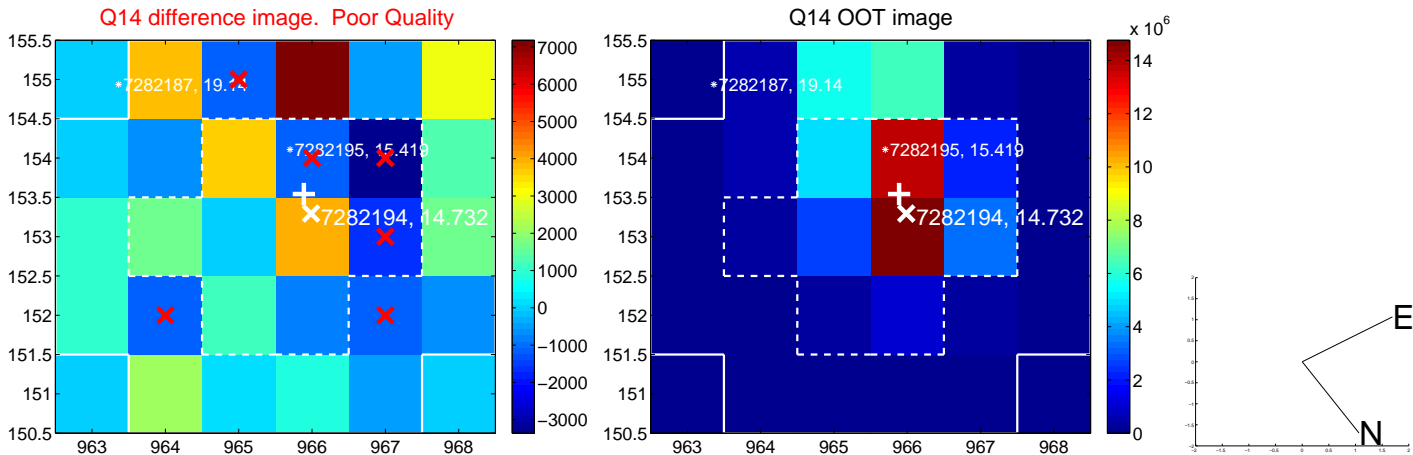
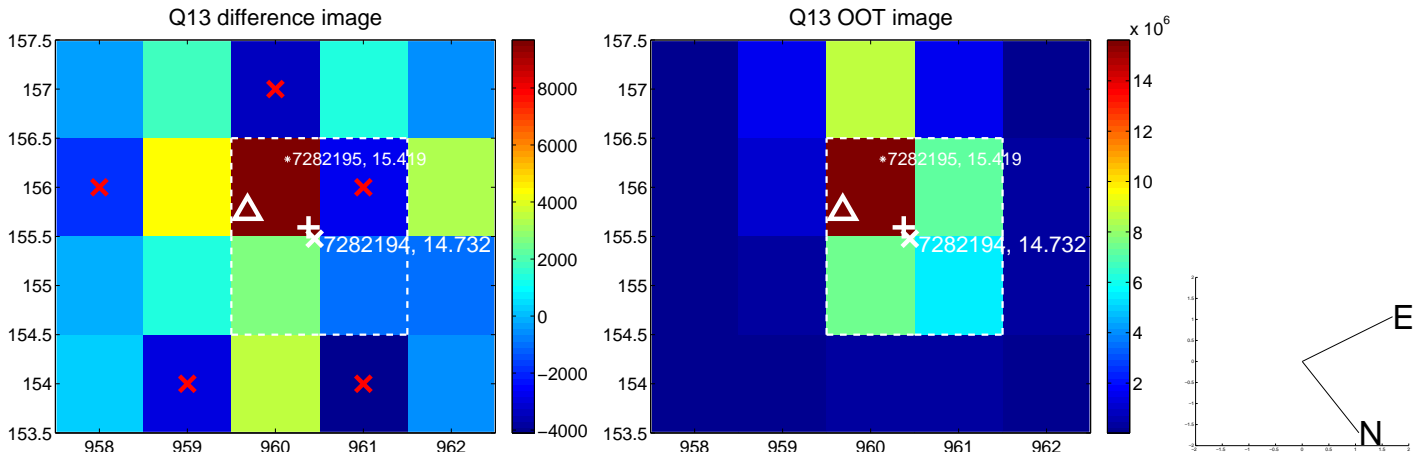
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



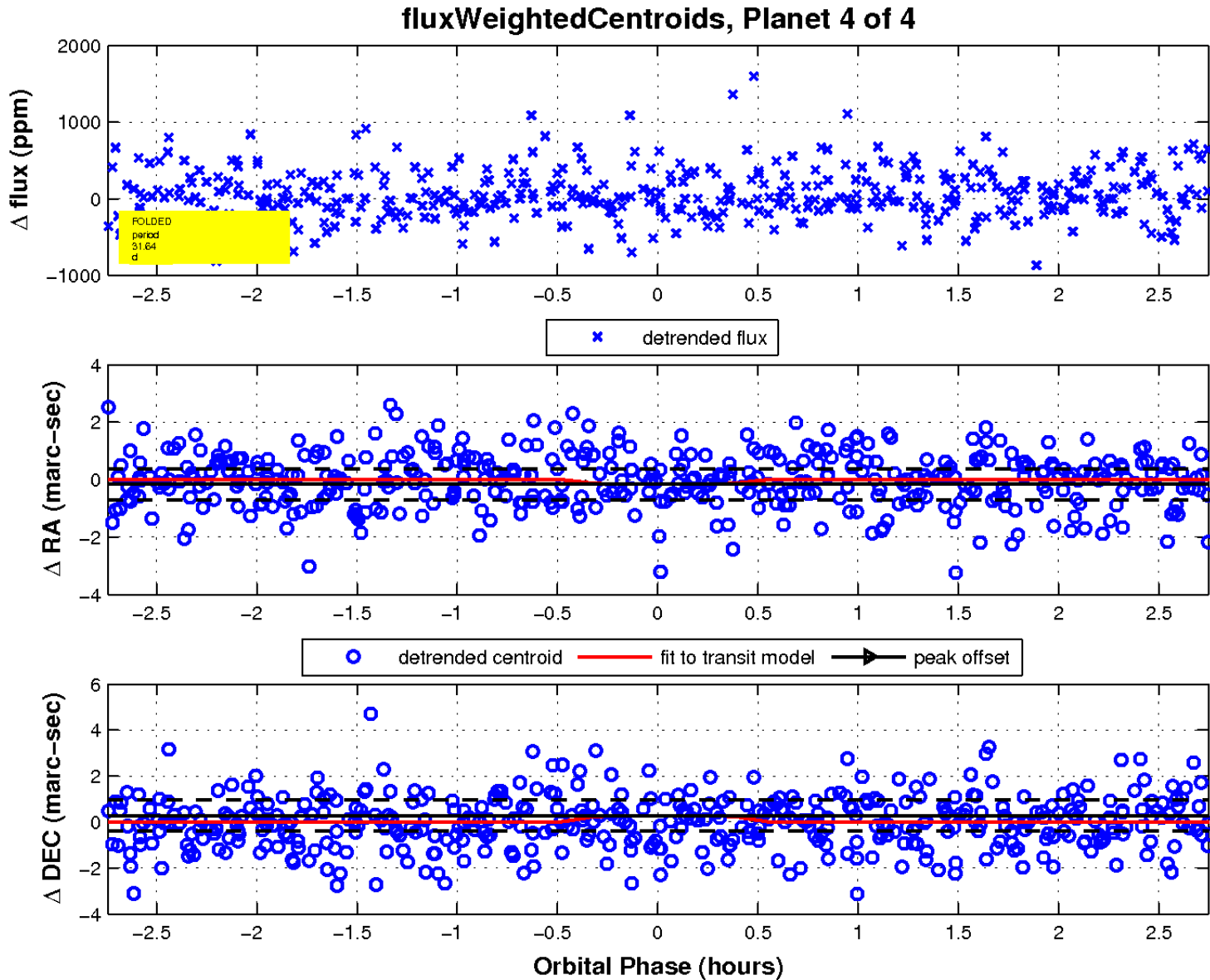
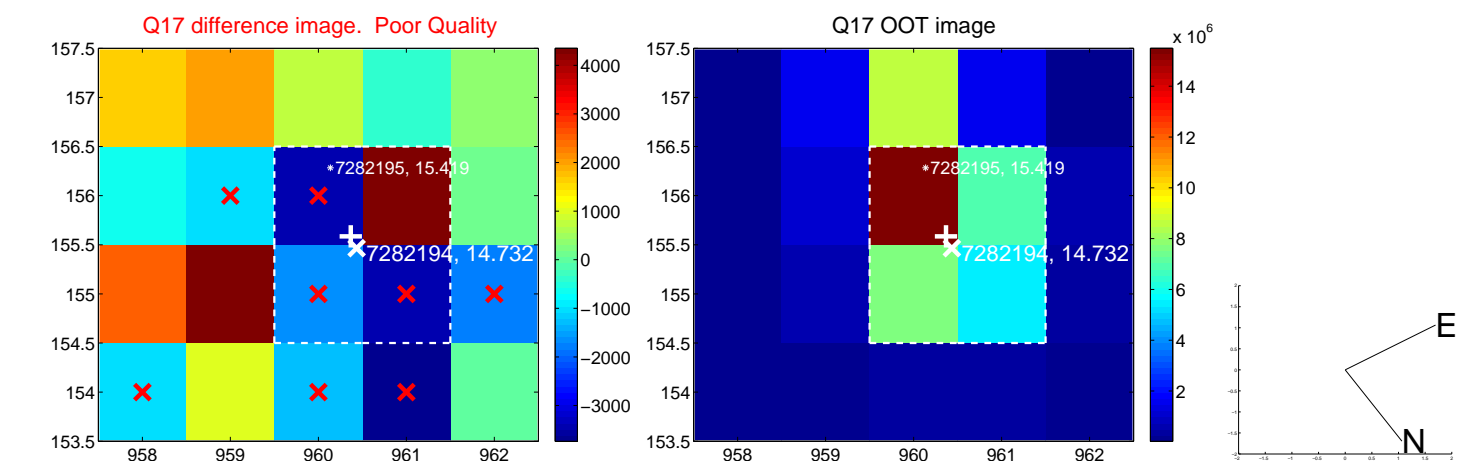
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

